



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

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|--------|----------|----------------|-------------------------|
| 13.1.7 | May 2012 | Freddie Alcock | Paul Shelley |

Comments

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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 indicated 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 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.

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 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 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 | Y | N | Adjacent to the east of building | 3.0 (or rock head) |
| TPNSA 202 | Building 492 | AST | Y | N | Adjacent location of AST | 3.0 (or rock head) |
| TPNSA 203 | Building 466 | Plant room | Y | 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 | Y | 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 | Y | N | Adjacent to the south east corner of building | 3.0 (or rock head) |
| TPNSA 211 | Building 483 | Plant room | Y | N | Adjacent to the east side of the building | 3.0 (or rock head) |
| TPNSA 212 | Building 489 | Plant room | Y | N | Adjacent to south side of building | 3.0 (or rock head) |
| TPNSA 213 | Building 488 | Plant room | Y | 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 | Y | N | Adjacent to the south west corner of building | 3.0 (or rock head) |
| TPNSA 216 | Building 502 | Plant room | Y | N | Adjacent to the southern corner of building | 3.0 (or rock head) |
| TPNSA 217 | Building 445 | Plant room | Y | 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 | Y | N | Adjacent to the north west corner of building | 3.0 (or rock head) |
| TPNSA 221 | Building 527 | Plant room | Y | N | Trial pit adjacent to south of building | 3.0 (or rock head) |
| TPNSA 222 | Building 527 | Suspected AST | Y | 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 | Y | 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 | Y | Upstream of USTs | 10 |
| BHNSA 005 | Building 467 | UST and boiler house | N | Y | Downstream of USTs | 10 |
| BHNSA 006 | Building 467 | UST and boiler house | N | Y | 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 | Y | Upstream of USTs | 10 |
| BHNSA 010 | Building 441 | USTs and boilers house | N | Y | Downstream of USTs | 10 |
| BHNSA 011 | Building 441 | USTs and boilers house | N | Y | 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 | Y | Perimeter groundwater quality of deep aquifer | 30 |
| BHNSA 014 | E Perimeter | Deep aquifer | N | Y | Perimeter groundwater quality of | 30 |

| | | | | | | |
|-----------|-----------------------|-------------------------------|---|---|--|----|
| | well | | | | deep aquifer | |
| BHNSA 015 | E Perimeter well | Shallow aquifer | N | Y | Perimeter groundwater quality of shallow aquifer | 10 |
| BHNSA 016 | N Perimeter well | Deep aquifer | N | Y | Perimeter groundwater quality of Deep aquifer | 30 |
| BHNSA 017 | Building 579 | Boiler house and USTs | N | Y | Upstream of USTs | 10 |
| BHNSA 018 | Building 579 | Boiler house and USTs | N | Y | Downstream of USTs | 10 |
| BHNSA 019 | Building 579 | Boiler house and USTs | N | Y | Downstream of UST | 10 |
| BHNSA 020 | South of building 582 | Shallow Aquifer | N | Y | Perimeter groundwater quality of shallow aquifer | 10 |
| BHNSA 021 | Building 581 | Plant room and suspected USTs | N | Y | Downstream of suspected USTs | 10 |
| BHNSA 022 | Building 295 | Suspected tanks | N | Y | Downstream borehole | 10 |
| BHNSA 037 | Building UH8 | AST | N | Y | Down gradient of AST | 10 |
| BHNSA 038 | Building UH8 | AST | N | Y | 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 | Y | N | North side of building | 3.0 (or rock head) |
| TPNSA 230 | Building 32-34 | Plant room | Y | N | North side of building | 3.0 (or rock head) |
| TPNSA 231 | Building 32– 34 | Plant room | Y | N | West side of building | 3.0 (or rock head) |
| TPNSA 232 | Building 32-34 | Plant room | Y | N | West side of building | 3.0 (or rock head) |
| TPNSA 233 | Building 32-34 | Plant room | Y | N | West side of building | 3.0 (or rock head) |
| TPNSA 234 | Building 77 | Plant room | Y | 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 | Y | 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 | Y | N | West side of building | 3.0 (or rock head) |
| TPNSA 240 | Building 74 | Plant room | Y | N | West side of building | 3.0 (or rock head) |
| TPNSA 241 | Building 66 | Plant room | Y | N | Northern corner of building | 3.0 (or rock head) |
| TPNSA 242 | Building 56 | Plant room | Y | N | West side of building | 3.0 (or rock head) |
| TPNSA 244 | Building 133 | Plant room | Y | N | North of building | 3.0 (or rock head) |
| TPNSA 245 | Building 151 | Suspected AST | Y | N | South of building | 3.0 (or rock head) |
| TPNSA 246 | Building 151 | Plant room | Y | N | South side of building | 3.0 (or rock head) |
| TPNSA 247 | Building 151 | Plant room | Y | N | South side of building | 3.0 (or rock head) |
| TPNSA 248 | Building 151 | Plant room | Y | N | North side of building | 3.0 (or rock head) |
| TPNSA 249 | Building 151 | Plant room | Y | N | North side of building | 3.0 (or rock head) |
| TPNSA 250 | Building 151 | Plant room | Y | N | North side of building | 3.0 (or rock head) |
| TPNSA 251 | Building 151 | Plant room | Y | N | North side of building | 3.0 (or rock head) |
| TPNSA 252 | Building 131 | Boiler house | Y | N | West side of building | 3.0 (or rock head) |
| TPNSA 253 | Building 113A | Fill point of ASTs and covered tanks | Y | 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 | Y | 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 | Y | 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 | Y | 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 | Y | 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 | Y | 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 | Y | N | South east corner | 3.0 (or rock head) |
| TPNSA 282 | Building 80 | Car wash tunnel | Y | N | South side of building | 3.0 (or rock head) |
| TPNSA 283 | Building 80 | Car wash tunnel | Y | N | South side of building | 3.0 (or rock head) |
| TPNSA 284 | Building 80 | Car wash tunnel | Y | N | South side of building | 3.0 (or rock head) |
| TPNSA 285 | Building 172 | Switch room | Y | N | South side of building | 3.0 (or rock head) |
| TPNSA 286 | Building 172 | Boiler House | Y | N | South side of building | 3.0 (or rock head) |
| TPNSA 288 | Building 350 | Plant room | Y | N | North side of building | 3.0 (or rock head) |
| TPNSA 289 | Building 350 | Plant room | Y | N | North side of building | 3.0 (or rock head) |
| TPNSA 290 | Building 350 | Plant room | Y | 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 | Y | 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 | Y | 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 | Y | 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 1.0×10^{-4} m/day and 3×10^{-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

| Soil Type | Typical Description |
|-----------------------------|--|
| Made Ground | <i>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</i> |
| Sandy gravel | <i>Sandy gravel with limestone cobbles becoming increasingly dense with depth</i> |
| Limestone | <i>Pale grey crystalline limestone with occasional shell fragments, weathered at top of strata</i> |
| Sandstone | <i>Yellow and pale grey calcareous sandstone with occasional shell fragments</i> |
| Siltstone/mudstone deposits | <i>Grey Siltstone and pale grey mudstone occasional bands of coarse shelly limestone</i> |
| Sand and weak sandstone | <i>Dark grey silty sand weakly cemented sandstone</i> |

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 from 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.

| 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), BHNSA22 (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 (l/hr) | <0.1 - -3.7(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 (l/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

| 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 |
| 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 underfloor venting. b) Beam and block or pre-cast concrete and 2000g DPM ⁷ / reinforced gas membrane and underfloor venting. All joints and penetrations sealed | 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 concrete slab and minimum 2000g DPM / reinforced gas membrane. c) Possibly underfloor venting or pressurisation in combination with a) and b) depending on 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 recorded 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 PAHs | 13.1ug/l (BHNSA6 20120323) | 4.45ug/l (BHNSA6 20120405) | 0.21ug/l (BHNSA7 20120323) | 0.23ug/l (BHNSA7 20120405) |
| | 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-NSA-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 | | | | | BH-NSA-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 | | | | | BH-NSA-8 | | | | | BH-NSA-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-10 | | | | | BH-NSA-11 | | | | | BH-NSA-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-13 | | | | | BH-NSA-14 | | | BH-NSA-14X | BH-NSA-14 | | BH-NSA-15 | | | | |
|----------------------|-----------|--------|----------|----------|----------|-----------|--------|----------|------------|-----------|----------|-----------|--------|----------|----------|----------|
| | 201201 | 201202 | 20120307 | 20120323 | 20120405 | 201201 | 201202 | 20120307 | 201201 | 20120323 | 20120405 | 201201 | 201202 | 20120307 | 20120323 | 20120405 |
| 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-NSA-16 | | BH-NSA 16X | BH-NSA 16 | | | BH-NSA-17 | | | | | BH-NSA-18 | | | | |
|----------------------|-----------|--------|------------|-----------|----------|----------|-----------|--------|----------|----------|----------|-----------|--------|----------|----------|----------|
| | 201201 | 201202 | 201202 | 20120307 | 20120323 | 20120405 | 201201 | 201202 | 20120307 | 20120323 | 20120405 | 201201 | 201202 | 20120307 | 20120307 | 20120405 |
| 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-NSA-19 | | BH-NSA-20 | | | | | BH-NSA-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-22 | | | | | 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 | | | BH-NFA-26 | | | BH-NSA 27 | | | BH-NSA 28A | | | 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 | | | BH-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 | | | BH-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 nature 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 | BHNSA 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 values 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 excavation 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 | | | | | |
| 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 Waters | | | | | |
| 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 associated with USTs, particularly USTs as outlined in Table 14. All USTs and AST are intended to be removed as part of proposed development works. This will include removal of surrounding impacted soil and management of impacted groundwater within excavations. Resulting excavations will be backfilled with material deemed suitable according to threshold concentrations 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.

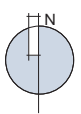


APPENDICES

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)**



Project Details

E10658-109: Upper Heyford

Figure Title

Figure A1: Site Location Plan

Figure Ref

E10658-109_CR_SI2_A1A

Date

May 2012

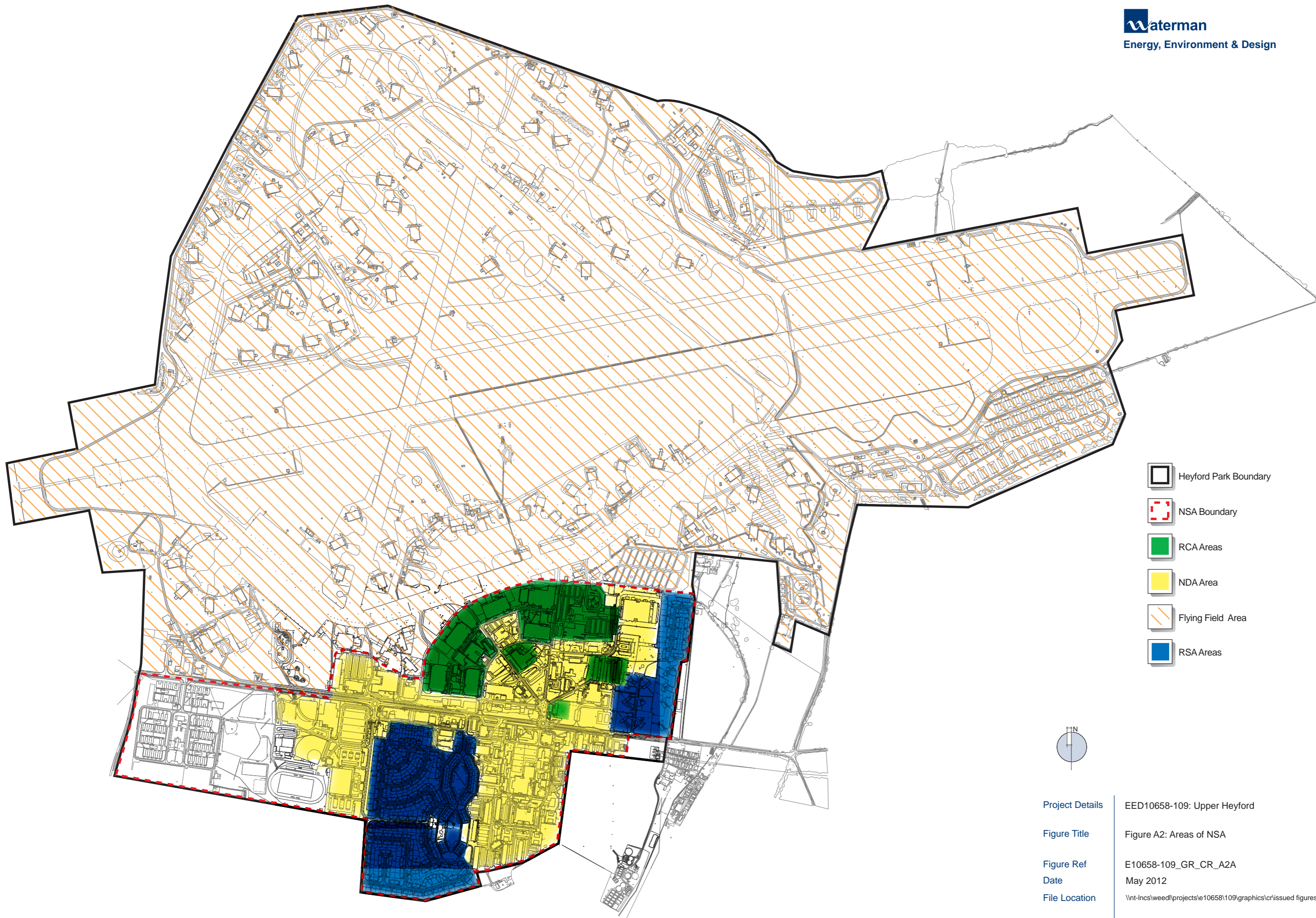
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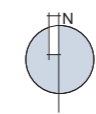


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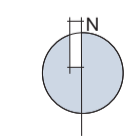
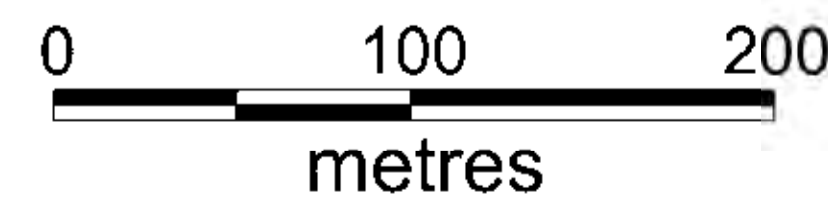
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-  NSA Boundary
-  RCA Areas
-  NDA Area
-  Flying Field Area
-  RSA Areas



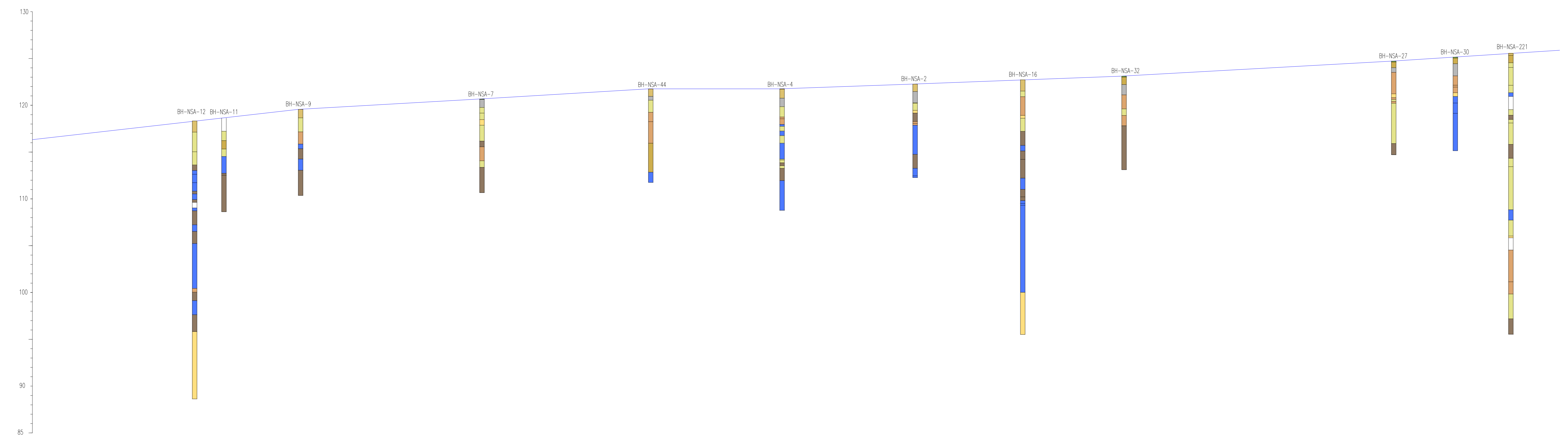
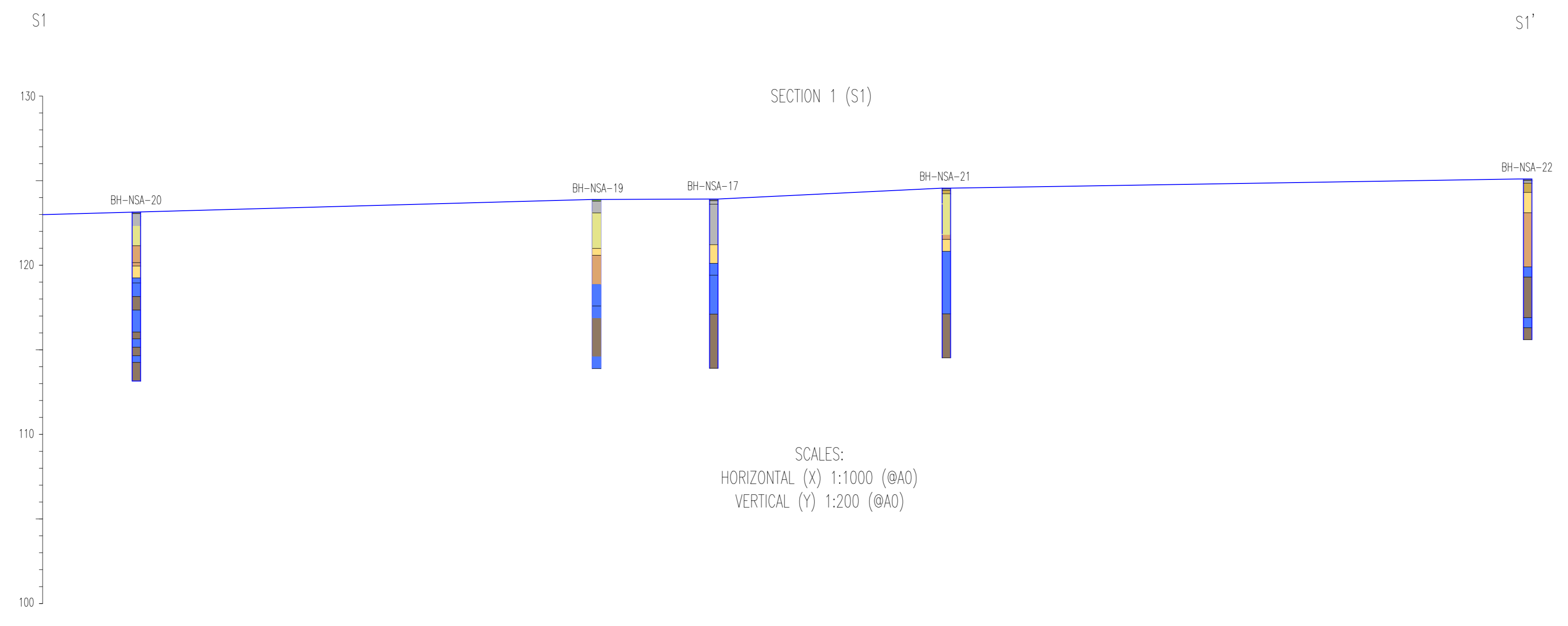
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| Figure Ref | E10658-109_GR_CR_A2A |
| Date | May 2012 |
| File Location | \\nt-hcs\weed\projects\10658\109\graphics\cr\issued figures |



- Key**
- Site Boundary - Existing Commercial to be Retained
 - ⊕ February 2012 Site Investigation Borehole Location
 - ⊕ February 2012 Site Investigation Trial Pit Location
 - ⊕ February 2012 Site Investigation California Bearing Ratio Test Location
 - ⊕ 2011 Site Investigation Borehole Location
 - * 2011 Site Investigation Soil Vapour Survey
 - 2011 Site Investigation Historical Potential Sources of Contamination
 - 2011 Site Investigation Other Potential Sources of Contamination
 - ▲ 2011 Site Investigation Above Ground Tank
 - ▼ 2011 Site Investigation Underground Tank
 - ◆ 2011 Site Investigation Emergency Water Supply Tank
 - ✕ 2011 Site Investigation Hazardous Materials
 - ▲ 2011 Site Investigation Waste Management Facilities
 - ◆ 2011 Site Investigation Wastewater Facilities
 - ▲ 2011 Site Investigation Fire Fighting Facilities
 - + 2011 Site Investigation Workshop and Maintenance
 - ◆ 2011 Site Investigation Oil Interceptors
 - ◆ 2011 Site Investigation POL System
 - ★ 2011 Site Investigation Jet Fuel Store
 - ★ 2011 Site Investigation Vehicle Refuel
 - ★ 2011 Site Investigation Vehicle Wash
 - ★ 2011 Site Investigation Compressed Gas Facilities
 - ◆ 2011 Site Investigation Heating Facilities
 - ▼ 2011 Site Investigation Electrical Buildings
 - ▲ 2011 Site Investigation Warehouse Storage
 - ▼ 2011 Site Investigation Aircraft Shelter
 - ▲ 2011 Site Investigation Hardened Aircraft Shelter
 - ⊕ 2011 NSA Site Investigation Borehole Location
 - ⊕ 2011 NSA Site Investigation Trial Pit Location
 - Inspection Cover
 - Underground Tank Trial Pit
 - California Bearing Ratio Test Location
 - ⊕ Silt Trench
 - Bank Top
 - ⊕ 1997 Site Investigation Borehole Location



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| <p>Project Details</p> <p>Figure Title</p> <p>Figure Ref</p> <p>Date</p> <p>File Location</p> | <p>E10658-109: Upper Heyford</p> <p>Figure A3: Site Investigation Plan</p> <p>E10658-109_GR_CR_A3A</p> <p>May 2012</p> <p>\\nt-inc\swed\projects\10658-109\graphics\issued figures</p> |
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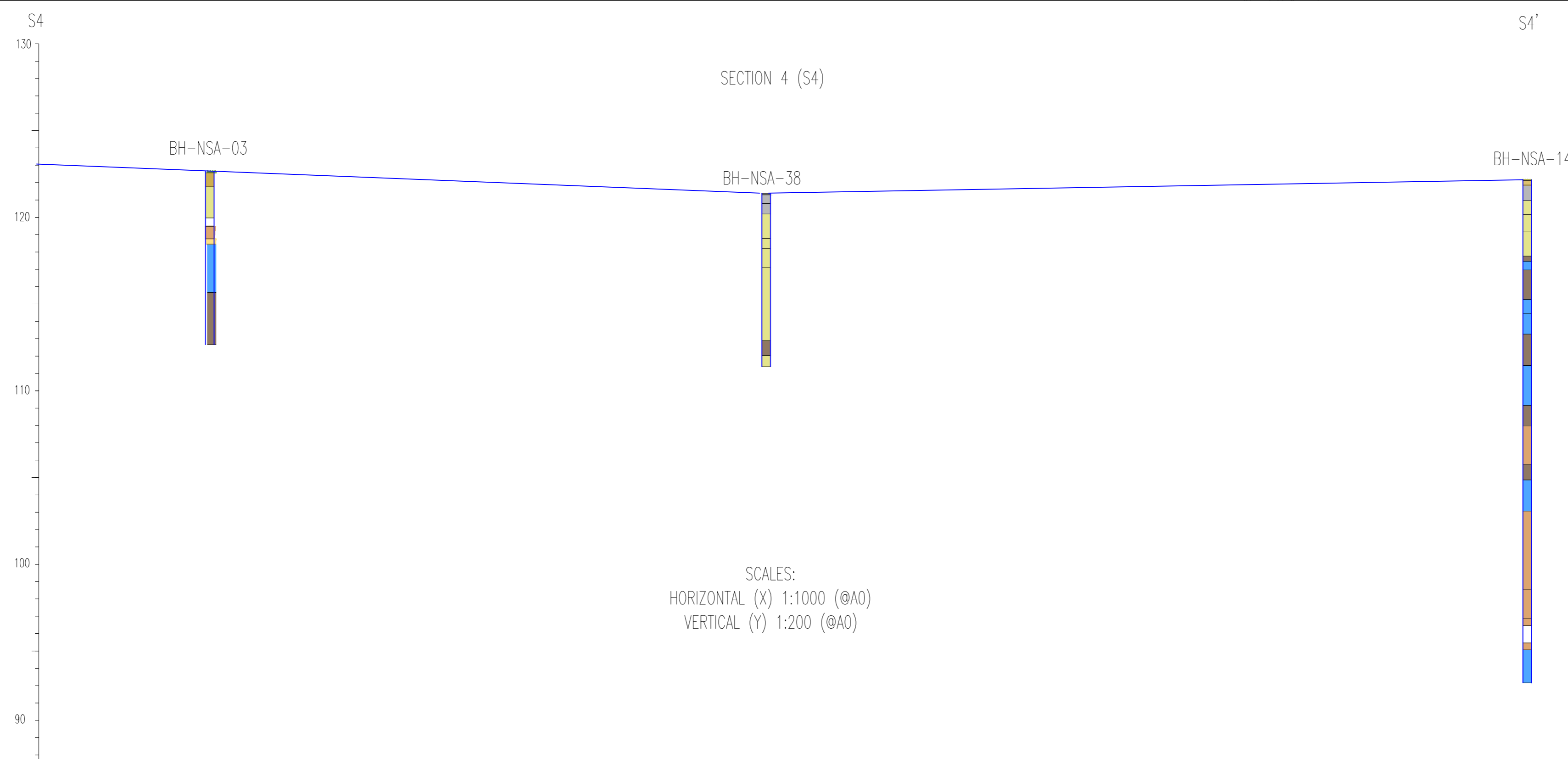
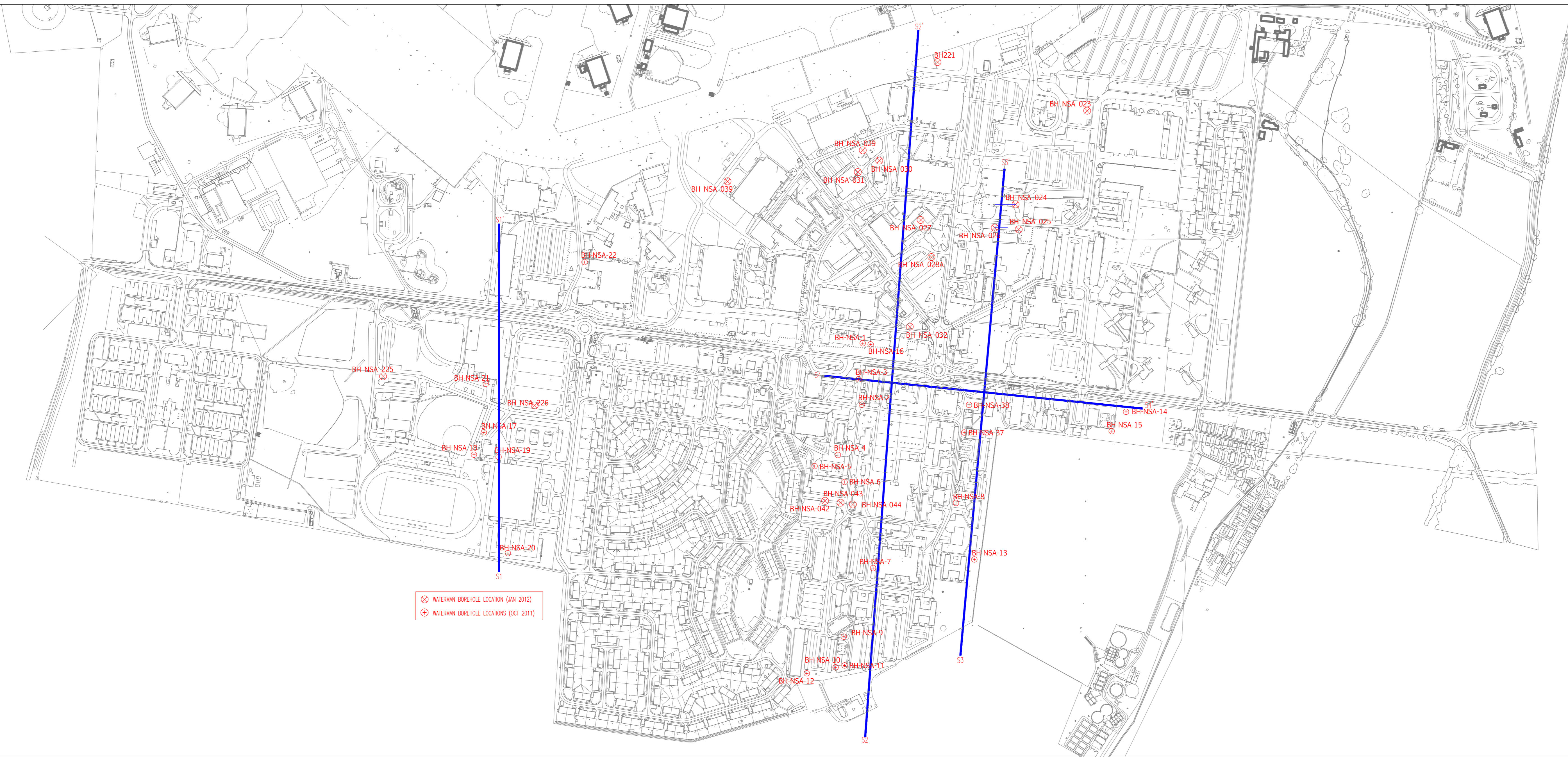
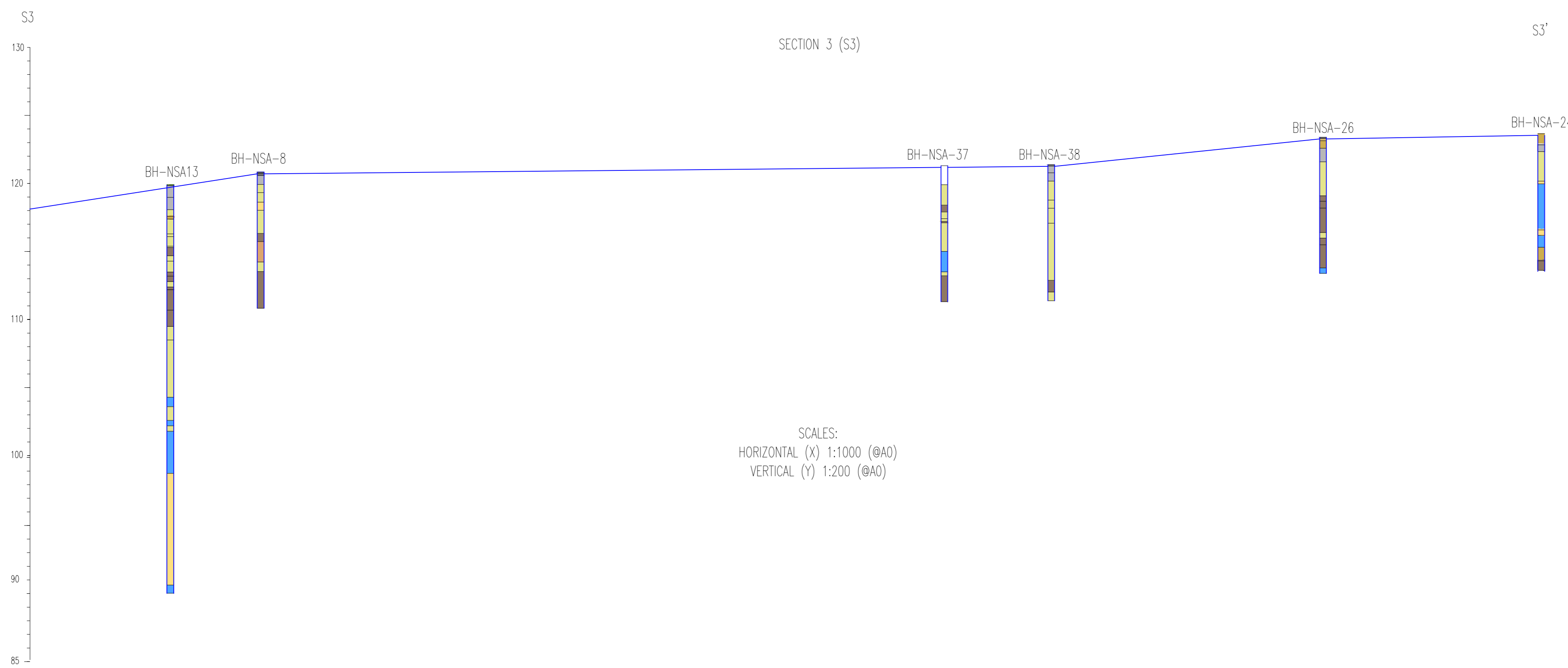


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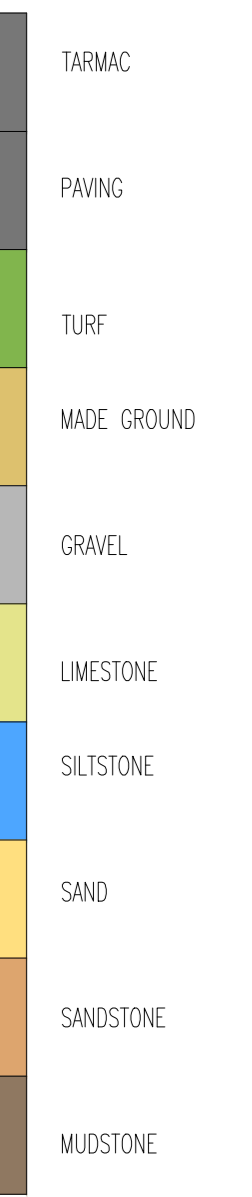
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- PAVING
- TURF
- MADE GROUND
- GRAVEL
- LIMESTONE
- SILTSTONE
- SAND
- SANDSTONE
- MUDSTONE

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| Rev | Date | Description | By |
| A01 | 12/04/12 | PRELIMINARY ISSUE | MC |
| Amendments | | | |
| Project UPPER HEYFORD | | | |
| Title GEOLOGICAL CROSS SECTIONS S1 & S2 (FIGURE A4) | | | |
| Client Dorchester | | | |
| | | | |
| <small>Office Address Telephone & Fax numbers Email www.watermanegroup.com</small> | | | |
| PRELIMINARY | | | |
| Designed by | FA | Checked by | Project No. |
| Drawn by | MC | Date | April 2012 |
| Scale @ A2 | As Shown | Computer File No. | E106581109 |
| Work to be approved/checked only | | Publication Date | 19/08/10/NSA/2011_Eng |
| Author | Zone | Category | Number |
| EED | SA | 21 | 016 |
| | | | A01 |



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| Rev | Date | Description | By |
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| A01 | 12/04/12 | PRELIMINARY ISSUE | MC |

Project: **UPPER HEYFORD**
 Title: **GEOLOGICAL CROSS SECTIONS S3 & S4 (Figure A5)**

Client: **Dorchester**

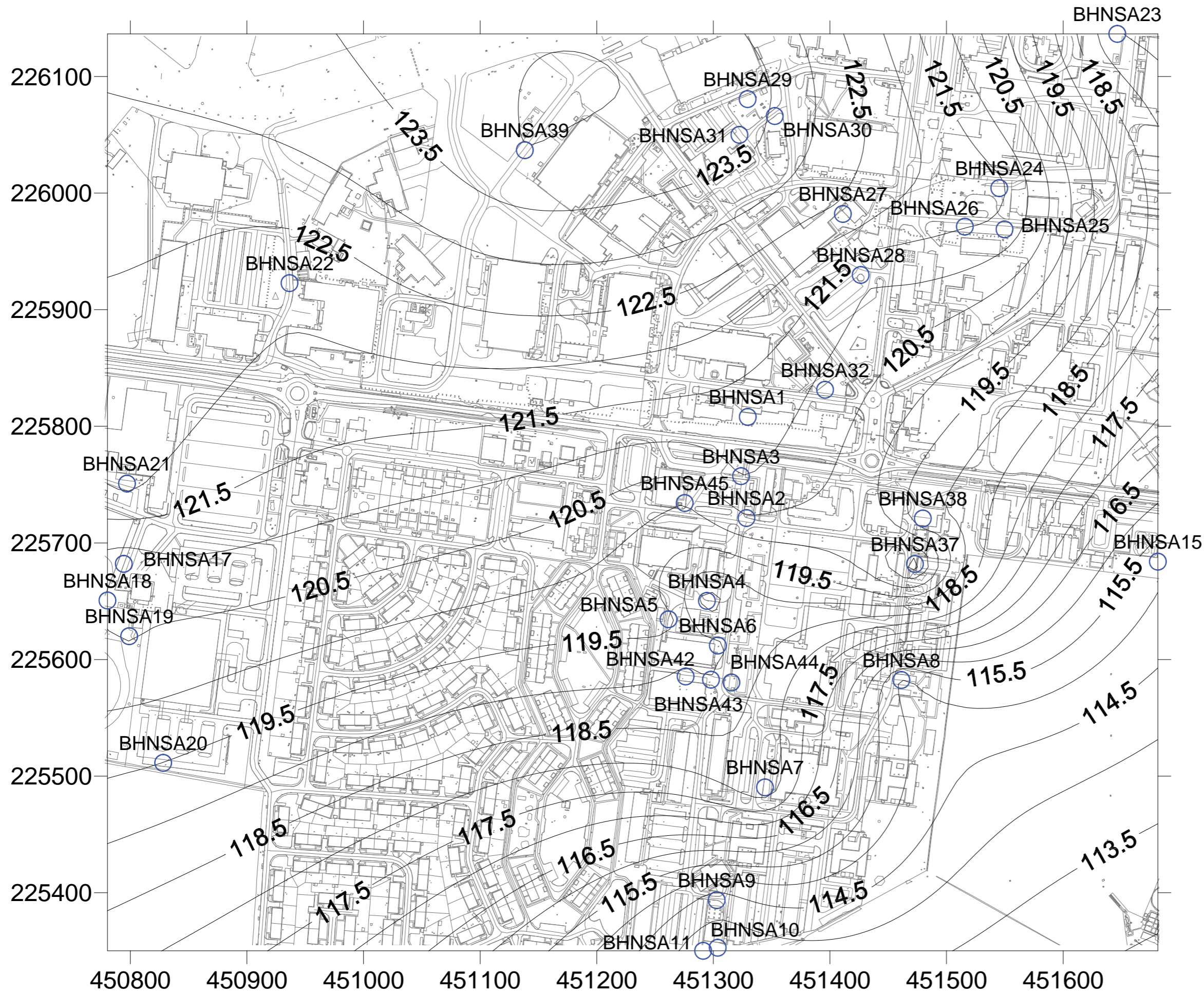


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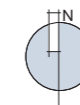
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 Drawn by: **MC** Date: **April 2012** Computer File No: **E:\106581109\106581109.dwg**

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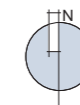
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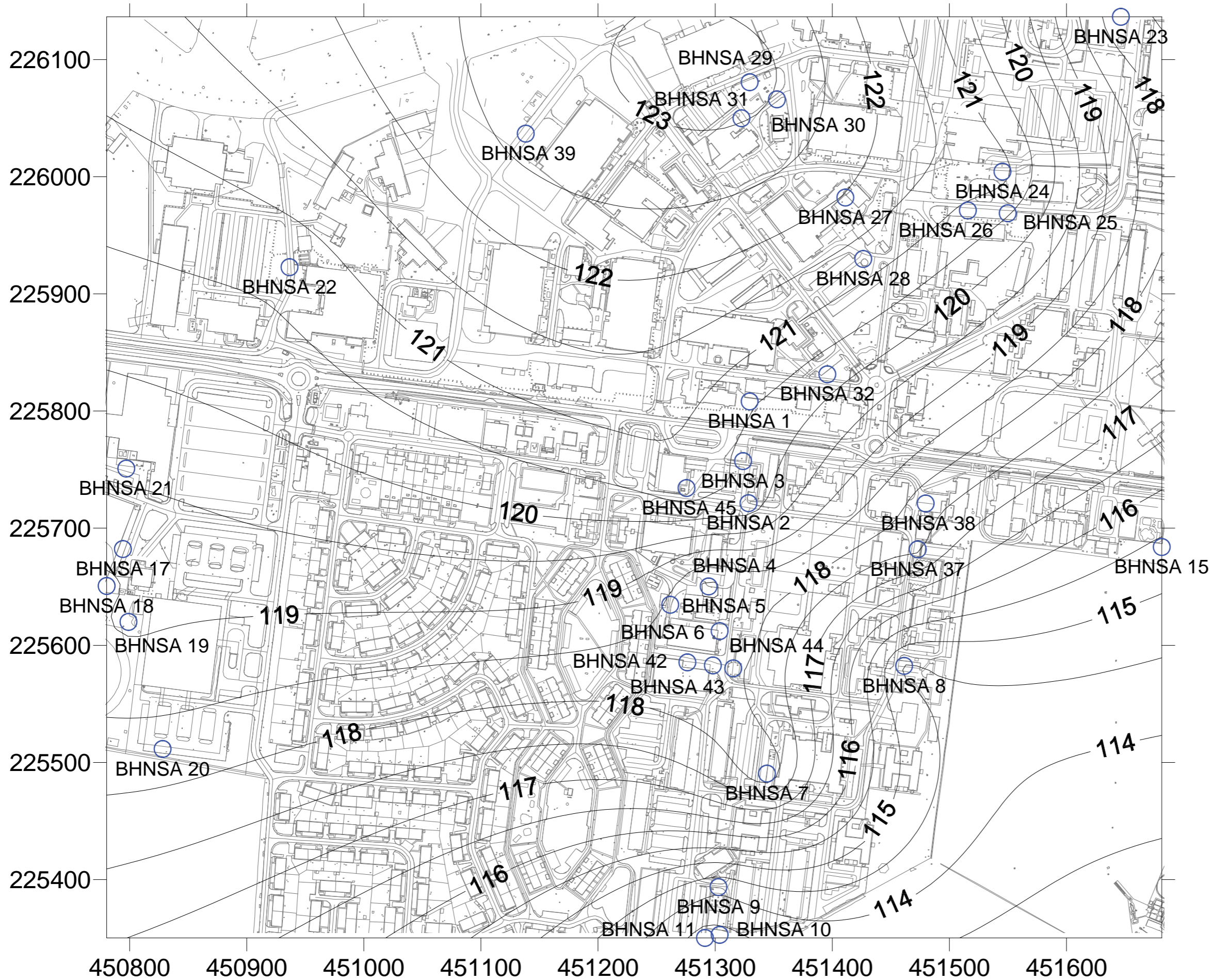
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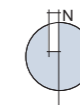


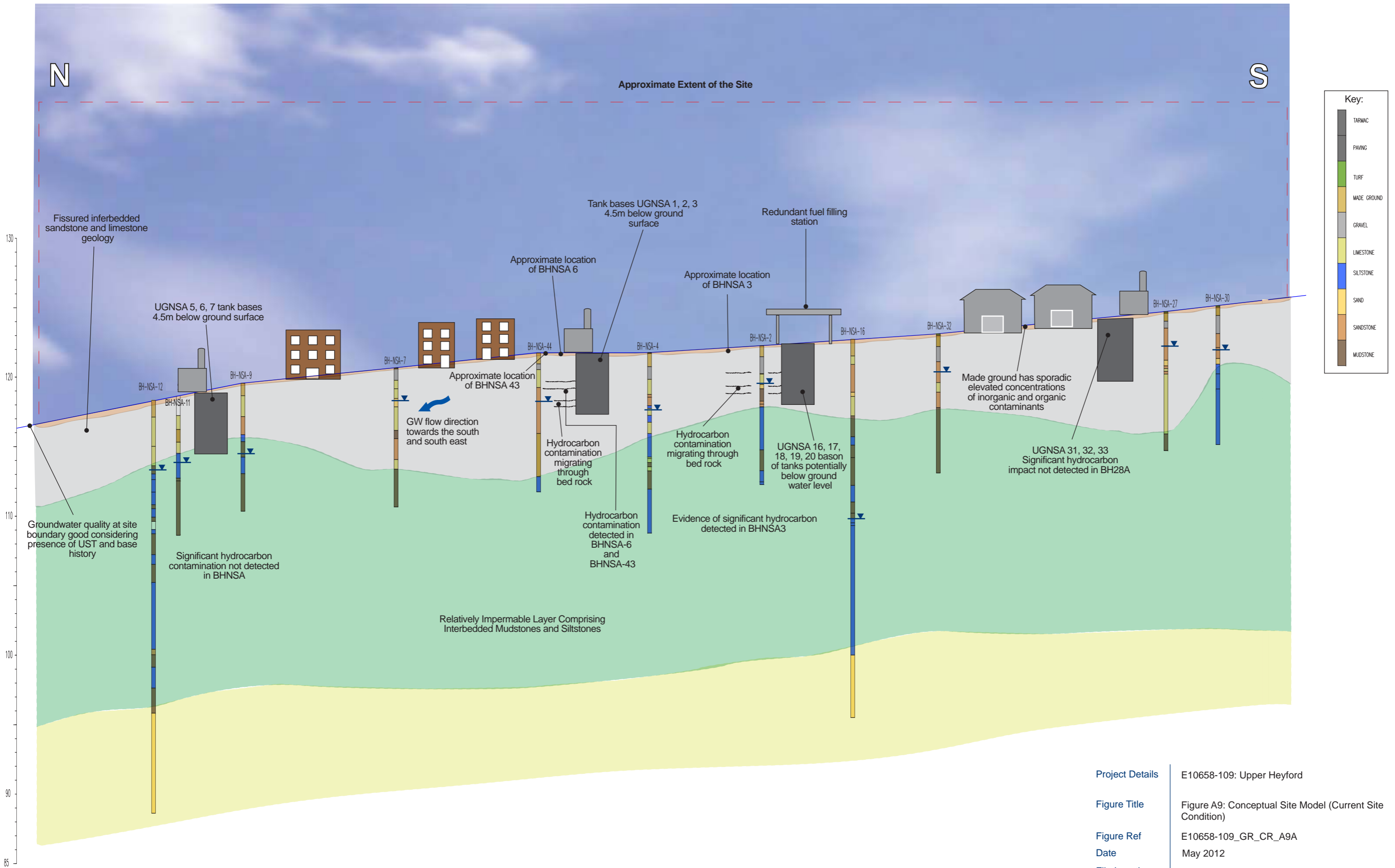
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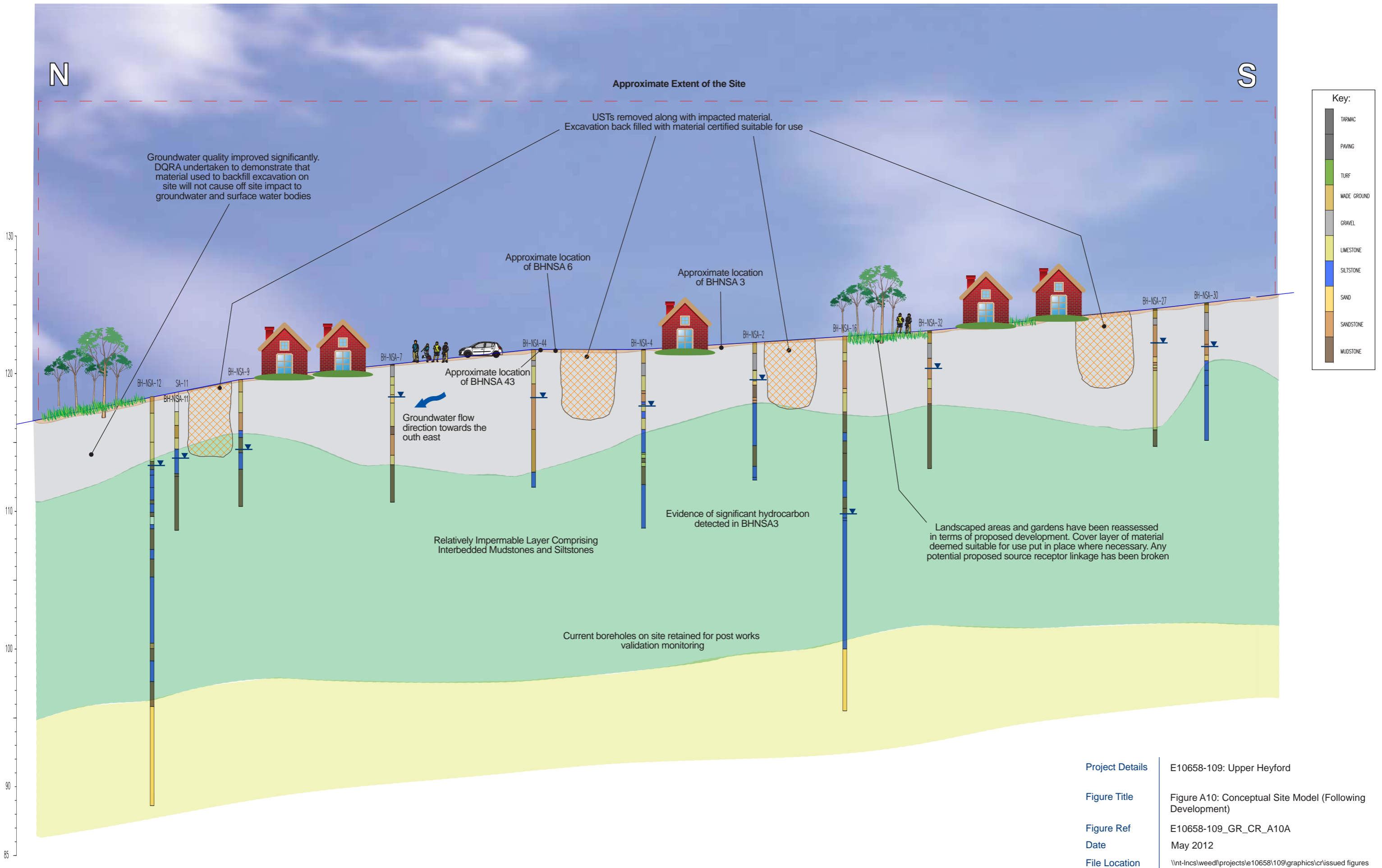
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| Date | May 2012 |
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| Figure Title | Figure A9: Conceptual Site Model (Current Site Condition) |
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| Project Details | E10658-109: Upper Heyford |
| Figure Title | Figure A10: Conceptual Site Model (Following Development) |
| Figure Ref | E10658-109_GR_CR_A10A |
| Date | May 2012 |
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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;
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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

- 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 be 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, notwithstanding 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 and IR19.201 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 fully 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

1. 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 Ref: 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;
- b. 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.
- 2) 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. Notwithstanding 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;
 - b. 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.
6. 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



Specialists in the investigation & reclamation of brownfield sites

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

Report Status : Final v1.0

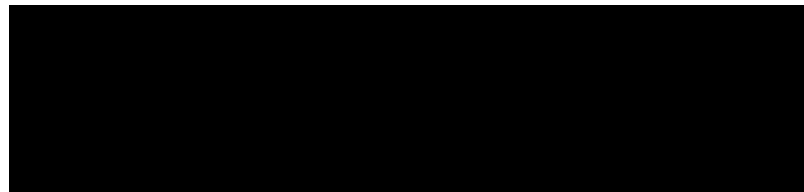
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Prepared by: **JOMAS ASSOCIATES LTD** For: **HEYFORD PARK SETTLEMENT LTD**



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



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

0843 289 2187

info@jomasassociates.com

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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.

2.2 Scope of Ground Investigation

- 2.2.1 The ground investigation was undertaken from the 26th September 2011 until the 27th 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“. All 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.

2.3 Standard Penetration Tests (SPTs)

- 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.

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

- 4.6.1 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).

5.2.2 The tests were undertaken by a suitably qualified engineer in accordance with 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%.

5.3.2 The results of moisture content analysis varied between 6.3% and 19%.

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.

6.1.2 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.

**SECTION 7
LABORATORY CHEMICAL TESTING**



| JAL Extended Suite - S4 | | |
|------------------------------|-----------|-------------------------------|
| Determinand | LOD mg/kg | Accreditation (UKAS / MCERTS) |
| Antimony | 0.5 | N |
| Arsenic | 1 | Y (MCERTS) |
| Barium | 1 | Y |
| Beryllium | 0.5 | Y |
| 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 |
| pH | 0.1 units | Y (MCERTS) |
| Sulphur | 10 | Y (MCERTS) |
| Water soluble sulphate | 1 mg/l | Y (MCERTS) |
| Total Sulphate | 0.01% | Y |
| 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) |

| 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 | Y |

| BRES D1 Suite | | |
|--------------------------|-----------|-------------------------------|
| Determinand | LOD mg/kg | Accreditation (UKAS / MCERTS) |
| 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 | Y |
| 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

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Job No. P8219J107 Rev. C

- Legend**
- AV Air valve
 - BOL Bollard
 - BM Bench Mark
 - BT British Telecom Cover
 - CATV Cable T.V Cover
 - Conc Concrete
 - DK Drop Kerb
 - EP Electricity Pole
 - FFL Floor Level
 - FH Fire Hydrant
 - FL Flood Light
 - G Gully
 - GSV Gas Stop Valve
 - HV High Voltage
 - IC Inspection Chamber
 - IL Invert Level
 - KO Kerb Outlet
 - LP Lamp Post
 - MH Manhole Cover
 - MKR Marker
 - OHC Overhead Cable
 - Ret Retaining
 - RS Road Sign
 - SV Stop Valve
 - TP Telegraph Pole
 - UTL Unable To Lift
 - F-C Floor to Cill level
 - C-H Cill to Head level

- Trees
- Gate
- Hedge
- Foliage
- Borehole
- Station And Name
- Water
- Gas
- Telecom
- Electric
- Unknown Service
- Steel Security Fence
- Crash Barrier Fence (Armco)
- Timber Clad Fence
- Iron Railing Fence
- Chain Link Fence
- Post and wire fence
- Post and rail fence

Notes.

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Key dimensions to be checked by engineer before major structural works commence on site.

Amendments

| Rev | Date | By | Chkd |
|-----|---------|-------------------------------------|-------|
| A | 1-11-11 | Bore Hole names & locations altered | RW MW |
| B | 1-12-11 | Bore Hole names altered | RW MW |
| C | 6-12-11 | TP's added. | RW MW |

JOMAS
 Jomas Associates Ltd.
 Highbridge Industrial Estate.
 Oxford Road,
 Uxbridge,
 UB8 1HR.
 Tel. 0843 2892187

Client
Heyford Park Settlements Ltd

Project
**Upper Heyford Airbase,
 Camp Road,
 Bicester**

Drawing
**Trial Pits, CBR tests, Slit
 Trenches, Bore Holes &
 Tanks shown on Topo data.**

| | | |
|---------|------------------|---------------|
| Dwg no | Checked | Surveyor |
| 1 of 2 | SH | RTW |
| Date | 21-10-2011 | Scale 1:2,000 |
| Job No. | P8219J107 | |
| | | Rev. C |
| Grid | Contours | Level Datum |
| | | OS-GB-36 |

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Job No. **P8219J107** Rev. **C**

Legend

| | |
|--------------------------|-------------------------|
| AV Air valve | IC Inspection Chamber |
| BOL Bollard | IL Invert Level |
| BM Bench Mark | KO Kerb Outlet |
| BT British Telecom Cover | LP Lamp Post |
| CATV Cable T.V Cover | MH Manhole Cover |
| Conc Concrete | MKR Marker |
| DK Drop Kerb | OHC Overhead Cable |
| EP Electricity Pole | Ret Retaining |
| FFL Floor Level | RS Road Sign |
| FH Fire Hydrant | SV Stop Valve |
| FL Flood Light | TP Telegraph Pole |
| G Gully | UTL Unable To Lift |
| GSV Gas Stop Valve | F-C Floor to Cill level |
| HV High Voltage | C-H Cill to Head level |

| | |
|--|-----------------------------|
| | Trees |
| | Gate |
| | Hedge |
| | Foliage |
| | Borehole |
| | Station And Name |
| | Water |
| | Gas |
| | Telecom |
| | Electric |
| | Unknown Service |
| | Steel Security Fence |
| | Crash Barrier Fence (Armco) |
| | Timber Clad Fence |
| | Iron Railing Fence |
| | Chain Link Fence |
| | Post and wire fence |
| | Post and rail fence |

Notes.

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Key dimensions to be checked by engineer before major structural works commence on site.

Amendments

| Rev | Date | Description | By | Chkd |
|-----|---------|--------------------------------------|----|------|
| A | 1-11-11 | Bore Hole names & locations altered. | RW | MW |
| B | 1-12-11 | Bore Hole names altered. | RW | MW |
| C | 6-12-11 | TP's added. | RW | MW |

JOMAS
 Jomas Associates Ltd.
 Highbridge Industrial Estate,
 Oxford Road,
 Uxbridge,
 UB8 1HR.
 Tel. 0843 2892187

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**Upper Heyford Airbase,
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Drawing
**Trial Pits, CBR tests, Slit
 Trenches, Bore Holes &
 Tanks shown on Topo data.**

| | | |
|---------|------------------|---------------|
| Dwg no | Checked | Surveyor |
| 2 of 2 | SH | RTW |
| Date | 21-10-2011 | Scale 1:2,000 |
| Job No. | P8219J107 | |
| Rev. | C | |
| Grid | Contours | Level Datum |
| | | OS-GB-36 |

APPENDIX 2 – TRIAL PIT LOGS



Specialists in the investigation & reclamation of brownfield sites

TRIAL PIT RECORD

| | | | |
|-------------------------|----------------------------|----------------|-----------|
| Trial Pit Number | TPNSA 201 | Job No: | P8219J107 |
| Site: | Upper Heyford, Oxfordshire | | |
| Date: | 04/10/2011 | | |

| Depth (m) | Sample | | Test | | Seat Drive | | Test Drive | | | | PID Reading | Legend | Description |
|-----------|-----------|------|------|-------|------------|----|------------|----|----|----|-------------|--------|--|
| | Depth (m) | Type | Type | Depth | 75 | 75 | 75 | 75 | 75 | 75 | | | |
| 0.10 | | | | | | | | | | | | | TARMAC |
| 0.20 | D | | PID | 0.2 | | | | | | | 0 | | MADE GROUND - Yellow/grey/brown sandy slightly clayey gravel. Gravel is of concrete, brick and limestone |
| | | | | | | | | | | | | | |
| 0.45 | | | | | | | | | | | | | |
| 0.50 | D + B | | PID | 0.5 | | | | | | | 0 | | MADE GROUND - Black/brown sandy gravel. Gravel is of concrete, ash, clinker, metal and ceramic |
| | | | | | | | | | | | | | |
| 1.00 | D | | PID | 1 | | | | | | | 0 | | |
| | | | | | | | | | | | | | |
| 1.50 | D | | PID | 1.5 | | | | | | | 0.7 | | |
| | | | | | | | | | | | | | |
| 2.00 | D | | PID | 2 | | | | | | | 0.3 | | |
| 2.40 | | | | | | | | | | | | | |

| | | |
|------------------|------------------|--|
| Client: | Heyford Park LLP | Remarks: 1: Groundwater observed as moderate seepage at 2.2m depth. Trial pit terminated at 2.4m depth due to instability. |
| Driller: | | |
| Engineer: | MW | |



Specialists in the investigation & reclamation of brownfield sites

TRIAL PIT RECORD

| Trial Pit Number | | TPNSA 202 | Job No: | | P8219J107 | | | | | | | | |
|------------------|-----------|----------------------------|---------|--|------------|----|------------|----|----|----|-------------|--------|---|
| Site: | | Upper Heyford, Oxfordshire | | | | | | | | | | | |
| Date: | | 04/10/2011 | | | | | | | | | | | |
| Depth (m) | Sample | | Test | | Seat Drive | | Test Drive | | | | PID Reading | Legend | Description |
| | Depth (m) | Type | Type | Depth | 75 | 75 | 75 | 75 | 75 | 75 | | | |
| 0.15 | | | | | | | | | | | | | TARMAC |
| 0.40 | | | | | | | | | | | | | CONCRETE |
| 0.50 | D + B | PID | 0.5 | | | | | | | | | 0 | MADE GROUND - Brown/black sandy slightly clayey gravel. Gravel is of brick, concrete, ash and clinker with occasional pieces of metal |
| 1.00 | D | PID | 1 | | | | | | | | | 0 | |
| 1.50 | D | PID | 1.5 | | | | | | | | | 0 | |
| 2.00 | D | PID | 2 | | | | | | | | | 0 | |
| 2.30 | | | | | | | | | | | | | |
| 2.50 | D | PID | 2.5 | | | | | | | | | 2.7 | MADE GROUND/RE-WORKED NATURAL GROUND - brown/grey/black sandy clay with occasional fragments of wood. Faint hydrocarbon odour |
| 2.60 | | | | | | | | | | | | | |
| Client: | | Heyford Park LLP | | Remarks: 1: Groundwater was not observed. Trial pit collapsed at 2.6m depth. | | | | | | | | | |
| Driller: | | | | | | | | | | | | | |
| Engineer: | | MW | | | | | | | | | | | |



TRIAL PIT RECORD

| | | | |
|-------------------------|----------------------------|----------------|-----------|
| Trial Pit Number | TPNSA 203 | Job No: | P8219J107 |
| Site: | Upper Heyford, Oxfordshire | | |
| Date: | 05/10/2011 | | |

| Depth (m) | Sample | | Test | | Seat Drive | | Test Drive | | | | PID Reading | Legend | Description |
|-----------|-----------|------|------|-------|------------|----|------------|----|----|----|-------------|--------|---|
| | Depth (m) | Type | Type | Depth | 75 | 75 | 75 | 75 | 75 | 75 | | | |
| 0.50 | 0.50 | D | PID | 0.5 | | | | | | | | 0 | MADE GROUND - Brown sandy gravel. Gravel is of brick, concrete and limestone Geotextile membrane encountered at 0.5m depth over rubble filled void - possible soakaway pit |

| | | | | | | | | | | | | |
|------------------|------------------|-----------------|---|--|--|--|--|--|--|--|--|--|
| Client: | Heyford Park LLP | Remarks: | 1: Groundwater was not observed. Hand excavated | | | | | | | | | |
| | | | Driller: | | | | | | | | | |
| Engineer: | MW | | | | | | | | | | | |



Specialists in the investigation & reclamation of brownfield sites

TRIAL PIT RECORD

Trial Pit Number: TPNSA 204A Job No: P8219J107

Site: Upper Heyford, Oxfordshire

Date: 30/09/2011

| Depth (m) | Sample | | Test | | Seat Drive | | Test Drive | | | | PID Reading | Legend | Description |
|-----------|-----------|-------|------|-------|------------|----|------------|----|----|----|-------------|--------|---|
| | Depth (m) | Type | Type | Depth | 75 | 75 | 75 | 75 | 75 | 75 | | | |
| 0.20 | | | | | | | | | | | | | TARMAC |
| 0.35 | | | | | | | | | | | | | CONCRETE |
| 0.80 | 0.50 | D + B | PID | 0.5 | | | | | | | 1.4 | | MADE GROUND - Brown/orange/black sandy slightly clayey gravel. Gravel is of tarmac, concrete and limestone with occasional fragments of brick |
| 1.40 | 1.00 | D | PID | 1 | | | | | | | 0 | | Brown/orange/yellow sandy GRAVEL. Gravel is angular to subrounded of limestone. Becoming thickly bedded limestone bedrock with a moderate amount of orange/brown interstitial sand at 1.4m depth. End hole. |
| | | | | | | | | | | | | | |

Client: Heyford Park LLP **Remarks:** 1: Hole Remained dry and stable

Driller:

Engineer: MW



Trial Pit Number TPNSA 204 **Job No:** P8219J107
Site: Upper Heyford NSA, Oxfordshire
Date: 28/09/2011

TRIAL PIT RECORD

| Depth (m) | Sample | | Test | | Seat Drive | | Test Drive | | | | PID Reading | Legend | Description |
|-----------|-----------|------|------|-------|------------|----|------------|----|----|----|-------------|--------|---|
| | Depth (m) | Type | Type | Depth | 75 | 75 | 75 | 75 | 75 | 75 | | | |
| 0.15 | | | | | | | | | | | | | Tarmac |
| 0.20 | D | | PID | 0.2 | | | | | | | 0 | | MADE GROUND - White/grey coarse sandy gravel. Gravel is of concrete with occasional 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 encountered at 0.9m bgl. End hole and relocate |
| 0.80 | D | | PID | 0.8 | | | | | | | 0 | | |
| 0.90 | | | | | | | | | | | | | |

Client: Heyford Park LLP **Remarks:** 1: Hole Remained dry and stable
Driller:
Engineer: MW



Specialists in the investigation & reclamation of brownfield sites

TRIAL PIT RECORD

| | | | |
|-------------------------|--------------------------------|----------------|-----------|
| Trial Pit Number | TPNSA 205 | Job No: | P8219J107 |
| Site: | Upper Heyford NSA, Oxfordshire | | |
| Date: | 05/10/2011 | | |

| Depth (m) | Sample | | Test | | Seat Drive | | Test Drive | | | | PID Reading | Legend | Description | |
|-----------|-----------|------|------|-------|------------|----|------------|----|----|----|-------------|------------------|--|---|
| | Depth (m) | Type | Type | Depth | 75 | 75 | 75 | 75 | 75 | 75 | | | | |
| 0.35 | 0.20 | D | | | | | | | | | | [Diagonal Lines] | MADE GROUND - brown sandy slightly clayey gravel. Gravel is of limestone, brick and concrete | |
| | | | PID | 0.2 | | | | | | | | | | 0 |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| 0.90 | 0.50 | D | | | | | | | | | | [Dotted Pattern] | Yellow/cream sandy GRAVEL. Gravel is angular to subrounded of limestone. Becoming densely packed limestone cobbles below 0.9m depth, likely start of bedrock horizon | |
| | | | PID | 0.5 | | | | | | | | | | 0 |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |

| | | |
|------------------|------------------|--|
| Client: | Heyford Park LLP | Remarks: 1: Hole Remained dry and stable. Hand excavated |
| Driller: | | |
| Engineer: | MW | |



Specialists in the investigation & reclamation of brownfield sites

TRIAL PIT RECORD

| | | | |
|-------------------------|----------------------------|----------------|-----------|
| Trial Pit Number | TPNSA 206 | Job No: | P8219J107 |
| Site: | Upper Heyford, Oxfordshire | | |
| Date: | 30/09/2011 | | |

| Depth (m) | Sample | | Test | | Seat Drive | | Test Drive | | | | PID Reading | Legend | Description |
|-----------|-----------|-------|------|-------|------------|----|------------|----|----|----|-------------|--------|---|
| | Depth (m) | Type | Type | Depth | 75 | 75 | 75 | 75 | 75 | 75 | | | |
| 0.12 | | | | | | | | | | | | | TARMAC |
| 0.48 | 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 |
| 1.30 | 0.50 | 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 yellow/orange interstitial sand at 1.3m depth. End hole |
| | 1.00 | D | PID | 1 | | | | | | | 0 | | |
| | | | | | | | | | | | | | |

| | | |
|------------------|------------------|--|
| Client: | Heyford Park LLP | Remarks: 1: Hole Remained dry and stable |
| Driller: | | |
| Engineer: | MW | |



Specialists in the investigation & reclamation of brownfield sites

TRIAL PIT RECORD

| Trial Pit Number | | | TPNSA 208 | | Job No: P8219J107 | | | | | | | | |
|------------------|-----------|------------------|----------------------------|---|-------------------|----|------------|----|----|----|-------------|--------|--|
| Site: | | | Upper Heyford, Oxfordshire | | | | | | | | | | |
| Date: | | | 05/10/2011 | | | | | | | | | | |
| Depth (m) | Sample | | Test | | Seat Drive | | Test Drive | | | | PID Reading | Legend | Description |
| | Depth (m) | Type | Type | Depth | 75 | 75 | 75 | 75 | 75 | 75 | | | |
| 0.20 | D | PID | 0.2 | | | | | | | | 0 | | MADE GROUND - brown/grey sandy gravel. Gravel is of limestone and brick with occasional fragments of concrete and tarmac. |
| | | | | | | | | | | | | | |
| 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 | | | | | | | | | | | | | |
| Client: | | Heyford Park LLP | | Remarks: | | | | | | | | | |
| Driller: | | | | 1: Hole Remained dry and stable. Hand excavated | | | | | | | | | |
| Engineer: | | MW | | | | | | | | | | | |



Trial Pit Number TPNSA 209 **Job No:** P8219J107

Site: Upper Heyford, Oxfordshire

Date: 04/10/2011

TRIAL PIT RECORD

| Depth (m) | Sample | | Test | | Seat Drive | | Test Drive | | | | PID Reading | Legend | Description |
|-----------|-----------|-------|------|-------|------------|----|------------|----|----|----|-------------|--------|--|
| | Depth (m) | Type | Type | Depth | 75 | 75 | 75 | 75 | 75 | 75 | | | |
| 0.10 | | | | | | | | | | | | | TARMAC |
| 0.20 | | | | | | | | | | | | | CONCRETE |
| 0.30 | 0.30 | D | PID | 0.3 | | | | | | | 0.4 | | MADE GROUND - Brown/red/grey/black sandy gravel. Gravel is of brick, concrete, tarmac and limestone. |
| 0.45 | | | | | | | | | | | | | |
| 0.50 | 0.50 | 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 |
| 1.00 | 1.00 | D | PID | 1 | | | | | | | 0 | | |
| 1.20 | | | | | | | | | | | | | |

Client: Heyford Park LLP
Driller:
Engineer: MW

Remarks:
 1: Hole Remained dry and stable



Specialists in the investigation & reclamation of brownfield sites

TRIAL PIT RECORD

Trial Pit Number: TPNSA 210 Job No: P8219J107

Site: Upper Heyford NSA, Oxfordshire

Date: 27/09/2011

| Depth (m) | Sample | | Test | | Seat Drive | | Test Drive | | | | PID Reading | Legend | Description | |
|-----------|-----------|------|------|-------|------------|----|------------|----|----|----|-------------|--------|---|--|
| | Depth (m) | Type | Type | Depth | 75 | 75 | 75 | 75 | 75 | 75 | | | | |
| 0.05 | | | | | | | | | | | | | 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 | | | |
| | | | | | | | | | | | | | | |
| 1.00 | D | PID | 1 | | | | | | | | 0 | | | |
| | | | | | | | | | | | | | | |
| 1.50 | D | PID | 1.5 | | | | | | | | 0 | | Hole terminated at 1.6m bgl | |
| 1.60 | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
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| | | | | | | | | | | | | | | |

| | |
|---------------------------------|--|
| Client: Heyford Park LLP | Remarks: 1. Groundwater was not observed |
| Driller: | |
| Engineer: MW | |



Specialists in the investigation & reclamation of brownfield sites

TRIAL PIT RECORD

Trial Pit Number TPNSA 211 **Job No:** P8219J107
Site: Upper Heyford NSA, Oxfordshire
Date: 28/09/2011

| Depth (m) | Sample | | Test | | Seat Drive | | Test Drive | | | | PID Reading | Legend | Description |
|-----------|-----------|------|------|-------|------------|----|------------|----|----|----|-------------|--------|---|
| | Depth (m) | Type | Type | Depth | 75 | 75 | 75 | 75 | 75 | 75 | | | |
| 0.25 | 0.10 | D | PID | 0.1 | | | | | | | 0 | | MADE GROUND - Brown sandy topsoil with occasional fragments of brick and concrete |
| | | | | | | | | | | | | | |
| 1.20 | 0.30 | D | PID | 0.3 | | | | | | | 0 | | MADE GROUND - Brown/orange sandy gravel. Gravel is of limestone, brick, concrete, plastic and ceramic |
| | | | | | | | | | | | | | |
| | 0.50 | B | PID | 0.5 | | | | | | | 0 | | |
| | | | | | | | | | | | | | |
| | 0.80 | D | PID | 0.8 | | | | | | | 0 | | |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| 1.50 | 1.30 | D | PID | 1.3 | | | | | | | 0 | | Medium dense to dense, yellow/brown sandy GRAVEL. Gravel is angular to subrounded of limestone. Becoming thickly bedded limestone bedrock with a yellow interstitial sand at 1.5m depth |
| | | | | | | | | | | | | | |

Client: Heyford Park LLP **Remarks:** 1. Groundwater was not observed
Driller:
Engineer: MW



Specialists in the investigation & reclamation of brownfield sites

TRIAL PIT RECORD

Trial Pit Number TPNSA 212 **Job No:** P8219J107

Site: Upper Heyford NSA, Oxfordshire

Date: 28/09/2011

| Depth (m) | Sample | | Test | | Seat Drive | | Test Drive | | | | PID Reading | Legend | Description |
|-----------|-----------|-------|------|-------|------------|----|------------|----|----|----|-------------|--------|--|
| | Depth (m) | Type | Type | Depth | 75 | 75 | 75 | 75 | 75 | 75 | | | |
| 0.20 | 0.10 | D | PID | 0.1 | | | | | | | | 0 | MADE GROUND - Brown/grey sandy slightly clayey gravel. Gravel is of brick and concrete |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| 1.10 | 0.25 | D | PID | 0.25 | | | | | | | | 0 | MADE GROUND - brown/grey/orange sandy gravel. Gravel is of brick, concrete and limestone |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| | 0.50 | D + B | PID | 0.5 | | | | | | | | 0 | |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| | 1.00 | D | PID | 1 | | | | | | | 0 | | |
| | | | | | | | | | | | | | |
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| Client: | Heyford Park LLP | Remarks: 1. Groundwater was not observed |
| Driller: | | |
| Engineer: | MW | |



Specialists in the investigation & reclamation of brownfield sites

TRIAL PIT RECORD

| | | | |
|-------------------------|--------------------------------|----------------|-----------|
| Trial Pit Number | TPNSA 213 | Job No: | P8219J107 |
| Site: | Upper Heyford NSA, Oxfordshire | | |
| Date: | 28/09/2011 | | |

| Depth (m) | Sample | | Test | | Seat Drive | | Test Drive | | | | PID Reading | Legend | Description |
|-----------|-----------|-------|------|-------|------------|----|------------|----|----|----|-------------|--------|---|
| | Depth (m) | Type | Type | Depth | 75 | 75 | 75 | 75 | 75 | 75 | | | |
| 0.15 | | | | | | | | | | | | | Tarmac |
| 0.20 | 0.20 | D | PID | 0.2 | | | | | | | | 0 | MADE GROUND - Brown/orange/grey sandy gravel. Gravel is of brick, concrete, limestone and tarmac |
| | | | | | | | | | | | | | |
| 0.50 | 0.50 | D + B | PID | 0.5 | | | | | | | | 0 | |
| | | | | | | | | | | | | | |
| 0.70 | | | | | | | | | | | | | |
| 0.80 | 0.80 | D | PID | 0.8 | | | | | | | | 0 | Made Ground/re-worked natural ground - yellow/brown sandy, clayey gravel. Gravel is angular to subrounded of limestone with occasional pockets of soft to firm brown clay |
| | | | | | | | | | | | | | |
| 1.10 | | | | | | | | | | | | | |
| | | | | | | | | | | | | | Water Main encountered at 1.1m depth - hole terminated |

| | | |
|------------------|------------------|--|
| Client: | Heyford Park LLP | Remarks: 1. Groundwater was not observed |
| Driller: | | |
| Engineer: | MW | |



| | | | |
|-------------------------|-----------|----------------|-----------|
| Trial Pit Number | TPNSA 214 | Job No: | P8219J107 |
|-------------------------|-----------|----------------|-----------|

| | |
|--------------|--------------------------------|
| Site: | Upper Heyford NSA, Oxfordshire |
|--------------|--------------------------------|

| | |
|--------------|------------|
| Date: | 05/10/2011 |
|--------------|------------|

TRIAL PIT RECORD

| Depth (m) | Sample | | Test | | Seat Drive | | Test Drive | | | | PID Reading | Legend | Description | |
|-----------|-----------|------|------|-------|------------|----|------------|----|----|----|-------------|--------|--|--|
| | Depth (m) | Type | Type | Depth | 75 | 75 | 75 | 75 | 75 | 75 | | | | |
| 0.20 | D | | PID | 0.2 | | | | | | | 0 | | MADE GROUND - brown/orange slightly clayey sandy gravel. Gravel is of brick, concrete and limestone with occasional fragments of tarmac. Electrical cable (0.03m dia) encountered at 0.5m depth | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| 0.50 | D | | PID | 0.5 | | | | | | | 0 | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| 0.55 | | | | | | | | | | | | | | |
| 0.60 | | | | | | | | | | | | | Densely packed limestone cobbles with a small amount of yellow interstitial sand. Possible start of bedrock horizon | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
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|------------------|------------------|--|
| Client: | Heyford Park LLP | Remarks: 1. Groundwater was not observed. Hand excavated |
| Driller: | | |
| Engineer: | MW | |



Specialists in the investigation & reclamation of brownfield sites

TRIAL PIT RECORD

Trial Pit Number TPNSA 215 **Job No:** P8219J107
Site: Upper Heyford NSA, Oxfordshire
Date: 27/09/2011

| Depth (m) | Sample | | Test | | Seat Drive | | Test Drive | | | | PID Reading | Legend | Description |
|-----------|-----------|------|------|-------|------------|----|------------|----|----|----|-------------|--------|--|
| | Depth (m) | Type | Type | Depth | 75 | 75 | 75 | 75 | 75 | 75 | | | |
| 0.10 | | | | | | | | | | | | | Tarmac |
| 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 | | | | | | | | | | | | | |
| 0.60 | 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 | | | | | | | | | | | | | |

Client: Heyford Park LLP
Driller:
Engineer: MW
Remarks:
 1. Groundwater was not observed



Trial Pit Number TPNSA 216 Job No: P8219J107

Site: Upper Heyford NSA, Oxfordshire

Date: 05/10/2011

TRIAL PIT RECORD

| Depth (m) | Sample | | Test | | Seat Drive | | Test Drive | | | | PID Reading | Legend | Description |
|-----------|-----------|------|------|-------|------------|----|------------|----|----|----|-------------|--------|--|
| | Depth (m) | Type | Type | Depth | 75 | 75 | 75 | 75 | 75 | 75 | | | |
| 0.10 | D | PID | 0.1 | | | | | | | | 0 | | MADE GROUND - Black/grey sandy gravel. Gravel is of concrete, clinker, brick and ash |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| 0.20 | D | PID | 0.2 | | | | | | | | 0 | | MADE GROUND - Black/grey sandy gravel. Gravel is of concrete, clinker, brick and ash |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| 0.45 | D | | | | | | | | | | | | MADE GROUND - Black/grey sandy gravel. Gravel is of concrete, clinker, brick and ash |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| 0.50 | D | PID | 0.5 | | | | | | | | 0 | | 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 | D | | | | | | | | | | | | 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 |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |

Client: Heyford Park LLP
Driller:
Engineer: MW
Remarks:
 1. Groundwater was not observed. Hand excavated



Specialists in the investigation & reclamation of brownfield sites

TRIAL PIT RECORD

Trial Pit Number TPNSA 217 **Job No:** P8219J107
Site: Upper Heyford NSA, Oxfordshire
Date: 27/09/2011

| Depth (m) | Sample | | Test | | Seat Drive | | Test Drive | | | | PID Reading | Legend | Description |
|-----------|-----------|------|------|-------|------------|----|------------|----|----|----|-------------|--------|--|
| | Depth (m) | Type | Type | Depth | 75 | 75 | 75 | 75 | 75 | 75 | | | |
| 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 |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| 0.45 | | | | | | | | | | | | | |
| 0.50 | 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 | | | | | | | | | | | | | |

Client: Heyford Park LLP
Driller:
Engineer: MW
Remarks:
 1. Groundwater was not observed




Specialists in the investigation & reclamation of brownfield sites

TRIAL PIT RECORD

Trial Pit Number TPNSA 218 **Job No:** P8219J107
Site: Upper Heyford NSA, Oxfordshire
Date: 28/09/2011

| Depth (m) | Sample | | Test | | Seat Drive | | Test Drive | | | | PID Reading | Legend | Description |
|------------------|------------------|-------|---------------------------------|-------|------------|----|------------|----|----|----|-------------|--------|--|
| | Depth (m) | Type | Type | Depth | 75 | 75 | 75 | 75 | 75 | 75 | | | |
| 0.12 | | | | | | | | | | | | | Tarmac |
| 0.30 | 0.15 | D | PID | 0.15 | | | | | | | 7.4 | | MADE GROUND - Black/grey sandy gravel. Gravel is of tarmac, coal, clinker and flint |
| 0.50 | 0.50 | D + B | PID | 0.5 | | | | | | | 0 | | 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 |
| 1.00 | 1.00 | D | PID | 1 | | | | | | | 0 | | |
| 1.30 | | | | | | | | | | | | | |
| | | | Remarks: | | | | | | | | | | |
| Client: | Heyford Park LLP | | 1. Groundwater was not observed | | | | | | | | | | |
| Driller: | | | | | | | | | | | | | |
| Engineer: | MW | | | | | | | | | | | | |



| TRIAL PIT RECORD | | | Trial Pit Number | | TPNSA 219 | | Job No: | | P8219J107 | | | | |
|--------------------------|-----------|------|--|-------|--------------------------------|----|------------|----|-----------|----|-------------|--|-------------|
| | | | Site: | | Upper Heyford NSA, Oxfordshire | | | | | | | | |
| | | | Date: | | 05/10/2011 | | | | | | | | |
| Depth (m) | Sample | | Test | | Seat Drive | | Test Drive | | | | PID Reading | Legend | Description |
| | Depth (m) | Type | Type | Depth | 75 | 75 | 75 | 75 | 75 | 75 | | | |
| 0.05 | | | | | | | | | | | | Walkway surface of sand and gravel. Gravel is of flint | |
| | 0.10 | D | PID | 0.1 | | | | | | | 0 |  MADE GROUND - brown/orange sandy gravelly clay. Gravel is of brick, tile, concrete, metal and plastic. Cable encountered at 0.2m depth Becoming densely packed gravel of concrete at 0.9m depth. Possible building base or top of drain pipe. | |
| | 0.20 | D | PID | 0.2 | | | | | | | 0 | | |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| | 0.50 | D | PID | 0.5 | | | | | | | 0 | | |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| 0.90 | | | | | | | | | | | | | |
| Client: Heyford Park LLP | | | Remarks: 1. Groundwater was not observed. Hand excavated | | | | | | | | | | |
| Driller: | | | | | | | | | | | | | |
| Engineer: MW | | | | | | | | | | | | | |



Specialists in the investigation & reclamation of brownfield sites

TRIAL PIT RECORD

| | | | |
|-------------------------|--------------------------------|----------------|-----------|
| Trial Pit Number | TPNSA 220 | Job No: | P8219J107 |
| Site: | Upper Heyford NSA, Oxfordshire | | |
| Date: | 04/10/2011 | | |

| Depth (m) | Sample | | Test | | Seat Drive | | Test Drive | | | | PID Reading | Legend | Description |
|------------------|------------------|------|------|-------|------------|----|------------|----|----|----|-------------|--------|--|
| | Depth (m) | Type | Type | Depth | 75 | 75 | 75 | 75 | 75 | 75 | | | |
| 0.10 | | | | | | | | | | | | | TARMAC |
| 0.45 | | | | | | | | | | | | | CONCRETE containing steel reinforcement |
| 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 | | | | | | | | | | | | | |
| | | | | | | | | | | | | | Remarks: 1. Groundwater was not observed |
| Client: | Heyford Park LLP | | | | | | | | | | | | |
| Driller: | | | | | | | | | | | | | |
| Engineer: | MW | | | | | | | | | | | | |



Specialists in the investigation & reclamation of brownfield sites

TRIAL PIT RECORD

| | | | |
|-------------------------|--------------------------------|----------------|-----------|
| Trial Pit Number | TPNSA 221 | Job No: | P8219J107 |
| Site: | Upper Heyford NSA, Oxfordshire | | |
| Date: | 29/09/2011 | | |

| Depth (m) | Sample | | Test | | Seat Drive | | Test Drive | | | | PID Reading | Legend | Description |
|-----------|-----------|------|------|-------|------------|----|------------|----|----|----|-------------|---|-------------|
| | Depth (m) | Type | Type | Depth | 75 | 75 | 75 | 75 | 75 | 75 | | | |
| 0.10 | | | | | | | | | | | | | Tarmac |
| 0.30 | | | | | | | | | | | | | CONCRETE |
| 0.35 | D | PID | 0.35 | | | | | | | | 0 | 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 | | | | | | | | | | | | | |

| | | |
|------------------|------------------|--|
| Client: | Heyford Park LLP | Remarks: 1. Groundwater was not observed |
| Driller: | | |
| Engineer: | MW | |



Specialists in the investigation & reclamation of brownfield sites

TRIAL PIT RECORD

| | | | |
|-------------------------|--------------------------------|----------------|-----------|
| Trial Pit Number | TPNSA 222 | Job No: | P8219J107 |
| Site: | Upper Heyford NSA, Oxfordshire | | |
| Date: | 29/09/2011 | | |

| Depth (m) | Sample | | Test | | Seat Drive | | Test Drive | | | | PID Reading | Legend | Description | | | |
|-----------|-----------|------|------|-------|------------|----|------------|----|----|----|-------------|--------|--|--|--|--|
| | Depth (m) | Type | Type | Depth | 75 | 75 | 75 | 75 | 75 | 75 | | | | | | |
| 0.10 | D | D | PID | 0.1 | | | | | | | | 0 | MADE GROUND - brown sandy slightly clayey topsoil containing fragments of brick and concrete | | | |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| 0.20 | D | D | PID | 0.2 | | | | | | | | 0 | | | | |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| 0.40 | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| 0.50 | D + B | D | PID | 0.5 | | | | | | | | 0 | 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 1.2m depth. End hole | | | |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| 1.00 | D | D | PID | 1 | | | | | | | | 0 | | | | |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| 1.20 | | | | | | | | | | | | | | | | |
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| Client: | Heyford Park LLP | Remarks: 1. Groundwater was not observed |
| Driller: | | |
| Engineer: | MW | |



Specialists in the investigation & reclamation of brownfield sites

Trial Pit Number

TPNSA 223

Job No:

P8219J107

Site:

Upper Heyford NSA, Oxfordshire

Date:

30/09/2011

TRIAL PIT RECORD

| Depth (m) | Sample | | Test | | Seat Drive | | Test Drive | | | | PID Reading | Legend | Description |
|-----------|-----------|------|------|-------|------------|----|------------|----|----|----|-------------|--------|--|
| | Depth (m) | Type | Type | Depth | 75 | 75 | 75 | 75 | 75 | 75 | | | |
| 0.10 | D | 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 | | |
| | | | | | | | | | | | | | |
| 0.50 | D + B | PID | 0.5 | | | | | | | | 0 | | |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| 1.00 | D | PID | 1 | | | | | | | | 0 | | |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| 1.40 | | | | | | | | | | | | | |
| 1.50 | | PID | 1.5 | | | | | | | | 0 | | White/cream/yellow sandy slightly clayey GRAVEL. Gravel is subrounded to angular of limestone. Suspected water main of 0.2m diameter encountered at 1.7m depth. End hole |
| | | | | | | | | | | | | | |
| 1.70 | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |

Client: Heyford Park LLP
Driller:
Engineer: MW

Remarks:
 1. Groundwater was not observed



Specialists in the investigation & reclamation of brownfield sites

TRIAL PIT RECORD

| | | | |
|-------------------------|--------------------------------|----------------|-----------|
| Trial Pit Number | TPNSA 224 | Job No: | P8219J107 |
| Site: | Upper Heyford NSA, Oxfordshire | | |
| Date: | 30/09/2011 | | |

| Depth (m) | Sample | | Test | | Seat Drive | | Test Drive | | | | PID Reading | Legend | Description | | | | |
|-----------|-----------|------|------|-------|------------|----|------------|----|----|----|-------------|--------|--|--|---|--|--|
| | Depth (m) | Type | Type | Depth | 75 | 75 | 75 | 75 | 75 | 75 | | | | | | | |
| 0.10 | D | PID | 0.1 | | | | | | | | 0 | | MADE GROUND - brown sandy slightly clayey gravel. Gravel is of brick, concrete, limestone and occasional tarmac | | | | |
| | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |
| 0.20 | D | PID | 0.2 | | | | | | | | 0 | | | | MADE GROUND - brown sandy slightly clayey gravel. Gravel is of brick, concrete, limestone and occasional tarmac | | |
| | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |
| 0.50 | D + B | PID | 0.5 | | | | | | | | 0 | | | | | | MADE GROUND - brown sandy slightly clayey gravel. Gravel is of brick, concrete, limestone and occasional tarmac |
| | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |
| 1.00 | D | PID | 1 | | | | | | | | 0 | | MADE GROUND - brown sandy slightly clayey gravel. Gravel is of brick, concrete, limestone and occasional tarmac | | | | |
| | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |
| 1.20 | | | | | | | | | | | | | | | MADE GROUND - brown sandy slightly clayey gravel. Gravel is of brick, concrete, limestone and occasional tarmac | | |
| | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |
| 1.50 | | PID | 1.5 | | | | | | | | 0 | | | | | | 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 | | | | | | | | | | | | | 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 | | | | |
| | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |
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| Client: | Heyford Park LLP | Remarks: 1. Groundwater was not observed |
| Driller: | | |
| Engineer: | MW | |



Specialists in the investigation & reclamation of brownfield sites

TRIAL PIT RECORD

Trial Pit Number TPNSA 225 **Job No:** P8219J107
Site: Upper Heyford NSA, Oxfordshire
Date: 29/09/2011

| Depth (m) | Sample | | Test | | Seat Drive | | Test Drive | | | | PID Reading | Legend | Description |
|-----------|-----------|-------|------|-------|------------|----|------------|----|----|----|-------------|--------|--|
| | Depth (m) | Type | Type | Depth | 75 | 75 | 75 | 75 | 75 | 75 | | | |
| 0.30 | 0.10 | D | PID | 0.1 | | | | | | | 0 | | MADE GROUND - brown sandy slightly clayey topsoil containing fragments of brick and concrete |
| | 0.20 | D | PID | 0.2 | | | | | | | 0 | | |
| | | | | | | | | | | | | | |
| 1.10 | 0.50 | D + B | PID | 0.5 | | | | | | | 0 | | 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 |
| | | | | | | | | | | | | | |
| | 1.00 | D | PID | 1 | | | | | | | 0 | | |
| | | | | | | | | | | | | | |

Client: Heyford Park LLP **Remarks:** 1. Groundwater was not observed
Driller:
Engineer: MW



Specialists in the investigation & reclamation of brownfield sites

TRIAL PIT RECORD

| | | | |
|-------------------------|----------------------------|----------------|-----------|
| Trial Pit Number | TPNSA 226 | Job No: | P8219J107 |
| Site: | Upper Heyford, Oxfordshire | | |
| Date: | 03/10/2011 | | |

| Depth (m) | Sample | | Test | | Seat Drive | | Test Drive | | | | Legend | Description |
|-----------|-----------|-------|------|-------|------------|----|------------|----|----|-------------|--------|---|
| | Depth (m) | Type | Type | Depth | 75 | 75 | 75 | 75 | 75 | PID Reading | | |
| 0.15 | | | | | | | | | | | | TARMAC |
| 0.40 | 0.30 | D | PID | 0.3 | | | | | | | 0 | MADE GROUND - grey sandy gravel. Gravel is of concrete |
| 0.90 | 0.50 | D + B | PID | 0.5 | | | | | | | 0 | Brown/orange sandy slightly gravelly CLAY. Gravel is subrounded of limestone |
| 1.80 | 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 interstitial sand at 1.8m depth. End hole |
| | 1.50 | D + B | PID | 1.5 | | | | | | | 0 | |

| | | |
|------------------|------------------|--|
| Client: | Heyford Park LLP | Remarks: 1: Hole remained dry and stable |
| Driller: | | |
| Engineer: | MW | |



Specialists in the investigation & reclamation of brownfield sites

TRIAL PIT RECORD

Trial Pit Number: TPNSA 227 Job No: P8219J107

Site: Upper Heyford, Oxfordshire

Date: 03/10/2011

| Depth (m) | Sample | | Test | | Seat Drive | | Test Drive | | | | PID Reading | Legend | Description |
|-----------|-----------|------|------|-------|------------|----|------------|----|----|----|-------------|--|-------------|
| | Depth (m) | Type | Type | Depth | 75 | 75 | 75 | 75 | 75 | 75 | | | |
| 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 | | |
| | | | | | | | | | | | | | |
| 0.80 | | | | | | | | | | | | | |
| 1.00 | D + B | PID | 1 | | | | | | | | 0 | Brown sandy GRAVEL. Gravel is angular to subrounded of limestone. Becoming thickly bedded limestone bedrock with a small amount of yellow interstitial sand at 1.35m depth. End hole | |
| | | | | | | | | | | | | | |
| 1.35 | | | | | | | | | | | | | |

Client: Heyford Park LLP
 Driller:
 Engineer: MW
 Remarks: 1: Hole remained dry and stable



Specialists in the investigation & reclamation of brownfield sites

TRIAL PIT RECORD

Trial Pit Number: TPNSA 228 Job No: P8219J107
 Site: Upper Heyford, Oxfordshire
 Date: 03/10/2011

| Depth (m) | Sample | | Test | | Seat Drive | | Test Drive | | | | PID Reading | Legend | Description |
|-----------|-----------|-------|------|-------|------------|----|------------|----|----|----|-------------|--------|--|
| | Depth (m) | Type | Type | Depth | 75 | 75 | 75 | 75 | 75 | 75 | | | |
| 0.10 | | | | | | | | | | | | | TARMAC |
| 0.40 | | | | | | | | | | | | | CONCRETE |
| 0.70 | 0.50 | D + B | PID | 0.5 | | | | | | | 1.4 | | MADE GROUND - brown/black sandy slightly clayey gravel. Gravel is of limestone and concrete with occasional fragments of brick and tarmac. Faint hydrocarbon odour |
| 1.10 | 0.80 | 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 |
| | | | | | | | | | | | | | |

Client: Heyford Park LLP
Driller:
Engineer: MW
Remarks:
 1: Hole remained dry and stable



Specialists in the investigation & reclamation of brownfield sites

TRIAL PIT RECORD

Trial Pit Number TPNSA 293 **Job No:** P8219J107
Site: Upper Heyford, Oxfordshire
Date: 30/09/2011

| Depth (m) | Sample | | Test | | Seat Drive | | Test Drive | | | | PID Reading | Legend | Description |
|-----------|-----------|------|------|-------|------------|----|------------|----|----|----|-------------|--------|--|
| | Depth (m) | Type | Type | Depth | 75 | 75 | 75 | 75 | 75 | 75 | | | |
| 0.10 | | | | | | | | | | | | | TARMAC |
| 0.20 | | | | | | | | | | | | | CONCRETE |
| 0.30 | D | PID | 0.3 | | | | | | | | 0 | | MADE GROUND - Brown/yellow/grey slightly sandy gravelly clay. Gravel is of limestone, concrete and brick with occasional fragments of tarmac |
| | | | | | | | | | | | | | |
| 0.60 | | | | | | | | | | | | | |
| 0.60 | D + B | PID | 0.6 | | | | | | | | 0 | | Brown/orange/yellow sandy GRAVEL. Gravel is angular to subrounded 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+B | PID | 1.5 | | | | | | | | 0 | | |
| 1.60 | | | | | | | | | | | | | |

Client: Heyford Park LLP **Remarks:** 1: Hole Remained dry and stable
Driller:
Engineer: MW



| | | | |
|-------------------------|----------------------------|----------------|-----------|
| Trial Pit Number | TPNSA 94 | Job No: | P8219J107 |
| Site: | Upper Heyford, Oxfordshire | | |
| Date: | 27/10/2011 | | |

TRIAL PIT RECORD

| Depth (m) | Sample | | Test | | Seat Drive | | Test Drive | | | | PID Reading | Legend | Description |
|-----------|-----------|------|------|-------|------------|----|------------|----|----|----|-------------|--|-------------|
| | Depth (m) | Type | Type | Depth | 75 | 75 | 75 | 75 | 75 | 75 | | | |
| 0.10 | | | | | | | | | | | | TURF | |
| 0.60 | 0.50 | D | PID | 0.5 | | | | | | | 0 | Brown/orange sandy GRAVEL. Gravel is angular to subrounded of limestone | |
| | | | | | | | | | | | | | |
| 1.60 | 1.00 | D | PID | 1 | | | | | | | 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 1.6m depth. End hole | |
| | 1.50 | D | PID | 1.5 | | | | | | | 0 | | |
| | | | | | | | | | | | | | |

| | | |
|------------------|------------------|--|
| Client: | Heyford Park LLP | Remarks: 1: Hole Remained dry and stable with no visual or olfactory evidence of hydrocarbon contamination |
| Driller: | | |
| Engineer: | MW | |



| | | | |
|-------------------------|----------------------------|----------------|-----------|
| Trial Pit Number | TPNSA 95 | Job No: | P8219J107 |
| Site: | Upper Heyford, Oxfordshire | | |
| Date: | 27/10/2011 | | |

TRIAL PIT RECORD

| Depth (m) | Sample | | Test | | Seat Drive | | Test Drive | | | | PID Reading | Legend | Description |
|-----------|-----------|------|------|-------|------------|----|------------|----|----|----|-------------|--------|--|
| | Depth (m) | Type | Type | Depth | 75 | 75 | 75 | 75 | 75 | 75 | | | |
| 0.10 | | | | | | | | | | | | | TURF |
| | | | | | | | | | | | | | 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 | | | | | | | | | | | | | |

| | | |
|------------------|------------------|--|
| Client: | Heyford Park LLP | Remarks: 1: Hole Remained dry and stable with no visual or olfactory evidence of hydrocarbon contamination |
| Driller: | | |
| Engineer: | MW | |



Trial Pit Number: SI01 A Job No: P8219J107

Site: Upper Heyford, Oxfordshire

Date: 03/10/2011

TRIAL PIT RECORD

| Depth (m) | Sample | | Test | | Seat Drive | | Test Drive | | | | PID Reading | Legend | Description |
|-----------|-----------|------|------|-------|------------|----|------------|----|----|----|-------------|---|--|
| | Depth (m) | Type | Type | Depth | 75 | 75 | 75 | 75 | 75 | 75 | | | |
| 0.20 | | | | | | | | | | | | | TARMAC |
| 0.55 | | | | | | | | | | | | | CONCRETE with occasional gravel of crushed concrete sub-base |
| 1.10 | 0.90 | D | 0.6 | PID | | | | | | | 17.3 | Brown/black sandy CLAY with occasional relic roots. Strong hydrocarbon odour | |
| | | | 0.7 | PID | | | | | | | 24.1 | | |
| | | | 0.9 | PID | | | | | | | 76.3 | | |
| 1.50 | 1.20 | D | 1.2 | PID | | | | | | | 158.3 | Blue/yellow/grey sandy clayey GRAVEL. Gravel is of limestone. Strong hydrocarbon odour. | |

Client: Heyford Park LLP
Driller:
Engineer: MW

Remarks:
 1: Hole slightly damp at base. Strong hydrocarbon odour with maximum PID readings recorded in open air.
 2: Trial hole terminated at 1.5m depth under guidance of watermans engineer due to concerns regarding contamination and possible fumes affecting surrounding buildings.

APPENDIX 3 – BOREHOLE LOGS



ROTARY DRILLING LOG

| | | | |
|------------------------|--------------------------------|----------------|-----------|
| Borehole Number | BHNSA 01 | Job No: | P8219J107 |
| Site: | Upper Heyford NSA, Oxfordshire | | |
| Date: | 21/10/2011 | | |

| Depth (m) | Sample | | Core Length Recovered | Depth of Casing | Test | | Seat Drive | | Test Drive | | | | PID Reading | Legend | Description |
|-----------|-----------|------|-----------------------|-----------------|------|-------|------------|----|------------|----|----|----|-------------|--------|--|
| | Depth (m) | Type | | | Type | Depth | 75 | 75 | 75 | 75 | 75 | 75 | | | |
| 1.20 | 0.5 D | | open hole | 3.0 | PID | 0.5 | | | | | | | 0 | | MADE GROUND - Brown sandy slightly clayey gravel. Gravel is of limestone, brick, concrete and tarmac |
| | 1.0 D + B | | | | PID | 1 | | | | | | | 0 | | |
| | | | | | SPT | 1.2 | 25 | | 50/35 | | | | | | |
| 2.60 | | | | 3.0 | PID | 1.7 | | | | | | | 0 | | Poor recovery - subangular to angular cobbles of pale grey crystalline limestone. |
| 3.00 | | | | 3.0 | PID | 2.7 | | | | | | | 0 | | Pale grey fine grained silty/clayey MUDSTONE |
| 4.80 | | | | 3.0 | | | | | | | | | | | Pale grey slightly sandy SILTSTONE |
| 5.30 | | | | 3.0 | | | | | | | | | | | Pale grey silty MUDSTONE occasionally present as bands of pale grey hard CLAY |
| 5.80 | | | | 3.0 | | | | | | | | | | | Pale grey silty MUDSTONE |
| 6.00 | | | | 3.0 | | | | | | | | | | | Pale grey coarse grained calcareous SANDSTONE |
| 10.00 | | | | 3.0 | | | | | | | | | | | Pale grey silty MUDSTONE occasionally darker grey and slightly calcareous with occasional shells |
| | | | | | | | | | | | | | | | Borehole terminated at 10.0m |

| | | |
|------------------|------------------|--|
| Plant: | Commachio 305 | Remarks: 1: Groundwater at 8m depth upon completion of drilling. Rose to 6.5m depth after 30 mins monitoring. 2. Borehole installed with plain pipe from ground level to 1.0m depth and slotted standpipe from 1.0m to 9.0m depth with bentonite seal from 9.0m to base of borehole and around plain pipe. 3. Borehole drilled using open hole techniques. Casing installed to 3m. |
| Client: | Heyford Park LLP | |
| Driller: | Taylor/Gidman | |
| Engineer: | M Williams | |



ROTARY DRILLING LOG

| | | | |
|------------------------|--------------------------------|----------------|-----------|
| Borehole Number | BHNSA 02 | Job No: | P8219J107 |
| Site: | Upper Heyford NSA, Oxfordshire | | |
| Date: | 17/10/2011 | | |

| Depth (m) | Sample | | Core Length Recovered | Depth of Casing | Test | | Seat Drive | | Test Drive | | | | PID Reading | Legend | Description |
|-----------|-----------|------|-----------------------|-----------------|------|-----------|------------|----|------------|-------|----|-----|-------------|--------|--|
| | Depth (m) | Type | | | Type | Depth (m) | 75 | 75 | 75 | 75 | 75 | 75 | | | |
| 0.80 | 0.50 | D | open hole | | | | | | | | | | | | MADE GROUND - Yellow/brown/orange sandy gravel. Gravel is of limestone, concrete and brick |
| 2.00 | 1.20 | D | | | SPT | 1.2 | 8 | 11 | 29 | 21/30 | | | | | Yellow/brown sandy GRAVEL. Gravel is angular to subangular of limestone. Gradually becoming white/grey limestone bedrock |
| 2.05 | 2.00 | D | | | PID | 2 | | | | | | 2.4 | | | Black/grey sandy LIMESTONE. Faint hydrocarbon odour White/grey LIMESTONE |
| 2.80 | | | | 3.0 | | | | | | | | | | | |
| 3.10 | 2.80 | D | | 3.5 | PID | 2.8 | | | | | | 3.8 | | | Yellow/brown slightly clayey SAND. Faint hydrocarbon odour |
| 4.00 | 3.10 | D | | | PID | 3.1 | | | | | | 1.7 | | | Black/grey slightly clayey silty MUDSTONE |
| 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 |
| 5.10 | | | | 4.0 | PID | 4.4 | | | | | | 0 | | | Pale grey slightly clayey SILTSTONE |
| 7.50 | | | | 4.0 | PID | 5.1 | | | | | | 0 | | | Dark grey SILTSTONE |
| | | | | | | | | | | | | | | | |
| | | | | | PID | 6.0 | | | | | | 0 | | | |
| | | | | | | | | | | | | | | | |
| | | | | | PID | 7.0 | | | | | | 0 | | | |
| 9.00 | | | | 4.0 | | | | | | | | | | | Dark grey slightly silty MUDSTONE |
| | | | | | PID | 8.0 | | | | | | 0 | | | |
| 9.80 | | | | 4.0 | PID | 9.0 | | | | | | 0 | | | Pale grey SILTSTONE |
| 10.00 | | | | 4.0 | | | | | | | | | | | Dark grey SILTSTONE |
| | | | | | | | | | | | | | | | Borehole terminated at 10.0m |

| | | |
|------------------|------------------|---|
| Plant: | Commachio 305 | Remarks: 1: Groundwater at 9.8m depth upon completion of drilling. Rose to 9.4m depth after 30 mins monitoring. 2. Borehole installed with plain pipe from ground level to 1.0m depth, with slotted standpipe from 1.0m to 9.75m, with bentonite seal to base of borehole and around plain pipe. 3. Borehole drilled using open hole techniques. Casing installed to 4m. 4. Standing time - 30mins |
| Client: | Heyford Park LLP | |
| Driller: | Taylor/Gidman | |
| Engineer: | M Williams | |



| | | | |
|------------------------|--------------------------------|----------------|-----------|
| Borehole Number | BHNSA 03 | Job No: | P8219J107 |
| Site: | Upper Heyford NSA, Oxfordshire | | |
| Date: | 27/10/2011 | | |

ROTARY DRILLING LOG

| Depth (m) | Sample | | Core Length Recovered | Depth of Casing | Test | | Seat Drive | | Test Drive | | | | | PID Reading | Legend | Description |
|-----------|-----------|------|------------------------|-----------------|------|-------|------------|----|------------|----|----|----|------|-------------|--------|---|
| | Depth (m) | Type | | | Type | Depth | 75 | 75 | 75 | 75 | 75 | 75 | 75 | | | |
| 0.10 | | | PWF Liner | | | | | | | | | | | | | TURF |
| 0.90 | 0.50 | D | | | PID | 0.5 | | | | | | | 0 | | | Brown/orange sandy gravelly CLAY. Gravel is angular to subangular of limestone. |
| 2.70 | | | 2.70-4.2m (1.0m core) | 3.0 | PID | 1.0 | | | | | | | 0 | | | Poor recovery - pale grey sandy LIMESTONE recovered as limestone cobbles with a yellow interstitial sand |
| | | | | | SPT | 1.2 | 25 | 30 | 20//10 | | | | | | | |
| | | | | | PID | 2.0 | | | | | | | 0 | | | |
| 3.20 | | | | 3.0 | | | | | | | | | | | | No recovery |
| 3.90 | | | | 3.0 | PID | 3.5 | | | | | | | 7.8 | | | Yellow/grey calcareous SANDSTONE. Weak and fractured, fractures filled with a pale yellow silty sand. In places visually impacted by hydrocarbons with fractures stained black and moderate hydrocarbon odour |
| 4.20 | 4.00 | D | 4.20-5.7m (1.5m core) | 3.0 | PID | 4.0 | | | | | | | 14.2 | | | Yellow/brown silty SAND. Moderate hydrocarbon odour |
| 7.00 | | | 5.70-7.2m (1.5m core) | 3.0 | PID | 5.0 | | | | | | | 0 | | | Pale grey SILTSTONE interbedded with occasional bands of darker calcareous SILTSTONE containing shell fragments |
| | | | | | PID | 6.0 | | | | | | | 0 | | | |
| 8.50 | | | 7.20-8.7m (1.5m core) | 3.0 | PID | 7.0 | | | | | | | 0 | | | Grey silty MUDSTONE interbedded with occasional bands of darker grey calcareous SILTSTONE containing shell fragments |
| | | | | | PID | 8.0 | | | | | | | 0 | | | |
| 10.00 | | | 8.70-10.0m (1.0m core) | 3.0 | PID | 9.0 | | | | | | | 0 | | | Grey silty MUDSTONE |
| | | | | | | | | | | | | | | | | Borehole terminated at 10.0m |

| | | |
|------------------|------------------|---|
| Plant: | Commachio 305 | Remarks: 1: Groundwater at 5.8m depth upon completion of drilling. Rose to 5.0m depth after 20 mins monitoring. 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 around plain pipe. 3. Standing/Dayworks - 50mins |
| Client: | Heyford Park LLP | |
| Driller: | Taylor/Gidman | |
| Engineer: | M Williams | |



| | | | |
|------------------------|--------------------------------|----------------|-----------|
| Borehole Number | BHNSA 04 | Job No: | P8219J107 |
| Site: | Upper Heyford NSA, Oxfordshire | | |
| Date: | 17/10/2011 | | |

ROTARY DRILLING LOG

| Depth (m) | Sample | | Core Length Recovered | Depth of Casing | Test | | Seat Drive | | Test Drive | | | | PID Reading | Legend | Description |
|-----------|-----------|-------|-----------------------|-----------------|------|-------|------------|--------|------------|--------|----|----|-------------|--------|--|
| | Depth (m) | Type | | | Type | Depth | 75 | 75 | 75 | 75 | 75 | 75 | | | |
| 0.05 | | | open hole | | | | | | | | | | | | TURF |
| | 0.50 | D | | | PID | 0.5 | | | | | | | 0 | | MADE GROUND - yellow/brown/orange sandy gravel. Gravel is of limestone, concrete and brick |
| 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 |
| 1.90 | | | | | PID | 2 | | | | | | | 0 | | Pale grey / yellow LIMESTONE |
| 3.00 | | | | 3.0 | | | | | | | | | | | |
| 3.20 | | | | 3.0 | PID | 3 | | | | | | | 0 | | Yellow SANDSTONE |
| | | | | | | | | | | | | | | | Yellow SANDSTONE noticeably weaker |
| 3.80 | | | | 3.0 | | | | | | | | | | | |
| 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 |
| | | | | | | | | | | | | | | | |
| 5.80 | | | | 3.0 | | | | | | | | | | | |
| | | | | | | | | | | | | | | | Dark grey SILTSTONE with occasional interbedded bands of pale grey LIMESTONE |
| 7.50 | | | | 3.0 | PID | 6.5 | | | | | | | 0 | | |
| 7.60 | | | | 3.0 | PID | 7.6 | | | | | | | 0 | | Dark grey LIMESTONE |
| | | | | | | | | | | | | | | | Pale grey LIMESTONE |
| 7.90 | | | | 3.0 | | | | | | | | | | | Dark grey MUDSTONE |
| 8.20 | | | | 3.0 | | | | | | | | | | | Pale grey LIMESTONE |
| 8.50 | | | | 3.0 | | | | | | | | | | | |
| 9.80 | | | | 3.0 | PID | 8.6 | | | | | | | 0 | | Dark grey MUDSTONE |
| | | | | | | | | | | | | | | | Dark grey SILTSTONE |
| 13.00 | | | | 3.0 | | | | | | | | | | | |

Borehole terminated at 13.0m

| | | |
|------------------|------------------|--|
| Plant: | Commachio 305 | Remarks: 1. Borehole dry upon completion of drilling at 10m depth. Hole extended to 13m depth upon request of Watermans engineer. Groundwater at 12.2m bgl upon completion of additional drilling, rose to 3.4m depth after 20 mins monitoring. 2. Installed with plain pipe from ground level to 1.5m depth, slotted standpipe from 1.5m to 12.8m with bentonite seal to base of borehole and around plain pipe. 3. Standing/Dayworks - 70mins 4. Borehole drilled using open hole techniques. Casing installed to 3m. |
| Client: | Heyford Park LLP | |
| Driller: | Taylor/Gidman | |
| Engineer: | M Williams | |



ROTARY DRILLING LOG

| | | | |
|------------------------|--------------------------------|----------------|-----------|
| Borehole Number | BHNSA 05 | Job No: | P8219J107 |
| Site: | Upper Heyford NSA, Oxfordshire | | |
| Date: | 17/10/2011 | | |

| Depth (m) | Sample | | Core Length Recovered | Depth of Casing | Test | | Seat Drive | | Test Drive | | | | PID Reading | Legend | Description |
|-----------|-----------|-------|-----------------------|-----------------|------|-------|------------|----|------------|----|----|----|-------------|--------|--|
| | Depth (m) | Type | | | Type | Depth | 75 | 75 | 75 | 75 | 75 | 75 | | | |
| 0.05 | | | open hole | | | | | | | | | | | | TURF |
| 0.60 | 0.50 | D | | | PID | 0.5 | | | | | | | 0 | | MADE GROUND - yellow/brown/orange sandy gravel. Gravel is of limestone, concrete and brick |
| 1.80 | 1.00 | D + B | | | PID | 1 | | | | | | | 0 | | Yellow/brown sandy GRAVEL. Gravel is angular to subangular of sandstone |
| | | | | | SPT | 1.2 | 25 | | 50/45 | | | | | | |
| 2.80 | | | | 3.0 | PID | 2 | | | | | | | 0 | | Pale grey, medium grained LIMESTONE |
| 3.70 | | | | 3.0 | PID | 3 | | | | | | | 0 | | Yellow/brown, slightly clayey SAND |
| 4.00 | | | | 3.0 | PID | 4 | | | | | | | 0 | | Pale grey slightly clayey SILTSTONE |
| 4.10 | | | | 3.0 | | | | | | | | | | | Yellow, slightly clayey SAND |
| 4.90 | | | | 3.0 | | | | | | | | | | | Dark grey SILTSTONE |
| 5.30 | | | | 3.0 | PID | 5 | | | | | | | 0 | | Pale grey LIMESTONE with occasional shell fragments |
| 6.00 | | | | 3.0 | PID | 6 | | | | | | | 0 | | Pale grey SILTSTONE |
| 7.10 | | | | 3.0 | PID | 7.2 | | | | | | | 0 | | Dark grey SILTSTONE |
| 7.40 | | | | 3.0 | | | | | | | | | | | Pale grey LIMESTONE with a small amount of yellow interstitial sand |
| 7.90 | | | | 3.0 | | | | | | | | | | | Pale grey MUDSTONE interbedded with occasional bands of hard, dark grey LIMESTONE |
| 8.20 | | | | 3.0 | PID | 8.1 | | | | | | | 0 | | Dark grey slightly clayey SILTSTONE |
| 9.00 | | | | 3.0 | PID | 8.4 | | | | | | | 0 | | Dark grey MUDSTONE |
| 9.80 | | | | 3.0 | PID | 9.1 | | | | | | | 0 | | Dark grey SILTSTONE |
| 10.20 | | | | 3.0 | PID | 9.8 | | | | | | | 0 | | Dark brown, slightly clayey SAND |
| 10.50 | | | | 3.0 | | | | | | | | | | | Dark grey silty MUDSTONE |
| | | | | | | | | | | | | | | | Borehole terminated at 10.5m |

| | | |
|------------------|------------------|---|
| Plant: | Commachio 305 | Remarks: 1: Groundwater at 9.8m depth upon completion of drilling. Rose to 9.2m depth after 20 mins monitoring. 2. Borehole installed with plain pipe from ground level to 1.0m depth, with slotted standpipe from 1.0m to base of hole. Bentonite seal installed around plain pipe. 3. Standing/Dayworks - 30mins 4. Borehole drilled using open hole techniques. Casing installed to 3m. |
| Client: | Heyford Park LLP | |
| Driller: | Taylor/Gidman | |
| Engineer: | M Williams | |



ROTARY DRILLING LOG

| | | | |
|------------------------|--------------------------------|----------------|-----------|
| Borehole Number | BHNSA 06 | Job No: | P8219J107 |
| Site: | Upper Heyford NSA, Oxfordshire | | |
| Date: | 12/10/2011 | | |

| Depth (m) | Sample | | Core Length Recovered | Depth of Casing | Test | | Seat Drive | | Test Drive | | | | PID Reading | Legend | Description |
|-----------|-----------|------|---------------------------|-----------------|------|-------|------------|----|------------|-------|----|----|-------------|--------|---|
| | Depth (m) | Type | | | Type | Depth | 75 | 75 | 75 | 75 | 75 | 75 | | | |
| 0.05 | | | PWF Liner | | | | | | | | | | | | TURF |
| 0.90 | 0.50 | D | | | PID | 0.5 | | | | | | | 0 | | Brown sandy slightly clayey GRAVEL. Gravel is of angular to subangular limestone |
| 1.70 | 1.00 | B | 1.20-2.70m (1.4m core) | 1.0m | PID | 1 | | | | | | | 0 | | Yellow/grey sandy GRAVEL. Gravel is angular of limestone |
| | | | | | SPT | 1.2 | 15 | 10 | 33 | 17/25 | | | | | |
| 2.50 | | | | | PID | 2 | | | | | | | 0.2 | | Pale grey LIMESTONE |
| 3.50 | 2.70 | D | 2.70-4.20m (1.50m core) | 1.0m | PID | 2.7 | | | | | | | 50.7 | | Pale grey LIMESTONE with visual indications of hydrocarbon contamination - black staining following fissures within the limestone |
| | 3.20 | D | | | PID | 3.2 | | | | | | | 6.1 | | |
| 4.80 | 4.20 | D | 4.20 - 5.70m (1.50m core) | 3.0m | PID | 4.2 | | | | | | | 0.1 | | Brown/grey silty SANDSTONE with visual indications of hydrocarbon contamination |
| | | | | | SPT | 4.2 | | | | | | | Ref | | |
| 6.00 | | | 5.70-7.20m (1.50m core) | 3.0m | PID | 5 | | | | | | | 0 | | Pale grey/yellow sandy LIMESTONE interbedded with thin bands of grey MUDSTONE |
| 7.00 | | | | | | | | | | | | | | | Dark grey silty MUDSTONE |
| 7.50 | | | 7.20-8.70m (1.50m core) | 3.0m | PID | 7 | | | | | | | 0 | | Dark grey shelly LIMESTONE |
| 10.00 | | | 8.70-10.0m (1.10m core) | 3.0m | PID | 8 | | | | | | | 0 | | Dark grey silty MUDSTONE |

Borehole terminated at 10.0mbgl

| | | |
|------------------|------------------|---|
| Plant: | Commachio 305 | Remarks: 1: Groundwater at 5.2m depth upon completion of drilling, 4.5m depth after 20 minutes monitoring. 2. Borehole installed with plain pipe from ground level to 1.0m, slotted pipe from 1.0m to 9.5m, with bentonite seal to base of hole and around plain pipe. 3. Standing/Dayworks - 1hr |
| Client: | Heyford Park LLP | |
| Driller: | Taylor/Gidman | |
| Engineer: | M Williams | |



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|------------------------|--------------------------------|----------------|-----------|
| Borehole Number | BHNSA 07 | Job No: | P8219J107 |
| Site: | Upper Heyford NSA, Oxfordshire | | |
| Date: | 13/10/2011 | | |

ROTARY DRILLING LOG

| Depth (m) | Sample | | Core Length Recovered | Depth of Casing | Test | | Seat Drive | | Test Drive | | | | PID Reading | Legend | Description |
|-----------|-----------|------|----------------------------|-----------------|------|-------|------------|----|------------|-------|----|----|-------------|--------|---|
| | Depth (m) | Type | | | Type | Depth | 75 | 75 | 75 | 75 | 75 | 75 | | | |
| 0.05 | | | PWF Liner | | | | | | | | | | | | TURF |
| 0.90 | 0.50 | D | | | PID | 0.5 | | | | | | 0 | | | Brown/yellow sandy slightly clayey GRAVEL. Gravel is of angular to subangular limestone |
| 1.50 | 1.00 | B | 1.20-2.70m (1.40m core) | 3.0m | PID | 1 | | | | | | 0 | | | Pale yellow/grey slightly sandy LIMESTONE |
| 2.20 | | | | | SPT | 1.2 | 5 | 20 | 39 | 11//5 | | | | | Pale grey LIMESTONE |
| 2.80 | | | 2.70-4.20m (1.50m core) | 3.0m | PID | 2 | | | | | | 0 | | | V poor recovery - yellow slightly clayey SAND |
| 4.50 | | | 4.20-5.70m (1.5m core) | 3.0m | PID | 3 | | | | | | 0 | | | Dark grey to pale grey LIMESTONE with occasional shell bands |
| 5.10 | | | 5.70-7.20m (1.5m core) | 3.0m | PID | 4 | | | | | | 0 | | | Pale grey silty MUDSTONE |
| 6.60 | | | | | PID | 6 | | | | | | 0 | | | Pale grey/yellow SANDSTONE |
| 7.30 | | | 7.20-8.70m (1.5m core) | 3.0m | PID | 7 | | | | | | 0 | | | Dark grey coarse grained shelly LIMESTONE |
| 10.00 | | | | | PID | 8 | | | | | | 0 | | | Dark grey silty MUDSTONE |

Borehole terminated at 10.0mbgl

| | | |
|------------------|------------------|---|
| Plant: | Commachio 305 | Remarks: 1: Groundwater at 8.5m depth upon completion of drilling, 8.9m depth after 20 minutes monitoring. 2. Borehole installed from ground level to 1.0m depth with plain pipe, with slotted standpipe from 1.0m to base of hole, with bentonite seal around plain pipe. 3. Cable encountered in pit at 1m, position moved. |
| Client: | Heyford Park LLP | |
| Driller: | Taylor/Gidman | |
| Engineer: | M Williams | |



Borehole Number BHNSA 08 **Job No:** P8219J107

Site: Upper Heyford NSA, Oxfordshire

Date: 13/10/2011

ROTARY DRILLING LOG

| Depth (m) | Sample | | Core Length Recovered | Depth of Casing | Test | | Seat Drive | | Test Drive | | | | PID Reading | Legend | Description |
|-----------|-----------|--------|---------------------------|-----------------|------|-------|------------|----|------------|----|----|----|-------------|--------|---|
| | Depth (m) | Type | | | Type | Depth | 75 | 75 | 75 | 75 | 75 | 75 | | | |
| 0.10 | | | PWF Liner | | | | | | | | | | | | TARMAC |
| 0.25 | | | | | | | | | | | | | | | CONCRETE with occasional gravel of crushed concrete |
| 0.90 | 0.50 | D | | | PID | 0.5 | | | | | | | 0 | | Brown/yellow sandy slightly clayey GRAVEL. Gravel is of angular to subangular limestone |
| 1.50 | 1.00 | B C | 1.20-2.70m (1m core) | 1.2m | PID | 1 | | | | | | | 0 | | Pale yellow/grey slightly sandy LIMESTONE |
| 2.20 | | | | | SPT | 1.2 | 6 | 19 | 24 | 26 | | | | | Pale grey LIMESTONE |
| 2.80 | | C | 2.70-4.20m (1.5m core) | 1.2m | PID | 2 | | | | | | | 0 | | V poor recovery - yellow slightly clayey SAND |
| 4.50 | | C | 4.20-5.70m (1.5m core) | 3.0m | PID | 3 | | | | | | | 0 | | Dark grey to pale grey LIMESTONE with occasional shell bands |
| 5.10 | | C | 5.70-7.20m (1.5m core) | 3.0m | PID | 4 | | | | | | | 0 | | Pale grey silty MUDSTONE |
| 6.60 | | | | | PID | 5 | | | | | | | 0 | | Pale grey/yellow SANDSTONE |
| 7.30 | | C | 7.20-8.70m (1.5m core) | 3.0m | PID | 6 | | | | | | | 0 | | Dark grey coarse grained shelly LIMESTONE |
| 10.00 | | C | 8.70-10m (1.3m core) | 3.0m | PID | 7 | | | | | | | 0 | | Dark grey silty MUDSTONE |
| | | | | | | | | | | | | | | | Borehole terminated at 10.0m |

| | | |
|------------------|------------------|---|
| Plant: | Commachio 305 | Remarks: 1: Groundwater at 8.5m depth upon completion of drilling, 8.9m depth after 20 minutes monitoring. 2. Borehole installed from ground level to 1.0m depth with plain pipe, from 1.0m to base of hole with slotted standpipe, with bentonite seal around plain pipe. 3. Standing/Dayworks - 1.25hrs |
| Client: | Heyford Park LLP | |
| Driller: | Taylor/Gidman | |
| Engineer: | M Williams | |



Borehole Number BHNSA 09 Job No: P8219J107

Site: Upper Heyford NSA, Oxfordshire

Date: 24/10/2011

ROTARY DRILLING LOG

| Depth (m) | Sample | | Core Length Recovered | Depth of Casing | Test | | Seat Drive | | Test Drive | | | | PID Reading | Legend | Description |
|-----------|-----------|------|------------------------|-----------------|------|-------|------------|----|------------|-------|----|----|-------------|--------|---|
| | Depth (m) | Type | | | Type | Depth | 75 | 75 | 75 | 75 | 75 | 75 | | | |
| 0.90 | 0.50 | D | PWF Liner | | | | | | | | | | | | MADE GROUND - Brown/orange sandy gravel. Gravel is of concrete, limestone, brick and metal |
| | | | | | PID | 0.5 | | | | | | | 0 | | |
| 2.40 | | C | 1.20-2.70m (1.4m core) | 1.2m | | | | | | | | | | | Poor recovery - pale grey LIMESTONE present as cobbles of weathered LIMESTONE with a small amount of yellow interstitial sand |
| | | | | | PID | 1 | | | | | | | 0 | | |
| | | | | | SPT | 1.2 | 12 | 13 | 19 | 31/40 | | | | | |
| | | | | | PID | 2 | | | | | | | 0 | | |
| 3.70 | | C | 2.70-3.20m (0.5m core) | 2.7m | | | | | | | | | | | Yellow/orange/brown fine grained calcareous SANDSTONE with occasional fractures |
| | | | | | PID | 3 | | | | | | | 0 | | |
| | | C | 3.20-4.70m (1.5m core) | 3.0m | | | | | | | | | | | |
| 4.20 | 4.00 | D | | | PID | 4 | | | | | | | 2.2 | | Dark grey slightly sandy SILTSTONE with occasional fractures containing dark grey silty SAND |
| | | | | | PID | 4.4 | | | | | | | 0 | | Dark grey to light grey silty MUDSTONE |
| 5.30 | | C | 4.70-6.20m (1.5m core) | 3.0m | | | | | | | | | | | |
| | | | | | PID | 5.4 | | | | | | | 0 | | Pale grey slightly sandy SILTSTONE interbedded with occasional thin bands of light brown SILTSTONE |
| 6.50 | | C | 6.20-7.70m (1.5m core) | 3.0m | | | | | | | | | | | |
| | | | | | PID | 6.6 | | | | | | | 0 | | Pale grey silty MUDSTONE interbedded with occasional thin bands of dark grey occasionally calcareous SILTSTONE |
| 9.20 | | C | 7.70-9.20m (0.9m core) | 3.0m | | | | | | | | | | | |
| | | | | | PID | 8 | | | | | | | 0 | | |
| | | | | | | | | | | | | | | | Borehole terminated at 9.2m |

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| Plant: | Commachio 305 | Remarks: 1: Groundwater at 6.7m depth upon completion of drilling. Rose to 5.8m depth after 20 mins monitoring. 2. Installed from ground level to 1.0m depth with plain pipe, 1.0m to 8.0m with slotted standpipe, with bentonite seal from 8.0m to base of hole and around plain pipe. Obstruction encountered in pit at 0.9m, position moved - 1.5hrs dayworks 4. Other Standing time/dayworks - 50mins |
| Client: | Heyford Park LLP | |
| Driller: | Taylor/Gidman | |
| Engineer: | M Williams | |



Borehole Number BHNSA 10 Job No: P8219J107

Site: Upper Heyford NSA, Oxfordshire

Date: 21/10/2011

ROTARY DRILLING LOG

| Depth (m) | Sample | | Core Length Recovered | Depth of Casing | Test | | Seat Drive | | Test Drive | | | | PID Reading | Legend | Description |
|-----------|-----------|-------|-----------------------|-----------------|------|-------|------------|----|------------|----|----|----|-------------|--------|---|
| | Depth (m) | Type | | | Type | Depth | 75 | 75 | 75 | 75 | 75 | 75 | | | |
| 0.05 | | | open hole | | | | | | | | | | | | TURF |
| | 0.50 | D | | | PID | 0.5 | | | | | | | 0 | | MADE GROUND - Brown sandy gravel. Gravel is of concrete and limestone with occasional fragments of brick and tarmac |
| 0.90 | | | | | | | | | | | | | | | |
| 1.20 | 1.00 | D + B | | 1.0 | PID | 1 | | | | | | | 0 | | Yellow/white sandy GRAVEL. Gravel is angular to subangular of limestone |
| | | | | | SPT | 1.2 | 25 | | 50/50 | | | | | | |
| | | | | | PID | 1.4 | | | | | | | 0 | | Pale grey to pale yellow slightly sandy LIMESTONE |
| 1.80 | | | | 1.0 | | | | | | | | | | | |
| | | | | | PID | 2 | | | | | | | 0 | | Pale grey LIMESTONE |
| 2.70 | | | | 1.0 | | | | | | | | | | | |
| 3.10 | 2.80 | D | | 3.0 | PID | 2.8 | | | | | | | 2.3 | | Yellow/brown fine silty slightly clayey SAND with faint hydrocarbon odour |
| 3.30 | | | | 3.0 | | | | | | | | | | | Poor return - Silty grey CLAY |
| 3.70 | 3.40 | D | | 3.0 | PID | 3.4 | | | | | | | 0 | | Pale grey SILTSTONE |
| 3.90 | | | | 3.0 | | | | | | | | | | | Pale yellow SILTSTONE |
| | | | | | PID | 4 | | | | | | | 0 | | Pale grey SILTSTONE with occasional thin bands of pale yellow/brown SILTSTONE |
| 6.60 | | | | 3.0 | | | | | | | | | | | |
| 6.80 | | | | 3.0 | | | | | | | | | | | Pale yellow SILTSTONE |
| | | | | | PID | 7 | | | | | | | 0 | | Pale grey SILTSTONE containing occasional harder layers of slightly calcareous SILTSTONE |
| 7.80 | | | | 3.0 | | | | | | | | | | | |
| | | | | | PID | 8 | | | | | | | 0 | | Dark grey hard silty CLAY/fine grained SILTSTONE |
| 10.00 | | | | 3.0 | | | | | | | | | | | |

| | | |
|------------------|------------------|--|
| Plant: | Commachio 305 | Remarks: 1: Groundwater at 4.3m depth upon completion of drilling. Rose to 4.1m depth after 30 mins monitoring. 2. Borehole installed with plain pipe from ground level to 1.0m depth, with slotted standpipe from 1.0m to 9.0m depth, with bentonite seal to base of hole and around plain pipe. 3. Standing time/dayworks - 50mins |
| Client: | Heyford Park LLP | |
| Driller: | Taylor/Gidman | |
| Engineer: | M Williams | |



ROTARY DRILLING LOG

Borehole Number: BHNSA 11 Job No: P8219J107
 Site: Upper Heyford NSA, Oxfordshire
 Date: 21/10/2011

| Depth (m) | Sample | | Core Length Recovered | Depth of Casing | Test | | Seat Drive | | Test Drive | | | | PID Reading | Legend | Description | |
|-----------|-----------|------|-----------------------|-----------------|------|-------|------------|----|------------|----|----|----|-------------|--------|-------------|----|
| | Depth (m) | Type | | | Type | Depth | 75 | 75 | 75 | 75 | 75 | 75 | | | | 75 |
| 0.10 | | | | | | | | | | | | | | | | |
| | 0.50 | D | | | PID | 0.5 | | | | | | | 0 | | | |
| 0.90 | | | | | | | | | | | | | | | | |
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Plant: Commachio 305
Client: Heyford Park LLP
Driller: Taylor/Gidman
Engineer: M Williams

Remarks:
 1: Hand dug pit terminated at 0.9m on concrete obstruction and borehole moved due to concerns of possible buried services

Jomas Associates Ltd - Highbridge Industrial Estate, Oxford Road, Uxbridge, UBB 1 HR
 T: 01895 77 2187 E: info@jomasassociates.com W: www.jomasassociates.com



ROTARY DRILLING LOG

Borehole Number BHNSA 11A **Job No:** P8219J107

Site: Upper Heyford NSA, Oxfordshire

Date: 24/10/2011

| Depth (m) | Sample | | Core Length Recovered | Depth of Casing | Test | | Seat Drive | | Test Drive | | | | PID Reading | Legend | Description |
|-----------|-----------|------|-----------------------|-----------------|------|-------|------------|----|------------|--------|----|----|-------------|--------|---|
| | Depth (m) | Type | | | Type | Depth | 75 | 75 | 75 | 75 | 75 | 75 | | | |
| | | | open hole | | | | | | | | | | | | Borehole undertaken through base of trial pit TPNSA 217 |
| 1.40 | | | | | SPT | 1.4 | 10 | 15 | 37 | 13//10 | | | | | |
| 1.80 | | | | | PID | 1.5 | | | | | | 0 | | | Pale yellow LIMESTONE |
| 2.40 | | | | | | | | | | | | | | | Pale grey LIMESTONE |
| 2.70 | | | | 3.0 | PID | 2.5 | | | | | | 0 | | | Brown silty slightly sandy CLAY |
| 3.30 | | | | 3.0 | | | | | | | | | | | Grey silty CLAY |
| 3.70 | | | | 3.0 | PID | 3.5 | | | | | | 0 | | | Pale grey LIMESTONE |
| 3.90 | | | | 3.0 | | | | | | | | | | | Pale yellow LIMESTONE |
| 4.10 | | | | 3.0 | | | | | | | | | | | Pale grey to pale yellow LIMESTONE |
| 5.90 | | | | 3.0 | PID | 4.5 | | | | | | 0 | | | Pale grey to dark grey SILTSTONE |
| 6.10 | | | | 3.0 | PID | 6 | | | | | | 0 | | | Dark grey to black MUDSTONE in places slightly calcareous |
| 8.10 | | | | 3.0 | PID | 7 | | | | | | 0 | | | Pale grey silty MUDSTONE |
| 10.00 | | | | 3.0 | PID | 8.5 | | | | | | 0 | | | Grey silty MUDSTONE |
| | | | | | | | | | | | | | | | Borehole terminated at 10.0m |

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|------------------|------------------|---|
| Plant: | Commachio 305 | Remarks: 1: Groundwater at 5.6m depth upon completion of drilling, rose to 5.4m depth after 20 minutes monitoring. 2. Installed from ground level to 1.0m depth with plain pipe (bentonite seal to base of former trial pit at 1.4m depth), slotted standpipe from 1.0m to 8.0m depth, bentonite seal from 8.0m depth to base of borehole and around plain pipe. |
| Client: | Heyford Park LLP | |
| Driller: | Taylor/Gidman | |
| Engineer: | M Williams | |



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|------------------------|--------------------------------|----------------|-----------|
| Borehole Number | BHNSA 12 | Job No: | P8219J107 |
| Site: | Upper Heyford NSA, Oxfordshire | | |
| Date: | 19/10/2011 | | |

ROTARY DRILLING LOG

| Depth (m) | Sample | | Core Length Recovered | Depth of Casing | Test | | Seat Drive | | Test Drive | | | PID Reading | Legend | Description | |
|-----------|-----------|-------|---------------------------|-----------------|------|-------|------------|----|------------|----|----|-------------|--------|--|--|
| | Depth (m) | Type | | | Type | Depth | 75 | 75 | 75 | 75 | 75 | | | | 75 |
| 1.20 | 0.5 | D | PWF Liner 1.20-2.50m | | PID | 0.5 | | | | | | | 0 | MADE GROUND - Brown sandy slightly clayey gravel. Gravel is of brick, concrete and limestone with occasional fragments of tarmac | |
| | 1.0 | D + B | | | PID | 1 | | | | | | | | | 0 |
| | | C | | | SPT | 1.2 | 3 | 4 | 4 | 9 | 18 | 19 | | | |
| 3.30 | | | (1.50m core) | 5.0m | PID | 2 | | | | | | | 0 | Poor recovery - Yellow to pale grey sandy LIMESTONE. Limestone is weak and | |
| | | | 2.70-5.70m (3.0m core) | | PID | 3 | | | | | | | | | 0 |
| 4.70 | | | | | PID | 3.5 | | | | | | | 0 | Pale grey fine grained calcareous LIMESTONE with frequent shell fragments and occasional coarser grained dark grey layers | |
| 5.30 | | | | | PID | 4.8 | | | | | | | 0 | Pale grey silty MUDSTONE | |
| 5.70 | | | 5.70-8.70m | 5.0m | PID | 5.4 | | | | | | | 0 | Pale grey medium to coarse grained slightly sandy SILTSTONE containing occasional shell fragments | |
| 6.60 | | | (3.4m core) | | PID | 5.8 | | | | | | | | 0 | Poor recovery - cobbles of pale grey slightly sandy weak SILTSTONE |
| 7.50 | | | | | PID | 6.7 | | | | | | | 0 | Pale grey fine grained SILTSTONE | |
| 7.80 | | | | | PID | 7.6 | | | | | | | 0 | Pale grey slightly silty MUDSTONE | |
| 8.40 | | | | | PID | 7.9 | | | | | | | 0 | Dark grey shelly SILTSTONE | |
| 8.70 | | | 8.70-11.7m | 5.0m | PID | 8.5 | | | | | | | 0 | Dark grey silty MUDSTONE | |
| 9.30 | | | (2.4m core) | | | | | | | | | | | | No Recovery |
| 9.60 | | | | | PID | 9.4 | | | | | | | 0 | Dark grey coarse grained slightly sandy SILTSTONE containing occasional shell fragments | |
| 11.10 | | | | | PID | 9.7 | | | | | | | 0 | Dark grey silty MUDSTONE | |
| 11.80 | | | 11.7-14.7m | 5.0m | PID | 11.2 | | | | | | | 0 | Pale grey fine grained SILTSTONE | |
| 13.10 | | | (3.0m core) | | PID | 11.9 | | | | | | | | 0 | Dark grey silty MUDSTONE with occasional shell fragments |
| 17.90 | | | 14.7-17.7m | 5.0m | PID | 13.2 | | | | | | | 0 | Pale grey to dark grey fine to coarse grained SILTSTONE containing occasional shell fragments where coarse grained | |
| | | | (3.0m core) | | PID | 14.5 | | | | | | | | | 0 |
| 18.30 | | | 17.7-20.7m | 5.0m | | | | | | | | | | Dark grey coarse grained calcareous SANDSTONE | |
| | | | (3.0m core) | | PID | 18 | | | | | | | | | 0 |
| 19.20 | | | | | PID | 18.4 | | | | | | | 0 | Dark grey silty MUDSTONE | |
| 20.70 | | | 20.7-23.7m | 5.0m | PID | 19.4 | | | | | | | 0 | Pale grey fine grained SILTSTONE | |
| 22.50 | | | (3.0m core) | | PID | 21 | | | | | | | | 0 | Dark grey silty MUDSTONE |
| 29.70 | | | 23.7-26.7m | 5.0m | PID | 22.6 | | | | | | | 0 | Poor recovery - Dark grey silty SAND | |
| | | | (3.0m core) | | | | | | | | | | | | |
| | | | 26.7-29.7m | 5.0m | | | | | | | | | | | |
| | | | (3.0m core) | | | | | | | | | | | | |

Borehole terminated at 29.7m

| | | |
|------------------|------------------|---|
| Plant: | Commachio 305 | Remarks: 1: Groundwater at 17.1m upon completion of drilling, rose to 15.6 after 20 mins. 2. Borehole installed with plain pipe from ground level to 22.7m depth, slotted standpipe from 22.7m to 29.2m depth with bentonite seal to base of hole and around plain pipe. 3. Standing time/dayworks - 30mins |
| Client: | Heyford Park LLP | |
| Driller: | Taylor/Gidman | |
| Engineer: | M Williams | |



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|------------------------|--------------------------------|----------------|-----------|
| Borehole Number | BHNSA 13 | Job No: | P8219J107 |
| Site: | Upper Heyford NSA, Oxfordshire | | |
| Date: | 11/10/2011 | | |

ROTARY DRILLING LOG

| Depth (m) | Sample | | Core Length Recovered | Depth of Casing | Test | | Seat Drive | | Test Drive | | | | | PID Reading | Legend | Description |
|-----------|-----------|-------|------------------------|-----------------|------|-------|------------|----|------------|-------|----|----|----|-------------|--------|--|
| | Depth (m) | Type | | | Type | Depth | 75 | 75 | 75 | 75 | 75 | 75 | 75 | | | |
| 0.05 | | | PWF Liner | | | | | | | | | | | | | TURF |
| 0.90 | 0.5 | D | | | PID | 0.5 | | | | | | | | 0 | | Brown sandy clayey GRAVEL. Gravel is angular to subangular of limestone |
| 1.80 | 1 | D + B | 1.20-2.70m (1.4m core) | | PID | 1 | | | | | | | | 0 | | Pale yellow sandy GRAVEL. Gravel is angular of Limestone |
| | | | | | SPT | 1.2 | 2 | 4 | 26 | 24/40 | | | | | | |
| 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 occasional |
| 3.80 | | | | | PID | 3.6 | | | | | | | | 0 | | Dark grey fine to medium grained LIMESTONE with frequent shell fragments |
| 4.50 | | | 4.20-7.20m (3.0m core) | | PID | 3.8 | | | | | | | | 0 | | Pale yellow coarse grained LIMESTONE with occasional bands of finer grained dark grey LIMESTONE |
| 4.60 | | | | | PID | 4.5 | | | | | | | | 0 | | Dark grey coarse grained LIMESTONE |
| 5.20 | | | | | PID | 5 | | | | | | | | 0 | | Pale grey silty MUDSTONE with shell bands |
| 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 coarser grained grey LIMESTONE |
| 6.70 | | | | | PID | 6.4 | | | | | | | | 0 | | Pale grey, clayey slightly silty MUDSTONE |
| 7.10 | | | | | PID | 6.7 | | | | | | | | 0 | | Dark grey coarse grained LIMESTONE |
| 7.50 | | | 7.20-10.2m (2.8m core) | 5.0m | | | | | | | | | | | | Dark grey coarse grained LIMESTONE containing shell fragments |
| 7.70 | | | | | | | | | | | | | | | | Pale grey MUDSTONE |
| 9.20 | | | | | PID | 7.7 | | | | | | | | 0 | | Dark grey slightly silty MUDSTONE |
| 10.40 | | | 10.2-13.2m (3.0m core) | | PID | 9.2 | | | | | | | | 0 | | Pale grey fine to medium grained LIMESTONE |
| 11.40 | | | | | PID | 10.4 | | | | | | | | 0 | | Dark grey silty MUDSTONE |
| 15.60 | | | 13.2-16.2m (3.0m core) | | PID | 11.4 | | | | | | | | 0 | | Dark grey to pale grey coarse grained slightly sandy LIMESTONE with occasional shell fragments |
| | | | | | PID | 14.2 | | | | | | | | 0 | | |
| 16.30 | | | 16.2-19.2m (3.0m core) | | PID | 15.6 | | | | | | | | 0 | | Dark grey slightly clayey SILTSTONE |
| 17.30 | | | | | PID | 16.3 | | | | | | | | 0 | | Pale grey LIMESTONE with frequent shell fragments |
| 17.70 | | | | | PID | 17.3 | | | | | | | | 0 | | Dark grey SILTSTONE |
| 18.10 | | | | | PID | 17.7 | | | | | | | | 0 | | Dark grey coarse grained shelly LIMESTONE |
| 21.20 | | | 19.2-21.2m (2.6m core) | | PID | 18.1 | | | | | | | | 0 | | Dark grey coarse grained shelly SILTSTONE |
| | | | 21.2-24.2m (0.5m core) | | PID | 21.4 | | | | | | | | 0 | | Pale grey coarse SAND - v poor recovery |
| | | | 24.2-27.2m (1.6m core) | | PID | 24 | | | | | | | | 0 | | |
| | | | | | SPT | 24.2 | 10 | 15 | 50/40 | | | | | | | |
| 29.40 | | | 27.2-30m (2.5m core) | | | | | | | | | | | | | |
| 30.00 | | | | | PID | 29.4 | | | | | | | | 0 | | Dark grey SILTSTONE |

Borehole terminated at 30m

| | | | |
|------------------|------------------|-----------------|---|
| Plant: | Commachio 305 | Remarks: | 1: Groundwater strike at 24m depth. Rose to 17m depth after 20 mins monitoring. |
| Client: | Heyford Park LLP | | 2. Borehole installed with plain pipe from ground level to 21m depth with plain pipe, from 21m to 29m with slotted standpipe with bentonite seal to base of hole and around plain pipe. |
| Driller: | Taylor/Gidman | | 3. Standing time/dayworks - 30mins |
| Engineer: | M Williams | | |



Borehole Number BHNSA 14 Job No: P8219J107

Site: Upper Heyford NSA, Oxfordshire

Date: 14/10/2011

ROTARY DRILLING LOG

| Depth (m) | Sample | | Core Length Recovered | Depth of Casing | Test | | Seat Drive | | Test Drive | | | | PID Reading | Legend | Description |
|-----------|-----------|------|-----------------------|-----------------|------|-------|------------|----|------------|----|----|----|-------------|--------|---|
| | Depth (m) | Type | | | Type | Depth | 75 | 75 | 75 | 75 | 75 | 75 | | | |
| 0.10 | | | | | | | | | | | | | | | |
| | 0.50 | D | | | PID | 0.5 | | | | | | | 0 | | MADE GROUND - brown/grey sandy gravel. Gravel is of limestone and concrete with occasional fragments of brick |
| | | | | | | | | | | | | | | | |
| 0.90 | | | | | | | | | | | | | | | |
| 1.10 | | | | | | | | | | | | | | | Pea gravel surround over possible buried service encountered at 1.1m depth - end hole |
| | | | | | | | | | | | | | | | |

| | | |
|------------------|------------------|---|
| Plant: | Commachio 305 | Remarks: 1: Hand dug pit terminated at 1.1m on possible buried service/obstruction - borehole moved |
| Client: | Heyford Park LLP | |
| Driller: | Taylor/Gidman | |
| Engineer: | M Williams | |



ROTARY DRILLING LOG

| | | | |
|------------------------|--------------------------------|----------------|-----------|
| Borehole Number | BHNSA 14A | Job No: | P8219J107 |
| Site: | Upper Heyford NSA, Oxfordshire | | |
| Date: | 14/10/2011 | | |

| Depth (m) | Sample | | Core Length Recovered | Depth of Casing | Test | | Seat Drive | | Test Drive | | | | PID Reading | Legend | Description |
|-----------|-----------|------|-----------------------|-----------------|------|-------|------------|----|------------|----|----|----|-------------|--------|---|
| | Depth (m) | Type | | | Type | Depth | 75 | 75 | 75 | 75 | 75 | 75 | | | |
| 0.10 | | | | | | | | | | | | | | | TURF |
| | 0.50 | D | | | PID | 0.5 | | | | | | 0 | | | MADE GROUND - brown/grey sandy gravel. Gravel is of limestone and concrete with occasional fragments of brick |
| 0.90 | | | | | | | | | | | | | | | Pea gravel surround over possible buried service encountered at 1.1m depth - end hole |

| | |
|------------------|------------------|
| Plant: | Commachio 305 |
| Client: | Heyford Park LLP |
| Driller: | Taylor/Gidman |
| Engineer: | M Williams |

Remarks:
1: Hand dug pit terminated at 0.9m on possible buried service/ cable - borehole moved



| | | | |
|------------------------|-----------|--------------------------------|-----------|
| Borehole Number | BHNSA 14B | Job No: | P8219J107 |
| Site: | | Upper Heyford NSA, Oxfordshire | |
| Date: | | 14/10/2011 | |

ROTARY DRILLING LOG

| Depth (m) | Sample | | Core Length Recovered | Depth of Casing | Test | | Seat Drive | | Test Drive | | | | PID Reading | Legend | Description |
|-----------|-----------|------|-----------------------|-----------------|------|-------|------------|----|------------|----|----|----|-------------|--------|---|
| | Depth (m) | Type | | | Type | Depth | 75 | 75 | 75 | 75 | 75 | 75 | | | |
| 0.10 | | | | | | | | | | | | | | | TURF |
| | | | | | | | | | | | | | | | MADE GROUND - brown/grey sandy gravel. Gravel is of limestone and concrete with occasional fragments of brick |
| | | | | | PID | 0.5 | | | | | | | 0 | | |
| 0.80 | | | | | | | | | | | | | | | Pea gravel surround over possible buried service - end hole |
| | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |

| | | |
|------------------|------------------|---|
| Plant: | Commachio 305 | Remarks: 1: Hand dug pit terminated at 0.8m on possible buried service/cable - borehole moved |
| Client: | Heyford Park LLP | |
| Driller: | Taylor/Gidman | |
| Engineer: | M Williams | |



| | | | |
|------------------------|--------------------------------|----------------|-----------|
| Borehole Number | BHNSA 14 | Job No: | P8219J107 |
| Site: | Upper Heyford NSA, Oxfordshire | | |
| Date: | 20/10/2011 | | |

ROTARY DRILLING LOG

| Depth (m) | Sample | | Core Length Recovered | Depth of Casing | Test | | Seat Drive | | Test Drive | | | | | PID Reading | Legend | Description |
|-----------|-----------|-------|---------------------------|-----------------|------|-------|------------|----|------------|----|----|----|--|-------------|--|--|
| | Depth (m) | Type | | | Type | Depth | 75 | 75 | 75 | 75 | 75 | 75 | | | | |
| 0.05 | | | PWF Liner | | | | | | | | | | | | | TURF |
| 0.30 | | | | | | | | | | | | | | | | MADE GROUND - Brown sandy gravel. Gravel is of concrete and limestone with occasional fragments of brick |
| 1.20 | 0.5 | D | 1.20-2.70m (1.1m core) | 1.0m | PID | 0.5 | | | | | | | | 0 | Brown/grey sandy GRAVEL. Gravel is angular to subangular of limestone | |
| | 1 | D + B | | | PID | 1 | | | | | | | | | | 0 |
| | | C | | | SPT | 1.2 | 12 | 13 | 29 | 21 | | | | | | |
| 2.00 | | | | | PID | 1.5 | | | | | | | | 0 | Poor recovery - Pale yellow LIMESTONE present as weathered cobbles with a yellow interstitial sand | |
| 3.00 | | | 2.70-4.70m (2.0m core) | 4.0m | PID | 2.2 | | | | | | | | 0 | Yellow to pale grey fine grained LIMESTONE with occasional fragments of shell | |
| 4.40 | | | | | PID | 3.4 | | | | | | | | 0 | Pale grey fine grained LIMESTONE with occasional fragments of shell | |
| 4.70 | | | 4.70-7.70m (2.5m core) | 4.0m | PID | 4.5 | | | | | | | | 0 | Dark grey silty MUDSTONE | |
| 5.20 | | | | | PID | 4.8 | | | | | | | | 0 | Pale grey slightly sandy SILTSTONE containing occasional shell fragments | |
| 6.90 | | | | | PID | 5.3 | | | | | | | | 0 | Dark grey silty MUDSTONE | |
| | | | | | PID | 6.3 | | | | | | | | 0 | | |
| 7.70 | | | 7.70-10.7m (3.0m core) | 5.0m | PID | 7.2 | | | | | | | | 0 | Pale grey SILTSTONE | |
| 8.90 | | | | | PID | 8.2 | | | | | | | | 0 | Dark grey silty MUDSTONE containing occasional shells | |
| 10.70 | | | 10.7-13.7m (3.0m core) | 5.0m | PID | 9.2 | | | | | | | | 0 | Dark grey sandy SILTSTONE containing occasional shell fragments | |
| | | | | | PID | 10.8 | | | | | | | | 0 | Pale grey coarse grained calcareous SANDSTONE, occasionally fractured and containing shell fragments | |
| 13.70 | | | 13.7-16.7m (3.0m core) | 5.0m | PID | 11.8 | | | | | | | | 0 | | |
| | | | | | PID | 12.8 | | | | | | | | 0 | | |
| 14.20 | | | | | PID | 13.8 | | | | | | | | 0 | Poor recovery - Pale grey silty MUDSTONE | |
| 16.40 | | | | | PID | 14.8 | | | | | | | | 0 | Pale grey to dark grey SILTSTONE, occasionally coarse grained and calcareous containing frequent shell fragments | |
| | | | | | PID | 15.8 | | | | | | | | 0 | | |
| 17.30 | | | 16.7-19.7m (3.0m core) | 5.0m | PID | 16.8 | | | | | | | | 0 | Dark grey silty MUDSTONE | |
| 19.10 | | | | | PID | 17.8 | | | | | | | | 0 | Dark grey slightly sandy SILTSTONE containing occasional shell fragments | |
| | | | | | PID | 18.8 | | | | | | | | 0 | | |
| 23.60 | | | 19.7-22.7m (2.5m core) | 5.0m | PID | 20 | | | | | | | | 0 | Dark grey slightly clayey loosely cemented silty SANDSTONE | |
| | | | | | PID | 21 | | | | | | | | 0 | | |
| | | | | | PID | 22 | | | | | | | | 0 | | |
| 25.30 | | | 22.7-25.7m (2.6m core) | 5.0m | PID | 23 | | | | | | | | 0 | Becomes dark grey coarse grained calcareous SANDSTONE containing occasional shell fragments. Often weakly cemented and containing occasional thin bands of dark grey SILTSTONE | |
| 25.70 | | | 25.7-27.7m (2.0m core) | 5.0m | PID | 25.4 | | | | | | | | 0 | Dark grey to pale grey weakly cemented silty SANDSTONE | |
| 26.70 | | | | | | | | | | | | | | | No recovery | |
| 27.10 | | | | | PID | 26.8 | | | | | | | | 0 | Dark grey silty SANDSTONE weakly cemented and interbedded with thin bands of dark grey SILTSTONE | |
| 29.00 | | | 27.7-29.0m (0.5m core) | 5.0m | PID | 27.4 | | | | | | | | 0 | Dark grey SILTSTONE | |

Borehole terminated at 29m

| | | |
|------------------|------------------|---|
| Plant: | Commachio 305 | Remarks: 1. Water strike within weak sandstone (exact depth uncertain), rose to 14m after 30 mins monitoring. 2. Borehole installed from ground level to 19m depth with plain pipe, from 19m to 28m depth with slotted standpipe, with bentonite seal to base of hole at 29m depth and around plain pipe. 3. Pit moved twice on encountering obstruction. 4. Other Standing time/dayworks - 70mins |
| Client: | Heyford Park LLP | |
| Driller: | Taylor/Gidman | |
| Engineer: | M Williams | |



Borehole Number BHNSA 15 Job No: P8219J107

Site: Upper Heyford NSA, Oxfordshire

Date: 14/10/2011

ROTARY DRILLING LOG

| Depth (m) | Sample | | Core Length Recovered | Depth of Casing | Test | | Seat Drive | | Test Drive | | | | PID Reading | Legend | Description |
|-----------|-----------|------|-----------------------|-----------------|------|-------|------------|----|------------|----|----|----|-------------|--------|--|
| | Depth (m) | Type | | | Type | Depth | 75 | 75 | 75 | 75 | 75 | 75 | | | |
| 0.05 | | | PWF Liner | | | | | | | | | | | | TURF |
| 0.80 | 0.50 | D | | | PID | 0.5 | | | | | | | 0 | | MADE GROUND - yellow/brown/orange sandy gravel. Gravel is of limestone, concrete and brick |
| 1.30 | 1.00 | B | | | PID | 1 | | | | | | | 0 | | Brown sandy slightly clayey GRAVEL. Gravel is angular to subangular of limestone |
| 1.80 | 1.50 | D | | | SPT | 1.2 | 2 | 2 | 3 | 2 | 3 | 3 | | | |
| 1.80 | | | | | PID | 1.5 | | | | | | | 0 | | Yellow/white gravelly CLAY. Gravel is angular to subangular of limestone |
| 3.80 | | C | 2.0-3.0m (0.5m core) | 1.5m | SPT | 2 | 25//10 | | 50//25 | | | | | | Pale grey medium grained LIMESTONE |
| 3.80 | | C | 3.0-4.5m (1.5m core) | 3.0m | PID | 2.5 | | | | | | | 0 | | |
| 4.30 | | | | | | | | | | | | | | | Dark grey coarse grained shelly LIMESTONE |
| 8.70 | | C | 4.5-5.5m (1.5m core) | 3.0m | PID | 4.5 | | | | | | | 0 | | Dark grey silty MUDSTONE |
| 8.70 | | C | 5.5-7.0m (1.5m core) | 3.0m | PID | 5.5 | | | | | | | 0 | | |
| 8.70 | | C | 7.0-8.5m (0.5m core) | 3.0m | PID | 6.5 | | | | | | | 0 | | |
| 8.70 | | C | 8.5-9.0m (1.5m core) | 3.0m | PID | 7.5 | | | | | | | 0 | | |
| 10.00 | | C | 9.0-10.0m (1.0m core) | 3.0m | PID | 8.5 | | | | | | | 0 | | Dark grey coarse grained LIMESTONE with occasional shelly bands |
| 10.00 | | | | | PID | 9 | | | | | | | 0 | | Borehole terminated at 10.0m |

| | | |
|------------------|------------------|---|
| Plant: | Commachio 305 | Remarks: 1: Groundwater at 6.5m depth upon completion of drilling, 3.9m depth after 20 minutes monitoring. 2. Borehole installed from ground level to 1.0m depth with plain pipe, from 1.0m to 8.0m with slotted standpipe with bentonite seal to base of hole and around plain pipe. 3. Pit moved on encountering obstruction. 4. Other Standing time/dayworks - 1hr 40mins |
| Client: | Heyford Park LLP | |
| Driller: | Taylor/Gidman | |
| Engineer: | M Williams | |



| | | | |
|------------------------|--------------------------------|----------------|-----------|
| Borehole Number | BHNSA 16 | Job No: | P8219J107 |
| Site: | Upper Heyford NSA, Oxfordshire | | |
| Date: | 18/10/2011 | | |

ROTARY DRILLING LOG

| Depth (m) | Sample | | Core Length Recovered | Depth of Casing | Test | | Seat Drive | | Test Drive | | | | | PID Reading | Legend | Description |
|-----------|-----------|-------|---------------------------|-----------------|------|-------|------------|----|------------|----|----|----|--|--------------------------|---|-------------|
| | Depth (m) | Type | | | Type | Depth | 75 | 75 | 75 | 75 | 75 | 75 | | | | |
| 0.5 | 1.20 | D | 1.20-2.70m (1.5m core) | 4.0m | PID | 0.5 | | | | | | | | 0 | MADE GROUND - Brown sandy slightly clayey gravel. Gravel is of limestone, brick, concrete and tarmac | |
| | | D + B | | | PID | 1 | | | | | | | | 0 | | |
| | | C | | | SPT | 1.2 | 25 | | 50/45 | | | | | | | |
| 1.80 | | | | | PID | 1.6 | | | | | | | | 0 | Poor recovery - subangular to angular cobbles of pale grey crystalline limestone | |
| 3.80 | 4.10 | C | 2.70-5.70m (3.0m core) | 4.0m | PID | 2 | | | | | | | | 0 | Yellow/pale grey weakly cemented coarse grained SANDSTONE containing occasional shell fragments | |
| | | | | | PID | 3 | | | | | | | | 0 | | |
| | | | | | PID | 4 | | | | | | | | | | 0 |
| 5.80 | 7.00 | C | 5.70-8.70m (3.0m core) | 4.0m | PID | 4.2 | | | | | | | | 0 | Dark grey medium to coarse grained LIMESTONE with occasional fissures containing yellow/brown interstitial sand and with occasional bands of shells | |
| | | | | | PID | 6 | | | | | | | | 0 | | |
| | | | | | PID | 7.1 | | | | | | | | | | 0 |
| 7.60 | 8.50 | C | 8.70-11.7m (3.0m core) | 4.0m | PID | 7.8 | | | | | | | | 0 | Pale grey silty MUDSTONE | |
| | | | | | PID | 8.6 | | | | | | | | 0 | | |
| | | | | | PID | 10.6 | | | | | | | | | | 0 |
| 10.50 | 11.70 | C | 11.7-14.7m (3.0m core) | 4.0m | PID | 11.8 | | | | | | | | 5.1 | Black silty MUDSTONE containing shell fragments with an organic odour | |
| | | | | | PID | 12.6 | | | | | | | | 0 | | |
| | | | | | PID | 13 | | | | | | | | | | 0 |
| 12.90 | 13.20 | C | 14.7-17.7m (3.0m core) | 4.0m | PID | 13.3 | | | | | | | | 0 | Dark grey medium to coarse grained SILTSTONE containing occasional fragments of shell | |
| | | | | | PID | 13.5 | | | | | | | | 0 | | |
| | | | | | PID | 15 | | | | | | | | | | 0 |
| 13.40 | 22.70 | C | 17.7-19.7m (1.5m core) | 4.0m | PID | 16 | | | | | | | | 0 | Pale grey coarse grained SILTSTONE containing a large amount of shell fragments | |
| | | | | | PID | 17 | | | | | | | | 0 | | |
| | | | | | PID | 18.5 | | | | | | | | | | 0 |
| 22.70 | 27.20 | C | 19.7-22.7m (3.0m core) | 4.0m | PID | 20 | | | | | | | | 0 | Pale grey fine to medium grained SILTSTONE occasionally becoming coarser grained with shell fragments | |
| | | | | | PID | 21.5 | | | | | | | | 0 | | |
| | | | | | PID | 22.8 | | | | | | | | | | 0 |
| 27.20 | 28.70 | C | 22.7-25.7m (3.0m core) | 4.0m | PID | 24 | | | | | | | | 0 | Dark grey silty SAND | |
| | | | | | PID | 26 | | | | | | | | 0 | | |
| | | | | | PID | 27.3 | | | | | | | | | | 0 |
| 28.70 | | | | | | | | | | | | | | Dark grey silty MUDSTONE | | |

Borehole terminated at 28.7m

| | | |
|------------------|------------------|--|
| Plant: | Commachio 305 | Remarks: 1: Groundwater at 19.1m upon completion, rising to 17.8m after 20 mins. 2. Borehole installed from ground level to 22.7m depth with plain pipe, from 22.7m to base of hole (28.7) with slotted standpipe and with bentonite seal around plain pipe. Standing time/dayworks - 30mins |
| Client: | Heyford Park LLP | |
| Driller: | Taylor/Gidman | |
| Engineer: | M Williams | |



Borehole Number BHNSA 17 **Job No:** P8219J107

Site: Upper Heyford NSA, Oxfordshire

Date: 26/10/2011

ROTARY DRILLING LOG

| Depth (m) | Sample | | Core Length Recovered | Depth of Casing | Test | | Seat Drive | | Test Drive | | | | PID Reading | Legend | Description |
|-----------|-----------|------|-----------------------|-----------------|------|-------|------------|----|------------|----|----|----|-------------|--------|--|
| | Depth (m) | Type | | | Type | Depth | 75 | 75 | 75 | 75 | 75 | 75 | | | |
| 0.10 | | | open hole | | | | | | | | | | | | TARMAC |
| 0.30 | | | | | | | | | | | | | | | Sub-base of crushed concrete gravel |
| 0.50 | D | | | | PID | 0.5 | | | | | | | 0 | | Yellow/grey/cream sandy GRAVEL. Gravel is angular to subangular of limestone |
| | | | | | | | | | | | | | | | |
| | | | | | PID | 1 | | | | | | | 0 | | |
| | | | | | | | | | | | | | | | |
| 2.70 | | | | 3.0m | PID | 2 | | | | | | | 0 | | |
| | | | | | | | | | | | | | | | |
| | | | | | PID | 3 | | | | | | | 0 | | Yellow/brown silty SAND |
| 3.80 | | | | 3.0m | | | | | | | | | | | |
| | | | | | PID | 4 | | | | | | | 0 | | Yellow/pale grey SILTSTONE |
| 4.50 | | | | 3.0m | | | | | | | | | | | |
| | | | | | PID | 5 | | | | | | | 0 | | Yellow SILTSTONE |
| | | | | | | | | | | | | | | | |
| | | | | | 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 |

Plant: Commachio 305
Client: Heyford Park LLP
Driller: Taylor/Gidman
Engineer: M Williams

Remarks:
 1: Groundwater at 9.0m depth upon completion of drilling. Rose to 8.6m depth after 20 mins monitoring.
 2. Installed from ground level to 1.0m depth with plain pipe, 1.0m to 9.5m with slotted standpipe, with bentonite seal to base of borehole and around plain pipe.



ROTARY DRILLING LOG

Borehole Number BHNSA 18 **Job No:** P8219J107

Site: Upper Heyford NSA, Oxfordshire

Date: 25/10/2011

| Depth (m) | Sample | | Core Length Recovered | Depth of Casing | Test | | Seat Drive | | Test Drive | | | | PID Reading | Legend | Description |
|-----------|-----------|------|------------------------|-----------------|------|-------|------------|-------|------------|----|----|----|-------------|--------|---|
| | Depth (m) | Type | | | Type | Depth | 75 | 75 | 75 | 75 | 75 | 75 | | | |
| 0.10 | | | PWF Liner | | | | | | | | | | | | TURF |
| 0.50 | D | | | | PID | 0.5 | | | | | | | 0 | | Pale grey/yellow sandy GRAVEL. Gravel is angular to subangular of limestone |
| 0.80 | | | | | | | | | | | | | | | |
| 1.20 | C | | 1.20-2.70m (1.5m core) | 1.2m | PID | 1 | | | | | | | 0 | | Poor recovery - pale grey LIMESTONE present as cobbles of weathered LIMESTONE with a small amount of yellow interstitial sand |
| 1.20 | | | | | SPT | 1.2 | 25 | 50/50 | | | | | | | |
| 2.00 | | | | | PID | 2 | | | | | | | 0 | | |
| 2.20 | | | | | | | | | | | | | | | Pale grey slightly sandy LIMESTONE containing occasional shell fragments |
| 2.70 | C | | 2.70-4.20m (1.5m core) | 2.7m | PID | 2.4 | | | | | | | 0 | | Pale brown/yellow slightly silty SANDSTONE |
| 3.20 | | | | | PID | 3 | | | | | | | 0 | | Brown/yellow loosely cemented silty SAND |
| 4.00 | | | | | PID | 3.6 | | | | | | | 0 | | Pale grey/brown slightly sandy LIMESTONE containing abundant shell fragments |
| 4.00 | D | | 4.20-5.70m (1.5m core) | 3.0m | PID | 4 | | | | | | | 0 | | Pale grey/yellow sandy SILTSTONE in places fractured with joints and fractures filled with pale brown silty SAND. Slightly calcareous in places |
| 4.00 | C | | | | PID | 4.4 | | | | | | | 0 | | |
| 6.40 | C | | 5.70-7.20m (1.5m core) | 3.0m | | | | | | | | | | | |
| 6.40 | | | | | PID | 5.4 | | | | | | | 0 | | |
| 6.80 | | | | | PID | 6.6 | | | | | | | 0 | | Pale grey silty MUDSTONE |
| 7.20 | | | | | PID | 7 | | | | | | | 0 | | Pale grey to dark grey calcareous SILTSTONE with occasional shell fragments |
| 7.20 | C | | 7.20-8.70m (1.5m core) | 3.0m | | | | | | | | | | | Pale grey to dark grey silty MUDSTONE |
| 10.00 | C | | 8.70-10.0m (1.3m core) | 3.0m | PID | 8 | | | | | | | 0 | | |
| 10.00 | | | | | | | | | | | | | | | Borehole terminated at 10.0m |

| | | |
|------------------|------------------|---|
| Plant: | Commachio 305 | Remarks: 1: Groundwater at 7.1m depth upon completion of drilling. Fell to 8.3m depth after 20 mins monitoring. 2. Installed from ground level to 1.0m depth with plain pipe, 1.0m to 10m with slotted standpipe, with bentonite seal around plain pipe. 3. Standing time/dayworks - 30mins |
| Client: | Heyford Park LLP | |
| Driller: | Taylor/Gidman | |
| Engineer: | M Williams | |



Borehole Number BHNSA 19 **Job No:** P8219J107

Site: Upper Heyford NSA, Oxfordshire

Date: 27/10/2011

ROTARY DRILLING LOG

| Depth (m) | Sample | | Core Length Recovered | Depth of Casing | Test | | Seat Drive | | Test Drive | | | | PID Reading | Legend | Description |
|-----------|-----------|------|-----------------------|-----------------|------|-------|------------|----|------------|----|----|----|-------------|--------|---|
| | Depth (m) | Type | | | Type | Depth | 75 | 75 | 75 | 75 | 75 | 75 | | | |
| 0.10 | | | open hole | | | | | | | | | | | | TURF |
| 0.80 | 0.50 | D | | 1.0 | PID | 0.5 | | | | | | | 0 | | Yellow/grey sandy GRAVEL. Gravel is angular to subangular of limestone. |
| 2.90 | | | | 2.0 | PID | 1 | | | | | | | 0 | | Pale grey sandy LIMESTONE |
| | | | | | SPT | 1.2 | 25/40 | | 50/15 | | | | | | |
| | | | | | PID | 2 | | | | | | | 0 | | |
| 3.30 | | | | 2.0 | PID | 3 | | | | | | | 0 | | Yellow/brown silty SAND |
| 5.00 | | | | 3.0 | PID | 4 | | | | | | | 0 | | Yellow SANDSTONE |
| 6.30 | | | | 3.0 | PID | 5 | | | | | | | 0 | | Yellow SILTSTONE |
| 7.00 | | | | 3.0 | PID | 6.8 | | | | | | | 0 | | Grey SILTSTONE |
| 9.30 | | | | 3.0 | PID | 8 | | | | | | | 0 | | Pale grey MUDSTONE |
| 10.00 | | | | 3.0 | PID | 9.5 | | | | | | | 0 | | Dark grey SILTSTONE |
| | | | | | | | | | | | | | | | Borehole terminated at 10.0m |

| | | |
|------------------|------------------|--|
| Plant: | Commachio 305 | Remarks: 1: Groundwater at 6.5m depth upon completion of drilling. Rose to 5.5m depth after 20 mins monitoring. 2. Installed from ground level to 1.0m depth with plain pipe, 1.0m to 9.5m with slotted standpipe, with bentonite seal to base of borehole and around plain pipe. 3. Pit moved to avoid obstruction. |
| Client: | Heyford Park LLP | |
| Driller: | Taylor/Gidman | |
| Engineer: | M Williams | |



ROTARY DRILLING LOG

Borehole Number BHNSA 20 **Job No:** P8219J107

Site: Upper Heyford NSA, Oxfordshire

Date: 25/10/2011

| Depth (m) | Sample | | Core Length Recovered | Depth of Casing | Test | | Seat Drive | | Test Drive | | | | PID Reading | Legend | Description |
|-----------|-----------|------|------------------------|-----------------|------|-------|------------|----|------------|----|----|----|-------------|--------|---|
| | Depth (m) | Type | | | Type | Depth | 75 | 75 | 75 | 75 | 75 | 75 | | | |
| 0.10 | | | PWF Liner | | | | | | | | | | | | BLOCK PAVING |
| 0.25 | | | | | | | | | | | | | | | Sub-base of crushed concrete gravel |
| 0.80 | 0.50 | D | | | PID | 0.5 | | | | | | | 0 | | Yellow/grey sandy GRAVEL. Gravel is angular to subangular of LIMESTONE |
| 2.00 | | | 1.20-2.70m (1.2m core) | 3.0m | PID | 1 | | | | | | | 0 | | Poor recovery - pale grey LIMESTONE present as cobbles of weathered LIMESTONE with a small amount of yellow interstitial sand |
| | | | | | SPT | 1.2 | 10 | 15 | 26 | 24 | | | | | |
| | | | | | PID | 2 | | | | | | | 0 | | |
| 3.00 | | | 2.70-4.20m (1.5m core) | 3.0m | PID | 2.4 | | | | | | | 0 | | Pale yellow calcareous SANDSTONE containing occasional shell fragments and fractured in places with fractures filled with yellow sand |
| 3.20 | | | | | PID | 3 | | | | | | | 0 | | Pale brown silty SANDSTONE |
| 3.90 | | | | | PID | 3.6 | | | | | | | 0 | | Brown/yellow weakly cemented silty SAND |
| 4.20 | | | 4.20-5.70m (1.5m core) | 3.0m | PID | 4 | | | | | | | 0 | | Pale grey/brown slightly sandy SILTSTONE |
| 5.00 | | | | | PID | 4.4 | | | | | | | 0 | | Pale grey/brown sandy SILTSTONE in places calcareous with occasional shell fragments |
| 5.80 | | | 5.70-7.20m (1.4m core) | 3.0m | PID | 5.4 | | | | | | | 0 | | Pale grey silty MUDSTONE in places fractured with fractures filled with pale grey silt |
| 7.10 | | | | | PID | 6.6 | | | | | | | 0 | | Pale brown sandy SILTSTONE |
| 7.50 | | | 7.20-8.50m (1.3m core) | 3.0m | PID | 7 | | | | | | | 0 | | Pale grey silty MUDSTONE |
| 8.00 | | | | | | | | | | | | | | | Dark grey calcareous SILTSTONE containing frequent shell fragments |
| 8.50 | | | 8.5-10.0m (1.2m core) | 3.0m | PID | 8 | | | | | | | 0 | | Pale grey silty MUDSTONE |
| 8.90 | | | | | | | | | | | | | | | Dark grey calcareous SILTSTONE containing frequent shell fragments |
| 10.00 | | | | | | | | | | | | | | | Pale grey silty MUDSTONE |
| | | | | | | | | | | | | | | | Borehole terminated at 10.0m |

Plant: Commachio 305
Client: Heyford Park LLP
Driller: Taylor/Gidman
Engineer: M Williams

Remarks:
 1: Groundwater at 7.6m depth upon completion of drilling. Rose to 6.3m depth after 20 mins monitoring.
 2. Installed from ground level to 1.0m depth with plain pipe, 1.0m to 9.5m with slotted standpipe, with bentonite seal to base of borehole and around plain pipe.



ROTARY DRILLING LOG

Borehole Number BHNSA 21 **Job No:** P8219J107

Site: Upper Heyford NSA, Oxfordshire

Date: 26/10/2011

| Depth (m) | Sample | | Core Length Recovered | Depth of Casing | Test | | Seat Drive | | Test Drive | | | | PID Reading | Legend | Description |
|-----------|-----------|------|------------------------|-----------------|------|-------|------------|----|------------|----|----|----|-------------|--------|--|
| | Depth (m) | Type | | | Type | Depth | 75 | 75 | 75 | 75 | 75 | 75 | | | |
| 0.10 | | | PWF Liner | | | | | | | | | | | | TARMAC |
| 0.30 | | | | | | | | | | | | | | | Sub-base of crushed concrete gravel |
| 0.90 | 0.50 | D | | | PID | 0.5 | | | | | | | 0 | | Brown/orange sandy CLAY containing fragments to cobbles of weathered limestone |
| 2.70 | 1.00 | D | 1.20-2.70m (1.5m core) | 3.0m | PID | 1 | | | | | | | 0 | | Poor recovery - pale grey LIMESTONE present as cobbles of weathered LIMESTONE with a small amount of yellow interstitial sand |
| 3.00 | | | 2.70-4.20m (1.5m core) | 3.0m | PID | 2 | | | | | | | 0 | | |
| 3.70 | 3.40 | D | | | PID | 2.8 | | | | | | | 0 | | Brown/grey calcareous weakly cemented SANDSTONE |
| 7.40 | | | | | PID | 3.4 | | | | | | | 8.4 | | Brown weakly cemented silty SAND. Visually impacted by hydrocarbons at 3.4m depth with black staining and moderate odour |
| | | | 4.20-5.70m (1.5m core) | 3.0m | PID | 4 | | | | | | | 0 | | Pale grey/brown sandy SILSTONE interbedded with occasional thin bands of loosely cemented brown silty SAND. Occasionally fissured with fissures filled with brown silty sand |
| | | | 5.70-7.20m (1.5m core) | 3.0m | PID | 5 | | | | | | | 0 | | |
| | | | 7.20-8.70m (1.5m core) | 3.0m | PID | 6 | | | | | | | 0 | | |
| 10.00 | | | 8.70-10.0m (1m core) | 3.0m | PID | 7 | | | | | | | 0 | | Pale grey silty MUDSTONE interbedded with occasional thin bands of calcareous SILSTONE containing shell fragments |
| | | | | | PID | 8 | | | | | | | 0 | | |
| | | | | | PID | 9 | | | | | | | 0 | | |
| | | | | | | | | | | | | | | | Borehole terminated at 10.0m |

| | | |
|------------------|------------------|--|
| Plant: | Commachio 305 | Remarks: 1: Groundwater at 6.7m depth upon completion of drilling. Rose to 6.1m depth after 20 mins monitoring. 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 around plain pipe. 3. Standing time/dayworks - 30mins |
| Client: | Heyford Park LLP | |
| Driller: | Taylor/Gidman | |
| Engineer: | M Williams | |



Borehole Number BHNSA 22 **Job No:** P8219J107

Site: Upper Heyford NSA, Oxfordshire

Date: 25/10/2011

ROTARY DRILLING LOG

| Depth (m) | Sample | | Core Length Recovered | Depth of Casing | Test | | Seat Drive | | Test Drive | | | | PID Reading | Legend | Description |
|-----------|-----------|------|-----------------------|-----------------|------|-------|------------|----|------------|----|----|--------|-------------|--------|--|
| | Depth (m) | Type | | | Type | Depth | 75 | 75 | 75 | 75 | 75 | 75 | | | |
| 0.10 | | | PWF Liner | | | | | | | | | | | | TARMAC |
| 0.25 | | | | | | | | | | | | | | | Sub-base of crushed concrete gravel |
| 0.80 | 0.50 | D | | | PID | 0.5 | | | | | | | 2.1 | | Brown/grey/green sandy CLAY with faint organic odour |
| 2.00 | 1.00 | D | 1.20-2.0m (1.0m core) | 2.0m | PID | 1 | | | | | | | 1.1 | | Brown/orange slightly gravelly silty SAND |
| | | | | | SPT | 1.2 | 2 | 2 | 1 | 1 | 1 | 1 | | | |
| 2.00 | 2.00 | D | 2.0-3.50m (1.5m core) | 3.0m | PID | 2 | | | | | | | 0.9 | | |
| 5.20 | 3.50 | D | 3.50-5.0m (1.0m core) | 3.0m | SPT | 2 | 2 | 6 | 8 | 15 | 16 | 11//20 | | | Yellow/orange silty SANDSTONE weak in places and fractured. In places fractures visibly impacted by hydrocarbons with black staining and faint odour |
| | 4.00 | D | | | PID | 3 | | | | | | | 0.1 | | |
| | | | | | PID | 3.5 | | | | | | | 17.3 | | |
| | | | | | PID | 4 | | | | | | | 7.8 | | |
| 5.20 | | | 5.0-6.5m (1.5m core) | 3.0m | PID | 5 | | | | | | | 2.1 | | |
| 5.80 | | | | | PID | 5.4 | | | | | | | 0 | | Pale grey SILTSTONE in places calcarious with shell fragments |
| 8.20 | | | 6.5-8.0m (1.5m core) | 3.0m | PID | 6 | | | | | | | 0 | | Pale grey silty MUDSTONE |
| | | | | | PID | 7 | | | | | | | 0 | | |
| 8.80 | | | 8.0-9.5m (1.5m core) | 3.0m | PID | 8 | | | | | | | 0 | | Pale grey SILTSTONE |
| 9.50 | | | | | PID | 9 | | | | | | | 0 | | Pale grey silty MUDSTONE |
| | | | | | | | | | | | | | | | Borehole terminated at 9.5m |

| | | |
|------------------|------------------|--|
| Plant: | Commachio 305 | Remarks: 1: Groundwater at 9.1m depth upon completion of drilling. Rose to 8.8m depth after 20 mins monitoring. 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 around plain pipe. |
| Client: | Heyford Park LLP | |
| Driller: | Taylor/Gidman | |
| Engineer: | M Williams | |



ROTARY DRILLING LOG

Borehole Number BHNSA 37 **Job No:** P8219J107

Site: Upper Heyford NSA, Oxfordshire

Date: 10/10/2011

| Depth (m) | Sample | | Core Length Recovered | Depth of Casing | Test | | Seat Drive | | Test Drive | | | | PID Reading | Legend | Description |
|-----------|-----------|------|-----------------------|-----------------|------|-------|------------|----|------------|----|----|----|-------------|--------|---|
| | Depth (m) | Type | | | Type | Depth | 75 | 75 | 75 | 75 | 75 | 75 | | | |
| 1.40 | | | open hole | 3.0m | | | | | | | | | | | Borehole position moved at Waterman's request - borehole conducted through base of trial pit TPNSA 204A to avoid possible buried services at new location |
| 2.90 | | | | 3.0m | PID | 2 | | | | | | | 0 | | Yellow/pale grey slightly sandy LIMESTONE |
| 3.40 | | | | 3.0m | PID | 3 | | | | | | | 0 | | Yellow/grey silty MUDSTONE |
| 3.90 | | | | 3.0m | PID | 4 | | | | | | | 0 | | Pale grey/yellow LIMESTONE |
| 4.10 | | | | | | | | | | | | | | | Pale grey LIMESTONE |
| 4.20 | | | | | | | | | | | | | | | Pale grey MUDSTONE |
| 6.30 | | | | 3.0m | | | | | | | | | | | Pale grey LIMESTONE |
| 7.80 | | | | 3.0m | | | | | | | | | | | Dark grey SILTSTONE |
| 8.10 | | | | 3.0m | | | | | | | | | | | Dark grey LIMESTONE (Note - extremely hard - slow drill progress) |
| 10.00 | | | | | | | | | | | | | | | Pale grey fine grained LIMESTONE / coarse grained MUDSTONE |
| | | | | | | | | | | | | | | | Borehole terminated at 10.0m |

| | | |
|------------------|------------------|---|
| Plant: | Commachio 305 | Remarks: 1: Groundwater at 5.2m depth upon completion of drilling, 4.5m depth after 20 minutes monitoring. 2. Borehole installed from ground level to 1.5m depth with plain pipe, from 1.5m to 9.5m with slotted standpipe, with bentonite seal to base of hole and around plain pipe. |
| Client: | Heyford Park LLP | |
| Driller: | Taylor/Gidman | |
| Engineer: | M Williams | |



ROTARY DRILLING LOG

Borehole Number BHNSA 38 **Job No:** P8219J107
Site: Upper Heyford NSA, Oxfordshire
Date: 10/10/2011

| Depth (m) | Sample | | Core Length Recovered | Depth of Casing | Test | | Seat Drive | | Test Drive | | | | PID Reading | Legend | Description |
|-------------------------------------|-----------|------|--|------------------|---------|-------|------------|----|------------|----|------|----|-------------|--------|--|
| | Depth (m) | Type | | | Type | Depth | 75 | 75 | 75 | 75 | 75 | 75 | | | |
| 0.10 | | | PWF Liner | | | | | | | | | | | | TARMAC |
| 0.60 | | | | | | | | | | | | | | | CONCRETE with occasional gravel of crushed concrete |
| 1.20 | 0.70 | D | 1.20-2.70m (0.7m core) | 1.2m | PID 1 | 1 | | | | | | | 0 | | Brown/orange/grey slightly sandy clayey GRAVEL. Gravel is angular to subangular of limestone. |
| 2.60 | | | 2.70-4.20m (1.5m core) | 1.2m | SPT 1.2 | 6 | 8 | 15 | 15 | 17 | 3//1 | | | | Yellow/grey coarse grained sandy LIMESTONE in weathered blocky state |
| 3.20 | | | | | PID 2 | | | | | | | | 0 | | Yellow/grey LIMESTONE |
| 4.30 | | | 4.20-5.70m (1.5m core) | 3.0m | PID 3 | | | | | | | | 0 | | Dark grey to pale grey shelly LIMESTONE |
| 8.50 | | | 5.70-7.2m (15m core) 7.20-8.70m (1.5m core) | 3.0m 3.0m | | | | | | | | | | | Fine grained grey LIMESTONE interbedded with occasional bands of coarser grained grey to yellow shelly limestone and bands of dark grey silty mudstone |
| 9.35 | | | 8.70-10m (1.3m core) | 3.0m | | | | | | | | | | | Dark grey silty MUDSTONE |
| 10.00 | | | | | | | | | | | | | | | Coarse grained grey LIMESTONE |
| Borehole terminated at 10.0m | | | | | | | | | | | | | | | |

| | |
|---------------------------------|---|
| Plant: Commachio 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 base of hole and around plain pipe. 3. Standing time/dayworks - 30mins |
| Client: Heyford Park LLP | |
| Driller: Taylor/Gidman | |
| Engineer: M Williams | |

APPENDIX 4 – IN SITU CBR TEST RECORDS

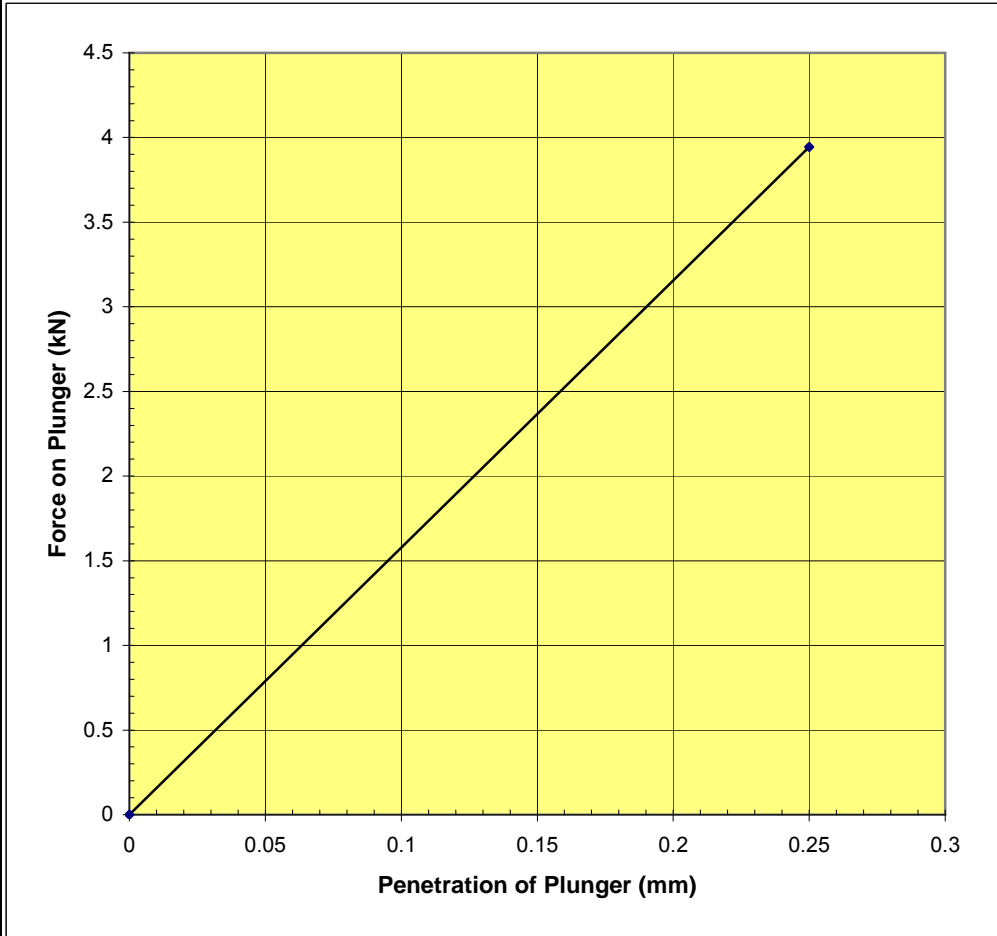
| | | |
|---|------------------------------------|--|
| Project Name: Heyford Park House, Heyford Park, Upper Heyford, Bicester | Project Started: 19/10/2011 | |
| | Testing Started: 19/10/2011 | |
| Client Name: Jomas Associates Ltd | Date reported: 21/10/2011 | |
| Project No: P8219J107.10 Our Job / report no: 11746 | Sample no/ type: - | |
| Sample description: Brown sandy gravelly CLAY with occasional fine roots (gravel is fmc and sub angular) | TP No: CBRNSA001 | |
| | Depth (m): 0.40 | |
| | Test No: - | |

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: 7.17

RECORDINGS

| Penetration of Plunger mm | Force on Plunger | |
|------------------------------|------------------|------------|
| | Dial Reading | Load kN |
| 0 | 0 | 0 |
| 0.25 | 550 | 3.94 |
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RESULTS:

| | | | | | |
|----------------------|-----|-------------------|-------------|----------------------|----------|
| Moisture content (%) | 10 | Penetration mm | Force kN | Standard Force kN | CBR % |
| | | 2.5 | - | 13.2 | - |
| In-situ CBR value % | >30 | 5 | - | 20 | - |
| | | | | | |



In-situ CBR Test
 BS1377 Part 9 : 1990 : 4.3
 Determination of In-situ CBR values

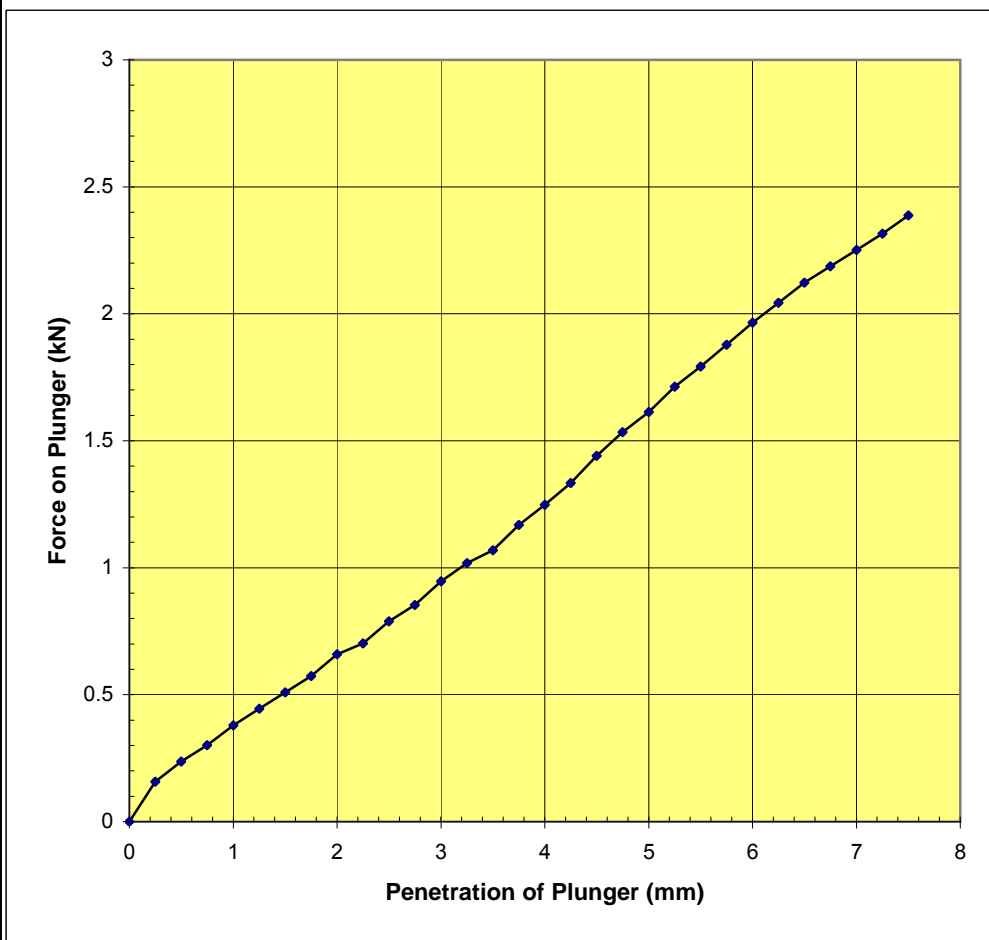
Remarks: Maximum kentledge reached

Approved by
 Initials : kp
 Date : 21/10/2011

| | | |
|---|------------------------------------|--|
| Project Name: Heyford Park House, Heyford Park, Upper Heyford, 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 description: Brown sandy gravelly CLAY with occasional fine roots (gravel is fmc and sub angular) | TP No: CBRNSA002 | |
| | Depth (m): 0.70 | |
| | Test No: - | |
| Note: Test applicable only when maximum particle size beneath plunger does not exceed 20mm | Rate of Strain :1.00mm/min | |
| Note: Penetration and force readings after seating load zeroed. | Mass of Surcharge 8.5 kg | |
| | Proving Ring factor: 7.17 | |


RECORDINGS

| Penetration of Plunger mm | Force on Plunger | |
|------------------------------|------------------|------------|
| | Dial Reading | Load 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 |



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 |

| | | | | |
|--|-------------------------------------|--|--|--------------------|
|  | In-situ CBR Test | | | Approved by |
| | BS1377 Part 9 : 1990 : 4.3 | | | Initials : kp |
| | 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)

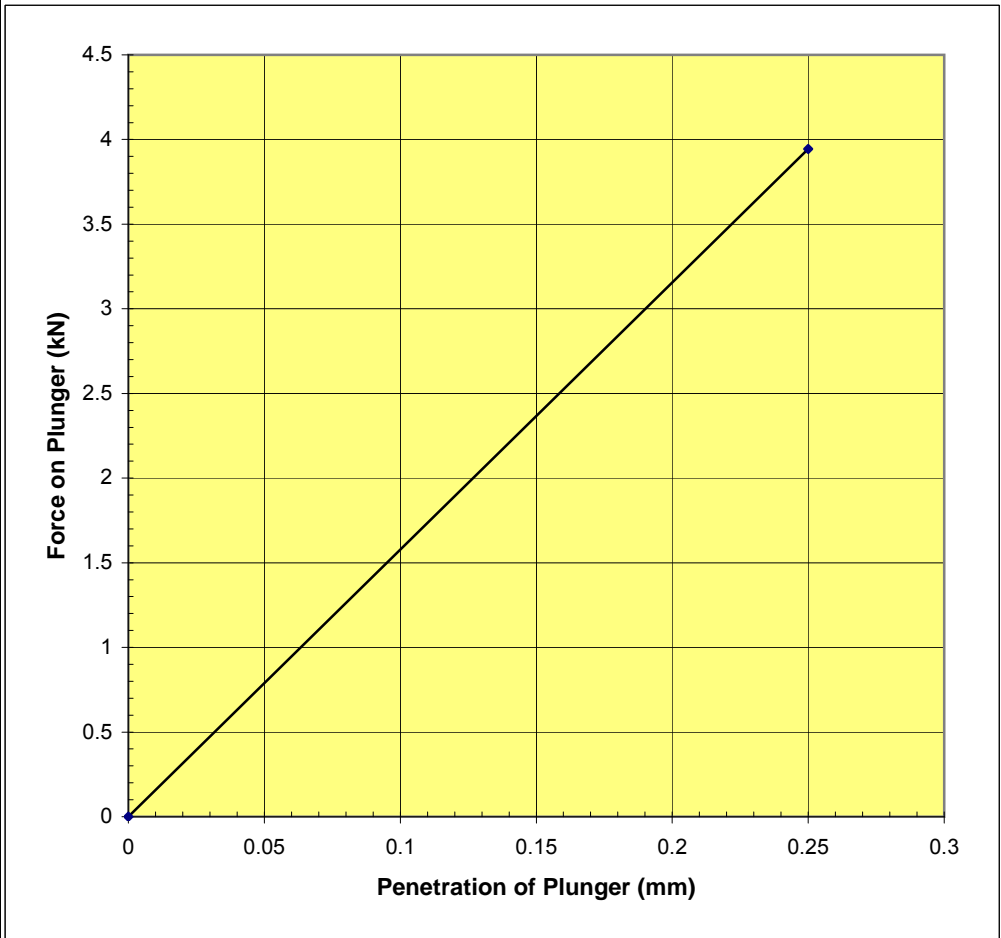
All samples connected with this report ,incl any on 'hold' will be stored and disposed off according to Company policy.Acoppy of this policy is available on request.

MSF-11/ R10/1

| | | |
|---|------------------------------------|--|
| Project Name: Heyford Park House, Heyford Park, Upper Heyford, 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 description: Brown sandy gravelly CLAY with occasional fine roots (gravel is fmc and sub angular) | TP No: CBRNSA003 | |
| | Depth (m): 0.50 | |
| | Test No: - | |
| Note: Test applicable only when maximum particle size beneath plunger does not exceed 20mm | Rate of Strain :1.00mm/min | |
| Note: Penetration and force readings after seating load zeroed. | Mass of Surcharge 8.5 kg | |
| | Proving Ring factor: 7.17 | |

RECORDINGS

| Penetration of Plunger mm | Force on Plunger | |
|------------------------------|------------------|------------|
| | Dial Reading | Load kN |
| 0 | 0 | 0 |
| 0.25 | 550 | 3.94 |
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RESULTS:

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

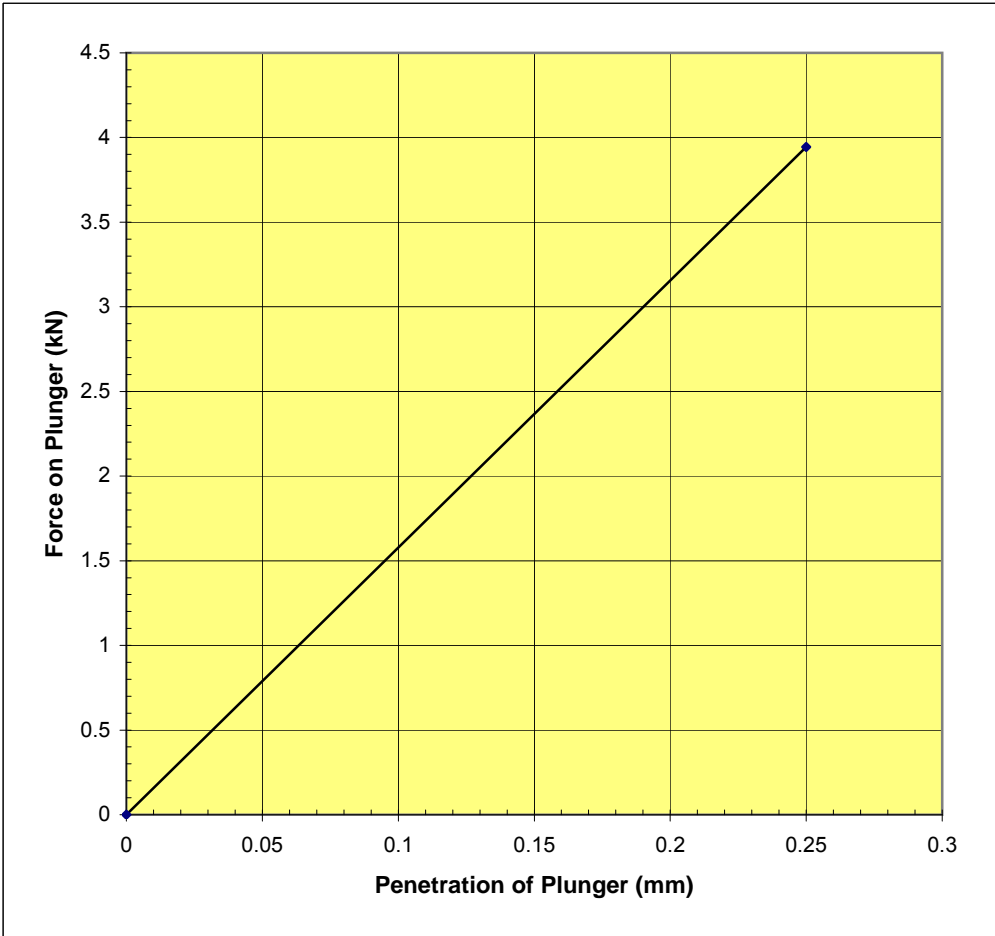
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| | In-situ CBR Test | Approved by Initials : kp Date : 21/10/2011 |
| | BS1377 Part 9 : 1990 : 4.3 | |
| | Determination of In-situ CBR values | |
| Remarks: Maximum kentledge reached | | |

| | | | |
|--|--|---|--|
| Project Name: Heyford Park House, Heyford Park, Upper Heyford, 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 description: Brown sandy gravelly CLAY with occasional fine roots (gravel is fmc and sub angular) | | TP No: CBRNSA004 | |
| | | Depth (m): 0.50 | |
| Test No: - | | | |

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| 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: 7.17 |
|---|--|


RECORDINGS

| Penetration of Plunger mm | Force on Plunger | |
|------------------------------|------------------|---------|
| | Dial Reading | Load kN |
| 0 | 0 | 0 |
| 0.25 | 550 | 3.94 |
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RESULTS:

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

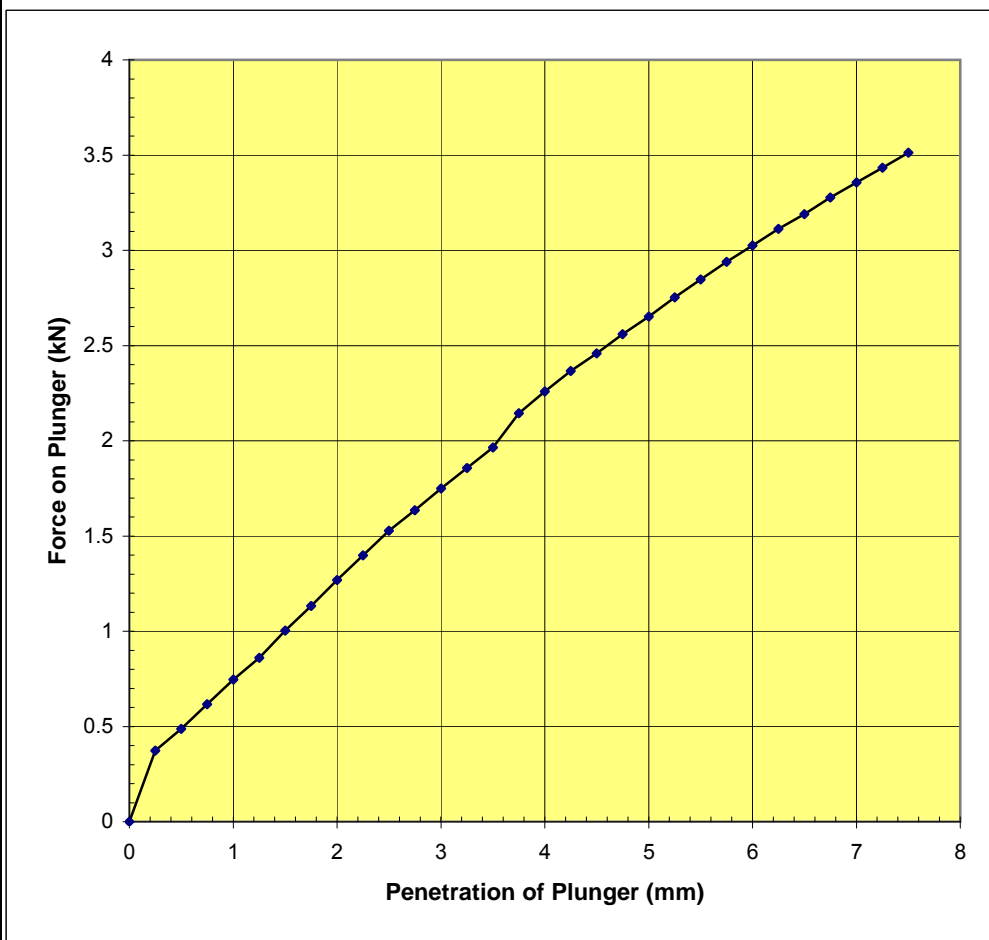
| | | |
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|  | In-situ CBR Test BS1377 Part 9 : 1990 : 4.3 Determination of In-situ CBR values | Approved by Initials : kp Date : 21/10/2011 |
|--|--|--|

Remarks: Maximum kentledge reached

| | | |
|---|------------------------------------|--|
| Project Name: Heyford Park House, Heyford Park, Upper Heyford, 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 description: Brown sandy gravelly CLAY with occasional fine roots (gravel is fmc and sub angular) | TP No: CBRNSA005 | |
| | Depth (m): 0.50 | |
| | Test No: - | |
| Note: Test applicable only when maximum particle size beneath plunger does not exceed 20mm | Rate of Strain :1.00mm/min | |
| Note: Penetration and force readings after seating load zeroed. | Mass of Surcharge 8.5 kg | |
| | Proving Ring factor: 7.17 | |


RECORDINGS

| Penetration of Plunger mm | Force on Plunger | |
|------------------------------|------------------|---------|
| | Dial Reading | Load 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 |



RESULTS:

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

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|--|-------------------------------------|--|--|--------------------|------------|
|  | In-situ CBR Test | | | Approved by | |
| | BS1377 Part 9 : 1990 : 4.3 | | | Initials : | kp |
| | 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)

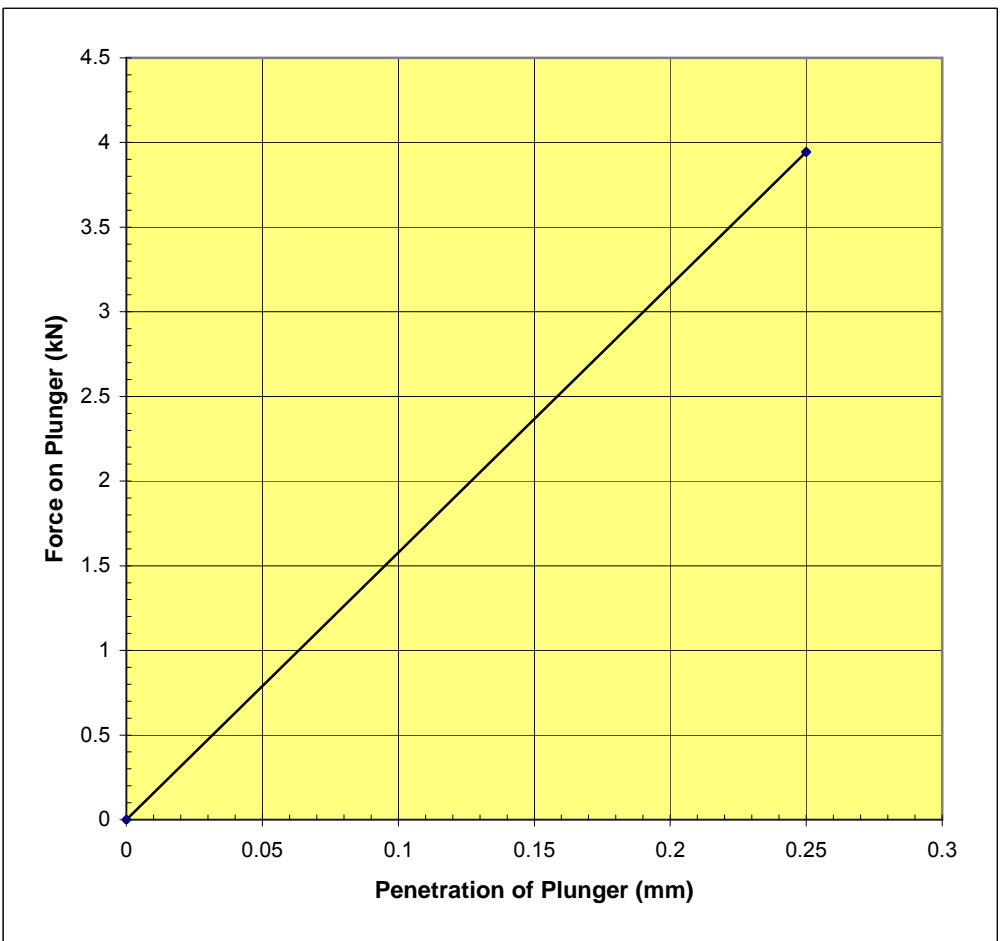
All samples connected with this report ,incl any on 'hold' will be stored and disposed off according to Company policy.Acopsy of this policy is available on request.

MSF-11/ R10/1

| | | | |
|---|-----------------------------------|------------------------------------|-------------------------|
| Project Name: Heyford Park House, Heyford Park, Upper Heyford, 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 description: Brown sandy gravelly CLAY with occasional fine roots (gravel is fmc and sub angular) | | | TP No: CBRNSA006 |
| | | | Depth (m): 0.50 |
| | | | Test No: - |
| Note: Test applicable only when maximum particle size beneath plunger does not exceed 20mm | | Rate of Strain : 1.00mm/min | |
| Note: Penetration and force readings after seating load zeroed. | | Mass of Surcharge 8.5 kg | |
| | | Proving Ring factor: 7.17 | |


RECORDINGS

| Penetration of Plunger mm | Force on Plunger | |
|---------------------------|------------------|---------|
| | Dial Reading | Load kN |
| 0 | 0 | 0 |
| 0.25 | 550 | 3.94 |
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RESULTS:

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

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

Remarks: Maximum kentledge reached

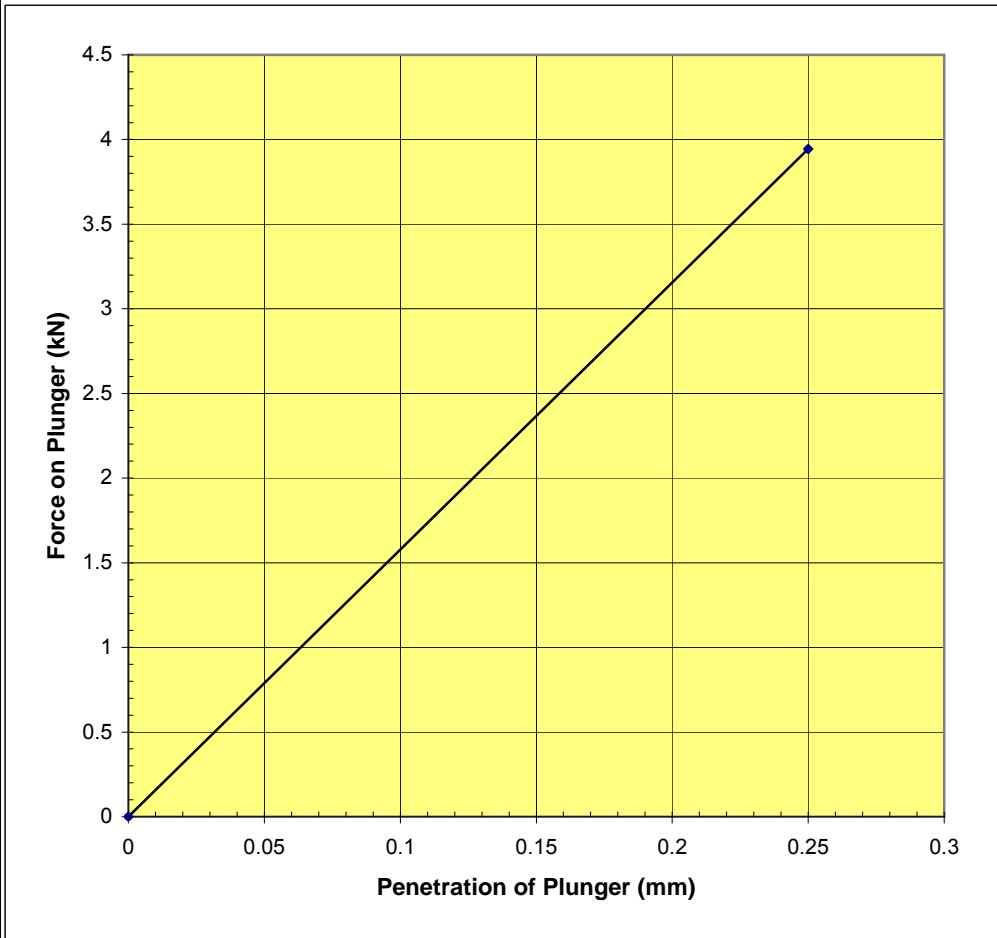
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|--|-----------------------------|--|
| Project Name: Heyford Park House, Heyford Park, Upper Heyford, Bicester | Project Started: 19/10/2011 | |
| | Testing Started: 19/10/2011 | |
| Client Name: Jomas Associates Ltd | Date reported: 21/10/2011 | |
| Project No: P8219J107.10 Our Job / report no: 11746 | Sample no/ type: - | |
| Sample description: Brown sandy gravelly CLAY with occasional fine roots (gravel is fmc and sub angular) | TP No: CBRNSA007 | |
| | Depth (m): 0.45 | |
| | Test No: - | |

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: 7.17

RECORDINGS

| Penetration of Plunger mm | Force on Plunger | |
|------------------------------|------------------|---------|
| | Dial Reading | Load kN |
| 0 | 0 | 0 |
| 0.25 | 550 | 3.94 |
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RESULTS:

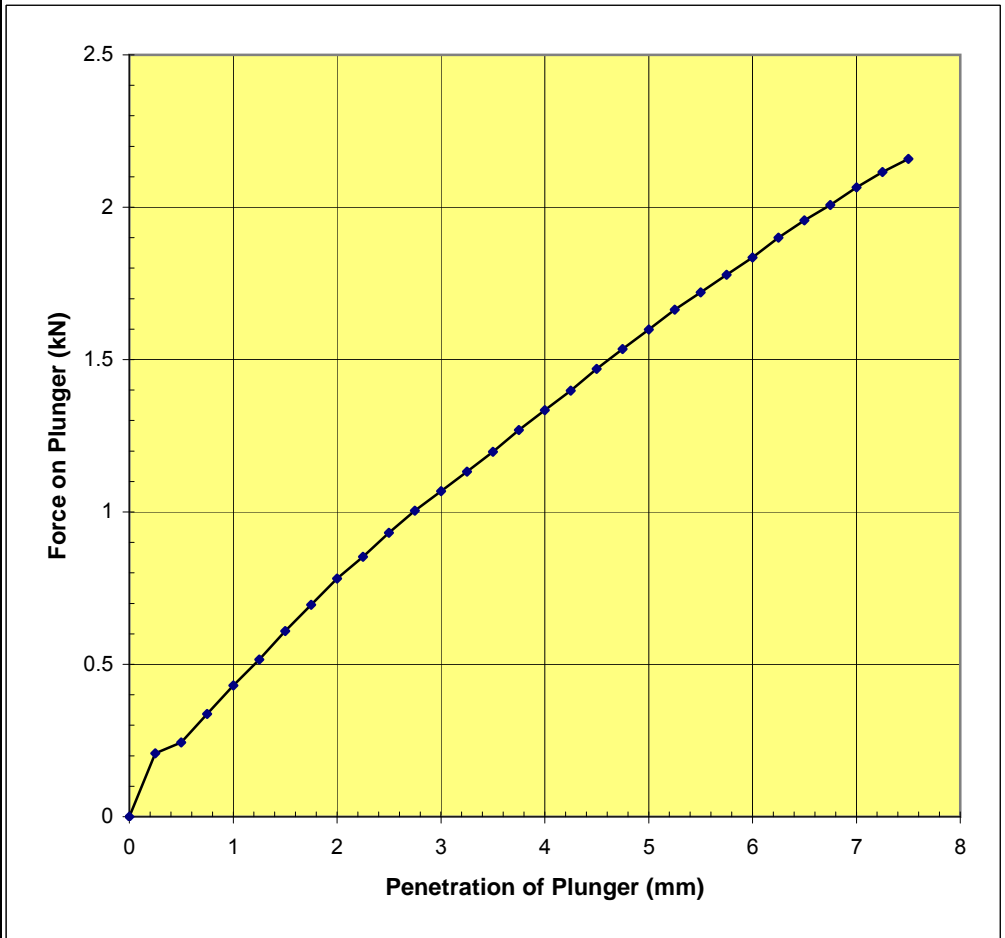
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|----------------------|-----|----------------|----------|-------------------|-------|
| Moisture content (%) | 12 | Penetration mm | Force kN | Standard Force kN | CBR % |
| | | 2.5 | - | 13.2 | - |
| In-situ CBR value % | >30 | 5 | - | 20 | - |

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|--|--|--|
| | 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 | |

| | | |
|---|------------------------------------|--|
| Project Name: Heyford Park House, Heyford Park, Upper Heyford, 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 description: Brown sandy gravelly CLAY with occasional fine roots (gravel is fmc and sub angular) | TP No: CBRNSA008 | |
| | Depth (m): 0.50 | |
| | Test No: - | |
| Note: Test applicable only when maximum particle size beneath plunger does not exceed 20mm | Rate of Strain :1.00mm/min | |
| Note: Penetration and force readings after seating load zeroed. | Mass of Surcharge 8.5 kg | |
| | Proving Ring factor: 7.17 | |


RECORDINGS

| Penetration of Plunger mm | Force on Plunger | |
|---------------------------|------------------|---------|
| | Dial Reading | Load 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 |



RESULTS:

| | | | | | |
|----------------------------|------------|----------------|----------|-------------------|-------|
| Moisture content (%) | 18 | Penetration mm | Force kN | Standard Force kN | CBR % |
| | | 2.5 | 0.93 | 13.2 | 7.06 |
| In-situ CBR value % | 8.0 | 5 | 1.60 | 20 | 7.99 |

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|--|-------------------------------------|--|--|--------------------|
|  | In-situ CBR Test | | | Approved by |
| | BS1377 Part 9 : 1990 : 4.3 | | | Initials : kp |
| | 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.Acopny of this policy is available on request.

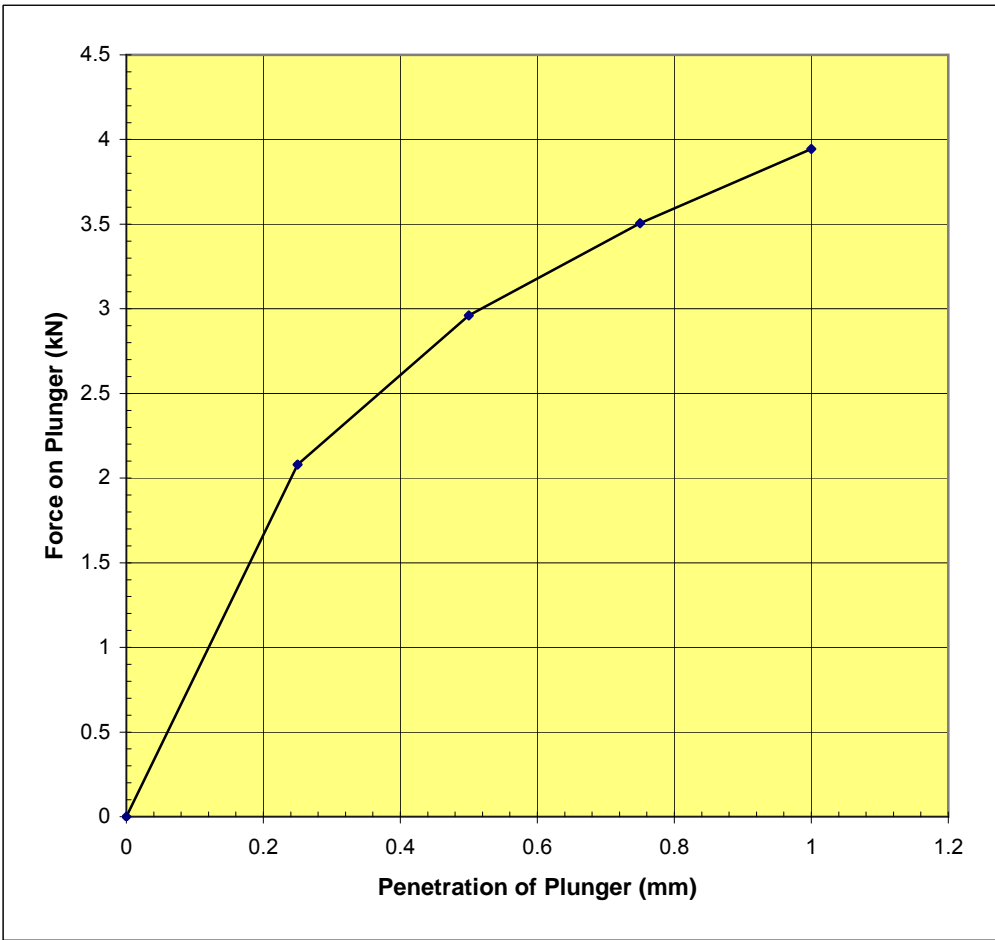
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|---------------------|--|----------------------|------------|------------------|-----------|
| Project Name: | Heyford Park House, Heyford Park, Upper Heyford, Bicester | Project Started: | 19/10/2011 | | |
| | | Testing Started: | 19/10/2011 | | |
| Client Name: | Jomas Associates Ltd | Date reported: | 21/10/2011 | | |
| Project No: | P8219J107.10 | Our Job / report no: | 11746 | Sample no/ type: | - |
| Sample description: | Brown sandy gravelly CLAY with occasional fine roots (gravel is fmc and sub angular) | | | TP No: | CBRNSA009 |
| | | | | Depth (m): | 0.45 |
| | | | | Test No: | - |

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: 7.17

RECORDINGS

| Penetration of Plunger mm | Force on Plunger | |
|---------------------------|------------------|---------|
| | Dial Reading | Load kN |
| 0 | 0 | 0 |
| 0.25 | 290 | 2.08 |
| 0.50 | 413 | 2.96 |
| 0.75 | 489 | 3.51 |
| 1.00 | 550 | 3.94 |
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RESULTS:

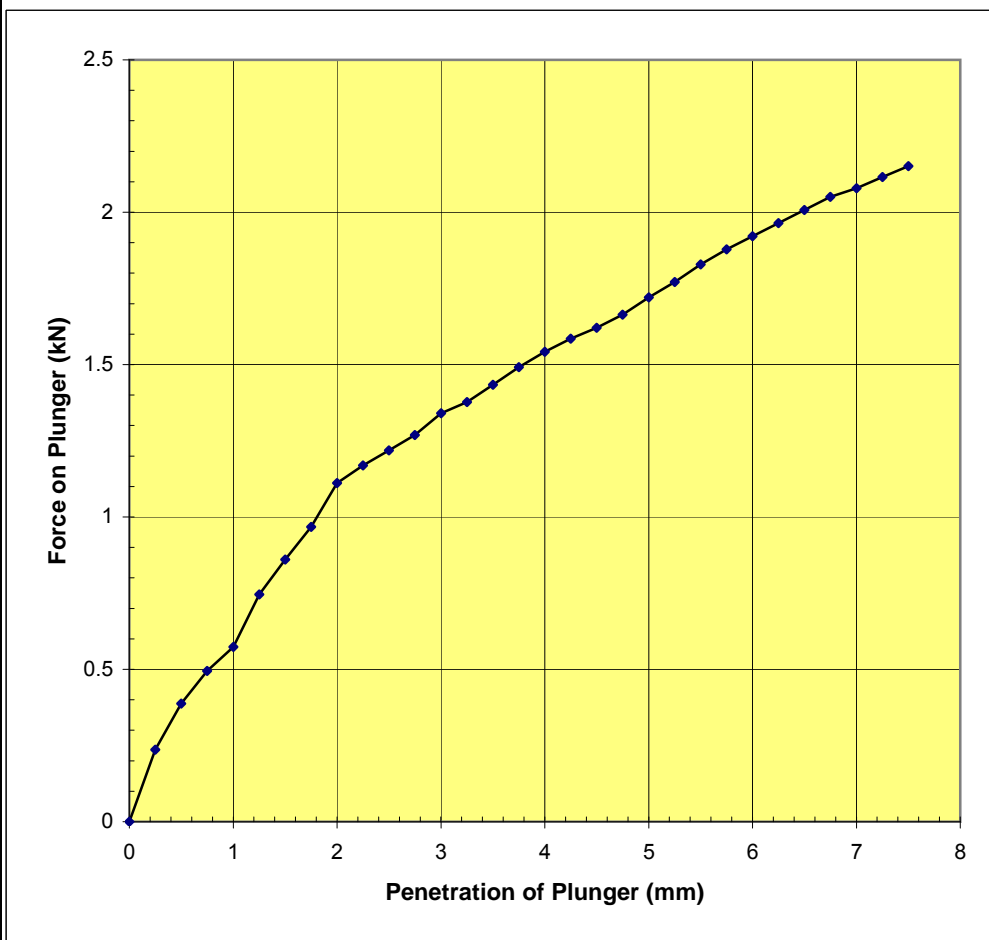
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|----------------------|-----|----------------|----------|-------------------|-------|
| Moisture content (%) | 14 | Penetration mm | Force kN | Standard Force kN | CBR % |
| | | 2.5 | - | 13.2 | - |
| In-situ CBR value % | >30 | 5 | - | 20 | - |

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

| | | |
|---|------------------------------------|--|
| Project Name: Heyford Park House, Heyford Park, Upper Heyford, 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 description: Brown sandy gravelly CLAY with occasional fine roots (gravel is fmc and sub angular) | TP No: CBRNSA010 | |
| | Depth (m): 0.70 | |
| | Test No: - | |
| Note: Test applicable only when maximum particle size beneath plunger does not exceed 20mm | Rate of Strain :1.00mm/min | |
| Note: Penetration and force readings after seating load zeroed. | Mass of Surcharge 8.5 kg | |
| | Proving Ring factor: 7.17 | |


RECORDINGS

| Penetration of Plunger mm | Force on Plunger | |
|------------------------------|------------------|------------|
| | Dial Reading | Load 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 |



RESULTS:

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

| | | | | |
|--|-------------------------------------|--|--|--------------------|
|  | In-situ CBR Test | | | Approved by |
| | BS1377 Part 9 : 1990 : 4.3 | | | Initials : kp |
| | 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)

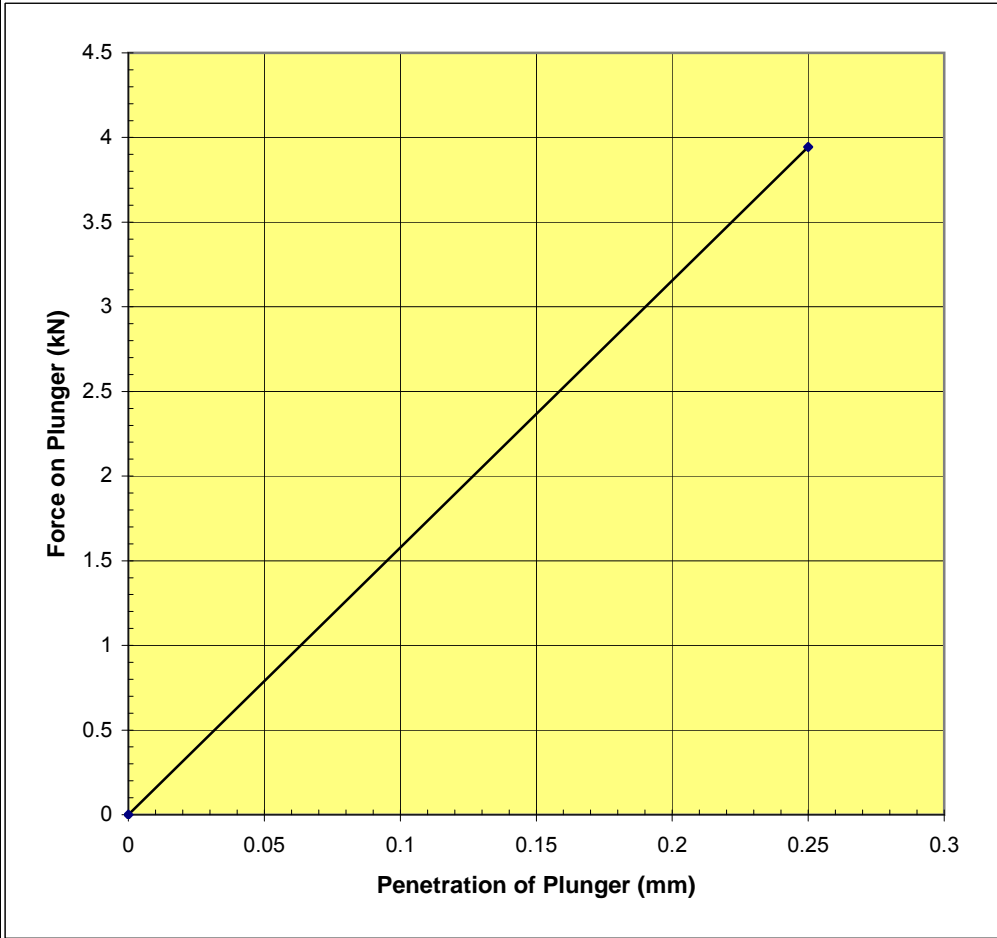
All samples connected with this report ,incl any on 'hold' will be stored and disposed off according to Company policy.Acopsy of this policy is available on request.

MSF-11/ R10/1

| | | |
|--|-----------------------------|--|
| Project Name: Heyford Park House, Heyford Park, Upper Heyford, Bicester | Project Started: 19/10/2011 | |
| Client Name: Jomas Associates Ltd | Testing Started: 19/10/2011 | |
| Project No: P8219J107.10 Our Job / report no: 11746 | Date reported: 21/10/2011 | |
| Sample description: Light brown sandy gravelly CLAY with occasional fine roots (gravel is fmc and sub angular) | Sample no/ type: - | |
| | TP No: CBRNSA011 | |
| | Depth (m): 0.30 | |
| | Test No: - | |
| Note: Test applicable only when maximum particle size beneath plunger does not exceed 20mm | Rate of Strain :1.00mm/min | |
| Note: Penetration and force readings after seating load zeroed. | Mass of Surcharge 8.5 kg | |
| | Proving Ring factor: 7.17 | |


RECORDINGS

| Penetration of Plunger mm | Force on Plunger | |
|------------------------------|------------------|---------|
| | Dial Reading | Load kN |
| 0 | 0 | 0 |
| 0.25 | 550 | 3.94 |
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RESULTS:

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|----------------------|-----|----------------|----------|-------------------|-------|
| Moisture content (%) | 6.3 | Penetration mm | Force kN | Standard Force kN | CBR % |
| In-situ CBR value % | >30 | 2.5 | - | 13.2 | - |
| | | 5 | - | 20 | - |

| | | | | | |
|--|-------------------------------------|--|--|--|-------------------|
|  | In-situ CBR Test | | | | Approved by |
| | BS1377 Part 9 : 1990 : 4.3 | | | | Initials : kp |
| | 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.Acopsy of this policy is available on request.

APPENDIX 5 – TANK SURVEY SHEETS

| Project Ref: | | P8219J107 | | Project Name: | | Upper Heyford NSA | |  | |
|----------------|------------------------|--|--|------------------------------|-----------------|---|--|---|--|
| Lead Engineer: | | Marc Williams | | Title: | | Tank Data | | | |
| Version: | | 0.1 | | Date: | | 12/10/11 | | | |
| Tank ID | Type of Tank (UST/AST) | Tank construction details – metal, plastic | Condition of tank – rusted, damaged, good condition etc? | Depth to 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 |
| AGNSA 01 | AST | Metal | Rusted | 0.9m | 0.9m x 1.4m | Dry | Dry | - | Partially obscured inscription indicates tank likely contained kerosene |
| AGNSA 02 | AST | Metal | Slightly rusted, generally good | 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 rusted, generally good | 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 02, overlying | UGNSA 01, UGNSA 02 | |

| Project Ref: | | P8219J107 | | Project Name: | | Upper Heyford NSA | | | |
|-----------------------|------------------------|--|--|------------------------------|------------------|---|--|----------------------|---|
| Lead Engineer: | | Marc Williams | | Title: | | Tank Data | | | |
| Version: | | 0.1 | | Date: | | 12/10/11 | | | |
| Tank ID | Type of Tank (UST/AST) | Tank construction details – metal, plastic | Condition of tank – rusted, damaged, good condition etc? | Depth to 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 |
| | | | | | | | 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 wrench) | UGNSA 06 | |



| Project Ref: | | P8219J107 | | Project Name: | | Upper Heyford NSA | |  | |
|--------------------------|------------------------|--|--|------------------------------|--------------------|---|---|--|---|
| Lead Engineer: | | Marc Williams | | Title: | | Tank Data | | | |
| Version: | | 0.1 | | Date: | | 12/10/11 | | | |
| Tank ID | Type of Tank (UST/AST) | Tank construction details – metal, plastic | Condition of tank – rusted, damaged, good condition etc? | Depth to 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 | Unknown | - | 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

Authorised By:-

Mike Varley BSc, CChem, CSci, FRSC
Chief Chemist

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. 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

Waters

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

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

THE ENVIRONMENTAL LABORATORY LTD

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 | UGNSA01 | UGNSA02 | UGNSA06 | UGNSA08 | UGNSA09 | UGNSA10 | UGNSA11 | UGNSA13 | UGNSA14 | UGNSA15 |
|---|---------|---------|------------|---------|------------|---------|---------|---------|---------|---------|---------|
| | Our ref | 16566 | 16567 | 16568 | 16569 | 16570 | 16571 | 16572 | 16574 | 16575 | 16576 |
| | | | See Note 1 | | See Note 1 | | | | | | |
| Aromatic | | | | | | | | | | | |
| >C ₅ -C ₇ | (µg/l) | <10 | 335 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 |
| >C ₇ -C ₈ | (µg/l) | <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 |
| Aliphatic | | | | | | | | | | | |
| >C ₅ -C ₆ | (µg/l) | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 |
| >C ₆ -C ₈ | (µg/l) | <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/l) | 0.07 | 11218 | 0.05 | 1702 | 7.62 | 66.13 | 24.96 | 0.03 | 0.02 | 0.05 |
| >C ₁₂ -C ₁₆ | (mg/l) | 0.15 | 64317 | 0.39 | 8183 | 128.00 | 389.00 | 137.00 | 0.22 | 0.40 | 0.07 |
| >C ₁₆ -C ₂₁ | (mg/l) | 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/l) | 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/l) | <1 | 655 | <1 | 127 | 15 | 40 | 44 | <1 | <1 | <1 |
| Ethyl Benzene | (µg/l) | <1 | 800 | 37 | 792 | <1 | <1 | <1 | <1 | <1 | <1 |
| Xylenes | (µg/l) | <1 | 3813 | 93 | 5035 | 458 | 884 | 883 | <1 | <1 | <1 |
| MTBE | (µg/l) | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 | <1 |

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

MP

THE ENVIRONMENTAL LABORATORY LTD

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 | UGNSA12 | UGNSA12 |
|---|---------|------------|-----------|
| | Our ref | 16573 (AQ) | 16573 (O) |
| Aromatic | | | |
| >C ₅ -C ₇ | (µg/l) | n/t | n/t |
| >C ₇ -C ₈ | (µg/l) | 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 |
| Aliphatic | | | |
| >C ₅ -C ₆ | (µg/l) | n/t | n/t |
| >C ₆ -C ₈ | (µg/l) | 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/l) | 8,606 | 1,018,296 |
| Benzene | (µg/l) | <1 | n/t |
| Toluene | (µg/l) | <1 | n/t |
| Ethyl Benzene | (µg/l) | <1 | n/t |
| Xylenes | (µg/l) | 770 | n/t |
| MTBE | (µg/l) | 6 | n/t |

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

(AQ) - Aqueous fraction

(O) - Oil fraction

MP



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: 13/10/11
Prepared: 14/10/11
Analysis 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:-

Authorised By:-

Steve Knight
Director

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)



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. 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 | Sandy silt loam | Sandy silt loam | Sandy silt loam | Sandy silt loam | Silt Loam | Stones | Sandy silt loam | Sandy loam | Silt Loam | Silt Loam |
|----------------------------|----------------------------|-----------------|-----------------|-----------------|-----------------|-----------|--------|-----------------|------------|-----------|-----------|
| | | TP/BH | 201 | 201 | 202 | 202 | 203 | 204 | 204A | 204A | 205 |
| | 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 |
| Cobalt* | (mg/kg) | 8 | 24 | 12 | 13 | 7 | n/t | 20 | 4 | 11 | 7 |
| 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 |
| Moisture Content (%) | (%) | 12.7 | 23.5 | 12.2 | 18.0 | 6.2 | 10.0 | 6.6 | 7.8 | 11.7 | 11.3 |
| Thiocyanate | (mg/kg) | <2 | <2 | <2 | <2 | <2 | n/t | <2 | <2 | <2 | <2 |

All results expressed on dry weight basis

** - MCERTS accredited test

* - UKAS accredited test

GM



THE ENVIRONMENTAL LABORATORY LTD

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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 | Silt Loam | Silt Loam | Sandy silt loam | Sandy loam | Sandy silt loam | Loamy sand | Silt Loam | Silt Loam | Silt Loam | Silt Loam |
|----------------------------|----------------|-----------|-----------|-----------------|------------|-----------------|------------|-----------|-----------|-----------|-----------|
| | | TP/BH | 207 | 208 | 209 | 209 | 210 | 210 | 211 | 212 | 213 |
| | 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 |
| Molybdenum | (mg/kg) | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| 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 | 9 | 8 | 5 | 4 | 3 | 8 | 7 | 11 | 10 |
| pH Value** | (Units) | 8.2 | 8.2 | 7.9 | 8.5 | 8.8 | 8.8 | 9.9 | 8.8 | 8.3 | 8.3 |
| Total Sulphate | (% as SO4) | 0.07 | 0.08 | 0.15 | <0.05 | 0.08 | 0.08 | <0.05 | <0.05 | 0.08 | <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 SO4) | <10 | 10 | 868 | 36 | 11 | <10 | 53 | 52 | 12 | 19 |
| 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) | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 |
| Moisture Content (%) | (%) | 11.6 | 11.4 | 11.3 | 9.0 | 11.1 | 7.0 | 8.8 | 8.8 | 15.2 | 11.2 |
| Thiocyanate | (mg/kg) | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 | <2 |

All results expressed on dry weight basis

** - MCERTS accredited test

* = UKAS accredited test

GM



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. 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 | Silt Loam | Sandy silt loam | Silt Loam | Stones | Sandy silt loam | Silt Loam | Sandy loam | Silt Loam | Sandy 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 | <5 | <5 | <5 | <5 | <5 | <5 |
| Antimony | (mg/kg) | 4 | <2.5 | <2.5 | <2.5 | <2.5 | <2.5 | <2.5 | <2.5 | <2.5 | <2.5 |
| Cobalt | (mg/kg) | 14 | 4 | 11 | 2 | 3 | 10 | 6 | 5 | 6 | 8 |
| 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

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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. 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 | Silt Loam Sandy silt loam | | Stones | Silt Loam Silty clay loam | | Silty clay loam | | Silt Loam Sandy silt loam | |
|----------------------------|----------------|---------------------------|-------|--------|---------------------------|-------|-----------------|-----|---------------------------|---------------------|
| | | TP/BH | 224 | | 225 | 226 | 227 | 228 | 228 | 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 | (mg/kg) | <2.5 | <2.5 | <2.5 | <2.5 | <2.5 | <2.5 | | <2.5 | n/t |
| Cobalt | (mg/kg) | 7 | 5 | 2 | 11 | 6 | 9 | | 7 | n/t |
| 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

⁽²⁾ = Labelled @ 0.90

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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 | Sandy silt loam | Sandy silt loam | Sandy silt loam | Silt Loam | Silt Loam | Sandy 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** | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 |
| PCB 52** | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 |
| PCB 101** | <10 | <10 | <10 | 35 | <10 | <10 | <10 | <10 | <10 | <10 |
| PCB 118** | <10 | <10 | <10 | 24 | <10 | <10 | <10 | <10 | <10 | <10 |
| PCB 138** | <10 | <10 | <10 | 50 | <10 | <10 | 14 | <10 | <10 | <10 |
| PCB 153** | <10 | <10 | <10 | 30 | <10 | <10 | <10 | <10 | <10 | <10 |
| PCB 180** | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 |
| Total PCB (7 Congeners)** | <10 | <10 | <10 | 139 | <10 | <10 | 14 | <10 | <10 | <10 |

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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 | Sandy silt loam | Sandy silt loam | Sandy loam | Silt Loam | Sandy silt loam | Loamy sand | Silt Loam | Silt Loam | Sandy silt loam | Silt Loam |
|--------------------------|----------------------------|-----------------|-----------------|------------|-----------|-----------------|------------|-----------|-----------|-----------------|-----------|
| | TP/BH | 201 | 202 | 204A | 208 | 210 | 210 | 213 | 219 | 222 | 223 |
| | Depth (m) | 0.50 | 2.50 | 1.00 | 0.50 | 0.10 | 1.50 | 0.50 | 0.50 | 0.50 | 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 |

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ANALYTICAL REPORT No. AR35273

Location: Upper Heyford



Reporting Date: 02/11/11

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 |

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 21 Bradenham Road
 Middlesex, UB4 8LP

Reporting Date: 02/11/11

| Soils | 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 |
|------------------------|----------------|-----------------|-----------------|-----------------|-----------------|-----------|-----------------|------------|-----------|-----------|-----------|
| 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 |

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Location: Upper Heyford

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Reporting Date: 02/11/11

| Soils | Characteristic | Silt Loam | Sandy silt loam | Sandy loam | Sandy silt loam | Loamy sand | Silt Loam | Silt Loam | Silt Loam | Silt Loam | Silt Loam |
|------------------------|----------------|-----------|-----------------|------------|-----------------|------------|-----------|-----------|-----------|-----------|-----------|
| | 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

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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. 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 | Sandy silt loam | Silt Loam | Stones | Sandy silt loam | Silt Loam | Sandy loam | Silt Loam | Sandy silt loam | Silt Loam | 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 | 0.8 | <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 | 0.8 |
| 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

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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. 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 | Sandy silt loam | 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

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THE ENVIRONMENTAL LABORATORY LTD

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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

| Characteristic | Sandy silt loam | Sandy silt loam | Sandy silt loam | Sandy silt loam | Silt Loam | Stones | Sandy 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 |
| 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 |
| >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) | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| >EC ₁₀ -EC ₁₂ | (mg/kg) | <5 | <5 | <5 | <5 | <5 | 10 | <5 | <5 | <5 |
| >EC ₁₂ -EC ₁₆ | (mg/kg) | <5 | <5 | <5 | 18 | <5 | 93 | <5 | <5 | <5 |
| >EC ₁₆ -EC ₂₁ | (mg/kg) | <5 | <5 | 13 | 40 | <5 | 236 | 6 | <5 | 25 |
| >EC ₂₁ -EC ₃₅ | (mg/kg) | 9 | <5 | <5 | 29 | 24 | <5 | 974 | 10 | <5 |
| Aliphatic | | | | | | | | | | |
| >EC ₅ -EC ₆ | (mg/kg) | <0.01 | <0.01 | <0.01 | 0.02 | <0.01 | <0.01 | <0.01 | <0.01 | 0.02 |
| >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) | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 |
| >EC ₁₀ -EC ₁₂ | (mg/kg) | <5 | <5 | <5 | 7 | <5 | <5 | <5 | <5 | <5 |
| >EC ₁₂ -EC ₁₆ | (mg/kg) | <5 | <5 | <5 | 66 | <5 | <5 | 20 | <5 | <5 |
| >EC ₁₆ -EC ₂₁ | (mg/kg) | <5 | <5 | <5 | 83 | 13 | <5 | 35 | <5 | <5 |
| >EC ₂₁ -EC ₃₅ | (mg/kg) | 25 | 8 | 7 | 58 | 56 | 7 | 468 | 5 | 5 |
| TPH (C ₅ - C ₃₅) | (mg/kg) | 34 | 8 | 19 | 301 | 93 | 7 | 1835 | 22 | 5 |

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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

| Characteristic | Silt Loam | Silt Loam | Sandy silt loam | Sandy loam | Sandy 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 |

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) | <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 |

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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

| Characteristic | Silt Loam | Silt Loam | Stones | Sandy silt loam | Silt Loam | Sandy loam | Silt Loam | Sandy 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 |

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) | <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 |

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ANALYTICAL REPORT No. AR35273

Location: Upper Heyford



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 Jomas Associates Limited
 Jomas House
 21 Bradenham Road
 Middlesex, UB4 8LP

Reporting Date: 02/11/11

TPH CWG - Soil

| | Characteristic | Sandy 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 |
| Aromatic | | | | | | | | |
| >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

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THE ENVIRONMENTAL LABORATORY LTD

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 | Sandy silt | Sandy silt | Sandy silt loam | Silt Loam | Sandy silt loam | Silt Loam |
|--------------------------------|----------------|------------|------------|-----------------|-----------|-----------------|-----------|
| | | TP/BH | 201 | 202 | 204A | 205 | 210 |
| | Depth (m) | 2.00 | 2.50 | 0.50 | 0.20 | 0.10 | 0.20 |
| | Our ref | 16082A | 16084 | 16087 | 16089 | 16095 | 16103 |
| Benzene** | (µg/kg) | <10 | <10 | <10 | <10 | <10 | <10 |
| Toluene** | (µg/kg) | <10 | <10 | <10 | <10 | <10 | <10 |
| Ethyl Benzene** | (µg/kg) | <10 | <10 | <10 | <10 | <10 | <10 |
| mpXylene** | (µg/kg) | <10 | <10 | <10 | <10 | <10 | <10 |
| oXylene** | (µg/kg) | <10 | <10 | <10 | <10 | <10 | <10 |
| 1, 2-Dichloroethene-cis** | (µg/kg) | 132 | <10 | <10 | <10 | <10 | <10 |
| 1, 1-Dichloroethane** | (µg/kg) | <10 | <10 | <10 | <10 | <10 | <10 |
| Chloroform** | (µg/kg) | <10 | <10 | <10 | <10 | <10 | <10 |
| Carbontetrachloride** | (µg/kg) | <10 | <10 | <10 | <10 | <10 | <10 |
| 1, 1, 1-Trichloroethane** | (µg/kg) | <10 | <10 | <10 | <10 | <10 | <10 |
| Trichloroethylene** | (µg/kg) | 183 | <10 | <10 | <10 | <10 | <10 |
| Tetrachloroethylene** | (µg/kg) | 100 | <10 | <10 | <10 | <10 | <10 |
| 1, 1, 1, 2-Tetrachloroethane** | (µg/kg) | <10 | <10 | <10 | <10 | <10 | <10 |
| 1, 1, 2, 2-Tetrachloroethane** | (µg/kg) | <10 | <10 | <10 | <10 | <10 | <10 |
| Chlorobenzene** | (µg/kg) | <10 | <10 | <10 | <10 | <10 | <10 |
| Bromobenzene** | (µg/kg) | <10 | <10 | <10 | <10 | <10 | <10 |
| Bromodichloromethane** | (µg/kg) | <10 | <10 | <10 | <10 | <10 | <10 |
| Methylethylbenzene** | (µg/kg) | <10 | <10 | <10 | <10 | <10 | <10 |
| 1, 1-Dichloro-1-propene** | (µg/kg) | <10 | <10 | <10 | <10 | <10 | <10 |
| 1, 2-Dichloroethene-trans | (µg/kg) | 120 | <10 | <10 | <10 | <10 | <10 |
| 2, 2-Dichloropropane | (µg/kg) | <10 | <10 | <10 | <10 | <10 | <10 |
| Bromochloromethane | (µg/kg) | <10 | <10 | <10 | <10 | <10 | <10 |
| 1, 2-Dichloroethane | (µg/kg) | <10 | <10 | <10 | <10 | <10 | <10 |
| Dibromomethane** | (µg/kg) | <10 | <10 | <10 | <10 | <10 | <10 |
| 1, 2-Dichloropropane** | (µg/kg) | <10 | <10 | <10 | <10 | <10 | <10 |
| 1, 3-Dichloro1propene** | (µg/kg) | <10 | <10 | <10 | <10 | <10 | <10 |
| 1, 3-Dichloro1propene trans | (µg/kg) | <10 | <10 | <10 | <10 | <10 | <10 |
| 1, 1, 2-Trichloroethane | (µg/kg) | <10 | <10 | <10 | <10 | <10 | <10 |
| Dibromochloromethane | (µg/kg) | <10 | <10 | <10 | <10 | <10 | <10 |
| 1, 3-Dichloropropane | (µg/kg) | <10 | <10 | <10 | <10 | <10 | <10 |
| Dibromoethane** | (µg/kg) | <10 | <10 | <10 | <10 | <10 | <10 |
| Styrene | (µg/kg) | <10 | <10 | <10 | <10 | <10 | <10 |
| Propylbenzene | (µg/kg) | <10 | <10 | <10 | <10 | <10 | <10 |
| 2-Chlorotoluene | (µg/kg) | <10 | <10 | <10 | <10 | <10 | <10 |
| 1, 2, 4-Trimethylbenzene | (µg/kg) | <10 | <10 | <10 | <10 | <10 | <10 |
| 4-Chlorotoluene | (µg/kg) | <10 | <10 | <10 | <10 | <10 | <10 |
| t-Butylbenzene | (µg/kg) | <10 | <10 | <10 | <10 | <10 | <10 |
| Trimethylbenzene | (µg/kg) | <10 | <10 | <10 | <10 | <10 | <10 |
| 1-Methylpropylbenzene | (µg/kg) | <10 | <10 | <10 | <10 | <10 | <10 |
| o-Cymene | (µg/kg) | <10 | <10 | <10 | <10 | <10 | <10 |
| 1, 4-Dichlorobenzene | (µg/kg) | <10 | <10 | <10 | <10 | <10 | <10 |
| Butylbenzene | (µg/kg) | <10 | <10 | <10 | <10 | <10 | <10 |
| 1, 2-Dibromo-3-chloropropane | (µg/kg) | <10 | <10 | <10 | <10 | <10 | <10 |
| Hexachlorobutadiene | (µg/kg) | <10 | <10 | <10 | <10 | <10 | <10 |
| 1, 2, 3-Trichlorobenzene | (µg/kg) | <10 | <10 | <10 | <10 | <10 | <10 |
| 1, 2, 4-Trichlorobenzene | (µg/kg) | <10 | <10 | <10 | <10 | <10 | <10 |
| 1, 3-Dichlorobenzene | (µg/kg) | <10 | <10 | <10 | <10 | <10 | <10 |
| 1, 2-Dichlorobenzene | (µg/kg) | <10 | <10 | <10 | <10 | <10 | <10 |
| Bromoform | (µg/kg) | <10 | <10 | <10 | <10 | <10 | <10 |

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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 | Sandy silt | Sandy silt | Stones | Silty clay loam | Silt Loam |
|-------|--|------------|------------|--------|-----------------|---------------------|
| | 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 |
| | 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 |
| | Hexachlorobutadiene (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 |

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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: 201
Depth (m) 2.00
Our ref: 16082A
#Description of Sample Matrix: Sandy silt loam
*Result No asbestos identified

Sample ref: 202
Depth (m) 0.50
Our ref: 16083A
#Description of Sample Matrix: Sandy silt loam
*Result No 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

*= UKAS accredited

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

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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

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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

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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

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Asbestos Identification

Sample ref: 215
Depth (m) 0.30
Our ref: 16101
#Description of Sample Matrix: Silt Loam
*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
Depth (m) 0.20⁽¹⁾
Our ref: 16104
#Description of Sample Matrix: Stones
*Result No asbestos identified

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

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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

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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: Silt 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

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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: | S101A |
| Depth (m) | 1.00 ⁽²⁾ |
| Our ref: | 16119 |
| #Description of Sample Matrix: | Silt Loam |
| *Result | No asbestos identified |

| | |
|--------------------------------|------------------------|
| Sample ref: | S101A |
| Depth (m) | 1.20 ⁽³⁾ |
| Our ref: | 16120 |
| #Description of Sample Matrix: | Sandy silt loam |
| *Result | No asbestos identified |

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 Middlesex, UB4 8LP

Reporting Date: 02/11/11

SVOC ANALYSIS

| 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 |
| 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- | (µg/kg) | <10 | <10 | <10 | <10 | <10 | <10 |
| Phenol, 3-methyl- | (µg/kg) | <10 | <10 | <10 | <10 | <10 | <10 |
| Nitrobenzene | (µg/kg) | <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 | (µg/kg) | <10 | <10 | <10 | <10 | <10 | <10 |
| Phenol, 2,4,6-trichloro- | (µg/kg) | <10 | <10 | <10 | <10 | <10 | <10 |
| Phenol, 2,4,5-trichloro- | (µg/kg) | <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, | (µg/kg) | <10 | <10 | <10 | <10 | <10 | <10 |
| Diethylphthalate | (µg/kg) | <10 | 69 | <10 | 42 | <10 | <10 |
| Fluorene | (µg/kg) | --- | --- | --- | --- | --- | --- |
| 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 | (µg/kg) | <10 | <10 | <10 | <10 | <10 | <10 |
| Benzo(a)anthracene | (µg/kg) | --- | --- | --- | --- | --- | --- |
| Chrysene | (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) | --- | --- | --- | --- | --- | --- |

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. 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

| Soils | 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- | (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- | (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 | (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) | 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, | (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) | --- | --- | <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 | (µg/kg) | 207 | <10 | 45 | <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 | (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) | 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 | (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
Telephone (01424) 718618
Facsimile (01424) 729911

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 |
|----------------------------|------------------------|-------------|---------------|------------------------------------|
| 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

* = UKAS Accredited test

** - MCERTS 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)



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

* = UKAS Accredited test

** - MCERTS Accredited test

Determinands not marked with * or ** are non accredited

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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: 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

Report Checked By:-

Authorised By:-

Steve Knight
Director

Mike Varley BSc, CChem, CSci, FRSC
Chief Chemist

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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. 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 | Sandy silt loam | Sandy silt loam | Sandy 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 |
| 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 |

All results expressed on dry weight basis

** - MCERTS accredited test

* - UKAS accredited test

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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. 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

| <u>Soils</u> | Characteristic | Silt Loam | Chalk | Loamy sand | Silt Loam | Silt Loam | Sandy silt loam | Silty clay loam | Clay | 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 |
| 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 | (mg/l as SO4) | <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 |

All results expressed on dry weight basis

** - MCERTS accredited test

* = UKAS accredited test

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THE ENVIRONMENTAL LABORATORY LTD

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

Reporting Date: 18/11/11

| Soils | Characteristic | Silt Loam | Silt Loam | Sandy silt loam | Sandy silt loam | Silt Loam | Clay |
|--------------------------|----------------------------|-----------|-----------|-----------------|-----------------|-----------|---------|
| | | BHNSA3 | BHNSA6 | BHNSA9 | BHNSA12 | BHNSA19 | BHNSA22 |
| | TP/BH | | | | | | |
| | 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 |

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Location: Upper Heyford NSA



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Jomas Associates Limited
Jomas House
21 Bradenham Road
Middlesex, UB4 8LP

Reporting Date: 18/11/11

| <u>Soils</u> | Characteristic | Silt Loam | Sandy silt loam | Sandy silt loam | Clay | |
|-------------------------------|----------------|-----------|-----------------|-----------------|---------|-----|
| | TP/BH | BHNSA3 | BHNSA9 | BHNSA20 | BHNSA22 | |
| | Depth (m) | 0.50 | 0.50 | 0.50 | 0.50 | |
| | Our ref | 19167 | 19174 | 19185 | 19188 | |
| <u>PCB (7 ICES Congeners)</u> | | | | | | |
| | 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 |

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ANALYTICAL REPORT No. AR35737A

Location: Upper Heyford NSA

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Jomas Associates Limited
Jomas House
21 Bradenham Road
Middlesex, UB4 8LP

Reporting Date: 18/11/11

| Soils | Characteristic TP/BH Depth (m) Our ref | Silt Loam | Silt Loam | Chalk | Silt Loam | Silt Loam | Silt Loam | Silty clay loam | Sandy silt loam | Sandy silt loam | Sandy silt loam |
|------------------------|---|-----------|-----------|--------|-----------|-----------|-----------|-----------------|-----------------|-----------------|-----------------|
| | | BHNSA2 | BHNSA3 | BHNSA4 | BHNSA5 | BHNSA6 | BHNSA7 | BHNSA8 | BHNSA9 | BHNSA10 | BHNSA12 |
| | | 0.50 | 0.50 | 1.00 | 0.50 | 0.50 | 0.50 | 0.50 | 0.50 | 0.50 | 1.00 |
| | | 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

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 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

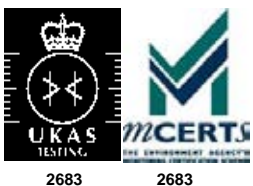
Reporting Date: 18/11/11

| Soils | Characteristic TP/BH | Silt Loam | Chalk | Loamy sand | Silt Loam | Silt Loam | Sandy silt loam | Silty clay loam | Clay | Silty clay loam |
|------------------------|-------------------------|-----------|---------|------------|-----------|-----------|-----------------|-----------------|---------|-----------------|
| | | 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

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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. 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

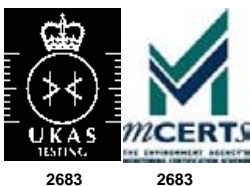
TPH CWG - Soil

| Characteristic TP/BH | Silt Loam BHNSA2 | Silt Loam BHNSA3 | Chalk BHNSA4 | Silt Loam BHNSA5 | Silt Loam BHNSA6 | Silt Loam BHNSA7 | Silty clay loam BHNSA8 | Sandy silt loam BHNSA9 | Sandy silt loam BHNSA10 | Sandy silt loam 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 |
| 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) | <0.1 | <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

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THE ENVIRONMENTAL LABORATORY LTD

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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

TPH CWG - Soil

| Characteristic | Silt Loam TP/BH BHNSA15 | Chalk BHNSA16 | Loamy sand BHNSA17 | Silt Loam BHNSA18 | Silt Loam BHNSA19 | Sandy 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 | |
| <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 |
| <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 |
| >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

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THE ENVIRONMENTAL LABORATORY LTD

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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

VOC ANALYSIS

| Soils | Characteristic | Silt Loam | Silt Loam | Sandy silt loam | Sandy silt loam | Sandy silt loam |
|-------|--------------------------------|-------------|-----------|-----------------|-----------------|-----------------|
| | | BHNSA3 | BHNSA6 | BHNSA9 | BHNSA12 | BHNSA20 |
| | TP/BH | | | | | |
| | 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 | (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 |
| | Hexachlorobutadiene | (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

GM

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. 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 |
|-------------------------------|-----------|--------|--------|--------|---------|---------|
| | 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- | (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 | (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 | (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 | (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, | (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) | <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 | (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 | (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 | (µg/kg) | --- | --- | --- | --- | --- |
| Dibenz(ah)anthracene | (µg/kg) | --- | --- | --- | --- | --- |
| Benzo(ghi)perylene | (µg/kg) | --- | --- | --- | --- | --- |



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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: | BHNSA6 |
| Depth (m) | 0.50 |
| Our ref: | 19171 |
| #Description of Sample Matrix: | Silt Loam |
| *Result | No asbestos identified |

*= UKAS accredited

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

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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 |

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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

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Tel: 01424 718618 Fax: 01424 729911

ANALYTICAL REPORT No. AR35737A

Location: Upper Heyford NSA



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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

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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

* = UKAS Accredited test

** - MCERTS 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)



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 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 |

* = UKAS Accredited test

** - MCERTS Accredited test

Determinands not marked with * or ** are non accredited

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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:-

Steve Knight
Director

Authorised By:-

Mike Varley BSc, CChem, CSci, FRSC
Chief Chemist

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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

Reporting Date: 18/11/11

Jomas Associates Limited

Jomas House

21 Bradenham Road

Middlesex, UB4 8LP

Soils

| | 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 |
| 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 | 0.8 | 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 | 0.8 | 0.2 |
| Elemental Sulphur** | (mg/kg) | n/t | <10 | n/t | <10 | <10 | <10 | <10 | <10 | <10 | <10 |
| Moisture Content** | (%) | 12.5 | 16.6 | 8.9 | 10.3 | 15.6 | 15.6 | 12.0 | 9.6 | 10.3 | 9.6 |
| Thiocyanate | (mg/kg) | n/t | <2 | n/t | <2 | <2 | <2 | <2 | <2 | <2 | <2 |

All results expressed on dry weight basis

** - MCERTS accredited test

* - UKAS accredited test

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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



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

Reporting Date: 18/11/11

| | TP/BH | BHNSA6 | BHNSA6 | TP230A | BHNSA10 |
|----------------------------|----------------------------|--------|--------|--------|---------|
| | Depth (m) | 3.20 | 4.20 | 0.50 | 3.40 |
| | Our ref | 20136 | 20137 | 20138 | 20139 |
| Soils | | | | | |
| 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 |

All results expressed on dry weight basis

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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 |
| Benzo(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 |

All results expressed on dry weight basis

** - MCERTS accredited test

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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

Soils

| | 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 |

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ANALYTICAL REPORT No. AR35899

Location: Upper Heyford NSA



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 21 Bradenham Road
 Middlesex, UB4 8LP

Reporting Date: 18/11/11

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 |
| 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) | <0.1 | <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

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ANALYTICAL REPORT No. AR35899

Location: Upper Heyford NSA



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 Jomas Associates Limited
 Jomas House
 21 Bradenham Road
 Middlesex, UB4 8LP

Reporting Date: 18/11/11

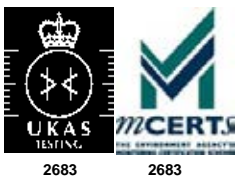
TPH CWG - Soil

| | 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 |
| <u>Aliphatic</u> | | | | | |
| >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

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ANALYTICAL REPORT No. AR35899

Location: Upper Heyford NSA



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Middlesex, UB4 8LP

Reporting Date: 18/11/11

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 |

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2683



2683

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 Middlesex, UB4 8LP

Reporting Date: 18/11/11

VOC ANALYSIS

| <u>Soils</u> | 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) | <10 |
| Tetrachloroethylene** | (µg/kg) | <10 |
| 1, 1, 1, 2-Tetrachloroethane** | (µg/kg) | <10 |
| 1, 1, 2, 2-Tetrachloroethane** | (µg/kg) | <10 |
| Chlorobenzene** | (µg/kg) | <10 |
| Bromobenzene** | (µg/kg) | <10 |
| Bromodichloromethane** | (µg/kg) | <10 |
| Methylethylbenzene** | (µg/kg) | <10 |
| 1, 1-Dichloro-1-propene** | (µg/kg) | <10 |
| 1, 2-Dichloroethene-trans | (µg/kg) | <10 |
| 2, 2-Dichloropropane | (µg/kg) | <10 |
| 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 |
| 1, 3-Dichloropropane | (µg/kg) | <10 |
| Dibromoethane** | (µg/kg) | <10 |
| Styrene | (µg/kg) | <10 |
| 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 |
| o-Cymene | (µg/kg) | <10 |
| 1, 4-Dichlorobenzene | (µg/kg) | <10 |
| Butylbenzene | (µg/kg) | <10 |
| 1, 2-Dibromo-3-chloropropane | (µg/kg) | <10 |
| Hexachlorobutadiene | (µg/kg) | <10 |
| 1, 2, 3-Trichlorobenzene | (µg/kg) | <10 |
| 1, 2, 4-Trichlorobenzene | (µg/kg) | <10 |
| 1, 3-Dichlorobenzene | (µg/kg) | <10 |
| 1, 2-Dichlorobenzene | (µg/kg) | <10 |
| Bromoform | (µg/kg) | <10 |

** - MCERTS accredited test

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ANALYTICAL REPORT No. AR35899

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Reporting Date: 18/11/11

SVOC ANALYSIS

| <u>Soils</u> | TP/BH | BHNSA21 |
|--------------|---------------------------------------|---------|
| | Depth (m) | 3.40 |
| | Our ref | 20132 |
| | 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- (µg/kg) | <10 |
| | Phenol, 2-methyl- (µg/kg) | <10 |
| | Ethane, hexachloro- (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 |
| | Methane, bis(2-chloroethoxy)- (µg/kg) | <10 |
| | Phenol, 2,4-dichloro- (µg/kg) | <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- (µg/kg) | <10 |
| | Naphthalene, 1-methyl- (µg/kg) | <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 (µg/kg) | <10 |
| | 1,4-Dinitrobenzene, (µg/kg) | <10 |
| | Dimethylphthalate (µg/kg) | <10 |
| | Acenaphthylene (µg/kg) | --- |
| | 1,3-Dinitrobenzene (µg/kg) | <10 |
| | 3-Nitroaniline (µg/kg) | <10 |
| | Acenaphthene (µg/kg) | --- |
| | Dibenzofuran (µg/kg) | <10 |
| | 2,4-Dinitrotoluene (µg/kg) | <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 |
| | Azobenzene (µg/kg) | <10 |
| | 4-Bromophenyl phenyl ether (µg/kg) | <10 |
| | Hexachlorobenzene (µg/kg) | <10 |
| | Pentachlorophenol (µg/kg) | <10 |
| | Phenanthrene (µg/kg) | --- |
| | Anthracene (µg/kg) | --- |
| | Fluoranthene (µg/kg) | --- |
| | Pyrene (µg/kg) | --- |
| | Benzylbutylphthalate (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 (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) | --- |

MP



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



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 |
| #Description 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

MP



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



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

MP



THE ENVIRONMENTAL LABORATORY LTD

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 | BHNSA2 |
|--------------------------|----------------------------|--------|
| | Depth (m) | 2.00 |
| | Our ref | 20126 |
| 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

** - MCERTS accredited test

* = UKAS accredited test

MP



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 AR35899
 Your Job No: ---
 Sample Receipt Date: 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 Congeners)** | 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

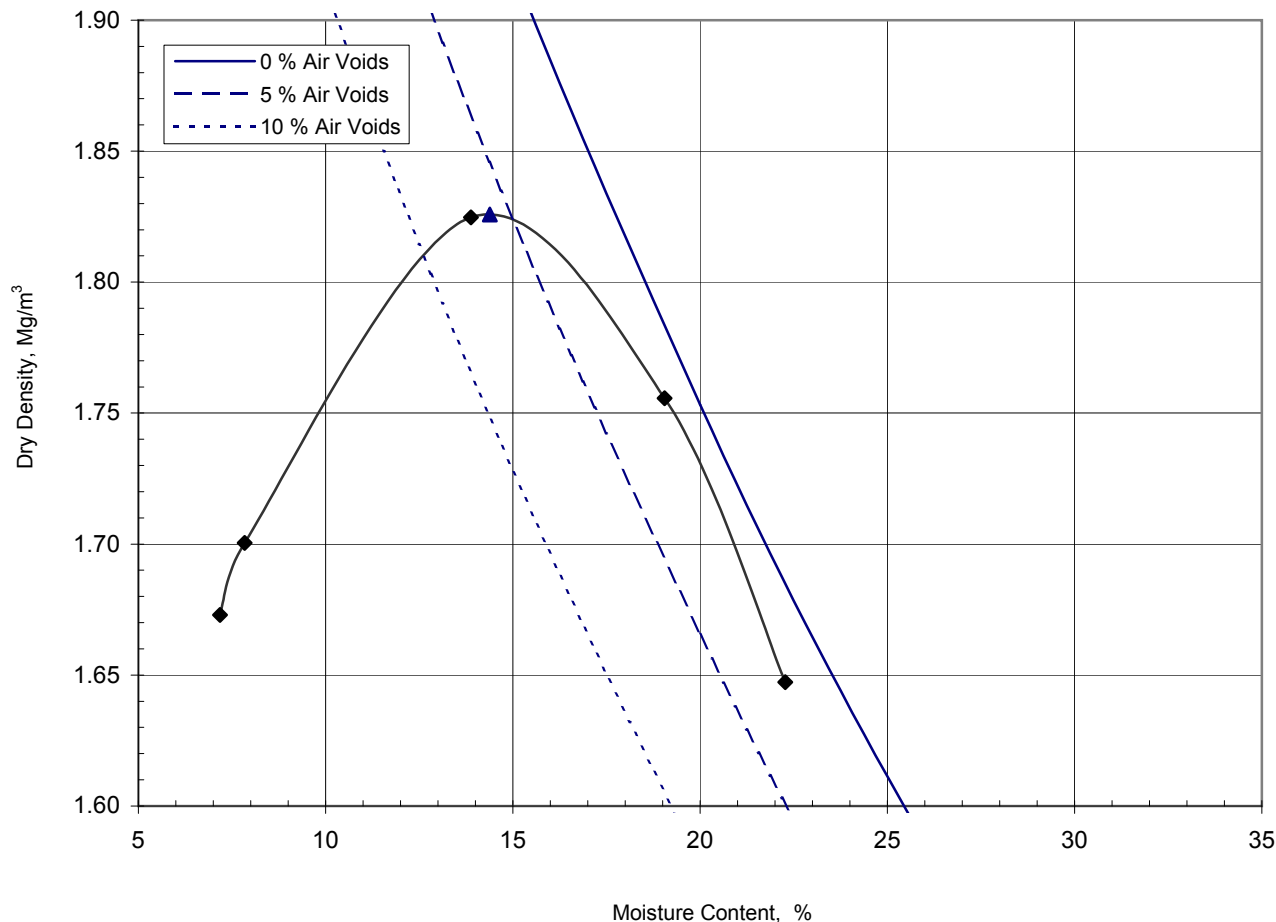
** - MCERTS Accredited test

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)

APPENDIX 7 – GEOTECHNICAL LABORATORY TEST RESULTS



| | | |
|--------------------------------|-------|---------------|
| 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 |

Remarks - Sample does not comply with the quantities in the BS 1377

K4 SOILS LABORATORY

Unit 8 Olds Close Olds Approach Watford Herts
 WD18 9RU. Tel:01923711288 Fax:01923711311.
 E-mail: k4soils@aol.com

Approved Signatories:

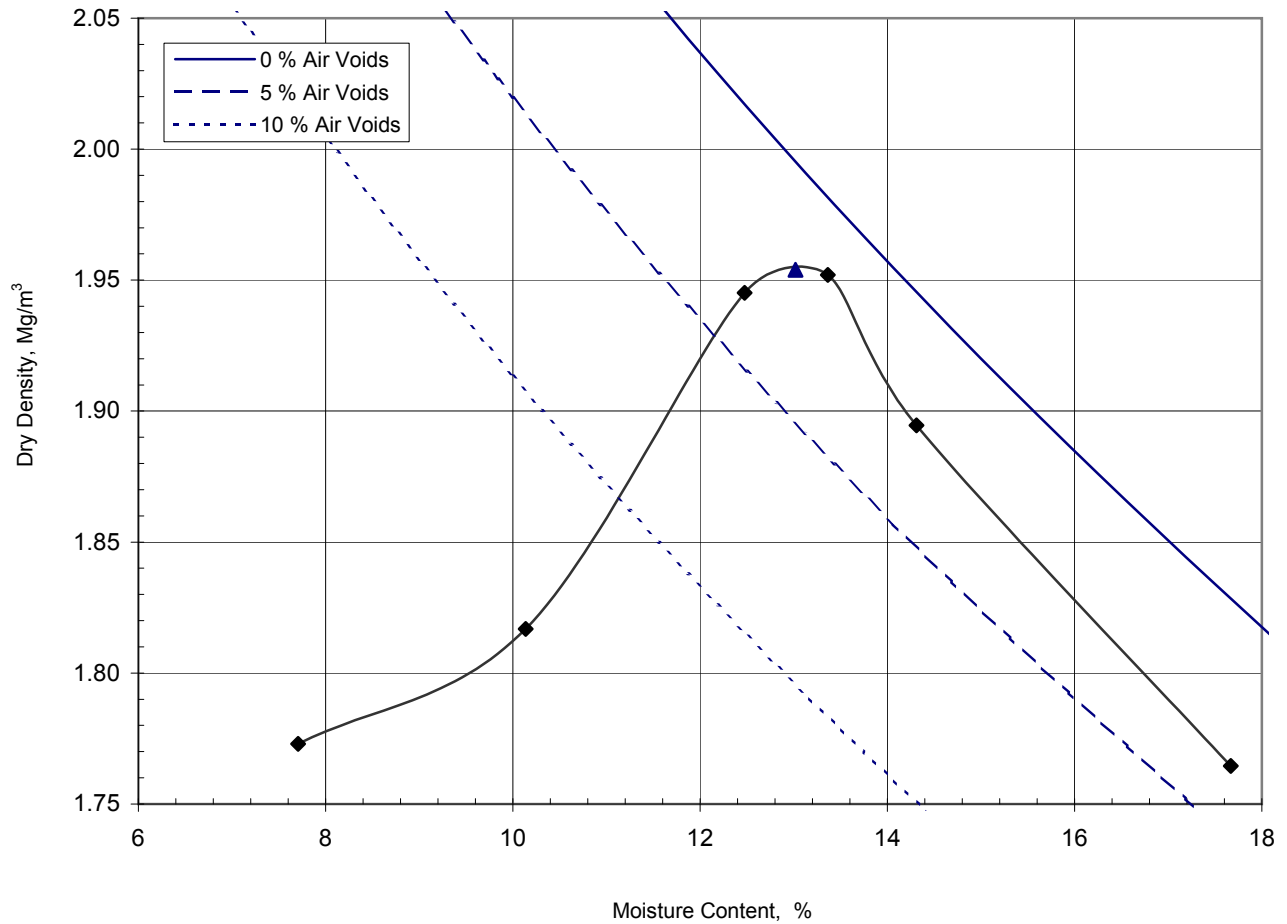
K.Phaure(Tech Mgr) J.Phaure(Lab.Mgr)

Test results relate only to the sample numbers shown above

Checked and Approved

Initials: kp

Date: 02/12/2011



| | | |
|--------------------------------|-------------------|---------------|
| 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/m ³ | 2.70 |
| Maximum Dry Density | Mg/m ³ | 1.95 |
| Optimum Moisture Content | % | 13 |

Remarks - Sample does not comply with the quantities in the BS 1377

K4 SOILS LABORATORY

Unit 8 Olds Close Olds Approach Watford Herts
WD18 9RU. Tel:01923711288 Fax:01923711311.
E-mail: k4soils@aol.com

Approved Signatories:

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

Test results relate only to the sample numbers shown above

Checked and Approved

Initials: kp

Date: 02/12/2011



Dry Density / Moisture Content Relationship

BS 1377 : Part 4 : 1990 : Clause 3

Job Ref

P8219J107.13

Borehole / Pit No

TP222

Site Name

Upper Heyford

Sample No

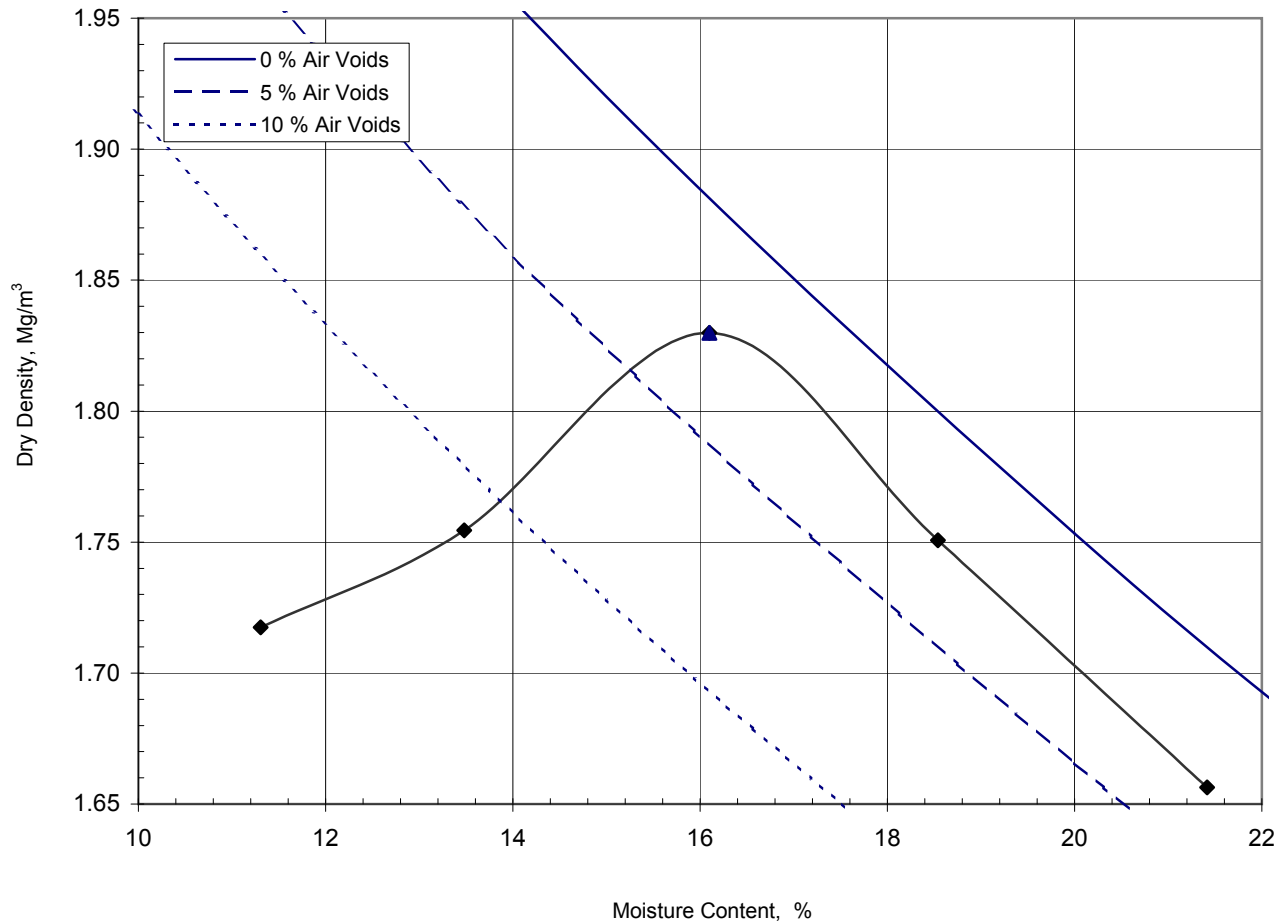
Depth

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/m ³ | 2.70 |
| Maximum Dry Density | Mg/m ³ | 1.83 |
| Optimum Moisture Content | % | 16 |

Remarks - Sample does not comply with the quantities in the BS 1377

K4 SOILS LABORATORY

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E-mail: k4soils@aol.com

Approved Signatories:

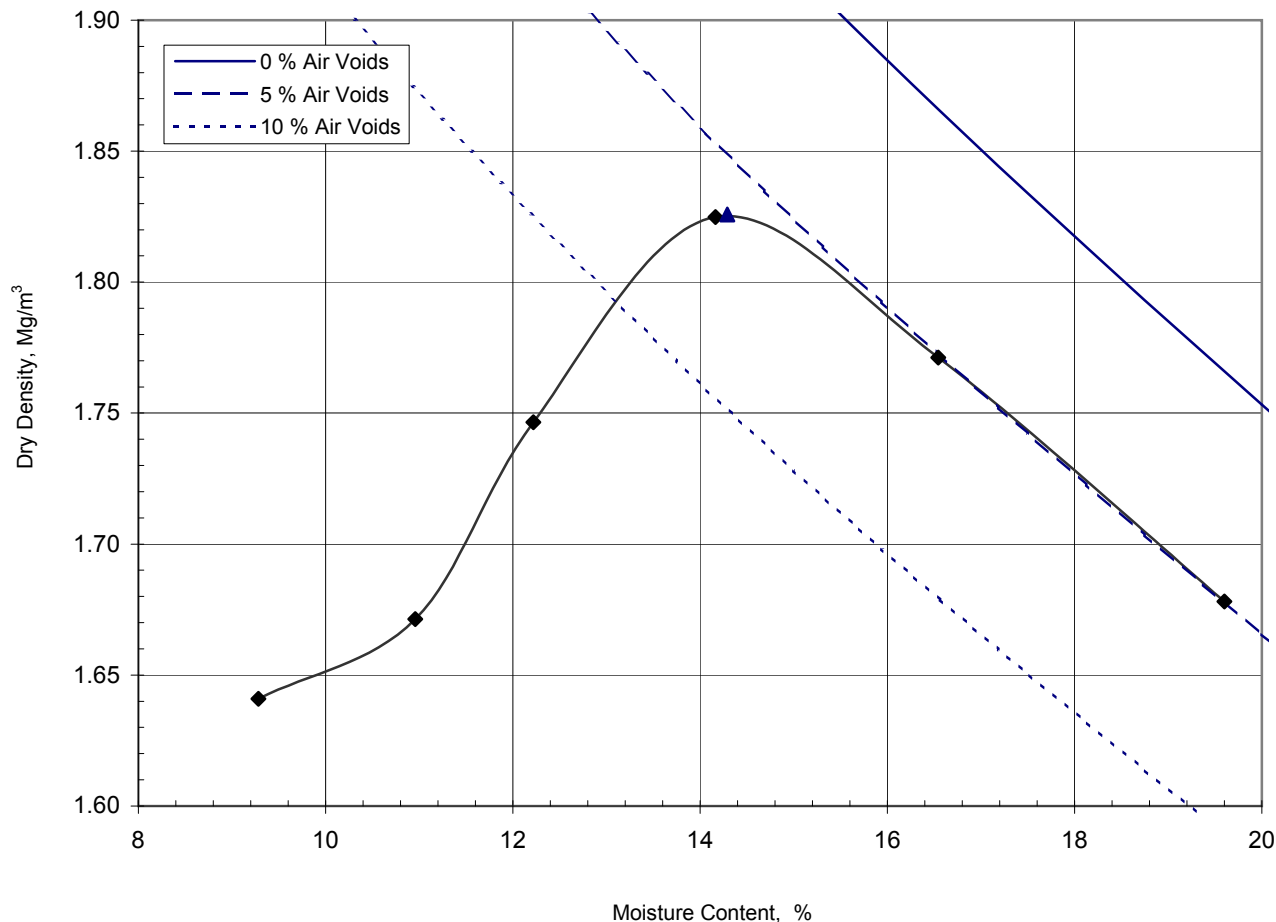
K.Phaure(Tech Mgr) J.Phaure(Lab.Mgr)

Test results relate only to the sample numbers shown above

Checked and Approved

Initials: kp

Date: 02/12/2011



| | | |
|--------------------------------|-------------------|---------------|
| 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/m ³ | 2.70 |
| Maximum Dry Density | Mg/m ³ | 1.83 |
| Optimum Moisture Content | % | 14 |

Remarks - Sample does not comply with the quantities in the BS 1377

K4 SOILS LABORATORY

Unit 8 Olds Close Olds Approach Watford Herts
WD18 9RU. Tel:01923711288 Fax:01923711311.
E-mail: k4soils@aol.com

Approved Signatories:

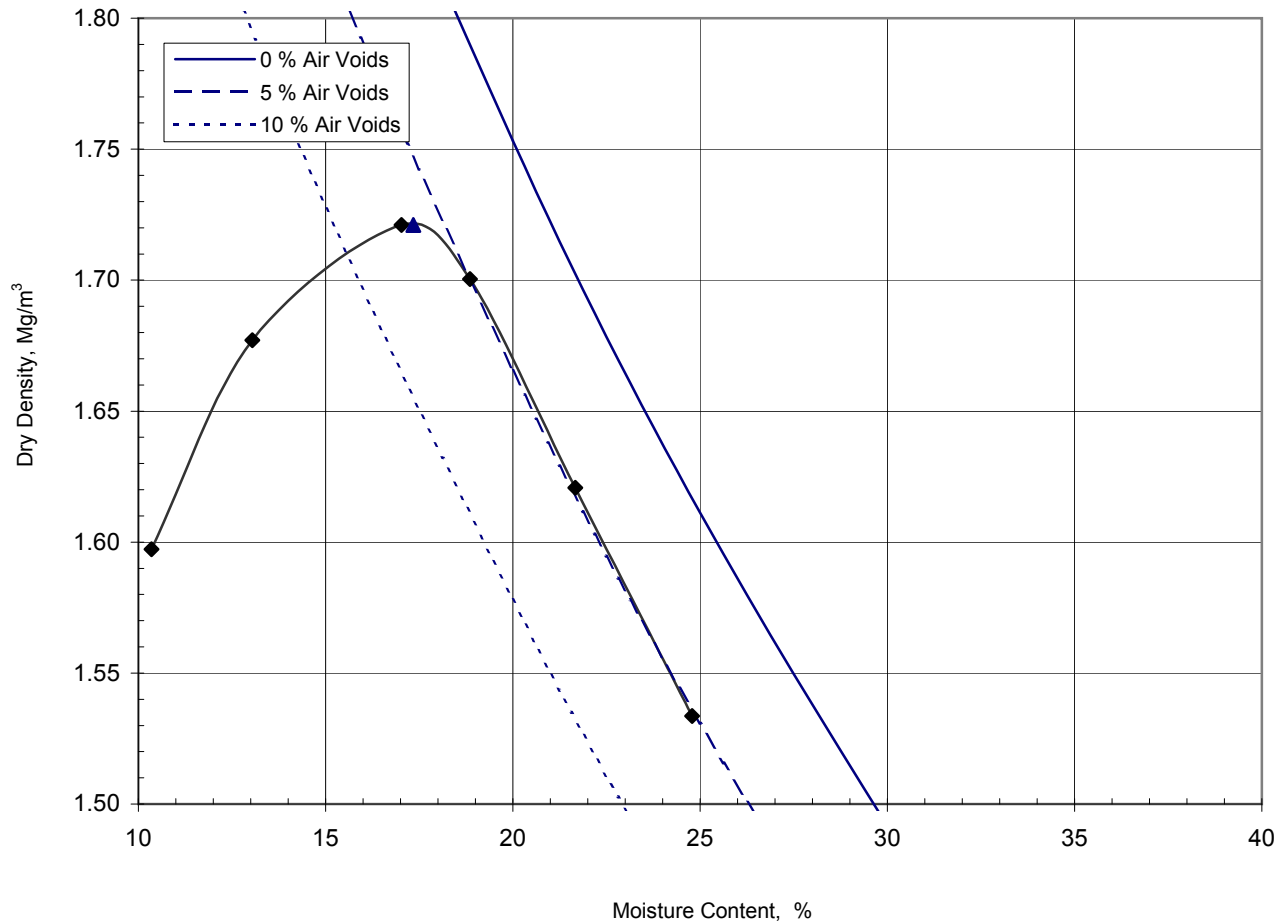
K.Phaure(Tech Mgr) J.Phaure(Lab.Mgr)

Test results relate only to the sample numbers shown above

Checked and Approved

Initials: kp

Date: 02/12/2011



| | | |
|--------------------------------|-------------------|---------------|
| 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/m ³ | 2.70 |
| Maximum Dry Density | Mg/m ³ | 1.72 |
| Optimum Moisture Content | % | 17 |

Remarks - Sample does not comply with the quantities in the BS 1377

K4 SOILS LABORATORY

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 E-mail: k4soils@aol.com

Approved Signatories:

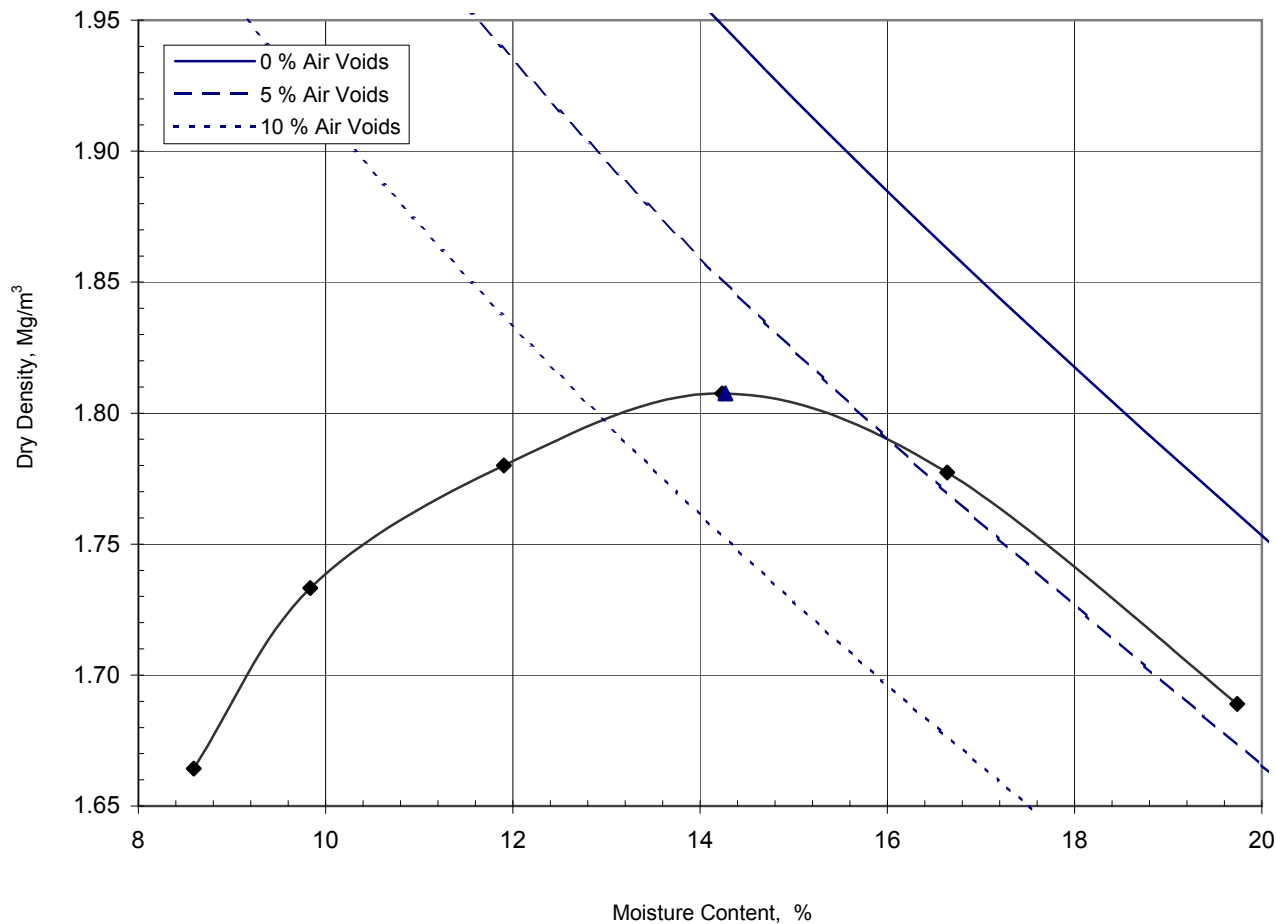
K.Phaure(Tech Mgr) J.Phaure(Lab.Mgr)

Test results relate only to the sample numbers shown above

Checked and Approved

Initials: kp

Date: 02/12/2011



| | | |
|--------------------------------|-------|---------------|
| 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 |

Remarks - Sample does not comply with the quantities in the BS 1377

K4 SOILS LABORATORY

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WD18 9RU. Tel:01923711288 Fax:01923711311.
E-mail: k4soils@aol.com

Approved Signatories:

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

Test results relate only to the sample numbers shown above

Checked and Approved

Initials: kp

Date: 02/12/2011



Dry Density / Moisture Content Relationship

BS 1377 : Part 4 : 1990 : Clause 3

Job Ref

P8219J107.13

Borehole / Pit No

TP226

Site Name

Upper Heyford

Sample No

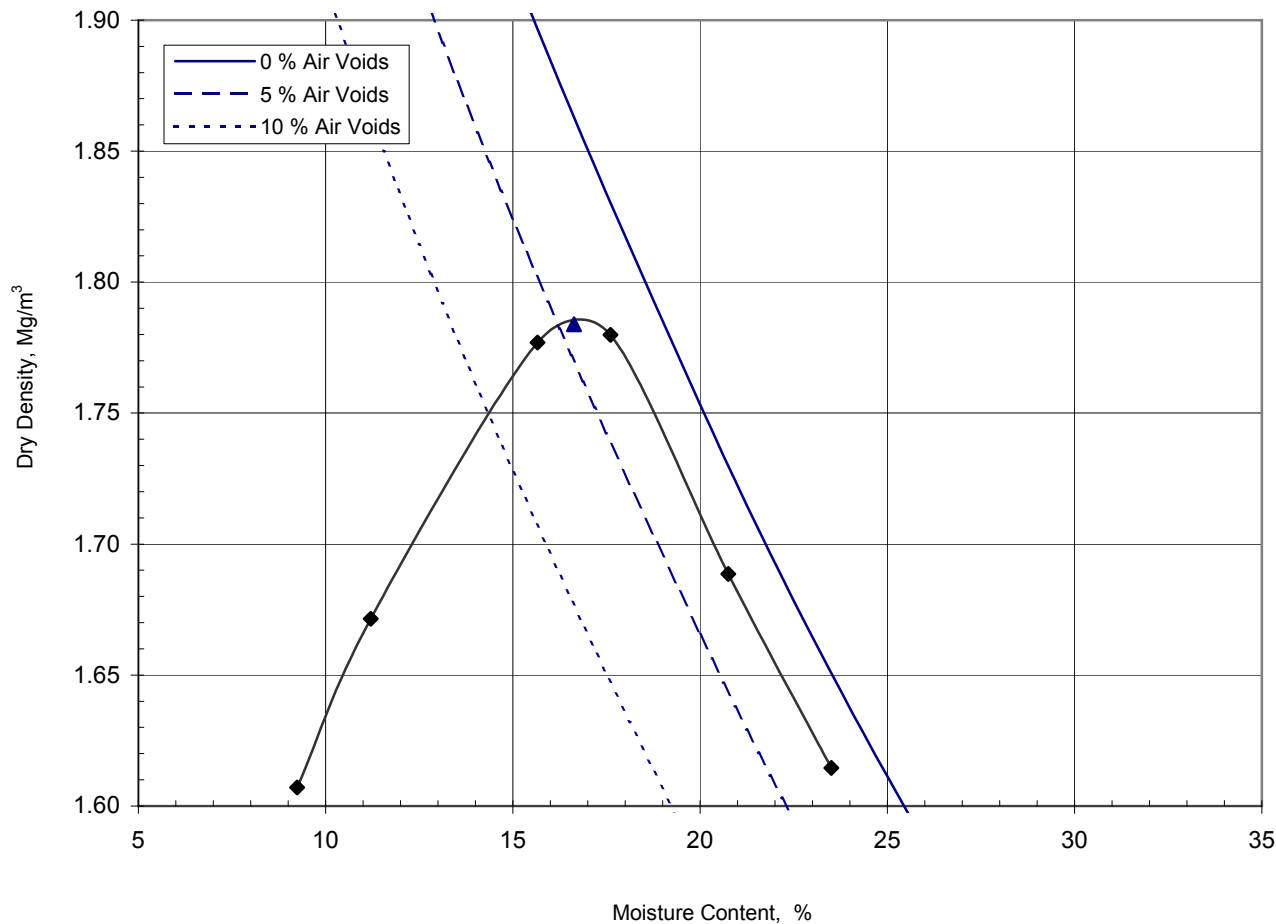
Depth

0.50 m

Soil Description

Brown gravelly slightly sandy CLAY (gravel is fmc 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 | % | 10 |
| Mass Retained on 20.0 mm Sieve | % | 12 |
| Particle Density - Assumed | Mg/m ³ | 2.70 |
| Maximum Dry Density | Mg/m ³ | 1.78 |
| Optimum Moisture Content | % | 17 |

Remarks - Sample does not comply with the quantities in the BS 1377

K4 SOILS LABORATORY

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WD18 9RU. Tel:01923711288 Fax:01923711311.
E-mail: k4soils@aol.com

Approved Signatories:


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

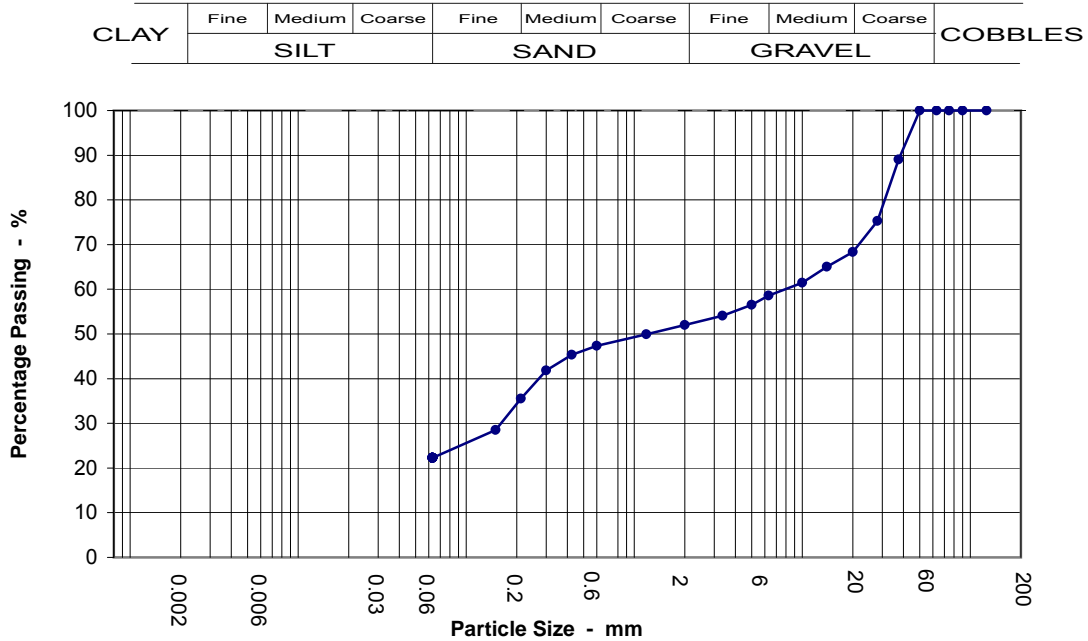
Test results relate only to the sample numbers shown above

Checked and Approved

Initials: kp

Date: 02/12/2011

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




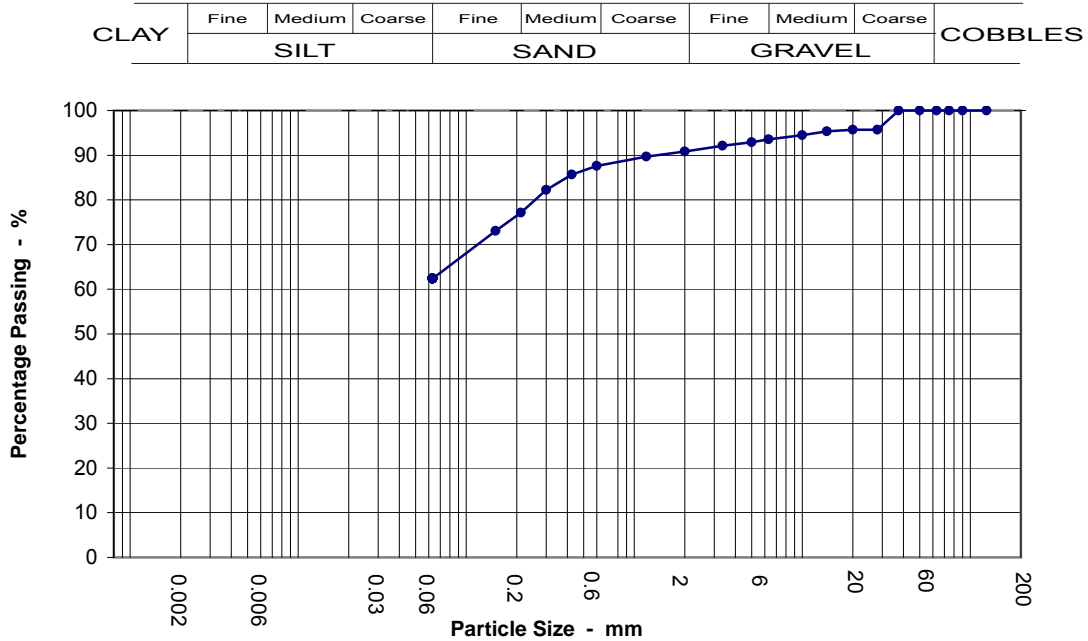
| Sieving | | Sedimentation | |
|------------------|-----------|------------------|-----------|
| Particle Size mm | % Passing | Particle Size mm | % Passing |
| 125 | 100 | | |
| 90 | 100 | | |
| 75 | 100 | | |
| 63 | 100 | | |
| 50 | 100 | | |
| 37.5 | 89 | | |
| 28 | 75 | | |
| 20 | 68 | | |
| 14 | 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 |

| | | | |
|--|---|---|--------------|
| K4 SOILS  | PARTICLE SIZE DISTRIBUTION BS 1377 : Part 2 : 1990 : Clause 9 | Our Report No: | 11891 |
| | | Project No: | P8219J107.13 |
| Location | Upper Heyford | Borehole / Trial Pit No: | TP222 |
| Visual Soil Description | | Greyish brown silty slightly gravelly sandy CLAY (gravel is fmc sub angular sandstone fragments) | Depth |
| | Sample Type/No | | - 0 |



| Sieving | | Sedimentation | |
|------------------|-----------|------------------|-----------|
| 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 |

K4 SOILS LABORATORY

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

Approved Signatories:

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


Test results relate only to the sample numbers shown above

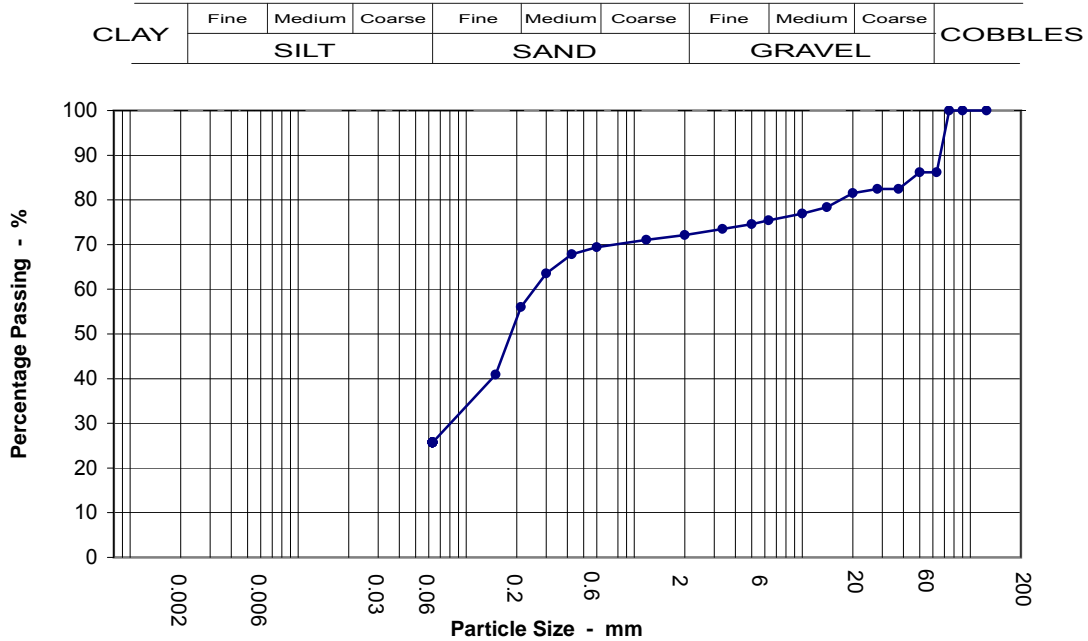
Checked and Approved

Initials: kp

Date: 02/12/2011



| | | | |
|--|---|--|--------------|
| K4 SOILS  | PARTICLE SIZE DISTRIBUTION BS 1377 : Part 2 : 1990 : Clause 9 | Our Report No: | 11891 |
| | | Project No: | P8219J107.13 |
| Location | Upper Heyford | Borehole / Trial Pit No: | TP223 |
| Visual Soil Description | | Brown slightly gravelly clayey SAND with occasional cobble size fragments (gravel is fmc and sub angular limestone/sandstone fragments) | Depth |
| | Sample Type/No | | - 0 |




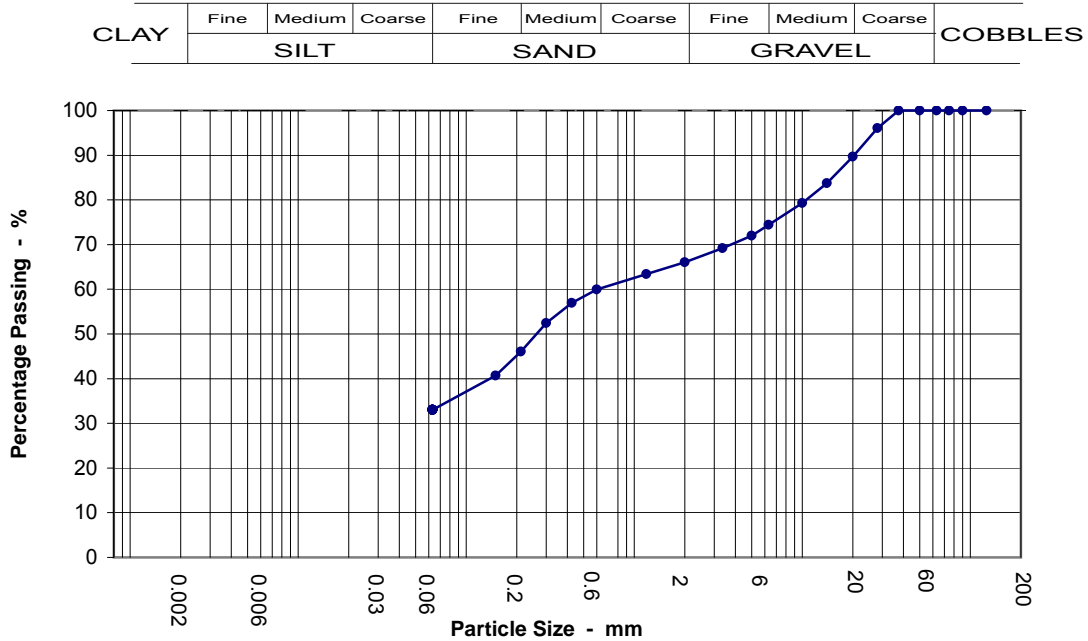
| Sieving | | Sedimentation | |
|------------------|-----------|------------------|-----------|
| Particle Size mm | % Passing | Particle Size mm | % Passing |
| 125 | 100 | | |
| 90 | 100 | | |
| 75 | 100 | | |
| 63 | 86 | | |
| 50 | 86 | | |
| 37.5 | 82 | | |
| 28 | 82 | | |
| 20 | 82 | | |
| 14 | 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 |

| | | | |
|--|---|--|--------------|
| K4 SOILS  | PARTICLE SIZE DISTRIBUTION BS 1377 : Part 2 : 1990 : Clause 9 | Our Report No: | 11891 |
| | | Project No: | P8219J107.13 |
| Location | Upper Heyford | Borehole / Trial Pit No: | TP224 |
| Visual Soil Description | | Brown slightly gravelly clayey SAND / sandy CLAY with numerous fmc limestone fragments (gravel is fmc and sub angular) | Depth |
| | Sample Type/No | | - 0 |



| Sieving | | Sedimentation | |
|------------------|-----------|------------------|-----------|
| 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 |

K4 SOILS LABORATORY

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

Approved Signatories:

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


Test results relate only to the sample numbers shown above

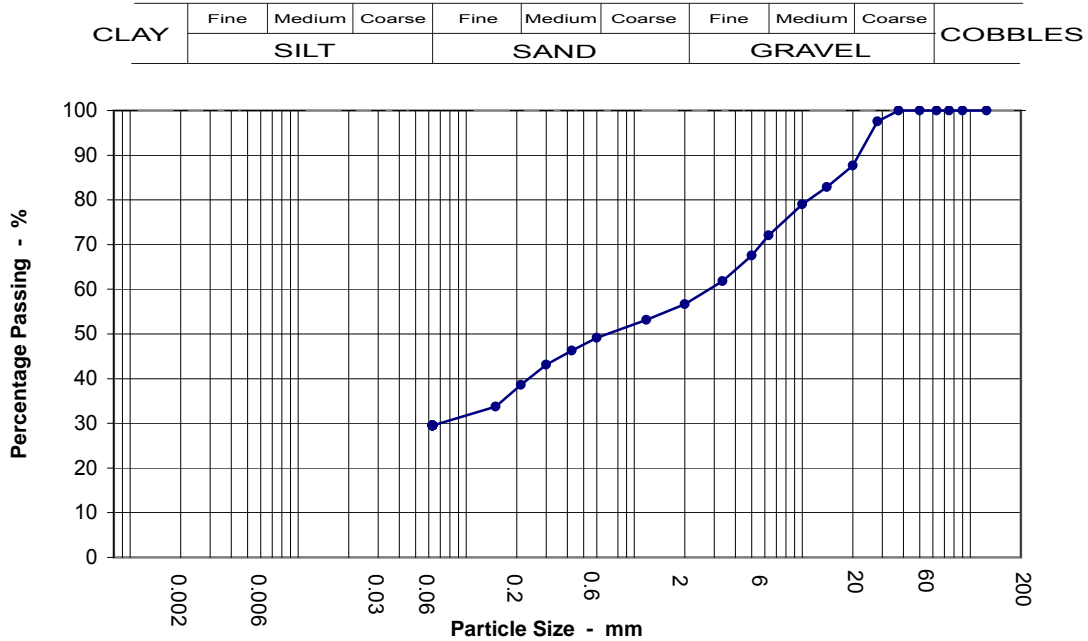
Checked and Approved

Initials: kp

Date: 02/12/2011



| | | | |
|--|---|--|--------------|
| K4 SOILS  | PARTICLE SIZE DISTRIBUTION BS 1377 : Part 2 : 1990 : Clause 9 | Our Report No: | 11891 |
| | | Project No: | P8219J107.13 |
| Location | Upper Heyford | Borehole / Trial Pit No: | TP221 |
| Visual Soil Description | | Greyish brown slightly sandy slightly gravelly CLAY (gravel is fmc and angular limestone fragments) | Depth |
| | Sample Type/No | | - 0 |



| Sieving | | Sedimentation | |
|------------------|-----------|------------------|-----------|
| 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 |
| 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 |

K4 SOILS LABORATORY

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

Approved Signatories:

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


Test results relate only to the sample numbers shown above

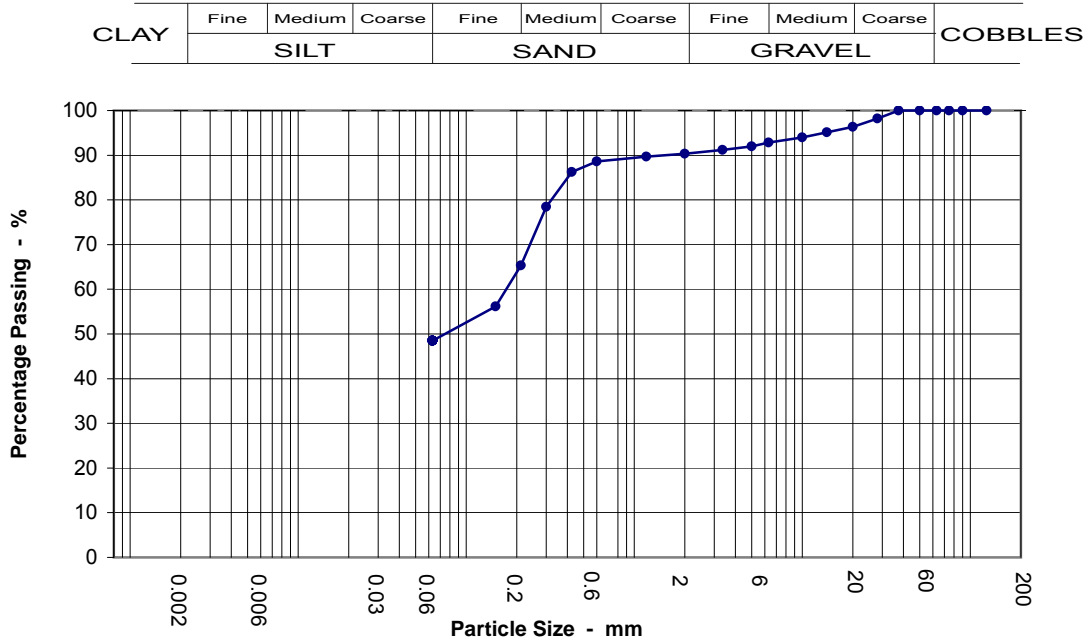
Checked and Approved

Initials: kp

Date: 07/12/2011



| | | | |
|--|---|--|----------------|
| K4 SOILS  | PARTICLE SIZE DISTRIBUTION BS 1377 : Part 2 : 1990 : Clause 9 | Our Report No: | 11891 |
| | | Project No: | P8219J107.13 |
| Location | Upper Heyford | Borehole / Trial Pit No: | TP223 |
| Visual Soil Description | | Brown clayey gravelly SAND (gravel is fmc and cobble sized and sub angular to angular) | Depth |
| | | | Sample Type/No |




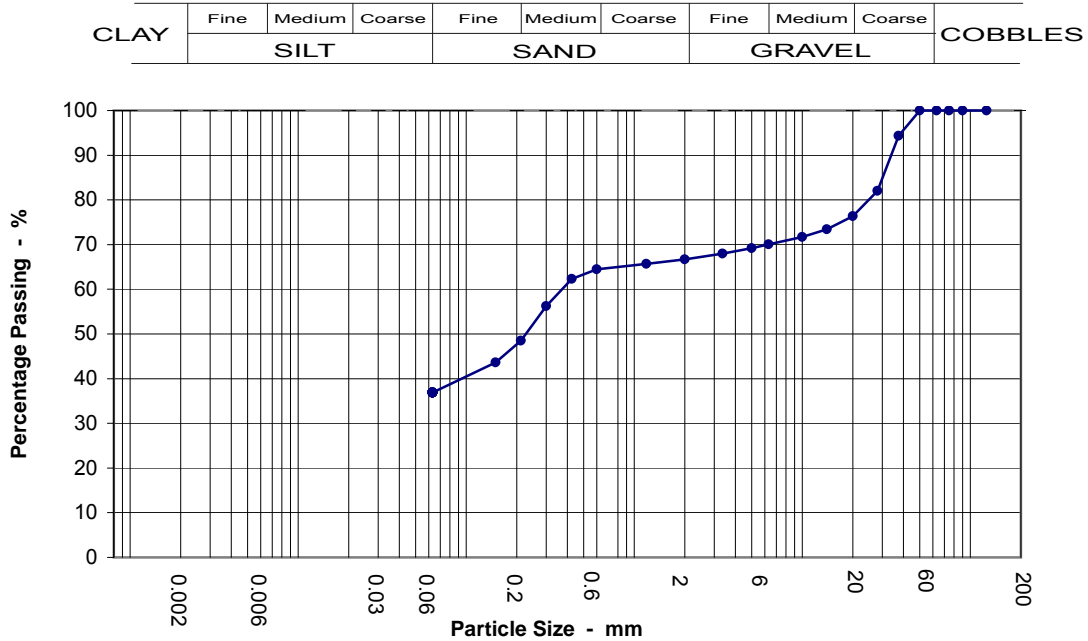
| Sieving | | Sedimentation | |
|------------------|-----------|------------------|-----------|
| Particle Size mm | % Passing | Particle Size mm | % Passing |
| 125 | 100 | | |
| 90 | 100 | | |
| 75 | 100 | | |
| 63 | 100 | | |
| 50 | 100 | | |
| 37.5 | 100 | | |
| 28 | 98 | | |
| 20 | 96 | | |
| 14 | 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 |

| | | | |
|--|---|---|--------------|
| K4 SOILS  | PARTICLE SIZE DISTRIBUTION BS 1377 : Part 2 : 1990 : Clause 9 | Our Report No: | 11891 |
| | | Project No: | P8219J107.13 |
| Location | Upper Heyford | Borehole / Trial Pit No: | TP226 |
| Visual Soil Description | | Brown gravelly slightly sandy CLAY (gravel is fmc and sub angular to angular) | Depth |
| | Sample Type/No | | - 0 |



| Sieving | | 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 |

K4 SOILS LABORATORY

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

Approved Signatories:

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


Test results relate only to the sample numbers shown above


Checked and Approved

Initials: kp

Date: 07/12/2011



| Project Name: Upper Heyford | | | | | Samples Received: | | |  | |
|------------------------------|------------|-----------|------------------------------|----------------------|---------------------------|-------------------|----------------------|--|------------|
| Client: Jomas Associates Ltd | | | | | Project Started: | | | | |
| Project No: P8219J107.13 | | | Our job/report no: 11891 | | Testing Started: | | | | |
| | | | | | Date Reported: 02/12/2011 | | | | |
| Borehole No: | Sample No: | Depth (m) | Description | Moisture content (%) | Liquid Limit (%) | Plastic Limit (%) | Plasticity Index (%) | Passing 0.425 mm (%) | Remarks |
| TP210 | | 0.50 | Brown slightly clayey GRAVEL | 14 | | | | 100 | Unsuitable |

| | | |
|--|---|-----------------------------|
|  | Summary of Test Results | Checked and Approved |
| | BS 1377 : Part 2 : Clause 4.4 : 1990 Determination of the liquid limit by the cone penetrometer method. | Initials: K.P |
| | BS 1377 : Part 2 : Clause 5 : 1990 Determination of the plastic limit and plasticity index. | Date: 02/12/2011 |

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.Acoppy of this policy is available on request.

