ALcontrol Laboratories

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Attention: Neil Balderstone

CERTIFICATE OF ANALYSIS

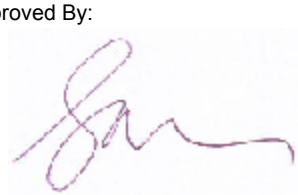
Date:	11 November 2011
Customer:	D_MOUCHEL_ELE
Sample Delivery Group (SDG):	111028-44
Your Reference:	
Location:	Limerick Gasworks
Report No:	159168

We received 9 samples on Wednesday October 26, 2011 and 9 of these samples were scheduled for analysis which was completed on Friday November 11, 2011. Accredited laboratory tests are defined within the report, but opinions, interpretations and on-site data expressed herein are outside the scope of ISO 17025 accreditation.

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

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

Approved By:



Sonia McWhan

Operations Manager

CERTIFICATE OF ANALYSIS

SDG:	111028-44	**Location:**	Limerick Gasworks	**Order Number:**	4700000740
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	159168
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Received Sample Overview

Lab Sample No(s)	Customer Sample Ref.	AGS Ref.	Depth (m)	Sampled Date
4595525	A10		0.50 - 0.70	25/10/2011
4595527	A10		2.30 - 2.60	25/10/2011
4595522	A9		0.00 - 0.70	25/10/2011
4595523	A9		0.70 - 0.95	25/10/2011
4595528	B10		0.00 - 0.40	25/10/2011
4595532	B9		0.30 - 0.50	25/10/2011
4595535	B9		1.00 - 1.80	25/10/2011
4595536	B9		2.00 - 2.20	25/10/2011
4595537	B9		2.50 - 2.80	25/10/2011

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

CERTIFICATE OF ANALYSIS

SDG:	111028-44	**Location:**	Limerick Gasworks	**Order Number:**	4700000740
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	159168
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

SOLID

Results Legend

X **Test**

N **No Determination Possible**

			Lab Sample No(s)	Customer Sample Reference	AGS Reference	Depth (m)	Container
Ammonium Soil by Titration	All	NDPs: 3 Tests: 6	4595522	A9		0.00 - 0.70	250g Amber Jar (AL
							400g Tub (ALE214)
							60g VOC (ALE215)
Asbestos Identification (Soil)	All	NDPs: 0 Tests: 4	4595523	A9		0.70 - 0.95	250g Amber Jar (AL
							400g Tub (ALE214)
							60g VOC (ALE215)
Cyanide Comp/Free/Total/Thiocyanate	All	NDPs: 3 Tests: 6	4595532	B9		0.30 - 0.50	250g Amber Jar (AL
							400g Tub (ALE214)
							60g VOC (ALE215)
Easily Liberated Sulphide	All	NDPs: 3 Tests: 6	4595535	B9		1.00 - 1.80	250g Amber Jar (AL
							400g Tub (ALE214)
							60g VOC (ALE215)
EPH CWG (Aliphatic) GC (S)	All	NDPs: 3 Tests: 6	4595536	B9		2.00 - 2.20	250g Amber Jar (AL
							400g Tub (ALE214)
							60g VOC (ALE215)
EPH CWG (Aromatic) GC (S)	All	NDPs: 3 Tests: 6	4595537	B9		2.50 - 2.80	250g Amber Jar (AL
							400g Tub (ALE214)
							60g VOC (ALE215)
GRO by GC-FID (S)	All	NDPs: 0 Tests: 9	4595525	A10		0.50 - 0.70	250g Amber Jar (AL
							400g Tub (ALE214)
							60g VOC (ALE215)
Hexavalent Chromium (s)	All	NDPs: 3 Tests: 6	4595527	A10		2.30 - 2.60	250g Amber Jar (AL
							400g Tub (ALE214)
							60g VOC (ALE215)
Metals by iCap-OES (Soil)	Arsenic	NDPs: 3 Tests: 6	4595528	B10		0.00 - 0.40	250g Amber Jar (AL
							400g Tub (ALE214)
							60g VOC (ALE215)
	Cadmium	NDPs: 3 Tests: 6					
	Chromium	NDPs: 3 Tests: 6					
	Copper	NDPs: 3 Tests: 6					
	Lead	NDPs: 3 Tests: 6					
	Mercury	NDPs: 3 Tests: 6					
	Nickel	NDPs: 3 Tests: 6					

SDG:	111028-44	**Location:**	Limerick Gasworks	**Order Number:**	4700000740
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	159168
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

SOLID

Results Legend

- X = Test
- N = No Determination Possible

	Lab Sample No(s)		4595522			4595523			4595532			4595535			4595536			4595537			4595525			4595527			4595528		
	Customer Sample Reference		A9			A9			B9			B9			B9			B9			A10			A10			B10		
	AGS Reference																													
	Depth (m)		0.00 - 0.70			0.70 - 0.95			0.30 - 0.50			1.00 - 1.80			2.00 - 2.20			2.50 - 2.80			0.50 - 0.70			2.30 - 2.60			0.00 - 0.40		
	Container		250g Amber Jar (AL	400g Tub (ALE214)	60g VOC (ALE215)	250g Amber Jar (AL	400g Tub (ALE214)	60g VOC (ALE215)	250g Amber Jar (AL	400g Tub (ALE214)	60g VOC (ALE215)	250g Amber Jar (AL	400g Tub (ALE214)	60g VOC (ALE215)	250g Amber Jar (AL	400g Tub (ALE214)	60g VOC (ALE215)	250g Amber Jar (AL	400g Tub (ALE214)	60g VOC (ALE215)	250g Amber Jar (AL	400g Tub (ALE214)	60g VOC (ALE215)	250g Amber Jar (AL	400g Tub (ALE214)	60g VOC (ALE215)	250g Amber Jar (AL	400g Tub (ALE214)	60g VOC (ALE215)
Metals by iCap-OES (Soil)	Selenium	NDPs: 3 Tests: 6	N									N															N		
						X			X						X			X			X			X					
	Zinc	NDPs: 3 Tests: 6	N									N															N		
						X			X						X			X			X			X					
PAH by GCMS	All	NDPs: 3 Tests: 6	N									N															N		
						X			X						X			X			X			X					
PCBs by GCMS	All	NDPs: 3 Tests: 1	N									N															N		
																								X					
pH	All	NDPs: 3 Tests: 6		N									N															N	
							X			X						X			X			X			X				
Phenols by HPLC (S)	All	NDPs: 3 Tests: 6		N									N															N	
							X			X						X			X			X			X				
Sample description	All	NDPs: 3 Tests: 9	N									N															N		
			X			X			X			X			X			X			X			X			X		
Total Sulphate	All	NDPs: 3 Tests: 6	N									N															N		
						X			X						X			X			X			X					
TPH CWG GC (S)	All	NDPs: 3 Tests: 6	N									N															N		
						X			X						X			X			X			X					
VOC MS (S)	All	NDPs: 0 Tests: 2																											
																			X										X

CERTIFICATE OF ANALYSIS

SDG:	111028-44	**Location:**	Limerick Gasworks	**Order Number:**	4700000740
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	159168
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Sample Descriptions

Grain Sizes

very fine	<0.063mm	fine	0.063mm - 0.1mm	medium	0.1mm - 2mm	coarse	2mm - 10mm	very coarse	>10mm

Lab Sample No(s)	Customer Sample Ref.	Depth (m)	Colour	Description	Grain size	Inclusions	Inclusions 2
4595522	A9	0.00 - 0.70	Dark Brown	Gravel	2 - 10 mm	None	None
4595523	A9	0.70 - 0.95	Light Brown	Sandy Loam	0.1 - 2 mm	Stones	None
4595525	A10	0.50 - 0.70	Light Brown	Sandy Loam	0.1 - 2 mm	Stones	None
4595527	A10	2.30 - 2.60	Light Brown	Clay	0.063 - 0.1 mm	Stones	None
4595532	B9	0.30 - 0.50	Dark Brown	Sandy Clay	0.063 - 0.1 mm	Stones	N/A
4595535	B9	1.00 - 1.80	Dark Brown	Sand	0.1 - 2 mm	Stones	None
4595536	B9	2.00 - 2.20	Dark Brown	Sandy Loam	0.1 - 2 mm	Stones	None
4595537	B9	2.50 - 2.80	Light Brown	Sandy Loam	0.1 - 2 mm	Stones	N/A
4595528	B10	0.00 - 0.40	Dark Brown	Sandy Loam	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 ocurring 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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SDG:	111028-44	**Location:**	Limerick Gasworks	**Order Number:**	4700000740
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	159168
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
§	Deviating sample.
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

Component	LOD/Units	Method	Customer Sample R	A9	A10	A10	B9	B9	B9
			Depth (m)	0.70 - 0.95	0.50 - 0.70	2.30 - 2.60	0.30 - 0.50	2.00 - 2.20	2.50 - 2.80
			Sample Type	Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid
			Date Sampled	25/10/2011	25/10/2011	25/10/2011	25/10/2011	25/10/2011	25/10/2011
			Date Received	26/10/2011	26/10/2011	26/10/2011	26/10/2011	26/10/2011	26/10/2011
			SDG Ref	111028-44	111028-44	111028-44	111028-44	111028-44	111028-44
			Lab Sample No.(s)	4595523	4595525	4595527	4595532	4595536	4595537
			AGS Reference						
Ammoniacal Nitrogen, exchangeable as NH4	<15 mg/kg	TM024		<15 M	<15 M	<15 M	<15 M	<15 M	51.8 M
Ammoniacal Nitrogen as N	<15 mg/kg	TM024		<15	<15	<15	<15	<15	40.3
Catechol	<0.01 mg/kg	TM062 (S)		<0.01	<0.01	<0.01	<0.01	<0.01	<0.05
Phenol	<0.01 mg/kg	TM062 (S)		<0.01 M	<0.01 M	<0.01 M	0.011 M	0.319 M	7.12 M
Cresols	<0.01 mg/kg	TM062 (S)		<0.01 M	<0.01 M	<0.01 M	0.0329 M	0.177 M	8.1 M
Resorcinol	<0.05 mg/kg	TM062 (S)		<0.05	<0.05	<0.05	<0.05	<0.05	<0.25
Xylenols	<0.015 mg/kg	TM062 (S)		<0.015 M	<0.015 M	<0.015 M	<0.015 M	<0.015 M	6.16 M
1-Naphthol	<0.01 mg/kg	TM062 (S)		<0.01	<0.01	<0.01	<0.01	<0.01	<0.05
2,3,5-Trimethylphenol	<0.01 mg/kg	TM062 (S)		<0.01 M	<0.01 M	<0.01 M	<0.01 M	<0.01 M	<0.05 M
2-Isopropylphenol	<0.015 mg/kg	TM062 (S)		<0.015 M	<0.015 M	<0.015 M	<0.015 M	<0.015 M	1.98 M
Phenols, Total Detected 8 Speciated	<0.12 mg/kg	TM062 (S)		<0.12	<0.12	<0.12	<0.12	0.496	23.4
pH	1 pH Units	TM133		9.74 § M	9.65 § M	7.43 § M	8.5 § M	11.5 § M	10.7 § M
Hexavalent Chromium	<0.6 mg/kg	TM151		<0.6 #	<0.6 #	<0.6 #	<0.6 #	<0.6 #	<0.6 #
Chromium, Hexavalent	<0.6 mg/kg	TM151		<0.6 #	<0.6 #	<0.6 #	<0.6 #	<0.6 #	<0.6 #
Cyanide, Total	<1 mg/kg	TM153		<1 M	<1 M	38.5 M	<1 M	4.69 M	2.39 M
PCB congener 28	<3 µg/kg	TM168				<3 M			
PCB congener 52	<3 µg/kg	TM168				<3 M			
PCB congener 101	<3 µg/kg	TM168				<3 M			
PCB congener 118	<3 µg/kg	TM168				<3 M			
PCB congener 138	<3 µg/kg	TM168				<3 M			
PCB congener 153	<3 µg/kg	TM168				<3 M			
PCB congener 180	<3 µg/kg	TM168				<3 M			
Sum of detected PCB 7 Congeners	<21 µg/kg	TM168				<21			
Easily Liberated Sulphide	<15 mg/kg	TM180		<15 #	<15 #	<15 #	<15 #	<15 #	19.9 #
Sulphide, Easily liberated	<15 mg/kg	TM180		<15 #	<15 #	<15 #	<15 #	<15 #	21.8 #
Arsenic	<0.6 mg/kg	TM181		7.06 M	8.9 M	16.4 M	12.7 M	28.3 M	7.11 M
Cadmium	<0.02 mg/kg	TM181		0.205 M	0.369 M	0.387 M	0.371 M	0.492 M	0.416 M
Chromium	<0.9 mg/kg	TM181		20.5 M	13 M	28 M	13.4 M	25.7 M	9.18 M
Copper	<1.4 mg/kg	TM181		15.1 M	20.4 M	26.9 M	16 M	24.3 M	4.28 M
Lead	<0.7 mg/kg	TM181		24 M	58.7 M	54.6 M	112 M	94 M	5.13 M
Mercury	<0.14 mg/kg	TM181		<0.14 M	<0.14 M	<0.14 M	<0.14 M	<0.14 M	<0.14 M
Nickel	<0.2 mg/kg	TM181		24.1 M	16.3 M	41.8 M	18.6 M	31.2 M	10.8 M
Selenium	<1 mg/kg	TM181		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Zinc	<1.9 mg/kg	TM181		49.1 M	81.7 M	61.9 M	95.3 M	234 M	21.6 M
Sulphate, Total	<48 mg/kg	TM221		5890 M	1720 M	236 M	736 M	4210 M	680 M

CERTIFICATE OF ANALYSIS

SDG:	111028-44	**Location:**	Limerick Gasworks	**Order Number:**	4700000740
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	159168
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

GRO by GC-FID (S)

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
§	Deviating sample.
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

Component	LOD/Units	Method	Customer Sample R	A9	B9	B10			
			Depth (m)	0.00 - 0.70	1.00 - 1.80	0.00 - 0.40			
			Sample Type	Soil/Solid	Soil/Solid	Soil/Solid			
			Date Sampled	25/10/2011	25/10/2011	25/10/2011			
			Date Received	26/10/2011	26/10/2011	26/10/2011			
			SDG Ref	111028-44	111028-44	111028-44			
			Lab Sample No.(s)	4595522	4595535	4595528			
			AGS Reference						
GRO >C5-C12	<44 µg/kg	TM089		75	176	468			
Methyl tertiary butyl ether (MTBE)	<5 µg/kg	TM089		<5 #	<5 #	<5 #			
Benzene	<10 µg/kg	TM089		<10 #	<10 M	<10 M			
Toluene	<2 µg/kg	TM089		8.96 #	24.6 M	11.2 M			
Ethylbenzene	<3 µg/kg	TM089		<3 #	4.92 M	<3 M			
m,p-Xylene	<6 µg/kg	TM089		6.72 #	16 M	12.3 M			
o-Xylene	<3 µg/kg	TM089		3.36 #	6.15 M	4.48 M			
sum of detected mpo xylene by GC	<9 µg/kg	TM089		10.1	22.2	16.8			
sum of detected BTEX by GC	<24 µg/kg	TM089		<24	51.7	28			
Aliphatics >C5-C6	<10 µg/kg	TM089		<10	18.5	29.1			
Aliphatics >C6-C8	<10 µg/kg	TM089		10.1	43.1	39.2			
Aliphatics >C8-C10	<10 µg/kg	TM089		12.3	17.2	65			
Aliphatics >C10-C12	<10 µg/kg	TM089		10.1	13.5	150			
Aromatics >EC5-EC7	<10 µg/kg	TM089		<10	11.1	10.1			
Aromatics >EC7-EC8	<10 µg/kg	TM089		<10	24.6	11.2			
Aromatics >EC8-EC10	<10 µg/kg	TM089		20.2	38.1	62.7			
Aromatics >EC10-EC12	<10 µg/kg	TM089		<10	<10	101			
Total Aliphatics >C5-C12	<10 µg/kg	TM089		37	93.5	283			
Total Aromatics >EC5-EC12	<10 µg/kg	TM089		38.1	83.6	185			

CERTIFICATE OF ANALYSIS

SDG:	111028-44	**Location:**	Limerick Gasworks	**Order Number:**	4700000740
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	159168
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

PAH by GCMS

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
§	Deviating sample.
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

Component	LOD/Units	Method	Customer Sample R	A9	A10	A10	B9	B9	B9
			Depth (m)	0.70 - 0.95	0.50 - 0.70	2.30 - 2.60	0.30 - 0.50	2.00 - 2.20	2.50 - 2.80
			Sample Type	Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid
			Date Sampled	25/10/2011	25/10/2011	25/10/2011	25/10/2011	25/10/2011	25/10/2011
			Date Received	26/10/2011	26/10/2011	26/10/2011	26/10/2011	26/10/2011	26/10/2011
			SDG Ref	111028-44	111028-44	111028-44	111028-44	111028-44	111028-44
			Lab Sample No.(s)	4595523	4595525	4595527	4595532	4595536	4595537
			AGS Reference						
Naphthalene	<9 µg/kg	TM218		169 M	740 M	<9 M	1030 M	1170 M	24400 M
Acenaphthylene	<12 µg/kg	TM218		65.9 M	1210 M	<12 M	6140 M	298 M	5190 M
Acenaphthene	<8 µg/kg	TM218		14.8 M	119 M	<8 M	1190 M	348 M	1240 M
Fluorene	<10 µg/kg	TM218		20 M	424 M	<10 M	4300 M	499 M	4930 M
Phenanthrene	<15 µg/kg	TM218		127 M	4590 M	<15 M	13800 M	3820 M	15200 M
Anthracene	<16 µg/kg	TM218		39.3 M	1960 M	<16 M	6690 M	1310 M	5090 M
Fluoranthene	<17 µg/kg	TM218		194 M	10300 M	<17 M	18400 M	4520 M	12400 M
Pyrene	<15 µg/kg	TM218		172 M	8880 M	<15 M	12900 M	3130 M	7960 M
Benz(a)anthracene	<14 µg/kg	TM218		134 M	6510 M	<14 M	7880 M	2100 M	4650 M
Chrysene	<10 µg/kg	TM218		98.6 M	4390 M	<10 M	4930 M	1670 M	3030 M
Benzo(b)fluoranthene	<15 µg/kg	TM218		220 M	9580 M	<15 M	8570 M	2270 M	4160 M
Benzo(k)fluoranthene	<14 µg/kg	TM218		60.6 M	3240 M	<14 M	2680 M	778 M	1620 M
Benzo(a)pyrene	<15 µg/kg	TM218		169 M	7650 M	<15 M	6710 M	1340 M	3400 M
Indeno(1,2,3-cd)pyrene	<18 µg/kg	TM218		105 M	4330 M	<18 M	3170 M	646 M	1440 M
Dibenzo(a,h)anthracene	<23 µg/kg	TM218		<23 M	1340 M	<23 M	870 M	227 M	424 M
Benzo(g,h,i)perylene	<24 µg/kg	TM218		124 M	4920 M	<24 M	3280 M	781 M	1540 M
PAH, Total Detected USEPA 16	<118 µg/kg	TM218		1710	70200	<118	103000	24900	96700

CERTIFICATE OF ANALYSIS

SDG:	111028-44	**Location:**	Limerick Gasworks	**Order Number:**	4700000740
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	159168
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

TPH CWG (S)

Results Legend

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*	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

Component	LOD/Units	Method	Customer Sample R	A9	A10	A10	B9	B9	B9
			Depth (m)	0.70 - 0.95	0.50 - 0.70	2.30 - 2.60	0.30 - 0.50	2.00 - 2.20	2.50 - 2.80
			Sample Type	Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid
			Date Sampled	25/10/2011	25/10/2011	25/10/2011	25/10/2011	25/10/2011	25/10/2011
			Date Received	26/10/2011	26/10/2011	26/10/2011	26/10/2011	26/10/2011	26/10/2011
			SDG Ref	111028-44	111028-44	111028-44	111028-44	111028-44	111028-44
			Lab Sample No.(s)	4595523	4595525	4595527	4595532	4595536	4595537
			AGS Reference						
GRO >C5-C12	<44 µg/kg	TM089		164	153	<44	643	620 §	23000 §
Methyl tertiary butyl ether (MTBE)	<5 µg/kg	TM089		<5 #	<5 #	<5 #	<5 #	<5 § #	<5 § #
Benzene	<10 µg/kg	TM089		<10 M	<10 M	<10 M	<10 M	62.5 § M	189 § M
Toluene	<2 µg/kg	TM089		22 M	12.9 M	<2 M	11 M	96.8 § M	268 § M
Ethylbenzene	<3 µg/kg	TM089		3.3 M	3.51 M	<3 M	<3 M	10.6 § M	131 § M
m,p-Xylene	<6 µg/kg	TM089		18.7 M	12.9 M	<6 M	12 M	49.6 § M	1480 § M
o-Xylene	<3 µg/kg	TM089		6.6 M	<3 M	<3 M	8.76 M	27.1 § M	701 § M
sum of detected mpo xylene by GC	<9 µg/kg	TM089		25.3	12.9	<9	20.8	76.7 §	2180 §
sum of detected BTEX by GC	<24 µg/kg	TM089		50.6	29.3	<24	31.8	247 §	2770 §
Aliphatics >C5-C6	<10 µg/kg	TM089		19.8	<10	<10	13.1	62.5 §	39.4 §
Aliphatics >C6-C8	<10 µg/kg	TM089		39.6	25.7	<10	30.7	179 §	1010 §
Aliphatics >C8-C10	<10 µg/kg	TM089		16.5	24.6	<10	74.5	49.6 §	4160 §
Aliphatics >C10-C12	<10 µg/kg	TM089		13.2	26.9	<10	261	30.7 §	7350 §
Aliphatics >C12-C16	<100 µg/kg	TM173		<100	7840	<100	11800	11100	14700
Aliphatics >C16-C21	<100 µg/kg	TM173		<100	12400	<100	27600	24300	25500
Aliphatics >C21-C35	<100 µg/kg	TM173		<100	27800	<100	457000	82400	41300
Aliphatics >C35-C44	<100 µg/kg	TM173		<100	6820	<100	44100	18600	7660
Total Aliphatics >C12-C44	<100 µg/kg	TM173		<100	54900	<100	540000	136000	89200
Aromatics >EC5-EC7	<10 µg/kg	TM089		<10	<10	<10	<10	62.5 §	189 §
Aromatics >EC7-EC8	<10 µg/kg	TM089		22	12.9	<10	11	96.8 §	268 §
Aromatics >EC8-EC10	<10 µg/kg	TM089		39.6	31.6	<10	71.2	120 §	5080 §
Aromatics >EC10-EC12	<10 µg/kg	TM089		<10	18.7	<10	174	20.1 §	4900 §
Aromatics >EC12-EC16	<100 µg/kg	TM173		3420	14000	<100	26600	21300	35100
Aromatics >EC16-EC21	<100 µg/kg	TM173		5290	65300	<100	104000	58600	104000
Aromatics >EC21-EC35	<100 µg/kg	TM173		23100	228000	<100	336000	147000	178000
Aromatics >EC35-EC44	<100 µg/kg	TM173		10300	70800	<100	72500	25400	38100
Total Aromatics >EC12-EC44	<100 µg/kg	TM173		42100	378000	<100	540000	252000	355000
Total Aliphatics & Aromatics >C5-C44	<100 µg/kg	TM173		42100	433000	<100	1080000	389000	467000
Total Aliphatics >C5-35	<100 µg/kg	TM173		<100	48200	<100	497000	118000	94100
Total Aromatics >C5-35	<100 µg/kg	TM173		31900	308000	<100	468000	227000	327000
Total Aliphatics & Aromatics >C5-35	<100 µg/kg	TM173		31900	356000	<100	964000	345000	421000
Total Aliphatics >C5-C12	<10 µg/kg	TM089		89.1	85.4	<10	380	321 §	12600 §
Total Aromatics >EC5-EC12	<10 µg/kg	TM089		74.8	67.9	<10	263	299 §	10400 §
Total Aliphatics >C5-C44	<100 µg/kg	TM173		<100	55000	<100	541000	137000	102000
Total Aromatics >C6-C44	<100 µg/kg	TM173		42100	378000	<100	540000	252000	366000

CERTIFICATE OF ANALYSIS

SDG:	111028-44	**Location:**	Limerick Gasworks	**Order Number:**	4700000740
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	159168
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

TPH CWG (S)

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
§	Deviating sample.
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

Component	LOD/Units	Method	Customer Sample R	A9	A10	A10	B9	B9	B9
			Depth (m)	0.70 - 0.95	0.50 - 0.70	2.30 - 2.60	0.30 - 0.50	2.00 - 2.20	2.50 - 2.80
			Sample Type	Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid
			Date Sampled	25/10/2011	25/10/2011	25/10/2011	25/10/2011	25/10/2011	25/10/2011
			Date Received	26/10/2011	26/10/2011	26/10/2011	26/10/2011	26/10/2011	26/10/2011
			SDG Ref	111028-44	111028-44	111028-44	111028-44	111028-44	111028-44
			Lab Sample No.(s)	4595523	4595525	4595527	4595532	4595536	4595537
			AGS Reference						
Aliphatics >C16-C35	<100 µg/kg	TM173		<100	40200	<100	484000	107000	66800

CERTIFICATE OF ANALYSIS

SDG:	111028-44	**Location:**	Limerick Gasworks	**Order Number:**	4700000740
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	159168
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

VOC MS (S)

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
§	Deviating sample.
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

Component	LOD/Units	Method	Customer Sample R	B9	B10
			Depth (m)	2.50 - 2.80	0.00 - 0.40
			Sample Type	Soil/Solid	Soil/Solid
			Date Sampled	25/10/2011	25/10/2011
			Date Received	26/10/2011	26/10/2011
			SDG Ref	111028-44	111028-44
			Lab Sample No.(s)	4595537	4595528
			AGS Reference		
Dibromofluoromethane**	%	TM116		40.3 §	0.78
Toluene-d8**	%	TM116		98.4 §	104
4-Bromofluorobenzene**	%	TM116		116 §	136
Dichlorodifluoromethane	<4 µg/kg	TM116		<4 § M	<40 M
Chloromethane	<7 µg/kg	TM116		<7 § #	<70 #
Vinyl Chloride	<10 µg/kg	TM116		<10 § #	<100 #
Bromomethane	<13 µg/kg	TM116		<13 § M	<130 M
Chloroethane	<14 µg/kg	TM116		<14 § M	<140 M
Trichlorofluorormethane	<6 µg/kg	TM116		<6 § M	<60 M
1.1-Dichloroethene	<10 µg/kg	TM116		<10 § #	<100 #
Carbon Disulphide	<7 µg/kg	TM116		41.3 § M	<70 M
Dichloromethane	<10 µg/kg	TM116		<10 § #	<100 #
Methyl Tertiary Butyl Ether	<11 µg/kg	TM116		<11 § M	<110 M
trans-1-2-Dichloroethene	<11 µg/kg	TM116		<11 § M	<110 M
1.1-Dichloroethane	<8 µg/kg	TM116		<8 § M	<80 M
cis-1-2-Dichloroethene	<5 µg/kg	TM116		<5 § M	<50 M
2.2-Dichloropropane	<12 µg/kg	TM116		<12 § M	<120 M
Bromochloromethane	<14 µg/kg	TM116		<14 § M	<140 M
Chloroform	<8 µg/kg	TM116		<8 § M	<80 M
1.1.1-Trichloroethane	<7 µg/kg	TM116		<7 § M	<70 M
1.1-Dichloropropene	<11 µg/kg	TM116		<11 § M	<110 M
Carbontetrachloride	<14 µg/kg	TM116		<14 § M	<140 M
1.2-Dichloroethane	<5 µg/kg	TM116		<5 § M	<50 M
Benzene	<9 µg/kg	TM116		167 § M	<90 M
Trichloroethene	<9 µg/kg	TM116		<9 § M	<90 M
1.2-Dichloropropane	<12 µg/kg	TM116		<12 § M	<120 M
Dibromomethane	<9 µg/kg	TM116		<9 § M	<90 M
Bromodichloromethane	<7 µg/kg	TM116		<7 § M	<70 M
cis-1-3-Dichloropropene	<14 µg/kg	TM116		<14 § M	<140 M
Toluene	<5 µg/kg	TM116		162 § M	<50 M
trans-1-3-Dichloropropene	<14 µg/kg	TM116		<14 §	<140
1.1.2-Trichloroethane	<10 µg/kg	TM116		<10 § M	<100 M
1.3-Dichloropropane	<7 µg/kg	TM116		<7 § #	<70 #
Tetrachloroethene	<5 µg/kg	TM116		<5 § M	<50 M
Dibromochloromethane	<13 µg/kg	TM116		<13 § M	<130 M

CERTIFICATE OF ANALYSIS

SDG:	111028-44	**Location:**	Limerick Gasworks	**Order Number:**	4700000740
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	159168
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

VOC MS (S)

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
§	Deviating sample.
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

Component	LOD/Units	Method	Customer Sample R	B9	B10
			Depth (m)	2.50 - 2.80	0.00 - 0.40
			Sample Type	Soil/Solid	Soil/Solid
			Date Sampled	25/10/2011	25/10/2011
			Date Received	26/10/2011	26/10/2011
			SDG Ref	111028-44	111028-44
			Lab Sample No.(s)	4595537	4595528
			AGS Reference		
1.2-Dibromoethane	<12 µg/kg	TM116		<12 § M	<120 M
Chlorobenzene	<5 µg/kg	TM116		<5 § M	<50 M
1.1.1.2-Tetrachloroethane	<10 µg/kg	TM116		<10 § M	<100 M
Ethylbenzene	<4 µg/kg	TM116		48.9 § M	<40 M
p/m-Xylene	<14 µg/kg	TM116		424 § #	<140 #
o-Xylene	<10 µg/kg	TM116		191 § M	<100 M
Styrene	<10 µg/kg	TM116		<10 § M	<100 M
Bromoform	<10 µg/kg	TM116		<10 § M	<100 M
Isopropylbenzene	<5 µg/kg	TM116		<5 § M	<50 M
1.1.2.2-Tetrachloroethane	<10 µg/kg	TM116		<10 § #	<100 #
1.2.3-Trichloropropane	<17 µg/kg	TM116		<17 § M	<170 M
Bromobenzene	<10 µg/kg	TM116		<10 § M	<100 M
Propylbenzene	<11 µg/kg	TM116		38.5 § M	<110 M
2-Chlorotoluene	<9 µg/kg	TM116		<9 § M	<90 M
1.3.5-Trimethylbenzene	<8 µg/kg	TM116		246 § #	<80 #
4-Chlorotoluene	<12 µg/kg	TM116		<12 § M	<120 M
tert-Butylbenzene	<12 µg/kg	TM116		<12 § #	<120 #
1.2.4-Trimethylbenzene	<9 µg/kg	TM116		1020 § #	<90 #
sec-Butylbenzene	<10 µg/kg	TM116		<10 § M	<100 M
4-Isopropyltoluene	<11 µg/kg	TM116		<11 § M	<110 M
1.3-Dichlorobenzene	<6 µg/kg	TM116		<6 § M	<60 M
1.4-Dichlorobenzene	<5 µg/kg	TM116		<5 § M	<50 M
n-Butylbenzene	<10 µg/kg	TM116		87 § M	<100 M
1.2-Dichlorobenzene	<12 µg/kg	TM116		<12 § M	<120 M
1.2-Dibromo-3-chloropropane	<14 µg/kg	TM116		<14 § M	<140 M
Tert-amyl methyl ether	<15 µg/kg	TM116		<15 §	<150
1.2.4-Trichlorobenzene	<6 µg/kg	TM116		<6 § #	<60 #
Hexachlorobutadiene	<12 µg/kg	TM116		<12 §	<120
Naphthalene	<13 µg/kg	TM116		42400 M	1710 M
1.2.3-Trichlorobenzene	<6 µg/kg	TM116		<6 § M	<60 M

CERTIFICATE OF ANALYSIS

SDG:	111028-44	**Location:**	Limerick Gasworks	**Order Number:**	4700000740
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	159168
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Asbestos Identification

		Date of Analysis	Analysed By	Comments	Amosite (Brown) Asbestos	Chrysotile (White) Asbestos	Crocidolite (Blue) Asbestos	Fibrous Actinolite	Fibrous Anthophyllite	Fibrous Tremolite	Non-Asbestos Fibre
Customer Sample Ref. Depth (m) Sample Type Date Sampled Date Receieved SDG Original Sample Method Number	A10 NS Z 2.30 - 2.60 SOLID 25/10/2011 00:00:00 111028-44 4,595,527 TM048	03/11/11	Lauren Sargeant	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Customer Sample Ref. Depth (m) Sample Type Date Sampled Date Receieved SDG Original Sample Method Number	A9 NS Z 0.00 - 0.70 SOLID 25/10/2011 00:00:00 111028-44 4,595,522 TM048	03/11/11	Lauren Sargeant	Loose fibres in soil	Not Detected (#)	Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Customer Sample Ref. Depth (m) Sample Type Date Sampled Date Receieved SDG Original Sample Method Number	B10 NS Z 0.00 - 0.40 SOLID 25/10/2011 00:00:00 111028-44 4,595,528 TM048	03/11/11	Lauren Sargeant	Loose fibres in soil	Detected (#)	Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Customer Sample Ref. Depth (m) Sample Type Date Sampled Date Receieved SDG Original Sample Method Number	B9 NS Z 1.00 - 1.80 SOLID 25/10/2011 00:00:00 111028-44 4,595,535 TM048	03/11/11	Lauren Sargeant	Loose fibres in soil	Detected (#)	Detected (#)	Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected

CERTIFICATE OF ANALYSIS

SDG:	111028-44	**Location:**	Limerick Gasworks	**Order Number:**	4700000740
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	159168
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Notification of Deviating Samples

Sample Number	Customer Sample Ref.	Depth (m)	Matrix	Test Name	Component Name	Comment
4637176	B9	2.00 - 2.20	SOLID	GRO by GC-FID (S)	Aliphatics >C10-C12	Container with Headspace provided for volatiles analysis
4637176	B9	2.00 - 2.20	SOLID	GRO by GC-FID (S)	Aliphatics >C5-C6	Container with Headspace provided for volatiles analysis
4637176	B9	2.00 - 2.20	SOLID	GRO by GC-FID (S)	Aliphatics >C6-C8	Container with Headspace provided for volatiles analysis
4637176	B9	2.00 - 2.20	SOLID	GRO by GC-FID (S)	Aliphatics >C8-C10	Container with Headspace provided for volatiles analysis
4637176	B9	2.00 - 2.20	SOLID	GRO by GC-FID (S)	Aromatics >EC10-EC12	Container with Headspace provided for volatiles analysis
4637176	B9	2.00 - 2.20	SOLID	GRO by GC-FID (S)	Aromatics >EC5-EC7	Container with Headspace provided for volatiles analysis
4637176	B9	2.00 - 2.20	SOLID	GRO by GC-FID (S)	Aromatics >EC7-EC8	Container with Headspace provided for volatiles analysis
4637176	B9	2.00 - 2.20	SOLID	GRO by GC-FID (S)	Aromatics >EC8-EC10	Container with Headspace provided for volatiles analysis
4637176	B9	2.00 - 2.20	SOLID	GRO by GC-FID (S)	Benzene	Container with Headspace provided for volatiles analysis
4637176	B9	2.00 - 2.20	SOLID	GRO by GC-FID (S)	Ethylbenzene	Container with Headspace provided for volatiles analysis
4637176	B9	2.00 - 2.20	SOLID	GRO by GC-FID (S)	GRO >C5-C12	Container with Headspace provided for volatiles analysis
4637176	B9	2.00 - 2.20	SOLID	GRO by GC-FID (S)	m,p-Xylene	Container with Headspace provided for volatiles analysis
4637176	B9	2.00 - 2.20	SOLID	GRO by GC-FID (S)	Methyl tertiary butyl ether (MTBE)	Container with Headspace provided for volatiles analysis
4637176	B9	2.00 - 2.20	SOLID	GRO by GC-FID (S)	o-Xylene	Container with Headspace provided for volatiles analysis
4637176	B9	2.00 - 2.20	SOLID	GRO by GC-FID (S)	sum of detected BTEX by GC	Container with Headspace provided for volatiles analysis
4637176	B9	2.00 - 2.20	SOLID	GRO by GC-FID (S)	sum of detected mpo xylene by GC	Container with Headspace provided for volatiles analysis
4637176	B9	2.00 - 2.20	SOLID	GRO by GC-FID (S)	Toluene	Container with Headspace provided for volatiles analysis
4637176	B9	2.00 - 2.20	SOLID	GRO by GC-FID (S)	Total Aliphatics >C5-C12	Container with Headspace provided for volatiles analysis
4637176	B9	2.00 - 2.20	SOLID	GRO by GC-FID (S)	Total Aromatics >EC5-EC12	Container with Headspace provided for volatiles analysis
4637234	B9	2.50 - 2.80	SOLID	GRO by GC-FID (S)	Aliphatics >C10-C12	Container with Headspace provided for volatiles analysis
4637234	B9	2.50 - 2.80	SOLID	GRO by GC-FID (S)	Aliphatics >C5-C6	Container with Headspace provided for volatiles analysis
4637234	B9	2.50 - 2.80	SOLID	GRO by GC-FID (S)	Aliphatics >C6-C8	Container with Headspace provided for volatiles analysis
4637234	B9	2.50 - 2.80	SOLID	GRO by GC-FID (S)	Aliphatics >C8-C10	Container with Headspace provided for volatiles analysis
4637234	B9	2.50 - 2.80	SOLID	GRO by GC-FID (S)	Aromatics >EC10-EC12	Container with Headspace provided for volatiles analysis
4637234	B9	2.50 - 2.80	SOLID	GRO by GC-FID (S)	Aromatics >EC5-EC7	Container with Headspace provided for volatiles analysis
4637234	B9	2.50 - 2.80	SOLID	GRO by GC-FID (S)	Aromatics >EC7-EC8	Container with Headspace provided for volatiles analysis
4637234	B9	2.50 - 2.80	SOLID	GRO by GC-FID (S)	Aromatics >EC8-EC10	Container with Headspace provided for volatiles analysis
4637234	B9	2.50 - 2.80	SOLID	GRO by GC-FID (S)	Benzene	Container with Headspace provided for volatiles analysis
4637234	B9	2.50 - 2.80	SOLID	GRO by GC-FID (S)	Ethylbenzene	Container with Headspace provided for volatiles analysis
4637234	B9	2.50 - 2.80	SOLID	GRO by GC-FID (S)	GRO >C5-C12	Container with Headspace provided for volatiles analysis
4637234	B9	2.50 - 2.80	SOLID	GRO by GC-FID (S)	m,p-Xylene	Container with Headspace provided for volatiles analysis
4637234	B9	2.50 - 2.80	SOLID	GRO by GC-FID (S)	Methyl tertiary butyl ether (MTBE)	Container with Headspace provided for volatiles analysis
4637234	B9	2.50 - 2.80	SOLID	GRO by GC-FID (S)	o-Xylene	Container with Headspace provided for volatiles analysis
4637234	B9	2.50 - 2.80	SOLID	GRO by GC-FID (S)	sum of detected BTEX by GC	Container with Headspace provided for volatiles analysis
4637234	B9	2.50 - 2.80	SOLID	GRO by GC-FID (S)	sum of detected mpo xylene by GC	Container with Headspace provided for volatiles analysis
4637234	B9	2.50 - 2.80	SOLID	GRO by GC-FID (S)	Toluene	Container with Headspace provided for volatiles analysis

CERTIFICATE OF ANALYSIS

SDG:	111028-44	**Location:**	Limerick Gasworks	**Order Number:**	4700000740
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	159168
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Sample Number	Customer Sample Ref.	Depth (m)	Matrix	Test Name	Component Name	Comment
4637234	B9	2.50 - 2.80	SOLID	GRO by GC-FID (S)	Total Aliphatics >C5-C12	Container with Headspace provided for volatiles analysis
4637234	B9	2.50 - 2.80	SOLID	GRO by GC-FID (S)	Total Aromatics >EC5-EC12	Container with Headspace provided for volatiles analysis
4661061	B9	2.50 - 2.80	SOLID	VOC MS (S)	1.1.1.2-Tetrachloroethane	Container with Headspace provided for volatiles analysis
4661061	B9	2.50 - 2.80	SOLID	VOC MS (S)	1.1.1-Trichloroethane	Container with Headspace provided for volatiles analysis
4661061	B9	2.50 - 2.80	SOLID	VOC MS (S)	1.1.2.2-Tetrachloroethane	Container with Headspace provided for volatiles analysis
4661061	B9	2.50 - 2.80	SOLID	VOC MS (S)	1.1.2-Trichloroethane	Container with Headspace provided for volatiles analysis
4661061	B9	2.50 - 2.80	SOLID	VOC MS (S)	1.1-Dichloroethane	Container with Headspace provided for volatiles analysis
4661061	B9	2.50 - 2.80	SOLID	VOC MS (S)	1.1-Dichloroethene	Container with Headspace provided for volatiles analysis
4661061	B9	2.50 - 2.80	SOLID	VOC MS (S)	1.1-Dichloropropene	Container with Headspace provided for volatiles analysis
4661061	B9	2.50 - 2.80	SOLID	VOC MS (S)	1.2.3-Trichlorobenzene	Container with Headspace provided for volatiles analysis
4661061	B9	2.50 - 2.80	SOLID	VOC MS (S)	1.2.3-Trichloropropane	Container with Headspace provided for volatiles analysis
4661061	B9	2.50 - 2.80	SOLID	VOC MS (S)	1.2.4-Trichlorobenzene	Container with Headspace provided for volatiles analysis
4661061	B9	2.50 - 2.80	SOLID	VOC MS (S)	1.2.4-Trimethylbenzene	Container with Headspace provided for volatiles analysis
4661061	B9	2.50 - 2.80	SOLID	VOC MS (S)	1.2-Dibromo-3-chloropropane	Container with Headspace provided for volatiles analysis
4661061	B9	2.50 - 2.80	SOLID	VOC MS (S)	1.2-Dibromoethane	Container with Headspace provided for volatiles analysis
4661061	B9	2.50 - 2.80	SOLID	VOC MS (S)	1.2-Dichlorobenzene	Container with Headspace provided for volatiles analysis
4661061	B9	2.50 - 2.80	SOLID	VOC MS (S)	1.2-Dichloroethane	Container with Headspace provided for volatiles analysis
4661061	B9	2.50 - 2.80	SOLID	VOC MS (S)	1.2-Dichloropropane	Container with Headspace provided for volatiles analysis
4661061	B9	2.50 - 2.80	SOLID	VOC MS (S)	1.3.5-Trimethylbenzene	Container with Headspace provided for volatiles analysis
4661061	B9	2.50 - 2.80	SOLID	VOC MS (S)	1.3-Dichlorobenzene	Container with Headspace provided for volatiles analysis
4661061	B9	2.50 - 2.80	SOLID	VOC MS (S)	1.3-Dichloropropane	Container with Headspace provided for volatiles analysis
4661061	B9	2.50 - 2.80	SOLID	VOC MS (S)	1.4-Dichlorobenzene	Container with Headspace provided for volatiles analysis
4661061	B9	2.50 - 2.80	SOLID	VOC MS (S)	2.2-Dichloropropane	Container with Headspace provided for volatiles analysis
4661061	B9	2.50 - 2.80	SOLID	VOC MS (S)	2-Chlorotoluene	Container with Headspace provided for volatiles analysis
4661061	B9	2.50 - 2.80	SOLID	VOC MS (S)	4-Bromofluorobenzene**	Container with Headspace provided for volatiles analysis
4661061	B9	2.50 - 2.80	SOLID	VOC MS (S)	4-Chlorotoluene	Container with Headspace provided for volatiles analysis
4661061	B9	2.50 - 2.80	SOLID	VOC MS (S)	4-Isopropyltoluene	Container with Headspace provided for volatiles analysis
4661061	B9	2.50 - 2.80	SOLID	VOC MS (S)	Benzene	Container with Headspace provided for volatiles analysis
4661061	B9	2.50 - 2.80	SOLID	VOC MS (S)	Bromobenzene	Container with Headspace provided for volatiles analysis
4661061	B9	2.50 - 2.80	SOLID	VOC MS (S)	Bromochloromethane	Container with Headspace provided for volatiles analysis
4661061	B9	2.50 - 2.80	SOLID	VOC MS (S)	Bromodichloromethane	Container with Headspace provided for volatiles analysis
4661061	B9	2.50 - 2.80	SOLID	VOC MS (S)	Bromoform	Container with Headspace provided for volatiles analysis
4661061	B9	2.50 - 2.80	SOLID	VOC MS (S)	Bromomethane	Container with Headspace provided for volatiles analysis
4661061	B9	2.50 - 2.80	SOLID	VOC MS (S)	Carbon Disulphide	Container with Headspace provided for volatiles analysis
4661061	B9	2.50 - 2.80	SOLID	VOC MS (S)	Carbontetrachloride	Container with Headspace provided for volatiles analysis
4661061	B9	2.50 - 2.80	SOLID	VOC MS (S)	Chlorobenzene	Container with Headspace provided for volatiles analysis
4661061	B9	2.50 - 2.80	SOLID	VOC MS (S)	Chloroethane	Container with Headspace provided for volatiles analysis

CERTIFICATE OF ANALYSIS

SDG:	111028-44	**Location:**	Limerick Gasworks	**Order Number:**	4700000740
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	159168
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Sample Number	Customer Sample Ref.	Depth (m)	Matrix	Test Name	Component Name	Comment
4661061	B9	2.50 - 2.80	SOLID	VOC MS (S)	Chloroform	Container with Headspace provided for volatiles analysis
4661061	B9	2.50 - 2.80	SOLID	VOC MS (S)	Chloromethane	Container with Headspace provided for volatiles analysis
4661061	B9	2.50 - 2.80	SOLID	VOC MS (S)	cis-1-2-Dichloroethene	Container with Headspace provided for volatiles analysis
4661061	B9	2.50 - 2.80	SOLID	VOC MS (S)	cis-1-3-Dichloropropene	Container with Headspace provided for volatiles analysis
4661061	B9	2.50 - 2.80	SOLID	VOC MS (S)	Dibromochloromethane	Container with Headspace provided for volatiles analysis
4661061	B9	2.50 - 2.80	SOLID	VOC MS (S)	Dibromofluoromethane**	Container with Headspace provided for volatiles analysis
4661061	B9	2.50 - 2.80	SOLID	VOC MS (S)	Dibromomethane	Container with Headspace provided for volatiles analysis
4661061	B9	2.50 - 2.80	SOLID	VOC MS (S)	Dichlorodifluoromethane	Container with Headspace provided for volatiles analysis
4661061	B9	2.50 - 2.80	SOLID	VOC MS (S)	Dichloromethane	Container with Headspace provided for volatiles analysis
4661061	B9	2.50 - 2.80	SOLID	VOC MS (S)	Ethylbenzene	Container with Headspace provided for volatiles analysis
4661061	B9	2.50 - 2.80	SOLID	VOC MS (S)	Hexachlorobutadiene	Container with Headspace provided for volatiles analysis
4661061	B9	2.50 - 2.80	SOLID	VOC MS (S)	Isopropylbenzene	Container with Headspace provided for volatiles analysis
4661061	B9	2.50 - 2.80	SOLID	VOC MS (S)	Methyl Tertiary Butyl Ether	Container with Headspace provided for volatiles analysis
4661061	B9	2.50 - 2.80	SOLID	VOC MS (S)	Naphthalene	Container with Headspace provided for volatiles analysis
4661061	B9	2.50 - 2.80	SOLID	VOC MS (S)	n-Butylbenzene	Container with Headspace provided for volatiles analysis
4661061	B9	2.50 - 2.80	SOLID	VOC MS (S)	o-Xylene	Container with Headspace provided for volatiles analysis
4661061	B9	2.50 - 2.80	SOLID	VOC MS (S)	p/m-Xylene	Container with Headspace provided for volatiles analysis
4661061	B9	2.50 - 2.80	SOLID	VOC MS (S)	Propylbenzene	Container with Headspace provided for volatiles analysis
4661061	B9	2.50 - 2.80	SOLID	VOC MS (S)	sec-Butylbenzene	Container with Headspace provided for volatiles analysis
4661061	B9	2.50 - 2.80	SOLID	VOC MS (S)	Styrene	Container with Headspace provided for volatiles analysis
4661061	B9	2.50 - 2.80	SOLID	VOC MS (S)	Tert-amyl methyl ether	Container with Headspace provided for volatiles analysis
4661061	B9	2.50 - 2.80	SOLID	VOC MS (S)	tert-Butylbenzene	Container with Headspace provided for volatiles analysis
4661061	B9	2.50 - 2.80	SOLID	VOC MS (S)	Tetrachloroethene	Container with Headspace provided for volatiles analysis
4661061	B9	2.50 - 2.80	SOLID	VOC MS (S)	Toluene	Container with Headspace provided for volatiles analysis
4661061	B9	2.50 - 2.80	SOLID	VOC MS (S)	Toluene-d8**	Container with Headspace provided for volatiles analysis
4661061	B9	2.50 - 2.80	SOLID	VOC MS (S)	trans-1-2-Dichloroethene	Container with Headspace provided for volatiles analysis
4661061	B9	2.50 - 2.80	SOLID	VOC MS (S)	trans-1-3-Dichloropropene	Container with Headspace provided for volatiles analysis
4661061	B9	2.50 - 2.80	SOLID	VOC MS (S)	Trichloroethene	Container with Headspace provided for volatiles analysis
4661061	B9	2.50 - 2.80	SOLID	VOC MS (S)	Trichlorofluorormethane	Container with Headspace provided for volatiles analysis
4661061	B9	2.50 - 2.80	SOLID	VOC MS (S)	Vinyl Chloride	Container with Headspace provided for volatiles analysis
4627882	A10	0.50 - 0.70	SOLID	pH	pH	Sample holding time exceeded
4628008	B9	2.50 - 2.80	SOLID	pH	pH	Sample holding time exceeded
4631922	A9	0.70 - 0.95	SOLID	pH	pH	Sample holding time exceeded
4632212	B9	0.30 - 0.50	SOLID	pH	pH	Sample holding time exceeded
4632289	B9	2.00 - 2.20	SOLID	pH	pH	Sample holding time exceeded
4634801	A10	2.30 - 2.60	SOLID	pH	pH	Sample holding time exceeded

Note : Test results may be compromised

CERTIFICATE OF ANALYSIS

SDG:	111028-44	**Location:**	Limerick Gasworks	**Order Number:**	4700000740
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	159168
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Notification of NDPs (No determination possible)

Date Received : 28/10/2011 13:08:44

Sample No	Customer Sample Ref.	Depth (m)	Test	Comment
4595522	A9	0.00 - 0.70	PAH by GCMS	Asbestos Fibres Detected
4595522	A9	0.00 - 0.70	TPH CWG GC (S)	Asbestos Fibres Detected
4595522	A9	0.00 - 0.70	Sample description	Asbestos Fibres Detected
4595522	A9	0.00 - 0.70	Cyanide Comp/Free/Total/Thiocyanate	Asbestos Fibres Detected
4595522	A9	0.00 - 0.70	Ammonium Soil by Titration	Asbestos Fibres Detected
4595522	A9	0.00 - 0.70	Easily Liberated Sulphide	Asbestos Fibres Detected
4595522	A9	0.00 - 0.70	pH	Asbestos Fibres Detected
4595522	A9	0.00 - 0.70	Phenols by HPLC (S)	Asbestos Fibres Detected
4595522	A9	0.00 - 0.70	Hexavalent Chromium (s)	Asbestos Fibres Detected
4595535	B9	1.00 - 1.80	PAH by GCMS	Asbestos Fibres Detected
4595535	B9	1.00 - 1.80	TPH CWG GC (S)	Asbestos Fibres Detected
4595535	B9	1.00 - 1.80	Sample description	Asbestos Fibres Detected
4595535	B9	1.00 - 1.80	Cyanide Comp/Free/Total/Thiocyanate	Asbestos Fibres Detected
4595535	B9	1.00 - 1.80	Ammonium Soil by Titration	Asbestos Fibres Detected
4595535	B9	1.00 - 1.80	Easily Liberated Sulphide	Asbestos Fibres Detected
4595535	B9	1.00 - 1.80	pH	Asbestos Fibres Detected
4595535	B9	1.00 - 1.80	Phenols by HPLC (S)	Asbestos Fibres Detected
4595535	B9	1.00 - 1.80	Hexavalent Chromium (s)	Asbestos Fibres Detected
4595528	B10	0.00 - 0.40	PAH by GCMS	Asbestos Fibres Detected
4595528	B10	0.00 - 0.40	TPH CWG GC (S)	Asbestos Fibres Detected
4595528	B10	0.00 - 0.40	Sample description	Asbestos Fibres Detected
4595528	B10	0.00 - 0.40	Cyanide Comp/Free/Total/Thiocyanate	Asbestos Fibres Detected
4595528	B10	0.00 - 0.40	Ammonium Soil by Titration	Asbestos Fibres Detected
4595528	B10	0.00 - 0.40	Easily Liberated Sulphide	Asbestos Fibres Detected
4595528	B10	0.00 - 0.40	pH	Asbestos Fibres Detected
4595528	B10	0.00 - 0.40	Phenols by HPLC (S)	Asbestos Fibres Detected
4595528	B10	0.00 - 0.40	Hexavalent Chromium (s)	Asbestos Fibres Detected
4595522	A9	0.00 - 0.70	Metals by iCap-OES (Soil)	Asbestos Fibres Detected
4595522	A9	0.00 - 0.70	Total Sulphate	Asbestos Fibres Detected
4595522	A9	0.00 - 0.70	EPH CWG (Aromatic) GC (S)	Asbestos Fibres Detected
4595522	A9	0.00 - 0.70	EPH CWG (Aliphatic) GC (S)	Asbestos Fibres Detected
4595522	A9	0.00 - 0.70	PCBs by GCMS	Asbestos Fibres Detected
4595528	B10	0.00 - 0.40	Metals by iCap-OES (Soil)	Asbestos Fibres Detected
4595528	B10	0.00 - 0.40	Total Sulphate	Asbestos Fibres Detected
4595528	B10	0.00 - 0.40	EPH CWG (Aromatic) GC (S)	Asbestos Fibres Detected
4595528	B10	0.00 - 0.40	EPH CWG (Aliphatic) GC (S)	Asbestos Fibres Detected
4595528	B10	0.00 - 0.40	PCBs by GCMS	Asbestos Fibres Detected
4595535	B9	1.00 - 1.80	Metals by iCap-OES (Soil)	Asbestos Fibres Detected
4595535	B9	1.00 - 1.80	Total Sulphate	Asbestos Fibres Detected
4595535	B9	1.00 - 1.80	EPH CWG (Aromatic) GC (S)	Asbestos Fibres Detected
4595535	B9	1.00 - 1.80	EPH CWG (Aliphatic) GC (S)	Asbestos Fibres Detected
4595535	B9	1.00 - 1.80	PCBs by GCMS	Asbestos Fibres Detected

CERTIFICATE OF ANALYSIS

SDG:	111028-44	**Location:**	Limerick Gasworks	**Order Number:**	4700000740
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	159168
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Table of Results - Appendix

REPORT KEY

Results expressed as (e.g.) 1.03E-07 is equivalent to 1.03x10-7

NDP	No Determination Possible	**#**	ISO 17025 Accredited	*	Subcontracted Test	**M**	MCERTS Accredited
NFD	No Fibres Detected	**PFD**	Possible Fibres Detected	»	Result previously reported (Incremental reports only)	**EC**	Equivalent Carbon (Aromatics C8-C35)

Note: Method detection limits are not always achievable due to various circumstances beyond our control

Method No	Reference	Description	Wet/Dry Sample [1]	Surrogate Corrected
PM001		Preparation of Samples for Metals Analysis		
PM024	Modified BS 1377	Soil preparation including homogenisation, moisture screens of soils for Asbestos Containing Material		
TM024	Method 4500A & B, AWWA/APHA, 20th Ed., 1999	Determination of Exchangeable Ammonium and Ammoniacal Nitrogen as N by titration on solids		
TM048	HSG 248, Asbestos: The analysts' guide for sampling, analysis and clearance procedures	Identification of Asbestos in Bulk Material		
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		
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		
TM133	BS 1377: Part 3 1990;BS 6068-2.5	Determination of pH in Soil and Water using the GLpH pH Meter		
TM151	Method 3500D, AWWA/APHA, 20th Ed., 1999	Determination of Hexavalent Chromium using Kone analyser		
TM153	Method 4500A,B,C, I, M AWWA/APHA, 20th Ed., 1999	Determination of Total Cyanide, Free (Easily Liberatable) Cyanide and Thiocyanate using the Skalar SANS+ System Segmented Flow Analyser		
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		
TM180	Sulphide in waters and waste waters 1991 ISBN 01 175 7186 SCA rec. 2007 (unpublished)'	The Determination Of Easily Liberated Sulphide In Soil Samples by Ion Selective Electrode Technique		
TM181	US EPA Method 6010B	Determination of Routine Metals in Soil by iCap 6500 Duo ICP-OES		
TM218	Microwave extraction – EPA method 3546	Microwave extraction - EPA method 3546		
TM221	Inductively Coupled Plasma - Atomic Emission Spectroscopy. An Atlas of Spectral Information: Winge, Fassel, Peterson and Floyd	Determination of Acid extractable Sulphate in Soils by IRIS Emission Spectrometer		

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

CERTIFICATE OF ANALYSIS

SDG:	111028-44	**Location:**	Limerick Gasworks	**Order Number:**	4700000740
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	159168
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Test Completion Dates

