ALcontrol Laboratories

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

Mouchel
Ground Engineering
Rowan House
Lloyd Drive
Cheshire
CH65 9HQ

Attention: Neil Balderstone

CERTIFICATE OF ANALYSIS

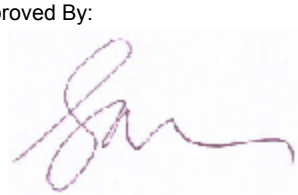
Date:	04 May 2012
Customer:	D_MOUCHEL_ELE
Sample Delivery Group (SDG):	120426-45
Your Reference:	
Location:	Limerick Gasworks
Report No:	180196

We received 22 samples on Wednesday April 25, 2012 and 22 of these samples were scheduled for analysis which was completed on Friday May 04, 2012. 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:	120426-45	**Location:**	Limerick Gasworks	**Order Number:**	4500094829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	180196
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Received Sample Overview

Lab Sample No(s)	Customer Sample Ref.	AGS Ref.	Depth (m)	Sampled Date
5503944	A1		1.50 - 3.00	24/04/2012
5503935	A11		1.50	24/04/2012
5503942	A3		2.00	24/04/2012
5503943	A4		2.50	24/04/2012
5503938	A9		1.80 - 2.40	24/04/2012
5503934	C11		2.00	24/04/2012
5503945	C2		1.60 - 2.50	24/04/2012
5503939	C7		1.80 - 2.50	24/04/2012
5503947	D1		3.00 - 3.50	24/04/2012
5503941	D5		1.90	24/04/2012
5503937	E8		3.50	24/04/2012
5503933	F11		3.00	24/04/2012
5503948	G2		5.00	24/04/2012
5503950	G3		4.50	24/04/2012
5503951	G4		2.50 - 3.50	24/04/2012
5503952	G5		4.00	24/04/2012
5503946	G8		0.50 - 1.50	24/04/2012
5503931	H12		2.50	24/04/2012
5503930	J10		1.00	24/04/2012
5503926	K1		3.25	24/04/2012
5503929	K5		3.00	24/04/2012
5503927	M3		4.00 - 5.00	24/04/2012

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

SDG:	120426-45	**Location:**	Limerick Gasworks	**Order Number:**	4500094829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	180196
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

LIQUID

Results Legend

- X — Test
- N — No Determination Possible

Lab Sample No(s)			5503926				5503927				5503929				5503939	5503937				5503938				5503930				5503935				5503934				5503933			5503931			
Customer Sample Reference			K1				M3				K5				C7	E8				A9				J10				A11				C11				F11			H12			
AGS Reference																																										
Depth (m)			3.25				4.00 - 5.00				3.00				1.80 - 2.50	3.50				1.80 - 2.40				1.00				1.50				2.00				3.00			2.50			
Container			1l green glass bottle	1lplastic (ALE221)	H2SO4 (ALE244)	Vial (ALE297)	1l green glass bottle	1lplastic (ALE221)	H2SO4 (ALE244)	Vial (ALE297)	1l green glass bottle	1lplastic (ALE221)	H2SO4 (ALE244)	Vial (ALE297)	1l green glass bottle	1l green glass bottle	1lplastic (ALE221)	H2SO4 (ALE244)	Vial (ALE297)	1l green glass bottle	1lplastic (ALE221)	H2SO4 (ALE244)	Vial (ALE297)	1l green glass bottle	1lplastic (ALE221)	H2SO4 (ALE244)	Vial (ALE297)	1l green glass bottle	1lplastic (ALE221)	H2SO4 (ALE244)	Vial (ALE297)	1l green glass bottle	1lplastic (ALE221)	H2SO4 (ALE244)	Vial (ALE297)	1l green glass bottle	H2SO4 (ALE244)	Vial (ALE297)	1l green glass bottle	1lplastic (ALE221)	H2SO4 (ALE244)	Vial (ALE297)
Ammoniacal Nitrogen	All	NDPs: 0 Tests: 22			X				X				X					X				X				X				X				X			X				X	
Anions by Kone (w)	All	NDPs: 0 Tests: 22		X				X				X					X				X				X				X				X			X				X		
Cyanide Comp/Free/Total/Thiocyanate	All	NDPs: 0 Tests: 22	X				X				X				X	X				X				X				X				X				X			X			
Dissolved Metals by ICP-MS	All	NDPs: 0 Tests: 22		X				X				X					X				X				X				X				X			X				X		
EPH CWG (Aliphatic) Aqueous GC (W)	All	NDPs: 0 Tests: 22	X				X				X				X	X				X				X				X				X				X			X			
EPH CWG (Aromatic) Aqueous GC (W)	All	NDPs: 0 Tests: 22	X				X				X				X	X				X				X				X				X				X			X			
GRO by GC-FID (W)	All	NDPs: 0 Tests: 22				X				X				X					X				X				X				X				X			X				X
Hexavalent Chromium (w)	All	NDPs: 0 Tests: 22		X				X				X					X				X				X				X				X			X				X		
Mercury Dissolved	All	NDPs: 0 Tests: 22	X				X				X				X	X				X				X				X				X				X			X			
PAH Spec MS - Aqueous (W)	All	NDPs: 0 Tests: 22	X				X				X				X	X				X				X				X				X				X			X			
pH Value	All	NDPs: 0 Tests: 22		X				X				X					X				X				X				X				X			X				X		
Phenols by HPLC (W)	All	NDPs: 0 Tests: 22			X				X				X					X				X				X				X				X			X				X	
Sulphide	All	NDPs: 0 Tests: 22		X				X				X					X				X				X				X				X			X				X		
TPH CWG (W)	All	NDPs: 0 Tests: 22	X				X				X				X	X				X				X				X				X				X			X			
VOC MS (W)	All	NDPs: 0 Tests: 11								X				X																		X										

SDG: 120426-45
Job: D_MOUCHEL_ELE-1
Client Reference:

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

Order Number: 4500094829
Report Number: 180196
Superseded Report:

LIQUID

Results Legend

- X — Test
- N — No Determination Possible

Lab Sample No(s)						5503944				5503947				5503945				5503948				5503942				5503950				5503943	5503951				5503941			5503939				5503946
Customer Sample Reference						A1				D1				C2				G2				A3				G3				A4	G4				D5			C7				G8
AGS Reference																																										
Depth (m)						1.50 - 3.00				3.00 - 3.50				1.60 - 2.50				5.00				2.00				4.50				2.50	2.50 - 3.50				1.90			1.80 - 2.50				0.50 - 1.50
Container			1l green glass bottle	1lplastic (ALE221)	H2SO4 (ALE244)	Vial (ALE297)	1l green glass bottle	1lplastic (ALE221)	H2SO4 (ALE244)	Vial (ALE297)	1l green glass bottle	1lplastic (ALE221)	H2SO4 (ALE244)	Vial (ALE297)	1l green glass bottle	1lplastic (ALE221)	H2SO4 (ALE244)	Vial (ALE297)	1l green glass bottle	1lplastic (ALE221)	H2SO4 (ALE244)	Vial (ALE297)	1l green glass bottle	1lplastic (ALE221)	H2SO4 (ALE244)	Vial (ALE297)	1l green glass bottle	1lplastic (ALE221)	H2SO4 (ALE244)	Vial (ALE297)	1l green glass bottle	1l green glass bottle	1lplastic (ALE221)	H2SO4 (ALE244)	Vial (ALE297)	1lplastic (ALE221)	H2SO4 (ALE244)	Vial (ALE297)	1l green glass bottle	1lplastic (ALE221)	H2SO4 (ALE244)	Vial (ALE297)
Ammoniacal Nitrogen	All	NDPs: 0 Tests: 22			X				X				X				X				X				X				X					X			X				X	
Anions by Kone (w)	All	NDPs: 0 Tests: 22		X				X				X				X				X				X				X					X			X				X		
Cyanide Comp/Free/Total/Thiocyanate	All	NDPs: 0 Tests: 22	X				X				X				X				X				X				X				X	X							X			
Dissolved Metals by ICP-MS	All	NDPs: 0 Tests: 22		X				X				X				X				X				X				X					X			X				X		
EPH CWG (Aliphatic) Aqueous GC (W)	All	NDPs: 0 Tests: 22	X				X				X				X				X				X				X				X	X							X			
EPH CWG (Aromatic) Aqueous GC (W)	All	NDPs: 0 Tests: 22	X				X				X				X				X				X				X				X	X							X			
GRO by GC-FID (W)	All	NDPs: 0 Tests: 22				X				X				X				X				X				X				X					X			X				X
Hexavalent Chromium (w)	All	NDPs: 0 Tests: 22		X				X				X				X				X				X				X					X			X				X		
Mercury Dissolved	All	NDPs: 0 Tests: 22	X				X				X				X				X				X				X				X	X							X			
PAH Spec MS - Aqueous (W)	All	NDPs: 0 Tests: 22	X				X				X				X				X				X				X				X	X							X			
pH Value	All	NDPs: 0 Tests: 22		X				X				X				X				X				X				X					X			X				X		
Phenols by HPLC (W)	All	NDPs: 0 Tests: 22			X				X				X				X				X				X				X					X			X				X	
Sulphide	All	NDPs: 0 Tests: 22		X				X				X				X				X				X				X					X			X				X		
TPH CWG (W)	All	NDPs: 0 Tests: 22	X				X				X				X				X				X				X				X	X							X			
VOC MS (W)	All	NDPs: 0 Tests: 11				X				X								X				X								X					X			X				

CERTIFICATE OF ANALYSIS

SDG:	120426-45	**Location:**	Limerick Gasworks	**Order Number:**	4500094829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	180196
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

LIQUID

Results Legend

X Test

N No Determination Possible

Lab Sample No(s)			5503951	5503952
Customer Sample Reference			G4	G5
AGS Reference				
Depth (m)			2.50 - 3.50	4.00
Container			1lplastic (ALE221) / H2SO4 (ALE244) / Vial (ALE297) / 1l green glass bottle / 1lplastic (ALE221) / H2SO4 (ALE244) / Vial (ALE297)	
Ammoniacal Nitrogen	All	NDPs: 0 Tests: 22		X X
Anions by Kone (w)	All	NDPs: 0 Tests: 22	X X	
Cyanide Comp/Free/Total/Thiocyanate	All	NDPs: 0 Tests: 22	X	
Dissolved Metals by ICP-MS	All	NDPs: 0 Tests: 22	X X	
EPH CWG (Aliphatic) Aqueous GC (W)	All	NDPs: 0 Tests: 22	X	
EPH CWG (Aromatic) Aqueous GC (W)	All	NDPs: 0 Tests: 22	X	
GRO by GC-FID (W)	All	NDPs: 0 Tests: 22	X	X
Hexavalent Chromium (w)	All	NDPs: 0 Tests: 22	X X	
Mercury Dissolved	All	NDPs: 0 Tests: 22	X	
PAH Spec MS - Aqueous (W)	All	NDPs: 0 Tests: 22	X	
pH Value	All	NDPs: 0 Tests: 22	X X	
Phenols by HPLC (W)	All	NDPs: 0 Tests: 22	X	X
Sulphide	All	NDPs: 0 Tests: 22	X X	
TPH CWG (W)	All	NDPs: 0 Tests: 22	X	
VOC MS (W)	All	NDPs: 0 Tests: 11	X	X

CERTIFICATE OF ANALYSIS

SDG:	120426-45	**Location:**	Limerick Gasworks	**Order Number:**	4500094829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	180196
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	A3	A4	A9	A11	C2
			Depth (m)	1.50 - 3.00	2.00	2.50	1.80 - 2.40	1.50	1.60 - 2.50
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	24/04/2012	24/04/2012	24/04/2012	24/04/2012	24/04/2012	24/04/2012
			Sampled Time	.	.	.	.	.	.
			Date Received	25/04/2012	25/04/2012	25/04/2012	25/04/2012	25/04/2012	25/04/2012
			SDG Ref	120426-45	120426-45	120426-45	120426-45	120426-45	120426-45
			Lab Sample No.(s)	5503944	5503942	5503943	5503938	5503935	5503945
			AGS Reference						
Ammoniacal Nitrogen as N	<0.2 mg/l	TM099		11 #	9.81 #	2.01 #	<0.2 #	3.66 #	1.31 #
Ammoniacal Nitrogen as NH4	<0.3 mg/l	TM099		14.1 #	12.6 #	2.58 #	<0.3 #	4.71 #	1.68 #
Sulphide	<0.01 mg/l	TM101		<0.01 #	<0.01 #	<0.01 #	<0.01 #	<0.01 #	<0.01 #
Arsenic (diss.filt)	<0.12 µg/l	TM152		19.8 #	31 #	5.2 #	1.8 #	3.85 #	2.67 #
Cadmium (diss.filt)	<0.1 µg/l	TM152		<0.1 #	<0.1 #	<0.1 #	<0.1 #	<0.1 #	<0.1 #
Chromium (diss.filt)	<0.22 µg/l	TM152		1.61 #	1.44 #	1 #	3.53 #	4.2 #	1.39 #
Copper (diss.filt)	<0.85 µg/l	TM152		1.48 #	11.5 #	5.4 #	1.57 #	1.01 #	2.59 #
Lead (diss.filt)	<0.02 µg/l	TM152		0.073 #	0.036 #	0.087 #	0.039 #	0.403 #	0.356 #
Nickel (diss.filt)	<0.15 µg/l	TM152		6.05 #	5.69 #	4.44 #	1.45 #	2.78 #	6.54 #
Selenium (diss.filt)	<0.39 µg/l	TM152		2.2 #	1.54 #	1.4 #	0.632 #	1.67 #	4.15 #
Zinc (diss.filt)	<0.41 µg/l	TM152		0.862 #	1.9 #	1.98 #	<0.41 #	3.71 #	3.85 #
Mercury (diss.filt)	<0.01 µg/l	TM183		<0.01 #	<0.01 #	<0.01 #	<0.01 #	<0.01 #	<0.01 #
Sulphate	<2 mg/l	TM184		473 #	384 #	254 #	198 #	38 #	216 #
Cyanide, Total	<0.05 mg/l	TM227		0.469 #	0.288 #	0.161 #	0.087 #	<0.05 #	0.227 #
Chromium, Hexavalent	<0.03 mg/l	TM241		<0.03 #	<0.03 #	<0.03 #	<0.03 #	<0.03 #	<0.03 #
pH	<1 pH Units	TM256		7.64 #	7.69 #	7.62 #	8.97 #	7.69 #	7.73 #
Resorcinol	<0.01 mg/l	TM259		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Catechol	<0.01 mg/l	TM259		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Phenol	<0.002 mg/l	TM259		<0.002 #	<0.002 #	<0.002 #	<0.002 #	0.08 #	<0.002 #
Cresols	<0.006 mg/l	TM259		0.09 #	<0.006 #	<0.006 #	<0.006 #	0.3 #	0.01 #
Xylenols	<0.008 mg/l	TM259		0.37 #	<0.008 #	<0.008 #	<0.008 #	<0.008 #	0.06 #
1-Naphthol	<0.01 mg/l	TM259		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
2,3,5-Trimethylphenol	<0.003 mg/l	TM259		<0.003 #	<0.003 #	<0.003 #	<0.003 #	<0.003 #	0.04 #
2-Isopropylphenol	<0.006 mg/l	TM259		<0.006 #	<0.006 #	<0.006 #	<0.006 #	<0.006 #	<0.006 #
Phenols, Total Detected 5 speciated	<0.025 mg/l	TM259		0.46	<0.025	<0.025	<0.025	0.38	0.11

CERTIFICATE OF ANALYSIS

SDG:	120426-45	**Location:**	Limerick Gasworks	**Order Number:**	4500094829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	180196
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	C7	C11	D1	D5	E8	F11
			Depth (m)	1.80 - 2.50	2.00	3.00 - 3.50	1.90	3.50	3.00
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	24/04/2012	24/04/2012	24/04/2012	24/04/2012	24/04/2012	24/04/2012
			Sampled Time	.	.	.	.	.	.
			Date Received	25/04/2012	25/04/2012	25/04/2012	25/04/2012	25/04/2012	25/04/2012
			SDG Ref	120426-45	120426-45	120426-45	120426-45	120426-45	120426-45
			Lab Sample No.(s)	5503939	5503934	5503947	5503941	5503937	5503933
			AGS Reference						
Ammoniacal Nitrogen as N	<0.2 mg/l	TM099		91.9 #	4.38 #	12.2 #	3.77 #	43.7 #	55.5 #
Ammoniacal Nitrogen as NH4	<0.3 mg/l	TM099		118 #	5.63 #	15.7 #	4.85 #	56.2 #	71.4 #
Sulphide	<0.01 mg/l	TM101		<0.01 #	<0.01 #	1.37 #	<0.01 #	0.021 #	<0.01 #
Arsenic (diss.filt)	<0.12 µg/l	TM152		24.3 #	10.6 #	12.7 #	2.99 #	113 #	10.3 #
Cadmium (diss.filt)	<0.1 µg/l	TM152		<0.1 #	<0.1 #	<0.1 #	<0.1 #	0.273 #	<0.1 #
Chromium (diss.filt)	<0.22 µg/l	TM152		1.61 #	1.47 #	1.33 #	0.599 #	2.16 #	2.1 #
Copper (diss.filt)	<0.85 µg/l	TM152		0.865 #	<0.85 #	1.56 #	3.2 #	<0.85 #	<0.85 #
Lead (diss.filt)	<0.02 µg/l	TM152		0.111 #	0.053 #	<0.02 #	0.76 #	0.106 #	<0.02 #
Nickel (diss.filt)	<0.15 µg/l	TM152		5.31 #	3.57 #	5.13 #	2.77 #	29.9 #	5.58 #
Selenium (diss.filt)	<0.39 µg/l	TM152		21 #	1.06 #	19.6 #	1.28 #	16.5 #	5.62 #
Zinc (diss.filt)	<0.41 µg/l	TM152		0.994 #	<0.41 #	0.616 #	1.56 #	32.8 #	<0.41 #
Mercury (diss.filt)	<0.01 µg/l	TM183		0.041 #	<0.01 #	<0.01 #	<0.01 #	0.0177 #	<0.01 #
Sulphate	<2 mg/l	TM184		28.8 #	77.5 #	468 #	2.3 #	328 #	41.7 #
Cyanide, Total	<0.05 mg/l	TM227		0.576 #	0.129 #	0.788 #	<0.05 #	8.8 #	0.124 #
Chromium, Hexavalent	<0.03 mg/l	TM241		<0.15 #	<0.03 #	<0.03 #	<0.03 #	<0.06 #	<0.03 #
pH	<1 pH Units	TM256		8.75 #	7.59 #	7.91 #	7.35 #	8.92 #	7.53 #
Resorcinol	<0.01 mg/l	TM259		<0.1	<0.01	<0.01	<0.01	<0.1	<0.02
Catechol	<0.01 mg/l	TM259		<0.1	<0.01	<0.01	<0.01	0.27	<0.02
Phenol	<0.002 mg/l	TM259		27.8 #	<0.002 #	<0.002 #	0.05 #	42.1 #	2.12 #
Cresols	<0.006 mg/l	TM259		65.1 #	0.26 #	<0.006 #	0.31 #	71.2 #	5.53 #
Xylenols	<0.008 mg/l	TM259		106 #	0.49 #	<0.008 #	0.1 #	73.7 #	13.5 #
1-Naphthol	<0.01 mg/l	TM259		<0.1	<0.01	<0.01	<0.01	<0.1	<0.02
2,3,5-Trimethylphenol	<0.003 mg/l	TM259		<0.03 #	<0.003 #	<0.003 #	<0.003 #	<0.03 #	<0.006 #
2-Isopropylphenol	<0.006 mg/l	TM259		41.2 #	<0.006 #	<0.006 #	0.07 #	20.6 #	5.75 #
Phenols, Total Detected 5 speciated	<0.025 mg/l	TM259		240	0.75	<0.025	0.53	208	26.9

CERTIFICATE OF ANALYSIS

SDG:	120426-45	**Location:**	Limerick Gasworks	**Order Number:**	4500094829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	180196
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	G2	G3	G4	G5	G8	H12
			Depth (m)	5.00	4.50	2.50 - 3.50	4.00	0.50 - 1.50	2.50
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	24/04/2012	24/04/2012	24/04/2012	24/04/2012	24/04/2012	24/04/2012
			Sampled Time	.	.	.	.	.	.
			Date Received	25/04/2012	25/04/2012	25/04/2012	25/04/2012	25/04/2012	25/04/2012
			SDG Ref	120426-45	120426-45	120426-45	120426-45	120426-45	120426-45
			Lab Sample No.(s)	5503948	5503950	5503951	5503952	5503946	5503931
			AGS Reference						
Ammoniacal Nitrogen as N	<0.2 mg/l	TM099		50.9 #	22.4 #	15.2 #	3.14 #	17.4 #	15.5 #
Ammoniacal Nitrogen as NH4	<0.3 mg/l	TM099		65.4 #	28.8 #	19.5 #	4.04 #	22.4 #	19.9 #
Sulphide	<0.01 mg/l	TM101		0.021 #	<0.01 #	<0.01 #	<0.01 #	<0.01 #	0.829 #
Arsenic (diss.filt)	<0.12 µg/l	TM152		19.4 #	11.1 #	7.73 #	1.99 #	8.58 #	15.4 #
Cadmium (diss.filt)	<0.1 µg/l	TM152		<0.1 #	<0.1 #	<0.1 #	<0.1 #	<0.1 #	<0.1 #
Chromium (diss.filt)	<0.22 µg/l	TM152		15.4 #	1.46 #	1.22 #	2.19 #	1.47 #	8.75 #
Copper (diss.filt)	<0.85 µg/l	TM152		4.48 #	1.48 #	1.16 #	4.72 #	1.04 #	<0.85 #
Lead (diss.filt)	<0.02 µg/l	TM152		<0.02 #	0.046 #	0.146 #	0.087 #	<0.02 #	0.081 #
Nickel (diss.filt)	<0.15 µg/l	TM152		4.47 #	9.29 #	5.38 #	14.6 #	5.55 #	2.91 #
Selenium (diss.filt)	<0.39 µg/l	TM152		111 #	7.56 #	10.6 #	4.21 #	2.24 #	1.07 #
Zinc (diss.filt)	<0.41 µg/l	TM152		3.94 #	2.41 #	14.9 #	3.57 #	0.589 #	<0.41 #
Mercury (diss.filt)	<0.01 µg/l	TM183		0.0157 #	<0.01 #	<0.01 #	<0.01 #	<0.01 #	<0.01 #
Sulphate	<2 mg/l	TM184		667 #	661 #	223 #	902 #	125 #	153 #
Cyanide, Total	<0.05 mg/l	TM227		0.859 #	0.655 #	0.102 #	1.11 #	0.291 #	<0.05 #
Chromium, Hexavalent	<0.03 mg/l	TM241		<0.03 #	<0.03 #	<0.03 #	<0.03 #	<0.03 #	<0.03 #
pH	<1 pH Units	TM256		7.49 #	7.45 #	7.46 #	7.2 #	7.97 #	7.53 #
Resorcinol	<0.01 mg/l	TM259		<0.05	<0.01	<0.01	<0.01	<0.01	<0.01
Catechol	<0.01 mg/l	TM259		<0.05	<0.01	<0.01	<0.01	0.35	<0.01
Phenol	<0.002 mg/l	TM259		13.2 #	1.66 #	0.09 #	<0.002 #	0.96 #	<0.002 #
Cresols	<0.006 mg/l	TM259		15.6 #	2.84 #	0.7 #	<0.006 #	2.45 #	<0.006 #
Xylenols	<0.008 mg/l	TM259		20.1 #	7 #	3.33 #	0.04 #	3.8 #	<0.008 #
1-Naphthol	<0.01 mg/l	TM259		<0.05	<0.01	0.05	<0.01	<0.01	<0.01
2,3,5-Trimethylphenol	<0.003 mg/l	TM259		<0.015 #	<0.003 #	<0.003 #	<0.003 #	<0.003 #	<0.003 #
2-Isopropylphenol	<0.006 mg/l	TM259		12.7 #	3.86 #	2.56 #	<0.006 #	3.72 #	<0.006 #
Phenols, Total Detected 5 speciated	<0.025 mg/l	TM259		61.6	15.4	6.68	0.04	10.9	<0.025

CERTIFICATE OF ANALYSIS

SDG:	120426-45	**Location:**	Limerick Gasworks	**Order Number:**	4500094829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	180196
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	J10	K1	K5	M3		
			Depth (m)	1.00	3.25	3.00	4.00 - 5.00		
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)		
			Date Sampled	24/04/2012	24/04/2012	24/04/2012	24/04/2012		
			Sampled Time	.	.	.	.		
			Date Received	25/04/2012	25/04/2012	25/04/2012	25/04/2012		
			SDG Ref	120426-45	120426-45	120426-45	120426-45		
			Lab Sample No.(s)	5503930	5503926	5503929	5503927		
			AGS Reference						
Ammoniacal Nitrogen as N	<0.2 mg/l	TM099		0.278 #	3.23 #	36.9 #	0.761 #		
Ammoniacal Nitrogen as NH4	<0.3 mg/l	TM099		0.357 #	4.15 #	47.4 #	0.978 #		
Sulphide	<0.01 mg/l	TM101		<0.01 #	<0.01 #	<0.01 #	<0.01 #		
Arsenic (diss.filt)	<0.12 µg/l	TM152		1.54 #	3.72 #	45.1 #	3.86 #		
Cadmium (diss.filt)	<0.1 µg/l	TM152		<0.1 #	<0.1 #	<0.1 #	<0.1 #		
Chromium (diss.filt)	<0.22 µg/l	TM152		3.55 #	0.569 #	8.89 #	0.893 #		
Copper (diss.filt)	<0.85 µg/l	TM152		1.77 #	3.47 #	2.23 #	1.62 #		
Lead (diss.filt)	<0.02 µg/l	TM152		0.047 #	0.314 #	0.259 #	<0.02 #		
Nickel (diss.filt)	<0.15 µg/l	TM152		5.31 #	9.59 #	8.41 #	4.8 #		
Selenium (diss.filt)	<0.39 µg/l	TM152		1.1 #	1.92 #	11.1 #	1.01 #		
Zinc (diss.filt)	<0.41 µg/l	TM152		1.52 #	1.2 #	3.69 #	0.707 #		
Mercury (diss.filt)	<0.01 µg/l	TM183		<0.01 #	<0.01 #	0.0287 #	<0.01 #		
Sulphate	<2 mg/l	TM184		69 #	662 #	206 #	528 #		
Cyanide, Total	<0.05 mg/l	TM227		<0.05 #	0.685 #	1.81 #	1.1 #		
Chromium, Hexavalent	<0.03 mg/l	TM241		<0.03 #	<0.03 #	<0.15 #	<0.03 #		
pH	<1 pH Units	TM256		7.47 #	7.63 #	8.33 #	7.79 #		
Resorcinol	<0.01 mg/l	TM259		<0.01	<0.01	<0.2	<0.01		
Catechol	<0.01 mg/l	TM259		<0.01	<0.01	1.82	<0.01		
Phenol	<0.002 mg/l	TM259		<0.002 #	<0.002 #	89.8 #	<0.002 #		
Cresols	<0.006 mg/l	TM259		<0.006 #	<0.006 #	200 #	0.01 #		
Xylenols	<0.008 mg/l	TM259		<0.008 #	<0.008 #	191 #	<0.008 #		
1-Naphthol	<0.01 mg/l	TM259		<0.01	<0.01	<0.2	<0.01		
2,3,5-Trimethylphenol	<0.003 mg/l	TM259		<0.003 #	<0.003 #	<0.06 #	<0.003 #		
2-Isopropylphenol	<0.006 mg/l	TM259		<0.006 #	<0.006 #	47.8 #	<0.006 #		
Phenols, Total Detected 5 speciated	<0.025 mg/l	TM259		<0.025	<0.025	529	<0.025		

CERTIFICATE OF ANALYSIS

SDG:	120426-45	**Location:**	Limerick Gasworks	**Order Number:**	4500094829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	180196
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

PAH Spec MS - Aqueous (W)

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	A3	A4	A9	A11	C2
			Depth (m)	1.50 - 3.00	2.00	2.50	1.80 - 2.40	1.50	1.60 - 2.50
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	24/04/2012	24/04/2012	24/04/2012	24/04/2012	24/04/2012	24/04/2012
			Sampled Time	.	.	.	.	.	.
			Date Received	25/04/2012	25/04/2012	25/04/2012	25/04/2012	25/04/2012	25/04/2012
			SDG Ref	120426-45	120426-45	120426-45	120426-45	120426-45	120426-45
			Lab Sample No.(s)	5503944	5503942	5503943	5503938	5503935	5503945
			AGS Reference						
Naphthalene (aq)	<0.1 µg/l	TM178		0.243 #	1.59 #	0.104 #	<0.1 #	3.88 #	0.671 #
Acenaphthene (aq)	<0.015 µg/l	TM178		0.121 #	38.8 #	0.0175 #	0.0211 #	9.15 #	9.35 #
Acenaphthylene (aq)	<0.011 µg/l	TM178		0.158 #	4.89 #	0.0719 #	0.213 #	23 #	0.56 #
Fluoranthene (aq)	<0.017 µg/l	TM178		0.288 #	3.1 #	0.876 #	1.13 #	23 #	0.627 #
Anthracene (aq)	<0.015 µg/l	TM178		<0.03 #	0.402 #	0.0481 #	0.132 #	4.21 #	0.27 #
Phenanthrene (aq)	<0.022 µg/l	TM178		0.158 #	0.252 #	0.0416 #	0.343 #	10.3 #	0.0908 #
Fluorene (aq)	<0.014 µg/l	TM178		<0.028 #	7.74 #	0.358 #	0.0409 #	10.8 #	1.79 #
Chrysene (aq)	<0.013 µg/l	TM178		0.0443 #	0.267 #	0.067 #	0.763 #	12.7 #	0.145 #
Pyrene (aq)	<0.015 µg/l	TM178		0.903 #	4.06 #	0.565 #	1.1 #	18.8 #	0.422 #
Benzo(a)anthracene (aq)	<0.017 µg/l	TM178		<0.034 #	0.31 #	0.0526 #	0.734 #	12.2 #	0.119 #
Benzo(b)fluoranthene (aq)	<0.023 µg/l	TM178		<0.046 #	0.0592 #	0.033 #	1.44 #	17.8 #	0.0671 #
Benzo(k)fluoranthene (aq)	<0.027 µg/l	TM178		<0.054 #	0.133 #	0.0613 #	1.45 #	16.2 #	0.11 #
Benzo(a)pyrene (aq)	<0.009 µg/l	TM178		0.0261 #	0.145 #	0.0425 #	1.66 #	19.1 #	0.0929 #
Dibenzo(a,h)anthracene (aq)	<0.016 µg/l	TM178		<0.032 #	<0.016 #	<0.016 #	0.487 #	5.4 #	0.0188 #
Benzo(g,h,i)perylene (aq)	<0.016 µg/l	TM178		<0.032 #	0.0387 #	0.0192 #	1.35 #	13.5 #	0.0569 #
Indeno(1,2,3-cd)pyrene (aq)	<0.014 µg/l	TM178		<0.028 #	0.0262 #	<0.014 #	1.18 #	12.7 #	0.0375 #
PAH, Total Detected USEPA 16 (aq)	<0.247 µg/l	TM178		2.05	61.8	2.36	12	213	14.4

CERTIFICATE OF ANALYSIS

SDG:	120426-45	**Location:**	Limerick Gasworks	**Order Number:**	4500094829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	180196
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

PAH Spec MS - Aqueous (W)

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	C7	C11	D1	D5	E8	F11
			Depth (m)	1.80 - 2.50	2.00	3.00 - 3.50	1.90	3.50	3.00
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	24/04/2012	24/04/2012	24/04/2012	24/04/2012	24/04/2012	24/04/2012
			Sampled Time	.	.	.	.	.	.
			Date Received	25/04/2012	25/04/2012	25/04/2012	25/04/2012	25/04/2012	25/04/2012
			SDG Ref	120426-45	120426-45	120426-45	120426-45	120426-45	120426-45
			Lab Sample No.(s)	5503939	5503934	5503947	5503941	5503937	5503933
			AGS Reference						
Naphthalene (aq)	<0.1 µg/l	TM178		662 #	1.9 #	173 #	0.377 #	1820 #	2.46 #
Acenaphthene (aq)	<0.015 µg/l	TM178		4.45 #	25.4 #	66.4 #	0.22 #	15.1 #	1.19 #
Acenaphthylene (aq)	<0.011 µg/l	TM178		27.1 #	2.06 #	192 #	1.31 #	83 #	3.34 #
Fluoranthene (aq)	<0.017 µg/l	TM178		7.29 #	2.53 #	49.2 #	4.29 #	6.42 #	7.06 #
Anthracene (aq)	<0.015 µg/l	TM178		4.97 #	0.651 #	43.3 #	0.324 #	6.62 #	0.752 #
Phenanthrene (aq)	<0.022 µg/l	TM178		18.1 #	0.331 #	160 #	0.993 #	23.1 #	2.18 #
Fluorene (aq)	<0.014 µg/l	TM178		11.6 #	6.78 #	144 #	0.288 #	27.2 #	1.19 #
Chrysene (aq)	<0.013 µg/l	TM178		<3.25 #	0.362 #	7.57 #	2.69 #	1.02 #	5.04 #
Pyrene (aq)	<0.015 µg/l	TM178		5.95 #	1.41 #	30.9 #	3.46 #	4.07 #	6.09 #
Benzo(a)anthracene (aq)	<0.017 µg/l	TM178		<4.25 #	0.355 #	8.93 #	1.97 #	1.25 #	4.59 #
Benzo(b)fluoranthene (aq)	<0.023 µg/l	TM178		<5.75 #	0.261 #	4.2 #	3.07 #	<1.15 #	9.07 #
Benzo(k)fluoranthene (aq)	<0.027 µg/l	TM178		<6.75 #	0.41 #	4.75 #	2.95 #	<1.35 #	8.66 #
Benzo(a)pyrene (aq)	<0.009 µg/l	TM178		<2.25 #	0.343 #	4.95 #	2.9 #	0.642 #	9.61 #
Dibenzo(a,h)anthracene (aq)	<0.016 µg/l	TM178		<4 #	0.0753 #	0.871 #	0.713 #	<0.8 #	2.78 #
Benzo(g,h,i)perylene (aq)	<0.016 µg/l	TM178		<4 #	0.206 #	2.13 #	2.17 #	<0.8 #	7.31 #
Indeno(1,2,3-cd)pyrene (aq)	<0.014 µg/l	TM178		<3.5 #	0.165 #	1.9 #	1.91 #	<0.7 #	6.48 #
PAH, Total Detected USEPA 16 (aq)	<0.247 µg/l	TM178		751	43.2	894	29.6	1990	77.8

CERTIFICATE OF ANALYSIS

SDG:	120426-45	**Location:**	Limerick Gasworks	**Order Number:**	4500094829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	180196
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

PAH Spec MS - Aqueous (W)

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	G2	G3	G4	G5	G8	H12
			Depth (m)	5.00	4.50	2.50 - 3.50	4.00	0.50 - 1.50	2.50
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	24/04/2012	24/04/2012	24/04/2012	24/04/2012	24/04/2012	24/04/2012
			Sampled Time	.	.	.	.	.	.
			Date Received	25/04/2012	25/04/2012	25/04/2012	25/04/2012	25/04/2012	25/04/2012
			SDG Ref	120426-45	120426-45	120426-45	120426-45	120426-45	120426-45
			Lab Sample No.(s)	5503948	5503950	5503951	5503952	5503946	5503931
			AGS Reference						
Naphthalene (aq)	<0.1 µg/l	TM178		449 #	3.08 #	1.7 #	0.107 #	40.6 #	3.02 #
Acenaphthene (aq)	<0.015 µg/l	TM178		44 #	17.9 #	40 #	0.816 #	19.7 #	5.23 #
Acenaphthylene (aq)	<0.011 µg/l	TM178		58.2 #	16.7 #	94.3 #	0.857 #	86.9 #	9.57 #
Fluoranthene (aq)	<0.017 µg/l	TM178		3.23 #	4.06 #	42.9 #	1.16 #	3.6 #	46.3 #
Anthracene (aq)	<0.015 µg/l	TM178		3.29 #	0.504 #	28.5 #	0.152 #	9.07 #	5.38 #
Phenanthrene (aq)	<0.022 µg/l	TM178		30.8 #	2.83 #	61 #	0.218 #	31.6 #	7.67 #
Fluorene (aq)	<0.014 µg/l	TM178		28 #	4.57 #	85.6 #	0.114 #	56.4 #	5.46 #
Chrysene (aq)	<0.013 µg/l	TM178		<0.13 #	2.1 #	9.73 #	0.734 #	0.248 #	24.8 #
Pyrene (aq)	<0.015 µg/l	TM178		1.65 #	3.44 #	26.9 #	0.685 #	1.99 #	31.7 #
Benzo(a)anthracene (aq)	<0.017 µg/l	TM178		<0.17 #	1.91 #	10.5 #	0.652 #	0.366 #	28.3 #
Benzo(b)fluoranthene (aq)	<0.023 µg/l	TM178		<0.23 #	2.88 #	7.05 #	0.752 #	0.109 #	49.6 #
Benzo(k)fluoranthene (aq)	<0.027 µg/l	TM178		<0.27 #	2.82 #	6.95 #	1 #	0.183 #	36.8 #
Benzo(a)pyrene (aq)	<0.009 µg/l	TM178		<0.09 #	3.19 #	7.93 #	1.09 #	0.139 #	49.6 #
Dibenzo(a,h)anthracene (aq)	<0.016 µg/l	TM178		<0.16 #	0.884 #	2 #	0.232 #	<0.032 #	14.2 #
Benzo(g,h,i)perylene (aq)	<0.016 µg/l	TM178		<0.16 #	2.47 #	4.4 #	0.705 #	0.0518 #	30.6 #
Indeno(1,2,3-cd)pyrene (aq)	<0.014 µg/l	TM178		<0.14 #	2.16 #	4.1 #	0.567 #	0.0553 #	27.9 #
PAH, Total Detected USEPA 16 (aq)	<0.247 µg/l	TM178		619	71.5	434	9.85	251	376

CERTIFICATE OF ANALYSIS

SDG:	120426-45	**Location:**	Limerick Gasworks	**Order Number:**	4500094829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	180196
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

PAH Spec MS - Aqueous (W)

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	J10	K1	K5	M3		
			Depth (m)	1.00	3.25	3.00	4.00 - 5.00		
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)		
			Date Sampled	24/04/2012	24/04/2012	24/04/2012	24/04/2012		
			Sampled Time	.	.	.	.		
			Date Received	25/04/2012	25/04/2012	25/04/2012	25/04/2012		
			SDG Ref	120426-45	120426-45	120426-45	120426-45		
			Lab Sample No.(s)	5503930	5503926	5503929	5503927		
			AGS Reference						
Naphthalene (aq)	<0.1 µg/l	TM178		<0.1 #	<0.1 #	2730 #	<0.1 #		
Acenaphthene (aq)	<0.015 µg/l	TM178		<0.015 #	0.0432 #	25.9 #	<0.015 #		
Acenaphthylene (aq)	<0.011 µg/l	TM178		0.119 #	0.0214 #	213 #	0.0121 #		
Fluoranthene (aq)	<0.017 µg/l	TM178		0.132 #	0.114 #	8.24 #	0.065 #		
Anthracene (aq)	<0.015 µg/l	TM178		0.0281 #	0.0209 #	12.4 #	<0.015 #		
Phenanthrene (aq)	<0.022 µg/l	TM178		0.0662 #	0.0468 #	41.6 #	<0.022 #		
Fluorene (aq)	<0.014 µg/l	TM178		0.0291 #	<0.014 #	56.1 #	<0.014 #		
Chrysene (aq)	<0.013 µg/l	TM178		0.101 #	0.074 #	<2.6 #	0.0602 #		
Pyrene (aq)	<0.015 µg/l	TM178		0.0988 #	0.0938 #	4.91 #	0.0633 #		
Benzo(a)anthracene (aq)	<0.017 µg/l	TM178		0.0906 #	0.051 #	<3.4 #	0.0339 #		
Benzo(b)fluoranthene (aq)	<0.023 µg/l	TM178		0.316 #	0.0511 #	<4.6 #	0.0593 #		
Benzo(k)fluoranthene (aq)	<0.027 µg/l	TM178		0.325 #	0.0892 #	<5.4 #	0.0536 #		
Benzo(a)pyrene (aq)	<0.009 µg/l	TM178		0.41 #	0.0708 #	<1.8 #	0.0575 #		
Dibenzo(a,h)anthracene (aq)	<0.016 µg/l	TM178		0.108 #	<0.016 #	<3.2 #	<0.016 #		
Benzo(g,h,i)perylene (aq)	<0.016 µg/l	TM178		0.264 #	0.051 #	<3.2 #	0.0514 #		
Indeno(1,2,3-cd)pyrene (aq)	<0.014 µg/l	TM178		0.211 #	0.0334 #	<2.8 #	0.0396 #		
PAH, Total Detected USEPA 16 (aq)	<0.247 µg/l	TM178		2.3	0.76	3100	0.496		

CERTIFICATE OF ANALYSIS

SDG:	120426-45	**Location:**	Limerick Gasworks	**Order Number:**	4500094829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	180196
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

TPH CWG (W)

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	A3	A4	A9	A11	C2
			Depth (m)	1.50 - 3.00	2.00	2.50	1.80 - 2.40	1.50	1.60 - 2.50
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	24/04/2012	24/04/2012	24/04/2012	24/04/2012	24/04/2012	24/04/2012
			Sampled Time	.	.	.	.	.	.
			Date Received	25/04/2012	25/04/2012	25/04/2012	25/04/2012	25/04/2012	25/04/2012
			SDG Ref	120426-45	120426-45	120426-45	120426-45	120426-45	120426-45
			Lab Sample No.(s)	5503944	5503942	5503943	5503938	5503935	5503945
			AGS Reference						
GRO Surrogate % recovery**	%	TM245		104	110	100	107	108	112
GRO >C5-C12	<50 µg/l	TM245		1730 #	2150 #	91 #	<50 #	676 #	403 #
Methyl tertiary butyl ether (MTBE)	<3 µg/l	TM245		<3 #	<3 #	<3 #	<3 #	<3 #	<3 #
Benzene	<7 µg/l	TM245		262 #	504 #	7 #	<7 #	10 #	142 #
Toluene	<4 µg/l	TM245		26 #	20 #	<4 #	<4 #	192 #	8 #
Ethylbenzene	<5 µg/l	TM245		75 #	162 #	5 #	<5 #	9 #	5 #
m,p-Xylene	<8 µg/l	TM245		55 #	44 #	<8 #	<8 #	35 #	9 #
o-Xylene	<3 µg/l	TM245		98 #	39 #	<3 #	<3 #	20 #	8 #
Sum of detected Xylenes	<11 µg/l	TM245		153	83	<11	<11	55	17
Sum of detected BTEX	<28 µg/l	TM245		516	769	<28	<28	266	172
Aliphatics >C5-C6	<10 µg/l	TM245		<10	<10	<10	<10	<10	<10
Aliphatics >C6-C8	<10 µg/l	TM245		49	42	<10	<10	<10	<10
Aliphatics >C8-C10	<10 µg/l	TM245		126	128	<10	<10	42	32
Aliphatics >C10-C12	<10 µg/l	TM245		571	671	33	<10	198	99
Aliphatics >C12-C16 (aq)	<10 µg/l	TM174		<10	<10	<10	<10	<10	<10
Aliphatics >C16-C21 (aq)	<10 µg/l	TM174		<10	<10	<10	<10	34	<10
Aliphatics >C21-C35 (aq)	<10 µg/l	TM174		<10	<10	<10	<10	148	<10
Total Aliphatics >C12-C35 (aq)	<10 µg/l	TM174		<10	<10	<10	<10	182	<10
Aromatics >EC5-EC7	<10 µg/l	TM245		262	504	<10	<10	10	142
Aromatics >EC7-EC8	<10 µg/l	TM245		26	20	<10	<10	192	<10
Aromatics >EC8-EC10	<10 µg/l	TM245		312	330	13	<10	92	44
Aromatics >EC10-EC12	<10 µg/l	TM245		381	447	22	<10	132	66
Aromatics >EC12-EC16 (aq)	<10 µg/l	TM174		222	805	71	<10	177	188
Aromatics >EC16-EC21 (aq)	<10 µg/l	TM174		123	239	41	<10	151	36
Aromatics >EC21-EC35 (aq)	<10 µg/l	TM174		22	17	<10	11	534	<10
Total Aromatics >EC12-EC35 (aq)	<10 µg/l	TM174		367	1060	112	11	862	224
Total Aliphatics & Aromatics >C5-35 (aq)	<10 µg/l	TM174		2100	3210	204	13	1720	626

CERTIFICATE OF ANALYSIS

SDG:	120426-45	**Location:**	Limerick Gasworks	**Order Number:**	4500094829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	180196
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

TPH CWG (W)

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	C7	C11	D1	D5	E8	F11
			Depth (m)	1.80 - 2.50	2.00	3.00 - 3.50	1.90	3.50	3.00
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	24/04/2012	24/04/2012	24/04/2012	24/04/2012	24/04/2012	24/04/2012
			Sampled Time	.	.	.	.	.	.
			Date Received	25/04/2012	25/04/2012	25/04/2012	25/04/2012	25/04/2012	25/04/2012
			SDG Ref	120426-45	120426-45	120426-45	120426-45	120426-45	120426-45
			Lab Sample No.(s)	5503939	5503934	5503947	5503941	5503937	5503933
			AGS Reference						
GRO Surrogate % recovery**	%	TM245		108	102	89	110	107	106
GRO >C5-C12	<50 µg/l	TM245		57500 #	3640 #	12100 #	303 #	14700 #	3740 #
Methyl tertiary butyl ether (MTBE)	<3 µg/l	TM245		<30 #	<3 #	<3 #	<3 #	<6 #	<3 #
Benzene	<7 µg/l	TM245		22000 #	55 #	747 #	79 #	6190 #	1350 #
Toluene	<4 µg/l	TM245		10500 #	38 #	896 #	104 #	1730 #	454 #
Ethylbenzene	<5 µg/l	TM245		411 #	101 #	303 #	9 #	76 #	43 #
m,p-Xylene	<8 µg/l	TM245		2920 #	180 #	1270 #	<8 #	629 #	200 #
o-Xylene	<3 µg/l	TM245		1180 #	149 #	573 #	12 #	251 #	123 #
Sum of detected Xylenes	<11 µg/l	TM245		4100	329	1840	12	880	323
Sum of detected BTEX	<28 µg/l	TM245		37000	523	3790	204	8880	2170
Aliphatics >C5-C6	<10 µg/l	TM245		145	<10	19	<10	50	<10
Aliphatics >C6-C8	<10 µg/l	TM245		729	30	188	<10	359	53
Aliphatics >C8-C10	<10 µg/l	TM245		2460	370	1030	10	620	175
Aliphatics >C10-C12	<10 µg/l	TM245		9350	1480	3810	39	2660	733
Aliphatics >C12-C16 (aq)	<10 µg/l	TM174		73	33	401	<10	<10	<10
Aliphatics >C16-C21 (aq)	<10 µg/l	TM174		62	13	442	11	<10	31
Aliphatics >C21-C35 (aq)	<10 µg/l	TM174		80	<10	264	11	<10	140
Total Aliphatics >C12-C35 (aq)	<10 µg/l	TM174		215	46	1110	22	<10	171
Aromatics >EC5-EC7	<10 µg/l	TM245		22000	55	747	79	6190	1350
Aromatics >EC7-EC8	<10 µg/l	TM245		10500	38	896	104	1730	454
Aromatics >EC8-EC10	<10 µg/l	TM245		6150	677	2830	35	1370	483
Aromatics >EC10-EC12	<10 µg/l	TM245		6230	988	2540	26	1770	489
Aromatics >EC12-EC16 (aq)	<10 µg/l	TM174		13800	712	4920	117	8240	1910
Aromatics >EC16-EC21 (aq)	<10 µg/l	TM174		1540	222	2450	20	570	49
Aromatics >EC21-EC35 (aq)	<10 µg/l	TM174		955	47	1170	77	122	212
Total Aromatics >EC12-EC35 (aq)	<10 µg/l	TM174		16300	981	8550	214	8930	2170
Total Aliphatics & Aromatics >C5-35 (aq)	<10 µg/l	TM174		74000	4670	21700	539	23700	6080

CERTIFICATE OF ANALYSIS

SDG:	120426-45	**Location:**	Limerick Gasworks	**Order Number:**	4500094829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	180196
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

TPH CWG (W)

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	G2	G3	G4	G5	G8	H12
			Depth (m)	5.00	4.50	2.50 - 3.50	4.00	0.50 - 1.50	2.50
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	24/04/2012	24/04/2012	24/04/2012	24/04/2012	24/04/2012	24/04/2012
			Sampled Time	.	.	.	.	.	.
			Date Received	25/04/2012	25/04/2012	25/04/2012	25/04/2012	25/04/2012	25/04/2012
			SDG Ref	120426-45	120426-45	120426-45	120426-45	120426-45	120426-45
			Lab Sample No.(s)	5503948	5503950	5503951	5503952	5503946	5503931
			AGS Reference						
GRO Surrogate % recovery**	%	TM245		103	104	99	105	103	104
GRO >C5-C12	<50 µg/l	TM245		23900 #	6290 #	16000 #	176 #	7350 #	76 #
Methyl tertiary butyl ether (MTBE)	<3 µg/l	TM245		<6 #	<3 #	<3 #	<3 #	<3 #	<3 #
Benzene	<7 µg/l	TM245		5720 #	1600 #	2880 #	56 #	945 #	11 #
Toluene	<4 µg/l	TM245		4280 #	696 #	3020 #	<4 #	893 #	12 #
Ethylbenzene	<5 µg/l	TM245		456 #	169 #	288 #	<5 #	90 #	<5 #
m,p-Xylene	<8 µg/l	TM245		1950 #	420 #	1790 #	8 #	629 #	<8 #
o-Xylene	<3 µg/l	TM245		1020 #	325 #	739 #	11 #	262 #	<3 #
Sum of detected Xylenes	<11 µg/l	TM245		2970	745	2530	19	891	<11
Sum of detected BTEX	<28 µg/l	TM245		13400	3210	8720	75	2820	<28
Aliphatics >C5-C6	<10 µg/l	TM245		43	11	24	<10	10	<10
Aliphatics >C6-C8	<10 µg/l	TM245		346	101	171	<10	65	<10
Aliphatics >C8-C10	<10 µg/l	TM245		1370	412	992	15	467	<10
Aliphatics >C10-C12	<10 µg/l	TM245		4660	1370	3250	39	2210	21
Aliphatics >C12-C16 (aq)	<10 µg/l	TM174		<10	<10	10	<10	<10	34
Aliphatics >C16-C21 (aq)	<10 µg/l	TM174		<10	<10	12	<10	<10	17
Aliphatics >C21-C35 (aq)	<10 µg/l	TM174		<10	<10	<10	<10	<10	98
Total Aliphatics >C12-C35 (aq)	<10 µg/l	TM174		<10	<10	22	<10	<10	149
Aromatics >EC5-EC7	<10 µg/l	TM245		5720	1600	2880	56	945	11
Aromatics >EC7-EC8	<10 µg/l	TM245		4280	696	3020	<10	893	12
Aromatics >EC8-EC10	<10 µg/l	TM245		4340	1190	3480	31	1290	<10
Aromatics >EC10-EC12	<10 µg/l	TM245		3100	916	2160	26	1470	14
Aromatics >EC12-EC16 (aq)	<10 µg/l	TM174		5850	<10	4520	27	2980	52
Aromatics >EC16-EC21 (aq)	<10 µg/l	TM174		468	194	1230	<10	670	133
Aromatics >EC21-EC35 (aq)	<10 µg/l	TM174		<100	54	242	23	57	336
Total Aromatics >EC12-EC35 (aq)	<10 µg/l	TM174		6330	248	6000	50	3700	521
Total Aliphatics & Aromatics >C5-35 (aq)	<10 µg/l	TM174		30200	6540	22000	226	11100	746

CERTIFICATE OF ANALYSIS

SDG:	120426-45	**Location:**	Limerick Gasworks	**Order Number:**	4500094829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	180196
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

TPH CWG (W)

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	J10	K1	K5	M3		
			Depth (m)	1.00	3.25	3.00	4.00 - 5.00		
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)		
			Date Sampled	24/04/2012	24/04/2012	24/04/2012	24/04/2012		
			Sampled Time	.	.	.	.		
			Date Received	25/04/2012	25/04/2012	25/04/2012	25/04/2012		
			SDG Ref	120426-45	120426-45	120426-45	120426-45		
			Lab Sample No.(s)	5503930	5503926	5503929	5503927		
			AGS Reference						
GRO Surrogate % recovery**	%	TM245		115	116	104	116		
GRO >C5-C12	<50 µg/l	TM245		<50 #	<50 #	32800 #	<50 #		
Methyl tertiary butyl ether (MTBE)	<3 µg/l	TM245		<3 #	<3 #	<15 #	<3 #		
Benzene	<7 µg/l	TM245		<7 #	<7 #	11500 #	<7 #		
Toluene	<4 µg/l	TM245		<4 #	<4 #	4410 #	<4 #		
Ethylbenzene	<5 µg/l	TM245		<5 #	<5 #	202 #	<5 #		
m,p-Xylene	<8 µg/l	TM245		<8 #	<8 #	1410 #	<8 #		
o-Xylene	<3 µg/l	TM245		<3 #	<3 #	560 #	<3 #		
Sum of detected Xylenes	<11 µg/l	TM245		<11	<11	1970	<11		
Sum of detected BTEX	<28 µg/l	TM245		<28	<28	18100	<28		
Aliphatics >C5-C6	<10 µg/l	TM245		<10	<10	136	<10		
Aliphatics >C6-C8	<10 µg/l	TM245		<10	<10	930	<10		
Aliphatics >C8-C10	<10 µg/l	TM245		<10	<10	1580	<10		
Aliphatics >C10-C12	<10 µg/l	TM245		14	<10	6570	<10		
Aliphatics >C12-C16 (aq)	<10 µg/l	TM174		<10	<10	<10	<10		
Aliphatics >C16-C21 (aq)	<10 µg/l	TM174		<10	<10	<10	<10		
Aliphatics >C21-C35 (aq)	<10 µg/l	TM174		<10	<10	<10	<10		
Total Aliphatics >C12-C35 (aq)	<10 µg/l	TM174		<10	<10	<10	<10		
Aromatics >EC5-EC7	<10 µg/l	TM245		<10	<10	11500	<10		
Aromatics >EC7-EC8	<10 µg/l	TM245		<10	<10	4410	<10		
Aromatics >EC8-EC10	<10 µg/l	TM245		<10	<10	3230	<10		
Aromatics >EC10-EC12	<10 µg/l	TM245		<10	<10	4380	<10		
Aromatics >EC12-EC16 (aq)	<10 µg/l	TM174		<10	<10	20800	<10		
Aromatics >EC16-EC21 (aq)	<10 µg/l	TM174		<10	<10	814	<10		
Aromatics >EC21-EC35 (aq)	<10 µg/l	TM174		<10	<10	<100	<10		
Total Aromatics >EC12-EC35 (aq)	<10 µg/l	TM174		<10	<10	21600	<10		
Total Aliphatics & Aromatics >C5-35 (aq)	<10 µg/l	TM174		42	<10	54400	<10		

CERTIFICATE OF ANALYSIS

SDG:	120426-45	**Location:**	Limerick Gasworks	**Order Number:**	4500094829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	180196
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

VOC MS (W)

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	A3	A4	A11	C7	D1
			Depth (m)	1.50 - 3.00	2.00	2.50	1.50	1.80 - 2.50	3.00 - 3.50
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	24/04/2012	24/04/2012	24/04/2012	24/04/2012	24/04/2012	24/04/2012
			Sampled Time	.	.	.	.	.	.
			Date Received	25/04/2012	25/04/2012	25/04/2012	25/04/2012	25/04/2012	25/04/2012
			SDG Ref	120426-45	120426-45	120426-45	120426-45	120426-45	120426-45
			Lab Sample No.(s)	5503944	5503942	5503943	5503935	5503939	5503947
			AGS Reference						
Dibromofluoromethane**	%	TM208		111	103	107	113	106	109
Toluene-d8**	%	TM208		85	99.4	99.5	101	97.7	101
4-Bromofluorobenzene**	%	TM208		103	101	103	98.6	84.4	93.4
Dichlorodifluoromethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Chloromethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Vinyl chloride	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Bromomethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Chloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Trichlorofluoromethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,1-Dichloroethene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Carbon disulphide	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Dichloromethane	<3 µg/l	TM208		<3 #	<3 #	<3 #	<3 #	<3 #	<3 #
Methyl tertiary butyl ether (MTBE)	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
trans-1,2-Dichloroethene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,1-Dichloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
cis-1,2-Dichloroethene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2,2-Dichloropropane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Bromochloromethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Chloroform	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,1,1-Trichloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,1-Dichloropropene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Carbontetrachloride	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,2-Dichloroethane	<1 µg/l	TM208		<1	<1	<1	<1	<1	<1
Benzene	<1 µg/l	TM208		193 #	357 #	7.24 #	9.65 #	23400 #	870 #
Trichloroethene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,2-Dichloropropane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Dibromomethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Bromodichloromethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
cis-1,3-Dichloropropene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Toluene	<1 µg/l	TM208		19.5 #	20.7 #	<1 #	190 #	10500 #	1110 #
trans-1,3-Dichloropropene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,1,2-Trichloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,3-Dichloropropane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Tetrachloroethene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Dibromochloromethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #

CERTIFICATE OF ANALYSIS

SDG:	120426-45	**Location:**	Limerick Gasworks	**Order Number:**	4500094829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	180196
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

VOC MS (W)

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	A3	A4	A11	C7	D1
			Depth (m)	1.50 - 3.00	2.00	2.50	1.50	1.80 - 2.50	3.00 - 3.50
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	24/04/2012	24/04/2012	24/04/2012	24/04/2012	24/04/2012	24/04/2012
			Sampled Time	.	.	.	.	.	.
			Date Received	25/04/2012	25/04/2012	25/04/2012	25/04/2012	25/04/2012	25/04/2012
			SDG Ref	120426-45	120426-45	120426-45	120426-45	120426-45	120426-45
			Lab Sample No.(s)	5503944	5503942	5503943	5503935	5503939	5503947
			AGS Reference						
1,2-Dibromoethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Chlorobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,1,1,2-Tetrachloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Ethylbenzene	<1 µg/l	TM208		60 #	152 #	4.81 #	7.57 #	331 #	348 #
m,p-Xylene	<1 µg/l	TM208		48 #	43.7 #	<1 #	29.1 #	2390 #	1410 #
o-Xylene	<1 µg/l	TM208		92.1 #	40 #	1.3 #	16 #	897 #	524 #
Styrene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Bromoform	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Isopropylbenzene	<1 µg/l	TM208		7.22 #	12 #	<1 #	<1 #	13.3 #	30.8 #
1,1,2,2-Tetrachloroethane	<1 µg/l	TM208		<1	<1	<1	<1	<1	<1
1,2,3-Trichloropropane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Bromobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Propylbenzene	<1 µg/l	TM208		2.31 #	10.5 #	<1 #	1.01 #	17.7 #	38.7 #
2-Chlorotoluene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,3,5-Trimethylbenzene	<1 µg/l	TM208		3.19 #	4.39 #	<1 #	2.85 #	101 #	156 #
4-Chlorotoluene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
tert-Butylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,2,4-Trimethylbenzene	<1 µg/l	TM208		31.9 #	17.9 #	<1 #	7.14 #	244 #	432 #
sec-Butylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
4-iso-Propyltoluene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,3-Dichlorobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,4-Dichlorobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
n-Butylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,2-Dichlorobenzene	<1 µg/l	TM208		<1	<1	<1	<1	<1	<1
1,2-Dibromo-3-chloropropane	<1 µg/l	TM208		<1	<1	<1	<1	<1	<1
1,2,4-Trichlorobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Hexachlorobutadiene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
tert-Amyl methyl ether (TAME)	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Naphthalene	<1 µg/l	TM208		19.3 #	263 #	2.27 #	152 #	8710 #	7980 #
1,2,3-Trichlorobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,3,5-Trichlorobenzene	<1 µg/l	TM208		<1	<1	<1	<1	<1	<1

CERTIFICATE OF ANALYSIS

SDG:	120426-45	**Location:**	Limerick Gasworks	**Order Number:**	4500094829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	180196
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

VOC MS (W)

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	G2	G4	G5	K5	M3
			Depth (m)	5.00	2.50 - 3.50	4.00	3.00	4.00 - 5.00
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	24/04/2012	24/04/2012	24/04/2012	24/04/2012	24/04/2012
			Sampled Time	.	.	.	.	.
			Date Received	25/04/2012	25/04/2012	25/04/2012	25/04/2012	25/04/2012
			SDG Ref	120426-45	120426-45	120426-45	120426-45	120426-45
			Lab Sample No.(s)	5503948	5503951	5503952	5503929	5503927
			AGS Reference					
Dibromofluoromethane**	%	TM208		111	109	102	109	108
Toluene-d8**	%	TM208		99.4	98.8	99.2	97.2	100
4-Bromofluorobenzene**	%	TM208		92.4	95.8	105	80.2	100
Dichlorodifluoromethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
Chloromethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
Vinyl chloride	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
Bromomethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
Chloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
Trichlorofluoromethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	1.68 #	<1 #
1,1-Dichloroethene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
Carbon disulphide	<1 µg/l	TM208		6.94 #	<1 #	<1 #	<1 #	<1 #
Dichloromethane	<3 µg/l	TM208		<3 #	<3 #	<3 #	<3 #	<3 #
Methyl tertiary butyl ether (MTBE)	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
trans-1,2-Dichloroethene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
1,1-Dichloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
cis-1,2-Dichloroethene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
2,2-Dichloropropane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
Bromochloromethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
Chloroform	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
1,1,1-Trichloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
1,1-Dichloropropene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
Carbontetrachloride	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
1,2-Dichloroethane	<1 µg/l	TM208		<1	<1	<1	<1	<1
Benzene	<1 µg/l	TM208		6450 #	3090 #	59.5 #	12600 #	<1 #
Trichloroethene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
1,2-Dichloropropane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
Dibromomethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
Bromodichloromethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
cis-1,3-Dichloropropene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
Toluene	<1 µg/l	TM208		4670 #	3160 #	2.74 #	4540 #	<1 #
trans-1,3-Dichloropropene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
1,1,2-Trichloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
1,3-Dichloropropane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
Tetrachloroethene	<1 µg/l	TM208		<1 #	<1 #	<1 #	2.73 #	<1 #
Dibromochloromethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #

CERTIFICATE OF ANALYSIS

SDG:	120426-45	**Location:**	Limerick Gasworks	**Order Number:**	4500094829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	180196
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

VOC MS (W)

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	G2	G4	G5	K5	M3
			Depth (m)	5.00	2.50 - 3.50	4.00	3.00	4.00 - 5.00
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	24/04/2012	24/04/2012	24/04/2012	24/04/2012	24/04/2012
			Sampled Time	.	.	.	.	.
			Date Received	25/04/2012	25/04/2012	25/04/2012	25/04/2012	25/04/2012
			SDG Ref	120426-45	120426-45	120426-45	120426-45	120426-45
			Lab Sample No.(s)	5503948	5503951	5503952	5503929	5503927
			AGS Reference					
1,2-Dibromoethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
Chlorobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
1,1,1,2-Tetrachloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
Ethylbenzene	<1 µg/l	TM208		462 #	283 #	2.17 #	199 #	<1 #
m,p-Xylene	<1 µg/l	TM208		1650 #	1480 #	7.71 #	1050 #	<1 #
o-Xylene	<1 µg/l	TM208		788 #	554 #	10.8 #	528 #	<1 #
Styrene	<1 µg/l	TM208		65.6 #	103 #	<1 #	331 #	<1 #
Bromoform	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
Isopropylbenzene	<1 µg/l	TM208		29.5 #	16.7 #	1.24 #	8.51 #	<1 #
1,1,2,2-Tetrachloroethane	<1 µg/l	TM208		<1	<1	<1	<1	<1
1,2,3-Trichloropropane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
Bromobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
Propylbenzene	<1 µg/l	TM208		29.9 #	16 #	<1 #	10.1 #	<1 #
2-Chlorotoluene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
1,3,5-Trimethylbenzene	<1 µg/l	TM208		98.7 #	123 #	<1 #	55.1 #	<1 #
4-Chlorotoluene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
tert-Butylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
1,2,4-Trimethylbenzene	<1 µg/l	TM208		375 #	314 #	2.88 #	145 #	<1 #
sec-Butylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
4-iso-Propyltoluene	<1 µg/l	TM208		44 #	26.5 #	<1 #	<1 #	<1 #
1,3-Dichlorobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
1,4-Dichlorobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
n-Butylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
1,2-Dichlorobenzene	<1 µg/l	TM208		<1	<1	<1	<1	<1
1,2-Dibromo-3-chloropropane	<1 µg/l	TM208		<1	<1	<1	<1	<1
1,2,4-Trichlorobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
Hexachlorobutadiene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
tert-Amyl methyl ether (TAME)	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
Naphthalene	<1 µg/l	TM208		3100 #	2310 #	2.78 #	3750 #	<1 #
1,2,3-Trichlorobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
1,3,5-Trichlorobenzene	<1 µg/l	TM208		<1	<1	<1	<1	<1

CERTIFICATE OF ANALYSIS

SDG:	120426-45	**Location:**	Limerick Gasworks	**Order Number:**	4500094829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	180196
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Table of Results - Appendix

Method No	Reference	Description	Wet/Dry Sample [1]	Surrogate Corrected
TM061	Method for the Determination of EPH,Massachusetts Dept.of EP, 1998	Determination of Extractable Petroleum Hydrocarbons by GC-FID (C10-C40)		
TM099	BS 2690: Part 7:1968 / BS 6068: Part2.11:1984	Determination of Ammonium in Water Samples using the Kone Analyser		
TM101	Method 4500B & C, AWWA/APHA, 20th Ed., 1999	Determination of Sulphide in soil and water samples using the Kone Analyser		
TM152	Method 3125B, AWWA/APHA, 20th Ed., 1999	Analysis of Aqueous Samples by ICP-MS		
TM174	Analysis of Petroleum Hydrocarbons in Environmental Media – Total Petroleum Hydrocarbon Criteria	Determination of Speciated Extractable Petroleum Hydrocarbons in Waters by GC-FID		
TM178	Modified: US EPA Method 8100	Determination of Polynuclear Aromatic Hydrocarbons (PAH) by GC-MS in Waters		
TM183	BS EN 23506:2002, (BS 6068-2.74:2002) ISBN 0 580 38924 3	Determination of Trace Level Mercury in Waters and Leachates by PSA Cold Vapour Atomic Fluorescence Spectrometry		
TM184	EPA Methods 325.1 & 325.2,	The Determination of Anions in Aqueous Matrices using the Kone Spectrophotometric Analysers		
TM208	Modified: US EPA Method 8260b & 624	Determination of Volatile Organic Compounds by Headspace / GC-MS in Waters		
TM227	Standard methods for the examination of waters and wastewaters 20th Edition, AWWA/APHA Method 4500.	Determination of Total Cyanide, Free (Easily Liberatable) Cyanide and Thiocyanate		
TM241	Methods for the Examination of Waters and Associated Materials; Chromium in Raw and Potable Waters and Sewage Effluents 1980.	The Determination of Hexavalent Chromium in Waters and Leachates using the Kone Analyser		
TM245	By GC-FID	Determination of GRO by Headspace in waters		
TM256	The measurement of Electrical Conductivity and the Laboratory determination of pH Value of Natural, Treated and Wastewaters. HMSO, 1978. ISBN 011 751428 4.	Determination of pH in Water and Leachate using the GLpH pH Meter		
TM259	by HPLC	Determination of Phenols in Waters and Leachates by HPLC		

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

SDG:	120426-45	**Location:**	Limerick Gasworks	**Order Number:**	4500094829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	180196
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Test Completion Dates

Lab Sample No(s)	5503944	5503942	5503943	5503938	5503935	5503945	5503939	5503934	5503947	5503941
Customer Sample Ref.	A1	A3	A4	A9	A11	C2	C7	C11	D1	D5
AGS Ref.										
Depth	1.50 - 3.00	2.00	2.50	1.80 - 2.40	1.50	1.60 - 2.50	1.80 - 2.50	2.00	3.00 - 3.50	1.90
Type	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID
Ammoniacal Nitrogen	30-Apr-2012	30-Apr-2012	01-May-2012	30-Apr-2012	30-Apr-2012	01-May-2012	30-Apr-2012	01-May-2012	30-Apr-2012	30-Apr-2012
Anions by Kone (w)	03-May-2012	03-May-2012	03-May-2012	03-May-2012	03-May-2012	03-May-2012	03-May-2012	03-May-2012	03-May-2012	03-May-2012
Cyanide Comp/Free/Total/Thiocyanate	30-Apr-2012	30-Apr-2012	30-Apr-2012	01-May-2012	01-May-2012	30-Apr-2012	01-May-2012	30-Apr-2012	01-May-2012	30-Apr-2012
Dissolved Metals by ICP-MS	30-Apr-2012	30-Apr-2012	30-Apr-2012	01-May-2012	01-May-2012	30-Apr-2012	01-May-2012	30-Apr-2012	30-Apr-2012	30-Apr-2012
EPH CWG (Aliphatic) Aqueous GC (W)	02-May-2012	01-May-2012	01-May-2012	01-May-2012	01-May-2012	02-May-2012	02-May-2012	01-May-2012	01-May-2012	01-May-2012
EPH CWG (Aromatic) Aqueous GC (W)	02-May-2012	01-May-2012	01-May-2012	01-May-2012	01-May-2012	02-May-2012	02-May-2012	01-May-2012	01-May-2012	01-May-2012
GRO by GC-FID (W)	29-Apr-2012	28-Apr-2012	28-Apr-2012	28-Apr-2012	29-Apr-2012	28-Apr-2012	29-Apr-2012	29-Apr-2012	29-Apr-2012	28-Apr-2012
Hexavalent Chromium (w)	30-Apr-2012	02-May-2012	02-May-2012	02-May-2012	02-May-2012	30-Apr-2012	02-May-2012	30-Apr-2012	02-May-2012	02-May-2012
Mercury Dissolved	02-May-2012	02-May-2012	02-May-2012	03-May-2012	03-May-2012	02-May-2012	03-May-2012	02-May-2012	02-May-2012	02-May-2012
PAH Spec MS - Aqueous (W)	03-May-2012	02-May-2012	02-May-2012	03-May-2012	03-May-2012	02-May-2012	04-May-2012	02-May-2012	03-May-2012	03-May-2012
pH Value	27-Apr-2012	27-Apr-2012	27-Apr-2012	27-Apr-2012	27-Apr-2012	27-Apr-2012	27-Apr-2012	27-Apr-2012	27-Apr-2012	27-Apr-2012
Phenols by HPLC (W)	01-May-2012	01-May-2012	01-May-2012	02-May-2012	03-May-2012	01-May-2012	03-May-2012	01-May-2012	02-May-2012	01-May-2012
Sulphide	02-May-2012	02-May-2012	02-May-2012	02-May-2012	02-May-2012	02-May-2012	02-May-2012	02-May-2012	02-May-2012	02-May-2012
TPH CWG (W)	02-May-2012	01-May-2012	01-May-2012	01-May-2012	01-May-2012	02-May-2012	02-May-2012	01-May-2012	01-May-2012	01-May-2012
VOC MS (W)	30-Apr-2012	01-May-2012	30-Apr-2012		30-Apr-2012		01-May-2012		01-May-2012	

Lab Sample No(s)	5503937	5503933	5503948	5503950	5503951	5503952	5503946	5503931	5503930	5503926
Customer Sample Ref.	E8	F11	G2	G3	G4	G5	G8	H12	J10	K1
AGS Ref.										
Depth	3.50	3.00	5.00	4.50	2.50 - 3.50	4.00	0.50 - 1.50	2.50	1.00	3.25
Type	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID
Ammoniacal Nitrogen	30-Apr-2012	30-Apr-2012	30-Apr-2012	30-Apr-2012	30-Apr-2012	30-Apr-2012	01-May-2012	30-Apr-2012	01-May-2012	30-Apr-2012
Anions by Kone (w)	03-May-2012	03-May-2012	03-May-2012	03-May-2012	03-May-2012	03-May-2012	03-May-2012	03-May-2012	03-May-2012	03-May-2012
Cyanide Comp/Free/Total/Thiocyanate	01-May-2012	30-Apr-2012	01-May-2012	01-May-2012	01-May-2012	30-Apr-2012	30-Apr-2012	01-May-2012	30-Apr-2012	30-Apr-2012
Dissolved Metals by ICP-MS	01-May-2012	30-Apr-2012	30-Apr-2012	30-Apr-2012	30-Apr-2012	30-Apr-2012	30-Apr-2012	01-May-2012	30-Apr-2012	30-Apr-2012
EPH CWG (Aliphatic) Aqueous GC (W)	01-May-2012	02-May-2012	02-May-2012	01-May-2012	01-May-2012	02-May-2012	01-May-2012	01-May-2012	02-May-2012	01-May-2012
EPH CWG (Aromatic) Aqueous GC (W)	01-May-2012	02-May-2012	02-May-2012	01-May-2012	01-May-2012	02-May-2012	01-May-2012	01-May-2012	02-May-2012	01-May-2012
GRO by GC-FID (W)	29-Apr-2012	29-Apr-2012	29-Apr-2012	29-Apr-2012	29-Apr-2012	28-Apr-2012	29-Apr-2012	29-Apr-2012	28-Apr-2012	28-Apr-2012
Hexavalent Chromium (w)	02-May-2012	30-Apr-2012	02-May-2012	02-May-2012	02-May-2012	30-Apr-2012	30-Apr-2012	02-May-2012	30-Apr-2012	02-May-2012
Mercury Dissolved	03-May-2012	02-May-2012	02-May-2012	02-May-2012	02-May-2012	02-May-2012	02-May-2012	03-May-2012	02-May-2012	02-May-2012
PAH Spec MS - Aqueous (W)	03-May-2012	03-May-2012	03-May-2012	03-May-2012	03-May-2012	02-May-2012	03-May-2012	03-May-2012	03-May-2012	02-May-2012
pH Value	27-Apr-2012	27-Apr-2012	27-Apr-2012	27-Apr-2012	27-Apr-2012	27-Apr-2012	27-Apr-2012	27-Apr-2012	27-Apr-2012	27-Apr-2012
Phenols by HPLC (W)	03-May-2012	02-May-2012	03-May-2012	02-May-2012	03-May-2012	01-May-2012	01-May-2012	03-May-2012	01-May-2012	01-May-2012
Sulphide	02-May-2012	02-May-2012	02-May-2012	02-May-2012	02-May-2012	02-May-2012	02-May-2012	02-May-2012	02-May-2012	02-May-2012
TPH CWG (W)	01-May-2012	02-May-2012	02-May-2012	01-May-2012	01-May-2012	02-May-2012	01-May-2012	01-May-2012	02-May-2012	01-May-2012
VOC MS (W)			01-May-2012		01-May-2012	30-Apr-2012				