MSF-11/R2



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)



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. 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

| Soils | Characteristic | Sandy Silt loam | Sandy Clay | Silt loam | Sand | Sandy Clay | Silt loam | Sandy Clay | Sand | Sandy Clay | Silt loam | Sand |
|------------------------|----------------------------|-----------------|------------|-----------|-------|------------|-----------|------------|-------|------------|-----------|-------|
| | 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/l as SO ₄) | 93 | 16 | 17 | 27 | <10 | 65 | 12 | 16 | 13 | 17 | 22 |

All results expressed on dry weight basis

** - MCERTS accredited test

* - UKAS accredited test

SBB



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: 15/11/11
 Prepared: 16/11/11
 Analysis 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 |

* = UKAS Accredited test

** - MCERTS 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)

| | | | | | | |
|-----------------|-------------------|---------------|-------|-----------|------------------------------------|-------|
| Project Name | Upper Heyford NSA | | | | K4 SOILS LABORATORY | |
| Project Number | | Client | Jomas | Reference | | 11891 |
| Borehole Number | 12 | Sample Number | | Depth (m) | | 11.80 |

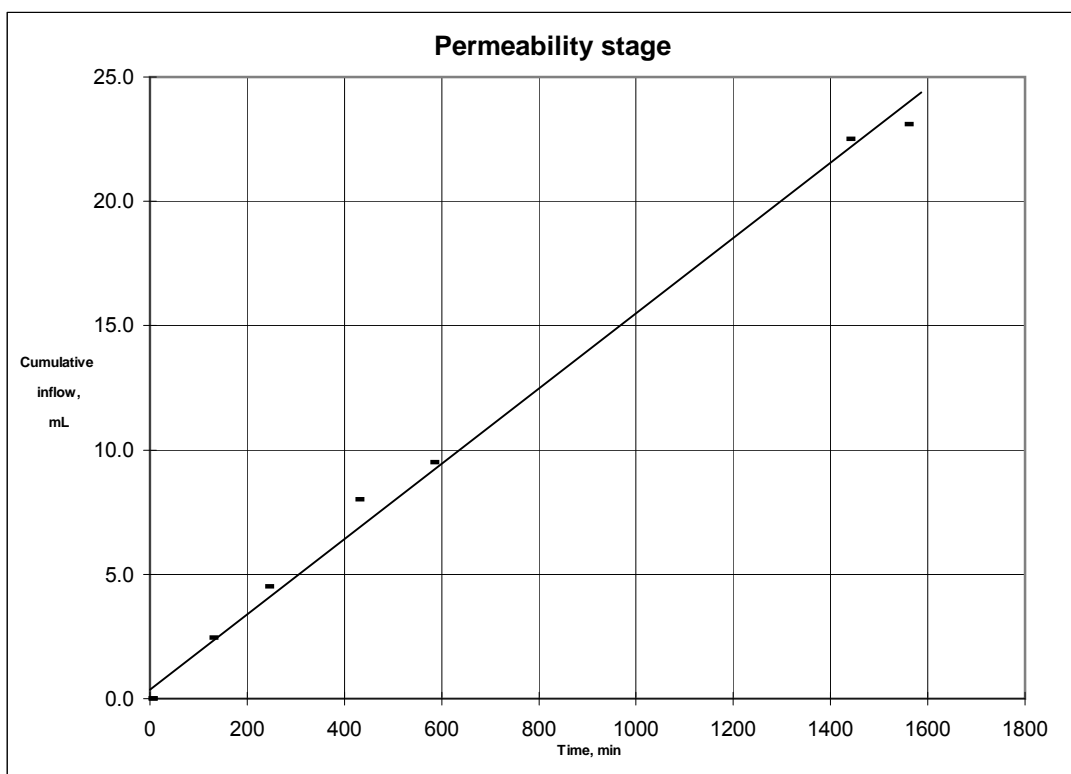
Sample description : rockcore

Depth within original sample : N/A Orientation within original sample : Vertical

Specimen preparation : Undisturbed Cell preparation : In accordance with Clause 5.2.4

| <u>Specimen details</u> | | <u>Initial</u> | <u>Final</u> | <u>Saturation Stage</u> | In accordance with Clause 5.4.3 |
|-------------------------|---------------------|----------------|--------------|-----------------------------------|---------------------------------|
| Diameter | mm : | 83.0 | - | Initial pore pressure parameter B | : n/a |
| Length | mm : | 103.0 | - | Final pore pressure parameter B | : n/a |
| Wet density | Mg/m ³ : | 2.55 | 2.54 | Duration | day(s) : n/a |
| Dry density | Mg/m ³ : | 2.36 | 2.36 | | |
| Moisture content | % : | 8 | 8 | | |

| <u>Consolidation Stage</u> | | <u>Permeability Stage</u> | | | |
|----------------------------|----------|---------------------------|-------------------------------------|----------|---------|
| Cell pressure | kPa : | 250 | Cell pressure | kPa : | 600 |
| Back pressure | kPa : | 200 | Top pressure | kPa : | 500 |
| Effective pressure | kPa : | 50 | Base pressure | kPa : | 550 |
| Duration | day(s) : | 4 | 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 |



| | | |
|------------|--|----------------------|
| 02/12/2011 | TRIAxIAL PERMEABILITY TEST | Approved |
| | BS 1377 : Part 6 : Clause 6 : 1990 Determination of permeability under constant head conditions in a triaxial cell. | Initials : Date : |

| | | | | | | |
|-----------------|-------------------|---------------|-------|------------------------------------|-----------|-------|
| Project Name | Upper Heyford NSA | | | K4 SOILS LABORATORY | | |
| Project Number | | Client | Jomas | | Reference | 11891 |
| Borehole Number | 16 | Sample Number | | | Depth (m) | 9.50 |

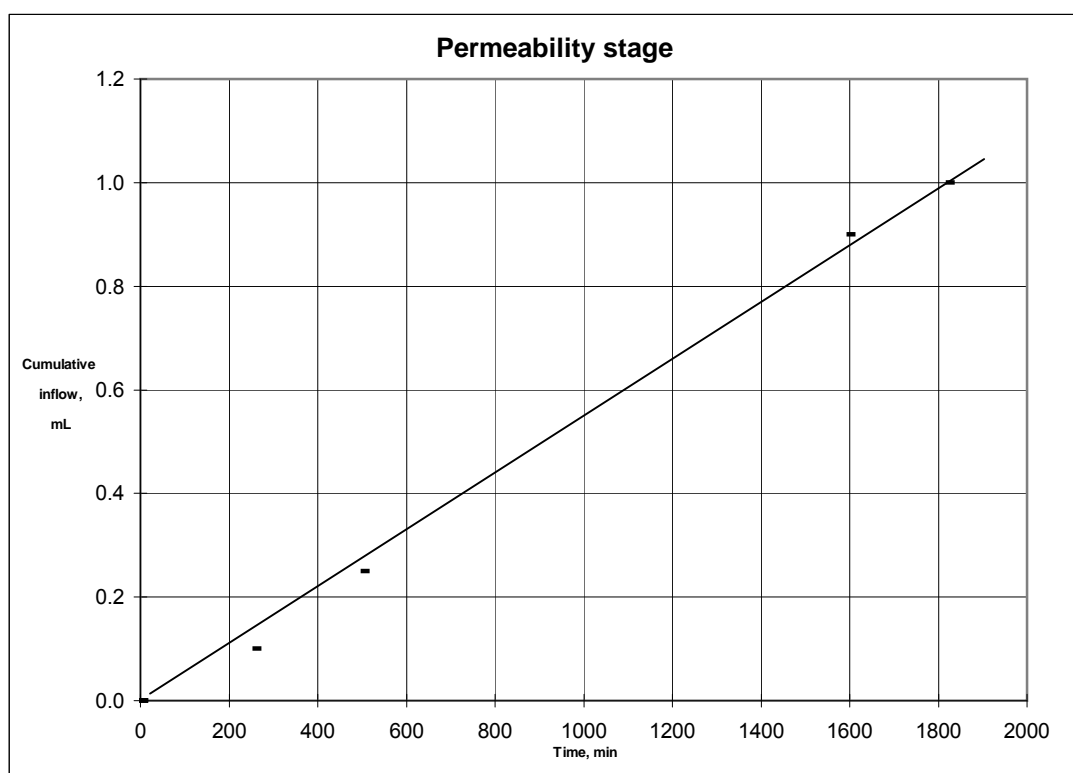
Sample description : Dark grey silty CLAY with mudstone fragments and patches of grey sand and shell fragments

Depth within original sample : N/A Orientation within original sample : Vertical

Specimen preparation : Undisturbed Cell preparation : In accordance with Clause 5.2.4

| <u>Specimen details</u> | | <u>Initial</u> | <u>Final</u> | <u>Saturation Stage</u> | In accordance with Clause 5.4.3 |
|-------------------------|---------------------|----------------|--------------|-----------------------------------|---------------------------------|
| Diameter | mm : | 83.0 | - | Initial pore pressure parameter B | : n/a |
| Length | mm : | 103.0 | - | Final pore pressure parameter B | : n/a |
| Wet density | Mg/m ³ : | 2.29 | 2.31 | Duration | day(s) : n/a |
| Dry density | Mg/m ³ : | 1.96 | 2.01 | | |
| Moisture content | % : | 17 | 15 | | |

| <u>Consolidation Stage</u> | | <u>Permeability Stage</u> | | | |
|----------------------------|----------|---------------------------|-------------------------------------|----------|---------|
| Cell pressure | kPa : | 600 | Cell pressure | kPa : | 600 |
| Back pressure | kPa : | 500 | Top pressure | kPa : | 500 |
| Effective pressure | kPa : | 100 | Base pressure | kPa : | 550 |
| 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 |



| | | |
|------------|--|----------------------|
| 08/12/2011 | TRIAxIAL PERMEABILITY TEST | Approved |
| | Accelerated Method | |
| | Determination of permeability under constant head conditions in a triaxial cell. | Initials : Date : |

FACTUAL REPORT
ON
GROUND INVESTIGATION
AT
RESIDUAL NEW SETTLEMENT AREA, UPPER HEYFORD



Specialists in the investigation & reclamation of brownfield sites

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

Report Status : Final v1.1

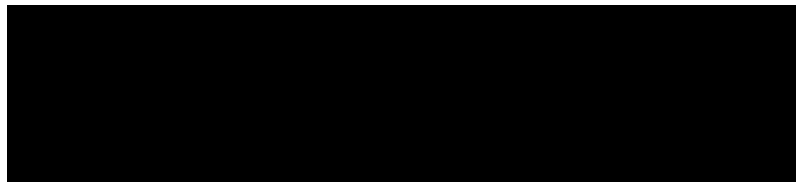
Job No : P8251J128

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**



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



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

☎ **0843 289 2187**

✉ info@jomasassociates.com

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APPENDIX 2 – TRIAL PIT LOGS

APPENDIX 3 – BOREHOLE LOGS

APPENDIX 4 – IN SITU CBR TEST RECORDS

APPENDIX 5 – TANK SURVEY RECORDS

APPENDIX 6 – FALLING HEAD TEST RESULTS

APPENDIX 7 – CHEMICAL LABORATORY 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'.

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

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.

6.1.2 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.
- 6.3.6 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 3.3×10^{-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

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| KEY | |
|-----|-----------|
| | TRIAL PIT |
| | BORHOLE |
| | CBR TEST |
| | TANK |

Job. No. **P8251J128** Rev.

| Legend | | | |
|--------|-----------------------|-----|---------------------|
| AV | Air valve | IC | Inspection Chamber |
| BOL | Bollard | IL | Invert Level |
| BM | Bench Mark | KO | Kerb Outlet |
| BT | British Telecom Cover | LP | Lamp Post |
| CATV | Cable T.V Cover | MH | Manhole Cover |
| Conc | Concrete | MKR | Marker |
| DK | Drop Kerb | OHC | Overhead Cable |
| EP | Electricity Pole | Ret | Retaining |
| FFL | Floor Level | RS | Road Sign |
| FH | Fire Hydrant | SV | Stop Valve |
| FL | Flood Light | TP | Telegraph Pole |
| G | Gully | UTL | Unable To Lift |
| GSV | Gas Stop Valve | F-C | Floor to Cill level |
| HV | High Voltage | C-H | Cill to Head level |

| | | |
|--|--|----------------------------|
| | | Trees |
| | | Gate |
| | | Hedge |
| | | Foliage |
| | | Borehole |
| | | Station And Name |
| | | Water |
| | | Gas |
| | | Telecom |
| | | Electric |
| | | Unknown Service |
| | | Steel Security Fence |
| | | Crash Barrier Fence (Amco) |
| | | Timber Clad Fence |
| | | Iron Railing Fence |
| | | Chain Link Fence |
| | | Post and wire fence |
| | | Post and rail fence |

Notes.

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Key dimensions to be checked by engineer before major structural works commence on site.

Amendments

| Rev | Date | By | Chkd |
|-----|------|----|------|
| | | | |
| | | | |
| | | | |

JOMAS
 Jomas Associates Ltd.
 Highbridge Industrial Estate,
 Oxford Road,
 Uxbridge,
 UB8 1HR,
 Tel. 0843 2892187

Client **Heyford Park Settlements Ltd**

Project **Upper Heyford NSA**

Drawing **Exploratory Hole Locations**

| | | |
|----------|-----------|-------------------|
| Dwg no | Checked | Surveyor |
| Figure 1 | MW | GS |
| Date | 01-03-12 | Scale 1:1000 @ A1 |
| Job No. | P8251J128 | |
| Grid | Contours | Level Datum |

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



| | | | |
|-------------------------|--------------------------------|----------------|----------|
| Trial Pit Number | TPNSA 229 | Job No: | P8251128 |
| Site: | Upper Heyford NSA, Oxfordshire | | |
| Date: | 31/01/2012 | | |

TRIAL PIT RECORD

| Depth (m) | Sample | | Test | | Seat Drive | | Test Drive | | | | PID Reading | Legend | Description |
|-----------|-----------|------|------|-------|------------|----|------------|----|----|----|-------------|--------|---|
| | Depth (m) | Type | Type | Depth | 75 | 75 | 75 | 75 | 75 | 75 | | | |
| 0.10 | | | | | | | | | | | | | TARMAC |
| 0.50 | D | | PID | 0.5 | | | | | | | 0 | | MADE GROUND - brown/grey gravelly clay. Gravel is of limestone, concrete, brick and wood |
| 0.90 | D | | PID | 1 | | | | | | | 0 | | Brown sandy CLAY with frequent roots (possible buried former topsoil horizon) with organic odour |
| 1.40 | 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 yellow interstitial sand |
| 2.00 | D | | PID | 2 | | | | | | | 0 | | |
| 2.40 | | | | | | | | | | | | | |

| | | |
|------------------|-----|---|
| Client: | HPS | Remarks: 1: Trial pit terminated on limestone rockhead at 2.4m bgl. Groundwater encountered as moderate seepage from 2.0m |
| Driller: | n/a | |
| Engineer: | MW | |



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TRIAL PIT RECORD

| Trial Pit Number | | | | TPNSA 230 | | Job No: | | P8251J128 | | | | | |
|--|-----------|------|------|----------------------------|------------|---------|------------|-----------|----|----|-------------|--------|---|
| Site: | | | | Upper Heyford, Oxfordshire | | | | | | | | | |
| Date: | | | | 31/01/2012 | | | | | | | | | |
| Depth (m) | Sample | | Test | | Seat Drive | | Test Drive | | | | PID Reading | Legend | Description |
| | Depth (m) | Type | Type | Depth | 75 | 75 | 75 | 75 | 75 | 75 | | | |
| 0.10 | | | | | | | | | | | | | TARMAC |
| 0.50 | D | | PID | 0.5 | | | | | | | 0.7 | | White/grey/blue sandy GRAVEL. Gravel is angular to subrounded of limestone with faint hydrocarbon odour |
| 0.90 | D | | PID | 1 | | | | | | | 238 | | Blue/grey/black sandy, clayey GRAVEL. Gravel is angular of Limestone. Strong hydrocarbon odour |
| 1.40 | | | | | | | | | | | | | |
| Remarks: 1: Trial pit terminated on limestone rockhead at 1.4m bgl. Groundwater encountered as seepage at base | | | | | | | | | | | | | |
| Client: | HPS | | | | | | | | | | | | |
| Driller: | n/a | | | | | | | | | | | | |
| Engineer: | MW | | | | | | | | | | | | |



| | | | |
|-------------------------|----------------------------|----------------|-----------|
| Trial Pit Number | TPNSA 231 | Job No: | P8251J128 |
| Site: | Upper Heyford, Oxfordshire | | |
| Date: | 31/01/2012 | | |

TRIAL PIT RECORD

| Depth (m) | Sample | | Test | | Seat Drive | | Test Drive | | | | PID Reading | Legend | Description |
|-----------|-----------|------|------|-------|------------|----|------------|----|----|----|-------------|--------|---|
| | Depth (m) | Type | Type | Depth | 75 | 75 | 75 | 75 | 75 | 75 | | | |
| 0.40 | | | | | | | | | | | | | CONCRETE containing steel reinforcement |
| 0.90 | 0.50 | D | PID | 0.5 | | | | | | | 2.4 | | White/grey/blue sandy GRAVEL. Gravel is angular to subrounded of calcareous sandstone with faint hydrocarbon odour |
| 1.30 | 1.00 | D | PID | 1 | | | | | | | 1.4 | | Pale grey slightly sandy GRAVEL. Gravel is angular of sandstone. Becoming thickly bedded sandstone rock with a small amount of pale grey interstitial sand. Occasional hydrocarbon staining |
| | | | | | | | | | | | | | |

| | | |
|------------------|-----|---|
| Client: | HPS | Remarks: 1: Trial pit terminated on sandstone rockhead at 1.4m bgl. Groundwater encountered as slight seepage at base |
| Driller: | n/a | |
| Engineer: | MW | |



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TRIAL PIT RECORD

| Specialists in the investigation & reclamation of brownfield sites TRIAL PIT RECORD | | | | Trial Pit Number TPNSA 232 Job No: P8251128 | | | | | | | | |
|--|-----------|---|------|---|------------|----|------------|----|----|----|--------|--|
| | | | | Site: Upper Heyford, Oxfordshire | | | | | | | | |
| | | | | Date: 31/01/2012 | | | | | | | | |
| Depth (m) | Sample | | Test | | Seat Drive | | Test Drive | | | | Legend | Description |
| | Depth (m) | Type | Type | Depth | 75 | 75 | 75 | 75 | 75 | 75 | | |
| 0.60 | | | | | | | | | | | | CONCRETE containing steel reinforcement |
| 1.10 | 1.00 | D | PID | 1 | | | | | | | 0 | Yellow/white sandy GRAVEL. Gravel is angular to subrounded of calcareous sandstone |
| | | | | | | | | | | | | |
| Client: HPS | | Remarks: 1: Trial pit terminated on sandstone rockhead at 1.1m bgl. Groundwater encountered as slight seepage at base | | | | | | | | | | |
| Driller: n/a | | | | | | | | | | | | |
| Engineer: MW | | | | | | | | | | | | |
| <p>Jomas Associates Ltd - Highbridge Industrial Estate, Oxford Road, Uxbridge, UBB 1 HR T: 01895 77 2187 E: info@jomasassociates.com W: www.jomasassociates.com</p> | | | | | | | | | | | | |



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TRIAL PIT RECORD

| Trial Pit Number | | | | TPNSA 233 | | Job No: | | P8251J128 | | | | |
|------------------|-----------|------|--|----------------------------|------------|---------|------------|-----------|----|----|--------|--|
| Site: | | | | Upper Heyford, Oxfordshire | | | | | | | | |
| Date: | | | | 31/01/2012 | | | | | | | | |
| Depth (m) | Sample | | Test | | Seat Drive | | Test Drive | | | | Legend | Description |
| | Depth (m) | Type | Type | Depth | 75 | 75 | 75 | 75 | 75 | 75 | | |
| 0.15 | | | | | | | | | | | | TARMAC |
| 0.50 | D | | PID | 0.5 | | | | | | | 0 | Yellow/white sandy GRAVEL. Gravel is angular to subrounded of calcareous sandstone |
| 0.80 | | | | | | | | | | | | |
| Client: HPS | | | Remarks: | | | | | | | | | |
| Driller: n/a | | | 1: Trial pit terminated on sandstone rockhead at 0.8m bgl. Groundwater not encountered | | | | | | | | | |
| Engineer: MW | | | | | | | | | | | | |



Specialists in the investigation & reclamation of brownfield sites

TRIAL PIT RECORD

| Trial Pit Number | | | | | TPNSA 234 | | Job No: | | P8251128 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|-----------|--|------|-------|----------------------------|----|------------|----|----------|----|-------------|--------|---|-----|-----------------|--|--|--|--|--|--|--|--|--|--|-----------------|-----|--|--|--|--|--|--|--|--|--|--|--|------------------|----|--|--|--|--|--|--|--|--|--|--|--|
| Site: | | | | | Upper Heyford, Oxfordshire | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Date: | | | | | 26/01/2012 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Depth (m) | Sample | | Test | | Seat Drive | | Test Drive | | | | PID Reading | Legend | Description | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Depth (m) | Type | Type | Depth | 75 | 75 | 75 | 75 | 75 | 75 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0.20 | D | | PID | 0.2 | | | | | | | 0 | | MADE GROUND - Brown/black slightly sandy, gravelly clay. Gravel is of brick and limestone | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0.50 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <table border="1"> <tr> <td>Client:</td> <td>HPS</td> <td colspan="11">Remarks:</td> </tr> <tr> <td>Driller:</td> <td>n/a</td> <td colspan="11">1: Trial pit terminated at 0.5m bgl due to buried electrical cables. Groundwater not encountered</td> </tr> <tr> <td>Engineer:</td> <td>MW</td> <td colspan="11"></td> </tr> </table> | | | | | | | | | | | | | Client: | HPS | Remarks: | | | | | | | | | | | Driller: | n/a | 1: Trial pit terminated at 0.5m bgl due to buried electrical cables. Groundwater not encountered | | | | | | | | | | | Engineer: | MW | | | | | | | | | | | |
| Client: | HPS | Remarks: | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Driller: | n/a | 1: Trial pit terminated at 0.5m bgl due to buried electrical cables. Groundwater not encountered | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Engineer: | MW | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>Jomas Associates Ltd - Highbridge Industrial Estate, Oxford Road, Uxbridge, UBB 1 HR T: 01895 77 2187 E: info@jomasassociates.com W: www.jomasassociates.com</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |



| | | | |
|-------------------------|----------------------------|----------------|----------|
| Trial Pit Number | TPNSA 235 | Job No: | P8251128 |
| Site: | Upper Heyford, Oxfordshire | | |
| Date: | 03/02/2012 | | |

TRIAL PIT RECORD

| Depth (m) | Sample | | Test | | Seat Drive | | Test Drive | | | | PID Reading | Legend | Description |
|-----------|-----------|------|------|-------|------------|----|------------|----|----|----|-------------|--------|--|
| | Depth (m) | Type | Type | Depth | 75 | 75 | 75 | 75 | 75 | 75 | | | |
| 0.30 | 0.20 | D | PID | 0.2 | | | | | | | 0 | | MADE GROUND - Brown/orange sandy gravelly clay. Gravel is of limestone, brick and concrete |
| 0.70 | 0.50 | D | PID | 0.5 | | | | | | | 0 | | Brown sandy CLAY containing occasional fragments of highly weathered limestone |
| 1.40 | 1.00 | D | PID | 1 | | | | | | | 0 | | Yellow/brown sandy GRAVEL. Gravel is angular to subrounded of limestone. |
| | | | | | | | | | | | | | |

| | | |
|------------------|-----|---|
| Client: | HPS | Remarks: 1: Trial pit terminated on Limestone rockhead at 1.4m bgl. Groundwater not encountered |
| Driller: | n/a | |
| Engineer: | MW | |



| | | | |
|-------------------------|----------------------------|----------------|-----------|
| Trial Pit Number | TPNSA 236 | Job No: | P8251J128 |
| Site: | Upper Heyford, Oxfordshire | | |
| Date: | 27/01/2012 | | |

TRIAL PIT RECORD

| Depth (m) | Sample | | Test | | Seat Drive | | Test Drive | | | | PID Reading | Legend | Description |
|-----------|-----------|------|------|-------|------------|----|------------|----|----|----|-------------|--------|---|
| | Depth (m) | Type | Type | Depth | 75 | 75 | 75 | 75 | 75 | 75 | | | |
| 0.60 | 0.50 | D | PID | 0.5 | | | | | | | 0 | | MADE GROUND - black/brown sandy gravelly clay. Gravel is of limestone with occasional fragments of brick |
| 1.20 | 1.00 | D | PID | 1 | | | | | | | 0 | | Brown/orange/yellow, slightly sandy, clayey GRAVEL. Gravel is angular to subrounded of Limestone |
| 1.50 | | | PID | 1.3 | | | | | | | 0 | | Becomes pale yellow, slightly gravelly, limestone bedrock with a small amount of yellow interstitial sand |
| | | | | | | | | | | | | | |

| | | |
|------------------|-----|---|
| Client: | HPS | Remarks: 1: Trial pit terminated on limestone rockhead at 1.5m bgl. Groundwater not encountered |
| Driller: | n/a | |
| Engineer: | MW | |



| | | | |
|-------------------------|----------------------------|----------------|----------|
| Trial Pit Number | TPNSA 237 | Job No: | P8251128 |
| Site: | Upper Heyford, Oxfordshire | | |
| Date: | 30/01/2012 | | |

TRIAL PIT RECORD

| Depth (m) | Sample | | Test | | Seat Drive | | Test Drive | | | | PID Reading | Legend | Description |
|-----------|-----------|------|------|-------|------------|----|------------|----|----|----|-------------|--------|---|
| | Depth (m) | Type | Type | Depth | 75 | 75 | 75 | 75 | 75 | 75 | | | |
| 0.10 | | | | | | | | | | | | | TARMAC |
| 0.30 | 0.20 | D | PID | 0.2 | | | | | | | 0 | | MADE GROUND - Grey/yellow/brown sandy gravel. Gravel is of tarmac, limestone and concrete |
| 0.90 | 0.50 | D | PID | 0.5 | | | | | | | 0 | | Brown sandy CLAY containing occasional fragments of limestone |
| 1.70 | 1.00 | D | PID | 1 | | | | | | | 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 |
| | 1.50 | D | PID | 1.5 | | | | | | | 0 | | |

| | | |
|------------------|-----|---|
| Client: | HPS | Remarks: 1: Trial pit terminated on limestone rockhead at 1.7m bgl. Groundwater not encountered |
| Driller: | n/a | |
| Engineer: | MW | |



| | | | |
|-------------------------|----------------------------|----------------|----------|
| Trial Pit Number | TPNSA 238 | Job No: | P8251128 |
| Site: | Upper Heyford, Oxfordshire | | |
| Date: | 30/01/2012 | | |

TRIAL PIT RECORD

| Depth (m) | Sample | | Test | | Seat Drive | | Test Drive | | | | PID Reading | Legend | Description |
|-----------|-----------|------|------|-------|------------|----|------------|----|----|----|-------------|--------|---|
| | Depth (m) | Type | Type | Depth | 75 | 75 | 75 | 75 | 75 | 75 | | | |
| 0.15 | | | | | | | | | | | | | TARMAC |
| 0.40 | 0.25 | D | PID | 0.25 | | | | | | | 31.7 | | MADE GROUND - Brown/grey/black sandy slightly clayey gravel. Gravel is of concrete and limestone. Occasional hydrocarbon odour and staining |
| | | | | | | | | | | | | | |
| 0.90 | 0.50 | D | PID | 0.5 | | | | | | | 0 | | Brown sandy CLAY containing occasional fragments of limestone |
| | | | | | | | | | | | | | |
| 1.70 | 1.00 | D | PID | 1 | | | | | | | 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 |
| | | | | | | | | | | | | | |
| | 1.50 | D | PID | 1.5 | | | | | | | 0 | | |

| | | |
|------------------|-----|---|
| Client: | HPS | Remarks: 1: Trial pit terminated on limestone rockhead at 1.7m bgl. Groundwater not encountered |
| Driller: | n/a | |
| Engineer: | MW | |



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TRIAL PIT RECORD

| JOMAS Specialists in the investigation & reclamation of brownfield sites | | | | | | | | | | | | Trial Pit Number | | TPNSA 240 | | Job No: | | P8251J128 | |
|--|-----------|------|------|-------|------------|----|------------|----|----|----|-------------|------------------|--|--|--|---------|--|-----------|--|
| | | | | | | | | | | | | Site: | | Upper Heyford, Oxfordshire | | | | | |
| | | | | | | | | | | | | Date: | | 10/02/2012 | | | | | |
| Depth (m) | Sample | | Test | | Seat Drive | | Test Drive | | | | PID Reading | Legend | Description | | | | | | |
| | Depth (m) | Type | Type | Depth | 75 | 75 | 75 | 75 | 75 | 75 | | | | | | | | | |
| 0.30 | | | | | | | | | | | | | Ornamental flint gravel | | | | | | |
| 0.70 | 0.50 | D | PID | 0.5 | | | | | | | 0 | | Brown slightly clayey GRAVEL. Gravel is angular of limestone | | | | | | |
| | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | Remarks: | | 1: Hand excavated. Terminated at 0.8m bgl on gravel. Groundwater not encountered | | | | | |
| Client: | | HPS | | | | | | | | | | | | | | | | | |
| Driller: | | n/a | | | | | | | | | | | | | | | | | |
| Engineer: | | MW | | | | | | | | | | | | | | | | | |

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| | | | |
|-------------------------|----------------------------|----------------|----------|
| Trial Pit Number | TPNSA 241 | Job No: | P8251128 |
| Site: | Upper Heyford, Oxfordshire | | |
| Date: | 27/01/2012 | | |

TRIAL PIT RECORD

| Depth (m) | Sample | | Test | | Seat Drive | | Test Drive | | | | PID Reading | Legend | Description |
|-----------|-----------|------|------|-------|------------|----|------------|----|----|----|-------------|--------|---|
| | Depth (m) | Type | Type | Depth | 75 | 75 | 75 | 75 | 75 | 75 | | | |
| 0.45 | 0.30 | D | PID | 0.3 | | | | | | | 0 | | MADE GROUND - Brown/black slightly sandy, gravelly clay. Gravel is of brick and limestone |
| 0.90 | 0.50 | D | PID | 0.5 | | | | | | | 0 | | Brown/yellow sandy, gravelly CLAY. Gravel is angular to subrounded of limestone |
| 1.20 | 1.00 | D | PID | 1 | | | | | | | 0 | | Yellow/white/cream sandy GRAVEL. Gravel is angular to subrounded of limestone |
| | | | | | | | | | | | | | |

| | | |
|------------------|-----|---|
| Client: | HPS | Remarks: 1: Trial pit terminated on limestone rockhead at 1.2m bgl. Groundwater not encountered |
| Driller: | n/a | |
| Engineer: | MW | |



| | | | |
|-------------------------|----------------------------|----------------|----------|
| Trial Pit Number | TPNSA 242 | Job No: | P8251128 |
| Site: | Upper Heyford, Oxfordshire | | |
| Date: | 30/01/2012 | | |

TRIAL PIT RECORD

| Depth (m) | Sample | | Test | | Seat Drive | | Test Drive | | | | PID Reading | Legend | Description |
|-----------|-----------|------|------|-------|------------|----|------------|----|----|----|-------------|--------|---|
| | Depth (m) | Type | Type | Depth | 75 | 75 | 75 | 75 | 75 | 75 | | | |
| 0.05 | | | | | | | | | | | | | TURF |
| 0.50 | D | | | | | | | | | | | | Brown sandy CLAY containing occasional fragments of limestone |
| | | PID | 0.5 | | | | | | | | | 0 | |
| 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 | |
| 1.40 | | | | | | | | | | | | | |

| | | |
|------------------|-----|---|
| Client: | HPS | Remarks: 1: Trial pit terminated on limestone rockhead at 1.4m bgl. Groundwater not encountered |
| Driller: | n/a | |
| Engineer: | MW | |



| | | | |
|-------------------------|----------------------------|----------------|-----------|
| Trial Pit Number | TPNSA 244 | Job No: | P8251J128 |
| Site: | Upper Heyford, Oxfordshire | | |
| Date: | 30/01/2012 | | |

TRIAL PIT RECORD

| Depth (m) | Sample | | Test | | Seat Drive | | Test Drive | | | | PID Reading | Legend | Description |
|-----------|-----------|------|------|-------|------------|----|------------|----|----|----|-------------|--------|---|
| | Depth (m) | Type | Type | Depth | 75 | 75 | 75 | 75 | 75 | 75 | | | |
| 0.20 | 0.15 | D | | | | | | | | | | | MADE GROUND - Brown/black sandy slightly gravelly clay. Gravel is of brick and limestone |
| | | | PID | 0.15 | | | | | | | | | |
| 0.80 | 0.50 | D | | | | | | | | | | | Brown sandy CLAY containing occasional fragments of limestone |
| | | | PID | 0.5 | | | | | | | | | |
| 1.60 | 1.00 | D | | | | | | | | | | | Yellow/cream/white sandy GRAVEL. Gravel is angular to subrounded of limestone. Becomes structured limestone bedrock with a small amount of yellow interstitial sand |
| | | | PID | 1 | | | | | | | | | |
| | 1.50 | D | | | | | | | | | | | |
| | PID | 1.5 | | | | | | | | | | | |

| | | |
|------------------|-----|---|
| Client: | HPS | Remarks: 1: Trial pit terminated on limestone rockhead at 1.6m bgl. Groundwater not encountered |
| Driller: | n/a | |
| Engineer: | MW | |



| TRIAL PIT RECORD | | | | | Trial Pit Number | | TPNSA 245 | | Job No: | | P8251128 | | | |
|------------------|-----------|------|--|-------|------------------|----|----------------------------|----|---------|----|-------------|--------|-------------|---|
| | | | | | Site: | | Upper Heyford, Oxfordshire | | | | | | | |
| | | | | | Date: | | 07/02/2012 | | | | | | | |
| Depth (m) | Sample | | Test | | Seat Drive | | Test Drive | | | | PID Reading | Legend | Description | |
| | Depth (m) | Type | Type | Depth | 75 | 75 | 75 | 75 | 75 | 75 | | | | |
| 0.05 | | | | | | | | | | | | | TURF | |
| | | | | | | | | | | | | | | Brown slightly sandy CLAY containing occasional fragments of highly weathered limestone |
| | 0.50 | D | PID | 0.5 | | | | | | | | 0 | | |
| 0.70 | | | | | | | | | | | | | | |
| | 0.90 | D | PID | 0.9 | | | | | | | | 0 | | Yellow/brown sandy GRAVEL. Gravel is angular to subangular of limestone |
| 1.00 | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| Client: | HPS | | Remarks: | | | | | | | | | | | |
| Driller: | n/a | | 1: Hand excavated. Terminated at 1.0m bgl on gravel. Groundwater not encountered | | | | | | | | | | | |
| Engineer: | MW | | | | | | | | | | | | | |



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TRIAL PIT RECORD

| Trial Pit Number | | | | TPNSA 246 | | Job No: | | P8251128 | | | | | | |
|---|-----------|------|------|----------------------------|------------|---------|------------|----------|----|----|-------------|--------|---|--|
| Site: | | | | Upper Heyford, Oxfordshire | | | | | | | | | | |
| Date: | | | | 07/02/2012 | | | | | | | | | | |
| Depth (m) | Sample | | Test | | Seat Drive | | Test Drive | | | | PID Reading | Legend | Description | |
| | Depth (m) | Type | Type | Depth | 75 | 75 | 75 | 75 | 75 | 75 | | | | |
| 0.05 | | | | | | | | | | | | | TURF | |
| | 0.50 | D | PID | 0.5 | | | | | | | 0 | | Yellow/brown sandy GRAVEL. Gravel is angular to subangular of limestone | |
| 0.80 | | | | | | | | | | | | | | |
| Client: HPS Driller: n/a Engineer: MW | | | | | | | | | | | | | Remarks: 1: Hand excavated. Terminated at 0.8m bgl on gravel. Groundwater not encountered | |
| Jomas Associates Ltd - Highbridge Industrial Estate, Oxford Road, Uxbridge, UBB 1 HR T: 01895 77 2187 E: info@jomasassociates.com W: www.jomasassociates.com | | | | | | | | | | | | | | |



Specialists in the investigation & reclamation of brownfield sites

TRIAL PIT RECORD

| Trial Pit Number | | | | TPNSA 247 | | Job No: | | P8251128 | | | | |
|--|-----------|------|--|----------------------------|------------|---------|------------|----------|----|----|--------|---|
| Site: | | | | Upper Heyford, Oxfordshire | | | | | | | | |
| Date: | | | | 07/02/2012 | | | | | | | | |
| Depth (m) | Sample | | Test | | Seat Drive | | Test Drive | | | | Legend | Description |
| | Depth (m) | Type | Type | Depth | 75 | 75 | 75 | 75 | 75 | 75 | | |
| 0.05 | | | | | | | | | | | | TURF |
| | 0.50 | D | PID | 0.5 | | | | | | | 0 | Yellow/brown sandy, clayed GRAVEL / gravelly CLAY. Gravel is angular to subangular of limestone |
| 0.80 | | | | | | | | | | | | |
| Client: HPS | | | Remarks: | | | | | | | | | |
| Driller: n/a | | | 1: Hand excavated. Terminated at 0.8m bgl on gravel. Groundwater not encountered | | | | | | | | | |
| Engineer: MW | | | | | | | | | | | | |
| <p>Jomas Associates Ltd - Highbridge Industrial Estate, Oxford Road, Uxbridge, UBB 1 HR T: 01895 77 2187 E: info@jomasassociates.com W: www.jomasassociates.com</p> | | | | | | | | | | | | |



| | | | |
|-------------------------|----------------------------|----------------|-----------|
| Trial Pit Number | TPNSA 248 | Job No: | P8251J128 |
| Site: | Upper Heyford, Oxfordshire | | |
| Date: | 27/01/2012 | | |

TRIAL PIT RECORD

| Depth (m) | Sample | | Test | | Seat Drive | | Test Drive | | | | PID Reading | Legend | Description | |
|-----------|-----------|------|------|-------|------------|----|------------|----|----|----|-------------|--------|---|--|
| | Depth (m) | Type | Type | Depth | 75 | 75 | 75 | 75 | 75 | 75 | | | | |
| 0.60 | 0.50 | D | PID | 0.5 | | | | | | | 0 | | MADE GROUND - Brown/orange sandy gravelly clay. Gravel is of limestone with occasional tile, brick and concrete | |
| 1.30 | 1.00 | D | PID | 1 | | | | | | | 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 | |
| | | | | | | | | | | | | | | |

| | | |
|------------------|-----|---|
| Client: | HPS | Remarks: 1: Trial pit terminated on limestone rockhead at 1.3m bgl. Groundwater not encountered |
| Driller: | n/a | |
| Engineer: | MW | |



| | | | |
|-------------------------|----------------------------|----------------|----------|
| Trial Pit Number | TPNSA 249 | Job No: | P8251128 |
| Site: | Upper Heyford, Oxfordshire | | |
| Date: | 27/01/2012 | | |

TRIAL PIT RECORD


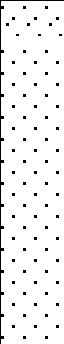
| Depth (m) | Sample | | Test | | Seat Drive | | Test Drive | | | | PID Reading | Legend | Description |
|-----------|-----------|------|------|-------|------------|----|------------|----|----|----|-------------|--------|---|
| | Depth (m) | Type | Type | Depth | 75 | 75 | 75 | 75 | 75 | 75 | | | |
| 0.20 | D | | PID | 0.2 | | | | | | | 0 | | MADE GROUND - Brown/orange sandy gravelly clay. Gravel is of concrete, brick and limestone |
| 0.40 | | | | | | | | | | | | | |
| 0.50 | D | | PID | 0.5 | | | | | | | 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 |
| 1.00 | D | | PID | 1 | | | | | | | 0 | | |
| 1.40 | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |

| | | |
|------------------|-----|---|
| Client: | HPS | Remarks: 1: Trial pit terminated on limestone rockhead at 1.4m bgl. Groundwater not encountered |
| Driller: | n/a | |
| Engineer: | MW | |



| | | | |
|-------------------------|----------------------------|----------------|----------|
| Trial Pit Number | TPNSA 250 | Job No: | P8251128 |
| Site: | Upper Heyford, Oxfordshire | | |
| Date: | 27/01/2012 | | |

TRIAL PIT RECORD

| Depth (m) | Sample | | Test | | Seat Drive | | Test Drive | | | | PID Reading | Legend | Description | | |
|-----------|-----------|------|------|-------|------------|----|------------|----|----|----|-------------|--------|---|--|---|
| | Depth (m) | Type | Type | Depth | 75 | 75 | 75 | 75 | 75 | 75 | | | | | |
| 0.20 | D | | PID | 0.2 | | | | | | | | 0 |  | MADE GROUND - Brown/orange sandy gravelly clay. Gravel is of brick and limestone with occasional fragments of concrete | |
| 0.40 | | | | | | | | | | | | | | | |
| 0.50 | D | | PID | 0.5 | | | | | | | | | 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 |
| 1.00 | D | | PID | 1 | | | | | | | | | 0 | | |
| 1.50 | D | | PID | 1.5 | | | | | | | | | 0 | | |
| 1.80 | | | | | | | | | | | | | | | |

| | | |
|------------------|-----|---|
| Client: | HPS | Remarks: 1: Trial pit terminated on chalk rockhead at 2.6m bgl. Groundwater not encountered |
| Driller: | n/a | |
| Engineer: | MW | |



| | | | |
|-------------------------|----------------------------|----------------|-----------|
| Trial Pit Number | TPNSA 251 | Job No: | P8251J128 |
| Site: | Upper Heyford, Oxfordshire | | |
| Date: | 27/01/2012 | | |

TRIAL PIT RECORD

| Depth (m) | Sample | | Test | | Seat Drive | | Test Drive | | | | PID Reading | Legend | Description | |
|-----------|-----------|------|------|-------|------------|----|------------|----|----|----|-------------|--------|---|--|
| | Depth (m) | Type | Type | Depth | 75 | 75 | 75 | 75 | 75 | 75 | | | | |
| 0.60 | 0.50 | D | PID | 0.5 | | | | | | | 0 | | MADE GROUND - Brown/orange sandy gravelly clay. Gravel is of limestone with occasional fragments of brick and concrete | |
| 1.10 | 1.00 | D | PID | 1 | | | | | | | 0 | | Brown/orange slightly sandy clayey GRAVEL. Gravel is angular to subrounded of Limestone | |
| 1.60 | 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 yellow interstitial sand | |
| | | | | | | | | | | | | | | |

| | | |
|------------------|-----|---|
| Client: | HPS | Remarks: 1: Trial pit terminated on limestone rockhead at 1.6m bgl. Groundwater not encountered |
| Driller: | n/a | |
| Engineer: | MW | |



| | | | |
|-------------------------|----------------------------|----------------|-----------|
| Trial Pit Number | TPNSA 252 | Job No: | P8251J128 |
| Site: | Upper Heyford, Oxfordshire | | |
| Date: | 27/01/2012 | | |

TRIAL PIT RECORD

| Depth (m) | Sample | | Test | | Seat Drive | | Test Drive | | | | PID Reading | Legend | Description |
|-----------|-----------|------|------|-------|------------|----|------------|----|----|----|-------------|--------|---|
| | Depth (m) | Type | Type | Depth | 75 | 75 | 75 | 75 | 75 | 75 | | | |
| 0.20 | | | | | | | | | | | | | MADE GROUND - Brown sandy clay containing occasional fragments of limestone and brick |
| 0.50 | D | | | | | | | | | | | | Brown sandy CLAY containing occasional fragments of limestone |
| 1.10 | D | | PID | 1 | | | | | | | | | |
| 1.50 | D | | PID | 1.4 | | | | | | | | | Yellow/cream/white sandy GRAVEL. Gravel is angular to subrounded of limestone. Becomes structured limestone bedrock with a small amount of yellow interstitial sand |
| | | | | | | | | | | | | | |

| | | |
|------------------|-----|---|
| Client: | HPS | Remarks: 1: Trial pit terminated on limestone rockhead at 1.5m bgl. Groundwater not encountered |
| Driller: | n/a | |
| Engineer: | MW | |



| | | | |
|-------------------------|----------------------------|----------------|----------|
| Trial Pit Number | TPNSA 253 | Job No: | P8251128 |
| Site: | Upper Heyford, Oxfordshire | | |
| Date: | 26/01/2012 | | |

TRIAL PIT RECORD

| Depth (m) | Sample | | Test | | Seat Drive | | Test Drive | | | | PID Reading | Legend | Description |
|-----------|-----------|------|------|-------|------------|----|------------|----|----|----|-------------|--------|--|
| | Depth (m) | Type | Type | Depth | 75 | 75 | 75 | 75 | 75 | 75 | | | |
| 0.15 | 0.10 | D | PID | 0.1 | | | | | | | 0 | | MADE GROUND - Brown/black sandy slightly clayey gravel. Gravel is of limestone and brick |
| 0.90 | 0.50 | D | PID | 0.5 | | | | | | | 0 | | Brown slightly sandy, gravelly CLAY. Gravel is angular to subrounded of limestone |
| 1.90 | 1.00 | D | PID | 1 | | | | | | | 0 | | Yellow/brown sandy GRAVEL. Gravel is angular to subrounded of limestone |
| | 1.50 | D | PID | 1.5 | | | | | | | 0 | | |

| | | |
|------------------|-----|---|
| Client: | HPS | Remarks: 1: Trial pit terminated on limestone rockhead at 1.9m bgl. Groundwater not encountered |
| Driller: | n/a | |
| Engineer: | MW | |



| | | | |
|-------------------------|--------------------------------|----------------|-----------|
| Trial Pit Number | TPNSA 254 | Job No: | P8251J128 |
| Site: | Upper Heyford NSA, Oxfordshire | | |
| Date: | 26/01/2012 | | |

TRIAL PIT RECORD

| Depth (m) | Sample | | Test | | Seat Drive | | Test Drive | | | | PID Reading | Legend | Description |
|-----------|-----------|------|------|-------|------------|----|------------|----|----|----|-------------|--------|--|
| | Depth (m) | Type | Type | Depth | 75 | 75 | 75 | 75 | 75 | 75 | | | |
| 0.20 | D | | PID | 0.2 | | | | | | | 0 | | MADE GROUND - Brown/black sandy gravel. Gravel is of limestone, flint, brick and ceramic |
| 0.40 | | | | | | | | | | | | | |
| 0.50 | D | | PID | 0.5 | | | | | | | 0 | | Brown slightly sandy, gravelly CLAY. Gravel is angular to subrounded of limestone |
| 0.90 | | | | | | | | | | | | | |
| 1.00 | D | | PID | 1 | | | | | | | 0 | | Yellow/brown sandy GRAVEL. Gravel is angular to subrounded of limestone |
| 1.50 | D | | PID | 1.5 | | | | | | | 0 | | |
| 1.90 | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |

| | | |
|------------------|-----|---|
| Client: | HPS | Remarks: 1: Trial pit terminated on limestone rockhead at 1.9m bgl. Groundwater not encountered |
| Driller: | n/a | |
| Engineer: | MW | |



Specialists in the investigation & reclamation of brownfield sites

TRIAL PIT RECORD

| Specialists in the investigation & reclamation of brownfield sites | | | | | Trial Pit Number | | TPNSA 257 | Job No: | | P8251J128 | | | |
|--|-----------|------|------|--|------------------|----|----------------------------|---------|----|-----------|-------------|--------|---|
| | | | | | Site: | | Upper Heyford, Oxfordshire | | | | | | |
| | | | | | Date: | | 13/02/2012 | | | | | | |
| Depth (m) | Sample | | Test | | Seat Drive | | Test Drive | | | | PID Reading | Legend | Description |
| | Depth (m) | Type | Type | Depth | 75 | 75 | 75 | 75 | 75 | 75 | | | |
| 0.25 | | | | | | | | | | | | | Ornamental Flint Gravel |
| 0.80 | 0.50 | D | PID | 0.5 | | | | | | | 0 | | Yellow/brown sandy, clayey GRAVEL. Gravel is angular of limestone |
| | | | | | | | | | | | | | |
| Client: | | HPS | | Remarks: | | | | | | | | | |
| Driller: | | n/a | | 1: Hand excavated. Terminated at 0.8m bgl on gravel. Groundwater not encountered | | | | | | | | | |
| Engineer: | | MW | | | | | | | | | | | |
| <p>Jomas Associates Ltd - Highbridge Industrial Estate, Oxford Road, Uxbridge, UBB 1 HR T: 01895 77 2187 E: info@jomasassociates.com W: www.jomasassociates.com</p> | | | | | | | | | | | | | |



Specialists in the investigation & reclamation of brownfield sites

TRIAL PIT RECORD

| <p>Specialists in the investigation & reclamation of brownfield sites</p> <p>TRIAL PIT RECORD</p> | | | Trial Pit Number TPNSA 258 Job No: P8251J128 | | | | | | | | | | |
|--|-----------|------|---|-------|------------|----|------------|----|----|----|-------------|--------|--|
| | | | Site: Upper Heyford, Oxfordshire | | | | | | | | | | |
| | | | Date: 13/02/2012 | | | | | | | | | | |
| Depth (m) | Sample | | Test | | Seat Drive | | Test Drive | | | | PID Reading | Legend | Description |
| | Depth (m) | Type | Type | Depth | 75 | 75 | 75 | 75 | 75 | 75 | | | |
| 0.20 | | | | | | | | | | | | | Ornamental flint gravel covering |
| 0.70 | 0.50 | D | PID | 0.5 | | | | | | | 0 | | Brown sandy CLAY containing occasional fragments of highly weathered limestone |
| 0.80 | | | | | | | | | | | | | becomes Yellow/brown clayey GRAVEL. Gravel is angular of limestone |
| | | | Remarks: 1: Hand excavated. Terminated at 0.8m bgl on gravel. Groundwater not encountered | | | | | | | | | | |
| Client: | HPS | | | | | | | | | | | | |
| Driller: | n/a | | | | | | | | | | | | |
| Engineer: | MW | | | | | | | | | | | | |
| <p style="text-align: center;"> Jomas Associates Ltd - Highbridge Industrial Estate, Oxford Road, Uxbridge, UBB 1 HR T: 01895 77 2187 E: info@jomasassociates.com W: www.jomasassociates.com </p> | | | | | | | | | | | | | |



| | | | |
|-------------------------|----------------------------|----------------|-----------|
| Trial Pit Number | TPNSA 259 | Job No: | P8251J128 |
| Site: | Upper Heyford, Oxfordshire | | |
| Date: | 03/02/2012 | | |

TRIAL PIT RECORD

| Depth (m) | Sample | | Test | | Seat Drive | | Test Drive | | | | PID Reading | Legend | Description |
|-----------|-----------|------|------|-------|------------|----|------------|----|----|----|-------------|--------|---|
| | Depth (m) | Type | Type | Depth | 75 | 75 | 75 | 75 | 75 | 75 | | | |
| 0.15 | | | | | | | | | | | | | TARMAC |
| 0.50 | 0.50 | D | PID | 0.5 | | | | | | | 0 | | Brown sandy CLAY with occasional fragments of weathered limestone |
| 0.70 | | | | | | | | | | | | | |
| 1.00 | 1.00 | D | PID | 1 | | | | | | | 0 | | Yellow/brown sandy GRAVEL. Gravel is angular to subrounded of limestone |
| 1.30 | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |

| | | |
|------------------|-----|---|
| Client: | HPS | Remarks: 1: Trial pit terminated on limestone rockhead at 1.3m bgl. Groundwater not encountered |
| Driller: | n/a | |
| Engineer: | MW | |



Specialists in the investigation & reclamation of brownfield sites

TRIAL PIT RECORD

| Specialists in the investigation & reclamation of brownfield sites TRIAL PIT RECORD | | | | Trial Pit Number | | TPNSA 261 | Job No: | | P8251J128 | | | | |
|--|-----------|------|------|---|--------|----------------------------|------------|----|------------|-------|---|--|-------------|
| | | | | Site: | | Upper Heyford, Oxfordshire | | | | Date: | | 01/02/2012 | |
| | | | | Depth (m) | Sample | Test | Seat Drive | | Test Drive | | | | PID Reading |
| | Depth (m) | Type | Type | Depth | 75 | 75 | 75 | 75 | 75 | | | | |
| 0.05 | | | | | | | | | | | | TURF | |
| | 0.50 | D | PID | 0.5 | | | | | | | 0 | MADE GROUND - brown, sandy, gravelly clay. Gravel is of limestone, concrete, brick and occasional tarmac | |
| | | | | | | | | | | | | | |
| 0.70 | | | | | | | | | | | | | |
| | | | | Remarks: 1: Trial pit terminated on concrete overlying void and below ground structure at 0.7m bgl, measured to 2.4m bgl - possible old soakaway/drain or air raid shelter. Groundwater not encountered | | | | | | | | | |
| Client: | HPS | | | | | | | | | | | | |
| Driller: | n/a | | | | | | | | | | | | |
| Engineer: | MW | | | | | | | | | | | | |
| <p>Jomas Associates Ltd - Highbridge Industrial Estate, Oxford Road, Uxbridge, UBB 1 HR T: 01895 77 2187 E: info@jomasassociates.com W: www.jomasassociates.com</p> | | | | | | | | | | | | | |



Specialists in the investigation & reclamation of brownfield sites

TRIAL PIT RECORD

| Trial Pit Number | | | | TPNSA 263 | | Job No: | | P8251128 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|-----------|--|------|----------------------------|------------|---------|------------|----------|----|----|--------|---|----------------|-----|-----------------|--|--|--|--|--|--|--|--|--|--|-----------------|-----|--|--|--|--|--|--|--|--|--|--|--|------------------|----|--|--|--|--|--|--|--|--|--|--|--|
| Site: | | | | Upper Heyford, Oxfordshire | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Date: | | | | 07/02/2012 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Depth (m) | Sample | | Test | | Seat Drive | | Test Drive | | | | Legend | Description | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Depth (m) | Type | Type | Depth | 75 | 75 | 75 | 75 | 75 | 75 | | | PID Reading | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0.05 | | | | | | | | | | | | TURF | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0.50 | D | PID | 0.5 | | | | | | | 0 | Yellow/brown sandy, clayed GRAVEL / gravelly CLAY. Gravel is angular to subangular of limestone | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0.80 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <table border="1"> <tr> <td>Client:</td> <td>HPS</td> <td colspan="11">Remarks:</td> </tr> <tr> <td>Driller:</td> <td>n/a</td> <td colspan="11">1: Hand excavated. Terminated at 0.8m bgl on gravel. Groundwater not encountered</td> </tr> <tr> <td>Engineer:</td> <td>MW</td> <td colspan="11"></td> </tr> </table> | | | | | | | | | | | | | Client: | HPS | Remarks: | | | | | | | | | | | Driller: | n/a | 1: Hand excavated. Terminated at 0.8m bgl on gravel. Groundwater not encountered | | | | | | | | | | | Engineer: | MW | | | | | | | | | | | |
| Client: | HPS | Remarks: | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Driller: | n/a | 1: Hand excavated. Terminated at 0.8m bgl on gravel. Groundwater not encountered | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Engineer: | MW | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| | | | |
|-------------------------|----------------------------|----------------|-----------|
| Trial Pit Number | TPNSA 264 | Job No: | P8251J128 |
| Site: | Upper Heyford, Oxfordshire | | |
| Date: | 30/01/2012 | | |

TRIAL PIT RECORD

| Depth (m) | Sample | | Test | | Seat Drive | | Test Drive | | | | PID Reading | Legend | Description |
|-----------|-----------|------|------|-------|------------|----|------------|----|----|----|-------------|--------|---|
| | Depth (m) | Type | Type | Depth | 75 | 75 | 75 | 75 | 75 | 75 | | | |
| 0.05 | | | | | | | | | | | | | TURF |
| | | | | | | | | | | | | | Brown sandy CLAY containing occasional fragments of limestone |
| | 0.50 | D | PID | 0.5 | | | | | | | 0 | | |
| 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 | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |

| | | |
|------------------|-----|---|
| Client: | HPS | Remarks: 1: Trial pit terminated on limestone rockhead at 1.3m bgl. Groundwater not encountered |
| Driller: | n/a | |
| Engineer: | MW | |



| | | | |
|-------------------------|----------------------------|----------------|-----------|
| Trial Pit Number | TPNSA 265 | Job No: | P8251J128 |
| Site: | Upper Heyford, Oxfordshire | | |
| Date: | 03/02/2012 | | |

TRIAL PIT RECORD

| Depth (m) | Sample | | Test | | Seat Drive | | Test Drive | | | | PID Reading | Legend | Description |
|-----------|-----------|------|------|-------|------------|----|------------|----|----|----|-------------|--------|---|
| | Depth (m) | Type | Type | Depth | 75 | 75 | 75 | 75 | 75 | 75 | | | |
| 0.15 | | | | | | | | | | | | | TARMAC |
| 0.60 | 0.50 | D | PID | 0.5 | | | | | | | 0 | | MADE GROUND - black/brown sandy, slightly clayey gravel. Gravel is of tarmac, concrete, brick and limestone |
| 1.40 | 1.00 | D | PID | 1 | | | | | | | 0 | | Yellow/orange sandy GRAVEL. Gravel is angular to subrounded of sandstone |
| | | | | | | | | | | | | | |

| | | |
|------------------|-----|---|
| Client: | HPS | Remarks: 1: Trial pit terminated on sandstone rockhead at 1.4m bgl. Groundwater not encountered |
| Driller: | n/a | |
| Engineer: | MW | |



| | | | |
|-------------------------|----------------------------|----------------|-----------|
| Trial Pit Number | TPNSA 266 | Job No: | P8251J128 |
| Site: | Upper Heyford, Oxfordshire | | |
| Date: | 26/01/2012 | | |

TRIAL PIT RECORD

| Depth (m) | Sample | | Test | | Seat Drive | | Test Drive | | | | PID Reading | Legend | Description |
|-----------|-----------|------|------|-------|------------|----|------------|----|----|----|-------------|--------|--|
| | Depth (m) | Type | Type | Depth | 75 | 75 | 75 | 75 | 75 | 75 | | | |
| 0.15 | | | | | | | | | | | | | MADE GROUND - Brown sandy slightly clayey gravel. Gravel is of limestone and brick |
| 0.85 | 0.50 | D | PID | 0.5 | | | | | | | 0 | | Brown/yellow sandy, gravelly CLAY. Gravel is angular to subrounded of limestone |
| 1.60 | 1.00 | D | PID | 1 | | | | | | | 0 | | Yellow/white/cream sandy GRAVEL. Gravel is angular to subrounded of limestone |
| | 1.50 | D | PID | 1.5 | | | | | | | 0 | | |
| | | | | | | | | | | | | | |

| | | |
|------------------|-----|---|
| Client: | HPS | Remarks: 1: Trial pit terminated on limestone rockhead at 1.6m bgl. Groundwater not encountered |
| Driller: | n/a | |
| Engineer: | MW | |



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|-------------------------|----------------------------|----------------|-----------|
| Trial Pit Number | TPNSA 267 | Job No: | P8251J128 |
| Site: | Upper Heyford, Oxfordshire | | |
| Date: | 30/01/2012 | | |

TRIAL PIT RECORD

| Depth (m) | Sample | | Test | | Seat Drive | | Test Drive | | | | PID Reading | Legend | Description |
|-----------|-----------|------|------|-------|------------|----|------------|----|----|----|-------------|--------|---|
| | Depth (m) | Type | Type | Depth | 75 | 75 | 75 | 75 | 75 | 75 | | | |
| 0.60 | 0.50 | D | | | | | | | | | | | MADE GROUND - Brown/yellow/orange sandy gravelly clay. Gravel is of brick, concrete, limestone and metal |
| | | | PID | 0.5 | | | | | | | | | |
| 1.60 | 1.00 | D | | | | | | | | | | | Yellow/cream/white sandy GRAVEL. Gravel is angular to subrounded of limestone. Becomes structured limestone bedrock with a small amount of yellow interstitial sand |
| | | | PID | 1 | | | | | | | | | |
| | 1.50 | D | | | | | | | | | | | |
| | | | PID | 1.5 | | | | | | | | | |
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| | | |
|------------------|-----|---|
| Client: | HPS | Remarks: 1: Trial pit terminated on limestone rockhead at 1.6m bgl. Groundwater not encountered |
| Driller: | n/a | |
| Engineer: | MW | |



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|-------------------------|----------------------------|----------------|----------|
| Trial Pit Number | TPNSA 268 | Job No: | P8251128 |
| Site: | Upper Heyford, Oxfordshire | | |
| Date: | 01/02/2012 | | |

TRIAL PIT RECORD

| Depth (m) | Sample | | Test | | Seat Drive | | Test Drive | | | | PID Reading | Legend | Description |
|-----------|-----------|------|------|-------|------------|----|------------|----|----|----|-------------|--------|--|
| | Depth (m) | Type | Type | Depth | 75 | 75 | 75 | 75 | 75 | 75 | | | |
| 0.30 | | | | | | | | | | | | | CONCRETE |
| 0.80 | 0.50 | D | PID | 0.5 | | | | | | | 0 | | MADE GROUND - Brown sandy gravelly clay. Gravel is of slate, brick, concrete and occasional tarmac |
| 1.60 | 1.00 | D | PID | 1 | | | | | | | 0 | | Brown/orange/yellow gravelly SAND. Gravel is angular to subrounded of calcareous sandstone. |
| | 1.50 | D | PID | 1.5 | | | | | | | 0 | | |
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|------------------|-----|---|
| Client: | HPS | Remarks: 1: Trial pit terminated on sandstone rockhead at 1.6m bgl. Groundwater not encountered |
| Driller: | n/a | |
| Engineer: | MW | |



Specialists in the investigation & reclamation of brownfield sites

TRIAL PIT RECORD

| | | | |
|-------------------------|----------------------------|----------------|----------|
| Trial Pit Number | TPNSA 270 | Job No: | P8251128 |
| Site: | Upper Heyford, Oxfordshire | | |
| Date: | 21/02/2012 | | |

| Depth (m) | Sample | | Test | | Seat Drive | | Test Drive | | | | PID Reading | Legend | Description |
|-----------|-----------|------|------|-------|------------|----|------------|----|----|----|-------------|--------|--|
| | Depth (m) | Type | Type | Depth | 75 | 75 | 75 | 75 | 75 | 75 | | | |
| 0.60 | 0.50 | D | PID | 0.5 | | | | | | | 0 | | Brown sandy CLAY containing occasional fragments of highly weathered limestone |
| | | | | | | | | | | | | | |
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| Client: | HPS | Remarks: 1: Hand excavated. Trial pit terminated on buried service warning tape at 0.6m bgl. Groundwater not encountered |
| Driller: | n/a | |
| Engineer: | MW | |



Specialists in the investigation & reclamation of brownfield sites

TRIAL PIT RECORD

| Trial Pit Number | | | TPNSA 271 | | Job No: P8251J128 | | | | | | | | |
|---|-----------|------|----------------------------|-------|-------------------|----|------------|----|----|----|-------------|--------|--|
| Site: | | | Upper Heyford, Oxfordshire | | | | | | | | | | |
| Date: | | | 10/02/2012 | | | | | | | | | | |
| Depth (m) | Sample | | Test | | Seat Drive | | Test Drive | | | | PID Reading | Legend | Description |
| | Depth (m) | Type | Type | Depth | 75 | 75 | 75 | 75 | 75 | 75 | | | |
| 0.70 | 0.50 | D | PID | 0.5 | | | | | | | 0 | | Brown sandy CLAY containing occasional fragments of highly weathered limestone |
| 0.80 | | | | | | | | | | | | | Yellow/brown slightly clayey GRAVEL. Gravel is angular of limestone cobbles |
| Remarks: 1: Hand excavated. Trial pit terminated on densely packed limestone cobbles at 0.8m bgl. Groundwater not encountered | | | | | | | | | | | | | |
| Client: | HPS | | | | | | | | | | | | |
| Driller: | n/a | | | | | | | | | | | | |
| Engineer: | MW | | | | | | | | | | | | |



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|-------------------------|----------------------------|----------------|-----------|
| Trial Pit Number | TPNSA 272 | Job No: | P8251J128 |
| Site: | Upper Heyford, Oxfordshire | | |
| Date: | 01/02/2012 | | |

TRIAL PIT RECORD

| Depth (m) | Sample | | Test | | Seat Drive | | Test Drive | | | | PID Reading | Legend | Description |
|-----------|-----------|------|------|-------|------------|----|------------|----|----|----|-------------|--------|---|
| | Depth (m) | Type | Type | Depth | 75 | 75 | 75 | 75 | 75 | 75 | | | |
| 0.05 | | | | | | | | | | | | | TURF |
| 0.60 | 0.50 | D | | | | | | | | | | | MADE GROUND - brown sandy gravelly clay. Gravel is of concrete, brick and limestone |
| | | | PID | 0.5 | | | | | | | | 0 | |
| 1.60 | 1.00 | D | | | | | | | | | | | Orange/brown sandy slightly clayey GRAVEL. Gravel is angular to subrounded of limestone |
| | | | PID | 1 | | | | | | | | 0 | |
| | 1.50 | D | | | | | | | | | | | |
| | PID | 1.5 | | | | | | | | | | 0 | |

| | | |
|------------------|-----|---|
| Client: | HPS | Remarks: 1: Trial pit terminated on Limestone rockhead at 1.6m bgl. Groundwater not encountered |
| Driller: | n/a | |
| Engineer: | MW | |



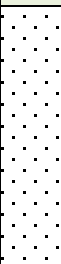

Specialists in the investigation & reclamation of brownfield sites

Trial Pit Number: TPNSA 274 Job No: P8251128

Site: Upper Heyford, Oxfordshire

Date: 21/02/2012

TRIAL PIT RECORD

| Depth (m) | Sample | | Test | | Seat Drive | | Test Drive | | | | PID Reading | Legend | Description |
|-----------|-----------|------|------|-------|------------|----|------------|----|----|----|-------------|---|--|
| | Depth (m) | Type | Type | Depth | 75 | 75 | 75 | 75 | 75 | 75 | | | |
| 0.70 | 0.50 | D | PID | 0.5 | | | | | | | 0 |  | Yellow/brown sandy clayey GRAVEL. Gravel is angular of limestone |
| 0.80 | | | | | | | | | | | |  | Becoming thinly bedded limestone bedrock with a small amount of yellow interstitial sand |

Client: HPS
Driller: n/a
Engineer: MW

Remarks:
 1: Hand excavated. Trial pit terminated on Limestone rock at 0.8m bgl. Groundwater not encountered



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|-------------------------|----------------------------|----------------|-----------|
| Trial Pit Number | TPNSA 275 | Job No: | P8251J128 |
| Site: | Upper Heyford, Oxfordshire | | |
| Date: | 01/02/2012 | | |

TRIAL PIT RECORD

| Depth (m) | Sample | | Test | | Seat Drive | | Test Drive | | | | PID Reading | Legend | Description |
|-----------|-----------|------|------|-------|------------|----|------------|----|----|----|-------------|--------|--|
| | Depth (m) | Type | Type | Depth | 75 | 75 | 75 | 75 | 75 | 75 | | | |
| 0.60 | 0.50 | D | PID | 0.5 | | | | | | | 0 | | MADE GROUND - Brown sandy slightly gravelly clay. Gravel is of limestone, brick and tarmac |
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| Client: | HPS | Remarks: 1: Buried gas main encountered at 0.2m bgl. Hole ended. Groundwater not encountered |
| Driller: | n/a | |
| Engineer: | MW | |



Specialists in the investigation & reclamation of brownfield sites

TRIAL PIT RECORD

Trial Pit Number: TPNSA 276 Job No: P8251J128

Site: Upper Heyford, Oxfordshire
Date: 21/02/2012

| Depth (m) | Sample | | Test | | Seat Drive | | Test Drive | | | | PID Reading | Legend | Description |
|-----------|-----------|------|------|-------|------------|----|------------|----|----|----|-------------|--------|---|
| | Depth (m) | Type | Type | Depth | 75 | 75 | 75 | 75 | 75 | 75 | | | |
| 0.05 | | | | | | | | | | | | | TURF |
| | 0.50 | D | PID | 0.5 | | | | | | | 0 | | Yellow/brown/orange sandy clayey GRAVEL. Gravel is angular of limestone |
| 0.80 | | | | | | | | | | | | | |

Client: HPS
Driller: n/a
Engineer: MW

Remarks:
 1: Hand excavated. Trial pit terminated on dense limestone gravel at 0.8m bgl. Groundwater not encountered



Specialists in the investigation & reclamation of brownfield sites

TRIAL PIT RECORD

| | | | |
|-------------------------|----------------------------|----------------|-----------|
| Trial Pit Number | TPNSA 277 | Job No: | P8251J128 |
| Site: | Upper Heyford, Oxfordshire | | |
| Date: | 14/02/2012 | | |

| Depth (m) | Sample | | Test | | Seat Drive | | Test Drive | | | | PID Reading | Legend | Description |
|-----------|-----------|------|------|-------|------------|----|------------|----|----|----|-------------|--------|--|
| | Depth (m) | Type | Type | Depth | 75 | 75 | 75 | 75 | 75 | 75 | | | |
| 0.60 | 0.50 | D | PID | 0.5 | | | | | | | 0 | | Brown sandy CLAY containing occasional fragments of highly weathered limestone |
| 0.80 | | | | | | | | | | | | | Yellow/brown sandy clayey GRAVEL. Gravel is angular of limestone |
| | | | | | | | | | | | | | |

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|------------------|-----|---|
| Client: | HPS | Remarks: 1: Hand excavated. Terminated at 0.8m bgl on gravel. Groundwater not encountered |
| Driller: | n/a | |
| Engineer: | MW | |



Specialists in the investigation & reclamation of brownfield sites

TRIAL PIT RECORD

| | | | |
|-------------------------|----------------------------|----------------|-----------|
| Trial Pit Number | TPNSA 278 | Job No: | P8251J128 |
| Site: | Upper Heyford, Oxfordshire | | |
| Date: | 14/02/2012 | | |

| Depth (m) | Sample | | Test | | Seat Drive | | Test Drive | | | | PID Reading | Legend | Description |
|-----------|-----------|------|------|-------|------------|----|------------|----|----|----|-------------|--------|--|
| | Depth (m) | Type | Type | Depth | 75 | 75 | 75 | 75 | 75 | 75 | | | |
| 0.60 | 0.50 | D | PID | 0.5 | | | | | | | 0 | | Brown sandy CLAY containing occasional fragments of highly weathered limestone |
| 0.80 | | | | | | | | | | | | | Yellow/brown sandy clayey GRAVEL. Gravel is angular of limestone |
| | | | | | | | | | | | | | |

| | | |
|------------------|-----|---|
| Client: | HPS | Remarks: 1: Hand excavated. Terminated at 0.8m bgl on gravel. Groundwater not encountered |
| Driller: | n/a | |
| Engineer: | MW | |



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|-------------------------|----------------------------|----------------|----------|
| Trial Pit Number | TPNSA 279 | Job No: | P8251128 |
| Site: | Upper Heyford, Oxfordshire | | |
| Date: | 26/01/2012 | | |

TRIAL PIT RECORD

| Depth (m) | Sample | | Test | | Seat Drive | | Test Drive | | | | PID Reading | Legend | Description |
|-----------|-----------|------|------|-------|------------|----|------------|----|----|----|-------------|--------|--|
| | Depth (m) | Type | Type | Depth | 75 | 75 | 75 | 75 | 75 | 75 | | | |
| 0.15 | 0.10 | D | PID | 0.1 | | | | | | | 0 | | MADE GROUND - Brown/black sandy slightly clayey gravel. Gravel is of limestone and brick |
| 0.80 | 0.50 | D | PID | 0.5 | | | | | | | 0 | | Brown slightly sandy, gravelly CLAY. Gravel is angular to subrounded of limestone |
| 1.40 | 1.00 | D | PID | 1 | | | | | | | 0 | | Yellow/brown sandy GRAVEL. Gravel is angular to subrounded of limestone |
| | | | | | | | | | | | | | |

| | | |
|------------------|-----|---|
| Client: | HPS | Remarks: 1: Trial pit terminated on limestone rockhead at 1.4m bgl. Groundwater not encountered |
| Driller: | n/a | |
| Engineer: | MW | |



Specialists in the investigation & reclamation of brownfield sites

TRIAL PIT RECORD

| Trial Pit Number | | | | TPNSA 280 | | Job No: | | P8251128 | | | | | |
|------------------|-----------|--|------|----------------------------|------------|---------|------------|----------|----|----|--------|---|-------------|
| Site: | | | | Upper Heyford, Oxfordshire | | | | | | | | | |
| Date: | | | | 01/02/2012 | | | | | | | | | |
| Depth (m) | Sample | | Test | | Seat Drive | | Test Drive | | | | Legend | Description | |
| | Depth (m) | Type | Type | Depth | 75 | 75 | 75 | 75 | 75 | 75 | | | PID Reading |
| 0.05 | | | | | | | | | | | | TURF | |
| | 0.50 | D | PID | 0.5 | | | | | | | 0 | 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 | |
| | 1.00 | D | PID | 1 | | | | | | | 0 | | |
| | 1.50 | D | PID | 1.5 | | | | | | | 0 | | |
| 1.60 | | | | | | | | | | | | | |
| Client: | HPS | Remarks: | | | | | | | | | | | |
| Driller: | n/a | 1: Trial pit terminated on limestone rockhead at 1.6m bgl. Groundwater not encountered | | | | | | | | | | | |
| Engineer: | MW | | | | | | | | | | | | |



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|-------------------------|----------------------------|----------------|----------|
| Trial Pit Number | TPNSA 281 | Job No: | P8251128 |
| Site: | Upper Heyford, Oxfordshire | | |
| Date: | 21/02/2012 | | |

TRIAL PIT RECORD

| Depth (m) | Sample | | Test | | Seat Drive | | Test Drive | | | | Legend | Description | |
|-----------|-----------|------|------|-------|------------|----|------------|----|----|----|--------|-------------|--|
| | Depth (m) | Type | Type | Depth | 75 | 75 | 75 | 75 | 75 | 75 | | | PID Reading |
| 0.10 | 0.10 | D | PID | 0.1 | | | | | | | | 0 | MADE GROUND - brown sandy clayey gravel. Gravel is of limestone, brick and concrete. |
| 0.20 | | | | | | | | | | | | | |
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| Client: | HPS | Remarks: 1: Hand excavated. Trial pit terminated on concrete at 0.2m bgl. Groundwater not encountered |
| Driller: | n/a | |
| Engineer: | MW | |



Specialists in the investigation & reclamation of brownfield sites

TRIAL PIT RECORD

| Trial Pit Number | | | | TPNSA 282 | | Job No: | | P8251128 | | | | |
|------------------|-----------|------|---|----------------------------|------------|---------|------------|----------|----|----|--------|--|
| Site: | | | | Upper Heyford, Oxfordshire | | | | | | | | |
| Date: | | | | 13/02/2012 | | | | | | | | |
| Depth (m) | Sample | | Test | | Seat Drive | | Test Drive | | | | Legend | Description |
| | Depth (m) | Type | Type | Depth | 75 | 75 | 75 | 75 | 75 | 75 | | |
| 0.15 | | | | | | | | | | | | Concrete |
| 0.60 | 0.50 | D | PID | 0.5 | | | | | | | 0.2 | MADE GROUND - brown/red/black sandy gravel. Gravel is of brick, concrete, limestone and tarmac |
| | | | | | | | | | | | | Pale yellow LIMESTONE bedrock with a small amount of yellow, interstitial sand |
| Client: | HPS | | Remarks: | | | | | | | | | |
| Driller: | n/a | | 1: Hand excavated. Terminated at 0.6m bgl on limestone bedrock. Groundwater not encountered | | | | | | | | | |
| Engineer: | MW | | | | | | | | | | | |



Specialists in the investigation & reclamation of brownfield sites

TRIAL PIT RECORD

| | | | |
|------------------|----------------------------|---------|-----------|
| Trial Pit Number | TPNSA 284 | Job No: | P8251J128 |
| Site: | Upper Heyford, Oxfordshire | | |
| Date: | 13/02/2012 | | |

| Depth (m) | Sample | | Test | | Seat Drive | | Test Drive | | | | PID Reading | Legend | Description |
|-----------|-----------|------|------|-------|------------|----|------------|----|----|----|-------------|--------------------------|--|
| | Depth (m) | Type | Type | Depth | 75 | 75 | 75 | 75 | 75 | 75 | | | |
| 0.10 | | | | | | | | | | | | [Diagonal lines pattern] | Tarmac |
| 0.15 | | | | | | | | | | | | | |
| 0.30 | 0.20 | D | PID | 0.2 | | | | | | | 0 | [Diagonal lines pattern] | MADE GROUND - yellow/brown/black sandy clayey gravel. Gravel is of concrete and tarmac |
| | | | | | | | | | | | | | |
| 0.60 | 0.50 | D | PID | 0.5 | | | | | | | 0 | [Dotted pattern] | Yellow/brown sandy, clayey GRAVEL. Gravel is angular of limestone |
| | | | | | | | | | | | | | |
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|------------------|-----|---|
| Client: | HPS | Remarks: 1: Hand excavated. Terminated at 0.6m bgl on gravel. Groundwater not encountered |
| Driller: | n/a | |
| Engineer: | MW | |



Specialists in the investigation & reclamation of brownfield sites

TRIAL PIT RECORD

| Trial Pit Number | | | | TPNSA 285 | | Job No: P8251128 | | | | | | |
|------------------|-----------|------|--|----------------------------|------------|------------------|------------|----|----|----|--------|---|
| Site: | | | | Upper Heyford, Oxfordshire | | | | | | | | |
| Date: | | | | 21/02/2012 | | | | | | | | |
| Depth (m) | Sample | | Test | | Seat Drive | | Test Drive | | | | Legend | Description |
| | Depth (m) | Type | Type | Depth | 75 | 75 | 75 | 75 | 75 | 75 | | |
| 0.50 | | D | PID | 0.5 | | | | | | | | MADE GROUND - Brown sandy gravelly clay. Gravel is of brick, concrete, wood and limestone |
| 0.60 | | | | | | | | | | | | |
| Client: HPS | | | Remarks: | | | | | | | | | |
| Driller: n/a | | | 1: Hand excavated. Trial pit terminated at 0.6m bgl depth on concrete. Groundwater not encountered | | | | | | | | | |
| Engineer: MW | | | | | | | | | | | | |



| | | | |
|-------------------------|----------------------------|----------------|----------|
| Trial Pit Number | TPNSA 286 | Job No: | P8251128 |
| Site: | Upper Heyford, Oxfordshire | | |
| Date: | 30/01/2012 | | |

TRIAL PIT RECORD

| Depth (m) | Sample | | Test | | Seat Drive | | Test Drive | | | | PID Reading | Legend | Description |
|-----------|-----------|------|------|-------|------------|----|------------|----|----|----|-------------|--------|---|
| | Depth (m) | Type | Type | Depth | 75 | 75 | 75 | 75 | 75 | 75 | | | |
| 0.05 | | | | | | | | | | | | | TURF |
| 0.60 | 0.50 | D | | | | | | | | | | | Brown sandy CLAY containing occasional fragments of limestone |
| 1.40 | 1.00 | D | | | | | | | | | | | Yellow/cream/white sandy GRAVEL. Gravel is angular to subrounded of limestone. Becomes structured limestone bedrock with a small amount of yellow interstitial sand |
| | | | | | | | | | | | | | |

| | | |
|------------------|-----|---|
| Client: | HPS | Remarks: 1: Trial pit terminated on limestone rockhead at 1.4m bgl. Groundwater not encountered |
| Driller: | n/a | |
| Engineer: | MW | |



| | | | |
|-------------------------|----------------------------|----------------|-----------|
| Trial Pit Number | TPNSA 288 | Job No: | P8251J128 |
| Site: | Upper Heyford, Oxfordshire | | |
| Date: | 21/02/2012 | | |

TRIAL PIT RECORD

| Depth (m) | Sample | | Test | | Seat Drive | | Test Drive | | | | PID Reading | Legend | Description | |
|-----------|-----------|------|------|-------|------------|----|------------|----|----|----|-------------|--------|-------------|--|
| | Depth (m) | Type | Type | Depth | 75 | 75 | 75 | 75 | 75 | 75 | | | | |
| 0.05 | | | | | | | | | | | | | | TURF |
| | | | | | | | | | | | | | | MADE GROUND - Brown/black sandy gravel. Gravel is of limestone, brick, metal and clinker |
| | | | | | | | | | | | | | | |
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| | | | | | | | | | | | | | | |
| 0.60 | 0.50 | D | PID | 0.5 | | | | | | | 0 | | | |

| | | |
|------------------|-----|---|
| Client: | HPS | Remarks: 1: Hand excavated. Trial pit terminated on buried service at 0.6m bgl. Groundwater not encountered |
| Driller: | n/a | |
| Engineer: | MW | |



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TRIAL PIT RECORD

| Trial Pit Number | | | TPNSA 289 | | Job No: P8251J128 | | | | | | | | |
|---|-----------|------|----------------------------|-------|-------------------|----|------------|----|----|----|-------------|--|-------------|
| Site: | | | Upper Heyford, Oxfordshire | | | | | | | | | | |
| Date: | | | 21/02/2012 | | | | | | | | | | |
| Depth (m) | Sample | | Test | | Seat Drive | | Test Drive | | | | PID Reading | Legend | Description |
| | Depth (m) | Type | Type | Depth | 75 | 75 | 75 | 75 | 75 | 75 | | | |
| 1.10 | 0.50 | D | PID | 0.5 | | | | | | | 0 | Brown/orange sandy CLAY with occasional fragments of limestone | |
| | 1.00 | D | PID | 1 | | | | | | | 0 | | |
| <p>Remarks: 1: Hand excavated. Trial pit terminated on limestone at 1.1m bgl. Groundwater not encountered</p> | | | | | | | | | | | | | |
| <p>Client: HPS Driller: n/a Engineer: MW</p> | | | | | | | | | | | | | |
| <p>Jomas Associates Ltd - Highbridge Industrial Estate, Oxford Road, Uxbridge, UBB 1 HR T: 01895 77 2187 E: info@jomasassociates.com W: www.jomasassociates.com</p> | | | | | | | | | | | | | |



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TRIAL PIT RECORD

| Trial Pit Number | | | | TPNSA 290 | | Job No: | | P8251J128 | | | | |
|------------------|-----------|------|--|----------------------------|------------|---------|------------|-----------|----|----|--------|---|
| Site: | | | | Upper Heyford, Oxfordshire | | | | | | | | |
| Date: | | | | 21/02/2012 | | | | | | | | |
| Depth (m) | Sample | | Test | | Seat Drive | | Test Drive | | | | Legend | Description |
| | Depth (m) | Type | Type | Depth | 75 | 75 | 75 | 75 | 75 | 75 | | |
| 0.05 | | | | | | | | | | | | TURF |
| | 0.50 | D | PID | 0.5 | | | | | | | 0 | Yellow/brown/orange sandy clayey GRAVEL. Gravel is angular of limestone |
| 0.70 | | | | | | | | | | | | |
| Client: HPS | | | Remarks: | | | | | | | | | |
| Driller: n/a | | | 1: Hand excavated. Trial pit terminated on dense limestone gravel at 0.7m bgl. Groundwater not encountered | | | | | | | | | |
| Engineer: MW | | | | | | | | | | | | |



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TRIAL PIT RECORD

| | | | |
|-------------------------|----------------------------|----------------|-----------|
| Trial Pit Number | TPNSA 291 | Job No: | P8251J128 |
| Site: | Upper Heyford, Oxfordshire | | |
| Date: | 14/02/2012 | | |

| Depth (m) | Sample | | Test | | Seat Drive | | Test Drive | | | | PID Reading | Legend | Description | |
|-----------|-----------|------|------|-------|------------|----|------------|----|----|----|-------------|--------|--|--|
| | Depth (m) | Type | Type | Depth | 75 | 75 | 75 | 75 | 75 | 75 | | | | |
| 0.80 | 0.50 | D | PID | 0.5 | | | | | | | 0 | [dots] | Brown sandy CLAY containing occasional fragments of highly weathered limestone | |
| 1.00 | 0.90 | D | PID | 0.9 | | | | | | | 0 | [dots] | Yellow/brown sandy clayey GRAVEL. Gravel is angular of limestone | |
| | | | | | | | | | | | | | | |
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| Client: | HPS | Remarks: 1: Hand excavated. Terminated at 1.0m bgl on gravel. Groundwater not encountered |
| Driller: | n/a | |
| Engineer: | MW | |



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TRIAL PIT RECORD

| Trial Pit Number | | | TPNSA 292 | | Job No: P8251128 | | | | | | | | |
|--|-----------|------|----------------------------|---|------------------|----|------------|----|----|----|-------------|-----------|---|
| Site: | | | Upper Heyford, Oxfordshire | | | | | | | | | | |
| Date: | | | 21/02/2012 | | | | | | | | | | |
| Depth (m) | Sample | | Test | | Seat Drive | | Test Drive | | | | PID Reading | Legend | Description |
| | Depth (m) | Type | Type | Depth | 75 | 75 | 75 | 75 | 75 | 75 | | | |
| 0.15 | D | PID | 0.15 | | | | | | | | 0.1 | [Pattern] | Grey/brown/orange very sandy CLAY / clayey SAND |
| | | | | | | | | | | | | | |
| 0.50 | D | PID | 0.5 | | | | | | | | 0 | [Pattern] | |
| | | | | | | | | | | | | | |
| 0.80 | | | | | | | | | | | | | |
| Client: | | HPS | | Remarks: 1: Hand excavated. Trial pit terminated on sandstone rock at 0.8m bgl. Groundwater not encountered | | | | | | | | | |
| Driller: | | n/a | | | | | | | | | | | |
| Engineer: | | MW | | | | | | | | | | | |
| <p>Jomas Associates Ltd - Highbridge Industrial Estate, Oxford Road, Uxbridge, UBB 1 HR T: 01895 77 2187 E: info@jomasassociates.com W: www.jomasassociates.com</p> | | | | | | | | | | | | | |



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TRIAL PIT RECORD

| Specialists in the investigation & reclamation of brownfield sites TRIAL PIT RECORD | | | | Trial Pit Number | | CBRNSA 1A | Job No: | | P8251J128 | | | |
|---|-----------|------|---|------------------|------------|----------------------------|------------|----|-----------|----|--------|---|
| | | | | Site: | | Upper Heyford, Oxfordshire | | | | | | |
| | | | | Date: | | 21/02/2012 | | | | | | |
| Depth (m) | Sample | | Test | | Seat Drive | | Test Drive | | | | Legend | Description |
| | Depth (m) | Type | Type | Depth | 75 | 75 | 75 | 75 | 75 | 75 | | |
| 0.05 | | | | | | | | | | | | TURF |
| 0.60 | 0.50 | D | PID | 0.5 | | | | | | | 0 | Brown sandy CLAY with occasional fragments of limestone |
| | | | | | | | | | | | | |
| | | | Remarks: 1: Hand excavated. Trial pit terminated at 0.6m bgl and CBR test undertaken. Groundwater not encountered | | | | | | | | | |
| Client: | | | HPS | | | | | | | | | |
| Driller: | | | n/a | | | | | | | | | |
| Engineer: | | | MW | | | | | | | | | |
| Jomas Associates Ltd - Highbridge Industrial Estate, Oxford Road, Uxbridge, UBB 1 HR T: 01895 77 2187 E: info@jomasassociates.com W: www.jomasassociates.com | | | | | | | | | | | | |



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TRIAL PIT RECORD

| Trial Pit Number | | | | CBRNSA 4A | | Job No: | | P8251J128 | | | | |
|------------------|-----------|------|---|----------------------------|------------|---------|------------|-----------|----|----|--------|---|
| Site: | | | | Upper Heyford, Oxfordshire | | | | | | | | |
| Date: | | | | 21/02/2012 | | | | | | | | |
| Depth (m) | Sample | | Test | | Seat Drive | | Test Drive | | | | Legend | Description |
| | Depth (m) | Type | Type | Depth | 75 | 75 | 75 | 75 | 75 | 75 | | |
| 0.05 | | | | | | | | | | | | TURF |
| | | | | | | | | | | | | Brown sandy CLAY with occasional fragments of limestone |
| | 0.50 | D | PID | 0.5 | | | | | | | 0 | |
| 0.60 | | | | | | | | | | | | |
| | | | Remarks: 1: Hand excavated. Trial pit terminated at 0.6m bgl and CBR test undertaken. Groundwater not encountered | | | | | | | | | |
| Client: | HPS | | | | | | | | | | | |
| Driller: | n/a | | | | | | | | | | | |
| Engineer: | MW | | | | | | | | | | | |



Specialists in the investigation & reclamation of brownfield sites

TRIAL PIT RECORD

| TRIAL PIT RECORD <small>Specialists in the investigation & reclamation of brownfield sites</small> | | | | | | Trial Pit Number | CBRNSA 5A | Job No: | P8251J128 | | | | |
|---|-----------|------|---|-------|------------|------------------|----------------------------|---------|-----------|----|-------------|--------|--|
| | | | | | | Site: | Upper Heyford, Oxfordshire | | | | | | |
| | | | | | | Date: | 21/02/2012 | | | | | | |
| Depth (m) | Sample | | Test | | Seat Drive | | Test Drive | | | | PID Reading | Legend | Description |
| | Depth (m) | Type | Type | Depth | 75 | 75 | 75 | 75 | 75 | 75 | | | |
| 0.10 | | | | | | | | | | | | | TURF |
| 0.60 | 0.50 | D | PID | 0.5 | | | | | | | 0 | | yellow/brown sandy GRAVEL. Gravel is angular to subrounded of calcarious sandstone |
| | | | | | | | | | | | | | |
| Client: | HPS | | Remarks: 1: Hand excavated. Trial pit terminated at 0.6m bgl and CBR test undertaken. Groundwater not encountered | | | | | | | | | | |
| Driller: | n/a | | | | | | | | | | | | |
| Engineer: | MW | | | | | | | | | | | | |
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APPENDIX 3 – BOREHOLE LOGS



ROTARY BOREHOLE RECORD

| | | | |
|------------------------|----------------------------|----------------|-----------|
| Borehole Number | BHNSA 23 | Job No: | P8251J128 |
| Site: | Upper Heyford, Oxfordshire | | |
| Elevation | 122.01 | | |
| Co-Ordinates | E: 451646.4, N:226136.5 | | |
| Date: | 13/02/2012 | | |

| Depth (m) | Sample | | Core Length Recovered | Depth of Casing | Test | | Seat Drive | | Test Drive | | | | PID Result | Legend | Description |
|-----------|-----------|------|-----------------------|-----------------|------|-------|------------|----|------------|----|----|----|------------|--------|---|
| | Depth (m) | Type | | | Type | Depth | 75 | 75 | 75 | 75 | 75 | 75 | | | |
| 0.60 | 0.50 | D | Open Hole | | PID | 0.5 | | | | | | | 0 | | Brown sandy CLAY with occasional fragments of limestone |
| 1.60 | | | | 1.2m | SPT | 1.2 | 6 | 7 | 9 | 14 | 16 | 11 | | | Yellow/brown sandy clayey GRAVEL. Gravel is angular of limestone. Becomes limestone bedrock |
| 2.70 | | | | | | | | | | | | | | | Yellow SANDSTONE |
| 3.60 | | | | 3m | | | | | | | | | | | Grey SANDSTONE |
| 4.50 | | | | | | | | | | | | | | | Grey SILTSTONE |
| 4.90 | | | | | | | | | | | | | | | Grey CLAY |
| 6.00 | | | | | | | | | | | | | | | Grey SILTSTONE |
| 6.90 | | | | | | | | | | | | | | | Grey CLAY |
| 8.00 | | | | | | | | | | | | | | | Grey SILTSTONE |
| 9.20 | | | | | | | | | | | | | | | Grey CLAY |
| 10.00 | | | | | | | | | | | | | | | Grey SILTSTONE |

| | |
|------------------|------------------|
| Plant: | Commachio 305 |
| Client: | Heyford Park LLP |
| Driller: | Taylor/Gidman |
| Engineer: | M Williams |

Remarks:
 1. Groundwater struck at 3.1m bgl, rose to 2.6m bgl after 20 mins monitoring
 2. Installed from 10 - 9m bgl with bentonite, 9m - 1m bgl slotted standpipe, 1m bgl to surface plain pipe



ROTARY BOREHOLE RECORD

| | | | |
|------------------------|-----------------------------|----------------|-----------|
| Borehole Number | BHNSA 24 | Job No: | P8251J128 |
| Site: | Upper Heyford, Oxfordshire | | |
| Elevation | 123.672 | | |
| Co-Ordinates | E: 451545.308 N: 226004.316 | | |
| Date: | 10/02/2012 | | |

| Depth (m) | Sample | | Core Length Recovered | Depth of Casing | Test | Seat Drive | | Test Drive | | | | PID Result | Legend | Description | |
|-----------|-----------|------|-----------------------|-----------------|------|------------|----|------------|----|----|----|------------|--------|-------------|---|
| | Depth (m) | Type | | | Type | Depth | 75 | 75 | 75 | 75 | 75 | | | | 75 |
| 0.70 | 0.50 | D | Open Hole | | PID | 0.5 | | | | | | | | | Brown sandy CLAY with occasional fragments of limestone |
| 1.20 | 1.00 | D | | 1.2m | PID | 1 | | | | | | | | | Yellow/brown sandy clayey GRAVEL. Gravel is angular of sandstone. |
| | | | | | SPT | 1.2 | 6 | 8 | 6 | 16 | 20 | 6 ref | | | Pale yellow/pale grey LIMESTONE |
| 3.40 | | | | 3m | | | | | | | | | | | |
| 3.60 | | | | | | | | | | | | | | | Uncemented orange SAND |
| 7.00 | | | | 4.5m | | | | | | | | | | | Grey SILTSTONE |
| 7.40 | | | | | | | | | | | | | | | Grey SAND |
| 8.30 | | | | | | | | | | | | | | | Grey SILTSTONE |
| 9.30 | | | | | | | | | | | | | | | Grey CLAY |
| 10.00 | | | | | | | | | | | | | | | Grey silty MUDSTONE |

| | | | | | | | | | | | | | | |
|---------------------------------|--|--|--|---|--|--|--|--|--|--|--|--|--|--|
| | | | | Remarks: | | | | | | | | | | |
| Commachio 305 | | | | 1. Groundwater strike at 7m bgl, rose to 5m bgl after 20 mins monitoring | | | | | | | | | | |
| Client: Heyford Park LLP | | | | 2. Installed from 10 - 9m bgl with bentonite, 9m - 1m bgl slotted standpipe, 1m bgl to surface plain pipe | | | | | | | | | | |
| Driller: Taylor/Gidman | | | | | | | | | | | | | | |
| Engineer: M Williams | | | | | | | | | | | | | | |



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| | | | |
|-------------------------|----------------------------|----------------|----------|
| Borehole Number | BHNSA 25 | Job No: | P8251128 |
| Site: | Upper Heyford, Oxfordshire | | |
| Ground Level (m) | 123.17 | | |
| Co-Ordinates | E: 451549.801 | N: 225968.843 | |

ROTARY BOREHOLE RECORD

| Depth (m) | Sample | | Core Length Recovered | Depth of Casing | Total Core Recovery % | Solid Core Recovery % | RQD | Fracture Depth | Fracture Index | Test | | Seat Drive | | Date: 07/02/2012 | | | | | Legend | Description |
|-----------|-----------|------|---|-----------------|-----------------------|-----------------------|-----|----------------|--------------------------------|------|-------|------------|----|------------------|----|----|-------|----|--------|---|
| | Depth (m) | Type | | | | | | | | Type | Depth | 75 | 75 | 75 | 75 | 75 | 75 | 75 | | |
| 0.15 | | | PWF Core | | | | | | | | | | | | | | | | | |
| 0.35 | | | | | | | | | | | | | | | | | | | | |
| 0.80 | 0.50 | D | | | | | | | | PID | 0.5 | | | | | | | 0 | | TARMAC MADE GROUND - Concrete |
| 2.60 | | | 1.2 - 2.7 1.5m core | 1m | 70 | 20 | | | NI | SPT | 1.2 | 8 | 9 | 14 | 13 | 17 | 6 ref | | | Brown sandy CLAY containing occasional fragments of highly weathered limestone Brown/yellow slightly clayey GRAVEL. Gravel is angular of limestone |
| 3.10 | | | 2.7 - 4.2 1.5m core | | 65 | 30 | | | NI | | | | | | | | | | | Becomes structured pale yellow/grey fine grained calcareous SANDSTONE bedrock with occasional shell fragments |
| 4.30 | | | | 4m | | | | | | | | | | | | | | | | Pale grey coarse grained LIMESTONE with frequent shell fragments interbedded with occasional thin bands of SANDSTONE |
| 4.70 | | | 4.2 - 5.7 1.5m core | | 85 | 80 | | 5 | 1 | | | | | | | | | | | Pale grey CLAY |
| 10.00 | | | 5.7 - 7.7 2m core 7.7 - 10.7 3m core | 5.7m | 90 | 85 | | 5.7 - 6.0 | multiple, likely drill induced | | | | | | | | | | | Pale grey SILTSTONE with occasional thin bands of coarse grained shelly limestone and thin CLAY bands |
| | | | | | | | | 6.5 | 1 | | | | | | | | | | | |
| | | | | | | | | | 0 | | | | | | | | | | | |

Remarks:
 1. Groundwater at 3.6m bgl, rose to 3.1m bgl after 20 mins monitoring
 2. Installed from base to 1m bgl with slotted standpipe, with 1m plain pipe to surface

| | |
|------------------|------------------|
| Plant: | Commachio 305 |
| Client: | Heyford Park LLP |
| Driller: | Taylor/Gidman |
| Engineer: | M Williams |



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ROTARY BOREHOLE RECORD

| | | | |
|------------------|----------------------------|---------------|----------|
| Borehole Number | BNSA 26 | Job No: | P8251128 |
| Site: | Upper Heyford, Oxfordshire | | |
| Ground Level (m) | 123.412 | | |
| Co-Ordinates | E: 451515.773 | N: 225971.185 | |
| Date: | 07/02/2012 | | |

| Depth (m) | Sample | | Core Length Recovered | Depth of Casing | Total Core Recovery % | Solid Core Recovery % | RQD | Fracture Depth | Fracture Index | Test | | Seat Drive | | | | | PID Result | Legend | Description | |
|--------------------------|-----------|------|---|-----------------|-----------------------|-----------------------|-----|----------------------|--------------------------------------|------|-------|------------|----|----|----|----|------------|---|---|----|
| | Depth (m) | Type | | | | | | | | Type | Depth | 75 | 75 | 75 | 75 | 75 | | | | 75 |
| 0.10 | | | PWF Core | | | | | | | | | | | | | | | TARMAC | | |
| 0.25 | | | | | | | | | | | | | | | | | | MADE GROUND - Subbase of crushed concrete | | |
| 0.80 | 0.50 | D | | | | | | | | PID | 0.5 | | | | | | 0 | Brown sandy CLAY containing occasional fragments of highly weathered limestone | | |
| 1.80 | | | 1.2 - 1.4 0.35m core 1.4 - 2.9 1.4m core | 1m | 85 | 60 | | | NI | SPT | 1.2 | 5 | 8 | 7 | 8 | 7 | 16 | Brown/yellow slightly clayey GRAVEL. Gravel is angular of limestone | | |
| 4.30 | | | 2.9 - 4.4 1.5m core | 2m 4m | 80 | 65 | | 3.8, 3.9 4.1, 4.3 | | | | | | | | | | Becomes structured pale yellow/grey LIMESTONE with shelly bands and occasional thin clay bands. Becomes dark grey LIMESTONE interbedded with orange/yellow calcareous SANDSTONE | | |
| 4.70 | | | 4.4 - 5.9 1.5m core | | 85 | 80 | | | | PID | 4.4 | | | | | | 0 | Pale grey silty MUDSTONE with faint hydrocarbon odour | | |
| 5.20 | | | | 5m | | | | 4.8, 5.1 | Likely drill induced | | | | | | | | | becomes dark grey silty MUDSTONE with occasional clay | | |
| 7.00 | | | 5.9 - 7.4 1.5m core | | 90 | 85 | | 6.2 6.5 7 | Likely drill induced | | | | | | | | | pale grey silty MUDSTONE | | |
| 7.40 | | | | | | | | | | | | | | | | | | Dark grey coarse grained shelly LIMESTONE | | |
| 7.90 | | | 7.4 - 8.9 1.5m core | | 95 | 90 | | | | | | | | | | | | Dark grey clayey silty MUDSTONE | | |
| 9.60 | | | 8.9 - 10.4 1.5m core | | 98 | 95 | | 8 | likely drill induced at base of clay | | | | | | | | | Pale grey silty MUDSTONE with occasional clay bands | | |
| 10.00 | | | | | | | | 9.4 9.7, 9.9 | | | | | | | | | | | Pale grey SILTSTONE | |
| Plant: Commachio 305 | | | | | | | | | | | | | | | | | | | End Hole | |
| Client: Heyford Park LLP | | | | | | | | | | | | | | | | | | | 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 | |
| Driller: Taylor/Gidman | | | | | | | | | | | | | | | | | | | | |
| Engineer: M Williams | | | | | | | | | | | | | | | | | | | | |



Specialists in the investigation & reclamation of brownfield sites

ROTARY BOREHOLE RECORD

| | | | |
|-------------------------|----------------------------|----------------|-----------|
| Borehole Number | BHNSA 27 | Job No: | P8251J128 |
| Site: | Upper Heyford, Oxfordshire | | |
| Ground Level (m) | 124.731 | | |
| Co-Ordinates | E: 451411.127 | N: 225982.15 | |
| Date: | 10/02/2012 | | |

| Depth (m) | Sample | | Core Length Recovered | | Depth of Casing | Test | | Seat Drive | | Test Drive | | | | PID Result | Legend | Description |
|-----------|-----------|------|-----------------------|------|-----------------|------|-------|------------|----|------------|----|----|-------|------------|--------|--|
| | Depth (m) | Type | | | | Type | Depth | 75 | 75 | 75 | 75 | 75 | 75 | | | |
| 0.10 | | | Open | Hole | | | | | | | | | | | | |
| 0.70 | 0.50 | D | | | | PID | 0.5 | | | | | | | 0 | | TURF |
| | | | | | 1m | | | | | | | | | | | Brown sandy CLAY containing occasional fragments of highly weathered limestone |
| 1.20 | | | | | | SPT | 1.2 | 6 | 7 | 8 | 19 | 19 | 4 ref | | | Brown/yellow slightly clayey GRAVEL. Gravel is angular of limestone |
| | | | | | 3m | | | | | | | | | | | Yellow SANDSTONE |
| 3.50 | | | | | | | | | | | | | | | | |
| 3.90 | | | | | | | | | | | | | | | | Orange SAND |
| 4.10 | | | | | | | | | | | | | | | | Orange SANDSTONE |
| 4.30 | | | | | | | | | | | | | | | | Grey LIMESTONE |
| 4.50 | | | | | 4.5m | | | | | | | | | | | Grey SANDSTONE |
| | | | | | | | | | | | | | | | | Dark grey LIMESTONE |
| 8.80 | | | | | | | | | | | | | | | | |
| 10.00 | | | | | | | | | | | | | | | | Dark grey clayey MUDSTONE |

| | | |
|------------------|------------------|--|
| Plant: | Commachio 305 | Remarks: 1. Groundwater struck at 3.1m bgl, rose to 2.6m bgl after 20 mins monitoring 2. Installed from 10 - 9m bgl with bentonite, 9m - 1m bgl slotted standpipe, 1m bgl to surface plain pipe |
| Client: | Heyford Park LLP | |
| Driller: | Taylor/Gidman | |
| Engineer: | M Williams | |



Specialists in the investigation & reclamation of brownfield sites

ROTARY BOREHOLE RECORD

| | | | |
|-------------------------|----------------------------|----------------|-----------|
| Borehole Number | BHNSA 28A | Job No: | P8251J128 |
| Site: | Upper Heyford, Oxfordshire | | |
| Ground Level (m) | 123.969 | | |
| Co-Ordinates | E: 451426.414 | N: 225929.76 | |
| Date: | 15/02/2012 | | |

| Depth (m) | Sample | | Core Length Recovered | Depth of Casing | Test | | Seat Drive | | Test Drive | | | | PID Result | Legend | Description |
|-----------|-----------|------|-----------------------|-----------------|------|-------|------------|----|------------|----|-------|----|------------|--------|---|
| | Depth (m) | Type | | | Type | Depth | 75 | 75 | 75 | 75 | 75 | 75 | | | |
| 0.60 | 0.50 | D | Open Hole | | PID | 0.5 | | | | | | | 0 | | Brown sandy CLAY with occasional fragments of limestone |
| 2.80 | 1.00 | D | | 1m | PID | 1 | | | | | | | 0 | | Yellow/brown sandy clayey GRAVEL. Gravel is angular of limestone. Becomes limestone bedrock |
| 3.30 | | | | 3m | SPT | 1.2 | 6 | 16 | 23 | 20 | 7 ref | | | | |
| 4.00 | | | | 4m | | | | | | | | | | | Yellow SAND |
| 6.10 | | | | 4.5m | | | | | | | | | | | Yellow LIMESTONE |
| 7.70 | | | | | | | | | | | | | | | Grey SILTSTONE |
| 9.10 | | | | | | | | | | | | | | | Grey silty MUDSTONE |
| 10.00 | | | | | | | | | | | | | | | Grey CLAY |
| | | | | | | | | | | | | | | | Grey SILTSTONE |

| | | |
|------------------|------------------|---|
| Plant: | Commachio 305 | Remarks: 1. Groundwater struck at 7.4m bgl, rose to 4.5m bgl after 20mins monitoring 2. Installed from 10 - 9m bgl with bentonite, 9m - 1m bgl slotted standpipe, 1m bgl to surface plain pipe |
| Client: | Heyford Park LLP | |
| Driller: | Taylor/Gidman | |
| Engineer: | M Williams | |



Specialists in the investigation & reclamation of brownfield sites

ROTARY BOREHOLE RECORD

| | | | |
|-------------------------|----------------------------|----------------|-----------|
| Borehole Number | BHNSA 29 | Job No: | P8251J128 |
| Site: | Upper Heyford, Oxfordshire | | |
| Ground Level (m) | 126.459 | | |
| Co-Ordinates | E: 451329.466 | N: 226080.616 | |
| Date: | 09/02/2012 | | |

| Depth (m) | Sample | | Core Length Recovered | Depth of Casing | Test | | Seat Drive | | Test Drive | | | | PID Result | Legend | Description |
|-----------|-----------|------|-----------------------|-----------------|------|-------|------------|----|------------|----|----|-----|------------|--------|---|
| | Depth (m) | Type | | | Type | Depth | 75 | 75 | 75 | 75 | 75 | 75 | | | |
| 0.10 | | | Open Hole | | | | | | | | | | | | TURF |
| | 0.50 | D | | | PID | 0.5 | | | | | | | 0 | | MADE GROUND - brown/yellow sandy gravelly clay. Gravel is of tarmac and limestone - reworked natural ground |
| | 1.00 | D | | 1m | PID | 1 | | | | | | | 0 | | |
| 1.35 | | | | | SPT | 1.2 | 10 | 14 | 20 | 20 | 10 | ref | | | |
| | | | | 2m | | | | | | | | | | | Pale yellow SANDSTONE |
| 2.20 | | | | | | | | | | | | | | | |
| 2.40 | | | | | | | | | | | | | | | Yellow/orange SAND |
| | | | | | | | | | | | | | | | Pale yellow sandy LIMESTONE |
| 3.10 | | | | | | | | | | | | | | | |
| 3.70 | | | | | | | | | | | | | | | Pale grey/yellow SANDSTONE |
| | 3.70 | D | | | PID | 3.7 | | | | | | | 0.2 | | Clayey yellow SAND |
| 4.30 | | | | 4m | | | | | | | | | | | |
| 4.70 | | | | | | | | | | | | | | | Grey SILTSTONE |
| 4.90 | | | | | | | | | | | | | | | Yellow SANDSTONE |
| | | | | | | | | | | | | | | | Grey SILTSTONE |
| 6.30 | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | Grey Silty MUDSTONE |
| 7.00 | | | | | | | | | | | | | | | |
| 7.20 | | | | | | | | | | | | | | | Clayey MUDSTONE |
| 7.40 | | | | | | | | | | | | | | | Silty MUDSTONE |
| 7.50 | | | | | | | | | | | | | | | Grey CLAY |
| | | | | | | | | | | | | | | | Grey Silty MUDSTONE |
| 9.60 | | | | | | | | | | | | | | | |
| 10.00 | | | | | | | | | | | | | | | Grey CLAY |

| | | |
|------------------|------------------|---|
| Plant: | Commachio 305 | 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 |
| Client: | Heyford Park LLP | |
| Driller: | Taylor/Gidman | |
| Engineer: | M Williams | |



Specialists in the investigation & reclamation of brownfield sites

ROTARY BOREHOLE RECORD

| | | | |
|-------------------------|----------------------------|----------------|-----------|
| Borehole Number | BHNSA 30 | Job No: | P8251J128 |
| Site: | Upper Heyford, Oxfordshire | | |
| Ground Level (m) | 125.878 | | |
| Co-Ordinates | E: 451352.724 | N: 226066.036 | |
| Date: | 09/02/2012 | | |

| Depth (m) | Sample | | Core Length Recovered | Depth of Casing | Total Core Recovery % | Solid Core Recovery % | RQD | Fracture Depth | Fracture Index | Test | | Seat Drive | | | | | Test Drive | PID Result | Legend | Description |
|-----------|-----------|------|-----------------------|-----------------|-----------------------|-----------------------|-----|--------------------------|----------------------|------|-------|------------|----|----|----|----|------------|------------|--|-------------|
| | Depth (m) | Type | | | | | | | | Type | Depth | 75 | 75 | 75 | 75 | 75 | | | | |
| 0.10 | | | PWF Core | | | | | | | PID | 0.5 | | | | | | | | TURF | |
| 0.70 | 0.50 | D | | | | | | | | PID | 0.9 | | | | | | | | Brown sandy CLAY containing occasional fragments of highly weathered limestone | |
| | 0.90 | D | 1.2 - 2.5 1m core | 1m | 60 | 15 | | | NI | SPT | 1.2 | 4 | 4 | 6 | 12 | 15 | 17 | | Brown/yellow slightly clayey GRAVEL. Gravel is angular of limestone | |
| 2.00 | | | | | | | | | | | | | | | | | | | | |
| | | | 1.5m core | 2.5m | 75 | 60 | | Multiple 2.5 - 3.6 | Likely drill induced | | | | | | | | | | Structured pale grey calcareous SANDSTONE with occasional bands of loosely cemented sand | |
| 3.00 | | | 2.5 - 4 | | | | | | | | | | | | | | | | | |
| 3.20 | | | | | | | | | | PID | 3 | | | | | | | | with occasional black/grey staining in fractures - no hydrocarbon odour | |
| 3.80 | | | | | | | | | | | | | | | | | | | Pale grey calcareous SANDSTONE | |
| 4.20 | | | 4m - 7m 3m core | 4m | 90 | 85 | | | | | | | | | | | | | Loosely cemented orange SAND | |
| 4.90 | | | | | | | | 4.5 4.6, 4.7 4.9 | 3 | | | | | | | | | | Grey sandy SILTSTONE with occasional bands of yellow SANDSTONE | |
| | | | | | | | | 5.1 | | | | | | | | | | | Pale grey slightly sandy SILTSTONE with occasional shell fragments | |
| 6.00 | | | | | | | | 5.6 | | | | | | | | | | | | |
| | | | | | | | | 6.1 6.3 6.5 6.9 | 6.5 | | | | | | | | | | Pale grey to dark grey SILTSTONE with occasional bands of dark grey CLAY | |
| | | | 7 - 10m 3m core | | 95 | 80 | | | NI 7.0 - 7.6 | | | | | | | | | | | |
| | | | | | | | | 8 8.3 8.6 | 3 | | | | | | | | | | | |
| | | | | | | | | 9.1, 9.3 | | | | | | | | | | | | |
| 10.00 | | | | | | | | 9.7 | | | | | | | | | | | | |

| | | |
|------------------|------------------|---|
| Plant: | Commachio 305 | Remarks: 1. Groundwater at 6.2m bgl upon completion, rose to 4.3m bgl after 20 mins 2. Installed from base to 1m bgl with slotted standpipe, with 1m plain pipe to surface |
| Client: | Heyford Park LLP | |
| Driller: | Taylor/Gidman | |
| Engineer: | M Williams | |



Specialists in the investigation & reclamation of brownfield sites

ROTARY BOREHOLE RECORD

| | | | |
|------------------|----------------------------|---------------|-----------|
| Borehole Number | BHNSA 31 | Job No: | P82511128 |
| Site: | Upper Heyford, Oxfordshire | | |
| Ground Level (m) | 126.186 | | |
| Co-Ordinates | E: 451322.448 | N: 226049.884 | |
| Date: | 08/02/2012 | | |

| Depth (m) | Sample | | Core Length Recovered | Depth of Casing | Total Core Recovery % | Solid Core Recovery % | RQD | Fracture Depth | Fracture Index | Test | | Seat Drive | | | | | PID Result | Legend | Description |
|-----------|-----------|------|-----------------------|-----------------|-----------------------|-----------------------|-----|-------------------|---------------------------------------|------|-------|------------|----|----|----|-------|------------|--|-------------|
| | Depth (m) | Type | | | | | | | | Type | Depth | 75 | 75 | 75 | 75 | 75 | | | |
| 1.40 | | | PWF Core | 1.4m | | | | | | | | | | | | | | Borehole drilled through trial pit due to proximity of buried services | |
| 2.00 | | | 1.4 - 2.9 1m core | | 60 | 20 | | | NI | SPT | 1.4 | 10 | 10 | 21 | 25 | 4 ref | | POOR RECOVERY - cobbles of pale grey/yellow sandstone | |
| 3.80 | | | 2.9 - 4.4 1.5m core | 2.9m | 90 | 80 | | | | | | | | | | | | Becomes structured calcareous SANDSTONE with occasional shell fragments and thin bands of loosely cemented orange SAND | |
| 4.10 | | | | | | | | | | | | | | | | | | Dense brown/orange clayey SAND | |
| 4.40 | | | | 4.4m | | | | | | | | | | | | | | Grey SILTSTONE | |
| 5.10 | | | 4.4 - 7.4 3m core | 5m | 95 | 90 | | 4.5, 4.6 | 4 | | | | | | | | | Grey fine grained shelly LIMESTONE | |
| 8.80 | | | 7.4 - 10.4 3m core | | 95 | 90 | | 5.2 5.5 5.8 | Likely drill induced at clay boundary | | | | | | | | | Grey SILTSTONE with occasional shell fragments | |
| 10.40 | | | | | | | | 8.7 | | | | | | | | | | Dark grey silty MUDSTONE with occasional shell fragments and clay layers | |
| | | | | | | | | | | | | | | | | | | End Hole | |

| | |
|-----------|------------------|
| Plant: | Commachio 305 |
| Client: | Heyford Park LLP |
| Driller: | Taylor/Gidman |
| Engineer: | M Williams |

Remarks:
 1. Water standing at 4.2m bgl on completion, rose to 4.1m bgl after 20 mins
 2. Installed from 10.4 to 10m bgl with bentonite, 10 - 1m bgl with slotted pipe and 1m bgl to surface plain pipe



Specialists in the investigation & reclamation of brownfield sites

ROTARY BOREHOLE RECORD

| | | | |
|------------------|----------------------------|---------------|----------|
| Borehole Number | BHNSA 32 | Job No: | P8251128 |
| Site: | Upper Heyford, Oxfordshire | | |
| Ground Level (m) | 123.099 | | |
| Co-Ordinates | E: 451395.81 | N: 225831.345 | |
| Date: | 06/02/2012 | | |

| Depth (m) | Sample | | Core Length Recovered | Depth of Casing | Total Core Recovery % | Solid Core Recovery % | RQD | Fracture Depth | Fracture Index | Test | | Seat Drive | | Test Drive | | | | | Legend | Description |
|-----------|-----------|------------------|---|-----------------|-----------------------|-----------------------|-----|----------------|----------------|--|-------|------------|----|------------|----|----|--------|------------|--------|---|
| | Depth (m) | Type | | | | | | | | Type | Depth | 75 | 75 | 75 | 75 | 75 | 75 | PID Result | | |
| 0.10 | 0.50 | D | PWF Core | | | | | | | PID | 0.5 | | | | | | | 0 | TURF | Brown sandy CLAY containing occasional fragments of highly weathered limestone |
| 0.90 | | | | | | | | | NI | | | | | | | | | | | Brown/yellow slightly clayey GRAVEL. Gravel is angular of limestone |
| 2.00 | | | 1.2 - 2.7 1.5m core | 1.2m | 70 | 20 | | | | SPT | 1.2 | 6 | 8 | 19 | 9 | 12 | 10 ref | | | Becomes structured bedrock of slightly fractured calcareous SANDSTONE with a small amount of yellow sand and occasional shell fragments |
| 3.50 | | | 2.7 - 4.2 1.5m core | 2.7m | 90 | 80 | | | | | | | | | | | | | | Grey, slightly sandy shelly LIMESTONE |
| 4.20 | | | | | | | | 3.7, 3.8, 3.9 | | | | | | | | | | | | Pale grey, fine grained calcareous SANDSTONE |
| 5.30 | | | 4.2 - 5.7 1.5m core | 4.2m | 90 | 70 | | | NI | | | | | | | | | | | Pale grey to dark grey, silty occasionally clayey MUDSTONE occasionally interbedded with thin bands of dark grey, shelly LIMESTONE |
| 10.00 | | | 5.7 - 7.2 1.5m core 7.2 - 8.7 1.5m core 8.7 - 10.2 1.5m core | 5.7m | 90 | 80 | | 6.9, 7.0 | 2 | | | | | | | | | | | End Hole |
| Plant: | | Commachio 305 | | | | | | | | | | | | | | | | | | |
| Client: | | Heyford Park LLP | | | | | | | | | | | | | | | | | | |
| Driller: | | Taylor/Gidman | | | | | | | | | | | | | | | | | | |
| Engineer: | | 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 | | | | | | | | | | |



Specialists in the investigation & reclamation of brownfield sites

ROTARY BOREHOLE RECORD

| | | | |
|-------------------------|----------------------------|----------------|-----------|
| Borehole Number | BHNSA 39 | Job No: | P8251J128 |
| Site: | Upper Heyford, Oxfordshire | | |
| Ground Level (m) | 127.14 | | |
| Co-Ordinates | E: 451138.295 | N: 226036.756 | |
| Date: | 13/02/2012 | | |

| Depth (m) | Sample | | Core Length Recovered | Depth of Casing | Test | | Seat Drive | | Test Drive | | | | PID Result | Legend | Description |
|-----------|-----------|------|-----------------------|-----------------|------|-------|------------|----|------------|----|----|-----|------------|--------|--|
| | Depth (m) | Type | | | Type | Depth | 75 | 75 | 75 | 75 | 75 | 75 | | | |
| 0.60 | 0.50 | D | Open Hole | | PID | 0.5 | | | | | | | 0 | | Brown sandy CLAY with occasional fragments of highly weathered limestone |
| 1.20 | | | | | SPT | 1.2 | 6 | 7 | 8 | 19 | 23 | ref | | | Brown/yellow slightly clayey GRAVEL. Gravel is angular of limestone |
| 3.50 | | | | 2m | | | | | | | | | | | Sandy yellow LESTONE |
| 3.90 | | | | | | | | | | | | | | | Orange clayey SAND |
| 6.00 | | | | 5m | | | | | | | | | | | Pale yellow/grey sandy LESTONE |
| 6.80 | | | | | | | | | | | | | | | Pale grey SANDSTONE |
| 8.00 | | | | | | | | | | | | | | | Pale yellow/grey sandy SILTSTONE |
| 10.00 | | | | | | | | | | | | | | | Pale grey/dark grey silty MUDSTONE |

| | |
|------------------|------------------|
| Plant: | Commachio 305 |
| Client: | Heyford Park LLP |
| Driller: | Taylor/Gidman |
| Engineer: | M Williams |

Remarks:
 1. Groundwater struck at 3.1m bgl, rose to 2.6m bgl after 20 mins monitoring
 2. Installed from 10 - 9m bgl with bentonite, 9m - 1m bgl slotted standpipe, 1m bgl to surface plain pipe



Specialists in the investigation & reclamation of brownfield sites

ROTARY BOREHOLE RECORD

| | | | |
|-------------------------|----------------------------|----------------|-----------|
| Borehole Number | BHNSA 42 | Job No: | P8251J128 |
| Site: | Upper Heyford, Oxfordshire | | |
| Ground Level (m) | 121.62 | | |
| Co-Ordinates | E: 451276.231 | N: 225585.459 | |
| Date: | 15/02/2012 | | |

| Depth (m) | Sample | | Core Length Recovered | | Depth of Casing | Test | | Seat Drive | | Test Drive | | | | PID Result | Legend | Description |
|-----------|-----------|------|-----------------------|------|-----------------|------|-------|------------|----|------------|----|----|----|------------|--------|----------------------------|
| | Depth (m) | Type | | Hole | | Type | Depth | 75 | 75 | 75 | 75 | 75 | 75 | | | |
| 0.15 | | | Open | Hole | | | | | | | | | | | | |
| 0.40 | 0.50 | D | | | | PID | 0.5 | | | | | | | 0 | | TARMAC |
| | | | | | | | | | | | | | | | | Crushed concrete |
| | | | | | 1m | | | | | | | | | | | Pale grey/yellow LIMESTONE |
| | | | | | | SPT | 1.2 | 25 | 36 | ref | | | | | | |
| | | | | | 2m | | | | | | | | | | | |
| 2.20 | | | | | | | | | | | | | | | | |
| 2.40 | | | | | | | | | | | | | | | | Orange SAND |
| 2.90 | | | | | | | | | | | | | | | | Yellow SANDSTONE |
| | | | | | 3m | | | | | | | | | | | Orange clayey SAND |
| 3.60 | | | | | | | | | | | | | | | | |
| 4.10 | | | | | | | | | | | | | | | | Yellow SANDSTONE |
| 4.60 | | | | | 4.5m | | | | | | | | | | | Orange SANDSTONE |
| 5.50 | | | | | | | | | | | | | | | | Grey SILTSTONE |
| 5.80 | | | | | | | | | | | | | | | | Yellow SANDSTONE |
| 6.00 | | | | | | | | | | | | | | | | Grey SILTSTONE |
| 6.10 | | | | | | | | | | | | | | | | Grey CLAY |
| | | | | | | | | | | | | | | | | Grey SILTSTONE |
| 7.90 | | | | | | | | | | | | | | | | |
| 8.10 | | | | | | | | | | | | | | | | Grey silty MUDSTONE |
| | | | | | | | | | | | | | | | | Grey silty CLAY |
| 10.00 | | | | | | | | | | | | | | | | |

| | | |
|------------------|------------------|--|
| Plant: | Commachio 305 | Remarks: 1. Groundwater strike at 4.7m bgl, no rise after 20 mins 2. Installed from 10 - 9m bgl with bentonite, 9m - 1m bgl slotted standpipe, 1m bgl to surface plain pipe |
| Client: | Heyford Park LLP | |
| Driller: | Taylor/Gidman | |
| Engineer: | M Williams | |



Specialists in the investigation & reclamation of brownfield sites

ROTARY BOREHOLE RECORD

| | | | |
|-------------------------|----------------------------|----------------|-----------|
| Borehole Number | BHNSA 43 | Job No: | P8251J128 |
| Site: | Upper Heyford, Oxfordshire | | |
| Ground Level (m) | 121.678 | | |
| Co-Ordinates | E: 451298.015 | N: 225582.739 | |
| Date: | 16/02/2012 | | |

| Depth (m) | Sample | | Core Length Recovered | | Depth of Casing | Test | | Seat Drive | | Test Drive | | | | PID Result | Legend | Description |
|-----------|-----------|------|-----------------------|------|-----------------|------|-------|------------|----|------------|-----|----|----|------------|--------|---|
| | Depth (m) | Type | | Hole | | Type | Depth | 75 | 75 | 75 | 75 | 75 | 75 | | | |
| 0.10 | | | Open | Hole | | | | | | | | | | | | TARMAC |
| 0.20 | | | | | | | | | | | | | | | | SUBBASE |
| 0.80 | 0.50 | D | | | | PID | 0.5 | | | | | | | 0 | | Brown CLAY |
| 1.50 | | | | | 1m | SPT | 1.2 | 25 | 36 | 14 | ref | | | | | Brown CLAY containing fragments to cobbles of limestone |
| 2.40 | | | | | 2m | | | | | | | | | | | Becomes yellow LIMESTONE bedrock |
| 3.10 | 2.40 | D | | | 3m | PID | 2.4 | | | | | | | 0.3 | | Yellow SAND with faint hydrocarbon odour |
| 3.80 | | | | | | | | | | | | | | | | Grey LIMESTONE |
| 4.10 | | | | | | | | | | | | | | | | Grey SILTSTONE |
| 4.30 | | | | | | | | | | | | | | | | Yellow SANDSTONE |
| 6.10 | | | | | 4.5m | | | | | | | | | | | Grey LIMESTONE |
| 8.60 | | | | | | | | | | | | | | | | Grey SILTSTONE |
| 10.00 | | | | | | | | | | | | | | | | Grey CLAY |

| | | |
|------------------|------------------|--|
| Plant: | Commachio 305 | Remarks: 1. Groundwater struck at 3.1m bgl, rose to 2.6m bgl after 20 mins monitoring 2. Installed from 10 - 9m bgl with bentonite, 9m - 1m bgl slotted standpipe, 1m bgl to surface plain pipe |
| Client: | Heyford Park LLP | |
| Driller: | Taylor/Gidman | |
| Engineer: | M Williams | |



Specialists in the investigation & reclamation of brownfield sites

ROTARY BOREHOLE RECORD

| | | | |
|-------------------------|----------------------------|----------------|----------|
| Borehole Number | BHNSA 44 | Job No: | P8251128 |
| Site: | Upper Heyford, Oxfordshire | | |
| Ground Level (m) | 121.755 | | |
| Co-Ordinates | E: 451315.492 | N: 225580.34 | |
| Date: | 16/02/2012 | | |

| Depth (m) | Sample | | Core Length Recovered | Depth of Casing | Test | | Seat Drive | | Test Drive | | | | PID Result | Legend | Description |
|-----------|-----------|------|-----------------------|-----------------|------|-------|------------|----|------------|----|----|----|------------|--------|--|
| | Depth (m) | Type | | | Type | Depth | 75 | 75 | 75 | 75 | 75 | 75 | | | |
| 0.80 | 0.50 | D | Open Hole | | | | | | | | | | | | MADE GROUND - brown sandy clayey gravel. Gravel is angular of limestone. Possible edge of old soakaway |
| 1.20 | | | | 1m | PID | 0.5 | | | | | | | | 0 | Yellow/brown clayey GRAVEL. Gravel is angular of limestone |
| 2.50 | | | | 2m | SPT | 1.2 | 6 | 9 | 15 | 15 | 14 | 6 | | | Pale yellow/pale grey weathered LIMESTONE bedrock |
| 3.50 | | | | 3m | | | | | | | | | | | Yellow SANDSTONE |
| 5.80 | | | | 4m | | | | | | | | | | | Grey SANDSTONE |
| 8.90 | | | | | | | | | | | | | | | Grey CLAY |
| 10.00 | | | | | | | | | | | | | | | Grey SILTSTONE |

| | | |
|------------------|------------------|---|
| Plant: | Commachio 305 | Remarks: 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 |
| Client: | Heyford Park LLP | |
| Driller: | Taylor/Gidman | |
| Engineer: | M Williams | |



Specialists in the investigation & reclamation of brownfield sites

ROTARY BOREHOLE RECORD

| | | | |
|-------------------------|----------------------------|----------------|-----------|
| Borehole Number | BHNSA 45 | Job No: | P8251J128 |
| Site: | Upper Heyford, Oxfordshire | | |
| Ground Level (m) | 122.83 | | |
| Co-Ordinates | E: 451275.53 | N: 225734.24 | |
| Date: | 16/02/2012 | | |

| Depth (m) | Sample | | Core Length Recovered | Depth of Casing | Test | | Seat Drive | | Test Drive | | | | PID Result | Legend | Description | |
|-----------|-----------|------|-----------------------|-----------------|------|-------|------------|----|------------|----|----|----|------------|--------|-------------|---------------------------------|
| | Depth (m) | Type | | | Type | Depth | 75 | 75 | 75 | 75 | 75 | 75 | | | | 75 |
| | | | Open Hole | | | | | | | | | | | | | |
| 2.70 | | | | 2.7m | | | | | | | | | | | | |
| 3.00 | | | | 3m | | | | | | | | | | | | Weathered pale yellow LIMESTONE |
| 3.50 | | | | | | | | | | | | | | | | Yellow CLAY |
| 4.50 | | | | | | | | | | | | | | | | Yellow SANDSTONE |
| | | | | | | | | | | | | | | | | |

| | |
|------------------|------------------|
| Plant: | Commachio 305 |
| Client: | Heyford Park LLP |
| Driller: | Taylor/Gidman |
| Engineer: | M Williams |

Remarks:
 1. Groundwater struck at 2.7m bgl, no rise after 20 mins
 2. Installed from 4.5 - 3.5m bgl with bentonite, 3.5m - 1m bgl with slotted standpipe with 1m bgl to surface plain pipe



Specialists in the investigation & reclamation of brownfield sites

ROTARY BOREHOLE RECORD

| | | | |
|-------------------------|----------------------------|----------------|-----------|
| Borehole Number | BHNSA 225 | Job No: | P8251J128 |
| Site: | Upper Heyford, Oxfordshire | | |
| Ground Level (m) | 122.932 | | |
| Co-Ordinates | E: 450651.805 | N: 225761.212 | |
| Date: | 13/02/2012 | | |

| Depth (m) | Sample | | Core Length Recovered | Depth of Casing | Test | | Seat Drive | | Test Drive | | | | PID Result | Legend | Description |
|-----------|-----------|------|-----------------------|-----------------|------|-------|------------|----|------------|----|----|----|------------|--------|---|
| | Depth (m) | Type | | | Type | Depth | 75 | 75 | 75 | 75 | 75 | 75 | | | |
| 0.80 | 0.50 | D | Open Hole | | PID | 0.5 | | | | | | | 0 | | Brown sandy CLAY containing occasional fragments of limestone |
| 1.20 | | | | | SPT | 1.2 | 5 | 7 | 10 | 13 | 13 | 14 | | | Brown/yellow slightly clayey GRAVEL. Gravel is angular of limestone |
| 3.20 | | | | 3m | | | | | | | | | | | Pale yellow/ grey LIMESTONE |
| 3.70 | | | | | | | | | | | | | | | Pale grey CLAY |
| 4.90 | | | | 4m | | | | | | | | | | | Grey SILTSTONE |
| 5.30 | | | | 5m | | | | | | | | | | | Pale to dark grey CLAY |
| 5.50 | | | | | | | | | | | | | | | Grey SILTSTONE |
| 6.10 | | | | | | | | | | | | | | | Grey CLAY |
| 10.00 | | | | | | | | | | | | | | | Pale grey to dark grey silty MUDSTONE |

| | | |
|------------------|------------------|--|
| Plant: | Commachio 305 | Remarks: 1. Groundwater struck at 3.1m bgl, rose to 2.6m bgl after 20 mins monitoring 2. Installed from 10 - 9m bgl with bentonite, 9m - 1m bgl slotted standpipe, 1m bgl to surface plain pipe |
| Client: | Heyford Park LLP | |
| Driller: | Taylor/Gidman | |
| Engineer: | M Williams | |



Specialists in the investigation & reclamation of brownfield sites

ROTARY BOREHOLE RECORD

| | | | |
|-------------------------|----------------------------|----------------|-----------|
| Borehole Number | BHNSA 226 | Job No: | P8251J128 |
| Site: | Upper Heyford, Oxfordshire | | |
| Ground Level (m) | 124.266 | | |
| Co-Ordinates | E: 450865.958 | N: 225720.296 | |
| Date: | 14/02/2012 | | |

| Depth (m) | Sample | | Core Length Recovered | Depth of Casing | Test | | Seat Drive | | Test Drive | | | | PID Result | Legend | Description |
|-----------|-----------|------|-----------------------|-----------------|------|-------|------------|----|------------|----|--------|----|------------|--------|--|
| | Depth (m) | Type | | | Type | Depth | 75 | 75 | 75 | 75 | 75 | 75 | | | |
| 0.10 | | | Open Hole | | | | | | | | | | | | |
| 0.70 | 0.50 | D | | | PID | 0.5 | | | | | | | 0 | | Brown sandy CLAY with occasional fragments of highly weathered limestone |
| 1.20 | | | | 1m | SPT | 1.2 | 8 | 12 | 19 | 21 | 10 ref | | | | Yellow/brown slightly clayey GRAVEL. Gravel is angular of limestone |
| 1.60 | | | | | | | | | | | | | | | Yellow LIMESTONE |
| 1.90 | | | | | | | | | | | | | | | Yellow SAND |
| 3.10 | | | | 3m | | | | | | | | | | | Yellow silty SANDSTONE |
| 3.50 | | | | | | | | | | | | | | | Yellow/orange SAND |
| 4.20 | | | | 4m | | | | | | | | | | | Grey SILTSTONE |
| 4.40 | | | | | | | | | | | | | | | Yellow SAND |
| 5.60 | | | | 4.5m | | | | | | | | | | | Yellow/Grey SILTSTONE |
| 6.10 | | | | | | | | | | | | | | | Grey SILTSTONE |
| 8.70 | | | | | | | | | | | | | | | Grey clayey MUDSTONE |
| 10.00 | | | | | | | | | | | | | | | Grey CLAY |

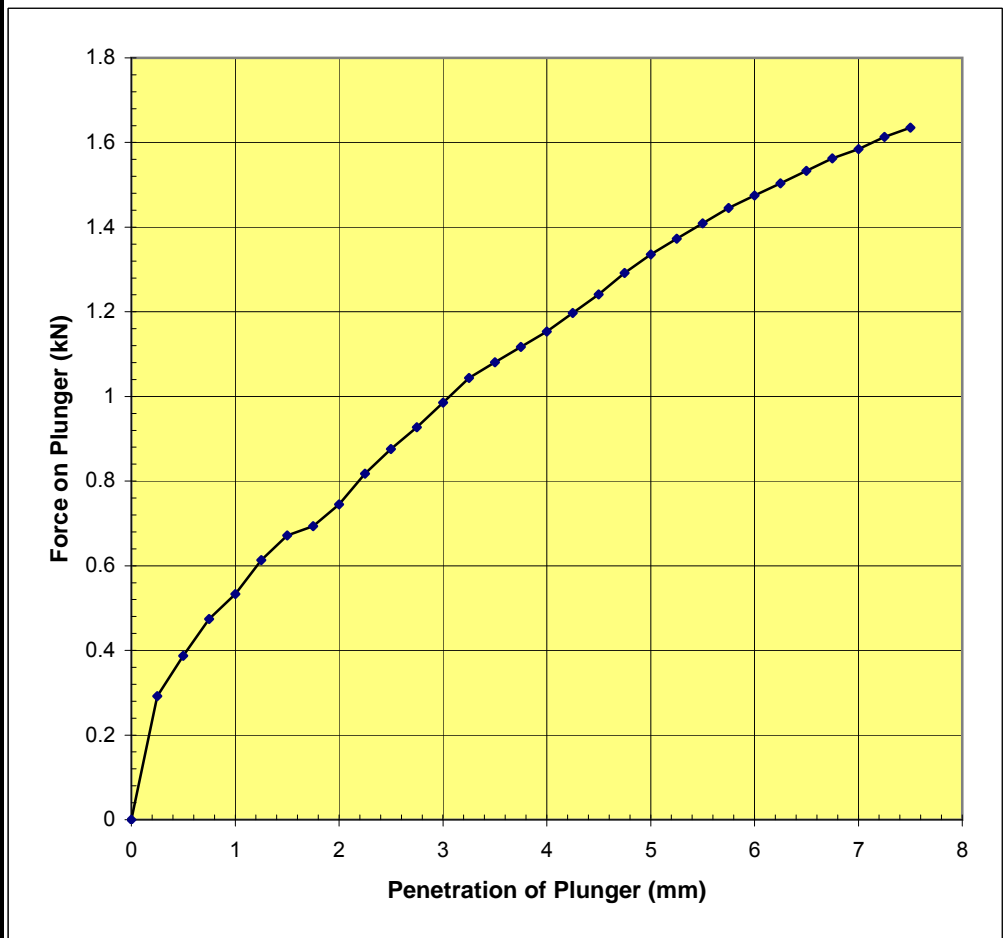
| | | |
|------------------|------------------|--|
| Plant: | Commachio 305 | Remarks: 1. Groundwater struck at 6.1m bgl, rose to 4.5m bgl after 20 mins monitoring 2. Installed from 10 - 9m bgl with bentonite, 9m - 1m bgl slotted standpipe, 1m bgl to surface plain pipe |
| Client: | Heyford Park LLP | |
| Driller: | Taylor/Gidman | |
| Engineer: | M Williams | |

APPENDIX 4 – IN SITU CBR TEST RECORDS

| | | |
|--|------------------------------------|--|
| Project Name: Upper Heyford NSA II | Project Started: 09/02/2012 | |
| | 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 description: Brown slightly gravelly silty fine sandy CLAY (gravel is fmc and sub-angular) | TP No: CBR001 | |
| | Depth (m): 0.60 | |
| | Test No: - | |
| Note: Test applicable only when maximum particle size beneath plunger does not exceed 20mm | Rate of Strain :1.00mm/min | |
| Note: Penetration and force readings after seating load zeroed. | Mass of Surcharge 8.5 kg | |
| | Proving Ring factor: 7.3 | |


RECORDINGS

| Penetration of Plunger mm | Force on Plunger | |
|---------------------------|------------------|---------|
| | Dial Reading | Load 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:

| | | | | | |
|----------------------|-----|----------------|----------|-------------------|-------|
| Moisture content (%) | 18 | Penetration mm | Force kN | Standard Force kN | CBR % |
| | | 2.5 | 0.88 | 13.2 | 6.64 |
| In-situ CBR value % | 6.7 | 5 | 1.34 | 20 | 6.68 |

| | | | | | | |
|--|-------------------------------------|--|--|--------------------|------------|--|
|  | In-situ CBR Test | | | Approved by | | |
| | BS1377 Part 9 : 1990 : 4.3 | | | Initials : | kp | |
| | Determination of In-situ CBR values | | | Date : | 10/02/2012 | |

Remarks:

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

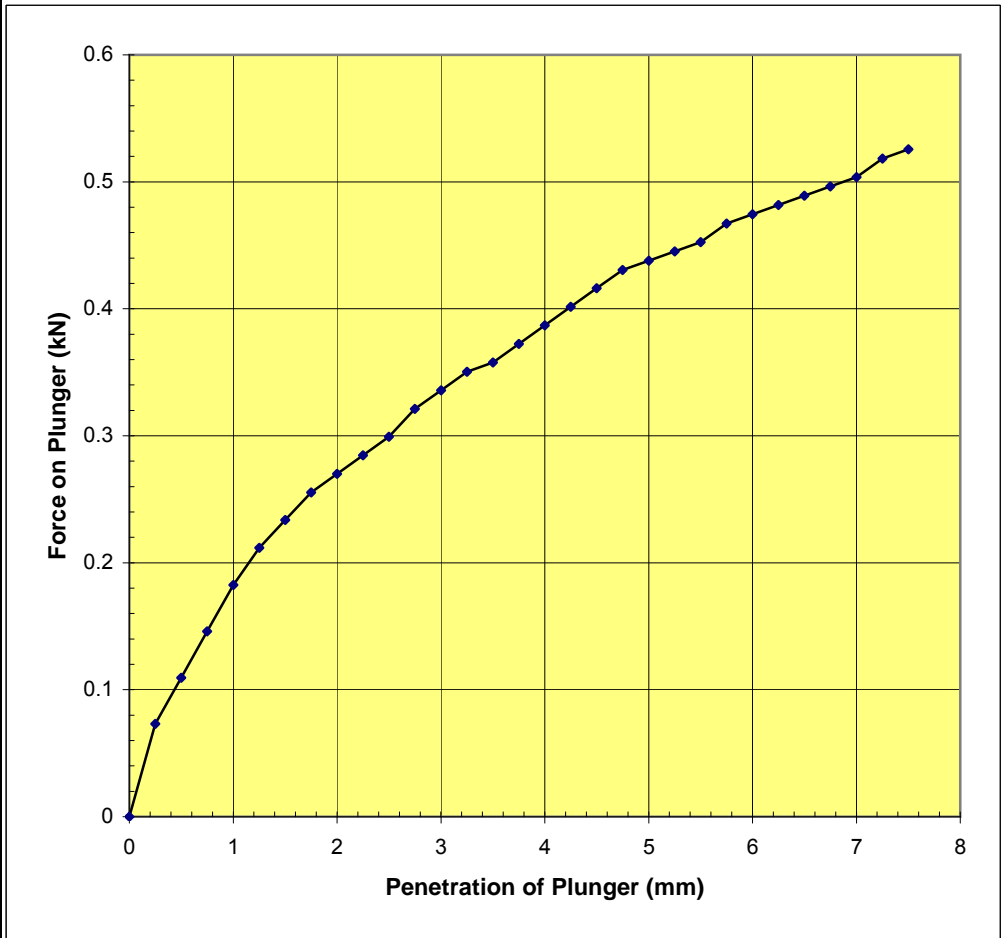
Test Results relate only to the sample numbers shown above. Approved Signatories: K.Phaure (Tech.Mgr) J.Phaure (Lab.Mgr)

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: Upper Heyford NSA II | Project Started: 09/02/2012 | |
| | 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 description: Brown slightly gravelly silty fine sandy CLAY (gravel is fmc and sub-angular) | TP No: CBR002 | |
| | Depth (m): 0.60 | |
| | Test No: - | |
| Note: Test applicable only when maximum particle size beneath plunger does not exceed 20mm | Rate of Strain :1.00mm/min | |
| Note: Penetration and force readings after seating load zeroed. | Mass of Surcharge 8.5 kg | |
| | Proving Ring factor: 7.3 | |


RECORDINGS

| Penetration of Plunger mm | Force on Plunger | |
|---------------------------|------------------|---------|
| | Dial Reading | Load 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:

| | | | | | |
|----------------------|-----|----------------|----------|-------------------|-------|
| Moisture content (%) | 20 | Penetration mm | Force kN | Standard Force kN | CBR % |
| | | 2.5 | 0.30 | 13.2 | 2.27 |
| In-situ CBR value % | 2.3 | 5 | 0.44 | 20 | 2.19 |

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

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

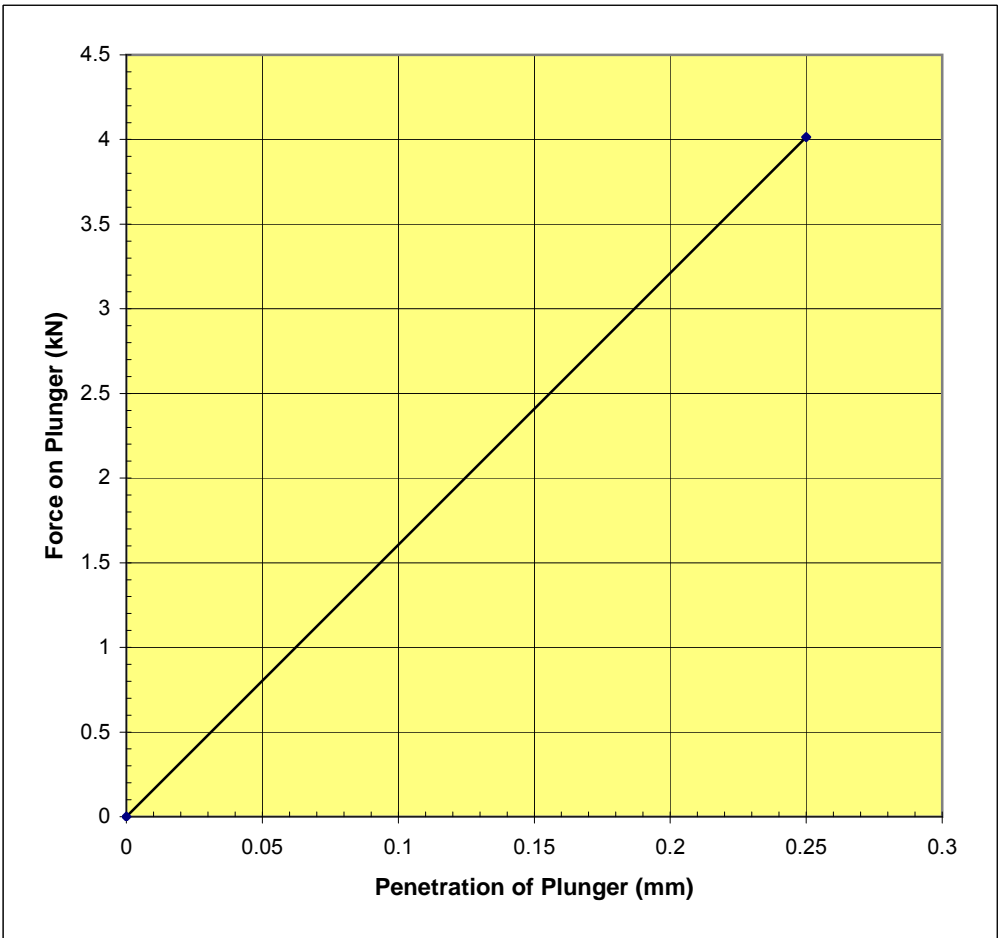
| | | | |
|----------------------------|---|-----------------------------|------------|
| Project Name: | Upper Heyford NSA II | Project Started: | 09/02/2012 |
| | | Testing Started: | 09/02/2012 |
| Client Name: | Jomas Associates Ltd | Date reported: | 10/02/2012 |
| Project No: | P8251J128.08 | Our Job / report no: | 12247 |
| Sample description: | Brown gravelly silty CLAY (gravel is fmc and sub-angular) | Sample no/ type: | - |
| | | TP No: | CBR003 |
| | | Depth (m): | 0.60 |
| | | Test No: | - |

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 of Plunger mm | Force on Plunger | |
|---------------------------|------------------|---------|
| | Dial Reading | Load kN |
| 0 | 0 | 0 |
| 0.25 | 550 | 4.02 |
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RESULTS:

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



In-situ CBR Test
BS1377 Part 9 : 1990 : 4.3
Determination of In-situ CBR values

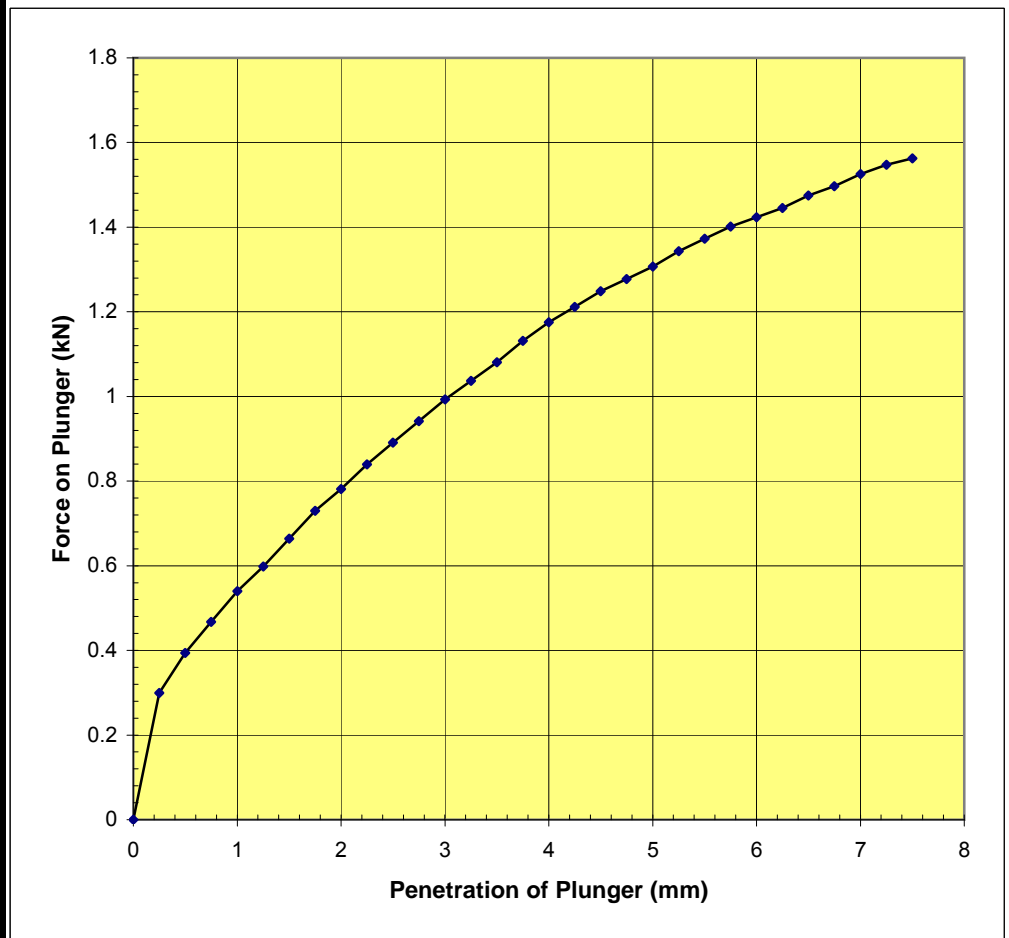
Approved by
Initials : kp
Date : 10/02/2012

Remarks: Maximum kentledge reached

| | | |
|--|------------------------------------|--|
| Project Name: Upper Heyford NSA II | Project Started: 09/02/2012 | |
| | 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 description: Brown slightly gravelly silty fine sandy CLAY (gravel is fmc and sub-angular) | TP No: CBR004 | |
| | Depth (m): 0.60 | |
| | Test No: - | |
| Note: Test applicable only when maximum particle size beneath plunger does not exceed 20mm | Rate of Strain :1.00mm/min | |
| Note: Penetration and force readings after seating load zeroed. | Mass of Surcharge 8.5 kg | |
| | Proving Ring factor: 7.3 | |


RECORDINGS

| Penetration of Plunger mm | Force on Plunger | |
|---------------------------|------------------|---------|
| | Dial Reading | Load 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:

| | | | | | |
|----------------------|-----|----------------|----------|-------------------|-------|
| Moisture content (%) | 27 | Penetration mm | Force kN | Standard Force kN | CBR % |
| | | 2.5 | 0.89 | 13.2 | 6.75 |
| In-situ CBR value % | 6.7 | 5 | 1.31 | 20 | 6.53 |

| | | | | | | |
|--|-------------------------------------|--|--|--------------------|------------|--|
|  | In-situ CBR Test | | | Approved by | | |
| | BS1377 Part 9 : 1990 : 4.3 | | | Initials : | kp | |
| | Determination of In-situ CBR values | | | Date : | 10/02/2012 | |

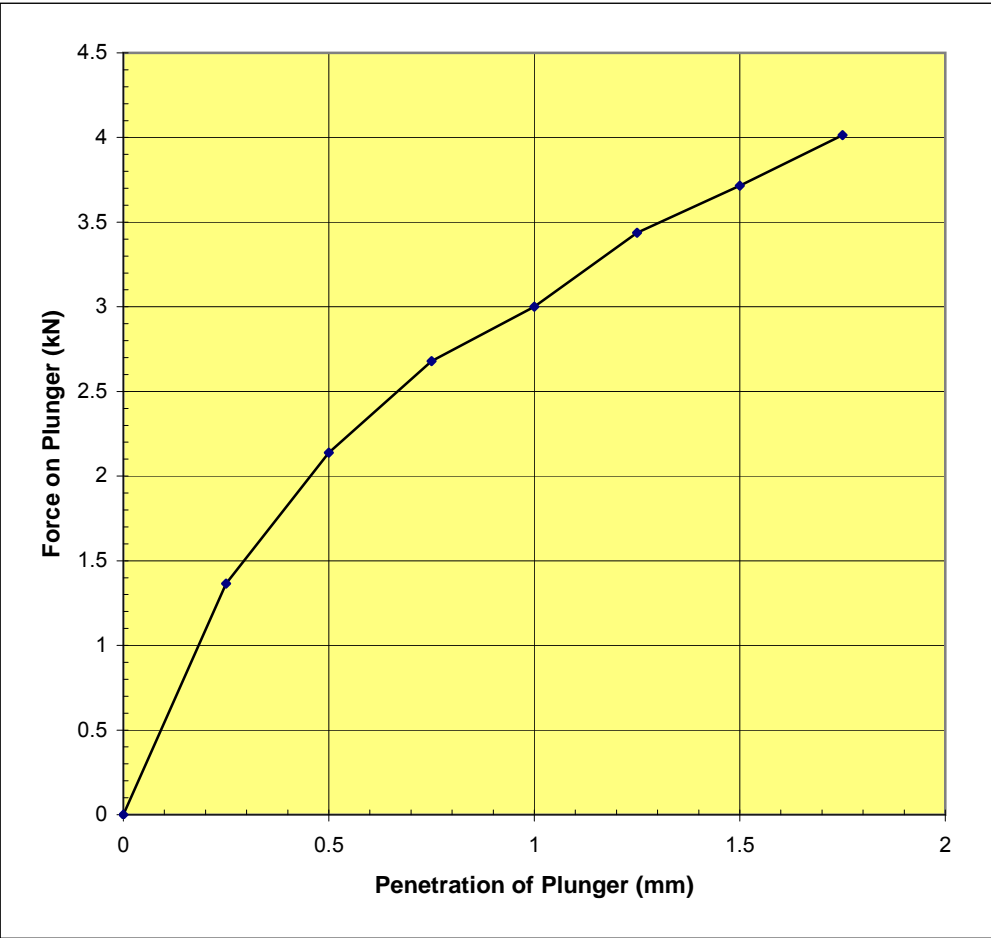
Remarks:

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)
 All samples connected with this report ,incl any on 'hold' will be stored and disposed off according to Company policy.Acopny of this policy is available on request. MSF-11/ R10/1

| | | |
|--|------------------------------------|--|
| Project Name: Upper Heyford NSA II | Project Started: 09/02/2012 | |
| | 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 description: Yellowish brown gravelly silty CLAY (gravel is fmc weakly cemented siltstone fragments) | TP No: CBR005 | |
| | Depth (m): 0.60 | |
| | Test No: - | |
| Note: Test applicable only when maximum particle size beneath plunger does not exceed 20mm | Rate of Strain : 1.00mm/min | |
| Note: Penetration and force readings after seating load zeroed. | Mass of Surcharge 8.5 kg | |
| | Proving Ring factor: 7.3 | |

RECORDINGS

| Penetration of Plunger mm | Force on Plunger | |
|---------------------------|------------------|---------|
| | Dial Reading | Load kN |
| 0 | 0 | 0 |
| 0.25 | 187 | 1.37 |
| 0.50 | 293 | 2.14 |
| 0.75 | 367 | 2.68 |
| 1.00 | 411 | 3.00 |
| 1.25 | 471 | 3.44 |
| 1.50 | 509 | 3.72 |
| 1.75 | 550 | 4.02 |
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RESULTS:

| | | | | | |
|-----------------------------|---------------|-----------------------|-----------------|--------------------------|--------------|
| Moisture content (%) | 15 | Penetration mm | Force kN | Standard Force kN | CBR % |
| | | 2.5 | - | 13.2 | - |
| | | 5 | - | 20 | - |
| In-situ CBR value % | >30 | | | | |

| | | |
|--|-------------------------------------|--------------------|
| | In-situ CBR Test | Approved by |
| | BS1377 Part 9 : 1990 : 4.3 | Initials : kp |
| | Determination of In-situ CBR values | Date : 10/02/2012 |

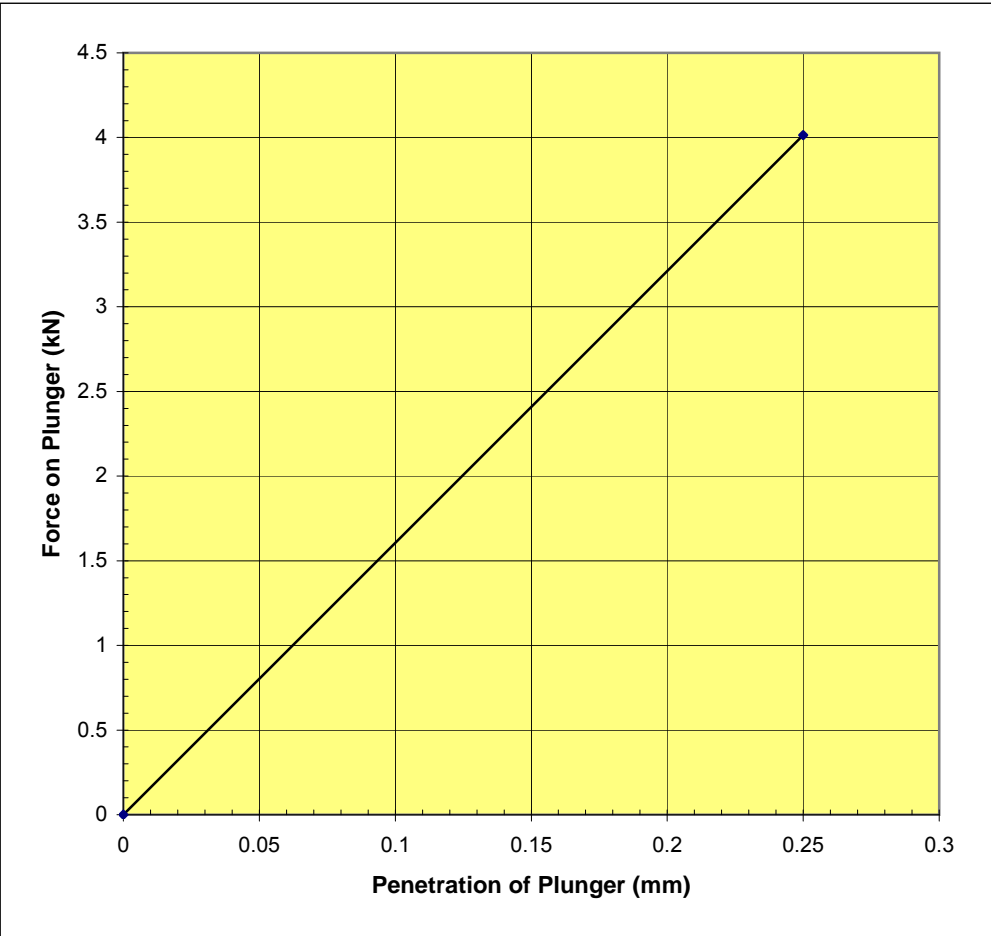
Remarks: Maximum kentledge reached

| | | |
|---|------------------------------------|------------------------|
| Project Name: Upper Heyford NSA II | Project Started: 09/02/2012 | |
| | 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 description: Brown gravelly silty fine sandy CLAY (gravel is fmc and sub-angular) | | TP No: CBR006 |
| | | Depth (m): 0.60 |
| | | Test No: - |

| | |
|---|--|
| 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 of Plunger mm | Force on Plunger | |
|------------------------------|------------------|---------|
| | Dial Reading | Load kN |
| 0 | 0 | 0 |
| 0.25 | 550 | 4.02 |
| | | |
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RESULTS:


| | | | | |
|--------------------------------|-----------------------|-----------------|--------------------------|--------------|
| Moisture content (%) 14 | Penetration mm | Force kN | Standard Force kN | CBR % |
| | 2.5 | - | 13.2 | - |
| | 5 | - | 20 | - |
| In-situ CBR value % | >30 | | | |


| | | |
|--|-------------------------------------|------------------------------------|
| | In-situ CBR Test | Approved by |
| | BS1377 Part 9 : 1990 : 4.3 | Initials : kp |
| | Determination of In-situ CBR values | Date : 10/02/2012 |

Remarks: Maximum kentledge reached

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 | | | |
| Tank ID | Type of Tank (UST/AST) | Tank construction details – metal, plastic | Condition of tank – rusted, damaged, good condition etc? | Depth to 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 |
| AGNSA 04, 05 (2 x tanks mounted side by side) | AST | Metal | Rusted | 2.8m | 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 | 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 (approx) | 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 approx | 0.7 x 2m | Appears to be dry | - | - | Likely contents heavy oil – tank within metal bund on elevated concrete |

| Project Ref: | | P8251J128 | | Project Name: | | Upper Heyford NSA | |  | | |
|-----------------------|------------------------|--|--|------------------------------|------------------|--|---|--|--|--|
| Lead Engineer: | | Marc Williams | | Title: | | Tank Data | | | | |
| Version: | | 0.2 | | Date: | | 02/03/12 | | | | |
| Tank ID | Type of Tank (UST/AST) | Tank construction details – metal, plastic | Condition of tank – rusted, damaged, good condition etc? | Depth to 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 22, 23 | UST | Appears to be metallic | Rusted | 3.1m | - | 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 | | 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 Name: | | Upper Heyford NSA | | | |
|--|------------------------|--|--|------------------------------|-----------------------------------|-----------------------------------|--|----------------------|--|
| Lead Engineer: | | Marc Williams | | Title: | | Tank Data | | | |
| Version: | | 0.2 | | Date: | | 02/03/12 | | | |
|  | | | | | | | | | |
| Tank ID | Type of Tank (UST/AST) | Tank construction details – metal, plastic | Condition of tank – rusted, damaged, good condition etc? | Depth to 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 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 | unknown | 1.5m | 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

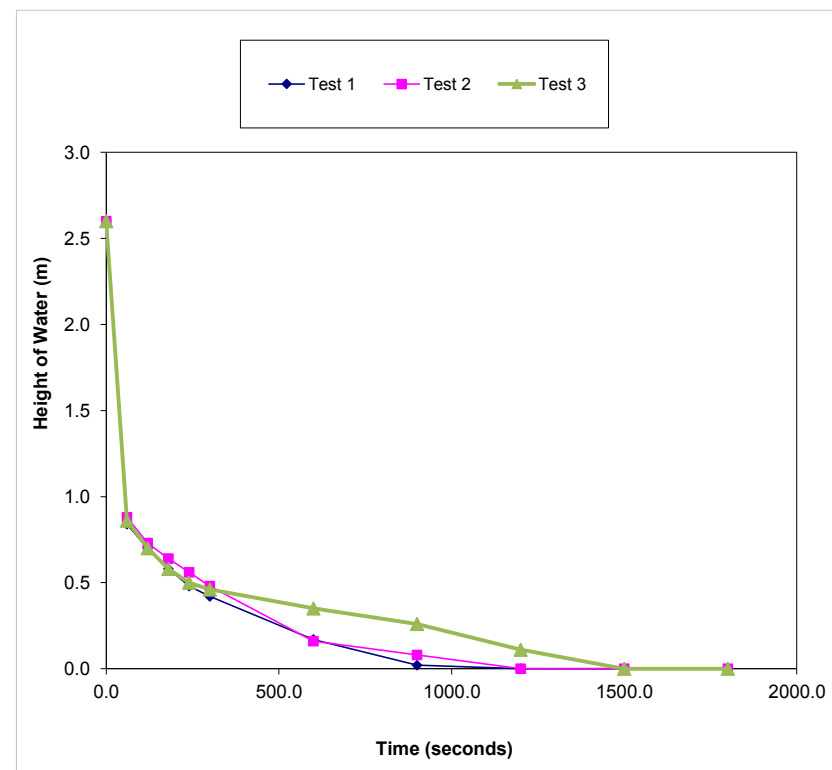


Specialists in the investigation & reclamation of brownfield sites

| | | | | |
|--------|------------------------------|-----------------|------------|-----------|
| Client | Heyford Park Settlements Ltd | Ground Level | Hole Nr | BHNSA 07 |
| Site | Upper Heyford | Nat Grid Co-ord | Project Nr | P8251J128 |
| Date | 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 | 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 |
|---|--|--|

| Elapsed time Seconds | TEST 1 | | TEST 2 | | TEST 3 | |
|-------------------------|------------------------|----------------------|------------------------|----------------------|-----------------------------|---------------------------|
| | Depth to Water mbgl | Height of Water m | Depth to Water mbgl | Height of Water m | Depth to Water (Dw) mbgl | Height of Water (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 |



| | TEST 1 | TEST 2 | TEST 3 |
|----------------------------------|-----------------|-----------------|-----------------|
| t1 (sec) | 60 | 60 | 60 |
| t2 (sec) | 900.00 | 900.00 | 900.00 |
| t2-t1 (sec) | 840.00 | 840.00 | 840.00 |
| h1 (m) | 0.840 | 0.880 | 0.860 |
| h2 (m) | 0.020 | 0.080 | 0.260 |
| Permeability -k - (m/sec) | 2.59E-06 | 1.66E-06 | 8.30E-07 |

| | |
|--|--|
| Water Depths - Groundwater at 2.6mbgl | Remarks: 40L of water used for test Approved By: RS |
|--|--|

FALLING HEAD TEST RECORD

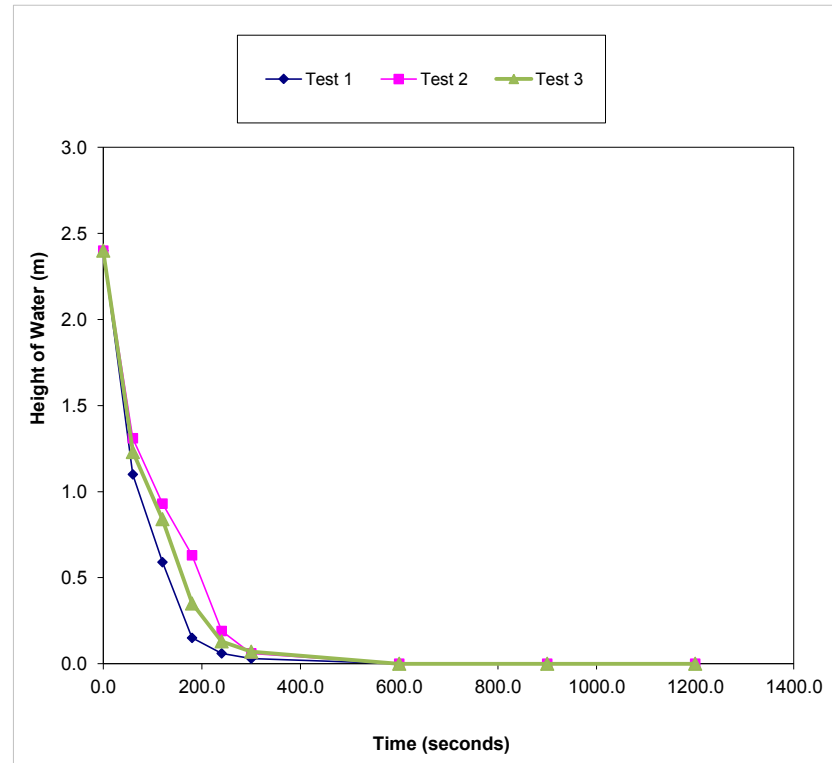


Specialists in the investigation & reclamation of brownfield sites

| | | |
|--|-----------------|-------------------------|
| Client Heyford Park Settlements Ltd | Ground Level | Hole Nr BHNSA 27 |
| Site Upper Heyford | Nat Grid Co-ord | Project Nr P8251J128 |
| Date 24/02/2012 | Engineer MW | |

| | | |
|---|---|--|
| Borehole Dimensions Borehole Diameter (m) 0.17 Standpipe Diameter (m) 0.050 Length of Slotted Pipe (m) 2.40 F (Intake Factor) 3.16 A (Cross-sectional Area) 0.0020 | 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 |
|---|---|--|

| Elapsed time Seconds | TEST 1 | | TEST 2 | | TEST 3 | |
|-------------------------|------------------------|----------------------|------------------------|----------------------|-----------------------------|---------------------------|
| | Depth to Water mbgl | Height of Water m | Depth to Water mbgl | Height of Water m | Depth to Water (Dw) mbgl | Height of Water (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 |



| | TEST 1 | TEST 2 | TEST 3 |
|----------------------------------|-----------------|-----------------|-----------------|
| t1 (sec) | 60 | 60 | 60 |
| t2 (sec) | 300.00 | 300.00 | 300.00 |
| t2-t1 (sec) | 240.00 | 240.00 | 240.00 |
| h1 (m) | 1.100 | 1.310 | 1.230 |
| h2 (m) | 0.030 | 0.060 | 0.070 |
| Permeability -k - (m/sec) | 9.31E-06 | 7.97E-06 | 7.41E-06 |

| | |
|--|---|
| Water Depths - Groundwater at 2.4mbgl | Remarks: 40L of water used for test 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

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)



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. 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 | 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** | (mg/kg) | 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

GM



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. 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 | 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** | (mg/kg) | 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

GM



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. 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 | 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

GM



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. 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 | 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 |
| 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

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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. 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 | 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

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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 |



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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 |



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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 | 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

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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 |
| Stone Content (%) | <1 | 40 | 27 | 9 |
| 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 |

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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 |

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ANALYTICAL REPORT No. AR37278A

Location: Upper Heyford NSA

Your Job No: P8251J128.
 10
 Reporting Date: 23/03/12

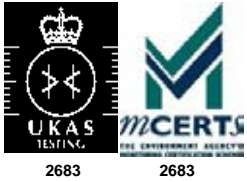
F.A.O. Roni Savage
Jomas Associates Limited
Jomas House
21 Bradenham Road
Middlesex, UB4 8LP

| <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

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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 | 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

GM



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. 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 | 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

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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. 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 | 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 |
| 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

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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. 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

TPH CWG - Soil

Aromatic

| Characteristic | Silty clay loam | Sand | Sand | Silt Loam | Silt Loam | Silt Loam | Silt Loam | Silt Loam | Silt Loam | Silt Loam | Silt Loam |
|---|-----------------|-------|-------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 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 | |
| >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 | <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 | <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 | 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 | <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 | <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 | <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 | |

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 | <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 | <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 | <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 | <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 | <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 | <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 | <10 |
| Toluene (µg/kg) | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 |
| Ethylbenzene (µg/kg) | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 |
| Xylenes (µg/kg) | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 |
| MTBE (µg/kg) | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 |

All results expressed on dry weight basis

** - MCERTS accredited test

GM



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THE ENVIRONMENTAL LABORATORY LTD

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

| Soils | Characteristic | Silty clay loam | Silt Loam | Sand | Sand | Silty clay loam | |
|-------|--------------------------------|-----------------|-----------|-------|-------|-----------------|-----|
| | | 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 | (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 | 384 | <10 |
| | 1-Methylpropylbenzene | (µg/kg) | <10 | <10 | <10 | <10 | <10 |
| | o-Cymene | (µg/kg) | <10 | <10 | <10 | 34 | <10 |
| | 1, 4-Dichlorobenzene | (µg/kg) | <10 | <10 | <10 | <10 | <10 |
| | Butylbenzene | (µg/kg) | <10 | <10 | <10 | 16 | <10 |
| | 1, 2-Dibromo-3-chloropropane | (µg/kg) | <10 | <10 | <10 | <10 | <10 |
| | Hexachlorobutadiene | (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

PRB

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. 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

| 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 |
| 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 | (µg/kg) | <10 | <10 | <10 | <10 | <10 |
| Phenol, 2-nitro- | (µg/kg) | <10 | <10 | <10 | <10 | <10 |
| Phenol, 2,4-dimethyl- | (µg/kg) | 17 | <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- | (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 | (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 | (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 | (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 | (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 | (µg/kg) | --- | --- | --- | --- | --- |
| Dibenz(ah)anthracene | (µg/kg) | --- | --- | --- | --- | --- |
| Benzo(ghi)perylene | (µg/kg) | --- | --- | --- | --- | --- |



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. 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: 229
Depth (m) 0.50
Our ref: 28670
#Description of Sample Matrix: Silty clay loam
*Result No asbestos identified

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

*= UKAS accredited

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

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GM



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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: 241
Depth (m) 0.30
Our ref: 28681
#Description of Sample Matrix: Silt Loam
*Result No asbestos 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
Our ref: 28683
#Description of Sample Matrix: Silt Loam
*Result No asbestos identified

Sample ref: 248
Depth (m) 0.50
Our ref: 28684
#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

Sample ref: 250
Depth (m) 0.20
Our ref: 28686
#Description of Sample Matrix: Silt Loam
*Result No asbestos identified

*= UKAS accredited

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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

*= UKAS accredited

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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

*= UKAS accredited

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GM



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 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 |
|----------------------------|------------------------|-------------|---------------|------------------------------------|
| 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

* = UKAS Accredited test

** - MCERTS 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)



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 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 |

* = UKAS Accredited test

** - MCERTS Accredited test

Determinands not marked with * or ** are non accredited

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Unit A2
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Ponswood Industrial Estate
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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: 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

Authorised By:-


Mike Varley BSc, CChem, CSci, FRSC
Chief Chemist

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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

Location: Upper Heyford



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

Reporting Date: 04/04/12

Soils

| Characteristic | Sandy silt loam | Silt clay loam | Silt 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 | |
| Stone Content (%) | 14 | 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) | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | 2.7 | <0.5 | 1.0 | |
| Chromium** (mg/kg) | 18 | 21 | 38 | 13 | 42 | 42 | 40 | 64 | 33 | 33 | |
| Lead** (mg/kg) | 16 | 27 | 38 | 11 | 36 | 35 | 28 | 394 | 46 | 73 | |
| 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) | 14 | 19 | 29 | 11 | 30 | 32 | 31 | 32 | 24 | 25 | |
| Copper** (mg/kg) | 11 | 12 | 17 | 6 | 16 | 19 | 16 | 32 | 14 | 24 | |
| Zinc** (mg/kg) | 35 | 89 | 82 | 45 | 75 | 83 | 68 | 516 | 84 | 79 | |
| Selenium** (mg/kg) | <0.5 | 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) | <0.5 | <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) | 40 | 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

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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

Location: Upper Heyford



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

Reporting Date: 04/04/12

| Soils | 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

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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

| 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 |
| 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

SBB



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

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 | 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 |
| | 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/l 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

SBB



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

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 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/l 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

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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

Location: Upper Heyford



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

Reporting Date: 04/04/12

| 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 |
| | 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/l 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

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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 | Sandy silt loam |
| TP/BH | 239 |
| Depth (m) | 0.30 |
| Our ref | 30502 |

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 |

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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

| Soils | 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 |
| | 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 | 0.7 | <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 |
| | Fluoranthene** | (mg/kg) | <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 | 1.3 | <0.5 | 3.2 |
| | Benzo(a)anthracene** | (mg/kg) | <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 | 1.1 | <0.5 | 2.2 |
| | Benzo(b)fluoranthene** | (mg/kg) | <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 | 1.0 | <0.5 | 2.3 |
| | Benzo(a)pyrene** | (mg/kg) | <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 | 0.8 | <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 | 0.7 |
| | Benzo(ghi)perylene** | (mg/kg) | <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 | 9.1 | <0.5 | 24.1 |

All results expressed on dry weight basis

** - MCERTS accredited test

SBB



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

Location: Upper Heyford



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

Reporting Date: 04/04/12

| Soils | 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 |
| | 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 | 2.2 | <0.5 | 1.3 | <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 |
| | Fluoranthene** | (mg/kg) | <0.5 | 1.5 | 5.2 | <0.5 | 4.2 | <0.5 | 0.7 | 3.3 | 2.1 |
| | Pyrene** | (mg/kg) | <0.5 | 1.4 | 4.1 | <0.5 | 3.3 | <0.5 | 0.6 | 3.1 | 1.7 |
| | Benzo(a)anthracene** | (mg/kg) | <0.5 | 0.9 | 2.5 | <0.5 | 2.4 | <0.5 | 0.6 | 2.4 | 1.4 |
| | Chrysene** | (mg/kg) | <0.5 | 1.1 | 3.2 | <0.5 | 2.7 | <0.5 | 0.7 | 2.7 | 1.4 |
| | Benzo(b)fluoranthene** | (mg/kg) | <0.5 | 0.9 | 2.5 | <0.5 | 1.9 | <0.5 | 0.7 | 2.8 | 1.1 |
| | Benzo(k)fluoranthene** | (mg/kg) | <0.5 | 1.1 | 2.6 | <0.5 | 2.4 | <0.5 | 0.8 | 3.1 | 1.6 |
| | Benzo(a)pyrene** | (mg/kg) | <0.5 | 0.7 | 1.2 | <0.5 | 2.4 | <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 | 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 |
| | Benzo(ghi)perylene** | (mg/kg) | <0.5 | 0.9 | 2.2 | <0.5 | 1.6 | <0.5 | 0.8 | 2.5 | 1.2 |
| | Total PAH** | (mg/kg) | <0.5 | 9.5 | 29.4 | <0.5 | 24.1 | <0.5 | 5.8 | 26.5 | 13.5 |

All results expressed on dry weight basis

** - MCERTS accredited test

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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

Location: Upper Heyford



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

Reporting Date: 04/04/12

Soils

| Characteristic | Silt loam | Silt loam | Silt loam | Silt loam | Silt clay loam | Silt 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 | 0.50 |
| Our ref | 30522 | 30523 | 30524 | 30525 | 30526 | 30527 | 30528 | 30529 | 30530 | 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 |
| Benzo(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

SBB



2683 2683

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

Location: Upper Heyford



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

Reporting Date: 04/04/12

TPH CWG - Soil

| Characteristic | Sandy silt loam | Silt clay loam | Silt loam | Silt loam | Silt loam | Silt loam | Silt loam | Silt loam | Silt loam | Silt loam | Silt loam |
|----------------|-----------------|----------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| TP/BH | 239 | 240 | 245 | 247 | 257 | 258 | 262 | 263 | 269 | 271 | |
| Depth (m) | 0.30 | 0.50 | 0.50 | 0.50 | 0.50 | 0.50 | 0.15 | 0.50 | 0.40 | 0.50 | |
| Our ref | 30502 | 30503 | 30504 | 30506 | 30507 | 30508 | 30509 | 30510 | 30511 | 30513 | |

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) | <0.1 | <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 | 0.2 | 0.2 | 0.7 | 0.1 | 2.2 | 0.2 |
| >EC ₁₂ -EC ₁₆ | (mg/kg) | <0.1 | <0.1 | <0.1 | 0.3 | 0.4 | 0.5 | 5.6 | 0.3 | 11.7 | 5.5 |
| >EC ₁₆ -EC ₂₁ | (mg/kg) | <0.1 | <0.1 | 0.3 | 0.5 | 0.6 | 0.8 | 8.2 | 0.7 | 9.3 | 4.7 |
| >EC ₂₁ -EC ₃₅ | (mg/kg) | 5.3 | 0.2 | 0.2 | 0.1 | <0.1 | <0.1 | 18.7 | 0.4 | 18.1 | 5.2 |

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 | 0.2 | <0.1 | 0.1 | 0.3 | 0.2 |
| >EC ₁₂ -EC ₁₆ | (mg/kg) | <0.1 | <0.1 | 0.2 | 0.3 | 0.3 | 0.4 | 0.4 | 0.3 | 0.7 | 0.6 |
| >EC ₁₆ -EC ₂₁ | (mg/kg) | 0.4 | <0.1 | 0.3 | 0.4 | 0.5 | 0.6 | 1.2 | 0.6 | 1.4 | 0.9 |
| >EC ₂₁ -EC ₃₅ | (mg/kg) | 15.3 | 0.4 | <0.1 | <0.1 | 0.1 | 4.5 | 8.8 | 0.7 | 3.2 | 1.1 |
| TPH (C ₅ - C ₃₅) | (mg/kg) | 20.9 | 0.6 | 1.1 | 1.9 | 2.3 | 7.2 | 43.5 | 3.3 | 46.9 | 18.4 |
| 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

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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

Location: Upper Heyford



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

Reporting Date: 04/04/12

| Characteristic | Silt loam | Silt loam | Silt loam | Silt loam | Silt loam | 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 | |
| Our ref | 30514 | 30515 | 30516 | 30517 | 30518 | 30519 | 30523 | 30526 | 30528 | 30529 | |
| 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) | <0.1 | <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

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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

Location: Upper Heyford



F.A.O. Roni Savage
Jonas Associates Limited
Jonas 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 silt loam
*Result: No asbestos identified

Sample ref: **245**
Depth (m) **0.50**
Our ref: **30504**
#Description of Sample Matrix: Silt loam
*Result: No asbestos identified

Sample ref: **258**
Depth (m) **0.50**
Our ref: **30508**
#Description of Sample Matrix: Silt loam
*Result: No asbestos identified

Sample ref: **271**
Depth (m) **0.50**
Our ref: **30513**
#Description of Sample Matrix: Silt loam
*Result: No asbestos identified

Sample ref: **277**
Depth (m) **0.50**
Our ref: **30516**
#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



THE ENVIRONMENTAL LABORATORY LTD

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Tel: 01424 718618 Fax: 01424 729911

ANALYTICAL REPORT No. AR37536A

Location: Upper Heyford



F.A.O. Roni Savage
Jonas Associates Limited
Jonas 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: | Silt loam |
| *Result | No asbestos identified |

| | |
|--------------------------------|------------------------|
| Sample ref: | 282 |
| Depth (m) | 0.50 |
| Our ref: | 30519 |
| #Description of Sample Matrix: | Chalk |
| *Result | No asbestos identified |

| | |
|--------------------------------|------------------------|
| Sample ref: | 285 |
| Depth (m) | 0.50 |
| Our ref: | 30521 |
| #Description of Sample Matrix: | Silt loam |
| *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 |

* = UKAS accredited

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

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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
Jonas Associates Limited
Jonas 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: | Silt loam |
| *Result | No asbestos identified |

*= UKAS accredited

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

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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

Reporting Date: 04/04/12

| 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/l 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

SBB



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 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 |
|--------------------------------|------------------------|-------------|---------------|------------------------------------|
| 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 Congeners)** | 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

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



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 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

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 |

* = UKAS Accredited test

** - MCERTS Accredited test

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

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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: 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

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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. 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 loam | Silt loam | Silt loam | Silt loam | Silt loam | Sandy Silt | Silt loam | Silt loam |
|-----------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|------------|-----------|-----------|
| TP/BH | BHNSA23 | BHNSA24 | BHNSA25 | BHNSA26 | BHNSA28 | BHNSA28 | BHNSA29 | 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

** - MCERTS accredited test

* - UKAS accredited test

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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. 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 |
|---------------------|----------------|-----------|-----------|
| | 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 |

All results expressed on dry weight basis

** - MCERTS accredited test

* - UKAS accredited test

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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 | Silt loam | Silt loam |
|--------------|---|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| | TP/BH | BHNSA23 | BHNSA23 | BHNSA24 | BHNSA25 | BHNSA25 | BHNSA25 | BHNSA26 | BHNSA26 | BHNSA26 | 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

** - MCERTS accredited test

* - UKAS accredited test

sbb



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. 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 | Sandy Silt loam | 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

** - MCERTS accredited test

* - UKAS accredited test

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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. 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 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 | <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 | 0.9 | 5.5 | <0.5 | <0.5 | 0.8 | <0.5 | <0.5 |
| Anthracene** (mg/kg) | <0.5 | <0.5 | <0.5 | 2.4 | <0.5 | <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 | <0.5 |
| Pyrene** (mg/kg) | <0.5 | <0.5 | 3.6 | 10.0 | <0.5 | <0.5 | 0.9 | <0.5 | <0.5 |
| Benz(a)anthracene** (mg/kg) | <0.5 | <0.5 | 2.3 | 6.1 | <0.5 | <0.5 | 0.7 | <0.5 | <0.5 |
| Chrysene** (mg/kg) | <0.5 | <0.5 | 3.6 | 7.7 | <0.5 | <0.5 | 1.1 | <0.5 | <0.5 |
| Benzo(b)fluoranthene** (mg/kg) | <0.5 | <0.5 | 2.6 | 6.5 | <0.5 | <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 | <0.5 |
| Benzo(a)pyrene** (mg/kg) | <0.5 | <0.5 | 2.2 | 5.4 | <0.5 | <0.5 | 0.6 | <0.5 | <0.5 |
| Indeno(123-cd)pyrene** (mg/kg) | <0.5 | <0.5 | 2.1 | 4.9 | <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 | 2.0 | 4.3 | <0.5 | <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 | <0.5 |

All results expressed on dry weight basis

** - MCERTS accredited test

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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. 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 | Silt loam |
| TP/BH | BHNSA43 |
| Depth (m) | 2.40 |
| Our ref | 31281 |

Aromatic

| | | |
|-------------------------------------|---------|-------|
| >EC ₅ -EC ₇ | (mg/kg) | <0.01 |
| >EC ₇ -EC ₈ | (mg/kg) | <0.01 |
| >EC ₈ -EC ₁₀ | (mg/kg) | <5 |
| >EC ₁₀ -EC ₁₂ | (mg/kg) | <5 |
| >EC ₁₂ -EC ₁₆ | (mg/kg) | <5 |
| >EC ₁₆ -EC ₂₁ | (mg/kg) | <5 |
| >EC ₂₁ -EC ₃₅ | (mg/kg) | <5 |

Aliphatic

| | | |
|---|---------|-------|
| >EC ₅ -EC ₆ | (mg/kg) | <0.01 |
| >EC ₆ -EC ₈ | (mg/kg) | <0.01 |
| >EC ₈ -EC ₁₀ | (mg/kg) | <5 |
| >EC ₁₀ -EC ₁₂ | (mg/kg) | <5 |
| >EC ₁₂ -EC ₁₆ | (mg/kg) | <5 |
| >EC ₁₆ -EC ₂₁ | (mg/kg) | <5 |
| >EC ₂₁ -EC ₃₅ | (mg/kg) | <5 |
| TPH (C ₅ - C ₃₅) | (mg/kg) | <5 |
| Benzene | (µg/kg) | <10 |
| Toluene | (µg/kg) | <10 |
| Ethylbenzene | (µg/kg) | <10 |
| Xylenes | (µg/kg) | <10 |
| MTBE | (µg/kg) | <10 |

All results expressed on dry weight basis

** - MCERTS accredited test

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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 AR37660
 Your Job No: ---
 Sample Receipt Date: 09/03/12
 Reporting Date: 26/03/12

Registered: 09/03/12
 Prepared: 10/03/12
 Analysis complete: 26/03/12

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 |

* - UKAS Accredited test

** - MCERTS 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)



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

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:- | Courier |
| Samples Received:- | 13/02/12 |
| Your Job No: | P8251J128.07 |
| Site Location:- | Upper Heyford NSA II |
| No Samples Received:- | 6 |

Authorised By:-



Steve Knight
Director



Mike Varley BSc, CChem, CSci, FRSC
Chief Chemist

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THE ENVIRONMENTAL LABORATORY LTD

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

| <u>Waters</u> | 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/l) | <10 | <10 | <10 | 14 | <10 | 21 |
| >C ₇ -C ₈ | (µg/l) | <10 | <10 | <10 | 16 | <10 | 50 |
| >C ₈ -C ₁₀ | (µg/l) | <10 | 128 | 249 | 39 | <10 | 172 |
| >C ₁₀ -C ₁₂ | (µg/l) | <10 | 677 | 343 | 39 | 57 | 5973 |
| >C ₁₂ -C ₁₆ | (µg/l) | <10 | 3655 | 821 | 119 | 1563 | 685 |
| >C ₁₆ -C ₂₁ | (µg/l) | <10 | 4554 | 576 | 161 | 3158 | 1034 |
| >C ₂₁ -C ₃₅ | (µg/l) | <10 | 1751 | 174 | 45 | 477 | 149 |
| Aliphatic | | | | | | | |
| >C ₅ -C ₆ | (µg/l) | 10 | <10 | <10 | 53 | <10 | <10 |
| >C ₆ -C ₈ | (µg/l) | <10 | <10 | <10 | <10 | <10 | <10 |
| >C ₈ -C ₁₀ | (µg/l) | <10 | 627 | 514 | 111 | 27 | 405 |
| >C ₁₀ -C ₁₂ | (µg/l) | <10 | 3016 | 691 | 93 | 163 | 6512 |
| >C ₁₂ -C ₁₆ | (µg/l) | <10 | 16217 | 1922 | 262 | 6845 | 2790 |
| >C ₁₆ -C ₂₁ | (µg/l) | <10 | 18907 | 1607 | 490 | 13066 | 4092 |
| >C ₂₁ -C ₃₅ | (µg/l) | <10 | 6914 | 605 | 186 | 1832 | 753 |
| TPH (C ₅ - C ₃₅) | (µg/l) | 10 | 56446 | 7500 | 1627 | 27187 | 22636 |
| Benzene | (µg/l) | <1 | <1 | 3 | 14 | 4 | 21 |
| Toluene | (µg/l) | <1 | <1 | 1 | 14 | <1 | 37 |
| Ethyl Benzene | (µg/l) | <1 | <1 | 3 | 1 | <1 | 13 |
| Xylenes | (µg/l) | <1 | 20 | 109 | 91 | 3 | 88 |
| MTBE | (µg/l) | <1 | <1 | <1 | 54 | <1 | <1 |

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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. 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

| <u>Waters</u> | TP/BH | UGNSA 23 | UGNSA 27 | UGNSA 28 | UGNSA 29 | UGNSA 31 | UGNSA 33 |
|----------------------|---------|----------|----------|----------|----------|----------|----------|
| | Our ref | 29411 | 29414 | 29415 | 29416 | 29417 | 29419 |
| Naphthalene | (µg/l) | 0.07 | 5.53 | 132.46 | 3.31 | 3.18 | 7.48 |
| Acenaphthylene | (µg/l) | <0.01 | 1.41 | 1.38 | 0.43 | 2.23 | 0.47 |
| Acenaphthene | (µg/l) | 0.02 | 6.39 | 4.67 | 1.51 | 6.90 | 1.25 |
| Fluorene | (µg/l) | 0.08 | 12.15 | 9.86 | 2.84 | 10.65 | 1.62 |
| Phenanthrene | (µg/l) | 0.01 | 9.20 | 8.19 | 2.26 | 11.18 | 2.74 |
| Anthracene | (µg/l) | 0.02 | 2.36 | 0.51 | 0.57 | 7.11 | 0.70 |
| Fluoranthene | (µg/l) | 0.02 | 0.84 | 0.14 | 0.28 | 2.78 | 0.56 |
| Pyrene | (µg/l) | <0.01 | 2.07 | 0.27 | 0.63 | 4.21 | 0.48 |
| Benz(a)anthracene | (µg/l) | 0.01 | 0.14 | 0.03 | 0.04 | 1.12 | 0.14 |
| Chrysene | (µg/l) | <0.01 | 0.56 | 0.06 | 0.12 | 0.97 | 0.17 |
| Benzo(b)fluoranthene | (µg/l) | <0.01 | 0.04 | 0.02 | 0.02 | 0.58 | 0.17 |
| Benzo(k)fluoranthene | (µg/l) | <0.01 | 0.01 | 0.02 | 0.01 | 0.43 | 0.13 |
| Benzo(a)pyrene | (µg/l) | <0.01 | 0.04 | 0.03 | 0.01 | 0.69 | 0.18 |
| Indeno(123-cd)pyrene | (µg/l) | <0.01 | 0.01 | 0.01 | <0.01 | 0.22 | 0.10 |
| Dibenz(ah)anthracene | (µg/l) | <0.01 | <0.01 | <0.01 | <0.01 | 0.07 | 0.02 |
| Benzo(ghi)perylene | (µg/l) | <0.01 | <0.01 | <0.01 | <0.01 | 0.25 | 0.12 |
| Total PAH | (µg/l) | 0.23 | 40.75 | 157.65 | 12.03 | 52.57 | 16.33 |



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 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 |



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

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

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

THE ENVIRONMENTAL LABORATORY LTD

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 |
|---|------------------|------------------|------------------|------------------|
| <u>Aromatic</u> | | | | |
| >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 |
| <u>Aliphatic</u> | | | | |
| >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

| Borehole | Water Level 10 - 12 Jan (mbgs) | 10 -12 Jan reduced level (mAOD) | 06 -08 Feb dip level (mbgs) | 06 -08 Feb reduced level (mAOD) | 06 - 09 March dip level | 06 -09 March reduced level | 22 - 25 March dip level (mbgl) | 22 - 25 March reduced level (mAOD) | 02 -0 5 April dip level (mbgl) | 02 - 05 April reduced 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 | | | | | 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 | | | | | 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



Environmental Chemistry

ESG

Bretby Business Park

Ashby Road

Burton-on-Trent

Staffordshire

DE15 0YZ

Telephone: 01283 554400

Facsimile: 01283 554422

Mr F Alcock
Waterman EED
Waterman Environmental
Pickfords Wharf
Clink Street
London
SE1 9DG

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/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.

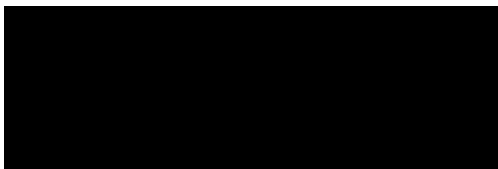
The analysis was completed by: 23-Jan-2012

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)

On behalf of
ESG :
Andrew Timms




Operations Manager


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.

Where individual results are flagged see report notes for status.

| | | | 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 | | | |
|--|---------------------------|-------------|---------------------------|----------------------------|-----------------------------|--------------------------|------------------|------------------------------------|-----------------------------|-------------------------------|----------------------------|--------------------------|----------------------------|---------------------------|--------------------------|------------------------|------------------------|---------------------------|-------|-----|
| | | | Method Codes : | WSLM3 | WSLM2 | WSLM12 | WSLM17 | KONENS | ICPWATVAR | ICPWATVAR | ICPWATVAR | ICPWATVAR | ICPMSW | ICPMSW | ICPMSW | ICPMSW | ICPMSW | ICPMSW | | |
| | | | Method Reporting Limits : | | 100 | 2 | 2 | 1 | 3 | 1 | 1 | 1 | 0.001 | 0.001 | 0.0001 | 0.001 | 0.001 | 0.002 | 0.001 | |
| | | | UKAS Accredited : | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| LAB ID Number | 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 | | |
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|  Environmental Scientifics Group Breiby Business Park, Ashby Road Burton-on-Trent, Staffordshire, DE15 0YZ Tel +44 (0) 1283 554400 Fax +44 (0) 1283 554422 | | | Client Name | Waterman EED | | | | | | | | Water Sample Analysis | | | | | | | | |
| | | | Contact | Mr F Alcock | | | | | | | | | | | | | | | | |
| | | | Upper Heyford | | | | | | | | | Date Printed | 23-Jan-2012 | | | | | | | |
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| | | | 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 | | |
|--|---------------------------|-------------|---|---------------------------|----------------------------|--------------------------|--------------|----------------|----------------------------------|------------------------|--------------|------------------------------|-----------------------------|--------------------------------|---------------------------------|---|-----------|-----------------|-----------|
| | | | Method Codes : | ICPWATVAR | ICPMSW | ICPMSW | KONENS | KONENS | KONENS | WSLM11 | WSLM13 | GROHSA | TPHFID-Si | WSLM20 | WSLM7 | SVOCSW | PHEHPLCVL | PHEHPLCVL | PHEHPLCVL |
| | | | Method Reporting Limits : | 0.01 | 0.0001 | 0.001 | 0.01 | 0.2 | 0.01 | 5 | 0.1 | 0.1 | 0.01 | 2 | 1 | 0.002 | 0.0005 | 0.0005 | 0.0005 |
| | | | UKAS Accredited : | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | No | No | No | No | No | No |
| LAB ID Number | 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(S) 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 | |
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|  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 Name Waterman EED Contact Mr F Alcock | Upper Heyford | | | | | | | | Water Sample Analysis | | | | Date Printed 23-Jan-2012 Report Number EXR/130267 Table Number 1 | | | |

| Units : | | mg/l | | | | | | | | | | | | | | | | | |
|--|---------------------------|----------------------|---------------------|--|--|--|--|---------------------|----------|----------------------|------------------------------|--|--|--|--|--|--|--|--|
| Method Codes : | | PHEHPLCVL | | | | | | | | | | | | | | | | | |
| Method Reporting Limits : | | 0.0005 | | | | | | | | | | | | | | | | | |
| UKAS Accredited : | | 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 | | | | | | | | | | | | | | | | |
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|  <p>Environmental Scientifics Group Bretby Business Park, Ashby Road Burton-on-Trent, Staffordshire, DE15 0YZ Tel +44 (0) 1283 554400 Fax +44 (0) 1283 554422</p> | | Client Name | Waterman EED | | | | | | | | Water Sample Analysis | | | | | | | | |
| | | Contact | Mr F Alcock | | | | | | | | | | | | | | | | |
| | | Upper Heyford | | | | | | | | Date Printed | 23-Jan-2012 | | | | | | | | |
| | | | | | | | | | | Report Number | EXR/130267 | | | | | | | | |
| | | | | | | | | Table Number | 1 | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | |

Semi-Volatile Organic Compounds

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford
Sample Details: BH-NSA-1
LIMS ID Number: EX1259537
Job Number: W13_0267

Date Booked in: 12-Jan-12
Date Extracted: 16-Jan-12
Date Analysed: 16-Jan-12

Matrix: Water
Ext Method: Sep. Funnel
Operator: DMB/SO
Directory/Quant File: 16SVOC.GC1\ 0116_CCC1a.l
QC Batch Number: 5
Multiplier: 0.005
Dilution Factor: 1
GPC (Y/N): N

| 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 | - |

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 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 | 110 |
| Acenaphthene-d10 | 109 |
| Phenanthrene-d10 | 110 |
| Chrysene-d12 | 96 |
| Perylene-d12 | 106 |

| Surrogates | % Rec |
|----------------------|-------|
| 2-Fluorophenol | 55 |
| Phenol-d5 | 41 |
| Nitrobenzene-d5 | 97 |
| 2-Fluorobiphenyl | 98 |
| 2,4,6-Tribromophenol | 93 |
| Terphenyl-d14 | 112 |

Semi-Volatile Organic Compounds

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford
Sample Details: BH-NSA-16
LIMS ID Number: EX1259538
Job Number: W13_0267

Date Booked in: 12-Jan-12
Date Extracted: 16-Jan-12
Date Analysed: 16-Jan-12

Matrix: Water
Ext Method: Sep. Funnel
Operator: DMB/SO
Directory/Quant File: 16SVOC.GC1\ 0116_CCC1a.l
QC Batch Number: 5
Multiplier: 0.005
Dilution Factor: 1
GPC (Y/N) N

| 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 | - |

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 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 | 109 |
| Naphthalene-d8 | 111 |
| Acenaphthene-d10 | 109 |
| Phenanthrene-d10 | 116 |
| Chrysene-d12 | 107 |
| Perylene-d12 | 111 |

| Surrogates | % Rec |
|----------------------|-------|
| 2-Fluorophenol | 46 |
| Phenol-d5 | 32 |
| Nitrobenzene-d5 | 90 |
| 2-Fluorobiphenyl | 97 |
| 2,4,6-Tribromophenol | 83 |
| Terphenyl-d14 | 102 |

Semi-Volatile Organic Compounds

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford
Sample Details: BH-NSA-3
LIMS ID Number: EX1259539
Job Number: W13_0267

Date Booked in: 12-Jan-12
Date Extracted: 16-Jan-12
Date Analysed: 16-Jan-12

Matrix: Water
Ext Method: Sep. Funnel
Operator: DMB/SO
Directory/Quant File: 16SVOC.GC1\ 0116_CCC1a.l
QC Batch Number: 5
Multiplier: 0.005
Dilution Factor: 1
GPC (Y/N) N

| 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 | - |

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 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 | 114 |
| Naphthalene-d8 | 117 |
| Acenaphthene-d10 | 119 |
| Phenanthrene-d10 | 122 |
| Chrysene-d12 | 116 |
| Perylene-d12 | 123 |

| Surrogates | % Rec |
|----------------------|-------|
| 2-Fluorophenol | 49 |
| Phenol-d5 | 36 |
| Nitrobenzene-d5 | 93 |
| 2-Fluorobiphenyl | 96 |
| 2,4,6-Tribromophenol | 102 |
| Terphenyl-d14 | 99 |

Semi-Volatile Organic Compounds

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford
Sample Details: BH-NSA-2
LIMS ID Number: EX1259540
Job Number: W13_0267

Date Booked in: 12-Jan-12
Date Extracted: 16-Jan-12
Date Analysed: 16-Jan-12

Matrix: Water
Ext Method: Sep. Funnel
Operator: DMB/SO
Directory/Quant File: 16SVOC.GC1\ 0116_CCC1a.l
QC Batch Number: 5
Multiplier: 0.005
Dilution Factor: 1
GPC (Y/N) N

| 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 | - |

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 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 | 114 |
| Naphthalene-d8 | 109 |
| Acenaphthene-d10 | 114 |
| Phenanthrene-d10 | 122 |
| Chrysene-d12 | 103 |
| Perylene-d12 | 112 |

| Surrogates | % Rec |
|----------------------|-------|
| 2-Fluorophenol | 46 |
| Phenol-d5 | 32 |
| Nitrobenzene-d5 | 88 |
| 2-Fluorobiphenyl | 90 |
| 2,4,6-Tribromophenol | 110 |
| Terphenyl-d14 | 96 |

Semi-Volatile Organic Compounds

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford
Sample Details: BH-NSA-4
LIMS ID Number: EX1259541
Job Number: W13_0267

Date Booked in: 12-Jan-12
Date Extracted: 16-Jan-12
Date Analysed: 16-Jan-12

Matrix: Water
Ext Method: Sep. Funnel
Operator: DMB/SO
Directory/Quant File: 16SVOC.GC1\ 0116_CCC1a.l
QC Batch Number: 5
Multiplier: 0.005
Dilution Factor: 1
GPC (Y/N) N

| 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 | - |

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 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 | 79 |
| Naphthalene-d8 | 92 |
| Acenaphthene-d10 | 91 |
| Phenanthrene-d10 | 91 |
| Chrysene-d12 | 80 |
| Perylene-d12 | 87 |

| Surrogates | % Rec |
|----------------------|-------|
| 2-Fluorophenol | 38 |
| Phenol-d5 | 28 |
| Nitrobenzene-d5 | 70 |
| 2-Fluorobiphenyl | 79 |
| 2,4,6-Tribromophenol | 81 |
| Terphenyl-d14 | 91 |

Semi-Volatile Organic Compounds

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford
Sample Details: BH-NSA-5
LIMS ID Number: EX1259542
Job Number: W13_0267

Date Booked in: 12-Jan-12
Date Extracted: 16-Jan-12
Date Analysed: 17-Jan-12

Matrix: Water
Ext Method: Sep. Funnel
Operator: DMB/SO
Directory/Quant File: 16SVOC.GC1\ 0116_CCC1a.l
QC Batch Number: 5
Multiplier: 0.005
Dilution Factor: 1
GPC (Y/N) N

| 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 | - |

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 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 | 93 |
| Naphthalene-d8 | 94 |
| Acenaphthene-d10 | 97 |
| Phenanthrene-d10 | 97 |
| Chrysene-d12 | 85 |
| Perylene-d12 | 88 |

| Surrogates | % Rec |
|----------------------|-------|
| 2-Fluorophenol | 55 |
| Phenol-d5 | 38 |
| Nitrobenzene-d5 | 93 |
| 2-Fluorobiphenyl | 99 |
| 2,4,6-Tribromophenol | 94 |
| Terphenyl-d14 | 114 |

Semi-Volatile Organic Compounds

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford
Sample Details: BH-NSA-8
LIMS ID Number: EX1259543
Job Number: W13_0267

Date Booked in: 12-Jan-12
Date Extracted: 16-Jan-12
Date Analysed: 17-Jan-12

Matrix: Water
Ext Method: Sep. Funnel
Operator: DMB/SO
Directory/Quant File: 16SVOC.GC1\ 0116_CCC1a.l
QC Batch Number: 5
Multiplier: 0.005
Dilution Factor: 1
GPC (Y/N) N

| 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 | - |

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 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 | 109 |
| Acenaphthene-d10 | 112 |
| Phenanthrene-d10 | 106 |
| Chrysene-d12 | 100 |
| Perylene-d12 | 111 |

| Surrogates | % Rec |
|----------------------|-------|
| 2-Fluorophenol | 52 |
| Phenol-d5 | 37 |
| Nitrobenzene-d5 | 94 |
| 2-Fluorobiphenyl | 100 |
| 2,4,6-Tribromophenol | 96 |
| Terphenyl-d14 | 110 |

Semi-Volatile Organic Compounds

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford
Sample Details: BH-NSA-38
LIMS ID Number: EX1259544
Job Number: W13_0267

Date Booked in: 12-Jan-12
Date Extracted: 16-Jan-12
Date Analysed: 17-Jan-12

Matrix: Water
Ext Method: Sep. Funnel
Operator: DMB/SO
Directory/Quant File: 16SVOC.GC1\ 0116_CCC1a.l
QC Batch Number: 5
Multiplier: 0.005
Dilution Factor: 1
GPC (Y/N) N

| 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 | - |

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 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 | 112 |
| Naphthalene-d8 | 117 |
| Acenaphthene-d10 | 117 |
| Phenanthrene-d10 | 124 |
| Chrysene-d12 | 111 |
| Perylene-d12 | 117 |

| Surrogates | % Rec |
|----------------------|-------|
| 2-Fluorophenol | 58 |
| Phenol-d5 | 38 |
| Nitrobenzene-d5 | 91 |
| 2-Fluorobiphenyl | 97 |
| 2,4,6-Tribromophenol | 90 |
| Terphenyl-d14 | 105 |

Semi-Volatile Organic Compounds

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford
Sample Details: BH-NSA-6
LIMS ID Number: EX1259545
Job Number: W13_0267

Date Booked in: 12-Jan-12
Date Extracted: 16-Jan-12
Date Analysed: 17-Jan-12

Matrix: Water
Ext Method: Sep. Funnel
Operator: DMB/SO
Directory/Quant File: 16SVOC.GC1\ 0116_CCC1a.l
QC Batch Number: 5
Multiplier: 0.005
Dilution Factor: 1
GPC (Y/N) N

| 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 | 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 | - |

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 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 | 105 |
| Acenaphthene-d10 | 110 |
| Phenanthrene-d10 | 113 |
| Chrysene-d12 | 110 |
| Perylene-d12 | 128 |

| Surrogates | % Rec |
|----------------------|-------|
| 2-Fluorophenol | 47 |
| Phenol-d5 | 31 |
| Nitrobenzene-d5 | 88 |
| 2-Fluorobiphenyl | 92 |
| 2,4,6-Tribromophenol | 99 |
| Terphenyl-d14 | 97 |

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.

| Sample ID | Client ID | Concentration, (mg/l) | | | | | Aliphatics | | | | Total GRO |
|-------------|-----------|-----------------------|---------|---------------|------------|----------|------------|----------|----------|-----------|-----------|
| | | Benzene | Toluene | Ethyl benzene | m/p-Xylene | o-Xylene | C5 - C6 | >C6 - C7 | >C7 - C8 | >C8 - C10 | |
| * 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 |
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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

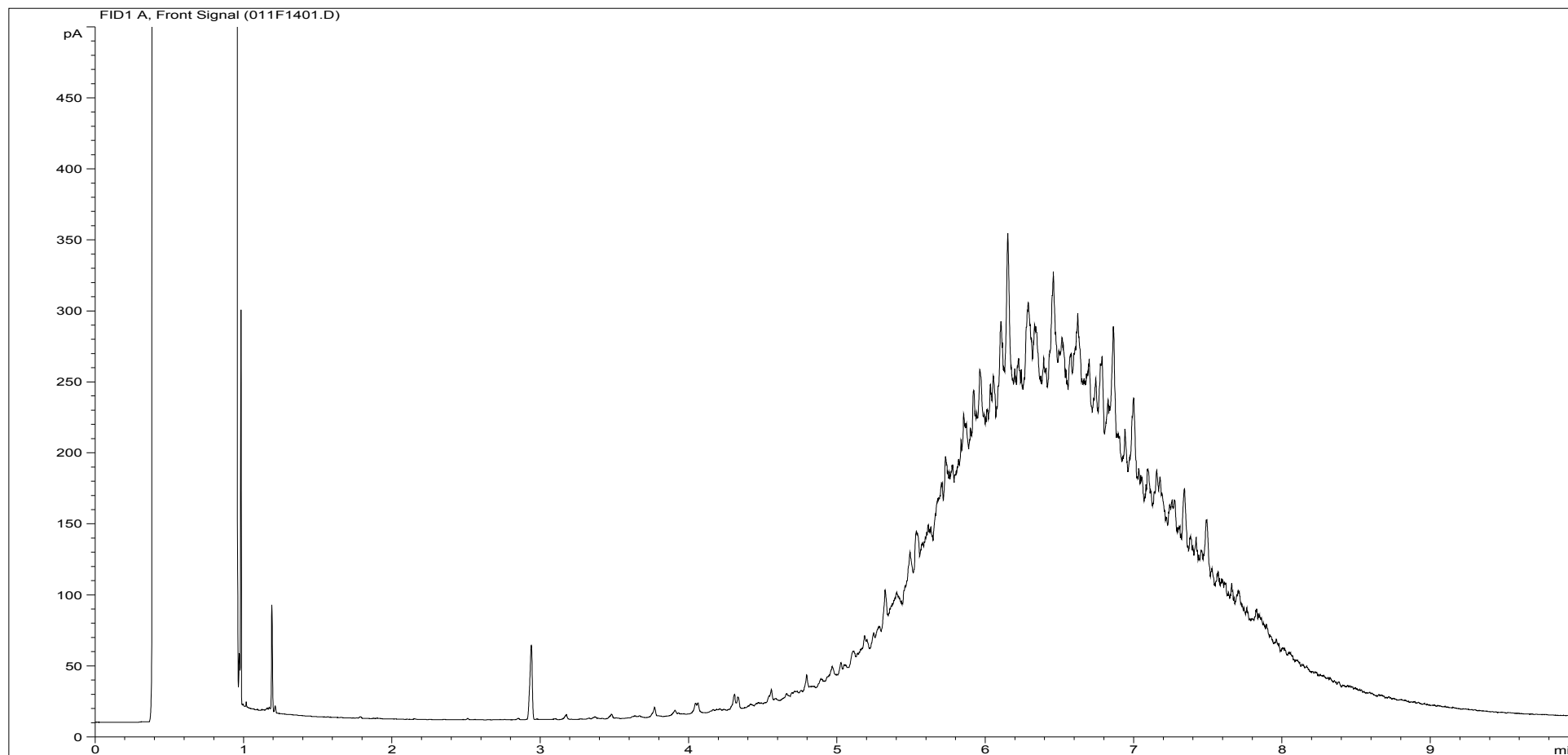
ALIPHATIC / AROMATIC FRACTION BY GC/FID

Customer and Site Details: Waterman EED : Upper Heyford
Job Number: W13_0267
QC Batch Number: 120025
Directory: D:\TES\DATA\Y2012\011612TPH_GC16\011612 2012-01-16 13-51-29\069B2201.D
Method: Bottle

Matrix: Water
Date Booked in: 12-Jan-12
Date Extracted: 16-Jan-12
Date Analysed: 16-Jan-12, 19:52:29

| | | 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 |
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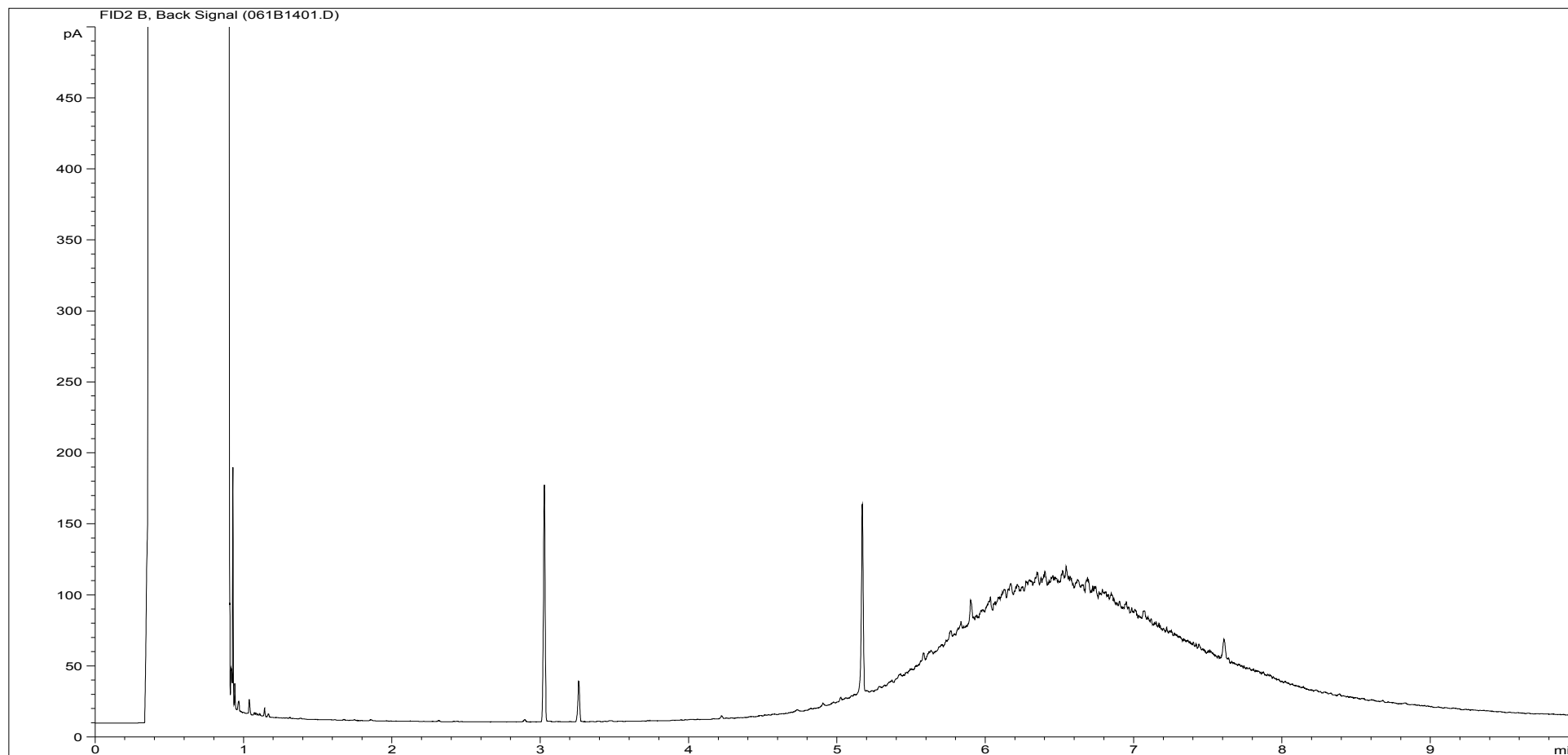
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1259537ALI | Job Number: | W13_0267 |
| Multiplier: | 0.02 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | 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 | | |

Where individual results are flagged see report notes for status.

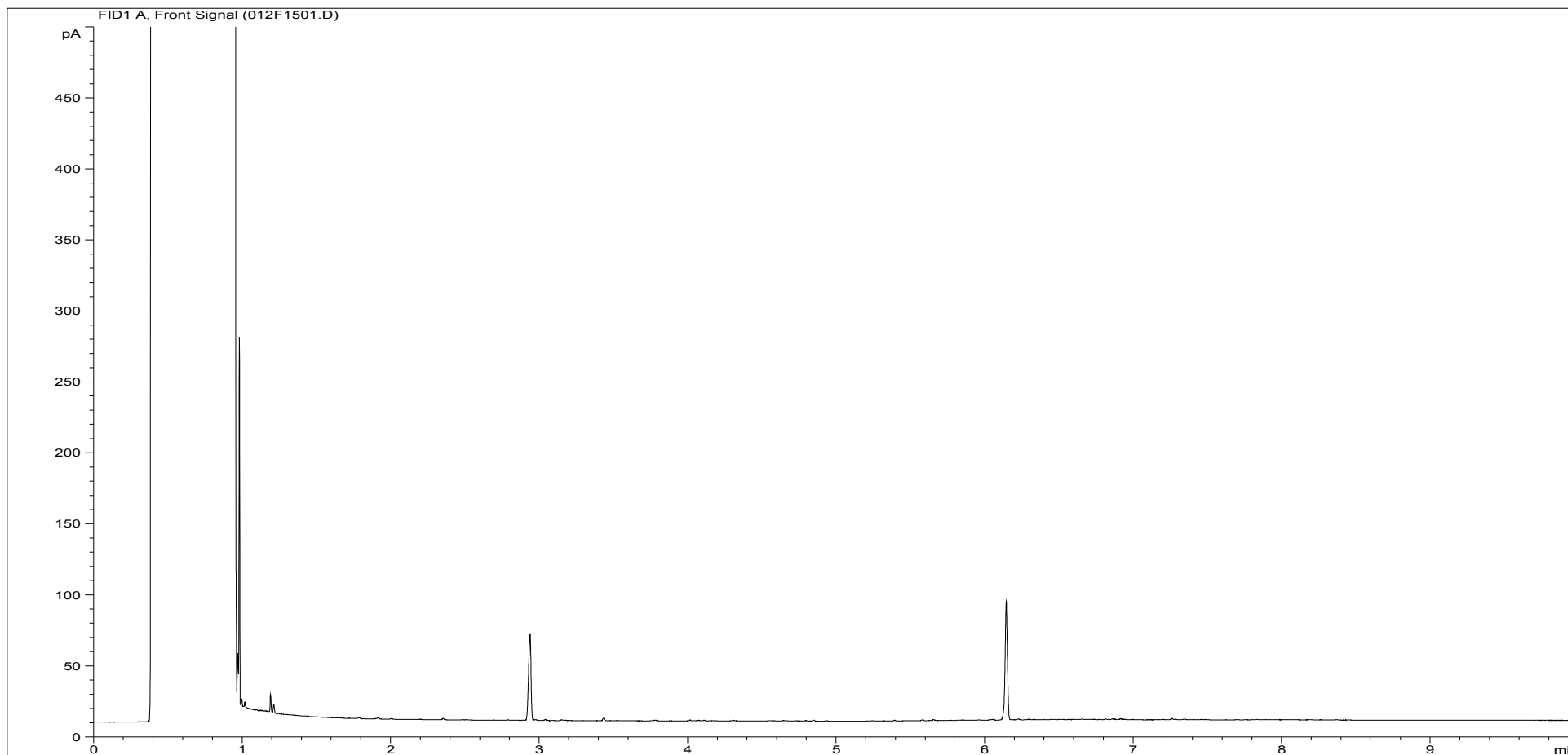
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1259537ARO | Job Number: | W13_0267 |
| Multiplier: | 0.015 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | 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 | | |

Where individual results are flagged see report notes for status.

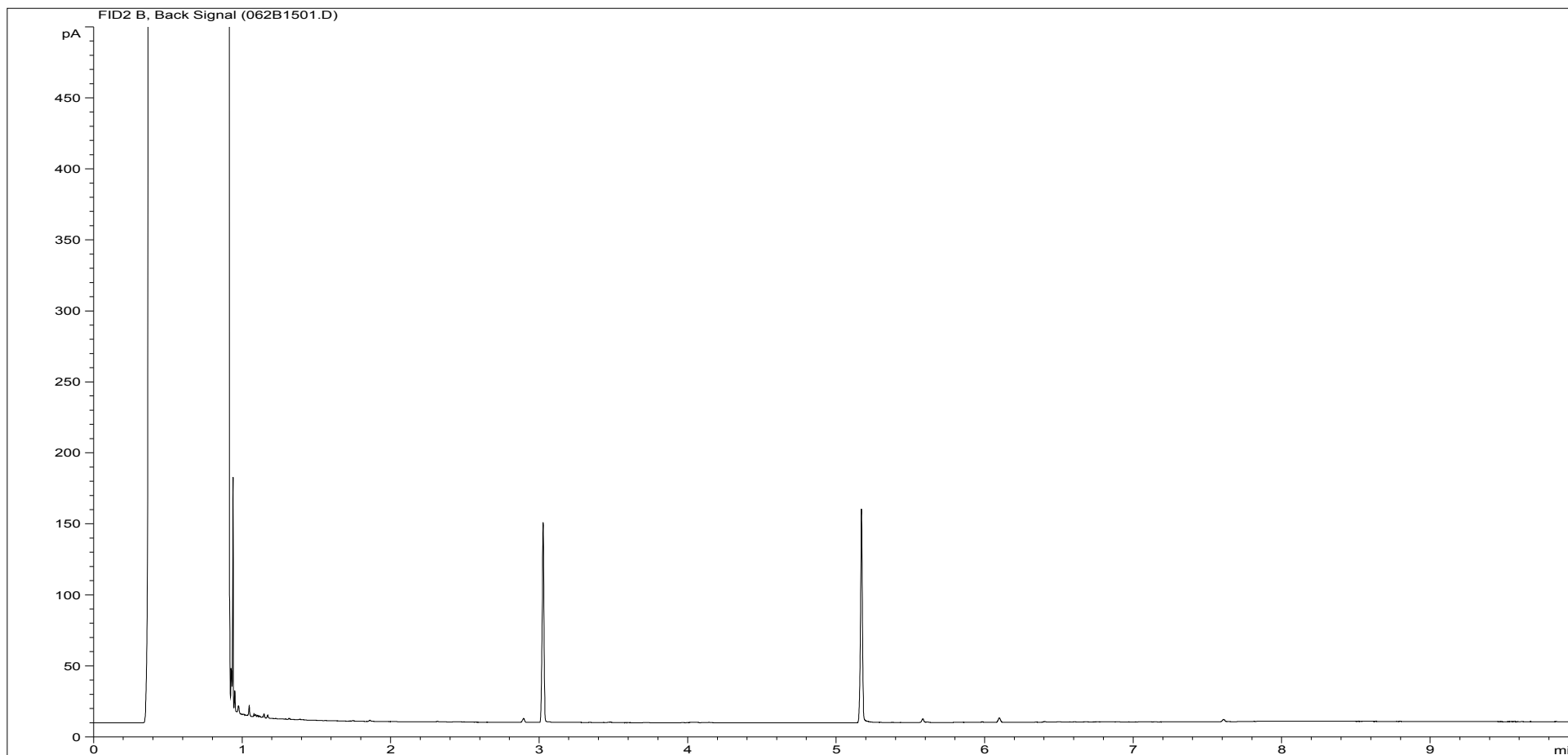
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1259538ALI | Job Number: | W13_0267 |
| Multiplier: | 0.02 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

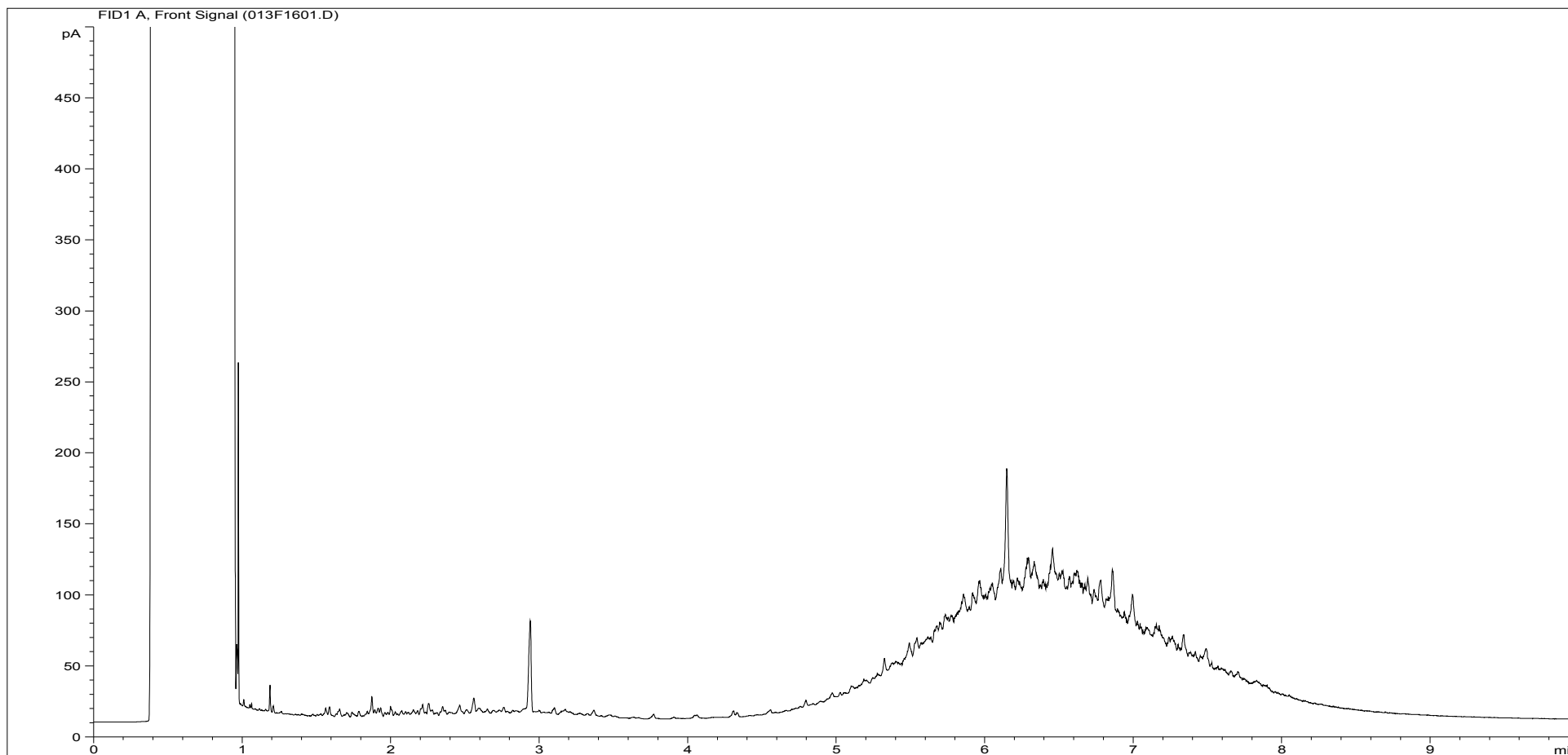
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1259538ARO | Job Number: | W13_0267 |
| Multiplier: | 0.015 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

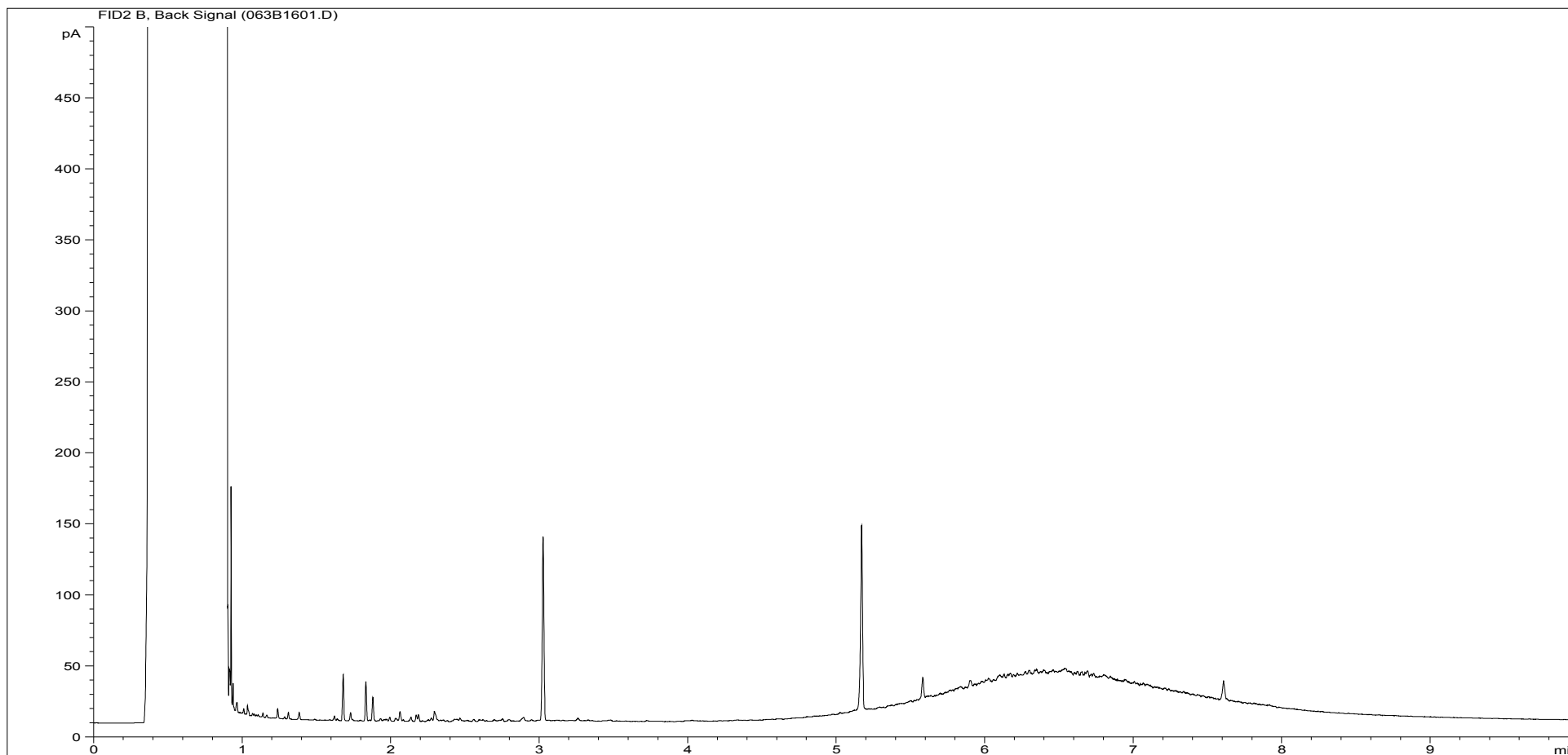
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1259539ALI | Job Number: | W13_0267 |
| Multiplier: | 0.02 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

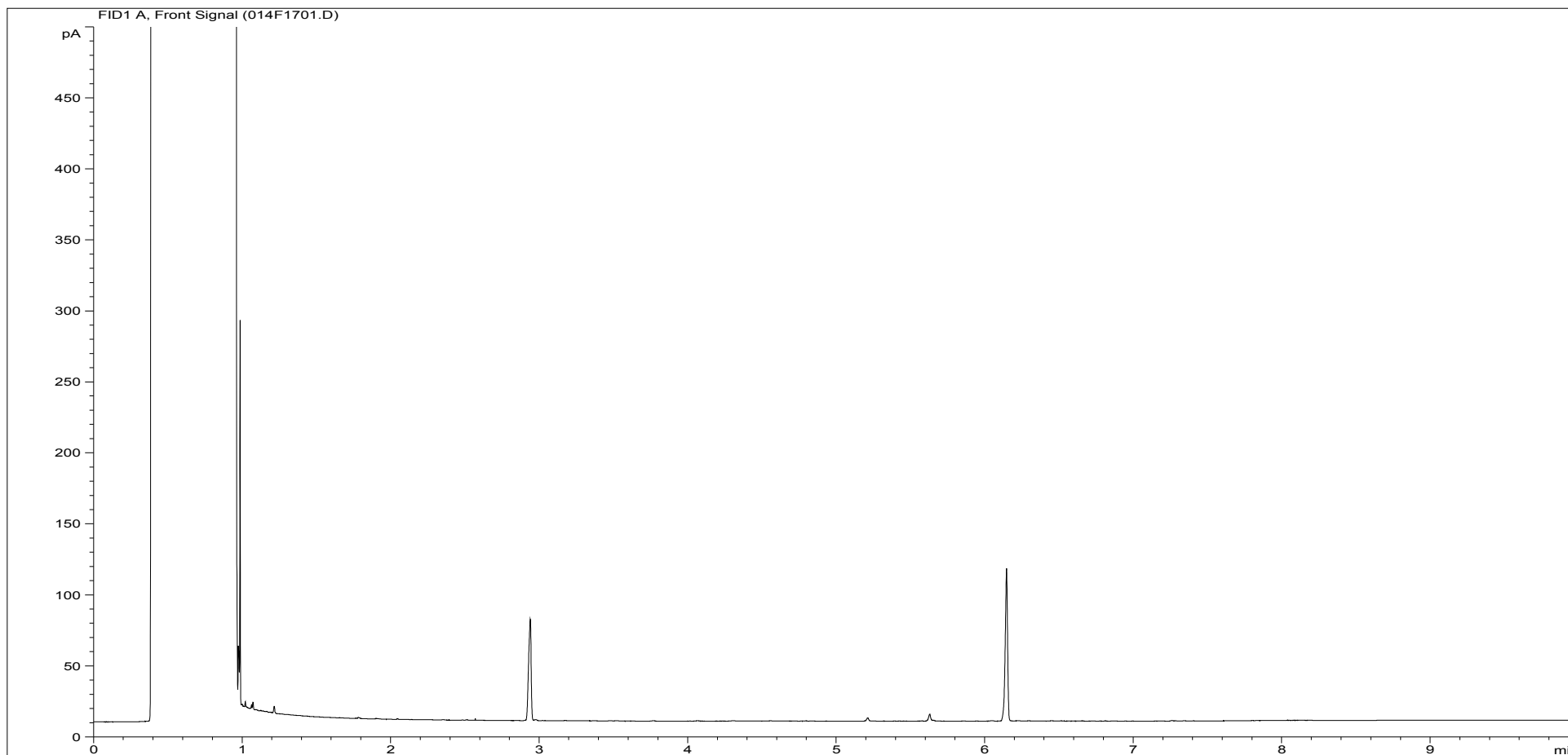
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1259539ARO | Job Number: | W13_0267 |
| Multiplier: | 0.015 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

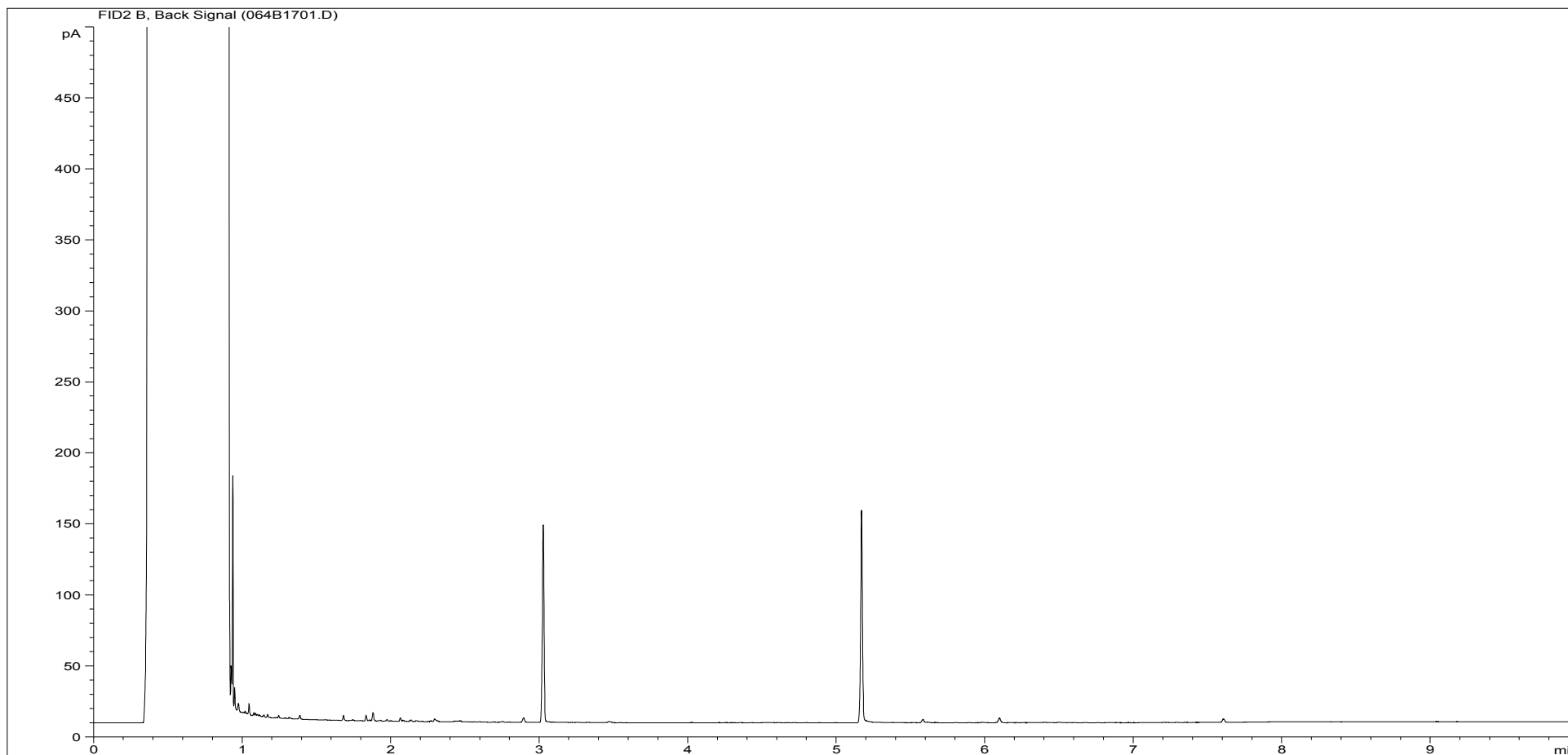
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1259540ALI | Job Number: | W13_0267 |
| Multiplier: | 0.02 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | 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 | | |

Where individual results are flagged see report notes for status.

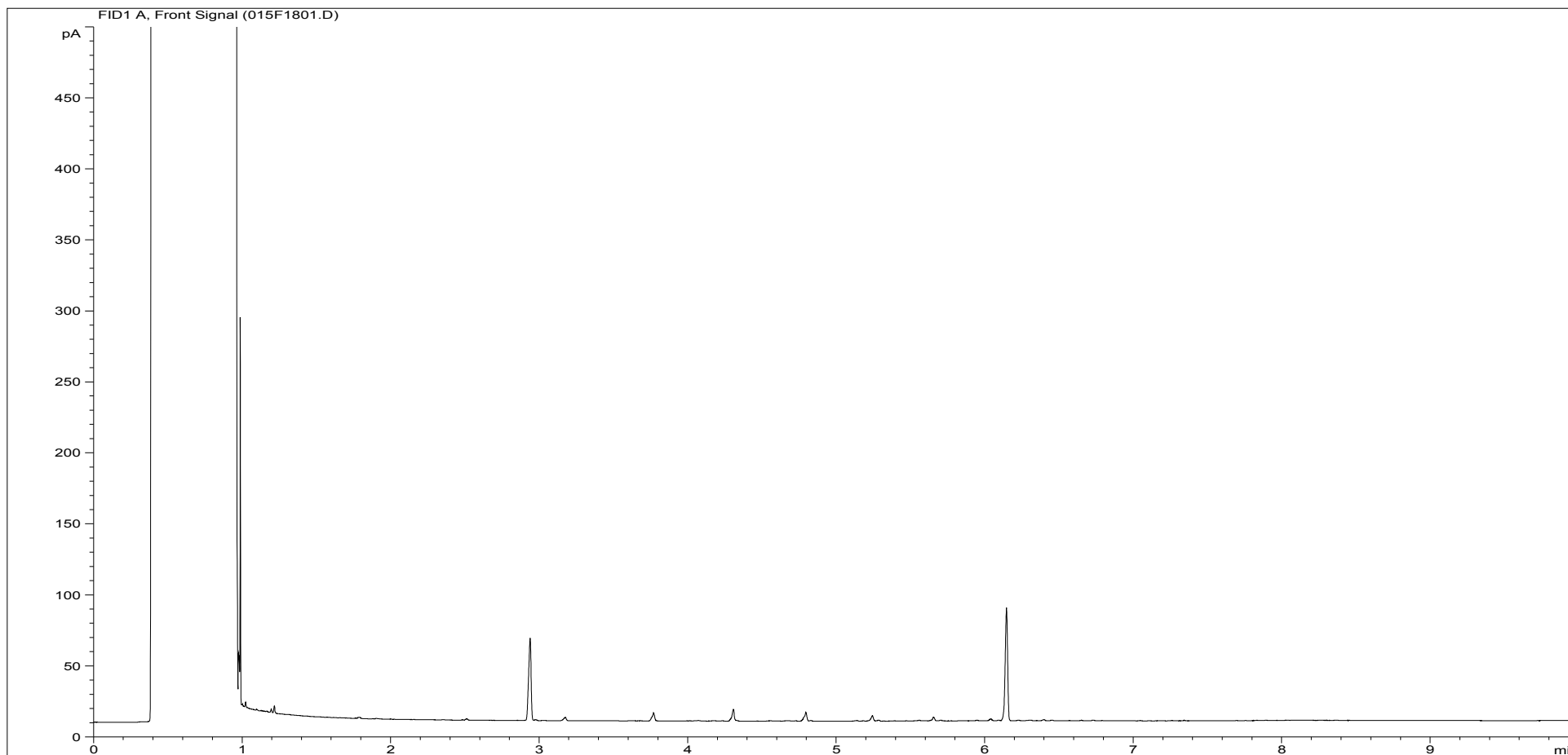
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1259540ARO | Job Number: | W13_0267 |
| Multiplier: | 0.015 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | 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\064B1701.D | | |

Where individual results are flagged see report notes for status.

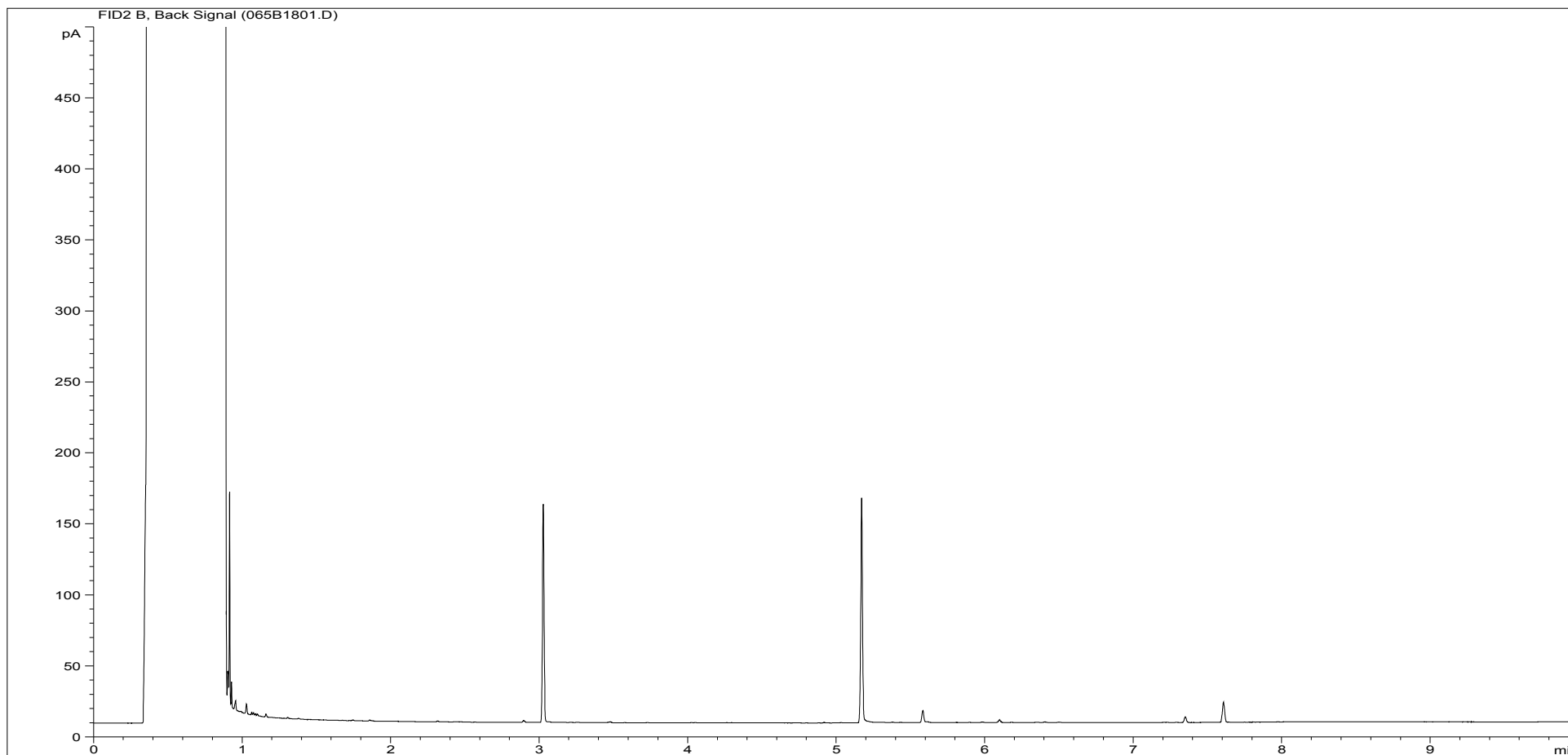
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1259541ALI | Job Number: | W13_0267 |
| Multiplier: | 0.02 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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\015F1801.D | | |

Where individual results are flagged see report notes for status.

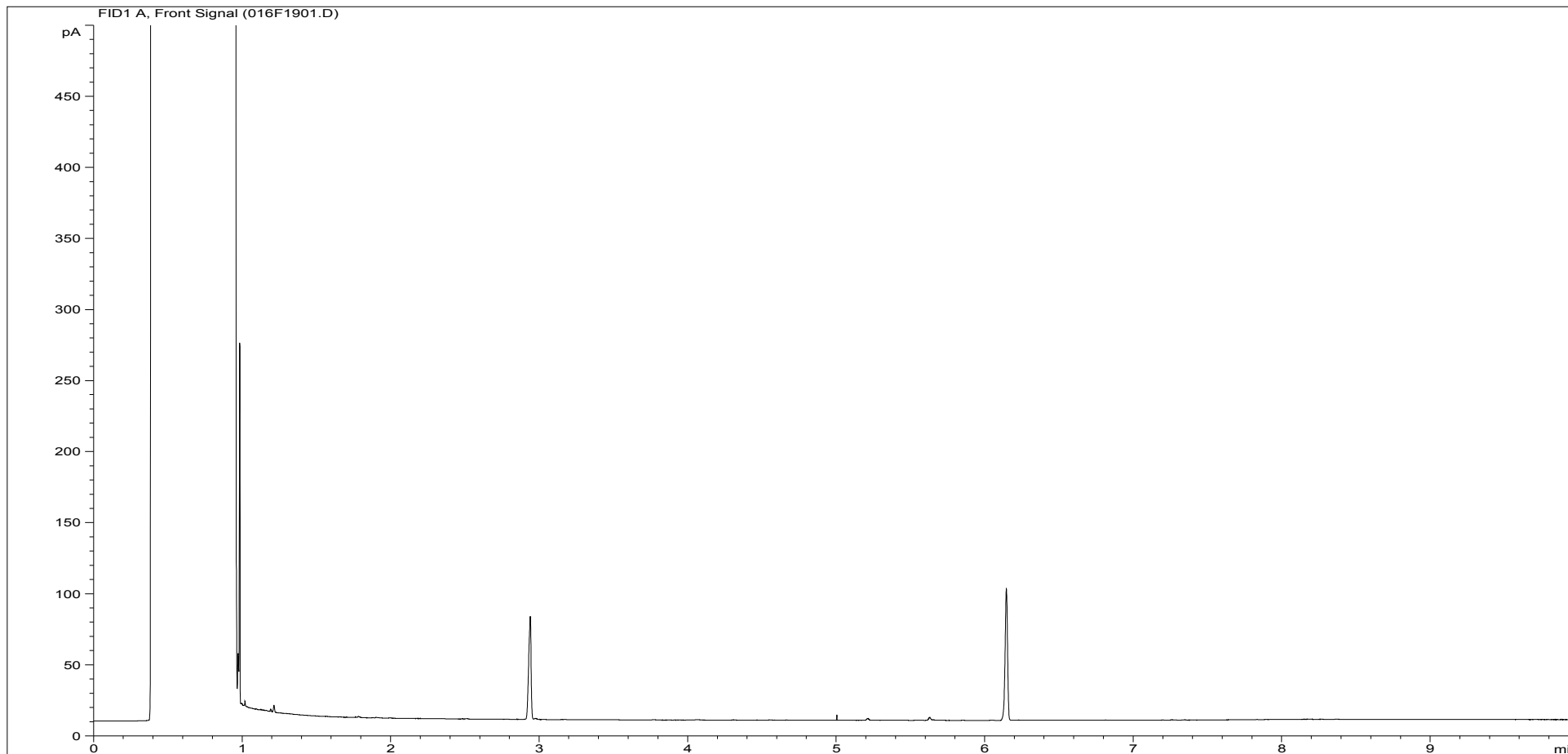
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1259541ARO | Job Number: | W13_0267 |
| Multiplier: | 0.015 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

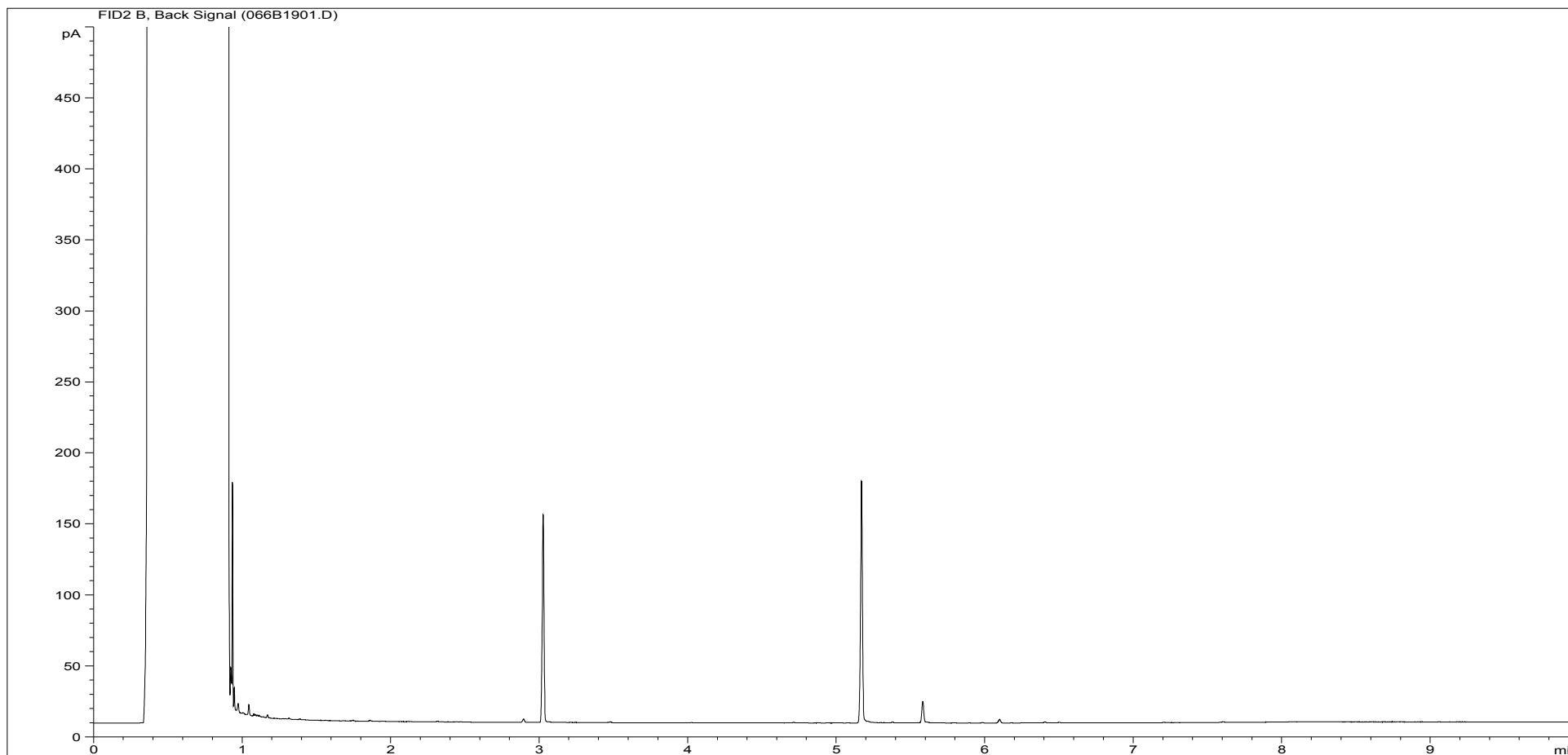
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1259542ALI | Job Number: | W13_0267 |
| Multiplier: | 0.02 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

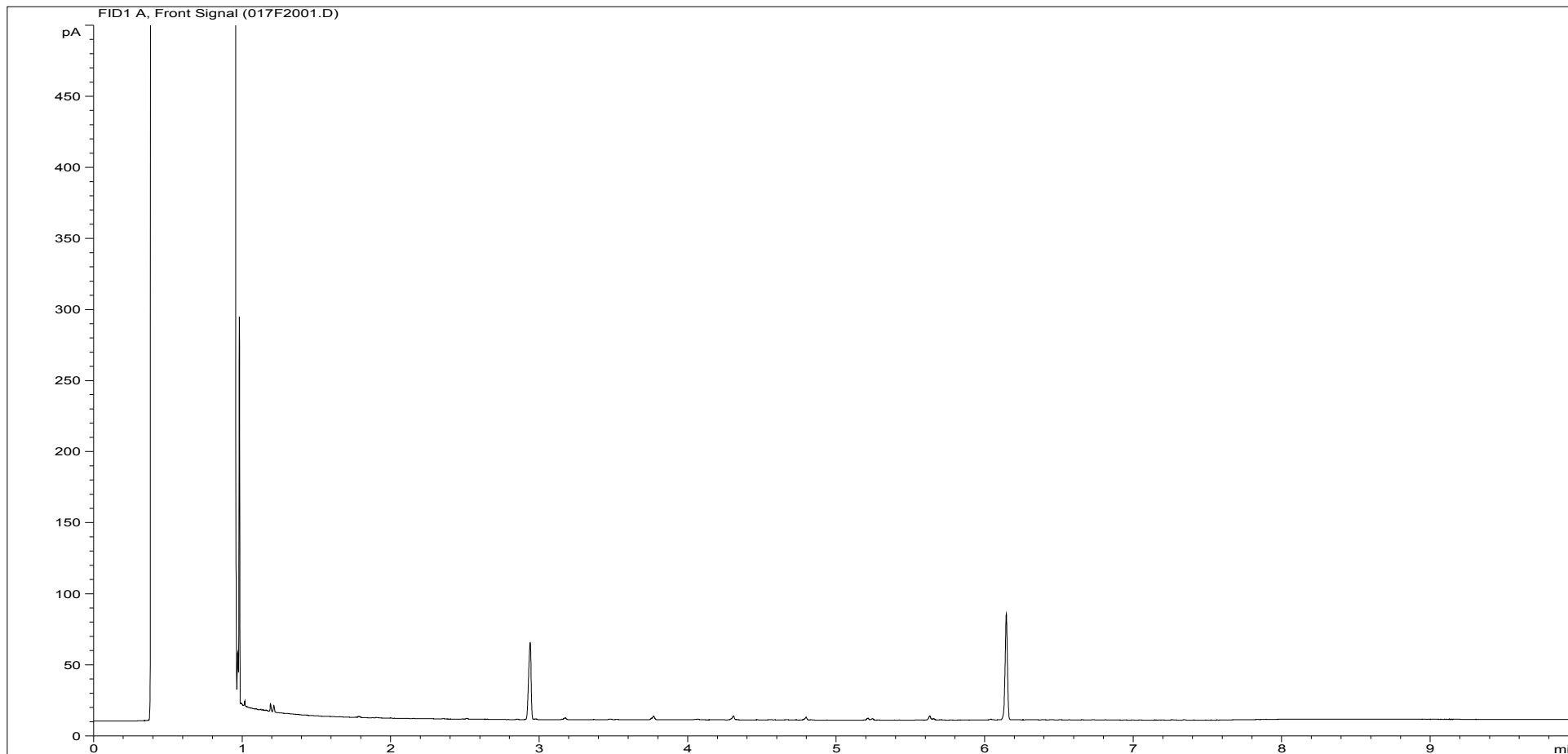
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1259542ARO | Job Number: | W13_0267 |
| Multiplier: | 0.016 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

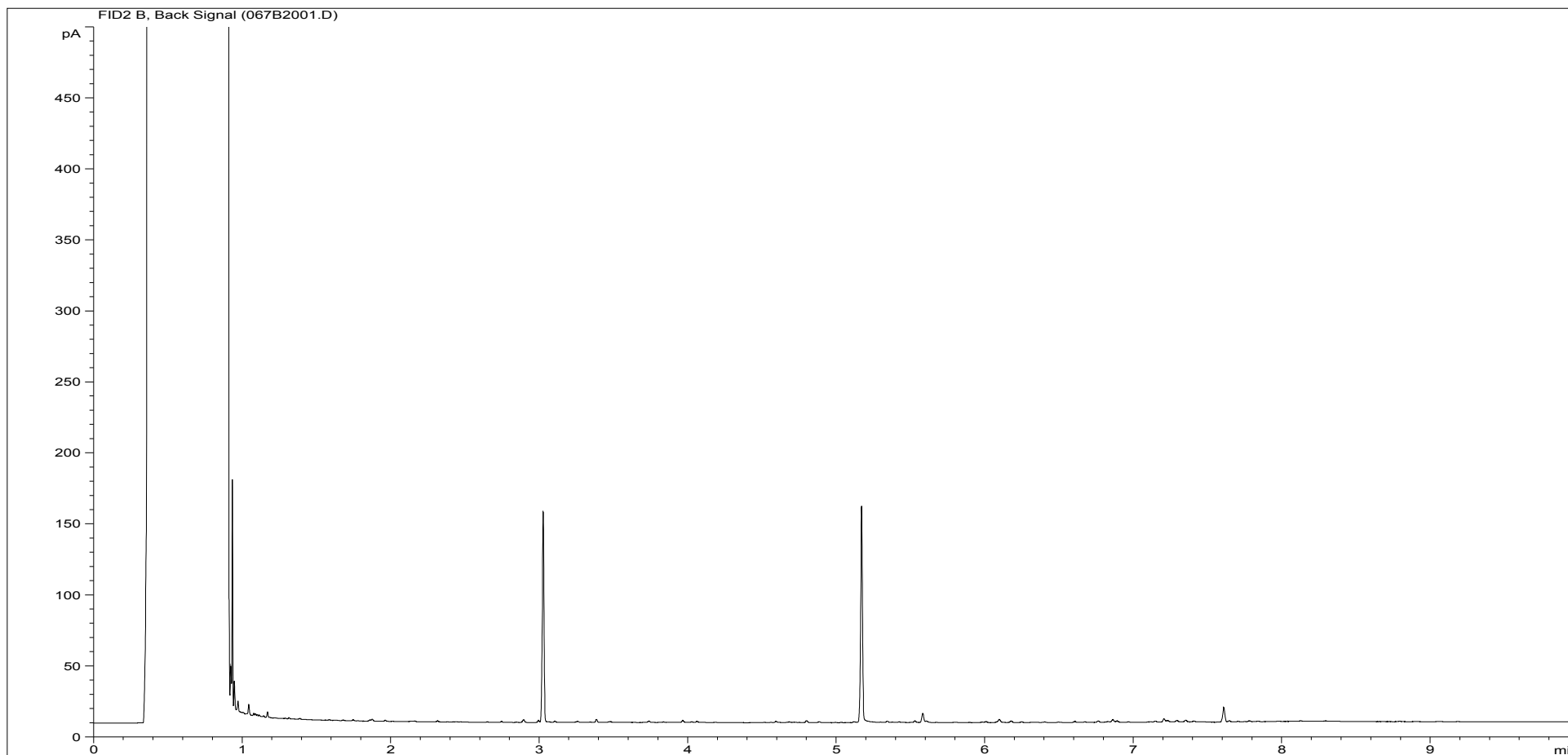
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1259543ALI | Job Number: | W13_0267 |
| Multiplier: | 0.02 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

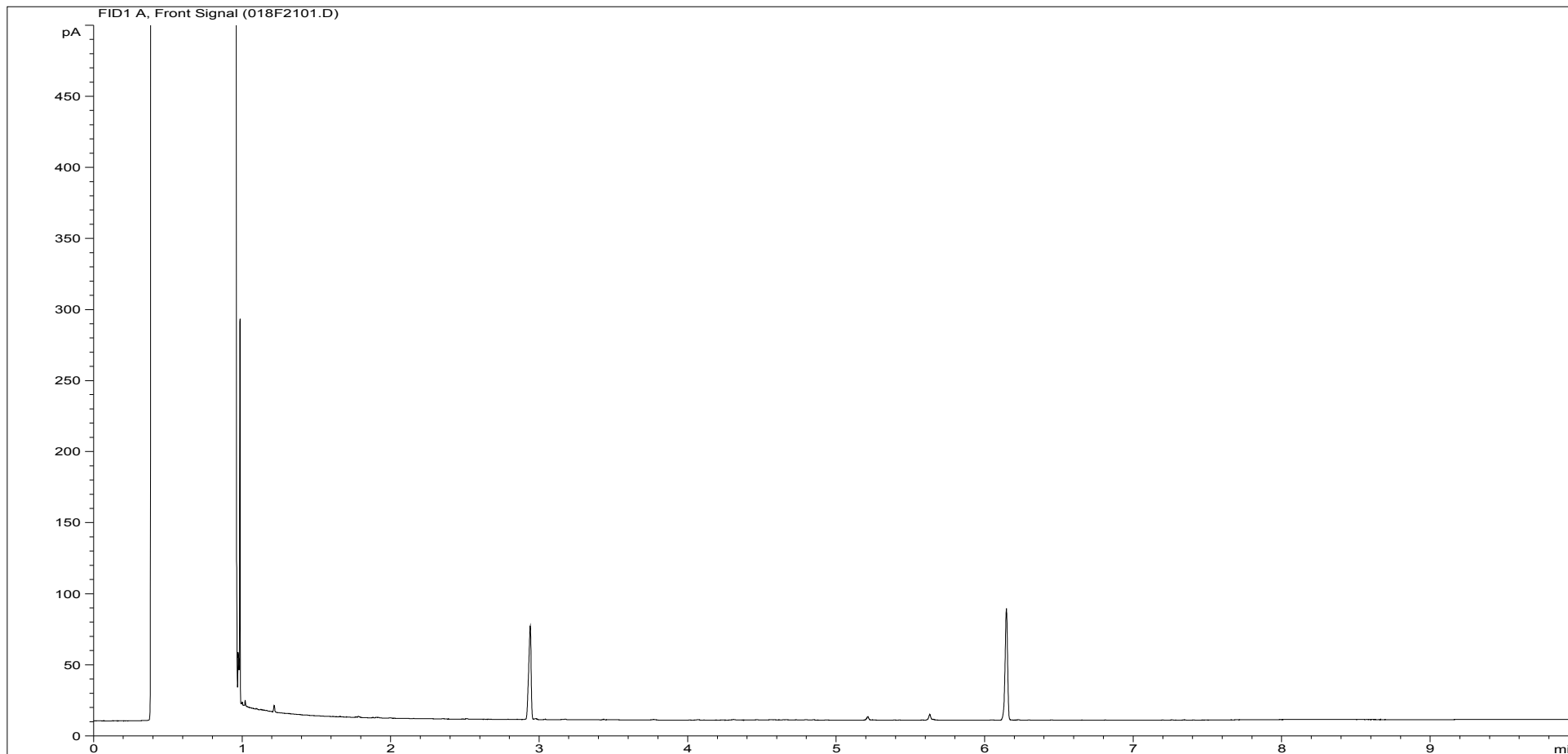
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1259543ARO | Job Number: | W13_0267 |
| Multiplier: | 0.015 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

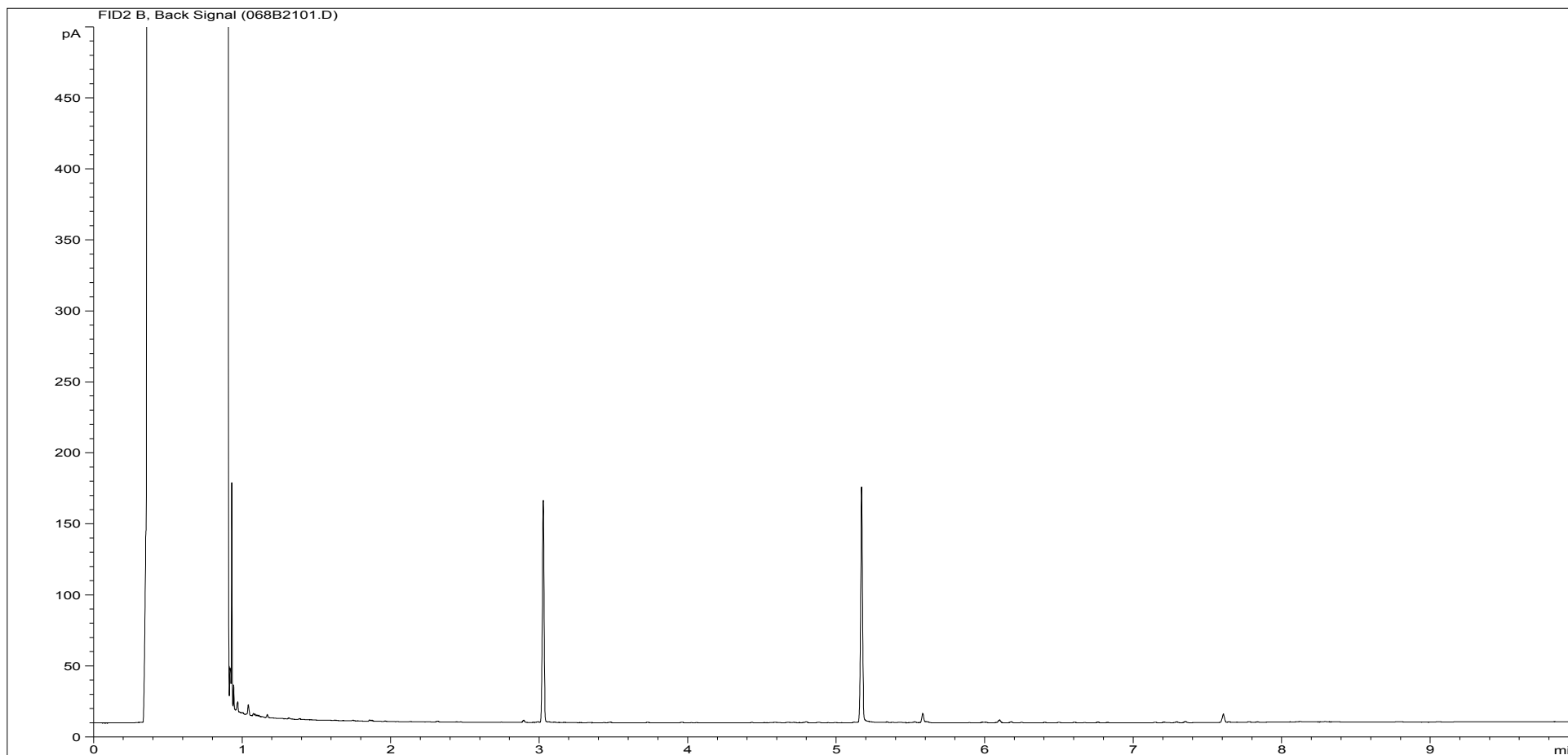
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1259544ALI | Job Number: | W13_0267 |
| Multiplier: | 0.02 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

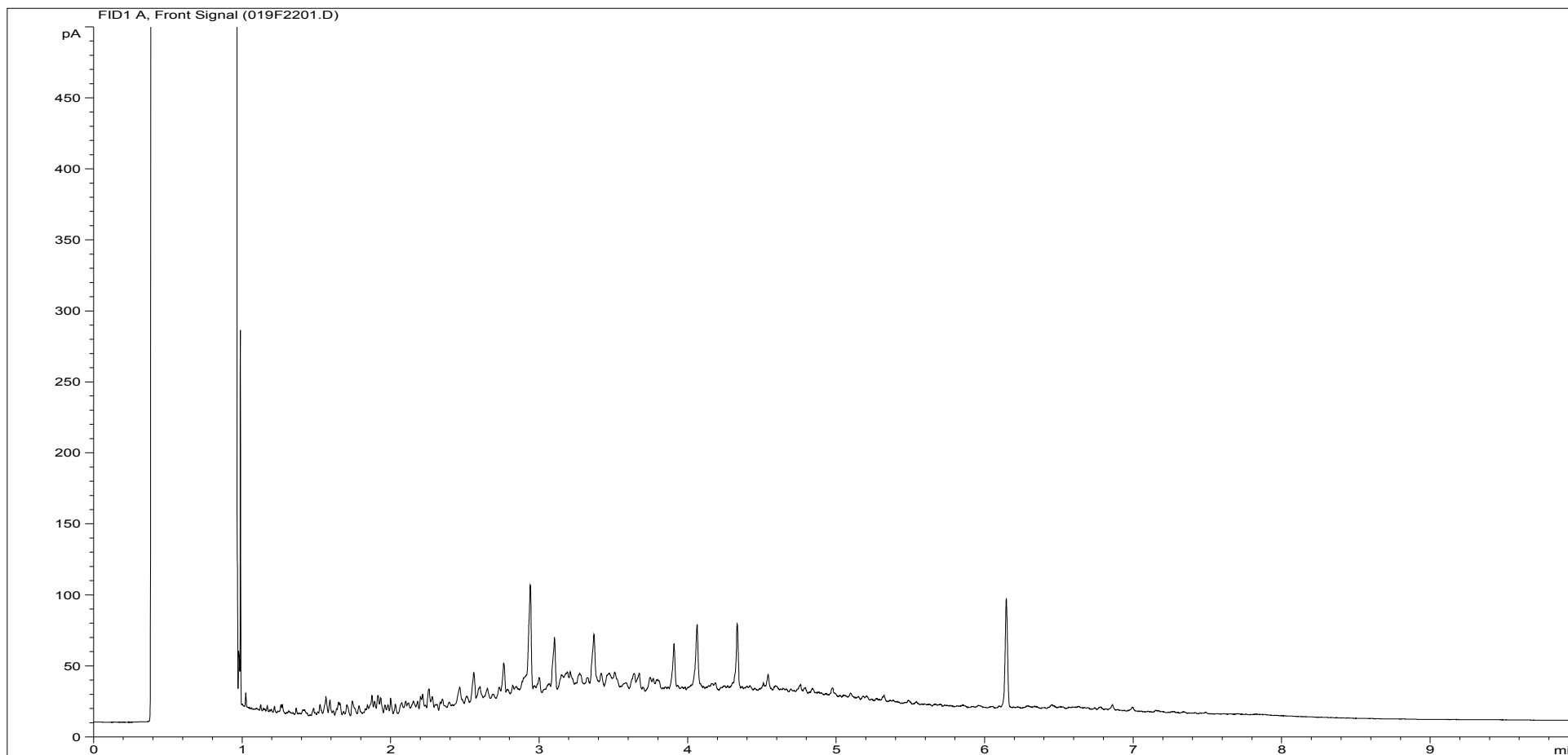
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1259544ARO | Job Number: | W13_0267 |
| Multiplier: | 0.015 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

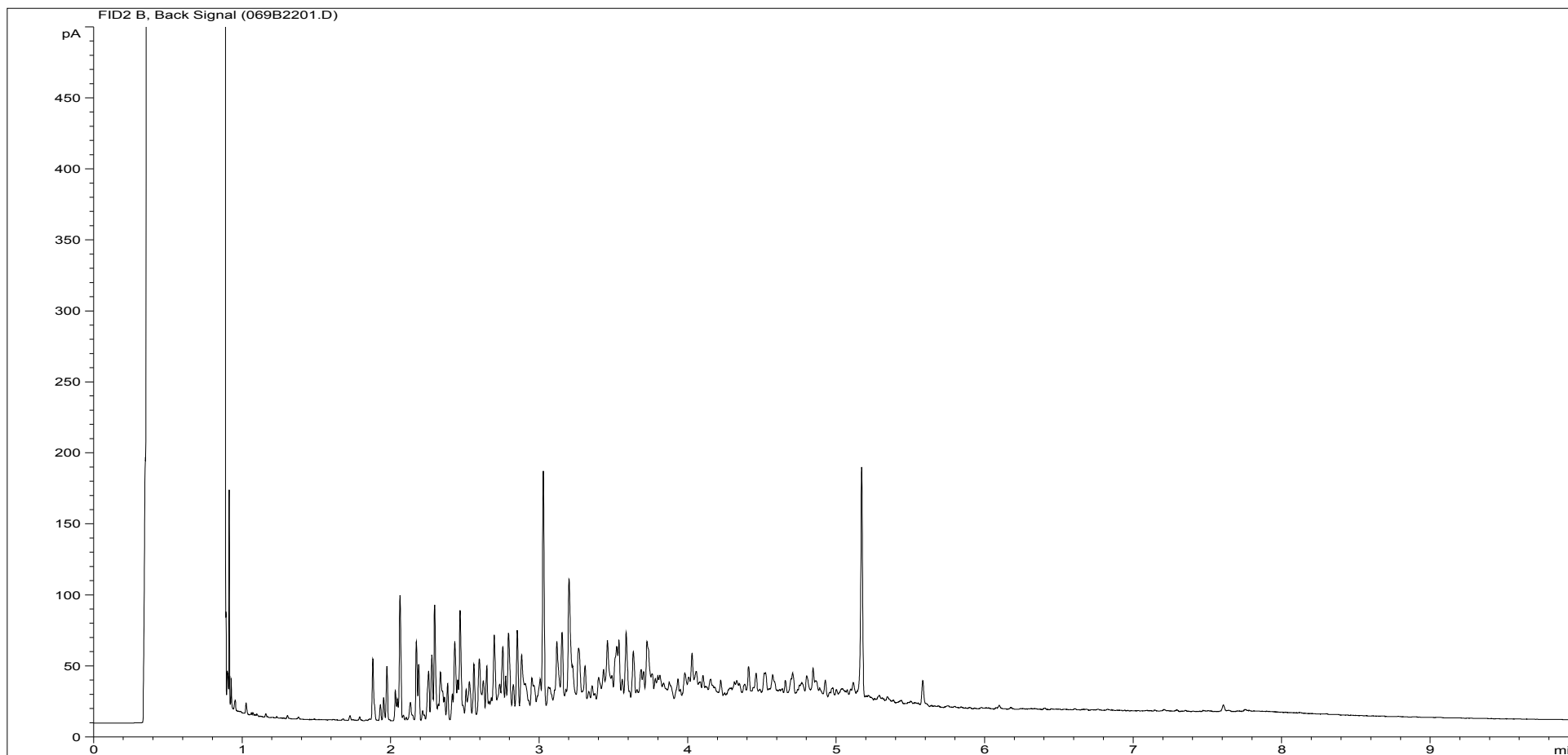
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1259545ALI | Job Number: | W13_0267 |
| Multiplier: | 0.02 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1259545ARO | Job Number: | W13_0267 |
| Multiplier: | 0.016 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

Customer Waterman EED
Site Upper Heyford
Report No W130267

Consignment No W32569
Date Logged 12-Jan-2012

Report Due 20-Jan-2012

| ID Number | Description | MethodID | CURSERV | GROHSA | ICPMSW | | | | | | | ICPMAVAR | | | | | | | KONENS | | | | PHEN/CATL | SVOCSW | TPH/FID-SI | W/SLM1 | W/SLM2 | | | | | | | | | |
|------------|-------------|----------|------------------------|--------|----------|---------------------|-----------------------------|-------------------------------|------------------------------|-----------------------------|---------------------------|---------------------------|------------------------------|------------------------------|-------------------------------|---------------------------------|-------------------------------|---------------------------------|------------------------------|----------------------------|-----------------------|----------------------------|--------------------------|------------------------|-----------------------------|--------|---------------|----------------------------------|---------------------------|--|--|--|--|--|--|--|
| | | | | | Report A | GRO-HSA GC/FID (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/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

- A The sample was received in an inappropriate container for this analysis
- B The sample was received without the correct preservation for this analysis
- C Headspace present in the sample container
- D The sampling date was not supplied so holding time may be compromised - applicable to all analysis
- E 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

Customer Waterman EED
Site Upper Heyford
Report No W130267

Consignment No W32569
Date Logged 12-Jan-2012

Report Due 20-Jan-2012

| ID Number | Description | MethodID | WSLM13 | WSLM17 | WSLM2 | WSLM20 | WSLM3 | WSLM7 |
|------------------------|-------------|----------|----------------------|------------------------|--------------------------|---------------------------|----------|------------------------------|
| | | 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 | |
|------------------------|--|
| A | The sample was received in an inappropriate container for this analysis |
| B | The sample was received without the correct preservation for this analysis |
| C | Headspace present in the sample container |
| D | The sampling date was not supplied so holding time may be compromised - applicable to all analysis |
| E | 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 |

Where individual results are flagged see report notes for status.

