CERTIFICATE OF ANALYSIS

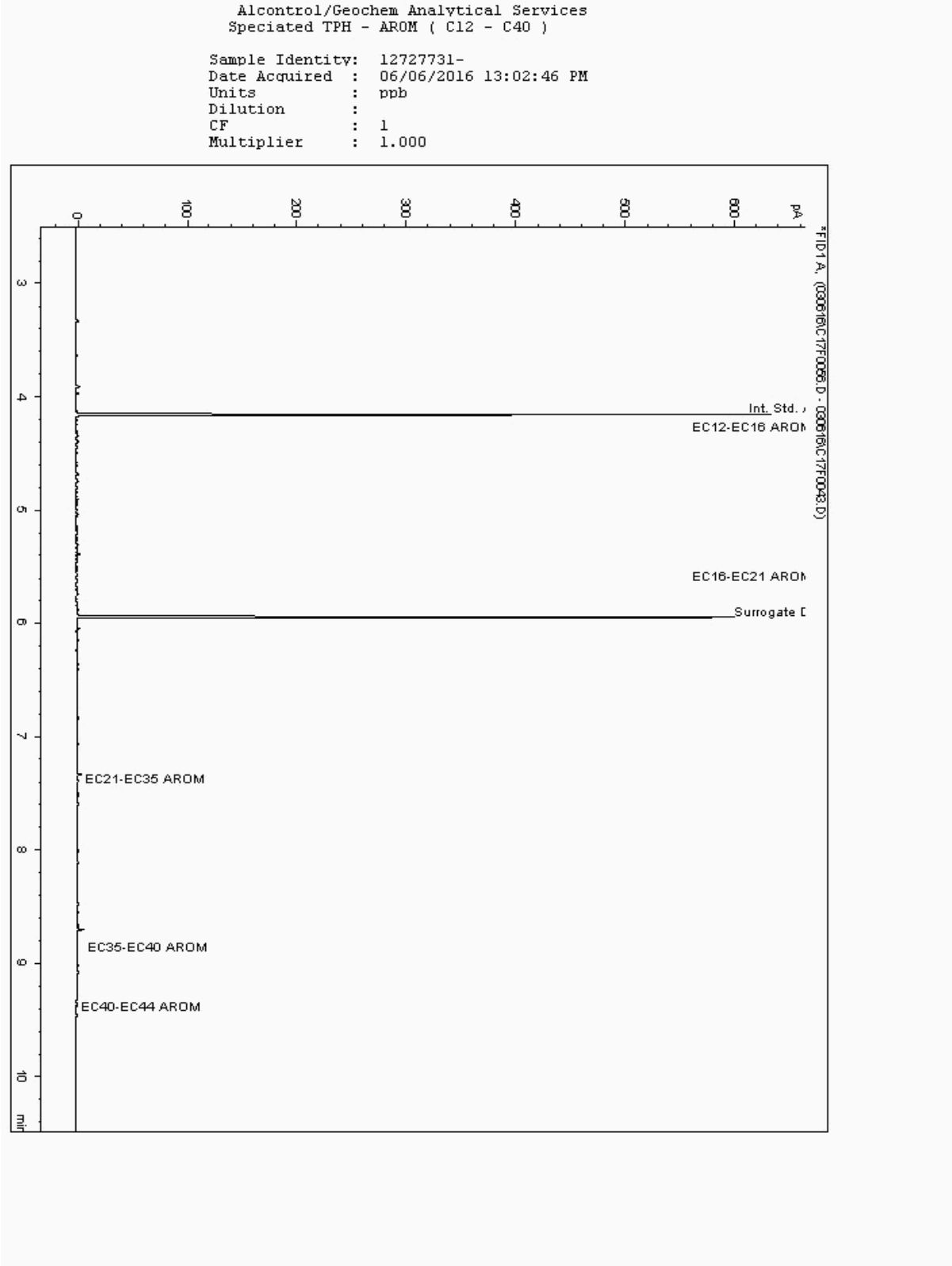
SDG:	160602-104	**Location:**	Rockingham, Barnsley	**Order Number:**	70018922-S01
Job:	H_WSP_MAN-355	**Customer:**	WSP PB MLN	**Report Number:**	370706
Client Reference:	Rockingham	**Attention:**	Gareth Maynell	**Superseded Report:**	370548

Chromatogram

Analysis: EPH CWG (Aromatic) GC (S)

Sample No : 13532883
Sample ID : BH05

Depth : 1.50 - 1.60



CERTIFICATE OF ANALYSIS

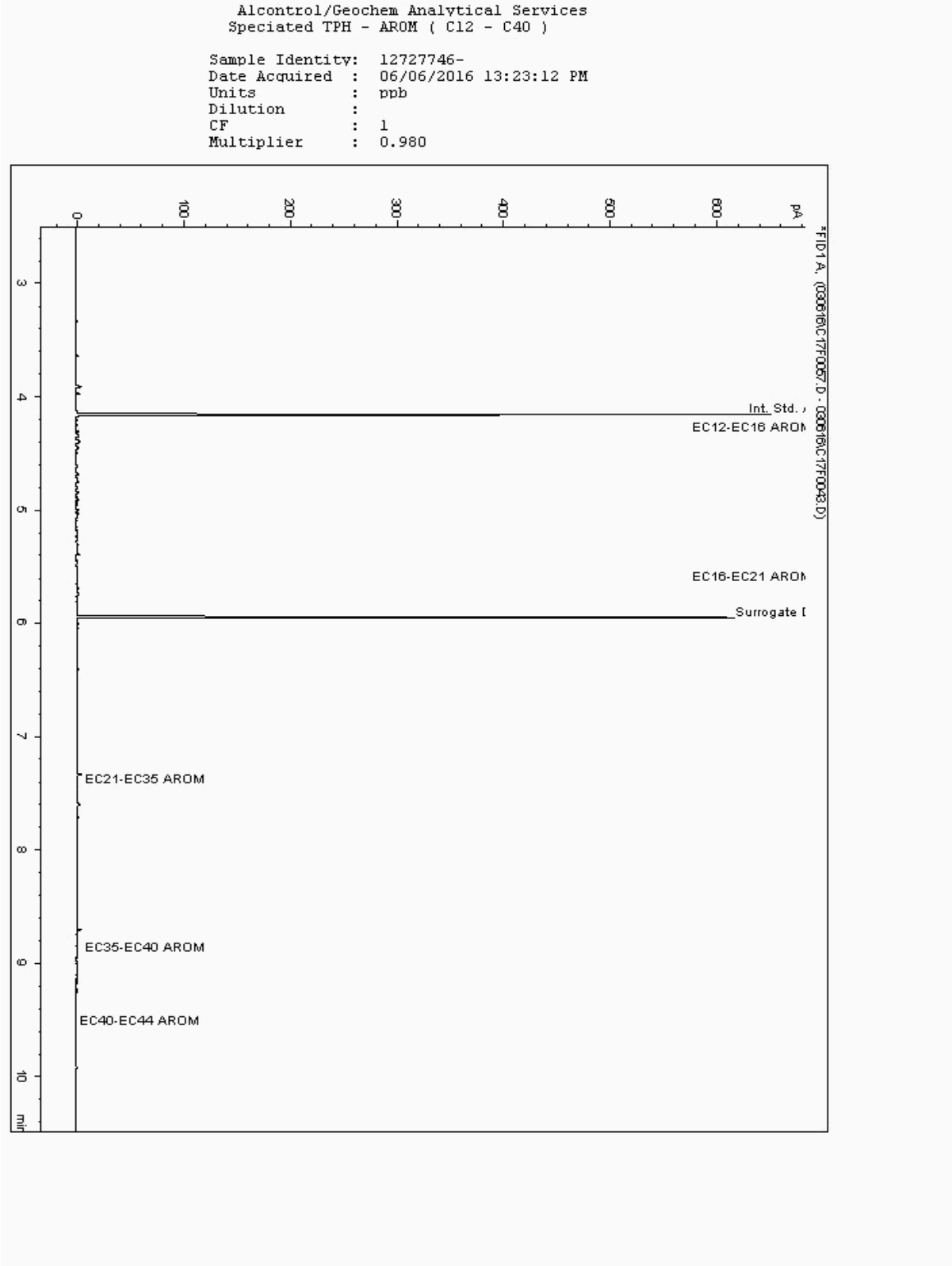
SDG:	160602-104	**Location:**	Rockingham, Barnsley	**Order Number:**	70018922-S01
Job:	H_WSP_MAN-355	**Customer:**	WSP PB MLN	**Report Number:**	370706
Client Reference:	Rockingham	**Attention:**	Gareth Maynell	**Superseded Report:**	370548

Chromatogram

Analysis: EPH CWG (Aromatic) GC (S)

Sample No : 13532917
Sample ID : BH01

Depth : 0.40 - 0.50



CERTIFICATE OF ANALYSIS

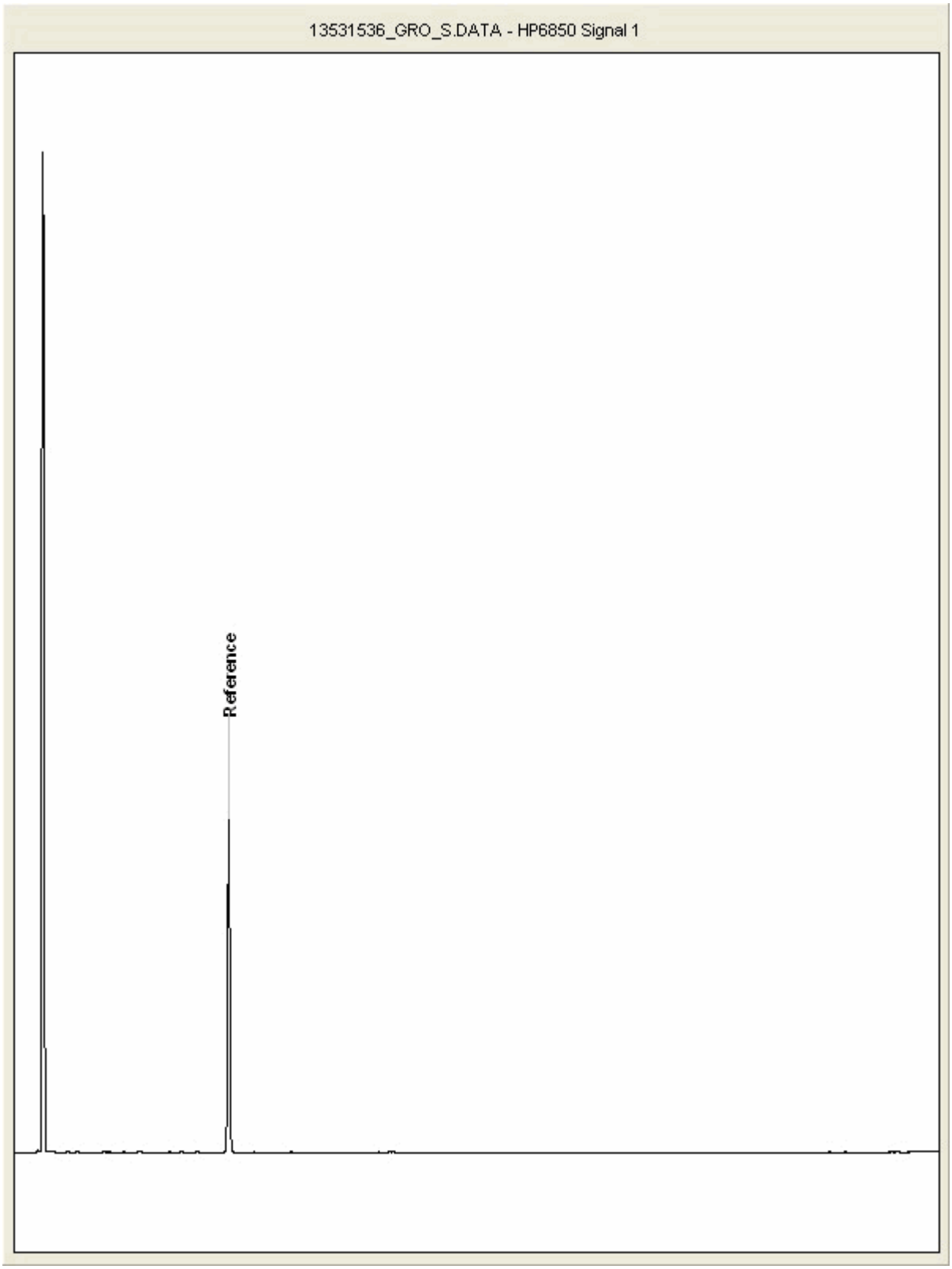
SDG:	160602-104	**Location:**	Rockingham, Barnsley	**Order Number:**	70018922-S01
Job:	H_WSP_MAN-355	**Customer:**	WSP PB MLN	**Report Number:**	370706
Client Reference:	Rockingham	**Attention:**	Gareth Maynell	**Superseded Report:**	370548

Chromatogram

Analysis: GRO by GC-FID (S)

Sample No : 13531536
Sample ID : BH01

Depth : 0.40 - 0.50



CERTIFICATE OF ANALYSIS

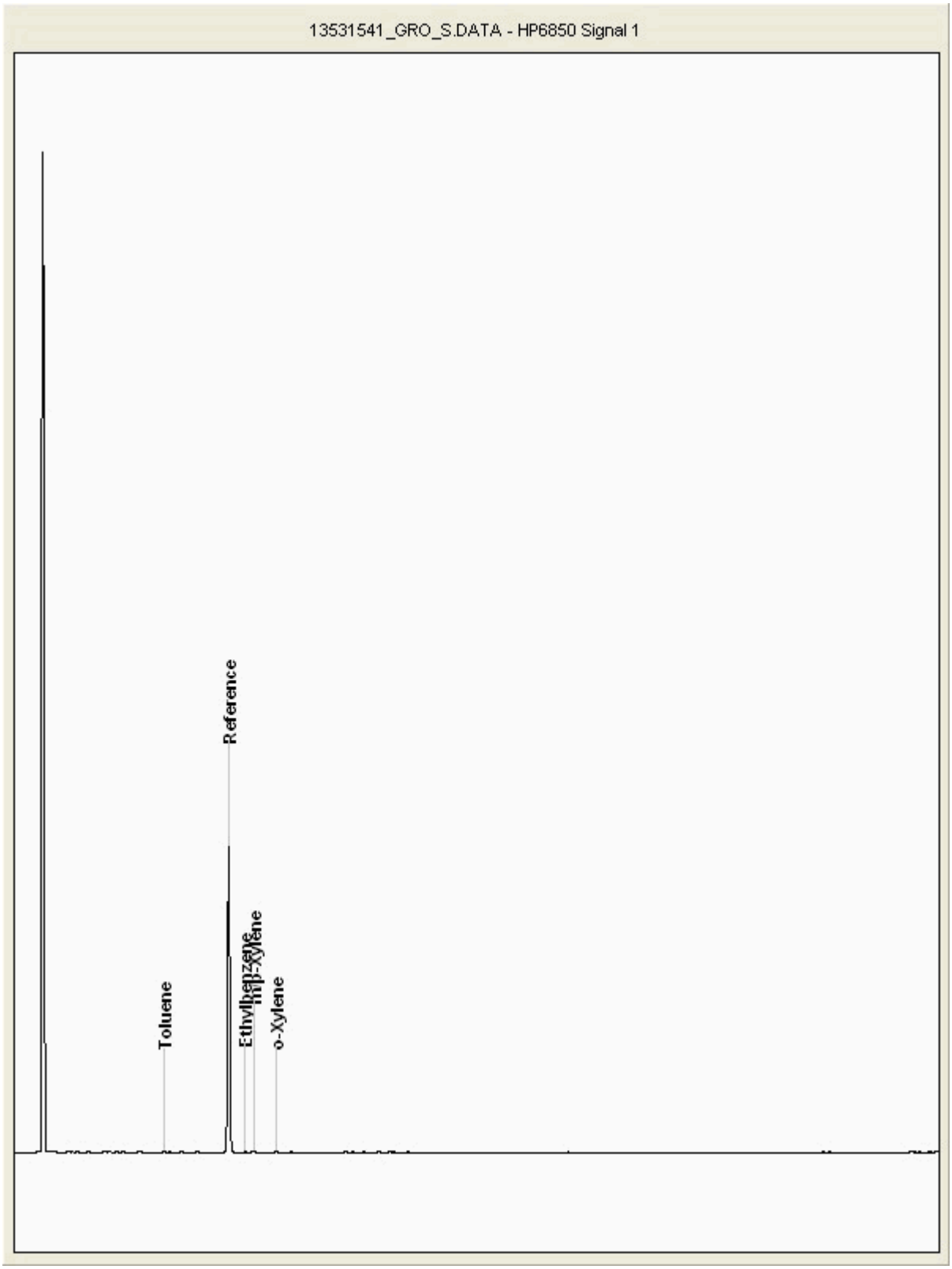
SDG:	160602-104	**Location:**	Rockingham, Barnsley	**Order Number:**	70018922-S01
Job:	H_WSP_MAN-355	**Customer:**	WSP PB MLN	**Report Number:**	370706
Client Reference:	Rockingham	**Attention:**	Gareth Maynell	**Superseded Report:**	370548

Chromatogram

Analysis: GRO by GC-FID (S)

Sample No : 13531541
Sample ID : BH02

Depth : 0.80 - 0.90



CERTIFICATE OF ANALYSIS

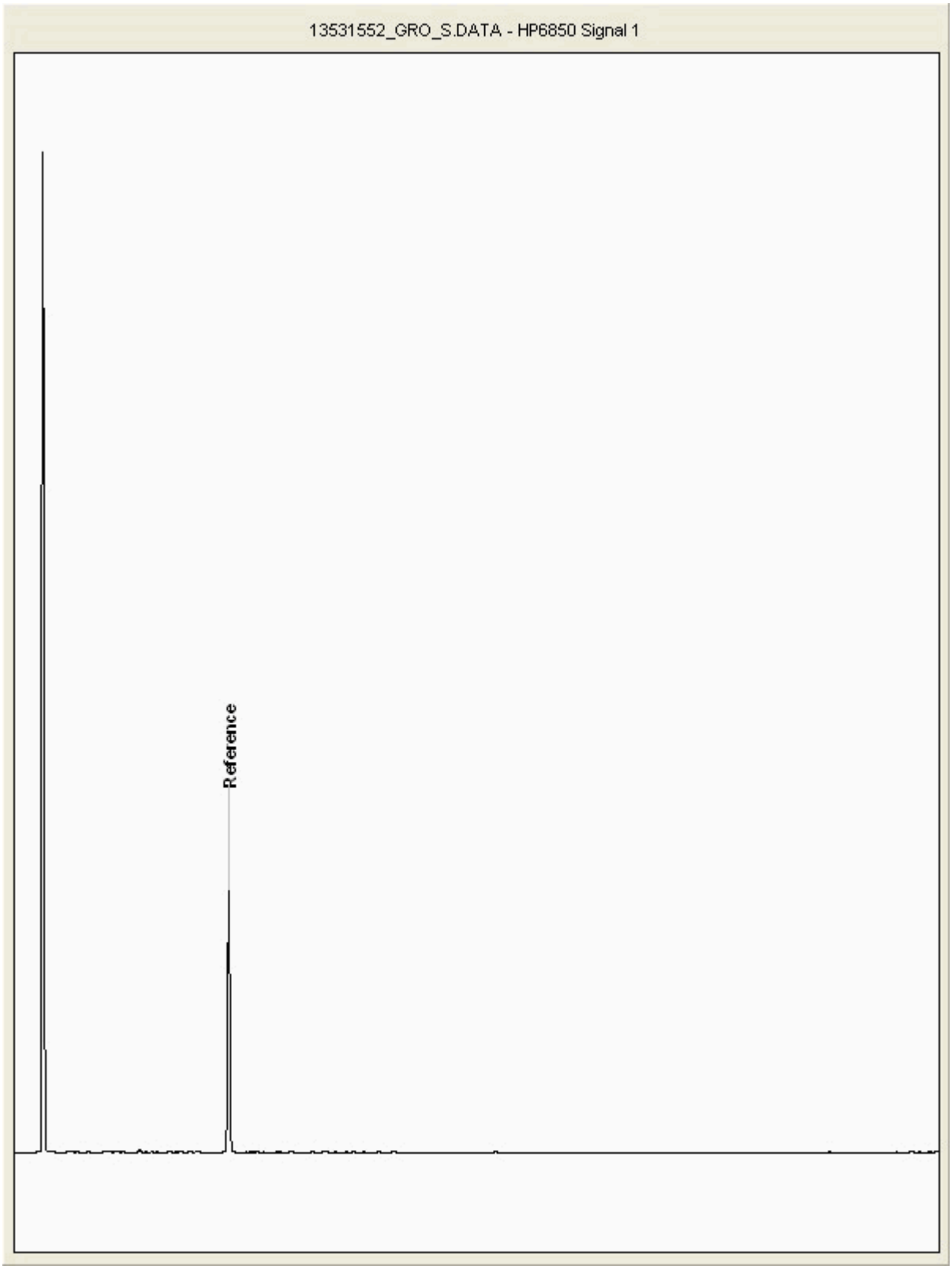
SDG:	160602-104	**Location:**	Rockingham, Barnsley	**Order Number:**	70018922-S01
Job:	H_WSP_MAN-355	**Customer:**	WSP PB MLN	**Report Number:**	370706
Client Reference:	Rockingham	**Attention:**	Gareth Maynell	**Superseded Report:**	370548

Chromatogram

Analysis: GRO by GC-FID (S)