Lab Sample No(s)	5503929	5503927
Customer Sample Ref.	K5	M3
AGS Ref.		
Depth	3.00	4.00 - 5.00
Type	LIQUID	LIQUID
Ammoniacal Nitrogen	30-Apr-2012	01-May-2012
Anions by Kone (w)	03-May-2012	03-May-2012
Cyanide Comp/Free/Total/Thiocyanate	01-May-2012	30-Apr-2012
Dissolved Metals by ICP-MS	01-May-2012	30-Apr-2012
EPH CWG (Aliphatic) Aqueous GC (W)	02-May-2012	02-May-2012
EPH CWG (Aromatic) Aqueous GC (W)	02-May-2012	02-May-2012
GRO by GC-FID (W)	29-Apr-2012	28-Apr-2012
Hexavalent Chromium (w)	02-May-2012	30-Apr-2012
Mercury Dissolved	03-May-2012	02-May-2012
PAH Spec MS - Aqueous (W)	03-May-2012	03-May-2012
pH Value	27-Apr-2012	27-Apr-2012
Phenols by HPLC (W)	02-May-2012	01-May-2012
Sulphide	02-May-2012	02-May-2012
TPH CWG (W)	02-May-2012	02-May-2012
VOC MS (W)	01-May-2012	01-May-2012

CERTIFICATE OF ANALYSIS

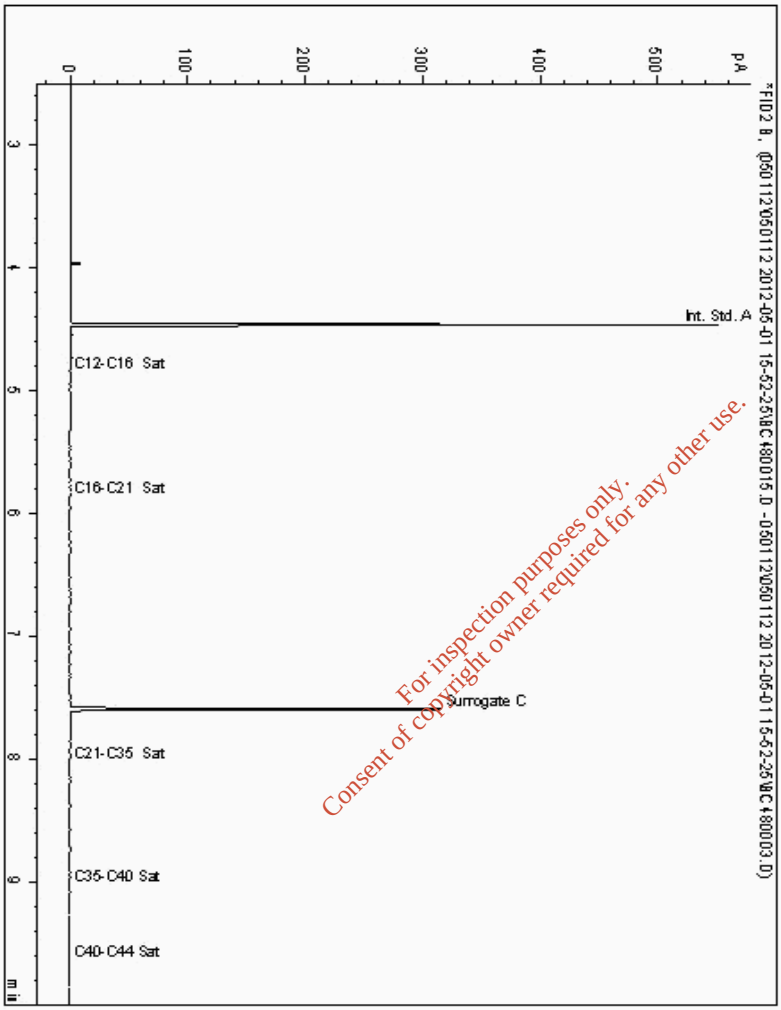
SDG:	120426-45	**Location:**	Limerick Gasworks	**Order Number:**	4500094829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	180196
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: EPH CWG (Aliphatic) Aqueous GC (W) **Sample No :** 5510514 **Sample ID :** J10 **Depth :** 1.00

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

Sample Identity: 5390819-5510514
Date Acquired : 01/05/12 20:16:21
Units : ppb
Dilution :
CF : 1
Multiplier : 0.008



CERTIFICATE OF ANALYSIS

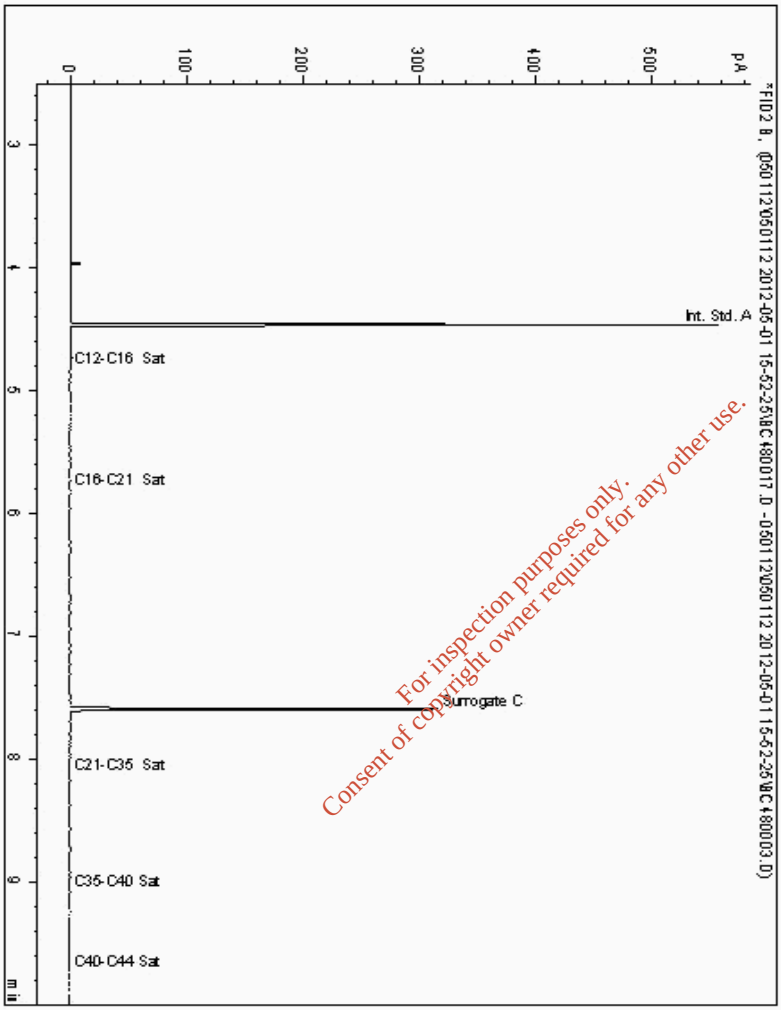
SDG:	120426-45	**Location:**	Limerick Gasworks	**Order Number:**	4500094829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	180196
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: EPH CWG (Aliphatic) Aqueous GC (W) **Sample No :** 5510562 **Sample ID :** M3 **Depth :** 4.00 - 5.00

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

Sample Identity: 5390789-5510562
Date Acquired : 01/05/12 20:54:49
Units : ppb
Dilution :
CF : 1
Multiplier : 0.008



CERTIFICATE OF ANALYSIS

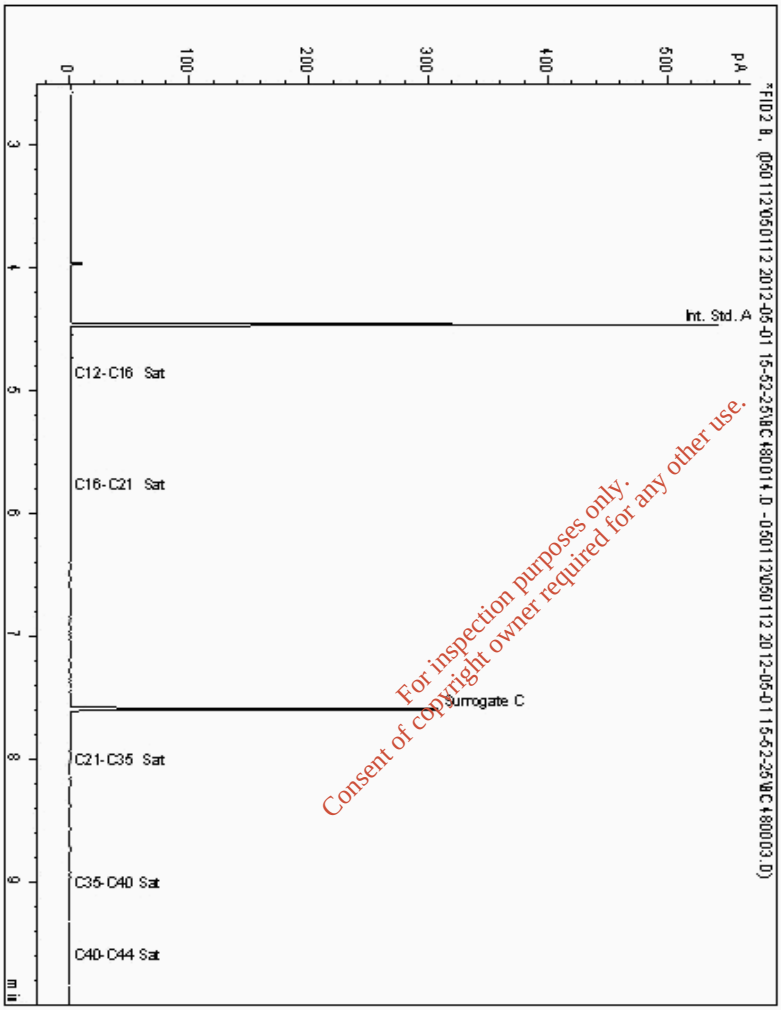
SDG:	120426-45	**Location:**	Limerick Gasworks	**Order Number:**	4500094829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	180196
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: EPH CWG (Aliphatic) Aqueous GC (W) **Sample No :** 5510606 **Sample ID :** G5 **Depth :** 4.00

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

Sample Identity: 5390414-5510606
Date Acquired : 01/05/12 19:57:14
Units : ppb
Dilution :
CF : 1
Multiplier : 0.008



CERTIFICATE OF ANALYSIS

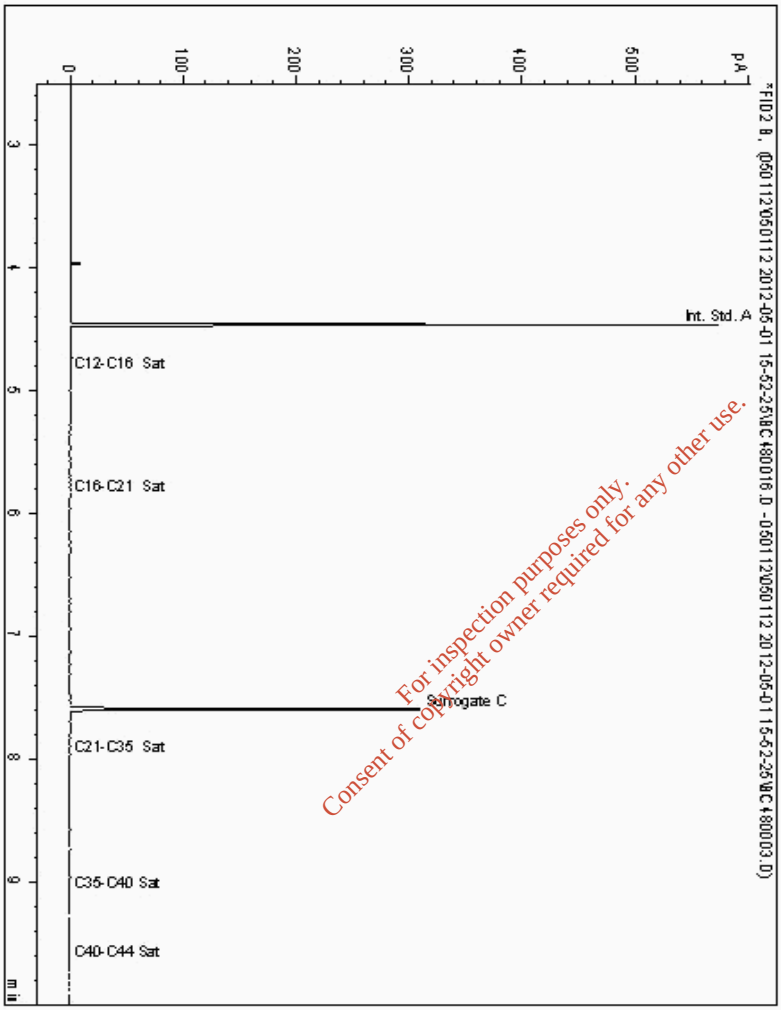
SDG:	120426-45	**Location:**	Limerick Gasworks	**Order Number:**	4500094829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	180196
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: EPH CWG (Aliphatic) Aqueous GC (W) **Sample No :** 5510627 **Sample ID :** C2 **Depth :** 1.60 - 2.50

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

Sample Identity: 5390246-5510627
Date Acquired : 01/05/12 20:35:41
Units : ppb
Dilution :
CF : 1
Multiplier : 0.008



CERTIFICATE OF ANALYSIS

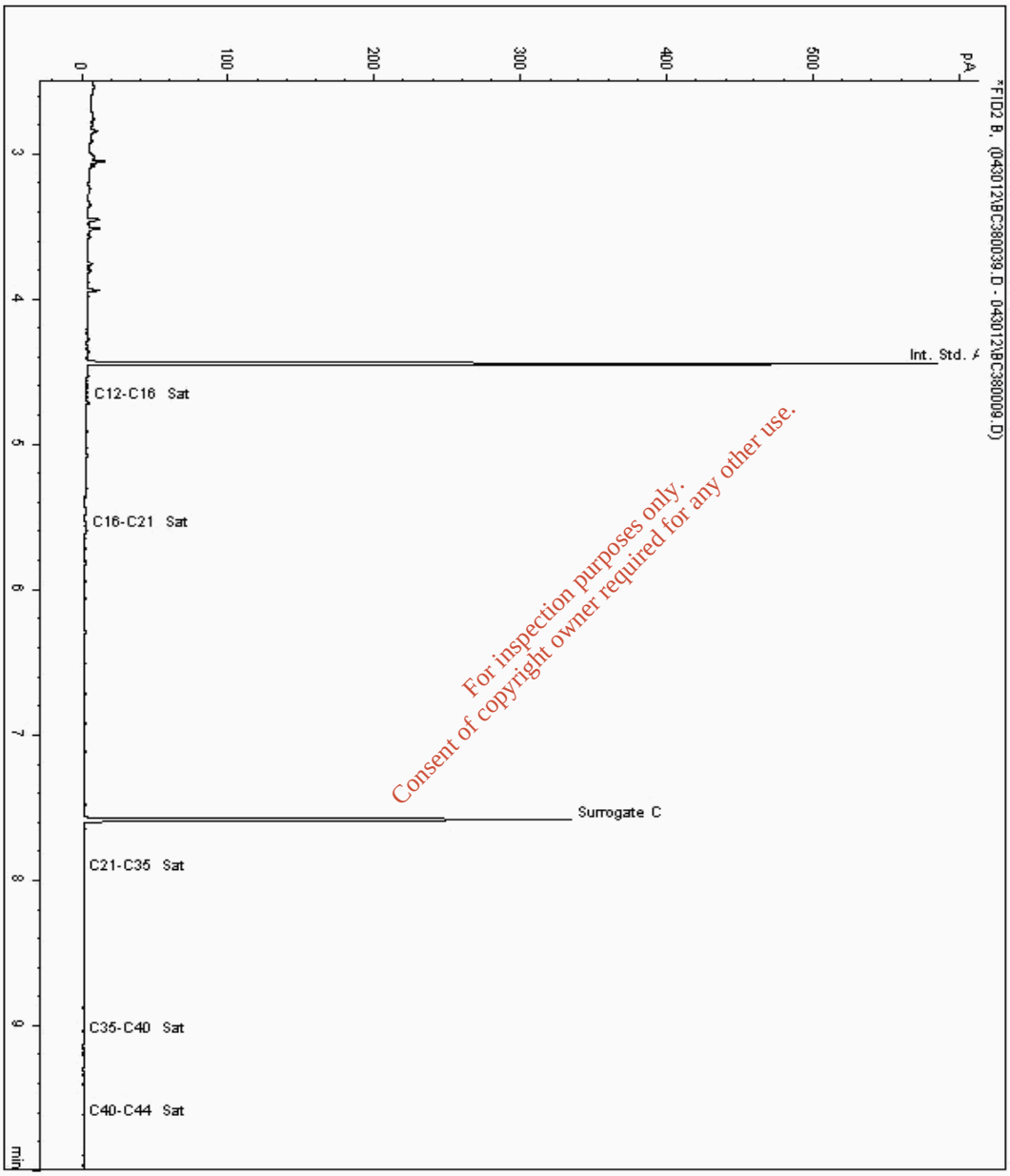
SDG:	120426-45	**Location:**	Limerick Gasworks	**Order Number:**	4500094829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	180196
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: EPH CWG (Aliphatic) Aqueous GC (W) **Sample No :** 5510835 **Sample ID :** G4 **Depth :** 2.50 - 3.50

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

Sample Identity: 5390376-5510835
Date Acquired : 01/05/12 02:59:52 PM
Units : ppb
Dilution :
CF : 1
Multiplier : 0.008



CERTIFICATE OF ANALYSIS

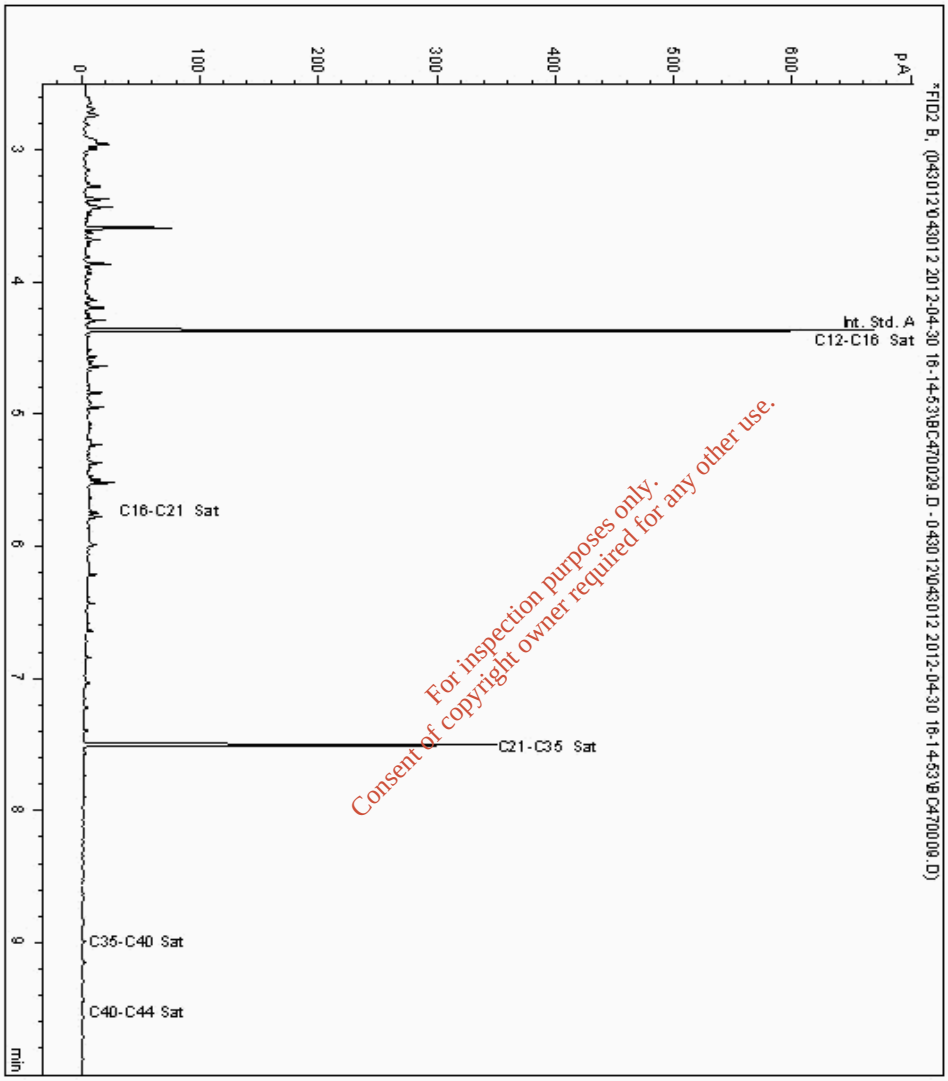
SDG:	120426-45	**Location:**	Limerick Gasworks	**Order Number:**	4500094829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	180196
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: EPH CWG (Aliphatic) Aqueous GC (W) **Sample No :** 5510917 **Sample ID :** D1 **Depth :** 3.00 - 3.50

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

Sample Identity: 5390298-5510917
Date Acquired : 30/04/12 23:59:36
Units : ppb
Dilution :
CF : 1
Multiplier : 0.008



CERTIFICATE OF ANALYSIS

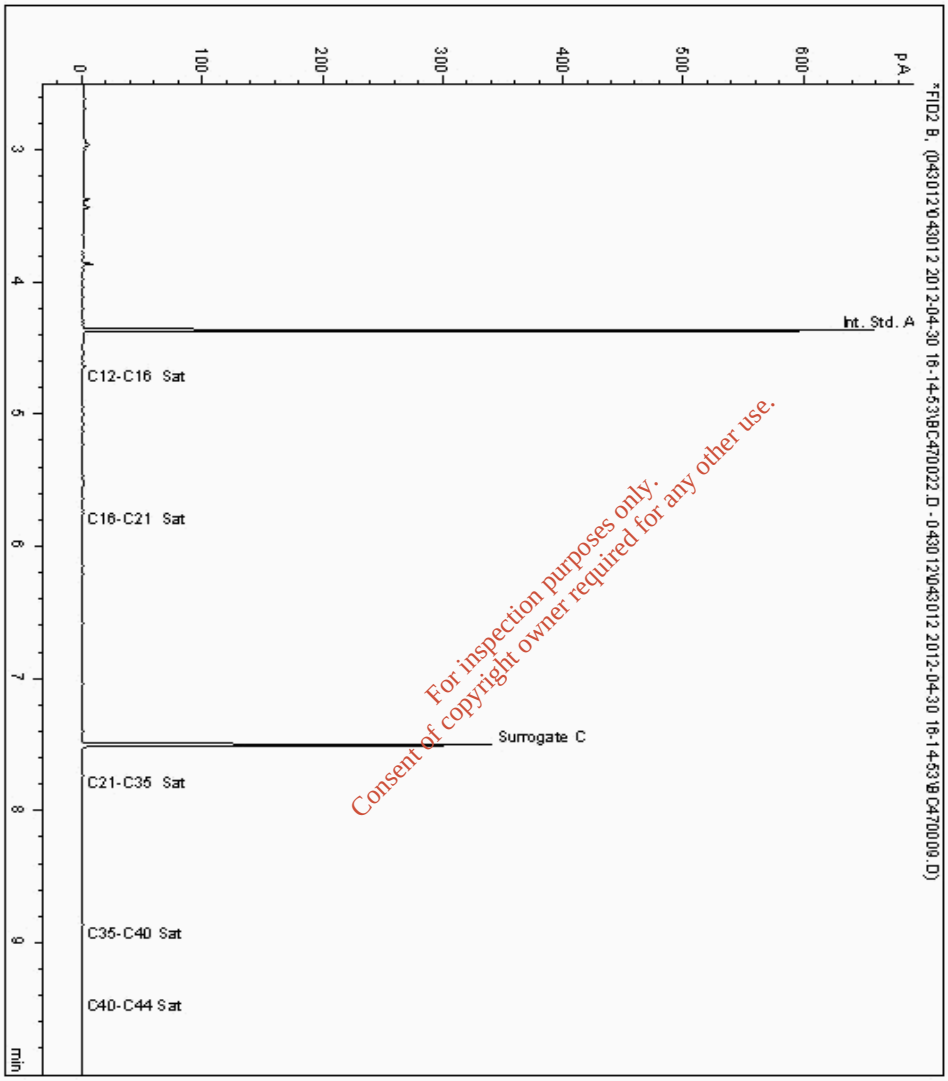
SDG:	120426-45	**Location:**	Limerick Gasworks	**Order Number:**	4500094829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	180196
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: EPH CWG (Aliphatic) Aqueous GC (W) **Sample No :** 5510957 **Sample ID :** G3 **Depth :** 4.50

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

Sample Identity: 5390354-5510957
Date Acquired : 30/04/12 21:54:13
Units : ppb
Dilution :
CF : 1
Multiplier : 0.008

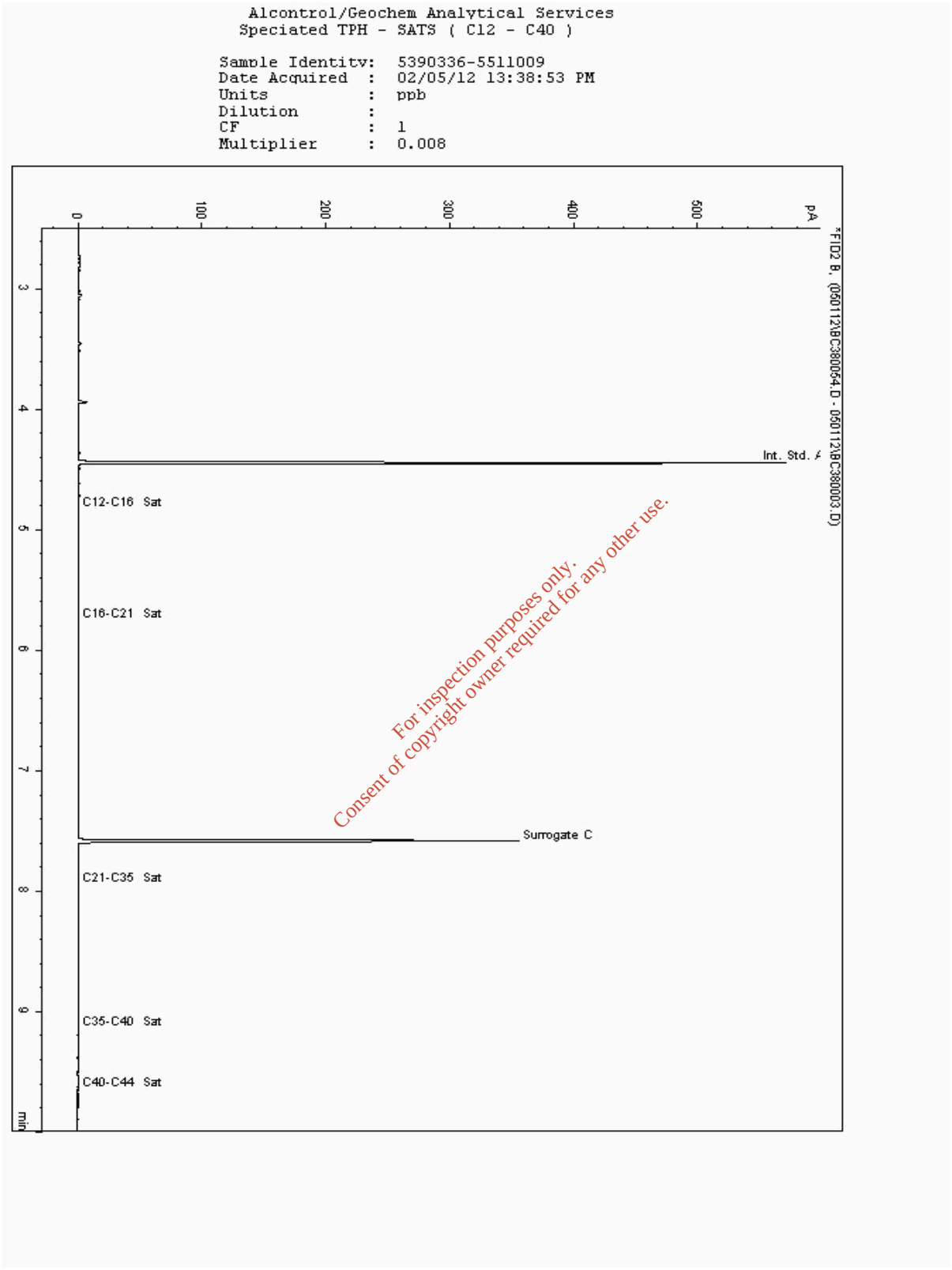


CERTIFICATE OF ANALYSIS

SDG:	120426-45	**Location:**	Limerick Gasworks	**Order Number:**	4500094829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	180196
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: EPH CWG (Aliphatic) Aqueous GC (W) **Sample No :** 5511009 **Sample ID :** G2 **Depth :** 5.00



CERTIFICATE OF ANALYSIS

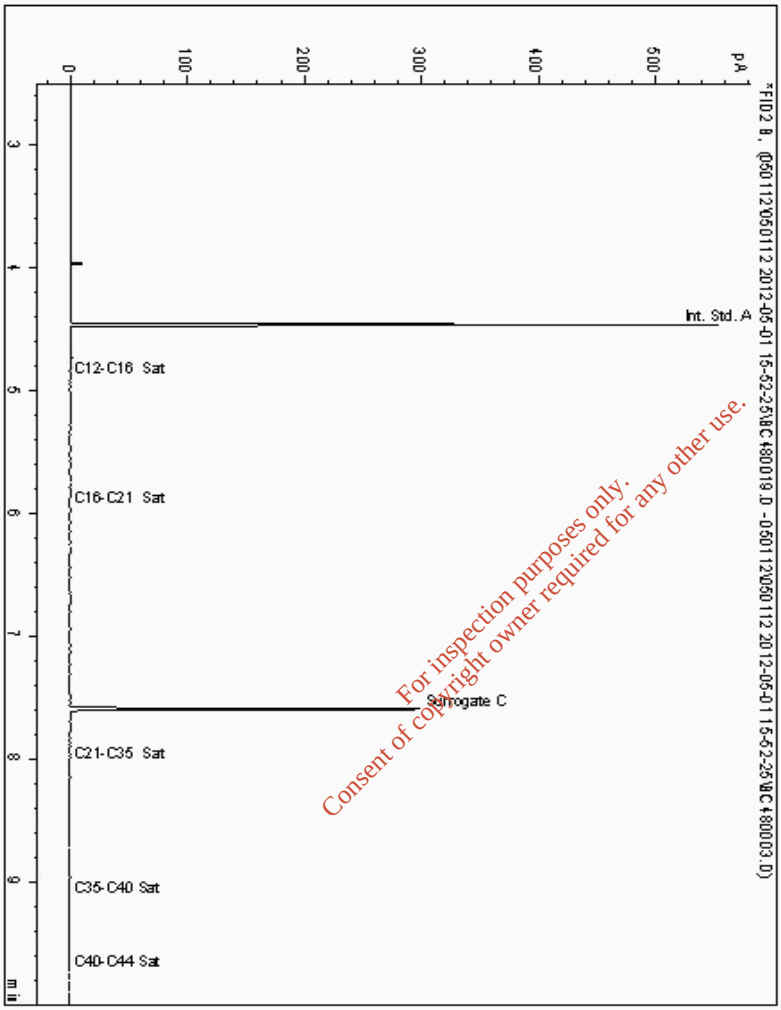
SDG:	120426-45	**Location:**	Limerick Gasworks	**Order Number:**	4500094829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	180196
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: EPH CWG (Aliphatic) Aqueous GC (W) **Sample No :** 5511047 **Sample ID :** A1 **Depth :** 1.50 - 3.00

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

Sample Identity: 5390222-5511047
Date Acquired : 01/05/12 21:33:09
Units : ppb
Dilution :
CF : 1
Multiplier : 0.008



CERTIFICATE OF ANALYSIS

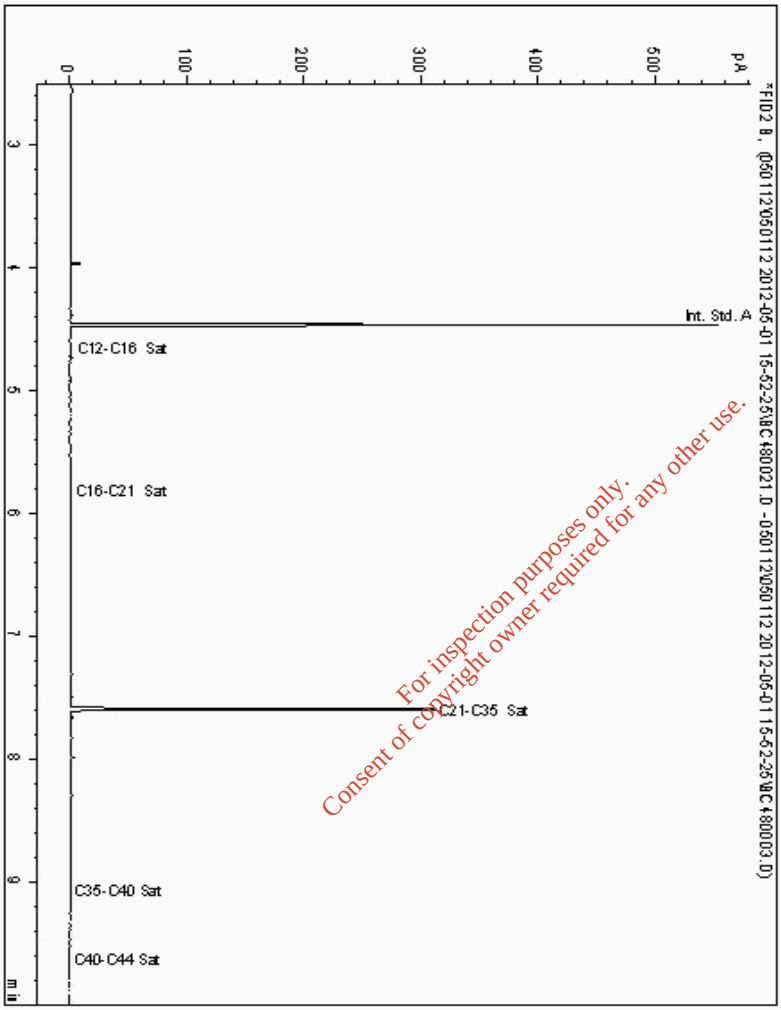
SDG:	120426-45	**Location:**	Limerick Gasworks	**Order Number:**	4500094829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	180196
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: EPH CWG (Aliphatic) Aqueous GC (W) **Sample No :** 5511093 **Sample ID :** F11 **Depth :** 3.00

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

Sample Identity: 5390849-5511093
Date Acquired : 01/05/12 22:11:29
Units : ppb
Dilution :
CF : 1
Multiplier : 0.008

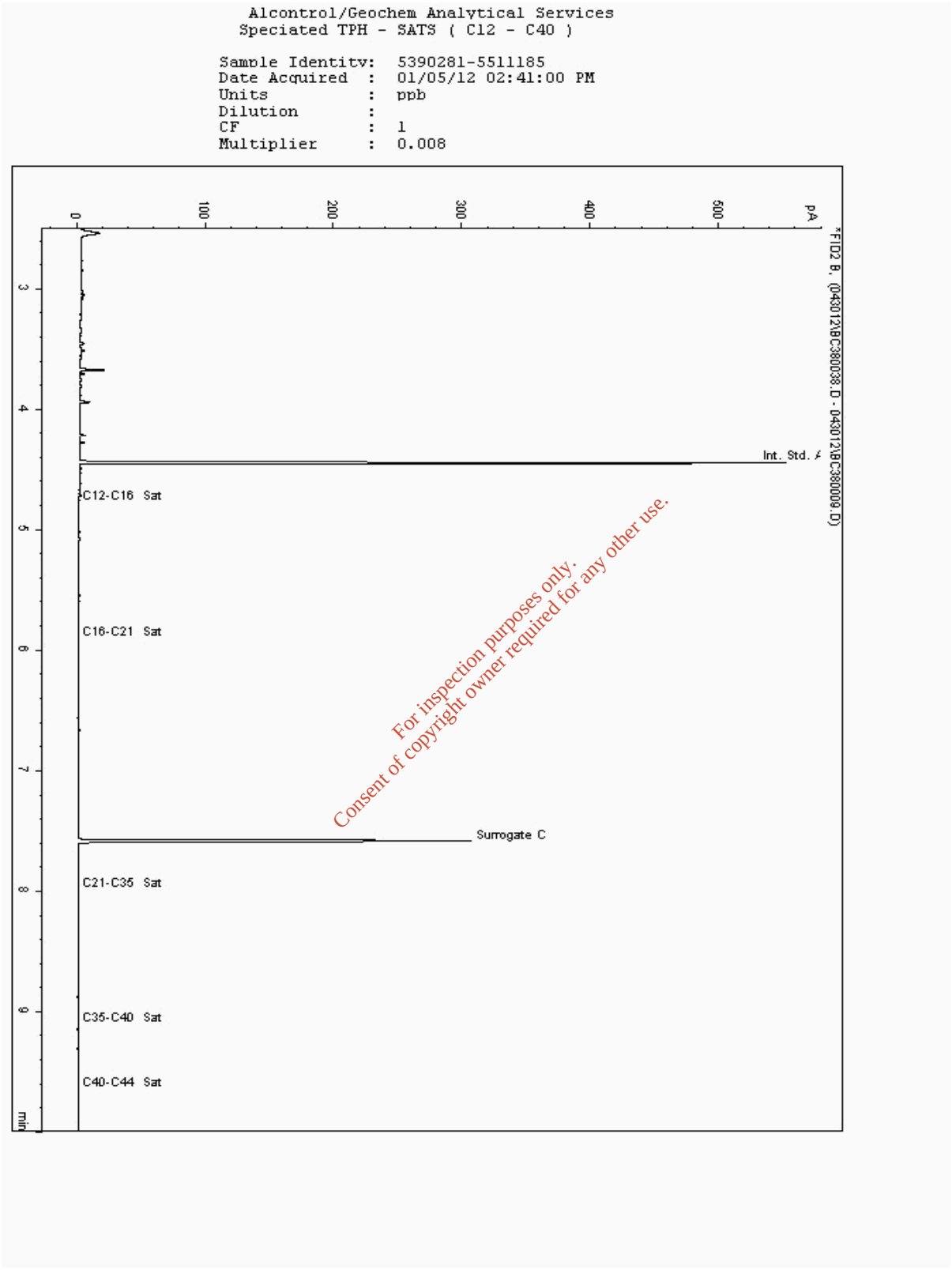


CERTIFICATE OF ANALYSIS

SDG:	120426-45	**Location:**	Limerick Gasworks	**Order Number:**	4500094829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	180196
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: EPH CWG (Aliphatic) Aqueous GC (W) **Sample No :** 5511185 **Sample ID :** G8 **Depth :** 0.50 - 1.50



CERTIFICATE OF ANALYSIS

SDG:	120426-45	**Location:**	Limerick Gasworks	**Order Number:**	4500094829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	180196
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

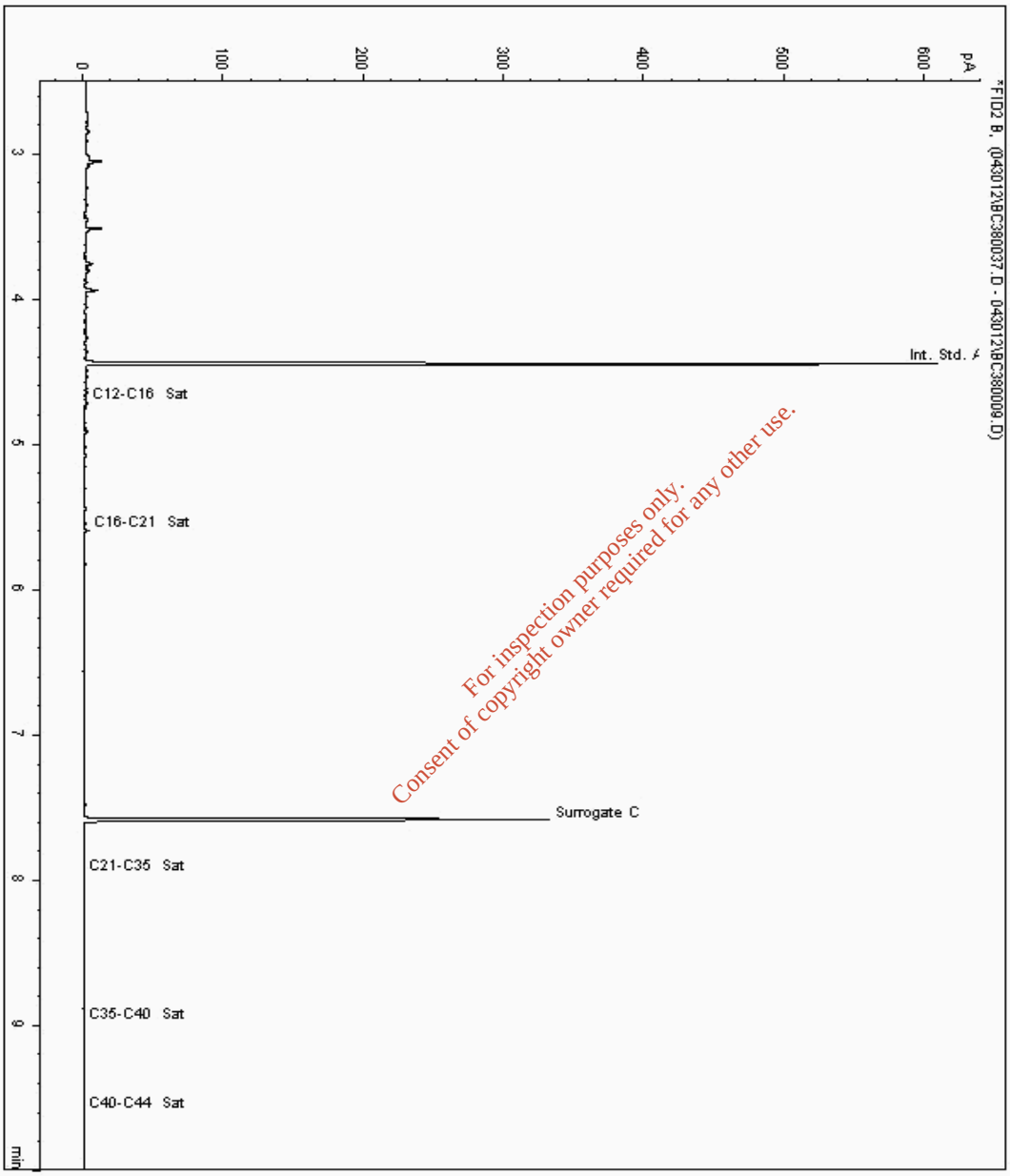
Analysis: EPH CWG (Aliphatic) Aqueous GC (W)

Sample No : 5511236
Sample ID : C11

Depth : 2.00

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

Sample Identity: 5390864-5511236
Date Acquired : 01/05/12 02:22:12 PM
Units : ppb
Dilution :
CF : 1
Multiplier : 0.008



CERTIFICATE OF ANALYSIS

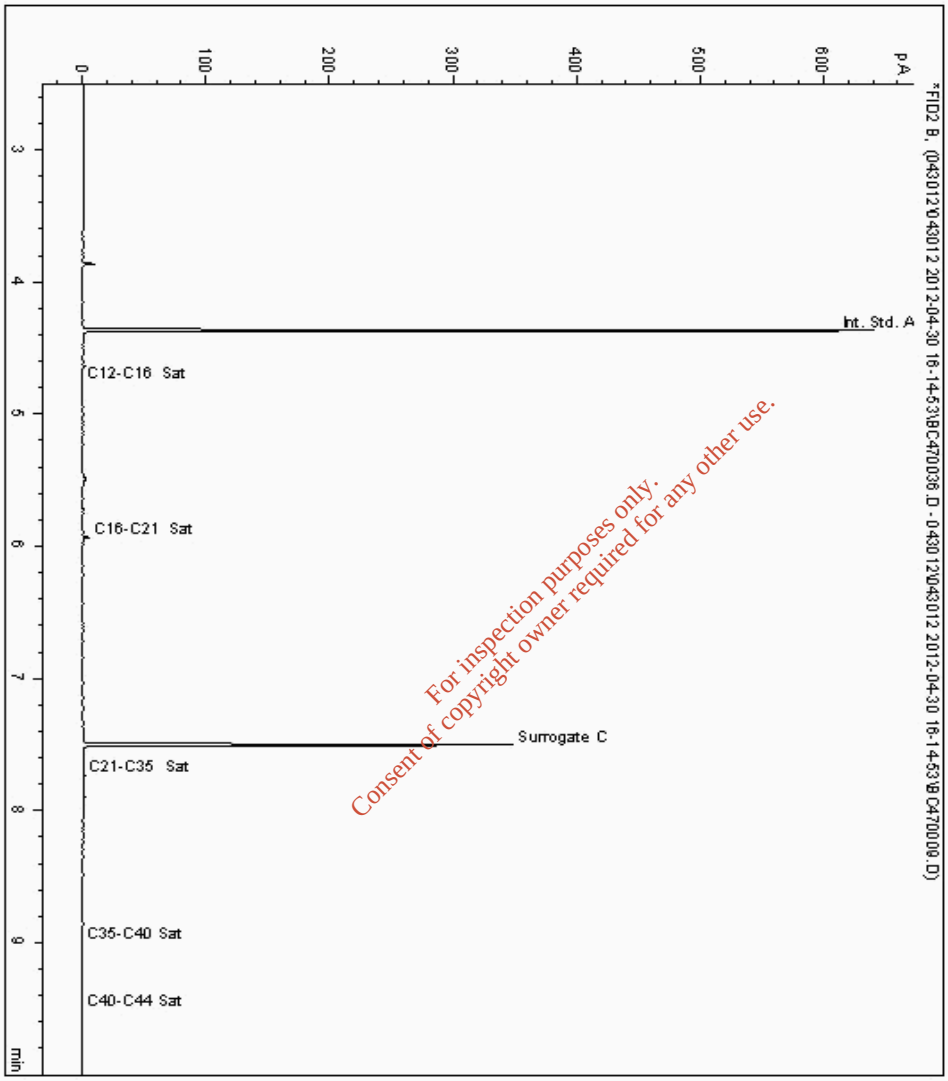
SDG:	120426-45	**Location:**	Limerick Gasworks	**Order Number:**	4500094829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	180196
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: EPH CWG (Aliphatic) Aqueous GC (W) **Sample No :** 5511269 **Sample ID :** D5 **Depth :** 1.90

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

Sample Identity: 5390939-5511269
Date Acquired : 01/05/12 02:05:07
Units : ppb
Dilution :
CF : 1
Multiplier : 0.008



CERTIFICATE OF ANALYSIS

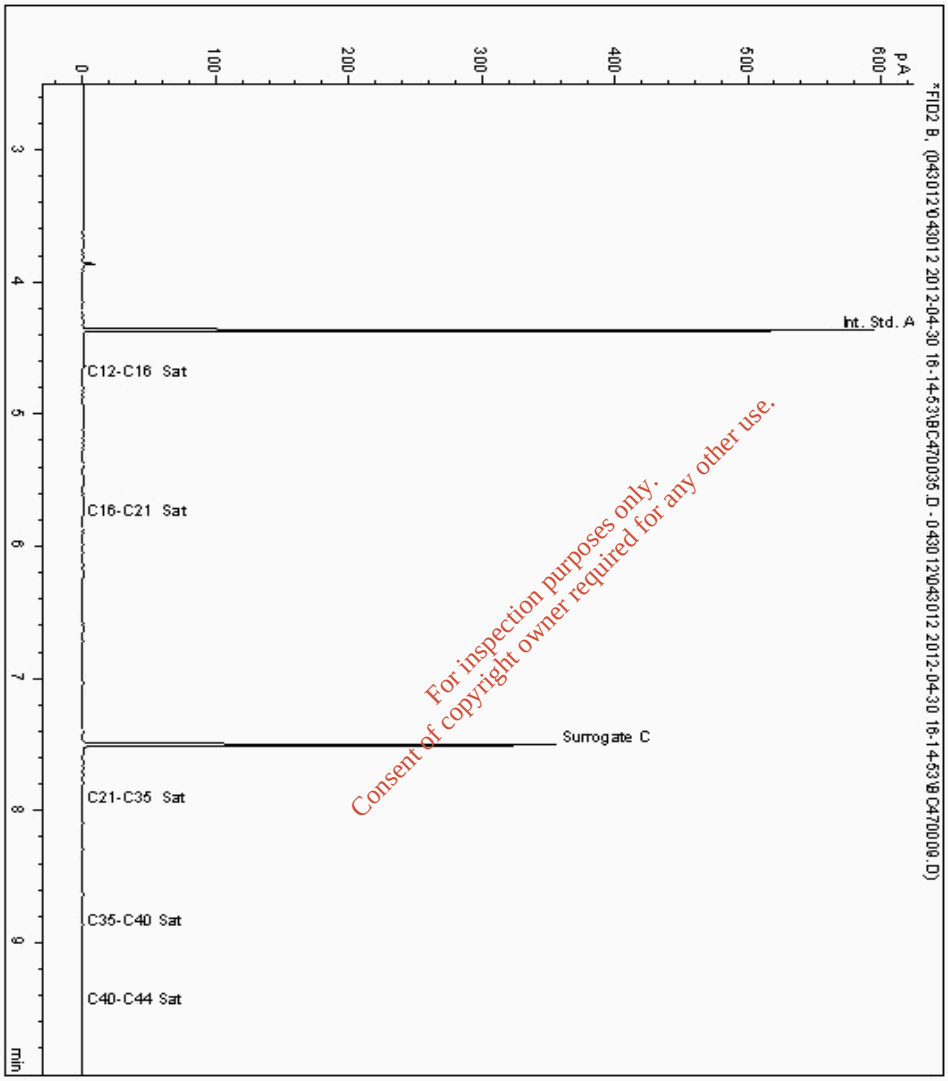
SDG:	120426-45	**Location:**	Limerick Gasworks	**Order Number:**	4500094829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	180196
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: EPH CWG (Aliphatic) Aqueous GC (W) **Sample No :** 5511570 **Sample ID :** K1 **Depth :** 3.25

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

Sample Identity: 5390774-5511570
Date Acquired : 01/05/12 01:45:53
Units : ppb
Dilution :
CF : 1
Multiplier : 0.008



CERTIFICATE OF ANALYSIS

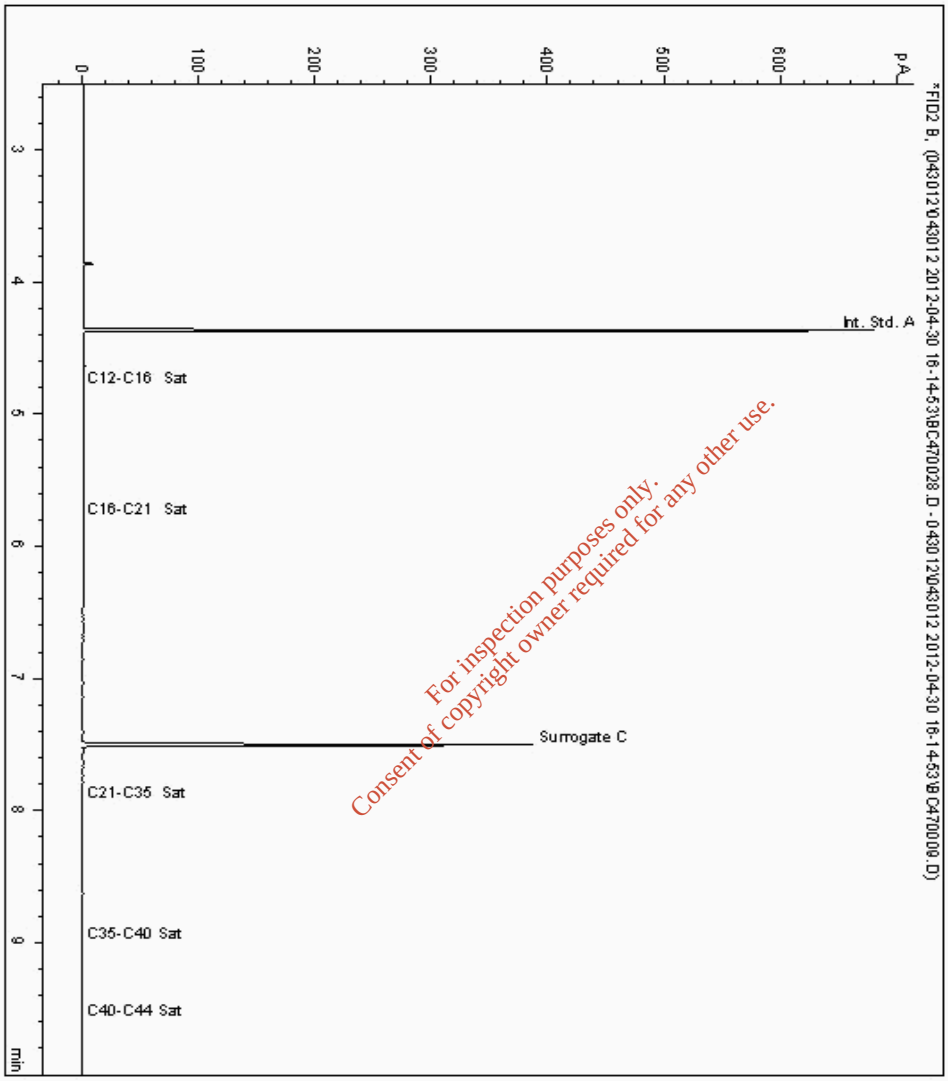
SDG:	120426-45	**Location:**	Limerick Gasworks	**Order Number:**	4500094829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	180196
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: EPH CWG (Aliphatic) Aqueous GC (W) **Sample No :** 5511644 **Sample ID :** A4 **Depth :** 2.50

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

Sample Identity: 5390969-5511644
Date Acquired : 30/04/12 23:40:25
Units : ppb
Dilution :
CF : 1
Multiplier : 0.008



CERTIFICATE OF ANALYSIS

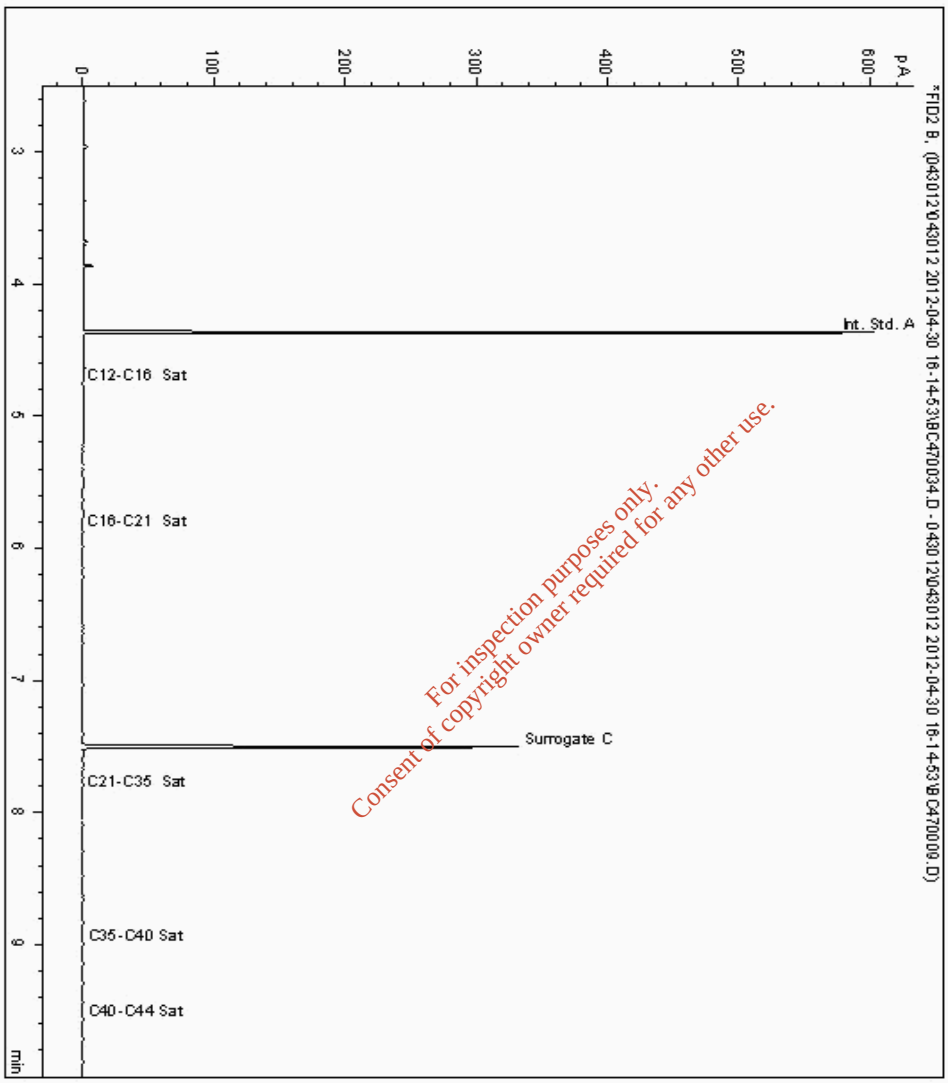
SDG:	120426-45	**Location:**	Limerick Gasworks	**Order Number:**	4500094829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	180196
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: EPH CWG (Aliphatic) Aqueous GC (W) **Sample No :** 5511671 **Sample ID :** A3 **Depth :** 2.00

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

Sample Identity: 5390954-5511671
Date Acquired : 01/05/12 01:26:41
Units : ppb
Dilution :
CF : 1
Multiplier : 0.008

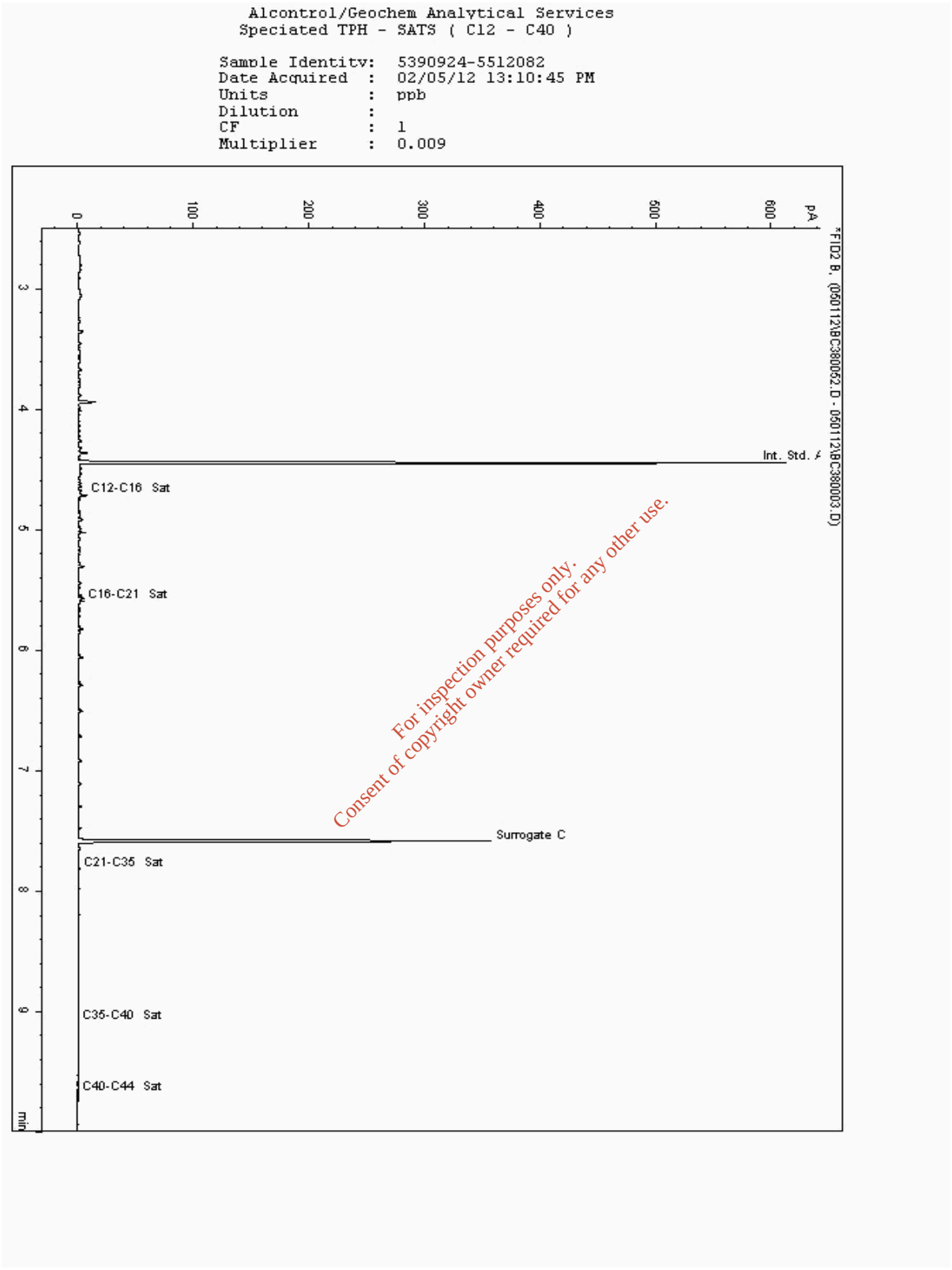


CERTIFICATE OF ANALYSIS

SDG:	120426-45	**Location:**	Limerick Gasworks	**Order Number:**	4500094829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	180196
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: EPH CWG (Aliphatic) Aqueous GC (W) **Sample No :** 5512082 **Sample ID :** C7 **Depth :** 1.80 - 2.50

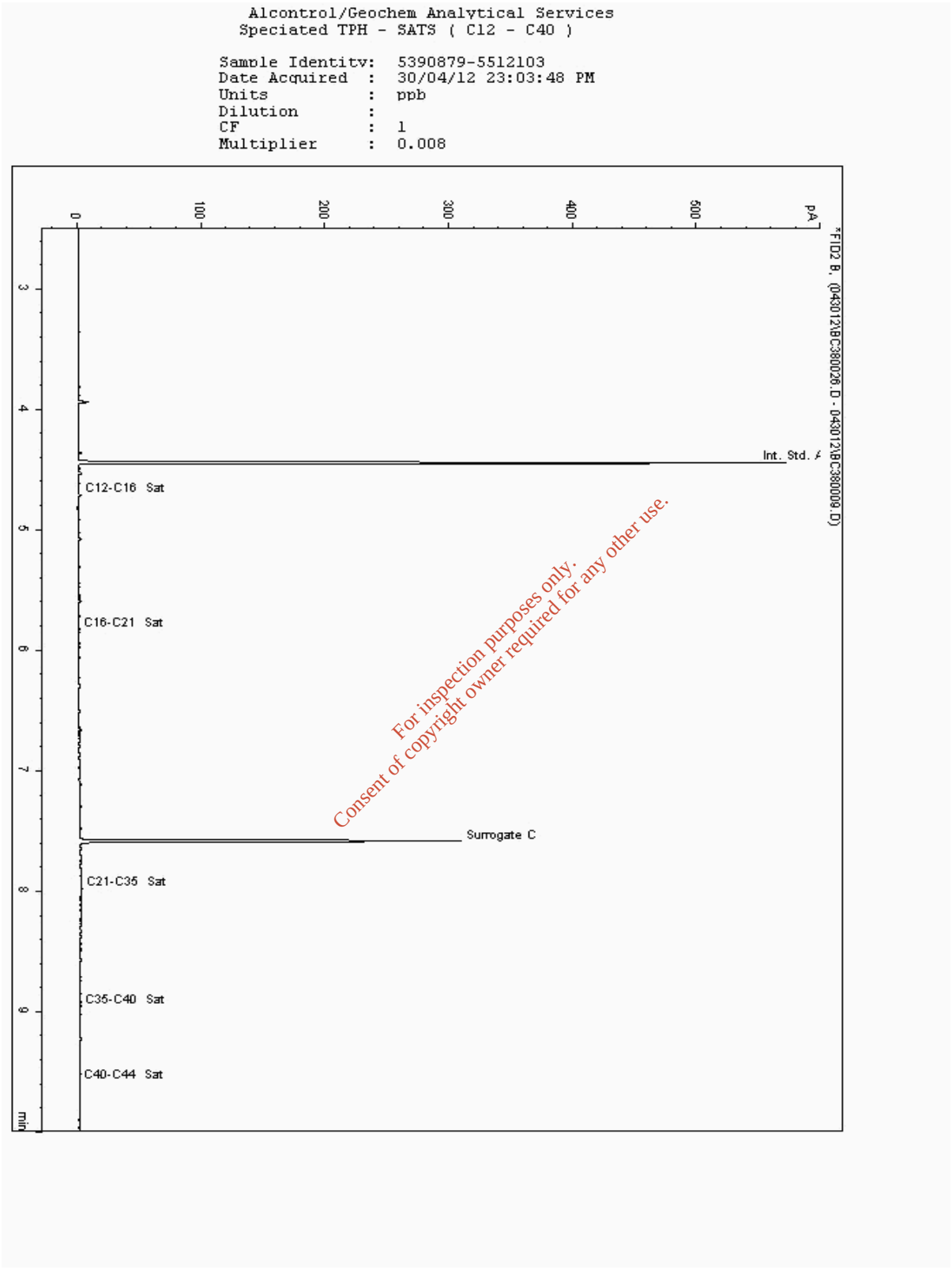


CERTIFICATE OF ANALYSIS

SDG:	120426-45	**Location:**	Limerick Gasworks	**Order Number:**	4500094829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	180196
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: EPH CWG (Aliphatic) Aqueous GC (W) **Sample No :** 5512103 **Sample ID :** A11 **Depth :** 1.50

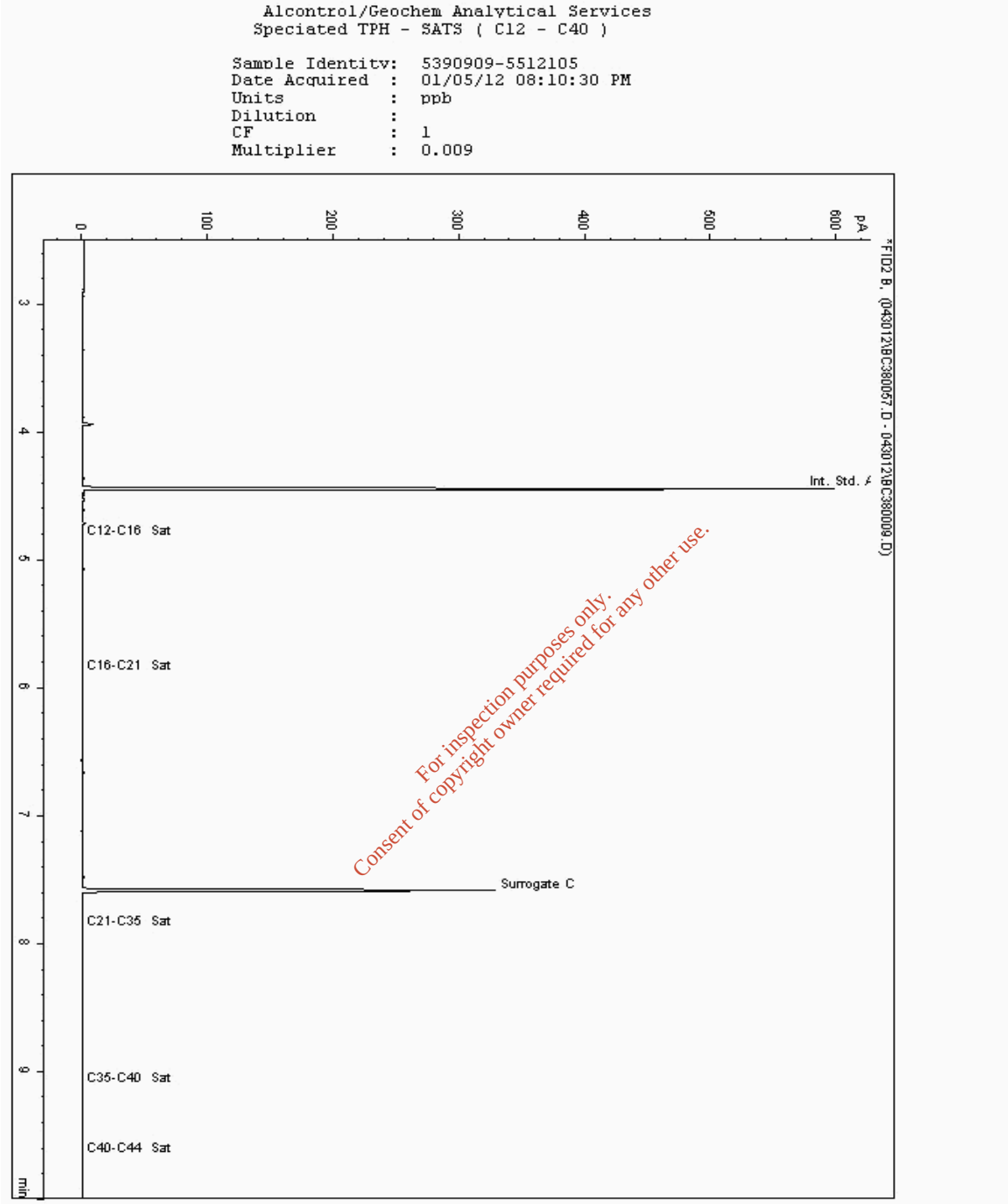


CERTIFICATE OF ANALYSIS

SDG:	120426-45	**Location:**	Limerick Gasworks	**Order Number:**	4500094829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	180196
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: EPH CWG (Aliphatic) Aqueous GC (W) **Sample No :** 5512105 **Sample ID :** A9 **Depth :** 1.80 - 2.40



CERTIFICATE OF ANALYSIS

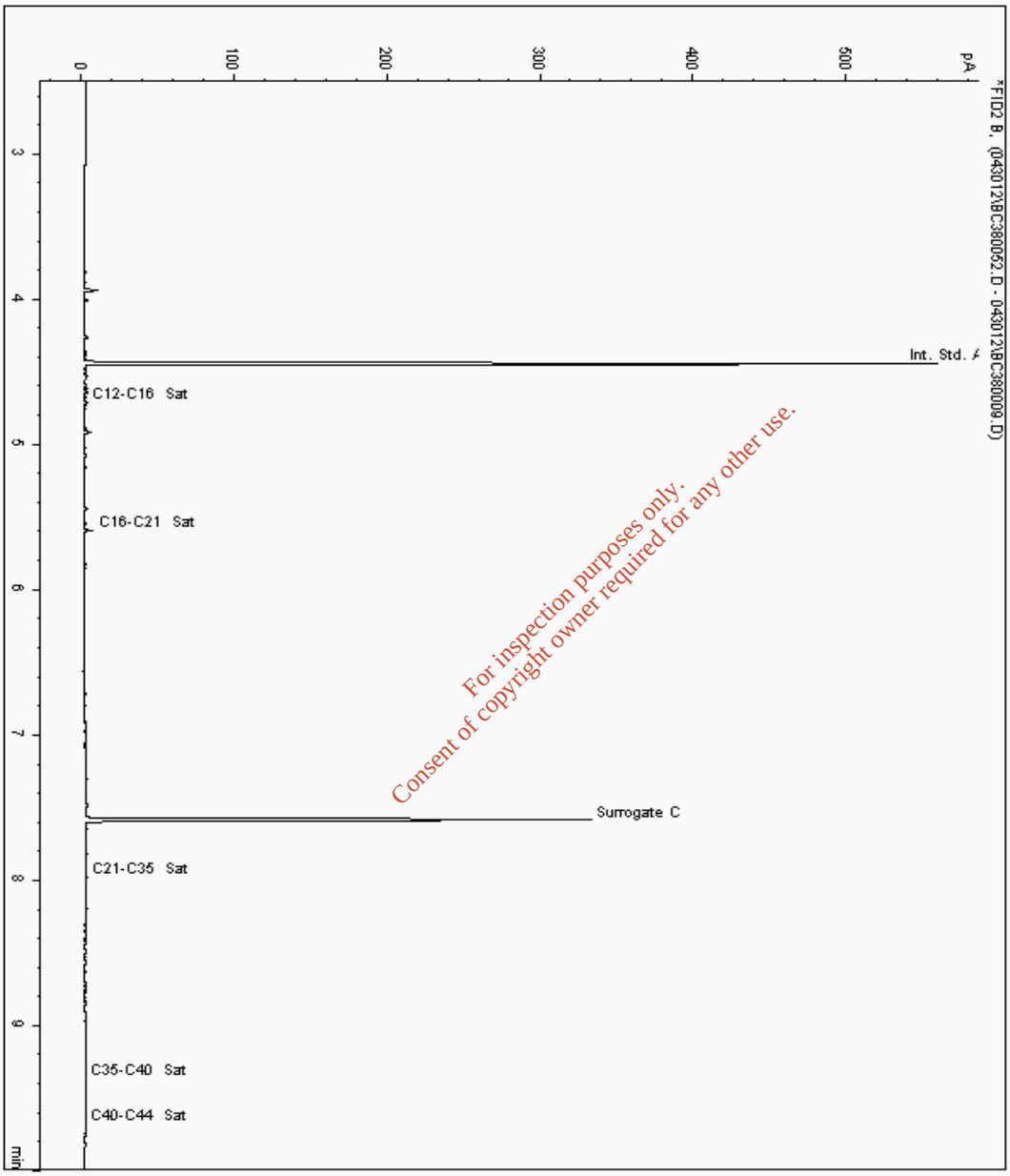
SDG:	120426-45	**Location:**	Limerick Gasworks	**Order Number:**	4500094829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	180196
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: EPH CWG (Aliphatic) Aqueous GC (W) **Sample No :** 5512118 **Sample ID :** H12 **Depth :** 2.50

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

Sample Identity: 5390834-5512118
Date Acquired : 01/05/12 06:47:08 PM
Units : ppb
Dilution :
CF : 1
Multiplier : 0.008

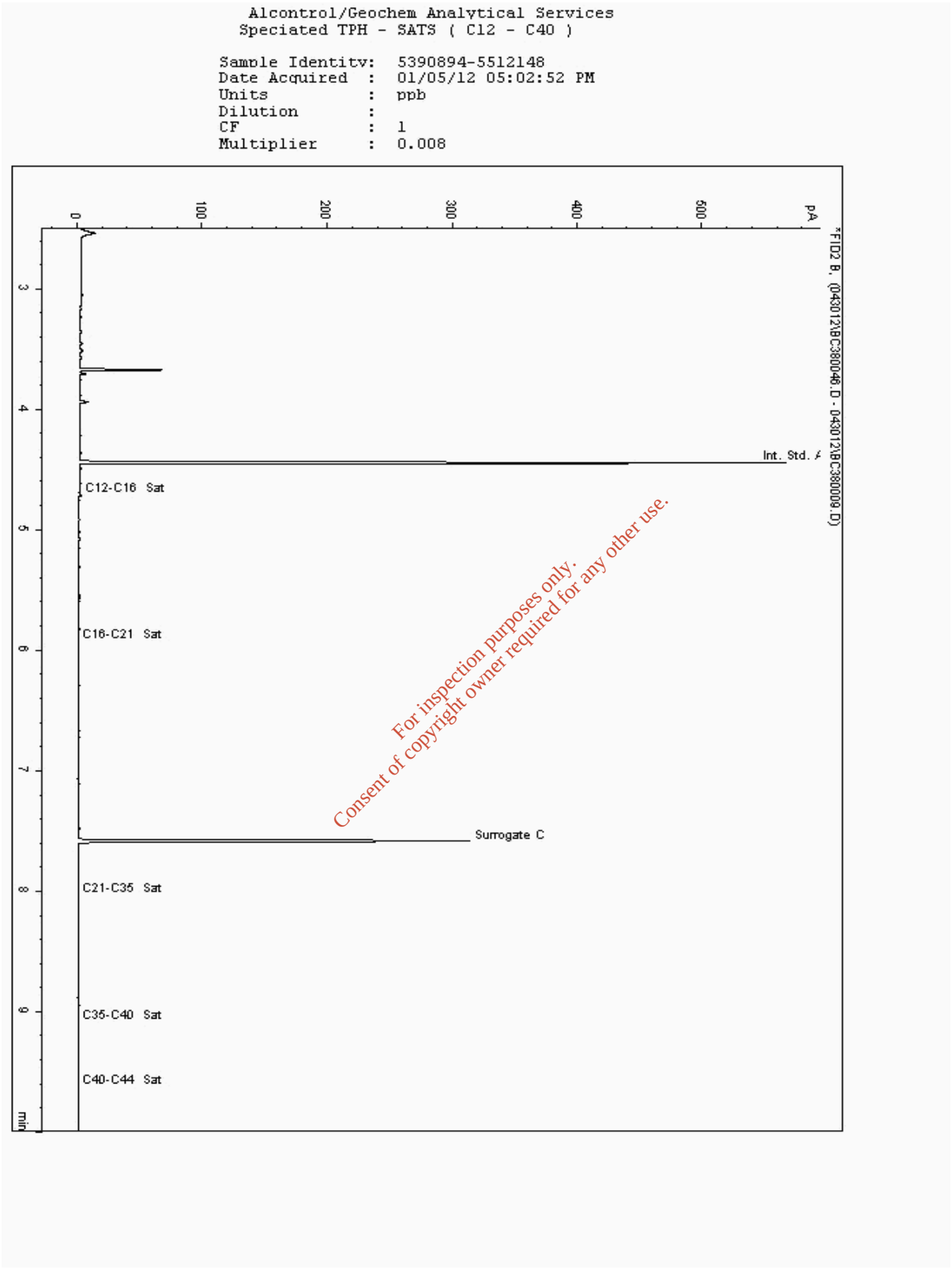


CERTIFICATE OF ANALYSIS

SDG:	120426-45	**Location:**	Limerick Gasworks	**Order Number:**	4500094829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	180196
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: EPH CWG (Aliphatic) Aqueous GC (W) **Sample No :** 5512148 **Sample ID :** E8 **Depth :** 3.50