Method Descriptions

| Matrix | MethodID | Analysis Basis | Method Description |
|--------|-----------|----------------|--|
| 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 ($\mu\text{S}/\text{cm}$) 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 |

Where individual results are flagged see report notes for status.

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

NAIS 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

▮ 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.

END OF REPORT

Where individual results are flagged see report notes for status.

Our Ref: EXR/130268 (Ver. 1)

Your Ref: E10658-109

January 20, 2012



Environmental Chemistry

ESG

Bretby Business Park

Ashby Road

Burton-on-Trent

Staffordshire

DE15 0YZ

Telephone: 01283 554400

Facsimile: 01283 554422

Mr F Alcock
Waterman EED
Waterman Environmental
Pickfords Wharf
Clink Street
London
SE1 9DG

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.

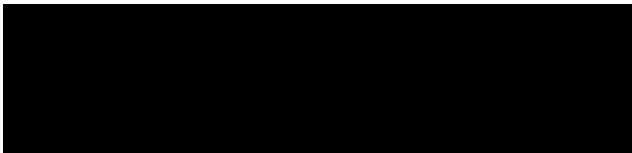
An invoice for this work will follow under a separate cover.

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/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.

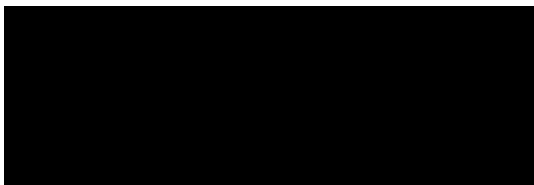
The analysis was completed by: 20-Jan-2012

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





Date of Issue: 20-Jan-2012


Tests marked '^' have been subcontracted to another laboratory.

ESG accepts no responsibility for any sampling not carried out by our personnel.

Where individual results are flagged see report notes for status.

| | | | 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 | | |
|--|---------------------------|-------------|---------------------------|----------------------------|-----------------------------|--------------------------|------------------|------------------------------------|-----------------------------|-------------------------------|----------------------------|--------------------------|----------------------------|---------------------------|--------------------------|------------------------|------------------------|---------------------------|-------|
| | | | Method Codes : | WSLM3 | WSLM2 | WSLM12 | WSLM17 | KONENS | ICPWATVAR | ICPWATVAR | ICPWATVAR | ICPWATVAR | ICPMSW | ICPMSW | ICPMSW | ICPMSW | ICPMSW | ICPMSW | |
| | | | Method Reporting Limits : | | 100 | 2 | 2 | 1 | 3 | 1 | 1 | 1 | 0.001 | 0.001 | 0.0001 | 0.001 | 0.001 | 0.002 | 0.001 |
| | | | UKAS Accredited : | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| LAB ID Number | 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 | |
| | | | | | | | | | | | | | | | | | | | |
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|  <p>Environmental Scientifics Group Bretby Business Park, Ashby Road Burton-on-Trent, Staffordshire, DE15 0YZ Tel +44 (0) 1283 554400 Fax +44 (0) 1283 554422</p> | | | Client Name | | Waterman EED | | | | | | Water Sample Analysis | | | | | | | | |
| | | | Contact | | Mr F Alcock | | | | | | | | | | | | | | |
| | | | Upper Heyford | | | | | | Date Printed | 20-Jan-2012 | | | | | | | | | |
| | | | | | | | | | Report Number | EXR/130268 | | | | | | | | | |
| Upper Heyford | | | | | | Table Number | 1 | | | | | | | | | | | | |
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| LAB ID Number | EX/ | Client Sample Description | Sample Date | Units : | | | | | | | | | | | | | | | |
|--|---------------------------|----------------------------|--------------------------|---------------------------|----------------|----------------------------------|------------------------|--------------|----------------|-----------------------------|--------------------------------|---------------------------------|-----------|-----------|-----------------|-----------|---------|---------|--|
| | | | | Method Codes : | | | | | | | | | | | | | | | |
| | | | | Method Reporting Limits : | | | | | | | | | | | | | | | |
| | | | | UKAS Accredited : | | | | | | | | | | | | | | | |
| 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 | mg/l | | | |
| ICPWATVAR | ICPMSW | ICPMSW | KONENS | KONENS | KONENS | WSLM11 | WSLM13 | GROHSA | TPHFID-Si | WSLM20 | WSLM7 | SVOCSW | PHEHPLCVL | PHEHPLCVL | PHEHPLCVL | PHEHPLCVL | | | |
| 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 | 0.0005 | 0.0005 | 0.0005 | | | |
| Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | No | No | No | No | No | No | No | | | |
| 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(S) 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 | |
|  <p>Environmental Scientifics Group Bretby Business Park, Ashby Road Burton-on-Trent, Staffordshire, DE15 0YZ Tel +44 (0) 1283 554400 Fax +44 (0) 1283 554422</p> | | | Client Name | Waterman EED | | | | | | | | Water Sample Analysis | | | | | | | |
| | | | Contact | Mr F Alcock | | | | | | | | | | | | | | | |
| | | | <h2>Upper Heyford</h2> | | | | | | | | Date Printed | 20-Jan-2012 | | | | | | | |
| | | | | | | | | | | | Report Number | EXR/130268 | | | | | | | |
| | | | | | | | | | | | Table Number | 1 | | | | | | | |
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| Units : | | mg/l | | | | | | | | | | | | | | | | | | |
|--|---------------------------|----------------------|---------------------|--|--|--|--|--|--|--|---------------------|------------------------------|----------------------|-------------|--|--|--|--|--|--|
| Method Codes : | | PHEHPLCVL | | | | | | | | | | | | | | | | | | |
| Method Reporting Limits : | | 0.0005 | | | | | | | | | | | | | | | | | | |
| UKAS Accredited : | | 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 | | | | | | | | | | | | | | | | | |
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|  <p>Environmental Scientifics Group Bretby Business Park, Ashby Road Burton-on-Trent, Staffordshire, DE15 0YZ Tel +44 (0) 1283 554400 Fax +44 (0) 1283 554422</p> | | Client Name | Waterman EED | | | | | | | | | Water Sample Analysis | | | | | | | | |
| | | Contact | Mr F Alcock | | | | | | | | | | | | | | | | | |
| | | Upper Heyford | | | | | | | | | | | Date Printed | 20-Jan-2012 | | | | | | |
| | | | | | | | | | | | | | Report Number | EXR/130268 | | | | | | |
| Upper Heyford | | | | | | | | | | | Table Number | 1 | | | | | | | | |
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Semi-Volatile Organic Compounds

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford
Sample Details: BH-NSA-12
LIMS ID Number: EX1259546
Job Number: W13_0268

Date Booked in: 12-Jan-12
Date Extracted: 18-Jan-12
Date Analysed: 18-Jan-12

Matrix: Water
Ext Method: Sep. Funnel
Operator: DMB/SO
Directory/Quant File: 18SVOC.GC1\ 0118_CCC1.D

QC Batch Number: 6
Multiplier: 0.005
Dilution Factor: 1
GPC (Y/N): N

| 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 | - |

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 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 | 94 |
| Naphthalene-d8 | 92 |
| Acenaphthene-d10 | 94 |
| Phenanthrene-d10 | 89 |
| Chrysene-d12 | 82 |
| Perylene-d12 | 77 |

| Surrogates | % Rec |
|----------------------|-------|
| 2-Fluorophenol | 46 |
| Phenol-d5 | 35 |
| Nitrobenzene-d5 | 90 |
| 2-Fluorobiphenyl | 88 |
| 2,4,6-Tribromophenol | 75 |
| Terphenyl-d14 | 98 |

Semi-Volatile Organic Compounds

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford
Sample Details: BH-NSA-10
LIMS ID Number: EX1259547
Job Number: W13_0268

Date Booked in: 12-Jan-12
Date Extracted: 18-Jan-12
Date Analysed: 18-Jan-12

Matrix: Water
Ext Method: Sep. Funnel
Operator: DMB/SO
Directory/Quant File: 18SVOC.GC1\ 0118_CCC1.D

QC Batch Number: 6
Multiplier: 0.005
Dilution Factor: 1
GPC (Y/N): N

| 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 | - |

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 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 |

| Surrogates | % Rec |
|----------------------|-------|
| 2-Fluorophenol | 44 |
| Phenol-d5 | 33 |
| Nitrobenzene-d5 | 88 |
| 2-Fluorobiphenyl | 86 |
| 2,4,6-Tribromophenol | 75 |
| Terphenyl-d14 | 98 |

Semi-Volatile Organic Compounds

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford
Sample Details: BH-NSA-11
LIMS ID Number: EX1259548
Job Number: W13_0268

Date Booked in: 12-Jan-12
Date Extracted: 18-Jan-12
Date Analysed: 18-Jan-12

Matrix: Water
Ext Method: Sep. Funnel
Operator: DMB/SO
Directory/Quant File: 18SVOC.GC1\ 0118_CCC1.D

QC Batch Number: 6
Multiplier: 0.005
Dilution Factor: 1
GPC (Y/N) N

| 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 | - |

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 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 |

| Surrogates | % Rec |
|----------------------|-------|
| 2-Fluorophenol | 43 |
| Phenol-d5 | 33 |
| Nitrobenzene-d5 | 82 |
| 2-Fluorobiphenyl | 81 |
| 2,4,6-Tribromophenol | 71 |
| Terphenyl-d14 | 95 |

Semi-Volatile Organic Compounds

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford
Sample Details: BH-NSA-9
LIMS ID Number: EX1259549
Job Number: W13_0268

Date Booked in: 12-Jan-12
Date Extracted: 18-Jan-12
Date Analysed: 18-Jan-12

Matrix: Water
Ext Method: Sep. Funnel
Operator: DMB/SO
Directory/Quant File: 18SVOC.GC1\ 0118_CCC1.D

QC Batch Number: 6
Multiplier: 0.005
Dilution Factor: 1
GPC (Y/N): N

| 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 | - |

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 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 | 101 |
| Naphthalene-d8 | 105 |
| Acenaphthene-d10 | 101 |
| Phenanthrene-d10 | 98 |
| Chrysene-d12 | 99 |
| Perylene-d12 | 96 |

| Surrogates | % Rec |
|----------------------|-------|
| 2-Fluorophenol | 39 |
| Phenol-d5 | 30 |
| Nitrobenzene-d5 | 86 |
| 2-Fluorobiphenyl | 82 |
| 2,4,6-Tribromophenol | 69 |
| Terphenyl-d14 | 89 |

Semi-Volatile Organic Compounds

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford
Sample Details: BH-NSA-7
LIMS ID Number: EX1259550
Job Number: W13_0268

Date Booked in: 12-Jan-12
Date Extracted: 18-Jan-12
Date Analysed: 18-Jan-12

Matrix: Water
Ext Method: Sep. Funnel
Operator: DMB/SO
Directory/Quant File: 18SVOC.GC1\ 0118_CCC1.D

QC Batch Number: 6
Multiplier: 0.005
Dilution Factor: 1
GPC (Y/N): N

| 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 | - |

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 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 | 90 |
| Naphthalene-d8 | 96 |
| Acenaphthene-d10 | 95 |
| Phenanthrene-d10 | 95 |
| Chrysene-d12 | 91 |
| Perylene-d12 | 91 |

| Surrogates | % Rec |
|----------------------|-------|
| 2-Fluorophenol | 45 |
| Phenol-d5 | 34 |
| Nitrobenzene-d5 | 84 |
| 2-Fluorobiphenyl | 81 |
| 2,4,6-Tribromophenol | 81 |
| Terphenyl-d14 | 89 |

Semi-Volatile Organic Compounds

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford
Sample Details: BH-NSA-13
LIMS ID Number: EX1259551
Job Number: W13_0268

Date Booked in: 12-Jan-12
Date Extracted: 18-Jan-12
Date Analysed: 18-Jan-12

Matrix: Water
Ext Method: Sep. Funnel
Operator: DMB/SO
Directory/Quant File: 18SVOC.GC1\ 0118_CCC2.D

QC Batch Number: 6
Multiplier: 0.005
Dilution Factor: 1
GPC (Y/N) N

| 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 | - |

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 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 | 111 |
| Naphthalene-d8 | 111 |
| Acenaphthene-d10 | 101 |
| Phenanthrene-d10 | 103 |
| Chrysene-d12 | 90 |
| Perylene-d12 | 92 |

| Surrogates | % Rec |
|----------------------|-------|
| 2-Fluorophenol | 44 |
| Phenol-d5 | 27 |
| Nitrobenzene-d5 | 84 |
| 2-Fluorobiphenyl | 91 |
| 2,4,6-Tribromophenol | 74 |
| Terphenyl-d14 | 97 |

Where individual results are flagged see report notes for status.

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.

| Sample ID | Client ID | Concentration, (mg/l) | | | | | Aliphatics | | | | Total GRO |
|-------------|-----------|-----------------------|---------|---------------|------------|----------|------------|----------|----------|-----------|-----------|
| | | Benzene | Toluene | Ethyl benzene | m/p-Xylene | o-Xylene | C5 - C6 | >C6 - C7 | >C7 - C8 | >C8 - C10 | |
| * 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 |
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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

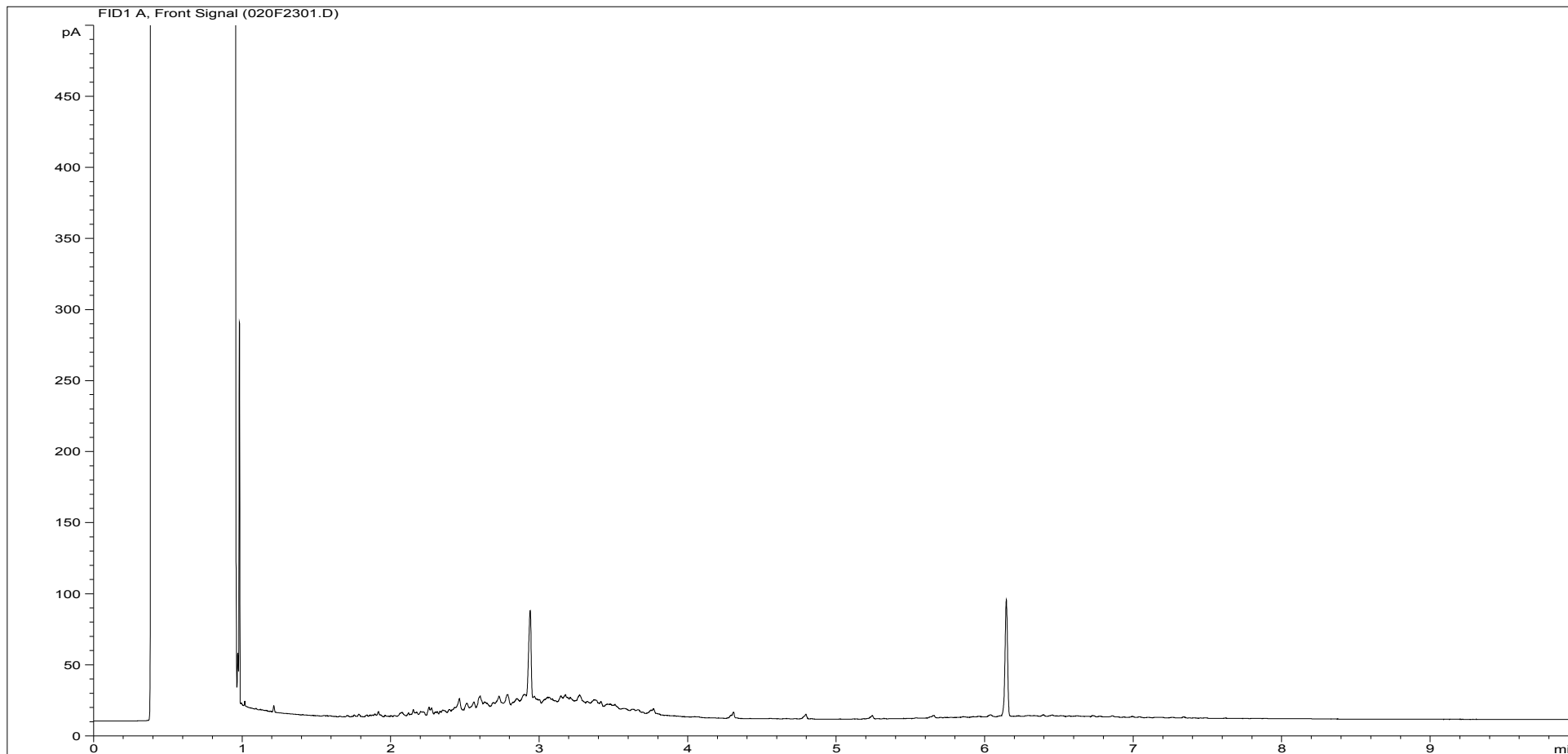
Customer and Site Details: Waterman EED : Upper Heyford
Job Number: W13_0268
QC Batch Number: 120025
Directory: D:\TES\DATA\Y2012\011612TPH_GC16\011612 2012-01-16 13-51-29\075B2801.D
Method: Bottle

Matrix: Water
Date Booked in: 12-Jan-12
Date Extracted: 16-Jan-12
Date Analysed: 16-Jan-12, 21:34:59

| | | Concentration, (mg/l) | | | | | | | | | | | |
|-----------|-----------|-----------------------|-----------|------------|-----------|------------|-----------|------------|-----------|------------|-----------|------------|-----------|
| | | >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 |
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* This sample data is not UKAS accredited.

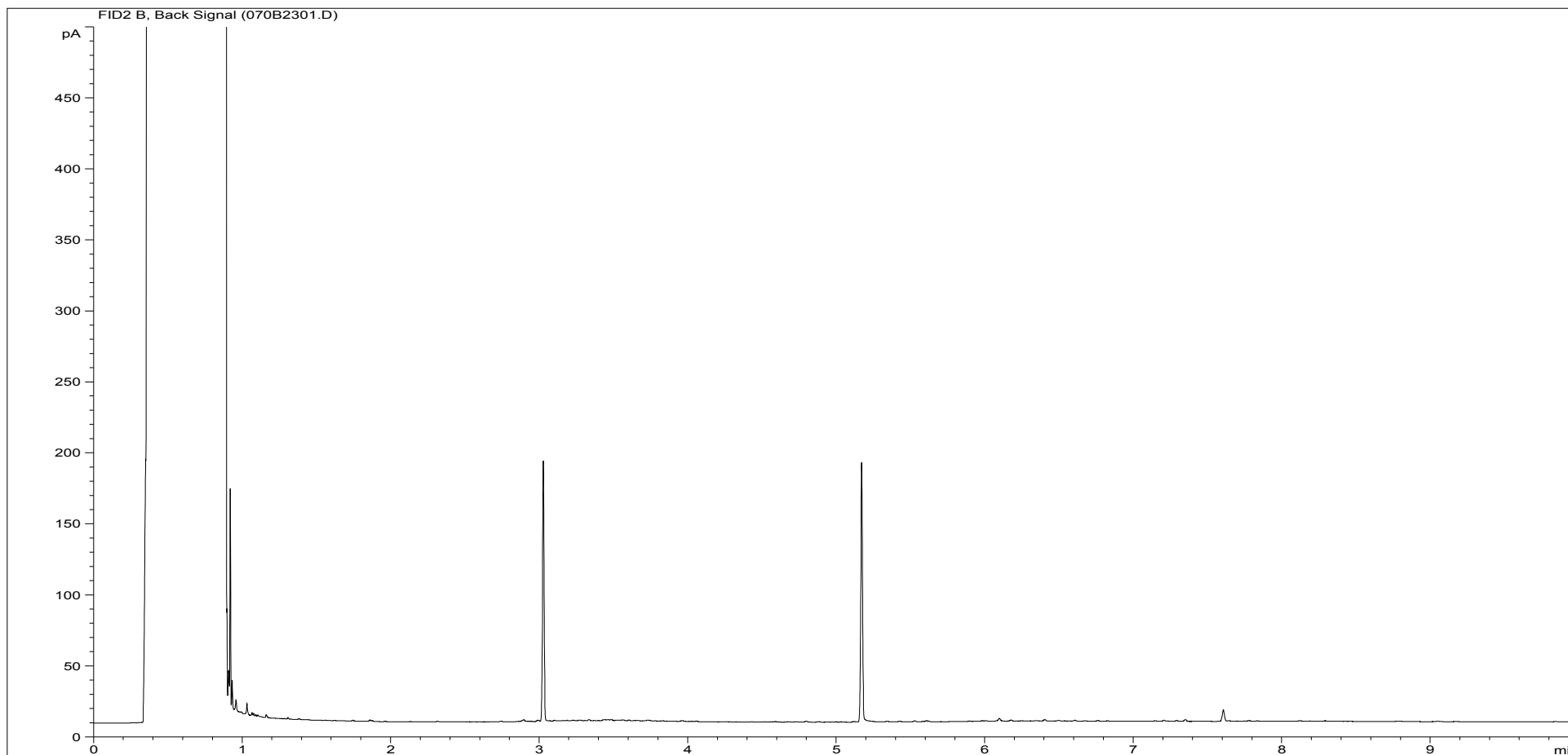
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1259546ALI | Job Number: | W13_0268 |
| Multiplier: | 0.02 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

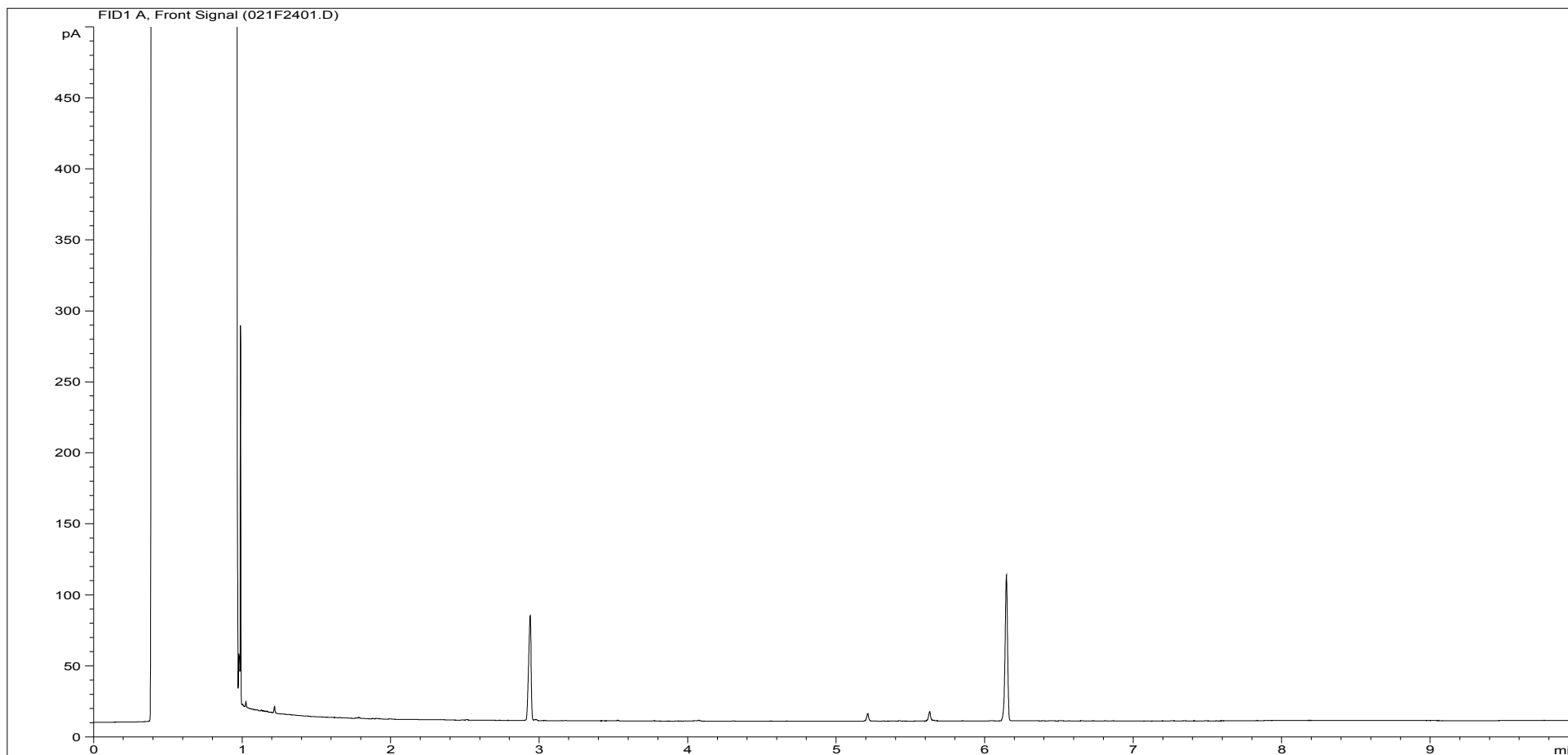
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1259546ARO | Job Number: | W13_0268 |
| Multiplier: | 0.016 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

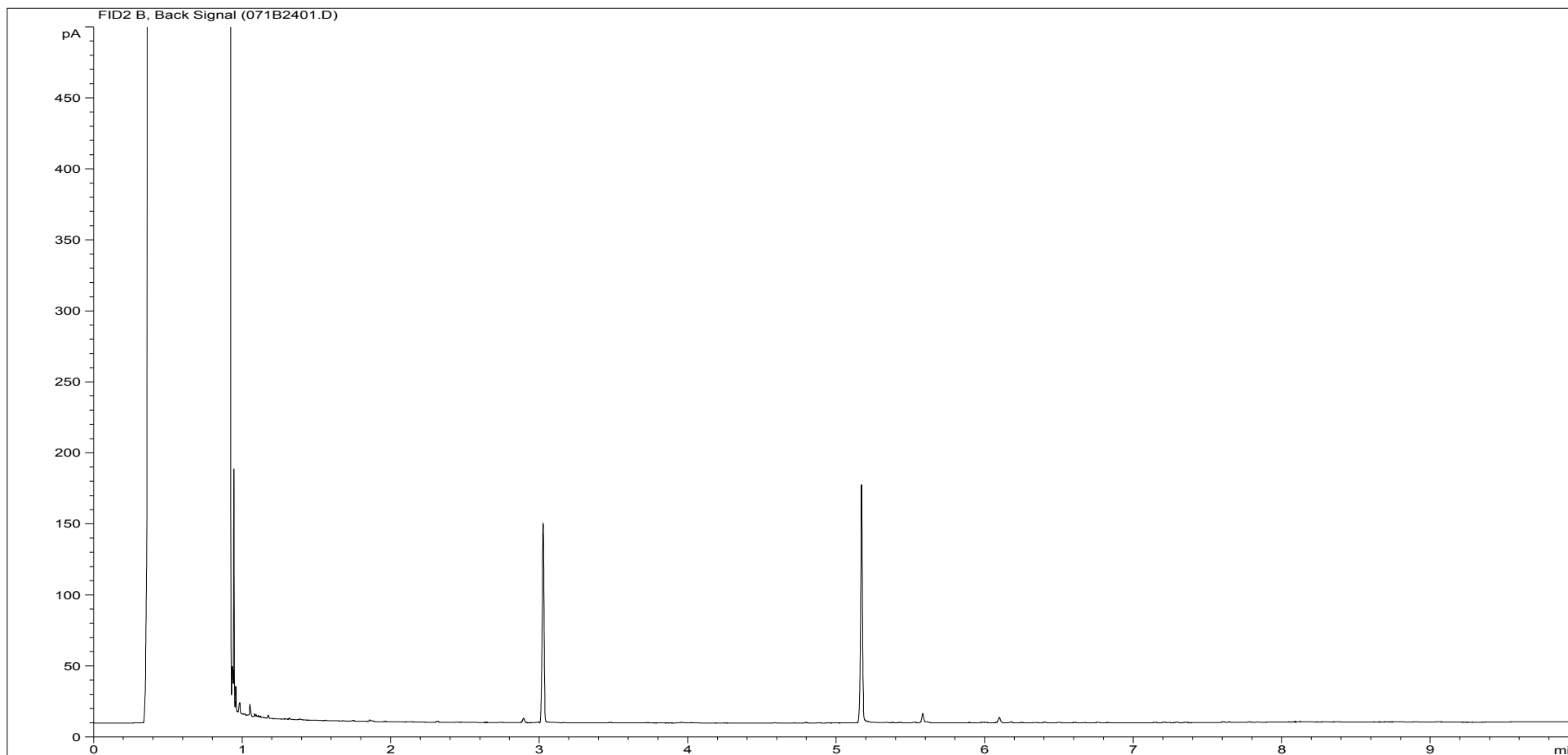
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1259547ALI | Job Number: | W13_0268 |
| Multiplier: | 0.02 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

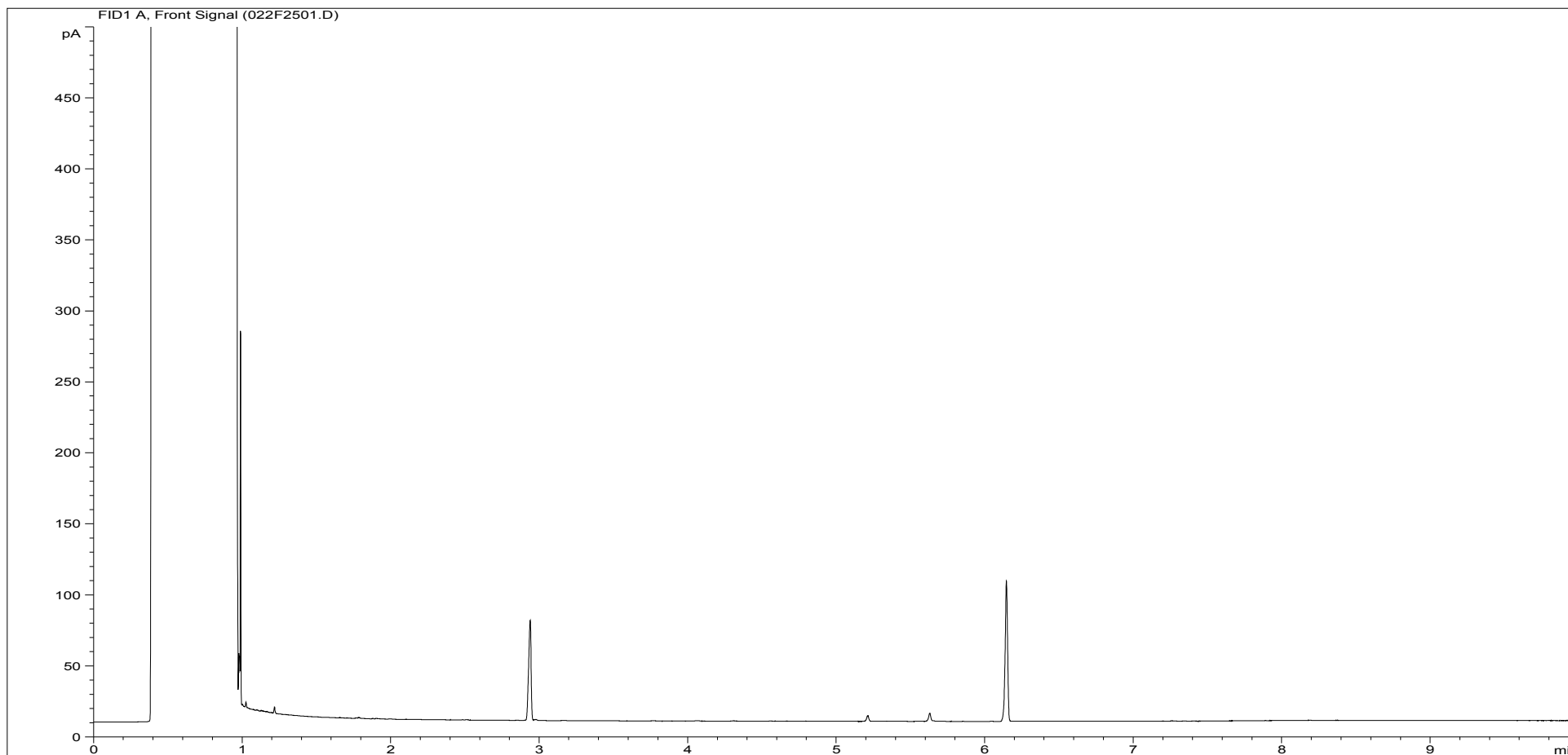
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1259547ARO | Job Number: | W13_0268 |
| Multiplier: | 0.015 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

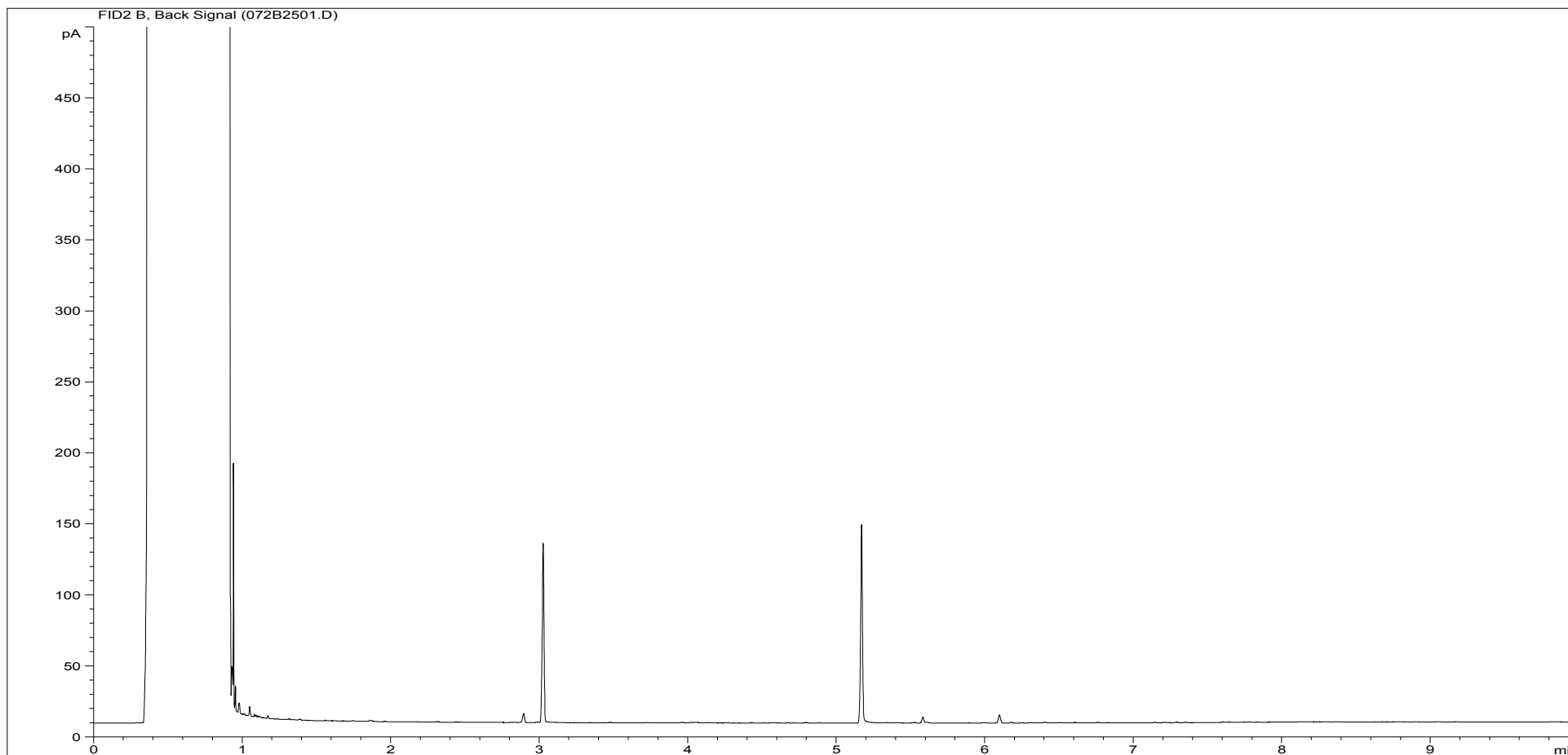
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1259548ALI | Job Number: | W13_0268 |
| Multiplier: | 0.02 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

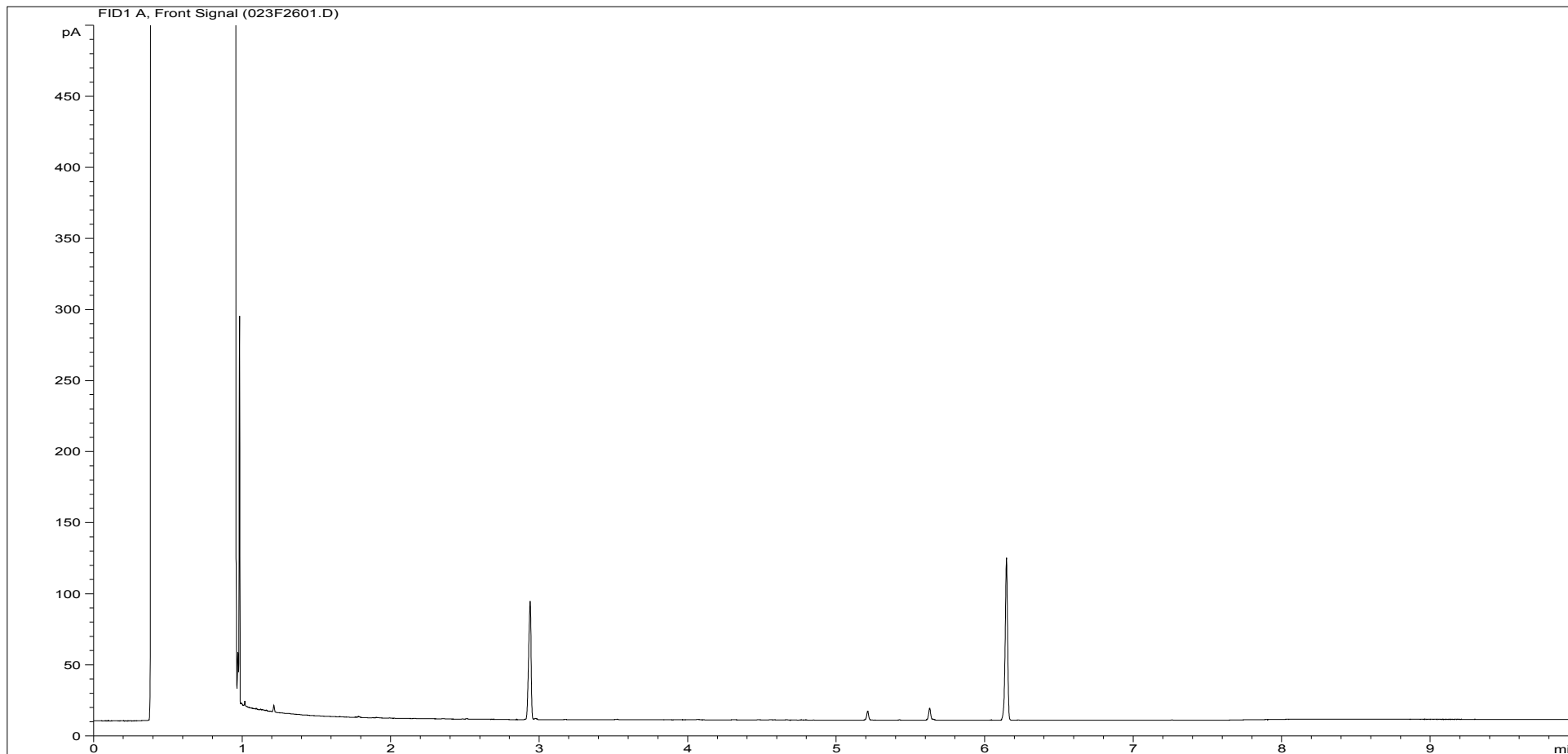
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1259548ARO | Job Number: | W13_0268 |
| Multiplier: | 0.015 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

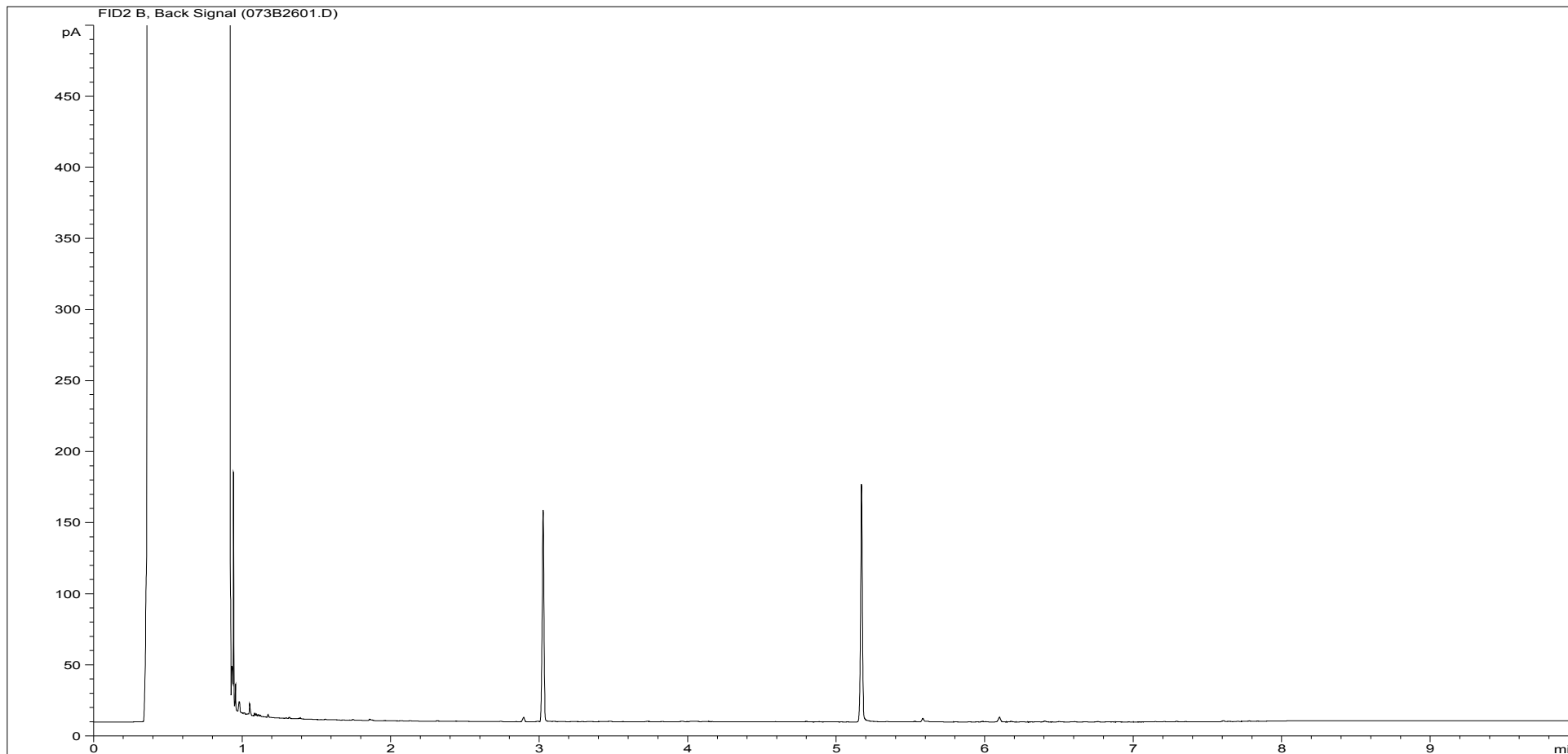
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1259549ALI | Job Number: | W13_0268 |
| Multiplier: | 0.019 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

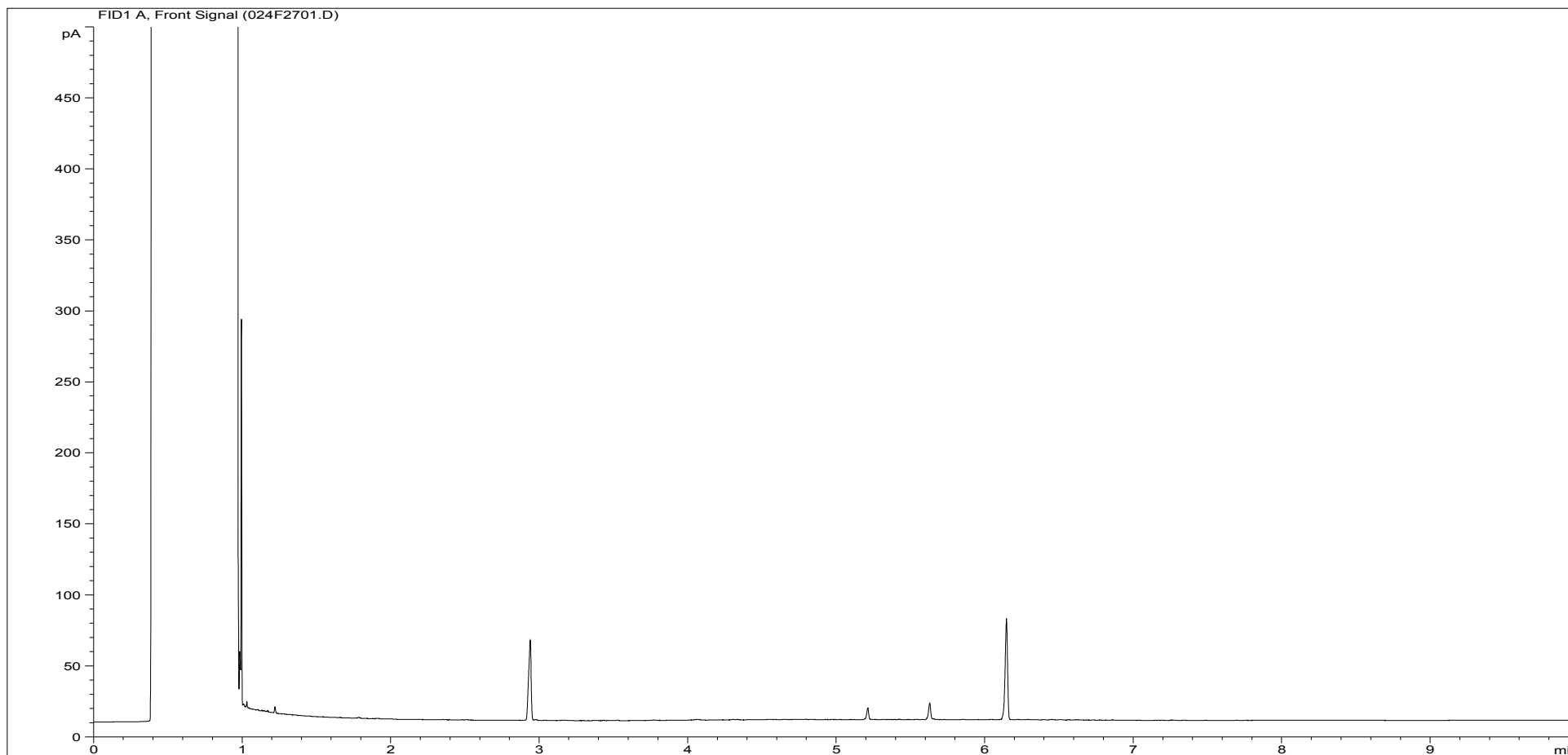
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1259549ARO | Job Number: | W13_0268 |
| Multiplier: | 0.015 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

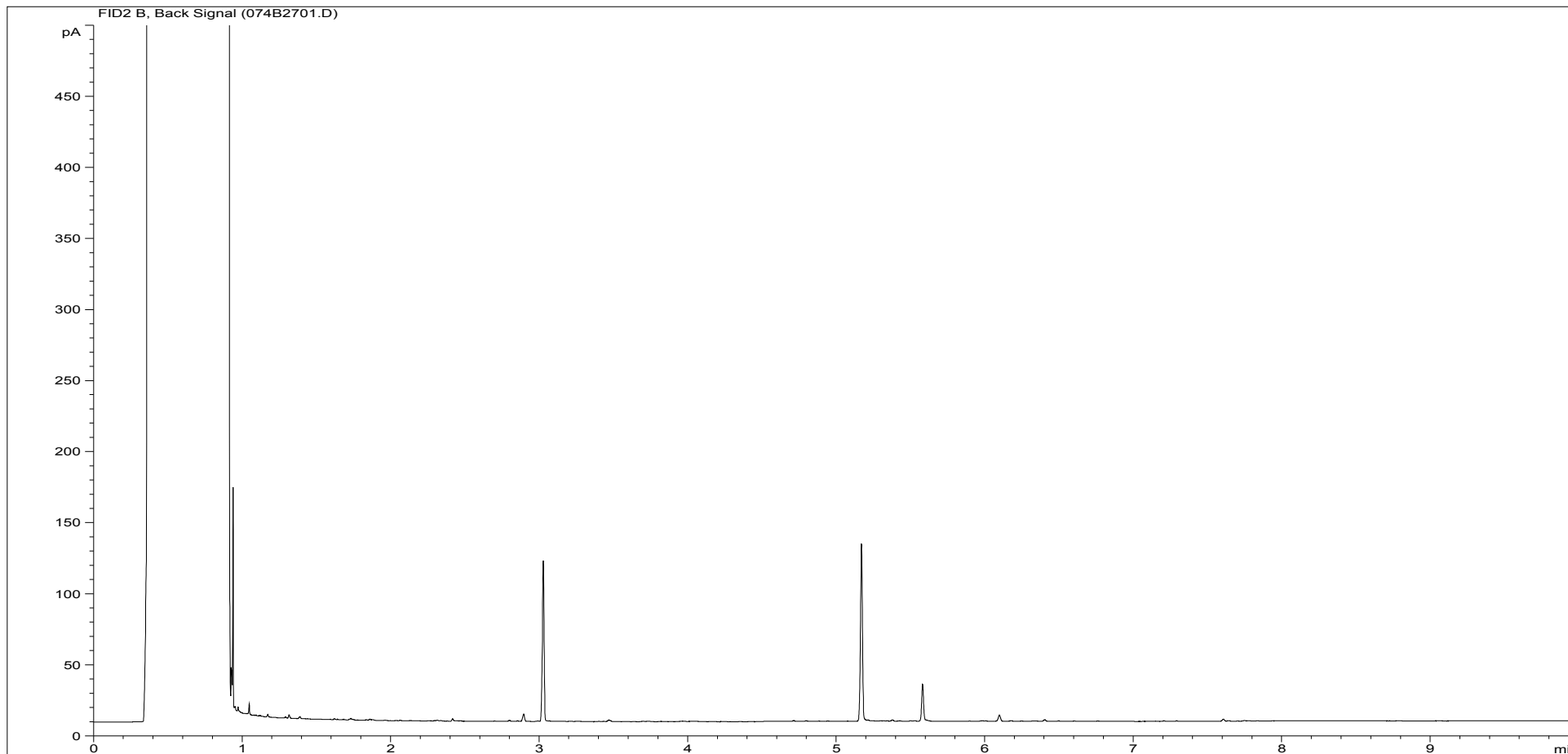
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1259550ALI | Job Number: | W13_0268 |
| Multiplier: | 0.02 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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\024F2701.D | | |

Where individual results are flagged see report notes for status.

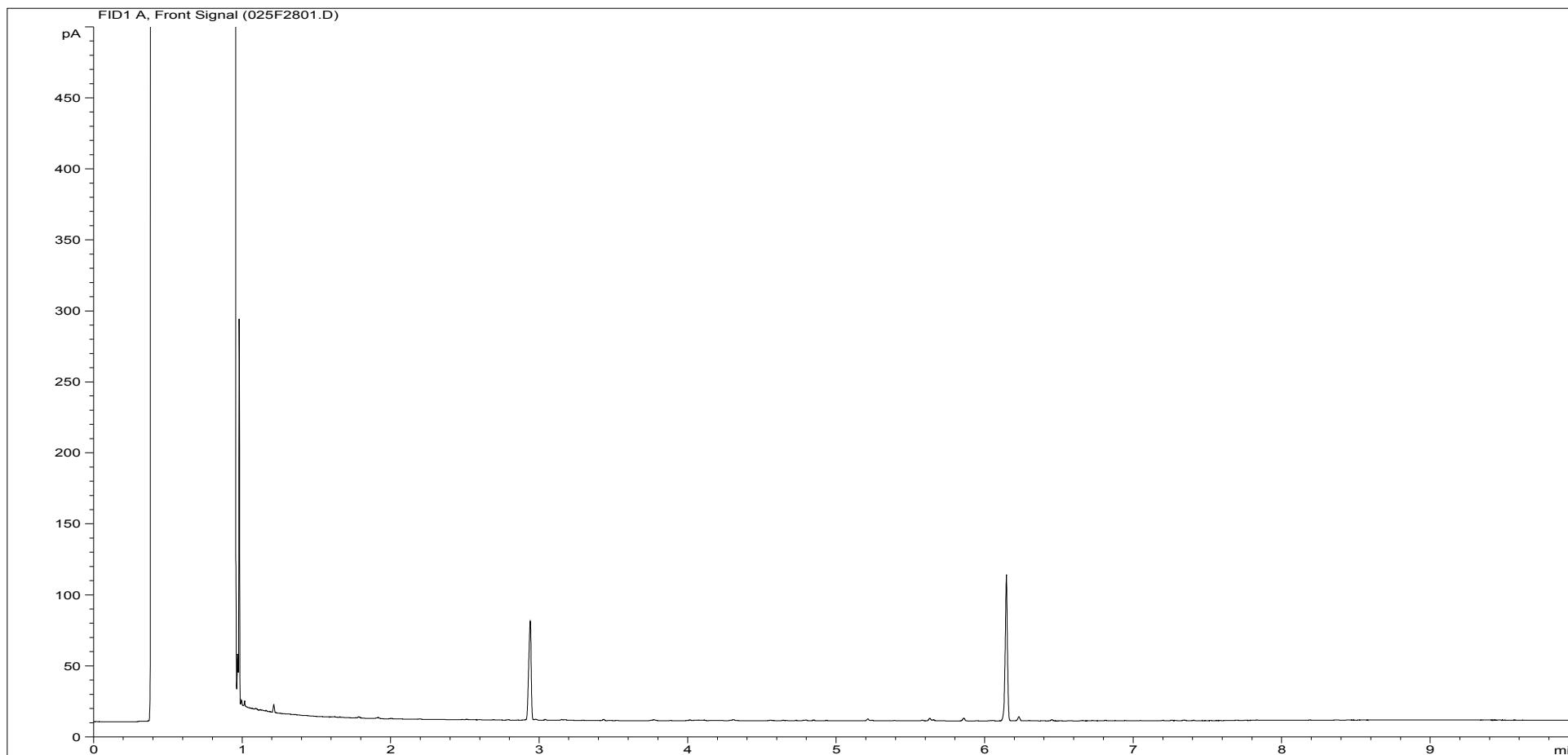
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1259550ARO | Job Number: | W13_0268 |
| Multiplier: | 0.015 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

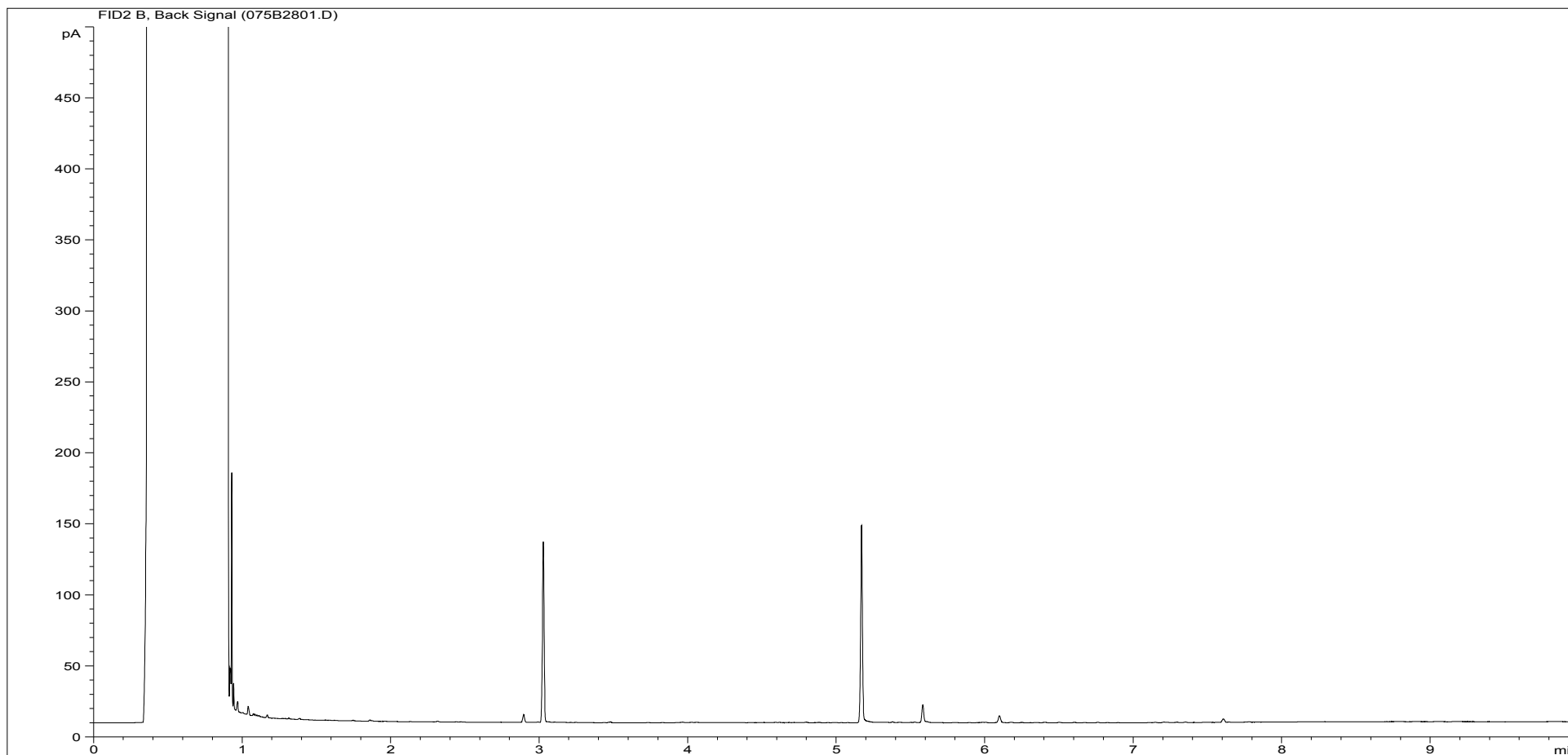
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1259551ALI | Job Number: | W13_0268 |
| Multiplier: | 0.019 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | 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 | | |

Where individual results are flagged see report notes for status.

Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1259551ARO | Job Number: | W13_0268 |
| Multiplier: | 0.015 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | 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\075B2801.D | | |

Where individual results are flagged see report notes for status.

Customer Waterman EED
Site Upper Heyford
Report No W130268

Consignment No W32568
Date Logged 12-Jan-2012

Report Due 20-Jan-2012

| ID Number | Description | MethodID | CURSERV | GROHSA | ICPMSW | | | | | | | | | | KONENS | PHEHRCUL | SVOCSW | TPHFD-SI | WSLM1 | WSLM2 | | | |
|------------------------|-------------|----------|---------|--------|---------------------|-----------------------------|-------------------------------|------------------------------|-----------------------------|---------------------------|---------------------------|------------------------------|------------------------------|-------------------------------|--------|----------|--------|----------|-------|-------|---------------------------------|-------------------------------|---------------------------------|
| | | | | | GRO-HSA GC/FID (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 |
| 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

- A The sample was received in an inappropriate container for this analysis
- B The sample was received without the correct preservation for this analysis
- C Headspace present in the sample container
- D The sampling date was not supplied so holding time may be compromised - applicable to all analysis
- E 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

Customer Waterman EED
Site Upper Heyford
Report No W130268

Consignment No W32568
Date Logged 12-Jan-2012

Report Due 20-Jan-2012

| ID Number | Description | MethodID | WSLM13 | WSLM17 | WSLM2 | WSLM20 | WSLM3 | WSLM7 |
|------------------------|-------------|----------|----------------------|------------------------|--------------------------|---------------------------|----------|------------------------------|
| | | 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 | |
|------------------------|--|
| A | The sample was received in an inappropriate container for this analysis |
| B | The sample was received without the correct preservation for this analysis |
| C | Headspace present in the sample container |
| D | The sampling date was not supplied so holding time may be compromised - applicable to all analysis |
| E | 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 |

Method Descriptions

| Matrix | MethodID | Analysis Basis | Method Description |
|--------|-----------|----------------|--|
| 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 ($\mu\text{S}/\text{cm}$) 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 |

Where individual results are flagged see report notes for status.

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

NAIS 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

▮ 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.

END OF REPORT

Where individual results are flagged see report notes for status.

Our Ref: EXR/130289 (Ver. 2)

Your Ref: E10658-109

February 22, 2012



Environmental Chemistry

ESG

Bretby Business Park

Ashby Road

Burton-on-Trent

Staffordshire

DE15 0YZ

Telephone: 01283 554400

Facsimile: 01283 554422

Mr F Alcock
Waterman EED
Waterman Environmental
Pickfords Wharf
Clink Street
London
SE1 9DG

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
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.

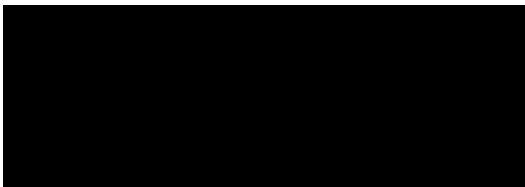
The analysis was completed by: 22-Jan-2012

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)

On behalf of
ESG :
Andrew Timms





Date of Issue: 22-Feb-2012

Tests marked '^' have been subcontracted to another laboratory.

ESG accepts no responsibility for any sampling not carried out by our personnel.


Where individual results are flagged see report notes for status.

| Method Reporting Limits : UKAS Accredited : | | | 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 | | | |
|--|---------------------------|-------------|---------------------------|----------------------------|-----------------------------|--------------------------|------------------|------------------------------------|-----------------------------|-------------------------------|----------------------------|--------------------------|----------------------------|---------------------------|--------------------------|------------------------|------------------------|---------------------------|--------|-------|
| | | | Method Codes : | WSLM3 | WSLM2 | WSLM12 | WSLM17 | KONENS | ICPWATVAR | ICPWATVAR | ICPWATVAR | ICPWATVAR | ICPMSW | ICPMSW | ICPMSW | ICPMSW | ICPMSW | ICPMSW | ICPMSW | |
| | | | Method Reporting Limits : | | 100 | 2 | 2 | 1 | 3 | 1 | 1 | 1 | 0.001 | 0.001 | 0.0001 | 0.001 | 0.001 | 0.001 | 0.002 | 0.001 |
| | | | UKAS Accredited : | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| LAB ID Number | 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 | | |
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|  <p>Bretby Business Park, Ashby Road Burton-on-Trent, Staffordshire, DE15 0YZ Tel +44 (0) 1283 554400 Fax +44 (0) 1283 554422</p> | Client Name | | Waterman EED | | | | | | | | | Water Sample Analysis | | | | | | | | |
| | Contact | | Mr F Alcock | | | | | | | | | | | | | | | | | |
| | | | Upper Heyford | | | | | | | | | Date Printed | 24-Jan-2012 | | | | | | | |
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| | | | | | | | | | | | Table Number | 1 | | | | | | | | |
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| | | | 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 | | | |
|---|---------------------------|-------------|---------------------------|---------------------------|----------------------------|--------------------------|--------------|----------------|----------------------------------|------------------------|------------------------------|-----------------|-----------------------------|--------------------------------|---------------------------------|---------|-----------|-----------------|-----------|--|
| | | | Method Codes : | ICPWATVAR | ICPMSW | ICPMSW | KONENS | KONENS | KONENS | WSLM11 | WSLM13 | GROHSA | TPHFID-Si | WSLM20 | WSLM7 | SVOCSW | PHEHPLCVL | PHEHPLCVL | PHEHPLCVL | |
| | | | Method Reporting Limits : | 0.01 | 0.0001 | 0.001 | 0.01 | 0.2 | 0.01 | 5 | 0.1 | 0.1 | 0.01 | 2 | 1 | 0.002 | 0.0005 | 0.0005 | | |
| | | | UKAS Accredited : | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | No | No | No | No | No | No | | |
| LAB ID Number | 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 | | |
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|  <p>Environmental Scientifics Group Bretby Business Park, Ashby Road</p> <p>Burton-on-Trent, Staffordshire, DE15 0YZ</p> <p>Tel +44 (0) 1283 554400</p> <p>Fax +44 (0) 1283 554422</p> | | | Client Name | | Waterman EED | | | | | | Water Sample Analysis | | | | | | | | | |
| | | | Contact | | Mr F Alcock | | | | | | | | | | | | | | | |
| | | | Upper Heyford | | | | | | | | | | Date Printed | | 24-Jan-2012 | | | | | |
| | | | | | | | | | | | | | Report Number | | EXR/130289 | | | | | |
| | | | | | | | | | | Table Number | | 1 | | | | | | | | |

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|----------------------------------|-----------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Units : | mg/l | | | | | | | | | | | | | | | |
| Method Codes : | PHEHPLCVL | | | | | | | | | | | | | | | |
| Method Reporting Limits : | 0.0005 | | | | | | | | | | | | | | | |
| UKAS Accredited : | 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 | | | | | | | | | | | | | |
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|---|----------------------|--------------|--|------------------------------|----------------------|------------|---------------------|
|  <p>ESG Environmental Scientifics Group Bretby Business Park, Ashby Road Burton-on-Trent, Staffordshire, DE15 0YZ Tel +44 (0) 1283 554400 Fax +44 (0) 1283 554422</p> | Client Name | Waterman EED | | Water Sample Analysis | | | |
| | Contact | Mr F Alcock | | | | | Date Printed |
| | Upper Heyford | | | | Report Number | EXR/130289 | |
| | | | | | Table Number | 1 | |

Semi-Volatile Organic Compounds

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford
Sample Details: BH-NSA-14
LIMS ID Number: EX1259613
Job Number: W13_0289

Date Booked in: 13-Jan-12
Date Extracted: 20-Jan-12
Date Analysed: 20-Jan-12

Matrix: Water
Ext Method: Sep. Funnel
Operator: DMB/SO
Directory/Quant File: 20SVOC.GC1\ 0120_CCC1.D
QC Batch Number: 8
Multiplier: 0.005
Dilution Factor: 1
GPC (Y/N): N

| 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 | - |

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 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 | 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 |

Semi-Volatile Organic Compounds

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford
Sample Details: BH-NSA-14X
LIMS ID Number: EX1259614
Job Number: W13_0289

Date Booked in: 13-Jan-12
Date Extracted: 20-Jan-12
Date Analysed: 20-Jan-12

Matrix: Water
Ext Method: Sep. Funnel
Operator: DMB/SO
Directory/Quant File: 20SVOC.GC1\ 0120_CCC1.D
QC Batch Number: 8
Multiplier: 0.005
Dilution Factor: 1
GPC (Y/N): N

| 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 | - |

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 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 | 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 |

Semi-Volatile Organic Compounds

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford
Sample Details: BH-NSA-15
LIMS ID Number: EX1259615
Job Number: W13_0289

Date Booked in: 13-Jan-12
Date Extracted: 20-Jan-12
Date Analysed: 20-Jan-12

Matrix: Water
Ext Method: Sep. Funnel
Operator: DMB/SO
Directory/Quant File: 20SVOC.GC1\ 0120_CCC1.D
QC Batch Number: 8
Multiplier: 0.005
Dilution Factor: 1
GPC (Y/N): N

| 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 | - |

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 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 |

Semi-Volatile Organic Compounds

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford
Sample Details: BH-NSA-17
LIMS ID Number: EX1259616
Job Number: W13_0289

Date Booked in: 13-Jan-12
Date Extracted: 20-Jan-12
Date Analysed: 20-Jan-12

Matrix: Water
Ext Method: Sep. Funnel
Operator: DMB/SO
Directory/Quant File: 20SVOC.GC1\ 0120_CCC1.D
QC Batch Number: 8
Multiplier: 0.005
Dilution Factor: 1
GPC (Y/N): N

| 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 | - |

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 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 | 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 |

Semi-Volatile Organic Compounds

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford
Sample Details: BH-NSA-18
LIMS ID Number: EX1259617
Job Number: W13_0289

Date Booked in: 13-Jan-12
Date Extracted: 20-Jan-12
Date Analysed: 20-Jan-12

Matrix: Water
Ext Method: Sep. Funnel
Operator: DMB/SO
Directory/Quant File: 20SVOC.GC1\ 0120_CCC1.D
QC Batch Number: 8
Multiplier: 0.005
Dilution Factor: 1
GPC (Y/N): N

| 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 | - |

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 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 | 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 |

Semi-Volatile Organic Compounds

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford
Sample Details: BH-NSA-19
LIMS ID Number: EX1259618
Job Number: W13_0289

Date Booked in: 13-Jan-12
Date Extracted: 20-Jan-12
Date Analysed: 20-Jan-12

Matrix: Water
Ext Method: Sep. Funnel
Operator: DMB/SO
Directory/Quant File: 20SVOC.GC1\ 0120_CCC1.D
QC Batch Number: 8
Multiplier: 0.005
Dilution Factor: 1
GPC (Y/N): N

| 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 | - |

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 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 | 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 |

Semi-Volatile Organic Compounds

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford
Sample Details: BH-NSA-20
LIMS ID Number: EX1259619
Job Number: W13_0289

Date Booked in: 13-Jan-12
Date Extracted: 20-Jan-12
Date Analysed: 20-Jan-12

Matrix: Water
Ext Method: Sep. Funnel
Operator: DMB/SO
Directory/Quant File: 20SVOC.GC1\ 0120_CCC1.D

QC Batch Number: 8
Multiplier: 0.005
Dilution Factor: 1
GPC (Y/N) N

| 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 | - |

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 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 | 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 |

Semi-Volatile Organic Compounds

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford
Sample Details: BH-NSA-21
LIMS ID Number: EX1259620
Job Number: W13_0289

Date Booked in: 13-Jan-12
Date Extracted: 20-Jan-12
Date Analysed: 20-Jan-12

Matrix: Water
Ext Method: Sep. Funnel
Operator: DMB/SO
Directory/Quant File: 20SVOC.GC1\ 0120_CCC1.D
QC Batch Number: 8
Multiplier: 0.005
Dilution Factor: 1
GPC (Y/N): N

| 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 | - |

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 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 | 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 |

Semi-Volatile Organic Compounds

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford
Sample Details: BH-NSA-22
LIMS ID Number: EX1259621
Job Number: W13_0289

Date Booked in: 13-Jan-12
Date Extracted: 20-Jan-12
Date Analysed: 20-Jan-12

Matrix: Water
Ext Method: Sep. Funnel
Operator: DMB/SO
Directory/Quant File: 20SVOC.GC1\ 0120_CCC1.D

QC Batch Number: 8
Multiplier: 0.005
Dilution Factor: 1
GPC (Y/N): N

| 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 | - |

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 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 | 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 |

Semi-Volatile Organic Compounds

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford
Sample Details: BH-NSA-MW1
LIMS ID Number: EX1259622
Job Number: W13_0289

Date Booked in: 13-Jan-12
Date Extracted: 20-Jan-12
Date Analysed: 20-Jan-12

Matrix: Water
Ext Method: Sep. Funnel
Operator: DMB/SO
Directory/Quant File: 20SVOC.GC1\ 0120_CCC1.D
QC Batch Number: 8
Multiplier: 0.005
Dilution Factor: 1
GPC (Y/N): N

| 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 | - |

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 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 | 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 |

Semi-Volatile Organic Compounds

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford
Sample Details: BH-NSA-HPD1
LIMS ID Number: EX1259623
Job Number: W13_0289

Date Booked in: 13-Jan-12
Date Extracted: 20-Jan-12
Date Analysed: 20-Jan-12

Matrix: Water
Ext Method: Sep. Funnel
Operator: DMB/SO
Directory/Quant File: 20SVOC.GC1\ 0120_CCC1.D
QC Batch Number: 8
Multiplier: 0.005
Dilution Factor: 1
GPC (Y/N): N

| 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 | - |

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 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 | 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 |

Gasoline Range Organics (BTEX and Aliphatic Carbon Ranges)

Customer and Site Details: Waterman EED : Upper Heyford
Job Number: W13_0289
Directory: 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, 23:4

* Sample data with an asterisk are not UKAS accredited.

| Sample ID | Client ID | Concentration, (mg/l) | | | | | Aliphatics | | | | |
|-------------|-------------|-----------------------|---------|---------------|------------|----------|------------|----------|----------|-----------|-----------|
| | | 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 |
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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

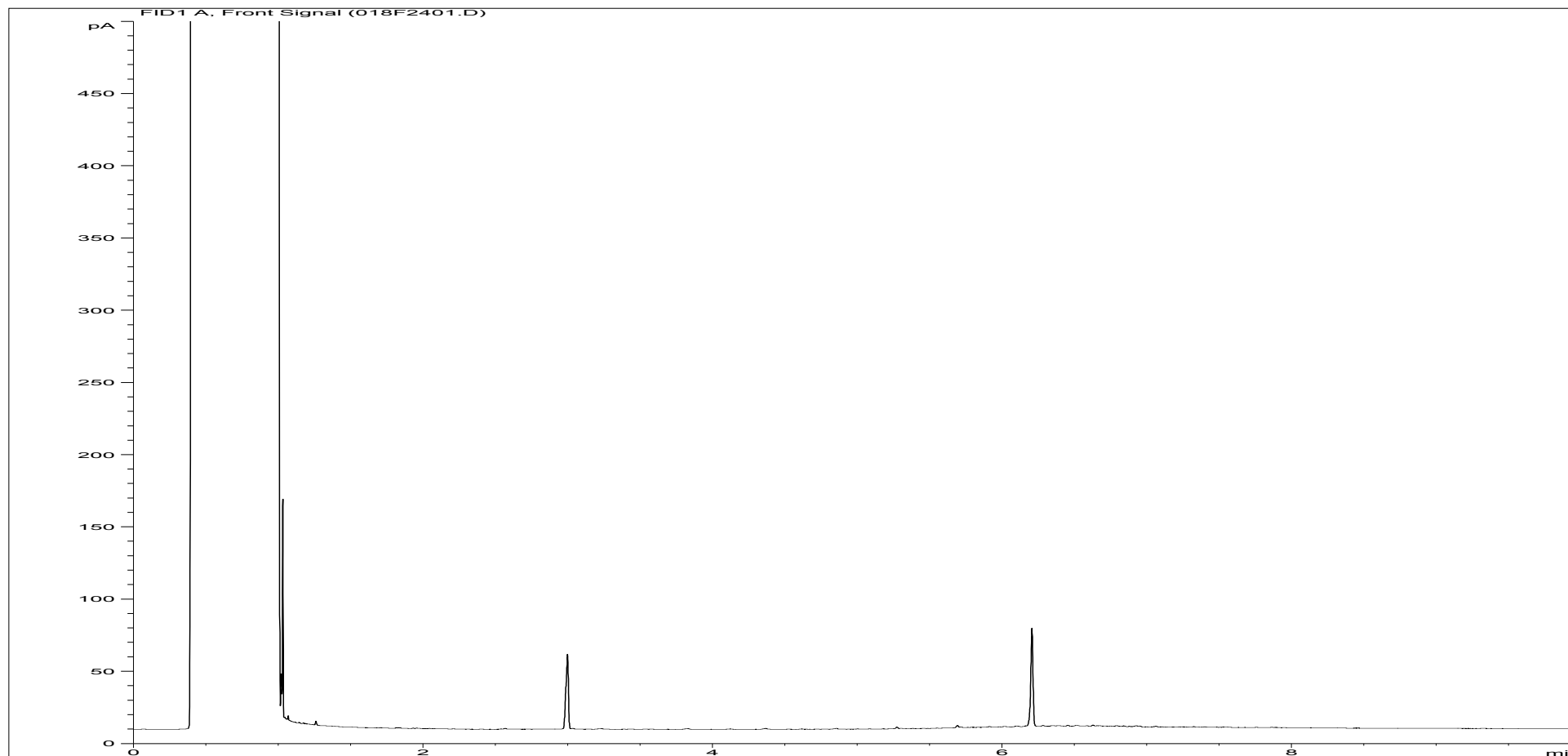
Customer and Site Details: Waterman EED : Upper Heyford
Job Number: W13_0289
QC Batch Number: 120035
Directory: D:\TES\DATA\Y2012\012012TPH_GC15\012012 2012-01-20 08-42-21\078B3401.D
Method: Bottle

Matrix: Water
Date Booked in: 13-Jan-12
Date Extracted: 19-Jan-12
Date Analysed: 20-Jan-12, 18:07:51

| | | Concentration, (mg/l) | | | | | | | | | | | |
|-----------|-------------|-----------------------|-----------|------------|-----------|------------|-----------|------------|-----------|------------|-----------|------------|-----------|
| | | >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 |
| 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 |
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* This sample data is not UKAS accredited.

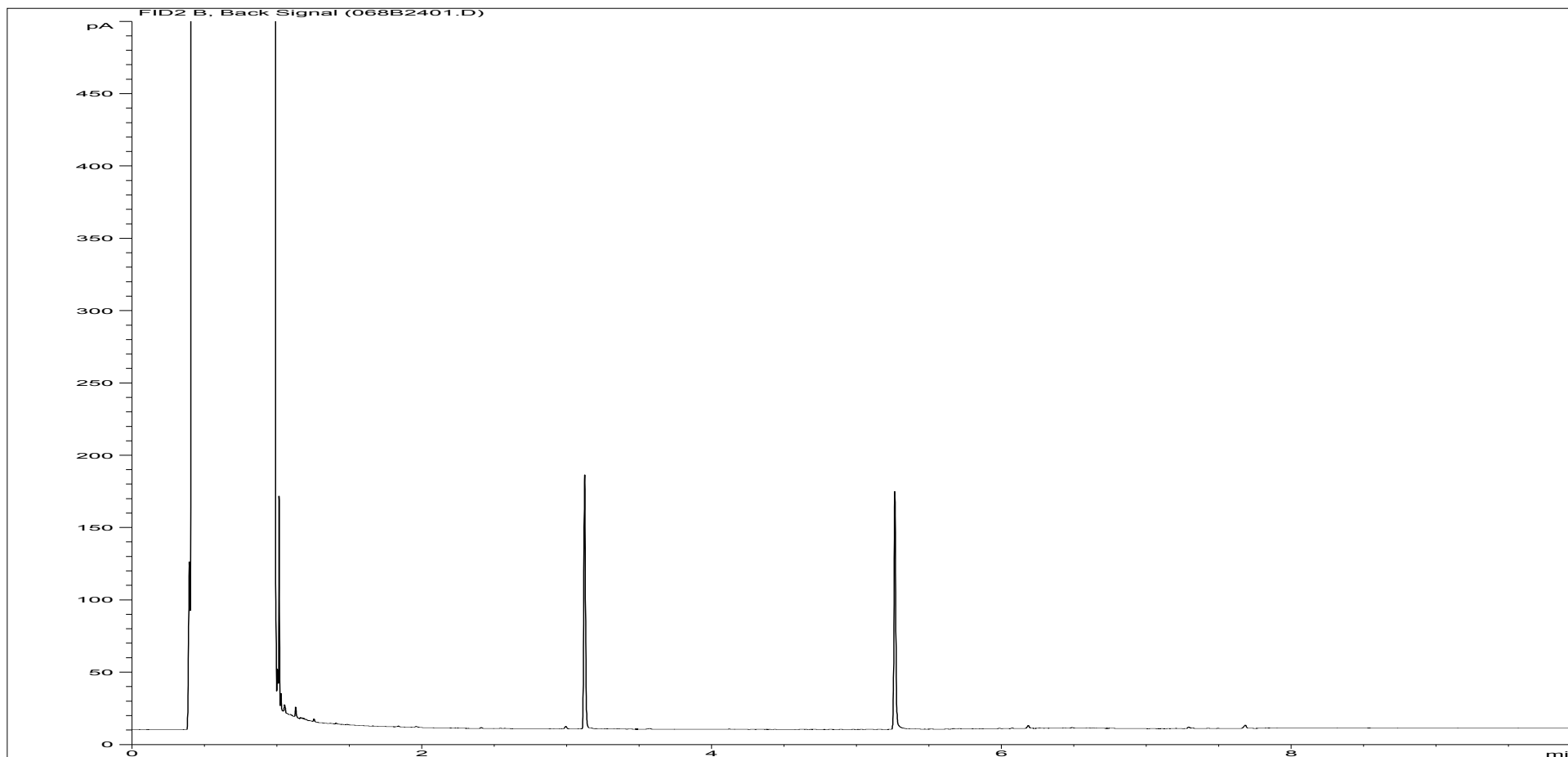
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1259613ALI | Job Number: | W13_0289 |
| Multiplier: | 0.02 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

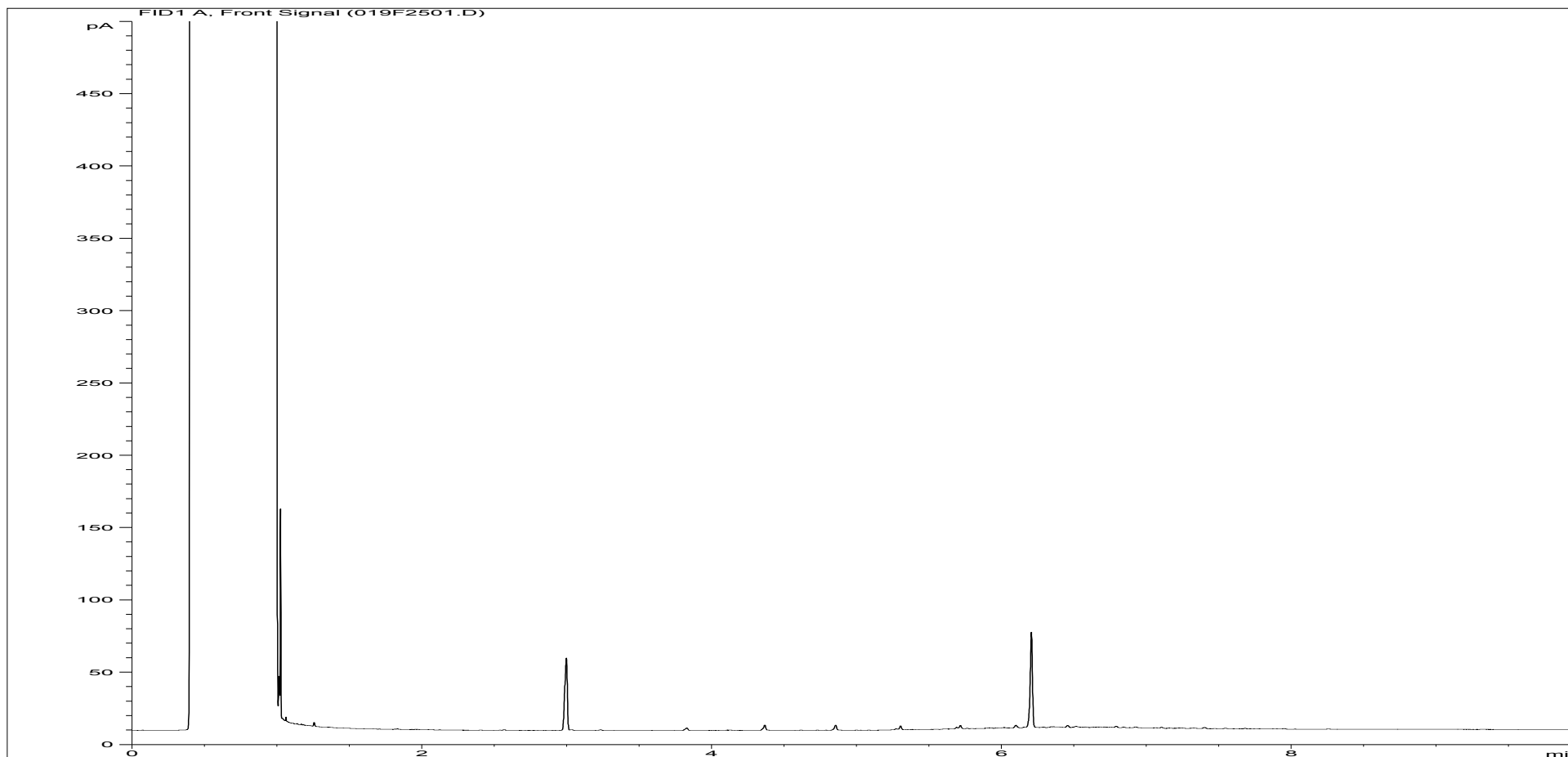
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1259613ARO | Job Number: | W13_0289 |
| Multiplier: | 0.015 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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\068B2401.D | | |

Where individual results are flagged see report notes for status.

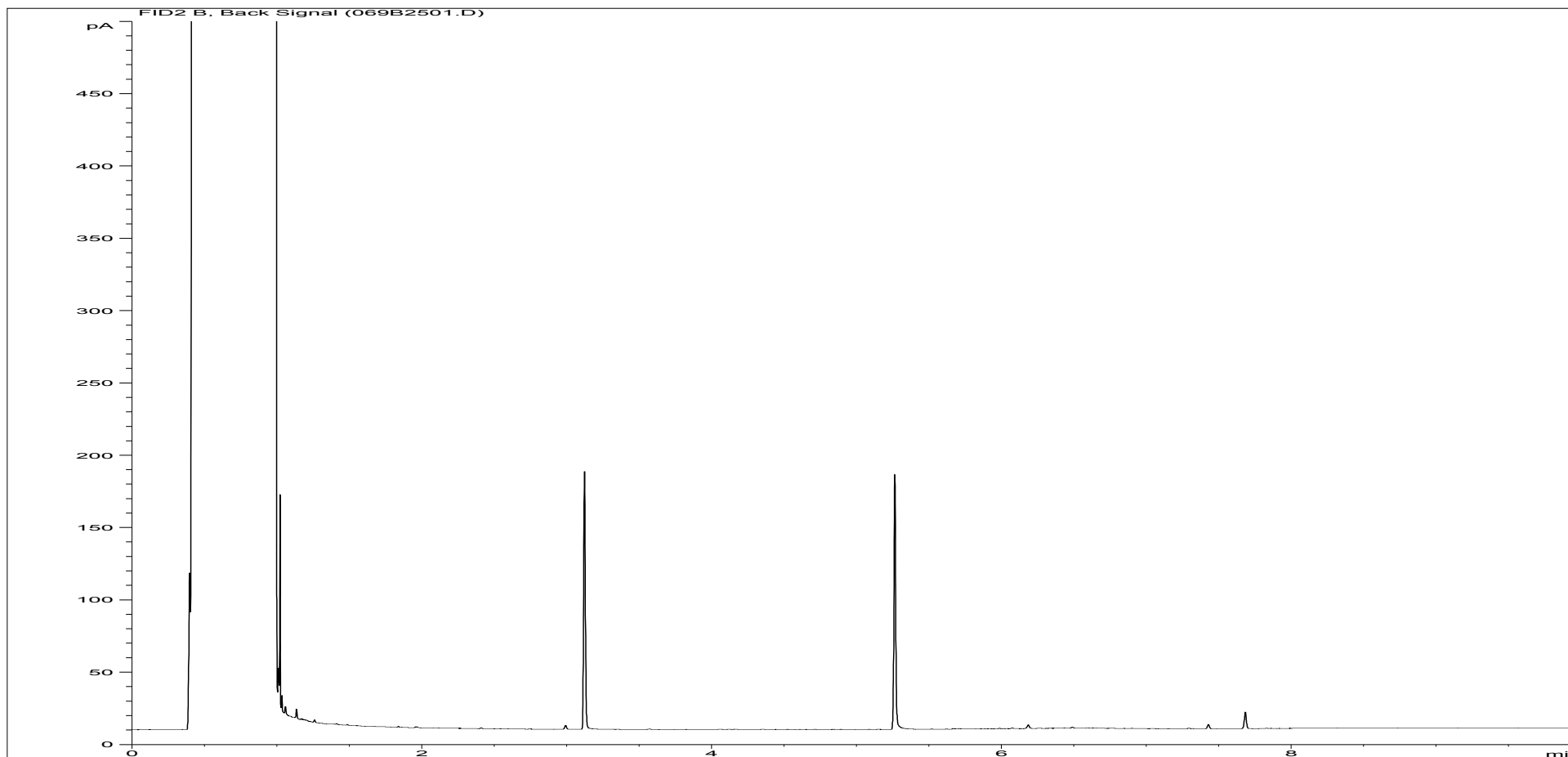
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1259614ALI | Job Number: | W13_0289 |
| Multiplier: | 0.02 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

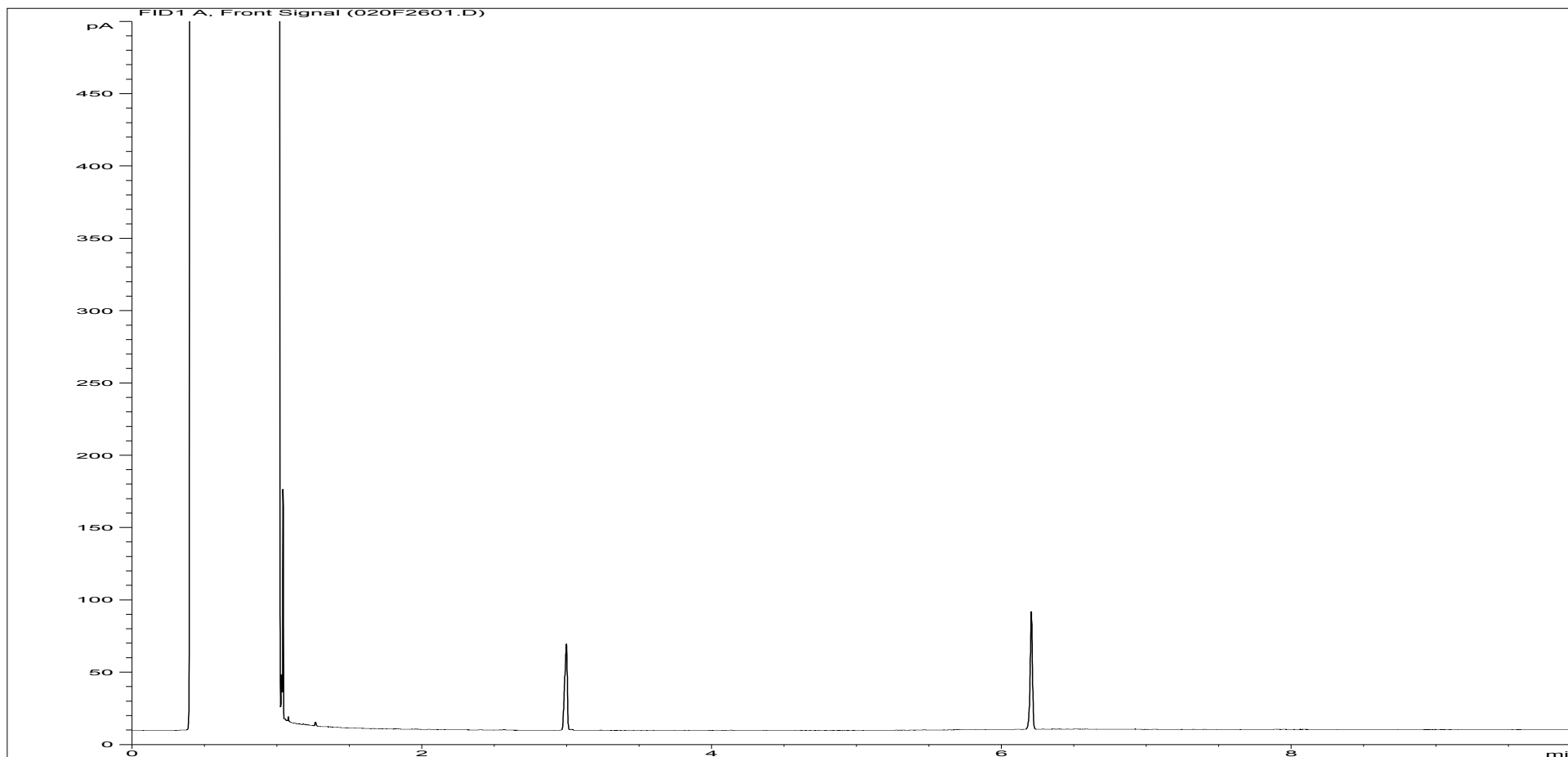
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1259614ARO | Job Number: | W13_0289 |
| Multiplier: | 0.015 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

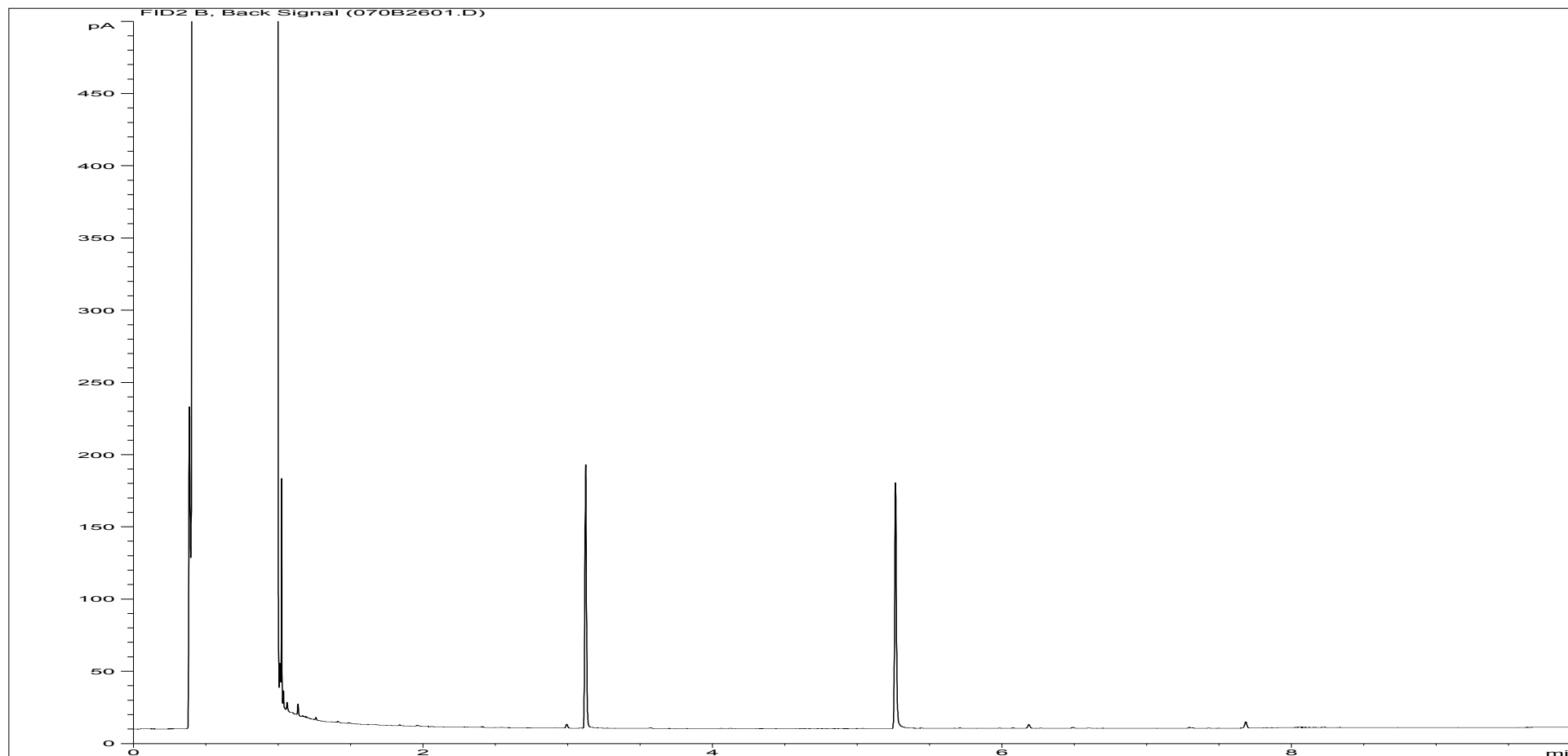
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1259615ALI | Job Number: | W13_0289 |
| Multiplier: | 0.02 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

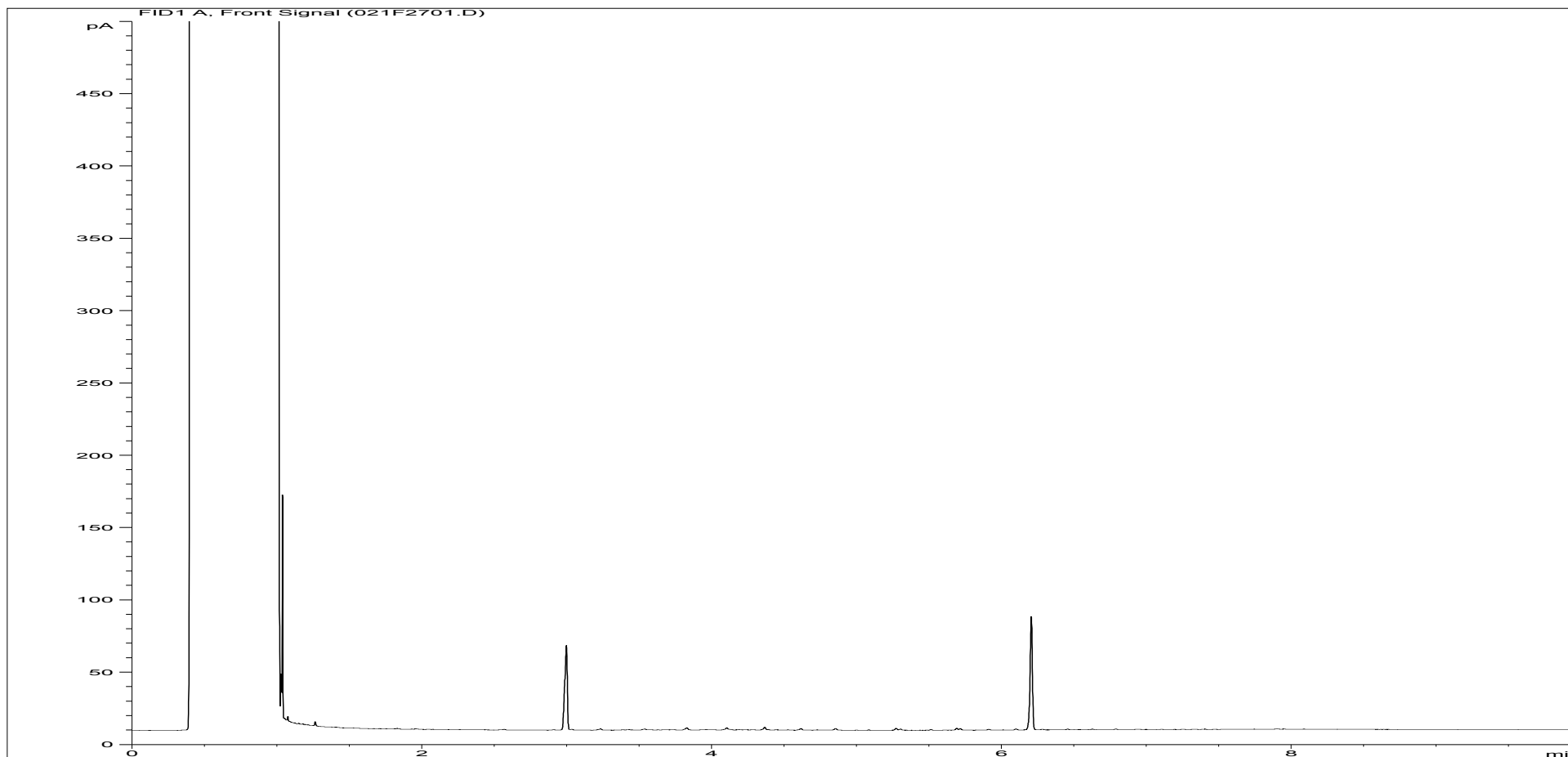
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1259615ARO | Job Number: | W13_0289 |
| Multiplier: | 0.016 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

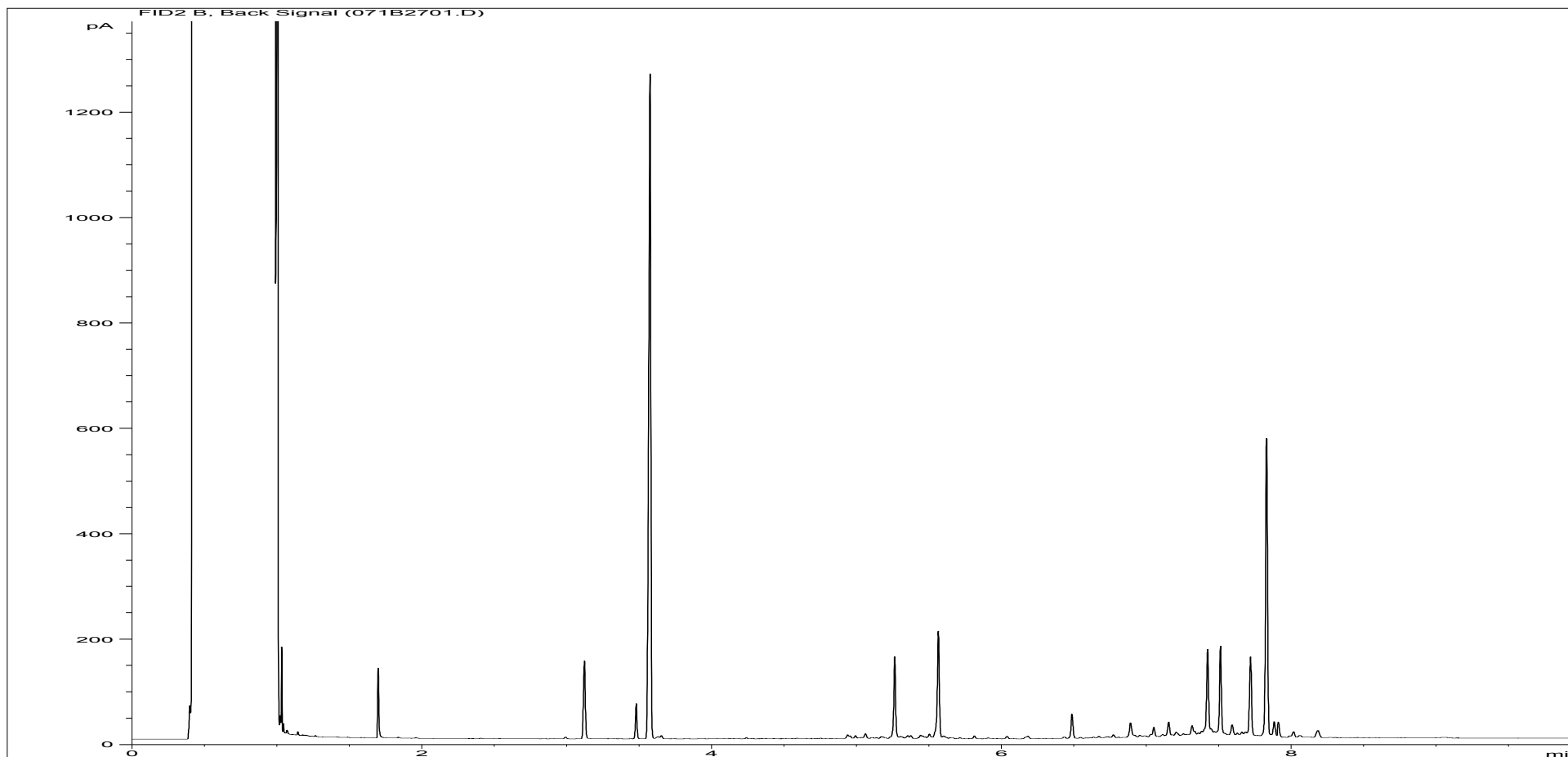
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1259616ALI | Job Number: | W13_0289 |
| Multiplier: | 0.02 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

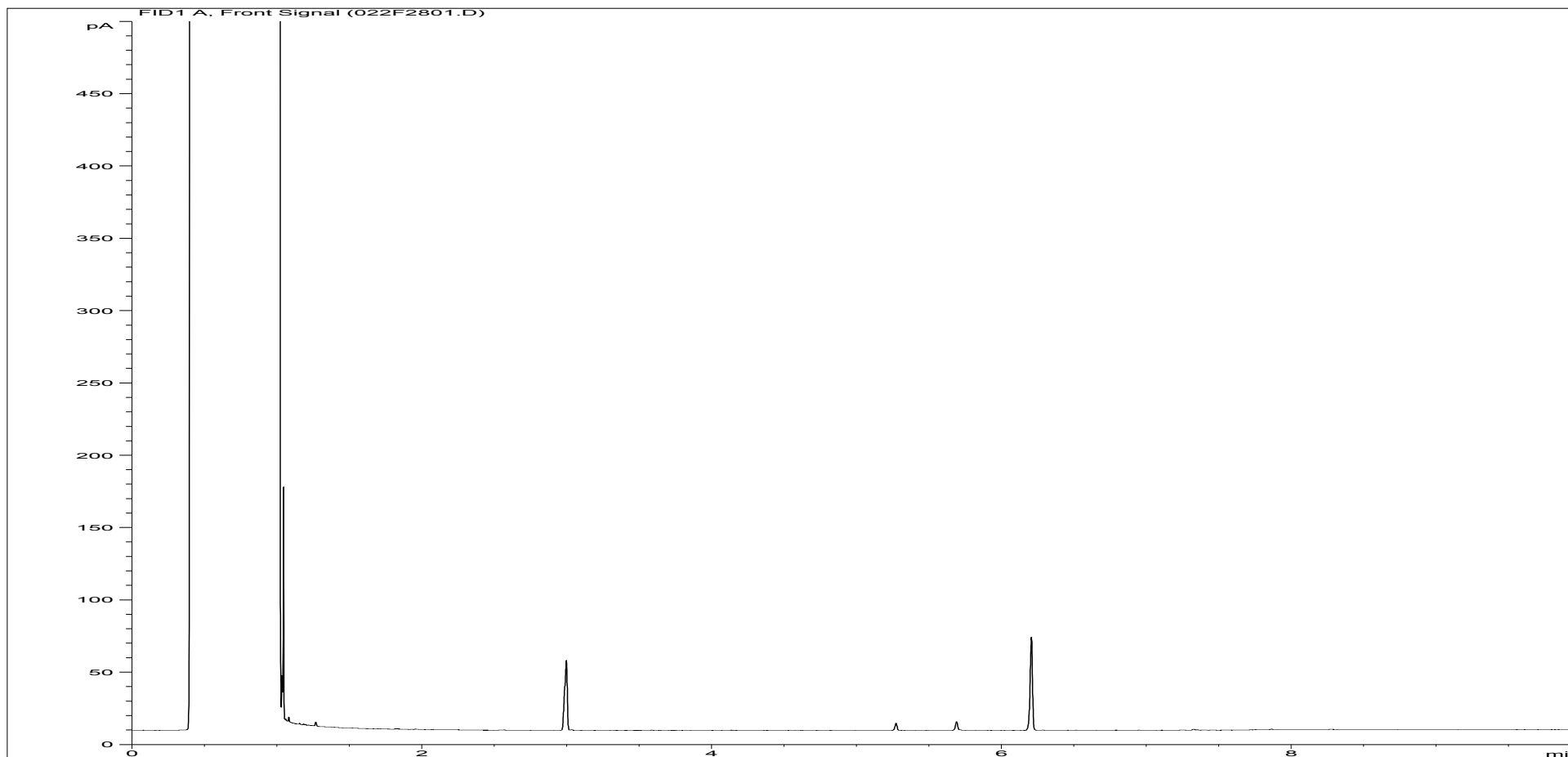
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1259616ARO | Job Number: | W13_0289 |
| Multiplier: | 0.015 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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\071B2701.D | | |

Where individual results are flagged see report notes for status.

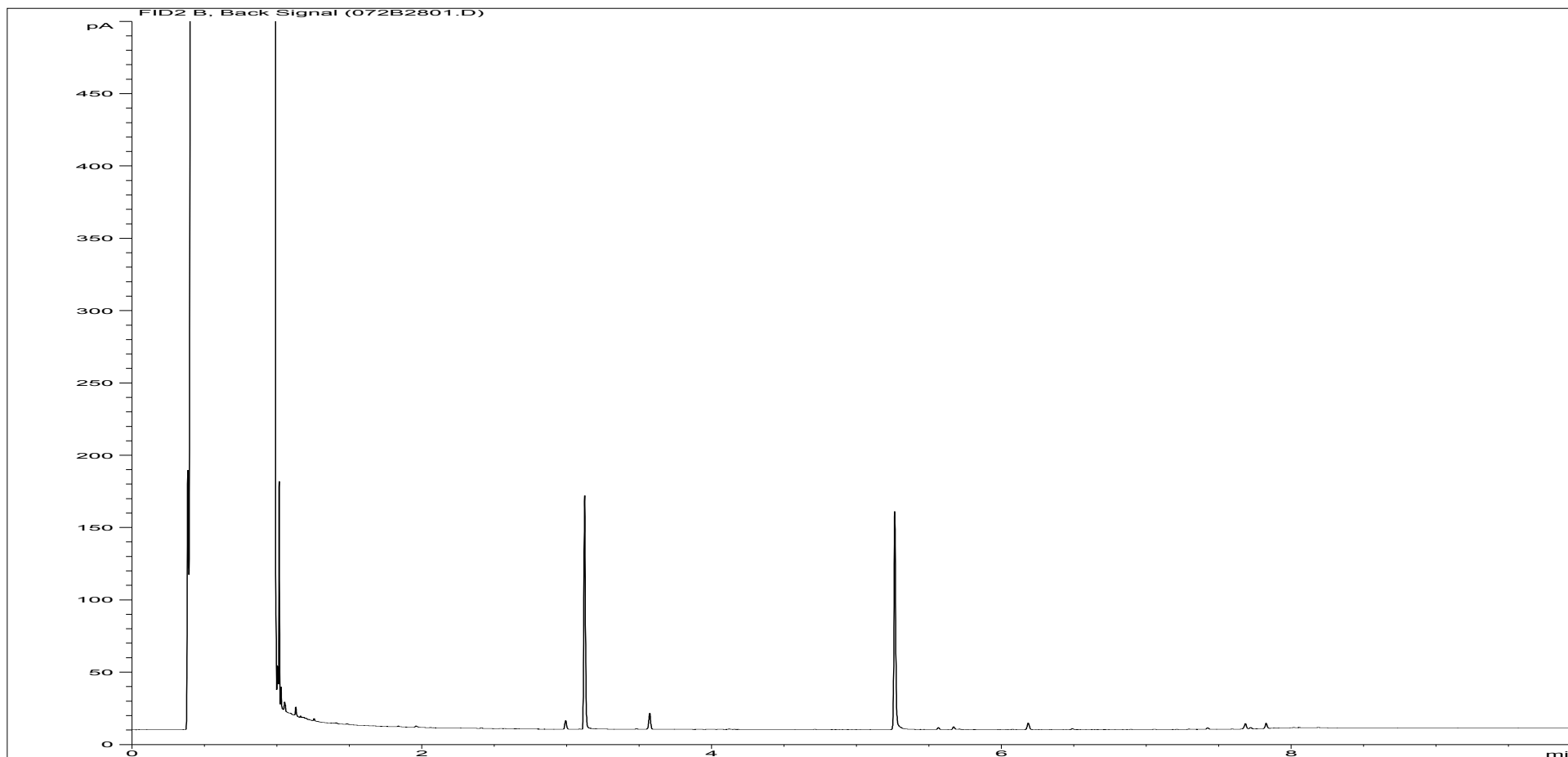
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1259617ALI | Job Number: | W13_0289 |
| Multiplier: | 0.02 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

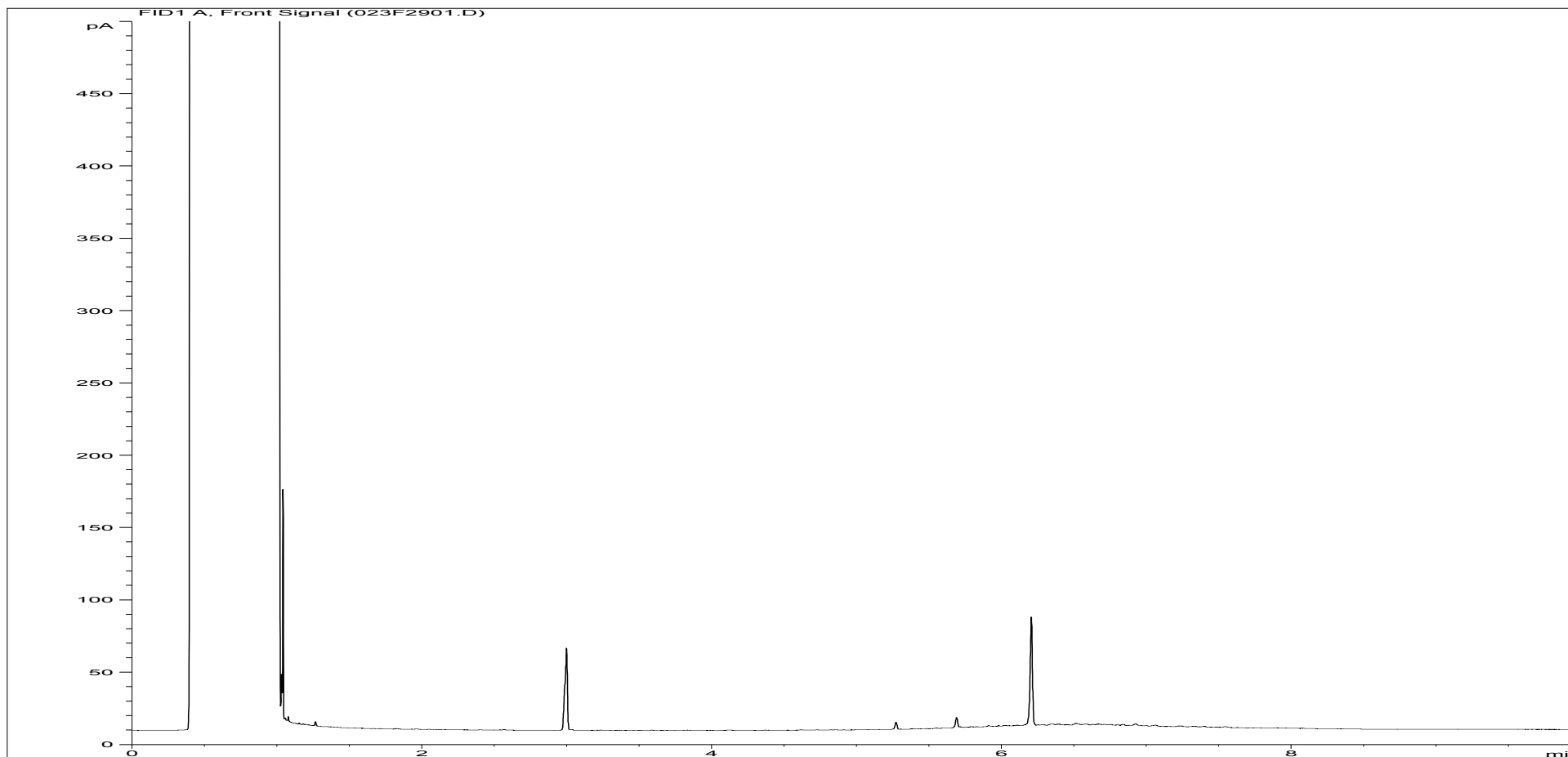
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1259617ARO | Job Number: | W13_0289 |
| Multiplier: | 0.015 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

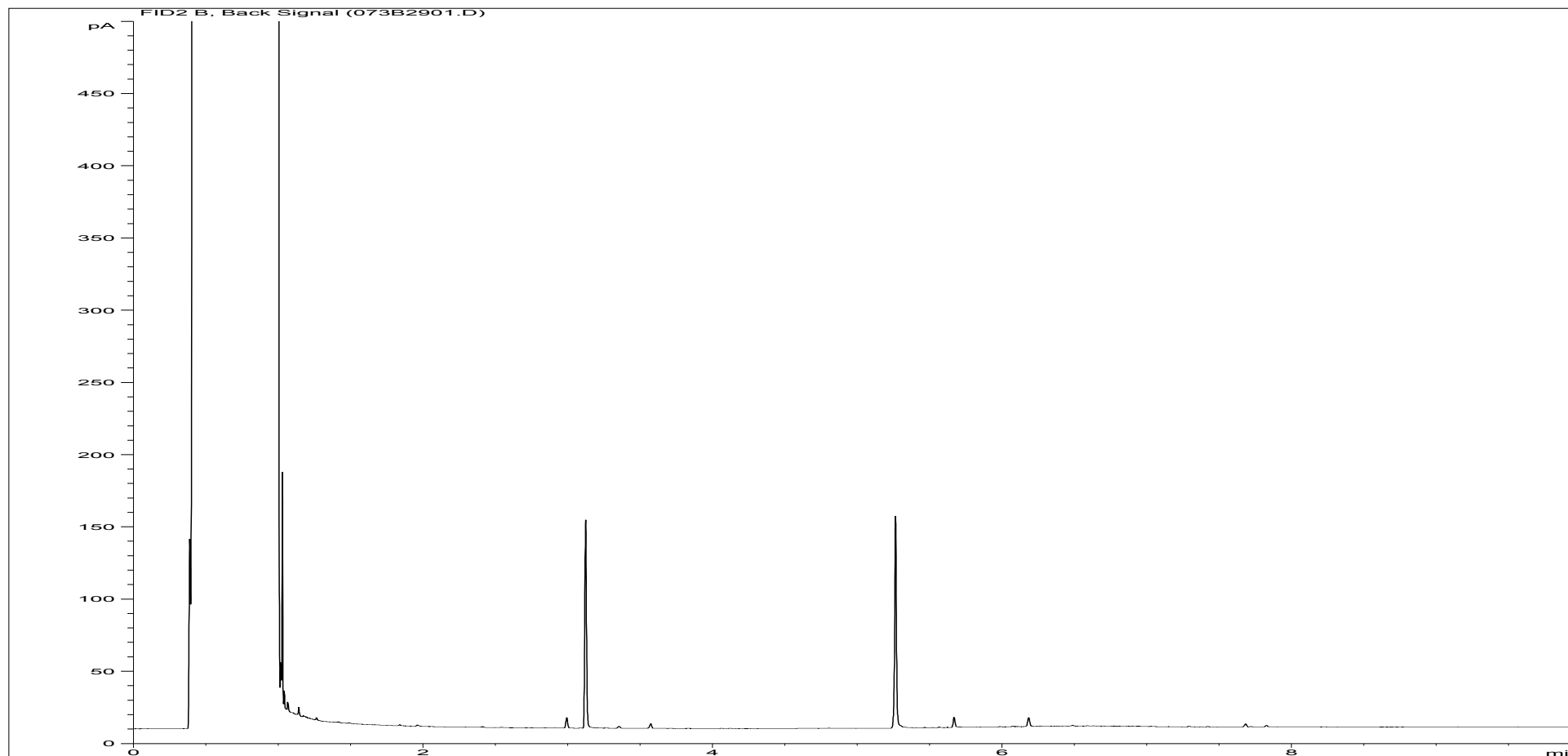
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1259618ALI | Job Number: | W13_0289 |
| Multiplier: | 0.02 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

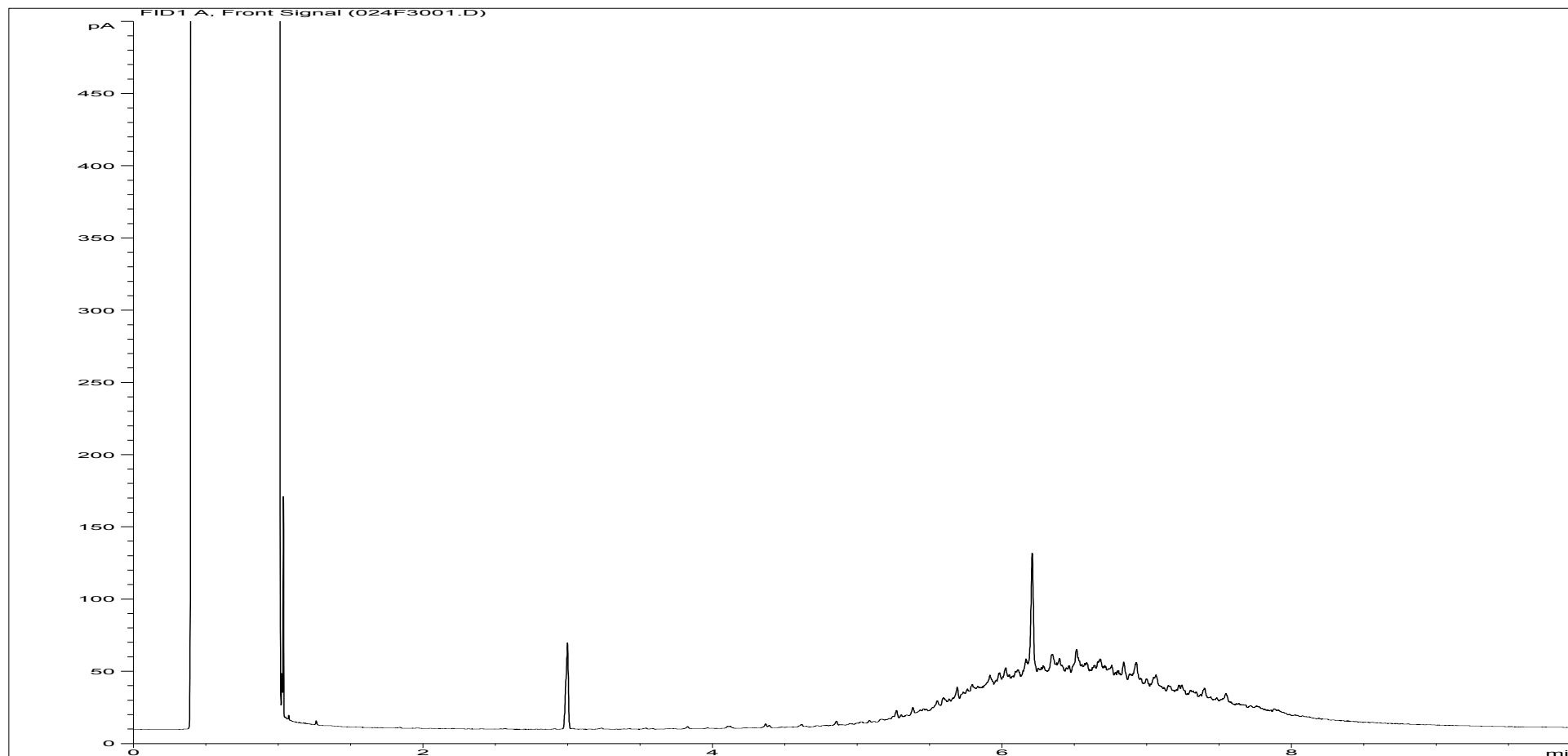
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1259618ARO | Job Number: | W13_0289 |
| Multiplier: | 0.015 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

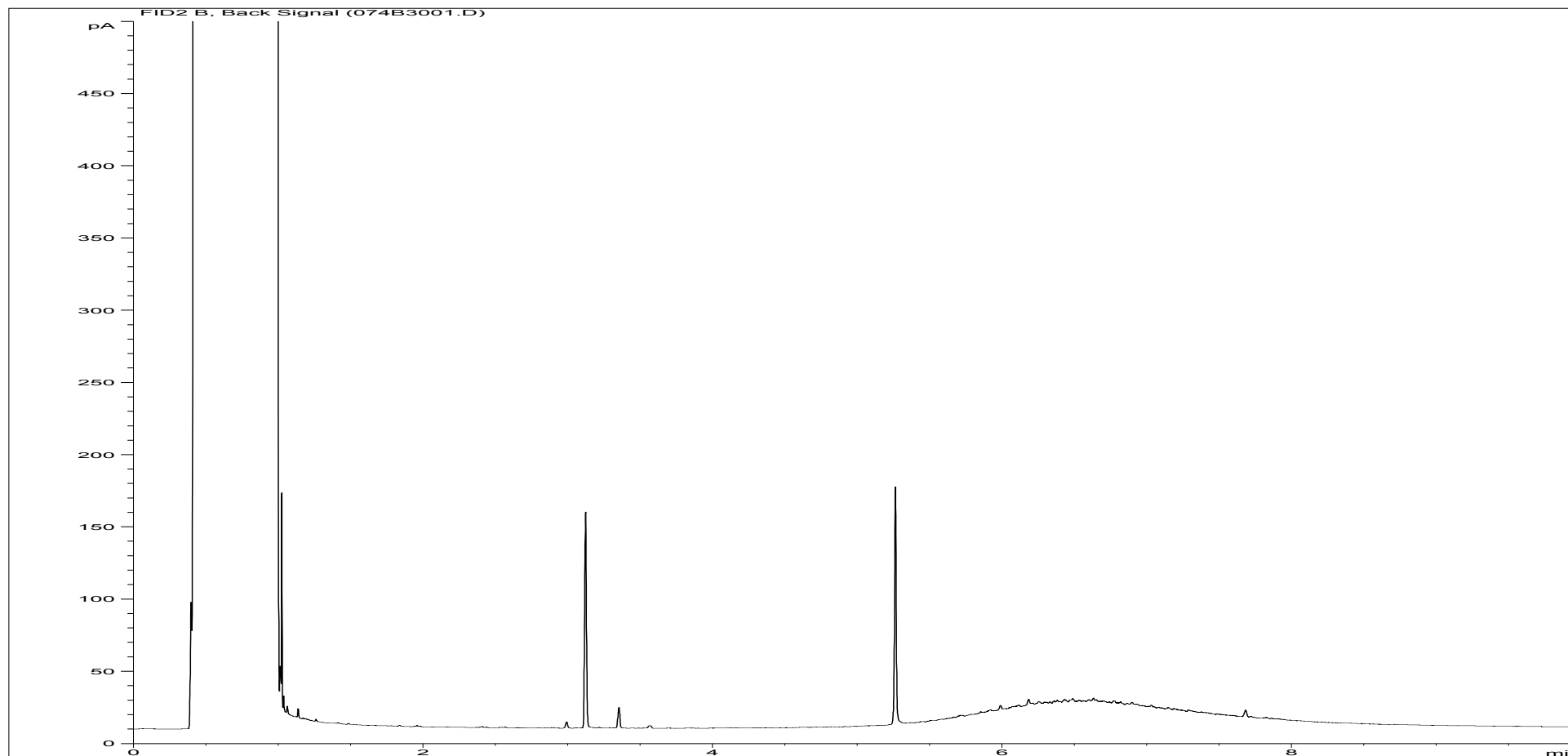
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1259619ALI | Job Number: | W13_0289 |
| Multiplier: | 0.02 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

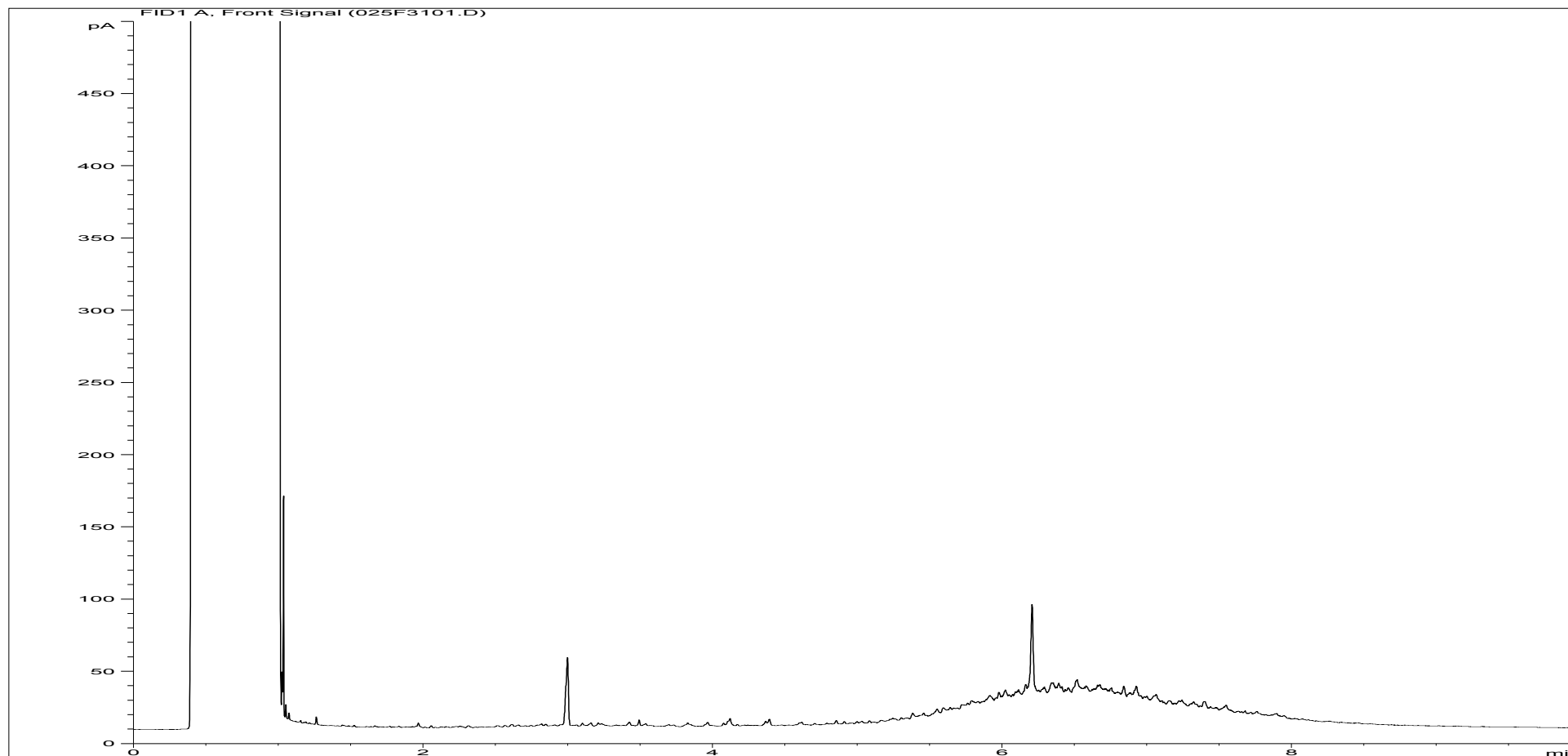
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1259619ARO | Job Number: | W13_0289 |
| Multiplier: | 0.015 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

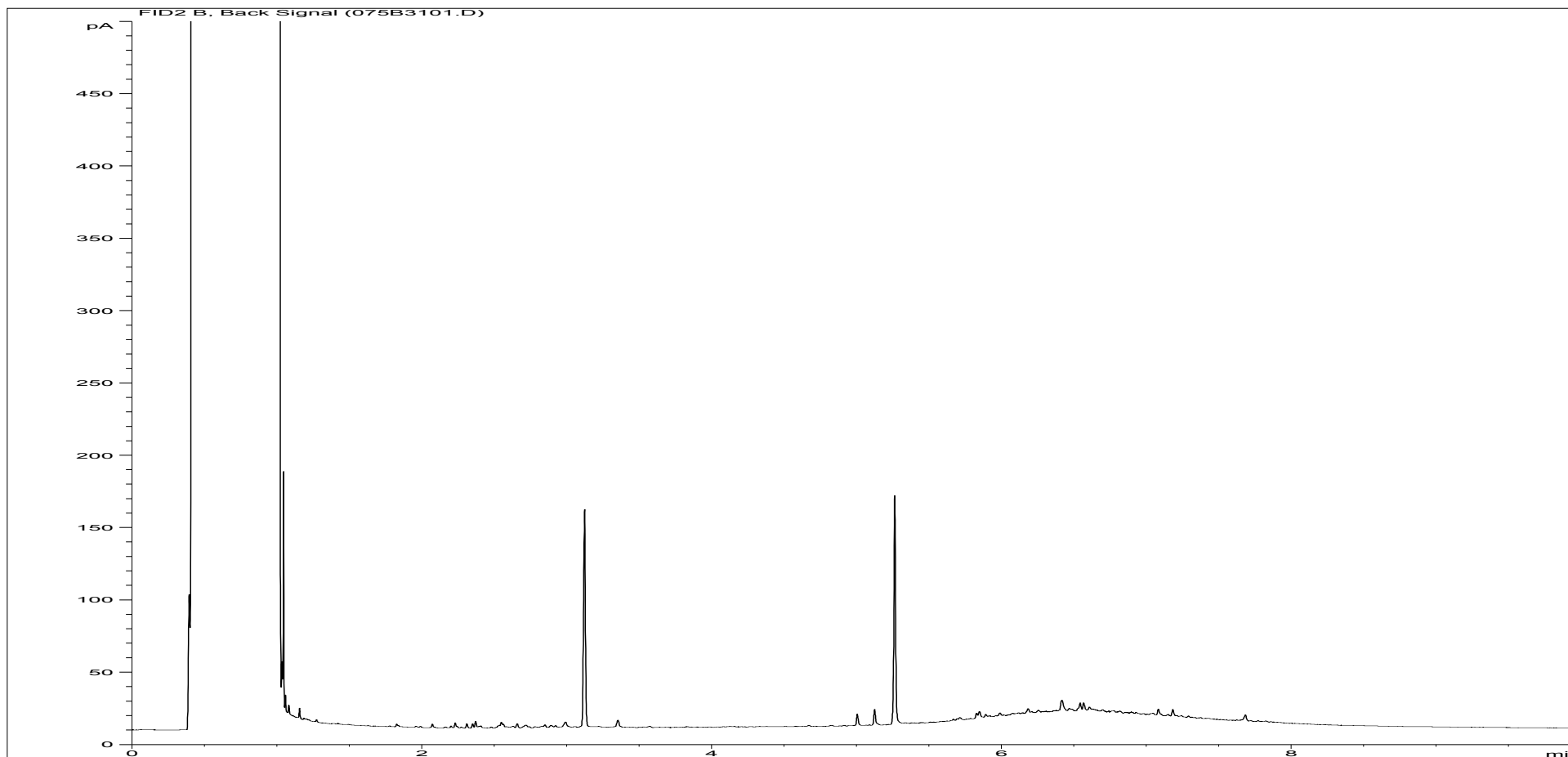
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1259620ALI | Job Number: | W13_0289 |
| Multiplier: | 0.02 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

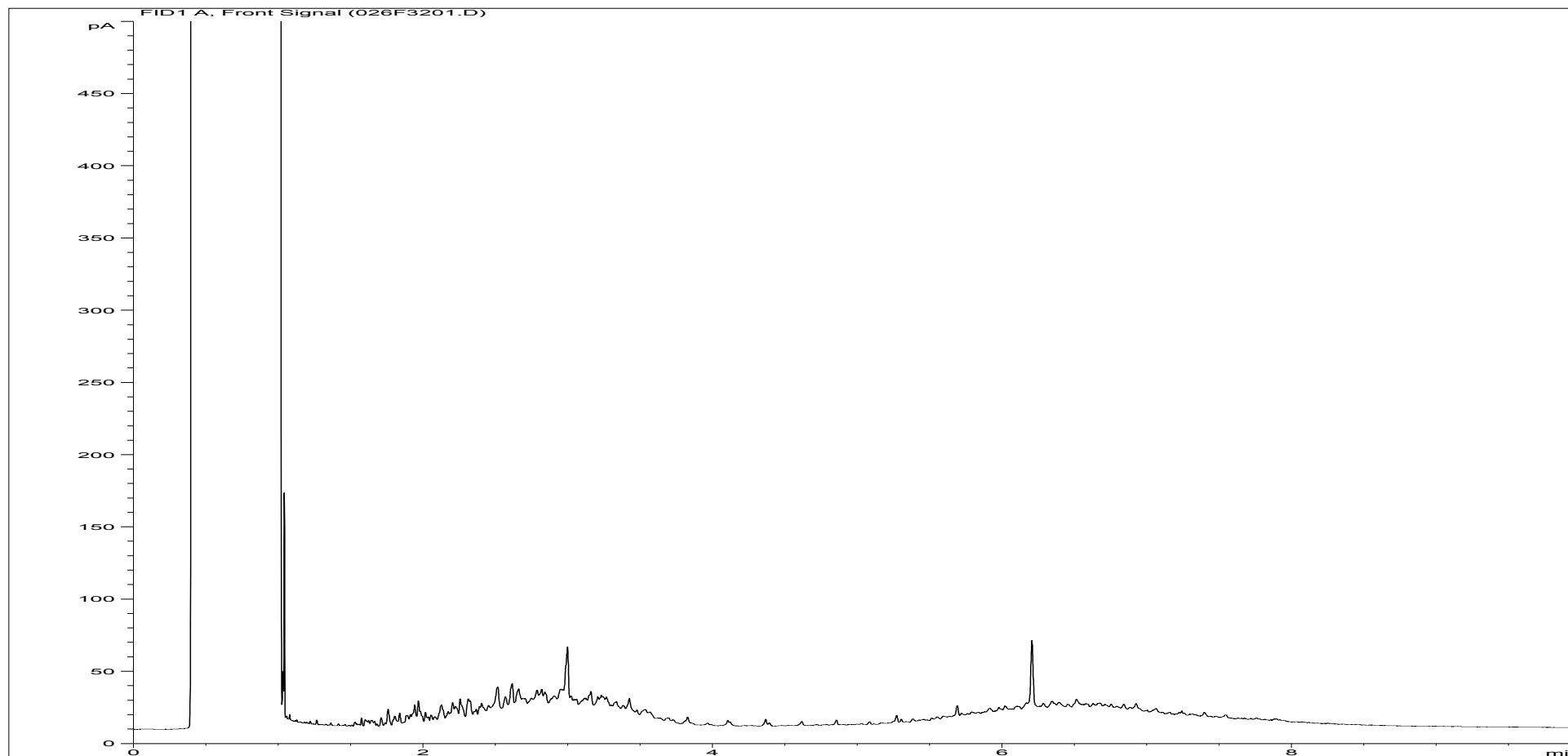
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1259620ARO | Job Number: | W13_0289 |
| Multiplier: | 0.015 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

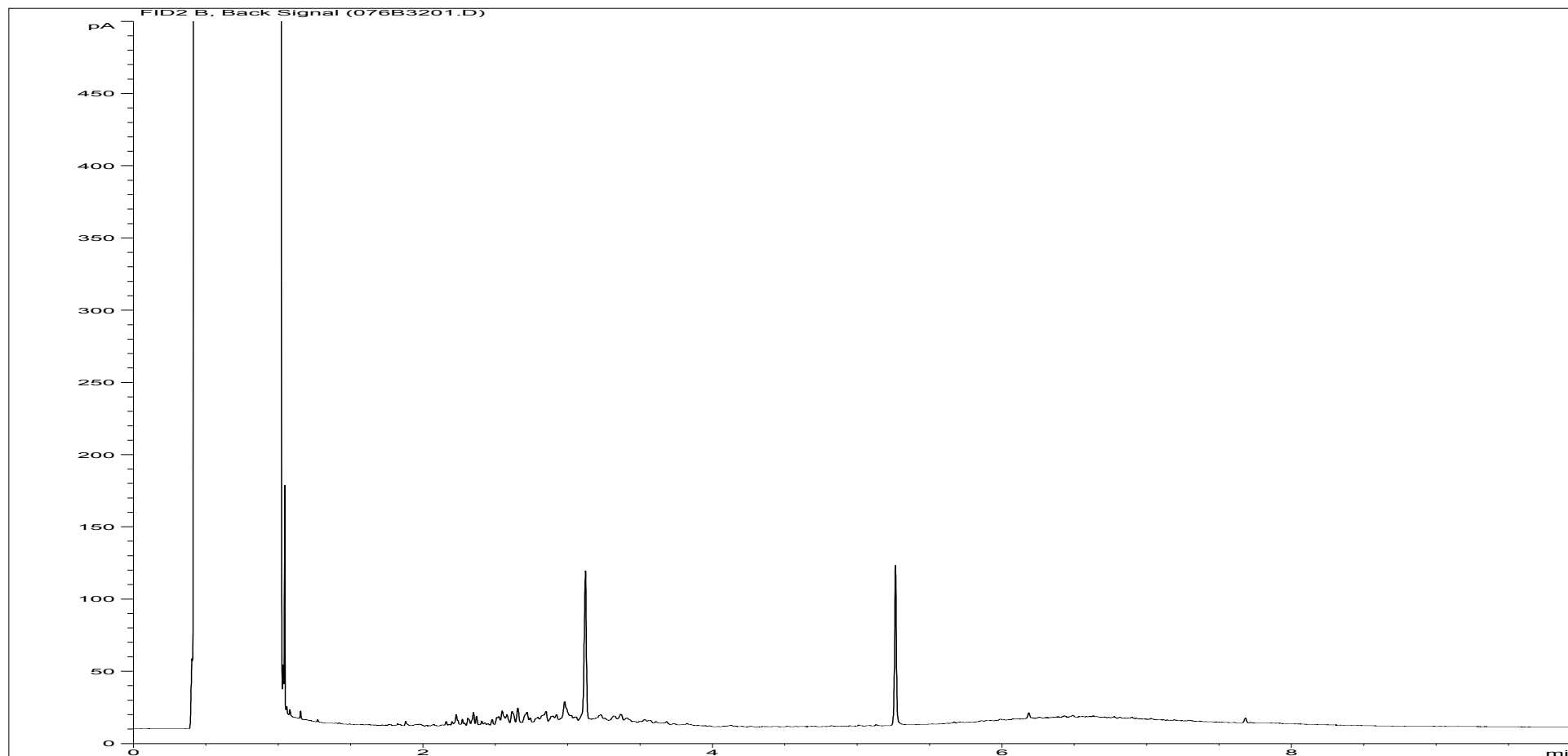
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1259621ALI | Job Number: | W13_0289 |
| Multiplier: | 0.02 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

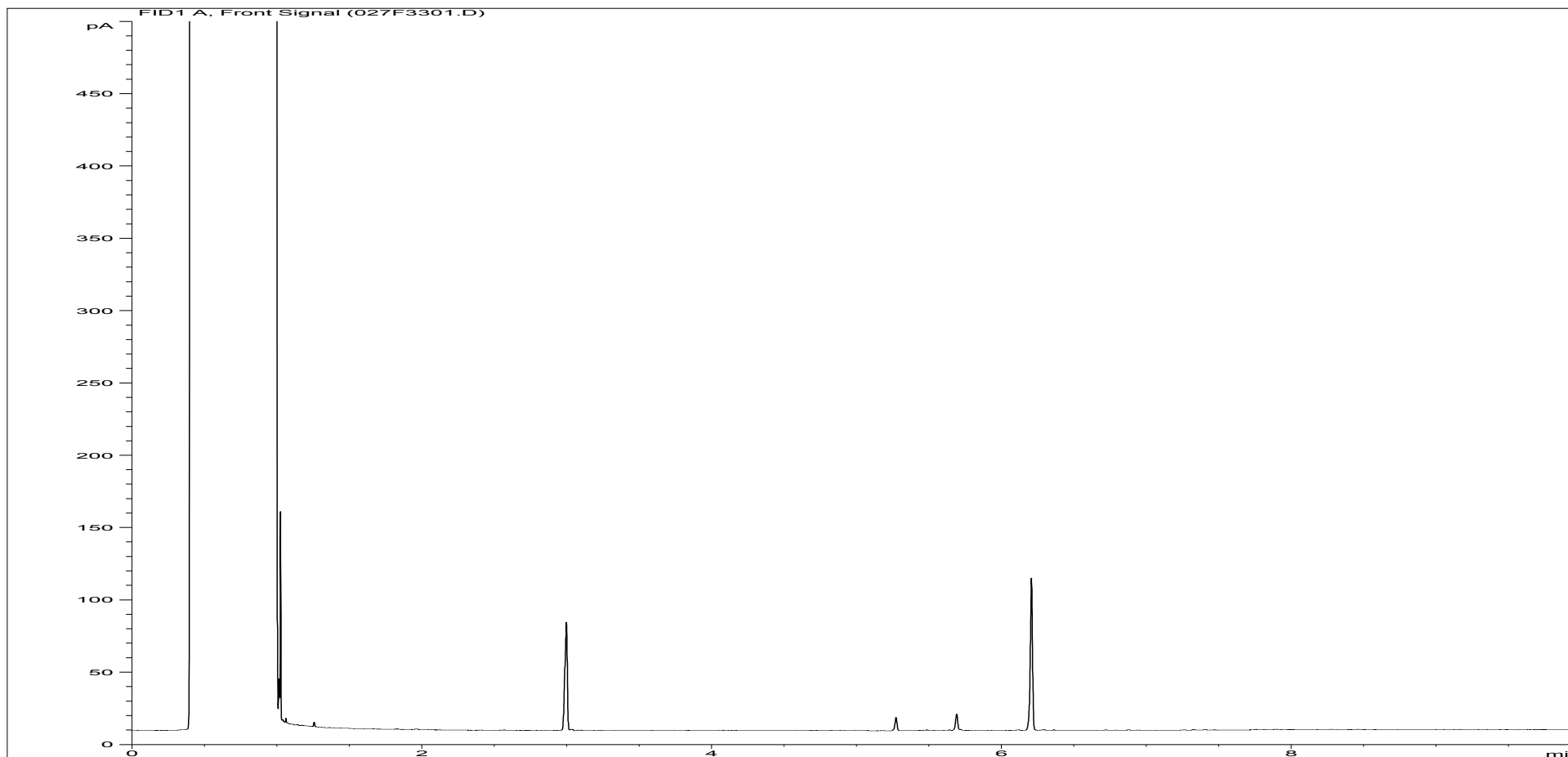
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1259621ARO | Job Number: | W13_0289 |
| Multiplier: | 0.015 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client Sample Ref: | BH-NSA-22 |
| Acquisition Date/Time: | 20-Jan-12, 17:33:19 | | |
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Where individual results are flagged see report notes for status.

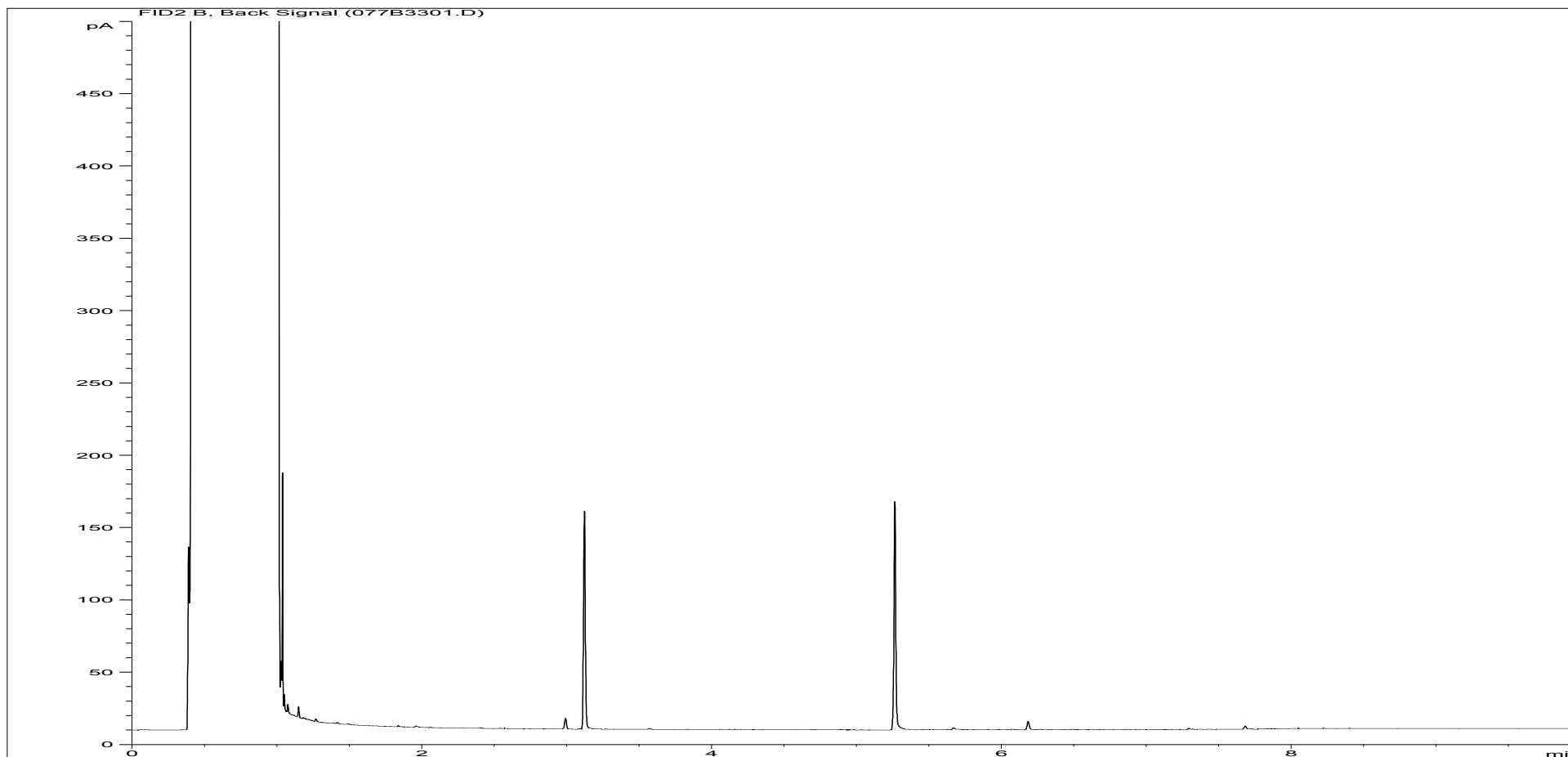
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1259622ALI | Job Number: | W13_0289 |
| Multiplier: | 0.02 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

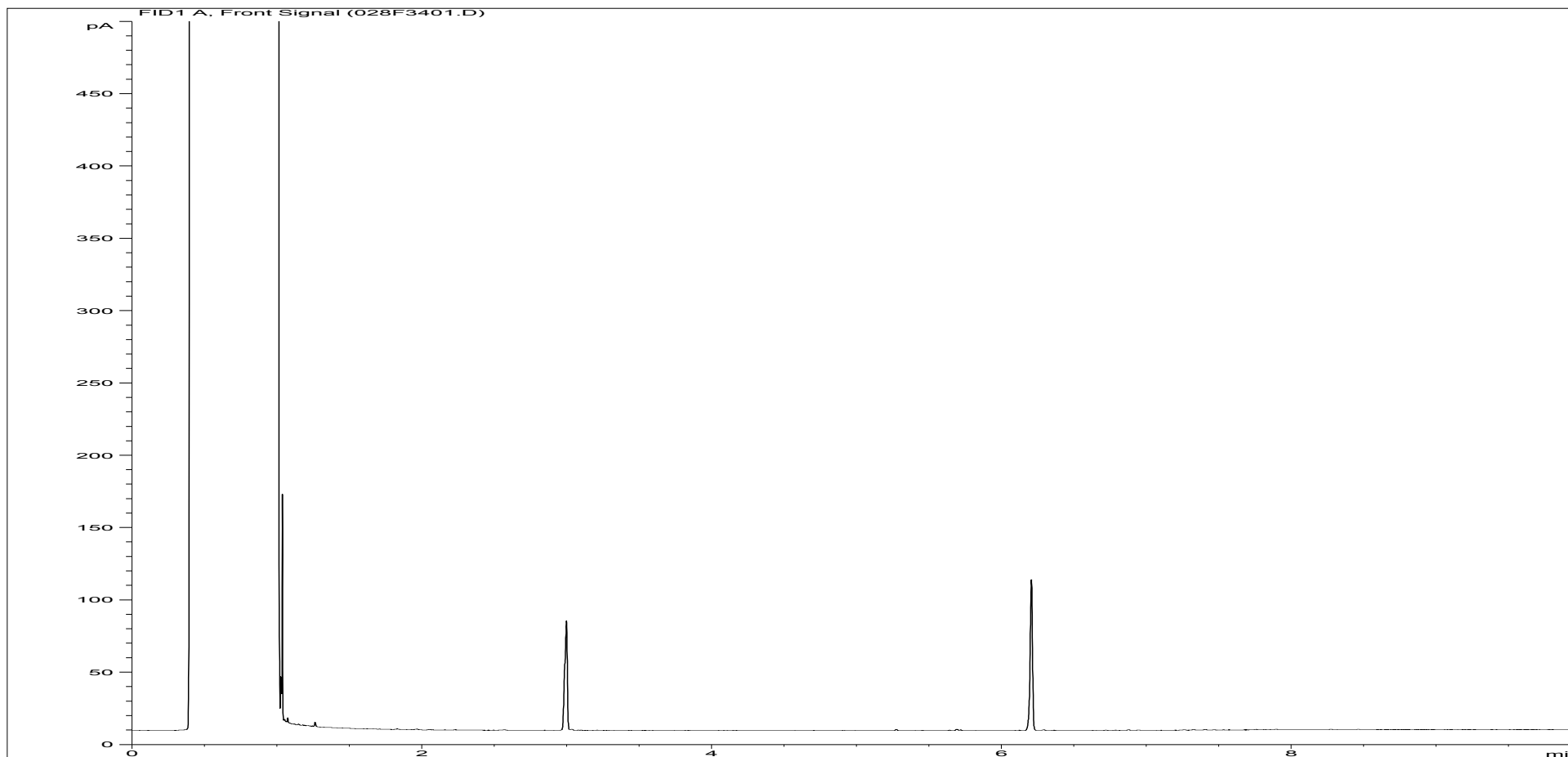
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1259622ARO | Job Number: | W13_0289 |
| Multiplier: | 0.016 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

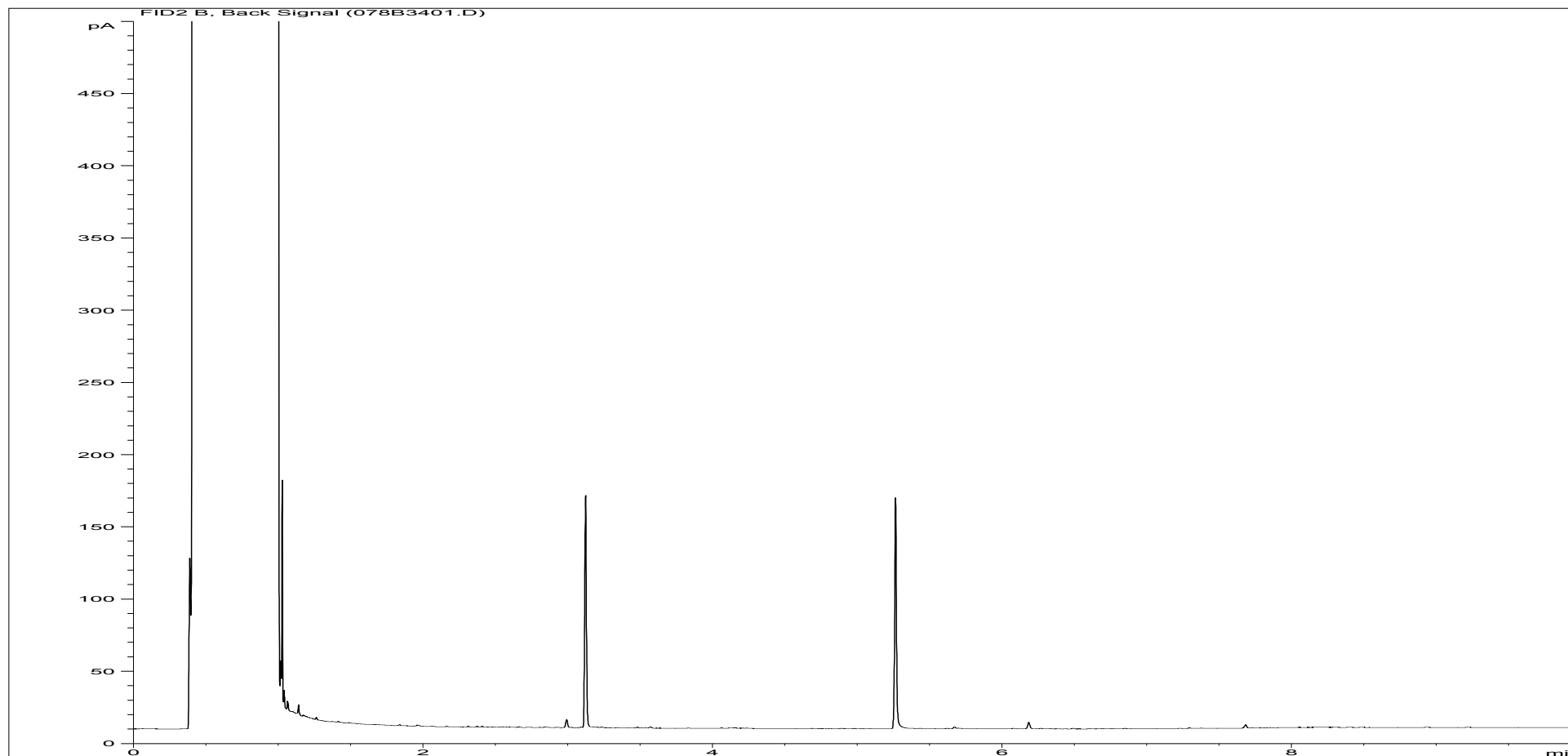
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1259623ALI | Job Number: | W13_0289 |
| Multiplier: | 0.02 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1259623ARO | Job Number: | W13_0289 |
| Multiplier: | 0.015 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

Customer Waterman EED
Site Upper Heyford
Report No W130289

Consignment No W32586
Date Logged 13-Jan-2012
Chain of Custody 618613
Report Due 23-Jan-2012

| ID Number | Description | MethodID | CURSERV Report A | GROHSA GRO-HSA GC/FID (AA) | ICPMSW | | | | | | | | | | ICPMA/VAR | | | | | KONENS | | | | | PHEHR/CUL | SVOC SW | TPH/FID-SI | W/SLM1 | W/SLM2 | | | | | |
|------------|-------------|----------|---------------------|-------------------------------|------------------------|---|---|---|---|---|---|---|---|---|-----------|---|---|---|---|--------|---|---|---|---|-----------|---------|------------|--------|--------|---|---|---|---|--|
| | | | | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | |
| | | | | | 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 | |
|---|--|
| A | The sample was received in an inappropriate container for this analysis |
| B | The sample was received without the correct preservation for this analysis |
| C | Headspace present in the sample container |
| D | The sampling date was not supplied so holding time may be compromised - applicable to all analysis |
| E | 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 |





Customer Waterman EED
Site Upper Heyford
Report No W130289

Consignment No W32586
Date Logged 13-Jan-2012
Chain of Custody 618613
Report Due 23-Jan-2012

| ID Number | Description | MethodID | WSLM13 | WSLM17 | WSLM2 | WSLM20 | WSLM3 | WSLM7 |
|------------------------|-------------|----------|----------------------|------------------------|--------------------------|---------------------------|----------|------------------------------|
| | | 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 | |
|---|--|
| A | The sample was received in an inappropriate container for this analysis |
| B | The sample was received without the correct preservation for this analysis |
| C | Headspace present in the sample container |
| D | The sampling date was not supplied so holding time may be compromised - applicable to all analysis |
| E | 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 |

Where individual results are flagged see report notes for status.

Method Descriptions

| Matrix | MethodID | Analysis Basis | Method Description |
|--------|-----------|----------------|--|
| 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 ($\mu\text{S}/\text{cm}$) 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 |

Where individual results are flagged see report notes for status.

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

NAIS 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

▮ 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.

END OF REPORT

Where individual results are flagged see report notes for status.

Our Ref: EXR/131702 (Ver. 1)

Your Ref: E10658-109

February 20, 2012



Environmental Chemistry

ESG

Bretby Business Park

Ashby Road

Burton-on-Trent

Staffordshire

DE15 0YZ

Telephone: 01283 554400

Facsimile: 01283 554422

Mr F Alcock
Waterman EED
Waterman Environmental
Pickfords Wharf
Clink Street
London
SE1 9DG

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.

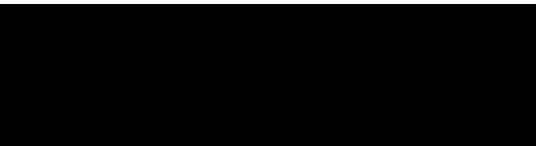
An invoice for this work will follow under a separate cover.

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/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.

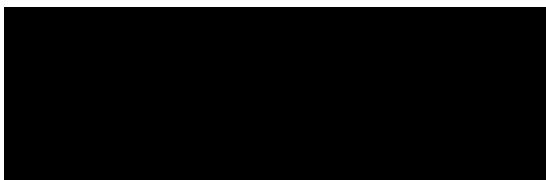
The analysis was completed by: 20-Feb-2012

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



Operations Manager


Date of Issue: 20-Feb-2012

Tests marked '^' have been subcontracted to another laboratory.


ESG accepts no responsibility for any sampling not carried out by our personnel.

Where individual results are flagged see report notes for status.


| LAB ID Number | Client Sample Description | Sample Date | 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 | | | |
|---------------|---------------------------|-------------|---------------------------|----------------------------|-----------------------------|--------------------------|------------------|------------------------------------|-----------------------------|-------------------------------|----------------------------|--------------------------|----------------------------|---------------------------|--------------------------|------------------------|------------------------|---------------------------|--------|-------|
| | | | Method Codes : | WSLM3 | WSLM2 | WSLM12 | WSLM17 | KONENS | ICPWATVAR | ICPWATVAR | ICPWATVAR | ICPWATVAR | ICPMSW | ICPMSW | ICPMSW | ICPMSW | ICPMSW | ICPMSW | ICPMSW | |
| | | | Method Reporting Limits : | | 100 | 2 | 2 | 1 | 3 | 1 | 1 | 1 | 0.001 | 0.001 | 0.0001 | 0.001 | 0.001 | 0.001 | 0.002 | 0.001 |
| | | | UKAS Accredited : | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| | | | 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 | | |

| | | | | | | | | | |
|--|----------------------|---------------------|--|--|------------------------------|----------------------|-------------|--|--|
|  <p>Environmental Scientifics Group Bretby Business Park, Ashby Road Burton-on-Trent, Staffordshire, DE15 0YZ Tel +44 (0) 1283 554400 Fax +44 (0) 1283 554422</p> | Client Name | Waterman EED | | | Water Sample Analysis | | | | |
| | Contact | Mr F Alcock | | | | | | | |
| | Upper Heyford | | | | | Date Printed | 20-Feb-2012 | | |
| | | | | | | Report Number | EXR/131702 | | |
| | | | | | Table Number | 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 | | |
|---------------|---------------------------|-------------|---------------------------|---------------------------|----------------------------|--------------------------|--------------|----------------|----------------------------------|------------------------|--------------|----------------|-----------------------------|--------------------------------|---------------------------------|---------|-----------|-----------------|-----------|
| | | | Method Codes : | ICPWATVAR | ICPMSW | ICPMSW | KONENS | KONENS | KONENS | WSLM11 | WSLM13 | GROHSA | TPHFID-Si | WSLM20 | WSLM7 | SVOC | PHEHPLCVL | PHEHPLCVL | PHEHPLCVL |
| | | | Method Reporting Limits : | 0.01 | 0.0001 | 0.001 | 0.01 | 0.2 | 0.01 | 5 | 0.1 | 0.1 | 0.01 | 2 | 1 | 0.002 | 0.0005 | 0.0005 | 0.0005 |
| | | | UKAS Accredited : | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | No | No | No | No | No | No | No |
| LAB ID Number | 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(S) 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 | |

| | | | | | | | | |
|--|----------------------|---------------------|--|------------------------------|----------------------|--------------------|--|--|
|  <p>Environmental Scientifics Group Bretby Business Park, Ashby Road Burton-on-Trent, Staffordshire, DE15 0YZ Tel +44 (0) 1283 554400 Fax +44 (0) 1283 554422</p> | Client Name | Waterman EED | | Water Sample Analysis | | | | |
| | Contact | Mr F Alcock | | | | | | |
| | Upper Heyford | | | | Date Printed | 20-Feb-2012 | | |
| | | | | | Report Number | EXR/131702 | | |
| | | | | Table Number | 1 | | | |

| Units : | | mg/l | | | | | | | | | | | | | | | | | |
|---------------------------|---------------------------|-------------|------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Method Codes : | | PHEHPLCVL | | | | | | | | | | | | | | | | | |
| Method Reporting Limits : | | 0.0005 | | | | | | | | | | | | | | | | | |
| UKAS Accredited : | | 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 | | | | | | | | | | | | | | | | |

| | | | | |
|--|----------------------|--------------|------------------------------|-------------|
|  <p>Environmental Scientifics Group Bretby Business Park, Ashby Road Burton-on-Trent, Staffordshire, DE15 0YZ Tel +44 (0) 1283 554400 Fax +44 (0) 1283 554422</p> | Client Name | Waterman EED | Water Sample Analysis | |
| | Contact | Mr F Alcock | | |
| | Upper Heyford | | Date Printed | 20-Feb-2012 |
| | | | Report Number | EXR/131702 |
| Table Number | | | 1 | |

Semi-Volatile Organic Compounds

UKAS accredited?: No

16

Customer and Site Details: Waterman EED: Upper Heyford
Sample Details: BH-NSA 1
LIMS ID Number: EX1266171
Job Number: W13_1702

Date Booked in: 09-Feb-12
Date Extracted: 13-Feb-12
Date Analysed: 13-Feb-12

Matrix: Water
Ext Method: Sep. Funnel
Operator: DMB/SO
Directory/Quant File: 13SVOC.GC1\ 0213_CCC1.D

QC Batch Number: 18
Multiplier: 0.005
Dilution Factor: 1
GPC (Y/N) N

| 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 | - |

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 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 | 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 |

Semi-Volatile Organic Compounds

UKAS accredited?: No

16

Customer and Site Details: Waterman EED: Upper Heyford
Sample Details: BH-NSA 2
LIMS ID Number: EX1266172
Job Number: W13_1702

Date Booked in: 09-Feb-12
Date Extracted: 13-Feb-12
Date Analysed: 13-Feb-12

Matrix: Water
Ext Method: Sep. Funnel
Operator: DMB/SO
Directory/Quant File: 13SVOC.GC1\ 0213_CCC1.D

QC Batch Number: 18
Multiplier: 0.005
Dilution Factor: 1
GPC (Y/N) N

| 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 | - |

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 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 | 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 |

Semi-Volatile Organic Compounds

UKAS accredited?: No

16

Customer and Site Details: Waterman EED: Upper Heyford
Sample Details: BH-NSA 3
LIMS ID Number: EX1266173
Job Number: W13_1702

Date Booked in: 09-Feb-12
Date Extracted: 13-Feb-12
Date Analysed: 13-Feb-12

Matrix: Water
Ext Method: Sep. Funnel
Operator: DMB/SO
Directory/Quant File: 13SVOC.GC1\ 0213_CCC1.D

QC Batch Number: 18
Multiplier: 0.005
Dilution Factor: 1
GPC (Y/N) N

| 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 | - |

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 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 | 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 |

Semi-Volatile Organic Compounds

UKAS accredited?: No

16

Customer and Site Details: Waterman EED: Upper Heyford
Sample Details: BH-NSA 4
LIMS ID Number: EX1266174
Job Number: W13_1702

Date Booked in: 09-Feb-12
Date Extracted: 13-Feb-12
Date Analysed: 13-Feb-12

Matrix: Water
Ext Method: Sep. Funnel
Operator: DMB/SO
Directory/Quant File: 13SVOC.GC1\ 0213_CCC1.D

QC Batch Number: 18
Multiplier: 0.005
Dilution Factor: 1
GPC (Y/N) N

| 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 | - |

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 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 | 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 |

Semi-Volatile Organic Compounds

UKAS accredited?: No

16

Customer and Site Details: Waterman EED: Upper Heyford
Sample Details: BH-NSA 5
LIMS ID Number: EX1266175
Job Number: W13_1702

Date Booked in: 09-Feb-12
Date Extracted: 13-Feb-12
Date Analysed: 13-Feb-12

Matrix: Water
Ext Method: Sep. Funnel
Operator: DMB/SO
Directory/Quant File: 13SVOC.GC1\ 0213_CCC1.D

QC Batch Number: 18
Multiplier: 0.005
Dilution Factor: 1
GPC (Y/N) N

| 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 | - |

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 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 | 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 |

Where individual results are flagged see report notes for status.

Semi-Volatile Organic Compounds

UKAS accredited?: No

16

Customer and Site Details: Waterman EED: Upper Heyford
Sample Details: BH-NSA 6
LIMS ID Number: EX1266176
Job Number: W13_1702

Date Booked in: 09-Feb-12
Date Extracted: 13-Feb-12
Date Analysed: 13-Feb-12

Matrix: Water
Ext Method: Sep. Funnel
Operator: DMB/SO
Directory/Quant File: 13SVOC.GC1\ 0213_CCC1.D

QC Batch Number: 18
Multiplier: 0.005
Dilution Factor: 1
GPC (Y/N) N

| 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 | 7.61 | 0.015 | 96 |
| 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 | - |

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 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 | 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 | - |

"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 |

Where individual results are flagged see report notes for status.

Semi-Volatile Organic Compounds

UKAS accredited?: No

16

Customer and Site Details: Waterman EED: Upper Heyford
Sample Details: BH-NSA 7
LIMS ID Number: EX1266177
Job Number: W13_1702

Date Booked in: 09-Feb-12
Date Extracted: 13-Feb-12
Date Analysed: 13-Feb-12

Matrix: Water
Ext Method: Sep. Funnel
Operator: DMB/SO
Directory/Quant File: 13SVOC.GC1\ 0213_CCC1.D

QC Batch Number: 18
Multiplier: 0.005
Dilution Factor: 1
GPC (Y/N): N

| 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 | - |

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 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 | 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 |

Semi-Volatile Organic Compounds

UKAS accredited?: No

16

Customer and Site Details: Waterman EED: Upper Heyford
Sample Details: BH-NSA 8
LIMS ID Number: EX1266178
Job Number: W13_1702

Date Booked in: 09-Feb-12
Date Extracted: 13-Feb-12
Date Analysed: 13-Feb-12

Matrix: Water
Ext Method: Sep. Funnel
Operator: DMB/SO
Directory/Quant File: 13SVOC.GC1\ 0213_CCC1.D

QC Batch Number: 18
Multiplier: 0.005
Dilution Factor: 1
GPC (Y/N) N

| 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 | - |

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 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 | 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 |

Where individual results are flagged see report notes for status.

Semi-Volatile Organic Compounds

UKAS accredited?: No

16

Customer and Site Details: Waterman EED: Upper Heyford
Sample Details: BH-NSA 9
LIMS ID Number: EX1266179
Job Number: W13_1702

Date Booked in: 09-Feb-12
Date Extracted: 13-Feb-12
Date Analysed: 14-Feb-12

Matrix: Water
Ext Method: Sep. Funnel
Operator: DMB/SO
Directory/Quant File: 13SVOC.GC1\ 0213_CCC1.D

QC Batch Number: 18
Multiplier: 0.005
Dilution Factor: 1
GPC (Y/N): N

| 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 | - |

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 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 | 90 |
| Naphthalene-d8 | 93 |
| Acenaphthene-d10 | 90 |
| Phenanthrene-d10 | 91 |
| Chrysene-d12 | 89 |
| Perylene-d12 | 96 |

| Surrogates | % Rec |
|----------------------|-------|
| 2-Fluorophenol | 54 |
| Phenol-d5 | 37 |
| Nitrobenzene-d5 | 92 |
| 2-Fluorobiphenyl | 95 |
| 2,4,6-Tribromophenol | 85 |
| Terphenyl-d14 | 106 |

Semi-Volatile Organic Compounds

UKAS accredited?: No

16

Customer and Site Details: Waterman EED: Upper Heyford
Sample Details: BH-NSA 10
LIMS ID Number: EX1266180
Job Number: W13_1702

Date Booked in: 09-Feb-12
Date Extracted: 18-Feb-12
Date Analysed: 14-Feb-12

Matrix: Water
Ext Method: Sep. Funnel
Operator: DMB/SO
Directory/Quant File: 13SVOC.GC1\ 0213_CCC1.D

QC Batch Number: 18
Multiplier: 0.005
Dilution Factor: 1
GPC (Y/N) N

| 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 | - |

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 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 | 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 |

Semi-Volatile Organic Compounds

UKAS accredited?: No

16

Customer and Site Details: Waterman EED: Upper Heyford
Sample Details: BH-NSA 11
LIMS ID Number: EX1266181
Job Number: W13_1702

Date Booked in: 09-Feb-12
Date Extracted: 13-Feb-12
Date Analysed: 14-Feb-12

Matrix: Water
Ext Method: Sep. Funnel
Operator: DMB/SO
Directory/Quant File: 13SVOC.GC1\ 0213_CCC1.D

QC Batch Number: 18
Multiplier: 0.005
Dilution Factor: 1
GPC (Y/N) N

| 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 | - |

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 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 | 95 |
| Naphthalene-d8 | 94 |
| Acenaphthene-d10 | 92 |
| Phenanthrene-d10 | 93 |
| Chrysene-d12 | 92 |
| Perylene-d12 | 93 |

| Surrogates | % Rec |
|----------------------|-------|
| 2-Fluorophenol | 51 |
| Phenol-d5 | 36 |
| Nitrobenzene-d5 | 94 |
| 2-Fluorobiphenyl | 97 |
| 2,4,6-Tribromophenol | 84 |
| Terphenyl-d14 | 109 |

Where individual results are flagged see report notes for status.

Semi-Volatile Organic Compounds

UKAS accredited?: No

16

Customer and Site Details: Waterman EED: Upper Heyford
Sample Details: BH-NSA 12
LIMS ID Number: EX1266182
Job Number: W13_1702

Date Booked in: 09-Feb-12
Date Extracted: 13-Feb-12
Date Analysed: 14-Feb-12

Matrix: Water
Ext Method: Sep. Funnel
Operator: DMB/SO
Directory/Quant File: 13SVOC.GC1\ 0213_CCC1.D

QC Batch Number: 18
Multiplier: 0.005
Dilution Factor: 1
GPC (Y/N) N

| 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 | - |

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 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 | 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 |

Where individual results are flagged see report notes for status.

Semi-Volatile Organic Compounds

UKAS accredited?: No

16

Customer and Site Details: Waterman EED: Upper Heyford
Sample Details: BH-NSA 13
LIMS ID Number: EX1266183
Job Number: W13_1702

Date Booked in: 09-Feb-12
Date Extracted: 13-Feb-12
Date Analysed: 14-Feb-12

Matrix: Water
Ext Method: Sep. Funnel
Operator: DMB/SO
Directory/Quant File: 13SVOC.GC1\ 0213_CCC1.D

QC Batch Number: 18
Multiplier: 0.005
Dilution Factor: 1
GPC (Y/N): N

| 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 | - |

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 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 | 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 |

Where individual results are flagged see report notes for status.

Semi-Volatile Organic Compounds

UKAS accredited?: No

16

Customer and Site Details: Waterman EED: Upper Heyford
Sample Details: BH-NSA 14
LIMS ID Number: EX1266184
Job Number: W13_1702

Date Booked in: 09-Feb-12
Date Extracted: 13-Feb-12
Date Analysed: 14-Feb-12

Matrix: Water
Ext Method: Sep. Funnel
Operator: DMB/SO
Directory/Quant File: 13SVOC.GC1\ 0213_CCC1.D

QC Batch Number: 18
Multiplier: 0.005
Dilution Factor: 1
GPC (Y/N) N

| 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 | - |

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 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 | 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 |

Semi-Volatile Organic Compounds

UKAS accredited?: No

16

Customer and Site Details: Waterman EED: Upper Heyford
Sample Details: BH-NSA 15
LIMS ID Number: EX1266185
Job Number: W13_1702

Date Booked in: 09-Feb-12
Date Extracted: 13-Feb-12
Date Analysed: 14-Feb-12

Matrix: Water
Ext Method: Sep. Funnel
Operator: DMB/SO
Directory/Quant File: 13SVOC.GC1\ 0213_CCC1.D

QC Batch Number: 18
Multiplier: 0.005
Dilution Factor: 1
GPC (Y/N) N

| 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 | - |

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 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 | 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 |

Where individual results are flagged see report notes for status.

Semi-Volatile Organic Compounds

UKAS accredited?: No

16

Customer and Site Details: Waterman EED: Upper Heyford
Sample Details: BH-NSA 16
LIMS ID Number: EX1266186
Job Number: W13_1702

Date Booked in: 09-Feb-12
Date Extracted: 13-Feb-12
Date Analysed: 14-Feb-12

Matrix: Water
Ext Method: Sep. Funnel
Operator: DMB/SO
Directory/Quant File: 13SVOC.GC1\ 0213_CCC1.D

QC Batch Number: 18
Multiplier: 0.005
Dilution Factor: 1
GPC (Y/N) N

| 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 | - |

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 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 | 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 |

Semi-Volatile Organic Compounds

UKAS accredited?: No

16

Customer and Site Details: Waterman EED: Upper Heyford
Sample Details: BH-NSA 16X
LIMS ID Number: EX1266187
Job Number: W13_1702

Date Booked in: 09-Feb-12
Date Extracted: 13-Feb-12
Date Analysed: 14-Feb-12

Matrix: Water
Ext Method: Sep. Funnel
Operator: DMB/SO
Directory/Quant File: 13SVOC.GC1\ 0213_CCC1.D

QC Batch Number: 18
Multiplier: 0.005
Dilution Factor: 1
GPC (Y/N) N

| 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 | - |

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 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 | 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 |

Where individual results are flagged see report notes for status.

Semi-Volatile Organic Compounds

UKAS accredited?: No

16

Customer and Site Details: Waterman EED: Upper Heyford
Sample Details: BH-NSA 17
LIMS ID Number: EX1266188
Job Number: W13_1702

Date Booked in: 09-Feb-12
Date Extracted: 13-Feb-12
Date Analysed: 14-Feb-12

Matrix: Water
Ext Method: Sep. Funnel
Operator: DMB/SO
Directory/Quant File: 13SVOC.GC1\ 0213_CCC1.D

QC Batch Number: 18
Multiplier: 0.005
Dilution Factor: 1
GPC (Y/N) N

| 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 | - |

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 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 | 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 |

Semi-Volatile Organic Compounds

UKAS accredited?: No

16

Customer and Site Details: Waterman EED: Upper Heyford
Sample Details: BH-NSA 18
LIMS ID Number: EX1266189
Job Number: W13_1702

Date Booked in: 09-Feb-12
Date Extracted: 13-Feb-12
Date Analysed: 14-Feb-12

Matrix: Water
Ext Method: Sep. Funnel
Operator: DMB/SO
Directory/Quant File: 13SVOC.GC1\ 0213_CCC1.D

QC Batch Number: 18
Multiplier: 0.005
Dilution Factor: 1
GPC (Y/N) N

| 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 | - |

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 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 | 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 |

Semi-Volatile Organic Compounds

UKAS accredited?: No

16

Customer and Site Details: Waterman EED: Upper Heyford
Sample Details: BH-NSA 19
LIMS ID Number: EX1266190
Job Number: W13_1702

Date Booked in: 09-Feb-12
Date Extracted: 13-Feb-12
Date Analysed: 14-Feb-12

Matrix: Water
Ext Method: Sep. Funnel
Operator: DMB/SO
Directory/Quant File: 13SVOC.GC1\ 0213_CCC1.D

QC Batch Number: 18
Multiplier: 0.005
Dilution Factor: 1
GPC (Y/N) N

| 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 | - |

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 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 | 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 | - |

"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 |

Gasoline Range Organics (BTEX and Aliphatic Carbon Ranges)

Customer and Site Details: Waterman EED : Upper Heyford
Job Number: W13_1702
Directory: D:\TES\DATA\Y2012\0217HSA_GC09\021712 2012-02-17 06-11-01\028F2801.D
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.

| Sample ID | Client ID | Concentration, (mg/l) | | | | | Aliphatics | | | | Total GRO |
|-------------|------------|-----------------------|---------|---------------|------------|----------|------------|----------|----------|-----------|-----------|
| | | Benzene | Toluene | Ethyl benzene | m/p-Xylene | o-Xylene | C5 - C6 | >C6 - C7 | >C7 - C8 | >C8 - C10 | |
| * 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

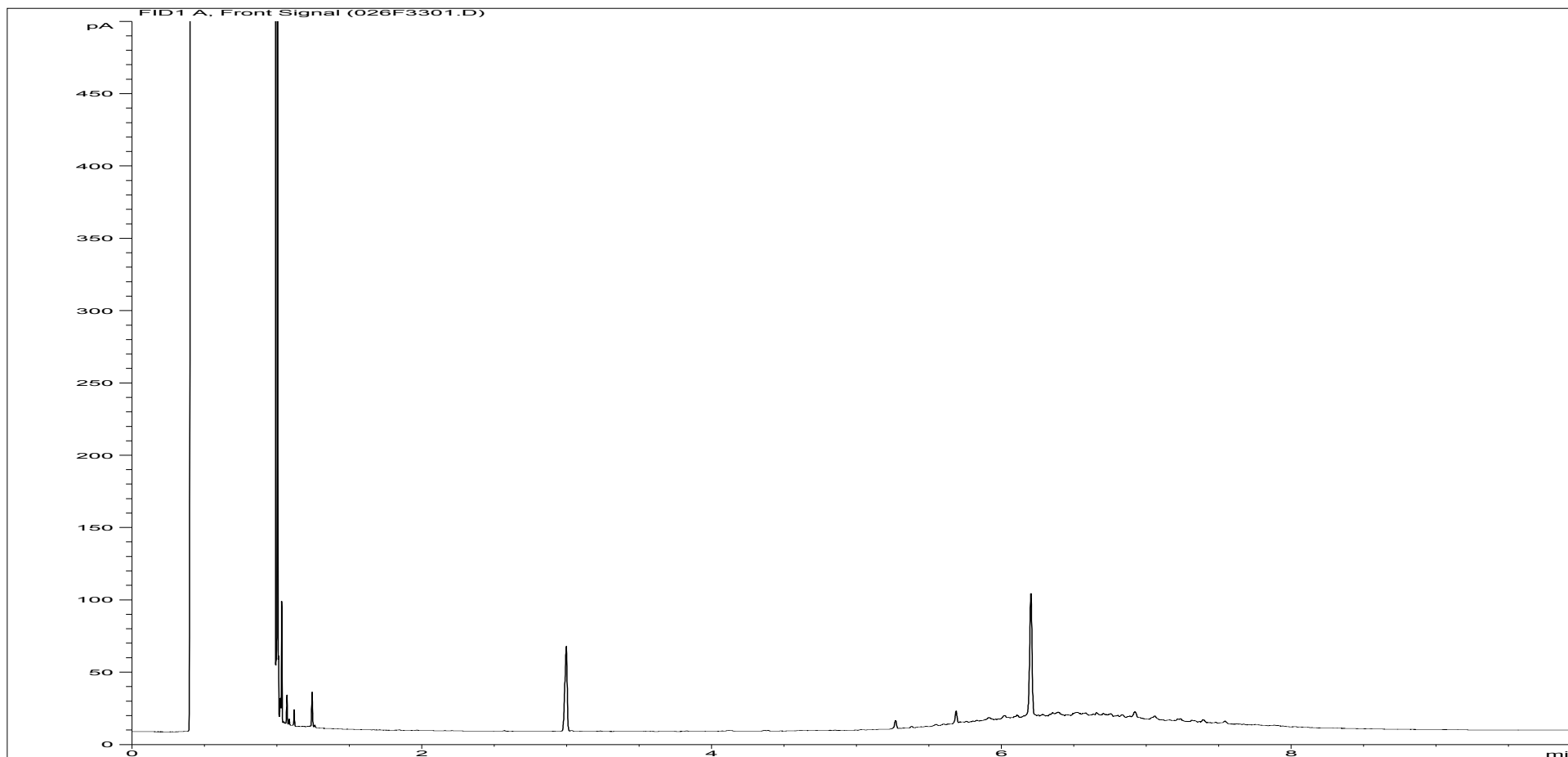
Customer and Site Details: Waterman EED : Upper Heyford
Job Number: W13_1702
QC Batch Number: 120105
Directory: D:\TES\DATA\Y2012\021512TPH_GC15\021512 2012-02-15 09-34-52\095B5201.D
Method: Bottle

Matrix: Water
Date Booked in: 09-Feb-12
Date Extracted: 14-Feb-12
Date Analysed: 16-Feb-12, 00:06:54

| | | Concentration, (mg/l) | | | | | | | | | | | |
|-----------|------------|-----------------------|-----------|------------|-----------|------------|-----------|------------|-----------|------------|-----------|------------|-----------|
| | | >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 |
| 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 |

* This sample data is not UKAS accredited.

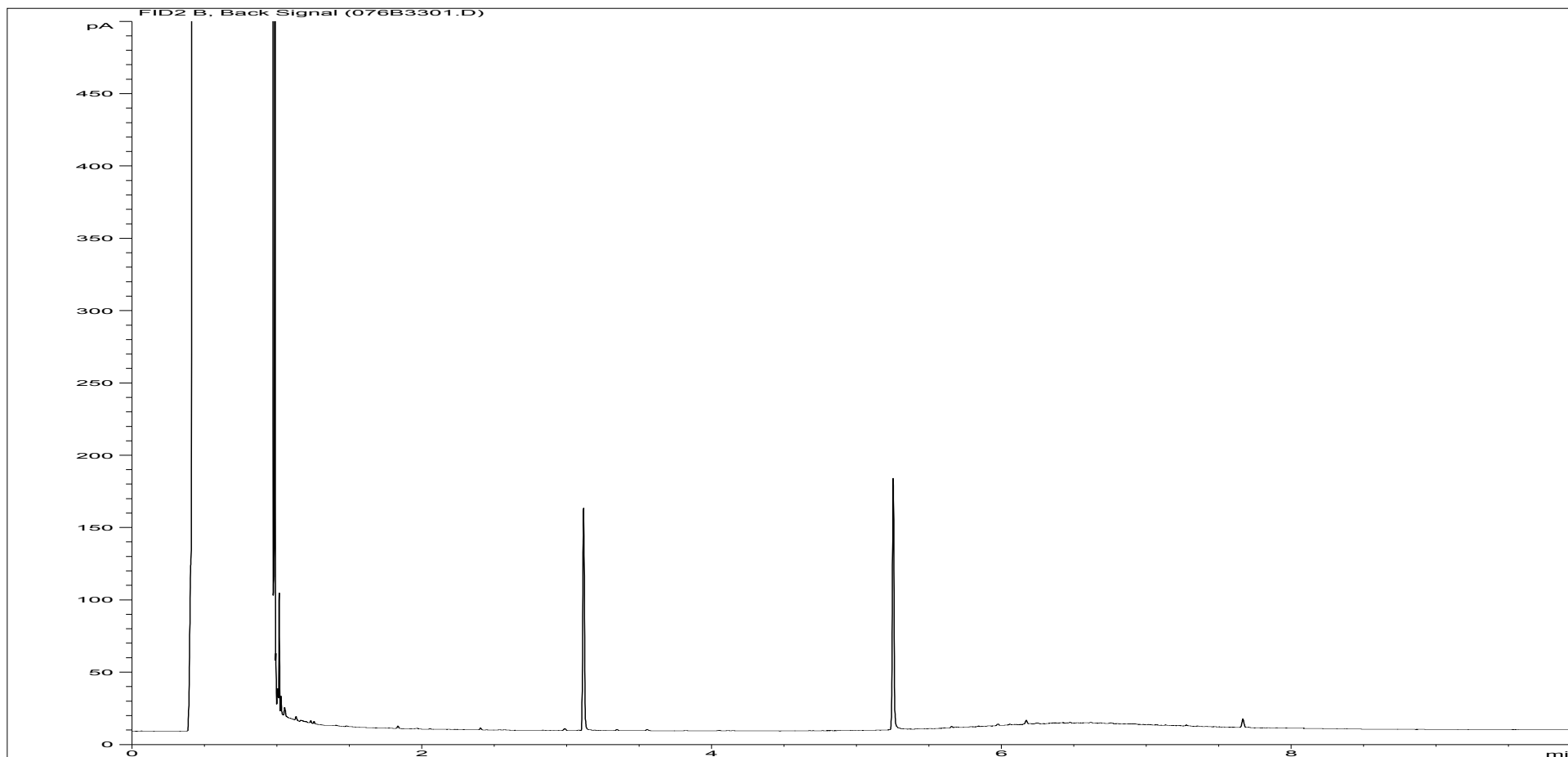
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1266171ALI | Job Number: | W13_1702 |
| Multiplier: | 0.02 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | 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\026F3301.D | | |

Where individual results are flagged see report notes for status.

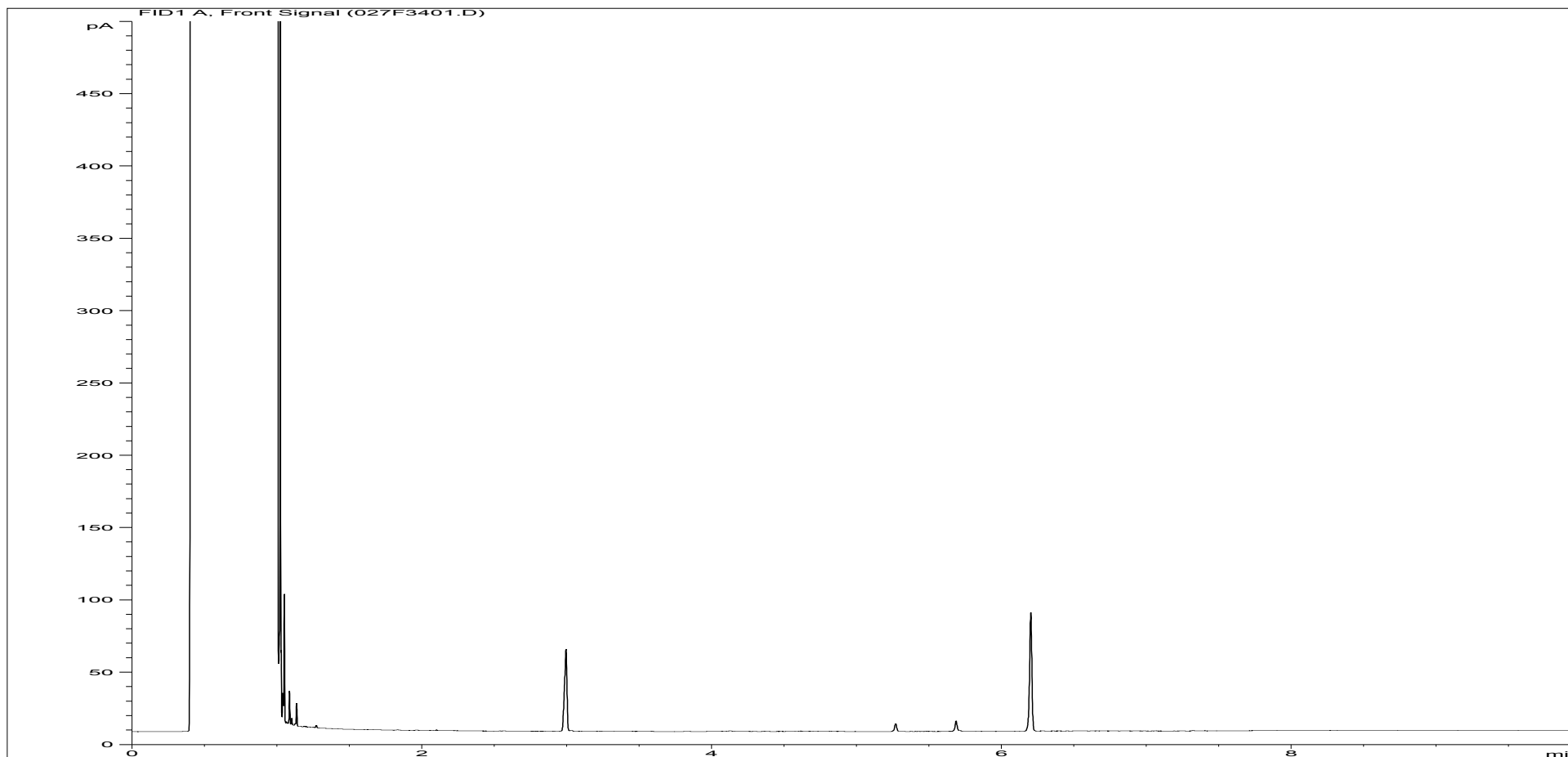
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1266171ARO | Job Number: | W13_1702 |
| Multiplier: | 0.015 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | 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 | | |

Where individual results are flagged see report notes for status.

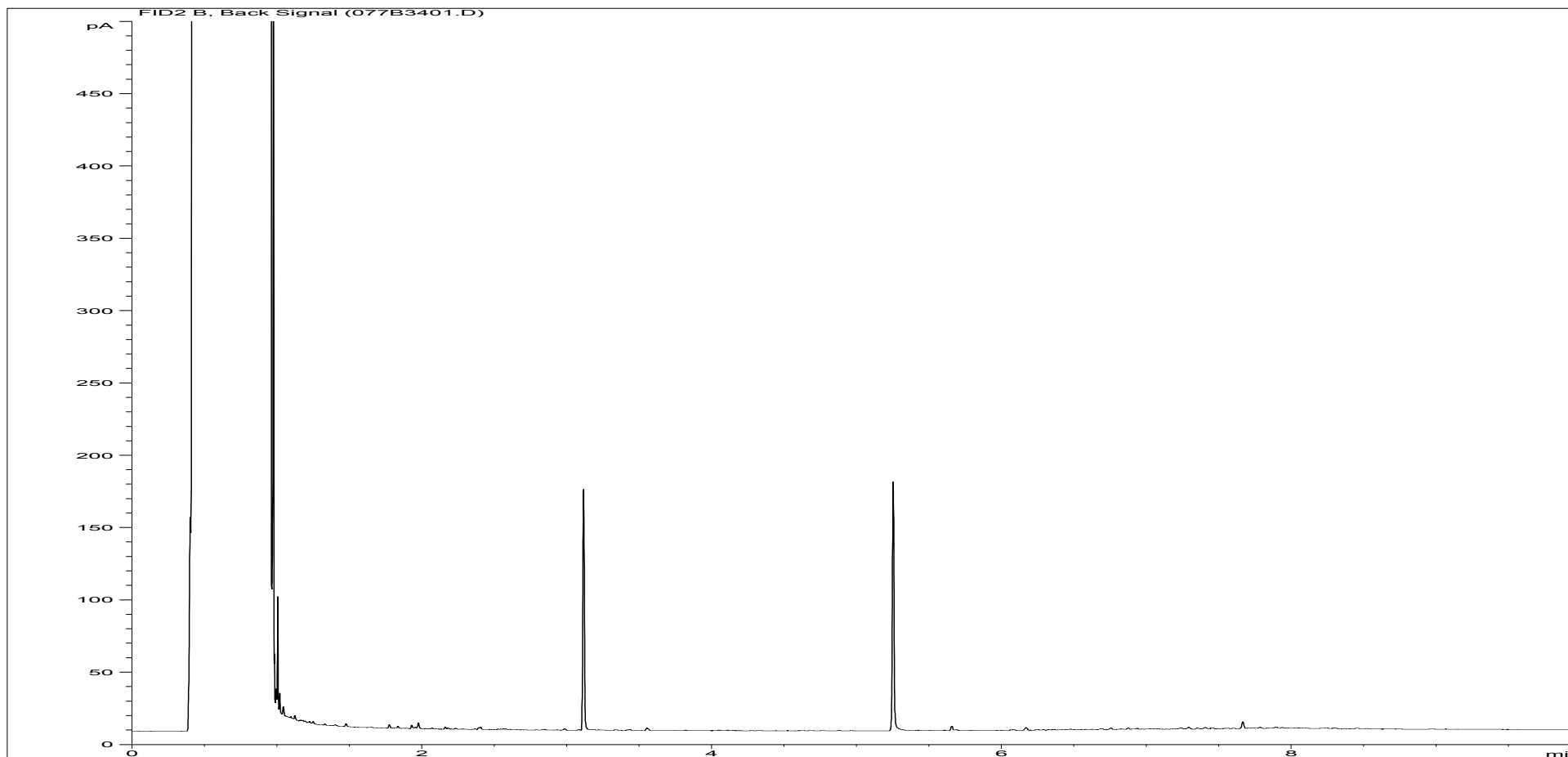
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1266172ALI | Job Number: | W13_1702 |
| Multiplier: | 0.02 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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\027F3401.D | | |

Where individual results are flagged see report notes for status.

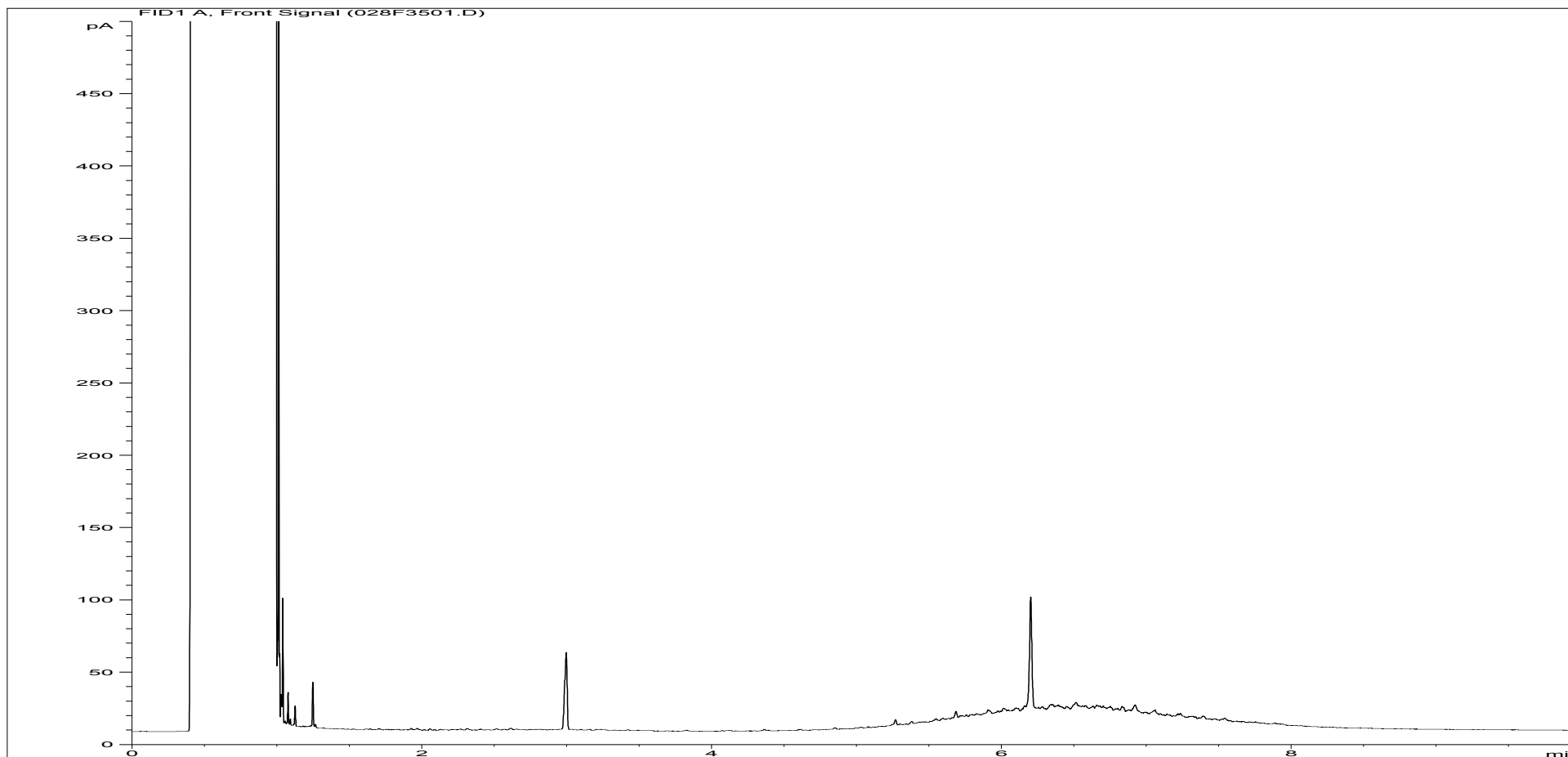
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1266172ARO | Job Number: | W13_1702 |
| Multiplier: | 0.015 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

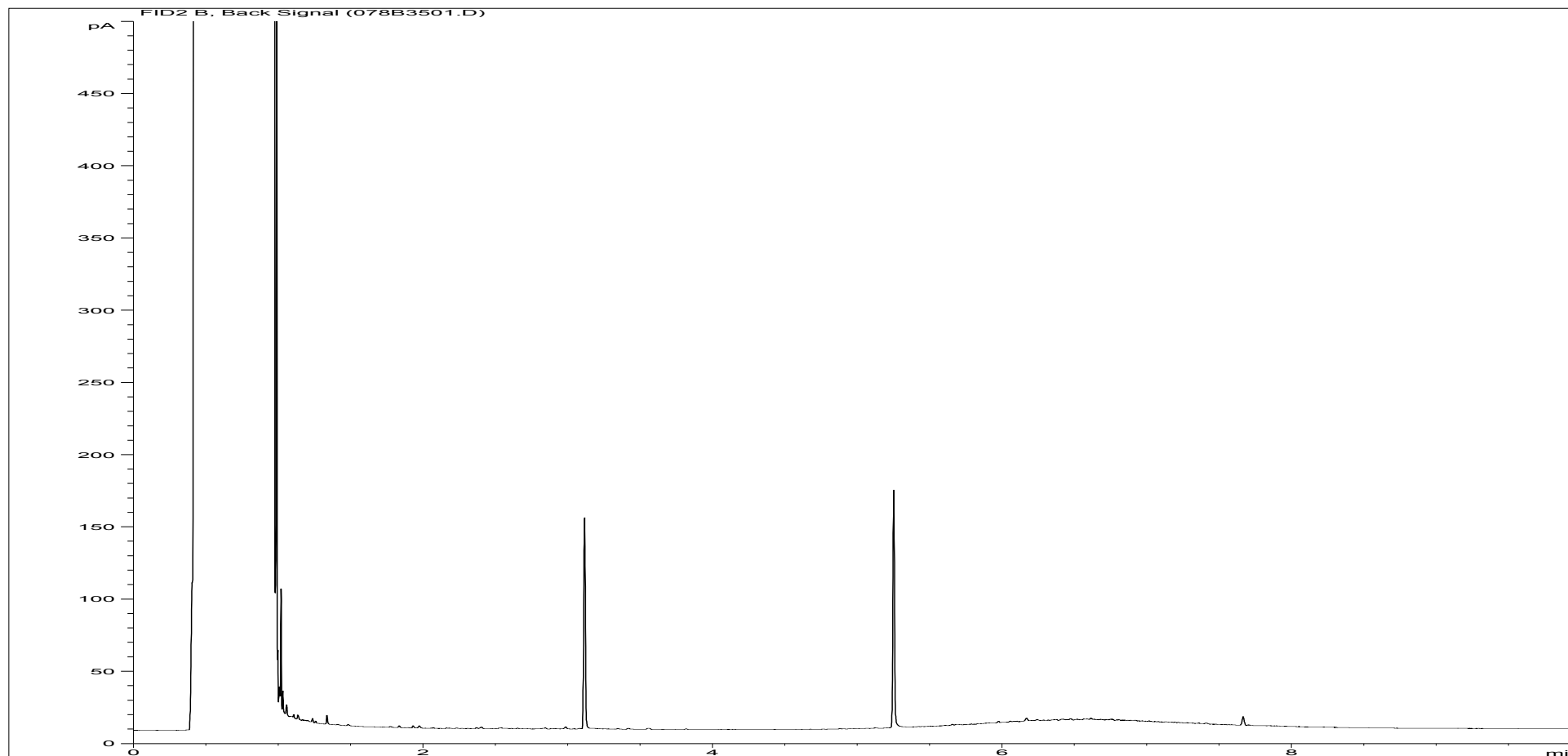
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1266173ALI | Job Number: | W13_1702 |
| Multiplier: | 0.02 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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\028F3501.D | | |

Where individual results are flagged see report notes for status.

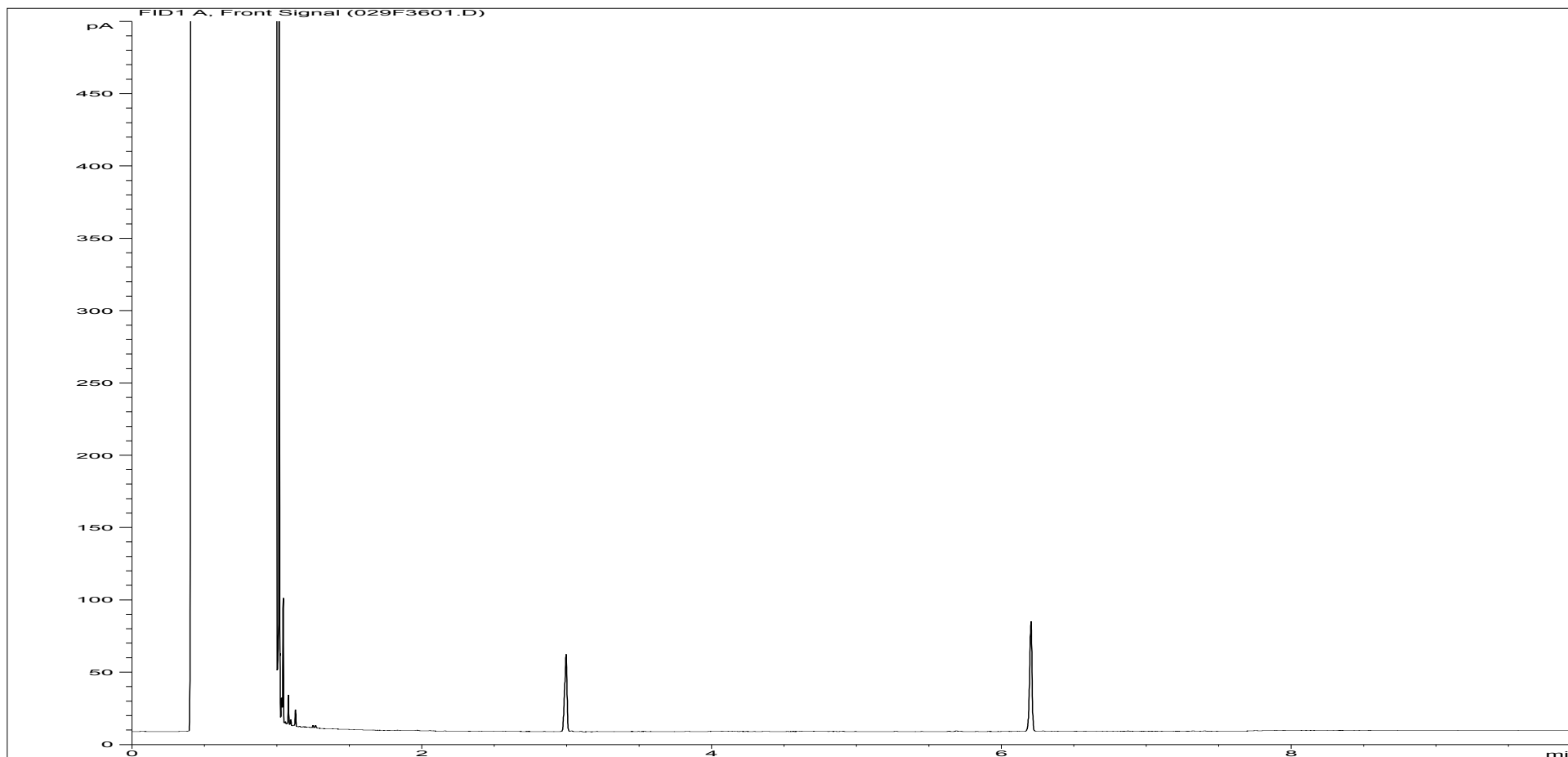
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1266173ARO | Job Number: | W13_1702 |
| Multiplier: | 0.015 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

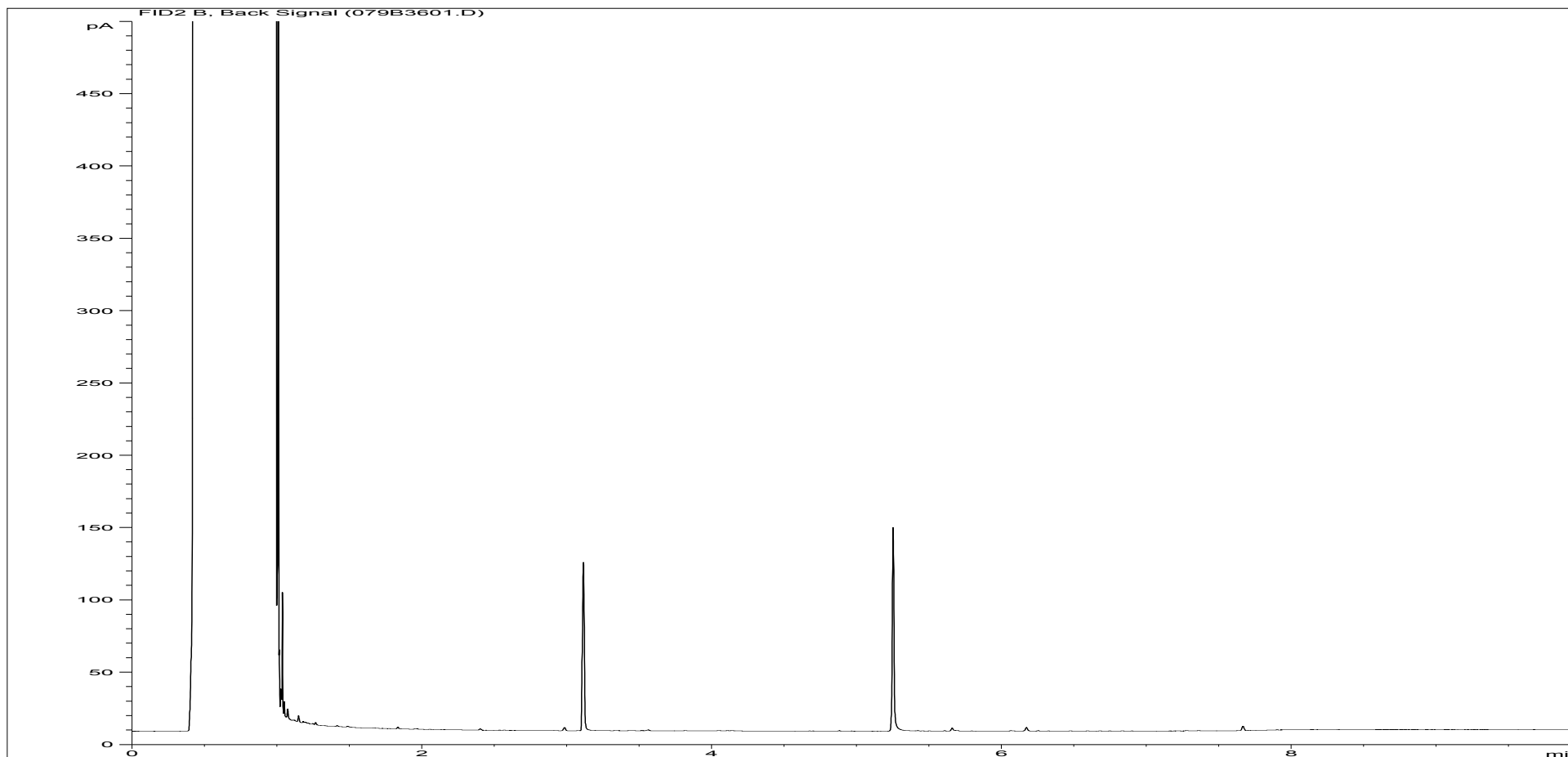
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1266174ALI | Job Number: | W13_1702 |
| Multiplier: | 0.02 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client Sample Ref: | BH-NSA 4 |
| 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 | | |

Where individual results are flagged see report notes for status.

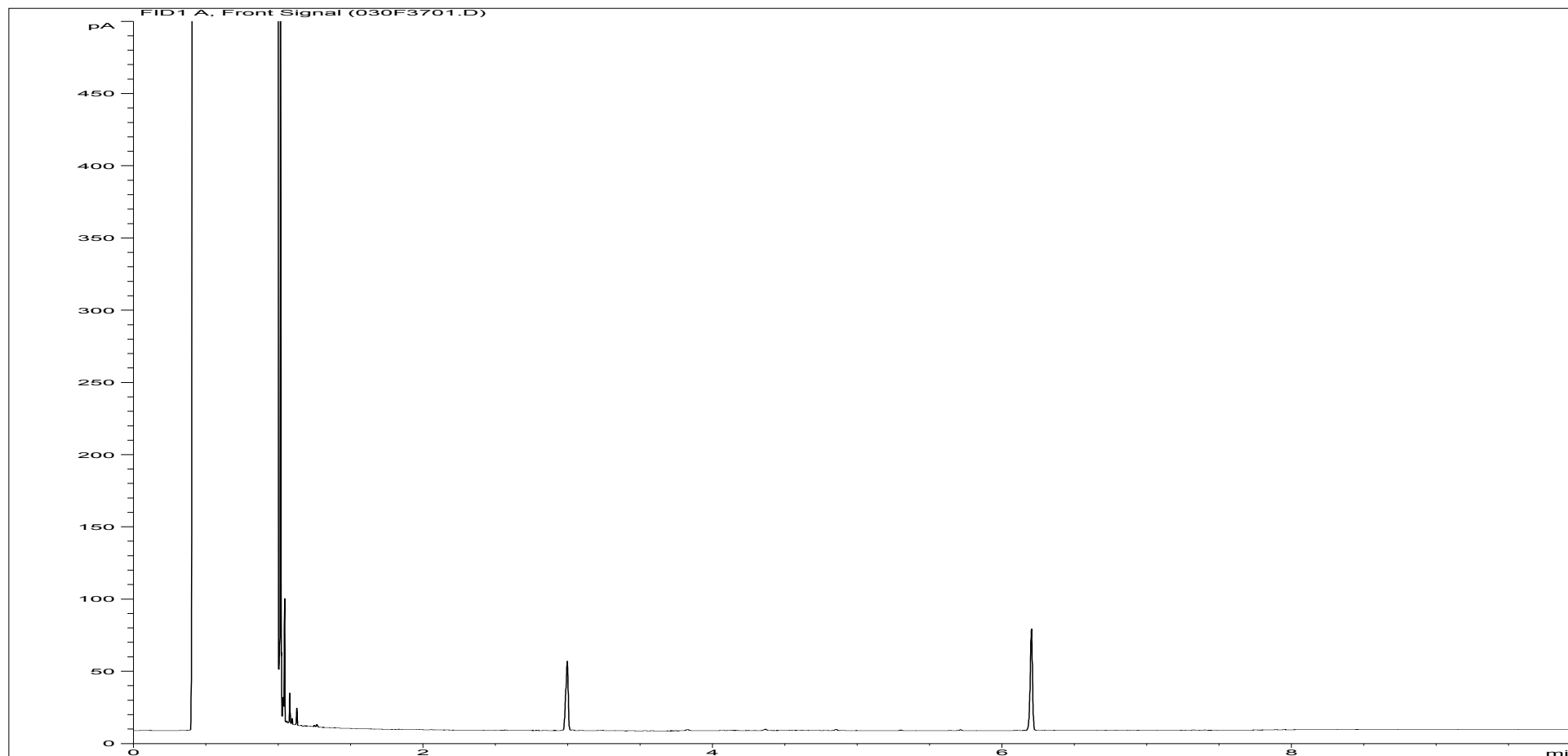
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1266174ARO | Job Number: | W13_1702 |
| Multiplier: | 0.015 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client Sample Ref: | BH-NSA 4 |
| 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 | | |

Where individual results are flagged see report notes for status.

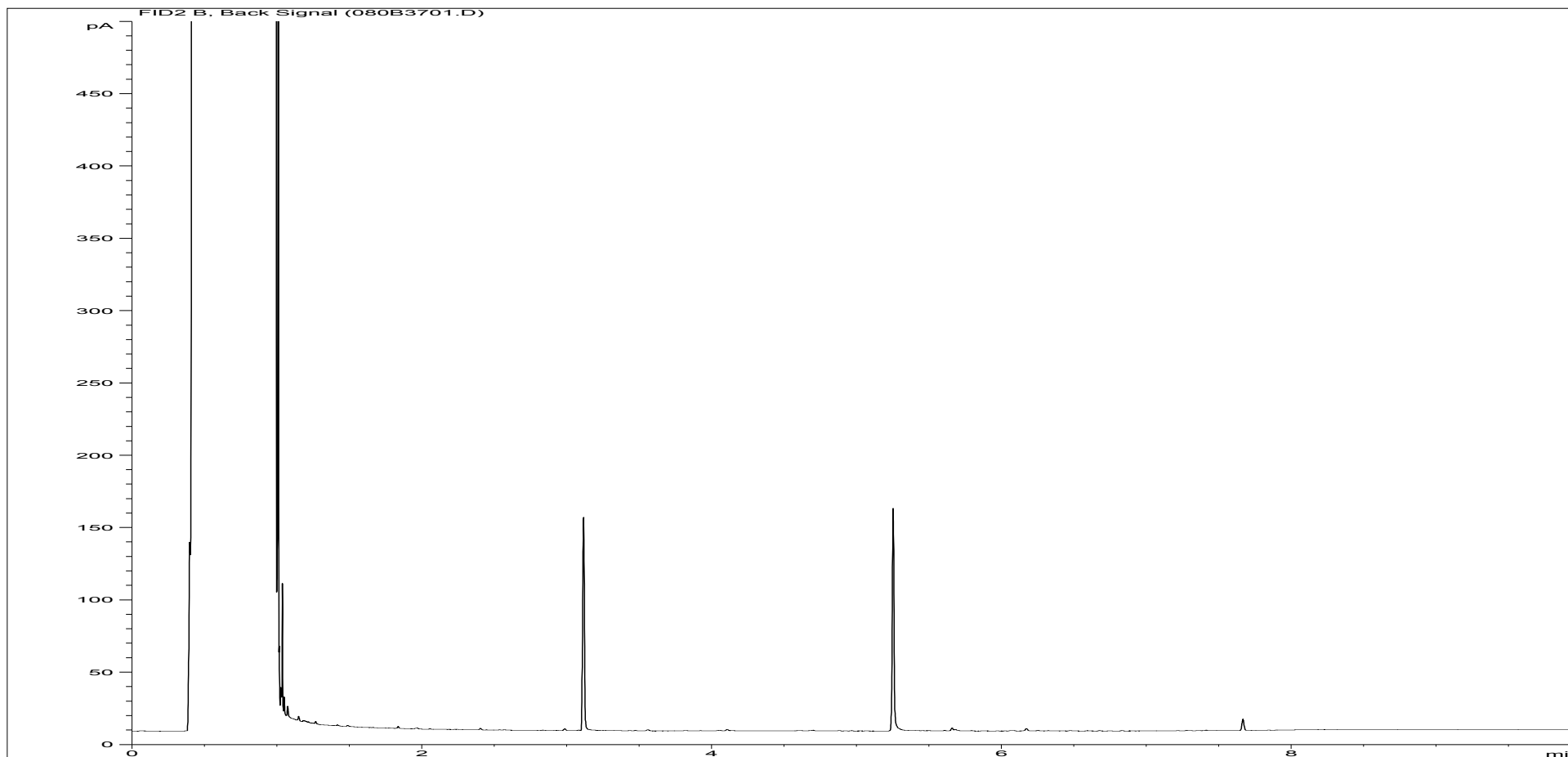
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1266175ALI | Job Number: | W13_1702 |
| Multiplier: | 0.02 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client Sample Ref: | BH-NSA 5 |
| Acquisition Date/Time: | 15-Feb-12, 19:51:25 | | |
| Datafile: | D:\TES\DATA\Y2012\021512TPH_GC15\021512 2012-02-15 09-34-52\030F3701.D | | |

Where individual results are flagged see report notes for status.

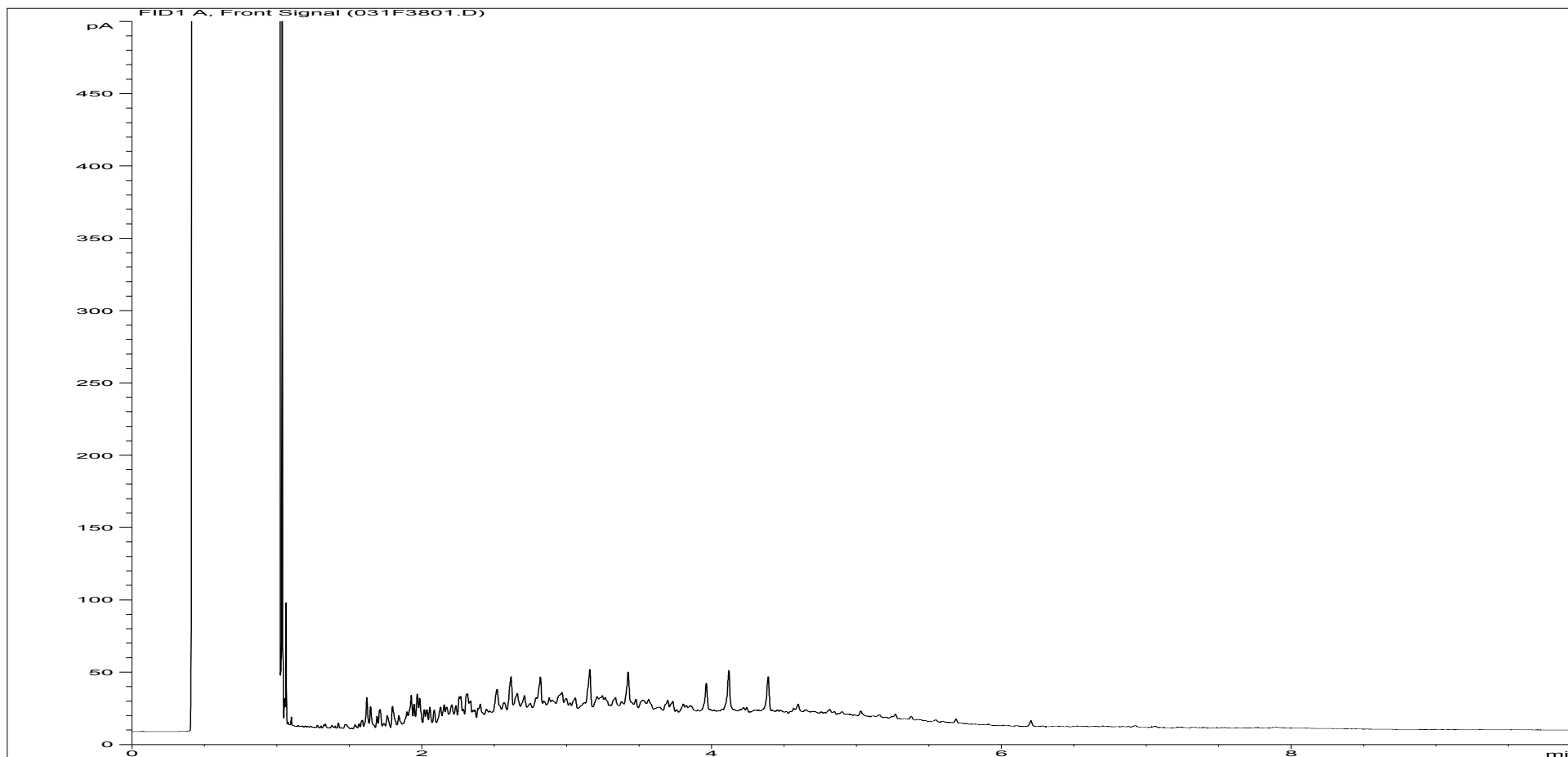
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1266175ARO | Job Number: | W13_1702 |
| Multiplier: | 0.016 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client Sample Ref: | BH-NSA 5 |
| Acquisition Date/Time: | 15-Feb-12, 19:51:25 | | |
| Datafile: | D:\TES\DATA\Y2012\021512TPH_GC15\021512 2012-02-15 09-34-52\080B3701.D | | |

Where individual results are flagged see report notes for status.

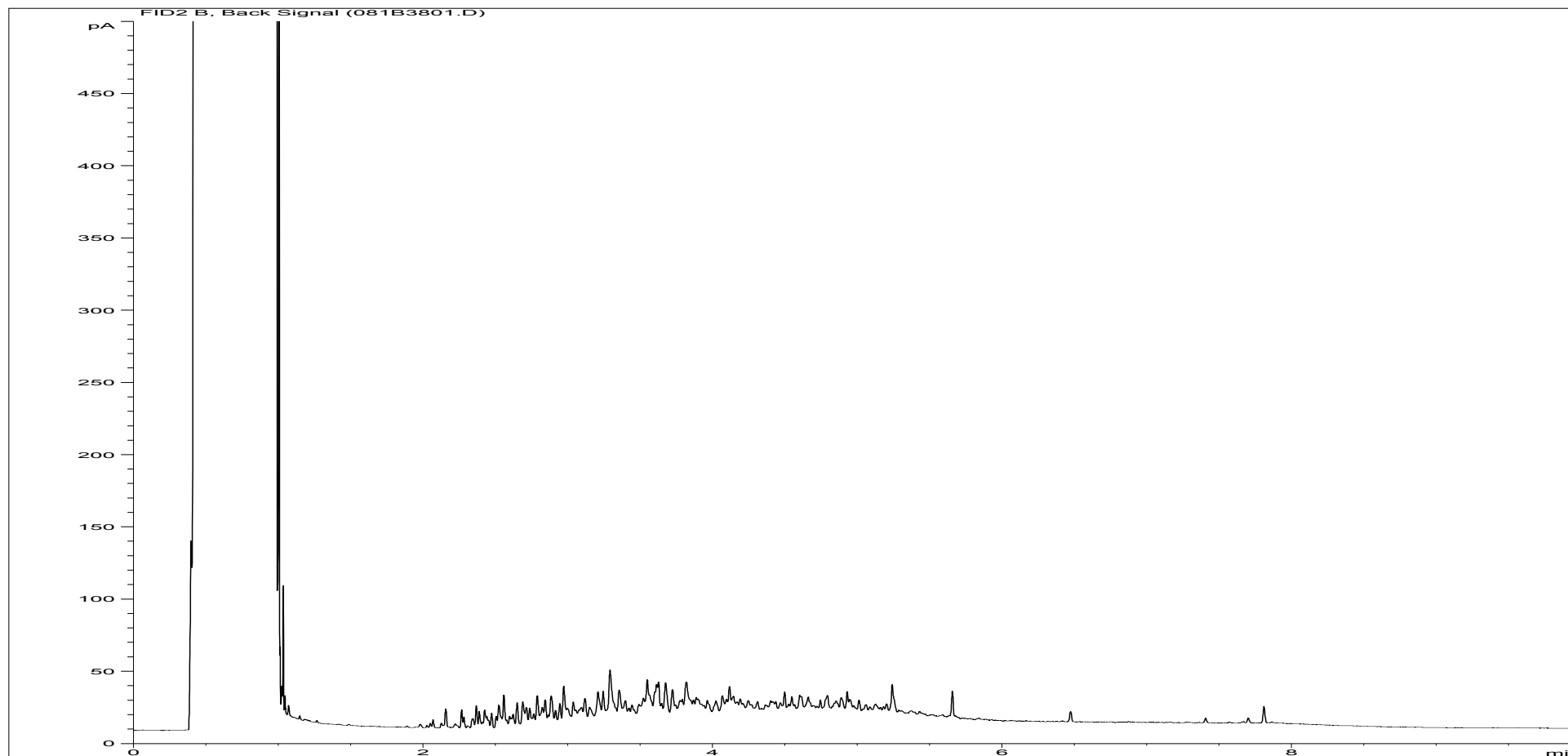
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1266176ALI | Job Number: | W13_1702 |
| Multiplier: | 0.02 | Client: | Waterman EED |
| Dilution: | 20 | Site: | Upper Heyford |
| 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 | | |

Where individual results are flagged see report notes for status.

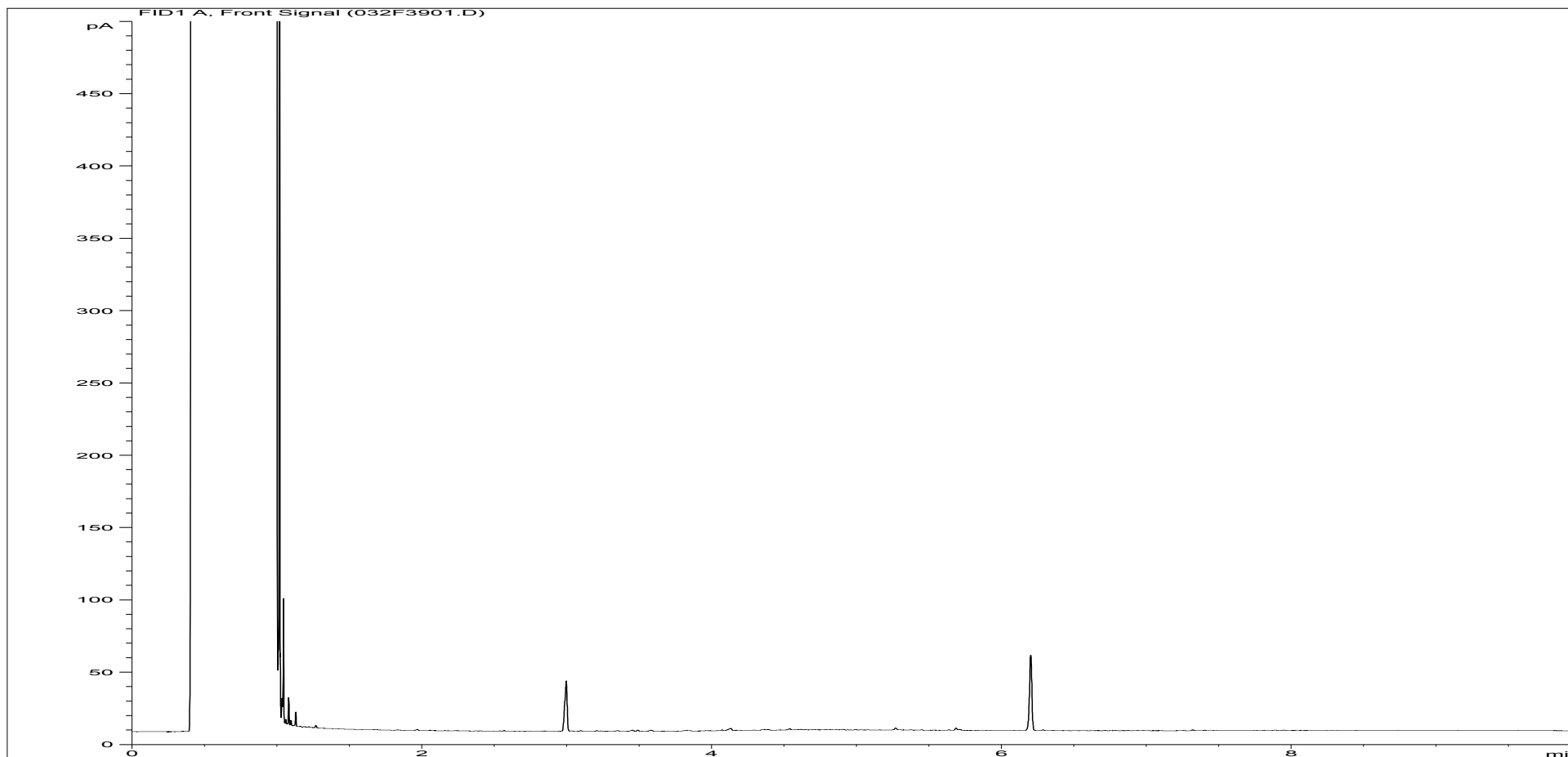
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1266176ARO | Job Number: | W13_1702 |
| Multiplier: | 0.016 | Client: | Waterman EED |
| Dilution: | 20 | Site: | Upper Heyford |
| 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 | | |

Where individual results are flagged see report notes for status.

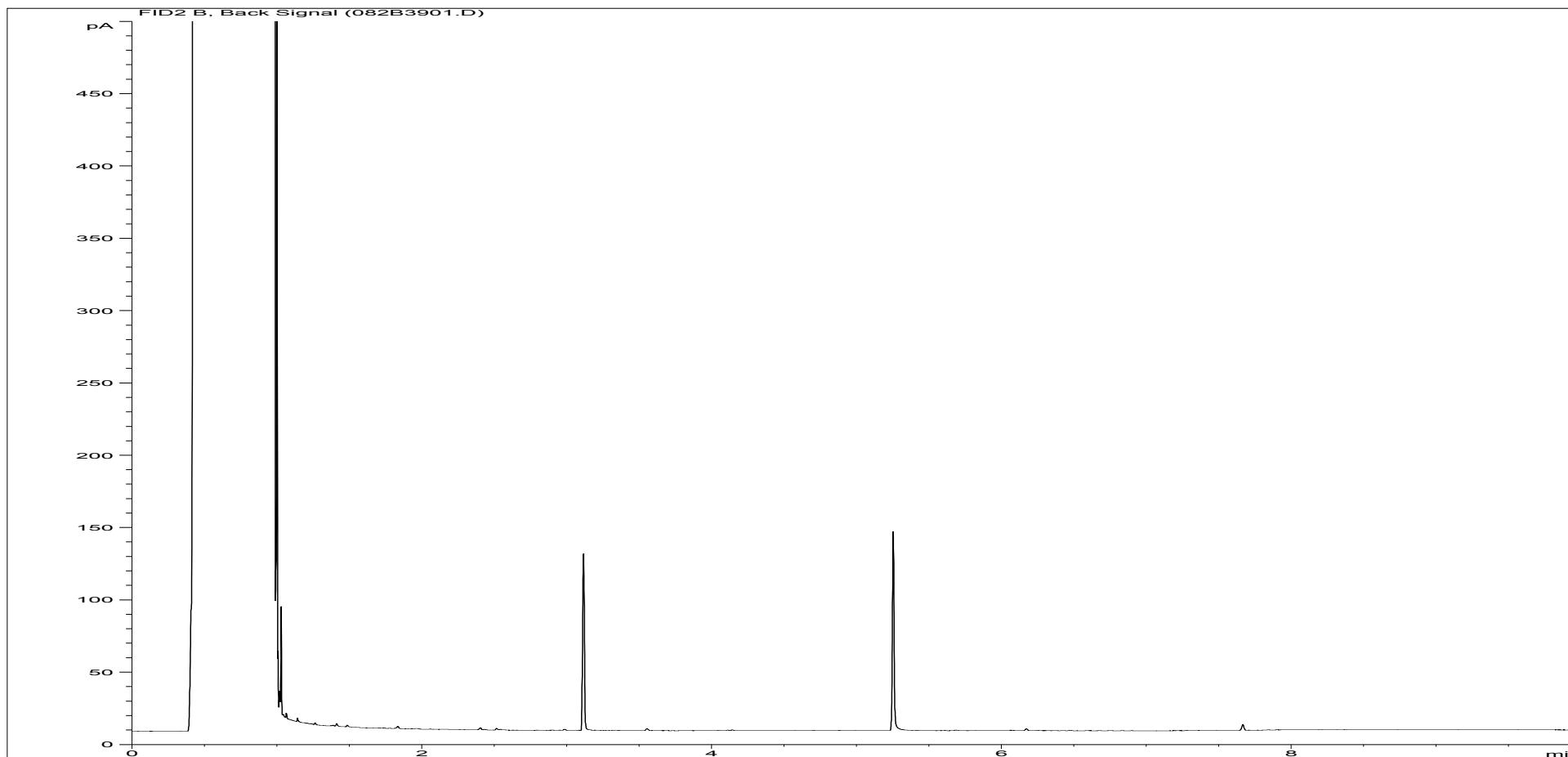
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1266177ALI | Job Number: | W13_1702 |
| Multiplier: | 0.02 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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\032F3901.D | | |

Where individual results are flagged see report notes for status.

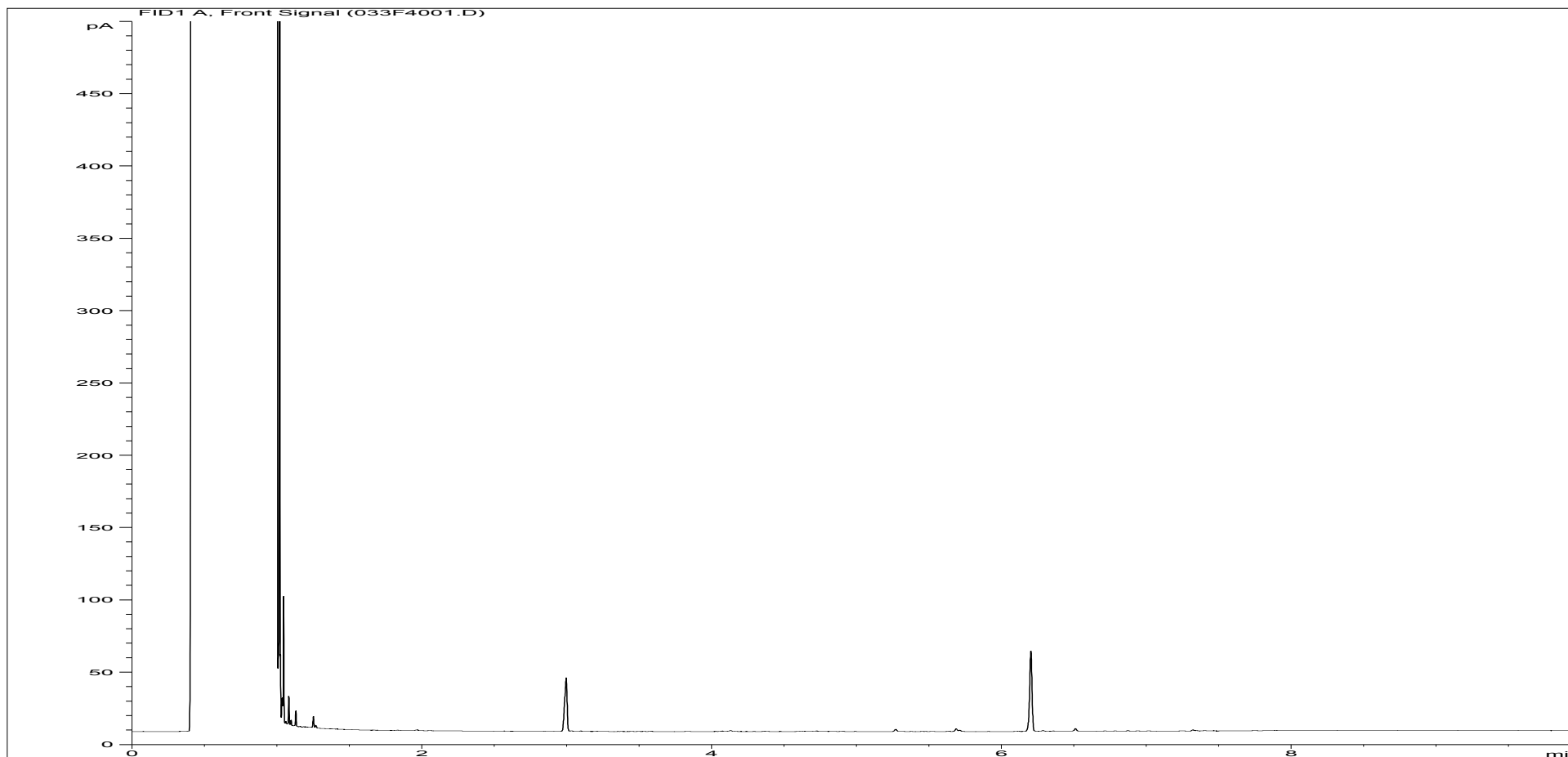
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1266177ARO | Job Number: | W13_1702 |
| Multiplier: | 0.015 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

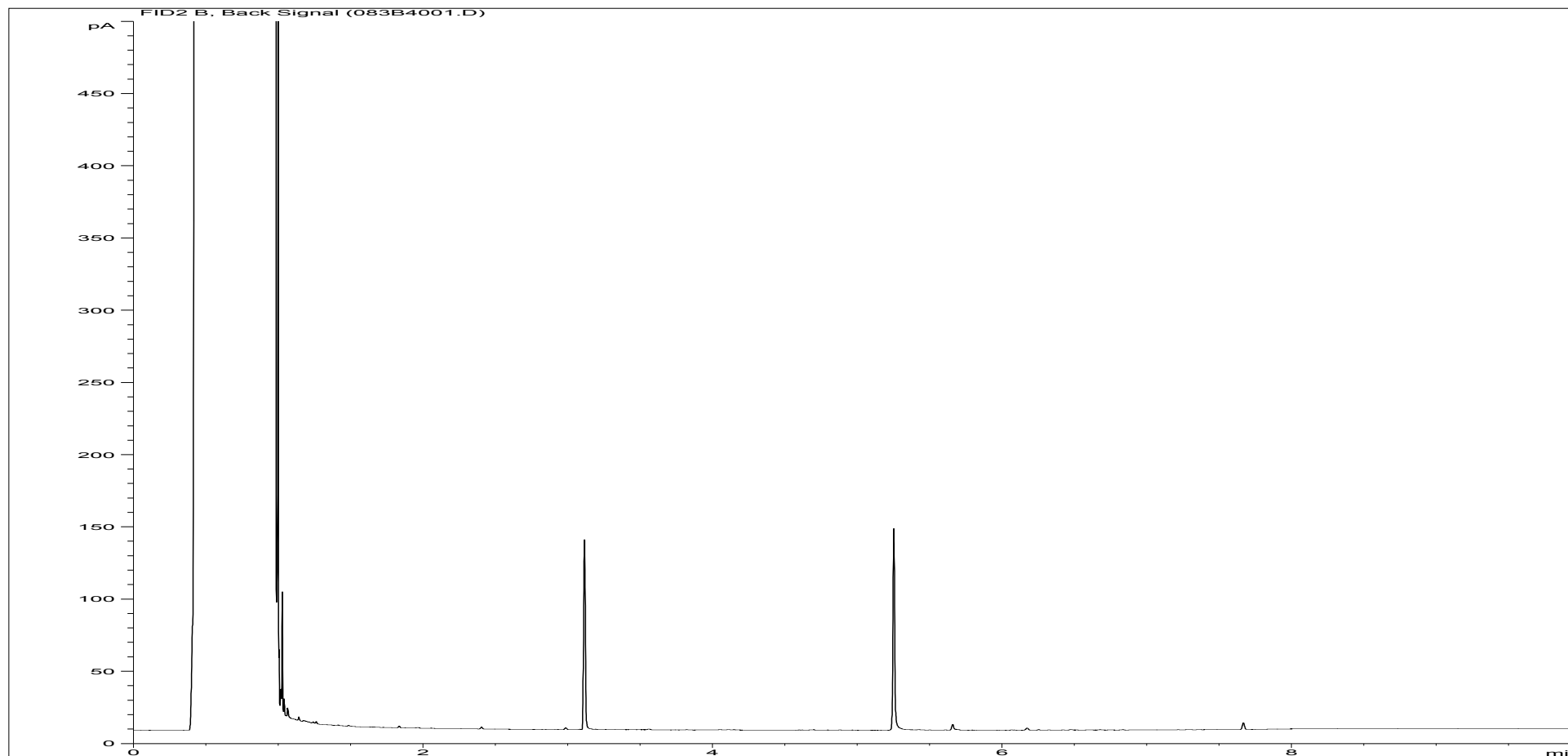
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1266178ALI | Job Number: | W13_1702 |
| Multiplier: | 0.02 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client Sample Ref: | BH-NSA 8 |
| 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 | | |

Where individual results are flagged see report notes for status.

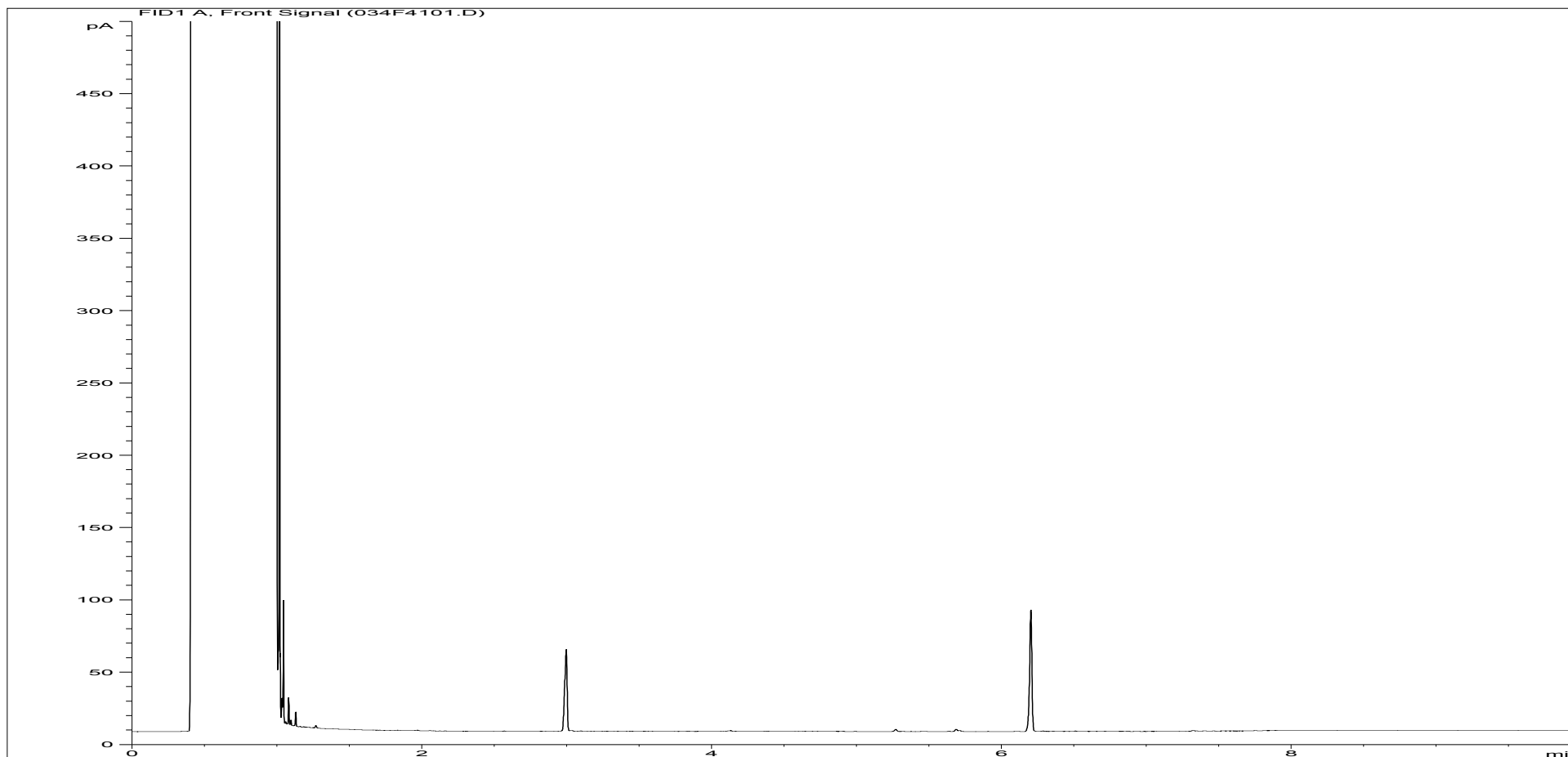
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1266178ARO | Job Number: | W13_1702 |
| Multiplier: | 0.015 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client Sample Ref: | BH-NSA 8 |
| 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 | | |

Where individual results are flagged see report notes for status.

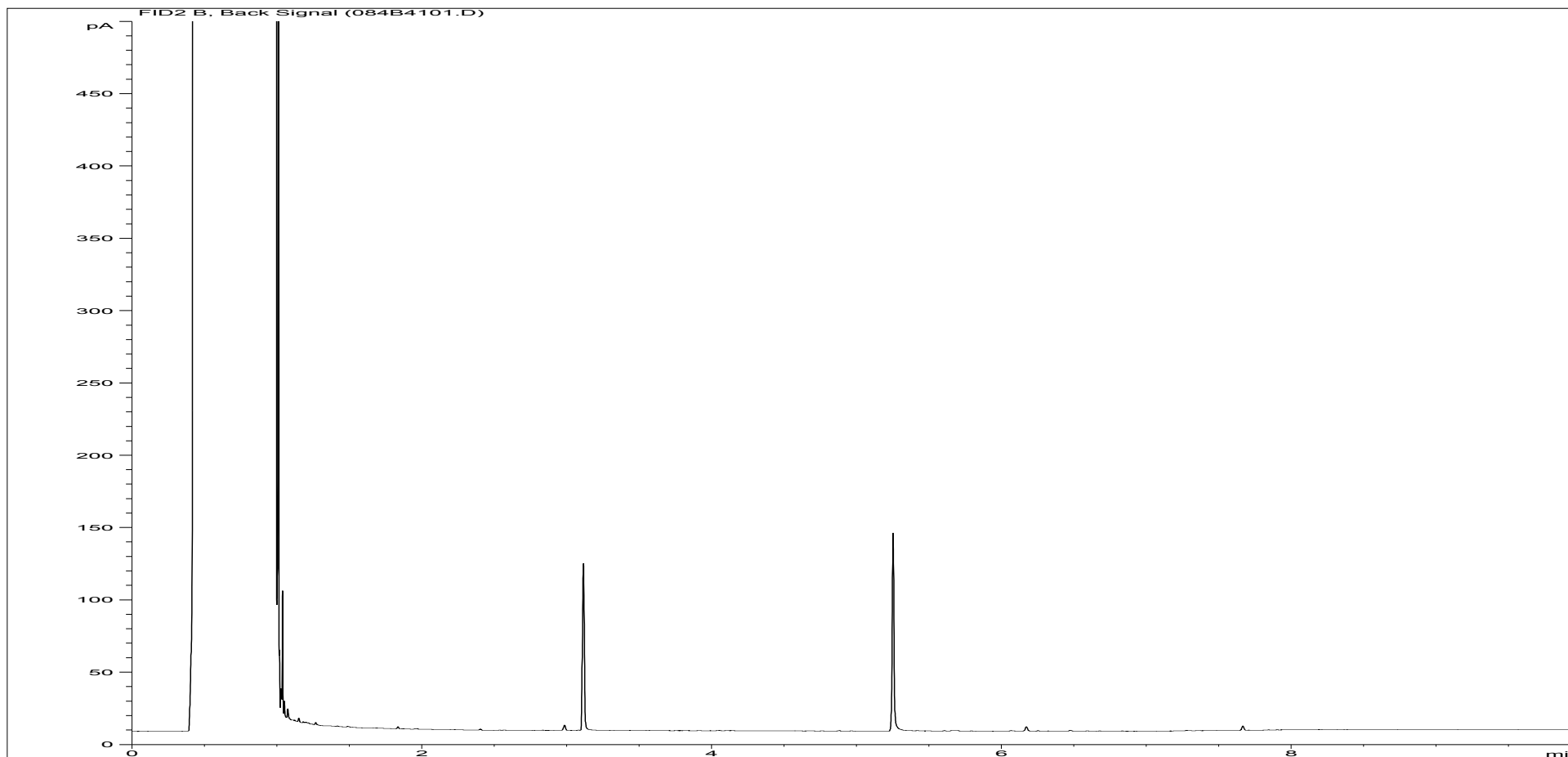
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1266179ALI | Job Number: | W13_1702 |
| Multiplier: | 0.02 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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\034F4101.D | | |

Where individual results are flagged see report notes for status.

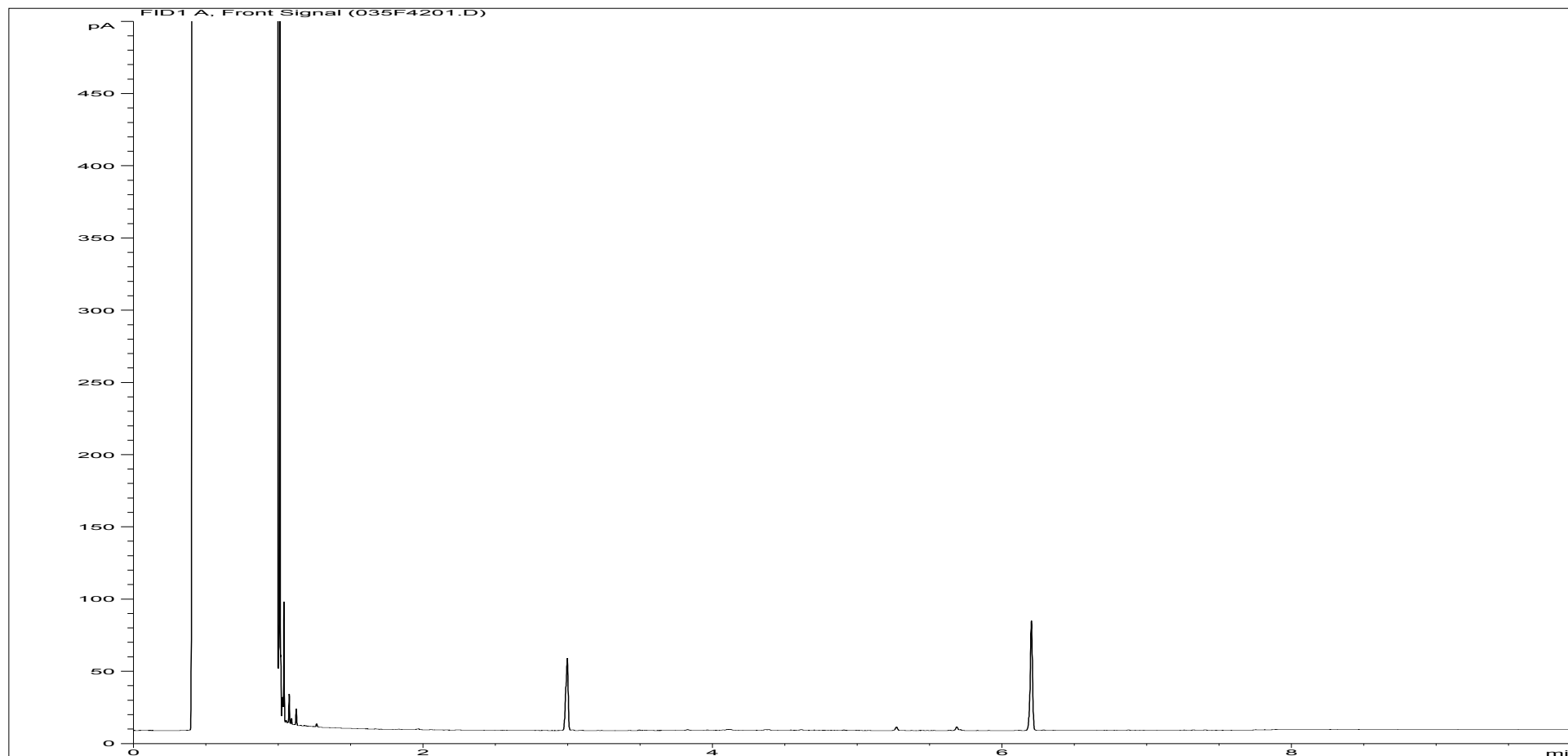
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1266179ARO | Job Number: | W13_1702 |
| Multiplier: | 0.016 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

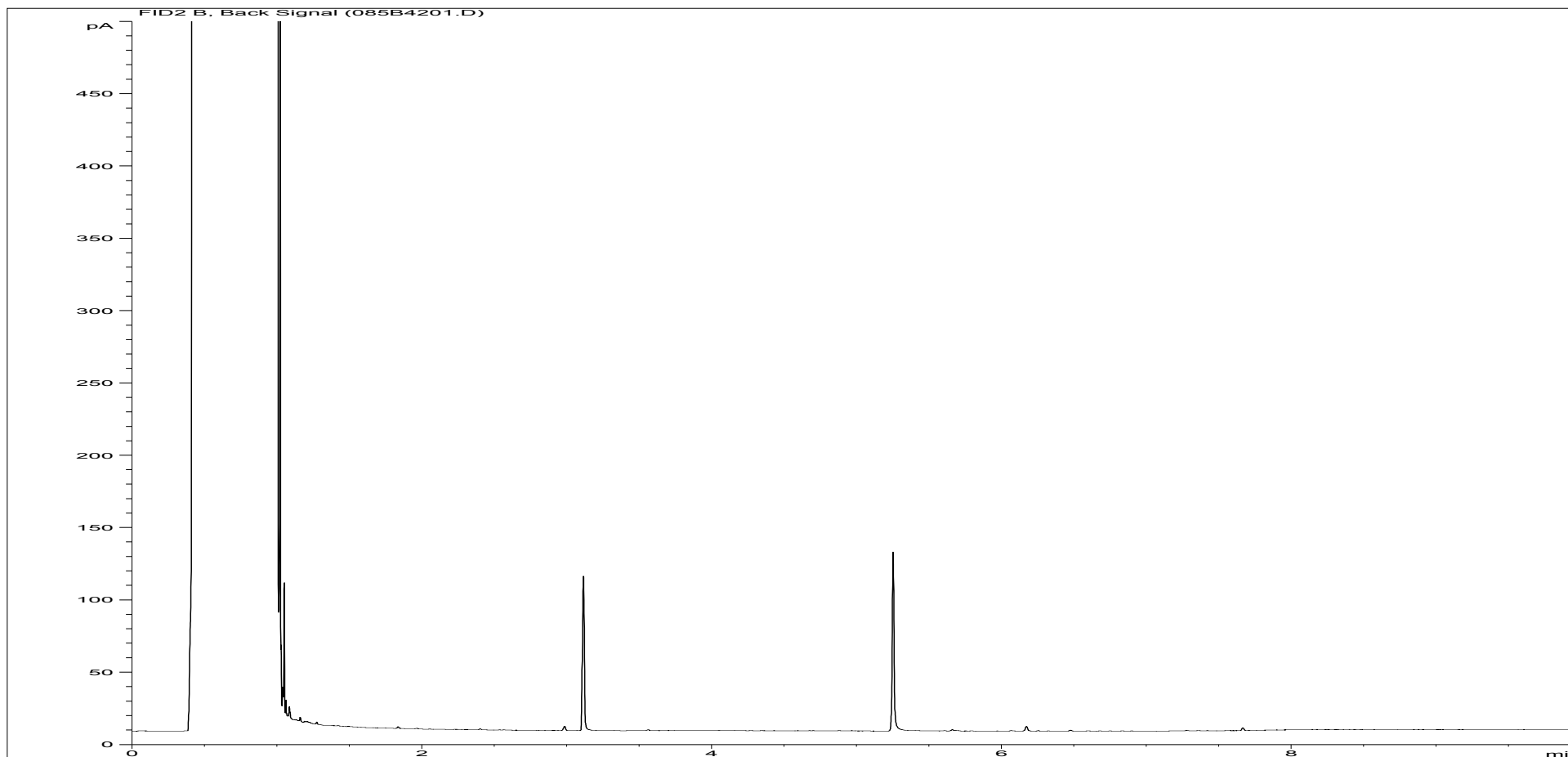
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1266180ALI | Job Number: | W13_1702 |
| Multiplier: | 0.02 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | 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\035F4201.D | | |

Where individual results are flagged see report notes for status.

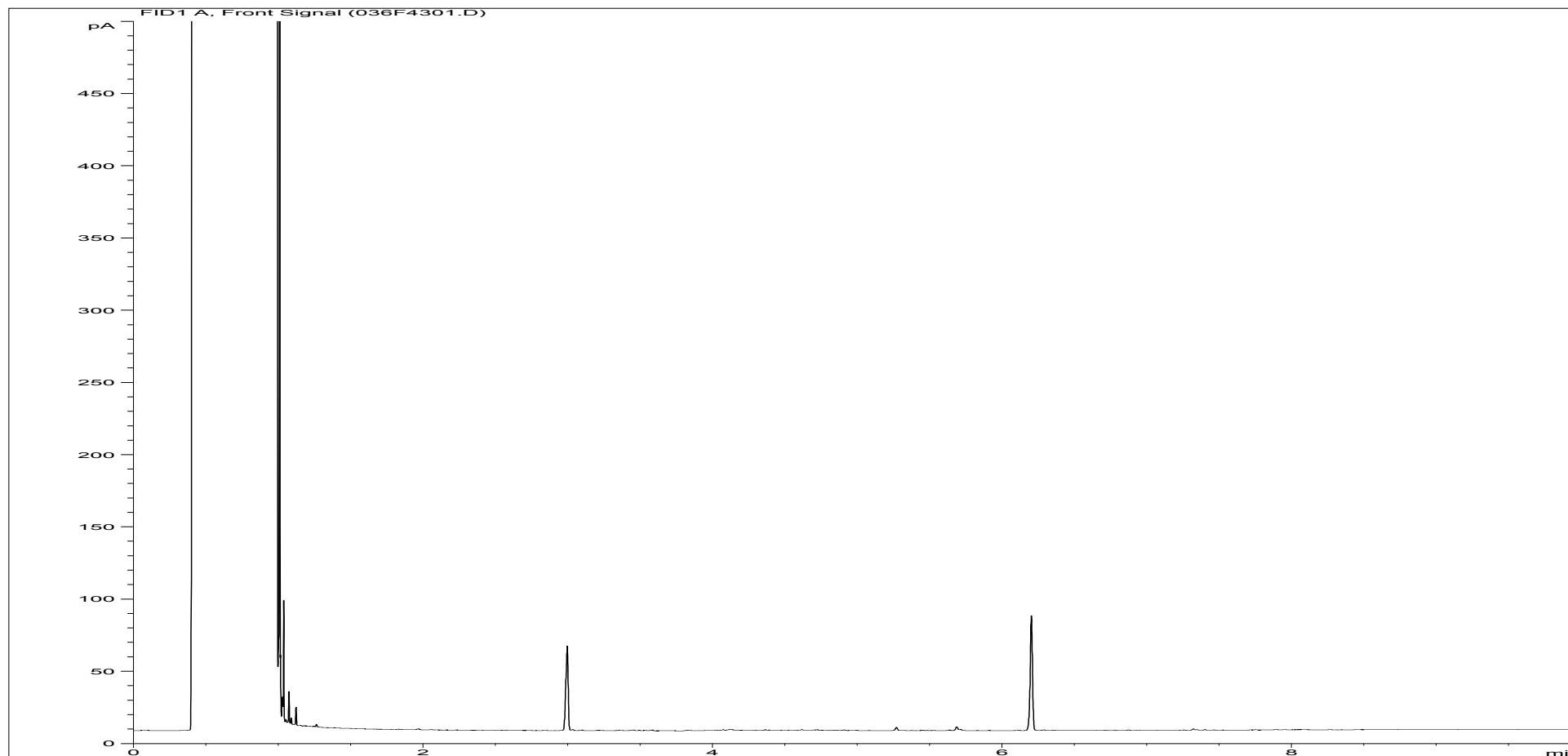
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1266180ARO | Job Number: | W13_1702 |
| Multiplier: | 0.015 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | 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 | | |

Where individual results are flagged see report notes for status.

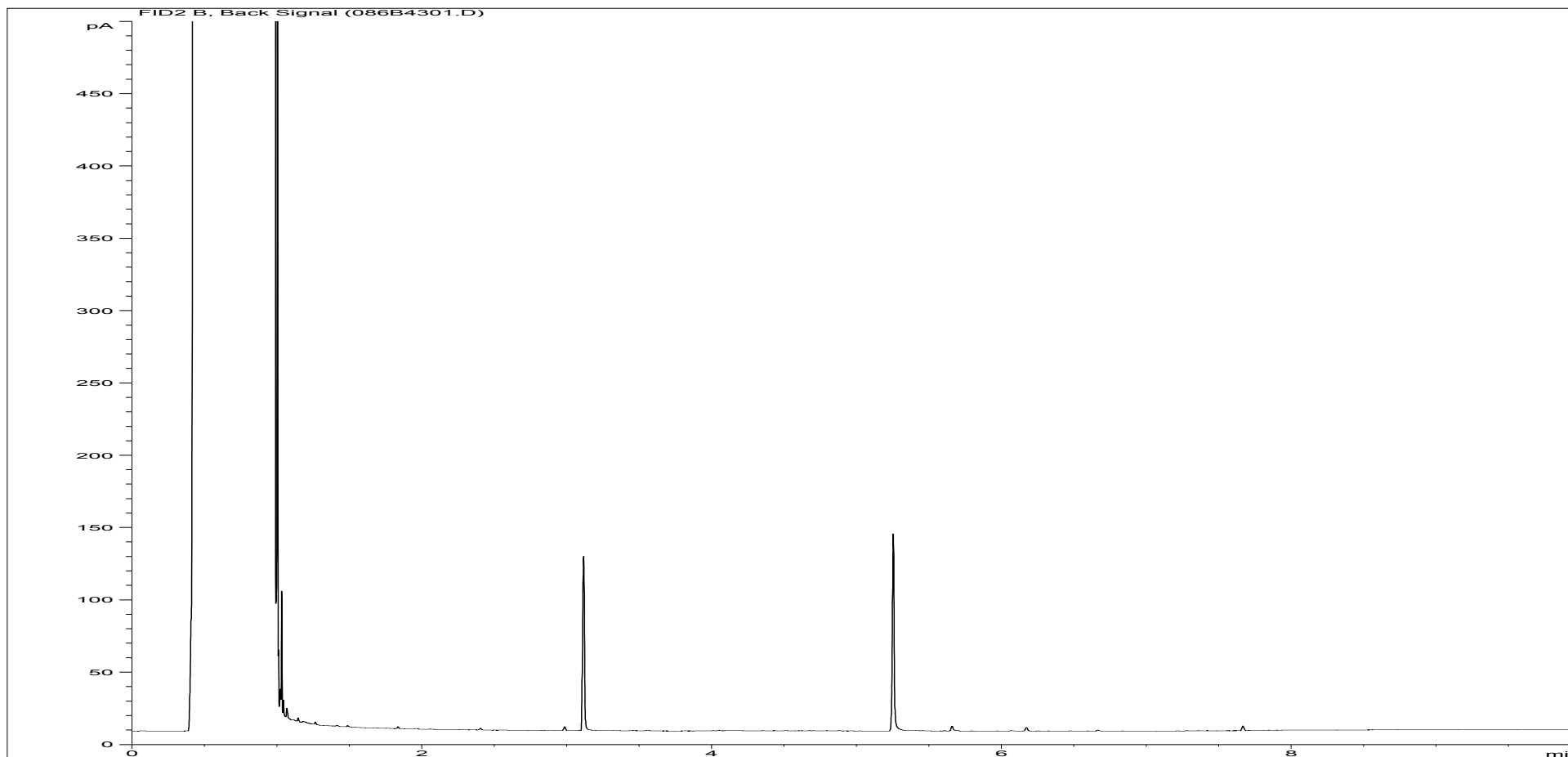
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1266181ALI | Job Number: | W13_1702 |
| Multiplier: | 0.02 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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\036F4301.D | | |

Where individual results are flagged see report notes for status.

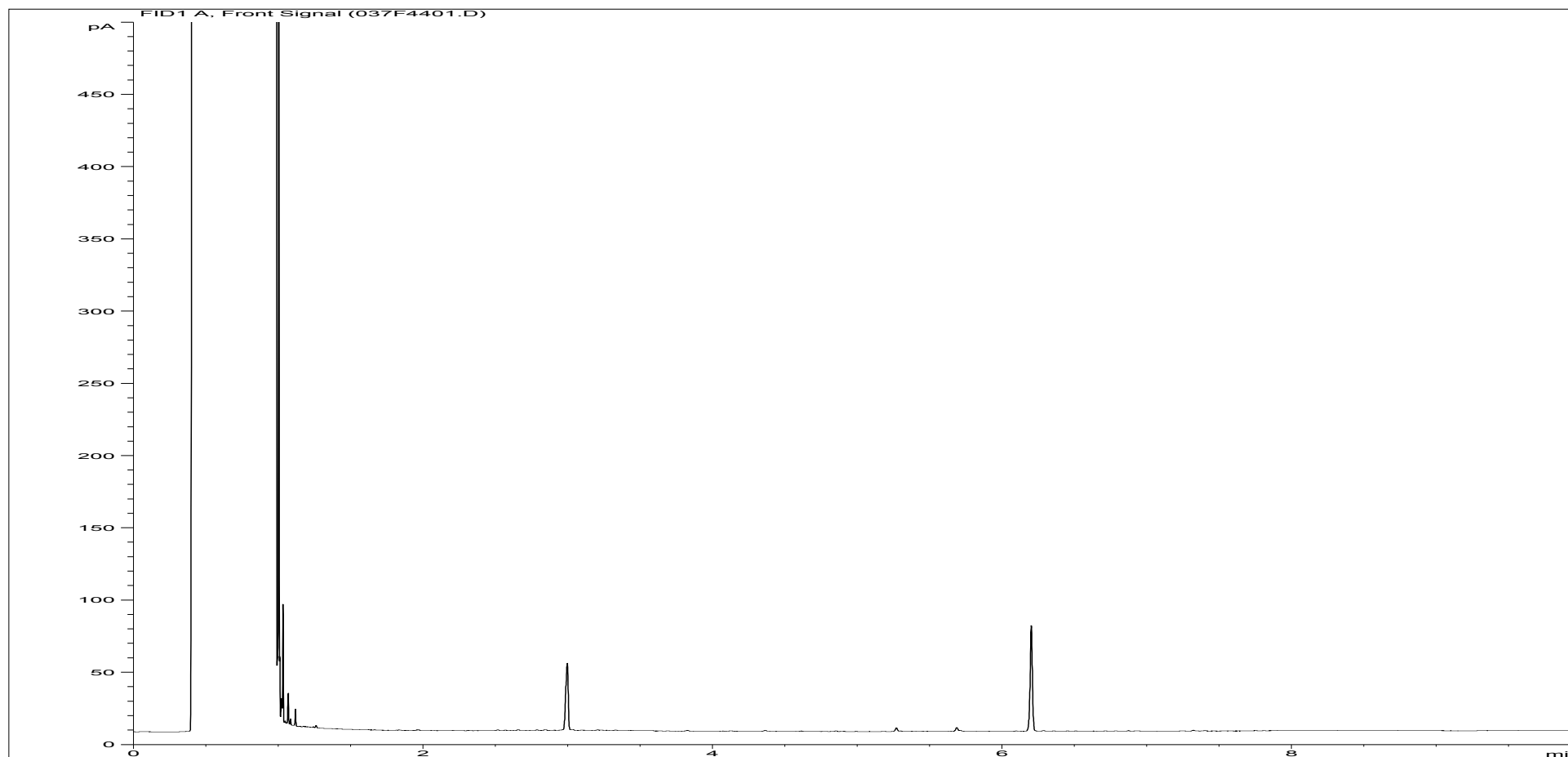
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1266181ARO | Job Number: | W13_1702 |
| Multiplier: | 0.016 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

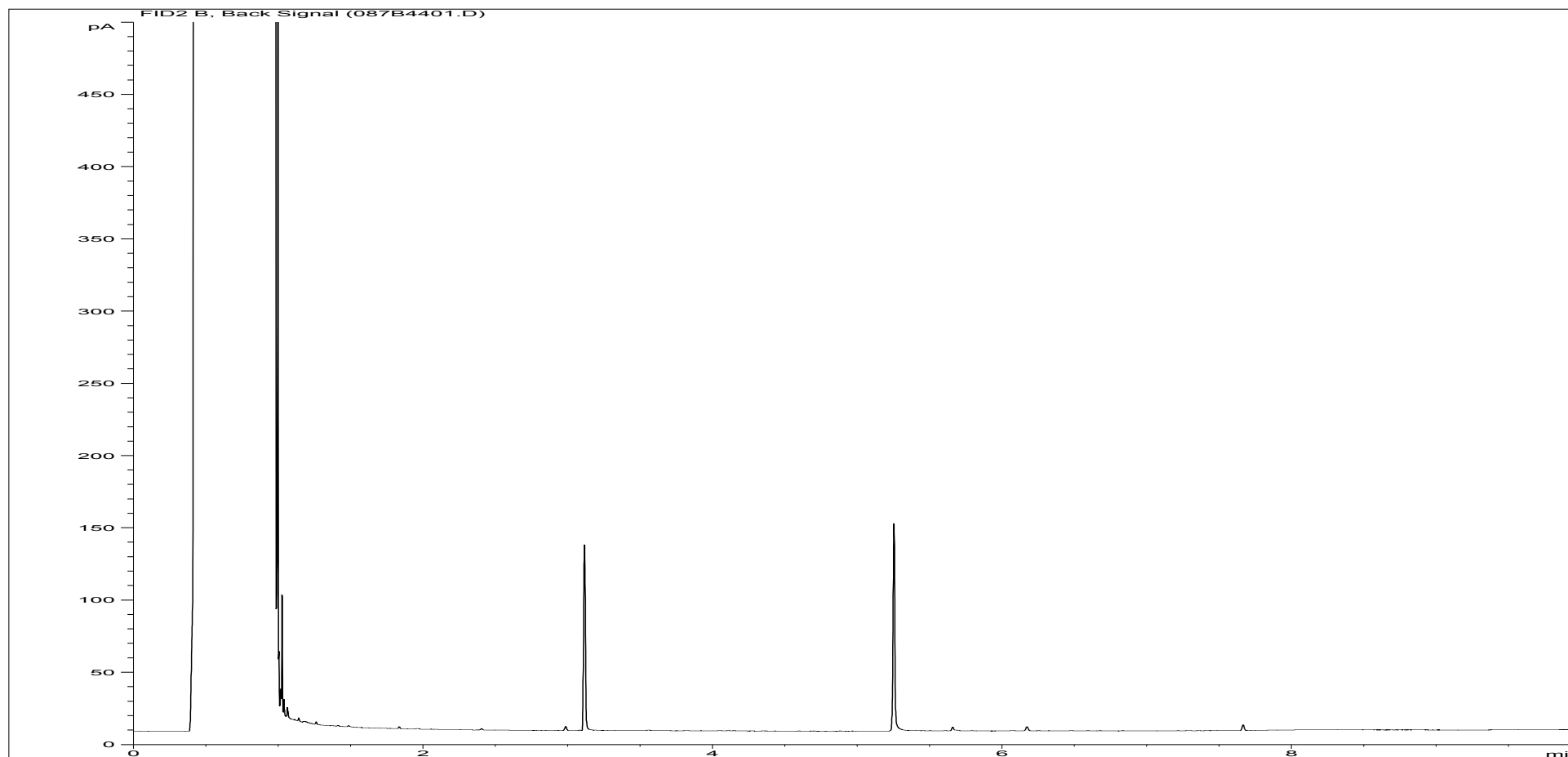
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1266182ALI | Job Number: | W13_1702 |
| Multiplier: | 0.02 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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\037F4401.D | | |

Where individual results are flagged see report notes for status.

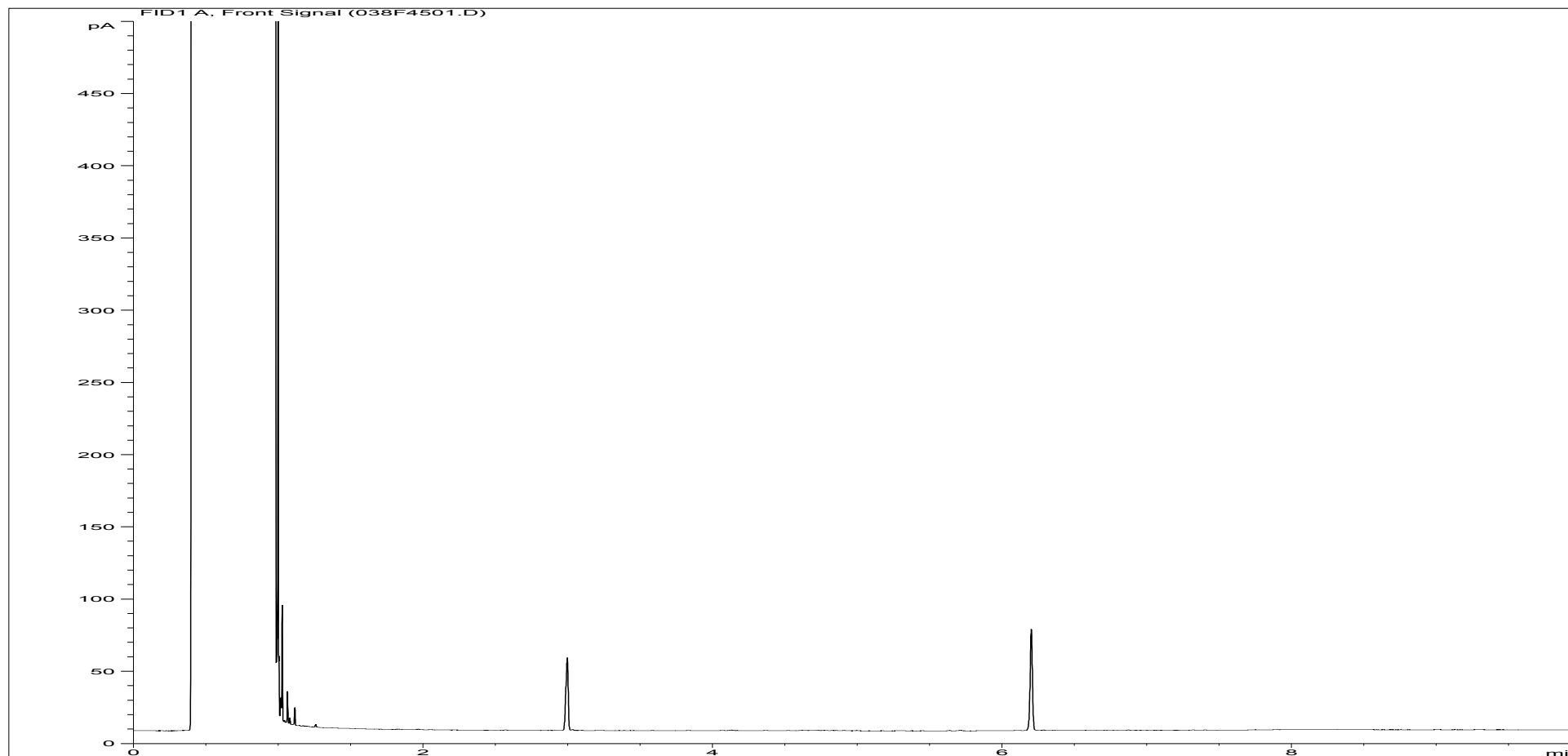
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1266182ARO | Job Number: | W13_1702 |
| Multiplier: | 0.015 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

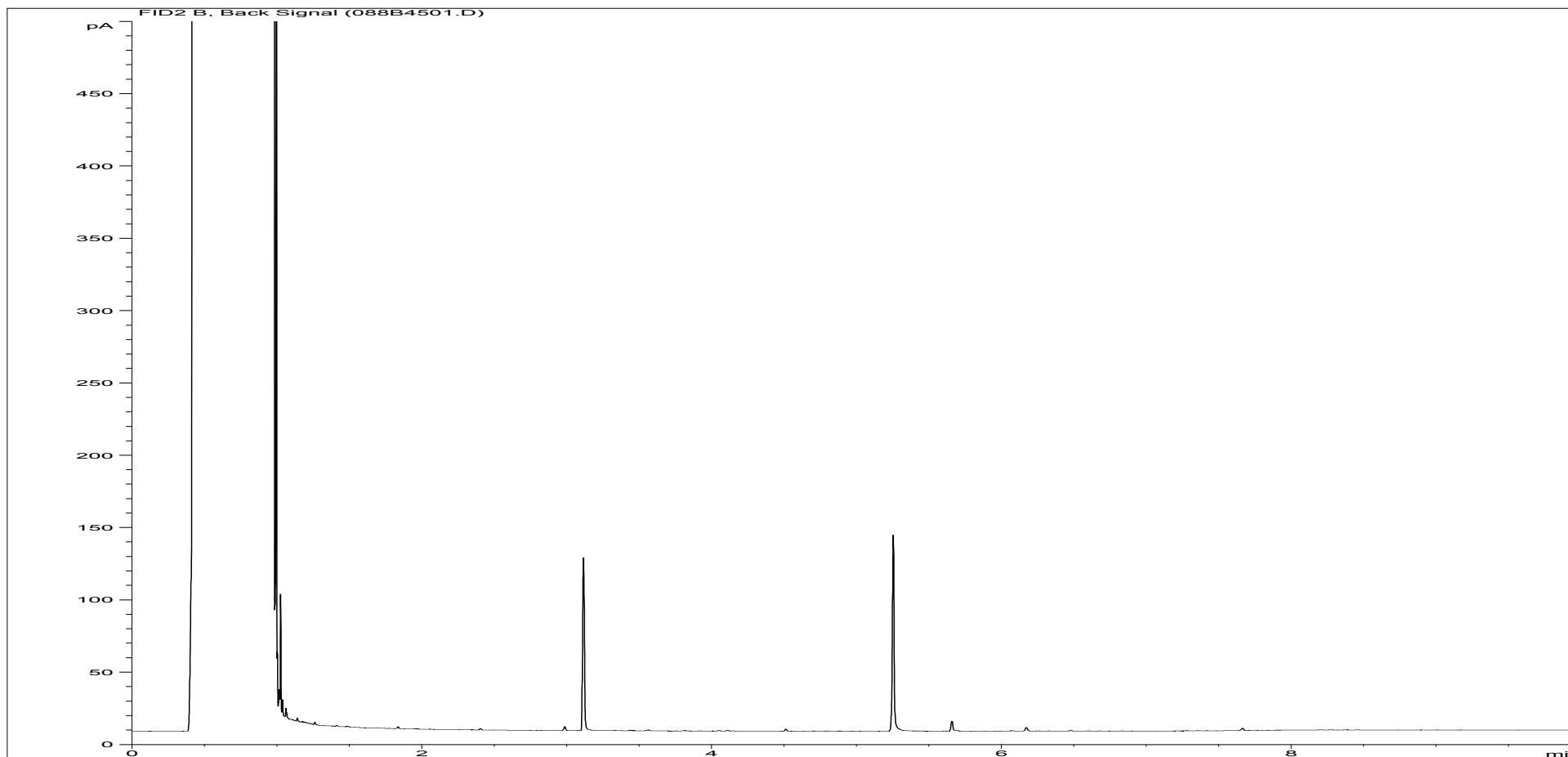
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1266183ALI | Job Number: | W13_1702 |
| Multiplier: | 0.02 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

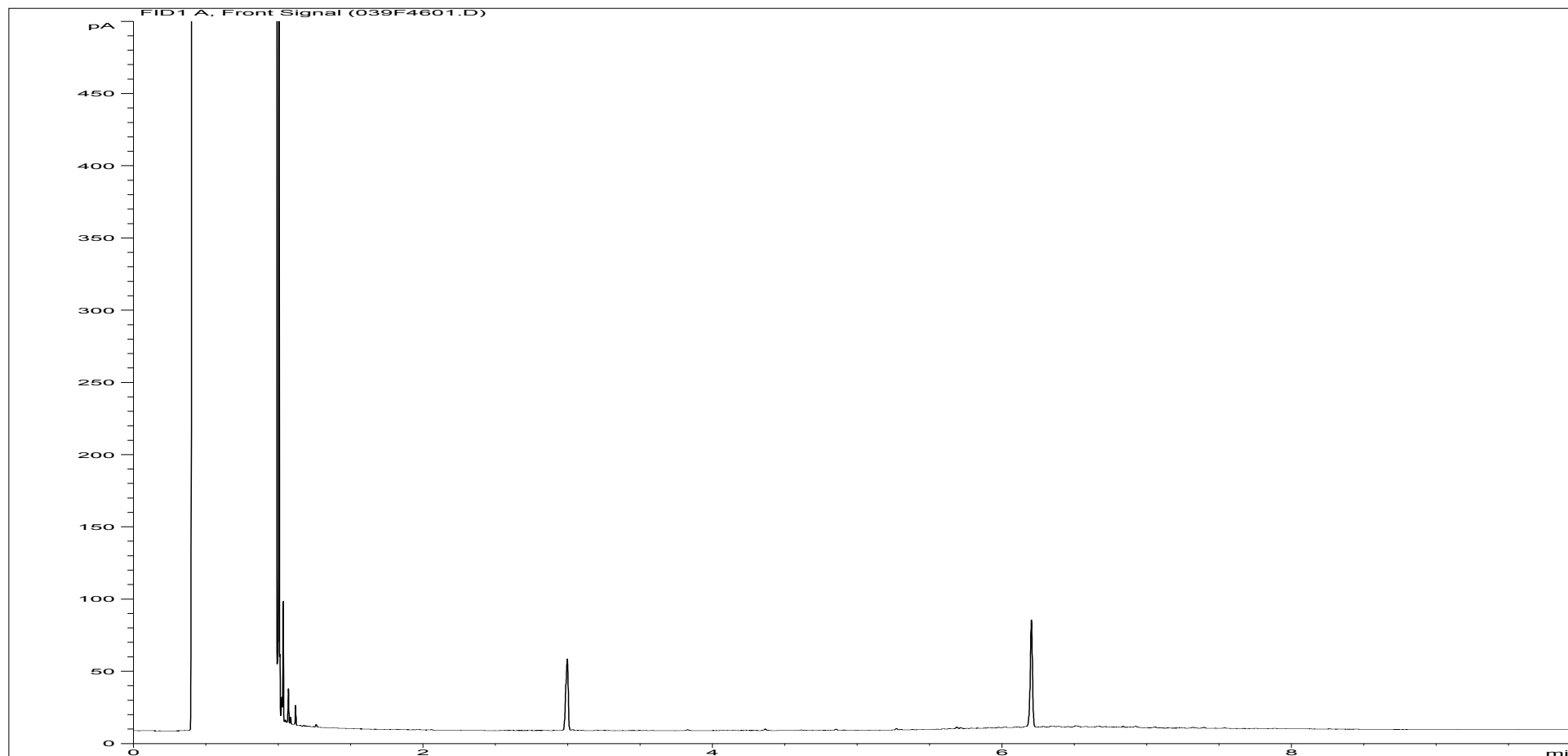
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1266183ARO | Job Number: | W13_1702 |
| Multiplier: | 0.016 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

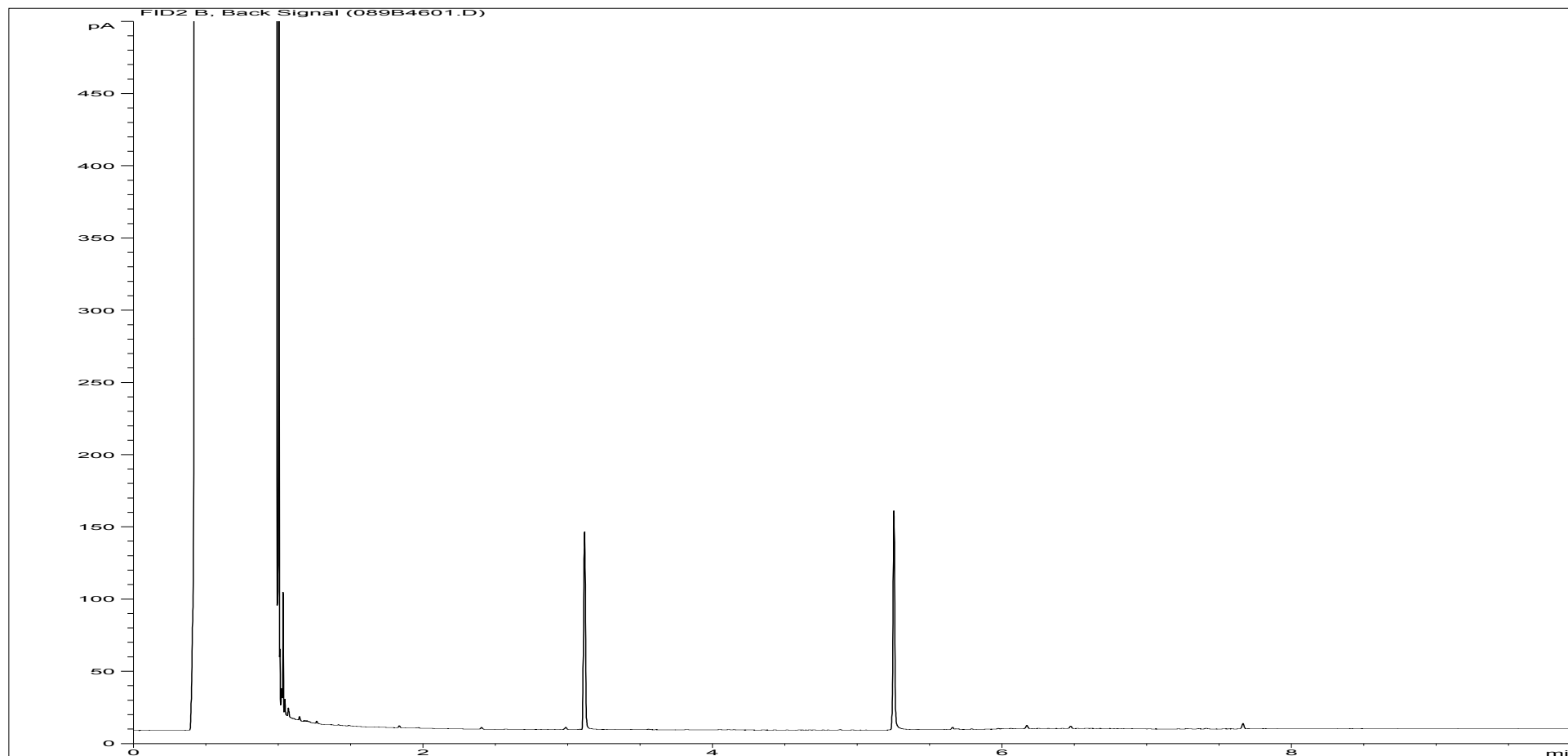
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1266184ALI | Job Number: | W13_1702 |
| Multiplier: | 0.02 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | 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 | | |

Where individual results are flagged see report notes for status.