Lab Sample No(s)	4595522	4595523	4595525	4595527	4595532	4595535	4595536	4595537	4595528
Customer Sample Ref.	A9	A9	A10	A10	B9	B9	B9	B9	B10
AGS Ref.									
Depth	0.00 - 0.70	0.70 - 0.95	0.50 - 0.70	2.30 - 2.60	0.30 - 0.50	1.00 - 1.80	2.00 - 2.20	2.50 - 2.80	0.00 - 0.40
Type	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID
Ammonium Soil by Titration		07-Nov-2011	07-Nov-2011	07-Nov-2011	07-Nov-2011		07-Nov-2011	07-Nov-2011	
Asbestos Identification (Soil)	03-Nov-2011			03-Nov-2011		03-Nov-2011			03-Nov-2011
Cyanide Comp/Free/Total/Thiocyanate		04-Nov-2011	04-Nov-2011	08-Nov-2011	04-Nov-2011		04-Nov-2011	04-Nov-2011	
Easily Liberated Sulphide		04-Nov-2011	08-Nov-2011	08-Nov-2011	07-Nov-2011		08-Nov-2011	08-Nov-2011	
EPH CWG (Aliphatic) GC (S)		07-Nov-2011	07-Nov-2011	07-Nov-2011	08-Nov-2011		07-Nov-2011	07-Nov-2011	
EPH CWG (Aromatic) GC (S)		07-Nov-2011	07-Nov-2011	07-Nov-2011	08-Nov-2011		07-Nov-2011	07-Nov-2011	
GRO by GC-FID (S)	08-Nov-2011	07-Nov-2011	07-Nov-2011	07-Nov-2011	07-Nov-2011	08-Nov-2011	07-Nov-2011	07-Nov-2011	08-Nov-2011
Hexavalent Chromium (s)		05-Nov-2011	05-Nov-2011	05-Nov-2011	05-Nov-2011		05-Nov-2011	05-Nov-2011	
Metals by iCap-OES (Soil)		08-Nov-2011	07-Nov-2011	08-Nov-2011	07-Nov-2011		07-Nov-2011	07-Nov-2011	
PAH by GCMS		06-Nov-2011	06-Nov-2011	08-Nov-2011	06-Nov-2011		06-Nov-2011	06-Nov-2011	
PCBs by GCMS				07-Nov-2011					
pH		04-Nov-2011	03-Nov-2011	07-Nov-2011	04-Nov-2011		07-Nov-2011	03-Nov-2011	
Phenols by HPLC (S)		07-Nov-2011	04-Nov-2011	08-Nov-2011	07-Nov-2011		07-Nov-2011	04-Nov-2011	
Sample description	09-Nov-2011	03-Nov-2011	03-Nov-2011	04-Nov-2011	03-Nov-2011	09-Nov-2011	03-Nov-2011	03-Nov-2011	09-Nov-2011
Total Sulphate		07-Nov-2011	07-Nov-2011	04-Nov-2011	07-Nov-2011		07-Nov-2011	07-Nov-2011	
TPH CWG GC (S)		07-Nov-2011	07-Nov-2011	07-Nov-2011	08-Nov-2011		07-Nov-2011	07-Nov-2011	
VOC MS (S)								10-Nov-2011	11-Nov-2011

CERTIFICATE OF ANALYSIS

SDG:	111028-44	**Location:**	Limerick Gasworks	**Order Number:**	4700000740
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	159168
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

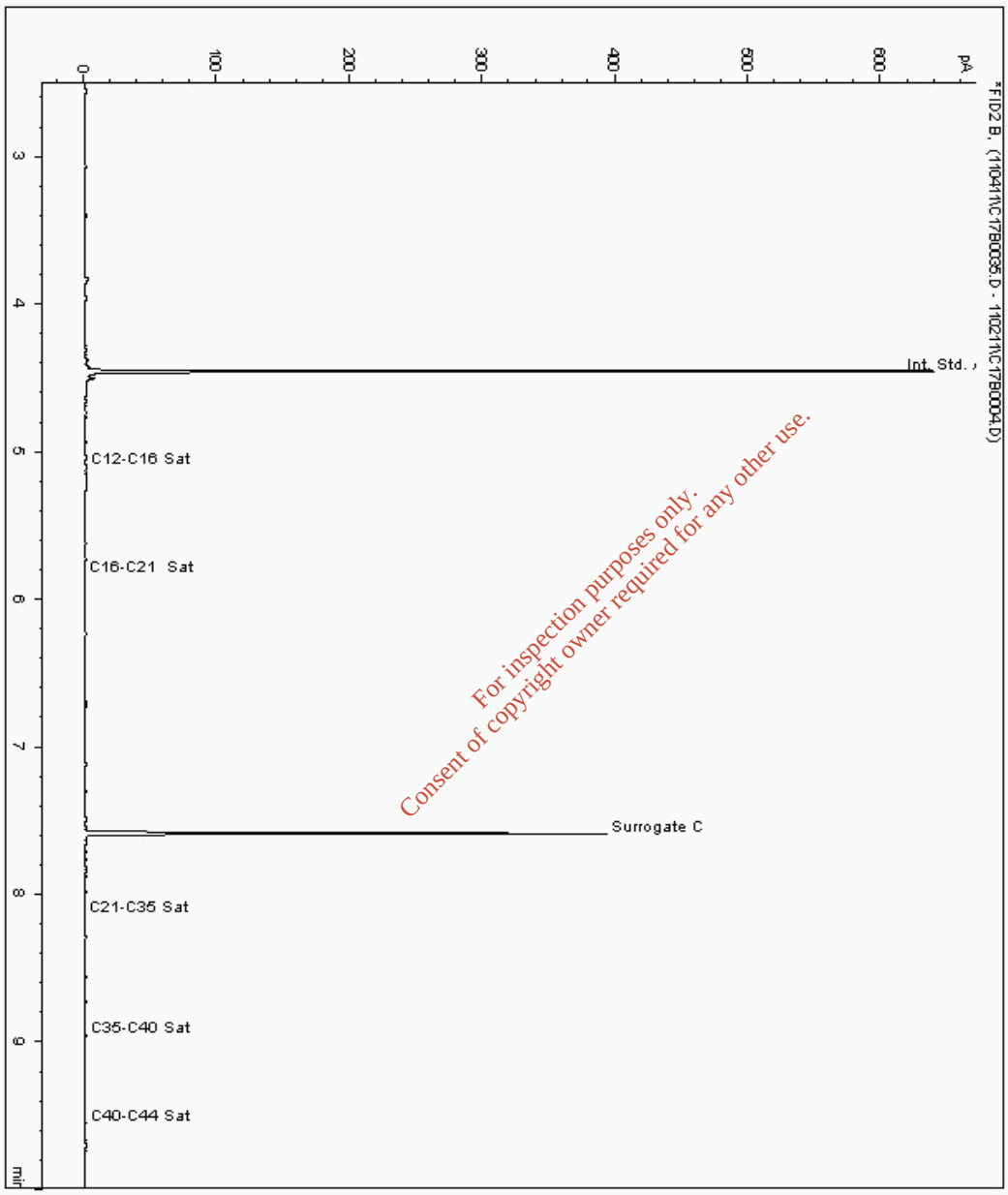
Analysis: EPH CWG (Aliphatic) GC (S)

Sample No : 4635280
Sample ID : A10

Depth : 2.30 - 2.60

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

Sample Identity: 4566362-4635280
Date Acquired : 07/11/11 08:40:05 PM
Units : ppb
Dilution :
CF : 1
Multiplier : 1.035



CERTIFICATE OF ANALYSIS

SDG:	111028-44	**Location:**	Limerick Gasworks	**Order Number:**	4700000740
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	159168
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

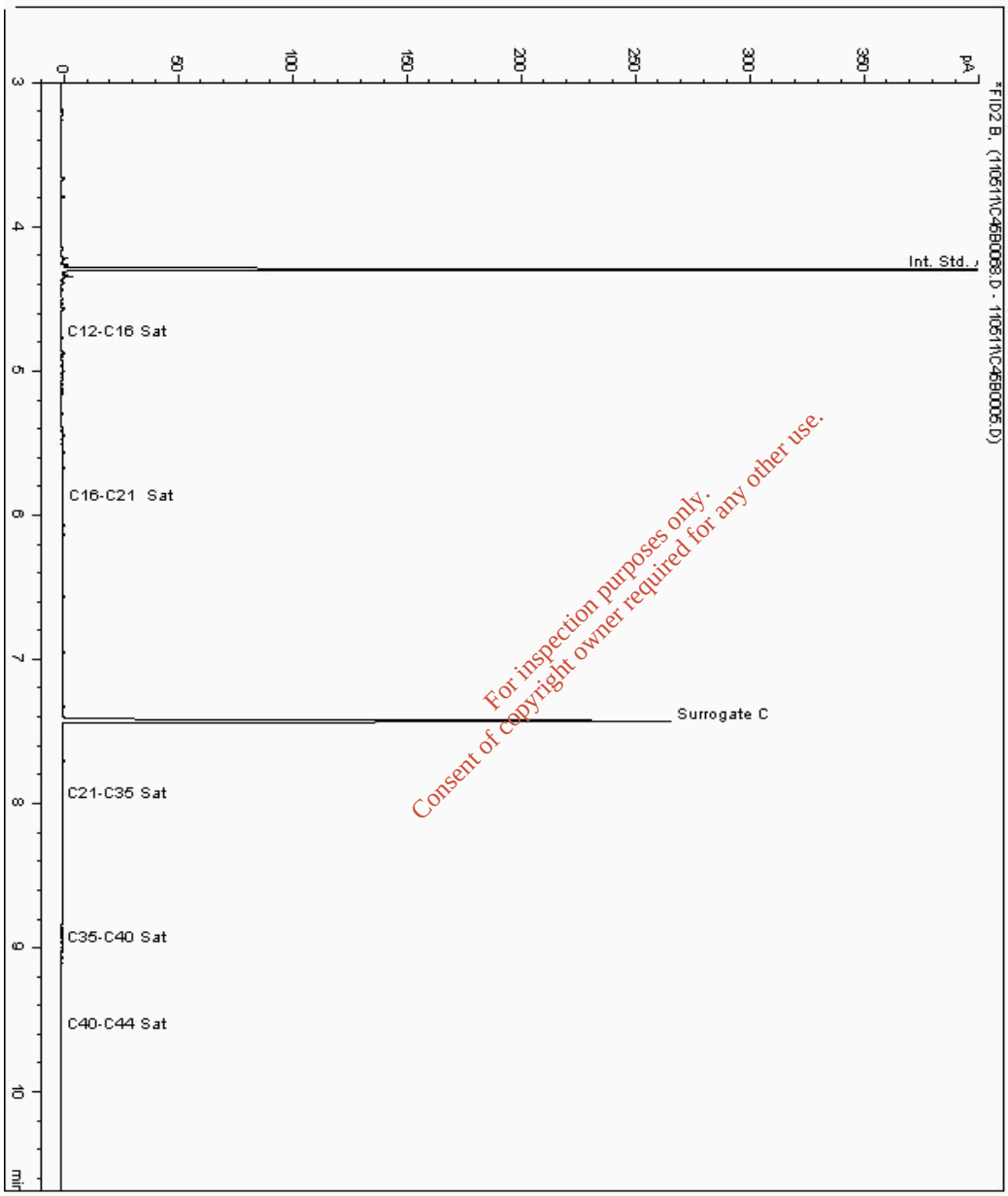
Analysis: EPH CWG (Aliphatic) GC (S)

Sample No : 4636643
Sample ID : A9

Depth : 0.70 - 0.95

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

Sample Identity: 4566316-4636643
Date Acquired : 06/11/11 08:36:16 PM
Units : ppb
Dilution:



CERTIFICATE OF ANALYSIS

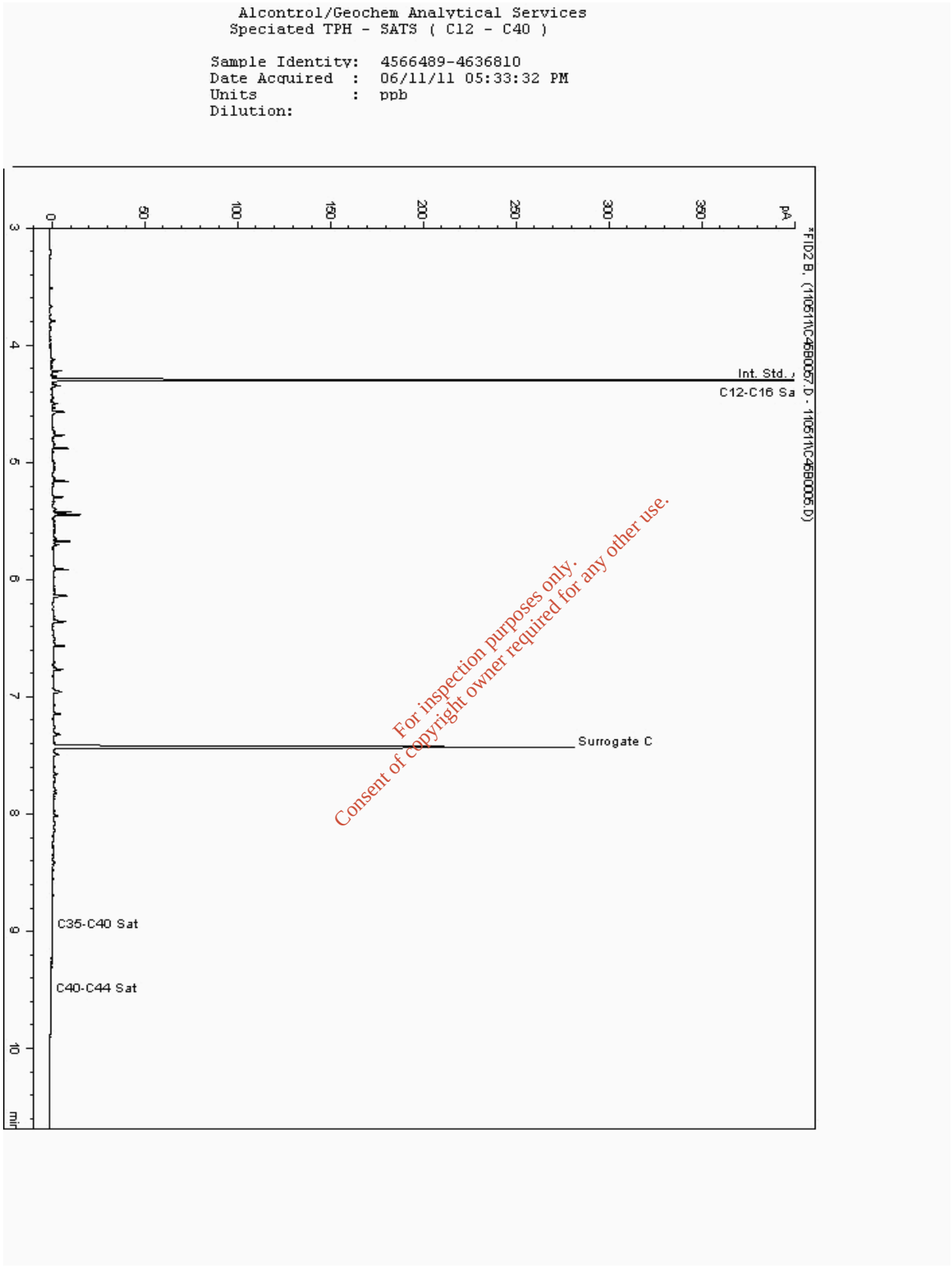
SDG:	111028-44	**Location:**	Limerick Gasworks	**Order Number:**	4700000740
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	159168
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: EPH CWG (Aliphatic) GC (S)

Sample No : 4636810
Sample ID : B9

Depth : 2.50 - 2.80



CERTIFICATE OF ANALYSIS

SDG:	111028-44	**Location:**	Limerick Gasworks	**Order Number:**	4700000740
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	159168
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

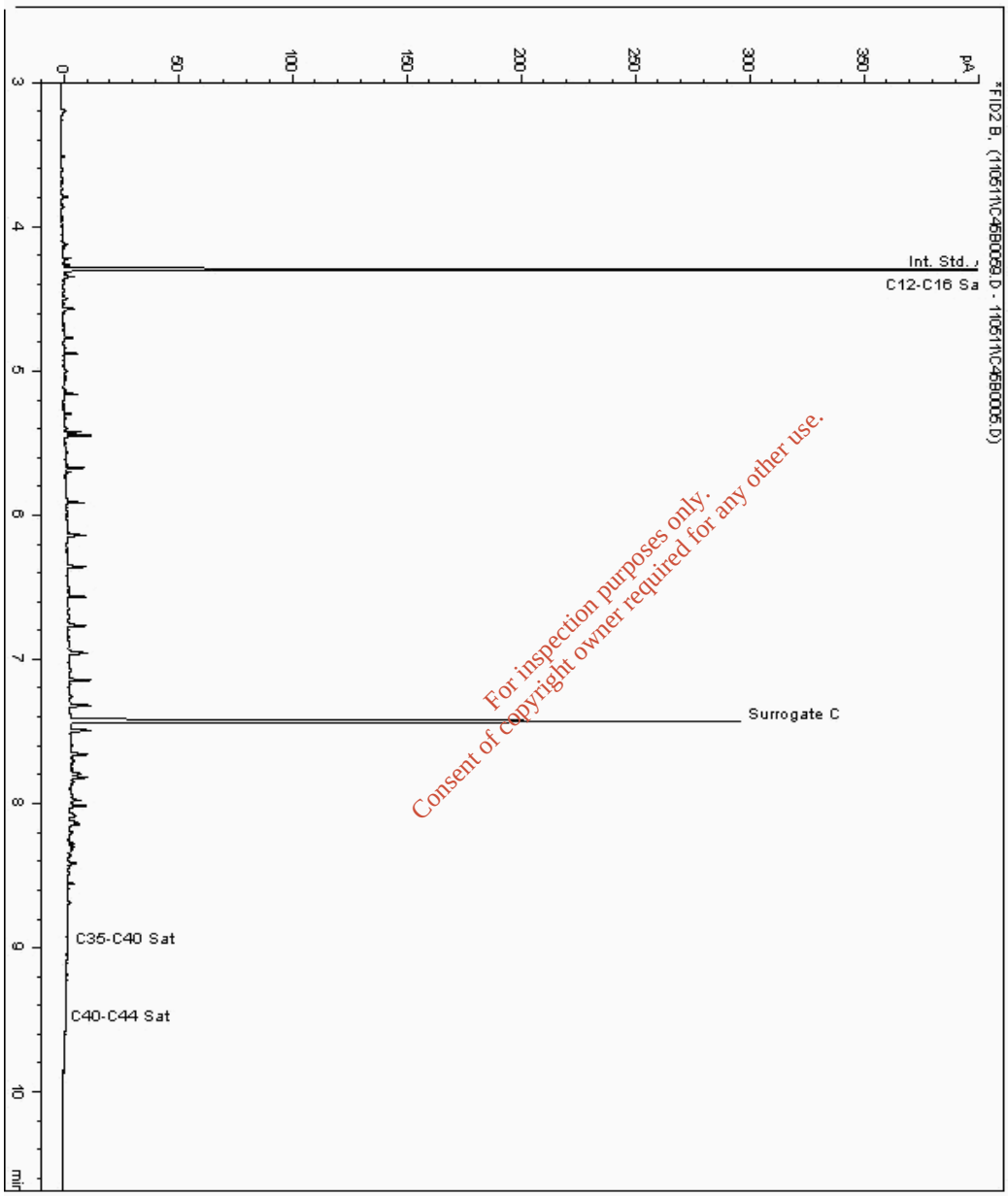
Analysis: EPH CWG (Aliphatic) GC (S)

Sample No : 4636857
Sample ID : B9

Depth : 2.00 - 2.20

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

Sample Identity: 4566472-4636857
Date Acquired : 06/11/11 06:04:06 PM
Units : ppb
Dilution:



CERTIFICATE OF ANALYSIS

SDG:	111028-44	**Location:**	Limerick Gasworks	**Order Number:**	4700000740
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	159168
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

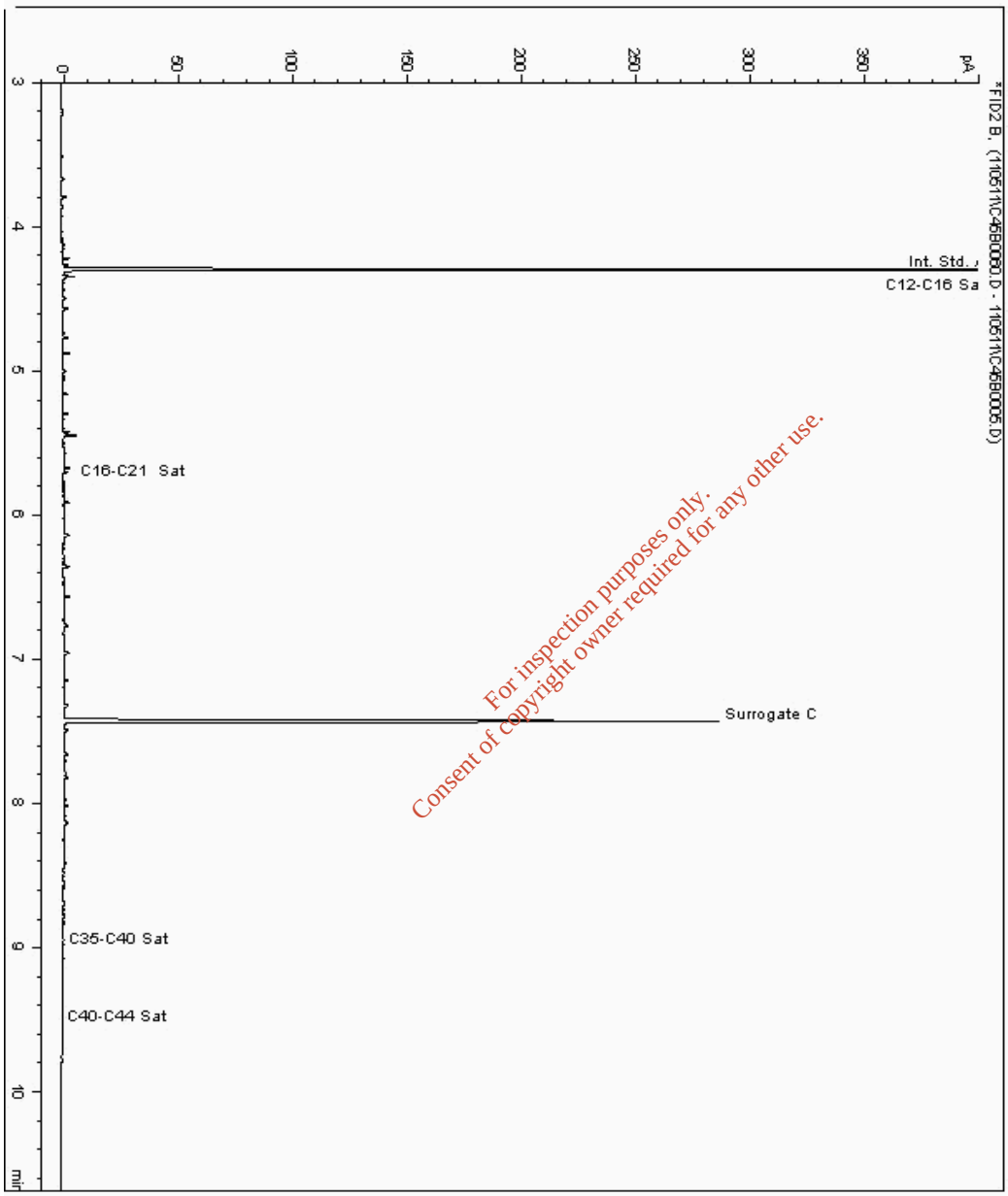
Analysis: EPH CWG (Aliphatic) GC (S)

Sample No : 4636955
Sample ID : A10

Depth : 0.50 - 0.70

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

Sample Identity: 4566336-4636955
Date Acquired : 06/11/11 06:24:26 PM
Units : ppb
Dilution:



CERTIFICATE OF ANALYSIS

SDG:	111028-44	**Location:**	Limerick Gasworks	**Order Number:**	4700000740
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	159168
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

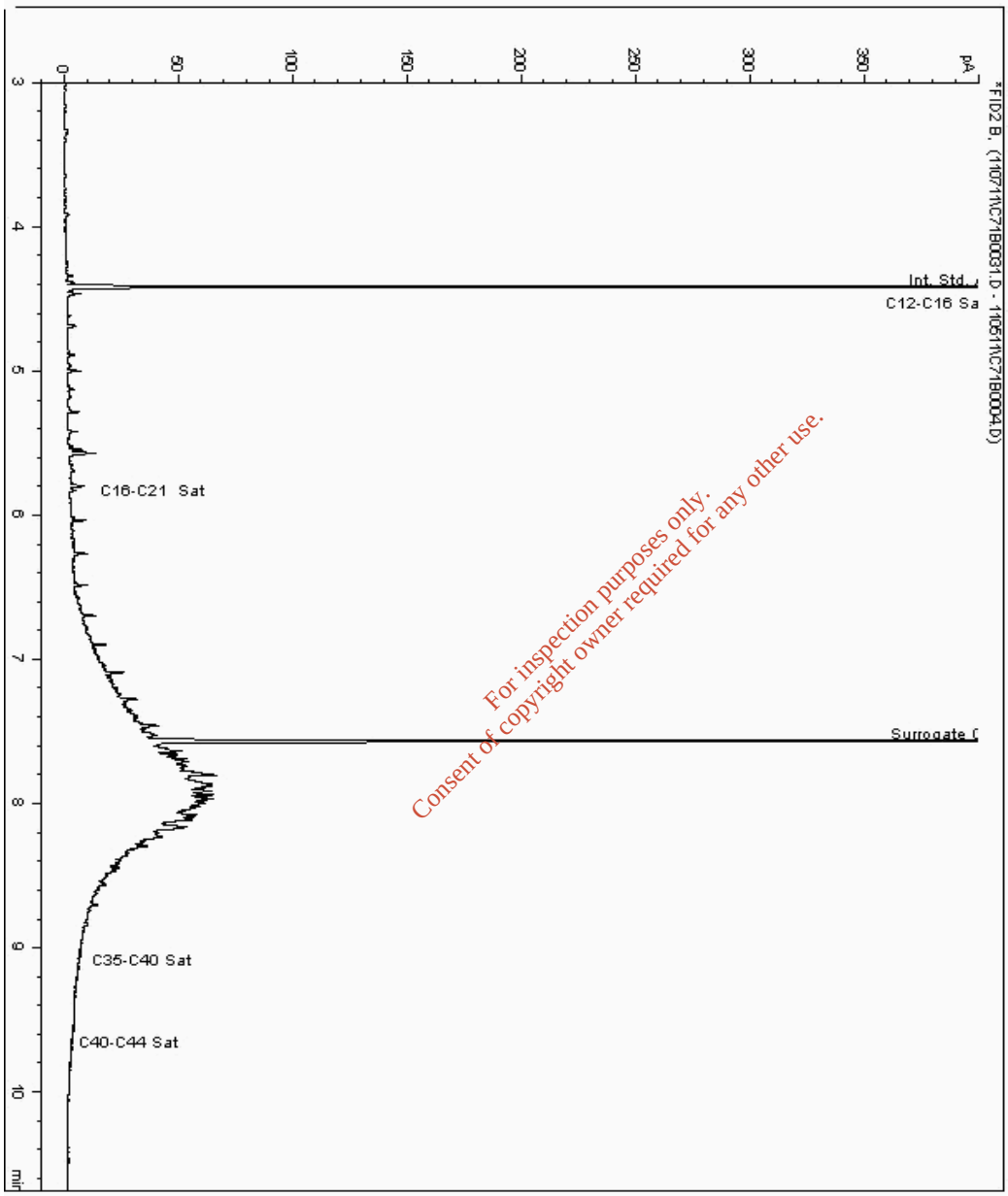
Analysis: EPH CWG (Aliphatic) GC (S)

Sample No : 4639704
Sample ID : B9

Depth : 0.30 - 0.50

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

Sample Identity: 4566436-4639704
Date Acquired : 07/11/2011 18:17:02 PM
Units : ppb
Dilution:



CERTIFICATE OF ANALYSIS

SDG:	111028-44	**Location:**	Limerick Gasworks	**Order Number:**	4700000740
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	159168
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

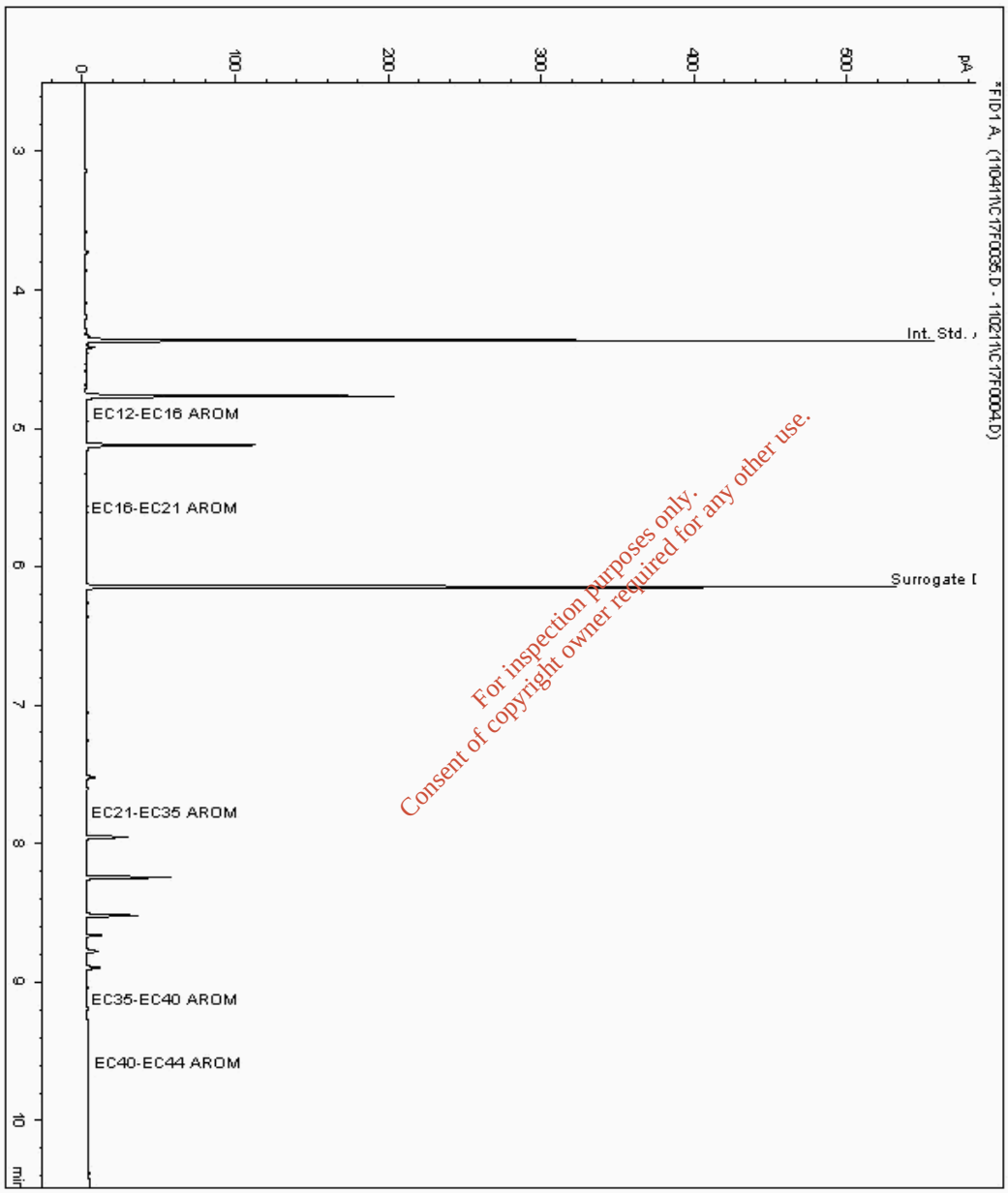
Analysis: EPH CWG (Aromatic) GC (S)

Sample No : 4635280
Sample ID : A10

Depth : 2.30 - 2.60

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

Sample Identity: 4566361-4635280
Date Acquired : 07/11/11 08:40:04 PM
Units : ppb
Dilution :
CF : 1
Multiplier : 1.035



CERTIFICATE OF ANALYSIS

SDG:	111028-44	**Location:**	Limerick Gasworks	**Order Number:**	4700000740
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	159168
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

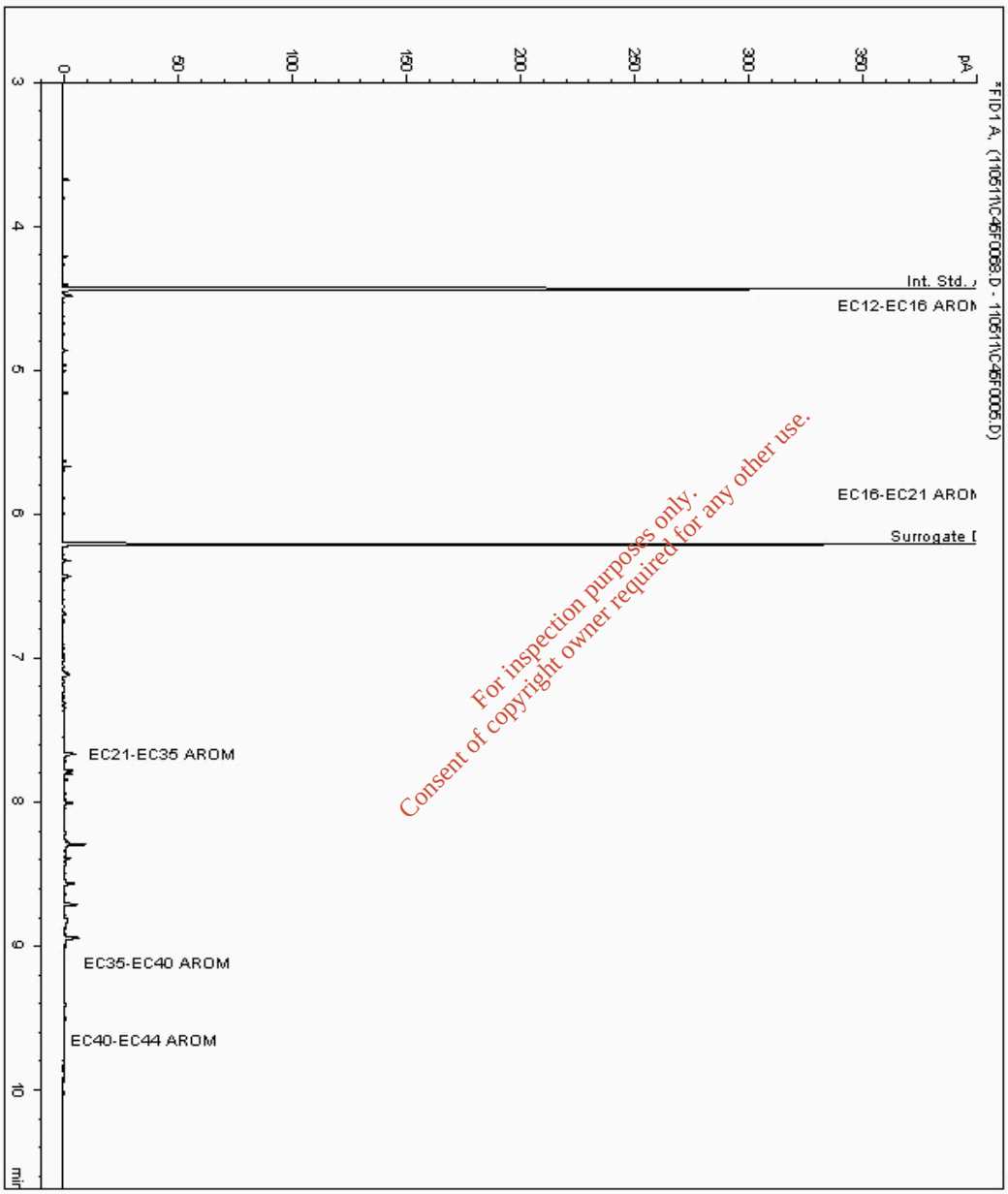
Analysis: EPH CWG (Aromatic) GC (S)

Sample No : 4636643
Sample ID : A9

Depth : 0.70 - 0.95

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

Sample Identity: 4566315-4636643
Date Acquired : 06/11/11 08:36:16 PM
Units : ppb
Dilution:



CERTIFICATE OF ANALYSIS

SDG:	111028-44	**Location:**	Limerick Gasworks	**Order Number:**	4700000740
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	159168
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

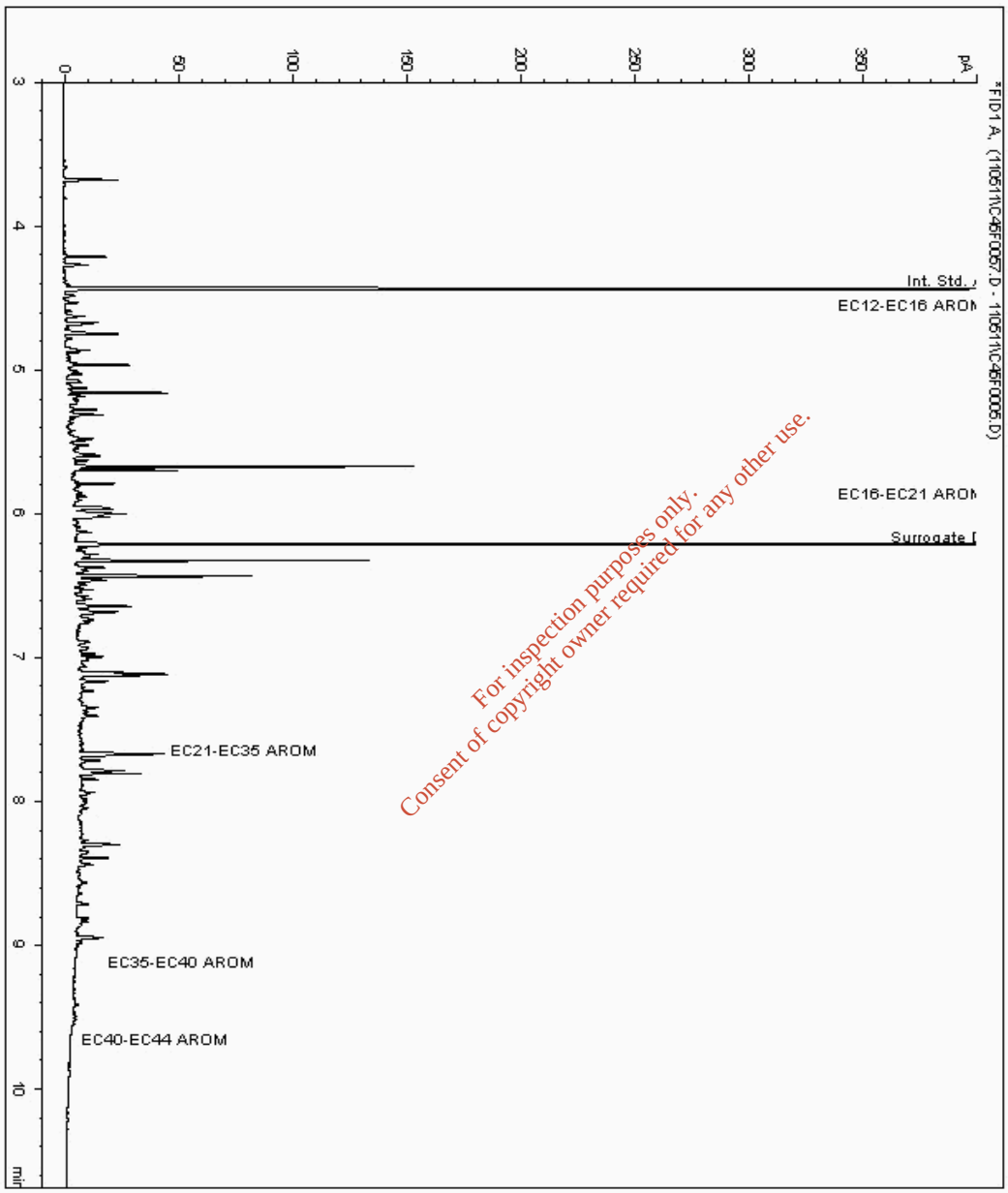
Analysis: EPH CWG (Aromatic) GC (S)

Sample No : 4636810
Sample ID : B9

Depth : 2.50 - 2.80

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

Sample Identity: 4566488-4636810
Date Acquired : 06/11/11 05:33:32 PM
Units : ppb
Dilution:



CERTIFICATE OF ANALYSIS

SDG:	111028-44	**Location:**	Limerick Gasworks	**Order Number:**	4700000740
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	159168
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

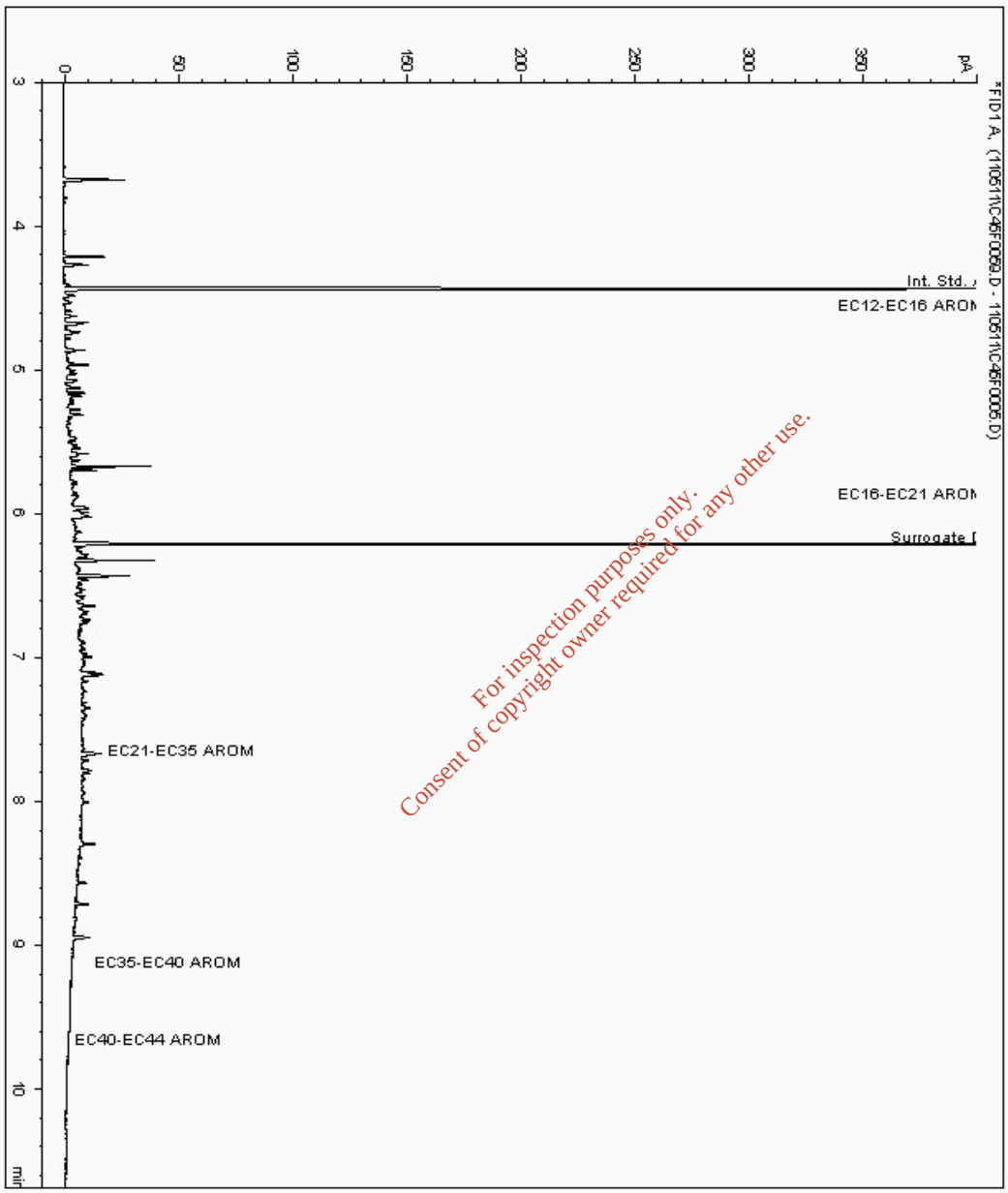
Analysis: EPH CWG (Aromatic) GC (S)

Sample No : 4636857
Sample ID : B9

Depth : 2.00 - 2.20

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

Sample Identity: 4566471-4636857
Date Acquired : 06/11/11 06:04:06 PM
Units : ppb
Dilution:



CERTIFICATE OF ANALYSIS

SDG:	111028-44	**Location:**	Limerick Gasworks	**Order Number:**	4700000740
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	159168
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

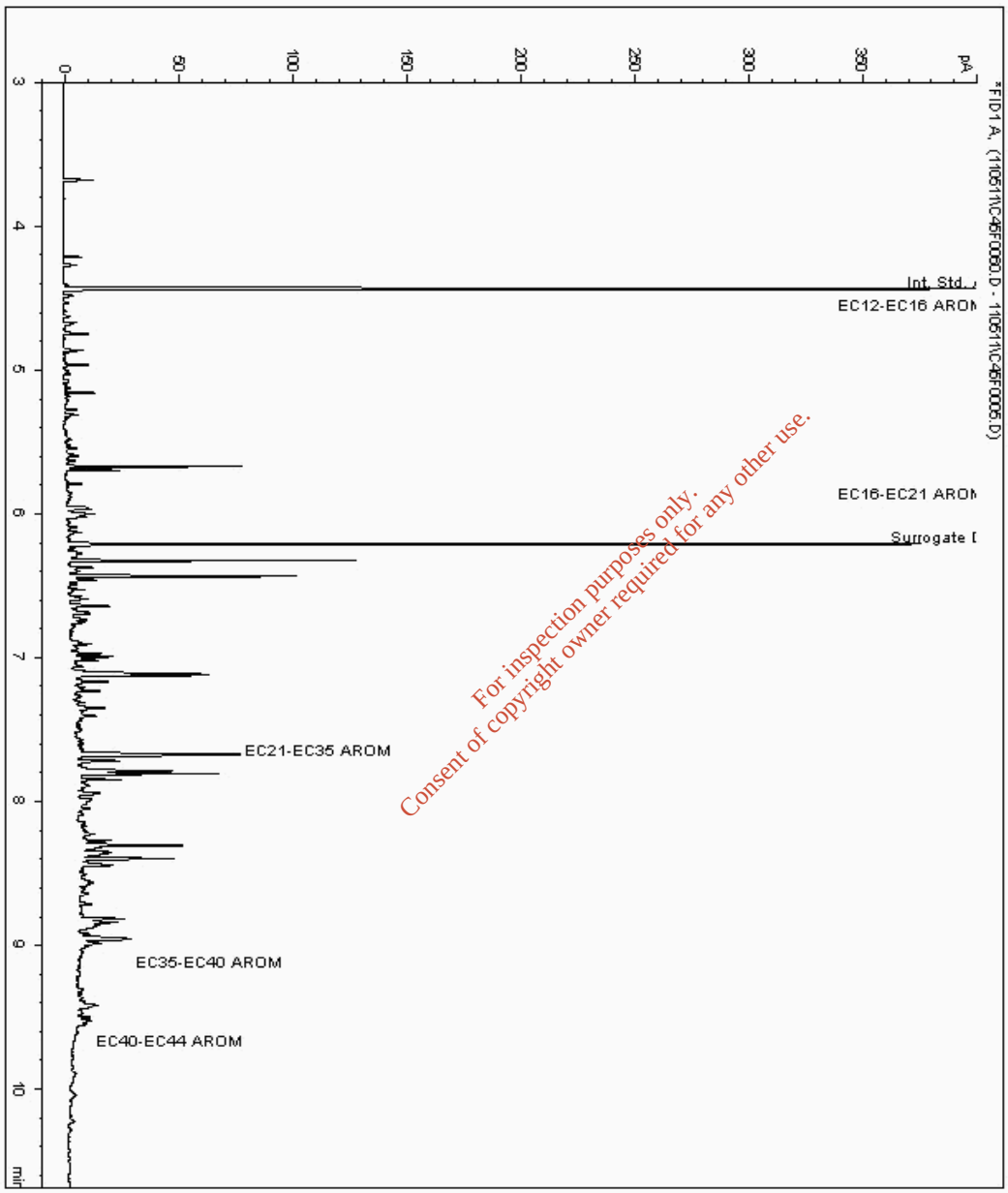
Analysis: EPH CWG (Aromatic) GC (S)

Sample No : 4636955
Sample ID : A10

Depth : 0.50 - 0.70

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

Sample Identity: 4566335-4636955
Date Acquired : 06/11/11 06:24:26 PM
Units : ppb
Dilution:



CERTIFICATE OF ANALYSIS

SDG:	111028-44	**Location:**	Limerick Gasworks	**Order Number:**	4700000740
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	159168
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

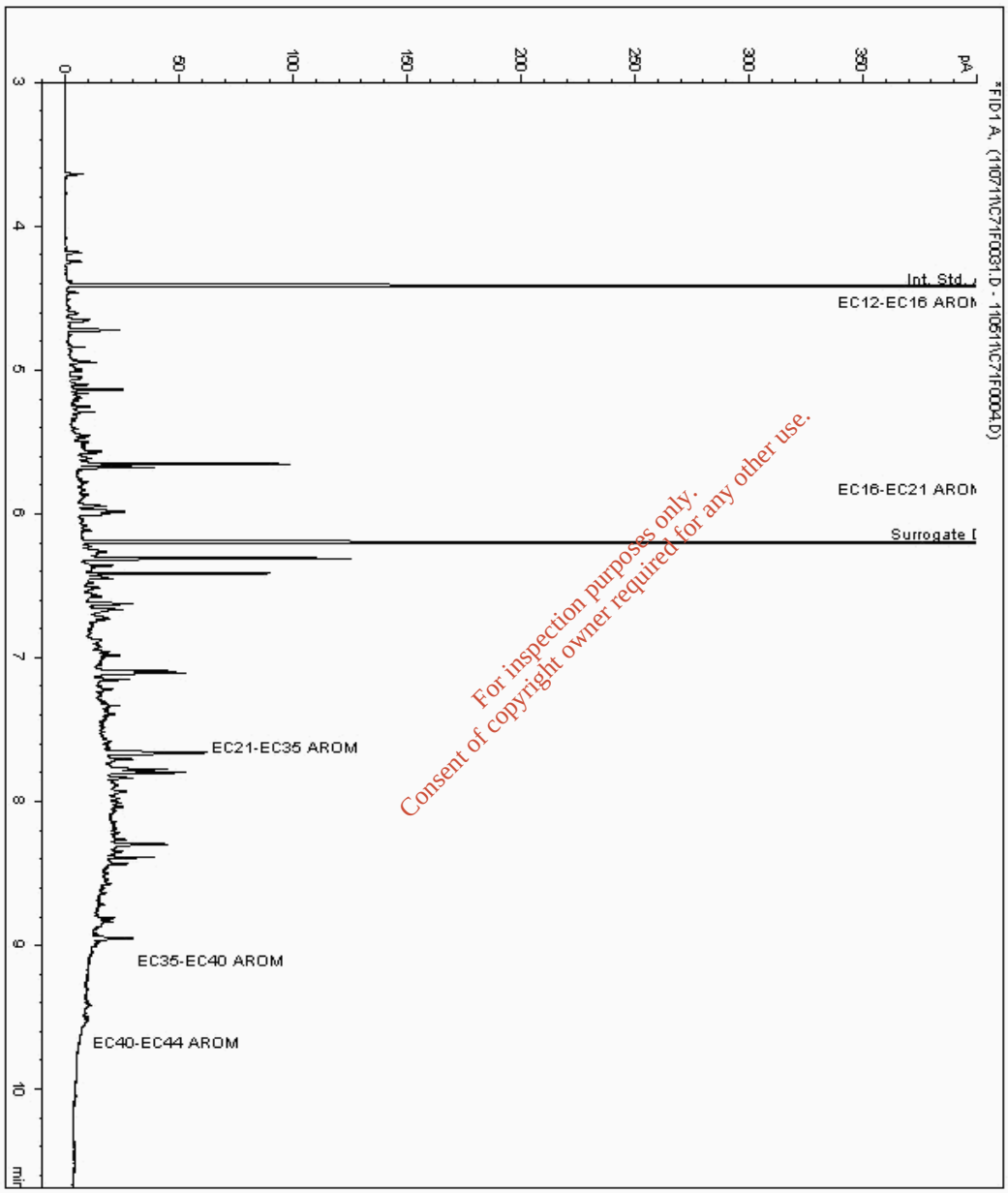
Analysis: EPH CWG (Aromatic) GC (S)

Sample No : 4639704
Sample ID : B9

Depth : 0.30 - 0.50

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

Sample Identity: 4566435-4639704
Date Acquired : 07/11/2011 18:17:02 PM
Units : ppb
Dilution:



CERTIFICATE OF ANALYSIS

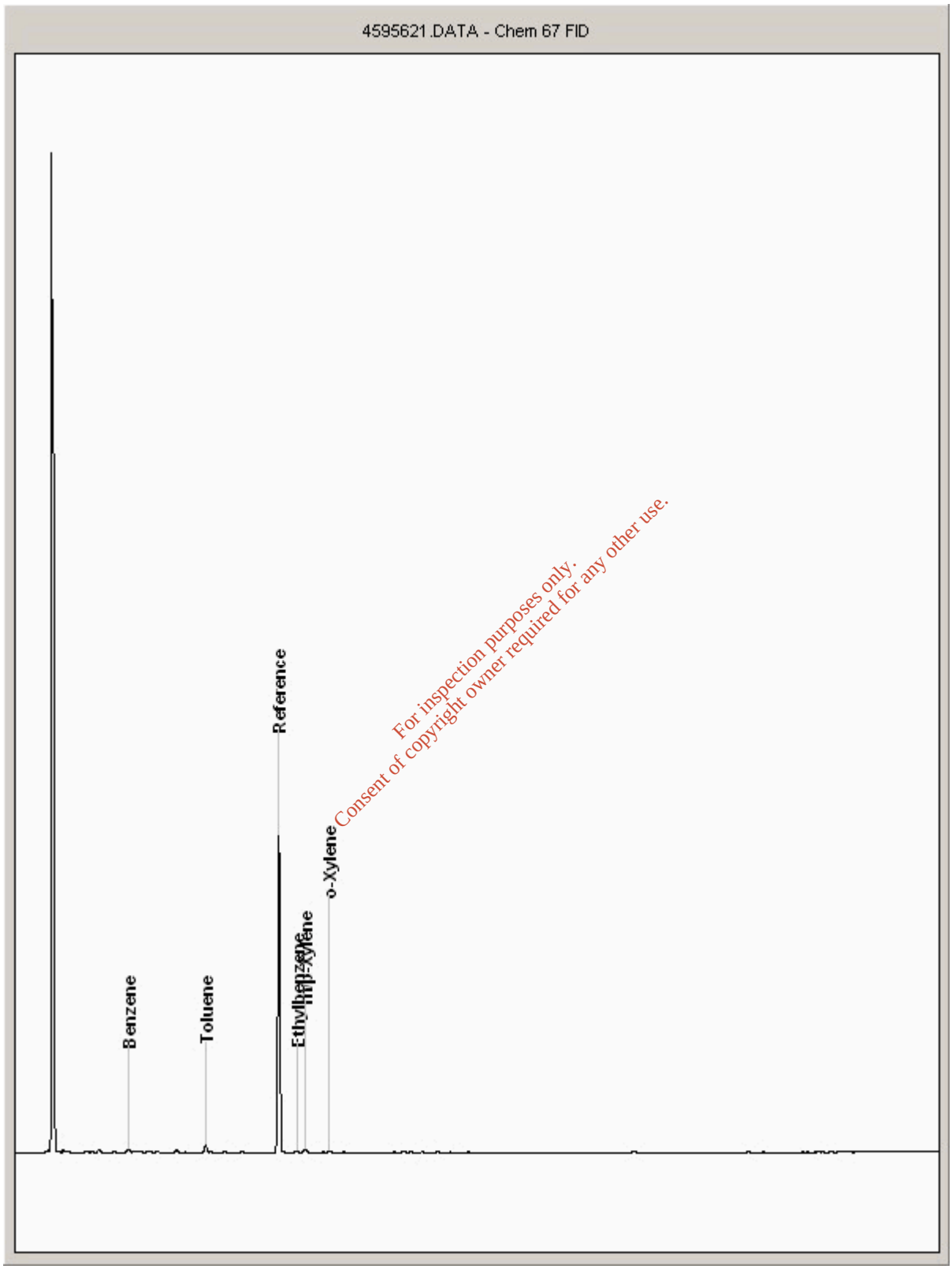
SDG:	111028-44	**Location:**	Limerick Gasworks	**Order Number:**	4700000740
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	159168
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (S)