CERTIFICATE OF ANALYSIS

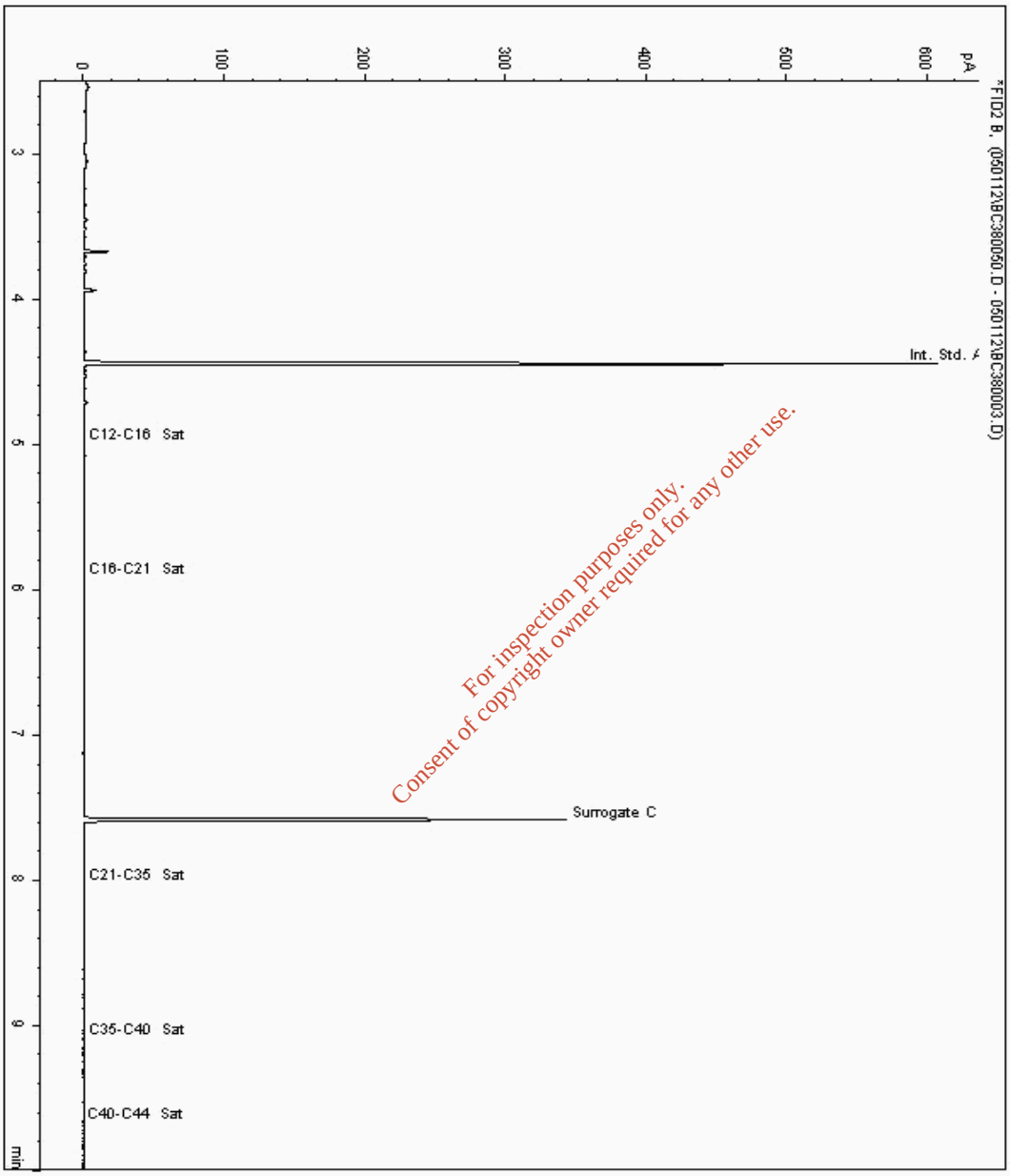
SDG:	120426-45	**Location:**	Limerick Gasworks	**Order Number:**	4500094829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	180196
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: EPH CWG (Aliphatic) Aqueous GC (W) **Sample No :** 5512174 **Sample ID :** K5 **Depth :** 3.00

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

Sample Identity: 5390804-5512174
Date Acquired : 02/05/12 12:42:47 PM
Units : ppb
Dilution :
CF : 1
Multiplier : 0.008



CERTIFICATE OF ANALYSIS

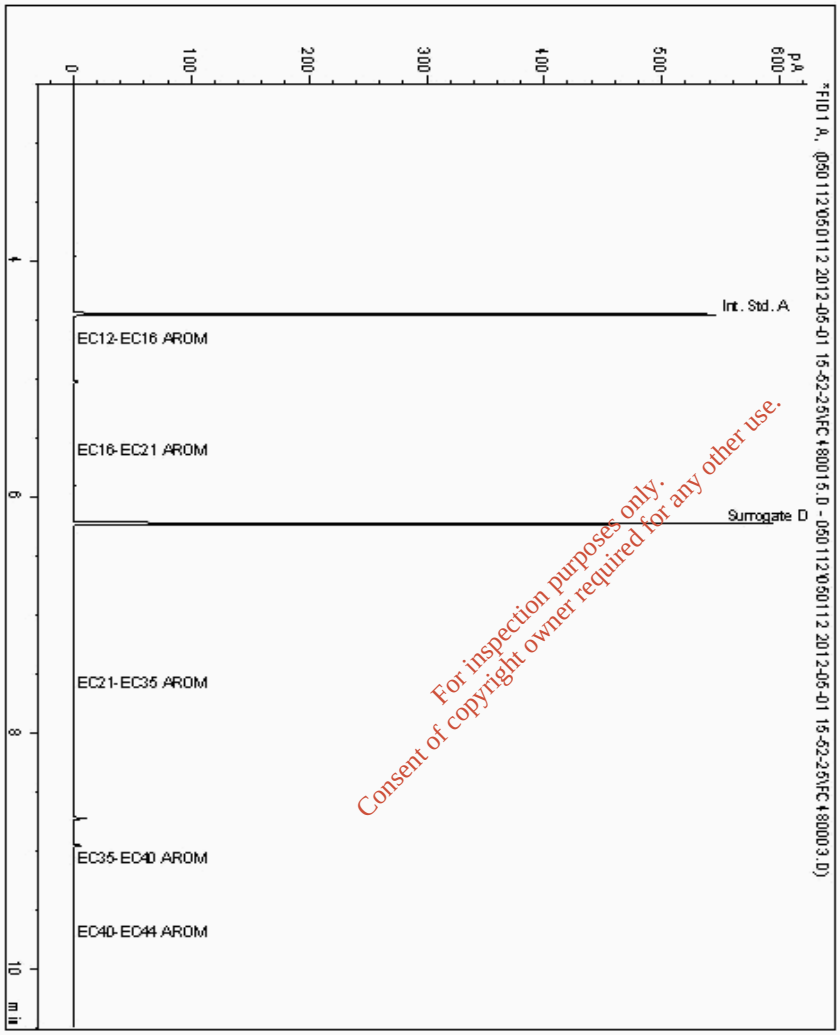
SDG:	120426-45	**Location:**	Limerick Gasworks	**Order Number:**	4500094829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	180196
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: EPH CWG (Aromatic) Aqueous GC (W) **Sample No :** 5510514 **Sample ID :** J10 **Depth :** 1.00

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

Sample Identity: 5390820-5510514
Date Acquired : 01/05/12 20:16:21
Units :
Dilution :
CF : 1
Multiplier : 0.008



CERTIFICATE OF ANALYSIS

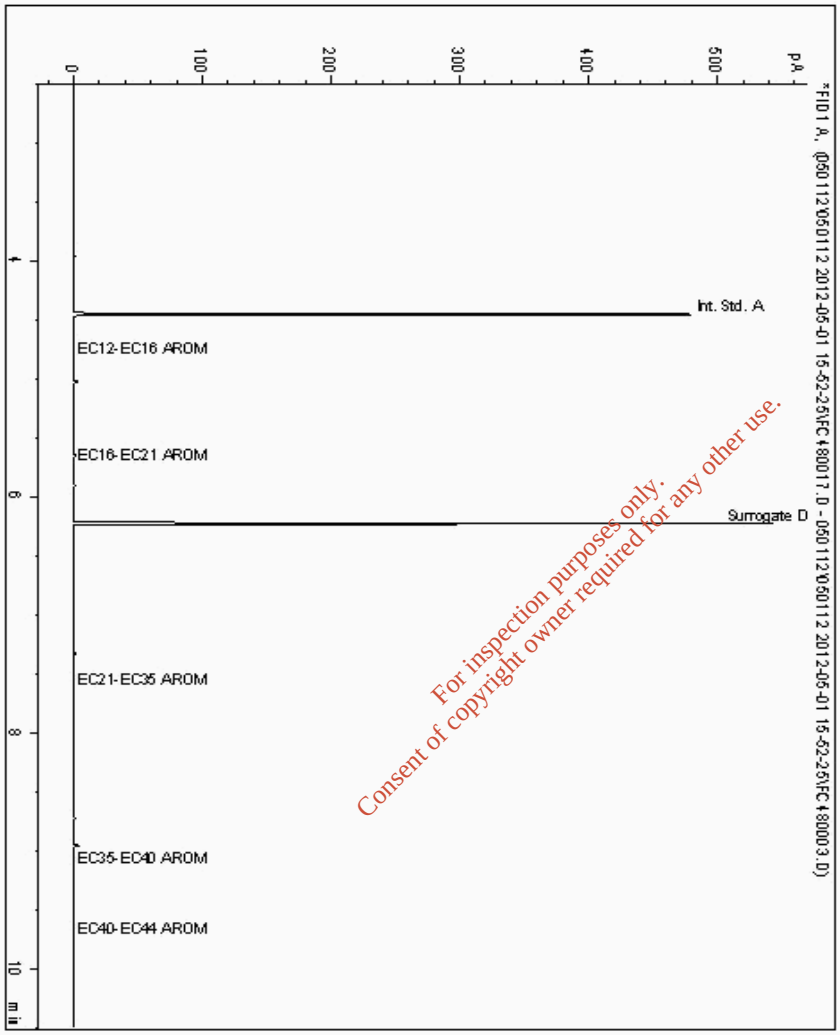
SDG:	120426-45	**Location:**	Limerick Gasworks	**Order Number:**	4500094829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	180196
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: EPH CWG (Aromatic) Aqueous GC (W) **Sample No :** 5510562 **Sample ID :** M3 **Depth :** 4.00 - 5.00

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

Sample Identity: 5390790-5510562
Date Acquired : 01/05/12 20:54:49
Units :
Dilution :
CF : 1
Multiplier : 0.008



CERTIFICATE OF ANALYSIS

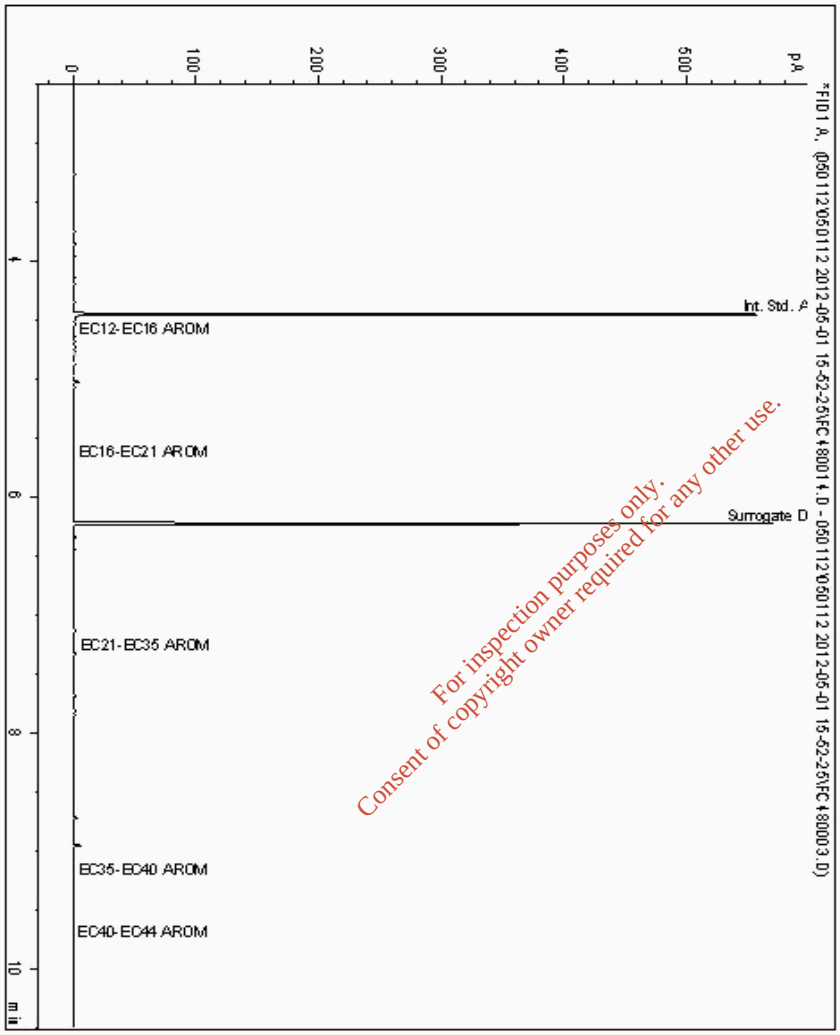
SDG:	120426-45	**Location:**	Limerick Gasworks	**Order Number:**	4500094829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	180196
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: EPH CWG (Aromatic) Aqueous GC (W) **Sample No :** 5510606 **Sample ID :** G5 **Depth :** 4.00

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

Sample Identity: 5390415-5510606
Date Acquired : 01/05/12 19:57:14
Units :
Dilution :
CF : 1
Multiplier : 0.008



CERTIFICATE OF ANALYSIS

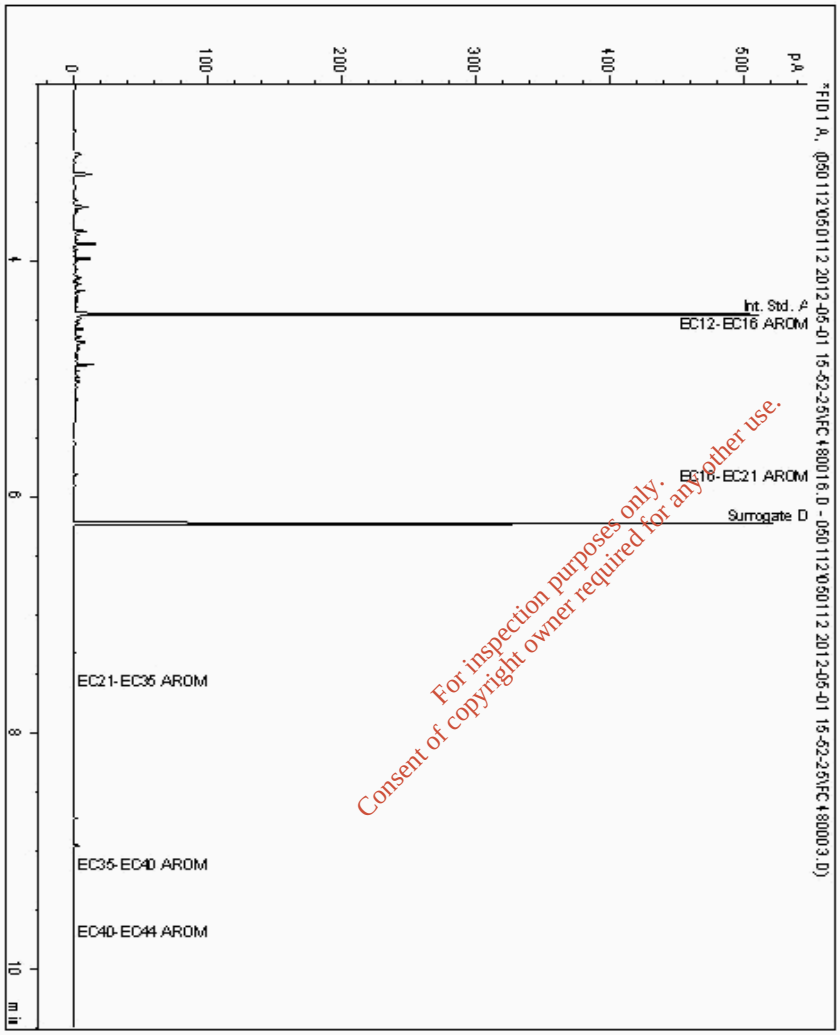
SDG:	120426-45	**Location:**	Limerick Gasworks	**Order Number:**	4500094829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	180196
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: EPH CWG (Aromatic) Aqueous GC (W) **Sample No :** 5510627 **Sample ID :** C2 **Depth :** 1.60 - 2.50

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

Sample Identity: 5390247-5510627
Date Acquired : 01/05/12 20:35:41
Units :
Dilution :
CF : 1
Multiplier : 0.008

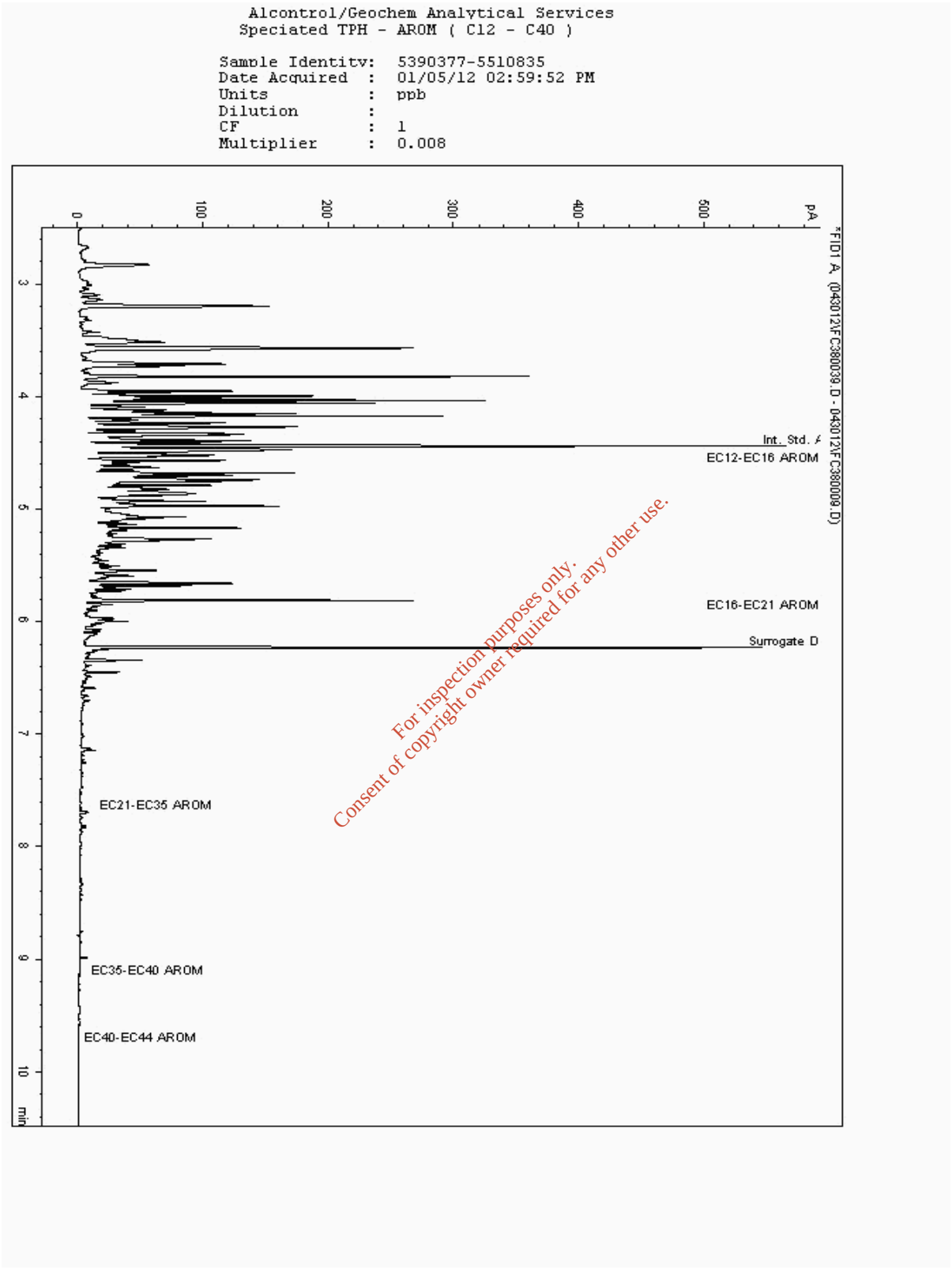


CERTIFICATE OF ANALYSIS

SDG:	120426-45	**Location:**	Limerick Gasworks	**Order Number:**	4500094829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	180196
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: EPH CWG (Aromatic) Aqueous GC (W) **Sample No :** 5510835 **Sample ID :** G4 **Depth :** 2.50 - 3.50



CERTIFICATE OF ANALYSIS

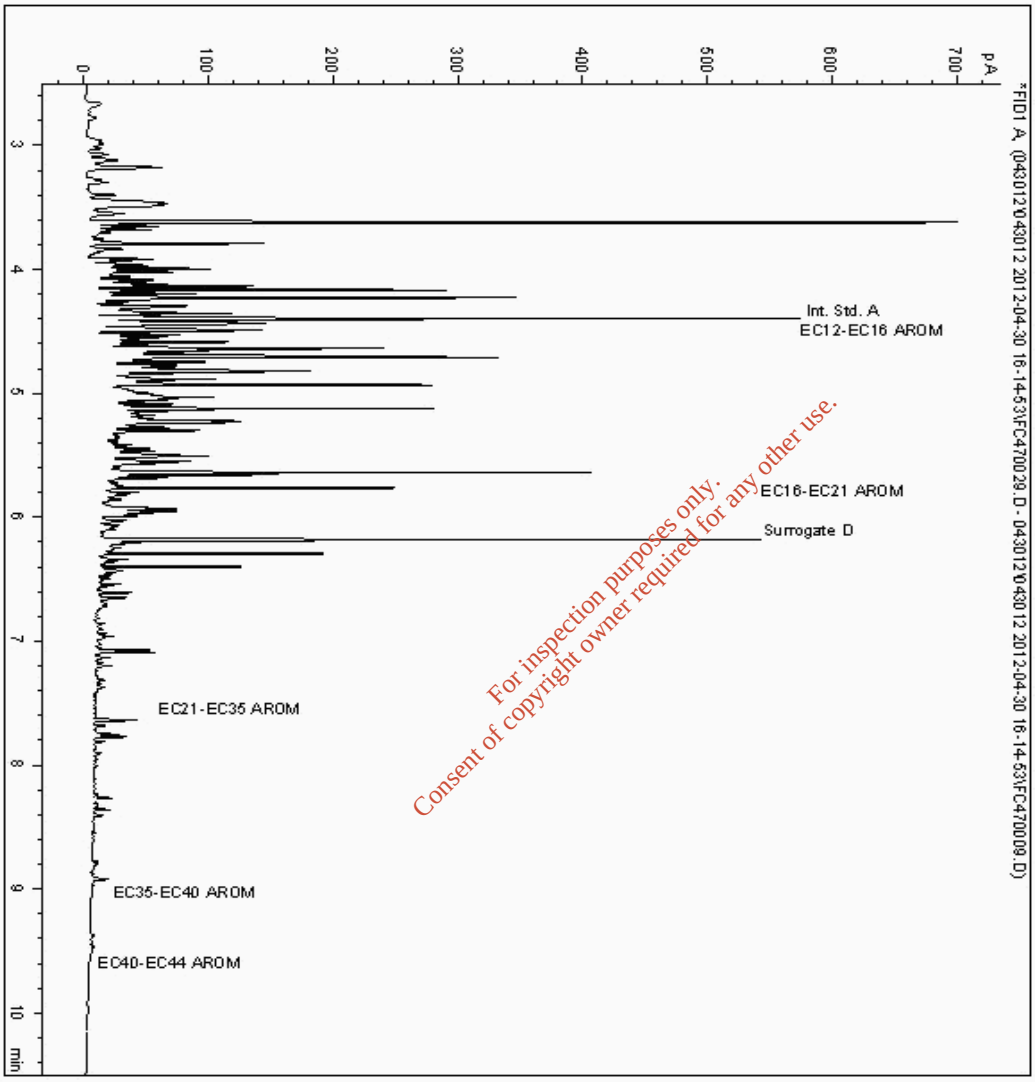
SDG:	120426-45	**Location:**	Limerick Gasworks	**Order Number:**	4500094829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	180196
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: EPH CWG (Aromatic) Aqueous GC (W) **Sample No :** 5510917 **Sample ID :** D1 **Depth :** 3.00 - 3.50

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

Sample Identity: 5390299-5510917
Date Acquired : 30/04/12 23:59:36
Units :
Dilution :
CF : 1
Multiplier : 0.008



CERTIFICATE OF ANALYSIS

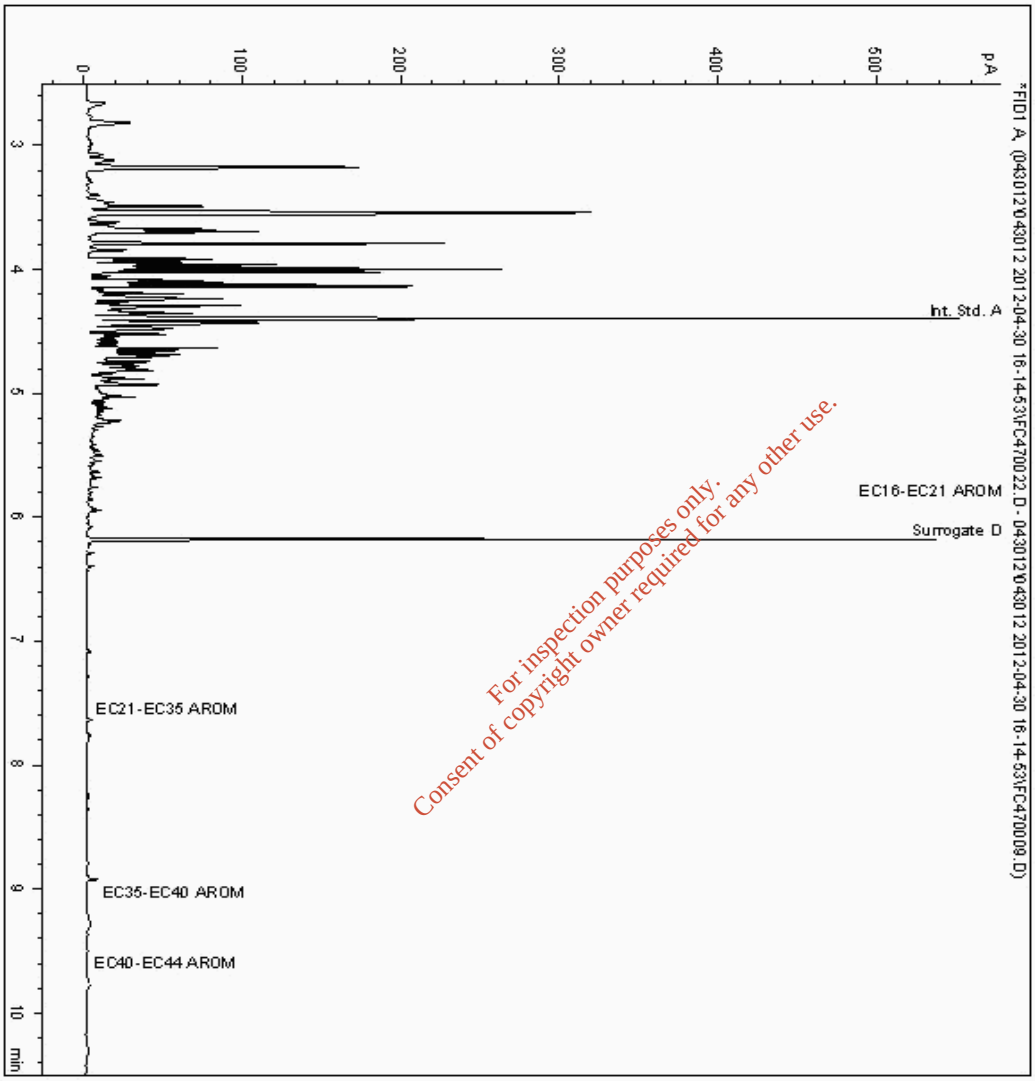
SDG:	120426-45	**Location:**	Limerick Gasworks	**Order Number:**	4500094829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	180196
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: EPH CWG (Aromatic) Aqueous GC (W) **Sample No :** 5510957 **Sample ID :** G3 **Depth :** 4.50

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

Sample Identity: 5390355-5510957
Date Acquired : 30/04/12 21:54:13
Units :
Dilution :
CF : 1
Multiplier : 0.008

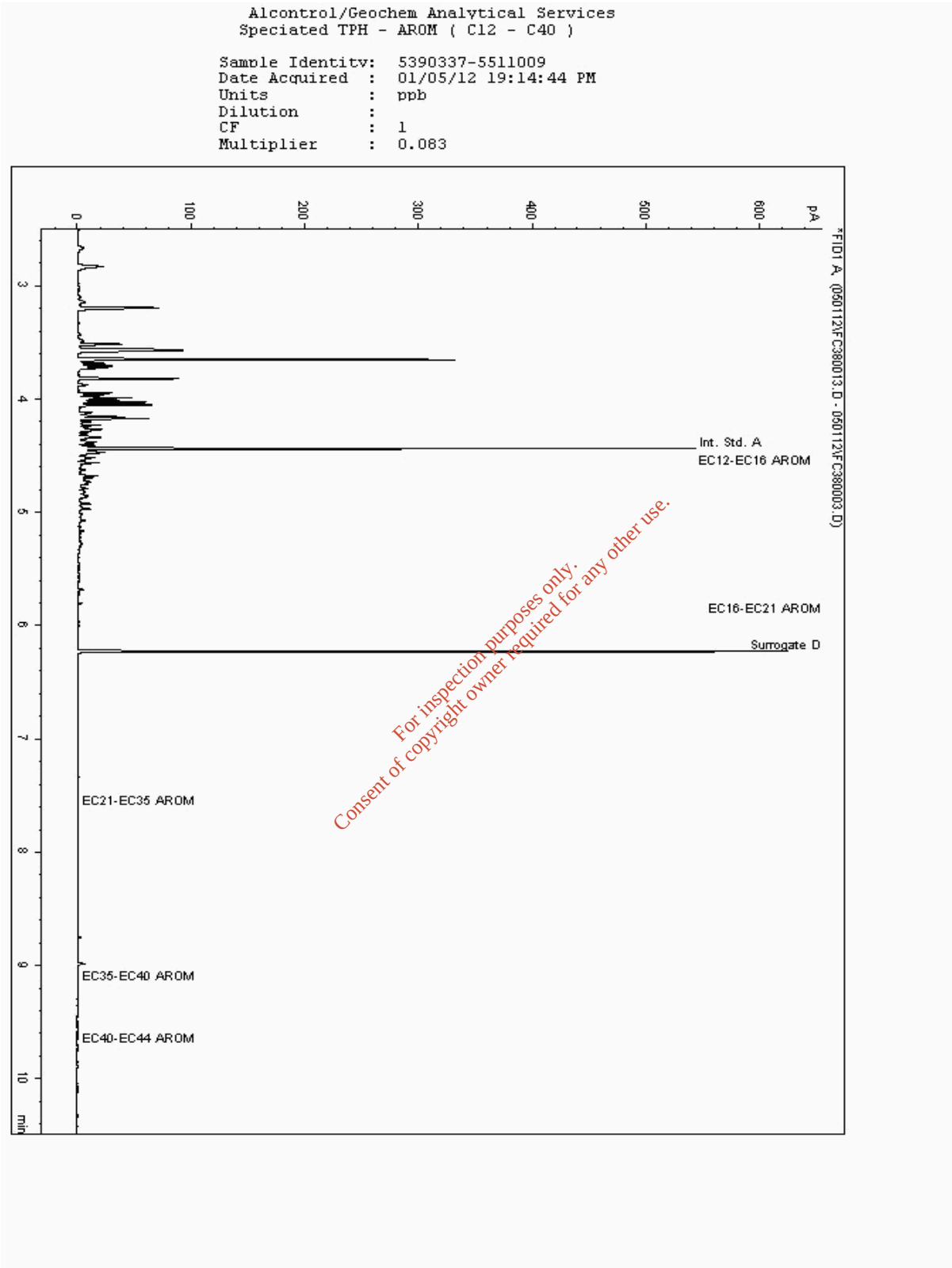


CERTIFICATE OF ANALYSIS

SDG:	120426-45	**Location:**	Limerick Gasworks	**Order Number:**	4500094829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	180196
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: EPH CWG (Aromatic) Aqueous GC (W) **Sample No :** 5511009 **Sample ID :** G2 **Depth :** 5.00



CERTIFICATE OF ANALYSIS

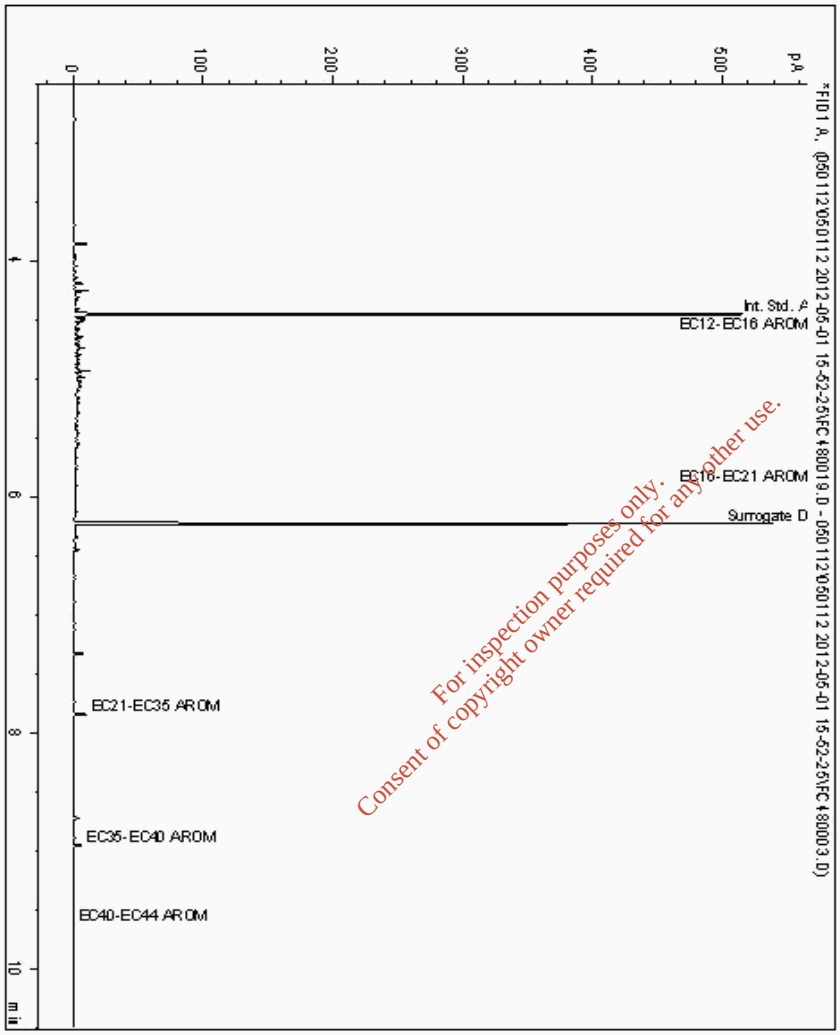
SDG:	120426-45	**Location:**	Limerick Gasworks	**Order Number:**	4500094829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	180196
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: EPH CWG (Aromatic) Aqueous GC (W) **Sample No :** 5511047 **Sample ID :** A1 **Depth :** 1.50 - 3.00

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

Sample Identity: 5390223-5511047
Date Acquired : 01/05/12 21:33:09
Units :
Dilution :
CF : 1
Multiplier : 0.008



CERTIFICATE OF ANALYSIS

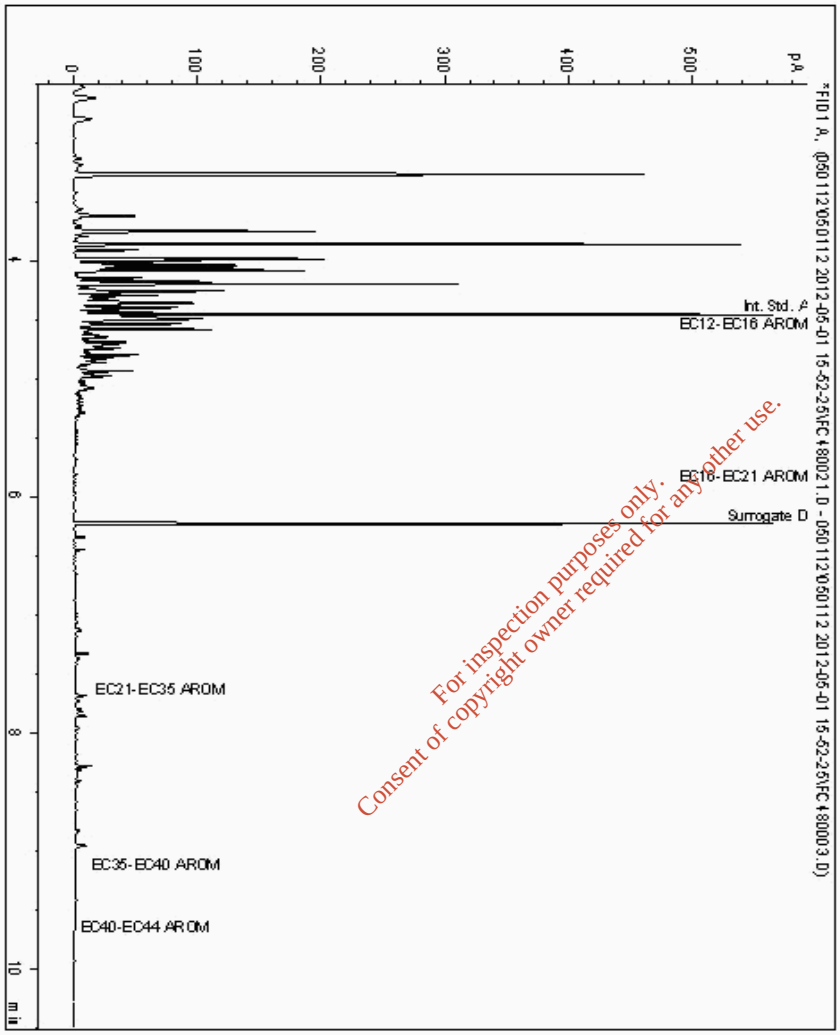
SDG:	120426-45	**Location:**	Limerick Gasworks	**Order Number:**	4500094829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	180196
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: EPH CWG (Aromatic) Aqueous GC (W) **Sample No :** 5511093 **Sample ID :** F11 **Depth :** 3.00

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

Sample Identity: 5390850-5511093
Date Acquired : 01/05/12 22:11:29
Units :
Dilution :
CF : 1
Multiplier : 0.008

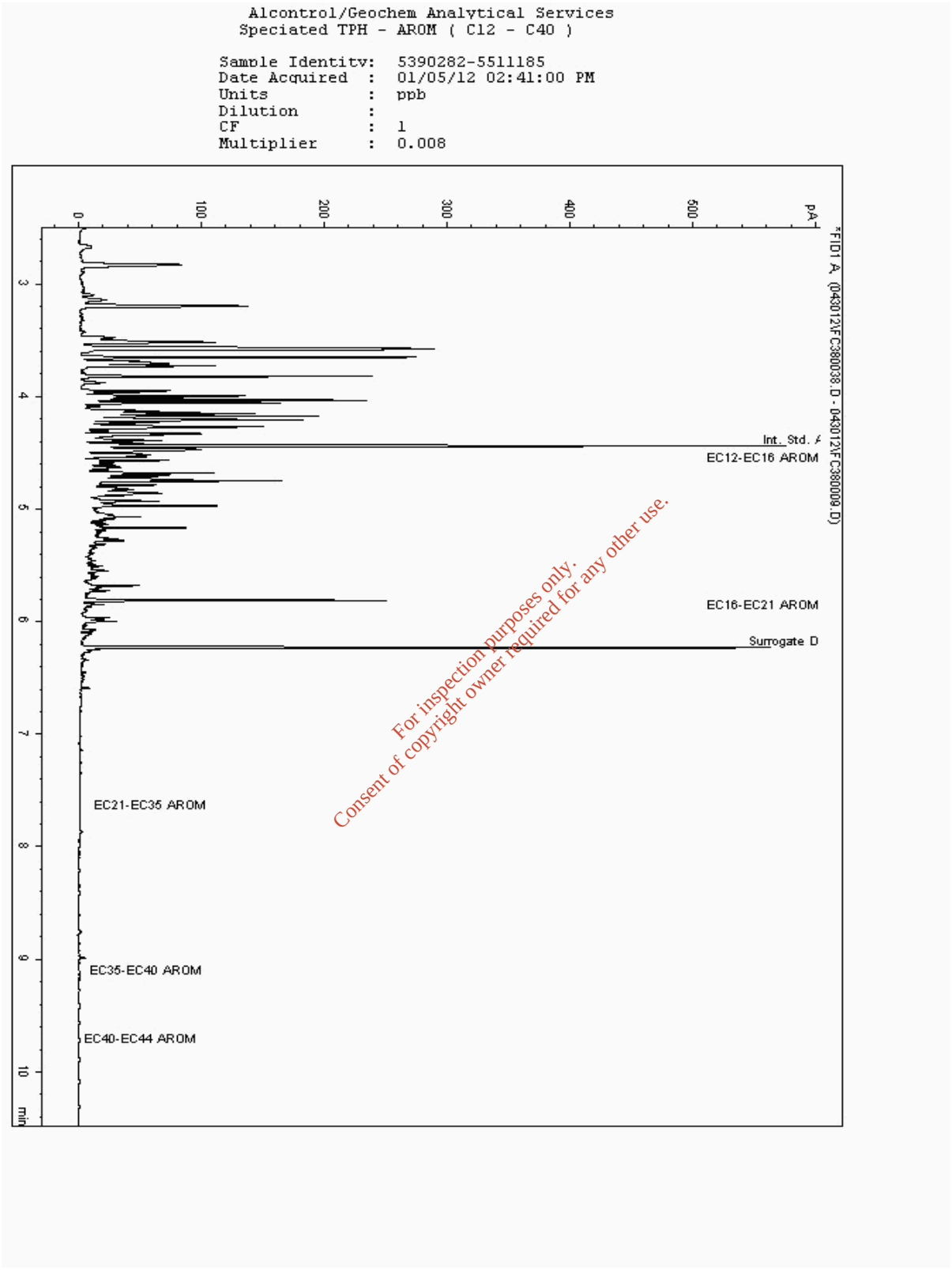


CERTIFICATE OF ANALYSIS

SDG:	120426-45	**Location:**	Limerick Gasworks	**Order Number:**	4500094829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	180196
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: EPH CWG (Aromatic) Aqueous GC (W) **Sample No :** 5511185 **Sample ID :** G8 **Depth :** 0.50 - 1.50

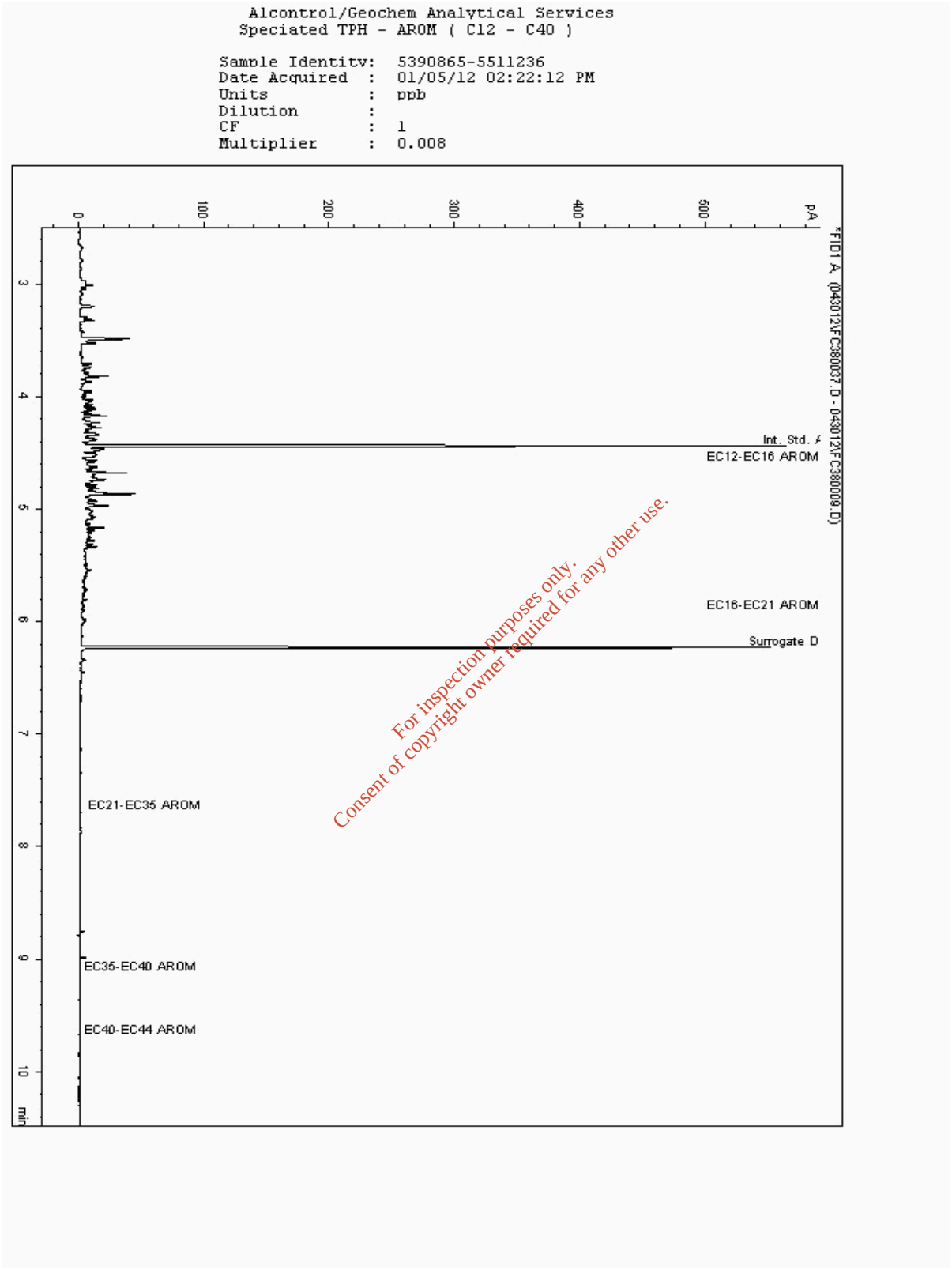


CERTIFICATE OF ANALYSIS

SDG:	120426-45	**Location:**	Limerick Gasworks	**Order Number:**	4500094829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	180196
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: EPH CWG (Aromatic) Aqueous GC (W) **Sample No :** 5511236 **Sample ID :** C11 **Depth :** 2.00

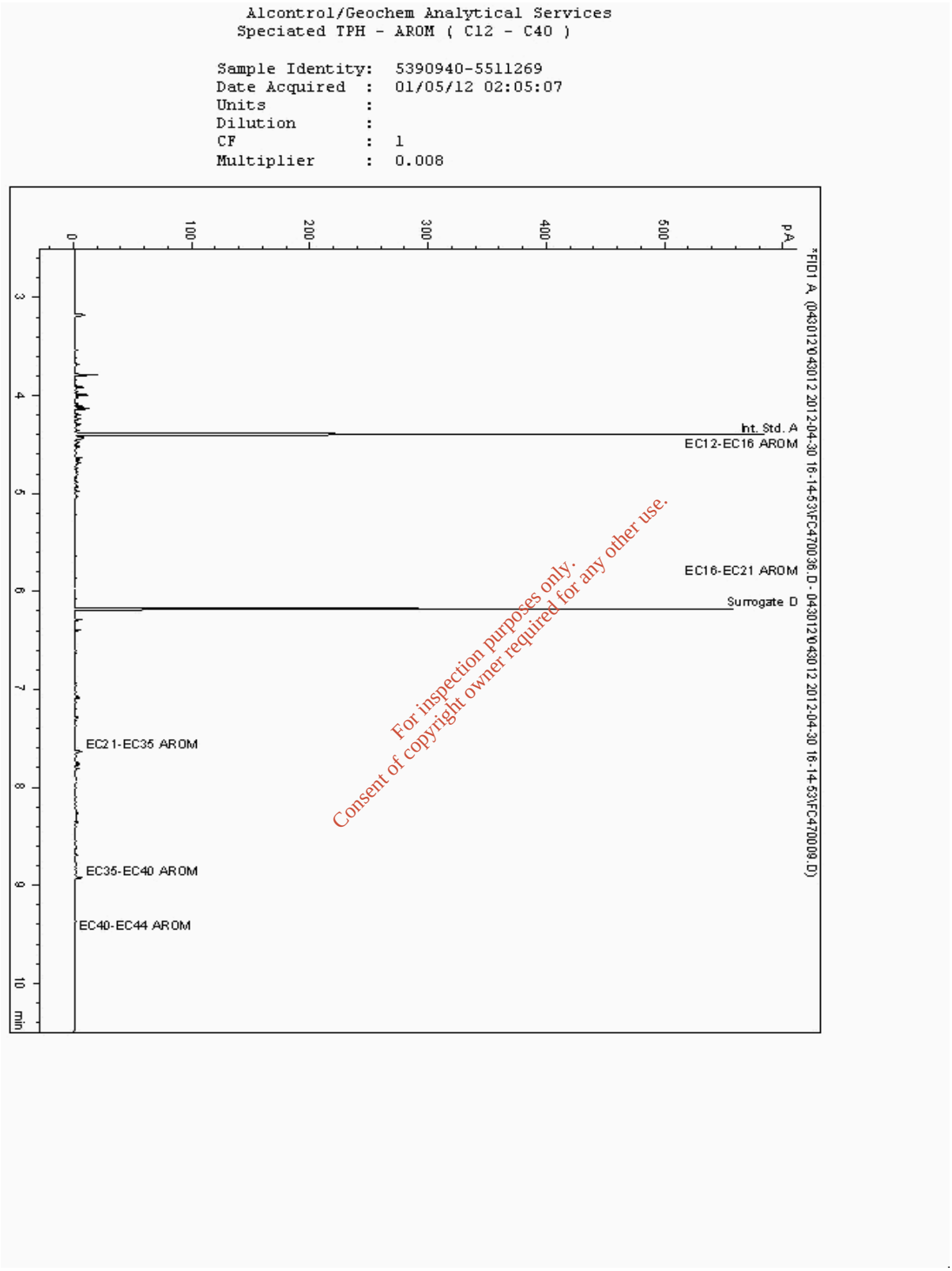


CERTIFICATE OF ANALYSIS

SDG:	120426-45	**Location:**	Limerick Gasworks	**Order Number:**	4500094829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	180196
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: EPH CWG (Aromatic) Aqueous GC (W) **Sample No :** 5511269 **Sample ID :** D5 **Depth :** 1.90



CERTIFICATE OF ANALYSIS

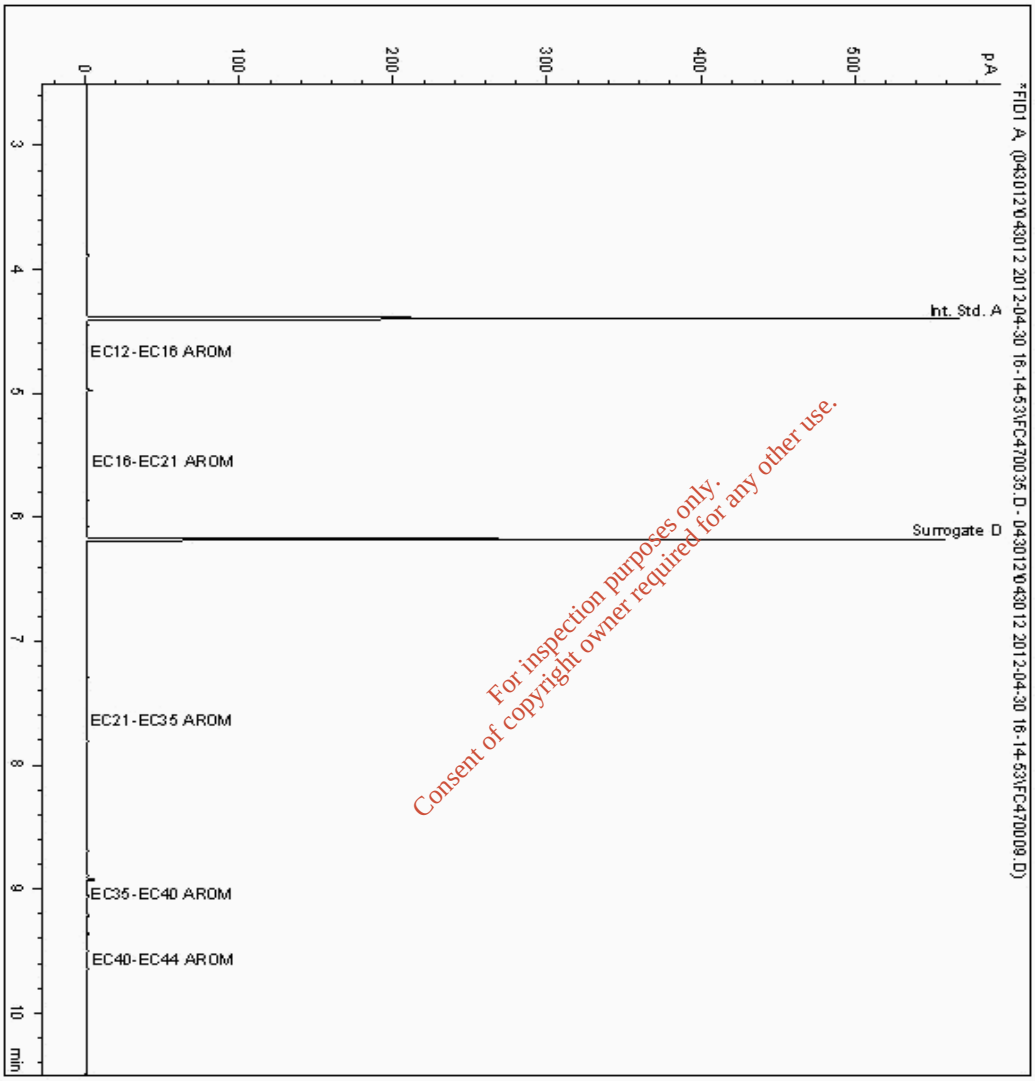
SDG:	120426-45	**Location:**	Limerick Gasworks	**Order Number:**	4500094829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	180196
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: EPH CWG (Aromatic) Aqueous GC (W) **Sample No :** 5511570 **Sample ID :** K1 **Depth :** 3.25

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

Sample Identity: 5390775-5511570
Date Acquired : 01/05/12 01:45:53
Units :
Dilution :
CF : 1
Multiplier : 0.008



CERTIFICATE OF ANALYSIS

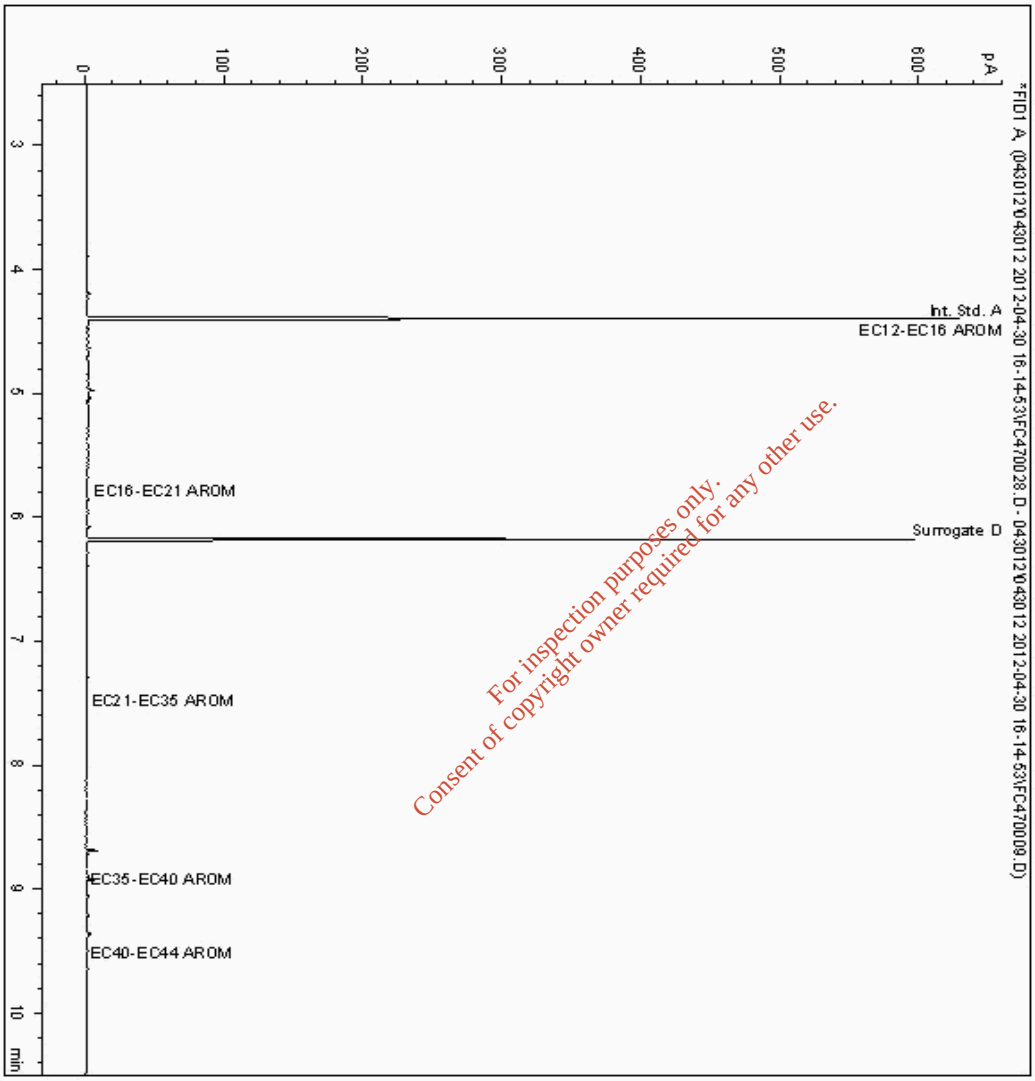
SDG:	120426-45	**Location:**	Limerick Gasworks	**Order Number:**	4500094829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	180196
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: EPH CWG (Aromatic) Aqueous GC (W) **Sample No :** 5511644 **Sample ID :** A4 **Depth :** 2.50

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

Sample Identity: 5390970-5511644
Date Acquired : 30/04/12 23:40:25
Units :
Dilution :
CF : 1
Multiplier : 0.008



CERTIFICATE OF ANALYSIS

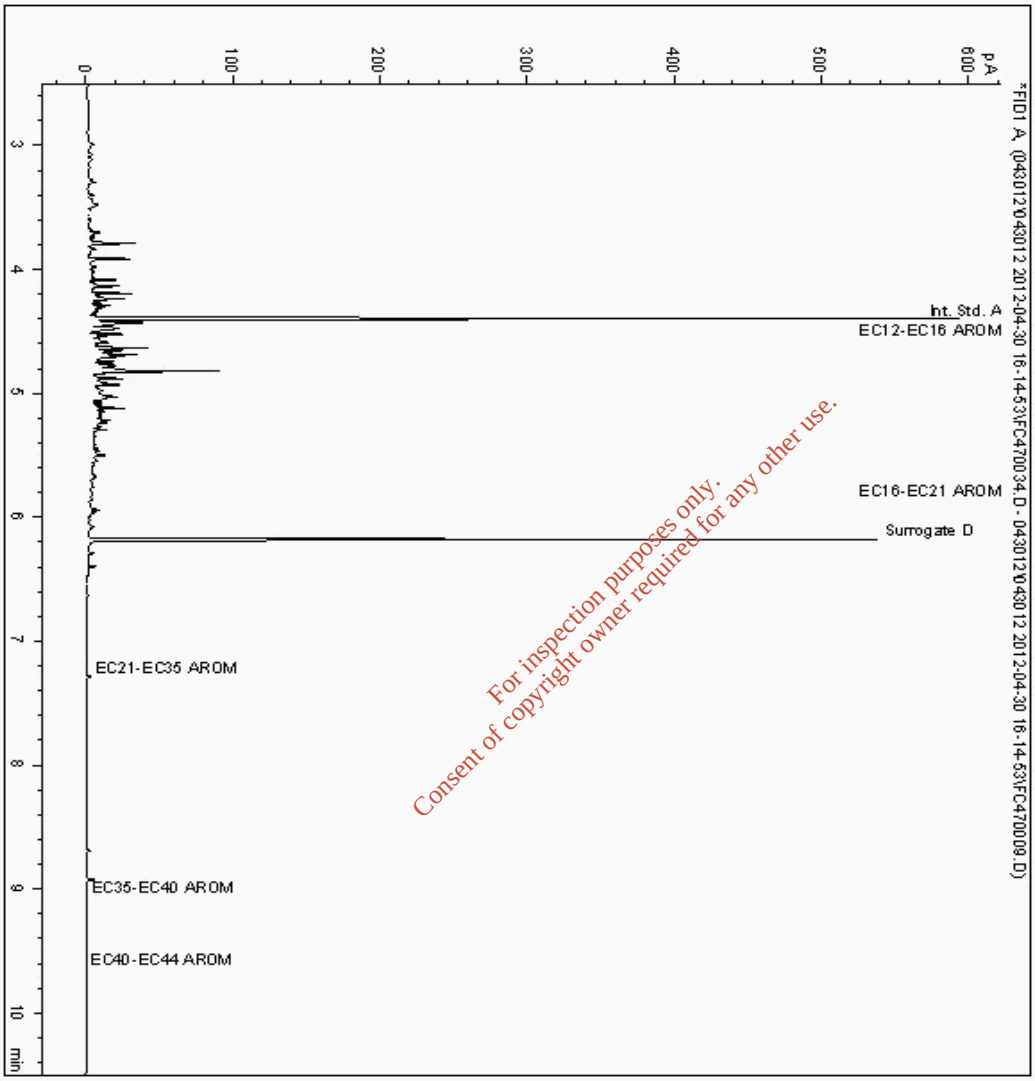
SDG:	120426-45	**Location:**	Limerick Gasworks	**Order Number:**	4500094829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	180196
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: EPH CWG (Aromatic) Aqueous GC (W) **Sample No :** 5511671 **Sample ID :** A3 **Depth :** 2.00

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

Sample Identity: 5390955-5511671
Date Acquired : 01/05/12 01:26:41
Units :
Dilution :
CF : 1
Multiplier : 0.008

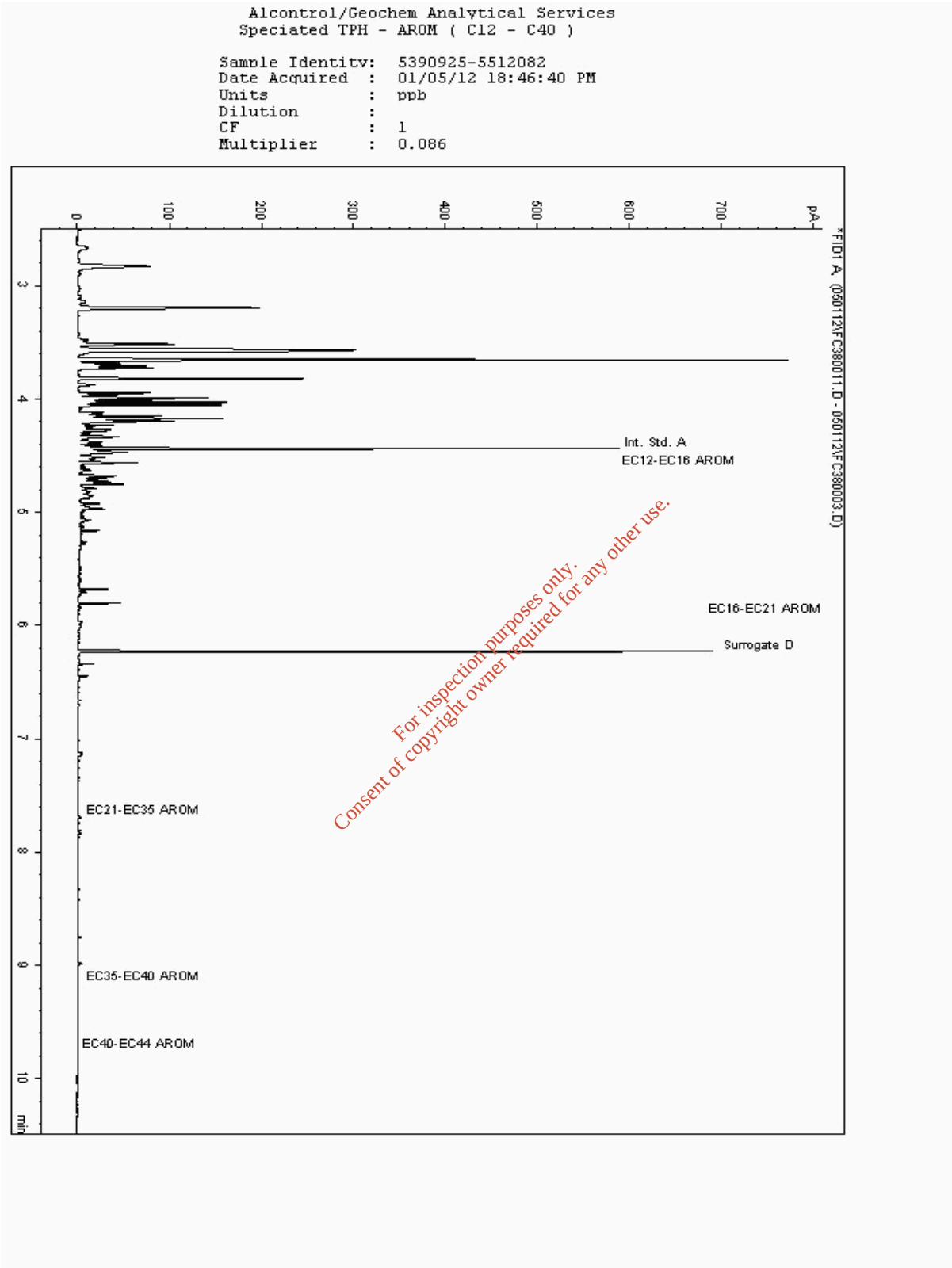


CERTIFICATE OF ANALYSIS

SDG:	120426-45	**Location:**	Limerick Gasworks	**Order Number:**	4500094829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	180196
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: EPH CWG (Aromatic) Aqueous GC (W) **Sample No :** 5512082 **Sample ID :** C7 **Depth :** 1.80 - 2.50



CERTIFICATE OF ANALYSIS

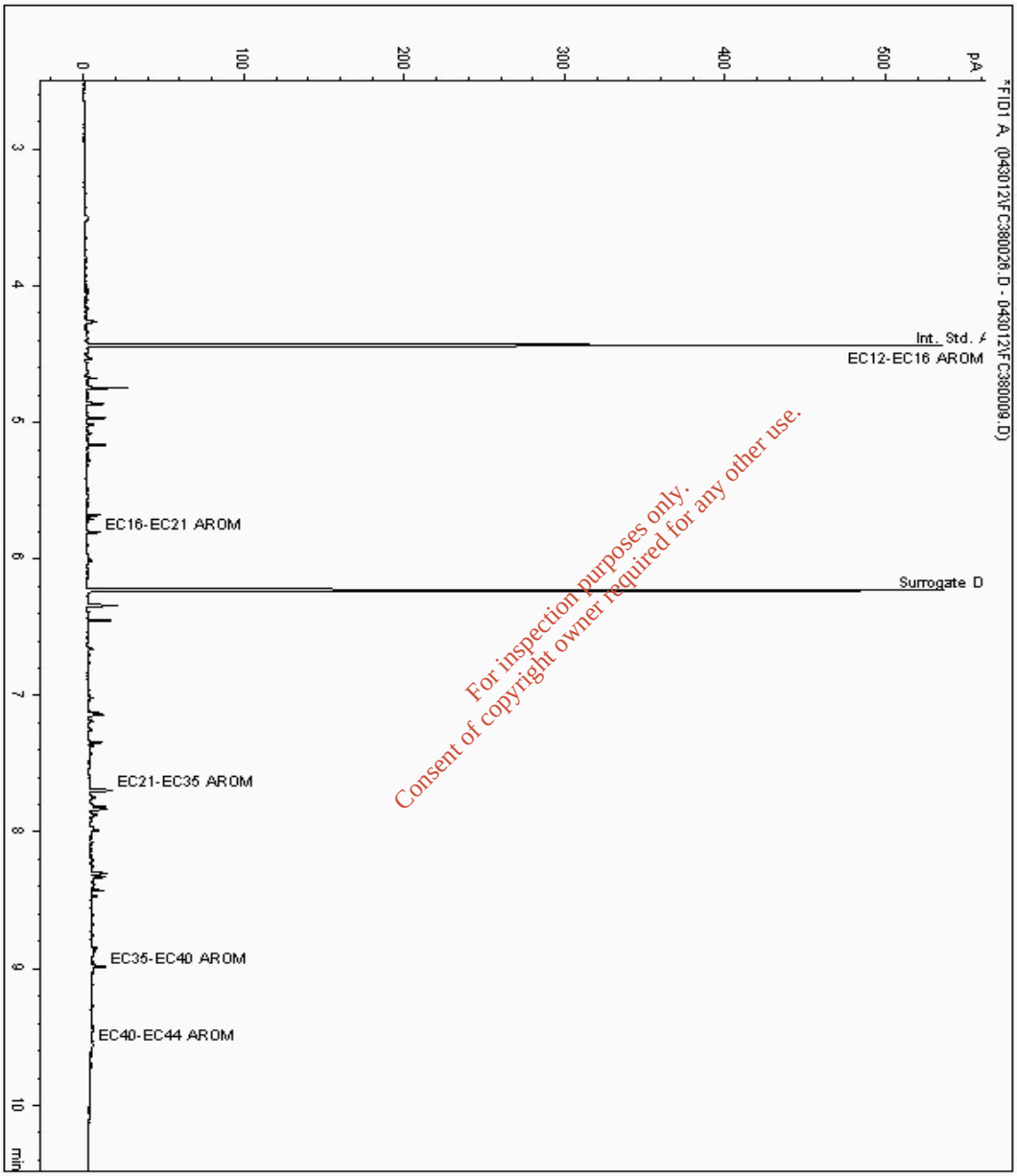
SDG:	120426-45	**Location:**	Limerick Gasworks	**Order Number:**	4500094829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	180196
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: EPH CWG (Aromatic) Aqueous GC (W) **Sample No :** 5512103 **Sample ID :** A11 **Depth :** 1.50

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

Sample Identity: 5390880-5512103
Date Acquired : 30/04/12 23:03:49 PM
Units : ppb
Dilution :
CF : 1
Multiplier : 0.008

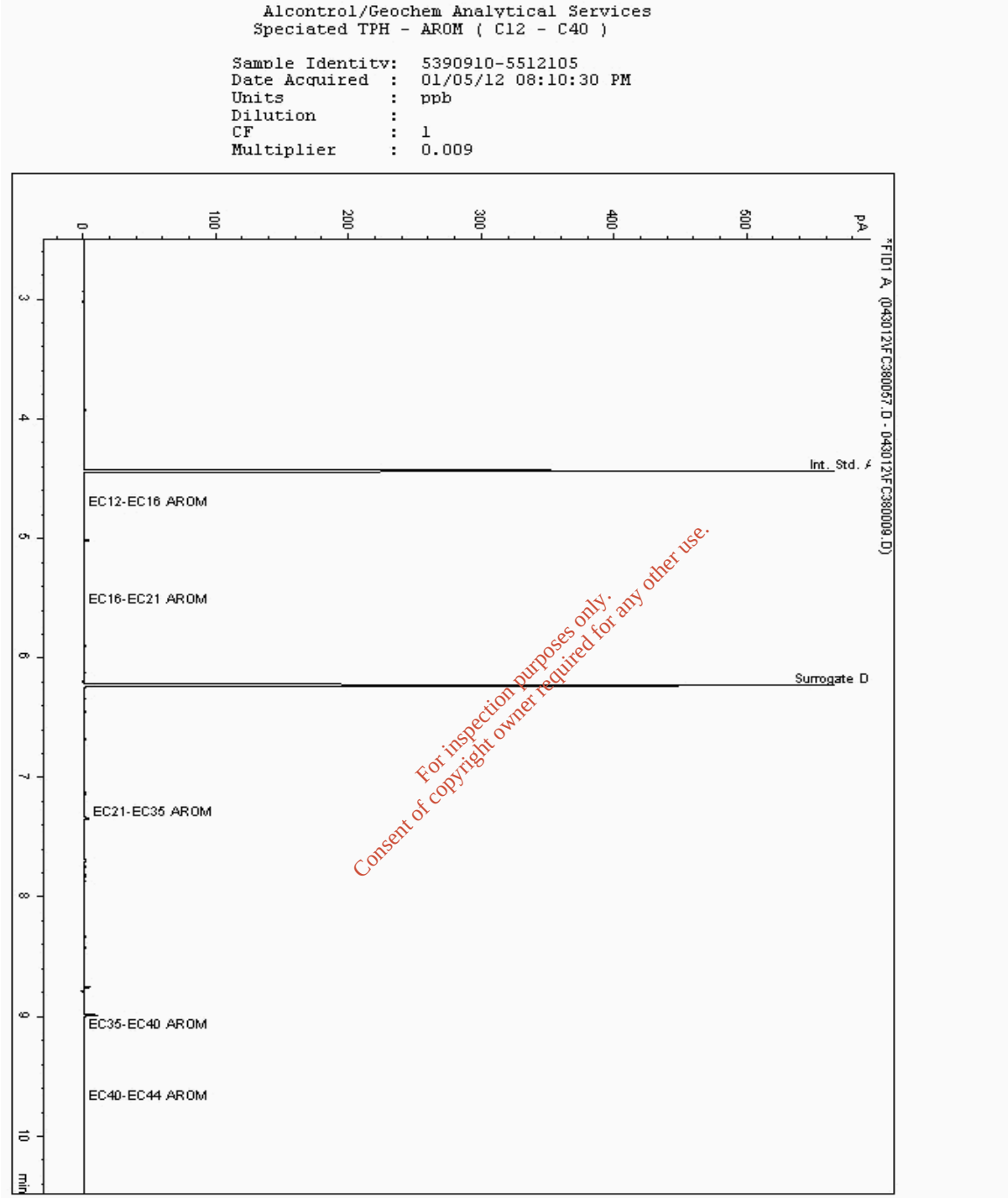


CERTIFICATE OF ANALYSIS

SDG:	120426-45	**Location:**	Limerick Gasworks	**Order Number:**	4500094829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	180196
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: EPH CWG (Aromatic) Aqueous GC (W) **Sample No :** 5512105 **Sample ID :** A9 **Depth :** 1.80 - 2.40