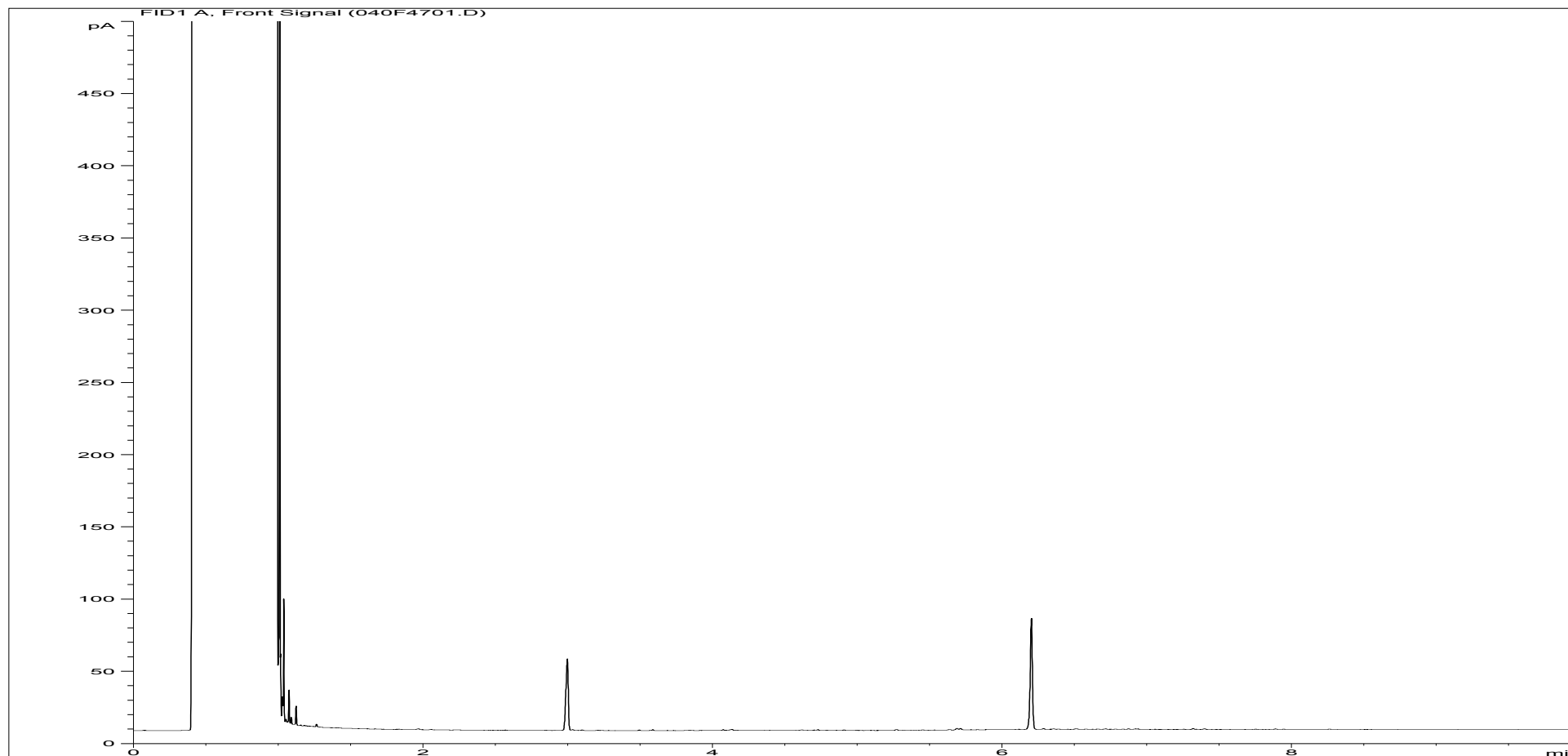
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1266184ARO | Job Number: | W13_1702 |
| Multiplier: | 0.015 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | 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\089B4601.D | | |

Where individual results are flagged see report notes for status.

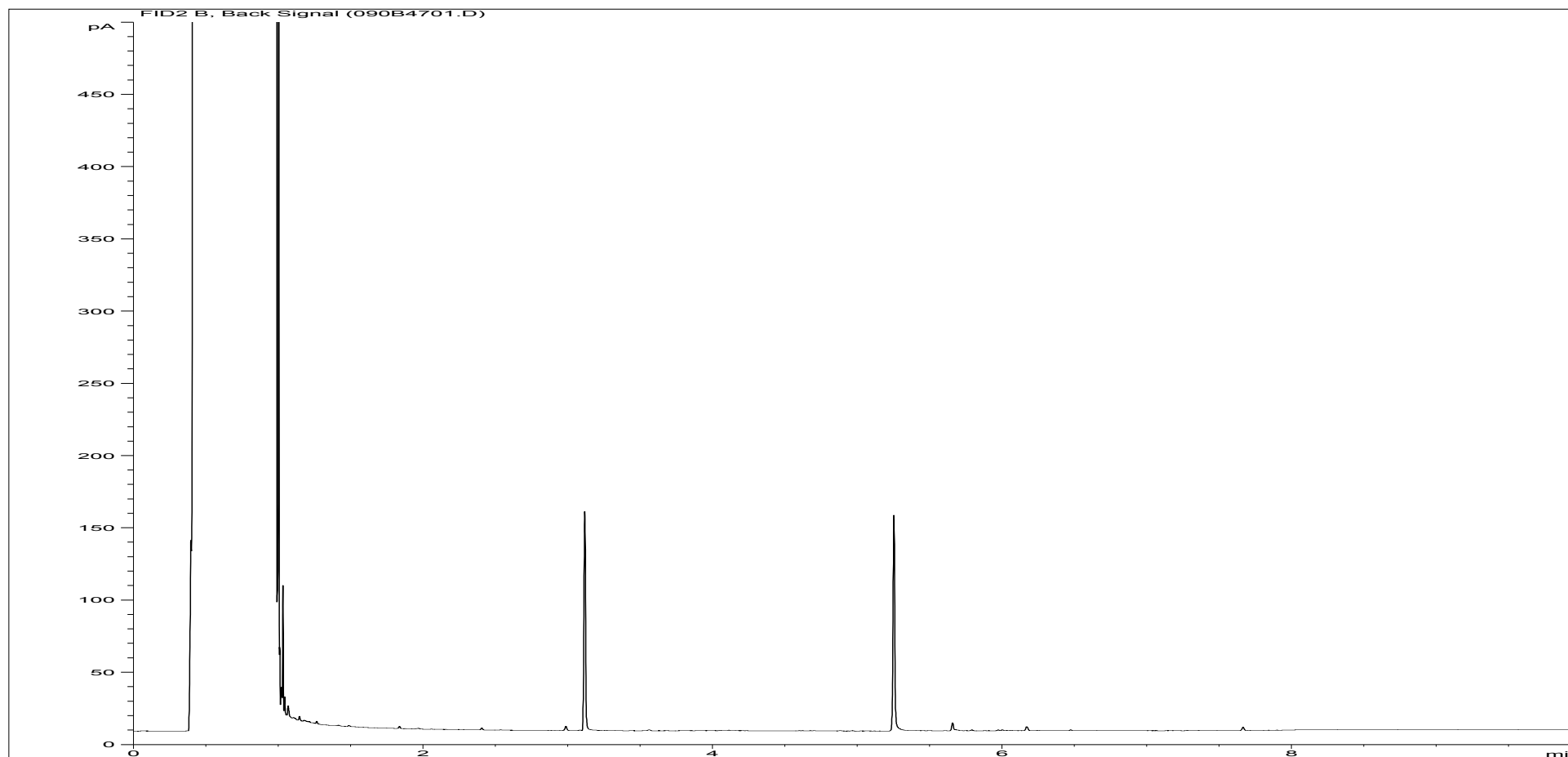
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1266185ALI | Job Number: | W13_1702 |
| Multiplier: | 0.02 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

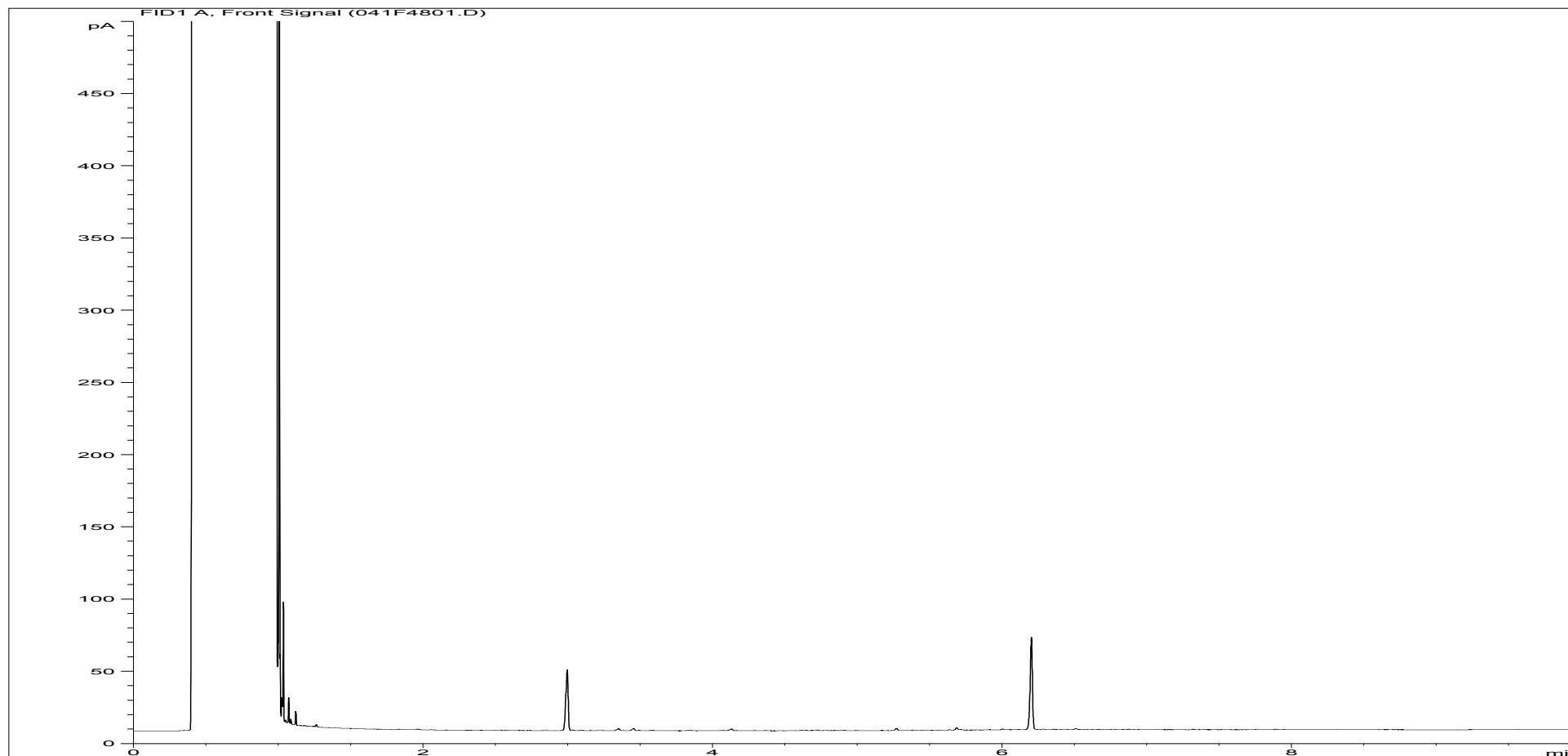
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1266185ARO | Job Number: | W13_1702 |
| Multiplier: | 0.015 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

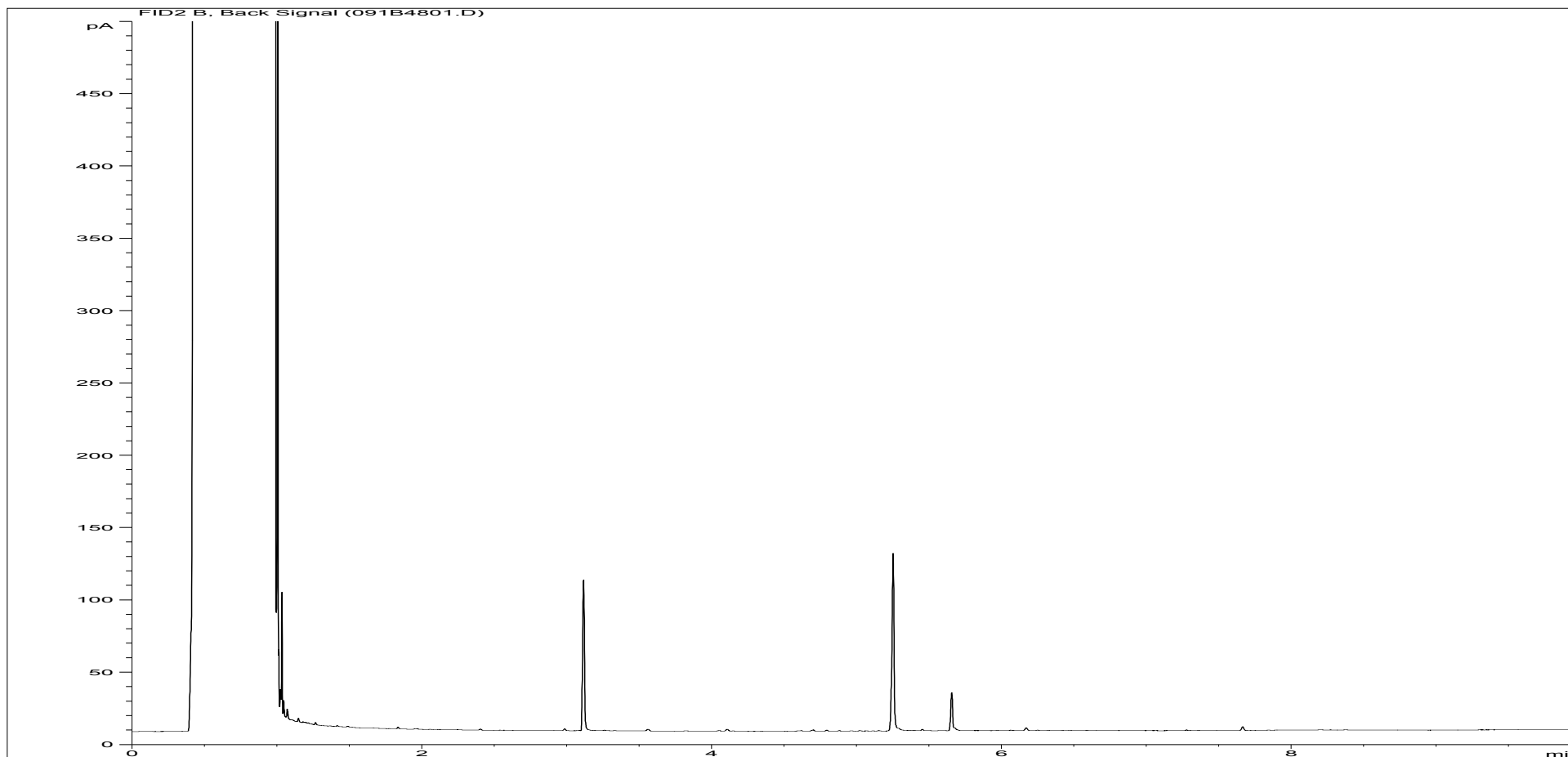
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1266186ALI | Job Number: | W13_1702 |
| Multiplier: | 0.019 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | 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 | | |

Where individual results are flagged see report notes for status.

Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1266186ARO | Job Number: | W13_1702 |
| Multiplier: | 0.015 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | 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\091B4801.D | | |

Where individual results are flagged see report notes for status.

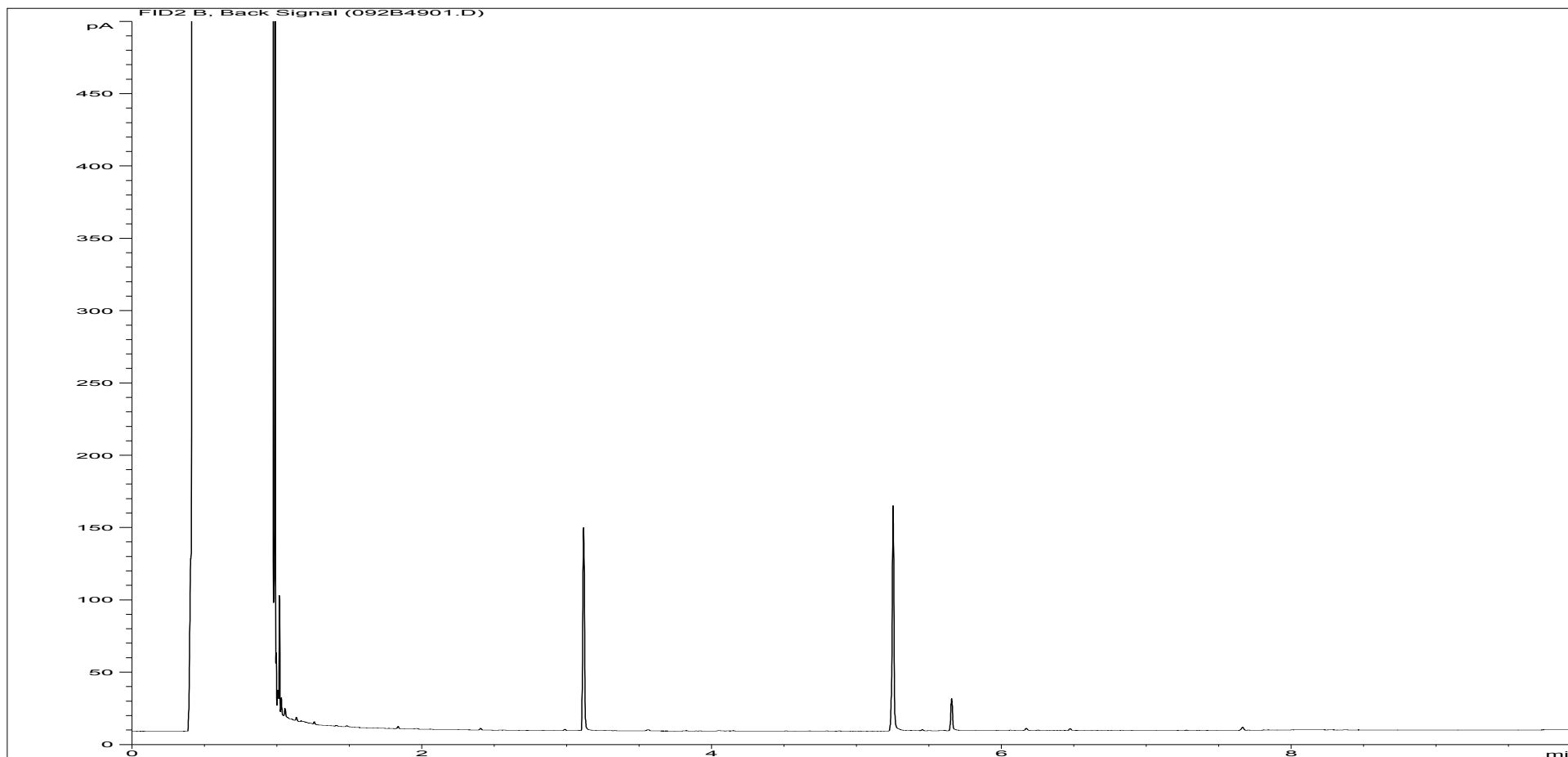
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1266187ALI | Job Number: | W13_1702 |
| Multiplier: | 0.02 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

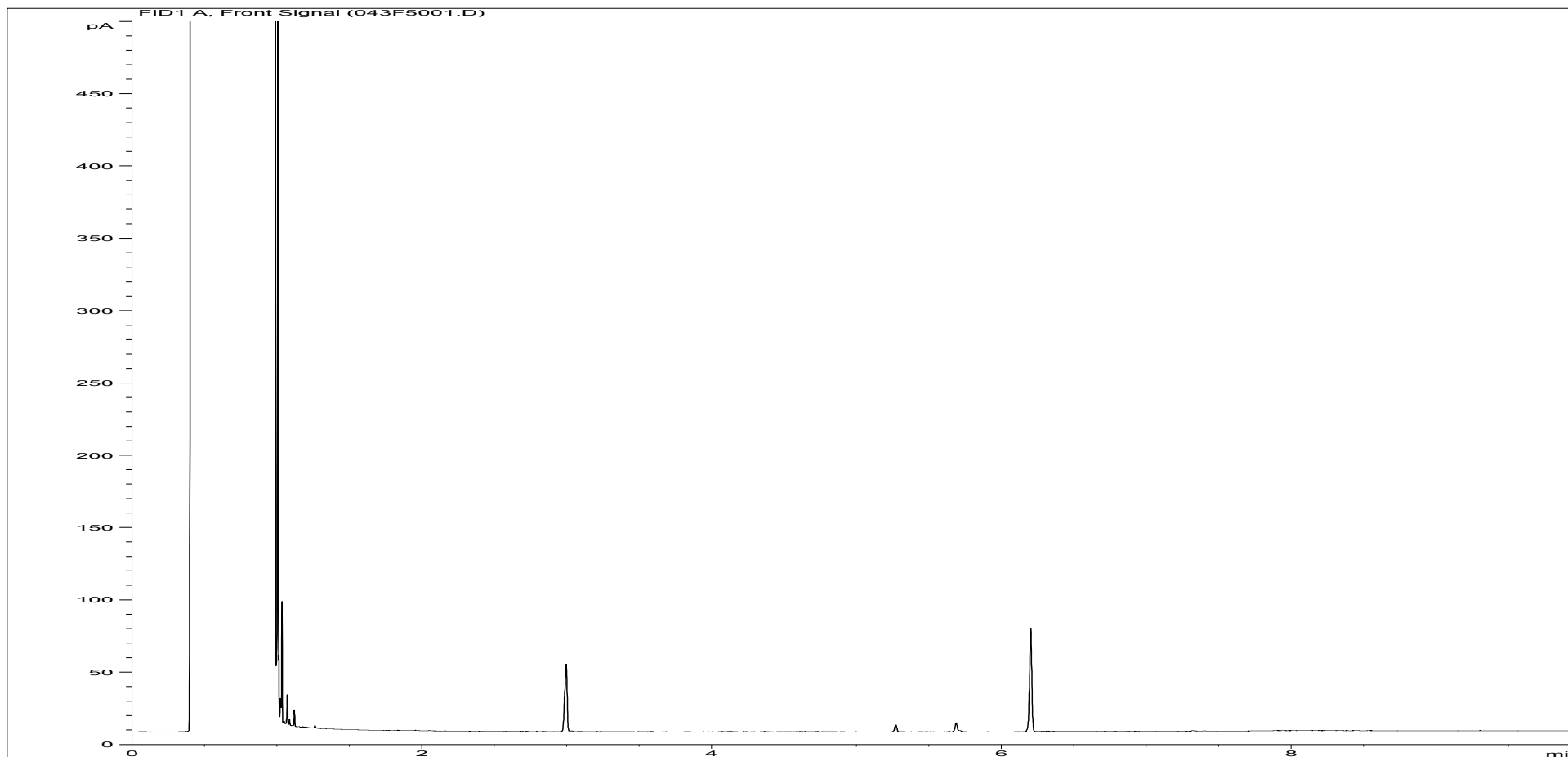
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1266187ARO | Job Number: | W13_1702 |
| Multiplier: | 0.015 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

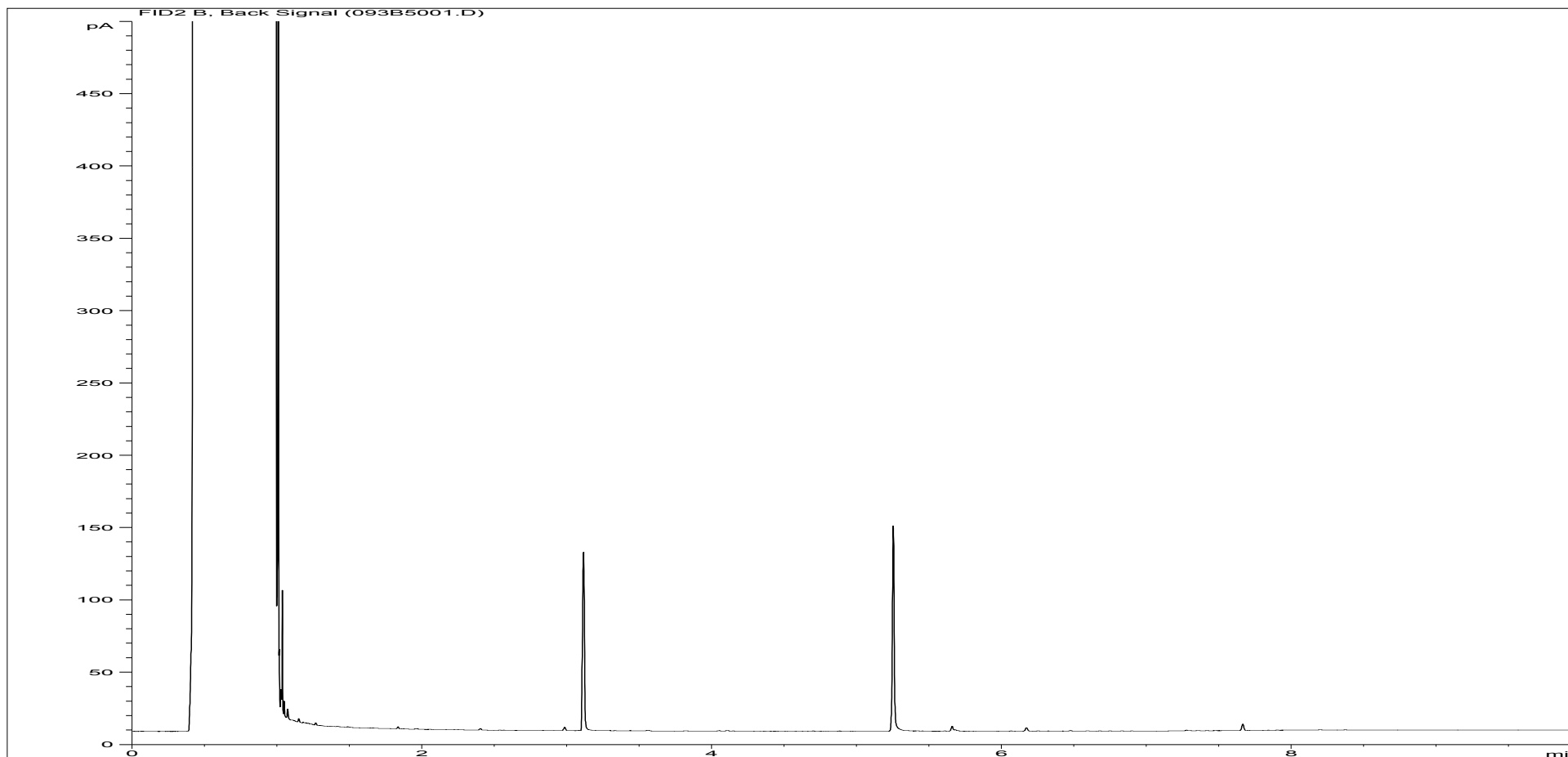
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1266188ALI | Job Number: | W13_1702 |
| Multiplier: | 0.019 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

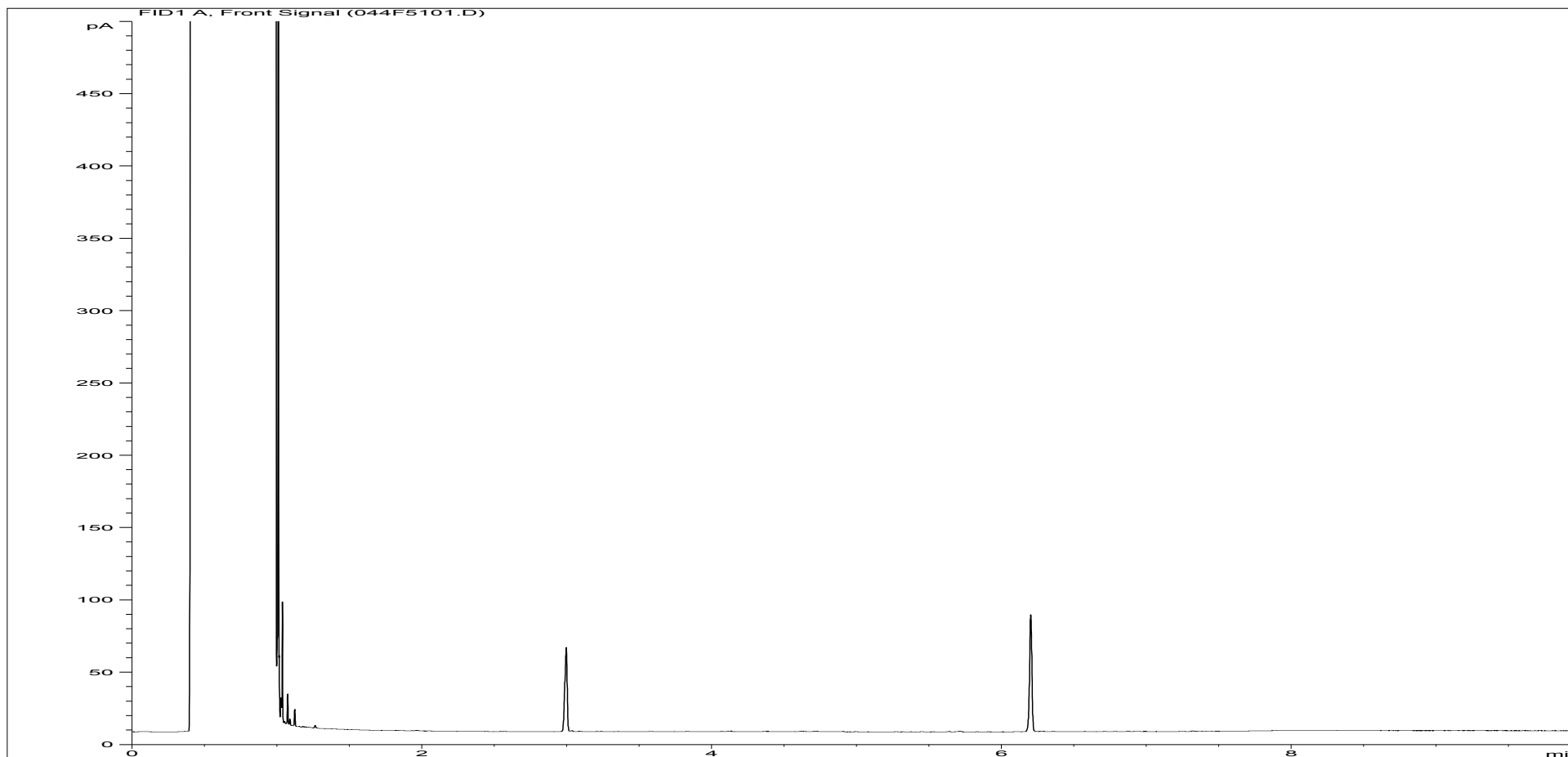
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1266188ARO | Job Number: | W13_1702 |
| Multiplier: | 0.015 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

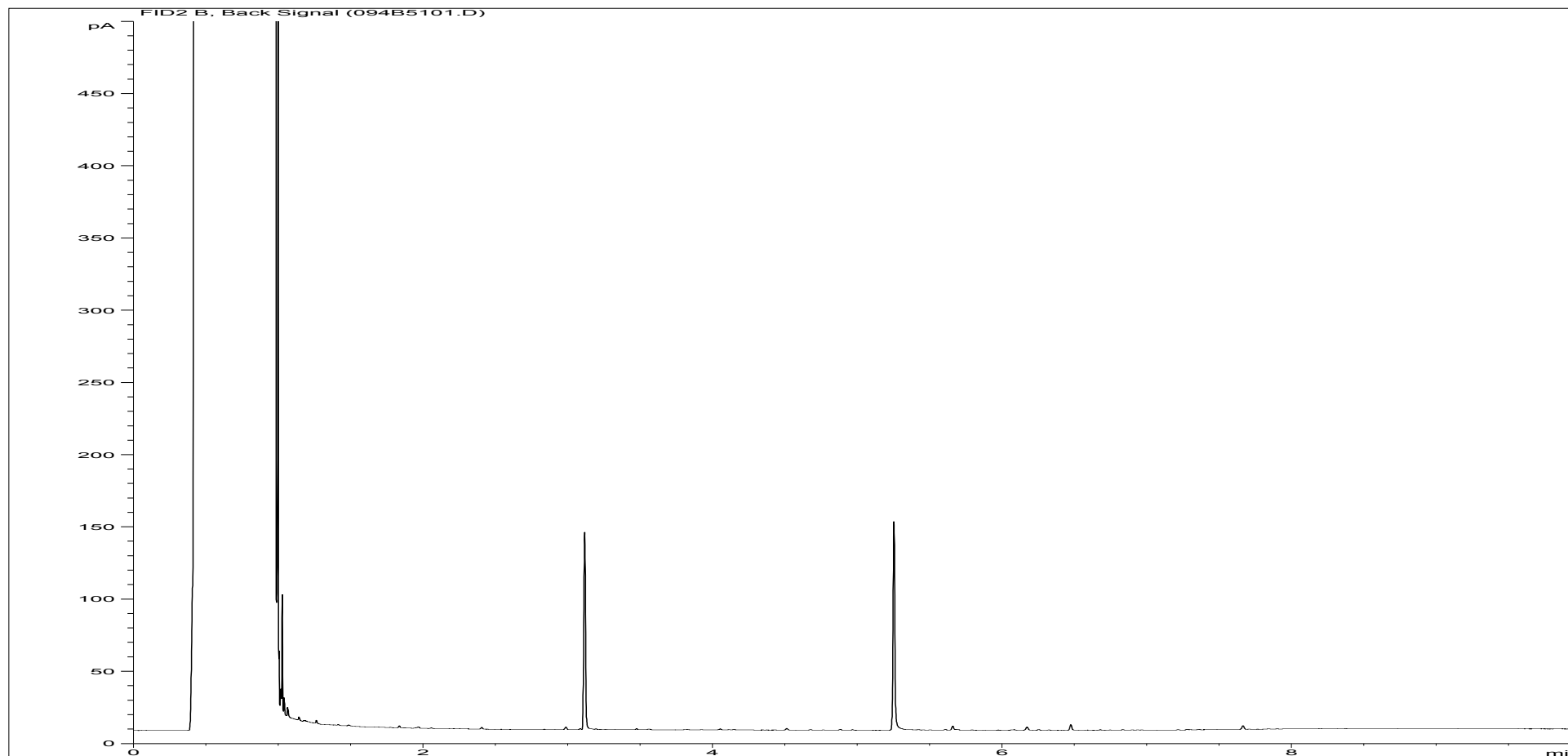
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1266189ALI | Job Number: | W13_1702 |
| Multiplier: | 0.019 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

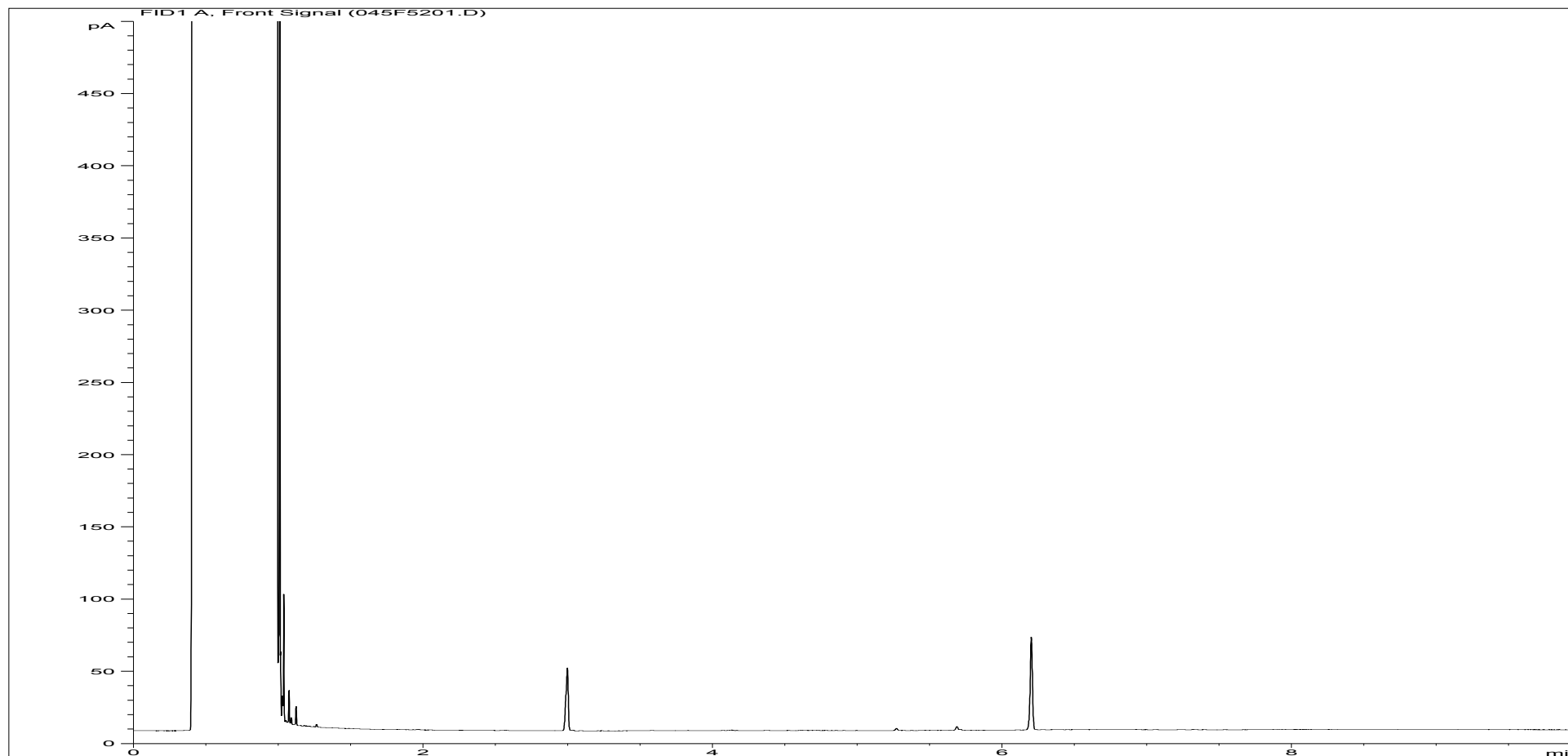
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1266189ARO | Job Number: | W13_1702 |
| Multiplier: | 0.016 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

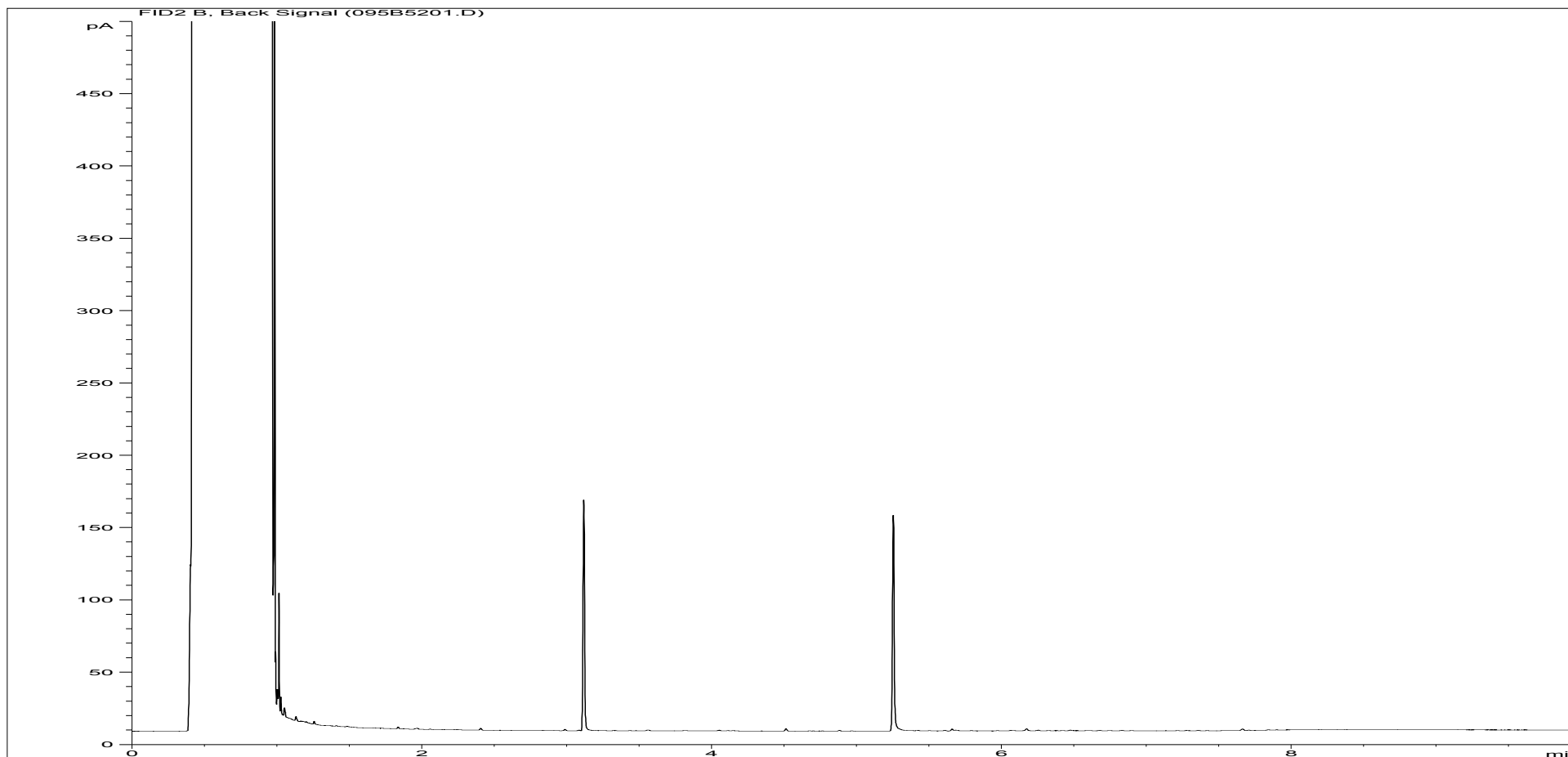
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1266190ALI | Job Number: | W13_1702 |
| Multiplier: | 0.018 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | 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 | | |

Where individual results are flagged see report notes for status.

Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1266190ARO | Job Number: | W13_1702 |
| Multiplier: | 0.014 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | 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\095B5201.D | | |

Where individual results are flagged see report notes for status.

Customer Waterman EED
Site Upper Heyford
Report No W131702

Consignment No W33648
Date Logged 09-Feb-2012

Report Due 17-Feb-2012

| ID Number | Description | MethodID | CURSERV Report A | GROHSA GRO-HSA GC/FID (AA) | ICPMSW Nickel as Ni MS (Dissolved) | Cadmium as Cd MS (Dissolved) | Chromium as Cr 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/FID-SI TPH by GC(Si) | W/SLM1 | W/SLM2 |
|------------------------|-------------|----------|---------------------|-------------------------------|---------------------------------------|------------------------------|-------------------------------|-----------------------------|---------------------------|---------------------------|------------------------------|------------------------------|-------------------------------|---------------------------------|-------------------------------|---------------------------------|------------------------------|----------------------------|-----------------------|----------------------------|--------------------------|------------------------|-----------------------------|------|-----------------------------|----------------------------------|---------------------------|
| | | | | | | | | | | | | | | | | | | | | | | | | | | Chemical Oxygen Demand (Settled) | Total Alkalinity as CaCO3 |
| 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 | |
|------------------------|--|
| A | The sample was received in an inappropriate container for this analysis |
| B | The sample was received without the correct preservation for this analysis |
| C | Headspace present in the sample container |
| D | The sampling date was not supplied so holding time may be compromised - applicable to all analysis |
| E | 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 |

Customer Waterman EED
Site Upper Heyford
Report No W131702





Consignment No W33648
Date Logged 09-Feb-2012

Report Due 17-Feb-2012

| ID Number | Description | MethodID | WSLM13 | WSLM17 | WSLM2 | WSLM20 | WSLM3 | WSLM7 |
|------------------------|-------------|----------|----------------------|------------------------|--------------------------|---------------------------|----------|------------------------------|
| | | | 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 | |
|---|--|
| A | The sample was received in an inappropriate container for this analysis |
| B | The sample was received without the correct preservation for this analysis |
| C | Headspace present in the sample container |
| D | The sampling date was not supplied so holding time may be compromised - applicable to all analysis |
| E | 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 |

Where individual results are flagged see report notes for status.

Customer Waterman EED
Site Upper Heyford
Report No W131702





Consignment No W33648
 Date Logged 09-Feb-2012

Report Due 17-Feb-2012

| ID Number | Description | MethodID | WSLM13 | WSLM17 | WSLM2 | WSLM20 | WSLM3 | WSLM7 |
|------------------------|-------------|----------|----------------------|------------------------|--------------------------|---------------------------|----------|------------------------------|
| | | Sampled | Total Organic Carbon | Total Acidity as CaCO3 | Conductivity uS/cm @ 25C | Biochemical Oxygen Demand | pH units | Cyclohexane Extract Material |
| Accredited 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 | |
|---|--|
| A | The sample was received in an inappropriate container for this analysis |
| B | The sample was received without the correct preservation for this analysis |
| C | Headspace present in the sample container |
| D | The sampling date was not supplied so holding time may be compromised - applicable to all analysis |
| E | 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 |

Where individual results are flagged see report notes for status.

Method Descriptions

| Matrix | MethodID | Analysis Basis | Method Description |
|--------|-----------|----------------|--|
| 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 ($\mu\text{S}/\text{cm}$) 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 |

Where individual results are flagged see report notes for status.

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

NAIS 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

▮ 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.

END OF REPORT

Where individual results are flagged see report notes for status.

Our Ref: EXR/131704 (Ver. 1)

Your Ref: E10658-109

February 20, 2012



Environmental Chemistry

ESG

Bretby Business Park

Ashby Road

Burton-on-Trent

Staffordshire

DE15 0YZ

Telephone: 01283 554400

Facsimile: 01283 554422

Mr F Alcock
Waterman EED
Waterman Environmental
Pickfords Wharf
Clink Street
London
SE1 9DG

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.

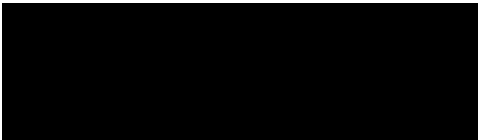
An invoice for this work will follow under a separate cover.

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/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.

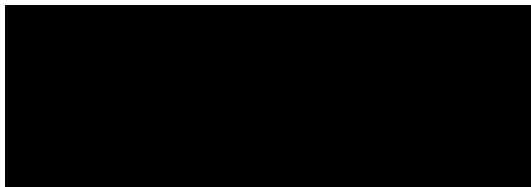
The analysis was completed by: 20-Feb-2012

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 '^' have been subcontracted to another laboratory.

ESG accepts no responsibility for any sampling not carried out by our personnel.

Where individual results are flagged see report notes for status.

| | | | 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 | | | |
|--|---------------------------|-------------|---------------------------|----------------------------|-----------------------------|--------------------------|------------------|------------------------------------|-----------------------------|-------------------------------|----------------------------|--------------------------|----------------------------|---------------------------|--------------------------|------------------------|------------------------|---------------------------|--------|-------|-----|
| | | | Method Codes : | WSLM3 | WSLM2 | WSLM12 | WSLM17 | KONENS | ICPWATVAR | ICPWATVAR | ICPWATVAR | ICPWATVAR | ICPMSW | ICPMSW | ICPMSW | ICPMSW | ICPMSW | ICPMSW | ICPMSW | | |
| | | | Method Reporting Limits : | | 100 | 2 | 2 | 1 | 3 | 1 | 1 | 1 | 0.001 | 0.001 | 0.0001 | 0.001 | 0.001 | 0.001 | 0.002 | 0.001 | |
| | | | UKAS Accredited : | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| LAB ID Number | 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 | | | |
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|  Environmental Scientifics Group Breiby Business Park, Ashby Road Burton-on-Trent, Staffordshire, DE15 0YZ Tel +44 (0) 1283 554400 Fax +44 (0) 1283 554422 | | | Client Name | | Waterman EED | | | | | | | Water Sample Analysis | | | | | | | | | |
| | | | Contact | | Mr F Alcock | | | | | | | | | | | | | | | | |
| | | | Upper Heyford | | | | | | | | | | Date Printed | | 20-Feb-2012 | | | | | | |
| | | | | | | | | | | | | | Report Number | | EXR/131704 | | | | | | |
| Table Number | | 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 | | | |
|--|---------------------------|---------------------------|---|---------------------------|----------------------------|--------------------------|--------------|----------------|----------------------------------|------------------------|------------------------------------|----------------|-----------------------------|--------------------------------|---------------------------------|-----------|-----------|-----------------|--|--|--|
| | | Method Codes : | ICPWATVAR | ICPMSW | ICPMSW | KONENS | KONENS | KONENS | WSLM11 | WSLM13 | GROHSA | TPHFID-Si | WSLM20 | WSLM7 | SVOCSW | PHEHPLCVL | PHEHPLCVL | PHEHPLCVL | | | |
| | | Method Reporting Limits : | 0.01 | 0.0001 | 0.001 | 0.01 | 0.2 | 0.01 | 5 | 0.1 | 0.1 | 0.01 | 2 | 1 | 0.002 | 0.0005 | 0.0005 | 0.0005 | | | |
| | | UKAS Accredited : | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | No | No | No | No | No | No | | | |
| LAB ID Number | 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(S) 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 | | | |
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|  <p>Environmental Scientifics Group Bretby Business Park, Ashby Road Burton-on-Trent, Staffordshire, DE15 0YZ Tel +44 (0) 1283 554400 Fax +44 (0) 1283 554422</p> | | | Client Name Waterman EED Contact Mr F Alcock | | <h1>Upper Heyford</h1> | | | | | | Water Sample Analysis | | | | | | | | | | |
| | | | | | | | | | | | Date Printed 20-Feb-2012 | | | | | | | | | | |
| | | | | | | | | | | | Report Number EXR/131704 | | | | | | | | | | |
| | | | | | | | | | | | Table Number 1 | | | | | | | | | | |

| | | Units : | mg/l | mg/l | mg/l | mg/l | | | | | | | | | | | |
|--|---------------------------|---|----------------------|------------------|------------|-----------|------------------------------|--|--|--|--|--|--|--|--|--|--|
| | | Method Codes : | PHEHPLCVL | PHEHPLCVL | PHEHPLCVL | PHEHPLCVL | | | | | | | | | | | |
| | | Method Reporting Limits : | 0.1 | 0.0005 | 0.1 | 0.1 | | | | | | | | | | | |
| | | UKAS Accredited : | 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 | | | | | | | | | | | |
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|  <p>Environmental Scientifics Group Bretby Business Park, Ashby Road Burton-on-Trent, Staffordshire, DE15 0YZ Tel +44 (0) 1283 554400 Fax +44 (0) 1283 554422</p> | | Client Name Waterman EED Contact Mr F Alcock | Upper Heyford | | | | Water Sample Analysis | | | Date Printed 20-Feb-2012 Report Number EXR/131704 Table Number 1 | | | | | | | |

Semi-Volatile Organic Compounds

UKAS accredited?: No

16

Customer and Site Details: Waterman EED: Upper Heyford
Sample Details: BH-NSA 20
LIMS ID Number: EX1266202
Job Number: W13_1704

Date Booked in: 09-Feb-12
Date Extracted: 14-Feb-12
Date Analysed: 14-Feb-12

Matrix: Water
Ext Method: Sep. Funnel
Operator: DMB/SO
Directory/Quant File: 14SVOC.GC1\ 0214_CCC1.D

QC Batch Number: 19
Multiplier: 0.005
Dilution Factor: 1
GPC (Y/N) N

| 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 | - |

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 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 | 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 |

Where individual results are flagged see report notes for status.

Semi-Volatile Organic Compounds

UKAS accredited?: No

16

Customer and Site Details: Waterman EED: Upper Heyford
Sample Details: BH-NSA 21
LIMS ID Number: EX1266203
Job Number: W13_1704

Date Booked in: 09-Feb-12
Date Extracted: 14-Feb-12
Date Analysed: 14-Feb-12

Matrix: Water
Ext Method: Sep. Funnel
Operator: DMB/SO
Directory/Quant File: 14SVOC.GC1\ 0214_CCC1.D

QC Batch Number: 19
Multiplier: 0.005
Dilution Factor: 1
GPC (Y/N) N

| 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 | - |

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 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 | 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 |

Where individual results are flagged see report notes for status.

Semi-Volatile Organic Compounds

UKAS accredited?: No

16

Customer and Site Details: Waterman EED: Upper Heyford
Sample Details: BH-NSA 22
LIMS ID Number: EX1266204
Job Number: W13_1704

Date Booked in: 09-Feb-12
Date Extracted: 14-Feb-12
Date Analysed: 14-Feb-12

Matrix: Water
Ext Method: Sep. Funnel
Operator: DMB/SO
Directory/Quant File: 14SVOC.GC1\ 0214_CCC1.D

QC Batch Number: 19
Multiplier: 0.005
Dilution Factor: 1
GPC (Y/N) N

| 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 | - |

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 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 | 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 |

Semi-Volatile Organic Compounds

UKAS accredited?: No

16

Customer and Site Details: Waterman EED: Upper Heyford
Sample Details: BH-NSA 38
LIMS ID Number: EX1266205
Job Number: W13_1704

Date Booked in: 09-Feb-12
Date Extracted: 14-Feb-12
Date Analysed: 14-Feb-12

Matrix: Water
Ext Method: Sep. Funnel
Operator: DMB/SO
Directory/Quant File: 14SVOC.GC1\ 0214_CCC1.D

QC Batch Number: 19
Multiplier: 0.005
Dilution Factor: 1
GPC (Y/N): N

| 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 | - |

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 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 | 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 |

Where individual results are flagged see report notes for status.

Semi-Volatile Organic Compounds

UKAS accredited?: No

16

Customer and Site Details: Waterman EED: Upper Heyford
Sample Details: BH-NSA HPD1
LIMS ID Number: EX1266206
Job Number: W13_1704

Date Booked in: 09-Feb-12
Date Extracted: 14-Feb-12
Date Analysed: 14-Feb-12

Matrix: Water
Ext Method: Sep. Funnel
Operator: DMB/SO
Directory/Quant File: 14SVOC.GC1\ 0214_CCC1.D

QC Batch Number: 19
Multiplier: 0.005
Dilution Factor: 1
GPC (Y/N) N

| 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 | - |

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 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 | 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 |

Where individual results are flagged see report notes for status.

Semi-Volatile Organic Compounds

UKAS accredited?: No

16

Customer and Site Details: Waterman EED: Upper Heyford
Sample Details: BH-NSA MW2
LIMS ID Number: EX1266207
Job Number: W13_1704

Date Booked in: 09-Feb-12
Date Extracted: 14-Feb-12
Date Analysed: 14-Feb-12

Matrix: Water
Ext Method: Sep. Funnel
Operator: DMB/SO
Directory/Quant File: 14SVOC.GC1\ 0214_CCC1.D

QC Batch Number: 19
Multiplier: 0.005
Dilution Factor: 1
GPC (Y/N) N

| 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 | - |

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 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 | 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 |

Where individual results are flagged see report notes for status.

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
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.

| Sample ID | Client ID | Concentration, (mg/l) | | | | | Aliphatics | | | | Total GRO |
|-------------|-------------|-----------------------|---------|---------------|------------|----------|------------|----------|----------|-----------|-----------|
| | | Benzene | Toluene | Ethyl benzene | m/p-Xylene | o-Xylene | C5 - C6 | >C6 - C7 | >C7 - C8 | >C8 - C10 | |
| * 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 |
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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_1704
QC Batch Number: 120104
Directory: D:\TES\DATA\Y2012\021512TPH_GC15\021512 2012-02-15 09-34-52\073B2601.D
Method: Bottle

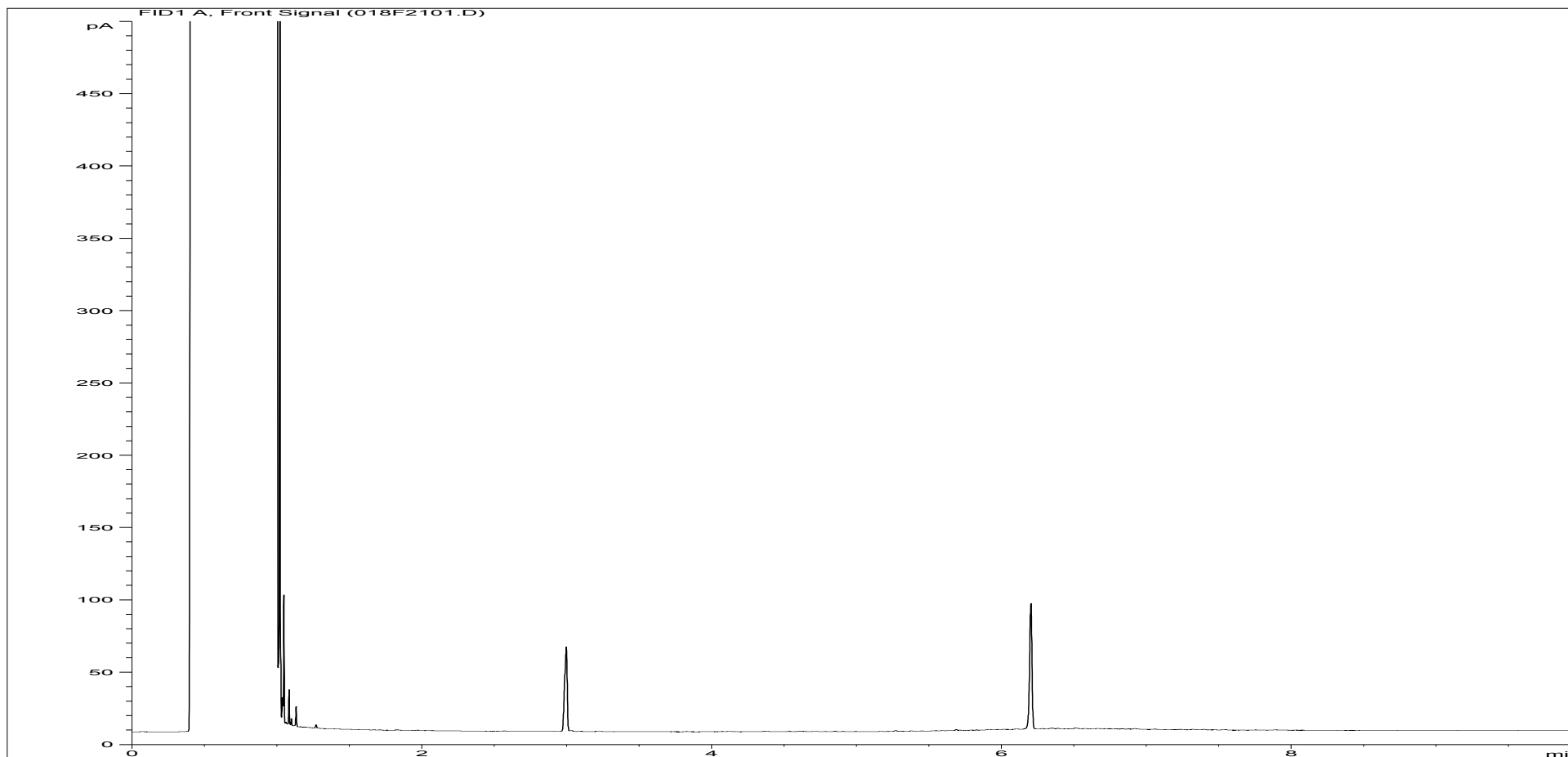
Matrix: Water
Date Booked in: 09-Feb-12
Date Extracted: 14-Feb-12
Date Analysed: 15-Feb-12, 16:45:07

Separation: Silica gel
Eluents: Hexane, DCM

* This sample data is not UKAS accredited.

| Sample ID | Client ID | Concentration, (mg/l) | | | | | | | | | | | |
|-----------|-------------|-----------------------|-----------|------------|-----------|------------|-----------|------------|-----------|------------|-----------|------------|-----------|
| | | >C8 - C10 | | >C10 - C12 | | >C12 - C16 | | >C16 - C21 | | >C21 - C35 | | >C8 - C40 | |
| | | Aliphatics | Aromatics | Aliphatics | Aromatics | 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 |
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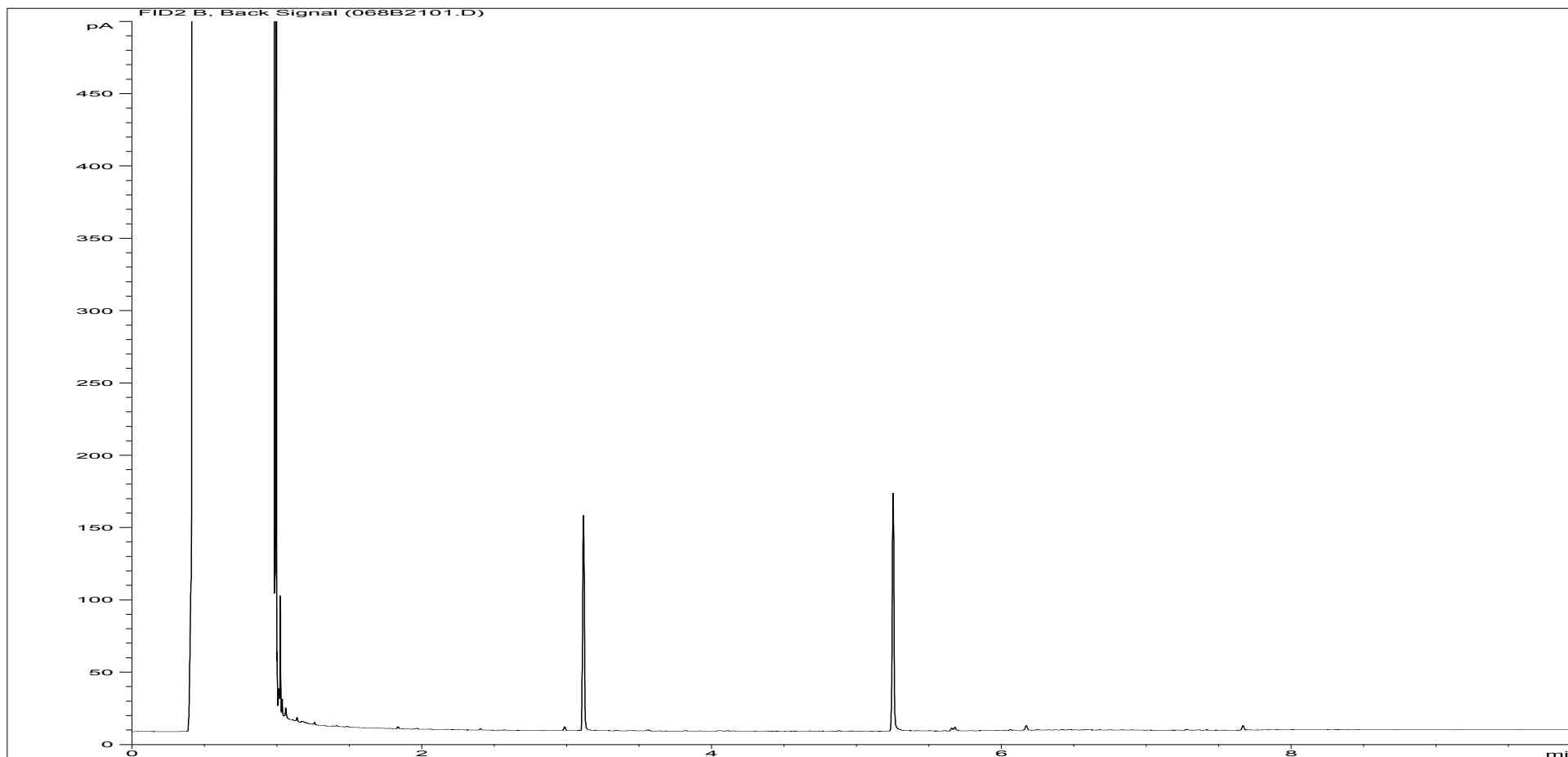
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1266202ALI | Job Number: | W13_1704 |
| Multiplier: | 0.02 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_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\018F2101.D | | |

Where individual results are flagged see report notes for status.

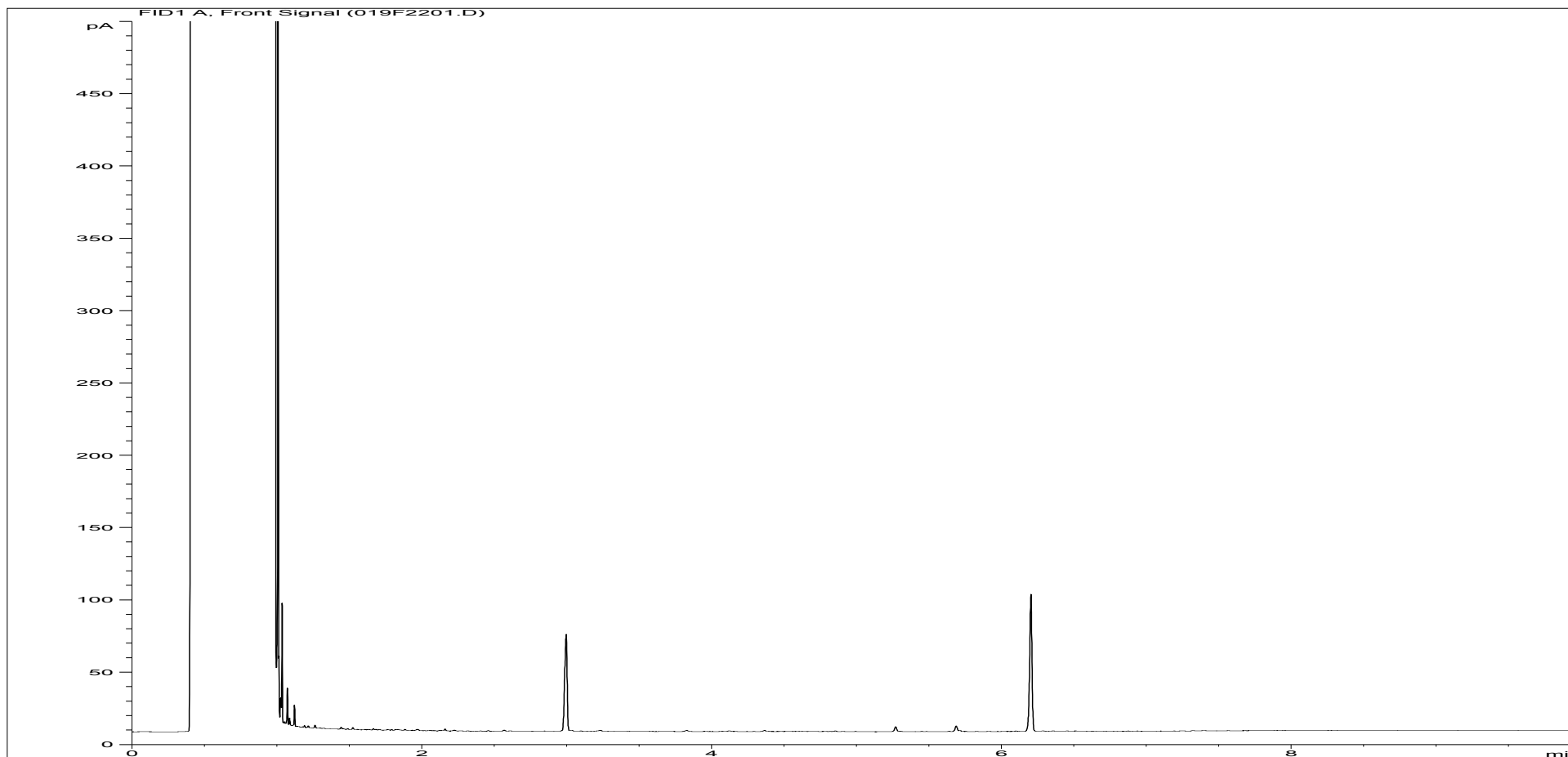
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1266202ARO | Job Number: | W13_1704 |
| Multiplier: | 0.016 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_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 | | |

Where individual results are flagged see report notes for status.

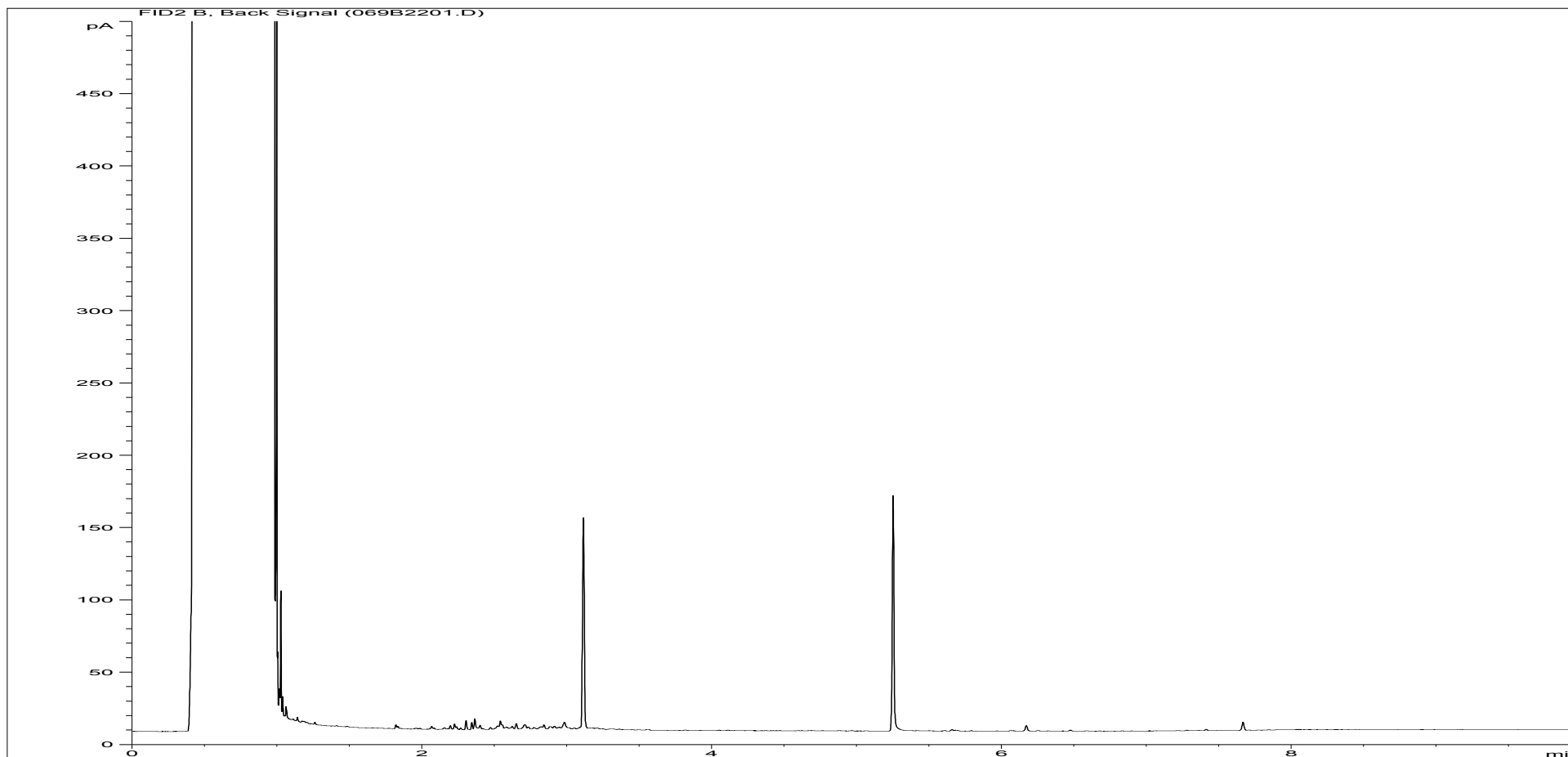
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1266203ALI | Job Number: | W13_1704 |
| Multiplier: | 0.02 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

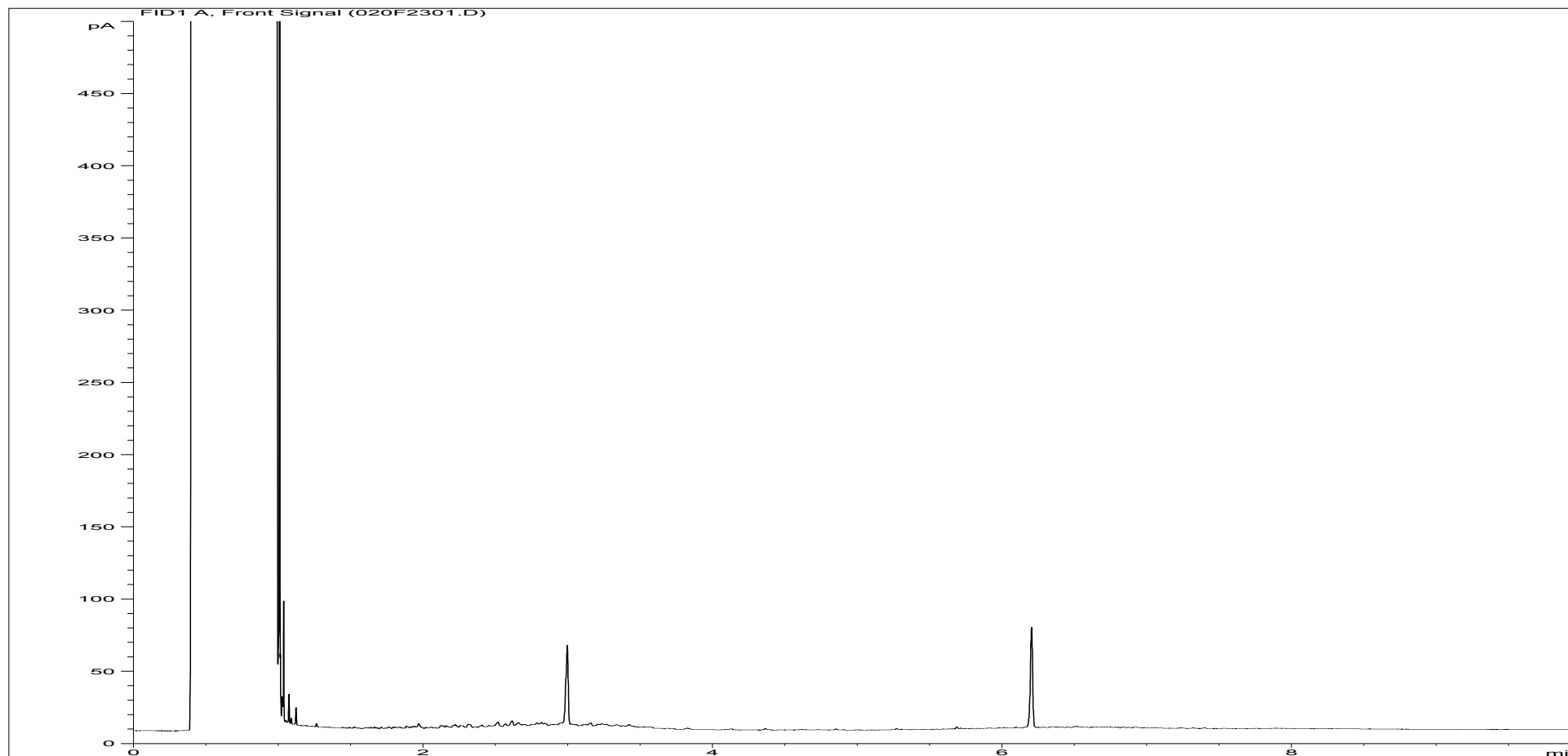
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1266203ARO | Job Number: | W13_1704 |
| Multiplier: | 0.015 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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\069B2201.D | | |

Where individual results are flagged see report notes for status.

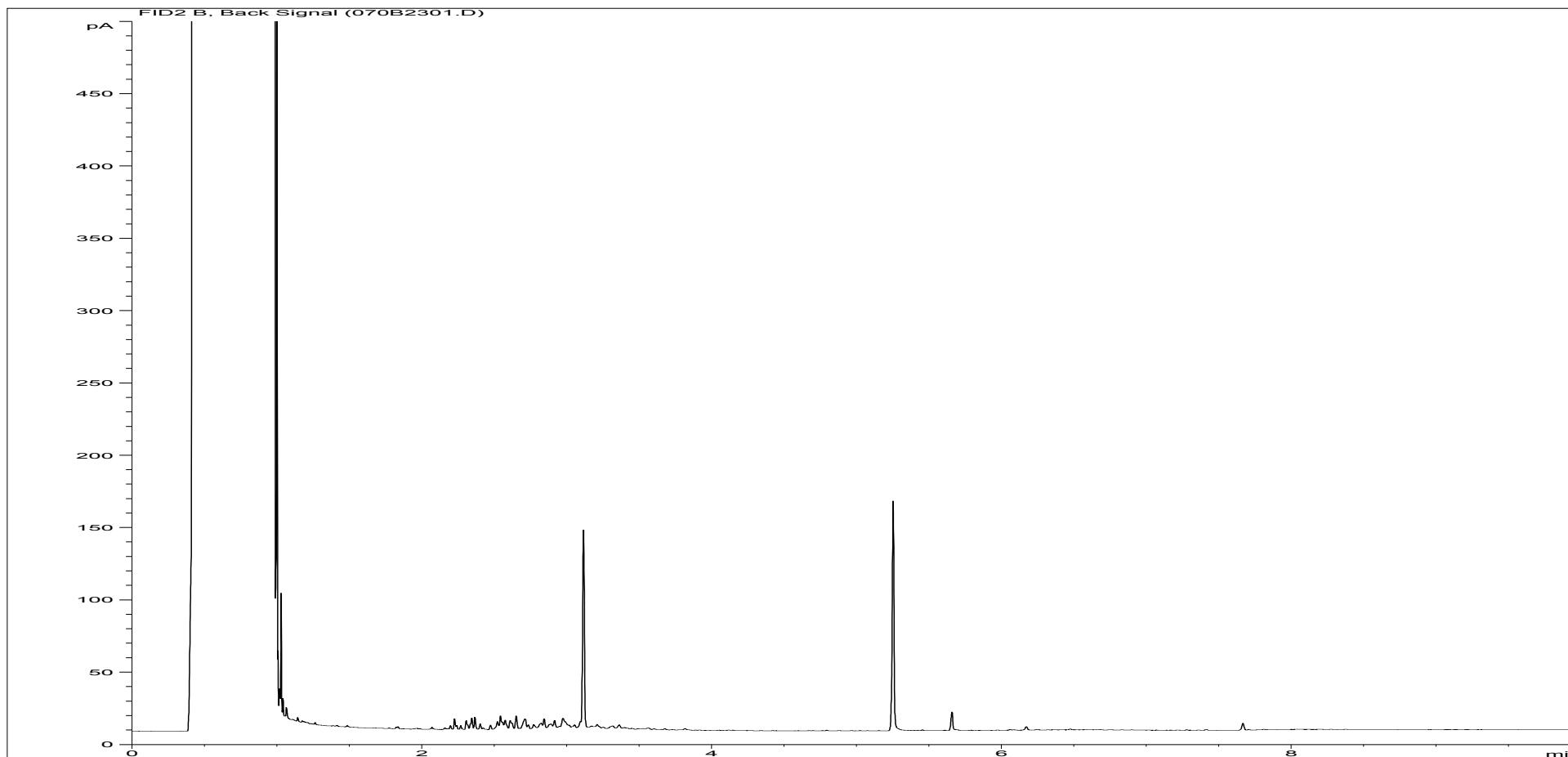
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1266204ALI | Job Number: | W13_1704 |
| Multiplier: | 0.02 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

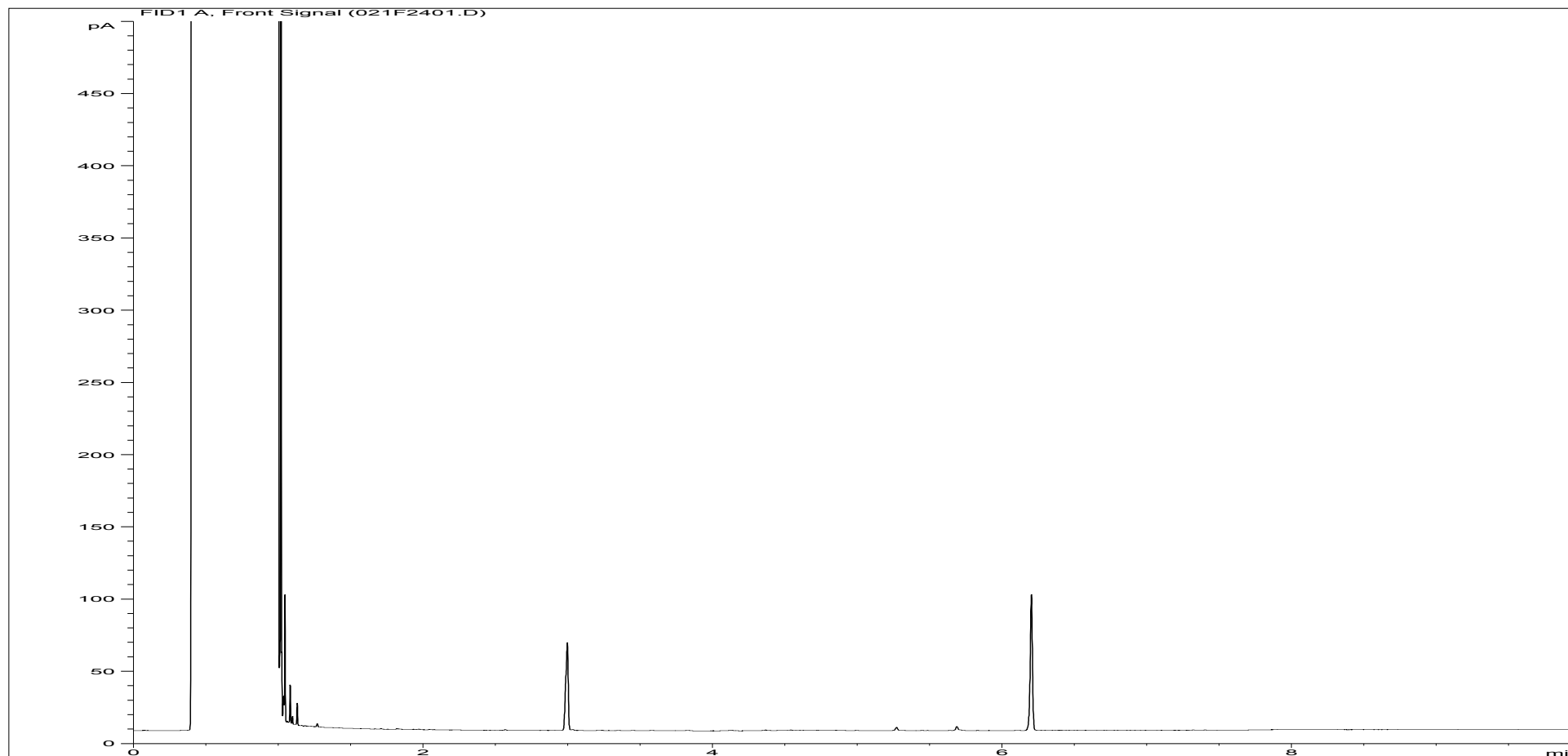
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1266204ARO | Job Number: | W13_1704 |
| Multiplier: | 0.015 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

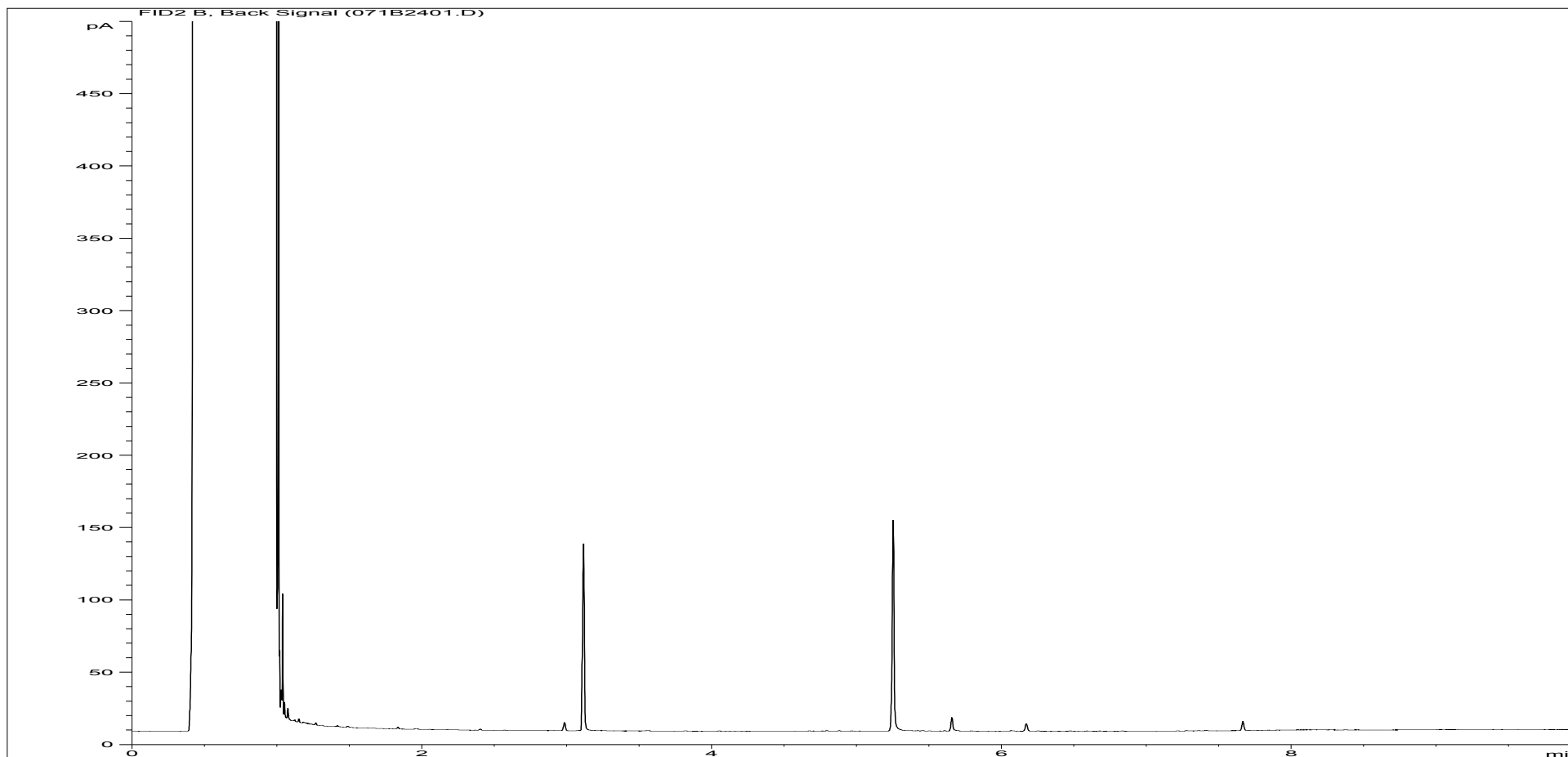
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1266205ALI | Job Number: | W13_1704 |
| Multiplier: | 0.02 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client Sample Ref: | BH-NSA 38 |
| Acquisition Date/Time: | 15-Feb-12, 16:10:53 | | |
| Datafile: | D:\TES\DATA\Y2012\021512TPH_GC15\021512 2012-02-15 09-34-52\021F2401.D | | |

Where individual results are flagged see report notes for status.

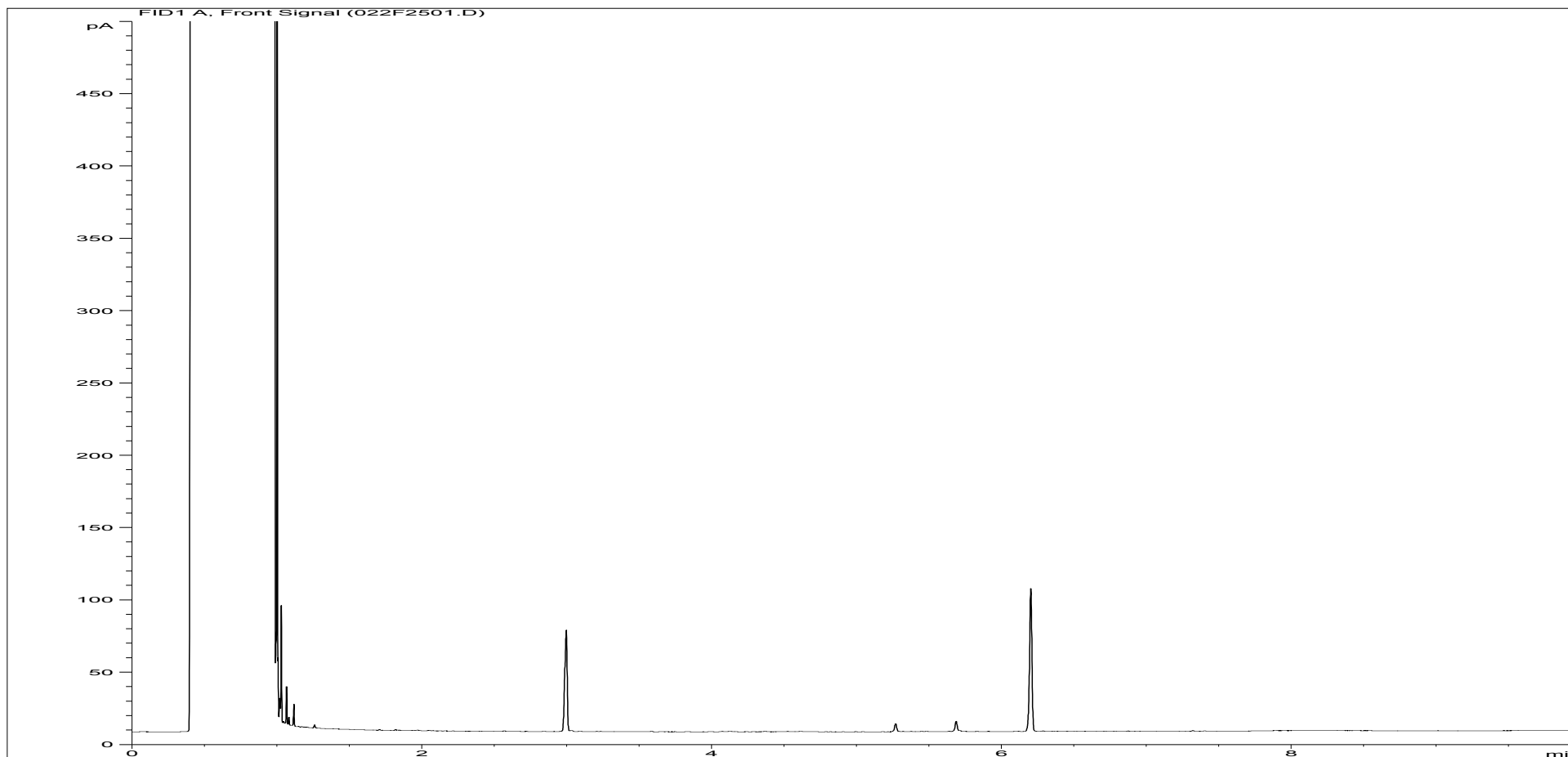
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1266205ARO | Job Number: | W13_1704 |
| Multiplier: | 0.015 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client Sample Ref: | BH-NSA 38 |
| 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 | | |

Where individual results are flagged see report notes for status.

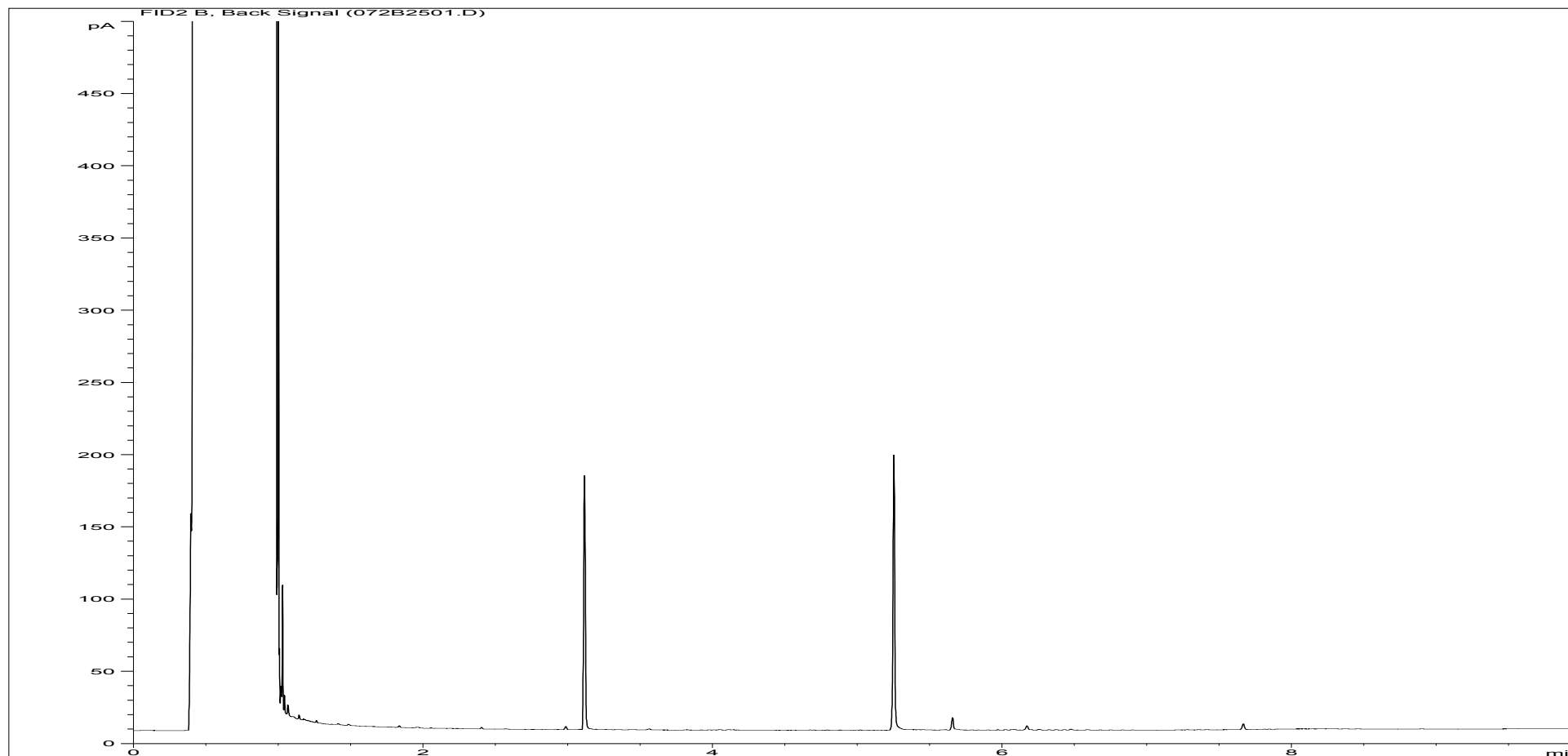
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1266206ALI | Job Number: | W13_1704 |
| Multiplier: | 0.02 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

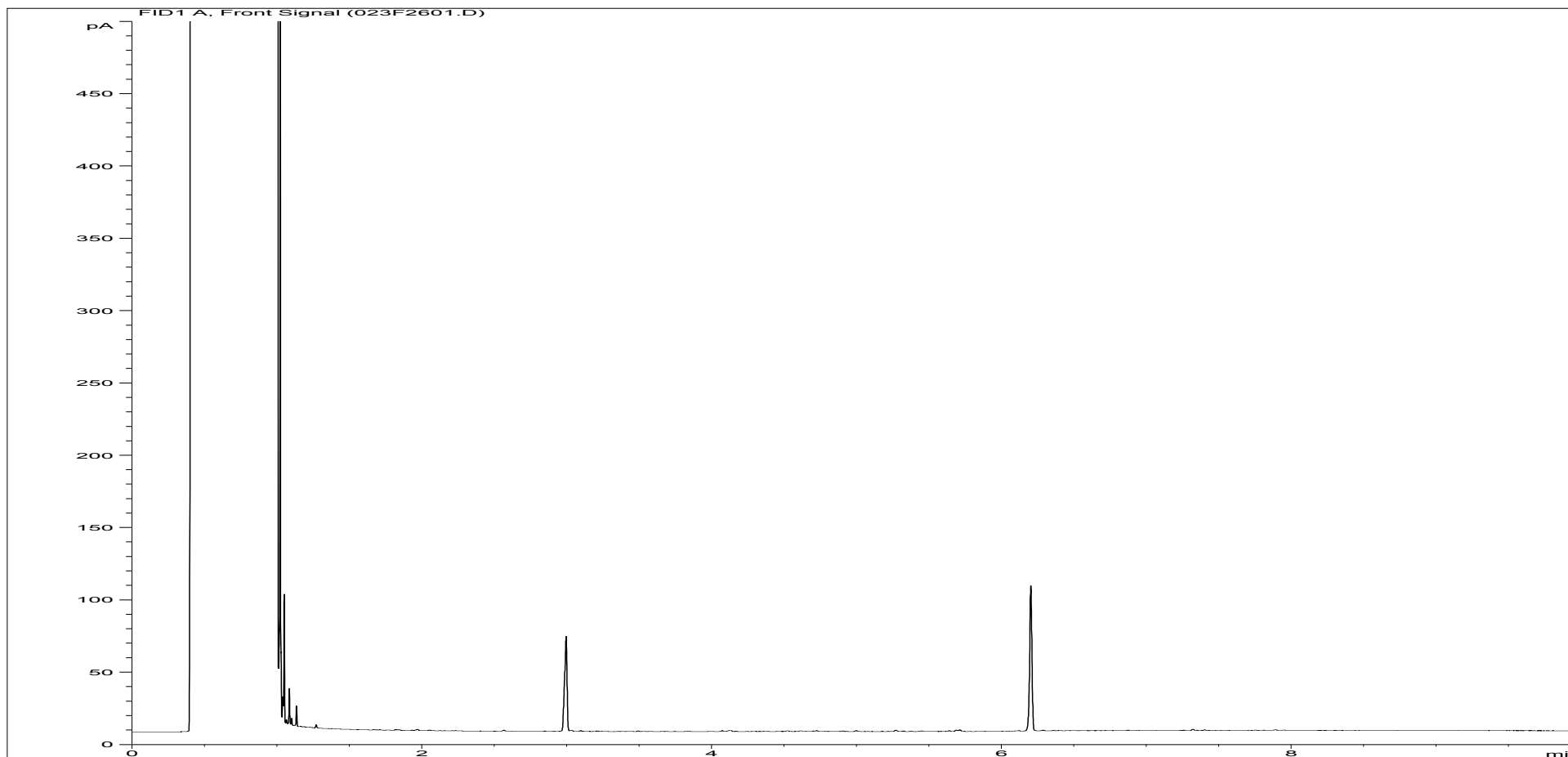
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1266206ARO | Job Number: | W13_1704 |
| Multiplier: | 0.015 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

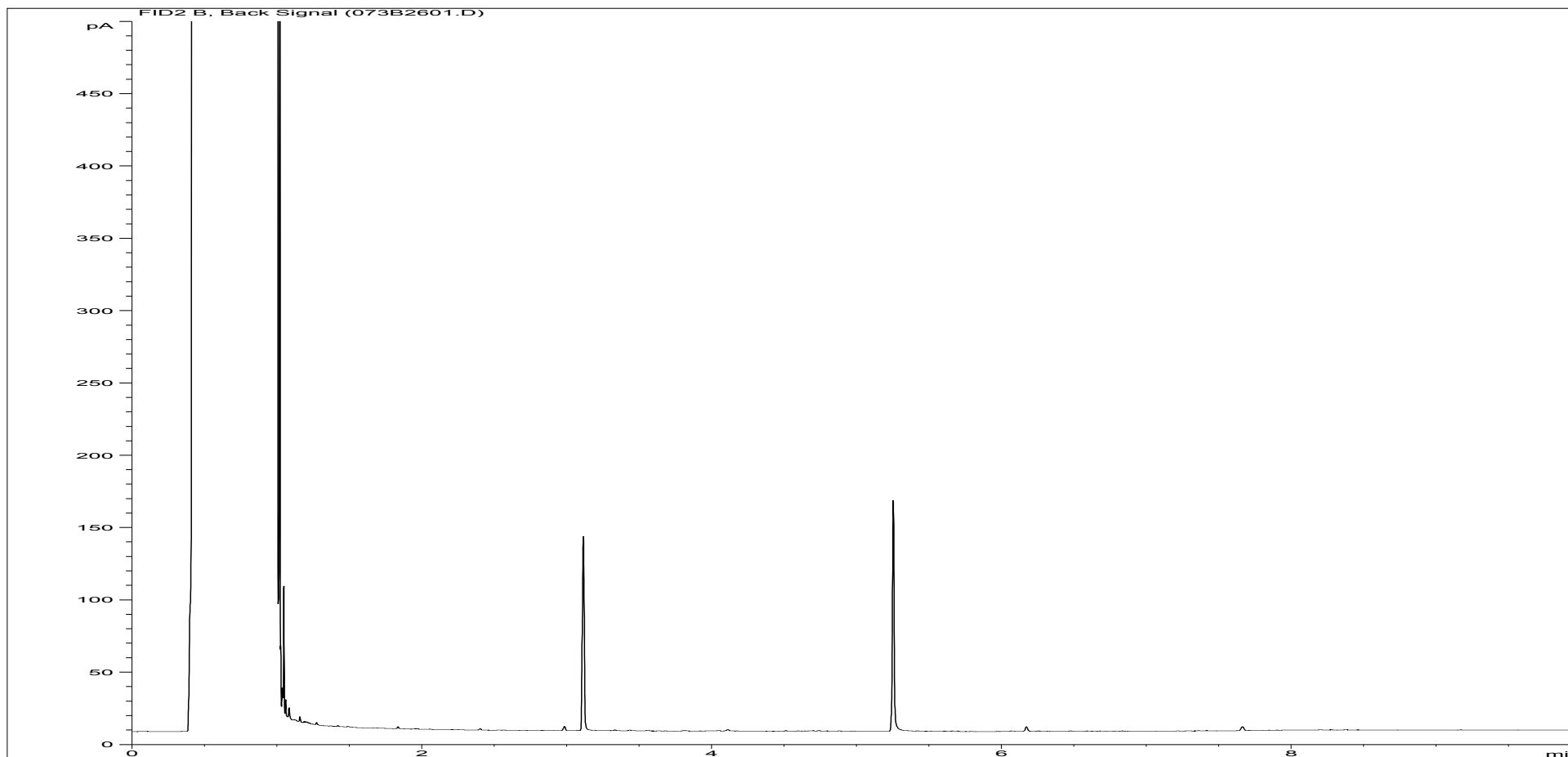
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1266207ALI | Job Number: | W13_1704 |
| Multiplier: | 0.02 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1266207ARO | Job Number: | W13_1704 |
| Multiplier: | 0.015 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

Customer Waterman EED
Site Upper Heyford
Report No W131704

Consignment No W33648
 Date Logged 09-Feb-2012

Report Due 17-Feb-2012

| ID Number | Description | MethodID | CURSERV | GROHSA | ICPMSW | ICPMATVAR | KONENS | PHEHRCTL | SVOC | TPHFD-SI | WSLM1 | WSLM2 | | | | | | | | | | | | | | | | | | |
|------------|-------------|----------|---------|--------------------|-----------------------------|-------------------------------|------------------------------|-----------------------------|---------------------------|---------------------------|----------------------------------|------------------------------|-------------------------------|---------------------------------|-------------------------------|---------------------------------|------------------------------|----------------------------|-----------------------|----------------------------|--------------------------|------------------------|-----------------------------|------|---------------|----------------------------------|---------------------------|---|---|--|
| | | | | | | | | | | | Chemical Oxygen Demand (Settled) | Total Alkalinity as CaCO3 | | | | | | | | | | | | | | | | | | |
| | | 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 | | | |
| | | | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | |
| 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 | |
|---|--|
| A | The sample was received in an inappropriate container for this analysis |
| B | The sample was received without the correct preservation for this analysis |
| C | Headspace present in the sample container |
| D | The sampling date was not supplied so holding time may be compromised - applicable to all analysis |
| E | 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 |

Customer Waterman EED
Site Upper Heyford
Report No W131704

Consignment No W33648
Date Logged 09-Feb-2012

Report Due 17-Feb-2012

| ID Number | Description | MethodID | WSLM13 | WSLM17 | WSLM2 | WSLM20 | WSLM3 | WSLM7 |
|------------------------|-------------|----------|----------------------|------------------------|--------------------------|---------------------------|----------|------------------------------|
| | | 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 | |
|------------------------|--|
| A | The sample was received in an inappropriate container for this analysis |
| B | The sample was received without the correct preservation for this analysis |
| C | Headspace present in the sample container |
| D | The sampling date was not supplied so holding time may be compromised - applicable to all analysis |
| E | 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 |

Method Descriptions

| Matrix | MethodID | Analysis Basis | Method Description |
|--------|-----------|----------------|--|
| 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 ($\mu\text{S}/\text{cm}$) 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 |

Where individual results are flagged see report notes for status.

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

NAIS 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

▮ 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.

END OF REPORT

Where individual results are flagged see report notes for status.

Our Ref: EXR/133314 (Ver. 1)

Your Ref: E10658-109

March 19, 2012



Environmental Chemistry

ESG

Bretby Business Park

Ashby Road

Burton-on-Trent

Staffordshire

DE15 0YZ

Telephone: 01283 554400

Facsimile: 01283 554422

Mr F Alcock
Waterman EED
Waterman Environmental
Pickfords Wharf
Clink Street
London
SE1 9DG

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
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.

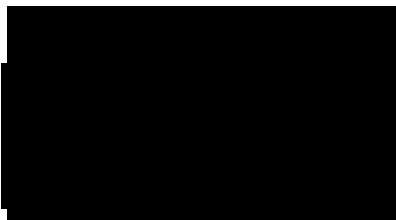
The analysis was completed by: 19-Mar-2012

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



Date of Issue: 19-Mar-2012

Tests marked '^' have been subcontracted to another laboratory.


ESG accepts no responsibility for any sampling not carried out by our personnel.

Where individual results are flagged see report notes for status.


| LAB ID Number | EX/ | Client Sample Description | Sample Date | 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 | | | | |
|---------------|-----|---------------------------|-------------|---------------------------|----------------------------|-----------------------------|--------------------------|------------------|------------------------------------|-----------------------------|-------------------------------|----------------------------|--------------------------|----------------------------|---------------------------|--------------------------|------------------------|------------------------|---------------------------|--------|-------|
| | | | | Method Codes : | WSLM3 | WSLM2 | WSLM12 | WSLM17 | KONENS | ICPWATVAR | ICPWATVAR | ICPWATVAR | ICPWATVAR | ICPMSW | ICPMSW | ICPMSW | ICPMSW | ICPMSW | ICPMSW | ICPMSW | |
| | | | | Method Reporting Limits : | | 100 | 2 | 2 | 1 | 3 | 1 | 1 | 1 | 0.001 | 0.001 | 0.0001 | 0.001 | 0.001 | 0.001 | 0.002 | 0.001 |
| | | | | UKAS Accredited : | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| | | | | 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) | | |
| 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 | | |

| | | | | |
|--|----------------------|---------------------|------------------------------|--------------------|
|  <p>Environmental Scientifics Group Bretby Business Park, Ashby Road Burton-on-Trent, Staffordshire, DE15 0YZ Tel +44 (0) 1283 554400 Fax +44 (0) 1283 554422</p> | Client Name | Waterman EED | Water Sample Analysis | |
| | Contact | Mr F Alcock | | |
| | Upper Heyford | | Date Printed | 19-Mar-2012 |
| | | | Report Number | EXR/133314 |
| Table Number | | | 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 | | |
|---------------|---------------------------|-------------|---------------------------|---------------------------|----------------------------|--------------------------|--------------|----------------|----------------------------------|------------------------|--------------|----------------|-----------------------------|--------------------------------|---------------------------------|---------|-----------|-----------------|-----------|
| | | | Method Codes : | ICPWATVAR | ICPMSW | ICPMSW | KONENS | KONENS | KONENS | WSLM11 | WSLM13 | GROHSA | TPHFID-Si | WSLM20 | WSLM7 | SVOCSW | PHEHPLCVL | PHEHPLCVL | PHEHPLCVL |
| | | | Method Reporting Limits : | 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 | 0.0005 | 0.0005 |
| | | | UKAS Accredited : | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | No | No | No | No | No | No | No |
| LAB ID Number | 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(S) 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 | |

| | | | | | | | | |
|--|----------------------|---------------------|--|------------------------------|----------------------|-------------|--|--|
|  <p>Environmental Scientifics Group Bretby Business Park, Ashby Road Burton-on-Trent, Staffordshire, DE15 0YZ Tel +44 (0) 1283 554400 Fax +44 (0) 1283 554422</p> | Client Name | Waterman EED | | Water Sample Analysis | | | | |
| | Contact | Mr F Alcock | | | | | | |
| | Upper Heyford | | | | Date Printed | 19-Mar-2012 | | |
| | | | | | Report Number | EXR/133314 | | |
| | | | | Table Number | 1 | | | |

| Units : | | mg/l | | | | | | | | | | | | | | | | | | |
|---------------------------|---------------------------|-------------|------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Method Codes : | | PHEHPLCVL | | | | | | | | | | | | | | | | | | |
| Method Reporting Limits : | | 0.0005 | | | | | | | | | | | | | | | | | | |
| UKAS Accredited : | | 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 | <0.0005 | | | | | | | | | | | | | | | | | |
| 1275734 | BHNSA19 | 07-Mar-12 | <0.0005 | | | | | | | | | | | | | | | | | |
| 1275735 | BHNSA17 | 07-Mar-12 | <0.0005 | | | | | | | | | | | | | | | | | |
| 1275736 | BHNSA18 | 07-Mar-12 | <0.0005 | | | | | | | | | | | | | | | | | |
| 1275737 | BHNSA21 | 07-Mar-12 | <0.0005 | | | | | | | | | | | | | | | | | |
| 1275738 | BHNSA15 | 06-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 | | | | | | | | | | | | | | | | | |

| | | | | | | |
|---|----------------------|--------------|--|------------------------------|----------------------|-------------|
|  <p>ESG Environmental Scientifics Group Bretby Business Park, Ashby Road Burton-on-Trent, Staffordshire, DE15 0YZ Tel +44 (0) 1283 554400 Fax +44 (0) 1283 554422</p> | Client Name | Waterman EED | | Water Sample Analysis | | |
| | Contact | Mr F Alcock | | | | |
| | Upper Heyford | | | | Date Printed | 19-Mar-2012 |
| | | | | | Report Number | EXR/133314 |
| Table Number | | | | | 1 | |

Semi-Volatile Organic Compounds

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford
Sample Details: BH225
LIMS ID Number: EX1275730
Job Number: W13_3314

Date Booked in: 08-Mar-12
Date Extracted: 15-Mar-12
Date Analysed: 15-Mar-12

Matrix: Water
Ext Method: Sep. Funnel
Operator: SO
Directory/Quant File: 15SVOC.MS16\ 0315_CCC1.D

QC Batch Number: 32
Multiplier: 0.005
Dilution Factor: 1
GPC (Y/N) N

| 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 | - |

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 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 | 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 |

Semi-Volatile Organic Compounds

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford
Sample Details: BH226
LIMS ID Number: EX1275731
Job Number: W13_3314

Date Booked in: 08-Mar-12
Date Extracted: 15-Mar-12
Date Analysed: 15-Mar-12

Matrix: Water
Ext Method: Sep. Funnel
Operator: SO
Directory/Quant File: 15SVOC.MS16\ 0315_CCC1.D

QC Batch Number: 32
Multiplier: 0.005
Dilution Factor: 1
GPC (Y/N) N

| 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 | - |

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 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 | 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 |

Semi-Volatile Organic Compounds

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford
Sample Details: HPD1
LIMS ID Number: EX1275732
Job Number: W13_3314

Date Booked in: 08-Mar-12
Date Extracted: 15-Mar-12
Date Analysed: 15-Mar-12

Matrix: Water
Ext Method: Sep. Funnel
Operator: SO
Directory/Quant File: 15SVOC.MS16\ 0315_CCC1.D
QC Batch Number: 32
Multiplier: 0.005
Dilution Factor: 1
GPC (Y/N): N

| 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 | - |

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 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 | 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 |

Semi-Volatile Organic Compounds

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford
Sample Details: BHNSA20
LIMS ID Number: EX1275733
Job Number: W13_3314

Date Booked in: 08-Mar-12
Date Extracted: 15-Mar-12
Date Analysed: 15-Mar-12

Matrix: Water
Ext Method: Sep. Funnel
Operator: SO
Directory/Quant File: 15SVOC.MS16\ 0315_CCC1.D
QC Batch Number: 32
Multiplier: 0.005
Dilution Factor: 1
GPC (Y/N): N

| 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 | - |

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 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 | 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 |

Semi-Volatile Organic Compounds

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford
Sample Details: BHNSA19
LIMS ID Number: EX1275734
Job Number: W13_3314

Date Booked in: 08-Mar-12
Date Extracted: 15-Mar-12
Date Analysed: 15-Mar-12

Matrix: Water
Ext Method: Sep. Funnel
Operator: SO
Directory/Quant File: 15SVOC.MS16\ 0315_CCC1.D
QC Batch Number: 32
Multiplier: 0.005
Dilution Factor: 1
GPC (Y/N): N

| 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 | - |

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 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 | 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 |

Semi-Volatile Organic Compounds

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford
Sample Details: BHNSA17
LIMS ID Number: EX1275735
Job Number: W13_3314

Date Booked in: 08-Mar-12
Date Extracted: 15-Mar-12
Date Analysed: 15-Mar-12

Matrix: Water
Ext Method: Sep. Funnel
Operator: SO
Directory/Quant File: 15SVOC.MS16\ 0315_CCC1.D
QC Batch Number: 32
Multiplier: 0.005
Dilution Factor: 1
GPC (Y/N): N

| 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 | - |

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 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 | 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 |

Semi-Volatile Organic Compounds

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford
Sample Details: BHNSA18
LIMS ID Number: EX1275736
Job Number: W13_3314

Date Booked in: 08-Mar-12
Date Extracted: 15-Mar-12
Date Analysed: 15-Mar-12

Matrix: Water
Ext Method: Sep. Funnel
Operator: SO
Directory/Quant File: 15SVOC.MS16\ 0315_CCC1.D

QC Batch Number: 32
Multiplier: 0.005
Dilution Factor: 1
GPC (Y/N) N

| 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 | - |

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 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 | 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 |

Semi-Volatile Organic Compounds

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford
Sample Details: BHNSA21
LIMS ID Number: EX1275737
Job Number: W13_3314

Date Booked in: 08-Mar-12
Date Extracted: 15-Mar-12
Date Analysed: 15-Mar-12

Matrix: Water
Ext Method: Sep. Funnel
Operator: SO
Directory/Quant File: 15SVOC.MS16\ 0315_CCC1.D

QC Batch Number: 32
Multiplier: 0.005
Dilution Factor: 1
GPC (Y/N) N

| 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 | - |

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 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 | 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 |

Semi-Volatile Organic Compounds

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford
Sample Details: BHNSA15
LIMS ID Number: EX1275738
Job Number: W13_3314

Date Booked in: 08-Mar-12
Date Extracted: 15-Mar-12
Date Analysed: 15-Mar-12

Matrix: Water
Ext Method: Sep. Funnel
Operator: SO
Directory/Quant File: 15SVOC.MS16\ 0315_CCC1.D
QC Batch Number: 32
Multiplier: 0.005
Dilution Factor: 1
GPC (Y/N): N

| 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 | - |

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 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 | 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 |

Semi-Volatile Organic Compounds

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford
Sample Details: BHNSA15X
LIMS ID Number: EX1275739
Job Number: W13_3314

Date Booked in: 08-Mar-12
Date Extracted: 15-Mar-12
Date Analysed: 15-Mar-12

Matrix: Water
Ext Method: Sep. Funnel
Operator: SO
Directory/Quant File: 15SVOC.MS16\ 0315_CCC1.D

QC Batch Number: 32
Multiplier: 0.005
Dilution Factor: 1
GPC (Y/N) N

| 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 | - |

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 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 | 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 |

Semi-Volatile Organic Compounds

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford
Sample Details: BHNSA14
LIMS ID Number: EX1275740
Job Number: W13_3314

Date Booked in: 08-Mar-12
Date Extracted: 15-Mar-12
Date Analysed: 15-Mar-12

Matrix: Water
Ext Method: Sep. Funnel
Operator: SO
Directory/Quant File: 15SVOC.MS16\ 0315_CCC1.D
QC Batch Number: 32
Multiplier: 0.005
Dilution Factor: 1
GPC (Y/N): N

| 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 | - |

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 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 | 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 |

Semi-Volatile Organic Compounds

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford
Sample Details: BHNSA11
LIMS ID Number: EX1275741
Job Number: W13_3314

Date Booked in: 08-Mar-12
Date Extracted: 15-Mar-12
Date Analysed: 15-Mar-12

Matrix: Water
Ext Method: Sep. Funnel
Operator: SO
Directory/Quant File: 15SVOC.MS16\ 0315_CCC1.D
QC Batch Number: 32
Multiplier: 0.005
Dilution Factor: 1
GPC (Y/N): N

| 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 | - |

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 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 | 79 |
| Naphthalene-d8 | 77 |
| Acenaphthene-d10 | 73 |
| Phenanthrene-d10 | 67 |
| Chrysene-d12 | 48 |
| Perylene-d12 | 45 |

| Surrogates | % Rec |
|----------------------|-------|
| 2-Fluorophenol | 50 |
| Phenol-d5 | 31 |
| Nitrobenzene-d5 | 90 |
| 2-Fluorobiphenyl | 108 |
| 2,4,6-Tribromophenol | 90 |
| Terphenyl-d14 | 125 |

Semi-Volatile Organic Compounds

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford
Sample Details: BHNSA10
LIMS ID Number: EX1275742
Job Number: W13_3314

Date Booked in: 08-Mar-12
Date Extracted: 15-Mar-12
Date Analysed: 15-Mar-12

Matrix: Water
Ext Method: Sep. Funnel
Operator: SO
Directory/Quant File: 15SVOC.MS16\ 0315_CCC1.D

QC Batch Number: 32
Multiplier: 0.005
Dilution Factor: 1
GPC (Y/N) N

| 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 | - |

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 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 | 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 |

Semi-Volatile Organic Compounds

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford
Sample Details: BHNSA9
LIMS ID Number: EX1275743
Job Number: W13_3314

Date Booked in: 08-Mar-12
Date Extracted: 15-Mar-12
Date Analysed: 15-Mar-12

Matrix: Water
Ext Method: Sep. Funnel
Operator: SO
Directory/Quant File: 15SVOC.MS16\ 0315_CCC1.D
QC Batch Number: 32
Multiplier: 0.005
Dilution Factor: 1
GPC (Y/N): N

| 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 | - |

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 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 | 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 |

Semi-Volatile Organic Compounds

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford
Sample Details: BHNSA6
LIMS ID Number: EX1275744
Job Number: W13_3314

Date Booked in: 08-Mar-12
Date Extracted: 15-Mar-12
Date Analysed: 15-Mar-12

Matrix: Water
Ext Method: Sep. Funnel
Operator: SO
Directory/Quant File: 15SVOC.MS16\ 0315_CCC1.D
QC Batch Number: 32
Multiplier: 0.005
Dilution Factor: 1
GPC (Y/N): N

| 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 | - |

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 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 | 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 |

Semi-Volatile Organic Compounds

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford
Sample Details: BHNSA1
LIMS ID Number: EX1275745
Job Number: W13_3314

Date Booked in: 08-Mar-12
Date Extracted: 15-Mar-12
Date Analysed: 15-Mar-12

Matrix: Water
Ext Method: Sep. Funnel
Operator: SO
Directory/Quant File: 15SVOC.MS16\ 0315_CCC1.D
QC Batch Number: 32
Multiplier: 0.005
Dilution Factor: 1
GPC (Y/N): N

| 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 | - |

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 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 | 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 |

Semi-Volatile Organic Compounds

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford
Sample Details: BHNSA16
LIMS ID Number: EX1275746
Job Number: W13_3314

Date Booked in: 08-Mar-12
Date Extracted: 15-Mar-12
Date Analysed: 16-Mar-12

Matrix: Water
Ext Method: Sep. Funnel
Operator: SO
Directory/Quant File: 15SVOC.MS16\ 0315_CCC1.D

QC Batch Number: 32
Multiplier: 0.005
Dilution Factor: 1
GPC (Y/N) N

| 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 | - |

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 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 | 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 |

Semi-Volatile Organic Compounds

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford
Sample Details: BHNSA22
LIMS ID Number: EX1275747
Job Number: W13_3314

Date Booked in: 08-Mar-12
Date Extracted: 15-Mar-12
Date Analysed: 16-Mar-12

Matrix: Water
Ext Method: Sep. Funnel
Operator: SO
Directory/Quant File: 15SVOC.MS16\ 0315_CCC1.D

QC Batch Number: 32
Multiplier: 0.005
Dilution Factor: 1
GPC (Y/N) N

| 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 | - |

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 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 | 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 |

Semi-Volatile Organic Compounds

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford
Sample Details: BHNSA7
LIMS ID Number: EX1275748
Job Number: W13_3314

Date Booked in: 08-Mar-12
Date Extracted: 15-Mar-12
Date Analysed: 16-Mar-12

Matrix: Water
Ext Method: Sep. Funnel
Operator: SO
Directory/Quant File: 15SVOC.MS16\ 0315_CCC1.D
QC Batch Number: 32
Multiplier: 0.005
Dilution Factor: 1
GPC (Y/N): N

| 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 | - |

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 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 | 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 |

Semi-Volatile Organic Compounds

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford
Sample Details: BHNSA38
LIMS ID Number: EX1275749
Job Number: W13_3314

Date Booked in: 08-Mar-12
Date Extracted: 15-Mar-12
Date Analysed: 16-Mar-12

Matrix: Water
Ext Method: Sep. Funnel
Operator: SO
Directory/Quant File: 15SVOC.MS16\ 0315_CCC1.D

QC Batch Number: 32
Multiplier: 0.005
Dilution Factor: 1
GPC (Y/N) N

| 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 | - |

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 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 | 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 |

Gasoline Range Organics (BTEX and Aliphatic Carbon Ranges)

Customer and Site Details: Waterman EED : Upper Heyford
Job Number: W13_3314
Directory: D:\TES\DATA\Y2012\0314HSA_GC09\031412A 2012-03-15 08-48-39\130F6801.D
Method: Headspace GCFID

Matrix: Water
Date Booked in: 08-Mar-12
Date extracted: 14-Mar-12
Date Analysed: 16-Mar-12, 05:5

* Sample data with an asterisk are not UKAS accredited.

| Sample ID | Client ID | Concentration, (mg/l) | | | | | Aliphatics | | | | Total GRO |
|-------------|-----------|-----------------------|---------|---------------|------------|----------|------------|----------|----------|-----------|-----------|
| | | Benzene | Toluene | Ethyl benzene | m/p-Xylene | o-Xylene | C5 - C6 | >C6 - C7 | >C7 - C8 | >C8 - C10 | |
| * 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

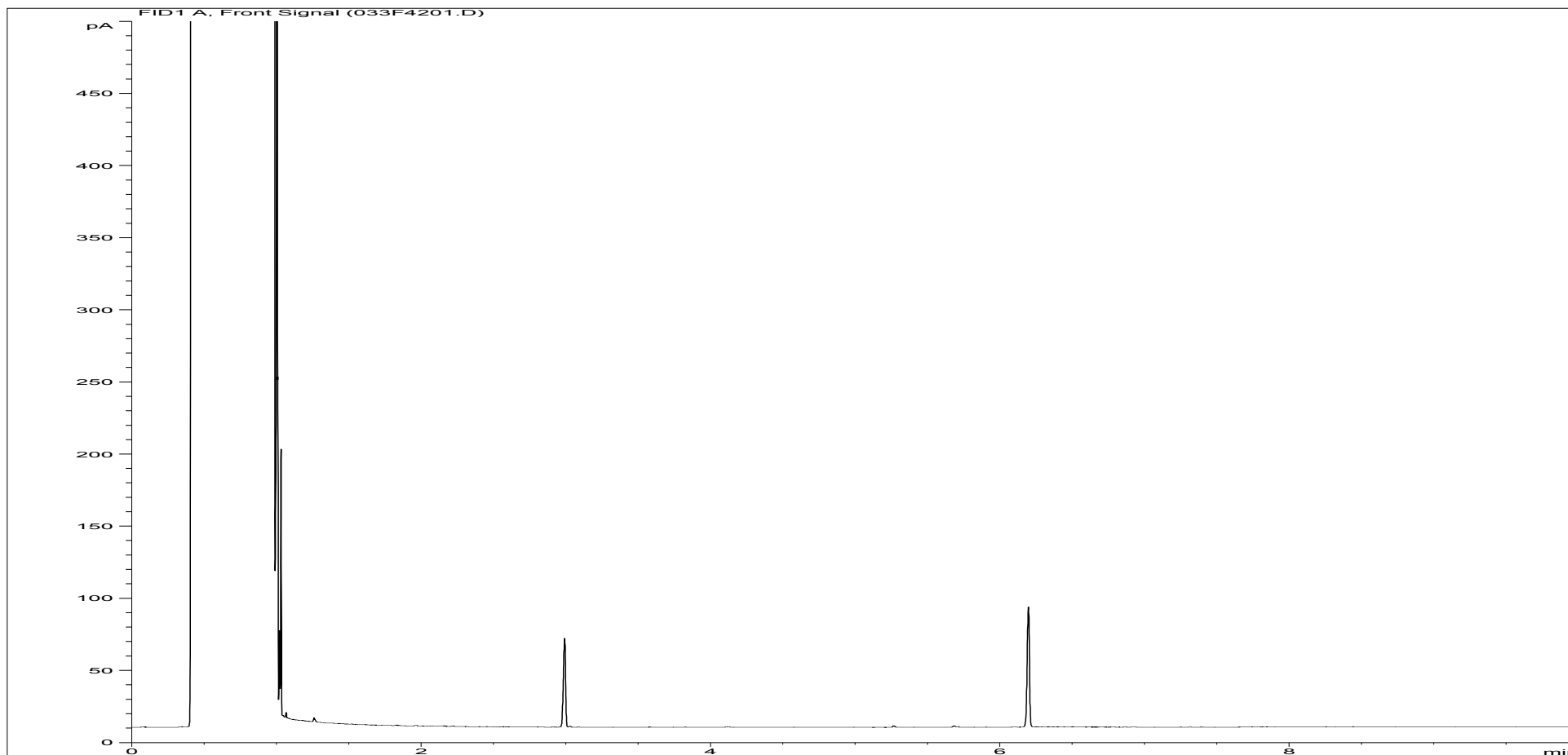
Customer and Site Details: Waterman EED : Upper Heyford
Job Number: W13_3314
QC Batch Number: 120198
Directory: D:\TES\DATA\Y2012\031412TPH_GC15\031412 2012-03-14 08-08-11\100B6101.D
Method: Bottle

Matrix: Water
Date Booked in: 08-Mar-12
Date Extracted: 14-Mar-12
Date Analysed: 15-Mar-12, 01:19:27

| | | Concentration, (mg/l) | | | | | | | | | | | |
|-----------|-----------|-----------------------|-----------|------------|-----------|------------|-----------|------------|-----------|------------|-----------|------------|-----------|
| | | >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 |
| 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 |

* This sample data is not UKAS accredited.

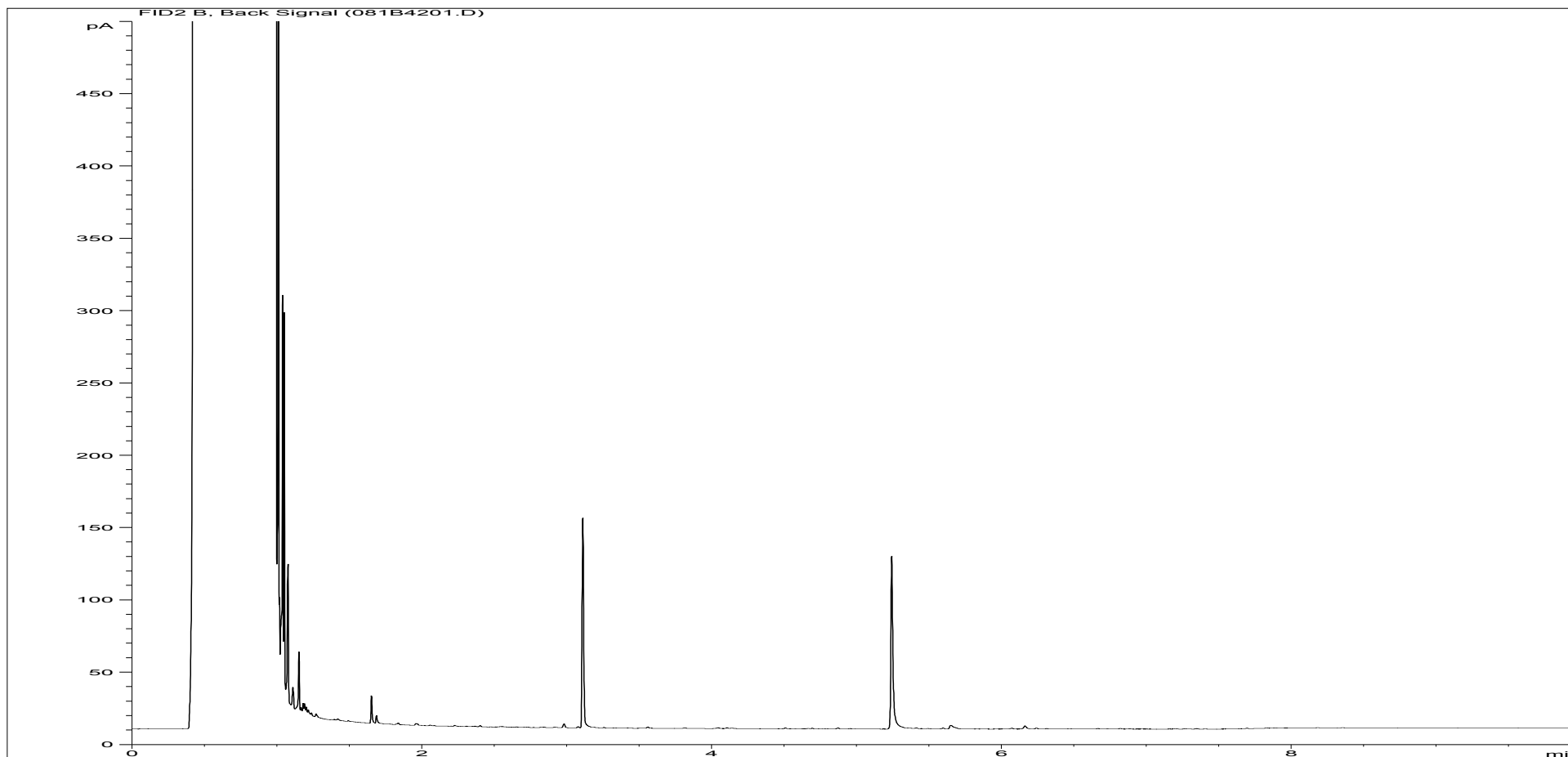
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1275730ALI | Job Number: | W13_3314 |
| Multiplier: | 0.02 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client Sample Ref: | BH225 |
| Acquisition Date/Time: | 14-Mar-12, 19:52:48 | | |
| Datafile: | D:\TES\DATA\Y2012\031412TPH_GC15\031412 2012-03-14 08-08-11\033F4201.D | | |

Where individual results are flagged see report notes for status.

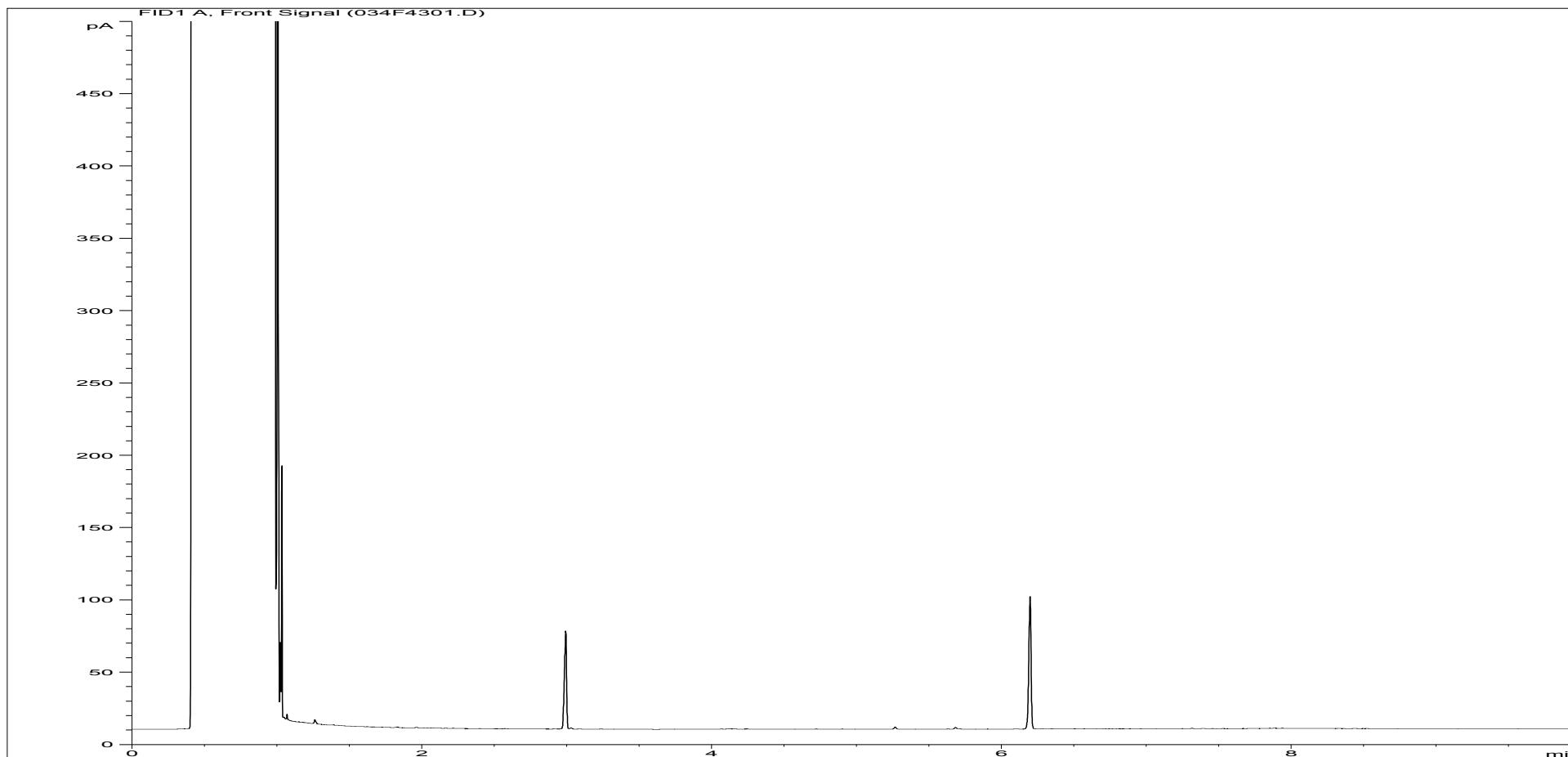
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1275730ARO | Job Number: | W13_3314 |
| Multiplier: | 0.015 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client Sample Ref: | BH225 |
| Acquisition Date/Time: | 14-Mar-12, 19:52:48 | | |
| Datafile: | D:\TES\DATA\Y2012\031412TPH_GC15\031412 2012-03-14 08-08-11\081B4201.D | | |

Where individual results are flagged see report notes for status.

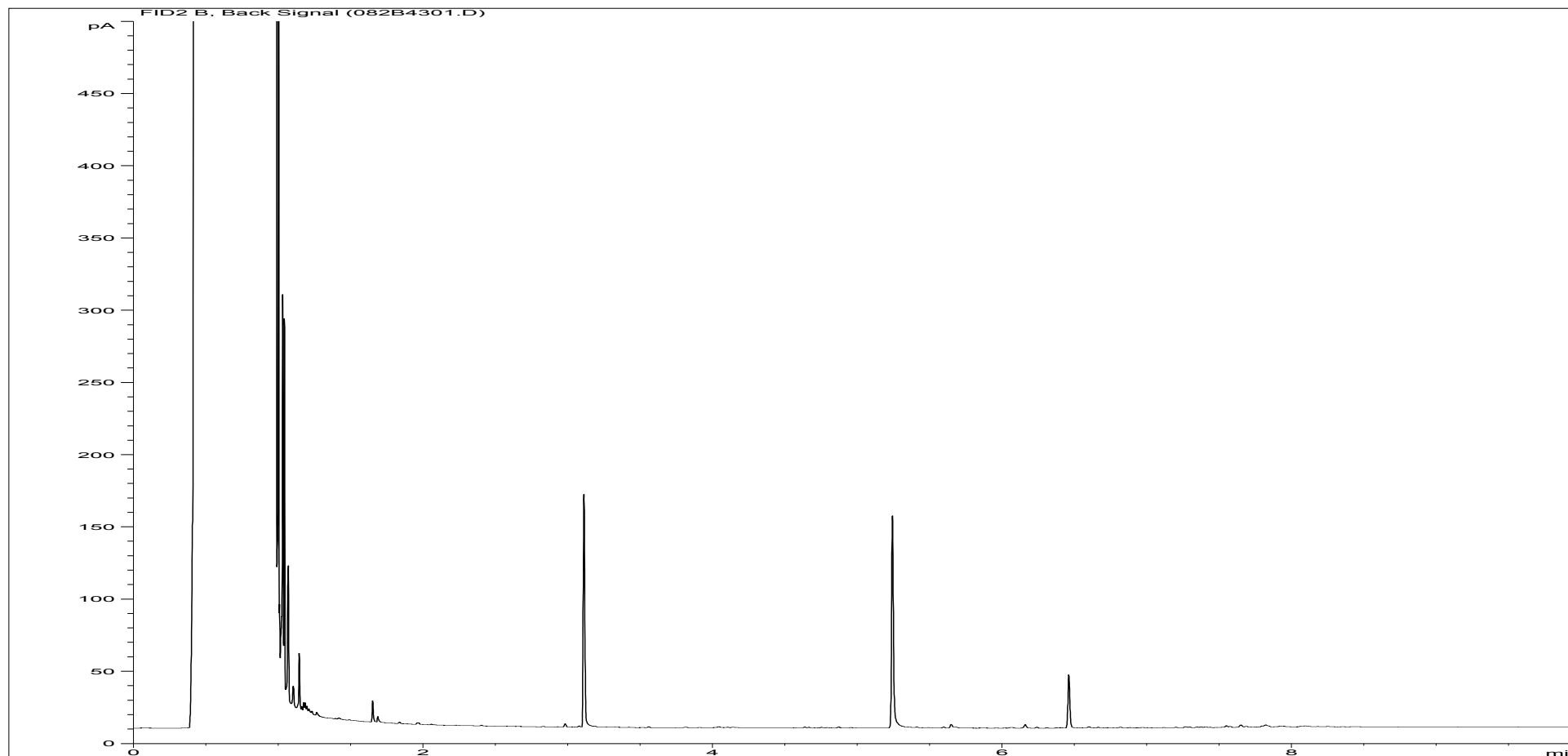
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1275731ALI | Job Number: | W13_3314 |
| Multiplier: | 0.02 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client Sample Ref: | BH226 |
| Acquisition Date/Time: | 14-Mar-12, 20:10:01 | | |
| Datafile: | D:\TES\DATA\Y2012\031412TPH_GC15\031412 2012-03-14 08-08-11\034F4301.D | | |

Where individual results are flagged see report notes for status.

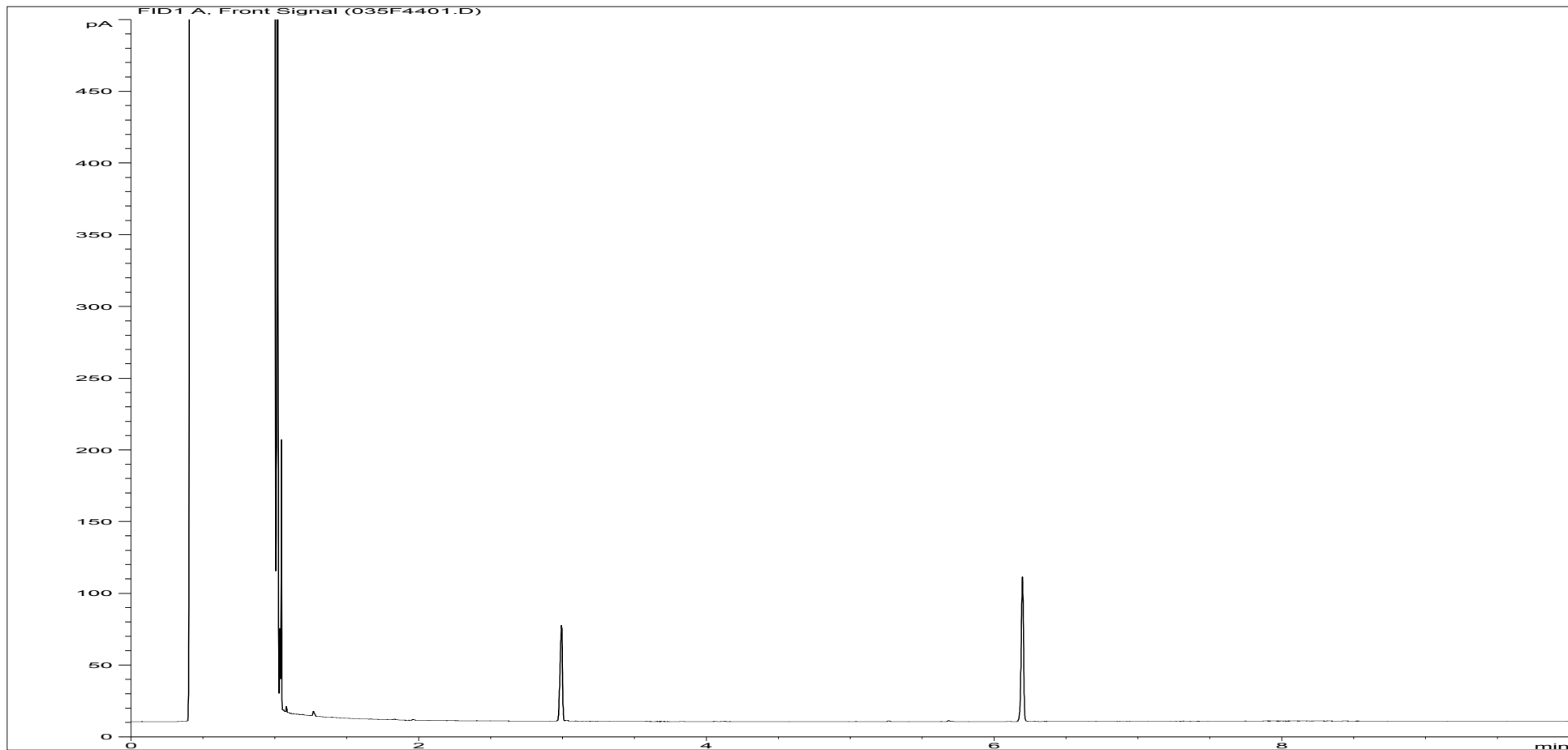
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1275731ARO | Job Number: | W13_3314 |
| Multiplier: | 0.015 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client Sample Ref: | BH226 |
| 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 | | |

Where individual results are flagged see report notes for status.

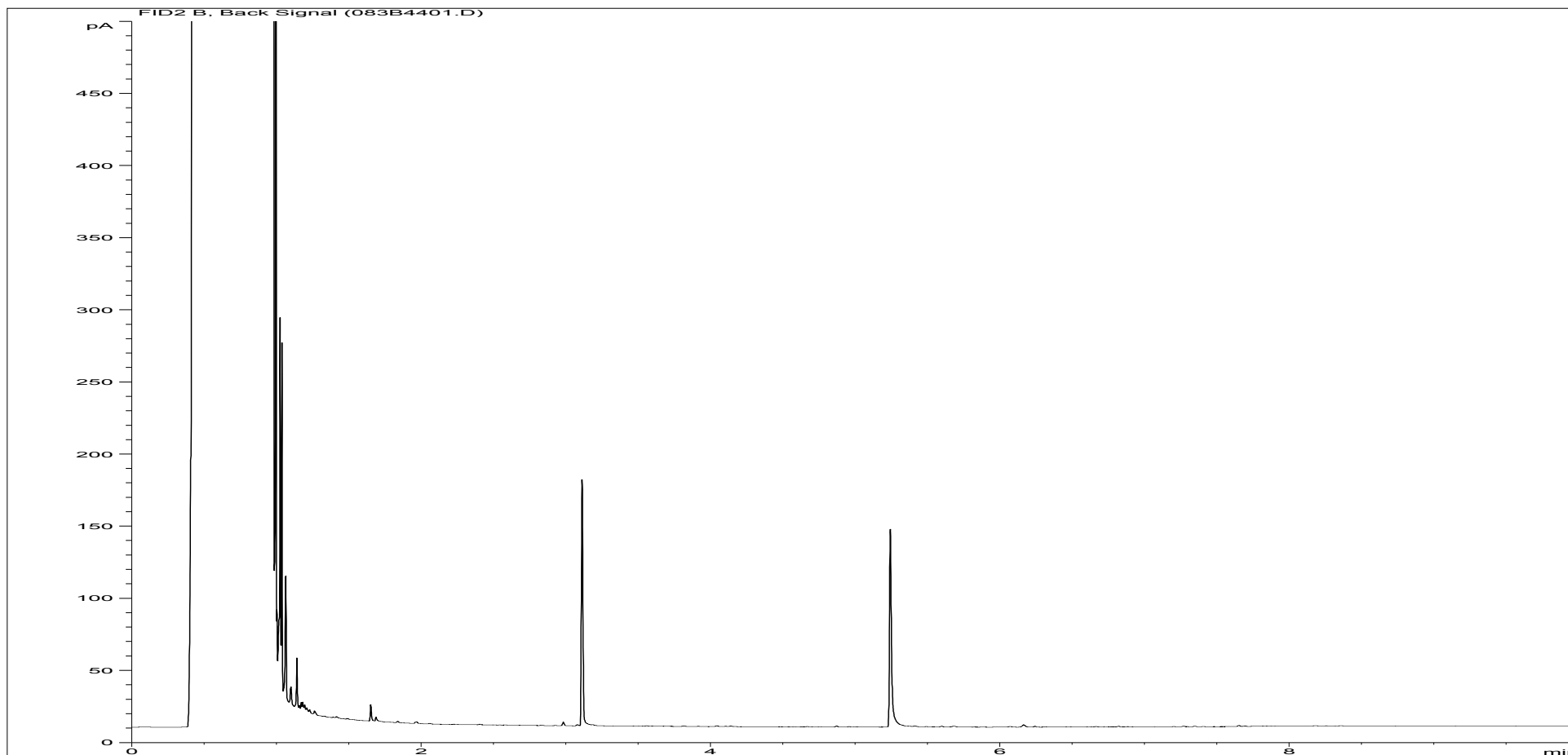
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1275732ALI | Job Number: | W13_3314 |
| Multiplier: | 0.02 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | 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 | | |

Where individual results are flagged see report notes for status.

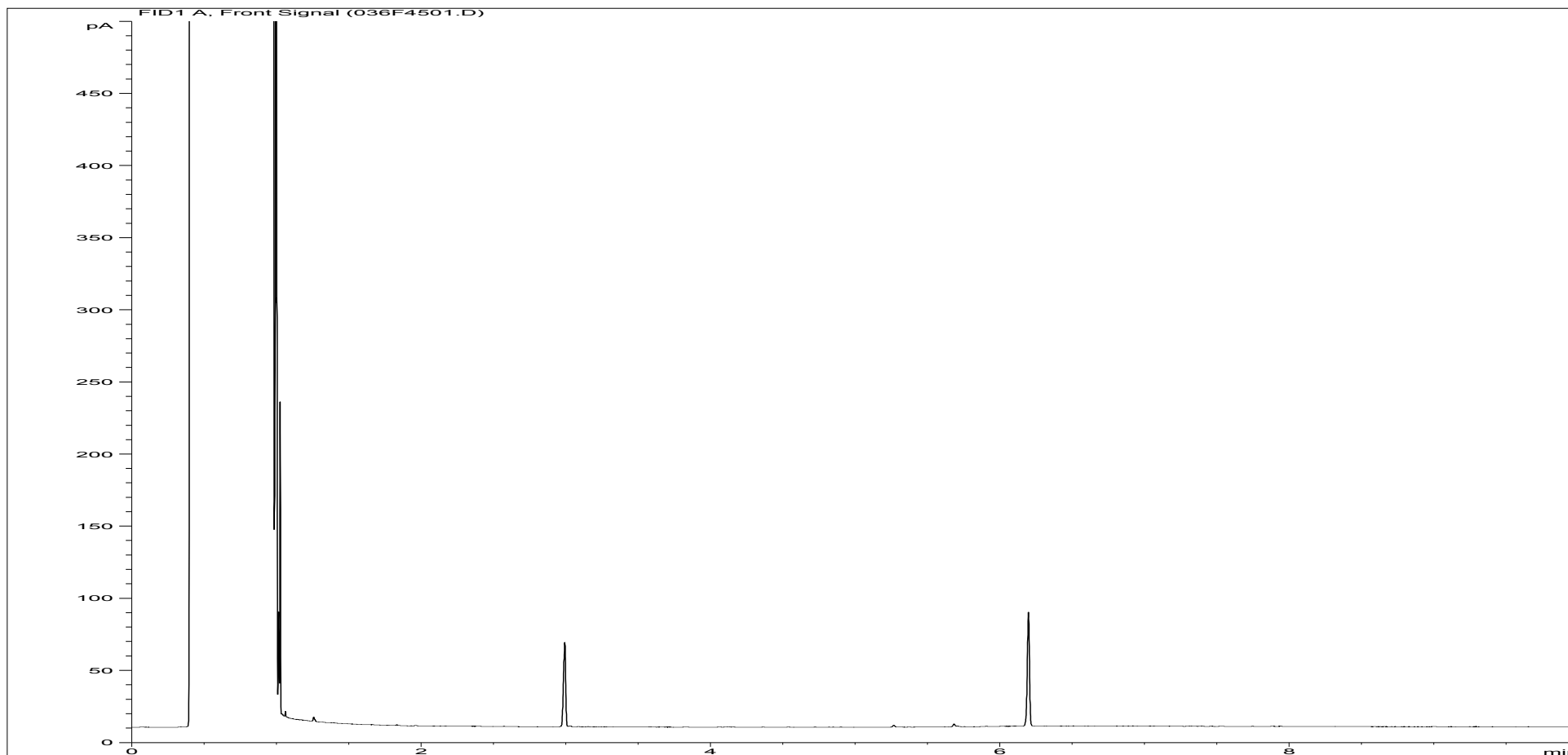
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1275732ARO | Job Number: | W13_3314 |
| Multiplier: | 0.015 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | 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\083B4401.D | | |

Where individual results are flagged see report notes for status.

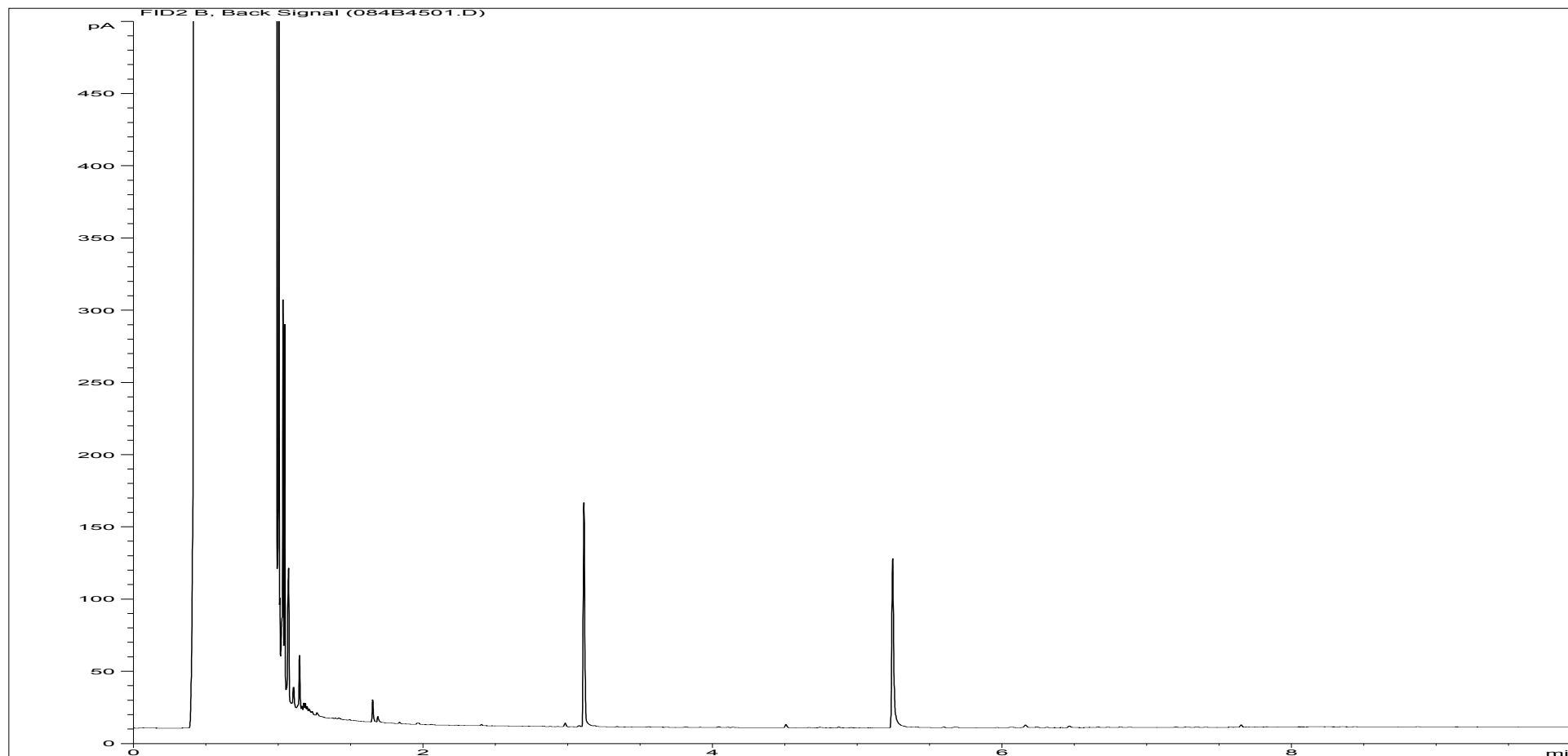
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1275733ALI | Job Number: | W13_3314 |
| Multiplier: | 0.02 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

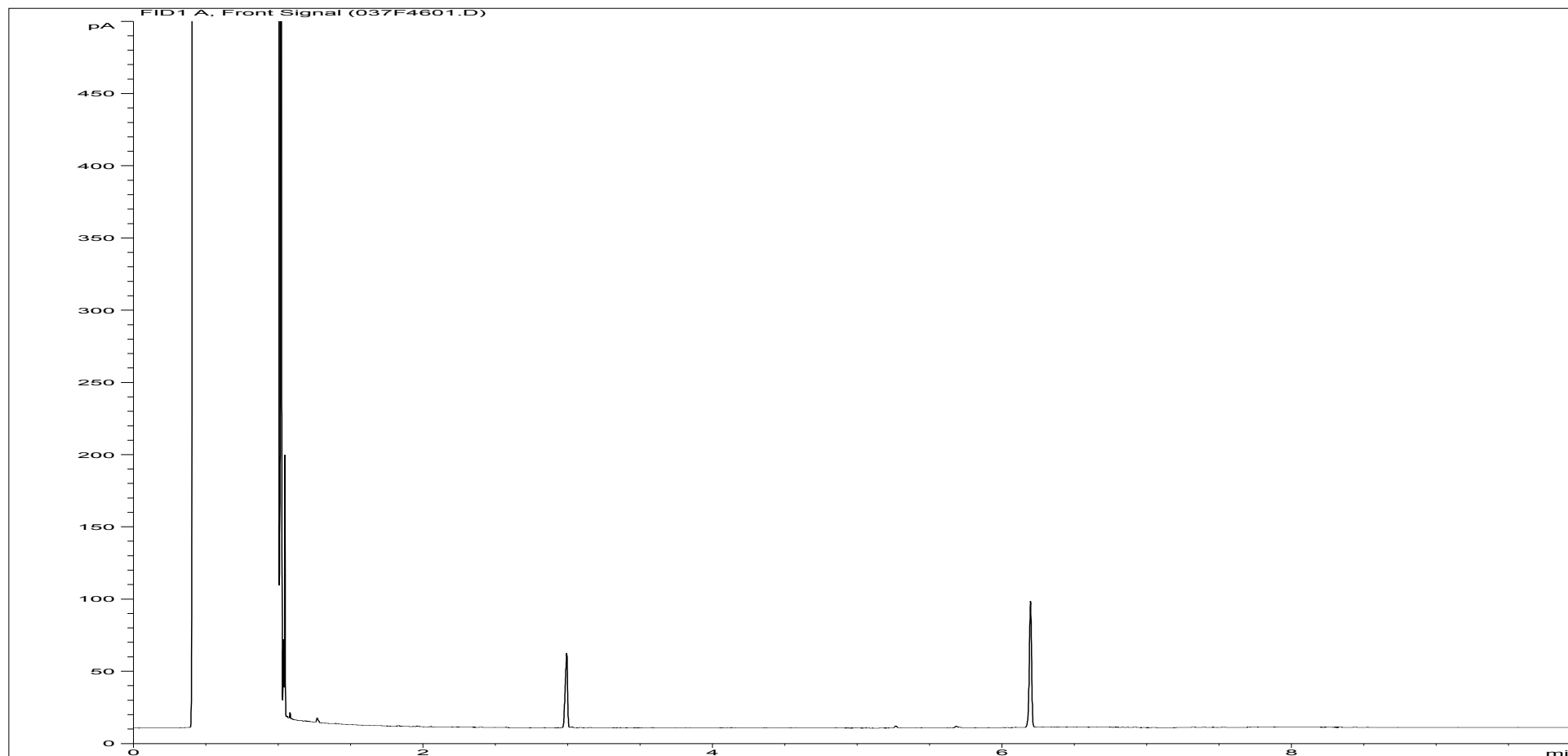
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1275733ARO | Job Number: | W13_3314 |
| Multiplier: | 0.015 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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\084B4501.D | | |

Where individual results are flagged see report notes for status.

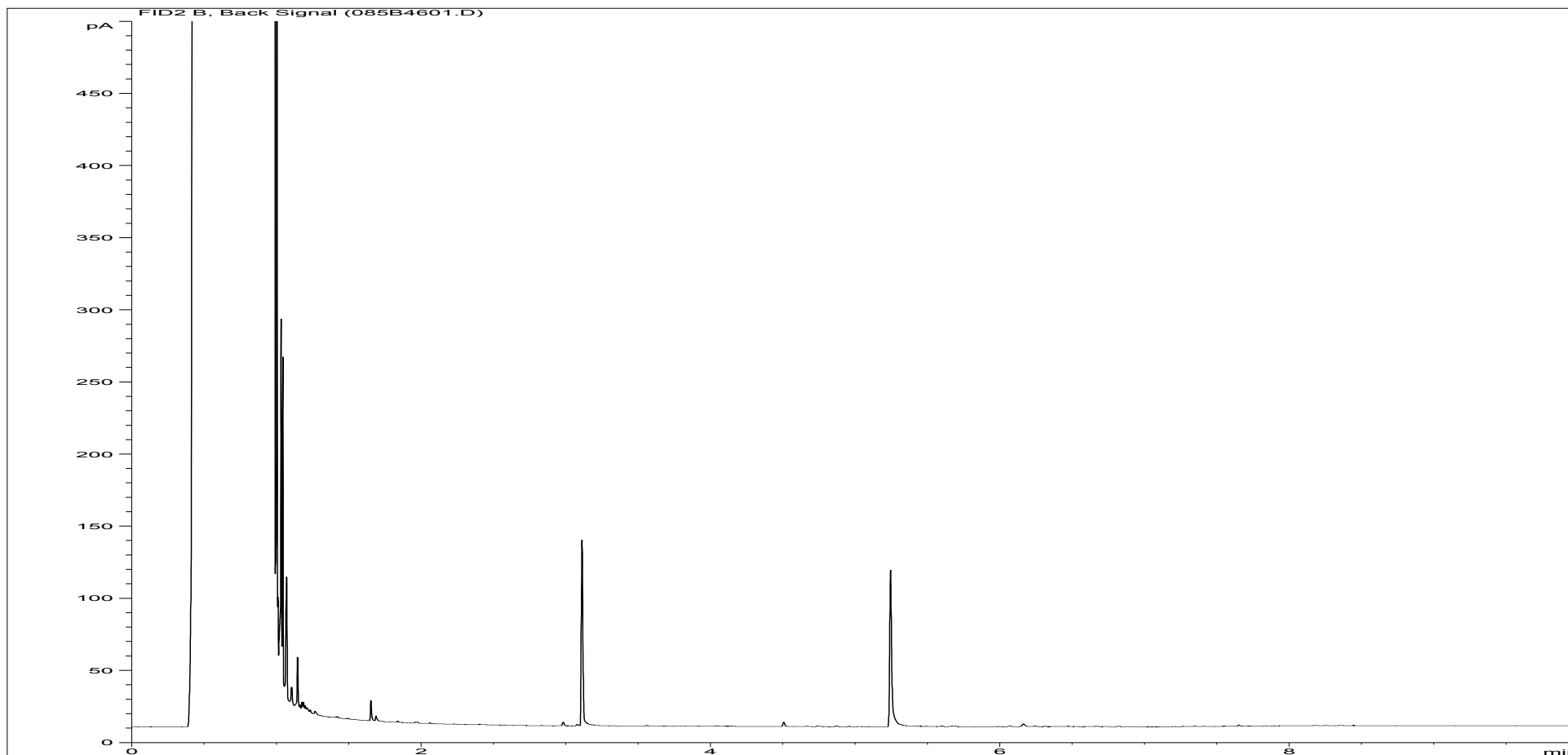
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1275734ALI | Job Number: | W13_3314 |
| Multiplier: | 0.02 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_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 | | |

Where individual results are flagged see report notes for status.

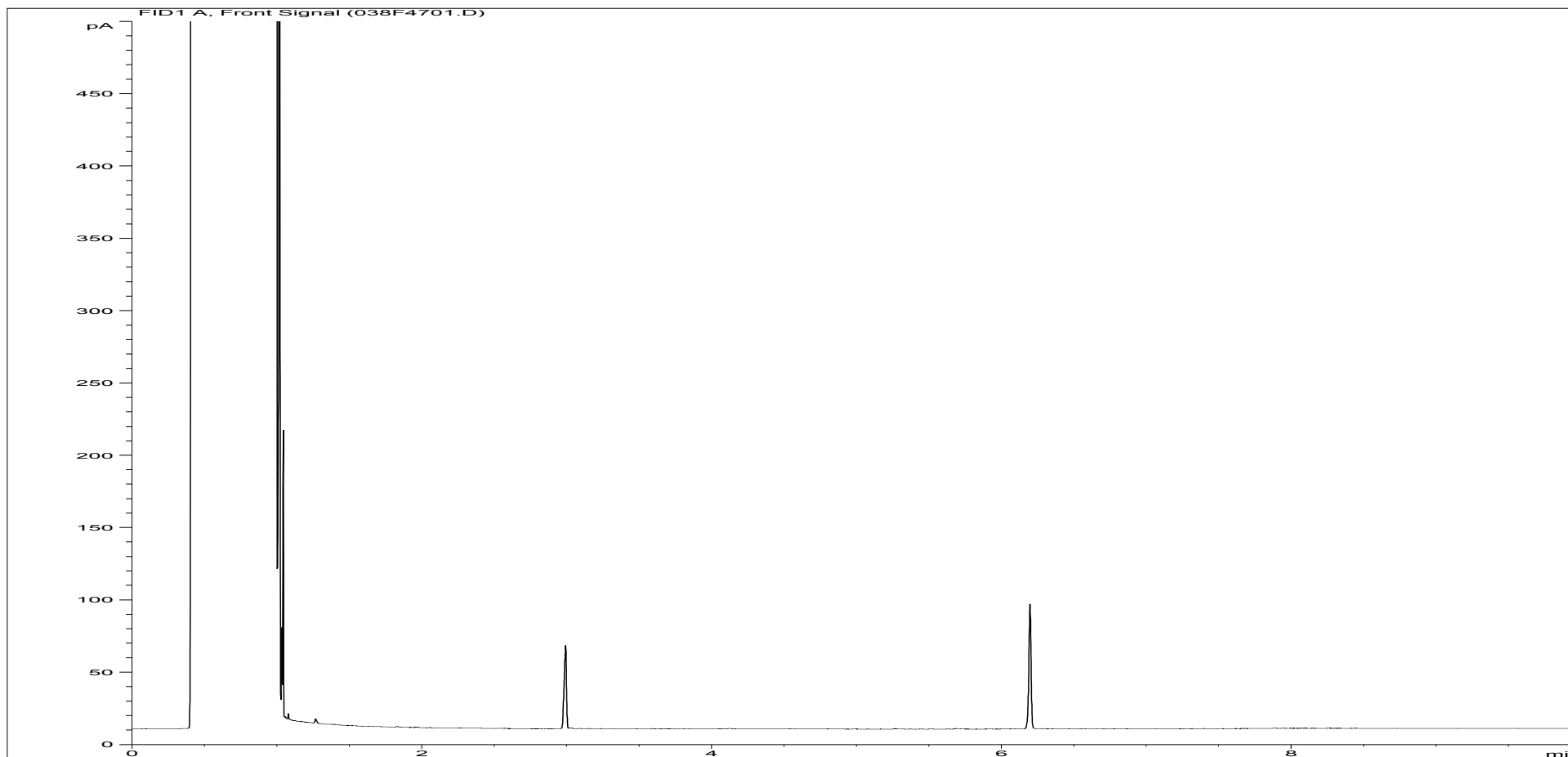
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1275734ARO | Job Number: | W13_3314 |
| Multiplier: | 0.015 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_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\085B4601.D | | |

Where individual results are flagged see report notes for status.

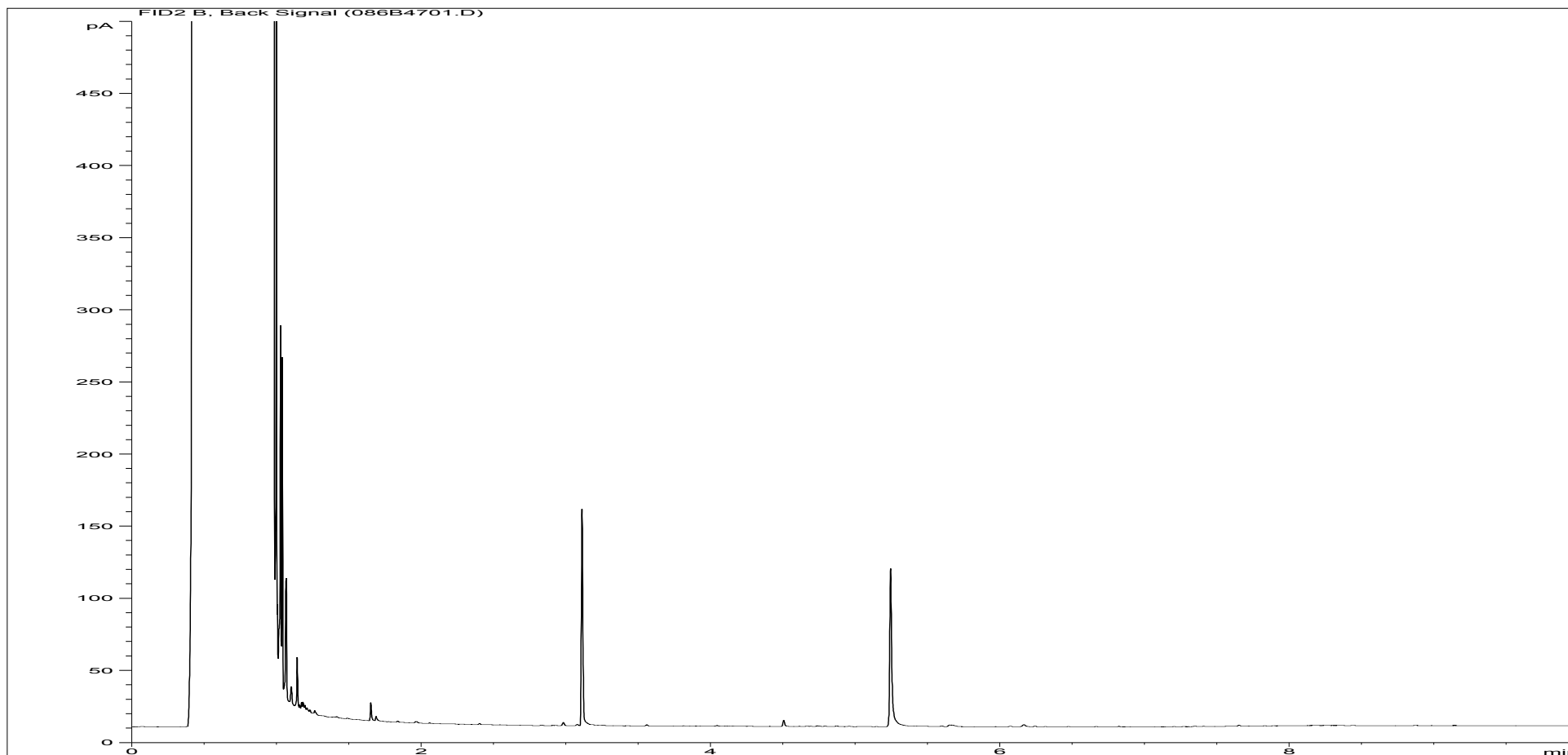
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1275735ALI | Job Number: | W13_3314 |
| Multiplier: | 0.02 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | 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 | | |

Where individual results are flagged see report notes for status.

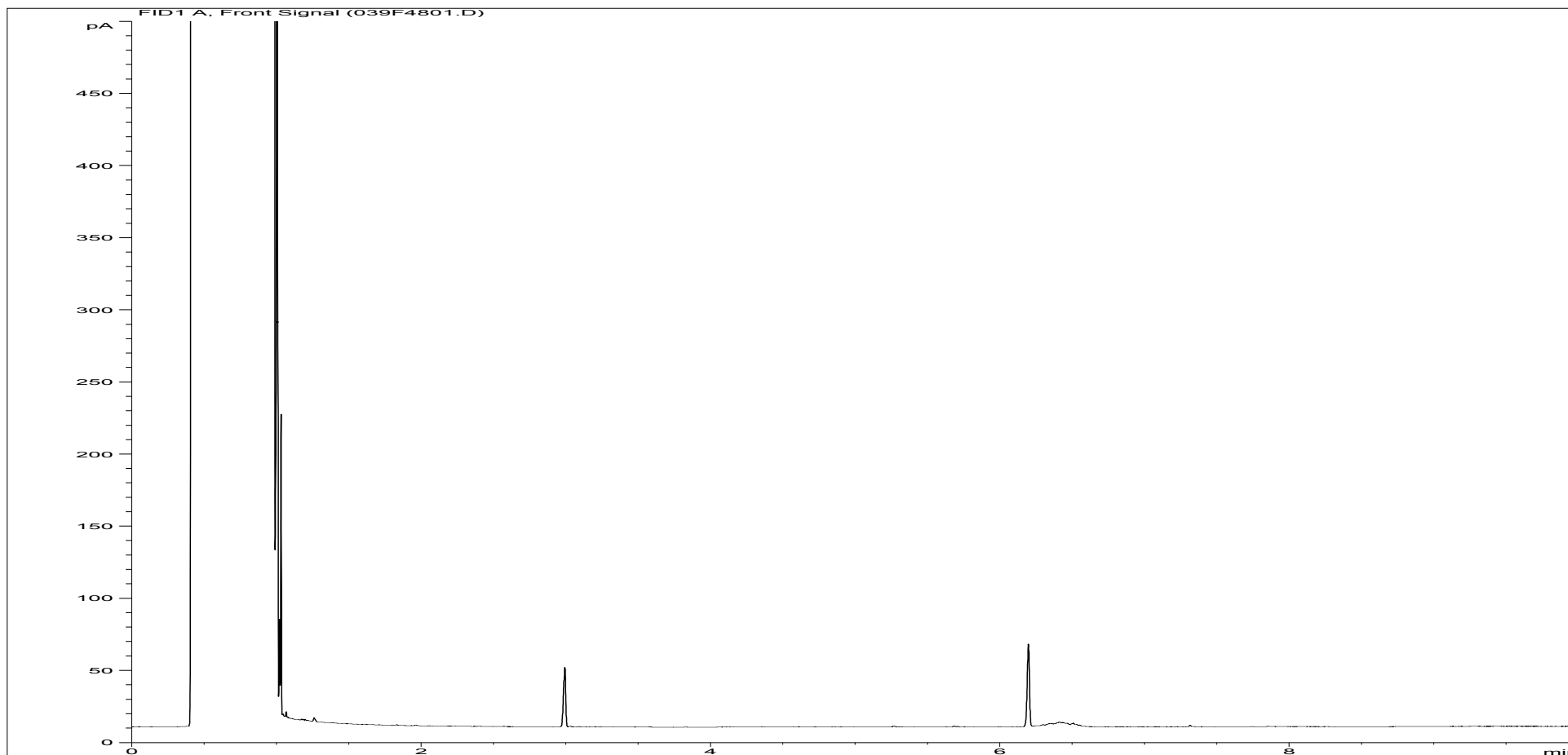
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1275735ARO | Job Number: | W13_3314 |
| Multiplier: | 0.015 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | 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\086B4701.D | | |

Where individual results are flagged see report notes for status.

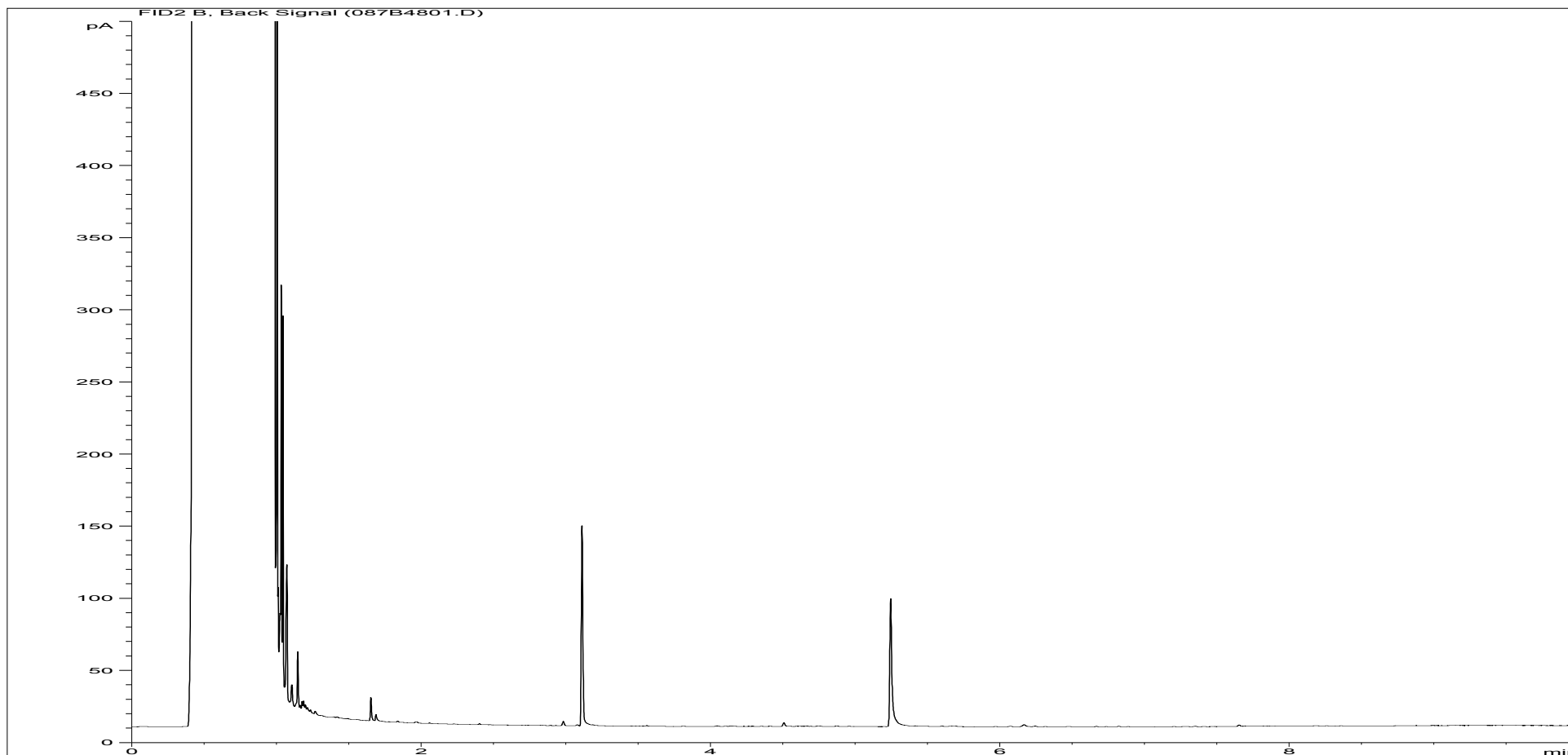
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1275736ALI | Job Number: | W13_3314 |
| Multiplier: | 0.02 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.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 | | |

Where individual results are flagged see report notes for status.

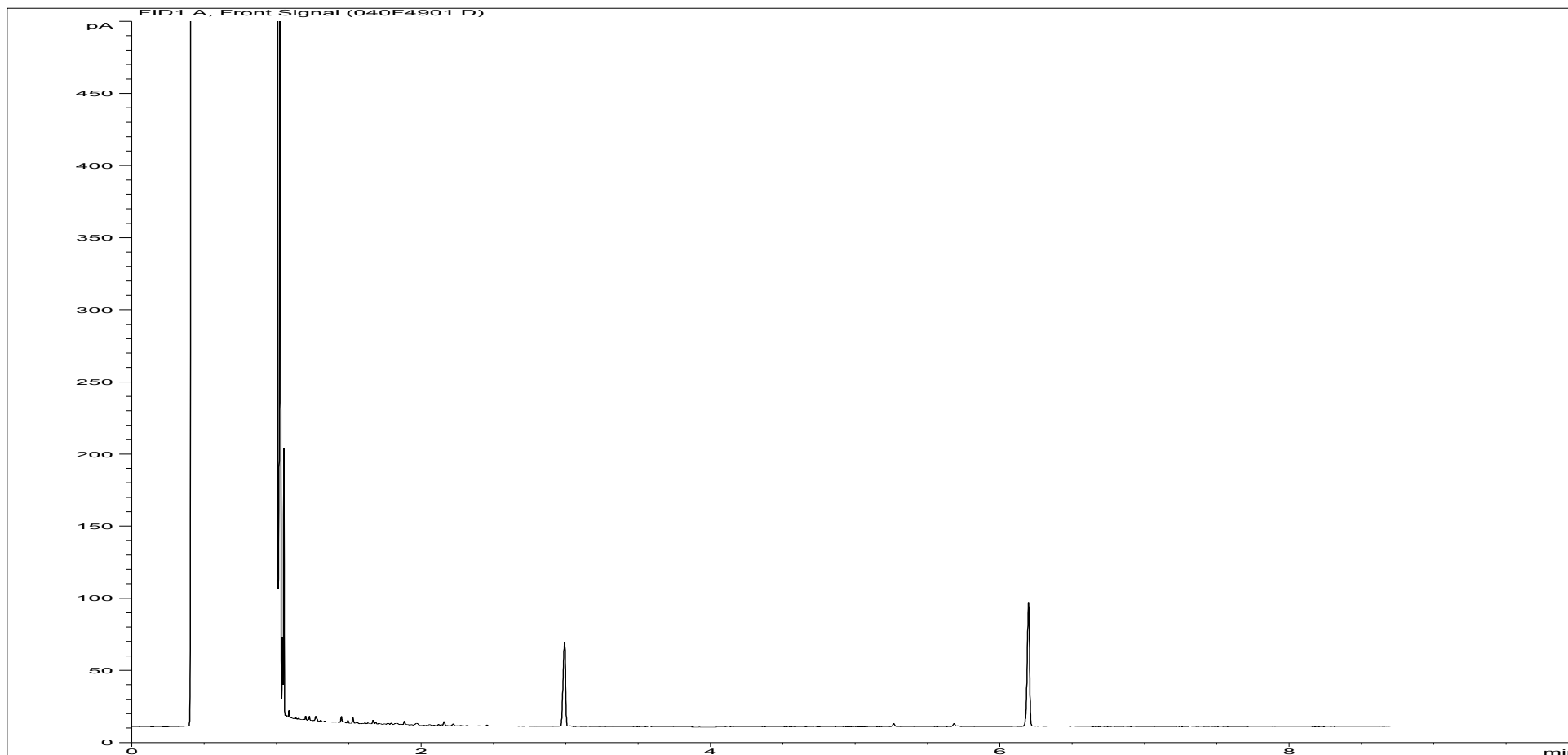
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1275736ARO | Job Number: | W13_3314 |
| Multiplier: | 0.015 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.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\087B4801.D | | |

Where individual results are flagged see report notes for status.

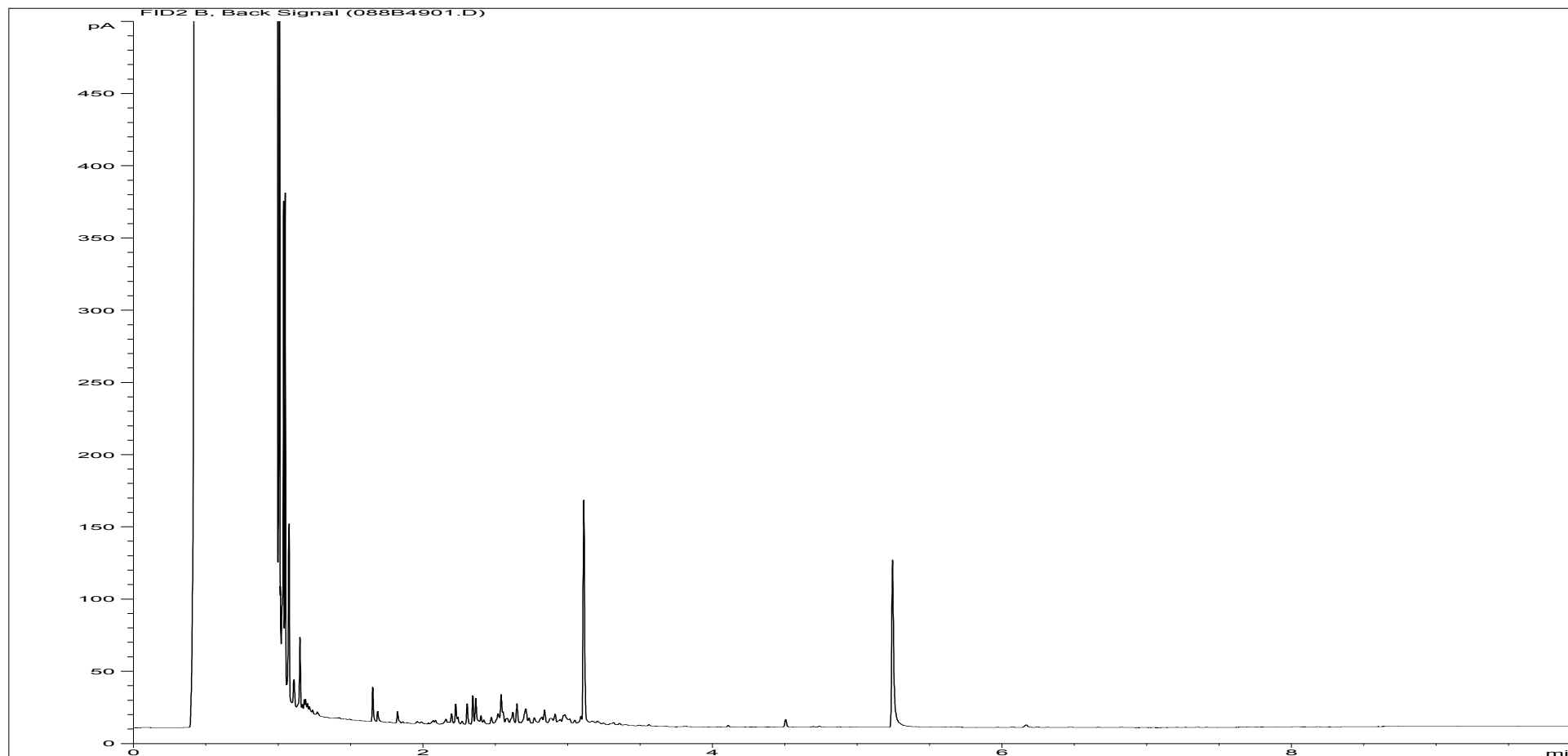
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1275737ALI | Job Number: | W13_3314 |
| Multiplier: | 0.02 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client Sample Ref: | BHNSA21 |
| Acquisition Date/Time: | 14-Mar-12, 21:53:16 | | |
| Datafile: | D:\TES\DATA\Y2012\031412TPH_GC15\031412 2012-03-14 08-08-11\040F4901.D | | |

Where individual results are flagged see report notes for status.

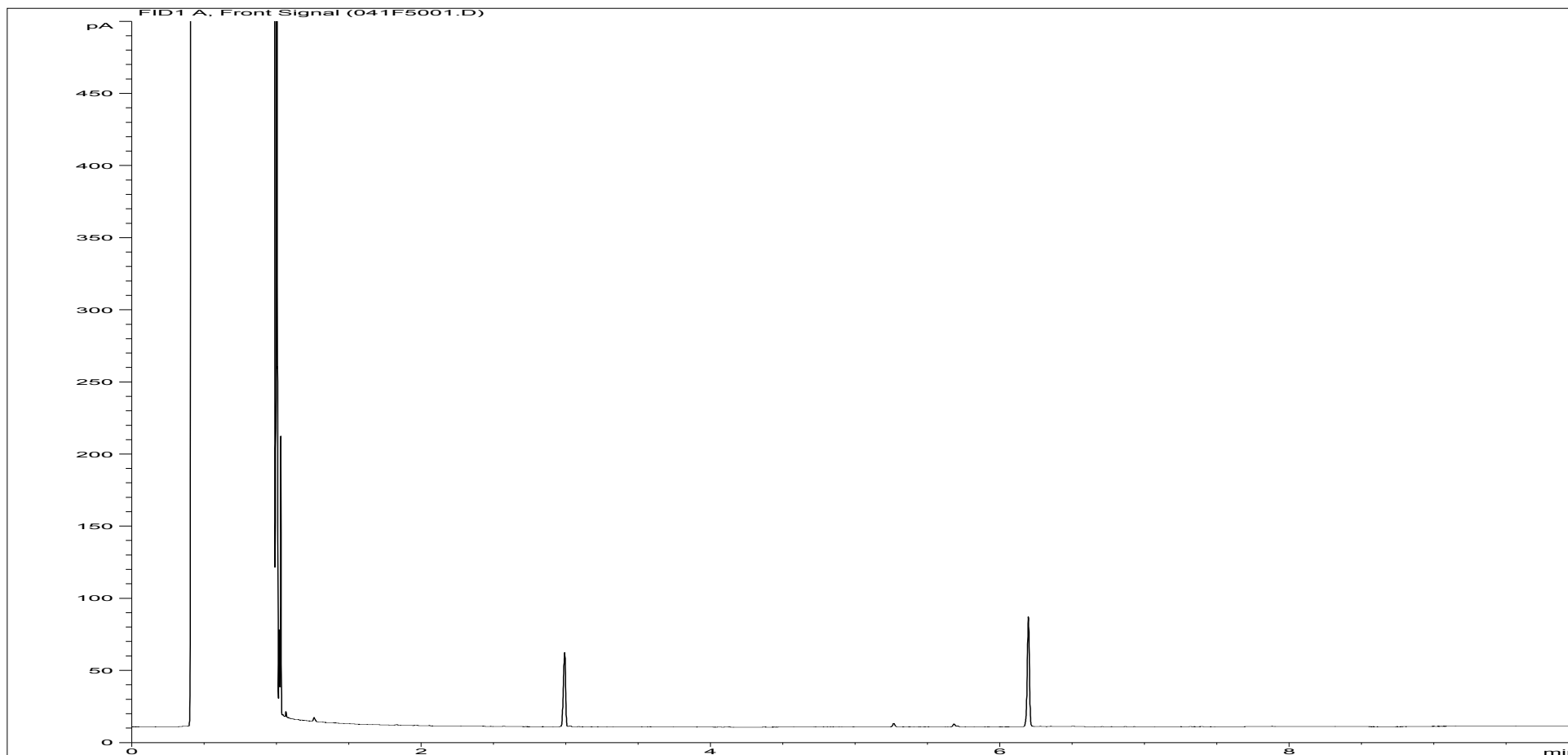
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1275737ARO | Job Number: | W13_3314 |
| Multiplier: | 0.015 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client Sample Ref: | BHNSA21 |
| 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 | | |

Where individual results are flagged see report notes for status.

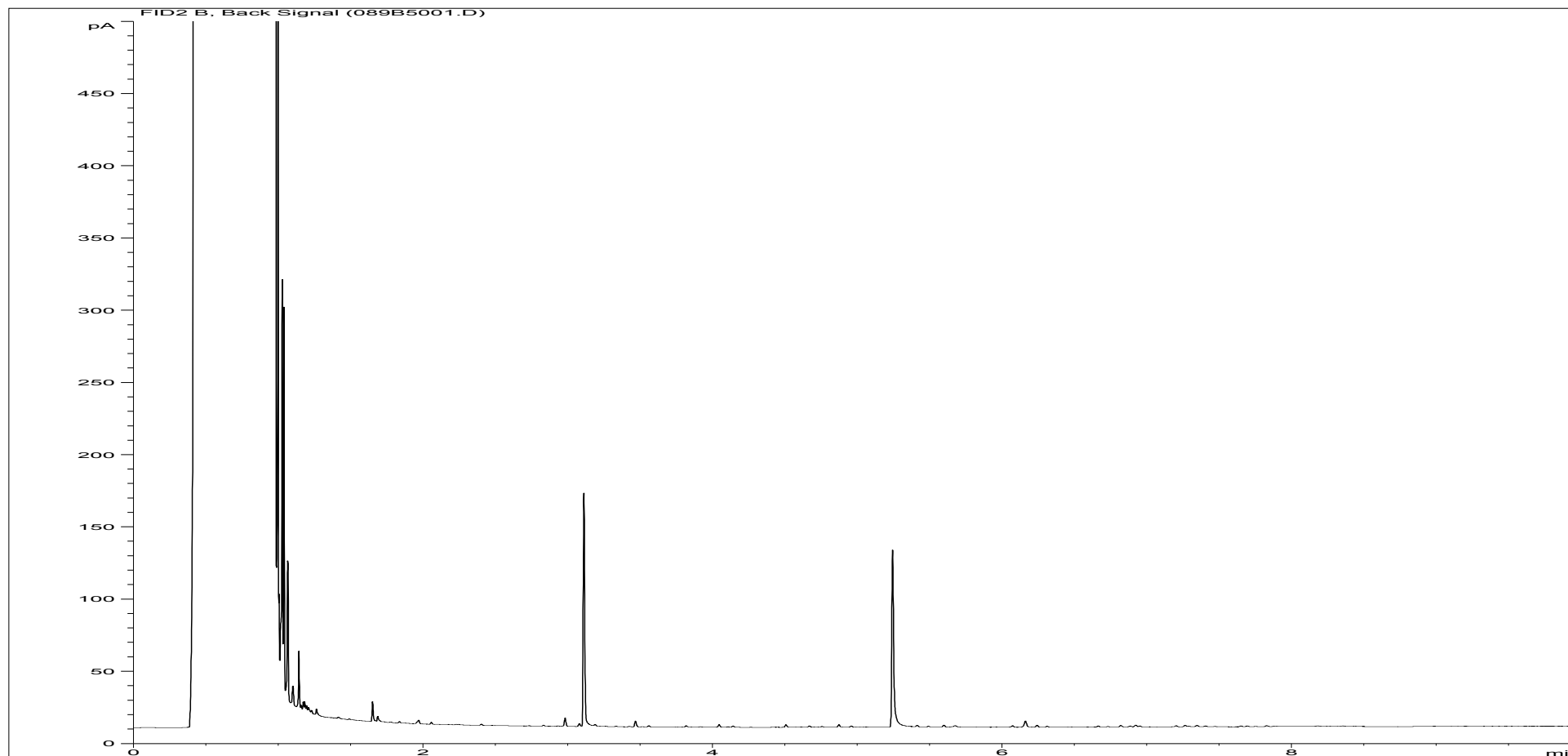
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1275738ALI | Job Number: | W13_3314 |
| Multiplier: | 0.02 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client Sample Ref: | BHNSA15 |
| 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 | | |

Where individual results are flagged see report notes for status.

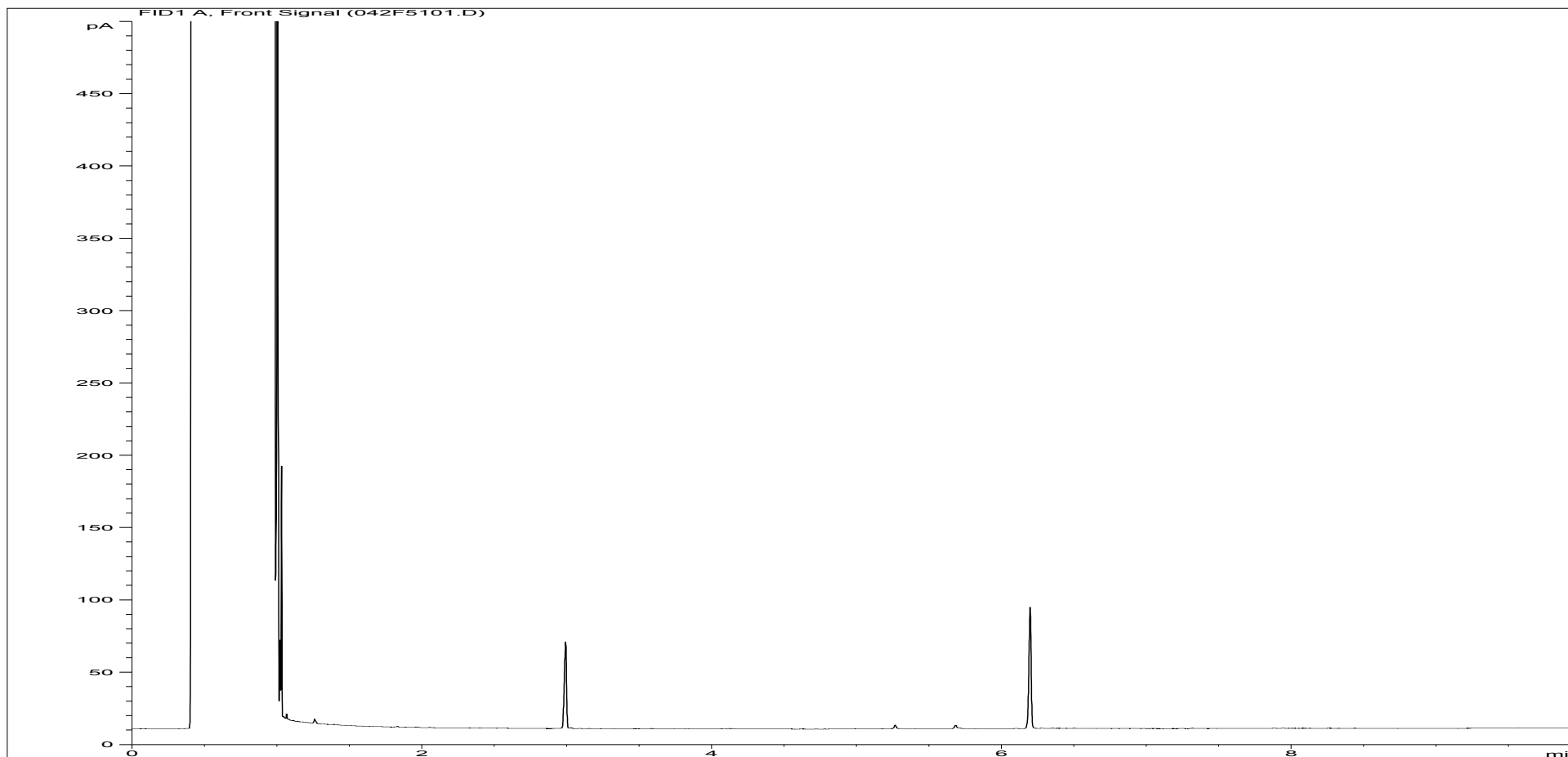
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1275738ARO | Job Number: | W13_3314 |
| Multiplier: | 0.015 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client Sample Ref: | BHNSA15 |
| 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 | | |

Where individual results are flagged see report notes for status.

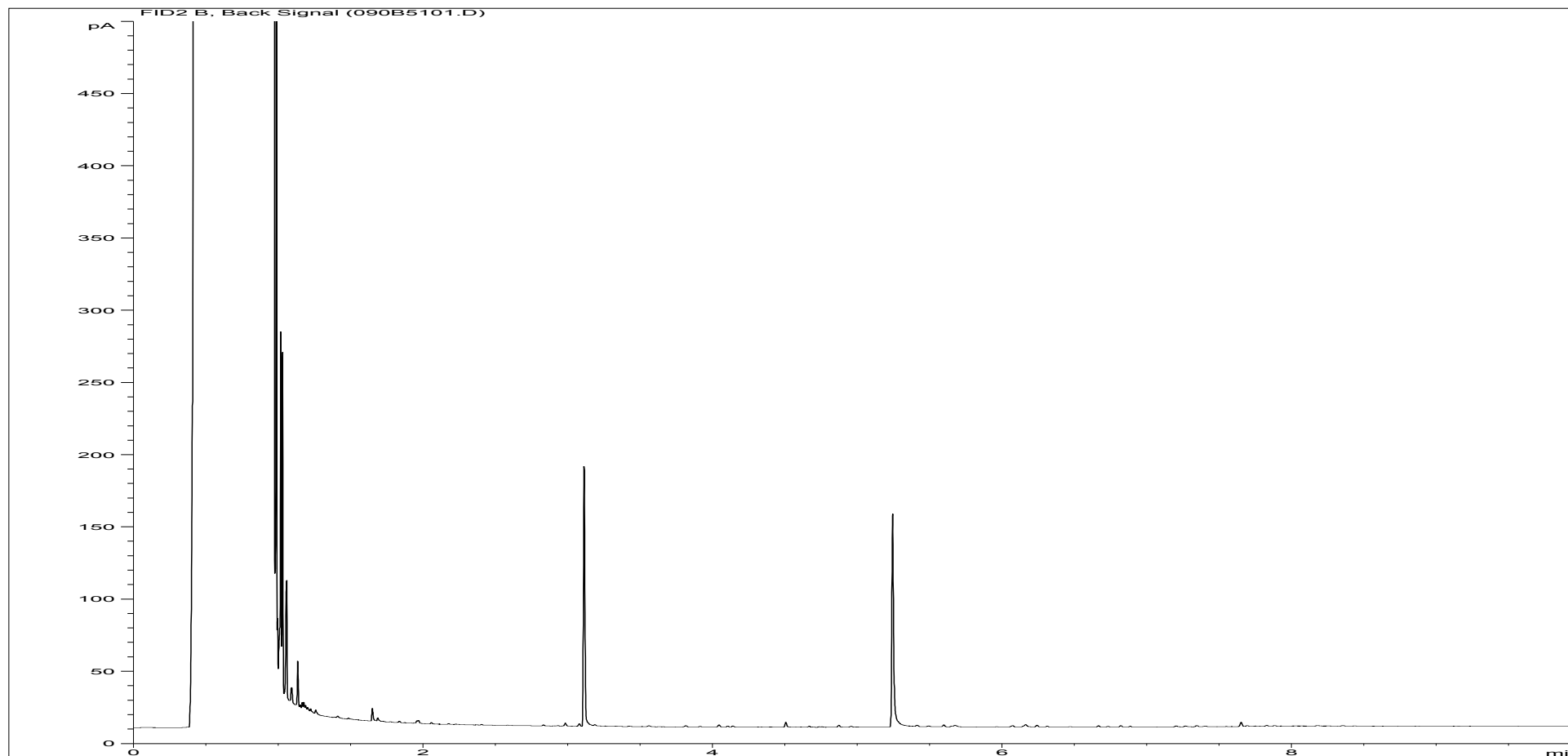
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1275739ALI | Job Number: | W13_3314 |
| Multiplier: | 0.02 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

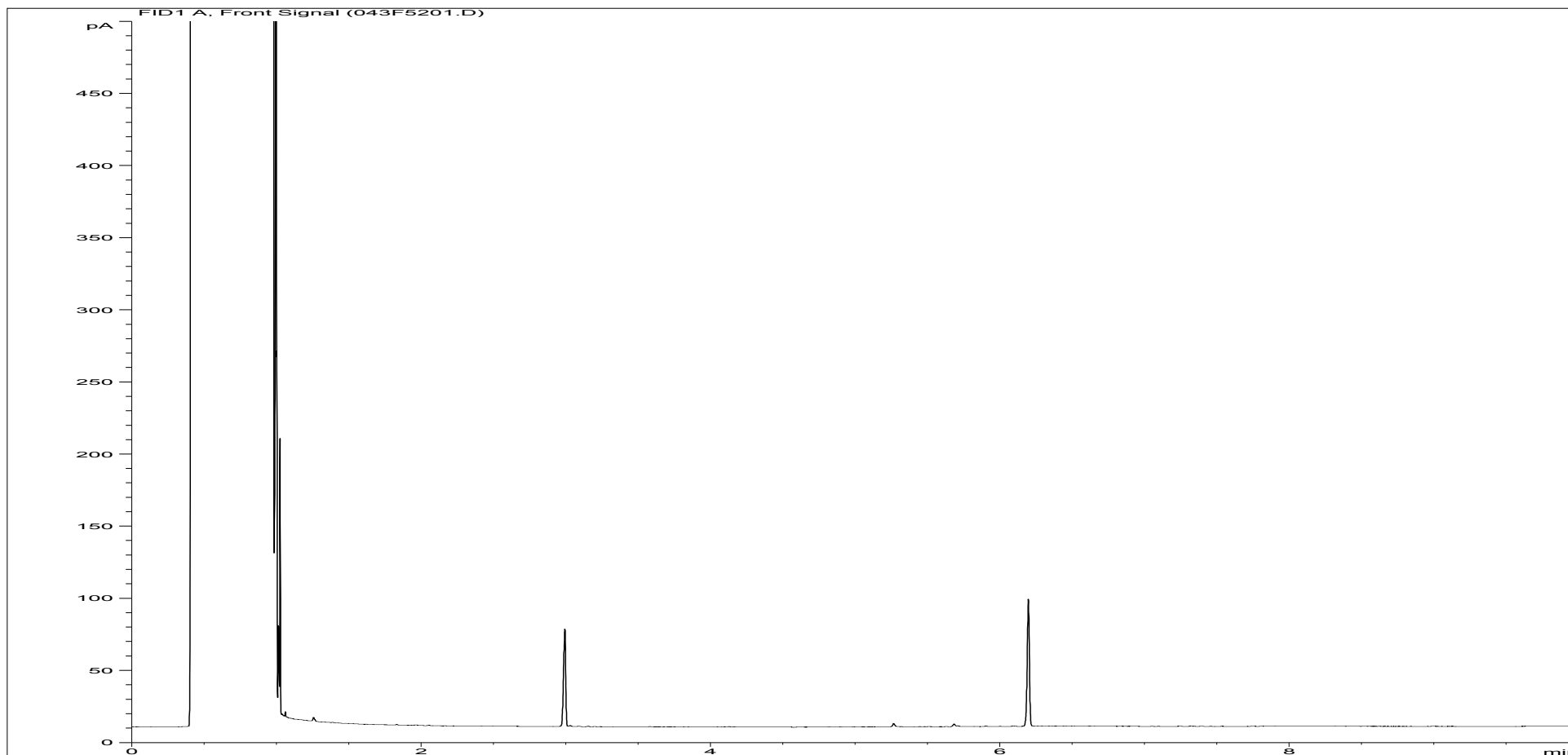
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1275739ARO | Job Number: | W13_3314 |
| Multiplier: | 0.015 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

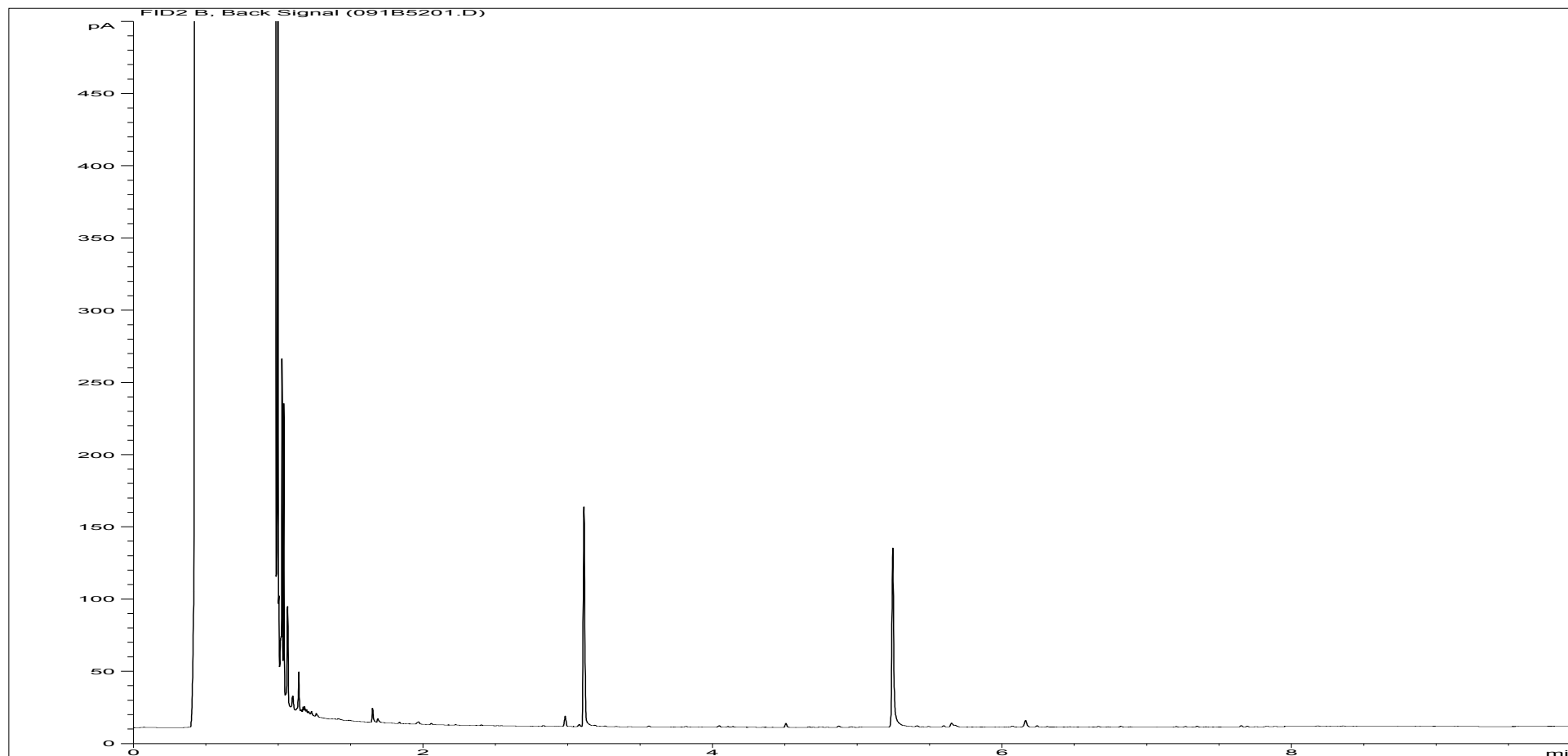
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1275740ALI | Job Number: | W13_3314 |
| Multiplier: | 0.02 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

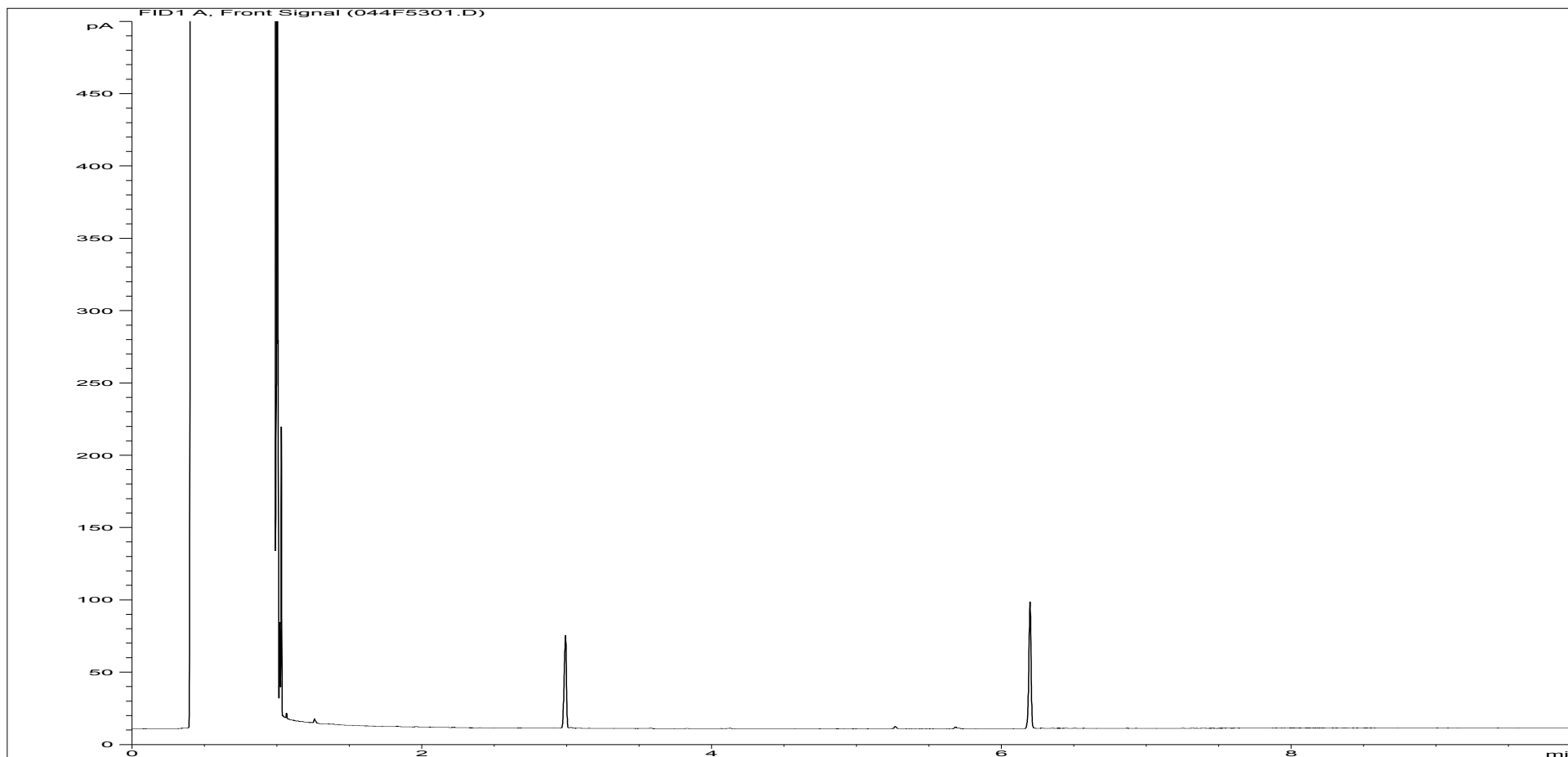
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1275740ARO | Job Number: | W13_3314 |
| Multiplier: | 0.015 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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\091B5201.D | | |

Where individual results are flagged see report notes for status.

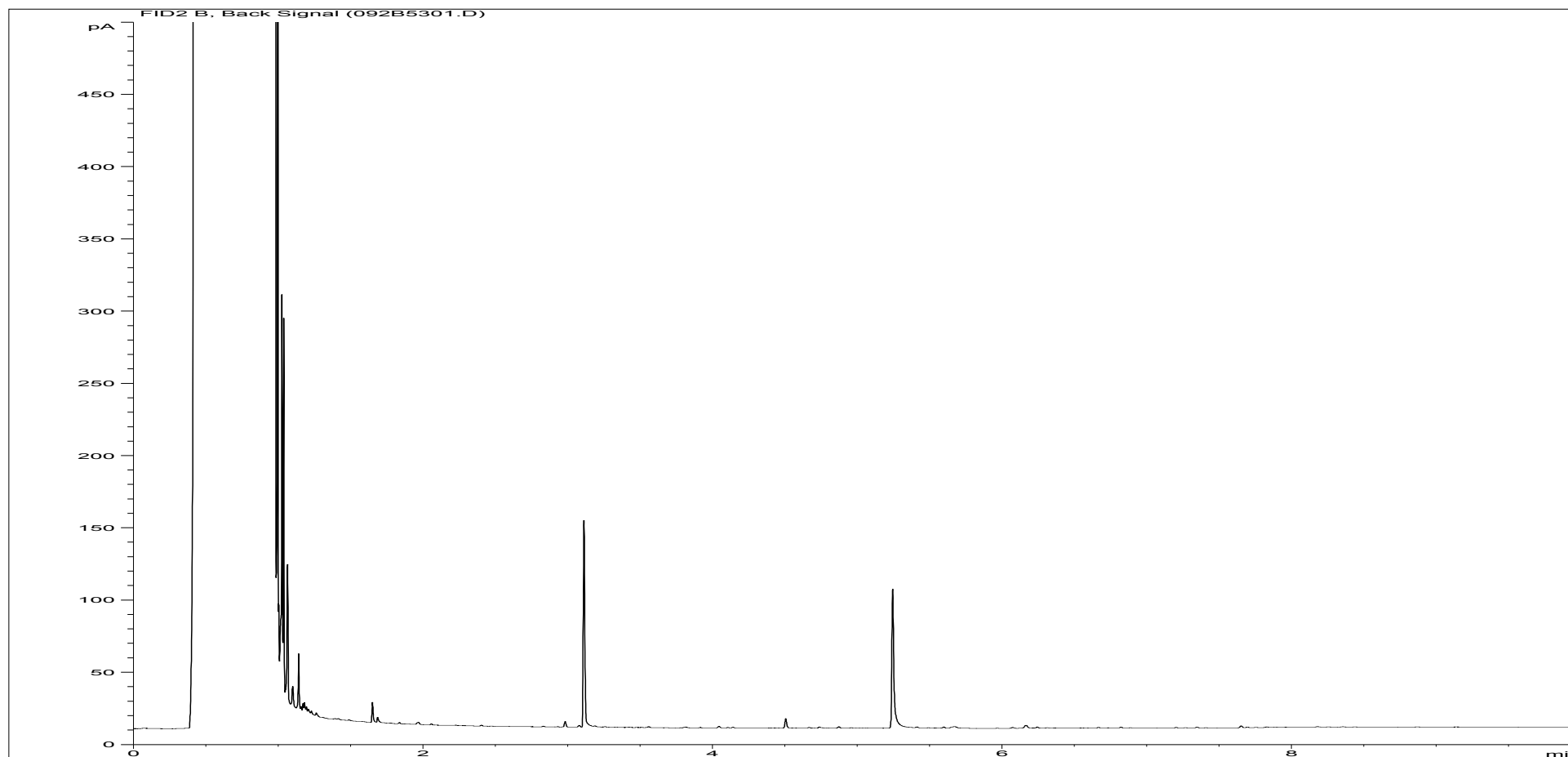
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1275741ALI | Job Number: | W13_3314 |
| Multiplier: | 0.02 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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\044F5301.D | | |

Where individual results are flagged see report notes for status.

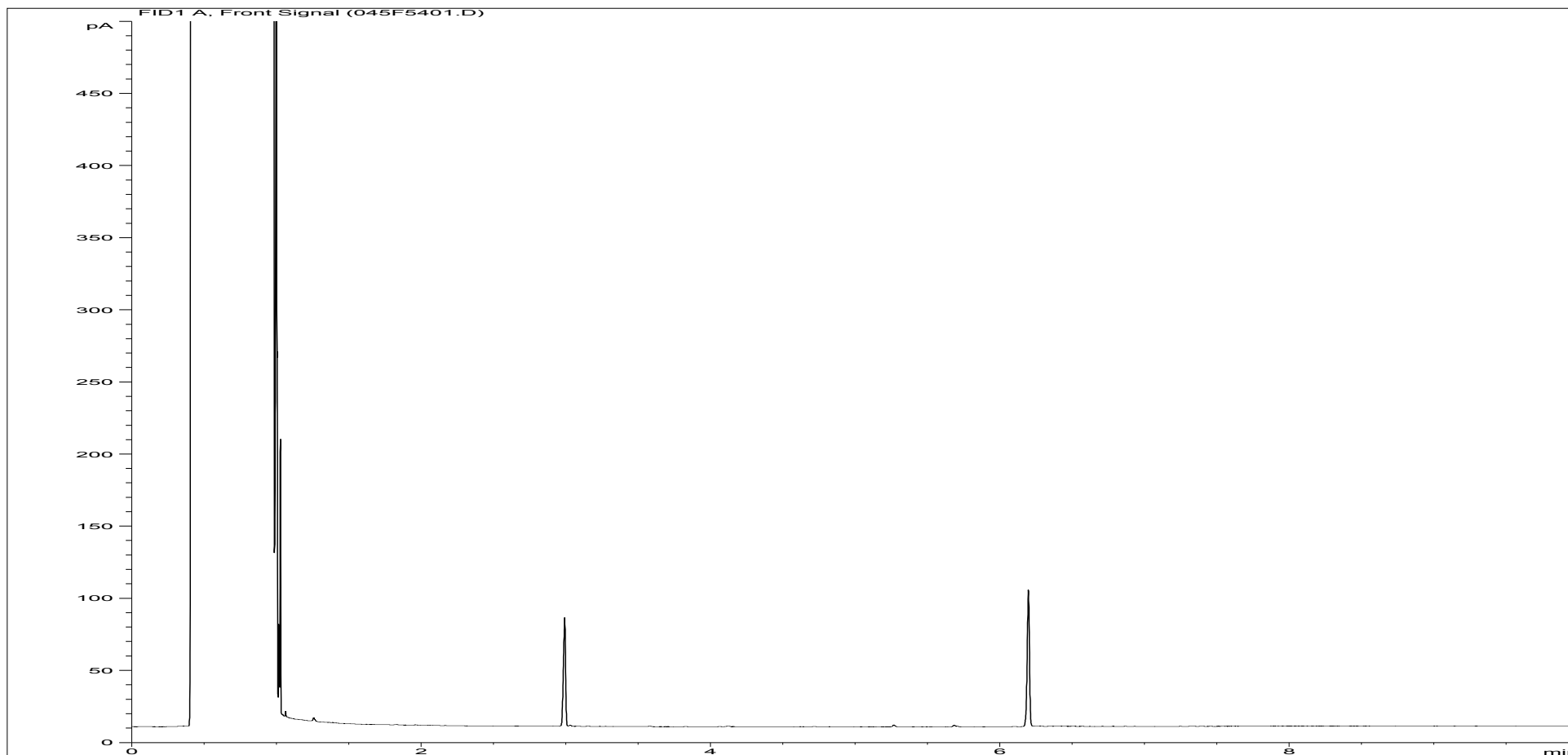
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1275741ARO | Job Number: | W13_3314 |
| Multiplier: | 0.015 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

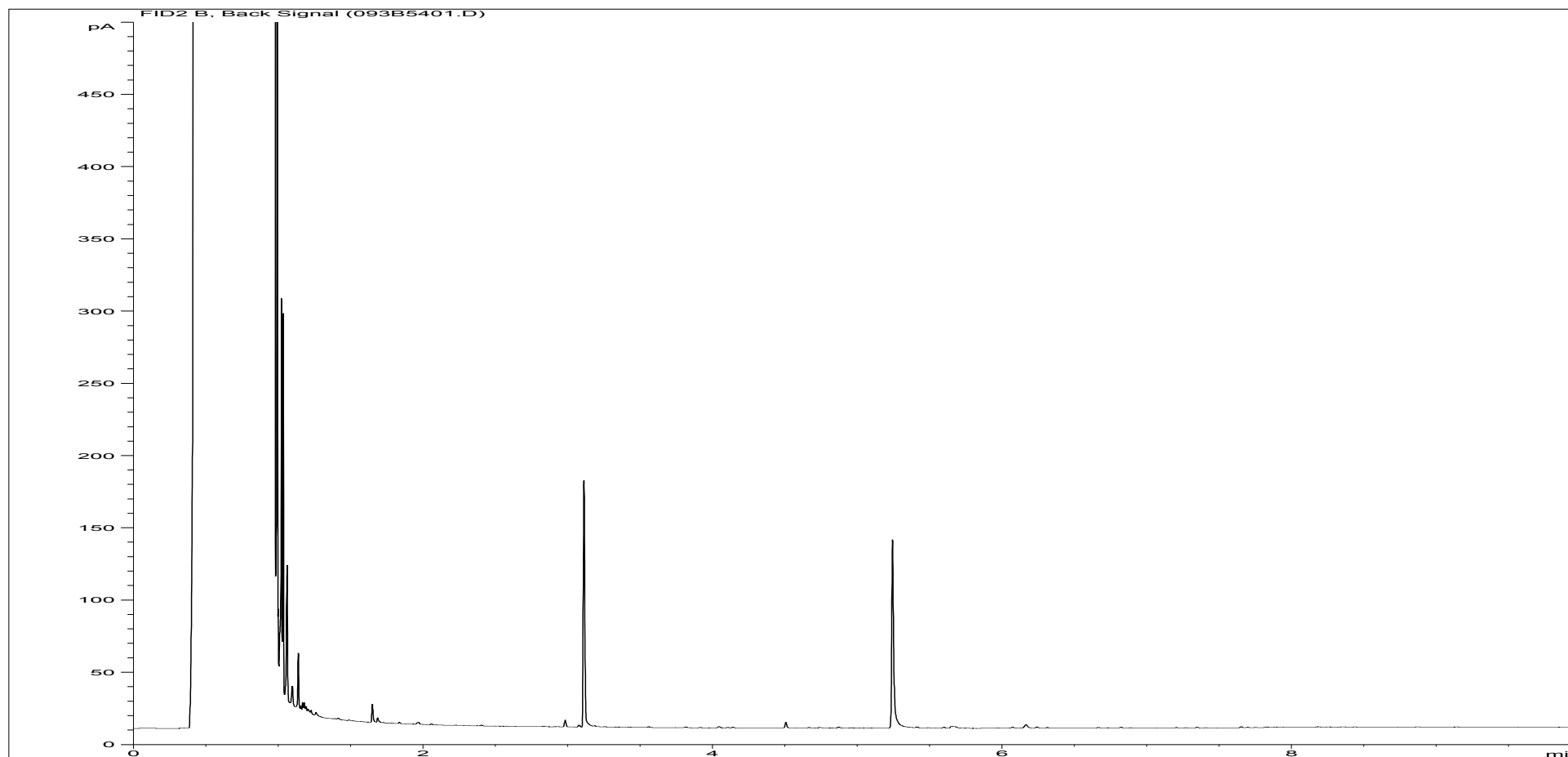
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1275742ALI | Job Number: | W13_3314 |
| Multiplier: | 0.02 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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\045F5401.D | | |

Where individual results are flagged see report notes for status.

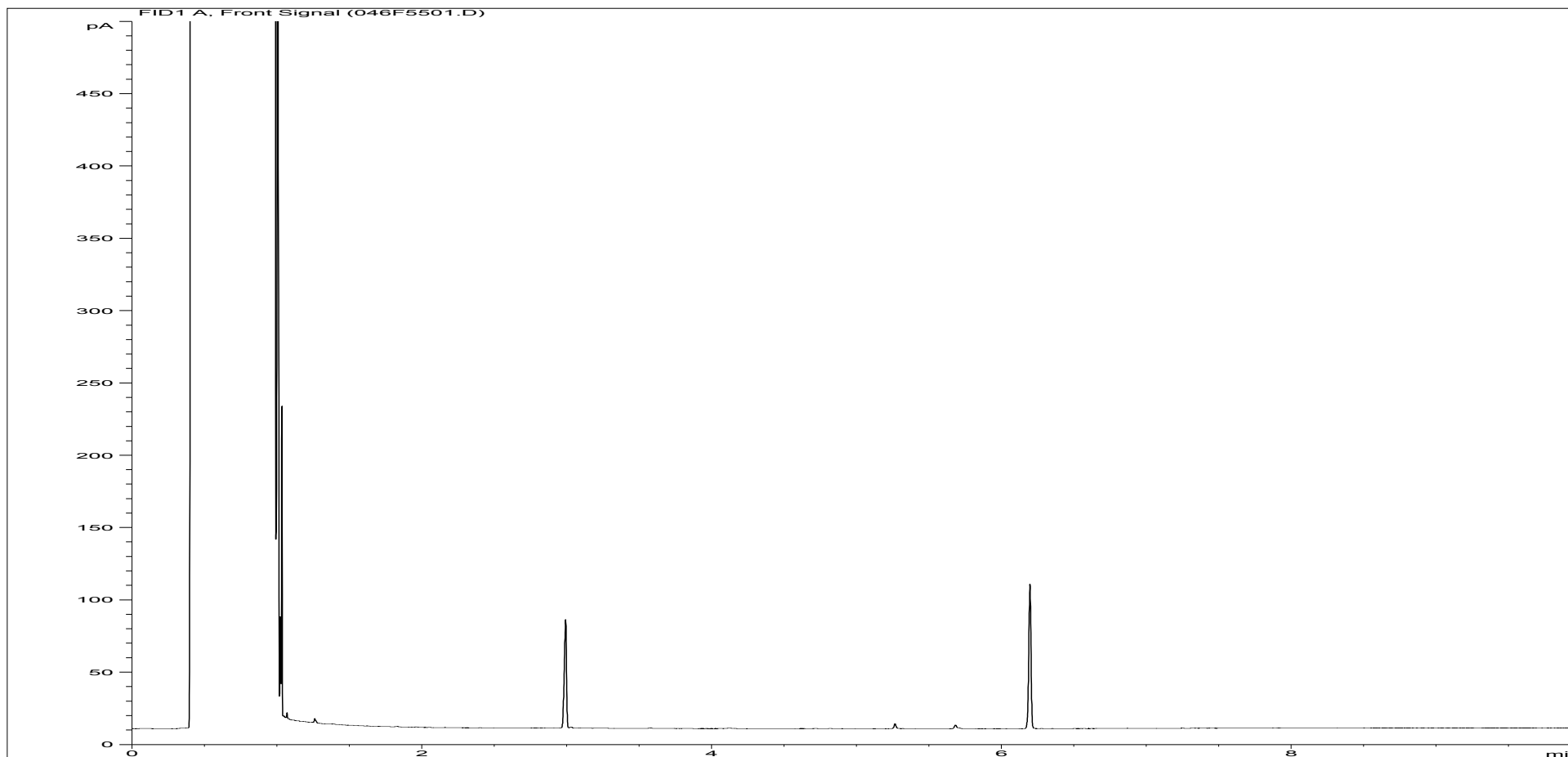
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1275742ARO | Job Number: | W13_3314 |
| Multiplier: | 0.015 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

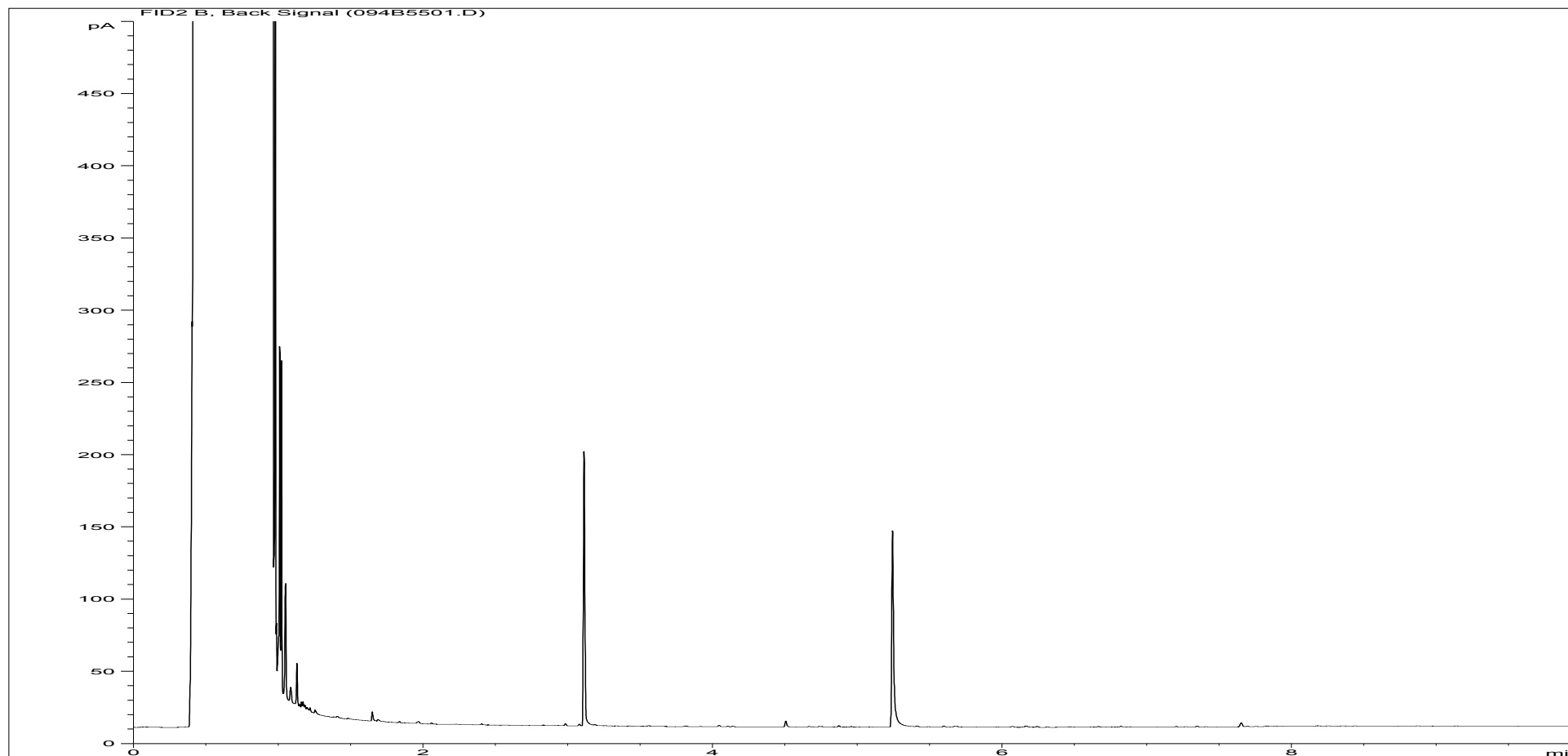
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1275743ALI | Job Number: | W13_3314 |
| Multiplier: | 0.02 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client Sample Ref: | BHNSA9 |
| 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 | | |

Where individual results are flagged see report notes for status.

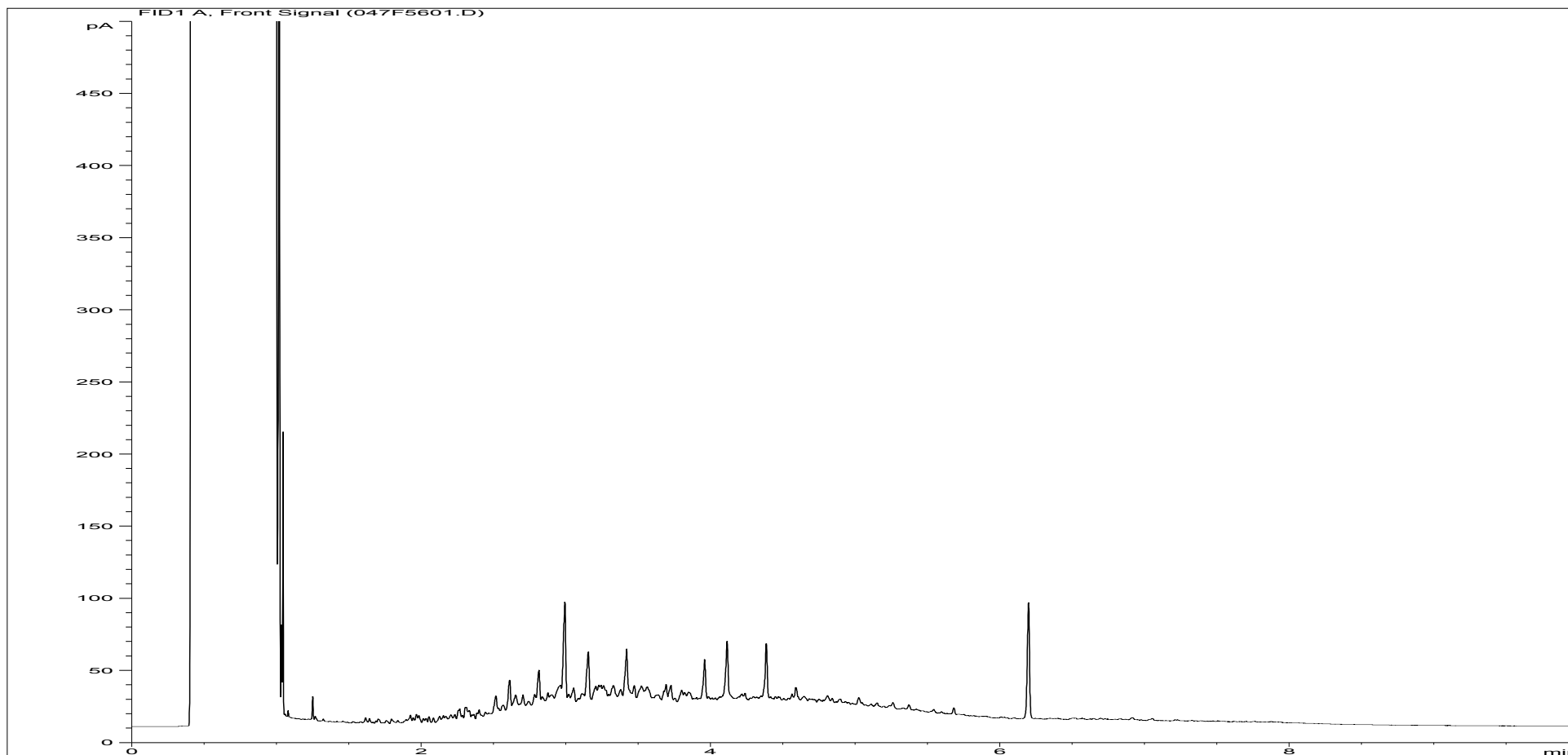
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1275743ARO | Job Number: | W13_3314 |
| Multiplier: | 0.015 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client Sample Ref: | BHNSA9 |
| 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 | | |

Where individual results are flagged see report notes for status.

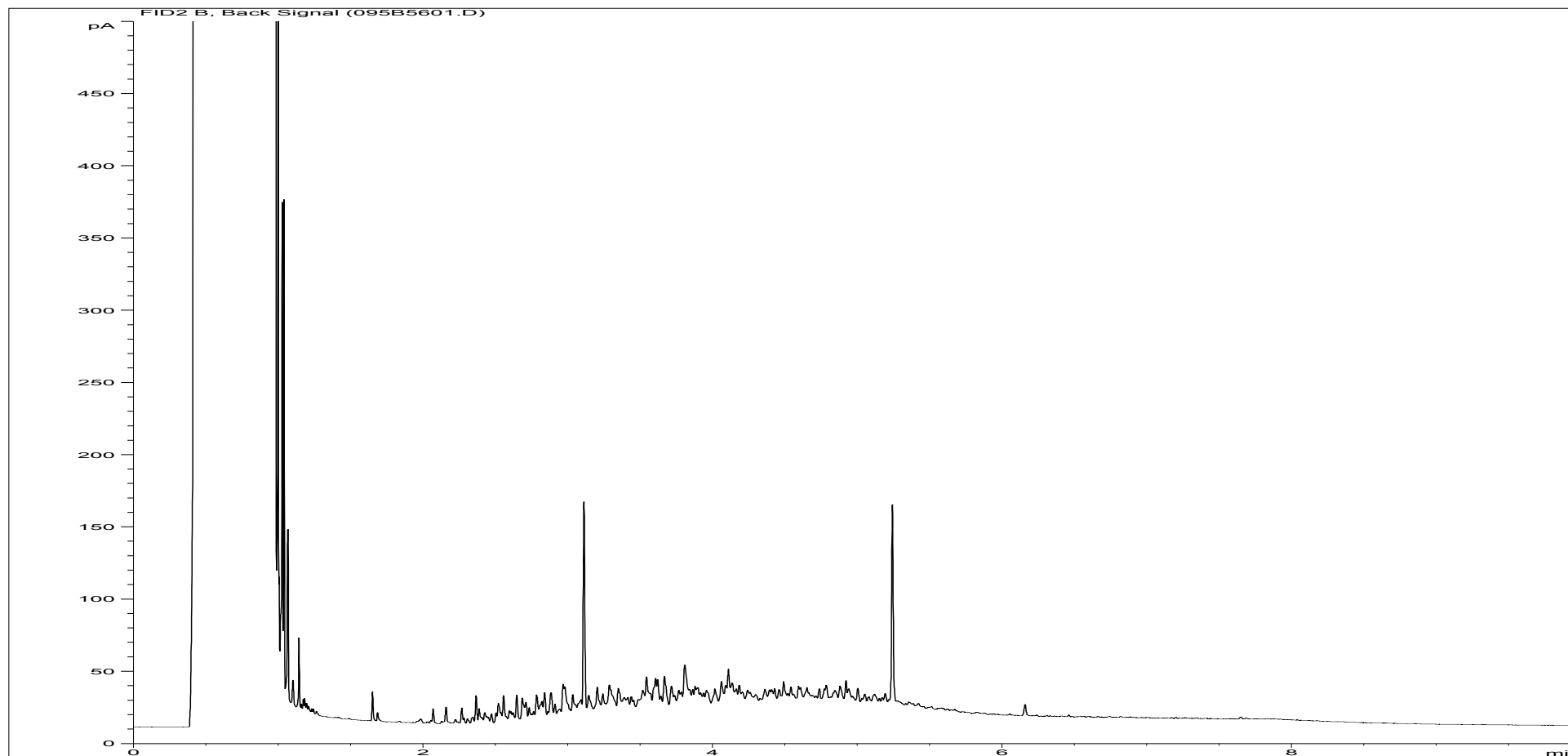
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1275744ALI | Job Number: | W13_3314 |
| Multiplier: | 0.02 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

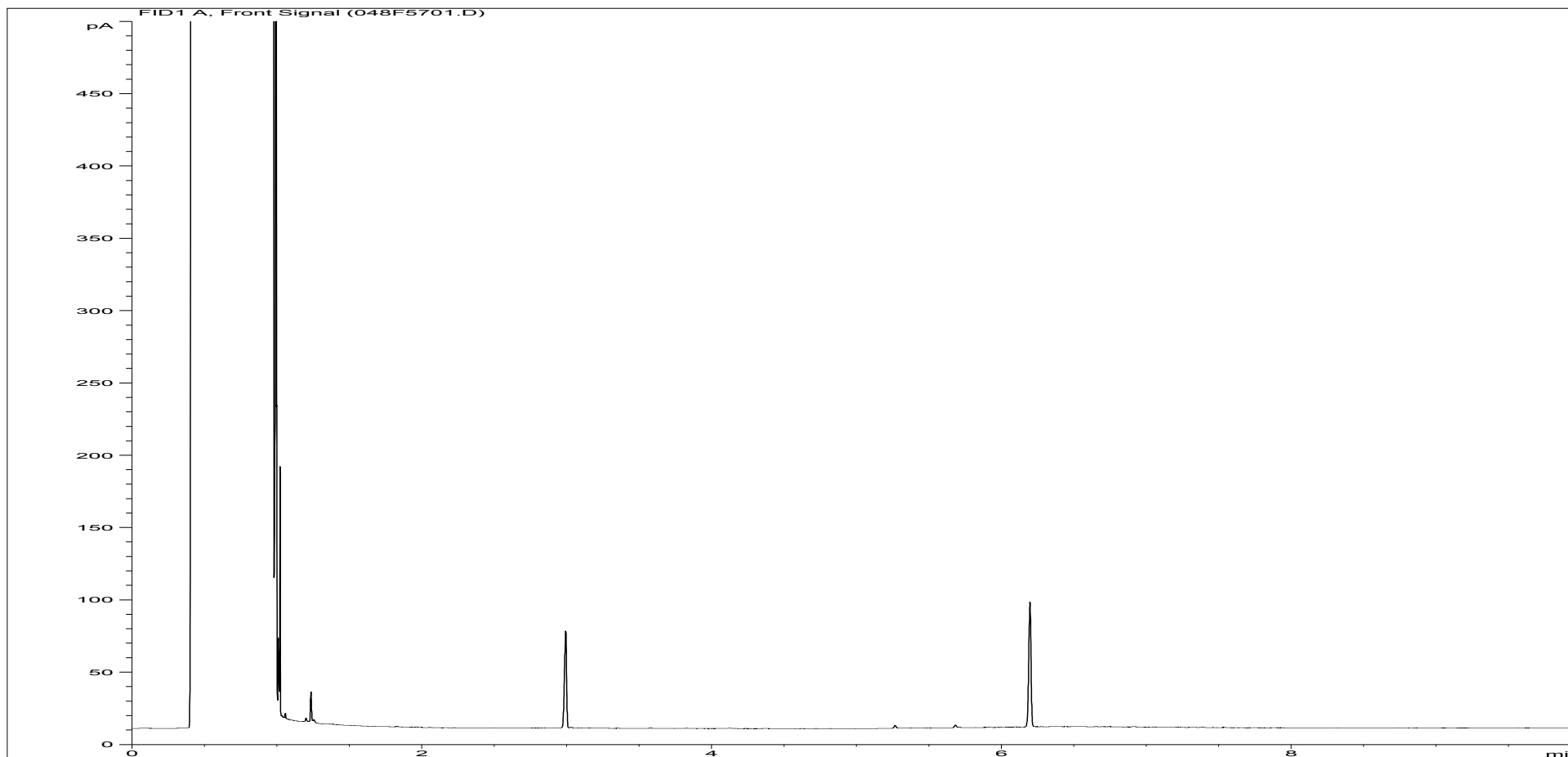
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1275744ARO | Job Number: | W13_3314 |
| Multiplier: | 0.015 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

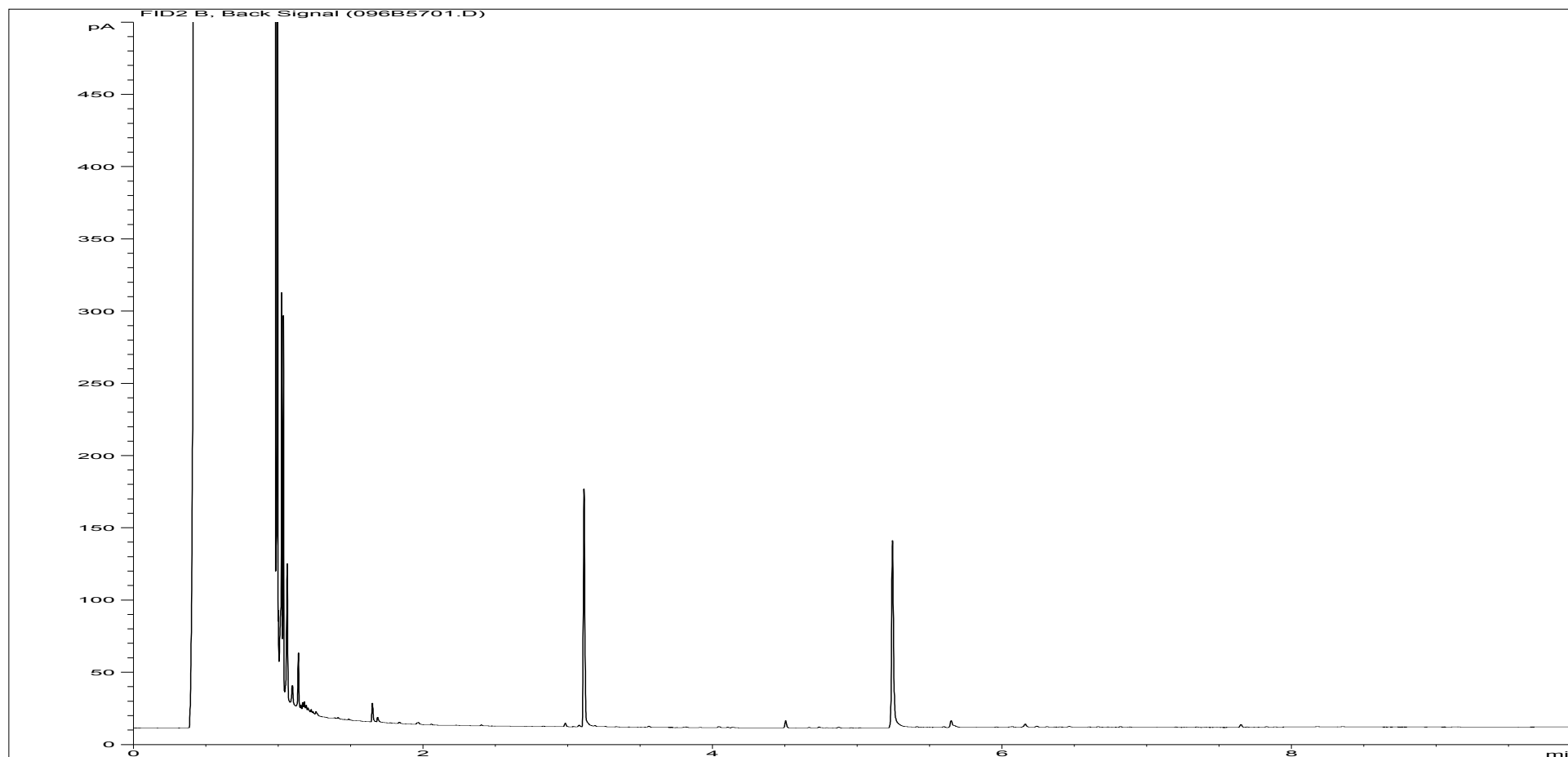
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1275745ALI | Job Number: | W13_3314 |
| Multiplier: | 0.02 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client Sample Ref: | BHNSA1 |
| 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 | | |

Where individual results are flagged see report notes for status.

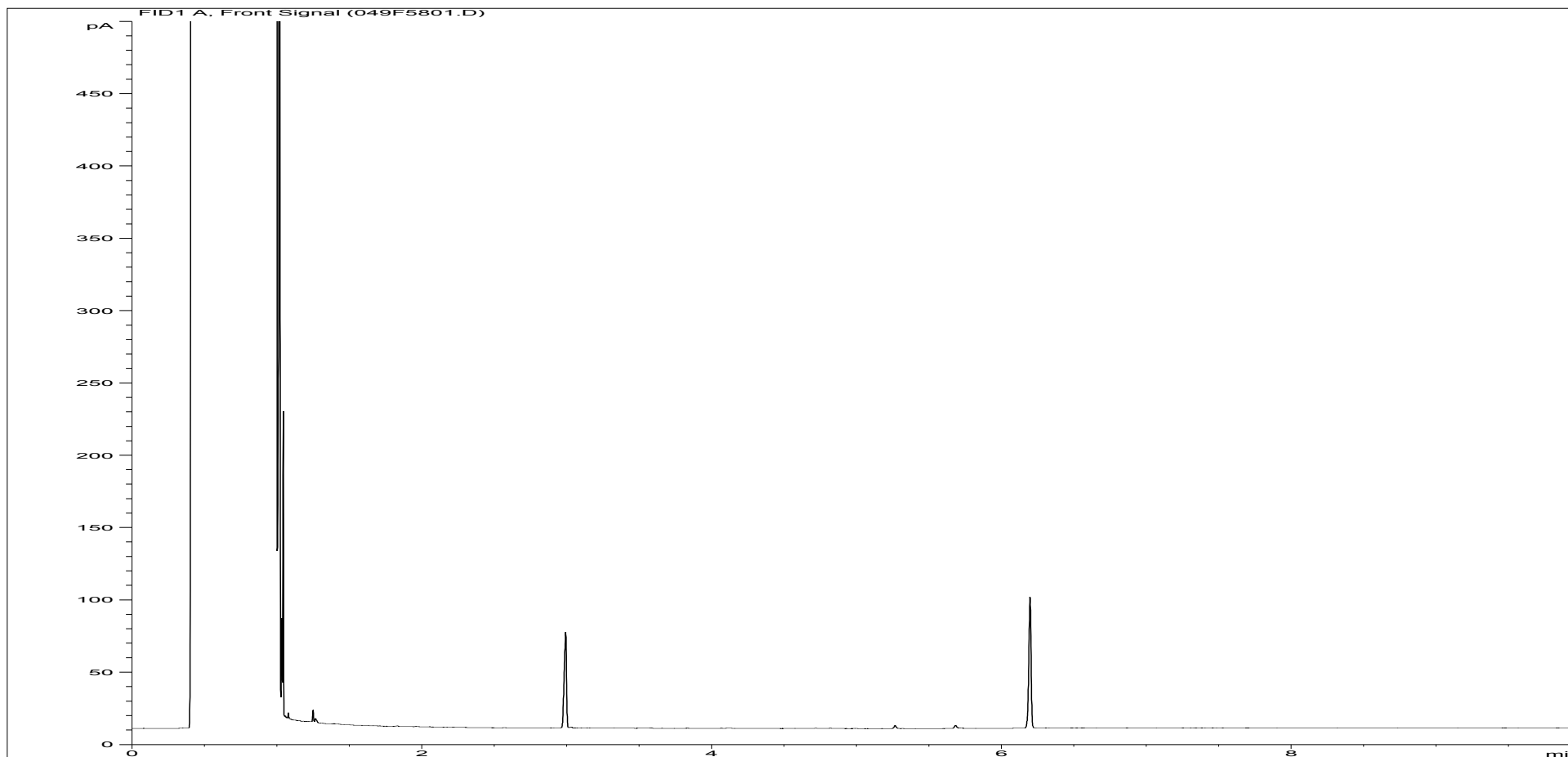
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1275745ARO | Job Number: | W13_3314 |
| Multiplier: | 0.015 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client Sample Ref: | BHNSA1 |
| Acquisition Date/Time: | 15-Mar-12, 00:10:49 | | |
| Datafile: | D:\TES\DATA\Y2012\031412TPH_GC15\031412 2012-03-14 08-08-11\096B5701.D | | |

Where individual results are flagged see report notes for status.

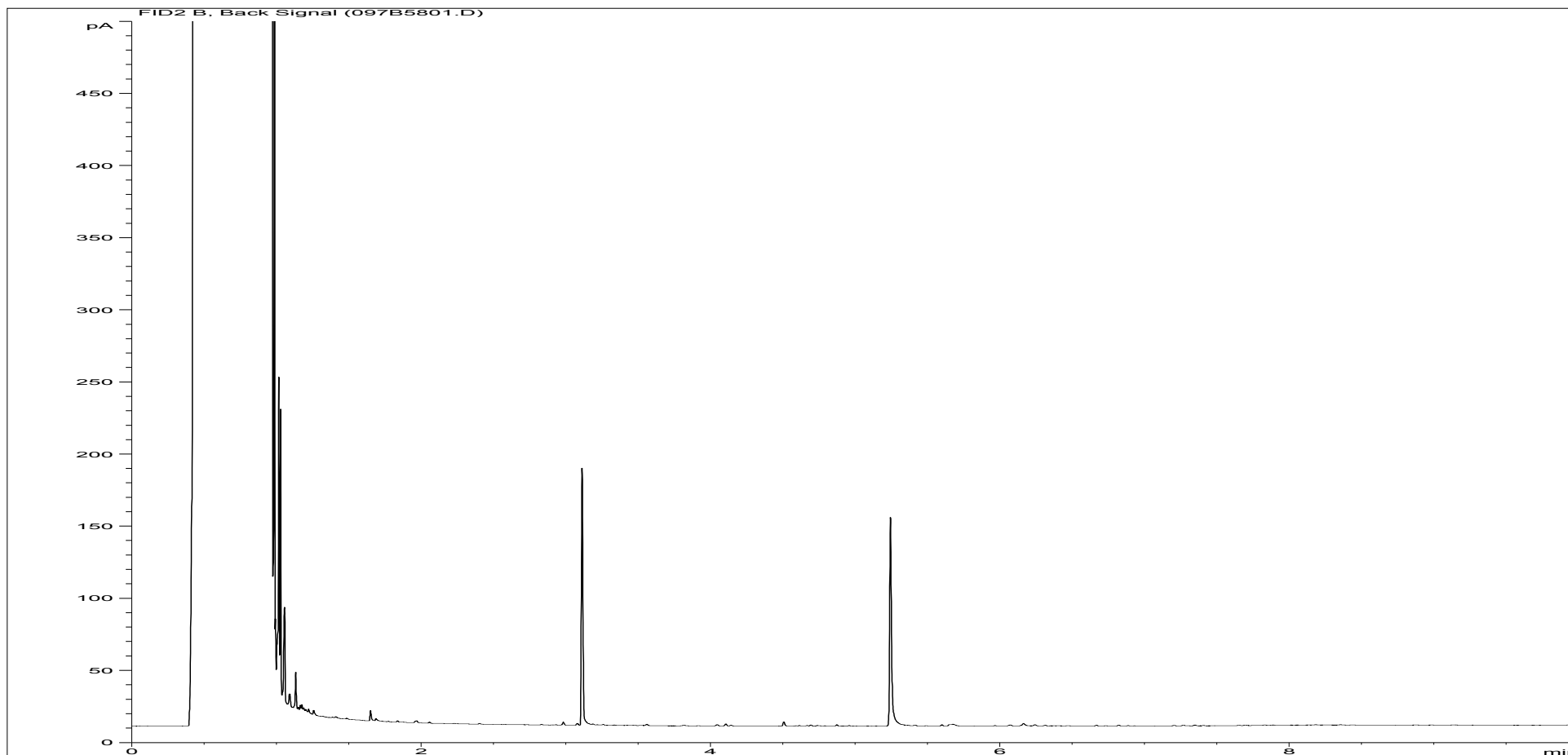
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1275746ALI | Job Number: | W13_3314 |
| Multiplier: | 0.02 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client Sample Ref: | BHNSA16 |
| 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 | | |

Where individual results are flagged see report notes for status.

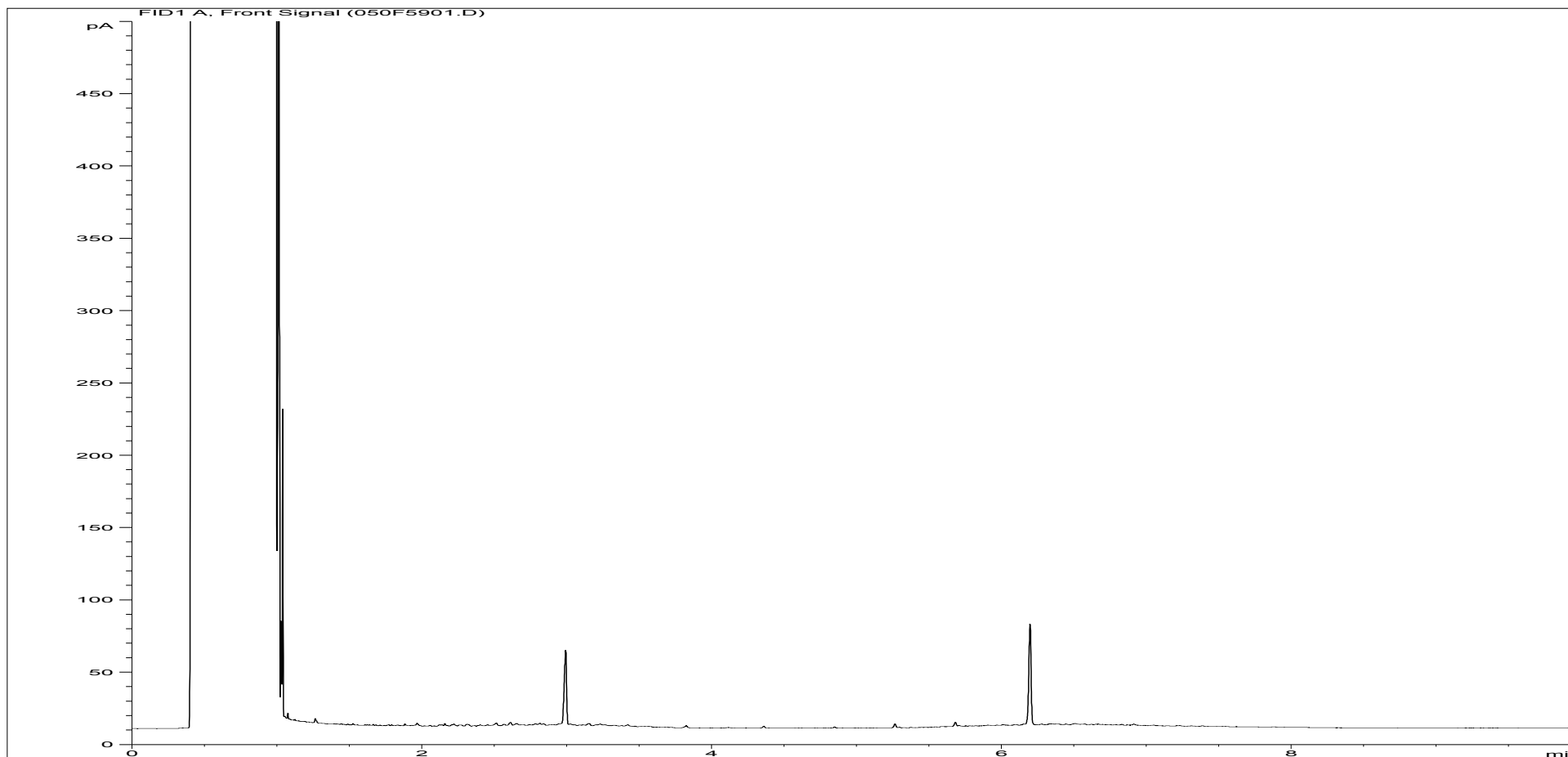
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1275746ARO | Job Number: | W13_3314 |
| Multiplier: | 0.015 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client Sample Ref: | BHNSA16 |
| Acquisition Date/Time: | 15-Mar-12, 00:27:56 | | |
| Datafile: | D:\TES\DATA\Y2012\031412TPH_GC15\031412 2012-03-14 08-08-11\097B5801.D | | |

Where individual results are flagged see report notes for status.

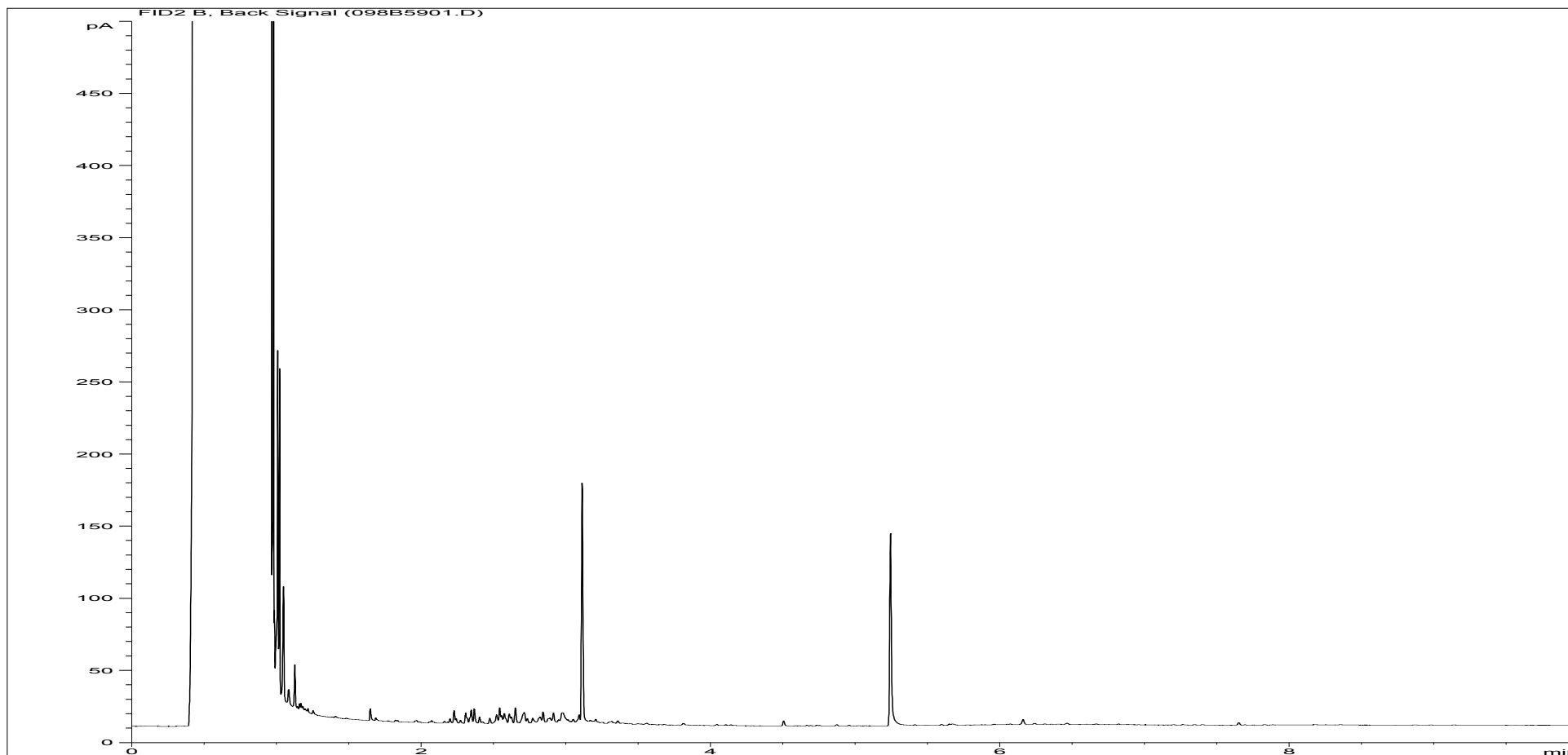
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1275747ALI | Job Number: | W13_3314 |
| Multiplier: | 0.02 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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\050F5901.D | | |

Where individual results are flagged see report notes for status.

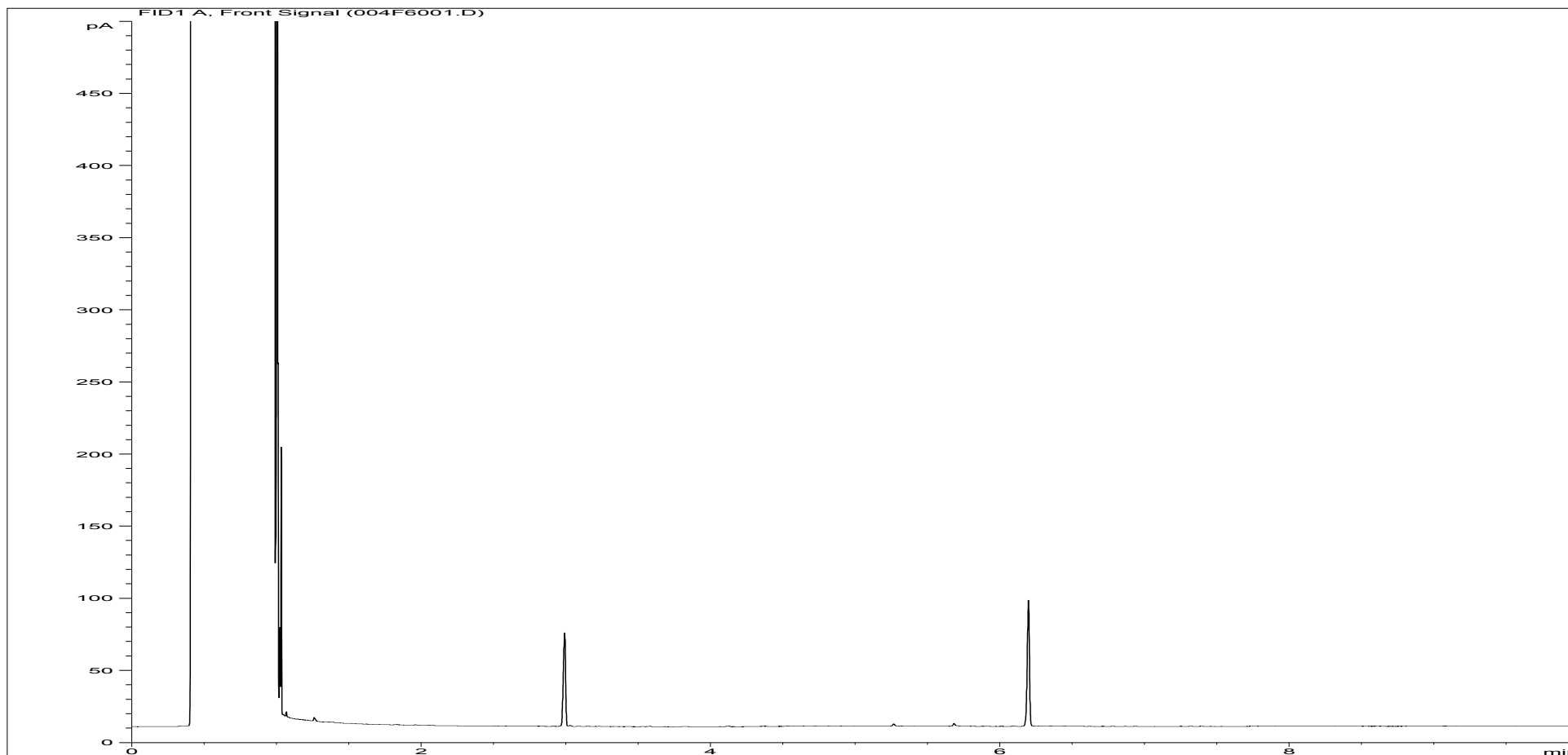
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1275747ARO | Job Number: | W13_3314 |
| Multiplier: | 0.015 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

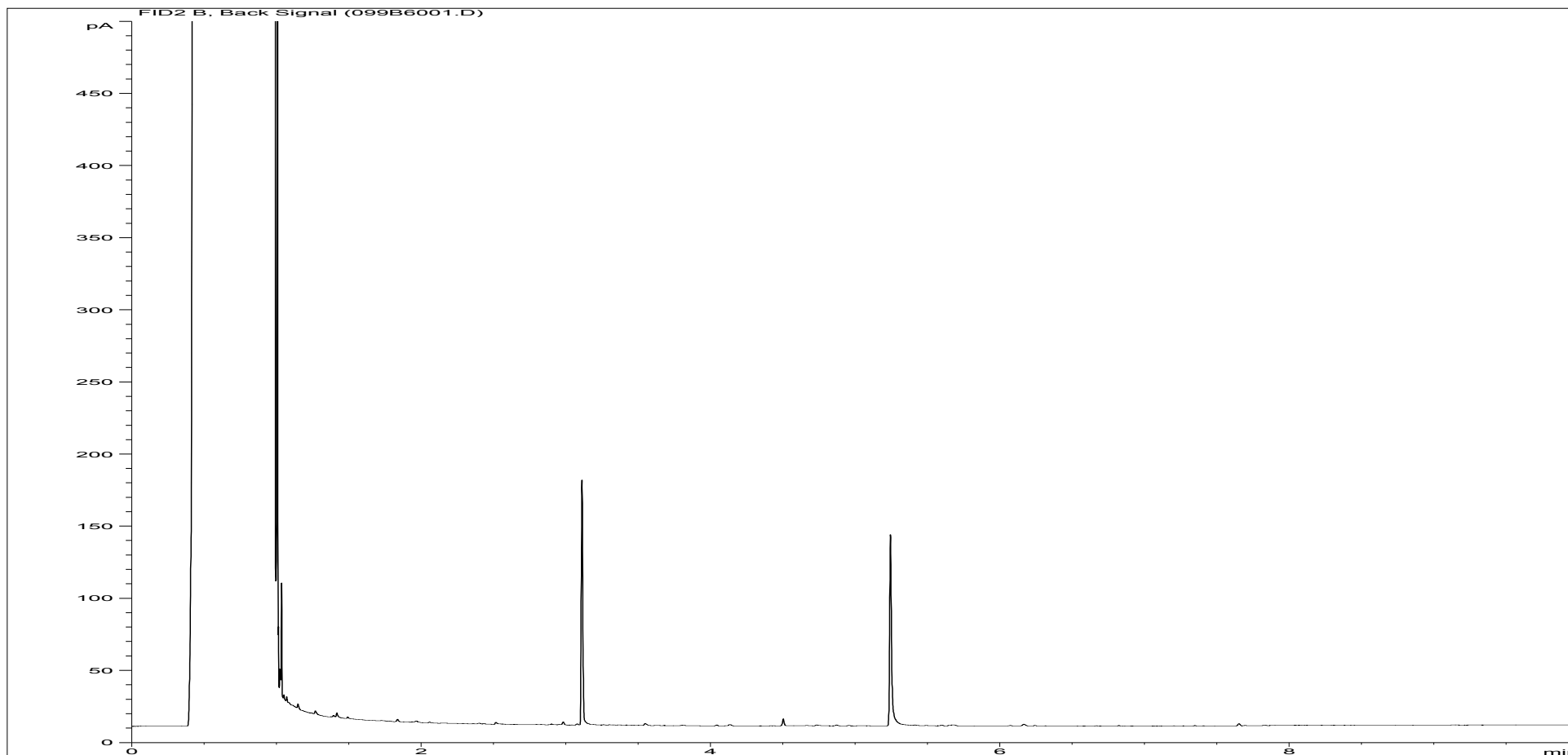
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1275748ALI | Job Number: | W13_3314 |
| Multiplier: | 0.02 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client Sample Ref: | BHNSA7 |
| 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 | | |

Where individual results are flagged see report notes for status.

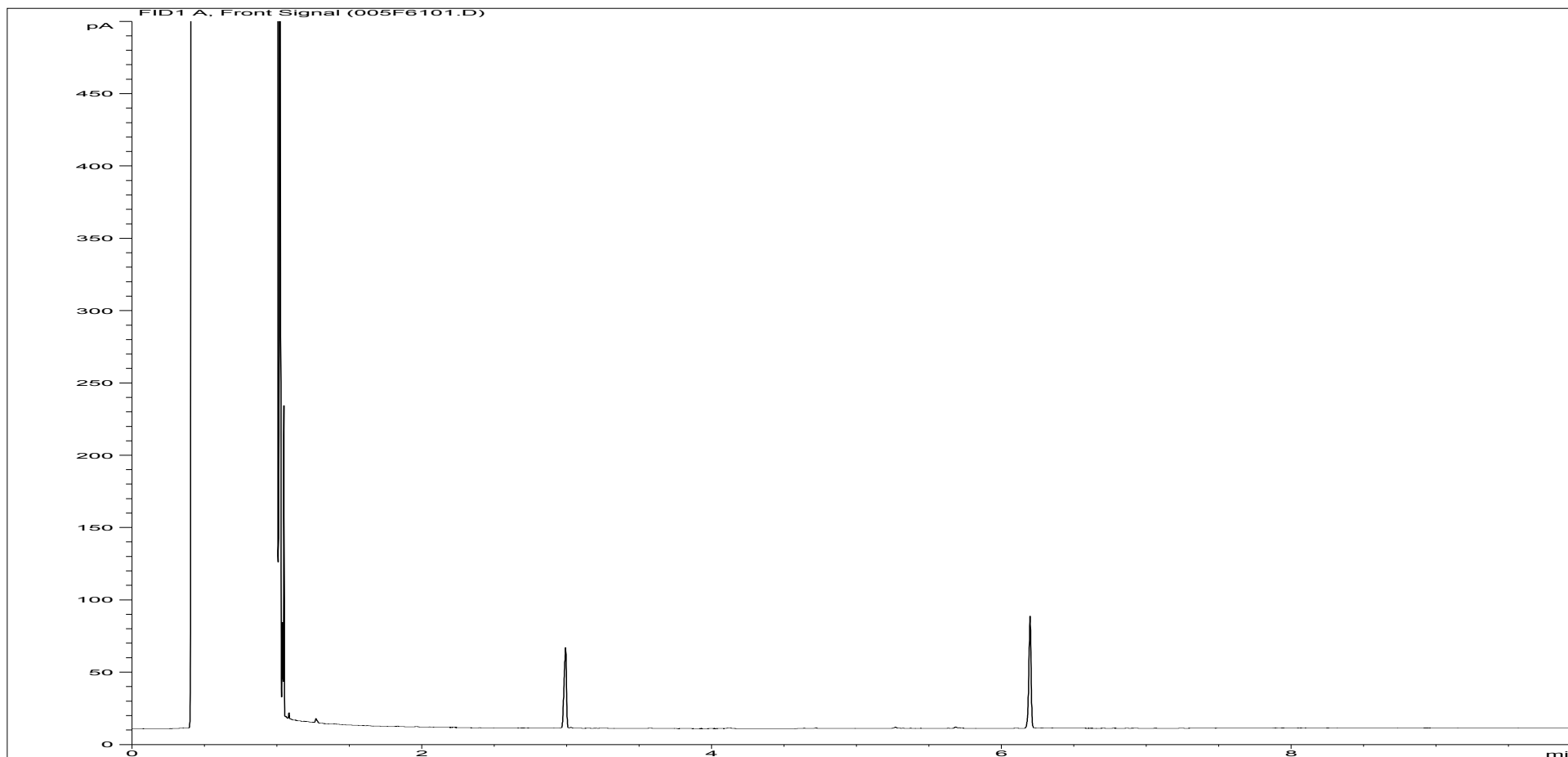
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1275748ARO | Job Number: | W13_3314 |
| Multiplier: | 0.015 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client Sample Ref: | BHNSA7 |
| 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 | | |

Where individual results are flagged see report notes for status.

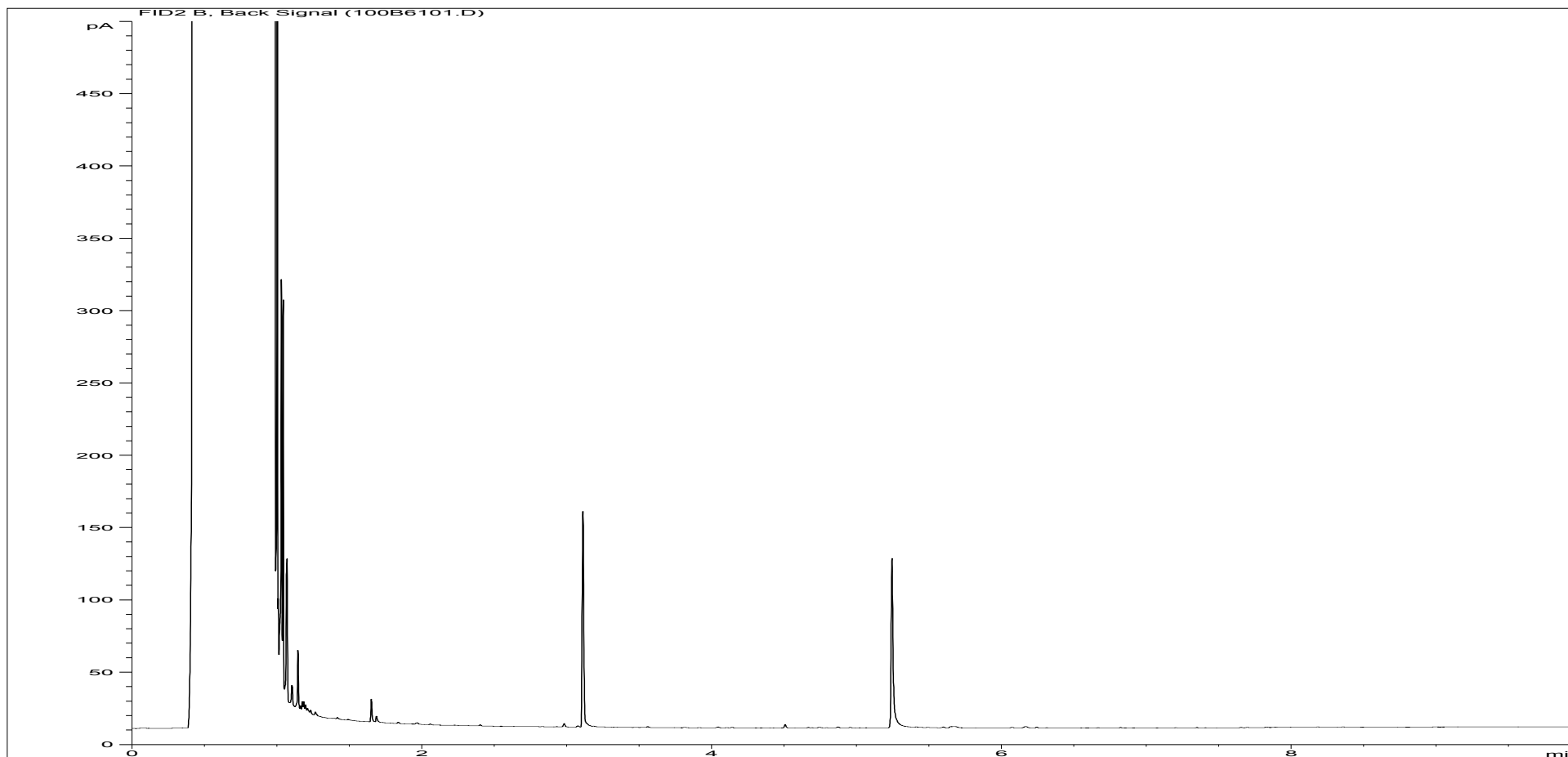
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1275749ALI | Job Number: | W13_3314 |
| Multiplier: | 0.02 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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\005F6101.D | | |

Where individual results are flagged see report notes for status.

Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1275749ARO | Job Number: | W13_3314 |
| Multiplier: | 0.015 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

Customer Waterman EED
Site Upper Heyford
Report No W133314

Consignment No W34908
 Date Logged 08-Mar-2012

Report Due 16-Mar-2012

| ID Number | Description | MethodID | CURSERV Report A | GROHSA GRO-HSA GCFID (AA) | ICPMSW Nickel as Ni MS (Dissolved) | Cadmium as Cd MS (Dissolved) | Chromium as Cr 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 SO ₄ (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/ID-SI TPH by GC(SI) | WSLM11 | WSLM12 |
|------------------------|-------------|----------|---------------------|------------------------------|---------------------------------------|------------------------------|-------------------------------|-----------------------------|---------------------------|---------------------------|------------------------------|------------------------------|-------------------------------|---|-------------------------------|---------------------------------|------------------------------|----------------------------|-----------------------|----------------------------|--------------------------|------------------------|-----------------------------|------|----------------------------|----------------------------------|---------------------------------------|
| | | | | | | | | | | | | | | | | | | | | | | | | | | Chemical Oxygen Demand (Settled) | Total Alkalinity as CaCO ₃ |
| 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

- A The sample was received in an inappropriate container for this analysis
- B The sample was received without the correct preservation for this analysis
- C Headspace present in the sample container
- D The sampling date was not supplied so holding time may be compromised - applicable to all analysis
- E 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

Where individual results are flagged see report notes for status.

Customer Waterman EED
Site Upper Heyford
Report No W133314

Consignment No W34908
Date Logged 08-Mar-2012

Report Due 16-Mar-2012

| ID Number | Description | MethodID | WSLM13 | WSLM17 | WSLM2 | WSLM20 | WSLM3 | WSLM7 |
|------------------------|-------------|----------|----------------------|------------------------|--------------------------|---------------------------|----------|------------------------------|
| | | | 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.

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| Deviating Sample Key | |
|------------------------|--|
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| C | Headspace present in the sample container |
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| E | 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 |

Where individual results are flagged see report notes for status.

Customer **Waterman EED**
Site **Upper Heyford**
Report No **W133314**





Consignment No W34908
Date Logged 08-Mar-2012

Report Due 16-Mar-2012

| ID Number | Description | MethodID | CURSERV | GROHSA | ICPMSW | ICPMATVAR | | | | | | | | | | | | KONENS | PHEHRCAL | SVOC | TPHFID-SI | WSLM1 | WSLM2 | | | | | | |
|------------|-------------|----------|---------|------------------------|--------|---------------------|-----------------------------|-------------------------------|------------------------------|-----------------------------|---------------------------|---------------------------|------------------------------|------------------------------|-------------------------------|---------------------------------|-------------------------------|--------|----------|------|-----------|-------|-------|---------------------------------|------------------------------|----------------------------|-----------------------|----------------------------|--------------------------|
| | | | | | | GRO-HSA GC/FID (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) |
| | | | | 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 | | | | | | | | | | | | | | | | | | | | | | | | | | | |

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|---|--|
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| D | The sampling date was not supplied so holding time may be compromised - applicable to all analysis |
| E | 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 |

Where individual results are flagged see report notes for status.

Customer Waterman EED
Site Upper Heyford
Report No W133314





Consignment No W34908
Date Logged 08-Mar-2012

Report Due 16-Mar-2012

| ID Number | Description | MethodID | WSLM13 | WSLM17 | WSLM2 | WSLM20 | WSLM3 | WSLM7 |
|------------------------|-------------|----------|----------------------|------------------------|--------------------------|---------------------------|----------|------------------------------|
| | | Sampled | Total Organic Carbon | Total Acidity as CaCO3 | Conductivity uS/cm @ 25C | Biochemical Oxygen Demand | pH units | Cyclohexane Extract Material |
| 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.

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| Deviating Sample Key | |
|---|--|
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| E | 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 |

Where individual results are flagged see report notes for status.

Method Descriptions

| Matrix | MethodID | Analysis Basis | Method Description |
|--------|-----------|----------------|--|
| 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 ($\mu\text{S}/\text{cm}$) 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 |

Where individual results are flagged see report notes for status.

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

NAIS 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

Req Analysis requested, see attached sheets for results

▮ 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.

END OF REPORT

Where individual results are flagged see report notes for status.

Our Ref: EXR/133316 (Ver. 1)

Your Ref: E10658-109

March 20, 2012



Environmental Chemistry

ESG

Bretby Business Park

Ashby Road

Burton-on-Trent

Staffordshire

DE15 0YZ

Telephone: 01283 554400

Facsimile: 01283 554422

Mr F Alcock
Waterman EED
Waterman Environmental
Pickfords Wharf
Clink Street
London
SE1 9DG

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.

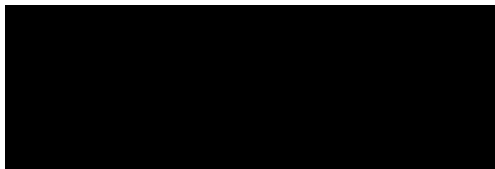
The analysis was completed by: 20-Mar-2012

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)

On behalf of
ESG :
Andrew Timms




Operations Manager


Date of Issue: 20-Mar-2012

Tests marked '^' have been subcontracted to another laboratory.

ESG accepts no responsibility for any sampling not carried out by our personnel.