Sample No : 4595621
Sample ID : B9

Depth : 1.00 - 1.80



CERTIFICATE OF ANALYSIS

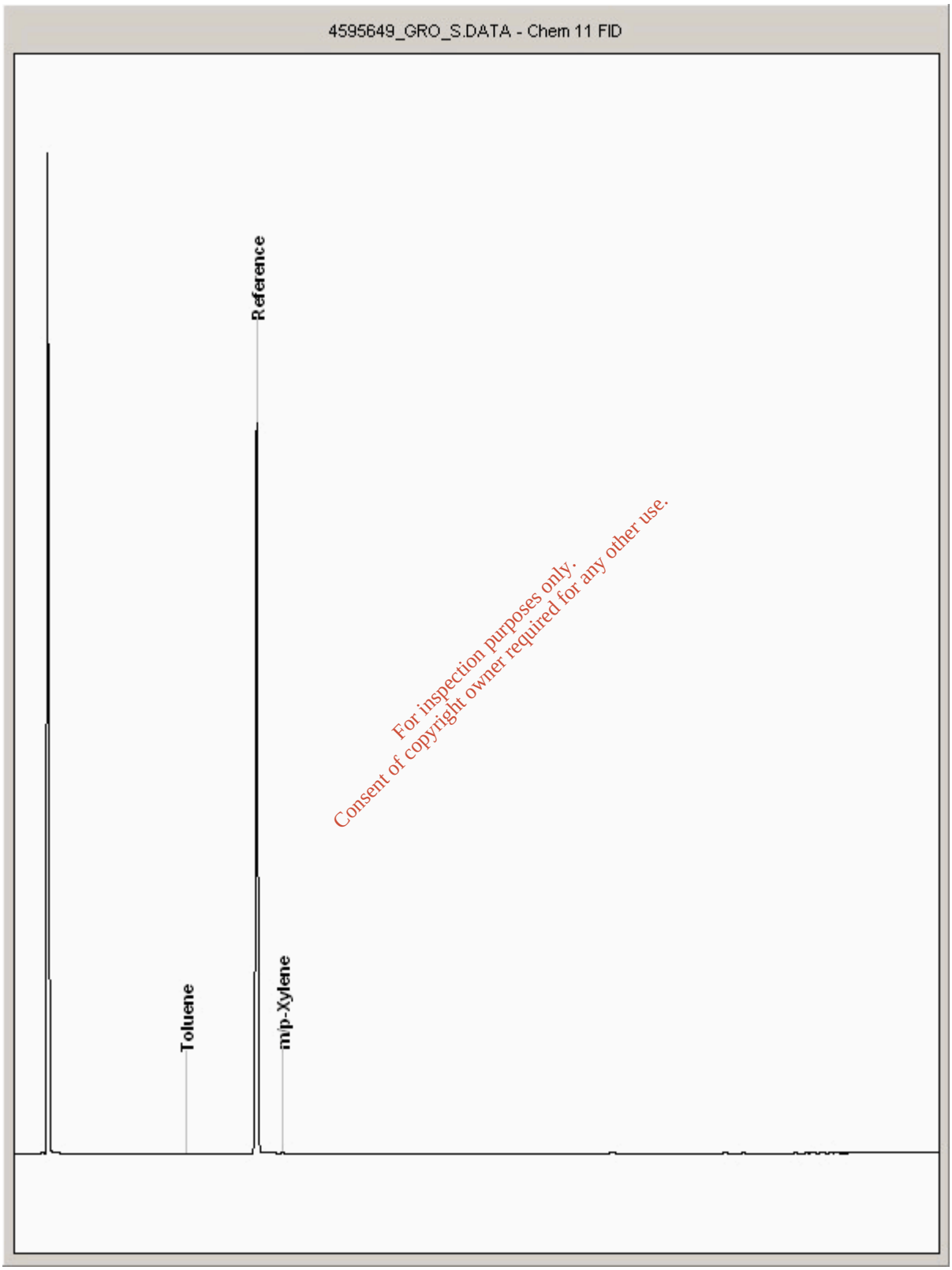
SDG:	111028-44	**Location:**	Limerick Gasworks	**Order Number:**	4700000740
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	159168
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (S)

Sample No : 4595649
Sample ID : A10

Depth : 2.30 - 2.60



CERTIFICATE OF ANALYSIS

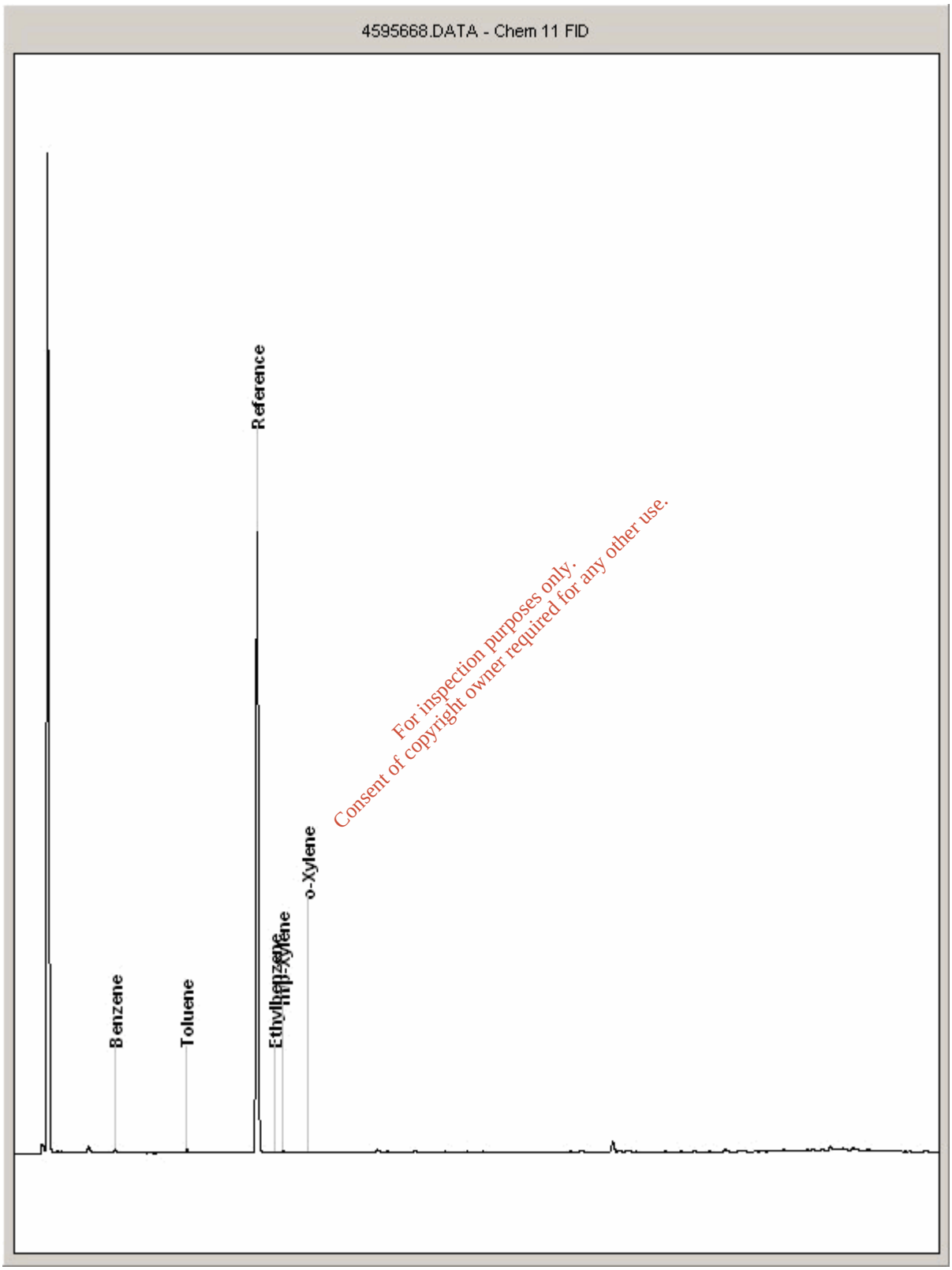
SDG:	111028-44	**Location:**	Limerick Gasworks	**Order Number:**	4700000740
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	159168
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (S)

Sample No : 4595668
Sample ID : B10

Depth : 0.00 - 0.40



CERTIFICATE OF ANALYSIS

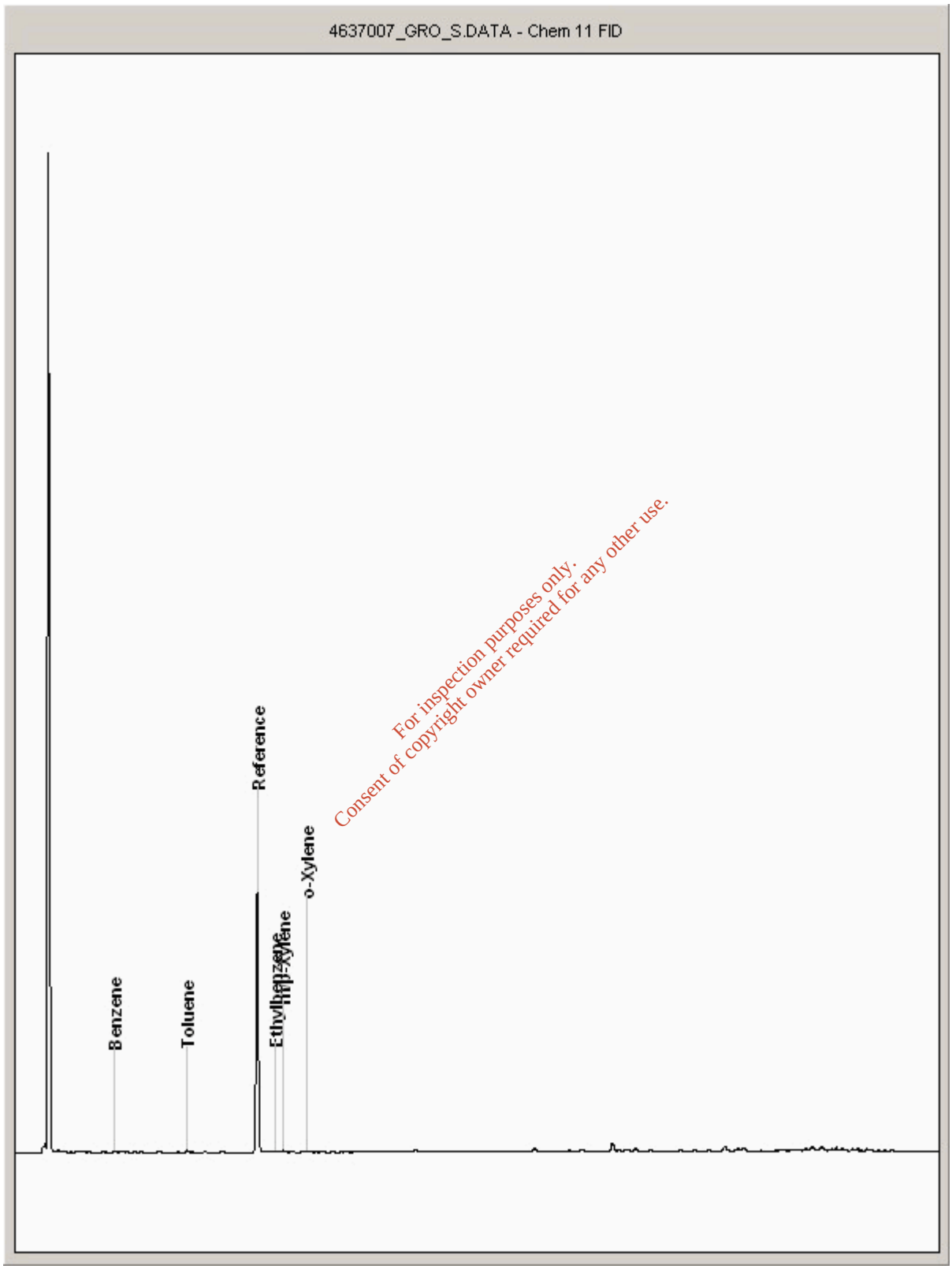
SDG:	111028-44	**Location:**	Limerick Gasworks	**Order Number:**	4700000740
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	159168
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (S)

Sample No : 4637007
Sample ID : B9

Depth : 0.30 - 0.50



CERTIFICATE OF ANALYSIS

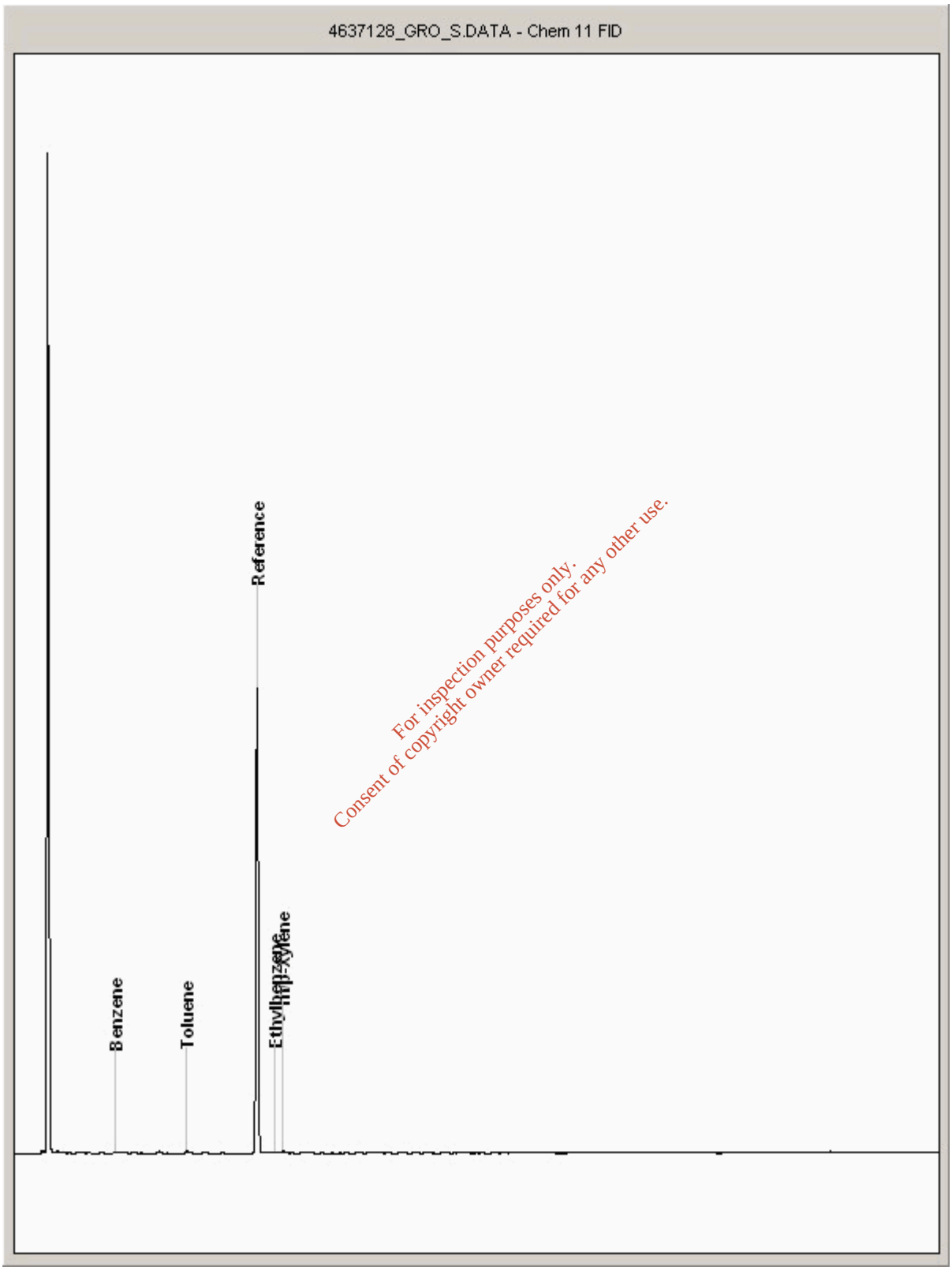
SDG:	111028-44	**Location:**	Limerick Gasworks	**Order Number:**	4700000740
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	159168
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (S)

Sample No : 4637128
Sample ID : A10

Depth : 0.50 - 0.70



CERTIFICATE OF ANALYSIS

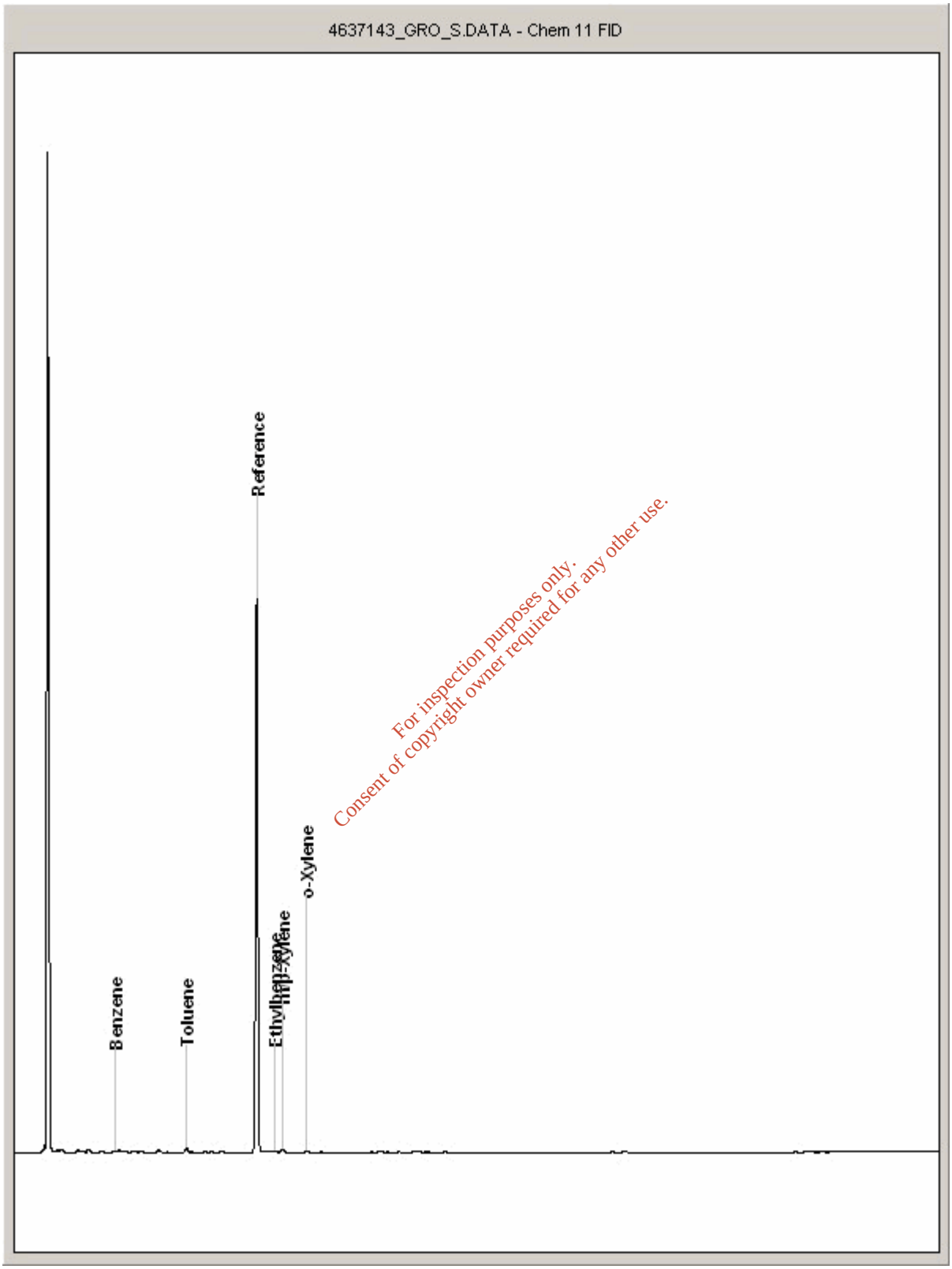
SDG:	111028-44	**Location:**	Limerick Gasworks	**Order Number:**	4700000740
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	159168
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (S)

Sample No : 4637143
Sample ID : A9

Depth : 0.70 - 0.95



CERTIFICATE OF ANALYSIS

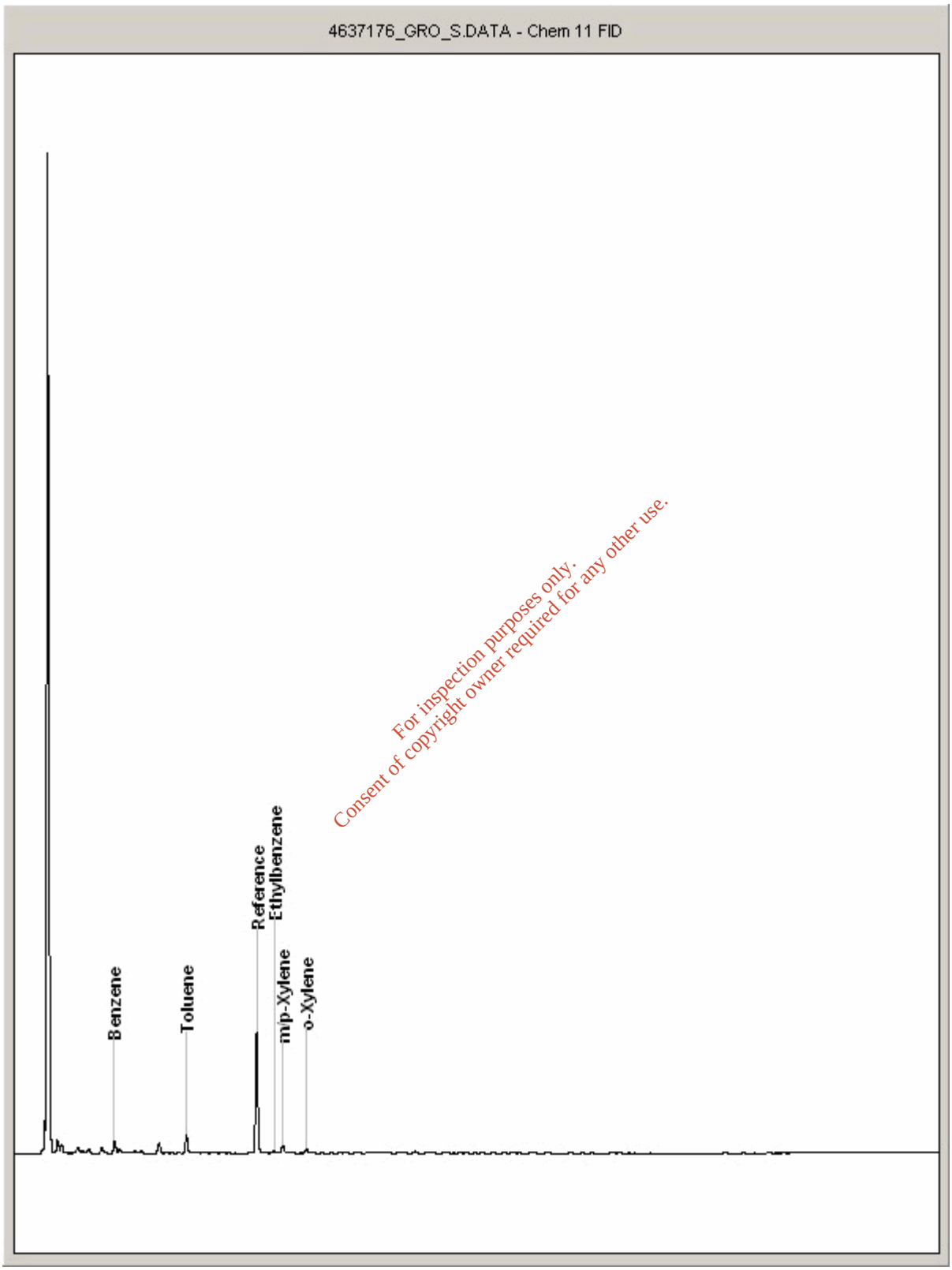
SDG:	111028-44	**Location:**	Limerick Gasworks	**Order Number:**	4700000740
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	159168
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (S)

Sample No : 4637176
Sample ID : B9

Depth : 2.00 - 2.20



CERTIFICATE OF ANALYSIS

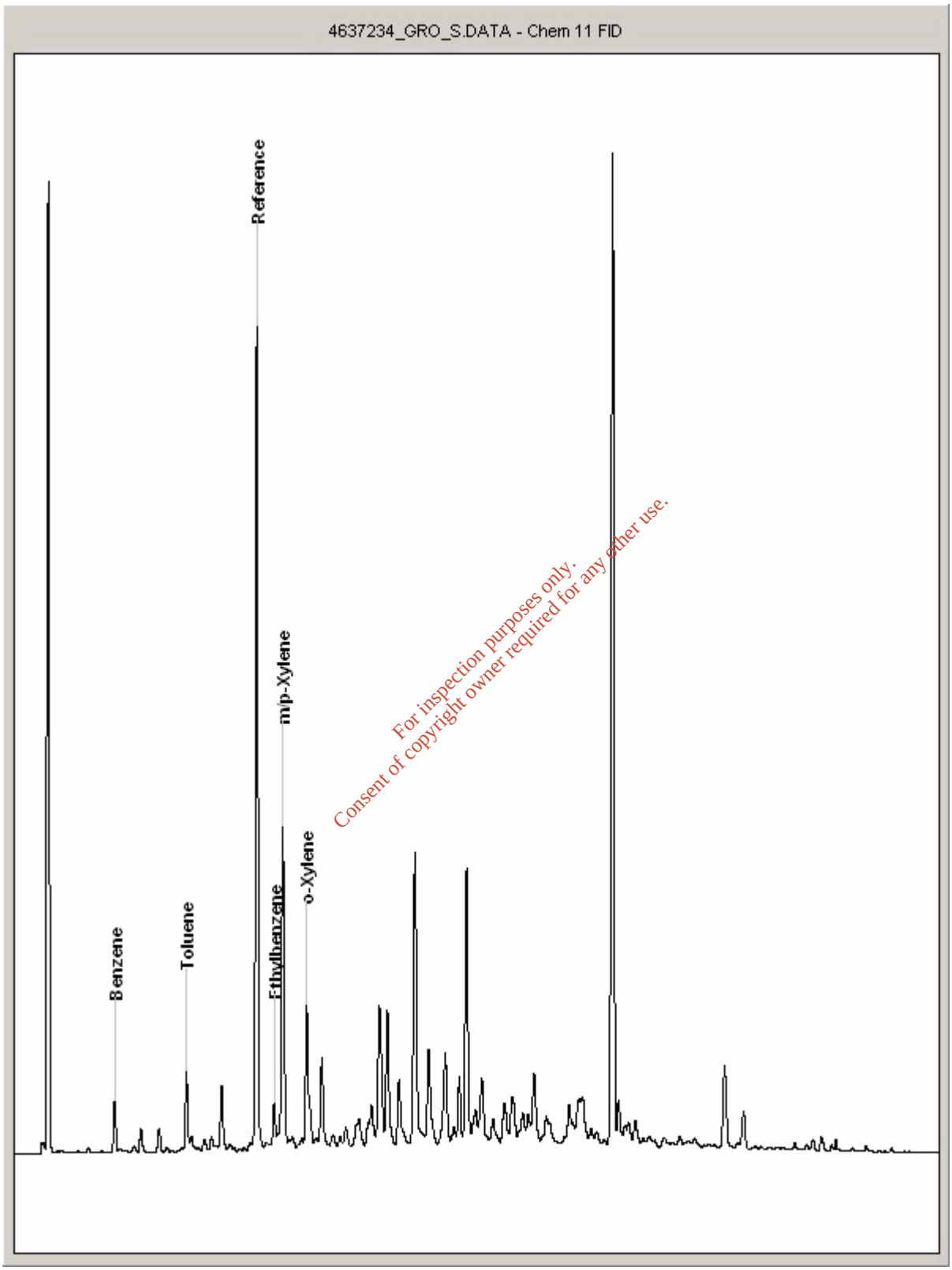
SDG:	111028-44	**Location:**	Limerick Gasworks	**Order Number:**	4700000740
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	159168
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (S)

Sample No : 4637234
Sample ID : B9

Depth : 2.50 - 2.80



CERTIFICATE OF ANALYSIS

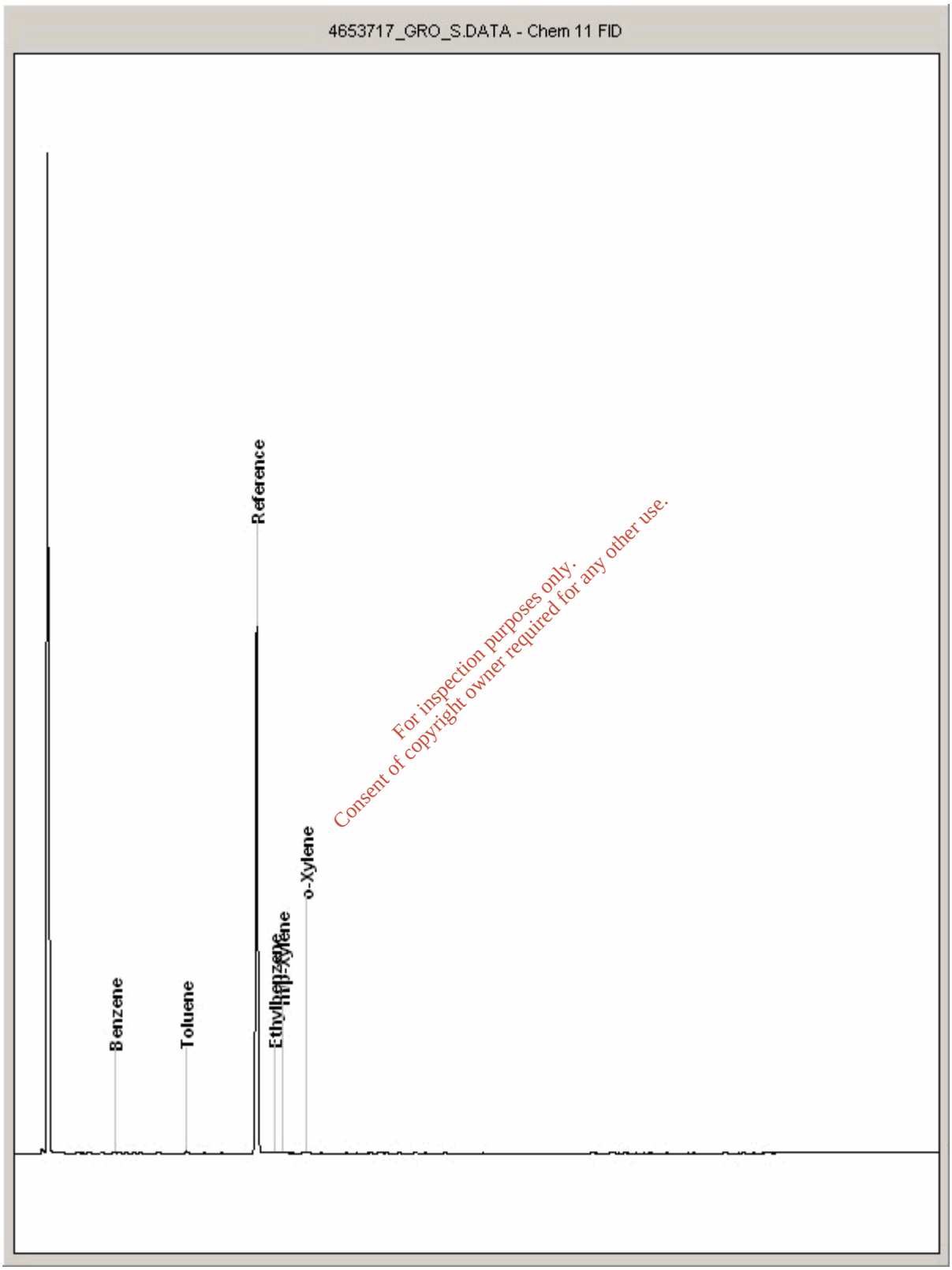
SDG:	111028-44	**Location:**	Limerick Gasworks	**Order Number:**	4700000740
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	159168
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (S)

Sample No : 4653717
Sample ID : A9

Depth : 0.00 - 0.70



SDG:	111028-44	**Location:**	Limerick Gasworks	**Order Number:**	4700000740
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	159168
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Appendix

1. Results are expressed on a dry weight basis (dried at 35ºC) 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 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. Is an asbestos fibre type is found it will be reported as detected (for each fibre type found). If asbestos is present either as asbestos containing material or loose fibres no further analysis will be undertaken. The quantity of asbestos present is not determined unless specifically requested.

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. 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 Dimethyphenol, 3,5 Dimethylphenol).

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

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

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

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

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

21. For 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 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 themajor 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 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	DCM	SOXTHERM	GRAVIMETRIC
CYCLOHEXANE EXT. MATTER	D&C	CYCLOHEXANE	SOXTHERM	GRAVIMETRIC
ELEMENTAL SULPHUR	D&C	DCM	SOXTHERM	HPLC
PHENOLS BY GCMS	WET	DCM	SOXTHERM	GC-MS
HERBICIDES	D&C	HEXANE:ACETONE	SOXTHERM	GC-MS
PESTICIDES	D&C	HEXANE:ACETONE	SOXTHERM	GC-MS
EPH (DRO)	D&C	HEXANE:ACETONE	END OVER END	GC-FID
EPH (MIN OIL)	D&C	HEXANE:ACETONE	END OVER END	GC-FID
EPH (CLEANED UP)	D&C	HEXANE:ACETONE	END OVER END	GC-FID
EPH CWG BY GC	D&C	HEXANE:ACETONE	END OVER END	GC-FID
PCB TOT / PCB CON	D&C	HEXANE:ACETONE	END OVER END	GC-MS
POLYAROMATIC HYDROCARBONS (MS)	WET	HEXANE:ACETONE	MICROWAVE TM218.	GC-MS
C8-C40 (C6-C40) EZ FLASH	WET	HEXANE:ACETONE	SHAKER	GC-EZ
POLYAROMATIC HYDROCARBONS RAPID GC	WET	HEXANE:ACETONE	SHAKER	GC-EZ
SEMI VOLATILE ORGANIC COMPOUNDS	WET	DCM:ACETONE	SONICATE	GC-MS

LIQUID MATRICES EXTRACTION SUMMARY

ANALYSIS	EXTRACTION SOLVENT	EXTRACTION METHOD	ANALYSIS
PAH MS	HEXANE	STIRRED EXTRACTION (STIR-BAR)	GC MS
EPH	HEXANE	STIRRED EXTRACTION (STIR-BAR)	GC FID
EPH CWG	HEXANE	STIRRED EXTRACTION (STIR-BAR)	GC FID
MINERAL OIL	HEXANE	STIRRED EXTRACTION (STIR-BAR)	GC FID
PCB 7 CONGENERS	HEXANE	STIRRED EXTRACTION (STIR-BAR)	GC MS
PCB TOTAL	HEXANE	STIRRED EXTRACTION (STIR-BAR)	GC MS
SVOC	DCM	LIQUID/LIQUID SHAKE	GC MS
FREE SULPHUR	DCM	SOLID PHASE EXTRACTION	HPLC
PEST OCP/OPP	DCM	LIQUID/LIQUID SHAKE	GC MS
TRIAZINE HERBS	DCM	LIQUID/LIQUID SHAKE	GC MS
PHENOLS MS	DCM	SOLID PHASE EXTRACTION	GC MS
TPH by INFRARED (IR)	TCE	LIQUID/LIQUID SHAKE	HPLC
MINERAL OIL by IR	TCE	LIQUID/LIQUID SHAKE	HPLC
GLYCOLS	NONE	DIRECT INJECTION	GC MS

Identification of Asbestos in Bulk Materials & Soils

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

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

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

Visual Estimation Of Fibre Content

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

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

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

ALcontrol Laboratories

Unit 18A
Rosemount Business Park
Ballycoolin
Dublin 11
Tel : (0035) 3188 29893

Mouchel
Ground Engineering
Rowan House
Lloyd Drive
Cheshire
CH65 9HQ

Attention: Neil Balderstone

CERTIFICATE OF ANALYSIS

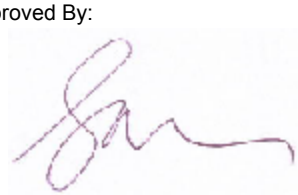
Date:	11 November 2011
Customer:	D_MOUCHEL_ELE
Sample Delivery Group (SDG):	111028-105
Your Reference:	
Location:	Limerick Gasworks
Report No:	159074

We received 7 samples on Thursday October 27, 2011 and 7 of these samples were scheduled for analysis which was completed on Friday November 11, 2011. Accredited laboratory tests are defined within the report, but opinions, interpretations and on-site data expressed herein are outside the scope of ISO 17025 accreditation.

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

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

Approved By:



Sonia McWhan

Operations Manager

CERTIFICATE OF ANALYSIS

SDG:	111028-105	**Location:**	Limerick Gasworks	**Order Number:**	4700000740
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	159074
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Received Sample Overview

Lab Sample No(s)	Customer Sample Ref.	AGS Ref.	Depth (m)	Sampled Date
4599207	B2		0.20 - 0.80	27/10/2011
4599208	B2		0.80 - 1.30	27/10/2011
4599206	C2		1.50 - 2.00	26/10/2011
4599201	D2		0.50 - 1.00	26/10/2011
4599202	D2		1.00 - 1.50	26/10/2011
4599204	D2		2.00 - 2.50	26/10/2011

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

CERTIFICATE OF ANALYSIS

SDG:	111028-105	**Location:**	Limerick Gasworks	**Order Number:**	4700000740
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	159074
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

SOLID

Results Legend

X Test

N No Determination Possible

Lab Sample No(s)			4599207			4599208			4599209			4599206			4599201			4599202			4599204		
Customer Sample Reference			B2			B2			B2			C2			D2			D2			D2		
AGS Reference																							
Depth (m)			0.20 - 0.80			0.80 - 1.30			1.30 - 2.00			1.50 - 2.00			0.50 - 1.00			1.00 - 1.50			2.00 - 2.50		
Container			60g VOC (ALE215)	JAR (D)	TUB (D)	60g VOC (ALE215)	JAR (D)	TUB (D)	60g VOC (ALE215)	JAR (D)	TUB (D)	60g VOC (ALE215)	JAR (D)	TUB (D)	60g VOC (ALE215)	JAR (D)	TUB (D)	60g VOC (ALE215)	JAR (D)	TUB (D)	60g VOC (ALE215)	JAR (D)	TUB (D)
Ammonium Soil by Titration	All	NDPs: 0 Tests: 7			X			X			X			X			X			X			X
Asbestos Identification (Soil)	All	NDPs: 0 Tests: 2		X												X							
Cyanide Comp/Free/Total/Thiocyanate	All	NDPs: 0 Tests: 7			X			X			X			X			X			X			X
Easily Liberated Sulphide	All	NDPs: 0 Tests: 7			X			X			X			X			X			X			X
EPH CWG (Aliphatic) GC (S)	All	NDPs: 0 Tests: 7		X			X			X			X			X			X			X	
EPH CWG (Aromatic) GC (S)	All	NDPs: 0 Tests: 7		X			X			X			X			X			X			X	
GRO by GC-FID (S)	All	NDPs: 0 Tests: 7	X			X			X			X			X			X			X		
Hexavalent Chromium (s)	All	NDPs: 0 Tests: 7			X			X			X			X			X			X			X
Metals by iCap-OES (Soil)	Arsenic	NDPs: 0 Tests: 7		X			X			X			X			X			X			X	
	Cadmium	NDPs: 0 Tests: 7		X			X			X			X			X			X			X	
	Chromium	NDPs: 0 Tests: 7		X			X			X			X			X			X			X	
	Copper	NDPs: 0 Tests: 7		X			X			X			X			X			X			X	
	Lead	NDPs: 0 Tests: 7		X			X			X			X			X			X			X	
	Mercury	NDPs: 0 Tests: 7		X			X			X			X			X			X			X	
	Nickel	NDPs: 0 Tests: 7		X			X			X			X			X			X			X	

CERTIFICATE OF ANALYSIS

SDG:	111028-105	**Location:**	Limerick Gasworks	**Order Number:**	4700000740
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	159074
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

SOLID

Results Legend

X Test

N No Determination Possible

			Lab Sample No(s)	4599207		4599208		4599209		4599206		4599201		4599202		4599204	
			Customer Sample Reference	B2		B2		B2		C2		D2		D2		D2	
			AGS Reference														
			Depth (m)	0.20 - 0.80		0.80 - 1.30		1.30 - 2.00		1.50 - 2.00		0.50 - 1.00		1.00 - 1.50		2.00 - 2.50	
			Container	60g VOC (ALE215)	JAR (D)	60g VOC (ALE215)	TUB (D)	60g VOC (ALE215)	JAR (D)	60g VOC (ALE215)	TUB (D)	60g VOC (ALE215)	JAR (D)	60g VOC (ALE215)	TUB (D)	60g VOC (ALE215)	JAR (D)	60g VOC (ALE215)	TUB (D)
Metals by iCap-OES (Soil)	Selenium	NDPs: 0 Tests: 7			X		X		X		X		X		X		X
	Zinc	NDPs: 0 Tests: 7			X		X		X		X		X		X		X
PAH by GCMS	All	NDPs: 0 Tests: 7			X		X		X		X		X		X		X
PCBs by GCMS	All	NDPs: 0 Tests: 2					X								X			
pH	All	NDPs: 0 Tests: 7			X		X		X		X		X		X				X
Phenols by HPLC (S)	All	NDPs: 0 Tests: 7			X		X		X		X		X		X				X
Sample description	All	NDPs: 0 Tests: 7			X		X		X		X		X		X		X	
Total Sulphate	All	NDPs: 0 Tests: 7			X		X		X		X		X		X		X	
TPH CWG GC (S)	All	NDPs: 0 Tests: 7			X		X		X		X		X		X		X	
VOC MS (S)	All	NDPs: 0 Tests: 4					X		X						X				X

CERTIFICATE OF ANALYSIS

SDG:	111028-105	**Location:**	Limerick Gasworks	**Order Number:**	4700000740
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	159074
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Sample Descriptions

Grain Sizes

very fine	<0.063mm	fine	0.063mm - 0.1mm	medium	0.1mm - 2mm	coarse	2mm - 10mm	very coarse	>10mm

Lab Sample No(s)	Customer Sample Ref.	Depth (m)	Colour	Description	Grain size	Inclusions	Inclusions 2
4599207	B2	0.20 - 0.80	Grey	Silty Sand	0.1 - 2 mm	Stones	None
4599208	B2	0.80 - 1.30	Light Brown	Silty Sand	0.1 - 2 mm	Brick	Vegetation
4599209	B2	1.30 - 2.00	Grey	Silty Sand	0.1 - 2 mm	Stones	Fibres
4599206	C2	1.50 - 2.00	Light Brown	Silty Sand	0.1 - 2 mm	Stones	None
4599201	D2	0.50 - 1.00	Dark Brown	Silty Clay	0.063 - 0.1 mm	Stones	None
4599202	D2	1.00 - 1.50	Light Brown	Silty Sand	0.1 - 2 mm	Ash/Soot	Stones
4599204	D2	2.00 - 2.50	Grey	Gravel	> 10 mm	Tar	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 ocurring 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.

CERTIFICATE OF ANALYSIS

SDG:	111028-105	**Location:**	Limerick Gasworks	**Order Number:**	4700000740
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	159074
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
§	Deviating sample.
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

Component	LOD/Units	Method	Customer Sample R	B2	B2	B2	C2	D2	D2
			Depth (m)	0.20 - 0.80	0.80 - 1.30	1.30 - 2.00	1.50 - 2.00	0.50 - 1.00	1.00 - 1.50
			Sample Type	Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid
			Date Sampled	27/10/2011	27/10/2011	27/10/2011	26/10/2011	26/10/2011	26/10/2011
			Date Received	27/10/2011	27/10/2011	27/10/2011	27/10/2011	27/10/2011	27/10/2011
			SDG Ref	111028-105	111028-105	111028-105	111028-105	111028-105	111028-105
			Lab Sample No.(s)	4599207	4599208	4599209	4599206	4599201	4599202
			AGS Reference						
Ammoniacal Nitrogen, exchangeable as NH4	<15 mg/kg	TM024		<15 M	<15 M	<15 M	<15 M	<15 M	<15 M
Ammoniacal Nitrogen as N	<15 mg/kg	TM024		<15	<15	<15	<15	<15	<15
Catechol	<0.01 mg/kg	TM062 (S)		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Phenol	<0.01 mg/kg	TM062 (S)		0.0238 M	<0.01 M	<0.01 M	<0.01 M	<0.01 M	<0.01 M
Cresols	<0.01 mg/kg	TM062 (S)		0.0595 M	<0.01 M	<0.01 M	<0.01 M	<0.01 M	<0.01 M
Resorcinol	<0.05 mg/kg	TM062 (S)		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Xylenols	<0.015 mg/kg	TM062 (S)		<0.015 M	<0.015 M	0.0351 M	<0.015 M	<0.015 M	<0.015 M
1-Naphthol	<0.01 mg/kg	TM062 (S)		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
2,3,5-Trimethylphenol	<0.01 mg/kg	TM062 (S)		<0.01 M	<0.01 M	<0.01 M	<0.01 M	<0.01 M	<0.01 M
2-Isopropylphenol	<0.015 mg/kg	TM062 (S)		<0.015 M	<0.015 M	<0.015 M	<0.015 M	<0.015 M	<0.015 M
Phenols, Total Detected 8 Speciated	<0.12 mg/kg	TM062 (S)		<0.12	<0.12	<0.12	<0.12	<0.12	<0.12
pH	1 pH Units	TM133		8.46 § M	7.95 § M	8.27 § M	8.26 § M	8.75 § M	8.49 § M
Hexavalent Chromium	<0.6 mg/kg	TM151		<0.6 #	<0.6 #	<0.6 #	<0.6 #	<0.6 #	<0.6 #
Chromium, Hexavalent	<0.6 mg/kg	TM151		<0.6 #	<0.6 #	<0.6 #	<0.6 #	<0.6 #	<0.6 #
Cyanide, Total	<1 mg/kg	TM153		<1 M	7.82 M	<1 M	19.3 M	<1 M	2.72 M
PCB congener 28	<3 µg/kg	TM168			<3 M				<3 M
PCB congener 52	<3 µg/kg	TM168			<3 M				<3 M
PCB congener 101	<3 µg/kg	TM168			<3 M				<3 M
PCB congener 118	<3 µg/kg	TM168			<3 M				<3 M
PCB congener 138	<3 µg/kg	TM168			<3 M				<3 M
PCB congener 153	<3 µg/kg	TM168			<3 M				<3 M
PCB congener 180	<3 µg/kg	TM168			<3 M				<3 M
Sum of detected PCB 7 Congeners	<21 µg/kg	TM168			<21				<21
Easily Liberated Sulphide	<15 mg/kg	TM180		<15 #	<15 #	17 #	<15 #	<15 #	<15 #
Sulphide, Easily liberated	<15 mg/kg	TM180		<15 #	<15 #	19.9 #	<15 #	<15 #	<15 #
Arsenic	<0.6 mg/kg	TM181		31.2 M	7.89 M	25.6 M	21.9 M	25.9 M	14.6 M
Cadmium	<0.02 mg/kg	TM181		0.351 M	0.401 M	0.612 M	0.51 M	0.463 M	0.496 M
Chromium	<0.9 mg/kg	TM181		14.1 M	11.8 M	10 M	11 M	23.7 M	20.1 M
Copper	<1.4 mg/kg	TM181		21.9 M	119 M	626 M	37.5 M	48.7 M	23.8 M
Lead	<0.7 mg/kg	TM181		76.9 M	47.2 M	59.8 M	102 M	292 M	245 M
Mercury	<0.14 mg/kg	TM181		<0.14 M	<0.14 M	0.962 M	<0.14 M	<0.14 M	<0.14 M
Nickel	<0.2 mg/kg	TM181		22.7 M	15.1 M	12.4 M	14.7 M	29.6 M	24.9 M
Selenium	<1 mg/kg	TM181		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Zinc	<1.9 mg/kg	TM181		90.4 M	82.2 M	192 M	75.7 M	147 M	51 M
Sulphate, Total	<48 mg/kg	TM221		759 M	317 M	357 M	849 M	1240 M	826 M

CERTIFICATE OF ANALYSIS

SDG:	111028-105	**Location:**	Limerick Gasworks	**Order Number:**	4700000740
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	159074
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
§	Deviating sample.
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

Component	LOD/Units	Method	Customer Sample R	D2
			Depth (m)	2.00 - 2.50
			Sample Type	Soil/Solid
			Date Sampled	26/10/2011
			Date Received	27/10/2011
			SDG Ref	111028-105
			Lab Sample No.(s)	4599204
			AGS Reference	
Ammoniacal Nitrogen, exchangeable as NH4	<15 mg/kg	TM024		35.2 #
Ammoniacal Nitrogen as N	<15 mg/kg	TM024		27.3
Catechol	<0.01 mg/kg	TM062 (S)		<0.01
Phenol	<0.01 mg/kg	TM062 (S)		0.0109 #
Cresols	<0.01 mg/kg	TM062 (S)		0.0435 #
Resorcinol	<0.05 mg/kg	TM062 (S)		<0.05
Xylenols	<0.015 mg/kg	TM062 (S)		<0.015 #
1-Naphthol	<0.01 mg/kg	TM062 (S)		<0.01
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 8 Speciated	<0.12 mg/kg	TM062 (S)		<0.12
pH	1 pH Units	TM133		8.18 § #
Hexavalent Chromium	<0.6 mg/kg	TM151		<1.2 #
Chromium, Hexavalent	<0.6 mg/kg	TM151		<1.2 #
Cyanide, Total	<1 mg/kg	TM153		217 #
Easily Liberated Sulphide	<15 mg/kg	TM180		879 #
Sulphide, Easily liberated	<15 mg/kg	TM180		956 #
Arsenic	<0.6 mg/kg	TM181		12.2 #
Cadmium	<0.02 mg/kg	TM181		0.627 #
Chromium	<0.9 mg/kg	TM181		9.23 #
Copper	<1.4 mg/kg	TM181		16.9 #
Lead	<0.7 mg/kg	TM181		24.6 #
Mercury	<0.14 mg/kg	TM181		<0.14 #
Nickel	<0.2 mg/kg	TM181		23.2 #
Selenium	<1 mg/kg	TM181		<1 #
Zinc	<1.9 mg/kg	TM181		84.5 #
Sulphate, Total	<48 mg/kg	TM221		1260 #

CERTIFICATE OF ANALYSIS

SDG:	111028-105	**Location:**	Limerick Gasworks	**Order Number:**	4700000740
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	159074
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

PAH by GCMS

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
§	Deviating sample.
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

Component	LOD/Units	Method	Customer Sample R	B2	B2	B2	C2	D2	D2
			Depth (m)	0.20 - 0.80	0.80 - 1.30	1.30 - 2.00	1.50 - 2.00	0.50 - 1.00	1.00 - 1.50
			Sample Type	Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid
			Date Sampled	27/10/2011	27/10/2011	27/10/2011	26/10/2011	26/10/2011	26/10/2011
			Date Received	27/10/2011	27/10/2011	27/10/2011	27/10/2011	27/10/2011	27/10/2011
			SDG Ref	111028-105	111028-105	111028-105	111028-105	111028-105	111028-105
			Lab Sample No.(s)	4599207	4599208	4599209	4599206	4599201	4599202
			AGS Reference						
Naphthalene	<9 µg/kg	TM218		70500 M	268 M	12700 M	5910 M	312 M	1330 M
Acenaphthylene	<12 µg/kg	TM218		2480 M	166 M	1100 M	501 M	207 M	3480 M
Acenaphthene	<8 µg/kg	TM218		7870 M	111 M	5470 M	673 M	43.7 M	2070 M
Fluorene	<10 µg/kg	TM218		6860 M	102 M	3280 M	584 M	159 M	11500 M
Phenanthrene	<15 µg/kg	TM218		70400 M	2530 M	5480 M	6860 M	3510 M	116000 M
Anthracene	<16 µg/kg	TM218		14500 M	590 M	2530 M	1750 M	743 M	32100 M
Fluoranthene	<17 µg/kg	TM218		90500 M	5380 M	45800 M	13700 M	7180 M	147000 M
Pyrene	<15 µg/kg	TM218		71200 M	4620 M	48800 M	11400 M	6370 M	117000 M
Benz(a)anthracene	<14 µg/kg	TM218		51000 M	2660 M	27500 M	9990 M	5700 M	67200 M
Chrysene	<10 µg/kg	TM218		42100 M	2230 M	21400 M	7810 M	4650 M	48800 M
Benzo(b)fluoranthene	<15 µg/kg	TM218		62900 M	3040 M	21100 M	14700 M	11700 M	82500 M
Benzo(k)fluoranthene	<14 µg/kg	TM218		19800 M	1210 M	6250 M	4650 M	3940 M	29500 M
Benzo(a)pyrene	<15 µg/kg	TM218		49400 M	2550 M	15500 M	11100 M	6940 M	64600 M
Indeno(1,2,3-cd)pyrene	<18 µg/kg	TM218		23700 M	1190 M	4880 M	5930 M	6060 M	35400 M
Dibenzo(a,h)anthracene	<23 µg/kg	TM218		7980 M	413 M	1870 M	2140 M	1790 M	10200 M
Benzo(g,h,i)perylene	<24 µg/kg	TM218		25700 M	1450 M	5610 M	6060 M	6540 M	37500 M
PAH, Total Detected USEPA 16	<118 µg/kg	TM218		617000	28500	229000	104000	65800	807000

CERTIFICATE OF ANALYSIS

SDG:	111028-105	**Location:**	Limerick Gasworks	**Order Number:**	4700000740
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	159074
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

PAH by GCMS

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
§	Deviating sample.
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

Component	LOD/Units	Method	Customer Sample R	
			Depth (m)	2.00 - 2.50
			Sample Type	Soil/Solid
			Date Sampled	26/10/2011
			Date Received	27/10/2011
			SDG Ref	111028-105
			Lab Sample No.(s)	4599204
			AGS Reference	D2
Naphthalene	<9 µg/kg	TM218	24900 #	
Acenaphthylene	<12 µg/kg	TM218	8640 #	
Acenaphthene	<8 µg/kg	TM218	4180 #	
Fluorene	<10 µg/kg	TM218	7970 #	
Phenanthrene	<15 µg/kg	TM218	23600 #	
Anthracene	<16 µg/kg	TM218	7570 #	
Fluoranthene	<17 µg/kg	TM218	22500 #	
Pyrene	<15 µg/kg	TM218	17000 #	
Benz(a)anthracene	<14 µg/kg	TM218	11700 #	
Chrysene	<10 µg/kg	TM218	7590 #	
Benzo(b)fluoranthene	<15 µg/kg	TM218	13600 #	
Benzo(k)fluoranthene	<14 µg/kg	TM218	5340 #	
Benzo(a)pyrene	<15 µg/kg	TM218	11000 #	
Indeno(1,2,3-cd)pyrene	<18 µg/kg	TM218	6310 #	
Dibenzo(a,h)anthracene	<23 µg/kg	TM218	1860 #	
Benzo(g,h,i)perylene	<24 µg/kg	TM218	6460 #	
PAH, Total Detected USEPA 16	<118 µg/kg	TM218	180000	

CERTIFICATE OF ANALYSIS

SDG:	111028-105	**Location:**	Limerick Gasworks	**Order Number:**	4700000740
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	159074
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

TPH CWG (S)

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
§	Deviating sample.
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

Component	LOD/Units	Method	Customer Sample R	B2	B2	B2	C2	D2	D2
			Depth (m)	0.20 - 0.80	0.80 - 1.30	1.30 - 2.00	1.50 - 2.00	0.50 - 1.00	1.00 - 1.50
			Sample Type	Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid
			Date Sampled	27/10/2011	27/10/2011	27/10/2011	26/10/2011	26/10/2011	26/10/2011
			Date Received	27/10/2011	27/10/2011	27/10/2011	27/10/2011	27/10/2011	27/10/2011
			SDG Ref	111028-105	111028-105	111028-105	111028-105	111028-105	111028-105
			Lab Sample No.(s)	4599207	4599208	4599209	4599206	4599201	4599202
			AGS Reference						
GRO >C5-C12	<44 µg/kg	TM089		2190	432	44100	379	75	505
Methyl tertiary butyl ether (MTBE)	<5 µg/kg	TM089		<5 #	<5 #	<5 #	<5 #	<5 #	<5 #
Benzene	<10 µg/kg	TM089		<10 M	<10 M	19.9 M	16.2 M	<10 M	13.9 M
Toluene	<2 µg/kg	TM089		4.76 M	5.8 M	<2 M	8.12 M	3.63 M	2.32 M
Ethylbenzene	<3 µg/kg	TM089		9.52 M	<3 M	92.4 M	4.64 M	<3 M	<3 M
m,p-Xylene	<6 µg/kg	TM089		20.2 M	9.28 M	1160 M	15.1 M	<6 M	<6 M
o-Xylene	<3 µg/kg	TM089		17.9 M	4.64 M	<3 M	10.4 M	<3 M	<3 M
sum of detected mpo xylene by GC	<9 µg/kg	TM089		38.1	13.9	1160	25.5	<9	<9
sum of detected BTEX by GC	<24 µg/kg	TM089		52.4	<24	1270	54.5	<24	<24
Aliphatics >C5-C6	<10 µg/kg	TM089		<10	<10	36.3	27.8	19.4	22
Aliphatics >C6-C8	<10 µg/kg	TM089		27.4	11.6	1830	26.7	14.5	46.4
Aliphatics >C8-C10	<10 µg/kg	TM089		119	49.9	9320	39.4	<10	59.2
Aliphatics >C10-C12	<10 µg/kg	TM089		1140	183	15200	123	<10	188
Aliphatics >C12-C16	<100 µg/kg	TM173		4130	1650	103000	6000	9190	15000
Aliphatics >C16-C21	<100 µg/kg	TM173		7600	9620	138000	8330	24600	22300
Aliphatics >C21-C35	<100 µg/kg	TM173		10800	17000	75600	12700	42400	23900
Aliphatics >C35-C44	<100 µg/kg	TM173		3460	<100	<100	2600	9820	2210
Total Aliphatics >C12-C44	<100 µg/kg	TM173		26000	28200	317000	29600	86000	63400
Aromatics >EC5-EC7	<10 µg/kg	TM089		<10	<10	19.9	16.2	<10	13.9
Aromatics >EC7-EC8	<10 µg/kg	TM089		<10	<10	<10	<10	<10	<10
Aromatics >EC8-EC10	<10 µg/kg	TM089		127	48.7	7470	56.8	12.1	47.6
Aromatics >EC10-EC12	<10 µg/kg	TM089		760	122	10200	82.4	<10	125
Aromatics >EC12-EC16	<100 µg/kg	TM173		200000	8530	92900	9210	4390	229000
Aromatics >EC16-EC21	<100 µg/kg	TM173		270000	72200	291000	47700	30100	1580000
Aromatics >EC21-EC35	<100 µg/kg	TM173		731000	192000	529000	216000	142000	2750000
Aromatics >EC35-EC44	<100 µg/kg	TM173		177000	54800	89100	61000	61100	723000
Total Aromatics >EC12-EC44	<100 µg/kg	TM173		1380000	328000	1000000	334000	238000	5290000
Total Aliphatics & Aromatics >C5-C44	<100 µg/kg	TM173		1410000	356000	1360000	364000	324000	5350000
Total Aliphatics >C5-35	<100 µg/kg	TM173		23800	28500	343000	27200	76200	61500
Total Aromatics >C5-35	<100 µg/kg	TM173		1200000	273000	931000	273000	176000	4560000
Total Aliphatics & Aromatics >C5-35	<100 µg/kg	TM173		1230000	302000	1270000	300000	253000	4630000
Total Aliphatics >C5-C12	<10 µg/kg	TM089		1290	253	26400	217	49.6	314
Total Aromatics >EC5-EC12	<10 µg/kg	TM089		894	179	17700	162	25.4	188
Total Aliphatics >C5-C44	<100 µg/kg	TM173		27300	28500	343000	29800	86100	63800
Total Aromatics >C6-C44	<100 µg/kg	TM173		1380000	328000	1020000	334000	238000	5290000