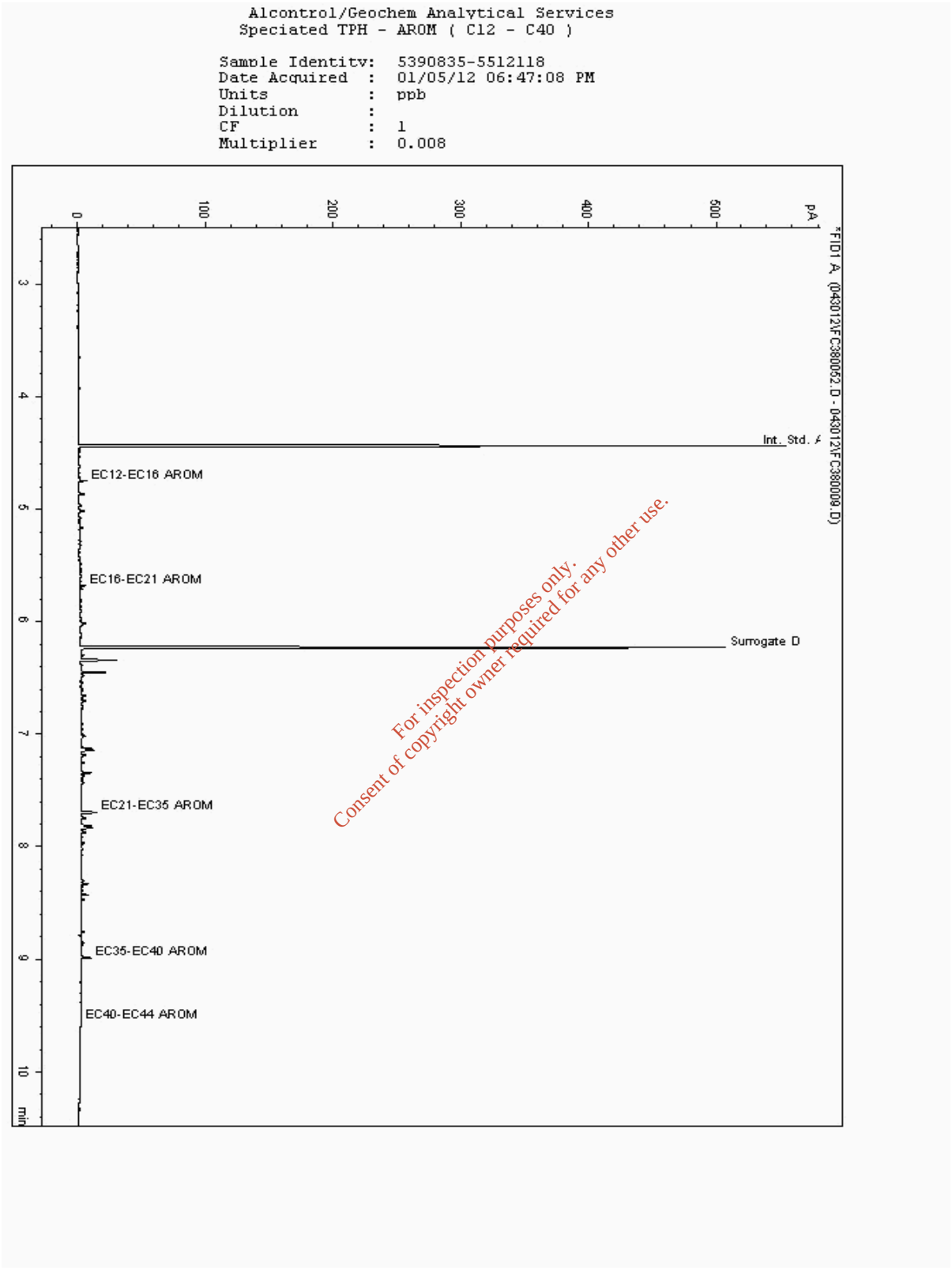


CERTIFICATE OF ANALYSIS

SDG:	120426-45	**Location:**	Limerick Gasworks	**Order Number:**	4500094829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	180196
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: EPH CWG (Aromatic) Aqueous GC (W) **Sample No :** 5512118 **Sample ID :** H12 **Depth :** 2.50

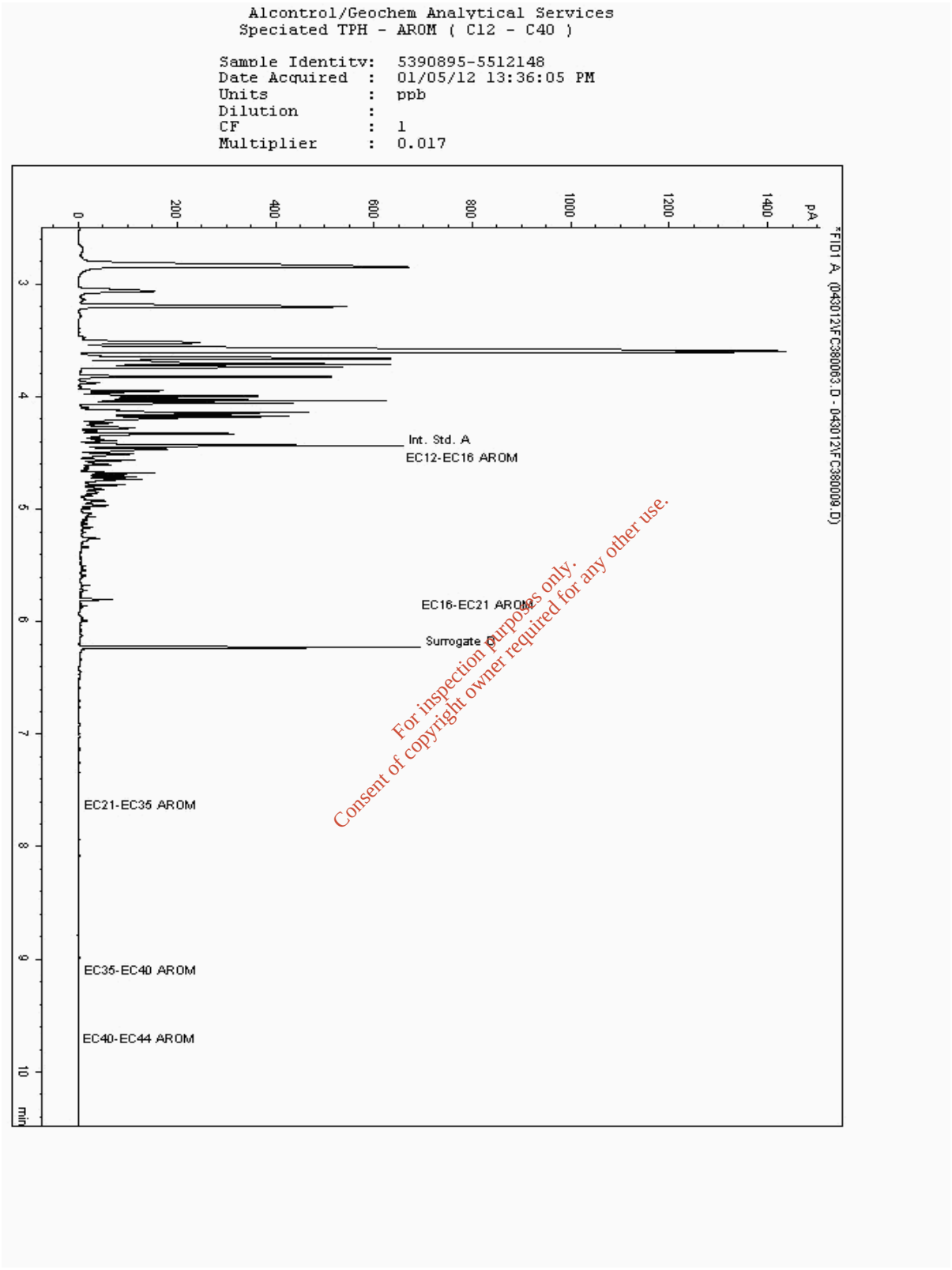


CERTIFICATE OF ANALYSIS

SDG:	120426-45	**Location:**	Limerick Gasworks	**Order Number:**	4500094829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	180196
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: EPH CWG (Aromatic) Aqueous GC (W) **Sample No :** 5512148 **Sample ID :** E8 **Depth :** 3.50



CERTIFICATE OF ANALYSIS

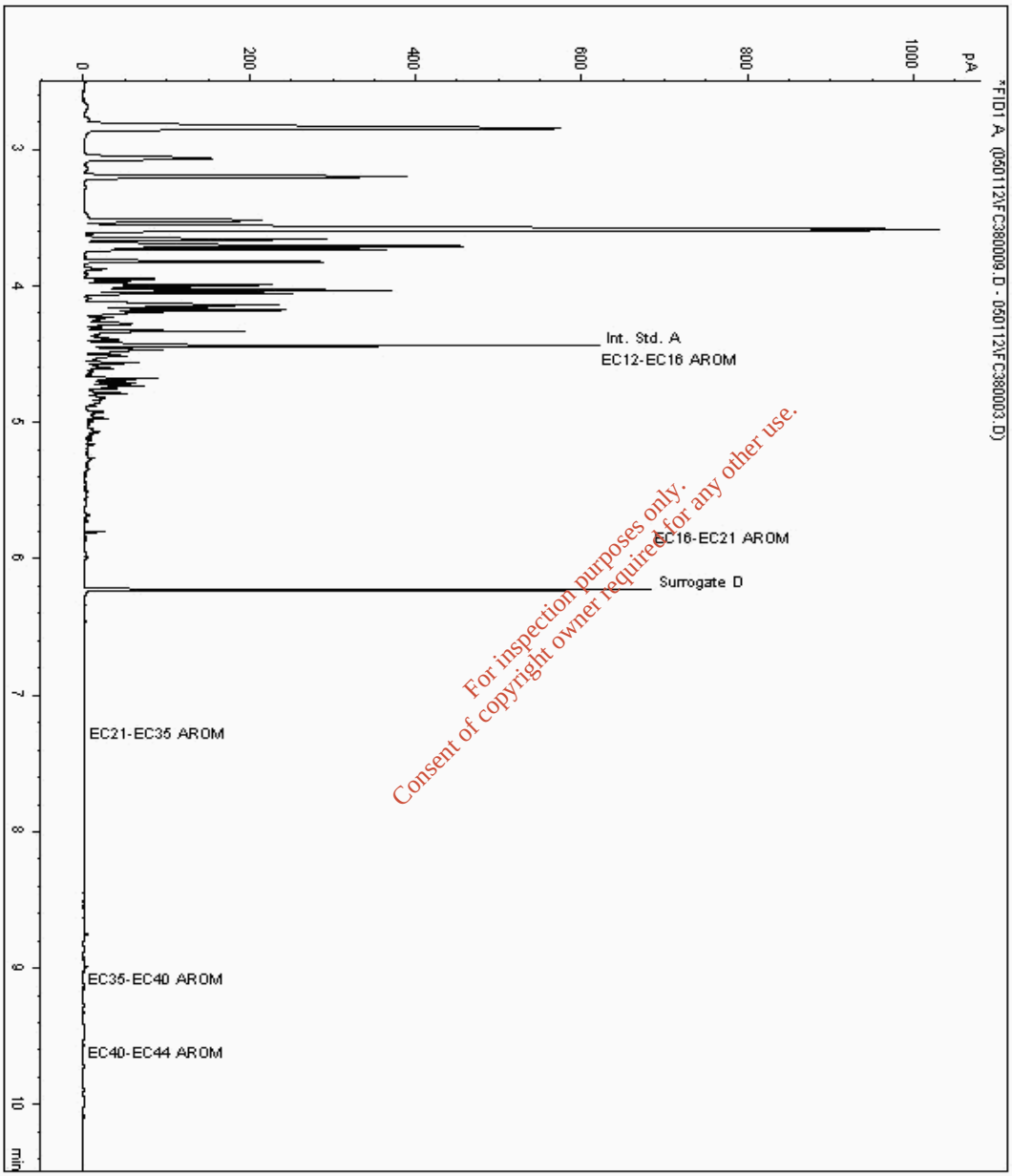
SDG:	120426-45	**Location:**	Limerick Gasworks	**Order Number:**	4500094829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	180196
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: EPH CWG (Aromatic) Aqueous GC (W) **Sample No :** 5512174 **Sample ID :** K5 **Depth :** 3.00

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

Sample Identity: 5390805-5512174
Date Acquired : 01/05/12 18:18:37 PM
Units : ppb
Dilution :
CF : 1
Multiplier : 0.083



CERTIFICATE OF ANALYSIS

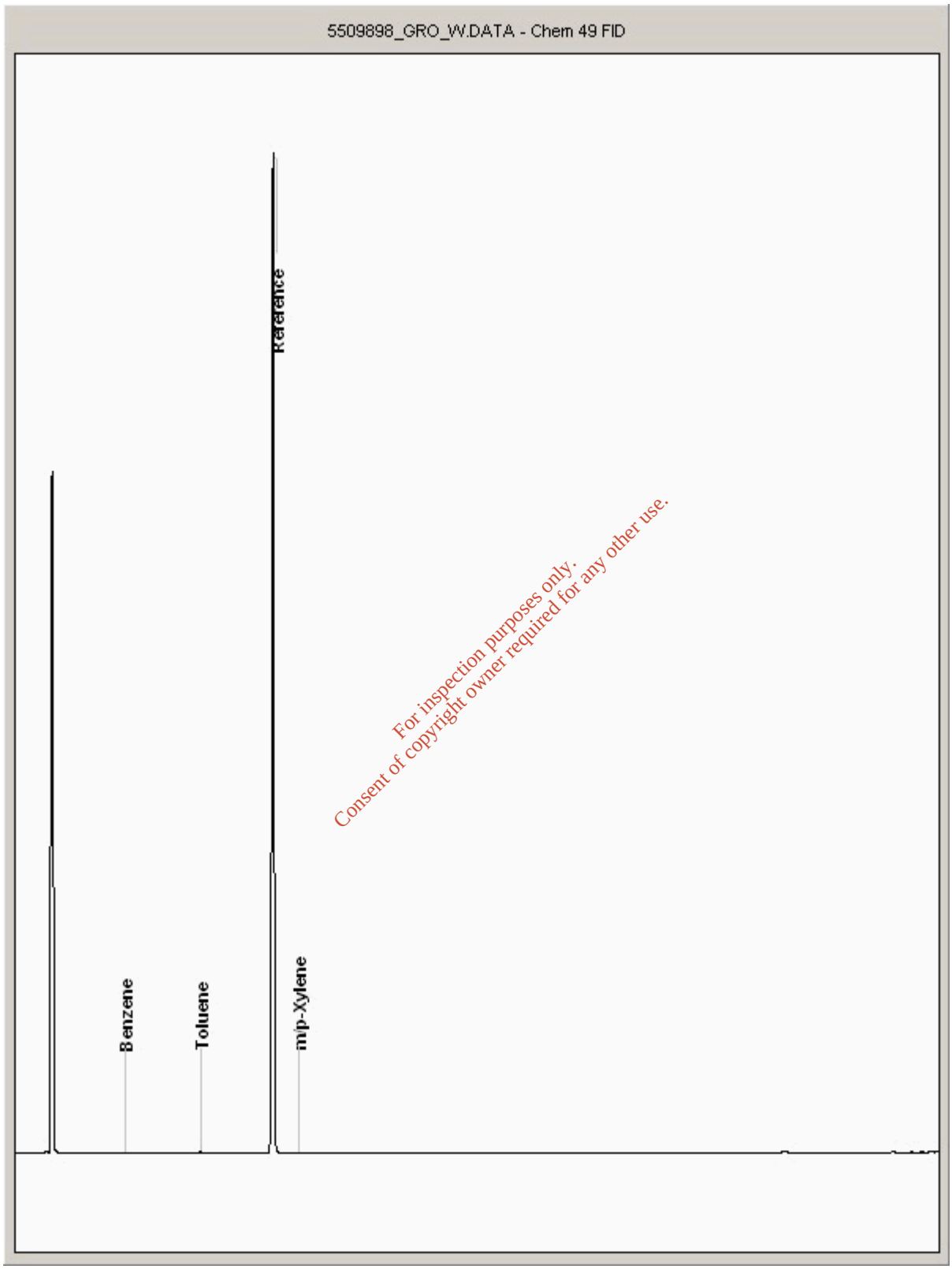
SDG:	120426-45	**Location:**	Limerick Gasworks	**Order Number:**	4500094829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	180196
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 5509898
Sample ID : A9

Depth : 1.80 - 2.40



CERTIFICATE OF ANALYSIS

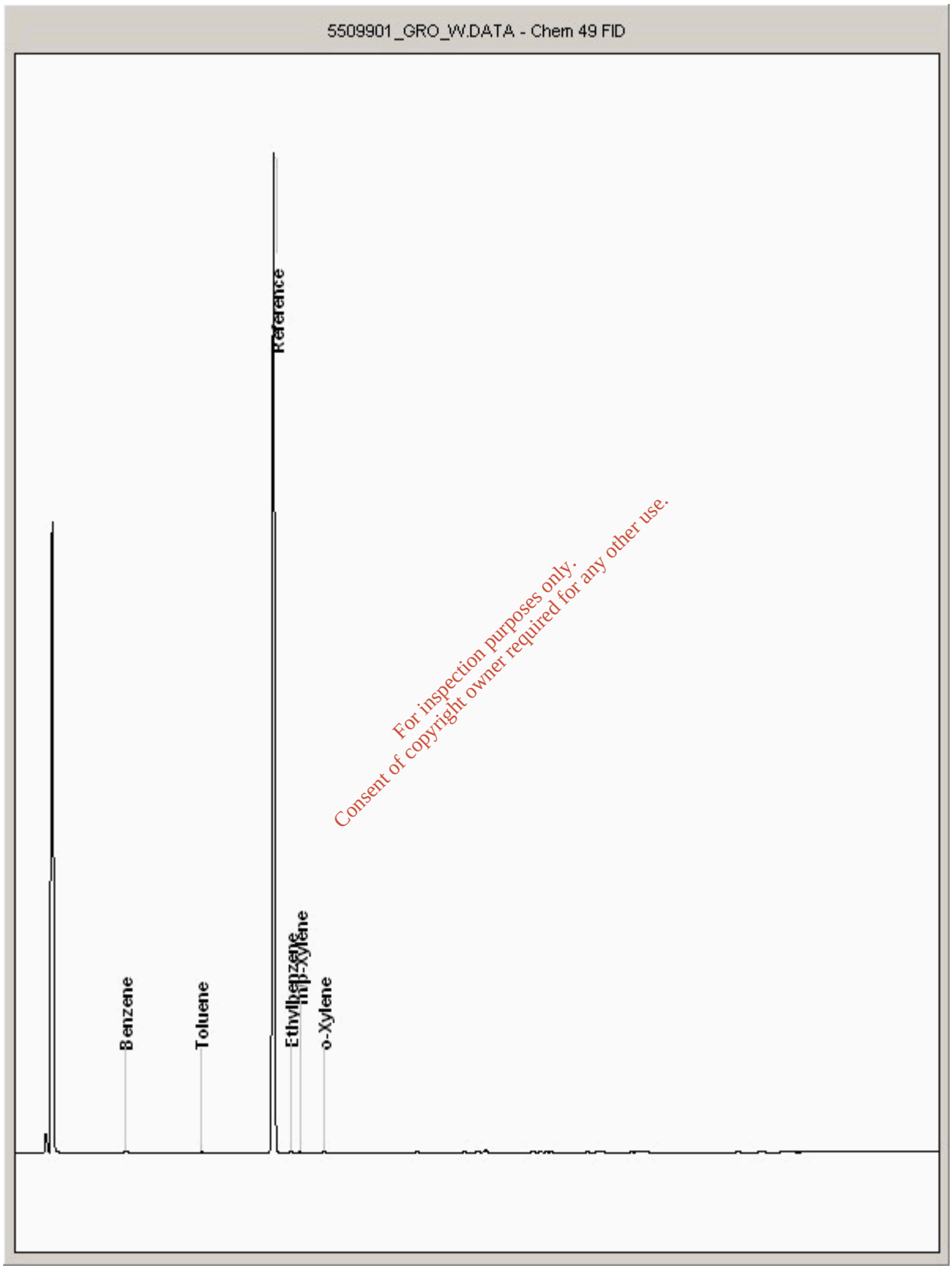
SDG:	120426-45	**Location:**	Limerick Gasworks	**Order Number:**	4500094829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	180196
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 5509901
Sample ID : A4

Depth : 2.50



CERTIFICATE OF ANALYSIS

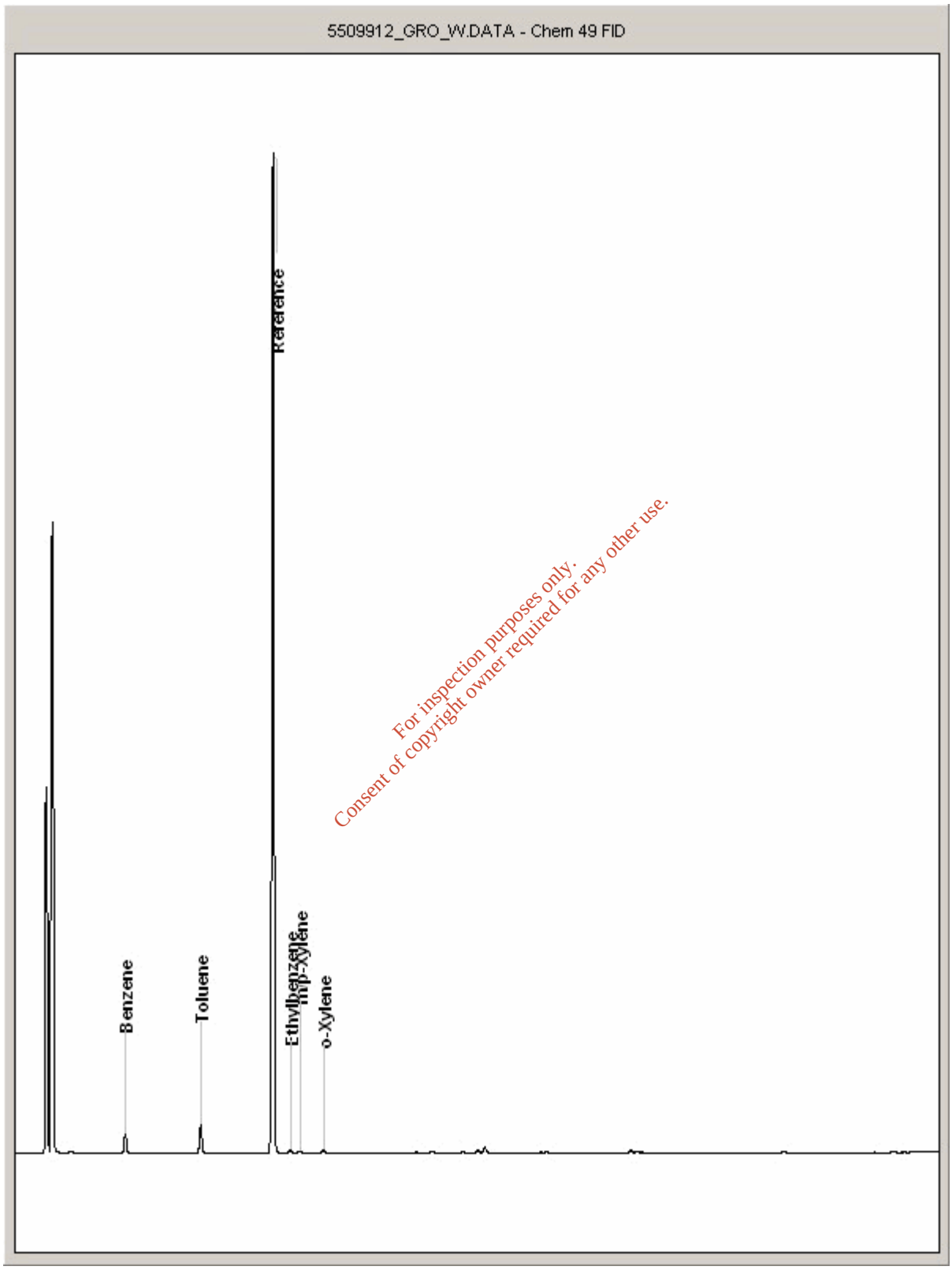
SDG:	120426-45	**Location:**	Limerick Gasworks	**Order Number:**	4500094829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	180196
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 5509912
Sample ID : D5

Depth : 1.90



CERTIFICATE OF ANALYSIS

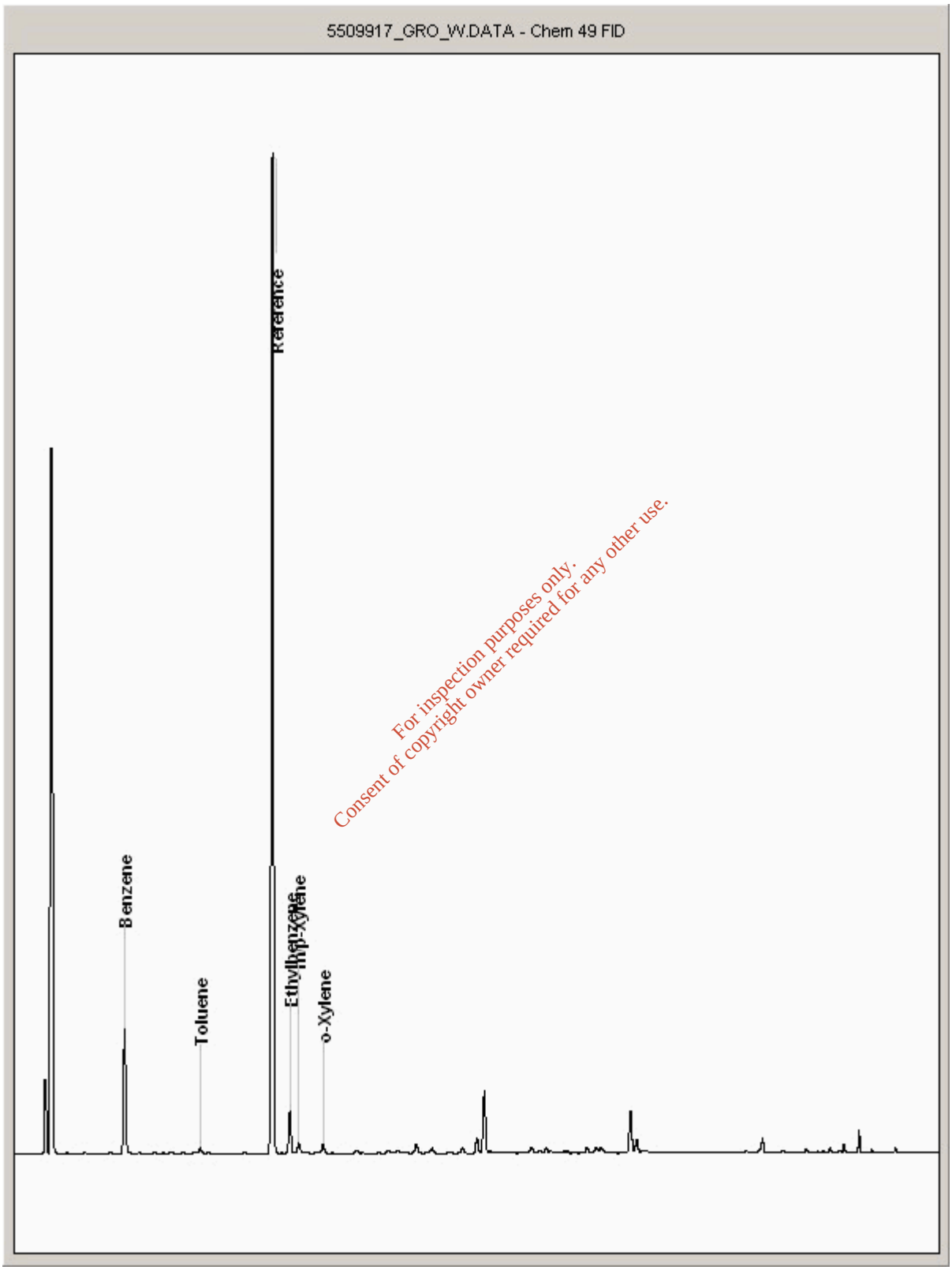
SDG:	120426-45	**Location:**	Limerick Gasworks	**Order Number:**	4500094829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	180196
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 5509917
Sample ID : A3

Depth : 2.00



CERTIFICATE OF ANALYSIS

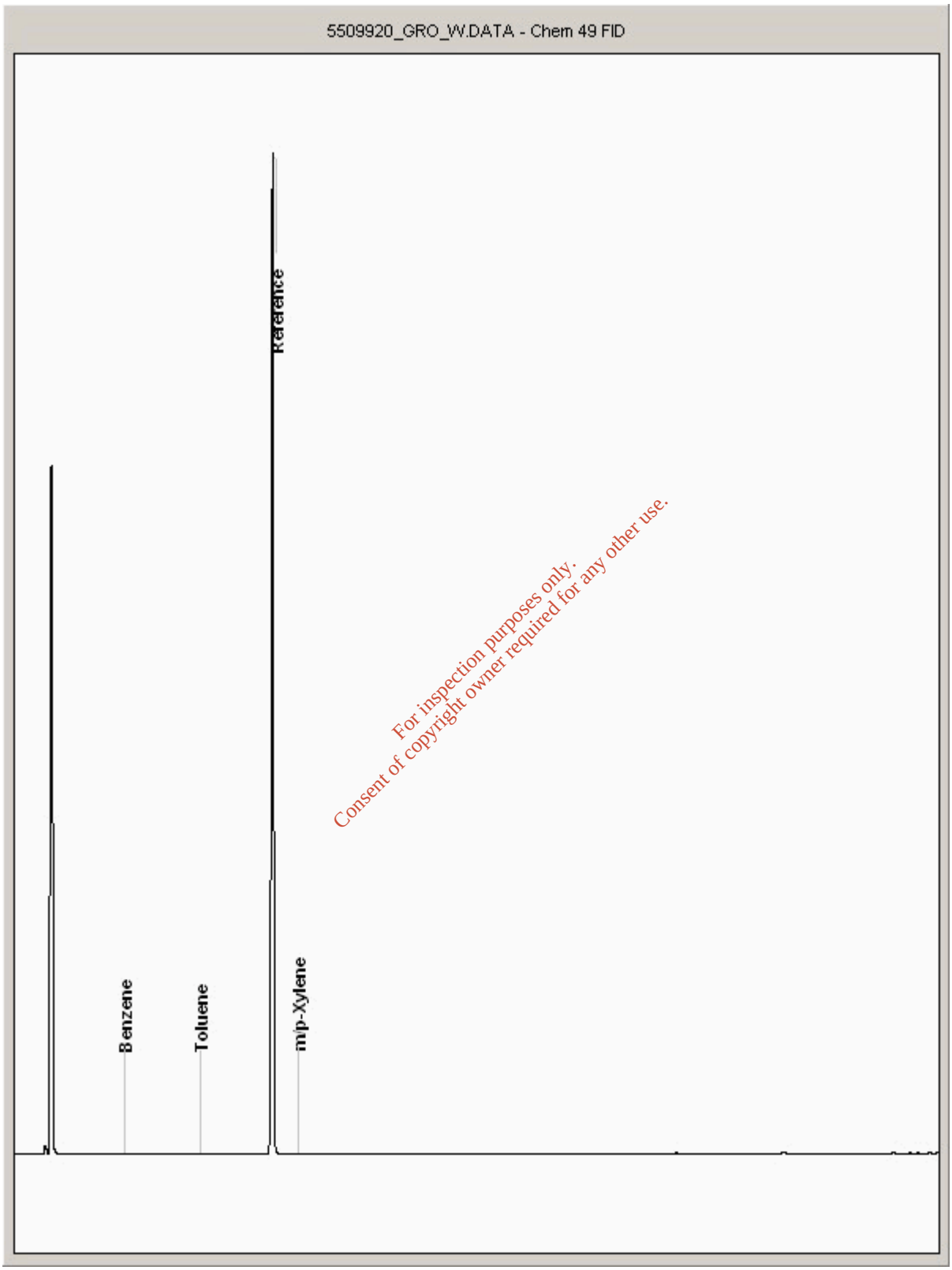
SDG:	120426-45	**Location:**	Limerick Gasworks	**Order Number:**	4500094829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	180196
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 5509920
Sample ID : K1

Depth : 3.25



CERTIFICATE OF ANALYSIS

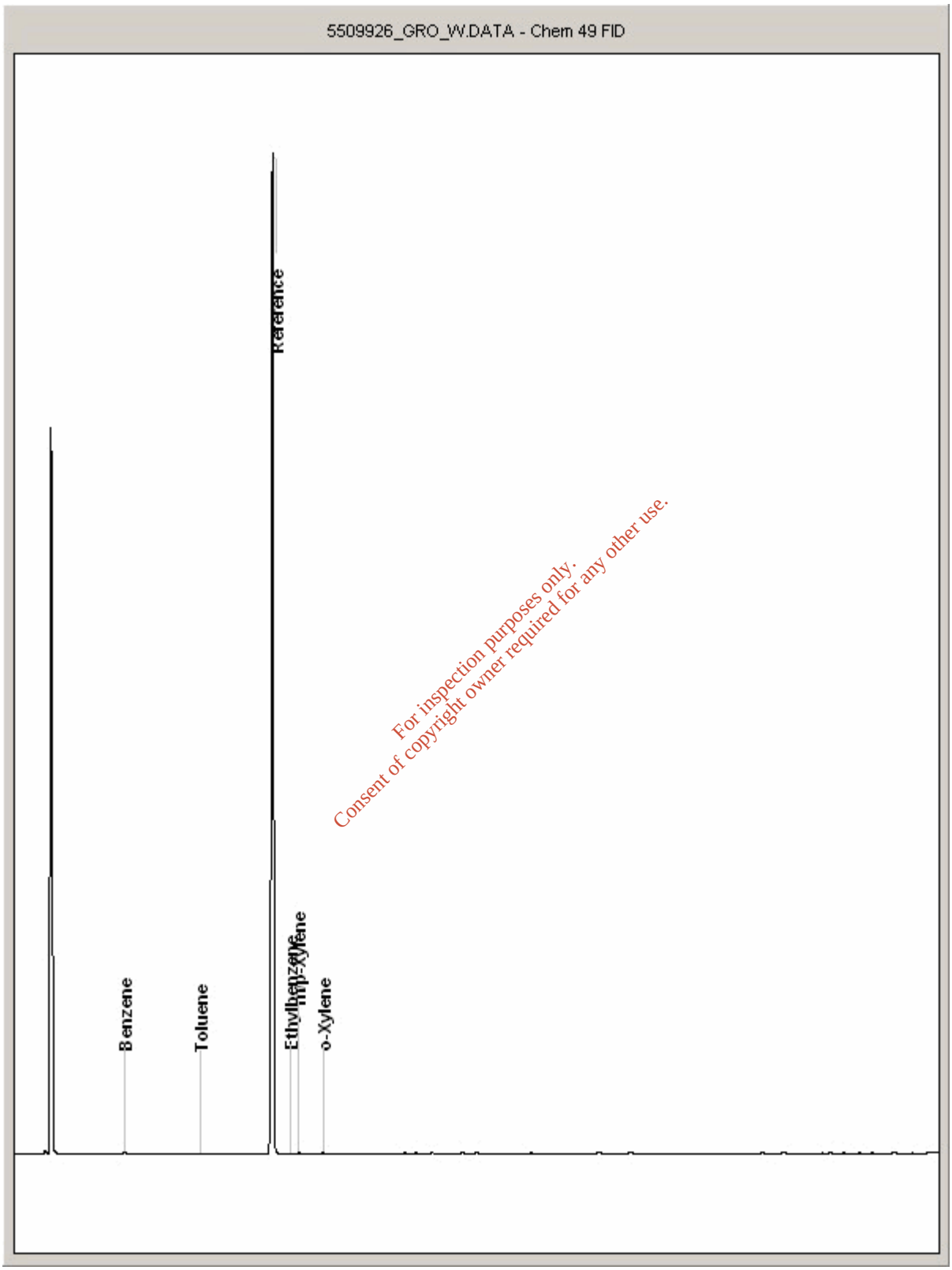
SDG:	120426-45	**Location:**	Limerick Gasworks	**Order Number:**	4500094829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	180196
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 5509926
Sample ID : J10

Depth : 1.00



CERTIFICATE OF ANALYSIS

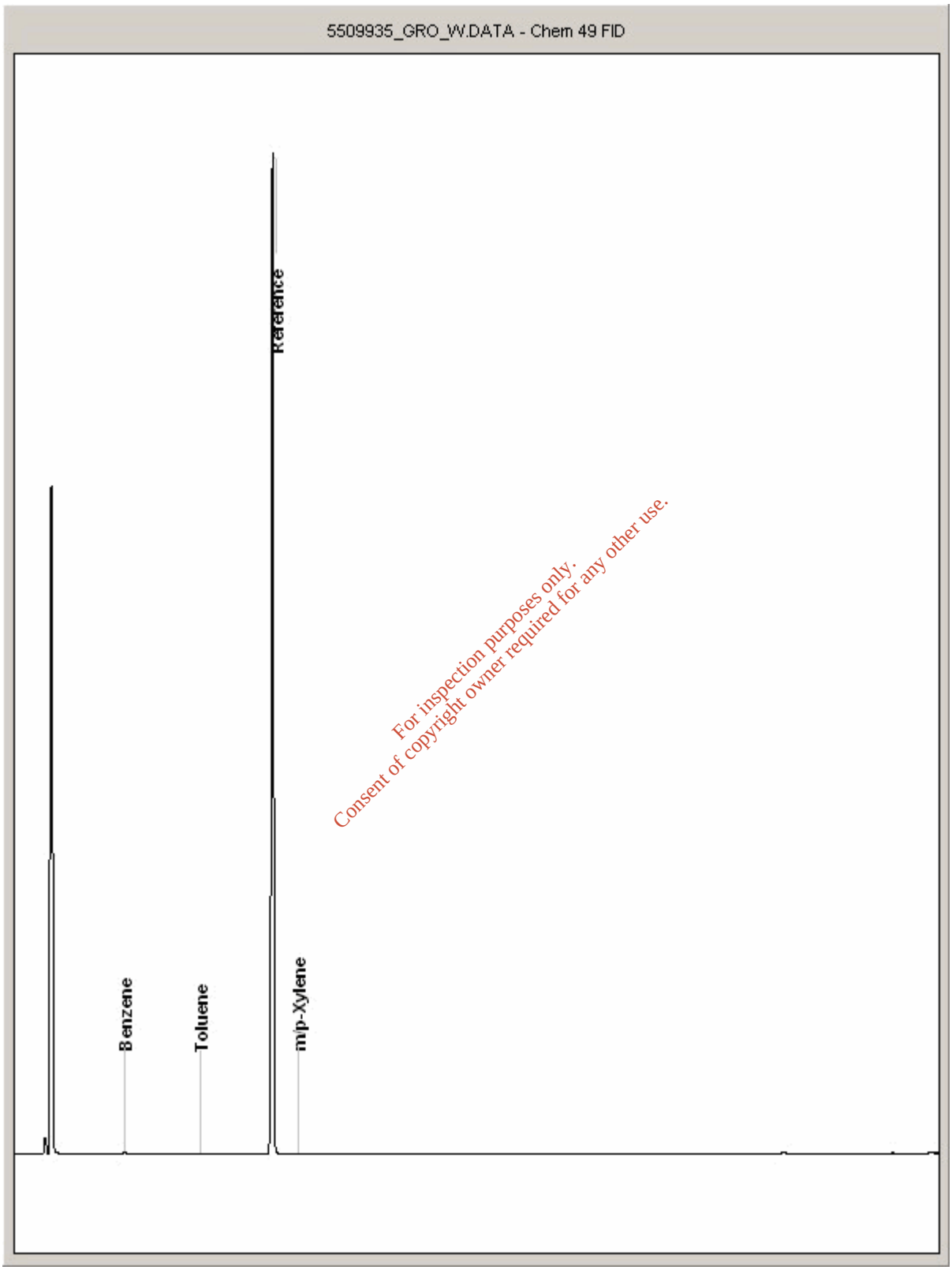
SDG:	120426-45	**Location:**	Limerick Gasworks	**Order Number:**	4500094829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	180196
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 5509935
Sample ID : M3

Depth : 4.00 - 5.00



CERTIFICATE OF ANALYSIS

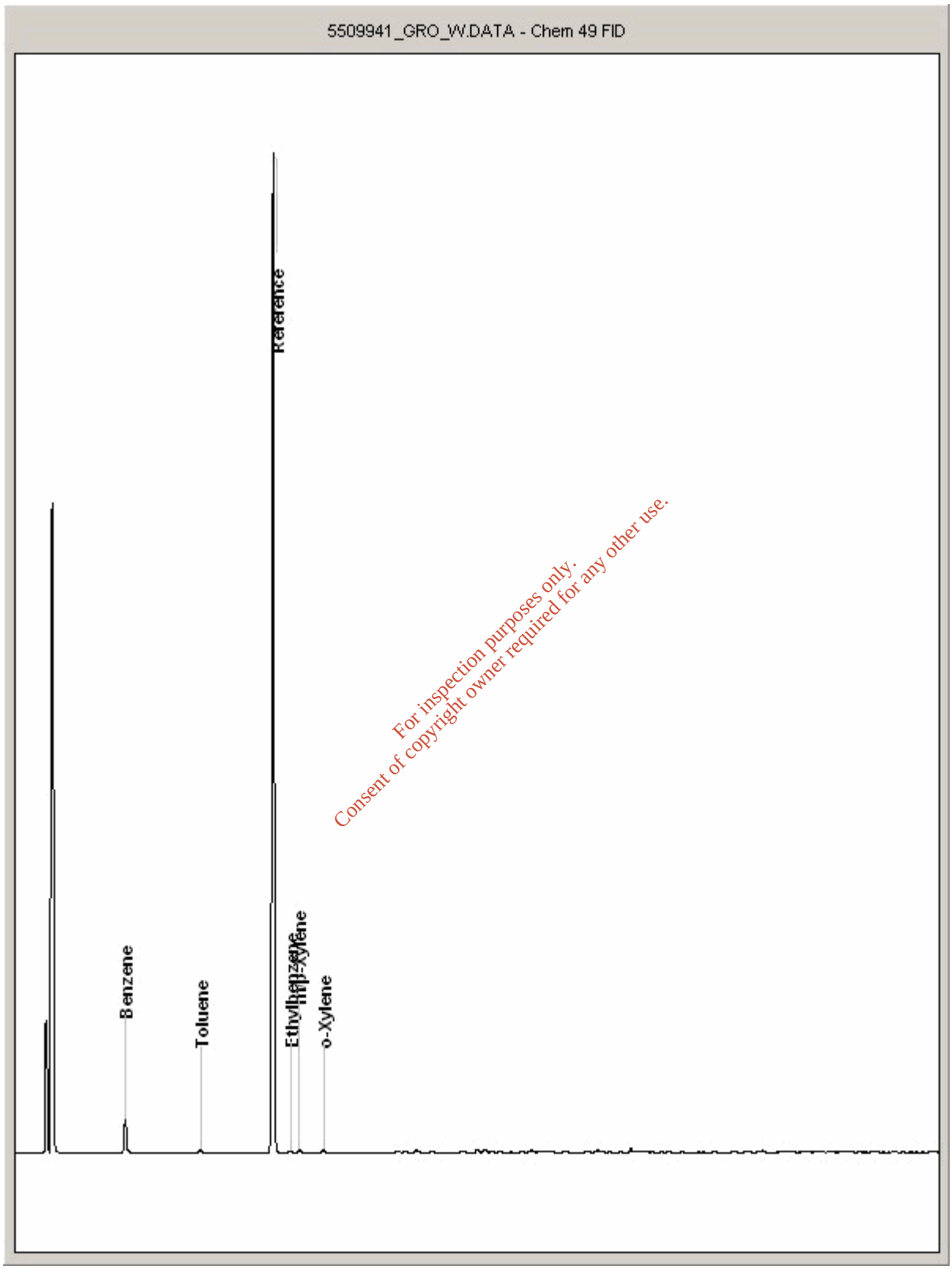
SDG:	120426-45	**Location:**	Limerick Gasworks	**Order Number:**	4500094829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	180196
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 5509941
Sample ID : C2

Depth : 1.60 - 2.50



CERTIFICATE OF ANALYSIS

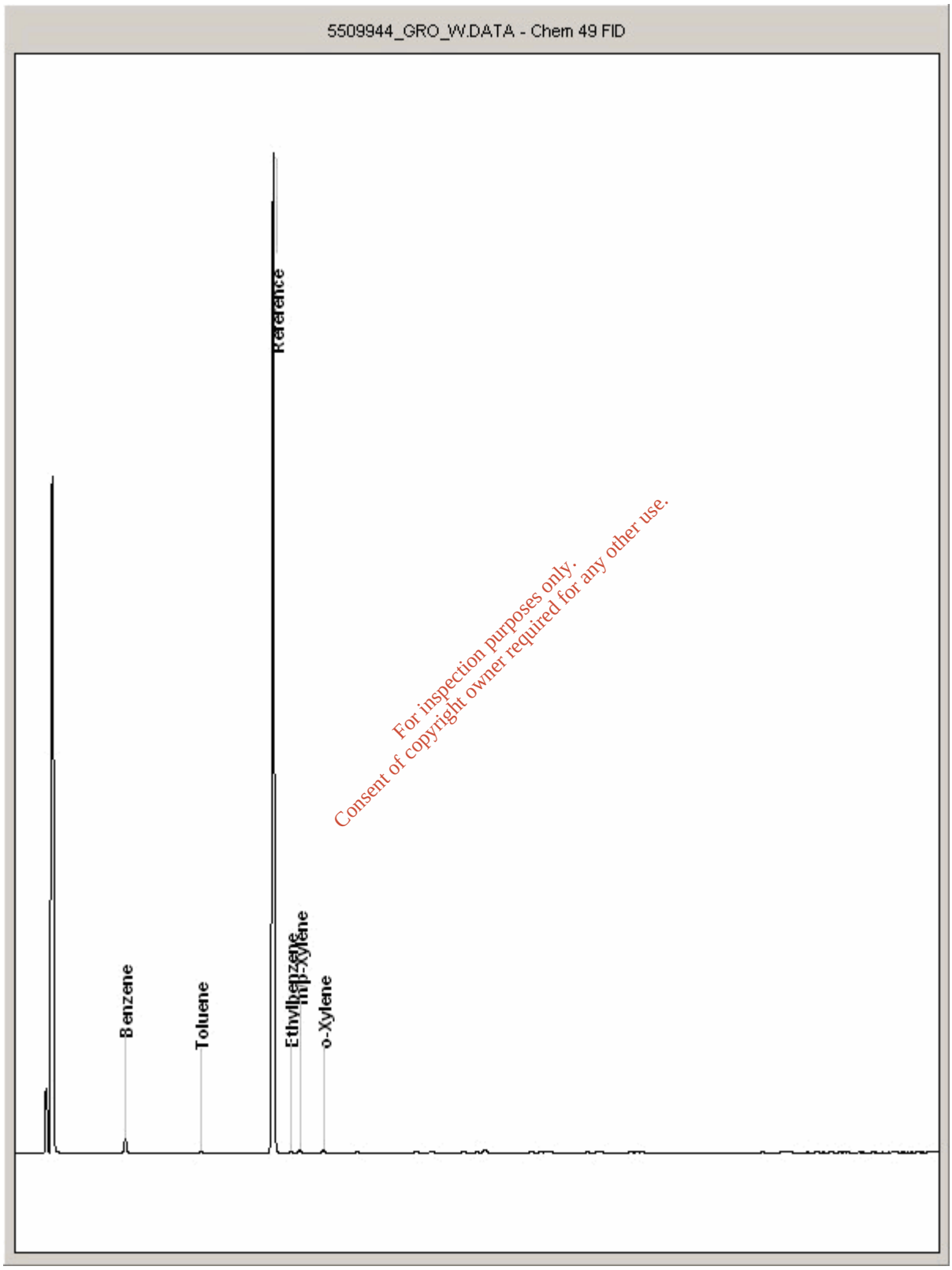
SDG:	120426-45	**Location:**	Limerick Gasworks	**Order Number:**	4500094829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	180196
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 5509944
Sample ID : G5

Depth : 4.00



CERTIFICATE OF ANALYSIS

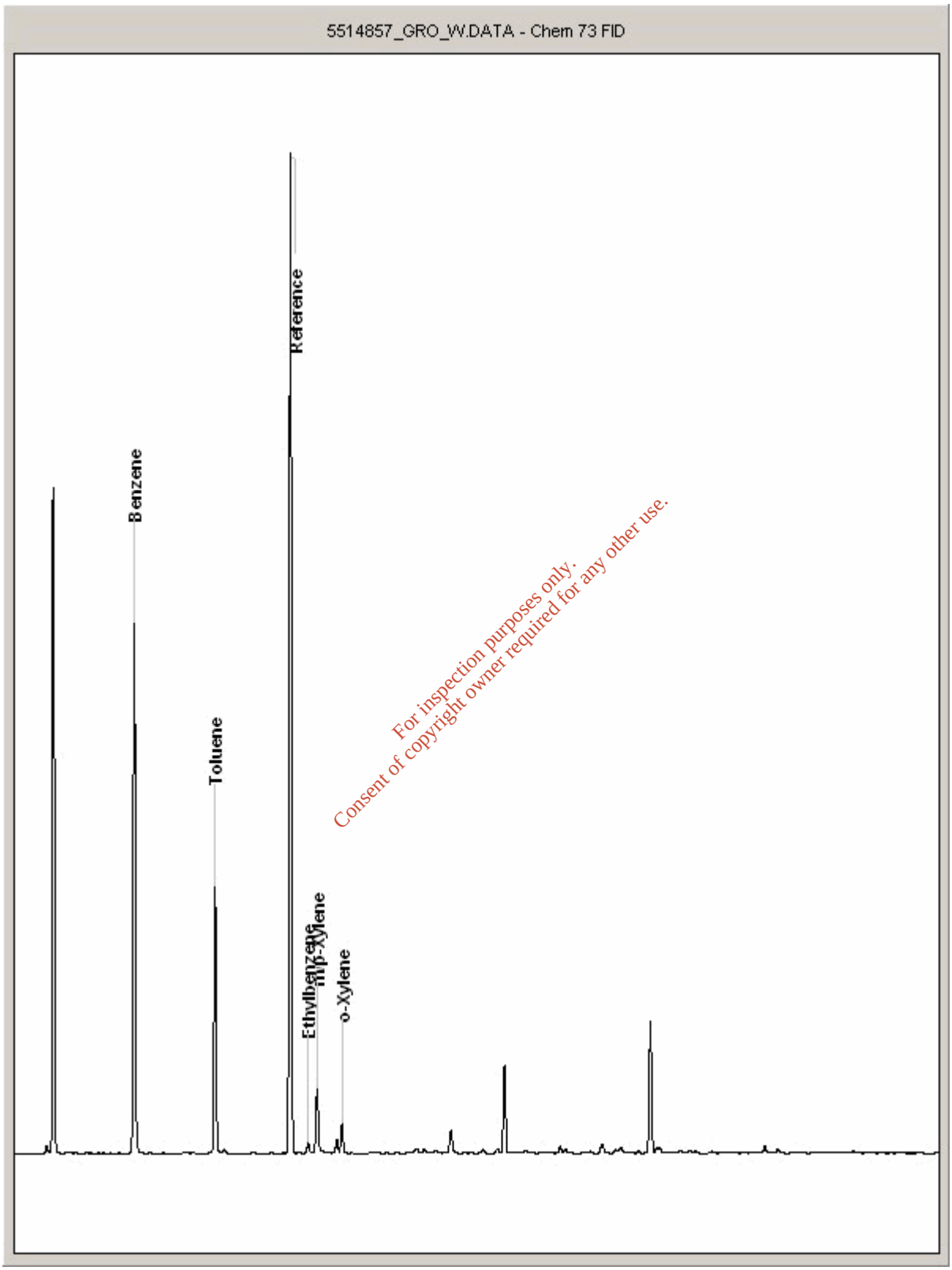
SDG:	120426-45	**Location:**	Limerick Gasworks	**Order Number:**	4500094829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	180196
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 5514857
Sample ID : C7

Depth : 1.80 - 2.50



CERTIFICATE OF ANALYSIS

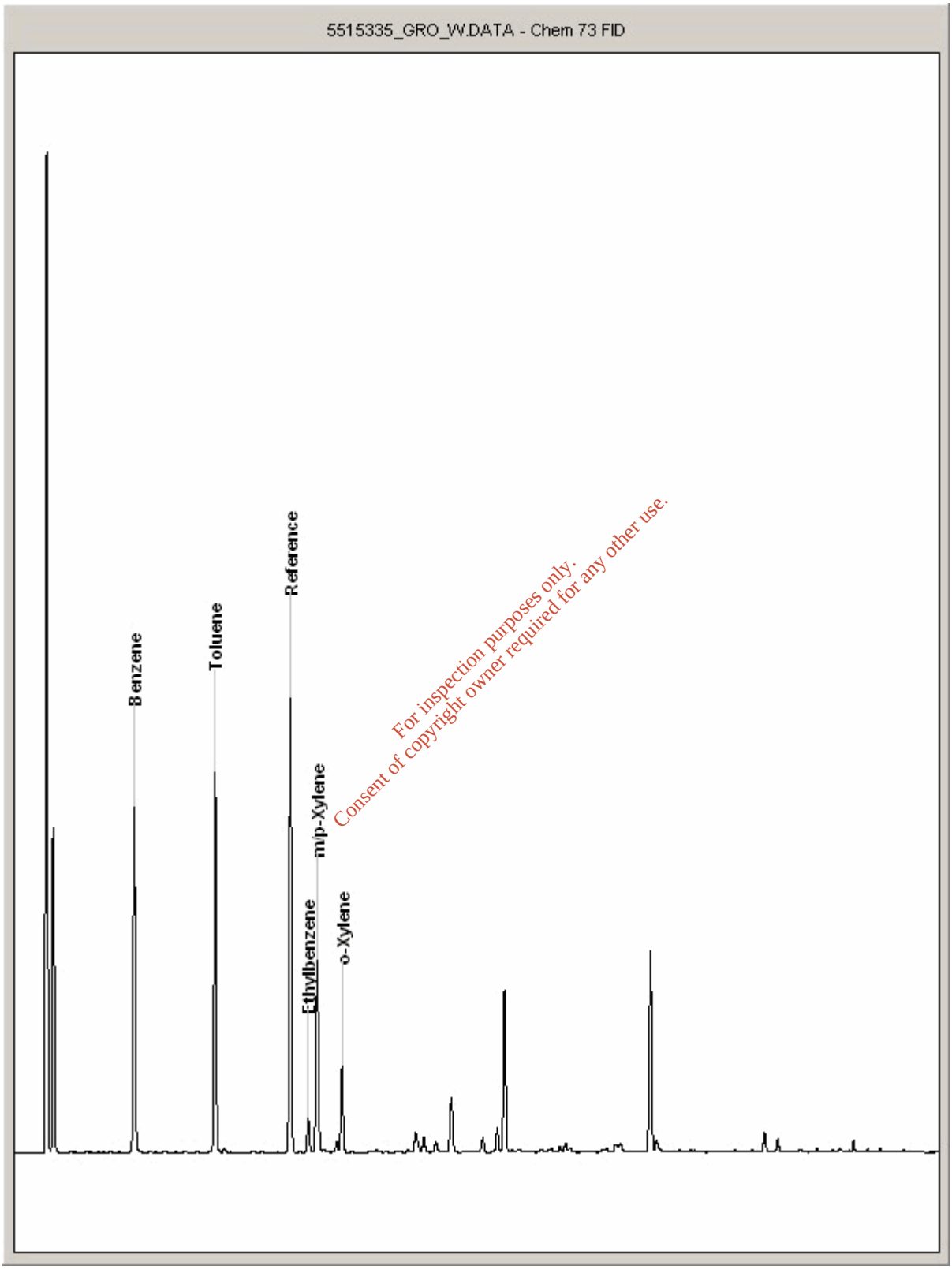
SDG:	120426-45	**Location:**	Limerick Gasworks	**Order Number:**	4500094829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	180196
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 5515335
Sample ID : G4

Depth : 2.50 - 3.50



CERTIFICATE OF ANALYSIS

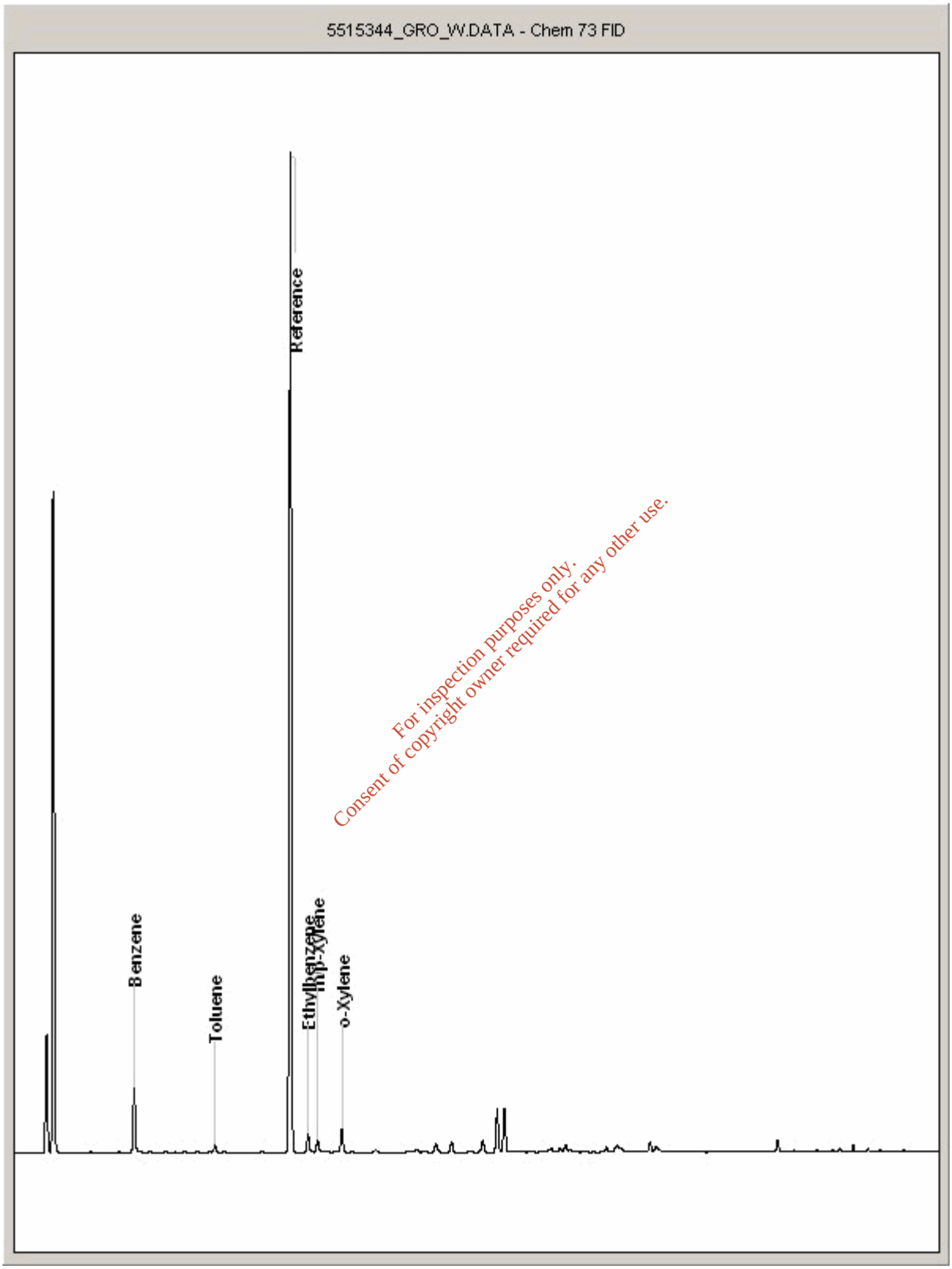
SDG:	120426-45	**Location:**	Limerick Gasworks	**Order Number:**	4500094829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	180196
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 5515344
Sample ID : A1

Depth : 1.50 - 3.00



CERTIFICATE OF ANALYSIS

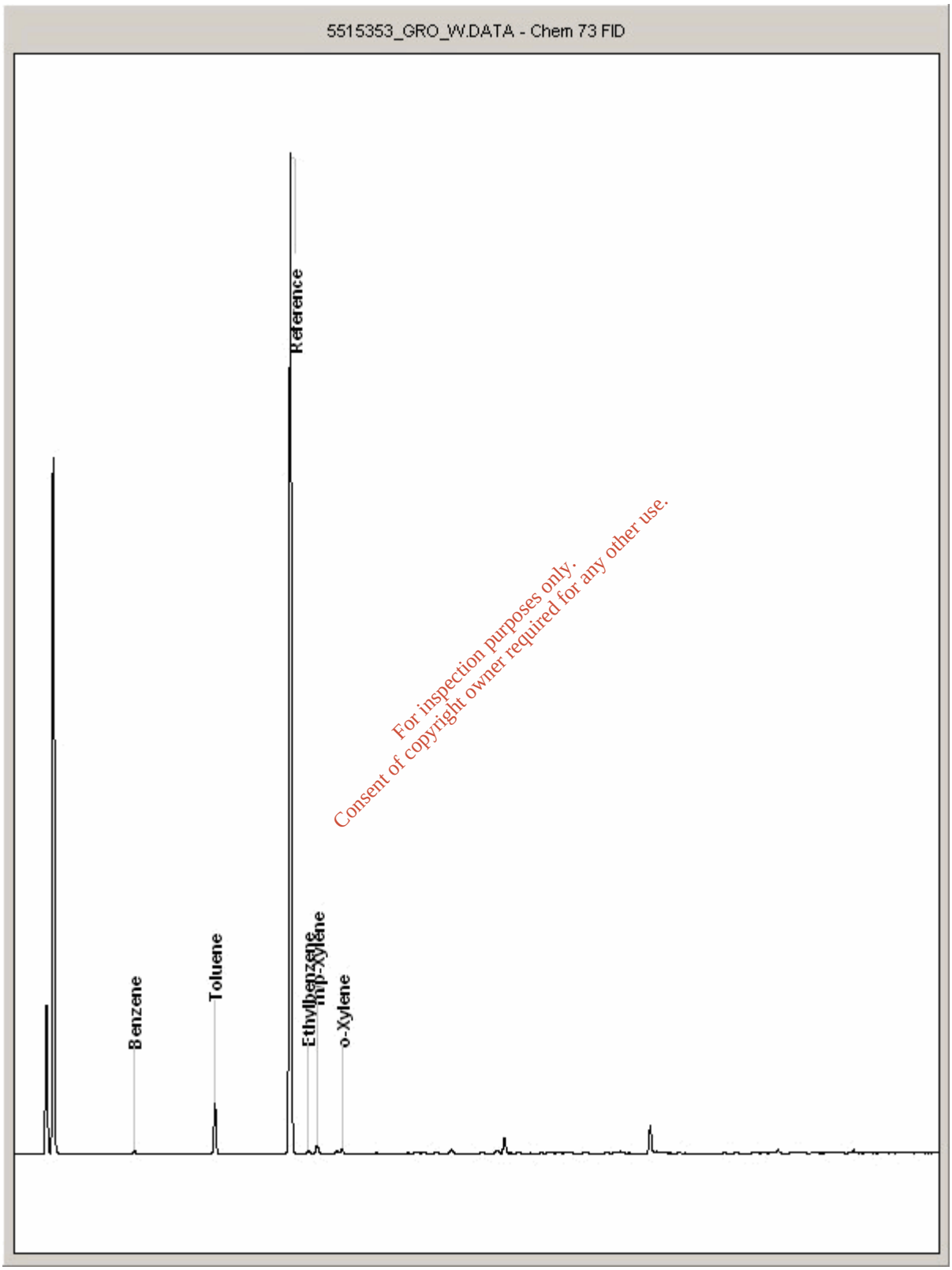
SDG:	120426-45	**Location:**	Limerick Gasworks	**Order Number:**	4500094829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	180196
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 5515353
Sample ID : A11

Depth : 1.50



CERTIFICATE OF ANALYSIS

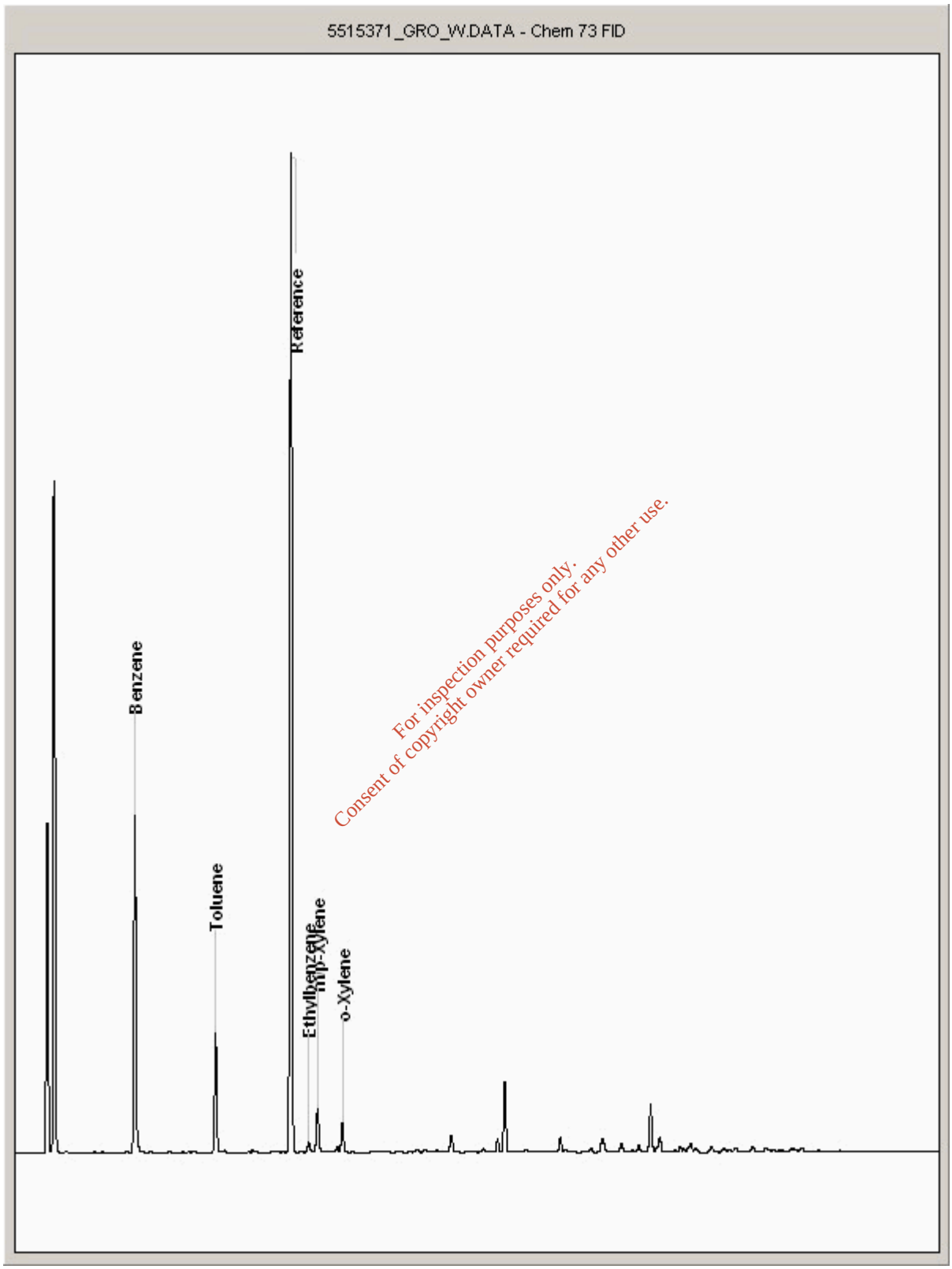
SDG:	120426-45	**Location:**	Limerick Gasworks	**Order Number:**	4500094829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	180196
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 5515371
Sample ID : F11

Depth : 3.00



CERTIFICATE OF ANALYSIS

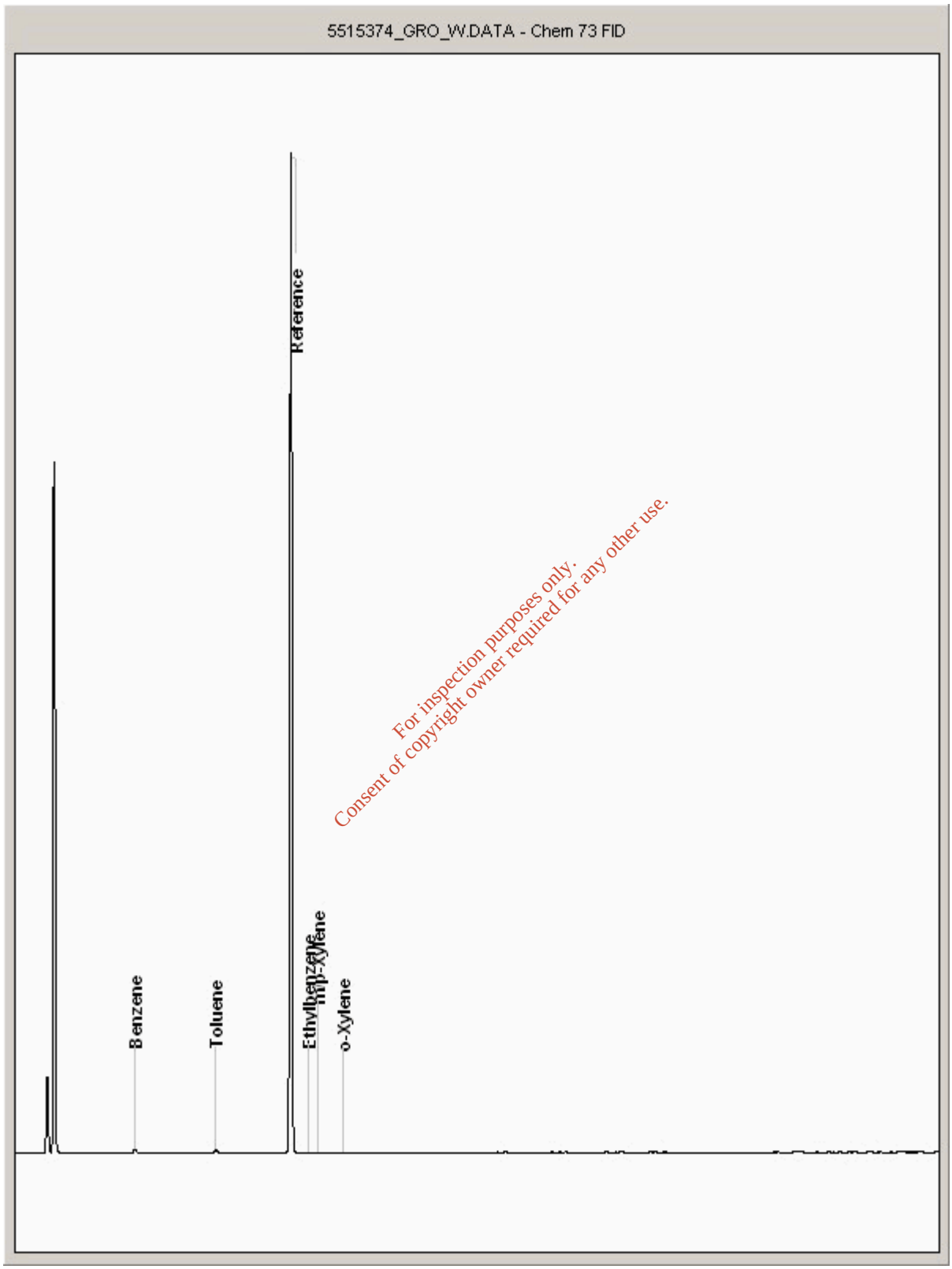
SDG:	120426-45	**Location:**	Limerick Gasworks	**Order Number:**	4500094829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	180196
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 5515374
Sample ID : H12