Where individual results are flagged see report notes for status.

| | | | 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 | | |
|---|---------------------------|-------------|---------------------------|----------------------------|-----------------------------|--------------------------|------------------|------------------------------------|-----------------------------|-------------------------------|----------------------------|------------------------------|----------------------------|---------------------------|--------------------------|------------------------|------------------------|---------------------------|--------|
| | | | Method Codes : | WSLM3 | WSLM2 | WSLM12 | WSLM17 | KONENS | ICPWATVAR | ICPWATVAR | ICPWATVAR | ICPWATVAR | ICPMSW | ICPMSW | ICPMSW | ICPMSW | ICPMSW | ICPMSW | ICPMSW |
| | | | Method Reporting Limits : | | 100 | 2 | 2 | 1 | 3 | 1 | 1 | 1 | 0.001 | 0.001 | 0.0001 | 0.001 | 0.001 | 0.002 | 0.001 |
| | | | UKAS Accredited : | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| LAB ID Number | 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 | |
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|  <p>Bretby Business Park, Ashby Road</p> <p>Burton-on-Trent, Staffordshire, DE15 0YZ</p> <p>Tel +44 (0) 1283 554400</p> <p>Fax +44 (0) 1283 554422</p> | | | Client Name | Waterman EED | | | | | | | | Water Sample Analysis | | | | | | | |
| | | | Contact | Mr F Alcock | | | | | | | | | | | | | | | |
| | | | Upper Heyford | | | | | | | | Date Printed | 19-Mar-2012 | | | | | | | |
| | | | | | | | | | | | Report Number | EXR/133316 | | | | | | | |
| | | | | | | | | Table Number | 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 | | | | | | | | | | | | |
|---------------|-----|--|-------------|--------------------------|---------------------------|----------------------------|--------------------------|--------------|----------------|----------------------------------|------------------------|--------------|----------------|-----------------------------|--------------------------------|---------------------------------|------------|-----------|-----------------|--|--|--------------|---|--|--|--|--|--|--|
| | | Method Codes : | ICPWATVAR | ICPMSW | ICPMSW | KONENS | KONENS | KONENS | WSLM11 | WSLM13 | GROHSA | TPHFID-Si | WSLM20 | WSLM7 | SVOCSW | PHEHPLCVL | PHEHPLCVL | PHEHPLCVL | | | | | | | | | | | |
| | | Method Reporting Limits : | 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 | 0.0005 | 0.0005 | | | | | | | | | | | |
| | | UKAS Accredited : | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | No | No | No | No | No | 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(S) 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 | | | | | | | | | | |
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| | |  <p>Environmental Scientifics Group Bretby Business Park, Ashby Road Burton-on-Trent, Staffordshire, DE15 0YZ Tel +44 (0) 1283 554400 Fax +44 (0) 1283 554422</p> | | Client Name | Waterman EED | | | | | | Water Sample Analysis | | | | | | | | | | | | | | | | | | |
| | | | | Contact | Mr F Alcock | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | Upper Heyford | | | | | | Date Printed | 19-Mar-2012 | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | Report Number | EXR/133316 | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | Table Number | 1 | | | | | | |
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|----------------------------------|-----------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Units : | mg/l | | | | | | | | | | | | | | | | | | |
| Method Codes : | PHEHPLCVL | | | | | | | | | | | | | | | | | | |
| Method Reporting Limits : | 0.0005 | | | | | | | | | | | | | | | | | | |
| UKAS Accredited : | 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 | | | | | | | | | | | | | | | | |
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|---|----------------------|---------------------|------------------------------|-------------|
|  <p>ESG Environmental Scientifics Group Bretby Business Park, Ashby Road Burton-on-Trent, Staffordshire, DE15 0YZ Tel +44 (0) 1283 554400 Fax +44 (0) 1283 554422</p> | Client Name | Waterman EED | Water Sample Analysis | |
| | Contact | Mr F Alcock | | |
| | Upper Heyford | | Date Printed | 19-Mar-2012 |
| | | | Report Number | EXR/133316 |
| | | Table Number | 1 | |

Semi-Volatile Organic Compounds

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford
Sample Details: BHNSA12
LIMS ID Number: EX1275751
Job Number: W13_3316

Date Booked in: 08-Mar-12
Date Extracted: 16-Mar-12
Date Analysed: 16-Mar-12

Matrix: Water
Ext Method: Sep. Funnel
Operator: SO
Directory/Quant File: 16SVOC.MS16\ 0316_CCC1.D

QC Batch Number: 33
Multiplier: 0.005
Dilution Factor: 1
GPC (Y/N) N

| 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 | - |

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 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 | 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 |

Semi-Volatile Organic Compounds

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford
Sample Details: BHNSA13
LIMS ID Number: EX1275752
Job Number: W13_3316

Date Booked in: 08-Mar-12
Date Extracted: 16-Mar-12
Date Analysed: 16-Mar-12

Matrix: Water
Ext Method: Sep. Funnel
Operator: SO
Directory/Quant File: 16SVOC.MS16\ 0316_CCC1.D

QC Batch Number: 33
Multiplier: 0.005
Dilution Factor: 1
GPC (Y/N) N

| 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 | - |

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 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 | 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 |

Semi-Volatile Organic Compounds

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford
Sample Details: BHNSA8
LIMS ID Number: EX1275753
Job Number: W13_3316

Date Booked in: 08-Mar-12
Date Extracted: 16-Mar-12
Date Analysed: 16-Mar-12

Matrix: Water
Ext Method: Sep. Funnel
Operator: SO
Directory/Quant File: 16SVOC.MS16\ 0316_CCC1.D

QC Batch Number: 33
Multiplier: 0.005
Dilution Factor: 1
GPC (Y/N) N

| 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 | - |

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 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 | 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 |

Semi-Volatile Organic Compounds

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford
Sample Details: BHNSA5
LIMS ID Number: EX1275754
Job Number: W13_3316

Date Booked in: 08-Mar-12
Date Extracted: 16-Mar-12
Date Analysed: 16-Mar-12

Matrix: Water
Ext Method: Sep. Funnel
Operator: SO
Directory/Quant File: 16SVOC.MS16\ 0316_CCC1.D

QC Batch Number: 33
Multiplier: 0.005
Dilution Factor: 1
GPC (Y/N) N

| 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 | - |

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 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 | 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 |

Semi-Volatile Organic Compounds

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford
Sample Details: BHNSA2
LIMS ID Number: EX1275755
Job Number: W13_3316

Date Booked in: 08-Mar-12
Date Extracted: 16-Mar-12
Date Analysed: 16-Mar-12

Matrix: Water
Ext Method: Sep. Funnel
Operator: SO
Directory/Quant File: 16SVOC.MS16\ 0316_CCC1.D

QC Batch Number: 33
Multiplier: 0.005
Dilution Factor: 1
GPC (Y/N) N

| 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 | - |

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 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 | 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 |

Where individual results are flagged see report notes for status.

Semi-Volatile Organic Compounds

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford
Sample Details: BHNSA3
LIMS ID Number: EX1275756
Job Number: W13_3316

Date Booked in: 08-Mar-12
Date Extracted: 16-Mar-12
Date Analysed: 16-Mar-12

Matrix: Water
Ext Method: Sep. Funnel
Operator: SO
Directory/Quant File: 16SVOC.MS16\ 0316_CCC1.D
QC Batch Number: 33
Multiplier: 0.005
Dilution Factor: 1
GPC (Y/N) N

| 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 | - |

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 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 | 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 |

Semi-Volatile Organic Compounds

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford
Sample Details: BHNSA4
LIMS ID Number: EX1275757
Job Number: W13_3316

Date Booked in: 08-Mar-12
Date Extracted: 16-Mar-12
Date Analysed: 16-Mar-12

Matrix: Water
Ext Method: Sep. Funnel
Operator: SO
Directory/Quant File: 16SVOC.MS16\ 0316_CCC1.D

QC Batch Number: 33
Multiplier: 0.005
Dilution Factor: 1
GPC (Y/N) N

| 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 | - |

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 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 | 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 |

Semi-Volatile Organic Compounds

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford
Sample Details: MW1
LIMS ID Number: EX1275758
Job Number: W13_3316

Date Booked in: 08-Mar-12
Date Extracted: 16-Mar-12
Date Analysed: 16-Mar-12

Matrix: Water
Ext Method: Sep. Funnel
Operator: SO
Directory/Quant File: 16SVOC.MS16\ 0316_CCC1.D

QC Batch Number: 33
Multiplier: 0.005
Dilution Factor: 1
GPC (Y/N) N

| 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 | - |

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 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 | 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 |

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: 14-Mar-12
Date Analysed: 15-Mar-12, 13:0

* Sample data with an asterisk are not UKAS accredited.

| Sample ID | Client ID | Concentration, (mg/l) | | | | | Aliphatics | | | | |
|-------------|-----------|-----------------------|---------|---------------|------------|----------|------------|----------|----------|-----------|-----------|
| | | 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 |
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Note: Benzene elutes between C6 and C7, toluene elutes between C7 and C8, ethyl benzene and the xylenes elute between C8 and C9.

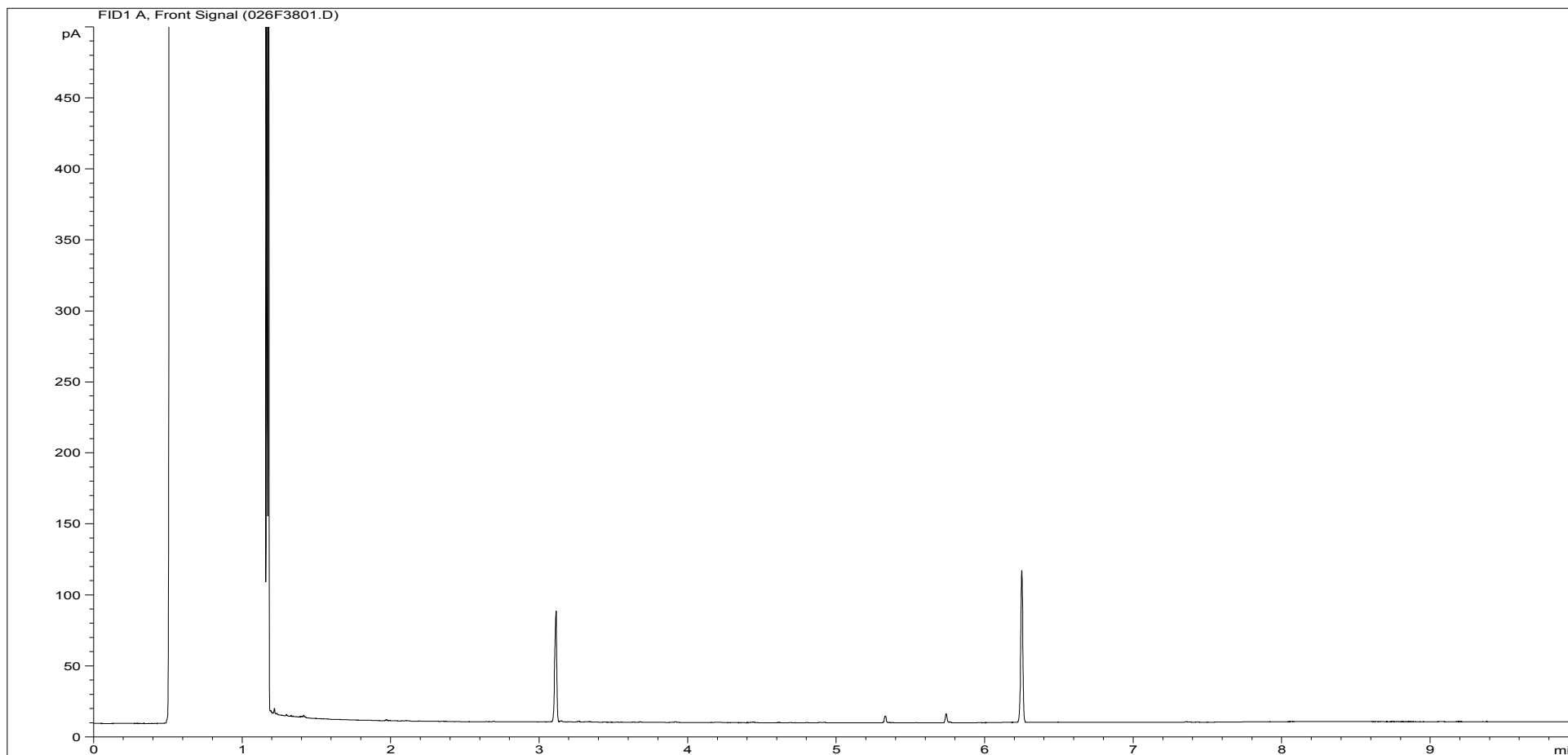
ALIPHATIC / AROMATIC FRACTION BY GC/FID

Customer and Site Details: Waterman EED : Upper Heyford
Job Number: W13_3316
QC Batch Number: 120193
Directory: D:\TES\DATA\Y2012\031312TPH_GC16\031312 2012-03-13 14-43-11\082B4501.D
Method: Bottle

Matrix: Water
Date Booked in: 08-Mar-12
Date Extracted: 13-Mar-12
Date Analysed: 14-Mar-12, 03:15:59

| | | Concentration, (mg/l) | | | | | | | | | | | | |
|--|-----------|-----------------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|-----------|------------|-----------|
| | | >C8 - C10 | | >C10 - C12 | | >C12 - C16 | | >C16 - C21 | | >C21 - C35 | | >C8 - C40 | | |
| * This sample data is not UKAS accredited. | 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 |
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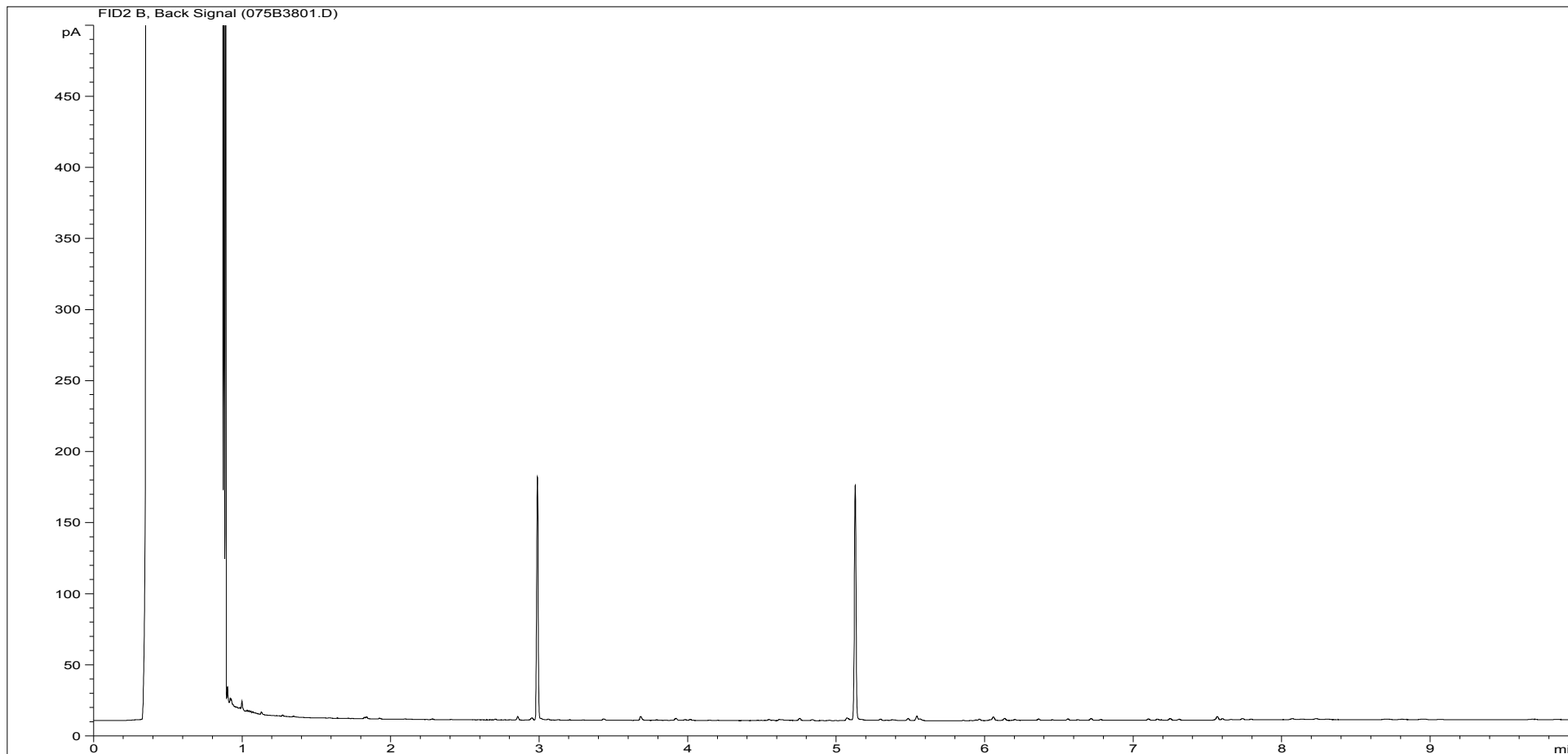
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1275751ALI | Job Number: | W13_3316 |
| Multiplier: | 0.02 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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\026F3801.D | | |

Where individual results are flagged see report notes for status.

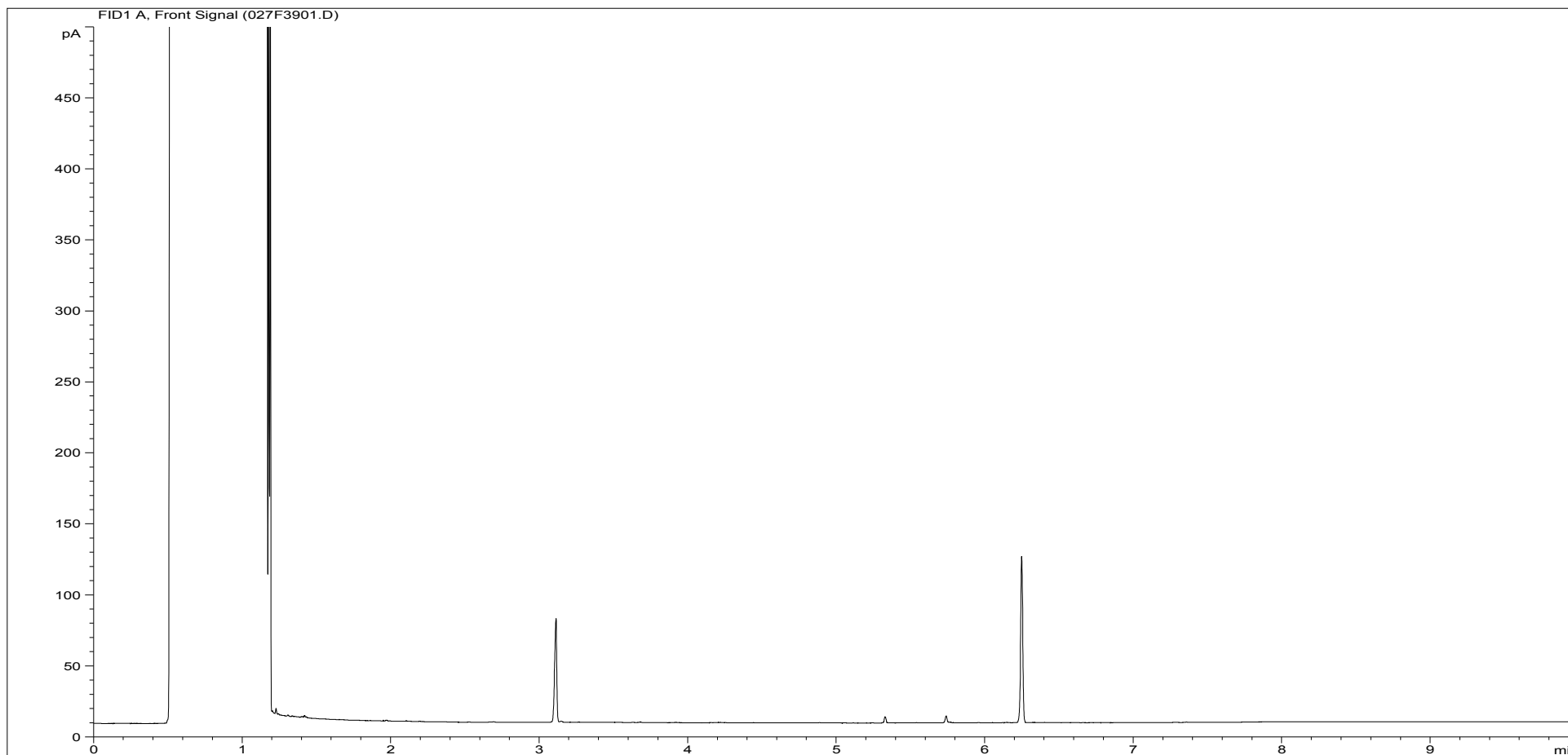
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1275751ARO | Job Number: | W13_3316 |
| Multiplier: | 0.015 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

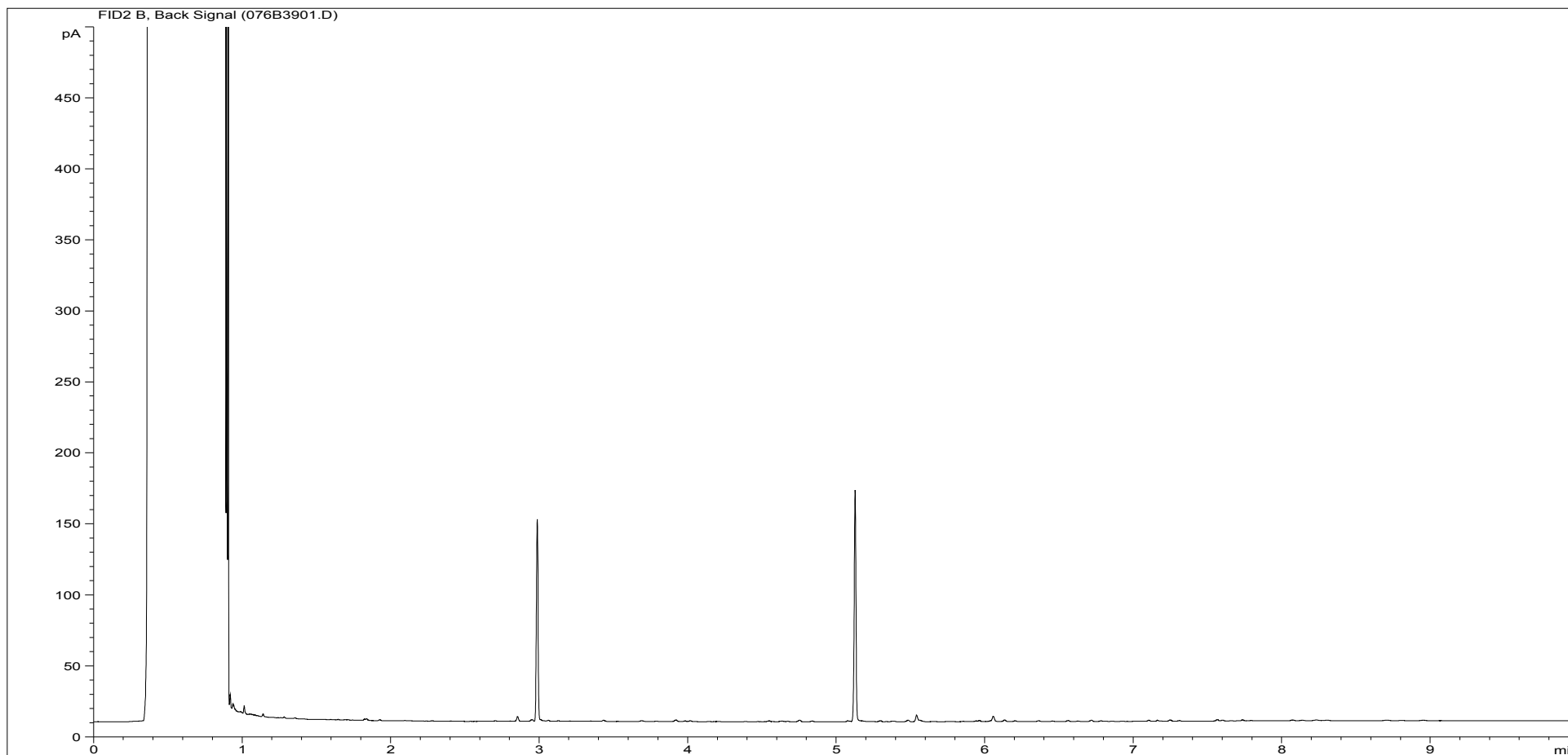
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1275752ALI | Job Number: | W13_3316 |
| Multiplier: | 0.02 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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\027F3901.D | | |

Where individual results are flagged see report notes for status.

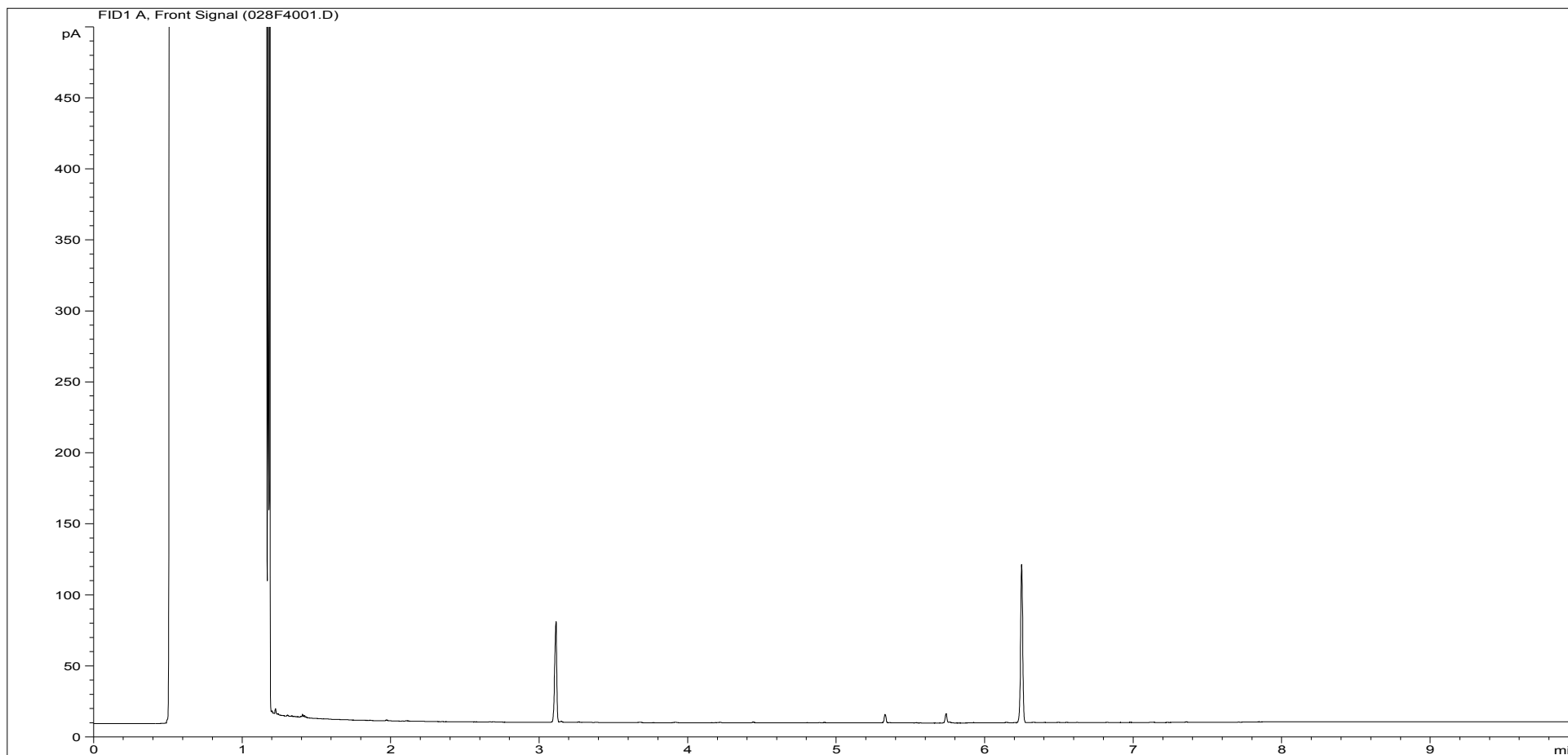
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1275752ARO | Job Number: | W13_3316 |
| Multiplier: | 0.015 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

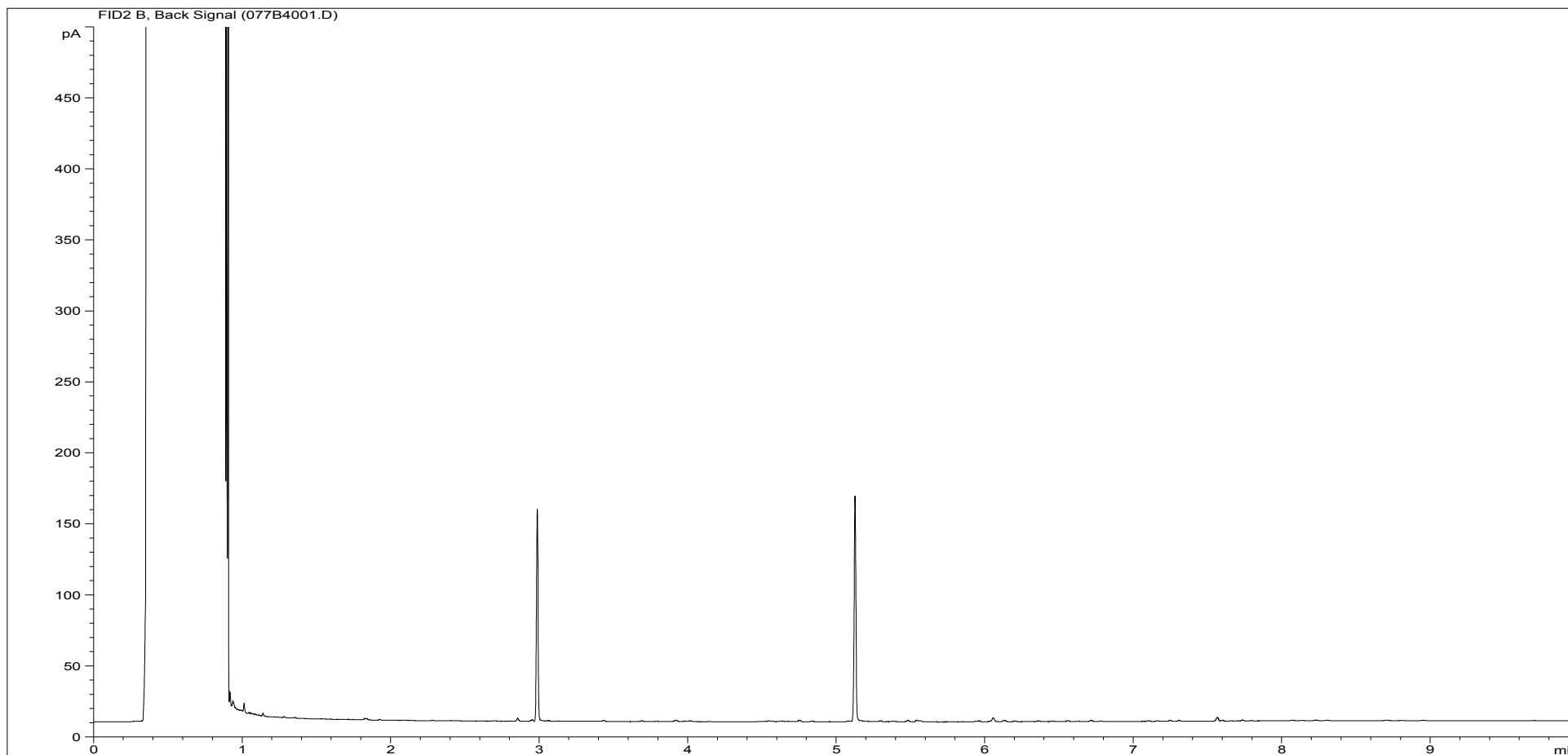
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1275753ALI | Job Number: | W13_3316 |
| Multiplier: | 0.02 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

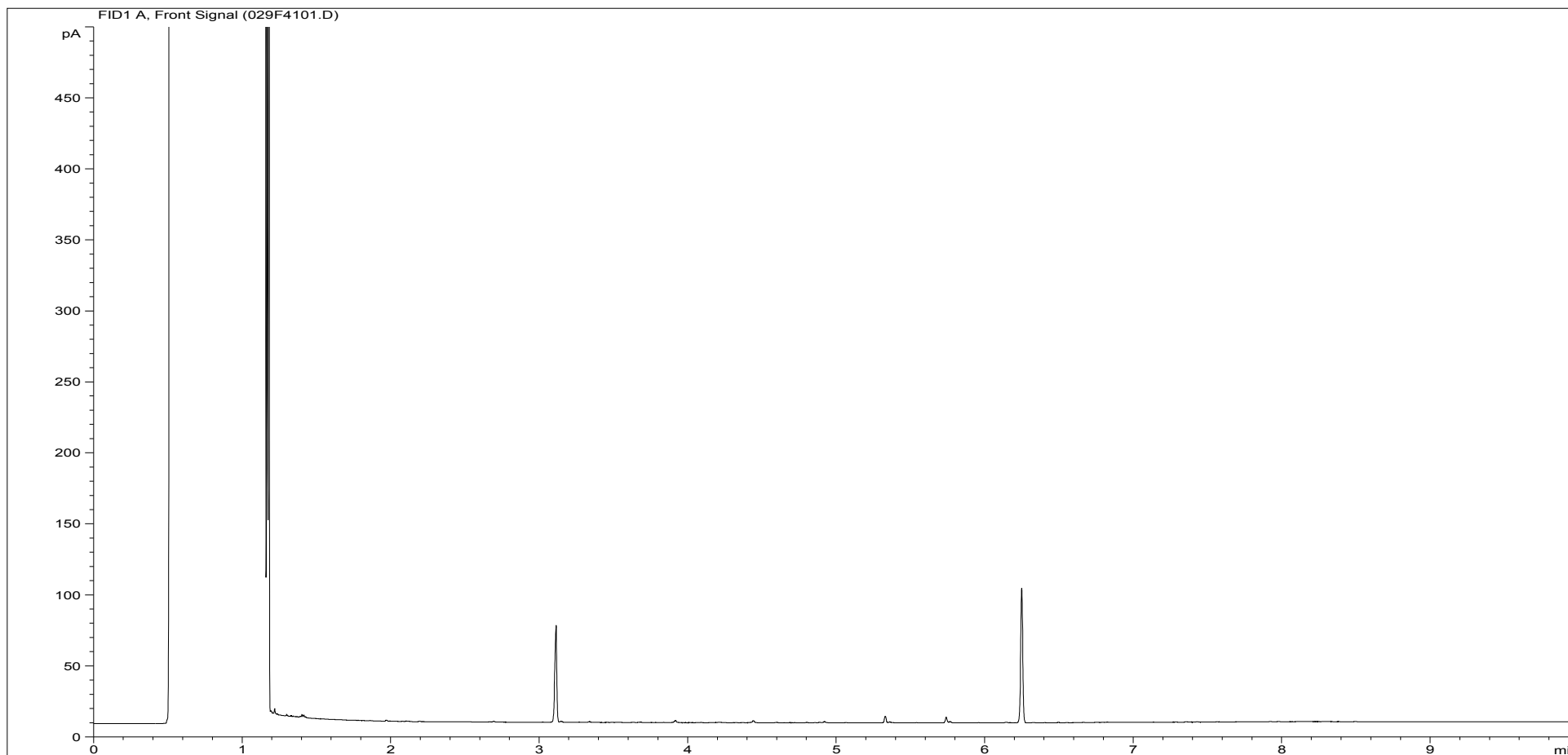
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1275753ARO | Job Number: | W13_3316 |
| Multiplier: | 0.015 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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\077B4001.D | | |

Where individual results are flagged see report notes for status.

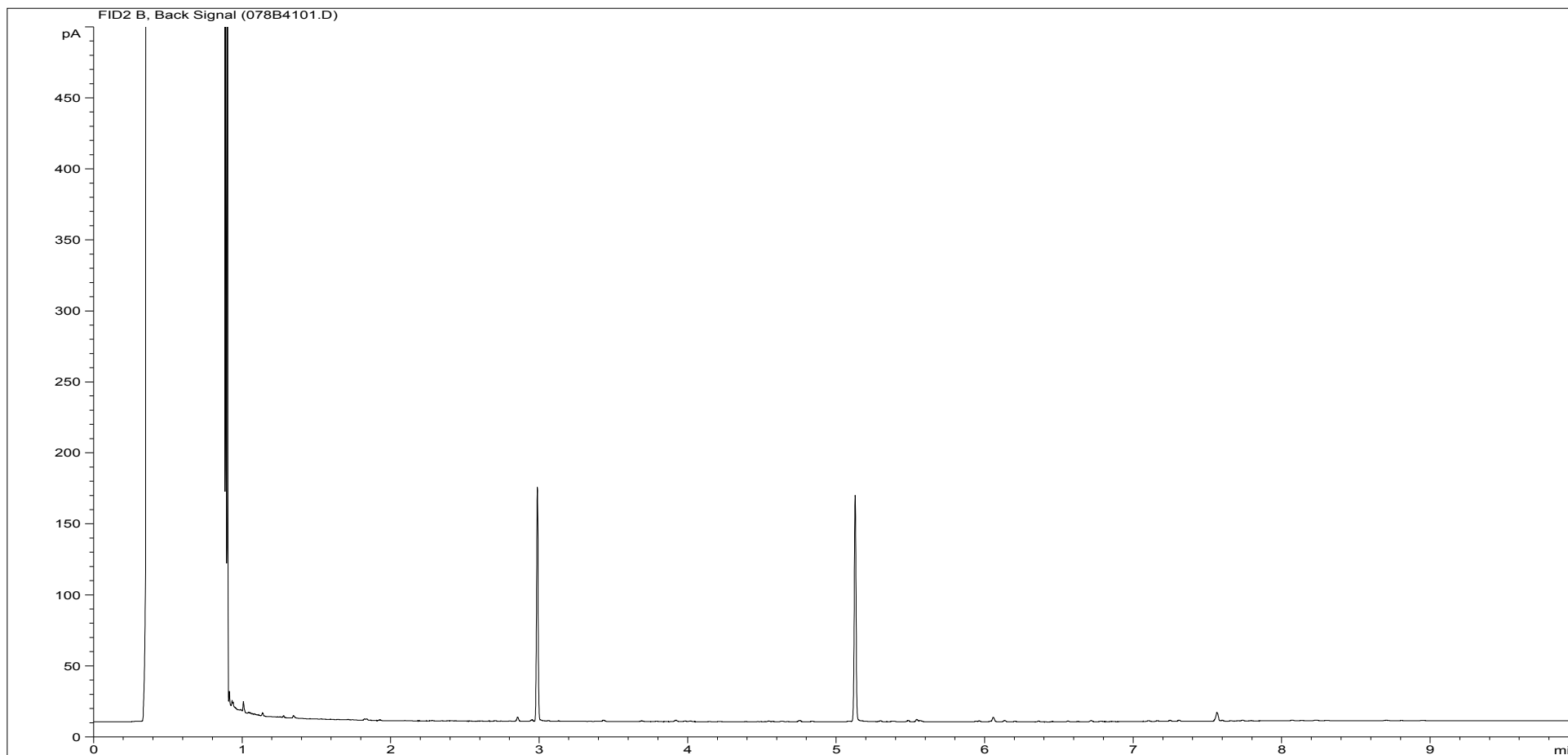
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1275754ALI | Job Number: | W13_3316 |
| Multiplier: | 0.02 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | 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 | | |

Where individual results are flagged see report notes for status.

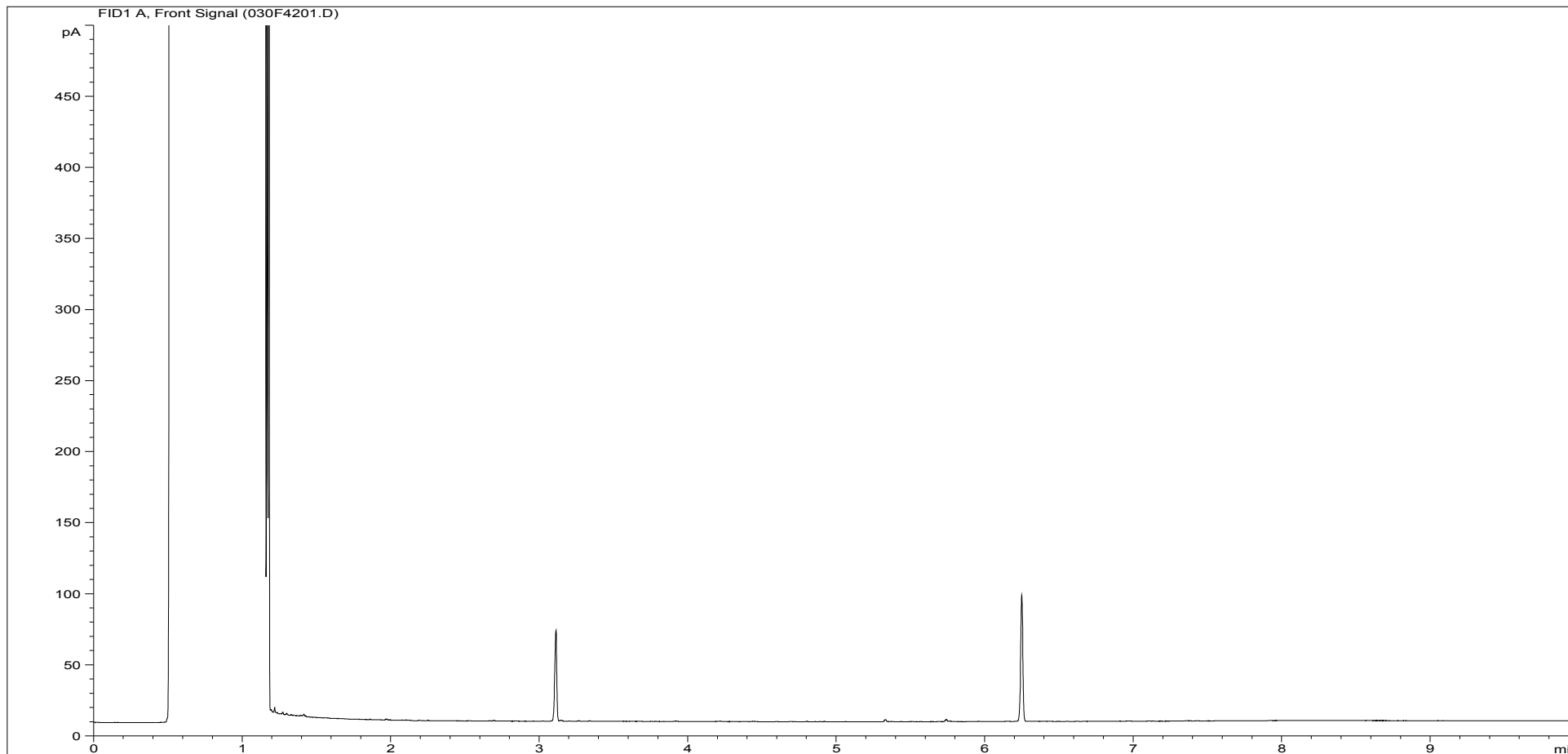
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1275754ARO | Job Number: | W13_3316 |
| Multiplier: | 0.015 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | 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\078B4101.D | | |

Where individual results are flagged see report notes for status.

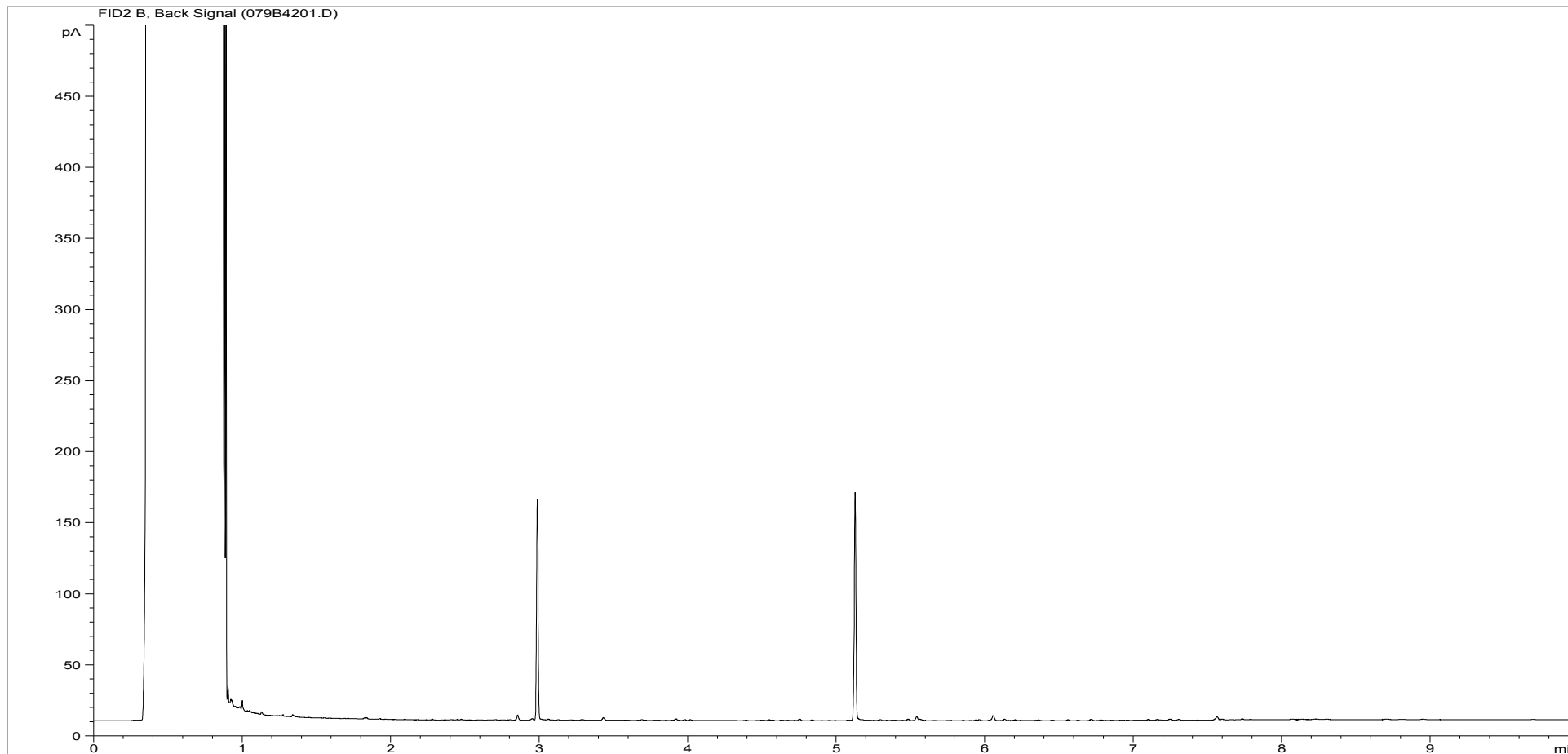
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1275755ALI | Job Number: | W13_3316 |
| Multiplier: | 0.02 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | 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 | | |

Where individual results are flagged see report notes for status.

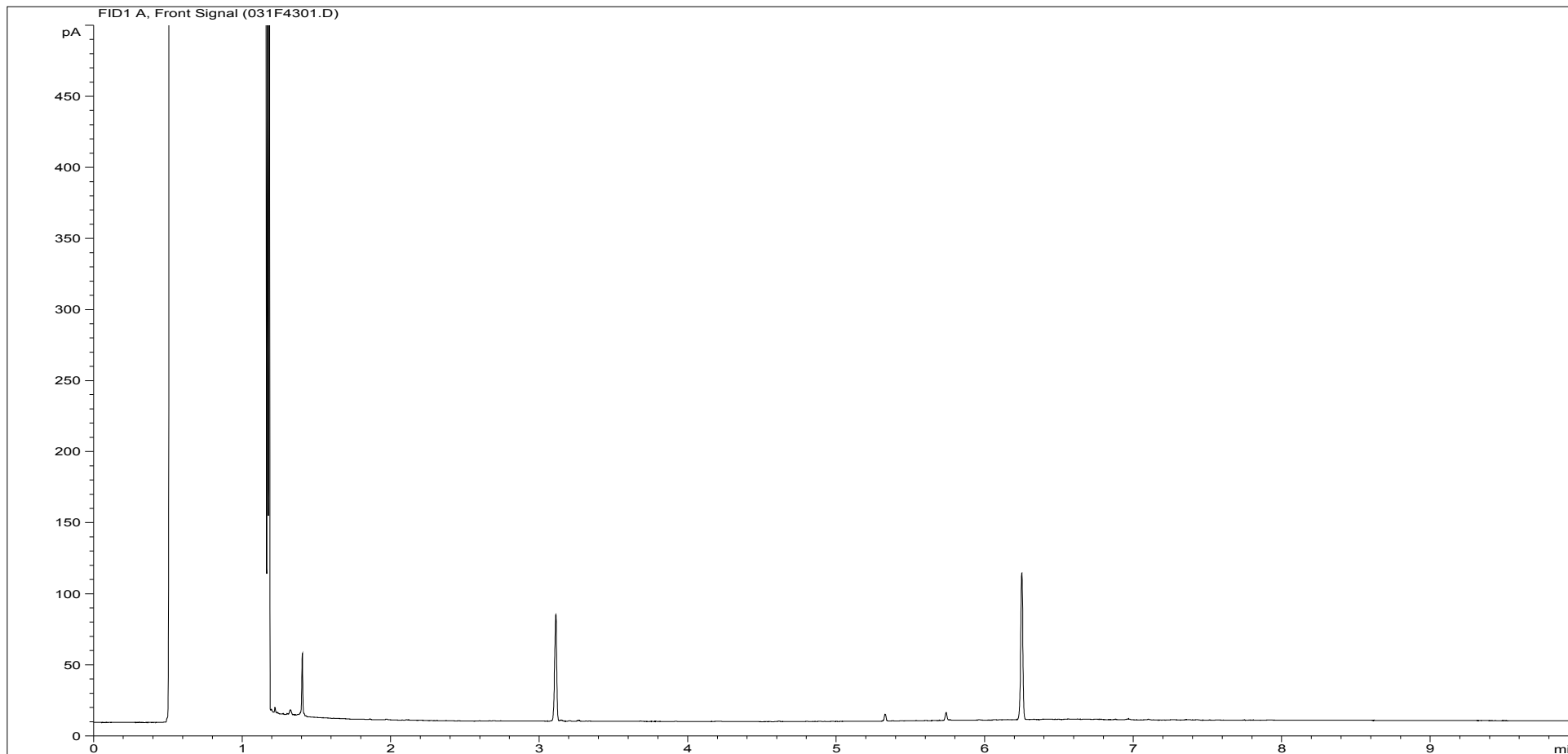
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1275755ARO | Job Number: | W13_3316 |
| Multiplier: | 0.015 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | 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\079B4201.D | | |

Where individual results are flagged see report notes for status.

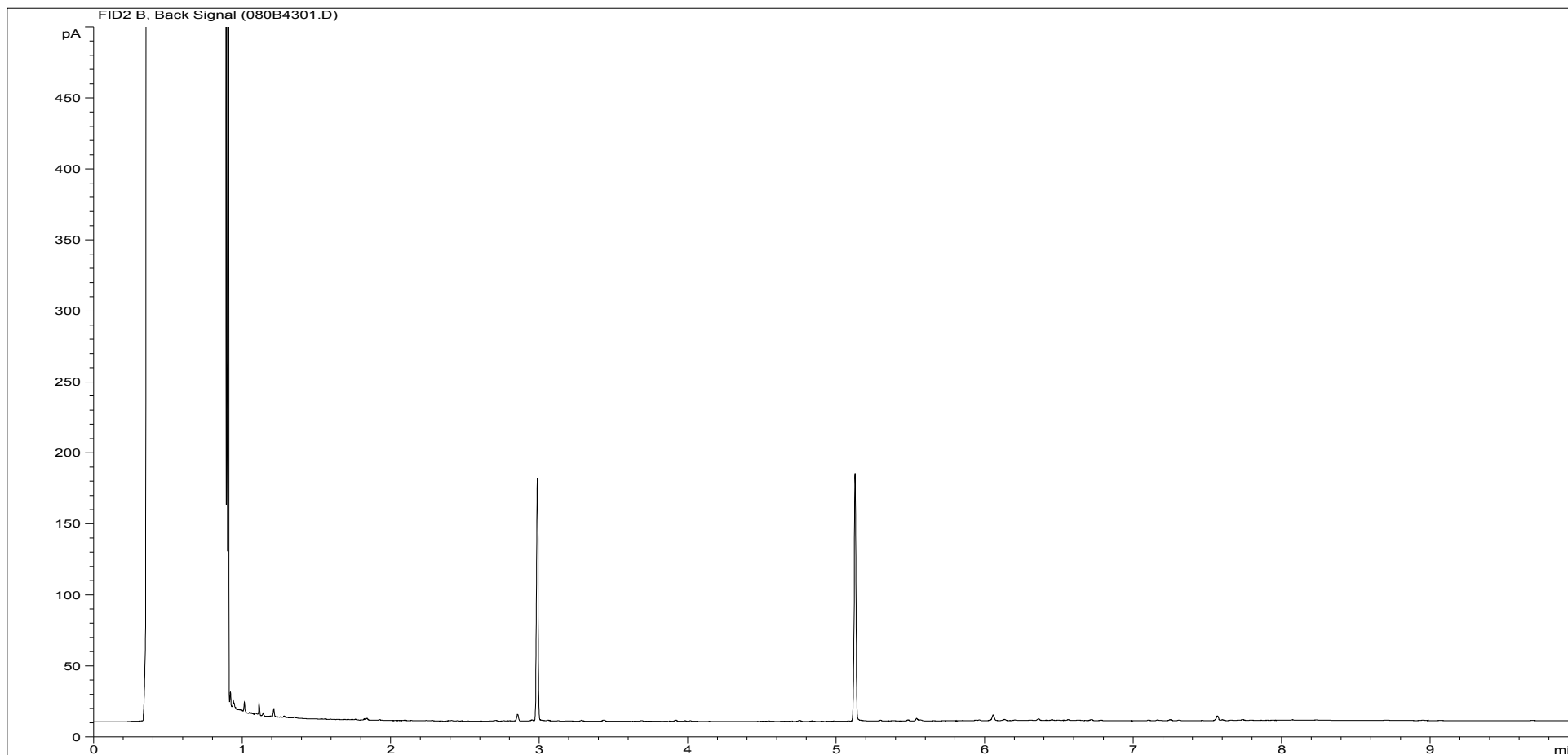
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1275756ALI | Job Number: | W13_3316 |
| Multiplier: | 0.02 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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\031F4301.D | | |

Where individual results are flagged see report notes for status.

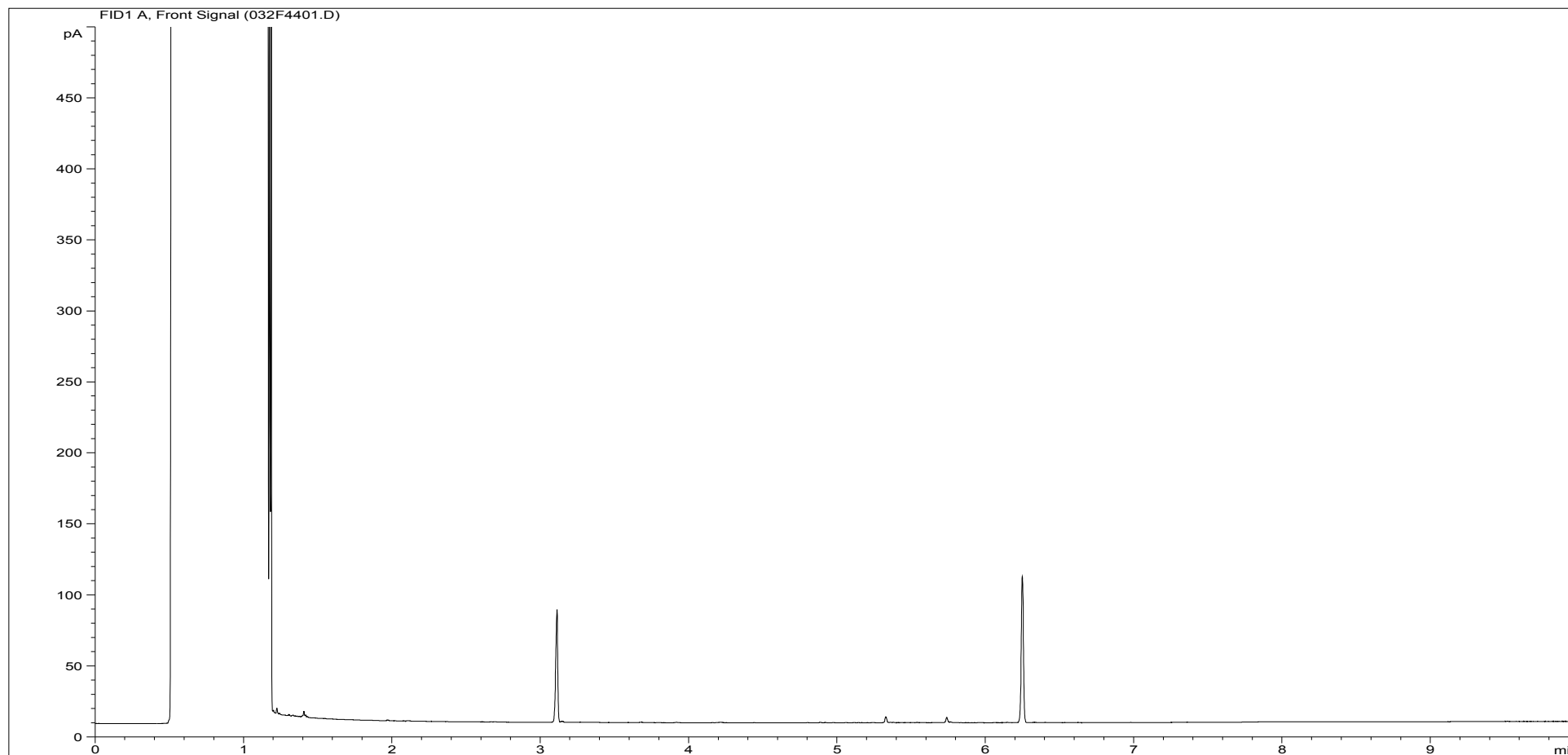
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1275756ARO | Job Number: | W13_3316 |
| Multiplier: | 0.015 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

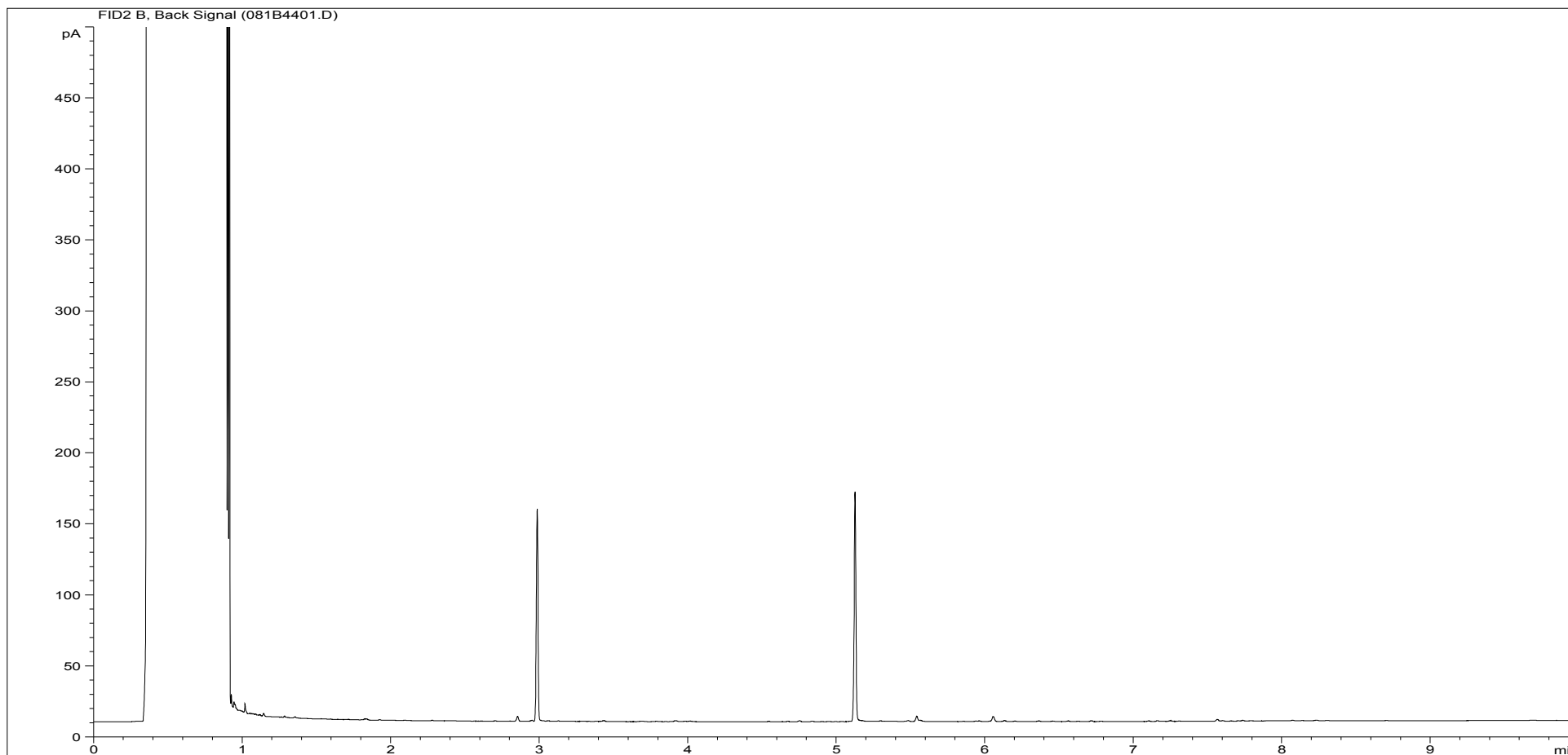
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1275757ALI | Job Number: | W13_3316 |
| Multiplier: | 0.02 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

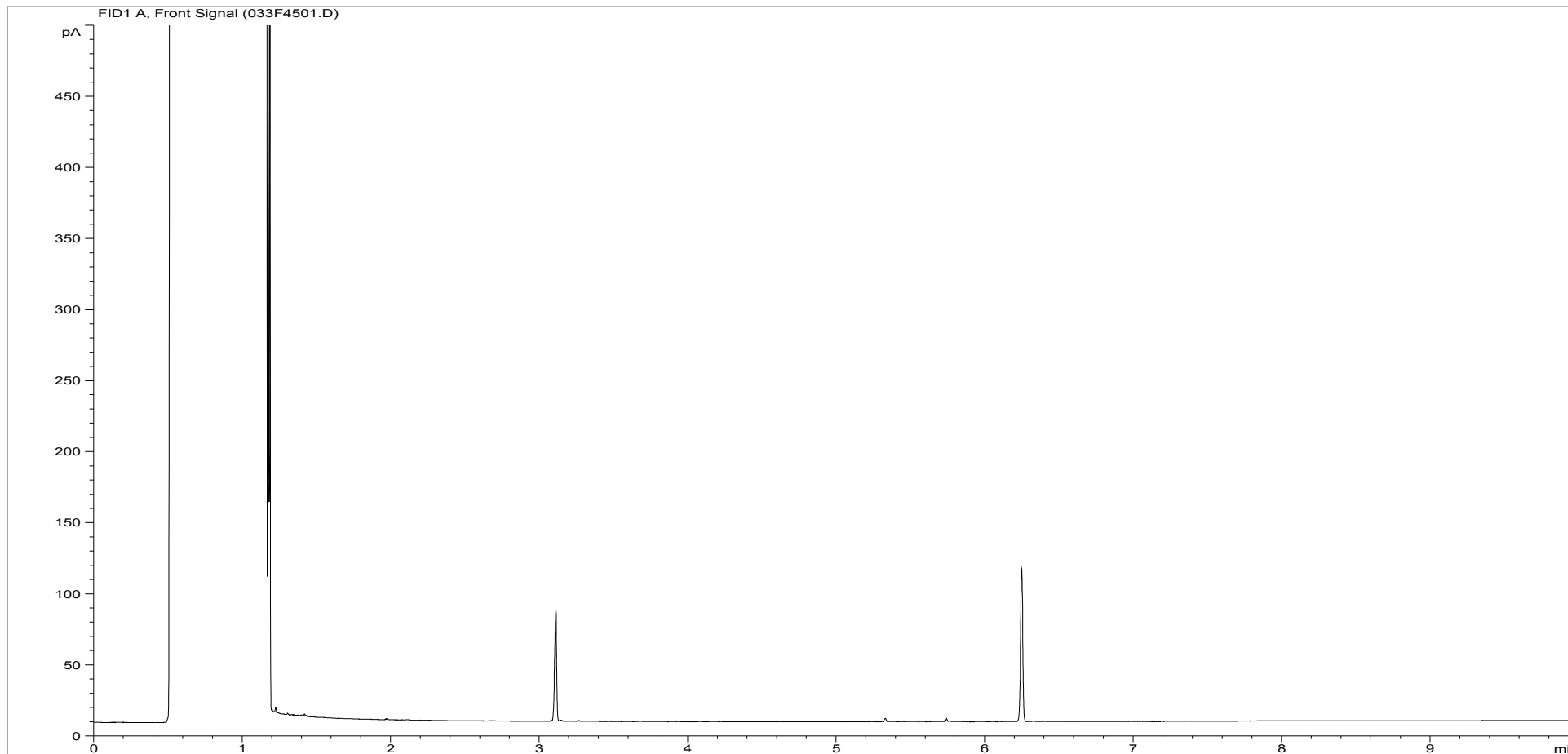
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1275757ARO | Job Number: | W13_3316 |
| Multiplier: | 0.015 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

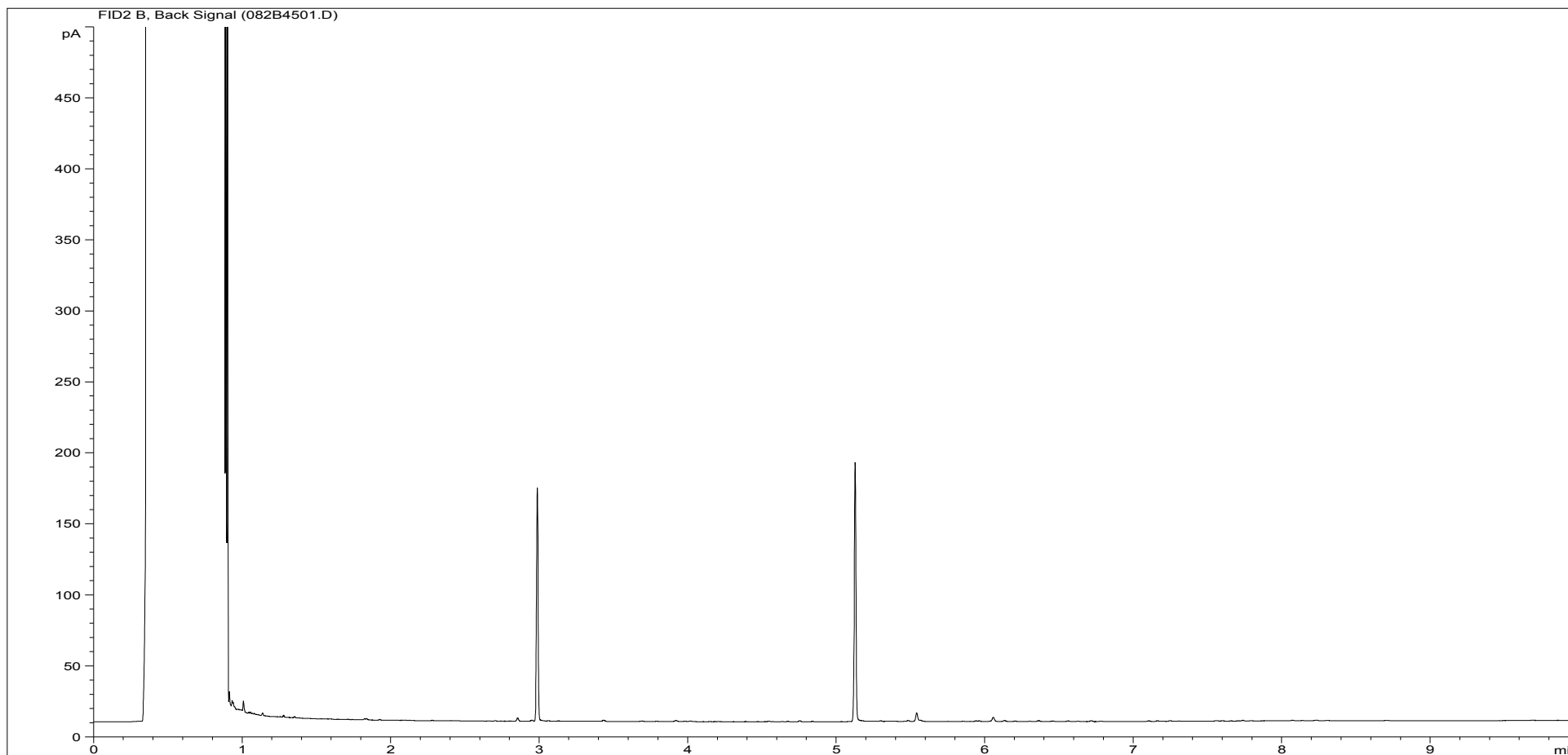
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1275758ALI | Job Number: | W13_3316 |
| Multiplier: | 0.02 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | 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\033F4501.D | | |

Where individual results are flagged see report notes for status.

Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1275758ARO | Job Number: | W13_3316 |
| Multiplier: | 0.015 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | 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 | | |

Where individual results are flagged see report notes for status.

Customer Waterman EED
Site Upper Heyford
Report No W133316

Consignment No W34910
Date Logged 08-Mar-2012

Report Due 16-Mar-2012

| ID Number | Description | MethodID | CUSTSERV | GROHSA | ICPM5W | ICPM1VAR | KONENS | PHEHRCTL | SVOC5W | TPHFIDSI | WSLM11 | WSLM12 | | | | | | | | | | | | | |
|------------------------|-------------|----------|----------|--------------------|-----------------------------|----------|--------|----------|--------|----------|-------------------------------|------------------------------|-----------------------------|---------------------------|---------------------------|------------------------------|------------------------------|-------------------------------|---------------------------------|-------------------------------|---------------------------------|------------------------------|----------------------------|-----------------------|----------------------------|
| | | 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) |
| 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 | |
|------------------------|--|
| A | The sample was received in an inappropriate container for this analysis |
| B | The sample was received without the correct preservation for this analysis |
| C | Headspace present in the sample container |
| D | The sampling date was not supplied so holding time may be compromised - applicable to all analysis |
| E | 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 |

Where individual results are flagged see report notes for status.

Customer Waterman EED
Site Upper Heyford
Report No W133316





Consignment No W34910
Date Logged 08-Mar-2012

Report Due 16-Mar-2012

| ID Number | Description | MethodID | WSLM13 | WSLM17 | WSLM2 | WSLM20 | WSLM3 | WSLM7 |
|------------------------|-------------|----------|----------------------|------------------------|--------------------------|---------------------------|----------|------------------------------|
| | | 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 | |
|---|--|
| A | The sample was received in an inappropriate container for this analysis |
| B | The sample was received without the correct preservation for this analysis |
| C | Headspace present in the sample container |
| D | The sampling date was not supplied so holding time may be compromised - applicable to all analysis |
| E | 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 |

Where individual results are flagged see report notes for status.

Method Descriptions

| Matrix | MethodID | Analysis Basis | Method Description |
|--------|-----------|----------------|--|
| 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 ($\mu\text{S}/\text{cm}$) 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 |

Where individual results are flagged see report notes for status.

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

NAIS 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

Req Analysis requested, see attached sheets for results

▮ 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.

END OF REPORT

Where individual results are flagged see report notes for status.

Our Ref: EXR/133354 (Ver. 1)

Your Ref: E10658-109

March 26, 2012



Environmental Chemistry

ESG

Bretby Business Park

Ashby Road

Burton-on-Trent

Staffordshire

DE15 0YZ

Telephone: 01283 554400

Facsimile: 01283 554422

Mr F Alcock
Waterman EED
Waterman Environmental
Pickfords Wharf
Clink Street
London
SE1 9DG

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.

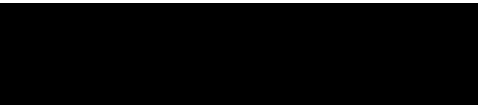
Please be aware that from 1 January 2003 our policy for the retention of paper based laboratory records and analysis reports will be 6 years.

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/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



Operations Manager


Date of Issue: 26-Mar-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 | | | |
|--|---------------------------|-------------|---------------------------|----------------------------|-----------------------------|--------------------------|------------------|------------------------------------|-----------------------------|-------------------------------|----------------------------|--------------------------|----------------------------|---------------------------|--------------------------|------------------------|------------------------|---------------------------|-------|-----|
| | | | Method Codes : | WSLM3 | WSLM2 | WSLM12 | WSLM17 | KONENS | ICPWATVAR | ICPWATVAR | ICPWATVAR | ICPWATVAR | ICPMSW | ICPMSW | ICPMSW | ICPMSW | ICPMSW | ICPMSW | | |
| | | | Method Reporting Limits : | | 100 | 2 | 2 | 1 | 3 | 1 | 1 | 1 | 0.001 | 0.001 | 0.0001 | 0.001 | 0.001 | 0.002 | 0.001 | |
| | | | UKAS Accredited : | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| LAB ID Number | 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) | | |
| 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 | | |
| | | | | | | | | | | | | | | | | | | | | |
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|  <p>Environmental Scientifics Group Bretby Business Park, Ashby Road Burton-on-Trent, Staffordshire, DE15 0YZ Tel +44 (0) 1283 554400 Fax +44 (0) 1283 554422</p> | | | Client Name | Waterman EED | | | | | | | | Water Sample Analysis | | | | | | | | |
| | | | Contact | Mr F Alcock | | | | | | | | | | | | | | | | |
| | | | Upper Heyford | | | | | | | | Date Printed | 26-Mar-2012 | | | | | | | | |
| | | | | | | | | | | | Report Number | EXR/133354 | | | | | | | | |
| Upper Heyford | | | | | | | | Table Number | 1 | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | |

| | | 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 | | |
|--|-----|---------------------------|---------------|--------------------------|---------------------------|----------------------------|--------------------------|--------------|----------------|----------------------------------|------------------------|-----------------------|------------|----------------|-----------------------------|--------------------------------|---------------------------------|-----------|---------------|
| | | Method Codes : | ICPWATVAR | ICPMSW | ICPMSW | KONENS | KONENS | KONENS | WSLM11 | WSLM13 | GROHSA | GROHSA | TPHFID-Si | WSLM20 | WSLM7 | SVOCSW | PHEHPLCVL | PHEHPLCVL | |
| | | Method Reporting Limits : | 0.01 | 0.0001 | 0.001 | 0.01 | 0.2 | 0.01 | 5 | 0.1 | 0.1 | 10 | 0.01 | 2 | 6 | 0.002 | 0.0005 | 0.0005 | |
| | | UKAS Accredited : | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | No | No | No | No | 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(S) 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 |
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|  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 Name | Waterman EED | | | | | | | | Water Sample Analysis | | | | | | | |
| | | | Contact | Mr F Alcock | | | | | | | | | | | | | | | |
| | | | Upper Heyford | | | | | | | | Date Printed | 26-Mar-2012 | | | | | | | |
| | | | | | | | | | | | | | | | | | | | Report Number |
| | | | | | | | | | | | Table Number | 1 | | | | | | | |
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| | | Units : | mg/l | mg/l | | | | | | | | | | | | |
|---|---------------------------|---|----------------------|------------------|--|--|--|--|--|--|------------------------------------|--|------------------------------|--|--|--|
| | | Method Codes : | PHEHPLCVL | PHEHPLCVL | | | | | | | | | | | | |
| | | Method Reporting Limits : | 0.0005 | 0.0005 | | | | | | | | | | | | |
| | | UKAS Accredited : | No | No | | | | | | | | | | | | |
| LAB ID Number | 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 | | | | | | | | | | | | |
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|  <p>ESG Environmental Scientifics Group Bretby Business Park, Ashby Road Burton-on-Trent, Staffordshire, DE15 0YZ Tel +44 (0) 1283 554400 Fax +44 (0) 1283 554422</p> | | Client Name Waterman EED Contact Mr F Alcock | Upper Heyford | | | | | | | | | | Water Sample Analysis | | | |
| | | | | | | | | | | | Date Printed 26-Mar-2012 | | | | | |
| | | | | | | | | | | | Report Number EXR/133354 | | | | | |
| | | | | | | | | | | | Table Number 1 | | | | | |
| | | | | | | | | | | | | | | | | |

Semi-Volatile Organic Compounds

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford
Sample Details: BH-NSA 45
LIMS ID Number: EX1275991
Job Number: W13_3354

Date Booked in: 09-Mar-12
Date Extracted: 16-Mar-12
Date Analysed: 16-Mar-12

Matrix: Water
Ext Method: Sep. Funnel
Operator: SO
Directory/Quant File: 16SVOC.MS16\ 0316_CCC1.D

QC Batch Number: 33
Multiplier: 0.005
Dilution Factor: 1
GPC (Y/N) N

| 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 | - |

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 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 | 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 |

Semi-Volatile Organic Compounds

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford
Sample Details: BH-NSA 32
LIMS ID Number: EX1275992
Job Number: W13_3354

Date Booked in: 09-Mar-12
Date Extracted: 16-Mar-12
Date Analysed: 16-Mar-12

Matrix: Water
Ext Method: Sep. Funnel
Operator: SO
Directory/Quant File: 16SVOC.MS16\ 0316_CCC1.D

QC Batch Number: 33
Multiplier: 0.005
Dilution Factor: 1
GPC (Y/N) N

| 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 | - |

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 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 | 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 |

Where individual results are flagged see report notes for status.

Semi-Volatile Organic Compounds

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford
Sample Details: BH-NSA 42
LIMS ID Number: EX1275993
Job Number: W13_3354

Date Booked in: 09-Mar-12
Date Extracted: 16-Mar-12
Date Analysed: 16-Mar-12

Matrix: Water
Ext Method: Sep. Funnel
Operator: SO
Directory/Quant File: 16SVOC.MS16\ 0316_CCC1.D

QC Batch Number: 33
Multiplier: 0.005
Dilution Factor: 1
GPC (Y/N) N

| 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 | - |

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 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 | 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 |

Semi-Volatile Organic Compounds

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford
Sample Details: BH-NSA 43
LIMS ID Number: EX1275994
Job Number: W13_3354

Date Booked in: 09-Mar-12
Date Extracted: 16-Mar-12
Date Analysed: 16-Mar-12

Matrix: Water
Ext Method: Sep. Funnel
Operator: SO
Directory/Quant File: 16SVOC.MS16\ 0316_CCC1.D

QC Batch Number: 33
Multiplier: 0.005
Dilution Factor: 1
GPC (Y/N): N

| 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 | - |

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 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 | 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 |

Semi-Volatile Organic Compounds

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford
Sample Details: BH-NSA 44
LIMS ID Number: EX1275995
Job Number: W13_3354

Date Booked in: 09-Mar-12
Date Extracted: 16-Mar-12
Date Analysed: 16-Mar-12

Matrix: Water
Ext Method: Sep. Funnel
Operator: SO
Directory/Quant File: 16SVOC.MS16\ 0316_CCC1.D

QC Batch Number: 33
Multiplier: 0.005
Dilution Factor: 1
GPC (Y/N): N

| 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 | - |

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 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 | 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 |

Where individual results are flagged see report notes for status.

Semi-Volatile Organic Compounds

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford
Sample Details: BH-NSA 37
LIMS ID Number: EX1275996
Job Number: W13_3354

Date Booked in: 09-Mar-12
Date Extracted: 16-Mar-12
Date Analysed: 16-Mar-12

Matrix: Water
Ext Method: Sep. Funnel
Operator: SO
Directory/Quant File: 16SVOC.MS16\ 0316_CCC1.D

QC Batch Number: 33
Multiplier: 0.005
Dilution Factor: 1
GPC (Y/N): N

| 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 | - |

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 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 | 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 |

Where individual results are flagged see report notes for status.

Semi-Volatile Organic Compounds

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford
Sample Details: BH-NSA 28A
LIMS ID Number: EX1275997
Job Number: W13_3354

Date Booked in: 09-Mar-12
Date Extracted: 16-Mar-12
Date Analysed: 16-Mar-12

Matrix: Water
Ext Method: Sep. Funnel
Operator: SO
Directory/Quant File: 16SVOC.MS16\ 0316_CCC1.D

QC Batch Number: 33
Multiplier: 0.005
Dilution Factor: 1
GPC (Y/N) N

| 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 | - |

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 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 | 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 |

Semi-Volatile Organic Compounds

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford
Sample Details: BH-NSA 27
LIMS ID Number: EX1275998
Job Number: W13_3354

Date Booked in: 09-Mar-12
Date Extracted: 16-Mar-12
Date Analysed: 16-Mar-12

Matrix: Water
Ext Method: Sep. Funnel
Operator: SO
Directory/Quant File: 16SVOC.MS16\ 0316_CCC1.D

QC Batch Number: 33
Multiplier: 0.005
Dilution Factor: 1
GPC (Y/N): N

| 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 | - |

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 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 | 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 |

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.

| Sample ID | Client ID | Concentration, (mg/l) | | | | | Aliphatics | | | | Total GRO |
|-------------|------------|-----------------------|---------|---------------|------------|----------|------------|----------|----------|-----------|-----------|
| | | Benzene | Toluene | Ethyl benzene | m/p-Xylene | o-Xylene | C5 - C6 | >C6 - C7 | >C7 - C8 | >C8 - C10 | |
| * 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 |
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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_3354
QC Batch Number: 120201
Directory: D:\TES\DATA\Y2012\031612TPH_GC15\031612 2012-03-16 08-33-47\093B5301.D
Method: Bottle

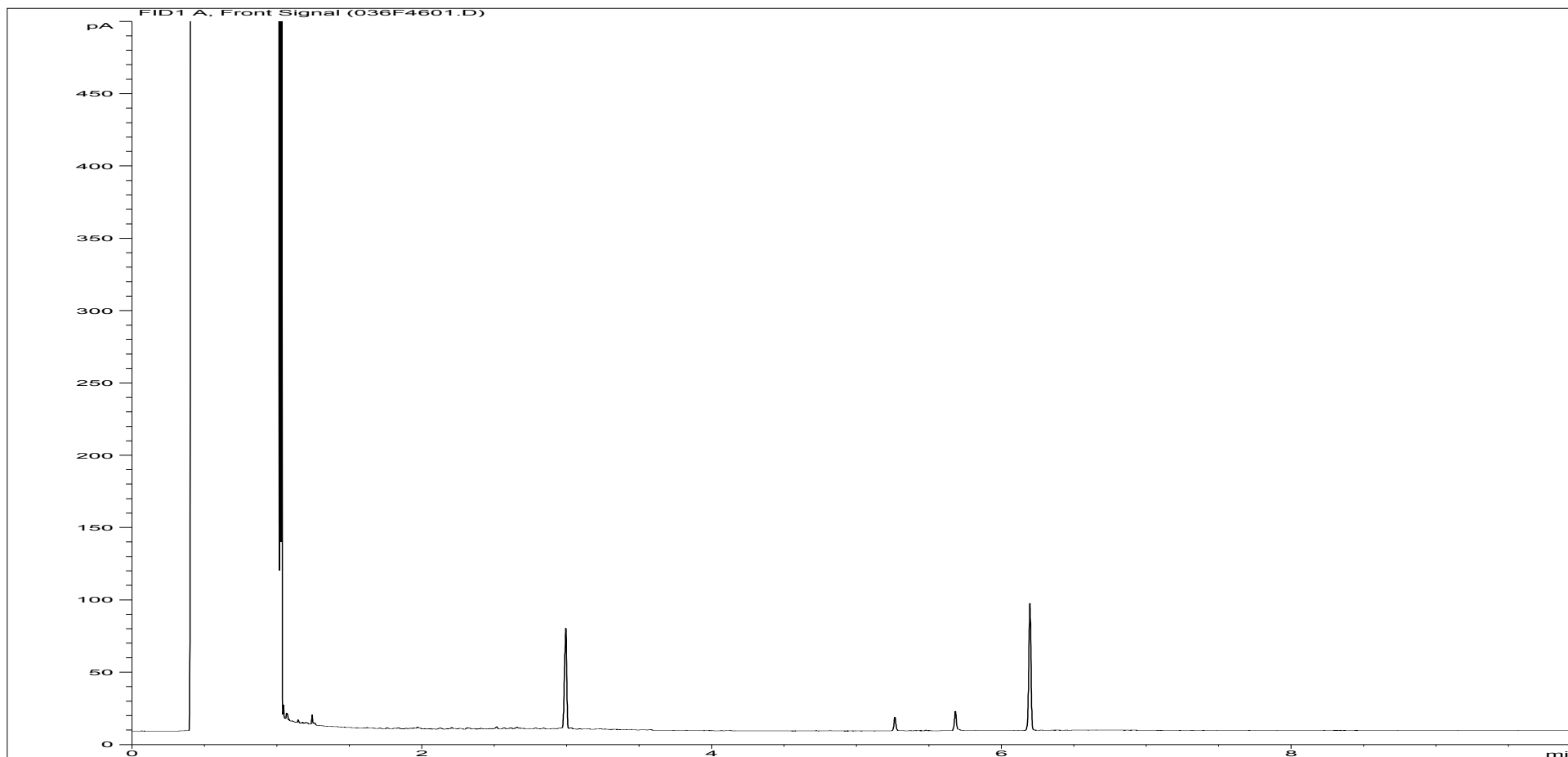
Matrix: Water
Date Booked in: 09-Mar-12
Date Extracted: 15-Mar-12
Date Analysed: 16-Mar-12, 23:38:24

Separation: Silica gel
Eluents: Hexane, DCM

* This sample data is not UKAS accredited.

| | | Concentration, (mg/l) | | | | | | | | | | | |
|-----------|------------|-----------------------|-----------|------------|-----------|------------|-----------|------------|-----------|------------|-----------|------------|-----------|
| | | >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 |
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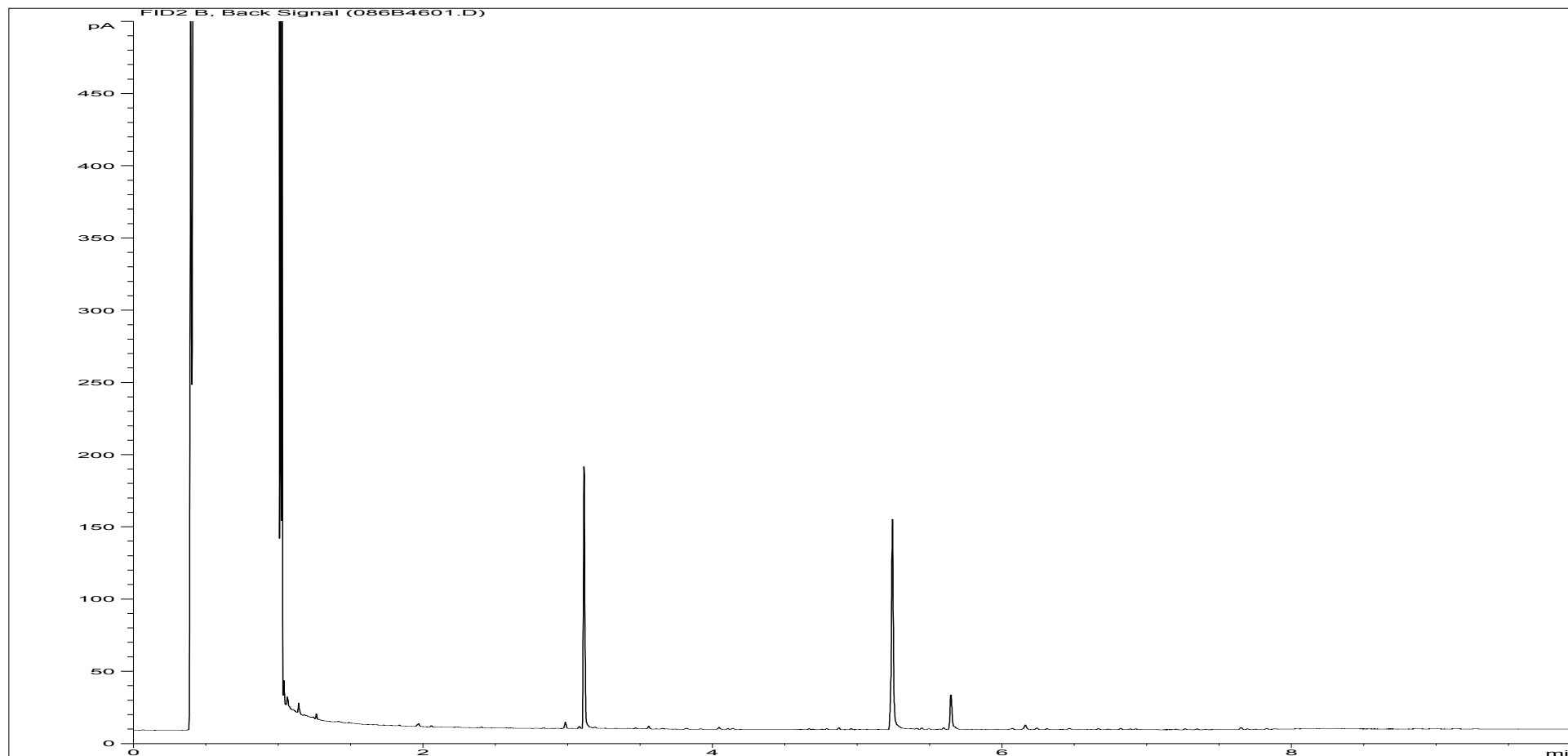
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1275991ALI | Job Number: | W13_3354 |
| Multiplier: | 0.02 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

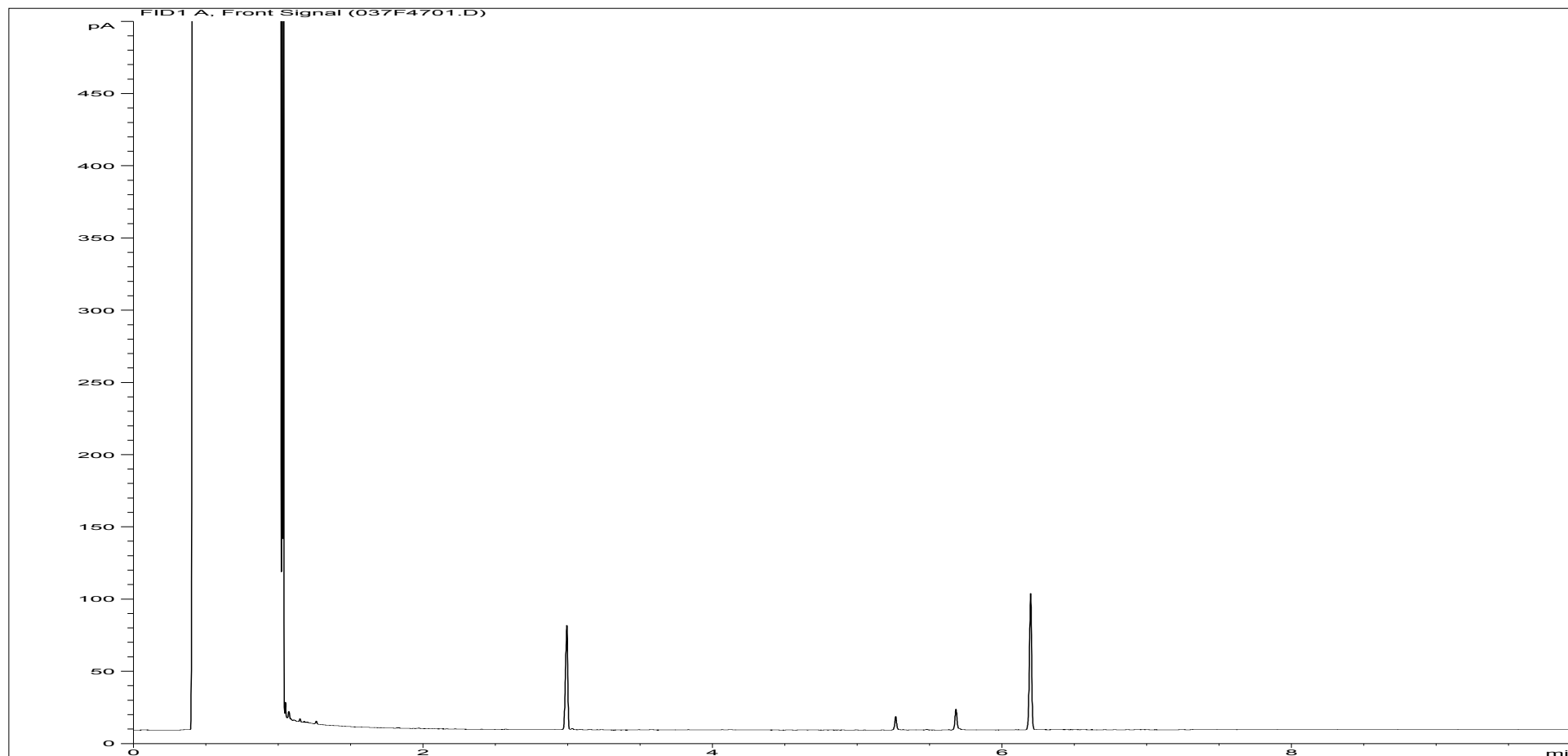
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1275991ARO | Job Number: | W13_3354 |
| Multiplier: | 0.015 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

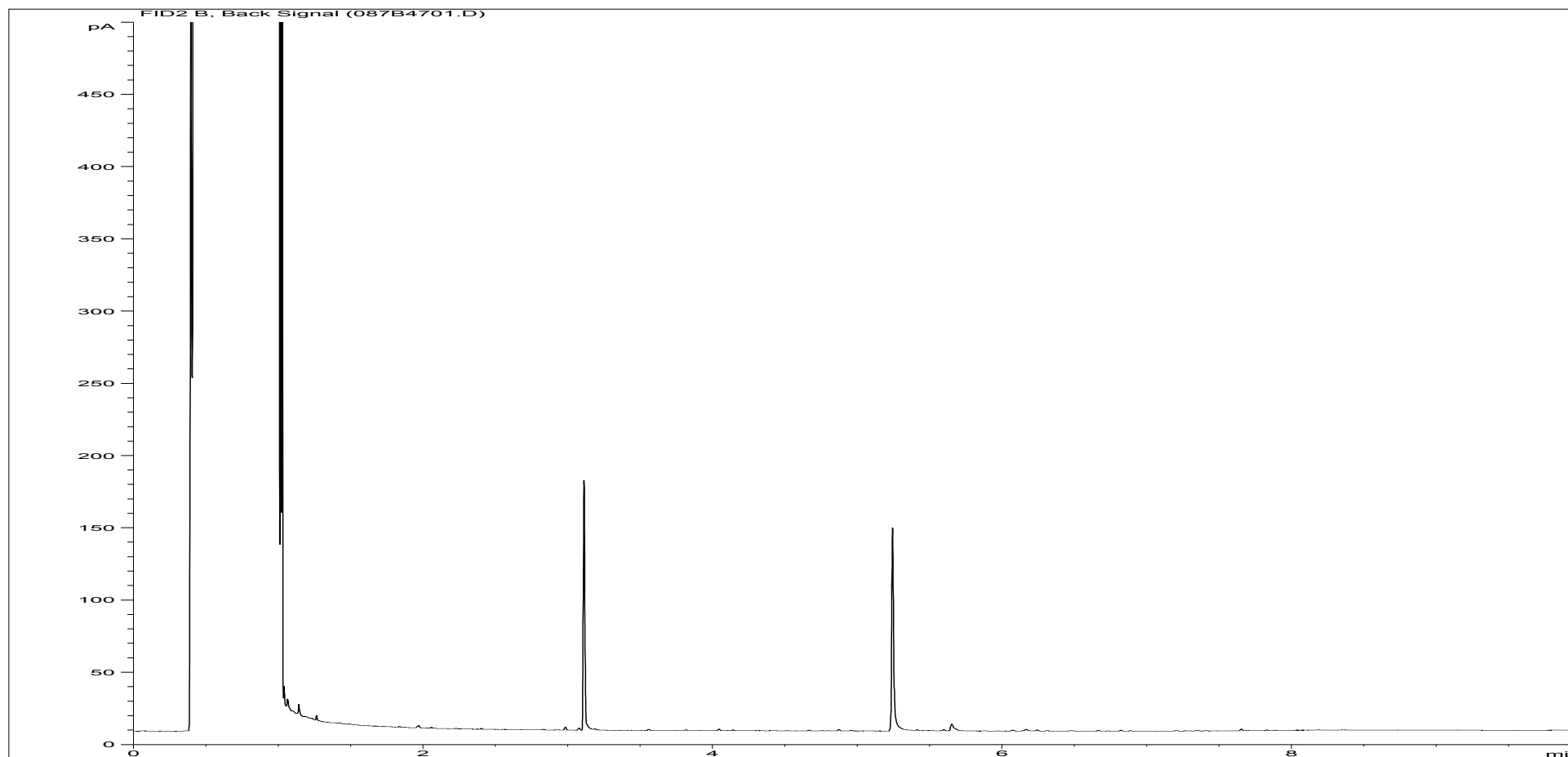
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1275992ALI | Job Number: | W13_3354 |
| Multiplier: | 0.02 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

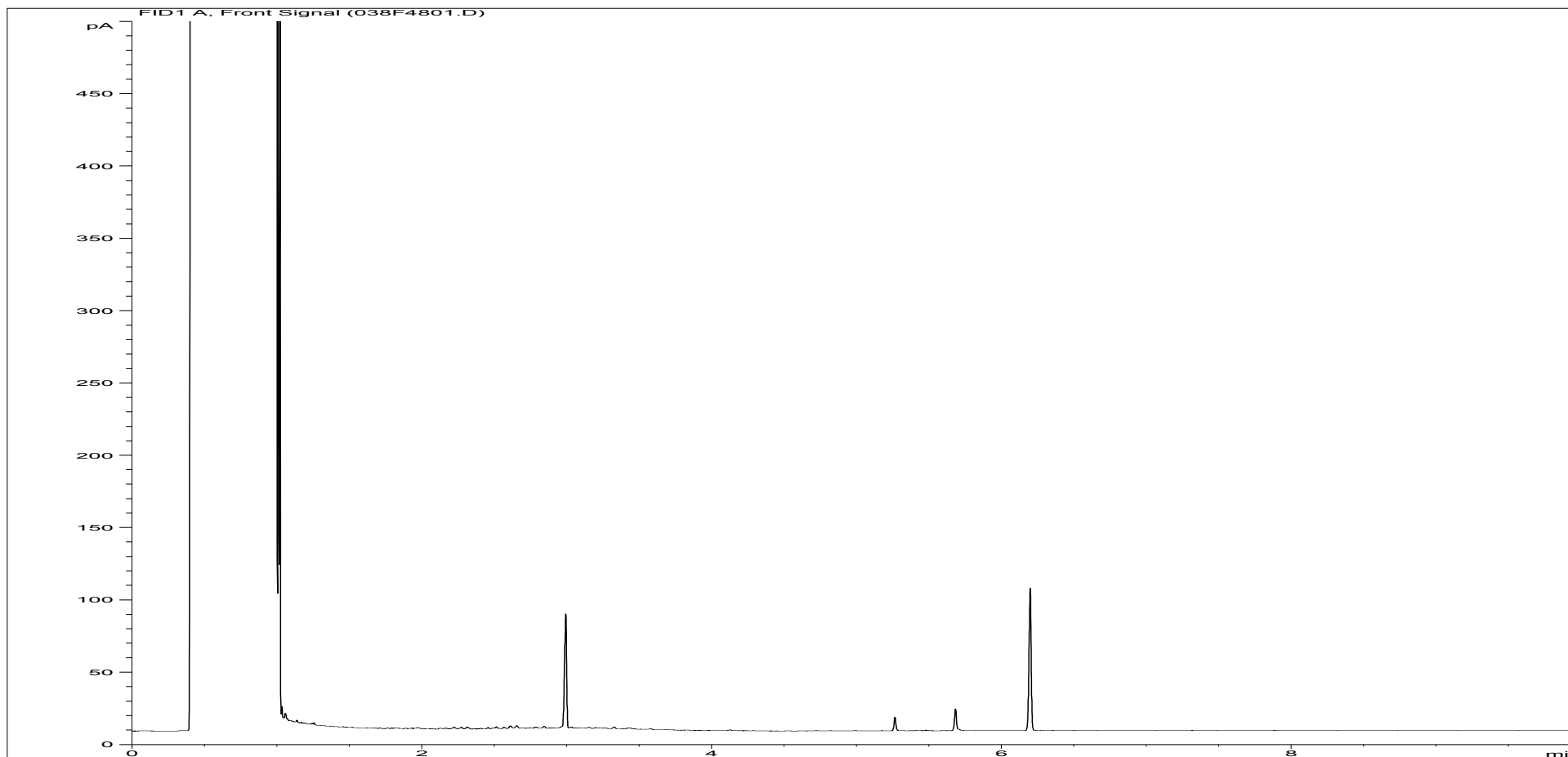
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1275992ARO | Job Number: | W13_3354 |
| Multiplier: | 0.015 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

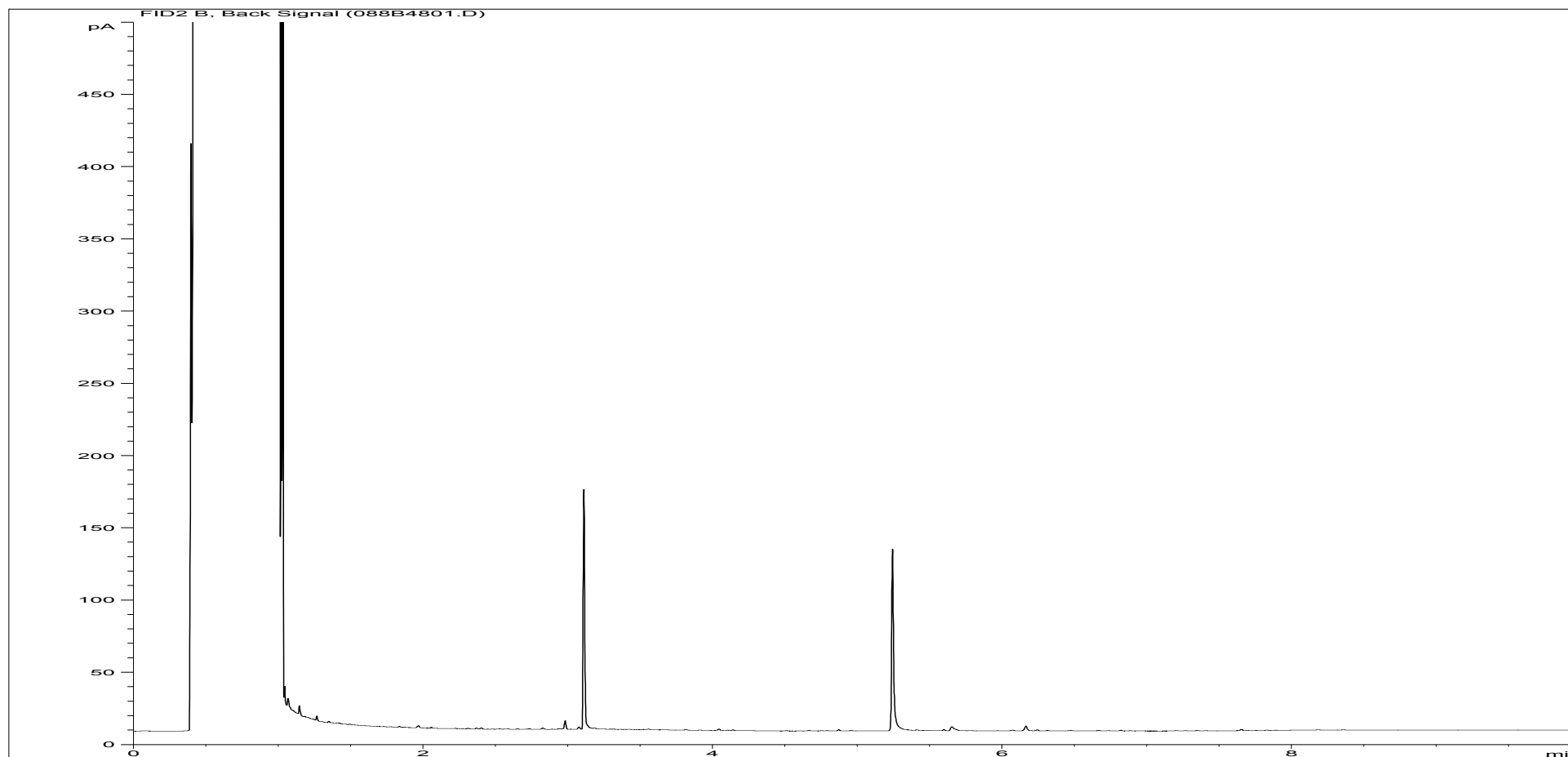
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1275993ALI | Job Number: | W13_3354 |
| Multiplier: | 0.02 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

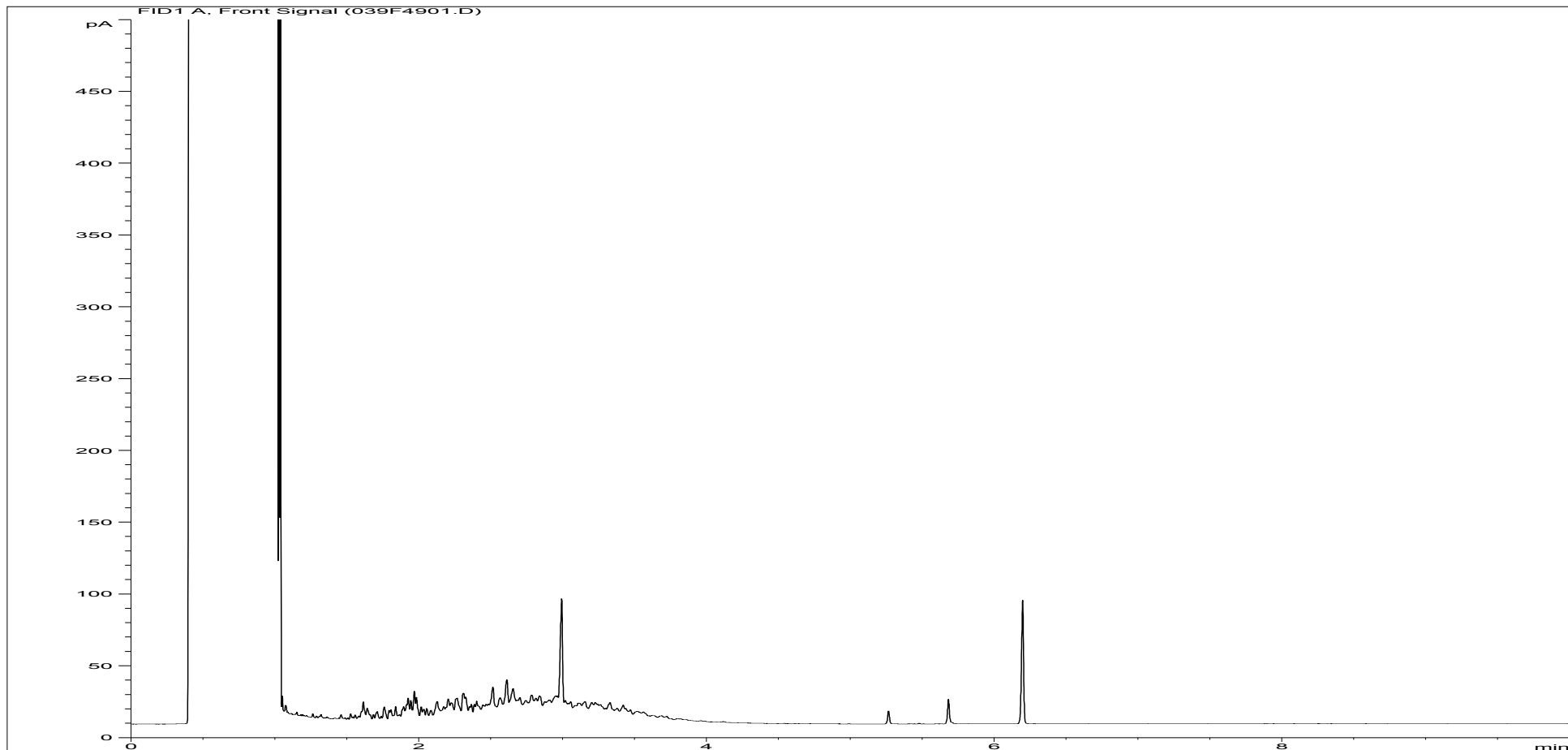
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1275993ARO | Job Number: | W13_3354 |
| Multiplier: | 0.015 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

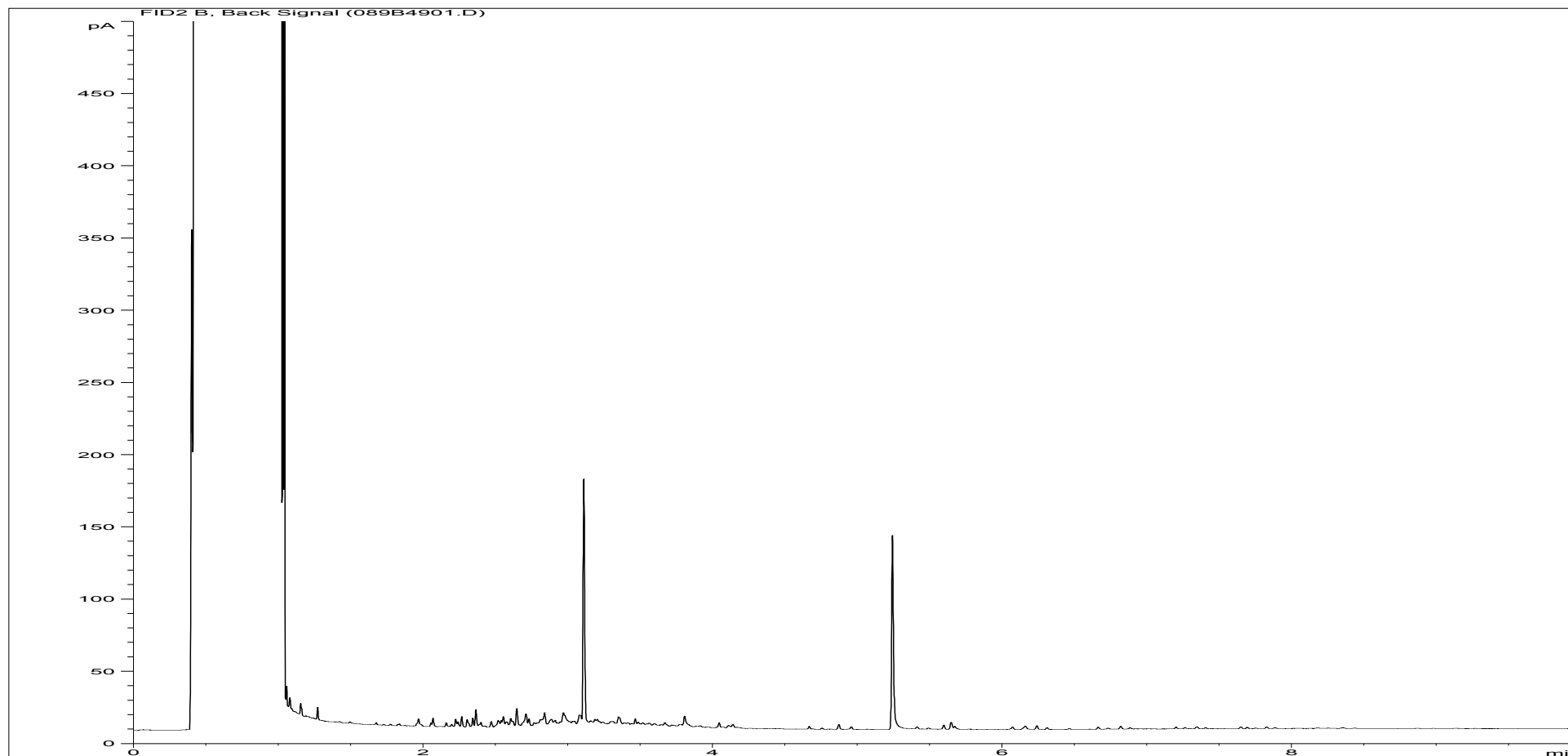
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1275994ALI | Job Number: | W13_3354 |
| Multiplier: | 0.02 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

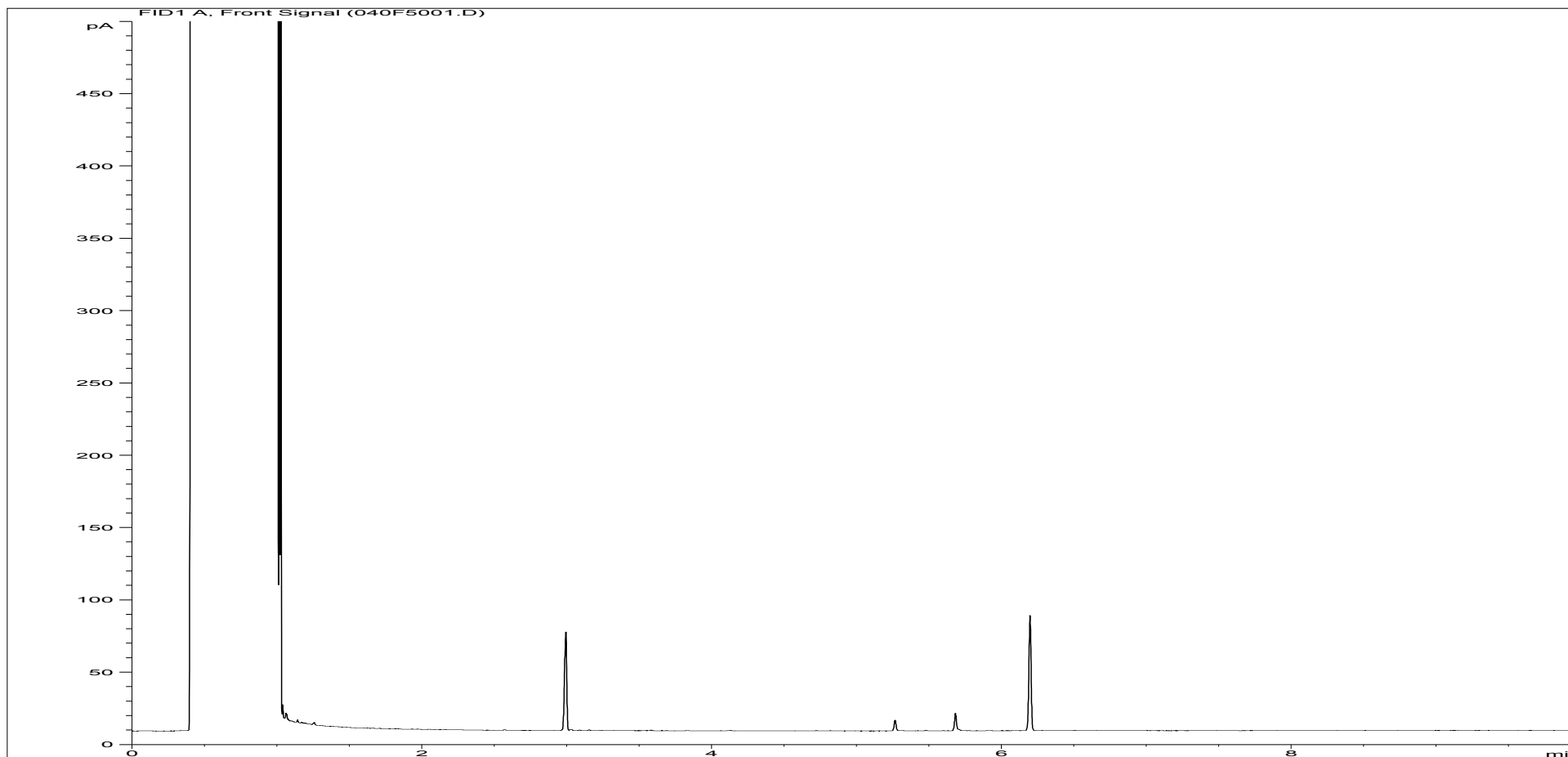
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1275994ARO | Job Number: | W13_3354 |
| Multiplier: | 0.015 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

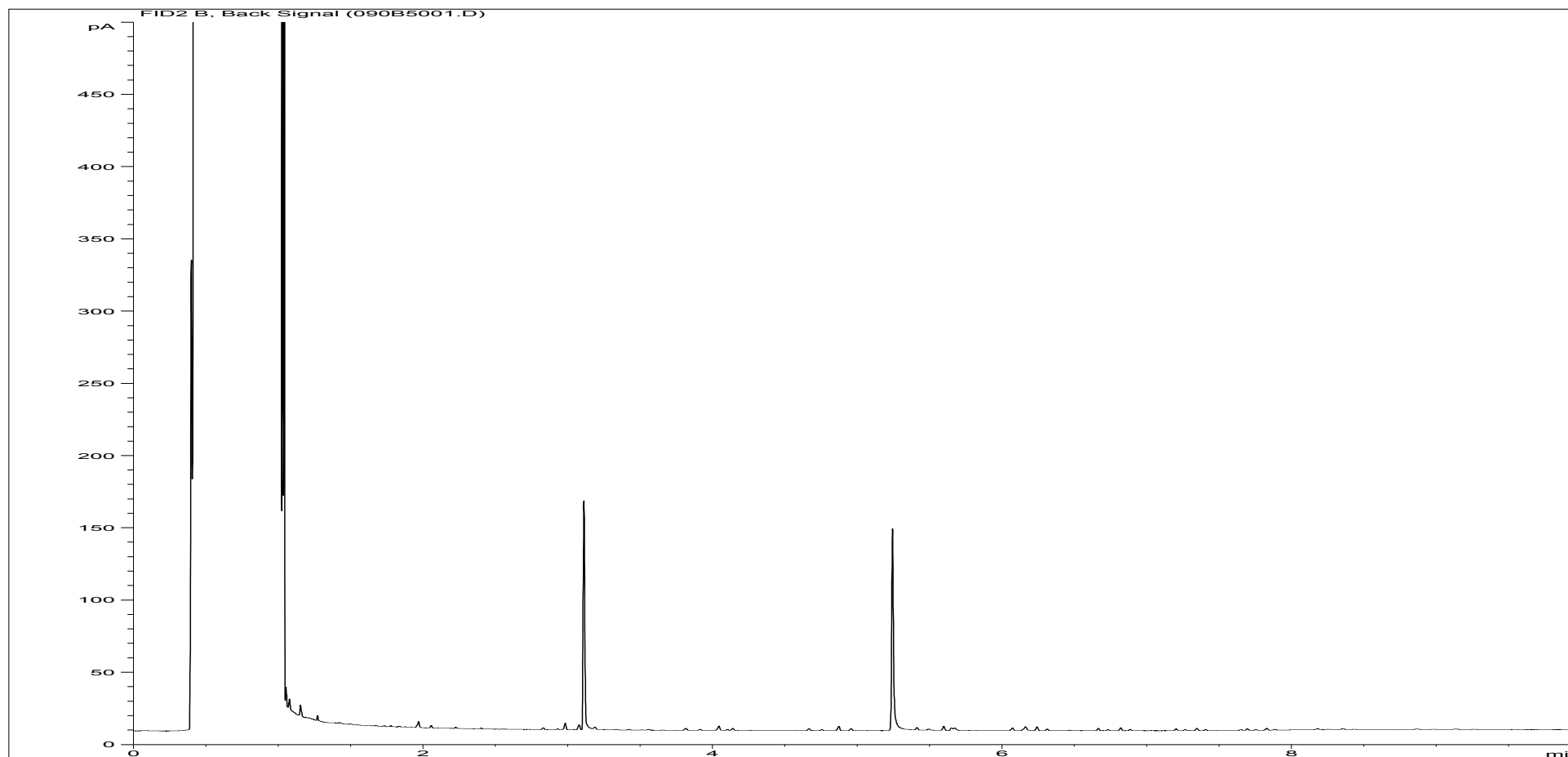
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1275995ALI | Job Number: | W13_3354 |
| Multiplier: | 0.02 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

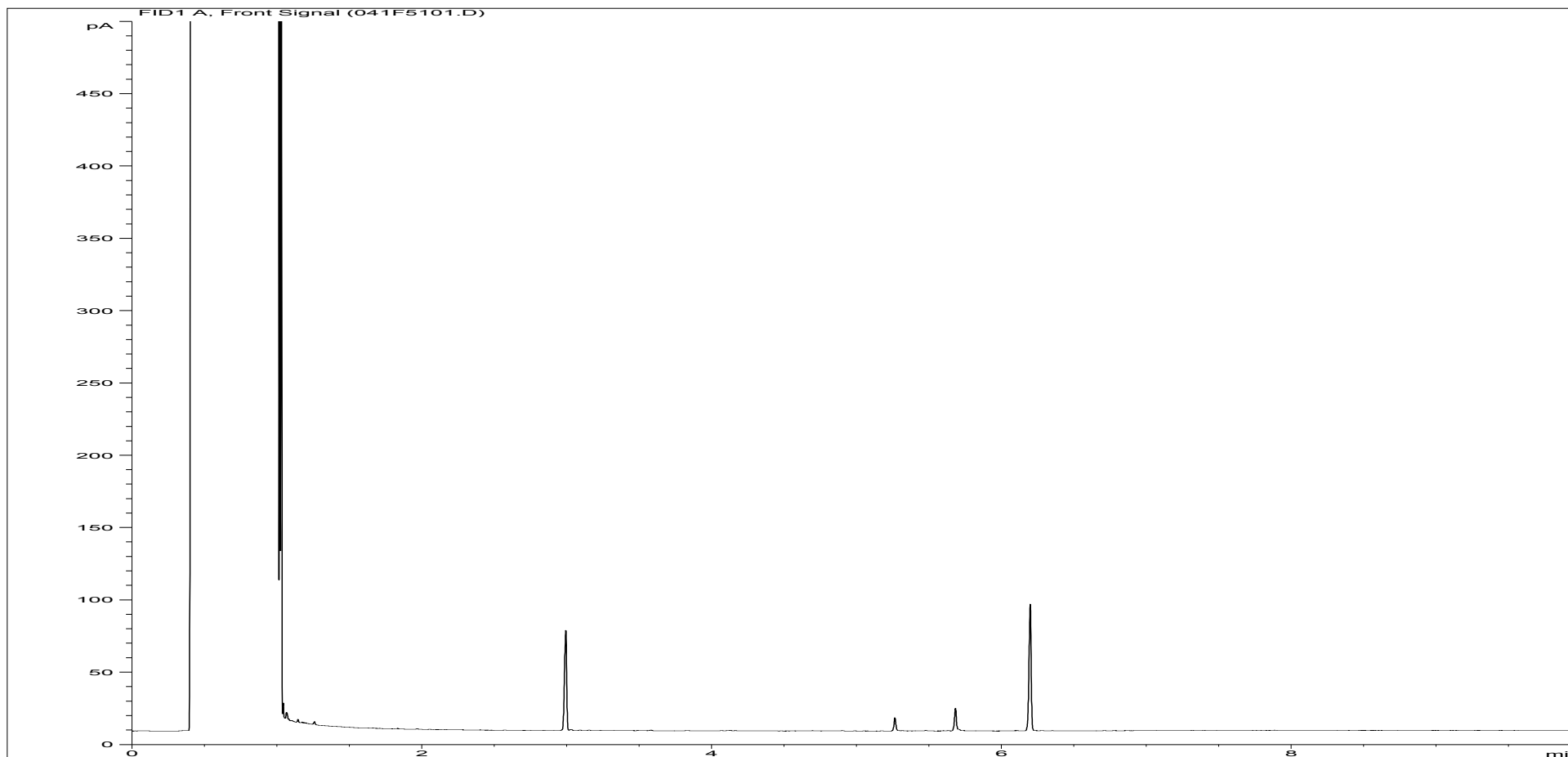
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1275995ARO | Job Number: | W13_3354 |
| Multiplier: | 0.015 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

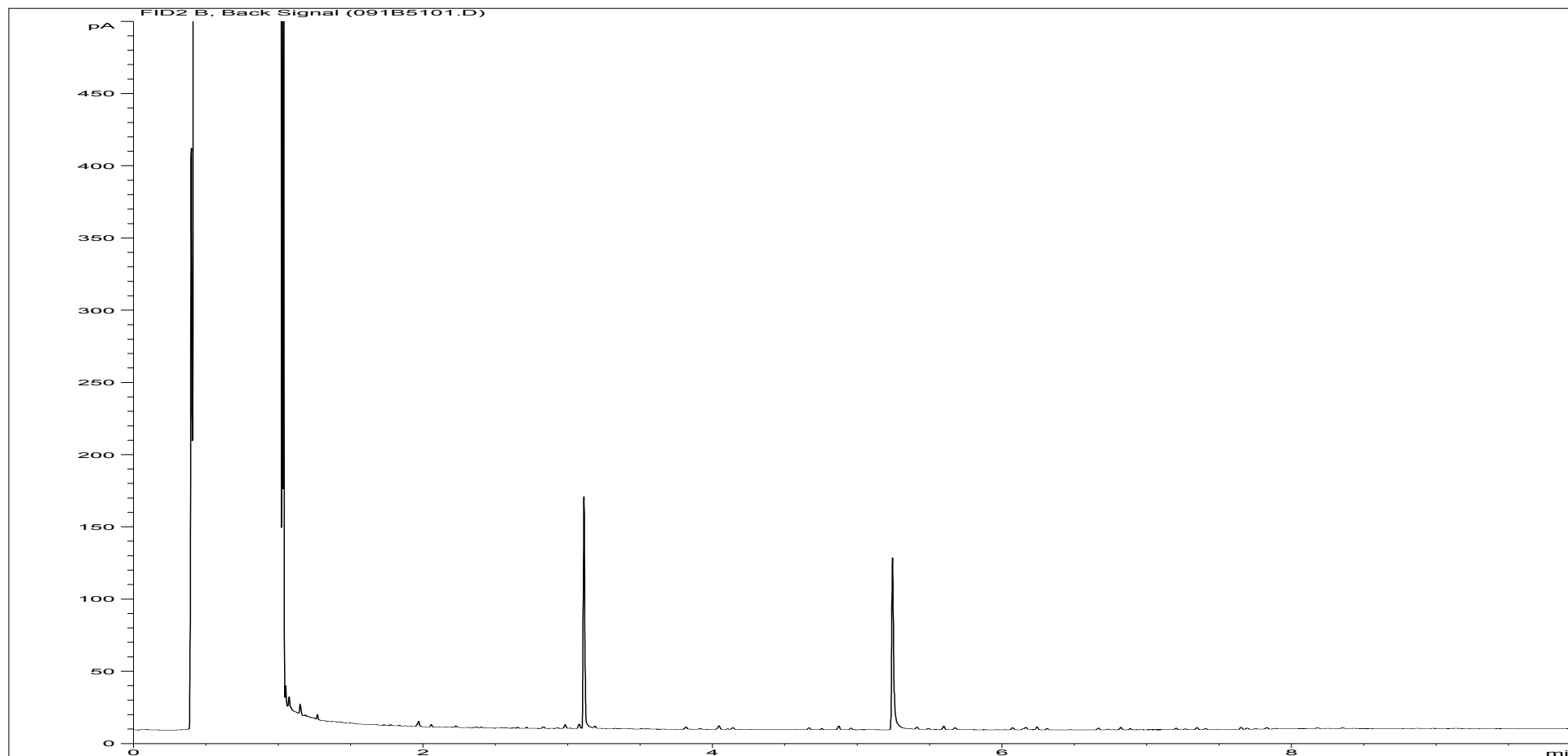
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1275996ALI | Job Number: | W13_3354 |
| Multiplier: | 0.02 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1275996ARO | Job Number: | W13_3354 |
| Multiplier: | 0.015 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

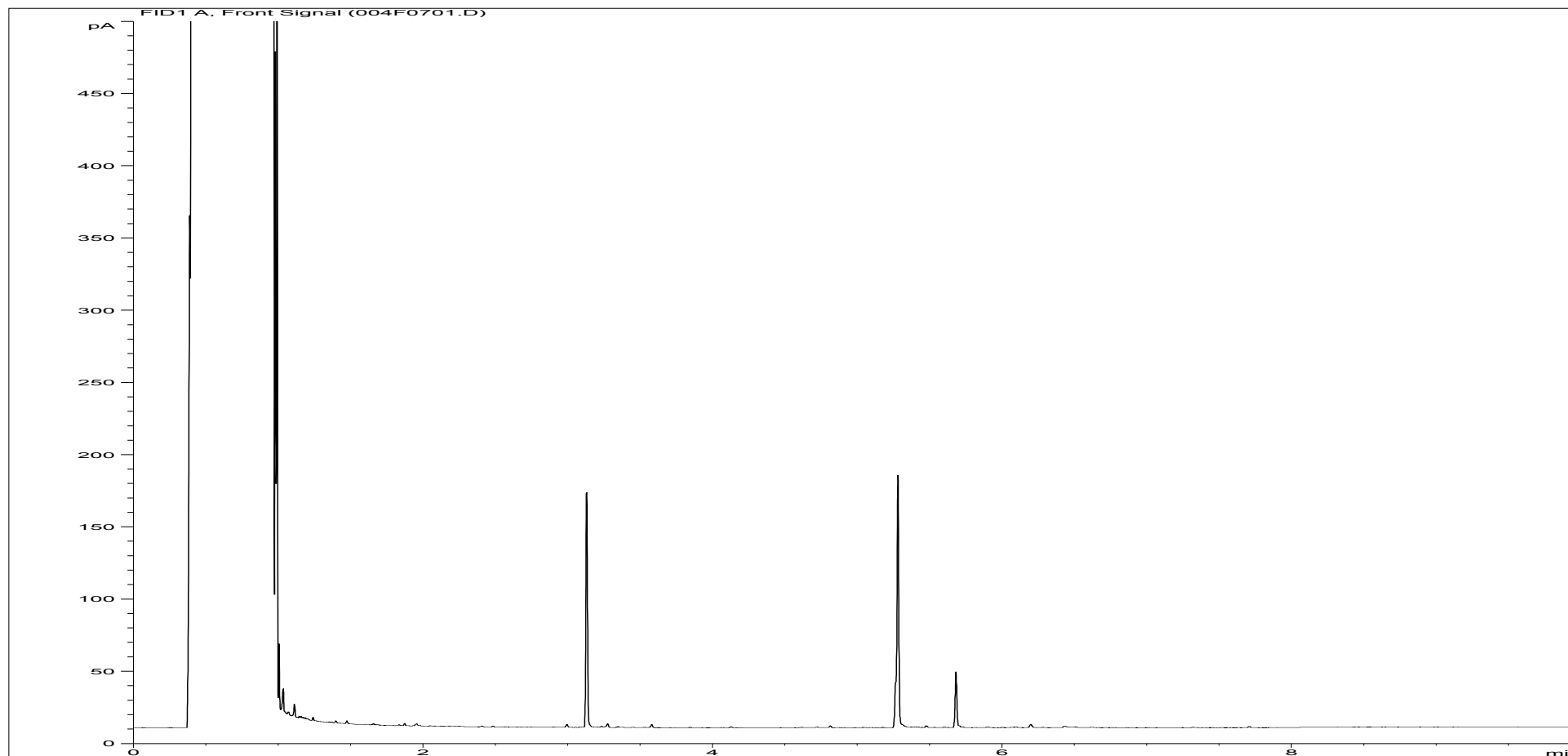
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1275997ALI | Job Number: | W13_3354 |
| Multiplier: | 0.02 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

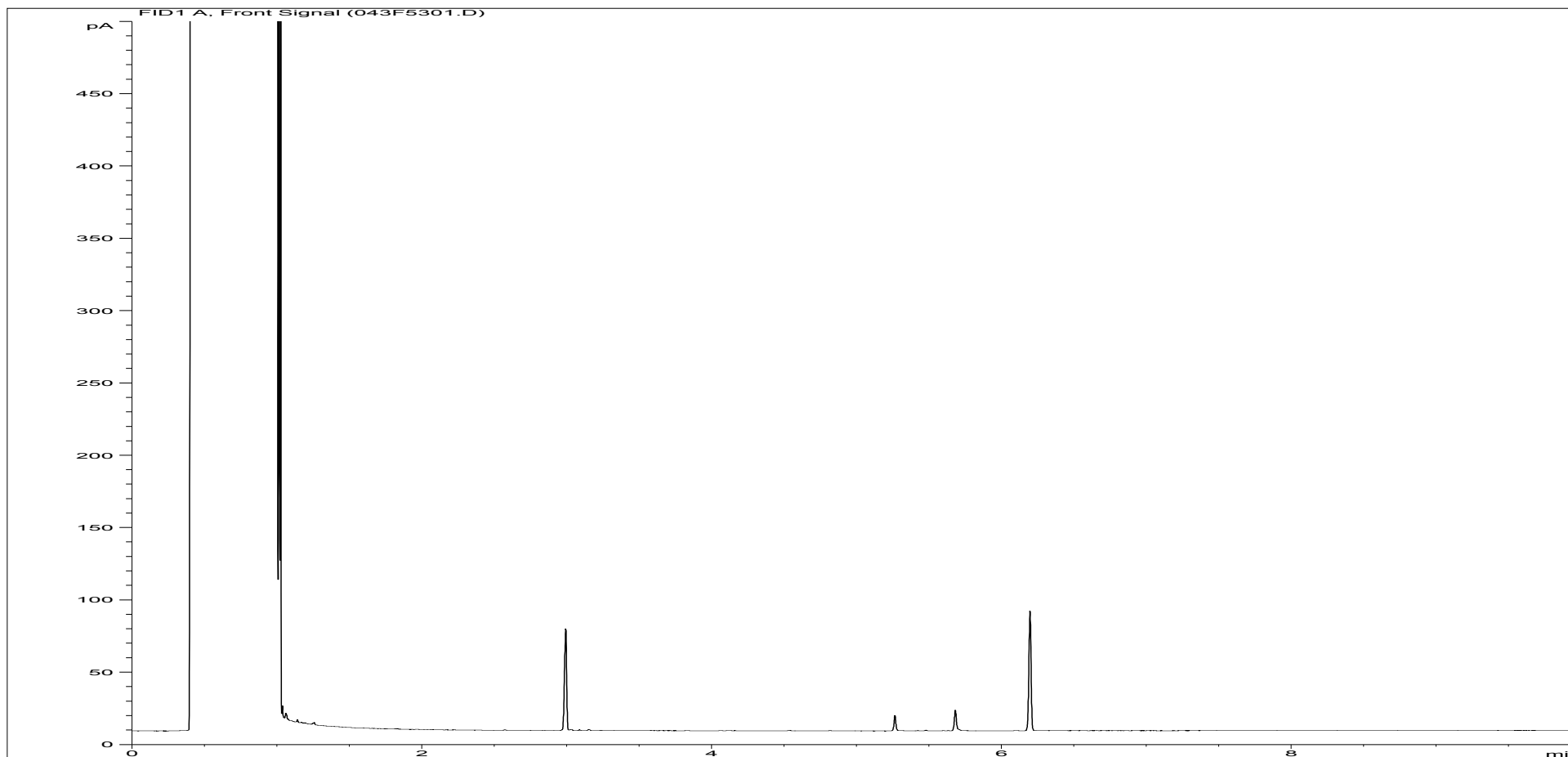
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1275997ARO | Job Number: | W13_3354 |
| Multiplier: | 0.015 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

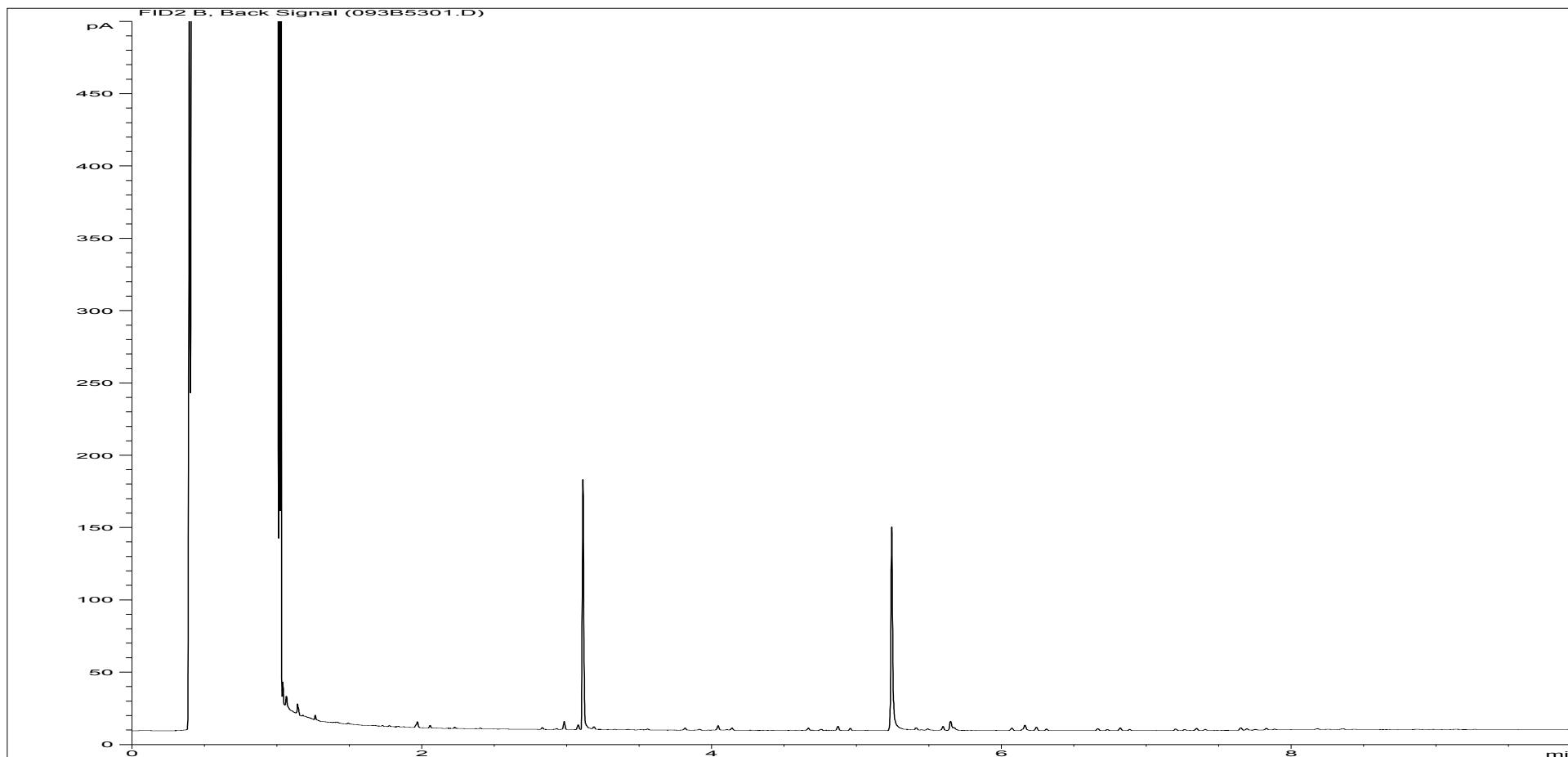
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1275998ALI | Job Number: | W13_3354 |
| Multiplier: | 0.02 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1275998ARO | Job Number: | W13_3354 |
| Multiplier: | 0.015 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

Customer Waterman EED
Site Upper Heyford
Report No W133354

Consignment No W34946
 Date Logged 09-Mar-2012

Report Due 19-Mar-2012

| ID Number | Description | MethodID | CURSERV Report A | GROHSA GRO-HSA GCFID (AA) | ICPMWSW MTBE-HSA | ICPMMSW 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 | ICPMATVAR Calcium as Ca (Dissolved) VAR Magnesium as Mg (Dissolved) VAR Sodium as Na (Dissolved) VAR Boron as B (Dissolved) VAR | KONENS Chloride as Cl (Kone) Ammoniacal Nitrogen (Kone) Nitrate as N (Kone calc) Phosphate as P (Kone) | PHERICV Phenols by HPLC (Low Level) | SVOCSW SVOC | TPHFID-SI TPH by GC(SI) | WSLM11 | |
|------------|-------------|------------------------|---------------------|------------------------------|---------------------|--|---|--|--|----------------|----------------------------|----------------------------------|---|
| | | | | | | | | | | | | 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 | |
|--|--|
| A | The sample was received in an inappropriate container for this analysis |
| B | The sample was received without the correct preservation for this analysis |
| C | Headspace present in the sample container |
| D | The sampling date was not supplied so holding time may be compromised - applicable to all analysis |
| E | 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 |

Where individual results are flagged see report notes for status.

Customer Waterman EED
Site Upper Heyford
Report No W133354





Consignment No W34946
Date Logged 09-Mar-2012

Report Due 19-Mar-2012

| ID Number | Description | MethodID | WSLM12 | WSLM13 | WSLM17 | WSLM2 | WSLM20 | WSLM3 | WSLM7 |
|------------------------|-------------|----------|---------------------------|----------------------|------------------------|--------------------------|---------------------------|----------|------------------------------|
| | | 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 | |
|---|--|
| A | The sample was received in an inappropriate container for this analysis |
| B | The sample was received without the correct preservation for this analysis |
| C | Headspace present in the sample container |
| D | The sampling date was not supplied so holding time may be compromised - applicable to all analysis |
| E | 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 |

Method Descriptions

| Matrix | MethodID | Analysis Basis | Method Description |
|--------|-----------|----------------|--|
| 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 ($\mu\text{S}/\text{cm}$) 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 |

Where individual results are flagged see report notes for status.

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

NAIS 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

Req Analysis requested, see attached sheets for results

▮ 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.

END OF REPORT

Where individual results are flagged see report notes for status.

Our Ref: EXR/133436 (Ver. 1)

Your Ref: E10658-109

March 23, 2012



Environmental Chemistry

ESG

Bretby Business Park

Ashby Road

Burton-on-Trent

Staffordshire

DE15 0YZ

Telephone: 01283 554400

Facsimile: 01283 554422

Mr F Alcock
Waterman EED
Waterman Environmental
Pickfords Wharf
Clink Street
London
SE1 9DG

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.

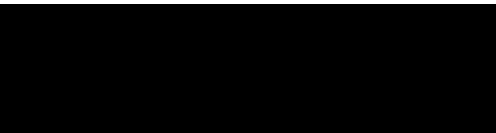
An invoice for this work will follow under a separate cover.

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/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.

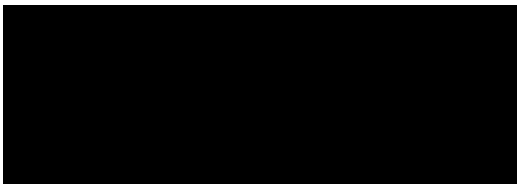
The analysis was completed by: 23-Mar-2012

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)

On behalf of
ESG :
Andrew Timms





Date of Issue: 23-Mar-2012


Tests marked '^' have been subcontracted to another laboratory.

ESG accepts no responsibility for any sampling not carried out by our personnel.

Where individual results are flagged see report notes for status.

| | | | 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 | | | |
|--|---------------------------|-------------|---------------------------|----------------------------|-----------------------------|--------------------------|------------------|------------------------------------|-----------------------------|-------------------------------|------------------------------|--------------------------|----------------------------|---------------------------|--------------------------|------------------------|------------------------|---------------------------|-------|-----|
| | | | Method Codes : | WSLM3 | WSLM2 | WSLM12 | WSLM17 | KONENS | ICPWATVAR | ICPWATVAR | ICPWATVAR | ICPWATVAR | ICPMSW | ICPMSW | ICPMSW | ICPMSW | ICPMSW | ICPMSW | | |
| | | | Method Reporting Limits : | | 100 | 2 | 2 | 1 | 3 | 1 | 1 | 1 | 0.001 | 0.001 | 0.0001 | 0.001 | 0.001 | 0.002 | 0.001 | |
| | | | UKAS Accredited : | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| LAB ID Number | 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 | | |
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|  <p>Environmental Scientifics Group Bretby Business Park, Ashby Road Burton-on-Trent, Staffordshire, DE15 0YZ Tel +44 (0) 1283 554400 Fax +44 (0) 1283 554422</p> | | | Client Name | | Waterman EED | | | | | | Water Sample Analysis | | | | | | | | | |
| | | | Contact | | Mr F Alcock | | | | | | | | | | | | | | | |
| | | | Upper Heyford | | | | | | Date Printed | | 23-Mar-2012 | | | | | | | | | |
| | | | | | | | | | Report Number | | EXR/133436 | | | | | | | | | |
| | | | | | | Table Number | | 1 | | | | | | | | | | | | |
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| | | | 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 | | |
|--|---------------------------|-------------|---------------------------|---------------------------|----------------------------|--------------------------|--------------|----------------|----------------------------------|------------------------|-----------------------|------------|----------------|-----------------------------|--------------------------------|---------------------------------|---------|-----------|-----------|
| | | | Method Codes : | ICPWATVAR | ICPMSW | ICPMSW | KONENS | KONENS | KONENS | WSLM11 | WSLM13 | GROHSA | GROHSA | TPHFID-Si | WSLM20 | WSLM7 | SVOCSW | PHEHPLCVL | PHEHPLCVL |
| | | | Method Reporting Limits : | 0.01 | 0.0001 | 0.001 | 0.01 | 0.2 | 0.01 | 5 | 0.1 | 0.1 | 10 | 0.01 | 2 | 6 | 0.002 | 0.0005 | 0.0005 |
| | | | UKAS Accredited : | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | No | No | No | No | No |
| LAB ID Number | 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(S) 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 | |
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|  <p>Environmental Scientifics Group Bretby Business Park, Ashby Road Burton-on-Trent, Staffordshire, DE15 0YZ Tel +44 (0) 1283 554400 Fax +44 (0) 1283 554422</p> | | | Client Name | | Waterman EED | | | | | | Water Sample Analysis | | | | | | | | |
| | | | Contact | | Mr F Alcock | | | | | | | | | | | | | | |
| | | | Upper Heyford | | | | | | Date Printed | 23-Mar-2012 | | | | | | | | | |
| | | | | | | | | | Report Number | EXR/133436 | | | | | | | | | |
| Upper Heyford | | | | | | Table Number | 1 | | | | | | | | | | | | |
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| Units : | | mg/l | mg/l | | | | | | | | | | | | | | |
|--|-----|---------------------------|--------------|-----------------|---------------------|---|----------------------|------------------------------|--|--|--|--|--|--|--|--|--|
| Method Codes : | | PHEHPLCVL | PHEHPLCVL | | | | | | | | | | | | | | |
| Method Reporting Limits : | | 0.0005 | 0.0005 | | | | | | | | | | | | | | |
| UKAS Accredited : | | No | 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 | | | | | | | | | | | | |
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|  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 Name | Waterman EED | | | | | Water Sample Analysis | | | | | | | | | |
| | | Contact | Mr F Alcock | | | | | | | | | | | | | | |
| | | Upper Heyford | | | | | Date Printed | 23-Mar-2012 | | | | | | | | | |
| | | | | | | | Report Number | EXR/133436 | | | | | | | | | |
| Upper Heyford | | | | | Table Number | 1 | | | | | | | | | | | |
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Semi-Volatile Organic Compounds

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford
Sample Details: BH-NFA-23
LIMS ID Number: EX1276614
Job Number: W13_3436

Date Booked in: 12-Mar-12
Date Extracted: 20-Mar-12
Date Analysed: 21-Mar-12

Matrix: Water
Ext Method: Sep. Funnel
Operator: SO
Directory/Quant File: 21SVOC.GC1\ 0321_CCC1.D

QC Batch Number: 36
Multiplier: 0.005
Dilution Factor: 1
GPC (Y/N) N

| 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 | - |

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 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 | 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 |

Semi-Volatile Organic Compounds

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford
Sample Details: BH-NFA-24
LIMS ID Number: EX1276615
Job Number: W13_3436

Date Booked in: 12-Mar-12
Date Extracted: 20-Mar-12
Date Analysed: 21-Mar-12

Matrix: Water
Ext Method: Sep. Funnel
Operator: SO
Directory/Quant File: 21SVOC.GC1\ 0321_CCC1.D

QC Batch Number: 36
Multiplier: 0.005
Dilution Factor: 1
GPC (Y/N) N

| 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 | - |

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 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 | 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 |

Semi-Volatile Organic Compounds

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford
Sample Details: BH-NFA-25
LIMS ID Number: EX1276616
Job Number: W13_3436

Date Booked in: 12-Mar-12
Date Extracted: 20-Mar-12
Date Analysed: 21-Mar-12

Matrix: Water
Ext Method: Sep. Funnel
Operator: SO
Directory/Quant File: 21SVOC.GC1\ 0321_CCC1.D

QC Batch Number: 36
Multiplier: 0.005
Dilution Factor: 1
GPC (Y/N): N

| 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 | - |

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 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 | 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 |

Semi-Volatile Organic Compounds

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford
Sample Details: BH-NFA-26
LIMS ID Number: EX1276617
Job Number: W13_3436

Date Booked in: 12-Mar-12
Date Extracted: 20-Mar-12
Date Analysed: 21-Mar-12

Matrix: Water
Ext Method: Sep. Funnel
Operator: SO
Directory/Quant File: 21SVOC.GC1\ 0321_CCC1.D

QC Batch Number: 36
Multiplier: 0.005
Dilution Factor: 1
GPC (Y/N) N

| 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 | - |

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 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 | 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 |

Semi-Volatile Organic Compounds

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford
Sample Details: BH-NFA-24X
LIMS ID Number: EX1276618
Job Number: W13_3436

Date Booked in: 12-Mar-12
Date Extracted: 20-Mar-12
Date Analysed: 21-Mar-12

Matrix: Water
Ext Method: Sep. Funnel
Operator: SO
Directory/Quant File: 21SVOC.GC1\ 0321_CCC1.D

QC Batch Number: 36
Multiplier: 0.005
Dilution Factor: 1
GPC (Y/N) N

| 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 | - |

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 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 | 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 |

Semi-Volatile Organic Compounds

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford
Sample Details: BH-NFA-29
LIMS ID Number: EX1276619
Job Number: W13_3436

Date Booked in: 12-Mar-12
Date Extracted: 20-Mar-12
Date Analysed: 21-Mar-12

Matrix: Water
Ext Method: Sep. Funnel
Operator: SO
Directory/Quant File: 21SVOC.GC1\ 0321_CCC1.D

QC Batch Number: 36
Multiplier: 0.005
Dilution Factor: 1
GPC (Y/N) N

| 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 | - |

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 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 | 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 |

Semi-Volatile Organic Compounds

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford
Sample Details: BH-NFA-30
LIMS ID Number: EX1276620
Job Number: W13_3436

Date Booked in: 12-Mar-12
Date Extracted: 20-Mar-12
Date Analysed: 21-Mar-12

Matrix: Water
Ext Method: Sep. Funnel
Operator: SO
Directory/Quant File: 21SVOC.GC1\ 0321_CCC1.D

QC Batch Number: 36
Multiplier: 0.005
Dilution Factor: 1
GPC (Y/N): N

| 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 | - |

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 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 | 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 |

Semi-Volatile Organic Compounds

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford
Sample Details: BH-NFA-31
LIMS ID Number: EX1276621
Job Number: W13_3436

Date Booked in: 12-Mar-12
Date Extracted: 20-Mar-12
Date Analysed: 21-Mar-12

Matrix: Water
Ext Method: Sep. Funnel
Operator: SO
Directory/Quant File: 21SVOC.GC1\ 0321_CCC1.D

QC Batch Number: 36
Multiplier: 0.005
Dilution Factor: 1
GPC (Y/N) N

| 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 | - |

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 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 | 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 |

Semi-Volatile Organic Compounds

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford
Sample Details: BH-NFA-39
LIMS ID Number: EX1276622
Job Number: W13_3436

Date Booked in: 12-Mar-12
Date Extracted: 20-Mar-12
Date Analysed: 21-Mar-12

Matrix: Water
Ext Method: Sep. Funnel
Operator: SO
Directory/Quant File: 21SVOC.GC1\ 0321_CCC1.D
QC Batch Number: 36
Multiplier: 0.005
Dilution Factor: 1
GPC (Y/N): N

| 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 | - |

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 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 | 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 |

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.

| Sample ID | Client ID | Concentration, (mg/l) | | | | | Aliphatics | | | | Total GRO |
|-------------|------------|-----------------------|---------|---------------|------------|----------|------------|----------|----------|-----------|-----------|
| | | Benzene | Toluene | Ethyl benzene | m/p-Xylene | o-Xylene | C5 - C6 | >C6 - C7 | >C7 - C8 | >C8 - C10 | |
| * 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 |
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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

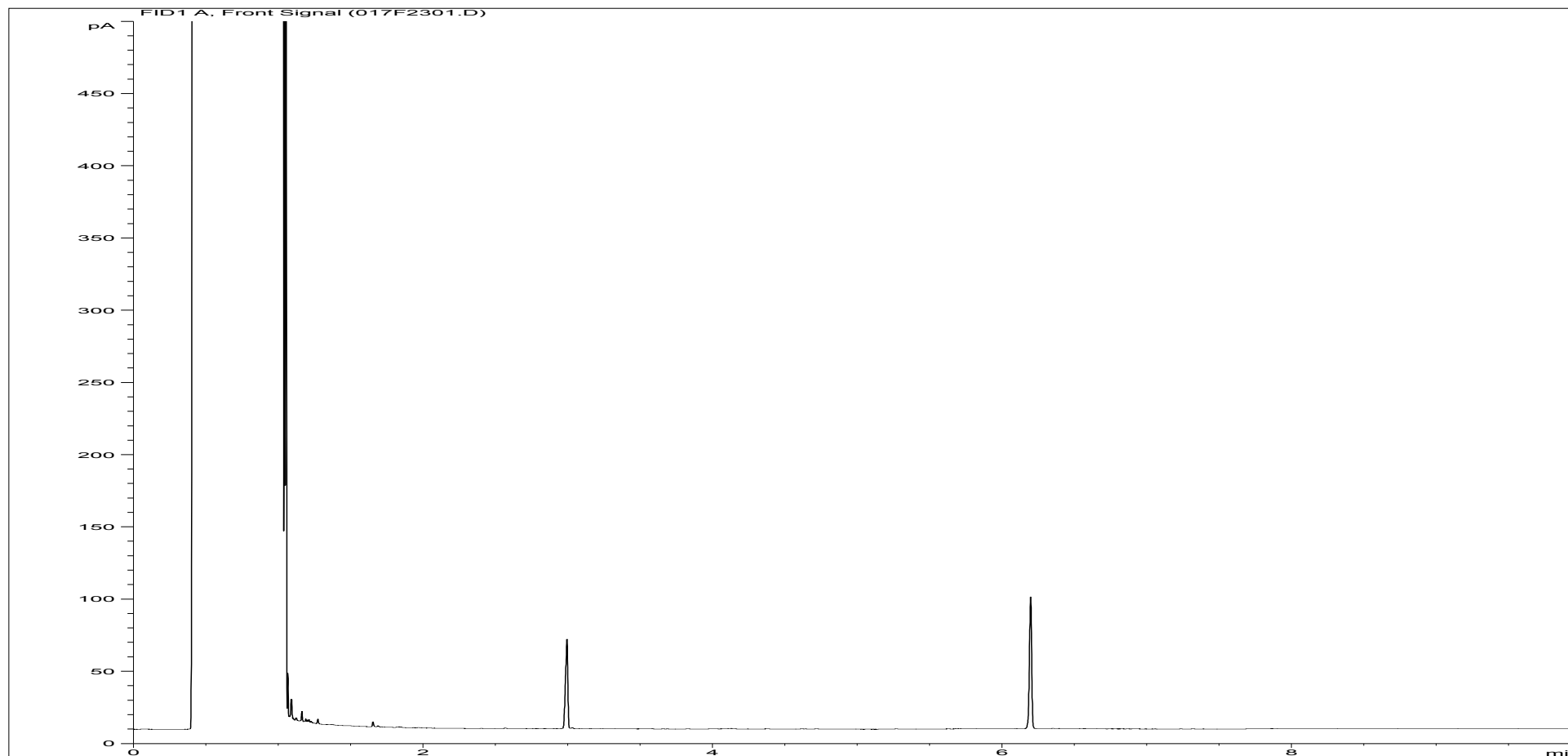
Customer and Site Details: Waterman EED : Upper Heyford
Job Number: W13_3436
QC Batch Number: 120202
Directory: D:\TES\DATA\Y2012\031912TPH_GC15\031912 2012-03-19 09-03-36\074B3101.D
Method: Bottle

Matrix: Water
Date Booked in: 12-Mar-12
Date Extracted: 15-Mar-12
Date Analysed: 19-Mar-12, 18:15:27

| | | Concentration, (mg/l) | | | | | | | | | | | |
|-----------|------------|-----------------------|-----------|------------|-----------|------------|-----------|------------|-----------|------------|-----------|------------|-----------|
| | | >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 |
| 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 |
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* This sample data is not UKAS accredited.

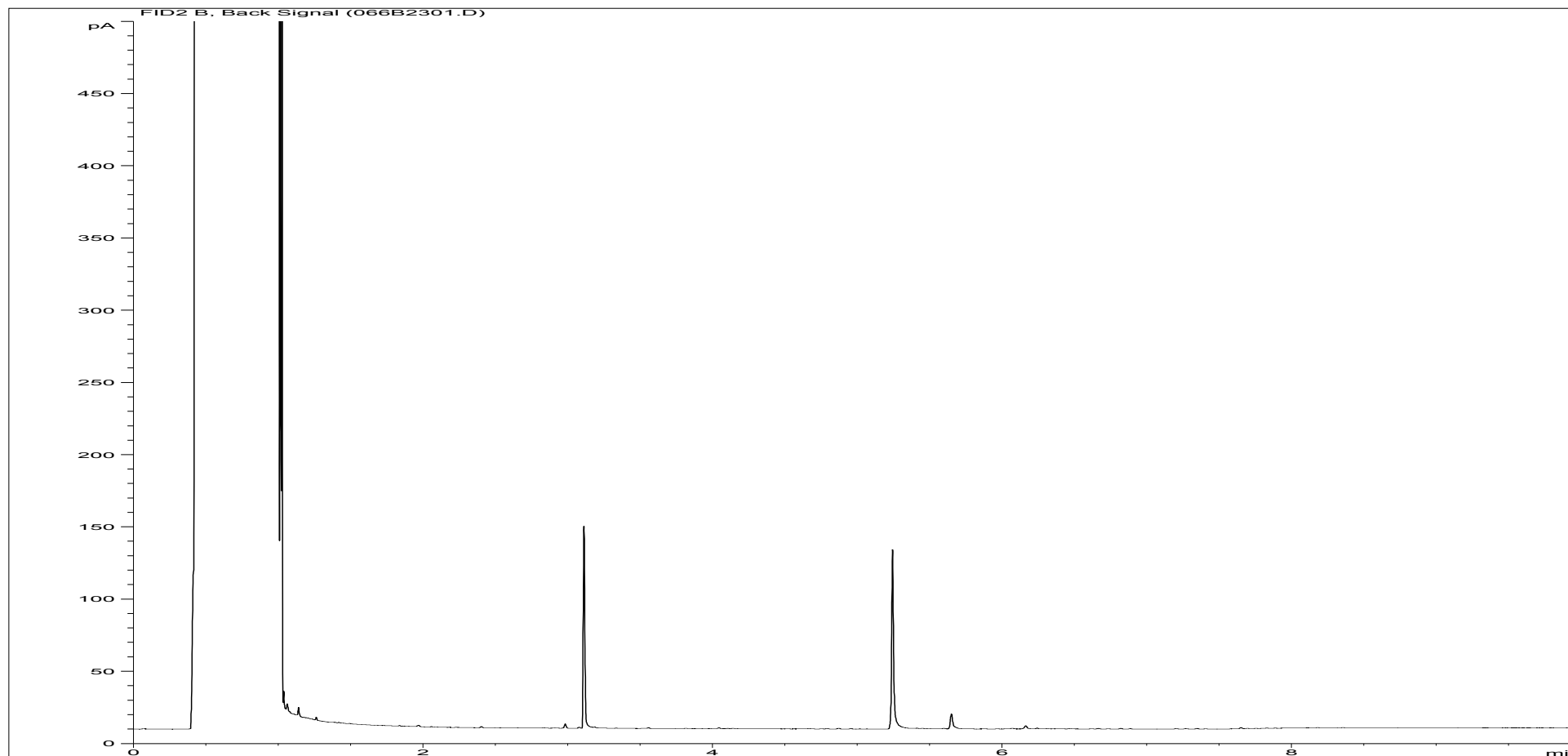
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1276614ALI | Job Number: | W13_3436 |
| Multiplier: | 0.02 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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\017F2301.D | | |

Where individual results are flagged see report notes for status.

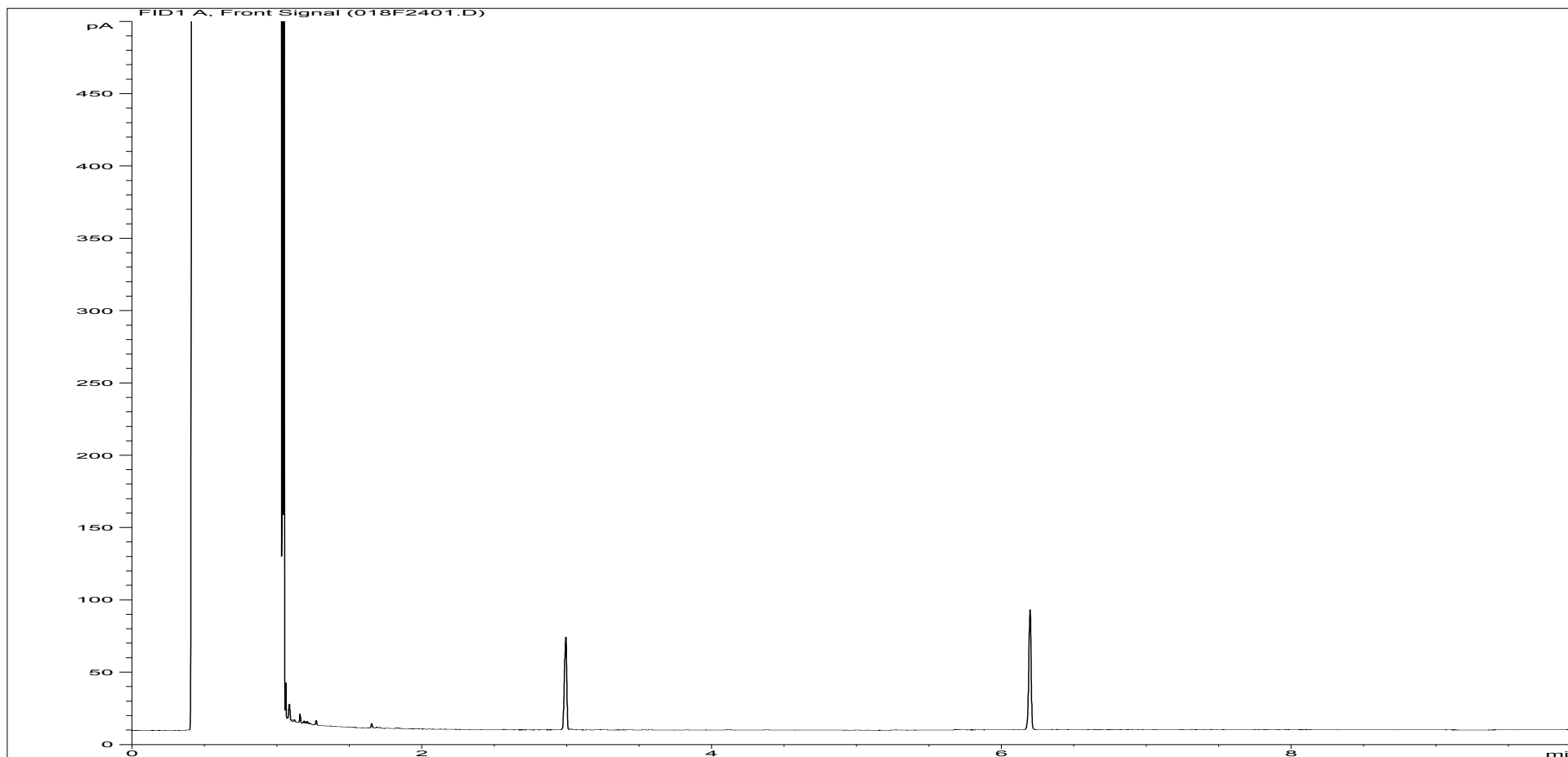
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1276614ARO | Job Number: | W13_3436 |
| Multiplier: | 0.015 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

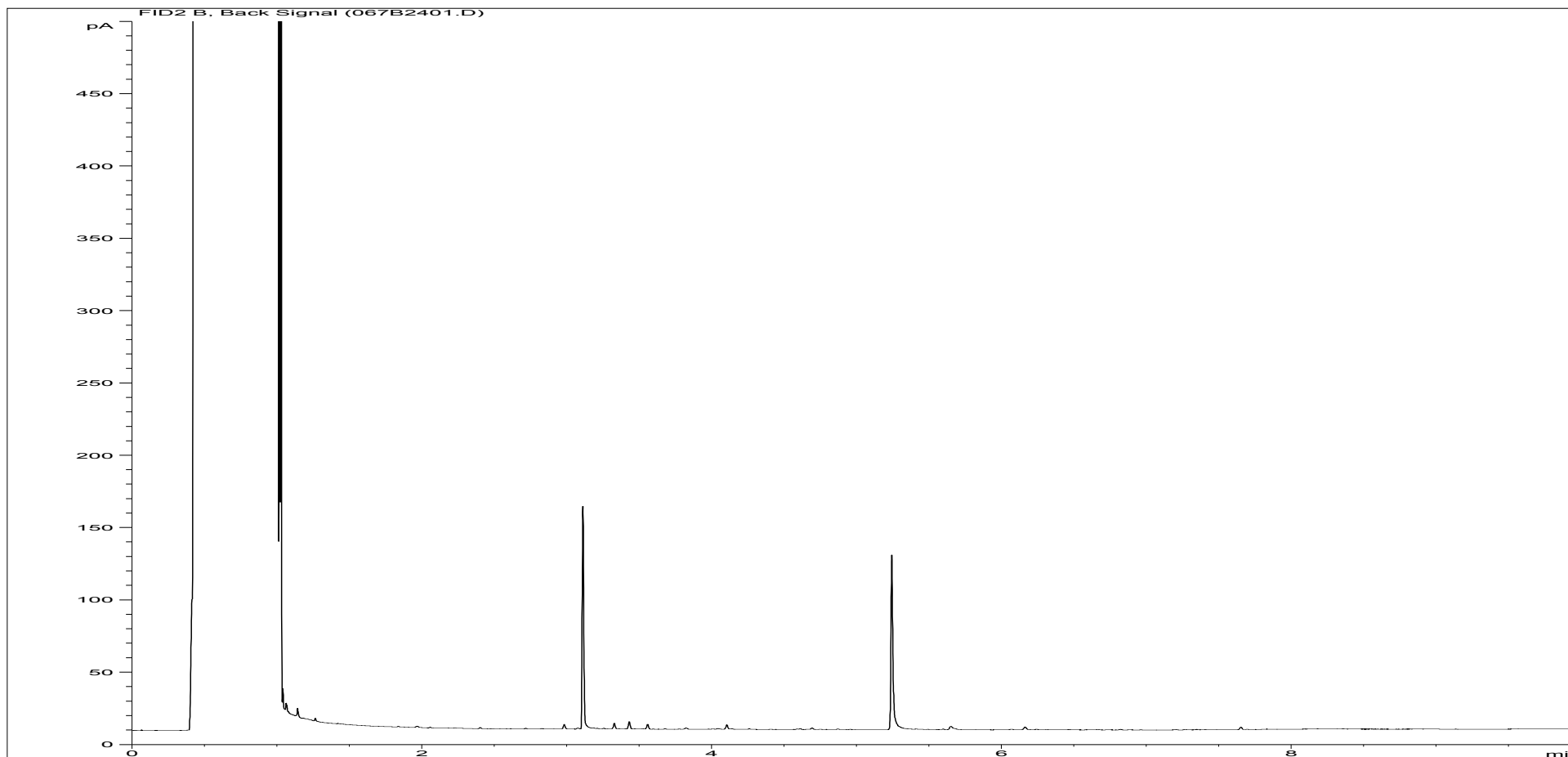
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1276615ALI | Job Number: | W13_3436 |
| Multiplier: | 0.02 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

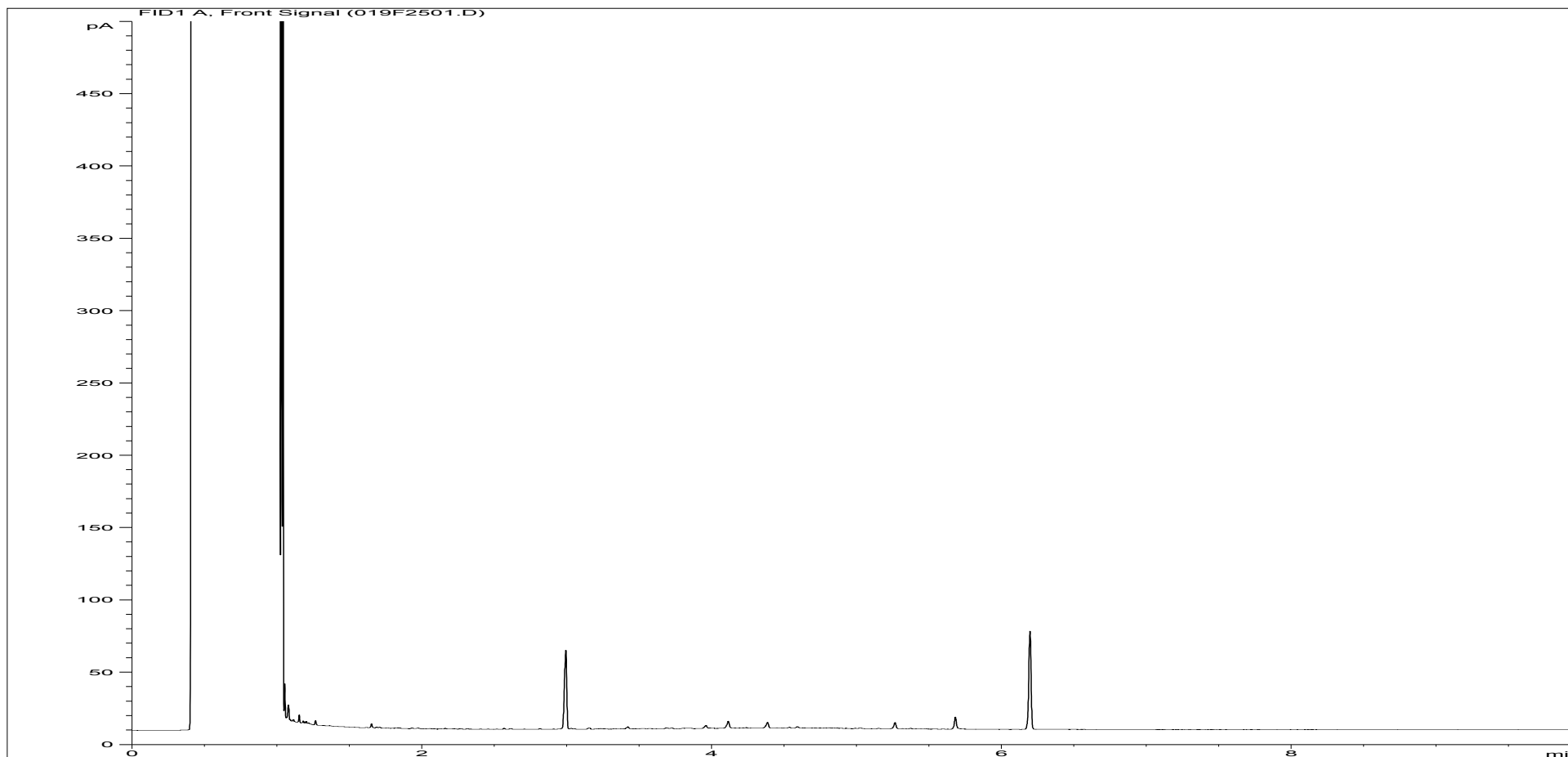
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1276615ARO | Job Number: | W13_3436 |
| Multiplier: | 0.015 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

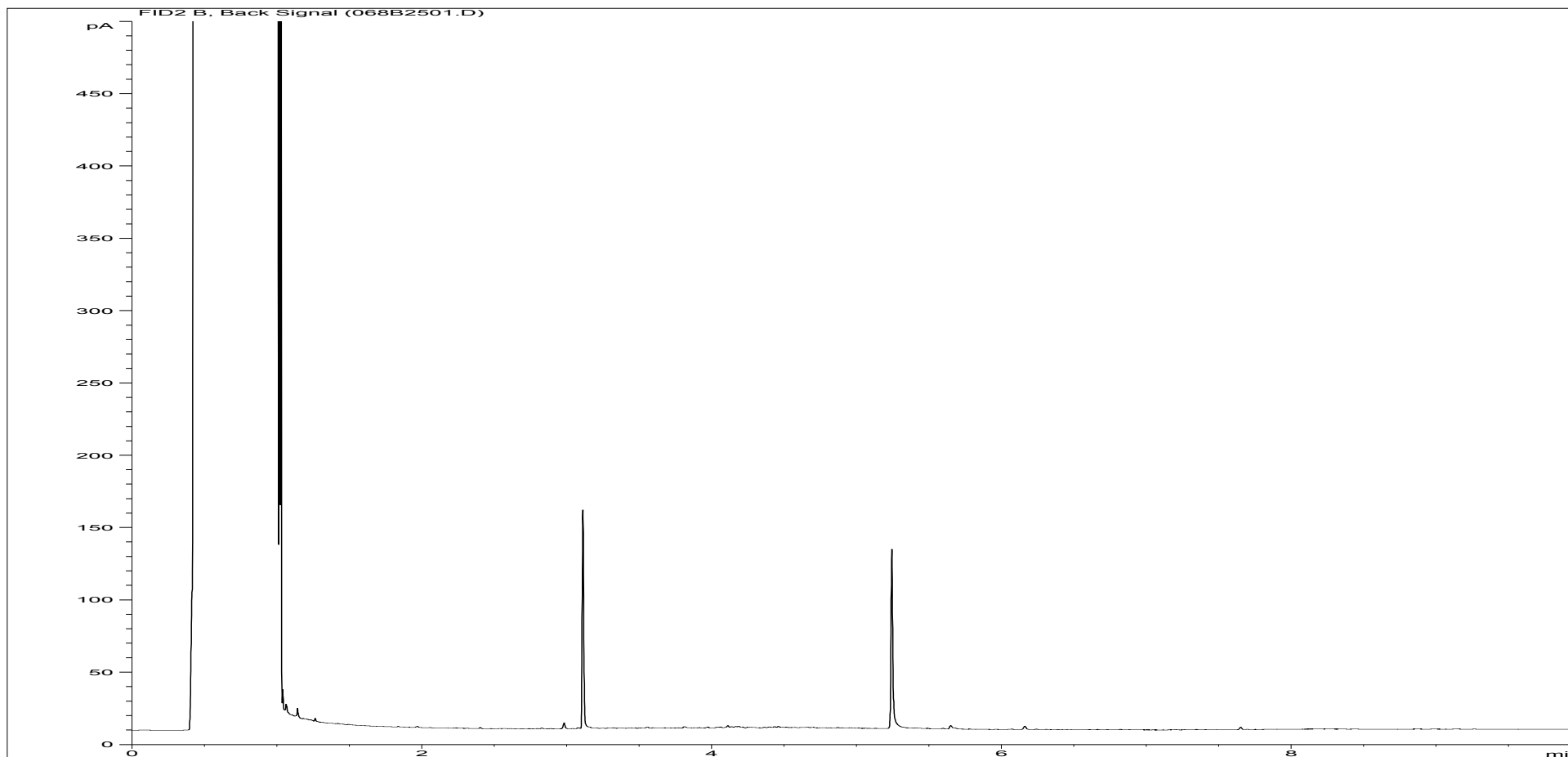
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1276616ALI | Job Number: | W13_3436 |
| Multiplier: | 0.02 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

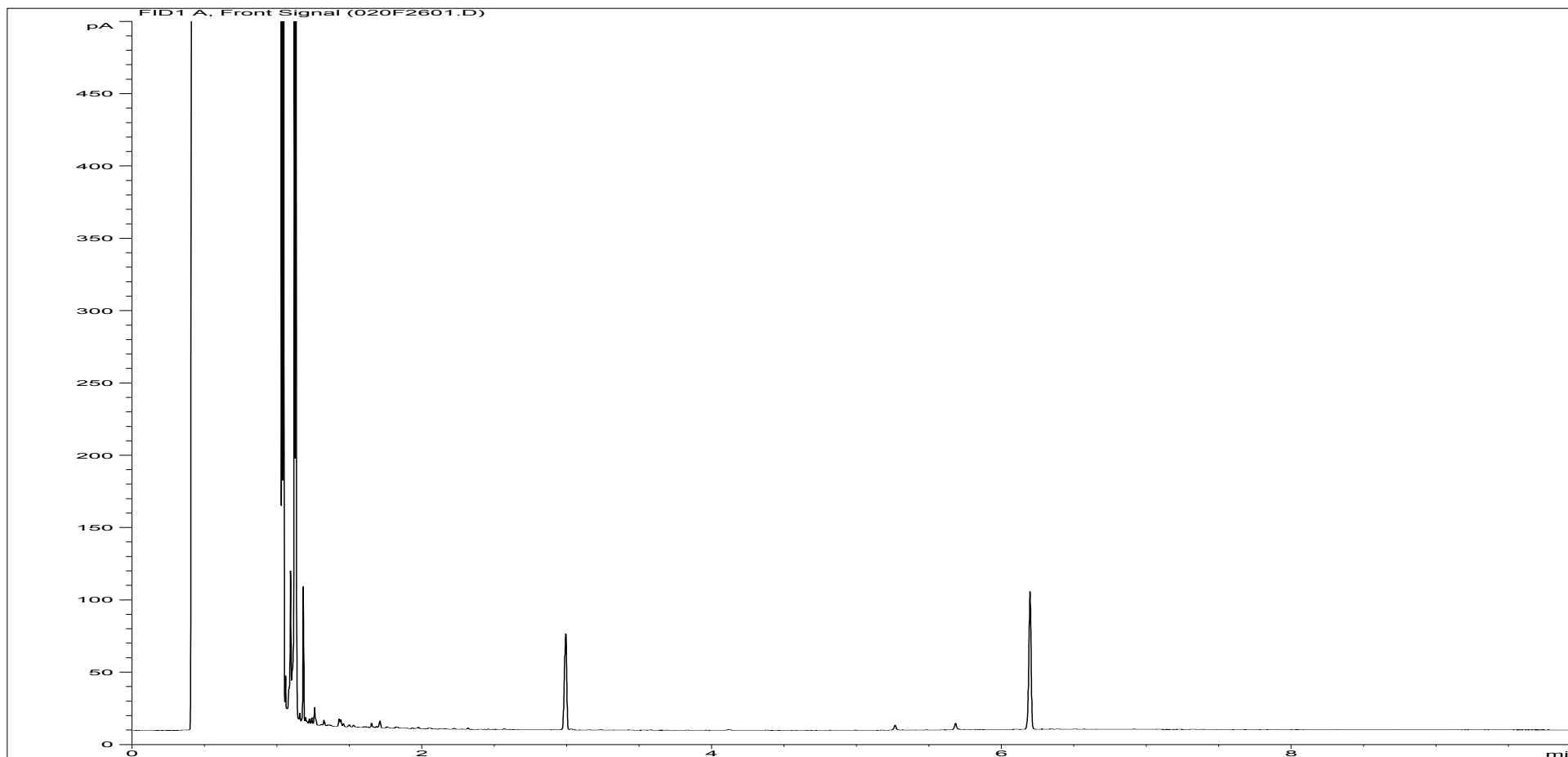
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1276616ARO | Job Number: | W13_3436 |
| Multiplier: | 0.015 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

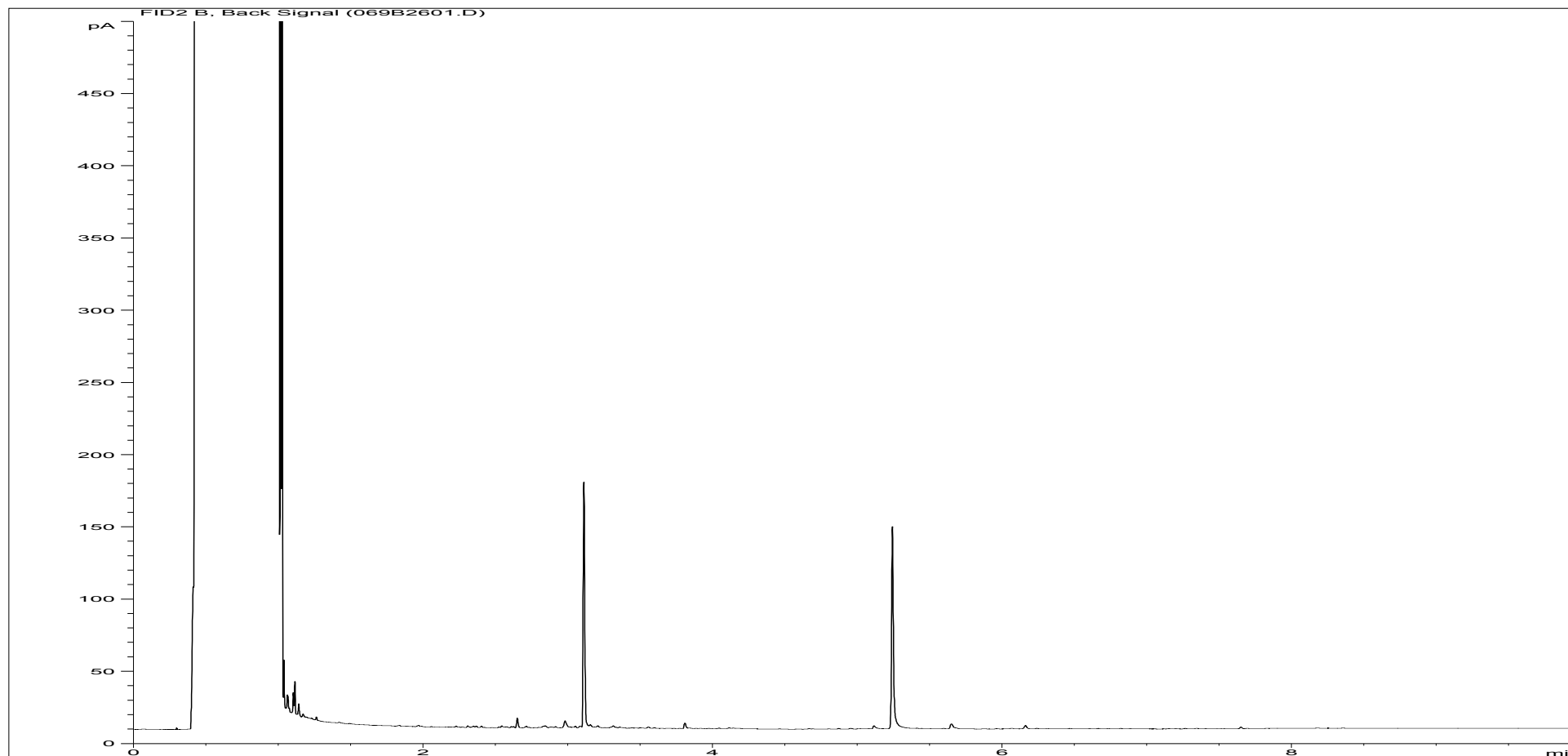
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1276617ALI | Job Number: | W13_3436 |
| Multiplier: | 0.02 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

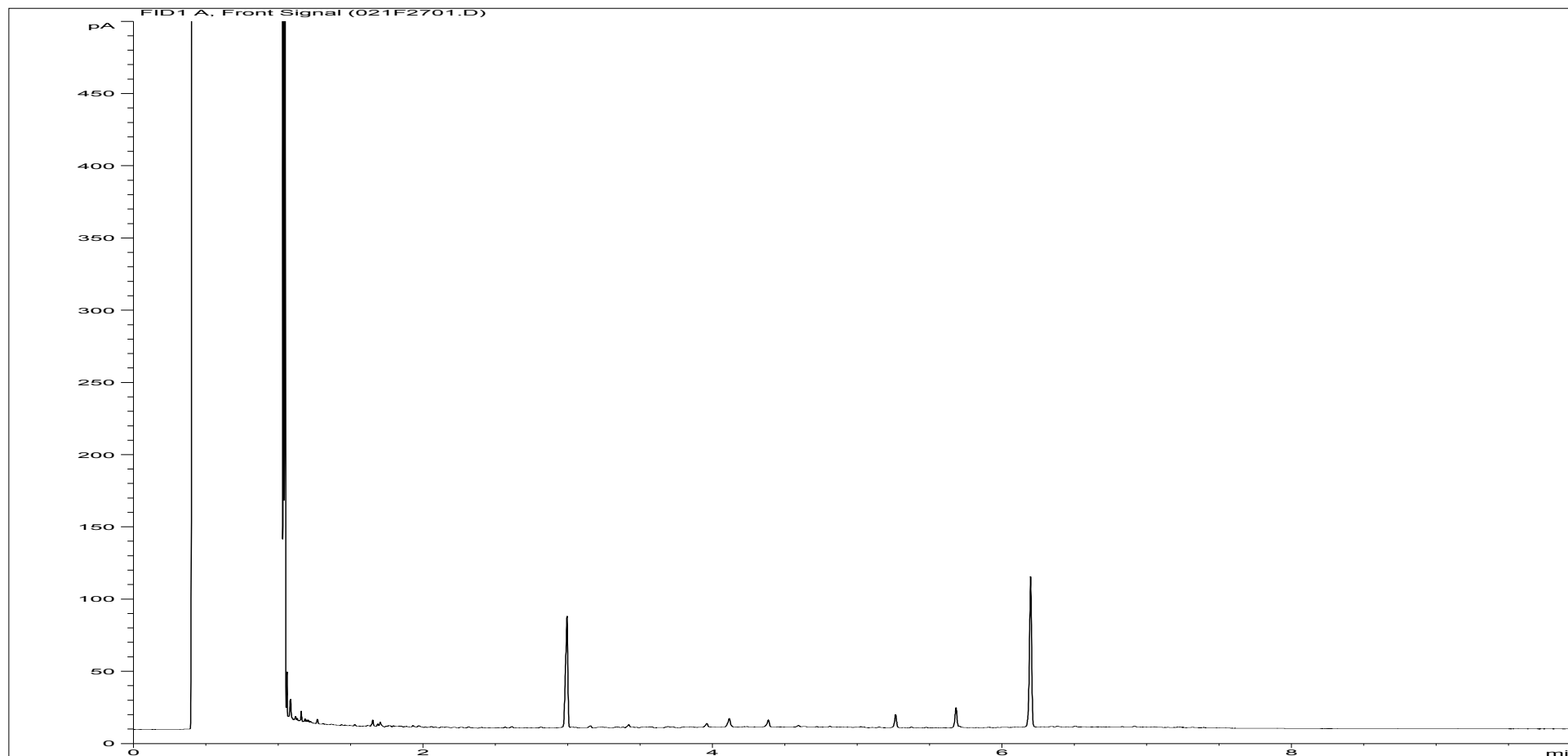
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1276617ARO | Job Number: | W13_3436 |
| Multiplier: | 0.015 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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\069B2601.D | | |

Where individual results are flagged see report notes for status.

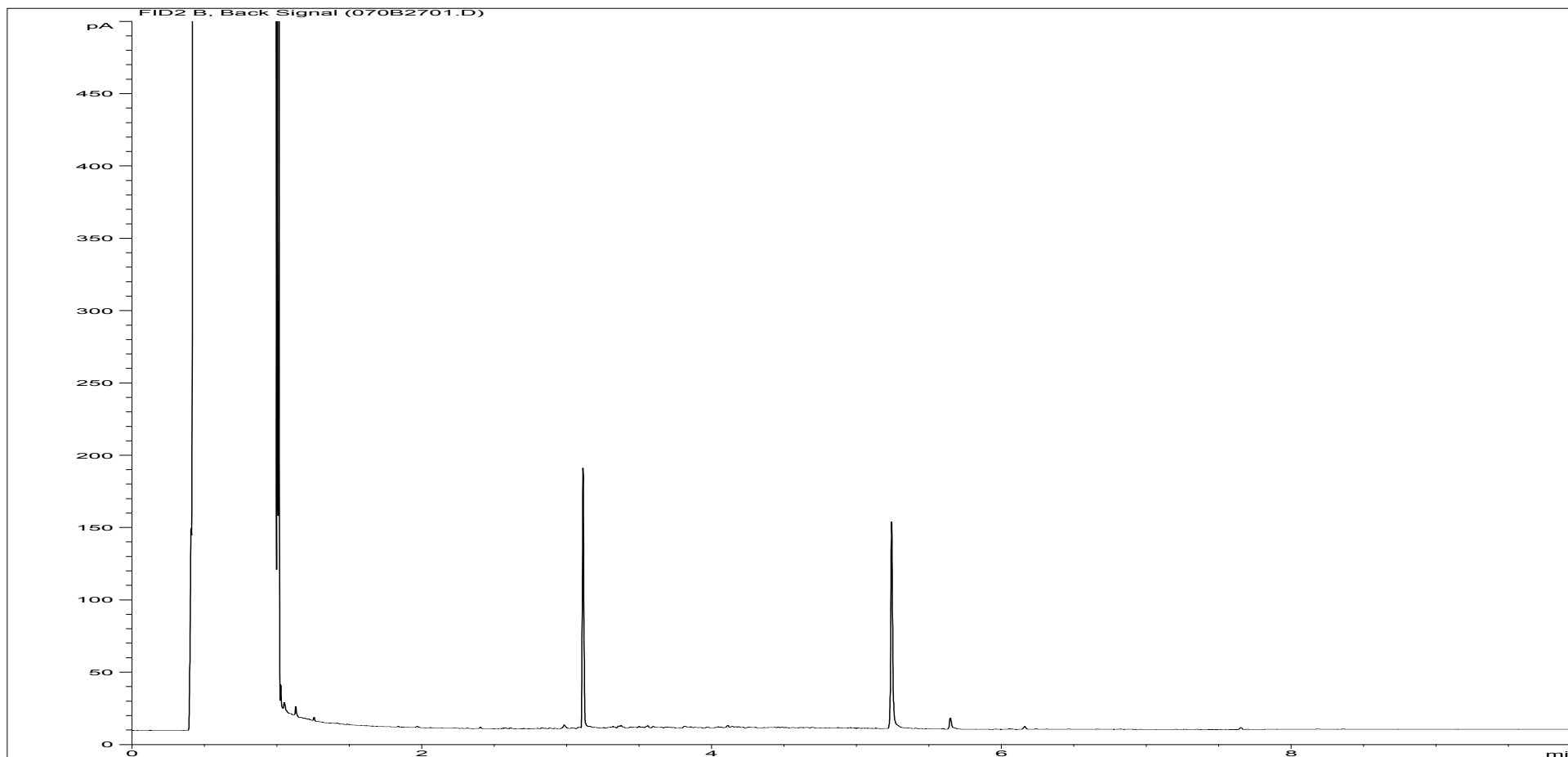
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1276618ALI | Job Number: | W13_3436 |
| Multiplier: | 0.02 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

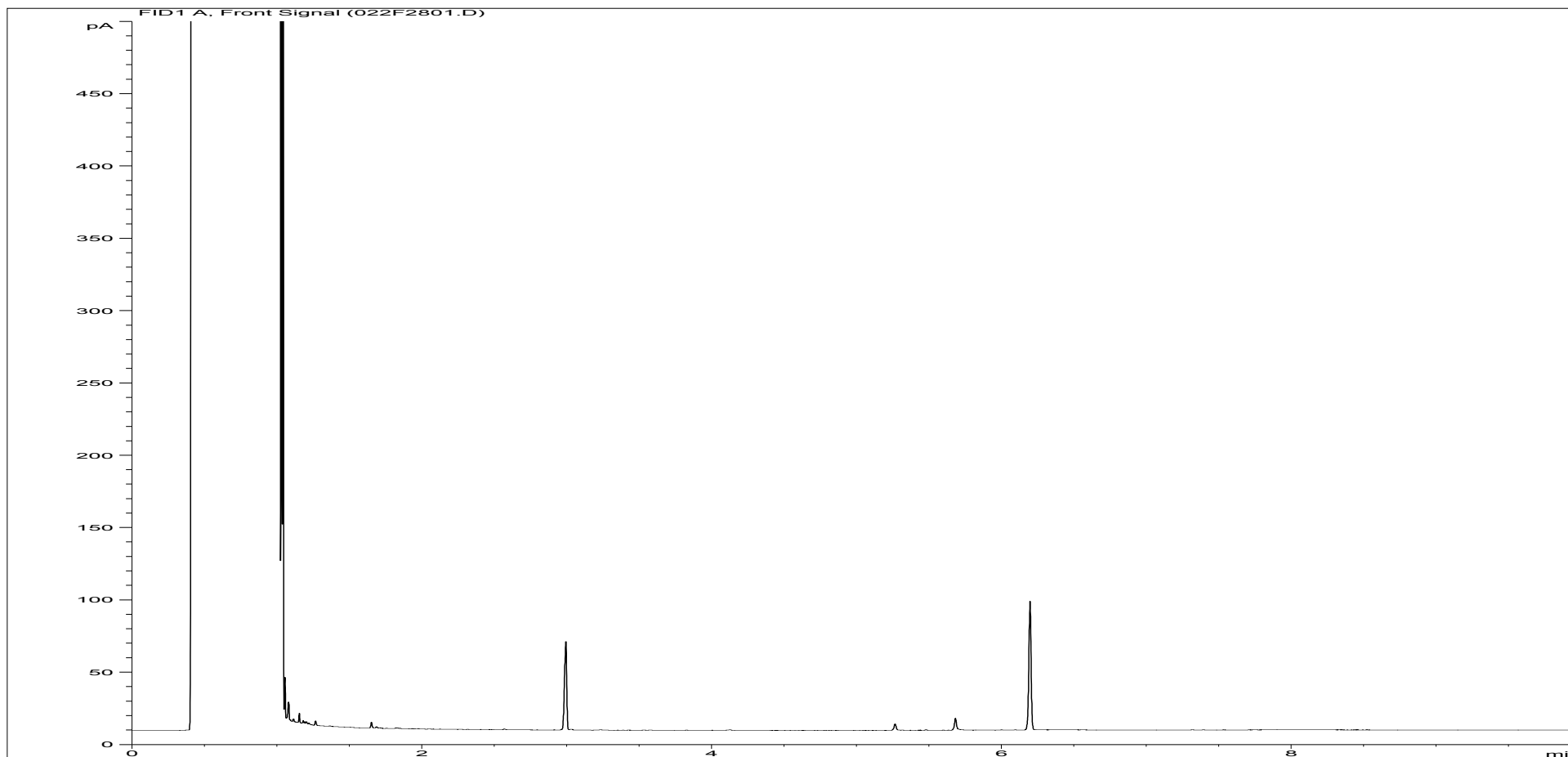
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1276618ARO | Job Number: | W13_3436 |
| Multiplier: | 0.015 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

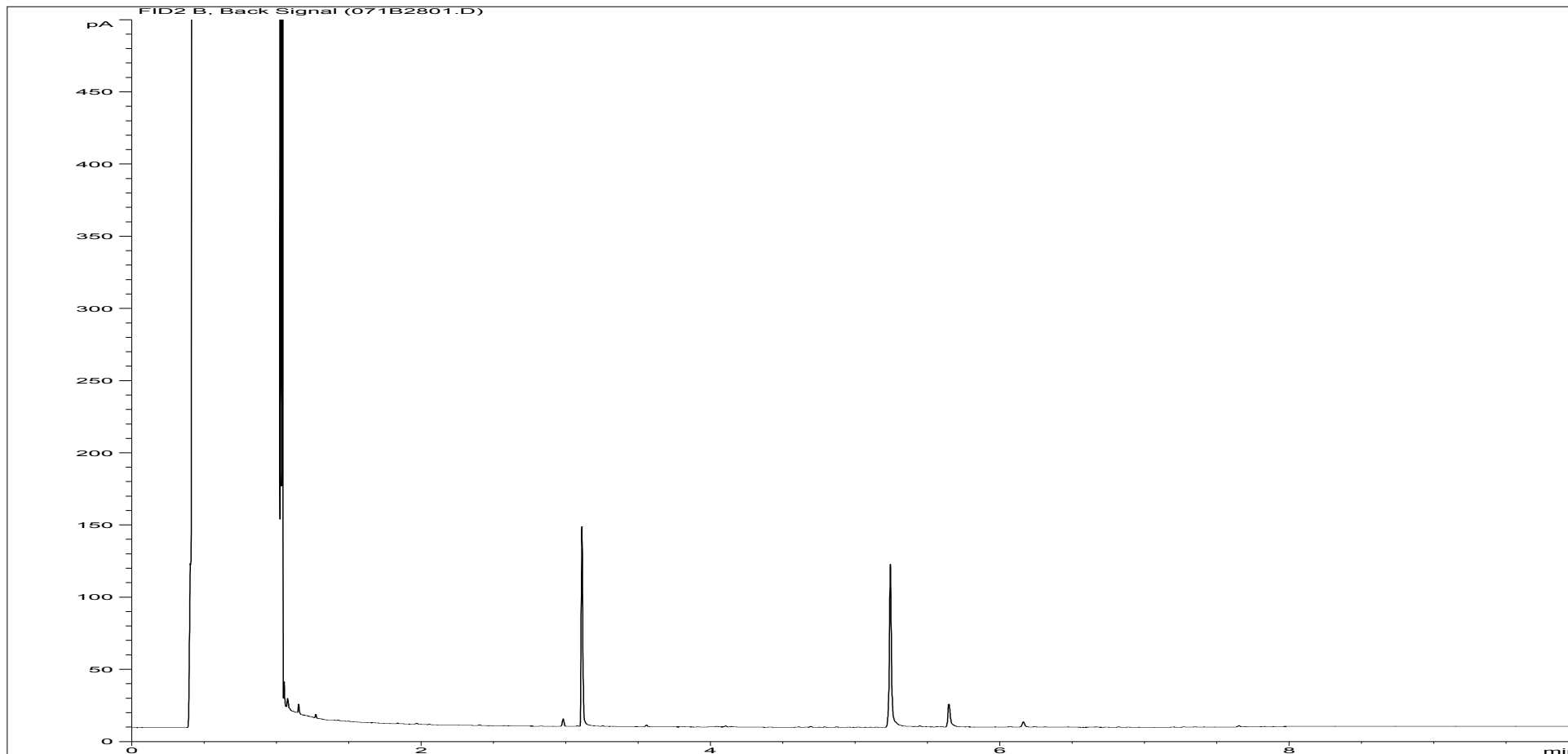
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1276619ALI | Job Number: | W13_3436 |
| Multiplier: | 0.02 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client Sample Ref: | BH-NFA-29 |
| Acquisition Date/Time: | 19-Mar-12, 17:24:01 | | |
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Where individual results are flagged see report notes for status.

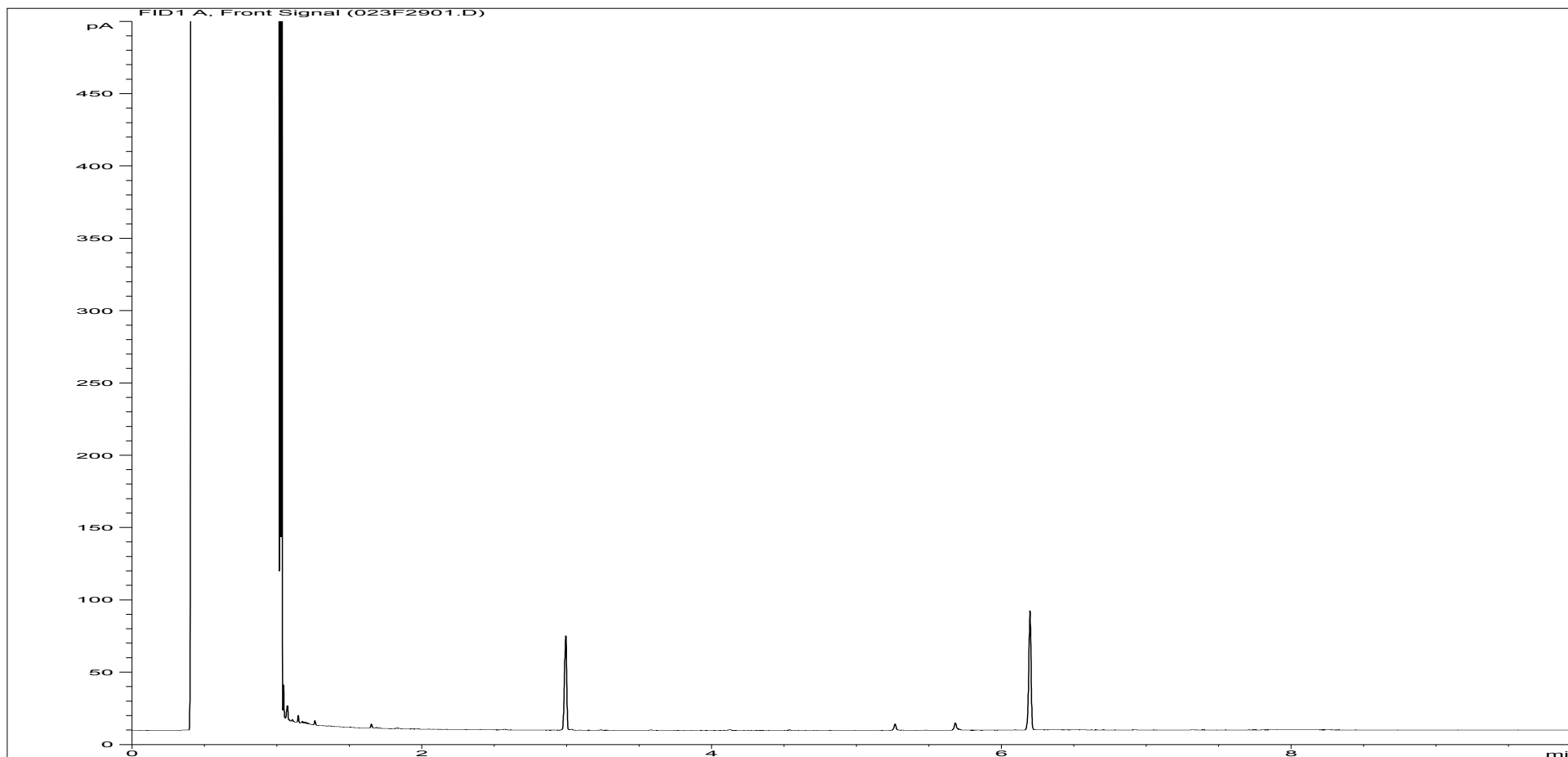
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1276619ARO | Job Number: | W13_3436 |
| Multiplier: | 0.015 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

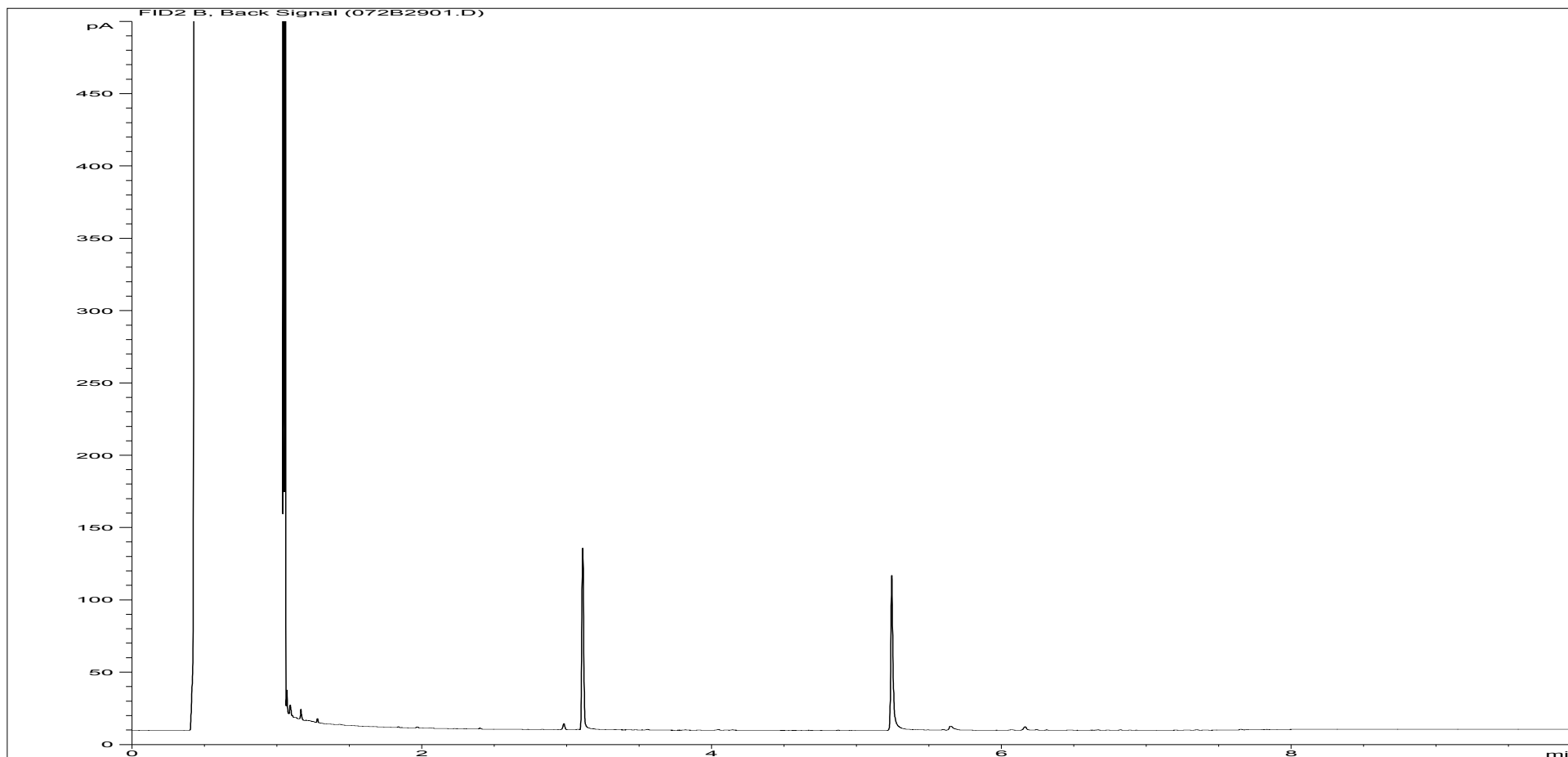
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1276620ALI | Job Number: | W13_3436 |
| Multiplier: | 0.02 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

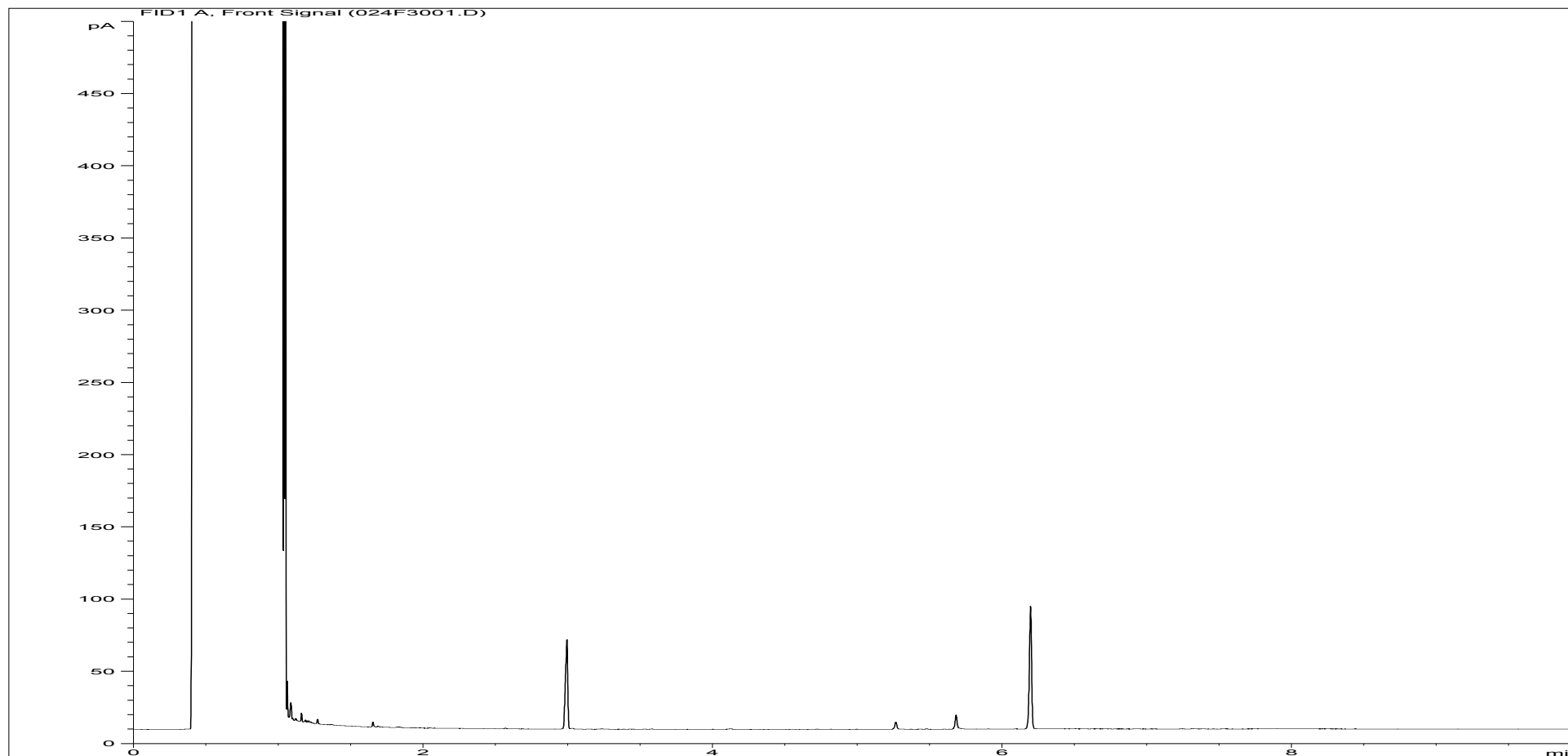
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1276620ARO | Job Number: | W13_3436 |
| Multiplier: | 0.015 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

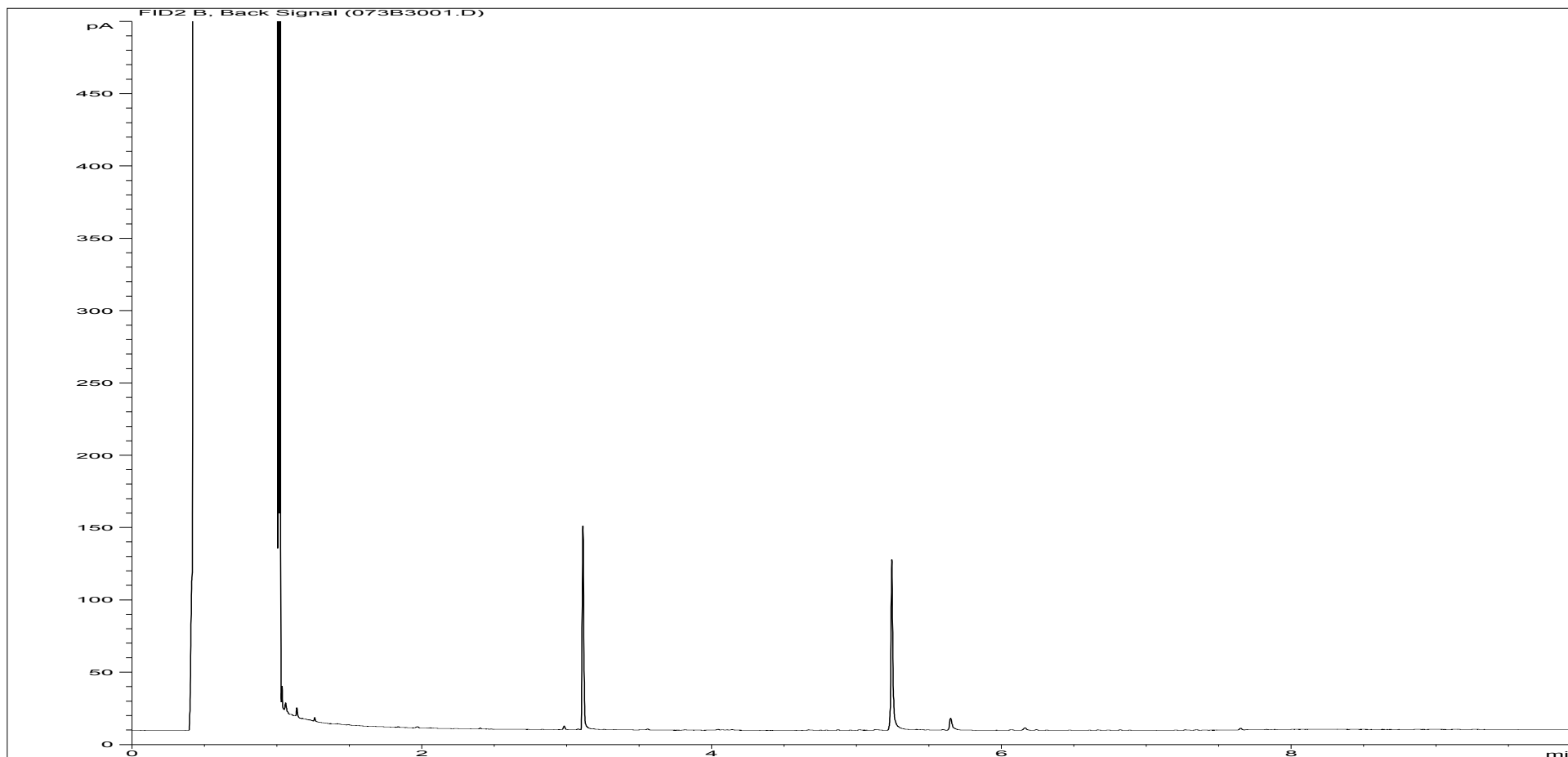
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1276621ALI | Job Number: | W13_3436 |
| Multiplier: | 0.02 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

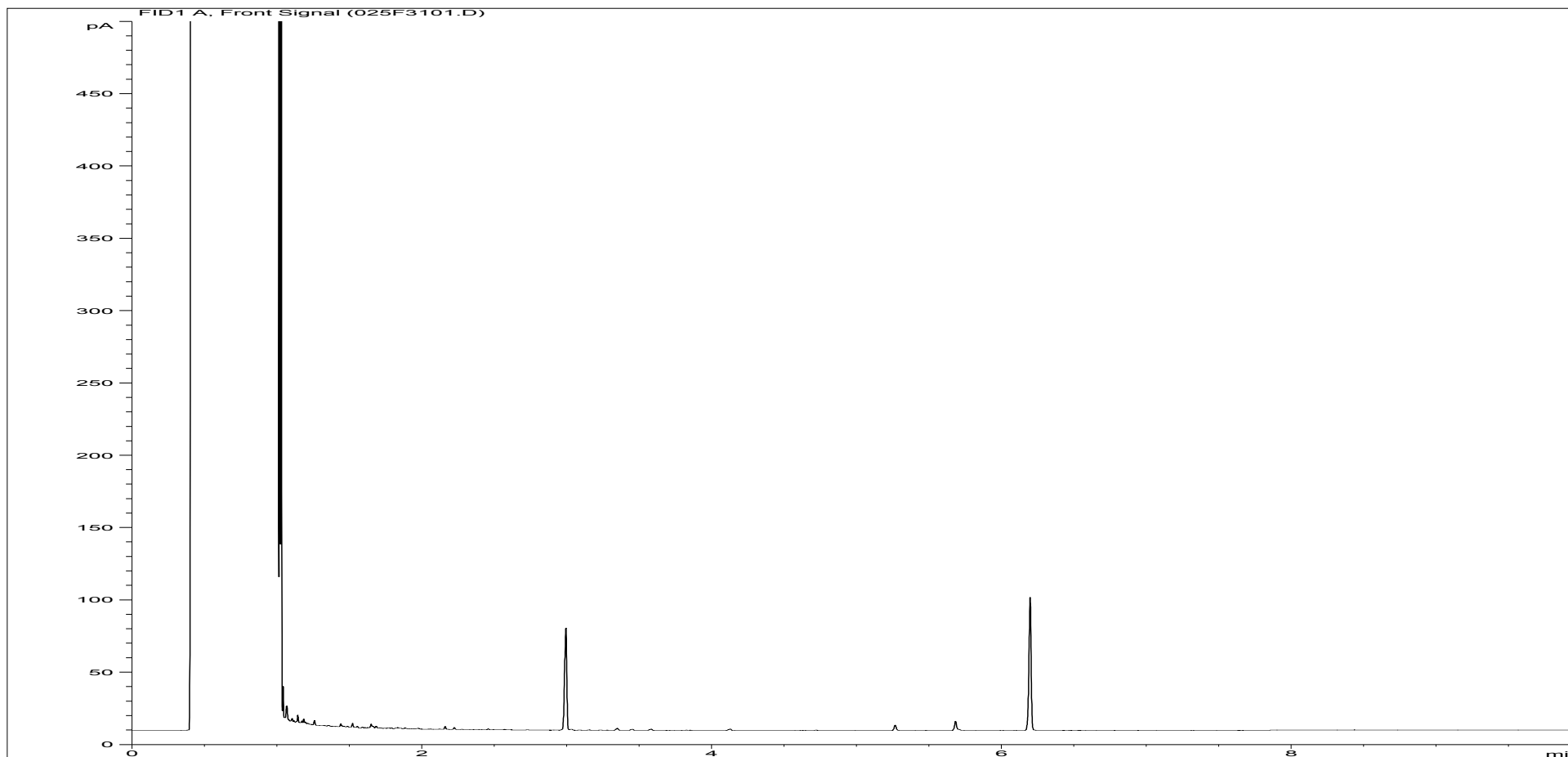
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1276621ARO | Job Number: | W13_3436 |
| Multiplier: | 0.015 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

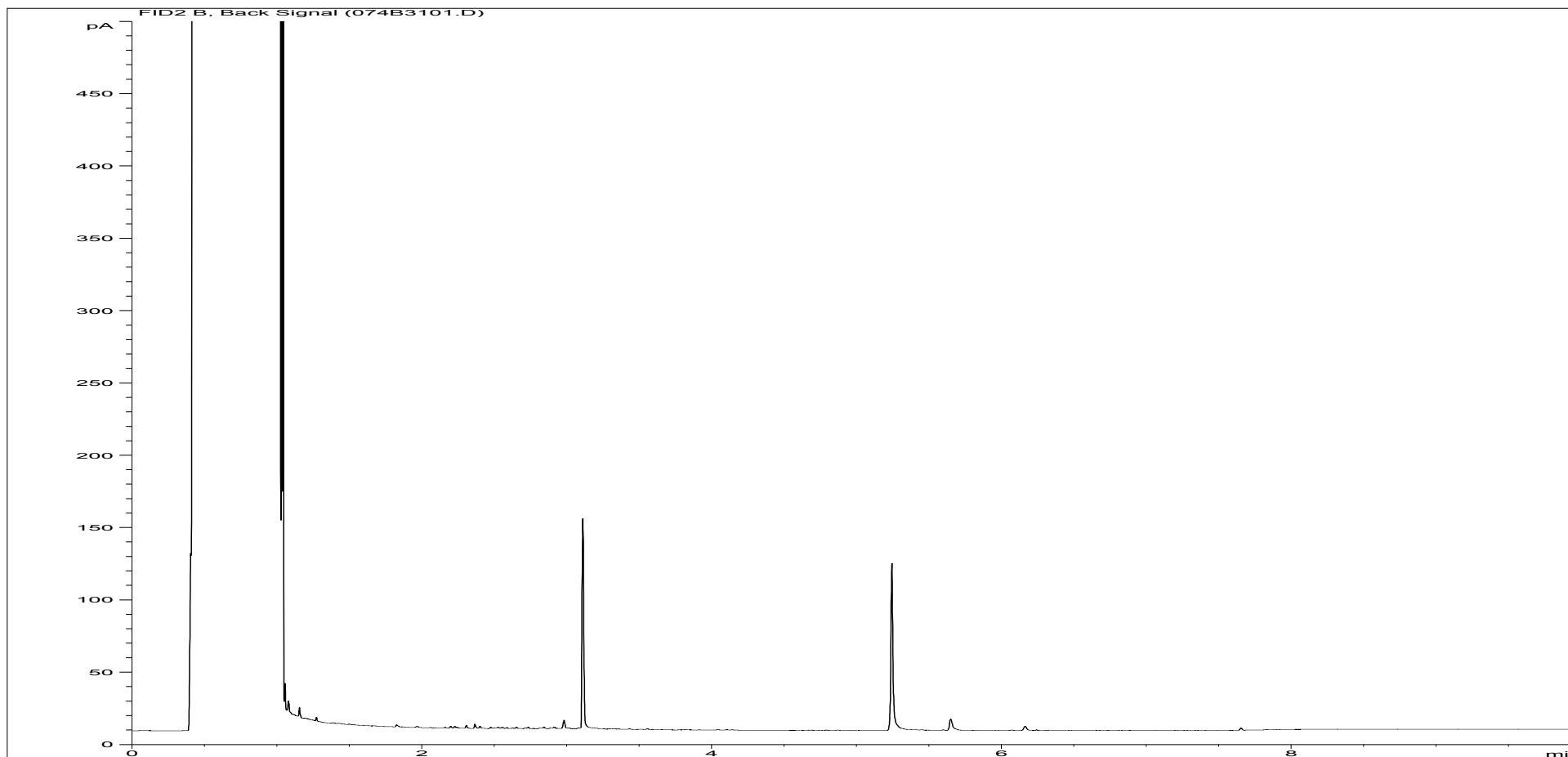
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1276622ALI | Job Number: | W13_3436 |
| Multiplier: | 0.02 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1276622ARO | Job Number: | W13_3436 |
| Multiplier: | 0.015 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

Customer Waterman EED
Site Upper Heyford
Report No W133436

Consignment No W35014
 Date Logged 12-Mar-2012

Report Due 20-Mar-2012

| ID Number | Description | MethodID | CURSERV | GROHSA | ICPMSW | ICPMSW | | | | | | | | | | KONENS | PHEHRCVL | SVOCSW | TPHFD-SI | WSLM11 | | | | | | | | | |
|------------|-------------|----------|----------|---------------------|--------|----------|-----------------------------|-------------------------------|------------------------------|-----------------------------|---------------------------|---------------------------|------------------------------|------------------------------|-------------------------------|--------|----------|--------|----------|--------|---------------------------------|-------------------------------|---------------------------------|------------------------------|----------------------------|-----------------------|----------------------------|--------------------------|------------------------|
| | | | | GRO-HSA GC/FID (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) |
| | | | Report A | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | |
| 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 | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Accredited to ISO17025

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

- A The sample was received in an inappropriate container for this analysis
- B The sample was received without the correct preservation for this analysis
- C Headspace present in the sample container
- D The sampling date was not supplied so holding time may be compromised - applicable to all analysis
- E 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

Customer Waterman EED
Site Upper Heyford
Report No W133436





Consignment No W35014
Date Logged 12-Mar-2012

Report Due 20-Mar-2012

| ID Number | Description | MethodID | WSLM12 | WSLM13 | WSLM17 | WSLM2 | WSLM20 | WSLM3 | WSLM7 |
|------------------------|-------------|----------|---------------------------|----------------------|------------------------|--------------------------|---------------------------|----------|------------------------------|
| | | 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 | |
|---|--|
| A | The sample was received in an inappropriate container for this analysis |
| B | The sample was received without the correct preservation for this analysis |
| C | Headspace present in the sample container |
| D | The sampling date was not supplied so holding time may be compromised - applicable to all analysis |
| E | 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 |

Method Descriptions

| Matrix | MethodID | Analysis Basis | Method Description |
|--------|-----------|----------------|--|
| 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 ($\mu\text{S}/\text{cm}$) 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 |

Where individual results are flagged see report notes for status.

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

Req Analysis requested, see attached sheets for results

▮ 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.

END OF REPORT

Where individual results are flagged see report notes for status.

Our Ref: EXR/134273 (Ver. 1)

Your Ref: E10658-109

April 13, 2012



Environmental Scientifics Group

Environmental Chemistry

ESG

Bretby Business Park

Ashby Road

Burton-on-Trent

Staffordshire

DE15 0YZ

Telephone: 01283 554400

Facsimile: 01283 554422

Mr F Alcock
Waterman EED
Waterman Environmental
Pickfords Wharf
Clink Street
London
SE1 9DG

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
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

[Redacted Signature]
Operations Manager


Date of Issue: 13-Apr-2012


Tests marked '^' have been subcontracted to another laboratory.

ESG accepts no responsibility for any sampling not carried out by our personnel.

Where individual results are flagged see report notes for status.

| | | | Units : | µg/l | mg/l | µg/l | mg/l | mg/l | mg/l | mg/l | | | | | | | | | |
|----------------------|---------------------------|-------------|---------------------------|--------------|------------|--------|-----------------|---------------------------------|--------|------|--|--|--|--|--|--|--|--|--|
| | | | Method Codes : | PAHMSW | GROHSA | GROHSA | TPHFID | TPHFID-Si | SVOCSW | | | | | | | | | | |
| | | | Method Reporting Limits : | | 0.1 | 10 | 0.01 | 0.01 | 0.002 | | | | | | | | | | |
| | | | UKAS Accredited : | 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 | TPH 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 | | | | | | | | | | | |

| | | | | | | | | | |
|--|-------------|--------------|--|----------------------|---------------|-------------|------------------------------|--|--|
|  <p>Environmental Scientifics Group Bretby Business Park, Ashby Road Burton-on-Trent, Staffordshire, DE15 0YZ Tel +44 (0) 1283 554400 Fax +44 (0) 1283 554422</p> | Client Name | Waterman EED | | Upper Heyford | | | Water Sample Analysis | | |
| | Contact | Mr F Alcock | | | | | | | |
| | | | | | Date Printed | 13-Apr-2012 | | | |
| | | | | | Report Number | EXR/134273 | | | |
| | | | | Table Number | 1 | | | | |

| | | Units : | µg/l | mg/l | µg/l | mg/l | mg/l | mg/l | | | | | | | | | | | |
|--|---------------------------|---------------------------|----------------|--------------|----------|--------------|---------------------------------|--------|-----------------------|-------------|--|--|--|--|--|--|--|--|--|
| | | Method Codes : | PAHMSW | GROHSA | GROHSA | TPHFID-Si | SVOCSW | TPHFID | | | | | | | | | | | |
| | | Method Reporting Limits : | | 0.1 | 10 | 0.01 | 0.002 | 0.01 | | | | | | | | | | | |
| | | UKAS Accredited : | Yes | Yes | Yes | Yes | No | Yes | | | | | | | | | | | |
| LAB ID Number | Client Sample Description | Sample Date | PAH GC-MS (16) | GRO-HSA (AA) | MTBE-HSA | TPH by GC(S) | 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 | | | | | | | | | | | |
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|  <p>Environmental Scientifics Group Bretby Business Park, Ashby Road Burton-on-Trent, Staffordshire, DE15 0YZ Tel +44 (0) 1283 554400 Fax +44 (0) 1283 554422</p> | | | Client Name | Waterman EED | | | | | Water Sample Analysis | | | | | | | | | | |
| | | | Contact | Mr F Alcock | | | | | | | | | | | | | | | |
| | | | Upper Heyford | | | | | | Date Printed | 13-Apr-2012 | | | | | | | | | |
| | | | | | | | | | Report Number | EXR/134273 | | | | | | | | | |
| | | | | | | Table Number | 1 | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | |

Polycyclic Aromatic Hydrocarbons GC/MS (SIM)

| | | | |
|-----------------------------------|-----------------------------|------------------------|-----------|
| Customer and Site Details: | Waterman EED: Upper Heyford | | |
| Sample Details: | BH-NSA-1 | Job Number: | W13_4273 |
| 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.PAHL | Matrix: | Water |
| Dilution: | 1.0 | Ext Method: | Bottle |

UKAS accredited?: Yes

| Target Compounds | CAS # | R.T. (min) | Concentration ug/l | % Fit |
|------------------------|----------|---------------|-----------------------|-------|
| 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 | - | < 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 |

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-2 | Job Number: | W13_4273 |
| 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: | 1.0 | Ext Method: | Bottle |

UKAS accredited?: Yes

| Target Compounds | CAS # | R.T. (min) | Concentration ug/l | % Fit |
|------------------------|----------|---------------|-----------------------|-------|
| 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 | - | < 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 |

| Surrogates | % Rec |
|------------------|-------|
| Nitrobenzene-d5 | NA |
| 2-Fluorobiphenyl | 71 |
| Terphenyl-d14 | 83 |

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-3 | Job Number: | W13_4273 |
| 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: | 1.0 | Ext Method: | Bottle |

UKAS accredited?: Yes

| Target Compounds | CAS # | R.T. (min) | Concentration ug/l | % Fit |
|------------------------|----------|---------------|-----------------------|-------|
| 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 |

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-4 | Job Number: | W13_4273 |
| 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: | 1.0 | Ext Method: | Bottle |

UKAS accredited?: Yes

| Target Compounds | CAS # | R.T. (min) | Concentration ug/l | % Fit |
|------------------------|----------|---------------|-----------------------|-------|
| 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 | - | < 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 |

| Surrogates | % Rec |
|------------------|-------|
| Nitrobenzene-d5 | NA |
| 2-Fluorobiphenyl | 73 |
| 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.

Polycyclic Aromatic Hydrocarbons GC/MS (SIM)

| | | | |
|-----------------------------------|-----------------------------|------------------------|-----------|
| Customer and Site Details: | Waterman EED: Upper Heyford | | |
| Sample Details: | BH-NSA-5 | Job Number: | W13_4273 |
| 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: | 1.0 | Ext Method: | Bottle |

UKAS accredited?: Yes

| Target Compounds | CAS # | R.T. (min) | Concentration ug/l | % Fit |
|------------------------|----------|---------------|-----------------------|-------|
| 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 | - | < 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 |

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-6 | Job Number: | W13_4273 |
| 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: | 1.0 | Ext Method: | Bottle |

UKAS accredited?: Yes

| Target Compounds | CAS # | R.T. (min) | Concentration ug/l | % Fit |
|------------------------|----------|---------------|-----------------------|-------|
| Naphthalene | 91-20-3 | 3.22 | 0.721 | M |
| Acenaphthylene | 208-96-8 | 4.24 | 0.492 | M |
| 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 | M |
| 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 |

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-7 | Job Number: | W13_4273 |
| 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: | 1.0 | Ext Method: | Bottle |

UKAS accredited?: Yes

| Target Compounds | CAS # | R.T. (min) | Concentration ug/l | % Fit |
|------------------------|----------|---------------|-----------------------|-------|
| 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 |

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-8 | Job Number: | W13_4273 |
| LIMS ID Number: | EX1281644 | 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: | 1.0 | Ext Method: | Bottle |

UKAS accredited?: Yes

| Target Compounds | CAS # | R.T. (min) | Concentration ug/l | % Fit |
|------------------------|----------|---------------|-----------------------|-------|
| 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 | - | < 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 | 108 |
| Phenanthrene-d10 | 109 |
| Chrysene-d12 | 118 |
| Perylene-d12 | 127 |

| Surrogates | % Rec |
|------------------|-------|
| Nitrobenzene-d5 | NA |
| 2-Fluorobiphenyl | 72 |
| Terphenyl-d14 | 86 |

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-9 | Job Number: | W13_4273 |
| 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: | 1.0 | Ext Method: | Bottle |

UKAS accredited?: Yes

| Target Compounds | CAS # | R.T. (min) | Concentration ug/l | % Fit |
|------------------------|----------|---------------|-----------------------|-------|
| 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 | - | < 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 |

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-10 | Job Number: | W13_4273 |
| 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: | 1.0 | Ext Method: | Bottle |

UKAS accredited?: Yes

| Target Compounds | CAS # | R.T. (min) | Concentration ug/l | % Fit |
|------------------------|----------|---------------|-----------------------|-------|
| 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 | - | < 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 | 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 |

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-11 | Job Number: | W13_4273 |
| 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: | 1.0 | Ext Method: | Bottle |

UKAS accredited?: Yes

| Target Compounds | CAS # | R.T. (min) | Concentration ug/l | % Fit |
|------------------------|----------|---------------|-----------------------|-------|
| 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 | - | < 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 |

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-12 | Job Number: | W13_4273 |
| 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: | 1.0 | Ext Method: | Bottle |

UKAS accredited?: Yes

| Target Compounds | CAS # | R.T. (min) | Concentration ug/l | % Fit |
|------------------------|----------|---------------|-----------------------|-------|
| 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 | - | < 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 |

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-13 | Job Number: | W13_4273 |
| 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: | 1.0 | Ext Method: | Bottle |

UKAS accredited?: Yes

| Target Compounds | CAS # | R.T. (min) | Concentration ug/l | % Fit |
|------------------------|----------|---------------|-----------------------|-------|
| 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 | - | < 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 |
| 2-Fluorobiphenyl | 76 |
| Terphenyl-d14 | 86 |

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-14 | Job Number: | W13_4273 |
| 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: | 1.0 | Ext Method: | Bottle |

UKAS accredited?: Yes

| Target Compounds | CAS # | R.T. (min) | Concentration ug/l | % Fit |
|------------------------|----------|---------------|-----------------------|-------|
| 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 | - | < 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 |

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-15 | Job Number: | W13_4273 |
| 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: | 1.0 | Ext Method: | Bottle |

UKAS accredited?: Yes

| Target Compounds | CAS # | R.T. (min) | Concentration ug/l | % Fit |
|------------------------|----------|---------------|-----------------------|-------|
| 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 | - | < 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 |

| Surrogates | % Rec |
|------------------|-------|
| Nitrobenzene-d5 | NA |
| 2-Fluorobiphenyl | 71 |
| Terphenyl-d14 | 82 |

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-16 | Job Number: | W13_4273 |
| 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: | 1.0 | Ext Method: | Bottle |

UKAS accredited?: Yes

| Target Compounds | CAS # | R.T. (min) | Concentration ug/l | % Fit |
|------------------------|----------|---------------|-----------------------|-------|
| 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 | - | < 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 |

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-17 | Job Number: | W13_4273 |
| 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: | 1.0 | Ext Method: | Bottle |

UKAS accredited?: Yes

| Target Compounds | CAS # | R.T. (min) | Concentration ug/l | % Fit |
|------------------------|----------|---------------|-----------------------|-------|
| 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 | - | < 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 |

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-18 | Job Number: | W13_4273 |
| 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: | 1.0 | Ext Method: | Bottle |

UKAS accredited?: Yes

| Target Compounds | CAS # | R.T. (min) | Concentration ug/l | % Fit |
|------------------------|----------|---------------|-----------------------|-------|
| 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 | - | < 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 |

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-19 | Job Number: | W13_4273 |
| 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: | 1.0 | Ext Method: | Bottle |

UKAS accredited?: Yes

| Target Compounds | CAS # | R.T. (min) | Concentration ug/l | % Fit |
|------------------------|----------|---------------|-----------------------|-------|
| 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 | - | < 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 |
| 2-Fluorobiphenyl | 76 |
| Terphenyl-d14 | 86 |

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-NSA20 | Job Number: | W13_4273 |
| 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: | 1.0 | Ext Method: | Bottle |

UKAS accredited?: Yes

| Target Compounds | CAS # | R.T. (min) | Concentration ug/l | % Fit |
|------------------------|----------|---------------|-----------------------|-------|
| 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 | - | < 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 |

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-21 | Job Number: | W13_4273 |
| 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: | 1.0 | Ext Method: | Bottle |

UKAS accredited?: Yes

| Target Compounds | CAS # | R.T. (min) | Concentration ug/l | % Fit |
|------------------------|----------|---------------|-----------------------|-------|
| Naphthalene | 91-20-3 | 3.47 | 0.158 | M |
| Acenaphthylene | 208-96-8 | 4.52 | 0.010 | M |
| 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 | - | < 0.010 | - |
| Fluoranthene | 206-44-0 | - | < 0.010 | - |
| Pyrene | 129-00-0 | 7.59 | 0.012 | M |
| 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 |

| Surrogates | % Rec |
|------------------|-------|
| Nitrobenzene-d5 | NA |
| 2-Fluorobiphenyl | 75 |
| 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-22 | Job Number: | W13_4273 |
| 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.PAHL | Matrix: | Water |
| Dilution: | 1.0 | Ext Method: | Bottle |

UKAS accredited?: Yes

| Target Compounds | CAS # | R.T. (min) | Concentration ug/l | % Fit |
|------------------------|----------|---------------|-----------------------|-------|
| Naphthalene | 91-20-3 | 3.47 | 0.054 | M |
| 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 | - | < 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 | - | - | < 0.204 | - |

"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 |

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-38 | Job Number: | W13_4273 |
| 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.PAHL | Matrix: | Water |
| Dilution: | 1.0 | Ext Method: | Bottle |

UKAS accredited?: Yes

| Target Compounds | CAS # | R.T. (min) | Concentration ug/l | % Fit |
|------------------------|----------|---------------|-----------------------|-------|
| 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 | 7.30 | 0.026 | 92 |
| Pyrene | 129-00-0 | 7.59 | 0.025 | M |
| 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 | - | < 0.010 | - |
| Benzo[a]pyrene | 50-32-8 | 11.25 | 0.012 | 91 |
| 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 | - | - | < 0.223 | - |

"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 |

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-1
LIMS ID Number: EX1281637
Job Number: W13_4273

Date Booked in: 27-Mar-12
Date Extracted: 11-Apr-12
Date Analysed: 12-Apr-12

Matrix: Water
Ext Method: Sep. Funnel
Operator: SO
Directory/Quant File: 12SVOC.MS16\ 0412_CCC1.D

QC Batch Number: 54
Multiplier: 0.005
Dilution Factor: 1
GPC (Y/N): N

| 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 | - |

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 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 | 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 |

Where individual results are flagged see report notes for status.

Semi-Volatile Organic Compounds

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford
Sample Details: BH-NSA-2
LIMS ID Number: EX1281638
Job Number: W13_4273

Date Booked in: 27-Mar-12
Date Extracted: 11-Apr-12
Date Analysed: 12-Apr-12

Matrix: Water
Ext Method: Sep. Funnel
Operator: SO
Directory/Quant File: 12SVOC.MS16\ 0412_CCC1.D

QC Batch Number: 54
Multiplier: 0.005
Dilution Factor: 1
GPC (Y/N): N

| 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 | - |

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 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 | 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 |

Semi-Volatile Organic Compounds

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford
Sample Details: BH-NSA-3
LIMS ID Number: EX1281639
Job Number: W13_4273

Date Booked in: 27-Mar-12
Date Extracted: 11-Apr-12
Date Analysed: 12-Apr-12

Matrix: Water
Ext Method: Sep. Funnel
Operator: SO
Directory/Quant File: 12SVOC.MS16\ 0412_CCC1.D

QC Batch Number: 54
Multiplier: 0.005
Dilution Factor: 1
GPC (Y/N) N

| 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 | - |

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 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 | 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 |

Where individual results are flagged see report notes for status.

Semi-Volatile Organic Compounds

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford
Sample Details: BH-NSA-4
LIMS ID Number: EX1281640
Job Number: W13_4273

Date Booked in: 27-Mar-12
Date Extracted: 11-Apr-12
Date Analysed: 12-Apr-12

Matrix: Water
Ext Method: Sep. Funnel
Operator: SO
Directory/Quant File: 12SVOC.MS16\ 0412_CCC1.D

QC Batch Number: 54
Multiplier: 0.005
Dilution Factor: 1
GPC (Y/N): N

| 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 | - |

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 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 | 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 |

Where individual results are flagged see report notes for status.

Semi-Volatile Organic Compounds

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford
Sample Details: BH-NSA-5
LIMS ID Number: EX1281641
Job Number: W13_4273

Date Booked in: 27-Mar-12
Date Extracted: 11-Apr-12
Date Analysed: 12-Apr-12

Matrix: Water
Ext Method: Sep. Funnel
Operator: SO
Directory/Quant File: 12SVOC.MS16\ 0412_CCC1.D

QC Batch Number: 54
Multiplier: 0.005
Dilution Factor: 1
GPC (Y/N): N

| 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 | - |

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 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 | 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 |

Semi-Volatile Organic Compounds

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford
Sample Details: BH-NSA-6
LIMS ID Number: EX1281642
Job Number: W13_4273

Date Booked in: 27-Mar-12
Date Extracted: 11-Apr-12
Date Analysed: 12-Apr-12

Matrix: Water
Ext Method: Sep. Funnel
Operator: SO
Directory/Quant File: 12SVOC.MS16\ 0412_CCC1.D

QC Batch Number: 54
Multiplier: 0.005
Dilution Factor: 1
GPC (Y/N): N

| 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 | - |

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 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 | 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 |

Semi-Volatile Organic Compounds

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford
Sample Details: BH-NSA-7
LIMS ID Number: EX1281643
Job Number: W13_4273

Date Booked in: 27-Mar-12
Date Extracted: 11-Apr-12
Date Analysed: 12-Apr-12

Matrix: Water
Ext Method: Sep. Funnel
Operator: SO
Directory/Quant File: 12SVOC.MS16\ 0412_CCC1.D

QC Batch Number: 54
Multiplier: 0.005
Dilution Factor: 1
GPC (Y/N) N

| 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 | - |

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 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 | 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 |

Where individual results are flagged see report notes for status.

Semi-Volatile Organic Compounds

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford
Sample Details: BH-NSA-8
LIMS ID Number: EX1281644
Job Number: W13_4273

Date Booked in: 27-Mar-12
Date Extracted: 11-Apr-12
Date Analysed: 12-Apr-12

Matrix: Water
Ext Method: Sep. Funnel
Operator: SO
Directory/Quant File: 12SVOC.MS16\ 0412_CCC1.D

QC Batch Number: 54
Multiplier: 0.005
Dilution Factor: 1
GPC (Y/N): N

| 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 | - |

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 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 | 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 |

Semi-Volatile Organic Compounds

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford
Sample Details: BH-NSA-9
LIMS ID Number: EX1281645
Job Number: W13_4273

Date Booked in: 27-Mar-12
Date Extracted: 11-Apr-12
Date Analysed: 12-Apr-12

Matrix: Water
Ext Method: Sep. Funnel
Operator: SO
Directory/Quant File: 12SVOC.MS16\ 0412_CCC1.D

QC Batch Number: 54
Multiplier: 0.005
Dilution Factor: 1
GPC (Y/N): N

| 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 | - |

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 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 | 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 |

Semi-Volatile Organic Compounds

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford
Sample Details: BH-NSA-10
LIMS ID Number: EX1281646
Job Number: W13_4273

Date Booked in: 27-Mar-12
Date Extracted: 11-Apr-12
Date Analysed: 12-Apr-12

Matrix: Water
Ext Method: Sep. Funnel
Operator: SO
Directory/Quant File: 12SVOC.MS16\ 0412_CCC1.D

QC Batch Number: 54
Multiplier: 0.005
Dilution Factor: 1
GPC (Y/N) N

| 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 | - |

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 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 | 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 |

Semi-Volatile Organic Compounds

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford
Sample Details: BH-NSA-11
LIMS ID Number: EX1281647
Job Number: W13_4273

Date Booked in: 27-Mar-12
Date Extracted: 11-Apr-12
Date Analysed: 12-Apr-12

Matrix: Water
Ext Method: Sep. Funnel
Operator: SO
Directory/Quant File: 12SVOC.MS16\ 0412_CCC1.D

QC Batch Number: 54
Multiplier: 0.005
Dilution Factor: 1
GPC (Y/N) N

| 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 | - |

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 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 | 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 |

Semi-Volatile Organic Compounds

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford
Sample Details: BH-NSA-12
LIMS ID Number: EX1281648
Job Number: W13_4273

Date Booked in: 27-Mar-12
Date Extracted: 11-Apr-12
Date Analysed: 12-Apr-12

Matrix: Water
Ext Method: Sep. Funnel
Operator: SO
Directory/Quant File: 12SVOC.MS16\ 0412_CCC1.D

QC Batch Number: 54
Multiplier: 0.005
Dilution Factor: 1
GPC (Y/N): N

| 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 | - |

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 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 | 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 |

Semi-Volatile Organic Compounds

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford
Sample Details: BH-NSA-13
LIMS ID Number: EX1281649
Job Number: W13_4273

Date Booked in: 27-Mar-12
Date Extracted: 03-Apr-12
Date Analysed: 03-Apr-12

Matrix: Water
Ext Method: Sep. Funnel
Operator: SO
Directory/Quant File: 03SVOC.GC11\ 0403_CCC1.D

QC Batch Number: 51
Multiplier: 0.005
Dilution Factor: 1
GPC (Y/N): N

| 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 | - |

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 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 | 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 |

Semi-Volatile Organic Compounds

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford
Sample Details: BH-NSA-14
LIMS ID Number: EX1281650
Job Number: W13_4273

Date Booked in: 27-Mar-12
Date Extracted: 03-Apr-12
Date Analysed: 03-Apr-12

Matrix: Water
Ext Method: Sep. Funnel
Operator: SO
Directory/Quant File: 03SVOC.GC1\ 0403_CCC1.D

QC Batch Number: 51
Multiplier: 0.005
Dilution Factor: 1
GPC (Y/N): N

| 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 | - |

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 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 | 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 |

Where individual results are flagged see report notes for status.

Semi-Volatile Organic Compounds

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford
Sample Details: BH-NSA-15
LIMS ID Number: EX1281651
Job Number: W13_4273

Date Booked in: 27-Mar-12
Date Extracted: 03-Apr-12
Date Analysed: 03-Apr-12

Matrix: Water
Ext Method: Sep. Funnel
Operator: SO
Directory/Quant File: 03SVOC.GC1\ 0403_CCC1.D

QC Batch Number: 48
Multiplier: 0.005
Dilution Factor: 1
GPC (Y/N): N

| 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 | - |

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 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 | 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 |

Semi-Volatile Organic Compounds

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford
Sample Details: BH-NSA-16
LIMS ID Number: EX1281652
Job Number: W13_4273

Date Booked in: 27-Mar-12
Date Extracted: 03-Apr-12
Date Analysed: 03-Apr-12

Matrix: Water
Ext Method: Sep. Funnel
Operator: SO
Directory/Quant File: 03SVOC.GC1\ 0403_CCC1.D

QC Batch Number: 51
Multiplier: 0.005
Dilution Factor: 1
GPC (Y/N): N

| 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 | - |

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 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 | 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 |

Semi-Volatile Organic Compounds

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford
Sample Details: BH-NSA-17
LIMS ID Number: EX1281653
Job Number: W13_4273

Date Booked in: 27-Mar-12
Date Extracted: 03-Apr-12
Date Analysed: 03-Apr-12

Matrix: Water
Ext Method: Sep. Funnel
Operator: SO
Directory/Quant File: 03SVOC.GC11\ 0403_CCC1.D

QC Batch Number: 51
Multiplier: 0.005
Dilution Factor: 1
GPC (Y/N): N

| 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 | - |

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 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 | 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 |

Semi-Volatile Organic Compounds

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford
Sample Details: BH-NSA-18
LIMS ID Number: EX1281654
Job Number: W13_4273

Date Booked in: 27-Mar-12
Date Extracted: 03-Apr-12
Date Analysed: 03-Apr-12

Matrix: Water
Ext Method: Sep. Funnel
Operator: SO
Directory/Quant File: 03SVOC.GC11\ 0403_CCC1.D

QC Batch Number: 51
Multiplier: 0.005
Dilution Factor: 1
GPC (Y/N): N

| 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 | - |

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 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 | 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 |

Semi-Volatile Organic Compounds

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford
Sample Details: BH-NSA-19
LIMS ID Number: EX1281655
Job Number: W13_4273

Date Booked in: 27-Mar-12
Date Extracted: 03-Apr-12
Date Analysed: 03-Apr-12

Matrix: Water
Ext Method: Sep. Funnel
Operator: SO
Directory/Quant File: 03SVOC.GC1\ 0403_CCC1.D

QC Batch Number: 51
Multiplier: 0.005
Dilution Factor: 1
GPC (Y/N) N

| 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 | - |

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 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 | 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 |

Semi-Volatile Organic Compounds

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford
Sample Details: BH-NSA20
LIMS ID Number: EX1281656
Job Number: W13_4273

Date Booked in: 27-Mar-12
Date Extracted: 03-Apr-12
Date Analysed: 04-Apr-12

Matrix: Water
Ext Method: Sep. Funnel
Operator: SO
Directory/Quant File: 03SVOC.GC1\ 0403_CCC1.D

QC Batch Number: 51
Multiplier: 0.005
Dilution Factor: 1
GPC (Y/N): N

| 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 | - |

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 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 | 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 |

Semi-Volatile Organic Compounds

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford
Sample Details: BH-NSA-21
LIMS ID Number: EX1281657
Job Number: W13_4273

Date Booked in: 27-Mar-12
Date Extracted: 03-Apr-12
Date Analysed: 04-Apr-12

Matrix: Water
Ext Method: Sep. Funnel
Operator: SO
Directory/Quant File: 03SVOC.GC11\ 0403_CCC1.D

QC Batch Number: 51
Multiplier: 0.005
Dilution Factor: 1
GPC (Y/N): N

| 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 | - |

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 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 | 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 |

Semi-Volatile Organic Compounds

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford
Sample Details: BH-NSA-22
LIMS ID Number: EX1281658
Job Number: W13_4273

Date Booked in: 27-Mar-12
Date Extracted: 03-Apr-12
Date Analysed: 04-Apr-12

Matrix: Water
Ext Method: Sep. Funnel
Operator: SO
Directory/Quant File: 03SVOC.GC1\ 0403_CCC1.D

QC Batch Number: 51
Multiplier: 0.005
Dilution Factor: 1
GPC (Y/N): N

| 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 | - |

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 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 | 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 |

Semi-Volatile Organic Compounds

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford
Sample Details: BH-NSA-38
LIMS ID Number: EX1281659
Job Number: W13_4273

Date Booked in: 27-Mar-12
Date Extracted: 03-Apr-12
Date Analysed: 04-Apr-12

Matrix: Water
Ext Method: Sep. Funnel
Operator: SO
Directory/Quant File: 03SVOC.GC1\ 0403_CCC1.D

QC Batch Number: 51
Multiplier: 0.005
Dilution Factor: 1
GPC (Y/N): N

| 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 | - |

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 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 | 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 |

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-12
Date extracted: 04-Apr-12
Date Analysed: 05-Apr-12, 07:02:23

* Sample data with an asterisk are not UKAS accredited.

| Sample ID | Client ID | Concentration, (mg/l) | | | | | Aliphatics | | | | |
|-------------|-----------|-----------------------|---------|---------------|------------|----------|------------|----------|----------|-----------|-----------|
| | | 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
Job Number: W13_4273
QC Batch Number: 120276
Directory: D:\TES\DATA\Y2012\041212TPH_GC15\041212 2012-04-12 08-48-34\064B2201.D
Method: Bottle

Matrix: Water
Date Booked in: 27-Mar-12
Date Extracted: 12-Apr-12
Date Analysed: 12-Apr-12, 17:28:11

Separation: Silica gel
Eluents: Hexane, DCM

| | | Concentration, (mg/l) | | | | | | | | | | | |
|-----------|-----------|-----------------------|-----------|------------|-----------|------------|-----------|------------|-----------|------------|-----------|------------|-----------|
| | | >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 |
| 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 |
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* This sample data is not UKAS accredited.

Where individual results are flagged see report notes for status.

ALIPHATIC / AROMATIC FRACTION BY GC/FID

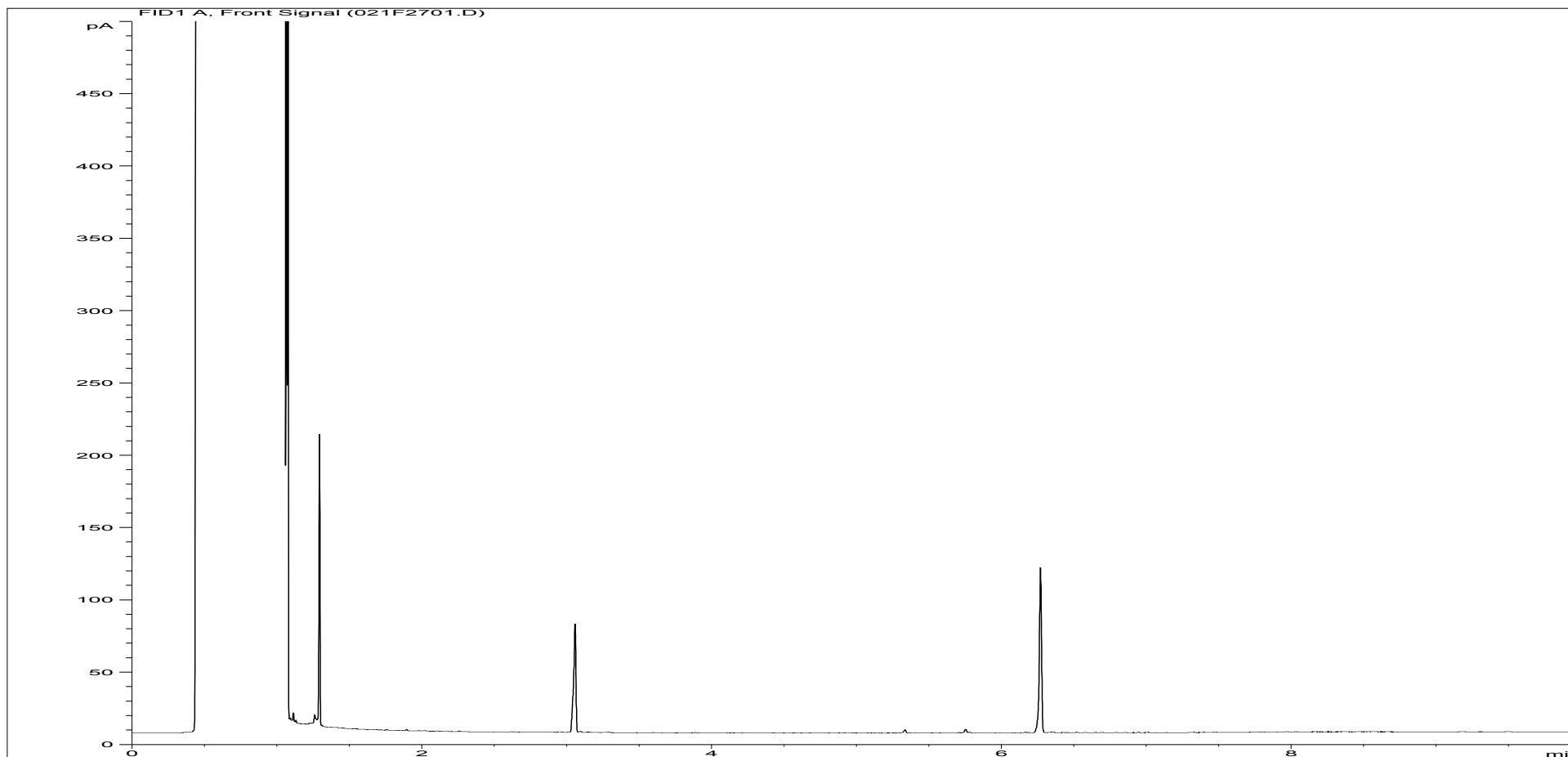
Customer and Site Details: Waterman EED : Upper Heyford
Job Number: W13_4273
QC Batch Number: 120260
Directory: D:\TES\DATA\Y2012\040912TPH_GC15\0409 2012-04-09 17-05-53\090B4601.D
Method: Bottle

Separation: Silica gel
Eluents: Hexane, DCM

Matrix: Water
Date Booked in: 27-Mar-12
Date Extracted: 05-Apr-12
Date Analysed: 10-Apr-12, 05:46:58

| | | Concentration, (mg/l) | | | | | | | | | | | |
|--|-----------|-----------------------|-----------|------------|-----------|------------|-----------|------------|-----------|------------|-----------|------------|-----------|
| | | >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 |
| * This sample data is not UKAS accredited. | | | | | | | | | | | | | |
| 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 |

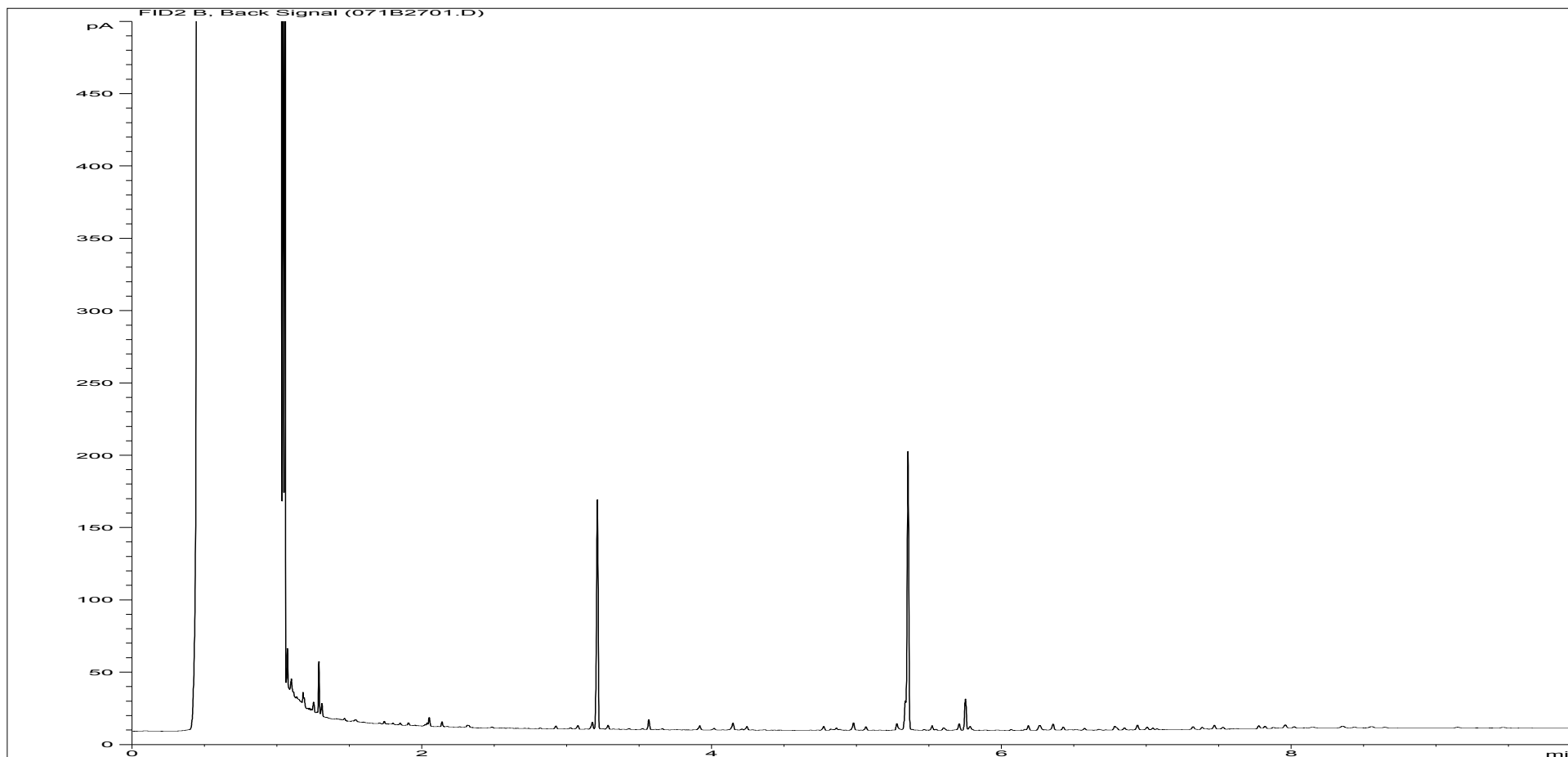
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1281637ALI | Job Number: | W13_4273 |
| Multiplier: | 0.019 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

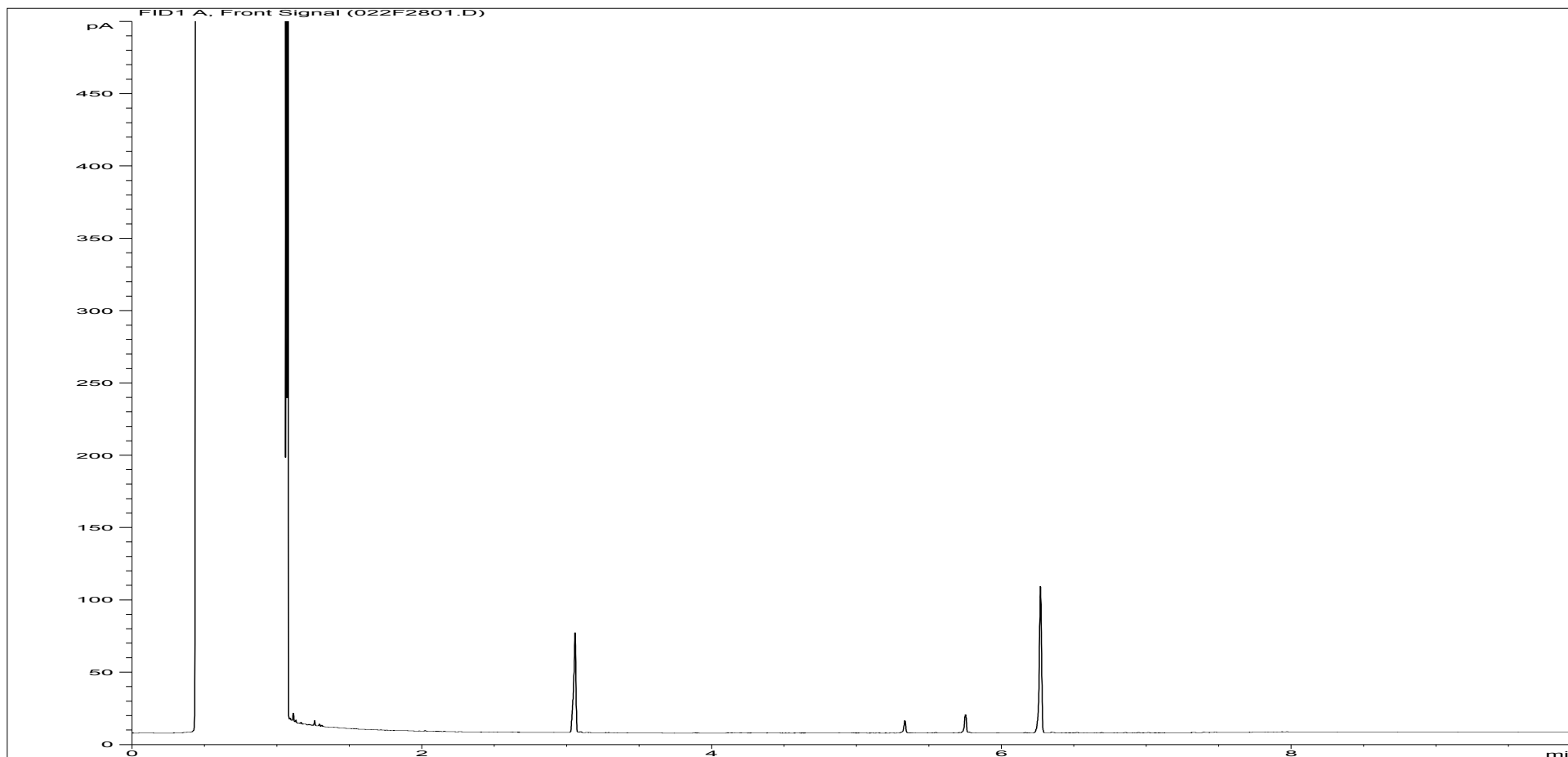
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1281637ARO | Job Number: | W13_4273 |
| Multiplier: | 0.015 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

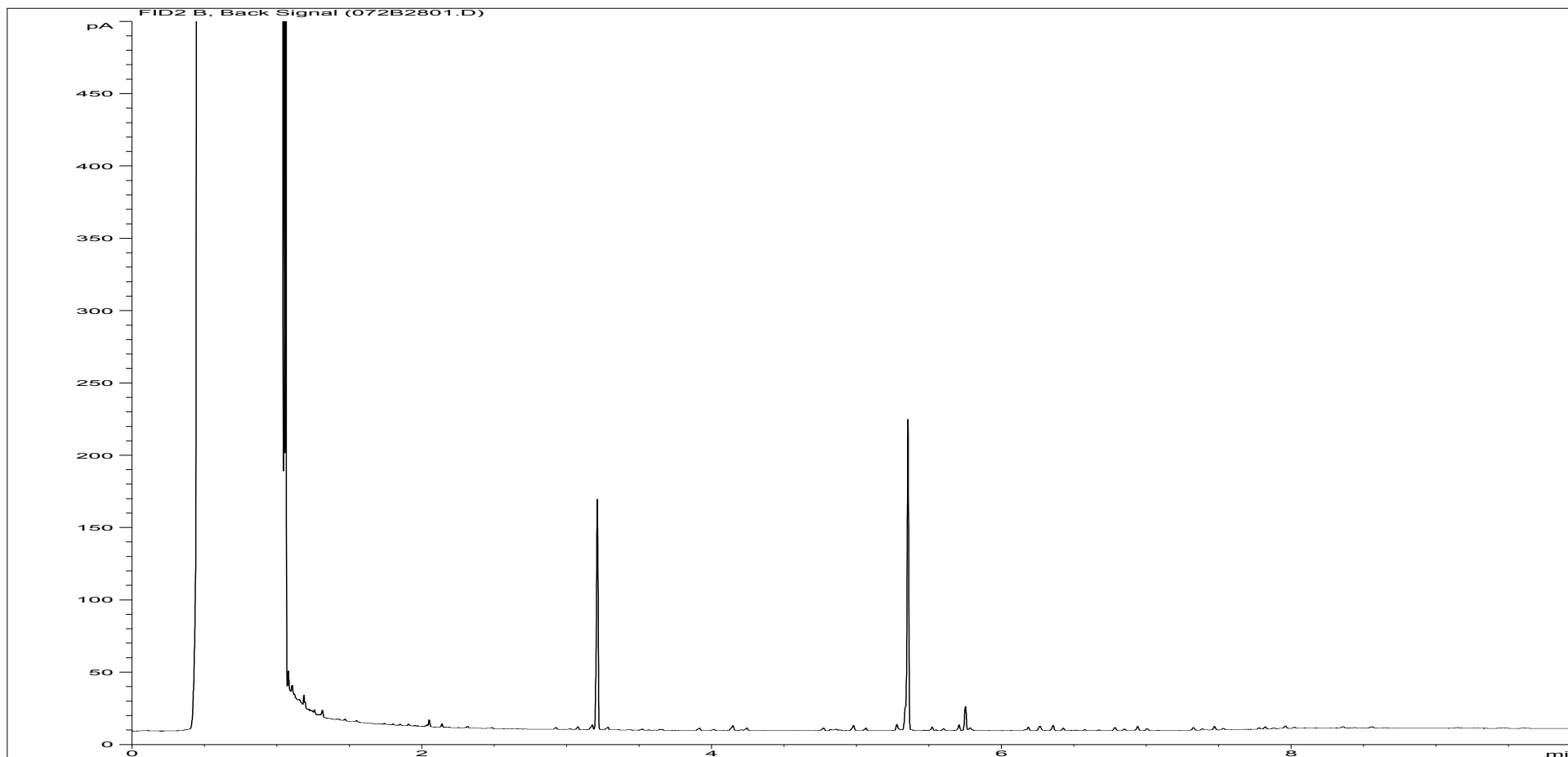
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1281638ALI | Job Number: | W13_4273 |
| Multiplier: | 0.019 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

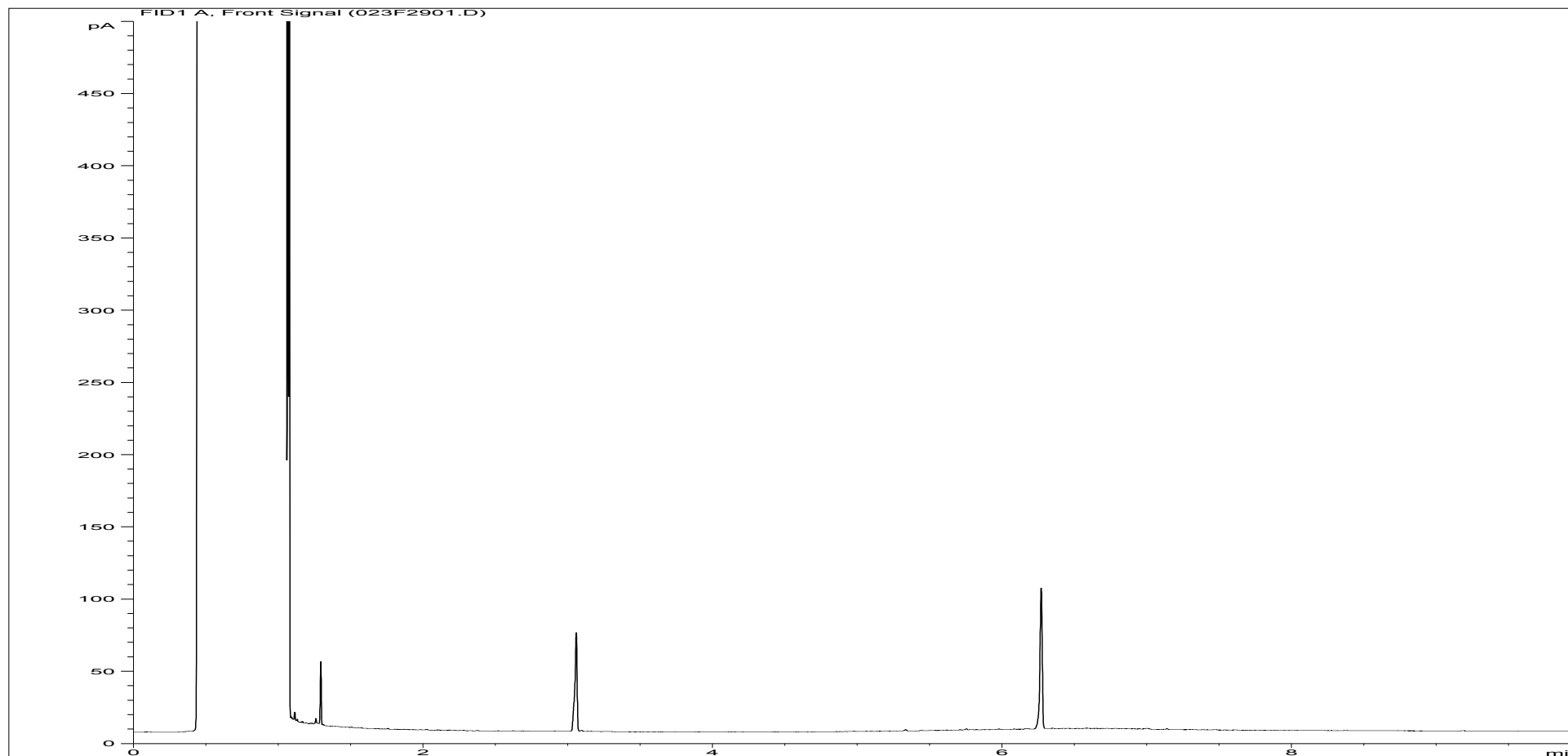
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1281638ARO | Job Number: | W13_4273 |
| Multiplier: | 0.015 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

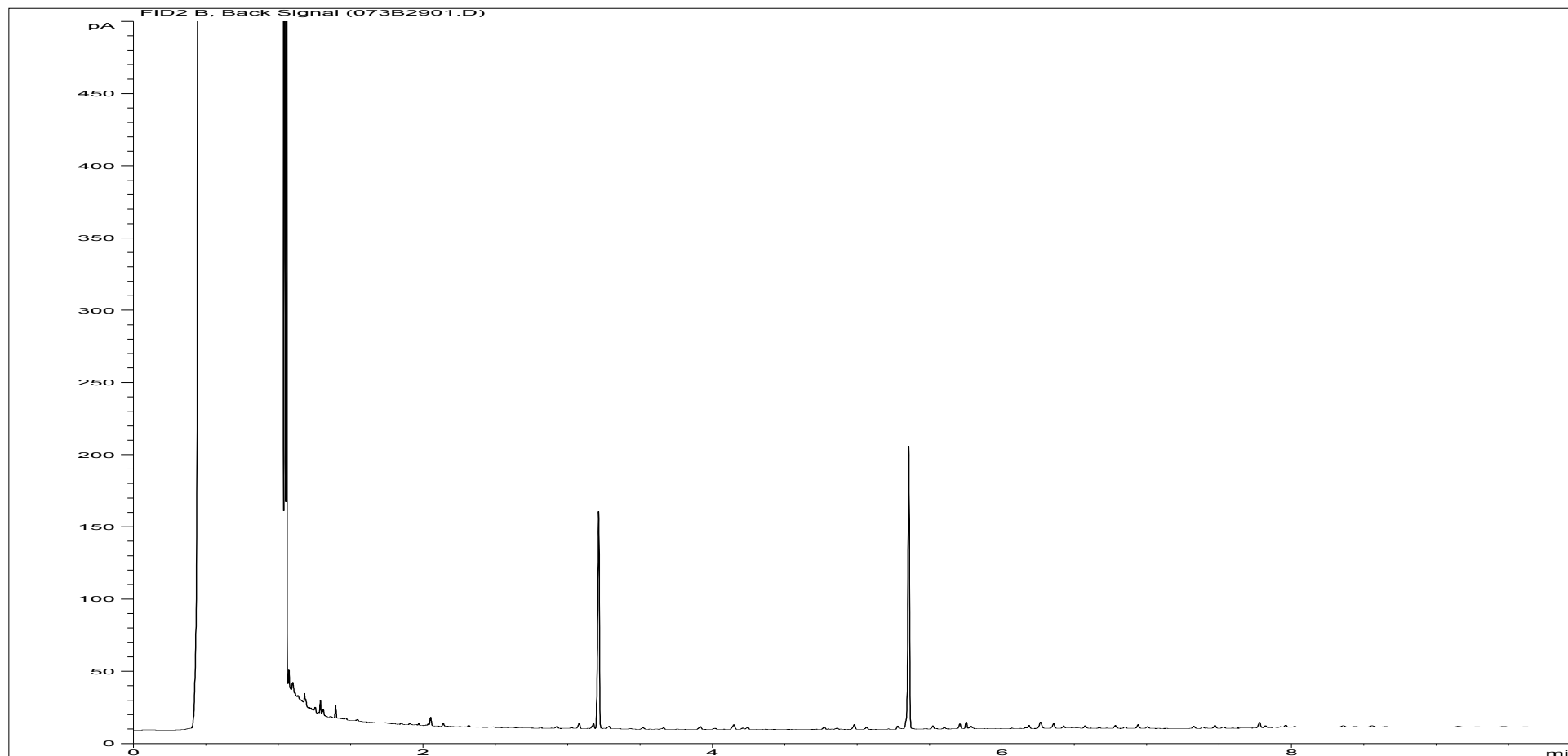
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1281639ALI | Job Number: | W13_4273 |
| Multiplier: | 0.019 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

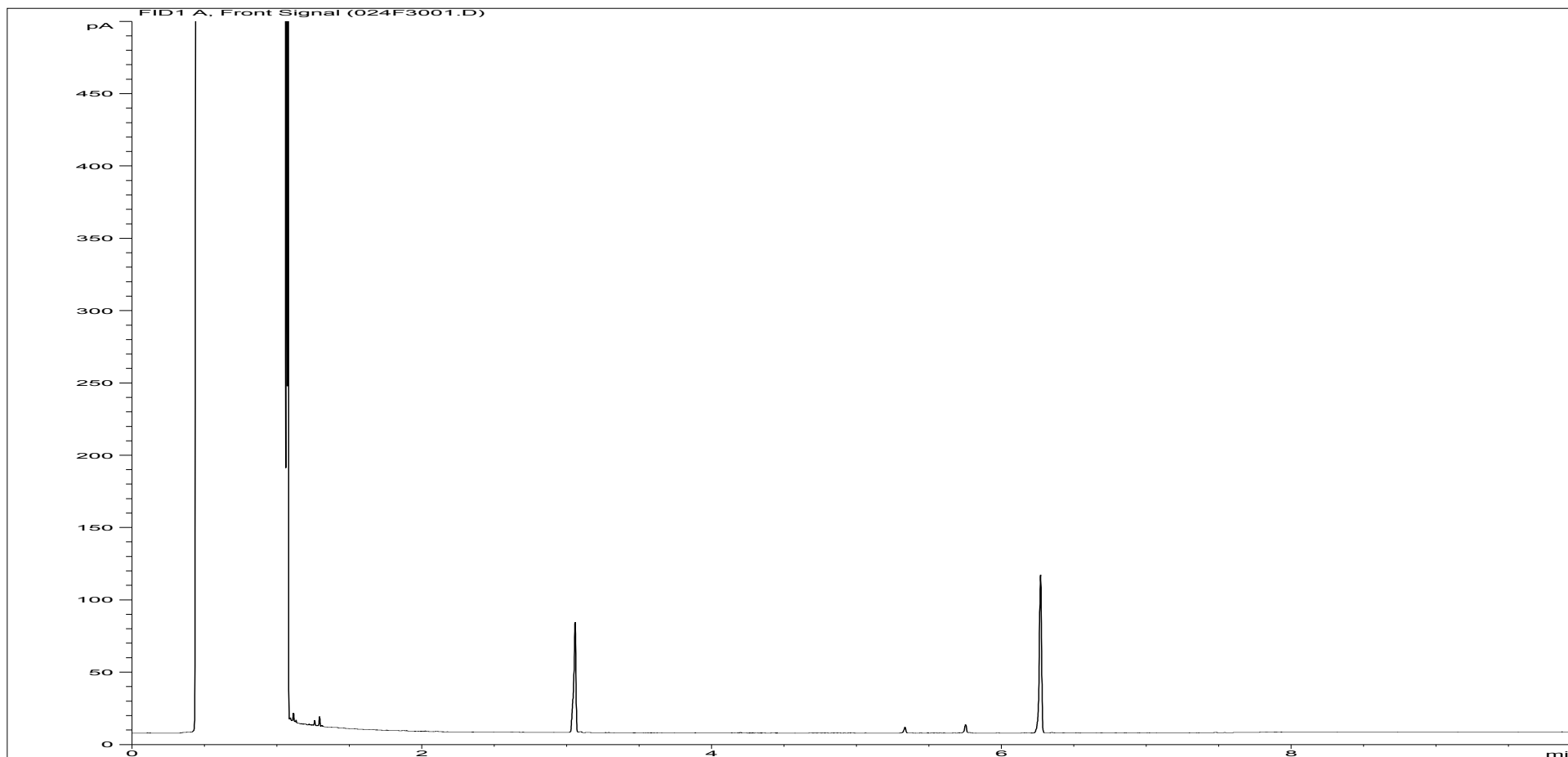
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1281639ARO | Job Number: | W13_4273 |
| Multiplier: | 0.015 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

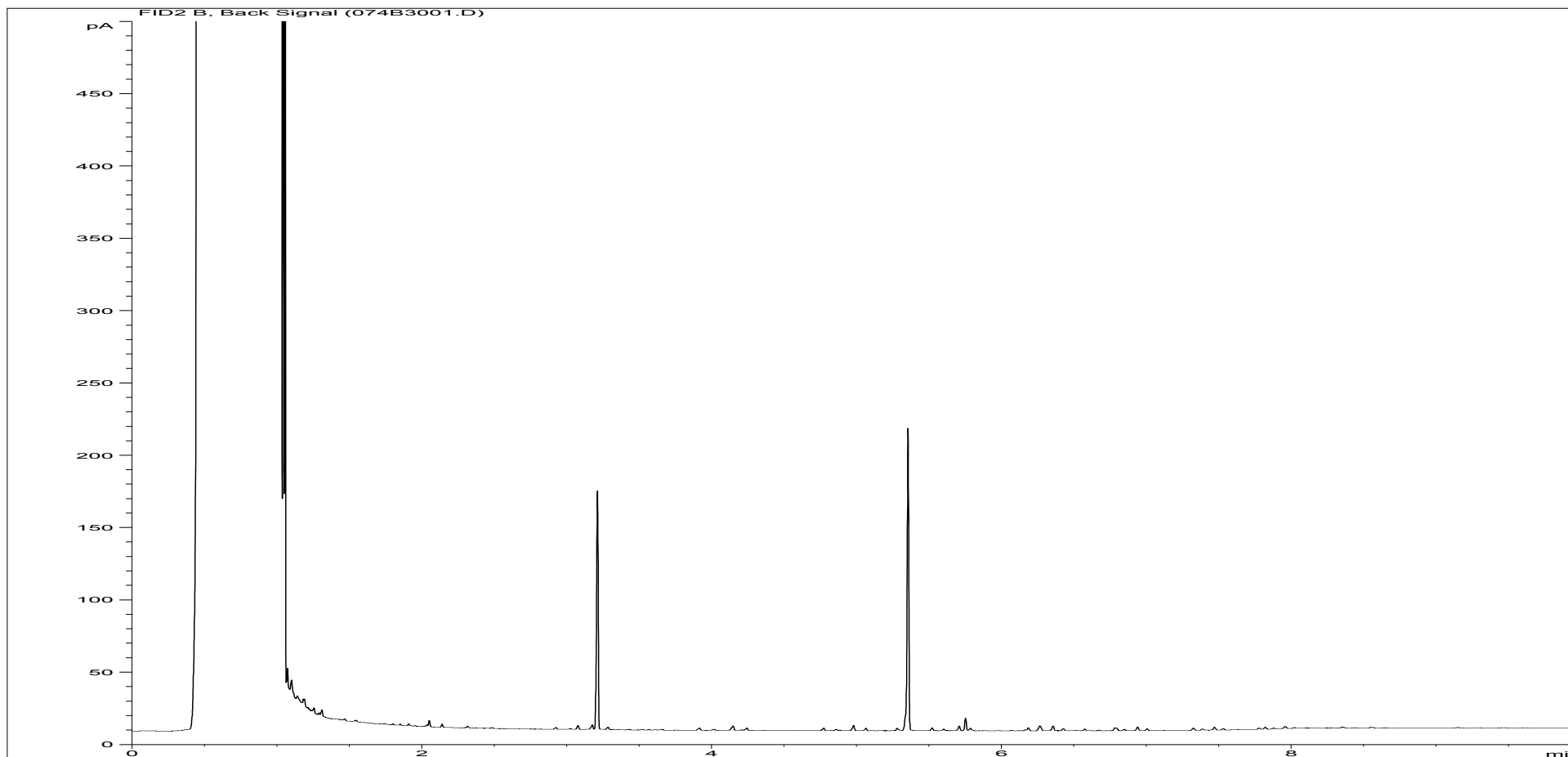
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1281640ALI | Job Number: | W13_4273 |
| Multiplier: | 0.019 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

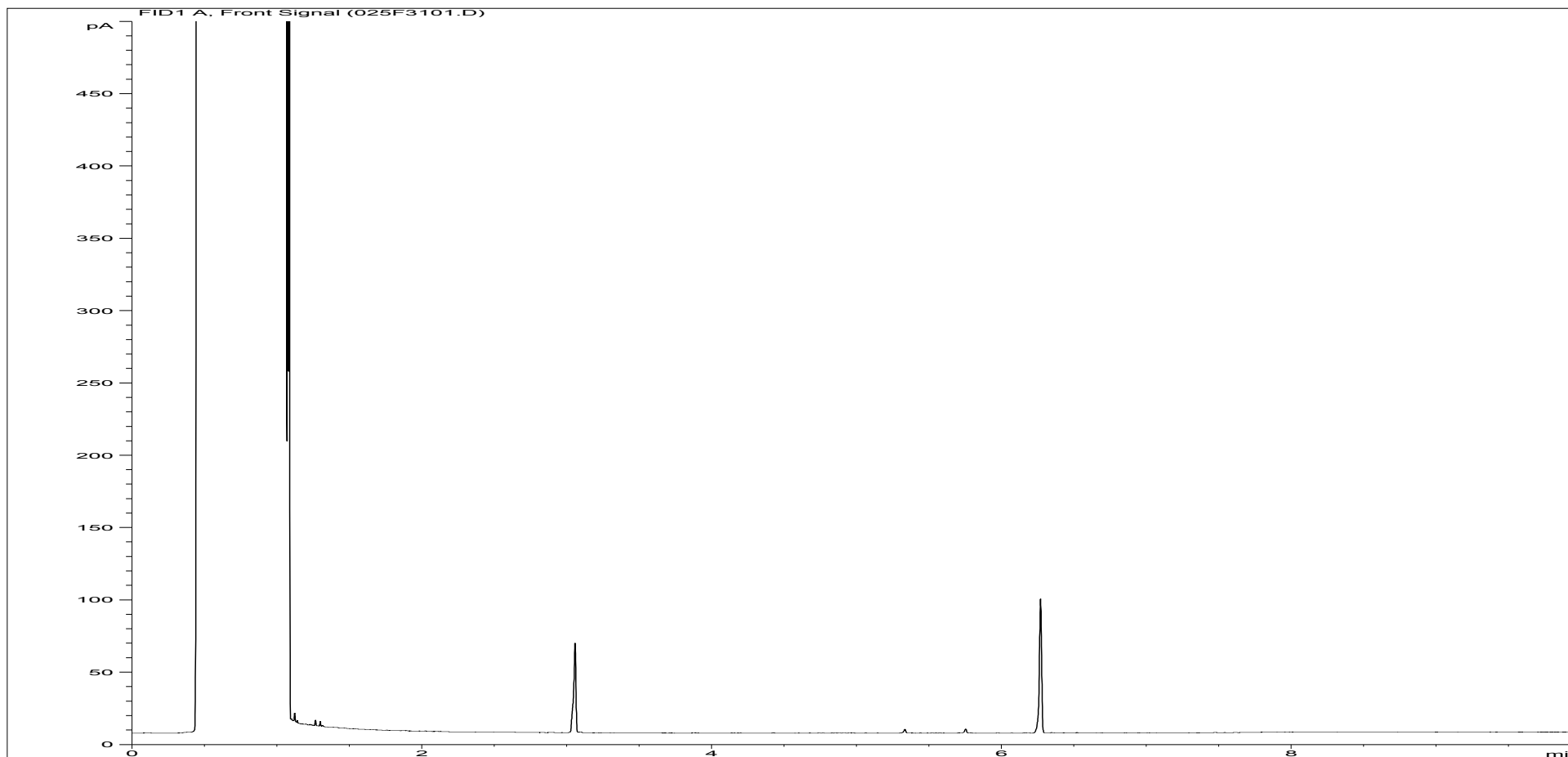
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1281640ARO | Job Number: | W13_4273 |
| Multiplier: | 0.015 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

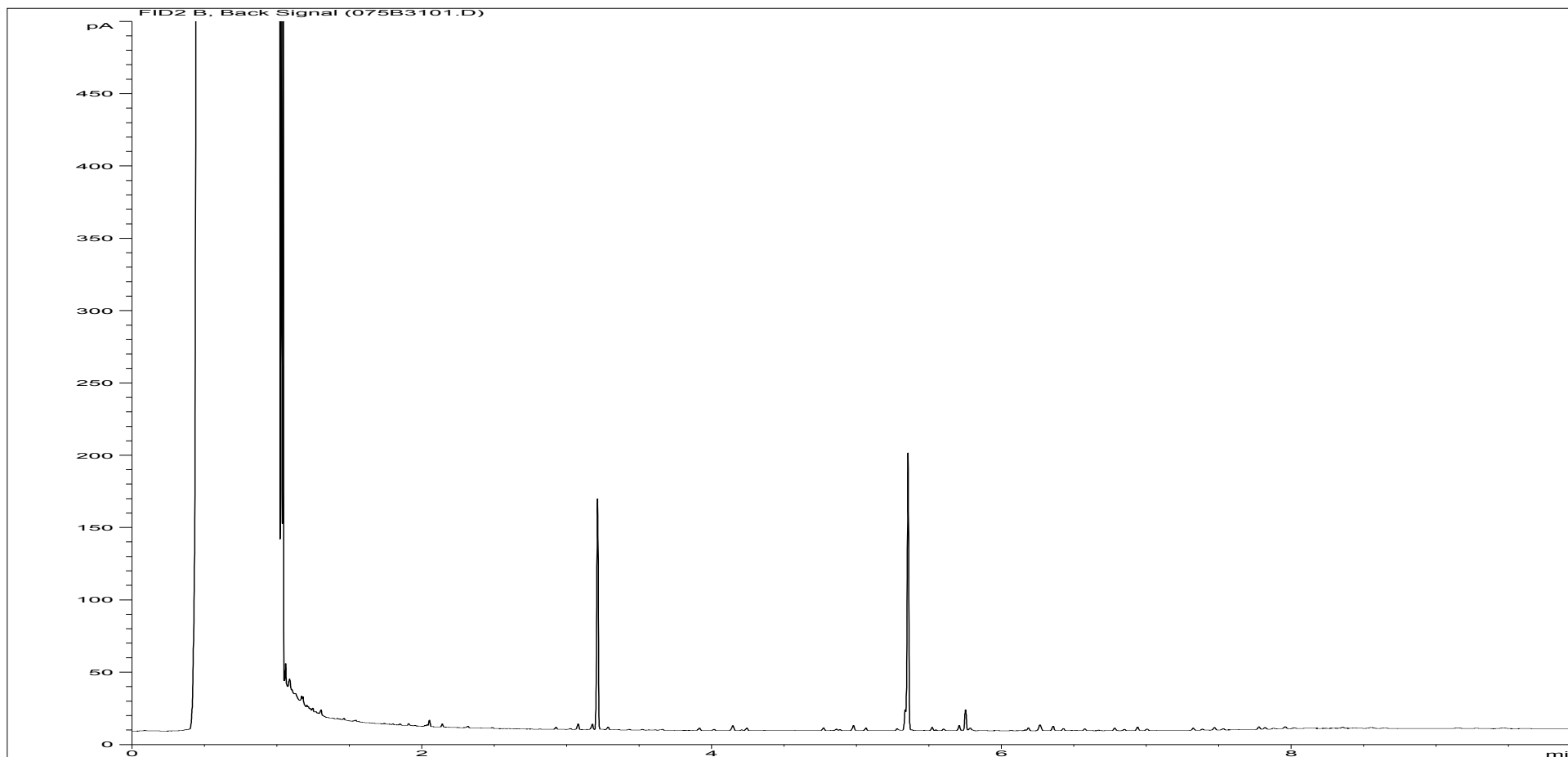
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1281641ALI | Job Number: | W13_4273 |
| Multiplier: | 0.019 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

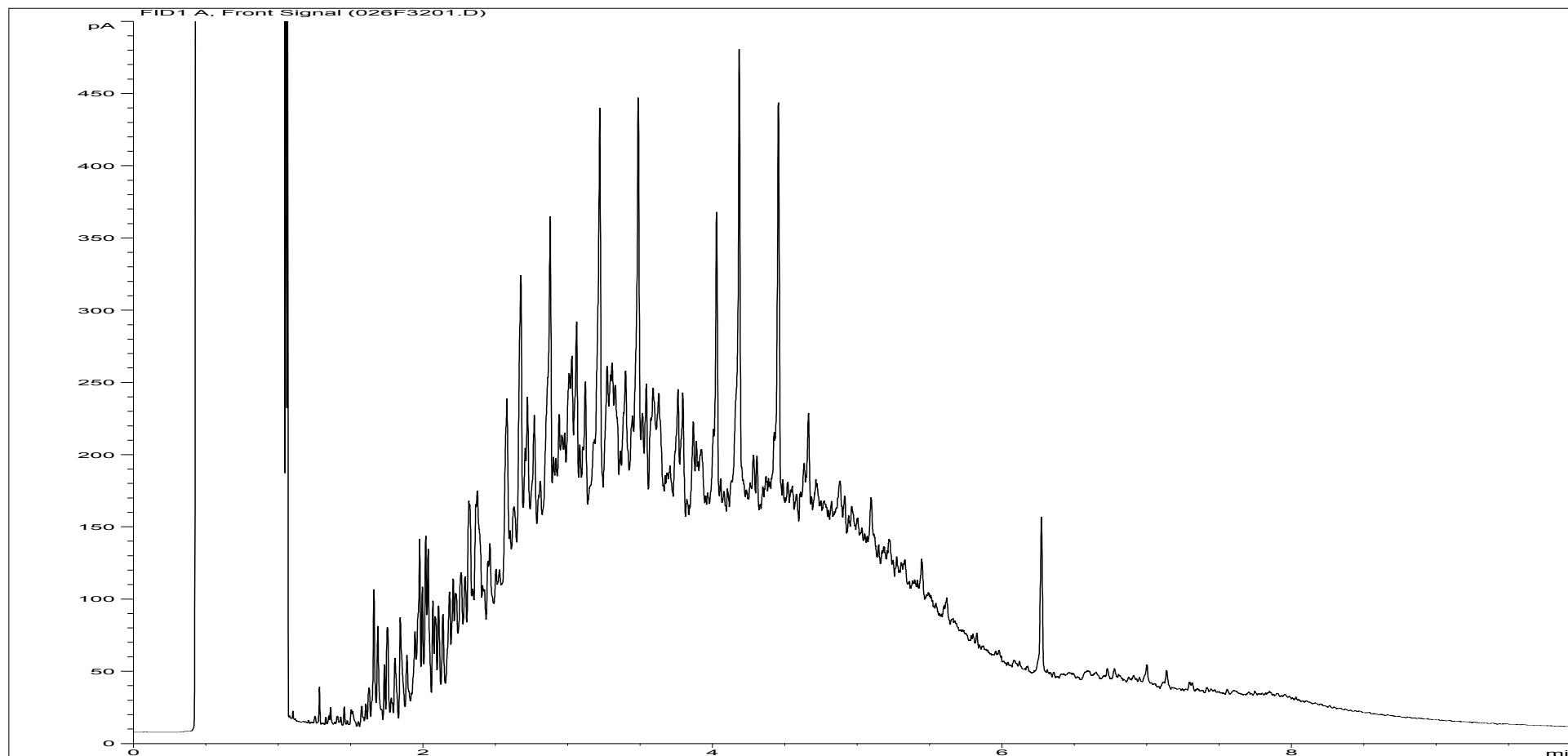
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1281641ARO | Job Number: | W13_4273 |
| Multiplier: | 0.015 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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\075B3101.D | | |

Where individual results are flagged see report notes for status.