CERTIFICATE OF ANALYSIS

SDG:	111028-105	**Location:**	Limerick Gasworks	**Order Number:**	4700000740
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	159074
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

TPH CWG (S)

Results Legend	
#	ISO17025 accredited.
M	*m*CERTS accredited.
§	Deviating sample.
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

Component	LOD/Units	Method	Customer Sample R	B2	B2	B2	C2	D2	D2
			Depth (m)	0.20 - 0.80	0.80 - 1.30	1.30 - 2.00	1.50 - 2.00	0.50 - 1.00	1.00 - 1.50
			Sample Type	Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid
			Date Sampled	27/10/2011	27/10/2011	27/10/2011	26/10/2011	26/10/2011	26/10/2011
			Date Received	27/10/2011	27/10/2011	27/10/2011	27/10/2011	27/10/2011	27/10/2011
			SDG Ref	111028-105	111028-105	111028-105	111028-105	111028-105	111028-105
			Lab Sample No.(s)	4599207	4599208	4599209	4599206	4599201	4599202
			AGS Reference						
Aliphatics >C16-C35	<100 µg/kg	TM173		18400	26600	214000	21000	67000	46200

CERTIFICATE OF ANALYSIS

SDG:	111028-105	**Location:**	Limerick Gasworks	**Order Number:**	4700000740
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	159074
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

TPH CWG (S)

Results Legend	
#	ISO17025 accredited.
M	*m*CERTS accredited.
§	Deviating sample.
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

Customer Sample R	D2
Depth (m)	2.00 - 2.50
Sample Type	Soil/Solid
Date Sampled	26/10/2011
Date Received	27/10/2011
SDG Ref	111028-105
Lab Sample No.(s)	4599204
AGS Reference	

Component	LOD/Units	Method	
GRO >C5-C12	<44 µg/kg	TM089	29300
Methyl tertiary butyl ether (MTBE)	<5 µg/kg	TM089	<5 #
Benzene	<10 µg/kg	TM089	100 #
Toluene	<2 µg/kg	TM089	60.9 #
Ethylbenzene	<3 µg/kg	TM089	152 #
m,p-Xylene	<6 µg/kg	TM089	802 #
o-Xylene	<3 µg/kg	TM089	498 #
sum of detected mpo xylene by GC	<9 µg/kg	TM089	1300
sum of detected BTEX by GC	<24 µg/kg	TM089	1610
Aliphatics >C5-C6	<10 µg/kg	TM089	135
Aliphatics >C6-C8	<10 µg/kg	TM089	2350
Aliphatics >C8-C10	<10 µg/kg	TM089	6160
Aliphatics >C10-C12	<10 µg/kg	TM089	8990
Aliphatics >C12-C16	<100 µg/kg	TM173	9700
Aliphatics >C16-C21	<100 µg/kg	TM173	32700
Aliphatics >C21-C35	<100 µg/kg	TM173	37800
Aliphatics >C35-C44	<100 µg/kg	TM173	21400
Total Aliphatics >C12-C44	<100 µg/kg	TM173	102000
Aromatics >EC5-EC7	<10 µg/kg	TM089	100
Aromatics >EC7-EC8	<10 µg/kg	TM089	60.9
Aromatics >EC8-EC10	<10 µg/kg	TM089	5560
Aromatics >EC10-EC12	<10 µg/kg	TM089	5990
Aromatics >EC12-EC16	<100 µg/kg	TM173	18400
Aromatics >EC16-EC21	<100 µg/kg	TM173	65800
Aromatics >EC21-EC35	<100 µg/kg	TM173	110000
Aromatics >EC35-EC44	<100 µg/kg	TM173	32800
Total Aromatics >EC12-EC44	<100 µg/kg	TM173	226000
Total Aliphatics & Aromatics >C5-C44	<100 µg/kg	TM173	357000
Total Aliphatics >C5-35	<100 µg/kg	TM173	97800
Total Aromatics >C5-35	<100 µg/kg	TM173	205000
Total Aliphatics & Aromatics >C5-35	<100 µg/kg	TM173	303000
Total Aliphatics >C5-C12	<10 µg/kg	TM089	17600
Total Aromatics >EC5-EC12	<10 µg/kg	TM089	11700
Total Aliphatics >C5-C44	<100 µg/kg	TM173	119000
Total Aromatics >C6-C44	<100 µg/kg	TM173	238000

CERTIFICATE OF ANALYSIS

SDG:	111028-105	**Location:**	Limerick Gasworks	**Order Number:**	4700000740
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	159074
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

TPH CWG (S)

Results Legend	
#	ISO17025 accredited.
M	*m*CERTS accredited.
§	Deviating sample.
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

Component	LOD/Units	Method	Customer Sample R	
				D2
			Depth (m)	2.00 - 2.50
			Sample Type	Soil/Solid
			Date Sampled	26/10/2011
			Date Received	27/10/2011
			SDG Ref	111028-105
			Lab Sample No.(s)	4599204
			AGS Reference	
Aliphatics >C16-C35	<100 µg/kg	TM173		70500

CERTIFICATE OF ANALYSIS

SDG:	111028-105	**Location:**	Limerick Gasworks	**Order Number:**	4700000740
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	159074
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

VOC MS (S)

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
§	Deviating sample.
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

Component	LOD/Units	Method	Customer Sample R	B2	B2	D2	D2
			Depth (m)	0.80 - 1.30	1.30 - 2.00	1.00 - 1.50	2.00 - 2.50
			Sample Type	Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid
			Date Sampled	27/10/2011	27/10/2011	26/10/2011	26/10/2011
			Date Received	27/10/2011	27/10/2011	27/10/2011	27/10/2011
			SDG Ref	111028-105	111028-105	111028-105	111028-105
			Lab Sample No.(s)	4599208	4599209	4599202	4599204
			AGS Reference				
Dibromofluoromethane**	%	TM116		34.8 §	75.3 §	41.5 §	58.5 §
Toluene-d8**	%	TM116		99.5 §	92.1 §	95.5 §	101 §
4-Bromofluorobenzene**	%	TM116		137 §	131 §	150 §	120 §
Dichlorodifluoromethane	<4 µg/kg	TM116		<4 § M	<4 § M	<4 § M	<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 § M	<13 § M	<13 § M	<13 § #
Chloroethane	<14 µg/kg	TM116		<14 § M	<14 § M	<14 § M	<14 § #
Trichlorofluorormethane	<6 µg/kg	TM116		<6 § M	<6 § M	<6 § M	<6 § #
1.1-Dichloroethene	<10 µg/kg	TM116		<10 § #	<10 § #	<10 § #	<10 § #
Carbon Disulphide	<7 µg/kg	TM116		<7 § M	73.8 § M	<7 § M	95.4 § #
Dichloromethane	<10 µg/kg	TM116		<10 § #	<10 § #	<10 § #	<10 § #
Methyl Tertiary Butyl Ether	<11 µg/kg	TM116		<11 § M	<11 § M	<11 § M	<11 § #
trans-1-2-Dichloroethene	<11 µg/kg	TM116		<11 § M	<11 § M	<11 § M	<11 § #
1.1-Dichloroethane	<8 µg/kg	TM116		<8 § M	<8 § M	<8 § M	<8 § #
cis-1-2-Dichloroethene	<5 µg/kg	TM116		<5 § M	<5 § M	<5 § M	<5 § #
2.2-Dichloropropane	<12 µg/kg	TM116		<12 § M	<12 § M	<12 § M	<12 § #
Bromochloromethane	<14 µg/kg	TM116		<14 § M	<14 § M	<14 § M	<14 § #
Chloroform	<8 µg/kg	TM116		<8 § M	<8 § M	<8 § M	<8 § #
1.1.1-Trichloroethane	<7 µg/kg	TM116		<7 § M	<7 § M	<7 § M	<7 § #
1.1-Dichloropropene	<11 µg/kg	TM116		<11 § M	<11 § M	<11 § M	<11 § #
Carbontetrachloride	<14 µg/kg	TM116		<14 § M	<14 § M	<14 § M	<14 § #
1.2-Dichloroethane	<5 µg/kg	TM116		<5 § M	<5 § M	<5 § M	<5 § #
Benzene	<9 µg/kg	TM116		<9 § M	55.1 § M	51 § M	253 § #
Trichloroethene	<9 µg/kg	TM116		<9 § M	<9 § M	<9 § M	<9 § #
1.2-Dichloropropane	<12 µg/kg	TM116		<12 § M	<12 § M	<12 § M	<12 § #
Dibromomethane	<9 µg/kg	TM116		<9 § M	<9 § M	<9 § M	<9 § #
Bromodichloromethane	<7 µg/kg	TM116		<7 § M	<7 § M	<7 § M	<7 § #
cis-1-3-Dichloropropene	<14 µg/kg	TM116		<14 § M	<14 § M	<14 § M	<14 § #
Toluene	<5 µg/kg	TM116		12.8 § M	36.4 § M	12.8 § M	73.6 § #
trans-1-3-Dichloropropene	<14 µg/kg	TM116		<14 §	<14 §	<14 §	<14 §
1.1.2-Trichloroethane	<10 µg/kg	TM116		<10 § M	<10 § M	<10 § M	<10 § #
1.3-Dichloropropane	<7 µg/kg	TM116		<7 § #	<7 § #	<7 § #	<7 § #
Tetrachloroethene	<5 µg/kg	TM116		<5 § M	<5 § M	<5 § M	<5 § #
Dibromochloromethane	<13 µg/kg	TM116		<13 § M	<13 § M	<13 § M	<13 § #

CERTIFICATE OF ANALYSIS

SDG:	111028-105	**Location:**	Limerick Gasworks	**Order Number:**	4700000740
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	159074
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

VOC MS (S)

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
§	Deviating sample.
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

Component	LOD/Units	Method	Customer Sample R	B2	B2	D2	D2		
			Depth (m)	0.80 - 1.30	1.30 - 2.00	1.00 - 1.50	2.00 - 2.50		
			Sample Type	Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid		
			Date Sampled	27/10/2011	27/10/2011	26/10/2011	26/10/2011		
			Date Received	27/10/2011	27/10/2011	27/10/2011	27/10/2011		
			SDG Ref	111028-105	111028-105	111028-105	111028-105		
			Lab Sample No.(s)	4599208	4599209	4599202	4599204		
			AGS Reference						
1.2-Dibromoethane	<12 µg/kg	TM116		<12 § M	<12 § M	<12 § M	<12 § #		
Chlorobenzene	<5 µg/kg	TM116		<5 § M	<5 § M	<5 § M	<5 § #		
1.1.1.2-Tetrachloroethane	<10 µg/kg	TM116		<10 § M	<10 § M	<10 § M	<10 § #		
Ethylbenzene	<4 µg/kg	TM116		7.71 § M	470 § M	5.83 § M	208 § #		
p/m-Xylene	<14 µg/kg	TM116		20.1 § #	2830 § #	<14 § #	732 § #		
o-Xylene	<10 µg/kg	TM116		<10 § M	110 § M	<10 § M	334 § #		
Styrene	<10 µg/kg	TM116		<10 § M	<10 § M	<10 § M	<10 § #		
Bromoform	<10 µg/kg	TM116		<10 § M	<10 § M	<10 § M	<10 § #		
Isopropylbenzene	<5 µg/kg	TM116		<5 § M	463 § M	<5 § M	74.7 § #		
1.1.2.2-Tetrachloroethane	<10 µg/kg	TM116		<10 § #	<10 § #	<10 § #	<10 § #		
1.2.3-Trichloropropane	<17 µg/kg	TM116		<17 § M	<17 § M	<17 § M	<17 § #		
Bromobenzene	<10 µg/kg	TM116		<10 § M	<10 § M	<10 § M	<10 § #		
Propylbenzene	<11 µg/kg	TM116		<11 § M	671 § M	<11 § M	124 § #		
2-Chlorotoluene	<9 µg/kg	TM116		<9 § M	<9 § M	<9 § M	<9 § #		
1.3.5-Trimethylbenzene	<8 µg/kg	TM116		<8 § #	2780 § #	<8 § #	440 § #		
4-Chlorotoluene	<12 µg/kg	TM116		<12 § M	<12 § M	<12 § M	<12 § #		
tert-Butylbenzene	<12 µg/kg	TM116		<12 § #	<12 § #	<12 § #	<12 § #		
1.2.4-Trimethylbenzene	<9 µg/kg	TM116		<9 § #	6320 #	<9 § #	1720 § #		
sec-Butylbenzene	<10 µg/kg	TM116		<10 § M	326 § M	<10 § M	57.5 § #		
4-Isopropyltoluene	<11 µg/kg	TM116		<11 § M	972 § M	<11 § M	171 § #		
1.3-Dichlorobenzene	<6 µg/kg	TM116		<6 § M	<6 § M	<6 § M	<6 § #		
1.4-Dichlorobenzene	<5 µg/kg	TM116		<5 § M	<5 § M	<5 § M	<5 § #		
n-Butylbenzene	<10 µg/kg	TM116		<10 § M	1100 § M	<10 § M	181 § #		
1.2-Dichlorobenzene	<12 µg/kg	TM116		<12 § M	<12 § M	<12 § M	<12 § #		
1.2-Dibromo-3-chloropropane	<14 µg/kg	TM116		<14 § M	<14 § M	<14 § M	<14 § #		
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 M	32100 M	2450 § M	30400 #		
1.2.3-Trichlorobenzene	<6 µg/kg	TM116		<6 § M	<6 § M	<6 § M	<6 § #		

CERTIFICATE OF ANALYSIS

SDG:	111028-105	**Location:**	Limerick Gasworks	**Order Number:**	4700000740
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	159074
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Asbestos Identification

		Date of Analysis	Analysed By	Comments	Amosite (Brown) Asbestos	Chrysotile (White) Asbestos	Crocidolite (Blue) Asbestos	Fibrous Actinolite	Fibrous Anthophyllite	Fibrous Tremolite	Non-Asbestos Fibre
Customer Sample Ref. Depth (m) Sample Type Date Sampled Date Receieved SDG Original Sample Method Number	B2 NS Z 0.20 - 0.80 SOLID 27/10/2011 00:00:00 111028-105 4,599,207 TM048	03/11/2011	Kevin Bowron	No Asbestos Detected	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Customer Sample Ref. Depth (m) Sample Type Date Sampled Date Receieved SDG Original Sample Method Number	D2 NS Z 0.50 - 1.00 SOLID 26/10/2011 00:00:00 111028-105 4,599,201 TM048	03/11/2011	Kevin Bowron	No Asbestos Detected	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected

CERTIFICATE OF ANALYSIS

SDG:	111028-105	**Location:**	Limerick Gasworks	**Order Number:**	4700000740
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	159074
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Notification of Deviating Samples

Sample Number	Customer Sample Ref.	Depth (m)	Matrix	Test Name	Component Name	Comment
4651666	D2	1.00 - 1.50	SOLID	VOC MS (S)	1.1.1.2-Tetrachloroethane	Container with Headspace provided for volatiles analysis
4651666	D2	1.00 - 1.50	SOLID	VOC MS (S)	1.1.1-Trichloroethane	Container with Headspace provided for volatiles analysis
4651666	D2	1.00 - 1.50	SOLID	VOC MS (S)	1.1.2.2-Tetrachloroethane	Container with Headspace provided for volatiles analysis
4651666	D2	1.00 - 1.50	SOLID	VOC MS (S)	1.1.2-Trichloroethane	Container with Headspace provided for volatiles analysis
4651666	D2	1.00 - 1.50	SOLID	VOC MS (S)	1.1-Dichloroethane	Container with Headspace provided for volatiles analysis
4651666	D2	1.00 - 1.50	SOLID	VOC MS (S)	1.1-Dichloroethene	Container with Headspace provided for volatiles analysis
4651666	D2	1.00 - 1.50	SOLID	VOC MS (S)	1.1-Dichloropropene	Container with Headspace provided for volatiles analysis
4651666	D2	1.00 - 1.50	SOLID	VOC MS (S)	1.2.3-Trichlorobenzene	Container with Headspace provided for volatiles analysis
4651666	D2	1.00 - 1.50	SOLID	VOC MS (S)	1.2.3-Trichloropropane	Container with Headspace provided for volatiles analysis
4651666	D2	1.00 - 1.50	SOLID	VOC MS (S)	1.2.4-Trichlorobenzene	Container with Headspace provided for volatiles analysis
4651666	D2	1.00 - 1.50	SOLID	VOC MS (S)	1.2.4-Trimethylbenzene	Container with Headspace provided for volatiles analysis
4651666	D2	1.00 - 1.50	SOLID	VOC MS (S)	1.2-Dibromo-3-chloropropane	Container with Headspace provided for volatiles analysis
4651666	D2	1.00 - 1.50	SOLID	VOC MS (S)	1.2-Dibromoethane	Container with Headspace provided for volatiles analysis
4651666	D2	1.00 - 1.50	SOLID	VOC MS (S)	1.2-Dichlorobenzene	Container with Headspace provided for volatiles analysis
4651666	D2	1.00 - 1.50	SOLID	VOC MS (S)	1.2-Dichloroethane	Container with Headspace provided for volatiles analysis
4651666	D2	1.00 - 1.50	SOLID	VOC MS (S)	1.2-Dichloropropane	Container with Headspace provided for volatiles analysis
4651666	D2	1.00 - 1.50	SOLID	VOC MS (S)	1.3.5-Trimethylbenzene	Container with Headspace provided for volatiles analysis
4651666	D2	1.00 - 1.50	SOLID	VOC MS (S)	1.3-Dichlorobenzene	Container with Headspace provided for volatiles analysis
4651666	D2	1.00 - 1.50	SOLID	VOC MS (S)	1.3-Dichloropropane	Container with Headspace provided for volatiles analysis
4651666	D2	1.00 - 1.50	SOLID	VOC MS (S)	1.4-Dichlorobenzene	Container with Headspace provided for volatiles analysis
4651666	D2	1.00 - 1.50	SOLID	VOC MS (S)	2.2-Dichloropropane	Container with Headspace provided for volatiles analysis
4651666	D2	1.00 - 1.50	SOLID	VOC MS (S)	2-Chlorotoluene	Container with Headspace provided for volatiles analysis
4651666	D2	1.00 - 1.50	SOLID	VOC MS (S)	4-Bromofluorobenzene**	Container with Headspace provided for volatiles analysis
4651666	D2	1.00 - 1.50	SOLID	VOC MS (S)	4-Chlorotoluene	Container with Headspace provided for volatiles analysis
4651666	D2	1.00 - 1.50	SOLID	VOC MS (S)	4-Isopropyltoluene	Container with Headspace provided for volatiles analysis
4651666	D2	1.00 - 1.50	SOLID	VOC MS (S)	Benzene	Container with Headspace provided for volatiles analysis
4651666	D2	1.00 - 1.50	SOLID	VOC MS (S)	Bromobenzene	Container with Headspace provided for volatiles analysis
4651666	D2	1.00 - 1.50	SOLID	VOC MS (S)	Bromochloromethane	Container with Headspace provided for volatiles analysis
4651666	D2	1.00 - 1.50	SOLID	VOC MS (S)	Bromodichloromethane	Container with Headspace provided for volatiles analysis
4651666	D2	1.00 - 1.50	SOLID	VOC MS (S)	Bromoform	Container with Headspace provided for volatiles analysis
4651666	D2	1.00 - 1.50	SOLID	VOC MS (S)	Bromomethane	Container with Headspace provided for volatiles analysis
4651666	D2	1.00 - 1.50	SOLID	VOC MS (S)	Carbon Disulphide	Container with Headspace provided for volatiles analysis
4651666	D2	1.00 - 1.50	SOLID	VOC MS (S)	Carbontetrachloride	Container with Headspace provided for volatiles analysis
4651666	D2	1.00 - 1.50	SOLID	VOC MS (S)	Chlorobenzene	Container with Headspace provided for volatiles analysis
4651666	D2	1.00 - 1.50	SOLID	VOC MS (S)	Chloroethane	Container with Headspace provided for volatiles analysis
4651666	D2	1.00 - 1.50	SOLID	VOC MS (S)	Chloroform	Container with Headspace provided for volatiles analysis

CERTIFICATE OF ANALYSIS

SDG:	111028-105	**Location:**	Limerick Gasworks	**Order Number:**	4700000740
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	159074
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Sample Number	Customer Sample Ref.	Depth (m)	Matrix	Test Name	Component Name	Comment
4651666	D2	1.00 - 1.50	SOLID	VOC MS (S)	Chloromethane	Container with Headspace provided for volatiles analysis
4651666	D2	1.00 - 1.50	SOLID	VOC MS (S)	cis-1-2-Dichloroethene	Container with Headspace provided for volatiles analysis
4651666	D2	1.00 - 1.50	SOLID	VOC MS (S)	cis-1-3-Dichloropropene	Container with Headspace provided for volatiles analysis
4651666	D2	1.00 - 1.50	SOLID	VOC MS (S)	Dibromochloromethane	Container with Headspace provided for volatiles analysis
4651666	D2	1.00 - 1.50	SOLID	VOC MS (S)	Dibromofluoromethane**	Container with Headspace provided for volatiles analysis
4651666	D2	1.00 - 1.50	SOLID	VOC MS (S)	Dibromomethane	Container with Headspace provided for volatiles analysis
4651666	D2	1.00 - 1.50	SOLID	VOC MS (S)	Dichlorodifluoromethane	Container with Headspace provided for volatiles analysis
4651666	D2	1.00 - 1.50	SOLID	VOC MS (S)	Dichloromethane	Container with Headspace provided for volatiles analysis
4651666	D2	1.00 - 1.50	SOLID	VOC MS (S)	Ethylbenzene	Container with Headspace provided for volatiles analysis
4651666	D2	1.00 - 1.50	SOLID	VOC MS (S)	Hexachlorobutadiene	Container with Headspace provided for volatiles analysis
4651666	D2	1.00 - 1.50	SOLID	VOC MS (S)	Isopropylbenzene	Container with Headspace provided for volatiles analysis
4651666	D2	1.00 - 1.50	SOLID	VOC MS (S)	Methyl Tertiary Butyl Ether	Container with Headspace provided for volatiles analysis
4651666	D2	1.00 - 1.50	SOLID	VOC MS (S)	Naphthalene	Container with Headspace provided for volatiles analysis
4651666	D2	1.00 - 1.50	SOLID	VOC MS (S)	n-Butylbenzene	Container with Headspace provided for volatiles analysis
4651666	D2	1.00 - 1.50	SOLID	VOC MS (S)	o-Xylene	Container with Headspace provided for volatiles analysis
4651666	D2	1.00 - 1.50	SOLID	VOC MS (S)	p/m-Xylene	Container with Headspace provided for volatiles analysis
4651666	D2	1.00 - 1.50	SOLID	VOC MS (S)	Propylbenzene	Container with Headspace provided for volatiles analysis
4651666	D2	1.00 - 1.50	SOLID	VOC MS (S)	sec-Butylbenzene	Container with Headspace provided for volatiles analysis
4651666	D2	1.00 - 1.50	SOLID	VOC MS (S)	Styrene	Container with Headspace provided for volatiles analysis
4651666	D2	1.00 - 1.50	SOLID	VOC MS (S)	Tert-amyl methyl ether	Container with Headspace provided for volatiles analysis
4651666	D2	1.00 - 1.50	SOLID	VOC MS (S)	tert-Butylbenzene	Container with Headspace provided for volatiles analysis
4651666	D2	1.00 - 1.50	SOLID	VOC MS (S)	Tetrachloroethene	Container with Headspace provided for volatiles analysis
4651666	D2	1.00 - 1.50	SOLID	VOC MS (S)	Toluene	Container with Headspace provided for volatiles analysis
4651666	D2	1.00 - 1.50	SOLID	VOC MS (S)	Toluene-d8**	Container with Headspace provided for volatiles analysis
4651666	D2	1.00 - 1.50	SOLID	VOC MS (S)	trans-1-2-Dichloroethene	Container with Headspace provided for volatiles analysis
4651666	D2	1.00 - 1.50	SOLID	VOC MS (S)	trans-1-3-Dichloropropene	Container with Headspace provided for volatiles analysis
4651666	D2	1.00 - 1.50	SOLID	VOC MS (S)	Trichloroethene	Container with Headspace provided for volatiles analysis
4651666	D2	1.00 - 1.50	SOLID	VOC MS (S)	Trichlorofluorormethane	Container with Headspace provided for volatiles analysis
4651666	D2	1.00 - 1.50	SOLID	VOC MS (S)	Vinyl Chloride	Container with Headspace provided for volatiles analysis
4651670	D2	2.00 - 2.50	SOLID	VOC MS (S)	1.1.1.2-Tetrachloroethane	Container with Headspace provided for volatiles analysis
4651670	D2	2.00 - 2.50	SOLID	VOC MS (S)	1.1.1-Trichloroethane	Container with Headspace provided for volatiles analysis
4651670	D2	2.00 - 2.50	SOLID	VOC MS (S)	1.1.2.2-Tetrachloroethane	Container with Headspace provided for volatiles analysis
4651670	D2	2.00 - 2.50	SOLID	VOC MS (S)	1.1.2-Trichloroethane	Container with Headspace provided for volatiles analysis
4651670	D2	2.00 - 2.50	SOLID	VOC MS (S)	1.1-Dichloroethane	Container with Headspace provided for volatiles analysis
4651670	D2	2.00 - 2.50	SOLID	VOC MS (S)	1.1-Dichloroethene	Container with Headspace provided for volatiles analysis
4651670	D2	2.00 - 2.50	SOLID	VOC MS (S)	1.1-Dichloropropene	Container with Headspace provided for volatiles analysis
4651670	D2	2.00 - 2.50	SOLID	VOC MS (S)	1.2.3-Trichlorobenzene	Container with Headspace provided for volatiles analysis

CERTIFICATE OF ANALYSIS

SDG:	111028-105	**Location:**	Limerick Gasworks	**Order Number:**	4700000740
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	159074
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Sample Number	Customer Sample Ref.	Depth (m)	Matrix	Test Name	Component Name	Comment
4651670	D2	2.00 - 2.50	SOLID	VOC MS (S)	1.2.3-Trichloropropane	Container with Headspace provided for volatiles analysis
4651670	D2	2.00 - 2.50	SOLID	VOC MS (S)	1.2.4-Trichlorobenzene	Container with Headspace provided for volatiles analysis
4651670	D2	2.00 - 2.50	SOLID	VOC MS (S)	1.2.4-Trimethylbenzene	Container with Headspace provided for volatiles analysis
4651670	D2	2.00 - 2.50	SOLID	VOC MS (S)	1.2-Dibromo-3-chloropropane	Container with Headspace provided for volatiles analysis
4651670	D2	2.00 - 2.50	SOLID	VOC MS (S)	1.2-Dibromoethane	Container with Headspace provided for volatiles analysis
4651670	D2	2.00 - 2.50	SOLID	VOC MS (S)	1.2-Dichlorobenzene	Container with Headspace provided for volatiles analysis
4651670	D2	2.00 - 2.50	SOLID	VOC MS (S)	1.2-Dichloroethane	Container with Headspace provided for volatiles analysis
4651670	D2	2.00 - 2.50	SOLID	VOC MS (S)	1.2-Dichloropropane	Container with Headspace provided for volatiles analysis
4651670	D2	2.00 - 2.50	SOLID	VOC MS (S)	1.3.5-Trimethylbenzene	Container with Headspace provided for volatiles analysis
4651670	D2	2.00 - 2.50	SOLID	VOC MS (S)	1.3-Dichlorobenzene	Container with Headspace provided for volatiles analysis
4651670	D2	2.00 - 2.50	SOLID	VOC MS (S)	1.3-Dichloropropane	Container with Headspace provided for volatiles analysis
4651670	D2	2.00 - 2.50	SOLID	VOC MS (S)	1.4-Dichlorobenzene	Container with Headspace provided for volatiles analysis
4651670	D2	2.00 - 2.50	SOLID	VOC MS (S)	2.2-Dichloropropane	Container with Headspace provided for volatiles analysis
4651670	D2	2.00 - 2.50	SOLID	VOC MS (S)	2-Chlorotoluene	Container with Headspace provided for volatiles analysis
4651670	D2	2.00 - 2.50	SOLID	VOC MS (S)	4-Bromofluorobenzene**	Container with Headspace provided for volatiles analysis
4651670	D2	2.00 - 2.50	SOLID	VOC MS (S)	4-Chlorotoluene	Container with Headspace provided for volatiles analysis
4651670	D2	2.00 - 2.50	SOLID	VOC MS (S)	4-Isopropyltoluene	Container with Headspace provided for volatiles analysis
4651670	D2	2.00 - 2.50	SOLID	VOC MS (S)	Benzene	Container with Headspace provided for volatiles analysis
4651670	D2	2.00 - 2.50	SOLID	VOC MS (S)	Bromobenzene	Container with Headspace provided for volatiles analysis
4651670	D2	2.00 - 2.50	SOLID	VOC MS (S)	Bromochloromethane	Container with Headspace provided for volatiles analysis
4651670	D2	2.00 - 2.50	SOLID	VOC MS (S)	Bromodichloromethane	Container with Headspace provided for volatiles analysis
4651670	D2	2.00 - 2.50	SOLID	VOC MS (S)	Bromoform	Container with Headspace provided for volatiles analysis
4651670	D2	2.00 - 2.50	SOLID	VOC MS (S)	Bromomethane	Container with Headspace provided for volatiles analysis
4651670	D2	2.00 - 2.50	SOLID	VOC MS (S)	Carbon Disulphide	Container with Headspace provided for volatiles analysis
4651670	D2	2.00 - 2.50	SOLID	VOC MS (S)	Carbontetrachloride	Container with Headspace provided for volatiles analysis
4651670	D2	2.00 - 2.50	SOLID	VOC MS (S)	Chlorobenzene	Container with Headspace provided for volatiles analysis
4651670	D2	2.00 - 2.50	SOLID	VOC MS (S)	Chloroethane	Container with Headspace provided for volatiles analysis
4651670	D2	2.00 - 2.50	SOLID	VOC MS (S)	Chloroform	Container with Headspace provided for volatiles analysis
4651670	D2	2.00 - 2.50	SOLID	VOC MS (S)	Chloromethane	Container with Headspace provided for volatiles analysis
4651670	D2	2.00 - 2.50	SOLID	VOC MS (S)	cis-1-2-Dichloroethene	Container with Headspace provided for volatiles analysis
4651670	D2	2.00 - 2.50	SOLID	VOC MS (S)	cis-1-3-Dichloropropene	Container with Headspace provided for volatiles analysis
4651670	D2	2.00 - 2.50	SOLID	VOC MS (S)	Dibromochloromethane	Container with Headspace provided for volatiles analysis
4651670	D2	2.00 - 2.50	SOLID	VOC MS (S)	Dibromofluoromethane**	Container with Headspace provided for volatiles analysis
4651670	D2	2.00 - 2.50	SOLID	VOC MS (S)	Dibromomethane	Container with Headspace provided for volatiles analysis
4651670	D2	2.00 - 2.50	SOLID	VOC MS (S)	Dichlorodifluoromethane	Container with Headspace provided for volatiles analysis
4651670	D2	2.00 - 2.50	SOLID	VOC MS (S)	Dichloromethane	Container with Headspace provided for volatiles analysis
4651670	D2	2.00 - 2.50	SOLID	VOC MS (S)	Ethylbenzene	Container with Headspace provided for volatiles analysis

CERTIFICATE OF ANALYSIS

SDG:	111028-105	**Location:**	Limerick Gasworks	**Order Number:**	4700000740
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	159074
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Sample Number	Customer Sample Ref.	Depth (m)	Matrix	Test Name	Component Name	Comment
4651670	D2	2.00 - 2.50	SOLID	VOC MS (S)	Hexachlorobutadiene	Container with Headspace provided for volatiles analysis
4651670	D2	2.00 - 2.50	SOLID	VOC MS (S)	Isopropylbenzene	Container with Headspace provided for volatiles analysis
4651670	D2	2.00 - 2.50	SOLID	VOC MS (S)	Methyl Tertiary Butyl Ether	Container with Headspace provided for volatiles analysis
4651670	D2	2.00 - 2.50	SOLID	VOC MS (S)	Naphthalene	Container with Headspace provided for volatiles analysis
4651670	D2	2.00 - 2.50	SOLID	VOC MS (S)	n-Butylbenzene	Container with Headspace provided for volatiles analysis
4651670	D2	2.00 - 2.50	SOLID	VOC MS (S)	o-Xylene	Container with Headspace provided for volatiles analysis
4651670	D2	2.00 - 2.50	SOLID	VOC MS (S)	p/m-Xylene	Container with Headspace provided for volatiles analysis
4651670	D2	2.00 - 2.50	SOLID	VOC MS (S)	Propylbenzene	Container with Headspace provided for volatiles analysis
4651670	D2	2.00 - 2.50	SOLID	VOC MS (S)	sec-Butylbenzene	Container with Headspace provided for volatiles analysis
4651670	D2	2.00 - 2.50	SOLID	VOC MS (S)	Styrene	Container with Headspace provided for volatiles analysis
4651670	D2	2.00 - 2.50	SOLID	VOC MS (S)	Tert-amyl methyl ether	Container with Headspace provided for volatiles analysis
4651670	D2	2.00 - 2.50	SOLID	VOC MS (S)	tert-Butylbenzene	Container with Headspace provided for volatiles analysis
4651670	D2	2.00 - 2.50	SOLID	VOC MS (S)	Tetrachloroethene	Container with Headspace provided for volatiles analysis
4651670	D2	2.00 - 2.50	SOLID	VOC MS (S)	Toluene	Container with Headspace provided for volatiles analysis
4651670	D2	2.00 - 2.50	SOLID	VOC MS (S)	Toluene-d8**	Container with Headspace provided for volatiles analysis
4651670	D2	2.00 - 2.50	SOLID	VOC MS (S)	trans-1-2-Dichloroethene	Container with Headspace provided for volatiles analysis
4651670	D2	2.00 - 2.50	SOLID	VOC MS (S)	trans-1-3-Dichloropropene	Container with Headspace provided for volatiles analysis
4651670	D2	2.00 - 2.50	SOLID	VOC MS (S)	Trichloroethene	Container with Headspace provided for volatiles analysis
4651670	D2	2.00 - 2.50	SOLID	VOC MS (S)	Trichlorofluoromethane	Container with Headspace provided for volatiles analysis
4651670	D2	2.00 - 2.50	SOLID	VOC MS (S)	Vinyl Chloride	Container with Headspace provided for volatiles analysis
4651673	B2	0.80 - 1.30	SOLID	VOC MS (S)	1.1.1.2-Tetrachloroethane	Container with Headspace provided for volatiles analysis
4651673	B2	0.80 - 1.30	SOLID	VOC MS (S)	1.1.1-Trichloroethane	Container with Headspace provided for volatiles analysis
4651673	B2	0.80 - 1.30	SOLID	VOC MS (S)	1.1.2.2-Tetrachloroethane	Container with Headspace provided for volatiles analysis
4651673	B2	0.80 - 1.30	SOLID	VOC MS (S)	1.1.2-Trichloroethane	Container with Headspace provided for volatiles analysis
4651673	B2	0.80 - 1.30	SOLID	VOC MS (S)	1.1-Dichloroethane	Container with Headspace provided for volatiles analysis
4651673	B2	0.80 - 1.30	SOLID	VOC MS (S)	1.1-Dichloroethene	Container with Headspace provided for volatiles analysis
4651673	B2	0.80 - 1.30	SOLID	VOC MS (S)	1.1-Dichloropropene	Container with Headspace provided for volatiles analysis
4651673	B2	0.80 - 1.30	SOLID	VOC MS (S)	1.2.3-Trichlorobenzene	Container with Headspace provided for volatiles analysis
4651673	B2	0.80 - 1.30	SOLID	VOC MS (S)	1.2.3-Trichloropropane	Container with Headspace provided for volatiles analysis
4651673	B2	0.80 - 1.30	SOLID	VOC MS (S)	1.2.4-Trichlorobenzene	Container with Headspace provided for volatiles analysis
4651673	B2	0.80 - 1.30	SOLID	VOC MS (S)	1.2.4-Trimethylbenzene	Container with Headspace provided for volatiles analysis
4651673	B2	0.80 - 1.30	SOLID	VOC MS (S)	1.2-Dibromo-3-chloropropane	Container with Headspace provided for volatiles analysis
4651673	B2	0.80 - 1.30	SOLID	VOC MS (S)	1.2-Dibromoethane	Container with Headspace provided for volatiles analysis
4651673	B2	0.80 - 1.30	SOLID	VOC MS (S)	1.2-Dichlorobenzene	Container with Headspace provided for volatiles analysis
4651673	B2	0.80 - 1.30	SOLID	VOC MS (S)	1.2-Dichloroethane	Container with Headspace provided for volatiles analysis
4651673	B2	0.80 - 1.30	SOLID	VOC MS (S)	1.2-Dichloropropane	Container with Headspace provided for volatiles analysis
4651673	B2	0.80 - 1.30	SOLID	VOC MS (S)	1.3.5-Trimethylbenzene	Container with Headspace provided for volatiles analysis

CERTIFICATE OF ANALYSIS

SDG:	111028-105	**Location:**	Limerick Gasworks	**Order Number:**	4700000740
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	159074
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Sample Number	Customer Sample Ref.	Depth (m)	Matrix	Test Name	Component Name	Comment
4651673	B2	0.80 - 1.30	SOLID	VOC MS (S)	1.3-Dichlorobenzene	Container with Headspace provided for volatiles analysis
4651673	B2	0.80 - 1.30	SOLID	VOC MS (S)	1.3-Dichloropropane	Container with Headspace provided for volatiles analysis
4651673	B2	0.80 - 1.30	SOLID	VOC MS (S)	1.4-Dichlorobenzene	Container with Headspace provided for volatiles analysis
4651673	B2	0.80 - 1.30	SOLID	VOC MS (S)	2.2-Dichloropropane	Container with Headspace provided for volatiles analysis
4651673	B2	0.80 - 1.30	SOLID	VOC MS (S)	2-Chlorotoluene	Container with Headspace provided for volatiles analysis
4651673	B2	0.80 - 1.30	SOLID	VOC MS (S)	4-Bromofluorobenzene**	Container with Headspace provided for volatiles analysis
4651673	B2	0.80 - 1.30	SOLID	VOC MS (S)	4-Chlorotoluene	Container with Headspace provided for volatiles analysis
4651673	B2	0.80 - 1.30	SOLID	VOC MS (S)	4-Isopropyltoluene	Container with Headspace provided for volatiles analysis
4651673	B2	0.80 - 1.30	SOLID	VOC MS (S)	Benzene	Container with Headspace provided for volatiles analysis
4651673	B2	0.80 - 1.30	SOLID	VOC MS (S)	Bromobenzene	Container with Headspace provided for volatiles analysis
4651673	B2	0.80 - 1.30	SOLID	VOC MS (S)	Bromochloromethane	Container with Headspace provided for volatiles analysis
4651673	B2	0.80 - 1.30	SOLID	VOC MS (S)	Bromodichloromethane	Container with Headspace provided for volatiles analysis
4651673	B2	0.80 - 1.30	SOLID	VOC MS (S)	Bromoform	Container with Headspace provided for volatiles analysis
4651673	B2	0.80 - 1.30	SOLID	VOC MS (S)	Bromomethane	Container with Headspace provided for volatiles analysis
4651673	B2	0.80 - 1.30	SOLID	VOC MS (S)	Carbon Disulphide	Container with Headspace provided for volatiles analysis
4651673	B2	0.80 - 1.30	SOLID	VOC MS (S)	Carbontetrachloride	Container with Headspace provided for volatiles analysis
4651673	B2	0.80 - 1.30	SOLID	VOC MS (S)	Chlorobenzene	Container with Headspace provided for volatiles analysis
4651673	B2	0.80 - 1.30	SOLID	VOC MS (S)	Chloroethane	Container with Headspace provided for volatiles analysis
4651673	B2	0.80 - 1.30	SOLID	VOC MS (S)	Chloroform	Container with Headspace provided for volatiles analysis
4651673	B2	0.80 - 1.30	SOLID	VOC MS (S)	Chloromethane	Container with Headspace provided for volatiles analysis
4651673	B2	0.80 - 1.30	SOLID	VOC MS (S)	cis-1-2-Dichloroethene	Container with Headspace provided for volatiles analysis
4651673	B2	0.80 - 1.30	SOLID	VOC MS (S)	cis-1-3-Dichloropropene	Container with Headspace provided for volatiles analysis
4651673	B2	0.80 - 1.30	SOLID	VOC MS (S)	Dibromochloromethane	Container with Headspace provided for volatiles analysis
4651673	B2	0.80 - 1.30	SOLID	VOC MS (S)	Dibromofluoromethane**	Container with Headspace provided for volatiles analysis
4651673	B2	0.80 - 1.30	SOLID	VOC MS (S)	Dibromomethane	Container with Headspace provided for volatiles analysis
4651673	B2	0.80 - 1.30	SOLID	VOC MS (S)	Dichlorodifluoromethane	Container with Headspace provided for volatiles analysis
4651673	B2	0.80 - 1.30	SOLID	VOC MS (S)	Dichloromethane	Container with Headspace provided for volatiles analysis
4651673	B2	0.80 - 1.30	SOLID	VOC MS (S)	Ethylbenzene	Container with Headspace provided for volatiles analysis
4651673	B2	0.80 - 1.30	SOLID	VOC MS (S)	Hexachlorobutadiene	Container with Headspace provided for volatiles analysis
4651673	B2	0.80 - 1.30	SOLID	VOC MS (S)	Isopropylbenzene	Container with Headspace provided for volatiles analysis
4651673	B2	0.80 - 1.30	SOLID	VOC MS (S)	Methyl Tertiary Butyl Ether	Container with Headspace provided for volatiles analysis
4651673	B2	0.80 - 1.30	SOLID	VOC MS (S)	Naphthalene	Container with Headspace provided for volatiles analysis
4651673	B2	0.80 - 1.30	SOLID	VOC MS (S)	n-Butylbenzene	Container with Headspace provided for volatiles analysis
4651673	B2	0.80 - 1.30	SOLID	VOC MS (S)	o-Xylene	Container with Headspace provided for volatiles analysis
4651673	B2	0.80 - 1.30	SOLID	VOC MS (S)	p/m-Xylene	Container with Headspace provided for volatiles analysis
4651673	B2	0.80 - 1.30	SOLID	VOC MS (S)	Propylbenzene	Container with Headspace provided for volatiles analysis
4651673	B2	0.80 - 1.30	SOLID	VOC MS (S)	sec-Butylbenzene	Container with Headspace provided for volatiles analysis

CERTIFICATE OF ANALYSIS

SDG:	111028-105	**Location:**	Limerick Gasworks	**Order Number:**	4700000740
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	159074
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Sample Number	Customer Sample Ref.	Depth (m)	Matrix	Test Name	Component Name	Comment
4651673	B2	0.80 - 1.30	SOLID	VOC MS (S)	Styrene	Container with Headspace provided for volatiles analysis
4651673	B2	0.80 - 1.30	SOLID	VOC MS (S)	Tert-amyl methyl ether	Container with Headspace provided for volatiles analysis
4651673	B2	0.80 - 1.30	SOLID	VOC MS (S)	tert-Butylbenzene	Container with Headspace provided for volatiles analysis
4651673	B2	0.80 - 1.30	SOLID	VOC MS (S)	Tetrachloroethene	Container with Headspace provided for volatiles analysis
4651673	B2	0.80 - 1.30	SOLID	VOC MS (S)	Toluene	Container with Headspace provided for volatiles analysis
4651673	B2	0.80 - 1.30	SOLID	VOC MS (S)	Toluene-d8**	Container with Headspace provided for volatiles analysis
4651673	B2	0.80 - 1.30	SOLID	VOC MS (S)	trans-1-2-Dichloroethene	Container with Headspace provided for volatiles analysis
4651673	B2	0.80 - 1.30	SOLID	VOC MS (S)	trans-1-3-Dichloropropene	Container with Headspace provided for volatiles analysis
4651673	B2	0.80 - 1.30	SOLID	VOC MS (S)	Trichloroethene	Container with Headspace provided for volatiles analysis
4651673	B2	0.80 - 1.30	SOLID	VOC MS (S)	Trichlorofluorormethane	Container with Headspace provided for volatiles analysis
4651673	B2	0.80 - 1.30	SOLID	VOC MS (S)	Vinyl Chloride	Container with Headspace provided for volatiles analysis
4651677	B2	1.30 - 2.00	SOLID	VOC MS (S)	1.1.1.2-Tetrachloroethane	Container with Headspace provided for volatiles analysis
4651677	B2	1.30 - 2.00	SOLID	VOC MS (S)	1.1.1-Trichloroethane	Container with Headspace provided for volatiles analysis
4651677	B2	1.30 - 2.00	SOLID	VOC MS (S)	1.1.2.2-Tetrachloroethane	Container with Headspace provided for volatiles analysis
4651677	B2	1.30 - 2.00	SOLID	VOC MS (S)	1.1.2-Trichloroethane	Container with Headspace provided for volatiles analysis
4651677	B2	1.30 - 2.00	SOLID	VOC MS (S)	1.1-Dichloroethane	Container with Headspace provided for volatiles analysis
4651677	B2	1.30 - 2.00	SOLID	VOC MS (S)	1.1-Dichloroethene	Container with Headspace provided for volatiles analysis
4651677	B2	1.30 - 2.00	SOLID	VOC MS (S)	1.1-Dichloropropene	Container with Headspace provided for volatiles analysis
4651677	B2	1.30 - 2.00	SOLID	VOC MS (S)	1.2.3-Trichlorobenzene	Container with Headspace provided for volatiles analysis
4651677	B2	1.30 - 2.00	SOLID	VOC MS (S)	1.2.3-Trichloropropane	Container with Headspace provided for volatiles analysis
4651677	B2	1.30 - 2.00	SOLID	VOC MS (S)	1.2.4-Trichlorobenzene	Container with Headspace provided for volatiles analysis
4651677	B2	1.30 - 2.00	SOLID	VOC MS (S)	1.2.4-Trimethylbenzene	Container with Headspace provided for volatiles analysis
4651677	B2	1.30 - 2.00	SOLID	VOC MS (S)	1.2-Dibromo-3-chloropropane	Container with Headspace provided for volatiles analysis
4651677	B2	1.30 - 2.00	SOLID	VOC MS (S)	1.2-Dibromoethane	Container with Headspace provided for volatiles analysis
4651677	B2	1.30 - 2.00	SOLID	VOC MS (S)	1.2-Dichlorobenzene	Container with Headspace provided for volatiles analysis
4651677	B2	1.30 - 2.00	SOLID	VOC MS (S)	1.2-Dichloroethane	Container with Headspace provided for volatiles analysis
4651677	B2	1.30 - 2.00	SOLID	VOC MS (S)	1.2-Dichloropropane	Container with Headspace provided for volatiles analysis
4651677	B2	1.30 - 2.00	SOLID	VOC MS (S)	1.3.5-Trimethylbenzene	Container with Headspace provided for volatiles analysis
4651677	B2	1.30 - 2.00	SOLID	VOC MS (S)	1.3-Dichlorobenzene	Container with Headspace provided for volatiles analysis
4651677	B2	1.30 - 2.00	SOLID	VOC MS (S)	1.3-Dichloropropane	Container with Headspace provided for volatiles analysis
4651677	B2	1.30 - 2.00	SOLID	VOC MS (S)	1.4-Dichlorobenzene	Container with Headspace provided for volatiles analysis
4651677	B2	1.30 - 2.00	SOLID	VOC MS (S)	2.2-Dichloropropane	Container with Headspace provided for volatiles analysis
4651677	B2	1.30 - 2.00	SOLID	VOC MS (S)	2-Chlorotoluene	Container with Headspace provided for volatiles analysis
4651677	B2	1.30 - 2.00	SOLID	VOC MS (S)	4-Bromofluorobenzene**	Container with Headspace provided for volatiles analysis
4651677	B2	1.30 - 2.00	SOLID	VOC MS (S)	4-Chlorotoluene	Container with Headspace provided for volatiles analysis
4651677	B2	1.30 - 2.00	SOLID	VOC MS (S)	4-Isopropyltoluene	Container with Headspace provided for volatiles analysis
4651677	B2	1.30 - 2.00	SOLID	VOC MS (S)	Benzene	Container with Headspace provided for volatiles analysis

CERTIFICATE OF ANALYSIS

SDG:	111028-105	**Location:**	Limerick Gasworks	**Order Number:**	4700000740
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	159074
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Sample Number	Customer Sample Ref.	Depth (m)	Matrix	Test Name	Component Name	Comment
4651677	B2	1.30 - 2.00	SOLID	VOC MS (S)	Bromobenzene	Container with Headspace provided for volatiles analysis
4651677	B2	1.30 - 2.00	SOLID	VOC MS (S)	Bromochloromethane	Container with Headspace provided for volatiles analysis
4651677	B2	1.30 - 2.00	SOLID	VOC MS (S)	Bromodichloromethane	Container with Headspace provided for volatiles analysis
4651677	B2	1.30 - 2.00	SOLID	VOC MS (S)	Bromoform	Container with Headspace provided for volatiles analysis
4651677	B2	1.30 - 2.00	SOLID	VOC MS (S)	Bromomethane	Container with Headspace provided for volatiles analysis
4651677	B2	1.30 - 2.00	SOLID	VOC MS (S)	Carbon Disulphide	Container with Headspace provided for volatiles analysis
4651677	B2	1.30 - 2.00	SOLID	VOC MS (S)	Carbontetrachloride	Container with Headspace provided for volatiles analysis
4651677	B2	1.30 - 2.00	SOLID	VOC MS (S)	Chlorobenzene	Container with Headspace provided for volatiles analysis
4651677	B2	1.30 - 2.00	SOLID	VOC MS (S)	Chloroethane	Container with Headspace provided for volatiles analysis
4651677	B2	1.30 - 2.00	SOLID	VOC MS (S)	Chloroform	Container with Headspace provided for volatiles analysis
4651677	B2	1.30 - 2.00	SOLID	VOC MS (S)	Chloromethane	Container with Headspace provided for volatiles analysis
4651677	B2	1.30 - 2.00	SOLID	VOC MS (S)	cis-1-2-Dichloroethene	Container with Headspace provided for volatiles analysis
4651677	B2	1.30 - 2.00	SOLID	VOC MS (S)	cis-1-3-Dichloropropene	Container with Headspace provided for volatiles analysis
4651677	B2	1.30 - 2.00	SOLID	VOC MS (S)	Dibromochloromethane	Container with Headspace provided for volatiles analysis
4651677	B2	1.30 - 2.00	SOLID	VOC MS (S)	Dibromofluoromethane**	Container with Headspace provided for volatiles analysis
4651677	B2	1.30 - 2.00	SOLID	VOC MS (S)	Dibromomethane	Container with Headspace provided for volatiles analysis
4651677	B2	1.30 - 2.00	SOLID	VOC MS (S)	Dichlorodifluoromethane	Container with Headspace provided for volatiles analysis
4651677	B2	1.30 - 2.00	SOLID	VOC MS (S)	Dichloromethane	Container with Headspace provided for volatiles analysis
4651677	B2	1.30 - 2.00	SOLID	VOC MS (S)	Ethylbenzene	Container with Headspace provided for volatiles analysis
4651677	B2	1.30 - 2.00	SOLID	VOC MS (S)	Hexachlorobutadiene	Container with Headspace provided for volatiles analysis
4651677	B2	1.30 - 2.00	SOLID	VOC MS (S)	Isopropylbenzene	Container with Headspace provided for volatiles analysis
4651677	B2	1.30 - 2.00	SOLID	VOC MS (S)	Methyl Tertiary Butyl Ether	Container with Headspace provided for volatiles analysis
4651677	B2	1.30 - 2.00	SOLID	VOC MS (S)	Naphthalene	Container with Headspace provided for volatiles analysis
4651677	B2	1.30 - 2.00	SOLID	VOC MS (S)	n-Butylbenzene	Container with Headspace provided for volatiles analysis
4651677	B2	1.30 - 2.00	SOLID	VOC MS (S)	o-Xylene	Container with Headspace provided for volatiles analysis
4651677	B2	1.30 - 2.00	SOLID	VOC MS (S)	p/m-Xylene	Container with Headspace provided for volatiles analysis
4651677	B2	1.30 - 2.00	SOLID	VOC MS (S)	Propylbenzene	Container with Headspace provided for volatiles analysis
4651677	B2	1.30 - 2.00	SOLID	VOC MS (S)	sec-Butylbenzene	Container with Headspace provided for volatiles analysis
4651677	B2	1.30 - 2.00	SOLID	VOC MS (S)	Styrene	Container with Headspace provided for volatiles analysis
4651677	B2	1.30 - 2.00	SOLID	VOC MS (S)	Tert-amyl methyl ether	Container with Headspace provided for volatiles analysis
4651677	B2	1.30 - 2.00	SOLID	VOC MS (S)	tert-Butylbenzene	Container with Headspace provided for volatiles analysis
4651677	B2	1.30 - 2.00	SOLID	VOC MS (S)	Tetrachloroethene	Container with Headspace provided for volatiles analysis
4651677	B2	1.30 - 2.00	SOLID	VOC MS (S)	Toluene	Container with Headspace provided for volatiles analysis
4651677	B2	1.30 - 2.00	SOLID	VOC MS (S)	Toluene-d8**	Container with Headspace provided for volatiles analysis
4651677	B2	1.30 - 2.00	SOLID	VOC MS (S)	trans-1-2-Dichloroethene	Container with Headspace provided for volatiles analysis
4651677	B2	1.30 - 2.00	SOLID	VOC MS (S)	trans-1-3-Dichloropropene	Container with Headspace provided for volatiles analysis
4651677	B2	1.30 - 2.00	SOLID	VOC MS (S)	Trichloroethene	Container with Headspace provided for volatiles analysis

Validated

CERTIFICATE OF ANALYSIS

SDG:	111028-105	**Location:**	Limerick Gasworks	**Order Number:**	4700000740
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	159074
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Sample Number	Customer Sample Ref.	Depth (m)	Matrix	Test Name	Component Name	Comment
4651677	B2	1.30 - 2.00	SOLID	VOC MS (S)	Trichlorofluoromethane	Container with Headspace provided for volatiles analysis
4651677	B2	1.30 - 2.00	SOLID	VOC MS (S)	Vinyl Chloride	Container with Headspace provided for volatiles analysis
4632701	D2	0.50 - 1.00	SOLID	pH	pH	Sample holding time exceeded
4632718	D2	1.00 - 1.50	SOLID	pH	pH	Sample holding time exceeded
4632732	D2	2.00 - 2.50	SOLID	pH	pH	Sample holding time exceeded
4632772	C2	1.50 - 2.00	SOLID	pH	pH	Sample holding time exceeded
4632799	B2	0.20 - 0.80	SOLID	pH	pH	Sample holding time exceeded
4633679	B2	0.80 - 1.30	SOLID	pH	pH	Sample holding time exceeded
4633835	B2	1.30 - 2.00	SOLID	pH	pH	Sample holding time exceeded

Note : Test results may be compromised

CERTIFICATE OF ANALYSIS

SDG:	111028-105	**Location:**	Limerick Gasworks	**Order Number:**	4700000740
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	159074
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Table of Results - Appendix

REPORT KEY

Results expressed as (e.g.) 1.03E-07 is equivalent to 1.03x10-7

NDP	No Determination Possible	**#**	ISO 17025 Accredited	*	Subcontracted Test	**M**	MCERTS Accredited
NFD	No Fibres Detected	**PFD**	Possible Fibres Detected	»	Result previously reported (Incremental reports only)	**EC**	Equivalent Carbon (Aromatics C8-C35)

Note: Method detection limits are not always achievable due to various circumstances beyond our control