Depth : 2.50



CERTIFICATE OF ANALYSIS

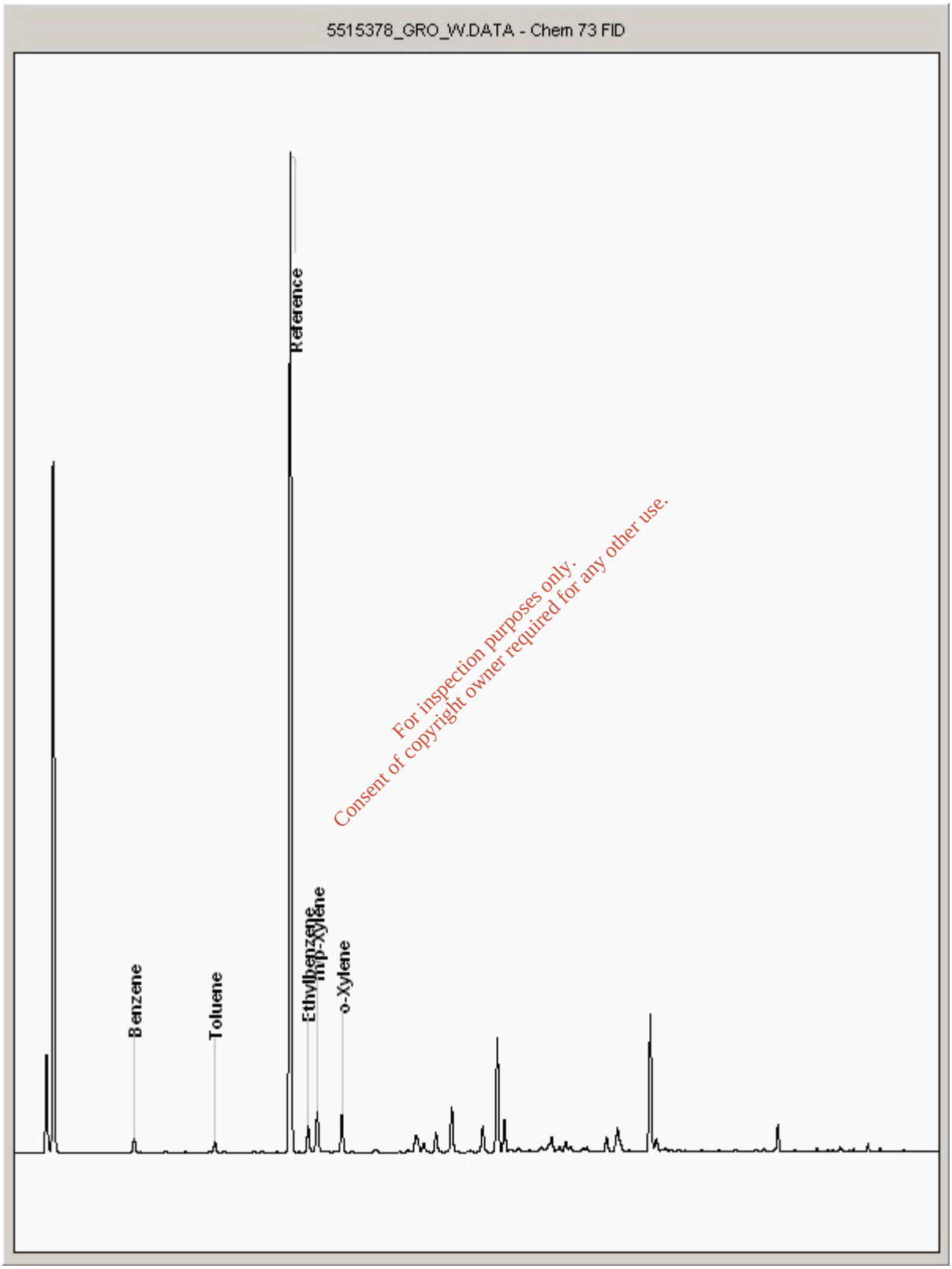
SDG:	120426-45	**Location:**	Limerick Gasworks	**Order Number:**	4500094829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	180196
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 5515378
Sample ID : C11

Depth : 2.00



CERTIFICATE OF ANALYSIS

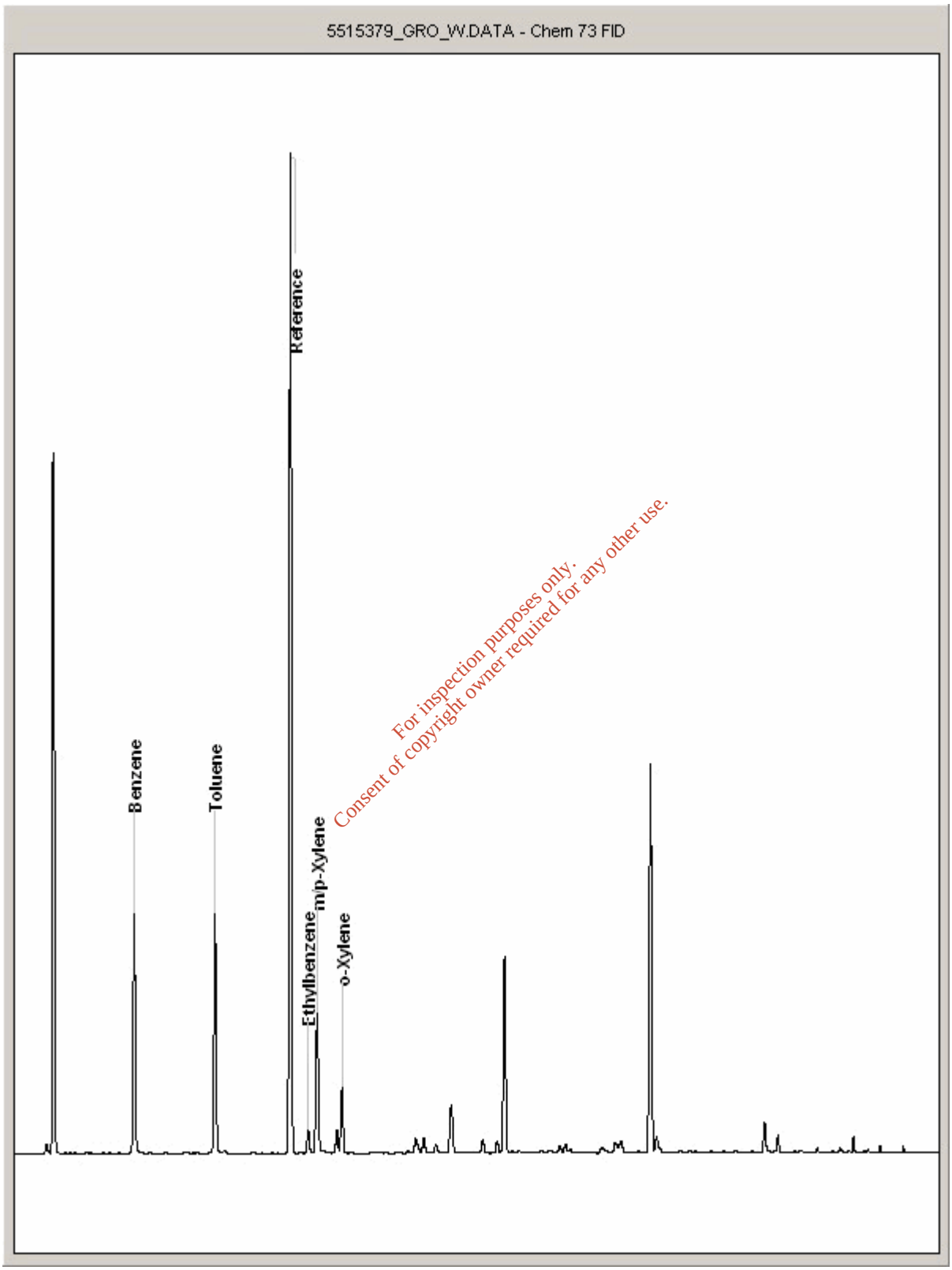
SDG:	120426-45	**Location:**	Limerick Gasworks	**Order Number:**	4500094829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	180196
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 5515379
Sample ID : G8

Depth : 0.50 - 1.50



CERTIFICATE OF ANALYSIS

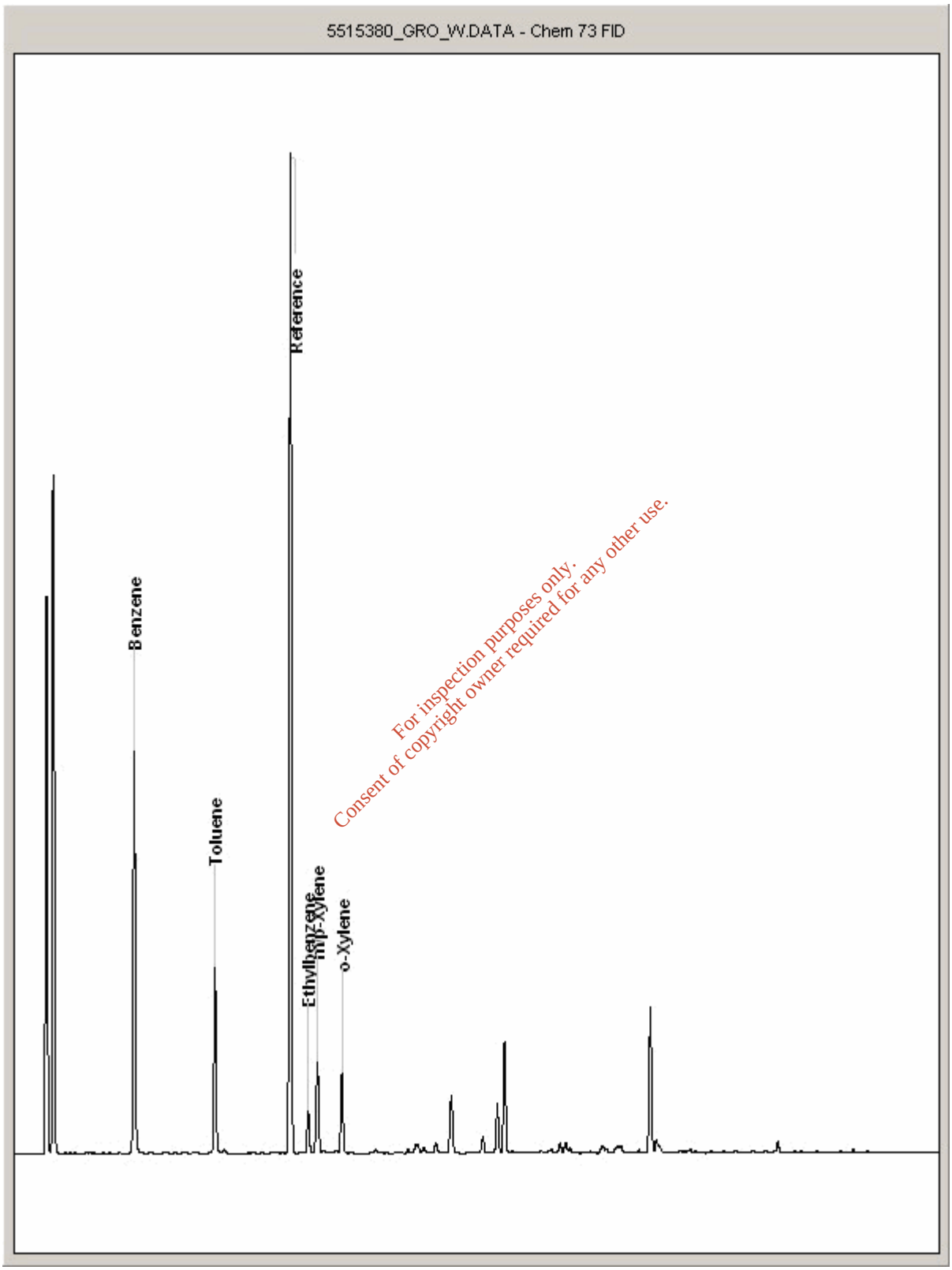
SDG:	120426-45	**Location:**	Limerick Gasworks	**Order Number:**	4500094829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	180196
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 5515380
Sample ID : G3

Depth : 4.50



CERTIFICATE OF ANALYSIS

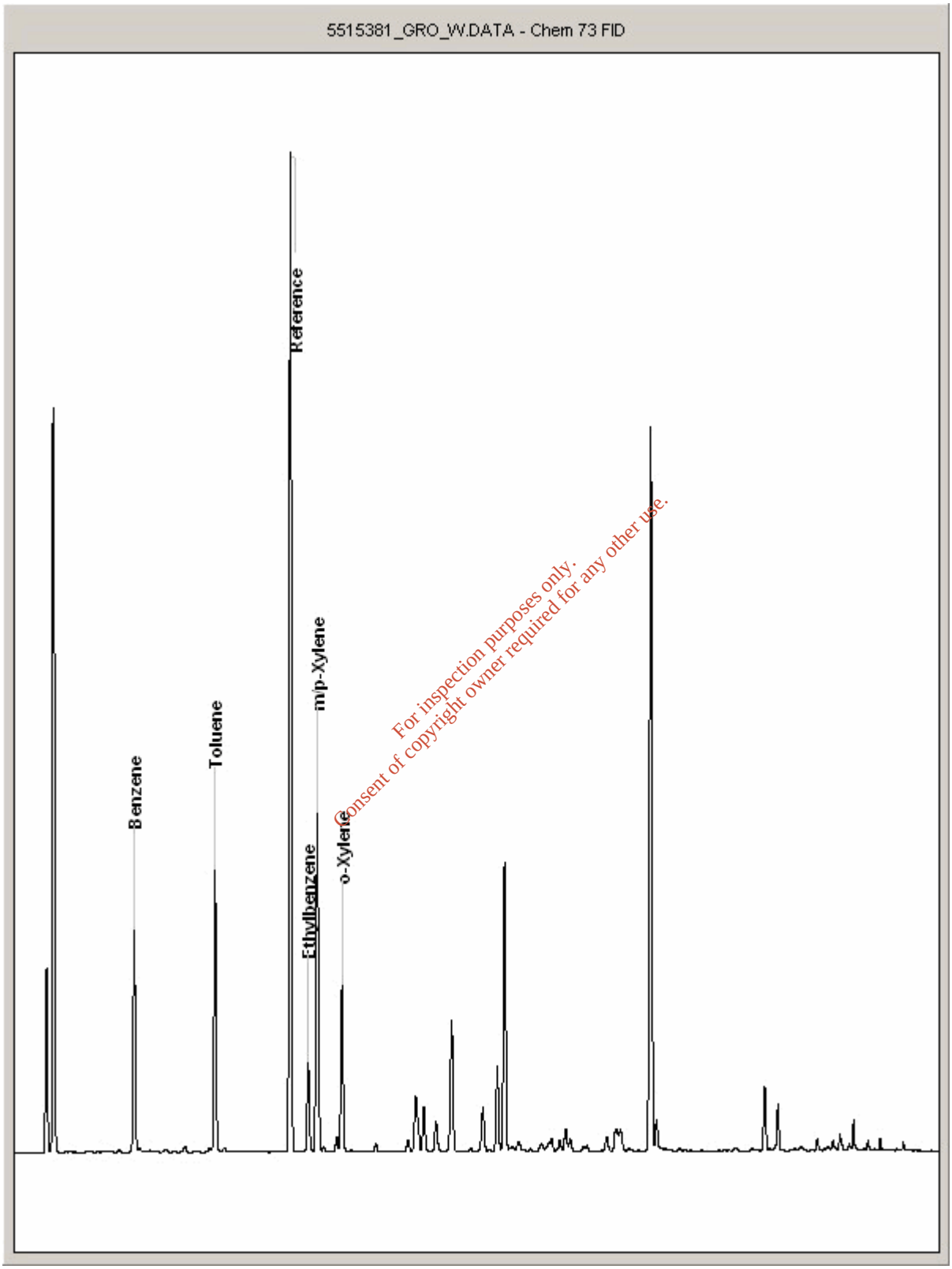
SDG:	120426-45	**Location:**	Limerick Gasworks	**Order Number:**	4500094829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	180196
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 5515381
Sample ID : D1

Depth : 3.00 - 3.50



CERTIFICATE OF ANALYSIS

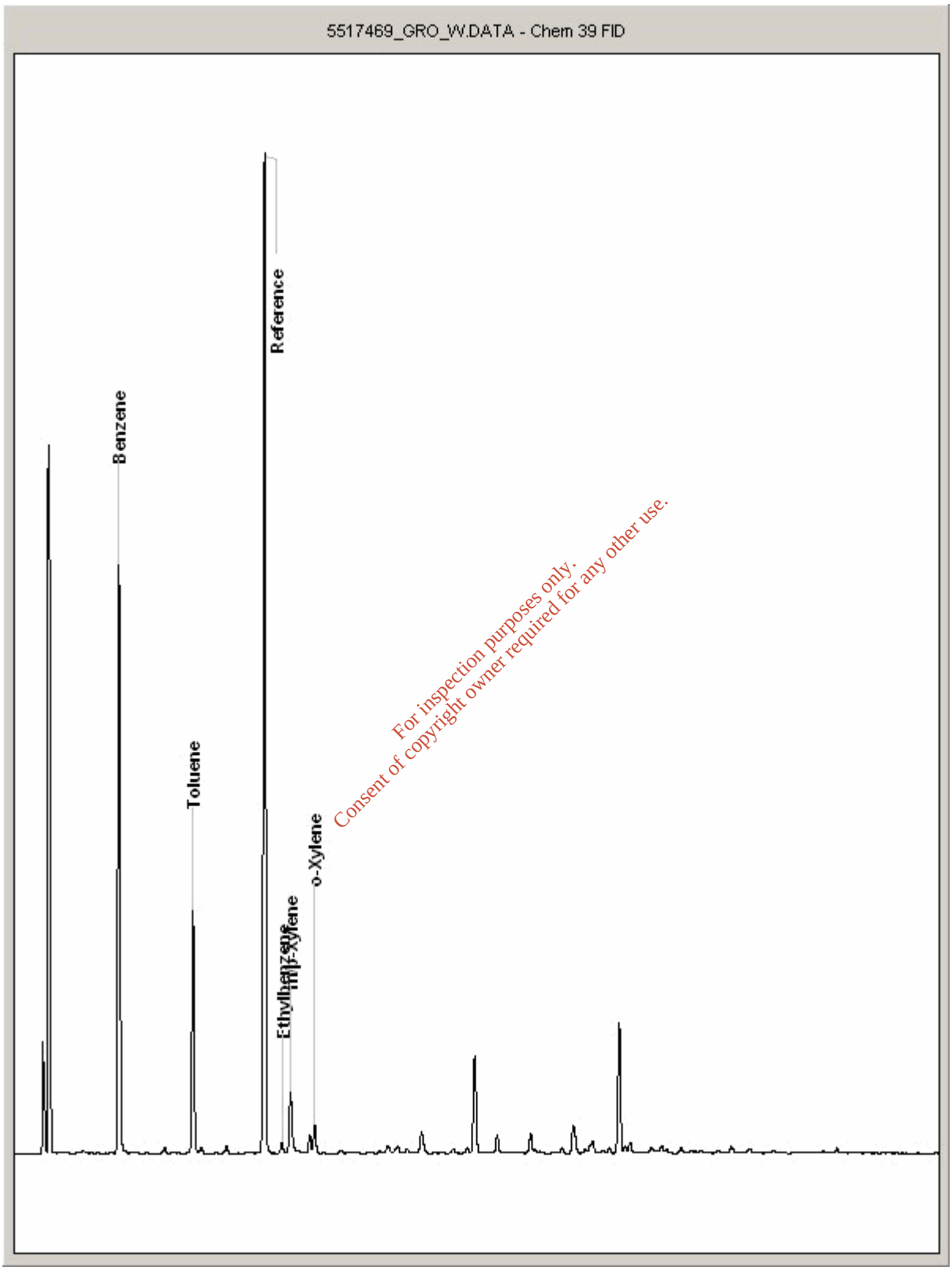
SDG:	120426-45	**Location:**	Limerick Gasworks	**Order Number:**	4500094829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	180196
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 5517469
Sample ID : K5

Depth : 3.00



CERTIFICATE OF ANALYSIS

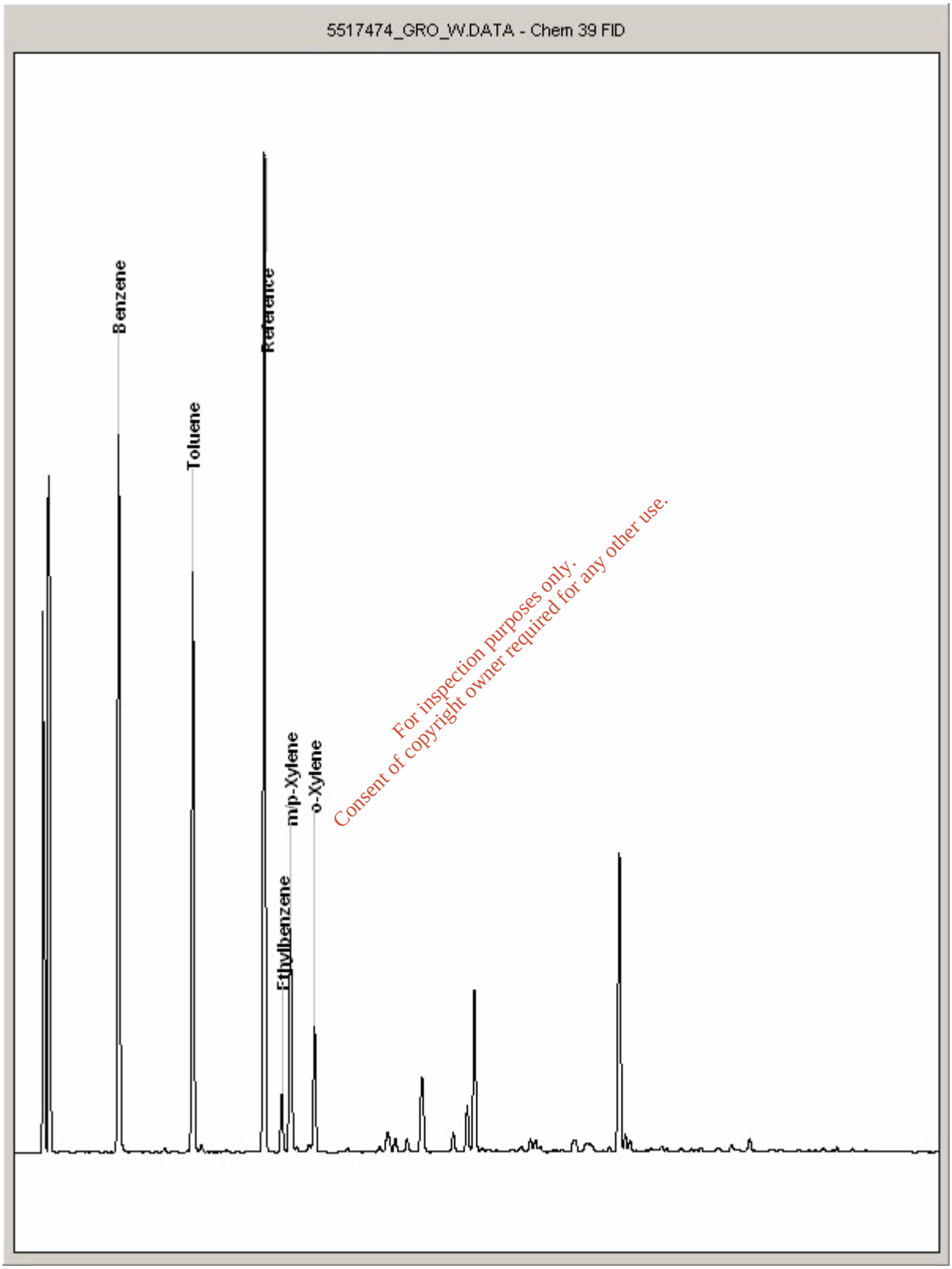
SDG:	120426-45	**Location:**	Limerick Gasworks	**Order Number:**	4500094829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	180196
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 5517474
Sample ID : G2

Depth : 5.00



CERTIFICATE OF ANALYSIS

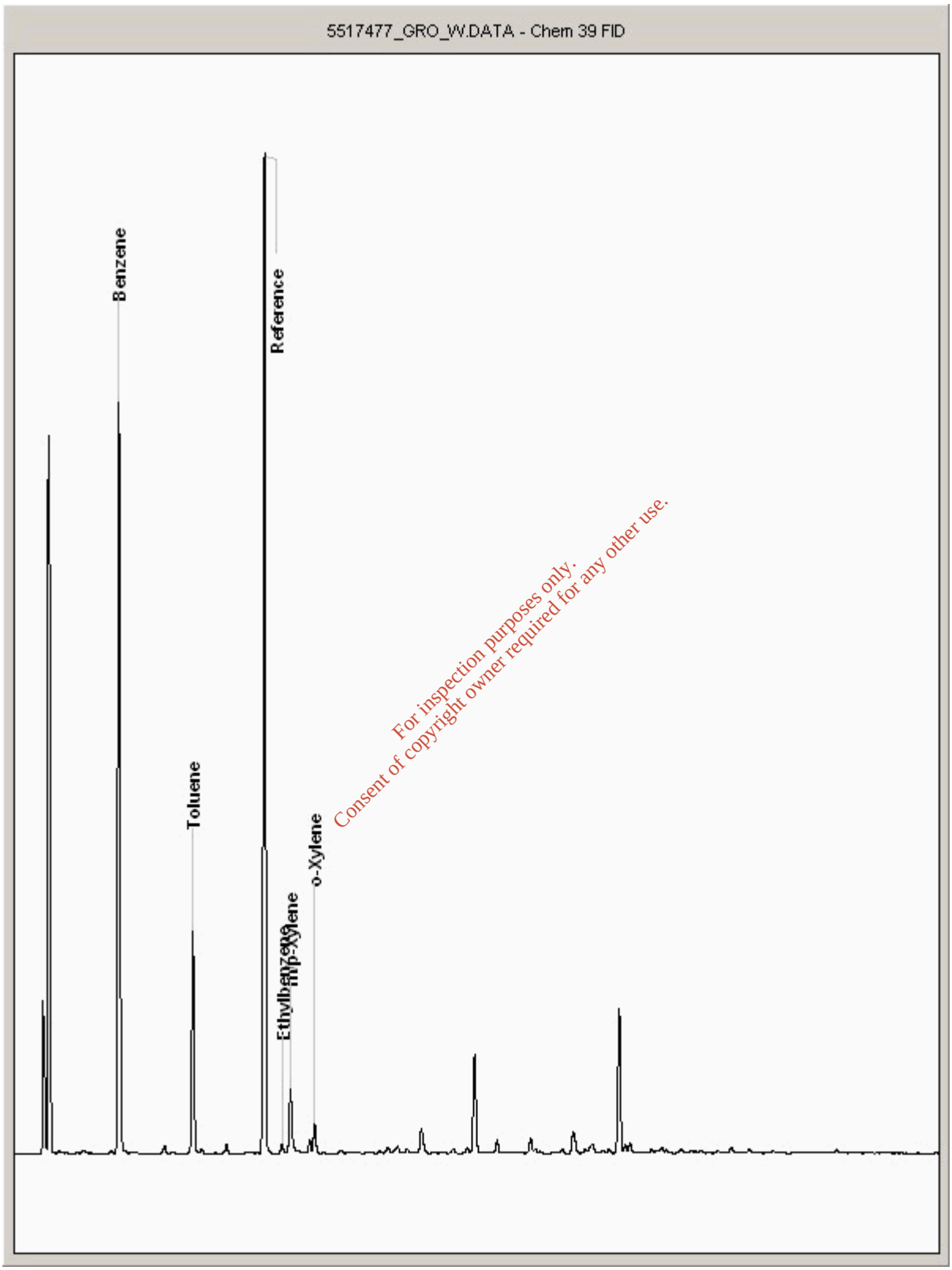
SDG:	120426-45	**Location:**	Limerick Gasworks	**Order Number:**	4500094829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	180196
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 5517477
Sample ID : E8

Depth : 3.50



SDG:	120426-45	**Location:**	Limerick Gasworks	**Order Number:**	4500094829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	180196
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 and CEN Leach tests, flash point LOI, pH, ammonium as NH4 by the BRE method, VOC TICS and SVOC TICS.

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

3. If sufficient sample is received a sub sample will be retained free of charge for 30 days after analysis is completed (e-mailed) for all sample types unless the sample is destroyed on testing. The prepared soil sub sample that is analysed for asbestos will be retained for a period of 2 months after the analysis date. All bulk samples will be retained for a period of 6 months after the analysis date. All samples received and not scheduled will be disposed of one month after the date of receipt unless we are instructed to the contrary. Once the initial period has expired, a storage charge will be applied for each month or part thereof until the client cancels the request for sample storage. ALcontrol Laboratories reserve the right to charge for samples received and stored but not analysed.

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

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

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

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

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

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

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

11. Results relate only to the items tested.

12. LODs for wet tests reported on a dry weight basis are not corrected for moisture content.

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

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

15. Phenols monohydric by HPLC include phenol, cresols (2-Methylphenol, 3-Methylphenol and 4-Methylphenol) and Xylenols (2,3 Dimethylphenol, 2,4 Dimethylphenol, 2,5 Dimethylphenol, 2,6 Dimethylphenol, 3,4 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 the major part of the sample. Other coarse granular material such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

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

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 AROCLOR 1254 / PCB CON	D&C	HEXANE:ACETONE	END OVER END	GC-MS
POLYAROMATIC HYDROCARBONS (MS)	WET	HEXANE:ACETONE	MICROWAVE TM218.	GC-MS
>C6-C40	WET	HEXANE:ACETONE	SHAKER	GC-FID
POLYAROMATIC HYDROCARBONS RAPID GC	WET	HEXANE:ACETONE	SHAKER	GC-FID
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 AROCLOR 1254	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	ACETONE	SOLID PHASE EXTRACTION	GC MS
TPH by INFRARED (IR)	TCE	STIRRED EXTRACTION (STIR-BAR)	IR
MINERAL OIL by IR	TCE	STIRRED EXTRACTION (STIR-BAR)	IR
GLYCOLS	NONE	DIRECT INJECTION	GC FID

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:	13 February 2012
Customer:	D_MOUCHEL_ELE
Sample Delivery Group (SDG):	120203-121
Your Reference:	
Location:	Limerick Gasworks
Report No:	170465

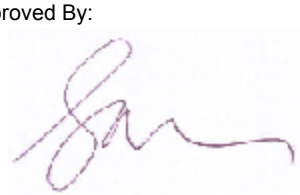
This report has been revised and directly supersedes 170459 in its entirety.

We received 22 samples on Thursday February 02, 2012 and 22 of these samples were scheduled for analysis which was completed on Monday February 13, 2012. 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:	120203-121	**Location:**	Limerick Gasworks	**Order Number:**	4500089829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	170465
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	170459

Received Sample Overview

Lab Sample No(s)	Customer Sample Ref.	AGS Ref.	Depth (m)	Sampled Date
5120525	A1		2.50 - 3.50	01/02/2012
5124843	A11		2.00 - 2.50	01/02/2012
5120524	A3		1.50 - 2.00	01/02/2012
5120522	A4		3.00 - 4.00	01/02/2012
5120713	A9		2.00 - 2.40	01/02/2012
5124842	C11		1.50 - 2.40	01/02/2012
5120526	C2		2.00 - 2.50	01/02/2012
5120719	C7		5.50 - 6.50	01/02/2012
5124728	D1		3.00 - 4.00	01/02/2012
5120721	D5		1.50 - 1.90	01/02/2012
5124844	E8		1.00 - 2.00	01/02/2012
5124841	F11		4.00 - 4.80	01/02/2012
5124739	G2		3.00 - 4.00	01/02/2012
5124740	G3		2.50 - 3.50	01/02/2012
5124741	G4		3.00 - 4.00	01/02/2012
5124742	G5		3.00 - 4.00	01/02/2012
5124846	G8		1.50 - 2.40	01/02/2012
5125379	H12		1.10 - 2.00	01/02/2012
5125378	J10		0.00 - 1.00	01/02/2012
5125375	K1		2.00 - 3.00	01/02/2012
5125377	K5		1.00 - 2.00	01/02/2012
5125376	M3		2.70 - 3.70	01/02/2012

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

SDG:	120203-121	**Location:**	Limerick Gasworks	**Order Number:**	4500089829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	170465
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	170459

LIQUID

Results Legend

- **X** Test
- **N** No Determination Possible

Lab Sample No(s)			5120525			5124728			5120526			5124739			5120524			5124740			5120522			5124741		5120721			5124742			5120719			5120713			5124843	5124842			5124841
Customer Sample Reference			A1			D1			C2			G2			A3			G3			A4			G4		D5			G5			C7			A9			A11	C11			F11
AGS Reference																																											
Depth (m)			2.50 - 3.50			3.00 - 4.00			2.00 - 2.50			3.00 - 4.00			1.50 - 2.00			2.50 - 3.50			3.00 - 4.00			3.00 - 4.00		1.50 - 1.90			3.00 - 4.00			5.50 - 6.50			2.00 - 2.40			2.00 - 2.50	1.50 - 2.40			4.00 - 4.80
Container			1l green glass bottle	1lplastic (ALE221)	Vial (ALE297)	1l green glass bottle	1lplastic (ALE221)	Vial (ALE297)	1l green glass bottle	1lplastic (ALE221)	Vial (ALE297)	1l green glass bottle	1lplastic (ALE221)	Vial (ALE297)	1l green glass bottle	1lplastic (ALE221)	Vial (ALE297)	1l green glass bottle	1lplastic (ALE221)	Vial (ALE297)	1l green glass bottle	1lplastic (ALE221)	Vial (ALE297)	1lplastic (ALE221)	Vial (ALE297)	1l green glass bottle	1lplastic (ALE221)	Vial (ALE297)	1l green glass bottle	1lplastic (ALE221)	Vial (ALE297)	1l green glass bottle	1lplastic (ALE221)	Vial (ALE297)	1l green glass bottle	1lplastic (ALE221)	Vial (ALE297)	1lplastic (ALE221)	1l green glass bottle	1lplastic (ALE221)	Vial (ALE297)	1lplastic (ALE221)
Ammoniacal Nitrogen	All	NDPs: 0 Tests: 22		X			X			X			X			X			X			X		X			X			X			X			X		X		X		X
Anions by Kone (w)	All	NDPs: 0 Tests: 22		X			X			X			X			X			X			X		X			X			X			X			X		X		X		X
Cyanide Comp/Free/Total/Thiocyanate	All	NDPs: 0 Tests: 22	X			X			X			X			X			X			X			X		X			X			X			X			X	X			X
Dissolved Metals by ICP-MS	All	NDPs: 0 Tests: 22		X			X			X			X			X			X			X		X			X			X			X			X		X		X		X
EPH CWG (Aliphatic) Aqueous GC (W)	All	NDPs: 0 Tests: 22	X			X			X			X			X			X			X			X		X			X			X			X			X	X			X
EPH CWG (Aromatic) Aqueous GC (W)	All	NDPs: 0 Tests: 22	X			X			X			X			X			X			X			X		X			X			X			X			X	X			X
GRO by GC-FID (W)	All	NDPs: 0 Tests: 22			X			X			X			X			X			X			X		X			X			X			X			X				X	X
Hexavalent Chromium (w)	All	NDPs: 0 Tests: 22		X			X			X			X			X			X			X		X			X			X			X			X		X		X		X
Mercury Dissolved	All	NDPs: 0 Tests: 22	X			X			X			X			X			X			X			X		X			X			X			X			X	X			X
PAH Spec MS - Aqueous (W)	All	NDPs: 0 Tests: 22	X			X			X			X			X			X			X			X		X			X			X			X			X	X			X
pH Value	All	NDPs: 0 Tests: 22		X			X			X			X			X			X			X		X			X			X			X			X		X		X		X
Phenols by HPLC (W)	All	NDPs: 0 Tests: 22	X			X			X			X			X			X			X			X		X			X			X			X			X	X			X
Sulphide	All	NDPs: 0 Tests: 22		X			X			X			X			X			X			X		X			X			X			X			X		X		X		X
TPH CWG (W)	All	NDPs: 0 Tests: 22	X			X			X			X			X			X			X			X		X			X			X			X			X	X			X
VOC MS (W)	All	NDPs: 0 Tests: 11			X			X						X			X						X		X						X			X								

CERTIFICATE OF ANALYSIS

SDG:	120203-121	**Location:**	Limerick Gasworks	**Order Number:**	4500089829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	170465
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	170459

LIQUID

Results Legend

X Test

N No Determination Possible

Lab Sample No(s)			5125375	5125376	5125377	5124844	5124846	5125378	5124843	5125379
Customer Sample Reference			K1	M3	K5	E8	G8	J10	A11	H12
AGS Reference										
Depth (m)			2.00 - 3.00	2.70 - 3.70	1.00 - 2.00	1.00 - 2.00	1.50 - 2.40	0.00 - 1.00	2.00 - 2.50	1.10 - 2.00
Container			1l green glass bottle	1lplastic (ALE221)	Vial (ALE297)	1l green glass bottle	1lplastic (ALE221)	Vial (ALE297)	1l green glass bottle	1lplastic (ALE221)	Vial (ALE297)	1l green glass bottle	1lplastic (ALE221)	Vial (ALE297)	1l green glass bottle	1lplastic (ALE221)	Vial (ALE297)	1l green glass bottle	1lplastic (ALE221)	Vial (ALE297)	1l green glass bottle	1lplastic (ALE221)	Vial (ALE297)	1l green glass bottle	1lplastic (ALE221)	Vial (ALE297)
Ammoniacal Nitrogen	All	NDPs: 0 Tests: 22		X		X		X		X		X		X		X				X	
Anions by Kone (w)	All	NDPs: 0 Tests: 22		X		X		X		X		X		X		X				X	
Cyanide Comp/Free/Total/Thiocyanate	All	NDPs: 0 Tests: 22	X		X		X		X		X		X		X		X				X	
Dissolved Metals by ICP-MS	All	NDPs: 0 Tests: 22		X		X		X		X		X		X		X				X	
EPH CWG (Aliphatic) Aqueous GC (W)	All	NDPs: 0 Tests: 22	X		X		X		X		X		X		X		X				X	
EPH CWG (Aromatic) Aqueous GC (W)	All	NDPs: 0 Tests: 22	X		X		X		X		X		X		X		X				X	
GRO by GC-FID (W)	All	NDPs: 0 Tests: 22		X		X		X		X		X		X		X	X	X				X
Hexavalent Chromium (w)	All	NDPs: 0 Tests: 22		X		X		X		X		X		X		X				X	
Mercury Dissolved	All	NDPs: 0 Tests: 22	X		X		X		X		X		X		X		X					
PAH Spec MS - Aqueous (W)	All	NDPs: 0 Tests: 22	X		X		X		X		X		X		X		X					
pH Value	All	NDPs: 0 Tests: 22		X		X		X		X		X		X		X				X	
Phenols by HPLC (W)	All	NDPs: 0 Tests: 22	X		X		X		X		X		X		X		X					
Sulphide	All	NDPs: 0 Tests: 22		X		X		X		X		X		X		X				X	
TPH CWG (W)	All	NDPs: 0 Tests: 22	X		X		X		X		X		X		X		X					
VOC MS (W)	All	NDPs: 0 Tests: 11				X		X										X				

CERTIFICATE OF ANALYSIS

SDG:	120203-121	**Location:**	Limerick Gasworks	**Order Number:**	4500089829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	170465
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	170459

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	A3	A4	A9	A11	C2
			Depth (m)	2.50 - 3.50	1.50 - 2.00	3.00 - 4.00	2.00 - 2.40	2.00 - 2.50	2.00 - 2.50
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	01/02/2012	01/02/2012	01/02/2012	01/02/2012	01/02/2012	01/02/2012
			Date Received	02/02/2012	02/02/2012	02/02/2012	02/02/2012	02/02/2012	02/02/2012
			SDG Ref	120203-121	120203-121	120203-121	120203-121	120203-121	120203-121
			Lab Sample No.(s)	5120525	5120524	5120522	5120713	5124843	5120526
			AGS Reference						
Ammoniacal Nitrogen as N	<0.2 mg/l	TM099		10.1 #	9 #	1.44 #	<0.2 #	0.75 #	0.565 #
Ammoniacal Nitrogen as NH4	<0.3 mg/l	TM099		13 #	11.6 #	1.85 #	<0.3 #	0.964 #	0.726 #
Sulphide	<0.01 mg/l	TM101		<0.01 #	<0.01 #	<0.01 #	<0.01 #	<0.01 #	<0.01 #
Arsenic (diss.filt)	<0.12 µg/l	TM152		16.2 #	24.4 #	5.61 #	1.97 #	0.993 #	2.95 #
Cadmium (diss.filt)	<0.1 µg/l	TM152		<0.1 #	<0.1 #	<0.1 #	<0.1 #	<0.1 #	0.195 #
Chromium (diss.filt)	<0.22 µg/l	TM152		<0.22 #	<0.22 #	<0.22 #	2.04 #	<0.22 #	<0.22 #
Copper (diss.filt)	<0.85 µg/l	TM152		1.04 #	0.958 #	1.24 #	0.853 #	<0.85 #	3.2 #
Lead (diss.filt)	<0.02 µg/l	TM152		0.089 #	0.067 #	0.217 #	0.032 #	0.248 #	1.22 #
Nickel (diss.filt)	<0.15 µg/l	TM152		5.06 #	3.14 #	2.62 #	0.525 #	2.34 #	3.09 #
Selenium (diss.filt)	<0.39 µg/l	TM152		1.52 #	1.08 #	1.02 #	0.913 #	<0.39 #	4.35 #
Zinc (diss.filt)	<0.41 µg/l	TM152		1.27 #	7.73 #	2.23 #	<0.41 #	1.91 #	4.61 #
Mercury (diss.filt)	<0.01 µg/l	TM183		<0.01 #	<0.01 #	<0.01 #	<0.01 #	<0.01 #	<0.01 #
Sulphate	<2 mg/l	TM184		493 #	379 #	252 #	154 #	24.2 #	169 #
Cyanide, Total	<0.05 mg/l	TM227		0.287 #	0.209 #	0.197 #	<0.05 #	<0.05 #	0.261 #
Chromium, Hexavalent	<0.03 mg/l	TM241		<0.03 #	<0.03 #	<0.03 #	<0.03 #	<0.03 #	<0.03 #
pH	<1 pH Units	TM256		7.73 #	7.95 #	7.99 #	10.2 #	7.72 #	7.97 #
Resorcinol	<0.01 mg/l	TM259		<0.01 §	<0.01 §	<0.01 §	<0.01 §	<0.01 §	<0.01 §
Catechol	<0.01 mg/l	TM259		<0.01 §	<0.01 §	<0.01 §	<0.01 §	<0.01 §	<0.01 §
Phenol	<0.002 mg/l	TM259		0.02 § #	<0.002 § #	<0.002 § #	<0.002 § #	<0.002 § #	<0.002 § #
Cresols	<0.006 mg/l	TM259		0.01 § #	<0.006 § #	<0.006 § #	<0.006 § #	<0.006 § #	<0.006 § #
Xylenols	<0.008 mg/l	TM259		0.23 § #	0.01 § #	<0.008 § #	<0.008 § #	<0.008 § #	0.03 § #
1-Naphthol	<0.01 mg/l	TM259		0.01 §	<0.01 §	<0.01 §	<0.01 §	<0.01 §	<0.01 §
2,3,5-Trimethylphenol	<0.003 mg/l	TM259		<0.003 § #	<0.003 § #	<0.003 § #	<0.003 § #	<0.003 § #	0.03 § #
2-Isopropylphenol	<0.006 mg/l	TM259		0.47 § #	<0.006 § #	<0.006 § #	<0.006 § #	<0.006 § #	<0.006 § #
Phenols, Total Detected 5 speciated	<0.025 mg/l	TM259		0.73 §	<0.025 §	<0.025 §	<0.025 §	<0.025 §	0.06 §

CERTIFICATE OF ANALYSIS

SDG:	120203-121	**Location:**	Limerick Gasworks	**Order Number:**	4500089829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	170465
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	170459

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	C7	C11	D1	D5	E8	F11
			Depth (m)	5.50 - 6.50	1.50 - 2.40	3.00 - 4.00	1.50 - 1.90	1.00 - 2.00	4.00 - 4.80
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	01/02/2012	01/02/2012	01/02/2012	01/02/2012	01/02/2012	01/02/2012
			Date Received	02/02/2012	02/02/2012	02/02/2012	02/02/2012	02/02/2012	02/02/2012
			SDG Ref	120203-121	120203-121	120203-121	120203-121	120203-121	120203-121
			Lab Sample No.(s)	5120719	5124842	5124728	5120721	5124844	5124841
			AGS Reference						
Ammoniacal Nitrogen as N	<0.2 mg/l	TM099		77.7 #	3.32 #	12.2 #	2.18 #	71 #	22.7 #
Ammoniacal Nitrogen as NH4	<0.3 mg/l	TM099		99.9 #	4.27 #	15.7 #	2.8 #	91.3 #	29.2 #
Sulphide	<0.01 mg/l	TM101		<0.01 #	<0.01 #	19.5 #	0.046 #	<0.01 #	0.048 #
Arsenic (diss.filt)	<0.12 µg/l	TM152		20.8 #	5.32 #	10.3 #	1.7 #	186 #	11.6 #
Cadmium (diss.filt)	<0.1 µg/l	TM152		<0.1 #	<0.1 #	<0.1 #	<0.1 #	0.337 #	<0.1 #
Chromium (diss.filt)	<0.22 µg/l	TM152		<0.22 #	<0.22 #	<0.22 #	<0.22 #	<0.22 #	<0.22 #
Copper (diss.filt)	<0.85 µg/l	TM152		<0.85 #	1.69 #	3.73 #	1 #	6.62 #	<0.85 #
Lead (diss.filt)	<0.02 µg/l	TM152		0.124 #	0.039 #	<0.02 #	0.32 #	0.077 #	<0.02 #
Nickel (diss.filt)	<0.15 µg/l	TM152		2.37 #	3.37 #	3.62 #	1.31 #	45.5 #	3.83 #
Selenium (diss.filt)	<0.39 µg/l	TM152		18.5 #	0.715 #	2.04 #	2.06 #	23.7 #	1.7 #
Zinc (diss.filt)	<0.41 µg/l	TM152		0.74 #	1.02 #	1.16 #	1.44 #	55.5 #	<0.41 #
Mercury (diss.filt)	<0.01 µg/l	TM183		0.0412 #	<0.01 #	<0.01 #	<0.01 #	0.0406 #	<0.01 #
Sulphate	<2 mg/l	TM184		39.6 #	169 #	480 #	12.3 #	562 #	18.3 #
Cyanide, Total	<0.05 mg/l	TM227		0.382 #	0.255 #	0.738 #	<0.05 #	9.1 #	<0.05 #
Chromium, Hexavalent	<0.03 mg/l	TM241		<0.06 #	<0.03 #	<0.03 #	<0.03 #	<0.06 #	<0.03 #
pH	<1 pH Units	TM256		8.47 #	7.47 #	7.48 #	7.41 #	9.22 #	7.27 #
Resorcinol	<0.01 mg/l	TM259		<0.1 §	<0.01 §	<0.01 §	<0.01 §	<0.1 §	<0.01 §
Catechol	<0.01 mg/l	TM259		<0.1 §	<0.01 §	<0.01 §	<0.01 §	<0.1 §	<0.01 §
Phenol	<0.002 mg/l	TM259		15.1 § #	<0.002 § #	0.01 § #	0.01 § #	43.7 § #	0.03 § #
Cresols	<0.006 mg/l	TM259		36.3 § #	0.01 § #	0.03 § #	0.11 § #	72.1 § #	0.4 § #
Xylenols	<0.008 mg/l	TM259		37.4 § #	0.03 § #	0.28 § #	0.22 § #	71 § #	0.64 § #
1-Naphthol	<0.01 mg/l	TM259		<0.1 §	<0.01 §	<0.01 §	<0.01 §	<0.1 §	<0.01 §
2,3,5-Trimethylphenol	<0.003 mg/l	TM259		<0.03 § #	0.05 § #	<0.003 § #	<0.003 § #	<0.03 § #	<0.003 § #
2-Isopropylphenol	<0.006 mg/l	TM259		16.2 § #	<0.006 § #	<0.006 § #	0.02 § #	24.4 § #	1.32 § #
Phenols, Total Detected 5 speciated	<0.025 mg/l	TM259		105 §	0.09 §	0.32 §	0.36 §	211 §	2.39 §

CERTIFICATE OF ANALYSIS

SDG:	120203-121	**Location:**	Limerick Gasworks	**Order Number:**	4500089829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	170465
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	170459

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	G2	G3	G4	G5	G8	H12
			Depth (m)	3.00 - 4.00	2.50 - 3.50	3.00 - 4.00	3.00 - 4.00	1.50 - 2.40	1.10 - 2.00
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	01/02/2012	01/02/2012	01/02/2012	01/02/2012	01/02/2012	01/02/2012
			Date Received	02/02/2012	02/02/2012	02/02/2012	02/02/2012	02/02/2012	02/02/2012
			SDG Ref	120203-121	120203-121	120203-121	120203-121	120203-121	120203-121
			Lab Sample No.(s)	5124739	5124740	5124741	5124742	5124846	5125379
			AGS Reference						
Ammoniacal Nitrogen as N	<0.2 mg/l	TM099		38.3 #	0.664 #	2.85 #	0.755 #	19 #	15.8 #
Ammoniacal Nitrogen as NH4	<0.3 mg/l	TM099		49.2 #	0.854 #	3.66 #	0.971 #	24.4 #	20.3 #
Sulphide	<0.01 mg/l	TM101		0.219 #	0.08 #	0.04 #	0.116 #	<0.01 #	<0.01 § #
Arsenic (diss.filt)	<0.12 µg/l	TM152		17.3 #	1.34 #	4.45 #	1.35 #	8.06 #	2.58 #
Cadmium (diss.filt)	<0.1 µg/l	TM152		<0.1 #	0.189 #	<0.1 #	<0.1 #	<0.1 #	0.13 #
Chromium (diss.filt)	<0.22 µg/l	TM152		<0.22 #	<0.22 #	<0.22 #	<0.22 #	<0.22 #	<0.22 #
Copper (diss.filt)	<0.85 µg/l	TM152		9.83 #	5.49 #	<0.85 #	5.16 #	1.29 #	<0.85 #
Lead (diss.filt)	<0.02 µg/l	TM152		<0.02 #	0.198 #	0.763 #	0.056 #	<0.02 #	0.132 #
Nickel (diss.filt)	<0.15 µg/l	TM152		5.18 #	9.53 #	2.4 #	10.1 #	7.6 #	3.15 #
Selenium (diss.filt)	<0.39 µg/l	TM152		11.7 #	5.37 #	2.45 #	11.5 #	3.59 #	1.28 #
Zinc (diss.filt)	<0.41 µg/l	TM152		3.56 #	5.63 #	8.35 #	5.07 #	<0.41 #	1.23 #
Mercury (diss.filt)	<0.01 µg/l	TM183		0.0148 #	0.0129 #	0.0101 #	<0.01 #	<0.01 #	<0.01 #
Sulphate	<2 mg/l	TM184		720 #	1380 #	82.8 #	784 #	97.1 #	174 #
Cyanide, Total	<0.05 mg/l	TM227		1.12 #	6.96 #	0.369 #	2.44 #	0.117 #	<0.05 #
Chromium, Hexavalent	<0.03 mg/l	TM241		<0.03 #	<0.03 #	<0.03 #	<0.03 #	<0.03 #	<0.03 #
pH	<1 pH Units	TM256		7.54 #	7.65 #	8.2 #	7.53 #	7.72 #	7.61 #
Resorcinol	<0.01 mg/l	TM259		<0.01 §	<0.01 §	<0.01 §	<0.01 §	<0.01 §	<0.01 §
Catechol	<0.01 mg/l	TM259		<0.01 §	<0.01 §	<0.01 §	<0.01 §	<0.01 §	<0.01 §
Phenol	<0.002 mg/l	TM259		2.29 § #	<0.002 § #	0.04 § #	<0.002 § #	1.13 § #	<0.002 § #
Cresols	<0.006 mg/l	TM259		5.18 § #	<0.006 § #	0.27 § #	<0.006 § #	2.57 § #	<0.006 § #
Xylenols	<0.008 mg/l	TM259		11 § #	<0.008 § #	1.21 § #	<0.008 § #	4.77 § #	<0.008 § #
1-Naphthol	<0.01 mg/l	TM259		<0.01 §	<0.01 §	0.07 §	<0.01 §	0.06 §	<0.01 §
2,3,5-Trimethylphenol	<0.003 mg/l	TM259		<0.003 § #	<0.003 § #	<0.003 § #	<0.003 § #	<0.003 § #	<0.003 § #
2-Isopropylphenol	<0.006 mg/l	TM259		4.1 § #	<0.006 § #	1.68 § #	<0.006 § #	4.08 § #	<0.006 § #
Phenols, Total Detected 5 speciated	<0.025 mg/l	TM259		22.6 §	<0.025 §	3.2 §	<0.025 §	12.6 §	<0.025 §

CERTIFICATE OF ANALYSIS

SDG:	120203-121	**Location:**	Limerick Gasworks	**Order Number:**	4500089829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	170465
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	170459

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	J10	K1	K5	M3		
			Depth (m)	0.00 - 1.00	2.00 - 3.00	1.00 - 2.00	2.70 - 3.70		
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)		
			Date Sampled	01/02/2012	01/02/2012	01/02/2012	01/02/2012		
			Date Received	02/02/2012	02/02/2012	02/02/2012	02/02/2012		
			SDG Ref	120203-121	120203-121	120203-121	120203-121		
			Lab Sample No.(s)	5125378	5125375	5125377	5125376		
			AGS Reference						
Ammoniacal Nitrogen as N	<0.2 mg/l	TM099		0.257 #	1.23 #	105 #	1.05 #		
Ammoniacal Nitrogen as NH4	<0.3 mg/l	TM099		0.33 #	1.58 #	135 #	1.35 #		
Sulphide	<0.01 mg/l	TM101		<0.01 § #	<0.01 #	<0.05 § #	0.029 #		
Arsenic (diss.filt)	<0.12 µg/l	TM152		1.88 #	1.9 #	109 #	3.09 #		
Cadmium (diss.filt)	<0.1 µg/l	TM152		0.154 #	<0.1 #	0.195 #	<0.1 #		
Chromium (diss.filt)	<0.22 µg/l	TM152		<0.22 #	<0.22 #	<0.22 #	<0.22 #		
Copper (diss.filt)	<0.85 µg/l	TM152		2.28 #	2.66 #	4.16 #	3.47 #		
Lead (diss.filt)	<0.02 µg/l	TM152		0.156 #	0.226 #	1.55 #	0.294 #		
Nickel (diss.filt)	<0.15 µg/l	TM152		4.17 #	4.81 #	20.9 #	2.57 #		
Selenium (diss.filt)	<0.39 µg/l	TM152		1.18 #	1.48 #	13.9 #	0.713 #		
Zinc (diss.filt)	<0.41 µg/l	TM152		1.32 #	2.2 #	13.5 #	0.579 #		
Mercury (diss.filt)	<0.01 µg/l	TM183		<0.01 #	<0.01 #	0.127 #	<0.01 #		
Sulphate	<2 mg/l	TM184		34.2 #	679 #	258 #	636 #		
Cyanide, Total	<0.05 mg/l	TM227		<0.05 #	0.523 #	5.88 #	1.38 #		
Chromium, Hexavalent	<0.03 mg/l	TM241		<0.03 #	<0.03 #	<0.15 #	<0.03 #		
pH	<1 pH Units	TM256		7.97 #	7.68 #	9.32 #	7.95 #		
Resorcinol	<0.01 mg/l	TM259		<0.01 §	<0.01 §	<0.5 §	<0.01 §		
Catechol	<0.01 mg/l	TM259		<0.01 §	<0.01 §	<0.5 §	<0.01 §		
Phenol	<0.002 mg/l	TM259		<0.002 § #	<0.002 § #	195 § #	<0.002 § #		
Cresols	<0.006 mg/l	TM259		<0.006 § #	<0.006 § #	298 § #	<0.006 § #		
Xylenols	<0.008 mg/l	TM259		<0.008 § #	<0.008 § #	142 § #	<0.008 § #		
1-Naphthol	<0.01 mg/l	TM259		<0.01 §	<0.01 §	<0.5 §	<0.01 §		
2,3,5-Trimethylphenol	<0.003 mg/l	TM259		<0.003 § #	<0.003 § #	<0.15 § #	<0.003 § #		
2-Isopropylphenol	<0.006 mg/l	TM259		<0.006 § #	<0.006 § #	37.7 § #	<0.006 § #		
Phenols, Total Detected 5 speciated	<0.025 mg/l	TM259		<0.025 §	<0.025 §	673 §	<0.025 §		

CERTIFICATE OF ANALYSIS

SDG:	120203-121	**Location:**	Limerick Gasworks	**Order Number:**	4500089829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	170465
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	170459

PAH Spec MS - Aqueous (W)

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	A3	A4	A9	A11	C2
			Depth (m)	2.50 - 3.50	1.50 - 2.00	3.00 - 4.00	2.00 - 2.40	2.00 - 2.50	2.00 - 2.50
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	01/02/2012	01/02/2012	01/02/2012	01/02/2012	01/02/2012	01/02/2012
			Date Received	02/02/2012	02/02/2012	02/02/2012	02/02/2012	02/02/2012	02/02/2012
			SDG Ref	120203-121	120203-121	120203-121	120203-121	120203-121	120203-121
			Lab Sample No.(s)	5120525	5120524	5120522	5120713	5124843	5120526
			AGS Reference						
Naphthalene (aq)	<0.1 µg/l	TM178		3.04 #	1.35 #	0.117 #	0.598 #	7.72 #	0.276 #
Acenaphthene (aq)	<0.015 µg/l	TM178		23.8 #	76.6 #	0.114 #	0.243 #	5.83 #	4.24 #
Acenaphthylene (aq)	<0.011 µg/l	TM178		43 #	14.6 #	0.0969 #	1.94 #	8.31 #	1.04 #
Fluoranthene (aq)	<0.017 µg/l	TM178		14.8 #	2.3 #	1.47 #	13.1 #	49.2 #	0.606 #
Anthracene (aq)	<0.015 µg/l	TM178		1.79 #	0.565 #	0.101 #	1.52 #	5.88 #	0.215 #
Phenanthrene (aq)	<0.022 µg/l	TM178		0.957 #	0.156 #	0.0554 #	4.6 #	15.7 #	0.115 #
Fluorene (aq)	<0.014 µg/l	TM178		16 #	14.3 #	1.06 #	0.493 #	4.92 #	1.28 #
Chrysene (aq)	<0.013 µg/l	TM178		1.9 #	0.0708 #	0.095 #	9.08 #	44.6 #	0.134 #
Pyrene (aq)	<0.015 µg/l	TM178		9.18 #	2.47 #	0.82 #	12.4 #	43 #	0.429 #
Benzo(a)anthracene (aq)	<0.017 µg/l	TM178		2.07 #	0.0885 #	0.103 #	8.47 #	40.9 #	0.125 #
Benzo(b)fluoranthene (aq)	<0.023 µg/l	TM178		0.875 #	<0.023 #	0.0495 #	19.1 #	64.8 #	0.0869 #
Benzo(k)fluoranthene (aq)	<0.027 µg/l	TM178		1.35 #	<0.027 #	0.0713 #	19.9 #	68.2 #	0.11 #
Benzo(a)pyrene (aq)	<0.009 µg/l	TM178		1.37 #	0.0197 #	0.0671 #	23.2 #	79.5 #	0.111 #
Dibenzo(a,h)anthracene (aq)	<0.016 µg/l	TM178		0.13 #	<0.016 #	<0.016 #	3.96 #	12.8 #	0.0201 #
Benzo(g,h,i)perylene (aq)	<0.016 µg/l	TM178		0.627 #	<0.016 #	0.0359 #	17.4 #	47.3 #	0.0674 #
Indeno(1,2,3-cd)pyrene (aq)	<0.014 µg/l	TM178		0.52 #	<0.014 #	0.0306 #	15.2 #	40.6 #	0.057 #
PAH, Total Detected USEPA 16 (aq)	<0.247 µg/l	TM178		121	113	4.29	151	539	8.91

CERTIFICATE OF ANALYSIS

SDG:	120203-121	**Location:**	Limerick Gasworks	**Order Number:**	4500089829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	170465
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	170459

PAH Spec MS - Aqueous (W)

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	C7	C11	D1	D5	E8	F11
			Depth (m)	5.50 - 6.50	1.50 - 2.40	3.00 - 4.00	1.50 - 1.90	1.00 - 2.00	4.00 - 4.80
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	01/02/2012	01/02/2012	01/02/2012	01/02/2012	01/02/2012	01/02/2012
			Date Received	02/02/2012	02/02/2012	02/02/2012	02/02/2012	02/02/2012	02/02/2012
			SDG Ref	120203-121	120203-121	120203-121	120203-121	120203-121	120203-121
			Lab Sample No.(s)	5120719	5124842	5124728	5120721	5124844	5124841
			AGS Reference						
Naphthalene (aq)	<0.1 µg/l	TM178		1350 #	9.59 #	5390 #	2.69 #	3340 #	6.98 #
Acenaphthene (aq)	<0.015 µg/l	TM178		17 #	41.5 #	489 #	0.494 #	23.4 #	0.505 #
Acenaphthylene (aq)	<0.011 µg/l	TM178		162 #	6.34 #	907 #	5.71 #	155 #	2.39 #
Fluoranthene (aq)	<0.017 µg/l	TM178		50.6 #	5.88 #	917 #	20.4 #	72.2 #	6.23 #
Anthracene (aq)	<0.015 µg/l	TM178		27.3 #	1.4 #	435 #	1.94 #	27.8 #	0.94 #
Phenanthrene (aq)	<0.022 µg/l	TM178		78.2 #	2.51 #	1700 #	6.06 #	103 #	2.19 #
Fluorene (aq)	<0.014 µg/l	TM178		53.8 #	10.5 #	706 #	1.15 #	62.4 #	0.803 #
Chrysene (aq)	<0.013 µg/l	TM178		12.8 #	1.56 #	207 #	15.2 #	28.6 #	7.96 #
Pyrene (aq)	<0.015 µg/l	TM178		35.6 #	4.34 #	593 #	17.5 #	51.8 #	5.65 #
Benzo(a)anthracene (aq)	<0.017 µg/l	TM178		13.6 #	1.68 #	252 #	10.9 #	34 #	6.08 #
Benzo(b)fluoranthene (aq)	<0.023 µg/l	TM178		9.25 #	2.66 #	223 #	18.8 #	14.9 #	15.5 #
Benzo(k)fluoranthene (aq)	<0.027 µg/l	TM178		11.1 #	2.63 #	202 #	17.6 #	32.7 #	15.4 #
Benzo(a)pyrene (aq)	<0.009 µg/l	TM178		11.7 #	3.22 #	254 #	19 #	28 #	15.8 #
Dibenzo(a,h)anthracene (aq)	<0.016 µg/l	TM178		1.73 #	0.532 #	27.2 #	3.38 #	3.65 #	2.7 #
Benzo(g,h,i)perylene (aq)	<0.016 µg/l	TM178		5.85 #	2.06 #	88.1 #	12.4 #	14.1 #	10.9 #
Indeno(1,2,3-cd)pyrene (aq)	<0.014 µg/l	TM178		5.5 #	1.94 #	77.5 #	11.5 #	11.7 #	10.3 #
PAH, Total Detected USEPA 16 (aq)	<0.247 µg/l	TM178		1850	98.4	12500	165	4000	110

CERTIFICATE OF ANALYSIS

SDG:	120203-121	**Location:**	Limerick Gasworks	**Order Number:**	4500089829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	170465
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	170459

PAH Spec MS - Aqueous (W)

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	G2	G3	G4	G5	G8	H12
			Depth (m)	3.00 - 4.00	2.50 - 3.50	3.00 - 4.00	3.00 - 4.00	1.50 - 2.40	1.10 - 2.00
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	01/02/2012	01/02/2012	01/02/2012	01/02/2012	01/02/2012	01/02/2012
			Date Received	02/02/2012	02/02/2012	02/02/2012	02/02/2012	02/02/2012	02/02/2012
			SDG Ref	120203-121	120203-121	120203-121	120203-121	120203-121	120203-121
			Lab Sample No.(s)	5124739	5124740	5124741	5124742	5124846	5125379
			AGS Reference						
Naphthalene (aq)	<0.1 µg/l	TM178		5030 #	1.83 #	0.603 #	0.13 #	788 #	0.319 #
Acenaphthene (aq)	<0.015 µg/l	TM178		63 #	<0.015 #	4.03 #	0.44 #	29.5 #	5.29 #
Acenaphthylene (aq)	<0.011 µg/l	TM178		74.6 #	0.0594 #	14 #	0.452 #	165 #	9.17 #
Fluoranthene (aq)	<0.017 µg/l	TM178		4.38 #	0.0673 #	1.92 #	0.259 #	40.9 #	2.23 #
Anthracene (aq)	<0.015 µg/l	TM178		2.98 #	0.0186 #	2.05 #	0.0337 #	37.1 #	0.577 #
Phenanthrene (aq)	<0.022 µg/l	TM178		40.6 #	0.0361 #	1.82 #	<0.022 #	109 #	0.182 #
Fluorene (aq)	<0.014 µg/l	TM178		27.9 #	0.0179 #	4.55 #	0.0522 #	86.2 #	3.43 #
Chrysene (aq)	<0.013 µg/l	TM178		<1.3 #	0.0503 #	0.873 #	0.12 #	11.9 #	0.209 #
Pyrene (aq)	<0.015 µg/l	TM178		2.57 #	0.0634 #	1.32 #	0.126 #	27.4 #	1.21 #
Benzo(a)anthracene (aq)	<0.017 µg/l	TM178		<1.7 #	0.0428 #	1.01 #	0.103 #	12 #	0.232 #
Benzo(b)fluoranthene (aq)	<0.023 µg/l	TM178		<2.3 #	0.043 #	0.935 #	0.185 #	4.06 #	0.0896 #
Benzo(k)fluoranthene (aq)	<0.027 µg/l	TM178		<2.7 #	0.0569 #	1.08 #	0.182 #	8.29 #	0.11 #
Benzo(a)pyrene (aq)	<0.009 µg/l	TM178		<0.9 #	0.0561 #	1.12 #	0.232 #	6.81 #	0.0983 #
Dibenzo(a,h)anthracene (aq)	<0.016 µg/l	TM178		<1.6 #	<0.016 #	0.144 #	0.0296 #	<1.6 #	<0.016 #
Benzo(g,h,i)perylene (aq)	<0.016 µg/l	TM178		<1.6 #	0.0464 #	0.583 #	0.148 #	2.48 #	0.0423 #
Indeno(1,2,3-cd)pyrene (aq)	<0.014 µg/l	TM178		<1.4 #	0.0392 #	0.571 #	0.131 #	2.18 #	0.0394 #
PAH, Total Detected USEPA 16 (aq)	<0.247 µg/l	TM178		5250	2.43	36.6	2.62	1330	23.2

CERTIFICATE OF ANALYSIS

SDG:	120203-121	**Location:**	Limerick Gasworks	**Order Number:**	4500089829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	170465
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	170459

PAH Spec MS - Aqueous (W)

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	J10	K1	K5	M3		
			Depth (m)	0.00 - 1.00	2.00 - 3.00	1.00 - 2.00	2.70 - 3.70		
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)		
			Date Sampled	01/02/2012	01/02/2012	01/02/2012	01/02/2012		
			Date Received	02/02/2012	02/02/2012	02/02/2012	02/02/2012		
			SDG Ref	120203-121	120203-121	120203-121	120203-121		
			Lab Sample No.(s)	5125378	5125375	5125377	5125376		
			AGS Reference						
Naphthalene (aq)	<0.1 µg/l	TM178		0.101 #	0.173 #	5460 #	<0.1 #		
Acenaphthene (aq)	<0.015 µg/l	TM178		0.0854 #	0.851 #	42.1 #	0.282 #		
Acenaphthylene (aq)	<0.011 µg/l	TM178		0.183 #	0.23 #	281 #	0.0335 #		
Fluoranthene (aq)	<0.017 µg/l	TM178		0.789 #	3.32 #	41.9 #	3.8 #		
Anthracene (aq)	<0.015 µg/l	TM178		0.1 #	0.317 #	38.1 #	0.0335 #		
Phenanthrene (aq)	<0.022 µg/l	TM178		0.174 #	0.809 #	123 #	0.0665 #		
Fluorene (aq)	<0.014 µg/l	TM178		0.0448 #	0.164 #	95.4 #	0.0606 #		
Chrysene (aq)	<0.013 µg/l	TM178		0.343 #	2.17 #	7.63 #	0.18 #		
Pyrene (aq)	<0.015 µg/l	TM178		0.493 #	3.07 #	27 #	2.43 #		
Benzo(a)anthracene (aq)	<0.017 µg/l	TM178		0.409 #	2.18 #	8.78 #	0.205 #		
Benzo(b)fluoranthene (aq)	<0.023 µg/l	TM178		0.419 #	3.54 #	3.39 #	0.153 #		
Benzo(k)fluoranthene (aq)	<0.027 µg/l	TM178		0.479 #	3.46 #	4.6 #	0.2 #		
Benzo(a)pyrene (aq)	<0.009 µg/l	TM178		0.564 #	3.69 #	4.18 #	0.168 #		
Dibenzo(a,h)anthracene (aq)	<0.016 µg/l	TM178		0.0676 #	0.724 #	0.563 #	0.0202 #		
Benzo(g,h,i)perylene (aq)	<0.016 µg/l	TM178		0.222 #	3.2 #	2.07 #	0.122 #		
Indeno(1,2,3-cd)pyrene (aq)	<0.014 µg/l	TM178		0.225 #	2.71 #	1.9 #	0.0899 #		
PAH, Total Detected USEPA 16 (aq)	<0.247 µg/l	TM178		4.7	30.6	6140	7.85		

CERTIFICATE OF ANALYSIS

SDG:	120203-121	**Location:**	Limerick Gasworks	**Order Number:**	4500089829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	170465
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	170459

TPH CWG (W)

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	A3	A4	A9	A11	C2
			Depth (m)	2.50 - 3.50	1.50 - 2.00	3.00 - 4.00	2.00 - 2.40	2.00 - 2.50	2.00 - 2.50
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	01/02/2012	01/02/2012	01/02/2012	01/02/2012	01/02/2012	01/02/2012
			Date Received	02/02/2012	02/02/2012	02/02/2012	02/02/2012	02/02/2012	02/02/2012
			SDG Ref	120203-121	120203-121	120203-121	120203-121	120203-121	120203-121
			Lab Sample No.(s)	5120525	5120524	5120522	5120713	5124843	5120526
			AGS Reference						
GRO Surrogate % recovery**	%	TM245		99	108	108	106	90	107
GRO >C5-C12	<50 µg/l	TM245		1800 #	1510 #	154 #	<50 #	173 #	109 #
Methyl tertiary butyl ether (MTBE)	<3 µg/l	TM245		<3 #	<3 #	<3 #	<3 #	<3 #	<3 #
Benzene	<7 µg/l	TM245		504 #	245 #	<7 #	<7 #	<7 #	<7 #
Toluene	<4 µg/l	TM245		20 #	9 #	<4 #	<4 #	12 #	<4 #
Ethylbenzene	<5 µg/l	TM245		78 #	52 #	<5 #	<5 #	<5 #	<5 #
m,p-Xylene	<8 µg/l	TM245		39 #	39 #	<8 #	<8 #	14 #	<8 #
o-Xylene	<3 µg/l	TM245		75 #	36 #	5 #	<3 #	8 #	<3 #
Sum of detected Xylenes	<11 µg/l	TM245		114	75	<11	<11	22	<11
Sum of detected BTEX	<28 µg/l	TM245		716	381	<28	<28	34	<28
Aliphatics >C5-C6	<10 µg/l	TM245		<10	<10	<10	<10	<10	<10
Aliphatics >C6-C8	<10 µg/l	TM245		55	55	13	<10	<10	<10
Aliphatics >C8-C10	<10 µg/l	TM245		142	126	19	<10	12	17
Aliphatics >C10-C12	<10 µg/l	TM245		470	513	55	<10	64	38
Aliphatics >C12-C16 (aq)	<10 µg/l	TM174		<10	<10	<10	<10	56	<10
Aliphatics >C16-C21 (aq)	<10 µg/l	TM174		<10	<10	<10	<10	207	<10
Aliphatics >C21-C35 (aq)	<10 µg/l	TM174		<10	<10	<10	<10	863	<10
Total Aliphatics >C12-C35 (aq)	<10 µg/l	TM174		<10	<10	<10	<10	1130	<10
Aromatics >EC5-EC7	<10 µg/l	TM245		504	245	<10	<10	<10	<10
Aromatics >EC7-EC8	<10 µg/l	TM245		20	<10	<10	<10	12	<10
Aromatics >EC8-EC10	<10 µg/l	TM245		287	211	25	<10	34	14
Aromatics >EC10-EC12	<10 µg/l	TM245		313	342	36	<10	43	25
Aromatics >EC12-EC16 (aq)	<10 µg/l	TM174		771	421	59	<10	89	226
Aromatics >EC16-EC21 (aq)	<10 µg/l	TM174		331	157	23	<10	268	60
Aromatics >EC21-EC35 (aq)	<10 µg/l	TM174		115	13	<10	<10	1430	<10
Total Aromatics >EC12-EC35 (aq)	<10 µg/l	TM174		1220	591	82	<10	1790	286
Total Aliphatics & Aromatics >C5-35 (aq)	<10 µg/l	TM174		3020	2100	236	<10	3090	395

CERTIFICATE OF ANALYSIS

SDG:	120203-121	**Location:**	Limerick Gasworks	**Order Number:**	4500089829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	170465
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	170459

TPH CWG (W)

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	C7	C11	D1	D5	E8	F11
			Depth (m)	5.50 - 6.50	1.50 - 2.40	3.00 - 4.00	1.50 - 1.90	1.00 - 2.00	4.00 - 4.80
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	01/02/2012	01/02/2012	01/02/2012	01/02/2012	01/02/2012	01/02/2012
			Date Received	02/02/2012	02/02/2012	02/02/2012	02/02/2012	02/02/2012	02/02/2012
			SDG Ref	120203-121	120203-121	120203-121	120203-121	120203-121	120203-121
			Lab Sample No.(s)	5120719	5124842	5124728	5120721	5124844	5124841
			AGS Reference						
GRO Surrogate % recovery**	%	TM245		99	92	89	106	106	88 §
GRO >C5-C12	<50 µg/l	TM245		40500 #	3550 #	9540 #	117 #	22900 #	202 § #
Methyl tertiary butyl ether (MTBE)	<3 µg/l	TM245		<30 #	<3 #	<3 #	<3 #	<15 #	<3 § #
Benzene	<7 µg/l	TM245		15800 #	39 #	739 #	55 #	9900 #	<7 § #
Toluene	<4 µg/l	TM245		7520 #	29 #	370 #	18 #	2820 #	23 § #
Ethylbenzene	<5 µg/l	TM245		298 #	80 #	248 #	<5 #	129 #	<5 § #
m,p-Xylene	<8 µg/l	TM245		2120 #	173 #	649 #	<8 #	1030 #	16 § #
o-Xylene	<3 µg/l	TM245		847 #	142 #	370 #	5 #	386 #	12 § #
Sum of detected Xylenes	<11 µg/l	TM245		2970	315	1020	<11	1420	28 §
Sum of detected BTEX	<28 µg/l	TM245		26600	463	2380	73	14300	51 §
Aliphatics >C5-C6	<10 µg/l	TM245		<100	<10	22	<10	75	<10 §
Aliphatics >C6-C8	<10 µg/l	TM245		492	24	291	<10	540	15 §
Aliphatics >C8-C10	<10 µg/l	TM245		1640	369	1130	<10	1000	22 §
Aliphatics >C10-C12	<10 µg/l	TM245		6390	1470	2980	10	3830	52 §
Aliphatics >C12-C16 (aq)	<10 µg/l	TM174		<10	172	2470	<10	11	<10
Aliphatics >C16-C21 (aq)	<10 µg/l	TM174		<10	63	4860	55	23	30
Aliphatics >C21-C35 (aq)	<10 µg/l	TM174		<10	<10	2540	320	18	157
Total Aliphatics >C12-C35 (aq)	<10 µg/l	TM174		<10	235	9870	375	52	187
Aromatics >EC5-EC7	<10 µg/l	TM245		15800	39	739	55	9900	<10 §
Aromatics >EC7-EC8	<10 µg/l	TM245		7520	29	370	18	2820	23 §
Aromatics >EC8-EC10	<10 µg/l	TM245		4360	641	2020	16	2210	47 §
Aromatics >EC10-EC12	<10 µg/l	TM245		4260	978	1990	<10	2550	34 §
Aromatics >EC12-EC16 (aq)	<10 µg/l	TM174		14500	611	5300	57	7760	203
Aromatics >EC16-EC21 (aq)	<10 µg/l	TM174		1190	265	6460	120	690	50
Aromatics >EC21-EC35 (aq)	<10 µg/l	TM174		172	124	4770	617	310	301
Total Aromatics >EC12-EC35 (aq)	<10 µg/l	TM174		15800	1000	16500	794	8760	554
Total Aliphatics & Aromatics >C5-35 (aq)	<10 µg/l	TM174		56400	4780	35900	1290	31700	943

CERTIFICATE OF ANALYSIS

SDG:	120203-121	**Location:**	Limerick Gasworks	**Order Number:**	4500089829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	170465
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	170459

TPH CWG (W)