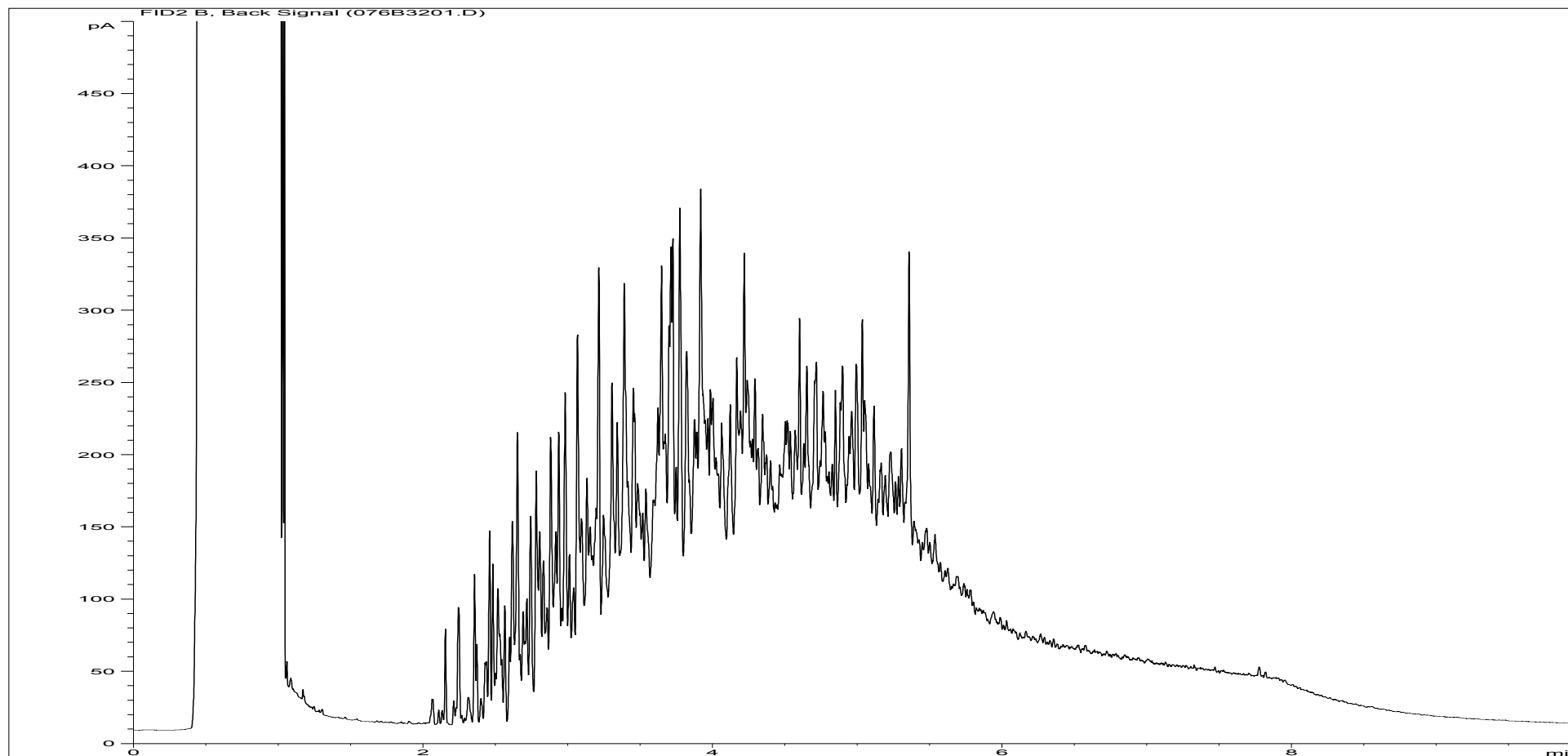
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1281642ALI | Job Number: | W13_4273 |
| Multiplier: | 0.019 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client Sample Ref: | BH-NSA-6 |
| 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 | | |

Where individual results are flagged see report notes for status.

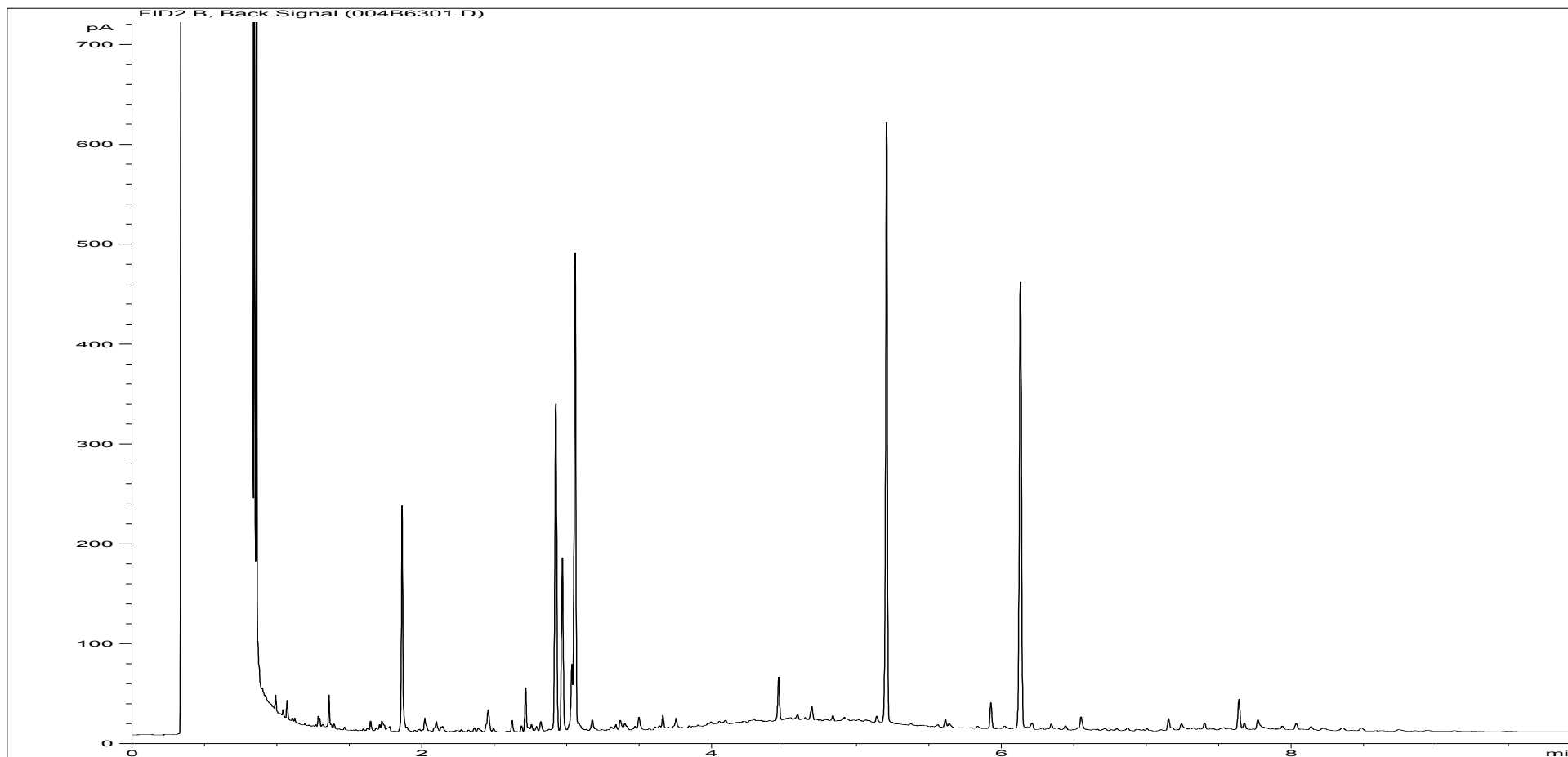
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1281642ARO | Job Number: | W13_4273 |
| Multiplier: | 0.015 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client Sample Ref: | BH-NSA-6 |
| 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 | | |

Where individual results are flagged see report notes for status.

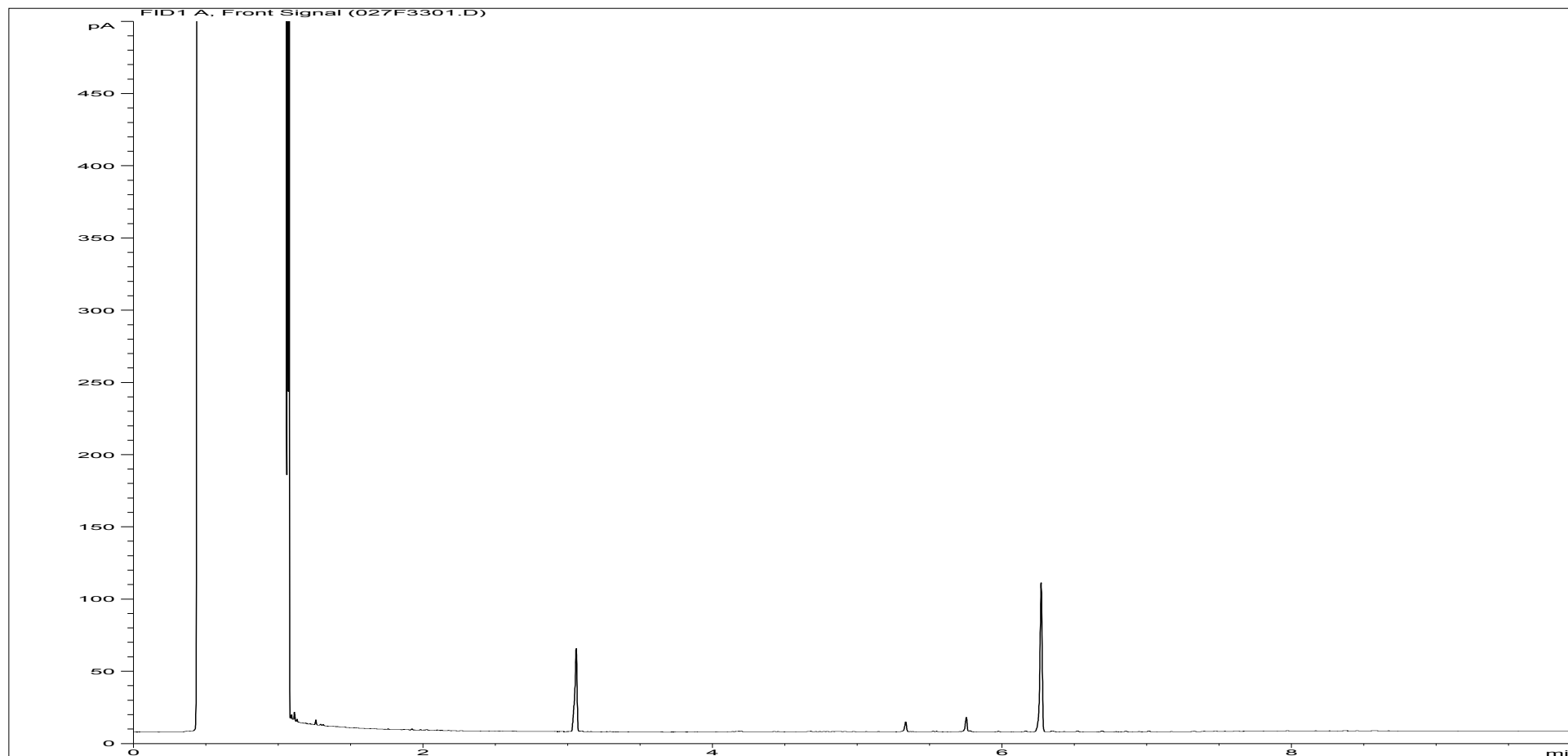
Petroleum Hydrocarbons (C8 to C40) by GC/FID



| | | | |
|-------------------------------|---|---------------------------|---------------|
| Sample ID: | EX1281643 | Job Number: | W13_4273 |
| Multiplier: | 0.005 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_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 | | |

Where individual results are flagged see report notes for status.

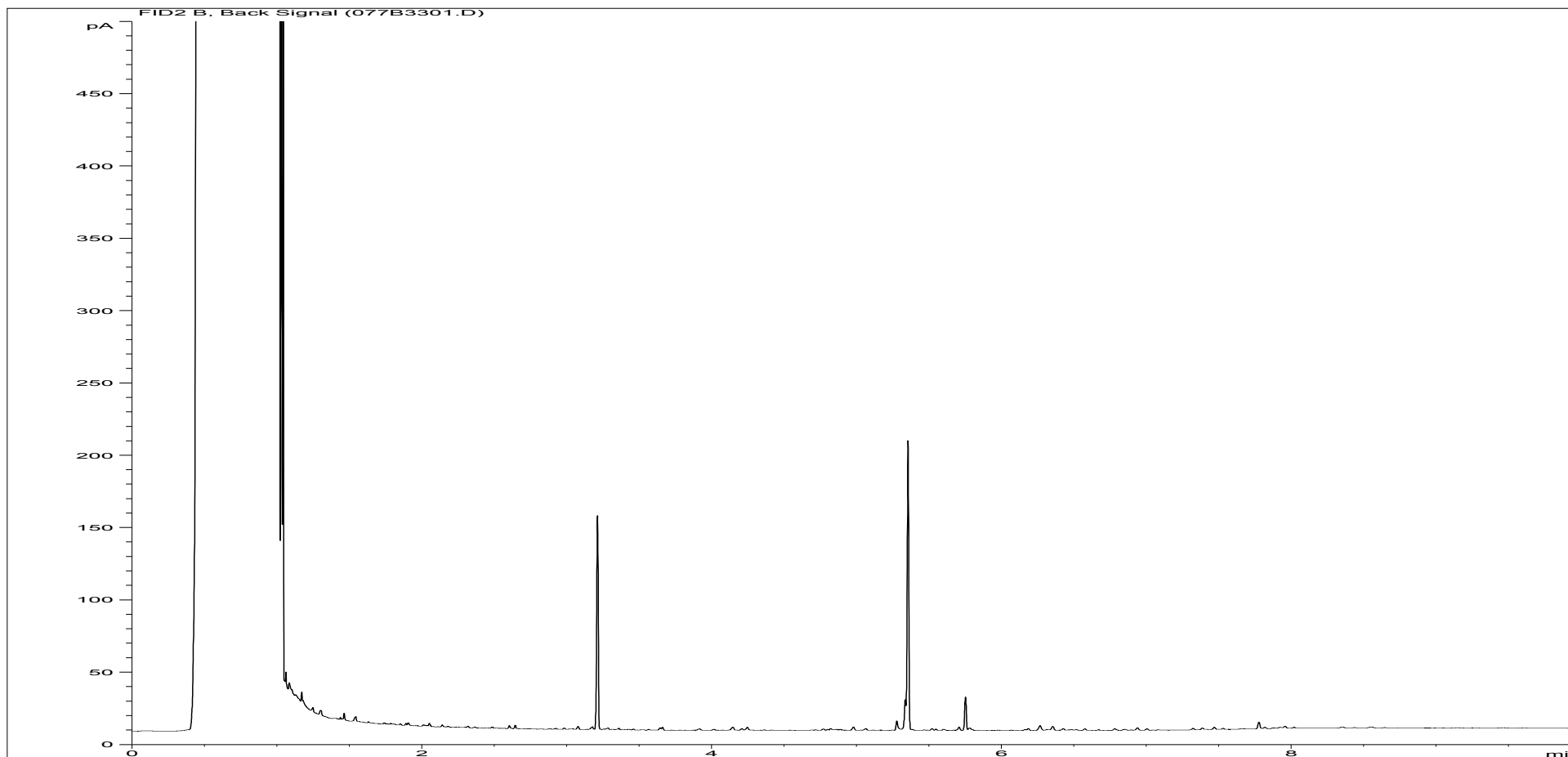
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1281643ALI | Job Number: | W13_4273 |
| Multiplier: | 0.019 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

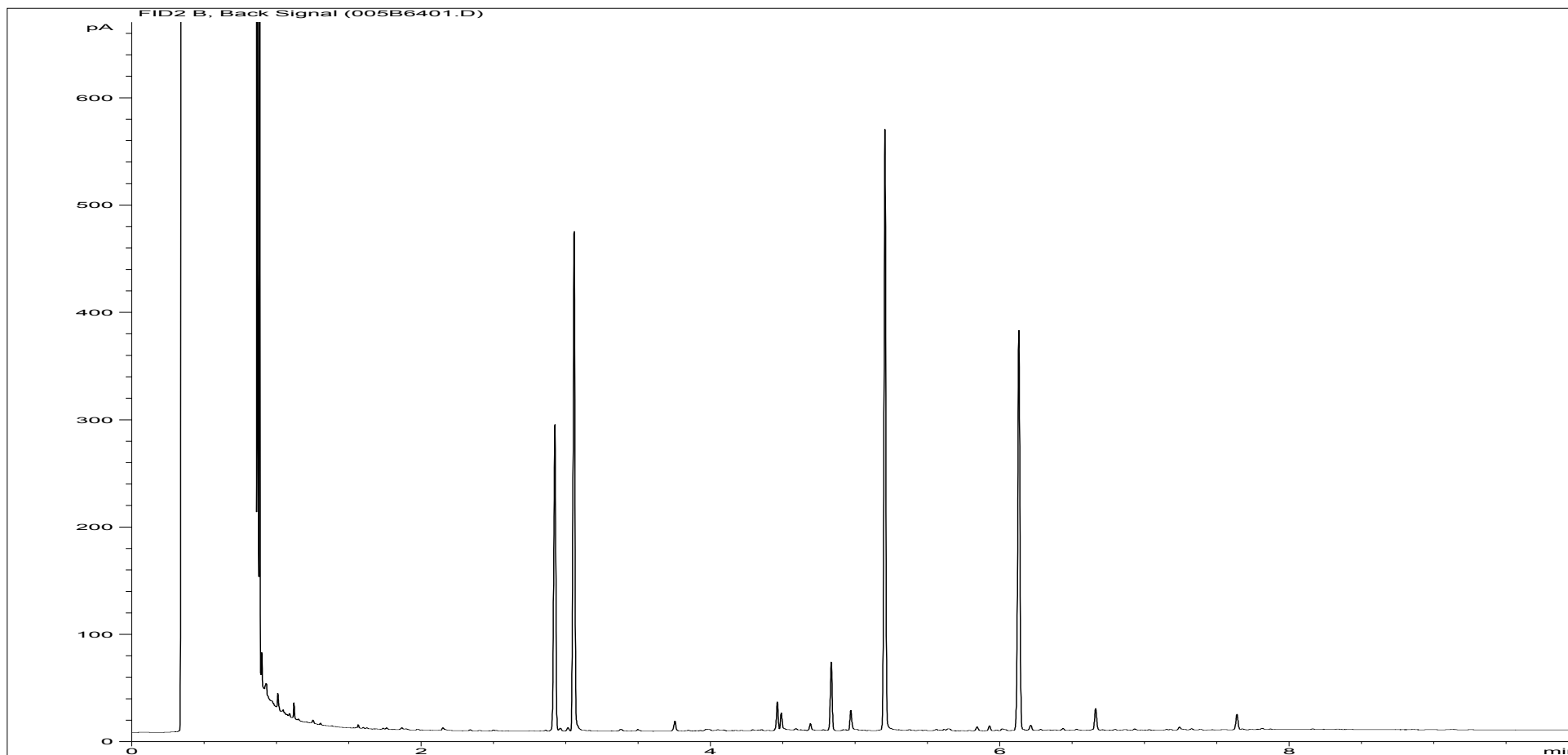
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1281643ARO | Job Number: | W13_4273 |
| Multiplier: | 0.015 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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\077B3301.D | | |

Where individual results are flagged see report notes for status.

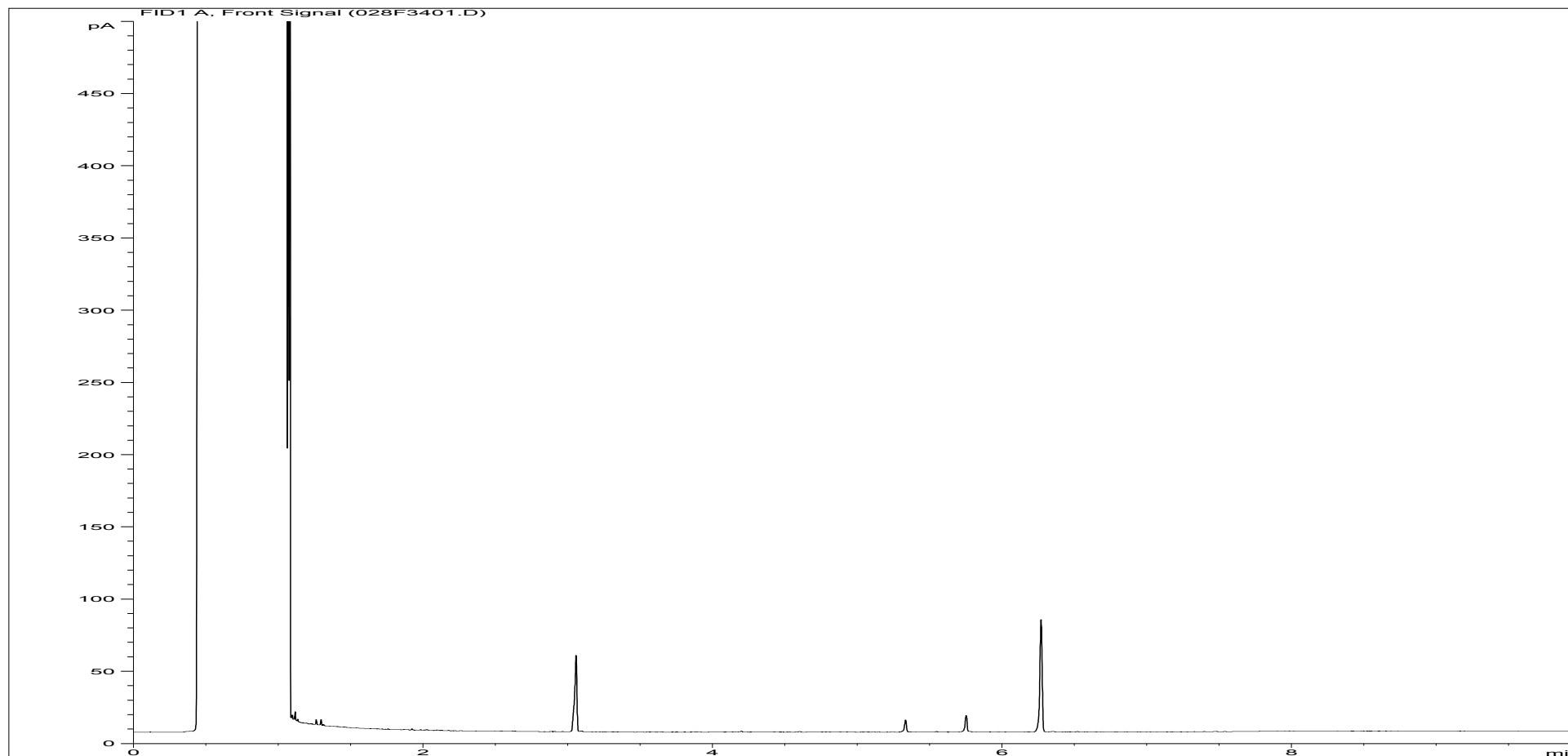
Petroleum Hydrocarbons (C8 to C40) by GC/FID



| | | | |
|-------------------------------|---|---------------------------|---------------|
| Sample ID: | EX1281644 | Job Number: | W13_4273 |
| Multiplier: | 0.005 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client Sample Ref: | BH-NSA-8 |
| Acquisition Date/Time: | 06-Apr-12, 08:45:31 | | |
| Datafile: | D:\TES\DATA\Y2012\040512TPH_GC17\005B6401.D | | |

Where individual results are flagged see report notes for status.

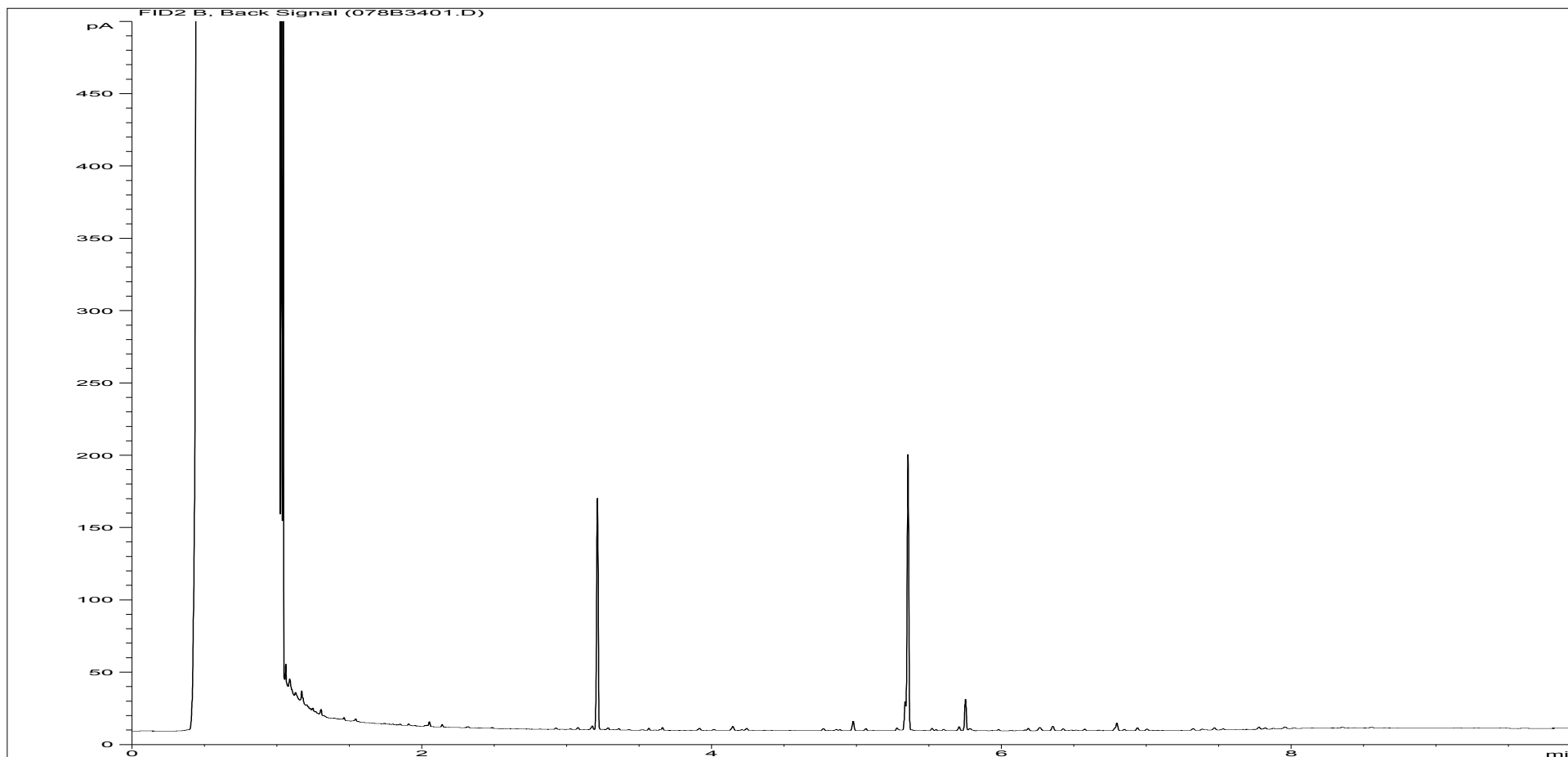
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1281644ALI | Job Number: | W13_4273 |
| Multiplier: | 0.019 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | 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\028F3401.D | | |

Where individual results are flagged see report notes for status.

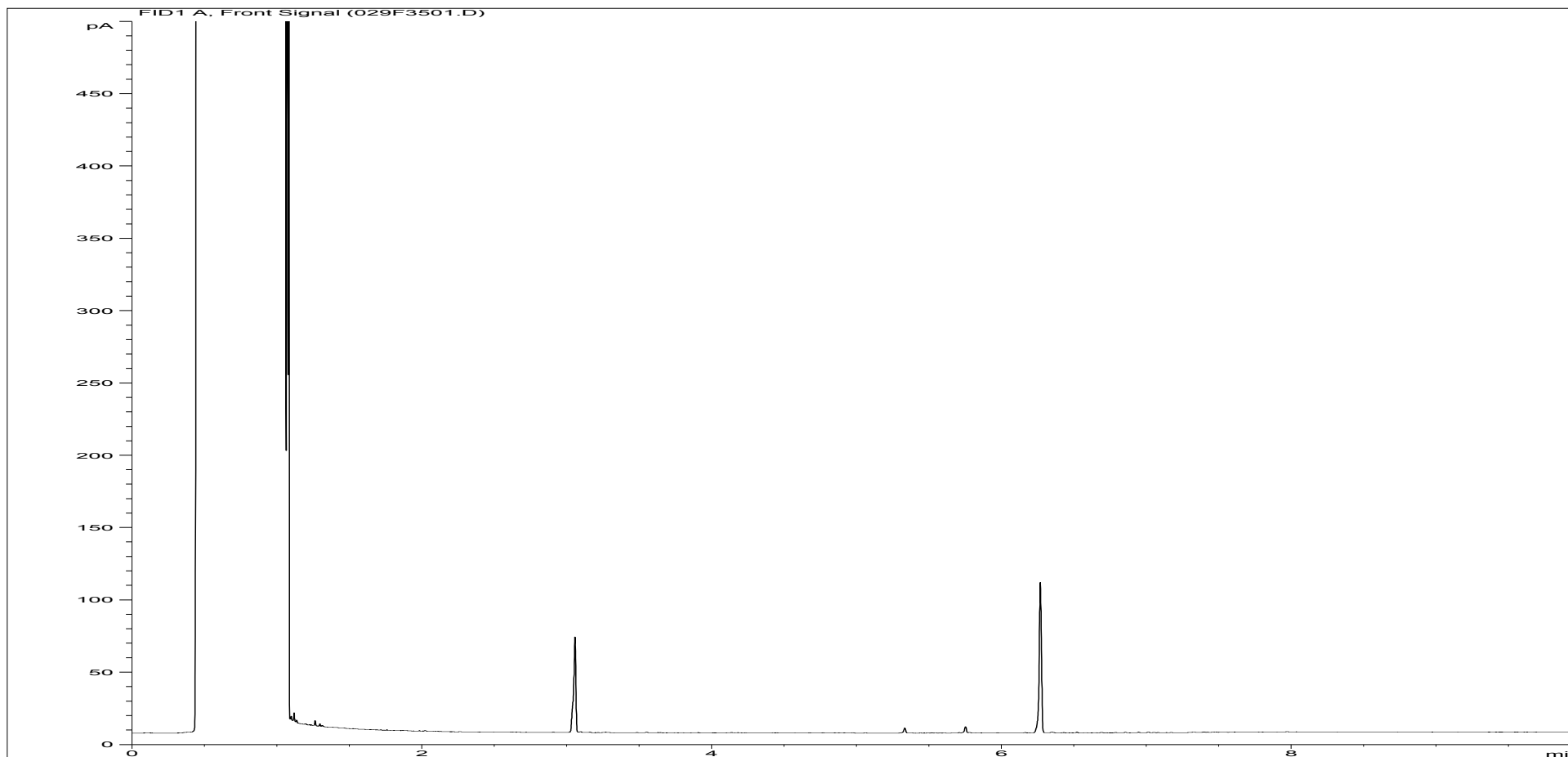
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1281644ARO | Job Number: | W13_4273 |
| Multiplier: | 0.015 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | 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 | | |

Where individual results are flagged see report notes for status.

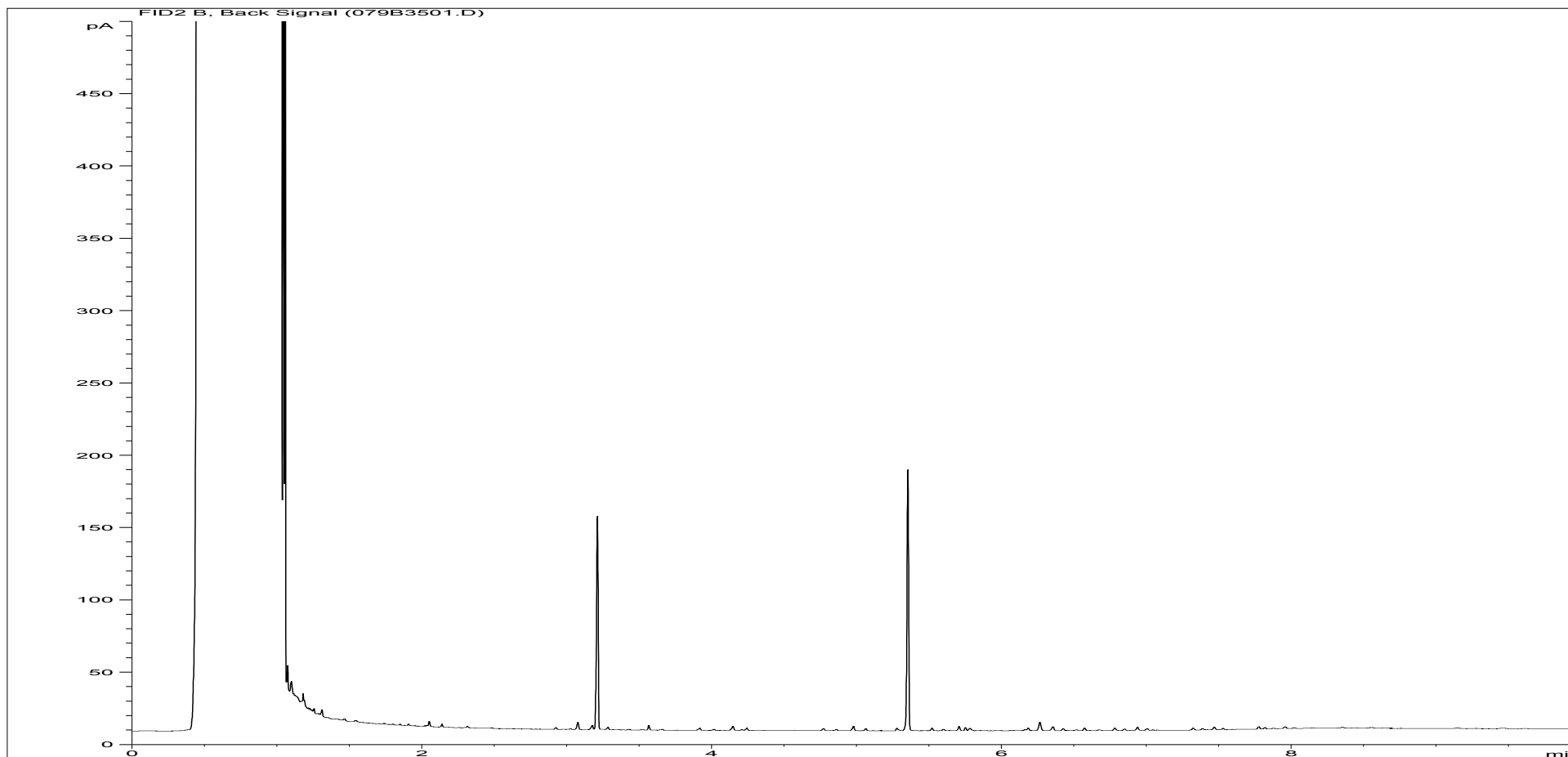
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1281645ALI | Job Number: | W13_4273 |
| Multiplier: | 0.019 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

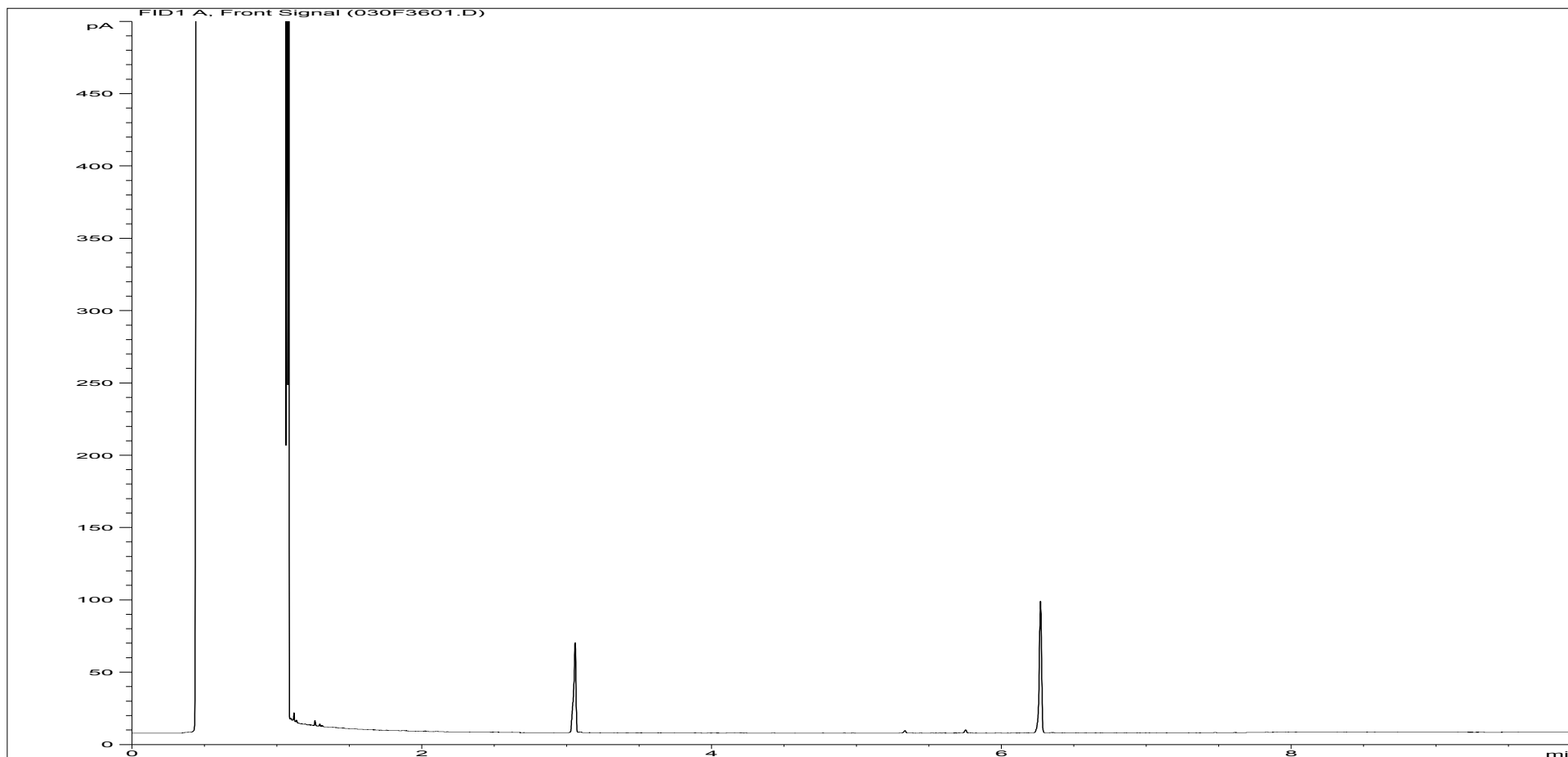
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1281645ARO | Job Number: | W13_4273 |
| Multiplier: | 0.015 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

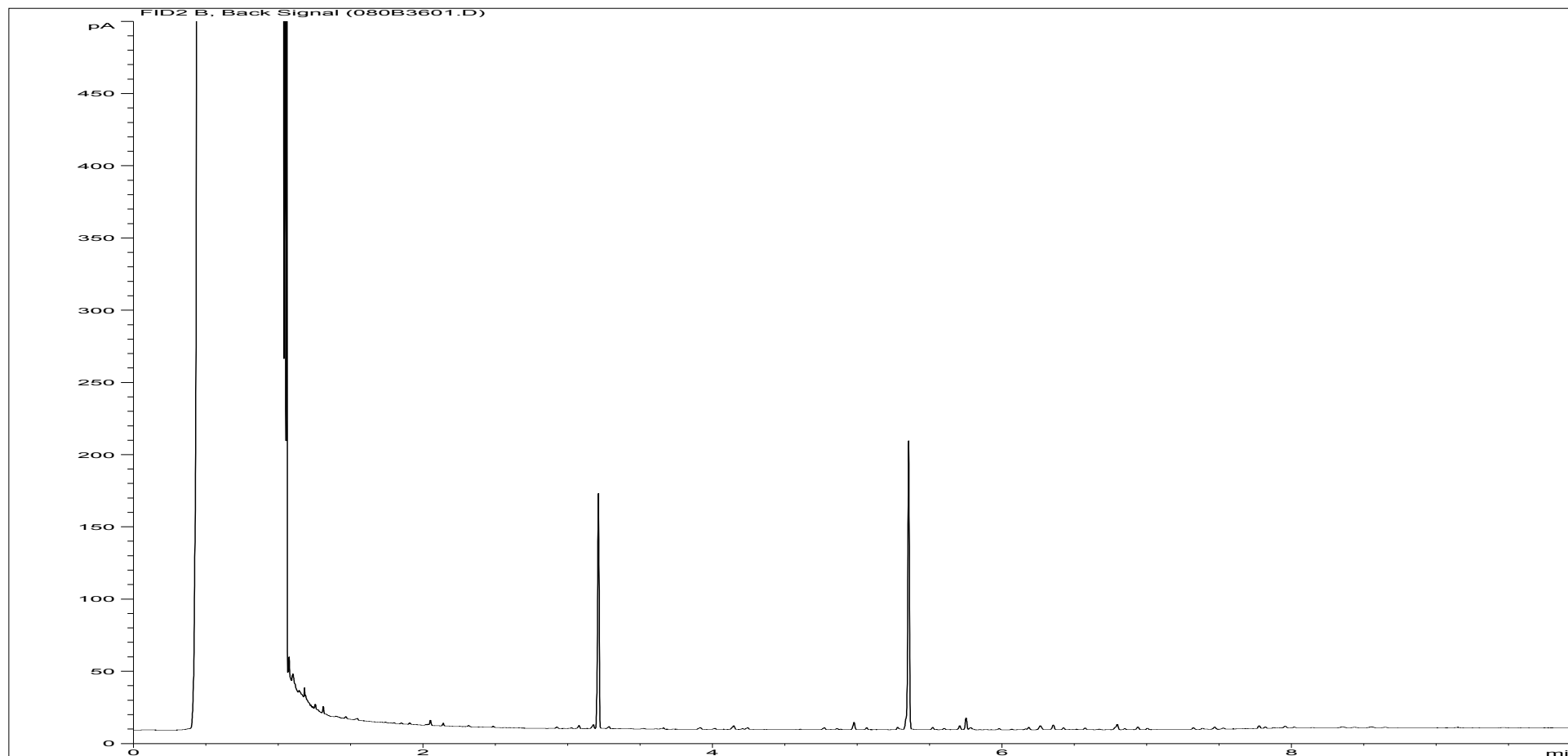
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1281646ALI | Job Number: | W13_4273 |
| Multiplier: | 0.019 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

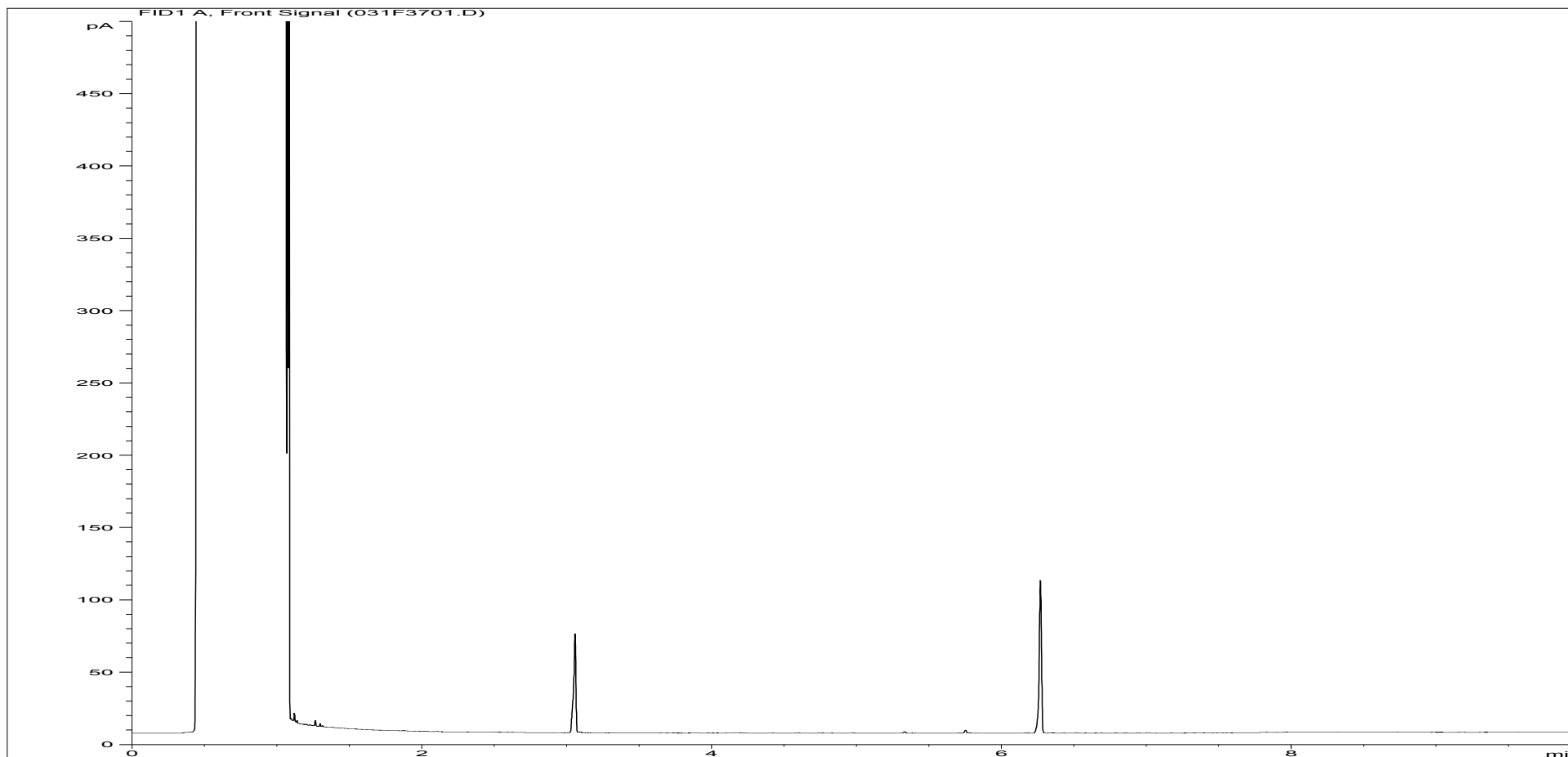
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1281646ARO | Job Number: | W13_4273 |
| Multiplier: | 0.015 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

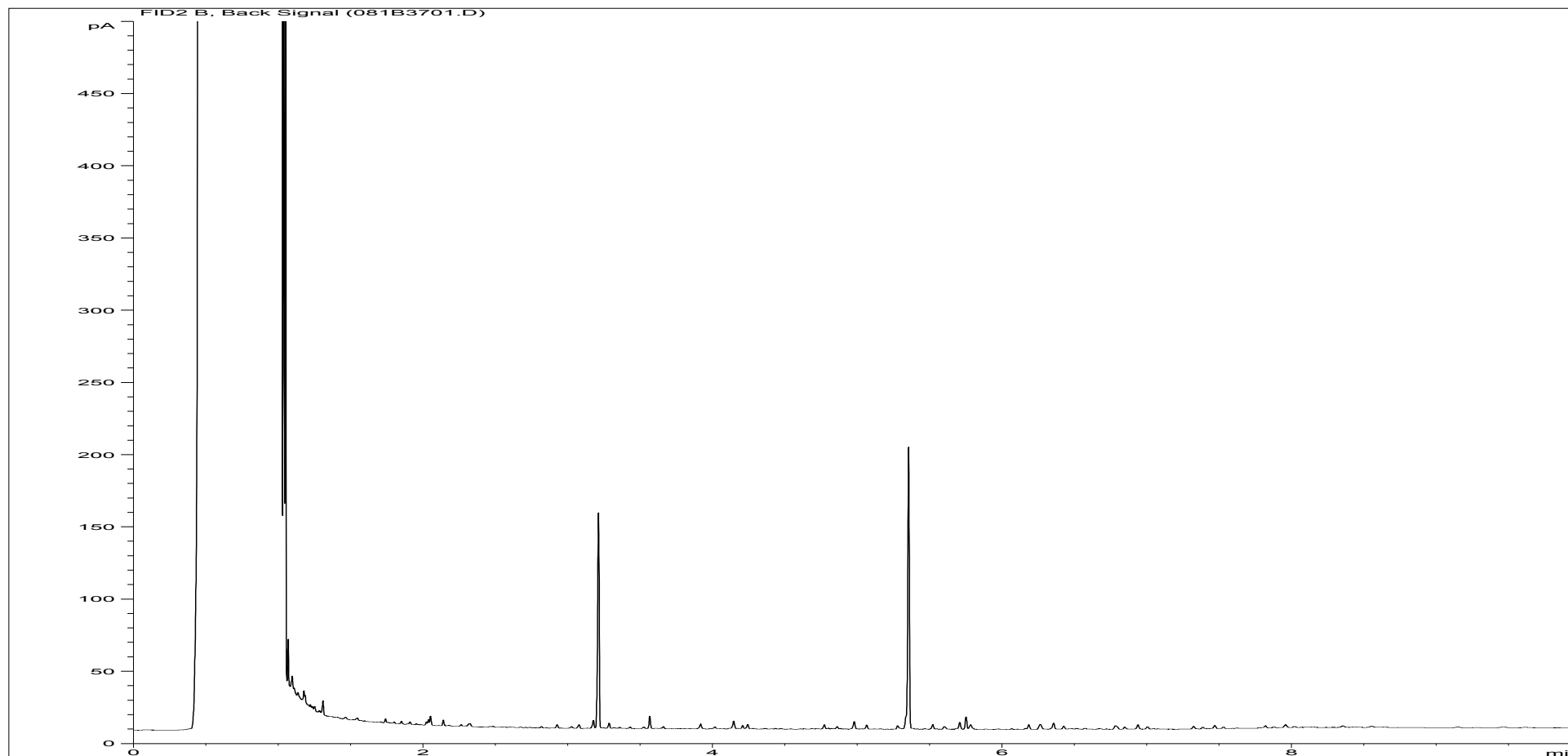
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1281647ALI | Job Number: | W13_4273 |
| Multiplier: | 0.019 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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\031F3701.D | | |

Where individual results are flagged see report notes for status.

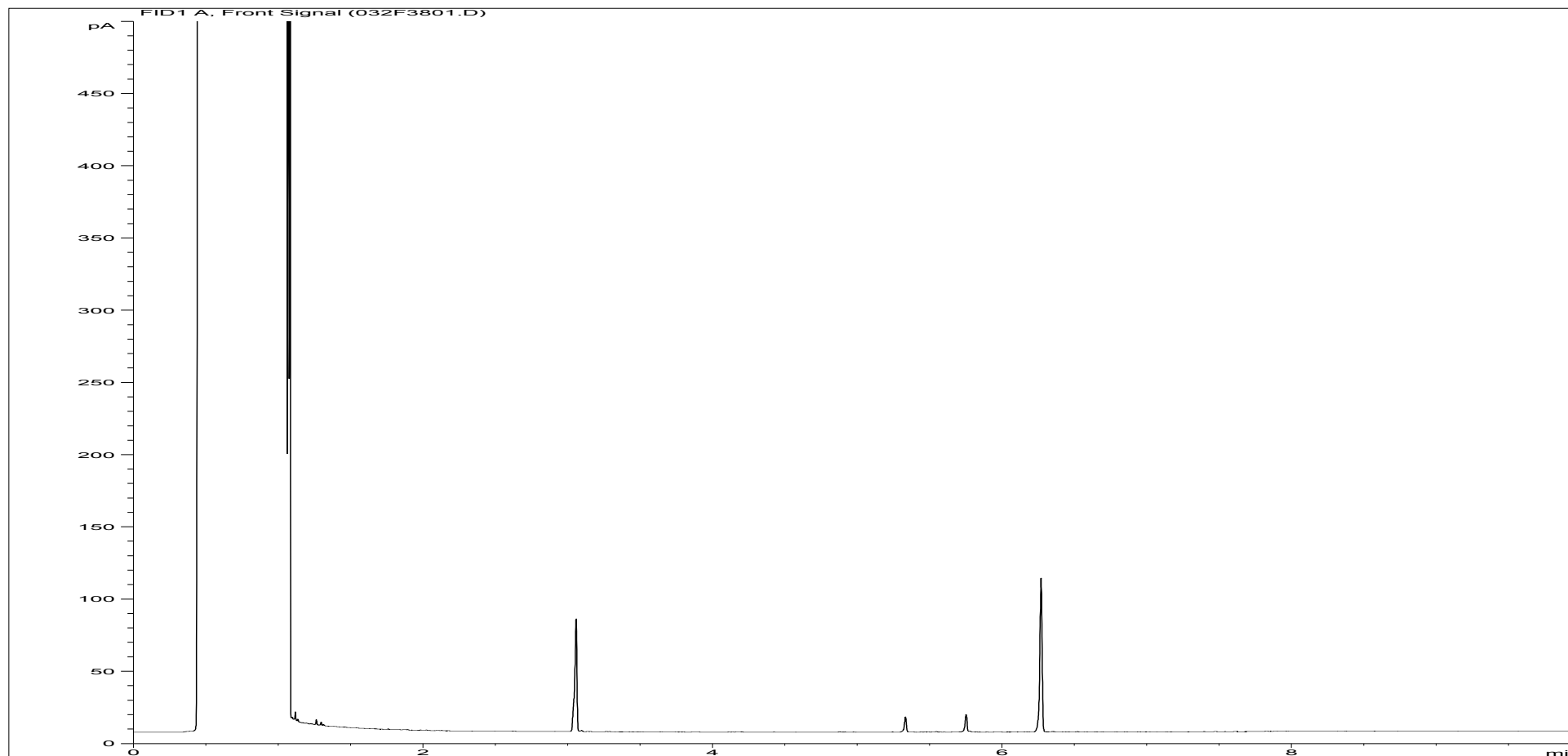
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1281647ARO | Job Number: | W13_4273 |
| Multiplier: | 0.015 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

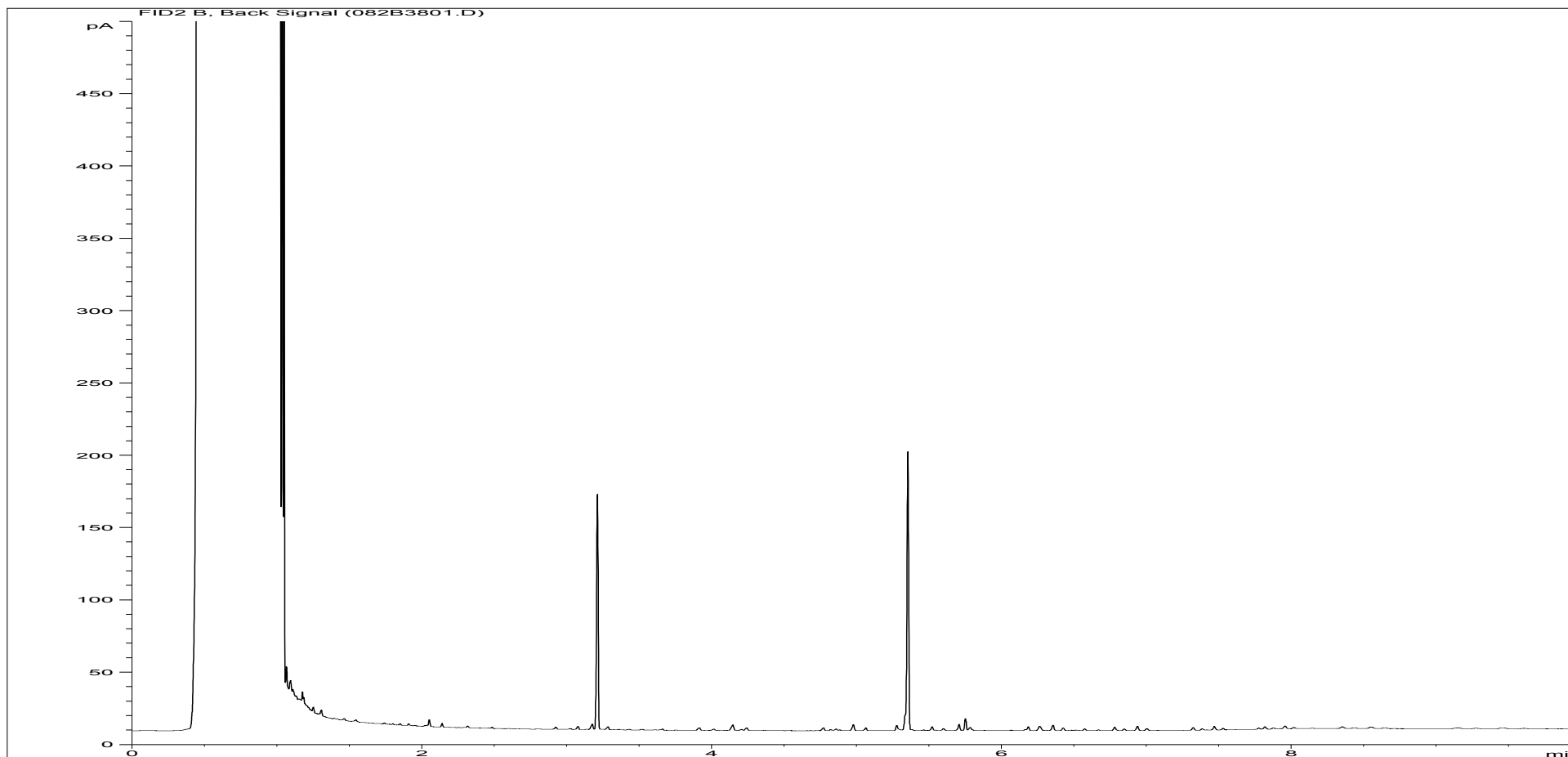
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1281648ALI | Job Number: | W13_4273 |
| Multiplier: | 0.019 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

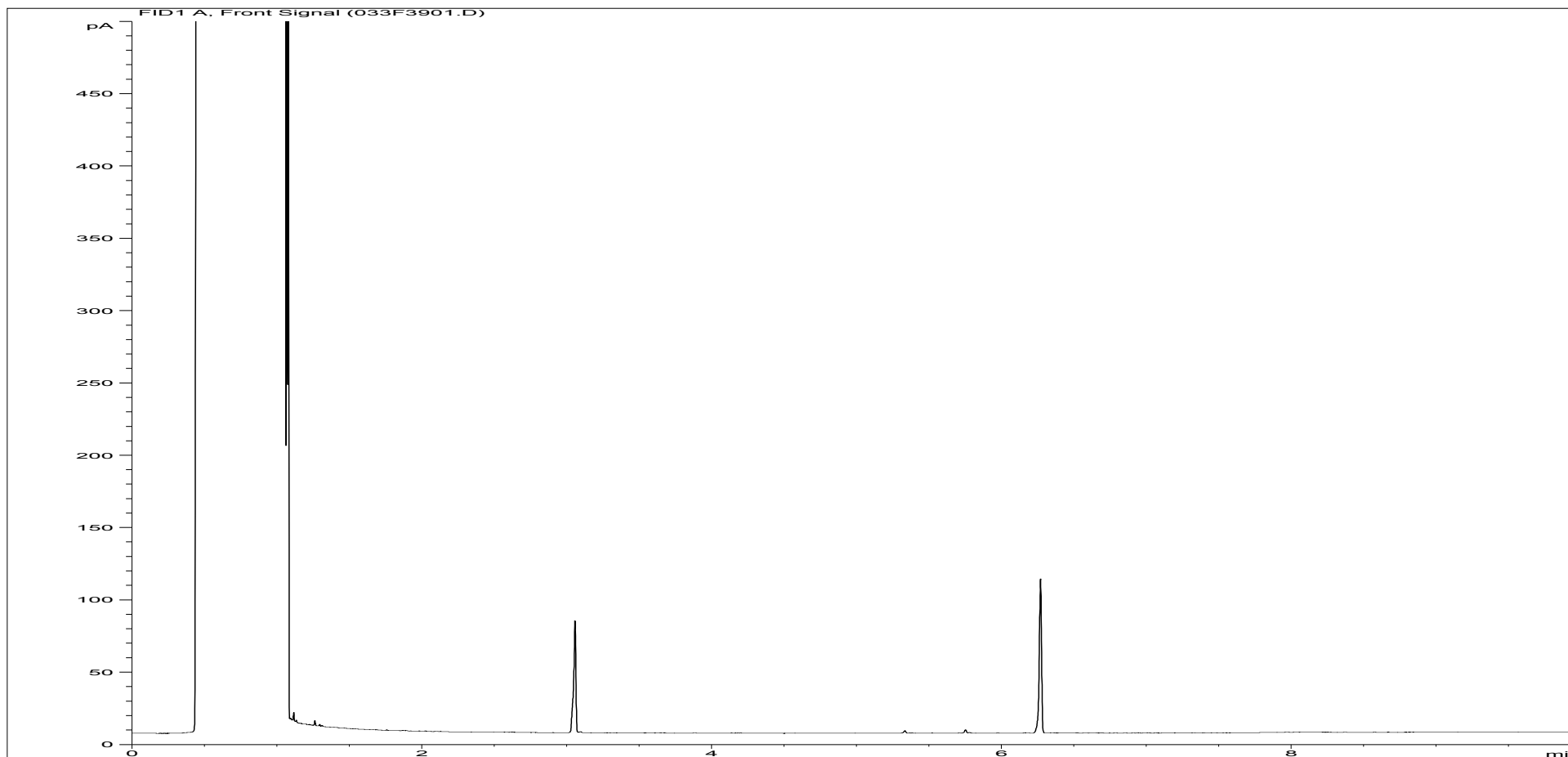
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1281648ARO | Job Number: | W13_4273 |
| Multiplier: | 0.015 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

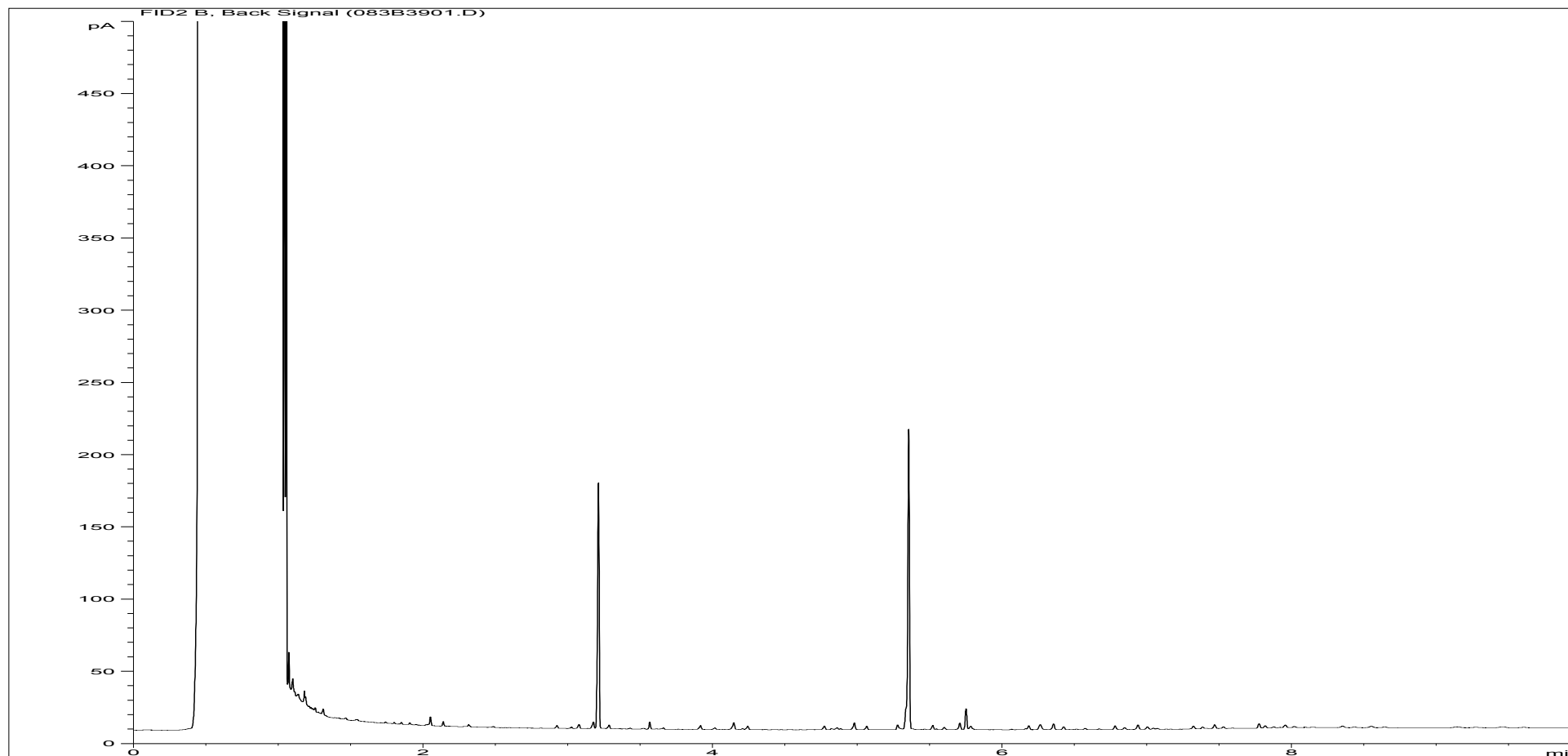
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1281649ALI | Job Number: | W13_4273 |
| Multiplier: | 0.019 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

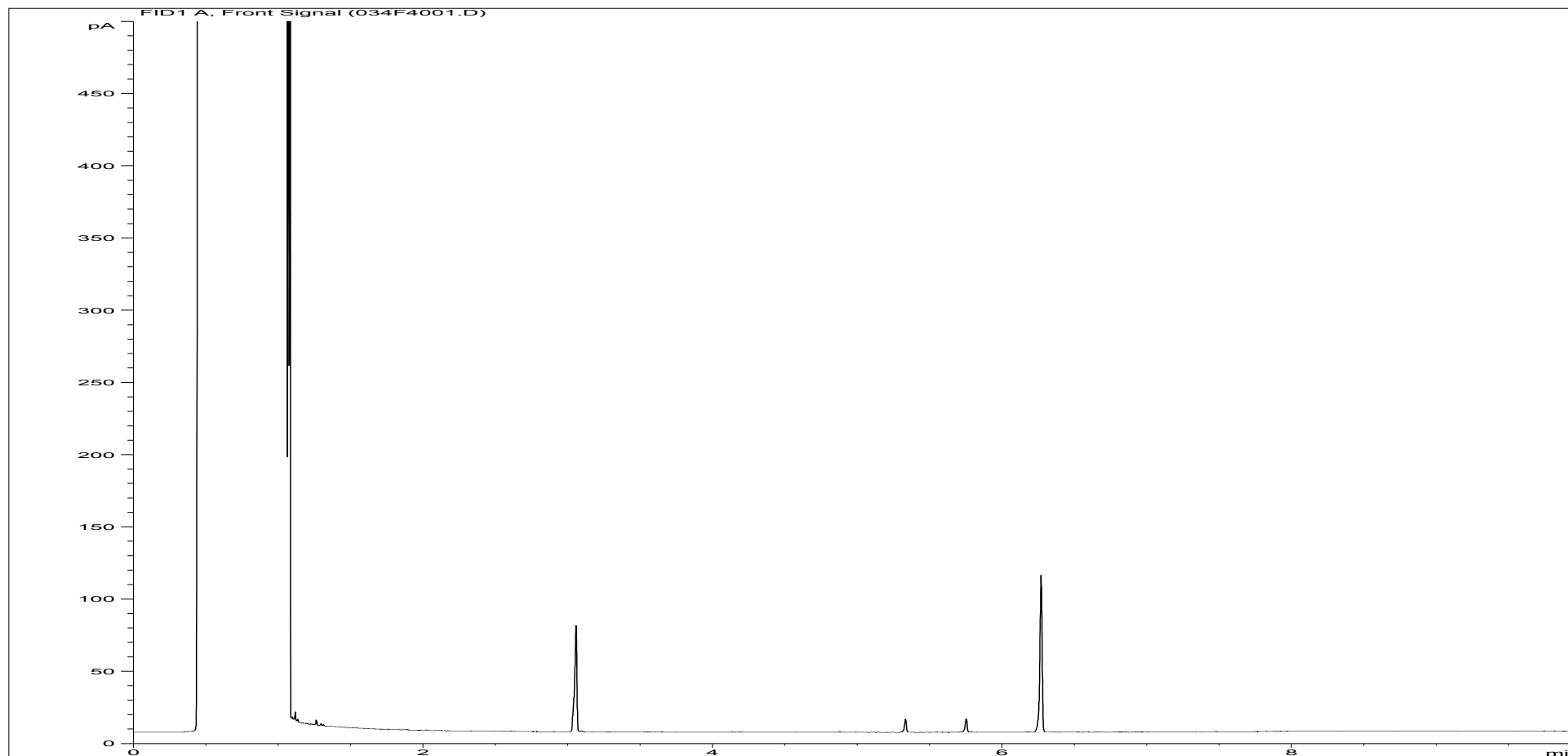
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1281649ARO | Job Number: | W13_4273 |
| Multiplier: | 0.015 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

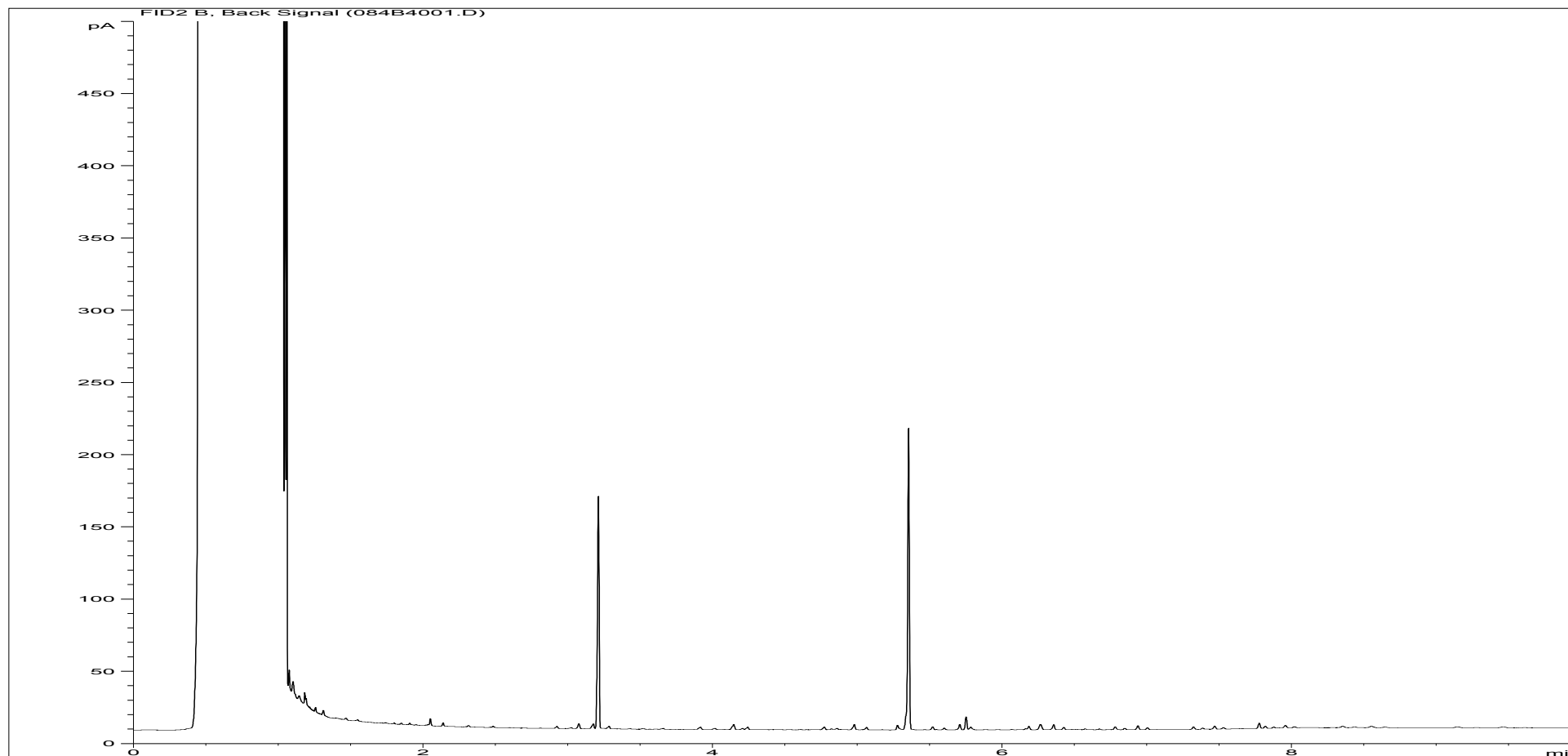
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1281650ALI | Job Number: | W13_4273 |
| Multiplier: | 0.019 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

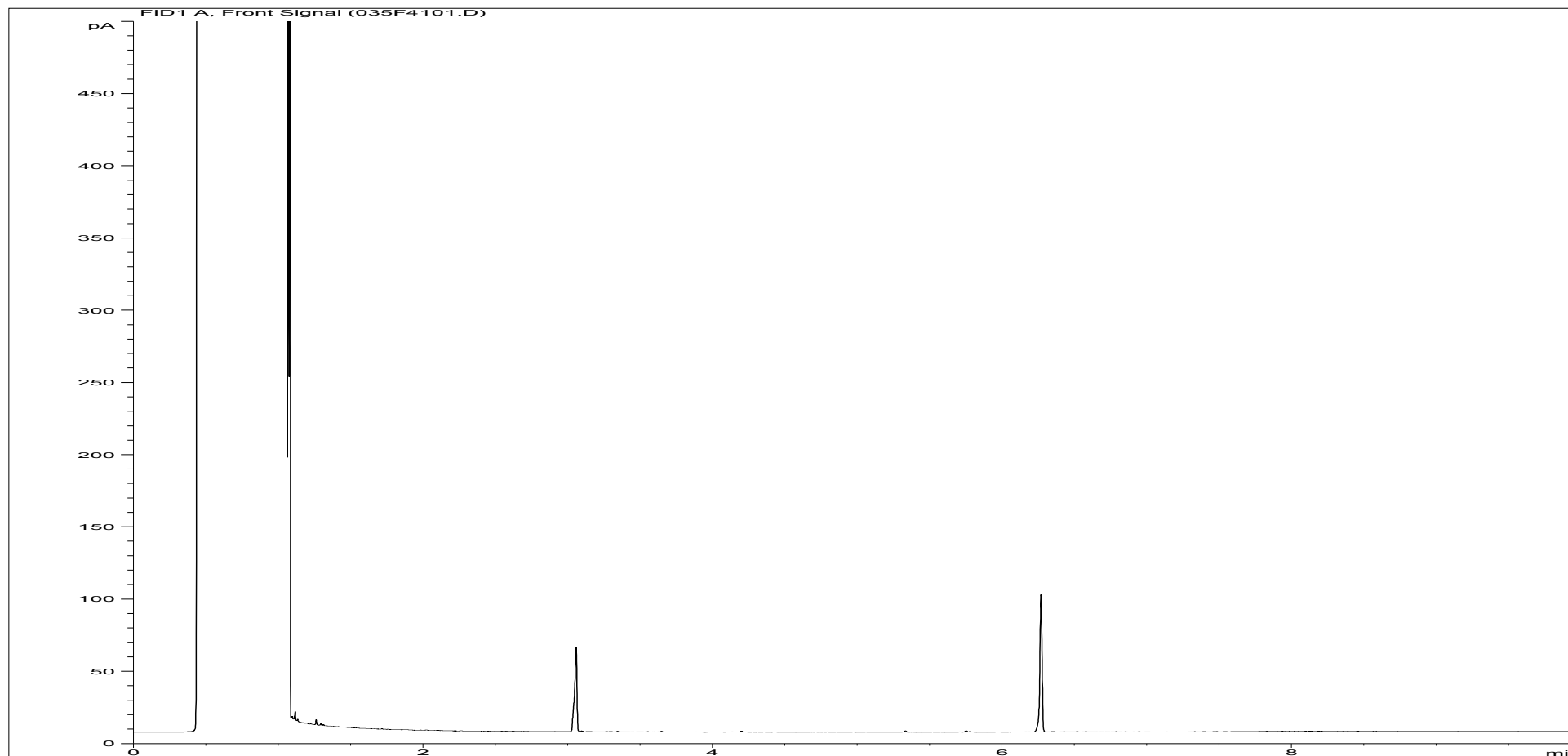
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1281650ARO | Job Number: | W13_4273 |
| Multiplier: | 0.015 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

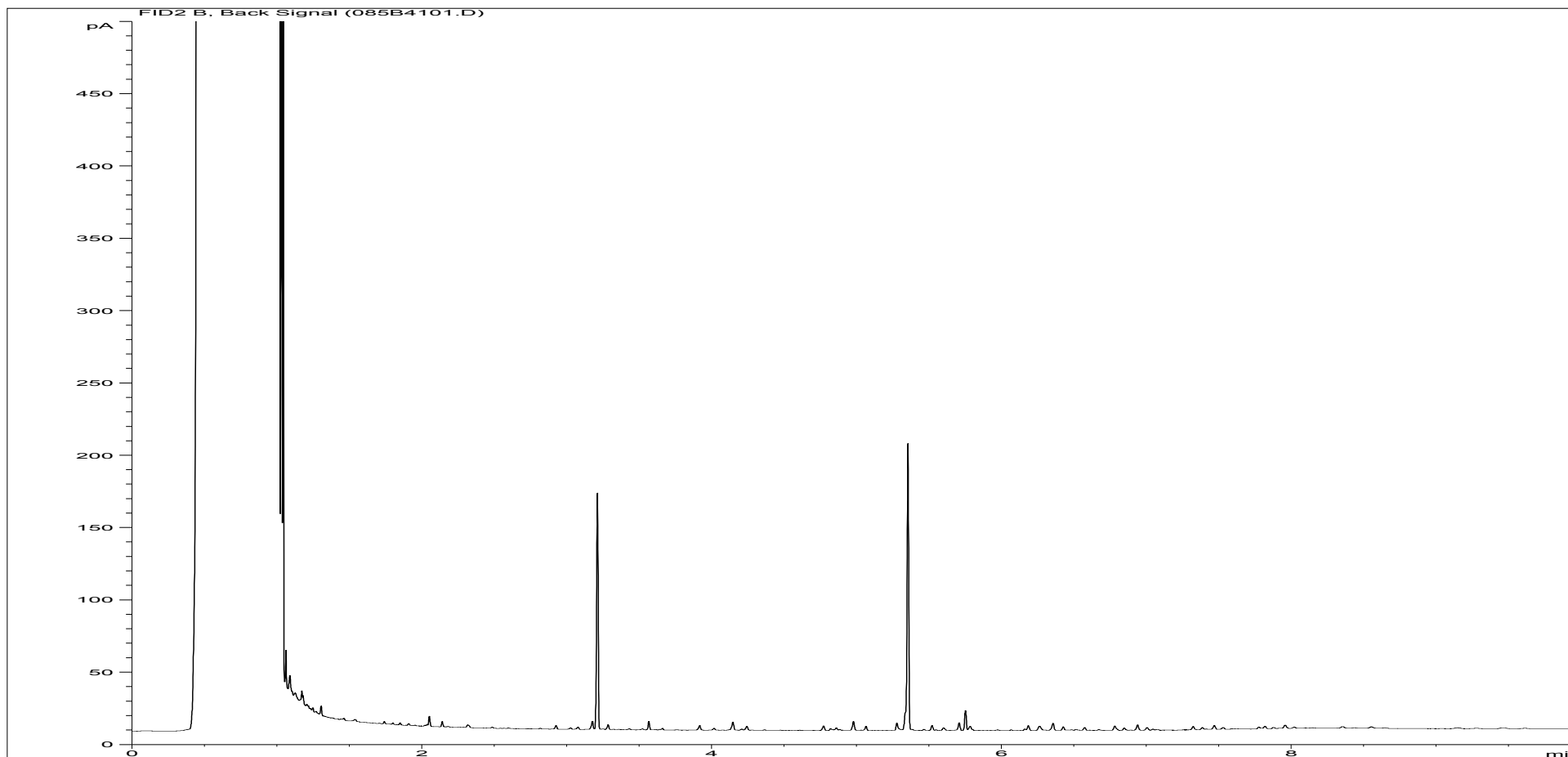
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1281651ALI | Job Number: | W13_4273 |
| Multiplier: | 0.019 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

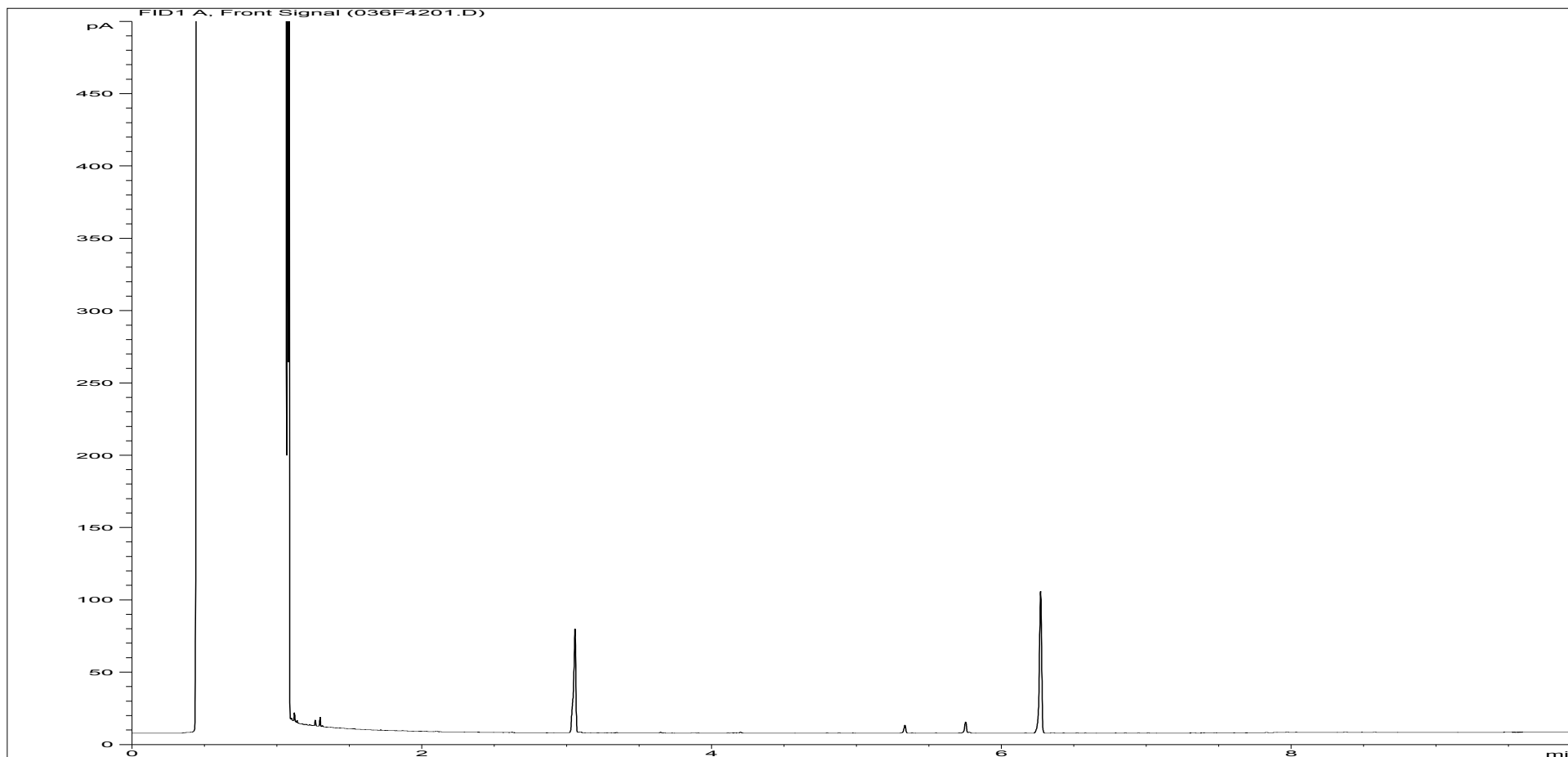
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1281651ARO | Job Number: | W13_4273 |
| Multiplier: | 0.015 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

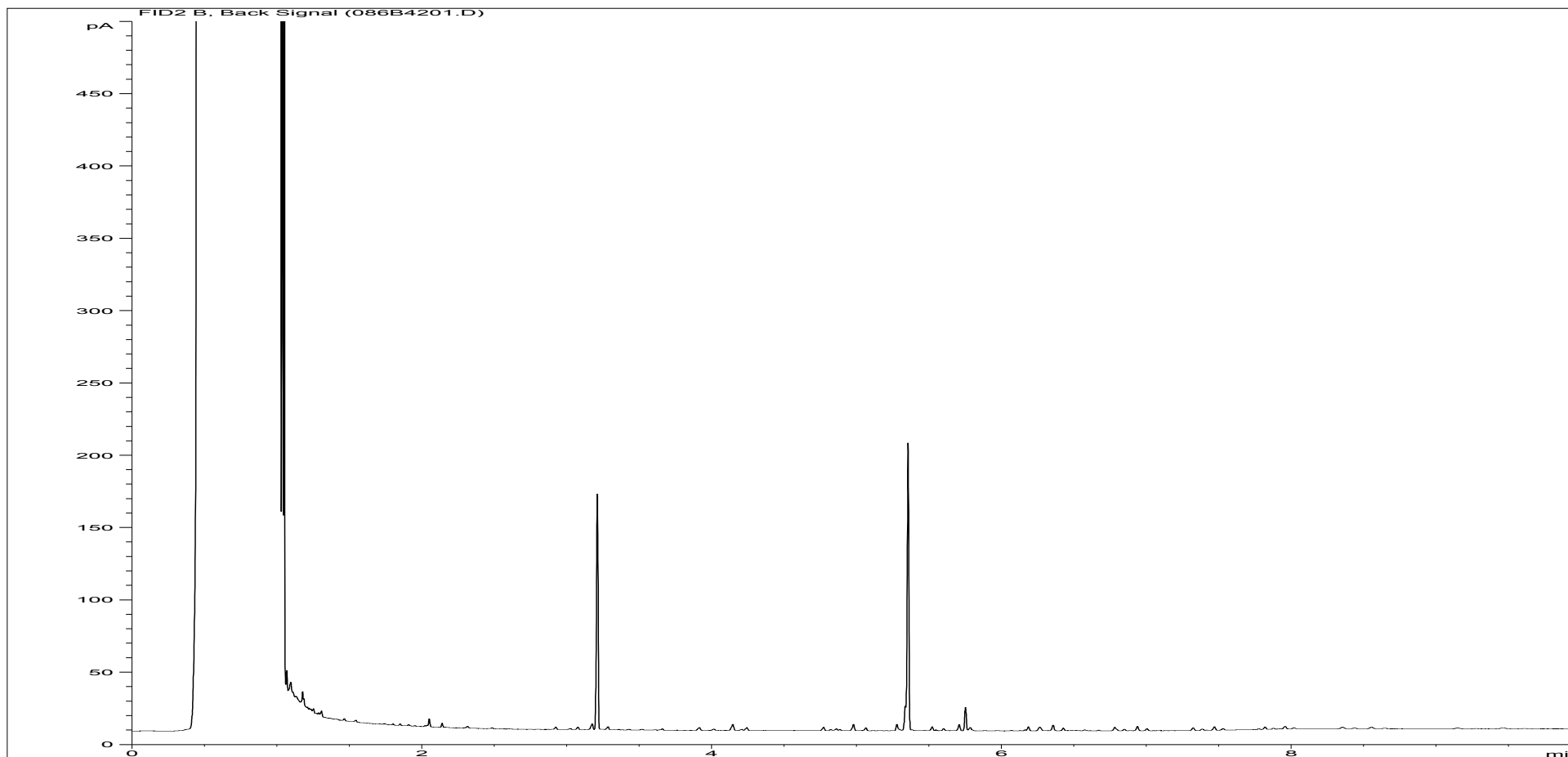
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1281652ALI | Job Number: | W13_4273 |
| Multiplier: | 0.019 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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\036F4201.D | | |

Where individual results are flagged see report notes for status.

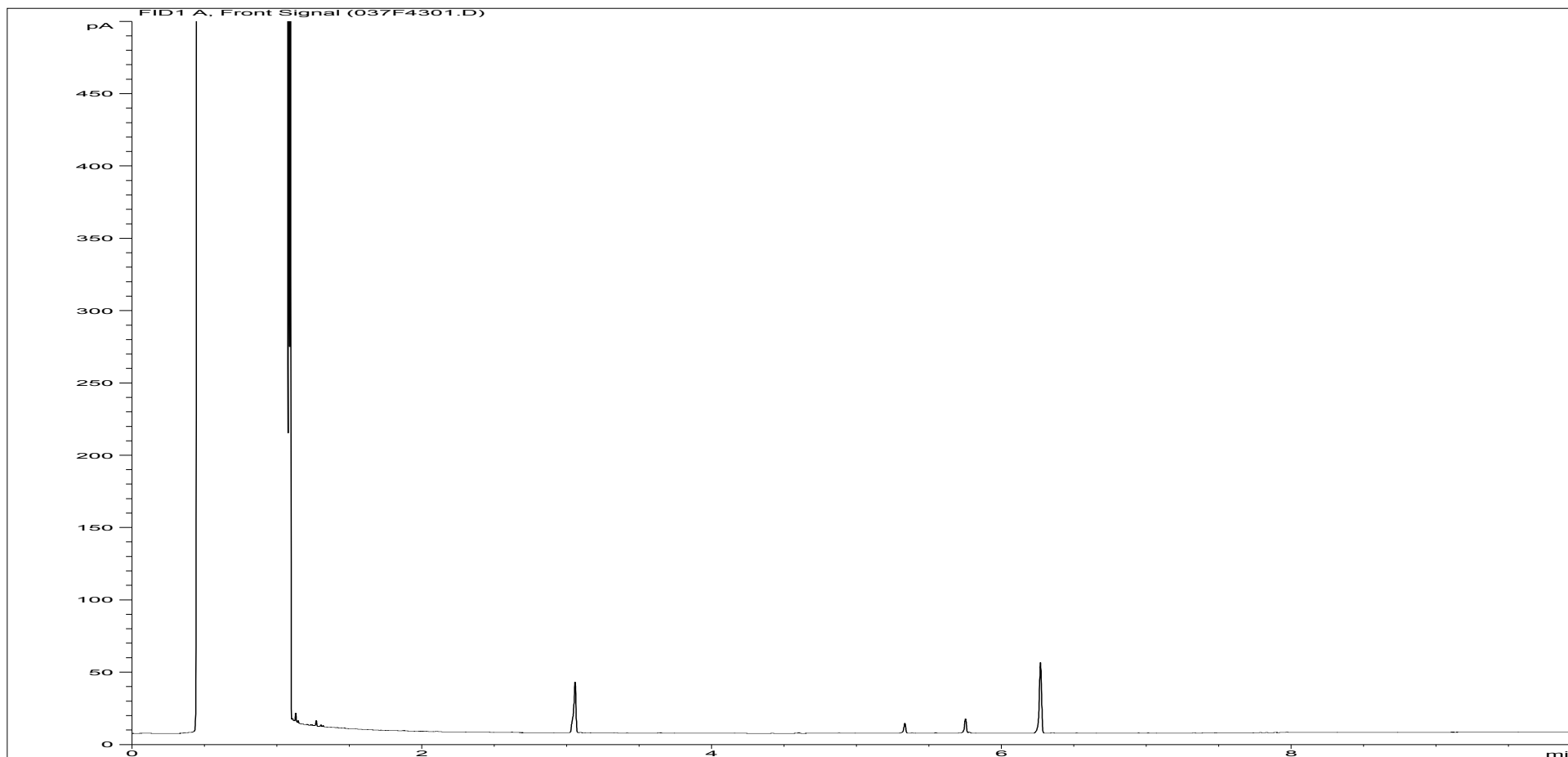
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1281652ARO | Job Number: | W13_4273 |
| Multiplier: | 0.015 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

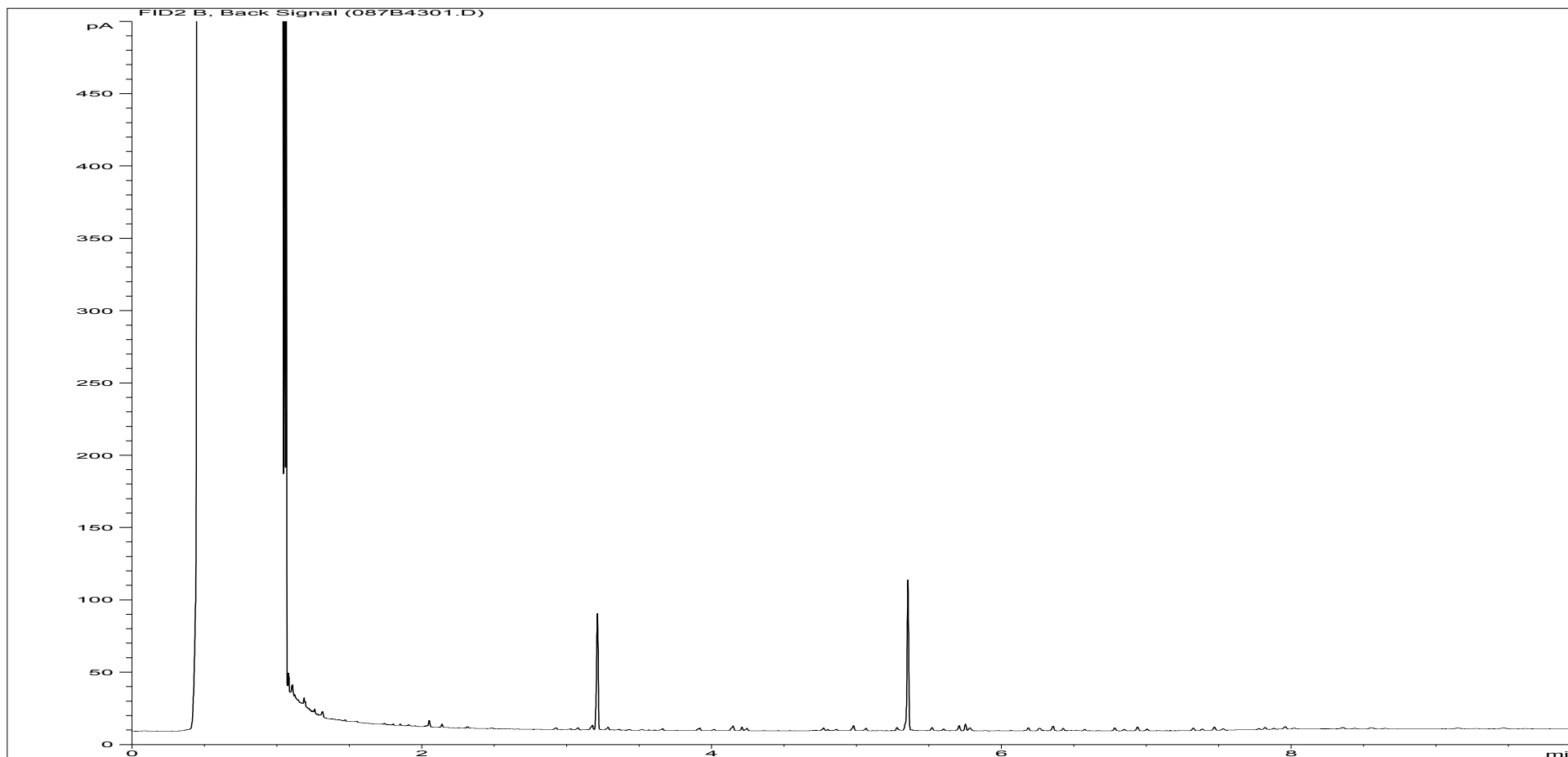
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1281653ALI | Job Number: | W13_4273 |
| Multiplier: | 0.019 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

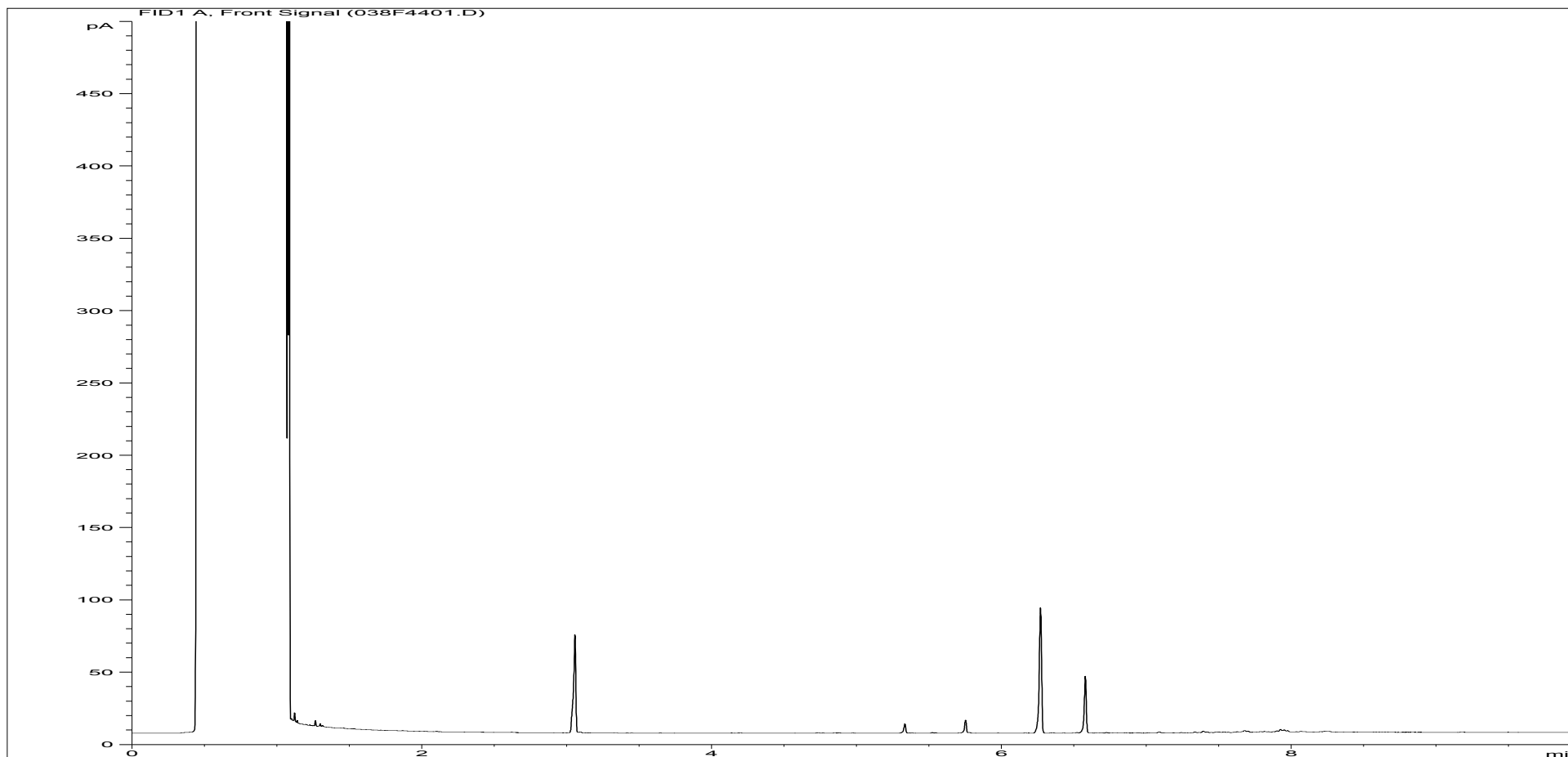
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1281653ARO | Job Number: | W13_4273 |
| Multiplier: | 0.015 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

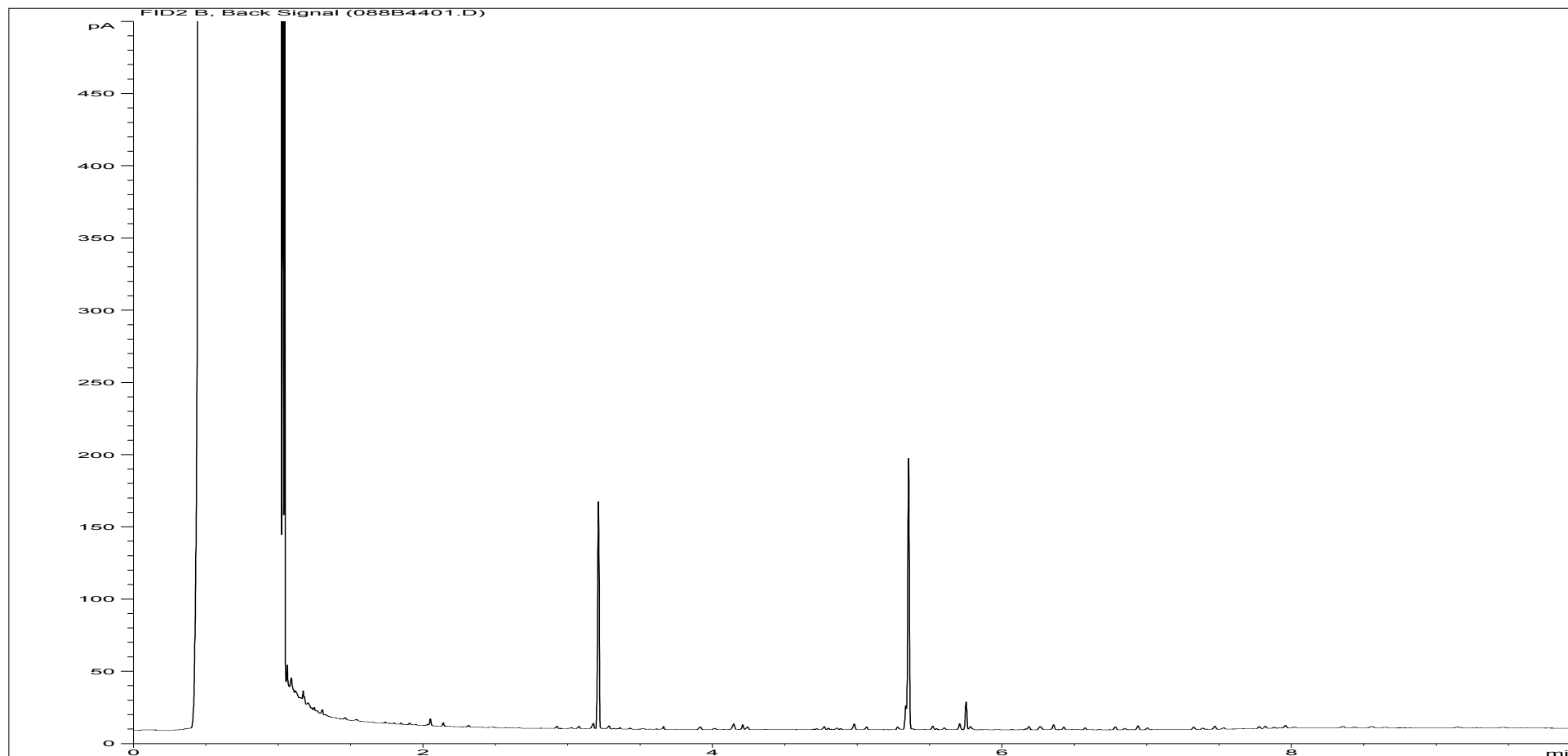
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1281654ALI | Job Number: | W13_4273 |
| Multiplier: | 0.019 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client Sample Ref: | BH-NSA-18 |
| 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 | | |

Where individual results are flagged see report notes for status.

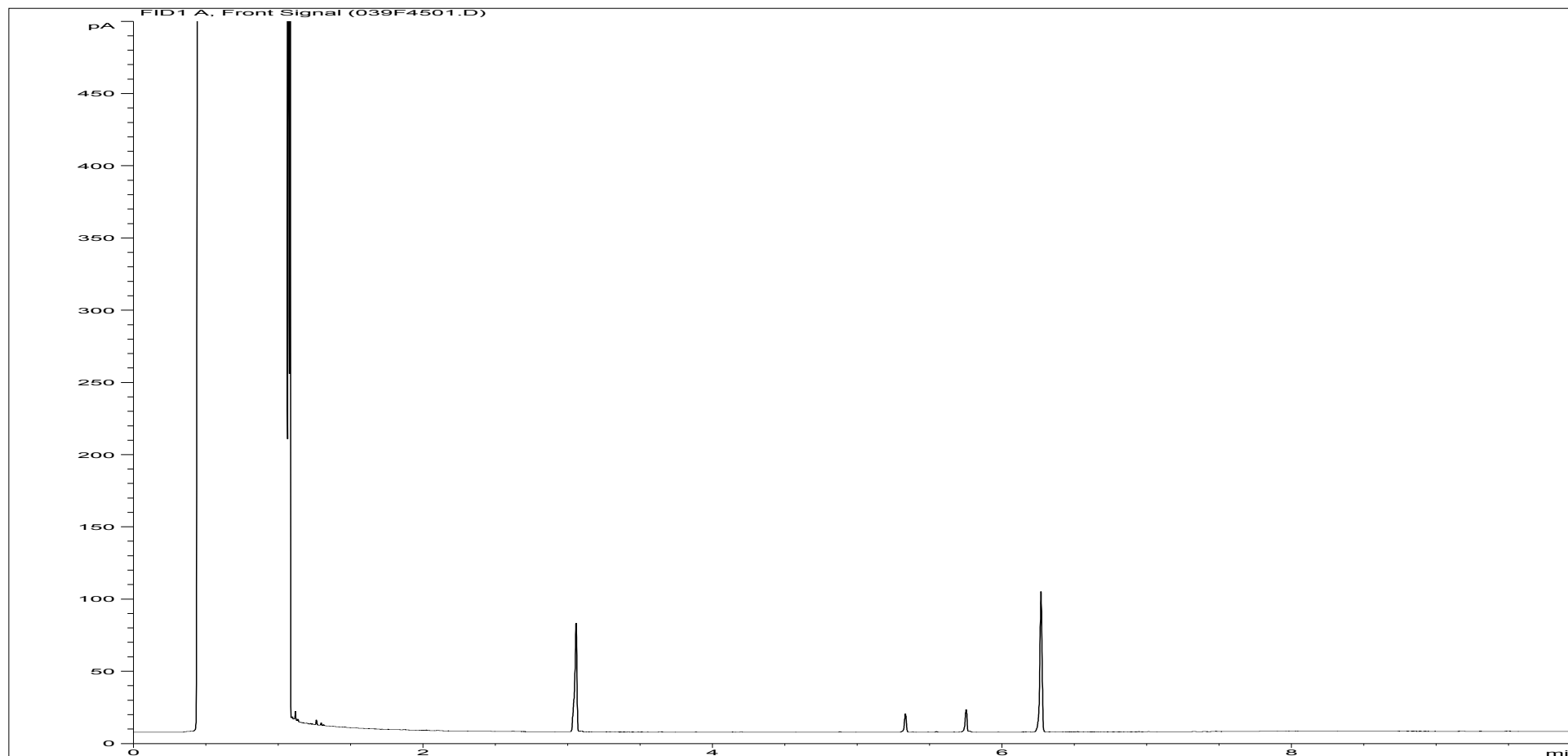
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1281654ARO | Job Number: | W13_4273 |
| Multiplier: | 0.015 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client Sample Ref: | BH-NSA-18 |
| Acquisition Date/Time: | 10-Apr-12, 05:13:16 | | |
| Datafile: | D:\TES\DATA\Y2012\040912TPH_GC15\0409 2012-04-09 17-05-53\088B4401.D | | |

Where individual results are flagged see report notes for status.

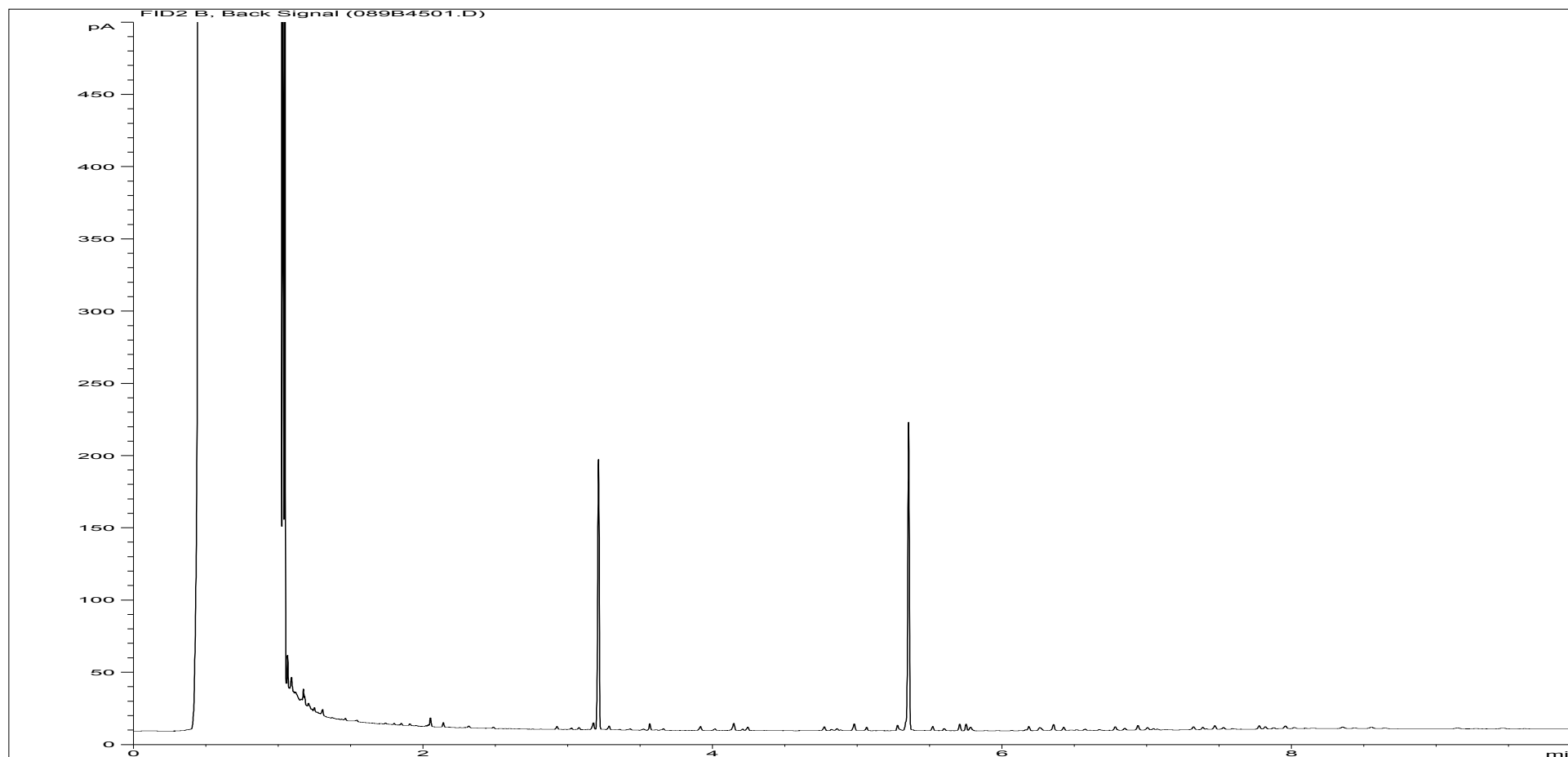
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1281655ALI | Job Number: | W13_4273 |
| Multiplier: | 0.019 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

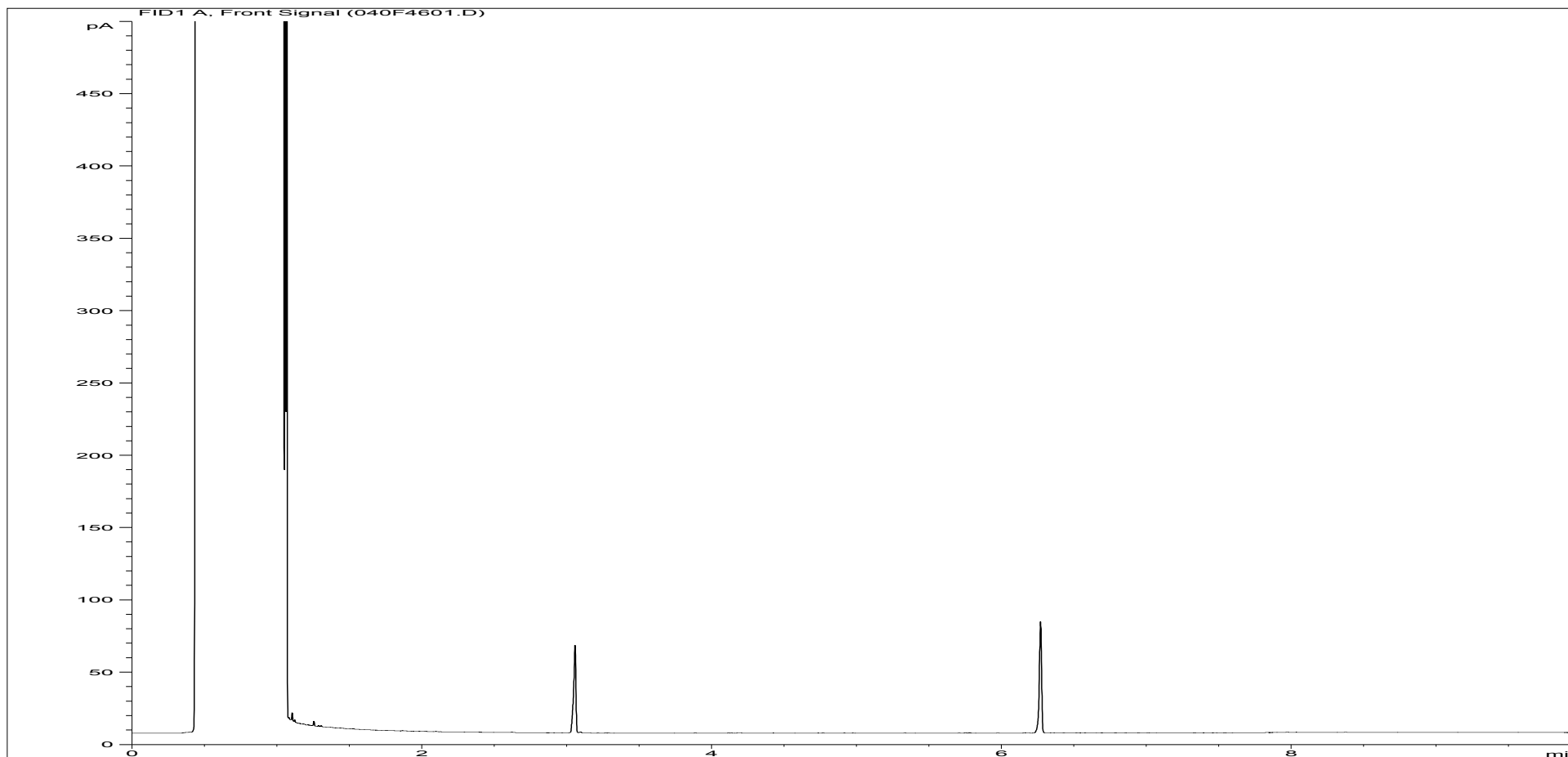
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1281655ARO | Job Number: | W13_4273 |
| Multiplier: | 0.015 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

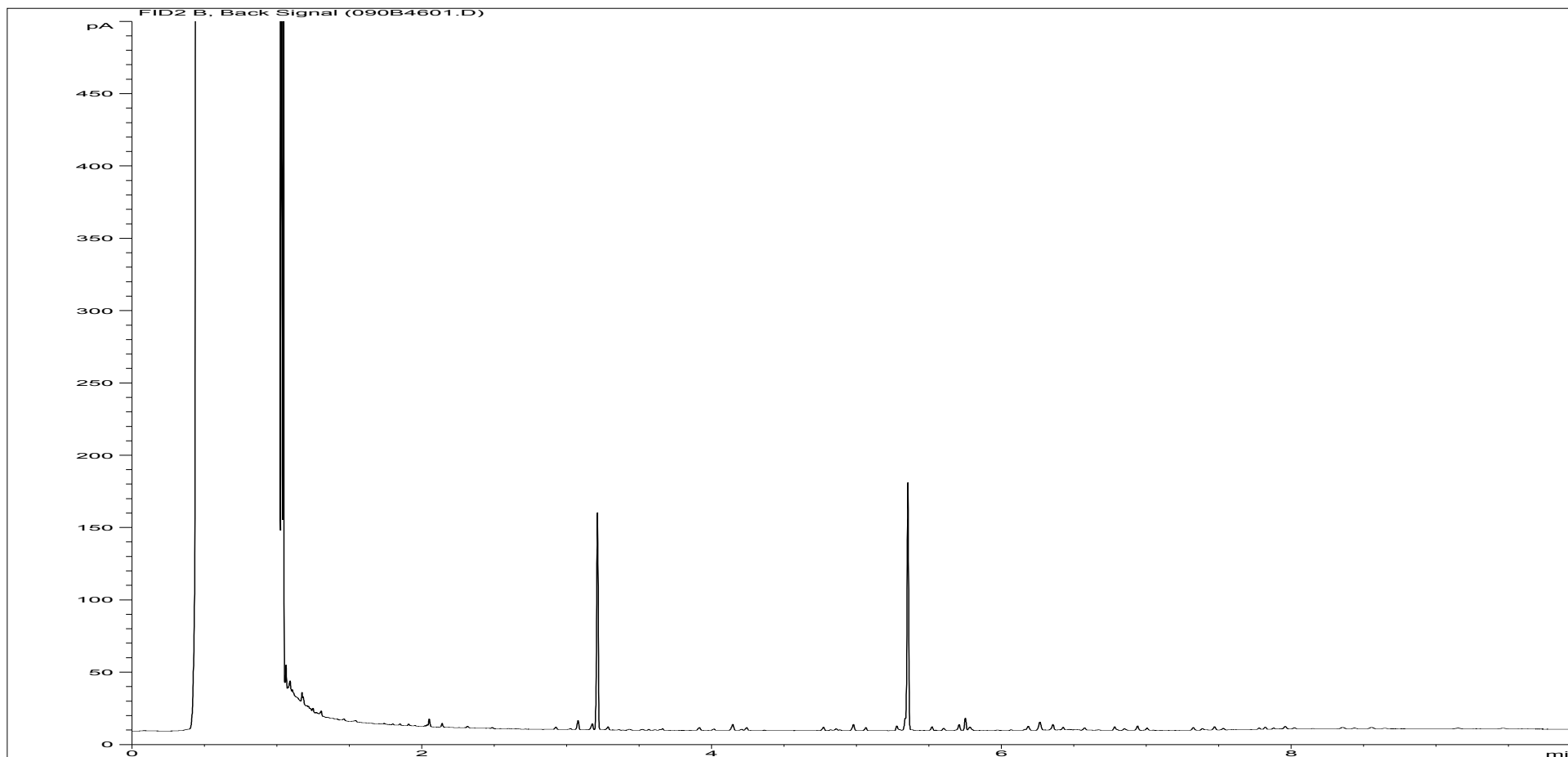
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1281656ALI | Job Number: | W13_4273 |
| Multiplier: | 0.019 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

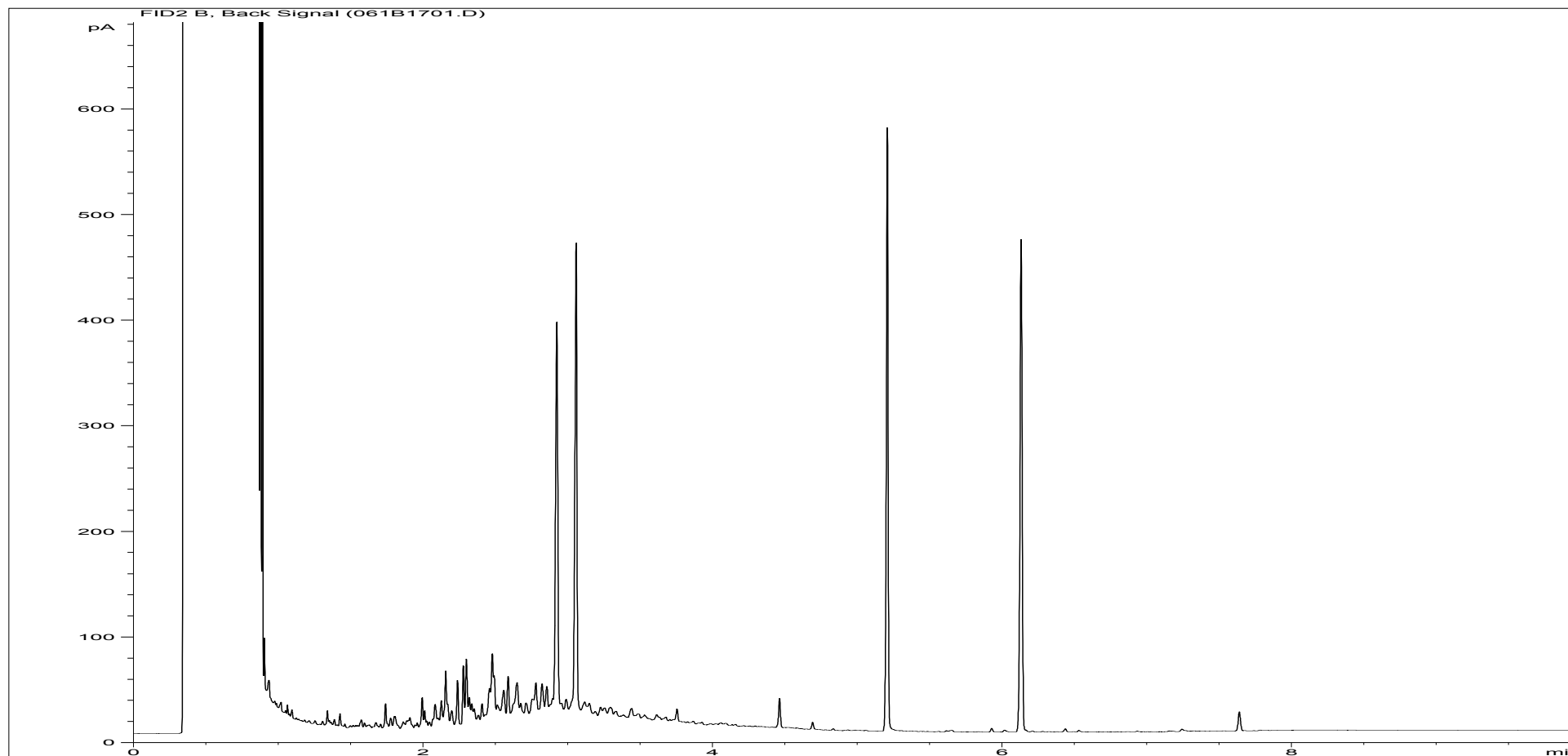
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1281656ARO | Job Number: | W13_4273 |
| Multiplier: | 0.015 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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\090B4601.D | | |

Where individual results are flagged see report notes for status.

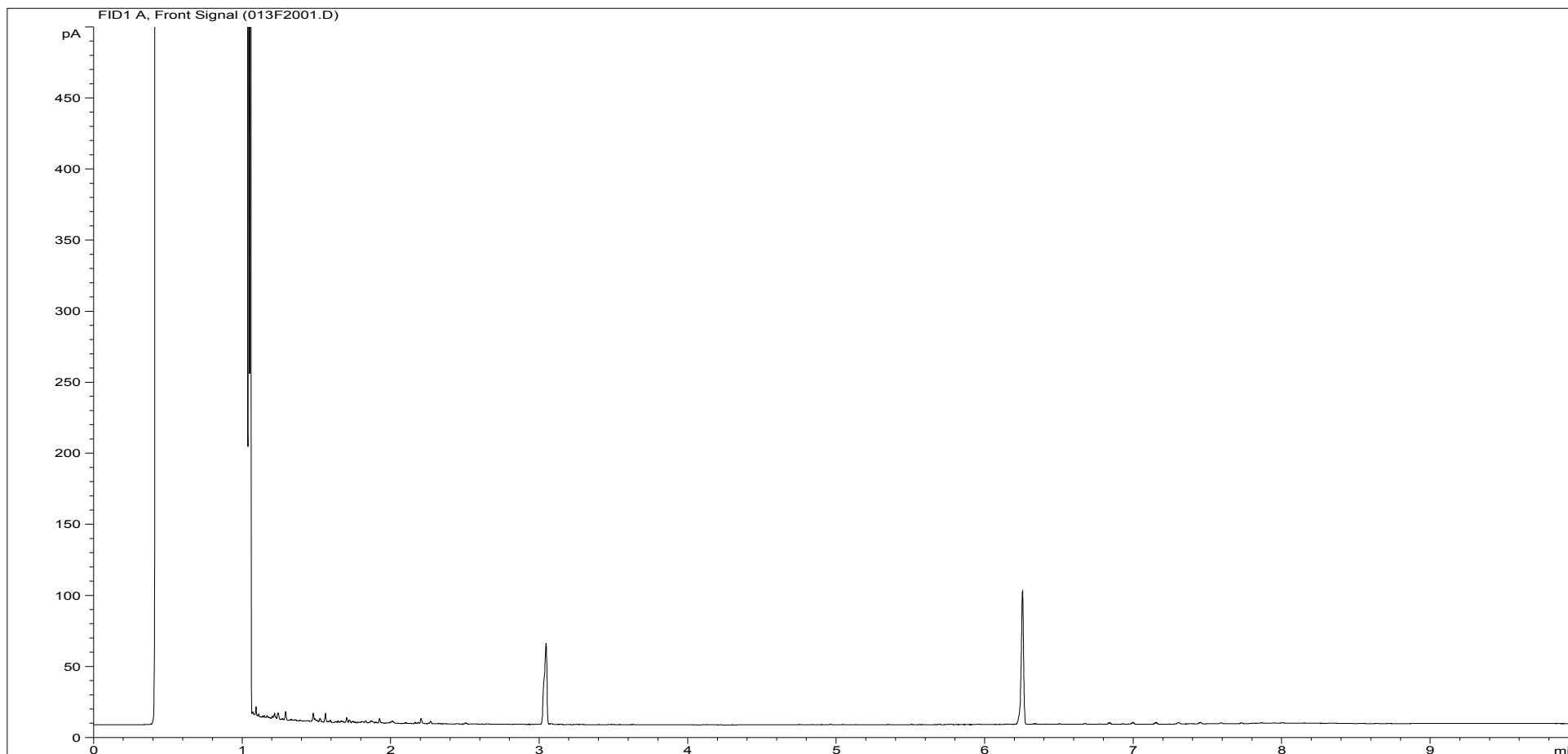
Petroleum Hydrocarbons (C8 to C40) by GC/FID



| | | | |
|-------------------------------|---|---------------------------|---------------|
| Sample ID: | EX1281657 | Job Number: | W13_4273 |
| Multiplier: | 0.005 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client Sample Ref: | BH-NSA-21 |
| Acquisition Date/Time: | 05-Apr-12, 19:43:19 | | |
| Datafile: | D:\TES\DATA\Y2012\040512TPH_GC17\061B1701.D | | |

Where individual results are flagged see report notes for status.

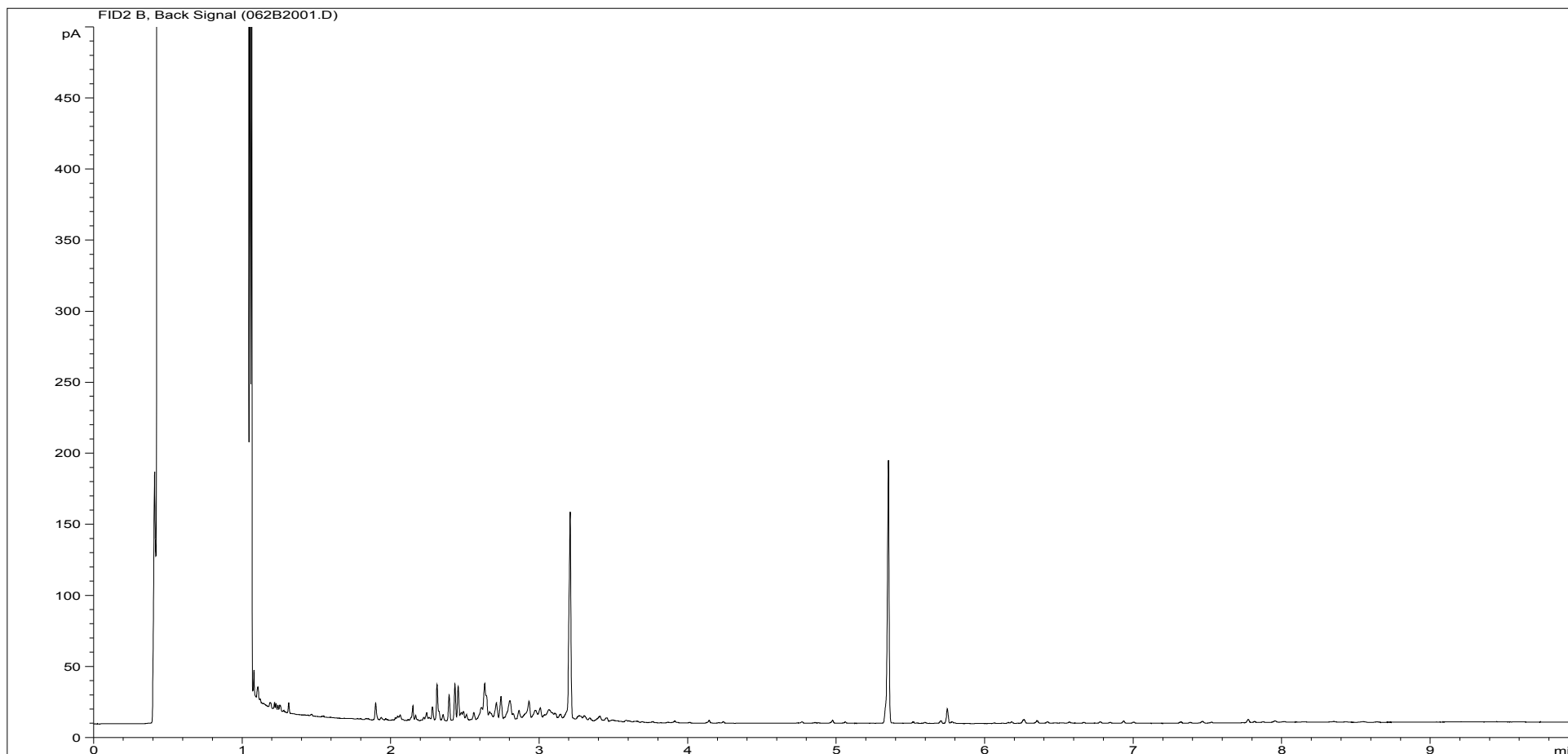
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1281657ALI | Job Number: | W13_4273 |
| Multiplier: | 0.019 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

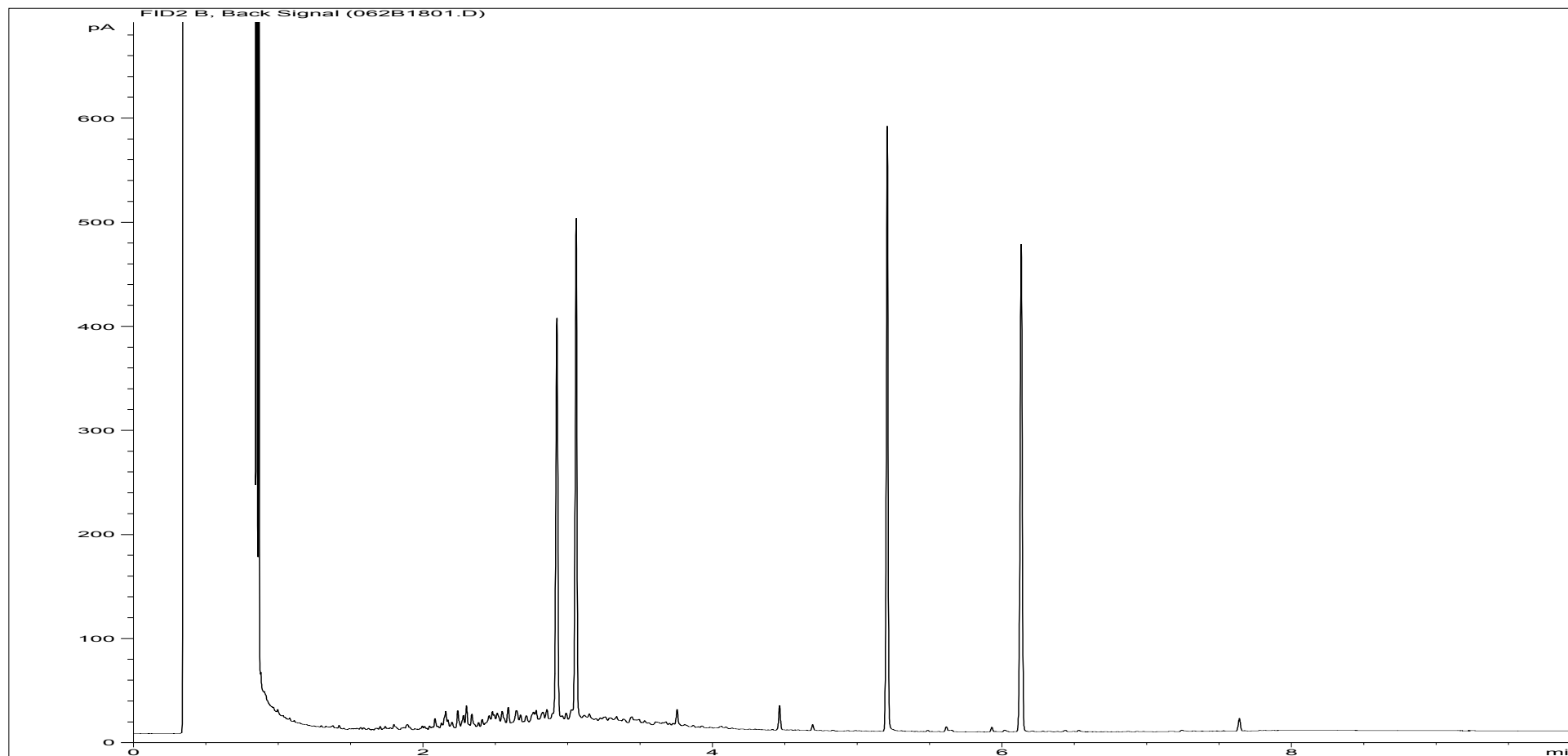
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1281657ARO | Job Number: | W13_4273 |
| Multiplier: | 0.015 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

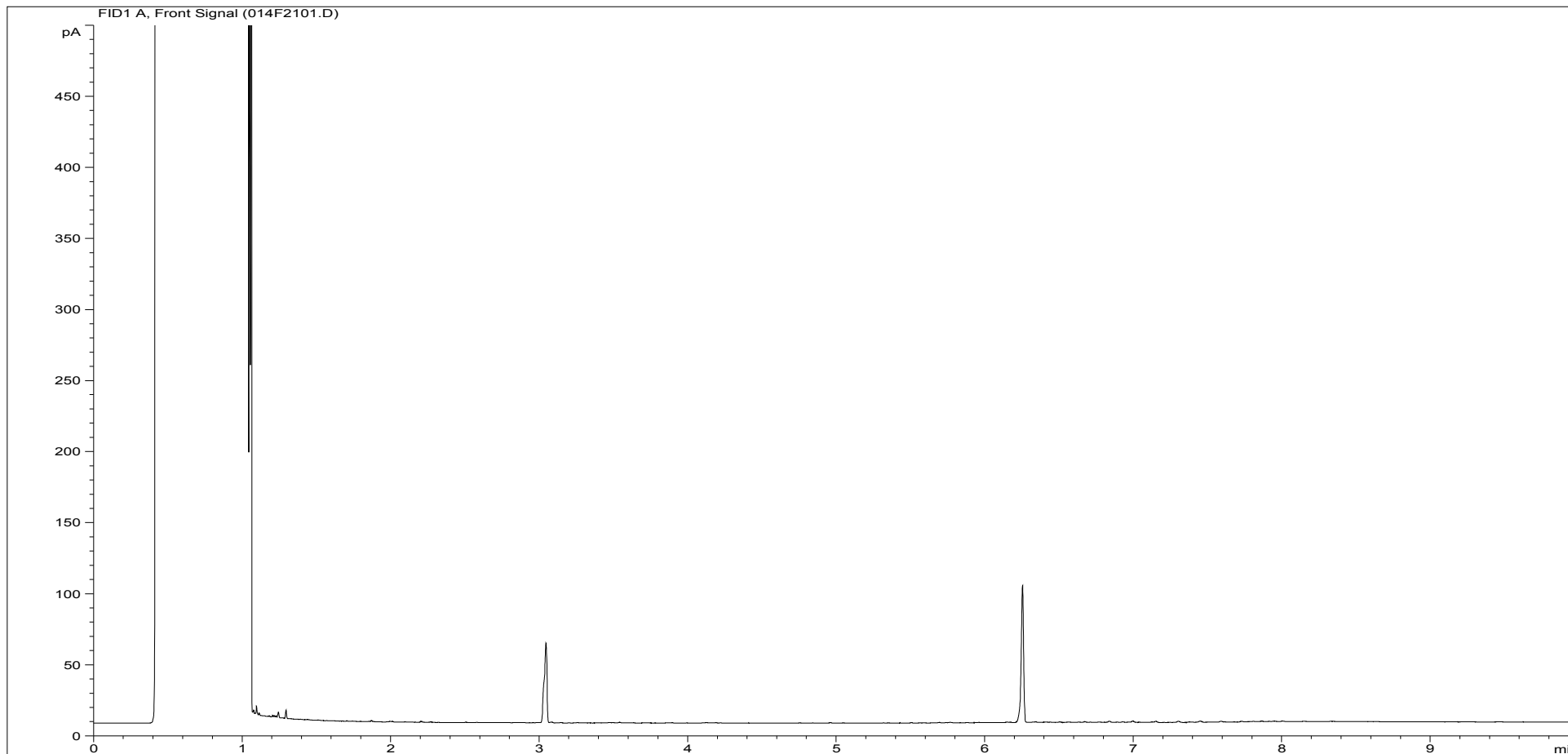
Petroleum Hydrocarbons (C8 to C40) by GC/FID



| | | | |
|-------------------------------|---|---------------------------|---------------|
| Sample ID: | EX1281658 | Job Number: | W13_4273 |
| Multiplier: | 0.005 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client Sample Ref: | BH-NSA-22 |
| Acquisition Date/Time: | 05-Apr-12, 20:00:09 | | |
| Datafile: | D:\TES\DATA\Y2012\040512TPH_GC17\062B1801.D | | |

Where individual results are flagged see report notes for status.

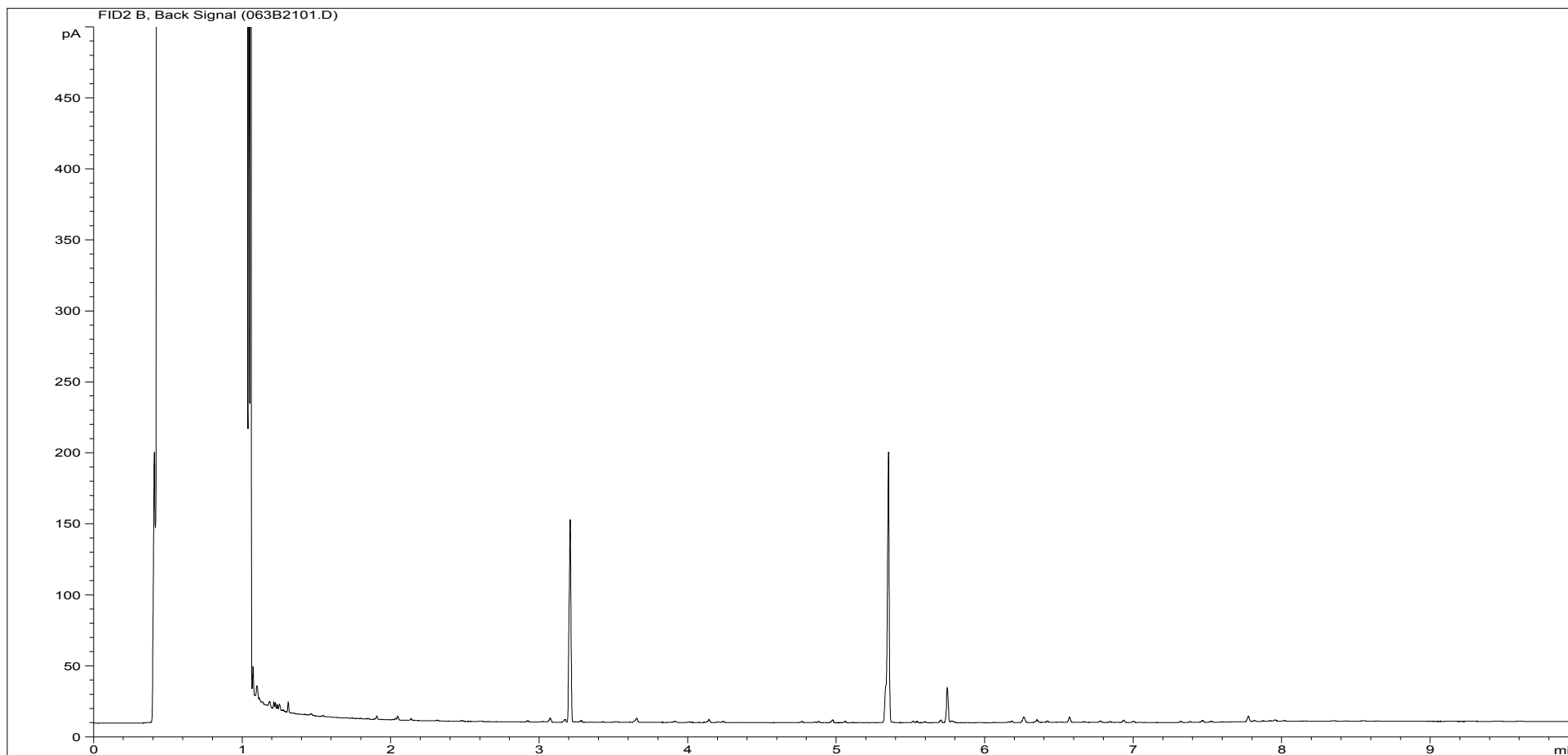
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1281658ALI | Job Number: | W13_4273 |
| Multiplier: | 0.019 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | 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\014F2101.D | | |

Where individual results are flagged see report notes for status.

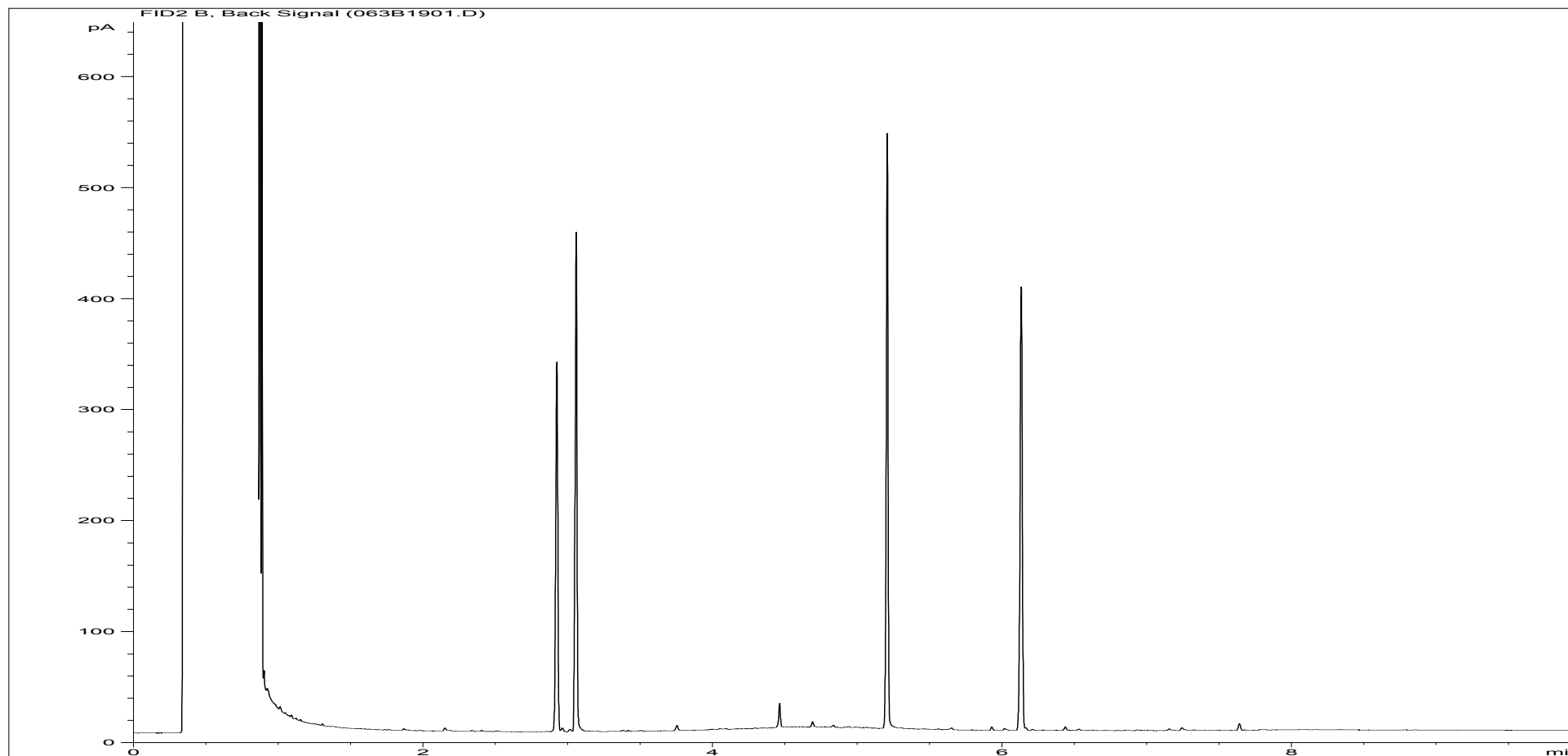
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1281658ARO | Job Number: | W13_4273 |
| Multiplier: | 0.015 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | 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 | | |

Where individual results are flagged see report notes for status.

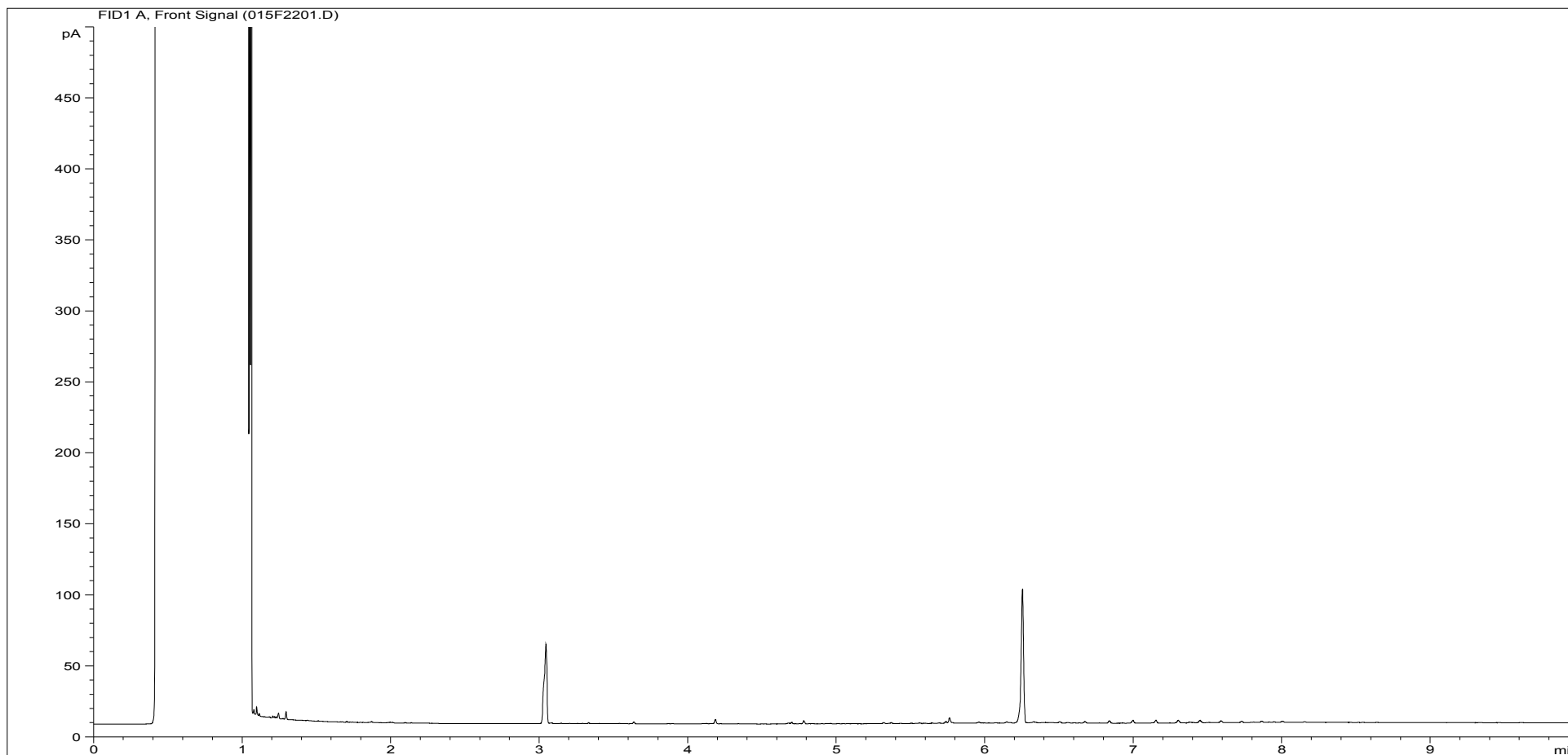
Petroleum Hydrocarbons (C8 to C40) by GC/FID



| | | | |
|-------------------------------|---|---------------------------|---------------|
| Sample ID: | EX1281659 | Job Number: | W13_4273 |
| Multiplier: | 0.005 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client Sample Ref: | BH-NSA-38 |
| Acquisition Date/Time: | 05-Apr-12, 20:16:54 | | |
| Datafile: | D:\TES\DATA\Y2012\040512TPH_GC17\063B1901.D | | |

Where individual results are flagged see report notes for status.

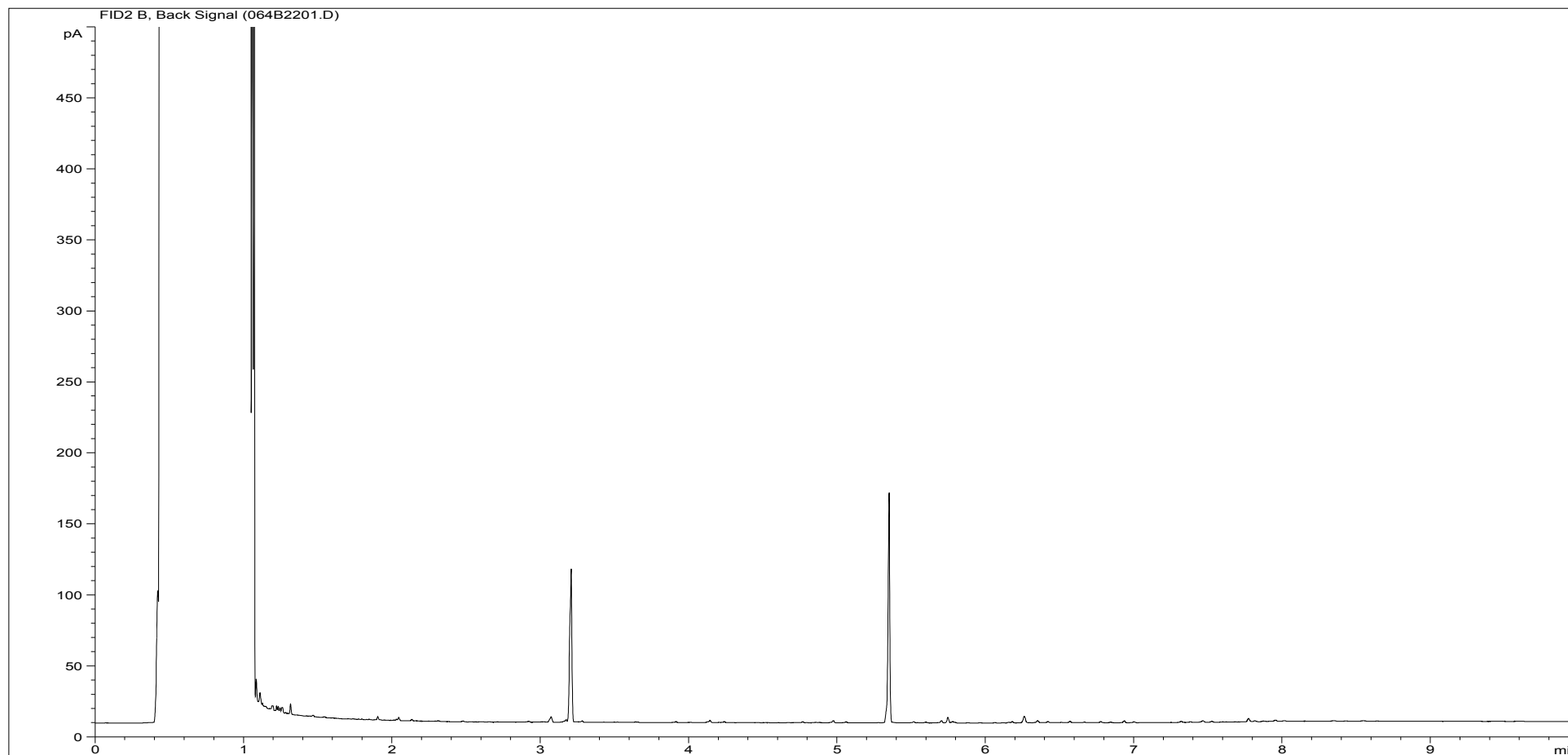
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1281659ALI | Job Number: | W13_4273 |
| Multiplier: | 0.019 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1281659ARO | Job Number: | W13_4273 |
| Multiplier: | 0.015 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

Customer Waterman EED
Site Upper Heyford
Report No W134273





Consignment No W35676
Date Logged 27-Mar-2012

Report Due 10-Apr-2012

| ID Number | Description | MethodID | CURSERV | GROHSA | PAHMSW | SVOC | TPHFID | TPHFID-SI | Sampled |
|------------------------|-------------|----------|---------|--------|--------|------|--------|-----------|---------|
| | | | | | | | | | |
| 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 Sample Key | |
|---|---|
| A | appropriate container for this analysis |
| B | he correct preservation for this analysis |
| C | : in the sample container |
| D | time may be compromised - applicable to all analysis |
| E | nce 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 |

Where individual results are flagged see report notes for status.

Customer Waterman EED
Site Upper Heyford
Report No W134273





Consignment No W35676
Date Logged 27-Mar-2012

Report Due 10-Apr-2012

| ID Number | Description | MethodID | CURSERV | GROHSA | PAHMSW | SVOCMS | TPHFID | TPHFID-SI | Sampled |
|------------------------|-------------|----------|---------|--------|--------|--------|--------|-----------|---------|
| | | | | | | | | | |
| 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.

| Deviating Sample Key | |
|---|---|
| A | appropriate container for this analysis |
| B | he correct preservation for this analysis |
| C | : in the sample container |
| D | time may be compromised - applicable to all analysis |
| E | ence 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 |

Where individual results are flagged see report notes for status.

Method Descriptions

| Matrix | MethodID | Analysis Basis | Method Description |
|--------|-----------|----------------|--|
| 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 |

Where individual results are flagged see report notes for status.

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

NAIS 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

Req Analysis requested, see attached sheets for results

▮ 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.

END OF REPORT

Where individual results are flagged see report notes for status.

Our Ref: EXR/134280 (Ver. 1)

Your Ref: E10658-109

April 11, 2012



Environmental Chemistry

ESG

Bretby Business Park

Ashby Road

Burton-on-Trent

Staffordshire

DE15 0YZ

Telephone: 01283 554400

Facsimile: 01283 554422

Mr F Alcock
Waterman EED
Waterman Environmental
Pickfords Wharf
Clink Street
London
SE1 9DG

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/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.

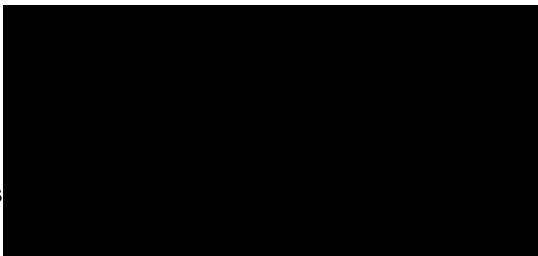
The analysis was completed by: 11-Apr-2012

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





Date of Issue: 11-Apr-2012

Tests marked '^' have been subcontracted to another laboratory.

ESG accepts no responsibility for any sampling not carried out by our personnel.


Where individual results are flagged see report notes for status.

| LAB ID Number | Client Sample Description | Sample Date | 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 | | | |
|---|---------------------------|-------------|---------------------------|----------------------------|-----------------------------|--------------------------|------------------|------------------------------------|-----------------------------|-------------------------------|----------------------------|------------------------------|----------------------------|---------------------------|--------------------------|------------------------|------------------------|---------------------------|--------|-------|
| | | | Method Codes : | WSLM3 | WSLM2 | WSLM12 | WSLM17 | KONENS | ICPWATVAR | ICPWATVAR | ICPWATVAR | ICPWATVAR | ICPMSW | ICPMSW | ICPMSW | ICPMSW | ICPMSW | ICPMSW | ICPMSW | |
| | | | Method Reporting Limits : | | 100 | 2 | 2 | 1 | 3 | 1 | 1 | 1 | 0.001 | 0.001 | 0.0001 | 0.001 | 0.001 | 0.001 | 0.002 | 0.001 |
| | | | UKAS Accredited : | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| | | | 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) | | |
| 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 | 0.016 | 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 | | |
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|  <p>ESG Environmental Scientifics Group Bretby Business Park, Ashby Road Burton-on-Trent, Staffordshire, DE15 0YZ Tel +44 (0) 1283 554400 Fax +44 (0) 1283 554422</p> | | | Client Name | Waterman EED | | | | | | | | Water Sample Analysis | | | | | | | | |
| | | | Contact | Mr F Alcock | | | | | | | | | | | | | | | | |
| | | | Upper Heyford | | | | | | | | Date Printed | 11-Apr-2012 | | | | | | | | |
| | | | | | | | | | | | Report Number | EXR/134280 | | | | | | | | |
| | | | | | | | | Table Number | 1 | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | |

| LAB ID Number | EV | Client Sample Description | Sample Date | Units : | | | | | | | | | | | | | | | |
|--|----|---------------------------|-------------|---------------------------|---------------------------|----------------------------|--------------------------|--------------|----------------|----------------------------------|------------------------|-----------------------|----------------|-----------------------------|--------------------------------|---------------------------------|-----------|-----------|-----------------|
| | | | | Method Codes : | | | | | | | | | | | | | | | |
| | | | | Method Reporting Limits : | | | | | | | | | | | | | | | |
| | | | | UKAS Accredited : | | | | | | | | | | | | | | | |
| mg/l | | | | | | | | | | | | | | | | | | | |
| | | | | ICPWATVAR | ICPMSW | ICPMSW | KONENS | KONENS | KONENS | WSLM11 | WSLM13 | GROHSA | TPHFID-Si | WSLM20 | WSLM7 | SVOCSW | PHEHPLCVL | PHEHPLCVL | PHEHPLCVL |
| | | | | 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 | 0.0005 | 0.0005 |
| | | | | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | No | No | No | No | No | No |
| | | | | 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(S) 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 |
| | | | | | | | | | | | | | | | | | | | |
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|  <p>Environmental Scientifics Group Bretby Business Park, Ashby Road Burton-on-Trent, Staffordshire, DE15 0YZ Tel +44 (0) 1283 554400 Fax +44 (0) 1283 554422</p> | | | | Client Name | | Waterman EED | | | | | | Water Sample Analysis | | | | | | | |
| | | | | Contact | | Mr F Alcock | | | | | | | | | | | | | |
| | | | | Upper Heyford | | | | | | Date Printed | | 11-Apr-2012 | | | | | | | |
| | | | | | | | | | | Report Number | | EXR/134280 | | | | | | | |
| Upper Heyford | | | | | | Table Number | | 1 | | | | | | | | | | | |
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|----------------------------------|-----------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Units : | mg/l | | | | | | | | | | | | | | | | | | |
| Method Codes : | PHEHPLCVL | | | | | | | | | | | | | | | | | | |
| Method Reporting Limits : | 0.0005 | | | | | | | | | | | | | | | | | | |
| UKAS Accredited : | 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 | BH-NSA 31 | 25-Mar-12 | <0.0005 | | | | | | | | | | | | | | | | |
| 1281690 | BH-NSA 32 | 25-Mar-12 | <0.0005 | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | |
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|---|----------------------|--------------|--|------------------------------|----------------------|------------|--|---------------------|-------------|
|  <p>ESG Environmental Scientifics Group Bretby Business Park, Ashby Road Burton-on-Trent, Staffordshire, DE15 0YZ Tel +44 (0) 1283 554400 Fax +44 (0) 1283 554422</p> | Client Name | Waterman EED | | Water Sample Analysis | | | | | |
| | Contact | Mr F Alcock | | | | | | Date Printed | 11-Apr-2012 |
| | Upper Heyford | | | | Report Number | EXR/134280 | | | |
| | | | | | Table Number | 1 | | | |

Semi-Volatile Organic Compounds

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford
Sample Details: BH-NSA 23
LIMS ID Number: EX1281680
Job Number: W13_4280

Date Booked in: 27-Mar-12
Date Extracted: 02-Apr-12
Date Analysed: 03-Apr-12

Matrix: Water
Ext Method: Sep. Funnel
Operator: SO
Directory/Quant File: 03SVOC.MS16\ 0403_CCC1.D

QC Batch Number: 50
Multiplier: 0.005
Dilution Factor: 1
GPC (Y/N): N

| 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 | - |

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 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 | 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 |

Semi-Volatile Organic Compounds

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford
Sample Details: BH-NSA 24
LIMS ID Number: EX1281681
Job Number: W13_4280

Date Booked in: 27-Mar-12
Date Extracted: 02-Apr-12
Date Analysed: 03-Apr-12

Matrix: Water
Ext Method: Sep. Funnel
Operator: SO
Directory/Quant File: 03SVOC.MS16\ 0403_CCC1.D

QC Batch Number: 50
Multiplier: 0.005
Dilution Factor: 1
GPC (Y/N) N

| 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 | - |

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 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 | 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 |

Semi-Volatile Organic Compounds

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford
Sample Details: BH-NSA 25
LIMS ID Number: EX1281682
Job Number: W13_4280

Date Booked in: 27-Mar-12
Date Extracted: 02-Apr-12
Date Analysed: 03-Apr-12

Matrix: Water
Ext Method: Sep. Funnel
Operator: SO
Directory/Quant File: 03SVOC.MS16\ 0403_CCC1.D

QC Batch Number: 50
Multiplier: 0.005
Dilution Factor: 1
GPC (Y/N): N

| 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 | - |

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 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 | 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 |

Semi-Volatile Organic Compounds

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford
Sample Details: BH-NSA 24X
LIMS ID Number: EX1281683
Job Number: W13_4280

Date Booked in: 27-Mar-12
Date Extracted: 02-Apr-12
Date Analysed: 03-Apr-12

Matrix: Water
Ext Method: Sep. Funnel
Operator: SO
Directory/Quant File: 03SVOC.MS16\ 0403_CCC1.D
QC Batch Number: 50
Multiplier: 0.005
Dilution Factor: 1
GPC (Y/N): N

| 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 | - |

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 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 | 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 |

Semi-Volatile Organic Compounds

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford
Sample Details: BH-NSA 26
LIMS ID Number: EX1281684
Job Number: W13_4280

Date Booked in: 27-Mar-12
Date Extracted: 02-Apr-12
Date Analysed: 03-Apr-12

Matrix: Water
Ext Method: Sep. Funnel
Operator: SO
Directory/Quant File: 03SVOC.MS16\ 0403_CCC1.D
QC Batch Number: 50
Multiplier: 0.005
Dilution Factor: 1
GPC (Y/N): N

| 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 | - |

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 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 | 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 |

Semi-Volatile Organic Compounds

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford
Sample Details: BH-NSA 27
LIMS ID Number: EX1281685
Job Number: W13_4280

Date Booked in: 27-Mar-12
Date Extracted: 02-Apr-12
Date Analysed: 03-Apr-12

Matrix: Water
Ext Method: Sep. Funnel
Operator: SO
Directory/Quant File: 03SVOC.MS16\ 0403_CCC1.D

QC Batch Number: 50
Multiplier: 0.005
Dilution Factor: 1
GPC (Y/N) N

| 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 | - |

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 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 | 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 |

Semi-Volatile Organic Compounds

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford
Sample Details: BH-NSA 28A
LIMS ID Number: EX1281686
Job Number: W13_4280

Date Booked in: 27-Mar-12
Date Extracted: 02-Apr-12
Date Analysed: 03-Apr-12

Matrix: Water
Ext Method: Sep. Funnel
Operator: SO
Directory/Quant File: 03SVOC.MS16\ 0403_CCC1.D

QC Batch Number: 50
Multiplier: 0.005
Dilution Factor: 1
GPC (Y/N): N

| 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 | - |

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 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 | 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 |

Semi-Volatile Organic Compounds

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford
Sample Details: BH-NSA 29
LIMS ID Number: EX1281687
Job Number: W13_4280

Date Booked in: 27-Mar-12
Date Extracted: 02-Apr-12
Date Analysed: 03-Apr-12

Matrix: Water
Ext Method: Sep. Funnel
Operator: SO
Directory/Quant File: 03SVOC.MS16\ 0403_CCC1.D
QC Batch Number: 50
Multiplier: 0.005
Dilution Factor: 1
GPC (Y/N): N

| 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 | - |

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 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 | 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 |

Semi-Volatile Organic Compounds

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford
Sample Details: BH-NSA 30
LIMS ID Number: EX1281688
Job Number: W13_4280

Date Booked in: 27-Mar-12
Date Extracted: 02-Apr-12
Date Analysed: 03-Apr-12

Matrix: Water
Ext Method: Sep. Funnel
Operator: SO
Directory/Quant File: 03SVOC.MS16\ 0403_CCC1.D
QC Batch Number: 50
Multiplier: 0.005
Dilution Factor: 1
GPC (Y/N): N

| 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 | - |

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 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 | 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 |

Semi-Volatile Organic Compounds

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford
Sample Details: BH-NSA 31
LIMS ID Number: EX1281689
Job Number: W13_4280

Date Booked in: 27-Mar-12
Date Extracted: 02-Apr-12
Date Analysed: 03-Apr-12

Matrix: Water
Ext Method: Sep. Funnel
Operator: SO
Directory/Quant File: 03SVOC.MS16\ 0403_CCC1.D

QC Batch Number: 50
Multiplier: 0.005
Dilution Factor: 1
GPC (Y/N): N

| 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 | - |

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 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 | 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 |

Semi-Volatile Organic Compounds

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford
Sample Details: BH-NSA 32
LIMS ID Number: EX1281690
Job Number: W13_4280

Date Booked in: 27-Mar-12
Date Extracted: 02-Apr-12
Date Analysed: 03-Apr-12

Matrix: Water
Ext Method: Sep. Funnel
Operator: SO
Directory/Quant File: 03SVOC.MS16\ 0403_CCC1.D
QC Batch Number: 50
Multiplier: 0.005
Dilution Factor: 1
GPC (Y/N): N

| 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 | - |

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 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 | 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 |

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: Water
Date Booked in: 27-Mar-12
Date extracted: 04-Apr-12
Date Analysed: 04-Apr-12, 20:56

* Sample data with an asterisk are not UKAS accredited.

| Sample ID | Client ID | Concentration, (mg/l) | | | | | Aliphatics | | | | |
|-------------|------------|-----------------------|---------|---------------|------------|----------|------------|----------|----------|-----------|-----------|
| | | 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 |
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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

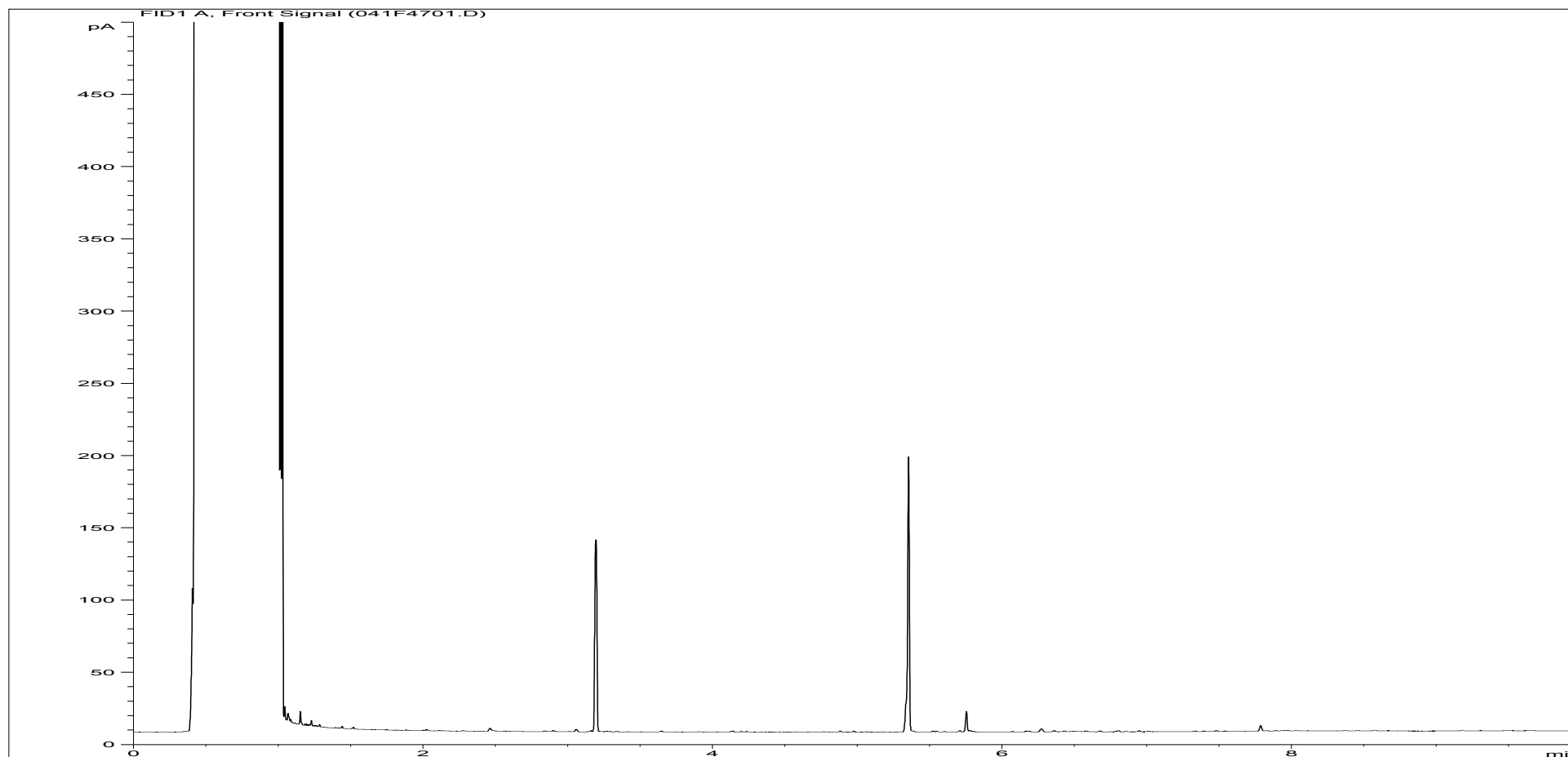
Customer and Site Details: Waterman EED : Upper Heyford
Job Number: W13_4280
QC Batch Number: 120259
Directory: D:\TES\DATA\Y2012\040512TPH_GC15\040512 2012-04-05 08-26-13\004F5701.D
Method: Bottle

Matrix: Water
Date Booked in: 27-Mar-12
Date Extracted: 05-Apr-12
Date Analysed: 06-Apr-12, 00:16:27

Separation: Silica gel
Eluents: Hexane, DCM

| | | Concentration, (mg/l) | | | | | | | | | | | | |
|--|-----------|-----------------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|-----------|------------|-----------|
| | | >C8 - C10 | | >C10 - C12 | | >C12 - C16 | | >C16 - C21 | | >C21 - C35 | | >C8 - C40 | | |
| * This sample data is not UKAS accredited. | 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 |
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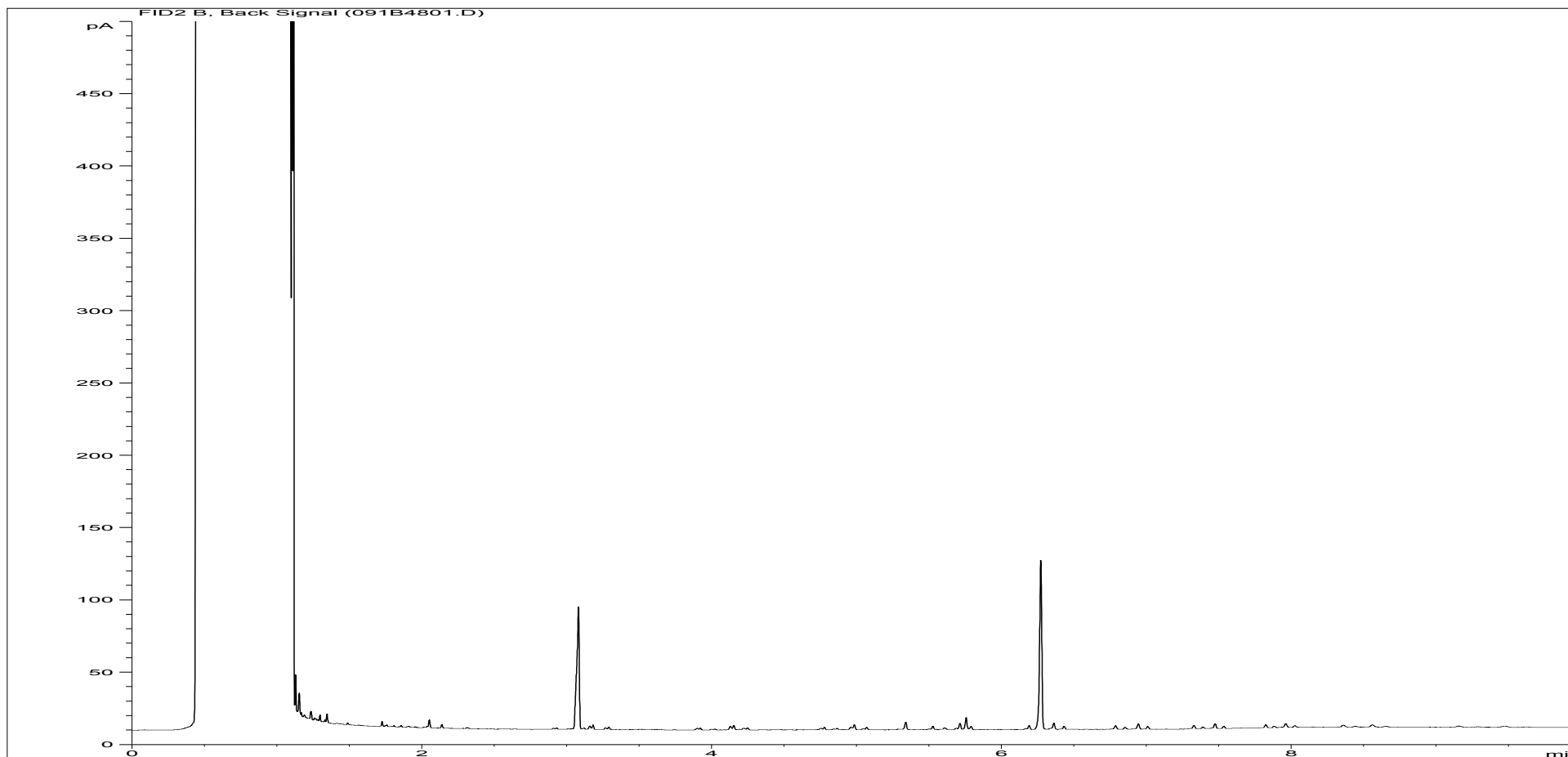
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1281680ALI | Job Number: | W13_4280 |
| Multiplier: | 0.015 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

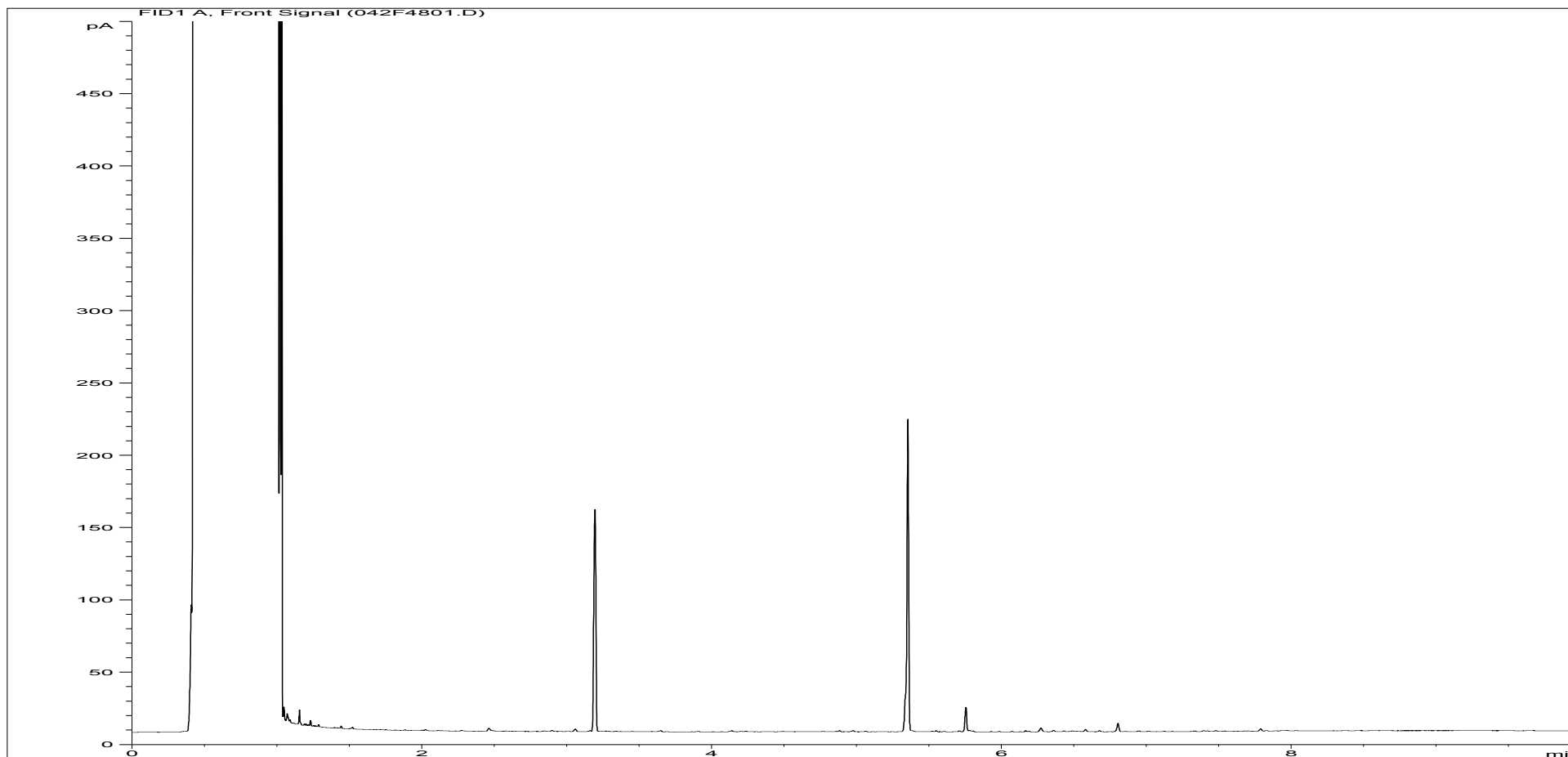
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1281680ARO | Job Number: | W13_4280 |
| Multiplier: | 0.02 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

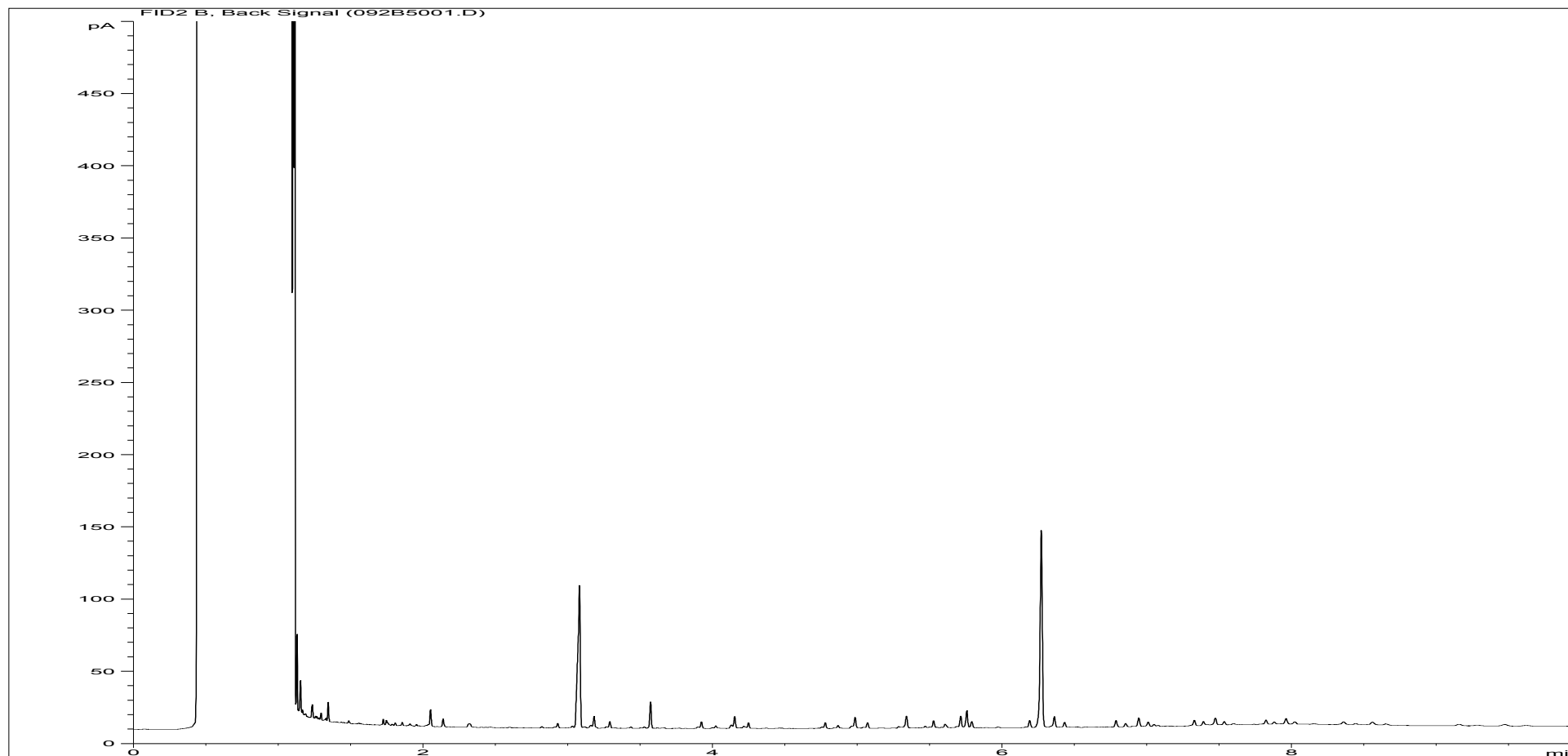
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1281681ALI | Job Number: | W13_4280 |
| Multiplier: | 0.015 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

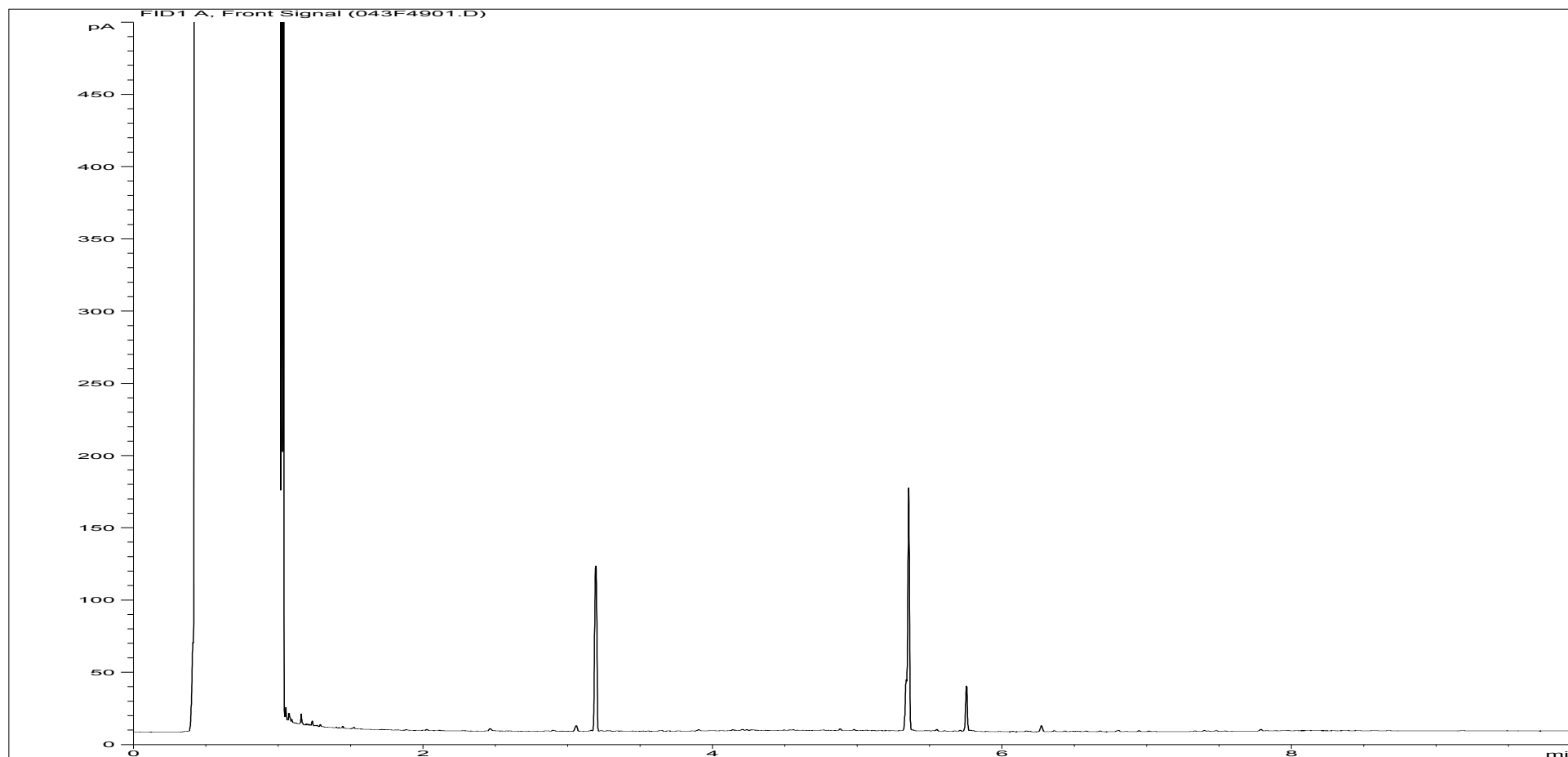
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1281681ARO | Job Number: | W13_4280 |
| Multiplier: | 0.02 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

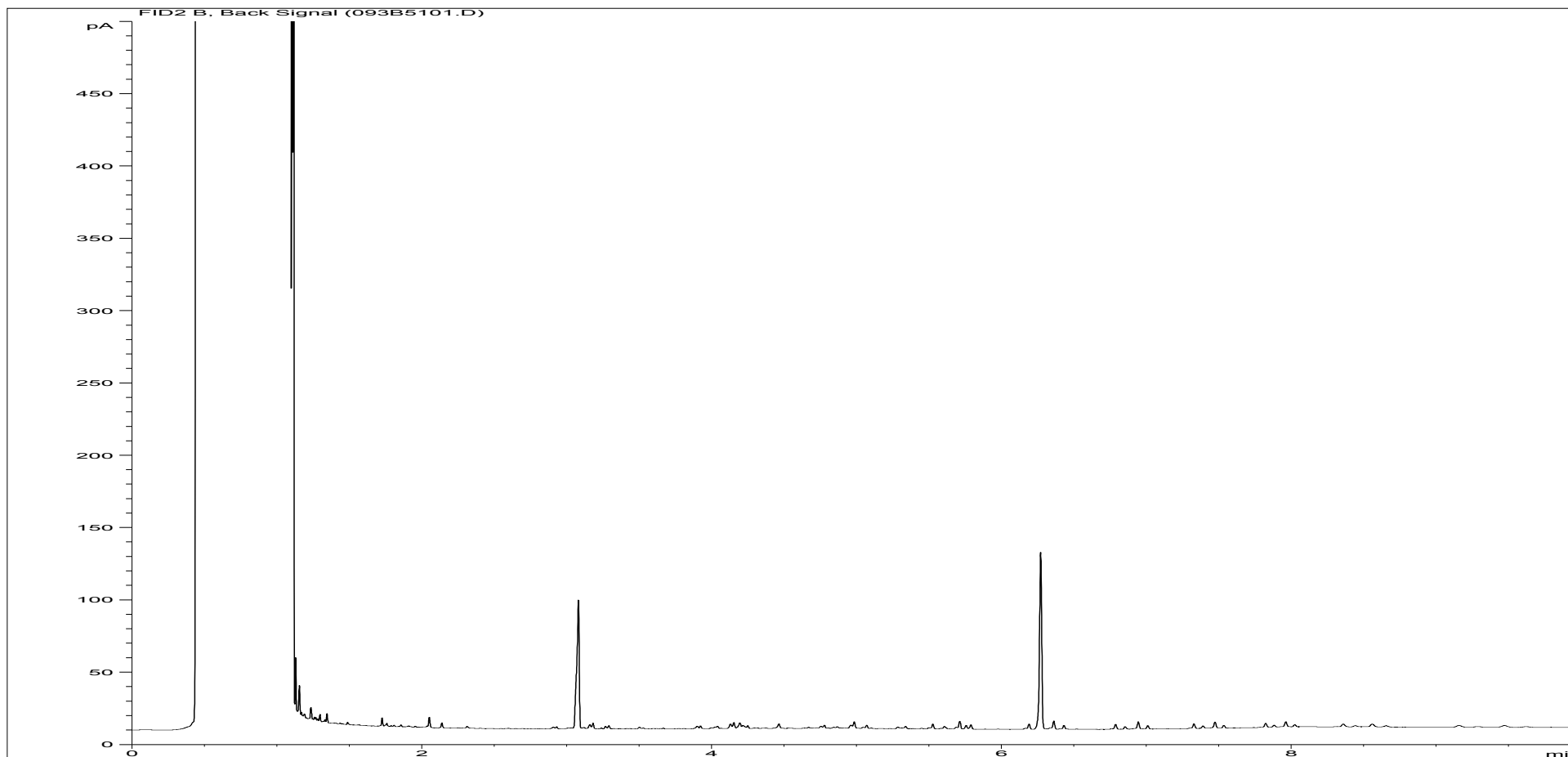
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1281682ALI | Job Number: | W13_4280 |
| Multiplier: | 0.015 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client Sample Ref: | BH-NSA 25 |
| Acquisition Date/Time: | 05-Apr-12, 22:01:52 | | |
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Where individual results are flagged see report notes for status.

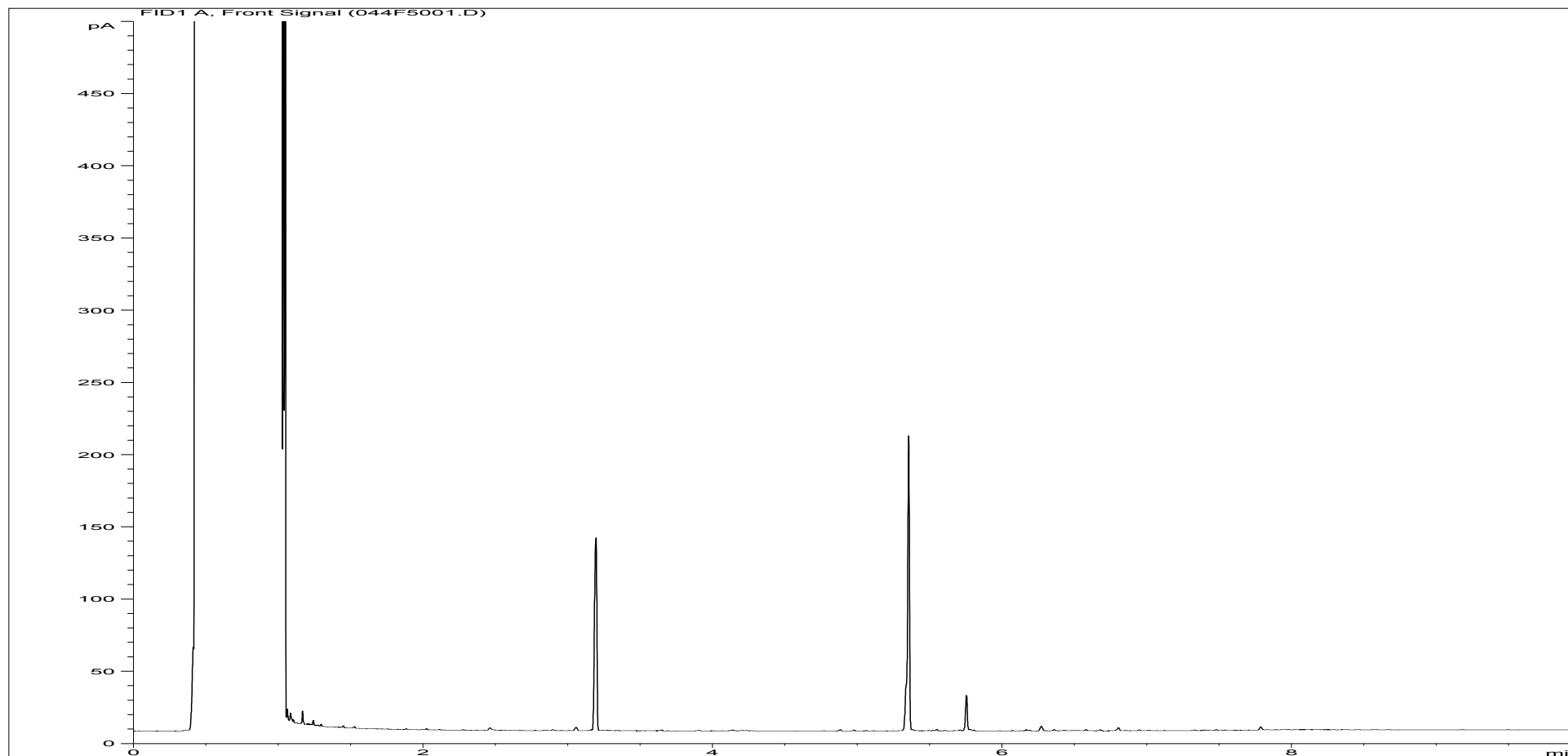
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1281682ARO | Job Number: | W13_4280 |
| Multiplier: | 0.02 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

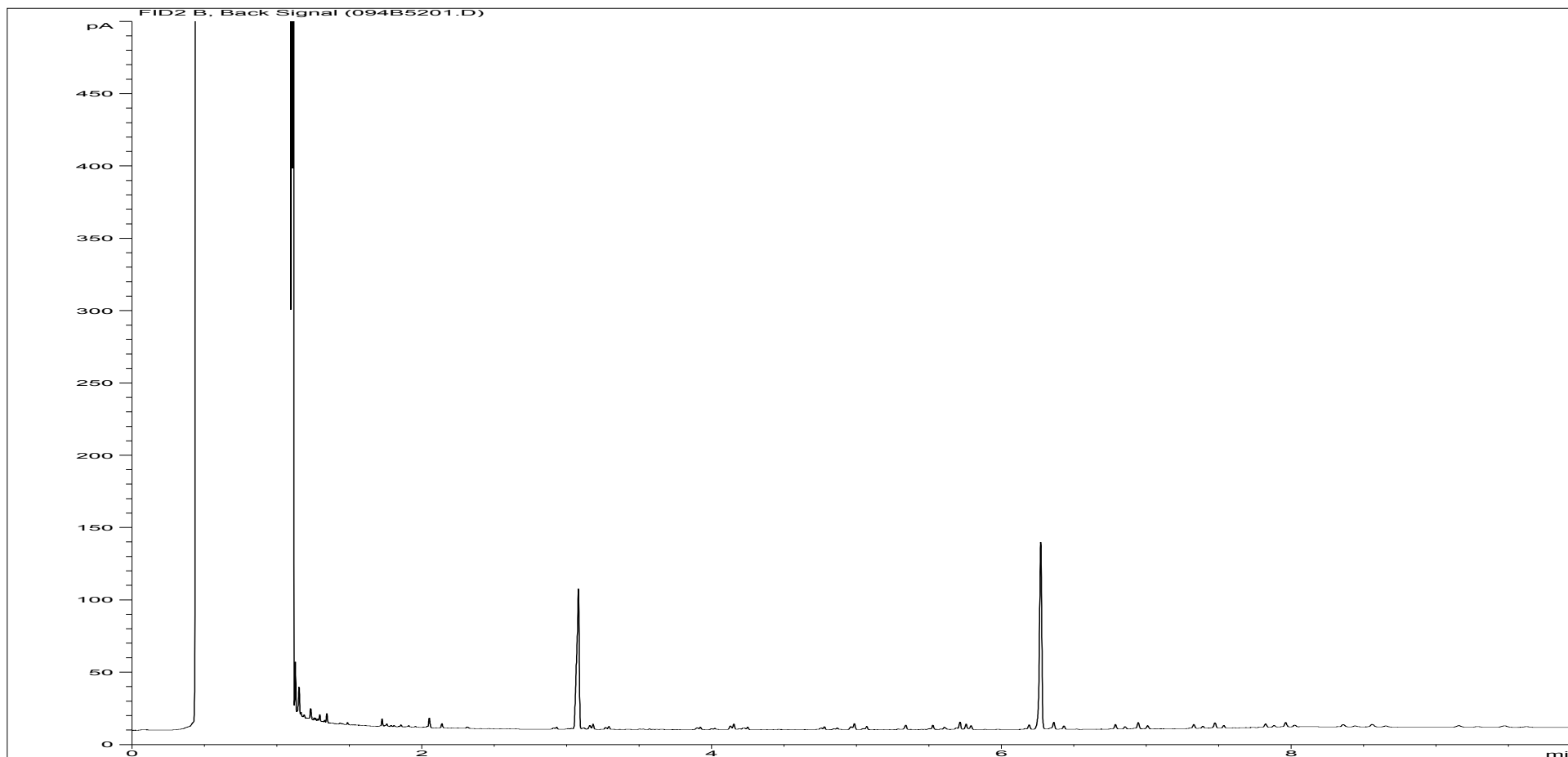
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1281683ALI | Job Number: | W13_4280 |
| Multiplier: | 0.015 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

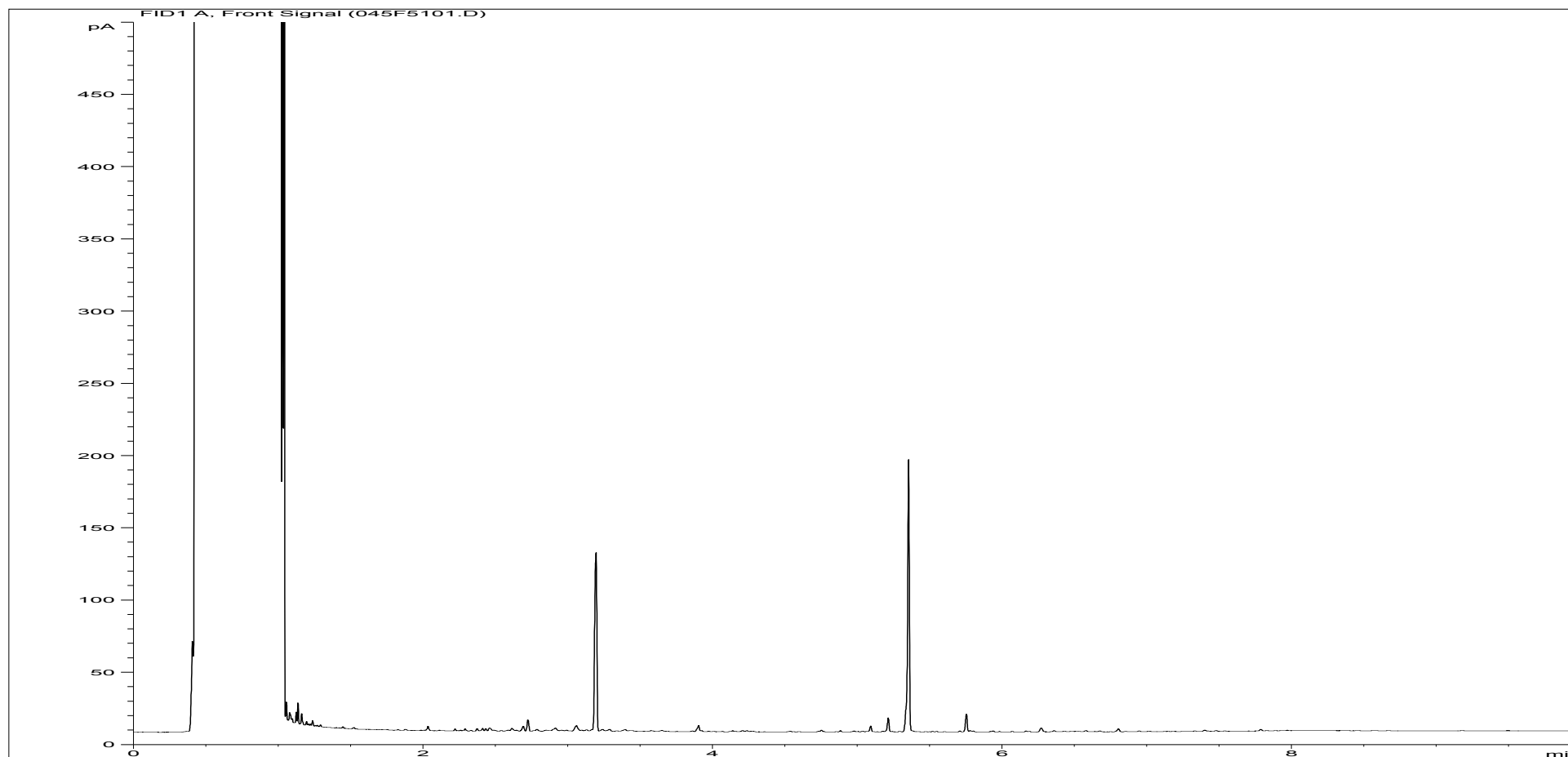
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1281683ARO | Job Number: | W13_4280 |
| Multiplier: | 0.02 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

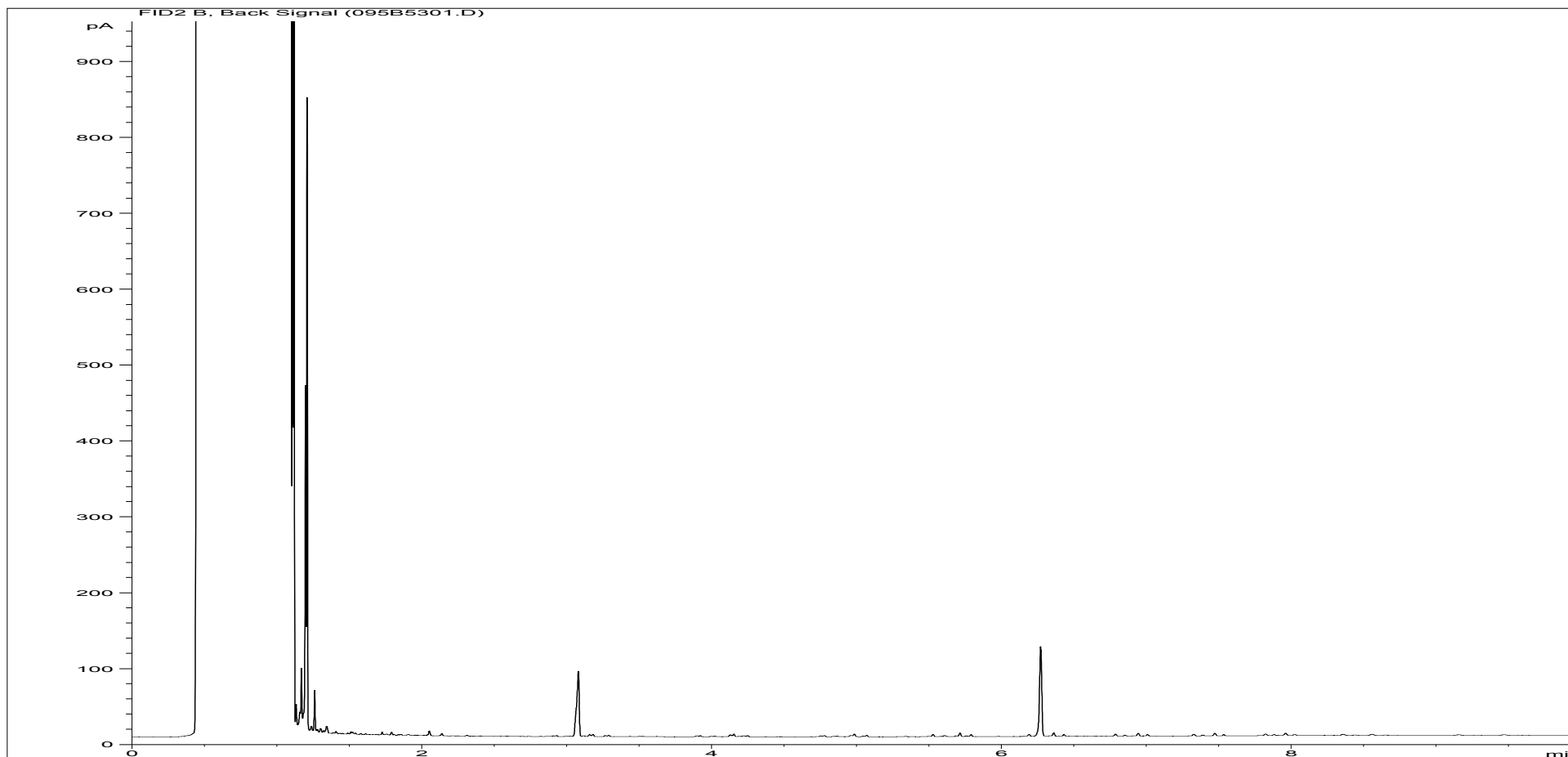
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1281684ALI | Job Number: | W13_4280 |
| Multiplier: | 0.015 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

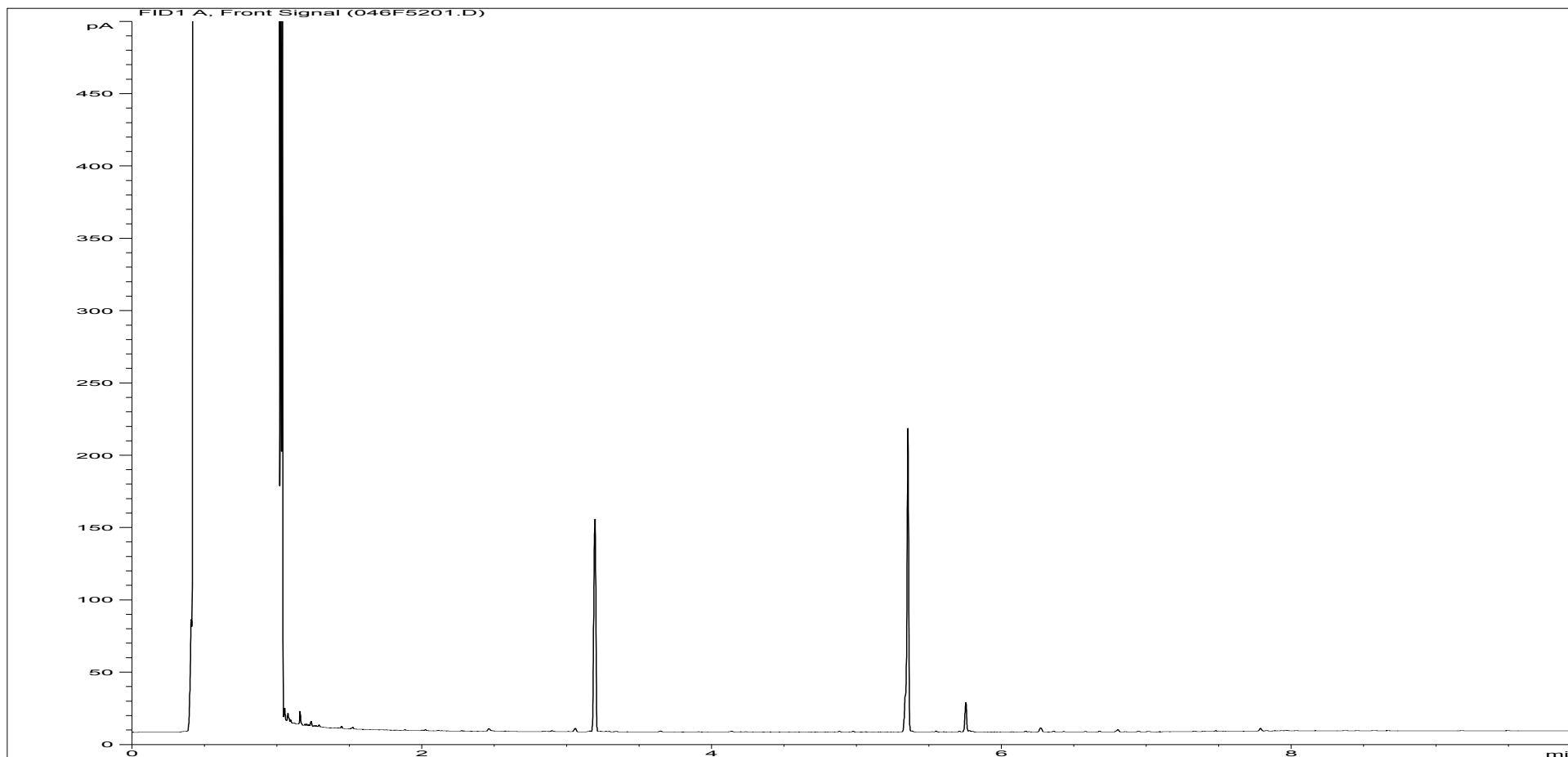
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1281684ARO | Job Number: | W13_4280 |
| Multiplier: | 0.02 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

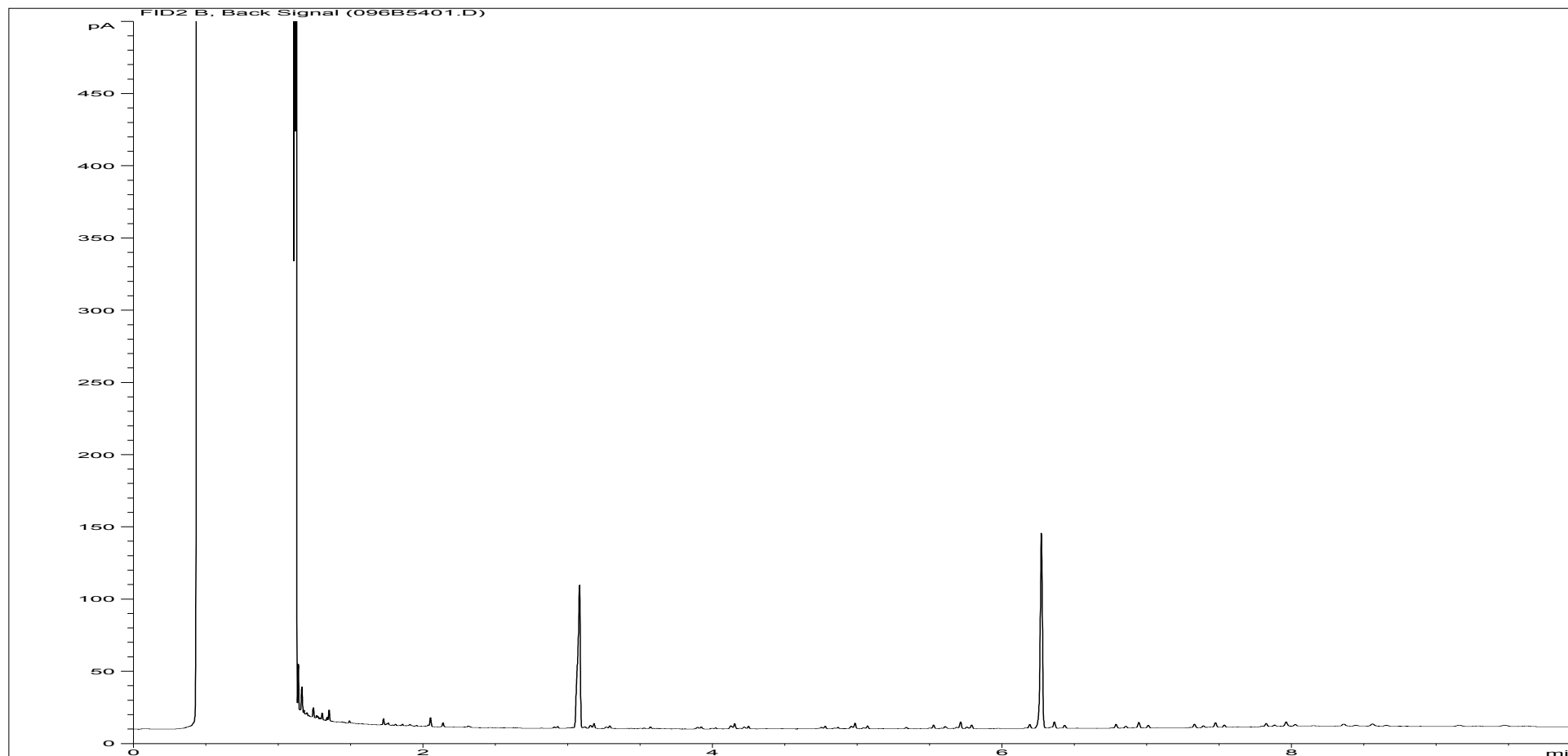
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1281685ALI | Job Number: | W13_4280 |
| Multiplier: | 0.015 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

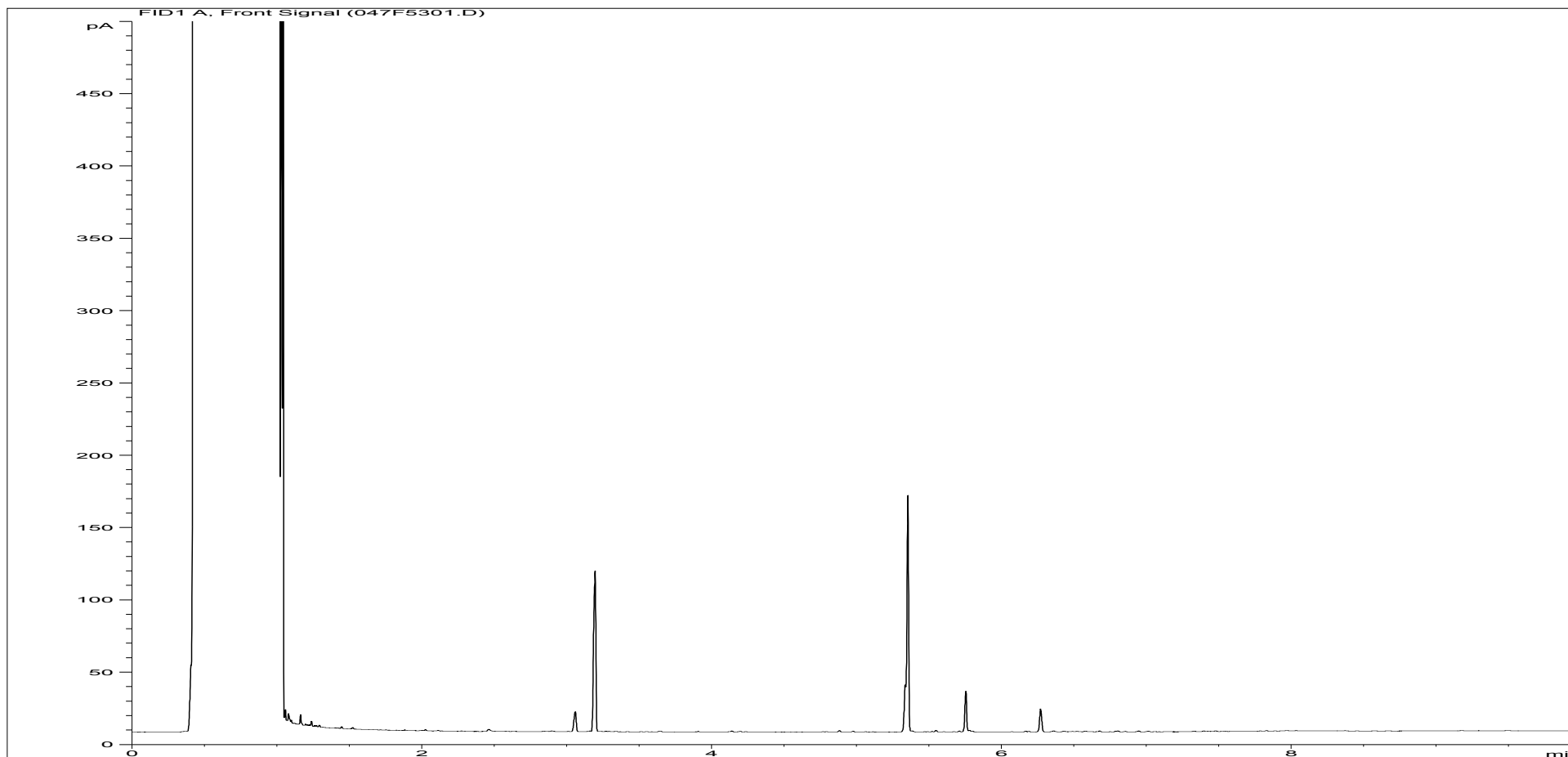
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1281685ARO | Job Number: | W13_4280 |
| Multiplier: | 0.02 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

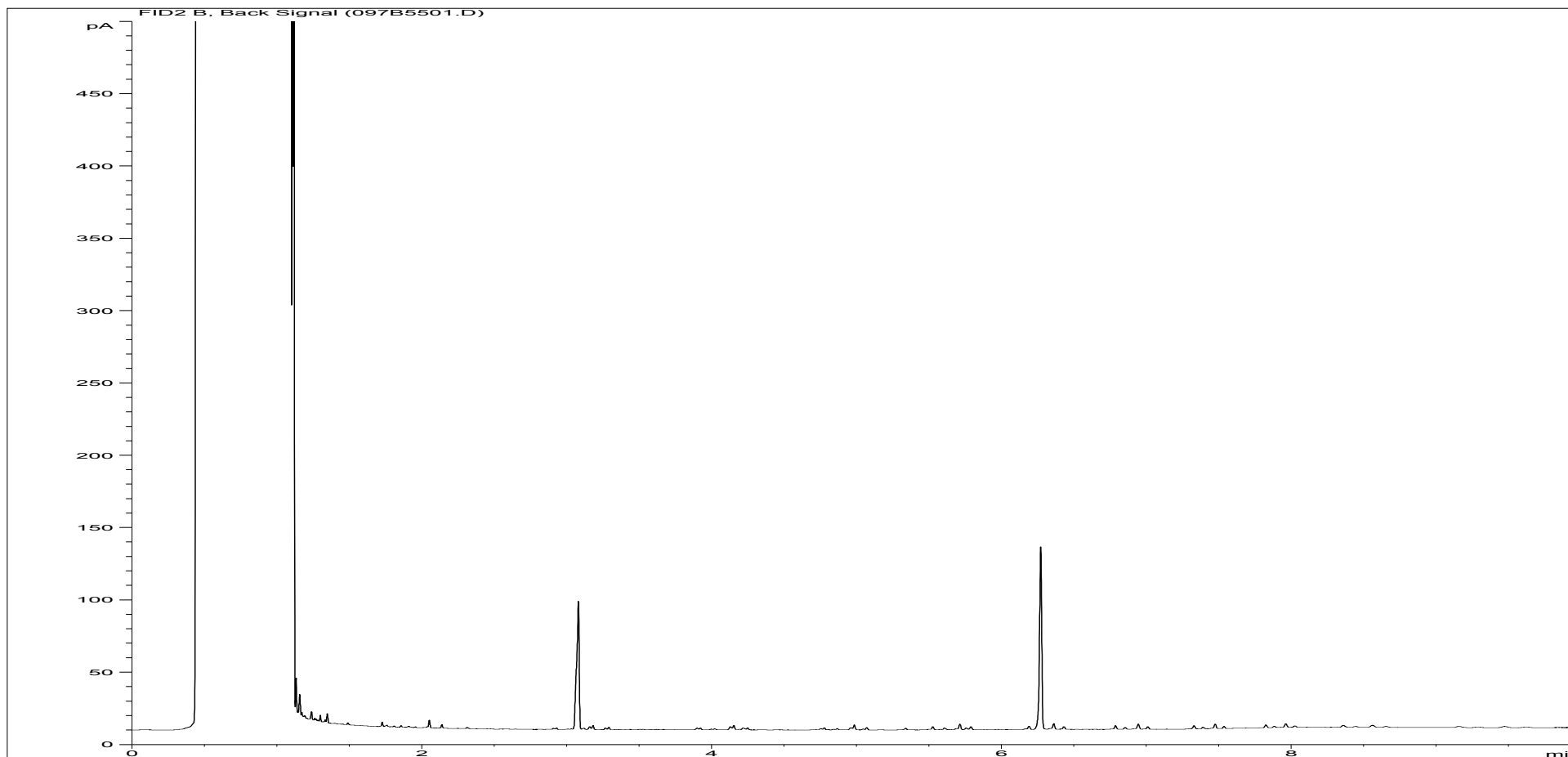
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1281686ALI | Job Number: | W13_4280 |
| Multiplier: | 0.015 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

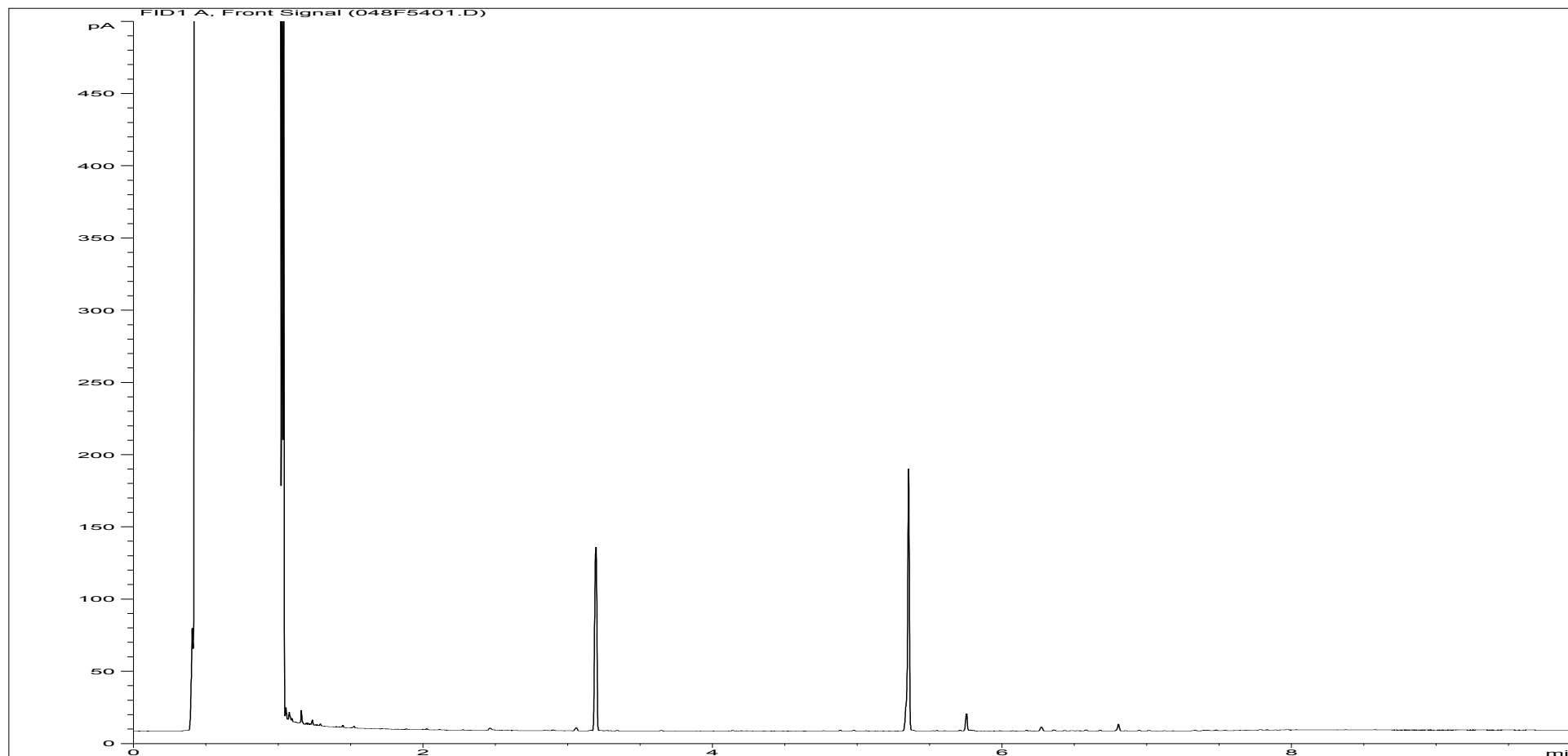
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1281686ARO | Job Number: | W13_4280 |
| Multiplier: | 0.02 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

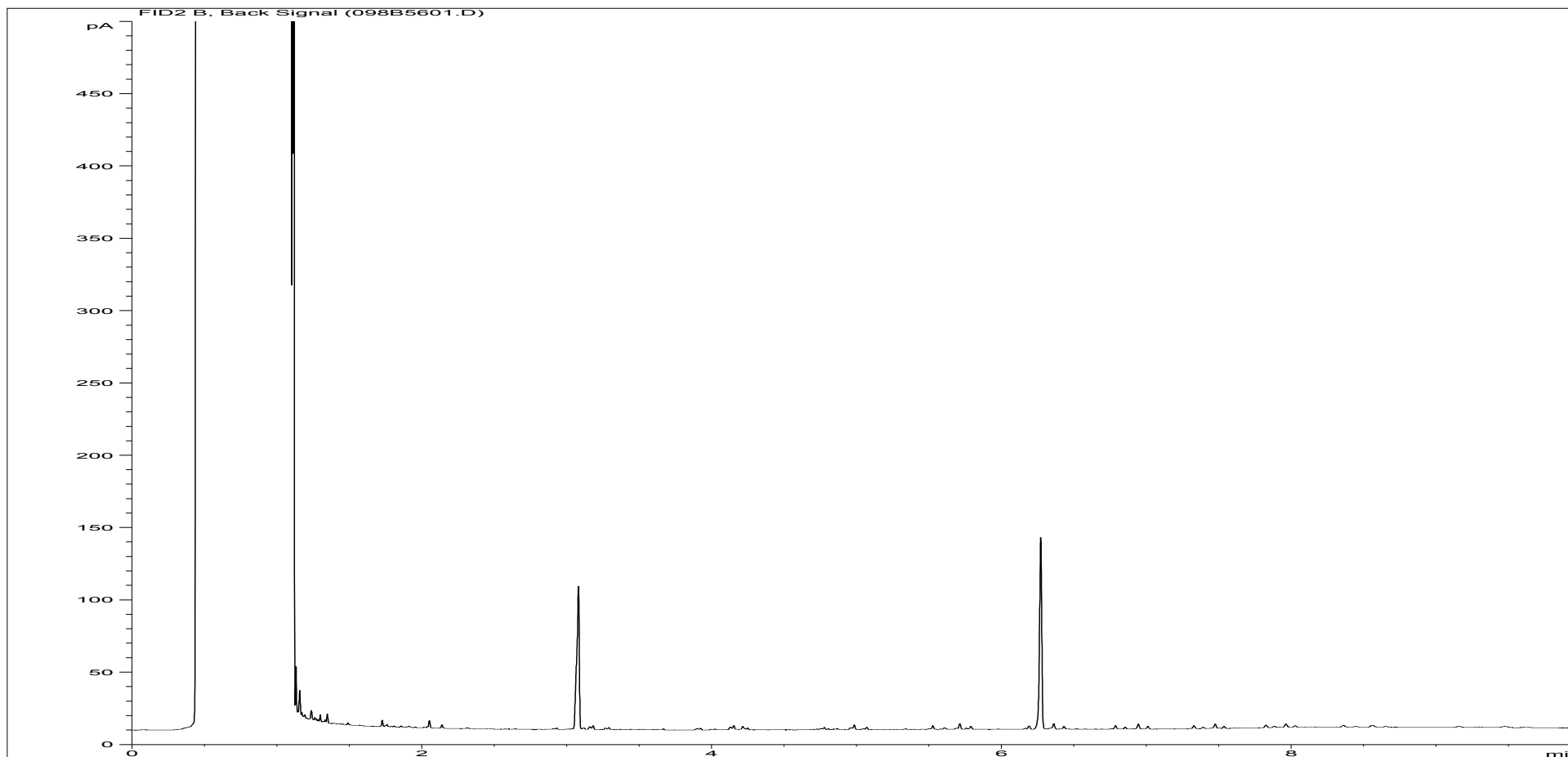
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1281687ALI | Job Number: | W13_4280 |
| Multiplier: | 0.015 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

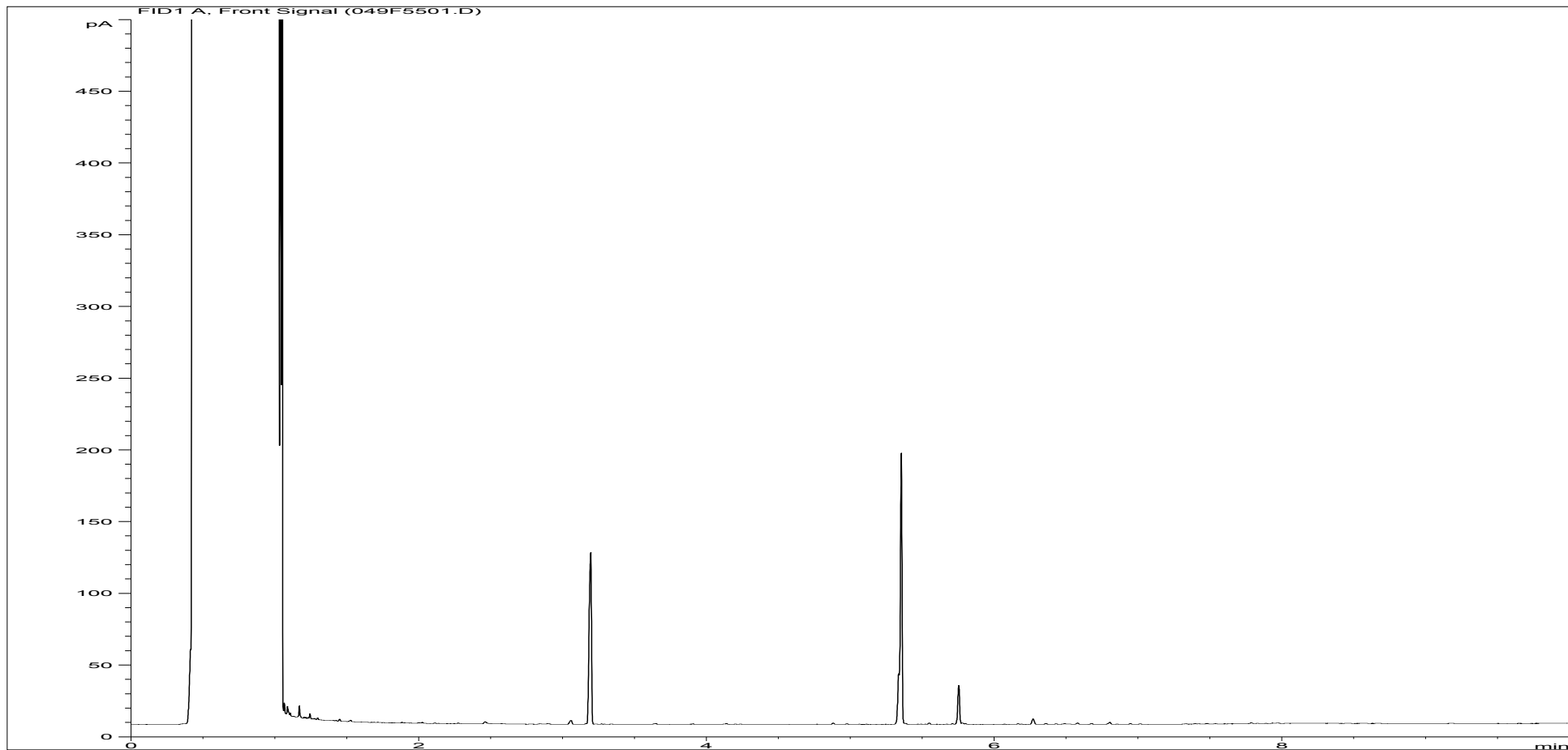
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1281687ARO | Job Number: | W13_4280 |
| Multiplier: | 0.02 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

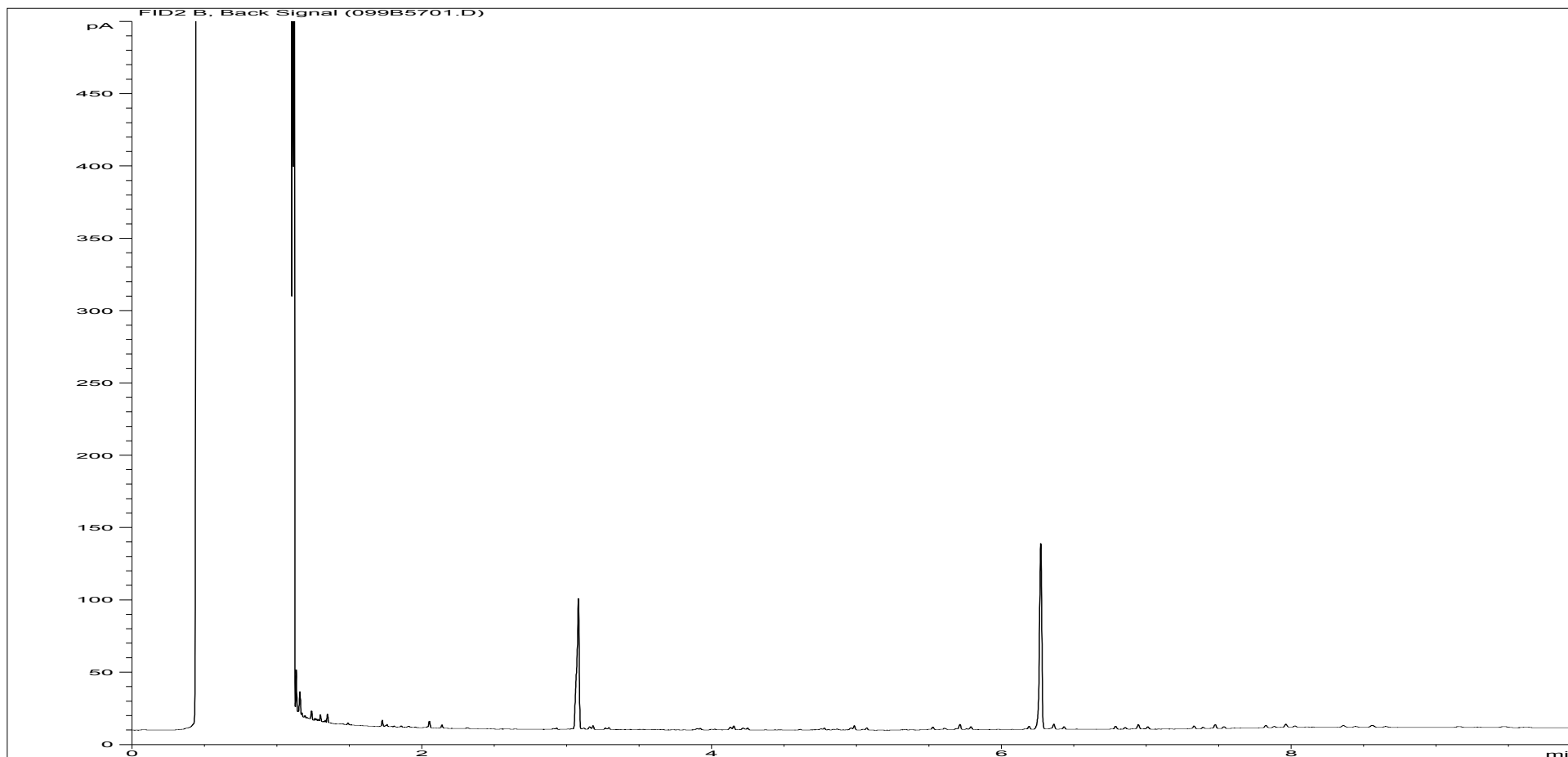
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1281688ALI | Job Number: | W13_4280 |
| Multiplier: | 0.015 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client Sample Ref: | BH-NSA 30 |
| 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 | | |

Where individual results are flagged see report notes for status.

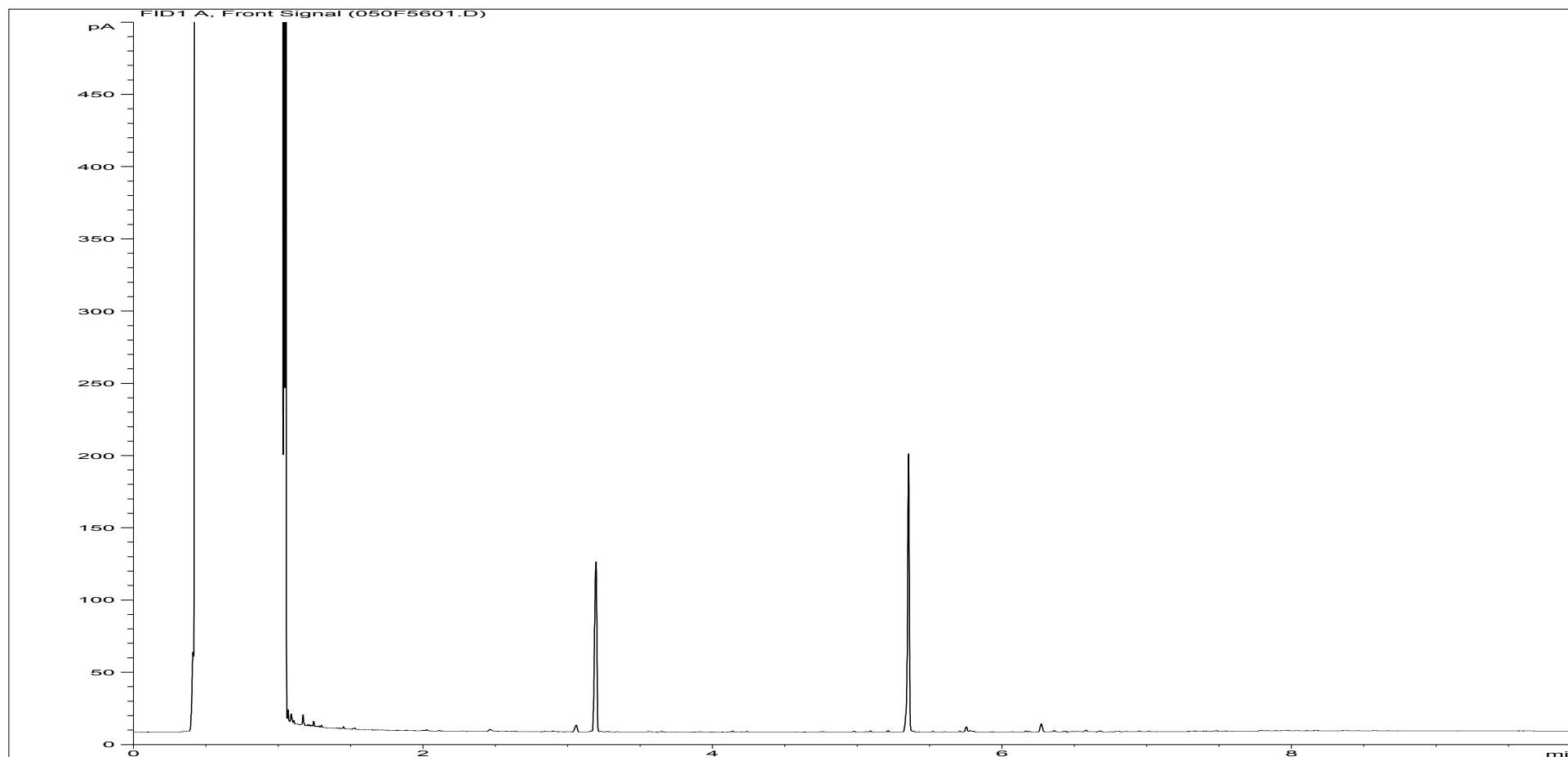
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1281688ARO | Job Number: | W13_4280 |
| Multiplier: | 0.02 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

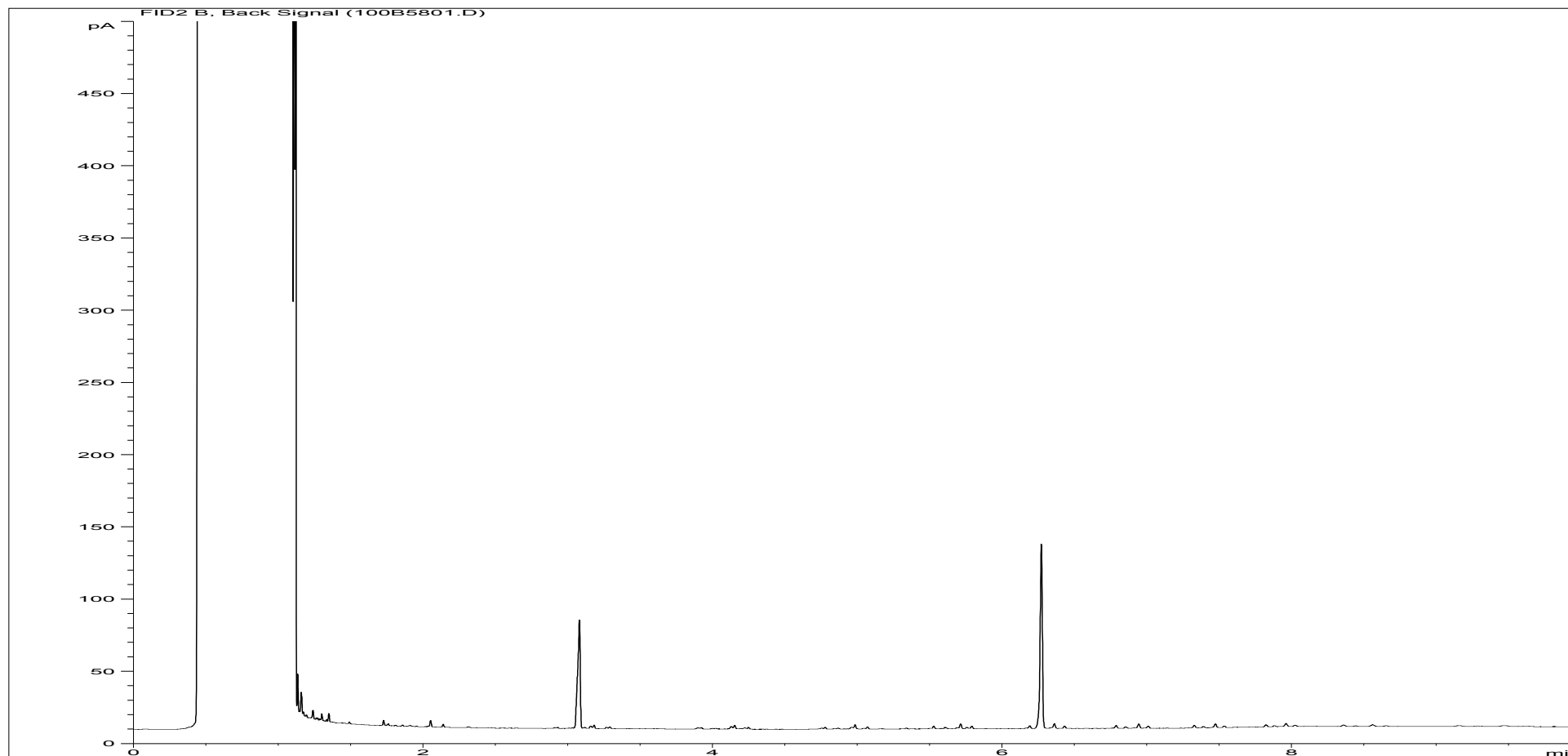
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1281689ALI | Job Number: | W13_4280 |
| Multiplier: | 0.015 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

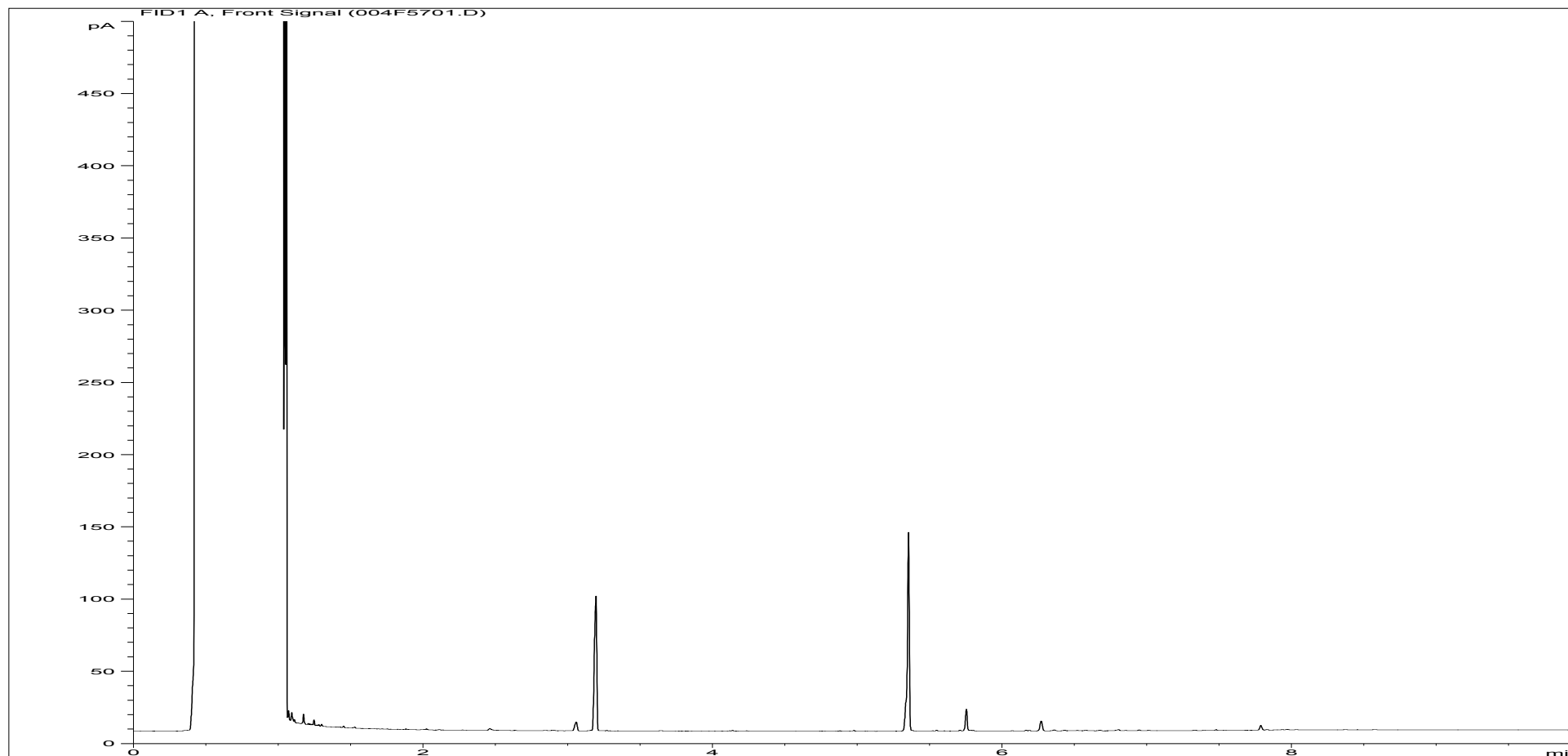
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1281689ARO | Job Number: | W13_4280 |
| Multiplier: | 0.02 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

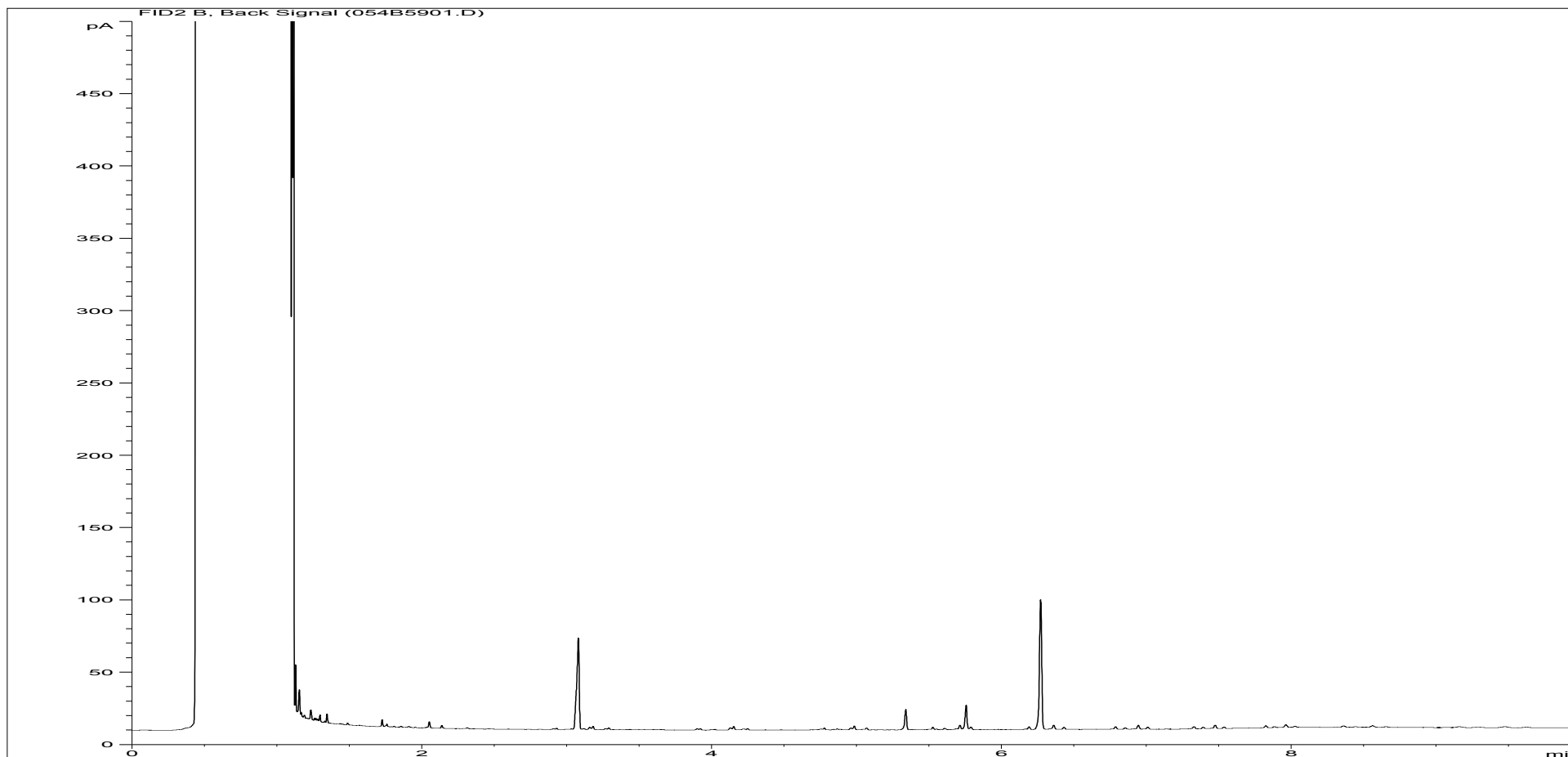
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1281690ALI | Job Number: | W13_4280 |
| Multiplier: | 0.015 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1281690ARO | Job Number: | W13_4280 |
| Multiplier: | 0.02 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

Customer Waterman EED
Site Upper Heyford
Report No W134280





Consignment No W35689
Date Logged 27-Mar-2012

Report Due 11-Apr-2012

| ID Number | Description | MethodID | WSLM13 | WSLM17 | WSLM2 | WSLM20 | WSLM3 | WSLM7 |
|------------------------|-------------|----------|----------------------|------------------------|--------------------------|---------------------------|----------|------------------------------|
| | | Sampled | Total Organic Carbon | Total Acidity as CaCO3 | Conductivity uS/cm @ 25C | Biochemical Oxygen Demand | pH units | Cyclohexane Extract Material |
| 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 | |
|---|--|
| A | The sample was received in an inappropriate container for this analysis |
| B | The sample was received without the correct preservation for this analysis |
| C | Headspace present in the sample container |
| D | The sampling date was not supplied so holding time may be compromised - applicable to all analysis |
| E | 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 |

Where individual results are flagged see report notes for status.

Method Descriptions

| Matrix | MethodID | Analysis Basis | Method Description |
|--------|-----------|----------------|--|
| 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 ($\mu\text{S}/\text{cm}$) 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 |

Where individual results are flagged see report notes for status.

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

NAIS 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

Req Analysis requested, see attached sheets for results

▮ 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.

END OF REPORT

Where individual results are flagged see report notes for status.

Our Ref: EXR/134281 (Ver. 1)

Your Ref: E10658-109

April 12, 2012



Environmental Chemistry

ESG

Bretby Business Park

Ashby Road

Burton-on-Trent

Staffordshire

DE15 0YZ

Telephone: 01283 554400

Facsimile: 01283 554422

Mr F Alcock
Waterman EED
Waterman Environmental
Pickfords Wharf
Clink Street
London
SE1 9DG

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
Project Co-ordinator
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.

Where individual results are flagged see report notes for status.

| | | | Units : | pH units | uS/cm | 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 | |
|--|---------------------------|-------------|---------------------------|----------------------------|-----------------------------|--------------------------|------------------|------------------------------------|-----------------------------|-------------------------------|----------------------------|--------------------------|----------------------------|---------------------------|------------------|--------------------------|------------------------|------------------------|--------|
| | | | Method Codes : | WSLM3 | WSLM2 | WSLM12 | WSLM17 | KONENS | ICPWATVAR | ICPWATVAR | ICPWATVAR | ICPWATVAR | ICPMSW | ICPMSW | ICPMSW | PAHMSW | ICPMSW | ICPMSW | ICPMSW |
| | | | Method Reporting Limits : | | 100 | 2 | 2 | 1 | 3 | 1 | 1 | 1 | 0.001 | 0.001 | 0.0001 | | 0.001 | 0.001 | 0.002 |
| | | | UKAS Accredited : | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| LAB ID Number | 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 | 0.01 | 0.019 | 0.0002 | | 0.005 | 0.021 | 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 | | | | | | | | | | | | | Req | | | | |
| 1281700 | BH-NSA-MW1 | 22-Mar-12 | 7.8 | 557 | 255 | Nil | 7 | 15 | 97 | 28 | 7 | <0.001 | 0.005 | <0.0001 | | <0.001 | <0.001 | <0.002 | |
| 1281701 | BH-NSA-HD1 | 22-Mar-12 | | | | | | | | | | | | | Req | | | | |
| | | | | | | | | | | | | | | | | | | | |
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|  <p>Environmental Scientifics Group Bretby Business Park, Ashby Road Burton-on-Trent, Staffordshire, DE15 0YZ Tel +44 (0) 1283 554400 Fax +44 (0) 1283 554422</p> | | | Client Name | Waterman EED | | | | | | | | Water Sample Analysis | | | | | | | |
| | | | Contact | Mr F Alcock | | | | | | | | | | | | | | | |
| | | | Upper Heyford | | | | | | | | Date Printed | 12-Apr-2012 | | | | | | | |
| | | | | | | | | | | | Report Number | EXR/134281 | | | | | | | |
| | | | | | | | | | | | Table Number | 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 | |
|--|---------------------------|-------------|---------------------------|--------------------------|---------------------------|----------------------------|--------------------------|--------------|----------------|----------------------------------|------------------------|-----------------------|----------------|-----------------------------|--------------------------------|---------------------------------|---------|-----------|
| | | | Method Codes : | ICPMSW | ICPWATVAR | ICPMSW | ICPMSW | KONENS | KONENS | KONENS | WSLM11 | WSLM13 | GROHSA | TPHFID-Si | WSLM20 | WSLM7 | SVOCSW | PHEHPLCVL |
| | | | Method Reporting Limits : | 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 Accredited : | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | No | No | No | No |
| LAB ID Number | 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 (A) | TPH by GC(S) o | Biochemical Oxygen Demand w | Cyclohexane Extract Material w | Semi Volatile Organic Compounds | Phenol | |
| 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 | | |
| | | | | | | | | | | | | | | | | | | |
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|  <p>Bretby Business Park, Ashby Road Burton-on-Trent, Staffordshire, DE15 0YZ Tel +44 (0) 1283 554400 Fax +44 (0) 1283 554422</p> | | | Client Name | Waterman EED | | | | | | | | Water Sample Analysis | | | | | | |
| | | | Contact | Mr F Alcock | | | | | | | | | | | | | | |
| | | | Upper Heyford | | | | | | | | | | Date Printed | 12-Apr-2012 | | | | |
| | | | | | | | | | | | | | Report Number | EXR/134281 | | | | |
| | | | | | | | | | | | | | Table Number | 1 | | | | |
| | | | | | | | | | | | | | | | | | | |

Polycyclic Aromatic Hydrocarbons GC/MS (SIM)

| | | | |
|-----------------------------------|-----------------------------|------------------------|-----------|
| Customer and Site Details: | Waterman EED: Upper Heyford | | |
| Sample Details: | BH-NSA-19x | Job Number: | W13_4281 |
| 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: | 1.0 | Ext Method: | Bottle |

UKAS accredited?: Yes

| Target Compounds | CAS # | R.T. (min) | Concentration ug/l | % Fit |
|------------------------|----------|---------------|-----------------------|-------|
| Naphthalene | 91-20-3 | - | < 0.020 | - |
| Acenaphthylene | 208-96-8 | - | < 0.010 | - |
| Acenaphthene | 83-32-9 | - | < 0.010 | - |
| Fluorene | 86-73-7 | - | < 0.016 | - |
| Phenanthrene | 85-01-8 | - | < 0.019 | - |
| Anthracene | 120-12-7 | - | < 0.010 | - |
| Fluoranthene | 206-44-0 | - | < 0.011 | - |
| 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 | - | - | < 0.186 | - |

"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 | Job Number: | W13_4281 |
| 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. (min) | Concentration ug/l | % Fit |
|------------------------|----------|---------------|-----------------------|-------|
| 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 | - | < 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
LIMS ID Number: EX1281699
Job Number: W13_4281

Date Booked in: 27-Mar-12
Date Extracted: 10-Apr-12
Date Analysed: 10-Apr-12

Matrix: Water
Ext Method: Sep. Funnel
Operator: SO
Directory/Quant File: 10SVOC.MS16\ 0410_CCC1.D

QC Batch Number: 53
Multiplier: 0.005
Dilution Factor: 1
GPC (Y/N) N

| 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 | - |

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 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 | 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 |

Semi-Volatile Organic Compounds

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford
Sample Details: BH-NSA-HD1
LIMS ID Number: EX1281701
Job Number: W13_4281

Date Booked in: 27-Mar-12
Date Extracted: 10-Apr-12
Date Analysed: 10-Apr-12

Matrix: Water
Ext Method: Sep. Funnel
Operator: SO
Directory/Quant File: 10SVOC.MS16\ 0410_CCC1.D

QC Batch Number: 53
Multiplier: 0.005
Dilution Factor: 1
GPC (Y/N) N

| 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 | - |

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 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 | 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 |

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.

| Sample ID | Client ID | Concentration, (mg/l) | | | | | Aliphatics | | | | Total GRO |
|-------------|------------|-----------------------|---------|---------------|------------|----------|------------|----------|----------|-----------|-----------|
| | | Benzene | Toluene | Ethyl benzene | m/p-Xylene | o-Xylene | C5 - C6 | >C6 - C7 | >C7 - C8 | >C8 - C10 | |
| * EX1281691 | BH-NSA-37 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| * EX1281692 | BH-NSA-39 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| * EX1281693 | BH-NSA-42 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| * EX1281694 | BH-NSA-43 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| * EX1281695 | BH-NSA-44 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| * EX1281696 | BH-NSA-45 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| * EX1281697 | BH-NSA-225 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| * EX1281698 | BH-NSA-226 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| * EX1281699 | BH-NSA-19x | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| * EX1281700 | BH-NSA-MW1 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| * EX1281701 | BH-NSA-HD1 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
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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

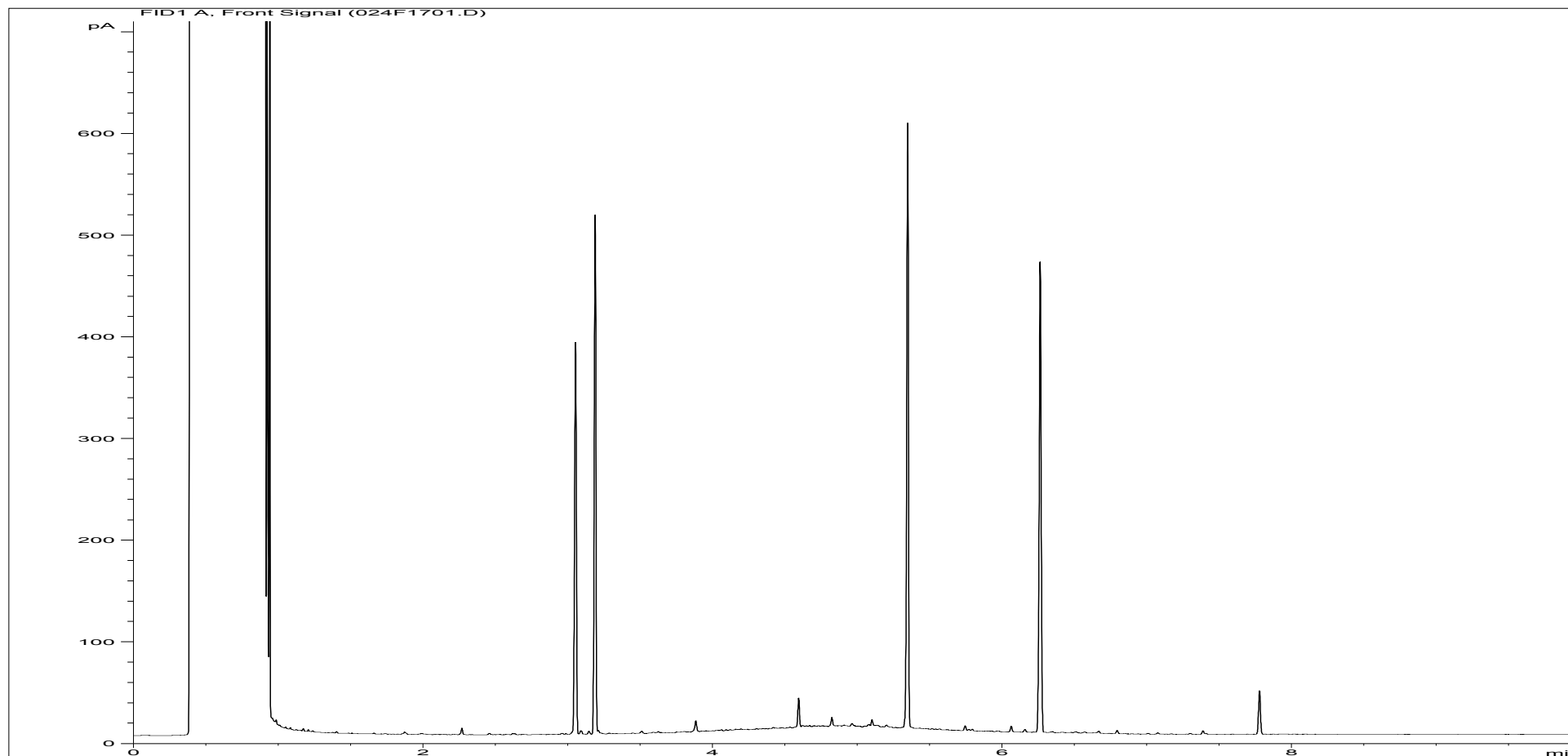
ALIPHATIC / AROMATIC FRACTION BY GC/FID

Customer and Site Details: Waterman EED : Upper Heyford
Job Number: W13_4281
QC Batch Number: 120252
Directory: D:\TES\DATA\Y2012\040512TPH_GC15\040512 2012-04-05 08-26-13\075B3401.D
Method: Bottle

Matrix: Water
Date Booked in: 27-Mar-12
Date Extracted: 03-Apr-12
Date Analysed: 05-Apr-12, 17:49:34

| | | Concentration, (mg/l) | | | | | | | | | | | | |
|--|-----------|-----------------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|-----------|------------|-----------|
| | | >C8 - C10 | | >C10 - C12 | | >C12 - C16 | | >C16 - C21 | | >C21 - C35 | | >C8 - C40 | | |
| * This sample data is not UKAS accredited. | 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 |
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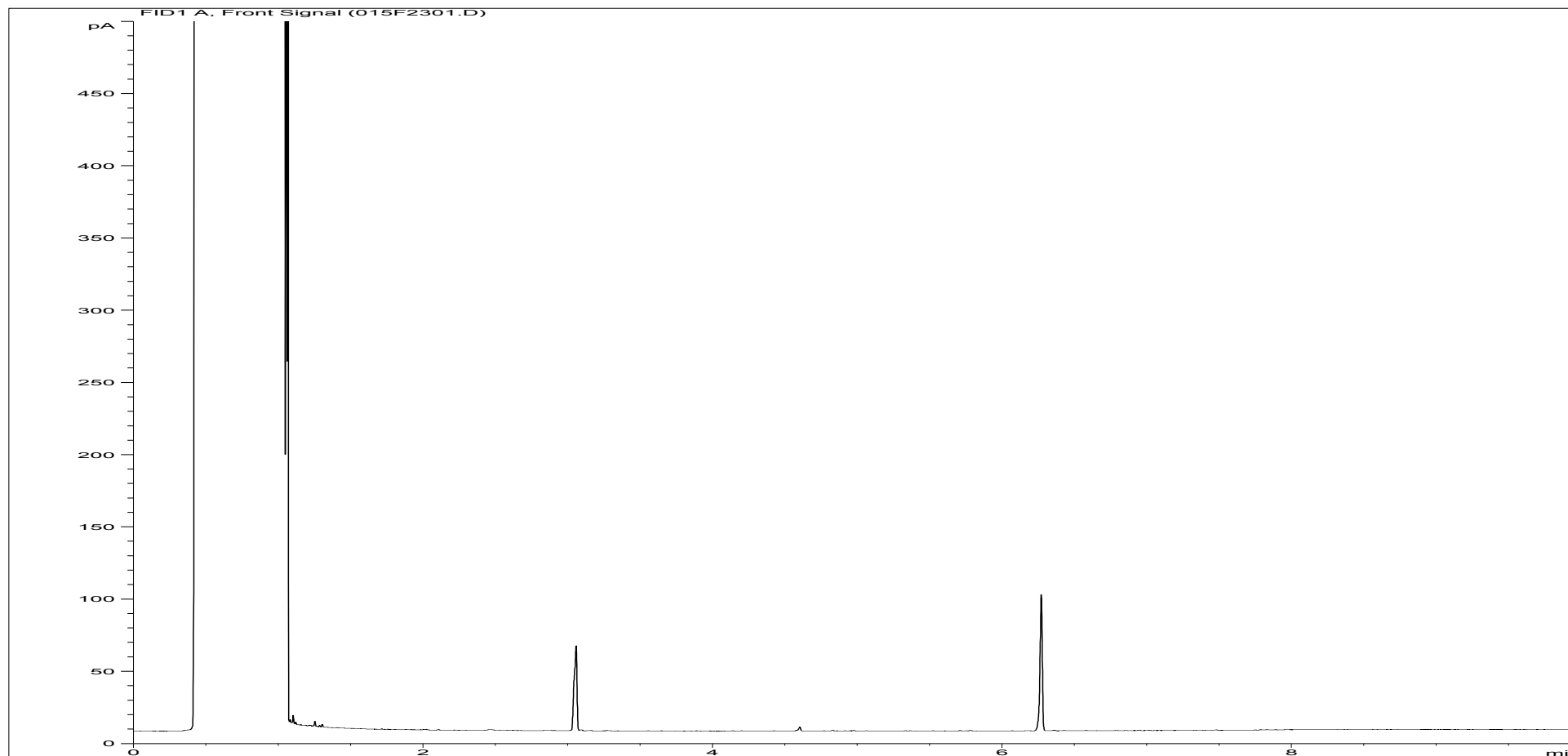
Petroleum Hydrocarbons (C8 to C40) by GC/FID



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1281691 | Job Number: | W13_4281 |
| Multiplier: | 0.005 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client Sample Ref: | BH-NSA-37 |
| Acquisition Date/Time: | 10-Apr-12, 13:34:36 | | |
| Datafile: | D:\TES\DATA\Y2012\04\10\12TPH_GC15\041012 2012-04-10 09-01-47\024F1701.D | | |

Where individual results are flagged see report notes for status.

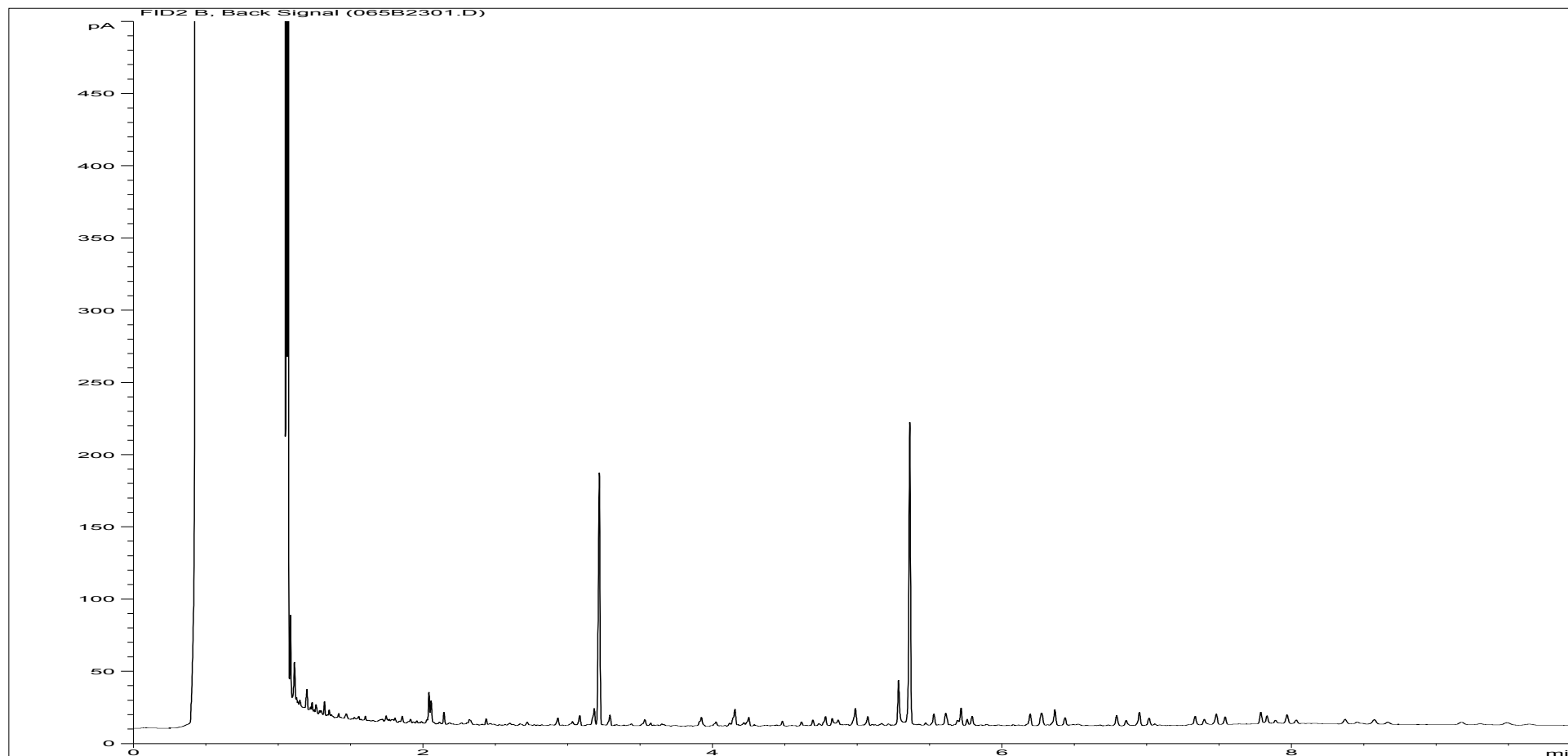
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1281691ALI | Job Number: | W13_4281 |
| Multiplier: | 0.02 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client Sample Ref: | BH-NSA-37 |
| Acquisition Date/Time: | 05-Apr-12, 14:42:02 | | |
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Where individual results are flagged see report notes for status.

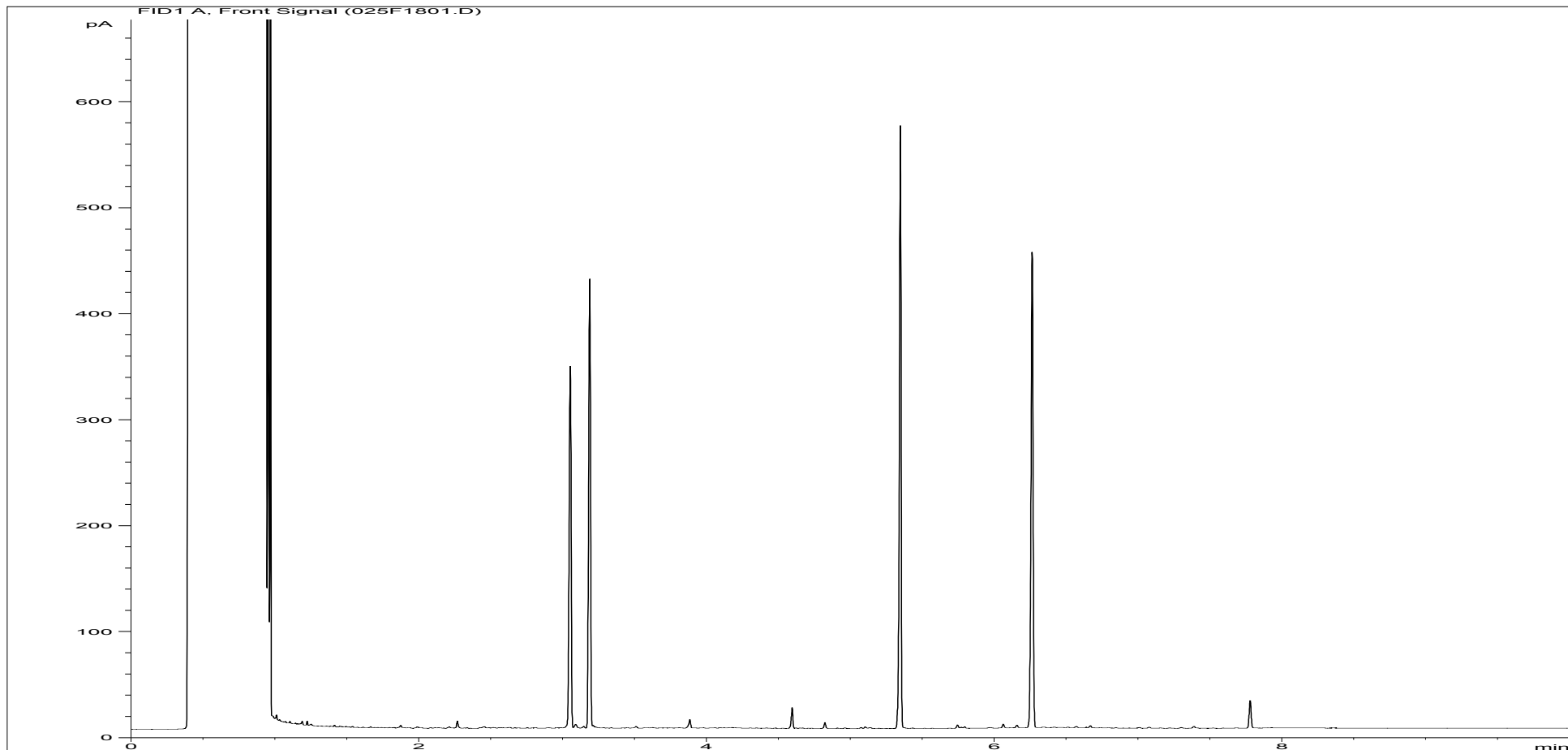
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1281691ARO | Job Number: | W13_4281 |
| Multiplier: | 0.015 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

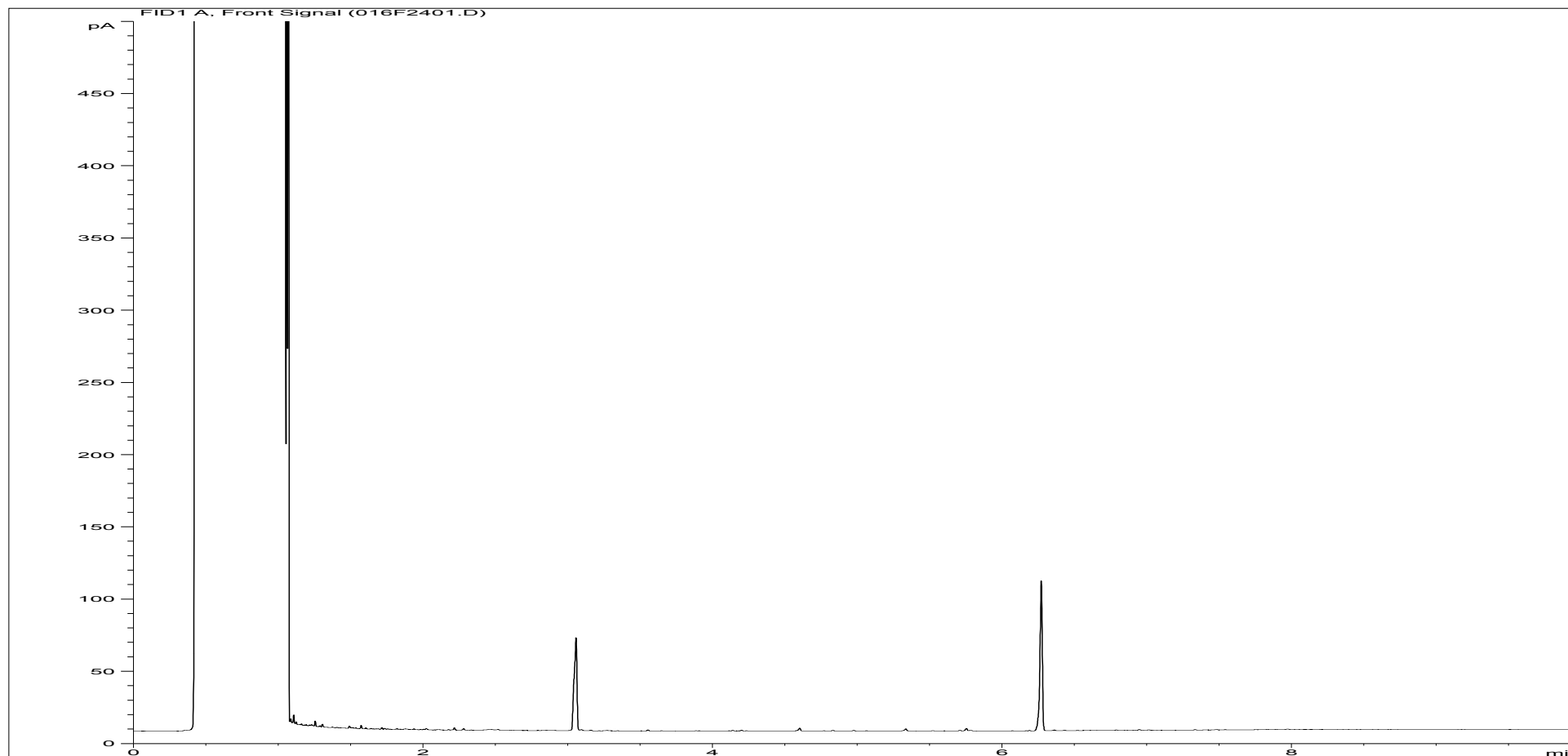
Petroleum Hydrocarbons (C8 to C40) by GC/FID



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1281692 | Job Number: | W13_4281 |
| Multiplier: | 0.005 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

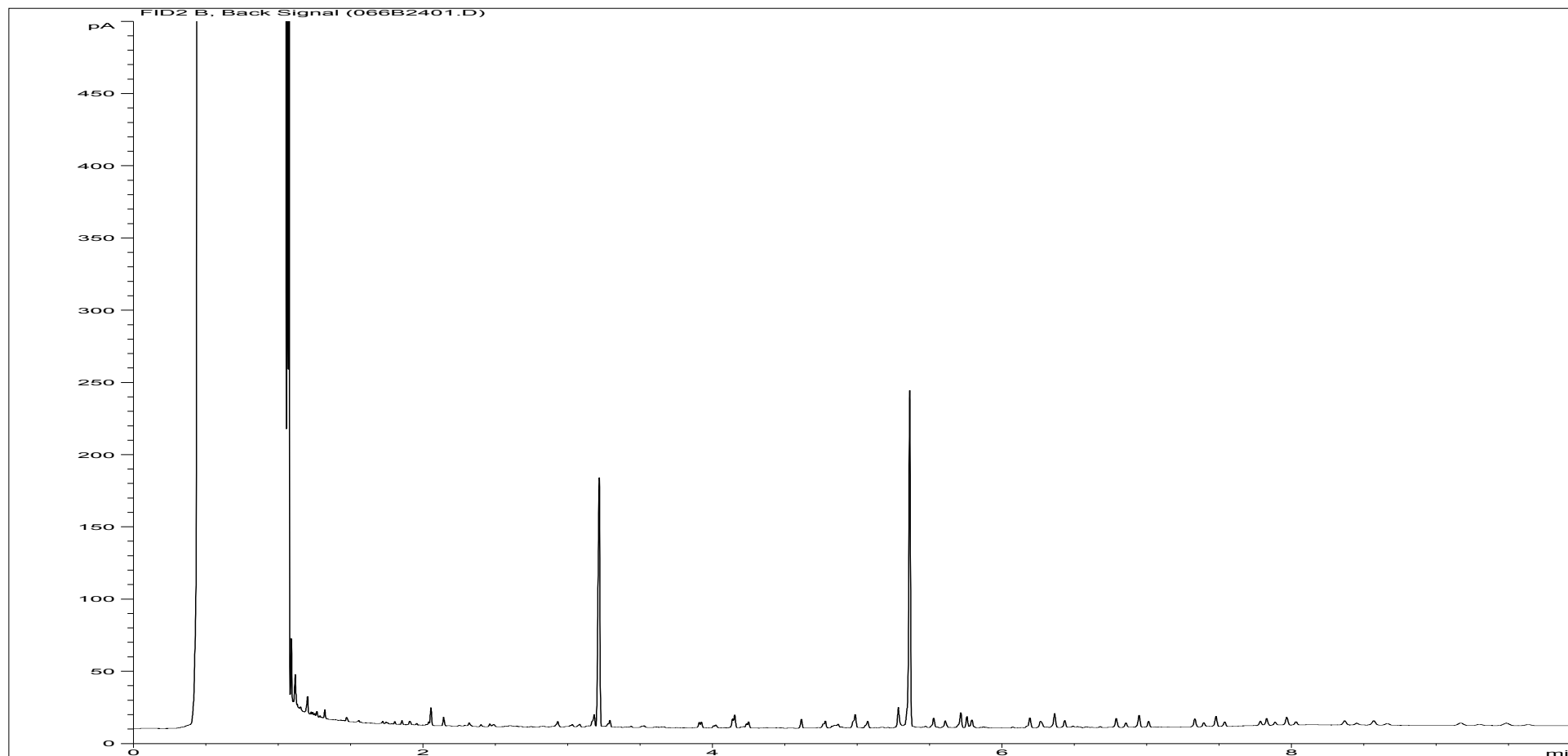
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1281692ALI | Job Number: | W13_4281 |
| Multiplier: | 0.02 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client Sample Ref: | BH-NSA-39 |
| Acquisition Date/Time: | 05-Apr-12, 15:00:31 | | |
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Where individual results are flagged see report notes for status.

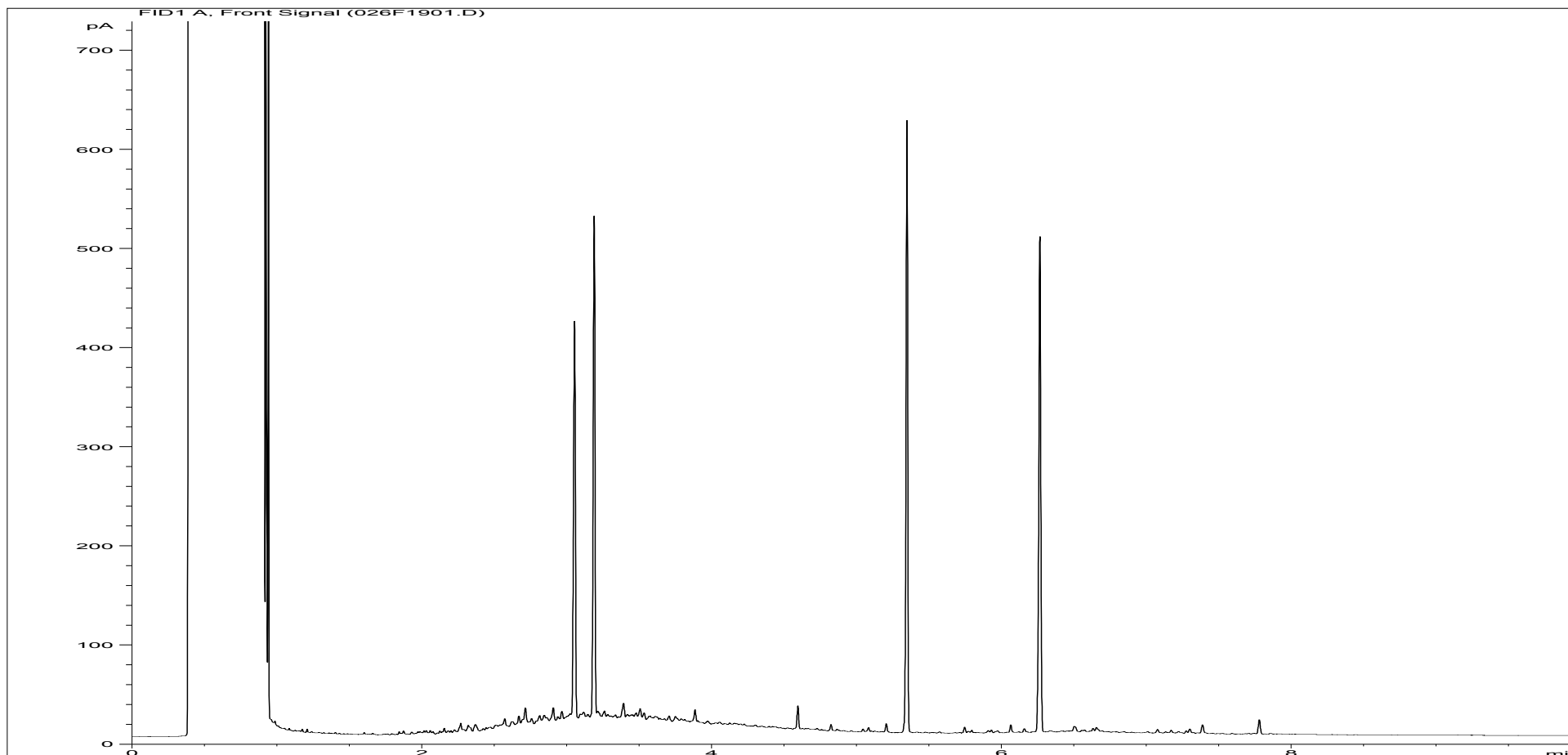
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1281692ARO | Job Number: | W13_4281 |
| Multiplier: | 0.015 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client Sample Ref: | BH-NSA-39 |
| Acquisition Date/Time: | 05-Apr-12, 15:00:31 | | |
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Where individual results are flagged see report notes for status.

