



Royal Haskoning
Rightwell House
Bretton
Bretton
Peterborough
Cambridgeshire
PE3 8DW

Attention: Declan Fives

CERTIFICATE OF ANALYSIS

Date: 21 January 2014
Customer: H_RHASKON_PTB
Sample Delivery Group (SDG): 140113-13
Your Reference: 9Y0074 103 100
Location: Cole Green
Report No: 257253

We received 12 samples on Saturday January 11, 2014 and 11 of these samples were scheduled for analysis which was completed on Tuesday January 21, 2014. 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





SDG: 140113-13
Job: H_RHASKON_PTB-82
Client Reference: 9Y0074 103 100

Location: Cole Green
Customer: Royal Haskoning
Attention: Declan Fives

Order Number: 940074 103 100
Report Number: 257253
Superseded Report:

Received Sample Overview

Lab Sample No(s)	Customer Sample Ref.	AGS Ref.	Depth (m)	Sampled Date
8676836	CGBH16		0.50	09/01/2014
8676838	CGBH16		1.50	09/01/2014
8676839	CGBH16		2.50	09/01/2014
8676844	CGBH18		0.50	09/01/2014
8676845	CGBH18		1.50	09/01/2014
8676847	CGBH18		6.50	09/01/2014
8676842	CGBH19		0.50	09/01/2014
8676843	CGBH19		4.00	09/01/2014
8676850	CGBH20		0.50	10/01/2014
8676851	CGBH20		1.50	10/01/2014
8676848	CGBH23		0.50	09/01/2014
8676849	CGBH23		2.00	09/01/2014

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



SDG: 140113-13
 Job: H_RHASKON_PTB-82
 Client Reference: 9Y0074 103 100

Location: Cole Green
 Customer: Royal Haskoning
 Attention: Declan Fives

Order Number: 940074 103 100
 Report Number: 257253
 Superseded Report:

SOLID Results Legend <input checked="" type="checkbox"/> Test <input checked="" type="checkbox"/> No Determination Possible	Lab Sample No(s)	Customer Sample Reference	AGS Reference	Depth (m)	Container	
		8676836	CGBH16		0.50	250g Amber Jar (AL) 1kg TUB
		8676838	CGBH16		1.50	60g VOC (ALEE215) 1kg TUB
		8676844	CGBH18		0.50	60g VOC (ALEE215) 250g Amber Jar (AL)
		8676847	CGBH18		6.50	60g VOC (ALEE215) 250g Amber Jar (AL)
	8676842	CGBH19		0.50	250g Amber Jar (AL)	
	8676843	CGBH19		4.00	60g VOC (ALEE215) 250g Amber Jar (AL)	
	8676850	CGBH20		0.50	60g VOC (ALEE215) 1kg TUB	
	8676851	CGBH20		1.50	250g Amber Jar (AL)	
	8676848	CGBH23		0.50	60g VOC (ALEE215) 250g Amber Jar (AL)	
	8676849	CGBH23		2.00	60g VOC (ALEE215) 250g Amber Jar (AL)	
Asbestos ID in Solid Samples	All	NDPs: 0 Tests: 7				
Boron Water Soluble	All	NDPs: 0 Tests: 10				
CEN Readings	All	NDPs: 0 Tests: 1				
Dissolved Metals by ICP-MS	All	NDPs: 0 Tests: 1				
EPH CWG (Aliphatic) Filtered GC (W)	All	NDPs: 0 Tests: 1				
EPH CWG (Aliphatic) GC (S)	All	NDPs: 0 Tests: 10				
EPH CWG (Aromatic) Filtered GC (W)	All	NDPs: 0 Tests: 1				
EPH CWG (Aromatic) GC (S)	All	NDPs: 0 Tests: 10				
GRO by GC-FID (S)	All	NDPs: 0 Tests: 10				
GRO by GC-FID (W)	All	NDPs: 0 Tests: 1				
Mercury Dissolved	All	NDPs: 0 Tests: 1				
Metals in solid samples by OES	All	NDPs: 0 Tests: 10				
OC, OP Pesticides and Triazine Herb	All	NDPs: 0 Tests: 2				
PAH by GCMS	All	NDPs: 0 Tests: 10				
PAH Spec MS - Aqueous (W)	All	NDPs: 0 Tests: 1				



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SOLID Results Legend Test No Determination Possible	Lab Sample No(s)	Customer Sample Reference	AGS Reference	Depth (m)	Container	
		8676836	CGBH16		0.50	60g VOC (ALEE215) 250g Amber Jar (AL 1kg TUB
		8676838	CGBH16		1.50	60g VOC (ALEE215) 250g Amber Jar (AL 1kg TUB
		8676844	CGBH18		0.50	60g VOC (ALEE215) 250g Amber Jar (AL 1kg TUB
		8676847	CGBH18		6.50	60g VOC (ALEE215) 250g Amber Jar (AL 1kg TUB
	8676842	CGBH19		0.50	60g VOC (ALEE215) 250g Amber Jar (AL 1kg TUB	
	8676843	CGBH19		4.00	60g VOC (ALEE215) 250g Amber Jar (AL 1kg TUB	
	8676850	CGBH20		0.50	60g VOC (ALEE215) 250g Amber Jar (AL 1kg TUB	
	8676851	CGBH20		1.50	60g VOC (ALEE215) 250g Amber Jar (AL 1kg TUB	
	8676848	CGBH23		0.50	60g VOC (ALEE215) 250g Amber Jar (AL 1kg TUB	
	8676849	CGBH23		2.00	60g VOC (ALEE215) 250g Amber Jar (AL 1kg TUB	
PCBs by GCMS	All	NDPs: 0 Tests: 2				
pH	All	NDPs: 0 Tests: 3				
Phenols by HPLC (S)	All	NDPs: 0 Tests: 2				
Sample description	All	NDPs: 0 Tests: 9				
Semi Volatile Organic Compounds	All	NDPs: 0 Tests: 10				
SVOC MS (W) - Aqueous	All	NDPs: 0 Tests: 1				
Total Organic Carbon	All	NDPs: 0 Tests: 4				
TPH CWG Filtered (W)	All	NDPs: 0 Tests: 1				
TPH CWG GC (S)	All	NDPs: 0 Tests: 10				
VOC MS (S)	All	NDPs: 0 Tests: 10				
VOC MS (W)	All	NDPs: 0 Tests: 1				



SDG: 140113-13
Job: H_RHASKON_PT8-82
Client Reference: 9Y0074 103 100

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Sample Descriptions

Grain Sizes

very fine	<0.063mm	fine	0.063mm - 0.1mm	medium	0.1mm - 2mm	coarse	2mm - 10mm	very coarse	>10mm
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Lab Sample No(s)	Customer Sample Ref.	Depth (m)	Colour	Description	Grain size	Inclusions	Inclusions 2
8676836	CGBH16	0.50	Light Brown	Sandy Silt Loam	0.1 - 2 mm	Stones	Brick
8676838	CGBH16	1.50	Light Brown	Sandy Loam	0.1 - 2 mm	Stones	None
8676844	CGBH18	0.50	Light Brown	Loamy Sand	0.1 - 2 mm	Stones	N/A
8676847	CGBH18	6.50	Dark Brown	Silty Clay	<0.063 mm	None	None
8676842	CGBH19	0.50	Light Brown	Sandy Clay Loam	0.063 - 0.1 mm	Crushed Brick	Stones
8676843	CGBH19	4.00	Grey	Silty Clay	0.063 - 0.1 mm	N/A	None
8676850	CGBH20	0.50	Dark Brown	Sandy Clay	0.063 - 0.1 mm	Stones	Vegetation
8676851	CGBH20	1.50	Light Brown	Sandy Clay	0.1 - 2 mm	Stones	None
8676848	CGBH23	0.50	Light Brown	Sandy Clay	0.063 - 0.1 mm	Stones	Vegetation
8676849	CGBH23	2.00	Light Brown	Sandy Clay	0.1 - 2 mm	Stones	None

These descriptions are only intended to act as a cross check if sample identities are questioned, and to provide a log of sample matrices with respect to MCERTS validation. They are not intended as full geological descriptions.

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 materials such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.



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Superseded Report:

Results Legend			Customer Sample R		CGBH16	CGBH16	CGBH18	CGBH18	CGBH19	CGBH19
#	ISO17025 accredited.									
M	mCERTS 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									
1-4&*\$@	Sample deviation (see appendix)									
			Depth (m)		0.50	1.50	0.50	6.50	0.50	4.00
			Sample Type		Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid
			Date Sampled		09/01/2014	09/01/2014	09/01/2014	09/01/2014	09/01/2014	09/01/2014
			Sampled Time							
			Date Received		11/01/2014	11/01/2014	11/01/2014	11/01/2014	11/01/2014	11/01/2014
			SDG Ref		140113-13	140113-13	140113-13	140113-13	140113-13	140113-13
			Lab Sample No.(s)		8676836	8676838	8676844	8676847	8676842	8676843
			AGS Reference							
Component	LOD/Units	Method								
Moisture Content Ratio	%	PM024			13	17	6.1	19	18	16
Phenol	<0.01 mg/kg	TM062 (S)					<0.01			
Cresols	<0.01 mg/kg	TM062 (S)					0.0107			
Xylenols	<0.015 mg/kg	TM062 (S)					<0.015			
2,3,5-Trimethylphenol	<0.01 mg/kg	TM062 (S)					<0.01			
2-Isopropylphenol	<0.015 mg/kg	TM062 (S)					<0.015			
Phenols, Total Detected 5 speciated	<0.06 mg/kg	TM062 (S)					<0.06			
Organic Carbon, Total	<0.2 %	TM132			0.603			0.579		
Fraction Organic Carbon (FOC)	<0.002 -	TM132			0.00603					
pH	1 pH Units	TM133			8.27					
PCB congener 28	<3 µg/kg	TM168					<3			
PCB congener 52	<3 µg/kg	TM168					4.8			
PCB congener 101	<3 µg/kg	TM168					4.45			
PCB congener 118	<3 µg/kg	TM168					3.17			
PCB congener 138	<3 µg/kg	TM168					4.51			
PCB congener 153	<3 µg/kg	TM168					4.23			
PCB congener 180	<3 µg/kg	TM168					4.14			
Sum of detected PCB 7 Congeners	<21 µg/kg	TM168					25.3			
Arsenic	<0.6 mg/kg	TM181			17.7	18.7	8.48	10.7	13.2	13.1
Barium	<0.6 mg/kg	TM181			60.3	47.1	65	28.9	68.4	42.6
Beryllium	<0.01 mg/kg	TM181			0.791	0.754	0.665	0.674	0.681	1.06
Cadmium	<0.02 mg/kg	TM181			0.633	0.412	0.32	0.362	0.253	0.436
Chromium	<0.9 mg/kg	TM181			27.1	26.3	13.1	14.8	19	20
Copper	<1.4 mg/kg	TM181			25.2	12.6	82.1	12.2	20.1	14.4
Lead	<0.7 mg/kg	TM181			40.6	14.1	127	10.4	57	10.5
Mercury	<0.14 mg/kg	TM181			<0.14	<0.14	<0.14	<0.14	0.325	<0.14
Nickel	<0.2 mg/kg	TM181			28	27.1	10.7	19.7	15.9	23.1
Selenium	<1 mg/kg	TM181			<1	<1	<1	<1	<1	<1
Vanadium	<0.2 mg/kg	TM181			44.9	44.4	21	26.9	31.9	35.5
Zinc	<1.9 mg/kg	TM181			91.9	62.3	149	48	86.8	57.8
Boron, water soluble	<1 mg/kg	TM222			<1	<1	<1	1.28	<1	<1



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Order Number: 940074 103 100
Report Number: 257253
Superseded Report:

Results Legend		Customer Sample R	CGBH20	CGBH20	CGBH23	CGBH23		
#	ISO17025 accredited.	Depth (m) Sample Type Date Sampled Sampled Time Date Received SDG Ref Lab Sample No.(s) AGS Reference						
M	mCERTS accredited.		0.50	1.50	0.50	2.00		
aq	Aqueous / settled sample.		Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid		
diss.filt	Dissolved / filtered sample.		10/01/2014	10/01/2014	09/01/2014	09/01/2014		
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		11/01/2014	11/01/2014	11/01/2014	11/01/2014		
(F)	Trigger breach confirmed		140113-13	140113-13	140113-13	140113-13		
1-48*\$@	Sample deviation (see appendix)		8676850	8676851	8676848	8676849		
Component	LOD/Units	Method						
Moisture Content Ratio	%	PM024	17	12	13	17		
Phenol	<0.01 mg/kg	TM062 (S)	<0.01					
Cresols	<0.01 mg/kg	TM062 (S)	<0.01					
Xylenols	<0.015 mg/kg	TM062 (S)	<0.015					
2,3,5-Trimethylphenol	<0.01 mg/kg	TM062 (S)	<0.01					
2-Isopropylphenol	<0.015 mg/kg	TM062 (S)	<0.015					
Phenols, Total Detected 5 speciated	<0.06 mg/kg	TM062 (S)	<0.06					
Organic Carbon, Total	<0.2 %	TM132	0.398	0.202				
pH	1 pH Units	TM133	8.78	8.52				
PCB congener 28	<3 µg/kg	TM168	<3					
PCB congener 52	<3 µg/kg	TM168	<3					
PCB congener 101	<3 µg/kg	TM168	<3					
PCB congener 118	<3 µg/kg	TM168	<3					
PCB congener 138	<3 µg/kg	TM168	<3					
PCB congener 153	<3 µg/kg	TM168	<3					
PCB congener 180	<3 µg/kg	TM168	<3					
Sum of detected PCB 7 Congeners	<21 µg/kg	TM168	<21					
Arsenic	<0.6 mg/kg	TM181	9.16	13.1	52.4	8.32		
Barium	<0.6 mg/kg	TM181	43.7	40.6	60.5	30.2		
Beryllium	<0.01 mg/kg	TM181	0.72	0.69	1.27	0.618		
Cadmium	<0.02 mg/kg	TM181	0.0672	0.382	<0.02	0.364		
Chromium	<0.9 mg/kg	TM181	16.4	22.6	23.1	15.8		
Copper	<1.4 mg/kg	TM181	13.5	12.6	28.3	11.5		
Lead	<0.7 mg/kg	TM181	19.6	13.1	36	10.1		
Mercury	<0.14 mg/kg	TM181	0.166	<0.14	<0.14	0.188		
Nickel	<0.2 mg/kg	TM181	19.7	24.4	56.4	19.2		
Selenium	<1 mg/kg	TM181	<1	<1	<1	<1		
Vanadium	<0.2 mg/kg	TM181	27.4	38.2	46.4	28.9		
Zinc	<1.9 mg/kg	TM181	51.4	54.8	193	42.2		
Boron, water soluble	<1 mg/kg	TM222	7.66	1.7	<1	<1		



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OC, OP Pesticides and Triazine Herb

Results Legend		Customer Sample R	CGBH18	CGBH20			
#	ISO17025 accredited.	Depth (m) Sample Type Date Sampled Sampled Time Date Received SDG Ref Lab Sample No.(s) AGS Reference					
M	mCERTS accredited.		0.50	0.50			
aq	Aqueous / settled sample.		Soil/Solid	Soil/Solid			
diss.filt	Dissolved / filtered sample.		09/01/2014	10/01/2014			
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		11/01/2014	11/01/2014			
(F)	Trigger breach confirmed		140113-13	140113-13			
1-4&*\$@	Sample deviation (see appendix)		8676844	8676850			
Component	LOD/Units		Method				
Mevinphos	<50 µg/kg	TM073	<250	<50			
Dichlorvos	<50 µg/kg	TM073	<250	<50			
alpha-Hexachlorocyclohexane (HCH / Lindane)	<50 µg/kg	TM073	<250	<50			
Diazinon	<50 µg/kg	TM073	<250	<50			
gamma-Hexachlorocyclohexane (HCH / Lindane)	<50 µg/kg	TM073	<250	<50			
Heptachlor	<50 µg/kg	TM073	<250	<50			
Aldrin	<50 µg/kg	TM073	<250	<50			
beta-Hexachlorocyclohexane (HCH / Lindane)	<50 µg/kg	TM073	<250	<50			
Methyl parathion	<50 µg/kg	TM073	<250	<50			
Malathion	<50 µg/kg	TM073	<250	<50			
Fenitrothion	<50 µg/kg	TM073	<250	<50			
Heptachlor epoxide	<50 µg/kg	TM073	<250	<50			
Parathion	<50 µg/kg	TM073	<250	<50			
o,p-DDE	<50 µg/kg	TM073	<250	<50			
Endosulphan I	<50 µg/kg	TM073	<250	<50			
p,p-DDE	<50 µg/kg	TM073	<250	<50			
o,p-TDE (DDD)	<50 µg/kg	TM073	<250	<50			
Dieldrin	<50 µg/kg	TM073	<250	<50			
o,p-DDT	<50 µg/kg	TM073	<250	<50			
Endrin	<50 µg/kg	TM073	<250	<50			
Ethion	<50 µg/kg	TM073	<250	<50			
p,p-TDE (DDD)	<50 µg/kg	TM073	<250	<50			
p,p-DDT	<50 µg/kg	TM073	<250	<50			
Endosulphan II	<50 µg/kg	TM073	<250	<50			
o,p-Methoxychlor	<50 µg/kg	TM073	<250	<50			
p,p-Methoxychlor	<50 µg/kg	TM073	<250	<50			
Endosulphan sulphate	<50 µg/kg	TM073	<250	<50			
Azinphos-methyl	<50 µg/kg	TM073	<250	<50			



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PAH by GCMS

Results Legend		Customer Sample R	CGBH16	CGBH16	CGBH18	CGBH18	CGBH19	CGBH19
#	ISO17025 accredited.	Depth (m) Sample Type Date Sampled Sampled Time Date Received SDG Ref Lab Sample No.(s) AGS Reference	0.50	1.50	0.50	6.50	0.50	4.00
M	mCERTS accredited.		Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid
aq	Aqueous / settled sample.		09/01/2014	09/01/2014	09/01/2014	09/01/2014	09/01/2014	09/01/2014
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							
1-4&*\$@	Sample deviation (see appendix)							
Component	LOD/Units		Method					
Naphthalene-d8 % recovery**	%	TM218	88.1	91.2	85	97.9	91.9	94.5
Acenaphthene-d10 % recovery**	%	TM218	91.3	95.4	88.8	93.1	95	89.7
Phenanthrene-d10 % recovery**	%	TM218	91.5	95.6	90	89.3	94.6	85.2
Chrysene-d12 % recovery**	%	TM218	84.4	87.4	84.3	78.6	88.2	74.2
Perylene-d12 % recovery**	%	TM218	92.4	94.4	89.6	77.4	95.9	72.6
Naphthalene	<9 µg/kg	TM218	18.3	<9	106	<9	38.1	<9
			M	M	M	M	M	M
Acenaphthylene	<12 µg/kg	TM218	<12	<12	305	<12	131	<12
			M	M	M	M	M	M
Acenaphthene	<8 µg/kg	TM218	14.5	11.8	252	<8	147	<8
			M	M	M	M	M	M
Fluorene	<10 µg/kg	TM218	<10	<10	324	<10	208	<10
			M	M	M	M	M	M
Phenanthrene	<15 µg/kg	TM218	119	59.5	3600	<15	2100	<15
			M	M	M	M	M	M
Anthracene	<16 µg/kg	TM218	25.5	20.3	1190	<16	703	<16
			M	M	M	M	M	M
Fluoranthene	<17 µg/kg	TM218	254	77.9	6670	<17	4310	<17
			M	M	M	M	M	M
Pyrene	<15 µg/kg	TM218	233	66.5	5790	<15	3630	<15
			M	M	M	M	M	M
Benz(a)anthracene	<14 µg/kg	TM218	140	40.7	3310	<14	1930	<14
			M	M	M	M	M	M
Chrysene	<10 µg/kg	TM218	111	25.9	2410	<10	1370	<10
			M	M	M	M	M	M
Benzo(b)fluoranthene	<15 µg/kg	TM218	155	51.8	3020	<15	1640	<15
			M	M	M	M	M	M
Benzo(k)fluoranthene	<14 µg/kg	TM218	59.9	21.8	1360	<14	705	<14
			M	M	M	M	M	M
Benzo(a)pyrene	<15 µg/kg	TM218	149	50.3	3500	<15	1770	<15
			M	M	M	M	M	M
Indeno(1,2,3-cd)pyrene	<18 µg/kg	TM218	85.7	41.7	1820	<18	788	<18
			M	M	M	M	M	M
Dibenzo(a,h)anthracene	<23 µg/kg	TM218	<23	<23	452	<23	229	<23
			M	M	M	M	M	M
Benzo(g,h,i)perylene	<24 µg/kg	TM218	106	52.7	2130	<24	864	<24
			M	M	M	M	M	M
PAH, Total Detected USEPA 16	<118 µg/kg	TM218	1470	521	36200	<118	20600	<118



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Location: Cole Green
Customer: Royal Haskoning
Attention: Declan Fives

Order Number: 940074 103 100
Report Number: 257253
Superseded Report:

PAH by GCMS

Results Legend		Customer Sample R	CGBH20	CGBH20	CGBH23	CGBH23		
#	ISO17025 accredited.	Depth (m) Sample Type Date Sampled Sampled Time Date Received SDG Ref Lab Sample No.(s) AGS Reference						
M	mCERTS accredited.		0.50	1.50	0.50	2.00		
aq	Aqueous / settled sample.		Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid		
diss.filt	Dissolved / filtered sample.		10/01/2014	10/01/2014	09/01/2014	09/01/2014		
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		11/01/2014	11/01/2014	11/01/2014	11/01/2014		
(F)	Trigger breach confirmed		140113-13	140113-13	140113-13	140113-13		
1-48*\$@	Sample deviation (see appendix)		8676850	8676851	8676848	8676849		
Component	LOD/Units		Method					
Naphthalene-d8 % recovery**	%	TM218	97.4	87.6	91.6	89.4		
Acenaphthene-d10 % recovery**	%	TM218	98.7	86.7	95.5	88		
Phenanthrene-d10 % recovery**	%	TM218	96.6	85.2	94.5	86.2		
Chrysene-d12 % recovery**	%	TM218	85	74.6	86.9	75.3		
Perylene-d12 % recovery**	%	TM218	83.2	74	95.2	76.6		
Naphthalene	<9 µg/kg	TM218	11.4	<9	12.6	<9		
			M	M	M	M		
Acenaphthylene	<12 µg/kg	TM218	<12	<12	<12	<12		
			M	M	M	M		
Acenaphthene	<8 µg/kg	TM218	<8	<8	<8	<8		
			M	M	M	M		
Fluorene	<10 µg/kg	TM218	<10	<10	<10	<10		
			M	M	M	M		
Phenanthrene	<15 µg/kg	TM218	71	<15	34.6	<15		
			M	M	M	M		
Anthracene	<16 µg/kg	TM218	20.2	<16	<16	<16		
			M	M	M	M		
Fluoranthene	<17 µg/kg	TM218	164	<17	82.6	<17		
			M	M	M	M		
Pyrene	<15 µg/kg	TM218	147	<15	76.1	<15		
			M	M	M	M		
Benz(a)anthracene	<14 µg/kg	TM218	100	<14	49.6	<14		
			M	M	M	M		
Chrysene	<10 µg/kg	TM218	79.2	<10	38.1	<10		
			M	M	M	M		
Benzo(b)fluoranthene	<15 µg/kg	TM218	118	<15	66.7	<15		
			M	M	M	M		
Benzo(k)fluoranthene	<14 µg/kg	TM218	48.8	<14	24.1	<14		
			M	M	M	M		
Benzo(a)pyrene	<15 µg/kg	TM218	94.6	<15	61.2	<15		
			M	M	M	M		
Indeno(1,2,3-cd)pyrene	<18 µg/kg	TM218	57.3	<18	38	<18		
			M	M	M	M		
Dibenzo(a,h)anthracene	<23 µg/kg	TM218	<23	<23	<23	<23		
			M	M	M	M		
Benzo(g,h,i)perylene	<24 µg/kg	TM218	79.3	<24	46.4	<24		
			M	M	M	M		
PAH, Total Detected USEPA 16	<118 µg/kg	TM218	990	<118	530	<118		



CERTIFICATE OF ANALYSIS

SDG: 140113-13
Job: H_RHASKON_PTB-82
Client Reference: 9Y0074 103 100

Location: Cole Green
Customer: Royal Haskoning
Attention: Declan Fives

Order Number: 940074 103 100
Report Number: 257253
Superseded Report:

Semi Volatile Organic Compounds

Results Legend		Customer Sample R	CGBH16	CGBH16	CGBH18	CGBH18	CGBH19	CGBH19
#	ISO17025 accredited.	Depth (m) Sample Type Date Sampled Sampled Time Date Received SDG Ref Lab Sample No.(s) AGS Reference	0.50	1.50	0.50	6.50	0.50	4.00
M	mCERTS accredited.		Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid
aq	Aqueous / settled sample.		09/01/2014	09/01/2014	09/01/2014	09/01/2014	09/01/2014	09/01/2014
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		11/01/2014	11/01/2014	11/01/2014	11/01/2014	11/01/2014	11/01/2014
(F)	Trigger breach confirmed		140113-13	140113-13	140113-13	140113-13	140113-13	140113-13
1-4&*\$@	Sample deviation (see appendix)		8676836	8676838	8676844	8676847	8676842	8676843
Component	LOD/Units		Method					
Phenol	<100 µg/kg	TM157	<100	<100	<200	<100	<100	<100
Pentachlorophenol	<100 µg/kg	TM157	<100	<100	<200	<100	<100	<100
n-Nitroso-n-dipropylamine	<100 µg/kg	TM157	<100	<100	<200	<100	<100	<100
Nitrobenzene	<100 µg/kg	TM157	<100	<100	<200	<100	<100	<100
Isophorone	<100 µg/kg	TM157	<100	<100	<200	<100	<100	<100
Hexachloroethane	<100 µg/kg	TM157	<100	<100	<200	<100	<100	<100
Hexachlorocyclopentadiene	<100 µg/kg	TM157	<100	<100	<200	<100	<100	<100
Hexachlorobutadiene	<100 µg/kg	TM157	<100	<100	<200	<100	<100	<100
Hexachlorobenzene	<100 µg/kg	TM157	<100	<100	<200	<100	<100	<100
n-Dioctyl phthalate	<100 µg/kg	TM157	<100	<100	<200	<100	<100	<100
Dimethyl phthalate	<100 µg/kg	TM157	<100	<100	<200	<100	<100	<100
Diethyl phthalate	<100 µg/kg	TM157	<100	<100	<200	<100	<100	<100
n-Dibutyl phthalate	<100 µg/kg	TM157	<100	<100	<200	<100	<100	<100
Dibenzofuran	<100 µg/kg	TM157	<100	<100	<200	<100	<100	<100
Carbazole	<100 µg/kg	TM157	<100	<100	<200	<100	<100	<100
Butylbenzyl phthalate	<100 µg/kg	TM157	<100	<100	<200	<100	<100	<100
bis(2-Ethylhexyl) phthalate	<100 µg/kg	TM157	<100	<100	<200	<100	<100	<100
bis(2-Chloroethoxy)methane	<100 µg/kg	TM157	<100	<100	<200	<100	<100	<100
bis(2-Chloroethyl)ether	<100 µg/kg	TM157	<100	<100	<200	<100	<100	<100
Azobenzene	<100 µg/kg	TM157	<100	<100	<200	<100	<100	<100
4-Nitrophenol	<100 µg/kg	TM157	<100	<100	<200	<100	<100	<100
4-Nitroaniline	<100 µg/kg	TM157	<100	<100	<200	<100	<100	<100
4-Methylphenol	<100 µg/kg	TM157	<100	<100	<200	<100	<100	<100
4-Chlorophenylphenylether	<100 µg/kg	TM157	<100	<100	<200	<100	<100	<100
4-Chloroaniline	<100 µg/kg	TM157	<100	<100	<200	<100	<100	<100
4-Chloro-3-methylphenol	<100 µg/kg	TM157	<100	<100	<200	<100	<100	<100
4-Bromophenylphenylether	<100 µg/kg	TM157	<100	<100	<200	<100	<100	<100
3-Nitroaniline	<100 µg/kg	TM157	<100	<100	<200	<100	<100	<100
2-Nitrophenol	<100 µg/kg	TM157	<100	<100	<200	<100	<100	<100
2-Nitroaniline	<100 µg/kg	TM157	<100	<100	<200	<100	<100	<100
2-Methylphenol	<100 µg/kg	TM157	<100	<100	<200	<100	<100	<100
1,2,4-Trichlorobenzene	<100 µg/kg	TM157	<100	<100	<200	<100	<100	<100



CERTIFICATE OF ANALYSIS

SDG: 140113-13
Job: H_RHASKON_PTB-82
Client Reference: 9Y0074 103 100

Location: Cole Green
Customer: Royal Haskoning
Attention: Declan Fives

Order Number: 940074 103 100
Report Number: 257253
Superseded Report:

Semi Volatile Organic Compounds

Table with 9 columns: Component, LOD/Units, Method, CGBH16, CGBH16, CGBH18, CGBH18, CGBH19, CGBH19. Includes a Results Legend and various chemical compounds like 2-Chlorophenol, 2,6-Dinitrotoluene, etc.