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	G2	G3	G4	G5	G8	H12
			Depth (m)	3.00 - 4.00	2.50 - 3.50	3.00 - 4.00	3.00 - 4.00	1.50 - 2.40	1.10 - 2.00
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	01/02/2012	01/02/2012	01/02/2012	01/02/2012	01/02/2012	01/02/2012
			Date Received	02/02/2012	02/02/2012	02/02/2012	02/02/2012	02/02/2012	02/02/2012
			SDG Ref	120203-121	120203-121	120203-121	120203-121	120203-121	120203-121
			Lab Sample No.(s)	5124739	5124740	5124741	5124742	5124846	5125379
			AGS Reference						
GRO Surrogate % recovery**	%	TM245		94	92	102	91	90	105
GRO >C5-C12	<50 µg/l	TM245		16000 #	<50 #	9930 #	<50 #	5930 #	<50 #
Methyl tertiary butyl ether (MTBE)	<3 µg/l	TM245		<3 #	<3 #	<3 #	<3 #	<3 #	<3 #
Benzene	<7 µg/l	TM245		4060 #	<7 #	1330 #	<7 #	814 #	<7 #
Toluene	<4 µg/l	TM245		2660 #	<4 #	1750 #	<4 #	726 #	<4 #
Ethylbenzene	<5 µg/l	TM245		372 #	<5 #	184 #	<5 #	75 #	<5 #
m,p-Xylene	<8 µg/l	TM245		1410 #	<8 #	1370 #	<8 #	528 #	<8 #
o-Xylene	<3 µg/l	TM245		841 #	<3 #	543 #	<3 #	212 #	<3 #
Sum of detected Xylenes	<11 µg/l	TM245		2250	<11	1910	<11	740	<11
Sum of detected BTEX	<28 µg/l	TM245		9340	<28	5170	<28	2360	<28
Aliphatics >C5-C6	<10 µg/l	TM245		28	<10	17	<10	<10	<10
Aliphatics >C6-C8	<10 µg/l	TM245		259	<10	145	<10	63	<10
Aliphatics >C8-C10	<10 µg/l	TM245		936	<10	723	<10	373	<10
Aliphatics >C10-C12	<10 µg/l	TM245		2900	<10	2040	<10	1730	<10
Aliphatics >C12-C16 (aq)	<10 µg/l	TM174		<10	<10	<10	<10	<10	<10
Aliphatics >C16-C21 (aq)	<10 µg/l	TM174		<10	<10	<10	<10	20	<10
Aliphatics >C21-C35 (aq)	<10 µg/l	TM174		<10	<10	<10	<10	<10	<10
Total Aliphatics >C12-C35 (aq)	<10 µg/l	TM174		<10	<10	<10	<10	20	<10
Aromatics >EC5-EC7	<10 µg/l	TM245		4060	<10	1330	<10	814	<10
Aromatics >EC7-EC8	<10 µg/l	TM245		2660	<10	1750	<10	726	<10
Aromatics >EC8-EC10	<10 µg/l	TM245		3250	<10	2580	<10	1060	<10
Aromatics >EC10-EC12	<10 µg/l	TM245		1930	<10	1360	<10	1150	<10
Aromatics >EC12-EC16 (aq)	<10 µg/l	TM174		6490	<10	1890	<10	2700	69
Aromatics >EC16-EC21 (aq)	<10 µg/l	TM174		634	<10	552	<10	780	32
Aromatics >EC21-EC35 (aq)	<10 µg/l	TM174		70	<10	121	<10	307	<10
Total Aromatics >EC12-EC35 (aq)	<10 µg/l	TM174		7190	<10	2560	<10	3790	101
Total Aliphatics & Aromatics >C5-35 (aq)	<10 µg/l	TM174		23200	<10	12500	<10	9740	108

CERTIFICATE OF ANALYSIS

SDG:	120203-121	**Location:**	Limerick Gasworks	**Order Number:**	4500089829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	170465
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	170459

TPH CWG (W)

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	J10	K1	K5	M3		
			Depth (m)	0.00 - 1.00	2.00 - 3.00	1.00 - 2.00	2.70 - 3.70		
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)		
			Date Sampled	01/02/2012	01/02/2012	01/02/2012	01/02/2012		
			Date Received	02/02/2012	02/02/2012	02/02/2012	02/02/2012		
			SDG Ref	120203-121	120203-121	120203-121	120203-121		
			Lab Sample No.(s)	5125378	5125375	5125377	5125376		
			AGS Reference						
GRO Surrogate % recovery**	%	TM245		98	95	95	101		
GRO >C5-C12	<50 µg/l	TM245		<50 #	<50 #	32100 #	<50 #		
Methyl tertiary butyl ether (MTBE)	<3 µg/l	TM245		<3 #	<3 #	<3 #	<3 #		
Benzene	<7 µg/l	TM245		<7 #	<7 #	<7 #	<7 #		
Toluene	<4 µg/l	TM245		<4 #	<4 #	4280 #	<4 #		
Ethylbenzene	<5 µg/l	TM245		<5 #	<5 #	214 #	<5 #		
m,p-Xylene	<8 µg/l	TM245		<8 #	<8 #	1350 #	<8 #		
o-Xylene	<3 µg/l	TM245		<3 #	<3 #	569 #	<3 #		
Sum of detected Xylenes	<11 µg/l	TM245		<11	<11	1920	<11		
Sum of detected BTEX	<28 µg/l	TM245		<28	<28	6410	<28		
Aliphatics >C5-C6	<10 µg/l	TM245		<10	<10	224	<10		
Aliphatics >C6-C8	<10 µg/l	TM245		<10	<10	14100	<10		
Aliphatics >C8-C10	<10 µg/l	TM245		<10	<10	1530	<10		
Aliphatics >C10-C12	<10 µg/l	TM245		<10	<10	5290	<10		
Aliphatics >C12-C16 (aq)	<10 µg/l	TM174		<10	<10	<100	<10		
Aliphatics >C16-C21 (aq)	<10 µg/l	TM174		<10	<10	<100	<10		
Aliphatics >C21-C35 (aq)	<10 µg/l	TM174		<10	<10	<100	<10		
Total Aliphatics >C12-C35 (aq)	<10 µg/l	TM174		<10	<10	<100	<10		
Aromatics >EC5-EC7	<10 µg/l	TM245		<10	<10	<10	<10		
Aromatics >EC7-EC8	<10 µg/l	TM245		<10	<10	4280	<10		
Aromatics >EC8-EC10	<10 µg/l	TM245		<10	<10	3150	<10		
Aromatics >EC10-EC12	<10 µg/l	TM245		<10	<10	3530	<10		
Aromatics >EC12-EC16 (aq)	<10 µg/l	TM174		<10	<10	16300	<10		
Aromatics >EC16-EC21 (aq)	<10 µg/l	TM174		<10	<10	1310	<10		
Aromatics >EC21-EC35 (aq)	<10 µg/l	TM174		<10	34	303	<10		
Total Aromatics >EC12-EC35 (aq)	<10 µg/l	TM174		<10	34	17900	<10		
Total Aliphatics & Aromatics >C5-35 (aq)	<10 µg/l	TM174		<10	34	50000	<10		

CERTIFICATE OF ANALYSIS

SDG:	120203-121	**Location:**	Limerick Gasworks	**Order Number:**	4500089829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	170465
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	170459

VOC MS (W)

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	A3	A4	A11	C7	D1
			Depth (m)	2.50 - 3.50	1.50 - 2.00	3.00 - 4.00	2.00 - 2.50	5.50 - 6.50	3.00 - 4.00
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	01/02/2012	01/02/2012	01/02/2012	01/02/2012	01/02/2012	01/02/2012
			Date Received	02/02/2012	02/02/2012	02/02/2012	02/02/2012	02/02/2012	02/02/2012
			SDG Ref	120203-121	120203-121	120203-121	120203-121	120203-121	120203-121
			Lab Sample No.(s)	5120525	5120524	5120522	5124843	5120719	5124728
			AGS Reference						
Dibromofluoromethane**	%	TM208		110	108	108	110	106	106
Toluene-d8**	%	TM208		99.4	98.5	99.4	99.2	97.9	94.2
4-Bromofluorobenzene**	%	TM208		103	101	102	95.5	95.1	83.9
Dichlorodifluoromethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Chloromethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Vinyl chloride	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Bromomethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Chloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Trichlorofluoromethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,1-Dichloroethene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Carbon disulphide	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	2.95 #
Dichloromethane	<3 µg/l	TM208		<3 #	<3 #	<3 #	<3 #	<3 #	<3 #
Methyl tertiary butyl ether (MTBE)	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
trans-1,2-Dichloroethene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,1-Dichloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
cis-1,2-Dichloroethene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2,2-Dichloropropane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Bromochloromethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Chloroform	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,1,1-Trichloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,1-Dichloropropene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Carbontetrachloride	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,2-Dichloroethane	<1 µg/l	TM208		<1	<1	<1	<1	<1	<1
Benzene	<1 µg/l	TM208		567 #	287 #	2.06 #	3.65 #	<1 #	814 #
Trichloroethene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,2-Dichloropropane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Dibromomethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Bromodichloromethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
cis-1,3-Dichloropropene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Toluene	<1 µg/l	TM208		22.9 #	10 #	<1 #	13.9 #	<1 #	403 #
trans-1,3-Dichloropropene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,1,2-Trichloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,3-Dichloropropane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Tetrachloroethene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Dibromochloromethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #

CERTIFICATE OF ANALYSIS

SDG:	120203-121	**Location:**	Limerick Gasworks	**Order Number:**	4500089829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	170465
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	170459

VOC MS (W)

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	A3	A4	A11	C7	D1
			Depth (m)	2.50 - 3.50	1.50 - 2.00	3.00 - 4.00	2.00 - 2.50	5.50 - 6.50	3.00 - 4.00
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	01/02/2012	01/02/2012	01/02/2012	01/02/2012	01/02/2012	01/02/2012
			Date Received	02/02/2012	02/02/2012	02/02/2012	02/02/2012	02/02/2012	02/02/2012
			SDG Ref	120203-121	120203-121	120203-121	120203-121	120203-121	120203-121
			Lab Sample No.(s)	5120525	5120524	5120522	5124843	5120719	5124728
			AGS Reference						
1,2-Dibromoethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Chlorobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,1,1,2-Tetrachloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Ethylbenzene	<1 µg/l	TM208		82.4 #	60.6 #	2.15 #	3.61 #	<1 #	269 #
m,p-Xylene	<1 µg/l	TM208		40.4 #	37.6 #	2.66 #	13.7 #	<1 #	702 #
o-Xylene	<1 µg/l	TM208		79.8 #	35.8 #	2.83 #	7.37 #	<1 #	406 #
Styrene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Bromoform	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Isopropylbenzene	<1 µg/l	TM208		9.04 #	8.86 #	<1 #	<1 #	<1 #	30.8 #
1,1,2,2-Tetrachloroethane	<1 µg/l	TM208		<1	<1	<1	<1	<1	<1
1,2,3-Trichloropropane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Bromobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Propylbenzene	<1 µg/l	TM208		9.22 #	3.57 #	<1 #	<1 #	<1 #	40.5 #
2-Chlorotoluene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,3,5-Trimethylbenzene	<1 µg/l	TM208		2.79 #	3.65 #	<1 #	1.33 #	<1 #	92.4 #
4-Chlorotoluene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
tert-Butylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,2,4-Trimethylbenzene	<1 µg/l	TM208		42.8 #	15.3 #	<1 #	3.67 #	<1 #	290 #
sec-Butylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
4-iso-Propyltoluene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,3-Dichlorobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,4-Dichlorobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
n-Butylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,2-Dichlorobenzene	<1 µg/l	TM208		<1	<1	<1	<1	<1	<1
1,2-Dibromo-3-chloropropane	<1 µg/l	TM208		<1	<1	<1	<1	<1	<1
1,2,4-Trichlorobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Hexachlorobutadiene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
tert-Amyl methyl ether (TAME)	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Naphthalene	<1 µg/l	TM208		141 #	257 #	7.81 #	89.1 #	<1 #	4690 #
1,2,3-Trichlorobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,3,5-Trichlorobenzene	<1 µg/l	TM208		<1	<1	<1	<1	<1	<1

CERTIFICATE OF ANALYSIS

SDG:	120203-121	**Location:**	Limerick Gasworks	**Order Number:**	4500089829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	170465
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	170459

VOC MS (W)

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	G2	G4	G5	K5	M3
			Depth (m)	3.00 - 4.00	3.00 - 4.00	3.00 - 4.00	1.00 - 2.00	2.70 - 3.70
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	01/02/2012	01/02/2012	01/02/2012	01/02/2012	01/02/2012
			Date Received	02/02/2012	02/02/2012	02/02/2012	02/02/2012	02/02/2012
			SDG Ref	120203-121	120203-121	120203-121	120203-121	120203-121
			Lab Sample No.(s)	5124739	5124741	5124742	5125377	5125376
			AGS Reference					
Dibromofluoromethane**	%	TM208		108	107	106	97.5	111
Toluene-d8**	%	TM208		98.9	98.7	98.6	94.6	99.3
4-Bromofluorobenzene**	%	TM208		94	96.3	94.9	71.9	94.4
Dichlorodifluoromethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
Chloromethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
Vinyl chloride	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
Bromomethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
Chloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
Trichlorofluoromethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	1.62 #	<1 #
1,1-Dichloroethene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
Carbon disulphide	<1 µg/l	TM208		5.34 #	<1 #	<1 #	<1 #	<1 #
Dichloromethane	<3 µg/l	TM208		<3 #	<3 #	<3 #	<3 #	<3 #
Methyl tertiary butyl ether (MTBE)	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
trans-1,2-Dichloroethene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
1,1-Dichloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
cis-1,2-Dichloroethene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
2,2-Dichloropropane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
Bromochloromethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
Chloroform	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
1,1,1-Trichloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	5.08 #	<1 #
1,1-Dichloropropene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
Carbontetrachloride	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
1,2-Dichloroethane	<1 µg/l	TM208		<1	<1	<1	<1	<1
Benzene	<1 µg/l	TM208		4750 #	1410 #	<1 #	14400 #	<1 #
Trichloroethene	<1 µg/l	TM208		<1 #	<1 #	<1 #	8.74 #	<1 #
1,2-Dichloropropane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
Dibromomethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
Bromodichloromethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
cis-1,3-Dichloropropene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
Toluene	<1 µg/l	TM208		3030 #	1790 #	<1 #	4720 #	<1 #
trans-1,3-Dichloropropene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
1,1,2-Trichloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
1,3-Dichloropropane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
Tetrachloroethene	<1 µg/l	TM208		<1 #	<1 #	<1 #	2.61 #	<1 #
Dibromochloromethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #

CERTIFICATE OF ANALYSIS

SDG:	120203-121	**Location:**	Limerick Gasworks	**Order Number:**	4500089829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	170465
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	170459

VOC MS (W)

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	G2	G4	G5	K5	M3
			Depth (m)	3.00 - 4.00	3.00 - 4.00	3.00 - 4.00	1.00 - 2.00	2.70 - 3.70
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	01/02/2012	01/02/2012	01/02/2012	01/02/2012	01/02/2012
			Date Received	02/02/2012	02/02/2012	02/02/2012	02/02/2012	02/02/2012
			SDG Ref	120203-121	120203-121	120203-121	120203-121	120203-121
			Lab Sample No.(s)	5124739	5124741	5124742	5125377	5125376
			AGS Reference					
1,2-Dibromoethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
Chlorobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
1,1,1,2-Tetrachloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
Ethylbenzene	<1 µg/l	TM208		426 #	174 #	<1 #	222 #	<1 #
m,p-Xylene	<1 µg/l	TM208		1520 #	1330 #	<1 #	1400 #	<1 #
o-Xylene	<1 µg/l	TM208		906 #	533 #	<1 #	591 #	<1 #
Styrene	<1 µg/l	TM208		<1 #	<1 #	<1 #	296 #	<1 #
Bromoform	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
Isopropylbenzene	<1 µg/l	TM208		31 #	9.13 #	<1 #	9.59 #	<1 #
1,1,2,2-Tetrachloroethane	<1 µg/l	TM208		<1	<1	<1	<1	<1
1,2,3-Trichloropropane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
Bromobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
Propylbenzene	<1 µg/l	TM208		33.7 #	5.82 #	<1 #	13.1 #	<1 #
2-Chlorotoluene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
1,3,5-Trimethylbenzene	<1 µg/l	TM208		89.7 #	103 #	<1 #	61.3 #	<1 #
4-Chlorotoluene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
tert-Butylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
1,2,4-Trimethylbenzene	<1 µg/l	TM208		404 #	281 #	<1 #	153 #	<1 #
sec-Butylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
4-iso-Propyltoluene	<1 µg/l	TM208		51.3 #	<1 #	<1 #	<1 #	<1 #
1,3-Dichlorobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
1,4-Dichlorobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
n-Butylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
1,2-Dichlorobenzene	<1 µg/l	TM208		<1	<1	<1	<1	<1
1,2-Dibromo-3-chloropropane	<1 µg/l	TM208		<1	<1	<1	<1	<1
1,2,4-Trichlorobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
Hexachlorobutadiene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
tert-Amyl methyl ether (TAME)	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
Naphthalene	<1 µg/l	TM208		4540 #	1800 #	<1 #	5480 #	<1 #
1,2,3-Trichlorobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #
1,3,5-Trichlorobenzene	<1 µg/l	TM208		<1	<1	<1	<1	<1

CERTIFICATE OF ANALYSIS

SDG:	120203-121	**Location:**	Limerick Gasworks	**Order Number:**	4500089829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	170465
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	170459

Notification of Deviating Samples

Sample Number	Customer Sample Ref.	Depth (m)	Matrix	Test Name	Component Name	Comment
5127798	A1	2.50 - 3.50	LIQUID	Phenols by HPLC (W)	1-Naphthol	Analysis carried out on unpreserved sample
5127798	A1	2.50 - 3.50	LIQUID	Phenols by HPLC (W)	2,3,5-Trimethylphenol	Analysis carried out on unpreserved sample
5127798	A1	2.50 - 3.50	LIQUID	Phenols by HPLC (W)	2-Isopropylphenol	Analysis carried out on unpreserved sample
5127798	A1	2.50 - 3.50	LIQUID	Phenols by HPLC (W)	Catechol	Analysis carried out on unpreserved sample
5127798	A1	2.50 - 3.50	LIQUID	Phenols by HPLC (W)	Cresols	Analysis carried out on unpreserved sample
5127798	A1	2.50 - 3.50	LIQUID	Phenols by HPLC (W)	Phenol	Analysis carried out on unpreserved sample
5127798	A1	2.50 - 3.50	LIQUID	Phenols by HPLC (W)	Phenols, Total Detected 5 speciated	Analysis carried out on unpreserved sample
5127798	A1	2.50 - 3.50	LIQUID	Phenols by HPLC (W)	Resorcinol	Analysis carried out on unpreserved sample
5127798	A1	2.50 - 3.50	LIQUID	Phenols by HPLC (W)	Xylenols	Analysis carried out on unpreserved sample
5127931	A4	3.00 - 4.00	LIQUID	Phenols by HPLC (W)	1-Naphthol	Analysis carried out on unpreserved sample
5127931	A4	3.00 - 4.00	LIQUID	Phenols by HPLC (W)	2,3,5-Trimethylphenol	Analysis carried out on unpreserved sample
5127931	A4	3.00 - 4.00	LIQUID	Phenols by HPLC (W)	2-Isopropylphenol	Analysis carried out on unpreserved sample
5127931	A4	3.00 - 4.00	LIQUID	Phenols by HPLC (W)	Catechol	Analysis carried out on unpreserved sample
5127931	A4	3.00 - 4.00	LIQUID	Phenols by HPLC (W)	Cresols	Analysis carried out on unpreserved sample
5127931	A4	3.00 - 4.00	LIQUID	Phenols by HPLC (W)	Phenol	Analysis carried out on unpreserved sample
5127931	A4	3.00 - 4.00	LIQUID	Phenols by HPLC (W)	Phenols, Total Detected 5 speciated	Analysis carried out on unpreserved sample
5127931	A4	3.00 - 4.00	LIQUID	Phenols by HPLC (W)	Resorcinol	Analysis carried out on unpreserved sample
5127931	A4	3.00 - 4.00	LIQUID	Phenols by HPLC (W)	Xylenols	Analysis carried out on unpreserved sample
5127975	C2	2.00 - 2.50	LIQUID	Phenols by HPLC (W)	1-Naphthol	Analysis carried out on unpreserved sample
5127975	C2	2.00 - 2.50	LIQUID	Phenols by HPLC (W)	2,3,5-Trimethylphenol	Analysis carried out on unpreserved sample
5127975	C2	2.00 - 2.50	LIQUID	Phenols by HPLC (W)	2-Isopropylphenol	Analysis carried out on unpreserved sample
5127975	C2	2.00 - 2.50	LIQUID	Phenols by HPLC (W)	Catechol	Analysis carried out on unpreserved sample
5127975	C2	2.00 - 2.50	LIQUID	Phenols by HPLC (W)	Cresols	Analysis carried out on unpreserved sample
5127975	C2	2.00 - 2.50	LIQUID	Phenols by HPLC (W)	Phenol	Analysis carried out on unpreserved sample
5127975	C2	2.00 - 2.50	LIQUID	Phenols by HPLC (W)	Phenols, Total Detected 5 speciated	Analysis carried out on unpreserved sample
5127975	C2	2.00 - 2.50	LIQUID	Phenols by HPLC (W)	Resorcinol	Analysis carried out on unpreserved sample
5127975	C2	2.00 - 2.50	LIQUID	Phenols by HPLC (W)	Xylenols	Analysis carried out on unpreserved sample
5128026	A3	1.50 - 2.00	LIQUID	Phenols by HPLC (W)	1-Naphthol	Analysis carried out on unpreserved sample
5128026	A3	1.50 - 2.00	LIQUID	Phenols by HPLC (W)	2,3,5-Trimethylphenol	Analysis carried out on unpreserved sample
5128026	A3	1.50 - 2.00	LIQUID	Phenols by HPLC (W)	2-Isopropylphenol	Analysis carried out on unpreserved sample
5128026	A3	1.50 - 2.00	LIQUID	Phenols by HPLC (W)	Catechol	Analysis carried out on unpreserved sample
5128026	A3	1.50 - 2.00	LIQUID	Phenols by HPLC (W)	Cresols	Analysis carried out on unpreserved sample
5128026	A3	1.50 - 2.00	LIQUID	Phenols by HPLC (W)	Phenol	Analysis carried out on unpreserved sample
5128026	A3	1.50 - 2.00	LIQUID	Phenols by HPLC (W)	Phenols, Total Detected 5 speciated	Analysis carried out on unpreserved sample
5128026	A3	1.50 - 2.00	LIQUID	Phenols by HPLC (W)	Resorcinol	Analysis carried out on unpreserved sample
5128026	A3	1.50 - 2.00	LIQUID	Phenols by HPLC (W)	Xylenols	Analysis carried out on unpreserved sample

CERTIFICATE OF ANALYSIS

SDG:	120203-121	**Location:**	Limerick Gasworks	**Order Number:**	4500089829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	170465
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	170459

Sample Number	Customer Sample Ref.	Depth (m)	Matrix	Test Name	Component Name	Comment
5128160	D5	1.50 - 1.90	LIQUID	Phenols by HPLC (W)	1-Naphthol	Analysis carried out on unpreserved sample
5128160	D5	1.50 - 1.90	LIQUID	Phenols by HPLC (W)	2,3,5-Trimethylphenol	Analysis carried out on unpreserved sample
5128160	D5	1.50 - 1.90	LIQUID	Phenols by HPLC (W)	2-Isopropylphenol	Analysis carried out on unpreserved sample
5128160	D5	1.50 - 1.90	LIQUID	Phenols by HPLC (W)	Catechol	Analysis carried out on unpreserved sample
5128160	D5	1.50 - 1.90	LIQUID	Phenols by HPLC (W)	Cresols	Analysis carried out on unpreserved sample
5128160	D5	1.50 - 1.90	LIQUID	Phenols by HPLC (W)	Phenol	Analysis carried out on unpreserved sample
5128160	D5	1.50 - 1.90	LIQUID	Phenols by HPLC (W)	Phenols, Total Detected 5 speciated	Analysis carried out on unpreserved sample
5128160	D5	1.50 - 1.90	LIQUID	Phenols by HPLC (W)	Resorcinol	Analysis carried out on unpreserved sample
5128160	D5	1.50 - 1.90	LIQUID	Phenols by HPLC (W)	Xylenols	Analysis carried out on unpreserved sample
5128873	A9	2.00 - 2.40	LIQUID	Phenols by HPLC (W)	1-Naphthol	Analysis carried out on unpreserved sample
5128873	A9	2.00 - 2.40	LIQUID	Phenols by HPLC (W)	2,3,5-Trimethylphenol	Analysis carried out on unpreserved sample
5128873	A9	2.00 - 2.40	LIQUID	Phenols by HPLC (W)	2-Isopropylphenol	Analysis carried out on unpreserved sample
5128873	A9	2.00 - 2.40	LIQUID	Phenols by HPLC (W)	Catechol	Analysis carried out on unpreserved sample
5128873	A9	2.00 - 2.40	LIQUID	Phenols by HPLC (W)	Cresols	Analysis carried out on unpreserved sample
5128873	A9	2.00 - 2.40	LIQUID	Phenols by HPLC (W)	Phenol	Analysis carried out on unpreserved sample
5128873	A9	2.00 - 2.40	LIQUID	Phenols by HPLC (W)	Phenols, Total Detected 5 speciated	Analysis carried out on unpreserved sample
5128873	A9	2.00 - 2.40	LIQUID	Phenols by HPLC (W)	Resorcinol	Analysis carried out on unpreserved sample
5128873	A9	2.00 - 2.40	LIQUID	Phenols by HPLC (W)	Xylenols	Analysis carried out on unpreserved sample
5128902	C7	5.50 - 6.50	LIQUID	Phenols by HPLC (W)	1-Naphthol	Analysis carried out on unpreserved sample
5128902	C7	5.50 - 6.50	LIQUID	Phenols by HPLC (W)	2,3,5-Trimethylphenol	Analysis carried out on unpreserved sample
5128902	C7	5.50 - 6.50	LIQUID	Phenols by HPLC (W)	2-Isopropylphenol	Analysis carried out on unpreserved sample
5128902	C7	5.50 - 6.50	LIQUID	Phenols by HPLC (W)	Catechol	Analysis carried out on unpreserved sample
5128902	C7	5.50 - 6.50	LIQUID	Phenols by HPLC (W)	Cresols	Analysis carried out on unpreserved sample
5128902	C7	5.50 - 6.50	LIQUID	Phenols by HPLC (W)	Phenol	Analysis carried out on unpreserved sample
5128902	C7	5.50 - 6.50	LIQUID	Phenols by HPLC (W)	Phenols, Total Detected 5 speciated	Analysis carried out on unpreserved sample
5128902	C7	5.50 - 6.50	LIQUID	Phenols by HPLC (W)	Resorcinol	Analysis carried out on unpreserved sample
5128902	C7	5.50 - 6.50	LIQUID	Phenols by HPLC (W)	Xylenols	Analysis carried out on unpreserved sample
5132740	M3	2.70 - 3.70	LIQUID	Phenols by HPLC (W)	1-Naphthol	Analysis carried out on unpreserved sample
5132740	M3	2.70 - 3.70	LIQUID	Phenols by HPLC (W)	2,3,5-Trimethylphenol	Analysis carried out on unpreserved sample
5132740	M3	2.70 - 3.70	LIQUID	Phenols by HPLC (W)	2-Isopropylphenol	Analysis carried out on unpreserved sample
5132740	M3	2.70 - 3.70	LIQUID	Phenols by HPLC (W)	Catechol	Analysis carried out on unpreserved sample
5132740	M3	2.70 - 3.70	LIQUID	Phenols by HPLC (W)	Cresols	Analysis carried out on unpreserved sample
5132740	M3	2.70 - 3.70	LIQUID	Phenols by HPLC (W)	Phenol	Analysis carried out on unpreserved sample
5132740	M3	2.70 - 3.70	LIQUID	Phenols by HPLC (W)	Phenols, Total Detected 5 speciated	Analysis carried out on unpreserved sample
5132740	M3	2.70 - 3.70	LIQUID	Phenols by HPLC (W)	Resorcinol	Analysis carried out on unpreserved sample
5132740	M3	2.70 - 3.70	LIQUID	Phenols by HPLC (W)	Xylenols	Analysis carried out on unpreserved sample
5132771	D1	3.00 - 4.00	LIQUID	Phenols by HPLC (W)	1-Naphthol	Analysis carried out on unpreserved sample

CERTIFICATE OF ANALYSIS

SDG:	120203-121	**Location:**	Limerick Gasworks	**Order Number:**	4500089829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	170465
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	170459

Sample Number	Customer Sample Ref.	Depth (m)	Matrix	Test Name	Component Name	Comment
5132771	D1	3.00 - 4.00	LIQUID	Phenols by HPLC (W)	2,3,5-Trimethylphenol	Analysis carried out on unpreserved sample
5132771	D1	3.00 - 4.00	LIQUID	Phenols by HPLC (W)	2-Isopropylphenol	Analysis carried out on unpreserved sample
5132771	D1	3.00 - 4.00	LIQUID	Phenols by HPLC (W)	Catechol	Analysis carried out on unpreserved sample
5132771	D1	3.00 - 4.00	LIQUID	Phenols by HPLC (W)	Cresols	Analysis carried out on unpreserved sample
5132771	D1	3.00 - 4.00	LIQUID	Phenols by HPLC (W)	Phenol	Analysis carried out on unpreserved sample
5132771	D1	3.00 - 4.00	LIQUID	Phenols by HPLC (W)	Phenols, Total Detected 5 speciated	Analysis carried out on unpreserved sample
5132771	D1	3.00 - 4.00	LIQUID	Phenols by HPLC (W)	Resorcinol	Analysis carried out on unpreserved sample
5132771	D1	3.00 - 4.00	LIQUID	Phenols by HPLC (W)	Xylenols	Analysis carried out on unpreserved sample
5132785	G5	3.00 - 4.00	LIQUID	Phenols by HPLC (W)	1-Naphthol	Analysis carried out on unpreserved sample
5132785	G5	3.00 - 4.00	LIQUID	Phenols by HPLC (W)	2,3,5-Trimethylphenol	Analysis carried out on unpreserved sample
5132785	G5	3.00 - 4.00	LIQUID	Phenols by HPLC (W)	2-Isopropylphenol	Analysis carried out on unpreserved sample
5132785	G5	3.00 - 4.00	LIQUID	Phenols by HPLC (W)	Catechol	Analysis carried out on unpreserved sample
5132785	G5	3.00 - 4.00	LIQUID	Phenols by HPLC (W)	Cresols	Analysis carried out on unpreserved sample
5132785	G5	3.00 - 4.00	LIQUID	Phenols by HPLC (W)	Phenol	Analysis carried out on unpreserved sample
5132785	G5	3.00 - 4.00	LIQUID	Phenols by HPLC (W)	Phenols, Total Detected 5 speciated	Analysis carried out on unpreserved sample
5132785	G5	3.00 - 4.00	LIQUID	Phenols by HPLC (W)	Resorcinol	Analysis carried out on unpreserved sample
5132785	G5	3.00 - 4.00	LIQUID	Phenols by HPLC (W)	Xylenols	Analysis carried out on unpreserved sample
5132817	K1	2.00 - 3.00	LIQUID	Phenols by HPLC (W)	1-Naphthol	Analysis carried out on unpreserved sample
5132817	K1	2.00 - 3.00	LIQUID	Phenols by HPLC (W)	2,3,5-Trimethylphenol	Analysis carried out on unpreserved sample
5132817	K1	2.00 - 3.00	LIQUID	Phenols by HPLC (W)	2-Isopropylphenol	Analysis carried out on unpreserved sample
5132817	K1	2.00 - 3.00	LIQUID	Phenols by HPLC (W)	Catechol	Analysis carried out on unpreserved sample
5132817	K1	2.00 - 3.00	LIQUID	Phenols by HPLC (W)	Cresols	Analysis carried out on unpreserved sample
5132817	K1	2.00 - 3.00	LIQUID	Phenols by HPLC (W)	Phenol	Analysis carried out on unpreserved sample
5132817	K1	2.00 - 3.00	LIQUID	Phenols by HPLC (W)	Phenols, Total Detected 5 speciated	Analysis carried out on unpreserved sample
5132817	K1	2.00 - 3.00	LIQUID	Phenols by HPLC (W)	Resorcinol	Analysis carried out on unpreserved sample
5132817	K1	2.00 - 3.00	LIQUID	Phenols by HPLC (W)	Xylenols	Analysis carried out on unpreserved sample
5132827	G3	2.50 - 3.50	LIQUID	Phenols by HPLC (W)	1-Naphthol	Analysis carried out on unpreserved sample
5132827	G3	2.50 - 3.50	LIQUID	Phenols by HPLC (W)	2,3,5-Trimethylphenol	Analysis carried out on unpreserved sample
5132827	G3	2.50 - 3.50	LIQUID	Phenols by HPLC (W)	2-Isopropylphenol	Analysis carried out on unpreserved sample
5132827	G3	2.50 - 3.50	LIQUID	Phenols by HPLC (W)	Catechol	Analysis carried out on unpreserved sample
5132827	G3	2.50 - 3.50	LIQUID	Phenols by HPLC (W)	Cresols	Analysis carried out on unpreserved sample
5132827	G3	2.50 - 3.50	LIQUID	Phenols by HPLC (W)	Phenol	Analysis carried out on unpreserved sample
5132827	G3	2.50 - 3.50	LIQUID	Phenols by HPLC (W)	Phenols, Total Detected 5 speciated	Analysis carried out on unpreserved sample
5132827	G3	2.50 - 3.50	LIQUID	Phenols by HPLC (W)	Resorcinol	Analysis carried out on unpreserved sample
5132827	G3	2.50 - 3.50	LIQUID	Phenols by HPLC (W)	Xylenols	Analysis carried out on unpreserved sample
5132847	K5	1.00 - 2.00	LIQUID	Phenols by HPLC (W)	1-Naphthol	Analysis carried out on unpreserved sample
5132847	K5	1.00 - 2.00	LIQUID	Phenols by HPLC (W)	2,3,5-Trimethylphenol	Analysis carried out on unpreserved sample

CERTIFICATE OF ANALYSIS

SDG:	120203-121	**Location:**	Limerick Gasworks	**Order Number:**	4500089829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	170465
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	170459

Sample Number	Customer Sample Ref.	Depth (m)	Matrix	Test Name	Component Name	Comment
5132847	K5	1.00 - 2.00	LIQUID	Phenols by HPLC (W)	2-Isopropylphenol	Analysis carried out on unpreserved sample
5132847	K5	1.00 - 2.00	LIQUID	Phenols by HPLC (W)	Catechol	Analysis carried out on unpreserved sample
5132847	K5	1.00 - 2.00	LIQUID	Phenols by HPLC (W)	Cresols	Analysis carried out on unpreserved sample
5132847	K5	1.00 - 2.00	LIQUID	Phenols by HPLC (W)	Phenol	Analysis carried out on unpreserved sample
5132847	K5	1.00 - 2.00	LIQUID	Phenols by HPLC (W)	Phenols, Total Detected 5 speciated	Analysis carried out on unpreserved sample
5132847	K5	1.00 - 2.00	LIQUID	Phenols by HPLC (W)	Resorcinol	Analysis carried out on unpreserved sample
5132847	K5	1.00 - 2.00	LIQUID	Phenols by HPLC (W)	Xylenols	Analysis carried out on unpreserved sample
5132922	G4	3.00 - 4.00	LIQUID	Phenols by HPLC (W)	1-Naphthol	Analysis carried out on unpreserved sample
5132922	G4	3.00 - 4.00	LIQUID	Phenols by HPLC (W)	2,3,5-Trimethylphenol	Analysis carried out on unpreserved sample
5132922	G4	3.00 - 4.00	LIQUID	Phenols by HPLC (W)	2-Isopropylphenol	Analysis carried out on unpreserved sample
5132922	G4	3.00 - 4.00	LIQUID	Phenols by HPLC (W)	Catechol	Analysis carried out on unpreserved sample
5132922	G4	3.00 - 4.00	LIQUID	Phenols by HPLC (W)	Cresols	Analysis carried out on unpreserved sample
5132922	G4	3.00 - 4.00	LIQUID	Phenols by HPLC (W)	Phenol	Analysis carried out on unpreserved sample
5132922	G4	3.00 - 4.00	LIQUID	Phenols by HPLC (W)	Phenols, Total Detected 5 speciated	Analysis carried out on unpreserved sample
5132922	G4	3.00 - 4.00	LIQUID	Phenols by HPLC (W)	Resorcinol	Analysis carried out on unpreserved sample
5132922	G4	3.00 - 4.00	LIQUID	Phenols by HPLC (W)	Xylenols	Analysis carried out on unpreserved sample
5132947	H12	1.10 - 2.00	LIQUID	Phenols by HPLC (W)	1-Naphthol	Analysis carried out on unpreserved sample
5132947	H12	1.10 - 2.00	LIQUID	Phenols by HPLC (W)	2,3,5-Trimethylphenol	Analysis carried out on unpreserved sample
5132947	H12	1.10 - 2.00	LIQUID	Phenols by HPLC (W)	2-Isopropylphenol	Analysis carried out on unpreserved sample
5132947	H12	1.10 - 2.00	LIQUID	Phenols by HPLC (W)	Catechol	Analysis carried out on unpreserved sample
5132947	H12	1.10 - 2.00	LIQUID	Phenols by HPLC (W)	Cresols	Analysis carried out on unpreserved sample
5132947	H12	1.10 - 2.00	LIQUID	Phenols by HPLC (W)	Phenol	Analysis carried out on unpreserved sample
5132947	H12	1.10 - 2.00	LIQUID	Phenols by HPLC (W)	Phenols, Total Detected 5 speciated	Analysis carried out on unpreserved sample
5132947	H12	1.10 - 2.00	LIQUID	Phenols by HPLC (W)	Resorcinol	Analysis carried out on unpreserved sample
5132947	H12	1.10 - 2.00	LIQUID	Phenols by HPLC (W)	Xylenols	Analysis carried out on unpreserved sample
5133028	J10	0.00 - 1.00	LIQUID	Phenols by HPLC (W)	1-Naphthol	Analysis carried out on unpreserved sample
5133028	J10	0.00 - 1.00	LIQUID	Phenols by HPLC (W)	2,3,5-Trimethylphenol	Analysis carried out on unpreserved sample
5133028	J10	0.00 - 1.00	LIQUID	Phenols by HPLC (W)	2-Isopropylphenol	Analysis carried out on unpreserved sample
5133028	J10	0.00 - 1.00	LIQUID	Phenols by HPLC (W)	Catechol	Analysis carried out on unpreserved sample
5133028	J10	0.00 - 1.00	LIQUID	Phenols by HPLC (W)	Cresols	Analysis carried out on unpreserved sample
5133028	J10	0.00 - 1.00	LIQUID	Phenols by HPLC (W)	Phenol	Analysis carried out on unpreserved sample
5133028	J10	0.00 - 1.00	LIQUID	Phenols by HPLC (W)	Phenols, Total Detected 5 speciated	Analysis carried out on unpreserved sample
5133028	J10	0.00 - 1.00	LIQUID	Phenols by HPLC (W)	Resorcinol	Analysis carried out on unpreserved sample
5133028	J10	0.00 - 1.00	LIQUID	Phenols by HPLC (W)	Xylenols	Analysis carried out on unpreserved sample
5133105	G8	1.50 - 2.40	LIQUID	Phenols by HPLC (W)	1-Naphthol	Analysis carried out on unpreserved sample
5133105	G8	1.50 - 2.40	LIQUID	Phenols by HPLC (W)	2,3,5-Trimethylphenol	Analysis carried out on unpreserved sample
5133105	G8	1.50 - 2.40	LIQUID	Phenols by HPLC (W)	2-Isopropylphenol	Analysis carried out on unpreserved sample

CERTIFICATE OF ANALYSIS

SDG:	120203-121	**Location:**	Limerick Gasworks	**Order Number:**	4500089829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	170465
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	170459

Sample Number	Customer Sample Ref.	Depth (m)	Matrix	Test Name	Component Name	Comment
5133105	G8	1.50 - 2.40	LIQUID	Phenols by HPLC (W)	Catechol	Analysis carried out on unpreserved sample
5133105	G8	1.50 - 2.40	LIQUID	Phenols by HPLC (W)	Cresols	Analysis carried out on unpreserved sample
5133105	G8	1.50 - 2.40	LIQUID	Phenols by HPLC (W)	Phenol	Analysis carried out on unpreserved sample
5133105	G8	1.50 - 2.40	LIQUID	Phenols by HPLC (W)	Phenols, Total Detected 5 speciated	Analysis carried out on unpreserved sample
5133105	G8	1.50 - 2.40	LIQUID	Phenols by HPLC (W)	Resorcinol	Analysis carried out on unpreserved sample
5133105	G8	1.50 - 2.40	LIQUID	Phenols by HPLC (W)	Xylenols	Analysis carried out on unpreserved sample
5133108	G2	3.00 - 4.00	LIQUID	Phenols by HPLC (W)	1-Naphthol	Analysis carried out on unpreserved sample
5133108	G2	3.00 - 4.00	LIQUID	Phenols by HPLC (W)	2,3,5-Trimethylphenol	Analysis carried out on unpreserved sample
5133108	G2	3.00 - 4.00	LIQUID	Phenols by HPLC (W)	2-Isopropylphenol	Analysis carried out on unpreserved sample
5133108	G2	3.00 - 4.00	LIQUID	Phenols by HPLC (W)	Catechol	Analysis carried out on unpreserved sample
5133108	G2	3.00 - 4.00	LIQUID	Phenols by HPLC (W)	Cresols	Analysis carried out on unpreserved sample
5133108	G2	3.00 - 4.00	LIQUID	Phenols by HPLC (W)	Phenol	Analysis carried out on unpreserved sample
5133108	G2	3.00 - 4.00	LIQUID	Phenols by HPLC (W)	Phenols, Total Detected 5 speciated	Analysis carried out on unpreserved sample
5133108	G2	3.00 - 4.00	LIQUID	Phenols by HPLC (W)	Resorcinol	Analysis carried out on unpreserved sample
5133108	G2	3.00 - 4.00	LIQUID	Phenols by HPLC (W)	Xylenols	Analysis carried out on unpreserved sample
5133142	E8	1.00 - 2.00	LIQUID	Phenols by HPLC (W)	1-Naphthol	Analysis carried out on unpreserved sample
5133142	E8	1.00 - 2.00	LIQUID	Phenols by HPLC (W)	2,3,5-Trimethylphenol	Analysis carried out on unpreserved sample
5133142	E8	1.00 - 2.00	LIQUID	Phenols by HPLC (W)	2-Isopropylphenol	Analysis carried out on unpreserved sample
5133142	E8	1.00 - 2.00	LIQUID	Phenols by HPLC (W)	Catechol	Analysis carried out on unpreserved sample
5133142	E8	1.00 - 2.00	LIQUID	Phenols by HPLC (W)	Cresols	Analysis carried out on unpreserved sample
5133142	E8	1.00 - 2.00	LIQUID	Phenols by HPLC (W)	Phenol	Analysis carried out on unpreserved sample
5133142	E8	1.00 - 2.00	LIQUID	Phenols by HPLC (W)	Phenols, Total Detected 5 speciated	Analysis carried out on unpreserved sample
5133142	E8	1.00 - 2.00	LIQUID	Phenols by HPLC (W)	Resorcinol	Analysis carried out on unpreserved sample
5133142	E8	1.00 - 2.00	LIQUID	Phenols by HPLC (W)	Xylenols	Analysis carried out on unpreserved sample
5133186	C11	1.50 - 2.40	LIQUID	Phenols by HPLC (W)	1-Naphthol	Analysis carried out on unpreserved sample
5133186	C11	1.50 - 2.40	LIQUID	Phenols by HPLC (W)	2,3,5-Trimethylphenol	Analysis carried out on unpreserved sample
5133186	C11	1.50 - 2.40	LIQUID	Phenols by HPLC (W)	2-Isopropylphenol	Analysis carried out on unpreserved sample
5133186	C11	1.50 - 2.40	LIQUID	Phenols by HPLC (W)	Catechol	Analysis carried out on unpreserved sample
5133186	C11	1.50 - 2.40	LIQUID	Phenols by HPLC (W)	Cresols	Analysis carried out on unpreserved sample
5133186	C11	1.50 - 2.40	LIQUID	Phenols by HPLC (W)	Phenol	Analysis carried out on unpreserved sample
5133186	C11	1.50 - 2.40	LIQUID	Phenols by HPLC (W)	Phenols, Total Detected 5 speciated	Analysis carried out on unpreserved sample
5133186	C11	1.50 - 2.40	LIQUID	Phenols by HPLC (W)	Resorcinol	Analysis carried out on unpreserved sample
5133186	C11	1.50 - 2.40	LIQUID	Phenols by HPLC (W)	Xylenols	Analysis carried out on unpreserved sample
5133373	F11	4.00 - 4.80	LIQUID	Phenols by HPLC (W)	1-Naphthol	Analysis carried out on unpreserved sample
5133373	F11	4.00 - 4.80	LIQUID	Phenols by HPLC (W)	2,3,5-Trimethylphenol	Analysis carried out on unpreserved sample
5133373	F11	4.00 - 4.80	LIQUID	Phenols by HPLC (W)	2-Isopropylphenol	Analysis carried out on unpreserved sample
5133373	F11	4.00 - 4.80	LIQUID	Phenols by HPLC (W)	Catechol	Analysis carried out on unpreserved sample

CERTIFICATE OF ANALYSIS

SDG:	120203-121	**Location:**	Limerick Gasworks	**Order Number:**	4500089829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	170465
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	170459

Sample Number	Customer Sample Ref.	Depth (m)	Matrix	Test Name	Component Name	Comment
5133373	F11	4.00 - 4.80	LIQUID	Phenols by HPLC (W)	Cresols	Analysis carried out on unpreserved sample
5133373	F11	4.00 - 4.80	LIQUID	Phenols by HPLC (W)	Phenol	Analysis carried out on unpreserved sample
5133373	F11	4.00 - 4.80	LIQUID	Phenols by HPLC (W)	Phenols, Total Detected 5 speciated	Analysis carried out on unpreserved sample
5133373	F11	4.00 - 4.80	LIQUID	Phenols by HPLC (W)	Resorcinol	Analysis carried out on unpreserved sample
5133373	F11	4.00 - 4.80	LIQUID	Phenols by HPLC (W)	Xylenols	Analysis carried out on unpreserved sample
5133548	A11	2.00 - 2.50	LIQUID	Phenols by HPLC (W)	1-Naphthol	Analysis carried out on unpreserved sample
5133548	A11	2.00 - 2.50	LIQUID	Phenols by HPLC (W)	2,3,5-Trimethylphenol	Analysis carried out on unpreserved sample
5133548	A11	2.00 - 2.50	LIQUID	Phenols by HPLC (W)	2-Isopropylphenol	Analysis carried out on unpreserved sample
5133548	A11	2.00 - 2.50	LIQUID	Phenols by HPLC (W)	Catechol	Analysis carried out on unpreserved sample
5133548	A11	2.00 - 2.50	LIQUID	Phenols by HPLC (W)	Cresols	Analysis carried out on unpreserved sample
5133548	A11	2.00 - 2.50	LIQUID	Phenols by HPLC (W)	Phenol	Analysis carried out on unpreserved sample
5133548	A11	2.00 - 2.50	LIQUID	Phenols by HPLC (W)	Phenols, Total Detected 5 speciated	Analysis carried out on unpreserved sample
5133548	A11	2.00 - 2.50	LIQUID	Phenols by HPLC (W)	Resorcinol	Analysis carried out on unpreserved sample
5133548	A11	2.00 - 2.50	LIQUID	Phenols by HPLC (W)	Xylenols	Analysis carried out on unpreserved sample
5132789	K5	1.00 - 2.00	LIQUID	Sulphide	Sulphide	Sample holding time exceeded
5132840	J10	0.00 - 1.00	LIQUID	Sulphide	Sulphide	Sample holding time exceeded
5132880	H12	1.10 - 2.00	LIQUID	Sulphide	Sulphide	Sample holding time exceeded
5142034	F11	4.00 - 4.80	LIQUID	GRO by GC-FID (W)	Aliphatics >C10-C12	Volatile container not received
5142034	F11	4.00 - 4.80	LIQUID	GRO by GC-FID (W)	Aliphatics >C5-C6	Volatile container not received
5142034	F11	4.00 - 4.80	LIQUID	GRO by GC-FID (W)	Aliphatics >C6-C8	Volatile container not received
5142034	F11	4.00 - 4.80	LIQUID	GRO by GC-FID (W)	Aliphatics >C8-C10	Volatile container not received
5142034	F11	4.00 - 4.80	LIQUID	GRO by GC-FID (W)	Aromatics >EC10-EC12	Volatile container not received
5142034	F11	4.00 - 4.80	LIQUID	GRO by GC-FID (W)	Aromatics >EC5-EC7	Volatile container not received
5142034	F11	4.00 - 4.80	LIQUID	GRO by GC-FID (W)	Aromatics >EC7-EC8	Volatile container not received
5142034	F11	4.00 - 4.80	LIQUID	GRO by GC-FID (W)	Aromatics >EC8-EC10	Volatile container not received
5142034	F11	4.00 - 4.80	LIQUID	GRO by GC-FID (W)	Benzene	Volatile container not received
5142034	F11	4.00 - 4.80	LIQUID	GRO by GC-FID (W)	Ethylbenzene	Volatile container not received
5142034	F11	4.00 - 4.80	LIQUID	GRO by GC-FID (W)	GRO >C5-C12	Volatile container not received
5142034	F11	4.00 - 4.80	LIQUID	GRO by GC-FID (W)	GRO Surrogate % recovery**	Volatile container not received
5142034	F11	4.00 - 4.80	LIQUID	GRO by GC-FID (W)	m,p-Xylene	Volatile container not received
5142034	F11	4.00 - 4.80	LIQUID	GRO by GC-FID (W)	Methyl tertiary butyl ether (MTBE)	Volatile container not received
5142034	F11	4.00 - 4.80	LIQUID	GRO by GC-FID (W)	o-Xylene	Volatile container not received
5142034	F11	4.00 - 4.80	LIQUID	GRO by GC-FID (W)	Sum of detected BTEX	Volatile container not received
5142034	F11	4.00 - 4.80	LIQUID	GRO by GC-FID (W)	Sum of detected Xylenes	Volatile container not received
5142034	F11	4.00 - 4.80	LIQUID	GRO by GC-FID (W)	Toluene	Volatile container not received

Note : Test results may be compromised

CERTIFICATE OF ANALYSIS

SDG:	120203-121	**Location:**	Limerick Gasworks	**Order Number:**	4500089829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	170465
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	170459

Table of Results - Appendix

Method No	Reference	Description	Wet/Dry Sample [1]	Surrogate Corrected
TM061	Method for the Determination of EPH,Massachusetts Dept.of EP, 1998	Determination of Extractable Petroleum Hydrocarbons by GC-FID (C10-C40)		
TM099	BS 2690: Part 7:1968 / BS 6068: Part2.11:1984	Determination of Ammonium in Water Samples using the Kone Analyser		
TM101	Method 4500B & C, AWWA/APHA, 20th Ed., 1999	Determination of Sulphide in soil and water samples using the Kone Analyser		
TM152	Method 3125B, AWWA/APHA, 20th Ed., 1999	Analysis of Aqueous Samples by ICP-MS		
TM174	Analysis of Petroleum Hydrocarbons in Environmental Media – Total Petroleum Hydrocarbon Criteria	Determination of Speciated Extractable Petroleum Hydrocarbons in Waters by GC-FID		
TM178	Modified: US EPA Method 8100	Determination of Polynuclear Aromatic Hydrocarbons (PAH) by GC-MS in Waters		
TM183	BS EN 23506:2002, (BS 6068-2.74:2002) ISBN 0 580 38924 3	Determination of Trace Level Mercury in Waters and Leachates by PSA Cold Vapour Atomic Fluorescence Spectrometry		
TM184	EPA Methods 325.1 & 325.2,	The Determination of Anions in Aqueous Matrices using the Kone Spectrophotometric Analysers		
TM208	Modified: US EPA Method 8260b & 624	Determination of Volatile Organic Compounds by Headspace / GC-MS in Waters		
TM227	Standard methods for the examination of waters and wastewaters 20th Edition, AWWA/APHA Method 4500.	Determination of Total Cyanide, Free (Easily Liberatable) Cyanide and Thiocyanate		
TM241	Methods for the Examination of Waters and Associated Materials; Chromium in Raw and Potable Waters and Sewage Effluents 1980.	The Determination of Hexavalent Chromium in Waters and Leachates using the Kone Analyser		
TM245	By GC-FID	Determination of GRO by Headspace in waters		
TM256	The measurement of Electrical Conductivity and the Laboratory determination of pH Value of Natural, Treated and Wastewaters. HMSO, 1978. ISBN 011 751428 4.	Determination of pH in Water and Leachate using the GLpH pH Meter		
TM259	by HPLC	Determination of Phenols in Waters and Leachates by HPLC		

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

CERTIFICATE OF ANALYSIS

SDG:	120203-121	**Location:**	Limerick Gasworks	**Order Number:**	4500089829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	170465
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	170459

Test Completion Dates

Lab Sample No(s)	5120525	5120524	5120522	5120713	5124843	5120526	5120719	5124842	5124728	5120721
Customer Sample Ref.	A1	A3	A4	A9	A11	C2	C7	C11	D1	D5
AGS Ref.										
Depth	2.50 - 3.50	1.50 - 2.00	3.00 - 4.00	2.00 - 2.40	2.00 - 2.50	2.00 - 2.50	5.50 - 6.50	1.50 - 2.40	3.00 - 4.00	1.50 - 1.90
Type	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID
Ammoniacal Nitrogen	08-Feb-2012	08-Feb-2012	08-Feb-2012	08-Feb-2012	10-Feb-2012	08-Feb-2012	10-Feb-2012	08-Feb-2012	08-Feb-2012	08-Feb-2012
Anions by Kone (w)	09-Feb-2012	09-Feb-2012	09-Feb-2012	09-Feb-2012	09-Feb-2012	09-Feb-2012	09-Feb-2012	09-Feb-2012	09-Feb-2012	09-Feb-2012
Cyanide Comp/Free/Total/Thiocyanate	07-Feb-2012	07-Feb-2012	07-Feb-2012	07-Feb-2012	08-Feb-2012	07-Feb-2012	07-Feb-2012	08-Feb-2012	09-Feb-2012	07-Feb-2012
Dissolved Metals by ICP-MS	07-Feb-2012	07-Feb-2012	07-Feb-2012	08-Feb-2012	09-Feb-2012	07-Feb-2012	08-Feb-2012	09-Feb-2012	08-Feb-2012	08-Feb-2012
EPH CWG (Aliphatic) Aqueous GC (W)	10-Feb-2012	10-Feb-2012	10-Feb-2012	10-Feb-2012	10-Feb-2012	10-Feb-2012	10-Feb-2012	10-Feb-2012	10-Feb-2012	10-Feb-2012
EPH CWG (Aromatic) Aqueous GC (W)	10-Feb-2012	10-Feb-2012	10-Feb-2012	10-Feb-2012	10-Feb-2012	10-Feb-2012	10-Feb-2012	10-Feb-2012	10-Feb-2012	10-Feb-2012
GRO by GC-FID (W)	06-Feb-2012	06-Feb-2012	06-Feb-2012	05-Feb-2012	09-Feb-2012	06-Feb-2012	09-Feb-2012	09-Feb-2012	08-Feb-2012	05-Feb-2012
Hexavalent Chromium (w)	07-Feb-2012	07-Feb-2012	08-Feb-2012	09-Feb-2012	08-Feb-2012	07-Feb-2012	09-Feb-2012	09-Feb-2012	08-Feb-2012	09-Feb-2012
Mercury Dissolved	08-Feb-2012	08-Feb-2012	08-Feb-2012	08-Feb-2012	08-Feb-2012	08-Feb-2012	09-Feb-2012	08-Feb-2012	08-Feb-2012	08-Feb-2012
PAH Spec MS - Aqueous (W)	13-Feb-2012	13-Feb-2012	10-Feb-2012	13-Feb-2012	13-Feb-2012	10-Feb-2012	13-Feb-2012	10-Feb-2012	13-Feb-2012	13-Feb-2012
pH Value	07-Feb-2012	07-Feb-2012	07-Feb-2012	08-Feb-2012	07-Feb-2012	07-Feb-2012	08-Feb-2012	08-Feb-2012	08-Feb-2012	08-Feb-2012
Phenols by HPLC (W)	09-Feb-2012	10-Feb-2012	10-Feb-2012	10-Feb-2012	10-Feb-2012	10-Feb-2012	10-Feb-2012	10-Feb-2012	09-Feb-2012	09-Feb-2012
Sulphide	08-Feb-2012	08-Feb-2012	08-Feb-2012	08-Feb-2012	09-Feb-2012	08-Feb-2012	08-Feb-2012	09-Feb-2012	08-Feb-2012	08-Feb-2012
TPH CWG (W)	10-Feb-2012	10-Feb-2012	10-Feb-2012	10-Feb-2012	10-Feb-2012	10-Feb-2012	10-Feb-2012	10-Feb-2012	10-Feb-2012	10-Feb-2012
VOC MS (W)	09-Feb-2012	06-Feb-2012	06-Feb-2012		09-Feb-2012		06-Feb-2012		09-Feb-2012	

Lab Sample No(s)	5124844	5124841	5124739	5124740	5124741	5124742	5124846	5125379	5125378	5125375
Customer Sample Ref.	E8	F11	G2	G3	G4	G5	G8	H12	J10	K1
AGS Ref.										
Depth	1.00 - 2.00	4.00 - 4.80	3.00 - 4.00	2.50 - 3.50	3.00 - 4.00	3.00 - 4.00	1.50 - 2.40	1.10 - 2.00	0.00 - 1.00	2.00 - 3.00
Type	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID
Ammoniacal Nitrogen	10-Feb-2012	08-Feb-2012	08-Feb-2012	08-Feb-2012	08-Feb-2012	08-Feb-2012	08-Feb-2012	08-Feb-2012	08-Feb-2012	08-Feb-2012
Anions by Kone (w)	09-Feb-2012	09-Feb-2012	09-Feb-2012	09-Feb-2012	09-Feb-2012	09-Feb-2012	09-Feb-2012	08-Feb-2012	08-Feb-2012	09-Feb-2012
Cyanide Comp/Free/Total/Thiocyanate	08-Feb-2012	08-Feb-2012	08-Feb-2012	09-Feb-2012	08-Feb-2012	08-Feb-2012	08-Feb-2012	08-Feb-2012	08-Feb-2012	08-Feb-2012
Dissolved Metals by ICP-MS	09-Feb-2012	09-Feb-2012	08-Feb-2012	09-Feb-2012	09-Feb-2012	09-Feb-2012	09-Feb-2012	10-Feb-2012	10-Feb-2012	09-Feb-2012
EPH CWG (Aliphatic) Aqueous GC (W)	10-Feb-2012	10-Feb-2012	10-Feb-2012	10-Feb-2012	10-Feb-2012	10-Feb-2012	10-Feb-2012	10-Feb-2012	10-Feb-2012	10-Feb-2012
EPH CWG (Aromatic) Aqueous GC (W)	10-Feb-2012	10-Feb-2012	10-Feb-2012	10-Feb-2012	10-Feb-2012	10-Feb-2012	10-Feb-2012	10-Feb-2012	10-Feb-2012	10-Feb-2012
GRO by GC-FID (W)	10-Feb-2012	09-Feb-2012	08-Feb-2012	09-Feb-2012	08-Feb-2012	09-Feb-2012	09-Feb-2012	09-Feb-2012	09-Feb-2012	09-Feb-2012
Hexavalent Chromium (w)	09-Feb-2012	08-Feb-2012	08-Feb-2012	08-Feb-2012	08-Feb-2012	08-Feb-2012	08-Feb-2012	08-Feb-2012	08-Feb-2012	08-Feb-2012
Mercury Dissolved	08-Feb-2012	08-Feb-2012	08-Feb-2012	08-Feb-2012	08-Feb-2012	08-Feb-2012	08-Feb-2012	09-Feb-2012	09-Feb-2012	09-Feb-2012
PAH Spec MS - Aqueous (W)	13-Feb-2012	13-Feb-2012	13-Feb-2012	10-Feb-2012	10-Feb-2012	10-Feb-2012	13-Feb-2012	10-Feb-2012	10-Feb-2012	09-Feb-2012
pH Value	08-Feb-2012	08-Feb-2012	08-Feb-2012	08-Feb-2012	08-Feb-2012	08-Feb-2012	08-Feb-2012	08-Feb-2012	08-Feb-2012	08-Feb-2012
Phenols by HPLC (W)	10-Feb-2012	10-Feb-2012	08-Feb-2012	08-Feb-2012	08-Feb-2012	08-Feb-2012	10-Feb-2012	09-Feb-2012	09-Feb-2012	09-Feb-2012
Sulphide	09-Feb-2012	09-Feb-2012	08-Feb-2012	09-Feb-2012	09-Feb-2012	09-Feb-2012	09-Feb-2012	10-Feb-2012	10-Feb-2012	09-Feb-2012
TPH CWG (W)	10-Feb-2012	10-Feb-2012	10-Feb-2012	10-Feb-2012	10-Feb-2012	10-Feb-2012	10-Feb-2012	10-Feb-2012	10-Feb-2012	10-Feb-2012
VOC MS (W)			09-Feb-2012		09-Feb-2012	09-Feb-2012				

Lab Sample No(s)	5125377	5125376
Customer Sample Ref.	K5	M3
AGS Ref.		
Depth	1.00 - 2.00	2.70 - 3.70
Type	LIQUID	LIQUID
Ammoniacal Nitrogen	08-Feb-2012	08-Feb-2012
Anions by Kone (w)	08-Feb-2012	09-Feb-2012
Cyanide Comp/Free/Total/Thiocyanate	09-Feb-2012	08-Feb-2012
Dissolved Metals by ICP-MS	10-Feb-2012	09-Feb-2012
EPH CWG (Aliphatic) Aqueous GC (W)	10-Feb-2012	10-Feb-2012
EPH CWG (Aromatic) Aqueous GC (W)	10-Feb-2012	10-Feb-2012
GRO by GC-FID (W)	09-Feb-2012	09-Feb-2012
Hexavalent Chromium (w)	08-Feb-2012	08-Feb-2012
Mercury Dissolved	09-Feb-2012	09-Feb-2012
PAH Spec MS - Aqueous (W)	13-Feb-2012	13-Feb-2012
pH Value	08-Feb-2012	08-Feb-2012
Phenols by HPLC (W)	10-Feb-2012	09-Feb-2012
Sulphide	10-Feb-2012	09-Feb-2012
TPH CWG (W)	10-Feb-2012	10-Feb-2012
VOC MS (W)	09-Feb-2012	09-Feb-2012

CERTIFICATE OF ANALYSIS

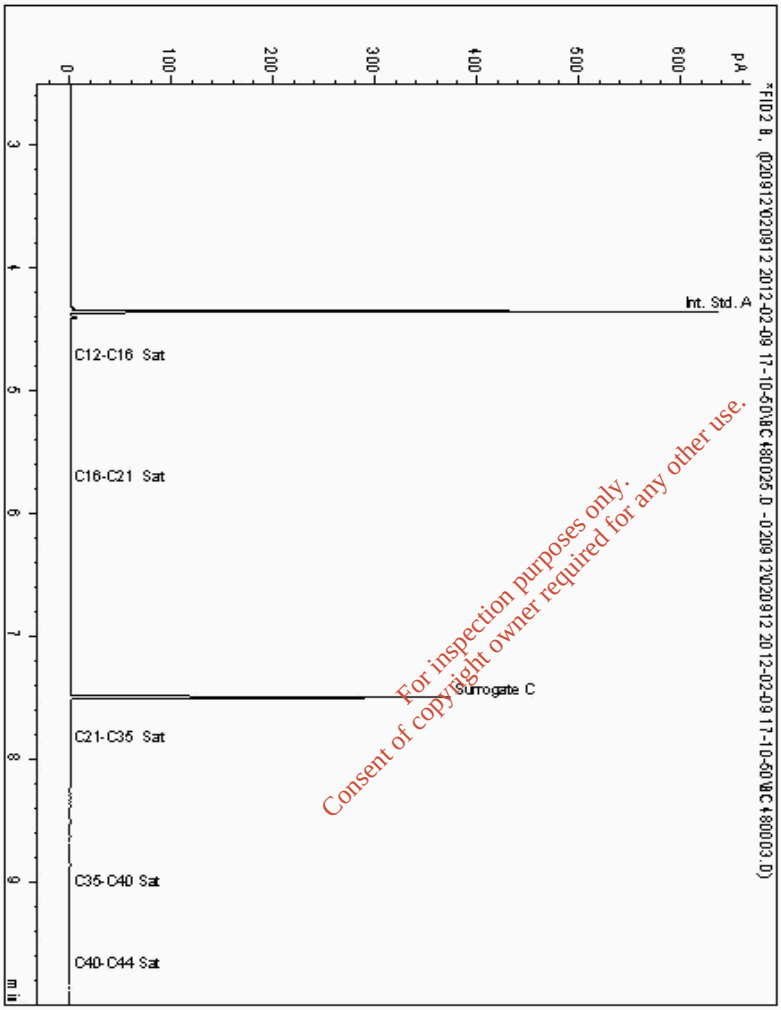
SDG:	120203-121	**Location:**	Limerick Gasworks	**Order Number:**	4500089829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	170465
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	170459

Chromatogram

Analysis: EPH CWG (Aliphatic) Aqueous GC (W) **Sample No :** 5127838 **Sample ID :** A1 **Depth :** 2.50 - 3.50

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

Sample Identity: 5026630-5127838
Date Acquired : 10/02/12 00:33:57
Units : ppb
Dilution :
CF : 1
Multiplier : 0.008



CERTIFICATE OF ANALYSIS

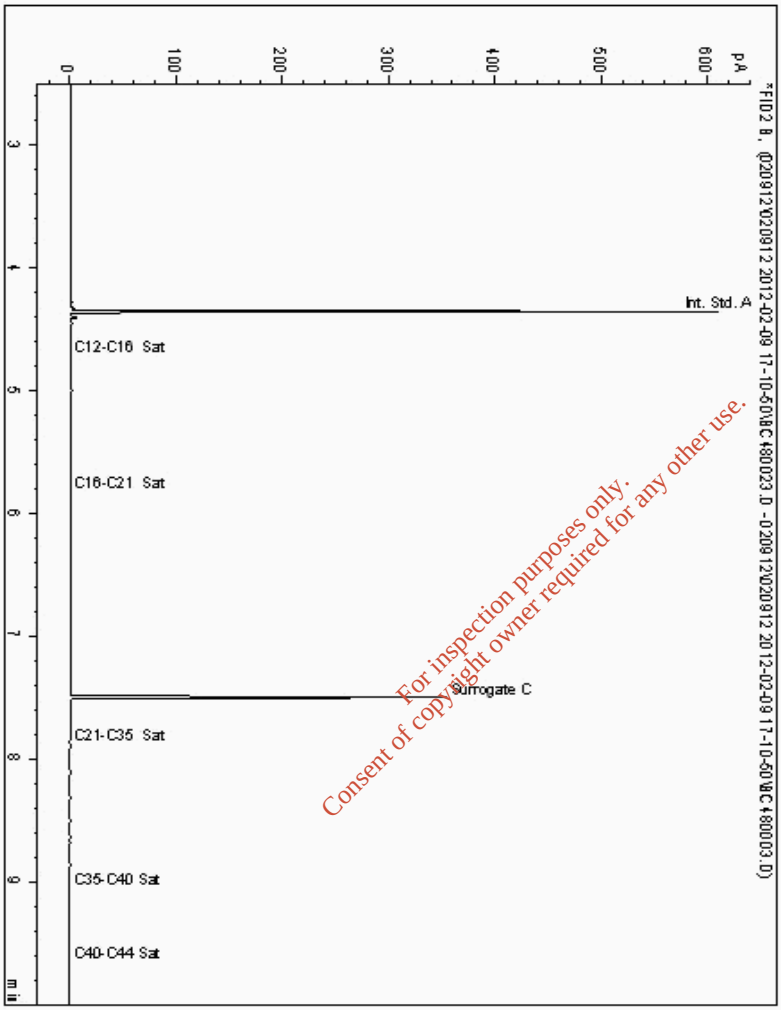
SDG:	120203-121	**Location:**	Limerick Gasworks	**Order Number:**	4500089829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	170465
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	170459

Chromatogram

Analysis: EPH CWG (Aliphatic) Aqueous GC (W) **Sample No :** 5127911 **Sample ID :** A4 **Depth :** 3.00 - 4.00

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

Sample Identity: 5026598-5127911
Date Acquired : 09/02/12 23:55:38
Units : ppb
Dilution :
CF : 1
Multiplier : 0.008



CERTIFICATE OF ANALYSIS

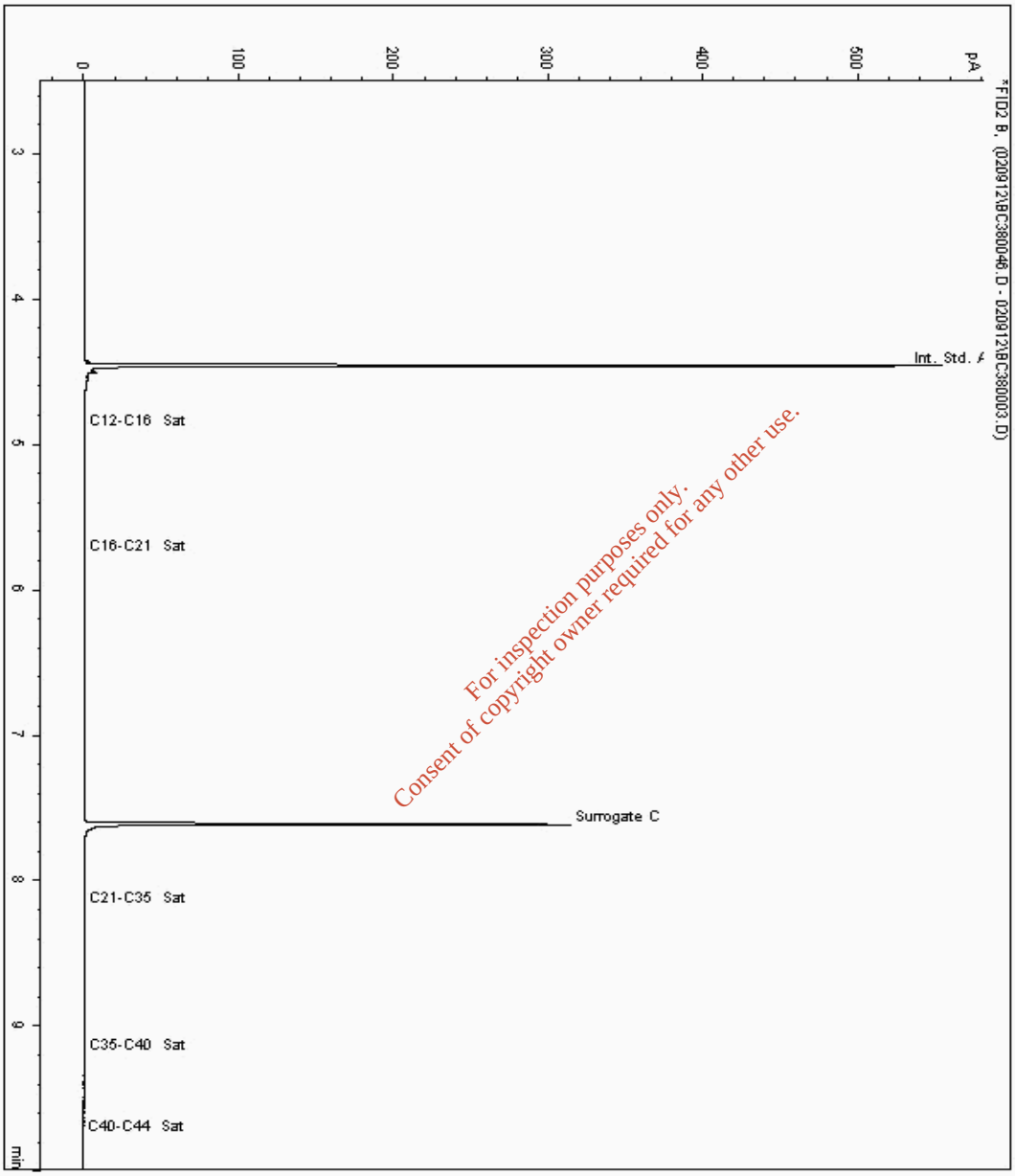
SDG:	120203-121	**Location:**	Limerick Gasworks	**Order Number:**	4500089829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	170465
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	170459

Chromatogram

Analysis: EPH CWG (Aliphatic) Aqueous GC (W) **Sample No :** 5127982 **Sample ID :** C2 **Depth :** 2.00 - 2.50

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

Sample Identity: 5026656-5127982
Date Acquired : 10/02/12 05:55:00 PM
Units : ppb
Dilution :
CF : 1
Multiplier : 0.008



CERTIFICATE OF ANALYSIS

SDG:	120203-121	**Location:**	Limerick Gasworks	**Order Number:**	4500089829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	170465
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	170459

Chromatogram

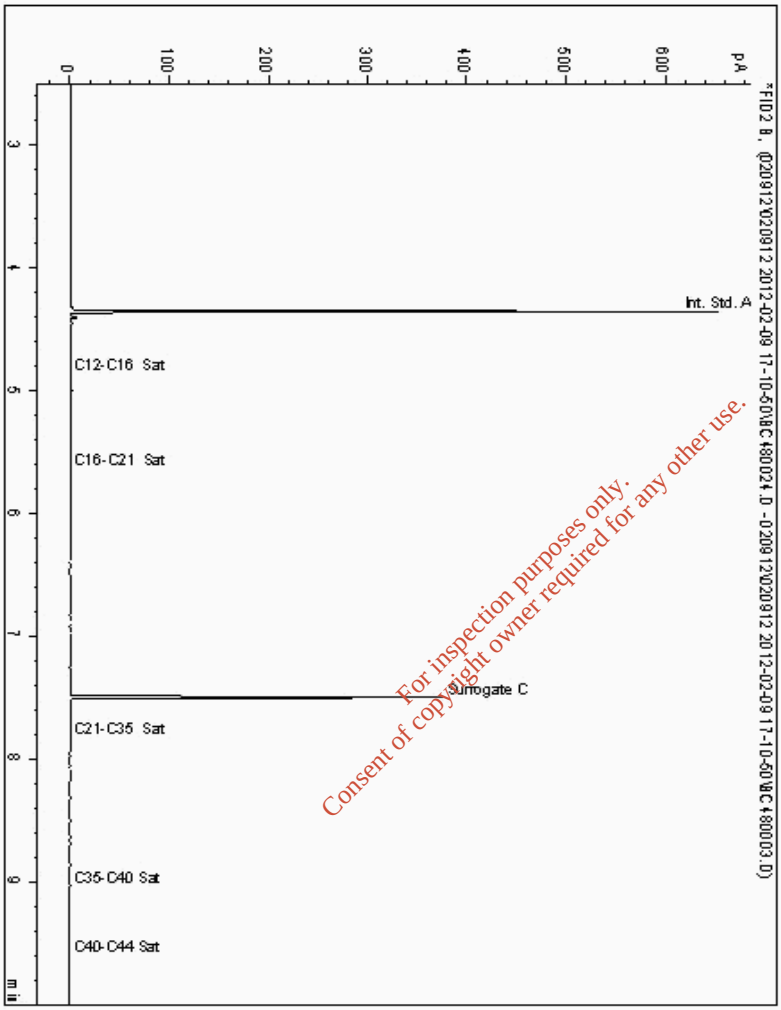
Analysis: EPH CWG (Aliphatic) Aqueous GC (W)