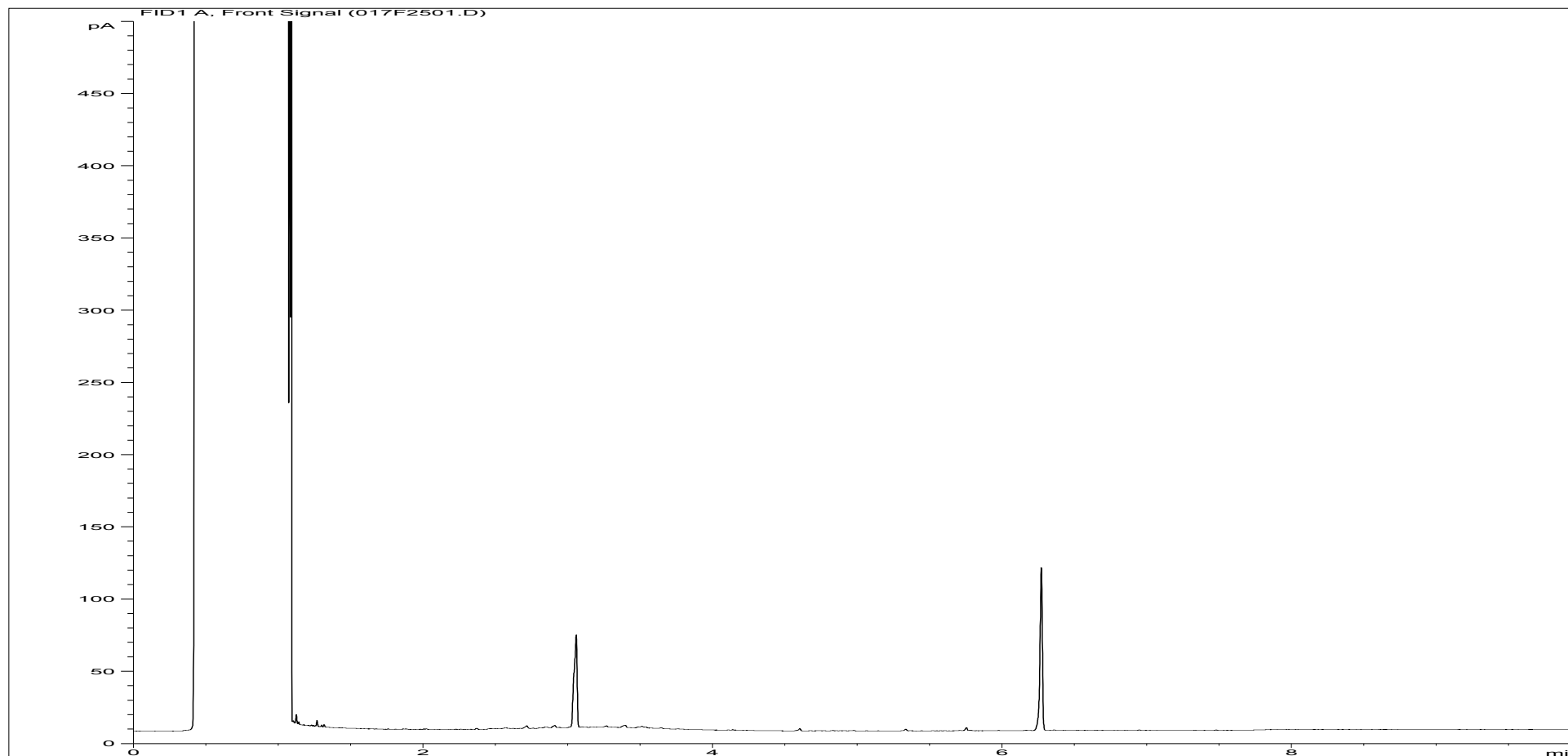
Petroleum Hydrocarbons (C8 to C40) by GC/FID



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1281693 | Job Number: | W13_4281 |
| Multiplier: | 0.005 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client Sample Ref: | BH-NSA-42 |
| Acquisition Date/Time: | 10-Apr-12, 14:08:29 | | |
| Datafile: | D:\TES\DATA\Y2012\04\10\12TPH_GC15\041012 2012-04-10 09-01-47\026F1901.D | | |

Where individual results are flagged see report notes for status.

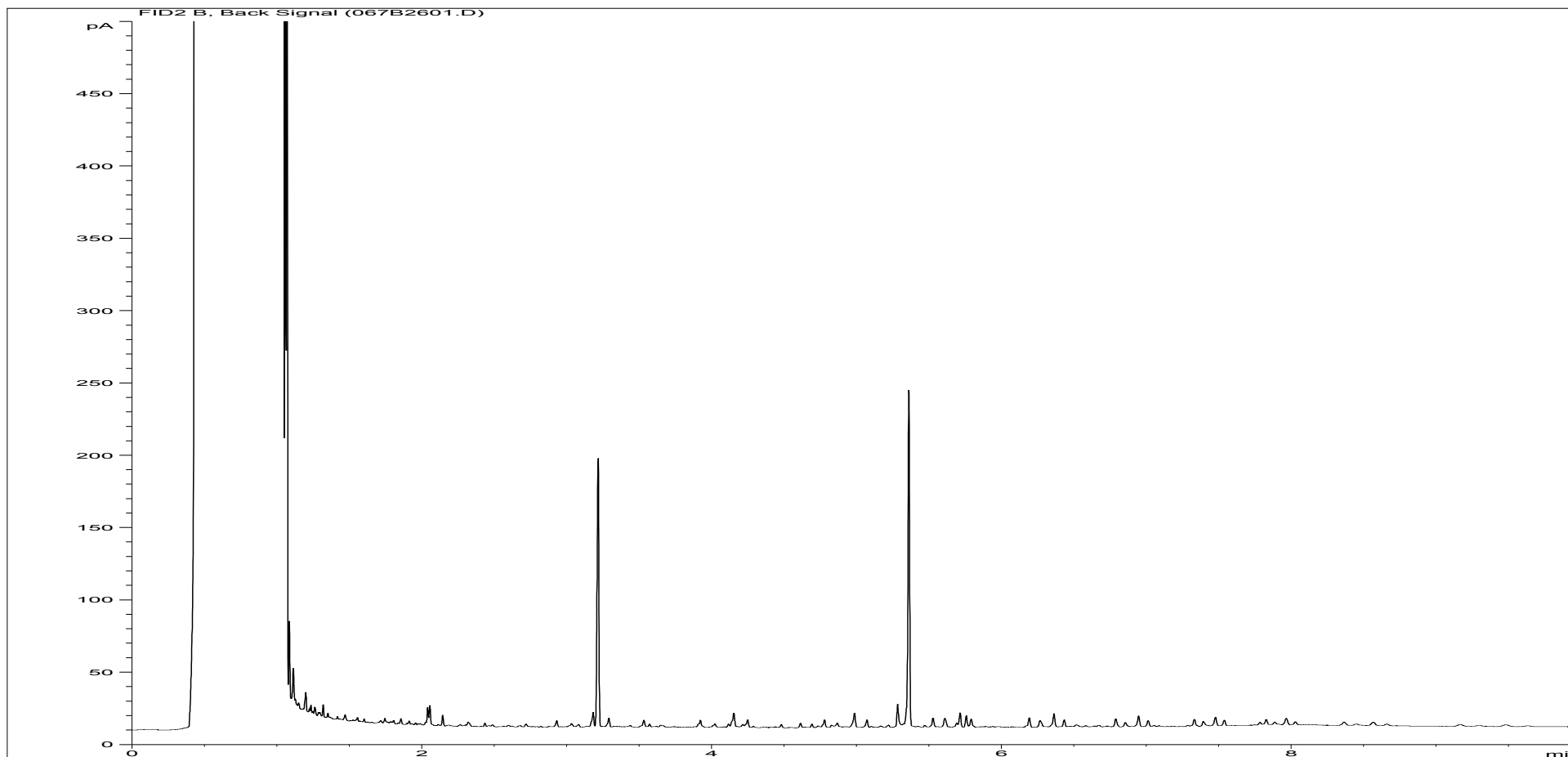
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1281693ALI | Job Number: | W13_4281 |
| Multiplier: | 0.02 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client Sample Ref: | BH-NSA-42 |
| Acquisition Date/Time: | 05-Apr-12, 15:17:26 | | |
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Where individual results are flagged see report notes for status.

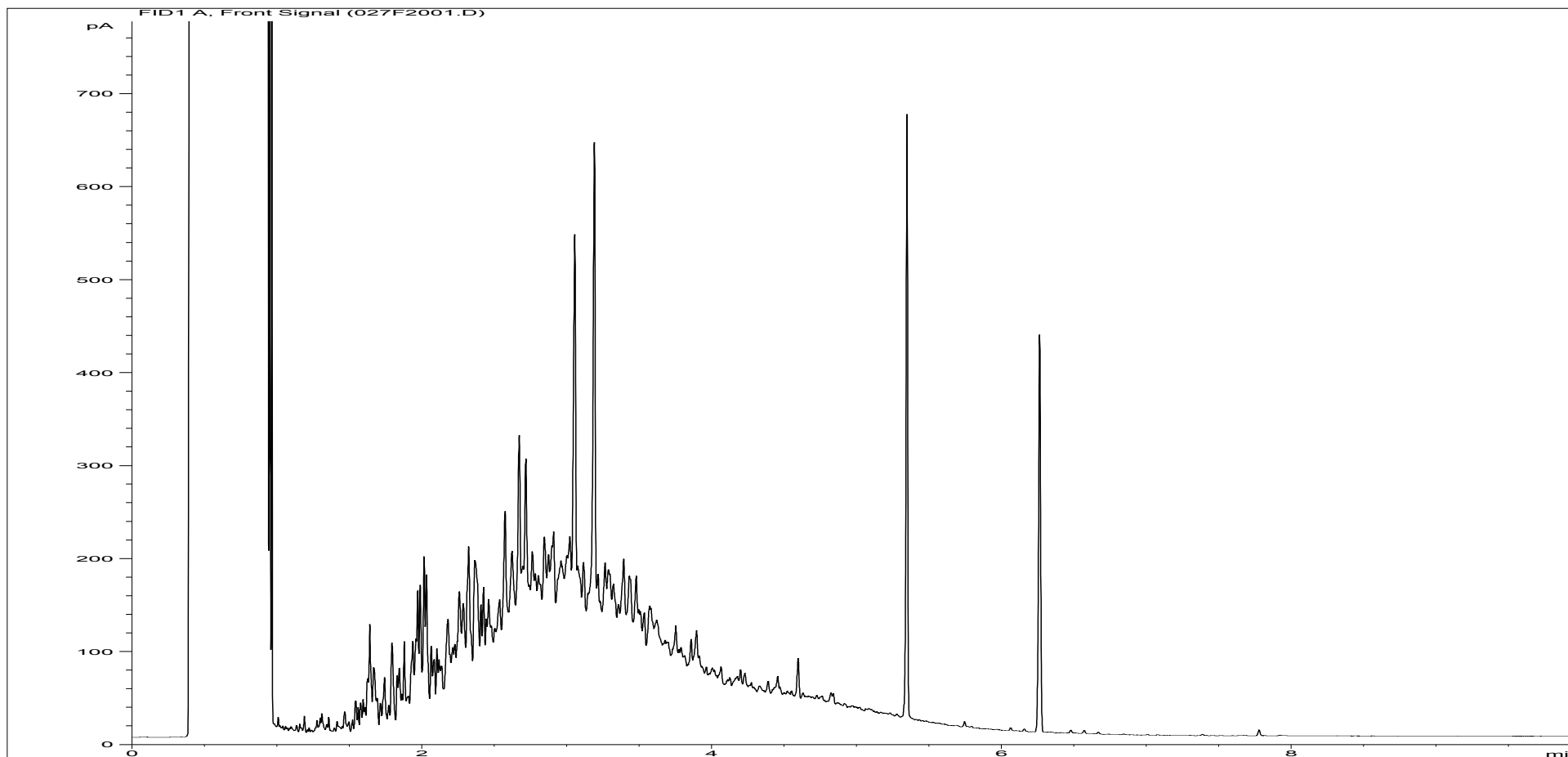
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1281693ARO | Job Number: | W13_4281 |
| Multiplier: | 0.015 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

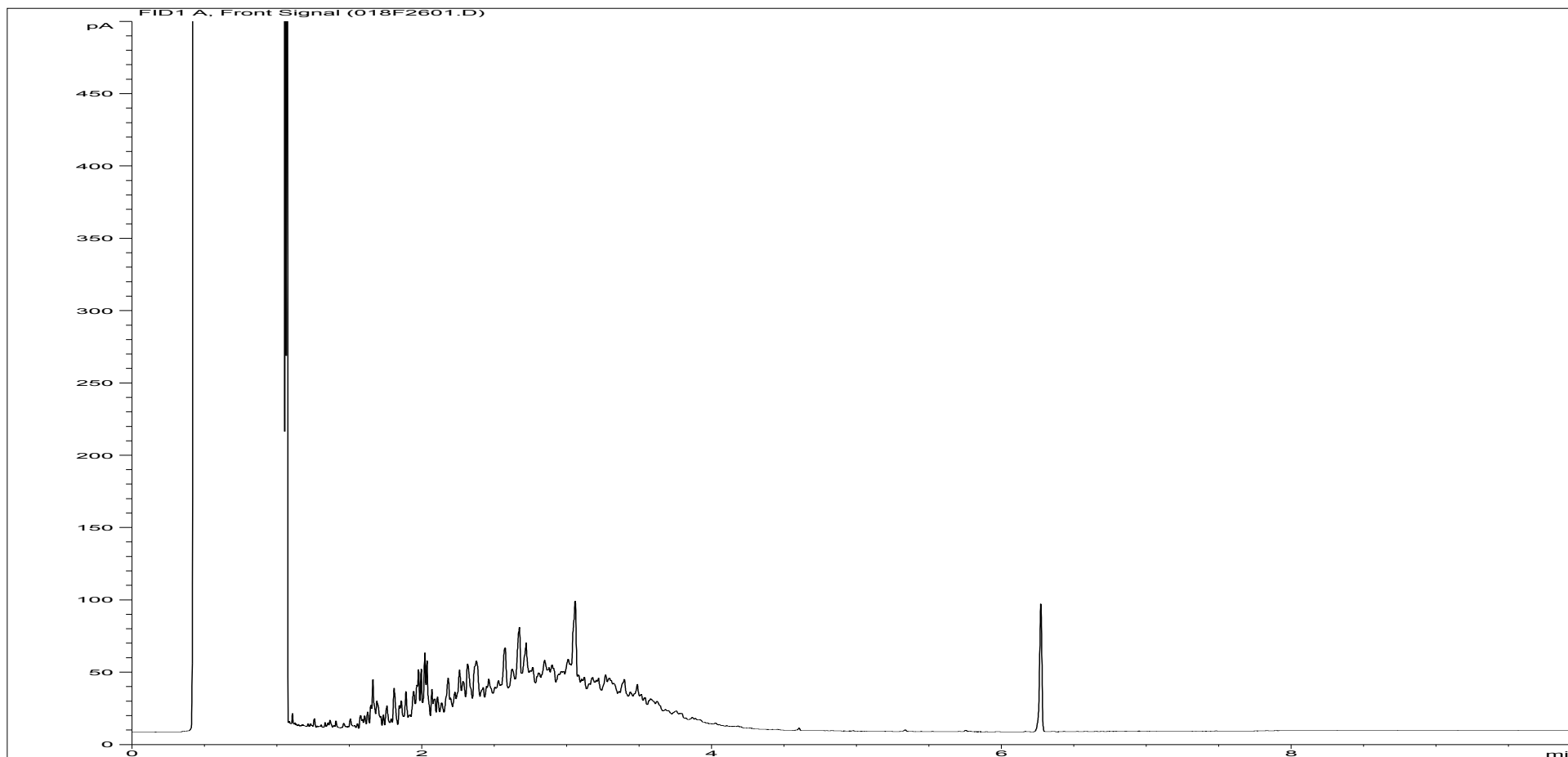
Petroleum Hydrocarbons (C8 to C40) by GC/FID



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1281694 | Job Number: | W13_4281 |
| Multiplier: | 0.005 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client Sample Ref: | BH-NSA-43 |
| Acquisition Date/Time: | 10-Apr-12, 14:25:27 | | |
| Datafile: | D:\TES\DATA\Y2012\04\10\12TPH_GC15\041012 2012-04-10 09-01-47\027F2001.D | | |

Where individual results are flagged see report notes for status.

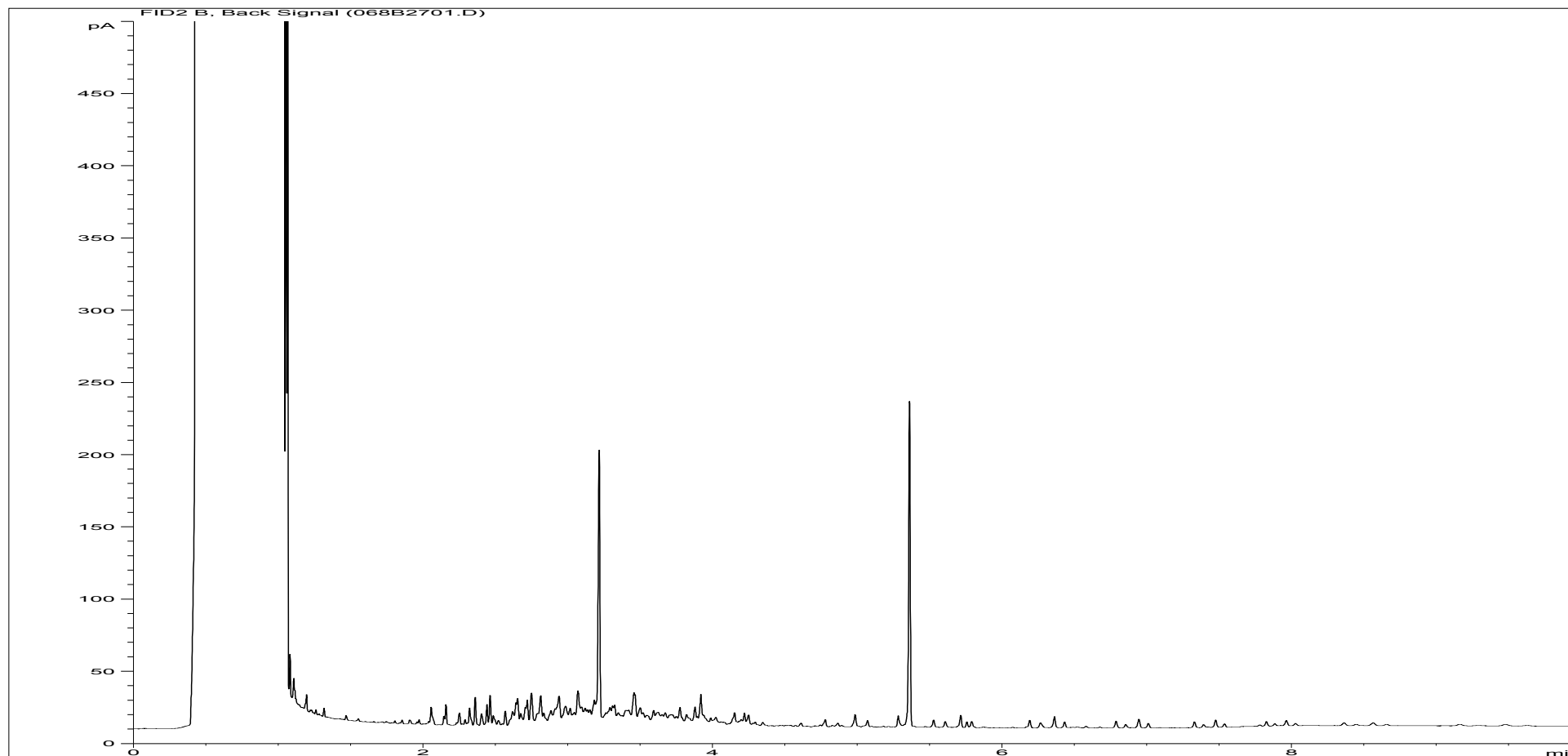
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1281694ALI | Job Number: | W13_4281 |
| Multiplier: | 0.02 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client Sample Ref: | BH-NSA-43 |
| Acquisition Date/Time: | 05-Apr-12, 15:34:41 | | |
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Where individual results are flagged see report notes for status.

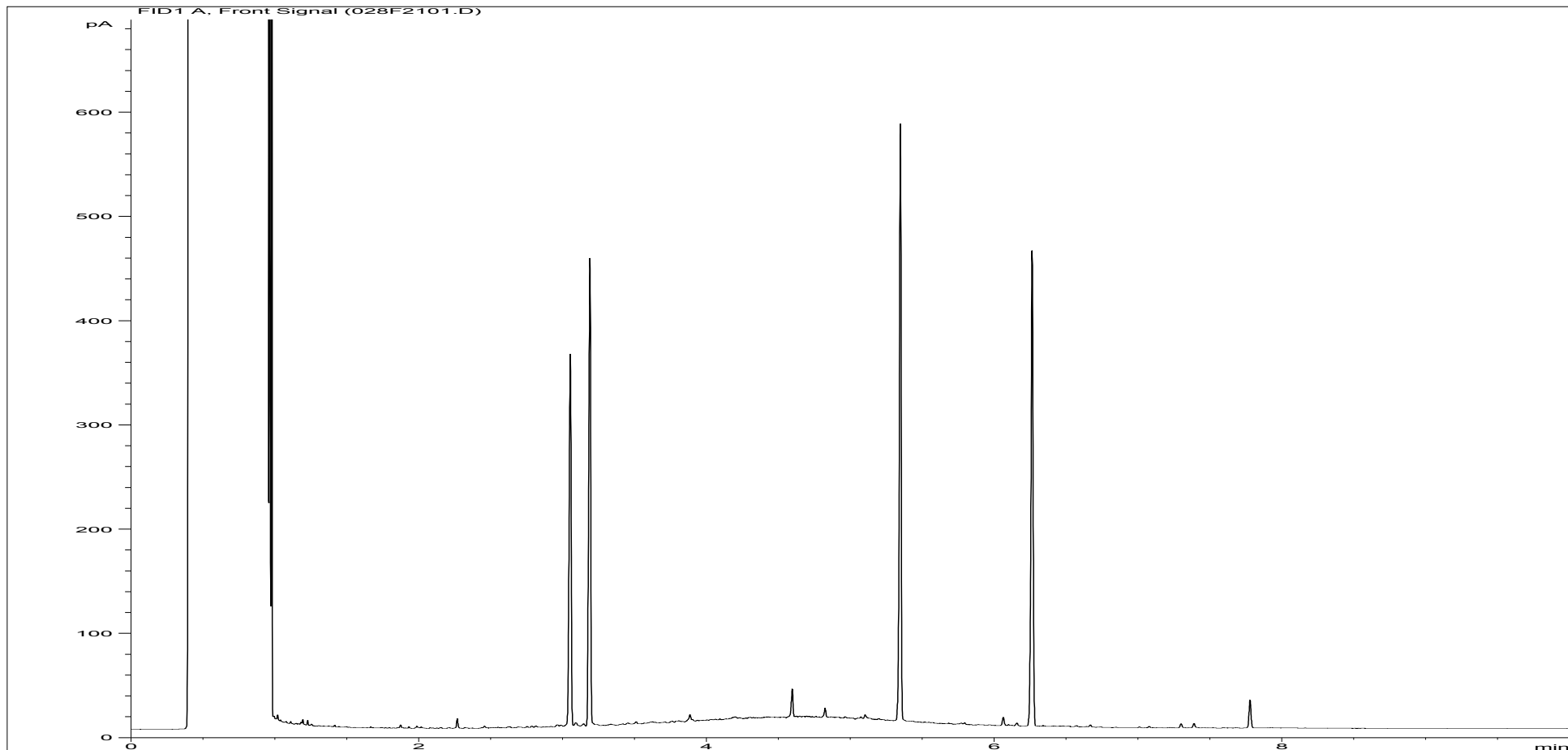
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1281694ARO | Job Number: | W13_4281 |
| Multiplier: | 0.015 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

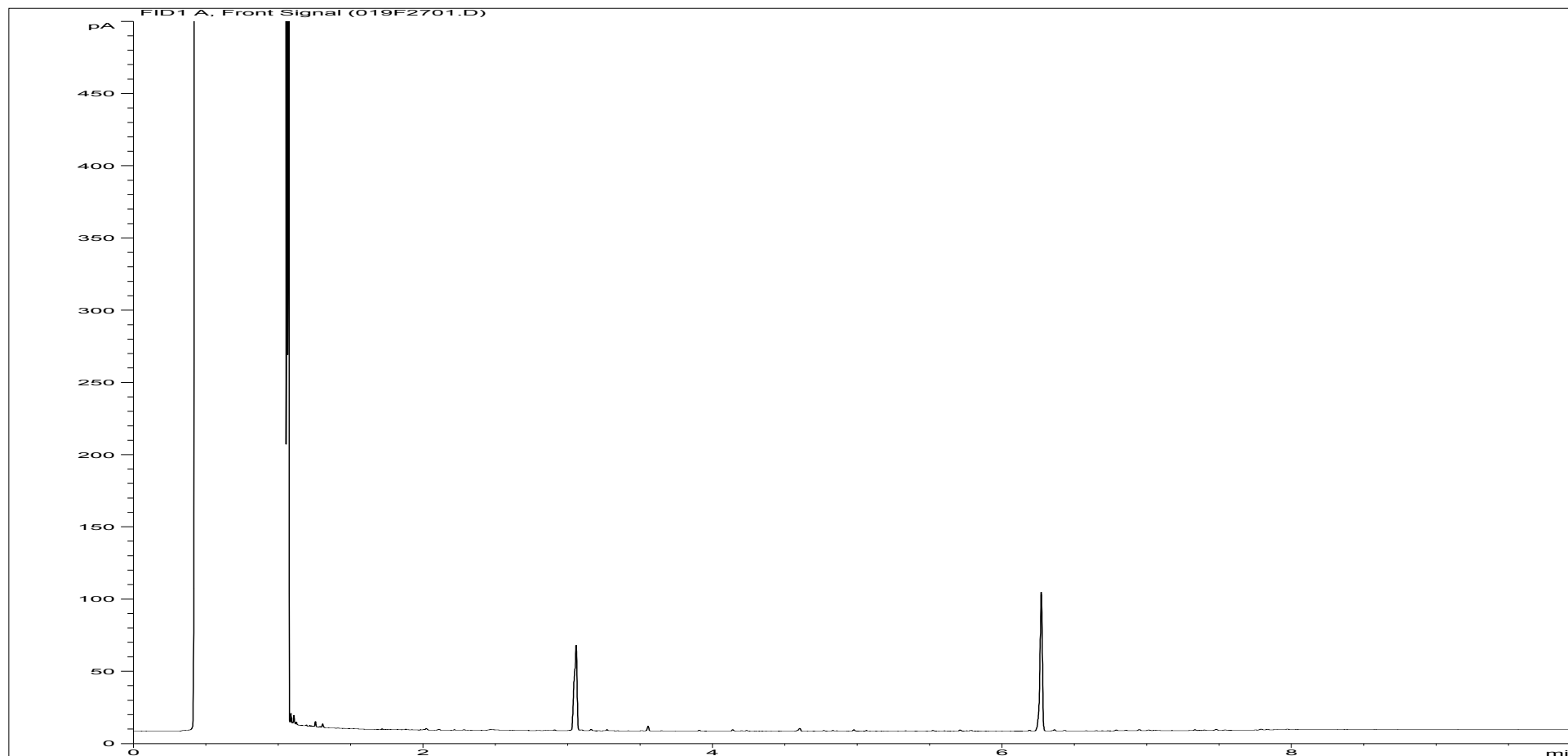
Petroleum Hydrocarbons (C8 to C40) by GC/FID



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1281695 | Job Number: | W13_4281 |
| Multiplier: | 0.005 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

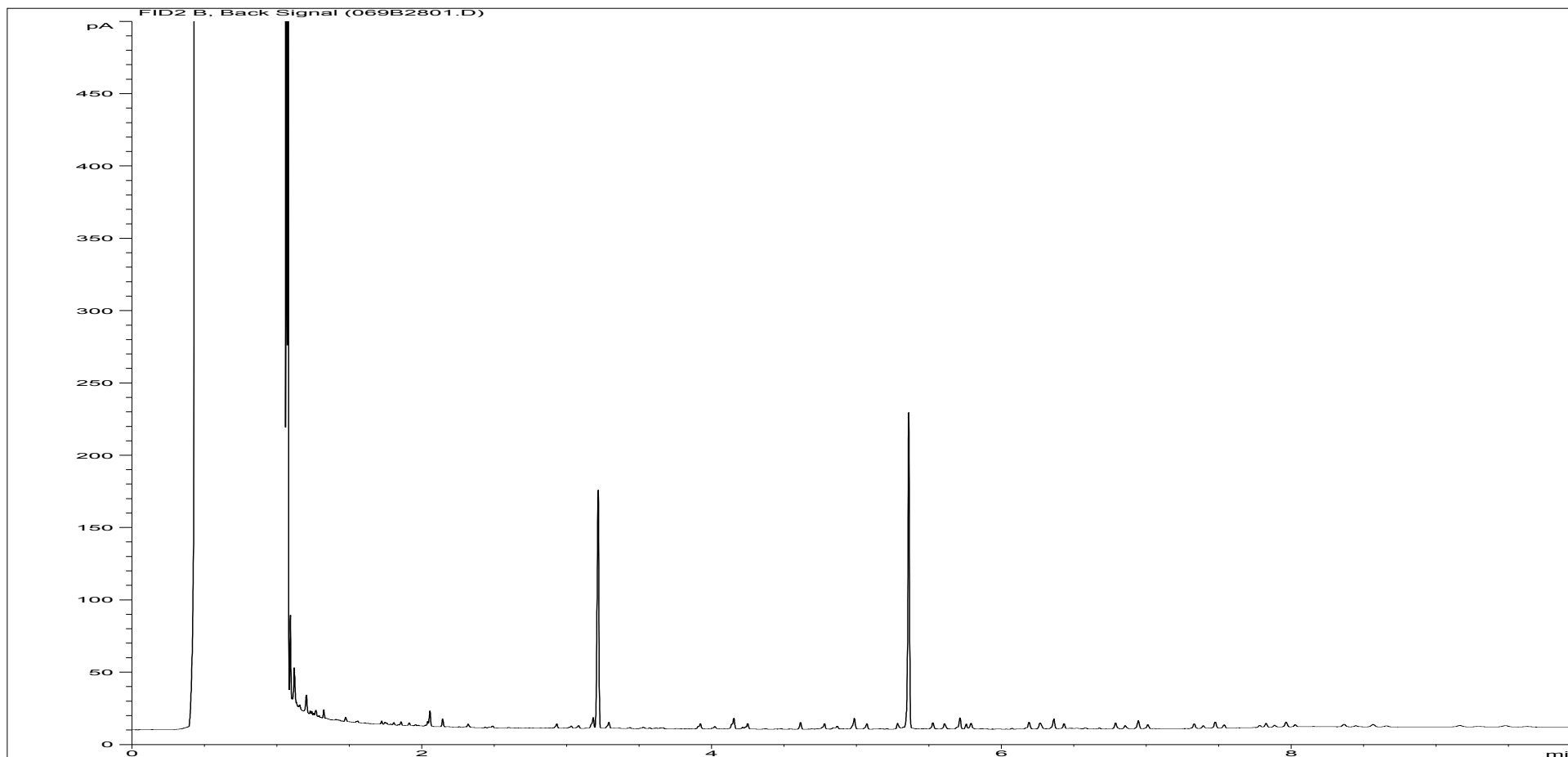
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1281695ALI | Job Number: | W13_4281 |
| Multiplier: | 0.02 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client Sample Ref: | BH-NSA-44 |
| Acquisition Date/Time: | 05-Apr-12, 15:51:34 | | |
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Where individual results are flagged see report notes for status.

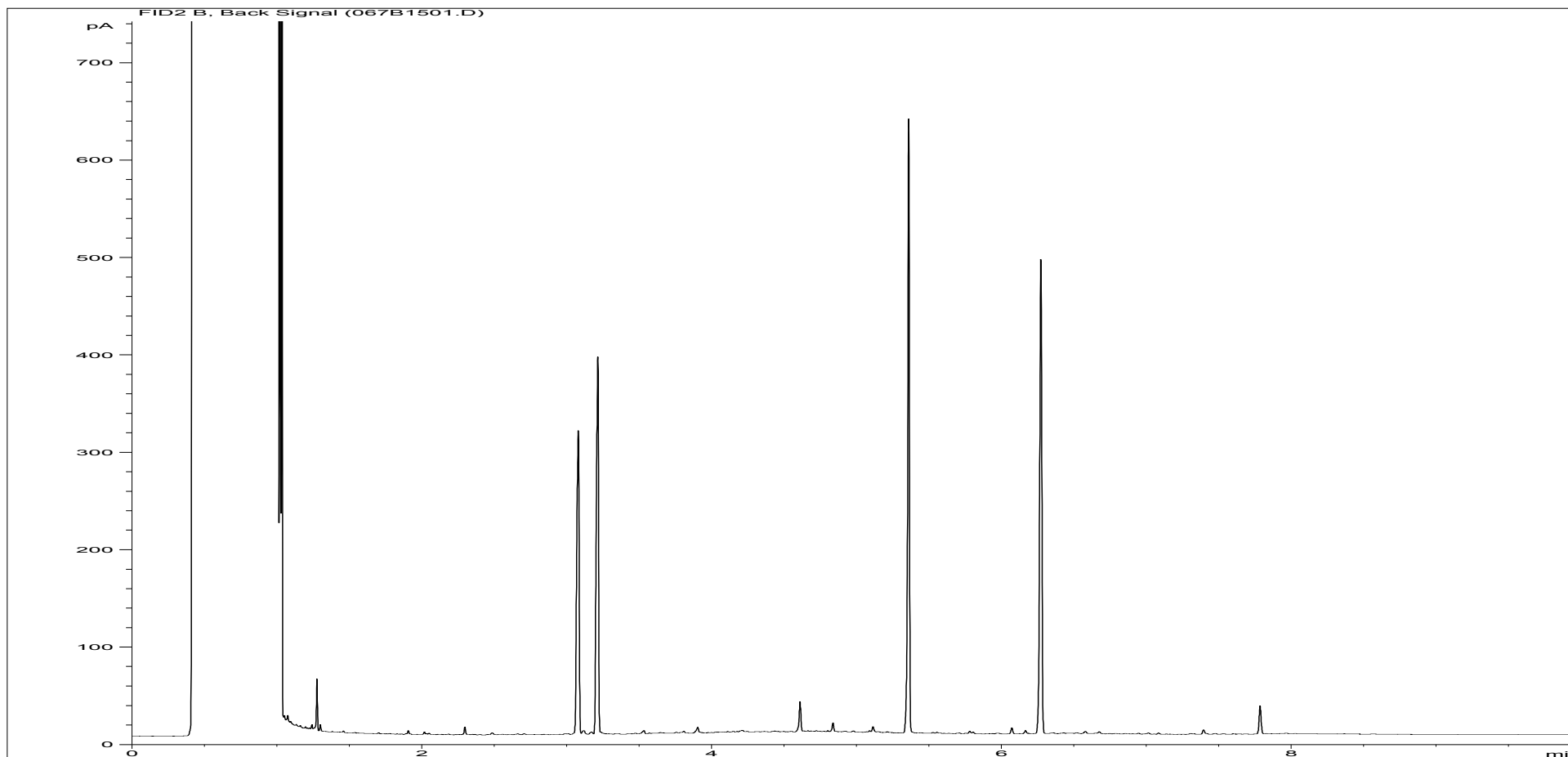
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1281695ARO | Job Number: | W13_4281 |
| Multiplier: | 0.015 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client Sample Ref: | BH-NSA-44 |
| Acquisition Date/Time: | 05-Apr-12, 16:08:24 | | |
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Where individual results are flagged see report notes for status.

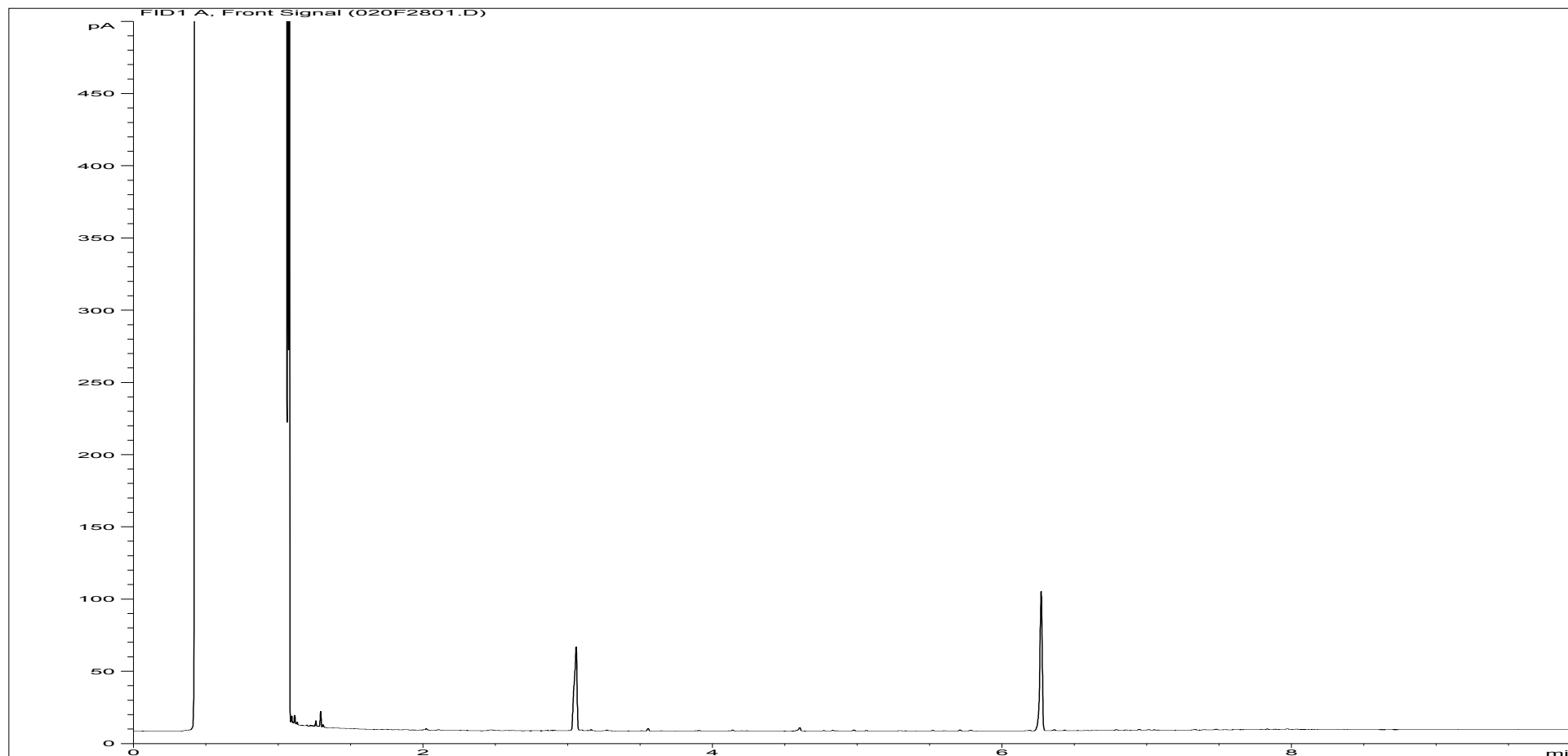
Petroleum Hydrocarbons (C8 to C40) by GC/FID



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1281696 | Job Number: | W13_4281 |
| Multiplier: | 0.005 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client Sample Ref: | BH-NSA-45 |
| Acquisition Date/Time: | 10-Apr-12, 13:00:30 | | |
| Datafile: | D:\TES\DATA\Y2012\04\10\12TPH_GC15\041012 2012-04-10 09-01-47\067B1501.D | | |

Where individual results are flagged see report notes for status.

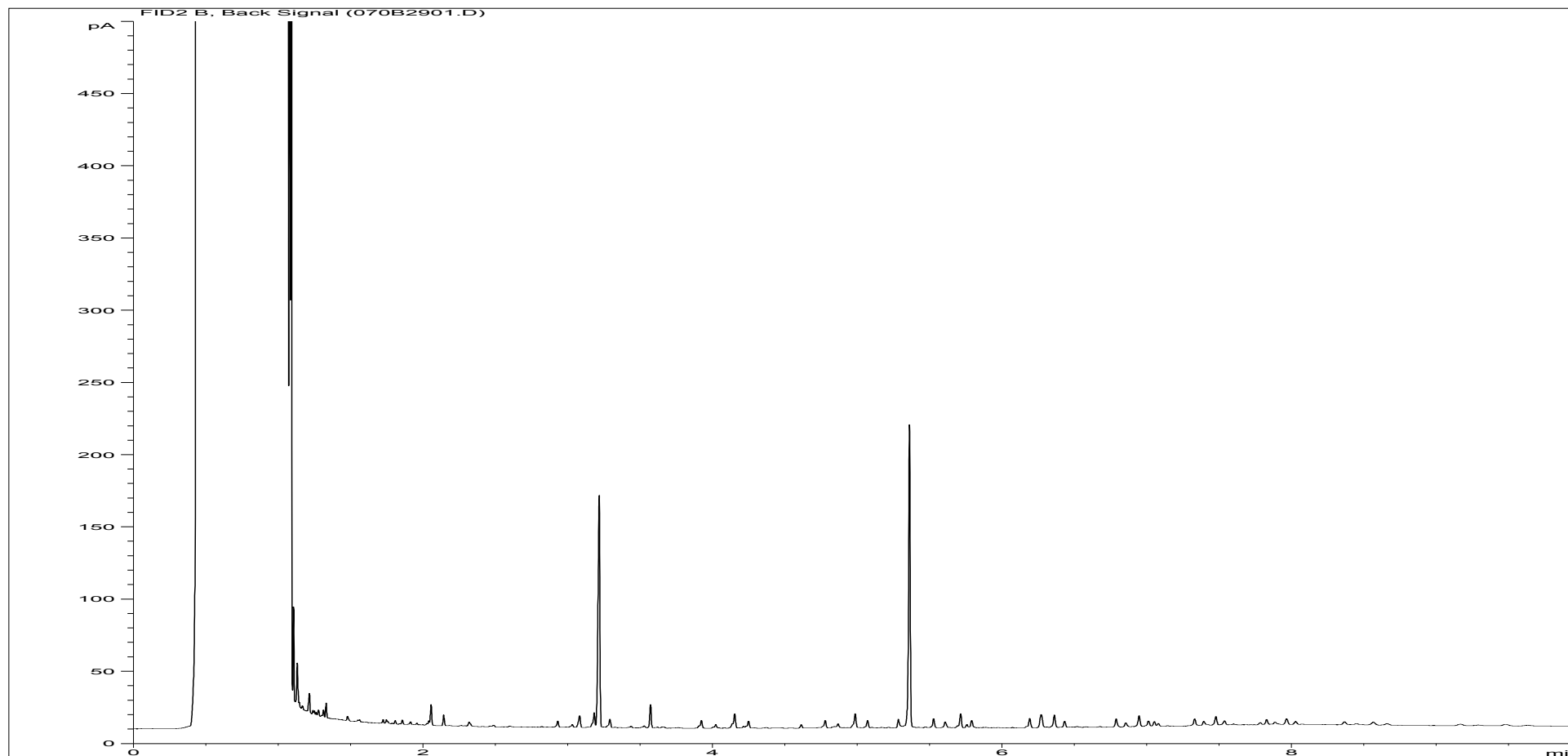
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1281696ALI | Job Number: | W13_4281 |
| Multiplier: | 0.02 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client Sample Ref: | BH-NSA-45 |
| Acquisition Date/Time: | 05-Apr-12, 16:08:24 | | |
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Where individual results are flagged see report notes for status.

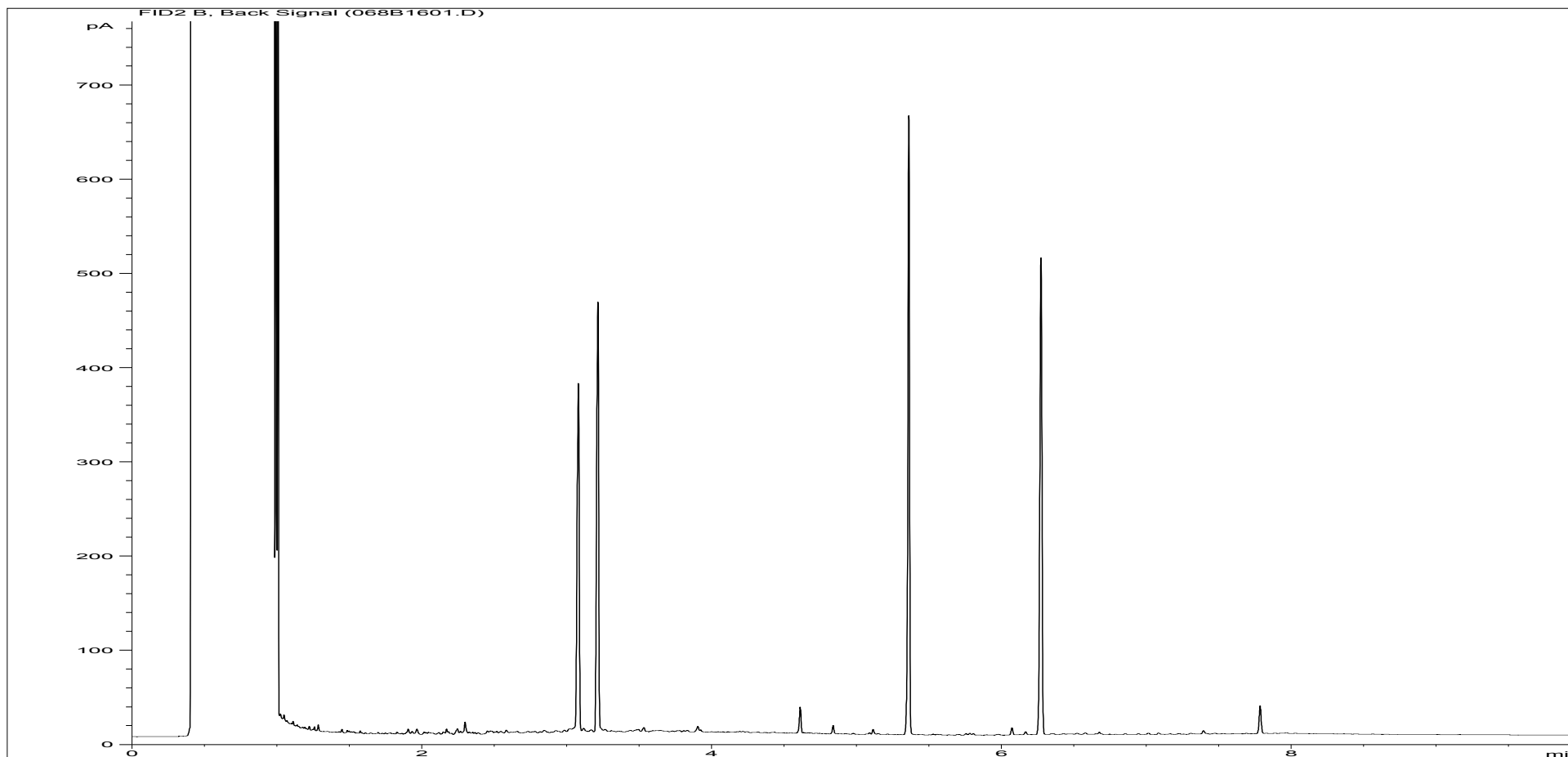
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1281696ARO | Job Number: | W13_4281 |
| Multiplier: | 0.015 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client Sample Ref: | BH-NSA-45 |
| Acquisition Date/Time: | 05-Apr-12, 16:25:18 | | |
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Where individual results are flagged see report notes for status.

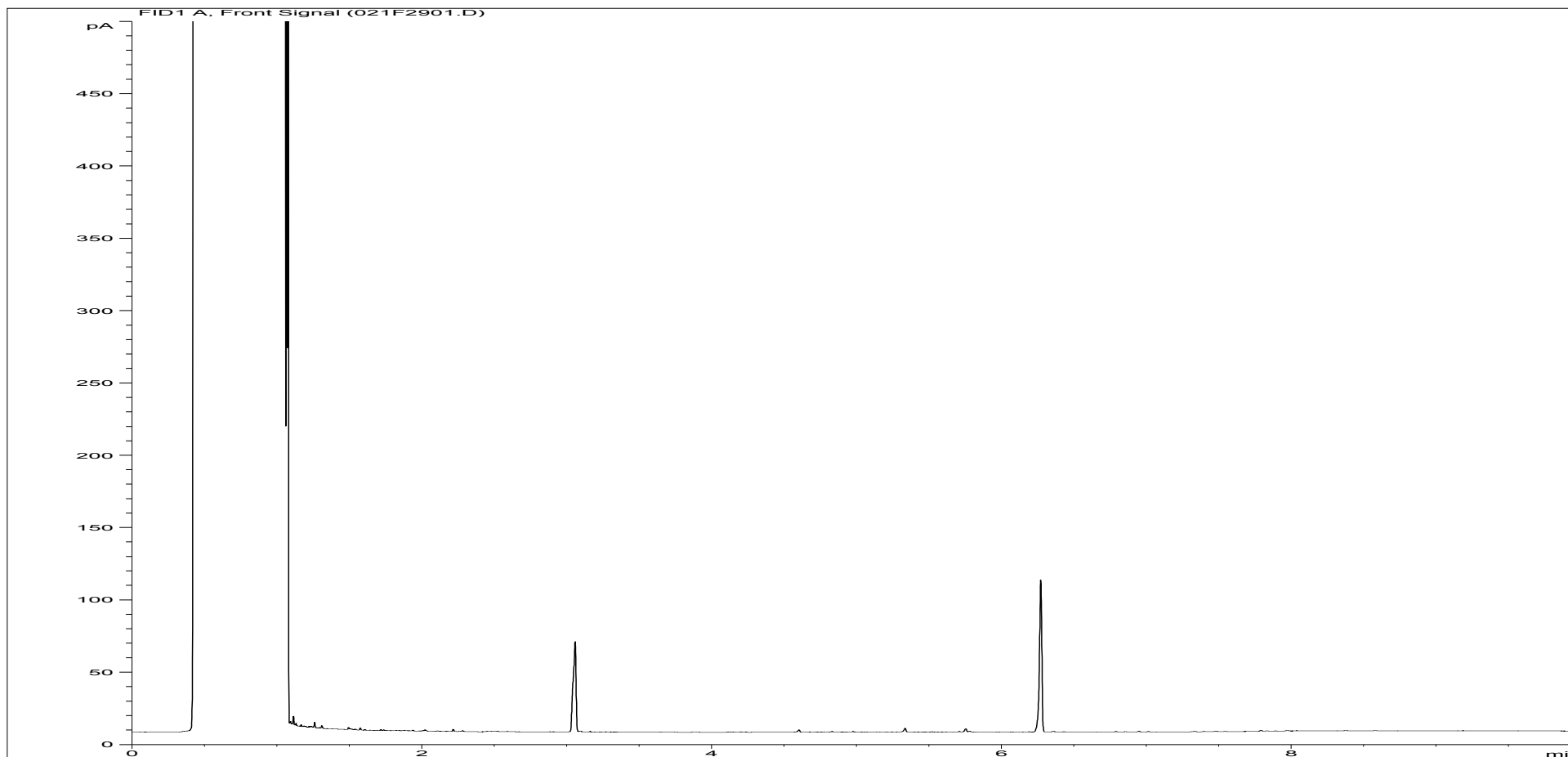
Petroleum Hydrocarbons (C8 to C40) by GC/FID



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1281697 | Job Number: | W13_4281 |
| Multiplier: | 0.005 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

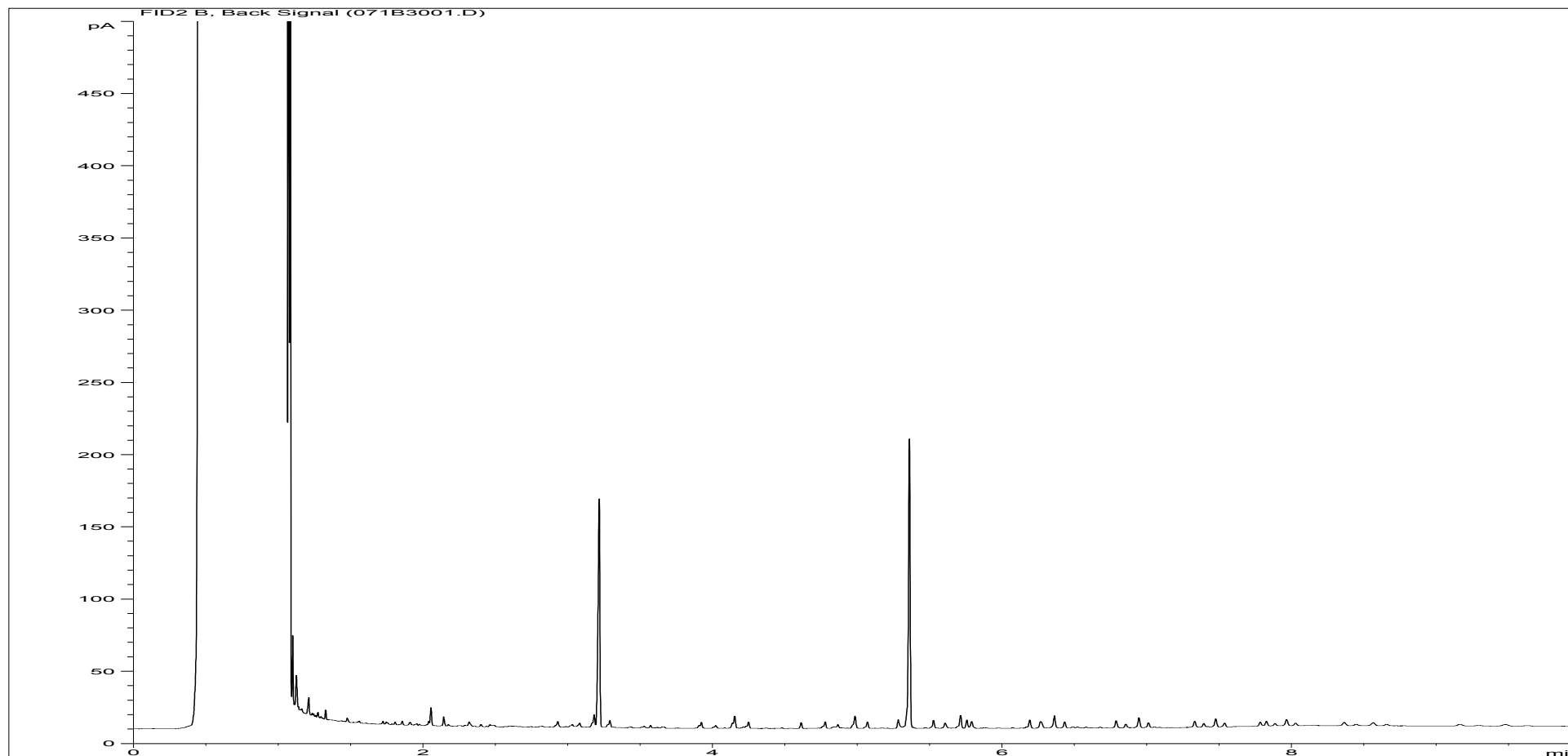
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1281697ALI | Job Number: | W13_4281 |
| Multiplier: | 0.02 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

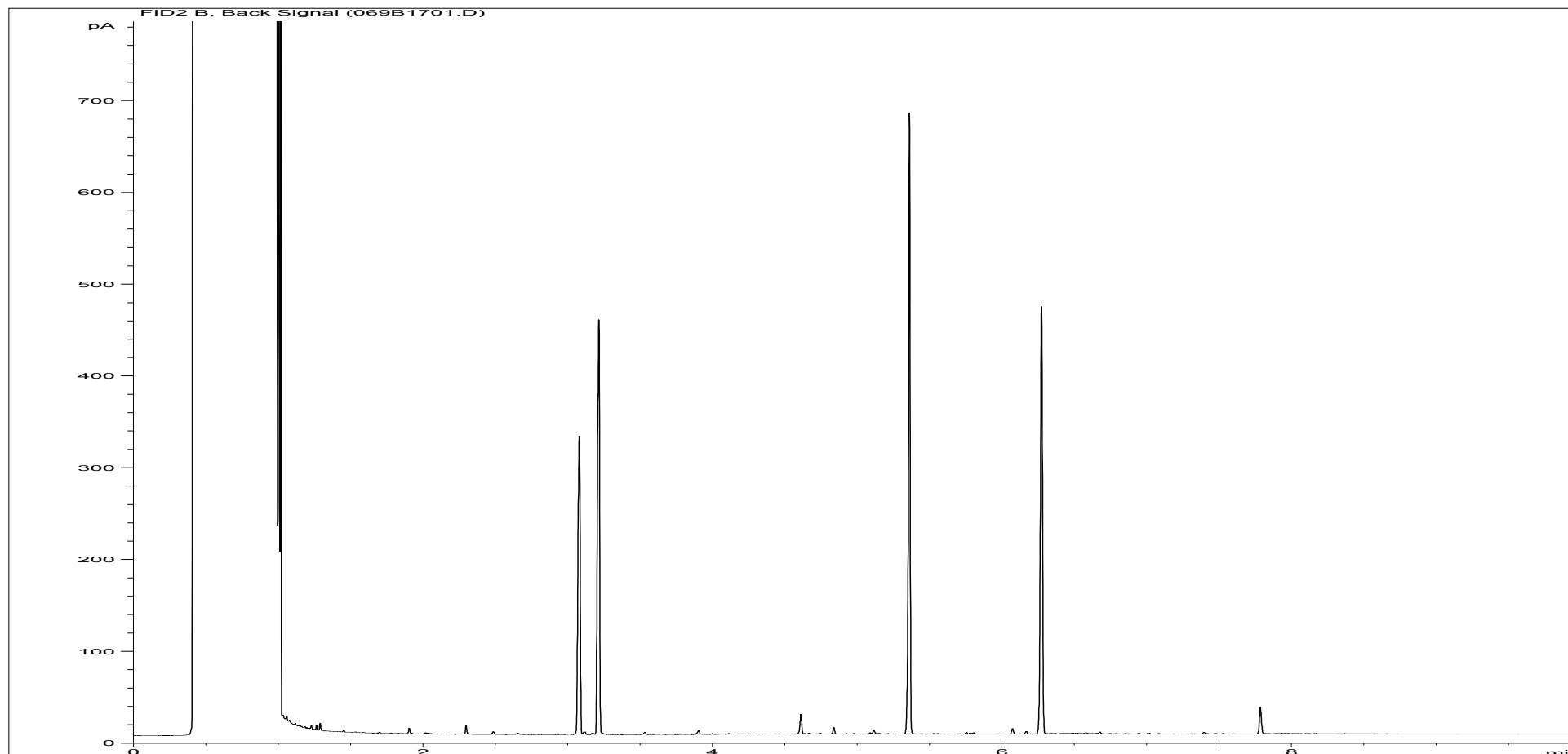
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1281697ARO | Job Number: | W13_4281 |
| Multiplier: | 0.015 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

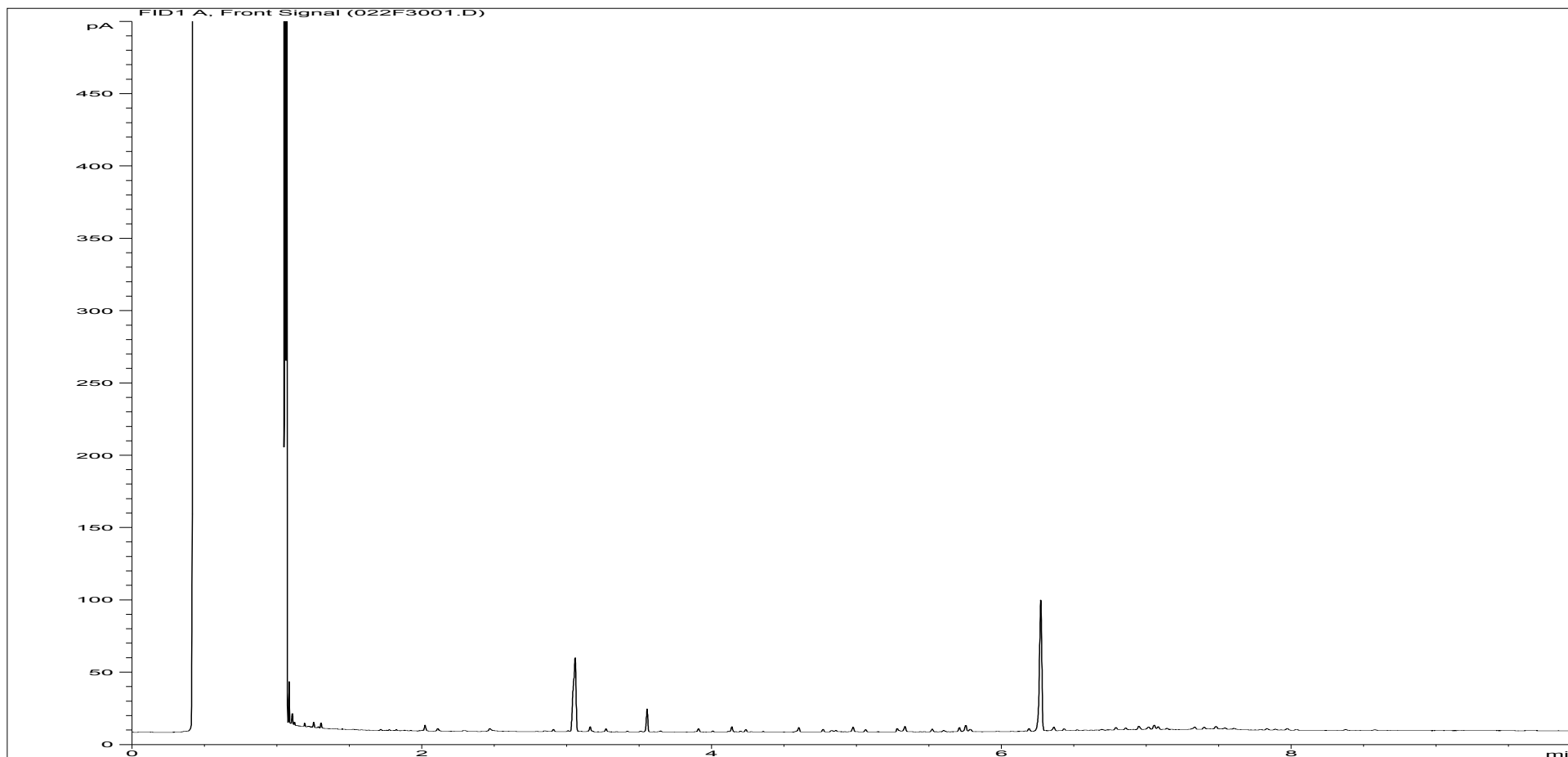
Petroleum Hydrocarbons (C8 to C40) by GC/FID



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1281698 | Job Number: | W13_4281 |
| Multiplier: | 0.005 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client Sample Ref: | BH-NSA-226 |
| Acquisition Date/Time: | 10-Apr-12, 13:34:36 | | |
| Datafile: | D:\TES\DATA\Y2012\04\10\12TPH_GC15\041012 2012-04-10 09-01-47\069B1701.D | | |

Where individual results are flagged see report notes for status.

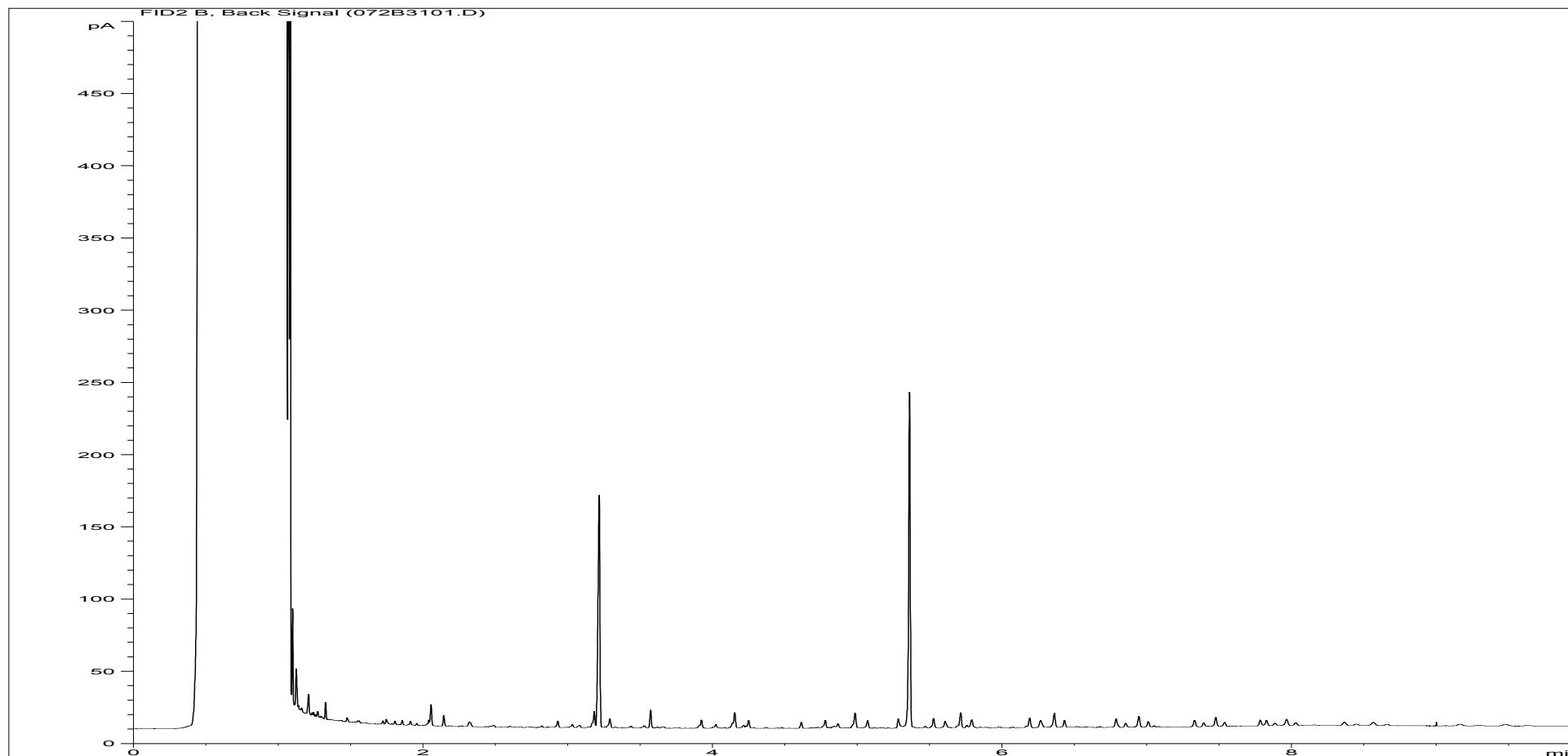
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1281698ALI | Job Number: | W13_4281 |
| Multiplier: | 0.02 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

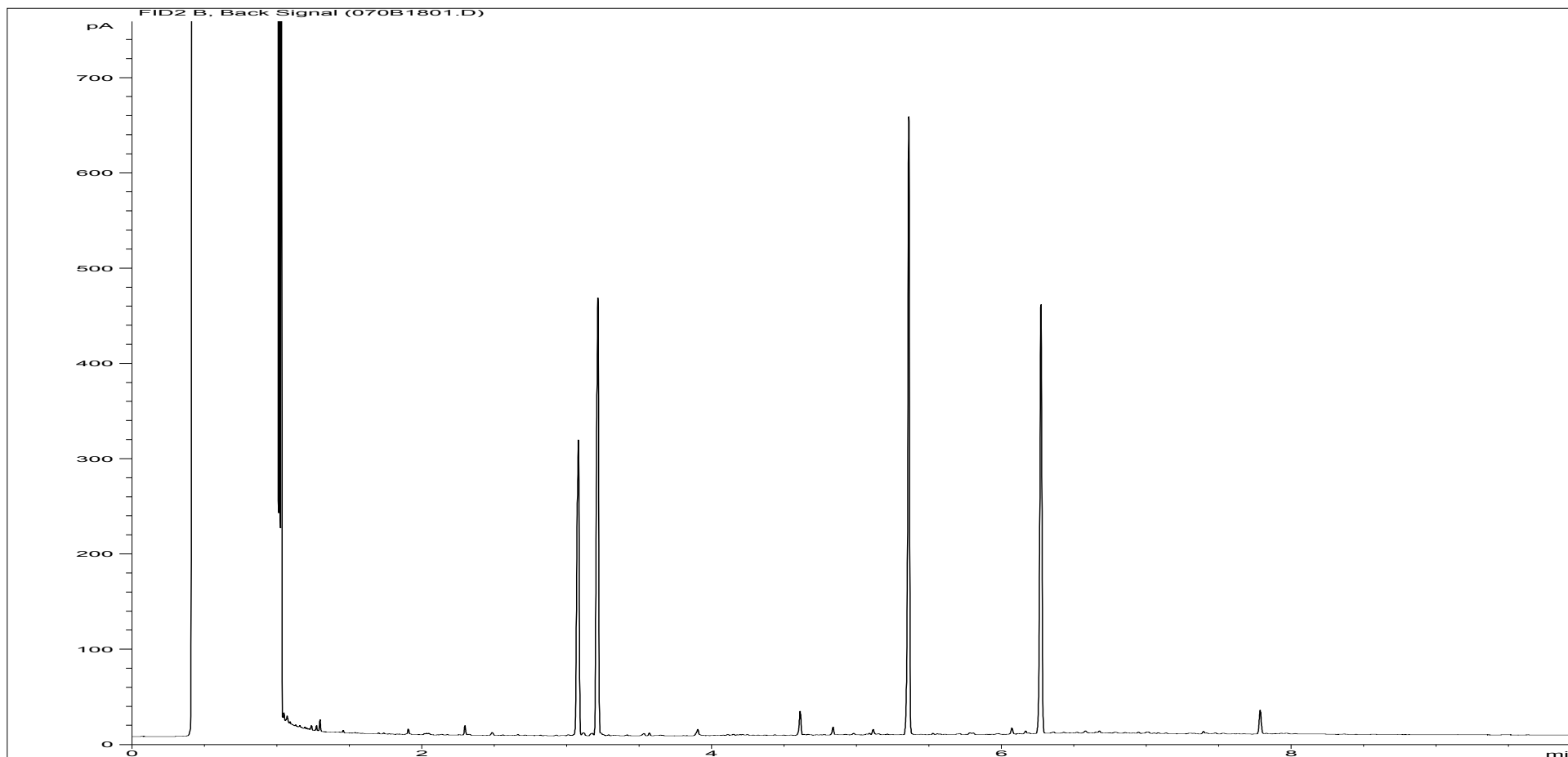
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1281698ARO | Job Number: | W13_4281 |
| Multiplier: | 0.015 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

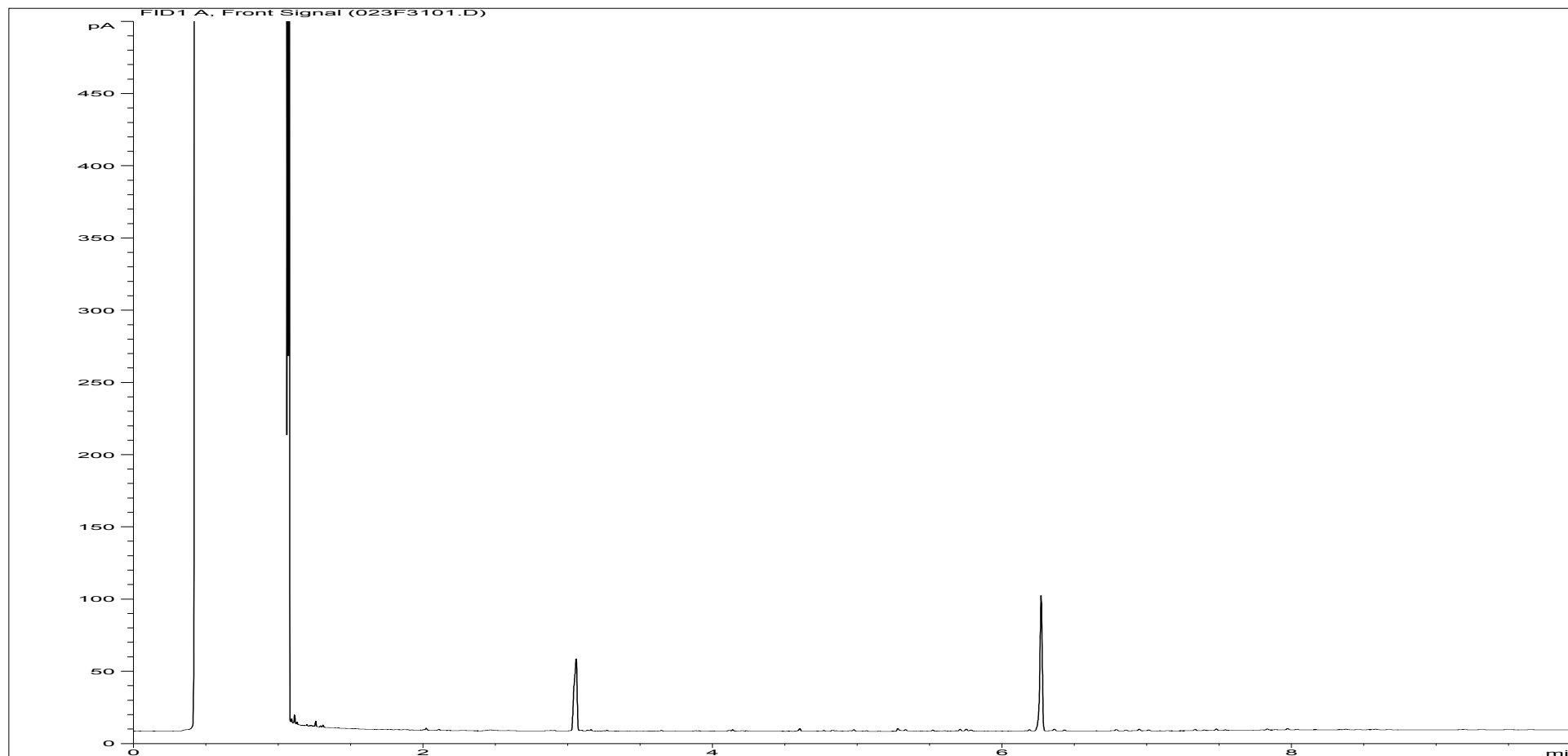
Petroleum Hydrocarbons (C8 to C40) by GC/FID



| | | | |
|-------------------------------|---|---------------------------|---------------|
| Sample ID: | EX1281699 | Job Number: | W13_4281 |
| Multiplier: | 0.005 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client Sample Ref: | BH-NSA-19x |
| Acquisition Date/Time: | 10-Apr-12, 13:51:30 | | |
| Datafile: | D:\TES\DATA\Y2012\04\10\12\TPH_GC15\04\10\12\2012-04-10\09-01-47\070B1801.D | | |

Where individual results are flagged see report notes for status.

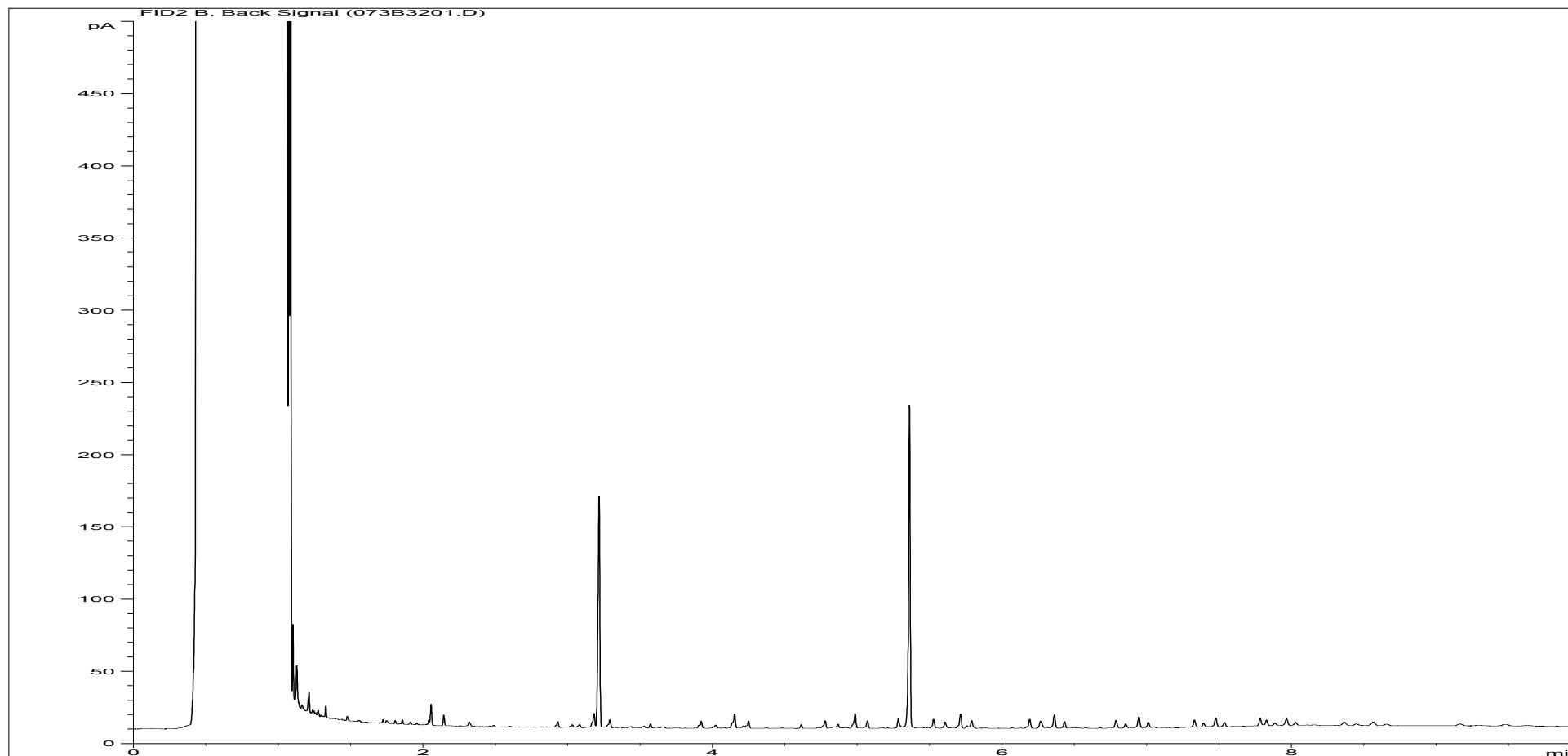
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1281699ALI | Job Number: | W13_4281 |
| Multiplier: | 0.02 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

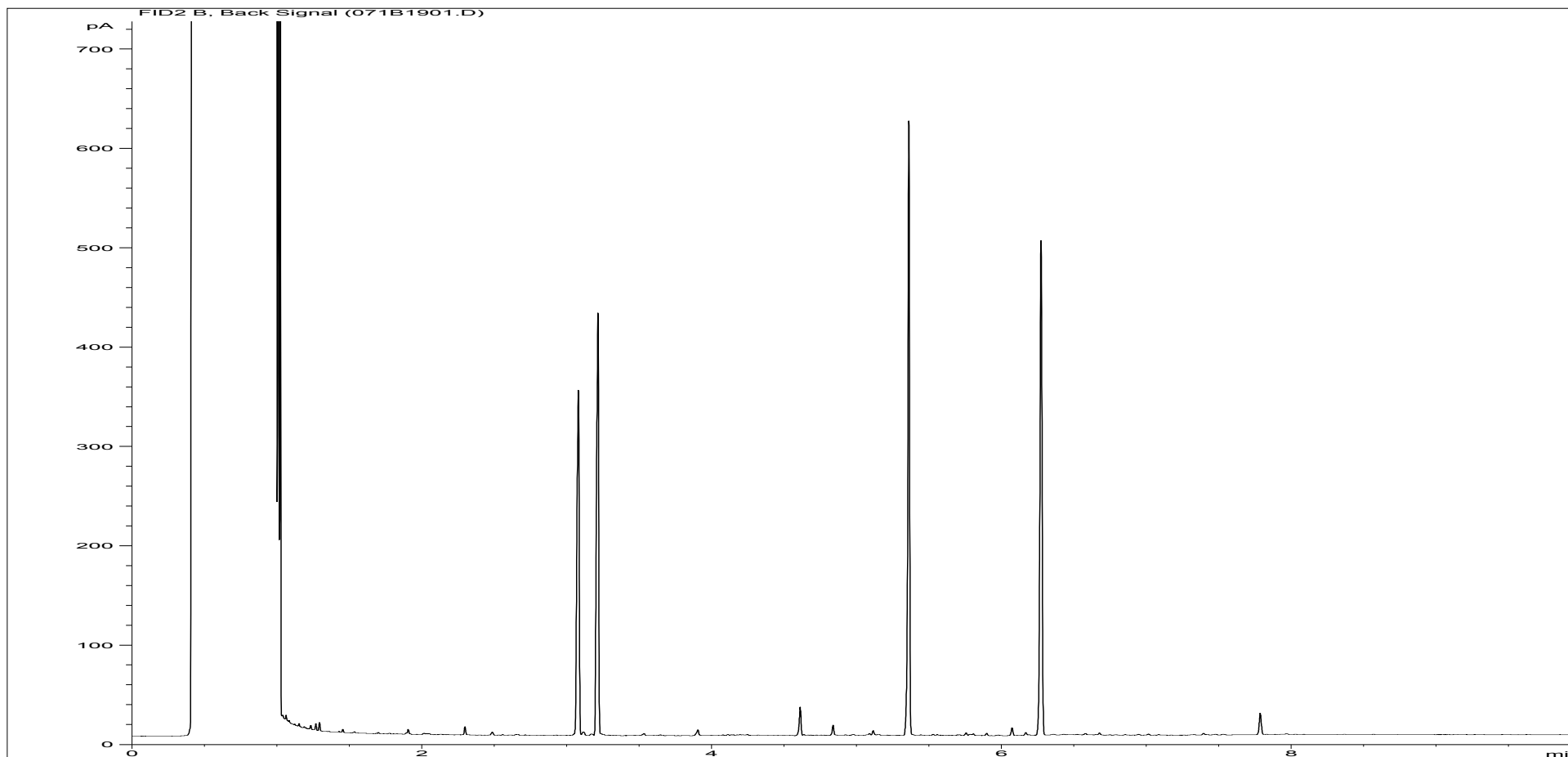
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1281699ARO | Job Number: | W13_4281 |
| Multiplier: | 0.015 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client Sample Ref: | BH-NSA-19x |
| Acquisition Date/Time: | 05-Apr-12, 17:15:50 | | |
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Where individual results are flagged see report notes for status.

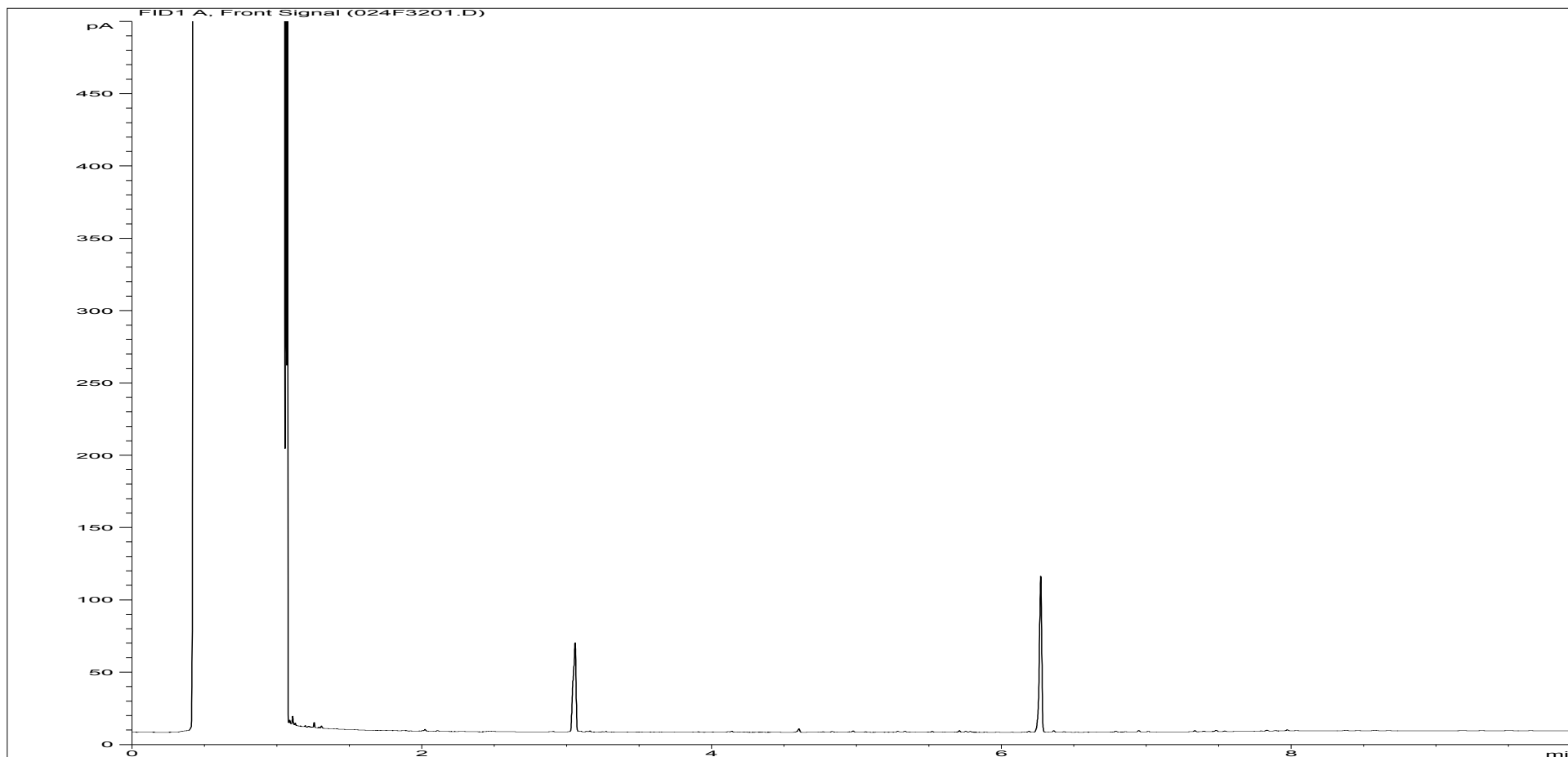
Petroleum Hydrocarbons (C8 to C40) by GC/FID



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1281700 | Job Number: | W13_4281 |
| Multiplier: | 0.005 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client Sample Ref: | BH-NSA-MW1 |
| Acquisition Date/Time: | 10-Apr-12, 14:08:29 | | |
| Datafile: | D:\TES\DATA\Y2012\04\10\12TPH_GC15\041012 2012-04-10 09-01-47\071B1901.D | | |

Where individual results are flagged see report notes for status.

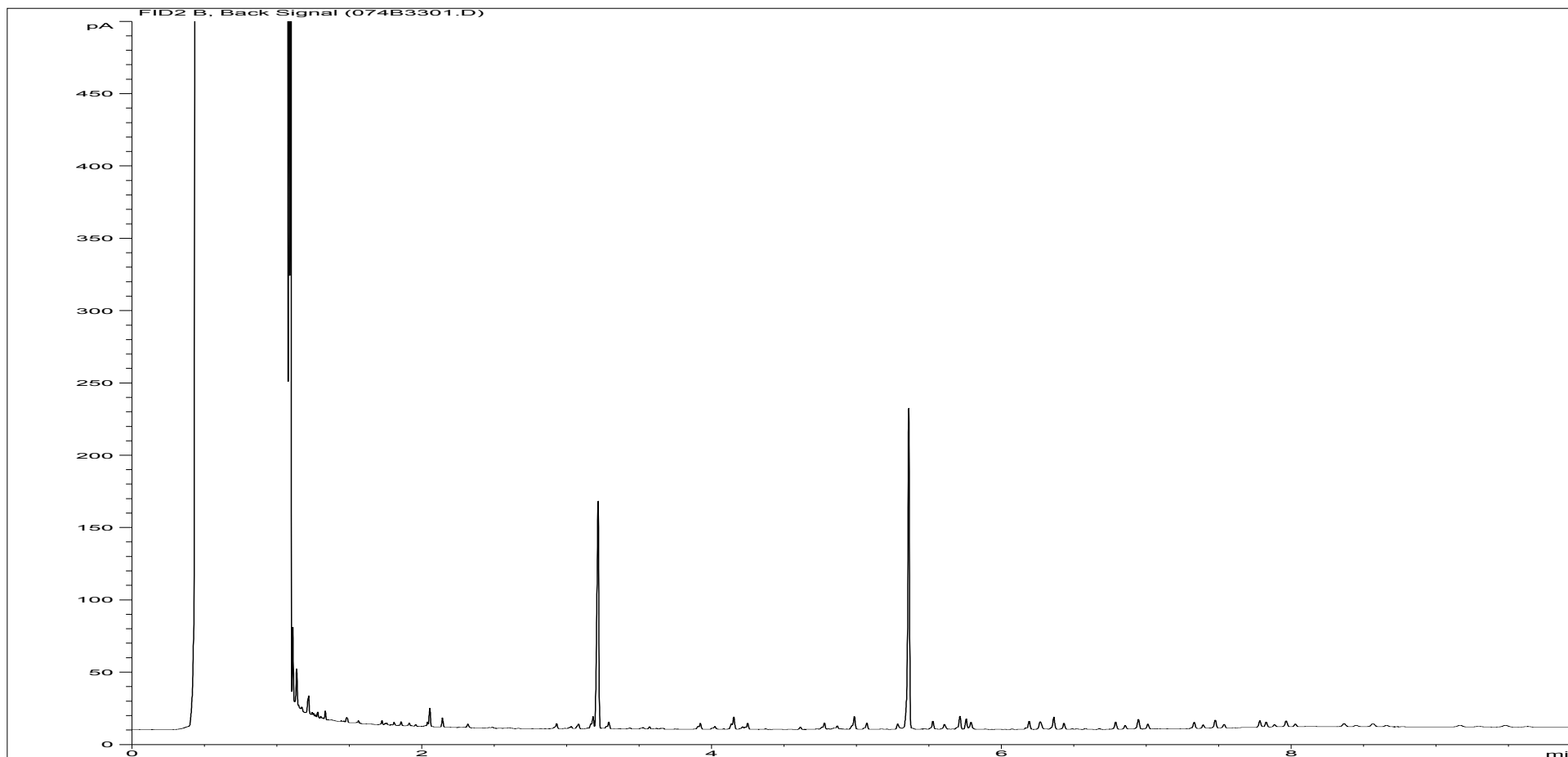
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1281700ALI | Job Number: | W13_4281 |
| Multiplier: | 0.02 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

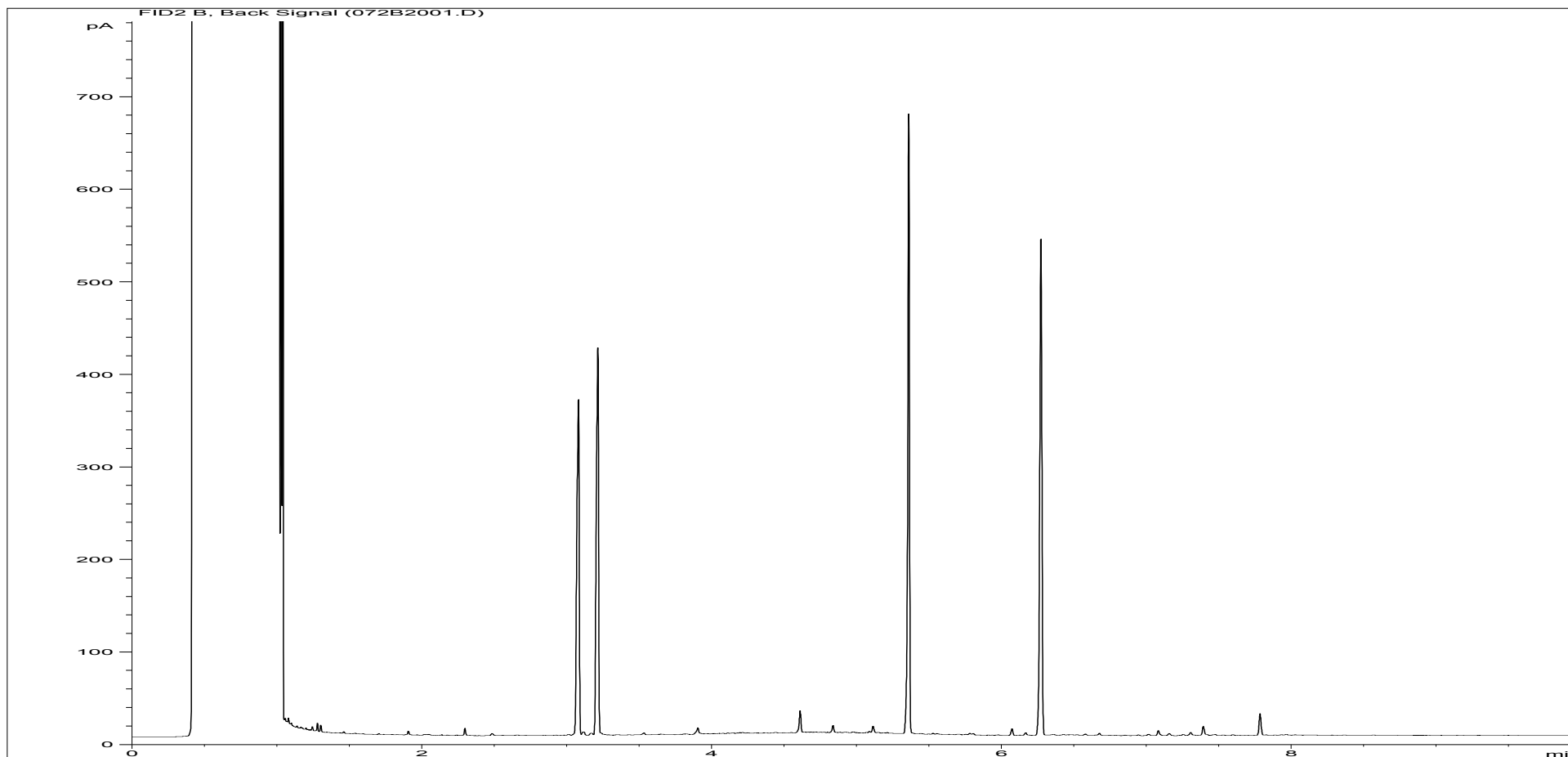
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1281700ARO | Job Number: | W13_4281 |
| Multiplier: | 0.016 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

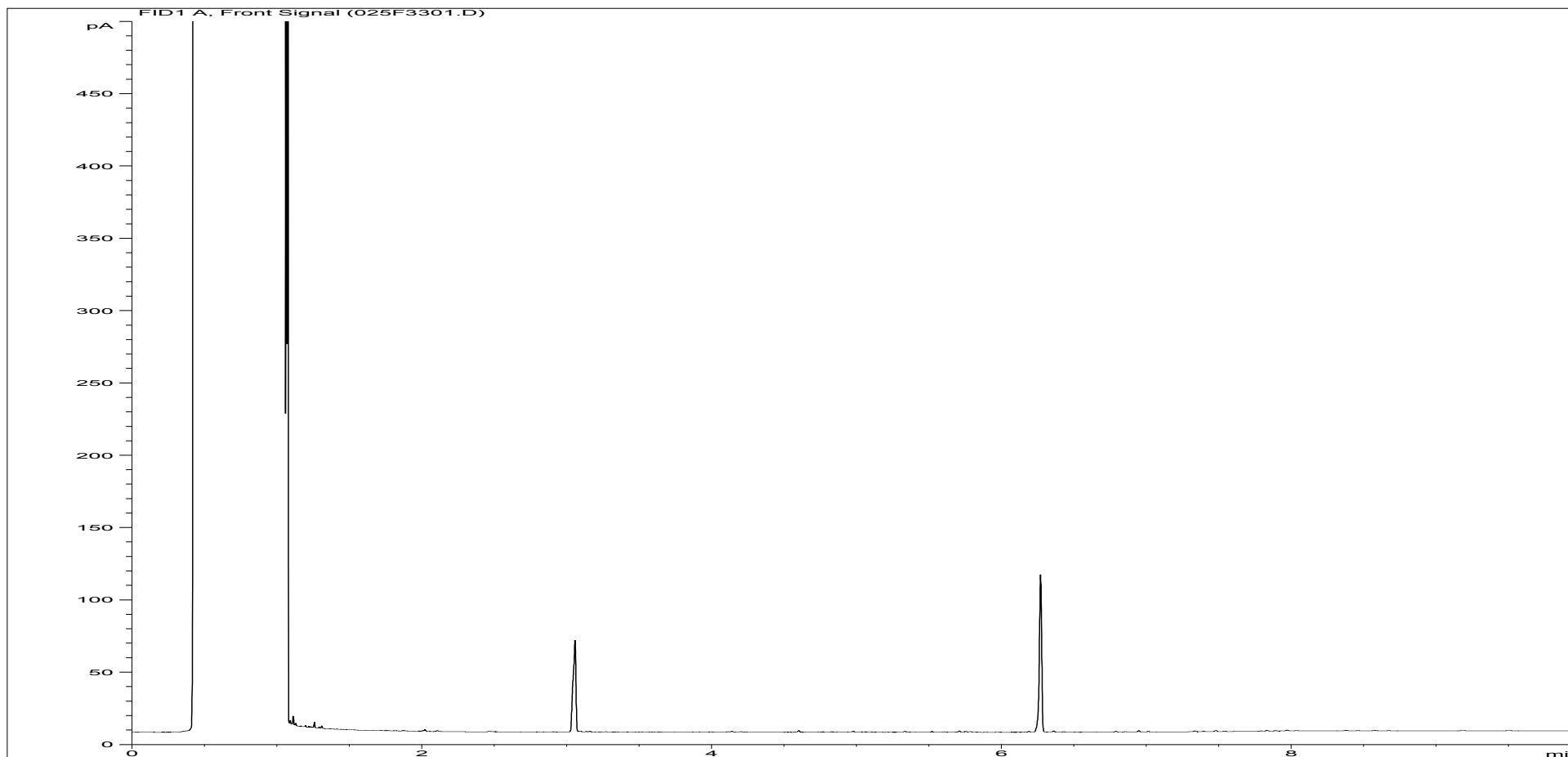
Petroleum Hydrocarbons (C8 to C40) by GC/FID



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1281701 | Job Number: | W13_4281 |
| Multiplier: | 0.005 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client Sample Ref: | BH-NSA-HD1 |
| Acquisition Date/Time: | 10-Apr-12, 14:25:27 | | |
| Datafile: | D:\TES\DATA\Y2012\04\10\12TPH_GC15\041012 2012-04-10 09-01-47\072B2001.D | | |

Where individual results are flagged see report notes for status.

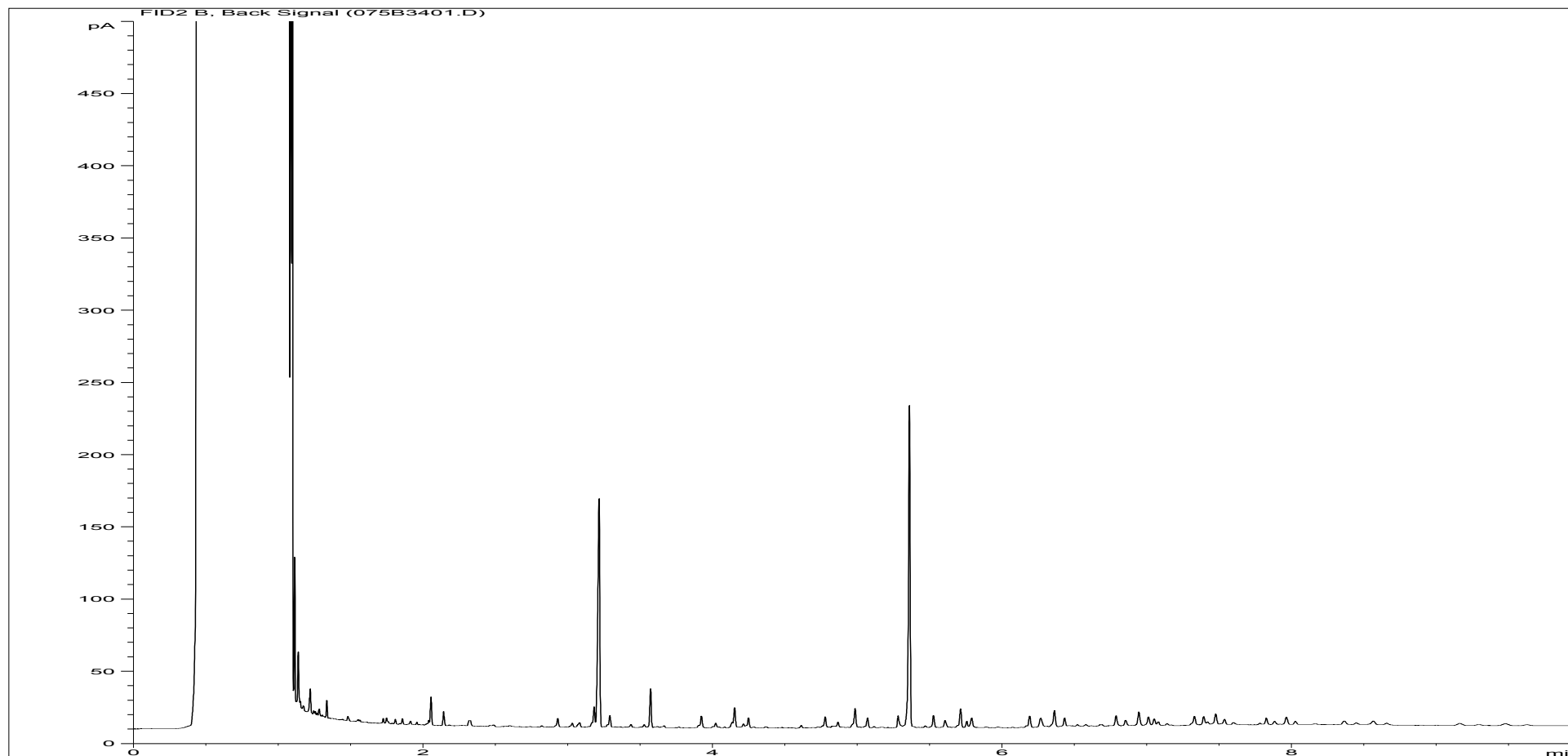
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1281701ALI | Job Number: | W13_4281 |
| Multiplier: | 0.02 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1281701ARO | Job Number: | W13_4281 |
| Multiplier: | 0.015 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

Customer Waterman EED
Site Upper Heyford
Report No W134281

Consignment No W35683
Date Logged 27-Mar-2012

Report Due 10-Apr-2012

| ID Number | Description | MethodID | CUSTSERV | GROHSA | ICPMSW | ICPMA/VAAR | | | | | | | | | | | | | | KONENS | | | | PAHMSW | HERB/CVL | SVOCSW | TPHFID | TPHFID-SI |
|------------------------|-------------|----------|----------|--------|--------|------------|---------------------|-----------------------------|-------------------------------|------------------------------|-----------------------------|---------------------------|---------------------------|------------------------------|------------------------------|-------------------------------|---------------------------------|-------------------------------|---------------------------------|------------------------------|----------------------------|-----------------------|----------------------------|--------------------------|------------------------|----------------|-----------------------------|-----------|
| | | | | | | Report B | GRO-HSA GC/FID (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) | PAH GC-MS (16) | Phenols by HPLC (Low Level) | SVOC |
| 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 | |
|------------------------|--|
| A | The sample was received in an inappropriate container for this analysis |
| B | The sample was received without the correct preservation for this analysis |
| C | Headspace present in the sample container |
| D | The sampling date was not supplied so holding time may be compromised - applicable to all analysis |
| E | 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 |

Customer Waterman EED
Site Upper Heyford
Report No W134281





Consignment No W35683
Date Logged 27-Mar-2012

Report Due 10-Apr-2012

| ID Number | Description | MethodID | WSLM11 | WSLM12 | WSLM13 | WSLM17 | WSLM2 | WSLM20 | WSLM3 | WSLM7 |
|------------------------|-------------|----------|----------------------------------|---------------------------|----------------------|------------------------|--------------------------|---------------------------|----------|------------------------------|
| | | | 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 | |
|---|--|
| A | The sample was received in an inappropriate container for this analysis |
| B | The sample was received without the correct preservation for this analysis |
| C | Headspace present in the sample container |
| D | The sampling date was not supplied so holding time may be compromised - applicable to all analysis |
| E | 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 |

Where individual results are flagged see report notes for status.

Method Descriptions

| Matrix | MethodID | Analysis Basis | Method Description |
|--------|-----------|----------------|--|
| 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 ($\mu\text{S}/\text{cm}$) 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 |

Where individual results are flagged see report notes for status.

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

NAIS 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

Req Analysis requested, see attached sheets for results

▮ 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.

END OF REPORT

Where individual results are flagged see report notes for status.

Our Ref: EXR/134836 (Ver. 1)

Your Ref: E10658-109

April 20, 2012



Environmental Chemistry

ESG

Bretby Business Park

Ashby Road

Burton-on-Trent

Staffordshire

DE15 0YZ

Telephone: 01283 554400

Facsimile: 01283 554422

Mr F Alcock
Waterman EED
Waterman Environmental
Pickfords Wharf
Clink Street
London
SE1 9DG

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


J Elstub
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.

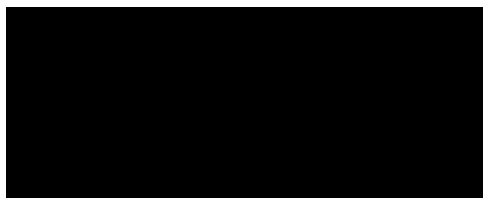
The analysis was completed by: 20-Apr-2012

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)

On behalf of
ESG :
Andrew Timms




Date of Issue: 20-Apr-2012


Tests marked '^' have been subcontracted to another laboratory.

ESG accepts no responsibility for any sampling not carried out by our personnel.


Where individual results are flagged see report notes for status.

| LAB ID Number | Client Sample Description | Sample Date | Units : | | | | | | | | | | | | | | | | |
|--|---------------------------|-------------|---------------------------|----------------------------|-----------------------------|--------------------------|------------------|------------------------------------|-----------------------------|-------------------------------|----------------------------|--------------------------|----------------------------|---------------------------|------------------|--------------------------|------------------------|------------------------|-----|
| | | | Method Codes : | | | | | | | | | | | | | | | | |
| | | | Method Reporting Limits : | | | | | | | | | | | | | | | | |
| | | | UKAS Accredited : | | | | | | | | | | | | | | | | |
| | | | 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 | |
| | | | WSLM3 | WSLM2 | WSLM12 | WSLM17 | KONENS | ICPWATVAR | ICPWATVAR | ICPWATVAR | ICPWATVAR | ICPMSW | ICPMSW | ICPMSW | PAHMSW | ICPMSW | ICPMSW | ICPMSW | |
| | | | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| | | | 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 | | | | |
|  <p>Environmental Scientifics Group Bretby Business Park, Ashby Road Burton-on-Trent, Staffordshire, DE15 0YZ Tel +44 (0) 1283 554400 Fax +44 (0) 1283 554422</p> | | | Client Name | | Waterman EED | | | | | | Water Sample Analysis | | | | | | | | |
| | | | Contact | | Mr F Alcock | | | | | | | | | | | | | | |
| | | | Upper Heyford | | | | | | Date Printed | | 19-Apr-2012 | | | | | | | | |
| | | | | | | | | | Report Number | | EXR/134836 | | | | | | | | |
| Table Number | | 1 | | | | | | | | | | | | | | | | | |

| LAB ID Number | EX/ | Client Sample Description | Sample Date | Units : | | | | | | | | | | | | | | |
|---------------|-----------|---------------------------|---------------------------|---------------------------|---------------------------|----------------------------|--------------------------|--------------|----------------|----------------------------------|------------------------|--------------|-------------------------|------------|-----------------|-----------------------------|--------------------------------|----------------------------------|
| | | | | Method Codes : | | | | | | | | | | | | | | |
| | | | | Method Reporting Limits : | | | | | | | | | | | | | | |
| | | | | UKAS Accredited : | | | | | | | | | | | | | | |
| mg/l | 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 | | |
| ICPMSW | ICPWATVAR | ICPMSW | ICPMSW | KONENS | KONENS | KONENS | WSLM11 | WSLM13 | GROHSA | GROHSA | GROHSA | TPHFID-Si | WSLM20 | WSLM7 | TPHFID-Si | | | |
| 0.001 | 0.01 | 0.0001 | 0.001 | 0.01 | 0.2 | 0.01 | 5 | 0.1 | 0.1 | 0.1 | 0.1 | 10 | 0.01 | 2 | 6 | 0.1 | | |
| Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | No | No | No | | |
| | | | 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 | | | |

| | | | | | | | | | | | |
|--|--------------|---------------|-------------|----------------------|--|--|--|------------------------------|--|--|--|
|  <p>Environmental Scientifics Group Bretby Business Park, Ashby Road Burton-on-Trent, Staffordshire, DE15 0YZ Tel +44 (0) 1283 554400 Fax +44 (0) 1283 554422</p> | Client Name | Waterman EED | | Upper Heyford | | | | Water Sample Analysis | | | |
| | Contact | Mr F Alcock | | | | | | | | | |
| | | Date Printed | 19-Apr-2012 | | | | | | | | |
| | | Report Number | EXR/134836 | | | | | | | | |
| | Table Number | 1 | | | | | | | | | |

| | | | Units : | mg/l | mg/l | mg/l | mg/l | mg/l | mg/l | mg/l | mg/l | | | | | | | |
|---------------|---------------------------|-------------|---------------------------------|---------|-----------|-----------------|-----------|------------------|------------|-----------|-----------|--|--|--|--|--|--|--|
| | | | Method Codes : | SVOCSW | PHEHPLCVL | PHEHPLCVL | PHEHPLCVL | PHEHPLCVL | PHEHPLCVL | PHEHPLCVL | PHEHPLCVL | | | | | | | |
| | | | Method Reporting Limits : | 0.002 | 0.0005 | 0.0005 | 0.0005 | 0.1 | 0.0005 | 0.1 | 0.1 | | | | | | | |
| | | | UKAS Accredited : | No | No | No | No | No | No | No | No | | | | | | | |
| LAB ID Number | Client Sample Description | Sample Date | Semi Volatile Organic Compounds | Phenol | Cresols | Dimethylphenols | Naphthols | Trimethylphenols | Resorcinol | Catechol | | | | | | | | |
| EV | | | | | | | | | | | | | | | | | | |
| 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 | | | | | | | | | | | | | | | | |

| | | | | | | |
|--|---------------|--------------|--|-----------------------|---------------|-------------|
|  <p>Environmental Scientifics Group Bretby Business Park, Ashby Road Burton-on-Trent, Staffordshire, DE15 0YZ Tel +44 (0) 1283 554400 Fax +44 (0) 1283 554422</p> | Client Name | Waterman EED | | Water Sample Analysis | | |
| | Contact | Mr F Alcock | | | | |
| | Upper Heyford | | | | Date Printed | 19-Apr-2012 |
| | | | | | Report Number | EXR/134836 |
| | | | | Table Number | 1 | |

Polycyclic Aromatic Hydrocarbons GC/MS (SIM)

| | | | |
|-----------------------------------|-----------------------------|------------------------|-----------|
| Customer and Site Details: | Waterman EED: Upper Heyford | | |
| Sample Details: | BHNSA9 | Job Number: | W13_4836 |
| 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. (min) | Concentration ug/l | % Fit |
|------------------------|----------|---------------|-----------------------|-------|
| 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 | - | < 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 |

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: | BHNSA10 | Job Number: | W13_4836 |
| 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: | 1.0 | Ext Method: | Bottle |

UKAS accredited?: Yes

| Target Compounds | CAS # | R.T. (min) | Concentration ug/l | % Fit |
|------------------------|----------|---------------|-----------------------|-------|
| 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 | - | < 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 |

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: | BHNSA11 | Job Number: | W13_4836 |
| 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: | 1.0 | Ext Method: | Bottle |

UKAS accredited?: Yes

| Target Compounds | CAS # | R.T. (min) | Concentration ug/l | % Fit |
|------------------------|----------|---------------|-----------------------|-------|
| 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 | - | < 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 |

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: | BHNSA17 | Job Number: | W13_4836 |
| 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. (min) | Concentration ug/l | % Fit |
|------------------------|----------|---------------|-----------------------|-------|
| 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 | - | < 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 |
|------------------|-------|
| Nitrobenzene-d5 | NA |
| 2-Fluorobiphenyl | 73 |
| Terphenyl-d14 | 85 |

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: | BHNSA18 | Job Number: | W13_4836 |
| 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: | 1.0 | Ext Method: | Bottle |

UKAS accredited?: Yes

| Target Compounds | CAS # | R.T. (min) | Concentration ug/l | % Fit |
|------------------------|----------|---------------|-----------------------|-------|
| 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 | - | < 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 |

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: | BHNSA19 | Job Number: | W13_4836 |
| 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: | 1.0 | Ext Method: | Bottle |

UKAS accredited?: Yes

| Target Compounds | CAS # | R.T. (min) | Concentration ug/l | % Fit |
|------------------------|----------|---------------|-----------------------|-------|
| 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 | - | < 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 |

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: | BHNSA21 | Job Number: | W13_4836 |
| 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: | 1.0 | Ext Method: | Bottle |

UKAS accredited?: Yes

| Target Compounds | CAS # | R.T. (min) | Concentration ug/l | % Fit |
|------------------------|----------|---------------|-----------------------|-------|
| Naphthalene | 91-20-3 | 3.43 | 0.074 | M |
| 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 | - | < 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 |

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: | BHNSA38 | Job Number: | W13_4836 |
| 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. (min) | Concentration ug/l | % Fit |
|------------------------|----------|---------------|-----------------------|-------|
| 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 | - | < 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 |

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: | BHNSA225 | Job Number: | W13_4836 |
| 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. (min) | Concentration ug/l | % Fit |
|------------------------|----------|---------------|-----------------------|-------|
| Naphthalene | 91-20-3 | 3.43 | 0.054 | M |
| 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 | - | < 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 | - | - | < 0.208 | - |

"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 |

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: | BHNSA2 | Job Number: | W13_4836 |
| 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: | 1.0 | Ext Method: | Bottle |

UKAS accredited?: Yes

| Target Compounds | CAS # | R.T. (min) | Concentration ug/l | % Fit |
|------------------------|----------|---------------|-----------------------|-------|
| 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 | - | < 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 | 105 |
| Phenanthrene-d10 | 103 |
| Chrysene-d12 | 101 |
| Perylene-d12 | 101 |

| Surrogates | % Rec |
|------------------|-------|
| Nitrobenzene-d5 | NA |
| 2-Fluorobiphenyl | 73 |
| 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.

Polycyclic Aromatic Hydrocarbons GC/MS (SIM)

| | | | |
|-----------------------------------|-----------------------------|------------------------|-----------|
| Customer and Site Details: | Waterman EED: Upper Heyford | | |
| Sample Details: | BHNSA5 | Job Number: | W13_4836 |
| 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: | 1.0 | Ext Method: | Bottle |

UKAS accredited?: Yes

| Target Compounds | CAS # | R.T. (min) | Concentration ug/l | % Fit |
|------------------------|----------|---------------|-----------------------|-------|
| 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 | - | < 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 |

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: | BHNSA4 | Job Number: | W13_4836 |
| 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.PAHL | Matrix: | Water |
| Dilution: | 1.0 | Ext Method: | Bottle |

UKAS accredited?: Yes

| Target Compounds | CAS # | R.T. (min) | Concentration ug/l | % Fit |
|------------------------|----------|---------------|-----------------------|-------|
| 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 | - | < 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 |

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: | BHNSA42 | Job Number: | W13_4836 |
| 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. (min) | Concentration ug/l | % Fit |
|------------------------|----------|---------------|-----------------------|-------|
| 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 |

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: | BHNSA7 | Job Number: | W13_4836 |
| 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.PAHL | Matrix: | Water |
| Dilution: | 1.0 | Ext Method: | Bottle |

UKAS accredited?: Yes

| Target Compounds | CAS # | R.T. (min) | Concentration ug/l | % Fit |
|------------------------|----------|---------------|-----------------------|-------|
| 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 | - | < 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 | - | - | < 0.364 | - |

"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 |

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: | BHNSA8 | Job Number: | W13_4836 |
| 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. (min) | Concentration ug/l | % Fit |
|------------------------|----------|---------------|-----------------------|-------|
| 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 | - | < 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 |

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: | BHNSA3 | Job Number: | W13_4836 |
| 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: | 1.0 | Ext Method: | Bottle |

UKAS accredited?: Yes

| Target Compounds | CAS # | R.T. (min) | Concentration ug/l | % Fit |
|------------------------|----------|---------------|-----------------------|-------|
| 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 | 0.025 | 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 | - | - | < 0.185 | - |

"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 |

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: | BHNSA44 | Job Number: | W13_4836 |
| 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.PAHL | Matrix: | Water |
| Dilution: | 1.0 | Ext Method: | Bottle |

UKAS accredited?: Yes

| Target Compounds | CAS # | R.T. (min) | Concentration ug/l | % Fit |
|------------------------|----------|---------------|-----------------------|-------|
| 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 | - | < 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 |

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: BHNSA37
LIMS ID Number: EX1284841
Job Number: W13_4836

Date Booked in: 10-Apr-12
Date Extracted: 12-Apr-12
Date Analysed: 13-Apr-12

Matrix: Water
Ext Method: Sep. Funnel
Operator: SO
Directory/Quant File: 12SVOC.GC11\ 0412_CCC2a.l
QC Batch Number: 55
Multiplier: 0.005
Dilution Factor: 1
GPC (Y/N): N

| 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 | - |

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 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 | 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 |

Semi-Volatile Organic Compounds

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford
Sample Details: MW1
LIMS ID Number: EX1284844
Job Number: W13_4836

Date Booked in: 10-Apr-12
Date Extracted: 12-Apr-12
Date Analysed: 13-Apr-12

Matrix: Water
Ext Method: Sep. Funnel
Operator: SO
Directory/Quant File: 12SVOC.GC11\ 0412_CCC2a.l
QC Batch Number: 55
Multiplier: 0.005
Dilution Factor: 1
GPC (Y/N) N

| 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 | - |

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 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 | 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 |

Semi-Volatile Organic Compounds

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford
Sample Details: BHNSA45
LIMS ID Number: EX1284847
Job Number: W13_4836

Date Booked in: 10-Apr-12
Date Extracted: 12-Apr-12
Date Analysed: 13-Apr-12

Matrix: Water
Ext Method: Sep. Funnel
Operator: SO
Directory/Quant File: 12SVOC.GC11\ 0412_CCC2a.l
QC Batch Number: 55
Multiplier: 0.005
Dilution Factor: 1
GPC (Y/N): N

| 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 | - |

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 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 | 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 |

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.

| Sample ID | Client ID | Concentration, (mg/l) | | | | | Aliphatics | | | | Total GRO |
|-------------|-----------|-----------------------|---------|---------------|------------|----------|------------|----------|----------|-----------|-----------|
| | | Benzene | Toluene | Ethyl benzene | m/p-Xylene | o-Xylene | C5 - C6 | >C6 - C7 | >C7 - C8 | >C8 - C10 | |
| * 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 |
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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.

| Sample ID | Client ID | BTEX | | | | Aromatics | | Aliphatics | | Total GRO |
|-------------|-----------|---------|---------|---------------|---------|-----------|----------|------------|----------|-----------|
| | | 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 |
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ALIPHATIC / AROMATIC FRACTION BY GC/FID

Customer and Site Details: Waterman EED : Upper Heyford
Job Number: W13_4836
QC Batch Number: 288
Directory: D:\TES\DATA\Y2012\041812TPH_GC15\041812 2012-04-18 10-52-48\075B3201.D
Method: Ultra Sonic

Matrix: Water
Date Booked in: 10-Apr-12
Date Extracted: 17-Apr-12
Date Analysed: 18-Apr-12, 20:18:59

| | | Concentration, (mg/l) | | | | | | | | | | | |
|-----------|-----------|-----------------------|-----------|------------|-----------|------------|-----------|------------|-----------|------------|-----------|------------|-----------|
| | | >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 |
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* This sample data is not UKAS accredited.

ALIPHATIC / AROMATIC FRACTION BY GC/FID

Customer and Site Details: Waterman EED : Upper Heyford
Job Number: W13_4836
QC Batch Number: 288
Directory: D:\TES\DATA\Y2012\041812TPH_GC15\041812 2012-04-18 10-52-48\073B3001.D
Method: Ultra Sonic

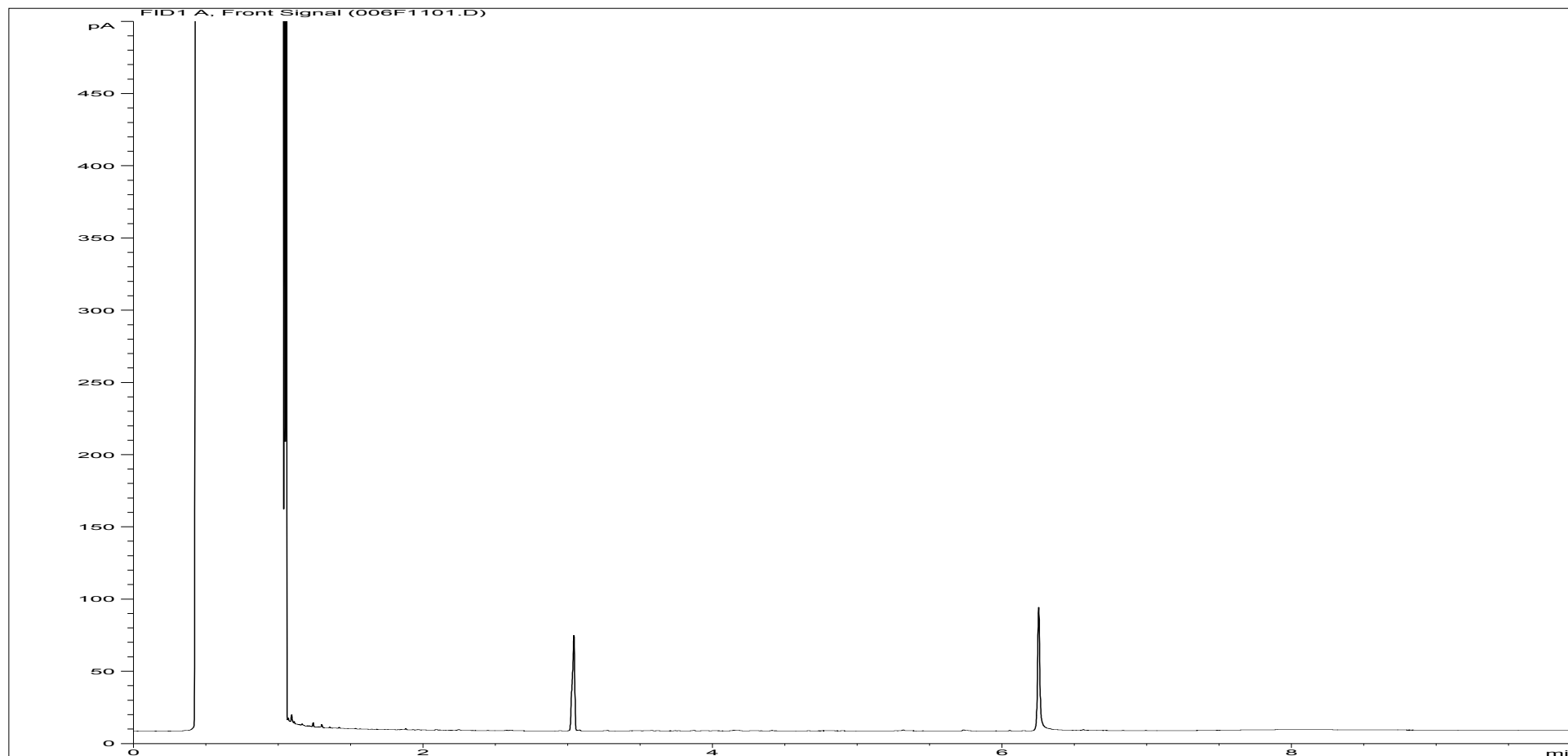
Separation: Silica gel
Eluents: Hexane, DCM

Matrix: Water
Date Booked in: 10-Apr-12
Date Extracted: 17-Apr-12
Date Analysed: 18-Apr-12, 19:45:08

| This sample data is not UKAS accredited. | | Concentration, (mg/l) | | | | | | | | | | | | | |
|--|-----------|-----------------------|-----------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|-----------|--|
| | | >C8 - C10 | >C8 - C10 | >C10 - C12 | >C10 - C12 | >C12 - C16 | >C12 - C16 | >C16 - C35 | >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 | |
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Where individual results are flagged see report notes for status.

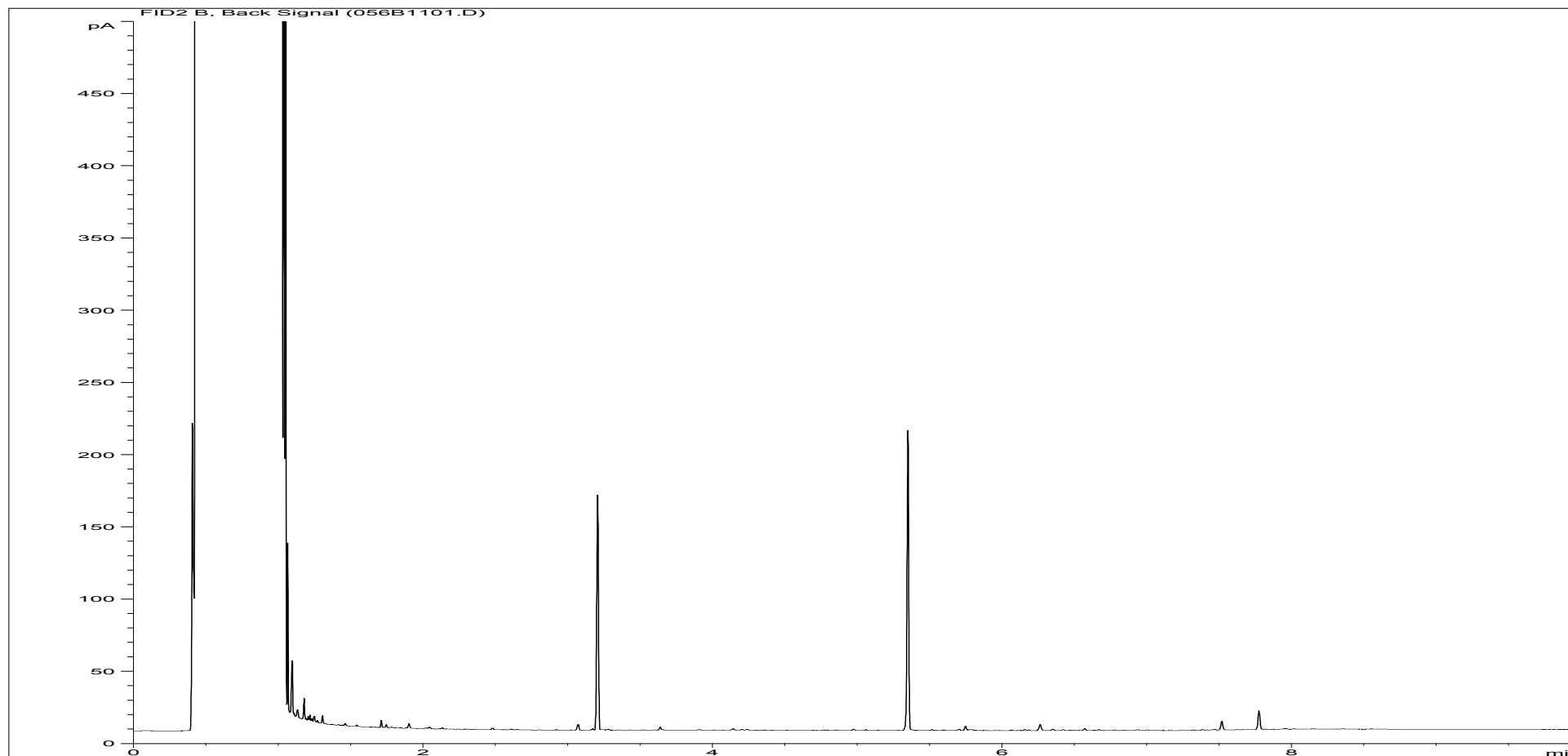
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1284834ALI | Job Number: | W13_4836 |
| Multiplier: | 0.019 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

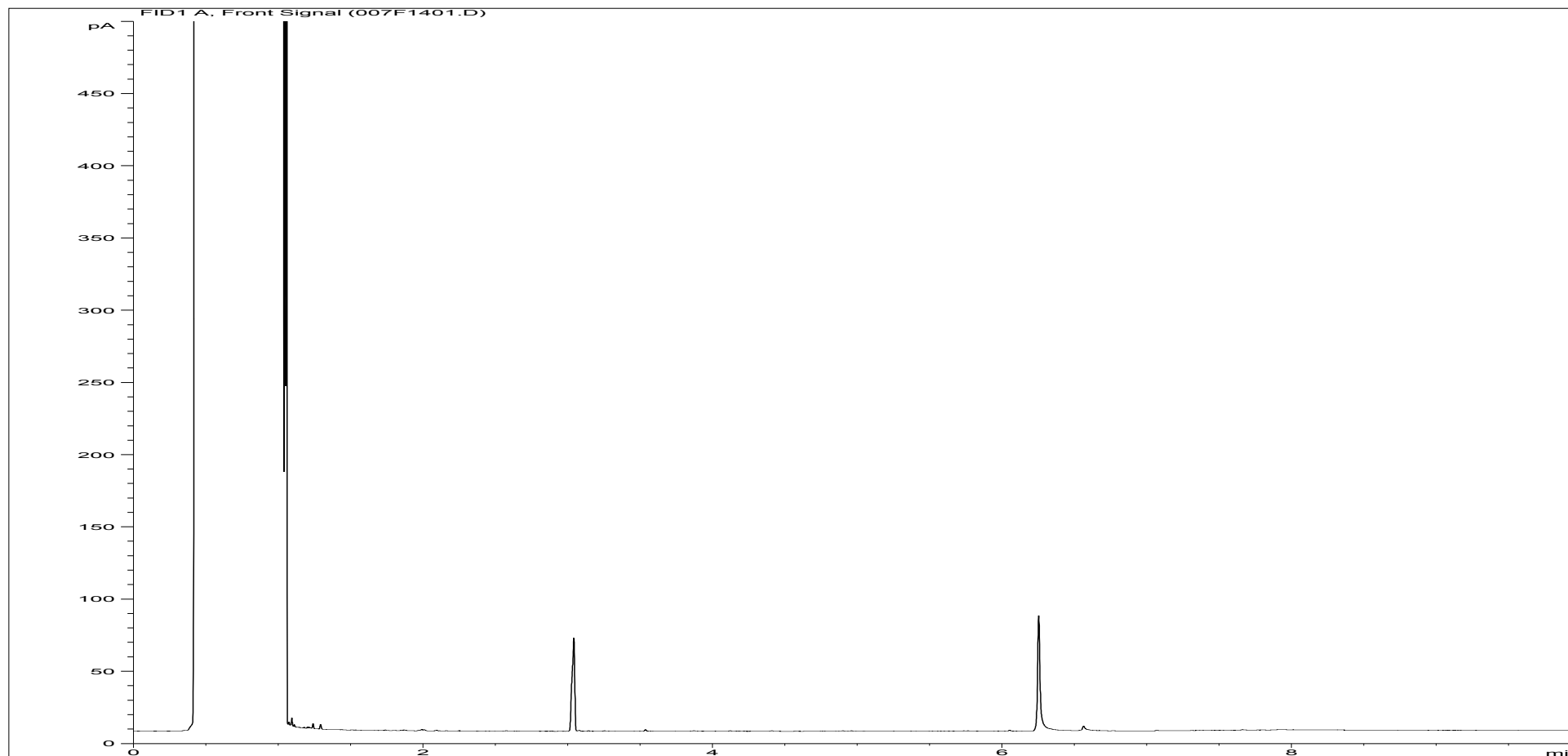
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



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|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1284834ARO | Job Number: | W13_4836 |
| Multiplier: | 0.018 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

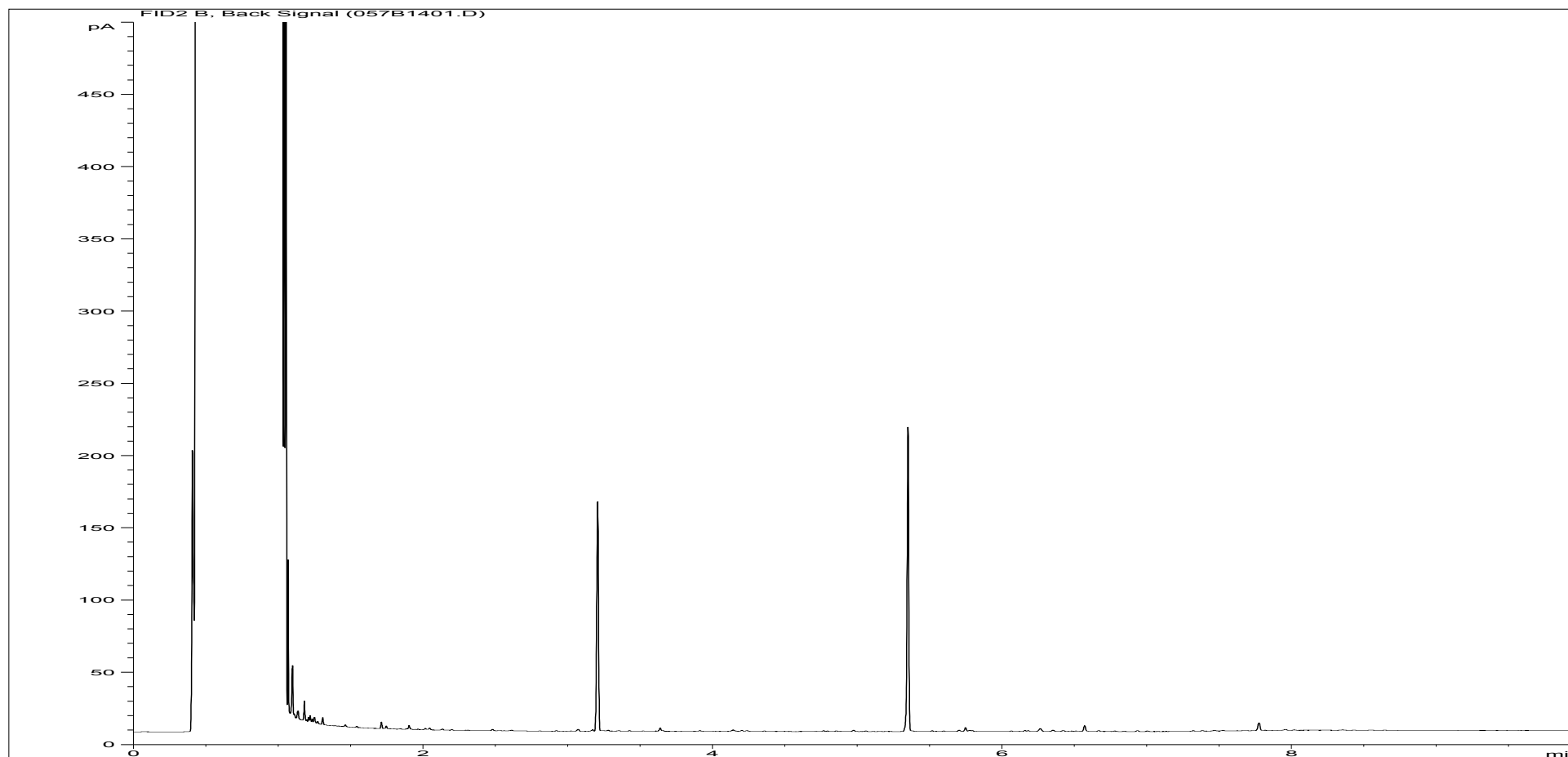
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1284835ALI | Job Number: | W13_4836 |
| Multiplier: | 0.019 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1284835ARO | Job Number: | W13_4836 |
| Multiplier: | 0.018 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

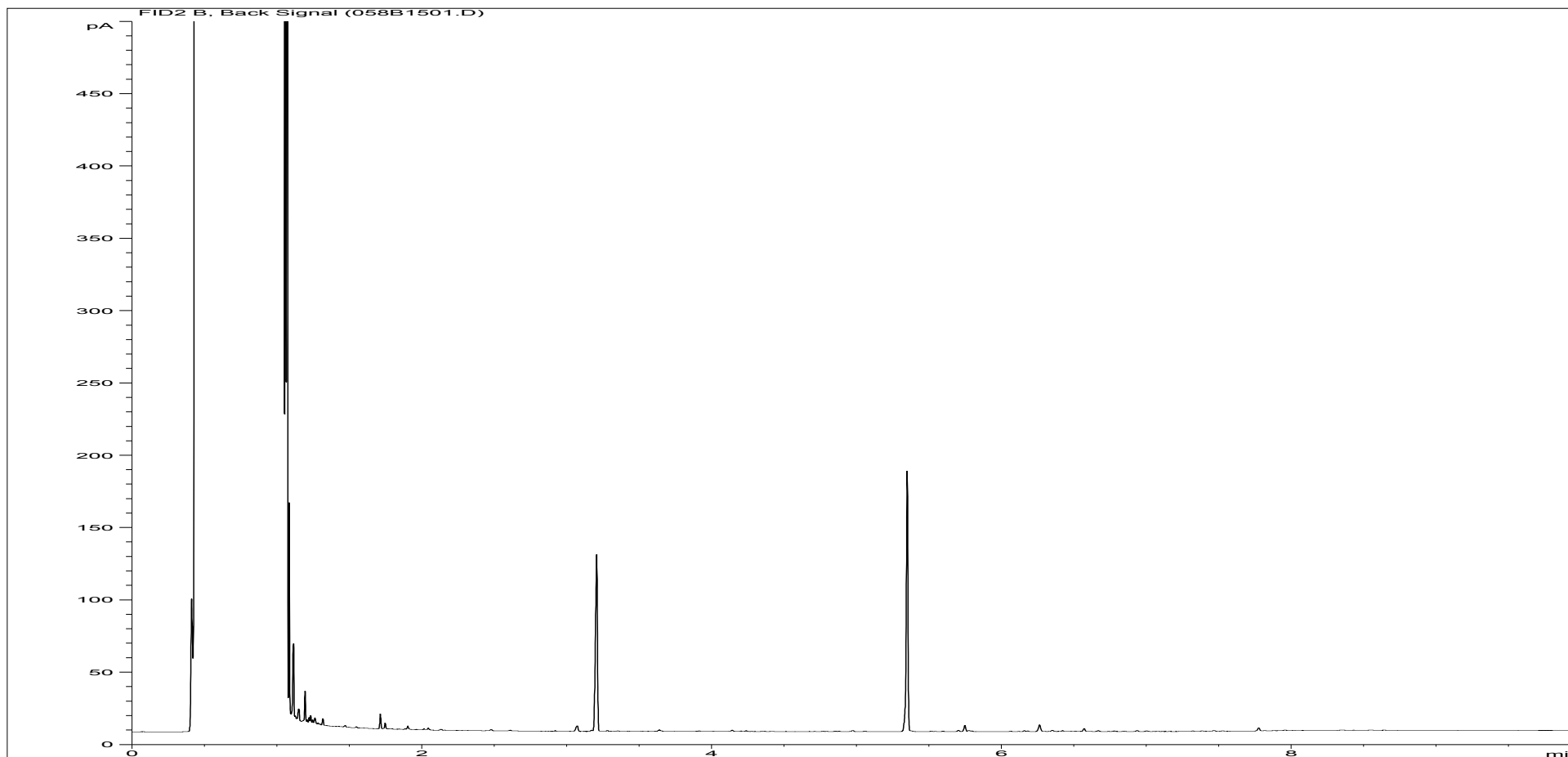
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1284836ALI | Job Number: | W13_4836 |
| Multiplier: | 0.019 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

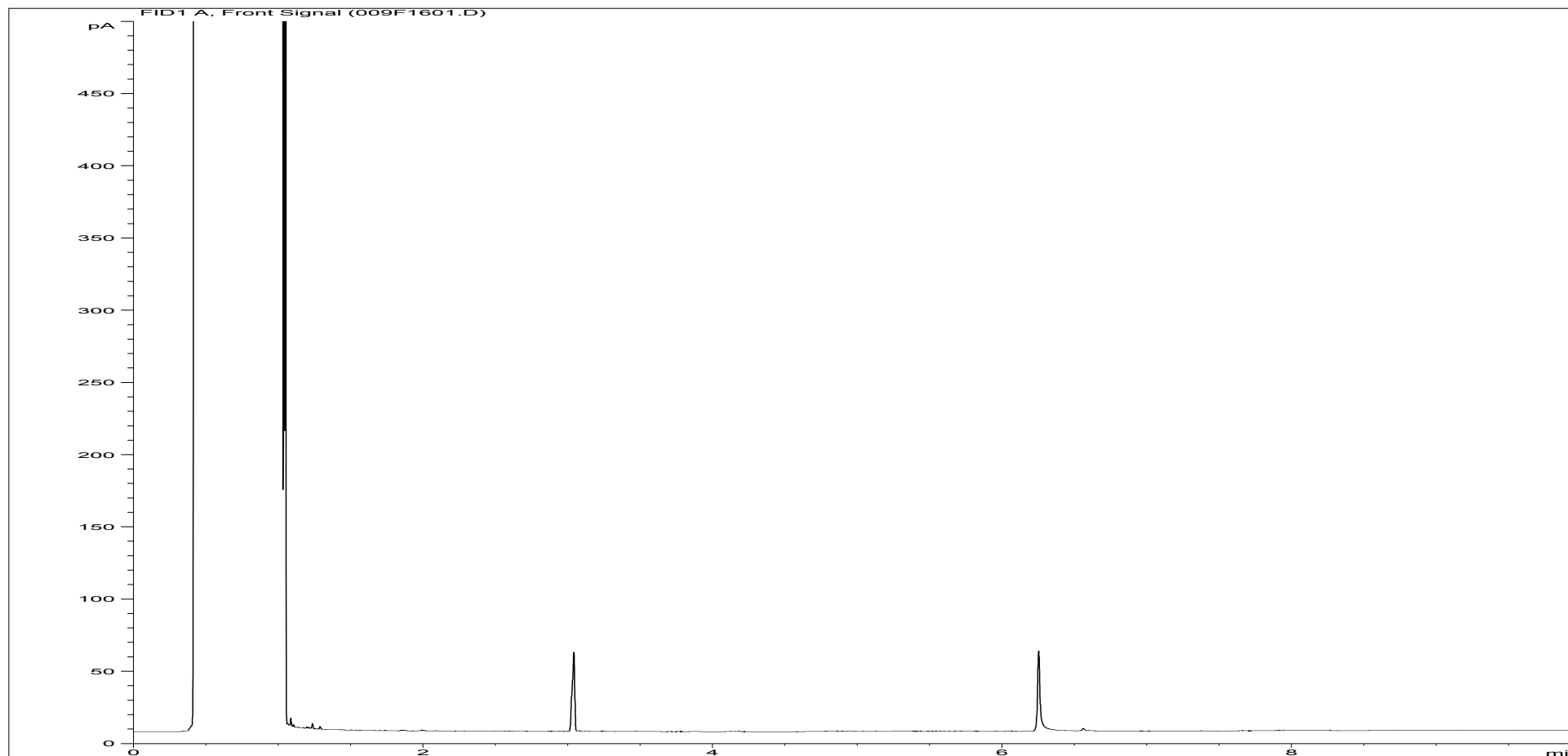
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1284836ARO | Job Number: | W13_4836 |
| Multiplier: | 0.018 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

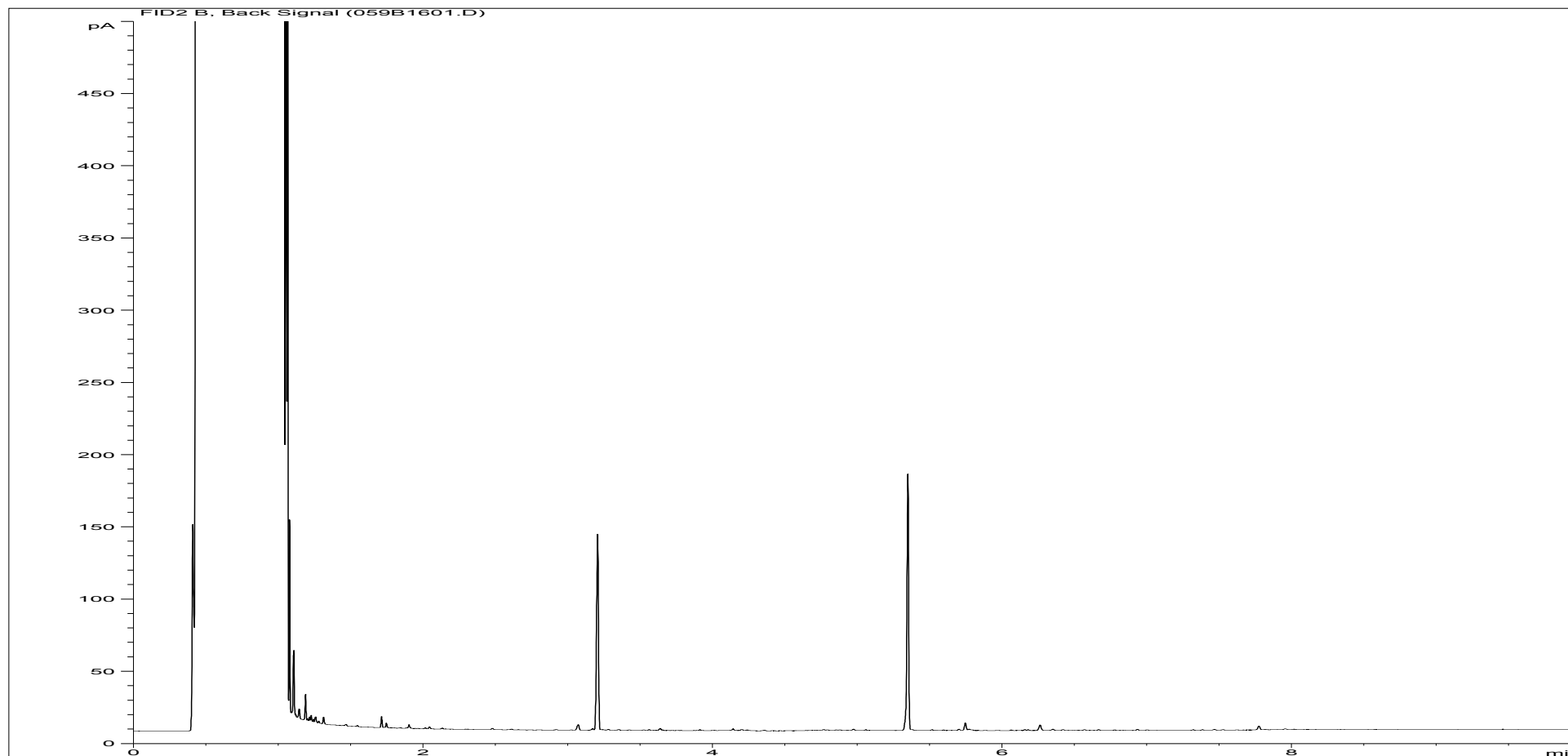
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1284837ALI | Job Number: | W13_4836 |
| Multiplier: | 0.019 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

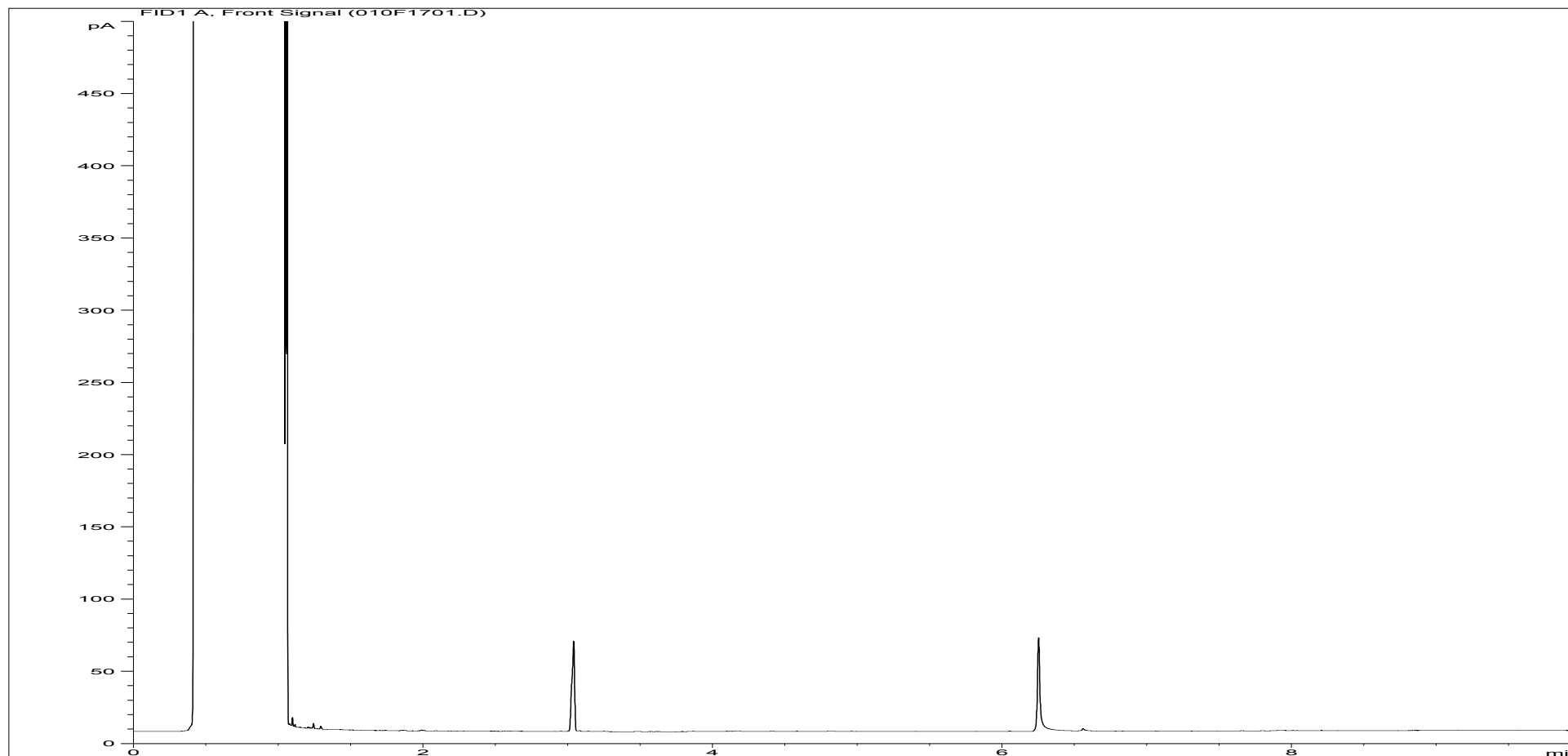
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1284837ARO | Job Number: | W13_4836 |
| Multiplier: | 0.018 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

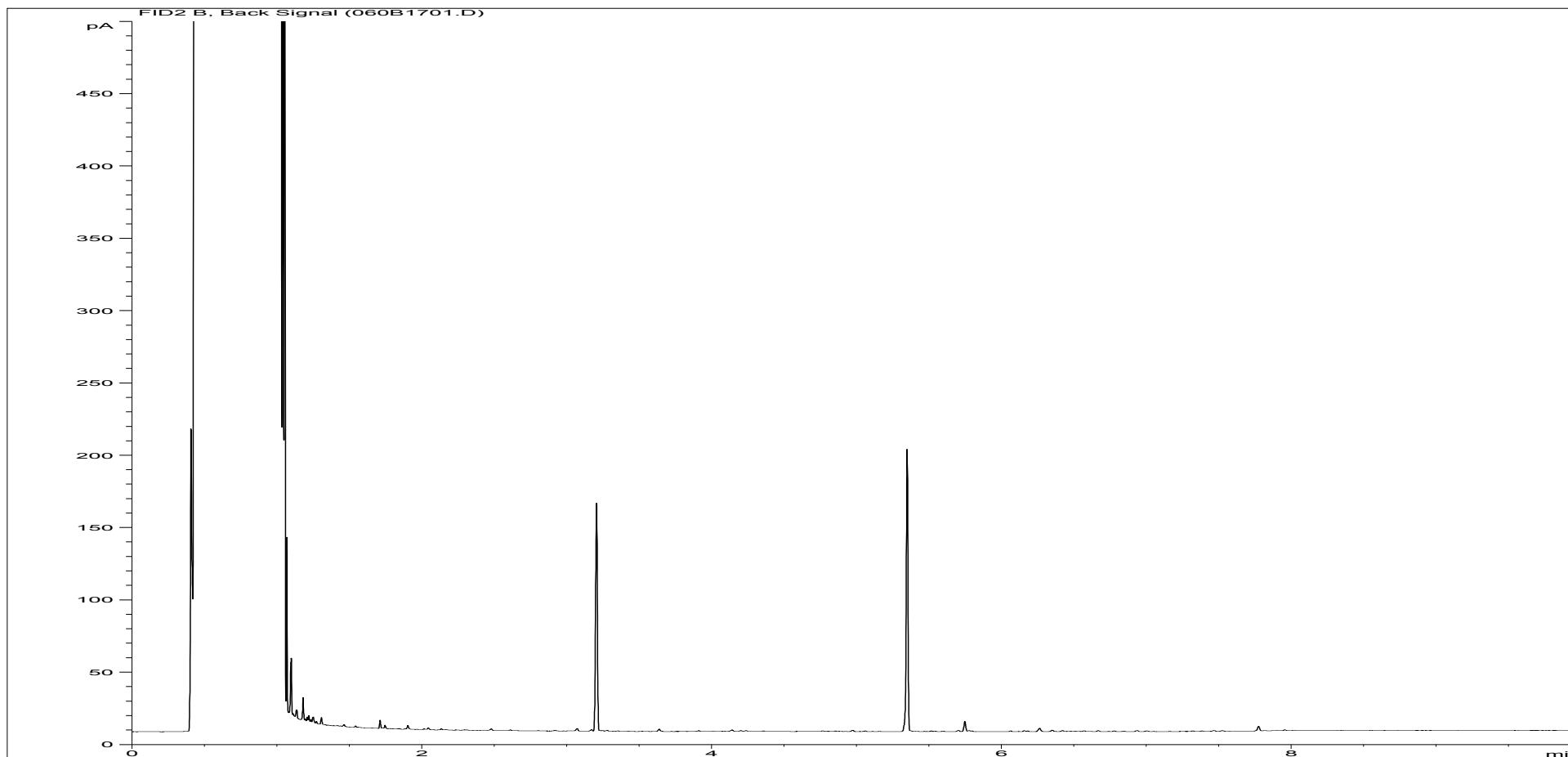
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1284838ALI | Job Number: | W13_4836 |
| Multiplier: | 0.019 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

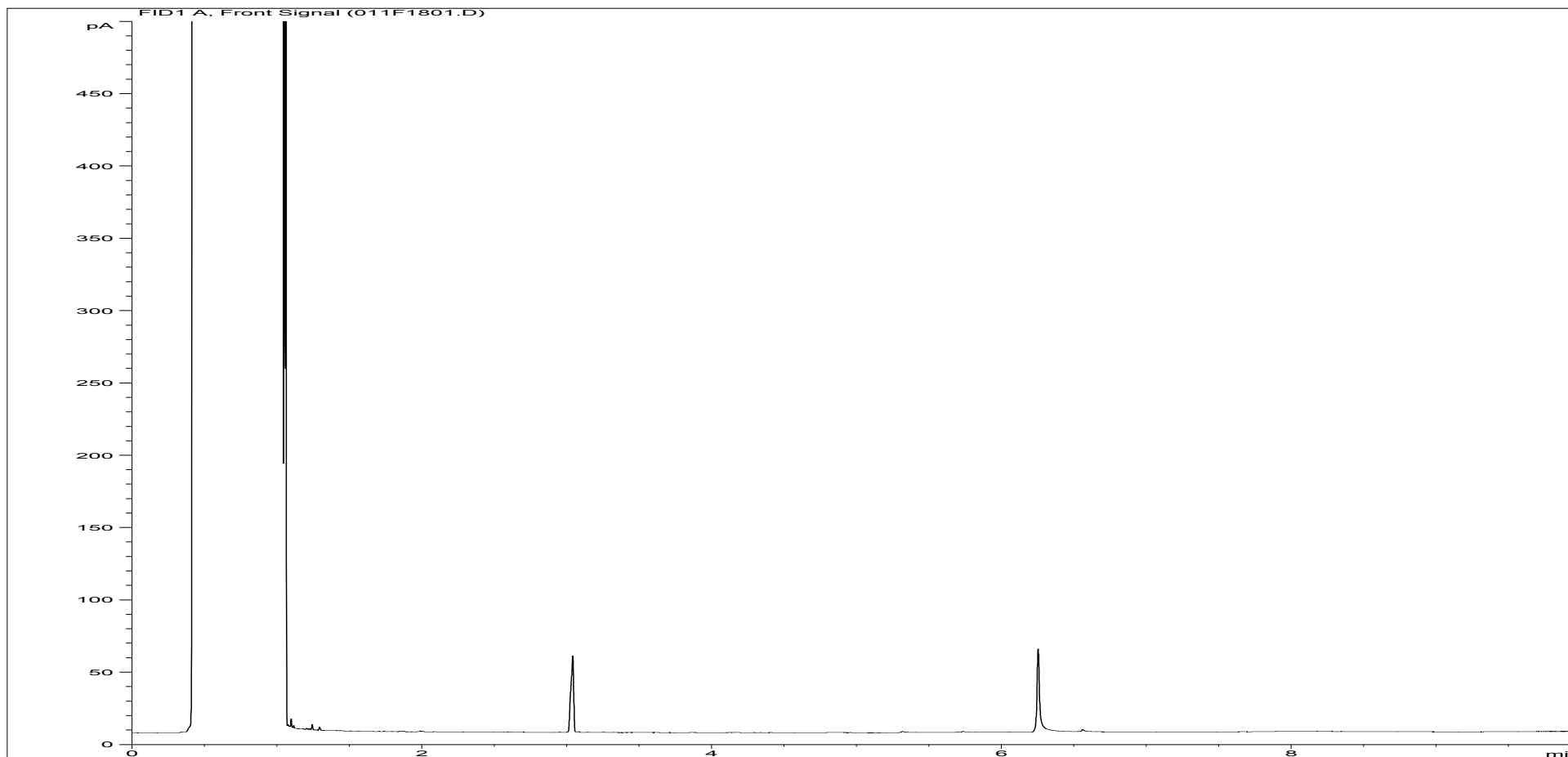
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1284838ARO | Job Number: | W13_4836 |
| Multiplier: | 0.018 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

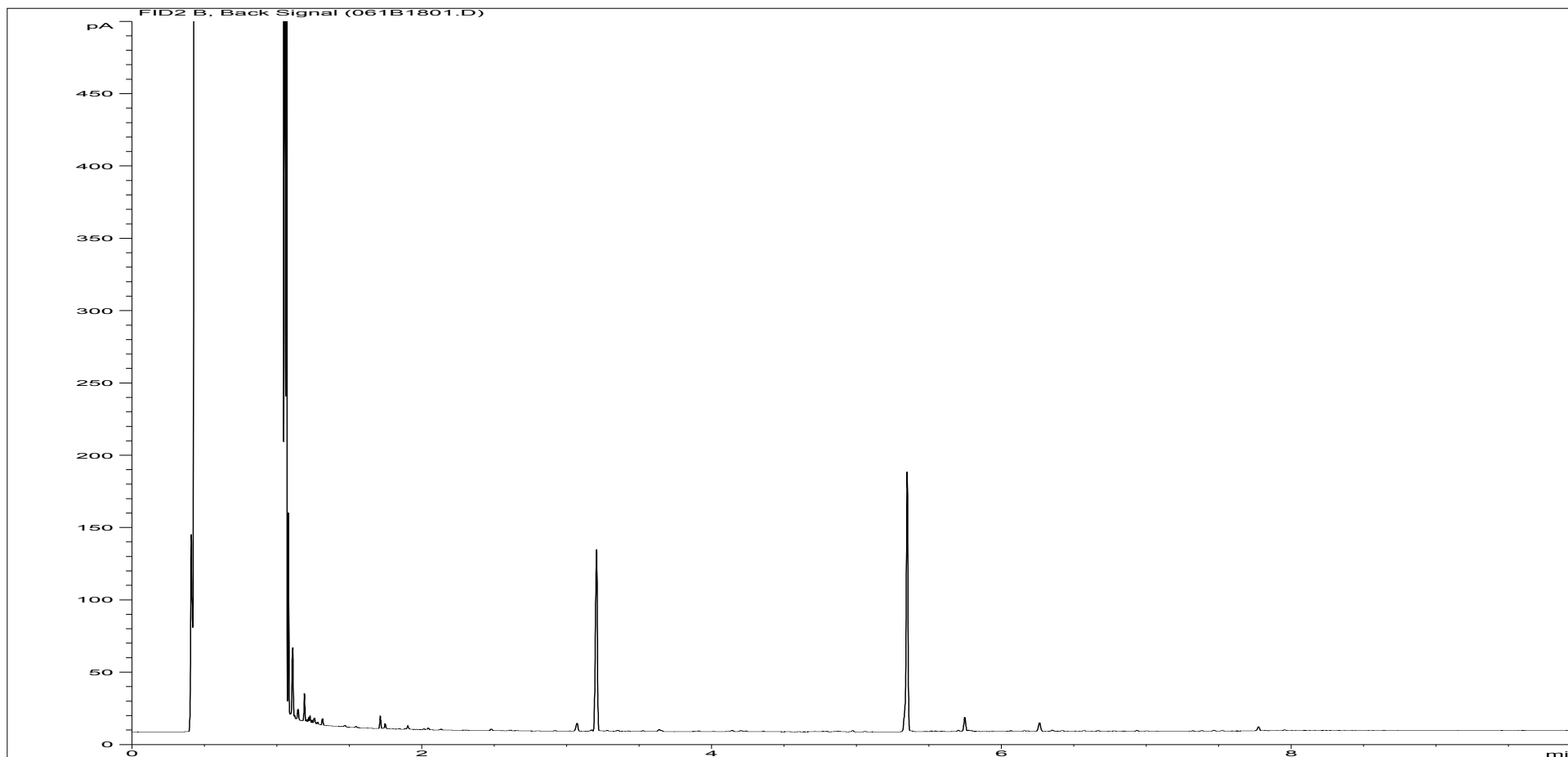
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1284839ALI | Job Number: | W13_4836 |
| Multiplier: | 0.019 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

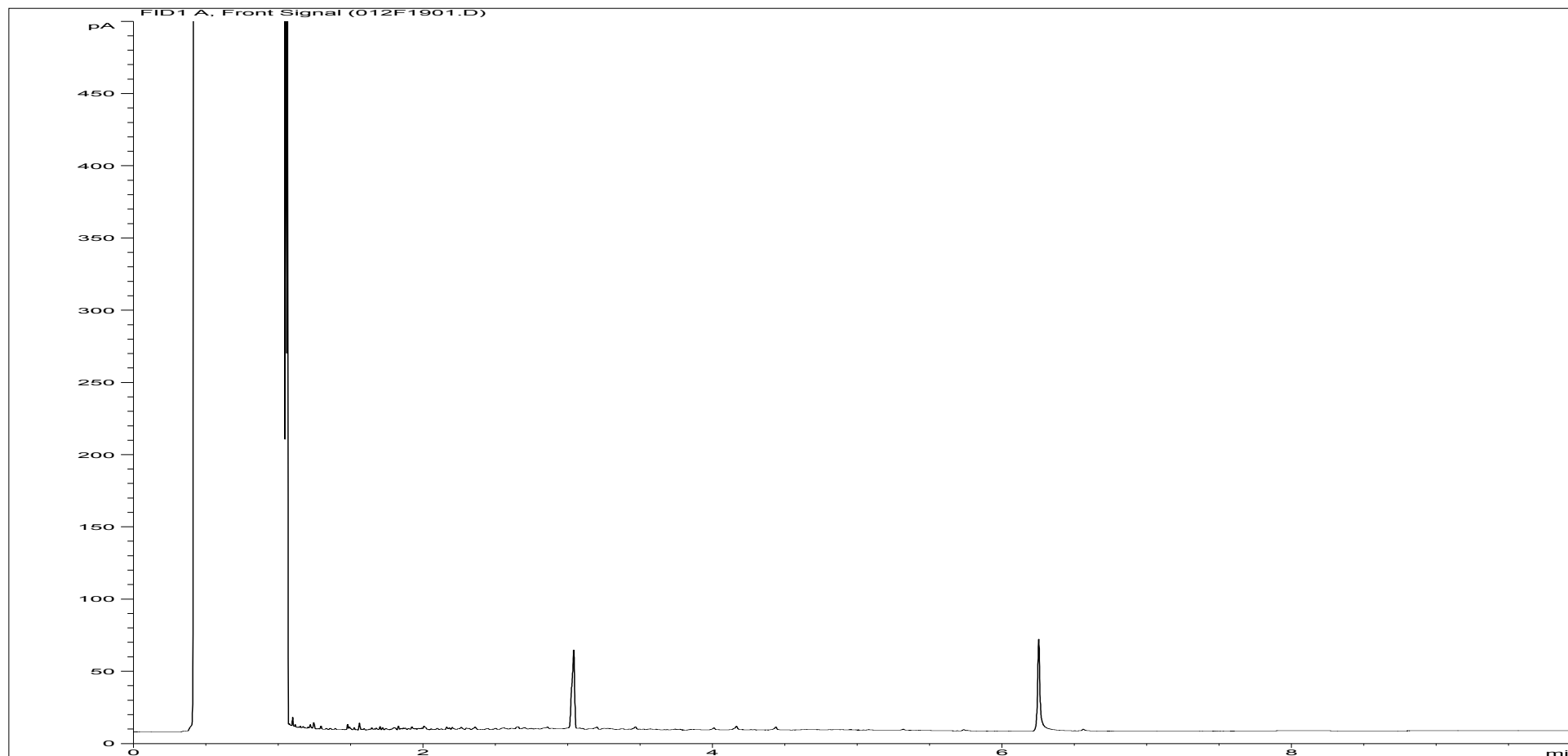
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1284839ARO | Job Number: | W13_4836 |
| Multiplier: | 0.018 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

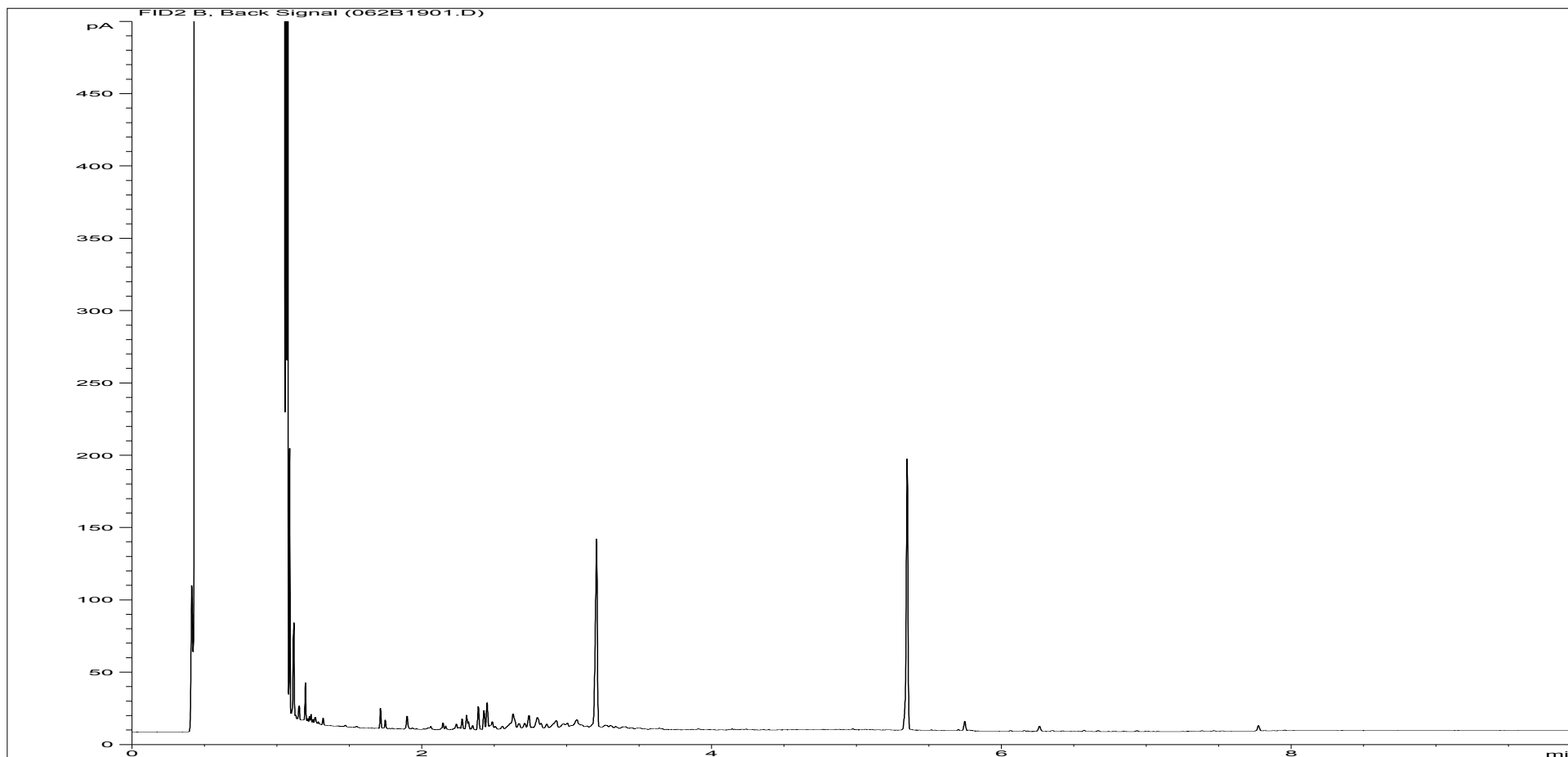
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1284840ALI | Job Number: | W13_4836 |
| Multiplier: | 0.019 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

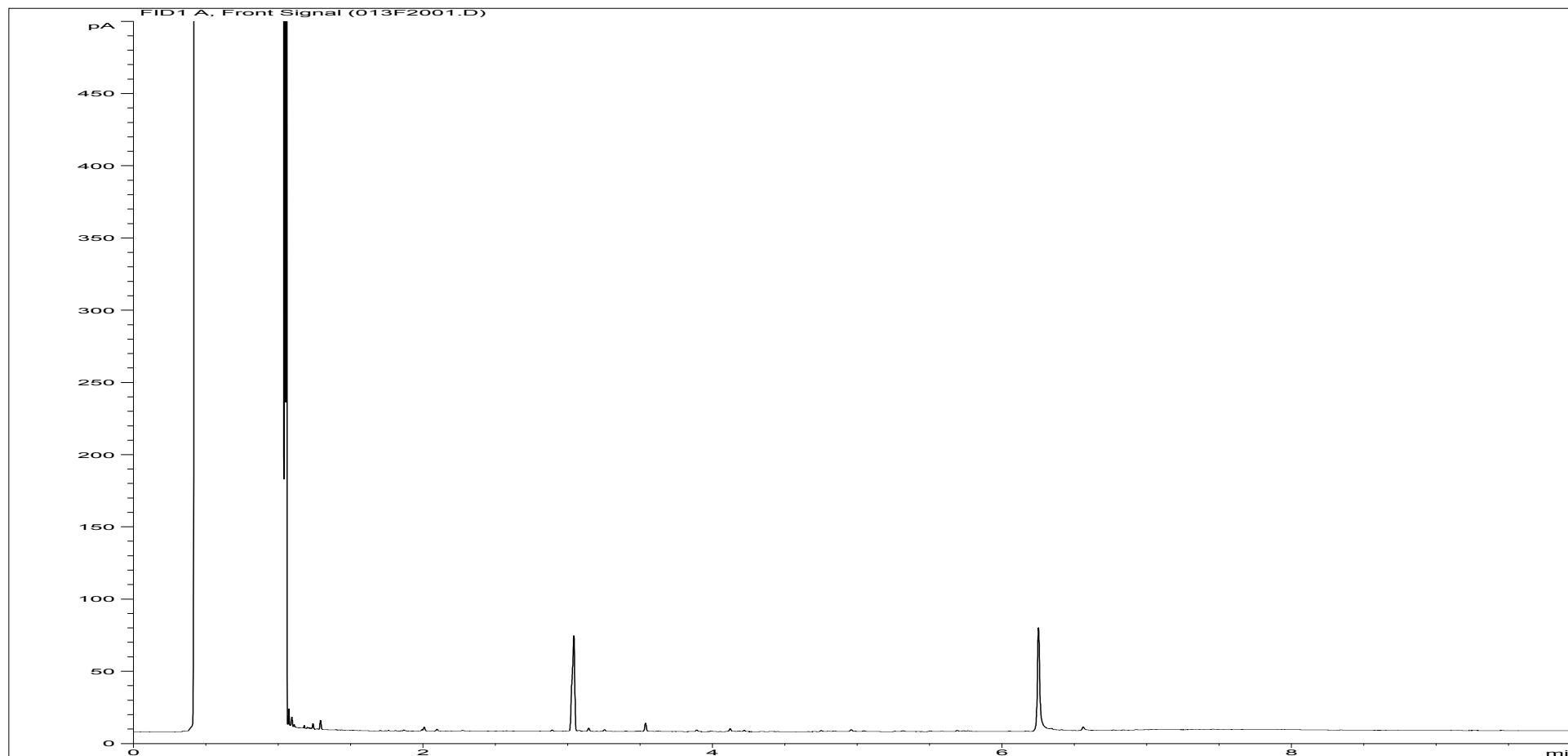
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1284840ARO | Job Number: | W13_4836 |
| Multiplier: | 0.018 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

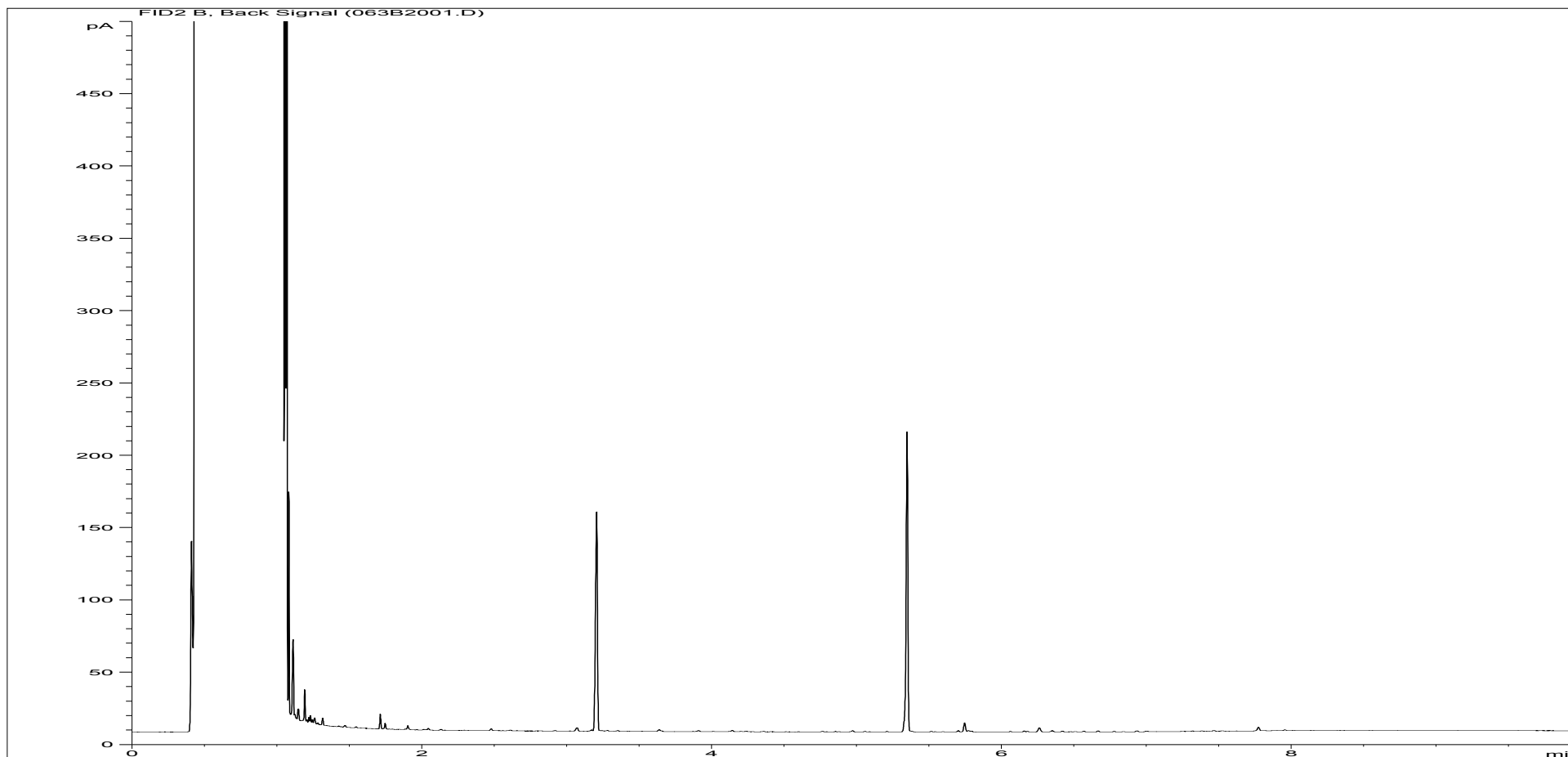
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1284841ALI | Job Number: | W13_4836 |
| Multiplier: | 0.019 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

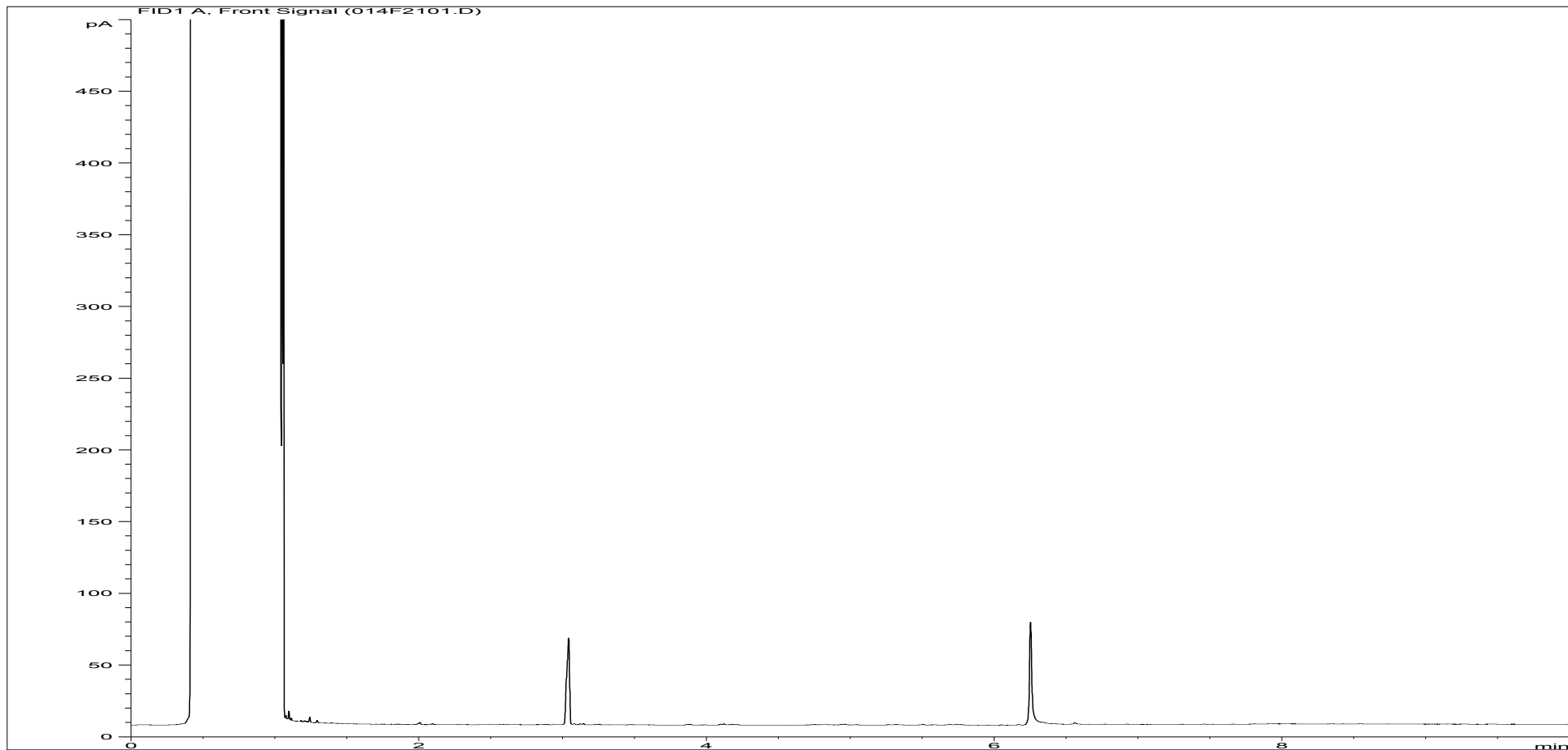
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1284841ARO | Job Number: | W13_4836 |
| Multiplier: | 0.016 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

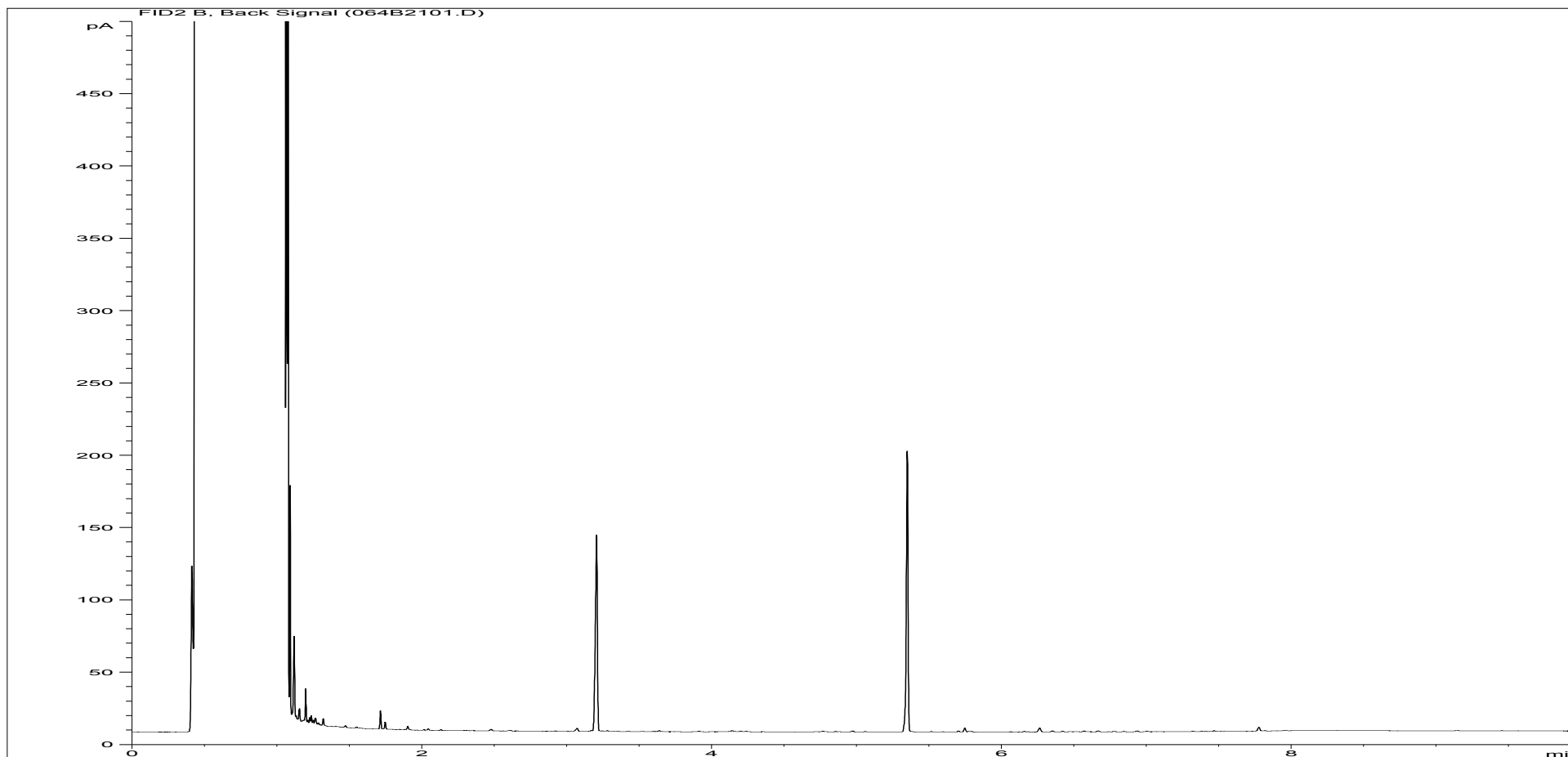
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1284842ALI | Job Number: | W13_4836 |
| Multiplier: | 0.019 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

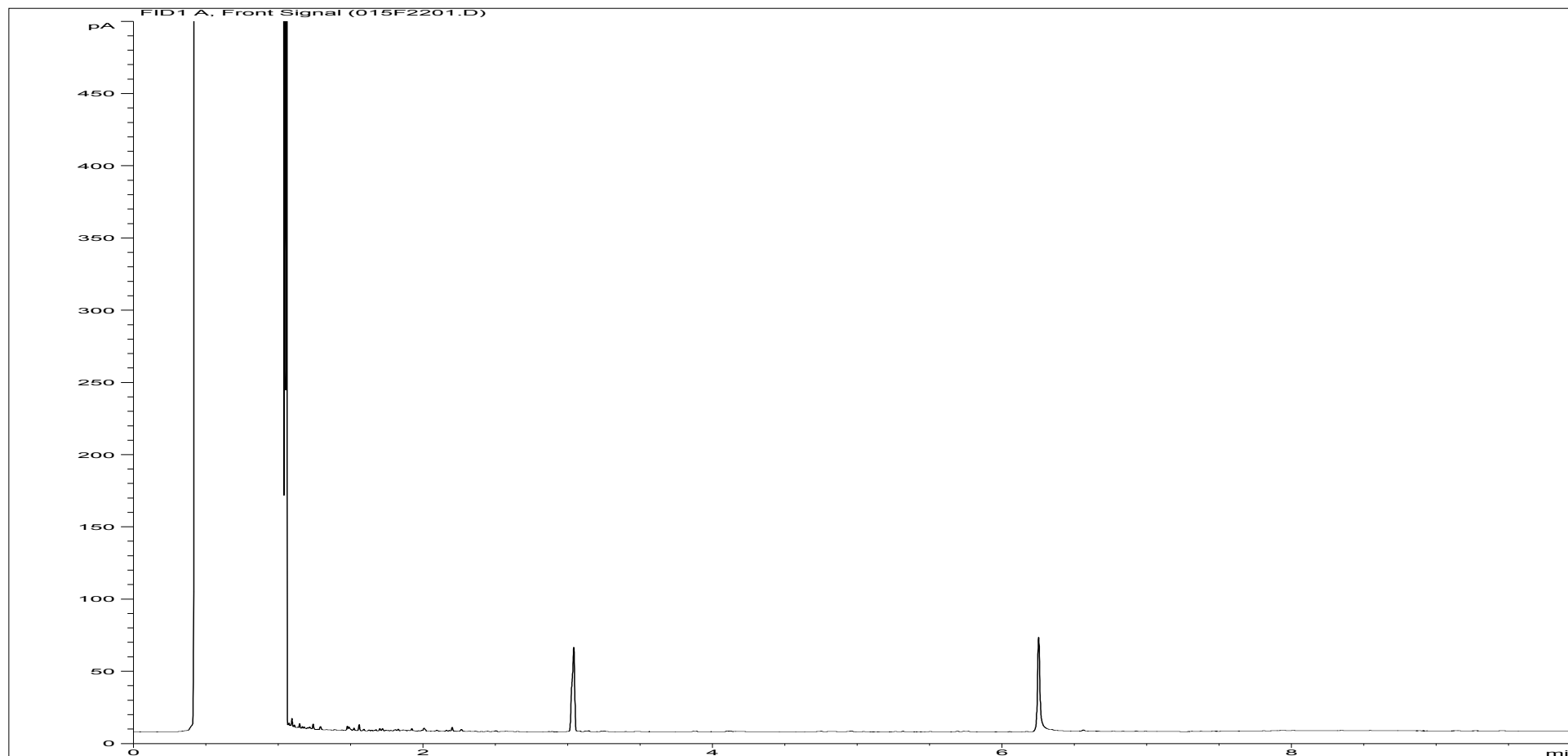
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1284842ARO | Job Number: | W13_4836 |
| Multiplier: | 0.015 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

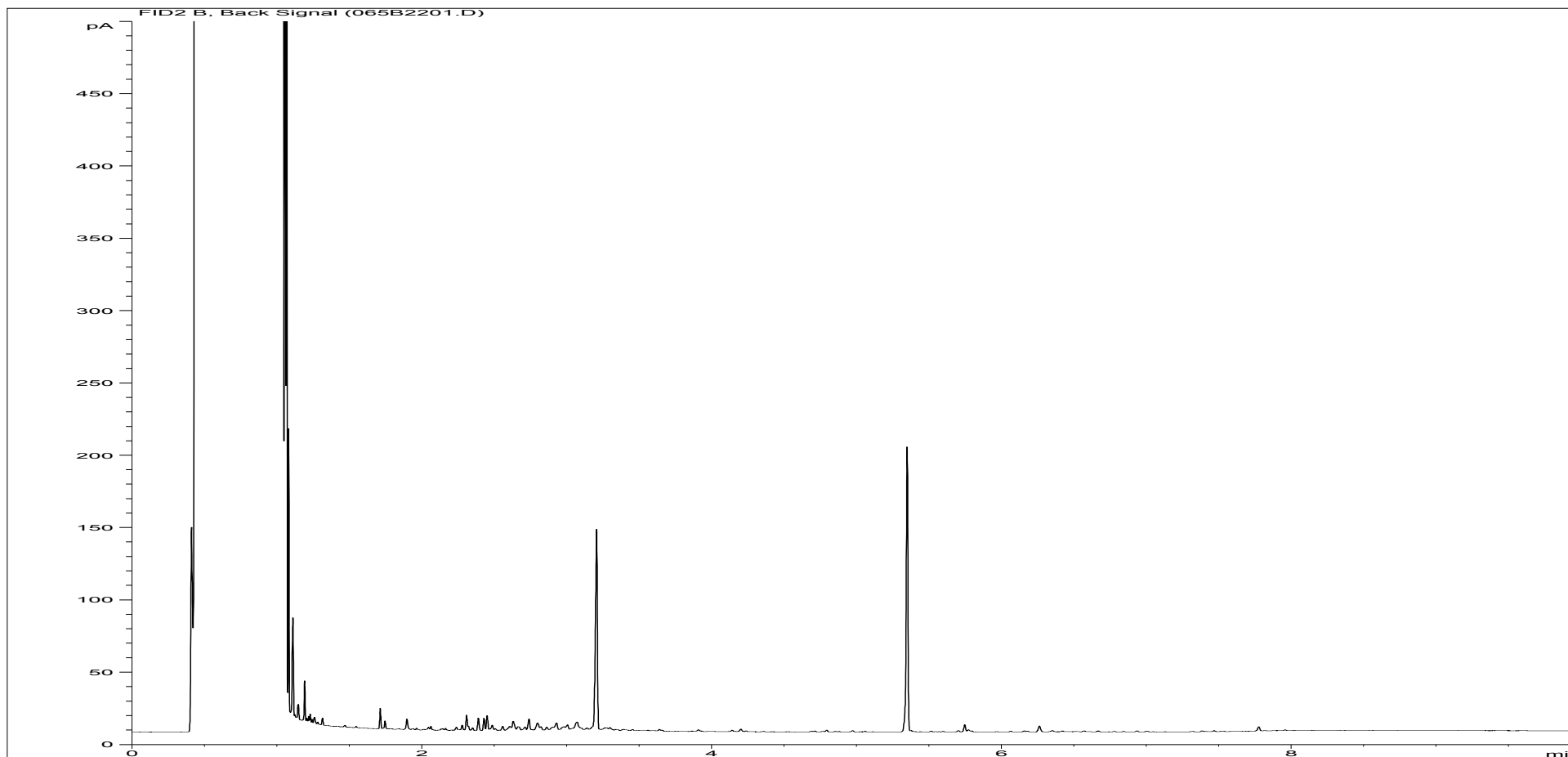
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1284843ALI | Job Number: | W13_4836 |
| Multiplier: | 0.019 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

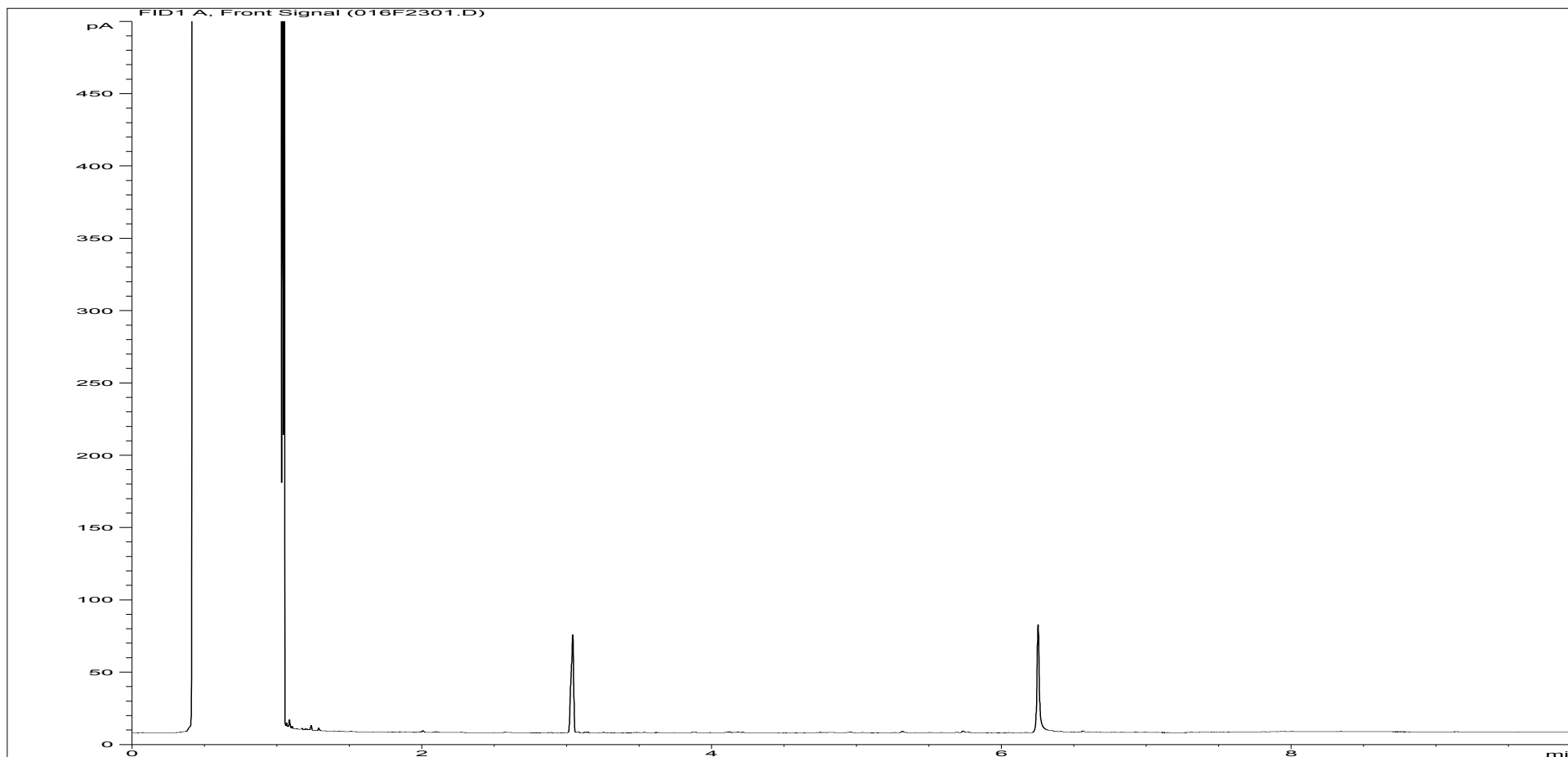
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1284843ARO | Job Number: | W13_4836 |
| Multiplier: | 0.016 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

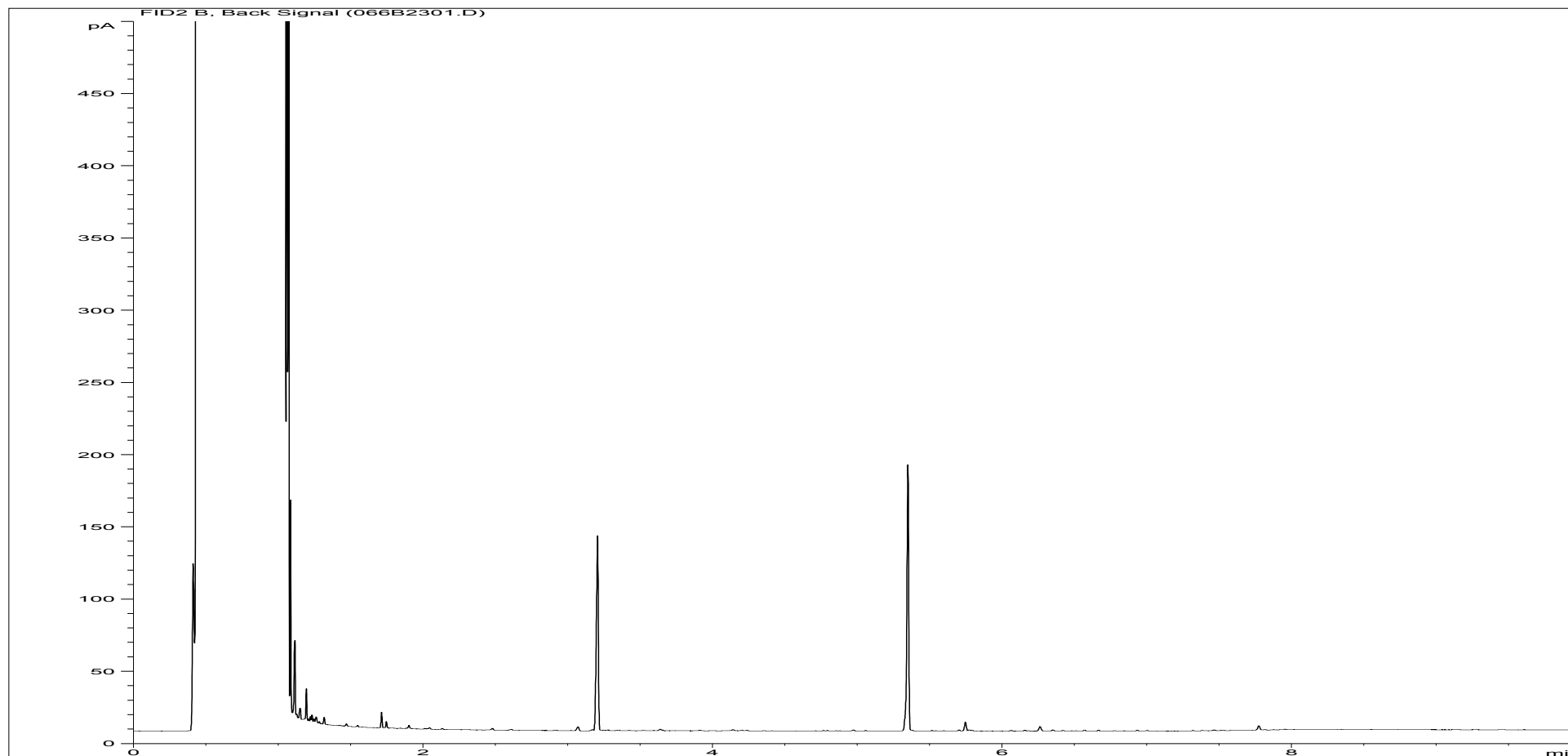
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1284844ALI | Job Number: | W13_4836 |
| Multiplier: | 0.019 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client Sample Ref: | MW1 |
| 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 | | |

Where individual results are flagged see report notes for status.

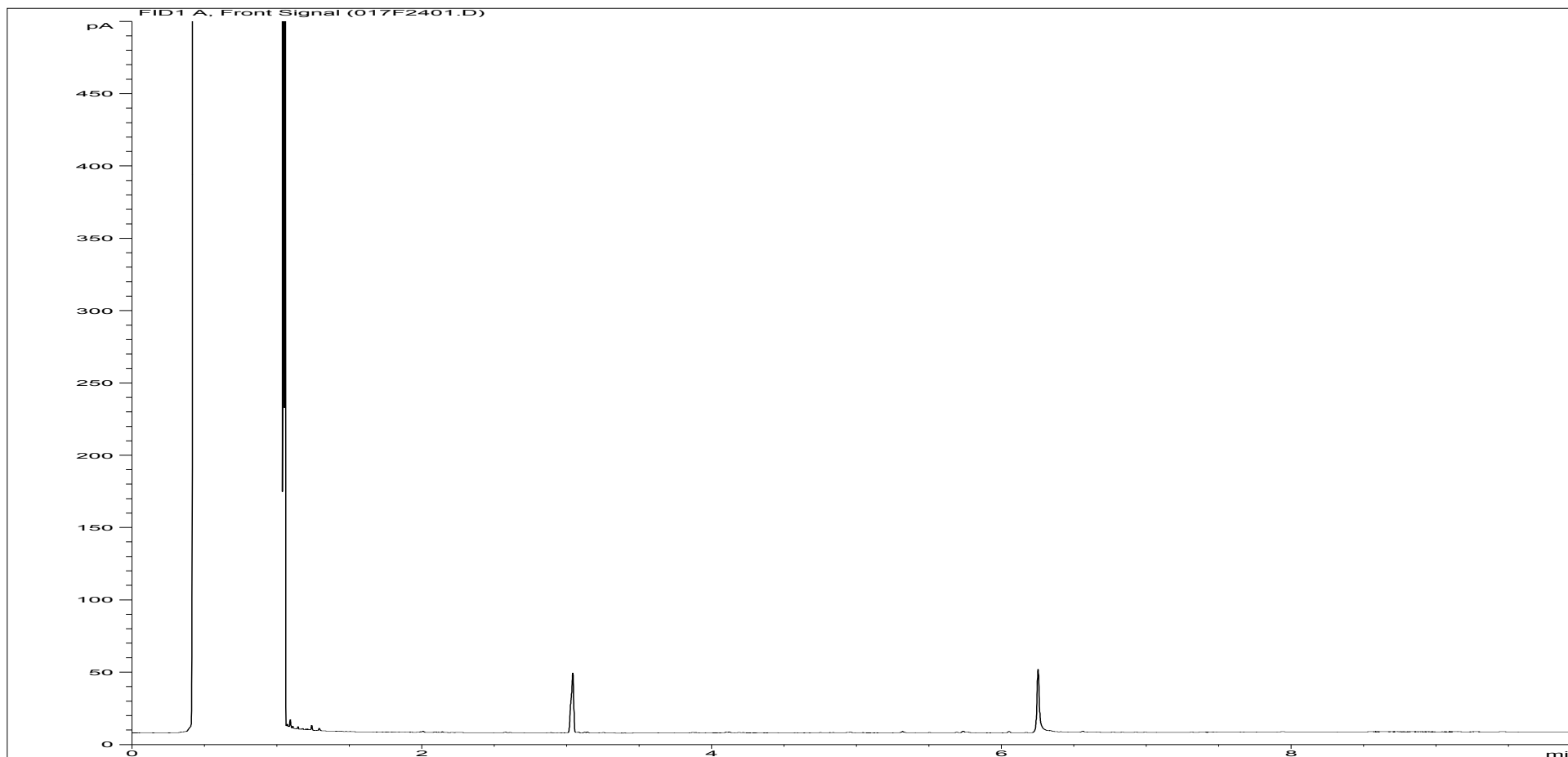
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1284844ARO | Job Number: | W13_4836 |
| Multiplier: | 0.015 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client Sample Ref: | MW1 |
| 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 | | |

Where individual results are flagged see report notes for status.

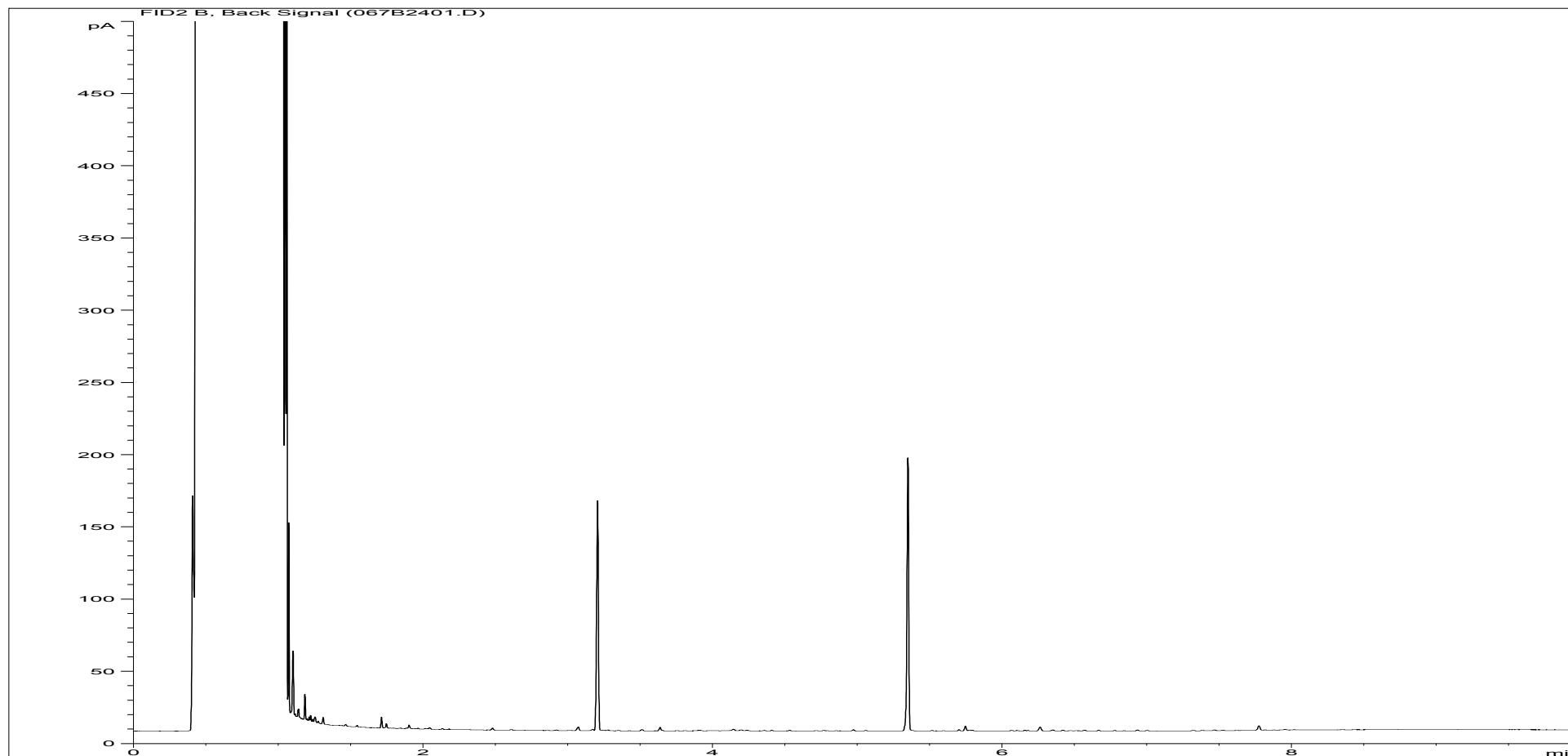
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1284845ALI | Job Number: | W13_4836 |
| Multiplier: | 0.019 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

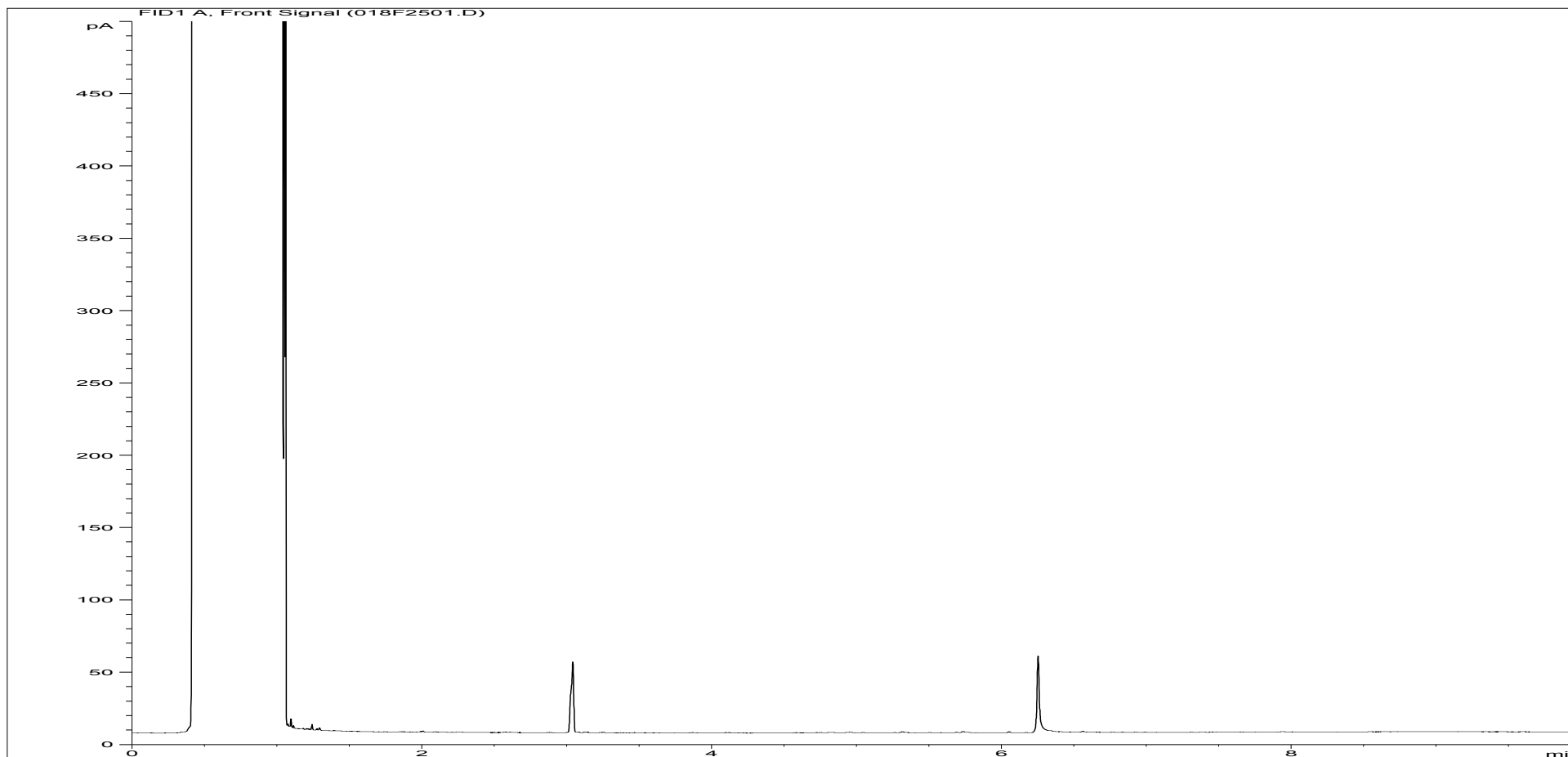
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1284845ARO | Job Number: | W13_4836 |
| Multiplier: | 0.016 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

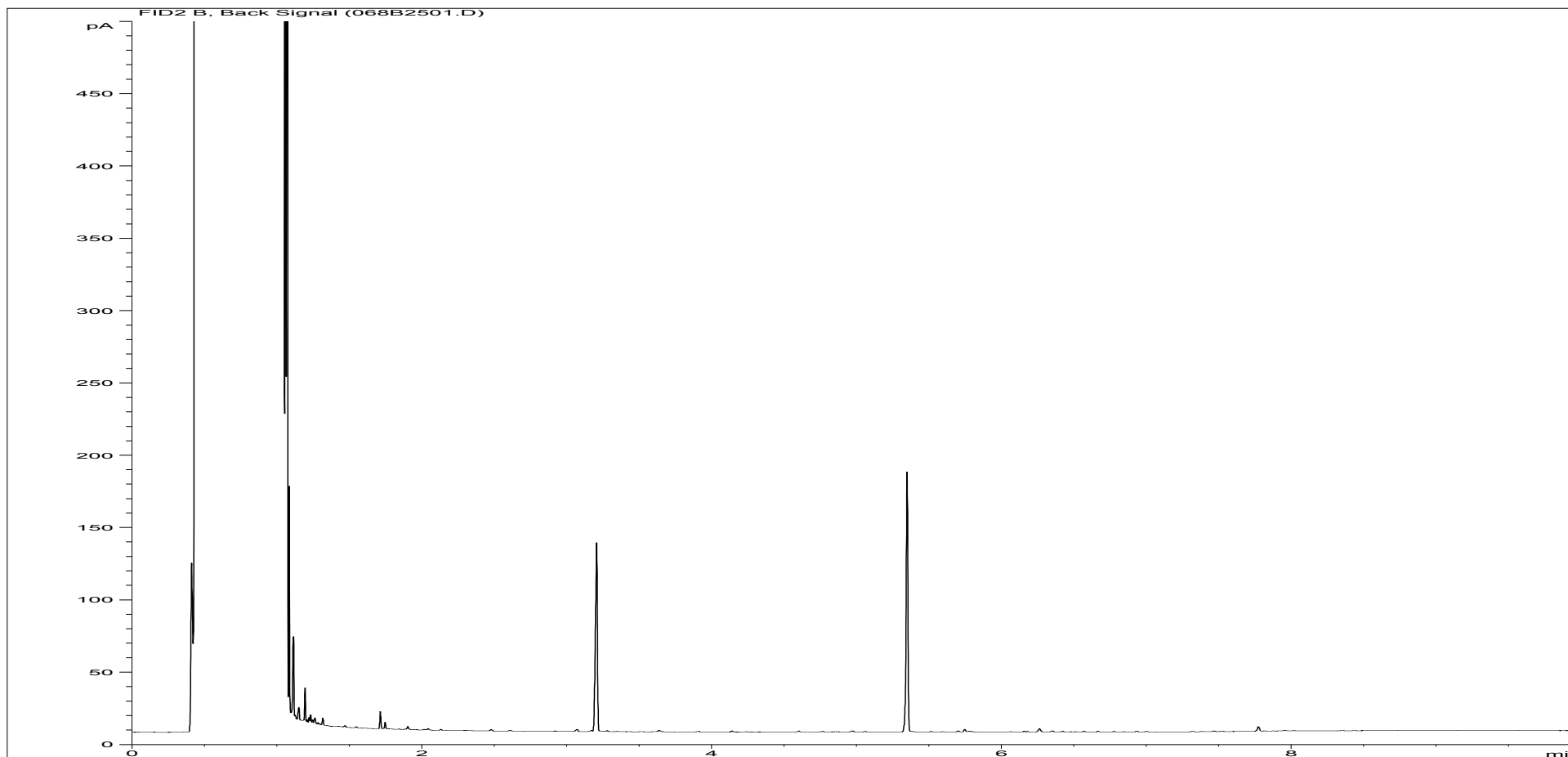
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1284846ALI | Job Number: | W13_4836 |
| Multiplier: | 0.019 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

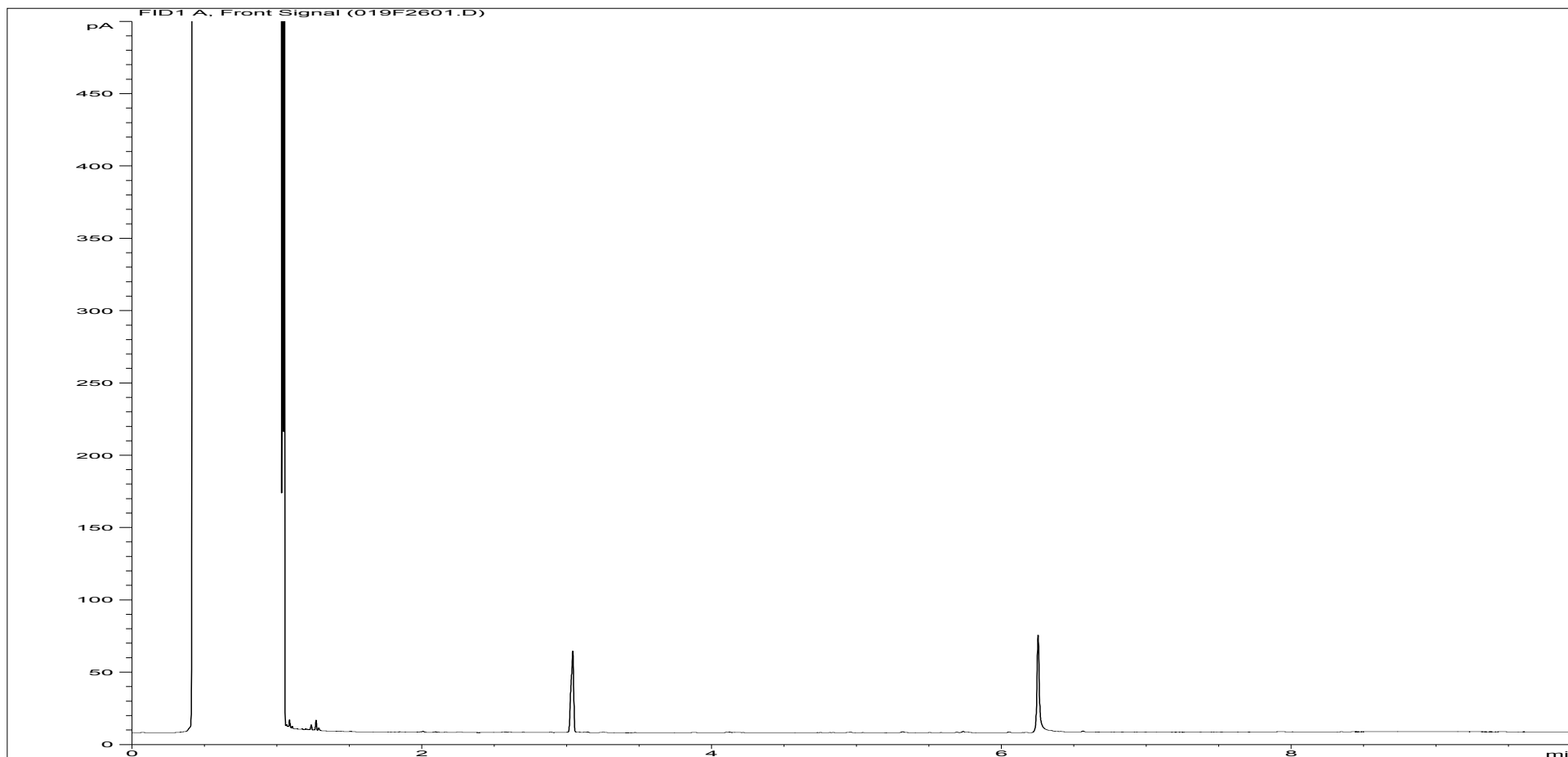
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1284846ARO | Job Number: | W13_4836 |
| Multiplier: | 0.015 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

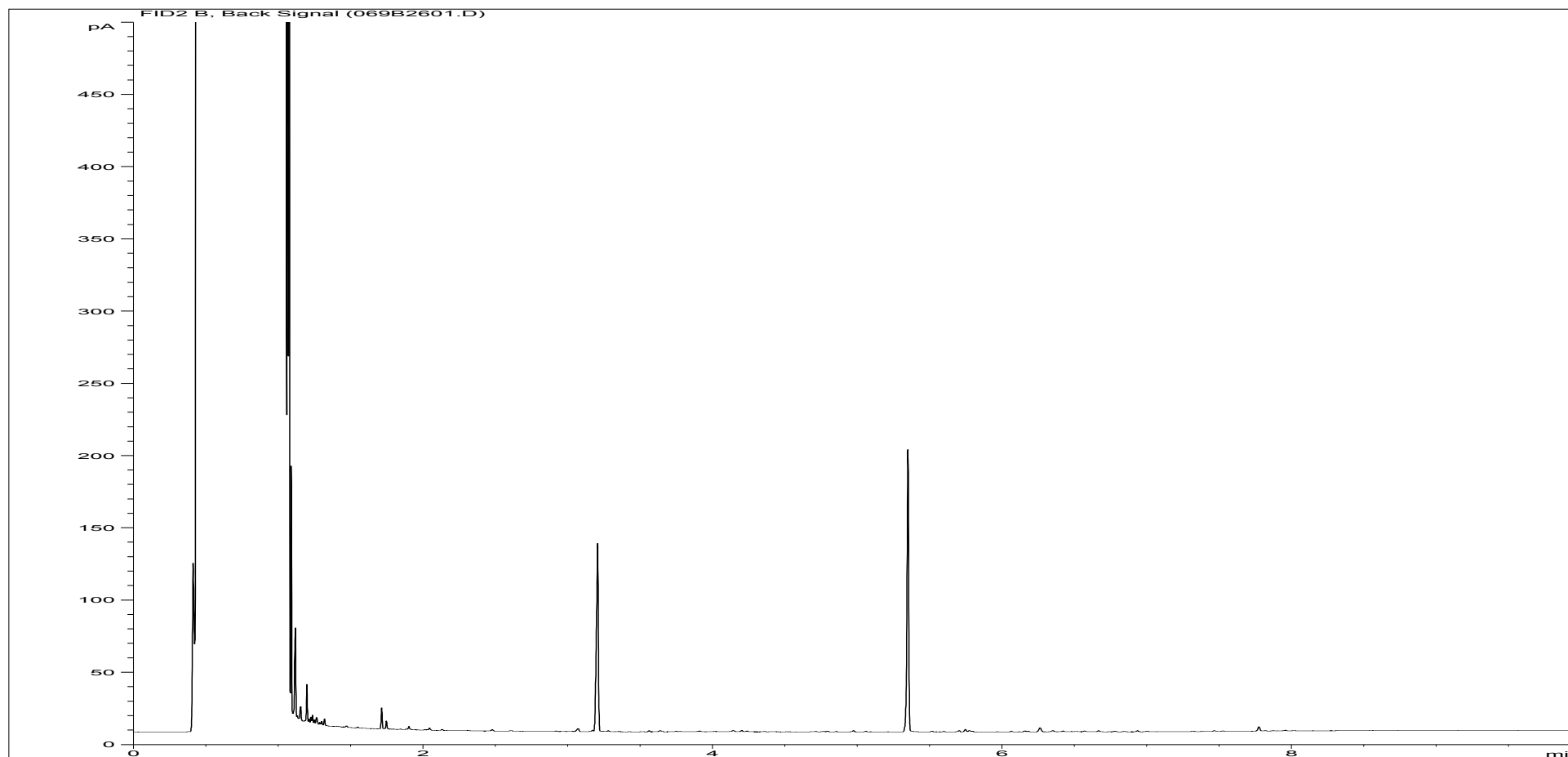
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1284847ALI | Job Number: | W13_4836 |
| Multiplier: | 0.019 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

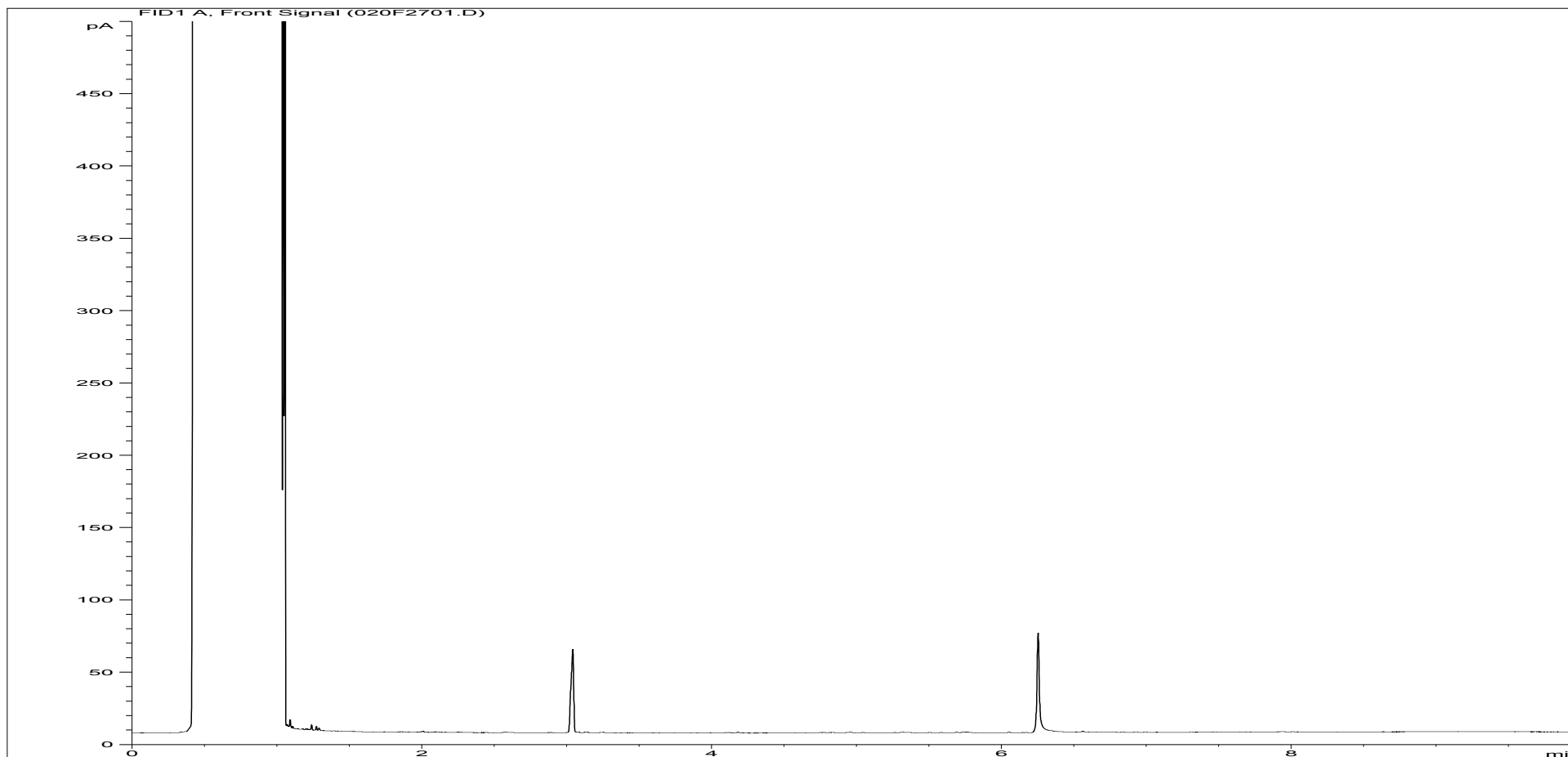
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1284847ARO | Job Number: | W13_4836 |
| Multiplier: | 0.015 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

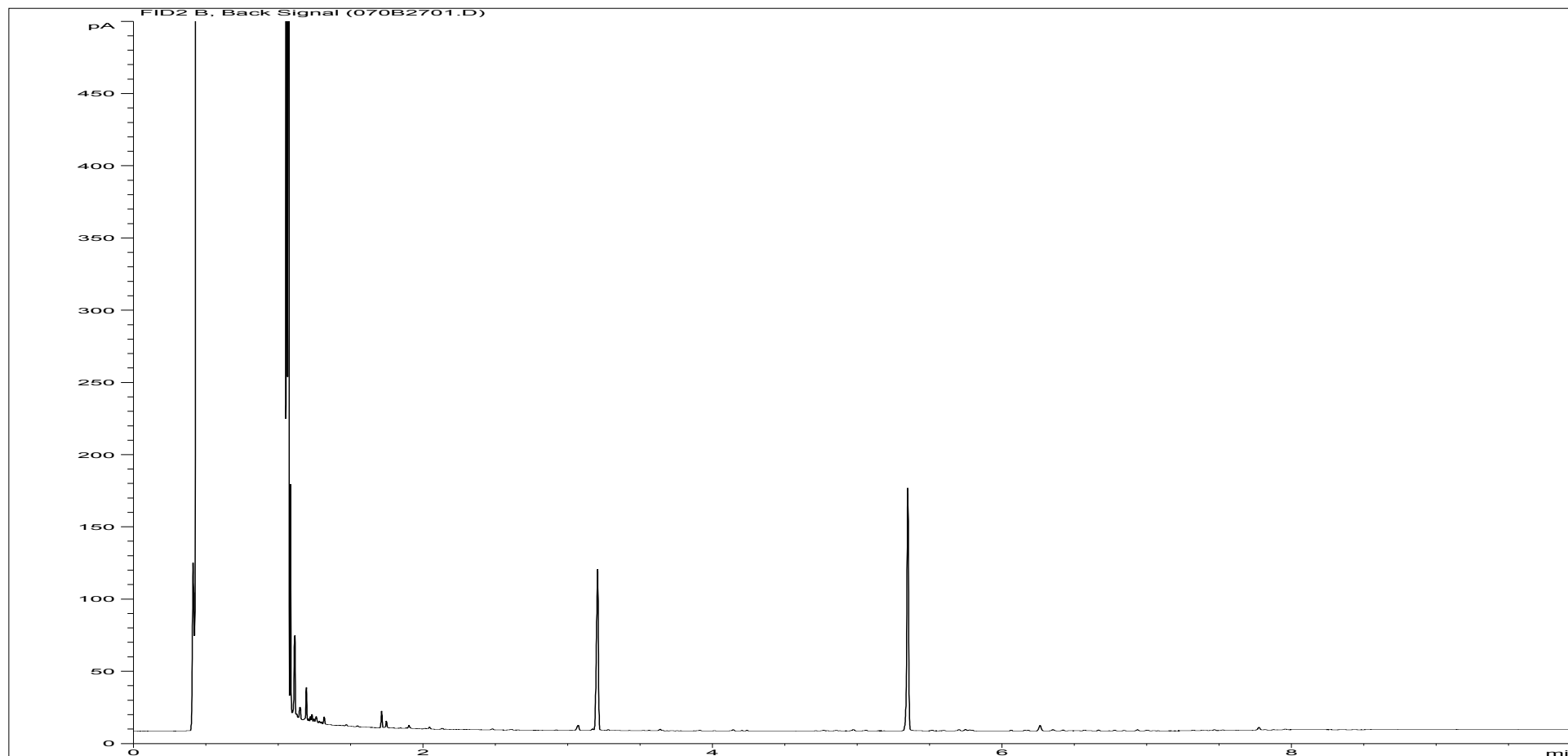
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1284848ALI | Job Number: | W13_4836 |
| Multiplier: | 0.019 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

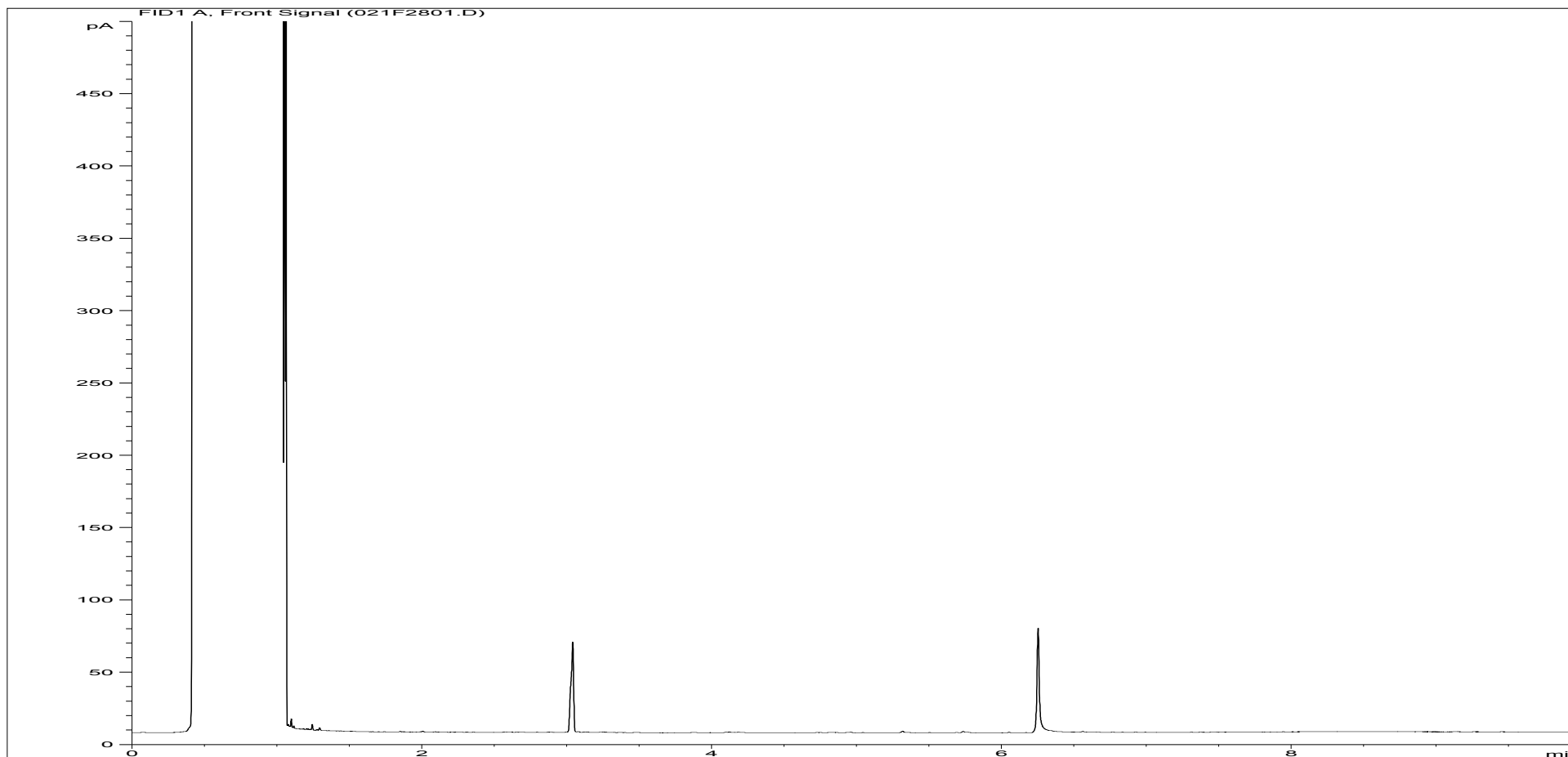
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1284848ARO | Job Number: | W13_4836 |
| Multiplier: | 0.015 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

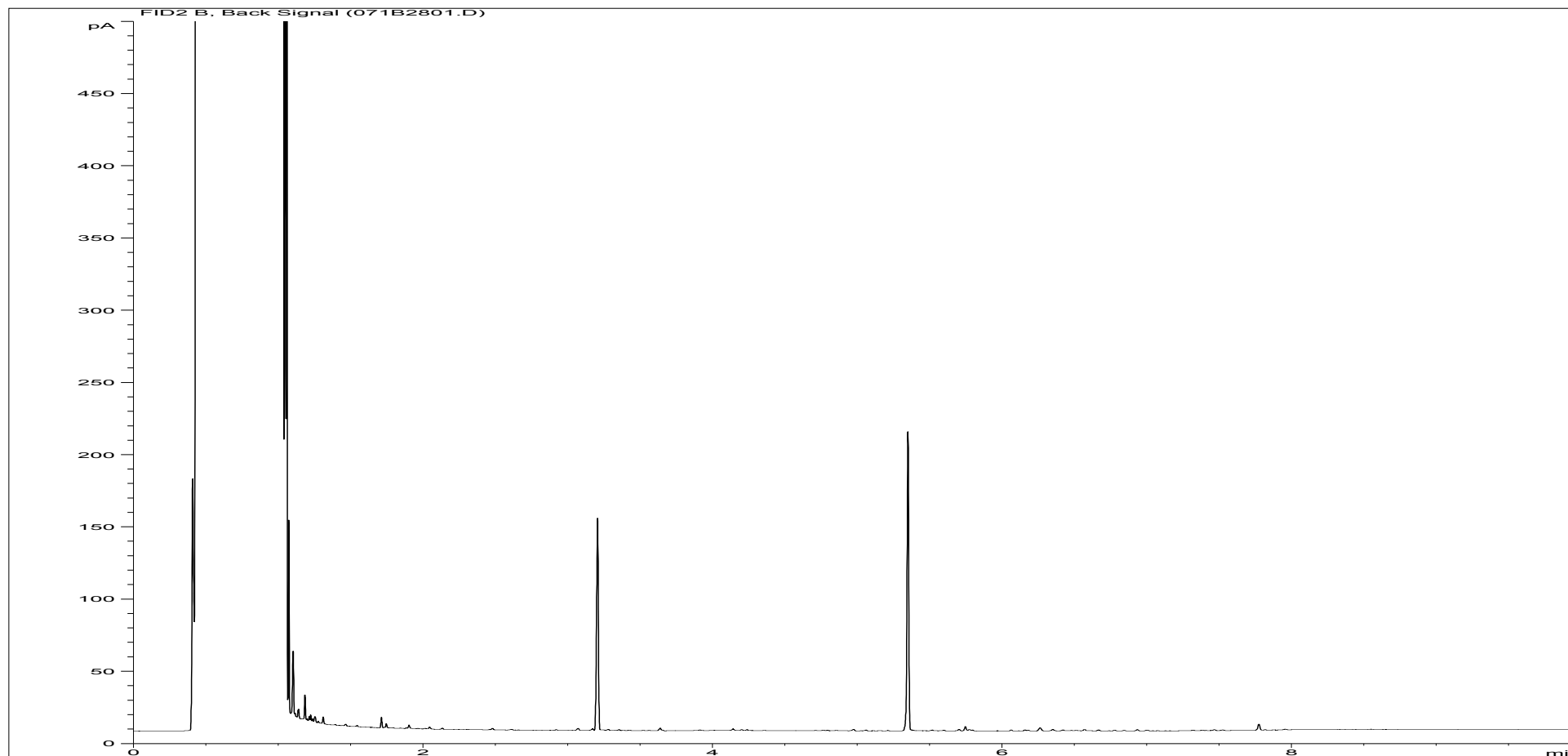
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1284849ALI | Job Number: | W13_4836 |
| Multiplier: | 0.019 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

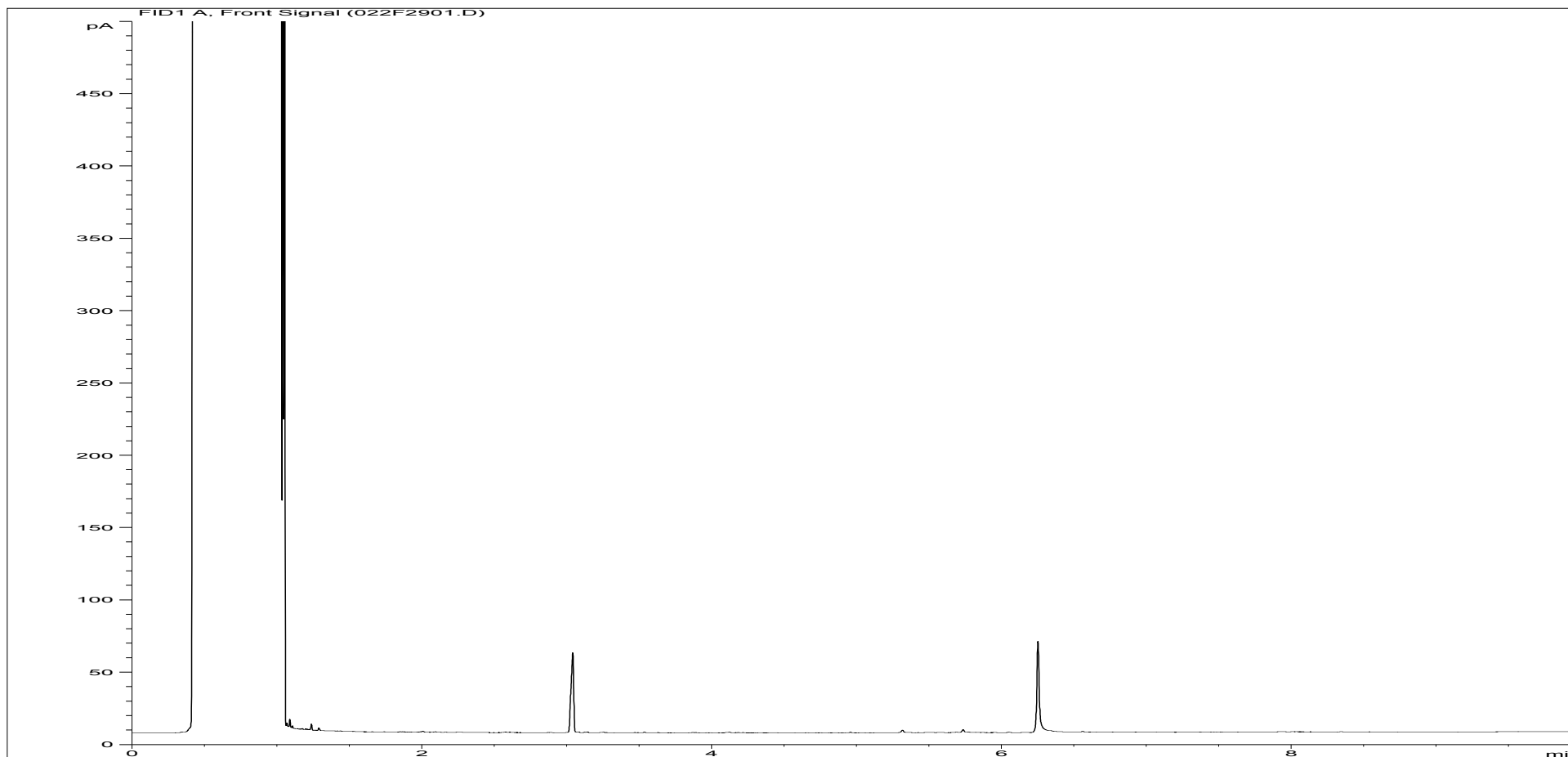
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1284849ARO | Job Number: | W13_4836 |
| Multiplier: | 0.015 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

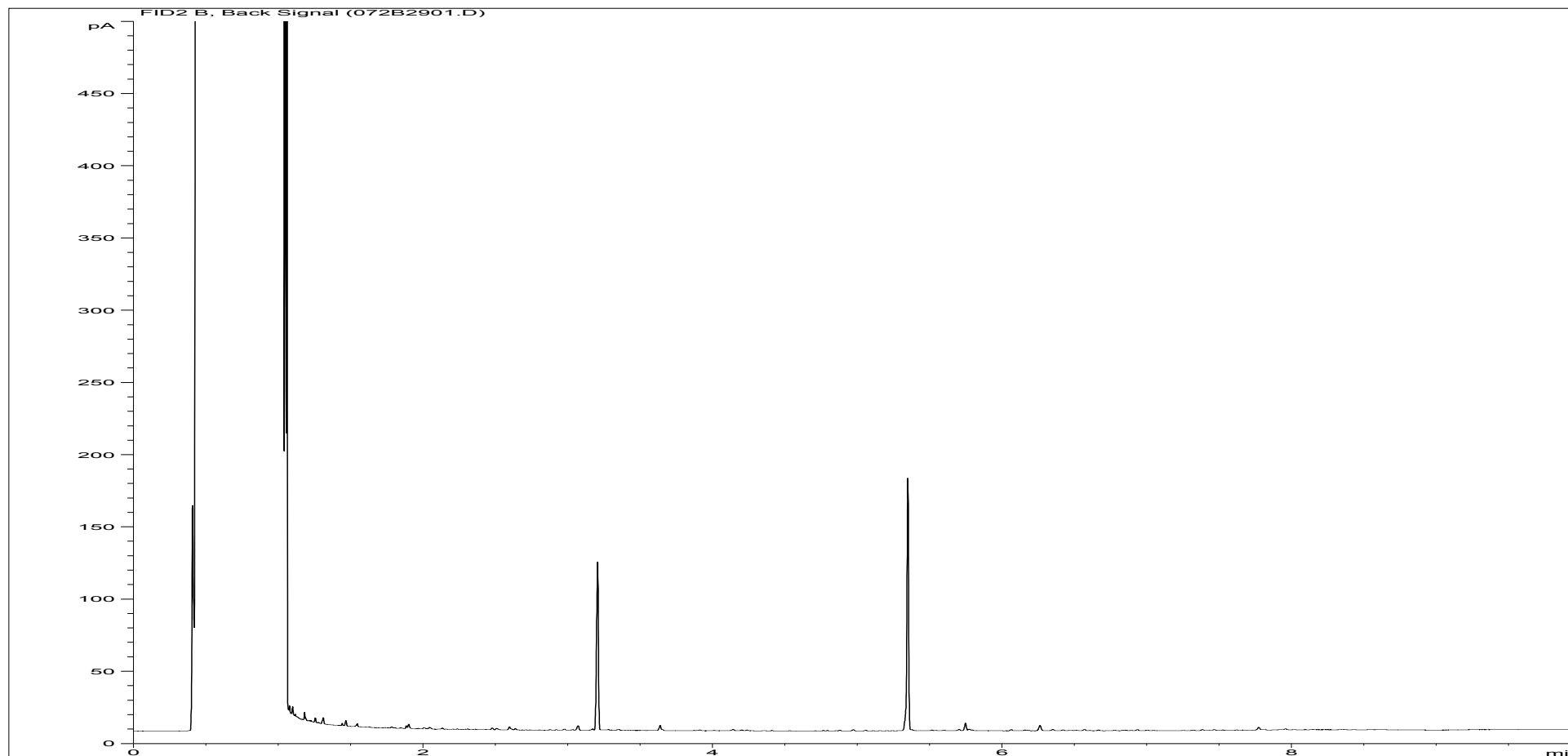
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1284850ALI | Job Number: | W13_4836 |
| Multiplier: | 0.019 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | 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 | | |

Where individual results are flagged see report notes for status.

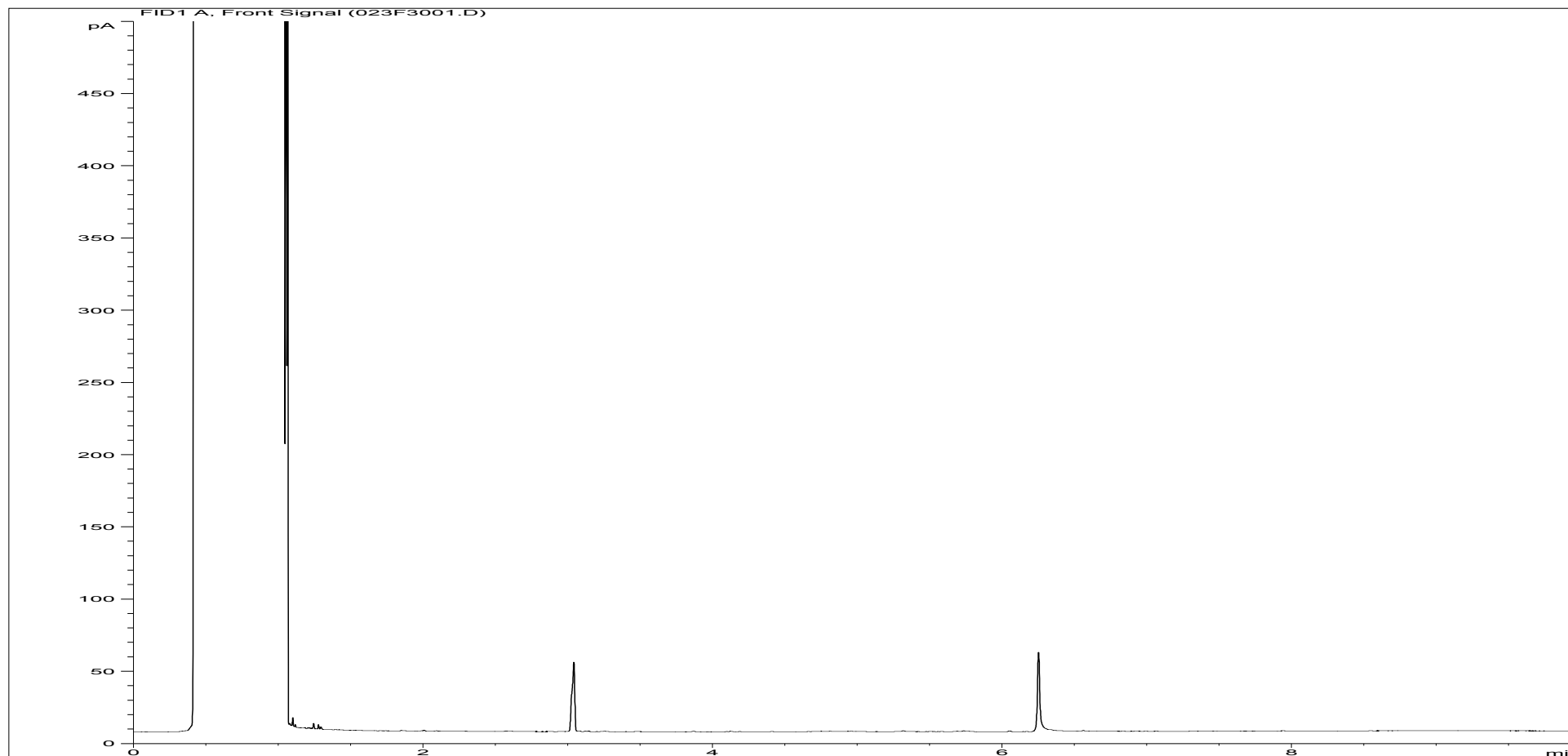
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1284850ARO | Job Number: | W13_4836 |
| Multiplier: | 0.015 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | 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\072B2901.D | | |

Where individual results are flagged see report notes for status.

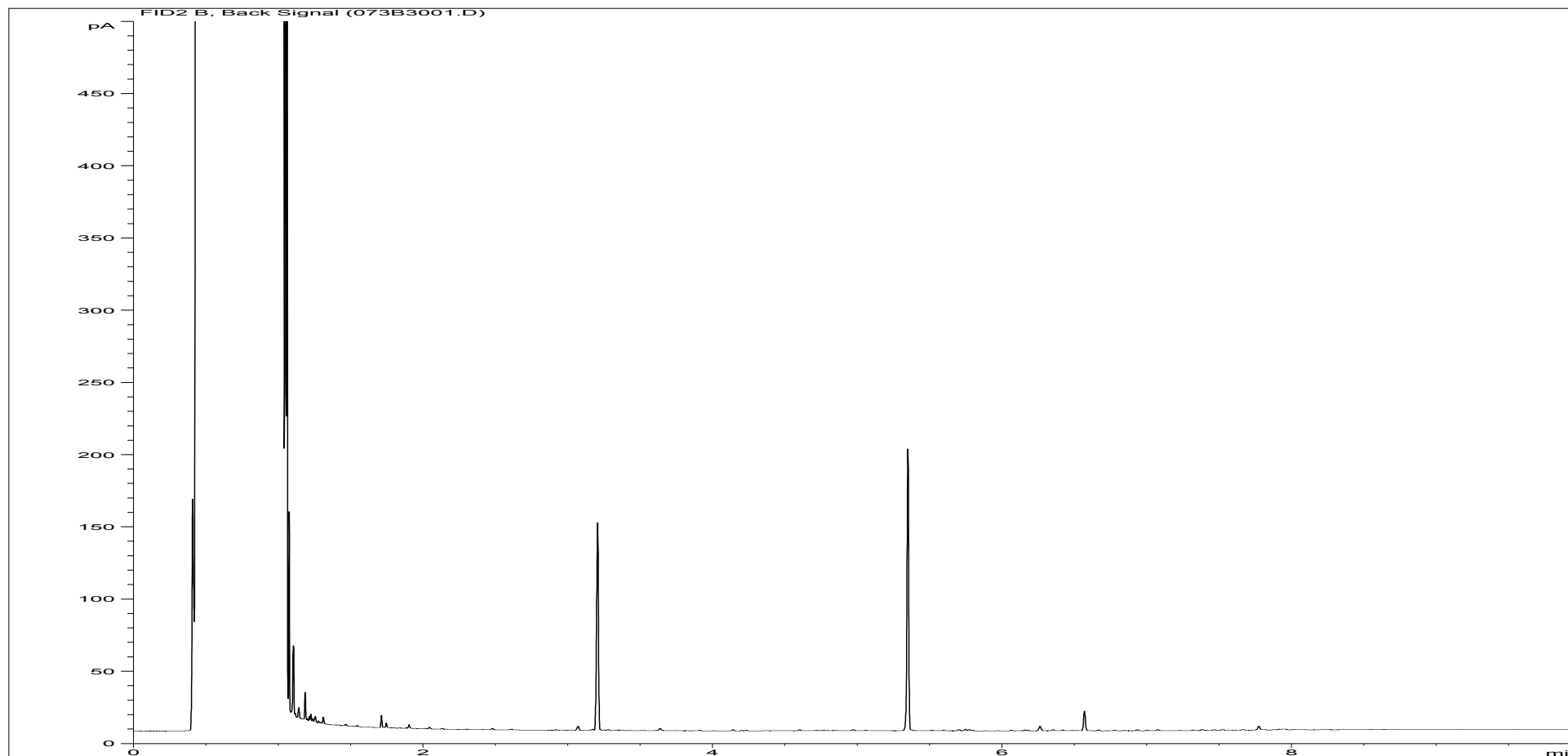
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1284851ALI | Job Number: | W13_4836 |
| Multiplier: | 0.019 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1284851ARO | Job Number: | W13_4836 |
| Multiplier: | 0.015 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

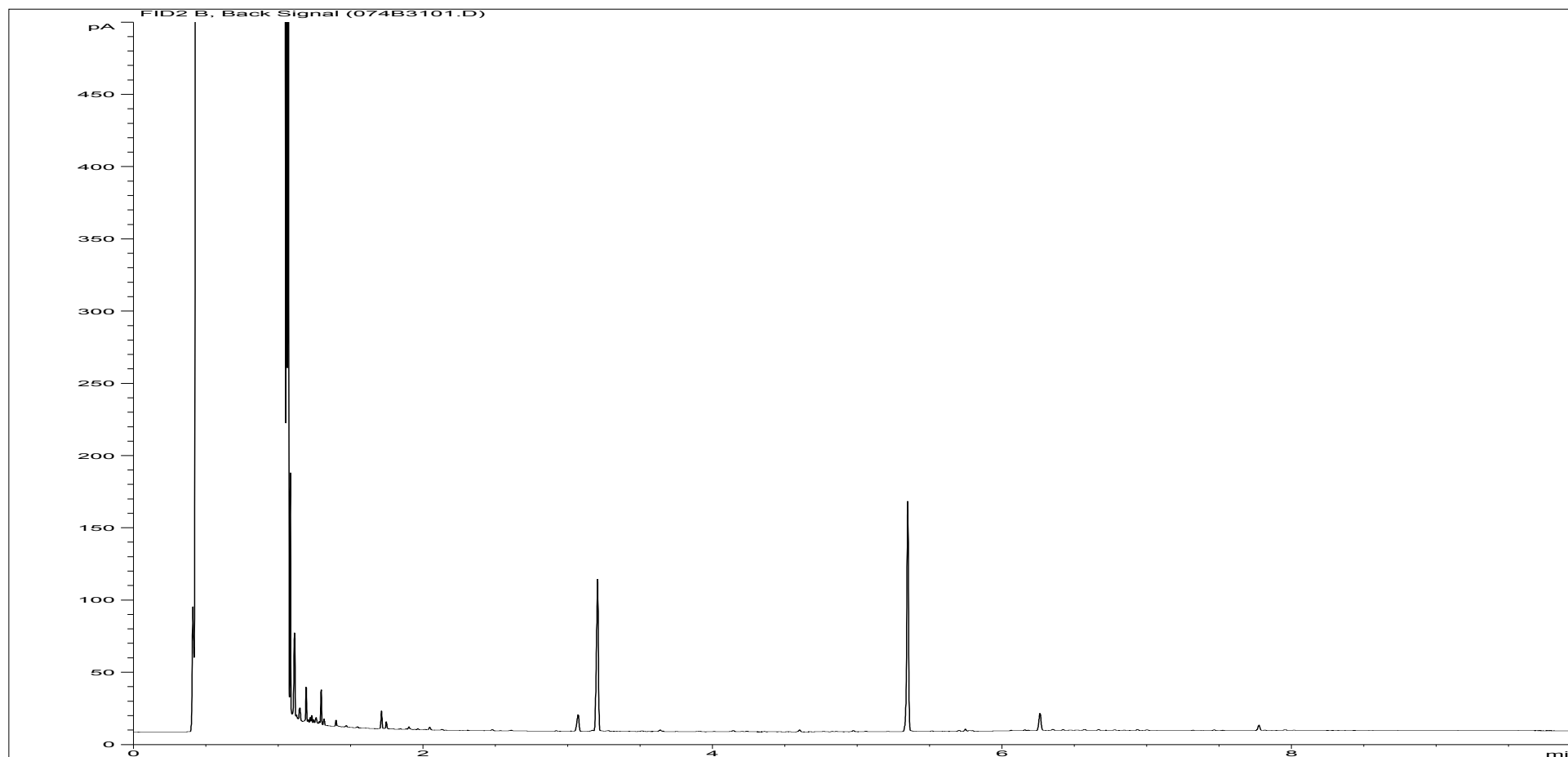
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1284852ALI | Job Number: | W13_4836 |
| Multiplier: | 0.019 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

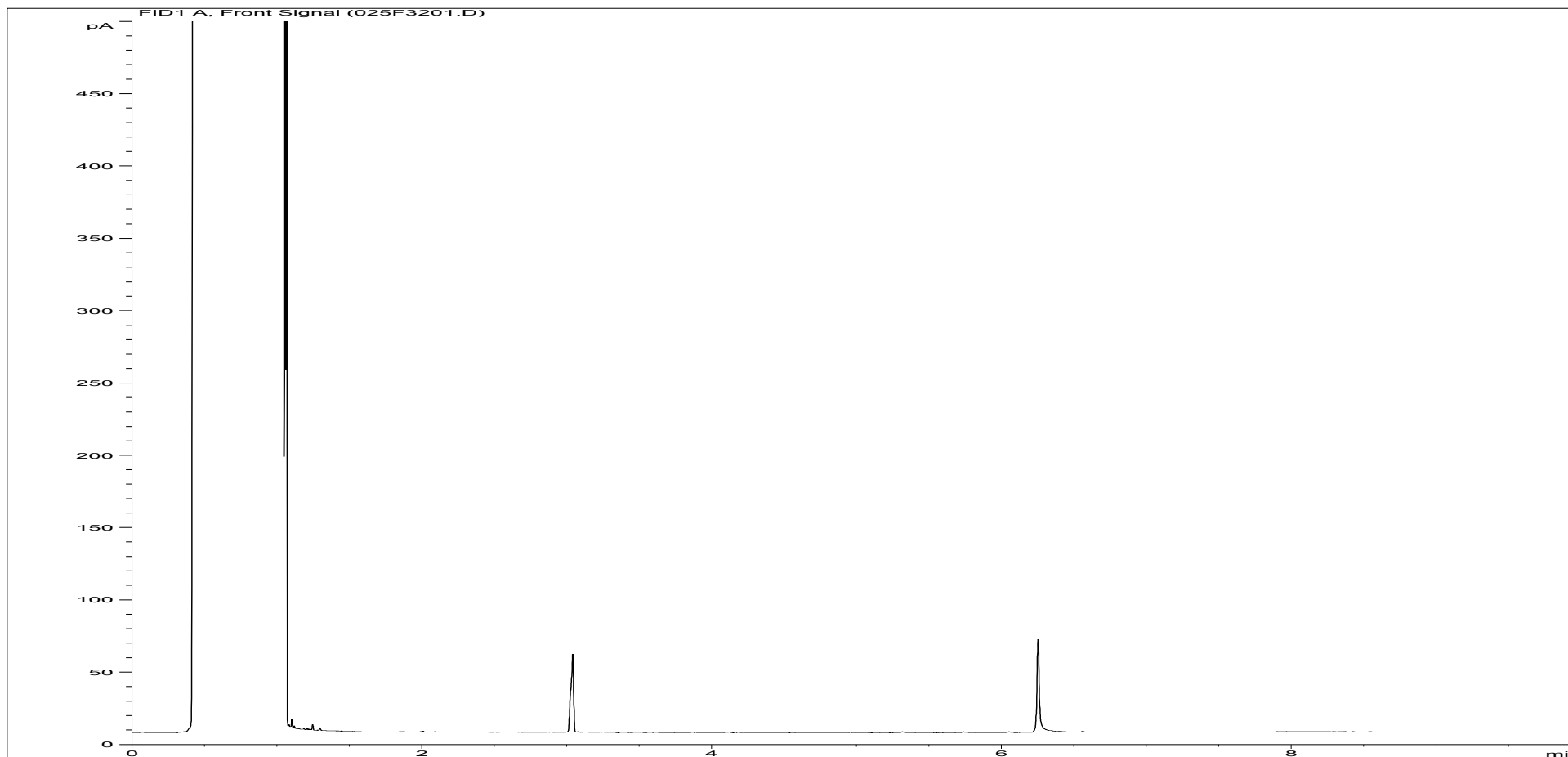
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1284852ARO | Job Number: | W13_4836 |
| Multiplier: | 0.015 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

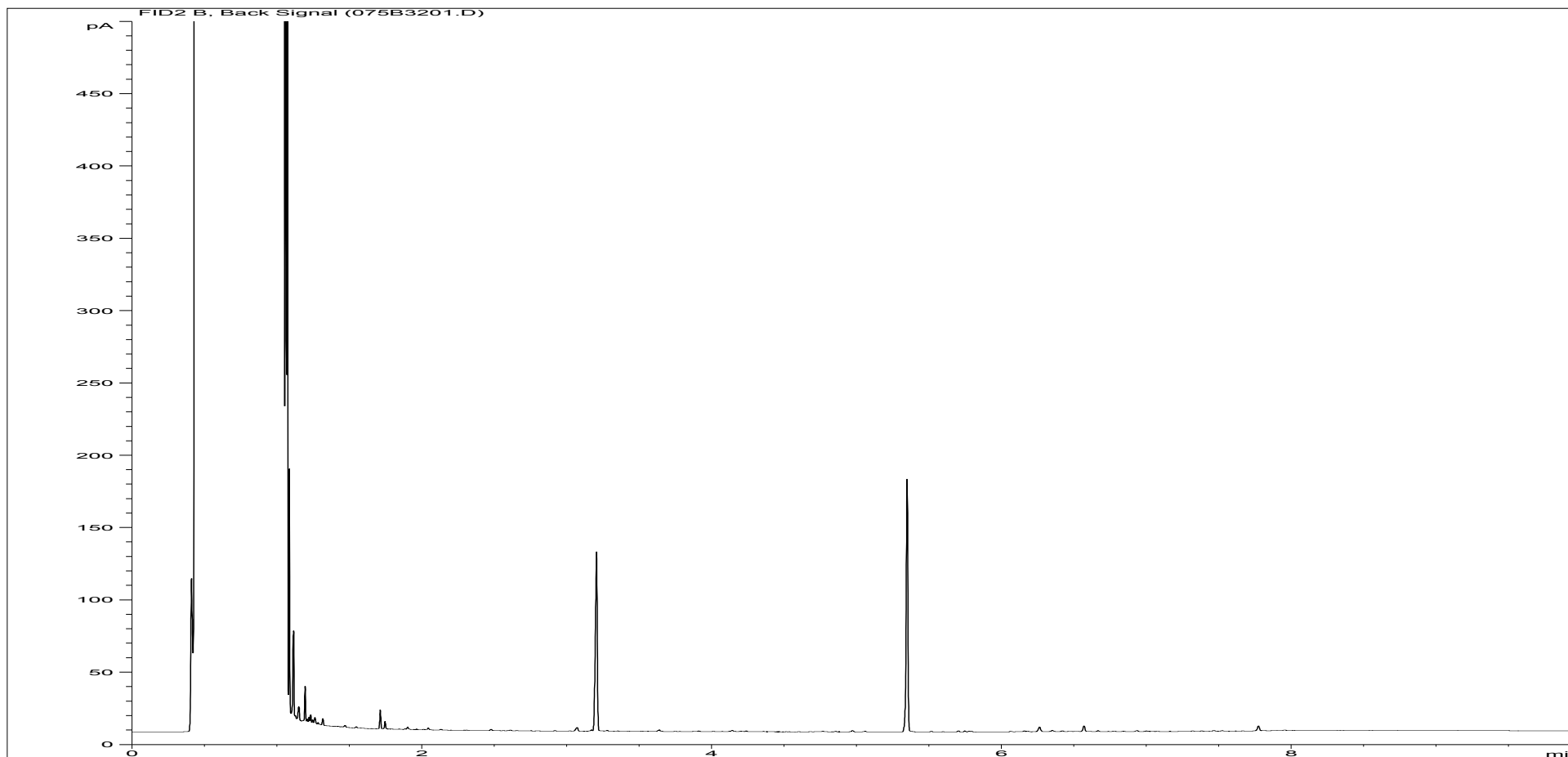
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1284853ALI | Job Number: | W13_4836 |
| Multiplier: | 0.019 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1284853ARO | Job Number: | W13_4836 |
| Multiplier: | 0.015 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

Customer Waterman EED
Site Upper Heyford
Report No W134836

Consignment No W35988
Date Logged 10-Apr-2012

Report Due 18-Apr-2012

| ID Number | Description | MethodID | 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 | |
|------------|-------------|----------|----------------------------------|---------------|----------------------------------|---------------------------|----------------------|------------------------|--------------------------|---------------------------|----------|------------------------------|------------------------|----------|
| | | | | | | | | | | | | | WSPH0-S1 | WSPH0-S2 |
| EX/1284834 | BHNSA9 | 02/04/12 | E | | | | | | | | | | ✓ | ✓ |
| EX/1284835 | BHNSA10 | 02/04/12 | E | | | | | | | | | | | |
| EX/1284836 | BHNSA11 | 02/04/12 | E | | | | | | | | | | | |
| EX/1284837 | BHNSA17 | 02/04/12 | E | | | | | | | | | | | |
| EX/1284838 | BHNSA18 | 02/04/12 | E | | | | | | | | | | | |
| EX/1284839 | BHNSA19 | 02/04/12 | E | | | | | | | | | | | |
| EX/1284840 | BHNSA21 | 02/04/12 | E | | | | | | | | | | | |
| EX/1284841 | BHNSA37 | 02/04/12 | E | | | | | | | E | | | | |
| EX/1284842 | BHNSA38 | 02/04/12 | E | | | | | | | | | | | |
| EX/1284843 | BHNSA225 | 02/04/12 | E | | | | | | | | | | | |
| EX/1284844 | MW1 | 02/04/12 | E | | | | | | | E | | | | |
| EX/1284845 | BHNSA2 | 02/04/12 | E | | | | | | | | | | | |
| EX/1284846 | BHNSA5 | 02/04/12 | E | | | | | | | | | | | |
| EX/1284847 | BHNSA45 | 02/04/12 | E | | | | | | | E | | | | |
| EX/1284848 | BHNSA4 | 02/04/12 | 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 | |
|------------------------|--|
| A | The sample was received in an inappropriate container for this analysis |
| B | The sample was received without the correct preservation for this analysis |
| C | Headspace present in the sample container |
| D | The sampling date was not supplied so holding time may be compromised - applicable to all analysis |
| E | 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 |

Where individual results are flagged see report notes for status.

Customer Waterman EED
Site Upper Heyford
Report No W134836

Consignment No W35988
Date Logged 10-Apr-2012

Report Due 18-Apr-2012

| ID Number | Description | MethodID | TPHID-S1 | W/SLM1 | W/SLM2 | W/SLM3 | W/SLM7 | W/SLM2 | W/SLM20 | W/SLM3 | W/SLM7 |
|------------------------|-------------|----------|----------------------------------|---------------|----------------------------------|---------------------------|----------------------|------------------------|--------------------------|---------------------------|----------|
| | | | 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 |
| Accredited to ISO17025 | | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | |
| EX/1284849 | BHNSA42 | 02/04/12 | E | | | | | | | | |
| EX/1284850 | BHNSA7 | 02/04/12 | E | | | | | | | | |
| EX/1284851 | BHNSA8 | 02/04/12 | E | | | | | | | | |
| EX/1284852 | BHNSA3 | 02/04/12 | E | | | | | | | | |
| EX/1284853 | BHNSA44 | 02/04/12 | 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 | |
|---|--|
| A | The sample was received in an inappropriate container for this analysis |
| B | The sample was received without the correct preservation for this analysis |
| C | Headspace present in the sample container |
| D | The sampling date was not supplied so holding time may be compromised - applicable to all analysis |
| E | 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 |

Method Descriptions

| Matrix | MethodID | Analysis Basis | Method Description |
|--------|-----------|----------------|--|
| 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 ($\mu\text{S}/\text{cm}$) 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 |

Where individual results are flagged see report notes for status.

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

NAIS 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

Req Analysis requested, see attached sheets for results

▮ 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.

END OF REPORT

Where individual results are flagged see report notes for status.

Our Ref: EXR/134848 (Ver. 1)

Your Ref: E10658-109

April 19, 2012



Environmental Chemistry

ESG

Bretby Business Park

Ashby Road

Burton-on-Trent

Staffordshire

DE15 0YZ

Telephone: 01283 554400

Facsimile: 01283 554422

Mr F Alcock
Waterman EED
Waterman Environmental
Pickfords Wharf
Clink Street
London
SE1 9DG

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
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.

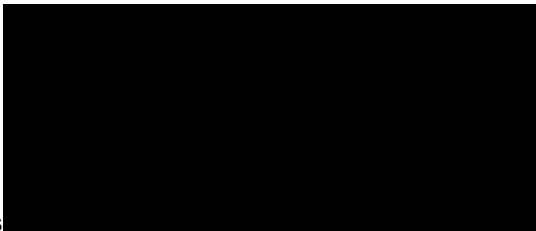
The analysis was completed by: 19-Apr-2012

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



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.

Where individual results are flagged see report notes for status.

Polycyclic Aromatic Hydrocarbons GC/MS (SIM)

| | | | |
|-----------------------------------|-----------------------------|------------------------|-----------|
| Customer and Site Details: | Waterman EED: Upper Heyford | | |
| Sample Details: | BHNSA6 | Job Number: | W13_4848 |
| 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: | 1.0 | Ext Method: | Bottle |

UKAS accredited?: Yes

| Target Compounds | CAS # | R.T. (min) | Concentration ug/l | % Fit |
|------------------------|----------|---------------|-----------------------|-------|
| Naphthalene | 91-20-3 | 3.45 | 0.419 | M |
| Acenaphthylene | 208-96-8 | 4.48 | 0.116 | M |
| 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 | Job Number: | W13_4848 |
| 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: | 1.0 | Ext Method: | Bottle |

UKAS accredited?: Yes

| Target Compounds | CAS # | R.T. (min) | Concentration ug/l | % Fit |
|------------------------|----------|---------------|-----------------------|-------|
| 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 | 0.028 | 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 |

| 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.

| Sample ID | Client ID | Concentration, (mg/l) | | | | | Aliphatics | | | | Total GRO |
|-------------|-----------|-----------------------|---------|---------------|------------|----------|------------|----------|----------|-----------|-----------|
| | | Benzene | Toluene | Ethyl benzene | m/p-Xylene | o-Xylene | C5 - C6 | >C6 - C7 | >C7 - C8 | >C8 - C10 | |
| * 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 |
| | | | | | | | | | | | |
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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

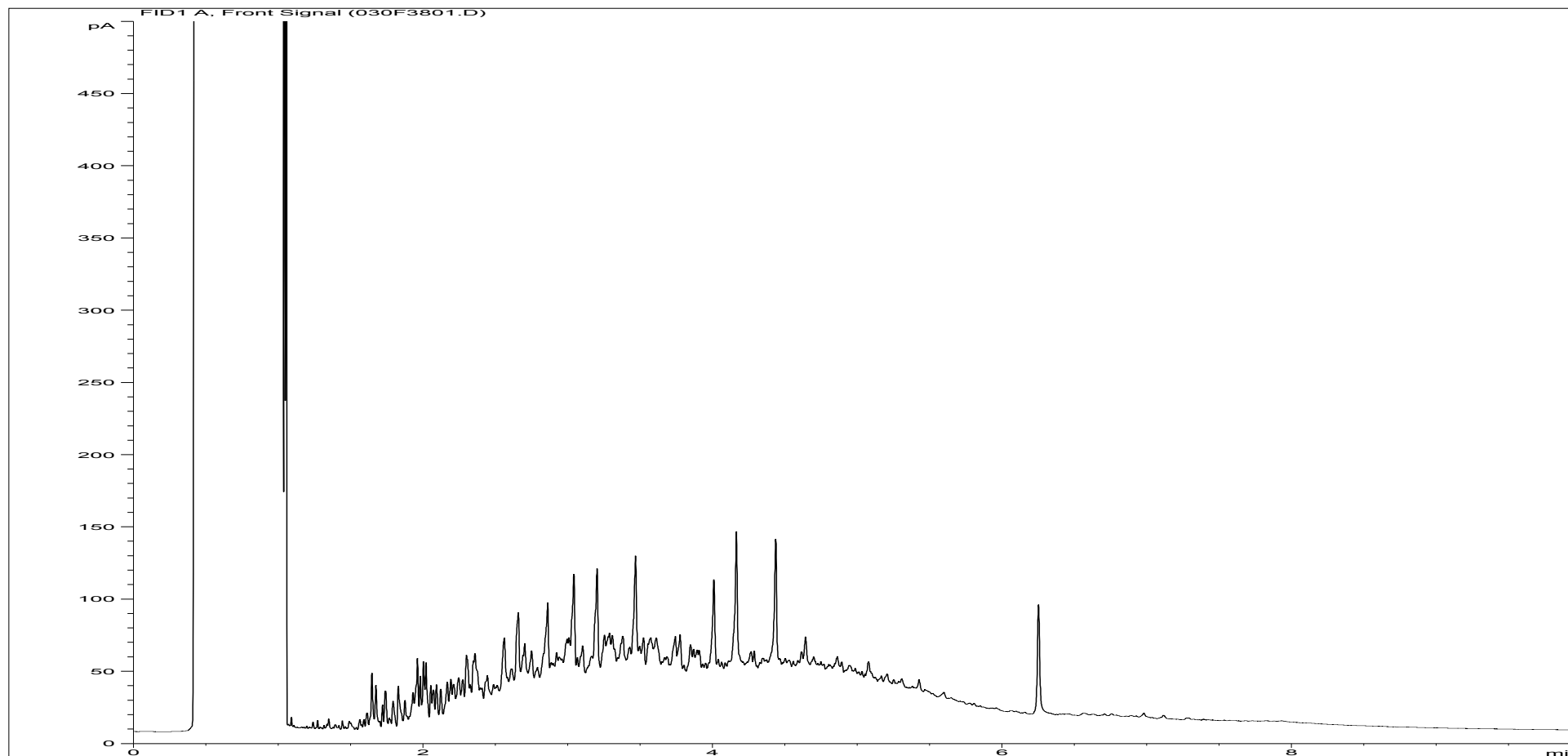
ALIPHATIC / AROMATIC FRACTION BY GC/FID

Customer and Site Details: Waterman EED : Upper Heyford
Job Number: W13_4848
QC Batch Number: 289
Directory: D:\TES\DATA\Y2012\041812TPH_GC15\041812 2012-04-18 10-52-48\080B3901.D
Method: Ultra Sonic

Matrix: Water
Date Booked in: 10-Apr-12
Date Extracted: 17-Apr-12
Date Analysed: 18-Apr-12, 22:16:17

| * This sample data is not UKAS accredited. | | Concentration, (mg/l) | | | | | | | | | | | |
|--|-----------|-----------------------|-----------|------------|-----------|------------|-----------|------------|-----------|------------|-----------|------------|-----------|
| | | >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 |
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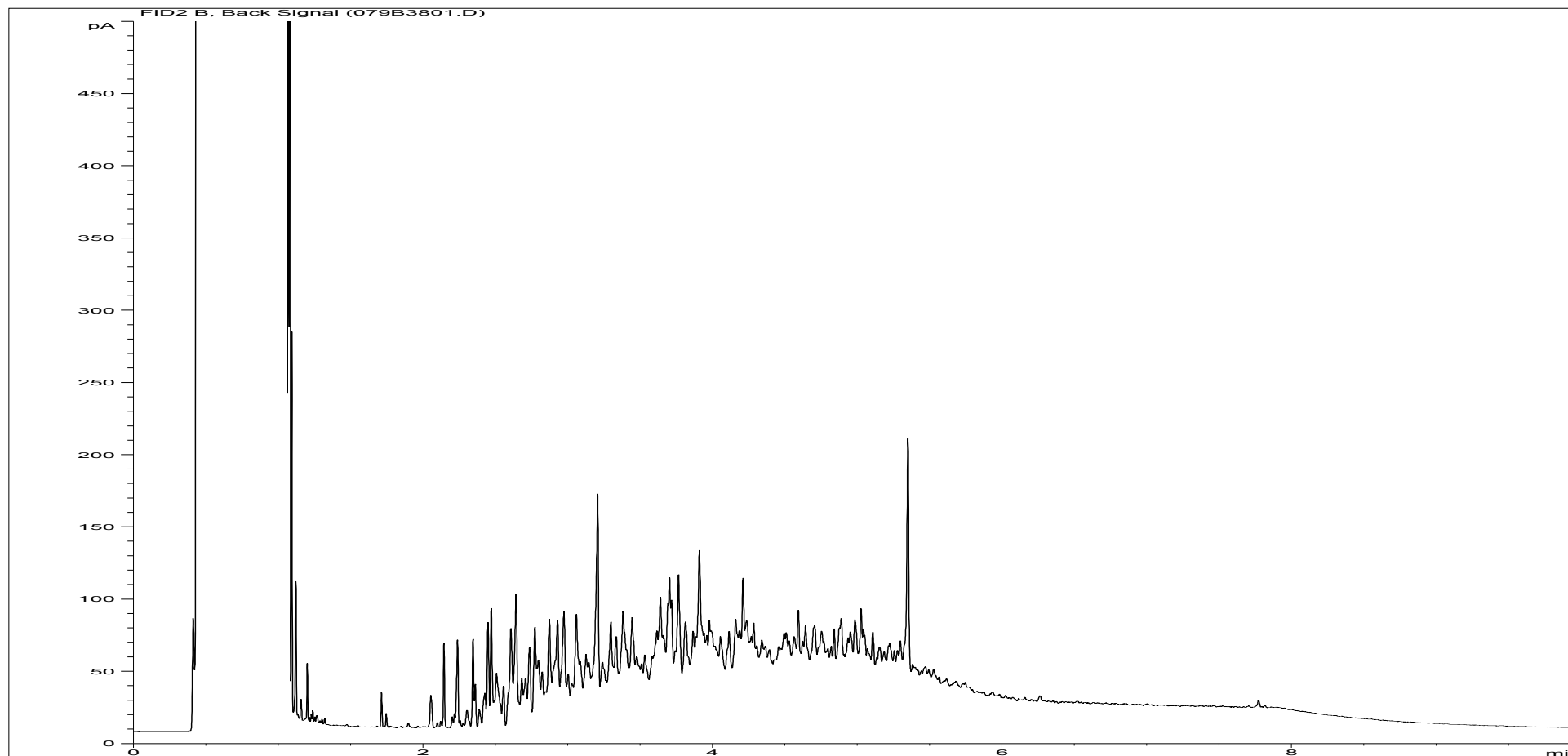
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1284927ALI | Job Number: | W13_4848 |
| Multiplier: | 0.019 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

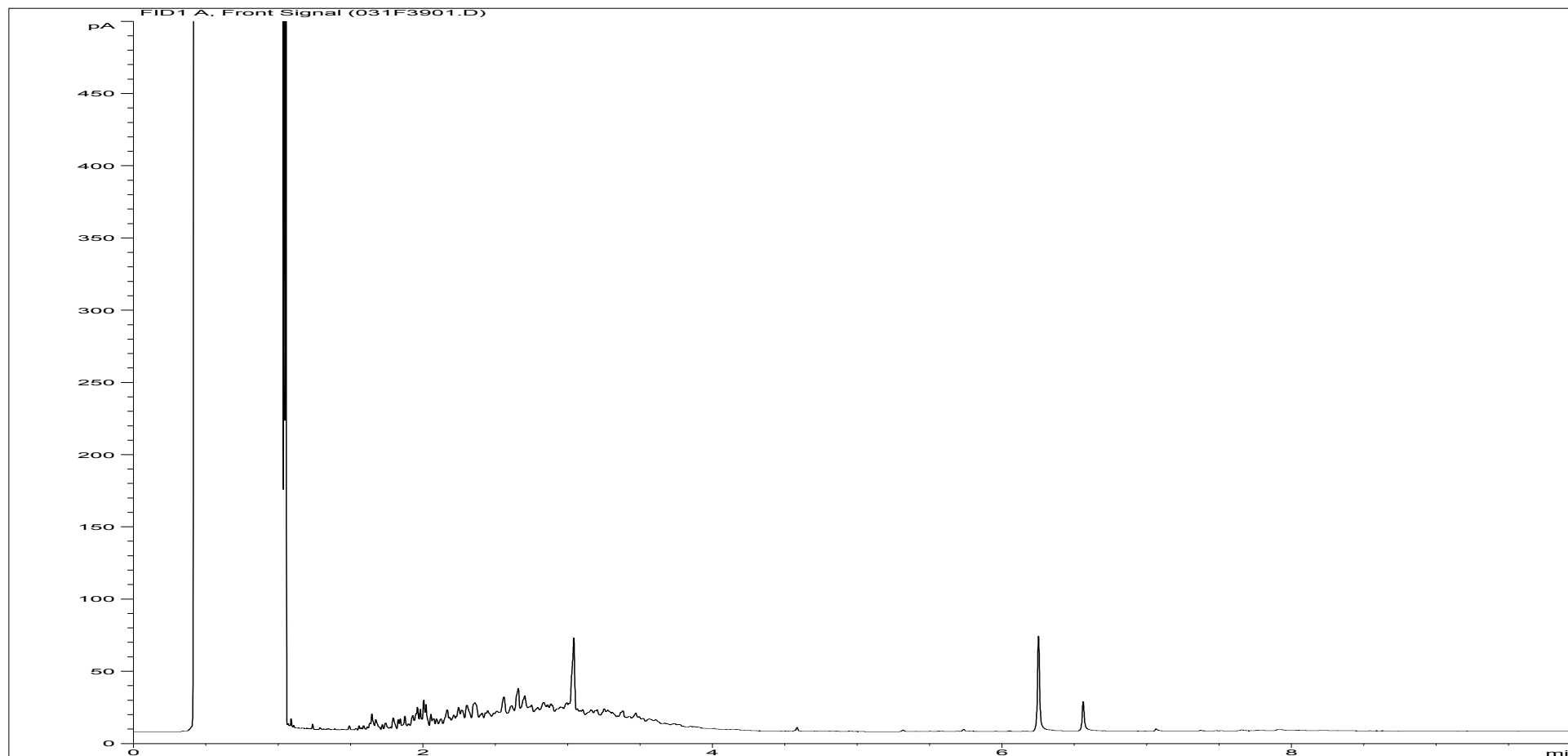
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1284927ARO | Job Number: | W13_4848 |
| Multiplier: | 0.015 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

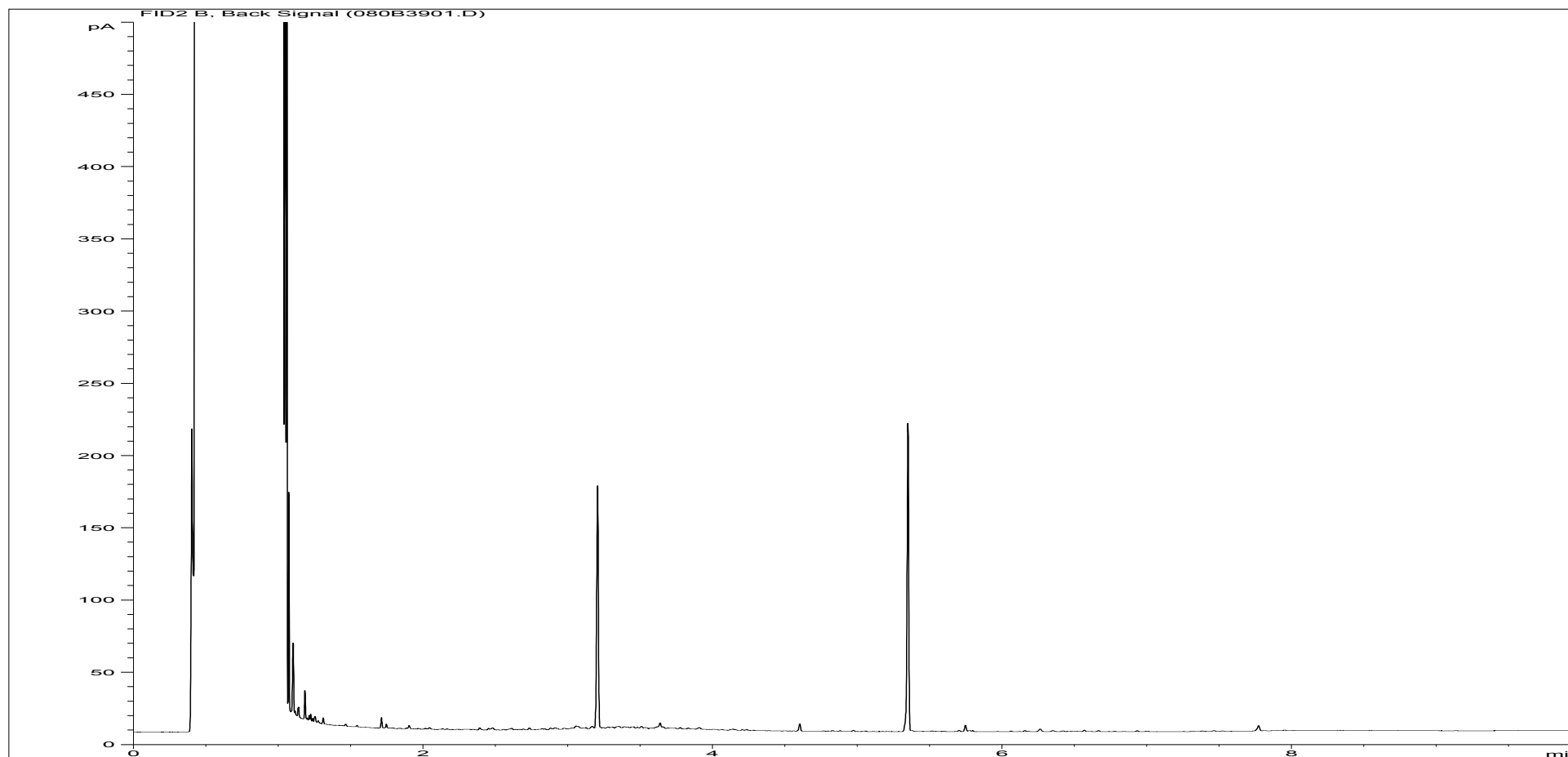
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1284928ALI | Job Number: | W13_4848 |
| Multiplier: | 0.019 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1284928ARO | Job Number: | W13_4848 |
| Multiplier: | 0.015 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

Customer Waterman EED
Site Upper Heyford
Report No W134848





Consignment No W35988
 Date Logged 10-Apr-2012

Report Due 18-Apr-2012

| ID Number | Description | MethodID | CURSERV | GROHSA | PAHMSW | TPHFI-SI |
|------------------------|-------------|----------|----------|---------------------|----------|----------------|
| | | Sampled | Report A | GRO-HSA GC/FID (AA) | MTBE-HSA | PAH GC-MS (16) |
| Accredited to ISO17025 | | | | ✓ | ✓ | ✓ |
| EX/1284927 | BHNSA6 | 02/04/12 | | | E | E |
| EX/1284928 | BHNSA43 | 02/04/12 | | | 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 | |
|---|--|
| A | The sample was received in an inappropriate container for this analysis |
| B | The sample was received without the correct preservation for this analysis |
| C | Headspace present in the sample container |
| D | The sampling date was not supplied so holding time may be compromised - applicable to all analysis |
| E | 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 |

Where individual results are flagged see report notes for status.

Method Descriptions

| Matrix | MethodID | Analysis Basis | Method Description |
|--------|-----------|----------------|---|
| 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 |

Where individual results are flagged see report notes for status.

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

NAIS 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

Req Analysis requested, see attached sheets for results

▮ 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.

END OF REPORT

Where individual results are flagged see report notes for status.

Our Ref: EXR/134878 (Ver. 1)

Your Ref: E10658-109

April 18, 2012



Environmental Chemistry

ESG

Bretby Business Park

Ashby Road

Burton-on-Trent

Staffordshire

DE15 0YZ

Telephone: 01283 554400

Facsimile: 01283 554422

Mr F Alcock
Waterman EED
Waterman Environmental
Pickfords Wharf
Clink Street
London
SE1 9DG

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
Project Co-ordinator
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.