Sample No : 13531552
Sample ID : BH04

Depth : 2.50 - 2.60



CERTIFICATE OF ANALYSIS

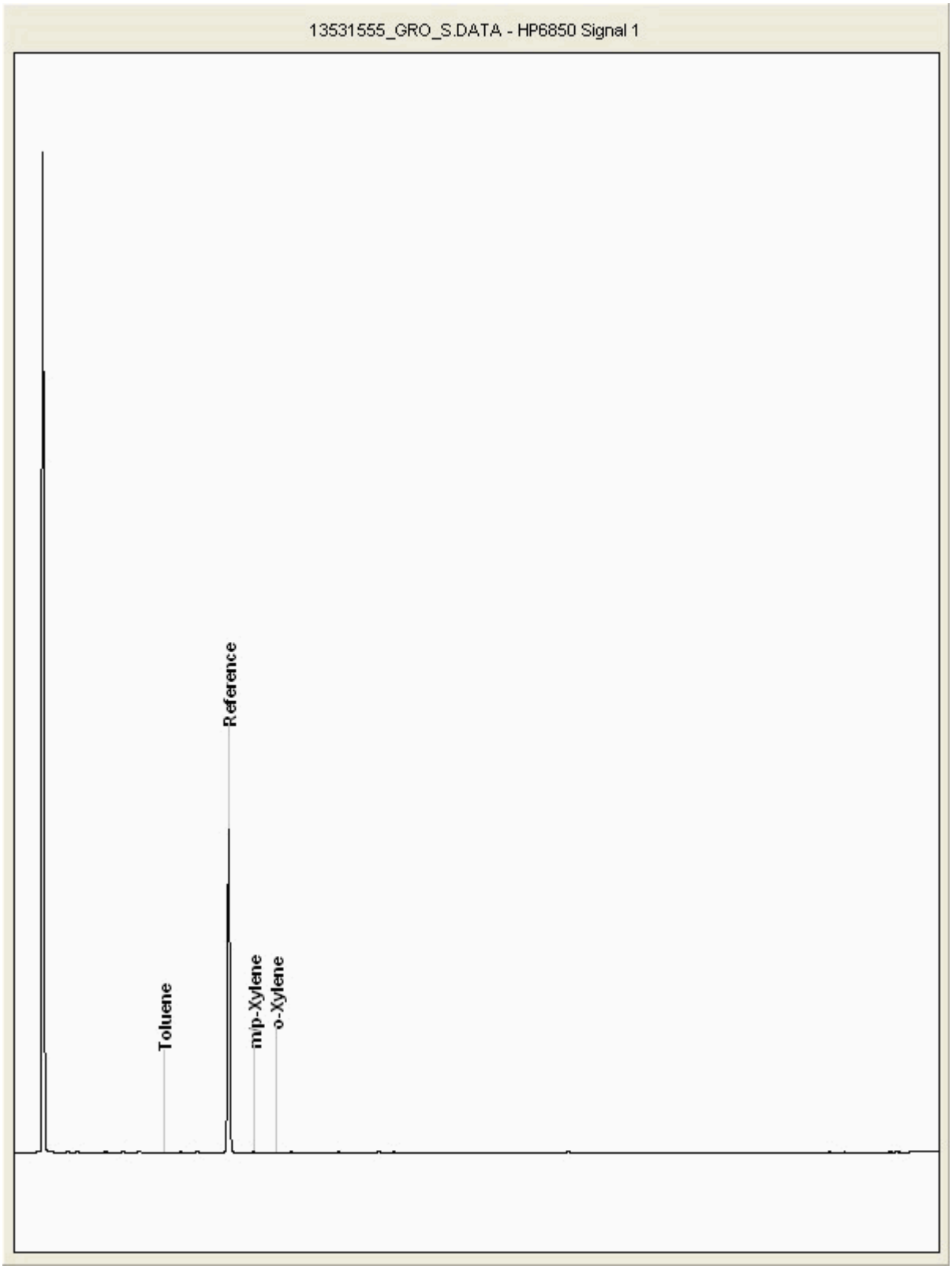
SDG:	160602-104	**Location:**	Rockingham, Barnsley	**Order Number:**	70018922-S01
Job:	H_WSP_MAN-355	**Customer:**	WSP PB MLN	**Report Number:**	370706
Client Reference:	Rockingham	**Attention:**	Gareth Maynell	**Superseded Report:**	370548

Chromatogram

Analysis: GRO by GC-FID (S)

Sample No : 13531555
Sample ID : BH05

Depth : 1.50 - 1.60



CERTIFICATE OF ANALYSIS

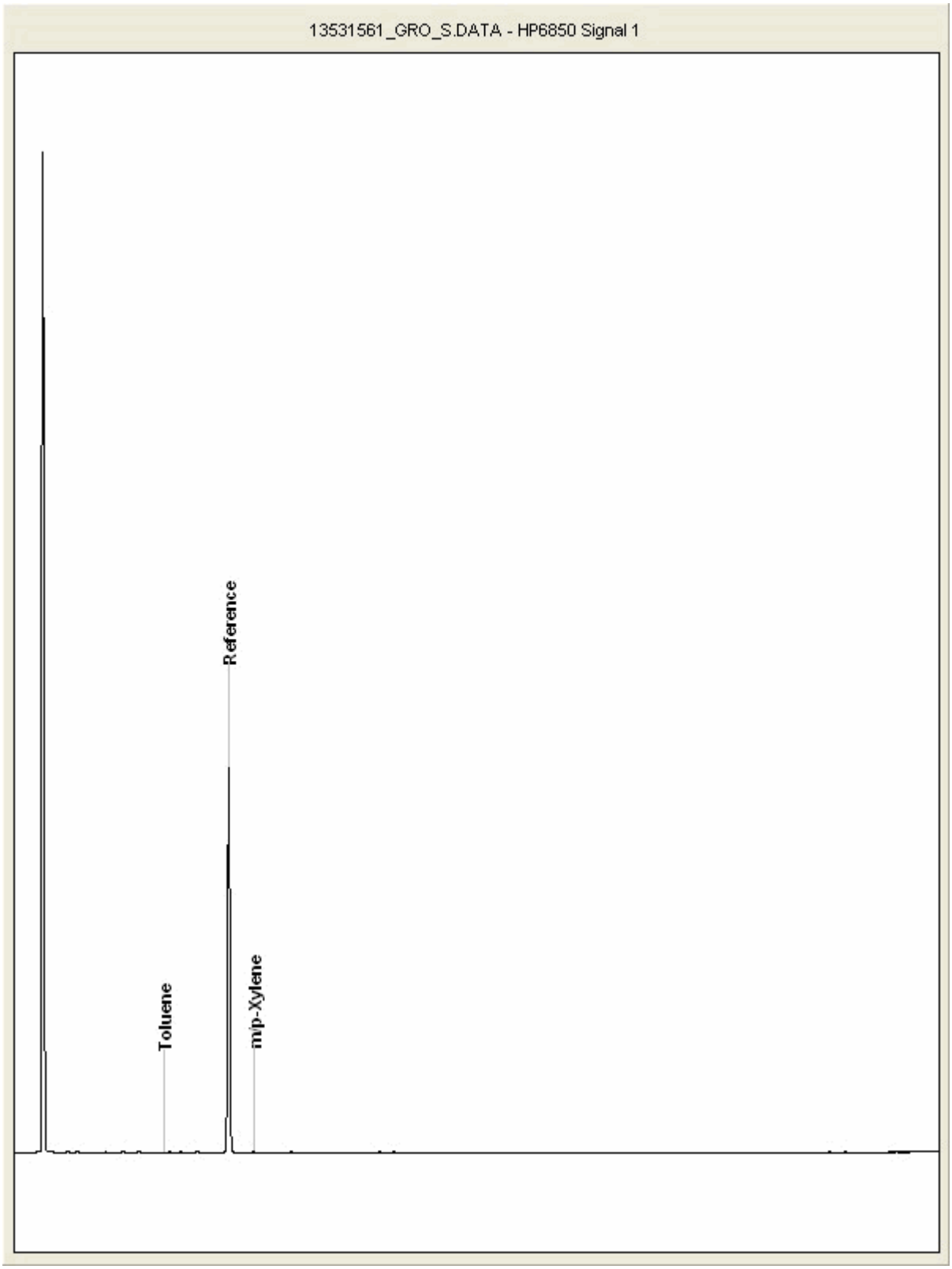
SDG:	160602-104	**Location:**	Rockingham, Barnsley	**Order Number:**	70018922-S01
Job:	H_WSP_MAN-355	**Customer:**	WSP PB MLN	**Report Number:**	370706
Client Reference:	Rockingham	**Attention:**	Gareth Maynell	**Superseded Report:**	370548

Chromatogram

Analysis: GRO by GC-FID (S)

Sample No : 13531561
Sample ID : BH05

Depth : 0.30 - 0.35



CERTIFICATE OF ANALYSIS

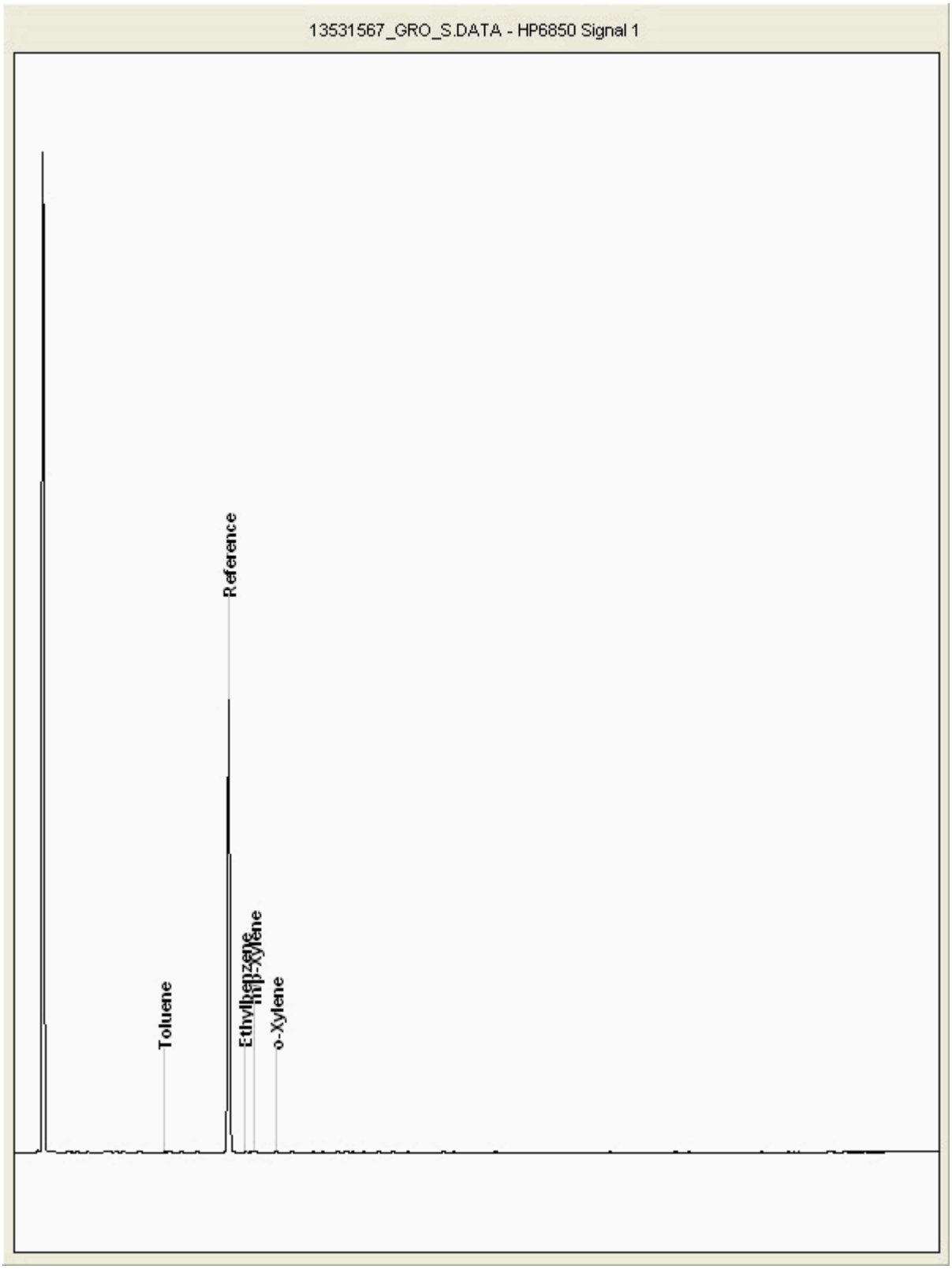
SDG:	160602-104	**Location:**	Rockingham, Barnsley	**Order Number:**	70018922-S01
Job:	H_WSP_MAN-355	**Customer:**	WSP PB MLN	**Report Number:**	370706
Client Reference:	Rockingham	**Attention:**	Gareth Maynell	**Superseded Report:**	370548

Chromatogram

Analysis: GRO by GC-FID (S)

Sample No : 13531567
Sample ID : BH01

Depth : 1.00 - 1.10



SDG:	160602-104	**Location:**	Rockingham, Barnsley	**Order Number:**	70018922-S01
Job:	H_WSP_MAN-355	**Customer:**	WSP PB MLN	**Report Number:**	370706
Client Reference:	Rockingham	**Attention:**	Gareth Maynell	**Superseded Report:**	370548

Appendix General

1. Results are expressed on a dry weight basis (dried at 35ºC) for all soil analyses except for the following: NRA and CEN Leach tests, flash point LOI, pH, ammonium as NH4 by the BRE method, VOC TICs and SVOC TICs.

2. Samples will be run in duplicate upon request, but an additional charge may be incurred

3. If sufficient sample is received a sub sample will be retained free of charge for 30 days after analysis is completed (e-mailed) for all sample types unless the sample is destroyed on testing. The prepared soil sub sample that is analysed for asbestos will be retained for a period of 6 months after the analysis date. All bulk samples will be retained for a period of 6 months after the analysis date. All samples received and not scheduled will be disposed of one month after the date of receipt unless we are instructed to the contrary. Once the initial period has expired, a storage charge will be applied for each month or part thereof until the client cancels the request for sample storage. ALcontrol Laboratories reserve the right to charge for samples received and stored but not analysed.

4. With respect to turnaround, we will always endeavour to meet client requirements wherever possible, but turnaround times cannot be absolutely guaranteed due to so many variables beyond our control.

5. We take responsibility for any test performed by sub-contractors (marked with an asterisk). We endeavour to use UKAS/MCERTS Accredited Laboratories, who either complete a quality questionnaire or are audited by ourselves. For some determinands there are no UKAS/MCERTS Accredited Laboratories, in this instance a laboratory with a known track record will be utilised.

6. When requested, the individual sub sample scheduled will be analysed in house for the presence of asbestos fibres and asbestos containing material by our documented in house method TM048 based on HSG 248 (2005), which is accredited to ISO17025. If a specific asbestos fibre type is not found this will be reported as “Not detected”. If no asbestos fibre types are found all will be reported as “Not detected” and the sub sample analysed deemed to be clear of asbestos. If an asbestos fibre type is found it will be reported as detected (for each fibre type found). Testing can be carried out on asbestos positive samples, but, due to Health and Safety considerations, may be replaced by alternative tests or reported as No Determination Possible (NDP). The quantity of asbestos present is not determined unless specifically requested.

7. If no separate volatile sample is supplied by the client, or if a headspace or sediment is present in the volatile sample, the integrity of the data may be compromised. This will be flagged up as an invalid VOC on the test schedule and the result marked as deviating on the test certificate.

8. If appropriate preserved bottles are not received preservation will take place on receipt. However, the integrity of the data may be compromised.

9. NDP - No determination possible due to insufficient/unsuitable sample.

10. Metals in water are performed on a filtered sample, and therefore represent dissolved metals - total metals must be requested separately.

11. Results relate only to the items tested.

12. LoDs (Limit of Detection) for wet tests reported on a dry weight basis are not corrected for moisture content.

13. **Surrogate recoveries** - Surrogates are added to your sample to monitor recovery of the test requested. A % recovery is reported, results are not corrected for the recovery measured. Typical recoveries for organics tests are 70-130%, they are generally wider for volatiles analysis, 50-150%. Recoveries in soils are affected by organic rich or clay rich matrices. Waters can be affected by remediation fluids or high amounts of sediment. Test results are only ever reported if all of the associated quality checks pass; it is assumed that all recoveries outside of the values above are due to matrix affect.

14. **Product analyses** - Organic analyses on products can only be semi-quantitative due to the matrix effects and high dilution factors
employed.

15. Phenols monohydric by HPLC include phenol, cresols (2-Methylphenol, 3-Methylphenol and 4-Methylphenol) and Xylenols (2,3 Dimethylphenol, 2,4 Dimethylphenol, 2,5 Dimethylphenol, 2,6 Dimethylphenol, 3,4 Dimethyphenol, 3,5 Dimethylphenol).

16. Total of 5 speciated phenols by HPLC includes Phenol, 2,3,5-Trimethyl Phenol, 2-Isopropylphenol, Cresols and Xylenols (as detailed in 15).

17. Stones/debris are not routinely removed. We always endeavour to take a representative sub sample from the received sample.

18. In certain circumstances the method detection limit may be elevated due to the sample being outside the calibration range. Other factors that may contribute to this include possible interferences. In both cases the sample would be diluted which would cause the method detection limit to be raised.

19. Mercury results quoted on soils will not include volatile mercury as the analysis is performed on a dried and crushed sample.

20. For the BSEN 12457-3 two batch process to allow the cumulative release to be calculated, the volume of the leachate produced is measured and filtered for all tests. We therefore cannot carry out any unfiltered analysis. The tests affected include volatiles GCFID/GCMS and all subcontracted analysis.

21. For leachate preparations other than Zero Headspace Extraction (ZHE) volatile loss may occur.

22. We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials - whether these are derived from naturally occurring soil profiles, or from fill/made ground, as long as these materials constitute the major part of the sample. Other coarse granular material such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

23. Analysis and identification of specific compounds using GCFID is by retention time only, and we routinely calibrate and quantify for benzene, toluene, ethylbenzenes and xylenes (BTEX). For total volatiles in the C5-C12 range, the total area of the chromatogram is integrated and expressed as ug/kg or ug/l. Although this analysis is commonly used for the quantification of gasoline range organics (GRO), the system will also detect other compounds such as chlorinated solvents, and this may lead to a falsely high result with respect to hydrocarbons only. It is not possible to specifically identify these non-hydrocarbons, as standards are not routinely run for any other compounds, and for more definitive identification, volatiles by GCMS should be utilised.

24. **Tentatively Identified Compounds (TICs)** are non-target peaks in VOC and SVOC analysis. All non-target peaks detected with a concentration above the LoD are subjected to a mass spectral library search. Non-target peaks with a library search confidence of >75% are reported based on the best mass spectral library match. When a non-target peak with a library search confidence of <75% is detected it is reported as “mixed hydrocarbons”. Non-target compounds identified from the scan data are semi-quantified relative to one of the deuterated internal standards, under the same chromatographic conditions as the target compounds. This result is reported as a semi-quantitative value and reported as Tentatively Identified Compounds (TICs). TICs are outside the scope of UKAS accreditation and are not moisture corrected.

Sample Deviations

1	Container with Headspace provided for volatiles analysis
2	Incorrect container received
3	Deviation from method
4	Holding time exceeded before sample received
5	Samples exceeded holding time before presevation was performed
§	Sampled on date not provided
♦	Sample holding time exceeded in laboratory
@	Sample holding time exceeded due to sampled on date
&	Sample Holding Time exceeded - Late arrival of instructions.

Asbestos

Identification of Asbestos in Bulk Materials & Soils

The results for identification of asbestos in bulk materials are obtained from supplied bulk materials which have been examined to determine the presence of asbestos fibres using ALcontrol Laboratories (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2005).

The results for identification of asbestos in soils are obtained from a homogenised sub sample which has been examined to determine the presence of asbestos fibres using ALcontrol Laboratories (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2005).

Asbestos Type	Common Name
Chrysotile	White Asbestos
Amosite	Brown Asbestos
Crocidolite	Blue Asbestos
Fibrous Actinolite	-
Fibrous Anthophyllite	-
Fibrous Tremolite	-

Visual Estimation Of Fibre Content

Estimation of fibre content is not permitted as part of our UKAS accredited test other than:
- Trace - Where only one or two asbestos fibres were identified.

Further guidance on typical asbestos fibre content of manufactured products can be found in HSG 264.

The identification of asbestos containing materials and soils falls within our schedule of tests for which we hold UKAS accreditation, however opinions, interpretations and all other information contained in the report are outside the scope of UKAS accreditation.

ALcontrol Laboratories

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WSP PB MLN
The Victoria
150-182 The Quays
Salford
Manchester
Lancashire
M50 3SP

Attention: Gareth Maynell

CERTIFICATE OF ANALYSIS

Date:	04 July 2016
Customer:	H_WSP_MAN
Sample Delivery Group (SDG):	160625-19
Your Reference:	70018922-003
Location:	Rockingham - Plot 1
Report No:	367420

We received 3 samples on Saturday June 25, 2016 and 3 of these samples were scheduled for analysis which was completed on Monday July 04, 2016. Accredited laboratory tests are defined within the report, but opinions, interpretations and on-site data expressed herein are outside the scope of ISO 17025 accreditation.

Should this report require incorporation into client reports, it must be used in its entirety and not simply with the data sections alone.

All chemical testing (unless subcontracted) is performed at ALcontrol Hawarden Laboratories.

Approved By:

Sonia McWhan

Operations Manager

CERTIFICATE OF ANALYSIS

SDG:	160625-19	**Location:**	Rockingham - Plot 1	**Order Number:**	70018922-003
Job:	H_WSP_MAN-367	**Customer:**	WSP PB MLN	**Report Number:**	367420
Client Reference:	70018922-003	**Attention:**	Gareth Maynell	**Superseded Report:**	

Received Sample Overview

Lab Sample No(s)	Customer Sample Ref.	AGS Ref.	Depth (m)	Sampled Date
13656722	BH01	EW	0.00 - 0.00	23/06/2016
13656731	BH02	EW	0.00 - 0.00	23/06/2016
13656741	BH03	EW	0.00 - 0.00	23/06/2016

Only received samples which have had analysis scheduled will be shown on the following pages.