Sample No : 5128048
Sample ID : A3

Depth : 1.50 - 2.00

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

Sample Identity: 5026614-5128048
Date Acquired : 10/02/12 00:14:56
Units : ppb
Dilution :
CF : 1
Multiplier : 0.008



CERTIFICATE OF ANALYSIS

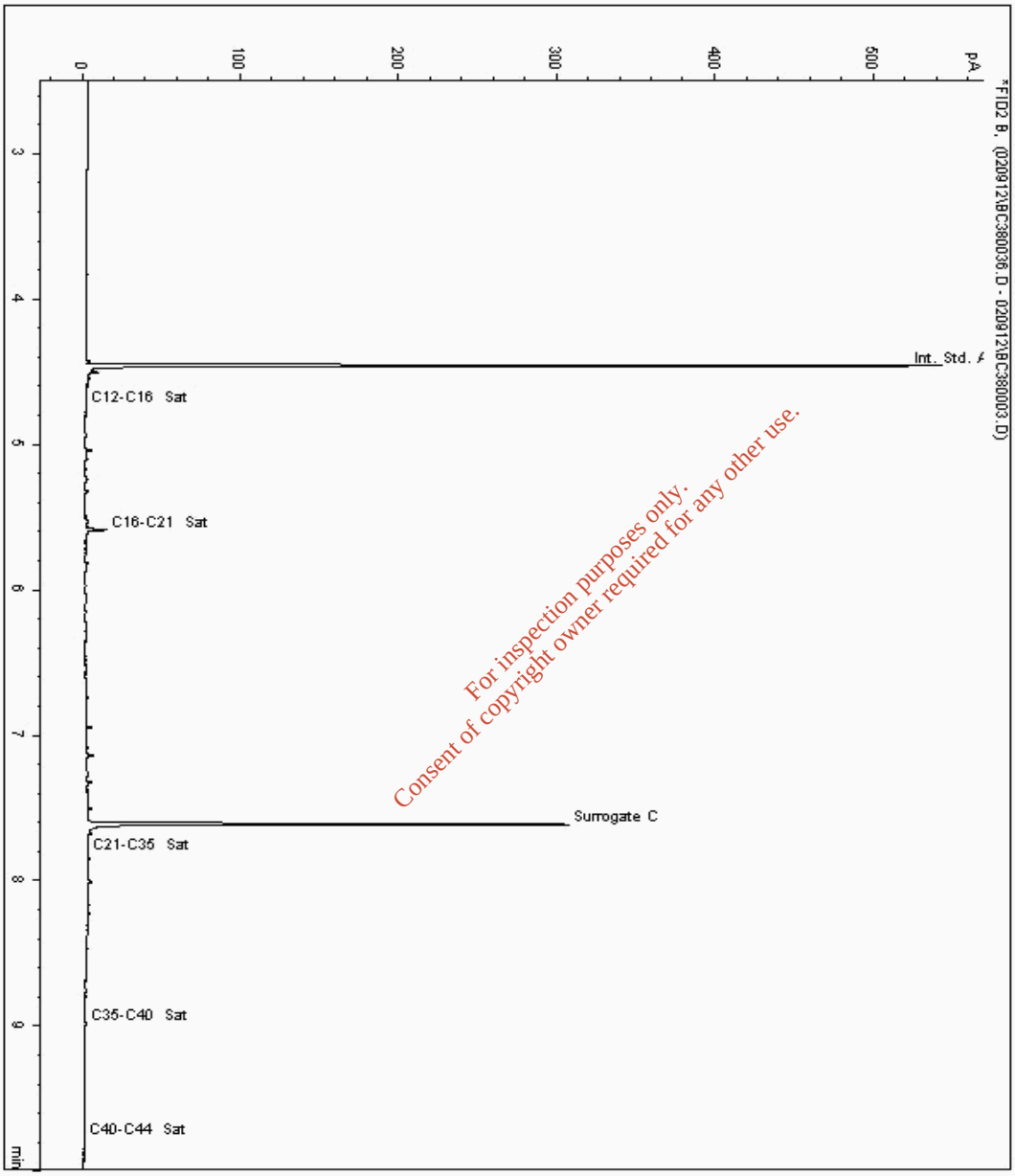
SDG:	120203-121	**Location:**	Limerick Gasworks	**Order Number:**	4500089829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	170465
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	170459

Chromatogram

Analysis: EPH CWG (Aliphatic) Aqueous GC (W) **Sample No :** 5128129 **Sample ID :** D5 **Depth :** 1.50 - 1.90

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

Sample Identity: 5026344-5128129
Date Acquired : 10/02/12 03:04:45 PM
Units : ppb
Dilution :
CF : 1
Multiplier : 0.008



CERTIFICATE OF ANALYSIS

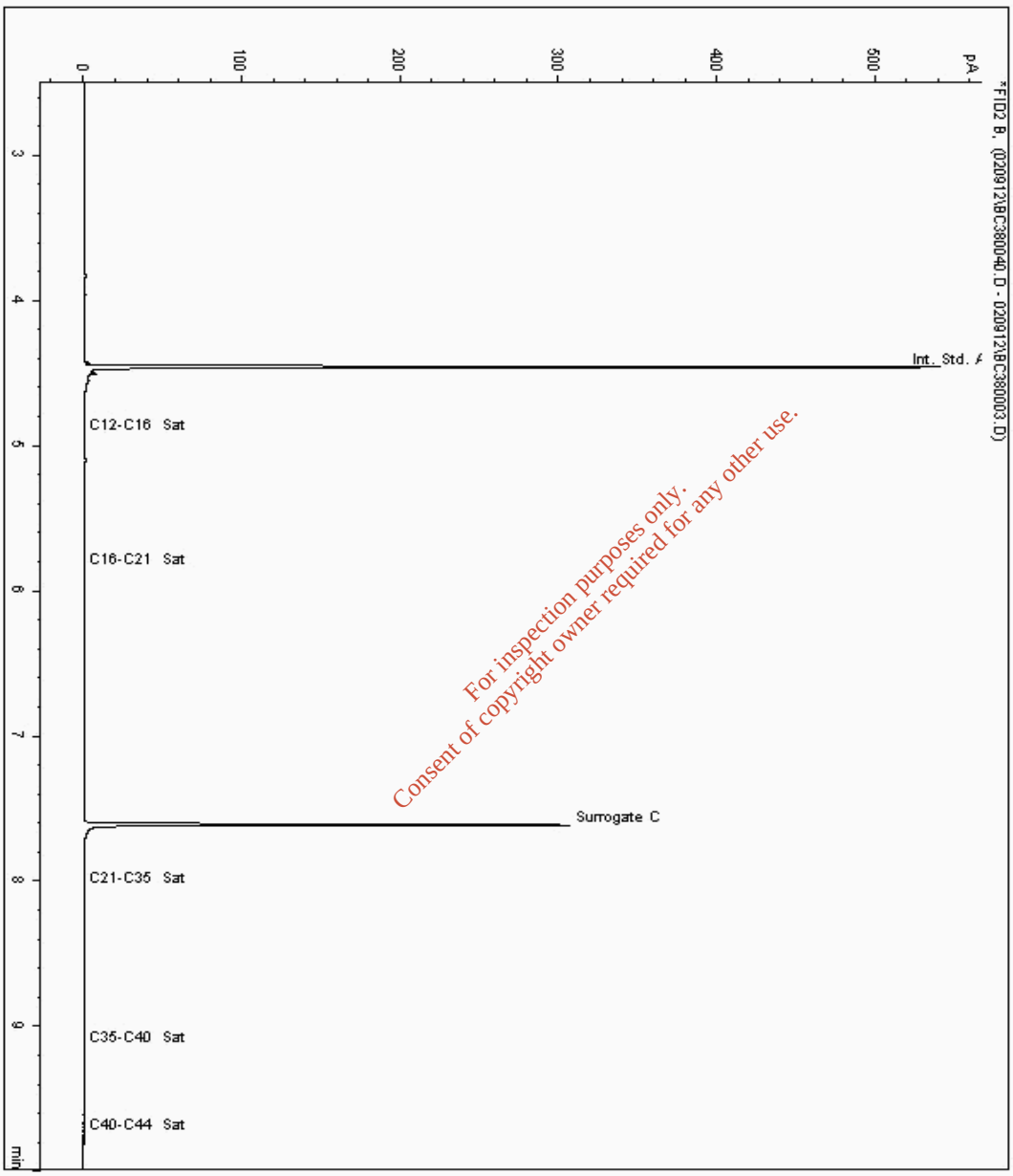
SDG:	120203-121	**Location:**	Limerick Gasworks	**Order Number:**	4500089829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	170465
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	170459

Chromatogram

Analysis: EPH CWG (Aliphatic) Aqueous GC (W) **Sample No :** 5128862 **Sample ID :** A9 **Depth :** 2.00 - 2.40

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

Sample Identity: 5026313-5128862
Date Acquired : 10/02/12 04:01:40 PM
Units : ppb
Dilution :
CF : 1
Multiplier : 0.008



CERTIFICATE OF ANALYSIS

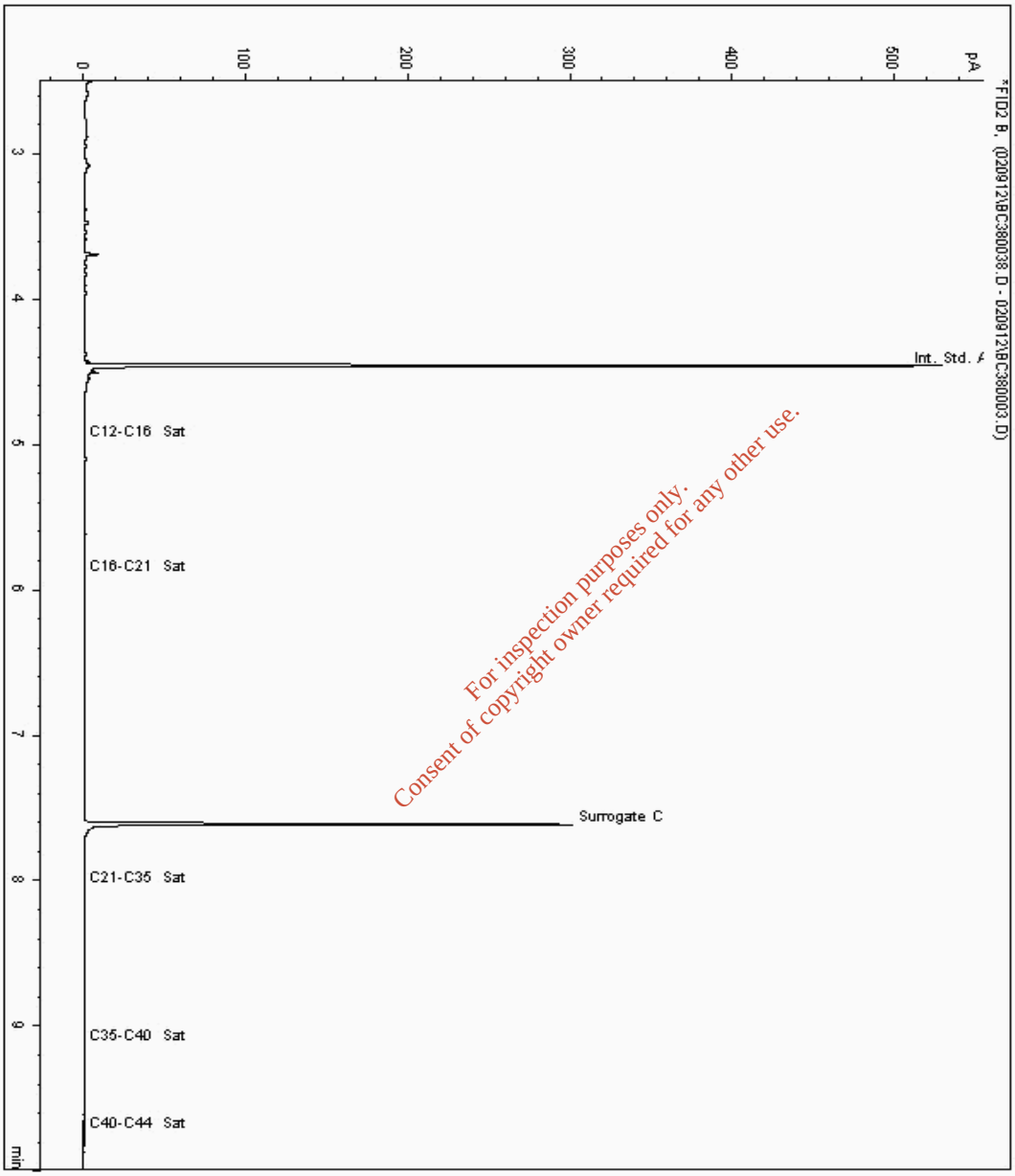
SDG:	120203-121	**Location:**	Limerick Gasworks	**Order Number:**	4500089829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	170465
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	170459

Chromatogram

Analysis: EPH CWG (Aliphatic) Aqueous GC (W) **Sample No :** 5128890 **Sample ID :** C7 **Depth :** 5.50 - 6.50

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

Sample Identity: 5026328-5128890
Date Acquired : 10/02/12 03:33:17 PM
Units : ppb
Dilution :
CF : 1
Multiplier : 0.008



CERTIFICATE OF ANALYSIS

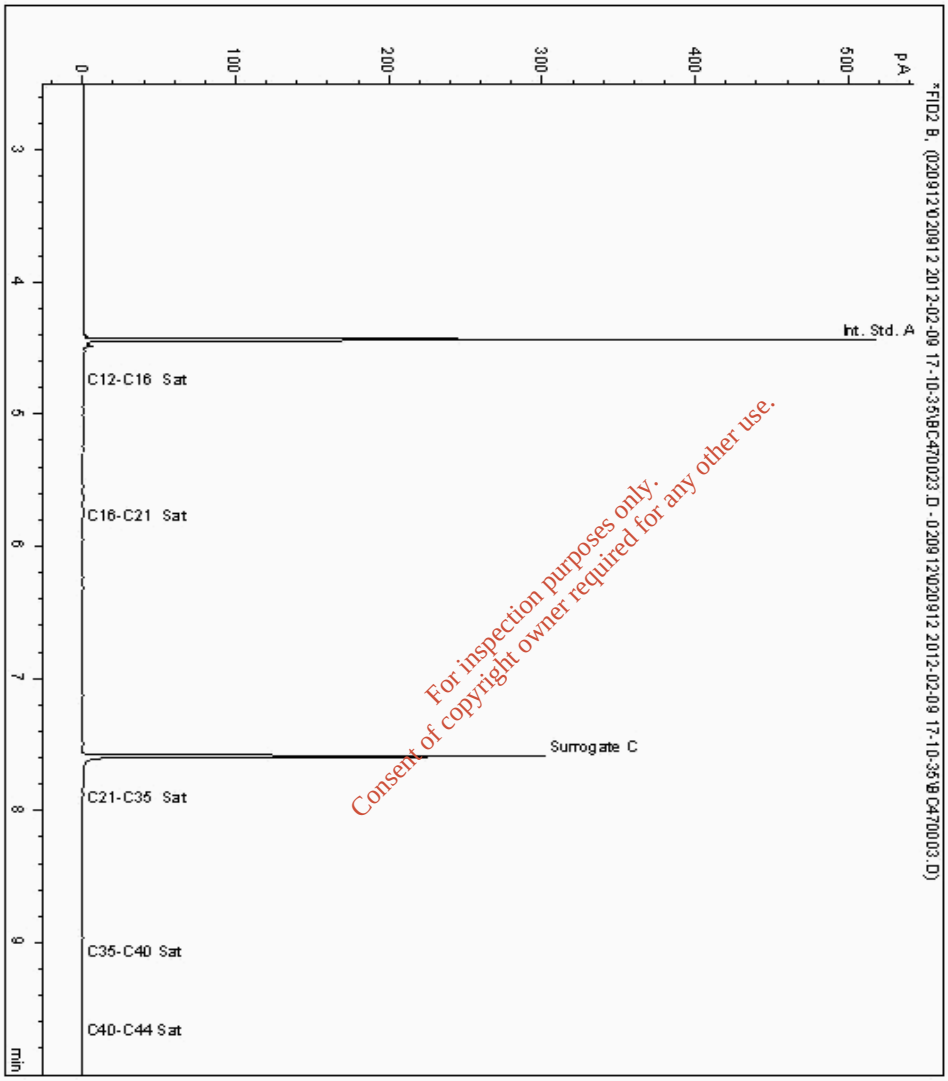
SDG:	120203-121	**Location:**	Limerick Gasworks	**Order Number:**	4500089829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	170465
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	170459

Chromatogram

Analysis: EPH CWG (Aliphatic) Aqueous GC (W) **Sample No :** 5132719 **Sample ID :** M3 **Depth :** 2.70 - 3.70

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

Sample Identity: 5033290-5132719
Date Acquired : 10/02/12 00:08:24
Units : ppb
Dilution :
CF : 1
Multiplier : 0.008

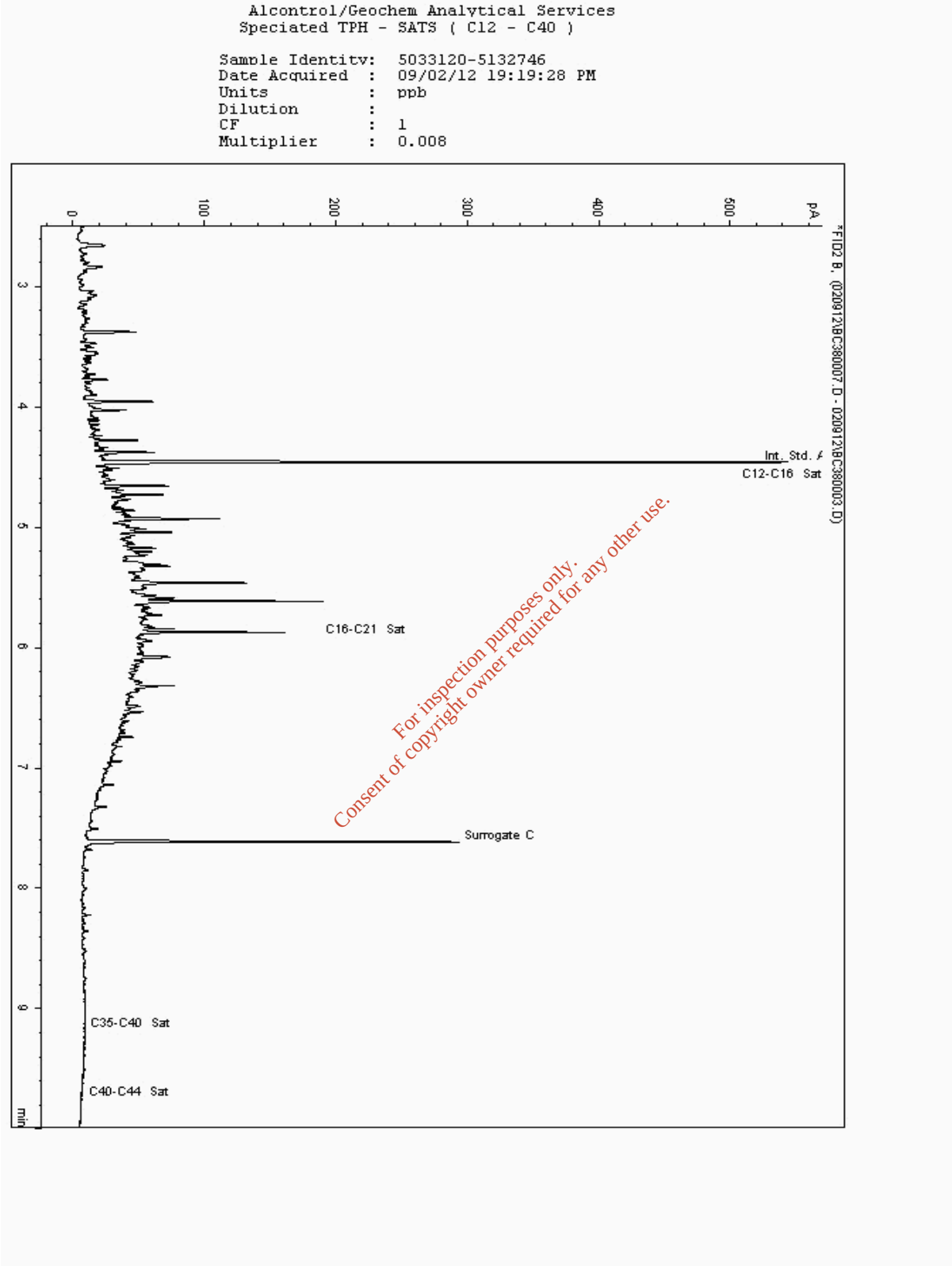


CERTIFICATE OF ANALYSIS

SDG:	120203-121	**Location:**	Limerick Gasworks	**Order Number:**	4500089829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	170465
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	170459

Chromatogram

Analysis: EPH CWG (Aliphatic) Aqueous GC (W) **Sample No :** 5132746 **Sample ID :** D1 **Depth :** 3.00 - 4.00



CERTIFICATE OF ANALYSIS

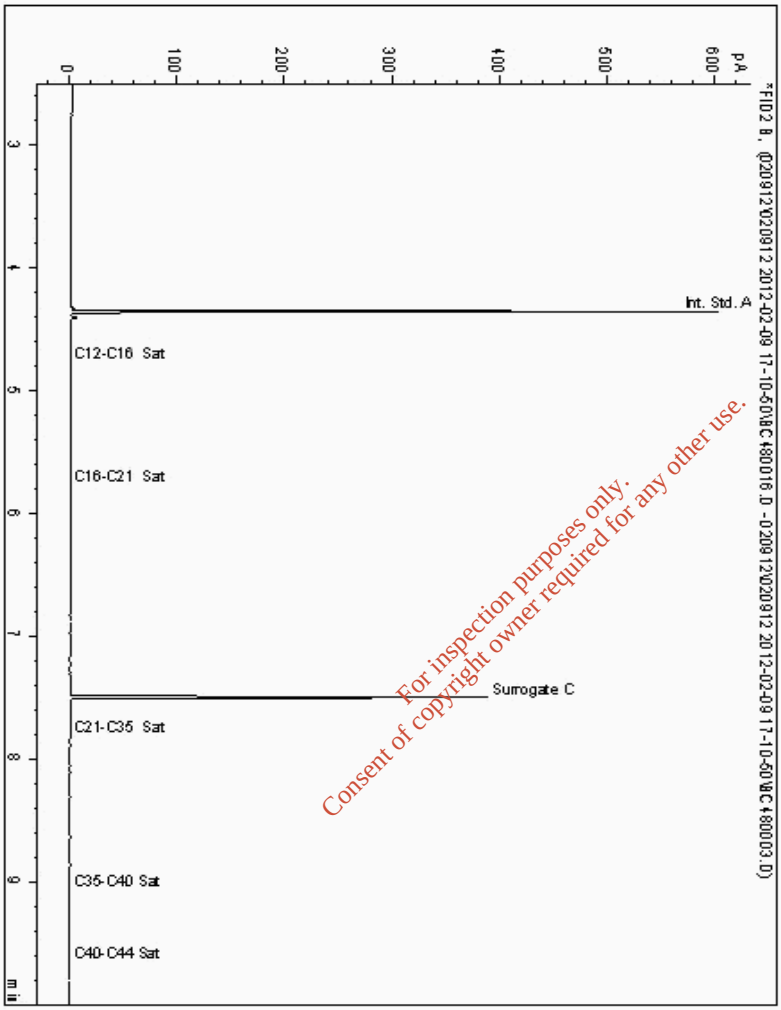
SDG:	120203-121	**Location:**	Limerick Gasworks	**Order Number:**	4500089829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	170465
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	170459

Chromatogram

Analysis: EPH CWG (Aliphatic) Aqueous GC (W) **Sample No :** 5132768 **Sample ID :** G5 **Depth :** 3.00 - 4.00

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

Sample Identity: 5033183-5132768
Date Acquired : 09/02/12 22:00:14
Units : ppb
Dilution :
CF : 1
Multiplier : 0.008



CERTIFICATE OF ANALYSIS

SDG:	120203-121	**Location:**	Limerick Gasworks	**Order Number:**	4500089829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	170465
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	170459

Chromatogram

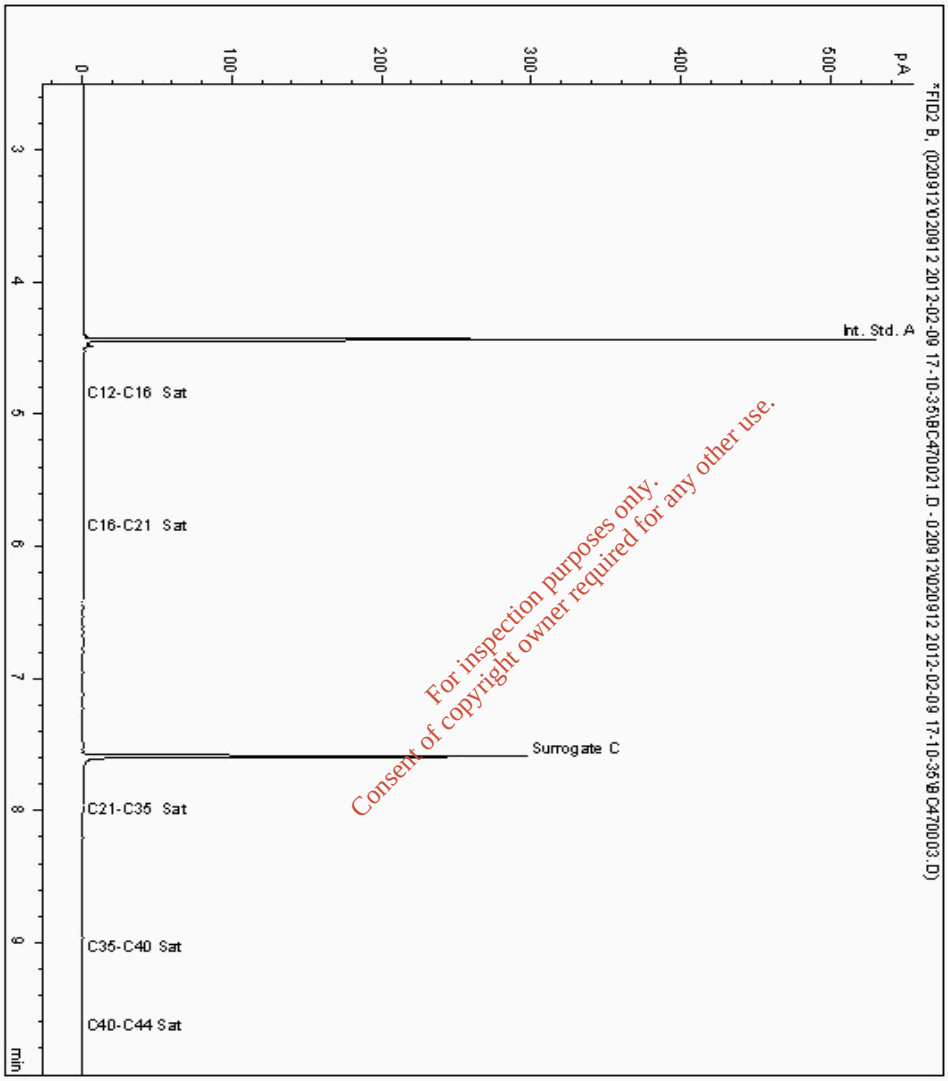
Analysis: EPH CWG (Aliphatic) Aqueous GC (W)

Sample No : 5132792
Sample ID : K1

Depth : 2.00 - 3.00

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

Sample Identity: 5033275-5132792
Date Acquired : 09/02/12 23:39:11
Units : ppb
Dilution :
CF : 1
Multiplier : 0.008



CERTIFICATE OF ANALYSIS

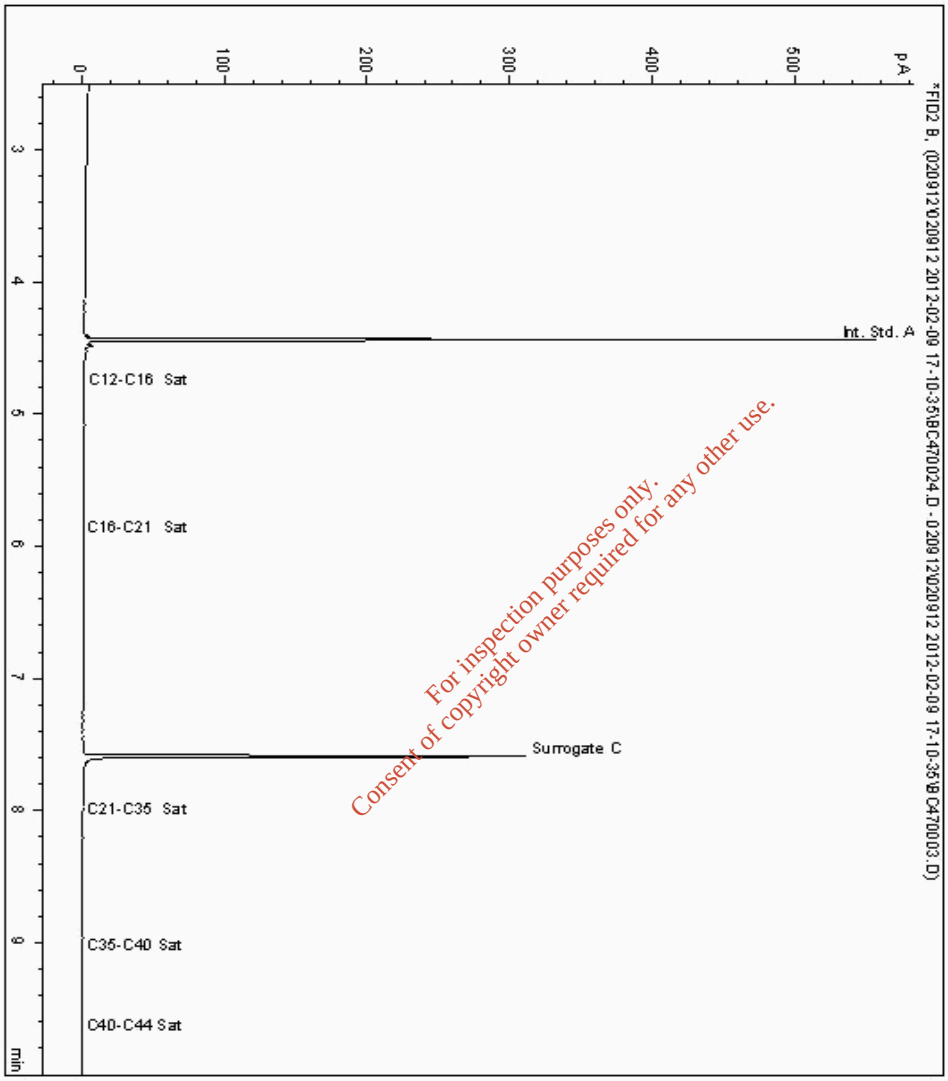
SDG:	120203-121	**Location:**	Limerick Gasworks	**Order Number:**	4500089829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	170465
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	170459

Chromatogram

Analysis: EPH CWG (Aliphatic) Aqueous GC (W) **Sample No :** 5132830 **Sample ID :** K5 **Depth :** 1.00 - 2.00

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

Sample Identity: 5033306-5132830
Date Acquired : 10/02/12 00:27:29
Units : ppb
Dilution :
CF : 1
Multiplier : 0.083



CERTIFICATE OF ANALYSIS

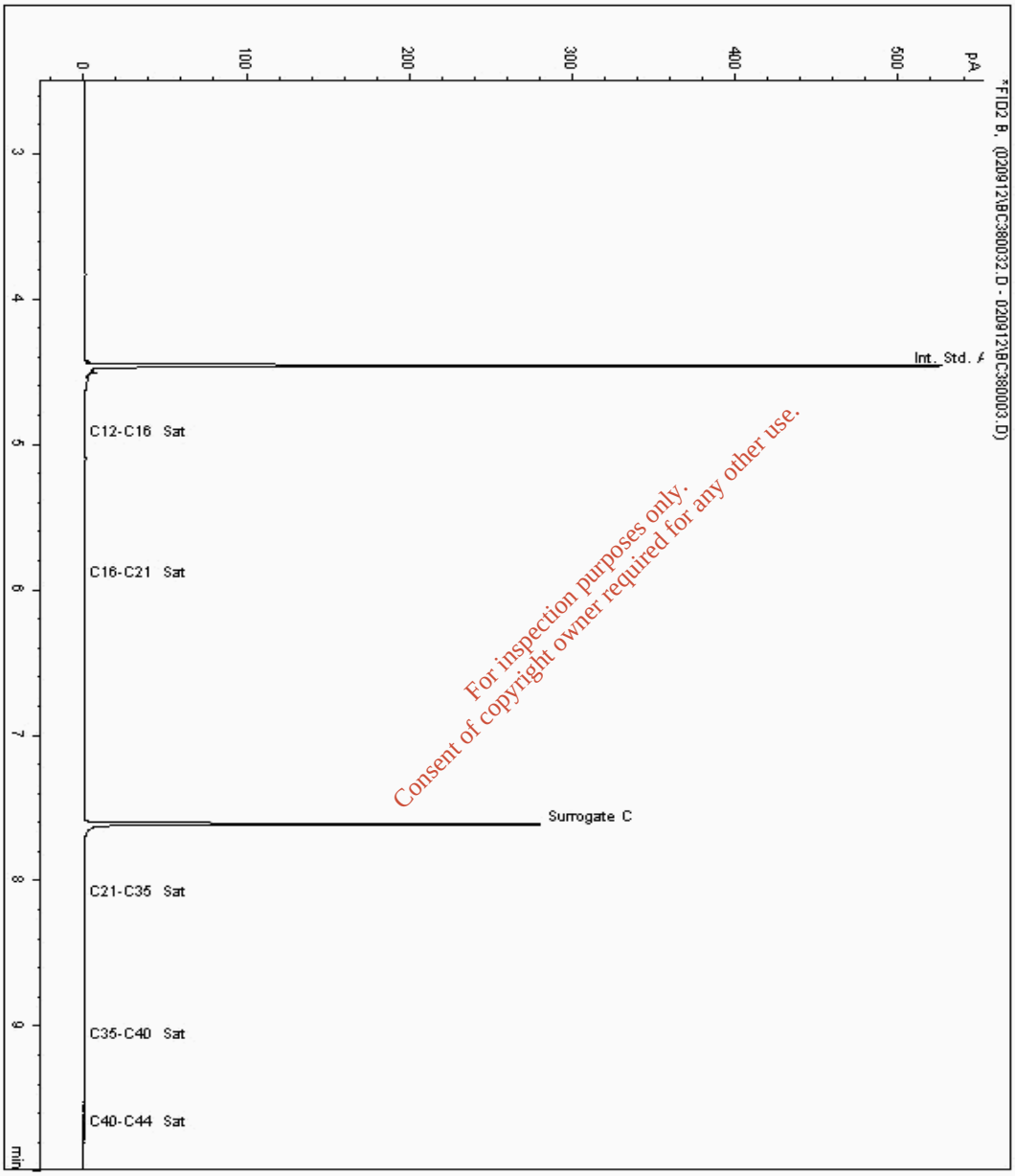
SDG:	120203-121	**Location:**	Limerick Gasworks	**Order Number:**	4500089829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	170465
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	170459

Chromatogram

Analysis: EPH CWG (Aliphatic) Aqueous GC (W) **Sample No :** 5132836 **Sample ID :** G3 **Depth :** 2.50 - 3.50

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

Sample Identity: 5033152-5132836
Date Acquired : 10/02/12 01:49:12 PM
Units : ppb
Dilution :
CF : 1
Multiplier : 0.008



CERTIFICATE OF ANALYSIS

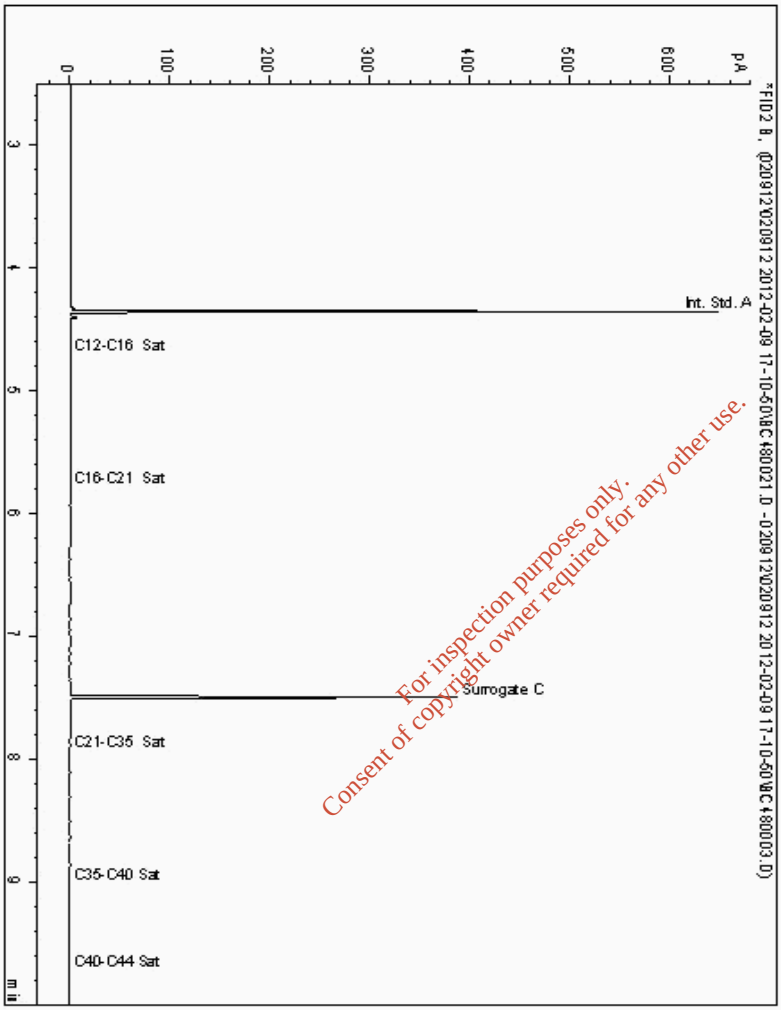
SDG:	120203-121	**Location:**	Limerick Gasworks	**Order Number:**	4500089829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	170465
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	170459

Chromatogram

Analysis: EPH CWG (Aliphatic) Aqueous GC (W) **Sample No :** 5132919 **Sample ID :** H12 **Depth :** 1.10 - 2.00

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

Sample Identity: 5033337-5132919
Date Acquired : 09/02/12 23:17:26
Units : ppb
Dilution :
CF : 1
Multiplier : 0.008



CERTIFICATE OF ANALYSIS

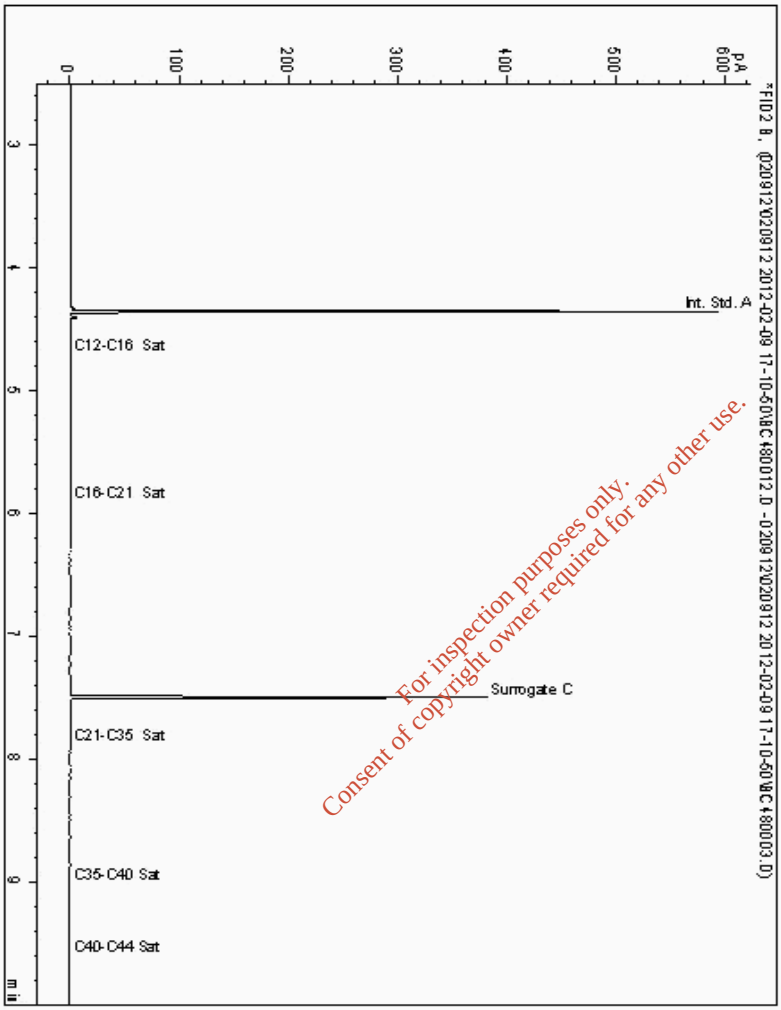
SDG:	120203-121	**Location:**	Limerick Gasworks	**Order Number:**	4500089829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	170465
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	170459

Chromatogram

Analysis: EPH CWG (Aliphatic) Aqueous GC (W) **Sample No :** 5132936 **Sample ID :** G4 **Depth :** 3.00 - 4.00

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

Sample Identity: 5033167-5132936
Date Acquired : 09/02/12 21:02:44
Units : ppb
Dilution :
CF : 1
Multiplier : 0.008



CERTIFICATE OF ANALYSIS

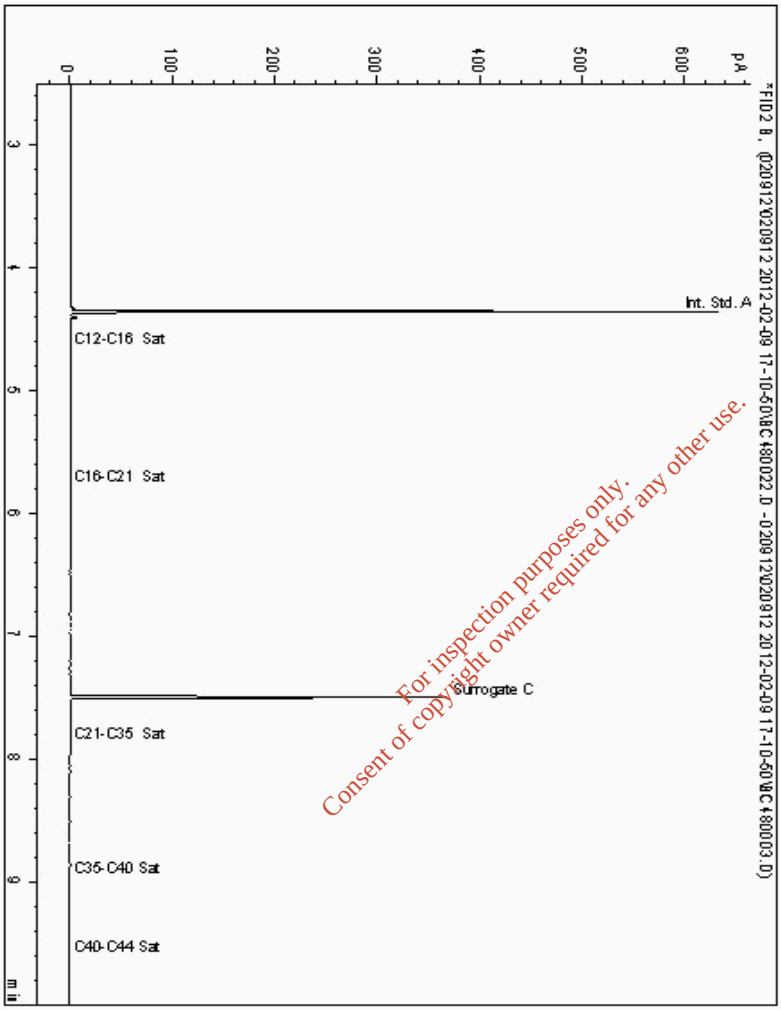
SDG:	120203-121	**Location:**	Limerick Gasworks	**Order Number:**	4500089829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	170465
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	170459

Chromatogram

Analysis: EPH CWG (Aliphatic) Aqueous GC (W) **Sample No :** 5133002 **Sample ID :** J10 **Depth :** 0.00 - 1.00

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

Sample Identity: 5033322-5133002
Date Acquired : 09/02/12 23:36:35
Units : ppb
Dilution :
CF : 1
Multiplier : 0.008

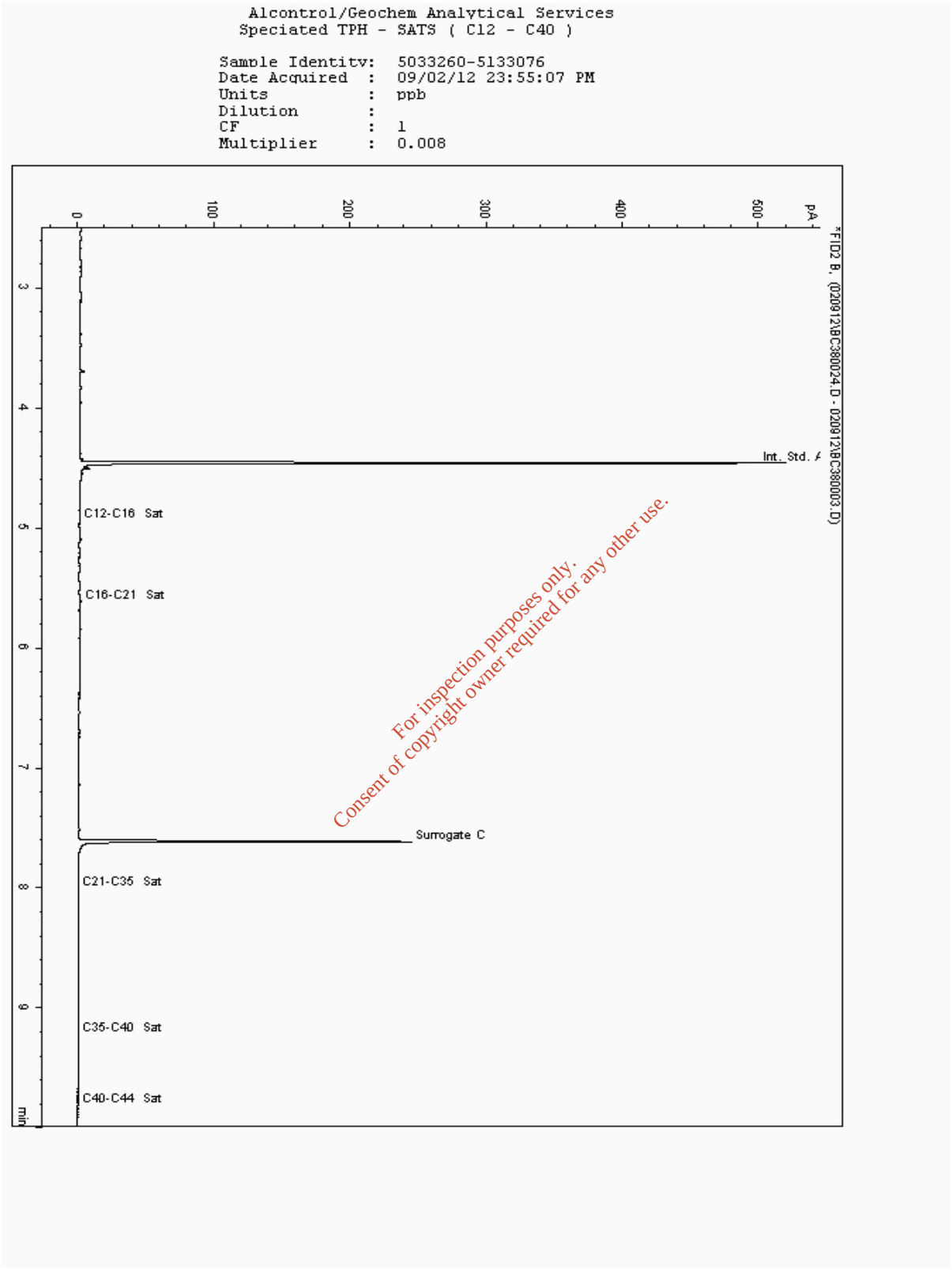


CERTIFICATE OF ANALYSIS

SDG:	120203-121	**Location:**	Limerick Gasworks	**Order Number:**	4500089829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	170465
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	170459

Chromatogram

Analysis: EPH CWG (Aliphatic) Aqueous GC (W) **Sample No :** 5133076 **Sample ID :** G8 **Depth :** 1.50 - 2.40



CERTIFICATE OF ANALYSIS

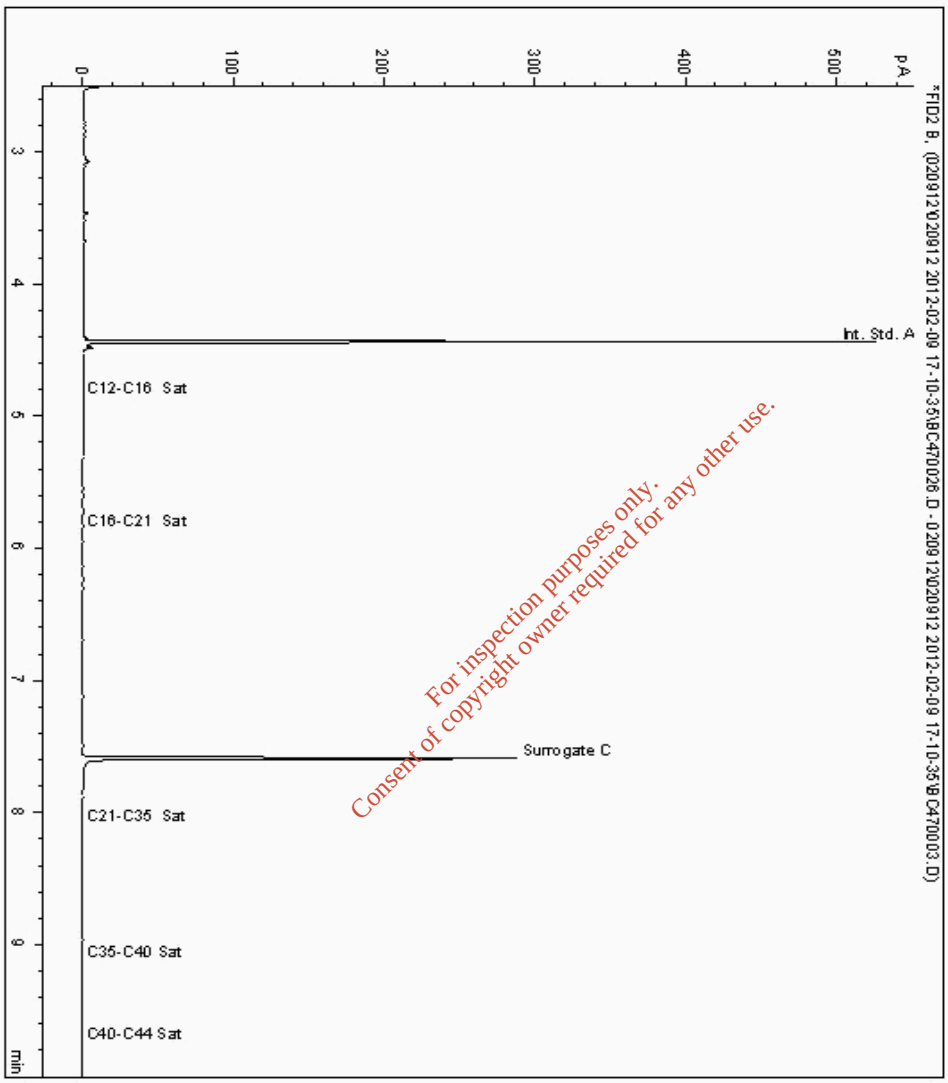
SDG:	120203-121	**Location:**	Limerick Gasworks	**Order Number:**	4500089829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	170465
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	170459

Chromatogram

Analysis: EPH CWG (Aliphatic) Aqueous GC (W) **Sample No :** 5133090 **Sample ID :** G2 **Depth :** 3.00 - 4.00

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

Sample Identity: 5033136-5133090
Date Acquired : 10/02/12 00:56:29
Units : ppb
Dilution :
CF : 1
Multiplier : 0.008

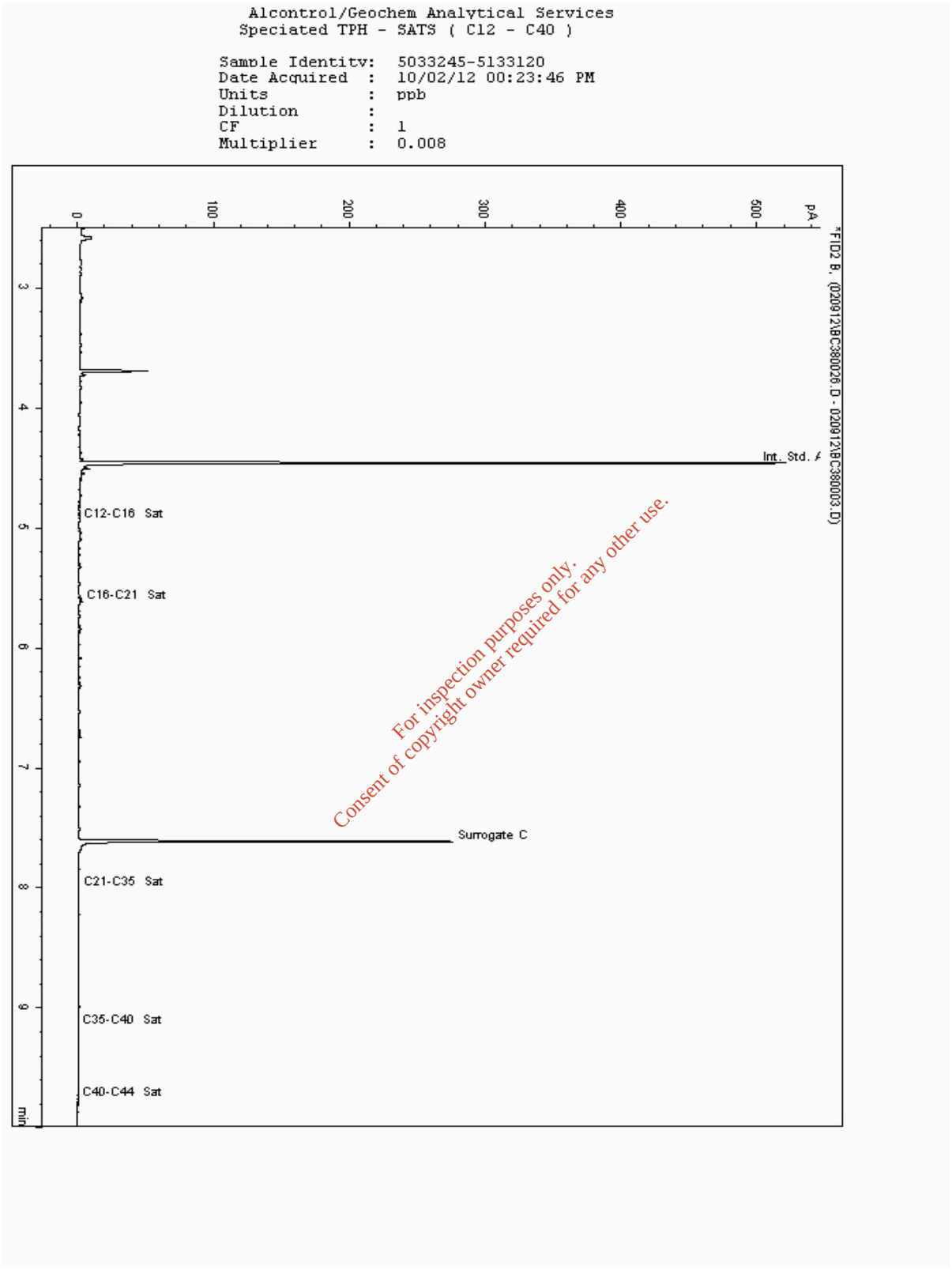


CERTIFICATE OF ANALYSIS

SDG:	120203-121	**Location:**	Limerick Gasworks	**Order Number:**	4500089829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	170465
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	170459

Chromatogram

Analysis: EPH CWG (Aliphatic) Aqueous GC (W) **Sample No :** 5133120 **Sample ID :** E8 **Depth :** 1.00 - 2.00



CERTIFICATE OF ANALYSIS

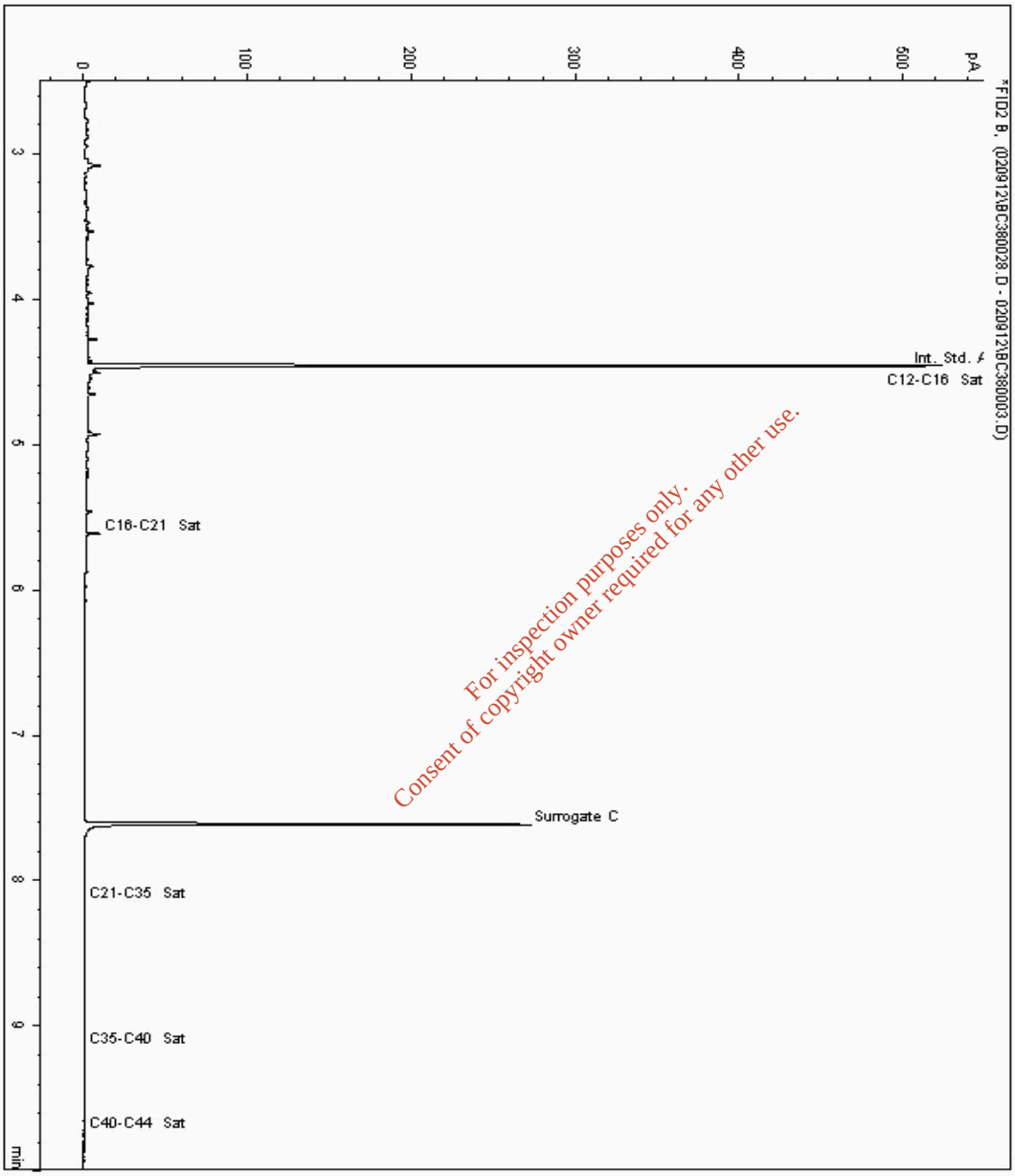
SDG:	120203-121	**Location:**	Limerick Gasworks	**Order Number:**	4500089829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	170465
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	170459

Chromatogram

Analysis: EPH CWG (Aliphatic) Aqueous GC (W) **Sample No :** 5133163 **Sample ID :** C11 **Depth :** 1.50 - 2.40

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

Sample Identity: 5033214-5133163
Date Acquired : 10/02/12 00:52:15 PM
Units : ppb
Dilution :
CF : 1
Multiplier : 0.008



CERTIFICATE OF ANALYSIS

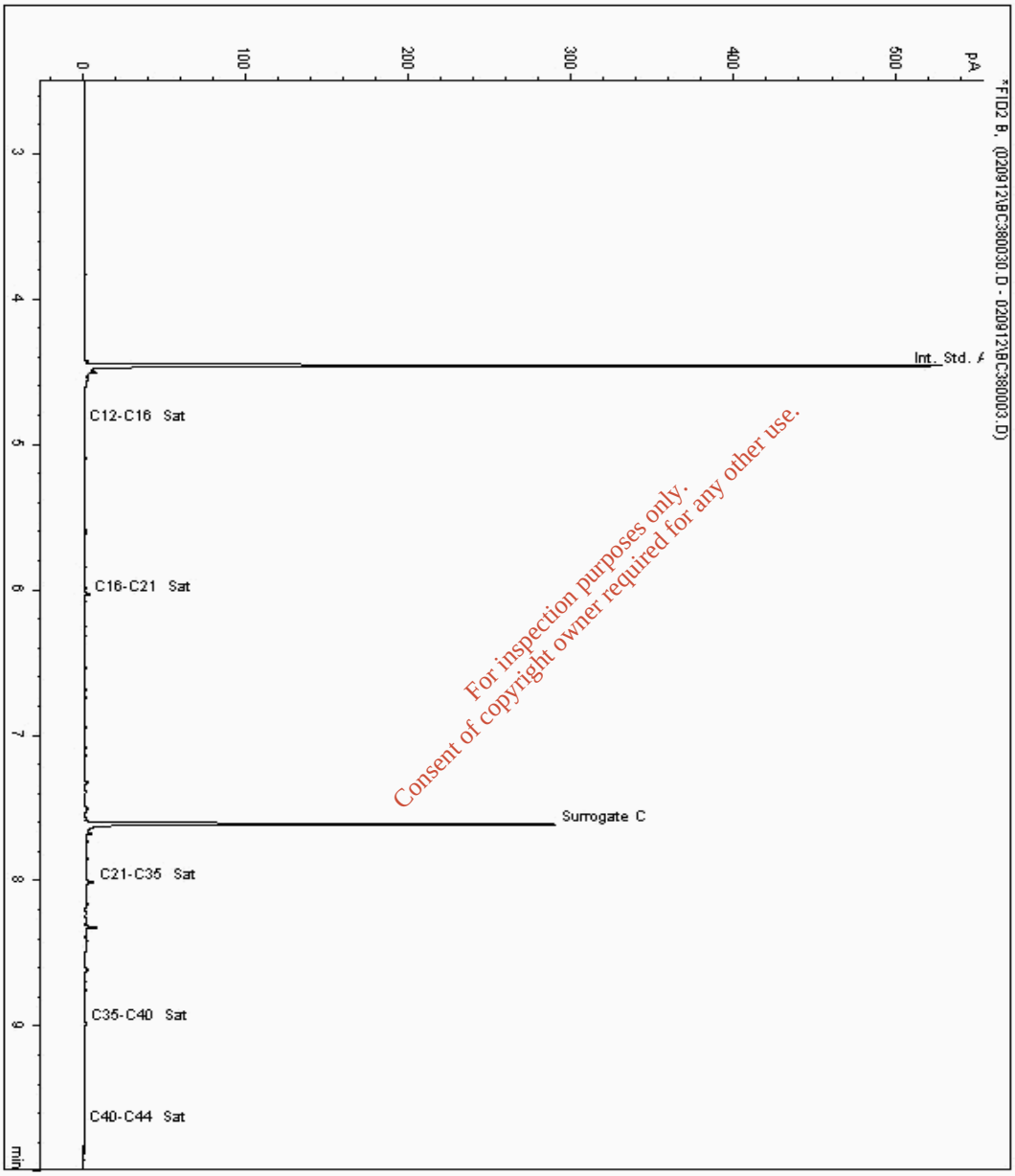
SDG:	120203-121	**Location:**	Limerick Gasworks	**Order Number:**	4500089829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	170465
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	170459

Chromatogram

Analysis: EPH CWG (Aliphatic) Aqueous GC (W) **Sample No :** 5133352 **Sample ID :** F11 **Depth :** 4.00 - 4.80

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

Sample Identity: 5033199-5133352
Date Acquired : 10/02/12 01:20:44 PM
Units : ppb
Dilution :
CF : 1
Multiplier : 0.008



CERTIFICATE OF ANALYSIS

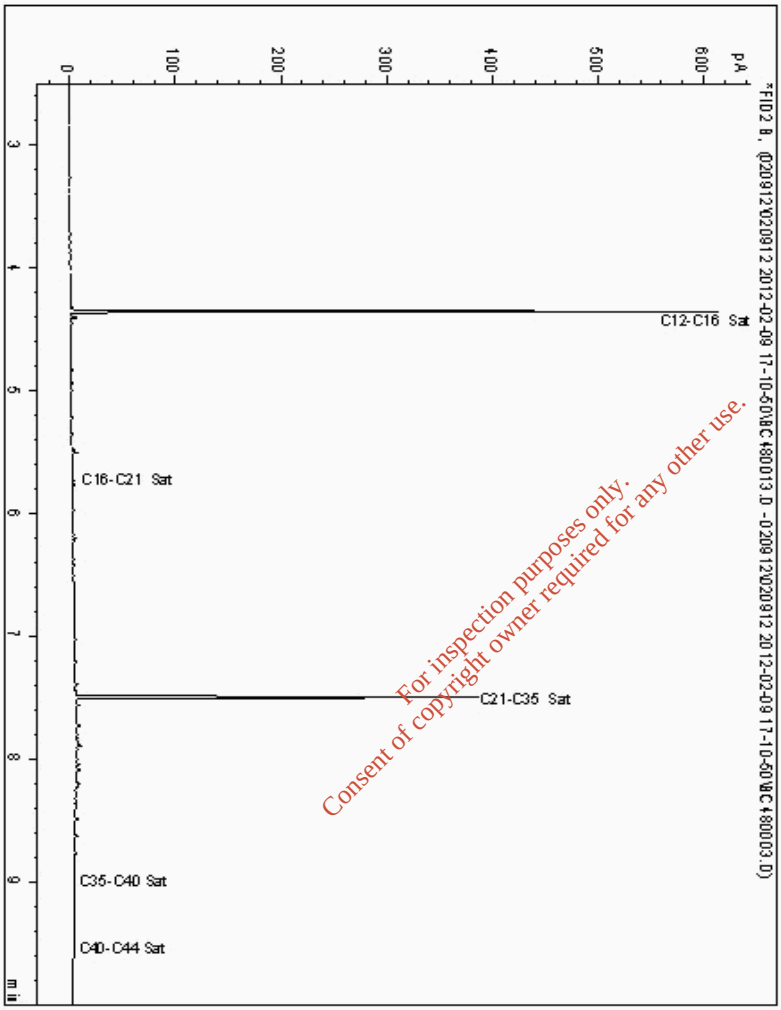
SDG:	120203-121	**Location:**	Limerick Gasworks	**Order Number:**	4500089829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	170465
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	170459

Chromatogram

Analysis: EPH CWG (Aliphatic) Aqueous GC (W) **Sample No :** 5133534 **Sample ID :** A11 **Depth :** 2.00 - 2.50

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

Sample Identity: 5033229-5133534
Date Acquired : 09/02/12 21:21:47
Units : ppb
Dilution :
CF : 1
Multiplier : 0.008



CERTIFICATE OF ANALYSIS

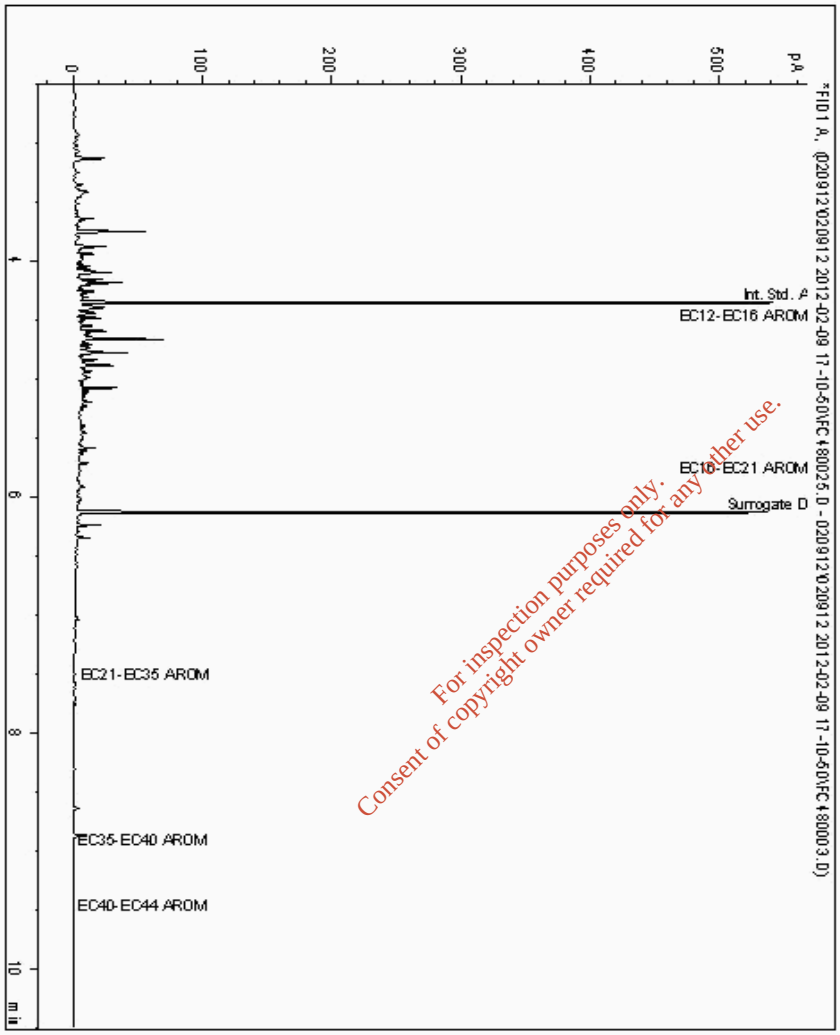
SDG:	120203-121	**Location:**	Limerick Gasworks	**Order Number:**	4500089829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	170465
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	170459

Chromatogram

Analysis: EPH CWG (Aromatic) Aqueous GC (W) **Sample No :** 5127838 **Sample ID :** A1 **Depth :** 2.50 - 3.50

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

Sample Identity: 5026631-5127838
Date Acquired : 10/02/12 00:33:57
Units :
Dilution :
CF : 1
Multiplier : 0.008



CERTIFICATE OF ANALYSIS

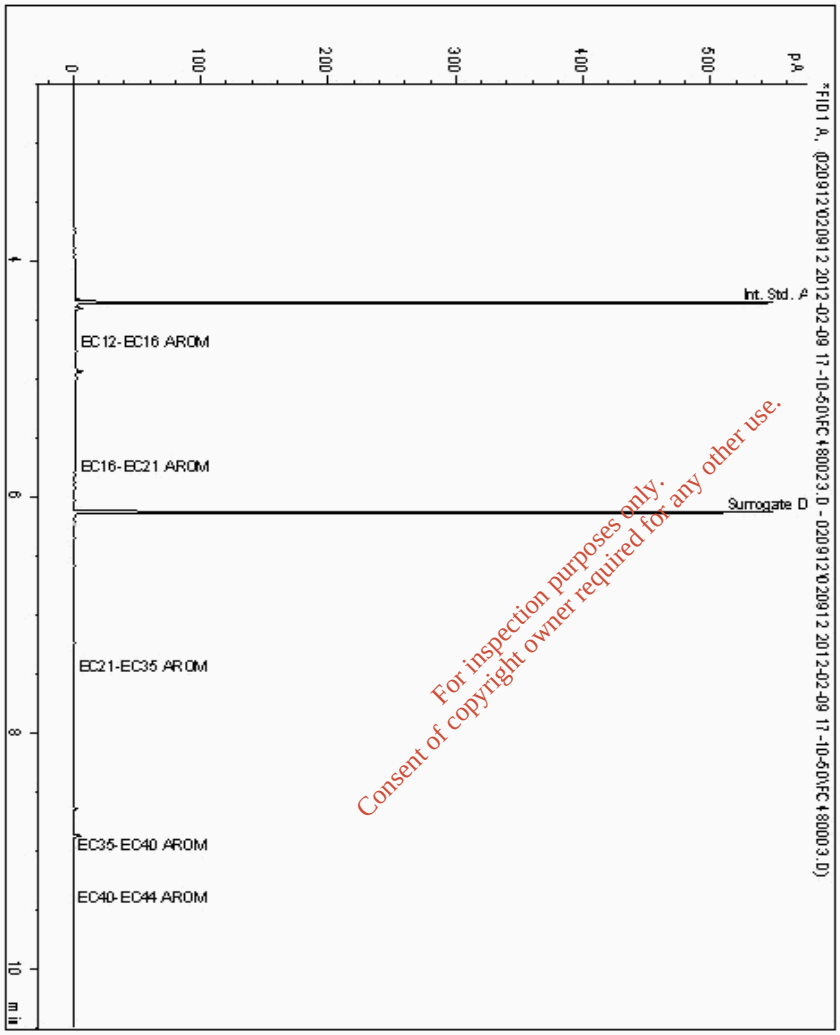
SDG:	120203-121	**Location:**	Limerick Gasworks	**Order Number:**	4500089829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	170465
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	170459

Chromatogram

Analysis: EPH CWG (Aromatic) Aqueous GC (W) **Sample No :** 5127911 **Sample ID :** A4 **Depth :** 3.00 - 4.00

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

Sample Identity: 5026599-5127911
Date Acquired : 09/02/12 23:55:38
Units :
Dilution :
CF : 1
Multiplier : 0.008