Method No	Reference	Description	Wet/Dry Sample [1]	Surrogate Corrected
PM001		Preparation of Samples for Metals Analysis		
PM024	Modified BS 1377	Soil preparation including homogenisation, moisture screens of soils for Asbestos Containing Material		
TM001	In - house Method	Determination of asbestos containing material by screening on solids		
TM024	Method 4500A & B, AWWA/APHA, 20th Ed., 1999	Determination of Exchangeable Ammonium and Ammoniacal Nitrogen as N by titration on solids		
TM048	HSG 248, Asbestos: The analysts' guide for sampling, analysis and clearance procedures	Identification of Asbestos in Bulk Material		
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		
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		
TM133	BS 1377: Part 3 1990;BS 6068-2.5	Determination of pH in Soil and Water using the GLpH pH Meter		
TM151	Method 3500D, AWWA/APHA, 20th Ed., 1999	Determination of Hexavalent Chromium using Kone analyser		
TM153	Method 4500A,B,C, I, M AWWA/APHA, 20th Ed., 1999	Determination of Total Cyanide, Free (Easily Liberatable) Cyanide and Thiocyanate using the Skalar SANS+ System Segmented Flow Analyser		
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		
TM180	Sulphide in waters and waste waters 1991 ISBN 01 175 7186 SCA rec. 2007 (unpublished)'	The Determination Of Easily Liberated Sulphide In Soil Samples by Ion Selective Electrode Technique		
TM181	US EPA Method 6010B	Determination of Routine Metals in Soil by iCap 6500 Duo ICP-OES		
TM218	Microwave extraction – EPA method 3546	Microwave extraction - EPA method 3546		
TM221	Inductively Coupled Plasma - Atomic Emission Spectroscopy. An Atlas of Spectral Information: Winge, Fassel, Peterson and Floyd	Determination of Acid extractable Sulphate in Soils by IRIS Emission Spectrometer		

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

CERTIFICATE OF ANALYSIS

SDG:	111028-105	**Location:**	Limerick Gasworks	**Order Number:**	4700000740
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	159074
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Test Completion Dates

Lab Sample No(s)	4599207	4599208	4599209	4599206	4599201	4599202	4599204
Customer Sample Ref.	B2	B2	B2	C2	D2	D2	D2
AGS Ref.							
Depth	0.20 - 0.80	0.80 - 1.30	1.30 - 2.00	1.50 - 2.00	0.50 - 1.00	1.00 - 1.50	2.00 - 2.50
Type	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID
Ammonium Soil by Titration	07-Nov-2011	07-Nov-2011	07-Nov-2011	07-Nov-2011	07-Nov-2011	07-Nov-2011	07-Nov-2011
Asbestos Containing Material Screen		04-Nov-2011	04-Nov-2011				
Asbestos Identification (Soil)	03-Nov-2011				03-Nov-2011		
Cyanide Comp/Free/Total/Thiocyanate	04-Nov-2011	06-Nov-2011	06-Nov-2011	04-Nov-2011	04-Nov-2011	04-Nov-2011	04-Nov-2011
Easily Liberated Sulphide	08-Nov-2011	08-Nov-2011	08-Nov-2011	07-Nov-2011	08-Nov-2011	07-Nov-2011	07-Nov-2011
EPH CWG (Aliphatic) GC (S)	07-Nov-2011	08-Nov-2011	08-Nov-2011	08-Nov-2011	07-Nov-2011	08-Nov-2011	08-Nov-2011
EPH CWG (Aromatic) GC (S)	07-Nov-2011	08-Nov-2011	08-Nov-2011	08-Nov-2011	07-Nov-2011	08-Nov-2011	08-Nov-2011
GRO by GC-FID (S)	08-Nov-2011	08-Nov-2011	07-Nov-2011	07-Nov-2011	07-Nov-2011	07-Nov-2011	07-Nov-2011
Hexavalent Chromium (s)	05-Nov-2011	07-Nov-2011	07-Nov-2011	05-Nov-2011	05-Nov-2011	05-Nov-2011	05-Nov-2011
Metals by iCap-OES (Soil)	04-Nov-2011	10-Nov-2011	10-Nov-2011	08-Nov-2011	04-Nov-2011	08-Nov-2011	08-Nov-2011
PAH by GCMS	07-Nov-2011	06-Nov-2011	07-Nov-2011	07-Nov-2011	07-Nov-2011	07-Nov-2011	07-Nov-2011
PCBs by GCMS		07-Nov-2011				07-Nov-2011	
pH	04-Nov-2011	07-Nov-2011	07-Nov-2011	04-Nov-2011	07-Nov-2011	04-Nov-2011	04-Nov-2011
Phenols by HPLC (S)	07-Nov-2011	07-Nov-2011	07-Nov-2011	07-Nov-2011	07-Nov-2011	07-Nov-2011	07-Nov-2011
Sample description	03-Nov-2011	03-Nov-2011	03-Nov-2011	03-Nov-2011	03-Nov-2011	03-Nov-2011	03-Nov-2011
Total Sulphate	04-Nov-2011	07-Nov-2011	07-Nov-2011	07-Nov-2011	04-Nov-2011	07-Nov-2011	07-Nov-2011
TPH CWG GC (S)	08-Nov-2011	08-Nov-2011	08-Nov-2011	08-Nov-2011	07-Nov-2011	08-Nov-2011	08-Nov-2011
VOC MS (S)		10-Nov-2011	11-Nov-2011			08-Nov-2011	10-Nov-2011

CERTIFICATE OF ANALYSIS

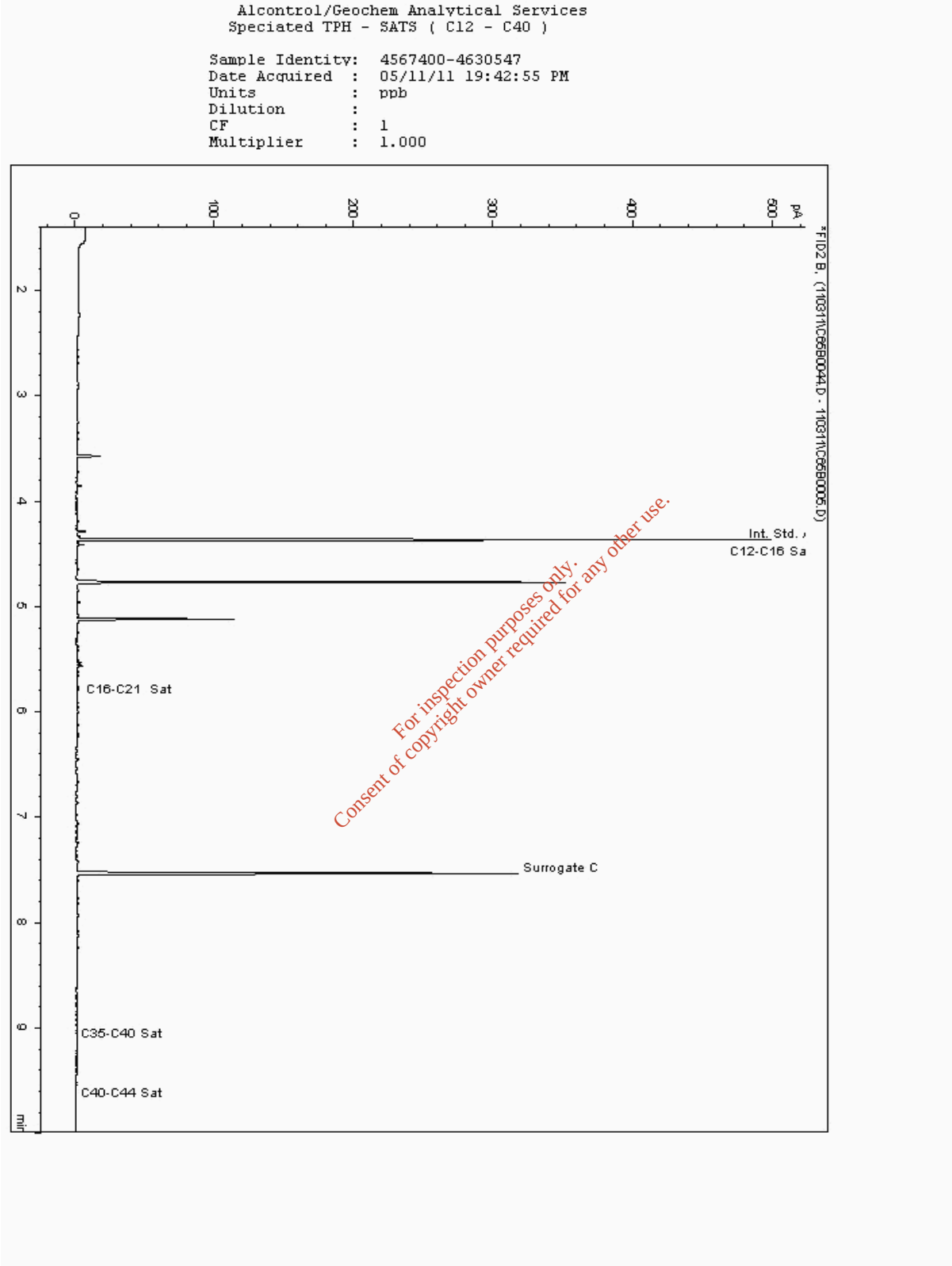
SDG:	111028-105	**Location:**	Limerick Gasworks	**Order Number:**	4700000740
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	159074
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: EPH CWG (Aliphatic) GC (S)

Sample No : 4630547
Sample ID : B2

Depth : 0.20 - 0.80



CERTIFICATE OF ANALYSIS

SDG:	111028-105	**Location:**	Limerick Gasworks	**Order Number:**	4700000740
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	159074
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

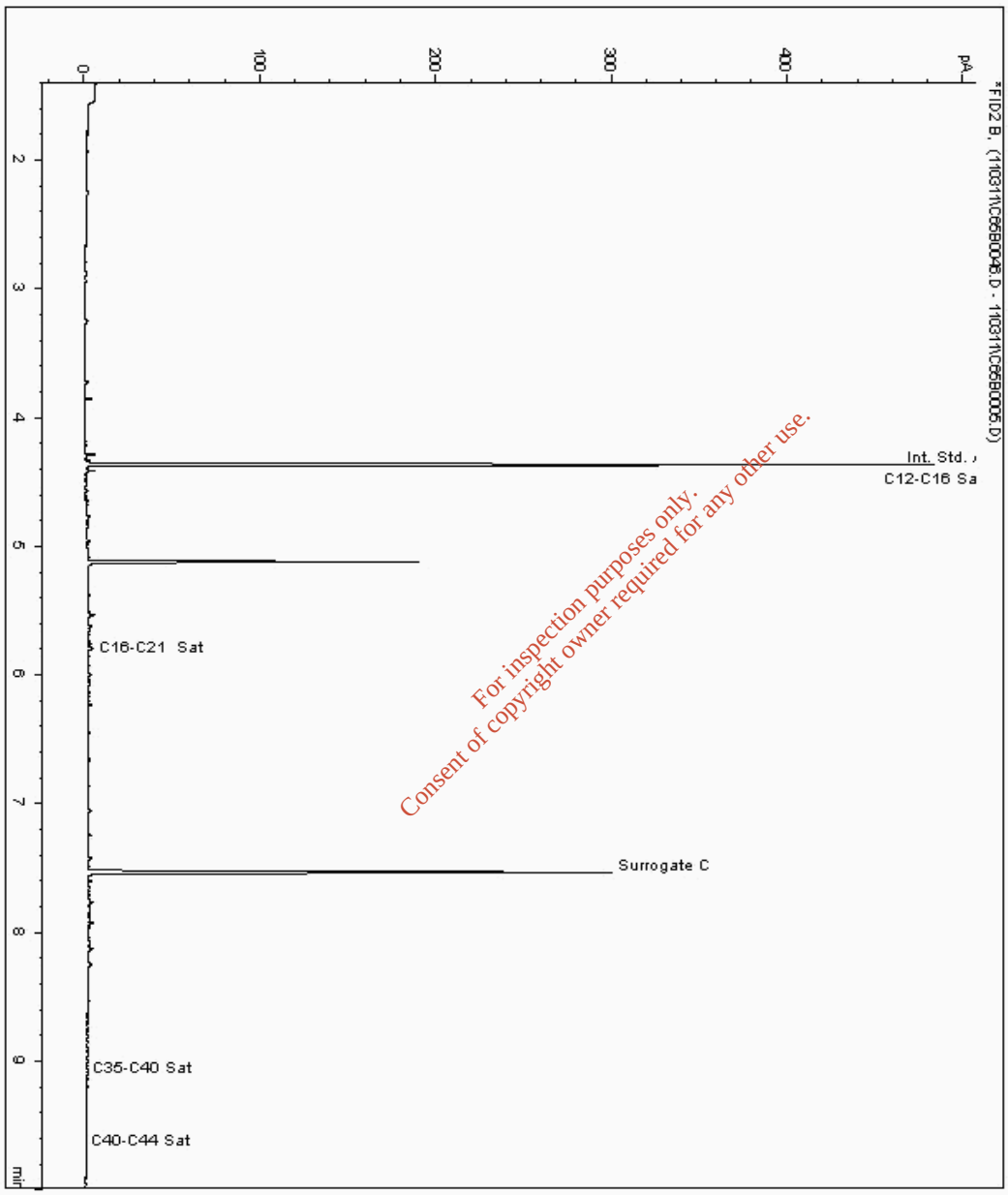
Analysis: EPH CWG (Aliphatic) GC (S)

Sample No : 4630576
Sample ID : D2

Depth : 0.50 - 1.00

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

Sample Identity: 4567317-4630576
Date Acquired : 05/11/11 20:15:39 PM
Units : ppb
Dilution :
CF : 1
Multiplier : 1.000



CERTIFICATE OF ANALYSIS

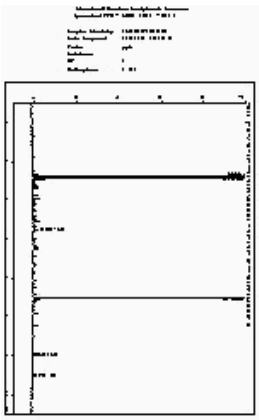
SDG:	111028-105	**Location:**	Limerick Gasworks	**Order Number:**	4700000740
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	159074
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: EPH CWG (Aliphatic) GC (S)

Sample No : 4642438
Sample ID : C2

Depth : 1.50 - 2.00



CERTIFICATE OF ANALYSIS

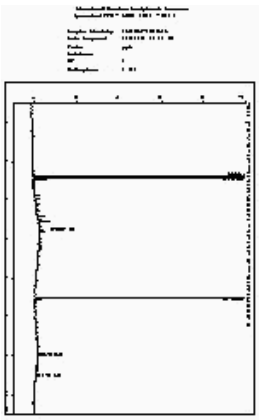
SDG:	111028-105	**Location:**	Limerick Gasworks	**Order Number:**	4700000740
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	159074
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: EPH CWG (Aliphatic) GC (S)

Sample No : 4642519
Sample ID : D2

Depth : 2.00 - 2.50



CERTIFICATE OF ANALYSIS

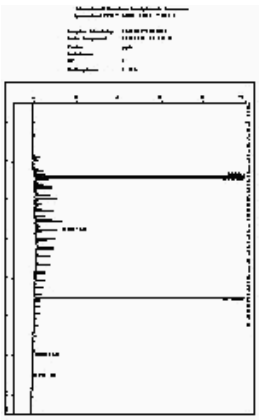
SDG:	111028-105	**Location:**	Limerick Gasworks	**Order Number:**	4700000740
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	159074
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: EPH CWG (Aliphatic) GC (S)

Sample No : 4642608
Sample ID : D2

Depth : 1.00 - 1.50



CERTIFICATE OF ANALYSIS

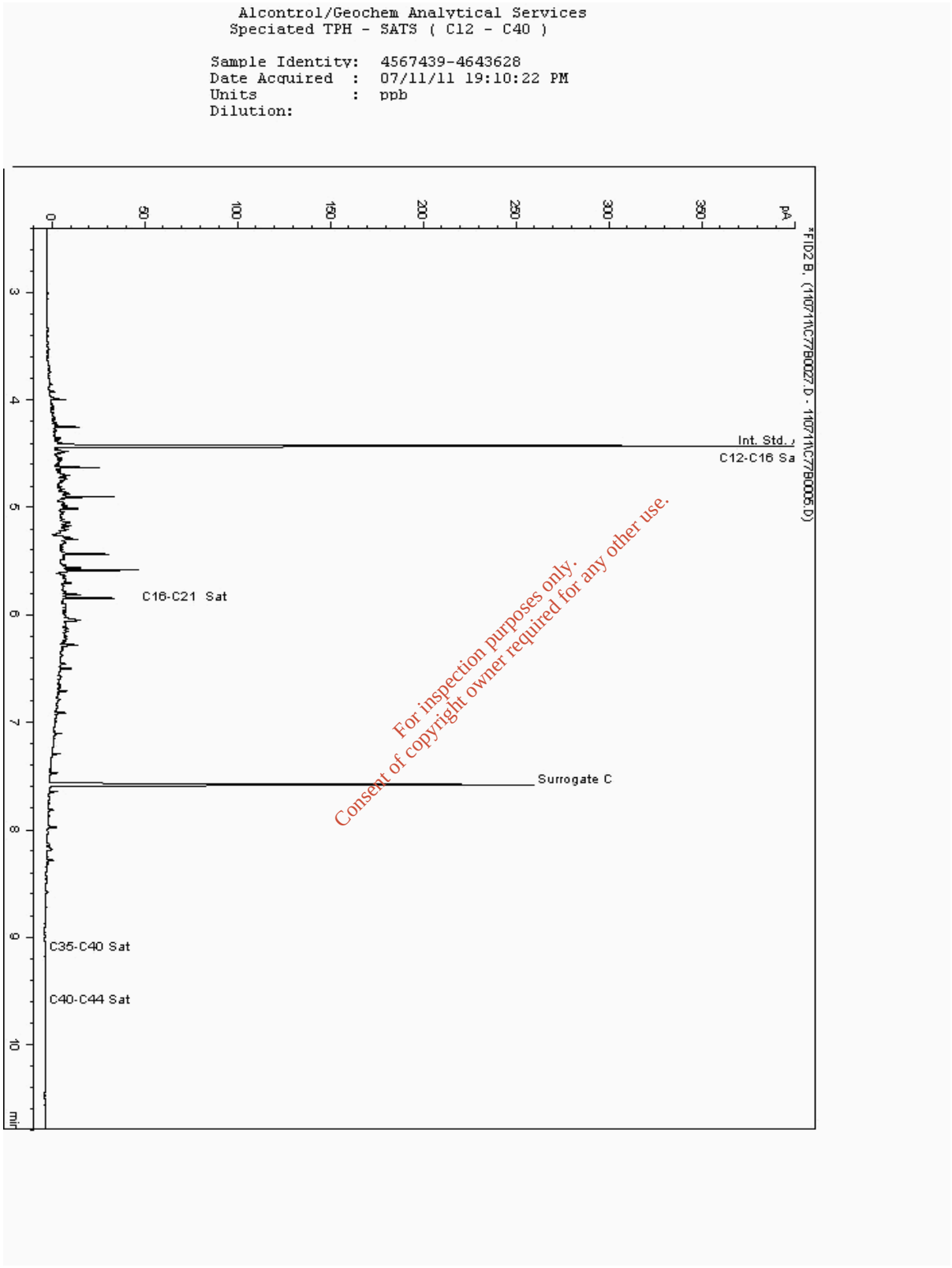
SDG:	111028-105	**Location:**	Limerick Gasworks	**Order Number:**	4700000740
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	159074
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: EPH CWG (Aliphatic) GC (S)

Sample No : 4643628
Sample ID : B2

Depth : 1.30 - 2.00



CERTIFICATE OF ANALYSIS

SDG:	111028-105	**Location:**	Limerick Gasworks	**Order Number:**	4700000740
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	159074
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

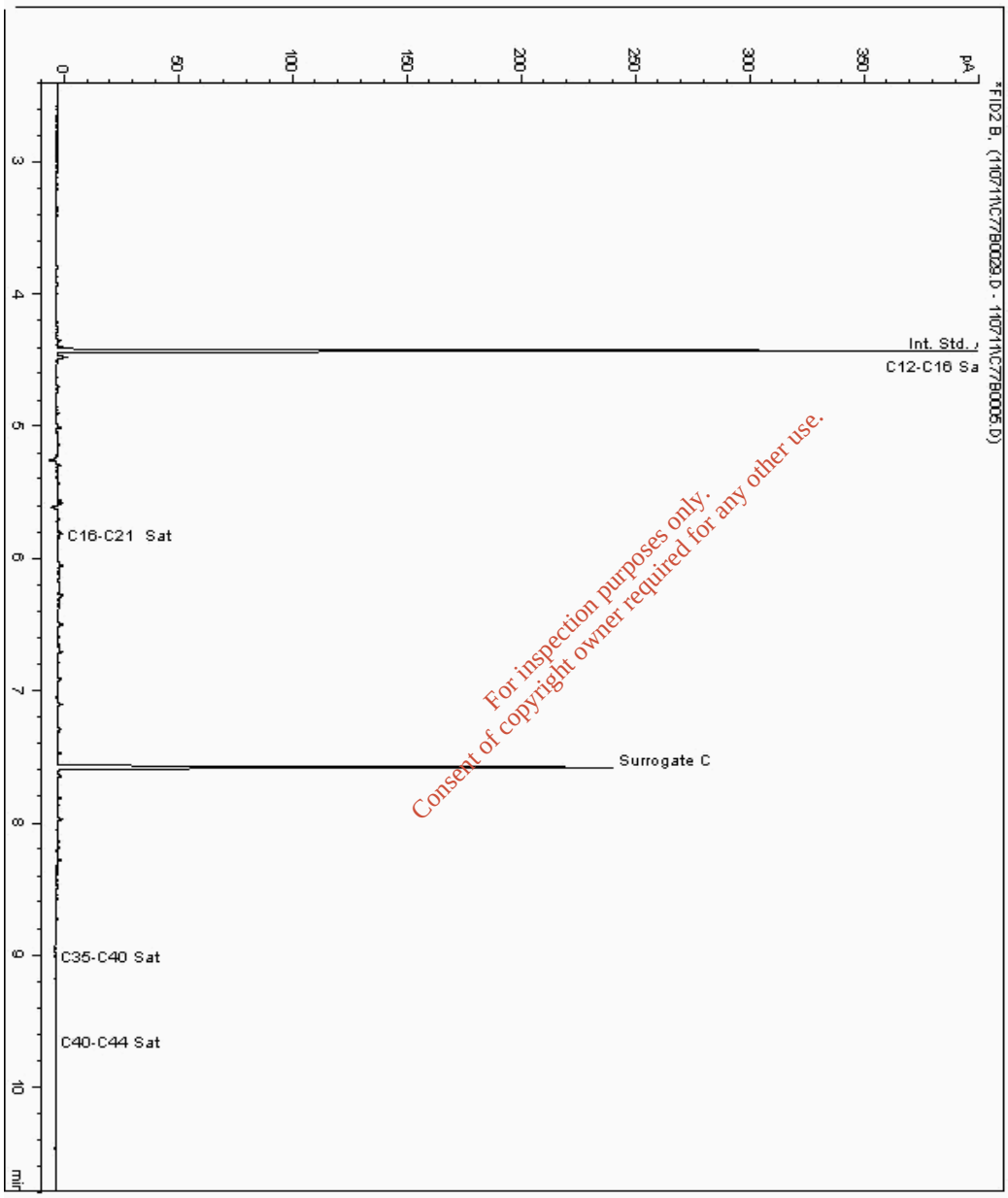
Analysis: EPH CWG (Aliphatic) GC (S)

Sample No : 4643670
Sample ID : B2

Depth : 0.80 - 1.30

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

Sample Identity: 4567420-4643670
Date Acquired : 07/11/11 19:40:44 PM
Units : ppb
Dilution:



CERTIFICATE OF ANALYSIS

SDG:	111028-105	**Location:**	Limerick Gasworks	**Order Number:**	4700000740
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	159074
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

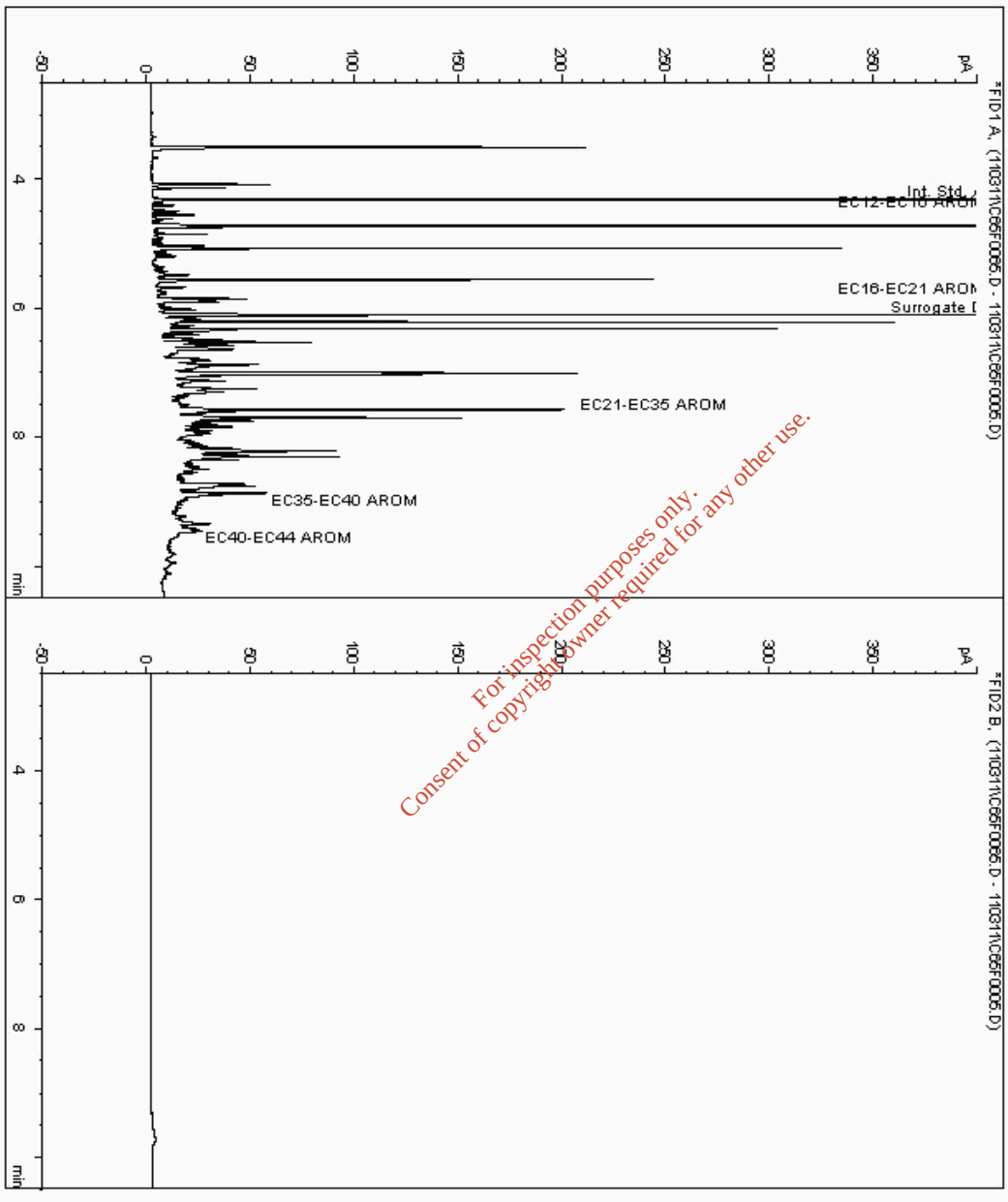
Analysis: EPH CWG (Aromatic) GC (S)

Sample No : 4630547
Sample ID : B2

Depth : 0.20 - 0.80

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

Sample Identity: 4567399-4630547
Date Acquired : 07/11/11 11:59:22 PM
Units : ppb
Dilution :
CF : 1
Multiplier : 1.967



CERTIFICATE OF ANALYSIS

SDG:	111028-105	**Location:**	Limerick Gasworks	**Order Number:**	4700000740
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	159074
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

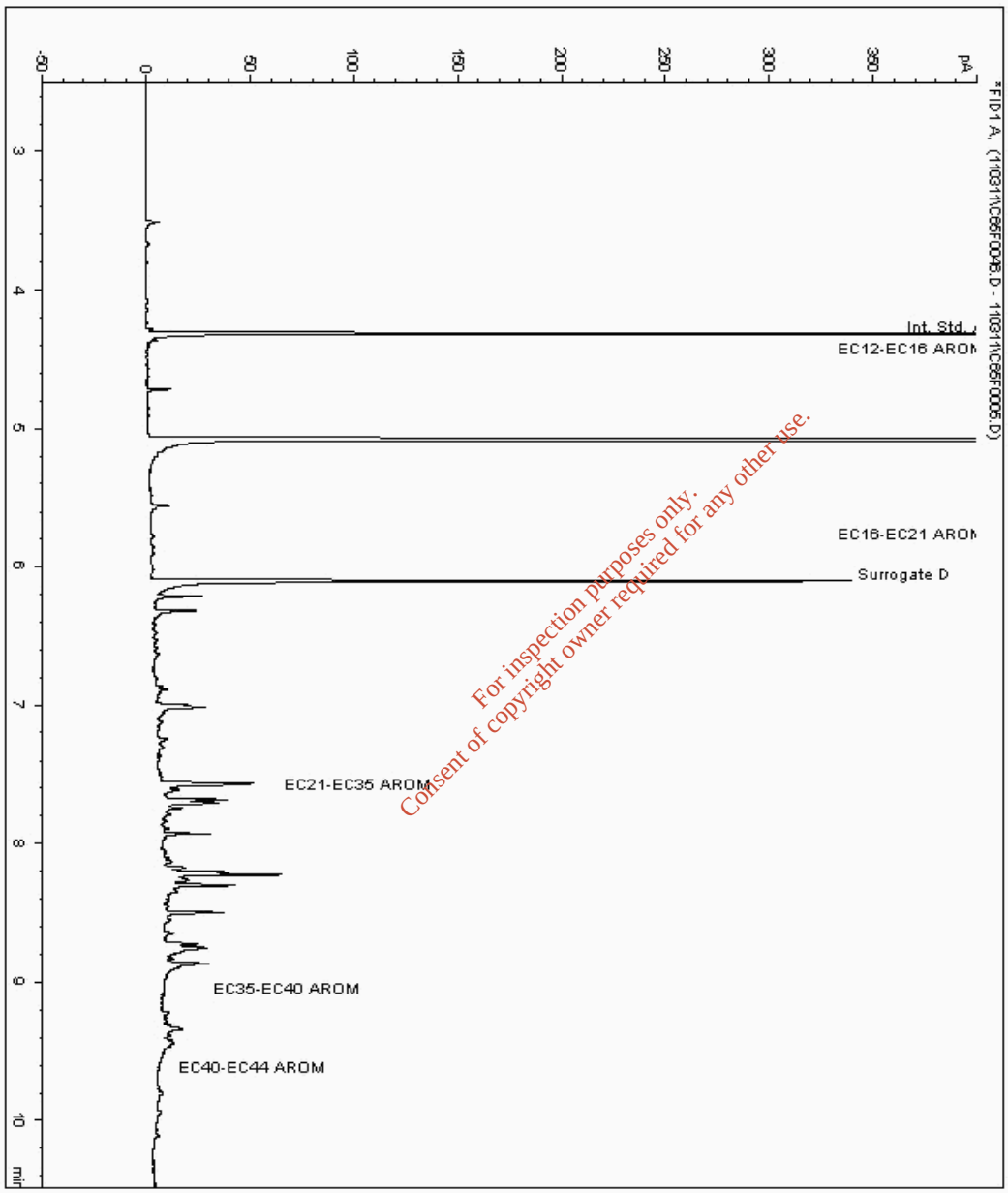
Analysis: EPH CWG (Aromatic) GC (S)

Sample No : 4630576
Sample ID : D2

Depth : 0.50 - 1.00

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

Sample Identity: 4567316-4630576
Date Acquired : 05/11/11 20:15:39 PM
Units : ppb
Dilution :
CF : 1
Multiplier : 1.000



CERTIFICATE OF ANALYSIS

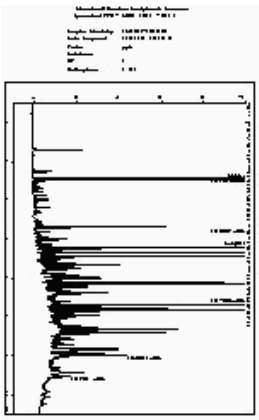
SDG:	111028-105	**Location:**	Limerick Gasworks	**Order Number:**	4700000740
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	159074
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: EPH CWG (Aromatic) GC (S)

Sample No : 4642438
Sample ID : C2

Depth : 1.50 - 2.00



CERTIFICATE OF ANALYSIS

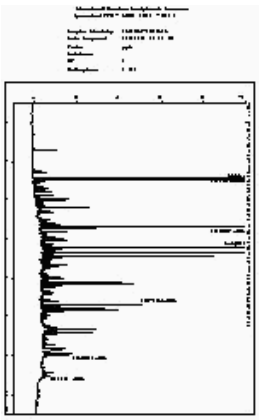
SDG:	111028-105	**Location:**	Limerick Gasworks	**Order Number:**	4700000740
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	159074
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: EPH CWG (Aromatic) GC (S)

Sample No : 4642519
Sample ID : D2

Depth : 2.00 - 2.50



CERTIFICATE OF ANALYSIS

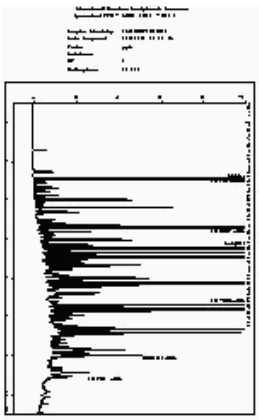
SDG:	111028-105	**Location:**	Limerick Gasworks	**Order Number:**	4700000740
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	159074
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: EPH CWG (Aromatic) GC (S)

Sample No : 4642608
Sample ID : D2

Depth : 1.00 - 1.50



CERTIFICATE OF ANALYSIS

SDG:	111028-105	**Location:**	Limerick Gasworks	**Order Number:**	4700000740
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	159074
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

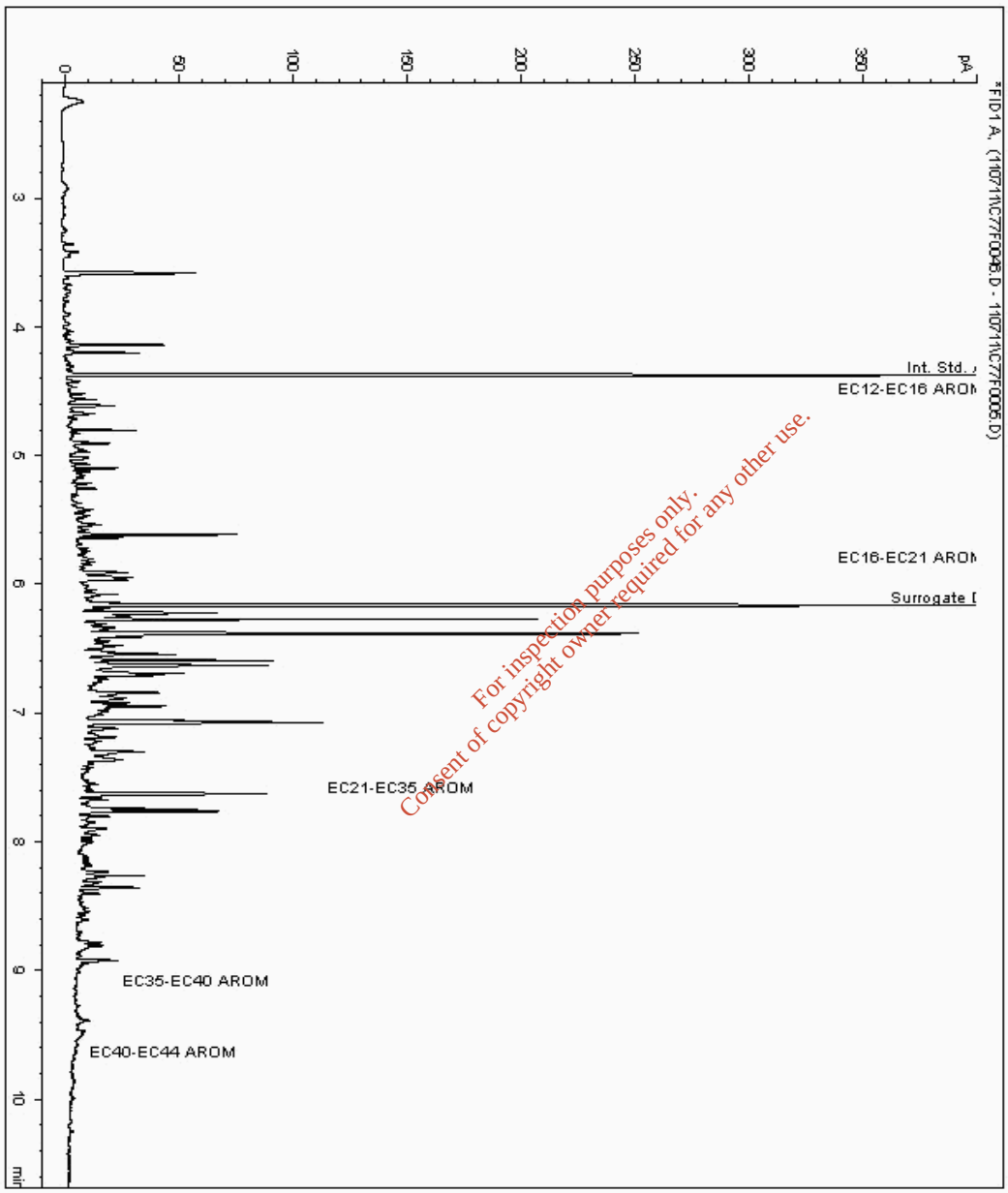
Analysis: EPH CWG (Aromatic) GC (S)

Sample No : 4643628
Sample ID : B2

Depth : 1.30 - 2.00

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

Sample Identity: 4567438-4643628
Date Acquired : 08/11/11 09:06:19 PM
Units : ppb
Dilution:



CERTIFICATE OF ANALYSIS

SDG:	111028-105	**Location:**	Limerick Gasworks	**Order Number:**	4700000740
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	159074
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

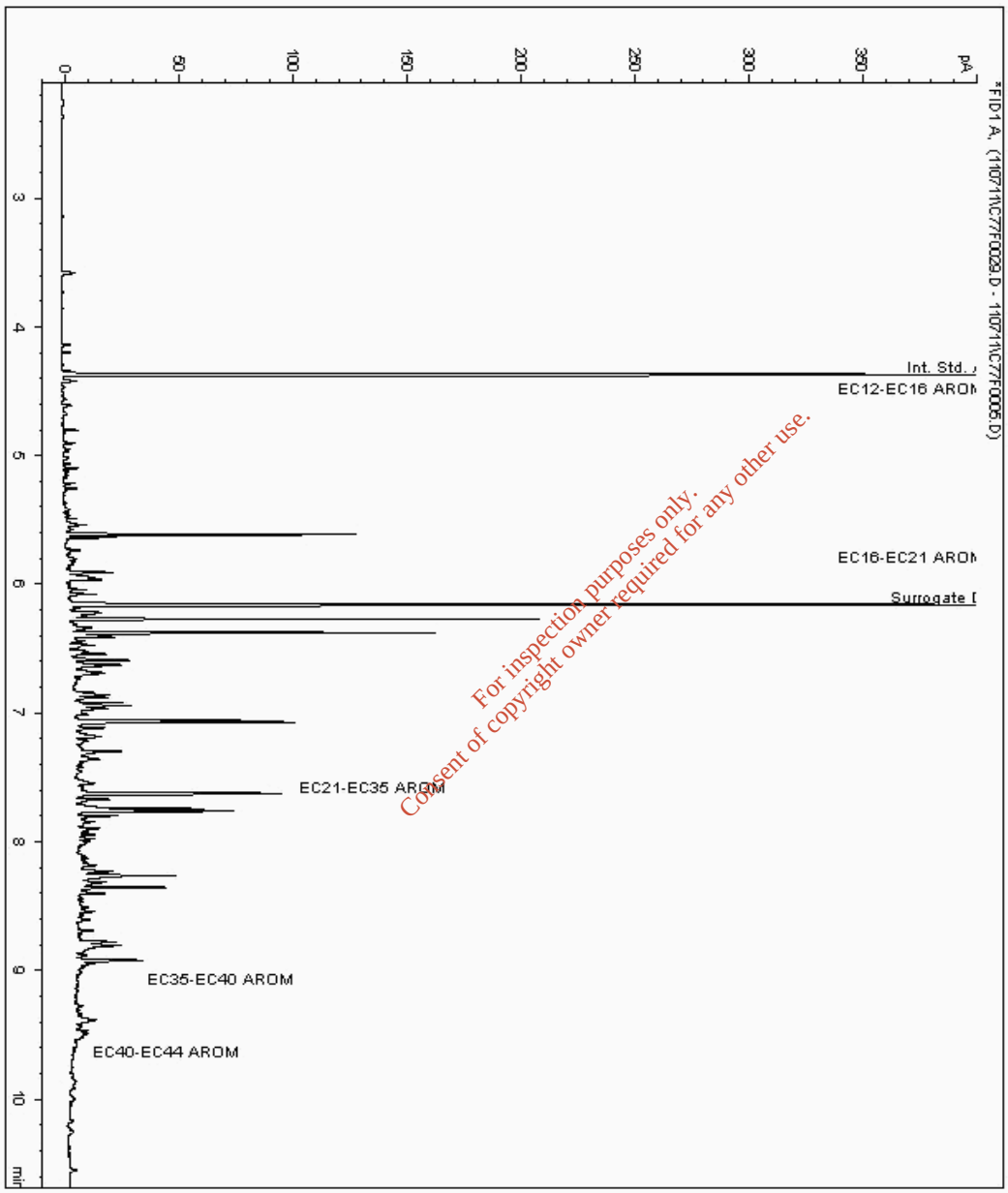
Analysis: EPH CWG (Aromatic) GC (S)

Sample No : 4643670
Sample ID : B2

Depth : 0.80 - 1.30

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

Sample Identity: 4567419-4643670
Date Acquired : 07/11/11 19:40:44 PM
Units : ppb
Dilution:



CERTIFICATE OF ANALYSIS

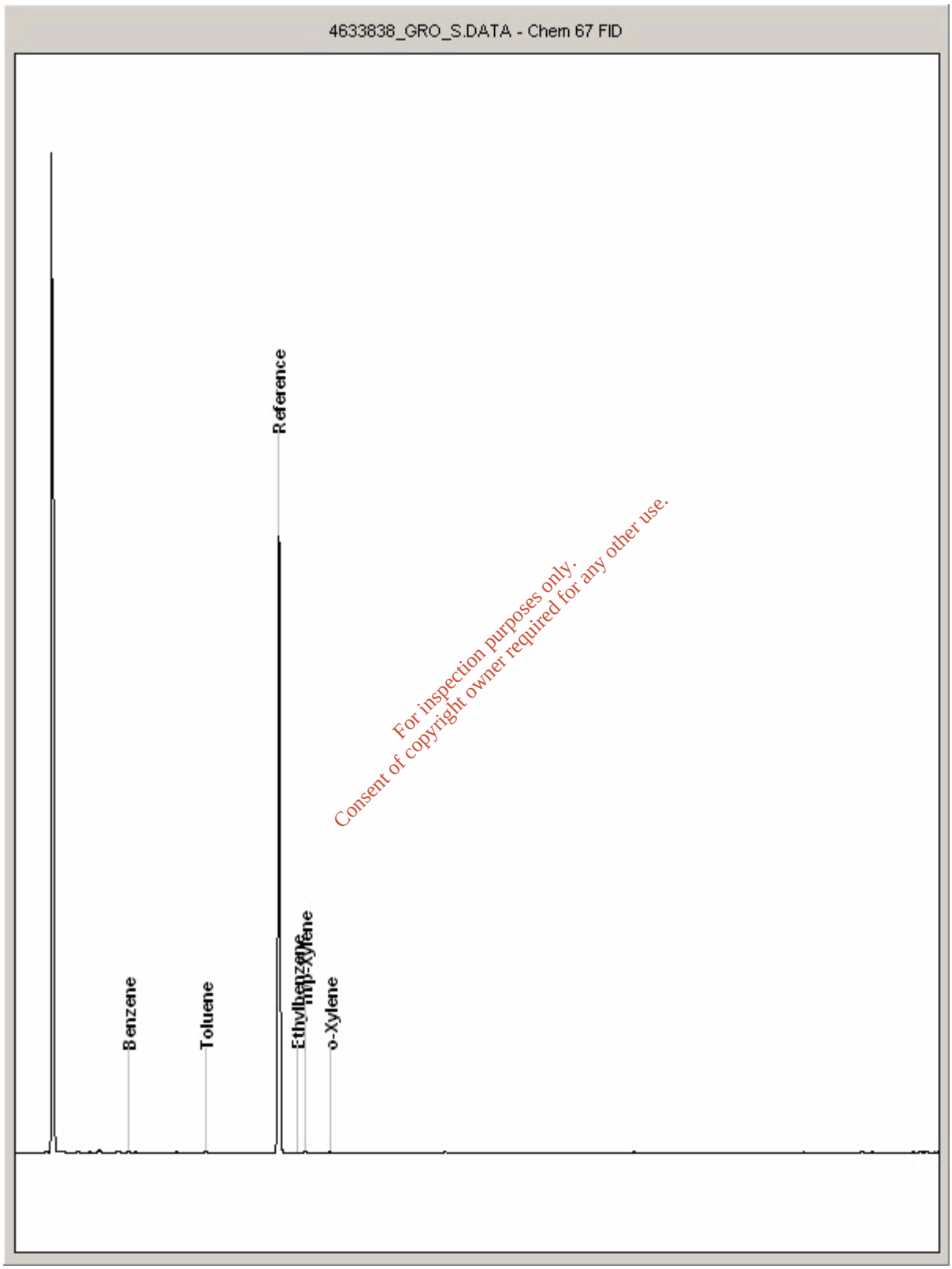
SDG:	111028-105	**Location:**	Limerick Gasworks	**Order Number:**	4700000740
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	159074
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (S)

Sample No : 4633838
Sample ID : D2

Depth : 0.50 - 1.00



CERTIFICATE OF ANALYSIS

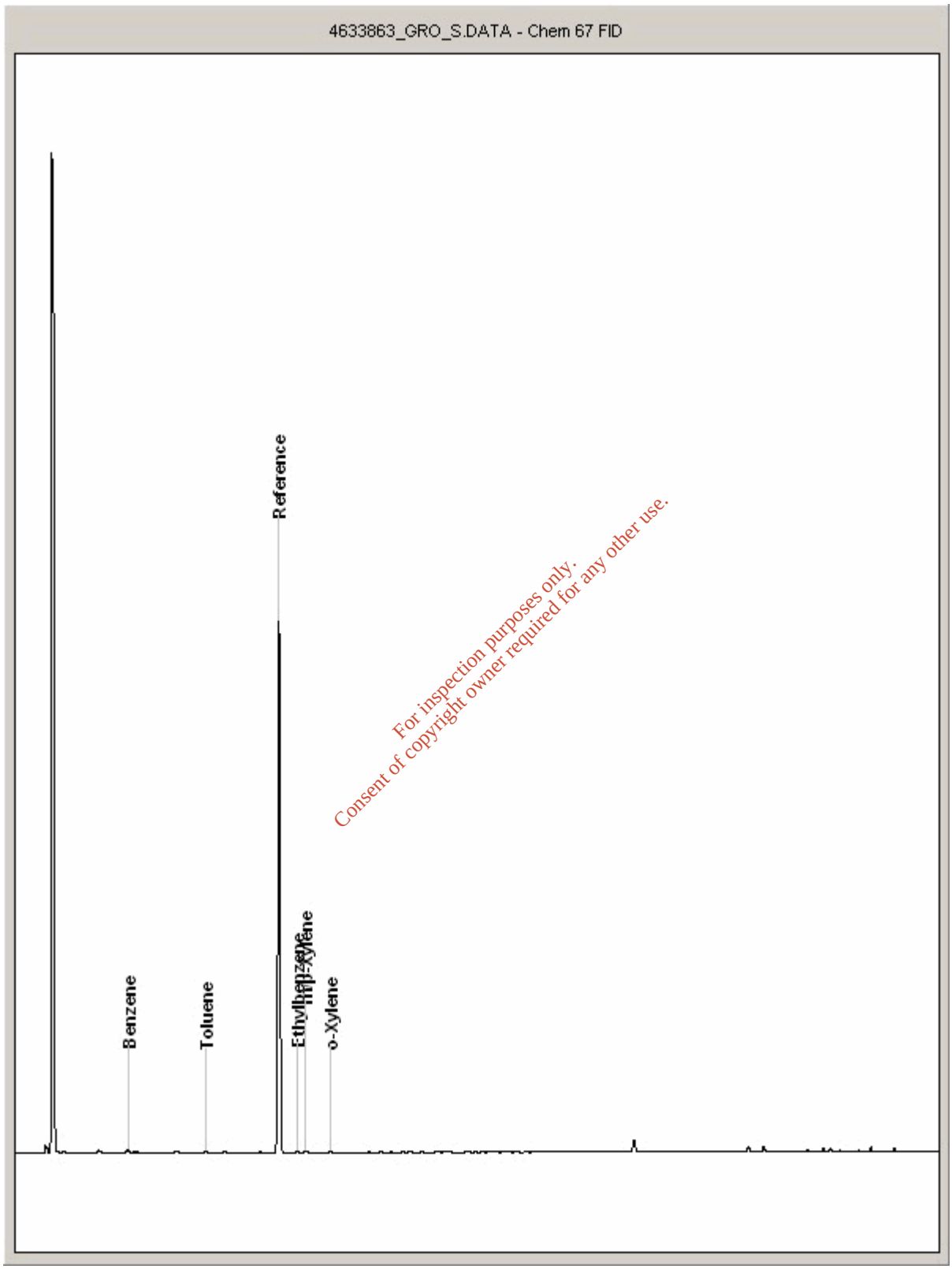
SDG:	111028-105	**Location:**	Limerick Gasworks	**Order Number:**	4700000740
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	159074
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (S)

Sample No : 4633863
Sample ID : D2

Depth : 1.00 - 1.50



CERTIFICATE OF ANALYSIS

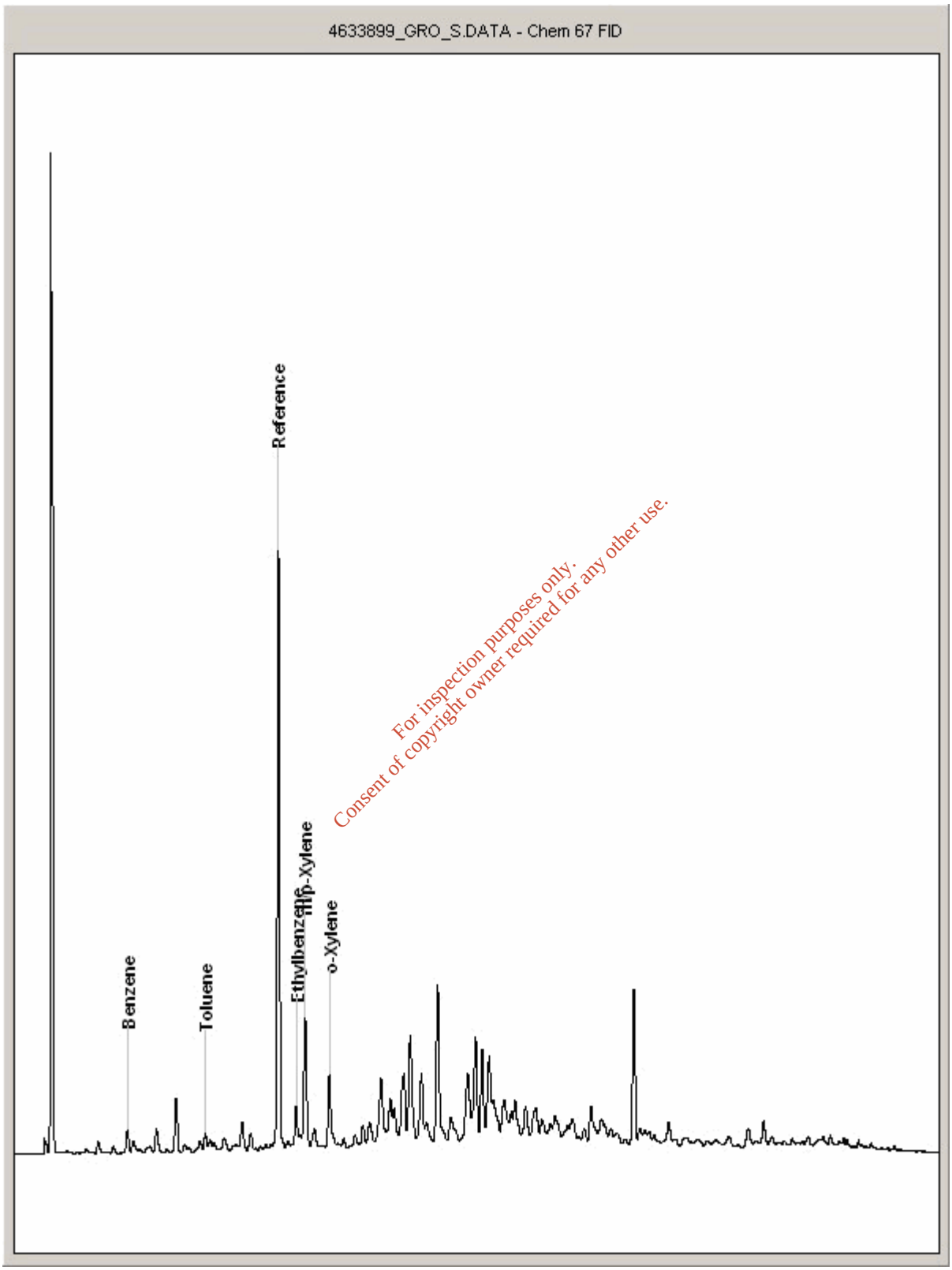
SDG:	111028-105	**Location:**	Limerick Gasworks	**Order Number:**	4700000740
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	159074
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (S)

Sample No : 4633899
Sample ID : D2

Depth : 2.00 - 2.50



CERTIFICATE OF ANALYSIS

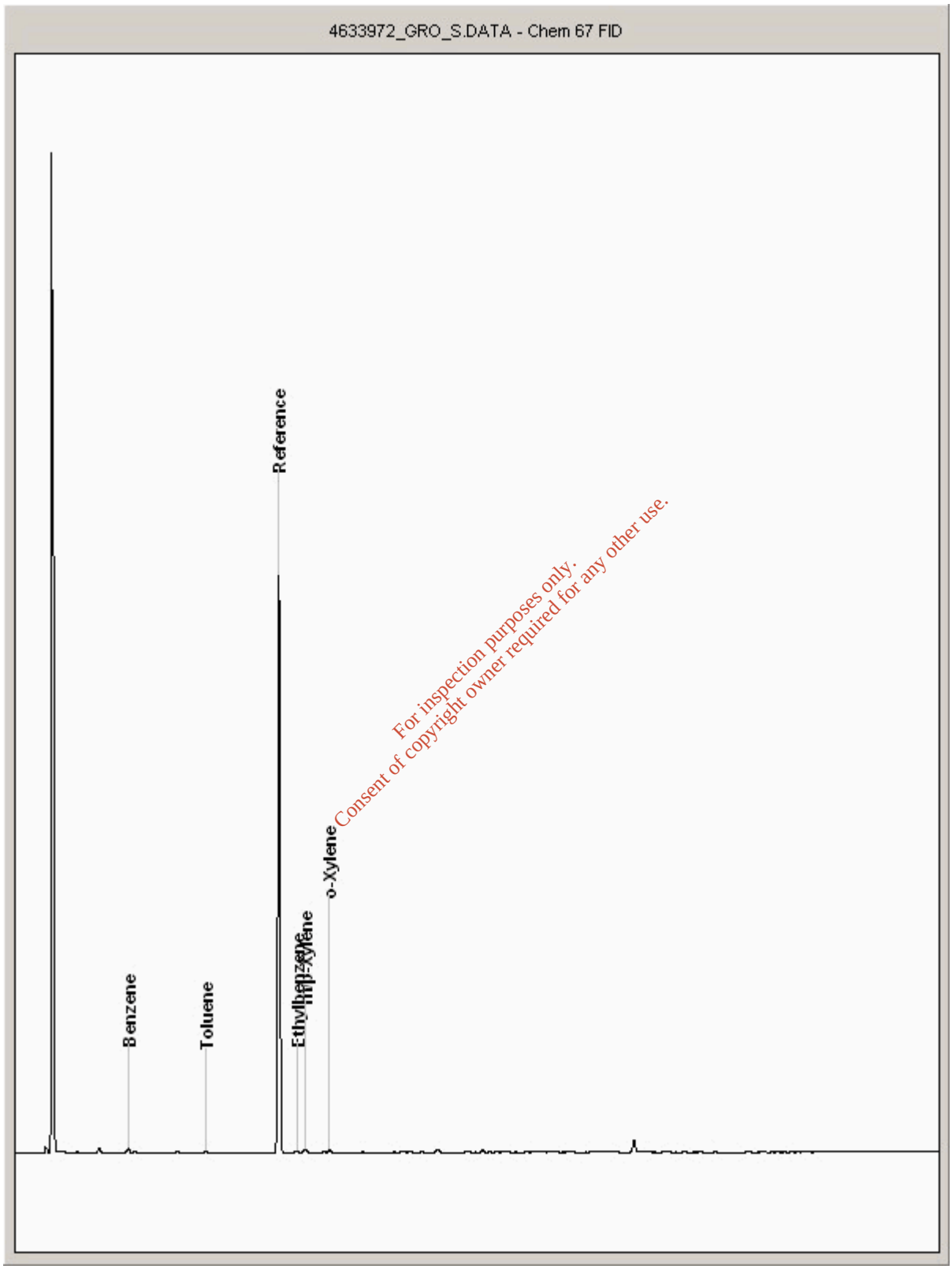
SDG:	111028-105	**Location:**	Limerick Gasworks	**Order Number:**	4700000740
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	159074
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (S)