SDG: 140113-13
Job: H_RHASKON_PTB-82
Client Reference: 9Y0074 103 100

Location: Cole Green
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Order Number: 940074 103 100
Report Number: 257253
Superseded Report:

Semi Volatile Organic Compounds

Results Legend		Customer Sample R	CGBH20	CGBH20	CGBH23	CGBH23		
#	ISO17025 accredited.	Depth (m) Sample Type Date Sampled Sampled Time Date Received SDG Ref Lab Sample No.(s) AGS Reference						
M	mCERTS accredited.		0.50	1.50	0.50	2.00		
aq	Aqueous / settled sample.		Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid		
diss.filt	Dissolved / filtered sample.		10/01/2014	10/01/2014	09/01/2014	09/01/2014		
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		11/01/2014	11/01/2014	11/01/2014	11/01/2014		
(F)	Trigger breach confirmed		140113-13	140113-13	140113-13	140113-13		
1-4&*\$@	Sample deviation (see appendix)		8676850	8676851	8676848	8676849		
Component	LOD/Units		Method					
Phenol	<100 µg/kg	TM157	<100	<100	<100	<100		
Pentachlorophenol	<100 µg/kg	TM157	<100	<100	<100	<100		
n-Nitroso-n-dipropylamine	<100 µg/kg	TM157	<100	<100	<100	<100		
Nitrobenzene	<100 µg/kg	TM157	<100	<100	<100	<100		
Isophorone	<100 µg/kg	TM157	<100	<100	<100	<100		
Hexachloroethane	<100 µg/kg	TM157	<100	<100	<100	<100		
Hexachlorocyclopentadiene	<100 µg/kg	TM157	<100	<100	<100	<100		
Hexachlorobutadiene	<100 µg/kg	TM157	<100	<100	<100	<100		
Hexachlorobenzene	<100 µg/kg	TM157	<100	<100	<100	<100		
n-Dioctyl phthalate	<100 µg/kg	TM157	<100	<100	<100	<100		
Dimethyl phthalate	<100 µg/kg	TM157	<100	<100	<100	<100		
Diethyl phthalate	<100 µg/kg	TM157	<100	<100	<100	<100		
n-Dibutyl phthalate	<100 µg/kg	TM157	<100	<100	<100	<100		
Dibenzofuran	<100 µg/kg	TM157	<100	<100	<100	<100		
Carbazole	<100 µg/kg	TM157	<100	<100	<100	<100		
Butylbenzyl phthalate	<100 µg/kg	TM157	<100	<100	<100	<100		
bis(2-Ethylhexyl) phthalate	<100 µg/kg	TM157	<100	<100	<100	<100		
bis(2-Chloroethoxy)methane	<100 µg/kg	TM157	<100	<100	<100	<100		
bis(2-Chloroethyl)ether	<100 µg/kg	TM157	<100	<100	<100	<100		
Azobenzene	<100 µg/kg	TM157	<100	<100	<100	<100		
4-Nitrophenol	<100 µg/kg	TM157	<100	<100	<100	<100		
4-Nitroaniline	<100 µg/kg	TM157	<100	<100	<100	<100		
4-Methylphenol	<100 µg/kg	TM157	<100	<100	<100	<100		
4-Chlorophenylphenylether	<100 µg/kg	TM157	<100	<100	<100	<100		
4-Chloroaniline	<100 µg/kg	TM157	<100	<100	<100	<100		
4-Chloro-3-methylphenol	<100 µg/kg	TM157	<100	<100	<100	<100		
4-Bromophenylphenylether	<100 µg/kg	TM157	<100	<100	<100	<100		
3-Nitroaniline	<100 µg/kg	TM157	<100	<100	<100	<100		
2-Nitrophenol	<100 µg/kg	TM157	<100	<100	<100	<100		
2-Nitroaniline	<100 µg/kg	TM157	<100	<100	<100	<100		
2-Methylphenol	<100 µg/kg	TM157	<100	<100	<100	<100		
1,2,4-Trichlorobenzene	<100 µg/kg	TM157	<100	<100	<100	<100		



SDG: 140113-13
Job: H_RHASKON_PTB-82
Client Reference: 9Y0074 103 100

Location: Cole Green
Customer: Royal Haskoning
Attention: Declan Fives

Order Number: 940074 103 100
Report Number: 257253
Superseded Report:

Semi Volatile Organic Compounds

Table with columns: Results Legend, Customer Sample R, CGBH20, CGBH20, CGBH23, CGBH23. Rows include components like 2-Chlorophenol, 2,6-Dinitrotoluene, etc., with LOD/Units and Method.



SDG: 140113-13
Job: H_RHASKON_PTB-82
Client Reference: 9Y0074 103 100

Location: Cole Green
Customer: Royal Haskoning
Attention: Declan Fives

Order Number: 940074 103 100
Report Number: 257253
Superseded Report:

TPH CWG (S)

Results Legend		Customer Sample R	CGBH16	CGBH16	CGBH18	CGBH18	CGBH19	CGBH19
#	ISO17025 accredited.	Depth (m) Sample Type Date Sampled Sampled Time Date Received SDG Ref Lab Sample No.(s) AGS Reference	0.50	1.50	0.50	6.50	0.50	4.00
M	mCERTS accredited.		Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid
aq	Aqueous / settled sample.		09/01/2014	09/01/2014	09/01/2014	09/01/2014	09/01/2014	09/01/2014
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							
1-4&*\$@	Sample deviation (see appendix)							
				8676836	8676838	8676844	8676847	8676842
Component	LOD/Units	Method						
GRO Surrogate % recovery**	%	TM089	116	119	71	123	85	76
GRO TOT (Moisture Corrected)	<44 µg/kg	TM089	<44	<44	<44	85.6	374	<44
Methyl tertiary butyl ether (MTBE)	<5 µg/kg	TM089	<5	<5	<5	<5	<5	<5
Benzene	<10 µg/kg	TM089	<10	<10	<10	<10	<10	<10
Toluene	<2 µg/kg	TM089	<2	<2	2.13	<2	<2	<2
Ethylbenzene	<3 µg/kg	TM089	<3	<3	<3	<3	<3	<3
m,p-Xylene	<6 µg/kg	TM089	<6	<6	<6	<6	<6	<6
o-Xylene	<3 µg/kg	TM089	<3	<3	<3	<3	<3	<3
sum of detected mpo xylene by GC	<9 µg/kg	TM089	<9	<9	<9	<9	<9	<9
sum of detected BTEX by GC	<24 µg/kg	TM089	<24	<24	<24	<24	<24	<24
Aliphatics >C5-C6	<10 µg/kg	TM089	<10	<10	<10	<10	<10	<10
Aliphatics >C6-C8	<10 µg/kg	TM089	<10	<10	<10	11.2	16.9	<10
Aliphatics >C8-C10	<10 µg/kg	TM089	<10	<10	<10	19.8	136	<10
Aliphatics >C10-C12	<10 µg/kg	TM089	<10	<10	<10	18.6	71.4	<10
Aliphatics >C12-C16	<100 µg/kg	TM173	<100	<100	<100	<100	<100	2520
Aliphatics >C16-C21	<100 µg/kg	TM173	225	<100	13800	<100	<100	2250
Aliphatics >C21-C35	<100 µg/kg	TM173	2720	<100	104000	18200	7640	5170
Aliphatics >C35-C44	<100 µg/kg	TM173	437	<100	63900	3110	857	902
Total Aliphatics >C12-C44	<100 µg/kg	TM173	3380	<100	181000	21300	8490	10800
Aromatics >EC5-EC7	<10 µg/kg	TM089	<10	<10	<10	<10	<10	<10
Aromatics >EC7-EC8	<10 µg/kg	TM089	<10	<10	<10	<10	<10	<10
Aromatics >EC8-EC10	<10 µg/kg	TM089	<10	<10	<10	17.4	92	<10
Aromatics >EC10-EC12	<10 µg/kg	TM089	<10	<10	<10	12.4	48.4	<10
Aromatics >EC12-EC16	<100 µg/kg	TM173	<100	<100	2970	469	537	449
Aromatics >EC16-EC21	<100 µg/kg	TM173	<100	<100	37200	2020	3810	1030
Aromatics >EC21-EC35	<100 µg/kg	TM173	3520	<100	222000	15700	21800	4730
Aromatics >EC35-EC44	<100 µg/kg	TM173	<100	<100	157000	3750	9780	1890
Aromatics >EC40-EC44	<100 µg/kg	TM173	<100	<100	67800	1050	4020	942
Total Aromatics >EC12-EC44	<100 µg/kg	TM173	3130	<100	420000	21900	35900	8090
Total Aliphatics & Aromatics >C5-C44	<100 µg/kg	TM173	6520	<100	601000	43300	44800	18900



SDG: 140113-13
Job: H_RHASKON_PTB-82
Client Reference: 9Y0074 103 100

Location: Cole Green
Customer: Royal Haskoning
Attention: Declan Fives

Order Number: 940074 103 100
Report Number: 257253
Superseded Report:

TPH CWG (S)

Results Legend		Customer Sample R	CGBH20	CGBH20	CGBH23	CGBH23		
#	ISO17025 accredited.	Depth (m) Sample Type Date Sampled Sampled Time Date Received SDG Ref Lab Sample No.(s) AGS Reference						
M	mCERTS accredited.		0.50	1.50	0.50	2.00		
aq	Aqueous / settled sample.		Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid		
diss.filt	Dissolved / filtered sample.		10/01/2014	10/01/2014	09/01/2014	09/01/2014		
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		11/01/2014	11/01/2014	11/01/2014	11/01/2014		
1-4&*\$@	Sample deviation (see appendix)		140113-13	140113-13	140113-13	140113-13		
			8676850	8676851	8676848	8676849		
Component	LOD/Units	Method						
GRO Surrogate % recovery**	%	TM089	103	110	95	72		
GRO TOT (Moisture Corrected)	<44 µg/kg	TM089	<44	<44	<44	<44		
Methyl tertiary butyl ether (MTBE)	<5 µg/kg	TM089	<5	<5	<5	<5		
Benzene	<10 µg/kg	TM089	<10	<10	<10	<10		
Toluene	<2 µg/kg	TM089	<2	<2	<2	<2		
Ethylbenzene	<3 µg/kg	TM089	<3	<3	<3	<3		
m,p-Xylene	<6 µg/kg	TM089	<6	<6	<6	<6		
o-Xylene	<3 µg/kg	TM089	<3	<3	<3	<3		
sum of detected mpo xylene by GC	<9 µg/kg	TM089	<9	<9	<9	<9		
sum of detected BTEX by GC	<24 µg/kg	TM089	<24	<24	<24	<24		
Aliphatics >C5-C6	<10 µg/kg	TM089	<10	<10	<10	<10		
Aliphatics >C6-C8	<10 µg/kg	TM089	<10	<10	<10	<10		
Aliphatics >C8-C10	<10 µg/kg	TM089	<10	<10	12.7	<10		
Aliphatics >C10-C12	<10 µg/kg	TM089	<10	<10	11.5	<10		
Aliphatics >C12-C16	<100 µg/kg	TM173	185	<100	<100	<100		
Aliphatics >C16-C21	<100 µg/kg	TM173	225	<100	<100	<100		
Aliphatics >C21-C35	<100 µg/kg	TM173	5260	<100	1840	234		
Aliphatics >C35-C44	<100 µg/kg	TM173	1010	<100	<100	<100		
Total Aliphatics >C12-C44	<100 µg/kg	TM173	6670	<100	1840	234		
Aromatics >EC5-EC7	<10 µg/kg	TM089	<10	<10	<10	<10		
Aromatics >EC7-EC8	<10 µg/kg	TM089	<10	<10	<10	<10		
Aromatics >EC8-EC10	<10 µg/kg	TM089	<10	<10	<10	<10		
Aromatics >EC10-EC12	<10 µg/kg	TM089	<10	<10	<10	<10		
Aromatics >EC12-EC16	<100 µg/kg	TM173	<100	544	711	<100		
Aromatics >EC16-EC21	<100 µg/kg	TM173	1340	912	1360	240		
Aromatics >EC21-EC35	<100 µg/kg	TM173	9410	3160	8100	1740		
Aromatics >EC35-EC44	<100 µg/kg	TM173	4720	1760	3900	602		
Aromatics >EC40-EC44	<100 µg/kg	TM173	2090	811	1630	106		
Total Aromatics >EC12-EC44	<100 µg/kg	TM173	15500	6370	14100	2510		
Total Aliphatics & Aromatics >C5-C44	<100 µg/kg	TM173	22100	6370	16000	2740		



SDG: 140113-13
Job: H_RHASKON_PTB-82
Client Reference: 9Y0074 103 100

Location: Cole Green
Customer: Royal Haskoning
Attention: Declan Fives

Order Number: 940074 103 100
Report Number: 257253
Superseded Report:

VOC MS (S)

Results Legend		Customer Sample R	Customer Sample R					
#	ISO17025 accredited. mCERTS accredited.		Depth (m)	CGBH16	CGBH16	CGBH18	CGBH18	CGBH19
M	Aqueous / settled sample.	Sample Type	0.50	1.50	0.50	6.50	0.50	4.00
aq	Dissolved / filtered sample.	Date Sampled	Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid
diss.filt	Total / unfiltered sample.	Sampled Time	09/01/2014	09/01/2014	09/01/2014	09/01/2014	09/01/2014	09/01/2014
tot.unfilt	Subcontracted test.	Date Received	11/01/2014	11/01/2014	11/01/2014	11/01/2014	11/01/2014	11/01/2014
*	% 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	SDG Ref	140113-13	140113-13	140113-13	140113-13	140113-13	140113-13
**	Trigger breach confirmed	Lab Sample No.(s)	8676836	8676838	8676844	8676847	8676842	8676843
(F)	Sample deviation (see appendix)	AGS Reference						
1-4&*\$@		Method						
Component	LOD/Units	Method						
Dibromofluoromethane**	%	TM116	104	93.5	100	96.8	70.8	77.8
Toluene-d8**	%	TM116	98.7	98.5	95.7	95.4	95	99.7
4-Bromofluorobenzene**	%	TM116	111	98.9	121	130	124	96.2
Dichlorodifluoromethane	<4 µg/kg	TM116	<4	<4	<8	<4	<4	<4
Chloromethane	<7 µg/kg	TM116	<7	<7	<14	<7	<7	<7
Vinyl Chloride	<10 µg/kg	TM116	<10	<10	<20	<10	<10	<10
Bromomethane	<13 µg/kg	TM116	<13	<13	<26	<13	<13	<13
Chloroethane	<14 µg/kg	TM116	<14	<14	<28	<14	<14	<14
Trichlorofluoromethane	<6 µg/kg	TM116	<6	<6	<12	<6	<6	<6
1,1-Dichloroethene	<10 µg/kg	TM116	<10	<10	<20	<10	<10	<10
Carbon Disulphide	<7 µg/kg	TM116	<7	<7	<14	22	<7	<7
Dichloromethane	<10 µg/kg	TM116	<10	<10	<20	<10	<10	<10
Methyl Tertiary Butyl Ether	<11 µg/kg	TM116	<11	<11	<22	<11	<11	<11
trans-1,2-Dichloroethene	<11 µg/kg	TM116	<11	<11	<22	<11	<11	<11
1,1-Dichloroethane	<8 µg/kg	TM116	<8	<8	<16	<8	<8	<8
cis-1,2-Dichloroethene	<5 µg/kg	TM116	<5	<5	<10	<5	<5	<5
2,2-Dichloropropane	<12 µg/kg	TM116	<12	<12	<24	<12	<12	<12
Bromochloromethane	<14 µg/kg	TM116	<14	<14	<28	<14	<14	<14
Chloroform	<8 µg/kg	TM116	<8	<8	<16	<8	<8	<8
1,1,1-Trichloroethane	<7 µg/kg	TM116	<7	<7	<14	<7	<7	<7
1,1-Dichloropropene	<11 µg/kg	TM116	<11	<11	<22	<11	<11	<11
Carbontetrachloride	<14 µg/kg	TM116	<14	<14	<28	<14	<14	<14
1,2-Dichloroethane	<5 µg/kg	TM116	<5	<5	<10	<5	<5	<5
Benzene	<9 µg/kg	TM116	<9	<9	<18	<9	<9	<9
Trichloroethene	<9 µg/kg	TM116	<9	<9	<18	<9	<9	<9
1,2-Dichloropropane	<12 µg/kg	TM116	<12	<12	<24	<12	<12	<12
Dibromomethane	<9 µg/kg	TM116	<9	<9	<18	<9	<9	<9
Bromodichloromethane	<7 µg/kg	TM116	<7	<7	<14	<7	<7	<7
cis-1,3-Dichloropropene	<14 µg/kg	TM116	<14	<14	<28	<14	<14	<14
Toluene	<5 µg/kg	TM116	<5	<5	<10	11.1	<5	45.5
trans-1,3-Dichloropropene	<100 µg/kg	TM116	<100	<100	<200	<100	<100	<100
1,1,2-Trichloroethane	<10 µg/kg	TM116	<10	<10	<20	<10	<10	<10



SDG: 140113-13
Job: H_RHASKON_PTB-82
Client Reference: 9Y0074 103 100

Location: Cole Green
Customer: Royal Haskoning
Attention: Declan Fives

Order Number: 940074 103 100
Report Number: 257253
Superseded Report:

VOC MS (S)

Results Legend		Customer Sample R	CGBH16		CGBH16		CGBH18		CGBH18		CGBH19		CGBH19	
#	ISO17025 accredited. mCERTS accredited.		Depth (m)	0.50	1.50	0.50	6.50	0.50	4.00	0.50	4.00	0.50	4.00	0.50
M	Aqueous / settled sample.	Sample Type	Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid
aq	Dissolved / filtered sample.	Date Sampled	09/01/2014	09/01/2014	09/01/2014	09/01/2014	09/01/2014	09/01/2014	09/01/2014	09/01/2014	09/01/2014	09/01/2014	09/01/2014	09/01/2014
tot.unfilt	Total / unfiltered sample.	Date Received	11/01/2014	11/01/2014	11/01/2014	11/01/2014	11/01/2014	11/01/2014	11/01/2014	11/01/2014	11/01/2014	11/01/2014	11/01/2014	11/01/2014
*	Subcontracted test.	SDG Ref	140113-13	140113-13	140113-13	140113-13	140113-13	140113-13	140113-13	140113-13	140113-13	140113-13	140113-13	140113-13
**	% 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	Lab Sample No.(s)	8676836	8676838	8676844	8676847	8676842	8676843	8676842	8676843	8676842	8676843	8676843	8676843
(F)	Trigger breach confirmed	AGS Reference												
1-4&5@	Sample deviation (see appendix)													
Component	LOD/Units	Method												
1,3-Dichloropropane	<7 µg/kg	TM116	<7	<7	<14	<7	<7	<7	<7	<7	<7	<7	<7	<7
Tetrachloroethene	<5 µg/kg	TM116	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<5
Dibromochloromethane	<13 µg/kg	TM116	<13	<13	<26	<13	<13	<13	<13	<13	<13	<13	<13	<13
1,2-Dibromoethane	<12 µg/kg	TM116	<12	<12	<24	<12	<12	<12	<12	<12	<12	<12	<12	<12
Chlorobenzene	<5 µg/kg	TM116	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<5
1,1,1,2-Tetrachloroethane	<10 µg/kg	TM116	<10	<10	<20	<10	<10	<10	<10	<10	<10	<10	<10	<10
Ethylbenzene	<4 µg/kg	TM116	<4	<4	<8	<4	<4	<4	<4	<4	<4	<4	<4	<4
p/m-Xylene	<14 µg/kg	TM116	<14	<14	<28	<14	<14	<14	<14	<14	<14	<14	<14	<14
o-Xylene	<10 µg/kg	TM116	<10	<10	<20	<10	<10	<10	<10	<10	<10	<10	<10	<10
Styrene	<10 µg/kg	TM116	<10	<10	<20	<10	<10	<10	<10	<10	<10	<10	<10	<10
Bromoform	<10 µg/kg	TM116	<10	<10	<20	<10	<10	<10	<10	<10	<10	<10	<10	<10
Isopropylbenzene	<5 µg/kg	TM116	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<5
1,1,2,2-Tetrachloroethane	<10 µg/kg	TM116	<10	<10	<20	<10	<10	<10	<10	<10	<10	<10	<10	<10
1,2,3-Trichloropropane	<17 µg/kg	TM116	<17	<17	<34	<17	<17	<17	<17	<17	<17	<17	<17	<17
Bromobenzene	<10 µg/kg	TM116	<10	<10	<20	<10	<10	<10	<10	<10	<10	<10	<10	<10
Propylbenzene	<11 µg/kg	TM116	<11	<11	<22	<11	<11	<11	<11	13.7	<11	<11	<11	<11
2-Chlorotoluene	<9 µg/kg	TM116	<9	<9	<18	<9	<9	<9	<9	<9	<9	<9	<9	<9
1,3,5-Trimethylbenzene	<8 µg/kg	TM116	<8	<8	<16	<8	<8	<8	<8	<8	<8	<8	<8	<8
4-Chlorotoluene	<12 µg/kg	TM116	<12	<12	<24	<12	<12	<12	<12	<12	<12	<12	<12	<12
tert-Butylbenzene	<12 µg/kg	TM116	<12	<12	<24	<12	<12	<12	<12	<12	<12	<12	<12	<12
1,2,4-Trimethylbenzene	<9 µg/kg	TM116	<9	<9	<18	<9	<9	<9	<9	41.5	<9	<9	<9	<9
sec-Butylbenzene	<10 µg/kg	TM116	<10	<10	<20	<10	<10	<10	<10	<10	<10	<10	<10	<10
4-Isopropyltoluene	<11 µg/kg	TM116	<11	<11	<22	<11	<11	<11	<11	<11	<11	<11	<11	<11
1,3-Dichlorobenzene	<6 µg/kg	TM116	<6	<6	<12	<6	<6	<6	<6	<6	<6	<6	<6	<6
1,4-Dichlorobenzene	<5 µg/kg	TM116	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<5
n-Butylbenzene	<10 µg/kg	TM116	<10	<10	<20	<10	<10	<10	<10	<10	<10	<10	<10	<10
1,2-Dichlorobenzene	<12 µg/kg	TM116	<12	<12	<24	<12	<12	<12	<12	<12	<12	<12	<12	<12
1,2-Dibromo-3-chloropropane	<14 µg/kg	TM116	<14	<14	<28	<14	<14	<14	<14	<14	<14	<14	<14	<14
Tert-amyl methyl ether	<15 µg/kg	TM116	<15	<15	<30	<15	<15	<15	<15	<15	<15	<15	<15	<15
1,2,4-Trichlorobenzene	<6 µg/kg	TM116	<6	<6	<12	<6	<6	<6	<6	<6	<6	<6	<6	<6
Hexachlorobutadiene	<12 µg/kg	TM116	<12	<12	<24	<12	<12	<12	<12	<12	<12	<12	<12	<12
Naphthalene	<13 µg/kg	TM116	<13	<13	<26	<13	<13	<13	<13	<13	<13	<13	<13	<13



CERTIFICATE OF ANALYSIS

Validated

SDG: 140113-13
Job: H_RHASKON_PT8-82
Client Reference: 9Y0074 103 100

Location: Cole Green
Customer: Royal Haskoning
Attention: Declan Fives

Order Number: 940074 103 100
Report Number: 257253
Superseded Report:

VOC MS (S)

Table with columns for Results Legend, Customer Sample R, CGBH16, CGBH16, CGBH18, CGBH18, CGBH19, CGBH19. Includes rows for Component, LOD/Units, Method, and 1,2,3-Trichlorobenzene.



SDG: 140113-13
Job: H_RHASKON_PTB-82
Client Reference: 9Y0074 103 100

Location: Cole Green
Customer: Royal Haskoning
Attention: Declan Fives

Order Number: 940074 103 100
Report Number: 257253
Superseded Report:

VOC MS (S)

Results Legend			Customer Sample R			
#	ISO17025 accredited.	Customer Sample R Depth (m) Sample Type Date Sampled Sampled Time Date Received SDG Ref Lab Sample No.(s) AGS Reference	CGBH20	CGBH20	CGBH23	CGBH23
M	mCERTS accredited.		0.50	1.50	0.50	2.00
aq	Aqueous / settled sample.		Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid
diss.filt	Dissolved / filtered sample.		10/01/2014	10/01/2014	09/01/2014	09/01/2014
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		11/01/2014	11/01/2014	11/01/2014	11/01/2014
(F)	Trigger breach confirmed		140113-13	140113-13	140113-13	140113-13
1-48*\$@	Sample deviation (see appendix)		8676850	8676851	8676848	8676849
Component	LOD/Units		Method			
Dibromofluoromethane**	%	TM116	98.6	77.5	103	80
Toluene-d8**	%	TM116	100	101	101	99.4
4-Bromofluorobenzene**	%	TM116	101	96.6	111	101
Dichlorodifluoromethane	<4 µg/kg	TM116	<4	<4	<4	<4
Chloromethane	<7 µg/kg	TM116	<7	<7	<7	<7
Vinyl Chloride	<10 µg/kg	TM116	<10	<10	<10	<10
Bromomethane	<13 µg/kg	TM116	<13	<13	<13	<13
Chloroethane	<14 µg/kg	TM116	<14	<14	<14	<14
Trichlorofluoromethane	<6 µg/kg	TM116	<6	<6	<6	<6
1,1-Dichloroethene	<10 µg/kg	TM116	<10	<10	<10	<10
Carbon Disulphide	<7 µg/kg	TM116	30.3	<7	<7	<7
Dichloromethane	<10 µg/kg	TM116	<10	<10	<10	<10
Methyl Tertiary Butyl Ether	<11 µg/kg	TM116	<11	<11	<11	<11
trans-1,2-Dichloroethene	<11 µg/kg	TM116	<11	<11	<11	<11
1,1-Dichloroethane	<8 µg/kg	TM116	<8	<8	<8	<8
cis-1,2-Dichloroethene	<5 µg/kg	TM116	<5	<5	<5	<5
2,2-Dichloropropane	<12 µg/kg	TM116	<12	<12	<12	<12
Bromochloromethane	<14 µg/kg	TM116	<14	<14	<14	<14
Chloroform	<8 µg/kg	TM116	<8	<8	<8	<8
1,1,1-Trichloroethane	<7 µg/kg	TM116	<7	<7	<7	<7
1,1-Dichloropropene	<11 µg/kg	TM116	<11	<11	<11	<11
Carbontetrachloride	<14 µg/kg	TM116	<14	<14	<14	<14
1,2-Dichloroethane	<5 µg/kg	TM116	<5	<5	<5	<5
Benzene	<9 µg/kg	TM116	<9	<9	<9	<9
Trichloroethene	<9 µg/kg	TM116	<9	<9	<9	<9
1,2-Dichloropropane	<12 µg/kg	TM116	<12	<12	<12	<12
Dibromomethane	<9 µg/kg	TM116	<9	<9	<9	<9
Bromodichloromethane	<7 µg/kg	TM116	<7	<7	<7	<7
cis-1,3-Dichloropropene	<14 µg/kg	TM116	<14	<14	<14	<14
Toluene	<5 µg/kg	TM116	<5	<5	<5	<5
trans-1,3-Dichloropropene	<100 µg/kg	TM116	<100	<100	<100	<100
1,1,2-Trichloroethane	<10 µg/kg	TM116	<10	<10	<10	<10



SDG: 140113-13
Job: H_RHASKON_PTB-82
Client Reference: 9Y0074 103 100

Location: Cole Green
Customer: Royal Haskoning
Attention: Declan Fives

Order Number: 940074 103 100
Report Number: 257253
Superseded Report:

VOC MS (S)

Results Legend		Customer Sample R	CGBH20	CGBH20	CGBH23	CGBH23		
#	ISO17025 accredited.	Depth (m) Sample Type Date Sampled Sampled Time Date Received SDG Ref Lab Sample No.(s) AGS Reference	0.50	1.50	0.50	2.00		
M	mCERTS accredited.		Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid		
aq	Aqueous / settled sample.		10/01/2014	10/01/2014	09/01/2014	09/01/2014		
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							
1-4&#pound;	Sample deviation (see appendix)							
				8676850	8676851	8676848	8676849	
Component	LOD/Units	Method						
1,3-Dichloropropane	<7 µg/kg	TM116	<7	<7	<7	<7		
			#	#	#	#		
Tetrachloroethene	<5 µg/kg	TM116	<5	<5	<5	<5		
			M	M	M	M		
Dibromochloromethane	<13 µg/kg	TM116	<13	<13	<13	<13		
			M	M	M	M		
1,2-Dibromoethane	<12 µg/kg	TM116	<12	<12	<12	<12		
			M	M	M	M		
Chlorobenzene	<5 µg/kg	TM116	<5	<5	<5	<5		
			M	M	M	M		
1,1,1,2-Tetrachloroethane	<10 µg/kg	TM116	<10	<10	<10	<10		
			M	M	M	M		
Ethylbenzene	<4 µg/kg	TM116	<4	<4	<4	<4		
			M	M	M	M		
p/m-Xylene	<14 µg/kg	TM116	<14	<14	<14	<14		
			#	#	#	#		
o-Xylene	<10 µg/kg	TM116	<10	<10	<10	<10		
			M	M	M	M		
Styrene	<10 µg/kg	TM116	<10	<10	<10	<10		
			M	M	M	M		
Bromoform	<10 µg/kg	TM116	<10	<10	<10	<10		
			M	M	M	M		
Isopropylbenzene	<5 µg/kg	TM116	<5	<5	<5	<5		
			M	M	M	M		
1,1,2,2-Tetrachloroethane	<10 µg/kg	TM116	<10	<10	<10	<10		
			#	#	#	#		
1,2,3-Trichloropropane	<17 µg/kg	TM116	<17	<17	<17	<17		
			M	M	M	M		
Bromobenzene	<10 µg/kg	TM116	<10	<10	<10	<10		
			M	M	M	M		
Propylbenzene	<11 µg/kg	TM116	<11	<11	<11	<11		
			M	M	M	M		
2-Chlorotoluene	<9 µg/kg	TM116	<9	<9	<9	<9		
			M	M	M	M		
1,3,5-Trimethylbenzene	<8 µg/kg	TM116	<8	<8	<8	<8		
			#	#	#	#		
4-Chlorotoluene	<12 µg/kg	TM116	<12	<12	<12	<12		
			M	M	M	M		
tert-Butylbenzene	<12 µg/kg	TM116	<12	<12	<12	<12		
			#	#	#	#		
1,2,4-Trimethylbenzene	<9 µg/kg	TM116	<9	<9	<9	<9		
			#	#	#	#		
sec-Butylbenzene	<10 µg/kg	TM116	<10	<10	<10	<10		
			M	M	M	M		
4-Isopropyltoluene	<11 µg/kg	TM116	<11	<11	<11	<11		
			M	M	M	M		
1,3-Dichlorobenzene	<6 µg/kg	TM116	<6	<6	<6	<6		
			M	M	M	M		
1,4-Dichlorobenzene	<5 µg/kg	TM116	<5	<5	<5	<5		
			M	M	M	M		
n-Butylbenzene	<10 µg/kg	TM116	<10	<10	<10	<10		
			M	M	M	M		
1,2-Dichlorobenzene	<12 µg/kg	TM116	<12	<12	<12	<12		
			M	M	M	M		
1,2-Dibromo-3-chloropropane	<14 µg/kg	TM116	<14	<14	<14	<14		
			M	M	M	M		
Tert-amyl methyl ether	<15 µg/kg	TM116	<15	<15	<15	<15		
1,2,4-Trichlorobenzene	<6 µg/kg	TM116	<6	<6	<6	<6		
			#	#	#	#		
Hexachlorobutadiene	<12 µg/kg	TM116	<12	<12	<12	<12		
Naphthalene	<13 µg/kg	TM116	<13	<13	<13	<13		
			M	M	M	M		



CERTIFICATE OF ANALYSIS

SDG: 140113-13
Job: H_RHASKON_PT8-82
Client Reference: 9Y0074 103 100

Location: Cole Green
Customer: Royal Haskoning
Attention: Declan Fives

Order Number: 940074 103 100
Report Number: 257253
Superseded Report:

VOC MS (S)

Table with columns for Results Legend, Customer Sample R, CGBH20, CGBH20, CGBH23, CGBH23, Component, LOD/Units, Method, and detection results for 1,2,3-Trichlorobenzene.