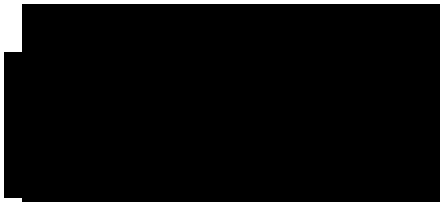
The analysis was completed by: 18-Apr-2012

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)

On behalf of
ESG :
Andrew Timms




Date of Issue: 18-Apr-2012

Tests marked '^' have been subcontracted to another laboratory.

ESG accepts no responsibility for any sampling not carried out by our personnel.

Where individual results are flagged see report notes for status.

| | | Units : | mg/l | mg/l | mg/l | mg/l | mg/l | mg/l | | | | | | | | | |
|--|---------------------------|---------------------------|-----------|-----------------|-----------|------------------|------------|-----------------------|-------------|--|--|--|--|--|--|--|--|
| | | Method Codes : | PHEHPLCVL | PHEHPLCVL | PHEHPLCVL | PHEHPLCVL | PHEHPLCVL | PHEHPLCVL | | | | | | | | | |
| | | Method Reporting Limits : | 0.0005 | 0.0005 | 0.1 | 0.0005 | 0.1 | 0.1 | | | | | | | | | |
| | | UKAS Accredited : | No | No | No | No | No | No | | | | | | | | | |
| LAB ID Number | 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 | | | | | | | | | | | | | | | |
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|  <p>Environmental Scientifics Group Bretby Business Park, Ashby Road Burton-on-Trent, Staffordshire, DE15 0YZ Tel +44 (0) 1283 554400 Fax +44 (0) 1283 554422</p> | | Client Name | | Waterman EED | | | | Water Sample Analysis | | | | | | | | | |
| | | Contact | | Mr F Alcock | | | | | | | | | | | | | |
| | | Upper Heyford | | | | | | Date Printed | 18-Apr-2012 | | | | | | | | |
| | | | | | | | | Report Number | EXR/134878 | | | | | | | | |
| Upper Heyford | | | | | | Table Number | 1 | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |

Polycyclic Aromatic Hydrocarbons GC/MS (SIM)

| | | | |
|-----------------------------------|-----------------------------|------------------------|-----------|
| Customer and Site Details: | Waterman EED: Upper Heyford | | |
| Sample Details: | BHNSA1 | Job Number: | W13_4878 |
| 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: | 1.0 | Ext Method: | Bottle |

UKAS accredited?: Yes

| Target Compounds | CAS # | R.T. (min) | Concentration ug/l | % Fit |
|------------------------|----------|---------------|-----------------------|-------|
| 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 | - | < 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 |

| Surrogates | % Rec |
|------------------|-------|
| Nitrobenzene-d5 | NA |
| 2-Fluorobiphenyl | 79 |
| 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.

Polycyclic Aromatic Hydrocarbons GC/MS (SIM)

| | | | |
|-----------------------------------|-----------------------------|------------------------|-----------|
| Customer and Site Details: | Waterman EED: Upper Heyford | | |
| Sample Details: | BHNSA12 | Job Number: | W13_4878 |
| 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.PAHL | Matrix: | Water |
| Dilution: | 1.0 | Ext Method: | Bottle |

UKAS accredited?: Yes

| Target Compounds | CAS # | R.T. (min) | Concentration ug/l | % Fit |
|------------------------|----------|---------------|-----------------------|-------|
| 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 | - | < 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 |

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: | BHNSA13 | Job Number: | W13_4878 |
| 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: | 1.0 | Ext Method: | Bottle |

UKAS accredited?: Yes

| Target Compounds | CAS # | R.T. (min) | Concentration ug/l | % Fit |
|------------------------|----------|---------------|-----------------------|-------|
| 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 | - | < 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 |

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: | BHNSA14 | Job Number: | W13_4878 |
| 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.PAHL | Matrix: | Water |
| Dilution: | 1.0 | Ext Method: | Bottle |

UKAS accredited?: Yes

| Target Compounds | CAS # | R.T. (min) | Concentration ug/l | % Fit |
|------------------------|----------|---------------|-----------------------|-------|
| 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 | - | < 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 |

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: | BHNSA15 | Job Number: | W13_4878 |
| 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: | 1.0 | Ext Method: | Bottle |

UKAS accredited?: Yes

| Target Compounds | CAS # | R.T. (min) | Concentration ug/l | % Fit |
|------------------------|----------|---------------|-----------------------|-------|
| 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 | - | < 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 |

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: | BHNSA16 | Job Number: | W13_4878 |
| 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: | 1.0 | Ext Method: | Bottle |

UKAS accredited?: Yes

| Target Compounds | CAS # | R.T. (min) | Concentration ug/l | % Fit |
|------------------------|----------|---------------|-----------------------|-------|
| 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 | - | < 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 |

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: | BHNSA20 | Job Number: | W13_4878 |
| 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.PAHL | Matrix: | Water |
| Dilution: | 1.0 | Ext Method: | Bottle |

UKAS accredited?: Yes

| Target Compounds | CAS # | R.T. (min) | Concentration ug/l | % Fit |
|------------------------|----------|---------------|-----------------------|-------|
| 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 | - | < 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 |

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: | BHNSA22 | Job Number: | W13_4878 |
| 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.PAHL | Matrix: | Water |
| Dilution: | 1.0 | Ext Method: | Bottle |

UKAS accredited?: Yes

| Target Compounds | CAS # | R.T. (min) | Concentration ug/l | % Fit |
|------------------------|----------|---------------|-----------------------|-------|
| 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 | - | < 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 |

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: | BHNSA226 | Job Number: | W13_4878 |
| 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: | 1.0 | Ext Method: | Bottle |

UKAS accredited?: Yes

| Target Compounds | CAS # | R.T. (min) | Concentration ug/l | % Fit |
|------------------------|----------|---------------|-----------------------|-------|
| 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 | - | < 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 |

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: | BHNSA12X | Job Number: | W13_4878 |
| 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: | 1.0 | Ext Method: | Bottle |

UKAS accredited?: Yes

| Target Compounds | CAS # | R.T. (min) | Concentration ug/l | % Fit |
|------------------------|----------|---------------|-----------------------|-------|
| 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 | - | < 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 | 102 |
| Chrysene-d12 | 131 |
| Perylene-d12 | 153 |

| Surrogates | % Rec |
|------------------|-------|
| Nitrobenzene-d5 | NA |
| 2-Fluorobiphenyl | 83 |
| Terphenyl-d14 | 91 |

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: BHNSA23
LIMS ID Number: EX1285050
Job Number: W13_4878

Date Booked in: 11-Apr-12
Date Extracted: 16-Apr-12
Date Analysed: 16-Apr-12

Matrix: Water
Ext Method: Sep. Funnel
Operator: SO
Directory/Quant File: 16SVOC.MS16\ 0416_CCC1B.
QC Batch Number: 58
Multiplier: 0.005
Dilution Factor: 1
GPC (Y/N): N

| 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 | - |

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 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 | 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 |

Semi-Volatile Organic Compounds

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford
Sample Details: BHNSA27
LIMS ID Number: EX1285051
Job Number: W13_4878

Date Booked in: 11-Apr-12
Date Extracted: 16-Apr-12
Date Analysed: 16-Apr-12

Matrix: Water
Ext Method: Sep. Funnel
Operator: SO
Directory/Quant File: 16SVOC.MS16\ 0416_CCC1B.
QC Batch Number: 58
Multiplier: 0.005
Dilution Factor: 1
GPC (Y/N): N

| 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 | - |

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 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 | 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 |

Semi-Volatile Organic Compounds

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford
Sample Details: BHNSA28
LIMS ID Number: EX1285052
Job Number: W13_4878

Date Booked in: 11-Apr-12
Date Extracted: 16-Apr-12
Date Analysed: 16-Apr-12

Matrix: Water
Ext Method: Sep. Funnel
Operator: SO
Directory/Quant File: 16SVOC.MS16\ 0416_CCC1B.
QC Batch Number: 58
Multiplier: 0.005
Dilution Factor: 1
GPC (Y/N): N

| 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 | - |

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 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 | 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 |

Semi-Volatile Organic Compounds

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford
Sample Details: BHNSA32
LIMS ID Number: EX1285053
Job Number: W13_4878

Date Booked in: 11-Apr-12
Date Extracted: 16-Apr-12
Date Analysed: 16-Apr-12

Matrix: Water
Ext Method: Sep. Funnel
Operator: SO
Directory/Quant File: 16SVOC.MS16\ 0416_CCC1B.
QC Batch Number: 58
Multiplier: 0.005
Dilution Factor: 1
GPC (Y/N): N

| 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 | - |

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 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 | 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 |

Semi-Volatile Organic Compounds

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford
Sample Details: BHNSA39
LIMS ID Number: EX1285054
Job Number: W13_4878

Date Booked in: 11-Apr-12
Date Extracted: 16-Apr-12
Date Analysed: 17-Apr-12

Matrix: Water
Ext Method: Sep. Funnel
Operator: SO
Directory/Quant File: 16SVOC.MS16\ 0416_CCC1B.
QC Batch Number: 58
Multiplier: 0.005
Dilution Factor: 1
GPC (Y/N): N

| 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 | - |

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 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 | 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 |

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: Water
Date Booked in: 11-Apr-12
Date extracted: 16-Apr-12
Date Analysed: 17-Apr-12, 01:36:01

* Sample data with an asterisk are not UKAS accredited.

| Sample ID | Client ID | Concentration, (mg/l) | | | | | Aliphatics | | | | |
|-------------|-----------|-----------------------|---------|---------------|------------|----------|------------|----------|----------|-----------|-----------|
| | | 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 |
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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

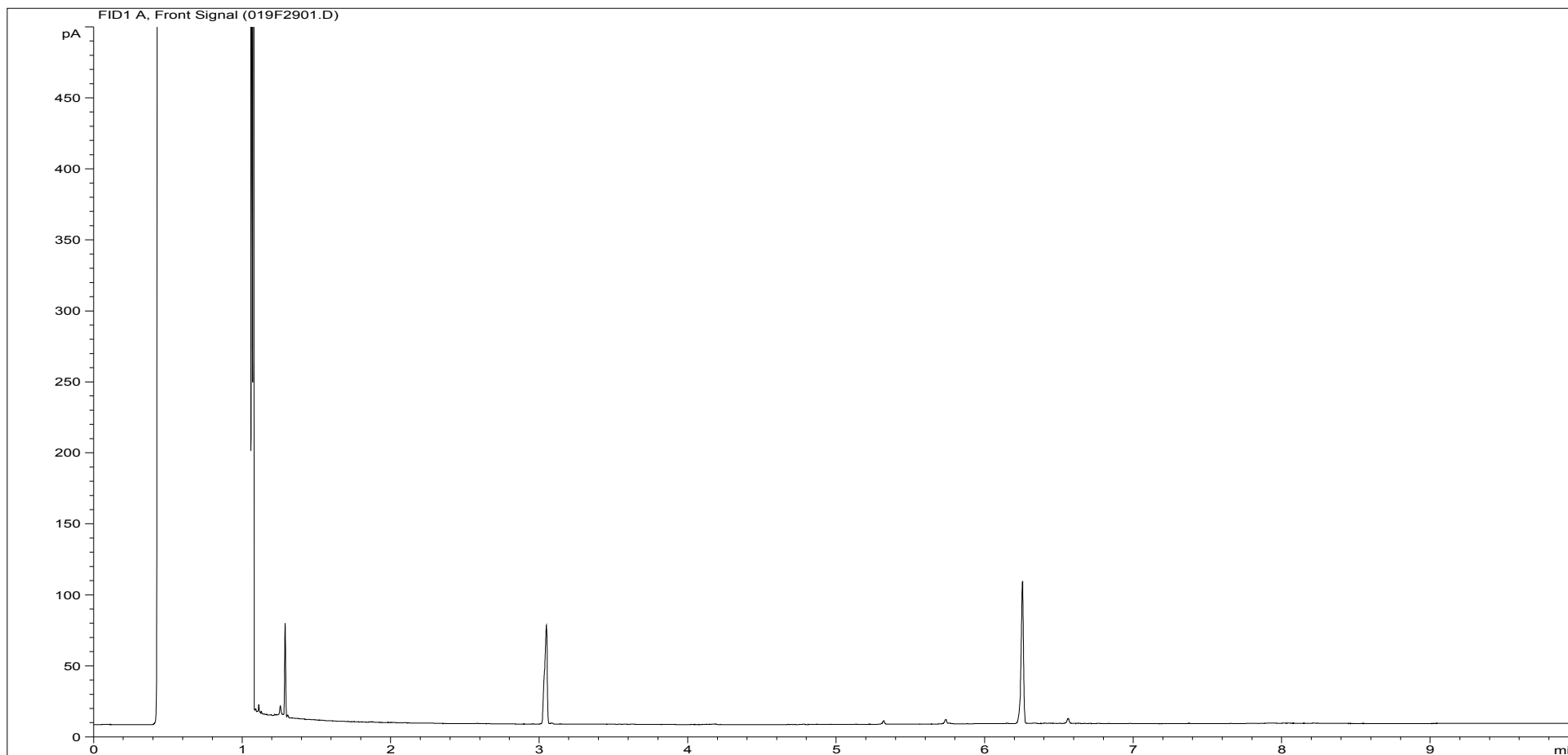
ALIPHATIC / AROMATIC FRACTION BY GC/FID

Customer and Site Details: Waterman EED : Upper Heyford
Job Number: W13_4878
QC Batch Number: 120282
Directory: D:\TES\DATA\Y2012\041612TPH_GC15\041612 2012-04-16 08-18-57\091B4701.D
Method: Bottle

Matrix: Water
Date Booked in: 11-Apr-12
Date Extracted: 14-Apr-12
Date Analysed: 16-Apr-12, 21:18:05

| | | 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 |
| 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 |
| | | | | | | | | | | | | | |
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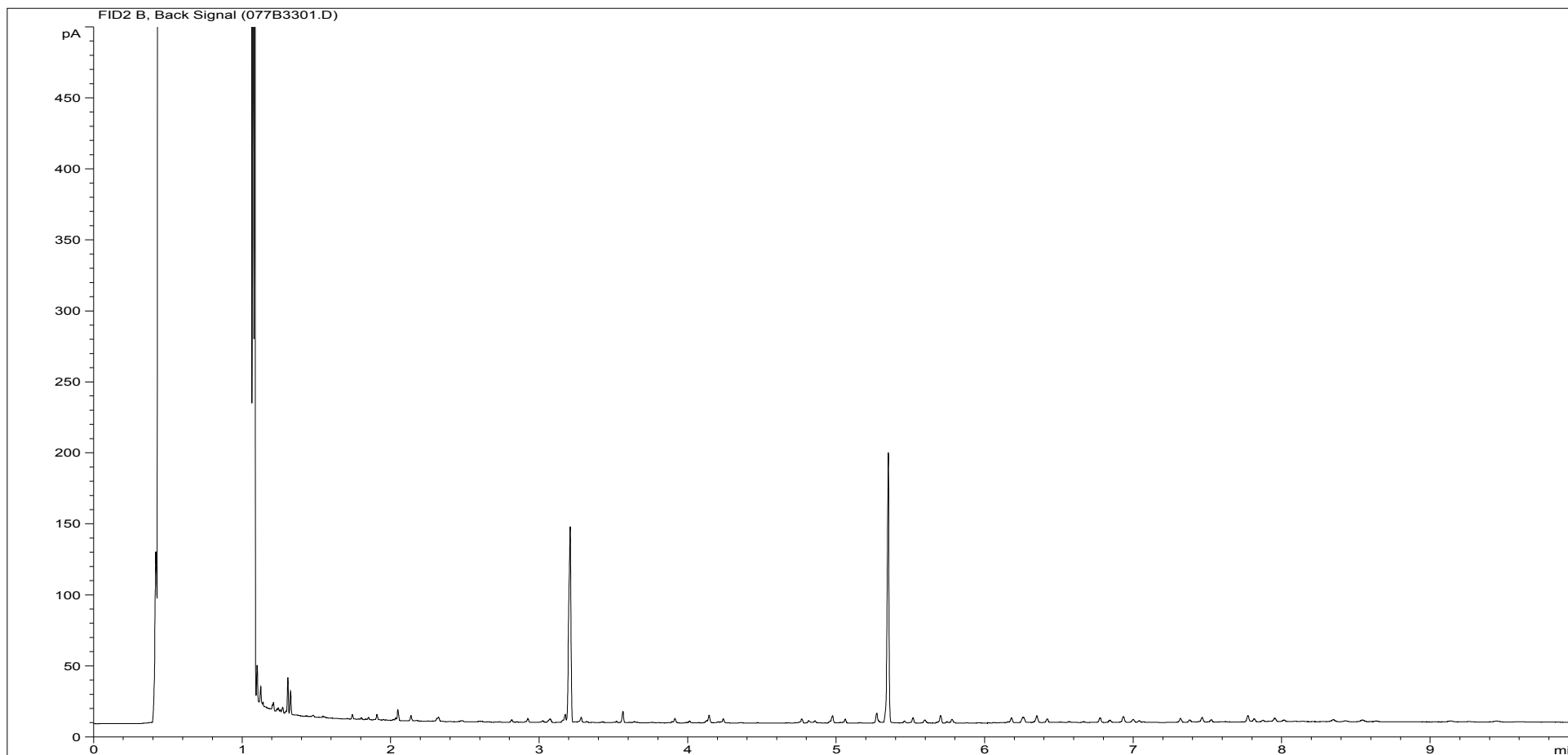
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1285042ALI | Job Number: | W13_4878 |
| Multiplier: | 0.02 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

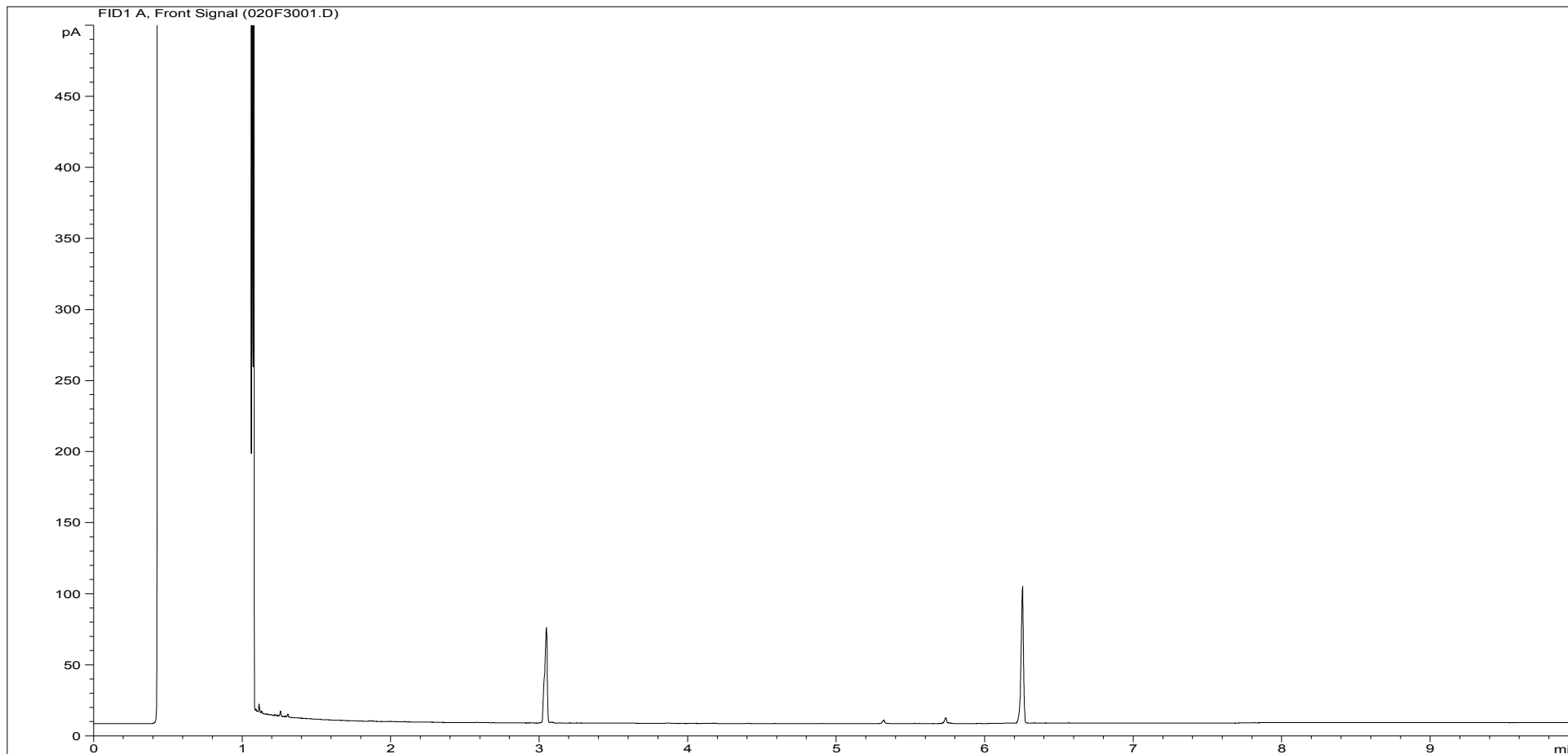
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1285042ARO | Job Number: | W13_4878 |
| Multiplier: | 0.016 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

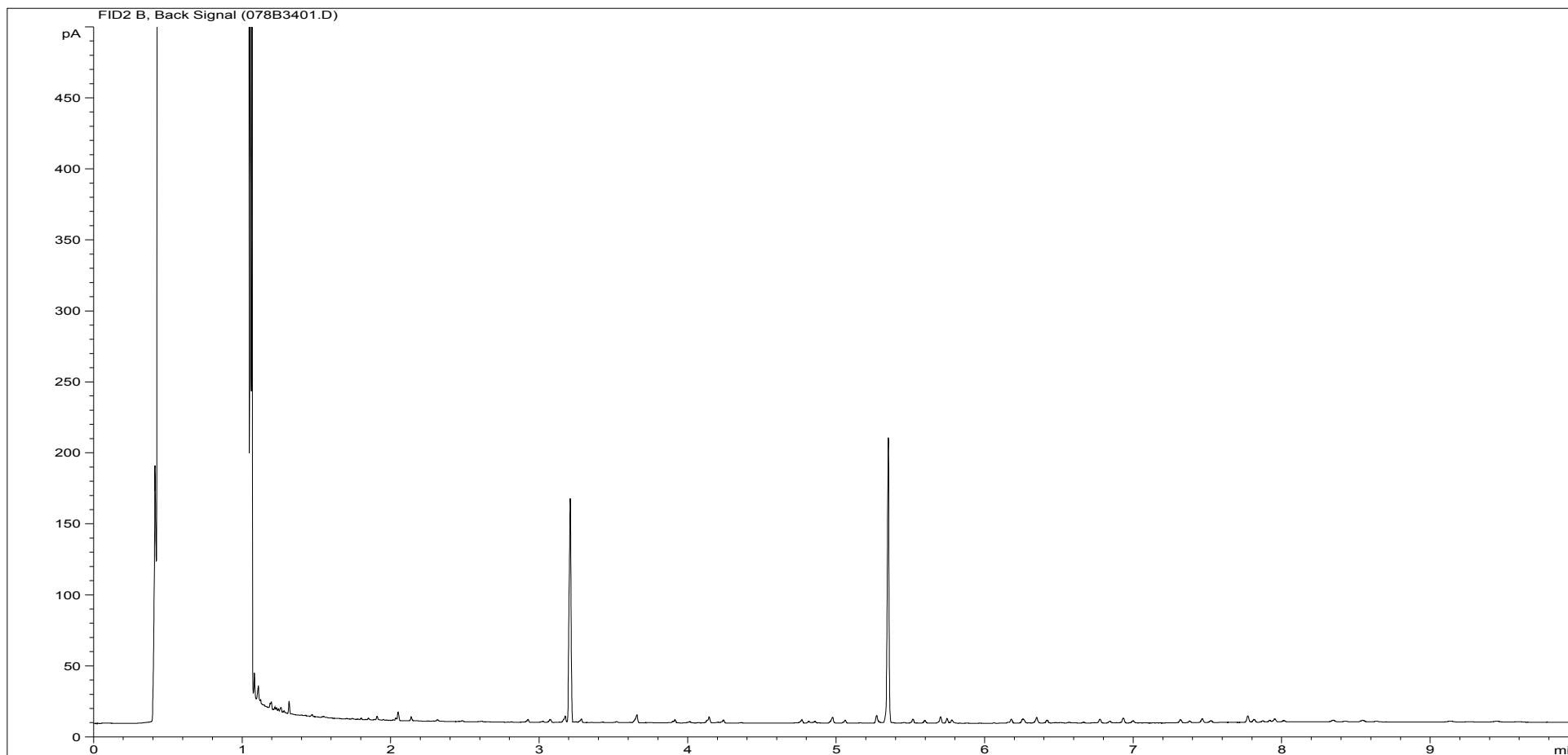
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1285043ALI | Job Number: | W13_4878 |
| Multiplier: | 0.02 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

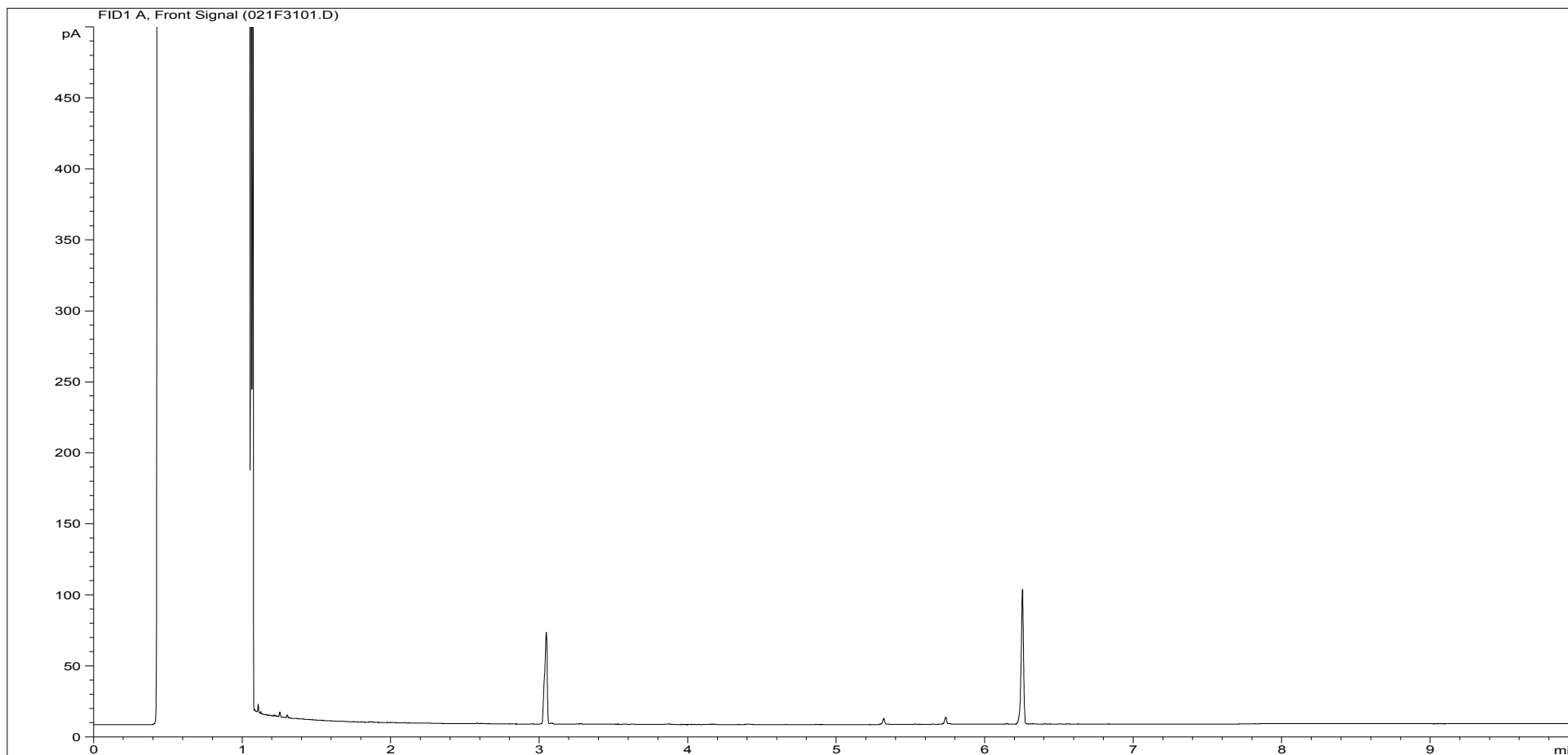
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1285043ARO | Job Number: | W13_4878 |
| Multiplier: | 0.016 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

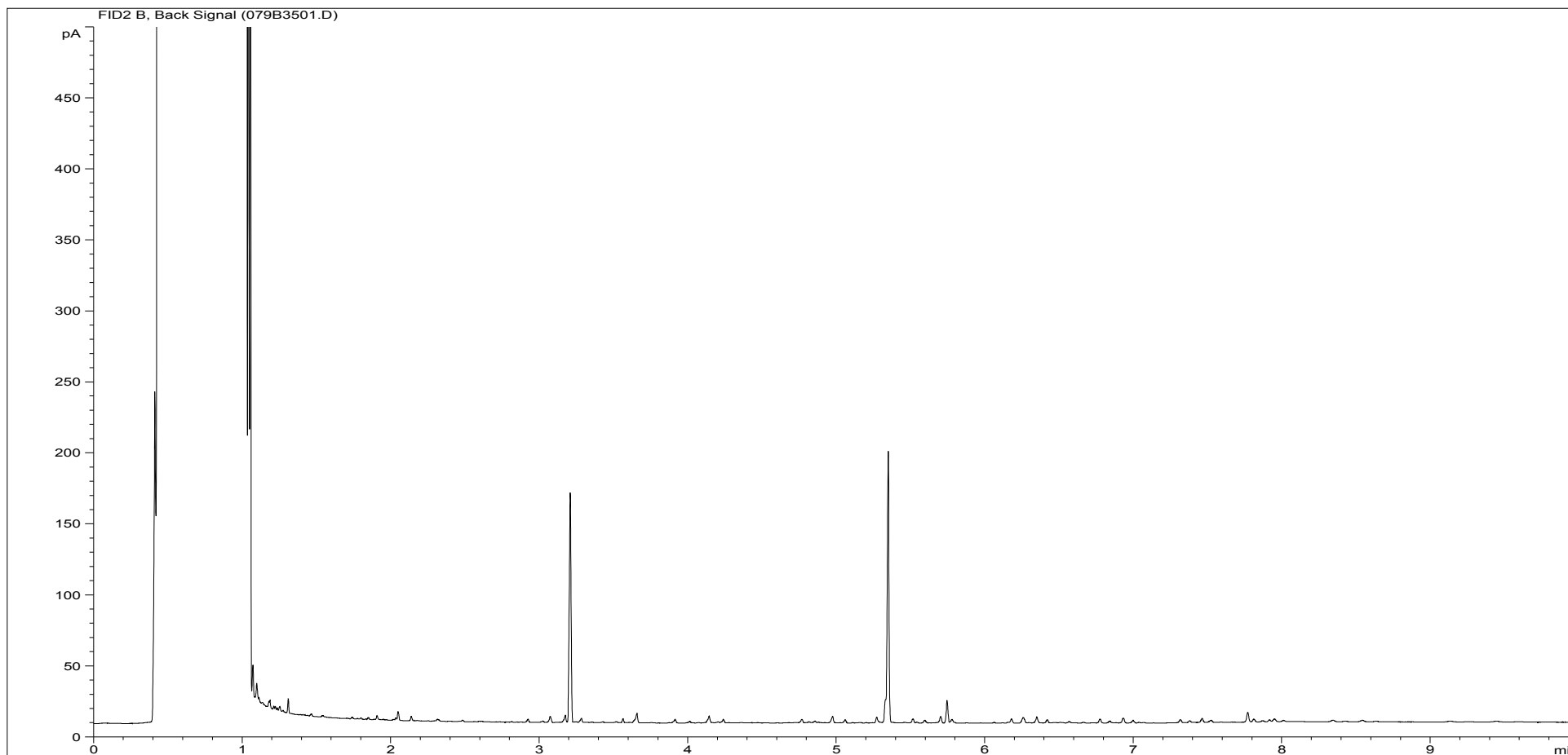
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1285044ALI | Job Number: | W13_4878 |
| Multiplier: | 0.019 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client Sample Ref: | BHNSA13 |
| 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 | | |

Where individual results are flagged see report notes for status.

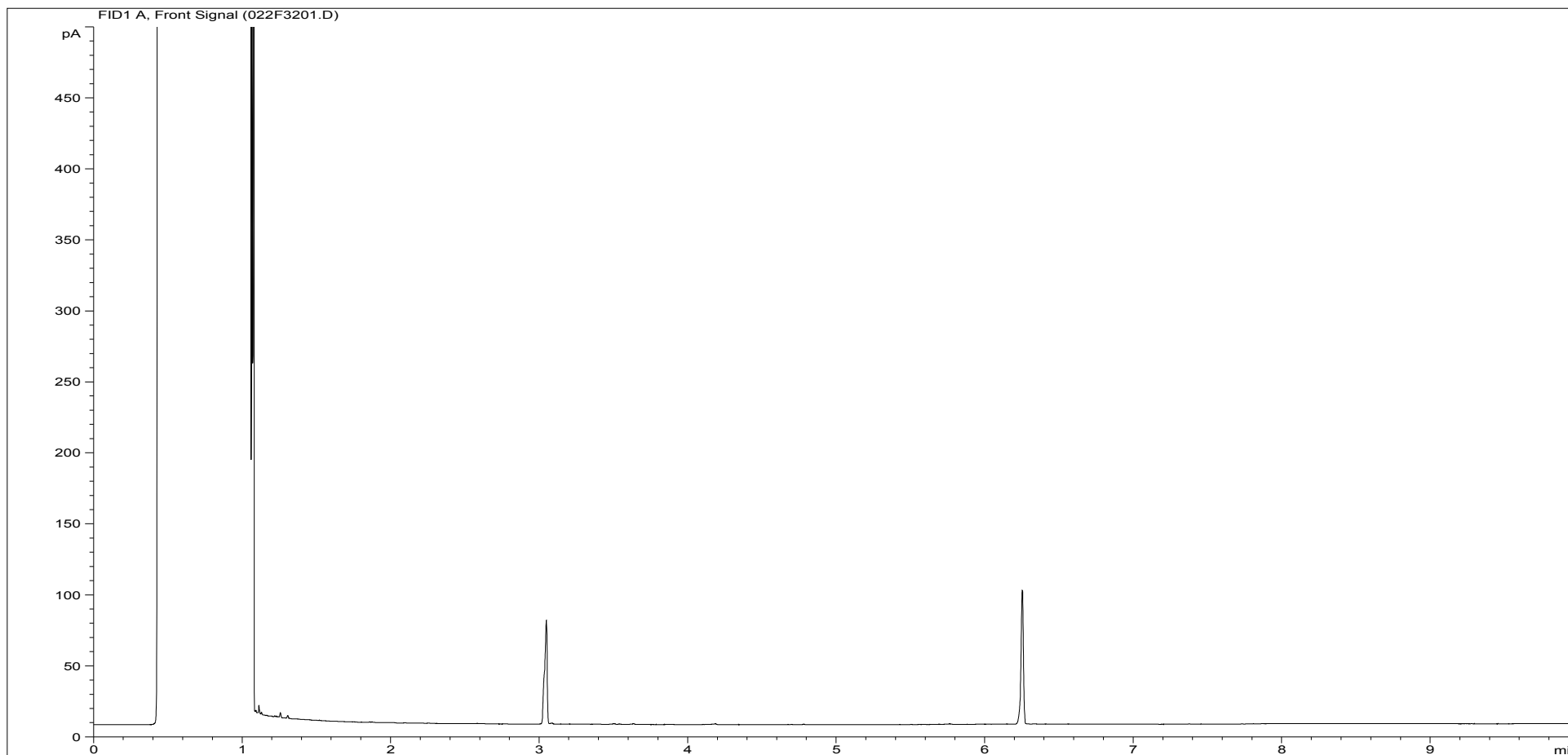
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1285044ARO | Job Number: | W13_4878 |
| Multiplier: | 0.016 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

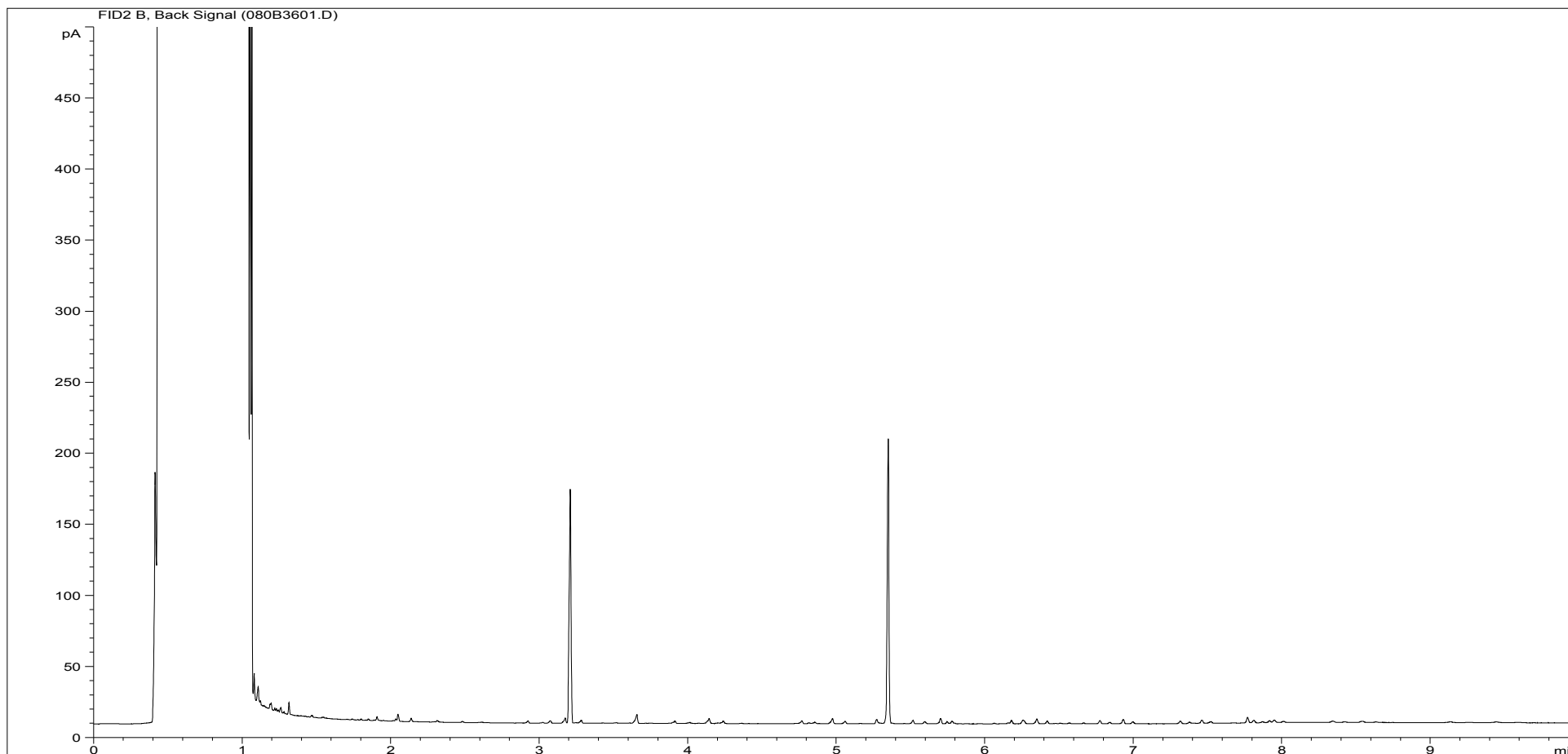
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1285045ALI | Job Number: | W13_4878 |
| Multiplier: | 0.019 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client Sample Ref: | BHNSA14 |
| 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 | | |

Where individual results are flagged see report notes for status.

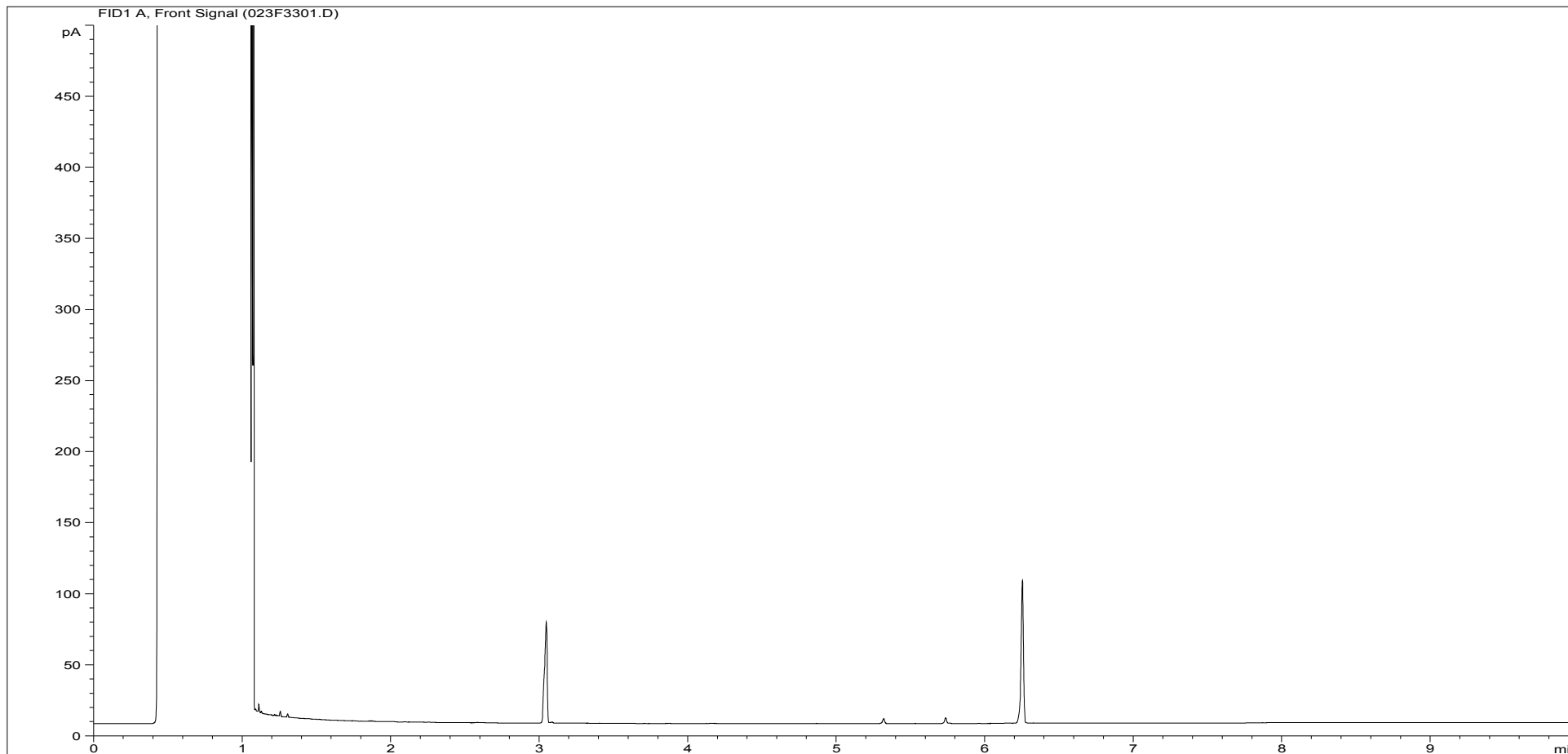
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1285045ARO | Job Number: | W13_4878 |
| Multiplier: | 0.015 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

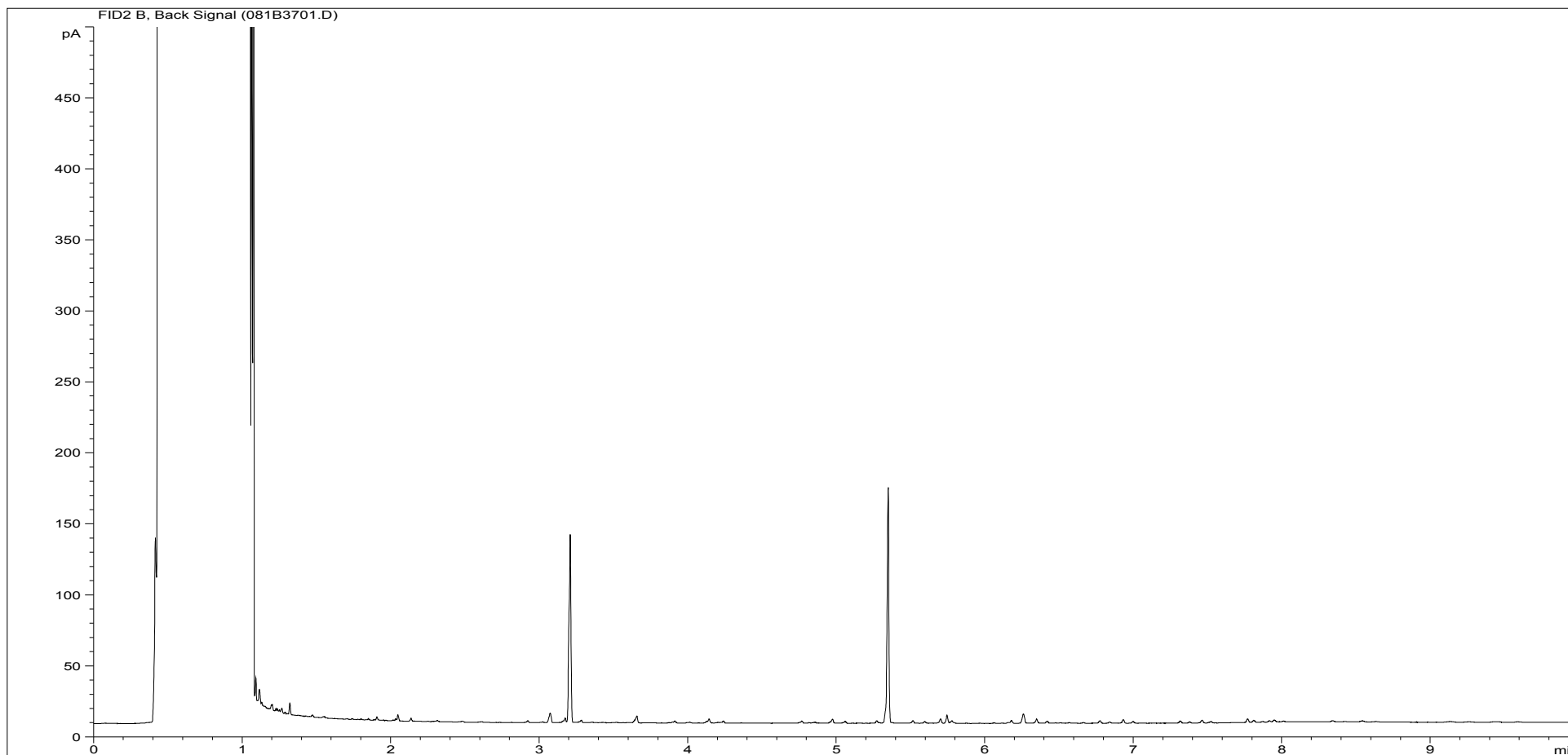
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1285046ALI | Job Number: | W13_4878 |
| Multiplier: | 0.019 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

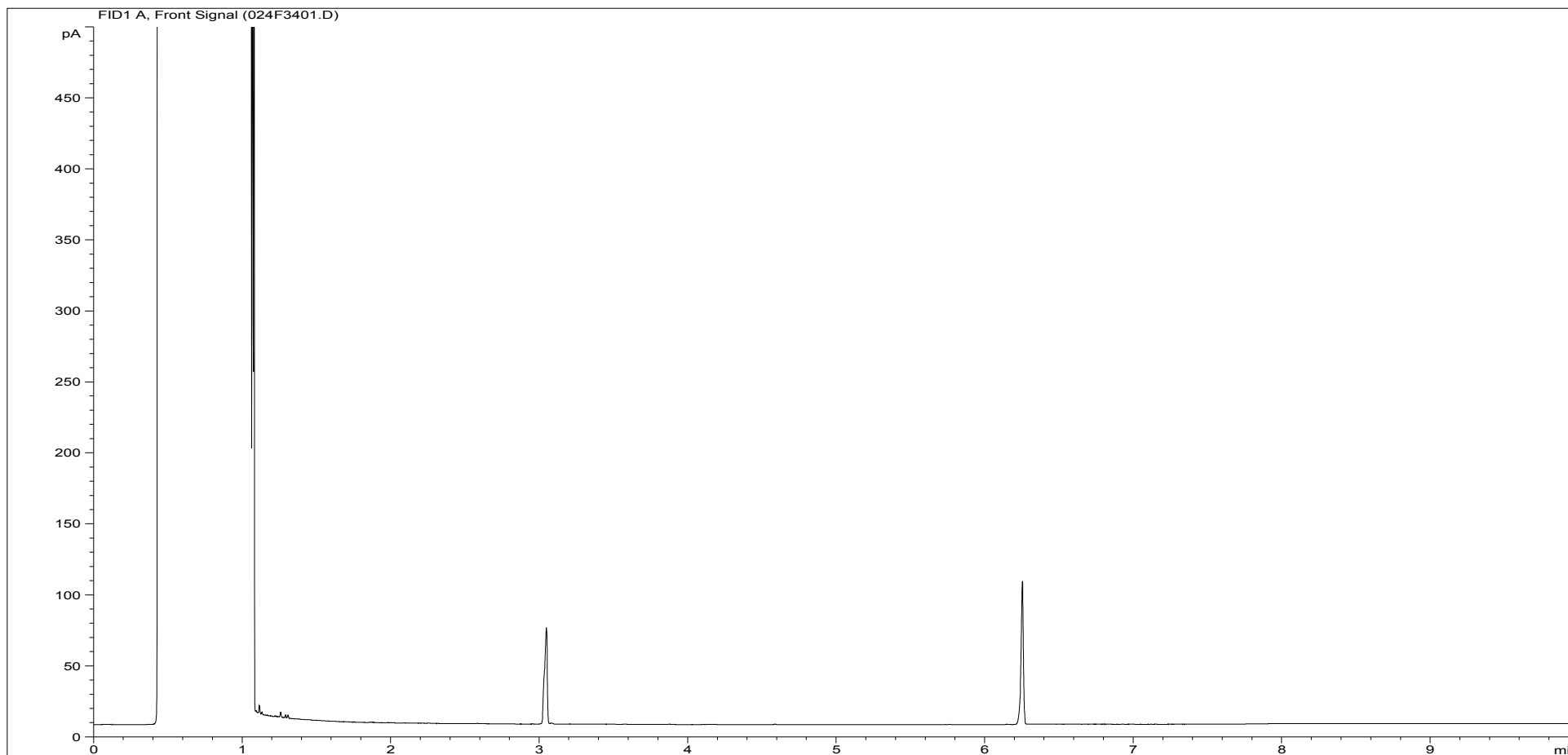
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1285046ARO | Job Number: | W13_4878 |
| Multiplier: | 0.015 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

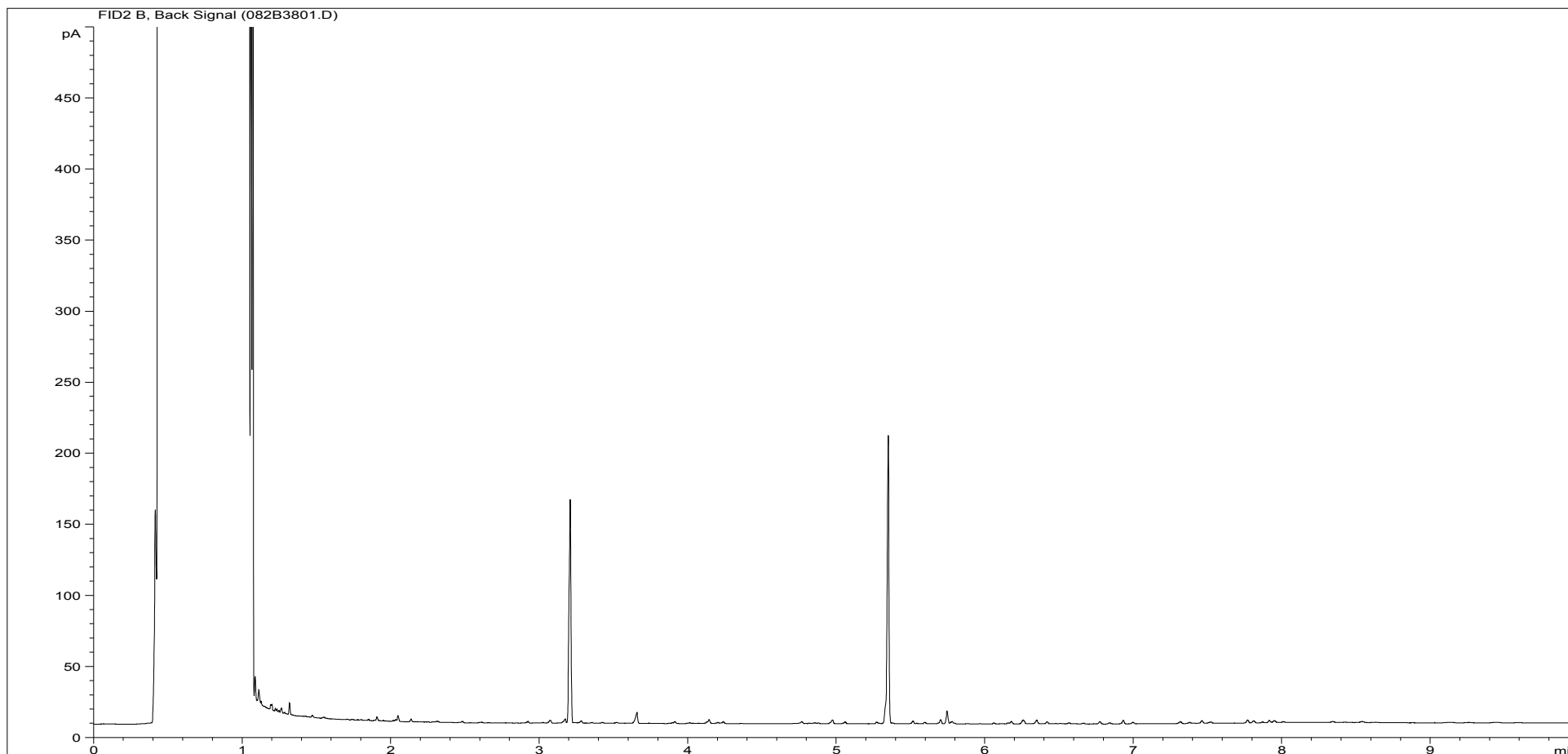
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1285047ALI | Job Number: | W13_4878 |
| Multiplier: | 0.019 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

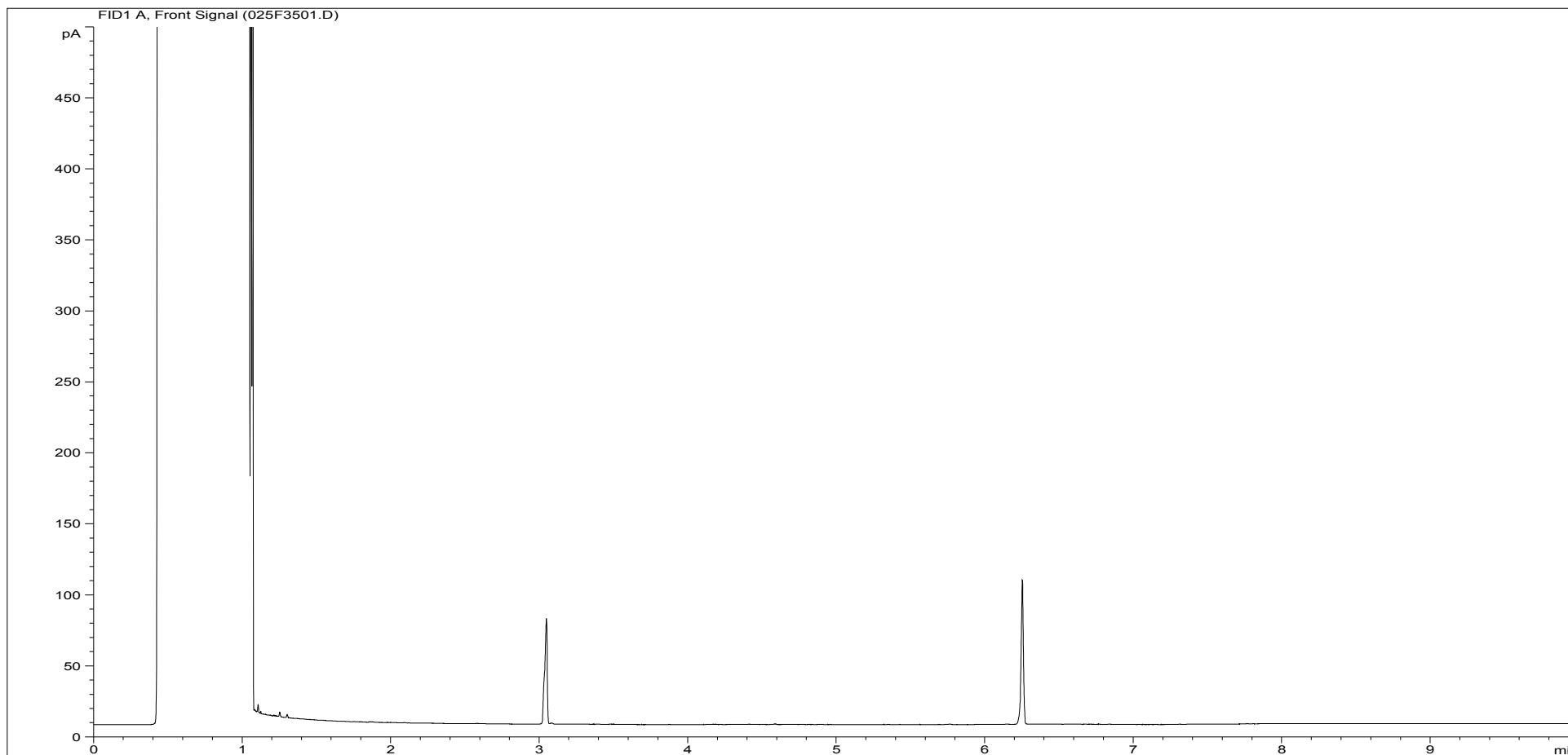
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1285047ARO | Job Number: | W13_4878 |
| Multiplier: | 0.015 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

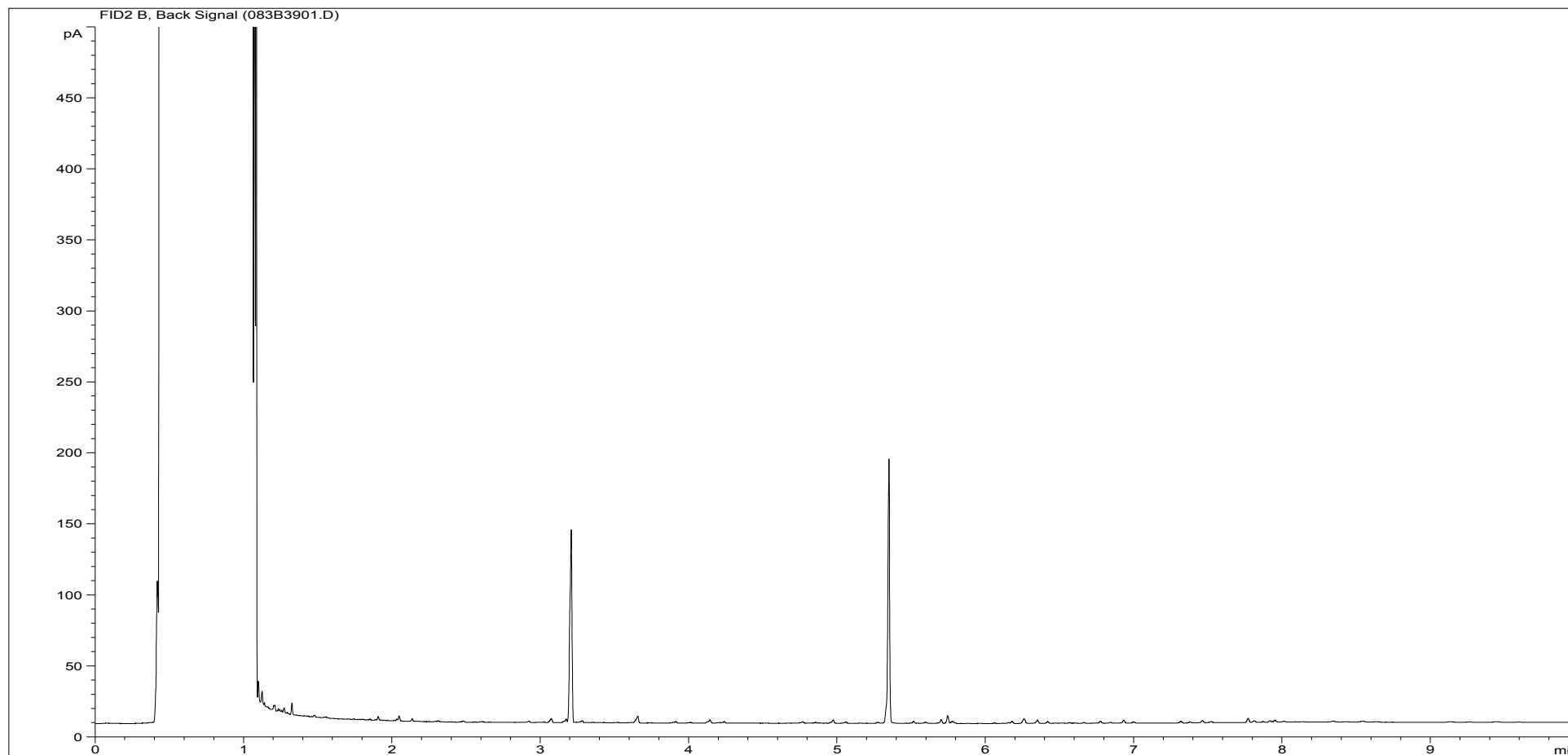
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1285048ALI | Job Number: | W13_4878 |
| Multiplier: | 0.019 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

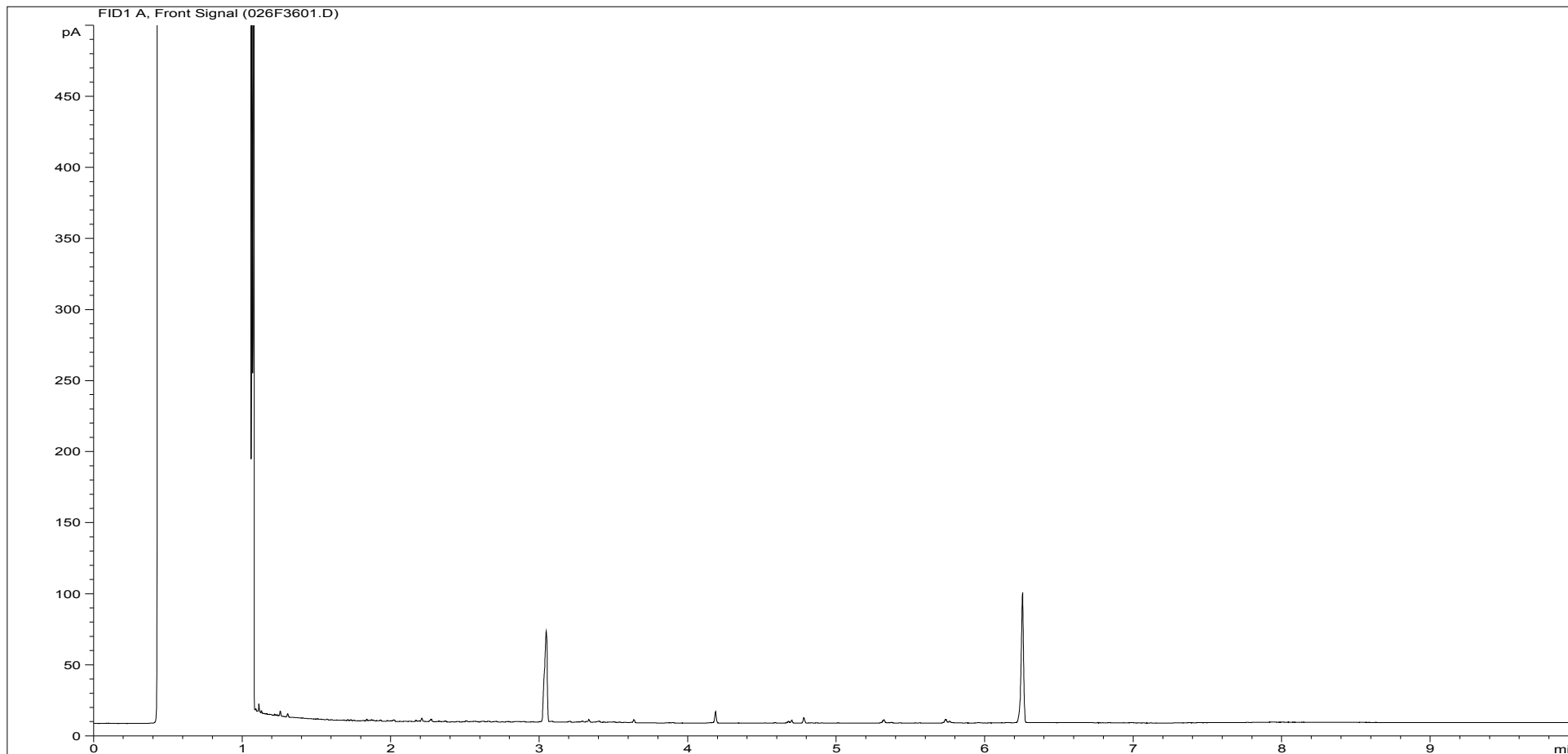
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1285048ARO | Job Number: | W13_4878 |
| Multiplier: | 0.015 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

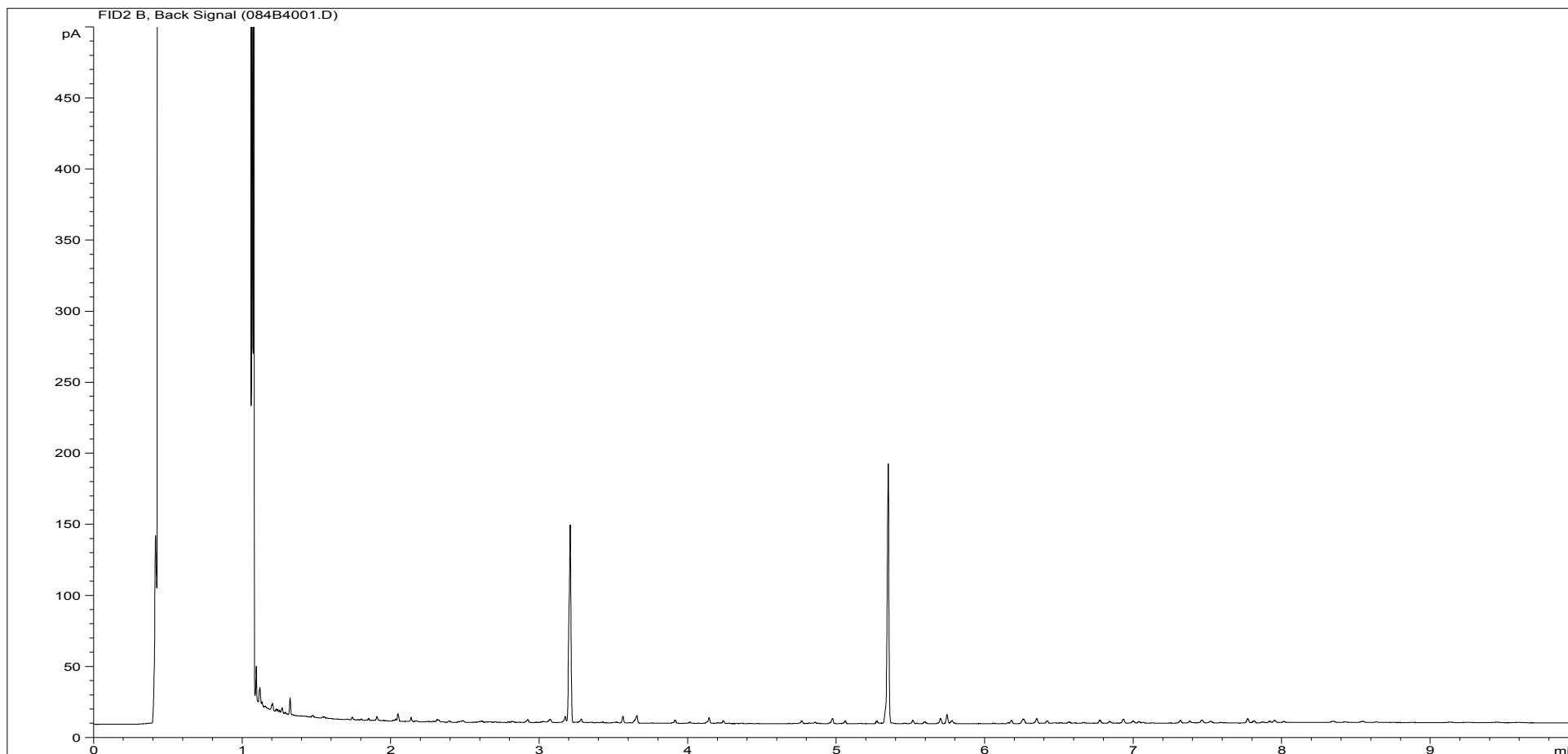
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1285049ALI | Job Number: | W13_4878 |
| Multiplier: | 0.019 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

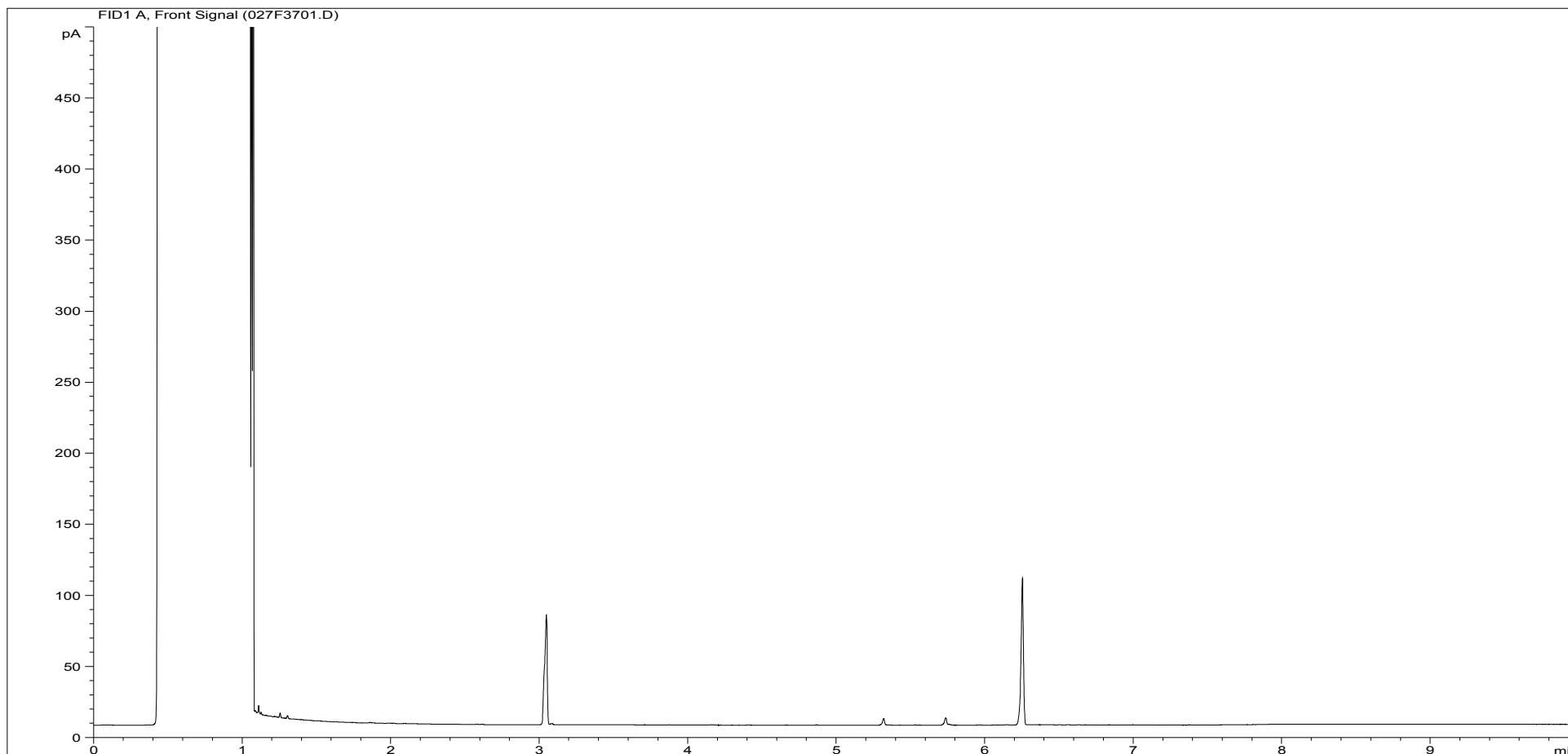
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1285049ARO | Job Number: | W13_4878 |
| Multiplier: | 0.015 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

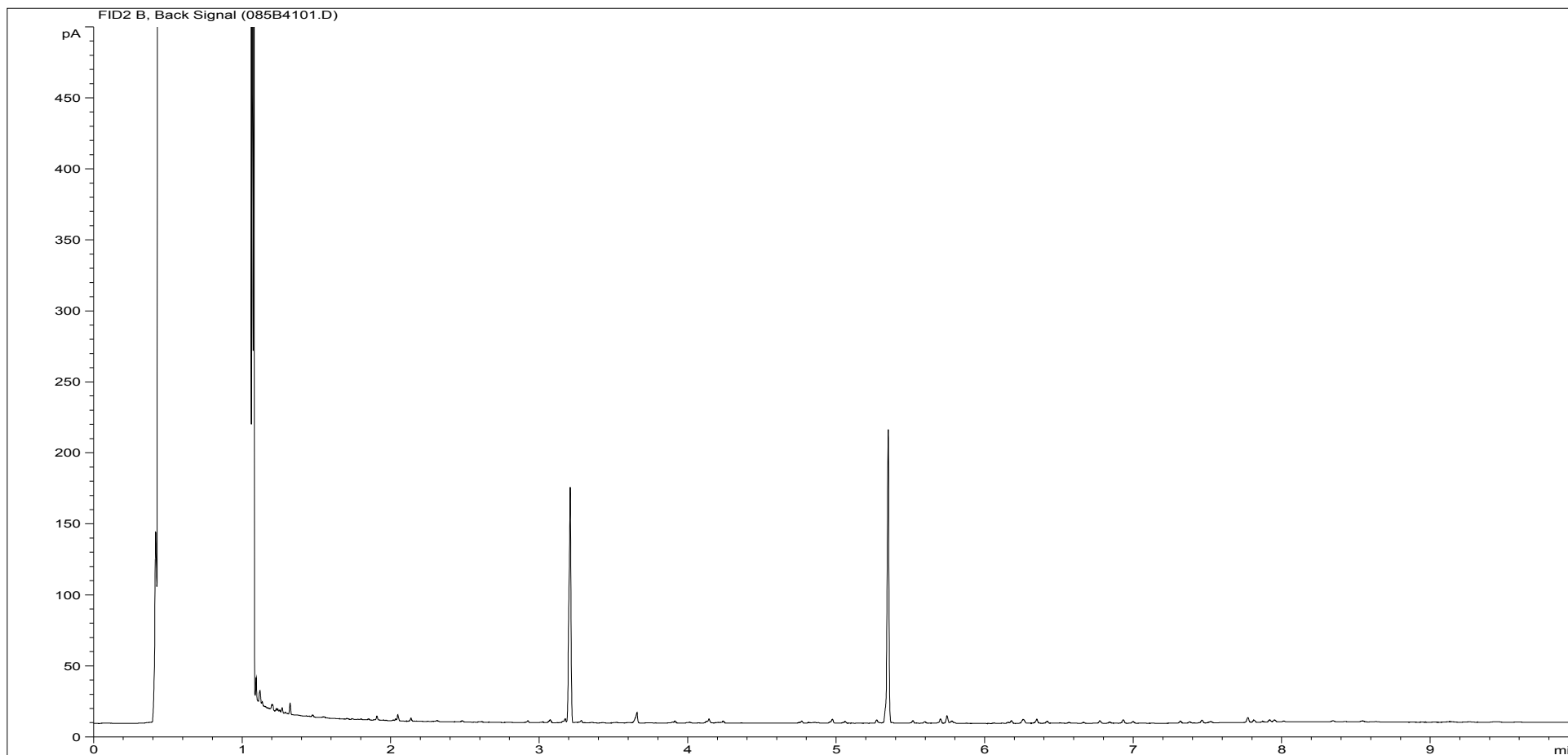
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1285050ALI | Job Number: | W13_4878 |
| Multiplier: | 0.02 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

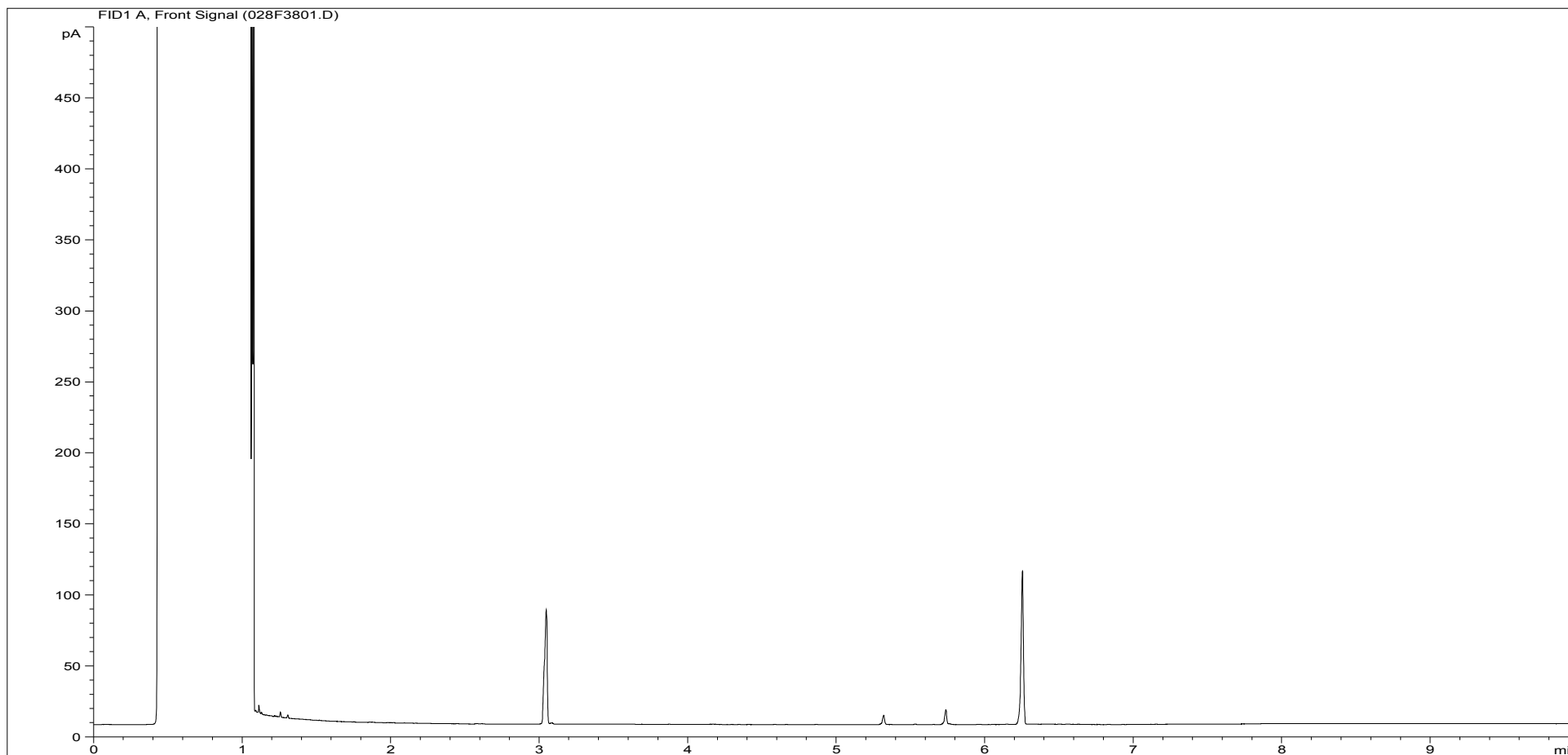
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1285050ARO | Job Number: | W13_4878 |
| Multiplier: | 0.015 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

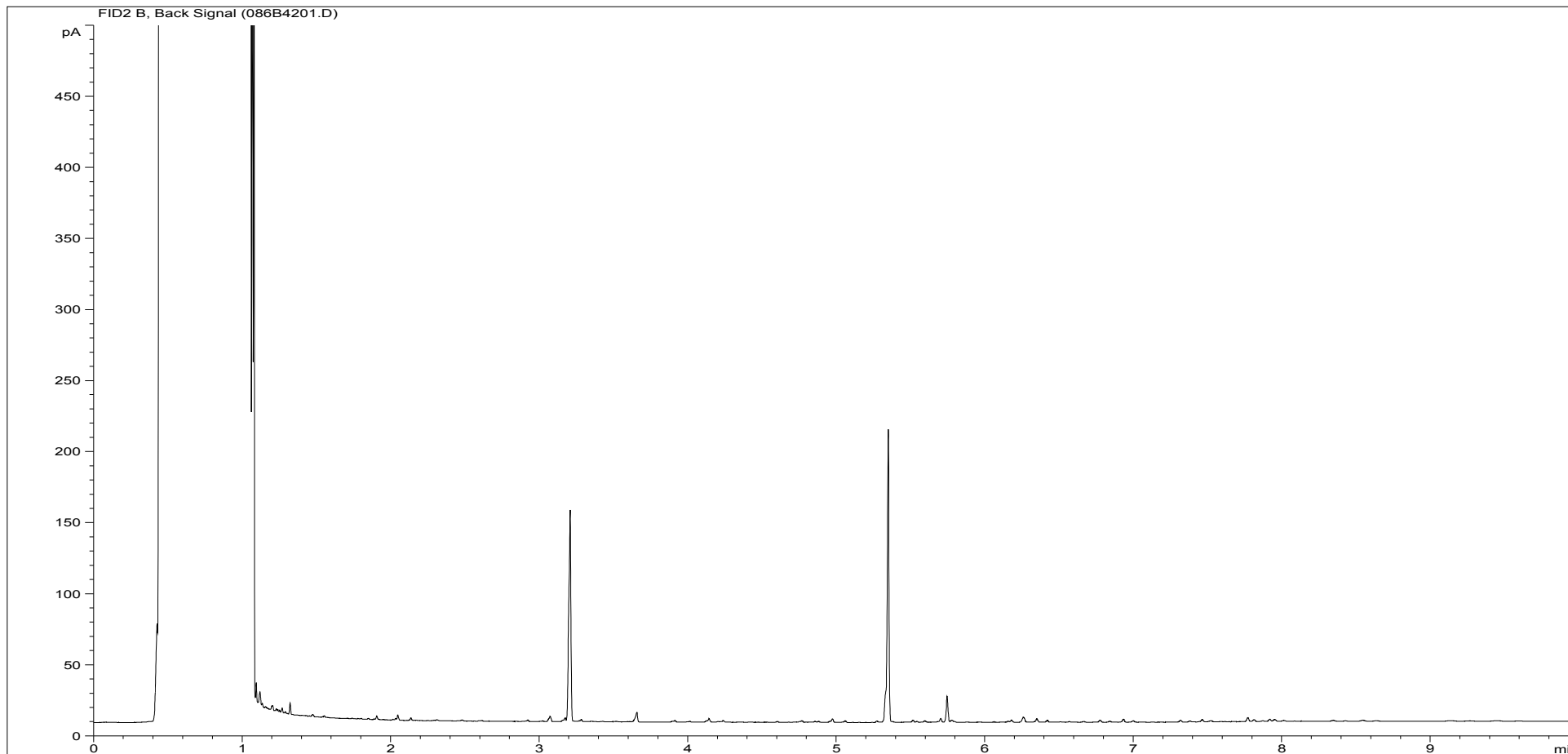
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1285051ALI | Job Number: | W13_4878 |
| Multiplier: | 0.02 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client Sample Ref: | BHNSA27 |
| 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 | | |

Where individual results are flagged see report notes for status.

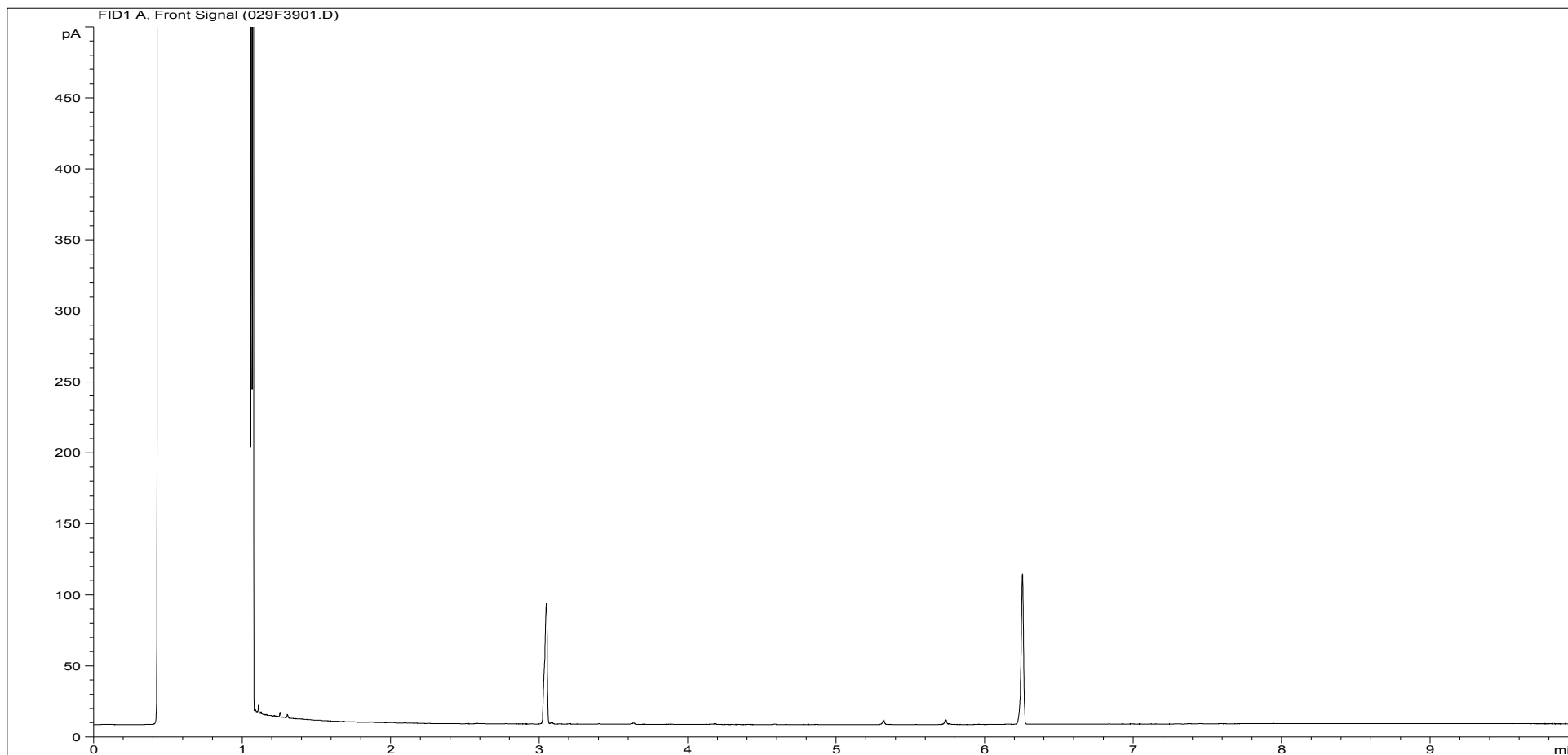
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1285051ARO | Job Number: | W13_4878 |
| Multiplier: | 0.015 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | 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 | | |

Where individual results are flagged see report notes for status.

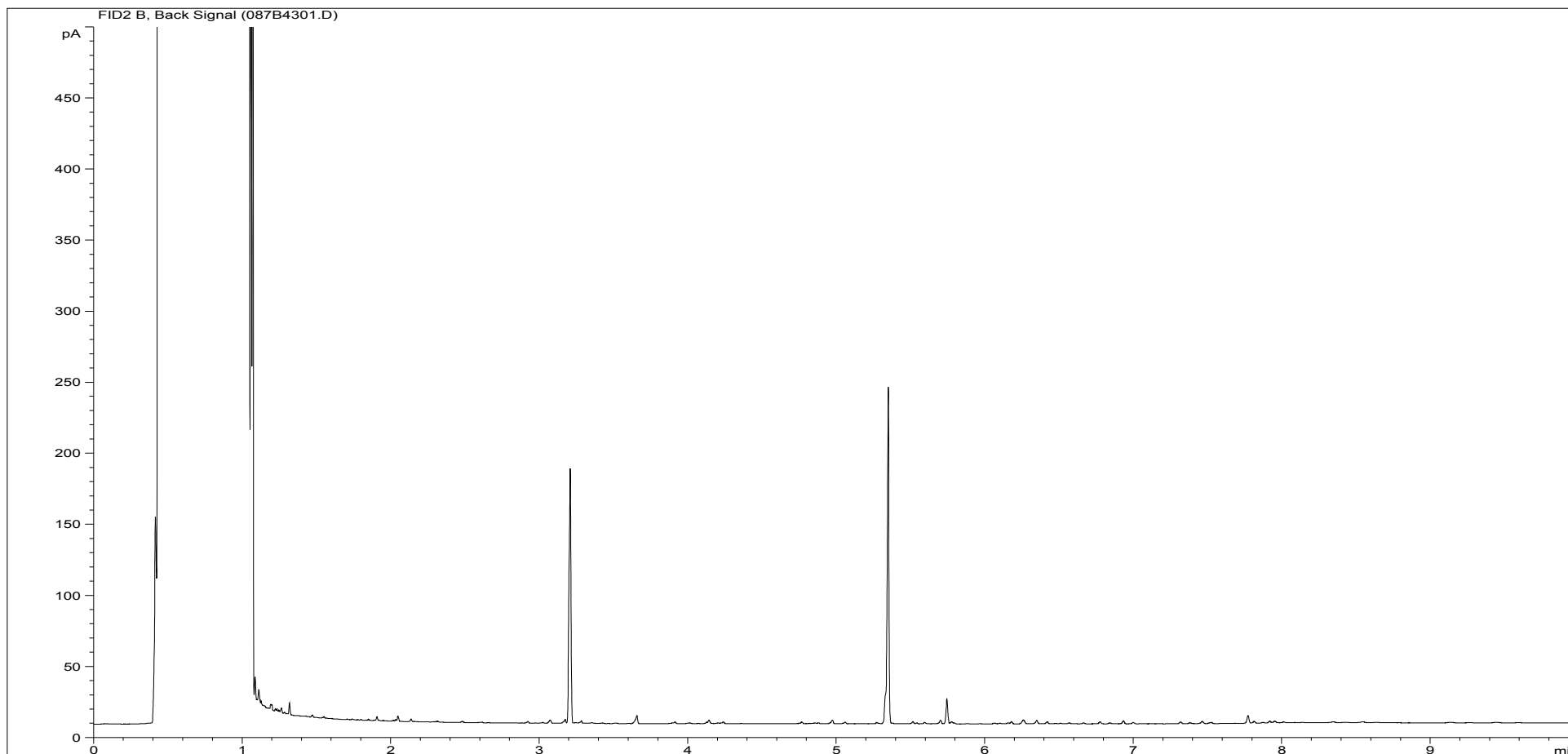
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1285052ALI | Job Number: | W13_4878 |
| Multiplier: | 0.02 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

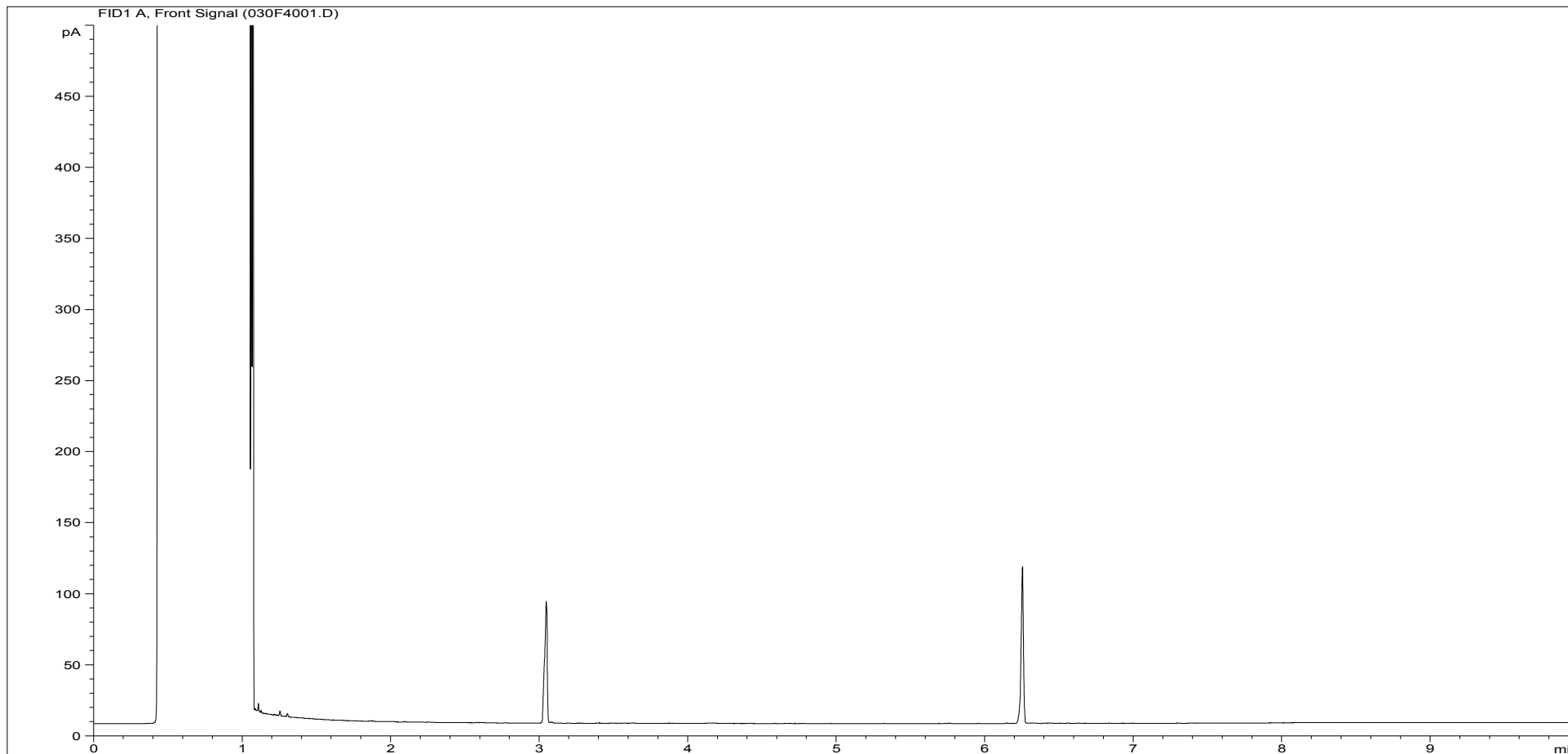
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1285052ARO | Job Number: | W13_4878 |
| Multiplier: | 0.015 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

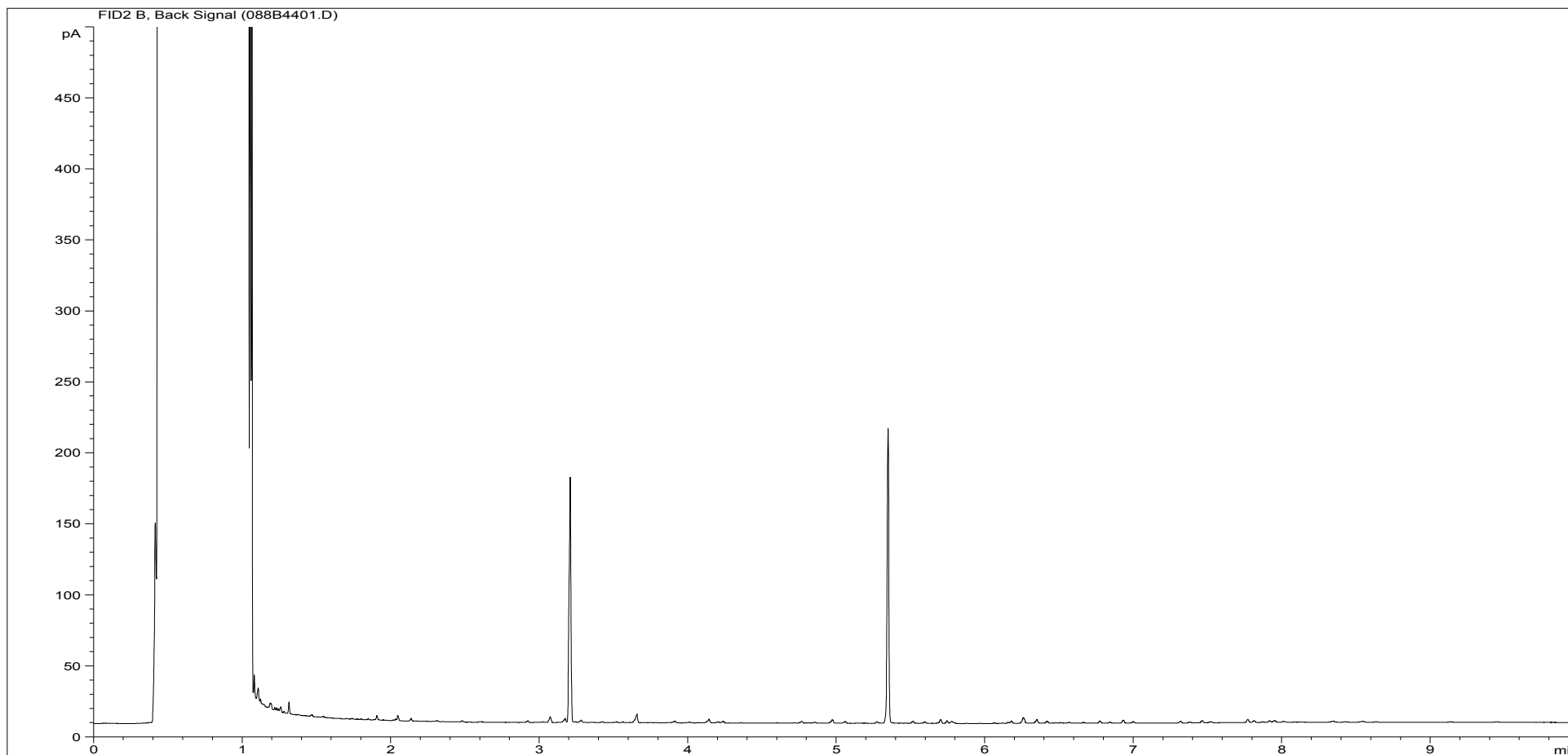
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1285053ALI | Job Number: | W13_4878 |
| Multiplier: | 0.02 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client Sample Ref: | BHNSA32 |
| 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 | | |

Where individual results are flagged see report notes for status.

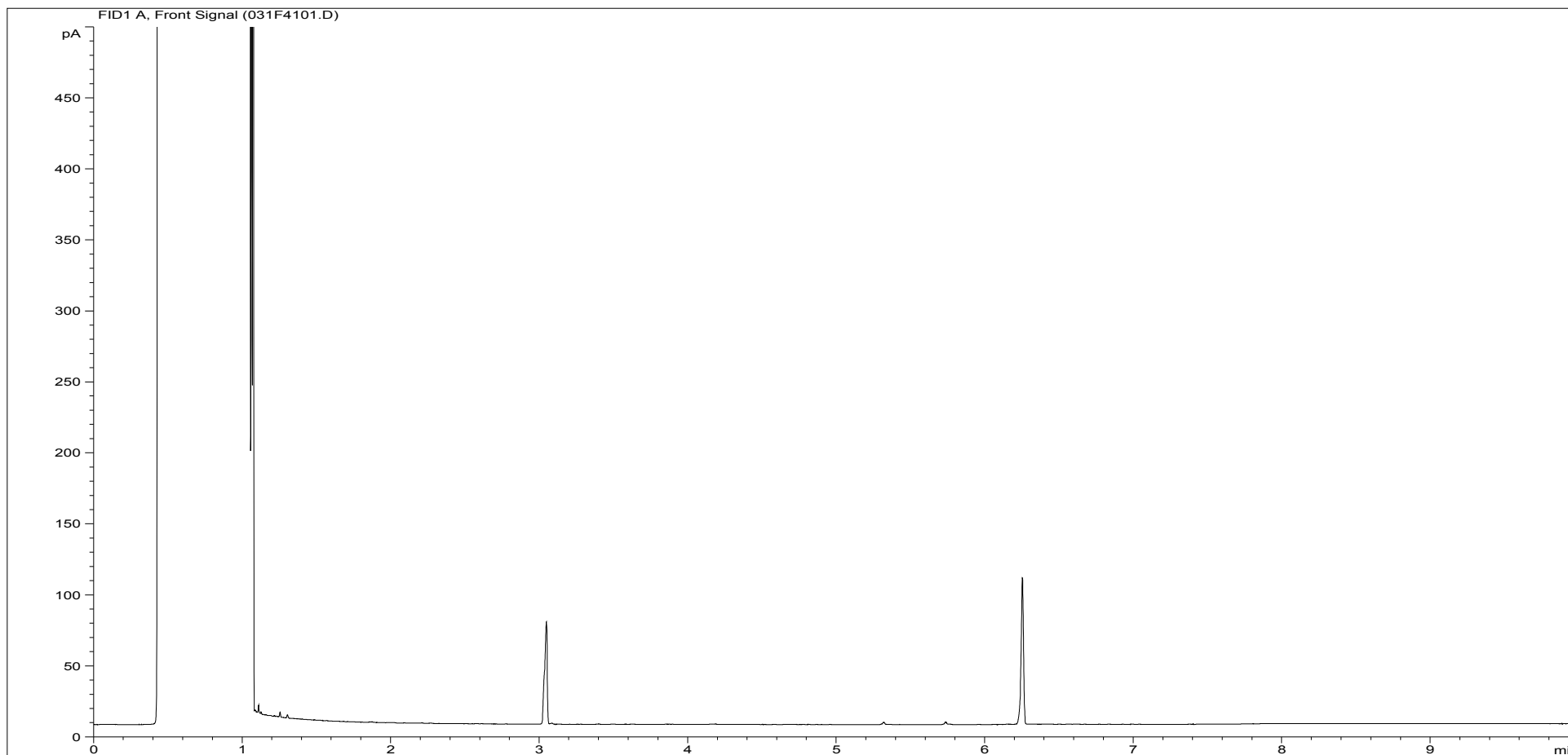
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1285053ARO | Job Number: | W13_4878 |
| Multiplier: | 0.015 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

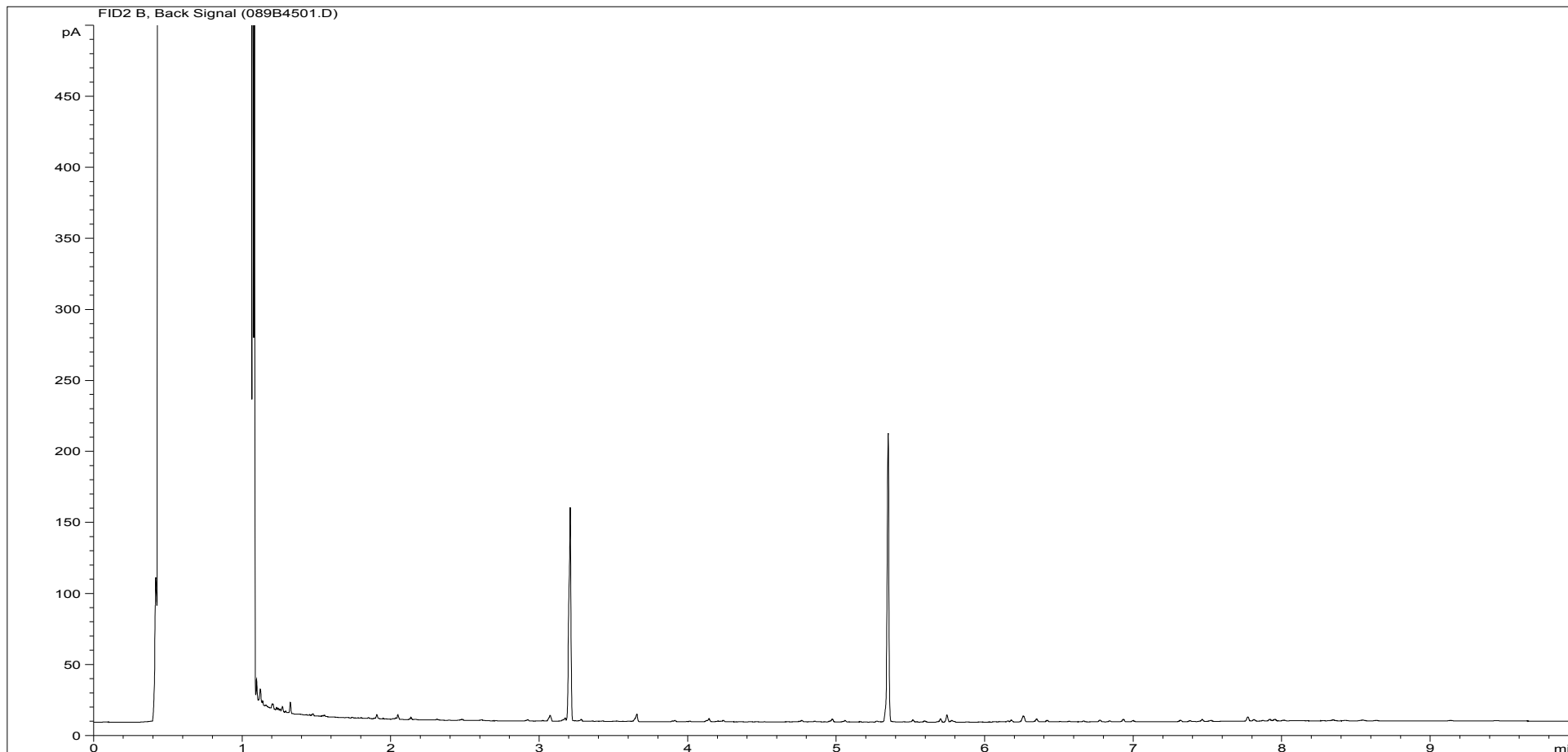
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1285054ALI | Job Number: | W13_4878 |
| Multiplier: | 0.02 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

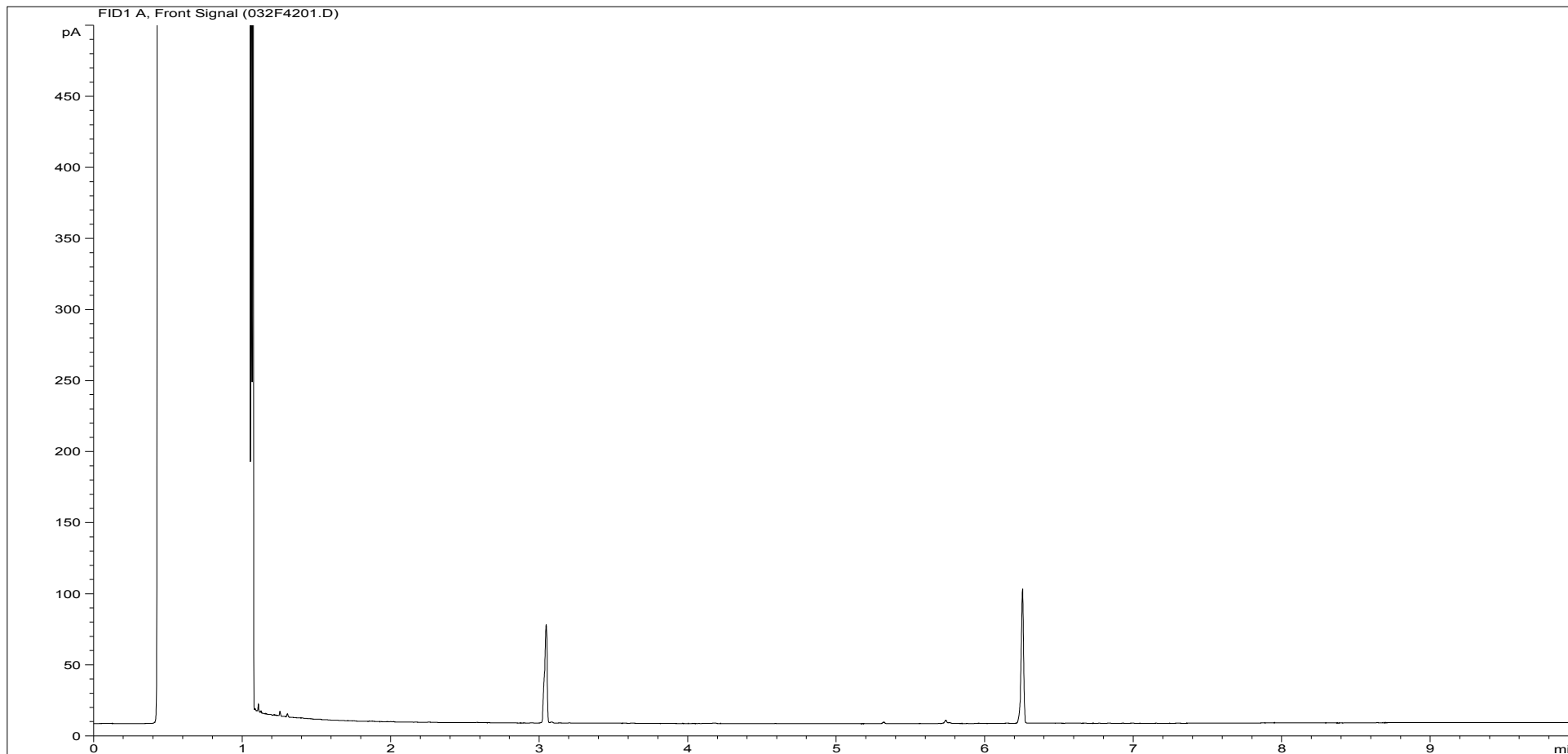
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1285054ARO | Job Number: | W13_4878 |
| Multiplier: | 0.015 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

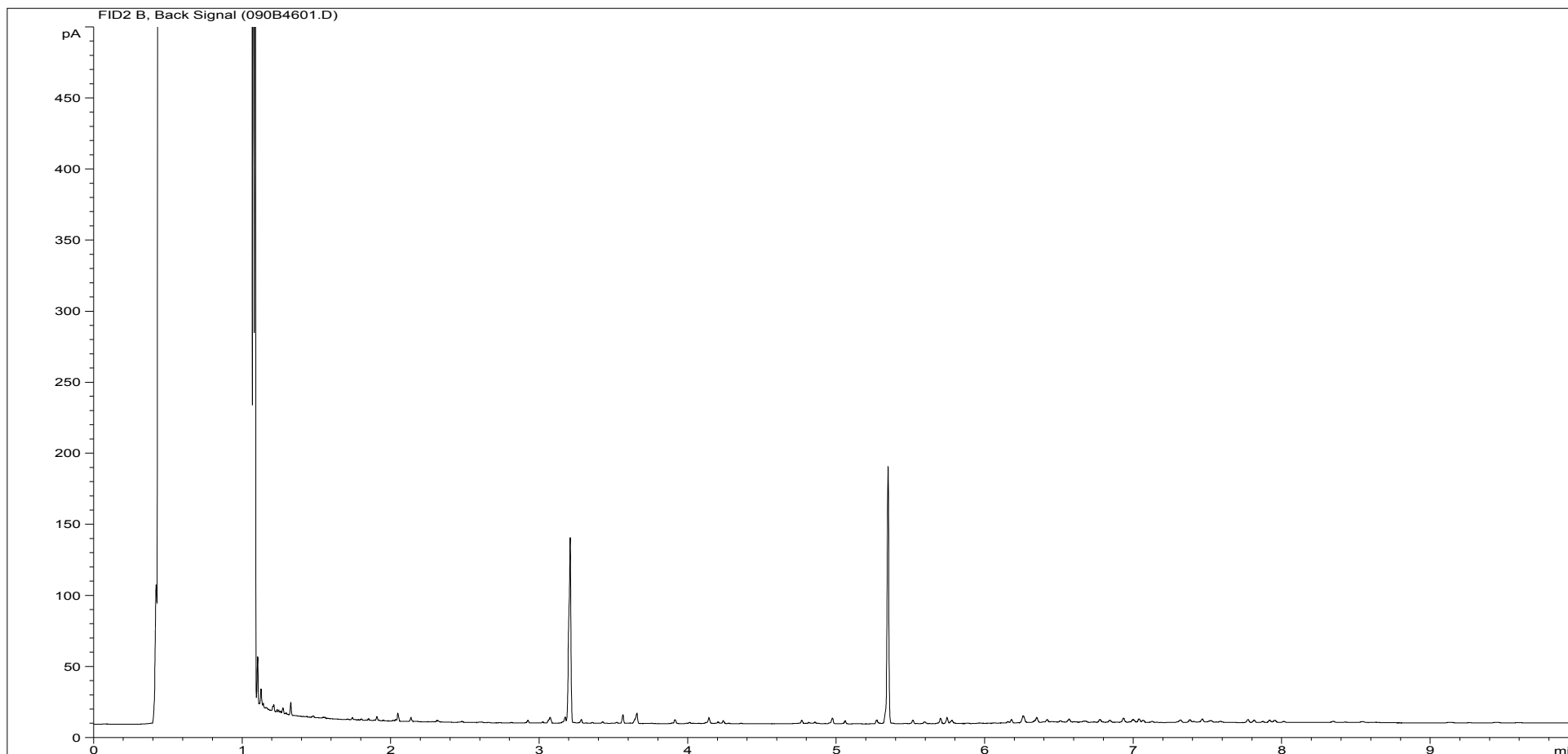
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1285055ALI | Job Number: | W13_4878 |
| Multiplier: | 0.019 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client Sample Ref: | BHNSA226 |
| 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 | | |

Where individual results are flagged see report notes for status.

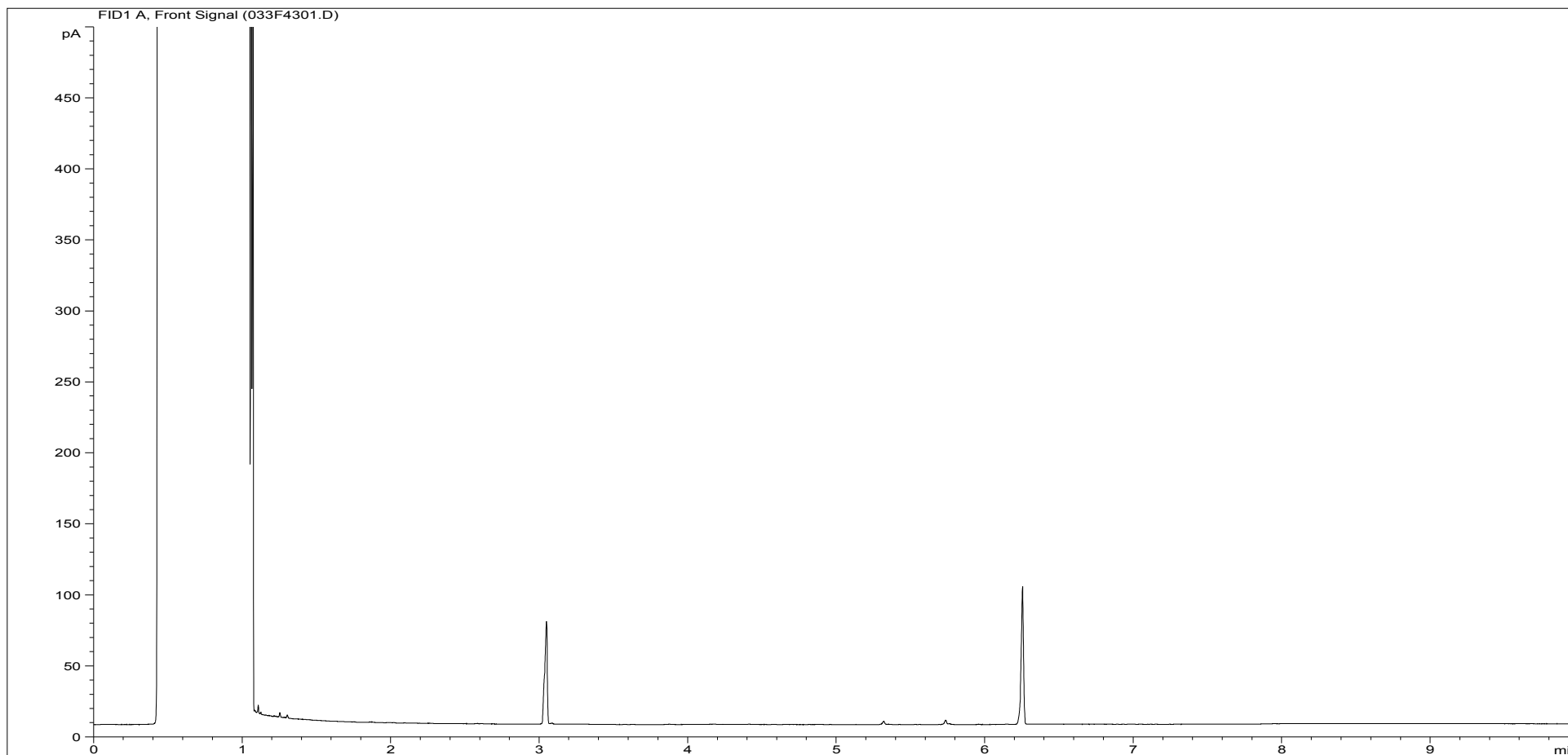
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1285055ARO | Job Number: | W13_4878 |
| Multiplier: | 0.015 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

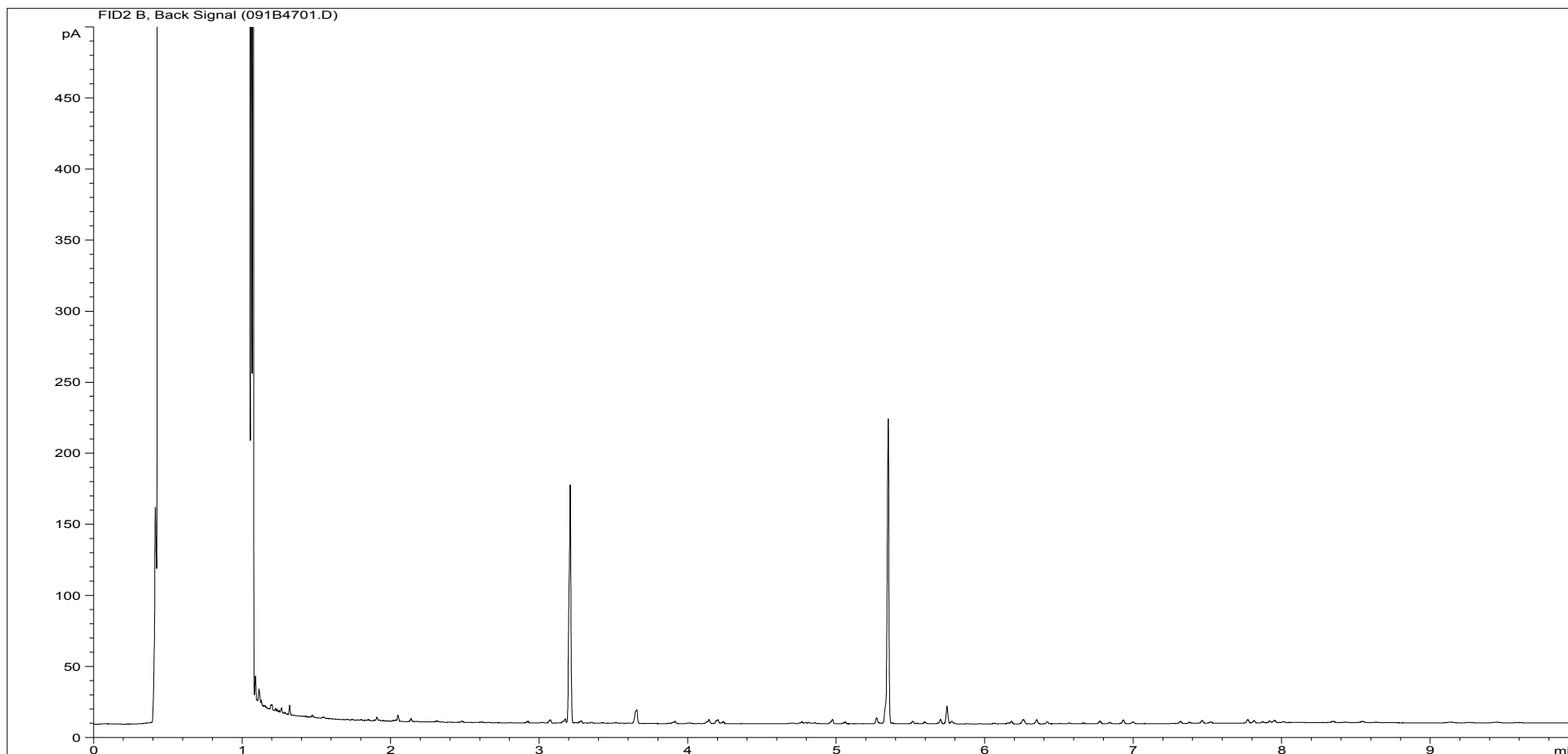
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1285056ALI | Job Number: | W13_4878 |
| Multiplier: | 0.019 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1285056ARO | Job Number: | W13_4878 |
| Multiplier: | 0.015 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

Customer Waterman EED
Site Upper Heyford
Report No W134878

Consignment No W36119
Date Logged 11-Apr-2012

Report Due 18-Apr-2012

| ID Number | Description | MethodID | W/SLM11 | W/SLM12 | W/SLM13 | W/SLM17 | W/SLM2 | W/SLM20 | W/SLM3 | W/SLM7 |
|------------------------|-------------|----------|----------------------------------|---------------------------|----------------------|------------------------|--------------------------|---------------------------|----------|------------------------------|
| | | | 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 | | | | | | E | | |
| EX/1285051 | BHNSA27 | 03/04/12 | | | | | | E | | |
| EX/1285052 | BHNSA28 | 03/04/12 | | | | | | E | | |
| EX/1285053 | BHNSA32 | 03/04/12 | | | | | | E | | |
| EX/1285054 | BHNSA39 | 03/04/12 | | | | | | E | | |
| 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 | |
|---|--|
| A | The sample was received in an inappropriate container for this analysis |
| B | The sample was received without the correct preservation for this analysis |
| C | Headspace present in the sample container |
| D | The sampling date was not supplied so holding time may be compromised - applicable to all analysis |
| E | 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 |

Where individual results are flagged see report notes for status.

Method Descriptions

| Matrix | MethodID | Analysis Basis | Method Description |
|--------|-----------|----------------|--|
| 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 ($\mu\text{S}/\text{cm}$) 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 |

Where individual results are flagged see report notes for status.

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

NAIS 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

Req Analysis requested, see attached sheets for results

▮ 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.

END OF REPORT

Where individual results are flagged see report notes for status.

Our Ref: EXR/134941 (Ver. 1)

Your Ref: E10658-109

April 19, 2012



Environmental Chemistry

ESG

Bretby Business Park

Ashby Road

Burton-on-Trent

Staffordshire

DE15 0YZ

Telephone: 01283 554400

Facsimile: 01283 554422

Mr F Alcock
Waterman EED
Waterman Environmental
Pickfords Wharf
Clink Street
London
SE1 9DG

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
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


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.

Where individual results are flagged see report notes for status.

Semi-Volatile Organic Compounds

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford
Sample Details: BHNSA24
LIMS ID Number: EX1285312
Job Number: W13_4941

Date Booked in: 12-Apr-12
Date Extracted: 16-Apr-12
Date Analysed: 17-Apr-12

Matrix: Water
Ext Method: Sep. Funnel
Operator: SO
Directory/Quant File: 16SVOC.MS16\ 0416_CCC1B.
QC Batch Number: 58
Multiplier: 0.005
Dilution Factor: 1
GPC (Y/N): N

| 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 | - |

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 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 | 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 |

Semi-Volatile Organic Compounds

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford
Sample Details: BHNSA24X
LIMS ID Number: EX1285313
Job Number: W13_4941

Date Booked in: 12-Apr-12
Date Extracted: 16-Apr-12
Date Analysed: 17-Apr-12

Matrix: Water
Ext Method: Sep. Funnel
Operator: SO
Directory/Quant File: 16SVOC.MS16\ 0416_CCC1B.
QC Batch Number: 58
Multiplier: 0.005
Dilution Factor: 1
GPC (Y/N): N

| 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 | - |

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 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 | 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 |

Semi-Volatile Organic Compounds

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford
Sample Details: BHNSA25
LIMS ID Number: EX1285314
Job Number: W13_4941

Date Booked in: 12-Apr-12
Date Extracted: 16-Apr-12
Date Analysed: 17-Apr-12

Matrix: Water
Ext Method: Sep. Funnel
Operator: SO
Directory/Quant File: 16SVOC.MS16\ 0416_CCC1B.
QC Batch Number: 58
Multiplier: 0.005
Dilution Factor: 1
GPC (Y/N): N

| 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 | - |

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 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 | 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 |

Semi-Volatile Organic Compounds

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford
Sample Details: BHNSA26
LIMS ID Number: EX1285315
Job Number: W13_4941

Date Booked in: 12-Apr-12
Date Extracted: 16-Apr-12
Date Analysed: 17-Apr-12

Matrix: Water
Ext Method: Sep. Funnel
Operator: SO
Directory/Quant File: 16SVOC.MS16\ 0416_CCC1B.
QC Batch Number: 58
Multiplier: 0.005
Dilution Factor: 1
GPC (Y/N): N

| 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 | - |

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 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 | 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 |

Semi-Volatile Organic Compounds

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford
Sample Details: BHNSA29
LIMS ID Number: EX1285316
Job Number: W13_4941

Date Booked in: 12-Apr-12
Date Extracted: 16-Apr-12
Date Analysed: 17-Apr-12

Matrix: Water
Ext Method: Sep. Funnel
Operator: SO
Directory/Quant File: 16SVOC.MS16\ 0416_CCC1B.
QC Batch Number: 58
Multiplier: 0.005
Dilution Factor: 1
GPC (Y/N): N

| 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 | - |

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 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 | 15.19 | 0.006 | 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 | - |

"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 |

Semi-Volatile Organic Compounds

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford
Sample Details: BHNSA30
LIMS ID Number: EX1285317
Job Number: W13_4941

Date Booked in: 12-Apr-12
Date Extracted: 16-Apr-12
Date Analysed: 17-Apr-12

Matrix: Water
Ext Method: Sep. Funnel
Operator: SO
Directory/Quant File: 16SVOC.MS16\ 0416_CCC1B.
QC Batch Number: 58
Multiplier: 0.005
Dilution Factor: 1
GPC (Y/N): N

| 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 | - |

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 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 | 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 |

Semi-Volatile Organic Compounds

UKAS accredited?: No

Customer and Site Details: Waterman EED: Upper Heyford
Sample Details: BHNSA31
LIMS ID Number: EX1285318
Job Number: W13_4941

Date Booked in: 12-Apr-12
Date Extracted: 16-Apr-12
Date Analysed: 17-Apr-12

Matrix: Water
Ext Method: Sep. Funnel
Operator: SO
Directory/Quant File: 16SVOC.MS16\ 0416_CCC1B.
QC Batch Number: 58
Multiplier: 0.005
Dilution Factor: 1
GPC (Y/N): N

| 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 | - |

Compounds marked with a * are reported not UKAS.
 Concentrations are reported on a wet weight basis.

"M" denotes that % fit has been manually interpreted

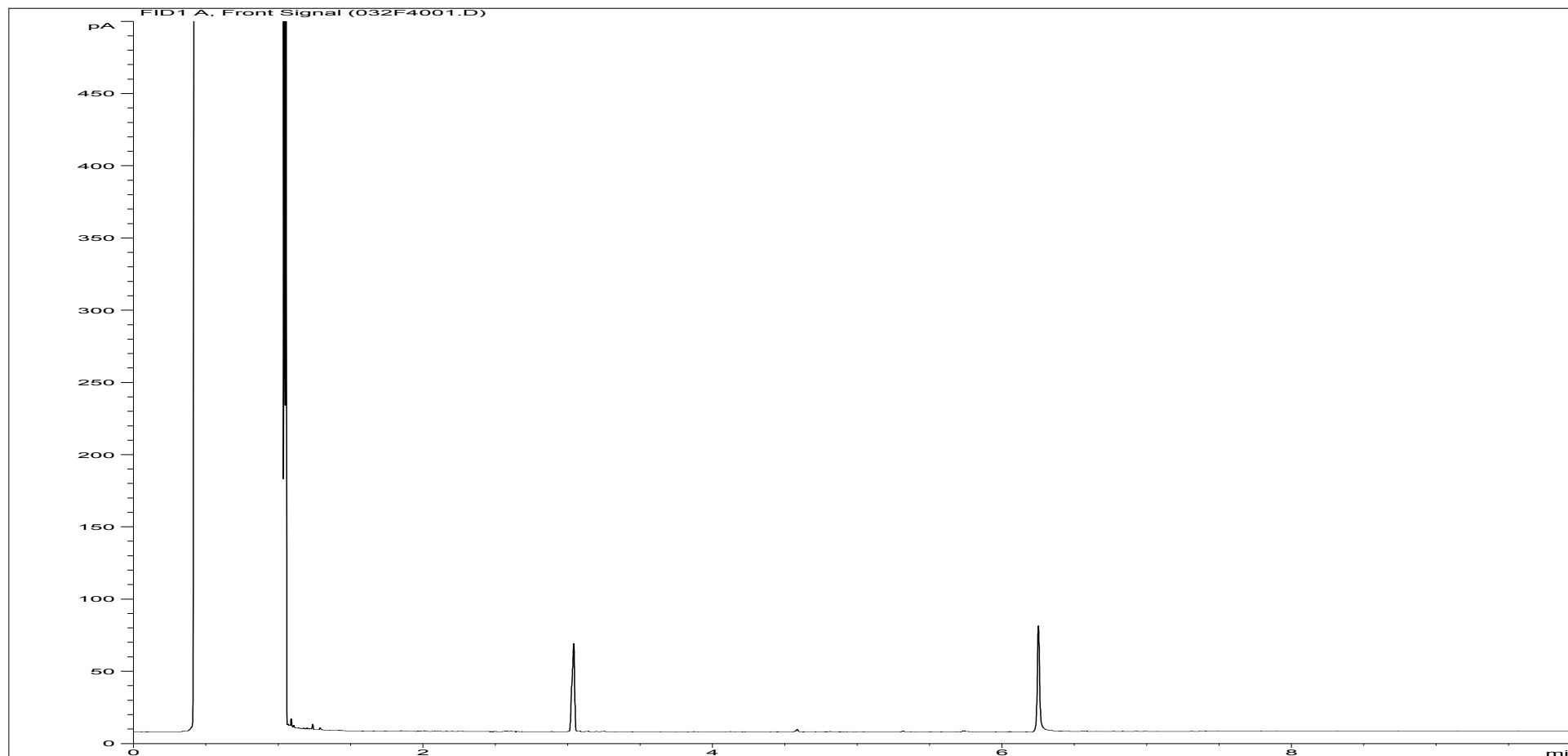
| Target Compounds | CAS # | R.T. | Concentration mg/l | % Fit |
|----------------------------|-----------|------|--------------------|-------|
| 2,4-Dinitrophenol | 51-28-5 * | - | < 0.010 | - |
| Dibenzofuran | 132-64-9 | - | < 0.005 | - |
| 4-Nitrophenol | 100-02-7 | - | < 0.050 | - |
| 2,4-Dinitrotoluene | 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 | 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 |

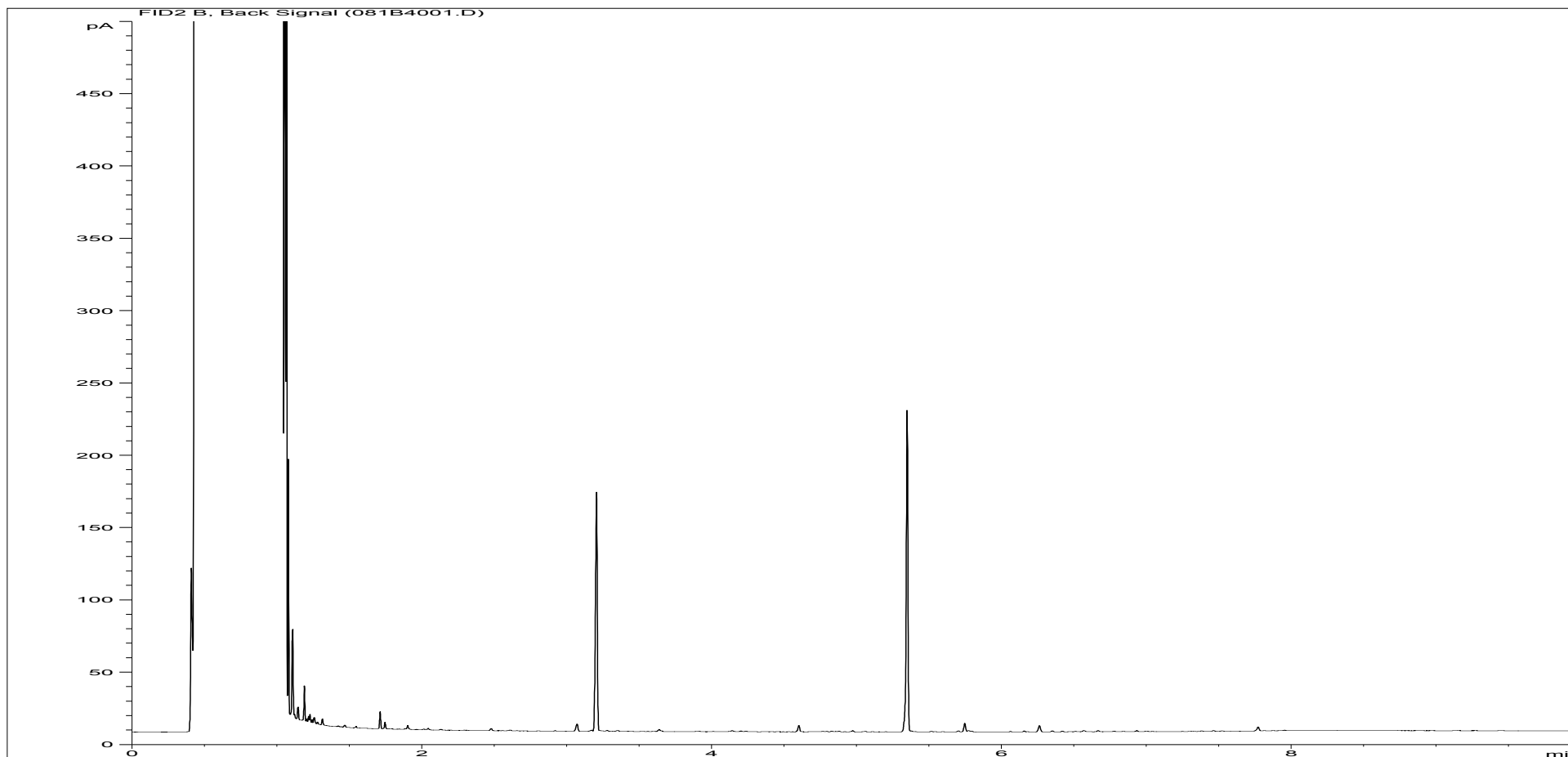
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1285312ALI | Job Number: | W13_4941 |
| Multiplier: | 0.02 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

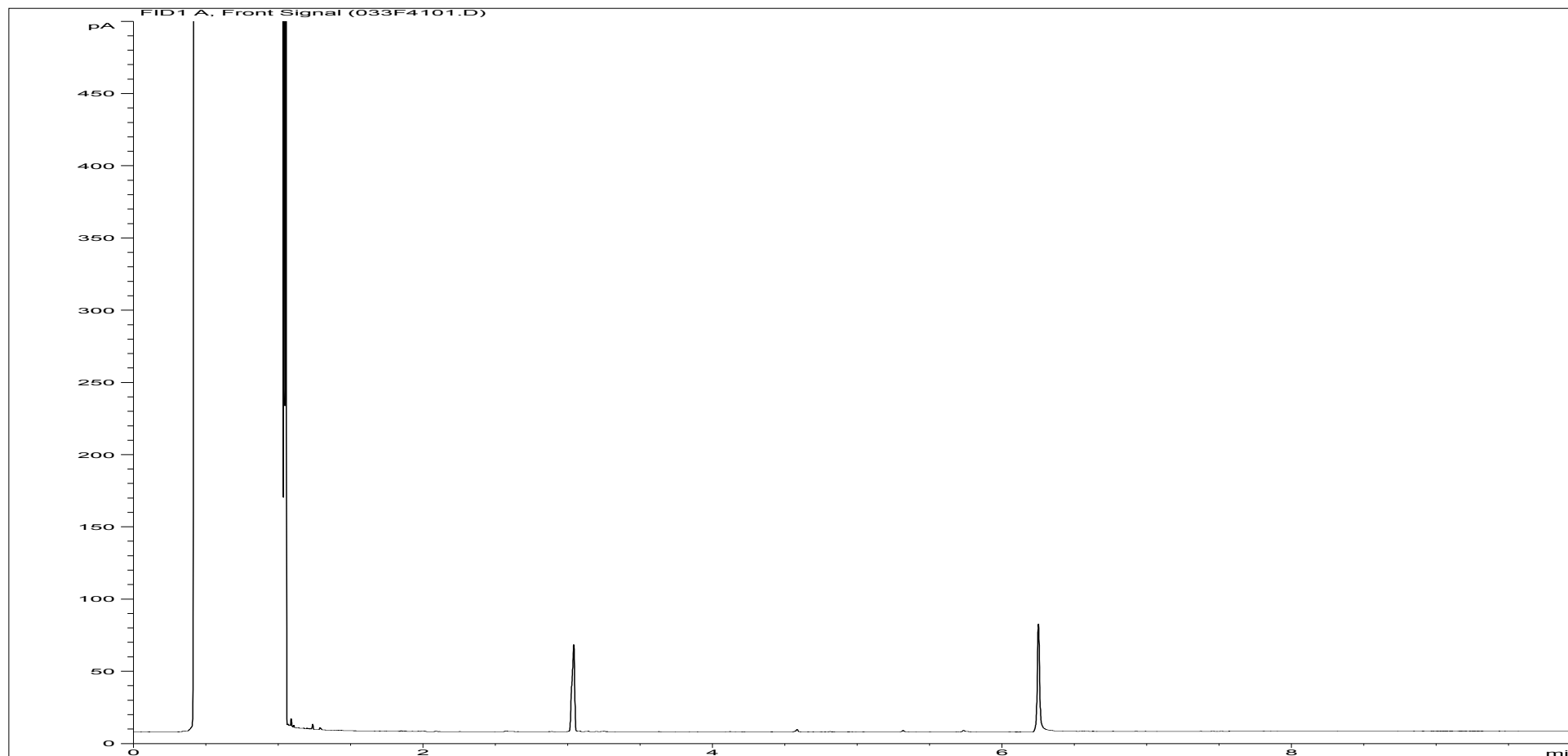
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1285312ARO | Job Number: | W13_4941 |
| Multiplier: | 0.016 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

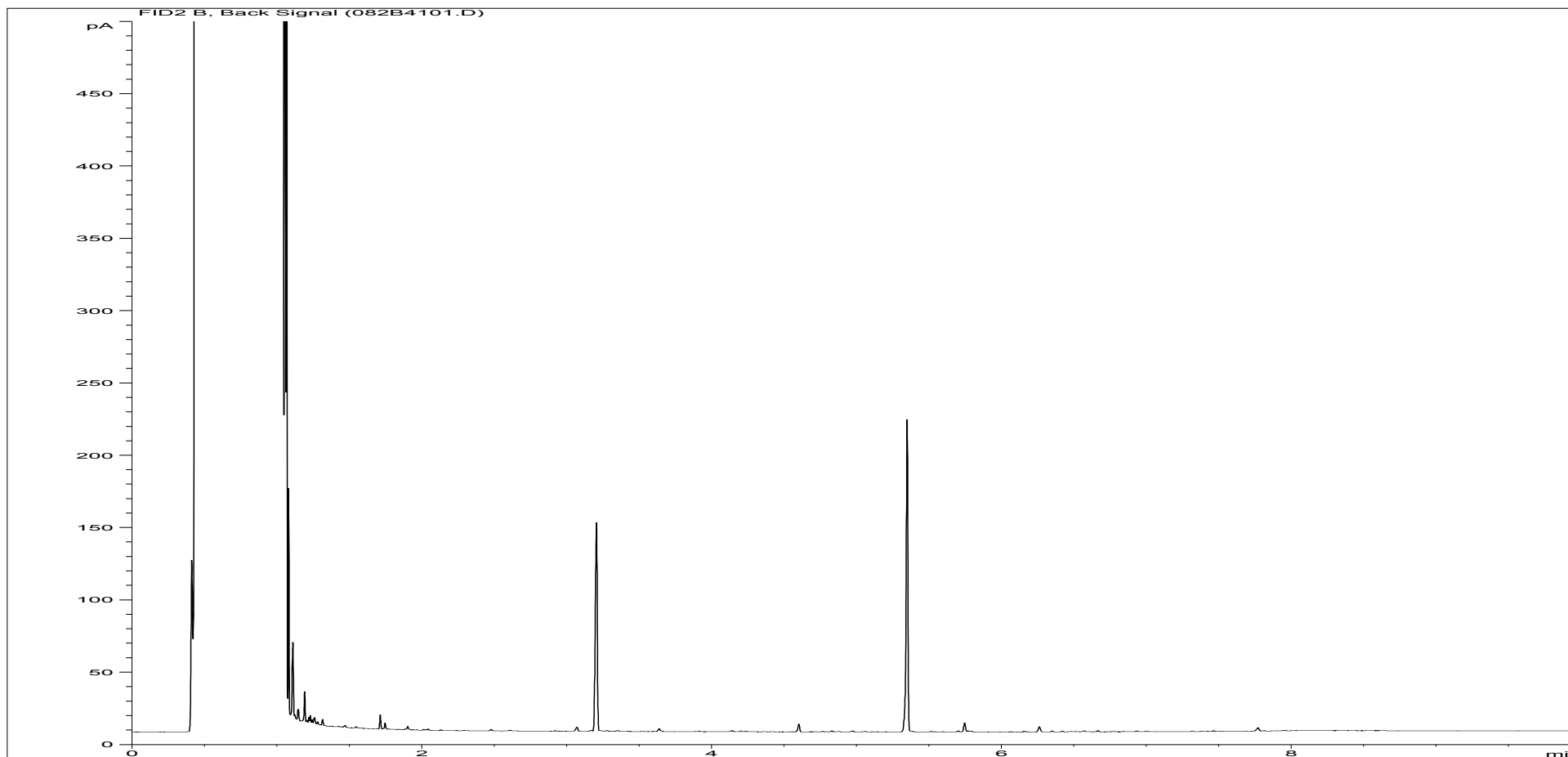
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1285313ALI | Job Number: | W13_4941 |
| Multiplier: | 0.02 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

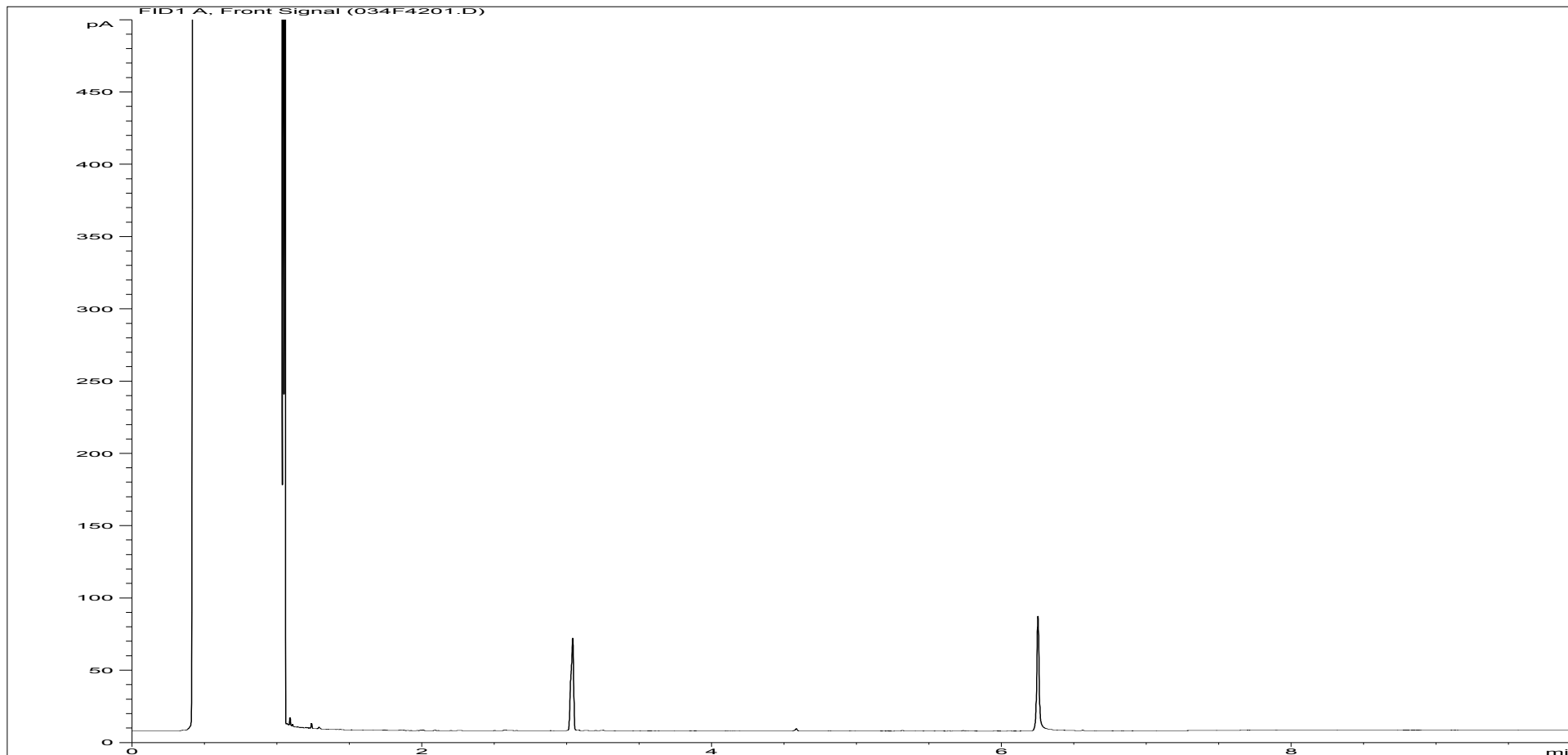
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1285313ARO | Job Number: | W13_4941 |
| Multiplier: | 0.015 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

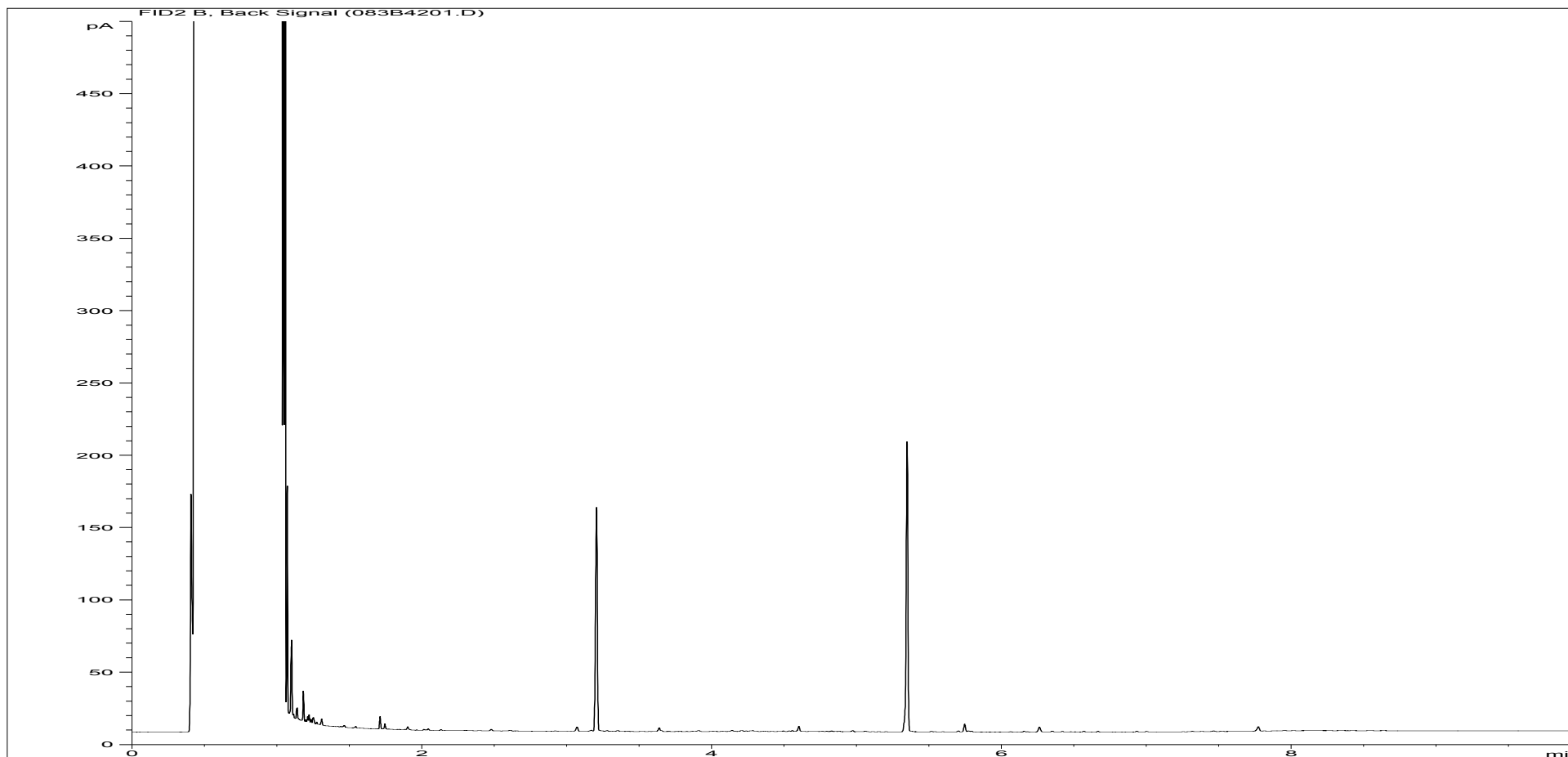
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1285314ALI | Job Number: | W13_4941 |
| Multiplier: | 0.02 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

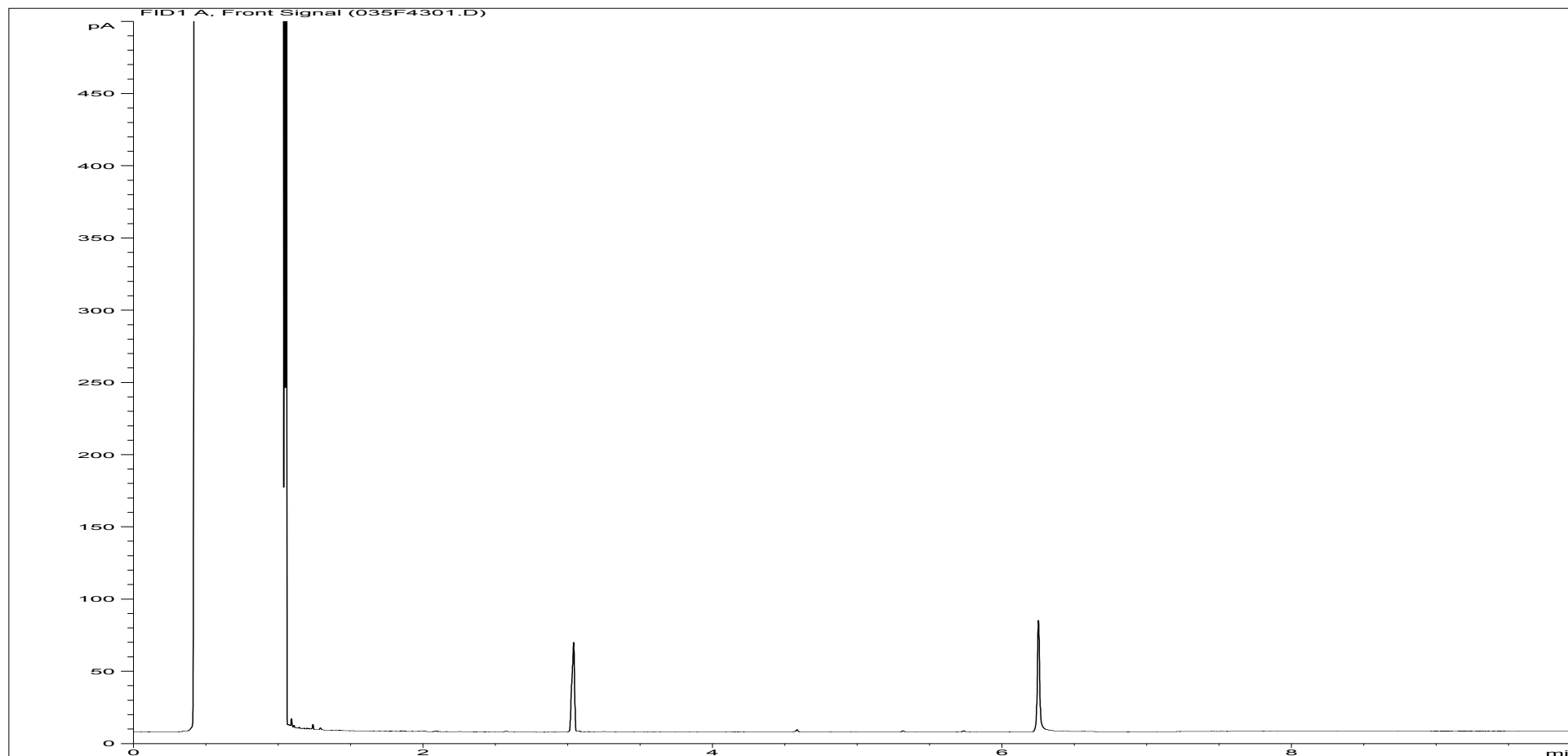
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1285314ARO | Job Number: | W13_4941 |
| Multiplier: | 0.015 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

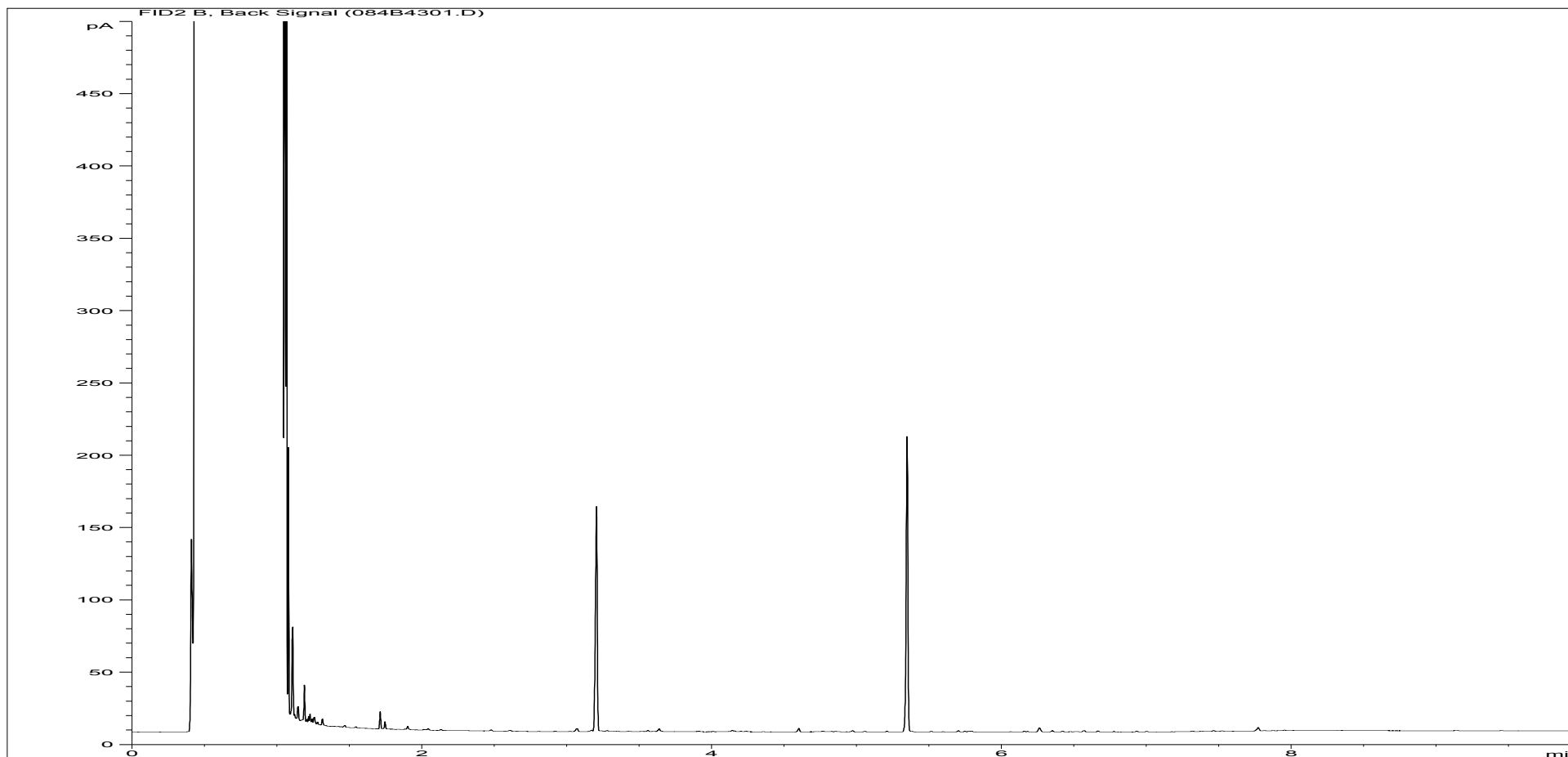
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1285315ALI | Job Number: | W13_4941 |
| Multiplier: | 0.02 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

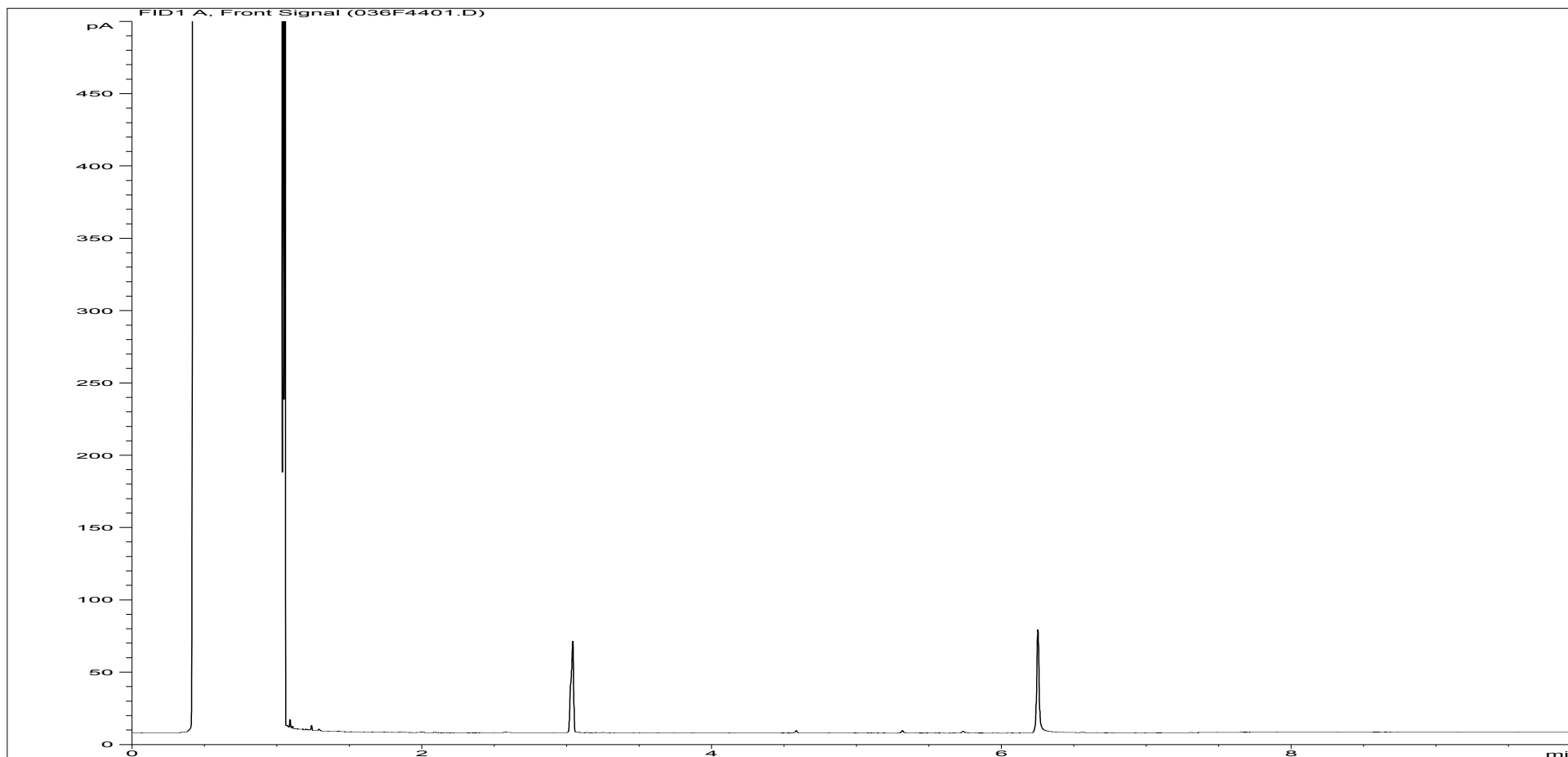
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1285315ARO | Job Number: | W13_4941 |
| Multiplier: | 0.015 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

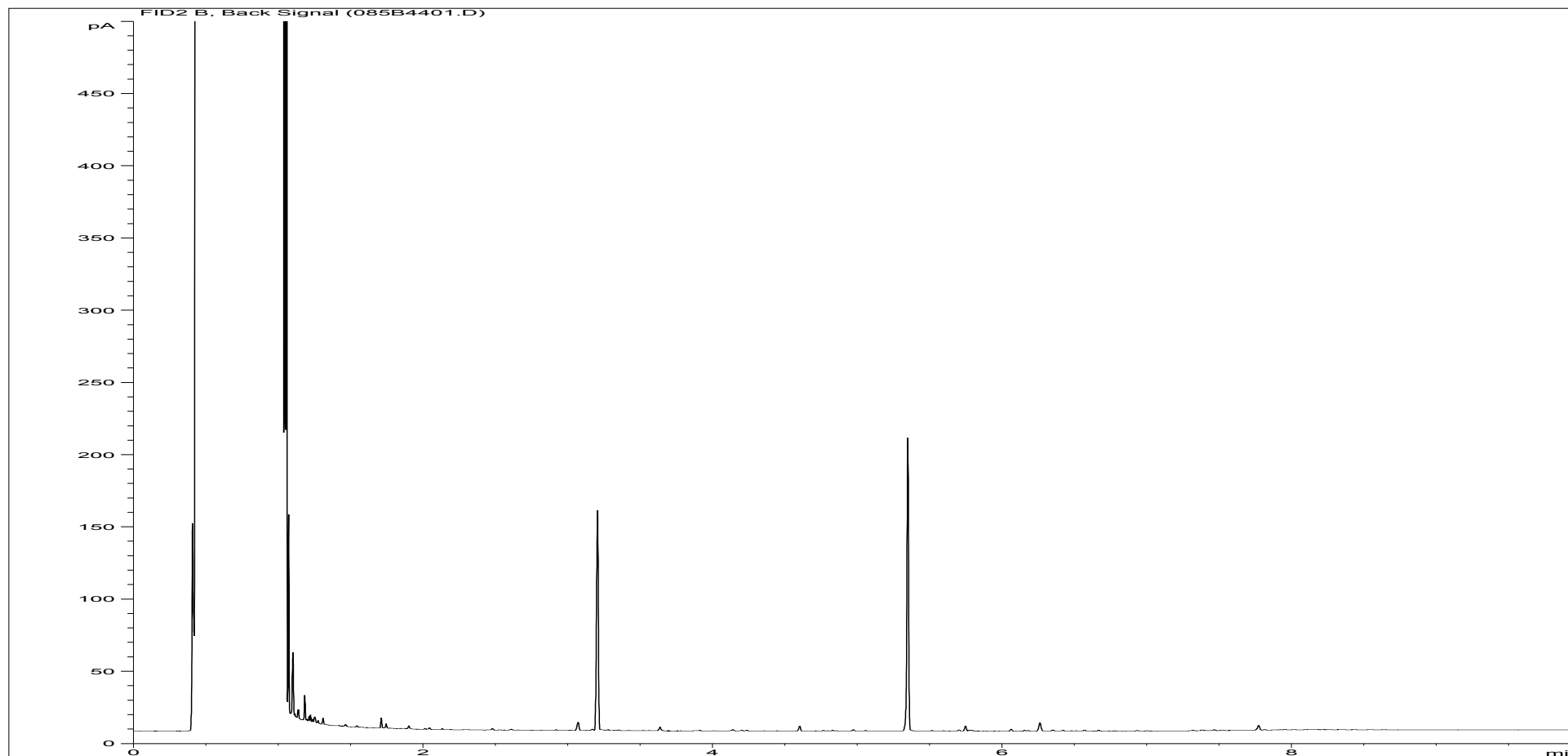
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1285316ALI | Job Number: | W13_4941 |
| Multiplier: | 0.02 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

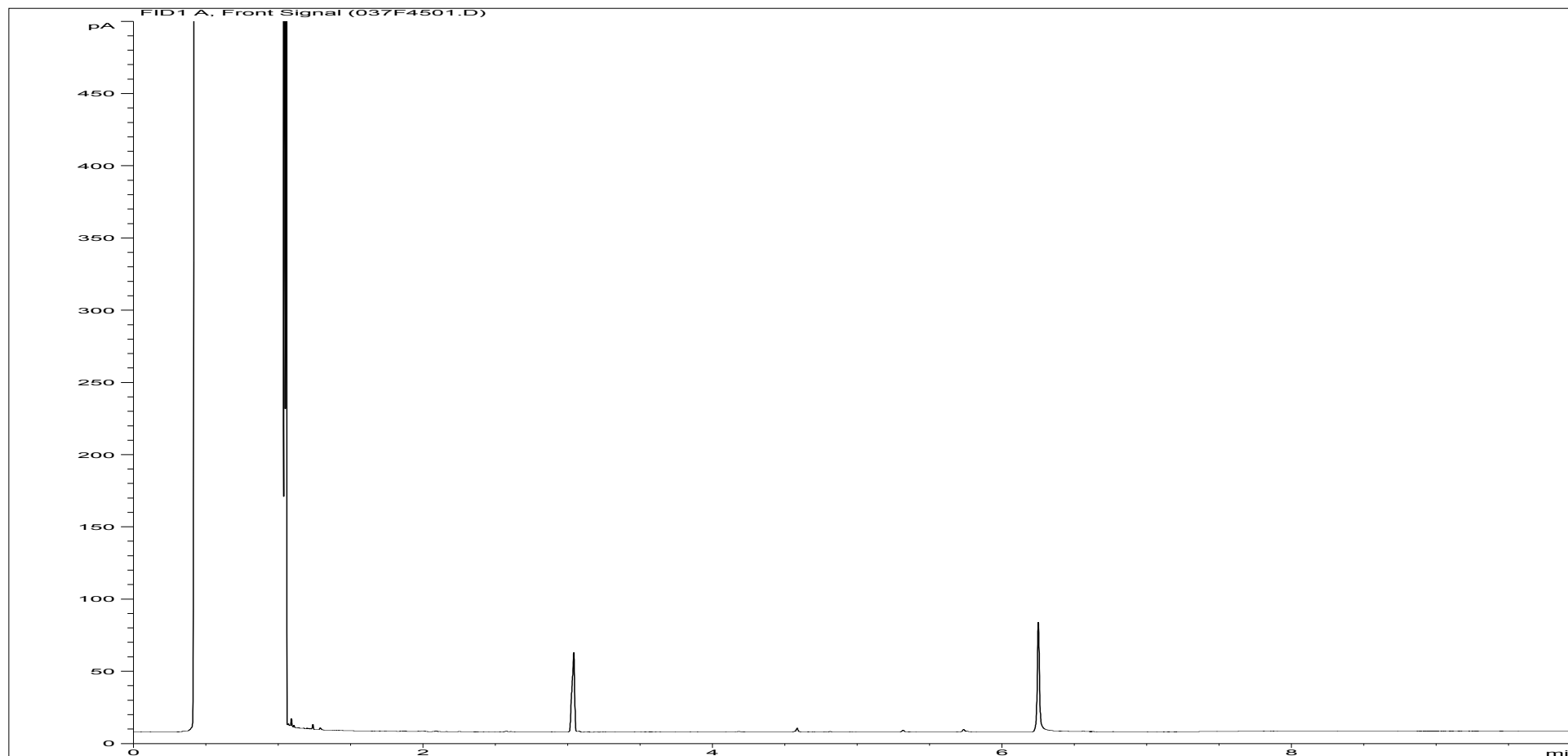
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1285316ARO | Job Number: | W13_4941 |
| Multiplier: | 0.016 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

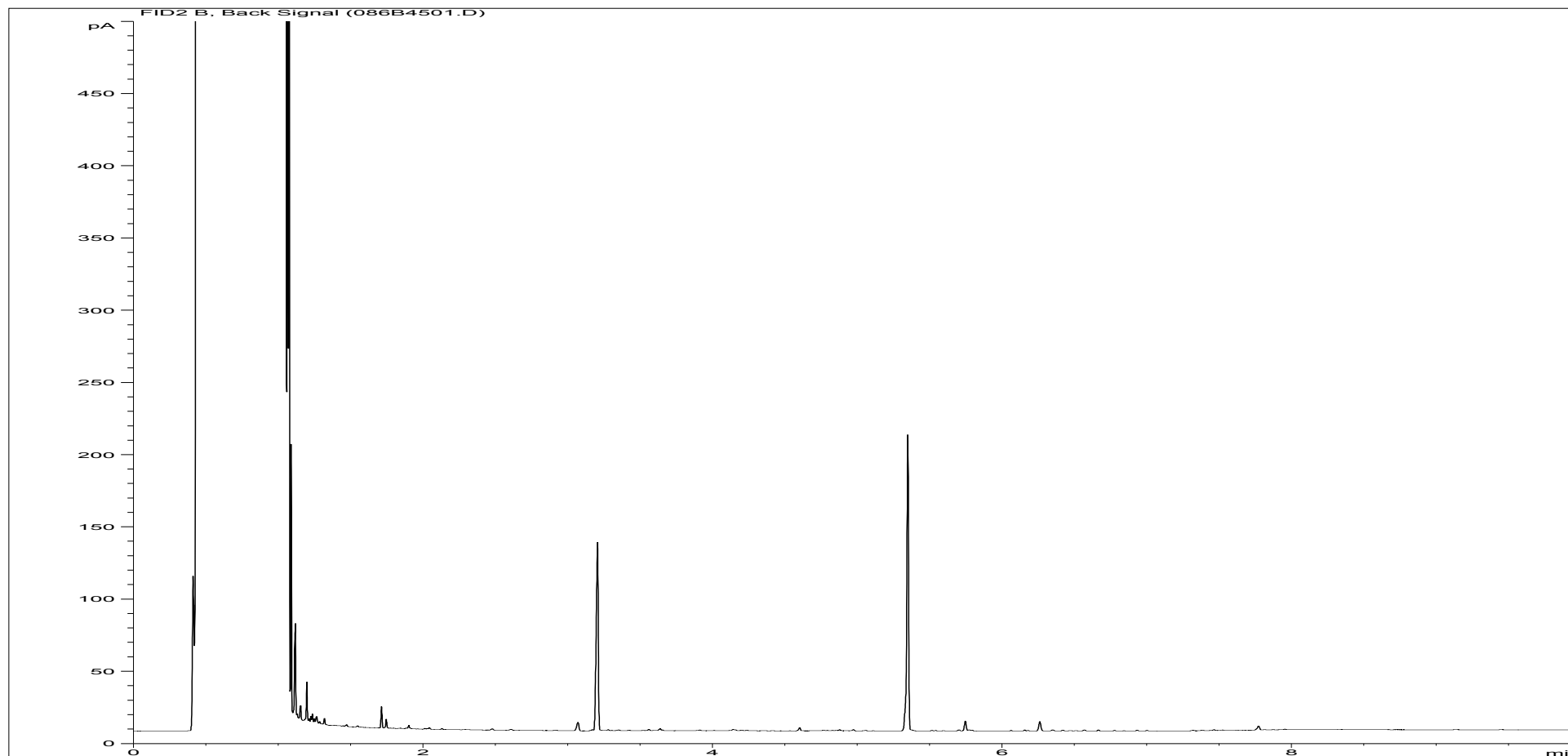
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1285317ALI | Job Number: | W13_4941 |
| Multiplier: | 0.02 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

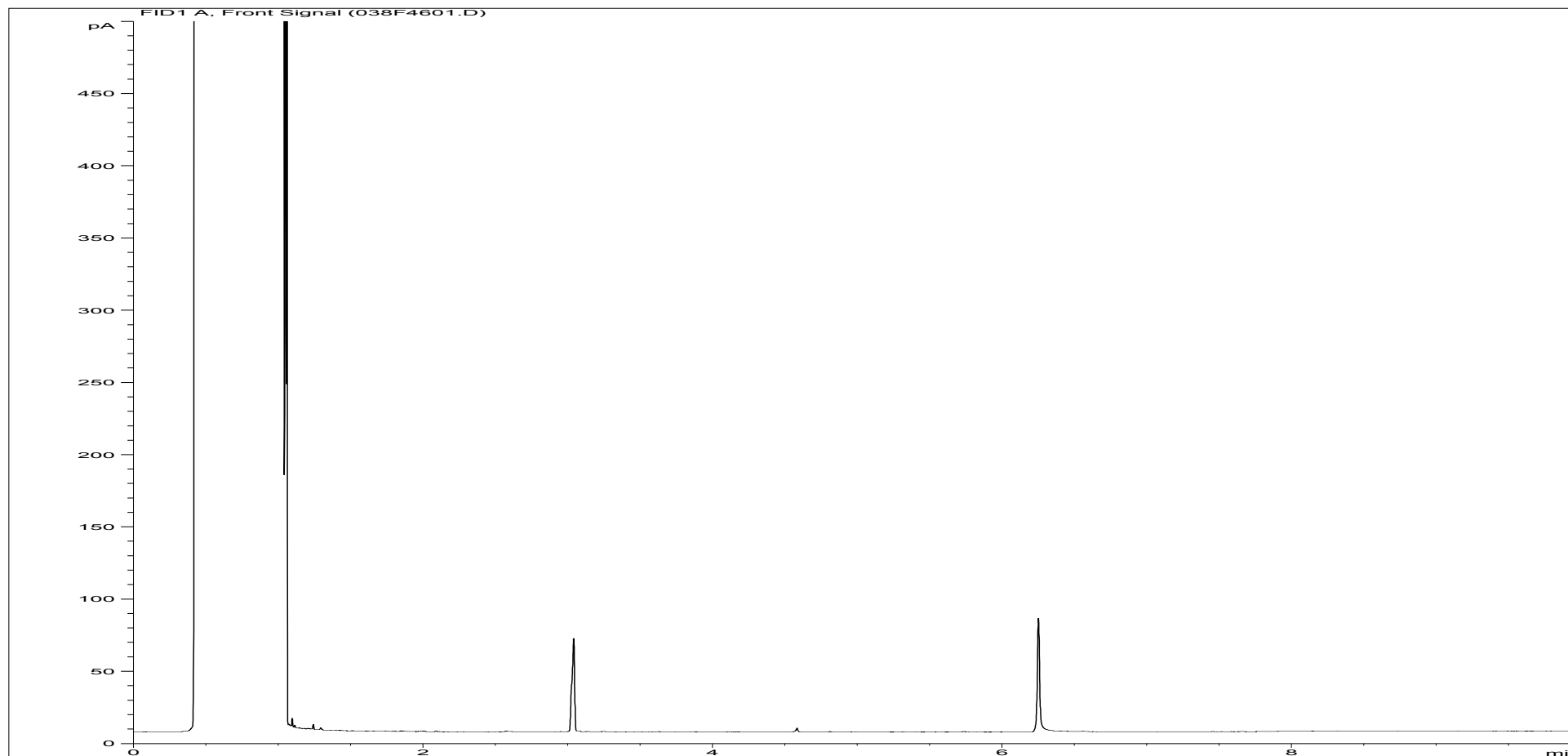
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1285317ARO | Job Number: | W13_4941 |
| Multiplier: | 0.016 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

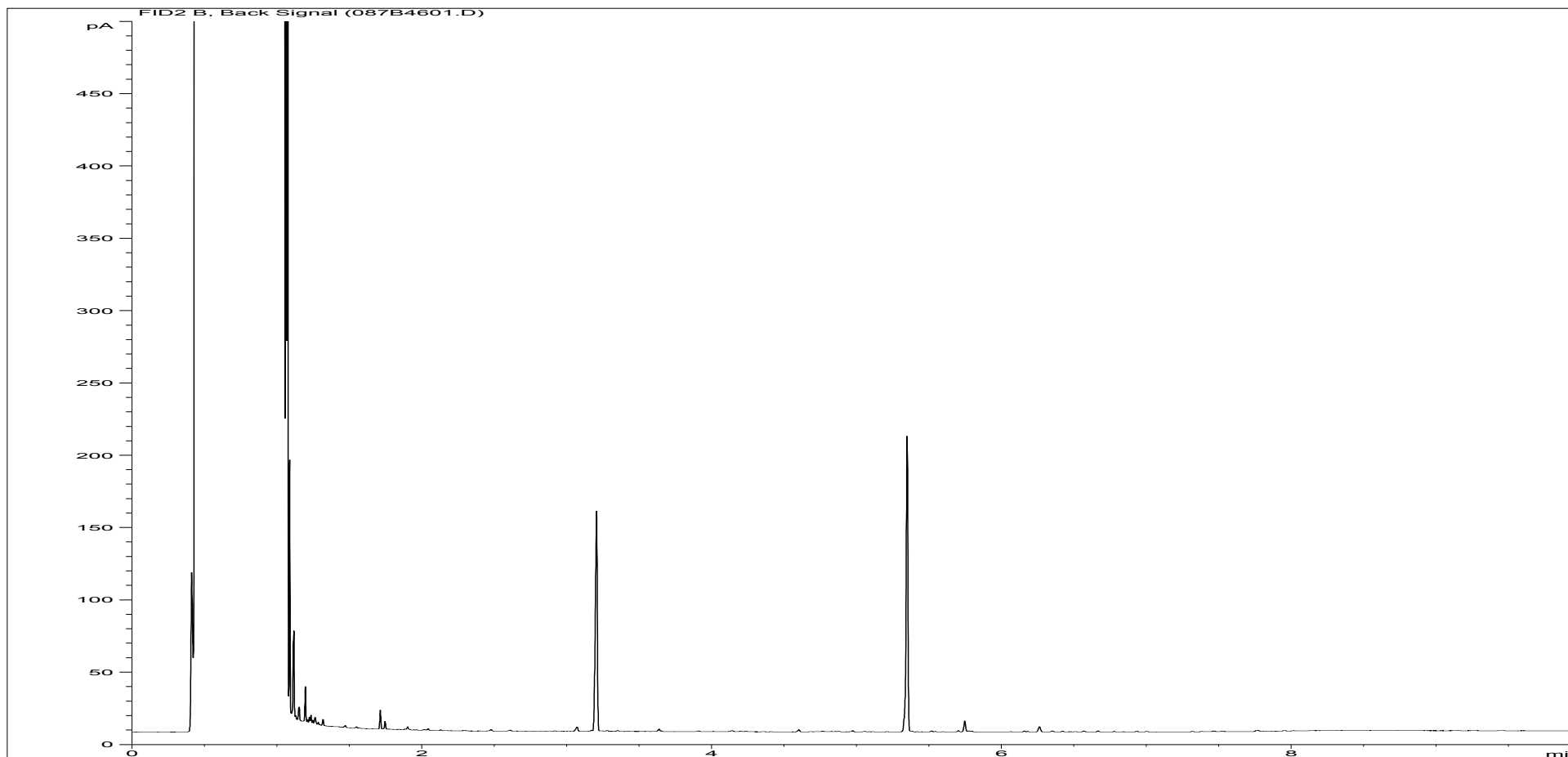
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1285318ALI | Job Number: | W13_4941 |
| Multiplier: | 0.02 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



| | | | |
|-------------------------------|--|---------------------------|---------------|
| Sample ID: | EX1285318ARO | Job Number: | W13_4941 |
| Multiplier: | 0.016 | Client: | Waterman EED |
| Dilution: | 1 | Site: | Upper Heyford |
| Acquisition Method: | TPH_RUNF.M | Client 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 | | |

Where individual results are flagged see report notes for status.

Customer Waterman EED
Site Upper Heyford
Report No W134941

Consignment No W36173
Date Logged 12-Apr-2012

Report Due 18-Apr-2012

| ID Number | Description | MethodID | WSLM13 | WSLM17 | WSLM2 | WSLM20 | WSLM3 | WSLM7 |
|------------------------|-------------|----------|----------------------|------------------------|--------------------------|---------------------------|----------|------------------------------|
| | | 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 | | | | | F | |
| EX/1285313 | BHNSA24X | 05/04/12 | | | | | F | |
| EX/1285314 | BHNSA25 | 05/04/12 | | | | | F | |
| EX/1285315 | BHNSA26 | 05/04/12 | | | | | F | |
| EX/1285316 | BHNSA29 | 05/04/12 | | | | | F | |
| EX/1285317 | BHNSA30 | 05/04/12 | | | | | F | |
| EX/1285318 | BHNSA31 | 05/04/12 | | | | | F | |

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

- A The sample was received in an inappropriate container for this analysis
- B The sample was received without the correct preservation for this analysis
- C Headspace present in the sample container
- D The sampling date was not supplied so holding time may be compromised - applicable to all analysis
- E 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

Where individual results are flagged see report notes for status.

Method Descriptions

| Matrix | MethodID | Analysis Basis | Method Description |
|--------|-----------|----------------|--|
| 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 ($\mu\text{S}/\text{cm}$) 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 |

Where individual results are flagged see report notes for status.

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

NAIS 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

Req Analysis requested, see attached sheets for results

▮ 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.

END OF REPORT

Where individual results are flagged see report notes for status.



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 Monitoring: | 1027 |
| General Atmospheric Pressure Condition (rising or falling?) | | | | |
| Weather Conditions | | Sunny | Overcast | Raining |
| Wind Conditions | | Slight Breeze | Strong breeze | Windy |
| Ground Conditions | | Damp | Wet | yes |
| Site Conditions | | Site consists of mainly hardstanding with grassed areas, light covering of snow and Ice. | | |

| | | | | | | |
|--|-----------------------|-----------------------|----------------------|----------------|-----------|-----------------------|
| Exploratory hole identity | | BH-NSA-1 | | | | |
| Flow range (complete pre- | | 0 | l/hr | | | |
| Peak flow (complete pre-monitoring) | | 0 | l/hr | | | |
| Differential Pressure | | 0 | Pa | | | |
| Depth to water (record post- | | 2.27 | m | | | |
| Depth of standpipe and diameter | | 8.25 | 50mm (ID) | | | |
| Seconds | CH₄ | CO₂ | O₂ | LEL (%) | CO | H₂S |
| 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 | | |

GSV
0

| | | | | | | |
|--|-----------------------|-----------------------|----------------------|----------------|-----------|-----------------------|
| Exploratory hole identity | | BH-NSA-2 | | | | |
| Flow range (complete pre- | | 0 | l/hr | | | |
| Peak flow (complete pre-monitoring) | | 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 | CO₂ | O₂ | LEL (%) | CO | H₂S |
| 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 |

GSV
0

| | | |
|--|-----------------|-----------|
| Exploratory hole identity | BH-NSA-3 | |
| Flow range (complete pre- | 0 | l/hr |
| Peak flow (complete pre-monitoring) | 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 | O ₂ | LEL (%) | CO | 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 |

GSV
0

| | | |
|--|-----------------|-----------|
| Exploratory hole identity | BH-NSA-4 | |
| Flow range (complete pre- | 0 | l/hr |
| Peak flow (complete pre-monitoring) | 0 | l/hr |
| Differential Pressure | 0 | Pa |
| Depth to water (record post- | 4.1 | m |
| Depth of standpipe and diameter | 13 | 50mm (ID) |

| Seconds | CH ₄ | CO ₂ | O ₂ | LEL (%) | CO | 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 | | |

GSV
0

| | | |
|--|-----------------|-----------|
| Exploratory hole identity | BH-NSA-5 | |
| Flow range (complete pre- | 0 | l/hr |
| Peak flow (complete pre-monitoring) | 0 | l/hr |
| Differential Pressure | 0 | Pa |
| Depth to water (record post- | 2.51 | m |
| Depth of standpipe and diameter | 11.14 | 50mm (ID) |

| Seconds | CH ₄ | CO ₂ | O ₂ | LEL (%) | CO | 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 | | |

GSV
0

| | | |
|-------------------------------------|-----------------|-----------|
| Exploratory hole identity | BH-NSA-6 | |
| Flow range (complete pre- | 0 | l/hr |
| Peak flow (complete pre-monitoring) | 0 | l/hr |
| Differential Pressure | 0 | Pa |
| Depth to water (record post- | 2.73 | m |
| Depth of standpipe and diameter | 7.8 | 50mm (ID) |

| Seconds | CH ₄ | CO ₂ | O ₂ | LEL (%) | CO | 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

0

| | | |
|-------------------------------------|-----------------|-----------|
| Exploratory hole identity | BH-NSA-7 | |
| Flow range (complete pre- | 0 | l/hr |
| Peak flow (complete pre-monitoring) | 0 | l/hr |
| Differential Pressure | 0 | Pa |
| Depth to water (record post- | 2.17 | m |
| Depth of standpipe and diameter | 8.06 | 50mm (ID) |

| Seconds | CH ₄ | CO ₂ | O ₂ | LEL (%) | CO | H ₂ S |
|---------|-----------------|-----------------|----------------|---------|----|------------------|
| 0 | 0 | 0 | 20.9 | 0 | | |
| 15 | 0 | 0 | 20.6 | 0 | | |
| 30 | 0 | 0 | 20.1 | 0 | | |
| 45 | 0 | 0 | 20.4 | 0 | | |
| 60 | 0 | 0 | 20.9 | 0 | | |
| 90 | 0 | 0 | 20.9 | 0 | | |
| 120 | 0 | 0 | 20.9 | 0 | | |

0 0 20.1 0

GSV

0

| | | |
|-------------------------------------|-----------------|-----------|
| Exploratory hole identity | BH-NSA-8 | |
| Flow range (complete pre- | 0 | l/hr |
| Peak flow (complete pre-monitoring) | 0 | l/hr |
| Differential Pressure | 0 | Pa |
| Depth to water (record post- | 2.17 | m |
| Depth of standpipe and diameter | 8.06 | 50mm (ID) |

| Seconds | CH ₄ | CO ₂ | O ₂ | LEL (%) | CO | 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 (complete pre- | | 0 | l/hr | | | |
| Peak flow (complete pre-monitoring) | | 0 | l/hr | | | |
| Differential Pressure | | 0 | Pa | | | |
| Depth to water (record post- | | 4.81 | m | | | |
| Depth of standpipe and diameter | | 8.09 | 50mm (ID) | | | |
| Seconds | CH ₄ | CO ₂ | O ₂ | LEL (%) | CO | 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 | | |

GSV
0

| Exploratory hole identity | | BH-NSA-10 | | | | |
|-------------------------------------|-----------------|-----------------|----------------|---------|----|------------------|
| Flow range (complete pre- | | 0 | l/hr | | | |
| Peak flow (complete pre-monitoring) | | 0 | l/hr | | | |
| Differential Pressure | | 0 | Pa | | | |
| Depth to water (record post- | | 4.89 | m | | | |
| Depth of standpipe and diameter | | 9.84 | 50mm (ID) | | | |
| Seconds | CH ₄ | CO ₂ | O ₂ | LEL (%) | CO | 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 hole identity | | BH-NSA-11 | | | | |
|-------------------------------------|-----------------|-----------------|----------------|---------|----|------------------|
| Flow range (complete pre- | | 0 | l/hr | | | |
| Peak flow (complete pre-monitoring) | | 0 | l/hr | | | |
| Differential Pressure | | 0 | Pa | | | |
| Depth to water (record post- | | 4.74 | m | | | |
| Depth of standpipe and diameter | | 8.09 | 50mm (ID) | | | |
| Seconds | CH ₄ | CO ₂ | O ₂ | LEL (%) | CO | 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 hole identity | BH-NSA-12 | |
| Flow range (complete pre- | 0 | l/hr |
| Peak flow (complete pre-monitoring) | 0 | l/hr |
| Differential Pressure | 0 | Pa |
| Depth to water (record post- | 4.54 | m |
| Depth of standpipe and diameter | 29.72 | 50mm (ID) |

| Seconds | CH ₄ | CO ₂ | O ₂ | LEL (%) | CO | 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 | | |

GSV

0

| | | |
|--|------------------|-----------|
| Exploratory hole identity | BH-NSA-13 | |
| Flow range (complete pre- | 0 | l/hr |
| Peak flow (complete pre-monitoring) | 0 | l/hr |
| Differential Pressure | 0 | Pa |
| Depth to water (record post- | 11.34 | m |
| Depth of standpipe and diameter | 29.65 | 50mm (ID) |

| Seconds | CH ₄ | CO ₂ | O ₂ | LEL (%) | CO | 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

0

| | | |
|--|------------------|-----------|
| Exploratory hole identity | BH-NSA-14 | |
| Flow range (complete pre- | 0 | l/hr |
| Peak flow (complete pre-monitoring) | 0 | l/hr |
| Differential Pressure | 0 | Pa |
| Depth to water (record post- | 5.32 | m |
| Depth of standpipe and diameter | 27.4 | 50mm (ID) |

| Seconds | CH ₄ | CO ₂ | O ₂ | LEL (%) | CO | 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 | | |

GSV

0

| | | | | | | |
|--|-----------------------|-----------------------|----------------------|----------------|-----------|-----------------------|
| Exploratory hole identity | | BH-NSA-15 | | | | |
| Flow range (complete pre- | | 0 | l/hr | | | |
| Peak flow (complete pre-monitoring) | | 0 | l/hr | | | |
| Differential Pressure | | 0 | Pa | | | |
| Depth to water (record post- | | 1.44 | m | | | |
| Depth of standpipe and diameter | | 7.16 | 50mm (ID) | | | |
| Seconds | CH₄ | CO₂ | O₂ | LEL (%) | CO | H₂S |
| 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
0

| | | | | | | |
|--|-----------------------|-----------------------|----------------------|----------------|-----------|-----------------------|
| Exploratory hole identity | | BH-NSA-16 | | | | |
| Flow range (complete pre- | | 0 | l/hr | | | |
| Peak flow (complete pre-monitoring) | | 0 | l/hr | | | |
| Differential Pressure | | 0 | Pa | | | |
| Depth to water (record post- | | 12.85 | m | | | |
| Depth of standpipe and diameter | | 28.52 | 50mm (ID) | | | |
| Seconds | CH₄ | CO₂ | O₂ | LEL (%) | CO | H₂S |
| 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 hole identity | | BH-NSA-17 | | | | |
| Flow range (complete pre- | | 0 | l/hr | | | |
| Peak flow (complete pre-monitoring) | | 0 | l/hr | | | |
| Differential Pressure | | 0 | Pa | | | |
| Depth to water (record post- | | 2.65 | m | | | |
| Depth of standpipe and diameter | | 9.07 | 50mm (ID) | | | |
| Seconds | CH₄ | CO₂ | O₂ | LEL (%) | CO | H₂S |
| 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 hole identity | BH-NSA-18 | |
| Flow range (complete pre- | 0 | l/hr |
| Peak flow (complete pre-monitoring) | 0 | l/hr |
| Differential Pressure | 0 | Pa |
| Depth to water (record post- | 2.92 | m |
| Depth of standpipe and diameter | 6.26 | 50mm (ID) |

| Seconds | CH ₄ | CO ₂ | O ₂ | LEL (%) | CO | 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 hole identity | BH-NSA-19 | |
| Flow range (complete pre- | 0 | l/hr |
| Peak flow (complete pre-monitoring) | 0 | l/hr |
| Differential Pressure | 0 | Pa |
| Depth to water (record post- | 2.8 | m |
| Depth of standpipe and diameter | 6.73 | 50mm (ID) |

| Seconds | CH ₄ | CO ₂ | O ₂ | LEL (%) | CO | 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 | | |
| | 0 | 0 | 20.7 | 0 | | |

GSV

0

| | | |
|-------------------------------------|------------------|-----------|
| Exploratory hole identity | BH-NSA-20 | |
| Flow range (complete pre- | 0 | l/hr |
| Peak flow (complete pre-monitoring) | 0 | l/hr |
| Differential Pressure | 0 | Pa |
| Depth to water (record post- | 3.17 | m |
| Depth of standpipe and diameter | 8.34 | 50mm (ID) |

| Seconds | CH ₄ | CO ₂ | O ₂ | LEL (%) | CO | 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 | | |
| | 0 | 0 | 20.7 | 0 | | |

GSV

0

| | | |
|--|------------------|-----------|
| Exploratory hole identity | BH-NSA-21 | |
| Flow range (complete pre- | 0 | l/hr |
| Peak flow (complete pre-monitoring) | 0 | l/hr |
| Differential Pressure | 0 | Pa |
| Depth to water (record post- | 2.93 | m |
| Depth of standpipe and diameter | 8.9 | 50mm (ID) |

| Seconds | CH ₄ | CO ₂ | O ₂ | LEL (%) | CO | 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 | | |

GSV
0

| | | |
|--|------------------|-----------|
| Exploratory hole identity | BH-NSA-22 | |
| Flow range (complete pre- | 0 | l/hr |
| Peak flow (complete pre-monitoring) | 0 | l/hr |
| Differential Pressure | 0 | Pa |
| Depth to water (record post- | 2.7 | m |
| Depth of standpipe and diameter | 8 | 50mm (ID) |

| Seconds | CH ₄ | CO ₂ | O ₂ | LEL (%) | CO | 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
0

| | | |
|--|------------------|-----------|
| Exploratory hole identity | BH-NSA-38 | |
| Flow range (complete pre- | 0 | l/hr |
| Peak flow (complete pre-monitoring) | 0 | l/hr |
| Differential Pressure | 0 | Pa |
| Depth to water (record post- | 2.23 | m |
| Depth of standpipe and diameter | 9.5 | 50mm (ID) |

| Seconds | CH ₄ | CO ₂ | O ₂ | LEL (%) | CO | 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
0



| | |
|--------------------------|------------------|
| 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 Monitoring: | 1016 |
| General Atmospheric Pressure Condition (rising or falling?) | | | | |
| Weather Conditions | | Sunny | Overcast | Yes |
| Wind Conditions | | Slight Breeze | Yes | Strong breeze |
| Ground Conditions | | Damp | | Wet |
| Site Conditions | Site consists of mainly hardstanding with grassed areas | | | |

| | | | | | | |
|--|-----------------------|-----------------------|----------------------|----------------|-----------|-----------------------|
| Exploratory hole identity | BH-NSA-1 | | | | | |
| Flow range (complete pre-monitoring) | 0-0.1 | | l/hr | | | |
| Peak flow (complete pre-monitoring) | 0.1 | | l/hr | | | |
| Differential Pressure | 1 | | Pa | | | |
| Depth to water (record post-monitoring) | | | m | | | |
| Depth of standpipe and diameter | | | 50mm (ID) | | | |
| Seconds | CH₄ | CO₂ | O₂ | LEL (%) | CO | H₂S |
| 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 identity | BH-NSA-2 | | | | | |
| Flow range (complete pre-monitoring) | 0.7-0.9 | | l/hr | | | |
| Peak flow (complete pre-monitoring) | 0.9 | | l/hr | | | |
| Differential Pressure | 4 | | Pa | | | |
| Depth to water (record post-monitoring) | | | m | | | |
| Depth of standpipe and diameter | | | 50mm (ID) | | | |
| Seconds | CH₄ | CO₂ | O₂ | LEL (%) | CO | H₂S |
| 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

0

| | | | | | | |
|--|-----------------------|-----------------------|----------------------|----------------|-----------|-----------------------|
| Exploratory hole identity | BH-NSA-3 | | | | | |
| Flow range (complete pre-monitoring) | 0.9-1.0 | | l/hr | | | |
| Peak flow (complete pre-monitoring) | 1 | | l/hr | | | |
| Differential Pressure | 4 | | Pa | | | |
| Depth to water (record post-monitoring) | | | m | | | |
| Depth of standpipe and diameter | | | 50mm (ID) | | | |
| Seconds | CH₄ | CO₂ | O₂ | LEL (%) | CO | H₂S |
| 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

GSV

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 and diameter | | | | 50mm (ID) | | |
|---------------------------------|-----------------|-----------------|----------------|-----------|----|------------------|
| Seconds | CH ₄ | CO ₂ | O ₂ | LEL (%) | CO | H ₂ S |
| 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 | | |
| | 0 | 0 | 20.6 | 0 | | |

PID- 0.0
GSV
0

| Exploratory hole identity | | | | BH-NSA-5 | | |
|---|-----------------|-----------------|----------------|-----------|------|------------------|
| Flow range (complete pre-monitoring) | | | | 0-0.5 | l/hr | |
| Peak flow (complete pre-monitoring) | | | | 0.5 | l/hr | |
| Differential Pressure | | | | 1 | Pa | |
| Depth to water (record post-monitoring) | | | | | m | |
| Depth of standpipe and diameter | | | | 50mm (ID) | | |
| Seconds | CH ₄ | CO ₂ | O ₂ | LEL (%) | CO | 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 | | |

PID- 0.0
GSV
0

| Exploratory hole identity | | | | BH-NSA-6 | | |
|---|-----------------|-----------------|----------------|-----------|------|------------------|
| Flow range (complete pre-monitoring) | | | | 0.7 | l/hr | |
| Peak flow (complete pre-monitoring) | | | | 0.7 | l/hr | |
| Differential Pressure | | | | 3 | Pa | |
| Depth to water (record post-monitoring) | | | | | m | |
| Depth of standpipe and diameter | | | | 50mm (ID) | | |
| Seconds | CH ₄ | CO ₂ | O ₂ | LEL (%) | CO | 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 | | |
| 60 | 0 | 0 | 21.1 | 0 | | |
| | 0 | 0 | 21.1 | 0 | | |

PID- 42.9
GSV
0

| Exploratory hole identity | | | | BH-NSA-7 | | |
|---|-----------------|-----------------|----------------|-----------|------|------------------|
| Flow range (complete pre-monitoring) | | | | 0.7 | l/hr | |
| Peak flow (complete pre-monitoring) | | | | 0.7 | l/hr | |
| Differential Pressure | | | | 4 | Pa | |
| Depth to water (record post-monitoring) | | | | | m | |
| Depth of standpipe and diameter | | | | 50mm (ID) | | |
| Seconds | CH ₄ | CO ₂ | O ₂ | LEL (%) | CO | H ₂ S |
| 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 | | |
| 120 | 0 | 0 | 20.8 | 0 | | |
| | 0 | 0 | 20.8 | 0 | | |

PID- 0.0
GSV
0

| Exploratory hole identity | | | | BH-NSA-8 | | |
|---|-----------------|-----------------|----------------|-----------|------|------------------|
| Flow range (complete pre-monitoring) | | | | 0.6-0.7 | l/hr | |
| Peak flow (complete pre-monitoring) | | | | 0.7 | l/hr | |
| Differential Pressure | | | | 3 | Pa | |
| Depth to water (record post-monitoring) | | | | | m | |
| Depth of standpipe and diameter | | | | 50mm (ID) | | |
| Seconds | CH ₄ | CO ₂ | O ₂ | LEL (%) | CO | H ₂ S |
| 0 | 0 | 0.3 | 20.7 | 0 | 0 | 0 |
| 15 | 0 | 0.2 | 20.9 | 0 | 0 | 0 |
| 30 | 0 | 0.2 | 20.9 | 0 | 0 | 0 |

PID- 0.0

| | | | | | | |
|-----|---|-----|------|---|---|---|
| 45 | 0 | 0.2 | 20.8 | 0 | 0 | 0 |
| 60 | 0 | 0.2 | 20.8 | 0 | 0 | 0 |
| 90 | 0 | 0.2 | 20.8 | 0 | 0 | 0 |
| 120 | 0 | 0.2 | 20.8 | 0 | 0 | 0 |
| | 0 | 0.2 | 20.8 | 0 | | |

GSV

0.0014

| | | | | | | |
|---|-----------------|-----------------|----------------|---------|----|------------------|
| Exploratory hole identity | | BH-NSA-9 | | | | |
| Flow range (complete pre-monitoring) | | 0.1-0.5 | l/hr | | | |
| Peak flow (complete pre-monitoring) | | 0.5 | l/hr | | | |
| Differential Pressure | | 2 | Pa | | | |
| Depth to water (record post-monitoring) | | | m | | | |
| Depth of standpipe and diameter | | | 50mm (ID) | | | |
| Seconds | CH ₄ | CO ₂ | O ₂ | LEL (%) | CO | H ₂ S |
| 0 | 0 | 0 | 20.7 | 0 | | |
| 15 | 0 | 0 | 21 | 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 | | |
| 120 | 0 | 0 | 20.8 | 0 | | |
| | 0 | 0 | 20.7 | 0 | | |

PID- 0.0

GSV

0

| | | | | | | |
|---|-----------------|-----------------|----------------|---------|----|------------------|
| Exploratory hole identity | | BH-NSA-10 | | | | |
| Flow range (complete pre-monitoring) | | 0.5 | l/hr | | | |
| Peak flow (complete pre-monitoring) | | 0.5 | l/hr | | | |
| Differential Pressure | | 0 | Pa | | | |
| Depth to water (record post-monitoring) | | | m | | | |
| Depth of standpipe and diameter | | | 50mm (ID) | | | |
| Seconds | CH ₄ | CO ₂ | O ₂ | LEL (%) | CO | H ₂ S |
| 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 | | |
| | 0 | 0 | 20.8 | 0 | | |

PID=1.7

GSV

0

| | | | | | | |
|---|-----------------|-----------------|----------------|---------|----|------------------|
| Exploratory hole identity | | BH-NSA-11 | | | | |
| Flow range (complete pre-monitoring) | | 0.3 | l/hr | | | |
| Peak flow (complete pre-monitoring) | | 0.3 | l/hr | | | |
| Differential Pressure | | 1 | Pa | | | |
| Depth to water (record post-monitoring) | | | m | | | |
| Depth of standpipe and diameter | | | 50mm (ID) | | | |
| Seconds | CH ₄ | CO ₂ | O ₂ | LEL (%) | CO | 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 | | |

PID- 1.7

GSV

0

| | | | | | | |
|---------------------------|--|-----------|--|--|--|--|
| Exploratory hole identity | | BH-NSA-12 | | | | |
|---------------------------|--|-----------|--|--|--|--|

| | | | | | | | |
|---|-----------------|-----------------|----------------|-----------|----|------------------|-------------|
| Flow range (complete pre-monitoring) | | 0.6 | | l/hr | | | |
| Peak flow (complete pre-monitoring) | | 0.6 | | l/hr | | | |
| Differential Pressure | | 2 | | Pa | | | |
| Depth to water (record post-monitoring) | | | | m | | | |
| Depth of standpipe and diameter | | | | 50mm (ID) | | | |
| Seconds | CH ₄ | CO ₂ | O ₂ | LEL (%) | CO | 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 identity | | BH-NSA-13 | | | | | |
| Flow range (complete pre-monitoring) | | 1.1-1.2 | | l/hr | | | |
| Peak flow (complete pre-monitoring) | | 1.2 | | l/hr | | | |
| Differential Pressure | | 5 | | Pa | | | |
| Depth to water (record post-monitoring) | | | | m | | | |
| Depth of standpipe and diameter | | | | 50mm (ID) | | | |
| Seconds | CH ₄ | CO ₂ | O ₂ | LEL (%) | CO | H ₂ S | PID- 0.0 |
| 0 | 0 | 0 | 20.9 | 0 | | | |
| 15 | 0 | 0 | 21 | 0 | | | |
| 30 | 0 | 0 | 21.2 | 0 | | | |
| 45 | 0 | 0 | 21.2 | 0 | | | |
| 60 | 0 | 0 | 21.2 | 0 | | | GSV |
| | 0 | 0 | 20.9 | 0 | | | 0 |

| | | | | | | | |
|---|-----------------|-----------------|----------------|-----------|----|------------------|----------|
| Exploratory hole identity | | BH-NSA-14 | | | | | |
| Flow range (complete pre-monitoring) | | 0.6-0.7 | | l/hr | | | |
| Peak flow (complete pre-monitoring) | | 0.7 | | l/hr | | | |
| Differential Pressure | | 3 | | Pa | | | |
| Depth to water (record post-monitoring) | | | | m | | | |
| Depth of standpipe and diameter | | | | 50mm (ID) | | | |
| Seconds | CH ₄ | CO ₂ | O ₂ | LEL (%) | CO | 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 | 29 | 0 | | | |
| 60 | 0 | 0 | 20.9 | 0 | | | GSV |
| | 0 | 0 | 20.9 | 0 | | | 0 |

| | | | | | | | |
|---|-----------------|-----------------|----------------|-----------|----|------------------|----------|
| Exploratory hole identity | | BH-NSA-15 | | | | | |
| Flow range (complete pre-monitoring) | | 0.5-0.6 | | l/hr | | | |
| Peak flow (complete pre-monitoring) | | 0.6 | | l/hr | | | |
| Differential Pressure | | 4 | | Pa | | | |
| Depth to water (record post-monitoring) | | | | m | | | |
| Depth of standpipe and diameter | | | | 50mm (ID) | | | |
| Seconds | CH ₄ | CO ₂ | O ₂ | LEL (%) | CO | H ₂ S | PID- 0.0 |
| 0 | 0 | 0 | 20.8 | 0 | | | |
| 15 | 0 | 0 | 20.8 | 0 | | | |
| 30 | 0 | 0 | 20.9 | 0 | | | |
| 45 | 0 | 0 | 20.8 | 0 | | | |
| 60 | 0 | 0 | 20.8 | 0 | | | GSV |
| | | | | | | | 0 |

| | | | | | | | |
|---|-----------------|-----------------|----------------|-----------|----|------------------|----------|
| Exploratory hole identity | | BH-NSA-16 | | | | | |
| Flow range (complete pre-monitoring) | | 1.1-1.2 | | l/hr | | | |
| Peak flow (complete pre-monitoring) | | 1.2 | | l/hr | | | |
| Differential Pressure | | 5 | | Pa | | | |
| Depth to water (record post-monitoring) | | | | m | | | |
| Depth of standpipe and diameter | | | | 50mm (ID) | | | |
| Seconds | CH ₄ | CO ₂ | O ₂ | LEL (%) | CO | 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 | | |
| | 0 | 0 | 20.8 | 0 | | |

GSV
0

| | | | | | | |
|---|-----------------|-----------------|----------------|---------|----|------------------|
| Exploratory hole identity | | BH-NSA-17 | | | | |
| Flow range (complete pre-monitoring) | | 0.1 | l/hr | | | |
| Peak flow (complete pre-monitoring) | | 0.1 | l/hr | | | |
| Differential Pressure | | 1 | Pa | | | |
| Depth to water (record post-monitoring) | | m | | | | |
| Depth of standpipe and diameter | | 50mm (ID) | | | | |
| Seconds | CH ₄ | CO ₂ | O ₂ | LEL (%) | CO | H ₂ S |
| 0 | 0 | 0 | 20.8 | 0 | | |
| 15 | 0 | 0 | 20.9 | 0 | | |
| 30 | 0 | 0 | 21 | 0 | | |
| 45 | 0 | 0 | 20.8 | 0 | | |
| 60 | 0 | 0 | 20.8 | 0 | | |
| | 0 | 0 | 20.8 | 0 | | |

PID- 0.0

GSV
0

| | | | | | | |
|---|-----------------|-----------------|----------------|---------|----|------------------|
| Exploratory hole identity | | BH-NSA-18 | | | | |
| Flow range (complete pre-monitoring) | | 0 | l/hr | | | |
| Peak flow (complete pre-monitoring) | | 0 | l/hr | | | |
| Differential Pressure | | 0 | Pa | | | |
| Depth to water (record post-monitoring) | | m | | | | |
| Depth of standpipe and diameter | | 50mm (ID) | | | | |
| Seconds | CH ₄ | CO ₂ | O ₂ | LEL (%) | CO | H ₂ S |
| 0 | 0 | 0 | 20.9 | 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 | | |
| | 0 | 0 | 20.8 | 0 | | |

PID- 0.0

GSV
0

| | | | | | | |
|---|-----------------|-----------------|----------------|---------|----|------------------|
| Exploratory hole identity | | BH-NSA-19 | | | | |
| Flow range (complete pre-monitoring) | | 0-0.2 | l/hr | | | |
| Peak flow (complete pre-monitoring) | | 0.2 | l/hr | | | |
| Differential Pressure | | 0 | Pa | | | |
| Depth to water (record post-monitoring) | | m | | | | |
| Depth of standpipe and diameter | | 50mm (ID) | | | | |
| Seconds | CH ₄ | CO ₂ | O ₂ | LEL (%) | CO | 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 | | |

PID- 0.0

GSV
0

| | | | | | | |
|---|-----------------|-----------------|----------------|---------|----|------------------|
| Exploratory hole identity | | BH-NSA-20 | | | | |
| Flow range (complete pre-monitoring) | | 0-0.1 | l/hr | | | |
| Peak flow (complete pre-monitoring) | | 0.1 | l/hr | | | |
| Differential Pressure | | 1 | Pa | | | |
| Depth to water (record post-monitoring) | | m | | | | |
| Depth of standpipe and diameter | | 50mm (ID) | | | | |
| Seconds | CH ₄ | CO ₂ | O ₂ | LEL (%) | CO | H ₂ S |
| 0 | 0 | 0 | 21 | 0 | | |
| 15 | 0 | 0 | 21.1 | 0 | | |
| 30 | 0 | 0 | 20.9 | 0 | | |
| 45 | 0 | 0 | 20.9 | 0 | | |
| 60 | 0 | 0 | 20.9 | 0 | | |

PID- 0.0

GSV

0 0 20.9 0 0

| Exploratory hole identity | | BH-NSA-21 | | | | |
|---|-----------------|-----------------|----------------|---------|----|------------------|
| Flow range (complete pre-monitoring) | | 0-0.1 | l/hr | | | |
| Peak flow (complete pre-monitoring) | | 0.1 | l/hr | | | |
| Differential Pressure | | 0 | Pa | | | |
| Depth to water (record post-monitoring) | | m | | | | |
| Depth of standpipe and diameter | | 50mm (ID) | | | | |
| Seconds | CH ₄ | CO ₂ | O ₂ | LEL (%) | CO | H ₂ S |
| 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 | | |
| | | 0 | 0 | 20.8 | 0 | |

PID- 0.0

GSV
0

| Exploratory hole identity | | BH-NSA-22 | | | | |
|---|-----------------|-----------------|----------------|---------|----|------------------|
| Flow range (complete pre-monitoring) | | 1 | l/hr | | | |
| Peak flow (complete pre-monitoring) | | 1 | l/hr | | | |
| Differential Pressure | | 5.5 | Pa | | | |
| Depth to water (record post-monitoring) | | m | | | | |
| Depth of standpipe and diameter | | 50mm (ID) | | | | |
| Seconds | CH ₄ | CO ₂ | O ₂ | LEL (%) | CO | H ₂ S |
| 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 | | |
| | | 0 | 0 | 20.8 | 0 | |

PID- 0.0

GSV
0

| Exploratory hole identity | | BH-NSA-23 | | | | |
|---|-----------------|-----------------|----------------|---------|----|------------------|
| Flow range (complete pre-monitoring) | | 0 | l/hr | | | |
| Peak flow (complete pre-monitoring) | | 0 | l/hr | | | |
| Differential Pressure | | 0 | Pa | | | |
| Depth to water (record post-monitoring) | | m | | | | |
| Depth of standpipe and diameter | | 50mm (ID) | | | | |
| Seconds | CH ₄ | CO ₂ | O ₂ | LEL (%) | CO | H ₂ S |
| 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 | | |
| | | 0 | 0 | 20.8 | 0 | |

PID- 0.0

GSV
0

| Exploratory hole identity | | BH-NSA-24 | | | | |
|---|-----------------|-----------------|----------------|---------|----|------------------|
| Flow range (complete pre-monitoring) | | 0.1-0.2 | l/hr | | | |
| Peak flow (complete pre-monitoring) | | 0.2 | l/hr | | | |
| Differential Pressure | | 2 | Pa | | | |
| Depth to water (record post-monitoring) | | m | | | | |
| Depth of standpipe and diameter | | 50mm (ID) | | | | |
| Seconds | CH ₄ | CO ₂ | O ₂ | LEL (%) | CO | 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 | | |

PID- 0.0

GSV
0

| | | | | |
|--------------------------------------|--|-----------|------|--|
| 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 (record post-monitoring) | | | | | | m | | |
| Depth of standpipe and diameter | | | | | | 50mm (ID) | | |
| Seconds | CH ₄ | CO ₂ | O ₂ | LEL (%) | CO | 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 | 0 | 20.8 | 0 | | | | |

| Exploratory hole identity | | | | | BH-NSA-26 | | | |
|---|-----------------|-----------------|----------------|---------|-----------|------------------|----------|--------|
| Flow range (complete pre-monitoring) | | | | | 0.7 | l/hr | | |
| Peak flow (complete pre-monitoring) | | | | | 0.7 | l/hr | | |
| Differential Pressure | | | | | 0.3 | Pa | | |
| Depth to water (record post-monitoring) | | | | | | m | | |
| Depth of standpipe and diameter | | | | | | 50mm (ID) | | PID 50 |
| Seconds | CH ₄ | CO ₂ | O ₂ | LEL (%) | CO | 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 | | | GSV 0 | |
| | 0 | 0 | 20.9 | 0 | | | | |

| Exploratory hole identity | | | | | BH-NSA-27 | | | |
|---|-----------------|-----------------|----------------|---------|-----------|------------------|----------|----------|
| Flow range (complete pre-monitoring) | | | | | 0.3 | l/hr | | |
| Peak flow (complete pre-monitoring) | | | | | 0.3 | l/hr | | |
| Differential Pressure | | | | | 1 | Pa | | |
| Depth to water (record post-monitoring) | | | | | | m | | |
| Depth of standpipe and diameter | | | | | | 50mm (ID) | | PID- 0.0 |
| Seconds | CH ₄ | CO ₂ | O ₂ | LEL (%) | CO | H ₂ S | | |
| 0 | 0 | 0 | 21.1 | 0 | | | | |
| 15 | 0 | 0 | 21.1 | 0 | | | | |
| 30 | 0 | 0 | 21.1 | 0 | | | | |
| 45 | 0 | 0 | 21.2 | 0 | | | | |
| 60 | 0 | 0 | 21.1 | 0 | | | GSV 0 | |
| | 0 | 0 | 21.1 | 0 | | | | |

| Exploratory hole identity | | | | | BH-NSA-28 | | | |
|---|-----------------|-----------------|----------------|---------|-----------|------------------|----------|----------|
| Flow range (complete pre-monitoring) | | | | | 0-0.1 | l/hr | | |
| Peak flow (complete pre-monitoring) | | | | | 0.1 | l/hr | | |
| Differential Pressure | | | | | 1 | Pa | | |
| Depth to water (record post-monitoring) | | | | | | m | | |
| Depth of standpipe and diameter | | | | | | 50mm (ID) | | PID- 0.0 |
| Seconds | CH ₄ | CO ₂ | O ₂ | LEL (%) | CO | 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 | | | GSV 0 | |
| | 0 | 0 | 20.9 | 0 | | | | |

| Exploratory hole identity | | | | | BH-NSA-29 | | | |
|---|-----------------|-----------------|----------------|---------|-----------|------------------|--|----------|
| Flow range (complete pre-monitoring) | | | | | 0.1-0.2 | l/hr | | |
| Peak flow (complete pre-monitoring) | | | | | 0.2 | l/hr | | |
| Differential Pressure | | | | | 3 | Pa | | |
| Depth to water (record post-monitoring) | | | | | | m | | |
| Depth of standpipe and diameter | | | | | | 50mm (ID) | | PID- 0.0 |
| Seconds | CH ₄ | CO ₂ | O ₂ | LEL (%) | CO | H ₂ S | | |

| | | | | | | |
|----|---|---|------|---|--|--|
| 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 | | |
| | 0 | 0 | 20.8 | 0 | | |

GSV
0

| | | | | | | |
|---|-----------------|-----------------|----------------|---------|----|------------------|
| Exploratory hole identity | | BH-NSA-30 | | | | |
| Flow range (complete pre-monitoring) | | 0.2-0.3 | l/hr | | | |
| Peak flow (complete pre-monitoring) | | 0.3 | l/hr | | | |
| Differential Pressure | | 3 | Pa | | | |
| Depth to water (record post-monitoring) | | m | | | | |
| Depth of standpipe and diameter | | 50mm (ID) | | | | |
| Seconds | CH ₄ | CO ₂ | O ₂ | LEL (%) | CO | H ₂ S |
| 0 | 0 | 0 | 20.7 | 0 | | |
| 15 | 0 | 0 | 20.8 | 0 | | |
| 30 | 0 | 0 | 20.8 | 0 | | |
| 45 | 0 | 0 | 20.9 | 0 | | |
| 60 | 0 | 0 | 20.9 | 0 | | |
| | 0 | 0 | 20.7 | 0 | | |

PID- 0.0

GSV
0

| | | | | | | |
|---|-----------------|-----------------|----------------|---------|----|------------------|
| Exploratory hole identity | | BH-NSA-31 | | | | |
| Flow range (complete pre-monitoring) | | 0-0.1 | l/hr | | | |
| Peak flow (complete pre-monitoring) | | 0.1 | l/hr | | | |
| Differential Pressure | | 3 | Pa | | | |
| Depth to water (record post-monitoring) | | m | | | | |
| Depth of standpipe and diameter | | 50mm (ID) | | | | |
| Seconds | CH ₄ | CO ₂ | O ₂ | LEL (%) | CO | H ₂ S |
| 0 | 0 | 0 | 20.9 | 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 | | |
| | 0 | 0 | 20.8 | 0 | | |

PID- 0.0

GSV
0

| | | | | | | |
|---|-----------------|-----------------|----------------|---------|----|------------------|
| Exploratory hole identity | | BH-NSA-37 | | | | |
| Flow range (complete pre-monitoring) | | 0.5-0.6 | l/hr | | | |
| Peak flow (complete pre-monitoring) | | 0.6 | l/hr | | | |
| Differential Pressure | | 4 | Pa | | | |
| Depth to water (record post-monitoring) | | m | | | | |
| Depth of standpipe and diameter | | 50mm (ID) | | | | |
| Seconds | CH ₄ | CO ₂ | O ₂ | LEL (%) | CO | H ₂ S |
| 0 | 0 | 0 | 20.9 | 0 | | |
| 15 | 0 | 0 | 21 | 0 | | |
| 30 | 0 | 0 | 20.8 | 0 | | |
| 45 | 0 | 0 | 20.8 | 0 | | |
| 60 | 0 | 0 | 20.8 | 0 | | |
| | 0 | 0 | 20.8 | 0 | | |

PID- 0.0

GSV
0

| | | | | | | |
|---|-----------------|-----------------|----------------|---------|----|------------------|
| Exploratory hole identity | | BH-NSA-38 | | | | |
| Flow range (complete pre-monitoring) | | 0.6-0.7 | l/hr | | | |
| Peak flow (complete pre-monitoring) | | 0.7 | l/hr | | | |
| Differential Pressure | | 3 | Pa | | | |
| Depth to water (record post-monitoring) | | m | | | | |
| Depth of standpipe and diameter | | 50mm (ID) | | | | |
| Seconds | CH ₄ | CO ₂ | O ₂ | LEL (%) | CO | 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 | | |

PID- 0.0

GSV
0

| | | | | | | |
|---------------------------|--|-----------|--|--|--|--|
| Exploratory hole identity | | BH-NSA-39 | | | | |
|---------------------------|--|-----------|--|--|--|--|

| Flow range (complete pre-monitoring) | | 0.3 | l/hr | | | |
|---|-----------------|-----------------|----------------|---------|----|------------------|
| Peak flow (complete pre-monitoring) | | 0.4 | l/hr | | | |
| Differential Pressure | | 2 | Pa | | | |
| Depth to water (record post-monitoring) | | | m | | | |
| Depth of standpipe and diameter | | | 50mm (ID) | | | |
| Seconds | CH ₄ | CO ₂ | O ₂ | LEL (%) | CO | H ₂ S |
| 0 | 0 | 0 | 20.9 | 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 | | |
| | 0 | 0 | 20.8 | 0 | | |

PID- 0.0

GSV

0

| Exploratory hole identity | | BH-NSA-42 | | | | |
|---|-----------------|-----------------|----------------|---------|----|------------------|
| Flow range (complete pre-monitoring) | | 0 | l/hr | | | |
| Peak flow (complete pre-monitoring) | | 0 | l/hr | | | |
| Differential Pressure | | 0 | Pa | | | |
| Depth to water (record post-monitoring) | | | m | | | |
| Depth of standpipe and diameter | | | 50mm (ID) | | | |
| Seconds | CH ₄ | CO ₂ | O ₂ | LEL (%) | CO | H ₂ S |
| 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 | | |
| | 0 | 0 | 20.7 | 0 | | |

PID- 16.3

GSV

0

| Exploratory hole identity | | BH-NSA-43 | | | | |
|---|-----------------|-----------------|----------------|---------|----|------------------|
| Flow range (complete pre-monitoring) | | 0.3-0.4 | l/hr | | | |
| Peak flow (complete pre-monitoring) | | 0.4 | l/hr | | | |
| Differential Pressure | | 1 | Pa | | | |
| Depth to water (record post-monitoring) | | | m | | | |
| Depth of standpipe and diameter | | | 50mm (ID) | | | |
| Seconds | CH ₄ | CO ₂ | O ₂ | LEL (%) | CO | 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 | | |

PID- 0.0

GSV

0

| Exploratory hole identity | | BH-NSA-44 | | | | |
|---|-----------------|-----------------|----------------|---------|----|------------------|
| Flow range (complete pre-monitoring) | | 0-0.1 | l/hr | | | |
| Peak flow (complete pre-monitoring) | | 0.1 | l/hr | | | |
| Differential Pressure | | 1 | Pa | | | |
| Depth to water (record post-monitoring) | | | m | | | |
| Depth of standpipe and diameter | | | 50mm (ID) | | | |
| Seconds | CH ₄ | CO ₂ | O ₂ | LEL (%) | CO | 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 | | |

PID- 0.0

GSV

0

| | | | | | | |
|---|--|-----------|------|--|--|--|
| Exploratory hole identity | | BH-NSA-45 | | | | |
| Flow range (complete pre-monitoring) | | 0.7 | l/hr | | | |
| Peak flow (complete pre-monitoring) | | 0.7 | l/hr | | | |
| Differential Pressure | | 3 | Pa | | | |
| Depth to water (record post-monitoring) | | 1.72 | m | | | |

| Depth of standpipe and diameter | | | 3.53 | 50mm (ID) | | |
|---------------------------------|-----------------|-----------------|----------------|-----------|----|------------------|
| Seconds | CH ₄ | CO ₂ | O ₂ | LEL (%) | CO | H ₂ S |
| 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 |
| | 0 | 0 | 21 | 0 | | |

PID- 0.0

GSV

0

| Exploratory hole identity | | | BH-NSA-225 | | | |
|---|-----------------|-----------------|----------------|-----------|----|------------------|
| Flow range (complete pre-monitoring) | | | 0.9-1.2 | l/hr | | |
| Peak flow (complete pre-monitoring) | | | 1.2 | l/hr | | |
| Differential Pressure | | | 5 | Pa | | |
| Depth to water (record post-monitoring) | | | | m | | |
| Depth of standpipe and diameter | | | | 50mm (ID) | | |
| Seconds | CH ₄ | CO ₂ | O ₂ | LEL (%) | CO | H ₂ S |
| 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 |
| | 0 | 0 | 20.8 | 0 | | |

PID- 0.0

GSV

0

| Exploratory hole identity | | | BH-NSA-226 | | | |
|---|-----------------|-----------------|----------------|-----------|----|------------------|
| Flow range (complete pre-monitoring) | | | 0.8-1.0 | l/hr | | |
| Peak flow (complete pre-monitoring) | | | 1 | l/hr | | |
| Differential Pressure | | | 4 | Pa | | |
| Depth to water (record post-monitoring) | | | | m | | |
| Depth of standpipe and diameter | | | | 50mm (ID) | | |
| Seconds | CH ₄ | CO ₂ | O ₂ | LEL (%) | CO | H ₂ S |
| 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 | | |
| | 0 | 0 | 20.8 | 0 | | |

PID- 0.0

GSV

0



| | |
|--------------------------|------------------|
| Project Name | Upper Heyford |
| Project Reference | EED10658-109 |
| Consultant | Marc Church |
| Date | 22/25-03-2012 |
| Time | 08:00am - 6:00pm |

| | | | | |
|--|-----------------|---|------------------|---------------|
| Atmospheric Pressure | Pre Monitoring: | 1014 | Post Monitoring: | |
| General Atmospheric Pressure Condition (rising or | | | | |
| Weather Conditions | | Sunny | Yes | Overcast |
| Wind Conditions | | Slight Breeze | Yes | Strong breeze |
| Ground Conditions | | Damp | | Wet |
| Site Conditions | | Site consists of mainly hardstanding with grassed areas | | |

| | | |
|--|-----------------|-----------|
| Exploratory hole identity | BH-NSA-1 | |
| Flow range (complete pre- | 0-0.1 | l/hr |
| Peak flow (complete pre- | 0.1 | l/hr |
| Differential Pressure | | Pa |
| Depth to water (record post- | | m |
| Depth of standpipe and diameter | | 50mm (ID) |

| Seconds | CH ₄ | CO ₂ | O ₂ | LEL (%) | CO | 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 | | |

PID- 0.0

GSV

0.0003

| | | |
|--|-----------------|-----------|
| Exploratory hole identity | BH-NSA-2 | |
| Flow range (complete pre- | 1.1-1.2 | l/hr |
| Peak flow (complete pre- | 1.2 | l/hr |
| Differential Pressure | | Pa |
| Depth to water (record post- | | m |
| Depth of standpipe and diameter | | 50mm (ID) |

| Seconds | CH ₄ | CO ₂ | O ₂ | LEL (%) | CO | 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 identity | | BH-NSA-3 | |
| Flow range (complete pre- | | 0.1-0.2 | l/hr |
| Peak flow (complete pre- | | 0.2 | l/hr |
| Differential Pressure | | | Pa |
| Depth to water (record post- | | | m |
| Depth of standpipe and diameter | | | 50mm (ID) |

| Seconds | CH ₄ | CO ₂ | O ₂ | LEL (%) | CO | H ₂ S |
|---------|-----------------|-----------------|----------------|---------|----|------------------|
| 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 |
| | 0 | 0.5 | 18.9 | 0 | | |

PID- 0.0

GSV

0.001

| | | | |
|----------------------------------|--|-----------------|-----------|
| Exploratory hole identity | | BH-NSA-4 | |
| Flow range (complete pre- | | 0.9-1.1 | l/hr |
| Peak flow (complete pre- | | 1.1 | l/hr |
| Differential Pressure | | | Pa |
| Depth to water (record post- | | | m |
| Depth of standpipe and diameter | | | 50mm (ID) |

| Seconds | CH ₄ | CO ₂ | O ₂ | LEL (%) | CO | H ₂ S |
|---------|-----------------|-----------------|----------------|---------|----|------------------|
| 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 |
| | 0 | 2.5 | 15.9 | 0 | | |

PID- 0.0

GSV

0.0275

| | | | |
|----------------------------------|--|-----------------|-----------|
| Exploratory hole identity | | BH-NSA-5 | |
| Flow range (complete pre- | | 0.7-0.8 | l/hr |
| Peak flow (complete pre- | | 0.8 | l/hr |
| Differential Pressure | | | Pa |
| Depth to water (record post- | | | m |
| Depth of standpipe and diameter | | | 50mm (ID) |

| Seconds | CH ₄ | CO ₂ | O ₂ | LEL (%) | CO | H ₂ S |
|---------|-----------------|-----------------|----------------|---------|----|------------------|
| 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 |
| | 0 | 0.1 | 20.9 | 0 | | |

PID-0.0

GSV

0.0008

| | | | |
|---------------------------------|--|----------|-----------|
| Exploratory hole identity | | BH-NSA-6 | |
| Flow range (complete pre- | | -3.7 | l/hr |
| Peak flow (complete pre- | | -3.7 | l/hr |
| Differential Pressure | | | Pa |
| Depth to water (record post- | | | m |
| Depth of standpipe and diameter | | | 50mm (ID) |

| Seconds | CH ₄ | CO ₂ | O ₂ | LEL (%) | CO | H ₂ S |
|---------|-----------------|-----------------|----------------|---------|----|------------------|
| 0 | 0 | 2.1 | 14.4 | 0 | 0 | 0 |
| 15 | 0 | 2.1 | 14.4 | 0 | 0 | 0 |
| 30 | 0 | 2.1 | 14.4 | 0 | 0 | 0 |
| 45 | 0 | 2.1 | 14.4 | 0 | 0 | 0 |
| 60 | 0 | 2.1 | 14.4 | 0 | 0 | 0 |
| | 0 | 2.1 | 14.4 | 0 | | |

PID 20.9

GSV

-0.0777

| | | | |
|---------------------------------|--|----------|-----------|
| Exploratory hole identity | | BH-NSA-7 | |
| Flow range (complete pre- | | 0.4-0.6 | l/hr |
| Peak flow (complete pre- | | 0.6 | l/hr |
| Differential Pressure | | | Pa |
| Depth to water (record post- | | | m |
| Depth of standpipe and diameter | | | 50mm (ID) |

| Seconds | CH ₄ | CO ₂ | O ₂ | LEL (%) | CO | 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 |
| | 0 | 1.1 | 18.4 | 0 | | |

PID- 0.0

GSV

0.0066

| | | | |
|---------------------------------|--|----------|-----------|
| Exploratory hole identity | | BH-NSA-8 | |
| Flow range (complete pre- | | 0.4-0.6 | l/hr |
| Peak flow (complete pre- | | 0.6 | l/hr |
| Differential Pressure | | | Pa |
| Depth to water (record post- | | | m |
| Depth of standpipe and diameter | | | 50mm (ID) |

| Seconds | CH ₄ | CO ₂ | O ₂ | LEL (%) | CO | 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 |
| 45 | 0 | 0 | 20.8 | 0 | 0 | 0 |
| 60 | 0 | 0 | 20.8 | 0 | 0 | 0 |
| | 0 | 0 | 20.7 | 0 | | |

PID- 0.0

GSV

0

| | | | |
|----------------------------------|---|-----------------|--|
| Exploratory hole identity | | BH-NSA-9 | |
| Flow range (complete pre- | 0 | l/hr | |
| Peak flow (complete pre- | 0 | l/hr | |
| Differential Pressure | | Pa | |
| Depth to water (record post- | | m | |
| Depth of standpipe and diameter | | 50mm (ID) | |

| Seconds | CH ₄ | CO ₂ | O ₂ | LEL (%) | CO | H ₂ S |
|---------|-----------------|-----------------|----------------|---------|----|------------------|
| 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 | | |
| | 0 | 0.2 | 20.7 | 0 | | |

PID- 0.0

GSV

0

| | | | |
|----------------------------------|---|------------------|--|
| Exploratory hole identity | | BH-NSA-10 | |
| Flow range (complete pre- | 0 | l/hr | |
| Peak flow (complete pre- | 0 | l/hr | |
| Differential Pressure | | Pa | |
| Depth to water (record post- | | m | |
| Depth of standpipe and diameter | | 50mm (ID) | |

| Seconds | CH ₄ | CO ₂ | O ₂ | LEL (%) | CO | H ₂ S |
|---------|-----------------|-----------------|----------------|---------|----|------------------|
| 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 | | |
| | 0 | 0.2 | 20.9 | 0 | | |

PID- 0.0

GSV

0

| | | | |
|----------------------------------|---|------------------|--|
| Exploratory hole identity | | BH-NSA-11 | |
| Flow range (complete pre- | 0 | l/hr | |
| Peak flow (complete pre- | 0 | l/hr | |
| Differential Pressure | | Pa | |
| Depth to water (record post- | | m | |
| Depth of standpipe and diameter | | 50mm (ID) | |

| Seconds | CH ₄ | CO ₂ | O ₂ | LEL (%) | CO | 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 | | |
| | 0 | 0 | 20.7 | 0 | | |

PID- 0.0

GSV

0

| | | | |
|---------------------------------|---|-----------|--|
| Exploratory hole identity | | BH-NSA-12 | |
| Flow range (complete pre- | 0 | l/hr | |
| Peak flow (complete pre- | 0 | l/hr | |
| Differential Pressure | | Pa | |
| Depth to water (record post- | | m | |
| Depth of standpipe and diameter | | 50mm (ID) | |

| Seconds | CH ₄ | CO ₂ | O ₂ | LEL (%) | CO | 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 | | |

PID- 0.0

GSV

0

| | | | |
|---------------------------------|---|-----------|--|
| Exploratory hole identity | | BH-NSA-13 | |
| Flow range (complete pre- | 0 | l/hr | |
| Peak flow (complete pre- | 0 | l/hr | |
| Differential Pressure | | Pa | |
| Depth to water (record post- | | m | |
| Depth of standpipe and diameter | | 50mm (ID) | |

| Seconds | CH ₄ | CO ₂ | O ₂ | LEL (%) | CO | H ₂ S |
|---------|-----------------|-----------------|----------------|---------|----|------------------|
| 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 | | |
| | 0 | 0.2 | 20.9 | 0 | | |

PID- 0.0

GSV

0

| | | | |
|---------------------------------|---|-----------|--|
| Exploratory hole identity | | BH-NSA-14 | |
| Flow range (complete pre- | 0 | l/hr | |
| Peak flow (complete pre- | 0 | l/hr | |
| Differential Pressure | | Pa | |
| Depth to water (record post- | | m | |
| Depth of standpipe and diameter | | 50mm (ID) | |

| Seconds | CH ₄ | CO ₂ | O ₂ | LEL (%) | CO | 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 | | |

PID- 0.0

GSV

0

| | | | |
|----------------------------------|---|------------------|--|
| Exploratory hole identity | | BH-NSA-15 | |
| Flow range (complete pre- | 0 | l/hr | |
| Peak flow (complete pre- | 0 | l/hr | |
| Differential Pressure | | Pa | |
| Depth to water (record post- | | m | |
| Depth of standpipe and diameter | | 50mm (ID) | |

| Seconds | CH ₄ | CO ₂ | O ₂ | LEL (%) | CO | H ₂ S |
|---------|-----------------|-----------------|----------------|---------|----|------------------|
| 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 | | |
| | 0 | 0 | 21.1 | 0 | | |

PID- 0.0

GSV
0

| | | | |
|----------------------------------|---|------------------|--|
| Exploratory hole identity | | BH-NSA-16 | |
| Flow range (complete pre- | 0 | l/hr | |
| Peak flow (complete pre- | 0 | l/hr | |
| Differential Pressure | | Pa | |
| Depth to water (record post- | | m | |
| Depth of standpipe and diameter | | 50mm (ID) | |

| Seconds | CH ₄ | CO ₂ | O ₂ | LEL (%) | CO | H ₂ S |
|---------|-----------------|-----------------|----------------|---------|----|------------------|
| 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 | | |
| | 0 | 0.7 | 19.5 | 0 | | |

PID- 0.0

GSV
0

| | | | |
|----------------------------------|--------|------------------|--|
| Exploratory hole identity | | BH-NSA-17 | |
| Flow range (complete pre- | 0.9-10 | l/hr | |
| Peak flow (complete pre- | 1 | l/hr | |
| Differential Pressure | | Pa | |
| Depth to water (record post- | | m | |
| Depth of standpipe and diameter | | 50mm (ID) | |

| Seconds | CH ₄ | CO ₂ | O ₂ | LEL (%) | CO | H ₂ S |
|---------|-----------------|-----------------|----------------|---------|----|------------------|
| 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 | | |
| 60 | 0 | 0.1 | 20.6 | 0 | | |
| | 0 | 0.1 | 20.6 | 0 | | |

PID- 0.0

GSV

0.001

| | | | |
|----------------------------------|--|------------------|-----------|
| Exploratory hole identity | | BH-NSA-18 | |
| Flow range (complete pre- | | 0.8 | l/hr |
| Peak flow (complete pre- | | 0.8 | l/hr |
| Differential Pressure | | | Pa |
| Depth to water (record post- | | | m |
| Depth of standpipe and diameter | | | 50mm (ID) |

| Seconds | CH ₄ | CO ₂ | O ₂ | LEL (%) | CO | H ₂ S |
|---------|-----------------|-----------------|----------------|---------|----|------------------|
| 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 | | |
| | 0 | 0.2 | 20.6 | 0 | | |

PID- 0.0

GSV

0.0016

| | | | |
|----------------------------------|--|------------------|-----------|
| Exploratory hole identity | | BH-NSA-19 | |
| Flow range (complete pre- | | 0.7 | l/hr |
| Peak flow (complete pre- | | 0.7 | l/hr |
| Differential Pressure | | | Pa |
| Depth to water (record post- | | | m |
| Depth of standpipe and diameter | | | 50mm (ID) |

| Seconds | CH ₄ | CO ₂ | O ₂ | LEL (%) | CO | H ₂ S |
|---------|-----------------|-----------------|----------------|---------|----|------------------|
| 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 | | |
| | 0 | 0.3 | 20.2 | 0 | | |

PID-0.0

GSV

0.0021

| | | | |
|----------------------------------|--|------------------|-----------|
| Exploratory hole identity | | BH-NSA-20 | |
| Flow range (complete pre- | | 0.5 | l/hr |
| Peak flow (complete pre- | | 0.7 | l/hr |
| Differential Pressure | | | Pa |
| Depth to water (record post- | | | m |
| Depth of standpipe and diameter | | | 50mm (ID) |

| Seconds | CH ₄ | CO ₂ | O ₂ | LEL (%) | CO | 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 | | |

PID- 0.0

GSV

0

| | | | |
|---------------------------------|-----|-----------|--|
| Exploratory hole identity | | BH-NSA-21 | |
| Flow range (complete pre- | 1.2 | l/hr | |
| Peak flow (complete pre- | 1.2 | l/hr | |
| Differential Pressure | | Pa | |
| Depth to water (record post- | | m | |
| Depth of standpipe and diameter | | 50mm (ID) | |

| Seconds | CH ₄ | CO ₂ | O ₂ | LEL (%) | CO | 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 | 20.9 | 0 | | |
| | 0 | 0 | 20.8 | 0 | | |

PID- 0.0

GSV

0

| | | | |
|---------------------------------|-----|-----------|--|
| Exploratory hole identity | | BH-NSA-22 | |
| Flow range (complete pre- | 1 | l/hr | |
| Peak flow (complete pre- | 0.7 | l/hr | |
| Differential Pressure | | Pa | |
| Depth to water (record post- | | m | |
| Depth of standpipe and diameter | | 50mm (ID) | |

| Seconds | CH ₄ | CO ₂ | O ₂ | LEL (%) | CO | H ₂ S |
|---------|-----------------|-----------------|----------------|---------|----|------------------|
| 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 | | |
| 60 | 0 | 0.1 | 20.6 | 0 | | |
| | 0 | 0.2 | 20.3 | 0 | | |

PID- 0.0

GSV

0.0014

| | | | |
|---------------------------------|---|-----------|--|
| Exploratory hole identity | | BH-NSA-23 | |
| Flow range (complete pre- | 0 | l/hr | |
| Peak flow (complete pre- | 0 | l/hr | |
| Differential Pressure | | Pa | |
| Depth to water (record post- | | m | |
| Depth of standpipe and diameter | | 50mm (ID) | |

| Seconds | CH ₄ | CO ₂ | O ₂ | LEL (%) | CO | H ₂ S |
|---------|-----------------|-----------------|----------------|---------|----|------------------|
| 0 | 0 | 0 | 21.4 | 0 | | |
| 15 | 0 | 0 | 20.5 | 0 | | |
| 30 | 0 | 0 | 20.5 | 0 | | |
| 45 | 0 | 0 | 20.7 | 0 | | |
| 60 | 0 | 0 | 20.7 | 0 | | |
| | 0 | 0 | 20.5 | 0 | | |

PID- 0.0

GSV

0

| | | | |
|---------------------------------|---|-----------|--|
| Exploratory hole identity | | BH-NSA-24 | |
| Flow range (complete pre- | 0 | l/hr | |
| Peak flow (complete pre- | 0 | l/hr | |
| Differential Pressure | | Pa | |
| Depth to water (record post- | | m | |
| Depth of standpipe and diameter | | 50mm (ID) | |

| Seconds | CH ₄ | CO ₂ | O ₂ | LEL (%) | CO | H ₂ S |
|---------|-----------------|-----------------|----------------|---------|----|------------------|
| 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 | | |
| | 0 | 0 | 19.1 | 0 | | |

PID- 0.0

GSV

0

| | | | |
|---------------------------------|---|-----------|--|
| Exploratory hole identity | | BH-NSA-25 | |
| Flow range (complete pre- | 0 | l/hr | |
| Peak flow (complete pre- | 0 | l/hr | |
| Differential Pressure | | Pa | |
| Depth to water (record post- | | m | |
| Depth of standpipe and diameter | | 50mm (ID) | |

| Seconds | CH ₄ | CO ₂ | O ₂ | LEL (%) | CO | H ₂ S |
|---------|-----------------|-----------------|----------------|---------|----|------------------|
| 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 | | |
| | 0 | 0.2 | 20.5 | 0 | | |

PID- 0.0

GSV

0

| | | | |
|---------------------------------|---|-----------|--|
| Exploratory hole identity | | BH-NSA-26 | |
| Flow range (complete pre- | 0 | l/hr | |
| Peak flow (complete pre- | 0 | l/hr | |
| Differential Pressure | | Pa | |
| Depth to water (record post- | | m | |
| Depth of standpipe and diameter | | 50mm (ID) | |

| Seconds | CH ₄ | CO ₂ | O ₂ | LEL (%) | CO | 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 | | |

PID- 0.0

GSV

0

| | | | |
|---------------------------------|---------|-----------|--|
| Exploratory hole identity | | BH-NSA-27 | |
| Flow range (complete pre- | 0.8-1.0 | l/hr | |
| Peak flow (complete pre- | 1 | l/hr | |
| Differential Pressure | | Pa | |
| Depth to water (record post- | | m | |
| Depth of standpipe and diameter | | 50mm (ID) | |

| Seconds | CH ₄ | CO ₂ | O ₂ | LEL (%) | CO | H ₂ S |
|---------|-----------------|-----------------|----------------|---------|----|------------------|
| 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 | | |
| | 0 | 0.9 | 17.5 | 0 | | |

PID- 0.0

GSV

0.009

| | | | |
|---------------------------------|-----|-----------|--|
| Exploratory hole identity | | BH-NSA-28 | |
| Flow range (complete pre- | 0.3 | l/hr | |
| Peak flow (complete pre- | 0.3 | l/hr | |
| Differential Pressure | | Pa | |
| Depth to water (record post- | | m | |
| Depth of standpipe and diameter | | 50mm (ID) | |

| Seconds | CH ₄ | CO ₂ | O ₂ | LEL (%) | CO | H ₂ S |
|---------|-----------------|-----------------|----------------|---------|----|------------------|
| 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 | | |
| | 0 | 1.5 | 17.3 | 0 | | |

PID- 0.0

GSV

0.0045

| | | | |
|---------------------------------|-----|-----------|--|
| Exploratory hole identity | | BH-NSA-29 | |
| Flow range (complete pre- | 1.2 | l/hr | |
| Peak flow (complete pre- | 1.2 | l/hr | |
| Differential Pressure | | Pa | |
| Depth to water (record post- | | m | |
| Depth of standpipe and diameter | | 50mm (ID) | |

| Seconds | CH ₄ | CO ₂ | O ₂ | LEL (%) | CO | H ₂ S |
|---------|-----------------|-----------------|----------------|---------|----|------------------|
| 0 | 0 | 0.1 | 20.4 | 0 | | |
| 15 | 0 | 0.5 | 20.5 | 0 | | |
| 30 | 0 | 0.5 | 20 | 0 | | |
| 45 | 0 | 0.5 | 19.9 | 0 | | |
| 60 | 0 | 0.5 | 19.9 | 0 | | |
| | 0 | 0.5 | 19.9 | 0 | | |

PID- 0.0

GSV

0.006

| | | | |
|----------------------------------|---------|------------------|--|
| Exploratory hole identity | | BH-NSA-30 | |
| Flow range (complete pre- | 0.9-1.0 | l/hr | |
| Peak flow (complete pre- | 1 | l/hr | |
| Differential Pressure | | Pa | |
| Depth to water (record post- | | m | |
| Depth of standpipe and diameter | | 50mm (ID) | |

| Seconds | CH ₄ | CO ₂ | O ₂ | LEL (%) | CO | H ₂ S |
|---------|-----------------|-----------------|----------------|---------|----|------------------|
| 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 | | |
| | 0 | 0.2 | 20 | 0 | | |

PID- 0.0

GSV

0.002

| | | | |
|----------------------------------|-----|------------------|--|
| Exploratory hole identity | | BH-NSA-31 | |
| Flow range (complete pre- | 0.2 | l/hr | |
| Peak flow (complete pre- | 0.2 | l/hr | |
| Differential Pressure | | Pa | |
| Depth to water (record post- | | m | |
| Depth of standpipe and diameter | | 50mm (ID) | |

| Seconds | CH ₄ | CO ₂ | O ₂ | LEL (%) | CO | H ₂ S |
|---------|-----------------|-----------------|----------------|---------|----|------------------|
| 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 | | |
| | 0 | 0 | 20.7 | 0 | | |

PID- 0.0

GSV

0

| | | | |
|----------------------------------|---|------------------|--|
| Exploratory hole identity | | BH-NSA-32 | |
| Flow range (complete pre- | 0 | l/hr | |
| Peak flow (complete pre- | 0 | l/hr | |
| Differential Pressure | | Pa | |
| Depth to water (record post- | | m | |
| Depth of standpipe and diameter | | 50mm (ID) | |

| Seconds | CH ₄ | CO ₂ | O ₂ | LEL (%) | CO | H ₂ S |
|---------|-----------------|-----------------|----------------|---------|----|------------------|
| 0 | 0 | 1.4 | 20.7 | 0 | | |
| 15 | 0 | 2 | 19.9 | 0 | | |
| 30 | 0 | 2.1 | 17.4 | 0 | | |
| 45 | 0 | 2.1 | 17.3 | 0 | | |
| 60 | 0 | 2.1 | 17.3 | 0 | | |
| | 0 | 2.1 | 17.3 | 0 | | |

PID- 0.0

GSV

0

| | | | |
|--|--|------------------|-----------|
| Exploratory hole identity | | BH-NSA-37 | |
| Flow range (complete pre- | | 0.2-0.3 | l/hr |
| Peak flow (complete pre- | | 0.3 | l/hr |
| Differential Pressure | | | Pa |
| Depth to water (record post- | | | m |
| Depth of standpipe and diameter | | | 50mm (ID) |

| Seconds | CH ₄ | CO ₂ | O ₂ | LEL (%) | CO | H ₂ S |
|---------|-----------------|-----------------|----------------|---------|----|------------------|
| 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 | | |
| | 0 | 0 | 19.8 | 0 | | |

PID- 0.0

GSV

0

| | | | |
|--|--|------------------|-----------|
| Exploratory hole identity | | BH-NSA-38 | |
| Flow range (complete pre- | | 0.4-0.8 | l/hr |
| Peak flow (complete pre- | | 0.8 | l/hr |
| Differential Pressure | | | Pa |
| Depth to water (record post- | | | m |
| Depth of standpipe and diameter | | | 50mm (ID) |

| Seconds | CH ₄ | CO ₂ | O ₂ | LEL (%) | CO | H ₂ S |
|---------|-----------------|-----------------|----------------|---------|----|------------------|
| 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 | | |
| | 0 | 0 | 19.7 | 0 | | |

PID- 0.0

GSV

0

| | | | |
|--|--|------------------|-----------|
| Exploratory hole identity | | BH-NSA-39 | |
| Flow range (complete pre- | | 0.6 | l/hr |
| Peak flow (complete pre- | | 0.6 | l/hr |
| Differential Pressure | | | Pa |
| Depth to water (record post- | | | m |
| Depth of standpipe and diameter | | | 50mm (ID) |

| Seconds | CH ₄ | CO ₂ | O ₂ | LEL (%) | CO | H ₂ S |
|---------|-----------------|-----------------|----------------|---------|----|------------------|
| 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 | | |
| | 0 | 1.2 | 18.4 | 0 | | |

PID- 0.0

GSV

0.0072

| | | | |
|---------------------------------|-----|-----------|--|
| Exploratory hole identity | | BH-NSA-42 | |
| Flow range (complete pre- | 0.1 | l/hr | |
| Peak flow (complete pre- | 0.4 | l/hr | |
| Differential Pressure | | Pa | |
| Depth to water (record post- | | m | |
| Depth of standpipe and diameter | | 50mm (ID) | |

| Seconds | CH ₄ | CO ₂ | O ₂ | LEL (%) | CO | H ₂ S |
|---------|-----------------|-----------------|----------------|---------|----|------------------|
| 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 | | |
| | 0 | 1.4 | 19.3 | 0 | | |

PID- 0.0

GSV

0.0056

| | | | |
|---------------------------------|-----|-----------|--|
| Exploratory hole identity | | BH-NSA-43 | |
| Flow range (complete pre- | 0.2 | l/hr | |
| Peak flow (complete pre- | 0.3 | l/hr | |
| Differential Pressure | | Pa | |
| Depth to water (record post- | | m | |
| Depth of standpipe and diameter | | 50mm (ID) | |

| Seconds | CH ₄ | CO ₂ | O ₂ | LEL (%) | CO | H ₂ S |
|---------|-----------------|-----------------|----------------|---------|----|------------------|
| 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 | | |
| | 0 | 2 | 16.8 | 0 | | |

PID- 0.0

GSV

0.006

| | | | |
|---------------------------------|-----|-----------|--|
| Exploratory hole identity | | BH-NSA-44 | |
| Flow range (complete pre- | 0.7 | l/hr | |
| Peak flow (complete pre- | 0.7 | l/hr | |
| Differential Pressure | 3 | Pa | |
| Depth to water (record post- | | m | |
| Depth of standpipe and diameter | | 50mm (ID) | |

| Seconds | CH ₄ | CO ₂ | O ₂ | LEL (%) | CO | H ₂ S |
|---------|-----------------|-----------------|----------------|---------|----|------------------|
| 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 |
| 45 | 0 | 1.6 | 18.2 | 0 | 0 | 0 |
| 60 | 0 | 1.6 | 18.2 | 0 | 0 | 0 |
| | 0 | 1.7 | 18.2 | 0 | | |

PID- 0.0

GSV

0.0119

| | | | |
|----------------------------------|---|------------------|--|
| Exploratory hole identity | | BH-NSA-45 | |
| Flow range (complete pre- | 0 | l/hr | |
| Peak flow (complete pre- | 0 | l/hr | |
| Differential Pressure | | Pa | |
| Depth to water (record post- | | m | |
| Depth of standpipe and diameter | | 50mm (ID) | |

| Seconds | CH ₄ | CO ₂ | O ₂ | LEL (%) | CO | H ₂ S |
|---------|-----------------|-----------------|----------------|---------|----|------------------|
| 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 |
| | 0 | 3.7 | 15.5 | 0 | | |

PID- 0.0

GSV

0

| | | | |
|----------------------------------|---------|-------------------|--|
| Exploratory hole identity | | BH-NSA-225 | |
| Flow range (complete pre- | 0.7-1.0 | l/hr | |
| Peak flow (complete pre- | 1 | l/hr | |
| Differential Pressure | | Pa | |
| Depth to water (record post- | | m | |
| Depth of standpipe and diameter | | 50mm (ID) | |

| Seconds | CH ₄ | CO ₂ | O ₂ | LEL (%) | CO | H ₂ S |
|---------|-----------------|-----------------|----------------|---------|----|------------------|
| 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 | | |
| | 0 | 0 | 17.4 | 0 | | |

PID- 0.0

GSV

0

| | | | |
|----------------------------------|---|-------------------|--|
| Exploratory hole identity | | BH-NSA-226 | |
| Flow range (complete pre- | 0 | l/hr | |
| Peak flow (complete pre- | 0 | l/hr | |
| Differential Pressure | | Pa | |
| Depth to water (record post- | | m | |
| Depth of standpipe and diameter | | 50mm (ID) | |

| Seconds | CH ₄ | CO ₂ | O ₂ | LEL (%) | CO | H ₂ S |
|---------|-----------------|-----------------|----------------|---------|----|------------------|
| 0 | 0 | 0 | 21.1 | 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 | 20.9 | 0 | | |

PID- 0.0

GSV

0



| | |
|--------------------------|------------------|
| Project Name | Upper Heyford |
| Project Reference | EED10658-109 |
| Consultant | Marc Church |
| Date | 02/04-04-2012 |
| Time | 08:00am - 6:00pm |

| | | | | | | |
|--|-----------------|---|------------------|---------------|--|---------|
| Atmospheric Pressure | Pre Monitoring: | 992 | Post Monitoring: | | | |
| General Atmospheric Pressure Condition (rising or | | | | | | |
| Weather Conditions | | Sunny | Yes | Overcast | | Raining |
| Wind Conditions | | Slight Breeze | Yes | Strong breeze | | Windy |
| Ground Conditions | | Damp | | Wet | | |
| Site Conditions | | Site consists of mainly hardstanding with grassed areas | | | | |

| | |
|--|-----------------|
| Exploratory hole identity | BH-NSA-1 |
| Flow range (complete pre- | 0.8 l/hr |
| Peak flow (complete pre- | 0.8 l/hr |
| Differential Pressure | 4 Pa |
| Depth to water (record post- | 3.25 m |
| Depth of standpipe and diameter | 50mm (ID) |

| Seconds | CH ₄ | CO ₂ | O ₂ | LEL (%) | CO | 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 identity | BH-NSA-2 |
| Flow range (complete pre- | 0.2 l/hr |
| Peak flow (complete pre- | 0.2 l/hr |
| Differential Pressure | 0 Pa |
| Depth to water (record post- | 2.33 m |
| Depth of standpipe and diameter | 50mm (ID) |

| Seconds | CH ₄ | CO ₂ | O ₂ | LEL (%) | CO | 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

0.0018

| | | |
|----------------------------------|-----------------|-----------|
| Exploratory hole identity | BH-NSA-3 | |
| Flow range (complete pre- | 0.3 | l/hr |
| Peak flow (complete pre- | 0.3 | l/hr |
| Differential Pressure | 1 | Pa |
| Depth to water (record post- | 3.17 | m |
| Depth of standpipe and diameter | | 50mm (ID) |

| Seconds | CH ₄ | CO ₂ | O ₂ | LEL (%) | CO | H ₂ S |
|---------|-----------------|-----------------|----------------|---------|----|------------------|
| 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 |

PID - 0.0

GSV

0

0 0 20.7 0

| | | |
|----------------------------------|-----------------|-----------|
| Exploratory hole identity | BH-NSA-4 | |
| Flow range (complete pre- | 0 | l/hr |
| Peak flow (complete pre- | 0 | l/hr |
| Differential Pressure | 0 | Pa |
| Depth to water (record post- | 4.45 | m |
| Depth of standpipe and diameter | | 50mm (ID) |

| Seconds | CH ₄ | CO ₂ | O ₂ | LEL (%) | CO | H ₂ S |
|---------|-----------------|-----------------|----------------|---------|----|------------------|
| 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 |

PID - 0.0

GSV

0

0 0.9 20 0

| | | |
|----------------------------------|-----------------|-----------|
| Exploratory hole identity | BH-NSA-5 | |
| Flow range (complete pre- | 0 | l/hr |
| Peak flow (complete pre- | 0 | l/hr |
| Differential Pressure | 0 | Pa |
| Depth to water (record post- | 3.9 | m |
| Depth of standpipe and diameter | | 50mm (ID) |

| Seconds | CH ₄ | CO ₂ | O ₂ | LEL (%) | CO | 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 |

PID - 0.0

GSV

0

0 0 20.8 0

| | | |
|----------------------------------|-----------------|-----------|
| Exploratory hole identity | BH-NSA-6 | |
| Flow range (complete pre- | 0 | l/hr |
| Peak flow (complete pre- | 0 | l/hr |
| Differential Pressure | 0 | Pa |
| Depth to water (record post- | 3.32 | m |
| Depth of standpipe and diameter | | 50mm (ID) |

| Seconds | CH ₄ | CO ₂ | O ₂ | LEL (%) | CO | H ₂ S |
|---------|-----------------|-----------------|----------------|---------|----|------------------|
| 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 |
| | 0 | 0.5 | 18.5 | 0 | | |

AVERAGE - 62.9

GSV

0

| | | |
|----------------------------------|-----------------|-----------|
| Exploratory hole identity | BH-NSA-7 | |
| Flow range (complete pre- | 0 | l/hr |
| Peak flow (complete pre- | 0 | l/hr |
| Differential Pressure | 0 | Pa |
| Depth to water (record post- | 2.3 | m |
| Depth of standpipe and diameter | | 50mm (ID) |

| Seconds | CH ₄ | CO ₂ | O ₂ | LEL (%) | CO | H ₂ S |
|---------|-----------------|-----------------|----------------|---------|----|------------------|
| 0 | 0 | 0 | 20.8 | 0 | 0 | 0 |
| 15 | 0 | 0 | 21 | 0 | 0 | 0 |
| 30 | 0 | 0 | 21 | 0 | 0 | 0 |
| 45 | 0 | 0 | 21 | 0 | 0 | 0 |
| 60 | 0 | 0 | 21 | 0 | 0 | 0 |
| 90 | 0 | 0 | 21 | 0 | 0 | 0 |
| 120 | 0 | 0 | 21 | 0 | 0 | 0 |
| | 0 | 0 | 21 | 0 | | |

PID - 0.0

GSV

0

| | | |
|----------------------------------|-----------------|-----------|
| Exploratory hole identity | BH-NSA-8 | |
| Flow range (complete pre- | 0 | l/hr |
| Peak flow (complete pre- | 0 | l/hr |
| Differential Pressure | 0 | Pa |
| Depth to water (record post- | 6.44 | m |
| Depth of standpipe and diameter | | 50mm (ID) |

| Seconds | CH ₄ | CO ₂ | O ₂ | LEL (%) | CO | H ₂ S |
|---------|-----------------|-----------------|----------------|---------|----|------------------|
| 0 | 0 | 0.1 | 20.8 | 0 | 0 | 0 |
| 15 | 0 | 0.1 | 20.6 | 0 | 0 | 0 |
| 30 | 0 | 0.1 | 20.6 | 0 | 0 | 0 |
| 45 | 0 | 0.1 | 20.6 | 0 | 0 | 0 |
| 60 | 0 | 0.1 | 20.6 | 0 | 0 | 0 |
| 90 | 0 | 0.1 | 20.6 | 0 | 0 | 0 |
| 120 | 0 | 0.1 | 20.6 | 0 | 0 | 0 |
| | 0 | 0.1 | 20.6 | 0 | | |

PID - 0.0

GSV

0.0014

| | | |
|----------------------------------|-----------------|-----------|
| Exploratory hole identity | BH-NSA-9 | |
| Flow range (complete pre- | 0 | l/hr |
| Peak flow (complete pre- | 0 | l/hr |
| Differential Pressure | 0 | Pa |
| Depth to water (record post- | | m |
| Depth of standpipe and diameter | | 50mm (ID) |

| Seconds | CH ₄ | CO ₂ | O ₂ | LEL (%) | CO | H ₂ S |
|---------|-----------------|-----------------|----------------|---------|----|------------------|
| 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 |

PID - 1.0

GSV

0 0.4 20.1 0

0

| | | |
|----------------------------------|------------------|-----------|
| Exploratory hole identity | BH-NSA-10 | |
| Flow range (complete pre- | 0 | l/hr |
| Peak flow (complete pre- | 0 | l/hr |
| Differential Pressure | 0 | Pa |
| Depth to water (record post- | 5.35 | m |
| Depth of standpipe and diameter | | 50mm (ID) |

| Seconds | CH ₄ | CO ₂ | O ₂ | LEL (%) | CO | H ₂ S |
|---------|-----------------|-----------------|----------------|---------|----|------------------|
| 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 |
| 45 | 0 | 0.3 | 20.5 | 0 | 0 | 0 |
| 60 | 0 | 0.3 | 20.5 | 0 | 0 | 0 |

PID - 0.0

GSV

0 0.3 20.5 0

0

| | | |
|----------------------------------|------------------|-----------|
| Exploratory hole identity | BH-NSA-11 | |
| Flow range (complete pre- | 0 | l/hr |
| Peak flow (complete pre- | 0 | l/hr |
| Differential Pressure | 0 | Pa |
| Depth to water (record post- | 5.26 | m |
| Depth of standpipe and diameter | | 50mm (ID) |

| Seconds | CH ₄ | CO ₂ | O ₂ | LEL (%) | CO | H ₂ S |
|---------|-----------------|-----------------|----------------|---------|----|------------------|
| 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 |

PID - 0.0

GSV

0 0.1 20.7 0

0

| Exploratory hole identity | | BH-NSA-12 | | | | |
|---------------------------------|-----------------|-----------------|----------------|---------|----|------------------|
| Flow range (complete pre- | | 0 | l/hr | | | |
| Peak flow (complete pre- | | 0 | l/hr | | | |
| Differential Pressure | | 0 | Pa | | | |
| Depth to water (record post- | | 4.9 | m | | | |
| Depth of standpipe and diameter | | | 50mm (ID) | | | |
| Seconds | CH ₄ | CO ₂ | O ₂ | LEL (%) | CO | H ₂ S |
| 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 |
| | 0 | 0 | 20.6 | 0 | | |

PID - 0.0

GSV

0

| Exploratory hole identity | | BH-NSA-13 | | | | |
|---------------------------------|-----------------|-----------------|----------------|---------|----|------------------|
| Flow range (complete pre- | | 0 | l/hr | | | |
| Peak flow (complete pre- | | 0 | l/hr | | | |
| Differential Pressure | | 0 | Pa | | | |
| Depth to water (record post- | | 12.28 | m | | | |
| Depth of standpipe and diameter | | | 50mm (ID) | | | |
| Seconds | CH ₄ | CO ₂ | O ₂ | LEL (%) | CO | H ₂ S |
| 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 |
| | 0 | 0 | 20.6 | 0 | | |

PID - 0.0

GSV

0

| Exploratory hole identity | | BH-NSA-14 | | | | |
|---------------------------------|-----------------|-----------------|----------------|---------|----|------------------|
| Flow range (complete pre- | | 0 | l/hr | | | |
| Peak flow (complete pre- | | 0 | l/hr | | | |
| Differential Pressure | | 0 | Pa | | | |
| Depth to water (record post- | | 4.4 | m | | | |
| Depth of standpipe and diameter | | | 50mm (ID) | | | |
| Seconds | CH ₄ | CO ₂ | O ₂ | LEL (%) | CO | H ₂ S |
| 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 | | |
| | 0 | 0 | 20.5 | 0 | | |

PID - 0.0

GSV

0

| | | |
|----------------------------------|------------------|-----------|
| Exploratory hole identity | BH-NSA-15 | |
| Flow range (complete pre- | 0 | l/hr |
| Peak flow (complete pre- | 0 | l/hr |
| Differential Pressure | 0 | Pa |
| Depth to water (record post- | 1.63 | m |
| Depth of standpipe and diameter | | 50mm (ID) |

| Seconds | CH ₄ | CO ₂ | O ₂ | LEL (%) | CO | 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 | | |

PID - 0.0

GSV

0

| | | |
|----------------------------------|------------------|-----------|
| Exploratory hole identity | BH-NSA-16 | |
| Flow range (complete pre- | 0 | l/hr |
| Peak flow (complete pre- | 0 | l/hr |
| Differential Pressure | 0 | Pa |
| Depth to water (record post- | 13.62 | m |
| Depth of standpipe and diameter | | 50mm (ID) |

| Seconds | CH ₄ | CO ₂ | O ₂ | LEL (%) | CO | H ₂ S |
|---------|-----------------|-----------------|----------------|---------|----|------------------|
| 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 | | |
| | 0 | 0.8 | 18.7 | 0 | | |

PID - 0.0

GSV

0

| | | |
|----------------------------------|------------------|-----------|
| Exploratory hole identity | BH-NSA-17 | |
| Flow range (complete pre- | 0 | l/hr |
| Peak flow (complete pre- | 0 | l/hr |
| Differential Pressure | 0 | Pa |
| Depth to water (record post- | 4.8 | m |
| Depth of standpipe and diameter | | 50mm (ID) |

| Seconds | CH ₄ | CO ₂ | O ₂ | LEL (%) | CO | H ₂ S |
|---------|-----------------|-----------------|----------------|---------|----|------------------|
| 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 | | |
| | 0 | 0.2 | 20.6 | 0 | | |

PID - 0.0

GSV

0

| Exploratory hole identity | | BH-NSA-18 | | | | |
|---------------------------------|-----------------|-----------------|----------------|---------|----|------------------|
| Flow range (complete pre- | | 0 | l/hr | | | |
| Peak flow (complete pre- | | 0 | l/hr | | | |
| Differential Pressure | | 0 | Pa | | | |
| Depth to water (record post- | | 5.05 | m | | | |
| Depth of standpipe and diameter | | | 50mm (ID) | | | |
| Seconds | CH ₄ | CO ₂ | O ₂ | LEL (%) | CO | H ₂ S |
| 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 | | |
| | 0 | 0.7 | 19.6 | 0 | | |

PID - 0.0

GSV

0

| Exploratory hole identity | | BH-NSA-19 | | | | |
|---------------------------------|-----------------|-----------------|----------------|---------|----|------------------|
| Flow range (complete pre- | | 0.3 | l/hr | | | |
| Peak flow (complete pre- | | 0.3 | l/hr | | | |
| Differential Pressure | | 1 | Pa | | | |
| Depth to water (record post- | | 4.8 | m | | | |
| Depth of standpipe and diameter | | | 50mm (ID) | | | |
| Seconds | CH ₄ | CO ₂ | O ₂ | LEL (%) | CO | H ₂ S |
| 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 | | |
| | 0 | 0.1 | 20.7 | 0 | | |

PID - 0.0

GSV

0.0003

| Exploratory hole identity | | BH-NSA-20 | | | | |
|---------------------------------|-----------------|-----------------|----------------|---------|----|------------------|
| Flow range (complete pre- | | 0.6-0.7 | l/hr | | | |
| Peak flow (complete pre- | | 0.7 | l/hr | | | |
| Differential Pressure | | 3 | Pa | | | |
| Depth to water (record post- | | 4.86 | m | | | |
| Depth of standpipe and diameter | | | 50mm (ID) | | | |
| Seconds | CH ₄ | CO ₂ | O ₂ | LEL (%) | CO | H ₂ S |
| 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 | | |
| | 0 | 0 | 20.8 | 0 | | |

PID - 0.0

GSV

0

| | | |
|----------------------------------|------------------|-----------|
| Exploratory hole identity | BH-NSA-21 | |
| Flow range (complete pre- | 0 | l/hr |
| Peak flow (complete pre- | 0 | l/hr |
| Differential Pressure | 0 | Pa |
| Depth to water (record post- | 4.96 | m |
| Depth of standpipe and diameter | | 50mm (ID) |

| Seconds | CH ₄ | CO ₂ | O ₂ | LEL (%) | CO | H ₂ S |
|---------|-----------------|-----------------|----------------|---------|----|------------------|
| 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 | | |
| | 0 | 0.3 | 19.6 | 0 | | |

PID - 0.0

GSV

0

| | | |
|----------------------------------|------------------|-----------|
| Exploratory hole identity | BH-NSA-22 | |
| Flow range (complete pre- | 0.1-0.3 | l/hr |
| Peak flow (complete pre- | 0.3 | l/hr |
| Differential Pressure | 0 | Pa |
| Depth to water (record post- | 4.35 | m |
| Depth of standpipe and diameter | | 50mm (ID) |

| Seconds | CH ₄ | CO ₂ | O ₂ | LEL (%) | CO | 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 | | |

PID - 0.0

GSV

0

| | | |
|----------------------------------|------------------|-----------|
| Exploratory hole identity | BH-NSA-23 | |
| Flow range (complete pre- | 0 | l/hr |
| Peak flow (complete pre- | 0 | l/hr |
| Differential Pressure | 0 | Pa |
| Depth to water (record post- | 4.42 | m |
| Depth of standpipe and diameter | | 50mm (ID) |

| Seconds | CH ₄ | CO ₂ | O ₂ | LEL (%) | CO | H ₂ S |
|---------|-----------------|-----------------|----------------|---------|----|------------------|
| 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 | | |
| | 0 | 0 | 20.7 | 0 | | |

PID - 0.0

GSV

0

| | | |
|----------------------------------|------------------|-----------|
| Exploratory hole identity | BH-NSA-24 | |
| Flow range (complete pre- | 0.3-0.4 | l/hr |
| Peak flow (complete pre- | 0.4 | l/hr |
| Differential Pressure | 1 | Pa |
| Depth to water (record post- | 2.47 | m |
| Depth of standpipe and diameter | | 50mm (ID) |

| Seconds | CH ₄ | CO ₂ | O ₂ | LEL (%) | CO | H ₂ S |
|---------|-----------------|-----------------|----------------|---------|----|------------------|
| 0 | 0 | 0 | 21.2 | 0 | | |
| 15 | 0 | 0 | 21.2 | 0 | | |
| 30 | 0 | 0 | 21.2 | 0 | | |
| 45 | 0 | 0 | 21.2 | 0 | | |
| 60 | 0 | 0 | 21.2 | 0 | | |
| | 0 | 0 | 21.2 | 0 | | |

PID - 0.0

GSV

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 | 0 | Pa |
| Depth to water (record post- | 2.63 | m |
| Depth of standpipe and diameter | | 50mm (ID) |

| Seconds | CH ₄ | CO ₂ | O ₂ | LEL (%) | CO | H ₂ S |
|---------|-----------------|-----------------|----------------|---------|----|------------------|
| 0 | 0 | 0.2 | 20.9 | 0 | | |
| 15 | 0 | 0.5 | 19.7 | 0 | | |
| 30 | 0 | 0.5 | 19.9 | 0 | | |
| 45 | 0 | 0.3 | 20.1 | 0 | | |
| 60 | 0 | 0.3 | 20.3 | 0 | | |
| | 0 | 0.5 | 19.7 | 0 | | |

PID - 0.0

GSV

0.001

| | | |
|----------------------------------|------------------|-----------|
| Exploratory hole identity | BH-NSA-26 | |
| Flow range (complete pre- | 0 | l/hr |
| Peak flow (complete pre- | 0 | l/hr |
| Differential Pressure | 0 | Pa |
| Depth to water (record post- | 2.54 | m |
| Depth of standpipe and diameter | | 50mm (ID) |

| Seconds | CH ₄ | CO ₂ | O ₂ | LEL (%) | CO | 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 | | |

PID - 0.0

GSV

0

| | | |
|----------------------------------|------------------|-----------|
| Exploratory hole identity | BH-NSA-27 | |
| Flow range (complete pre- | 0 | l/hr |
| Peak flow (complete pre- | 0 | l/hr |
| Differential Pressure | 0 | Pa |
| Depth to water (record post- | 2.76 | m |
| Depth of standpipe and diameter | | 50mm (ID) |

| Seconds | CH ₄ | CO ₂ | O ₂ | LEL (%) | CO | H ₂ S |
|---------|-----------------|-----------------|----------------|---------|----|------------------|
| 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 | | |
| | 0 | 0.3 | 20.3 | 0 | | |

PID - 0.0

GSV

0

| | | |
|----------------------------------|------------------|-----------|
| Exploratory hole identity | BH-NSA-28 | |
| Flow range (complete pre- | 0 | l/hr |
| Peak flow (complete pre- | 0 | l/hr |
| Differential Pressure | 0 | Pa |
| Depth to water (record post- | 2.72 | m |
| Depth of standpipe and diameter | | 50mm (ID) |

| Seconds | CH ₄ | CO ₂ | O ₂ | LEL (%) | CO | H ₂ S |
|---------|-----------------|-----------------|----------------|---------|----|------------------|
| 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 | | |
| | 0 | 1.8 | 17 | 0 | | |

PID - 0

GSV

0

| | | |
|----------------------------------|------------------|-----------|
| Exploratory hole identity | BH-NSA-29 | |
| Flow range (complete pre- | 0 | l/hr |
| Peak flow (complete pre- | 0 | l/hr |
| Differential Pressure | 0 | Pa |
| Depth to water (record post- | 3.13 | m |
| Depth of standpipe and diameter | | 50mm (ID) |

| Seconds | CH ₄ | CO ₂ | O ₂ | LEL (%) | CO | H ₂ S |
|---------|-----------------|-----------------|----------------|---------|----|------------------|
| 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 | | |
| | 0 | 0.5 | 20.2 | 0 | | |

PID - 0.0

GSV

0

| | | |
|----------------------------------|------------------|-----------|
| Exploratory hole identity | BH-NSA-30 | |
| Flow range (complete pre- | 0.1 | l/hr |
| Peak flow (complete pre- | 0.1 | l/hr |
| Differential Pressure | 0 | Pa |
| Depth to water (record post- | 2.96 | m |
| Depth of standpipe and diameter | | 50mm (ID) |

| Seconds | CH ₄ | CO ₂ | O ₂ | LEL (%) | CO | 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 | | |

PID - 0.0

GSV

0

| | | |
|----------------------------------|------------------|-----------|
| Exploratory hole identity | BH-NSA-31 | |
| Flow range (complete pre- | 0.9 | l/hr |
| Peak flow (complete pre- | 1 | l/hr |
| Differential Pressure | 5 | Pa |
| Depth to water (record post- | 3.16 | m |
| Depth of standpipe and diameter | | 50mm (ID) |

| Seconds | CH ₄ | CO ₂ | O ₂ | LEL (%) | CO | H ₂ S |
|---------|-----------------|-----------------|----------------|---------|----|------------------|
| 0 | 0 | 0 | 20.5 | 0 | | |
| 15 | 0 | 0 | 21 | 0 | | |
| 30 | 0 | 0 | 20.8 | 0 | | |
| 45 | 0 | 0 | 20.7 | 0 | | |
| 60 | 0 | 0 | 20.7 | 0 | | |
| | 0 | 0 | 20.5 | 0 | | |

PID - 0.0

GSV

0

| | | |
|----------------------------------|------------------|-----------|
| Exploratory hole identity | BH-NSA-32 | |
| Flow range (complete pre- | 0.3-0.4 | l/hr |
| Peak flow (complete pre- | 0.4 | l/hr |
| Differential Pressure | 2 | Pa |
| Depth to water (record post- | 2.89 | m |
| Depth of standpipe and diameter | | 50mm (ID) |

| Seconds | CH ₄ | CO ₂ | O ₂ | LEL (%) | CO | H ₂ S |
|---------|-----------------|-----------------|----------------|---------|----|------------------|
| 0 | 0 | 0.1 | 20.8 | 0 | | |
| 15 | 0 | 0.7 | 20.1 | 0 | | |
| 30 | 0 | 0.7 | 20 | 0 | | |
| 45 | 0 | 0.7 | 19.9 | 0 | | |
| 60 | 0 | 0.7 | 19.8 | 0 | | |
| | 0 | 0.7 | 19.8 | 0 | | |

PID - 0.0

GSV

0.0028

| Exploratory hole identity | | BH-NSA-37 | | | | |
|---------------------------------|-----------------|-----------------|----------------|---------|----|------------------|
| Flow range (complete pre- | | 0 | l/hr | | | |
| Peak flow (complete pre- | | 0 | l/hr | | | |
| Differential Pressure | | 0 | Pa | | | |
| Depth to water (record post- | | 3.73 | m | | | |
| Depth of standpipe and diameter | | | 50mm (ID) | | | |
| Seconds | CH ₄ | CO ₂ | O ₂ | LEL (%) | CO | 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 | | |

PID - 0.0

GSV

0

| Exploratory hole identity | | BH-NSA-38 | | | | |
|---------------------------------|-----------------|-----------------|----------------|---------|----|------------------|
| Flow range (complete pre- | | 0 | l/hr | | | |
| Peak flow (complete pre- | | 0 | l/hr | | | |
| Differential Pressure | | 0 | Pa | | | |
| Depth to water (record post- | | 3.69 | m | | | |
| Depth of standpipe and diameter | | | 50mm (ID) | | | |
| Seconds | CH ₄ | CO ₂ | O ₂ | LEL (%) | CO | 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 | | |

PID - 0.0

GSV

0

| Exploratory hole identity | | BH-NSA-39 | | | | |
|---------------------------------|-----------------|-----------------|----------------|---------|----|------------------|
| Flow range (complete pre- | | 0.1 | l/hr | | | |
| Peak flow (complete pre- | | 0.3 | l/hr | | | |
| Differential Pressure | | 0 | Pa | | | |
| Depth to water (record post- | | 4.46 | m | | | |
| Depth of standpipe and diameter | | | 50mm (ID) | | | |
| Seconds | CH ₄ | CO ₂ | O ₂ | LEL (%) | CO | 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 | | |

PID - 0.0

GSV

0

| Exploratory hole identity | | BH-NSA-42 | | | | |
|---------------------------------|-----------------|-----------------|----------------|---------|----|------------------|
| Flow range (complete pre- | | 0 | l/hr | | | |
| Peak flow (complete pre- | | 0 | l/hr | | | |
| Differential Pressure | | 0 | Pa | | | |
| Depth to water (record post- | | 3.29 | m | | | |
| Depth of standpipe and diameter | | | 50mm (ID) | | | |
| Seconds | CH ₄ | CO ₂ | O ₂ | LEL (%) | CO | H ₂ S |
| 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 | | |
| | 0 | 1.6 | 19.2 | 0 | | |

PID - 0.0

GSV

0

| Exploratory hole identity | | BH-NSA-43 | | | | |
|---------------------------------|-----------------|-----------------|----------------|---------|----|------------------|
| Flow range (complete pre- | | 0 | l/hr | | | |
| Peak flow (complete pre- | | 0 | l/hr | | | |
| Differential Pressure | | 0 | Pa | | | |
| Depth to water (record post- | | 3.29 | m | | | |
| Depth of standpipe and diameter | | | 50mm (ID) | | | |
| Seconds | CH ₄ | CO ₂ | O ₂ | LEL (%) | CO | H ₂ S |
| 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 | | |
| | 0 | 0 | 20.7 | 0 | | |

PID - 0.0

GSV

0

| Exploratory hole identity | | BH-NSA-44 | | | | |
|---------------------------------|-----------------|-----------------|----------------|---------|----|------------------|
| Flow range (complete pre- | | 0 | l/hr | | | |
| Peak flow (complete pre- | | 0 | l/hr | | | |
| Differential Pressure | | 0 | Pa | | | |
| Depth to water (record post- | | 3.68 | m | | | |
| Depth of standpipe and diameter | | | 50mm (ID) | | | |
| Seconds | CH ₄ | CO ₂ | O ₂ | LEL (%) | CO | H ₂ S |
| 0 | 0 | 0 | 20.7 | 0 | | |
| 15 | 0 | 1.6 | 18.7 | 0 | | |
| 30 | 0 | 1.6 | 18.1 | 0 | | |
| 45 | 0 | 1.6 | 18 | 0 | | |
| 60 | 0 | 1.6 | 18 | 0 | | |
| | 0 | 1.6 | 18 | 0 | | |

PID - 0.0

GSV

0

| | | | | | | |
|----------------------------------|-----------------------|-----------------------|----------------------|----------------|-----------|-----------------------|
| Exploratory hole identity | | BH-NSA-45 | | | | |
| Flow range (complete pre- | | 0 | l/hr | | | |
| Peak flow (complete pre- | | 0 | l/hr | | | |
| Differential Pressure | | 0 | Pa | | | |
| Depth to water (record post- | | 1.98 | m | | | |
| Depth of standpipe and diameter | | | 50mm (ID) | | | |
| Seconds | CH₄ | CO₂ | O₂ | LEL (%) | CO | H₂S |
| 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 | | |
| | 0 | 0 | 20.6 | 0 | | |

PID - 0.0

GSV

0

| | | | | | | |
|----------------------------------|-----------------------|-----------------------|----------------------|----------------|-----------|-----------------------|
| Exploratory hole identity | | BH-NSA-225 | | | | |
| Flow range (complete pre- | | 0 | l/hr | | | |
| Peak flow (complete pre- | | 0 | l/hr | | | |
| Differential Pressure | | 0 | Pa | | | |
| Depth to water (record post- | | 2.27 | m | | | |
| Depth of standpipe and diameter | | | 50mm (ID) | | | |
| Seconds | CH₄ | CO₂ | O₂ | LEL (%) | CO | H₂S |
| 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 | | |
| | 0 | 0 | 20.3 | 0 | | |

PID - 0.0

GSV

0

| | | | | | | |
|----------------------------------|-----------------------|-----------------------|----------------------|----------------|-----------|-----------------------|
| Exploratory hole identity | | BH-NSA-226 | | | | |
| Flow range (complete pre- | | 0.5-0.6 | l/hr | | | |
| Peak flow (complete pre- | | 0.6 | l/hr | | | |
| Differential Pressure | | 2 | Pa | | | |
| Depth to water (record post- | | 4.67 | m | | | |
| Depth of standpipe and diameter | | | 50mm (ID) | | | |
| Seconds | CH₄ | CO₂ | O₂ | LEL (%) | CO | H₂S |
| 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 | | |
| | 0 | 1 | 19.7 | 0 | | |

PID - 0.0

GSV

0.006

Appendix G Risk Rating Matrix

Table D.1: Risk rating for contaminated land qualitative risk assessment

| Level of Severity | Likelihood | | |
|---|-------------|------------------------|----------|
| | 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

| |
|--|
| <p>'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)</p> <p>'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)</p> <p>'Land should not be designated as contaminated land where:</p> <p>(a) a substance is already present in controlled waters;</p> <p>(b) entry into controlled waters of that substance from land has ceased; and</p> <p>(c) it is not likely that further entry will take place.' (A37)</p> <p>'Substances should be regarded as having entered controlled waters where:</p> <p>(a) they are dissolved or suspended in those waters; or</p> <p>(b) if they are immiscible with water, they have direct contact with those waters on or beneath the surface of the water.' (A38)</p> <p>The term 'continuing to enter' should be taken to mean any entry additional to any which has already occurred. (A39)</p> |
|--|

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.

| Type of receptor | Description of harm to that type of receptor that is to be regarded as significant harm |
|---|---|
| Human beings | <p>Death, disease, serious injury, genetic mutation, birth defects or the impairment of reproductive functions.</p> <p>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.</p> <p>In the Guidance, this description of significant harm is referred to as a 'human health effect'.</p> |
| <p>Any ecological system, or living organism forming part of such a system, within a location which is:</p> <ul style="list-style-type: none"> an area notified as an Area of Special Scientific Interest under Section 28 of the Wildlife and Countryside Act 1981. any land declared a National Nature Reserve under Section 35 of that Act any area designated as a Marine Nature Reserve under Section 36 of that Act an area of Special Protection of Birds, established under Section 3 of that Act any European Site within the meaning of Regulation 10 of the Conservation (Natural | <p>For any protected location:</p> <p>Harm which results in an irreversible adverse change, or in some other substantial adverse change, in the functioning of the ecological system within any substantial part of that location;</p> <p>or</p> <p>Harm which affects any species of special interest within that location and which endangers the long-term maintenance of the population of that species at that location.</p> <p>In addition, in the case of a protected location that is a European Site (or a candidate Special Area of Conservation or a potential Special Protection Area), harm which is</p> |

| Type of receptor | Description of harm to that type of receptor that is to be regarded as significant harm |
|--|---|
| <p>Habitats etc) Regulations 1994 (ie Special Areas of Conservation and Special protection Areas)</p> <ul style="list-style-type: none"> • any candidate Special Areas of Conservation or potential Special Protection Areas given equivalent protection • any habitat or site afforded policy protection under paragraph 6 of Planning Policy Statement (PPS9) on nature conservation (i.e. candidate Special Areas of Conservation, 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. | <p>incompatible with the favourable conservation status of natural habitats at that location or species typically found there.</p> <p>In determining what constitutes such harm, the local authority should have regard to the advice of English nature and to the requirements of the Conservation (Natural Habitats etc) Regulations 1994.</p> <p>In the Guidance this description of significant harm is referred to as an 'ecological system effect'.</p> |
| <p>Property in the form of:</p> <ul style="list-style-type: none"> • crops, including timber • produce grown domestically, or on allotments, for consumption • livestock • other owned or domesticated animals; • wild animals which are the subject of shooting or fishing rights. | <p>For crops, a substantial diminution in yield or other substantial loss in their value, resulting from death, disease or other physical damage. For domestic pets, death, serious disease or serious physical damage. For other property in this category, a substantial loss in its value resulting from death, disease or other serious physical damage.</p> <p>The local authority should regard a substantial loss in value as occurring only when a substantial proportion of the 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.</p> <p>In the Guidance this description of significant ham is referred to as an 'animal or crop effect'.</p> |
| <p>Property in the form of buildings. For this purpose 'building' means any structure or erection and any part of a building, including any part below ground level, but does not include plant or machinery comprised in a building.</p> | <p>Structural failure, substantial damage or substantial interference with any right of occupation.</p> <p>For this purpose, the local authority should regard substantial damage or substantial interference as occurring when any part of the building ceases to be capable of being used for the purpose for which it is or was intended.</p> <p>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'.</p> |

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 | | | Commercial | | | Source |
|------------------------------------|----------|-------------|-------|-------|------------|--------|--------|--|
| | | 1 | 2.5 | 6 | 1 | 2.5 | 6 | |
| Soil Organic Matter Content | % | | | | | | | |
| 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 | | | Commercial | | | 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 / Waterman GACs - CLEA v1.04 |
| Aromatic C7-C8 (Toluene) | mg/kg | 120 | 270 | 610 | 870 | 1900 | 4400 | |
| 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 / Waterman GACs - CLEA v1.04 |
| Toluene | mg/kg | 120 | 270 | 610 | 870 | 1900 | 4400 | |
| 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 | | | Commercial | | | 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 SGV 1.04 |
| Phenol | mg/kg | 210 | 390 | 420 | 3200 | 3200 | 3200 | |
| 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 | Residential | | | Commercial | | | 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 | | | Commercial | | | 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:

*It is not recommended that water pipes should be laid in sites where these substances are identified or expected

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 |

| 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 NO 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 Quality) 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) Regulations 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 (NH ₄ ⁺) | µg/l | 500 |
| Nitrate (as NO ₃) | mg/l | 50 |
| Nitrite (as NO 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 required. | | |
| 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 gas-contaminated 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
2. Development of a Preliminary Conceptual Model and Risk Assessment
3. 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 CIRIA 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) (l/hr) (BS8485 refers to the GSV as the Hazardous Gas Flow Rate). The GSV is calculated as follows:

$GSV = (\text{Measured Maximum CO}_2 \text{ or CH}_4 \text{ Gas Concentration (\%)} / 100) \times \text{Maximum Measured Gas Flow Rate from boreholes (l/hr)}$

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) l/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 (l/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

| 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 |
| 1 | Very low risk | None | No special precautions | None | |
| 2 | Low risk | 2 | <p>c) Reinforced concrete cast in situ floor slab (suspended, non-suspended or raft) with at least 1200g DPM^{2,7} and underfloor venting.</p> <p>d) Beam and block or pre-cast concrete and 2000g DPM⁷/ reinforced gas membrane and underfloor venting.</p> <p>All joints and penetrations sealed</p> | 1 to 2 | <p>d) Reinforced concrete cast in situ floor slab (Suspended, non-suspended or raft) with at least 1200g DPM^{2,7}.</p> <p>e) Beam and block or pre-cast concrete slab and minimum 2000g DPM / reinforced gas membrane.</p> <p>f) Possibly underfloor venting or pressurisation in combination with a) and b) depending on use.</p> <p>All joints and penetrations sealed</p> |
| 3 | Moderate risk | 2 | <p>All types of floor slab as above.</p> <p>All joints and penetrations sealed. Proprietary gas resistant membrane and passively ventilated or positively pressurised underfloor sub-space.</p> | 1 to 2 | <p>All types of floor slab as above.</p> <p>All joints and penetrations sealed. Minimum 2000g/reinforced gas proof membrane and passively ventilated underfloor sub-space or positively pressurised underfloor sub-space.</p> |
| 4 | Moderate to high risk | 3 | <p>All types of floor slab as above.</p> <p>All joints 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.</p> | 2 to 3 | <p>All types of floor slab as above.</p> <p>All joints and penetrations sealed. Proprietary gas resistant membrane and passively ventilated or positively pressurised underfloor sub-space.</p> |
| 5 | High risk | 4 | <p>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 sub-space, oversite capping and in ground venting layer and in ground venting wells or barriers</p> | 3 to 4 | <p>Reinforced concrete cast in situ floor slab (suspended, non-suspended or raft).</p> <p>All joints and penetrations sealed. Proprietary gas resistant membrane and passively ventilated or positively pressurised underfloor sub-space with monitoring facility.</p> <p>In ground venting wells or barriers.</p> |
| 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 | 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:

- 1) 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 bearing slabs.
- 5) 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

| Traffic Light | Methane | | Carbon Dioxide | |
|---------------|---------------------------------------|--------------------------------|---------------------------------------|--------------------------------|
| | Typical Maximum Concentration (% v/v) | Gas Screening Value (GSV) l/hr | Typical Maximum Concentration (% v/v) | Gas Screening Value (GSV) l/hr |
| Green | 1 | 0.16 | 5 | 0.78 |
| Amber 1 | 5 | 0.63 | 10 | 1.56 |
| Amber 2 | 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.

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