CERTIFICATE OF ANALYSIS

SDG:	160625-19	**Location:**	Rockingham - Plot 1	**Order Number:**	70018922-003
Job:	H_WSP_MAN-367	**Customer:**	WSP PB MLN	**Report Number:**	367420
Client Reference:	70018922-003	**Attention:**	Gareth Maynell	**Superseded Report:**	

LIQUID

Results Legend

X **Test**

N **No Determination Possible**

			Lab Sample No(s)	13656722	13656731	13656741
			Customer Sample Reference	BH01	BH02	BH03
			AGS Reference	EW	EW	EW
			Depth (m)	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
			Container	0.5l glass bottle (AL NaOH (ALE245) Total Metals Preserv Vial (ALE297)	0.5l glass bottle (AL NaOH (ALE245) Total Metals Preserv Vial (ALE297)	0.5l glass bottle (AL NaOH (ALE245) Total Metals Preserv Vial (ALE297)
Cyanide Comp/Free/Total/Thiocyanate	All	NDPs: 0 Tests: 3		X	X	X
EPH CWG (Aliphatic) Aqueous GC (W)	All	NDPs: 0 Tests: 3		X	X	X
EPH CWG (Aromatic) Aqueous GC (W)	All	NDPs: 0 Tests: 3		X	X	X
GRO by GC-FID (W)	All	NDPs: 0 Tests: 3		X	X	X
Mercury Unfiltered	All	NDPs: 0 Tests: 3		X	X	X
PAH Spec MS - Aqueous (W)	All	NDPs: 0 Tests: 3		X	X	X
pH Value	All	NDPs: 0 Tests: 3		X	X	X
Total Metals by ICP-MS	All	NDPs: 0 Tests: 3		X	X	X
TPH CWG (W)	All	NDPs: 0 Tests: 3		X	X	X

CERTIFICATE OF ANALYSIS

SDG:	160625-19	**Location:**	Rockingham - Plot 1	**Order Number:**	70018922-003
Job:	H_WSP_MAN-367	**Customer:**	WSP PB MLN	**Report Number:**	367420
Client Reference:	70018922-003	**Attention:**	Gareth Maynell	**Superseded Report:**	

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	BH01	BH02	BH03			
			Depth (m)	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00			
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)			
			Date Sampled	23/06/2016	23/06/2016	23/06/2016			
			Sampled Time	.	.	.			
			Date Received	25/06/2016	25/06/2016	25/06/2016			
			SDG Ref	160625-19	160625-19	160625-19			
			Lab Sample No.(s)	13656722	13656731	13656741			
			AGS Reference	EW	EW	EW			
Mercury (tot.unfilt)	<0.02 µg/l	TM183		<0.02 #	<0.02 #	<0.02 #			
Arsenic (tot.unfilt)	<2 µg/l	TM191		<2 #	2.69 #	<2 #			
Cadmium (tot.unfilt)	<0.5 µg/l	TM191		<0.5 #	<0.5 #	<0.5 #			
Chromium (tot.unfilt)	<3 µg/l	TM191		8.98 #	13.3 #	6.77 #			
Copper (tot.unfilt)	<4 µg/l	TM191		<4 #	17.3 #	<4 #			
Nickel (tot.unfilt)	<0.5 µg/l	TM191		20.9 #	58.3 #	46.8 #			
Lead (tot.unfilt)	<0.5 µg/l	TM191		<0.5 #	11.1 #	<0.5 #			
Selenium (tot.unfilt)	<1 µg/l	TM191		<1 #	1.09 #	<1 #			
Zinc (tot.unfilt)	<3 µg/l	TM191		11.4 #	46.5 #	13.5 #			
Cyanide, Free	<50 µg/l	TM227		<50 #	<50 #	<50 #			
pH	<1 pH Units	TM256		7.05 #	7.08 #	7.06 #			

CERTIFICATE OF ANALYSIS

SDG:	160625-19	**Location:**	Rockingham - Plot 1	**Order Number:**	70018922-003
Job:	H_WSP_MAN-367	**Customer:**	WSP PB MLN	**Report Number:**	367420
Client Reference:	70018922-003	**Attention:**	Gareth Maynell	**Superseded Report:**	

PAH Spec MS - Aqueous (W)

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&♦§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	BH01	BH02	BH03			
			Depth (m)	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00			
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)			
			Date Sampled	23/06/2016	23/06/2016	23/06/2016			
			Sampled Time	.	.	.			
			Date Received	25/06/2016	25/06/2016	25/06/2016			
			SDG Ref	160625-19	160625-19	160625-19			
			Lab Sample No.(s)	13656722	13656731	13656741			
			AGS Reference	EW	EW	EW			
Naphthalene (aq)	<0.1 µg/l	TM178		<0.1 #	<0.1 #	<0.1 #			
Acenaphthene (aq)	<0.015 µg/l	TM178		<0.015 #	<0.015 #	<0.015 #			
Acenaphthylene (aq)	<0.011 µg/l	TM178		<0.011 #	<0.011 #	<0.011 #			
Fluoranthene (aq)	<0.017 µg/l	TM178		<0.017 #	<0.017 #	<0.017 #			
Anthracene (aq)	<0.015 µg/l	TM178		<0.015 #	<0.015 #	<0.015 #			
Phenanthrene (aq)	<0.022 µg/l	TM178		<0.022 #	<0.022 #	<0.022 #			
Fluorene (aq)	<0.014 µg/l	TM178		<0.014 #	<0.014 #	<0.014 #			
Chrysene (aq)	<0.013 µg/l	TM178		<0.013 #	<0.013 #	<0.013 #			
Pyrene (aq)	<0.015 µg/l	TM178		<0.015 #	0.0168 #	<0.015 #			
Benzo(a)anthracene (aq)	<0.017 µg/l	TM178		<0.017 #	<0.017 #	<0.017 #			
Benzo(b)fluoranthene (aq)	<0.023 µg/l	TM178		<0.023 #	<0.023 #	<0.023 #			
Benzo(k)fluoranthene (aq)	<0.027 µg/l	TM178		<0.027 #	<0.027 #	<0.027 #			
Benzo(a)pyrene (aq)	<0.009 µg/l	TM178		<0.009 #	0.00931 #	<0.009 #			
Dibenzo(a,h)anthracene (aq)	<0.016 µg/l	TM178		<0.016 #	<0.016 #	<0.016 #			
Benzo(g,h,i)perylene (aq)	<0.016 µg/l	TM178		<0.016 #	<0.016 #	<0.016 #			
Indeno(1,2,3-cd)pyrene (aq)	<0.014 µg/l	TM178		<0.014 #	<0.014 #	<0.014 #			
PAH, Total Detected USEPA 16 (aq)	<0.344 µg/l	TM178		<0.344	<0.344	<0.344			

CERTIFICATE OF ANALYSIS

SDG:	160625-19	**Location:**	Rockingham - Plot 1	**Order Number:**	70018922-003
Job:	H_WSP_MAN-367	**Customer:**	WSP PB MLN	**Report Number:**	367420
Client Reference:	70018922-003	**Attention:**	Gareth Maynell	**Superseded Report:**	

TPH CWG (W)

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	BH01	BH02	BH03			
			Depth (m)	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00			
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)			
			Date Sampled	23/06/2016	23/06/2016	23/06/2016			
			Sampled Time	.	.	.			
			Date Received	25/06/2016	25/06/2016	25/06/2016			
			SDG Ref	160625-19	160625-19	160625-19			
			Lab Sample No.(s)	13656722	13656731	13656741			
			AGS Reference	EW	EW	EW			
GRO Surrogate % recovery**	%	TM245		88	83	79			
GRO >C5-C12	<50 µg/l	TM245		<50 #	<50 #	<50 #			
Methyl tertiary butyl ether (MTBE)	<3 µg/l	TM245		<3 #	<3 #	<3 #			
Benzene	<7 µg/l	TM245		<7 #	<7 #	<7 #			
Toluene	<4 µg/l	TM245		<4 #	<4 #	<4 #			
Ethylbenzene	<5 µg/l	TM245		<5 #	<5 #	<5 #			
m,p-Xylene	<8 µg/l	TM245		<8 #	<8 #	<8 #			
o-Xylene	<3 µg/l	TM245		<3 #	<3 #	<3 #			
Sum of detected Xylenes	<11 µg/l	TM245		<11	<11	<11			
Sum of detected BTEX	<28 µg/l	TM245		<28	<28	<28			
Aliphatics >C5-C6	<10 µg/l	TM245		<10	<10	<10			
Aliphatics >C6-C8	<10 µg/l	TM245		<10	<10	<10			
Aliphatics >C8-C10	<10 µg/l	TM245		<10	<10	<10			
Aliphatics >C10-C12	<10 µg/l	TM245		<10	<10	<10			
Aliphatics >C12-C16 (aq)	<10 µg/l	TM174		<10	<10	<10			
Aliphatics >C16-C21 (aq)	<10 µg/l	TM174		<10	<10	<10			
Aliphatics >C21-C35 (aq)	<10 µg/l	TM174		<10	31	<10			
Total Aliphatics >C12-C35 (aq)	<10 µg/l	TM174		<10	31	<10			
Aromatics >EC5-EC7	<10 µg/l	TM245		<10	<10	<10			
Aromatics >EC7-EC8	<10 µg/l	TM245		<10	<10	<10			
Aromatics >EC8-EC10	<10 µg/l	TM245		<10	<10	<10			
Aromatics >EC10-EC12	<10 µg/l	TM245		<10	<10	<10			
Aromatics >EC12-EC16 (aq)	<10 µg/l	TM174		<10	<10	<10			
Aromatics >EC16-EC21 (aq)	<10 µg/l	TM174		<10	<10	<10			
Aromatics >EC21-EC35 (aq)	<10 µg/l	TM174		<10	<10	<10			
Total Aromatics >EC12-EC35 (aq)	<10 µg/l	TM174		<10	<10	<10			
Total Aliphatics & Aromatics >C5-35 (aq)	<10 µg/l	TM174		<10	31	<10			

CERTIFICATE OF ANALYSIS

SDG:	160625-19	**Location:**	Rockingham - Plot 1	**Order Number:**	70018922-003
Job:	H_WSP_MAN-367	**Customer:**	WSP PB MLN	**Report Number:**	367420
Client Reference:	70018922-003	**Attention:**	Gareth Maynell	**Superseded Report:**	

Table of Results - Appendix

Method No	Reference	Description	Wet/Dry Sample [1]	Surrogate Corrected
TM061	Method for the Determination of EPH,Massachusetts Dept.of EP, 1998	Determination of Extractable Petroleum Hydrocarbons by GC-FID (C10-C40)		
TM174	Analysis of Petroleum Hydrocarbons in Environmental Media – Total Petroleum Hydrocarbon Criteria	Determination of Speciated Extractable Petroleum Hydrocarbons in Waters by GC-FID		
TM178	Modified: US EPA Method 8100	Determination of Polynuclear Aromatic Hydrocarbons (PAH) by GC-MS in Waters		
TM183	BS EN 23506:2002, (BS 6068-2.74:2002) ISBN 0 580 38924 3	Determination of Trace Level Mercury in Waters and Leachates by PSA Cold Vapour Atomic Fluorescence Spectrometry		
TM191	Standard Methods for the examination of waters and wastewaters 16th Edition, ALPHA, Washington DC, USA. ISBN 0-87553-131-8.	Determination of Unfiltered Metals in Water Matrices by ICP-MS		
TM227	Standard methods for the examination of waters and wastewaters 20th Edition, AWWA/APHA Method 4500.	Determination of Total Cyanide, Free (Easily Liberatable) Cyanide and Thiocyanate		
TM245	By GC-FID	Determination of GRO by Headspace in waters		
TM256	The measurement of Electrical Conductivity and the Laboratory determination of pH Value of Natural, Treated and Wastewaters. HMSO, 1978. ISBN 011 751428 4.	Determination of pH in Water and Leachate using the GLpH pH Meter		

[1] Applies to Solid samples only. DRY indicates samples have been dried at 35°C. NA = not applicable.

CERTIFICATE OF ANALYSIS

SDG:	160625-19	**Location:**	Rockingham - Plot 1	**Order Number:**	70018922-003
Job:	H_WSP_MAN-367	**Customer:**	WSP PB MLN	**Report Number:**	367420
Client Reference:	70018922-003	**Attention:**	Gareth Maynell	**Superseded Report:**	

Test Completion Dates

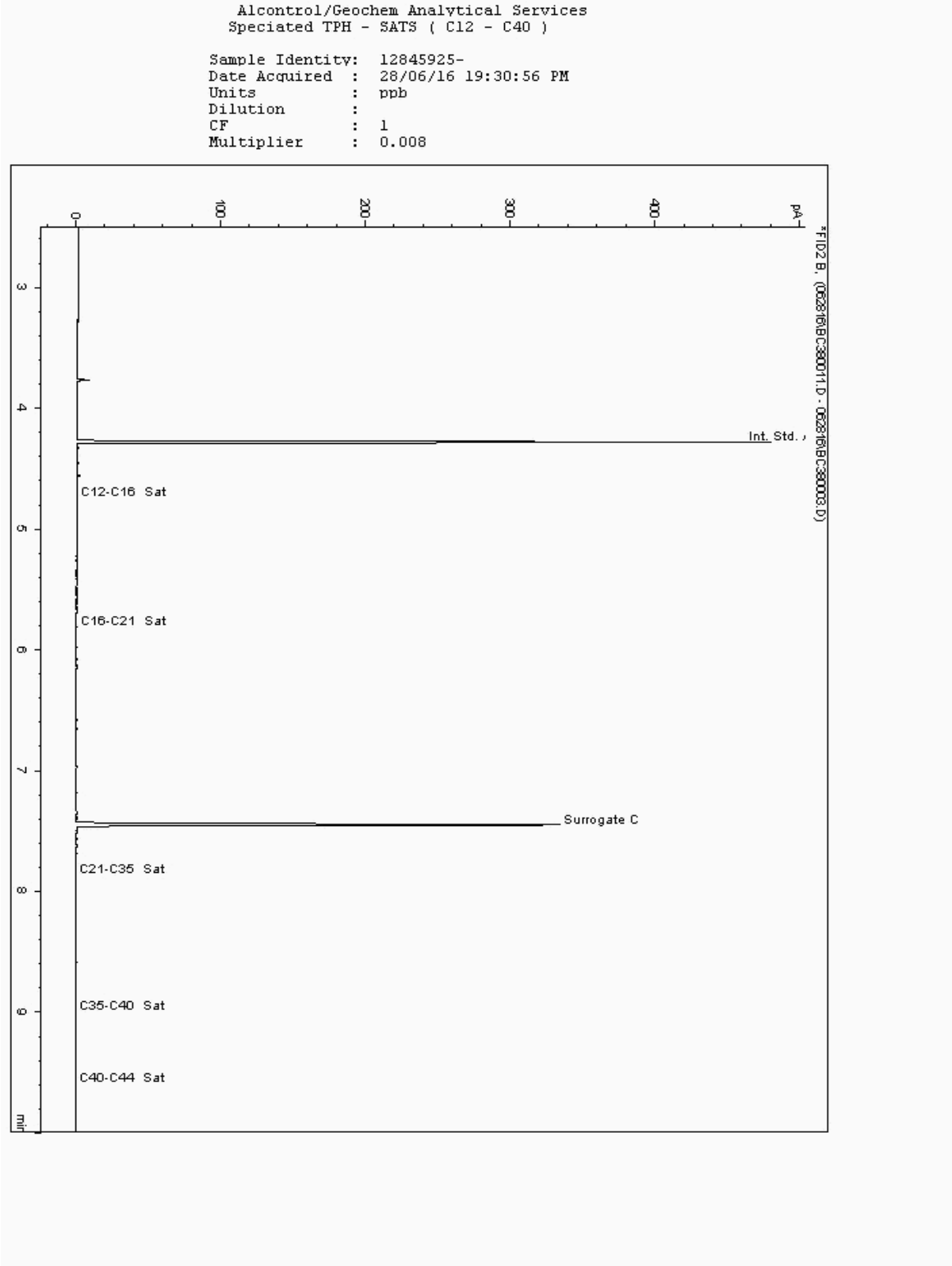
Lab Sample No(s)	13656722	13656731	13656741
Customer Sample Ref.	BH01	BH02	BH03
AGS Ref.	EW	EW	EW
Depth	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Type	LIQUID	LIQUID	LIQUID
Cyanide Comp/Free/Total/Thiocyanate	28-Jun-2016	28-Jun-2016	28-Jun-2016
EPH CWG (Aliphatic) Aqueous GC (W)	29-Jun-2016	29-Jun-2016	29-Jun-2016
EPH CWG (Aromatic) Aqueous GC (W)	29-Jun-2016	29-Jun-2016	29-Jun-2016
GRO by GC-FID (W)	29-Jun-2016	29-Jun-2016	29-Jun-2016
Mercury Unfiltered	04-Jul-2016	04-Jul-2016	04-Jul-2016
PAH Spec MS - Aqueous (W)	29-Jun-2016	29-Jun-2016	29-Jun-2016
pH Value	28-Jun-2016	28-Jun-2016	28-Jun-2016
Total Metals by ICP-MS	30-Jun-2016	30-Jun-2016	30-Jun-2016
TPH CWG (W)	29-Jun-2016	29-Jun-2016	29-Jun-2016

CERTIFICATE OF ANALYSIS

SDG:	160625-19	**Location:**	Rockingham - Plot 1	**Order Number:**	70018922-003
Job:	H_WSP_MAN-367	**Customer:**	WSP PB MLN	**Report Number:**	367420
Client Reference:	70018922-003	**Attention:**	Gareth Maynell	**Superseded Report:**	

Chromatogram

Analysis: EPH CWG (Aliphatic) Aqueous GC (W) **Sample No :** 13659432 **Sample ID :** BH03 **Depth :** 0.00 - 0.00

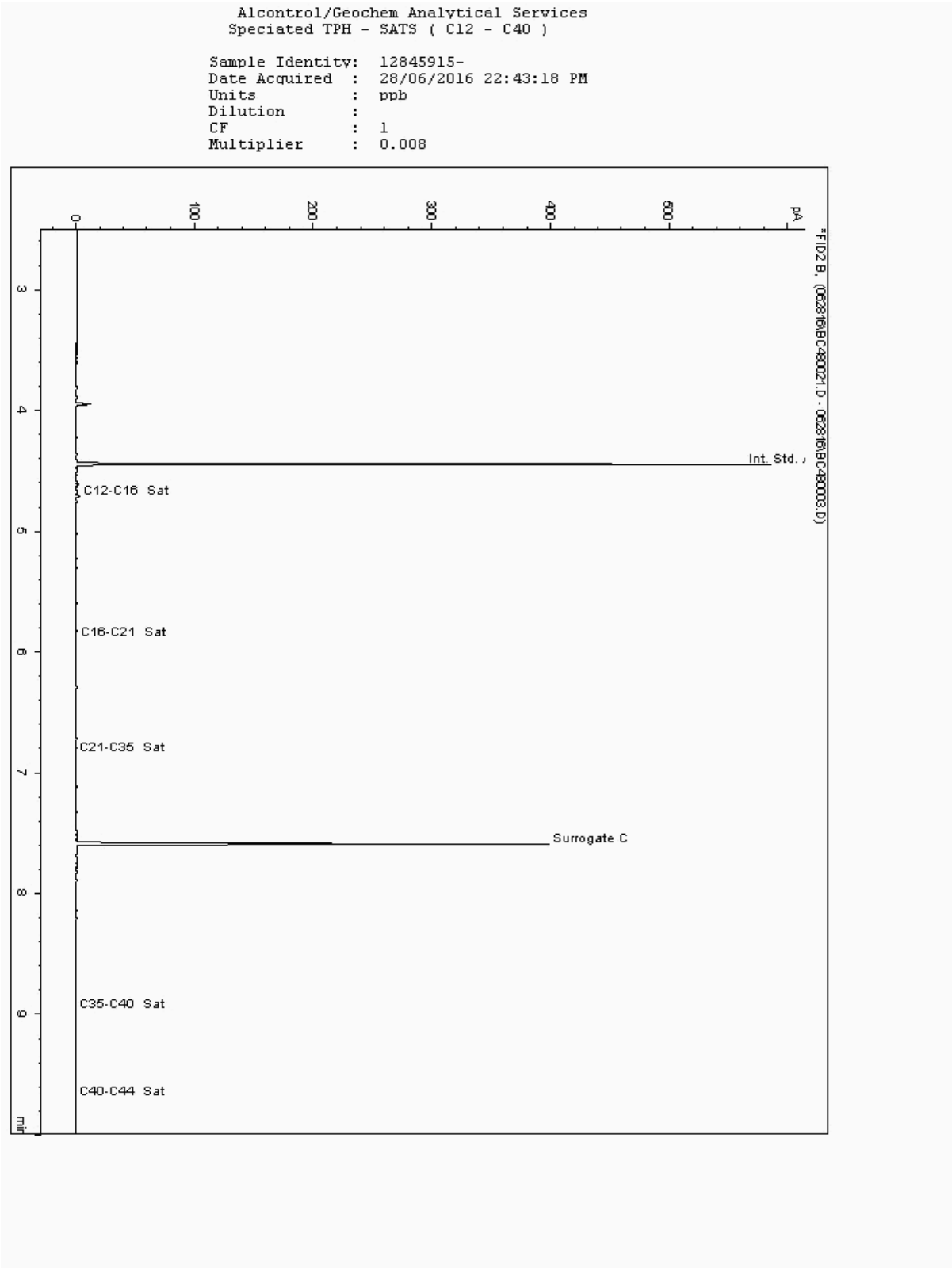


CERTIFICATE OF ANALYSIS

SDG:	160625-19	**Location:**	Rockingham - Plot 1	**Order Number:**	70018922-003
Job:	H_WSP_MAN-367	**Customer:**	WSP PB MLN	**Report Number:**	367420
Client Reference:	70018922-003	**Attention:**	Gareth Maynell	**Superseded Report:**	

Chromatogram

Analysis: EPH CWG (Aliphatic) Aqueous GC (W) **Sample No :** 13659443 **Sample ID :** BH02 **Depth :** 0.00 - 0.00