SDG: 140113-13
Job: H_RHASKON_PT8-82
Client Reference: 9Y0074 103 100

Location: Cole Green
Customer: Royal Haskoning
Attention: Declan Fives

Order Number: 940074 103 100
Report Number: 257253
Superseded Report:

Asbestos Identification - Soil

		Date of Analysis	Analysed By	Comments	Amosite (Brown) Asbestos	Chrysotile (White) Asbestos	Crocidolite (Blue) Asbestos	Fibrous Actinolite	Fibrous Anthophyllite	Fibrous Tremolite	Non-Asbestos Fibre
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	CGBH16 0.50 SOLID 09/01/2014 00:00:00 140113-13 8676836 TM048	17/01/14	Chris Swindells	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	CGBH16 1.50 SOLID 09/01/2014 00:00:00 140113-13 8676838 TM048	17/01/14	Chris Swindells	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	CGBH18 0.50 SOLID 09/01/2014 00:00:00 140113-13 8676844 TM048	17/01/14	Chris Swindells	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	CGBH19 0.50 SOLID 09/01/2014 00:00:00 140113-13 8676842 TM048	17/01/14	Chris Swindells	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	CGBH20 0.50 SOLID 10/01/2014 00:00:00 140113-13 8676850 TM048	17/01/14	Chris Swindells	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected



CERTIFICATE OF ANALYSIS

SDG: 140113-13
Job: H_RHASKON_PT8-82
Client Reference: 9Y0074 103 100

Location: Cole Green
Customer: Royal Haskoning
Attention: Declan Fives

Order Number: 940074 103 100
Report Number: 257253
Superseded Report:

		Date of Analysis	Analysed By	Comments	Amosite (Brown) Asbestos	Chrysotile (White) Asbestos	Crocidolite (Blue) Asbestos	Fibrous Actinolite	Fibrous Anthophyllite	Fibrous Tremolite	Non-Asbestos Fibre
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	CGBH20 1.50 SOLID 10/01/2014 00:00:00 140113-13 8676851 TM048	17/01/14	Chris Swindells	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	CGBH23 0.50 SOLID 09/01/2014 00:00:00 140113-13 8676848 TM048	17/01/14	Chris Swindells	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected



CERTIFICATE OF ANALYSIS

SDG: 140113-13
 Job: H_RHASKON_PTB-82
 Client Reference: 9Y0074 103 100

Location: Cole Green
 Customer: Royal Haskoning
 Attention: Declan Fives

Order Number: 940074 103 100
 Report Number: 257253
 Superseded Report:

CEN 2:1 SINGLE STAGE LEACHATE TEST

CEN ANALYTICAL RESULTS

REF : BS EN 12457/1

Client Reference		Site Location	Cole Green
Mass Sample taken (kg)	0.201	Natural Moisture Content (%)	14.9
Mass of dry sample (kg)	0.175	Dry Matter Content (%)	87
Particle Size <4mm	>95%		

Case

SDG	140113-13
Lab Sample Number(s)	8676836
Sampled Date	09-Jan-2014
Customer Sample Ref.	CGBH16
Depth (m)	0.50

Solid Waste Analysis

Total Organic Carbon (%)	0.603
Loss on Ignition (%)	-
Sum of BTEX (mg/kg)	<0.024
Sum of 7 PCBs (mg/kg)	-
Mineral Oil (mg/kg)	-
PAH Sum of 17 (mg/kg)	-
pH (pH Units)	8.27
ANC to pH 6 (mol/kg)	-
ANC to pH 4 (mol/kg)	-

Eluate Analysis	Conc ⁿ in 2:1 eluate (mg/l)		2:1 conc ⁿ leached (mg/kg)		Limit values for compliance leaching test using BS EN 12457-3 at L/S 10 l/kg		
	Result	Limit of Detection	Result	Limit of Detection			
Arsenic	0.000871	<0.00012	0.00174	<0.0012	0.5	2	25
Barium	0.0371	<0.00003	0.0742	<0.0003	20	100	300
Cadmium	<0.0001	<0.0001	<0.0002	<0.001	0.04	1	5
Chromium	0.00264	<0.00022	0.00528	<0.0022	0.5	10	70
Copper	0.0046	<0.00085	0.0092	<0.0085	2	50	100
Mercury Dissolved (CVAf)	<0.00001	<0.00001	<0.00002	<0.0001	0.01	0.2	2
Molybdenum	-	-	-	-	0.5	10	30
Nickel	0.00131	<0.00015	0.00262	<0.0015	0.4	10	40
Lead	0.000573	<0.00002	0.00115	<0.0002	0.5	10	50
Antimony	-	-	-	-	0.06	0.7	5
Selenium	0.00213	<0.00039	0.00426	<0.0039	0.1	0.5	7
Zinc	0.00194	<0.00041	0.00388	<0.0041	4	50	200
Chloride	-	-	-	-	800	15000	25000
Fluoride	-	-	-	-	10	150	500
Sulphate (soluble)	-	-	-	-	1000	20000	50000
Total Dissolved Solids	-	-	-	-	4000	60000	100000
Total Monohydric Phenols (W)	-	-	-	-	1	-	-
Dissolved Organic Carbon	-	-	-	-	500	800	1000

Leach Test Information

Date Prepared	15-Jan-2014
pH (pH Units)	8.45
Conductivity (µS/cm)	317.00
Temperature (°C)	19.00
Volume Leachant (Litres)	0.324
Volume of Eluate VE1 (Litres)	

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21/01/2014 15:00:02

14:59:45 21/01/2014



CERTIFICATE OF ANALYSIS

SDG: 140113-13
 Job: H_RHASKON_PTB-82
 Client Reference: 9Y0074 103 100

Location: Cole Green
 Customer: Royal Haskoning
 Attention: Declan Fives

Order Number: 940074 103 100
 Report Number: 257253
 Superseded Report:

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	Result	Limit of Detection	Result	Limit of Detection	
Aliphatics >C12-C16	0.03	<0.01	0.06	<0.1	-
Aliphatics >C16-C21	0.679	<0.01	1.36	<0.1	-
Aliphatics >C21-C35	0.606	<0.01	1.21	<0.1	-
Total Aliphatics >C12-C35	1.32	<0.01	2.64	<0.1	-
Aromatics >EC12-EC16	0.043	<0.01	0.086	<0.1	-
Aromatics >EC16-EC21	0.427	<0.01	0.854	<0.1	-
Aromatics >EC21-EC35	0.3	<0.01	0.6	<0.1	-
Total Aromatics >EC12-EC35	0.77	<0.01	1.54	<0.1	-
TPH (Total Aliphatics + Total Aromatics) >C5-C35	2.09	<0.01	4.18	<0.1	-
Beryllium	<0.00007	<0.00007	<0.00014	<0.0007	-
Boron	0.0397	<0.0094	0.0794	<0.094	-
Vanadium	0.00114	<0.00024	0.00228	<0.0024	-
PAH Spec MS - Aqueous (W)					
Naphthalene by GCMS	<0.0001	<0.0001	<0.0002	<0.001	-
Acenaphthene by GCMS	0.000103	<0.000015	0.000206	<0.00015	-
Acenaphthylene by GCMS	0.0000121	<0.000011	0.0000242	<0.00011	-
Fluoranthene by GCMS	0.000082	<0.000017	0.000164	<0.00017	-
Anthracene by GCMS	0.0000505	<0.000015	0.000101	<0.00015	-
Phenanthrene by GCMS	0.000625	<0.000022	0.00125	<0.00022	-
Fluorene by GCMS	0.000166	<0.000014	0.000332	<0.00014	-
Chrysene by GCMS	0.0000198	<0.000013	0.0000396	<0.00013	-
Pyrene by GCMS	0.0000921	<0.000015	0.000184	<0.00015	-
Benz(a)anthracene by GCMS	<0.000017	<0.000017	<0.000034	<0.00017	-

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 Job: H_RHASKON_PTB-82
 Client Reference: 9Y0074 103 100

Location: Cole Green
 Customer: Royal Haskoning
 Attention: Declan Fives

Order Number: 940074 103 100
 Report Number: 257253
 Superseded Report:

CEN 2:1 SINGLE STAGE LEACHATE TEST

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Eluate Analysis

	Conc ⁿ in 2:1 eluate (mg/l)		2:1 conc ⁿ leached (mg/kg)		Limit values for compliance leaching test using BS EN 12457-3 at L/S 10 l/kg
	Result	Limit of Detection	Result	Limit of Detection	
PAH Spec MS - Aqueous (W)					
Benzo(b)fluoranthene by GCMS	<0.000023	<0.000023	<0.000046	<0.00023	-
Benzo(k)fluoranthene by GCMS	<0.000027	<0.000027	<0.000054	<0.00027	-
Benzo(a)pyrene by GCMS	<0.000009	<0.000009	<0.000018	<0.00009	-
Dibenzo(ah)anthracene by GCMS	<0.000016	<0.000016	<0.000032	<0.00016	-
Benzo(ghi)perylene by GCMS	<0.000016	<0.000016	<0.000032	<0.00016	-
Indeno(123cd)pyrene by GCMS	<0.000014	<0.000014	<0.000028	<0.00014	-
PAH 16 EPA Total by GCMS	0.00115	<0.000344	0.0023	<0.00344	-
SVOC MS (W) - Aqueous					
1,2,4-Trichlorobenzene	<0.001	<0.001	<0.002	<0.01	-
1,2-Dichlorobenzene	<0.001	<0.001	<0.002	<0.01	-
1,3-Dichlorobenzene	<0.001	<0.001	<0.002	<0.01	-
1,4-Dichlorobenzene	<0.001	<0.001	<0.002	<0.01	-
2,4,5-Trichlorophenol	<0.001	<0.001	<0.002	<0.01	-
2,4,6-Trichlorophenol	<0.001	<0.001	<0.002	<0.01	-
2,4-Dichlorophenol	<0.001	<0.001	<0.002	<0.01	-
2,4-Dimethylphenol	<0.001	<0.001	<0.002	<0.01	-
2,4-Dinitrotoluene	<0.001	<0.001	<0.002	<0.01	-
2,6-Dinitrotoluene	<0.001	<0.001	<0.002	<0.01	-
2-Chloronaphthalene	<0.001	<0.001	<0.002	<0.01	-
2-Chlorophenol	<0.001	<0.001	<0.002	<0.01	-
2-Methylnaphthalene	<0.001	<0.001	<0.002	<0.01	-
2-Methylphenol	<0.001	<0.001	<0.002	<0.01	-
2-Nitroaniline	<0.001	<0.001	<0.002	<0.01	-

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SDG: 140113-13
 Job: H_RHASKON_PTB-82
 Client Reference: 9Y0074 103 100

Location: Cole Green
 Customer: Royal Haskoning
 Attention: Declan Fives

Order Number: 940074 103 100
 Report Number: 257253
 Superseded Report:

CEN 2:1 SINGLE STAGE LEACHATE TEST

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Customer Sample Ref.	CGBH16
Depth (m)	0.50

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PAH Sum of 17 (mg/kg)	-
pH (pH Units)	8.27
ANC to pH 6 (mol/kg)	-
ANC to pH 4 (mol/kg)	-

Eluate Analysis

	Conc ⁿ in 2:1 eluate (mg/l)		2:1 conc ⁿ leached (mg/kg)		Limit values for compliance leaching test using BS EN 12457-3 at L/S 10 l/kg
	Result	Limit of Detection	Result	Limit of Detection	
SVOC MS (W) - Aqueous					
2-Nitrophenol	<0.001	<0.001	<0.002	<0.01	-
3-Nitroaniline	<0.001	<0.001	<0.002	<0.01	-
4-Bromophenylphenylether	<0.001	<0.001	<0.002	<0.01	-
4-Chloro-3-methylphenol	<0.001	<0.001	<0.002	<0.01	-
4-Chloroaniline	<0.001	<0.001	<0.002	<0.01	-
4-Chlorophenylphenylether	<0.001	<0.001	<0.002	<0.01	-
4-Methylphenol	<0.001	<0.001	<0.002	<0.01	-
4-Nitroaniline	<0.001	<0.001	<0.002	<0.01	-
4-Nitrophenol	<0.001	<0.001	<0.002	<0.01	-
Azobenzene	<0.001	<0.001	<0.002	<0.01	-
Bis(2-chloroethyl)ether	<0.001	<0.001	<0.002	<0.01	-
Bis(2-chloroethoxy)methane	<0.001	<0.001	<0.002	<0.01	-
Bis(2-ethylhexyl) phthalate	<0.002	<0.002	<0.004	<0.02	-
Butylbenzyl phthalate	<0.001	<0.001	<0.002	<0.01	-
Carbazole	0.00251	<0.001	0.00502	<0.01	-
Dibenzofuran	<0.001	<0.001	<0.002	<0.01	-
Di-n-butyl phthalate	<0.001	<0.001	<0.002	<0.01	-
Diethyl phthalate	<0.001	<0.001	<0.002	<0.01	-
Dimethyl phthalate	<0.001	<0.001	<0.002	<0.01	-
Di-n-Octyl phthalate	<0.005	<0.005	<0.01	<0.05	-
Hexachlorobenzene	<0.001	<0.001	<0.002	<0.01	-
Hexachlorobutadiene	<0.001	<0.001	<0.002	<0.01	-

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Job: H_RHASKON_PTB-82	Customer: Royal Haskoning	Report Number: 257253
Client Reference: 9Y0074 103 100	Attention: Declan Fives	Superseded Report:

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Loss on Ignition (%)	-	-	-	-
Sum of BTEX (mg/kg)	<0.024	-	-	-
Sum of 7 PCBs (mg/kg)	-	-	-	-
Mineral Oil (mg/kg)	-	-	-	-
PAH Sum of 17 (mg/kg)	-	-	-	-
pH (pH Units)	8.27	-	-	-
ANC to pH 6 (mol/kg)	-	-	-	-
ANC to pH 4 (mol/kg)	-	-	-	-

Eluate Analysis	Conc ⁿ in 2:1 eluate (mg/l)		2:1 conc ⁿ leached (mg/kg)		Limit values for compliance leaching test using BS EN 12457-3 at L/S 10 l/kg
	Result	Limit of Detection	Result	Limit of Detection	
SVOC MS (W) - Aqueous					
Pentachlorophenol	<0.001	<0.001	<0.002	<0.01	-
Phenol	<0.001	<0.001	<0.002	<0.01	-
N-nitrosodi-n-propylamine	<0.001	<0.001	<0.002	<0.01	-
Hexachloroethane	<0.001	<0.001	<0.002	<0.01	-
Nitrobenzene	<0.001	<0.001	<0.002	<0.01	-
Isophorone	<0.001	<0.001	<0.002	<0.01	-
Hexachlorocyclopentadiene	<0.001	<0.001	<0.002	<0.01	-
TPH CWG (W)					
Surrogate Recovery	-	-	-	-	-
GRO TOT (C5-C12)	<0.05	<0.05	<0.1	<0.5	-
Aliphatics C5-C6	<0.01	<0.01	<0.02	<0.1	-
Aliphatics >C6-C8	<0.01	<0.01	<0.02	<0.1	-
Aliphatics >C8-C10	<0.01	<0.01	<0.02	<0.1	-
Aliphatics >C10-C12	<0.01	<0.01	<0.02	<0.1	-
Aromatics C6-C7	<0.01	<0.01	<0.02	<0.1	-
Aromatics >C7-C8	<0.01	<0.01	<0.02	<0.1	-
MTBE GC-FID	<0.003	<0.003	<0.006	<0.03	-
Aromatics >EC8 -EC10	<0.01	<0.01	<0.02	<0.1	-
Aromatics >EC10-EC12	<0.01	<0.01	<0.02	<0.1	-
Benzene by GC	<0.007	<0.007	<0.014	<0.07	-
Toluene by GC	<0.004	<0.004	<0.008	<0.04	-
Ethylbenzene by GC	<0.005	<0.005	<0.01	<0.05	-
m & p Xylene by GC	<0.008	<0.008	<0.016	<0.08	-

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	Result	Limit of Detection	Result	Limit of Detection	
TPH CWG (W)					
o Xylene by GC	<0.003	<0.003	<0.006	<0.03	-
Sum m&p and o Xylene by GC	<0.011	<0.011	<0.022	<0.11	-
Sum of BTEX by GC	<0.028	<0.028	<0.056	<0.28	-
VOC MS (W)					
Dibromofluoromethane	-	-	-	-	-
Toluene-d8	-	-	-	-	-
4-Bromofluorobenzene	-	-	-	-	-
Dichlorodifluoromethane	<0.001	<0.001	<0.002	<0.01	-
Chloromethane	<0.001	<0.001	<0.002	<0.01	-
Vinyl Chloride	<0.001	<0.001	<0.002	<0.01	-
Bromomethane	<0.001	<0.001	<0.002	<0.01	-
Chloroethane	<0.001	<0.001	<0.002	<0.01	-
Trichlorofluoromethane	<0.001	<0.001	<0.002	<0.01	-
1,1-Dichloroethene	<0.001	<0.001	<0.002	<0.01	-
Carbon Disulphide	<0.001	<0.001	<0.002	<0.01	-
Dichloromethane	<0.003	<0.003	<0.006	<0.03	-
Tert-butyl methyl ether	<0.001	<0.001	<0.002	<0.01	-
Trans-1,2-Dichloroethene	<0.001	<0.001	<0.002	<0.01	-
1,1-Dichloroethane	<0.001	<0.001	<0.002	<0.01	-
Cis-1,2-Dichloroethene	<0.001	<0.001	<0.002	<0.01	-
2,2-Dichloropropane	<0.001	<0.001	<0.002	<0.01	-
Bromochloromethane	<0.001	<0.001	<0.002	<0.01	-
Chloroform	<0.001	<0.001	<0.002	<0.01	-

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1,1,1-Trichloroethane	<0.001	<0.001	<0.002	<0.01	-
1,1-Dichloropropene	<0.001	<0.001	<0.002	<0.01	-
Carbon tetrachloride	<0.001	<0.001	<0.002	<0.01	-
1,2-Dichloroethane	<0.001	<0.001	<0.002	<0.01	-
Benzene	<0.001	<0.001	<0.002	<0.01	-
Trichloroethene	<0.001	<0.001	<0.002	<0.01	-
1,2-Dichloropropane	<0.001	<0.001	<0.002	<0.01	-
Dibromomethane	<0.001	<0.001	<0.002	<0.01	-
Bromodichloromethane	<0.001	<0.001	<0.002	<0.01	-
Cis-1,3-Dichloropropene	<0.001	<0.001	<0.002	<0.01	-
Toluene	<0.001	<0.001	<0.002	<0.01	-
Trans-1,3-Dichloropropene	<0.001	<0.001	<0.002	<0.01	-
1,1,2-Trichloroethane	<0.001	<0.001	<0.002	<0.01	-
1,3-Dichloropropane	<0.001	<0.001	<0.002	<0.01	-
Tetrachloroethene	<0.001	<0.001	<0.002	<0.01	-
Dibromochloromethane	<0.001	<0.001	<0.002	<0.01	-
1,2-Dibromoethane	<0.001	<0.001	<0.002	<0.01	-
Chlorobenzene	<0.001	<0.001	<0.002	<0.01	-
1,1,1,2-Tetrachloroethane	<0.001	<0.001	<0.002	<0.01	-
Ethylbenzene	<0.001	<0.001	<0.002	<0.01	-
p/m-Xylene	<0.001	<0.001	<0.002	<0.01	-
o-Xylene	<0.001	<0.001	<0.002	<0.01	-

Leach Test Information

Date Prepared	15-Jan-2014
pH (pH Units)	8.45
Conductivity (µS/cm)	317.00
Temperature (°C)	19.00
Volume Leachant (Litres)	0.324
Volume of Eluate VE1 (Litres)	

Solid Results are expressed on a dry weight basis, after correction for moisture content where applicable
 Stated limits are for guidance only and ALcontrol cannot be held responsible for any discrepancies with current legislation
 Mcerts Certification does not apply to leachates

21/01/2014 15:00:02

14:59:45 21/01/2014



SDG: 140113-13
 Job: H_RHASKON_PTB-82
 Client Reference: 9Y0074 103 100

Location: Cole Green
 Customer: Royal Haskoning
 Attention: Declan Fives

Order Number: 940074 103 100
 Report Number: 257253
 Superseded Report:

CEN 2:1 SINGLE STAGE LEACHATE TEST

CEN ANALYTICAL RESULTS

REF : BS EN 12457/1

Client Reference		Site Location	Cole Green
Mass Sample taken (kg)	0.201	Natural Moisture Content (%)	14.9
Mass of dry sample (kg)	0.175	Dry Matter Content (%)	87
Particle Size <4mm	>95%		

Case

SDG 140113-13

Lab Sample Number(s) 8676836

Sampled Date 09-Jan-2014

Customer Sample Ref. CGBH16

Depth (m) 0.50

Solid Waste Analysis

Total Organic Carbon (%) 0.603

Loss on Ignition (%) -

Sum of BTEX (mg/kg) <0.024

Sum of 7 PCBs (mg/kg) -

Mineral Oil (mg/kg) -

PAH Sum of 17 (mg/kg) -

pH (pH Units) 8.27

ANC to pH 6 (mol/kg) -

ANC to pH 4 (mol/kg) -

Eluate Analysis	Conc ⁿ in 2:1 eluate (mg/l)		2:1 conc ⁿ leached (mg/kg)		Limit values for compliance leaching test using BS EN 12457-3 at L/S 10 l/kg
	Result	Limit of Detection	Result	Limit of Detection	
VOC MS (W)					
Styrene	<0.001	<0.001	<0.002	<0.01	-
Bromoform	<0.001	<0.001	<0.002	<0.01	-
Isopropylbenzene	<0.001	<0.001	<0.002	<0.01	-
1,1,2,2-Tetrachloroethane	<0.001	<0.001	<0.002	<0.01	-
1,2,3-Trichloropropane	<0.001	<0.001	<0.002	<0.01	-
Bromobenzene	<0.001	<0.001	<0.002	<0.01	-
Propylbenzene	<0.001	<0.001	<0.002	<0.01	-
2-Chlorotoluene	<0.001	<0.001	<0.002	<0.01	-
1,3,5-Trimethylbenzene	<0.001	<0.001	<0.002	<0.01	-
4-Chlorotoluene	<0.001	<0.001	<0.002	<0.01	-
Tert-Butylbenzene	<0.001	<0.001	<0.002	<0.01	-
1,2,4-Trimethylbenzene	<0.001	<0.001	<0.002	<0.01	-
Sec-Butylbenzene	<0.001	<0.001	<0.002	<0.01	-
4-Isopropyltoluene	<0.001	<0.001	<0.002	<0.01	-
1,3-Dichlorobenzene	<0.001	<0.001	<0.002	<0.01	-
1,4-Dichlorobenzene	<0.001	<0.001	<0.002	<0.01	-
n-Butylbenzene	<0.001	<0.001	<0.002	<0.01	-
1,2-Dichlorobenzene	<0.001	<0.001	<0.002	<0.01	-
1,2-Dibromo-3-Chloropropane	<0.001	<0.001	<0.002	<0.01	-
1,2,4-Trichlorobenzene	<0.001	<0.001	<0.002	<0.01	-
Hexachlorobutadiene	<0.001	<0.001	<0.002	<0.01	-
Tert-amyl methyl ether	<0.001	<0.001	<0.002	<0.01	-

Leach Test Information

Date Prepared 15-Jan-2014

pH (pH Units) 8.45

Conductivity (µS/cm) 317.00

Temperature (°C) 19.00

Volume Leachant (Litres) 0.324

Volume of Eluate VE1 (Litres)

Solid Results are expressed on a dry weight basis, after correction for moisture content where applicable
 Stated limits are for guidance only and ALcontrol cannot be held responsible for any discrepancies with current legislation
 Mcerts Certification does not apply to leachates

21/01/2014 15:00:02

14:59:45 21/01/2014

SDG: 140113-13
 Job: H_RHASKON_PTB-82
 Client Reference: 9Y0074 103 100

Location: Cole Green
 Customer: Royal Haskoning
 Attention: Declan Fives

Order Number: 940074 103 100
 Report Number: 257253
 Superseded Report:

CEN 2:1 SINGLE STAGE LEACHATE TEST

CEN ANALYTICAL RESULTS

REF : BS EN 12457/1

Client Reference		Site Location	Cole Green
Mass Sample taken (kg)	0.201	Natural Moisture Content (%)	14.9
Mass of dry sample (kg)	0.175	Dry Matter Content (%)	87
Particle Size <4mm	>95%		

Case

SDG	140113-13
Lab Sample Number(s)	8676836
Sampled Date	09-Jan-2014
Customer Sample Ref.	CGBH16
Depth (m)	0.50

Solid Waste Analysis

Total Organic Carbon (%)	0.603
Loss on Ignition (%)	-
Sum of BTEX (mg/kg)	<0.024
Sum of 7 PCBs (mg/kg)	-
Mineral Oil (mg/kg)	-
PAH Sum of 17 (mg/kg)	-
pH (pH Units)	8.27
ANC to pH 6 (mol/kg)	-
ANC to pH 4 (mol/kg)	-

Eluate Analysis	Conc ⁿ in 2:1 eluate (mg/l)		2:1 conc ⁿ leached (mg/kg)		Limit values for compliance leaching test using BS EN 12457-3 at L/S 10 l/kg
	Result	Limit of Detection	Result	Limit of Detection	
VOC MS (W)					
Naphthalene	<0.001	<0.001	<0.002	<0.01	- - -
1,2,3-Trichlorobenzene	<0.001	<0.001	<0.002	<0.01	- - -
1,3,5-Trichlorobenzene	<0.001	<0.001	<0.002	<0.01	- - -

Leach Test Information

Date Prepared	15-Jan-2014
pH (pH Units)	8.45
Conductivity (µS/cm)	317.00
Temperature (°C)	19.00
Volume Leachant (Litres)	0.324
Volume of Eluate VE1 (Litres)	

Solid Results are expressed on a dry weight basis, after correction for moisture content where applicable
 Stated limits are for guidance only and ALcontrol cannot be held responsible for any discrepancies with current legislation
 Mcerts Certification does not apply to leachates
 21/01/2014 15:00:02



SDG: 140113-13
Job: H_RHASKON_PTB-82
Client Reference: 9Y0074 103 100

Location: Cole Green
Customer: Royal Haskoning
Attention: Declan Fives

Order Number: 940074 103 100
Report Number: 257253
Superseded Report:

Table of Results - Appendix

Method No	Reference	Description	Wet/Dry Sample ¹	Surrogate Corrected
ASB_PREP				
PM001		Preparation of Samples for Metals Analysis		
PM024	Modified BS 1377	Soil preparation including homogenisation, moisture screens of soils for Asbestos Containing Material		
PM114		Leaching Procedure for CEN Two Stage Batch Test 2:1/8:1 Cumulative		
PM115		Leaching Procedure for CEN One Stage Leach Test 2:1 & 10:1 1 Step		
TM048	HSG 248, Asbestos: The analysts' guide for sampling, analysis and clearance procedures	Identification of Asbestos in Bulk Material		
TM061	Method for the Determination of EPH, Massachusetts Dept. of EP, 1998	Determination of Extractable Petroleum Hydrocarbons by GC-FID (C10-C40)		
TM062 (S)	National Grid Property Holdings Methods for the Collection & Analysis of Samples from National Grid Sites version 1 Sec 3.9	Determination of Phenols in Soils by HPLC		
TM073	MEWAM BOOK 60 1980,95 1985, HMSO / Modified: US EPA Method 8081A & 8141A	Determination of organochlorine and organophosphorous pesticides by GCMS		
TM089	Modified: US EPA Methods 8020 & 602	Determination of Gasoline Range Hydrocarbons (GRO) and BTEX (MTBE) compounds by Headspace GC-FID (C4-C12)		
TM116	Modified: US EPA Method 8260, 8120, 8020, 624, 610 & 602	Determination of Volatile Organic Compounds by Headspace / GC-MS		
TM132	In - house Method	ELTRA CS800 Operators Guide		
TM133	BS 1377: Part 3 1990;BS 6068-2.5	Determination of pH in Soil and Water using the GLpH pH Meter		
TM152	Method 3125B, AWWA/APHA, 20th Ed., 1999	Analysis of Aqueous Samples by ICP-MS		
TM157	HP 6890 Gas Chromatograph (GC) system and HP 5973 Mass Selective Detector (MSD).	Determination of SVOC in Soils by GC-MS extracted by sonication in DCM/Acetone		
TM168	EPA Method 8082, Polychlorinated Biphenyls by Gas Chromatography	Determination of WHO12 and EC7 Polychlorinated Biphenyl Congeners by GC-MS in Soils		
TM173	Analysis of Petroleum Hydrocarbons in Environmental Media – Total Petroleum Hydrocarbon Criteria	Determination of Speciated Extractable Petroleum Hydrocarbons in Soils by GC-FID		
TM174	Analysis of Petroleum Hydrocarbons in Environmental Media – Total Petroleum Hydrocarbon Criteria	Determination of Speciated Extractable Petroleum Hydrocarbons in Waters by GC-FID		
TM176	EPA 8270D Semi-Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)	Determination of SVOCs in Water by GCMS		
TM178	Modified: US EPA Method 8100	Determination of Polynuclear Aromatic Hydrocarbons (PAH) by GC-MS in Waters		
TM181	US EPA Method 6010B	Determination of Routine Metals in Soil by iCap 6500 Duo ICP-OES		
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		
TM208	Modified: US EPA Method 8260b & 624	Determination of Volatile Organic Compounds by Headspace / GC-MS in Waters		
TM218	Microwave extraction – EPA method 3546	Microwave extraction - EPA method 3546		
TM222	In-House Method	Determination of Hot Water Soluble Boron in Soils (10:1 Water:soil) by IRIS Emission Spectrometer		
TM245	By GC-FID	Determination of GRO by Headspace in waters		

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



SDG: 140113-13
Job: H_RHASKON_PTB-82
Client Reference: 9Y0074 103 100

Location: Cole Green
Customer: Royal Haskoning
Attention: Declan Fives

Order Number: 940074 103 100
Report Number: 257253
Superseded Report:

Test Completion Dates

Lab Sample No(s) Customer Sample Ref.	8676836	8676838	8676844	8676847	8676842	8676843	8676850	8676851	8676848	8676849
	CGBH16	CGBH16	CGBH18	CGBH18	CGBH19	CGBH19	CGBH20	CGBH20	CGBH23	CGBH23
AGS Ref.										
Depth	0.50	1.50	0.50	6.50	0.50	4.00	0.50	1.50	0.50	2.00
Type	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID
Asbestos ID in Solid Samples	17-Jan-2014	17-Jan-2014	17-Jan-2014		17-Jan-2014		17-Jan-2014	17-Jan-2014	17-Jan-2014	
Boron Water Soluble	16-Jan-2014	16-Jan-2014	17-Jan-2014	15-Jan-2014	17-Jan-2014	15-Jan-2014	17-Jan-2014	16-Jan-2014	17-Jan-2014	17-Jan-2014
CEN 2:1 Leachate (1 Stage)	15-Jan-2014									
CEN Readings	17-Jan-2014									
Dissolved Metals by ICP-MS	20-Jan-2014									
EPH CWG (Aliphatic) Filtered GC (W)	20-Jan-2014									
EPH CWG (Aliphatic) GC (S)	15-Jan-2014	15-Jan-2014	16-Jan-2014	16-Jan-2014	16-Jan-2014	15-Jan-2014	16-Jan-2014	15-Jan-2014	16-Jan-2014	16-Jan-2014
EPH CWG (Aromatic) Filtered GC (W)	20-Jan-2014									
EPH CWG (Aromatic) GC (S)	15-Jan-2014	15-Jan-2014	16-Jan-2014	16-Jan-2014	16-Jan-2014	15-Jan-2014	16-Jan-2014	15-Jan-2014	16-Jan-2014	16-Jan-2014
GRO by GC-FID (S)	15-Jan-2014	15-Jan-2014	16-Jan-2014	15-Jan-2014	16-Jan-2014	15-Jan-2014	16-Jan-2014	15-Jan-2014	16-Jan-2014	15-Jan-2014
GRO by GC-FID (W)	16-Jan-2014									
Mercury Dissolved	20-Jan-2014									
Metals in solid samples by OES	17-Jan-2014	17-Jan-2014	20-Jan-2014	16-Jan-2014	20-Jan-2014	16-Jan-2014	20-Jan-2014	17-Jan-2014	20-Jan-2014	17-Jan-2014
OC, OP Pesticides and Triazine Herb			20-Jan-2014				20-Jan-2014			
PAH by GCMS	17-Jan-2014	17-Jan-2014	17-Jan-2014	16-Jan-2014	17-Jan-2014	16-Jan-2014	20-Jan-2014	16-Jan-2014	17-Jan-2014	16-Jan-2014
PAH Spec MS - Aqueous (W)	20-Jan-2014									
PCBs by GCMS			21-Jan-2014				17-Jan-2014			
pH	17-Jan-2014						16-Jan-2014	16-Jan-2014		
Phenols by HPLC (S)			17-Jan-2014				21-Jan-2014			
Sample description	14-Jan-2014	13-Jan-2014	14-Jan-2014	14-Jan-2014	14-Jan-2014	14-Jan-2014	14-Jan-2014	14-Jan-2014	14-Jan-2014	14-Jan-2014
Semi Volatile Organic Compounds	15-Jan-2014	15-Jan-2014	16-Jan-2014	18-Jan-2014	18-Jan-2014	18-Jan-2014	16-Jan-2014	18-Jan-2014	16-Jan-2014	18-Jan-2014
SVOC MS (W) - Aqueous	20-Jan-2014									
Total Organic Carbon	20-Jan-2014			15-Jan-2014			20-Jan-2014	17-Jan-2014		
TPH CWG Filtered (W)	20-Jan-2014									
TPH CWG GC (S)	15-Jan-2014	15-Jan-2014	16-Jan-2014	16-Jan-2014	16-Jan-2014	15-Jan-2014	16-Jan-2014	15-Jan-2014	16-Jan-2014	16-Jan-2014
VOC MS (S)	17-Jan-2014	15-Jan-2014	16-Jan-2014	17-Jan-2014	16-Jan-2014	16-Jan-2014	16-Jan-2014	15-Jan-2014	16-Jan-2014	15-Jan-2014
VOC MS (W)	16-Jan-2014									



SDG: 140113-13
Job: H_RHASKON_PT8-82
Client Reference: 9Y0074 103 100

Location: Cole Green
Customer: Royal Haskoning
Attention: Declan Fives

Order Number: 940074 103 100
Report Number: 257253
Superseded Report:

Chromatogram

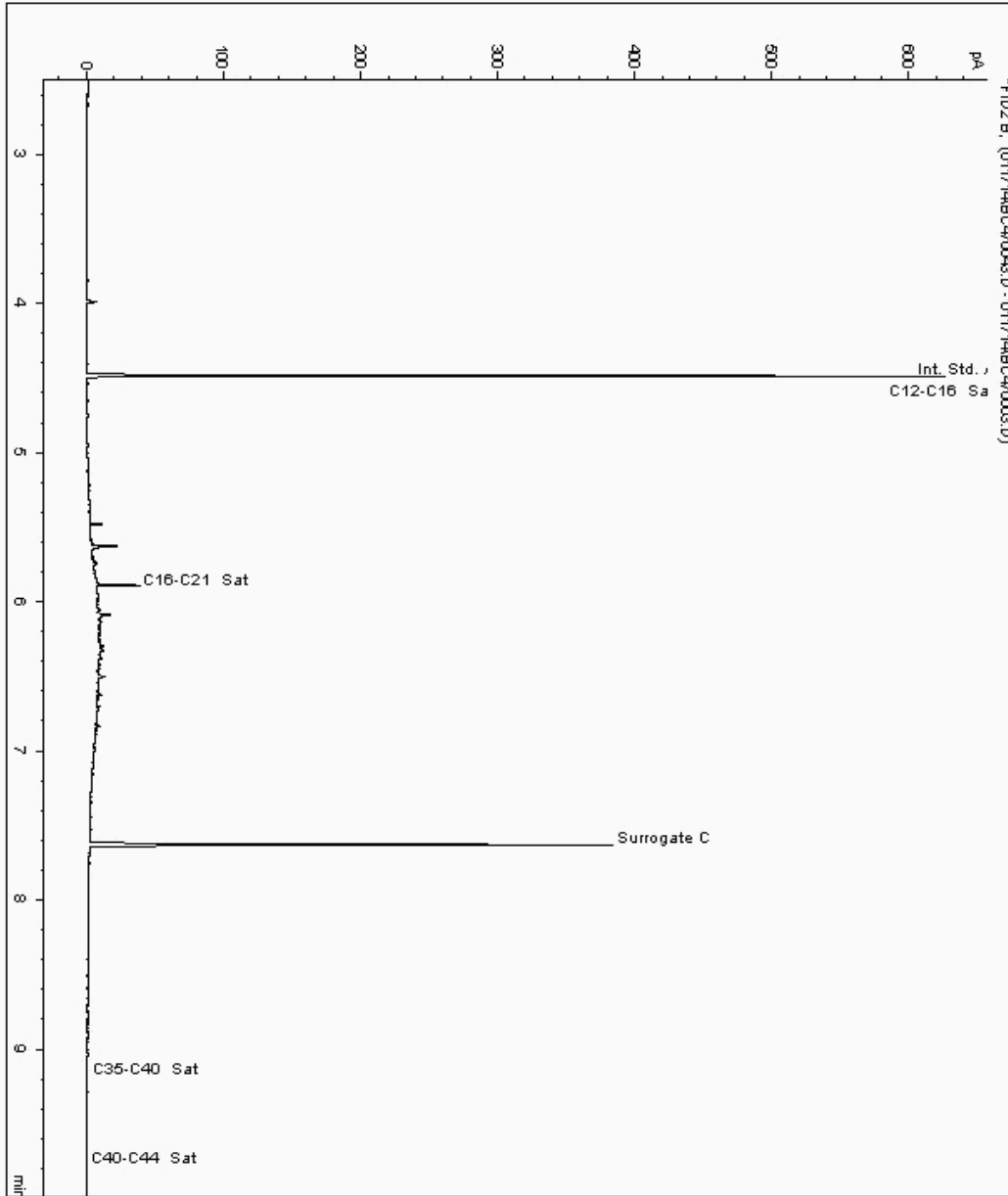
Analysis: EPH CWG (Aliphatic) Filtered GC (W)

Sample No : 8698381
Sample ID : CGBH16

Depth : 0.50

Alcontrol/Geochem Analytical Services
Speciated TPH - SATS (C12 - C40)

Sample Identity: 8267328-8698381
Date Acquired : 18/01/14 05:48:48 PM
Units : ppb
Dilution :
CF : 1
Multiplier : 0.010





SDG: 140113-13
Job: H_RHASKON_PT8-82
Client Reference: 9Y0074 103 100

Location: Cole Green
Customer: Royal Haskoning
Attention: Declan Fives

Order Number: 940074 103 100
Report Number: 257253
Superseded Report:

Chromatogram

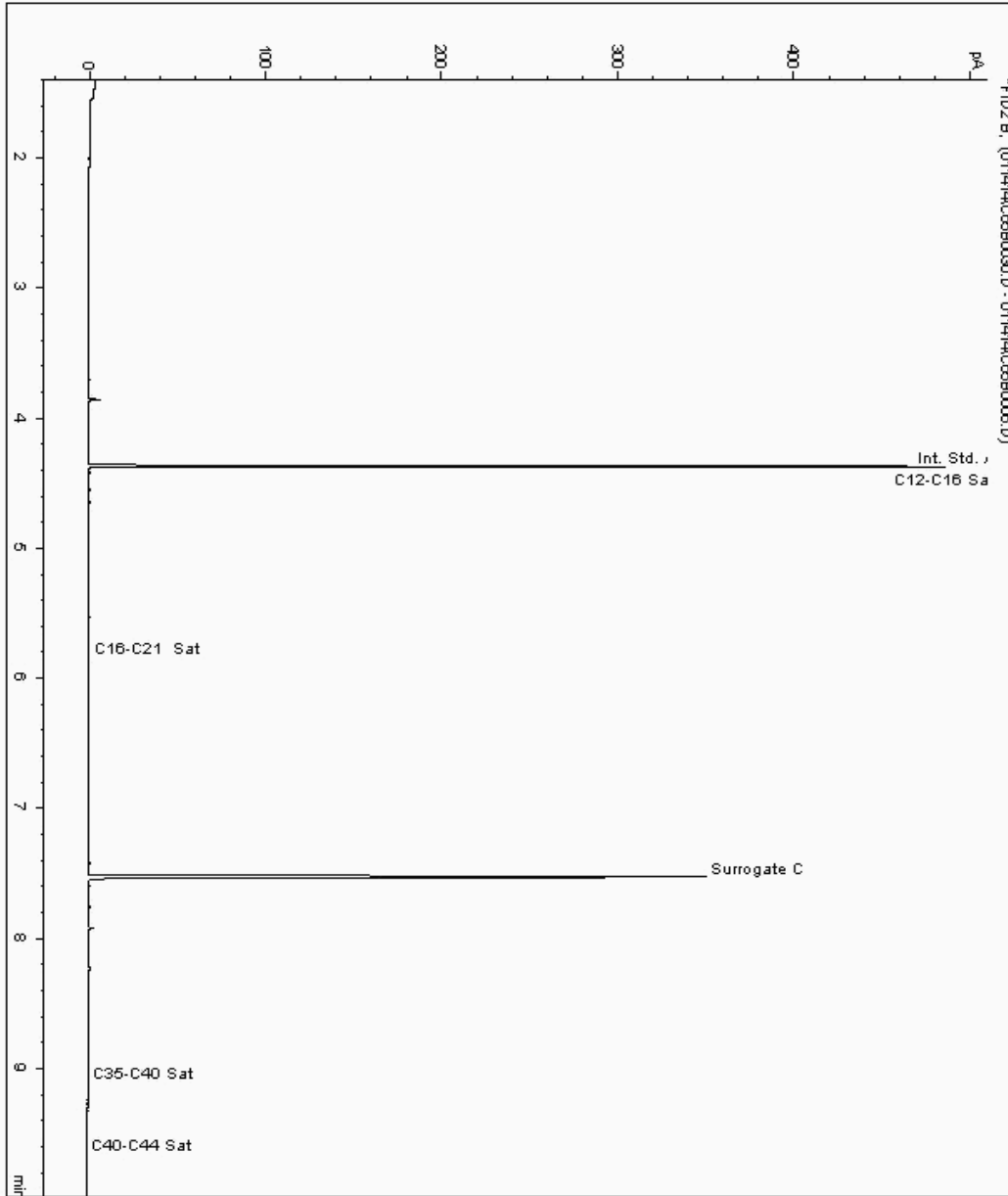
Analysis: EPH CWG (Aliphatic) GC (S)

Sample No : 8680458
Sample ID : CGBH16

Depth : 0.50

Alcontrol/Geochem Analytical Services
Speciated TPH - SATS (C12 - C40)

Sample Identity: 8267315-8680458
Date Acquired : 14/01/14 20:42:47 PM
Units : ppb
Dilution :
CF : 1
Multiplier : 1.020





SDG: 140113-13
Job: H_RHASKON_PT8-82
Client Reference: 9Y0074 103 100

Location: Cole Green
Customer: Royal Haskoning
Attention: Declan Fives

Order Number: 940074 103 100
Report Number: 257253
Superseded Report:

Chromatogram

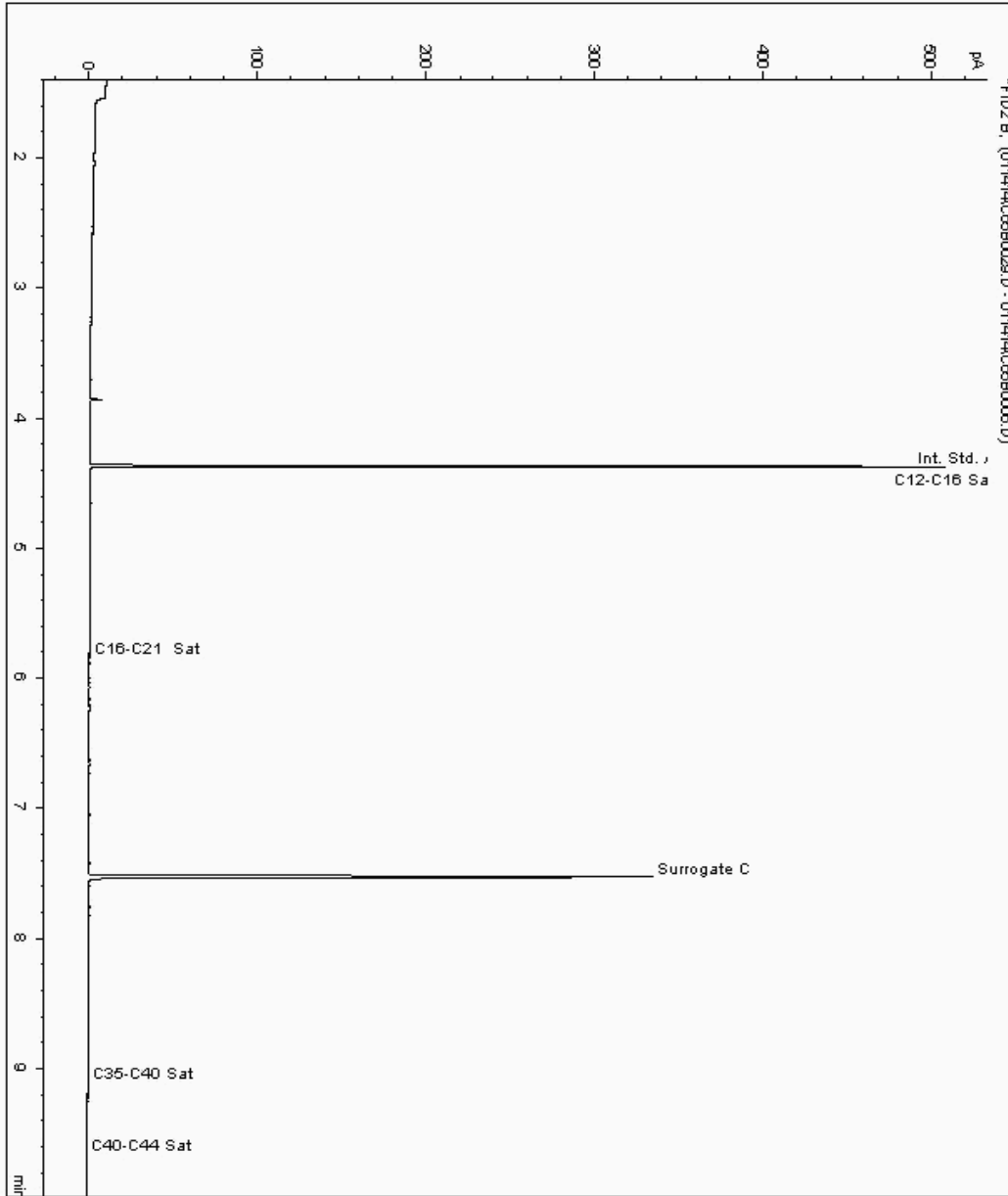
Analysis: EPH CWG (Aliphatic) GC (S)

Sample No : 8680491
Sample ID : CGBH16

Depth : 1.50

Alcontrol/Geochem Analytical Services
Speciated TPH - SATS (C12 - C40)

Sample Identity: 8267135-8680491
Date Acquired : 14/01/14 20:22:19 PM
Units : ppb
Dilution :
CF : 1
Multiplier : 1.000





SDG: 140113-13
Job: H_RHASKON_PT8-82
Client Reference: 9Y0074 103 100

Location: Cole Green
Customer: Royal Haskoning
Attention: Declan Fives

Order Number: 940074 103 100
Report Number: 257253
Superseded Report:

Chromatogram

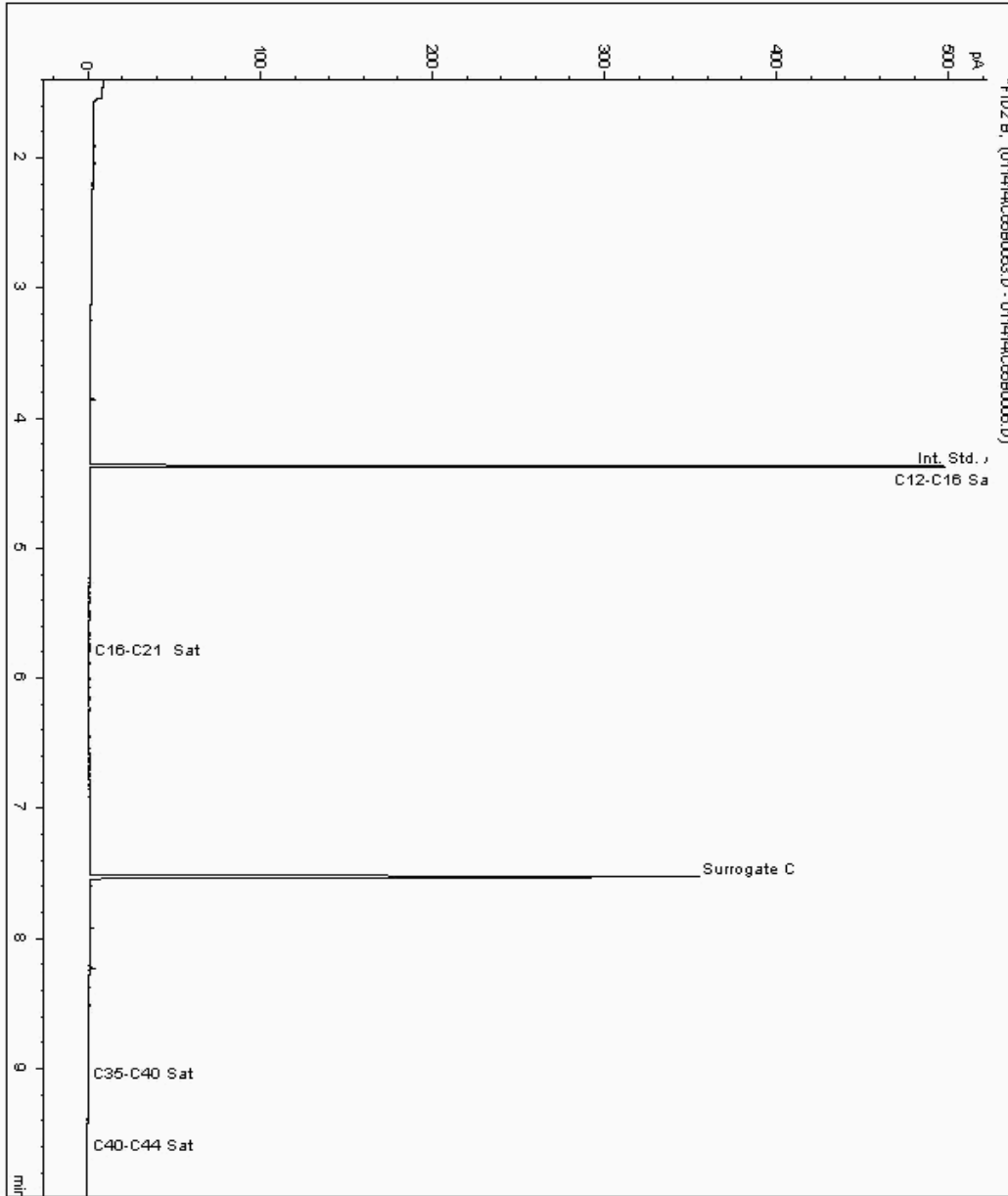
Analysis: EPH CWG (Aliphatic) GC (S)

Sample No : 8680688
Sample ID : CGBH19

Depth : 0.50

Alcontrol/Geochem Analytical Services
Speciated TPH - SATS (C12 - C40)

Sample Identity: 8267167-8680688
Date Acquired : 15/01/14 03:30:52 PM
Units : ppb
Dilution :
CF : 1
Multiplier : 0.990





SDG: 140113-13
Job: H_RHASKON_PT8-82
Client Reference: 9Y0074 103 100

Location: Cole Green
Customer: Royal Haskoning
Attention: Declan Fives

Order Number: 940074 103 100
Report Number: 257253
Superseded Report:

Chromatogram

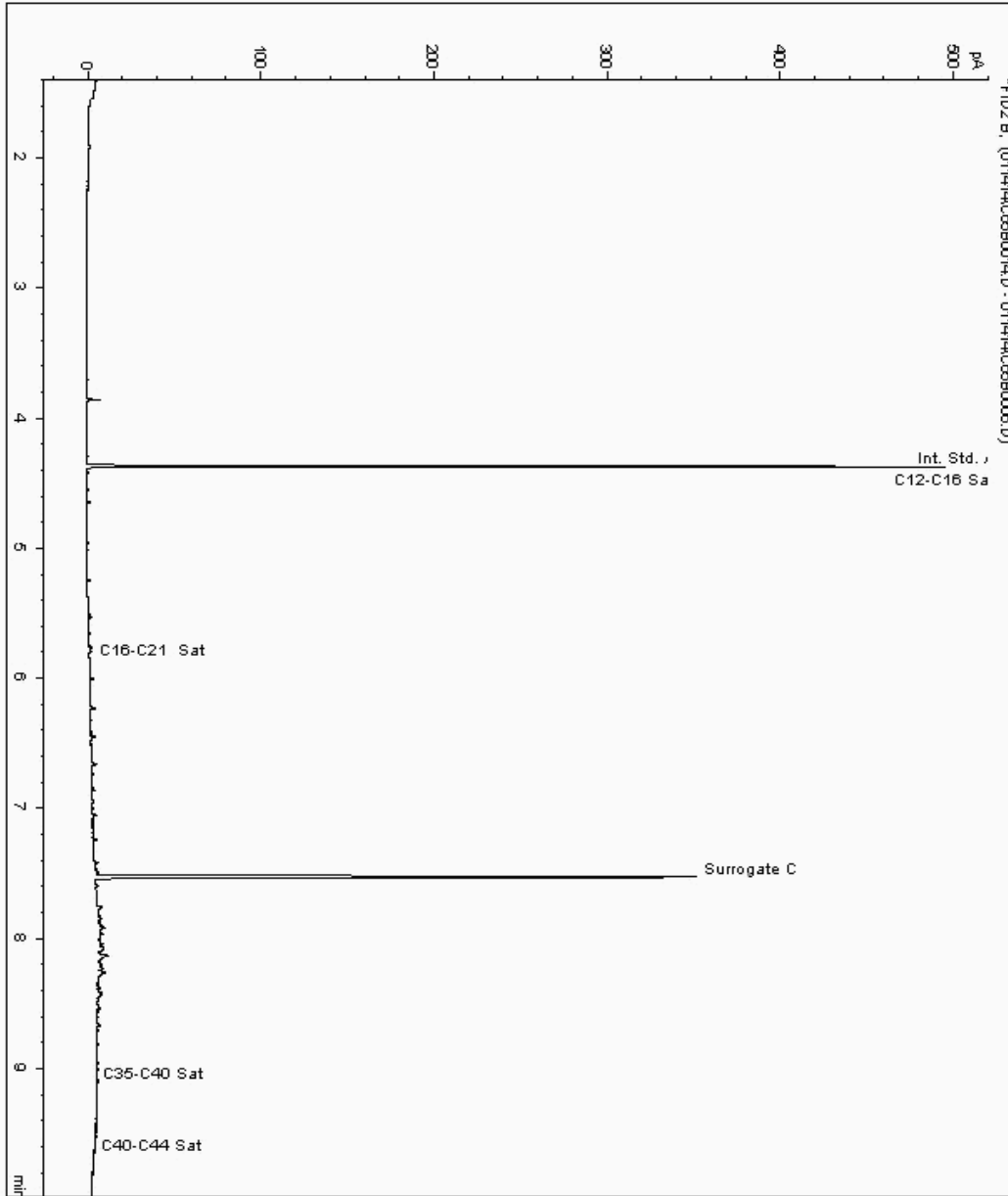
Analysis: EPH CWG (Aliphatic) GC (S)

Sample No : 8680733
Sample ID : CGBH18

Depth : 0.50

Alcontrol/Geochem Analytical Services
Speciated TPH - SATS (C12 - C40)

Sample Identity: 8267215-8680733
Date Acquired : 14/01/14 15:37:21 PM
Units : ppb
Dilution :
CF : 1
Multiplier : 1.010





SDG: 140113-13
Job: H_RHASKON_PT8-82
Client Reference: 9Y0074 103 100

Location: Cole Green
Customer: Royal Haskoning
Attention: Declan Fives

Order Number: 940074 103 100
Report Number: 257253
Superseded Report:

Chromatogram

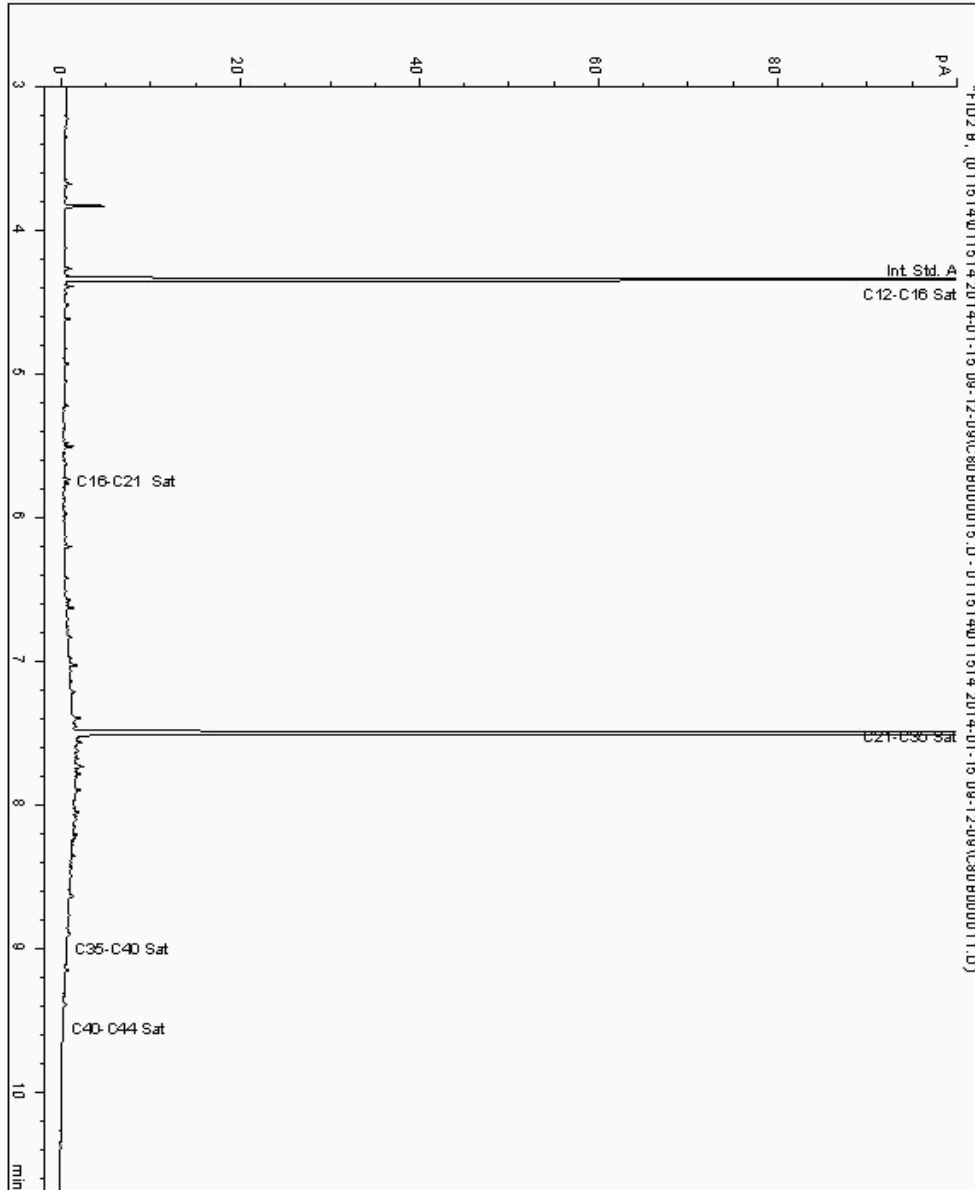
Analysis: EPH CWG (Aliphatic) GC (S)

Sample No : 8680789
Sample ID : CGBH18

Depth : 6.50

Alcontrol/Geochem Analytical Services
Speciated TPH - AROM (C12 - C40)

Sample Identity: 8267229-8680789
Date Acquired : 15/01/14 13:34:57
Units : ppb
Dilution :
CF : 1
Multiplier : 1.000





SDG: 140113-13
Job: H_RHASKON_PT8-82
Client Reference: 9Y0074 103 100

Location: Cole Green
Customer: Royal Haskoning
Attention: Declan Fives

Order Number: 940074 103 100
Report Number: 257253
Superseded Report:

Chromatogram

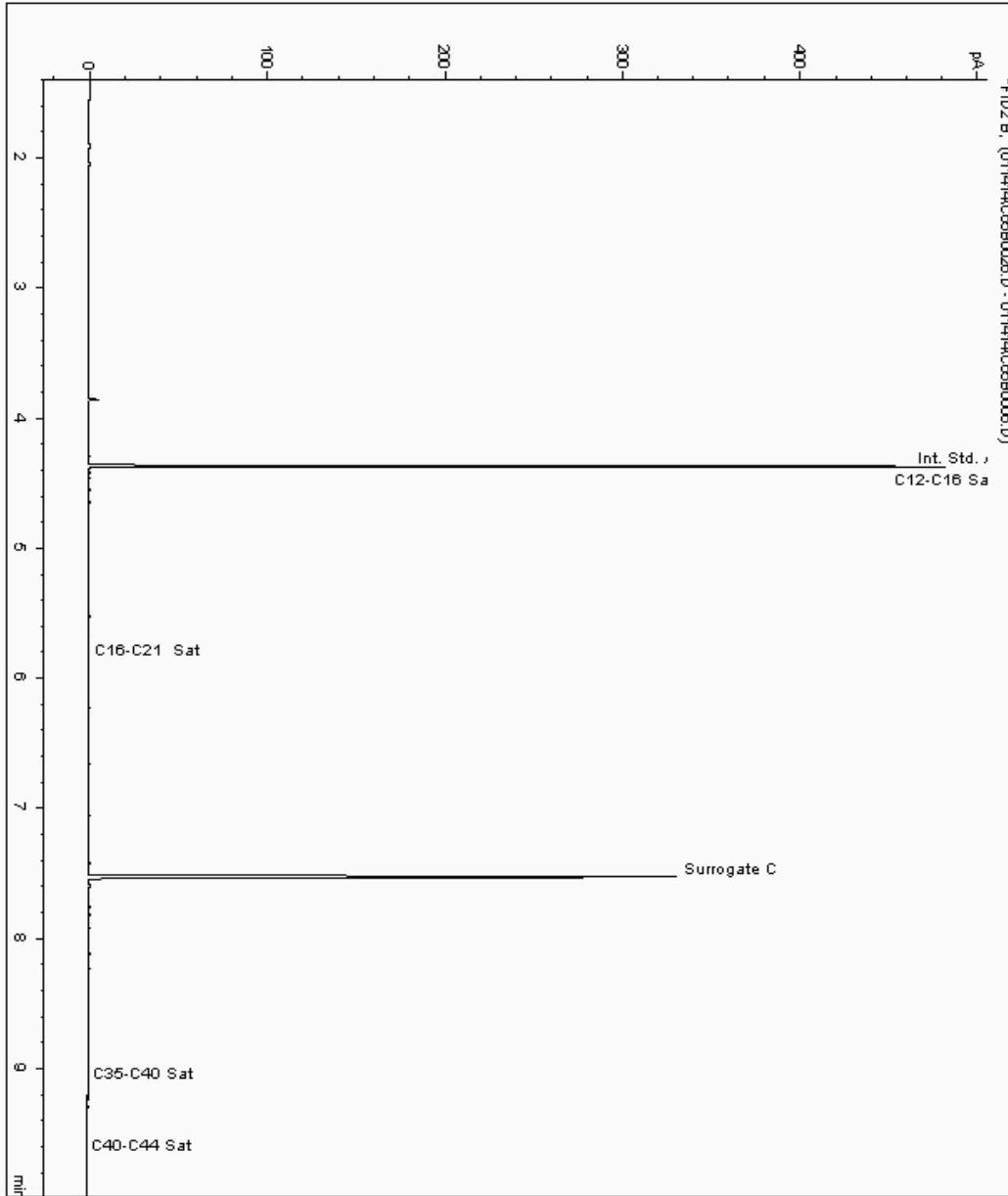
Analysis: EPH CWG (Aliphatic) GC (S)

Sample No : 8680928
Sample ID : CGBH19

Depth : 4.00

Alcontrol/Geochem Analytical Services
Speciated TPH - SATS (C12 - C40)

Sample Identity: 8267202-8680928
Date Acquired : 14/01/14 19:21:00 PM
Units : ppb
Dilution :
CF : 1
Multiplier : 0.970





SDG: 140113-13
Job: H_RHASKON_PT8-82
Client Reference: 9Y0074 103 100

Location: Cole Green
Customer: Royal Haskoning
Attention: Declan Fives

Order Number: 940074 103 100
Report Number: 257253
Superseded Report:

Chromatogram

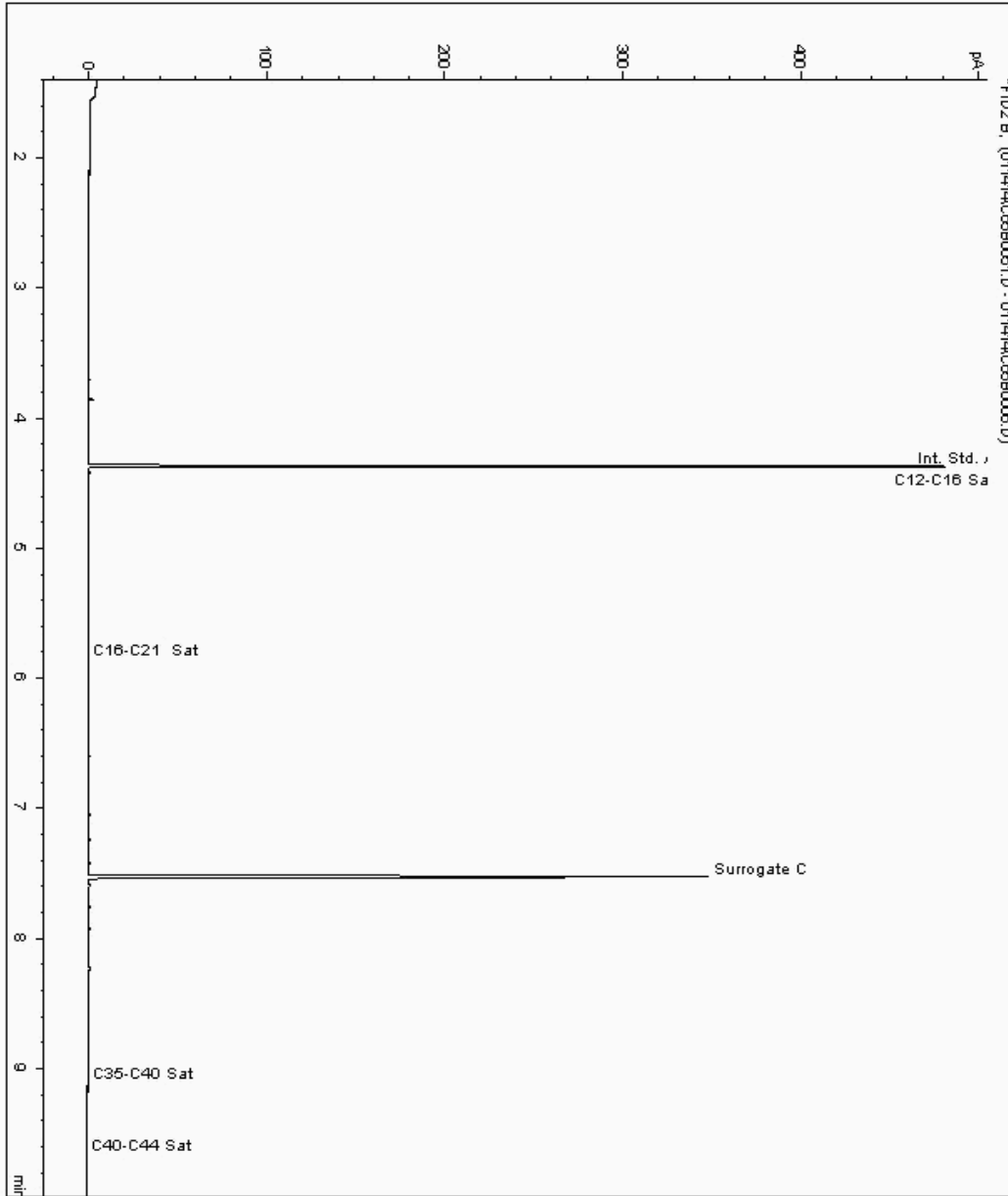
Analysis: EPH CWG (Aliphatic) GC (S)

Sample No : 8680993
Sample ID : CGBH23

Depth : 0.50

Alcontrol/Geochem Analytical Services
Speciated TPH - SATS (C12 - C40)

Sample Identity: 8267243-8680993
Date Acquired : 15/01/14 03:10:08 PM
Units : ppb
Dilution :
CF : 1
Multiplier : 1.050





SDG: 140113-13
Job: H_RHASKON_PT8-82
Client Reference: 9Y0074 103 100

Location: Cole Green
Customer: Royal Haskoning
Attention: Declan Fives

Order Number: 940074 103 100
Report Number: 257253
Superseded Report:

Chromatogram

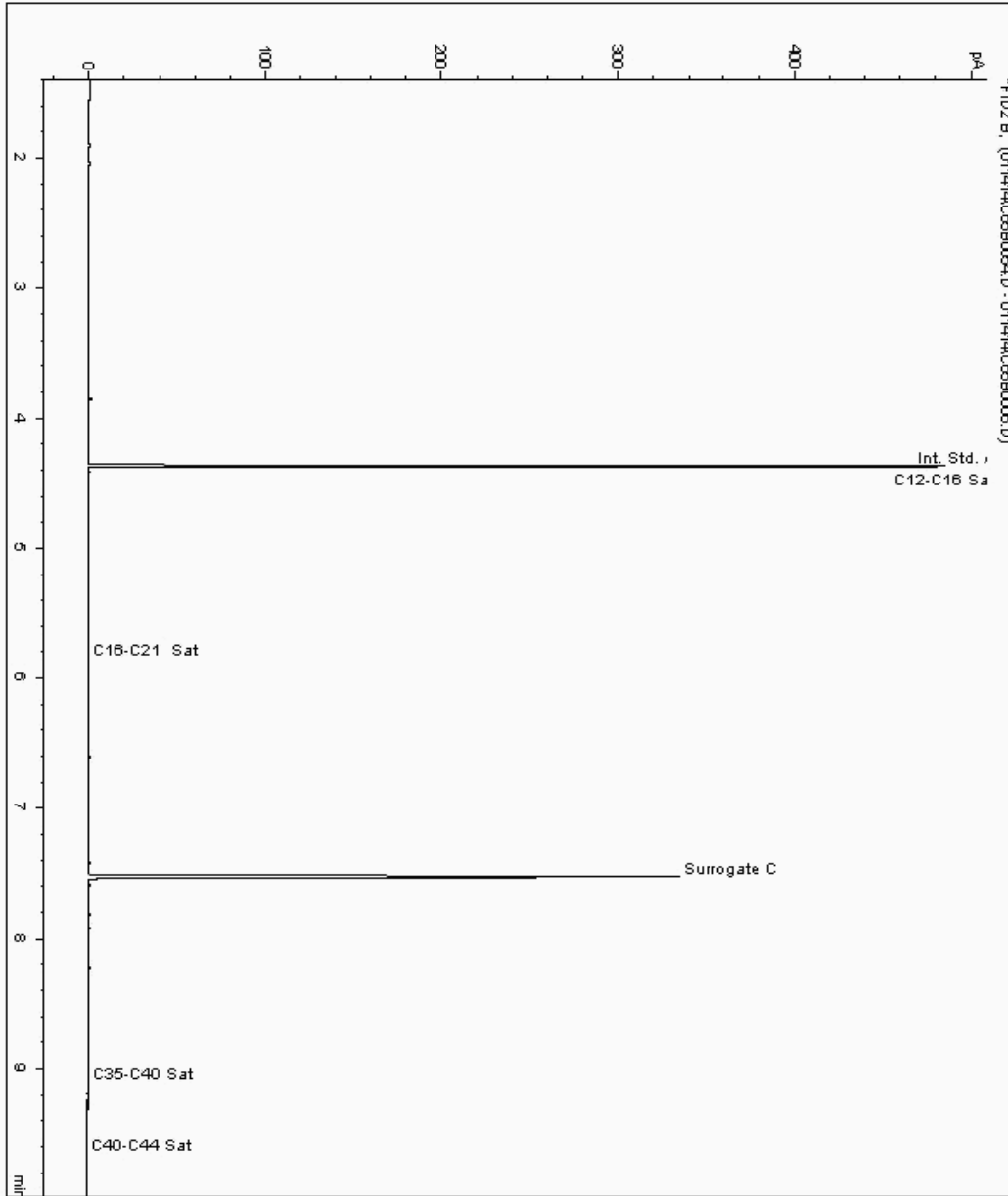
Analysis: EPH CWG (Aliphatic) GC (S)

Sample No : 8681177
Sample ID : CGBH20

Depth : 0.50

Alcontrol/Geochem Analytical Services
Speciated TPH - SATS (C12 - C40)

Sample Identity: 8267282-8681177
Date Acquired : 15/01/14 03:51:30 PM
Units : ppb
Dilution :
CF : 1
Multiplier : 0.970





SDG: 140113-13
Job: H_RHASKON_PT8-82
Client Reference: 9Y0074 103 100

Location: Cole Green
Customer: Royal Haskoning
Attention: Declan Fives

Order Number: 940074 103 100
Report Number: 257253
Superseded Report:

Chromatogram

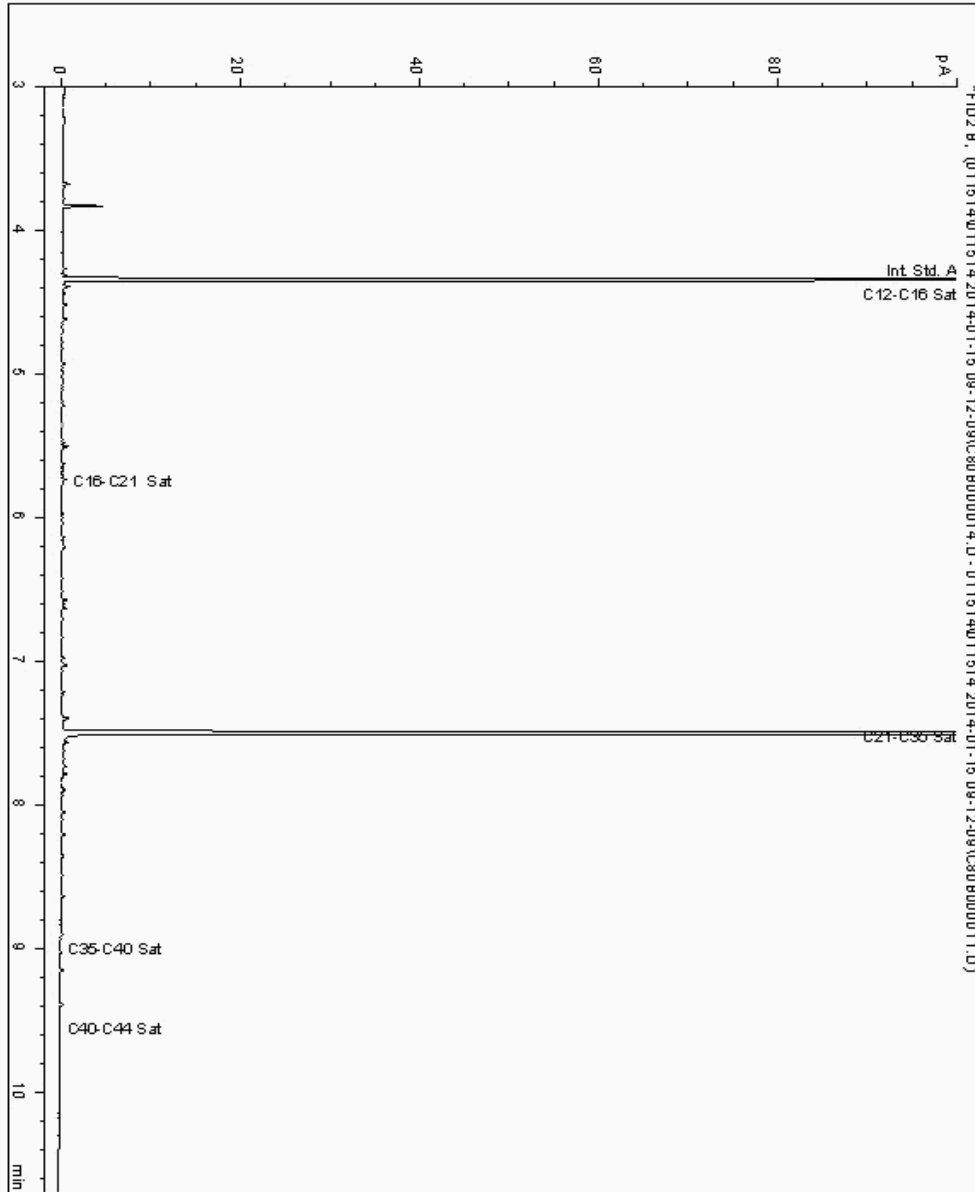
Analysis: EPH CWG (Aliphatic) GC (S)

Sample No : 8682267
Sample ID : CGBH23

Depth : 2.00

Alcontrol/Geochem Analytical Services
Speciated TPH - AROM (C12 - C40)

Sample Identity: 8267261-8682267
Date Acquired : 15/01/14 13:14:39
Units : ppb
Dilution :
CF : 1
Multiplier : 1.040





SDG: 140113-13
Job: H_RHASKON_PT8-82
Client Reference: 9Y0074 103 100

Location: Cole Green
Customer: Royal Haskoning
Attention: Declan Fives

Order Number: 940074 103 100
Report Number: 257253
Superseded Report:

Chromatogram

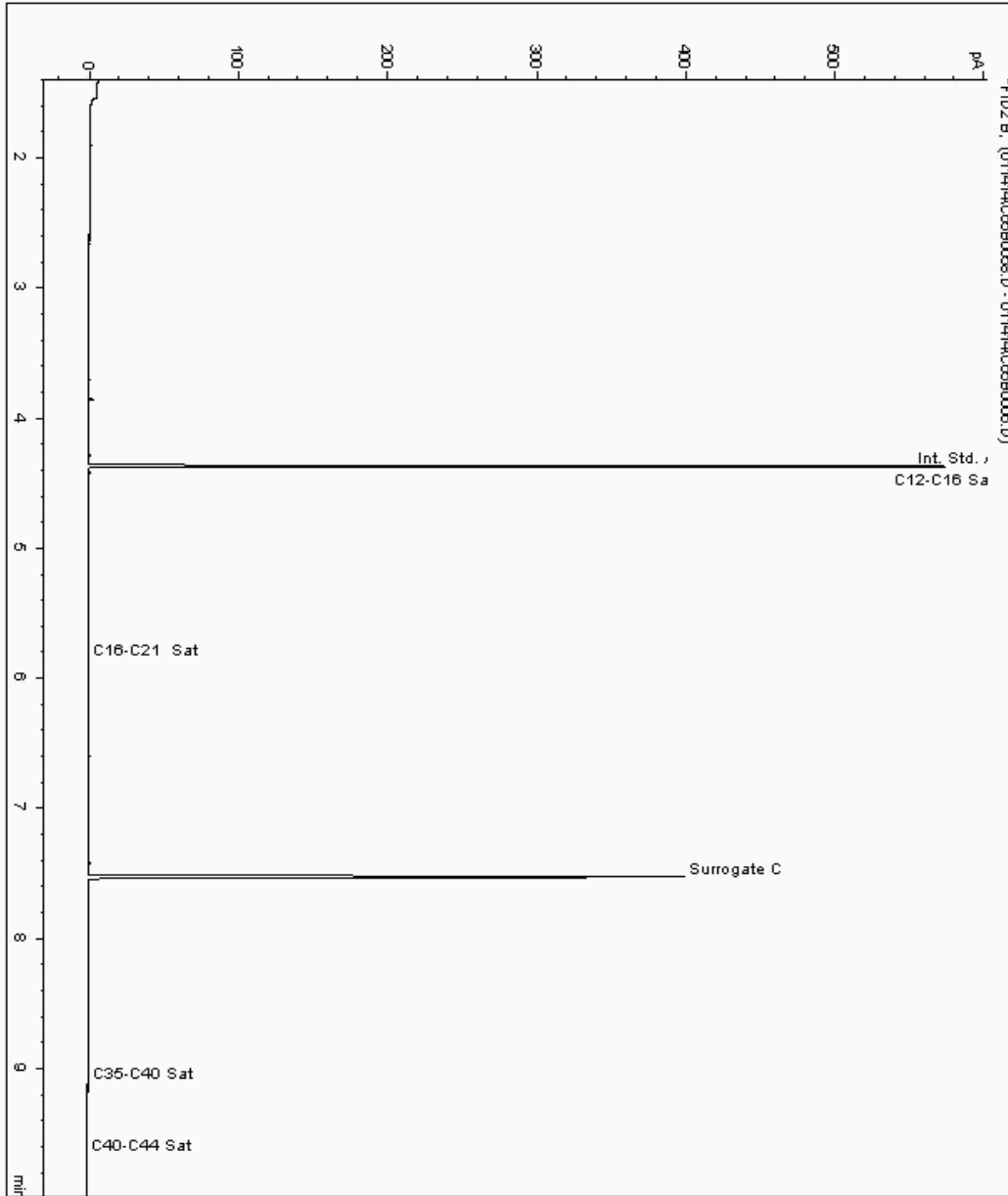
Analysis: EPH CWG (Aliphatic) GC (S)

Sample No : 8682339
Sample ID : CGBH20

Depth : 1.50

Alcontrol/Geochem Analytical Services
Speciated TPH - SATS (C12 - C40)

Sample Identity: 8267299-8682339
Date Acquired : 15/01/14 10:06:07 PM
Units : ppb
Dilution :
CF : 1
Multiplier : 0.970





SDG: 140113-13
Job: H_RHASKON_PT8-82
Client Reference: 9Y0074 103 100

Location: Cole Green
Customer: Royal Haskoning
Attention: Declan Fives

Order Number: 940074 103 100
Report Number: 257253
Superseded Report:

Chromatogram

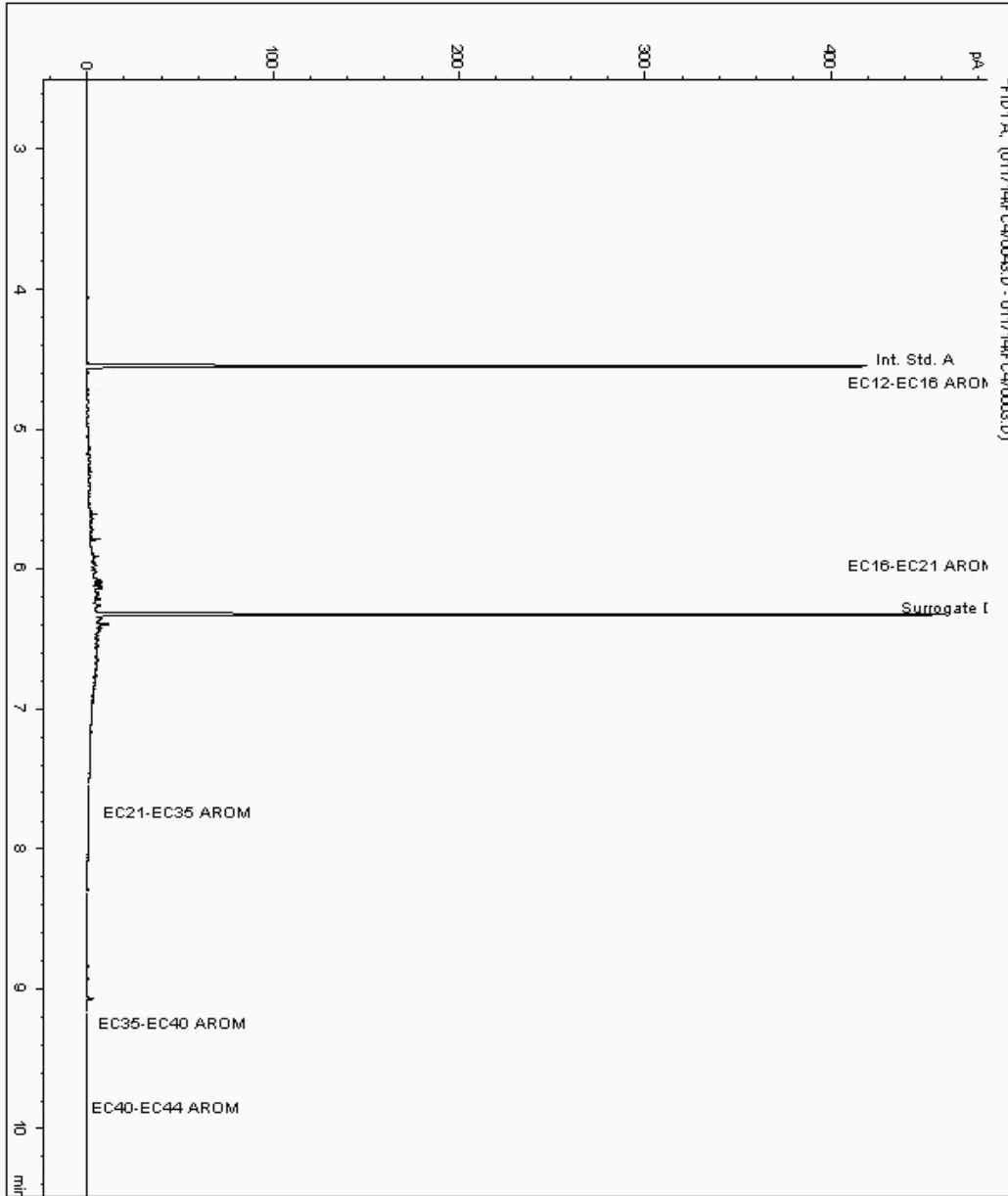
Analysis: EPH CWG (Aromatic) Filtered GC (W)

Sample No : 8698381
Sample ID : CGBH16

Depth : 0.50

Alcontrol/Geochem Analytical Services
Speciated TPH - AROM (C12 - C40)

Sample Identity: 8267329-8698381
Date Acquired : 18/01/14 05:48:48 PM
Units : ppb
Dilution :
CF : 1
Multiplier : 0.010





SDG: 140113-13
Job: H_RHASKON_PT8-82
Client Reference: 9Y0074 103 100

Location: Cole Green
Customer: Royal Haskoning
Attention: Declan Fives

Order Number: 940074 103 100
Report Number: 257253
Superseded Report:

Chromatogram

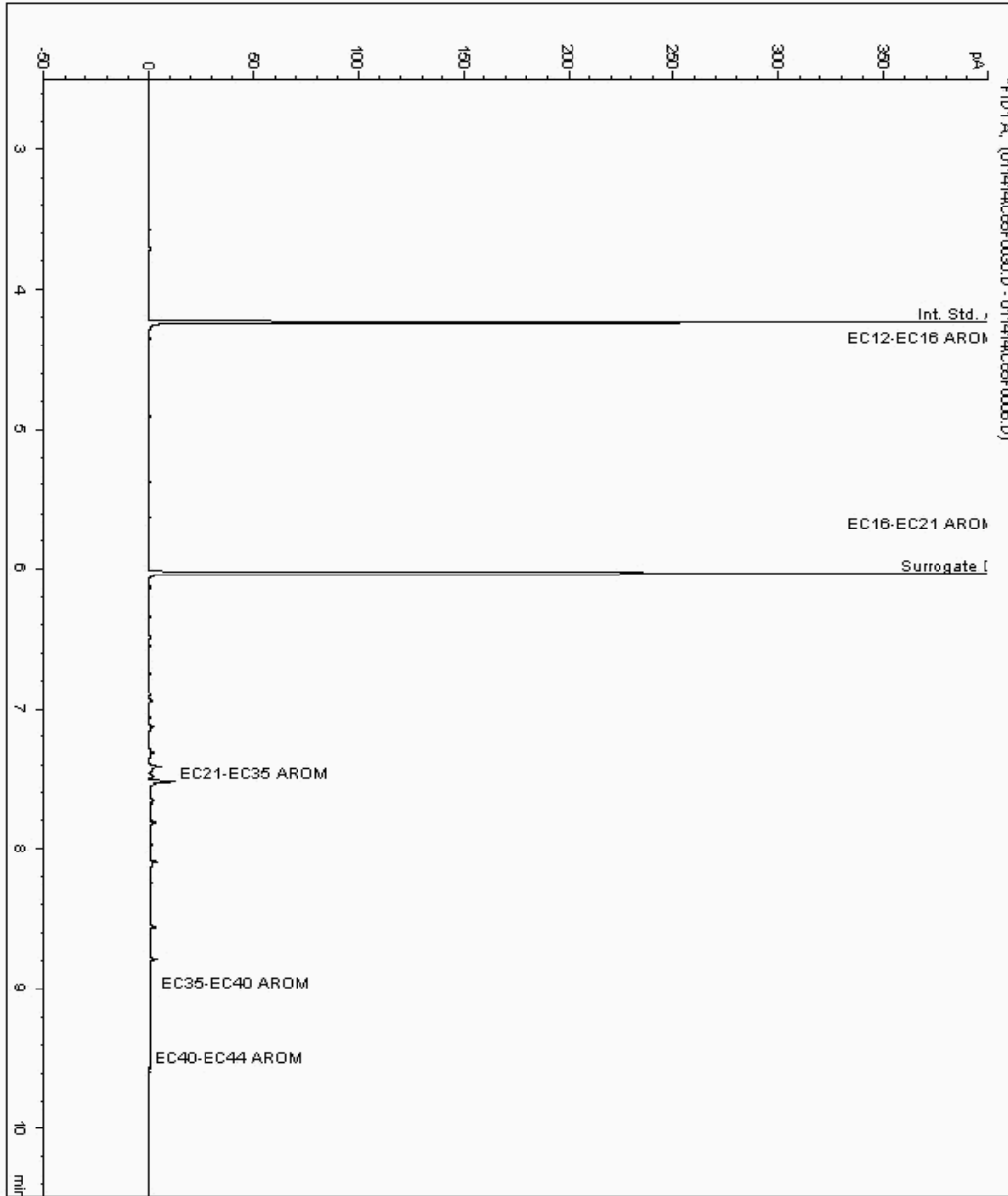
Analysis: EPH CWG (Aromatic) GC (S)

Sample No : 8680458
Sample ID : CGBH16

Depth : 0.50

Alcontrol/Geochem Analytical Services
Speciated TPH - AROM (C12 - C40)

Sample Identity: 8267316-8680458
Date Acquired : 14/01/14 20:42:47 PM
Units : ppb
Dilution :
CF : 1
Multiplier : 1.020





SDG: 140113-13
Job: H_RHASKON_PT8-82
Client Reference: 9Y0074 103 100

Location: Cole Green
Customer: Royal Haskoning
Attention: Declan Fives

Order Number: 940074 103 100
Report Number: 257253
Superseded Report:

Chromatogram

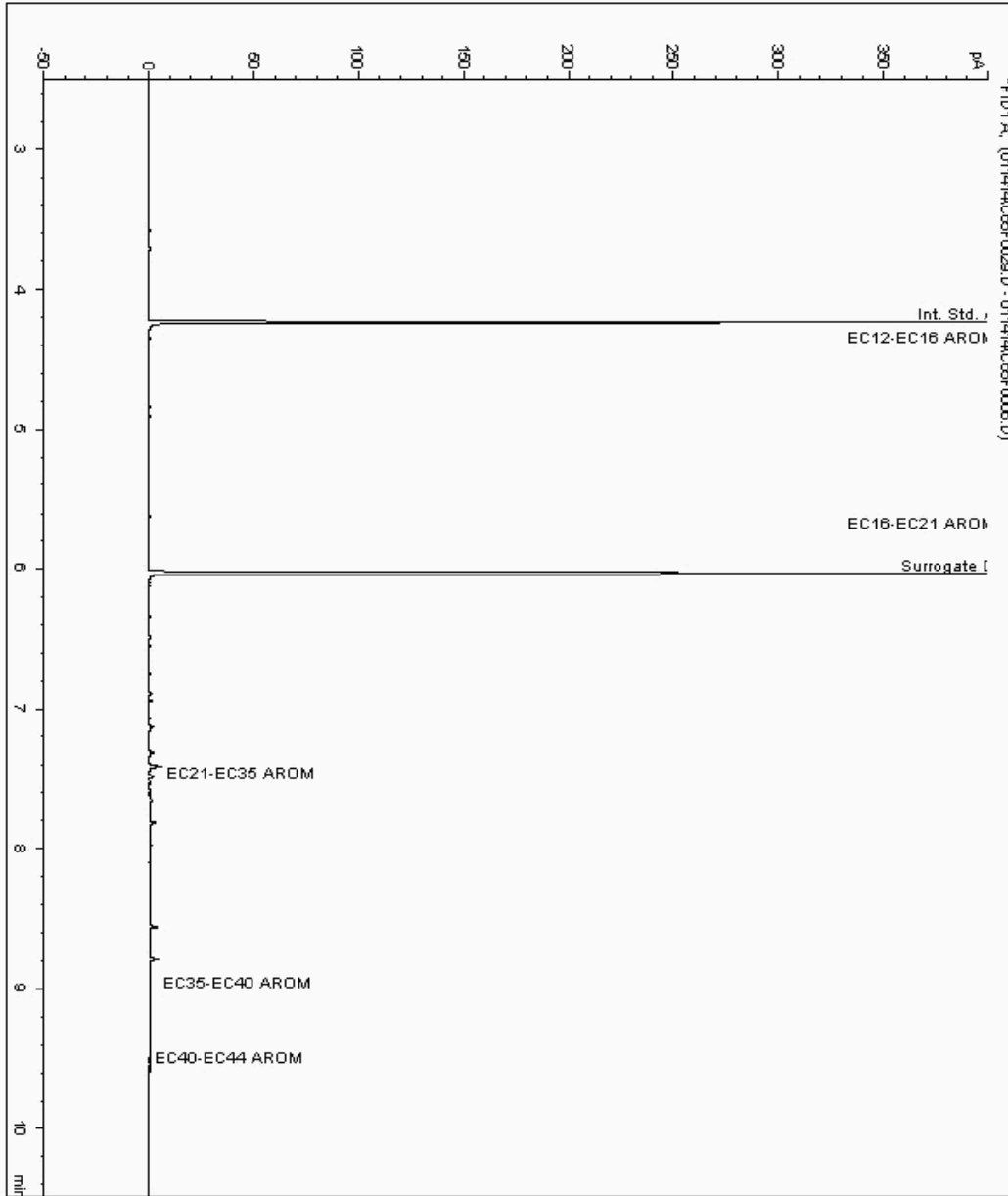
Analysis: EPH CWG (Aromatic) GC (S)

Sample No : 8680491
Sample ID : CGBH16

Depth : 1.50

Alcontrol/Geochem Analytical Services
Speciated TPH - AROM (C12 - C40)

Sample Identity: 8267136-8680491
Date Acquired : 14/01/14 20:22:19 PM
Units : ppb
Dilution :
CF : 1
Multiplier : 1.000





SDG: 140113-13
Job: H_RHASKON_PT8-82
Client Reference: 9Y0074 103 100

Location: Cole Green
Customer: Royal Haskoning
Attention: Declan Fives

Order Number: 940074 103 100
Report Number: 257253
Superseded Report:

Chromatogram

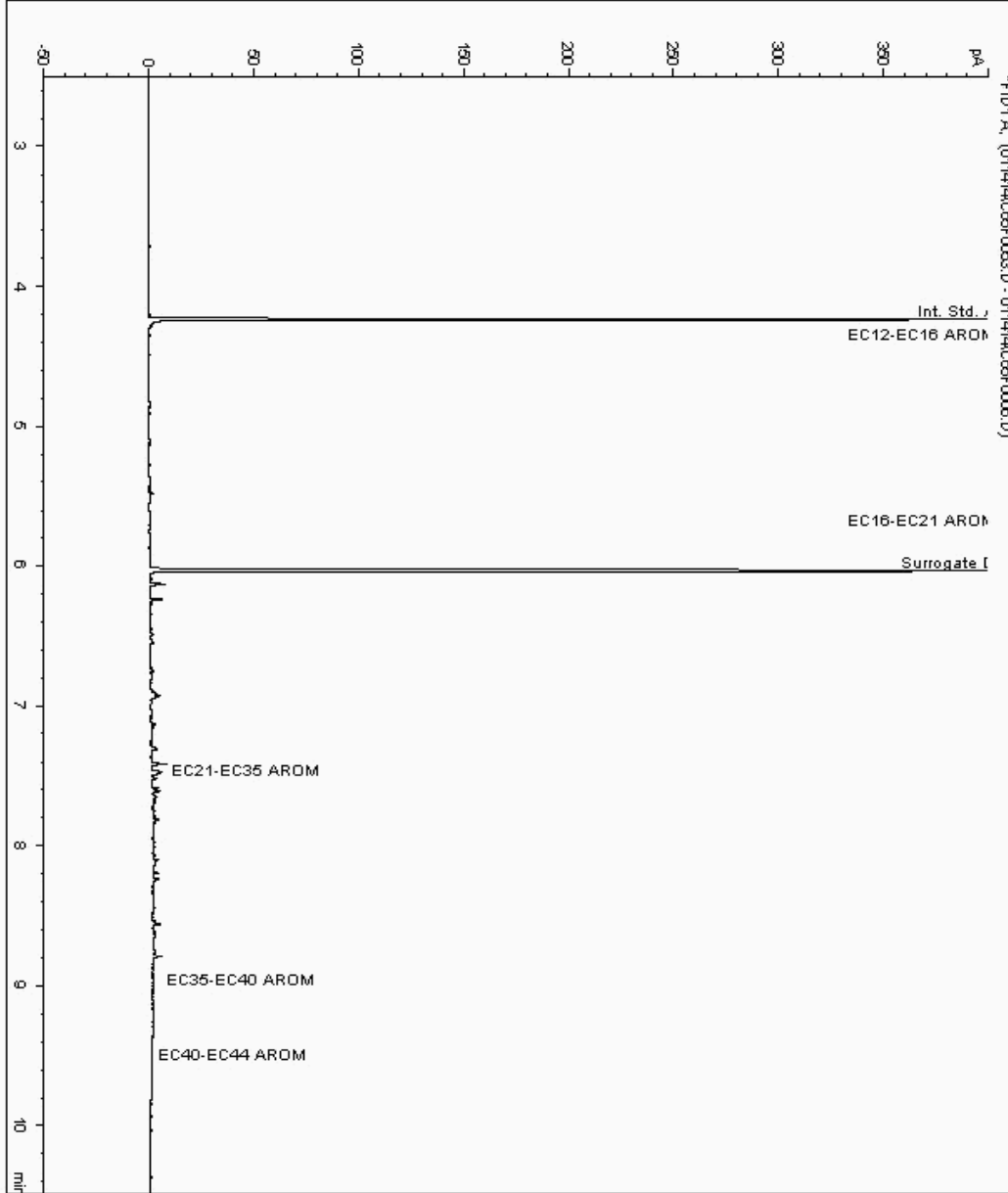
Analysis: EPH CWG (Aromatic) GC (S)

Sample No : 8680688
Sample ID : CGBH19

Depth : 0.50

Alcontrol/Geochem Analytical Services
Speciated TPH - AROM (C12 - C40)

Sample Identity: 8267168-8680688
Date Acquired : 15/01/14 03:30:53 PM
Units : ppb
Dilution :
CF : 1
Multiplier : 0.990





SDG: 140113-13
Job: H_RHASKON_PT8-82
Client Reference: 9Y0074 103 100

Location: Cole Green
Customer: Royal Haskoning
Attention: Declan Fives

Order Number: 940074 103 100
Report Number: 257253
Superseded Report:

Chromatogram

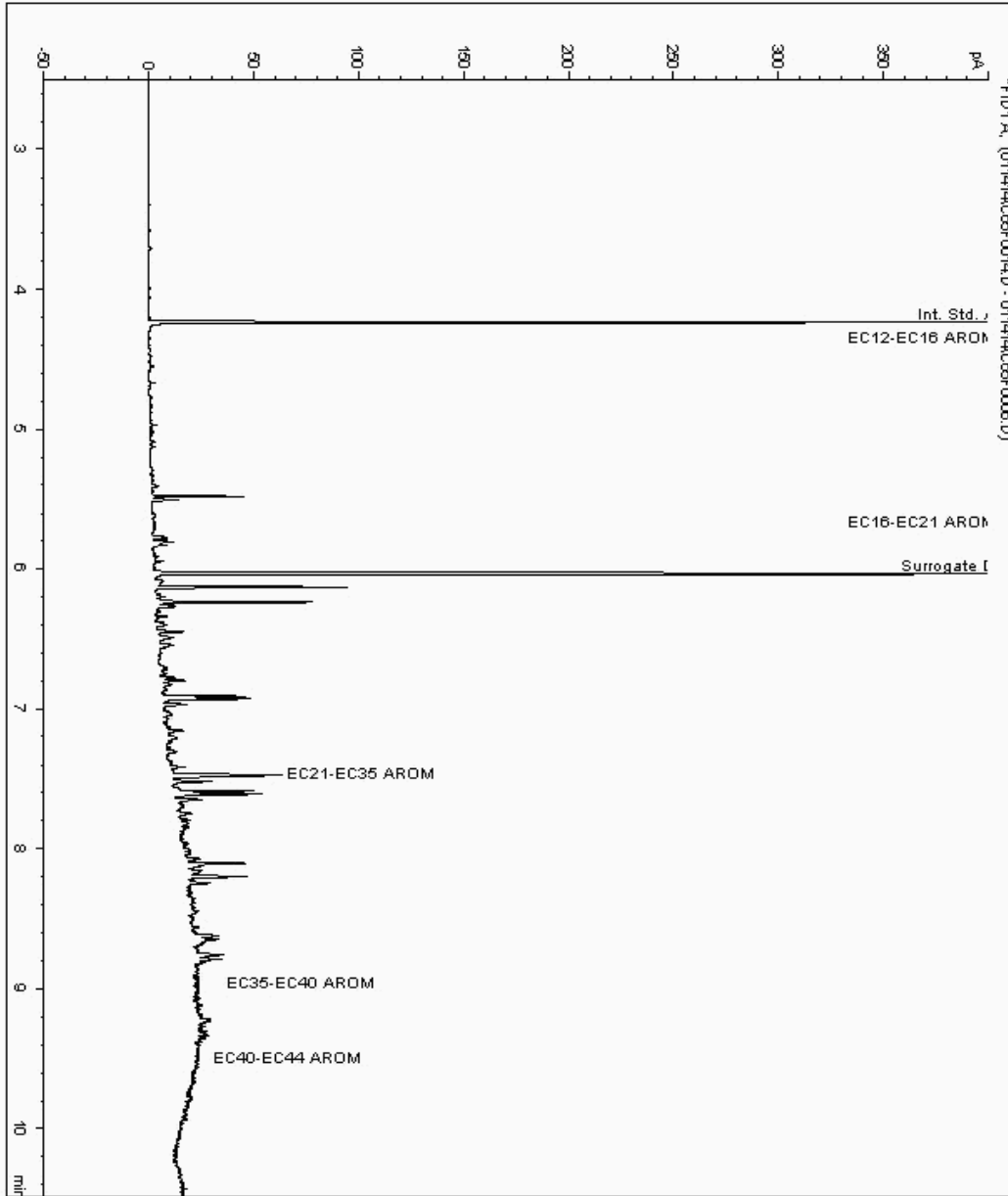
Analysis: EPH CWG (Aromatic) GC (S)

Sample No : 8680733
Sample ID : CGBH18

Depth : 0.50

Alcontrol/Geochem Analytical Services
Speciated TPH - AROM (C12 - C40)

Sample Identity: 8267216-8680733
Date Acquired : 14/01/14 15:37:20 PM
Units : ppb
Dilution :
CF : 1
Multiplier : 1.010





SDG: 140113-13
Job: H_RHASKON_PT8-82
Client Reference: 9Y0074 103 100

Location: Cole Green
Customer: Royal Haskoning
Attention: Declan Fives

Order Number: 940074 103 100
Report Number: 257253
Superseded Report:

Chromatogram

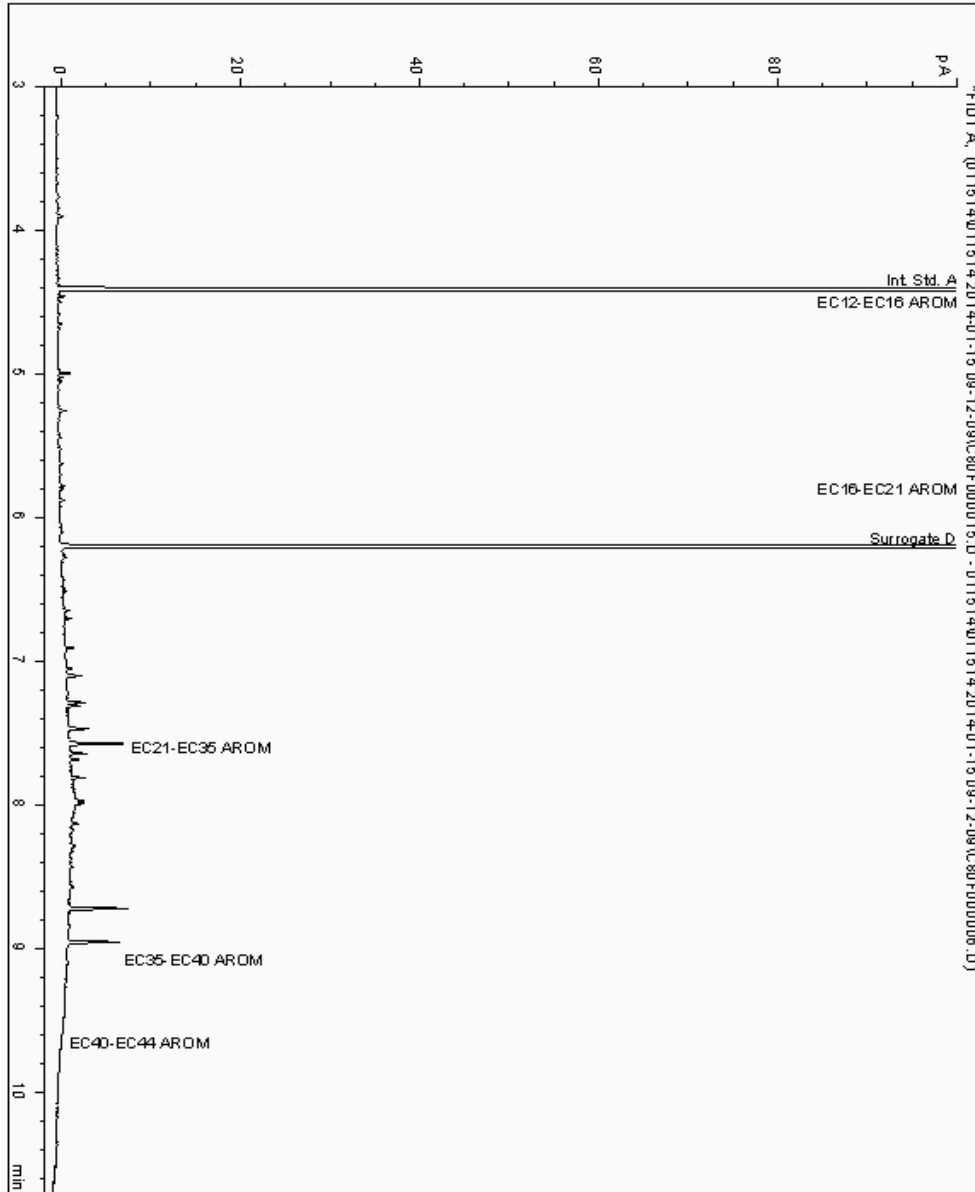
Analysis: EPH CWG (Aromatic) GC (S)

Sample No : 8680789
Sample ID : CGBH18

Depth : 6.50

Alcontrol/Geochem Analytical Services
Speciated TPH - AROM (C12 - C40)

Sample Identity: 8267230-8680789
Date Acquired : 15/01/14 13:34:57
Units : ppb
Dilution :
CF : 1
Multiplier : 1.000





SDG: 140113-13
Job: H_RHASKON_PT8-82
Client Reference: 9Y0074 103 100

Location: Cole Green
Customer: Royal Haskoning
Attention: Declan Fives

Order Number: 940074 103 100
Report Number: 257253
Superseded Report:

Chromatogram

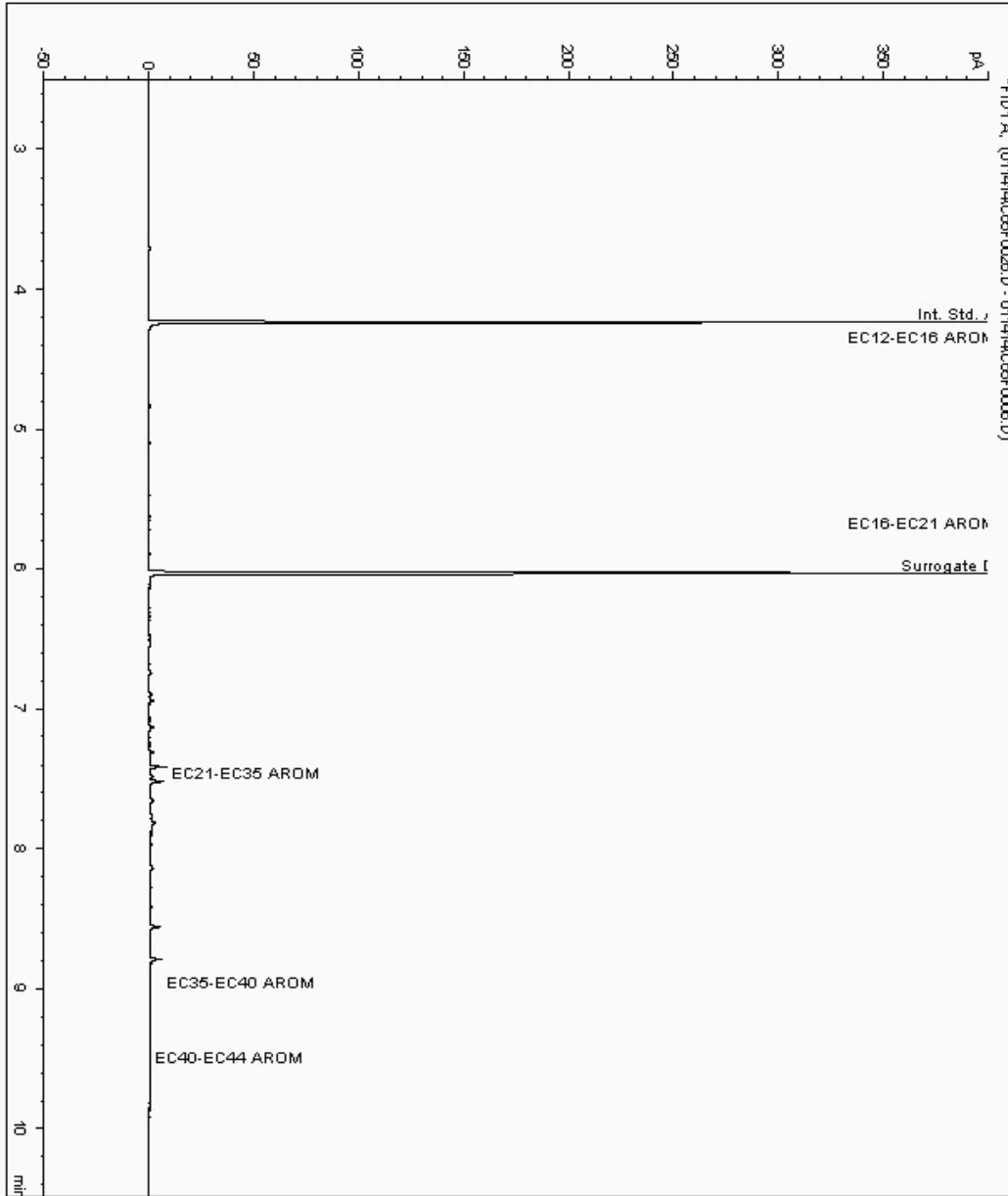
Analysis: EPH CWG (Aromatic) GC (S)

Sample No : 8680928
Sample ID : CGBH19

Depth : 4.00

Alcontrol/Geochem Analytical Services
Speciated TPH - AROM (C12 - C40)

Sample Identity: 8267203-8680928
Date Acquired : 14/01/14 19:21:00 PM
Units : ppb
Dilution :
CF : 1
Multiplier : 0.970





SDG: 140113-13
Job: H_RHASKON_PT8-82
Client Reference: 9Y0074 103 100

Location: Cole Green
Customer: Royal Haskoning
Attention: Declan Fives

Order Number: 940074 103 100
Report Number: 257253
Superseded Report:

Chromatogram

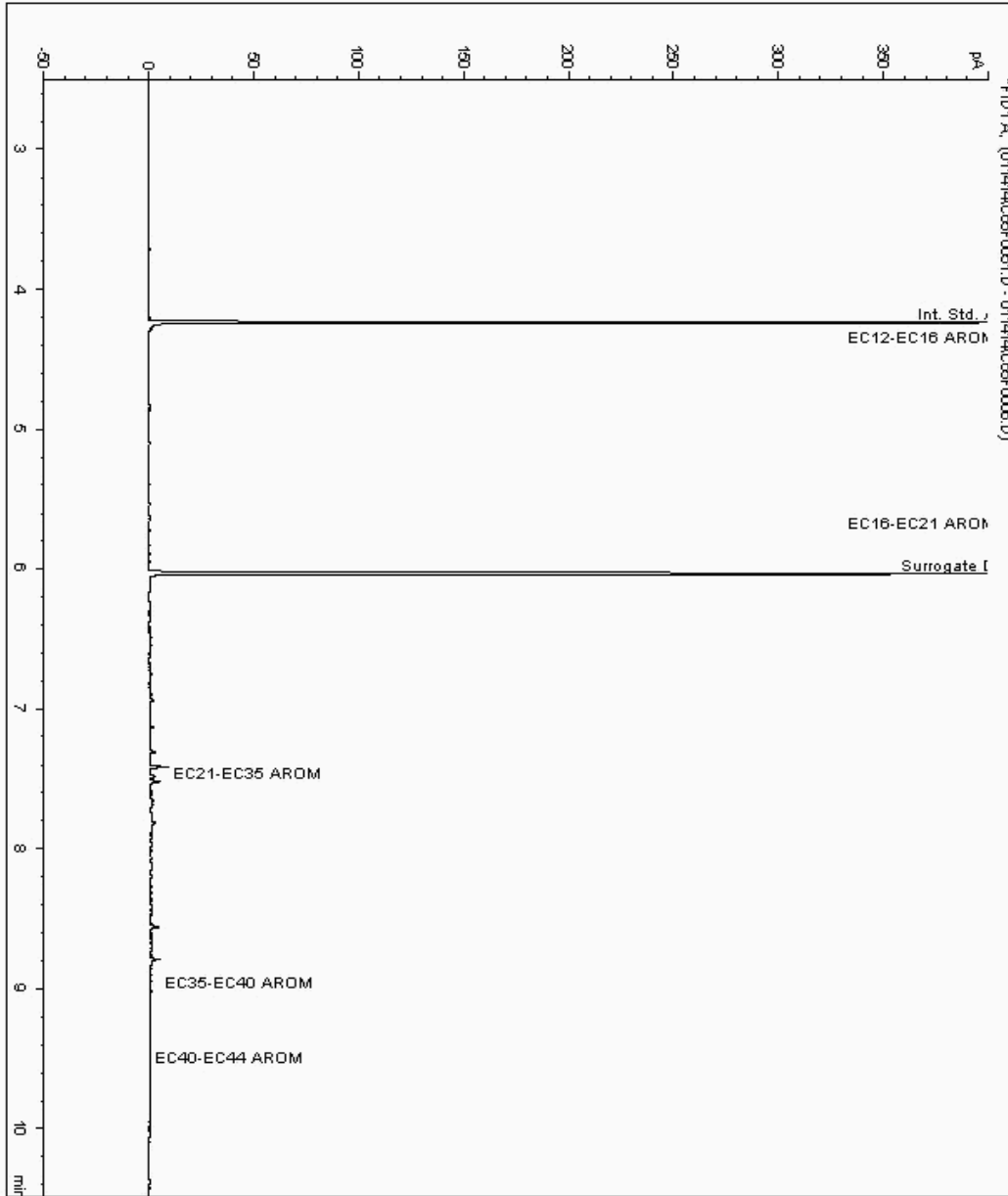
Analysis: EPH CWG (Aromatic) GC (S)

Sample No : 8680993
Sample ID : CGBH23

Depth : 0.50

Alcontrol/Geochem Analytical Services
Speciated TPH - AROM (C12 - C40)

Sample Identity: 8267244-8680993
Date Acquired : 15/01/14 03:10:07 PM
Units : ppb
Dilution :
CF : 1
Multiplier : 1.050





SDG: 140113-13
Job: H_RHASKON_PT8-82
Client Reference: 9Y0074 103 100

Location: Cole Green
Customer: Royal Haskoning
Attention: Declan Fives

Order Number: 940074 103 100
Report Number: 257253
Superseded Report:

Chromatogram

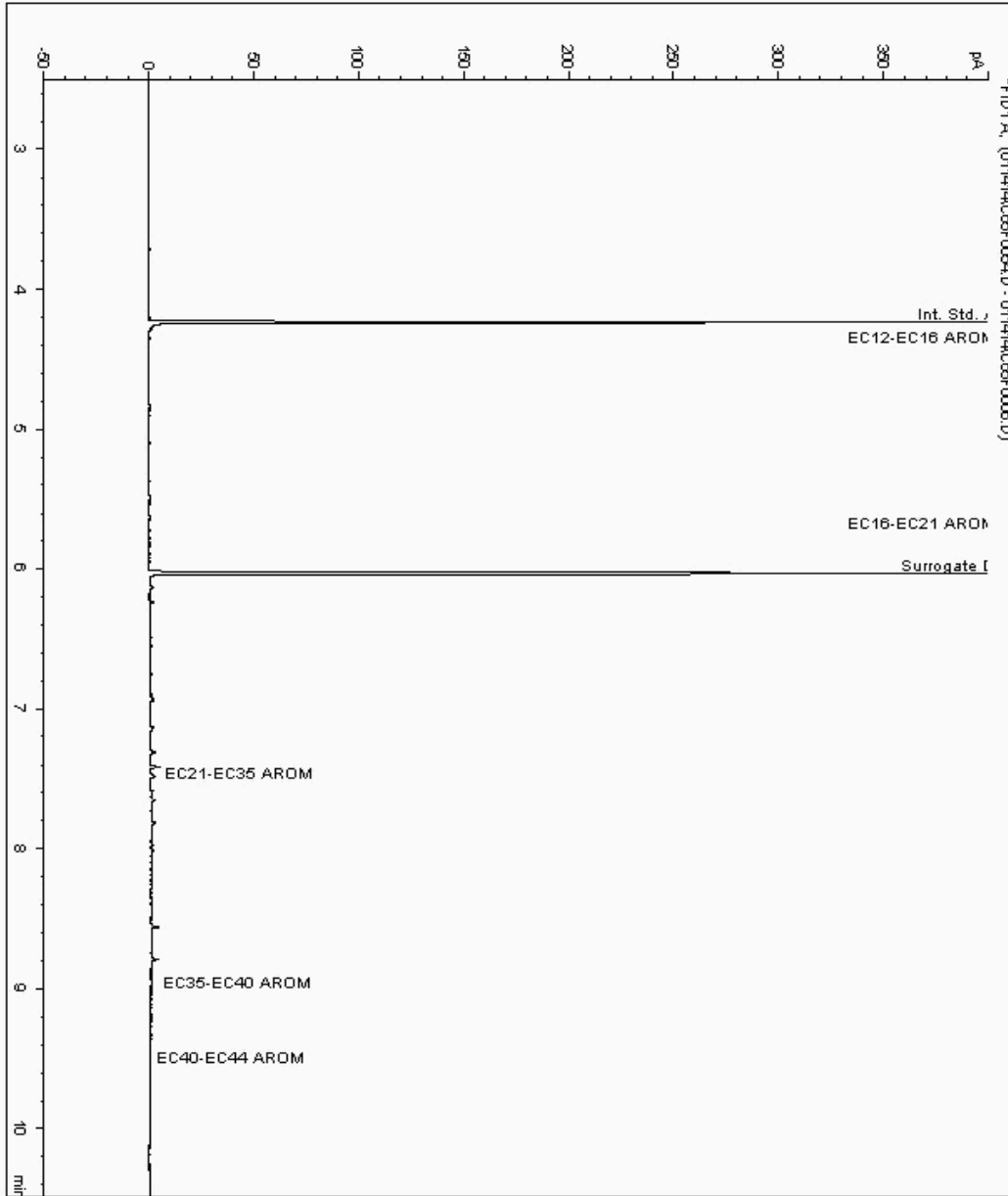
Analysis: EPH CWG (Aromatic) GC (S)

Sample No : 8681177
Sample ID : CGBH20

Depth : 0.50

Alcontrol/Geochem Analytical Services
Speciated TPH - AROM (C12 - C40)

Sample Identity: 8267283-8681177
Date Acquired : 15/01/14 03:51:31 PM
Units : ppb
Dilution :
CF : 1
Multiplier : 0.970





SDG: 140113-13
Job: H_RHASKON_PT8-82
Client Reference: 9Y0074 103 100

Location: Cole Green
Customer: Royal Haskoning
Attention: Declan Fives

Order Number: 940074 103 100
Report Number: 257253
Superseded Report:

Chromatogram

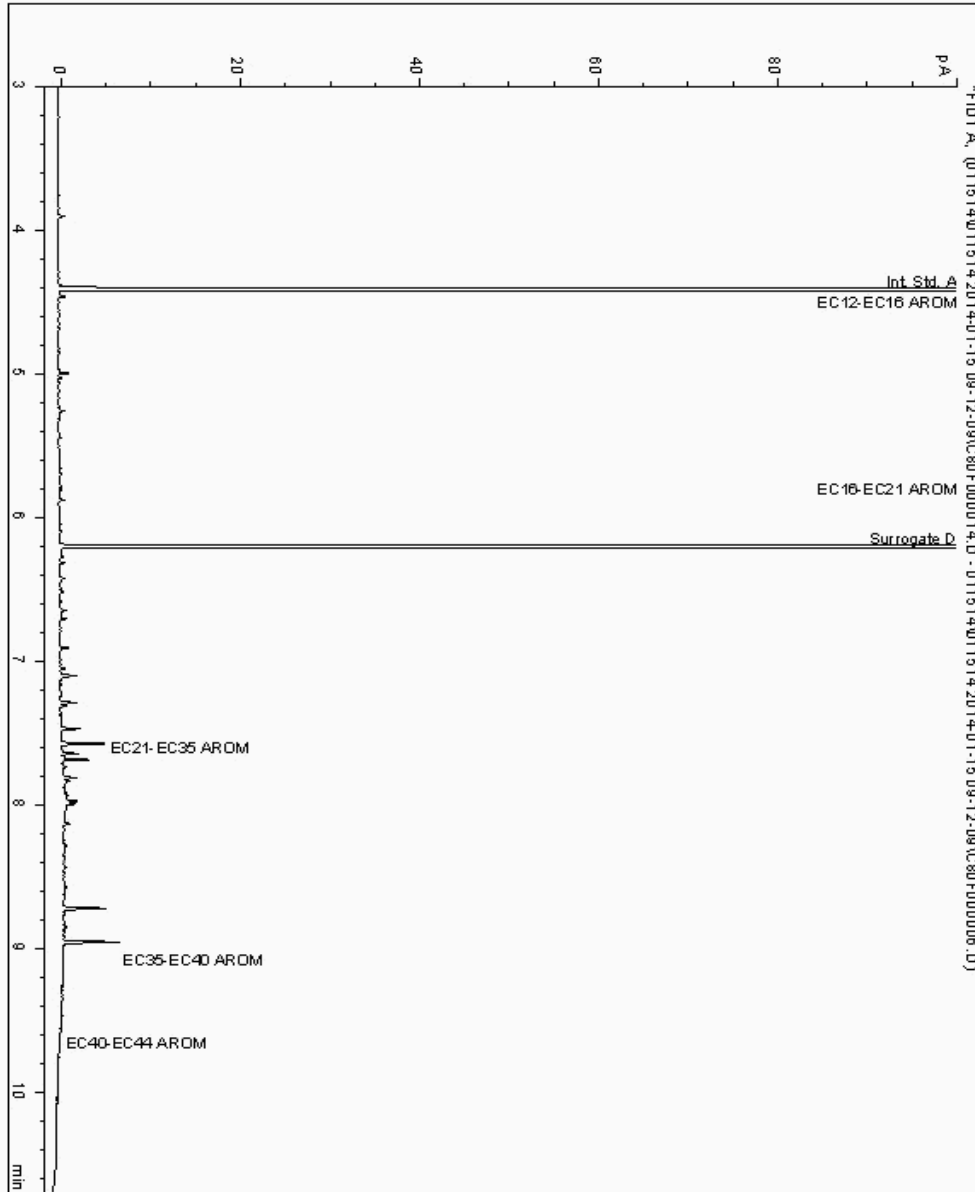
Analysis: EPH CWG (Aromatic) GC (S)

Sample No : 8682267
Sample ID : CGBH23

Depth : 2.00

Alcontrol/Geochem Analytical Services
Speciated TPH - AROM (C12 - C40)

Sample Identity: 8267262-8682267
Date Acquired : 15/01/14 13:14:39
Units : ppb
Dilution :
CF : 1
Multiplier : 1.040





SDG: 140113-13
Job: H_RHASKON_PT8-82
Client Reference: 9Y0074 103 100

Location: Cole Green
Customer: Royal Haskoning
Attention: Declan Fives

Order Number: 940074 103 100
Report Number: 257253
Superseded Report:

Chromatogram

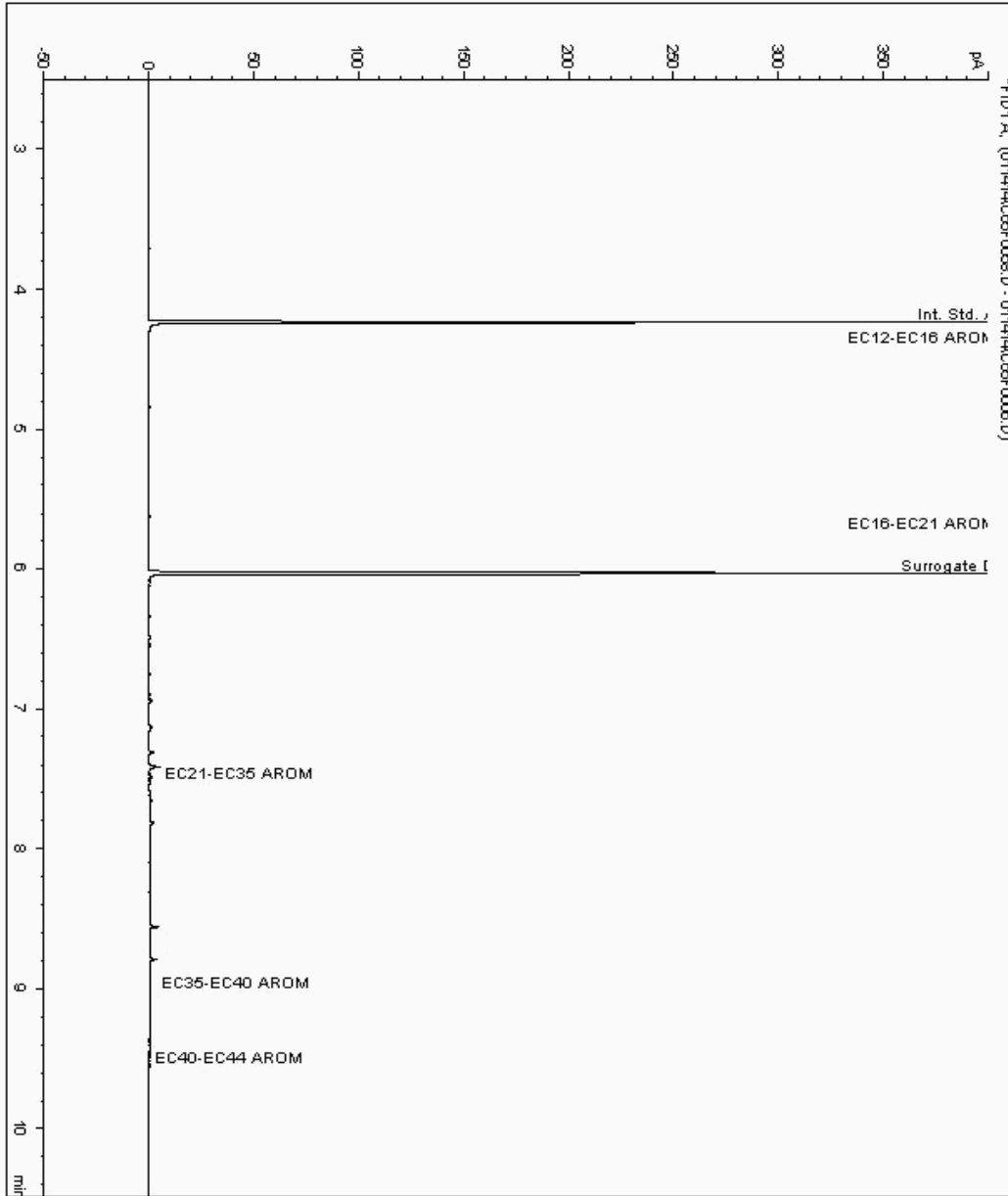
Analysis: EPH CWG (Aromatic) GC (S)

Sample No : 8682339
Sample ID : CGBH20

Depth : 1.50

Alcontrol/Geochem Analytical Services
Speciated TPH - AROM (C12 - C40)

Sample Identity: 8267300-8682339
Date Acquired : 15/01/14 10:06:06 PM
Units : ppb
Dilution :
CF : 1
Multiplier : 0.970





SDG: 140113-13
Job: H_RHASKON_PT8-82
Client Reference: 9Y0074 103 100

Location: Cole Green
Customer: Royal Haskoning
Attention: Declan Fives

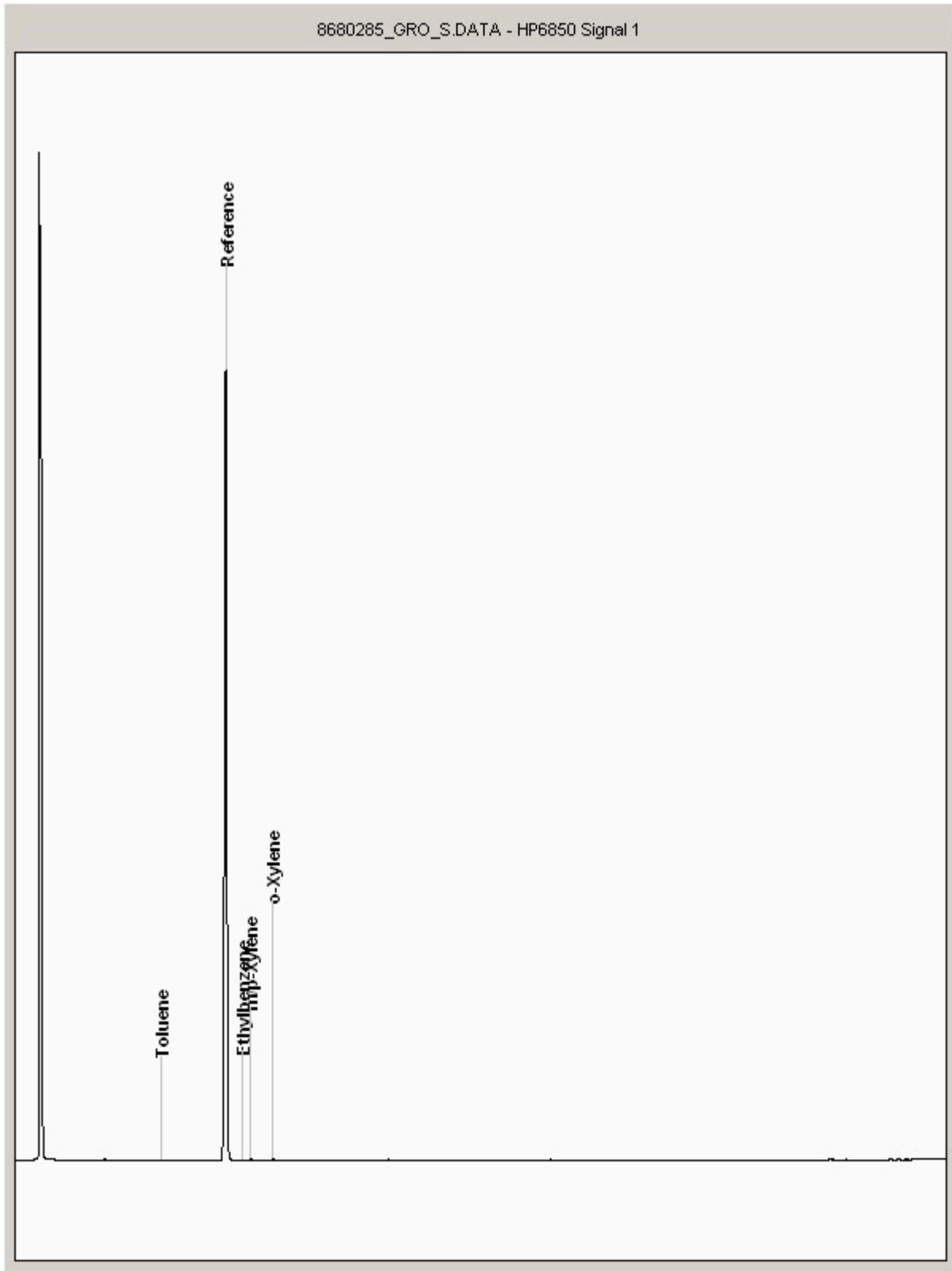
Order Number: 940074 103 100
Report Number: 257253
Superseded Report:

Chromatogram

Analysis: GRO by GC-FID (S)

Sample No : 8680285
Sample ID : CGBH16

Depth : 0.50





SDG: 140113-13
Job: H_RHASKON_PTB-82
Client Reference: 9Y0074 103 100

Location: Cole Green
Customer: Royal Haskoning
Attention: Declan Fives

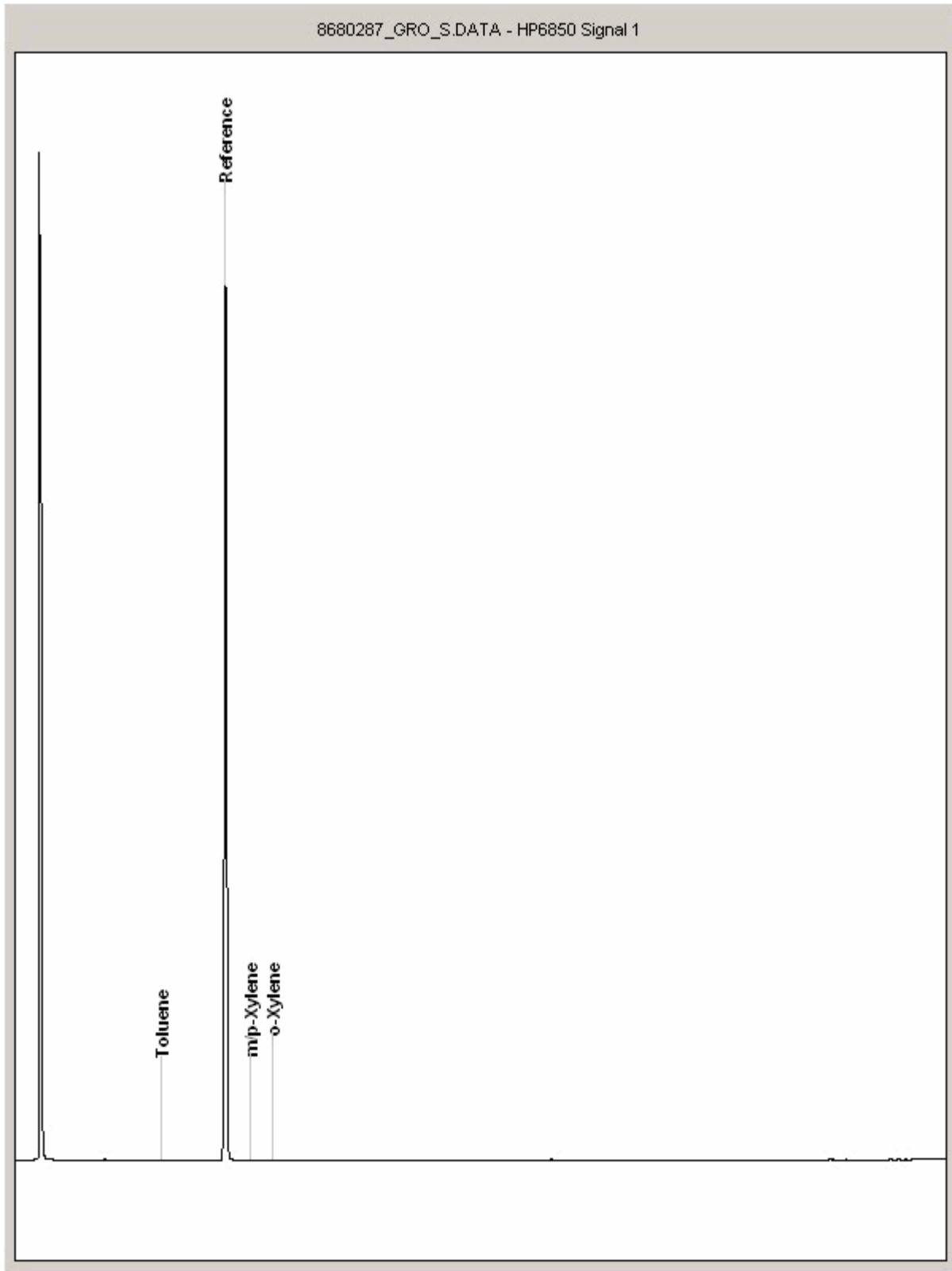
Order Number: 940074 103 100
Report Number: 257253
Superseded Report:

Chromatogram

Analysis: GRO by GC-FID (S)

Sample No : 8680287
Sample ID : CGBH16

Depth : 1.50





SDG: 140113-13
Job: H_RHASKON_PT8-82
Client Reference: 9Y0074 103 100

Location: Cole Green
Customer: Royal Haskoning
Attention: Declan Fives

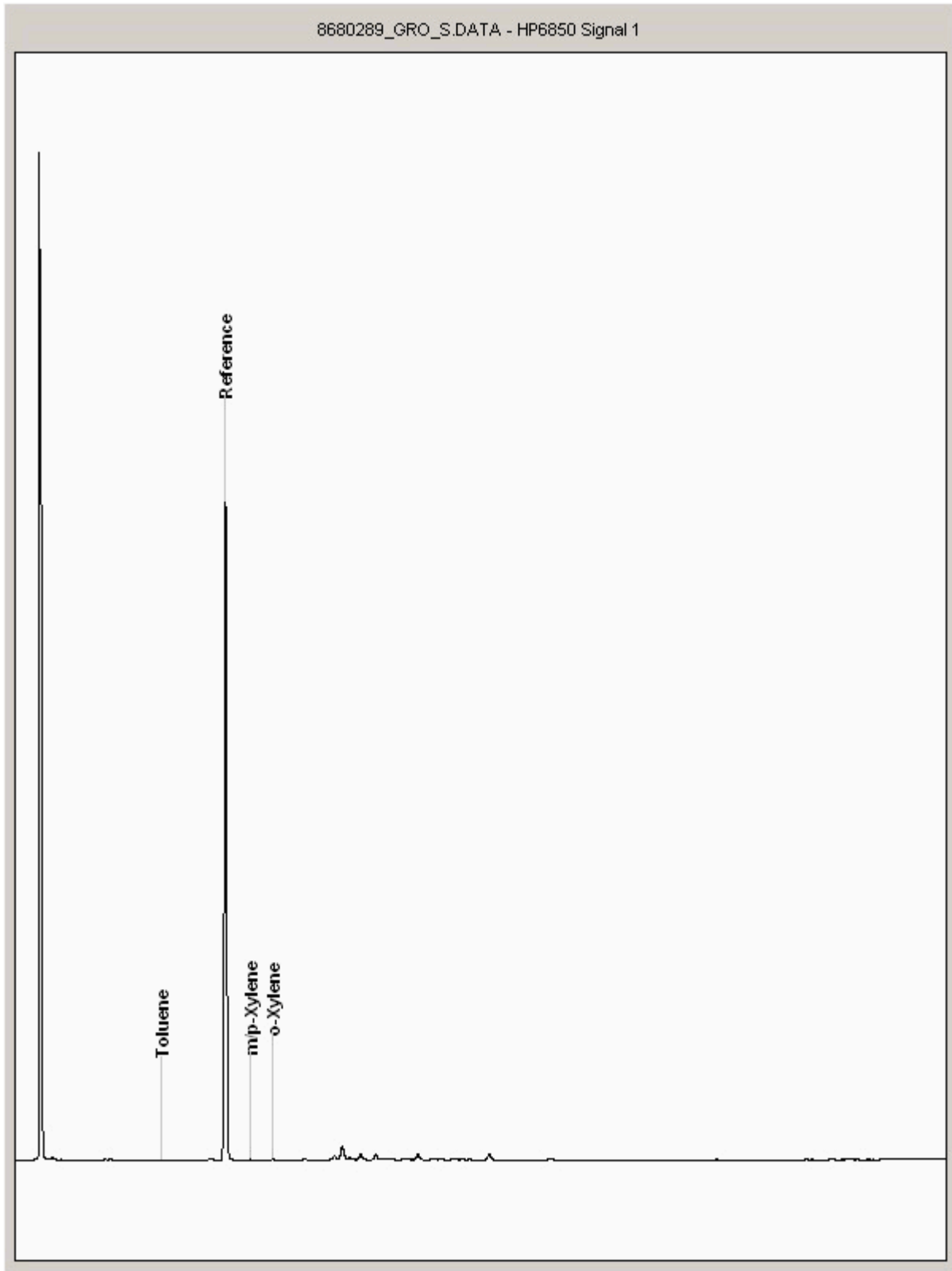
Order Number: 940074 103 100
Report Number: 257253
Superseded Report:

Chromatogram

Analysis: GRO by GC-FID (S)

Sample No : 8680289
Sample ID : CGBH19

Depth : 0.50





SDG: 140113-13
Job: H_RHASKON_PT8-82
Client Reference: 9Y0074 103 100

Location: Cole Green
Customer: Royal Haskoning
Attention: Declan Fives

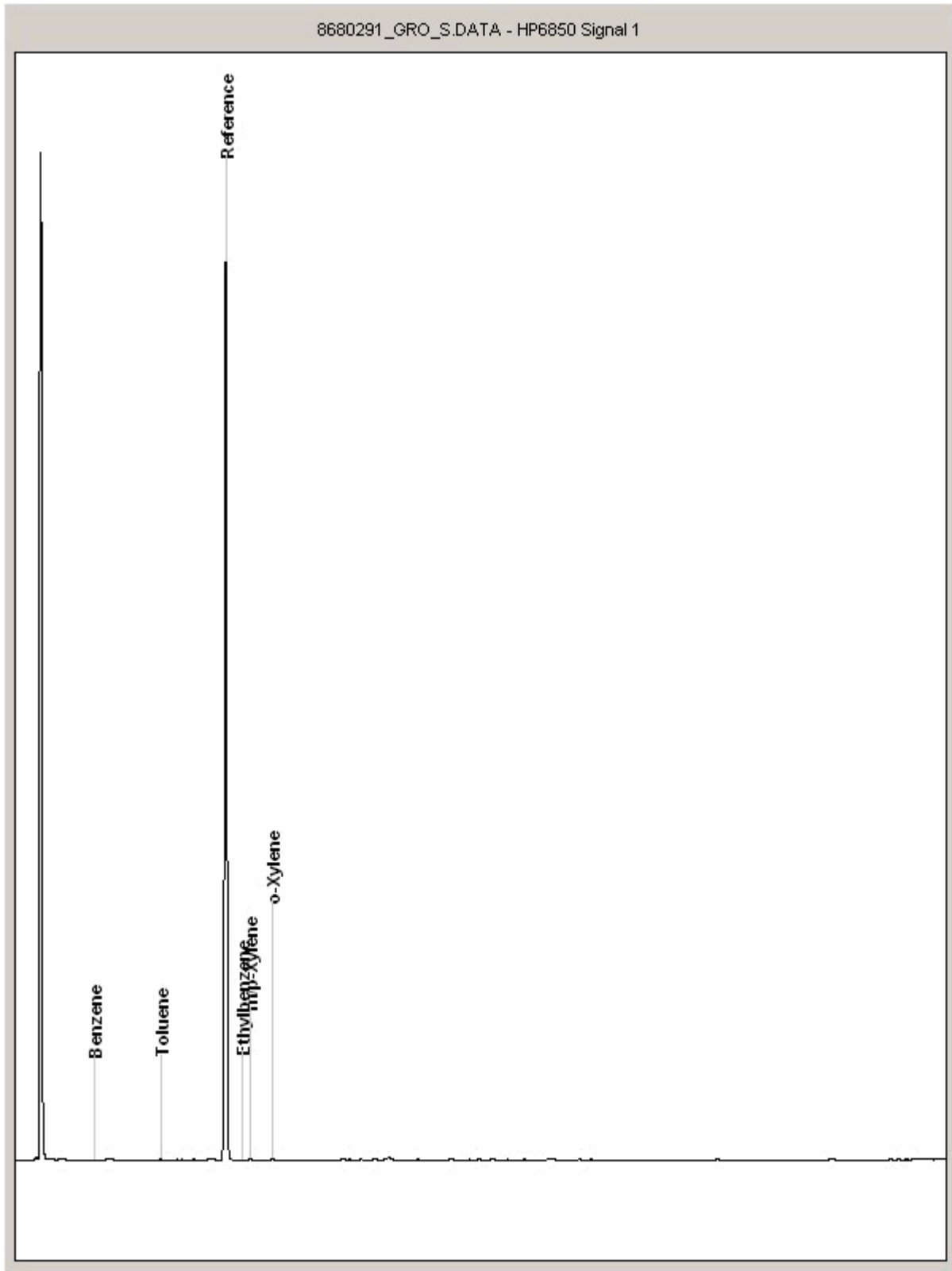
Order Number: 940074 103 100
Report Number: 257253
Superseded Report:

Chromatogram

Analysis: GRO by GC-FID (S)

Sample No : 8680291
Sample ID : CGBH18

Depth : 6.50





SDG: 140113-13
Job: H_RHASKON_PT8-82
Client Reference: 9Y0074 103 100

Location: Cole Green
Customer: Royal Haskoning
Attention: Declan Fives

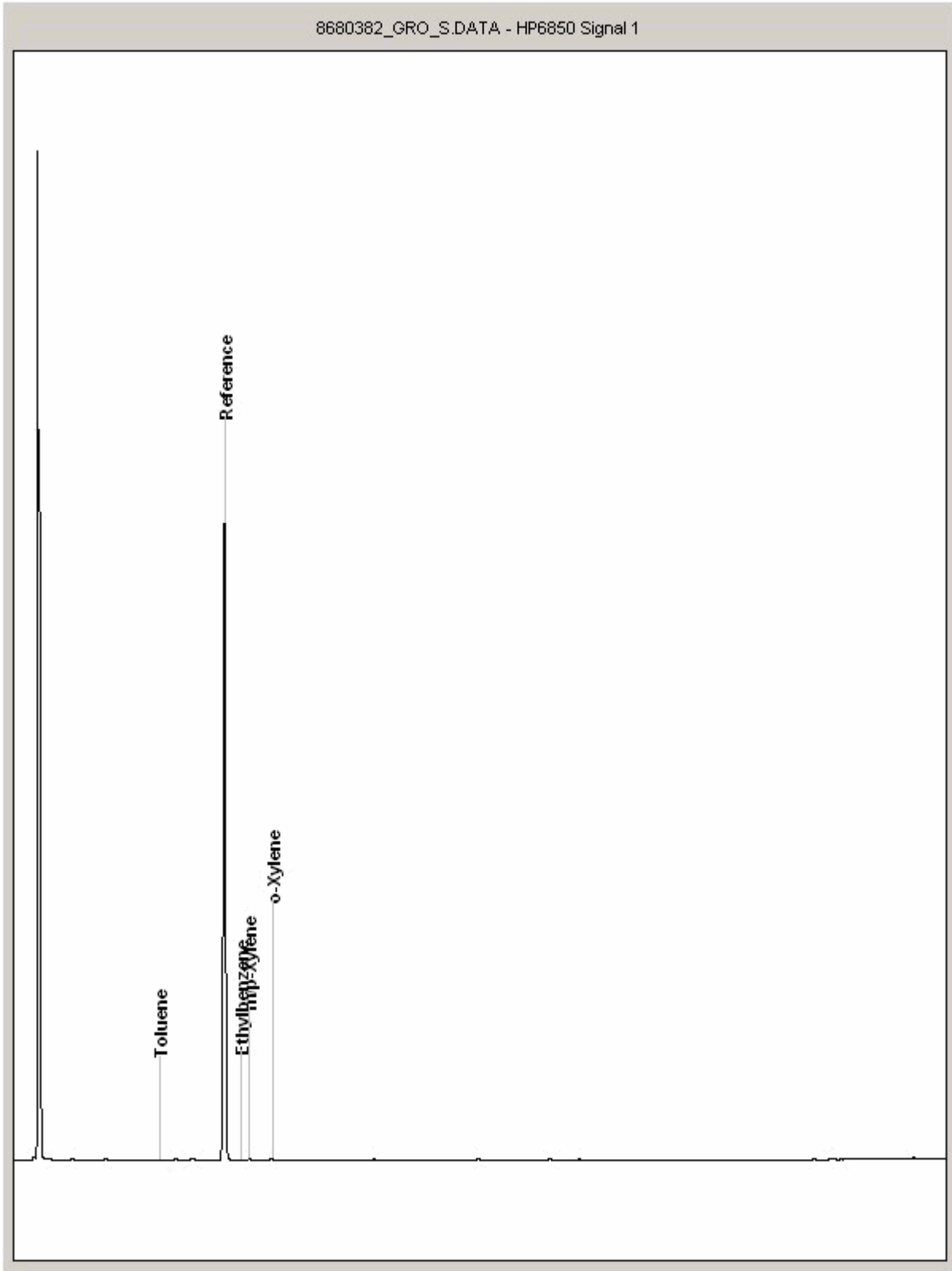
Order Number: 940074 103 100
Report Number: 257253
Superseded Report:

Chromatogram

Analysis: GRO by GC-FID (S)