Sample No : 4633972
Sample ID : C2

Depth : 1.50 - 2.00



CERTIFICATE OF ANALYSIS

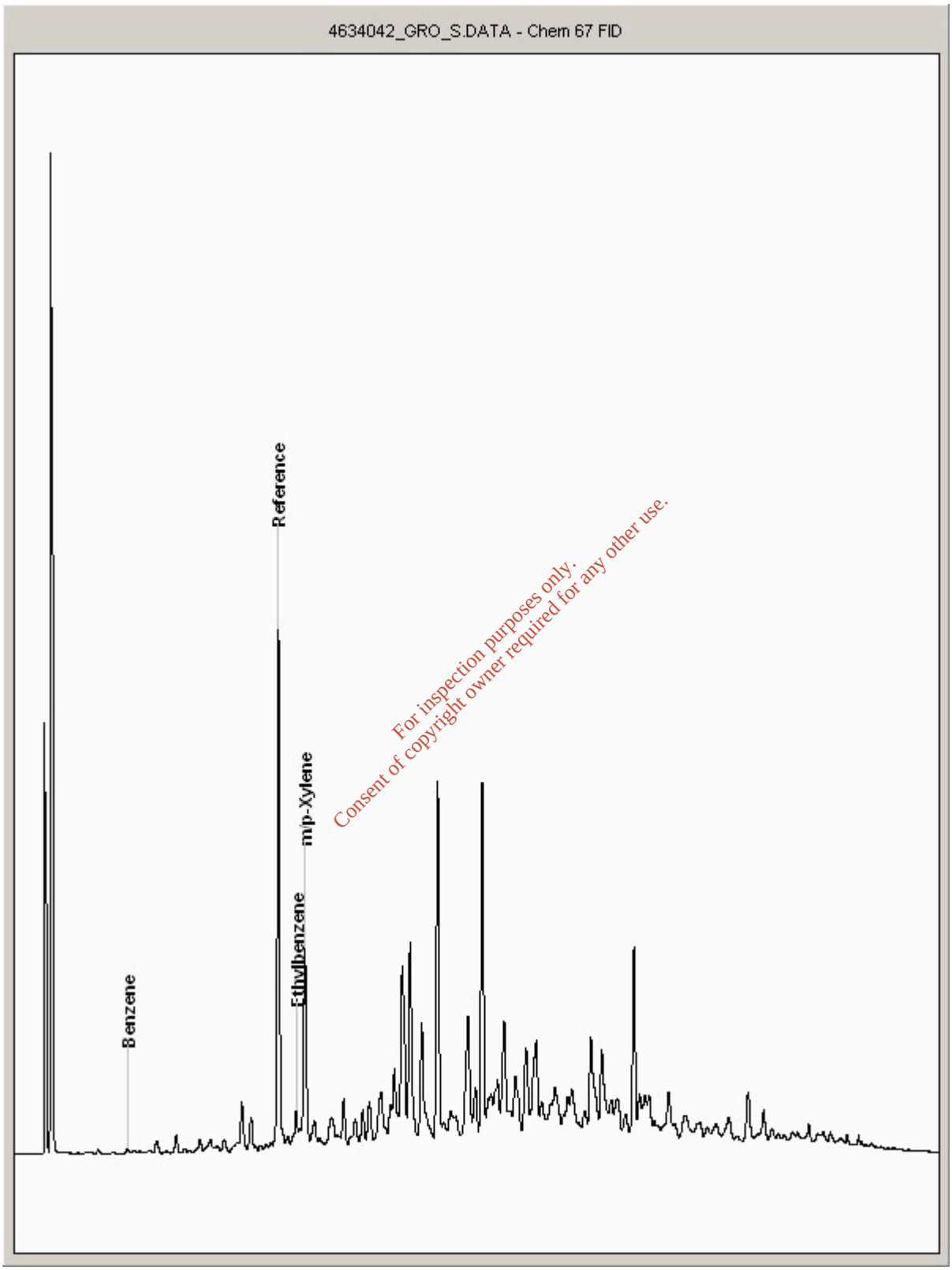
SDG:	111028-105	**Location:**	Limerick Gasworks	**Order Number:**	4700000740
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	159074
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (S)

Sample No : 4634042
Sample ID : B2

Depth : 1.30 - 2.00



CERTIFICATE OF ANALYSIS

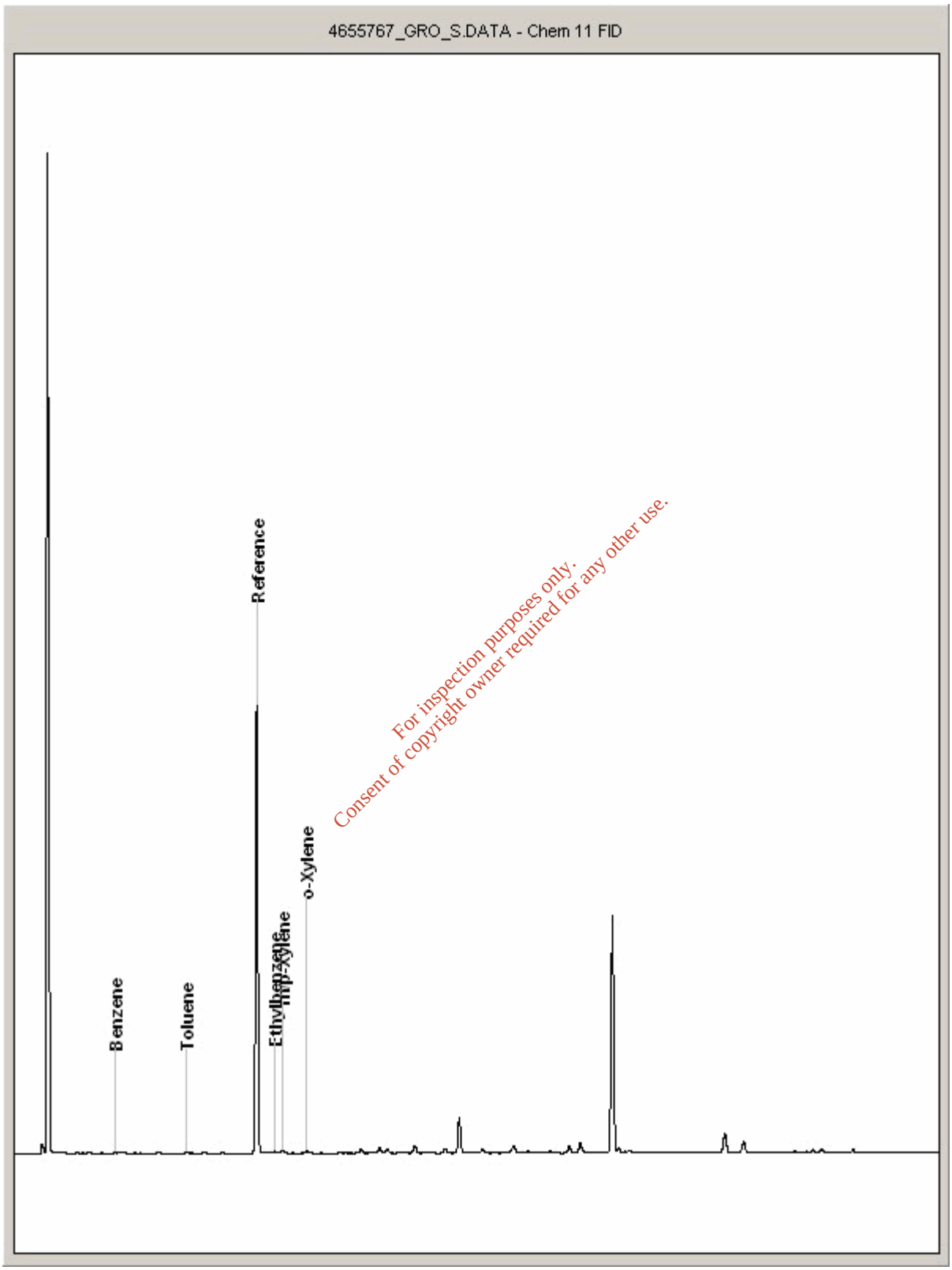
SDG:	111028-105	**Location:**	Limerick Gasworks	**Order Number:**	4700000740
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	159074
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (S)

Sample No : 4655775
Sample ID : B2

Depth : 0.20 - 0.80



CERTIFICATE OF ANALYSIS

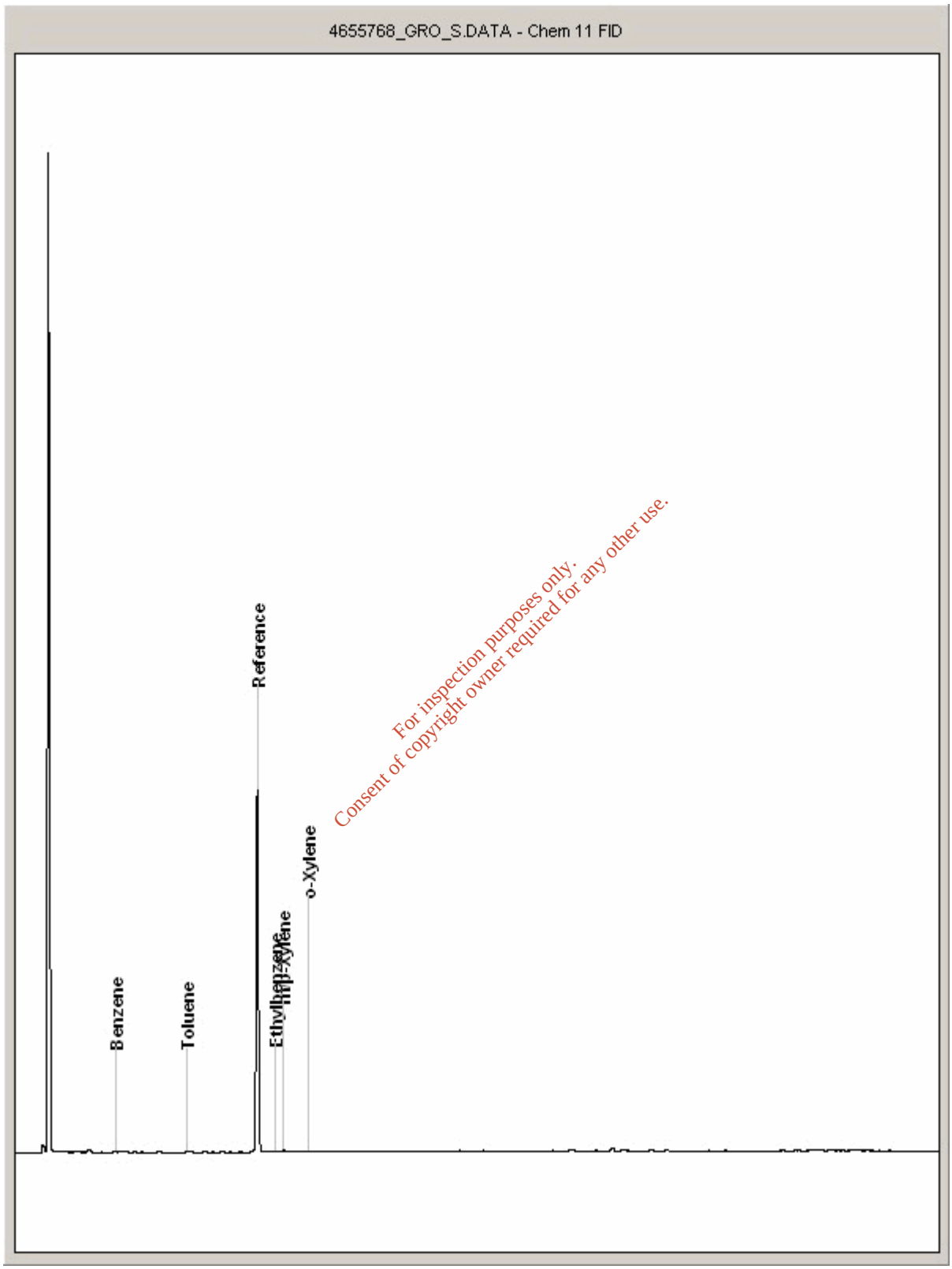
SDG:	111028-105	**Location:**	Limerick Gasworks	**Order Number:**	4700000740
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	159074
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (S)

Sample No : 4655785
Sample ID : B2

Depth : 0.80 - 1.30



SDG:	111028-105	**Location:**	Limerick Gasworks	**Order Number:**	4700000740
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	159074
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Appendix

1. Results are expressed on a dry weight basis (dried at 35ºC) 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 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. Is an asbestos fibre type is found it will be reported as detected (for each fibre type found). If asbestos is present either as asbestos containing material or loose fibres no further analysis will be undertaken. The quantity of asbestos present is not determined unless specifically requested.

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. 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 Dimethyphenol, 3,5 Dimethylphenol).

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

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

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

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

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

21. For 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 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 themajor 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 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	DCM	SOXTHERM	GRAVIMETRIC
CYCLOHEXANE EXT. MATTER	D&C	CYCLOHEXANE	SOXTHERM	GRAVIMETRIC
ELEMENTAL SULPHUR	D&C	DCM	SOXTHERM	HPLC
PHENOLS BY GCMS	WET	DCM	SOXTHERM	GC-MS
HERBICIDES	D&C	HEXANE:ACETONE	SOXTHERM	GC-MS
PESTICIDES	D&C	HEXANE:ACETONE	SOXTHERM	GC-MS
EPH (DRO)	D&C	HEXANE:ACETONE	END OVER END	GC-FID
EPH (MIN OIL)	D&C	HEXANE:ACETONE	END OVER END	GC-FID
EPH (CLEANED UP)	D&C	HEXANE:ACETONE	END OVER END	GC-FID
EPH CWG BY GC	D&C	HEXANE:ACETONE	END OVER END	GC-FID
PCB TOT / PCB CON	D&C	HEXANE:ACETONE	END OVER END	GC-MS
POLYAROMATIC HYDROCARBONS (MS)	WET	HEXANE:ACETONE	MICROWAVE TM218.	GC-MS
C8-C40 (C8-C40) EZ FLASH	WET	HEXANE:ACETONE	SHAKER	GC-EZ
POLYAROMATIC HYDROCARBONS RAPID GC	WET	HEXANE:ACETONE	SHAKER	GC-EZ
SEMI VOLATILE ORGANIC COMPOUNDS	WET	DCM:ACETONE	SONICATE	GC-MS

LIQUID MATRICES EXTRACTION SUMMARY

ANALYSIS	EXTRACTION SOLVENT	EXTRACTION METHOD	ANALYSIS
PAH MS	HEXANE	STIRRED EXTRACTION (STIR-BAR)	GC MS
EPH	HEXANE	STIRRED EXTRACTION (STIR-BAR)	GC FID
EPH CWG	HEXANE	STIRRED EXTRACTION (STIR-BAR)	GC FID
MINERAL OIL	HEXANE	STIRRED EXTRACTION (STIR-BAR)	GC FID
PCB 7 CONGENERS	HEXANE	STIRRED EXTRACTION (STIR-BAR)	GC MS
PCB TOTAL	HEXANE	STIRRED EXTRACTION (STIR-BAR)	GC MS
SVOC	DCM	LIQUID/LIQUID SHAKE	GC MS
FREE SULPHUR	DCM	SOLID PHASE EXTRACTION	HPLC
PEST OCP/OPP	DCM	LIQUID/LIQUID SHAKE	GC MS
TRIAZINE HERBS	DCM	LIQUID/LIQUID SHAKE	GC MS
PHENOLS MS	DCM	SOLID PHASE EXTRACTION	GC MS
TPH by INFRARED (IR)	TCE	LIQUID/LIQUID SHAKE	HPLC
MINERAL OIL by IR	TCE	LIQUID/LIQUID SHAKE	HPLC
GLYCOLS	NONE	DIRECT INJECTION	GC MS

Identification of Asbestos in Bulk Materials & Soils

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

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

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

Visual Estimation Of Fibre Content

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

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

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

ALcontrol Laboratories

Unit 18A
Rosemount Business Park
Ballycoolin
Dublin 11
Tel : (0035) 3188 29893

Mouchel
Ground Engineering
Rowan House
Lloyd Drive
Cheshire
CH65 9HQ

Attention: Neil Balderstone

CERTIFICATE OF ANALYSIS

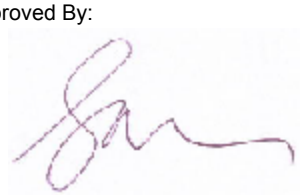
Date:	11 November 2011
Customer:	D_MOUCHEL_ELE
Sample Delivery Group (SDG):	111028-110
Your Reference:	
Location:	Limerick Gasworks
Report No:	159093

We received 13 samples on Thursday October 27, 2011 and 9 of these samples were scheduled for analysis which was completed on Friday November 11, 2011. Accredited laboratory tests are defined within the report, but opinions, interpretations and on-site data expressed herein are outside the scope of ISO 17025 accreditation.

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

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

Approved By:



Sonia McWhan

Operations Manager

CERTIFICATE OF ANALYSIS

SDG:	111028-110	**Location:**	Limerick Gasworks	**Order Number:**	4700000740
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	159093
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Received Sample Overview

Lab Sample No(s)	Customer Sample Ref.	AGS Ref.	Depth (m)	Sampled Date
4599760	A1		0.30 - 1.00	26/10/2011
4599761	A1		1.00 - 2.00	26/10/2011
4599755	A2		0.00 - 1.00	26/10/2011
4599756	A2		1.00 - 2.00	26/10/2011
4599757	A2		2.00 - 2.50	26/10/2011
4599758	A2		3.80 - 4.00	26/10/2011
4599759	A2		5.44 - 5.47	26/10/2011
4599762	B1		0.20 - 1.00	26/10/2011
4599763	B1		2.10 - 2.30	26/10/2011
4599764	B1		3.90 - 3.95	26/10/2011
4599765	C1		0.20 - 1.00	26/10/2011
4599766	C1		2.80 - 3.00	26/10/2011
4599767	C1		3.00 - 3.50	26/10/2011

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

CERTIFICATE OF ANALYSIS

SDG:	111028-110	**Location:**	Limerick Gasworks	**Order Number:**	4700000740
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	159093
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

SOLID

Results Legend

X Test

N No Determination Possible

Lab Sample No(s)			4599760		4599761		4599762		4599763		4599765		4599766		4599767		4599755		4599756	
Customer Sample Reference			A1		A1		B1		B1		C1		C1		C1		A2		A2	
AGS Reference																				
Depth (m)			0.30 - 1.00		1.00 - 2.00		0.20 - 1.00		2.10 - 2.30		0.20 - 1.00		2.80 - 3.00		3.00 - 3.50		0.00 - 1.00		1.00 - 2.00	
Container			60g VOC (ALE215)	JAR (D)	60g VOC (ALE215)	TUB (D)	60g VOC (ALE215)	JAR (D)	60g VOC (ALE215)	TUB (D)	60g VOC (ALE215)	JAR (D)	60g VOC (ALE215)	TUB (D)	60g VOC (ALE215)	JAR (D)	60g VOC (ALE215)	TUB (D)	60g VOC (ALE215)	JAR (D)	TUB (D)
Ammonium Soil by Titration	All	NDPs: 0 Tests: 9		X		X		X		X		X		X		X		X		X
Asbestos Identification (Soil)	All	NDPs: 0 Tests: 4		X						X		X						X		
Cyanide Comp/Free/Total/Thiocyanate	All	NDPs: 0 Tests: 9		X		X		X		X		X		X		X		X		X
Easily Liberated Sulphide	All	NDPs: 0 Tests: 9		X		X		X		X		X		X		X		X		X
EPH CWG (Aliphatic) GC (S)	All	NDPs: 0 Tests: 9	X		X		X		X		X		X		X		X		X	
EPH CWG (Aromatic) GC (S)	All	NDPs: 0 Tests: 9	X		X		X		X		X		X		X		X		X	
GRO by GC-FID (S)	All	NDPs: 0 Tests: 9	X		X		X		X		X		X		X		X		X	
Hexavalent Chromium (s)	All	NDPs: 0 Tests: 9		X		X		X		X		X		X		X		X		X
Metals by iCap-OES (Soil)	Arsenic	NDPs: 0 Tests: 9	X		X		X		X		X		X		X		X		X	
	Cadmium	NDPs: 0 Tests: 9	X		X		X		X		X		X		X		X		X	
	Chromium	NDPs: 0 Tests: 9	X		X		X		X		X		X		X		X		X	
	Copper	NDPs: 0 Tests: 9	X		X		X		X		X		X		X		X		X	
	Lead	NDPs: 0 Tests: 9	X		X		X		X		X		X		X		X		X	
	Mercury	NDPs: 0 Tests: 9	X		X		X		X		X		X		X		X		X	
	Nickel	NDPs: 0 Tests: 9	X		X		X		X		X		X		X		X		X	

SDG:	111028-110	**Location:**	Limerick Gasworks	**Order Number:**	4700000740
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	159093
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

SOLID

Results Legend

- X — Test
- N — No Determination Possible

Lab Sample No(s)			4599760			4599761			4599762			4599763			4599765			4599766			4599767			4599755			4599756		
Customer Sample Reference			A1			A1			B1			B1			C1			C1			C1			A2			A2		
AGS Reference																													
Depth (m)			0.30 - 1.00			1.00 - 2.00			0.20 - 1.00			2.10 - 2.30			0.20 - 1.00			2.80 - 3.00			3.00 - 3.50			0.00 - 1.00			1.00 - 2.00		
Container			60g VOC (ALE215)	JAR (D)	TUB (D)	60g VOC (ALE215)	JAR (D)	TUB (D)	60g VOC (ALE215)	JAR (D)	TUB (D)	60g VOC (ALE215)	JAR (D)	TUB (D)	60g VOC (ALE215)	JAR (D)	TUB (D)	60g VOC (ALE215)	JAR (D)	TUB (D)	60g VOC (ALE215)	JAR (D)	TUB (D)	60g VOC (ALE215)	JAR (D)	TUB (D)	60g VOC (ALE215)	JAR (D)	TUB (D)
Metals by iCap-OES (Soil)	Selenium	NDPs: 0 Tests: 9		X			X			X			X			X			X			X			X			X	
	Zinc	NDPs: 0 Tests: 9		X			X			X			X			X			X			X			X			X	
PAH by GCMS	All	NDPs: 0 Tests: 9		X			X			X			X			X			X			X			X			X	
PCBs by GCMS	All	NDPs: 0 Tests: 4		X									X									X						X	
pH	All	NDPs: 0 Tests: 9			X			X			X			X			X			X			X			X			X
Phenols by HPLC (S)	All	NDPs: 0 Tests: 9			X			X			X			X			X			X			X			X			X
Sample description	All	NDPs: 0 Tests: 9		X			X			X			X			X			X			X			X			X	
Total Sulphate	All	NDPs: 0 Tests: 9		X			X			X			X			X			X			X			X			X	
TPH CWG GC (S)	All	NDPs: 0 Tests: 9		X			X			X			X			X			X			X			X			X	
VOC MS (S)	All	NDPs: 0 Tests: 3				X															X						X		

CERTIFICATE OF ANALYSIS

SDG:	111028-110	**Location:**	Limerick Gasworks	**Order Number:**	4700000740
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	159093
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Sample Descriptions

Grain Sizes

very fine	<0.063mm	fine	0.063mm - 0.1mm	medium	0.1mm - 2mm	coarse	2mm - 10mm	very coarse	>10mm

Lab Sample No(s)	Customer Sample Ref.	Depth (m)	Colour	Description	Grain size	Inclusions	Inclusions 2
4599760	A1	0.30 - 1.00	Light Brown	Sand	0.1 - 2 mm	Crushed Brick	Concrete/Aggregate
4599761	A1	1.00 - 2.00	Light Brown	Silty Sand	0.1 - 2 mm	Stones	None
4599755	A2	0.00 - 1.00	Light Brown	Loamy Sand	0.1 - 2 mm	Stones	None
4599756	A2	1.00 - 2.00	Light Brown	Silty Sand	0.1 - 2 mm	Stones	None
4599762	B1	0.20 - 1.00	Light Brown	Silty Clay	0.063 - 0.1 mm	Stones	None
4599763	B1	2.10 - 2.30	Red	Sandy Clay	0.1 - 2 mm	Stones	Crushed Brick
4599765	C1	0.20 - 1.00	Light Brown	Silty Sand	0.1 - 2 mm	Stones	None
4599766	C1	2.80 - 3.00	Grey	Silty Sand	0.1 - 2 mm	Stones	None
4599767	C1	3.00 - 3.50	Dark Brown	Sandy Loam	0.1 - 2 mm	Stones	N/A

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 ocurring 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.

CERTIFICATE OF ANALYSIS

SDG:	111028-110	**Location:**	Limerick Gasworks	**Order Number:**	4700000740
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	159093
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
§	Deviating sample.
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

Component	LOD/Units	Method	Customer Sample R	A1	A1	A2	A2	B1	B1
			Depth (m)	0.30 - 1.00	1.00 - 2.00	0.00 - 1.00	1.00 - 2.00	0.20 - 1.00	2.10 - 2.30
			Sample Type	Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid
			Date Sampled	26/10/2011	26/10/2011	26/10/2011	26/10/2011	26/10/2011	26/10/2011
			Date Received	27/10/2011	27/10/2011	27/10/2011	27/10/2011	27/10/2011	27/10/2011
			SDG Ref	111028-110	111028-110	111028-110	111028-110	111028-110	111028-110
			Lab Sample No.(s)	4599760	4599761	4599755	4599756	4599762	4599763
			AGS Reference						
Ammoniacal Nitrogen, exchangeable as NH4	<15 mg/kg	TM024		<15 M	<15 M	<15 M	20.7 M	<15 M	<15 M
Ammoniacal Nitrogen as N	<15 mg/kg	TM024		<15	<15	<15	<15	<15	<15
Catechol	<0.01 mg/kg	TM062 (S)		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Phenol	<0.01 mg/kg	TM062 (S)		<0.01 M	<0.01 M	<0.01 M	<0.01 M	<0.01 M	<0.01 M
Cresols	<0.01 mg/kg	TM062 (S)		<0.01 M	<0.01 M	<0.01 M	<0.01 M	<0.01 M	<0.01 M
Resorcinol	<0.05 mg/kg	TM062 (S)		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Xylenols	<0.015 mg/kg	TM062 (S)		<0.015 M	<0.015 M	<0.015 M	<0.015 M	<0.015 M	<0.015 M
1-Naphthol	<0.01 mg/kg	TM062 (S)		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
2,3,5-Trimethylphenol	<0.01 mg/kg	TM062 (S)		<0.01 M	<0.01 M	<0.01 M	<0.01 M	<0.01 M	<0.01 M
2-Isopropylphenol	<0.015 mg/kg	TM062 (S)		<0.015 M	<0.015 M	<0.015 M	<0.015 M	<0.015 M	<0.015 M
Phenols, Total Detected 8 Speciated	<0.12 mg/kg	TM062 (S)		<0.12	<0.12	<0.12	<0.12	<0.12	<0.12
pH	1 pH Units	TM133		6.69 § M	8.25 M	9.58 § M	8.12 M	8.37 § M	8.19 § M
Hexavalent Chromium	<0.6 mg/kg	TM151		<0.6 #	<0.6 #	<0.6 #	<0.6 #	<0.6 #	<0.6 #
Chromium, Hexavalent	<0.6 mg/kg	TM151		<0.6 #	<0.6 #	<0.6 #	<0.6 #	<0.6 #	<0.6 #
Cyanide, Total	<1 mg/kg	TM153		<1 M	1.7 M	<1 M	2.37 M	<1 M	<1 M
PCB congener 28	<3 µg/kg	TM168		<3 M			<3 M		<3 M
PCB congener 52	<3 µg/kg	TM168		<3 M			<3 M		<3 M
PCB congener 101	<3 µg/kg	TM168		<3 M			<3 M		<3 M
PCB congener 118	<3 µg/kg	TM168		<3 M			<3 M		<3 M
PCB congener 138	<3 µg/kg	TM168		<3 M			<3 M		<3 M
PCB congener 153	<3 µg/kg	TM168		<3 M			<3 M		<3 M
PCB congener 180	<3 µg/kg	TM168		<3 M			<3 M		<3 M
Sum of detected PCB 7 Congeners	<21 µg/kg	TM168		<21			<21		<21
Easily Liberated Sulphide	<15 mg/kg	TM180		<15 #	<15 #	<15 #	<15 #	17.1 #	<15 #
Sulphide, Easily liberated	<15 mg/kg	TM180		<15 #	<15 #	<15 #	<15 #	19.7 #	<15 #
Arsenic	<0.6 mg/kg	TM181		16.9 M	7.04 M	8.45 M	5.03 M	8.87 M	11.2 M
Cadmium	<0.02 mg/kg	TM181		0.168 M	0.43 M	0.297 M	0.227 M	0.408 M	0.393 M
Chromium	<0.9 mg/kg	TM181		22.5 M	10.7 M	9.06 M	11.4 M	11.6 M	15.2 M
Copper	<1.4 mg/kg	TM181		63.1 M	10.7 M	9.47 M	26.2 M	18.4 M	16.7 M
Lead	<0.7 mg/kg	TM181		42.6 M	32.4 M	13 M	75.5 M	32.2 M	46.6 M
Mercury	<0.14 mg/kg	TM181		<0.14 M	<0.14 M	<0.14 M	<0.14 M	<0.14 M	<0.14 M
Nickel	<0.2 mg/kg	TM181		19.5 M	12.9 M	8.86 M	11.2 M	19.1 M	16.3 M
Selenium	<1 mg/kg	TM181		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Zinc	<1.9 mg/kg	TM181		67.7 M	33.4 M	28.3 M	30.3 M	33 M	39.5 M
Sulphate, Total	<48 mg/kg	TM221		863 M	415 M	734 M	241 M	393 M	644 M

CERTIFICATE OF ANALYSIS

SDG:	111028-110	**Location:**	Limerick Gasworks	**Order Number:**	4700000740
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	159093
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
§	Deviating sample.
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

Component	LOD/Units	Method	Customer Sample R	C1	C1	C1
			Depth (m)	0.20 - 1.00	2.80 - 3.00	3.00 - 3.50
			Sample Type	Soil/Solid	Soil/Solid	Soil/Solid
			Date Sampled	26/10/2011	26/10/2011	26/10/2011
			Date Received	27/10/2011	27/10/2011	27/10/2011
			SDG Ref	111028-110	111028-110	111028-110
			Lab Sample No.(s)	4599765	4599766	4599767
			AGS Reference			
Ammoniacal Nitrogen, exchangeable as NH4	<15 mg/kg	TM024		<15 M	<15 M	58.3 M
Ammoniacal Nitrogen as N	<15 mg/kg	TM024		<15	<15	45.3
Catechol	<0.01 mg/kg	TM062 (S)		<0.01	<0.01	<0.05
Phenol	<0.01 mg/kg	TM062 (S)		<0.01 M	0.0456 M	0.298 M
Cresols	<0.01 mg/kg	TM062 (S)		<0.01 M	0.228 M	5.88 M
Resorcinol	<0.05 mg/kg	TM062 (S)		<0.05	<0.05	<0.25
Xylenols	<0.015 mg/kg	TM062 (S)		<0.015 M	1.73 M	49.9 M
1-Naphthol	<0.01 mg/kg	TM062 (S)		<0.01	<0.01	3.33
2,3,5-Trimethylphenol	<0.01 mg/kg	TM062 (S)		<0.01 M	<0.01 M	16.7 M
2-Isopropylphenol	<0.015 mg/kg	TM062 (S)		<0.015 M	4.12 M	<0.075 M
Phenols, Total Detected 8 Speciated	<0.12 mg/kg	TM062 (S)		<0.12	6.12	76.1
pH	1 pH Units	TM133		8.4 M	9.93 M	8.01 M
Hexavalent Chromium	<0.6 mg/kg	TM151		<0.6 #	<0.6 #	<0.6 #
Chromium, Hexavalent	<0.6 mg/kg	TM151		<0.6 #	<0.6 #	<0.6 #
Cyanide, Total	<1 mg/kg	TM153		7.16 M	1.93 M	18.9 M
PCB congener 28	<3 µg/kg	TM168				<3 M
PCB congener 52	<3 µg/kg	TM168				<3 M
PCB congener 101	<3 µg/kg	TM168				<3 M
PCB congener 118	<3 µg/kg	TM168				<3 M
PCB congener 138	<3 µg/kg	TM168				<3 M
PCB congener 153	<3 µg/kg	TM168				<3 M
PCB congener 180	<3 µg/kg	TM168				<3 M
Sum of detected PCB 7 Congeners	<21 µg/kg	TM168				<21
Easily Liberated Sulphide	<15 mg/kg	TM180		<15 #	38 #	82.2 #
Sulphide, Easily liberated	<15 mg/kg	TM180		<15 #	43.3 #	97.8 #
Arsenic	<0.6 mg/kg	TM181		6.31 M	6.38 M	8.19 M
Cadmium	<0.02 mg/kg	TM181		0.244 M	0.302 M	0.376 M
Chromium	<0.9 mg/kg	TM181		7.41 M	8.72 M	10.7 M
Copper	<1.4 mg/kg	TM181		9.29 M	7.96 M	17.9 M
Lead	<0.7 mg/kg	TM181		21.6 M	24.5 M	33.2 M
Mercury	<0.14 mg/kg	TM181		<0.14 M	<0.14 M	<0.14 M
Nickel	<0.2 mg/kg	TM181		8.77 M	9.58 M	13.8 M
Selenium	<1 mg/kg	TM181		<1 #	<1 #	<1 #
Zinc	<1.9 mg/kg	TM181		17.8 M	27.1 M	55.5 M
Sulphate, Total	<48 mg/kg	TM221		633 M	635 M	686 M

CERTIFICATE OF ANALYSIS

SDG:	111028-110	**Location:**	Limerick Gasworks	**Order Number:**	4700000740
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	159093
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

PAH by GCMS

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
§	Deviating sample.
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

Component	LOD/Units	Method	Customer Sample R	A1	A1	A2	A2	B1	B1
			Depth (m)	0.30 - 1.00	1.00 - 2.00	0.00 - 1.00	1.00 - 2.00	0.20 - 1.00	2.10 - 2.30
			Sample Type	Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid
			Date Sampled	26/10/2011	26/10/2011	26/10/2011	26/10/2011	26/10/2011	26/10/2011
			Date Received	27/10/2011	27/10/2011	27/10/2011	27/10/2011	27/10/2011	27/10/2011
			SDG Ref	111028-110	111028-110	111028-110	111028-110	111028-110	111028-110
			Lab Sample No.(s)	4599760	4599761	4599755	4599756	4599762	4599763
			AGS Reference						
Naphthalene	<9 µg/kg	TM218		909 M	480 M	13.9 M	60.5 M	149 M	40.8 M
Acenaphthylene	<12 µg/kg	TM218		212 M	205 M	<12 M	58.8 M	74.7 M	19.9 M
Acenaphthene	<8 µg/kg	TM218		140 M	277 M	<8 M	63.5 M	33.8 M	<8 M
Fluorene	<10 µg/kg	TM218		167 M	493 M	<10 M	66.4 M	47.7 M	14.4 M
Phenanthrene	<15 µg/kg	TM218		3230 M	2640 M	27.8 M	99.1 M	595 M	133 M
Anthracene	<16 µg/kg	TM218		875 M	568 M	<16 M	27.3 M	256 M	39.6 M
Fluoranthene	<17 µg/kg	TM218		7260 M	2280 M	48.4 M	34.3 M	1850 M	225 M
Pyrene	<15 µg/kg	TM218		5600 M	1660 M	43 M	21.5 M	1550 M	176 M
Benz(a)anthracene	<14 µg/kg	TM218		4180 M	1200 M	53.4 M	<14 M	1720 M	216 M
Chrysene	<10 µg/kg	TM218		3520 M	968 M	47.2 M	<10 M	1310 M	178 M
Benzo(b)fluoranthene	<15 µg/kg	TM218		5770 M	1400 M	85.9 M	<15 M	2470 M	326 M
Benzo(k)fluoranthene	<14 µg/kg	TM218		2020 M	547 M	35.4 M	<14 M	943 M	134 M
Benzo(a)pyrene	<15 µg/kg	TM218		4250 M	1060 M	54.5 M	<15 M	2000 M	248 M
Indeno(1,2,3-cd)pyrene	<18 µg/kg	TM218		2430 M	497 M	31 M	<18 M	1060 M	154 M
Dibenzo(a,h)anthracene	<23 µg/kg	TM218		753 M	210 M	<23 M	<23 M	413 M	63.9 M
Benzo(g,h,i)perylene	<24 µg/kg	TM218		2740 M	520 M	36.8 M	<24 M	1100 M	182 M
PAH, Total Detected USEPA 16	<118 µg/kg	TM218		44100	15000	477	431	15600	2150

CERTIFICATE OF ANALYSIS

SDG:	111028-110	**Location:**	Limerick Gasworks	**Order Number:**	4700000740
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	159093
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

PAH by GCMS

Results Legend	
#	ISO17025 accredited.
M	*m*CERTS accredited.
§	Deviating sample.
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

Component	LOD/Units	Method	Customer Sample R	C1	C1	C1			
			Depth (m)	0.20 - 1.00	2.80 - 3.00	3.00 - 3.50			
			Sample Type	Soil/Solid	Soil/Solid	Soil/Solid			
			Date Sampled	26/10/2011	26/10/2011	26/10/2011			
			Date Received	27/10/2011	27/10/2011	27/10/2011			
			SDG Ref	111028-110	111028-110	111028-110			
			Lab Sample No.(s)	4599765	4599766	4599767			
			AGS Reference						
Naphthalene	<9 µg/kg	TM218		115 M	137000 M	112000 M			
Acenaphthylene	<12 µg/kg	TM218		29.6 M	19600 M	13300 M			
Acenaphthene	<8 µg/kg	TM218		36.6 M	8990 M	4870 M			
Fluorene	<10 µg/kg	TM218		27.2 M	20500 M	12700 M			
Phenanthrene	<15 µg/kg	TM218		471 M	55200 M	33400 M			
Anthracene	<16 µg/kg	TM218		104 M	17100 M	9460 M			
Fluoranthene	<17 µg/kg	TM218		901 M	37600 M	21900 M			
Pyrene	<15 µg/kg	TM218		731 M	24800 M	14100 M			
Benz(a)anthracene	<14 µg/kg	TM218		886 M	12600 M	6150 M			
Chrysene	<10 µg/kg	TM218		829 M	9040 M	4830 M			
Benzo(b)fluoranthene	<15 µg/kg	TM218		1840 M	13500 M	6290 M			
Benzo(k)fluoranthene	<14 µg/kg	TM218		754 M	4890 M	2580 M			
Benzo(a)pyrene	<15 µg/kg	TM218		1490 M	10400 M	4810 M			
Indeno(1,2,3-cd)pyrene	<18 µg/kg	TM218		973 M	4650 M	2280 M			
Dibenzo(a,h)anthracene	<23 µg/kg	TM218		368 M	1330 M	667 M			
Benzo(g,h,i)perylene	<24 µg/kg	TM218		1070 M	5180 M	2640 M			
PAH, Total Detected USEPA 16	<118 µg/kg	TM218		10600	382000	252000			

CERTIFICATE OF ANALYSIS

SDG:	111028-110	**Location:**	Limerick Gasworks	**Order Number:**	4700000740
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	159093
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

TPH CWG (S)

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
§	Deviating sample.
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

Component	LOD/Units	Method	Customer Sample R	A1	A1	A2	A2	B1	B1
			Depth (m)	0.30 - 1.00	1.00 - 2.00	0.00 - 1.00	1.00 - 2.00	0.20 - 1.00	2.10 - 2.30
			Sample Type	Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid
			Date Sampled	26/10/2011	26/10/2011	26/10/2011	26/10/2011	26/10/2011	26/10/2011
			Date Received	27/10/2011	27/10/2011	27/10/2011	27/10/2011	27/10/2011	27/10/2011
			SDG Ref	111028-110	111028-110	111028-110	111028-110	111028-110	111028-110
			Lab Sample No.(s)	4599760	4599761	4599755	4599756	4599762	4599763
			AGS Reference						
GRO >C5-C12	<44 µg/kg	TM089		142	578	<44	522	187	132
Methyl tertiary butyl ether (MTBE)	<5 µg/kg	TM089		<5 #	<5 #	<5 #	<5 #	<5 #	<5 #
Benzene	<10 µg/kg	TM089		<10 M	18.9 M	<10 M	27.8 M	<10 M	<10 M
Toluene	<2 µg/kg	TM089		<2 M	<2 M	<2 M	<2 M	12.7 M	3.66 M
Ethylbenzene	<3 µg/kg	TM089		<3 M	27.1 M	<3 M	19.7 M	<3 M	3.66 M
m,p-Xylene	<6 µg/kg	TM089		<6 M	<6 M	<6 M	<6 M	9.2 M	<6 M
o-Xylene	<3 µg/kg	TM089		<3 M	3.54 M	<3 M	<3 M	<3 M	<3 M
sum of detected mpo xylene by GC	<9 µg/kg	TM089		<9	<9	<9	<9	9.2	<9
sum of detected BTEX by GC	<24 µg/kg	TM089		<24	46	<24	47.5	<24	<24
Aliphatics >C5-C6	<10 µg/kg	TM089		10.7	15.3	<10	16.2	18.4	12.2
Aliphatics >C6-C8	<10 µg/kg	TM089		<10	42.5	<10	41.8	39.1	17.1
Aliphatics >C8-C10	<10 µg/kg	TM089		14.3	95.6	10.3	106	28.8	24.4
Aliphatics >C10-C12	<10 µg/kg	TM089		55.9	182	<10	142	27.6	24.4
Aliphatics >C12-C16	<100 µg/kg	TM173		<100	3960	<100	3870	4890	<100
Aliphatics >C16-C21	<100 µg/kg	TM173		<100	4220	<100	4530	4860	<100
Aliphatics >C21-C35	<100 µg/kg	TM173		<100	8580	<100	8380	9270	4740
Aliphatics >C35-C44	<100 µg/kg	TM173		<100	1490	<100	969	1220	<100
Total Aliphatics >C12-C44	<100 µg/kg	TM173		<100	18200	<100	17800	20200	4740
Aromatics >EC5-EC7	<10 µg/kg	TM089		<10	18.9	<10	27.8	10.4	<10
Aromatics >EC7-EC8	<10 µg/kg	TM089		<10	<10	<10	<10	12.7	<10
Aromatics >EC8-EC10	<10 µg/kg	TM089		14.3	100	10.3	95.1	32.2	29.3
Aromatics >EC10-EC12	<10 µg/kg	TM089		36.9	122	<10	94	18.4	15.9
Aromatics >EC12-EC16	<100 µg/kg	TM173		6700	6510	<100	5330	4510	<100
Aromatics >EC16-EC21	<100 µg/kg	TM173		68800	17700	<100	21500	10400	2950
Aromatics >EC21-EC35	<100 µg/kg	TM173		224000	44400	12400	46000	46400	36000
Aromatics >EC35-EC44	<100 µg/kg	TM173		68100	12700	3860	10300	12900	13200
Total Aromatics >EC12-EC44	<100 µg/kg	TM173		368000	81300	16300	83200	74300	52100
Total Aliphatics & Aromatics >C5-C44	<100 µg/kg	TM173		368000	100000	16300	101000	94700	57000
Total Aliphatics >C5-35	<100 µg/kg	TM173		<100	17100	<100	17100	19100	4810
Total Aromatics >C5-35	<100 µg/kg	TM173		300000	68900	12500	73100	61500	39000
Total Aliphatics & Aromatics >C5-35	<100 µg/kg	TM173		300000	86000	12500	90200	80600	43800
Total Aliphatics >C5-C12	<10 µg/kg	TM089		88.1	336	33.1	304	114	78.1
Total Aromatics >EC5-EC12	<10 µg/kg	TM089		53.6	242	14.8	217	73.6	53.7
Total Aliphatics >C5-C44	<100 µg/kg	TM173		<100	18600	<100	18100	20400	4810
Total Aromatics >C6-C44	<100 µg/kg	TM173		368000	81500	16300	83400	74400	52200

CERTIFICATE OF ANALYSIS

SDG:	111028-110	**Location:**	Limerick Gasworks	**Order Number:**	4700000740
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	159093
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

TPH CWG (S)

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
§	Deviating sample.
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

Component	LOD/Units	Method	Customer Sample R	A1	A1	A2	A2	B1	B1
			Depth (m)	0.30 - 1.00	1.00 - 2.00	0.00 - 1.00	1.00 - 2.00	0.20 - 1.00	2.10 - 2.30
			Sample Type	Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid
			Date Sampled	26/10/2011	26/10/2011	26/10/2011	26/10/2011	26/10/2011	26/10/2011
			Date Received	27/10/2011	27/10/2011	27/10/2011	27/10/2011	27/10/2011	27/10/2011
			SDG Ref	111028-110	111028-110	111028-110	111028-110	111028-110	111028-110
			Lab Sample No.(s)	4599760	4599761	4599755	4599756	4599762	4599763
			AGS Reference						
Aliphatics >C16-C35	<100 µg/kg	TM173		<100	12800	<100	12900	14100	4740

CERTIFICATE OF ANALYSIS

SDG:	111028-110	**Location:**	Limerick Gasworks	**Order Number:**	4700000740
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	159093
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

TPH CWG (S)

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
§	Deviating sample.
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

Component	LOD/Units	Method	Customer Sample R	C1	C1	C1
			Depth (m)	0.20 - 1.00	2.80 - 3.00	3.00 - 3.50
			Sample Type	Soil/Solid	Soil/Solid	Soil/Solid
			Date Sampled	26/10/2011	26/10/2011	26/10/2011
			Date Received	27/10/2011	27/10/2011	27/10/2011
			SDG Ref	111028-110	111028-110	111028-110
			Lab Sample No.(s)	4599765	4599766	4599767
			AGS Reference			
GRO >C5-C12	<44 µg/kg	TM089		69.9	26600	295000
Methyl tertiary butyl ether (MTBE)	<5 µg/kg	TM089		<5 #	<5 #	<50 #
Benzene	<10 µg/kg	TM089		<10 M	485 M	3850 M
Toluene	<2 µg/kg	TM089		2.22 M	1150 M	14800 M
Ethylbenzene	<3 µg/kg	TM089		<3 M	400 M	4710 M
m,p-Xylene	<6 µg/kg	TM089		<6 M	2240 M	33900 M
o-Xylene	<3 µg/kg	TM089		<3 M	1290 M	12700 M
sum of detected mpo xylene by GC	<9 µg/kg	TM089		<9	3530	46600
sum of detected BTEX by GC	<24 µg/kg	TM089		<24	5570	70000
Aliphatics >C5-C6	<10 µg/kg	TM089		<10	75.2	882
Aliphatics >C6-C8	<10 µg/kg	TM089		12.2	1720	20000
Aliphatics >C8-C10	<10 µg/kg	TM089		14.4	5160	51700
Aliphatics >C10-C12	<10 µg/kg	TM089		<10	6400	70600
Aliphatics >C12-C16	<100 µg/kg	TM173		<100	30400	58700
Aliphatics >C16-C21	<100 µg/kg	TM173		<100	36700	55500
Aliphatics >C21-C35	<100 µg/kg	TM173		<100	32500	72000
Aliphatics >C35-C44	<100 µg/kg	TM173		<100	3260	23800
Total Aliphatics >C12-C44	<100 µg/kg	TM173		<100	103000	210000
Aromatics >EC5-EC7	<10 µg/kg	TM089		<10	485	3850
Aromatics >EC7-EC8	<10 µg/kg	TM089		<10	1150	14800
Aromatics >EC8-EC10	<10 µg/kg	TM089		14.4	7370	85800
Aromatics >EC10-EC12	<10 µg/kg	TM089		<10	4270	47100
Aromatics >EC12-EC16	<100 µg/kg	TM173		696	82000	173000
Aromatics >EC16-EC21	<100 µg/kg	TM173		10200	142000	284000
Aromatics >EC21-EC35	<100 µg/kg	TM173		51400	218000	446000
Aromatics >EC35-EC44	<100 µg/kg	TM173		19700	46400	107000
Total Aromatics >EC12-EC44	<100 µg/kg	TM173		82000	488000	1010000
Total Aliphatics & Aromatics >C5-C44	<100 µg/kg	TM173		82000	617000	1510000
Total Aliphatics >C5-35	<100 µg/kg	TM173		<100	113000	329000
Total Aromatics >C5-35	<100 µg/kg	TM173		62400	454000	1050000
Total Aliphatics & Aromatics >C5-35	<100 µg/kg	TM173		62400	567000	1380000
Total Aliphatics >C5-C12	<10 µg/kg	TM089		45.5	13400	143000
Total Aromatics >EC5-EC12	<10 µg/kg	TM089		24.4	13300	152000
Total Aliphatics >C5-C44	<100 µg/kg	TM173		<100	116000	353000
Total Aromatics >C6-C44	<100 µg/kg	TM173		82000	501000	1160000

CERTIFICATE OF ANALYSIS

SDG:	111028-110	**Location:**	Limerick Gasworks	**Order Number:**	4700000740
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	159093
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

TPH CWG (S)

Results Legend	
#	ISO17025 accredited.
M	*m*CERTS accredited.
§	Deviating sample.
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

Component	LOD/Units	Method	Customer Sample R	C1	C1	C1
			Depth (m)	0.20 - 1.00	2.80 - 3.00	3.00 - 3.50
			Sample Type	Soil/Solid	Soil/Solid	Soil/Solid
			Date Sampled	26/10/2011	26/10/2011	26/10/2011
			Date Received	27/10/2011	27/10/2011	27/10/2011
			SDG Ref	111028-110	111028-110	111028-110
			Lab Sample No.(s)	4599765	4599766	4599767
			AGS Reference			
Aliphatics >C16-C35	<100 µg/kg	TM173		<100	69200	128000

CERTIFICATE OF ANALYSIS

SDG:	111028-110	**Location:**	Limerick Gasworks	**Order Number:**	4700000740
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	159093
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

VOC MS (S)

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
§	Deviating sample.
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

Component	LOD/Units	Method	Customer Sample R	A1	A2	C1
			Depth (m)	1.00 - 2.00	1.00 - 2.00	3.00 - 3.50
			Sample Type	Soil/Solid	Soil/Solid	Soil/Solid
			Date Sampled	26/10/2011	26/10/2011	26/10/2011
			Date Received	27/10/2011	27/10/2011	27/10/2011
			SDG Ref	111028-110	111028-110	111028-110
			Lab Sample No.(s)	4599761	4599756	4599767
			AGS Reference			
Dibromofluoromethane**	%	TM116		47.3	68.5 §	76.2 §
Toluene-d8**	%	TM116		95.7	99.7 §	88.4 §
4-Bromofluorobenzene**	%	TM116		123	116 §	128 §
Dichlorodifluoromethane	<4 µg/kg	TM116		<4 M	<4 § M	<4 § M
Chloromethane	<7 µg/kg	TM116		<7 #	<7 § #	<7 § #
Vinyl Chloride	<10 µg/kg	TM116		<10 #	<10 § #	<10 § #
Bromomethane	<13 µg/kg	TM116		<13 M	<13 § M	<13 § M
Chloroethane	<14 µg/kg	TM116		<14 M	<14 § M	<14 § M
Trichlorofluorormethane	<6 µg/kg	TM116		<6 M	<6 § M	<6 § M
1.1-Dichloroethene	<10 µg/kg	TM116		<10 #	<10 § #	<10 § #
Carbon Disulphide	<7 µg/kg	TM116		<7 M	<7 § M	61.1 § M
Dichloromethane	<10 µg/kg	TM116		<10 #	<10 § #	<10 § #
Methyl Tertiary Butyl Ether	<11 µg/kg	TM116		<11 M	<11 § M	<11 § M
trans-1-2-Dichloroethene	<11 µg/kg	TM116		<11 M	<11 § M	<11 § M
1.1-Dichloroethane	<8 µg/kg	TM116		<8 M	<8 § M	<8 § M
cis-1-2-Dichloroethene	<5 µg/kg	TM116		<5 M	<5 § M	<5 § M
2.2-Dichloropropane	<12 µg/kg	TM116		<12 M	<12 § M	<12 § M
Bromochloromethane	<14 µg/kg	TM116		<14 M	<14 § M	<14 § M
Chloroform	<8 µg/kg	TM116		<8 M	<8 § M	<8 § M
1.1.1-Trichloroethane	<7 µg/kg	TM116		<7 M	<7 § M	<7 § M
1.1-Dichloropropene	<11 µg/kg	TM116		<11 M	<11 § M	<11 § M
Carbontetrachloride	<14 µg/kg	TM116		<14 M	<14 § M	<14 § M
1.2-Dichloroethane	<5 µg/kg	TM116		<5 M	<5 § M	<5 § M
Benzene	<9 µg/kg	TM116		19.9 M	63.3 § M	<9000 § M
Trichloroethene	<9 µg/kg	TM116		<9 M	<9 § M	<9 § M
1.2-Dichloropropane	<12 µg/kg	TM116		<12 M	<12 § M	<12 § M
Dibromomethane	<9 µg/kg	TM116		<9 M	<9 § M	<9 § M
Bromodichloromethane	<7 µg/kg	TM116		<7 M	<7 § M	<7 § M
cis-1-3-Dichloropropene	<14 µg/kg	TM116		<14 M	<14 § M	<14 § M
Toluene	<5 µg/kg	TM116		20.3 M	<5 § M	13200 § M
trans-1-3-Dichloropropene	<14 µg/kg	TM116		<14	<14 §	<14 §
1.1.2-Trichloroethane	<10 µg/kg	TM116		<10 M	<10 § M	<10 § M
1.3-Dichloropropane	<7 µg/kg	TM116		<7 #	<7 § #	<7 § #
Tetrachloroethene	<5 µg/kg	TM116		<5 M	<5 § M	<5 § M
Dibromochloromethane	<13 µg/kg	TM116		<13 M	<13 § M	<13 § M

CERTIFICATE OF ANALYSIS

SDG:	111028-110	**Location:**	Limerick Gasworks	**Order Number:**	4700000740
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	159093
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

VOC MS (S)

Results Legend	
#	ISO17025 accredited.
M	*m*CERTS accredited.
§	Deviating sample.
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

Component	LOD/Units	Method	Customer Sample R	A1	A2	C1			
			Depth (m)	1.00 - 2.00	1.00 - 2.00	3.00 - 3.50			
			Sample Type	Soil/Solid	Soil/Solid	Soil/Solid			
			Date Sampled	26/10/2011	26/10/2011	26/10/2011			
			Date Received	27/10/2011	27/10/2011	27/10/2011			
			SDG Ref	111028-110	111028-110	111028-110			
			Lab Sample No.(s)	4599761	4599756	4599767			
			AGS Reference						
1.2-Dibromoethane	<12 µg/kg	TM116		<12 M	<12 § M	<12 § M			
Chlorobenzene	<5 µg/kg	TM116		<5 M	<5 § M	<5 § M			
1.1.1.2-Tetrachloroethane	<10 µg/kg	TM116		<10 M	<10 § M	<10 § M			
Ethylbenzene	<4 µg/kg	TM116		8.33 M	28.5 § M	5520 § M			
p/m-Xylene	<14 µg/kg	TM116		48.4 #	<14 § #	36600 § #			
o-Xylene	<10 µg/kg	TM116		30 M	<10 § M	13500 § M			
Styrene	<10 µg/kg	TM116		<10 M	<10 § M	<10 § M			
Bromoform	<10 µg/kg	TM116		<10 M	<10 § M	<10 § M			
Isopropylbenzene	<5 µg/kg	TM116		<5 M	<5 § M	639 § M			
1.1.2.2-Tetrachloroethane	<10 µg/kg	TM116		<10 #	<10 § #	<10 § #			
1.2.3-Trichloropropane	<17 µg/kg	TM116		<17 M	<17 § M	<17 § M			
Bromobenzene	<10 µg/kg	TM116		<10 M	<10 § M	<10 § M			
Propylbenzene	<11 µg/kg	TM116		<11 M	<11 § M	1040 § M			
2-Chlorotoluene	<9 µg/kg	TM116		<9 M	<9 § M	<9 § M			
1.3.5-Trimethylbenzene	<8 µg/kg	TM116		53.2 #	<8 § #	15700 § #			
4-Chlorotoluene	<12 µg/kg	TM116		<12 M	<12 § M	<12 § M			
tert-Butylbenzene	<12 µg/kg	TM116		<12 #	<12 § #	<12 § #			
1.2.4-Trimethylbenzene	<9 µg/kg	TM116		86.7 #	<9 § #	45400 § #			
sec-Butylbenzene	<10 µg/kg	TM116		<10 M	<10 § M	309 § M			
4-Isopropyltoluene	<11 µg/kg	TM116		<11 M	<11 § M	1290 § M			
1.3-Dichlorobenzene	<6 µg/kg	TM116		<6 M	<6 § M	<6 § M			
1.4-Dichlorobenzene	<5 µg/kg	TM116		<5 M	<5 § M	<5 § M			
n-Butylbenzene	<10 µg/kg	TM116		<10 M	<10 § M	1240 § M			
1.2-Dichlorobenzene	<12 µg/kg	TM116		<12 M	<12 § M	<12 § M			
1.2-Dibromo-3-chloropropane	<14 µg/kg	TM116		<14 M	<14 § M	<14 § M			
Tert-amyl methyl ether	<15 µg/kg	TM116		<15	<15 §	<15 §			
1.2.4-Trichlorobenzene	<6 µg/kg	TM116		<6 #	<6 § #	<6 § #			
Hexachlorobutadiene	<12 µg/kg	TM116		<12	<12 §	<12 §			
Naphthalene	<13 µg/kg	TM116		6070 M	<13 § M	938000 § M			
1.2.3-Trichlorobenzene	<6 µg/kg	TM116		<6 M	<6 § M	<6 § M			

CERTIFICATE OF ANALYSIS

SDG:	111028-110	**Location:**	Limerick Gasworks	**Order Number:**	4700000740
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	159093
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Asbestos Identification