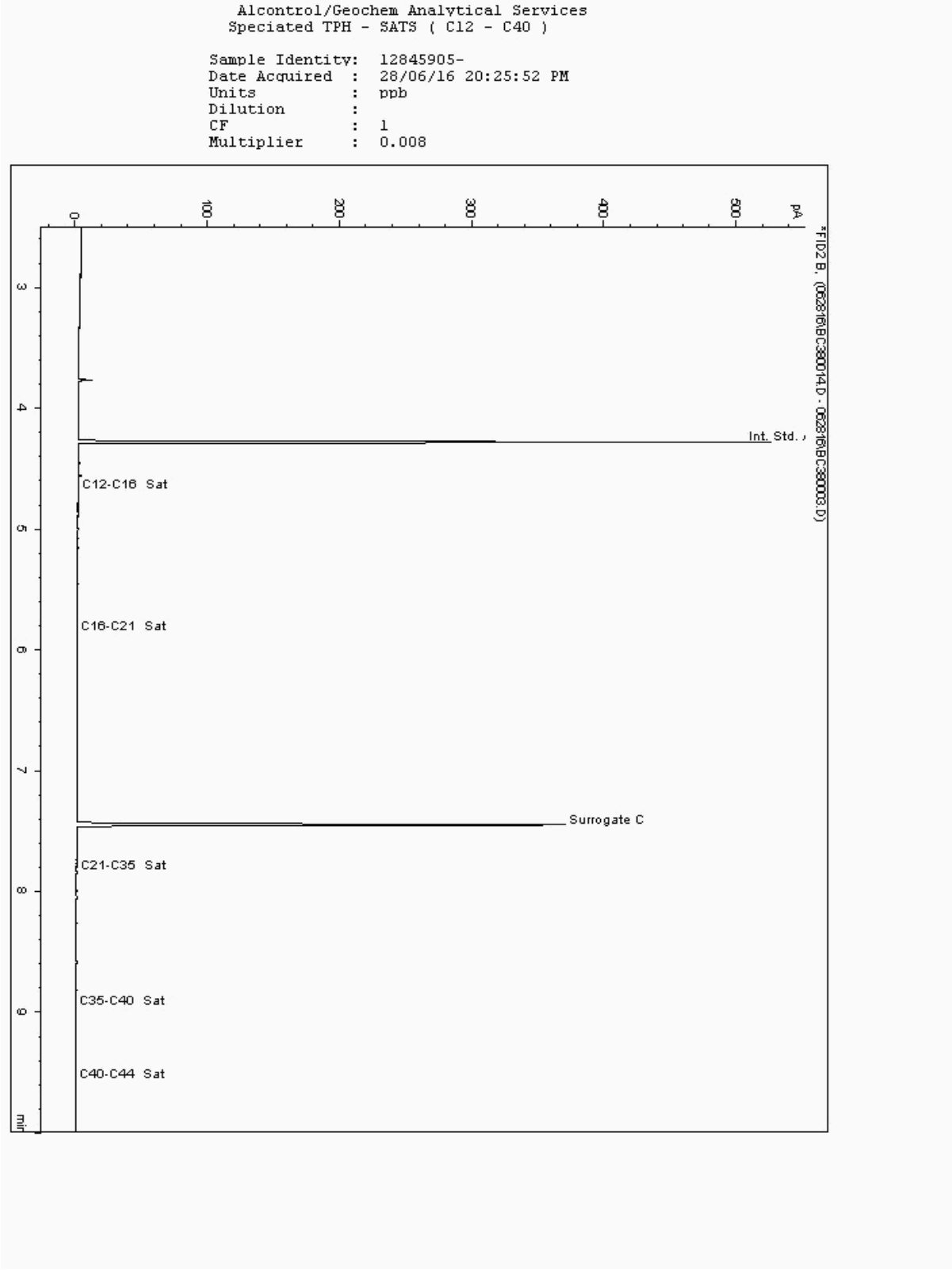


CERTIFICATE OF ANALYSIS

SDG:	160625-19	**Location:**	Rockingham - Plot 1	**Order Number:**	70018922-003
Job:	H_WSP_MAN-367	**Customer:**	WSP PB MLN	**Report Number:**	367420
Client Reference:	70018922-003	**Attention:**	Gareth Maynell	**Superseded Report:**	

Chromatogram

Analysis: EPH CWG (Aliphatic) Aqueous GC (W) **Sample No :** 13659449 **Sample ID :** BH01 **Depth :** 0.00 - 0.00

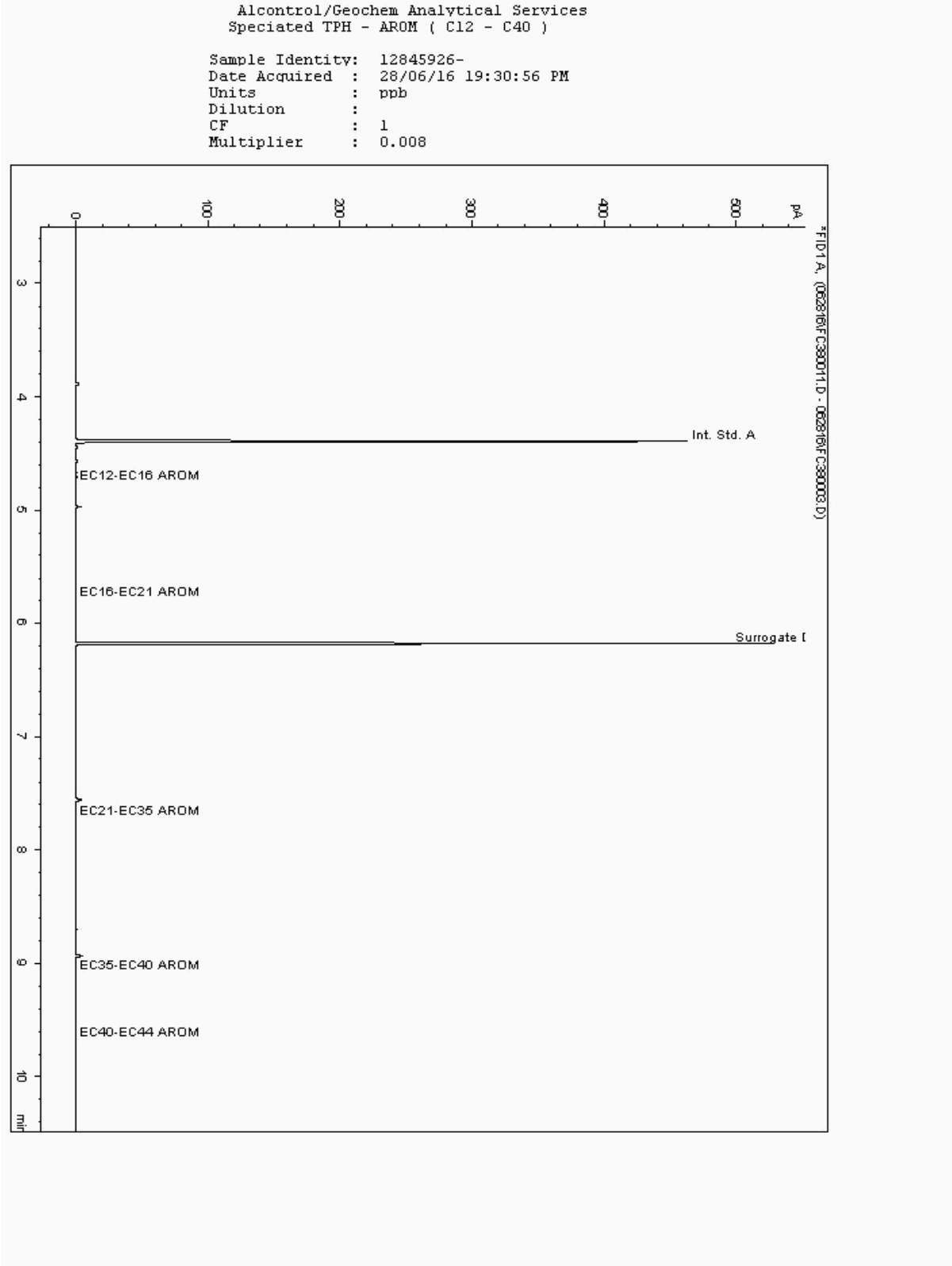


CERTIFICATE OF ANALYSIS

SDG:	160625-19	**Location:**	Rockingham - Plot 1	**Order Number:**	70018922-003
Job:	H_WSP_MAN-367	**Customer:**	WSP PB MLN	**Report Number:**	367420
Client Reference:	70018922-003	**Attention:**	Gareth Maynell	**Superseded Report:**	

Chromatogram

Analysis: EPH CWG (Aromatic) Aqueous GC (W) **Sample No :** 13659432 **Sample ID :** BH03 **Depth :** 0.00 - 0.00

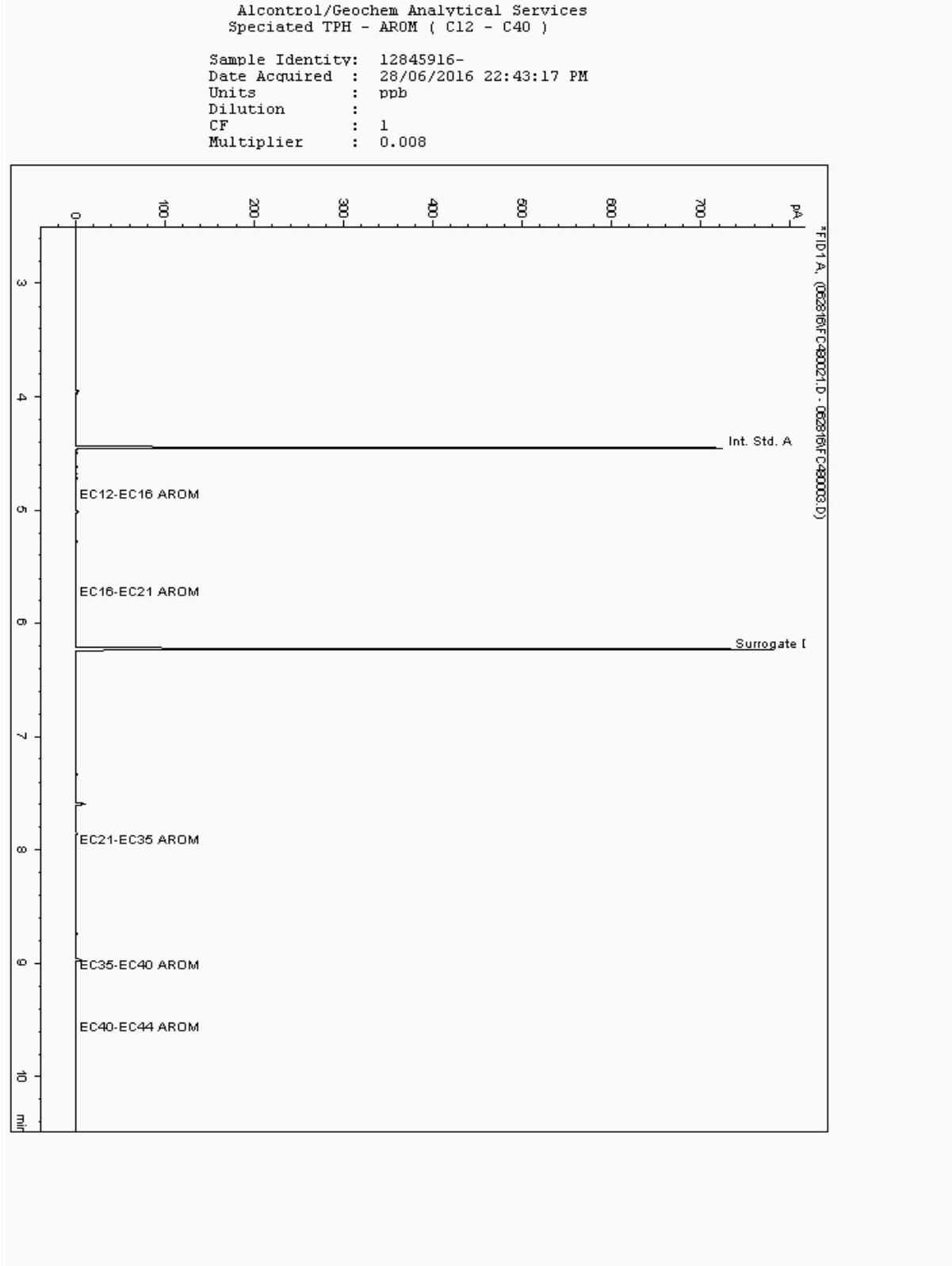


CERTIFICATE OF ANALYSIS

SDG:	160625-19	**Location:**	Rockingham - Plot 1	**Order Number:**	70018922-003
Job:	H_WSP_MAN-367	**Customer:**	WSP PB MLN	**Report Number:**	367420
Client Reference:	70018922-003	**Attention:**	Gareth Maynell	**Superseded Report:**	

Chromatogram

Analysis: EPH CWG (Aromatic) Aqueous GC (W) **Sample No :** 13659443 **Sample ID :** BH02 **Depth :** 0.00 - 0.00

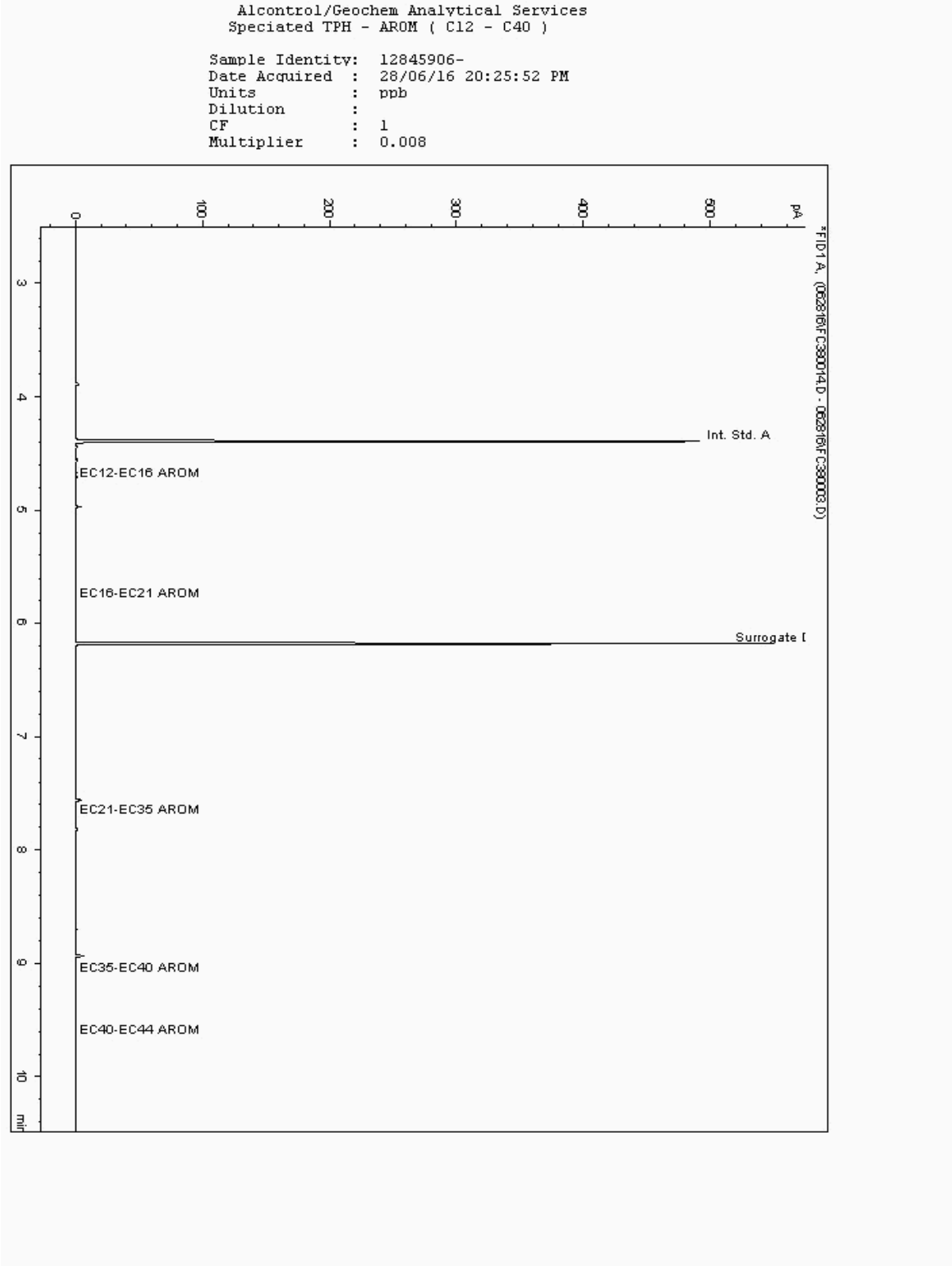


CERTIFICATE OF ANALYSIS

SDG:	160625-19	**Location:**	Rockingham - Plot 1	**Order Number:**	70018922-003
Job:	H_WSP_MAN-367	**Customer:**	WSP PB MLN	**Report Number:**	367420
Client Reference:	70018922-003	**Attention:**	Gareth Maynell	**Superseded Report:**	

Chromatogram

Analysis: EPH CWG (Aromatic) Aqueous GC (W) **Sample No :** 13659449 **Sample ID :** BH01 **Depth :** 0.00 - 0.00



CERTIFICATE OF ANALYSIS

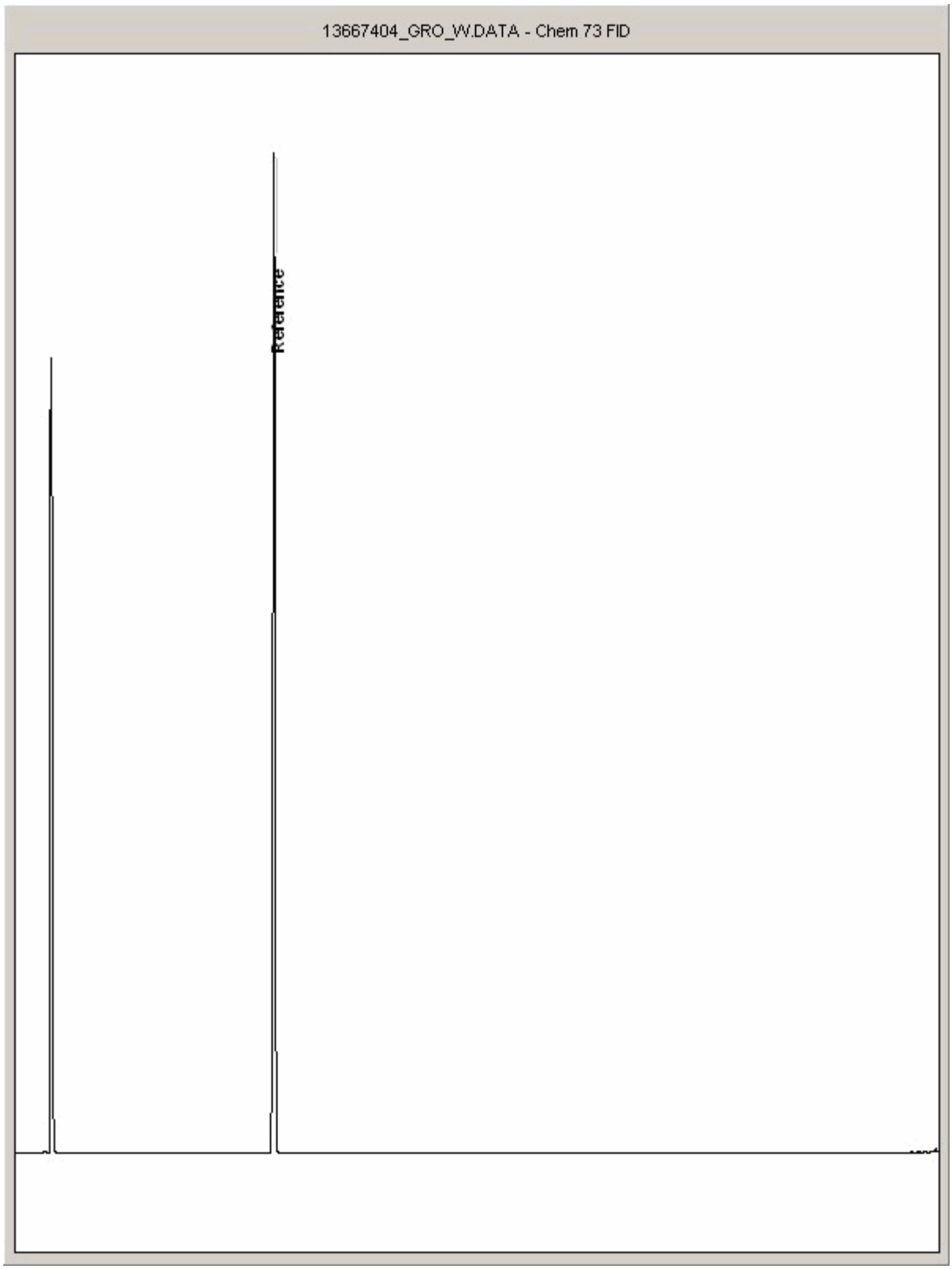
SDG:	160625-19	**Location:**	Rockingham - Plot 1	**Order Number:**	70018922-003
Job:	H_WSP_MAN-367	**Customer:**	WSP PB MLN	**Report Number:**	367420
Client Reference:	70018922-003	**Attention:**	Gareth Maynell	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 13667404
Sample ID : BH02