Sample No : 8680382
Sample ID : CGBH19

Depth : 4.00





SDG: 140113-13
Job: H_RHASKON_PT82
Client Reference: 9Y0074 103 100

Location: Cole Green
Customer: Royal Haskoning
Attention: Declan Fives

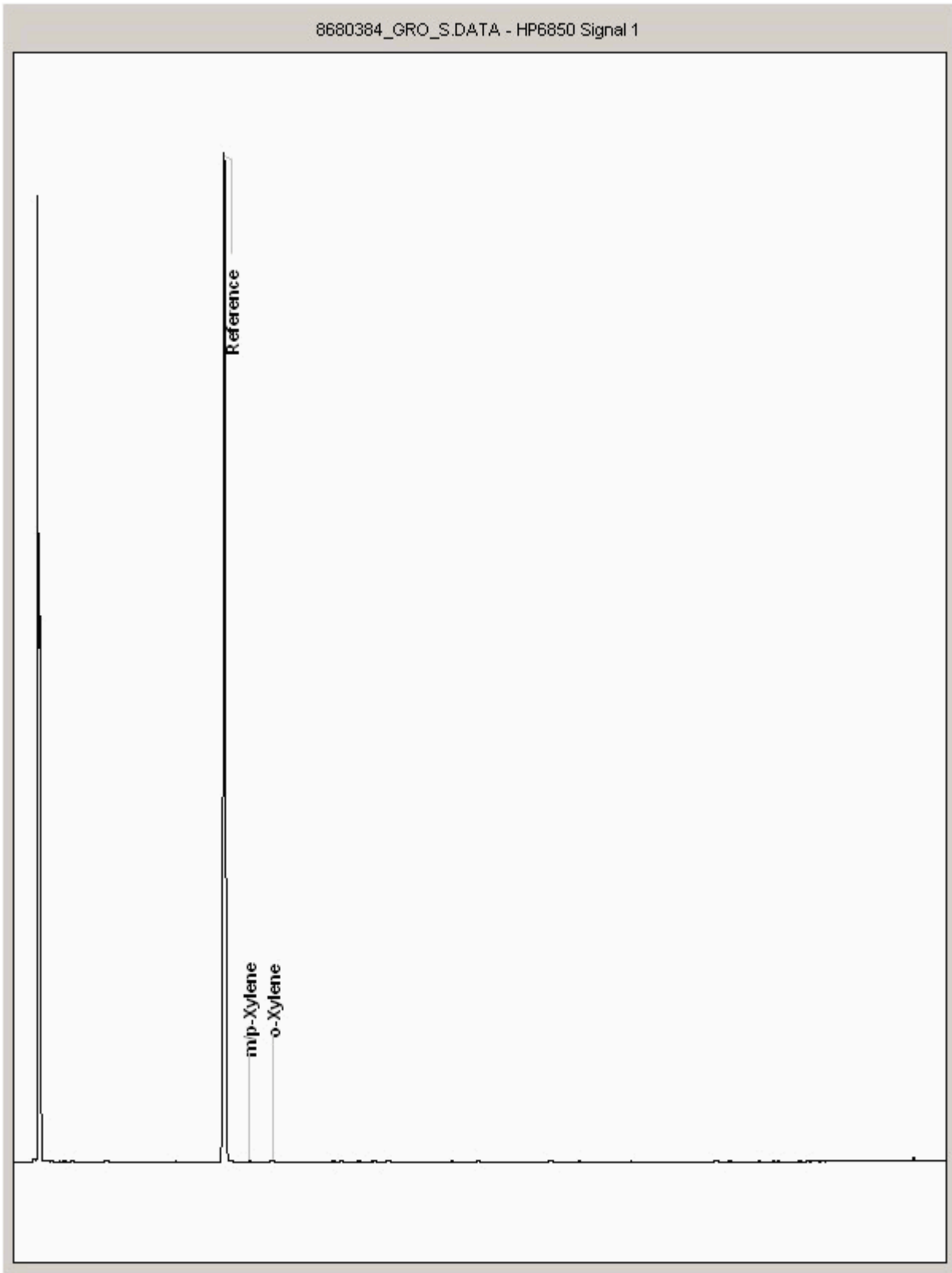
Order Number: 940074 103 100
Report Number: 257253
Superseded Report:

Chromatogram

Analysis: GRO by GC-FID (S)

Sample No : 8680384
Sample ID : CGBH23

Depth : 2.00





SDG: 140113-13
Job: H_RHASKON_PTB-82
Client Reference: 9Y0074 103 100

Location: Cole Green
Customer: Royal Haskoning
Attention: Declan Fives

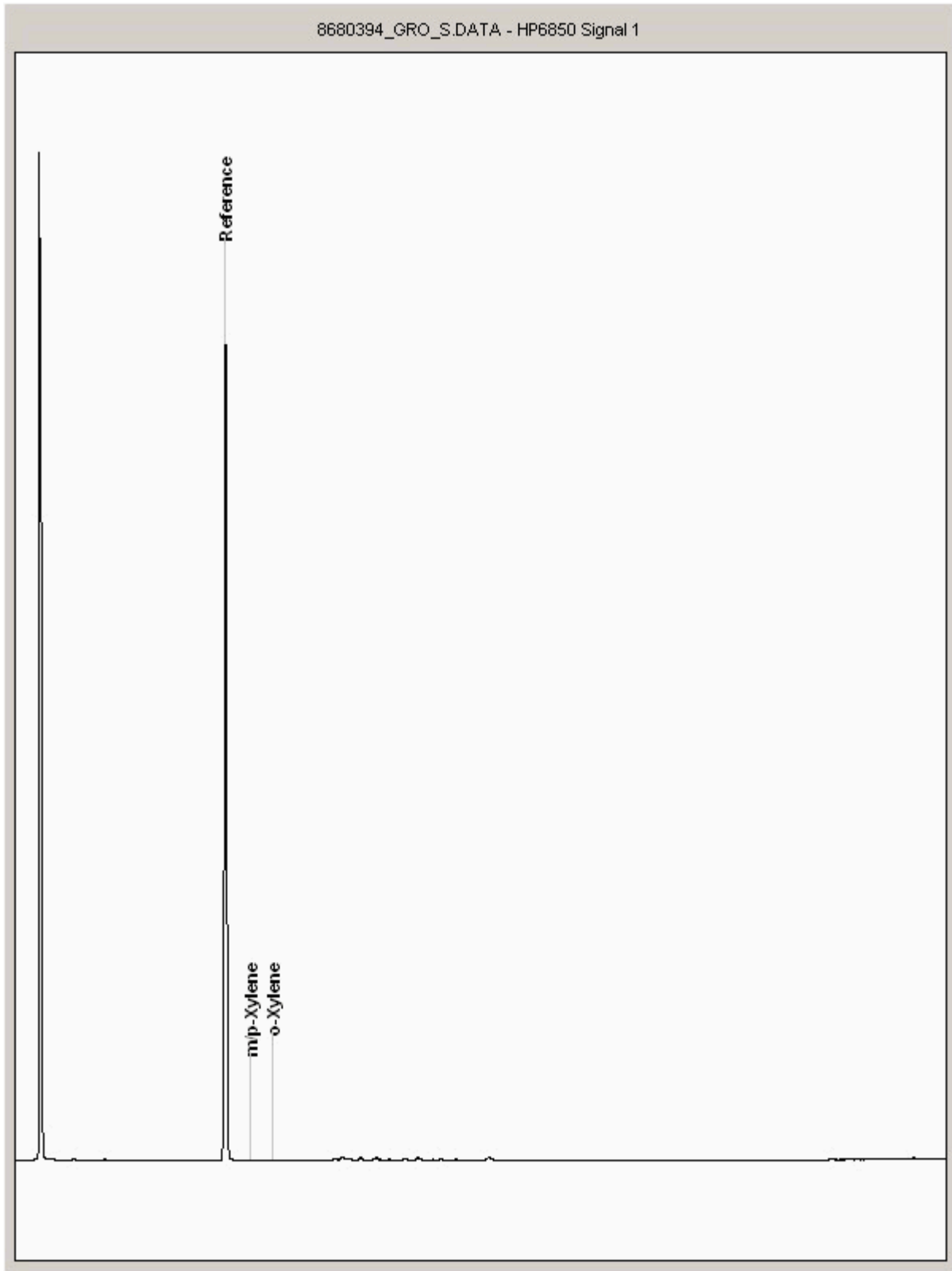
Order Number: 940074 103 100
Report Number: 257253
Superseded Report:

Chromatogram

Analysis: GRO by GC-FID (S)

Sample No : 8680394
Sample ID : CGBH23

Depth : 0.50





SDG: 140113-13
Job: H_RHASKON_PT8-82
Client Reference: 9Y0074 103 100

Location: Cole Green
Customer: Royal Haskoning
Attention: Declan Fives

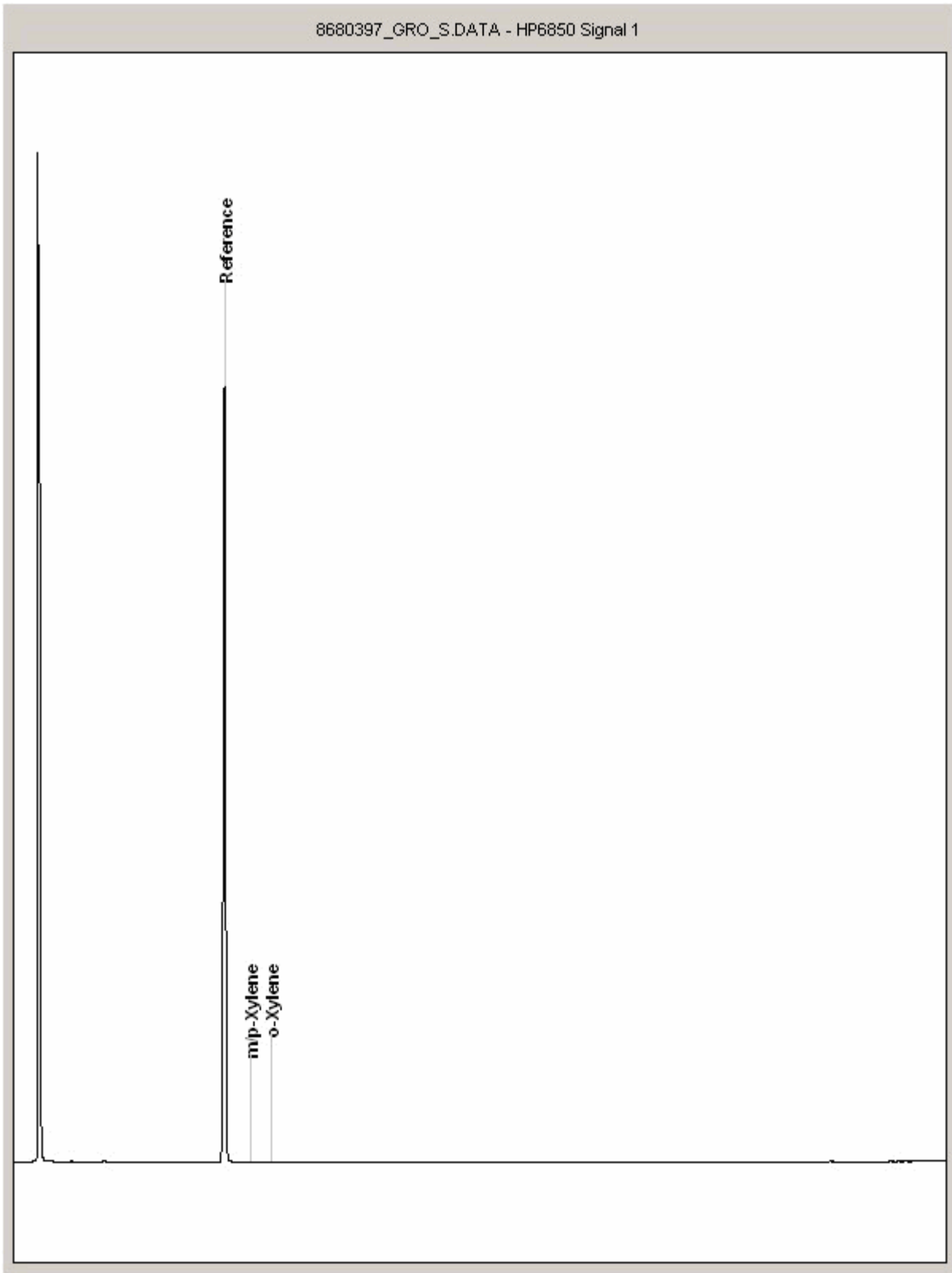
Order Number: 940074 103 100
Report Number: 257253
Superseded Report:

Chromatogram

Analysis: GRO by GC-FID (S)

Sample No : 8680397
Sample ID : CGBH20

Depth : 0.50





SDG: 140113-13
Job: H_RHASKON_PTB-82
Client Reference: 9Y0074 103 100

Location: Cole Green
Customer: Royal Haskoning
Attention: Declan Fives

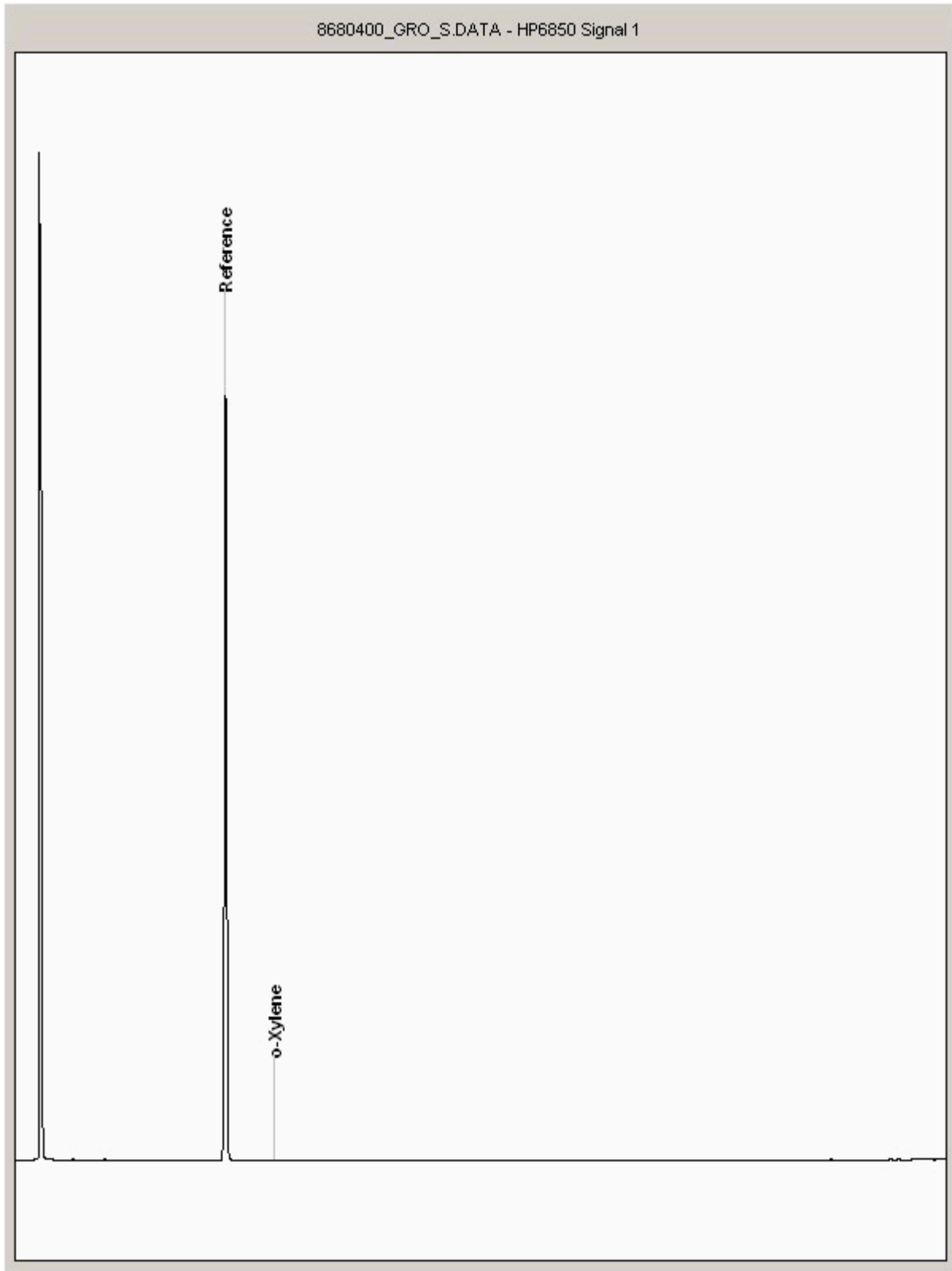
Order Number: 940074 103 100
Report Number: 257253
Superseded Report:

Chromatogram

Analysis: GRO by GC-FID (S)

Sample No : 8680400
Sample ID : CGBH20

Depth : 1.50





SDG: 140113-13
Job: H_RHASKON_PT8-82
Client Reference: 9Y0074 103 100

Location: Cole Green
Customer: Royal Haskoning
Attention: Declan Fives

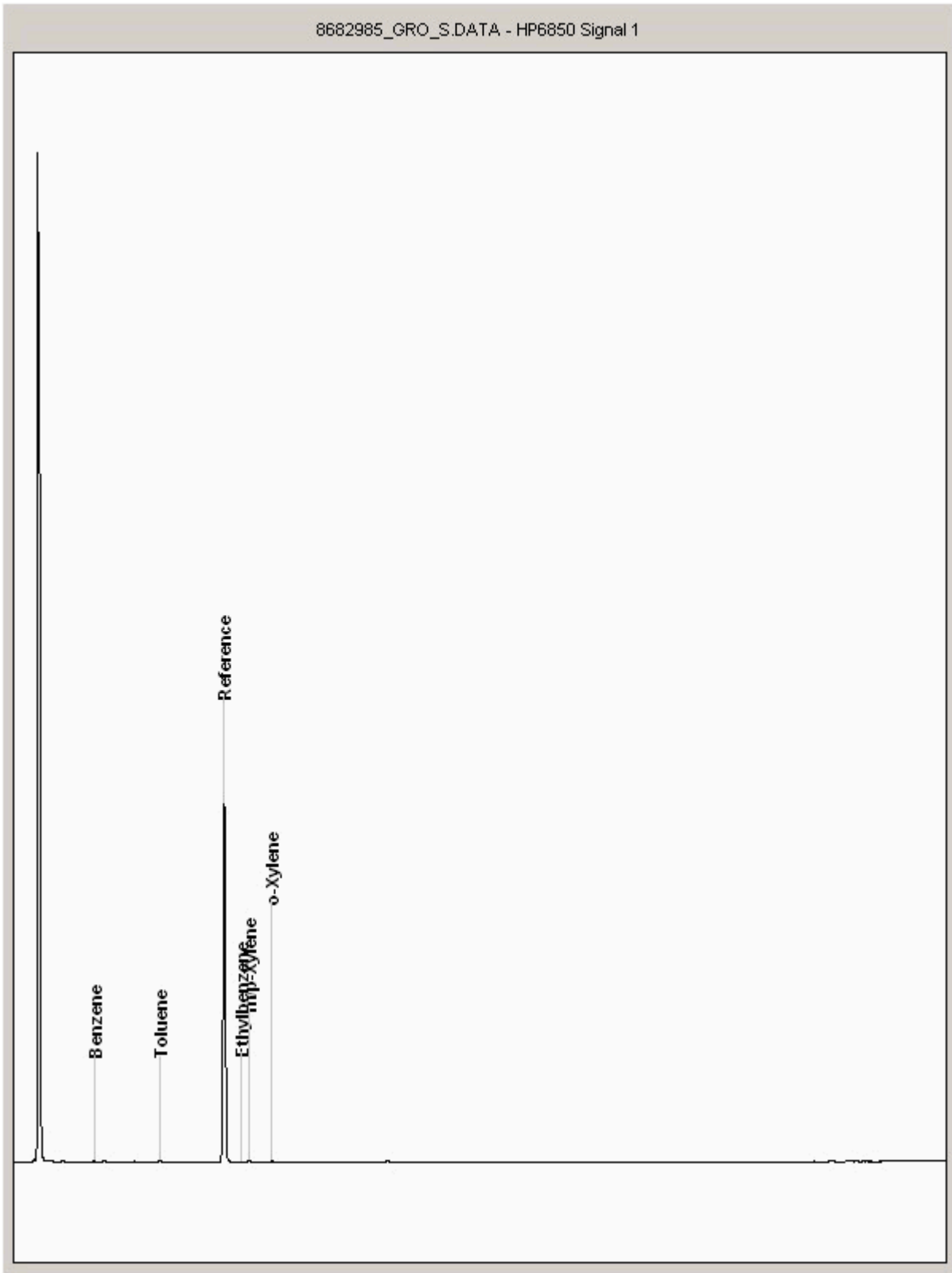
Order Number: 940074 103 100
Report Number: 257253
Superseded Report:

Chromatogram

Analysis: GRO by GC-FID (S)

Sample No : 8682985
Sample ID : CGBH18

Depth : 0.50





SDG: 140113-13
Job: H_RHASKON_PT8-82
Client Reference: 9Y0074 103 100

Location: Cole Green
Customer: Royal Haskoning
Attention: Declan Fives

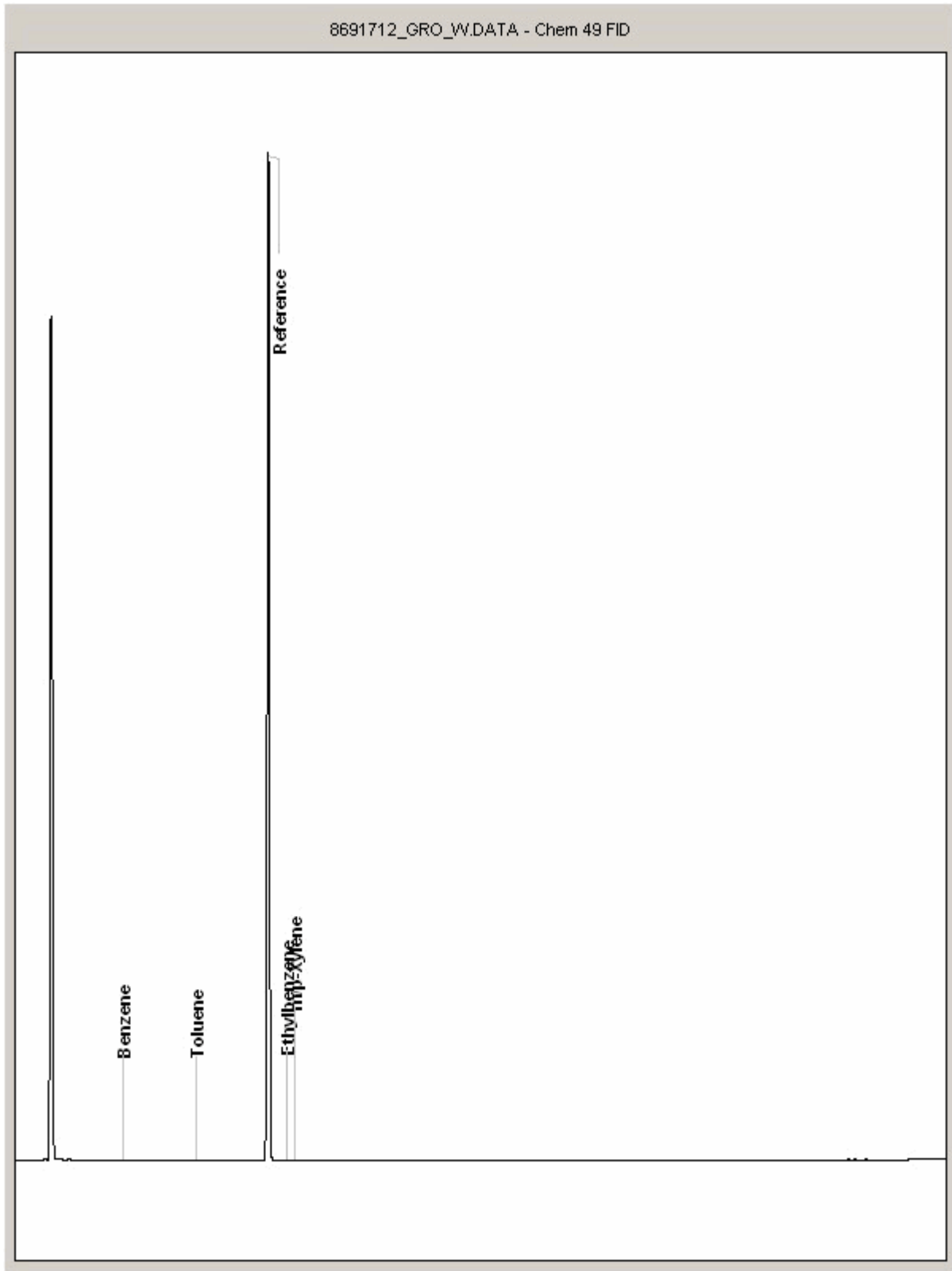
Order Number: 940074 103 100
Report Number: 257253
Superseded Report:

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 8691712
Sample ID : CGBH16

Depth : 0.50





SDG: 140113-13
Job: H_RHASKON_PTB-82
Client Reference: 9Y0074 103 100

Location: Cole Green
Customer: Royal Haskoning
Attention: Declan Fives

Order Number: 940074 103 100
Report Number: 257253
Superseded Report:

Appendix

1. Results are expressed on a dry weight basis (dried at 35°C) for all soil analyses except for the following: NRA Leach tests, flash point, ammonium as NH₄ by the BRE method, VOC TICS, SVOC TICS, TOF-MS SCAN/SEARCH and TOF-MS 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 both soil jars, tubs and volatile jars. All waters and vials will be discarded 10 days after the analysis is completed (e-mailed). All material removed during an asbestos containing material screen and analysed for the presence of asbestos 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 screened in house for the presence of large asbestos containing material fragments/pieces. If no asbestos containing material is found this will be reported as 'no asbestos containing material detected'. If asbestos containing material is detected it will be removed and analysed by our documented in house method TM048 based on HSG 248 (2005), which is accredited to ISO17025. If asbestos containing material is present no further analysis will be undertaken. At no point is the fibre content of the soil sample determined.

7. If no separate volatile sample is supplied by the client, the integrity of the data may be compromised if the laboratory is required to create a sub-sample from the bulk sample -similarly, if a headspace or sediment is present in the volatile sample. This will be flagged up as an invalid VOC on the test schedule or recorded on the log sheet.

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. A table containing the date of analysis for each parameter is not routinely included with the report, but is available upon request.

12. Results relate only to the items tested

13. **Surrogate recoveries** -Most of our organic methods include surrogates, the recovery of which is monitored and reported. For EPH, MO, PAH, GRO and VOCs on soils the result is not surrogate corrected, but a percentage recovery is quoted. Acceptable limits for most organic methods are 70 -130 %.

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 Dimethylphenol, 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 14).

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

18. Our MCERTS accreditation for PAHs by GCMS applies to all product types apart from Kerosene, where naphthalene is only not accredited.

19. 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.

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

21. 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.

22. For all leachate preparations (NRA, DIN, TCLP, BSEN 12457-1, 2, 3) volatile loss may occur, as we do not employ zero headspace extraction.

23. 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.

24. 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 C4 -C10 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.

SOLID MATRICES EXTRACTION SUMMARY

ANALYSIS	D/C OR WET	EXTRACTION SOLVENT	EXTRACTION METHOD	ANALYSIS
SOLVENT EXTRACTABLE MATTER	D&C	DOM	SOXTERM	GRAMMETRIC
CYCLOHEXANE EXT. MATTER	D&C	CYCLOHEXANE	SOXTERM	GRAMMETRIC
THIN LAYER CHROMATOGRAPHY	D&C	DOM	SOXTERM	IATROSCAN
ELEMENTAL SULPHUR	D&C	DOM	SOXTERM	HPLC
PHENOLS BY GCMS	WET	DOM	SOXTERM	GCMS
HERBICIDES	D&C	HEXANEACETONE	SOXTERM	GCMS
PESTICIDES	D&C	HEXANEACETONE	SOXTERM	GCMS
EPH (DRO)	D&C	HEXANEACETONE	END OVEREND	GCFID
EPH (MINOL)	D&C	HEXANEACETONE	END OVEREND	GCFID
EPH (CLEANED UP)	D&C	HEXANEACETONE	END OVEREND	GCFID
EPH CWG BY GC	D&C	HEXANEACETONE	END OVEREND	GCFID
PCB TOT / PCB CON	D&C	HEXANEACETONE	END OVEREND	GCMS
POLYAROMATIC HYDROCARBONS (MS)	WET	HEXANEACETONE	MICROWAVE TM28.	GCMS
C8-C40 (C6C40) EZ FLASH	WET	HEXANEACETONE	SHAKER	GCEZ
POLYAROMATIC HYDROCARBONS RAPID GC	WET	HEXANEACETONE	SHAKER	GCEZ
SEM VOLATILE ORGANIC COMPOUNDS	WET	DOMACETONE	SONICATE	GCMS

LIQUID MATRICES EXTRACTION SUMMARY

ANALYSIS	EXTRACTION SOLVENT	EXTRACTION METHOD	ANALYSIS
PAHMS	HEXANE	STIRRED EXTRACTION (STIR-BAR)	GCMS
EPH	HEXANE	STIRRED EXTRACTION (STIR-BAR)	GCFID
EPH CWG	HEXANE	STIRRED EXTRACTION (STIR-BAR)	GCFID
MINERAL OIL	HEXANE	STIRRED EXTRACTION (STIR-BAR)	GCFID
PCB CONGENERS	HEXANE	STIRRED EXTRACTION (STIR-BAR)	GCMS
PCB TOTAL	HEXANE	STIRRED EXTRACTION (STIR-BAR)	GCMS
SVOC	DOM	LIQUID/LIQUID SHAKE	GCMS
FREESULPHUR	DOM	SOLID PHASE EXTRACTION	HPLC
PEST COPP	DOM	LIQUID/LIQUID SHAKE	GCMS
TRIAZINE HERBS	DOM	LIQUID/LIQUID SHAKE	GCMS
PHENOLS MS	DOM	SOLID PHASE EXTRACTION	GCMS
TPH by INFRARED (IR)	TCE	LIQUID/LIQUID SHAKE	HPLC
MINERAL OIL by IR	TCE	LIQUID/LIQUID SHAKE	HPLC
GLYCOLS	NONE	DIRECT INJECTION	GCMS

Identification of Asbestos in Bulk Materials

The results for asbestos identification for soil samples are obtained from possible Asbestos Containing Material, removed during the 'Screening of soils for Asbestos Containing 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).

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 MDHS 100.

The identification of asbestos containing materials 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.

Asbestos Type	Common Name
Chrysotile	White Asbestos
Amosite	Brown Asbestos
Coöcidite	Blue Asbestos
Fibrous Actinolite	-
Fibrous Anorthophyllite	-
Fibrous Tremolite	-

SDG: 140113-13
Job: H_RHASKON_PTB-82
Client Reference: 9Y0074 103 100

Location: Cole Green
Customer: Royal Haskoning
Attention: Declan Fives

Order Number: 940074 103 100
Report Number: 257253
Superseded Report:

Appendix General

1. Results are expressed on a dry weight basis (dried at 35°C) 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/MCERES Accredited Laboratories, who either complete a quality questionnaire or are audited by ourselves. For some determinands there are no UKAS/MCERES 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. 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 for wet tests reported on a dry weight basis are not corrected for moisture content.

13. **Surrogate recoveries** -Most of our organic methods include surrogates, the recovery of which is monitored and reported. For EPH, MO, PAH, GRO and VOCs on soils the result is not surrogate corrected, but a percentage recovery is quoted. Acceptable limits for most organic methods are 70 -130 %.

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 Dimethylphenol, 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 all leachate preparations (NRA, DIN, TCLP, BSEN 12457-1, 2, 3) volatile loss may occur, as we do not employ zero headspace extraction.

22. We are accredited to MCERES 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.

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
§	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 Anthrophyllite	-
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.