		Date of Analysis	Analysed By	Comments	Amosite (Brown) Asbestos	Chrysotile (White) Asbestos	Crocidolite (Blue) Asbestos	Fibrous Actinolite	Fibrous Anthophyllite	Fibrous Tremolite	Non-Asbestos Fibre
Customer Sample Ref. Depth (m) Sample Type Date Sampled Date Receieved SDG Original Sample Method Number	A1 NS Z 0.30 - 1.00 SOLID 26/10/2011 00:00:00 111028-110 4,599,760 TM048	03/11/11	Martin Cotterell	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Customer Sample Ref. Depth (m) Sample Type Date Sampled Date Receieved SDG Original Sample Method Number	A2 NS Z 0.00 - 1.00 SOLID 26/10/2011 00:00:00 111028-110 4,599,755 TM048	03/11/11	Lauren Sargeant	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Customer Sample Ref. Depth (m) Sample Type Date Sampled Date Receieved SDG Original Sample Method Number	B1 NS Z 2.10 - 2.30 SOLID 26/10/2011 00:00:00 111028-110 4,599,763 TM048	03/11/11	Lauren Sargeant	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Customer Sample Ref. Depth (m) Sample Type Date Sampled Date Receieved SDG Original Sample Method Number	C1 NS Z 0.20 - 1.00 SOLID 26/10/2011 00:00:00 111028-110 4,599,765 TM048	03/11/11	Lauren Sargeant	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected

CERTIFICATE OF ANALYSIS

SDG:	111028-110	**Location:**	Limerick Gasworks	**Order Number:**	4700000740
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	159093
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Notification of Deviating Samples

Sample Number	Customer Sample Ref.	Depth (m)	Matrix	Test Name	Component Name	Comment
4652331	A2	1.00 - 2.00	SOLID	VOC MS (S)	1.1.1.2-Tetrachloroethane	Container with Headspace provided for volatiles analysis
4652331	A2	1.00 - 2.00	SOLID	VOC MS (S)	1.1.1-Trichloroethane	Container with Headspace provided for volatiles analysis
4652331	A2	1.00 - 2.00	SOLID	VOC MS (S)	1.1.2.2-Tetrachloroethane	Container with Headspace provided for volatiles analysis
4652331	A2	1.00 - 2.00	SOLID	VOC MS (S)	1.1.2-Trichloroethane	Container with Headspace provided for volatiles analysis
4652331	A2	1.00 - 2.00	SOLID	VOC MS (S)	1.1-Dichloroethane	Container with Headspace provided for volatiles analysis
4652331	A2	1.00 - 2.00	SOLID	VOC MS (S)	1.1-Dichloroethene	Container with Headspace provided for volatiles analysis
4652331	A2	1.00 - 2.00	SOLID	VOC MS (S)	1.1-Dichloropropene	Container with Headspace provided for volatiles analysis
4652331	A2	1.00 - 2.00	SOLID	VOC MS (S)	1.2.3-Trichlorobenzene	Container with Headspace provided for volatiles analysis
4652331	A2	1.00 - 2.00	SOLID	VOC MS (S)	1.2.3-Trichloropropane	Container with Headspace provided for volatiles analysis
4652331	A2	1.00 - 2.00	SOLID	VOC MS (S)	1.2.4-Trichlorobenzene	Container with Headspace provided for volatiles analysis
4652331	A2	1.00 - 2.00	SOLID	VOC MS (S)	1.2.4-Trimethylbenzene	Container with Headspace provided for volatiles analysis
4652331	A2	1.00 - 2.00	SOLID	VOC MS (S)	1.2-Dibromo-3-chloropropane	Container with Headspace provided for volatiles analysis
4652331	A2	1.00 - 2.00	SOLID	VOC MS (S)	1.2-Dibromoethane	Container with Headspace provided for volatiles analysis
4652331	A2	1.00 - 2.00	SOLID	VOC MS (S)	1.2-Dichlorobenzene	Container with Headspace provided for volatiles analysis
4652331	A2	1.00 - 2.00	SOLID	VOC MS (S)	1.2-Dichloroethane	Container with Headspace provided for volatiles analysis
4652331	A2	1.00 - 2.00	SOLID	VOC MS (S)	1.2-Dichloropropane	Container with Headspace provided for volatiles analysis
4652331	A2	1.00 - 2.00	SOLID	VOC MS (S)	1.3.5-Trimethylbenzene	Container with Headspace provided for volatiles analysis
4652331	A2	1.00 - 2.00	SOLID	VOC MS (S)	1.3-Dichlorobenzene	Container with Headspace provided for volatiles analysis
4652331	A2	1.00 - 2.00	SOLID	VOC MS (S)	1.3-Dichloropropane	Container with Headspace provided for volatiles analysis
4652331	A2	1.00 - 2.00	SOLID	VOC MS (S)	1.4-Dichlorobenzene	Container with Headspace provided for volatiles analysis
4652331	A2	1.00 - 2.00	SOLID	VOC MS (S)	2.2-Dichloropropane	Container with Headspace provided for volatiles analysis
4652331	A2	1.00 - 2.00	SOLID	VOC MS (S)	2-Chlorotoluene	Container with Headspace provided for volatiles analysis
4652331	A2	1.00 - 2.00	SOLID	VOC MS (S)	4-Bromofluorobenzene**	Container with Headspace provided for volatiles analysis
4652331	A2	1.00 - 2.00	SOLID	VOC MS (S)	4-Chlorotoluene	Container with Headspace provided for volatiles analysis
4652331	A2	1.00 - 2.00	SOLID	VOC MS (S)	4-Isopropyltoluene	Container with Headspace provided for volatiles analysis
4652331	A2	1.00 - 2.00	SOLID	VOC MS (S)	Benzene	Container with Headspace provided for volatiles analysis
4652331	A2	1.00 - 2.00	SOLID	VOC MS (S)	Bromobenzene	Container with Headspace provided for volatiles analysis
4652331	A2	1.00 - 2.00	SOLID	VOC MS (S)	Bromochloromethane	Container with Headspace provided for volatiles analysis
4652331	A2	1.00 - 2.00	SOLID	VOC MS (S)	Bromodichloromethane	Container with Headspace provided for volatiles analysis
4652331	A2	1.00 - 2.00	SOLID	VOC MS (S)	Bromoform	Container with Headspace provided for volatiles analysis
4652331	A2	1.00 - 2.00	SOLID	VOC MS (S)	Bromomethane	Container with Headspace provided for volatiles analysis
4652331	A2	1.00 - 2.00	SOLID	VOC MS (S)	Carbon Disulphide	Container with Headspace provided for volatiles analysis
4652331	A2	1.00 - 2.00	SOLID	VOC MS (S)	Carbontetrachloride	Container with Headspace provided for volatiles analysis
4652331	A2	1.00 - 2.00	SOLID	VOC MS (S)	Chlorobenzene	Container with Headspace provided for volatiles analysis
4652331	A2	1.00 - 2.00	SOLID	VOC MS (S)	Chloroethane	Container with Headspace provided for volatiles analysis
4652331	A2	1.00 - 2.00	SOLID	VOC MS (S)	Chloroform	Container with Headspace provided for volatiles analysis

CERTIFICATE OF ANALYSIS

SDG:	111028-110	**Location:**	Limerick Gasworks	**Order Number:**	4700000740
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	159093
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Sample Number	Customer Sample Ref.	Depth (m)	Matrix	Test Name	Component Name	Comment
4652331	A2	1.00 - 2.00	SOLID	VOC MS (S)	Chloromethane	Container with Headspace provided for volatiles analysis
4652331	A2	1.00 - 2.00	SOLID	VOC MS (S)	cis-1-2-Dichloroethene	Container with Headspace provided for volatiles analysis
4652331	A2	1.00 - 2.00	SOLID	VOC MS (S)	cis-1-3-Dichloropropene	Container with Headspace provided for volatiles analysis
4652331	A2	1.00 - 2.00	SOLID	VOC MS (S)	Dibromochloromethane	Container with Headspace provided for volatiles analysis
4652331	A2	1.00 - 2.00	SOLID	VOC MS (S)	Dibromofluoromethane**	Container with Headspace provided for volatiles analysis
4652331	A2	1.00 - 2.00	SOLID	VOC MS (S)	Dibromomethane	Container with Headspace provided for volatiles analysis
4652331	A2	1.00 - 2.00	SOLID	VOC MS (S)	Dichlorodifluoromethane	Container with Headspace provided for volatiles analysis
4652331	A2	1.00 - 2.00	SOLID	VOC MS (S)	Dichloromethane	Container with Headspace provided for volatiles analysis
4652331	A2	1.00 - 2.00	SOLID	VOC MS (S)	Ethylbenzene	Container with Headspace provided for volatiles analysis
4652331	A2	1.00 - 2.00	SOLID	VOC MS (S)	Hexachlorobutadiene	Container with Headspace provided for volatiles analysis
4652331	A2	1.00 - 2.00	SOLID	VOC MS (S)	Isopropylbenzene	Container with Headspace provided for volatiles analysis
4652331	A2	1.00 - 2.00	SOLID	VOC MS (S)	Methyl Tertiary Butyl Ether	Container with Headspace provided for volatiles analysis
4652331	A2	1.00 - 2.00	SOLID	VOC MS (S)	Naphthalene	Container with Headspace provided for volatiles analysis
4652331	A2	1.00 - 2.00	SOLID	VOC MS (S)	n-Butylbenzene	Container with Headspace provided for volatiles analysis
4652331	A2	1.00 - 2.00	SOLID	VOC MS (S)	o-Xylene	Container with Headspace provided for volatiles analysis
4652331	A2	1.00 - 2.00	SOLID	VOC MS (S)	p/m-Xylene	Container with Headspace provided for volatiles analysis
4652331	A2	1.00 - 2.00	SOLID	VOC MS (S)	Propylbenzene	Container with Headspace provided for volatiles analysis
4652331	A2	1.00 - 2.00	SOLID	VOC MS (S)	sec-Butylbenzene	Container with Headspace provided for volatiles analysis
4652331	A2	1.00 - 2.00	SOLID	VOC MS (S)	Styrene	Container with Headspace provided for volatiles analysis
4652331	A2	1.00 - 2.00	SOLID	VOC MS (S)	Tert-amyl methyl ether	Container with Headspace provided for volatiles analysis
4652331	A2	1.00 - 2.00	SOLID	VOC MS (S)	tert-Butylbenzene	Container with Headspace provided for volatiles analysis
4652331	A2	1.00 - 2.00	SOLID	VOC MS (S)	Tetrachloroethene	Container with Headspace provided for volatiles analysis
4652331	A2	1.00 - 2.00	SOLID	VOC MS (S)	Toluene	Container with Headspace provided for volatiles analysis
4652331	A2	1.00 - 2.00	SOLID	VOC MS (S)	Toluene-d8**	Container with Headspace provided for volatiles analysis
4652331	A2	1.00 - 2.00	SOLID	VOC MS (S)	trans-1-2-Dichloroethene	Container with Headspace provided for volatiles analysis
4652331	A2	1.00 - 2.00	SOLID	VOC MS (S)	trans-1-3-Dichloropropene	Container with Headspace provided for volatiles analysis
4652331	A2	1.00 - 2.00	SOLID	VOC MS (S)	Trichloroethene	Container with Headspace provided for volatiles analysis
4652331	A2	1.00 - 2.00	SOLID	VOC MS (S)	Trichlorofluorormethane	Container with Headspace provided for volatiles analysis
4652331	A2	1.00 - 2.00	SOLID	VOC MS (S)	Vinyl Chloride	Container with Headspace provided for volatiles analysis
4652524	C1	3.00 - 3.50	SOLID	VOC MS (S)	1.1.1.2-Tetrachloroethane	Container with Headspace provided for volatiles analysis
4652524	C1	3.00 - 3.50	SOLID	VOC MS (S)	1.1.1-Trichloroethane	Container with Headspace provided for volatiles analysis
4652524	C1	3.00 - 3.50	SOLID	VOC MS (S)	1.1.2.2-Tetrachloroethane	Container with Headspace provided for volatiles analysis
4652524	C1	3.00 - 3.50	SOLID	VOC MS (S)	1.1.2-Trichloroethane	Container with Headspace provided for volatiles analysis
4652524	C1	3.00 - 3.50	SOLID	VOC MS (S)	1.1-Dichloroethane	Container with Headspace provided for volatiles analysis
4652524	C1	3.00 - 3.50	SOLID	VOC MS (S)	1.1-Dichloroethene	Container with Headspace provided for volatiles analysis
4652524	C1	3.00 - 3.50	SOLID	VOC MS (S)	1.1-Dichloropropene	Container with Headspace provided for volatiles analysis
4652524	C1	3.00 - 3.50	SOLID	VOC MS (S)	1.2.3-Trichlorobenzene	Container with Headspace provided for volatiles analysis

CERTIFICATE OF ANALYSIS

SDG:	111028-110	**Location:**	Limerick Gasworks	**Order Number:**	4700000740
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	159093
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Sample Number	Customer Sample Ref.	Depth (m)	Matrix	Test Name	Component Name	Comment
4652524	C1	3.00 - 3.50	SOLID	VOC MS (S)	1.2.3-Trichloropropane	Container with Headspace provided for volatiles analysis
4652524	C1	3.00 - 3.50	SOLID	VOC MS (S)	1.2.4-Trichlorobenzene	Container with Headspace provided for volatiles analysis
4652524	C1	3.00 - 3.50	SOLID	VOC MS (S)	1.2.4-Trimethylbenzene	Container with Headspace provided for volatiles analysis
4652524	C1	3.00 - 3.50	SOLID	VOC MS (S)	1.2-Dibromo-3-chloropropane	Container with Headspace provided for volatiles analysis
4652524	C1	3.00 - 3.50	SOLID	VOC MS (S)	1.2-Dibromoethane	Container with Headspace provided for volatiles analysis
4652524	C1	3.00 - 3.50	SOLID	VOC MS (S)	1.2-Dichlorobenzene	Container with Headspace provided for volatiles analysis
4652524	C1	3.00 - 3.50	SOLID	VOC MS (S)	1.2-Dichloroethane	Container with Headspace provided for volatiles analysis
4652524	C1	3.00 - 3.50	SOLID	VOC MS (S)	1.2-Dichloropropane	Container with Headspace provided for volatiles analysis
4652524	C1	3.00 - 3.50	SOLID	VOC MS (S)	1.3.5-Trimethylbenzene	Container with Headspace provided for volatiles analysis
4652524	C1	3.00 - 3.50	SOLID	VOC MS (S)	1.3-Dichlorobenzene	Container with Headspace provided for volatiles analysis
4652524	C1	3.00 - 3.50	SOLID	VOC MS (S)	1.3-Dichloropropane	Container with Headspace provided for volatiles analysis
4652524	C1	3.00 - 3.50	SOLID	VOC MS (S)	1.4-Dichlorobenzene	Container with Headspace provided for volatiles analysis
4652524	C1	3.00 - 3.50	SOLID	VOC MS (S)	2.2-Dichloropropane	Container with Headspace provided for volatiles analysis
4652524	C1	3.00 - 3.50	SOLID	VOC MS (S)	2-Chlorotoluene	Container with Headspace provided for volatiles analysis
4652524	C1	3.00 - 3.50	SOLID	VOC MS (S)	4-Bromofluorobenzene**	Container with Headspace provided for volatiles analysis
4652524	C1	3.00 - 3.50	SOLID	VOC MS (S)	4-Chlorotoluene	Container with Headspace provided for volatiles analysis
4652524	C1	3.00 - 3.50	SOLID	VOC MS (S)	4-Isopropyltoluene	Container with Headspace provided for volatiles analysis
4652524	C1	3.00 - 3.50	SOLID	VOC MS (S)	Benzene	Container with Headspace provided for volatiles analysis
4652524	C1	3.00 - 3.50	SOLID	VOC MS (S)	Bromobenzene	Container with Headspace provided for volatiles analysis
4652524	C1	3.00 - 3.50	SOLID	VOC MS (S)	Bromochloromethane	Container with Headspace provided for volatiles analysis
4652524	C1	3.00 - 3.50	SOLID	VOC MS (S)	Bromodichloromethane	Container with Headspace provided for volatiles analysis
4652524	C1	3.00 - 3.50	SOLID	VOC MS (S)	Bromoform	Container with Headspace provided for volatiles analysis
4652524	C1	3.00 - 3.50	SOLID	VOC MS (S)	Bromomethane	Container with Headspace provided for volatiles analysis
4652524	C1	3.00 - 3.50	SOLID	VOC MS (S)	Carbon Disulphide	Container with Headspace provided for volatiles analysis
4652524	C1	3.00 - 3.50	SOLID	VOC MS (S)	Carbontetrachloride	Container with Headspace provided for volatiles analysis
4652524	C1	3.00 - 3.50	SOLID	VOC MS (S)	Chlorobenzene	Container with Headspace provided for volatiles analysis
4652524	C1	3.00 - 3.50	SOLID	VOC MS (S)	Chloroethane	Container with Headspace provided for volatiles analysis
4652524	C1	3.00 - 3.50	SOLID	VOC MS (S)	Chloroform	Container with Headspace provided for volatiles analysis
4652524	C1	3.00 - 3.50	SOLID	VOC MS (S)	Chloromethane	Container with Headspace provided for volatiles analysis
4652524	C1	3.00 - 3.50	SOLID	VOC MS (S)	cis-1-2-Dichloroethene	Container with Headspace provided for volatiles analysis
4652524	C1	3.00 - 3.50	SOLID	VOC MS (S)	cis-1-3-Dichloropropene	Container with Headspace provided for volatiles analysis
4652524	C1	3.00 - 3.50	SOLID	VOC MS (S)	Dibromochloromethane	Container with Headspace provided for volatiles analysis
4652524	C1	3.00 - 3.50	SOLID	VOC MS (S)	Dibromofluoromethane**	Container with Headspace provided for volatiles analysis
4652524	C1	3.00 - 3.50	SOLID	VOC MS (S)	Dibromomethane	Container with Headspace provided for volatiles analysis
4652524	C1	3.00 - 3.50	SOLID	VOC MS (S)	Dichlorodifluoromethane	Container with Headspace provided for volatiles analysis
4652524	C1	3.00 - 3.50	SOLID	VOC MS (S)	Dichloromethane	Container with Headspace provided for volatiles analysis
4652524	C1	3.00 - 3.50	SOLID	VOC MS (S)	Ethylbenzene	Container with Headspace provided for volatiles analysis

CERTIFICATE OF ANALYSIS

SDG:	111028-110	**Location:**	Limerick Gasworks	**Order Number:**	4700000740
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	159093
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Sample Number	Customer Sample Ref.	Depth (m)	Matrix	Test Name	Component Name	Comment
4652524	C1	3.00 - 3.50	SOLID	VOC MS (S)	Hexachlorobutadiene	Container with Headspace provided for volatiles analysis
4652524	C1	3.00 - 3.50	SOLID	VOC MS (S)	Isopropylbenzene	Container with Headspace provided for volatiles analysis
4652524	C1	3.00 - 3.50	SOLID	VOC MS (S)	Methyl Tertiary Butyl Ether	Container with Headspace provided for volatiles analysis
4652524	C1	3.00 - 3.50	SOLID	VOC MS (S)	Naphthalene	Container with Headspace provided for volatiles analysis
4652524	C1	3.00 - 3.50	SOLID	VOC MS (S)	n-Butylbenzene	Container with Headspace provided for volatiles analysis
4652524	C1	3.00 - 3.50	SOLID	VOC MS (S)	o-Xylene	Container with Headspace provided for volatiles analysis
4652524	C1	3.00 - 3.50	SOLID	VOC MS (S)	p/m-Xylene	Container with Headspace provided for volatiles analysis
4652524	C1	3.00 - 3.50	SOLID	VOC MS (S)	Propylbenzene	Container with Headspace provided for volatiles analysis
4652524	C1	3.00 - 3.50	SOLID	VOC MS (S)	sec-Butylbenzene	Container with Headspace provided for volatiles analysis
4652524	C1	3.00 - 3.50	SOLID	VOC MS (S)	Styrene	Container with Headspace provided for volatiles analysis
4652524	C1	3.00 - 3.50	SOLID	VOC MS (S)	Tert-amyl methyl ether	Container with Headspace provided for volatiles analysis
4652524	C1	3.00 - 3.50	SOLID	VOC MS (S)	tert-Butylbenzene	Container with Headspace provided for volatiles analysis
4652524	C1	3.00 - 3.50	SOLID	VOC MS (S)	Tetrachloroethene	Container with Headspace provided for volatiles analysis
4652524	C1	3.00 - 3.50	SOLID	VOC MS (S)	Toluene	Container with Headspace provided for volatiles analysis
4652524	C1	3.00 - 3.50	SOLID	VOC MS (S)	Toluene-d8**	Container with Headspace provided for volatiles analysis
4652524	C1	3.00 - 3.50	SOLID	VOC MS (S)	trans-1-2-Dichloroethene	Container with Headspace provided for volatiles analysis
4652524	C1	3.00 - 3.50	SOLID	VOC MS (S)	trans-1-3-Dichloropropene	Container with Headspace provided for volatiles analysis
4652524	C1	3.00 - 3.50	SOLID	VOC MS (S)	Trichloroethene	Container with Headspace provided for volatiles analysis
4652524	C1	3.00 - 3.50	SOLID	VOC MS (S)	Trichlorofluoromethane	Container with Headspace provided for volatiles analysis
4652524	C1	3.00 - 3.50	SOLID	VOC MS (S)	Vinyl Chloride	Container with Headspace provided for volatiles analysis
4674296	C1	3.00 - 3.50	SOLID	VOC MS (S)	1.2.4-Trimethylbenzene	Container with Headspace provided for volatiles analysis
4674296	C1	3.00 - 3.50	SOLID	VOC MS (S)	1.3.5-Trimethylbenzene	Container with Headspace provided for volatiles analysis
4674296	C1	3.00 - 3.50	SOLID	VOC MS (S)	Benzene	Container with Headspace provided for volatiles analysis
4674296	C1	3.00 - 3.50	SOLID	VOC MS (S)	Ethylbenzene	Container with Headspace provided for volatiles analysis
4674296	C1	3.00 - 3.50	SOLID	VOC MS (S)	Naphthalene	Container with Headspace provided for volatiles analysis
4674296	C1	3.00 - 3.50	SOLID	VOC MS (S)	o-Xylene	Container with Headspace provided for volatiles analysis
4674296	C1	3.00 - 3.50	SOLID	VOC MS (S)	p/m-Xylene	Container with Headspace provided for volatiles analysis
4674296	C1	3.00 - 3.50	SOLID	VOC MS (S)	Toluene	Container with Headspace provided for volatiles analysis
4632180	B1	0.20 - 1.00	SOLID	pH	pH	Sample holding time exceeded
4633599	B1	2.10 - 2.30	SOLID	pH	pH	Sample holding time exceeded
4637993	A1	0.30 - 1.00	SOLID	pH	pH	Sample holding time exceeded
4638079	A2	0.00 - 1.00	SOLID	pH	pH	Sample holding time exceeded

Note : Test results may be compromised

CERTIFICATE OF ANALYSIS

SDG:	111028-110	**Location:**	Limerick Gasworks	**Order Number:**	4700000740
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	159093
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Table of Results - Appendix

REPORT KEY

Results expressed as (e.g.) 1.03E-07 is equivalent to 1.03x10-7

NDP	No Determination Possible	#	ISO 17025 Accredited	*	Subcontracted Test	M	MCERTS Accredited
NFD	No Fibres Detected	PFD	Possible Fibres Detected	»	Result previously reported (Incremental reports only)	EC	Equivalent Carbon (Aromatics C8-C35)

Note: Method detection limits are not always achievable due to various circumstances beyond our control

Method No	Reference	Description	Wet/Dry Sample [1]	Surrogate Corrected
PM001		Preparation of Samples for Metals Analysis		
PM024	Modified BS 1377	Soil preparation including homogenisation, moisture screens of soils for Asbestos Containing Material		
TM024	Method 4500A & B, AWWA/APHA, 20th Ed., 1999	Determination of Exchangeable Ammonium and Ammoniacal Nitrogen as N by titration on solids		
TM048	HSG 248, Asbestos: The analysts' guide for sampling, analysis and clearance procedures	Identification of Asbestos in Bulk Material		
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		
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		
TM133	BS 1377: Part 3 1990;BS 6068-2.5	Determination of pH in Soil and Water using the GLpH pH Meter		
TM151	Method 3500D, AWWA/APHA, 20th Ed., 1999	Determination of Hexavalent Chromium using Kone analyser		
TM153	Method 4500A,B,C, I, M AWWA/APHA, 20th Ed., 1999	Determination of Total Cyanide, Free (Easily Liberatable) Cyanide and Thiocyanate using the Skalar SANS+ System Segmented Flow Analyser		
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		
TM180	Sulphide in waters and waste waters 1991 ISBN 01 175 7186 SCA rec. 2007 (unpublished)'	The Determination Of Easily Liberated Sulphide In Soil Samples by Ion Selective Electrode Technique		
TM181	US EPA Method 6010B	Determination of Routine Metals in Soil by iCap 6500 Duo ICP-OES		
TM218	Microwave extraction – EPA method 3546	Microwave extraction - EPA method 3546		
TM221	Inductively Coupled Plasma - Atomic Emission Spectroscopy. An Atlas of Spectral Information: Winge, Fassel, Peterson and Floyd	Determination of Acid extractable Sulphate in Soils by IRIS Emission Spectrometer		

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

CERTIFICATE OF ANALYSIS

SDG:	111028-110	**Location:**	Limerick Gasworks	**Order Number:**	4700000740
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	159093
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Test Completion Dates

Lab Sample No(s)	4599760	4599761	4599755	4599756	4599762	4599763	4599765	4599766	4599767
Customer Sample Ref.	A1	A1	A2	A2	B1	B1	C1	C1	C1
AGS Ref.									
Depth	0.30 - 1.00	1.00 - 2.00	0.00 - 1.00	1.00 - 2.00	0.20 - 1.00	2.10 - 2.30	0.20 - 1.00	2.80 - 3.00	3.00 - 3.50
Type	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID
Ammonium Soil by Titration	07-Nov-2011	07-Nov-2011	07-Nov-2011	07-Nov-2011	07-Nov-2011	07-Nov-2011	07-Nov-2011	07-Nov-2011	07-Nov-2011
Asbestos Identification (Soil)	03-Nov-2011		03-Nov-2011			03-Nov-2011	03-Nov-2011		
Cyanide Comp/Free/Total/Thiocyanate	08-Nov-2011	04-Nov-2011	08-Nov-2011	04-Nov-2011	04-Nov-2011	07-Nov-2011	07-Nov-2011	04-Nov-2011	04-Nov-2011
Easily Liberated Sulphide	08-Nov-2011	07-Nov-2011	08-Nov-2011	08-Nov-2011	07-Nov-2011	08-Nov-2011	08-Nov-2011	08-Nov-2011	08-Nov-2011
EPH CWG (Aliphatic) GC (S)	07-Nov-2011	08-Nov-2011	07-Nov-2011	08-Nov-2011	08-Nov-2011	07-Nov-2011	07-Nov-2011	08-Nov-2011	07-Nov-2011
EPH CWG (Aromatic) GC (S)	07-Nov-2011	08-Nov-2011	07-Nov-2011	08-Nov-2011	08-Nov-2011	07-Nov-2011	07-Nov-2011	08-Nov-2011	07-Nov-2011
GRO by GC-FID (S)	07-Nov-2011	07-Nov-2011	07-Nov-2011	07-Nov-2011	07-Nov-2011	07-Nov-2011	07-Nov-2011	07-Nov-2011	08-Nov-2011
Hexavalent Chromium (s)	07-Nov-2011	05-Nov-2011	07-Nov-2011	05-Nov-2011	05-Nov-2011	05-Nov-2011	05-Nov-2011	05-Nov-2011	05-Nov-2011
Metals by iCap-OES (Soil)	08-Nov-2011	08-Nov-2011	08-Nov-2011	08-Nov-2011	08-Nov-2011	08-Nov-2011	08-Nov-2011	08-Nov-2011	08-Nov-2011
PAH by GCMS	08-Nov-2011	07-Nov-2011	08-Nov-2011	07-Nov-2011	07-Nov-2011	08-Nov-2011	08-Nov-2011	07-Nov-2011	07-Nov-2011
PCBs by GCMS	07-Nov-2011			07-Nov-2011		07-Nov-2011			07-Nov-2011
pH	07-Nov-2011	03-Nov-2011	07-Nov-2011	03-Nov-2011	07-Nov-2011	07-Nov-2011	07-Nov-2011	03-Nov-2011	03-Nov-2011
Phenols by HPLC (S)	07-Nov-2011	07-Nov-2011	07-Nov-2011	07-Nov-2011	07-Nov-2011	08-Nov-2011	08-Nov-2011	07-Nov-2011	04-Nov-2011
Sample description	04-Nov-2011	03-Nov-2011	04-Nov-2011	03-Nov-2011	03-Nov-2011	04-Nov-2011	04-Nov-2011	03-Nov-2011	03-Nov-2011
Total Sulphate	04-Nov-2011	07-Nov-2011	04-Nov-2011	07-Nov-2011	07-Nov-2011	04-Nov-2011	04-Nov-2011	07-Nov-2011	07-Nov-2011
TPH CWG GC (S)	07-Nov-2011	08-Nov-2011	07-Nov-2011	08-Nov-2011	08-Nov-2011	07-Nov-2011	07-Nov-2011	08-Nov-2011	08-Nov-2011
VOC MS (S)		10-Nov-2011		08-Nov-2011					11-Nov-2011

CERTIFICATE OF ANALYSIS

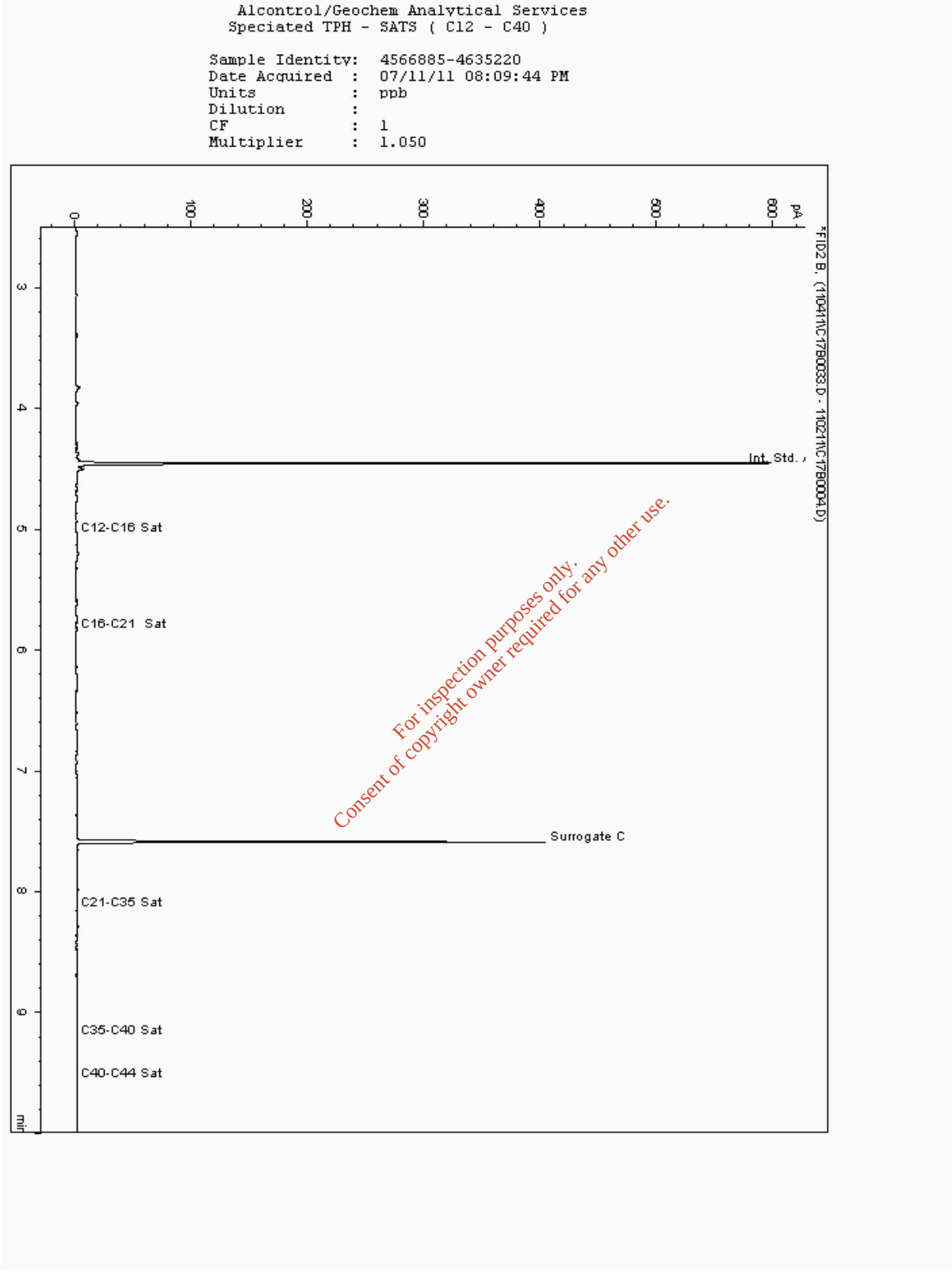
SDG:	111028-110	**Location:**	Limerick Gasworks	**Order Number:**	4700000740
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	159093
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: EPH CWG (Aliphatic) GC (S)

Sample No : 4635220
Sample ID : A1

Depth : 0.30 - 1.00



CERTIFICATE OF ANALYSIS

SDG:	111028-110	**Location:**	Limerick Gasworks	**Order Number:**	4700000740
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	159093
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

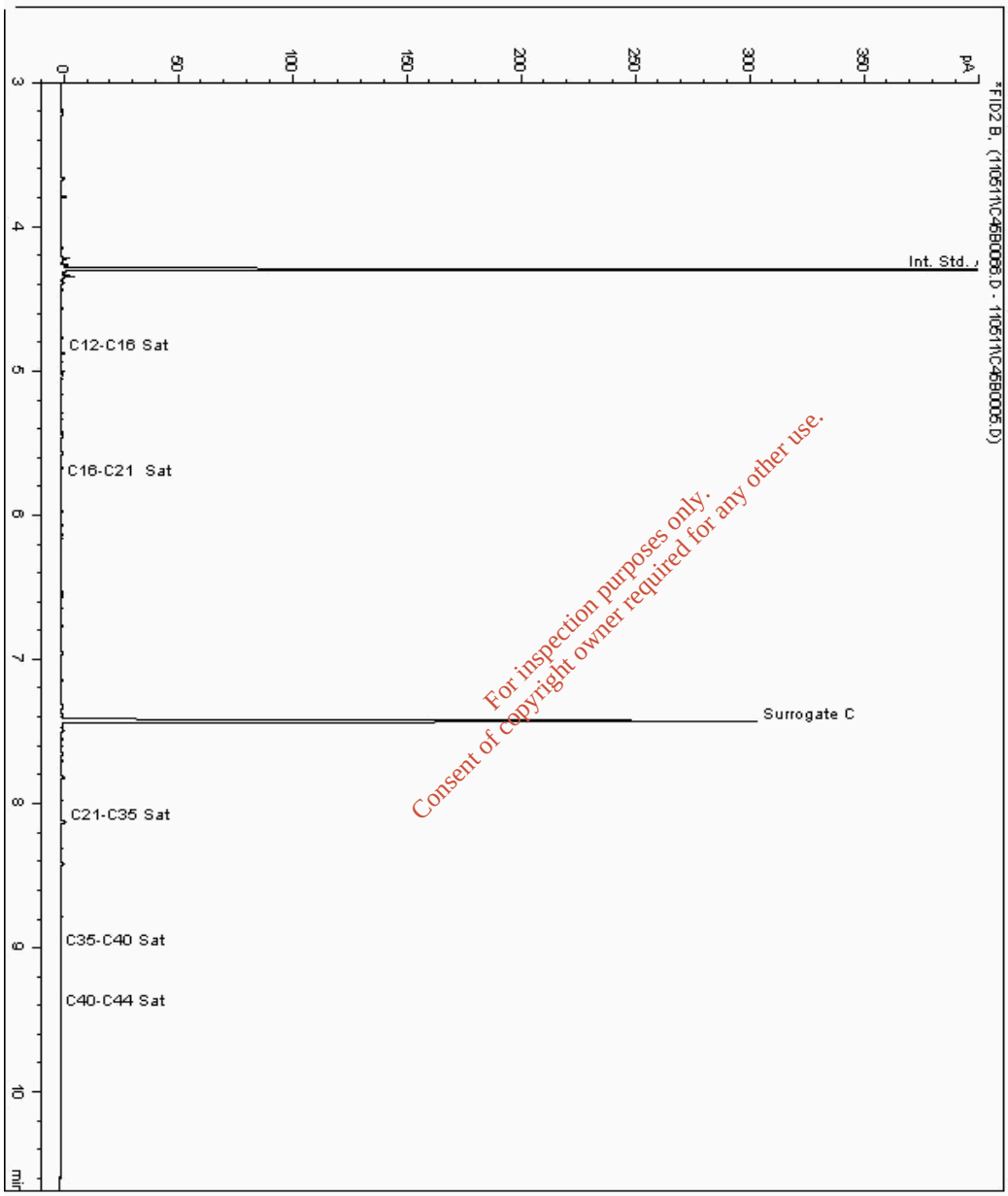
Analysis: EPH CWG (Aliphatic) GC (S)

Sample No : 4635619
Sample ID : B1

Depth : 2.10 - 2.30

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

Sample Identity: 4567010-4635619
Date Acquired : 06/11/11 08:05:53 PM
Units : ppb
Dilution:



CERTIFICATE OF ANALYSIS

SDG:	111028-110	**Location:**	Limerick Gasworks	**Order Number:**	4700000740
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	159093
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

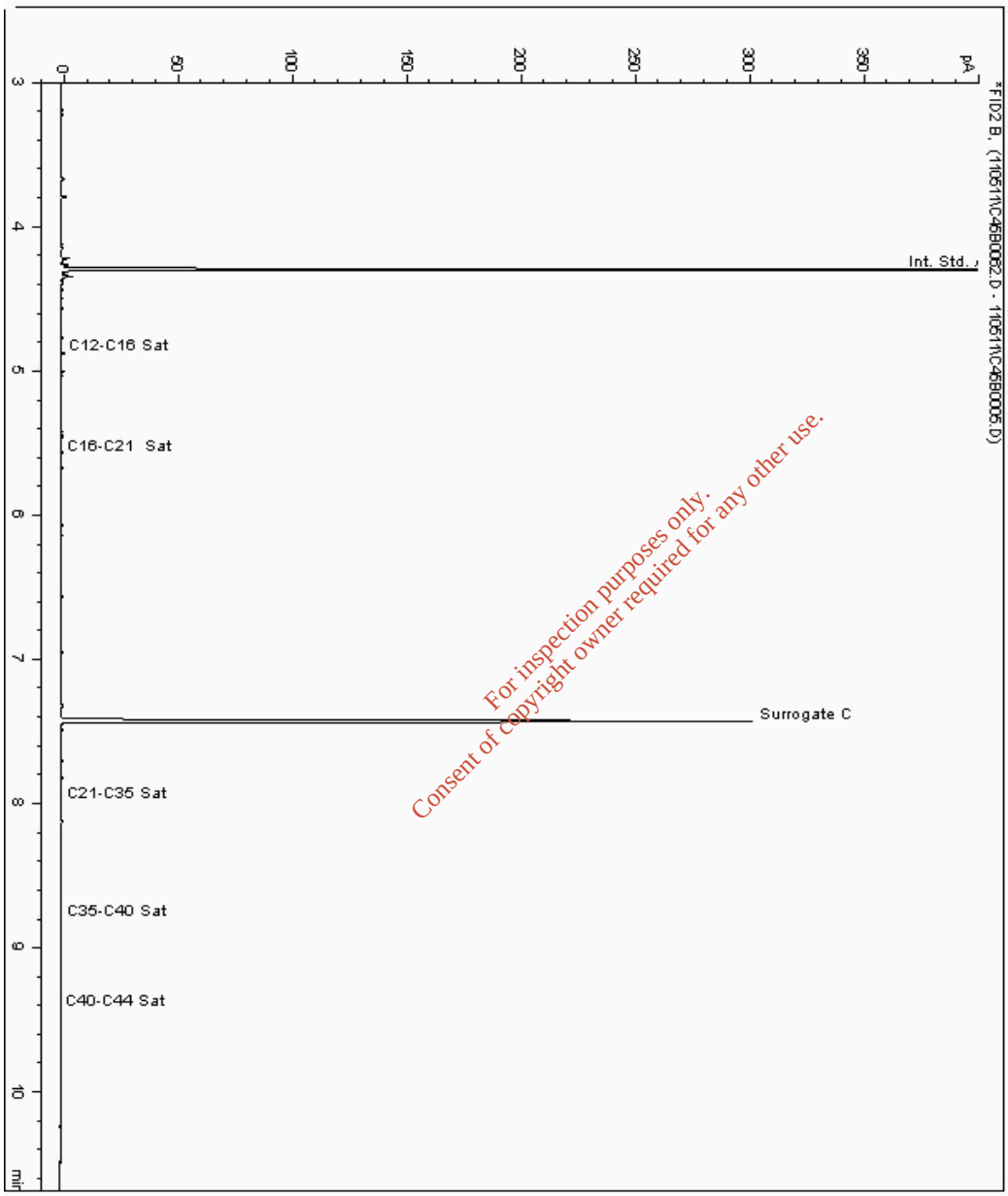
Analysis: EPH CWG (Aliphatic) GC (S)

Sample No : 4635686
Sample ID : C1

Depth : 0.20 - 1.00

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

Sample Identity: 4567074-4635686
Date Acquired : 06/11/11 06:55:08 PM
Units : ppb
Dilution:



CERTIFICATE OF ANALYSIS

SDG:	111028-110	**Location:**	Limerick Gasworks	**Order Number:**	4700000740
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	159093
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

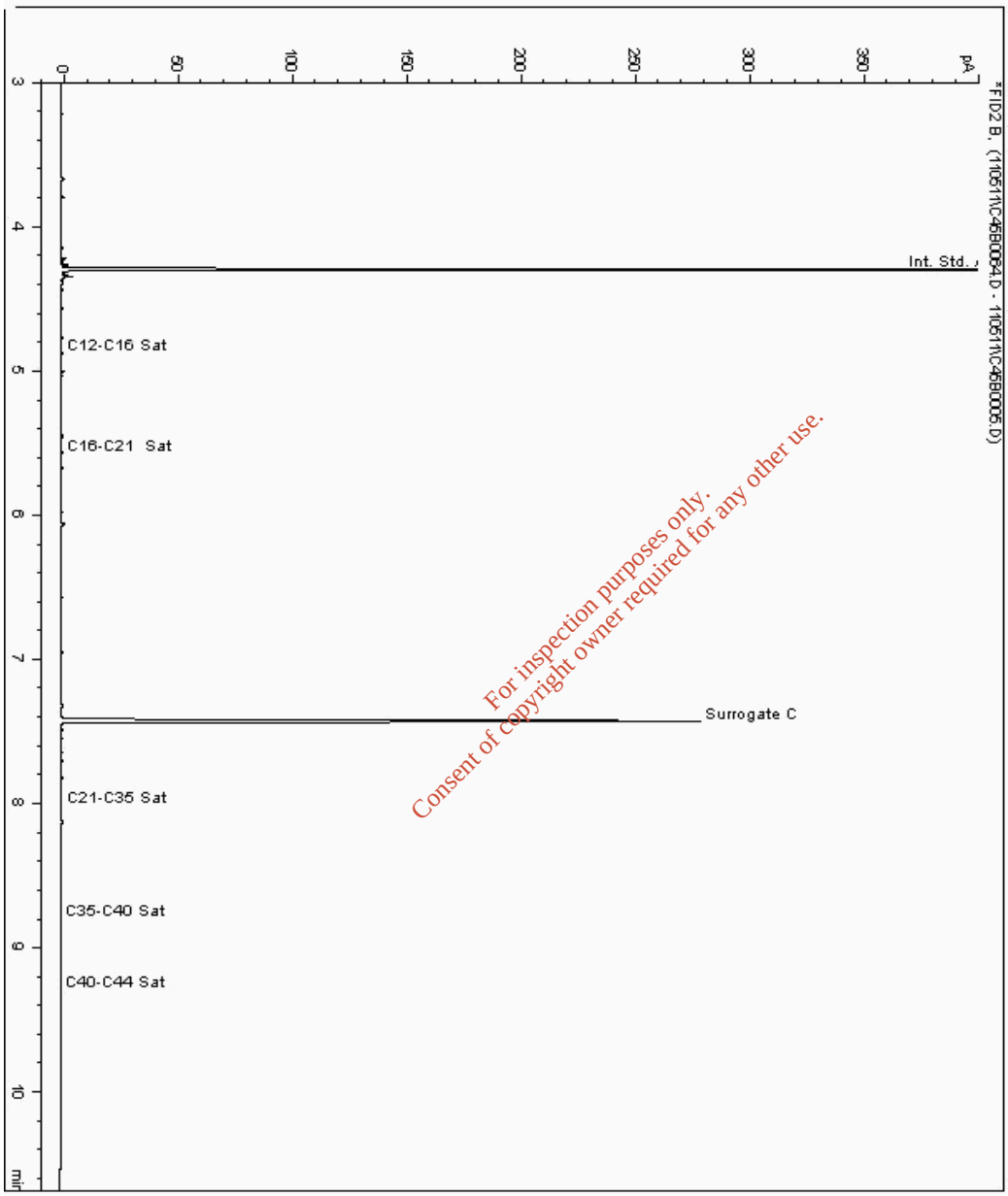
Analysis: EPH CWG (Aliphatic) GC (S)

Sample No : 4635773
Sample ID : A2

Depth : 0.00 - 1.00

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

Sample Identity: 4566781-4635773
Date Acquired : 06/11/11 07:25:32 PM
Units : ppb
Dilution:



CERTIFICATE OF ANALYSIS

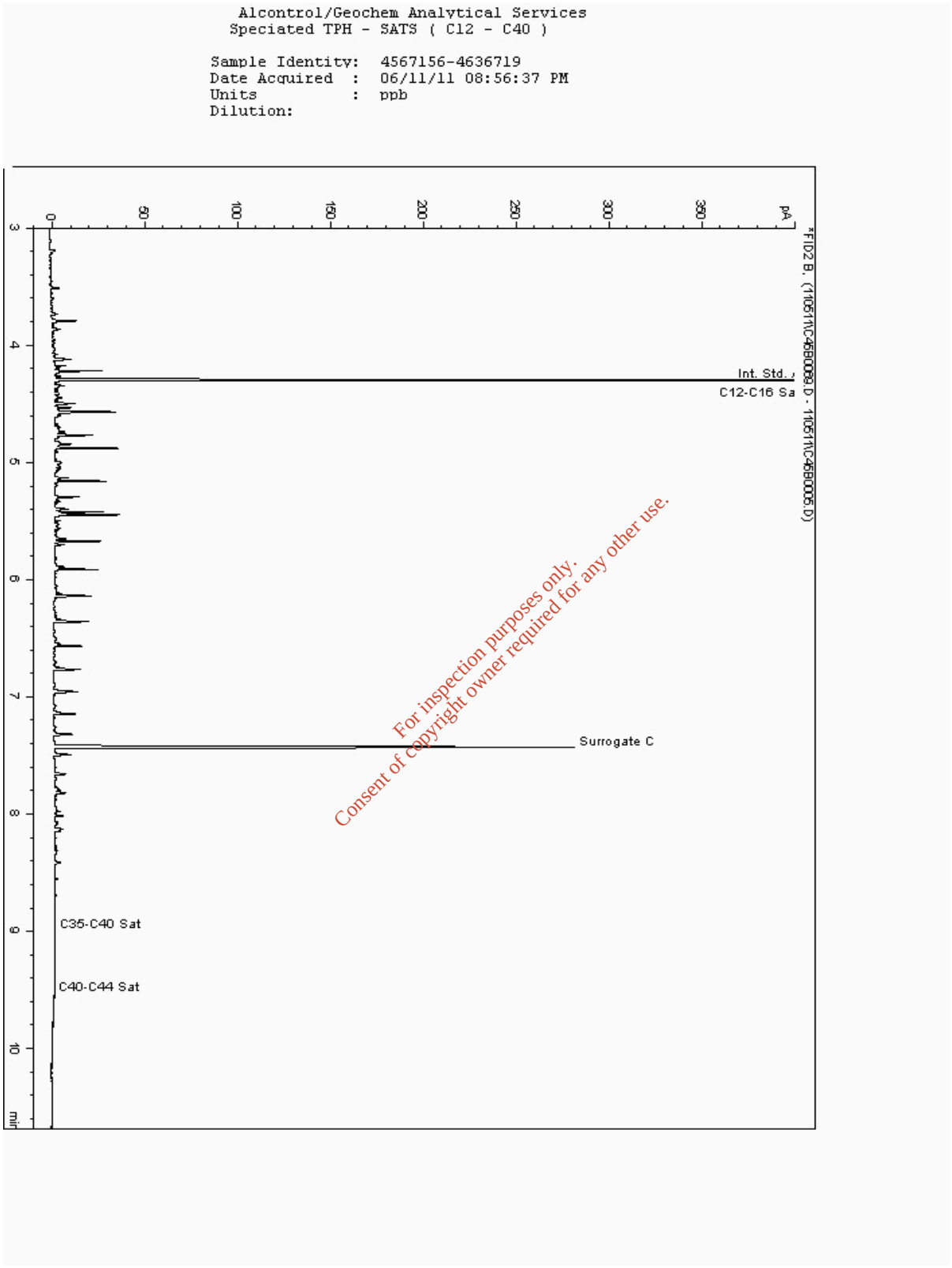
SDG:	111028-110	**Location:**	Limerick Gasworks	**Order Number:**	4700000740
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	159093
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: EPH CWG (Aliphatic) GC (S)

Sample No : 4636719
Sample ID : C1

Depth : 3.00 - 3.50



CERTIFICATE OF ANALYSIS

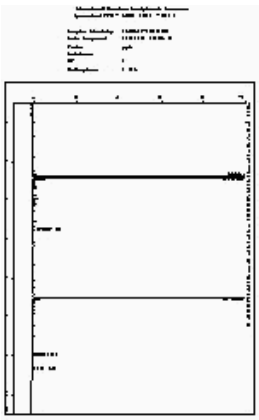
SDG:	111028-110	**Location:**	Limerick Gasworks	**Order Number:**	4700000740
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	159093
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: EPH CWG (Aliphatic) GC (S)

Sample No : 4642466
Sample ID : B1

Depth : 0.20 - 1.00



CERTIFICATE OF ANALYSIS

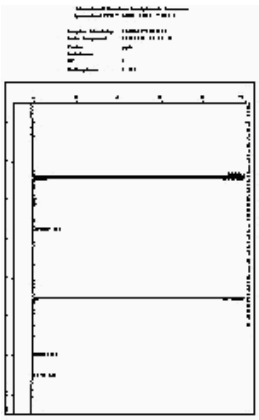
SDG:	111028-110	**Location:**	Limerick Gasworks	**Order Number:**	4700000740
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	159093
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: EPH CWG (Aliphatic) GC (S)

Sample No : 4642488
Sample ID : A1

Depth : 1.00 - 2.00



CERTIFICATE OF ANALYSIS

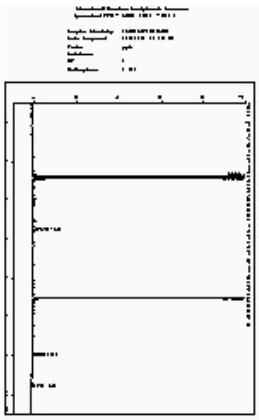
SDG:	111028-110	**Location:**	Limerick Gasworks	**Order Number:**	4700000740
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	159093
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: EPH CWG (Aliphatic) GC (S)

Sample No : 4642566
Sample ID : A2

Depth : 1.00 - 2.00



CERTIFICATE OF ANALYSIS

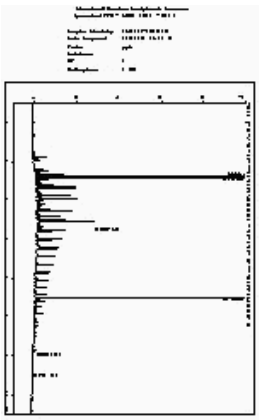
SDG:	111028-110	**Location:**	Limerick Gasworks	**Order Number:**	4700000740
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	159093
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: EPH CWG (Aliphatic) GC (S)

Sample No : 4642706
Sample ID : C1

Depth : 2.80 - 3.00



CERTIFICATE OF ANALYSIS

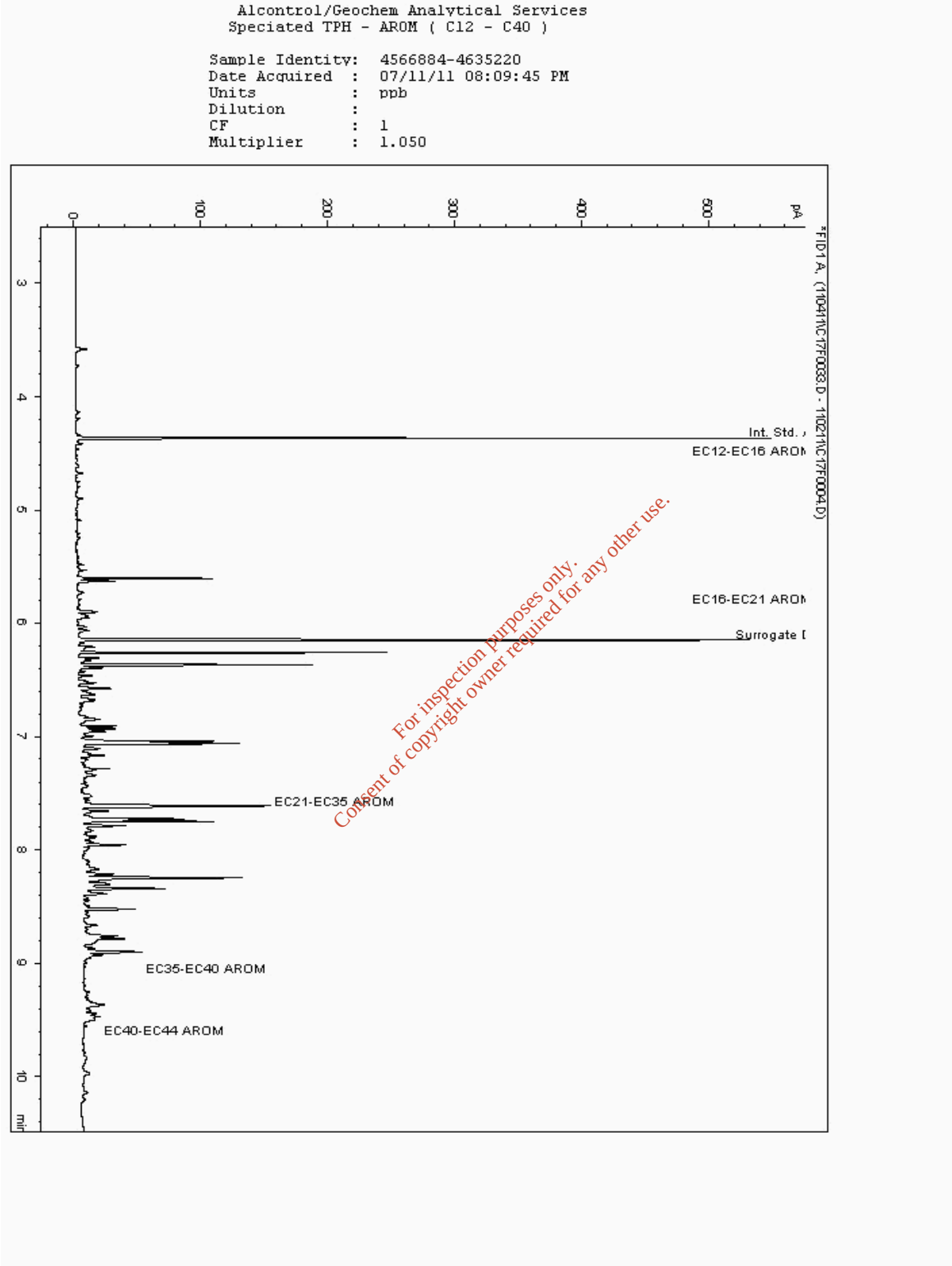
SDG:	111028-110	**Location:**	Limerick Gasworks	**Order Number:**	4700000740
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	159093
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: EPH CWG (Aromatic) GC (S)

Sample No : 4635220
Sample ID : A1

Depth : 0.30 - 1.00



CERTIFICATE OF ANALYSIS

SDG:	111028-110	**Location:**	Limerick Gasworks	**Order Number:**	4700000740
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	159093
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