Depth : 0.00 - 0.00



CERTIFICATE OF ANALYSIS

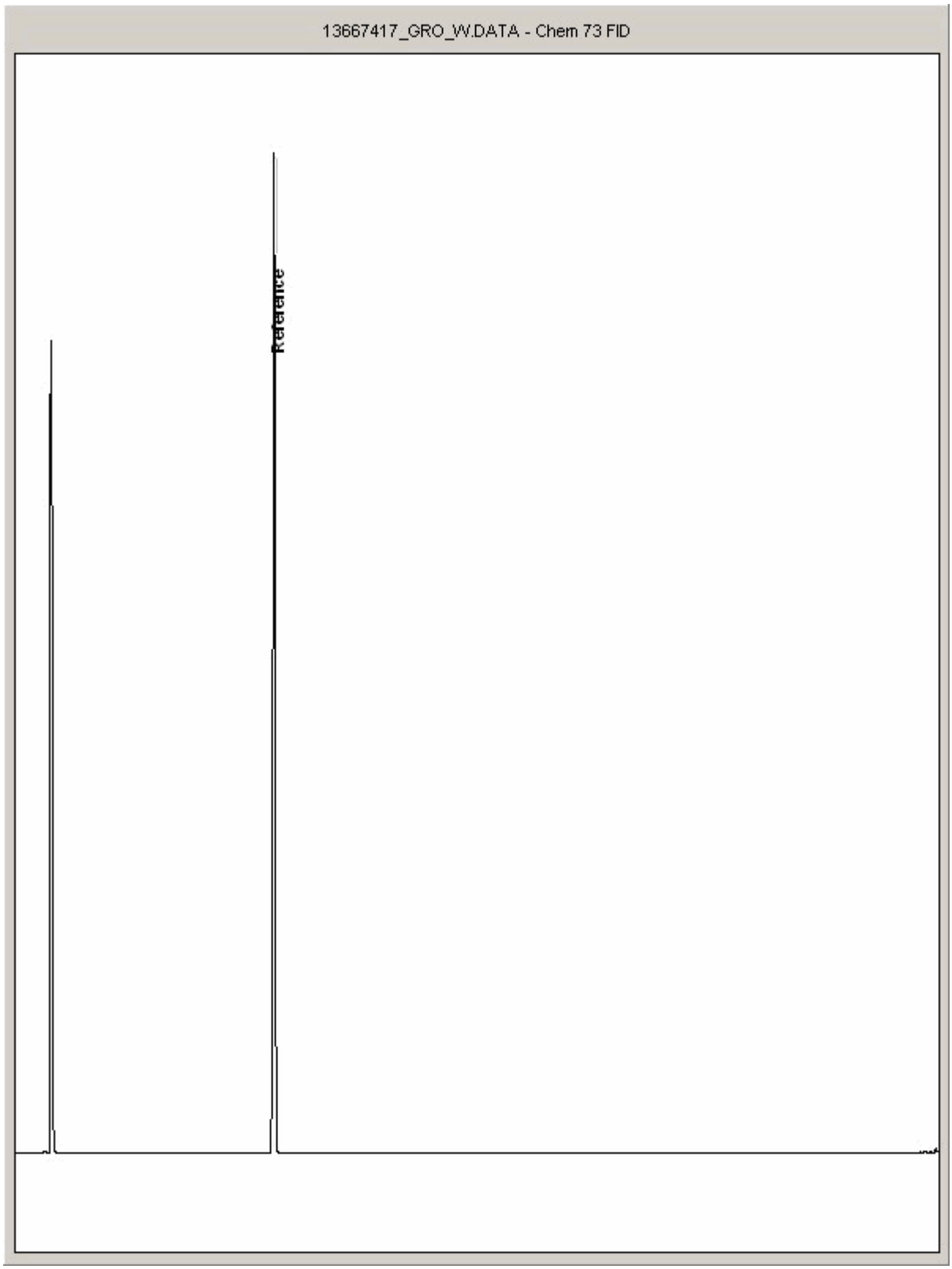
SDG:	160625-19	**Location:**	Rockingham - Plot 1	**Order Number:**	70018922-003
Job:	H_WSP_MAN-367	**Customer:**	WSP PB MLN	**Report Number:**	367420
Client Reference:	70018922-003	**Attention:**	Gareth Maynell	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 13667417
Sample ID : BH03

Depth : 0.00 - 0.00



CERTIFICATE OF ANALYSIS

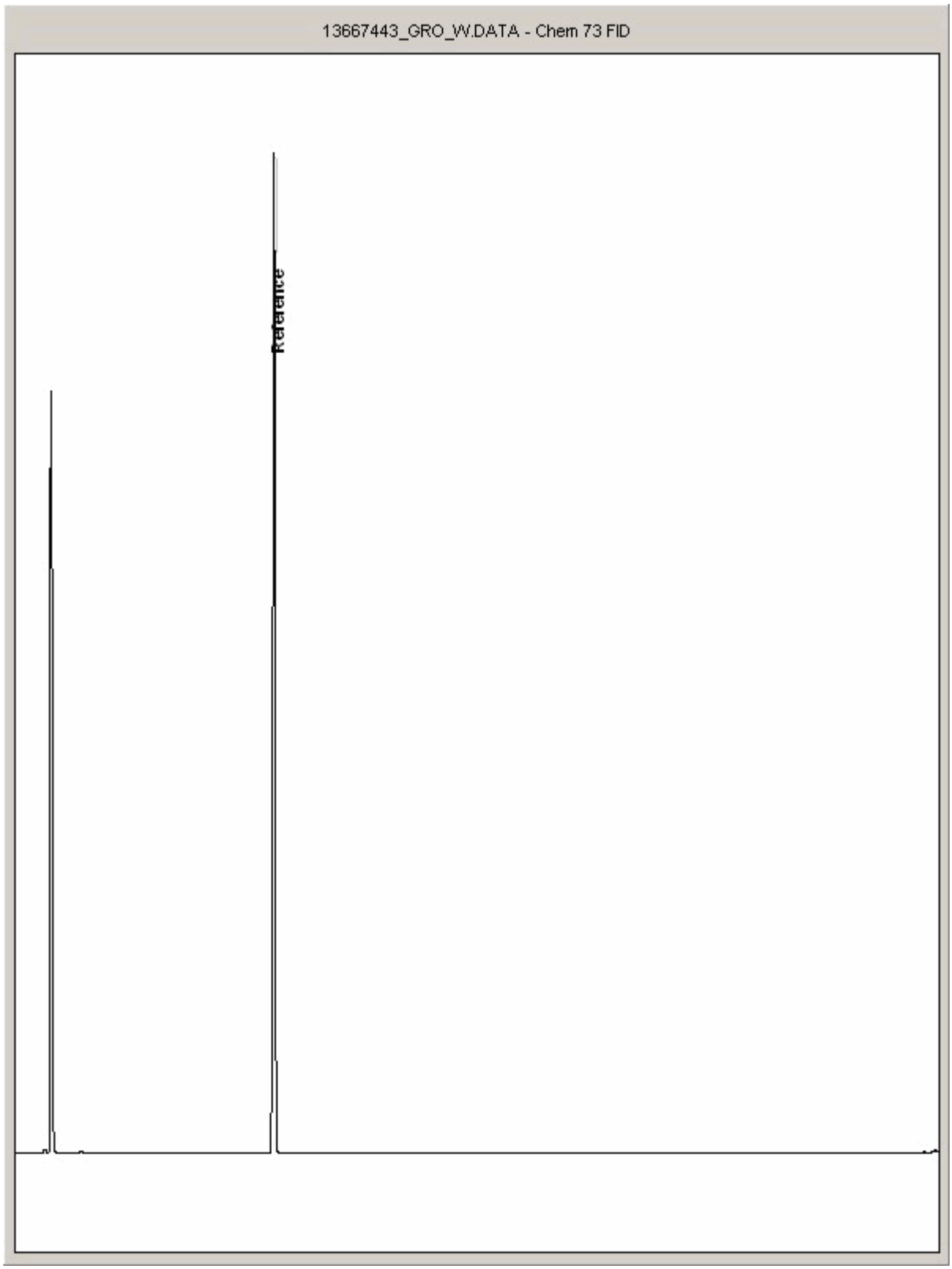
SDG:	160625-19	**Location:**	Rockingham - Plot 1	**Order Number:**	70018922-003
Job:	H_WSP_MAN-367	**Customer:**	WSP PB MLN	**Report Number:**	367420
Client Reference:	70018922-003	**Attention:**	Gareth Maynell	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 13667443
Sample ID : BH01

Depth : 0.00 - 0.00



SDG:	160625-19	**Location:**	Rockingham - Plot 1	**Order Number:**	70018922-003
Job:	H_WSP_MAN-367	**Customer:**	WSP PB MLN	**Report Number:**	367420
Client Reference:	70018922-003	**Attention:**	Gareth Maynell	**Superseded Report:**	

Appendix

1. Results are expressed on a dry weight basis (dried at 35ºC) for all soil analyses except for the following: NRA and CEN Leach tests, flash point LOI, pH, ammonium as NH4 by the BRE method, VOC TICs and SVOC TICs.

2. Samples will be run in duplicate upon request, but an additional charge may be incurred.

3. If sufficient sample is received a sub sample will be retained free of charge for 30 days after analysis is completed (e-mailed) for all sample types unless the sample is destroyed on testing. The prepared soil sub sample that is analysed for asbestos will be retained for a period of 6 months after the analysis date. All bulk samples will be retained for a period of 6 months after the analysis date. All samples received and not scheduled will be disposed of one month after the date of receipt unless we are instructed to the contrary. Once the initial period has expired, a storage charge will be applied for each month or part thereof until the client cancels the request for sample storage. ALcontrol Laboratories reserve the right to charge for samples received and stored but not analysed.

4. With respect to turnaround, we will always endeavour to meet client requirements wherever possible, but turnaround times cannot be absolutely guaranteed due to so many variables beyond our control.

5. We take responsibility for any test performed by sub-contractors (marked with an asterisk). We endeavour to use UKAS/MCERTS Accredited Laboratories, who either complete a quality questionnaire or are audited by ourselves. For some determinands there are no UKAS/MCERTS Accredited Laboratories, in this instance a laboratory with a known track record will be utilised.

6. When requested, the individual sub sample scheduled will be analysed in house for the presence of asbestos fibres and asbestos containing material by our documented in house method TM048 based on HSG 248 (2005), which is accredited to ISO17025. If a specific asbestos fibre type is not found this will be reported as “Not detected”. If no asbestos fibre types are found all will be reported as “Not detected” and the sub sample analysed deemed to be clear of asbestos. If an asbestos fibre type is found it will be reported as detected (for each fibre type found). Testing can be carried out on asbestos positive samples, but, due to Health and Safety considerations, may be replaced by alternative tests or reported as No Determination Possible (NDP). The quantity of asbestos present is not determined unless specifically requested.

7. If no separate volatile sample is supplied by the client, or if a headspace or sediment is present in the volatile sample, the integrity of the data may be compromised. This will be flagged up as an invalid VOC on the test schedule and the result marked as deviating on the test certificate.

8. If appropriate preserved bottles are not received preservation will take place on receipt . However, the integrity of the data may be compromised.

9. NDP - No determination possible due to insufficient/unsuitable sample.

10. Metals in water are performed on a filtered sample, and therefore represent dissolved metals - total metals must be requested separately.

11. Results relate only to the items tested.

12. LoDs (Limit of Detection) for wet tests reported on a dry weight basis are not corrected for moisture content.

13. **Surrogate recoveries** - Surrogates are added to your sample to monitor recovery of the test requested. A % recovery is reported, results are not corrected for the recovery measured. Typical recoveries for organics tests are 70-130%, they are generally wider for volatiles analysis, 50-150%. Recoveries in soils are affected by organic rich or clay rich matrices. Waters can be affected by remediation fluids or high amounts of sediment . Test results are only ever reported if all of the associated quality checks pass; it is assumed that all recoveries outside of the values above are due to matrix affect .

14. **Product analyses** - Organic analyses on products can only be semi-quantitative due to the matrix effects and high dilution factors employed.

15. Phenols monohydric by HPLC include phenol, cresols (2-Methylphenol, 3-Methylphenol and 4-Methylphenol) and Xylenols (2,3 Dimethylphenol, 2,4 Dimethylphenol, 2,5 Dimethylphenol, 2,6 Dimethylphenol, 3,4 Dimethyphenol, 3,5 Dimethylphenol).

16. Total of 5 speciated phenols by HPLC includes Phenol, 2,3,5-Trimethyl Phenol, 2-Isopropylphenol, Cresols and Xylenols (as detailed in 15).

17. Stones/debris are not routinely removed. We always endeavour to take a representative sub sample from the received sample.

18. In certain circumstances the method detection limit may be elevated due to the sample being outside the calibration range. Other factors that may contribute to this include possible interferences. In both cases the sample would be diluted which would cause the method detection limit to be raised.

19. Mercury results quoted on soils will not include volatile mercury as the analysis is performed on a dried and crushed sample.

General

20. For the BSEN 12457-3 two batch process to allow the cumulative release to be calculated, the volume of the leachate produced is measured and filtered for all tests. We therefore cannot carry out any unfiltered analysis. The tests affected include volatiles GCFID/GCMS and all subcontracted analysis.

21. For leachate preparations other than Zero Headspace Extraction (ZHE) volatile loss may occur.

22. We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials - whether these are derived from naturally occurring soil profiles, or from fill /made ground, as long as these materials constitute the major part of the sample. Other coarse granular material such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

23. Analysis and identification of specific compounds using GCFID is by retention time only, and we routinely calibrate and quantify for benzene, toluene, ethylbenzenes and xylenes (BTEX). For total volatiles in the C5-C12 range, the total area of the chromatogram is integrated and expressed as ug/kg or ug/l. Although this analysis is commonly used for the quantification of gasoline range organics (GRO), the system will also detect other compounds such as chlorinated solvents, and this may lead to a falsely high result with respect to hydrocarbons only. It is not possible to specifically identify these non-hydrocarbons, as standards are not routinely run for any other compounds, and for more definitive identification, volatiles by GCMS should be utilised.

24. **Tentatively Identified Compounds (TICs)** are non-target peaks in VOC and SVOC analysis. All non-target peaks detected with a concentration above the LoD are subjected to a mass spectral library search. Non-target peaks with a library search confidence of >75% are reported based on the best mass spectral library match. When a non-target peak with a library search confidence of <75% is detected it is reported as “mixed hydrocarbons”. Non-target compounds identified from the scan data are semi-quantified relative to one of the deuterated internal standards, under the same chromatographic conditions as the target compounds. This result is reported as a semi-quantitative value and reported as Tentatively Identified Compounds (TICs). TICs are outside the scope of UKAS accreditation and are not moisture corrected.

Sample Deviations

1	Container with Headspace provided for volatiles analysis
2	Incorrect container received
3	Deviation from method
4	Holding time exceeded before sample received
5	Samples exceeded holding time before presevation was performed
§	Sampled on date not provided
♦	Sample holding time exceeded in laboratory
@	Sample holding time exceeded due to sampled on date
&	Sample Holding Time exceeded - Late arrival of instructions.

Asbestos

Identification of Asbestos in Bulk Materials & Soils

The results for identification of asbestos in bulk materials are obtained from supplied bulk materials which have been examined to determine the presence of asbestos fibres using ALcontrol Laboratories (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2005).

The results for identification of asbestos in soils are obtained from a homogenised sub sample which has been examined to determine the presence of asbestos fibres using ALcontrol Laboratories (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2005).

Asbestos Type	Common Name
Chrysotile	White Asbestos
Amosite	Brown Asbestos
Crocidolite	Blue Asbestos
Fibrous Actinolite	-
Fibrous Anthophyllite	-
Fibrous Tremolite	-

Visual Estimation Of Fibre Content

Estimation of fibre content is not permitted as part of our UKAS accredited test other than : - Trace - Where only one or two asbestos fibres were identified.

Further guidance on typical asbestos fibre content of manufactured products can be found in HSG 264.

The identification of asbestos containing materials and soils falls within our schedule of tests for which we hold UKAS accreditation, however opinions, interpretations and all other information contained in the report are outside the scope of UKAS accreditation.

Appendix F

GEOTECHNICAL ANALYSIS RESULTS

ALcontrol Laboratories

Unit 7-8 Hawarden Business Park
Manor Road (off Manor Lane)
Hawarden
Deeside
CH5 3US
Tel: (01244) 528700
Fax: (01244) 528701
email: mkt@alcontrol.com
Website: www.alcontrol.com

WSP PB MLN
The Victoria
150-182 The Quays
Salford
Manchester
Lancashire
M50 3SP

Attention: Gareth Maynell

CERTIFICATE OF ANALYSIS

Date:	01 July 2016
Customer:	H_WSP_MAN
Sample Delivery Group (SDG):	160616-145
Your Reference:	Rockingham
Location:	Rockingham, Barnsley
Report No:	367175

We received 10 samples on Thursday June 16, 2016 and 10 of these samples were scheduled for analysis which was completed on Friday July 01, 2016. Accredited laboratory tests are defined within the report, but opinions, interpretations and on-site data expressed herein are outside the scope of ISO 17025 accreditation.

Should this report require incorporation into client reports, it must be used in its entirety and not simply with the data sections alone.

All chemical testing (unless subcontracted) is performed at ALcontrol Hawarden Laboratories.

Approved By:

Sonia McWhan

Operations Manager

CERTIFICATE OF ANALYSIS

SDG:	160616-145	**Location:**	Rockingham, Barnsley	**Order Number:**	70019822-S01
Job:	H_WSP_MAN-355	**Customer:**	WSP PB MLN	**Report Number:**	367175
Client Reference:	Rockingham	**Attention:**	Gareth Maynell	**Superseded Report:**	

Received Sample Overview

Lab Sample No(s)	Customer Sample Ref.	AGS Ref.	Depth (m)	Sampled Date
13608392	BH01	BLK	0.00 - 1.50	24/05/2016
13608386	BH01	BLK	0.20 - 0.60	24/05/2016
13608401	BH03	BLK	0.50 - 1.00	24/05/2016
13608399	BH03	D	2.10 - 2.20	24/05/2016
13608403	BH04	BLK	0.50 - 1.00	24/05/2016
13608405	BH04	BLK	1.00 - 2.00	24/05/2016
13608394	BH04	D	4.20 - 4.30	24/05/2016
13608388	BH05	D	0.60 - 0.70	24/05/2016
13608390	BH05	BLK	1.00 - 2.00	24/05/2016
13608397	BH05	D	3.60 - 3.80	24/05/2016

Only received samples which have had analysis scheduled will be shown on the following pages.

CERTIFICATE OF ANALYSIS

SDG:	160616-145	**Location:**	Rockingham, Barnsley	**Order Number:**	70019822-S01
Job:	H_WSP_MAN-355	**Customer:**	WSP PB MLN	**Report Number:**	367175
Client Reference:	Rockingham	**Attention:**	Gareth Maynell	**Superseded Report:**	

SOLID

Results Legend

X **Test**

N **No Determination Possible**

			Lab Sample No(s)	Customer Sample Reference	AGS Reference	Depth (m)	Container
			13608392	BH01	BLK	0.00 - 1.50	Geolabs container
			13608386	BH01	BLK	0.20 - 0.60	Geolabs container
			13608401	BH03	BLK	0.50 - 1.00	Geolabs container
			13608399	BH03	D	2.10 - 2.20	Geolabs container
			13608403	BH04	BLK	0.50 - 1.00	Geolabs container
			13608405	BH04	BLK	1.00 - 2.00	Geolabs container
			13608394	BH04	D	4.20 - 4.30	Geolabs container
			13608388	BH05	D	0.60 - 0.70	Geolabs container
			13608390	BH05	BLK	1.00 - 2.00	Geolabs container
			13608397	BH05	D	3.60 - 3.80	Geolabs container
Geotechnical Testing*	All	NDPs: 0 Tests: 10	X	X	X	X	X	X	X	X	X	X

CERTIFICATE OF ANALYSIS

SDG:	160616-145	**Location:**	Rockingham, Barnsley	**Order Number:**	70019822-S01
Job:	H_WSP_MAN-355	**Customer:**	WSP PB MLN	**Report Number:**	367175
Client Reference:	Rockingham	**Attention:**	Gareth Maynell	**Superseded Report:**	

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	BH01	BH01	BH03	BH03	BH04	BH04
			Depth (m)	0.00 - 1.50	0.20 - 0.60	0.50 - 1.00	2.10 - 2.20	0.50 - 1.00	1.00 - 2.00
			Sample Type	GeoTech Soils	GeoTech Soils	GeoTech Soils	GeoTech Soils	GeoTech Soils	GeoTech Soils
			Date Sampled	24/05/2016	24/05/2016	24/05/2016	24/05/2016	24/05/2016	24/05/2016
			Sample Time	.	.	.	.	.	.
			Date Received	16/06/2016	16/06/2016	16/06/2016	16/06/2016	16/06/2016	16/06/2016
			SDG Ref	160616-145	160616-145	160616-145	160616-145	160616-145	160616-145
			Lab Sample No.(s)	13608392	13608386	13608401	13608399	13608403	13608405
			AGS Reference	BLK	BLK	BLK	D	BLK	BLK
Moisture Content (GEOTECH)*	-	SUB			See Attached		See Attached		
Plasticity Index 4 point*	-	SUB			See Attached		See Attached		
PSD Wet/Dry sieve*	-	SUB	See Attached		See Attached			See Attached	See Attached

CERTIFICATE OF ANALYSIS

SDG:	160616-145	**Location:**	Rockingham, Barnsley	**Order Number:**	70019822-S01
Job:	H_WSP_MAN-355	**Customer:**	WSP PB MLN	**Report Number:**	367175
Client Reference:	Rockingham	**Attention:**	Gareth Maynell	**Superseded Report:**	

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted test.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-5&+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample R	BH04	BH05	BH05	BH05		
			Depth (m)	4.20 - 4.30	0.60 - 0.70	1.00 - 2.00	3.60 - 3.80		
			Sample Type	GeoTech Soils	GeoTech Soils	GeoTech Soils	GeoTech Soils		
			Date Sampled	24/05/2016	24/05/2016	24/05/2016	24/05/2016		
			Sample Time	.	.	.	.		
			Date Received	16/06/2016	16/06/2016	16/06/2016	16/06/2016		
			SDG Ref	160616-145	160616-145	160616-145	160616-145		
			Lab Sample No.(s)	13608394	13608388	13608390	13608397		
			AGS Reference	D	D	BLK	D		
Moisture Content (GEOTECH)*	-	SUB		See Attached	See Attached		See Attached		
Plasticity Index 4 point*	-	SUB		See Attached	See Attached		See Attached		
PSD Wet/Dry sieve*	-	SUB				See Attached			

CERTIFICATE OF ANALYSIS

SDG:	160616-145	**Location:**	Rockingham, Barnsley	**Order Number:**	70019822-S01
Job:	H_WSP_MAN-355	**Customer:**	WSP PB MLN	**Report Number:**	367175
Client Reference:	Rockingham	**Attention:**	Gareth Maynell	**Superseded Report:**	

Table of Results - Appendix

Method No	Reference	Description	Wet/Dry Sample [1]	Surrogate Corrected
SUB		Subcontracted Test		

[1] Applies to Solid samples only. DRY indicates samples have been dried at 35°C. NA = not applicable.

CERTIFICATE OF ANALYSIS

SDG:	160616-145	**Location:**	Rockingham, Barnsley	**Order Number:**	70019822-S01
Job:	H_WSP_MAN-355	**Customer:**	WSP PB MLN	**Report Number:**	367175
Client Reference:	Rockingham	**Attention:**	Gareth Maynell	**Superseded Report:**	

Test Completion Dates

Lab Sample No(s)	13608386	13608392	13608399	13608401	13608394	13608403	13608405	13608388	13608390	13608397
Customer Sample Ref.	BH01	BH01	BH03	BH03	BH04	BH04	BH04	BH05	BH05	BH05
AGS Ref.	BLK	BLK	D	BLK	D	BLK	BLK	D	BLK	D
Depth	0.20 - 0.60	0.00 - 1.50	2.10 - 2.20	0.50 - 1.00	4.20 - 4.30	0.50 - 1.00	1.00 - 2.00	0.60 - 0.70	1.00 - 2.00	3.60 - 3.80
Type	GEOTECH	GEOTECH	GEOTECH	GEOTECH	GEOTECH	GEOTECH	GEOTECH	GEOTECH	GEOTECH	GEOTECH
Geotechnical Testing*	01-Jul-2016	01-Jul-2016	01-Jul-2016	01-Jul-2016	01-Jul-2016	01-Jul-2016	01-Jul-2016	01-Jul-2016	01-Jul-2016	01-Jul-2016

Laboratory Report

2788

GEO Site & Testing Services Ltd

Contract Number: 31449

Client's Reference: **SDG 160616-145 P40528**

Report Date: **29-06-2016**

Client **ALcontrol Laboratories**
Hawarden Business Park
Manor Road
Flintshire
CH5 3US

Contract Title: **Rockingham, Barnsley**

For the attention of: **Alcontrol GSTL**

Date Received: **28-06-2016**

Date Commenced: **28-06-2016**

Date Completed: **29-06-2016**

Test Description	Qty
Moisture Content - * UKAS	5
Plasticity 4 Point Limit (ALC) - * UKAS	5
PSD-Wet Sieve/Dry Sieve 1377 : 1990 Part 2 : 9.2 - * UKAS	5
Disposal of Samples on Project	1

Notes: **Observations and Interpretations are outside the UKAS Accreditation**
*** - denotes test included in laboratory scope of accreditation**
 # - denotes test carried out by approved contractor
@ - denotes non accredited tests

Approved Signatories:
Alex Wynn (Associate Director) - Benjamin Sharp (Contracts Manager) - Emma Sharp (Office Manager)
Jon Tatam (Administrative/Quality Assistant) - Paul Evans (Quality/Technical Manager) - Vaughan Edwards (Managing Director)

GEO Site & Testing Services Ltd
Unit 4, Heol Aur, Dafen Ind Estate, Dafen, Llanelli, Carmarthenshire SA14 8QN
Tel: 01554 784040 Fax: 01554 784041 info@gstl.co.uk gstl.co.uk

Client ref: SDG 160616-145

Location: Rockingham, Barnsley

Contract Number: 31449

Hole Number	Sample Number	Type	Depth (m)	Description of Sample*
BH01		B	0.20 - 0.60	Brown fine sandy silty CLAY with rootlets.
BH03		D	2.10 - 2.20	Grey silty CLAY.
BH04		D	4.20 - 4.30	Grey/brown slightly fine sandy silty CLAY with fragments of coal.
BH05		D	0.60 - 0.70	Grey/brown fine sandy silty CLAY.
BH05		D	3.60 - 3.80	Brown fine to medium gravelly fine sandy silty CLAY.

Note: Results on this table are in summary format and may not meet the requirements of the relevant standards, additional information is held by the laboratory

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For and behalf of GEO Site & Testing Services Ltd

Authorised By:
Ben Sharp (Contracts Manager)

Date: 29.6.16

UKAS TESTING
2788

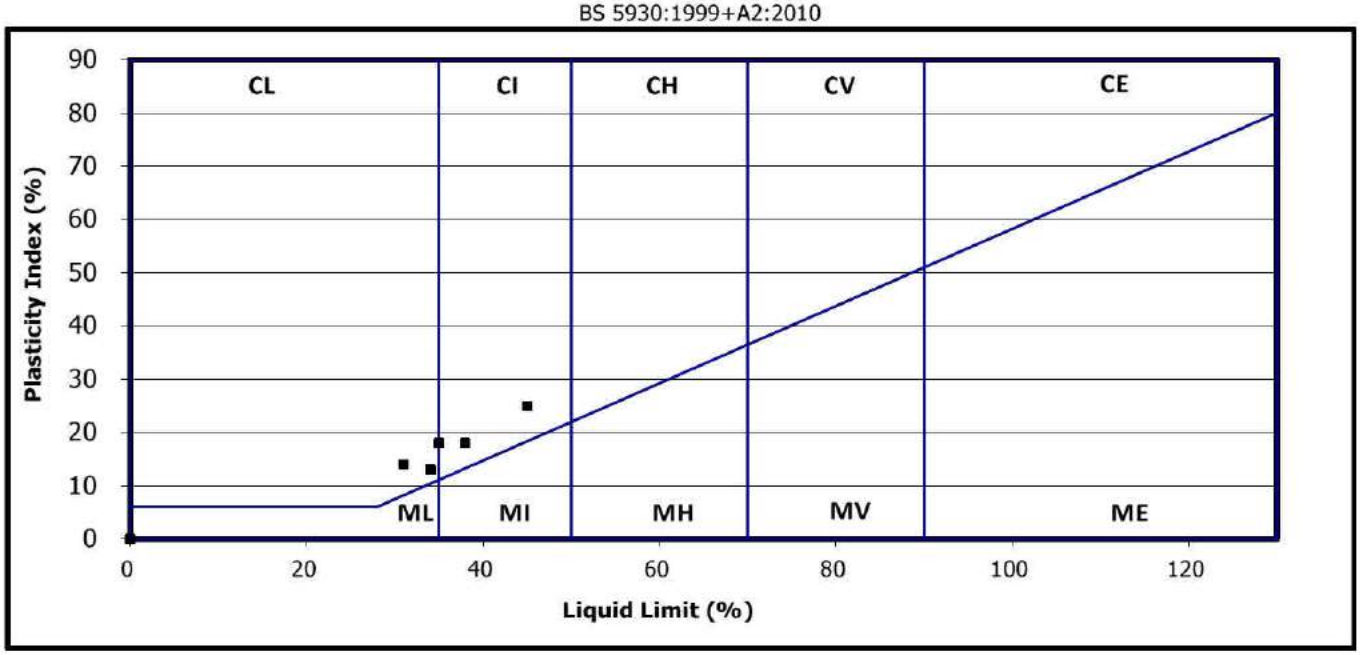
Test Report: **Method of the Determination of the plastic limit and plasticity index**
BS 1377 : Part 2 : 1990 Method 5

Client ref: **SDG 160616-145**
Location: **Rockingham, Barnsley**
Contract Number: **31449**

Hole/ Sample Number	Sample Type	Depth m	Moisture Content % Cl. 3.2	Liquid Limit % Cl. 4.3/4.4	Plastic Limit % Cl. 5.	Plasticity Index % Cl. 6.	% Passing .425mm	Remarks
BH01	B	0.20 - 0.60	13	38	20	18	94	CI Intermediate Plasticity
BH03	D	2.10 - 2.20	12	35	17	18	100	CL/I Low/Inter. Plasticity
BH04	D	4.20 - 4.30	16	45	20	25	86	CI Intermediate Plasticity
BH05	D	0.60 - 0.70	12	34	21	13	100	CL Low Plasticity
BH05	D	3.60 - 3.80	15	31	17	14	82	CL Low Plasticity

Symbols: **NP : Non Plastic** **# : Liquid Limit and Plastic Limit Wet Sieved**

PLASTICITY CHART FOR CASAGRANDE CLASSIFICATION.
BS 5930:1999+A2:2010



For and behalf of GEO Site & Testing Services Ltd

Authorised By:
Ben Sharp (Contracts Manager)
Date: 29.6.16

UKAS TESTING 2788

GEO/005

Test Report:

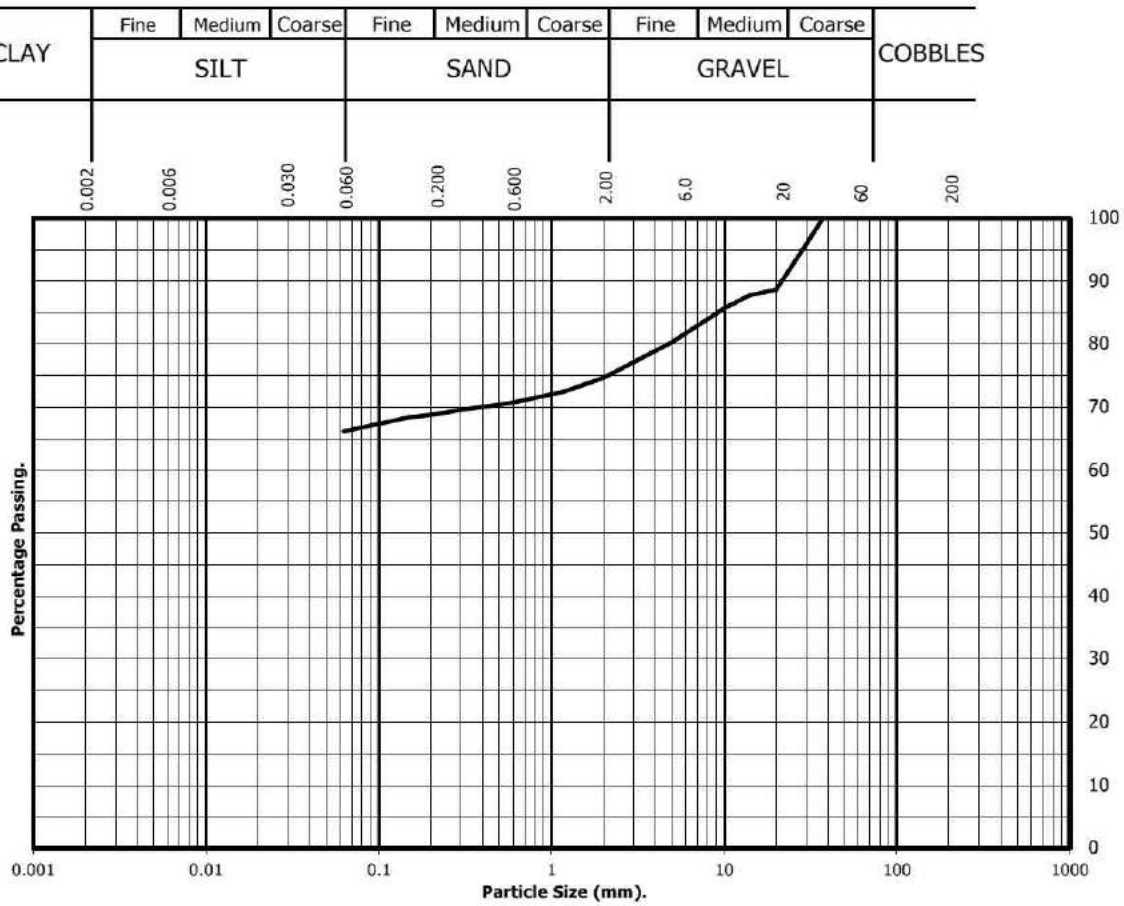
Particle Size Distribution Test
BS 1377 Part 2:1990.

Wet Sieve, Clause 9.2

Client ref:	**SDG 160616-145**	**Sample Number:**	
Contract Number:	**31449**	**Depth from (m):**	**0.00**
Hole Number:	**BH01**	**Depth to (m):**	**1.00**
		Sample Type:	**B**

Location: **Rockingham, Barnsley**

Description: **Grey slightly fine to coarse sandy fine to coarse gravelly SILT/CLAY.**



BS Test Sieve	% Passing
125	100
90	100
75	100
63	100
50	100
37.5	100
28	95
20	89
14	88
10	86
6.3	82
5.0	80
3.35	78
2.00	75
1.18	72
0.60	71
0.425	70
0.300	70
0.212	69
0.150	68
0.063	66

Particle Diameter	% Passing
0.02	#
0.006	#
0.002	#

	Silt and Clay	Sand	Gravel	Cobbles	Soil Fraction
	66	9	25	0	Total Percentage

Remarks:

#- not determined

For and behalf of GEO Site & Testing Services Ltd

Authorised By:
Ben Sharp (Contracts Manager)

Date: 29.6.16

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2788

GEO/104

Test Report:

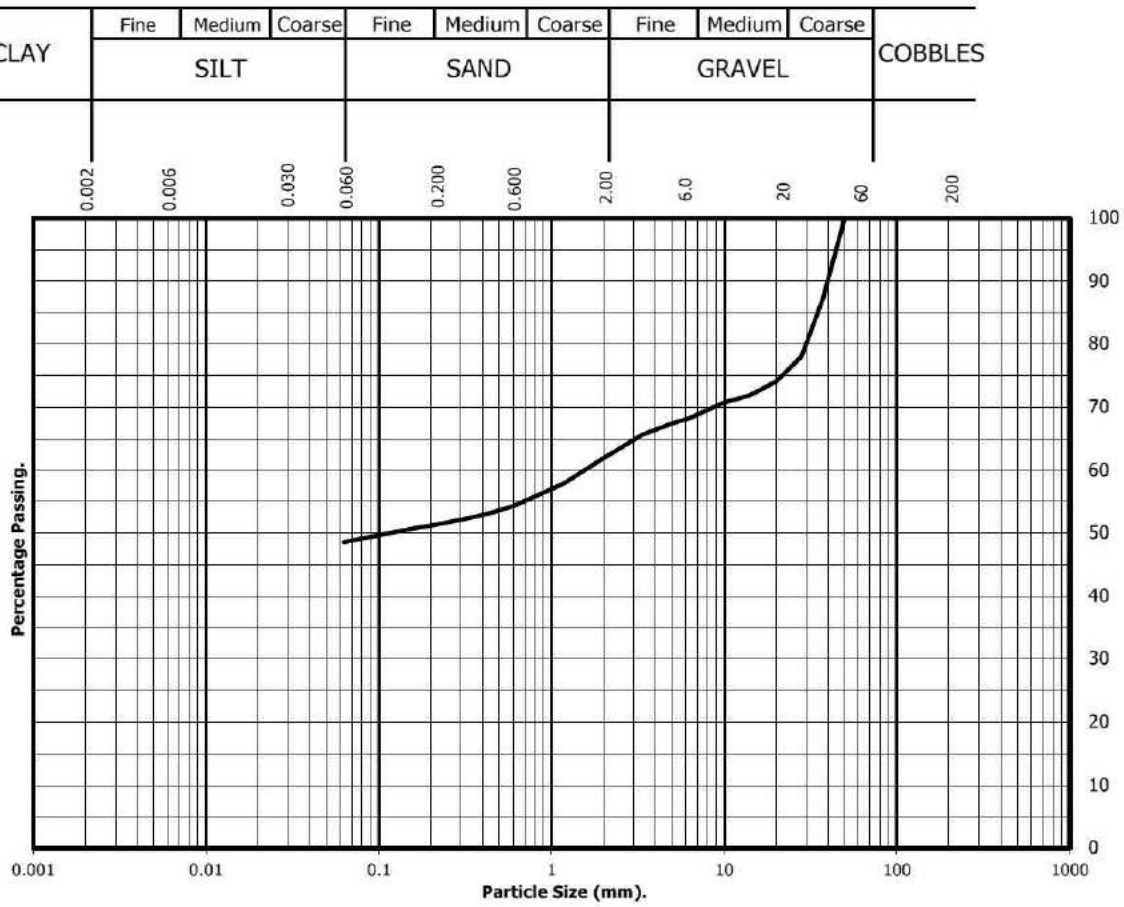
Particle Size Distribution Test
BS 1377 Part 2:1990.

Wet Sieve, Clause 9.2

Client ref:	**SDG 160616-145**	**Sample Number:**	
Contract Number:	**31449**	**Depth from (m):**	**0.50**
Hole Number:	**BH03**	**Depth to (m):**	**1.00**
		Sample Type:	**B**

Location: **Rockingham, Barnsley**

Description: **Grey fine to coarse sandy fine to coarse gravelly SILT/CLAY.**



BS Test Sieve	% Passing
125	100
90	100
75	100
63	100
50	100
37.5	87
28	78
20	74
14	72
10	71
6.3	68
5.0	67
3.35	66
2.00	62
1.18	58
0.60	54
0.425	53
0.300	52
0.212	51
0.150	51
0.063	49

Particle Diameter	% Passing
0.02	#
0.006	#
0.002	#

	Silt and Clay	Sand	Gravel	Cobbles	Soil Fraction
	49	13	38	0	Total Percentage

Remarks:

#- not determined

For and behalf of GEO Site & Testing Services Ltd

Authorised By:
Ben Sharp (Contracts Manager)

Date: 29.6.16

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GEO/104

Test Report:

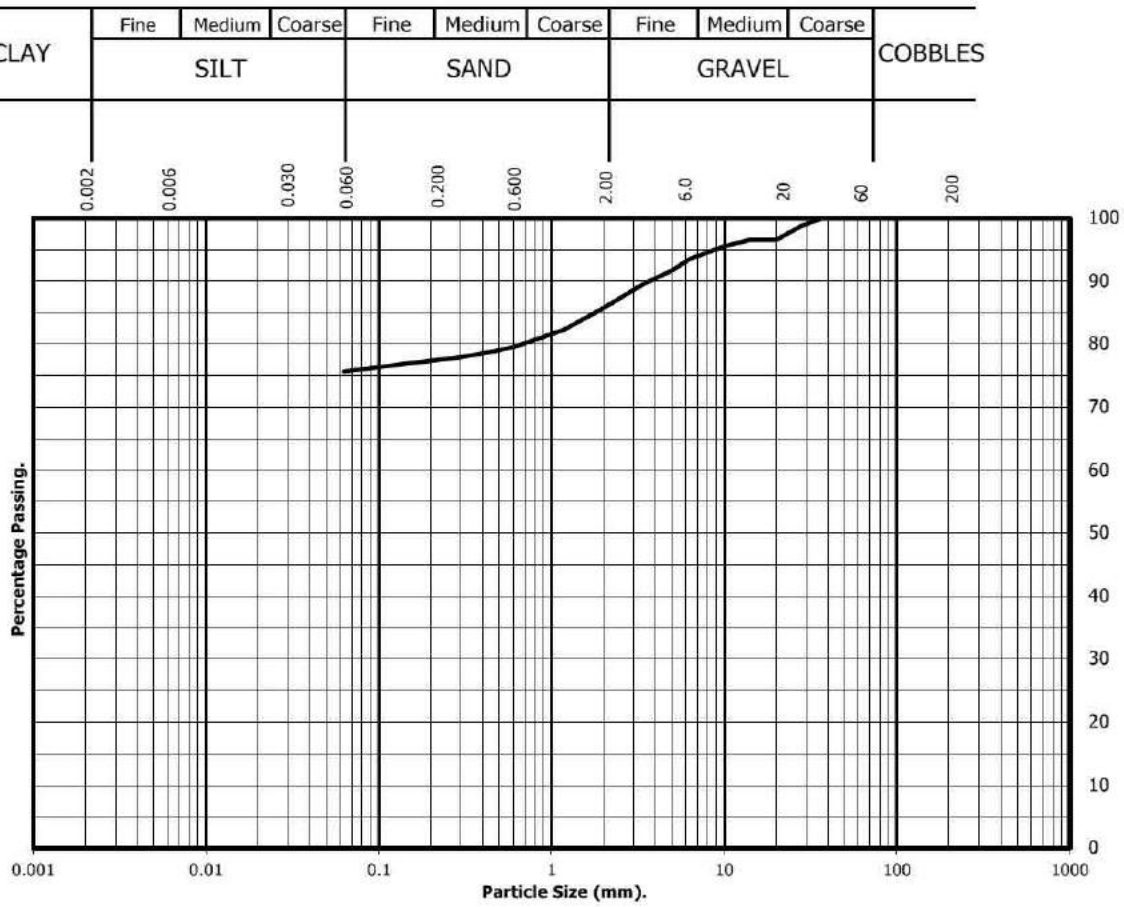
Particle Size Distribution Test
BS 1377 Part 2:1990.

Wet Sieve, Clause 9.2

Client ref:	**SDG 160616-145**	**Sample Number:**	
Contract Number:	**31449**	**Depth from (m):**	**0.50**
Hole Number:	**BH04**	**Depth to (m):**	**1.00**
		Sample Type:	**B**

Location: **Rockingham, Barnsley**

Description: **Grey fine to coarse sandy fine to coarse gravelly SILT/CLAY.**



BS Test Sieve	% Passing
125	100
90	100
75	100
63	100
50	100
37.5	100
28	99
20	97
14	97
10	95
6.3	93
5.0	92
3.35	89
2.00	86
1.18	82
0.60	79
0.425	79
0.300	78
0.212	77
0.150	77
0.063	76

Particle Diameter	% Passing
0.02	#
0.006	#
0.002	#

	Silt and Clay	Sand	Gravel	Cobbles	Soil Fraction
	76	10	14	0	Total Percentage

Remarks:

#- not determined

For and behalf of GEO Site & Testing Services Ltd

Authorised By:
Ben Sharp (Contracts Manager)

Date: 29.6.16

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GEO/104

Test Report:

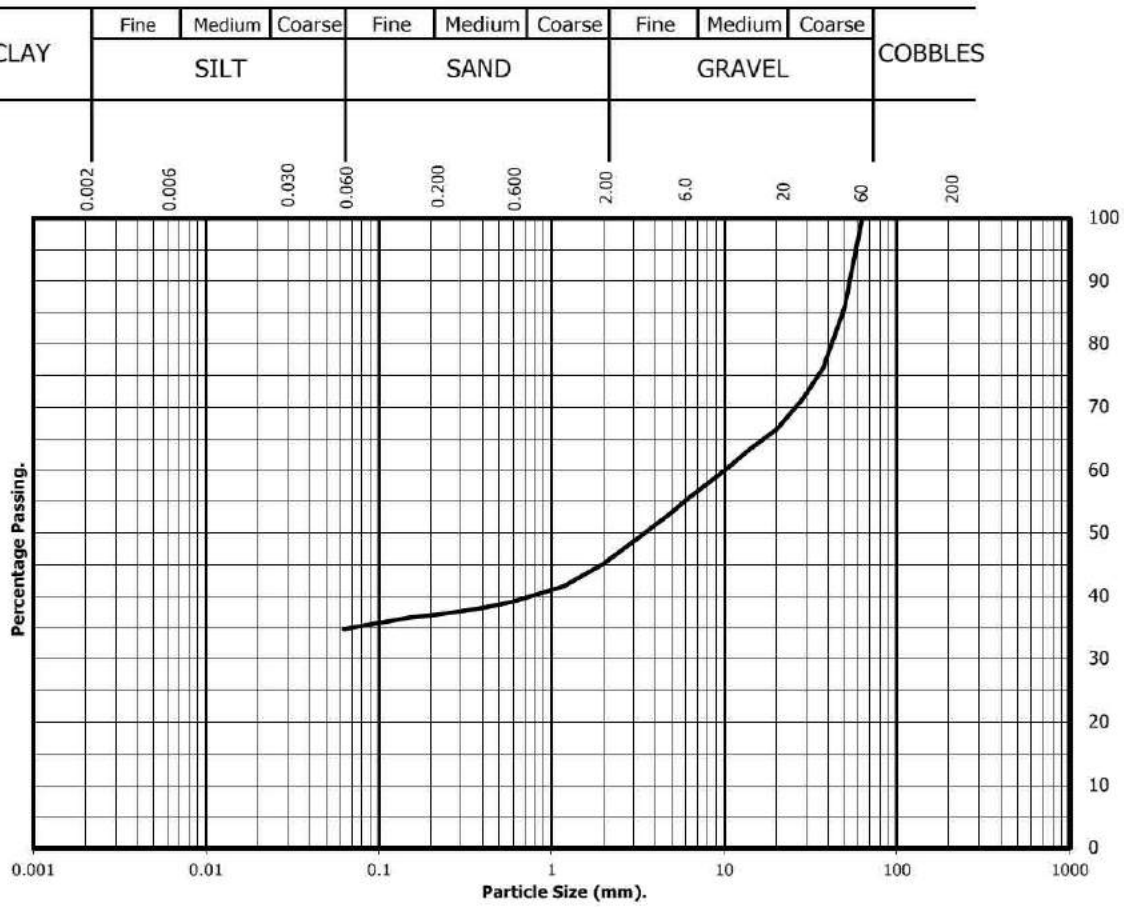
Particle Size Distribution Test
BS 1377 Part 2:1990.