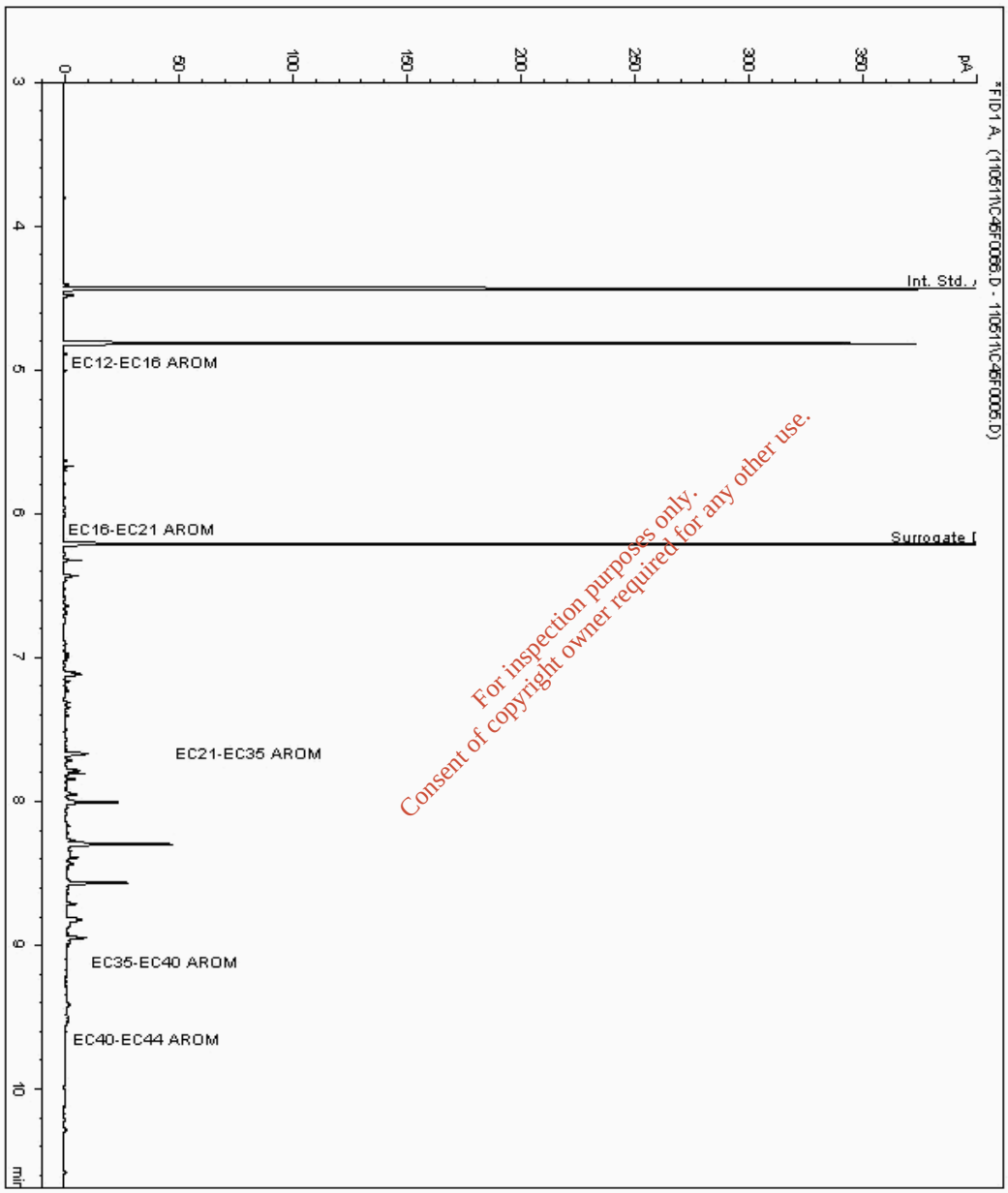
Analysis: EPH CWG (Aromatic) GC (S)

Sample No : 4635619
Sample ID : B1

Depth : 2.10 - 2.30

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

Sample Identity: 4567009-4635619
Date Acquired : 06/11/11 08:05:53 PM
Units : ppb
Dilution:



CERTIFICATE OF ANALYSIS

SDG:	111028-110	**Location:**	Limerick Gasworks	**Order Number:**	4700000740
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	159093
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

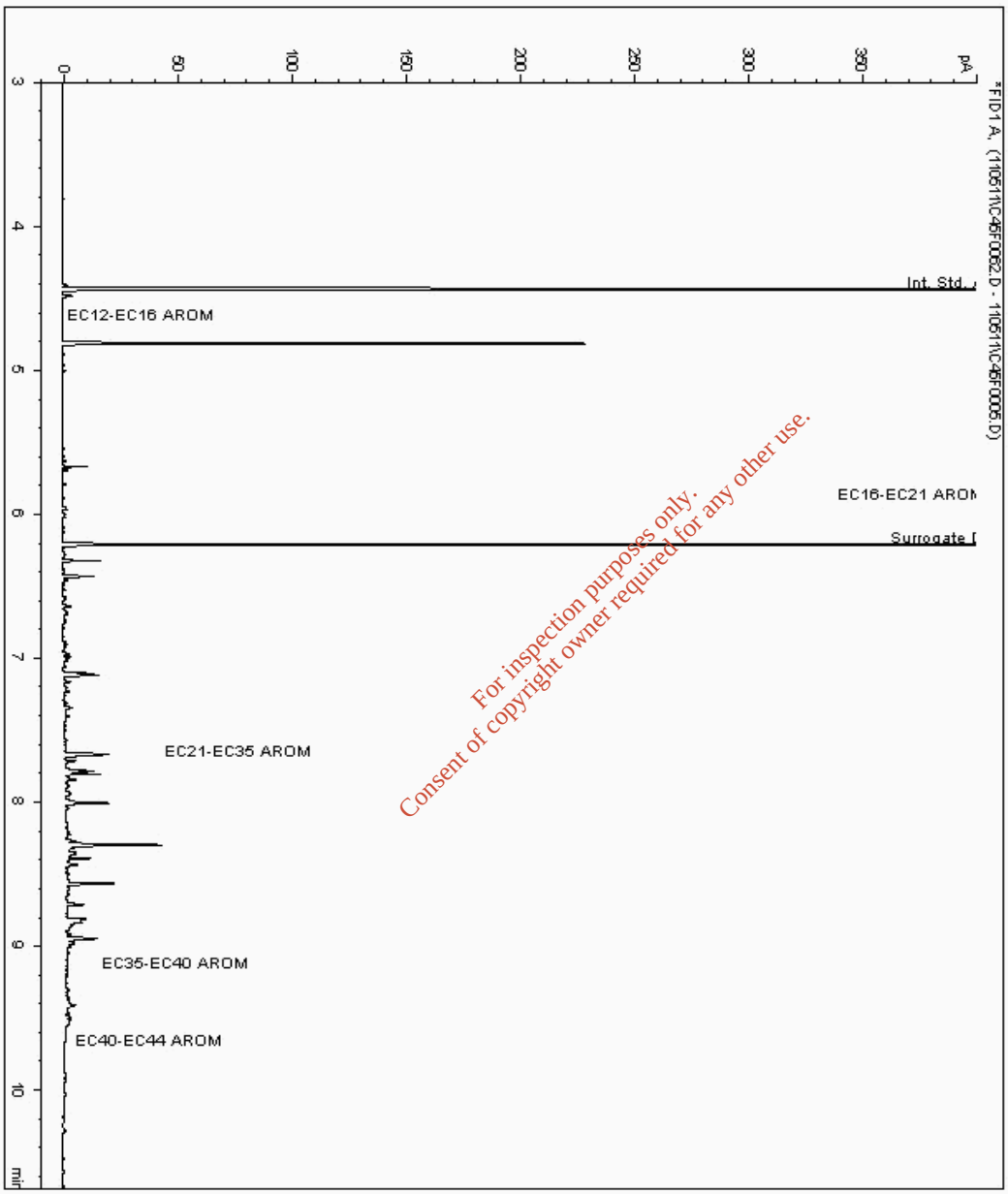
Analysis: EPH CWG (Aromatic) GC (S)

Sample No : 4635686
Sample ID : C1

Depth : 0.20 - 1.00

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

Sample Identity: 4567073-4635686
Date Acquired : 06/11/11 06:55:08 PM
Units : ppb
Dilution:



CERTIFICATE OF ANALYSIS

SDG:	111028-110	**Location:**	Limerick Gasworks	**Order Number:**	4700000740
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	159093
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

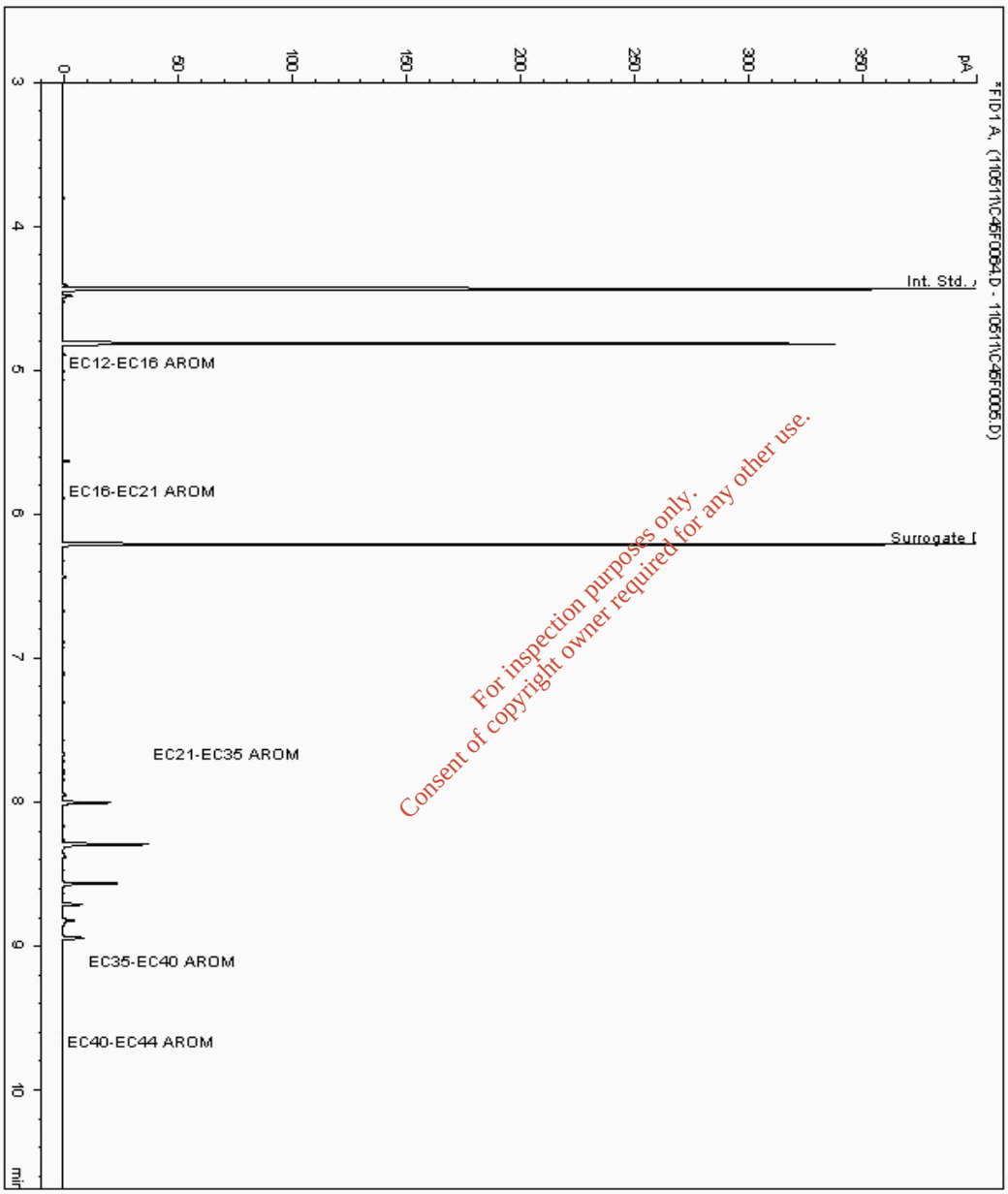
Analysis: EPH CWG (Aromatic) GC (S)

Sample No : 4635773
Sample ID : A2

Depth : 0.00 - 1.00

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

Sample Identity: 4566780-4635773
Date Acquired : 06/11/11 07:25:32 PM
Units : ppb
Dilution:



CERTIFICATE OF ANALYSIS

SDG:	111028-110	**Location:**	Limerick Gasworks	**Order Number:**	4700000740
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	159093
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

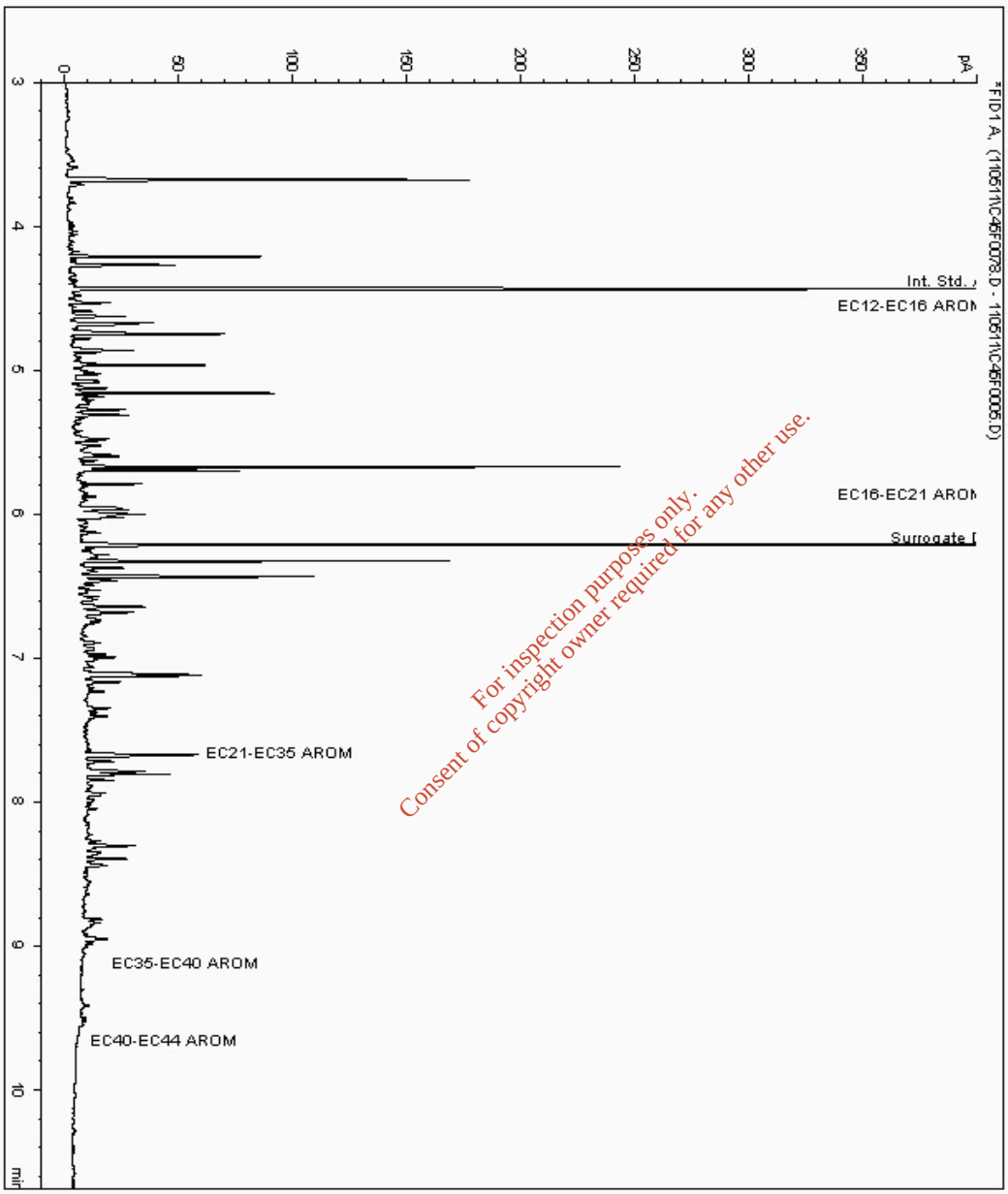
Analysis: EPH CWG (Aromatic) GC (S)

Sample No : 4636719
Sample ID : C1

Depth : 3.00 - 3.50

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

Sample Identity: 4567155-4636719
Date Acquired : 07/11/11 11:04:47 PM
Units : ppb
Dilution:



CERTIFICATE OF ANALYSIS

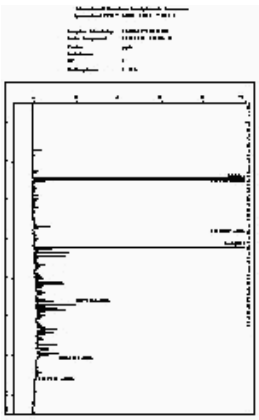
SDG:	111028-110	**Location:**	Limerick Gasworks	**Order Number:**	4700000740
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	159093
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: EPH CWG (Aromatic) GC (S)

Sample No : 4642466
Sample ID : B1

Depth : 0.20 - 1.00



CERTIFICATE OF ANALYSIS

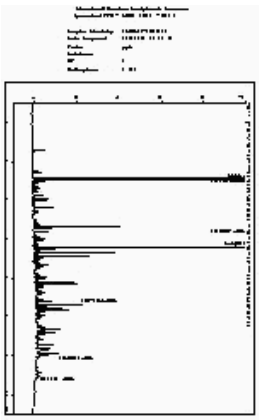
SDG:	111028-110	**Location:**	Limerick Gasworks	**Order Number:**	4700000740
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	159093
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: EPH CWG (Aromatic) GC (S)

Sample No : 4642488
Sample ID : A1

Depth : 1.00 - 2.00



CERTIFICATE OF ANALYSIS

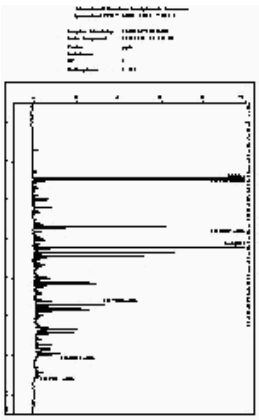
SDG:	111028-110	**Location:**	Limerick Gasworks	**Order Number:**	4700000740
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	159093
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: EPH CWG (Aromatic) GC (S)

Sample No : 4642566
Sample ID : A2

Depth : 1.00 - 2.00



CERTIFICATE OF ANALYSIS

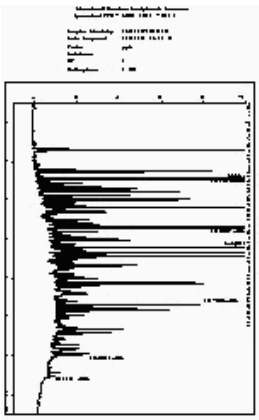
SDG:	111028-110	**Location:**	Limerick Gasworks	**Order Number:**	4700000740
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	159093
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: EPH CWG (Aromatic) GC (S)

Sample No : 4642706
Sample ID : C1

Depth : 2.80 - 3.00



CERTIFICATE OF ANALYSIS

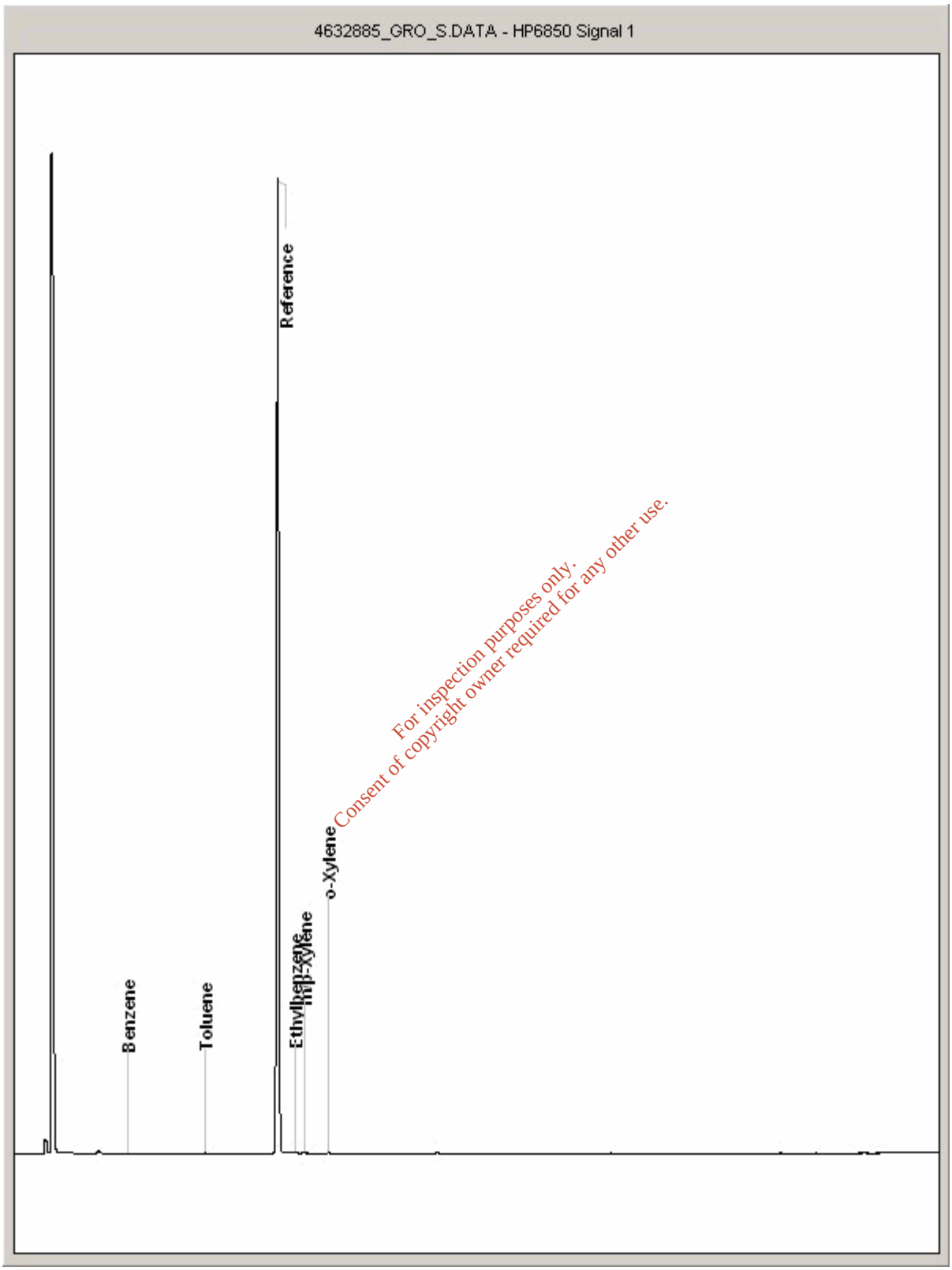
SDG:	111028-110	**Location:**	Limerick Gasworks	**Order Number:**	4700000740
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	159093
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (S)

Sample No : 4632885
Sample ID : A2

Depth : 0.00 - 1.00



CERTIFICATE OF ANALYSIS

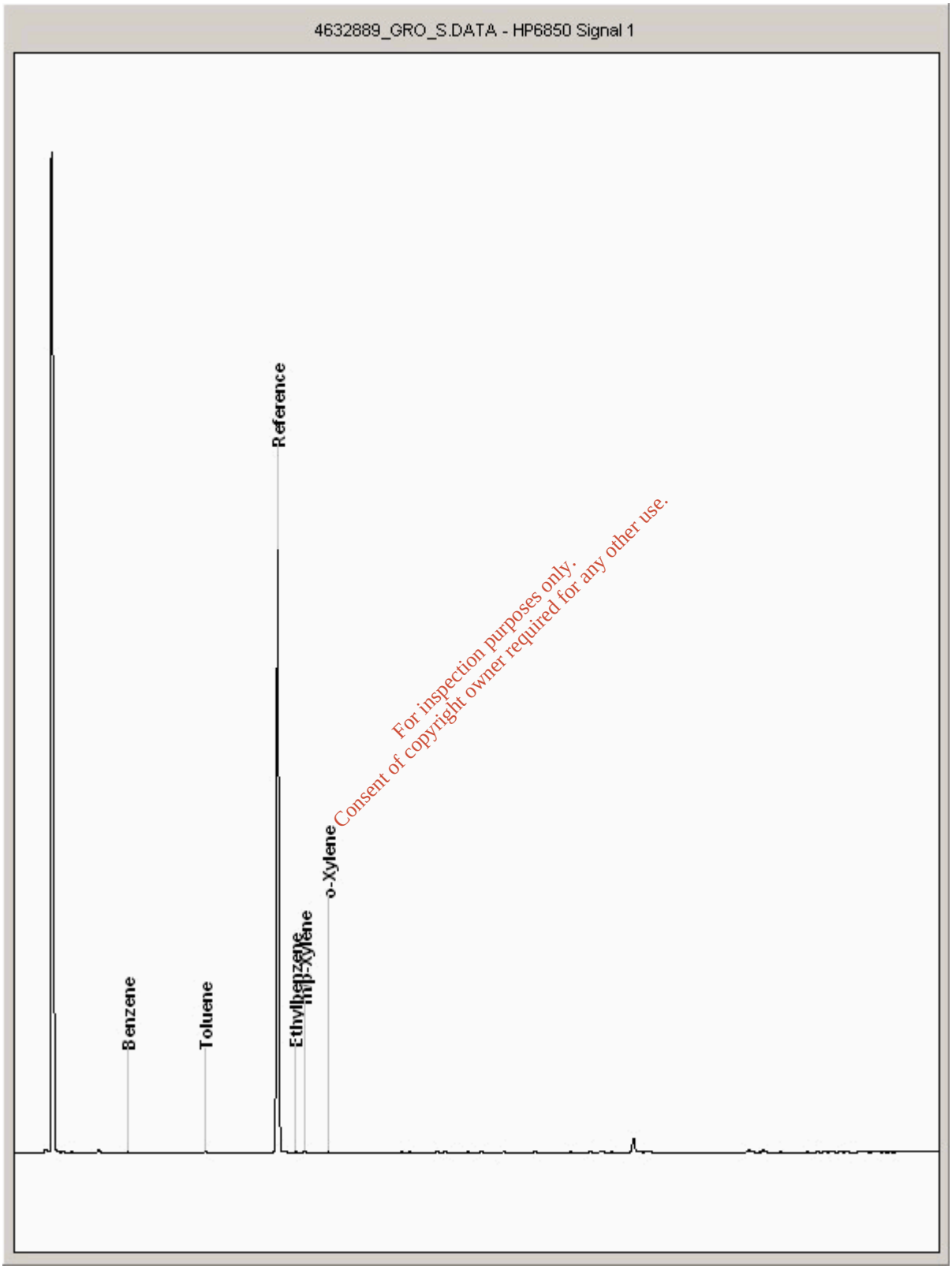
SDG:	111028-110	**Location:**	Limerick Gasworks	**Order Number:**	4700000740
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	159093
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (S)

Sample No : 4632889
Sample ID : A1

Depth : 0.30 - 1.00



CERTIFICATE OF ANALYSIS

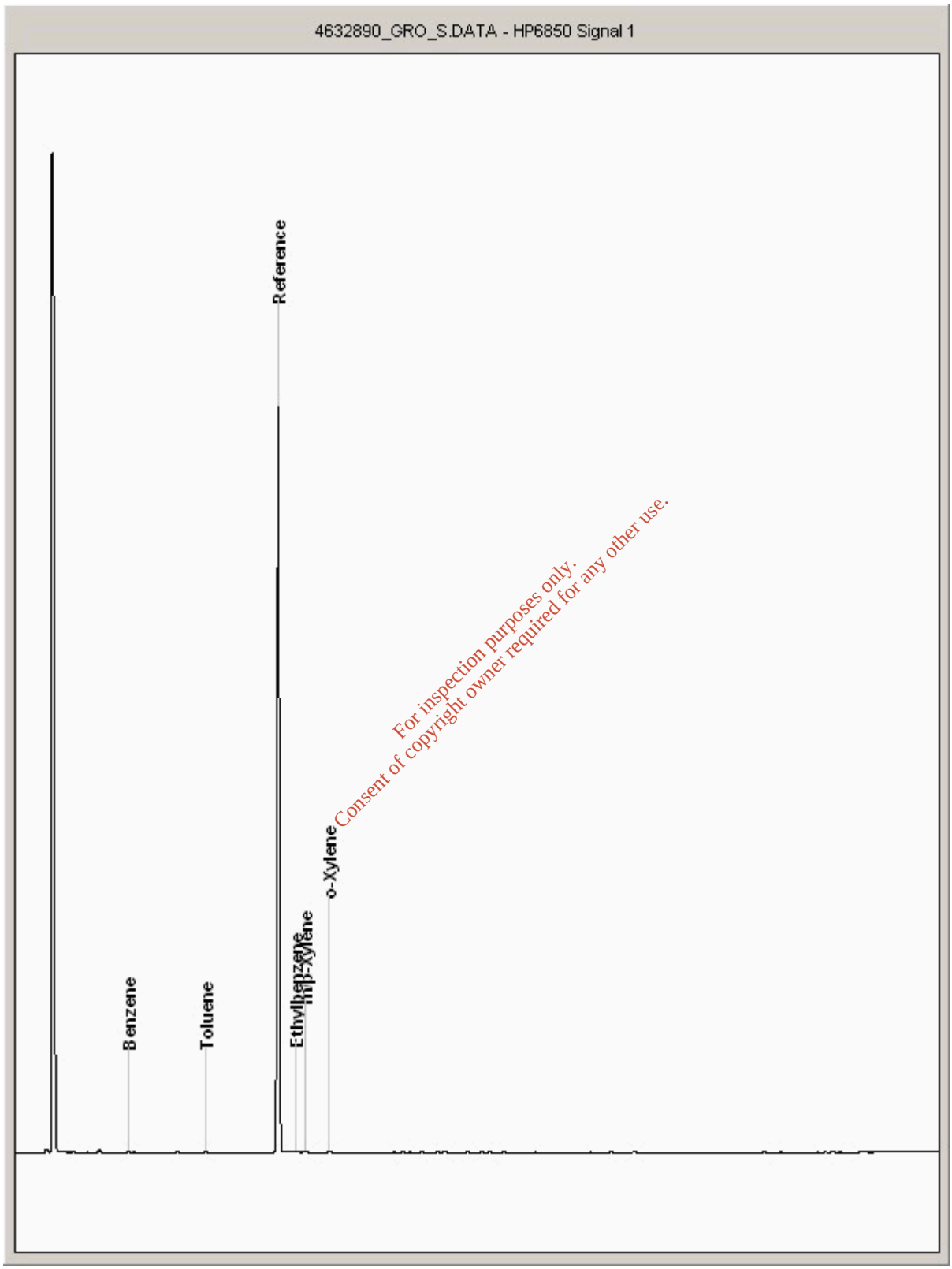
SDG:	111028-110	**Location:**	Limerick Gasworks	**Order Number:**	4700000740
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	159093
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (S)

Sample No : 4632890
Sample ID : B1

Depth : 2.10 - 2.30



CERTIFICATE OF ANALYSIS

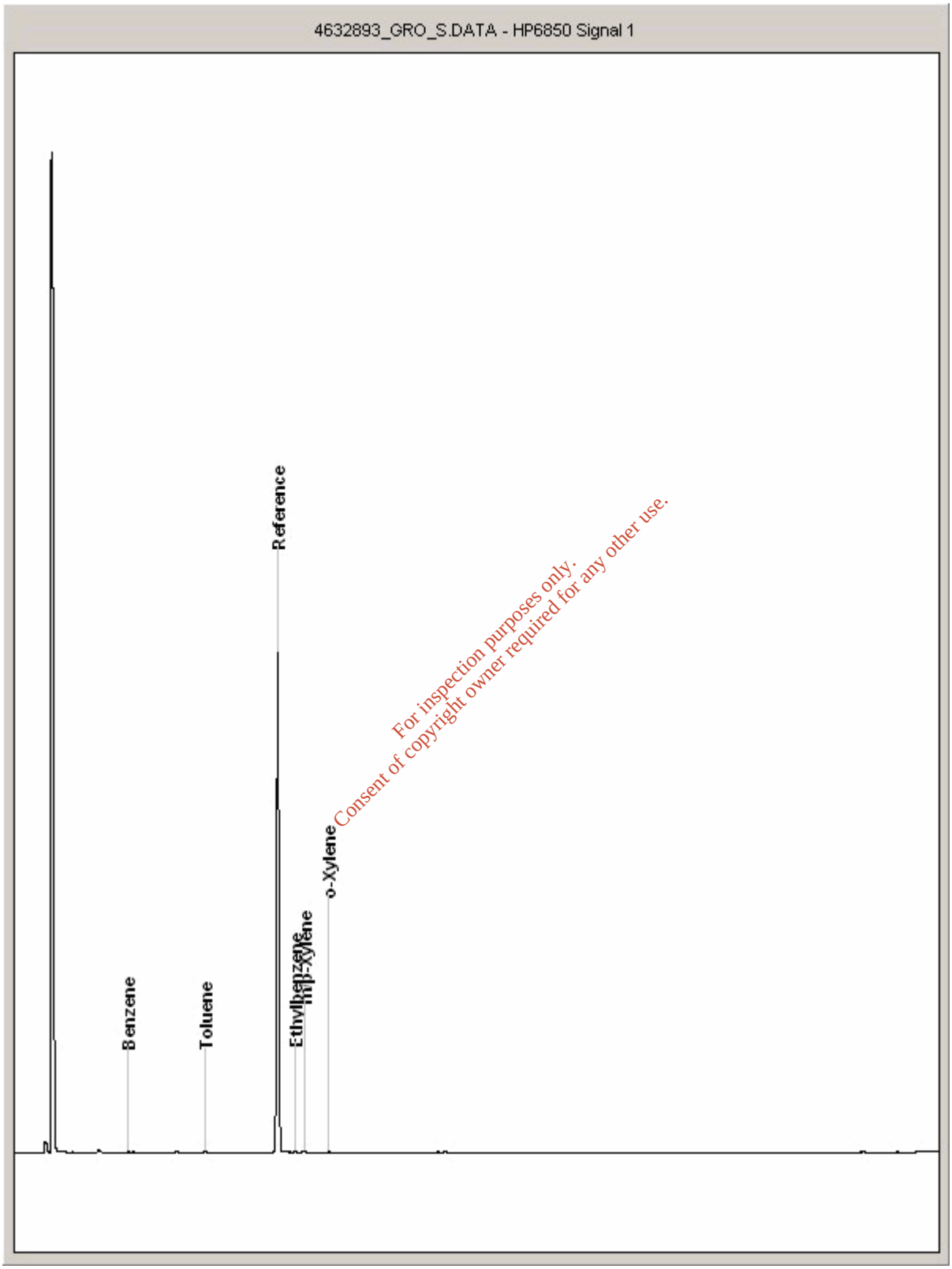
SDG:	111028-110	**Location:**	Limerick Gasworks	**Order Number:**	4700000740
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	159093
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (S)

Sample No : 4632893
Sample ID : C1

Depth : 0.20 - 1.00



CERTIFICATE OF ANALYSIS

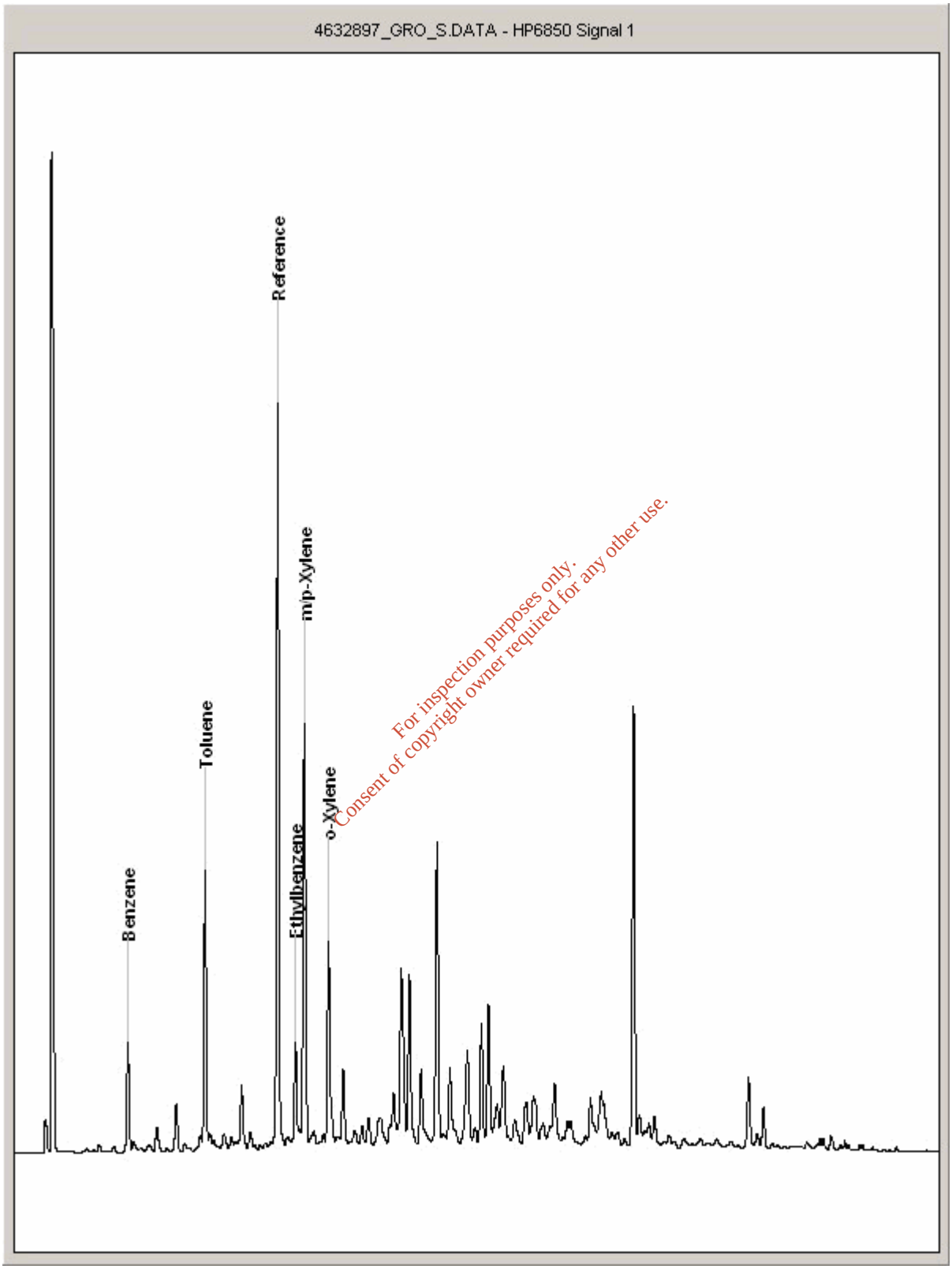
SDG:	111028-110	**Location:**	Limerick Gasworks	**Order Number:**	4700000740
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	159093
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (S)

Sample No : 4632897
Sample ID : C1

Depth : 2.80 - 3.00



CERTIFICATE OF ANALYSIS

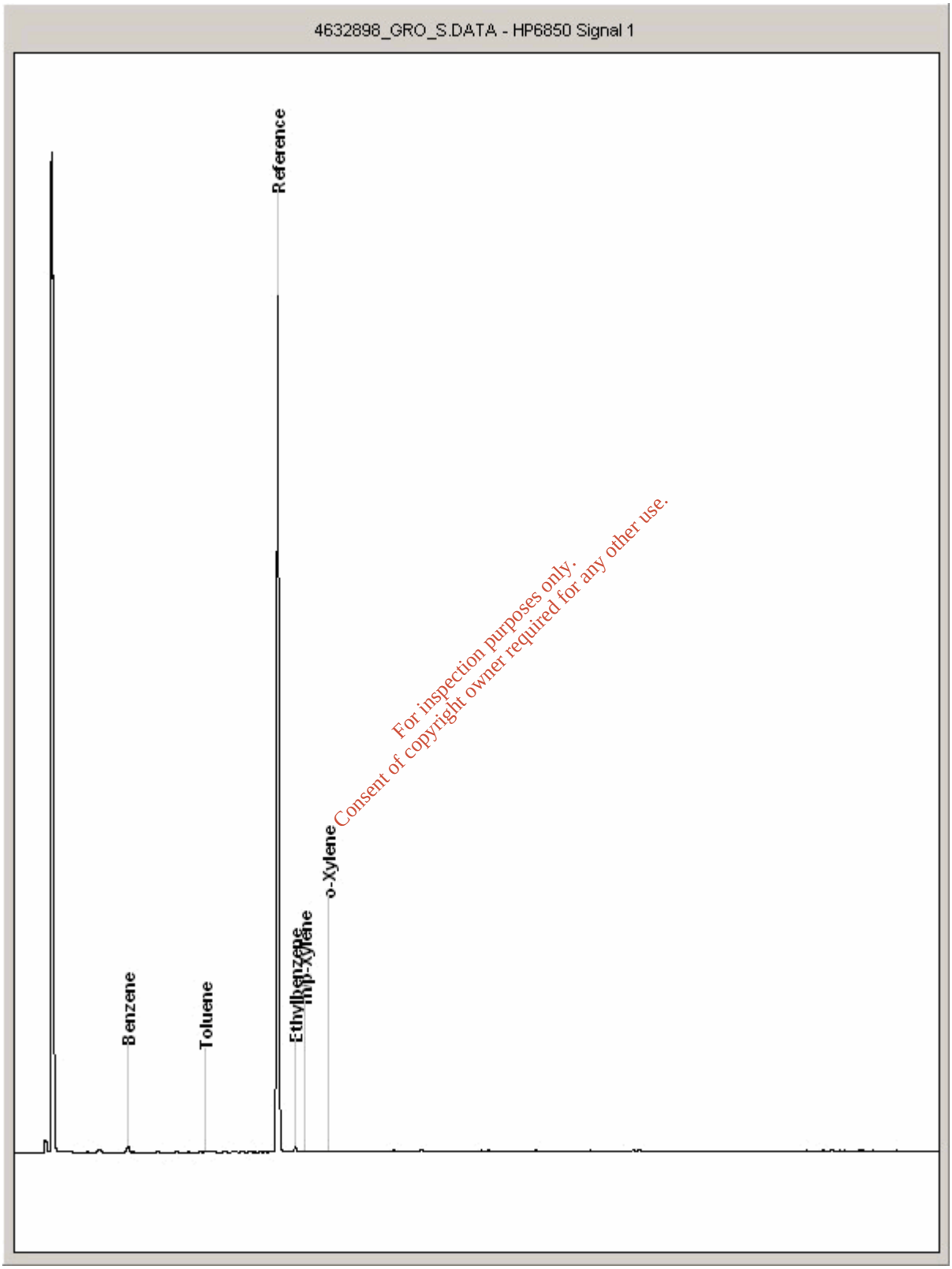
SDG:	111028-110	**Location:**	Limerick Gasworks	**Order Number:**	4700000740
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	159093
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (S)

Sample No : 4632898
Sample ID : A2

Depth : 1.00 - 2.00



CERTIFICATE OF ANALYSIS

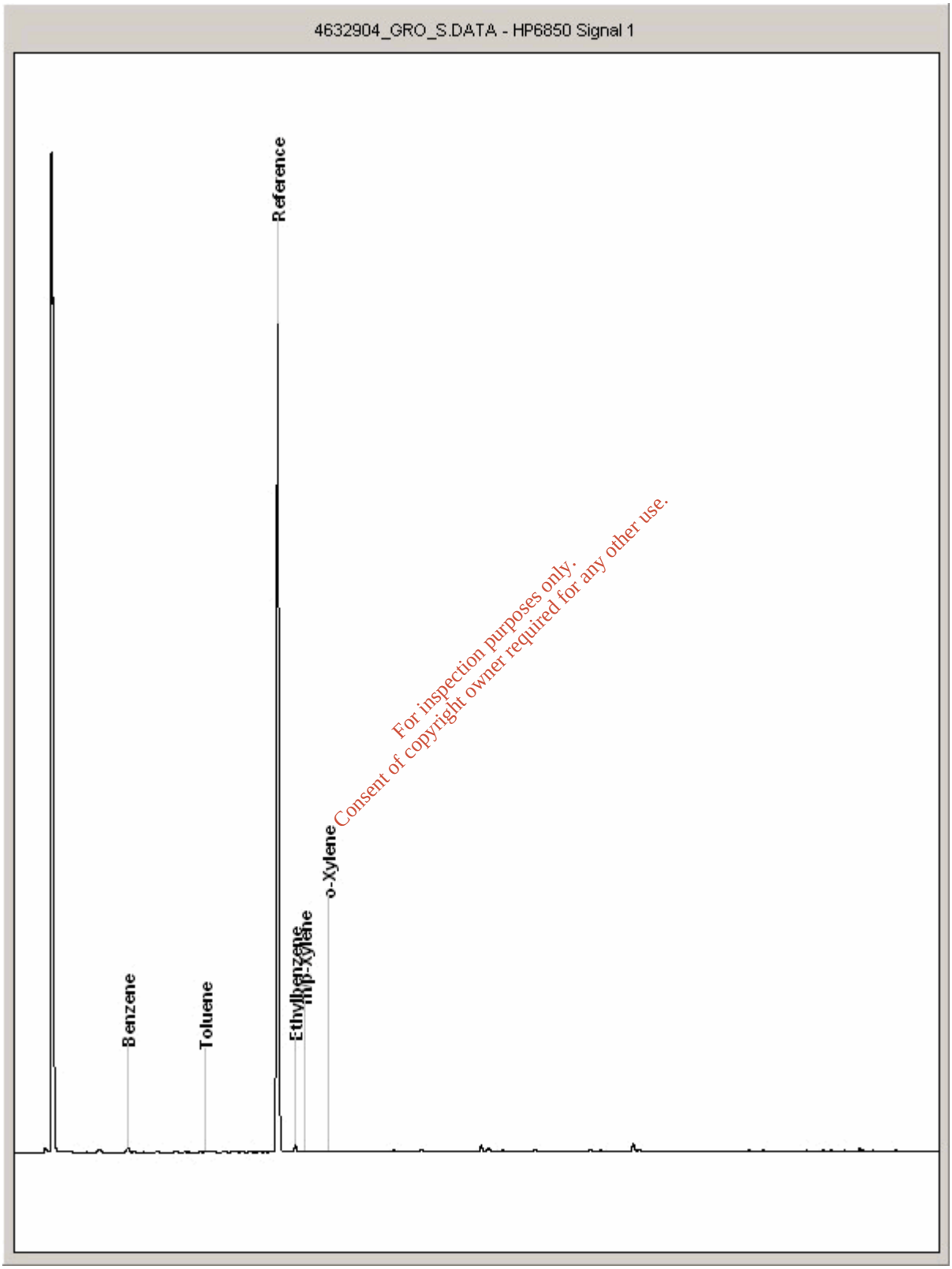
SDG:	111028-110	**Location:**	Limerick Gasworks	**Order Number:**	4700000740
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	159093
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (S)

Sample No : 4632904
Sample ID : A1

Depth : 1.00 - 2.00



CERTIFICATE OF ANALYSIS

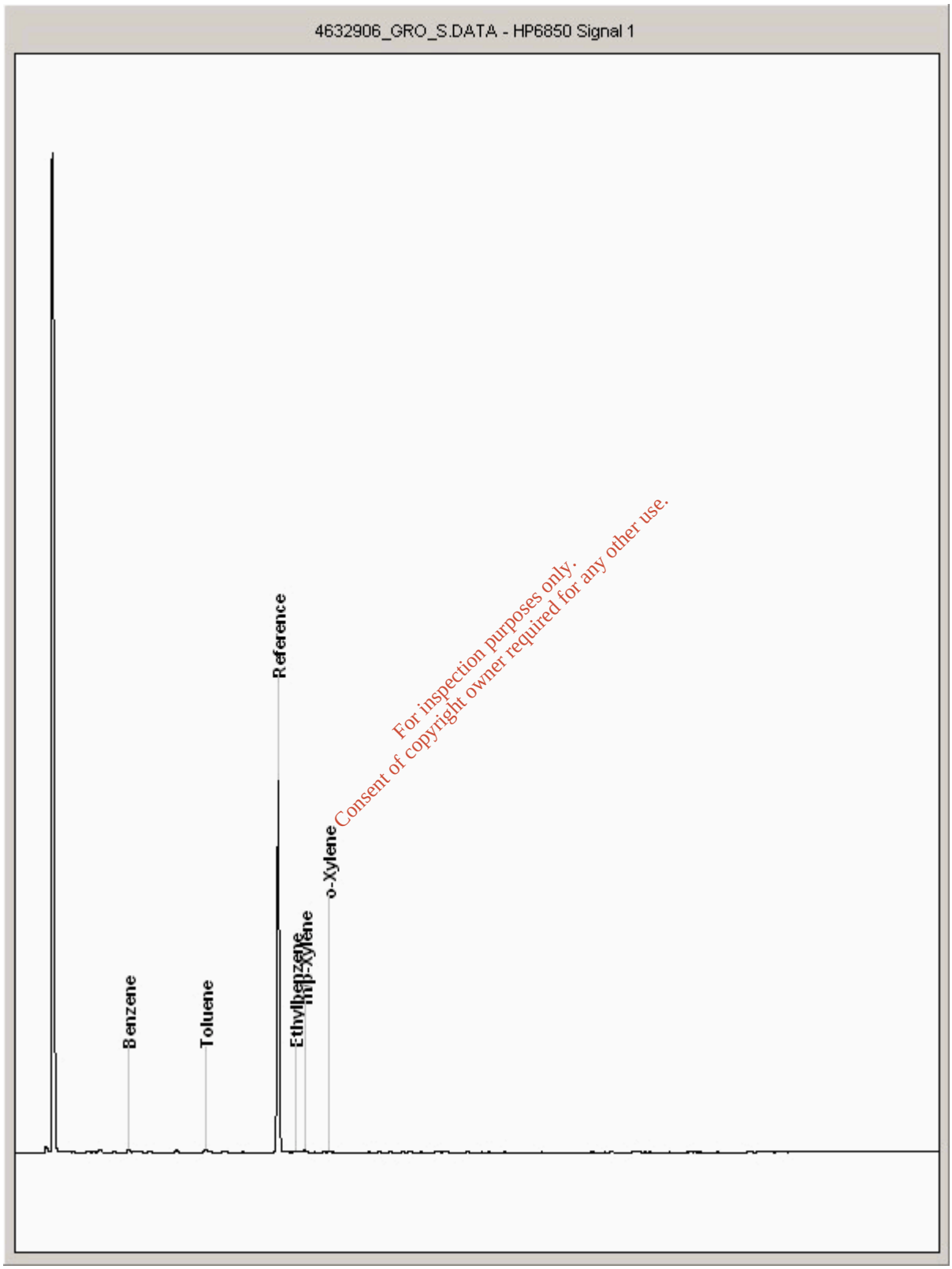
SDG:	111028-110	**Location:**	Limerick Gasworks	**Order Number:**	4700000740
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	159093
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (S)

Sample No : 4632906
Sample ID : B1

Depth : 0.20 - 1.00



CERTIFICATE OF ANALYSIS

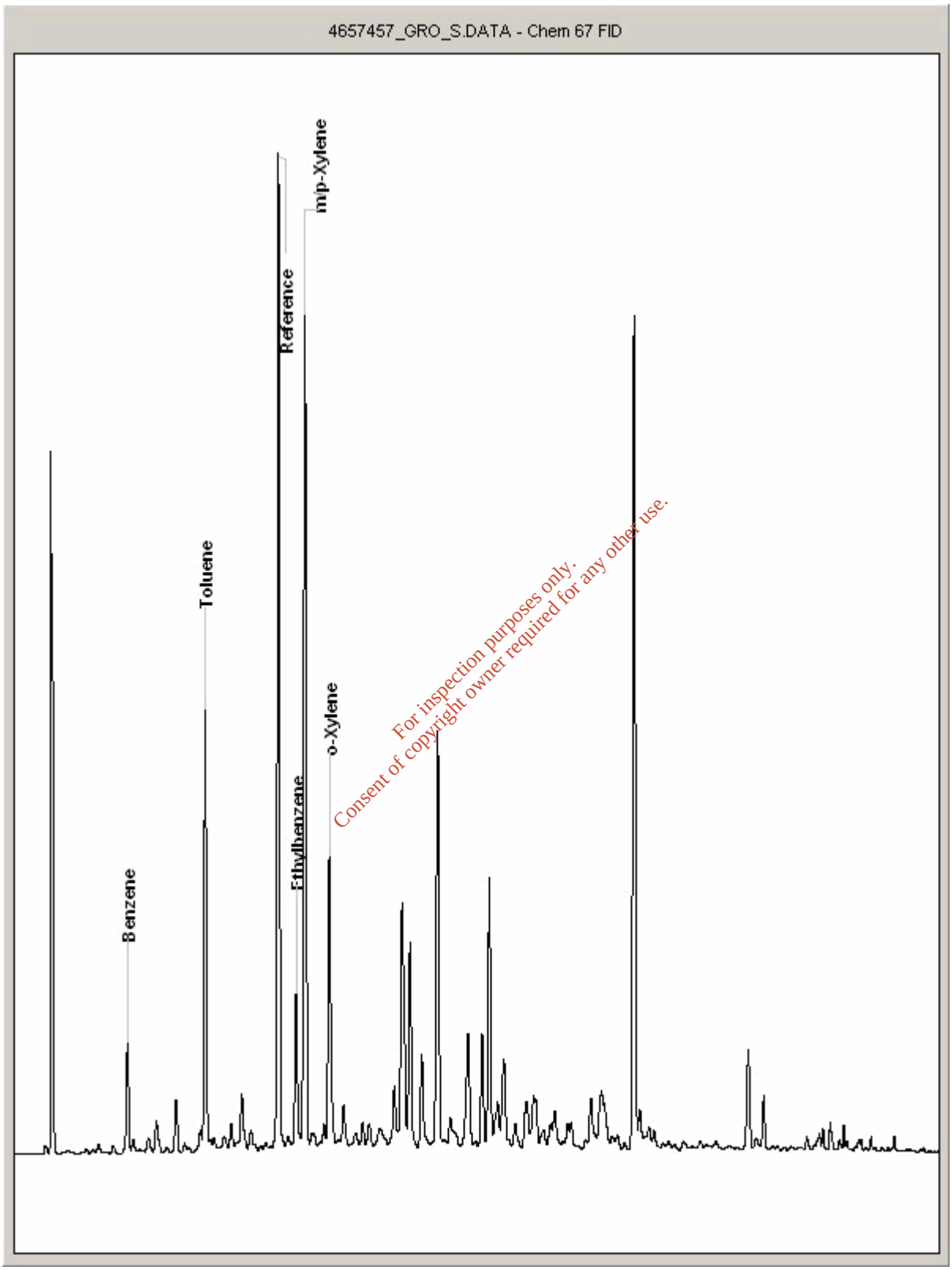
SDG:	111028-110	**Location:**	Limerick Gasworks	**Order Number:**	4700000740
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	159093
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (S)

Sample No : 4657457
Sample ID : C1

Depth : 3.00 - 3.50



SDG:	111028-110	**Location:**	Limerick Gasworks	**Order Number:**	4700000740
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	159093
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Appendix

1. Results are expressed on a dry weight basis (dried at 35ºC) 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 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. Is an asbestos fibre type is found it will be reported as detected (for each fibre type found). If asbestos is present either as asbestos containing material or loose fibres no further analysis will be undertaken. The quantity of asbestos present is not determined unless specifically requested.

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. 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 Dimethyphenol, 3,5 Dimethylphenol).

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

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

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

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

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

21. For 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 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 themajor 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 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	DCM	SOXTHERM	GRAVIMETRIC
CYCLOHEXANE EXT. MATTER	D&C	CYCLOHEXANE	SOXTHERM	GRAVIMETRIC
ELEMENTAL SULPHUR	D&C	DCM	SOXTHERM	HPLC
PHENOLS BY GCMS	WET	DCM	SOXTHERM	GC-MS
HERBICIDES	D&C	HEXANE:ACETONE	SOXTHERM	GC-MS
PESTICIDES	D&C	HEXANE:ACETONE	SOXTHERM	GC-MS
EPH (DRO)	D&C	HEXANE:ACETONE	END OVER END	GC-FID
EPH (MIN OIL)	D&C	HEXANE:ACETONE	END OVER END	GC-FID
EPH (CLEANED UP)	D&C	HEXANE:ACETONE	END OVER END	GC-FID
EPH CWG BY GC	D&C	HEXANE:ACETONE	END OVER END	GC-FID
PCB TOT / PCB CON	D&C	HEXANE:ACETONE	END OVER END	GC-MS
POLYAROMATIC HYDROCARBONS (MS)	WET	HEXANE:ACETONE	MICROWAVE TM218.	GC-MS
C8-C40 (C8-C40) EZ FLASH	WET	HEXANE:ACETONE	SHAKER	GC-EZ
POLYAROMATIC HYDROCARBONS RAPID GC	WET	HEXANE:ACETONE	SHAKER	GC-EZ
SEMI VOLATILE ORGANIC COMPOUNDS	WET	DCM:ACETONE	SONICATE	GC-MS

LIQUID MATRICES EXTRACTION SUMMARY

ANALYSIS	EXTRACTION SOLVENT	EXTRACTION METHOD	ANALYSIS
PAH MS	HEXANE	STIRRED EXTRACTION (STIR-BAR)	GC MS
EPH	HEXANE	STIRRED EXTRACTION (STIR-BAR)	GC FID
EPH CWG	HEXANE	STIRRED EXTRACTION (STIR-BAR)	GC FID
MINERAL OIL	HEXANE	STIRRED EXTRACTION (STIR-BAR)	GC FID
PCB 7 CONGENERS	HEXANE	STIRRED EXTRACTION (STIR-BAR)	GC MS
PCB TOTAL	HEXANE	STIRRED EXTRACTION (STIR-BAR)	GC MS
SVOC	DCM	LIQUID/LIQUID SHAKE	GC MS
FREE SULPHUR	DCM	SOLID PHASE EXTRACTION	HPLC
PEST OCP/OPP	DCM	LIQUID/LIQUID SHAKE	GC MS
TRIAZINE HERBS	DCM	LIQUID/LIQUID SHAKE	GC MS
PHENOLS MS	DCM	SOLID PHASE EXTRACTION	GC MS
TPH by INFRARED (IR)	TCE	LIQUID/LIQUID SHAKE	HPLC
MINERAL OIL by IR	TCE	LIQUID/LIQUID SHAKE	HPLC
GLYCOLS	NONE	DIRECT INJECTION	GC MS

Identification of Asbestos in Bulk Materials & Soils

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

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

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

Visual Estimation Of Fibre Content

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

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

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