Wet Sieve, Clause 9.2

Client ref:	**SDG 160616-145**	**Sample Number:**	
Contract Number:	**31449**	**Depth from (m):**	**1.00**
Hole Number:	**BH04**	**Depth to (m):**	**2.00**
		Sample Type:	**B**

Location: **Rockingham, Barnsley**

Description: **Grey fine to coarse sandy silty clayey fine to coarse GRAVEL.**



BS Test Sieve	% Passing
125	100
90	100
75	100
63	100
50	86
37.5	76
28	71
20	66
14	63
10	60
6.3	56
5.0	53
3.35	50
2.00	45
1.18	42
0.60	39
0.425	38
0.300	38
0.212	37
0.150	37
0.063	35

Particle Diameter	% Passing
0.02	#
0.006	#
0.002	#

	Silt and Clay	Sand	Gravel	Cobbles	Soil Fraction
	35	10	55	0	Total Percentage

Remarks:

#- not determined

For and behalf of GEO Site & Testing Services Ltd

Authorised By:
Ben Sharp (Contracts Manager)

Date: 29.6.16

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Test Report:

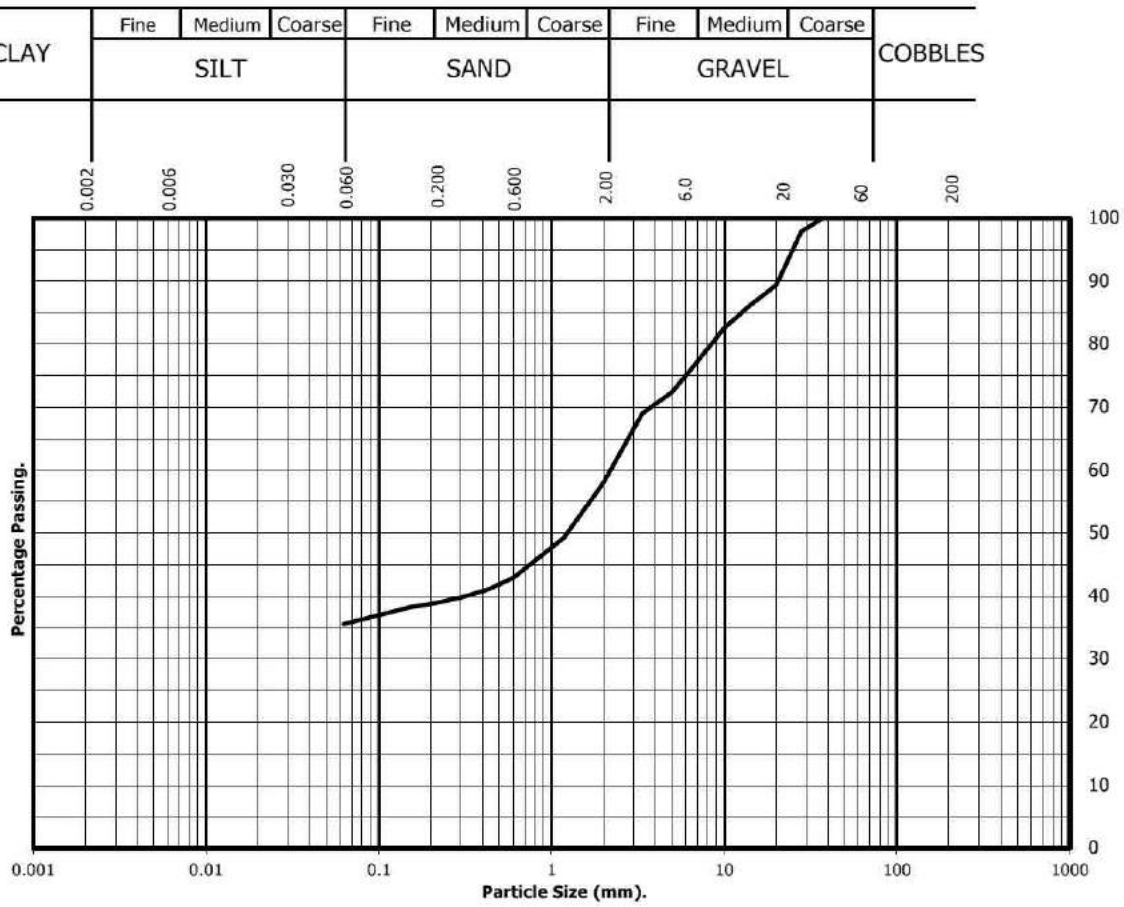
Particle Size Distribution Test
BS 1377 Part 2:1990.

Wet Sieve, Clause 9.2

Client ref:	**SDG 160616-145**	**Sample Number:**	
Contract Number:	**31449**	**Depth from (m):**	**1.00**
Hole Number:	**BH05**	**Depth to (m):**	**2.00**
		Sample Type:	**B**

Location: **Rockingham, Barnsley**

Description: **Grey fine to coarse sandy silty clayey fine to coarse GRAVEL.**



BS Test Sieve	% Passing
125	100
90	100
75	100
63	100
50	100
37.5	100
28	98
20	89
14	86
10	82
6.3	76
5.0	72
3.35	69
2.00	58
1.18	49
0.60	43
0.425	41
0.300	40
0.212	39
0.150	38
0.063	36

Particle Diameter	% Passing
0.02	#
0.006	#
0.002	#

	Silt and Clay	Sand	Gravel	Cobbles	Soil Fraction
	36	22	42	0	Total Percentage

Remarks:

#- not determined

For and behalf of GEO Site & Testing Services Ltd

Authorised By:
Ben Sharp (Contracts Manager)

Date: 29.6.16

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GEO/104

SDG:	160616-145	**Location:**	Rockingham, Barnsley	**Order Number:**	70019822-S01
Job:	H_WSP_MAN-355	**Customer:**	WSP PB MLN	**Report Number:**	367175
Client Reference:	Rockingham	**Attention:**	Gareth Maynell	**Superseded Report:**	

Appendix

1. Results are expressed on a dry weight basis (dried at 35ºC) for all soil analyses except for the following: NRA and CEN Leach tests, flash point LOI, pH, ammonium as NH4 by the BRE method, VOC TICs and SVOC TICs.

2. Samples will be run in duplicate upon request, but an additional charge may be incurred.

3. If sufficient sample is received a sub sample will be retained free of charge for 30 days after analysis is completed (e-mailed) for all sample types unless the sample is destroyed on testing. The prepared soil sub sample that is analysed for asbestos will be retained for a period of 6 months after the analysis date. All bulk samples will be retained for a period of 6 months after the analysis date. All samples received and not scheduled will be disposed of one month after the date of receipt unless we are instructed to the contrary. Once the initial period has expired, a storage charge will be applied for each month or part thereof until the client cancels the request for sample storage. ALcontrol Laboratories reserve the right to charge for samples received and stored but not analysed.

4. With respect to turnaround, we will always endeavour to meet client requirements wherever possible, but turnaround times cannot be absolutely guaranteed due to so many variables beyond our control.

5. We take responsibility for any test performed by sub-contractors (marked with an asterisk). We endeavour to use UKAS/MCERTS Accredited Laboratories, who either complete a quality questionnaire or are audited by ourselves. For some determinands there are no UKAS/MCERTS Accredited Laboratories, in this instance a laboratory with a known track record will be utilised.

6. When requested, the individual sub sample scheduled will be analysed in house for the presence of asbestos fibres and asbestos containing material by our documented in house method TM048 based on HSG 248 (2005), which is accredited to ISO17025. If a specific asbestos fibre type is not found this will be reported as “Not detected”. If no asbestos fibre types are found all will be reported as “Not detected” and the sub sample analysed deemed to be clear of asbestos. If an asbestos fibre type is found it will be reported as detected (for each fibre type found). Testing can be carried out on asbestos positive samples, but, due to Health and Safety considerations, may be replaced by alternative tests or reported as No Determination Possible (NDP). The quantity of asbestos present is not determined unless specifically requested.

7. If no separate volatile sample is supplied by the client, or if a headspace or sediment is present in the volatile sample, the integrity of the data may be compromised. This will be flagged up as an invalid VOC on the test schedule and the result marked as deviating on the test certificate.

8. If appropriate preserved bottles are not received preservation will take place on receipt . However, the integrity of the data may be compromised.

9. NDP - No determination possible due to insufficient/unsuitable sample.

10. Metals in water are performed on a filtered sample, and therefore represent dissolved metals - total metals must be requested separately.

11. Results relate only to the items tested.

12. LoDs (Limit of Detection) for wet tests reported on a dry weight basis are not corrected for moisture content.

13. **Surrogate recoveries** - Surrogates are added to your sample to monitor recovery of the test requested. A % recovery is reported, results are not corrected for the recovery measured. Typical recoveries for organics tests are 70-130%, they are generally wider for volatiles analysis, 50-150%. Recoveries in soils are affected by organic rich or clay rich matrices. Waters can be affected by remediation fluids or high amounts of sediment . Test results are only ever reported if all of the associated quality checks pass; it is assumed that all recoveries outside of the values above are due to matrix affect .

14. **Product analyses** - Organic analyses on products can only be semi-quantitative due to the matrix effects and high dilution factors employed.

15. Phenols monohydric by HPLC include phenol, cresols (2-Methylphenol, 3-Methylphenol and 4-Methylphenol) and Xylenols (2,3 Dimethylphenol, 2,4 Dimethylphenol, 2,5 Dimethylphenol, 2,6 Dimethylphenol, 3,4 Dimethyphenol, 3,5 Dimethylphenol).

16. Total of 5 speciated phenols by HPLC includes Phenol, 2,3,5-Trimethyl Phenol, 2-Isopropylphenol, Cresols and Xylenols (as detailed in 15).

17. Stones/debris are not routinely removed. We always endeavour to take a representative sub sample from the received sample.

18. In certain circumstances the method detection limit may be elevated due to the sample being outside the calibration range. Other factors that may contribute to this include possible interferences. In both cases the sample would be diluted which would cause the method detection limit to be raised.

19. Mercury results quoted on soils will not include volatile mercury as the analysis is performed on a dried and crushed sample.

General

20. For the BSEN 12457-3 two batch process to allow the cumulative release to be calculated, the volume of the leachate produced is measured and filtered for all tests. We therefore cannot carry out any unfiltered analysis. The tests affected include volatiles GCFID/GCMS and all subcontracted analysis.

21. For leachate preparations other than Zero Headspace Extraction (ZHE) volatile loss may occur.

22. We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials - whether these are derived from naturally occurring soil profiles, or from fill /made ground, as long as these materials constitute the major part of the sample. Other coarse granular material such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

23. Analysis and identification of specific compounds using GCFID is by retention time only, and we routinely calibrate and quantify for benzene, toluene, ethylbenzenes and xylenes (BTEX). For total volatiles in the C5-C12 range, the total area of the chromatogram is integrated and expressed as ug/kg or ug/l. Although this analysis is commonly used for the quantification of gasoline range organics (GRO), the system will also detect other compounds such as chlorinated solvents, and this may lead to a falsely high result with respect to hydrocarbons only. It is not possible to specifically identify these non-hydrocarbons, as standards are not routinely run for any other compounds, and for more definitive identification, volatiles by GCMS should be utilised.

24. **Tentatively Identified Compounds (TICs)** are non-target peaks in VOC and SVOC analysis. All non-target peaks detected with a concentration above the LoD are subjected to a mass spectral library search. Non-target peaks with a library search confidence of >75% are reported based on the best mass spectral library match. When a non-target peak with a library search confidence of <75% is detected it is reported as “mixed hydrocarbons”. Non-target compounds identified from the scan data are semi-quantified relative to one of the deuterated internal standards, under the same chromatographic conditions as the target compounds. This result is reported as a semi-quantitative value and reported as Tentatively Identified Compounds (TICs). TICs are outside the scope of UKAS accreditation and are not moisture corrected.

Sample Deviations

1	Container with Headspace provided for volatiles analysis
2	Incorrect container received
3	Deviation from method
4	Holding time exceeded before sample received
5	Samples exceeded holding time before presevation was performed
§	Sampled on date not provided
♦	Sample holding time exceeded in laboratory
@	Sample holding time exceeded due to sampled on date
&	Sample Holding Time exceeded - Late arrival of instructions.

Asbestos

Identification of Asbestos in Bulk Materials & Soils

The results for identification of asbestos in bulk materials are obtained from supplied bulk materials which have been examined to determine the presence of asbestos fibres using ALcontrol Laboratories (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2005).

The results for identification of asbestos in soils are obtained from a homogenised sub sample which has been examined to determine the presence of asbestos fibres using ALcontrol Laboratories (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2005).

Asbestos Type	Common Name
Chrysotile	White Asbestos
Amosite	Brown Asbestos
Crocidolite	Blue Asbestos
Fibrous Actinolite	-
Fibrous Anthophyllite	-
Fibrous Tremolite	-

Visual Estimation Of Fibre Content

Estimation of fibre content is not permitted as part of our UKAS accredited test other than : - Trace - Where only one or two asbestos fibres were identified.

Further guidance on typical asbestos fibre content of manufactured products can be found in HSG 264.

The identification of asbestos containing materials and soils falls within our schedule of tests for which we hold UKAS accreditation, however opinions, interpretations and all other information contained in the report are outside the scope of UKAS accreditation.

Appendix G

GROUND GAS AND GROUNDWATER MONITORING RESULTS

Visit 1, Event: 1, Date: 2 June 2016 — Sheet 1 of

Engineer	andrew Haddock
Start/End Time	12:30-14:00
Pressure Start/End (mB)	1004 - 1002
Temperature (Deg C)	11oC
Weather Conditions	Overcast

Equipment	SerialNo	Calibrated
Dipmeter		No
Gas Analyser		Yes

Comments and Ground Conditions: None

Borehole	Response Zone (m)		Gas Flow (l/hr)		Borehole Pressure	Methane (% v/v)		Carbon Dioxide (% v/v)		Oxygen (% v/v)		Other Gases (ppmV)			Depth to Water	Depth to Base	Thickness of product	Sampled?
	Top	Base	Initial	Steady	mB	Initial	Steady	Initial	Steady	Initial	Steady	PID	H2S	CO	m	m	mm	Y/N
BH01	-	-	0.30	0.00		0.00	0.00	0.00	12.80	19.50	4.50		0.00	13.00	4.08	7.10	N/A	No
BH02	-	-	0.00	0.00		0.00	0.00	0.00	2.00	18.00	18.20		0.00	2.00	5.78	8.92	N/A	No
BH03	-	-	0.00	0.00		0.00	0.00	0.00	1.60	19.40	19.50		0.00	0.00	3.49	4.80	N/A	No
BH04	-	-	1.30	0.00		0.00	0.00	0.00	12.00	4.70	4.70		0.00	0.00	dry	15.02	N/A	No
BH05	-	-	0.00	0.00		0.00	0.00	0.00	7.20	9.50	9.50		0.00	0.00	dry	5.25	N/A	No

Visit 1, Event: 2, Date: 23 June 2016 — Sheet 1 of

Engineer	Andrew Haddock
Start/End Time	12:30-14:00
Pressure Start/End (mB)	997 - 996
Temperature (Deg C)	18oC
Weather Conditions	Cloudy

Equipment	SerialNo	Calibrated
Dipmeter		N/A
Gas Analyser		Yes

Comments and Ground Conditions: None

Borehole	Response Zone (m)		Gas Flow (l/hr)		Borehole Pressure	Methane (% v/v)		Carbon Dioxide (% v/v)		Oxygen (% v/v)		Other Gases (ppmV)			Depth to Water	Depth to Base	Thickness of product	Sampled?
	Top	Base	Initial	Steady	mB	Initial	Steady	Initial	Steady	Initial	Steady	PID	H2S	CO	m	m	mm	Y/N
BH01	-	-	0.30	0.00		0.00	0.00	0.00	14.60	2.30	2.30		0.00	0.00	4.13	7.07	N/A	No
BH02	-	-	0.00	0.00		0.00	0.00	0.00	3.60	17.20	17.20		0.00	0.00	5.91	8.92	N/A	No
BH03	-	-	0.70	7.00		0.00	0.00	0.00	13.40	6.30	6.30		0.00	0.00	3.44	4.76	N/A	No
BH04	-	-	2.20	2.20		0.00	0.00	0.00	2.90	16.70	16.80		0.00	1.00	dry	15.00	N/A	No
BH05	-	-	0.70	0.70		0.00	0.00	0.00	4.00	16.70	16.70		0.00	0.00	5.21	5.25	N/A	No

Visit 1, Event: 3, Date: 08 July 2016 — Sheet 1 of

Engineer	Andrew Haddock
Start/End Time	12:30-14:00
Pressure Start/End (mB)	992 - 991
Temperature (Deg C)	18oC
Weather Conditions	Wet

Equipment	SerialNo	Calibrated
Dipmeter		N/A
Gas Analyser		Yes

Comments and Ground Conditions: None

Borehole	Response Zone (m)		Gas Flow (l/hr)		Borehole Pressure	Methane (% v/v)		Carbon Dioxide (% v/v)		Oxygen (% v/v)		Other Gases (ppmV)			Depth to Water	Depth to Base	Thickness of product	Sampled?
	Top	Base	Initial	Steady	mB	Initial	Steady	Initial	Steady	Initial	Steady	PID	H2S	CO	m	m	mm	Y/N
BH01	-	-	0.00	-2.10		0.00	0.00	0.00	0.10	2.0.5	20.50		0.00	0.00	4.6	7.38	N/A	No
BH02	-	-	0.00	0.00		0.00	0.00	0.00	9.00	11.70	11.90		0.00	0.00	6.28	9.30	N/A	No
BH03	-	-	0.00	-6.10		0.00	0.00	0.00	2.30	18.20	18.20		0.00	0.00	3.78	5.10	N/A	No
BH04	-	-	0.00	-1.50		0.00	0.00	0.00	0.20	20.50	20.50		0.00	1.00	dry	15.00	N/A	No
BH05	-	-	0.00	-5.50		0.00	0.00	0.00	0.10	20.50	20.50		0.00	0.00	5.52	5.61	N/A	No

Visit 4, Event: 23 September 2016, Date: 23/09/2016 — Sheet 1 of

Engineer	Charley Wainwright
Start/End Time	12:00-14:00
Pressure Start/End (mB)	1002 - 1004
Temperature (Deg C)	21.00
Weather Conditions	Fine

Equipment	SerialNo	Calibrated
Dipmeter		No
Gas Analyser		Yes

Comments and Ground Conditions: None

Borehole	Response Zone (m)		Gas Flow (l/hr)		Borehole Pressure	Methane (% v/v)		Carbon Dioxide (% v/v)		Oxygen (% v/v)		Other Gases (ppmV)			Depth to Water	Depth to Base	Thickness of product	Sampled?
	Top	Base	Initial	Steady	mB	Initial	Steady	Initial	Steady	Initial	Steady	PID	H2S	CO	m	m	mm	Y/N
BH01	-	-	0.00	0.00		0.00	0.00	0.10	21.80	20.40	0.00		0.00	0.00	5.47	6.97	N/A	No
BH02	-	-	0.00	0.00		0.00	0.00	0.20	0.00	20.30	20.70		0.00	0.00	7.25	8.86	N/A	No
BH03	-	-	0.00	0.00		0.00	0.00	0.00	0.00	20.30	20.70		0.00	0.00	4.51	4.70	N/A	No
BH04	-	-	0.00	0.00		0.00	0.00	0.00	0.20	20.20	20.70		0.00	0.00	14.95	14.96	N/A	No
BH05	-	-	0.00	0.00		0.00	0.00	0.00	0.00	20.40	20.70		0.00	0.00	5.22	5.23	N/A	No

Appendix H

SCREENING TABLES

PRE-REPORT DATA CHECK

The following locations in the GEOL table do not have a GEOL_GEO2 code entered. This report needs to determine if samples are within Madeground or Natural ground. **Statistics will be unreliable**. Ensure all codes are entered into gINT.

PointId	Depth
BH04	9.10
BH01	3.60
BH02	6.30

The following GEOL_GEO2 codes are unrecognised. This report needs to determine if samples are within Madeground or Natural ground. **Statistics will be unreliable**. Ensure only valid codes are entered into gINT.

PointId	Depth	geol_geo2	PointId	Depth	geol_geo2
BH04	9.10	NODATA	BH01	3.60	NODATA
BH02	6.30	NODATA			

All SampleMatrix fields are complete

All TPH fractions are present for all samples to enable the calculation of the TPH Hazard Index

Commercial/Industrial, SOM=1%

Site Area(s) Selected: Whole site
Phase(s): All phases

Notes: * For results below LOD, a value of half LOD is used in the calculation of the mean

Aliphatics and Aromatics

Analyte	Madeground			Natural Ground			Assessment Criteria (AC)	Units	No. of Locations	No. of Samples	No. of Samples > LOD	No. of Locations >AC	Locations Failing Screening
	Min	Mean*	Max	Min	Mean*	Max							
Aliphatic C05-C06	0.010	0.005	0.010	-	-	-	3,400	mg/kg	4	6	0	0	
Aliphatic C06-C08	0.010	0.009	0.026	-	-	-	8,300	mg/kg	4	6	1	0	
Aliphatic C08-C10	0.010	0.006	0.013	-	-	-	2,100	mg/kg	4	6	1	0	
Aliphatic C10-C12	0.010	0.005	0.010	-	-	-	10,000	mg/kg	4	6	0	0	
Aliphatic C12-C16	1.13	2.43	5.52	-	-	-	61,000	mg/kg	4	6	6	0	
Aliphatic C16-C21	1.11	2.31	4.75	-	-	-	-	mg/kg	4	6	6	0	
Aliphatic C21-C35	3.19	6.66	10.5	-	-	-	-	mg/kg	4	6	6	0	
Aliphatic C35-C44	0.10	0.29	0.84	-	-	-	1,600,000	mg/kg	4	6	2	0	
Aliphatics C12-C44	5.43	11.6	21.4	-	-	-	-	mg/kg	4	6	6	0	
Aromatic C06-C07	0.010	0.005	0.010	-	-	-	-	mg/kg	4	6	0	0	
Aromatic C07-C08	0.010	0.005	0.010	-	-	-	59,000	mg/kg	4	6	0	0	
Aromatic C08-C10	0.010	0.006	0.013	-	-	-	3,700	mg/kg	4	6	1	0	
Aromatic C10-C12	0.010	0.005	0.010	-	-	-	17,000	mg/kg	4	6	0	0	
Aromatic C12-C16	1.96	3.19	5.01	-	-	-	36,000	mg/kg	4	6	6	0	
Aromatic C12-C44	9.66	23.3	37.0	-	-	-	-	mg/kg	4	6	6	0	
Aromatic C16-C21	2.25	4.55	6.57	-	-	-	28,000	mg/kg	4	6	6	0	

Commercial/Industrial, SOM=1%

Site Area(s) Selected: Whole site
Phase(s): All phases

Notes: * For results below LOD, a value of half LOD is used in the calculation of the mean

Aliphatics and Aromatics

Analyte	Madeground			Natural Ground			Assessment Criteria (AC)	Units	No. of Locations	No. of Samples	No. of Samples > LOD	No. of Locations >AC	Locations Failing Screening
	Min	Mean*	Max	Min	Mean*	Max							
Aromatic C16-C35	7.12	16.9	26.0	-	-	-	-	mg/kg	4	6	6	0	
Aromatic C21-C35	4.87	12.3	19.4	-	-	-	28,000	mg/kg	4	6	6	0	
Aromatic C35-C44	0.58	3.30	5.99	-	-	-	28,000	mg/kg	4	6	6	0	
Aromatic C40-C44	0.10	0.96	1.94	-	-	-	-	mg/kg	4	6	4	0	
Total Aliphatics and Aromatics (C5-C44)	15.1	35.0	52.2	-	-	-	-	mg/kg	4	6	6	0	
TPH Hazard Index	0.0004	0.0009	0.001	-	-	-	1.00	mg/kg	4	6	N/A	0	

Commercial/Industrial, SOM=1%

Site Area(s) Selected: Whole site
Phase(s): All phases

Notes: * For results below LOD, a value of half LOD is used in the calculation of the mean

Asbestos

Analyte	Madeground			Natural Ground			Assessment Criteria (AC)	Units	No. of Locations	No. of Samples	No. of Samples > LOD	No. of Locations >AC	Locations Failing Screening
	Min	Mean*	Max	Min	Mean*	Max							
Asbestos Ex. actinolite	-	-	-	-	-	-	-	UNKNOWN	4	12	0	0	
Asbestos Ex. Amosite	-	-	-	-	-	-	-	UNKNOWN	4	12	0	0	
Asbestos Ex. anthophyllite	-	-	-	-	-	-	-	UNKNOWN	4	12	0	0	
Asbestos Ex. Chrysotile	-	-	-	-	-	-	-	UNKNOWN	4	12	0	0	
Asbestos Ex. crocidolite	-	-	-	-	-	-	-	UNKNOWN	4	12	0	0	
Asbestos Ex. tremolite	-	-	-	-	-	-	-	UNKNOWN	4	12	0	0	
Non-Asbestos Fibres	-	-	-	-	-	-	-	UNKNOWN	4	12	0	0	

Commercial/Industrial, SOM=1%

Site Area(s) Selected: Whole site
Phase(s): All phases

Notes: * For results below LOD, a value of half LOD is used in the calculation of the mean

BTEX and Fuel Additives

Analyte	Madeground			Natural Ground			Assessment Criteria (AC)	Units	No. of Locations	No. of Samples	No. of Samples > LOD	No. of Locations >AC	Locations Failing Screening
	Min	Mean*	Max	Min	Mean*	Max							
Benzene	0.009	0.005	0.009	-	-	-	28.1	mg/kg	4	6	0	0	
Ethylbenzene	0.004	0.002	0.004	-	-	-	17,000	mg/kg	4	6	0	0	
Methyl t-butylether (MTBE)	0.010	0.005	0.010	-	-	-	7,900	mg/kg	4	6	0	0	
Tertiary Amyl Methyl Ether (TAME)	0.010	0.005	0.010	-	-	-	-	mg/kg	4	6	0	0	
Toluene	0.007	0.004	0.007	-	-	-	59,000	mg/kg	4	6	0	0	
Xylene-m & p	0.010	0.005	0.010	-	-	-	-	mg/kg	4	6	0	0	
Xylene-o	0.010	0.005	0.010	-	-	-	6,900	mg/kg	4	6	0	0	
XYLNTSUM	0.010	0.010	0.010	-	-	-	-	mg/kg	4	6	6	0	

General Chemistry

Analyte	Madeground			Natural Ground			Assessment Criteria (AC)	Units	No. of Locations	No. of Samples	No. of Samples > LOD	No. of Locations >AC	Locations Failing Screening
	Min	Mean*	Max	Min	Mean*	Max							
pH	3.46	6.97	8.04	-	-	-	-	pH Units	4	6	6	0	

Commercial/Industrial, SOM=1%

Site Area(s) Selected: Whole site
Phase(s): All phases

Notes: * For results below LOD, a value of half LOD is used in the calculation of the mean

Inorganics

Analyte	Madeground			Natural Ground			Assessment Criteria (AC)	Units	No. of Locations	No. of Samples	No. of Samples > LOD	No. of Locations >AC	Locations Failing Screening
	Min	Mean*	Max	Min	Mean*	Max							
Cyanide (Free)	1.00	0.50	1.00	-	-	-	60.0	mg/kg	3	3	0	0	
Cyanide (Total)	1.00	7.10	53.4	-	-	-	-	mg/kg	4	12	4	0	
Sulphate as SO4	63,100	118,883	173,000	-	-	-	-	ug/l	4	6	6	0	

Commercial/Industrial, SOM=1%

Site Area(s) Selected: Whole site
Phase(s): All phases

Notes: * For results below LOD, a value of half LOD is used in the calculation of the mean

Metals

Analyte	Madeground			Natural Ground			Assessment Criteria (AC)	Units	No. of Locations	No. of Samples	No. of Samples > LOD	No. of Locations >AC	Locations Failing Screening
	Min	Mean*	Max	Min	Mean*	Max							
Arsenic	4.12	21.5	47.3	-	-	-	640	mg/kg	4	12	12	0	
Cadmium	0.093	0.50	0.85	-	-	-	230	mg/kg	4	12	12	0	
Chromium	11.8	17.6	20.9	-	-	-	-	mg/kg	4	12	12	0	
Copper	29.3	43.1	67.0	-	-	-	72,000	mg/kg	4	12	12	0	
Lead	15.4	31.4	68.0	-	-	-	2,300	mg/kg	4	12	12	0	
Mercury	0.14	0.14	0.44	-	-	-	26.0	mg/kg	4	12	3	0	
Nickel	17.6	38.9	55.3	-	-	-	1,800	mg/kg	4	12	12	0	
Selenium	1.00	0.54	1.02	-	-	-	13,000	mg/kg	4	12	1	0	
Zinc	48.5	104	142	-	-	-	660,000	mg/kg	4	12	12	0	

Commercial/Industrial, SOM=1%

Site Area(s) Selected: Whole site
Phase(s): All phases

Notes: * For results below LOD, a value of half LOD is used in the calculation of the mean

Other

Analyte	Madeground			Natural Ground			Assessment Criteria (AC)	Units	No. of Locations	No. of Samples	No. of Samples > LOD	No. of Locations >AC	Locations Failing Screening
	Min	Mean*	Max	Min	Mean*	Max							
Soil Organic Matter (SOM)	1.76	10.5	37.8	-	-	-	-	%	4	7	7	0	

Commercial/Industrial, SOM=1%

Site Area(s) Selected: Whole site
Phase(s): All phases

Notes: * For results below LOD, a value of half LOD is used in the calculation of the mean

PAHs

Analyte	Madeground			Natural Ground			Assessment Criteria (AC)	Units	No. of Locations	No. of Samples	No. of Samples > LOD	No. of Locations >AC	Locations Failing Screening
	Min	Mean*	Max	Min	Mean*	Max							
Acenaphthene	0.008	0.10	0.45	-	-	-	85,000	mg/kg	4	12	9	0	
Acenaphthylene	0.012	0.056	0.26	-	-	-	84,000	mg/kg	4	12	5	0	
Anthracene	0.016	0.30	1.35	-	-	-	520,000	mg/kg	4	12	7	0	
Benzo (a) anthracene	0.014	0.37	1.17	-	-	-	89.0	mg/kg	4	12	9	0	
Benzo (a) pyrene	0.015	0.27	0.90	-	-	-	14.0	mg/kg	4	12	11	0	
Benzo (b) fluoranthene	0.020	0.65	2.03	-	-	-	100	mg/kg	4	12	12	0	
Benzo (ghi) perylene	0.037	0.33	0.93	-	-	-	650	mg/kg	4	12	12	0	
Benzo (k) fluoranthene	0.014	0.22	0.69	-	-	-	140	mg/kg	4	12	7	0	
Chrysene	0.017	0.39	1.14	-	-	-	140	mg/kg	4	12	12	0	
Dibenzo (ah) anthracene	0.023	0.098	0.30	-	-	-	13.0	mg/kg	4	12	6	0	
Fluoranthene	0.022	0.68	2.58	-	-	-	23,000	mg/kg	4	12	12	0	
Fluorene	0.014	0.12	0.46	-	-	-	64,000	mg/kg	4	12	12	0	
Indeno (1,2,3-cd) pyrene	0.018	0.23	0.86	-	-	-	60.0	mg/kg	4	12	7	0	
Naphthalene	0.082	2.13	7.32	-	-	-	200	mg/kg	4	12	12	0	
PAH Total (EPA 16)	0.48	7.86	26.6	-	-	-	-	mg/kg	4	12	12	0	
Phenanthrene	0.11	1.40	4.24	-	-	-	22,000	mg/kg	4	12	12	0	

Commercial/Industrial, SOM=1%

Site Area(s) Selected: Whole site
Phase(s): All phases

Notes: * For results below LOD, a value of half LOD is used in the calculation of the mean

PAHs

Analyte	Madeground Min	Madeground Mean*	Madeground Max	Natural Ground Min	Natural Ground Mean*	Natural Ground Max	Assessment Criteria (AC)	Units	No. of Locations	No. of Samples	No. of Samples > LOD	No. of Locations >AC	Locations Failing Screening
Pyrene	0.028	0.53	1.92	-	-	-	54,000	mg/kg	4	12	12	0	

QA Standard

Analyte	Madeground Min	Madeground Mean*	Madeground Max	Natural Ground Min	Natural Ground Mean*	Natural Ground Max	Assessment Criteria (AC)	Units	No. of Locations	No. of Samples	No. of Samples > LOD	No. of Locations >AC	Locations Failing Screening
Acenaphthene-d10	88.0	99.0	117	-	-	-	-	%	4	12	12	0	
Chrysene-d12	85.1	93.9	118	-	-	-	-	%	4	12	12	0	
Naphthalene-d8	93.6	103	125	-	-	-	-	%	4	12	12	0	
Perylene-d12 IS	80.6	94.5	121	-	-	-	-	%	4	12	12	0	
Phenanthrene-d10 IS	85.3	96.0	113	-	-	-	-	%	4	12	12	0	

Commercial/Industrial, SOM=1%

Site Area(s) Selected: Whole site
Phase(s): All phases

Notes: * For results below LOD, a value of half LOD is used in the calculation of the mean

TPH/EPH

Analyte	Madeground			Natural Ground			Assessment Criteria (AC)	Units	No. of Locations	No. of Samples	No. of Samples > LOD	No. of Locations >AC	Locations Failing Screening
	Min	Mean*	Max	Min	Mean*	Max							
GRO Surrogate	41.0	48.7	58.0	-	-	-	-	%	4	6	6	0	
PRO (C5-C12)	0.044	0.029	0.066	-	-	-	-	mg/kg	4	6	1	0	

Commercial/Industrial, SOM=1%

ANALYTE	Point ID	Depth	Result	Threshold	Units	Stratum

PRE-REPORT DATA CHECK

	All analyte codes are matched to the library

	All SampleMatrix fields are complete


OFF

Region	Wales and England
Water Body	Surface water
Water Body Type	Inland
Surface Water Type	River or Stream

Hardness	0-50 mg/l
Recieving surface water status	Good (or below)
Altitude	< 80m Elevation

Sample Matrix: WATER

Site Area(s) Selected: Whole Site
Event(s) Selected: All events

Aliphatics and Aromatics — Aquifer: 0

Analyte	Min	Mean*	Max	Assessment Criteria (AC)	Assessment Criteria Source	Units	No. Locations Sampled	No. Samples > LOD	No. Locations > AC	Location(s) Failing Screening
Aliphatic C05-C06	10.00	5.00	10.00	-		ug/l	3	-	0	
Aliphatic C06-C08	10.00	5.00	10.00	-		ug/l	3	-	0	
Aliphatic C08-C10	10.00	5.00	10.00	-		ug/l	3	-	0	
Aliphatic C10-C12	10.00	5.00	10.00	-		ug/l	3	-	0	
Aliphatic C12-C16	10.00	5.00	10.00	-		ug/l	3	-	0	
Aliphatic C16-C21	10.00	5.00	10.00	-		ug/l	3	-	0	
Aliphatic C21-C35	10.0	13.7	31.0	-		ug/l	3	1	0	
Aliphatics C12-C35	10.0	13.7	31.0	-		ug/l	3	1	0	
Aromatic C06-C07	10.00	5.00	10.00	10.0	EQS 2015	ug/l	3	-	0	
Aromatic C07-C08	10.00	5.00	10.00	74.0	EQS 2015	ug/l	3	-	0	
Aromatic C08-C10	10.00	5.00	10.00	30.0	RBTS 2010	ug/l	3	-	0	
Aromatic C10-C12	10.00	5.00	10.00	-		ug/l	3	-	0	
Aromatic C12-C16	10.00	5.00	10.00	-		ug/l	3	-	0	
Aromatic C12-C35	10.00	5.00	10.00	-		ug/l	3	-	0	
Aromatic C16-C21	10.00	5.00	10.00	-		ug/l	3	-	0	

Sample Matrix: WATER

Site Area(s) Selected: Whole Site

Event(s) Selected: All events

Aliphatics and Aromatics — Aquifer: 0

Analyte	Min	Mean*	Max	Assessment Criteria (AC)	Assessment Criteria Source	Units	No. Locations Sampled	No. Samples > LOD	No. Locations > AC	Location(s) Failing Screening
Aromatic C21-C35	10.00	5.00	10.00	-		ug/l	3	-	0	
Total Aliphatics and Aromatics (C5-C35)	10.0	13.7	31.0	-		ug/l	3	1	0	

BTEX and Fuel Additives — Aquifer: 0

Analyte	Min	Mean*	Max	Assessment Criteria (AC)	Assessment Criteria Source	Units	No. Locations Sampled	No. Samples > LOD	No. Locations > AC	Location(s) Failing Screening
Benzene	7.00	3.50	7.00	10.0	EQS 2015	ug/l	3	-	0	
BTEX	28.0	14.0	28.0	-		ug/l	3	-	0	
Ethylbenzene	5.00	2.50	5.00	-		ug/l	3	-	0	
Methyl t-butylether (MTBE)	3.00	1.50	3.00	-		ug/l	3	-	0	
Toluene	4.00	2.00	4.00	74.0	EQS 2015	ug/l	3	-	0	
Xylene-m & p	8.00	4.00	8.00	-		ug/l	3	-	0	

Sample Matrix: WATER

Site Area(s) Selected: Whole Site

Event(s) Selected: All events

BTEX and Fuel Additives — Aquifer: 0

Analyte	Min	Mean*	Max	Assessment Criteria (AC)	Assessment Criteria Source	Units	No. Locations Sampled	No. Samples > LOD	No. Locations > AC	Location(s) Failing Screening
Xylene-o	3.00	1.50	3.00	30.0	RBTS 2010	ug/l	3	-	0	
XYLNTSUM	8.00	8.00	8.00	-		ug/l	3	3	0	

General Chemistry — Aquifer: 0

Analyte	Min	Mean*	Max	Assessment Criteria (AC)	Assessment Criteria Source	Units	No. Locations Sampled	No. Samples > LOD	No. Locations > AC	Location(s) Failing Screening
pH	7.05	7.06	7.08	6.00/9.00	EQS 2015	pH Units	3	3	0	

Sample Matrix: WATER

Site Area(s) Selected: Whole Site

Event(s) Selected: All events

Inorganics — Aquifer: 0

Analyte	Min	Mean*	Max	Assessment Criteria (AC)	Assessment Criteria Source	Units	No. Locations Sampled	No. Samples > LOD	No. Locations > AC	Location(s) Failing Screening
Cyanide (Free)	50.0	25.0	50.0	1.00	EQS 2015	ug/l	3	-	0	

Metals — Aquifer: 0

Analyte	Min	Mean*	Max	Assessment Criteria (AC)	Assessment Criteria Source	Units	No. Locations Sampled	No. Samples > LOD	No. Locations > AC	Location(s) Failing Screening
Arsenic	2.00	1.56	2.69	50.0	EQS 2015	ug/l	3	1	0	
Cadmium	0.50	0.25	0.50	0.080	EQS 2015	ug/l	3	-	0	
Chromium	6.77	9.68	13.30	4.70	EQS 2015	ug/l	3	3	3	BH01, BH02, BH03
Copper	4.00	7.10	17.30	1.00	EQS 2015 - Bioavailable	ug/l	3	1	1	BH02
Lead	0.50	3.87	11.10	1.20	EQS 2015 - Bioavailable	ug/l	3	1	1	BH02
Mercury	0.020	0.010	0.020	0.070	EQS 2015	ug/l	3	-	0	
Nickel	20.9	42.0	58.3	4.00	EQS 2015 - Bioavailable	ug/l	3	3	3	BH01, BH02, BH03
Selenium	1.00	0.70	1.09	-		ug/l	3	1	0	

Sample Matrix: WATER

Site Area(s) Selected: Whole Site

Event(s) Selected: All events

Metals — Aquifer: 0

Analyte	Min	Mean*	Max	Assessment Criteria (AC)	Assessment Criteria Source	Units	No. Locations Sampled	No. Samples > LOD	No. Locations > AC	Location(s) Failing Screening
Zinc	11.4	23.8	46.5	10.9	EQS 2015 - Bioavailable	ug/l	3	3	3	BH01, BH02, BH03

PAHs — Aquifer: 0

Analyte	Min	Mean*	Max	Assessment Criteria (AC)	Assessment Criteria Source	Units	No. Locations Sampled	No. Samples > LOD	No. Locations > AC	Location(s) Failing Screening
4PAHSUM	0.027	0.027	0.027	-		ug/l	3	3	0	
Acenaphthene	0.015	0.008	0.015	-		ug/l	3	-	0	
Acenaphthylene	0.011	0.006	0.011	-		ug/l	3	-	0	
Anthracene	0.015	0.008	0.015	0.10	EQS 2015	ug/l	3	-	0	
Benzo (a) anthracene	0.017	0.009	0.017	-		ug/l	3	-	0	
Benzo (a) pyrene	0.009	0.006	0.009	0.0002	EQS 2015	ug/l	3	1	1	BH02
Benzo (b) fluoranthene	0.023	0.012	0.023	0.017	EQS 2015 MAC	ug/l	3	-	0	
Benzo (ghi) perylene	0.016	0.008	0.016	0.008	EQS 2015 MAC	ug/l	3	-	0	

Sample Matrix: WATER

Site Area(s) Selected: Whole Site

Event(s) Selected: All events

PAHs — Aquifer: 0

Analyte	Min	Mean*	Max	Assessment Criteria (AC)	Assessment Criteria Source	Units	No. Locations Sampled	No. Samples > LOD	No. Locations > AC	Location(s) Failing Screening
Benzo (k) fluoranthene	0.027	0.014	0.027	0.017	EQS 2015 MAC	ug/l	3	-	0	
Chrysene	0.013	0.007	0.013	-		ug/l	3	-	0	
Dibenzo (ah) anthracene	0.016	0.008	0.016	-		ug/l	3	-	0	
Fluoranthene	0.017	0.009	0.017	0.006	EQS 2015	ug/l	3	-	0	
Fluorene	0.014	0.007	0.014	-		ug/l	3	-	0	
Indeno (1,2,3-cd) pyrene	0.014	0.007	0.014	-		ug/l	3	-	0	
Naphthalene	0.100	0.050	0.100	2.00	EQS 2015	ug/l	3	-	0	
PAH (Total)	0.34	0.17	0.34	-		ug/l	3	-	0	
Phenanthrene	0.022	0.011	0.022	-		ug/l	3	-	0	
Pyrene	0.015	0.011	0.017	-		ug/l	3	1	0	

Sample Matrix: WATER

Site Area(s) Selected: Whole Site

Event(s) Selected: All events

Phenols — Aquifer: 0

Analyte	Min	Mean*	Max	Assessment Criteria (AC)	Assessment Criteria Source	Units	No. Locations Sampled	No. Samples > LOD	No. Locations > AC	Location(s) Failing Screening
Xylenols	11.00	5.50	11.00	-		ug/l	3	-	0	

TPH/EPH — Aquifer: 0

Analyte	Min	Mean*	Max	Assessment Criteria (AC)	Assessment Criteria Source	Units	No. Locations Sampled	No. Samples > LOD	No. Locations > AC	Location(s) Failing Screening
GRO Surrogate	79.0	83.3	88.0	-		%	3	3	0	
PRO (C5-C12)	50.0	25.0	50.0	-		ug/l	3	-	0	