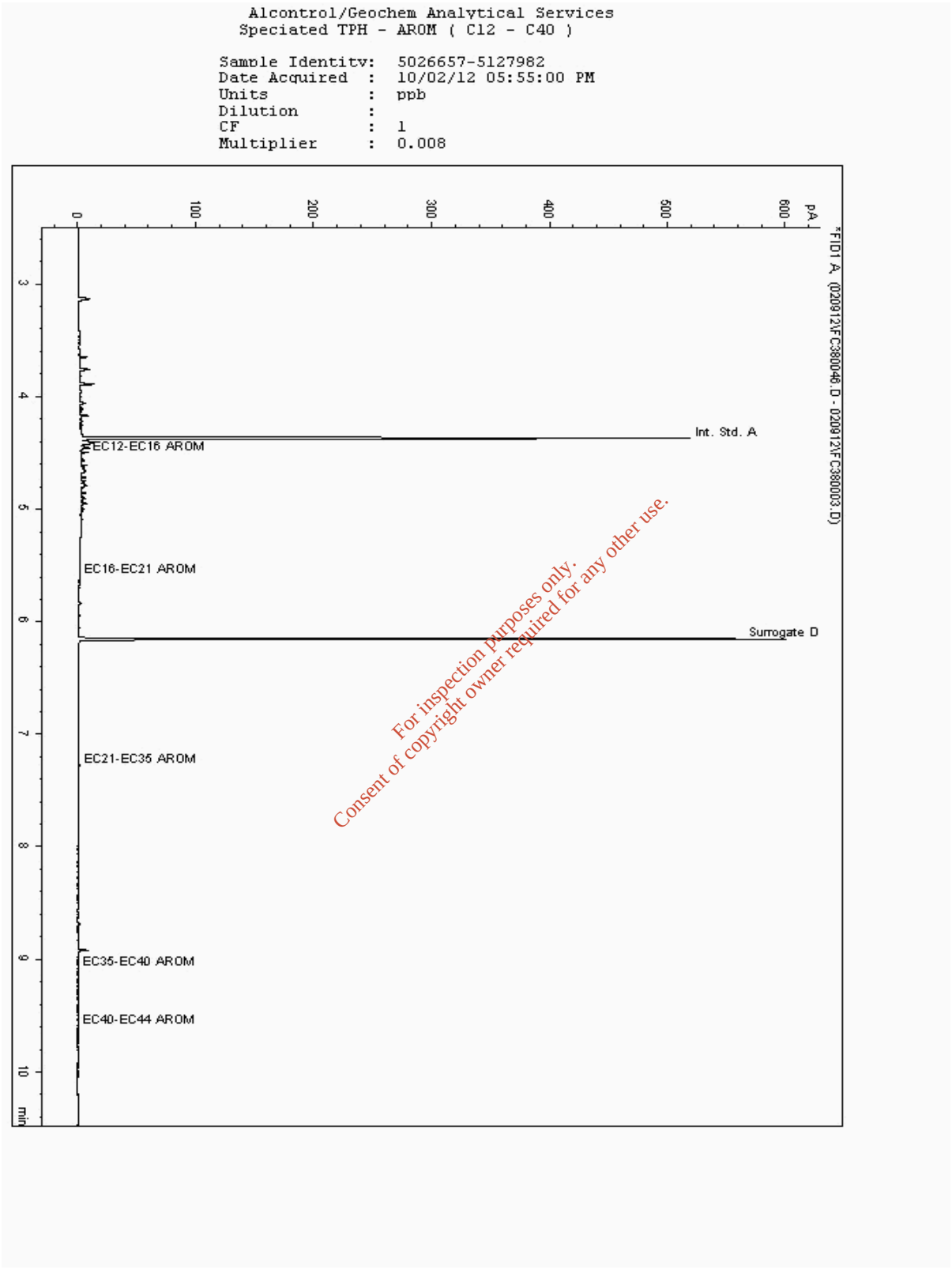


CERTIFICATE OF ANALYSIS

SDG:	120203-121	**Location:**	Limerick Gasworks	**Order Number:**	4500089829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	170465
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	170459

Chromatogram

Analysis: EPH CWG (Aromatic) Aqueous GC (W) **Sample No :** 5127982 **Sample ID :** C2 **Depth :** 2.00 - 2.50



CERTIFICATE OF ANALYSIS

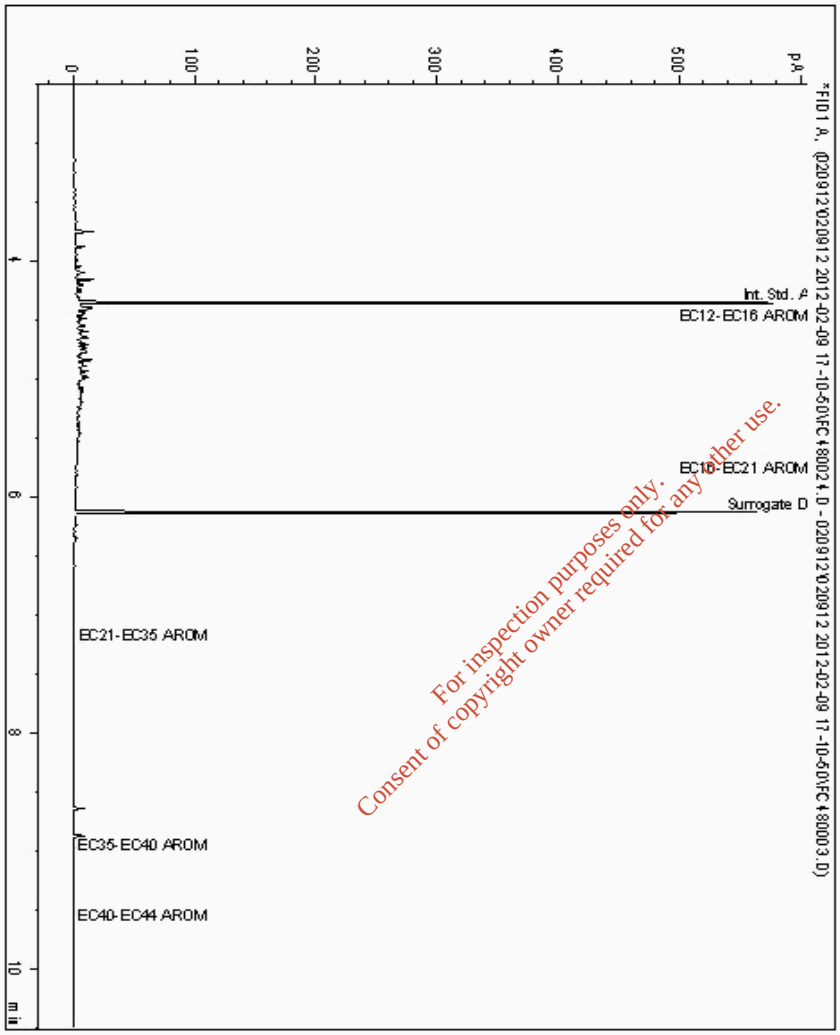
SDG:	120203-121	**Location:**	Limerick Gasworks	**Order Number:**	4500089829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	170465
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	170459

Chromatogram

Analysis: EPH CWG (Aromatic) Aqueous GC (W) **Sample No :** 5128048 **Sample ID :** A3 **Depth :** 1.50 - 2.00

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

Sample Identity: 5026615-5128048
Date Acquired : 10/02/12 00:14:56
Units :
Dilution :
CF : 1
Multiplier : 0.008

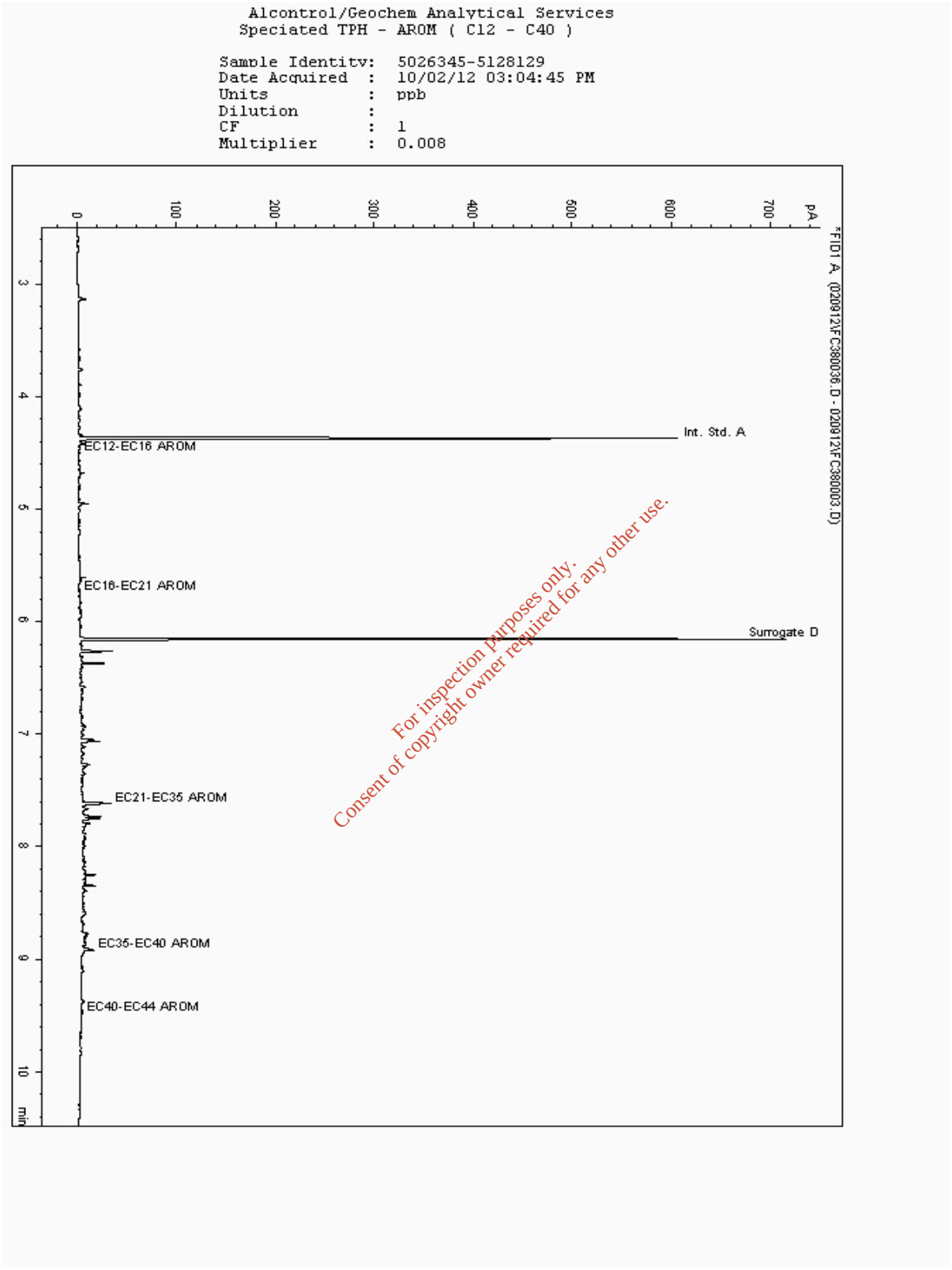


CERTIFICATE OF ANALYSIS

SDG:	120203-121	**Location:**	Limerick Gasworks	**Order Number:**	4500089829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	170465
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	170459

Chromatogram

Analysis: EPH CWG (Aromatic) Aqueous GC (W) **Sample No :** 5128129 **Sample ID :** D5 **Depth :** 1.50 - 1.90



CERTIFICATE OF ANALYSIS

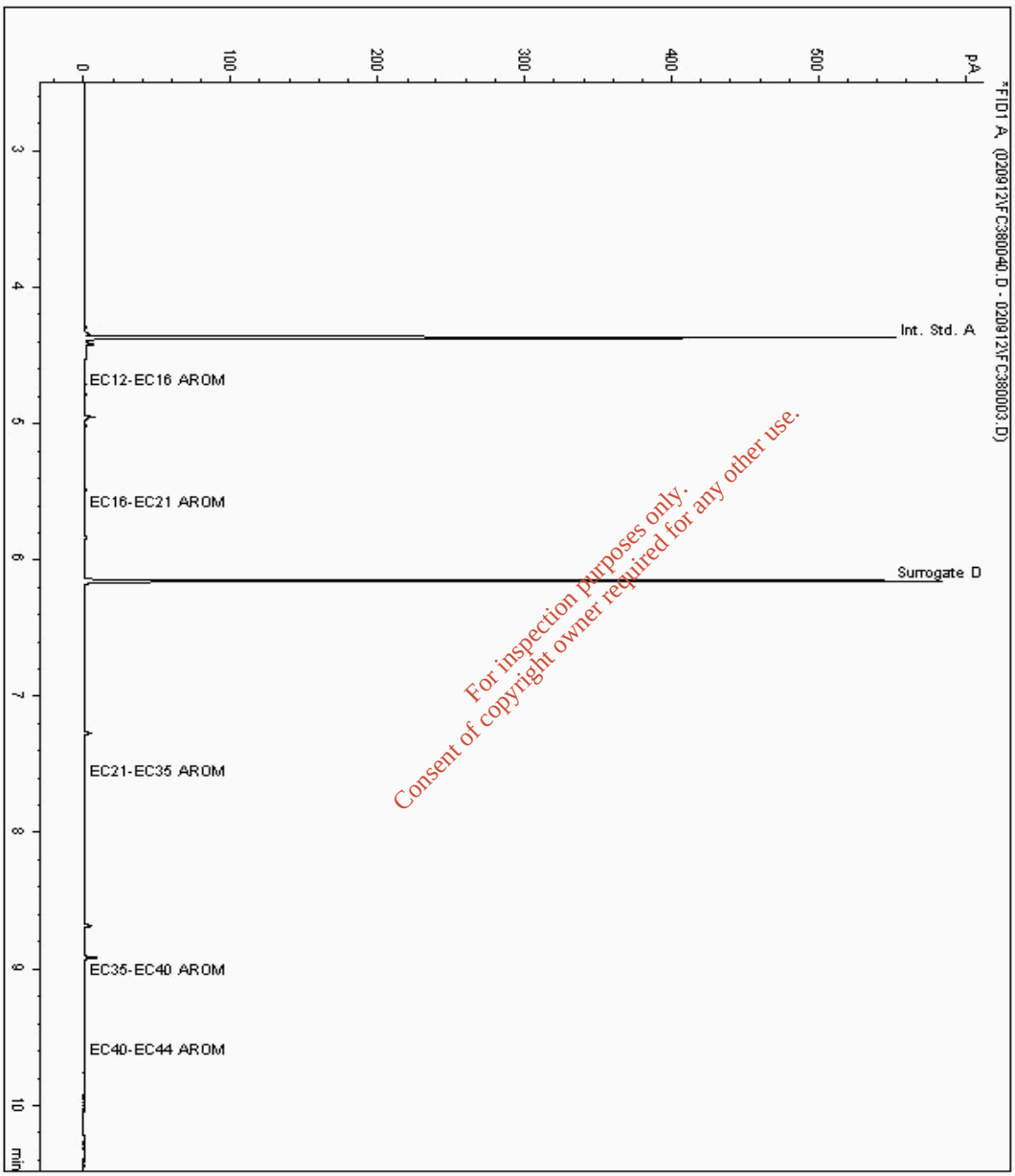
SDG:	120203-121	**Location:**	Limerick Gasworks	**Order Number:**	4500089829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	170465
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	170459

Chromatogram

Analysis: EPH CWG (Aromatic) Aqueous GC (W) **Sample No :** 5128862 **Sample ID :** A9 **Depth :** 2.00 - 2.40

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

Sample Identity: 5026314-5128862
Date Acquired : 10/02/12 04:01:39 PM
Units : ppb
Dilution :
CF : 1
Multiplier : 0.008

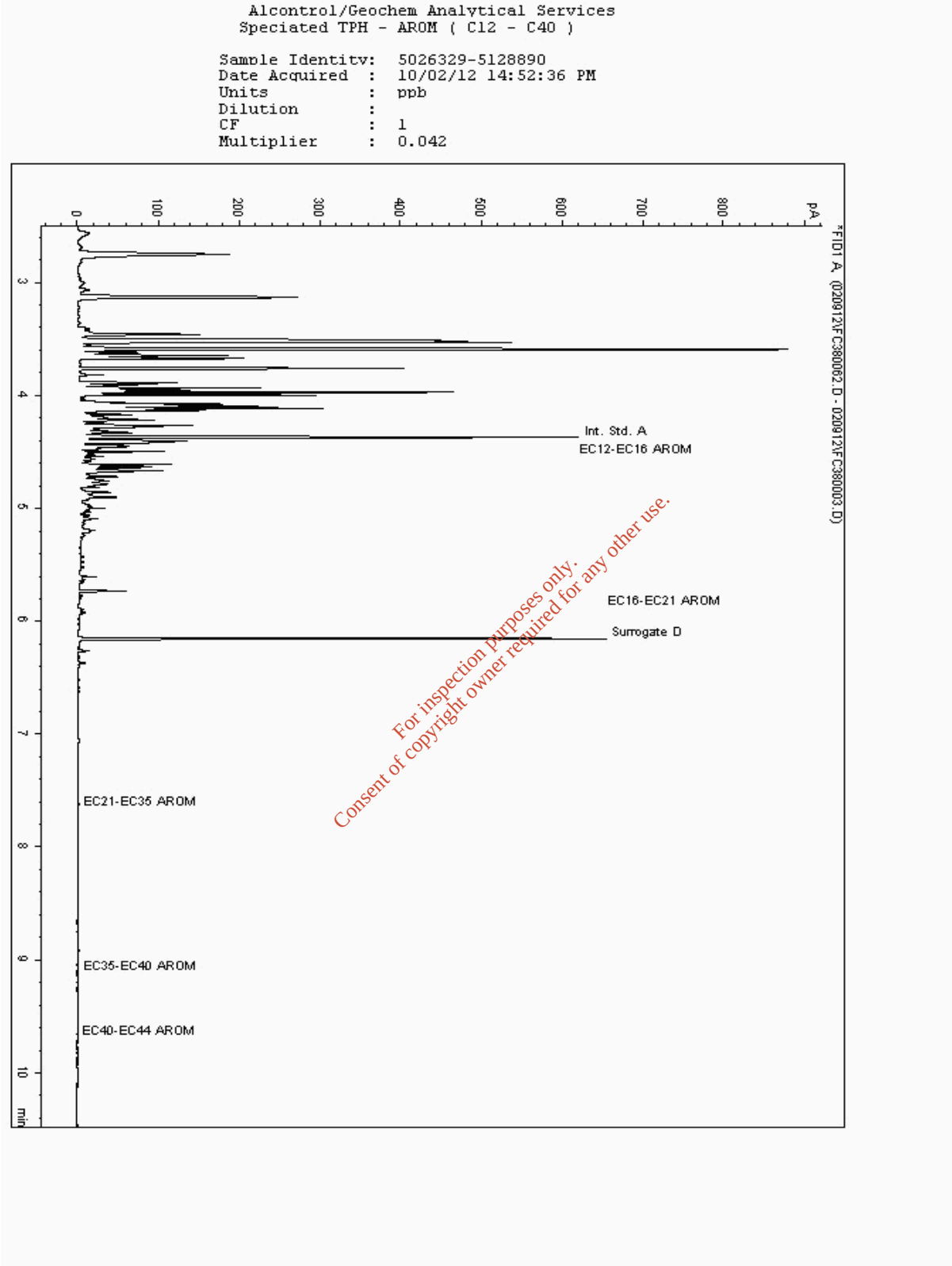


CERTIFICATE OF ANALYSIS

SDG:	120203-121	**Location:**	Limerick Gasworks	**Order Number:**	4500089829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	170465
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	170459

Chromatogram

Analysis: EPH CWG (Aromatic) Aqueous GC (W) **Sample No :** 5128890 **Sample ID :** C7 **Depth :** 5.50 - 6.50



CERTIFICATE OF ANALYSIS

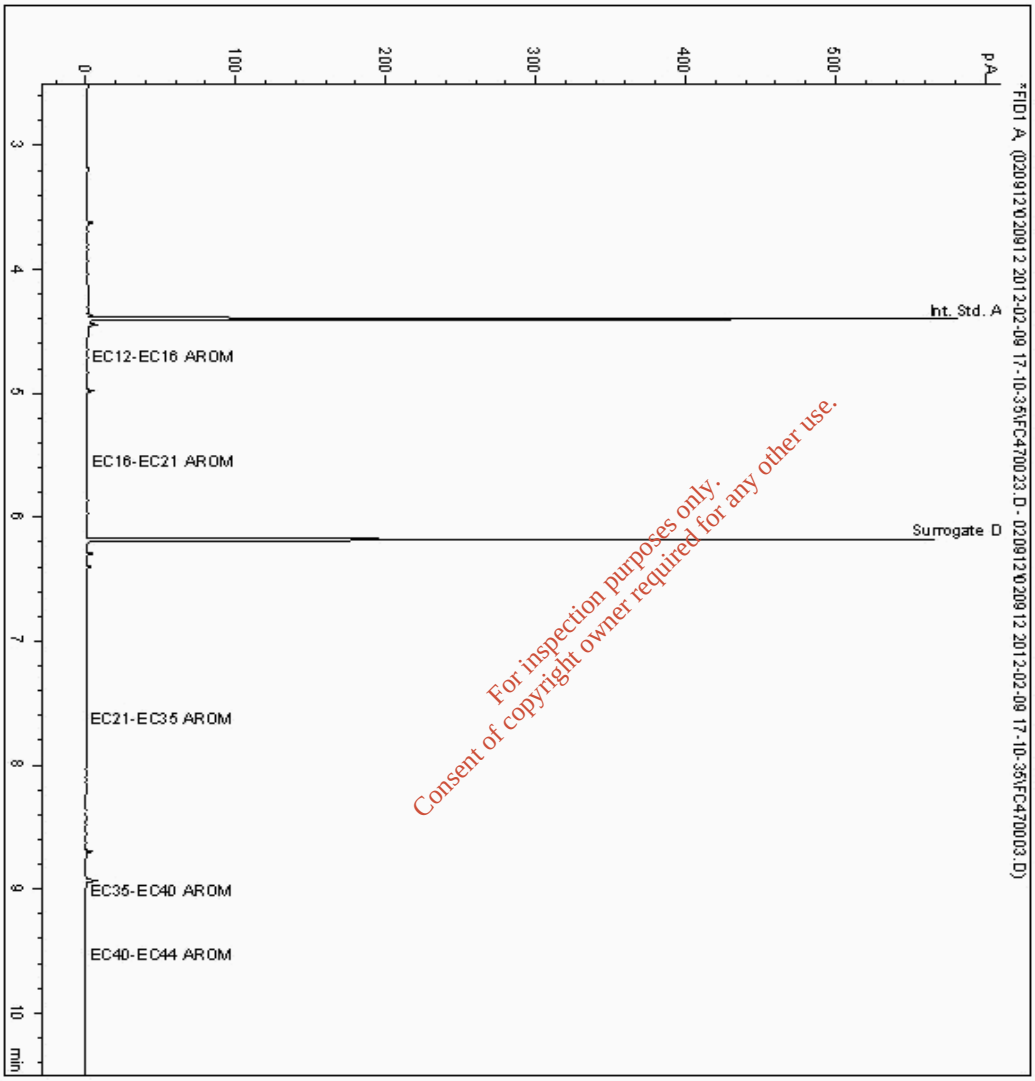
SDG:	120203-121	**Location:**	Limerick Gasworks	**Order Number:**	4500089829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	170465
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	170459

Chromatogram

Analysis: EPH CWG (Aromatic) Aqueous GC (W) **Sample No :** 5132719 **Sample ID :** M3 **Depth :** 2.70 - 3.70

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

Sample Identity: 5033291-5132719
Date Acquired : 10/02/12 00:08:24
Units :
Dilution :
CF : 1
Multiplier : 0.008

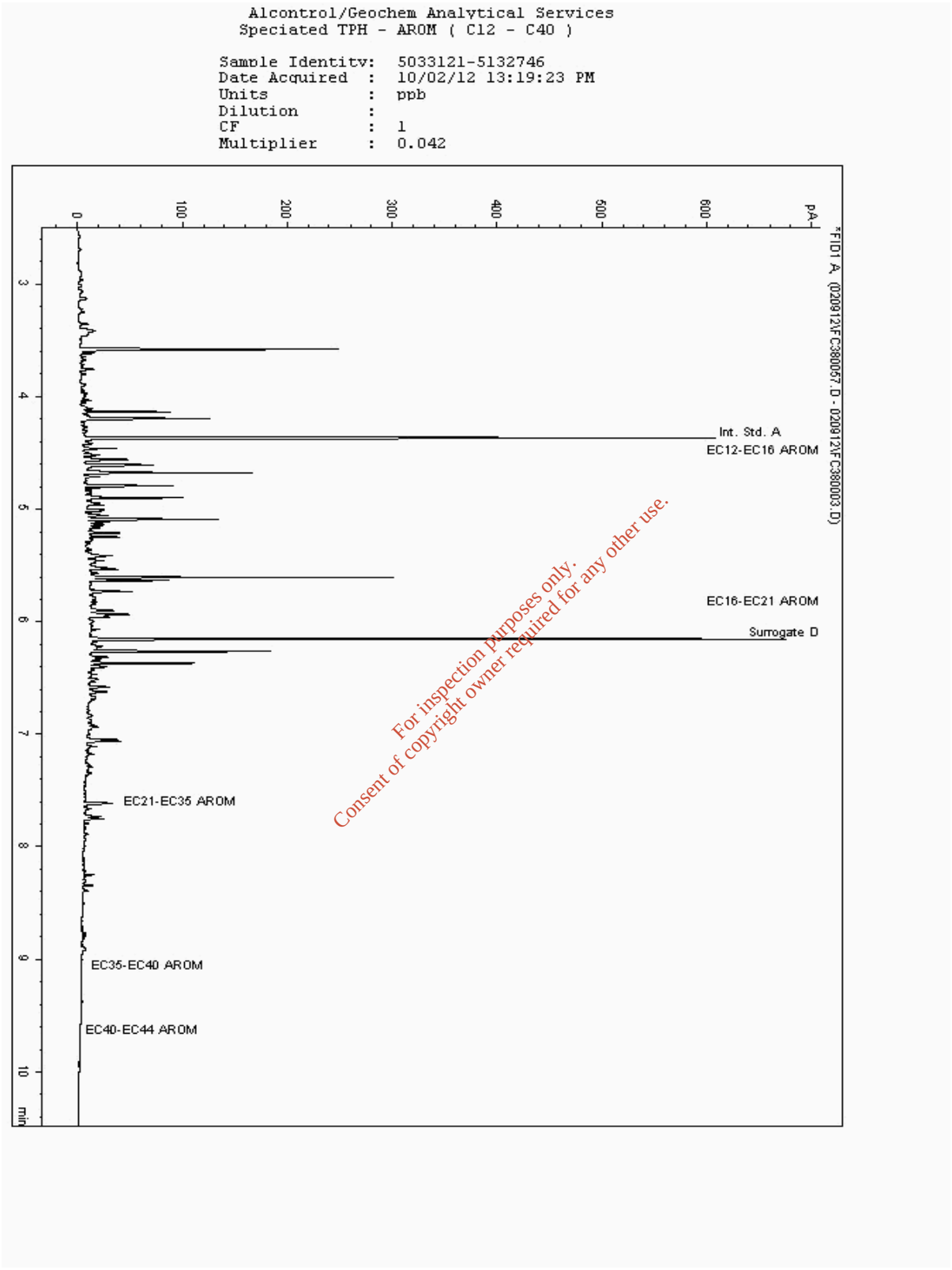


CERTIFICATE OF ANALYSIS

SDG:	120203-121	**Location:**	Limerick Gasworks	**Order Number:**	4500089829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	170465
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	170459

Chromatogram

Analysis: EPH CWG (Aromatic) Aqueous GC (W) **Sample No :** 5132746 **Sample ID :** D1 **Depth :** 3.00 - 4.00



CERTIFICATE OF ANALYSIS

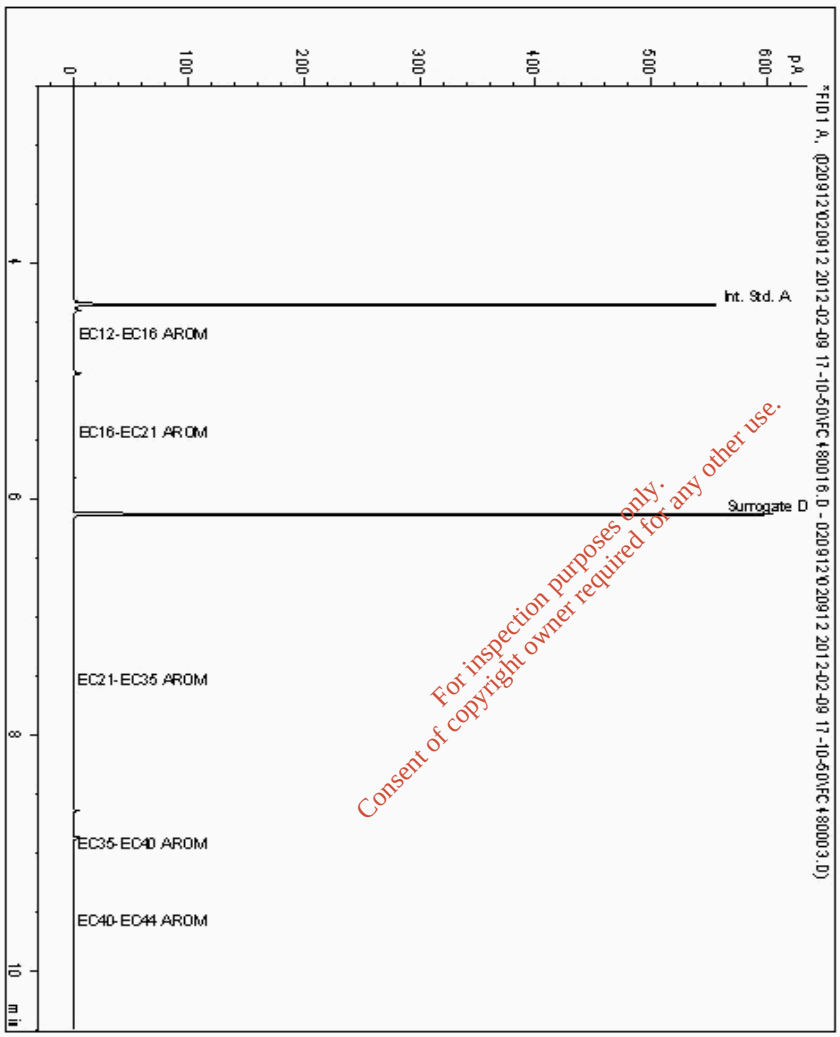
SDG:	120203-121	**Location:**	Limerick Gasworks	**Order Number:**	4500089829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	170465
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	170459

Chromatogram

Analysis: EPH CWG (Aromatic) Aqueous GC (W) **Sample No :** 5132768 **Sample ID :** G5 **Depth :** 3.00 - 4.00

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

Sample Identity: 5033184-5132768
Date Acquired : 09/02/12 22:00:14
Units :
Dilution :
CF : 1
Multiplier : 0.008



CERTIFICATE OF ANALYSIS

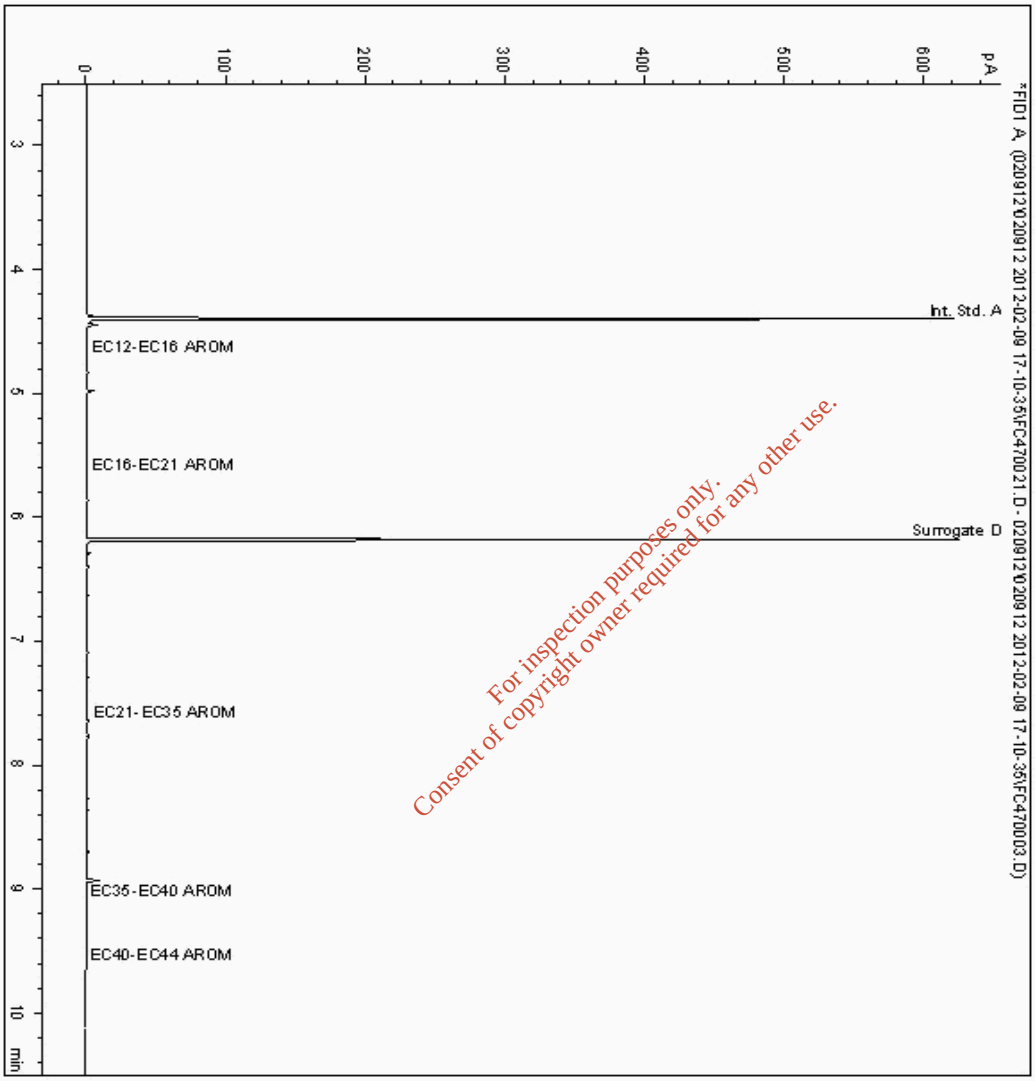
SDG:	120203-121	**Location:**	Limerick Gasworks	**Order Number:**	4500089829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	170465
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	170459

Chromatogram

Analysis: EPH CWG (Aromatic) Aqueous GC (W) **Sample No :** 5132792 **Sample ID :** K1 **Depth :** 2.00 - 3.00

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

Sample Identity: 5033276-5132792
Date Acquired : 09/02/12 23:39:11
Units :
Dilution :
CF : 1
Multiplier : 0.008



CERTIFICATE OF ANALYSIS

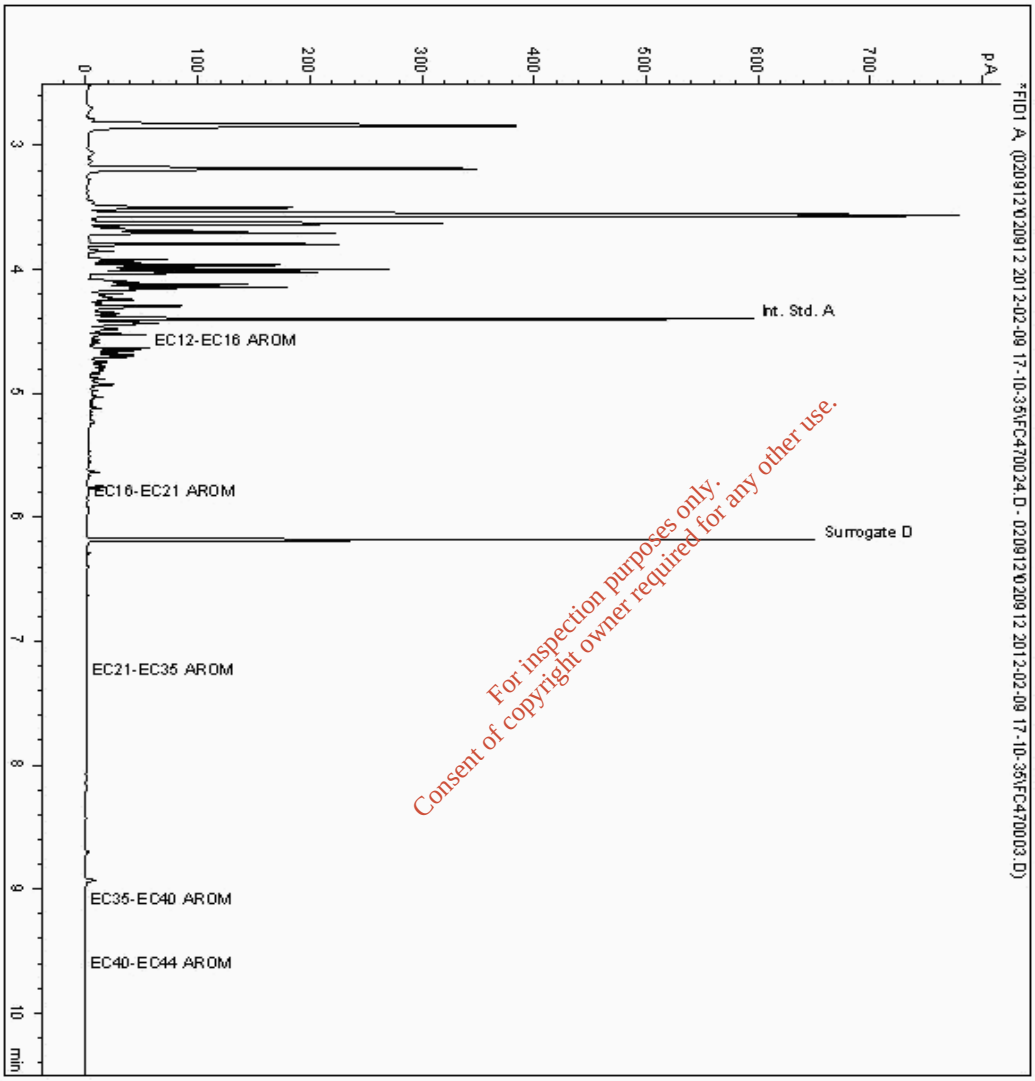
SDG:	120203-121	**Location:**	Limerick Gasworks	**Order Number:**	4500089829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	170465
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	170459

Chromatogram

Analysis: EPH CWG (Aromatic) Aqueous GC (W) **Sample No :** 5132830 **Sample ID :** K5 **Depth :** 1.00 - 2.00

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

Sample Identity: 5033307-5132830
Date Acquired : 10/02/12 00:27:30
Units :
Dilution :
CF : 1
Multiplier : 0.083

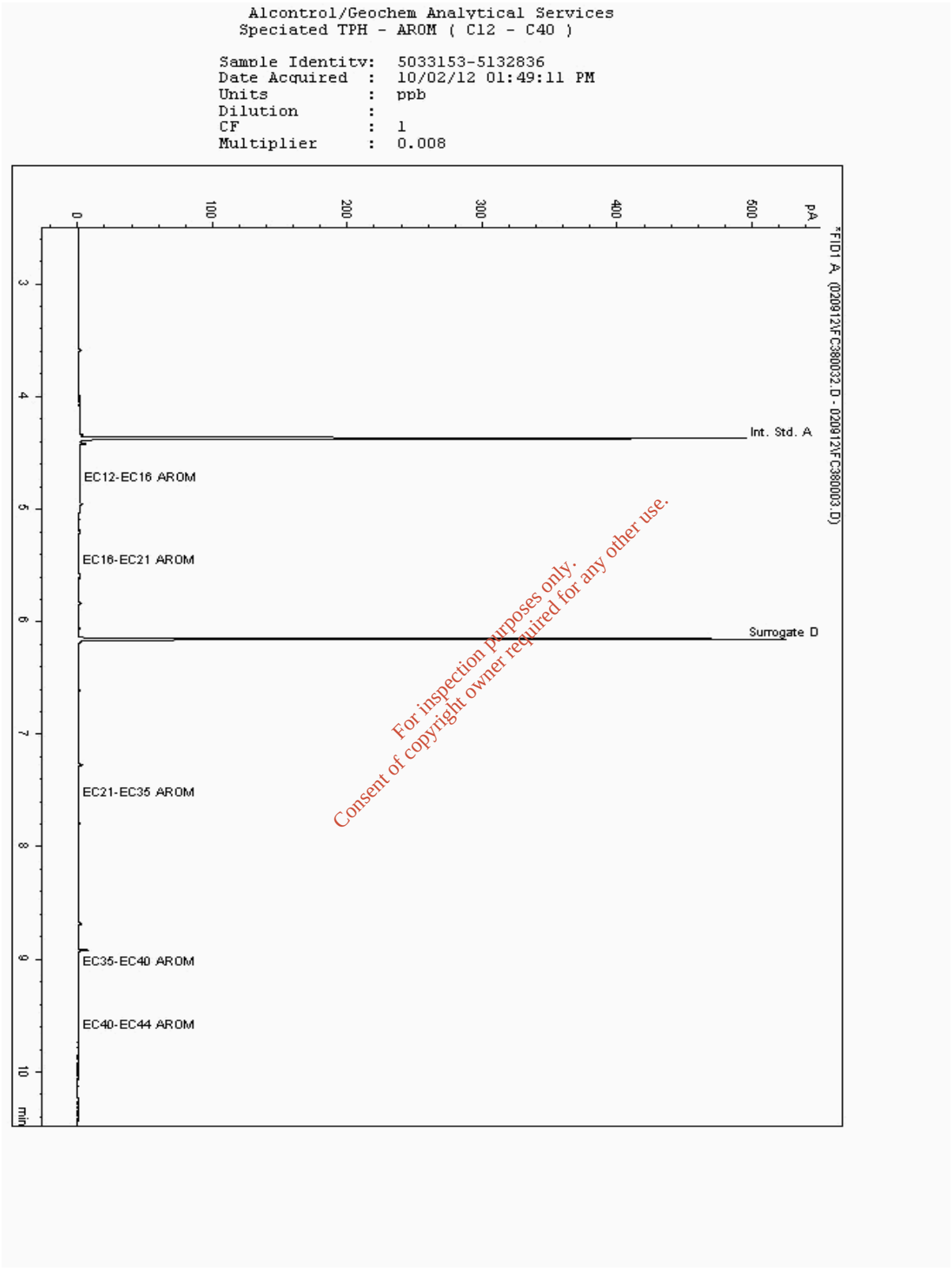


CERTIFICATE OF ANALYSIS

SDG:	120203-121	**Location:**	Limerick Gasworks	**Order Number:**	4500089829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	170465
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	170459

Chromatogram

Analysis: EPH CWG (Aromatic) Aqueous GC (W) **Sample No :** 5132836 **Sample ID :** G3 **Depth :** 2.50 - 3.50



CERTIFICATE OF ANALYSIS

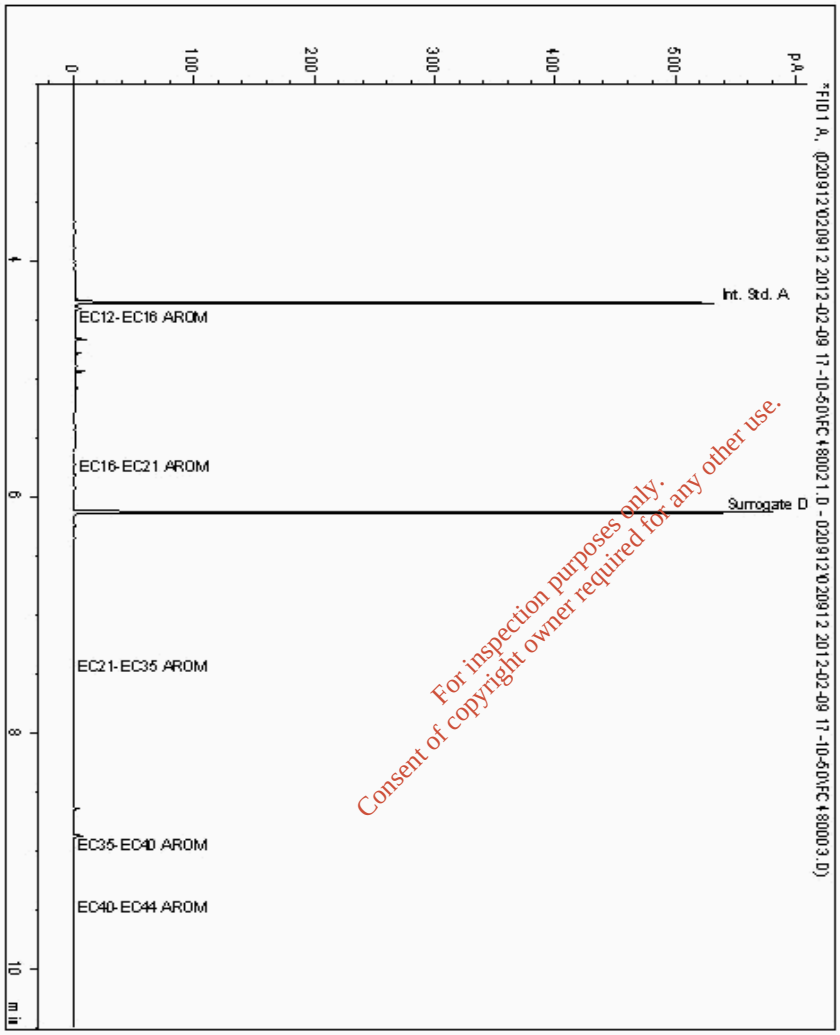
SDG:	120203-121	**Location:**	Limerick Gasworks	**Order Number:**	4500089829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	170465
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	170459

Chromatogram

Analysis: EPH CWG (Aromatic) Aqueous GC (W) **Sample No :** 5132919 **Sample ID :** H12 **Depth :** 1.10 - 2.00

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

Sample Identity: 5033338-5132919
Date Acquired : 09/02/12 23:17:26
Units :
Dilution :
CF : 1
Multiplier : 0.008



CERTIFICATE OF ANALYSIS

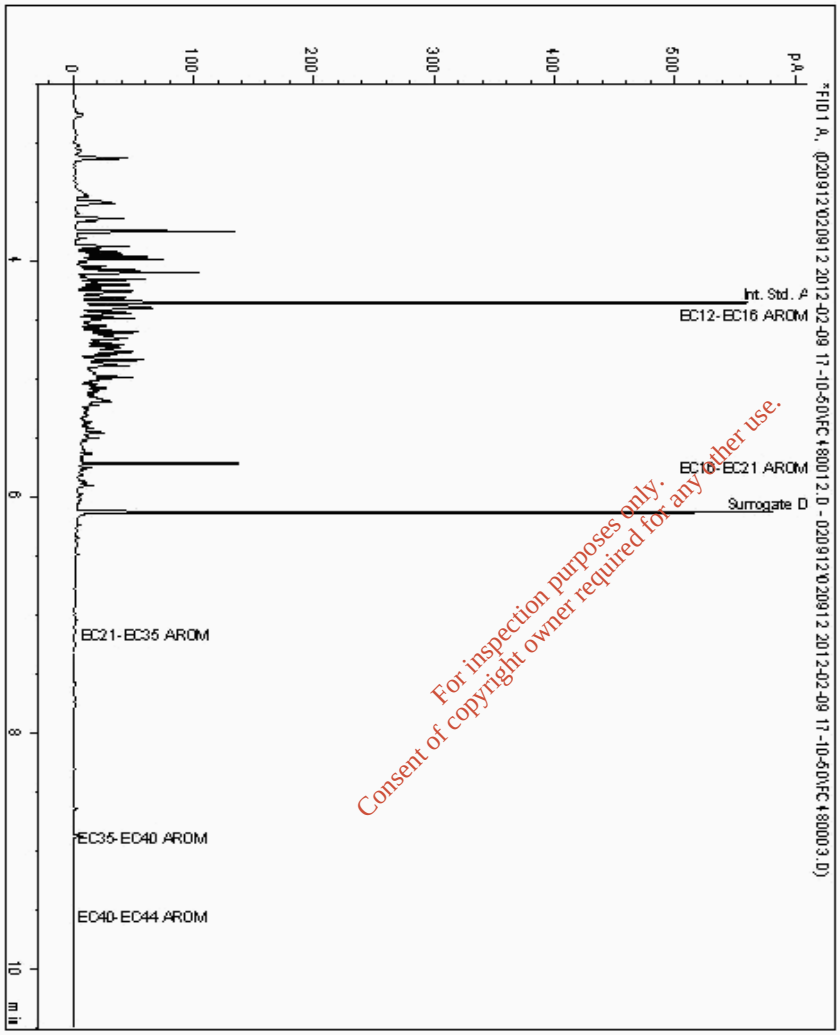
SDG:	120203-121	**Location:**	Limerick Gasworks	**Order Number:**	4500089829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	170465
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	170459

Chromatogram

Analysis: EPH CWG (Aromatic) Aqueous GC (W) **Sample No :** 5132936 **Sample ID :** G4 **Depth :** 3.00 - 4.00

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

Sample Identity: 5033168-5132936
Date Acquired : 09/02/12 21:02:44
Units :
Dilution :
CF : 1
Multiplier : 0.008



CERTIFICATE OF ANALYSIS

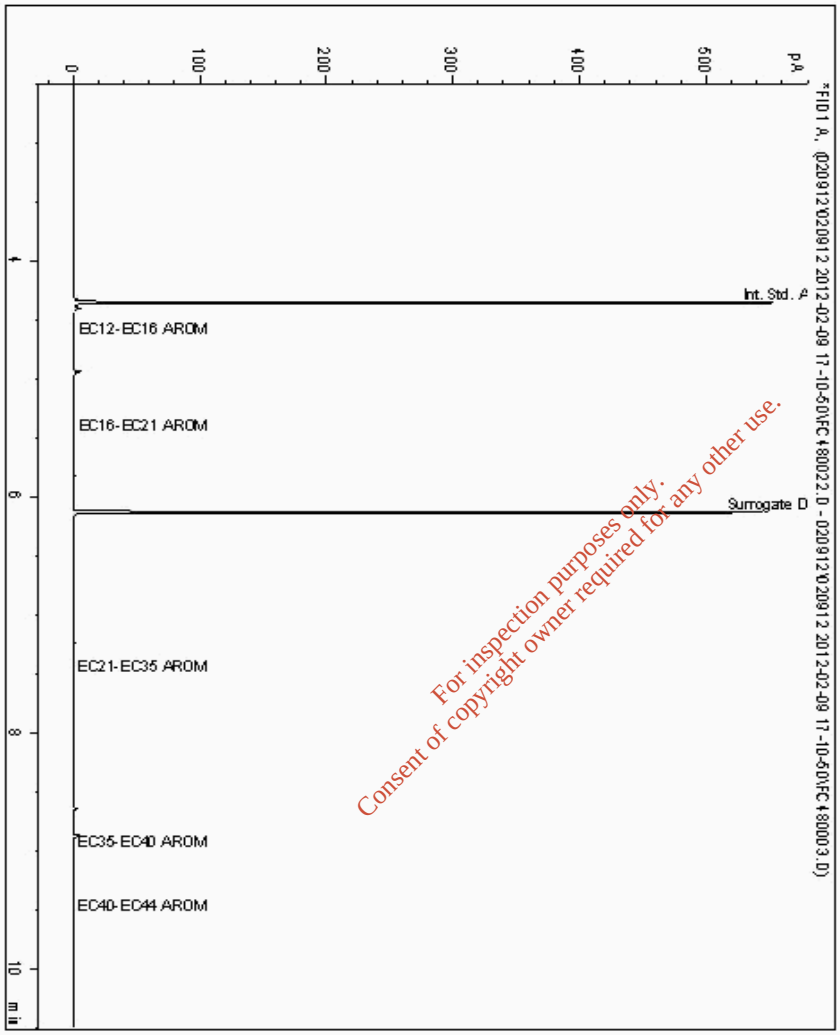
SDG:	120203-121	**Location:**	Limerick Gasworks	**Order Number:**	4500089829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	170465
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	170459

Chromatogram

Analysis: EPH CWG (Aromatic) Aqueous GC (W) **Sample No :** 5133002 **Sample ID :** J10 **Depth :** 0.00 - 1.00

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

Sample Identity: 5033323-5133002
Date Acquired : 09/02/12 23:36:35
Units :
Dilution :
CF : 1
Multiplier : 0.008

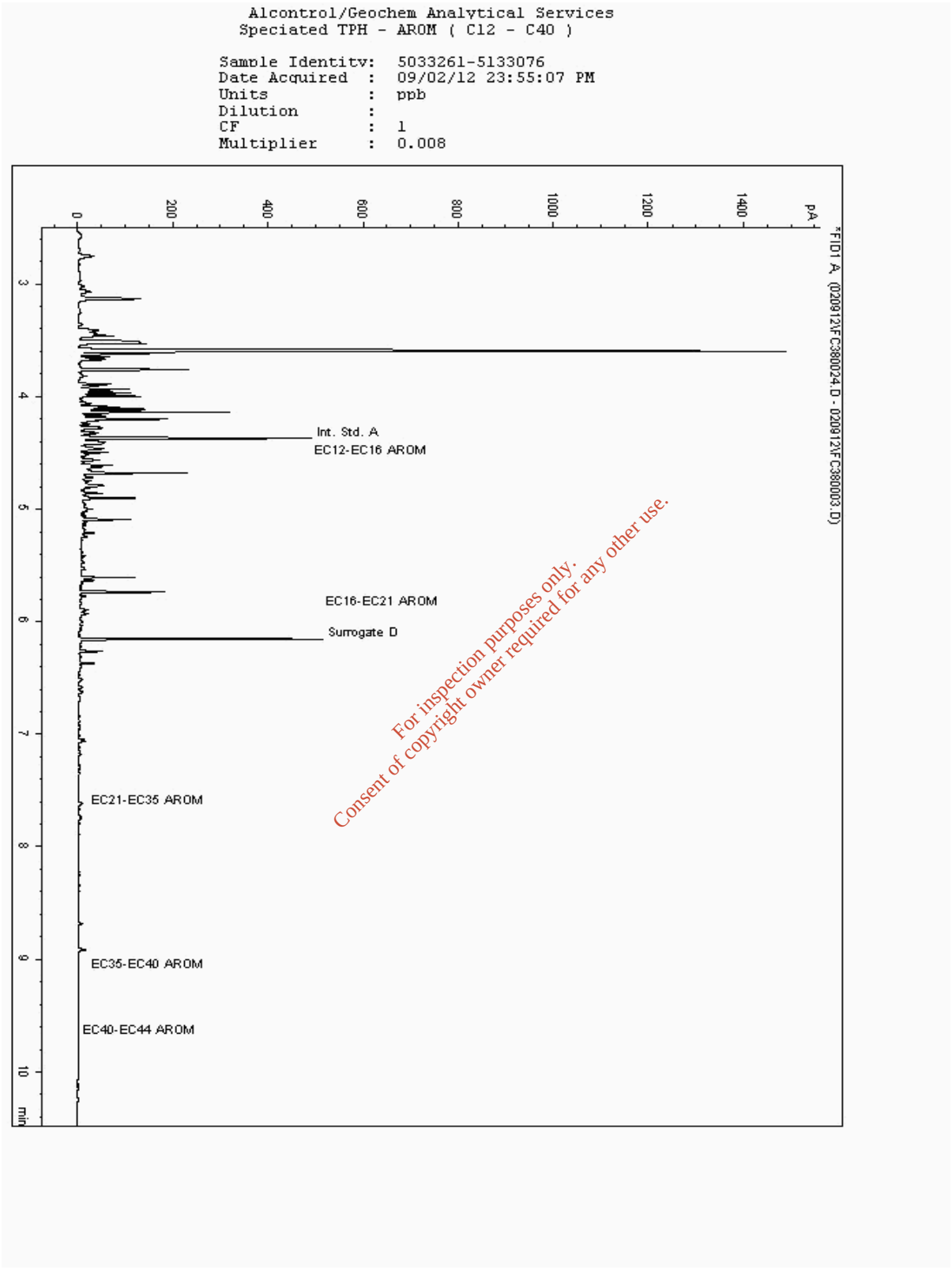


CERTIFICATE OF ANALYSIS

SDG:	120203-121	**Location:**	Limerick Gasworks	**Order Number:**	4500089829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	170465
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	170459

Chromatogram

Analysis: EPH CWG (Aromatic) Aqueous GC (W) **Sample No :** 5133076 **Sample ID :** G8 **Depth :** 1.50 - 2.40



CERTIFICATE OF ANALYSIS

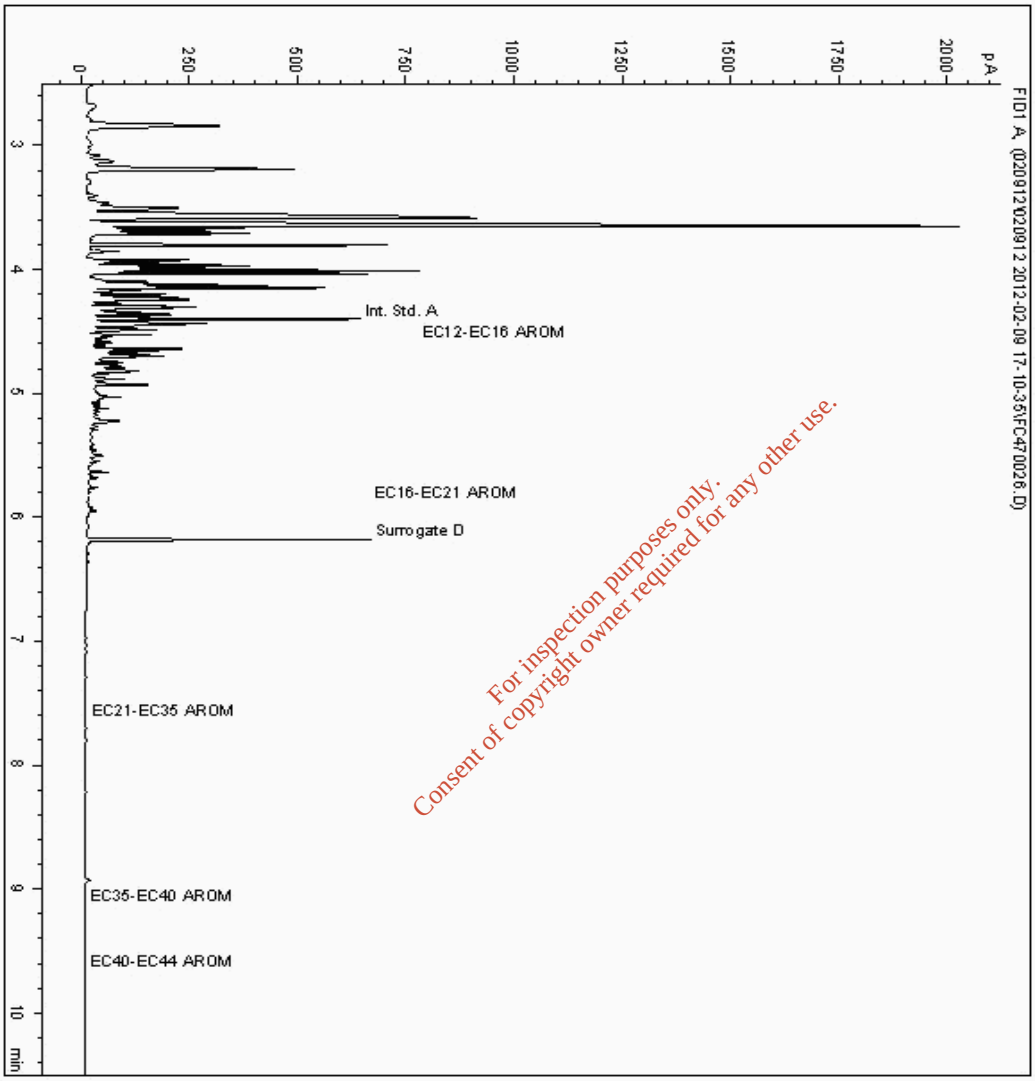
SDG:	120203-121	**Location:**	Limerick Gasworks	**Order Number:**	4500089829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	170465
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	170459

Chromatogram

Analysis: EPH CWG (Aromatic) Aqueous GC (W) **Sample No :** 5133090 **Sample ID :** G2 **Depth :** 3.00 - 4.00

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

Sample Identity: 5033137-5133090
Date Acquired : 10/02/12 00:56:30
Units :
Dilution :
CF : 1
Multiplier : 0.008



CERTIFICATE OF ANALYSIS

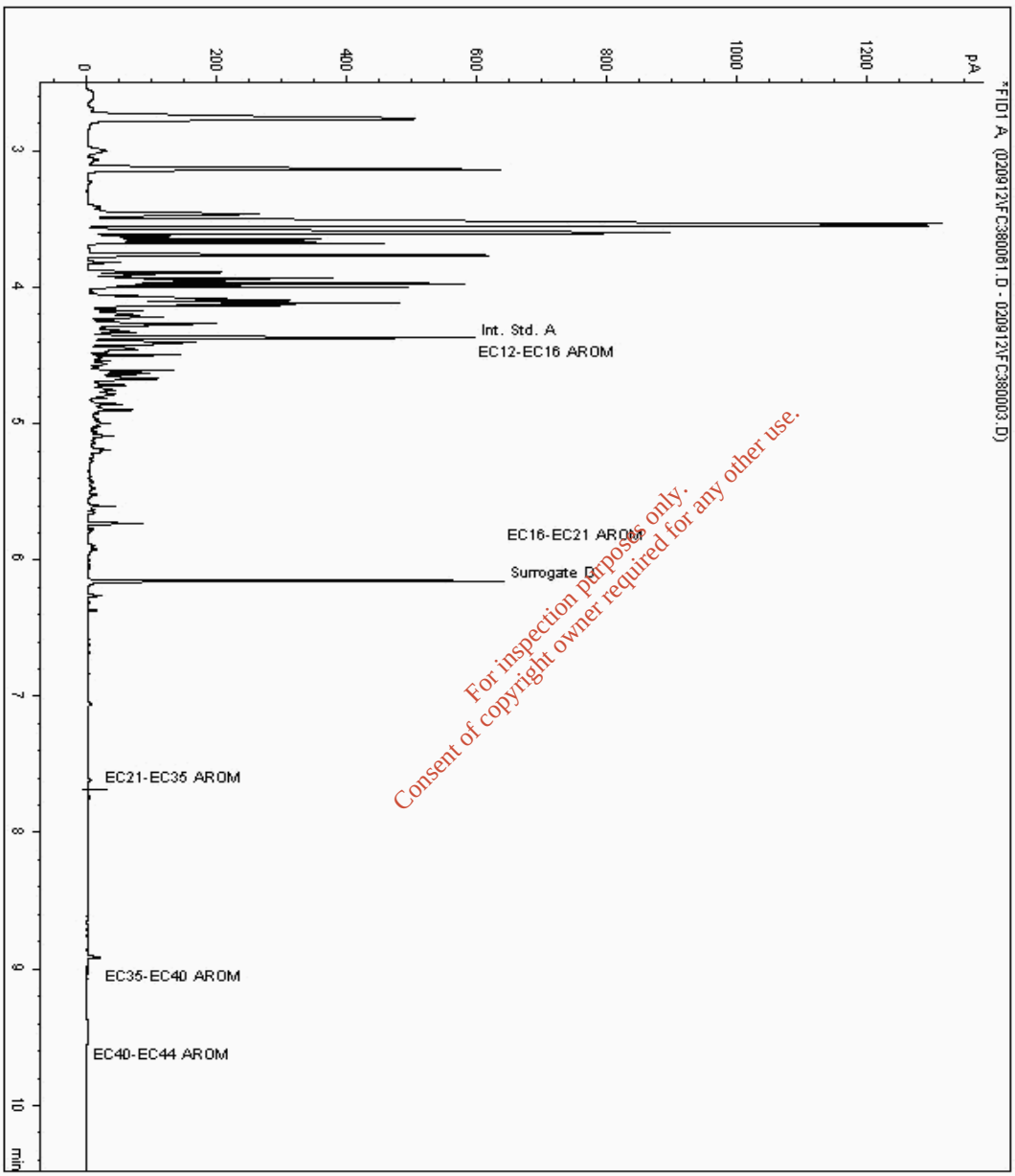
SDG:	120203-121	**Location:**	Limerick Gasworks	**Order Number:**	4500089829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	170465
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	170459

Chromatogram

Analysis: EPH CWG (Aromatic) Aqueous GC (W) **Sample No :** 5133120 **Sample ID :** E8 **Depth :** 1.00 - 2.00

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

Sample Identity: 5033246-5133120
Date Acquired : 10/02/12 14:34:00 PM
Units : ppb
Dilution :
CF : 1
Multiplier : 0.017

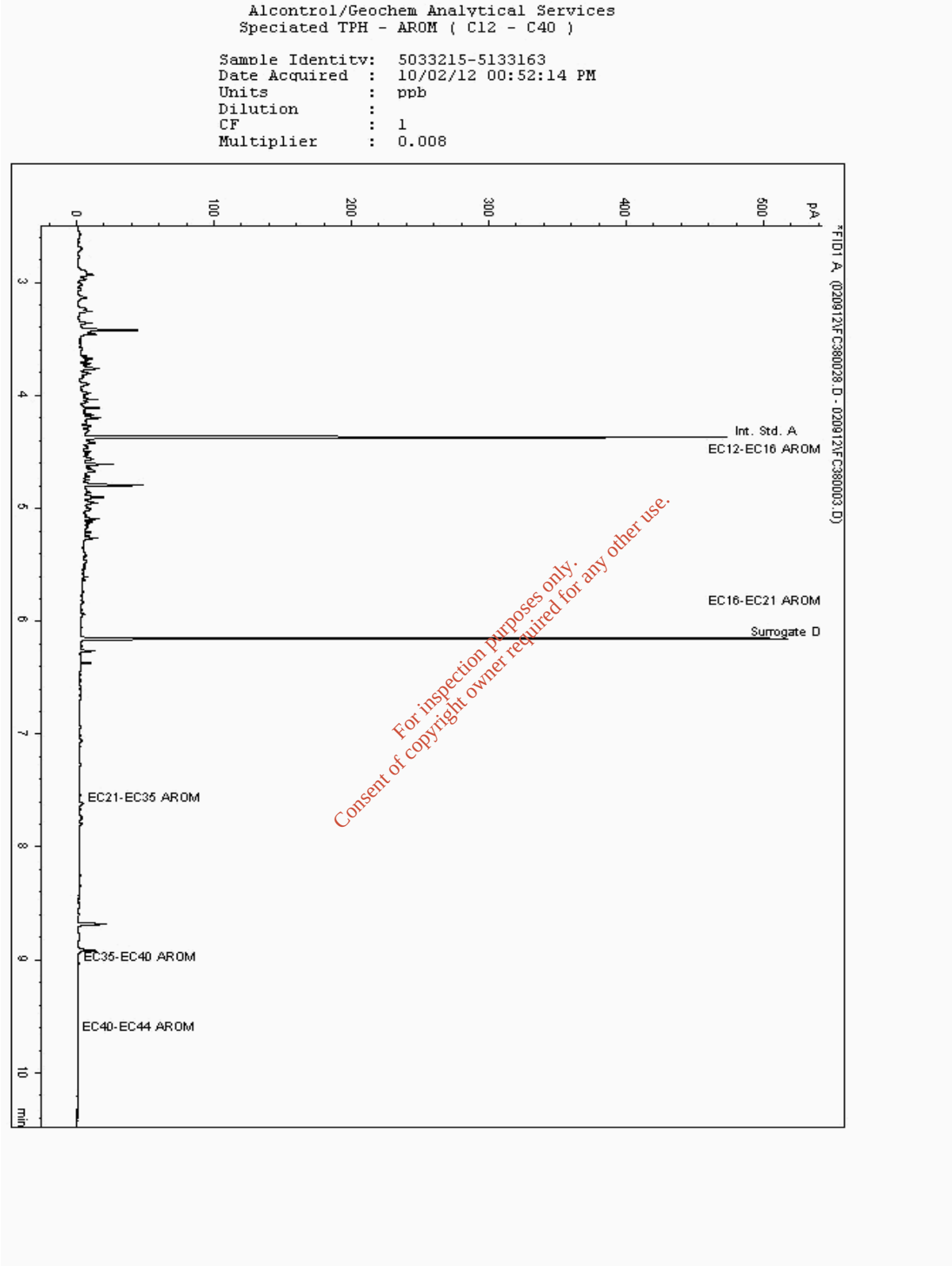


CERTIFICATE OF ANALYSIS

SDG:	120203-121	**Location:**	Limerick Gasworks	**Order Number:**	4500089829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	170465
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	170459

Chromatogram

Analysis: EPH CWG (Aromatic) Aqueous GC (W) **Sample No :** 5133163 **Sample ID :** C11 **Depth :** 1.50 - 2.40



CERTIFICATE OF ANALYSIS

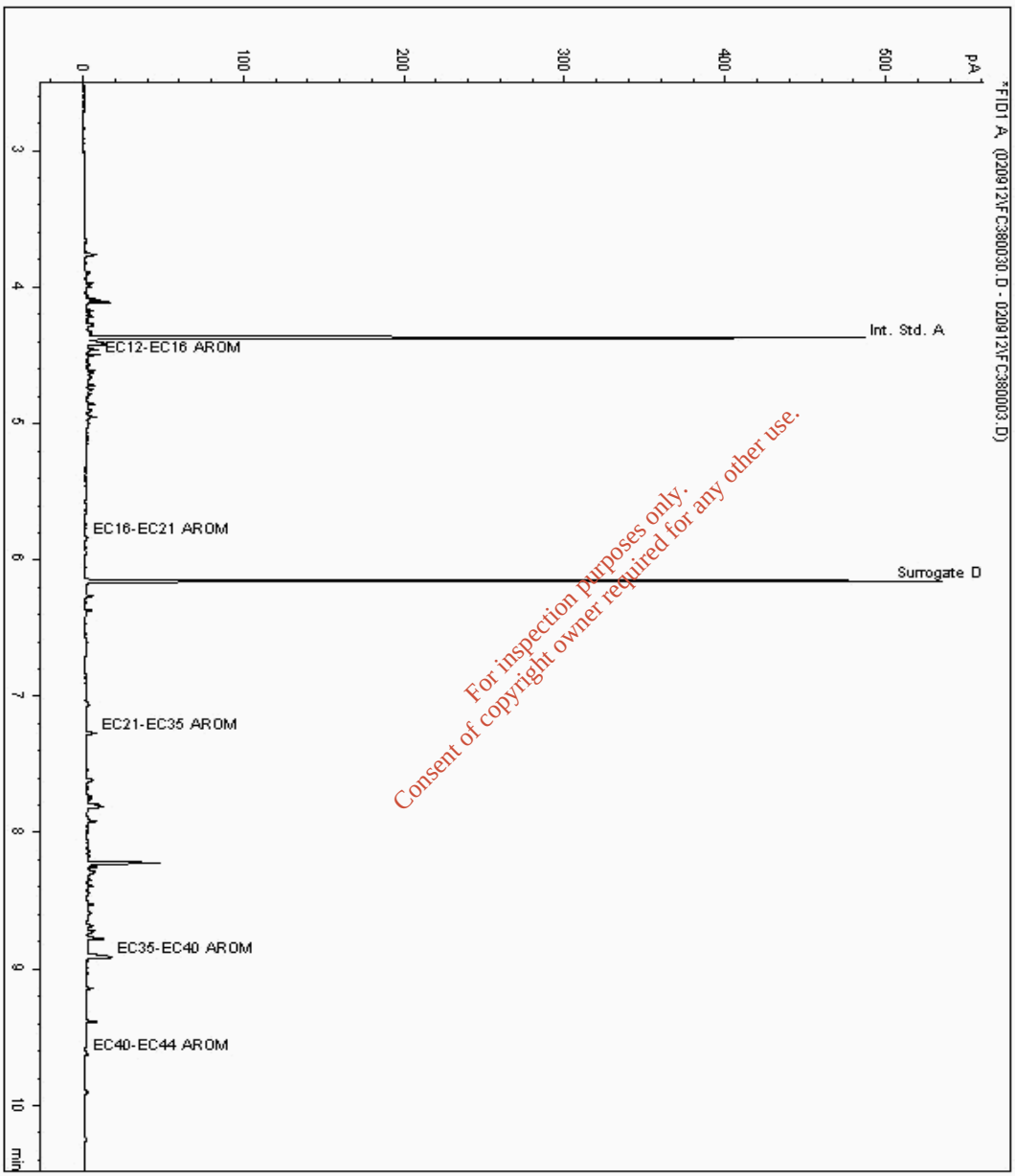
SDG:	120203-121	**Location:**	Limerick Gasworks	**Order Number:**	4500089829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	170465
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	170459

Chromatogram

Analysis: EPH CWG (Aromatic) Aqueous GC (W) **Sample No :** 5133352 **Sample ID :** F11 **Depth :** 4.00 - 4.80

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

Sample Identity: 5033200-5133352
Date Acquired : 10/02/12 01:20:43 PM
Units : ppb
Dilution :
CF : 1
Multiplier : 0.008



CERTIFICATE OF ANALYSIS

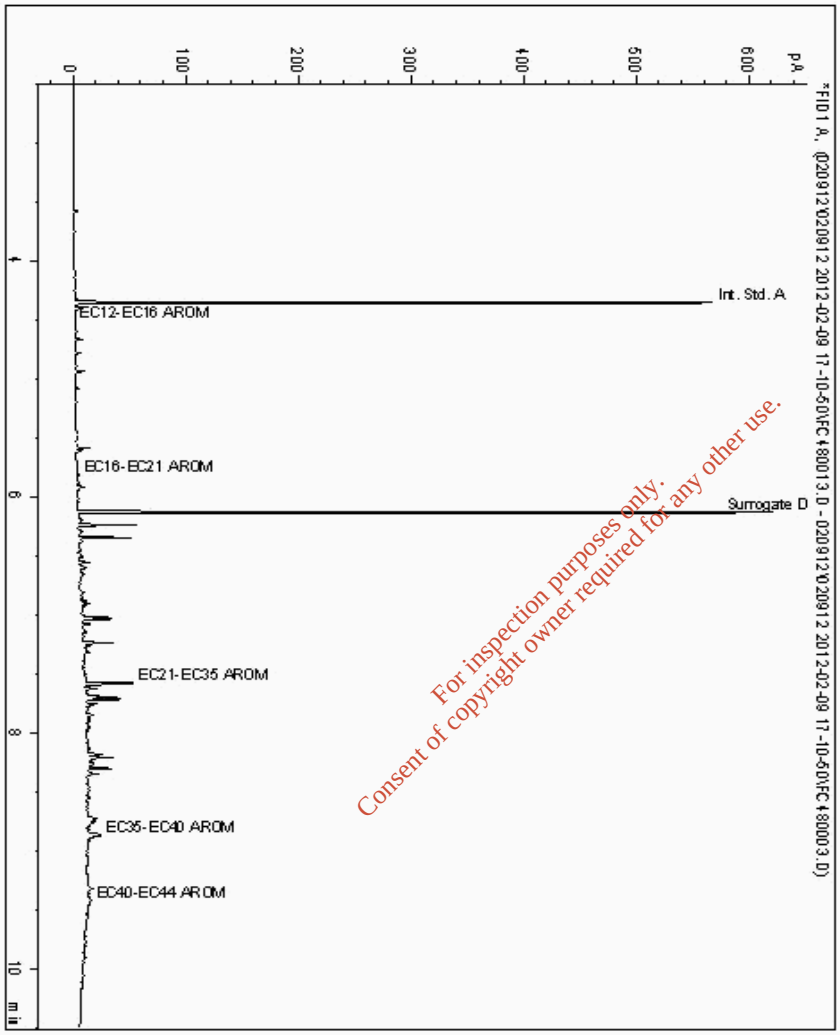
SDG:	120203-121	**Location:**	Limerick Gasworks	**Order Number:**	4500089829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	170465
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	170459

Chromatogram

Analysis: EPH CWG (Aromatic) Aqueous GC (W) **Sample No :** 5133534 **Sample ID :** A11 **Depth :** 2.00 - 2.50

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

Sample Identity: 5033230-5133534
Date Acquired : 09/02/12 21:21:47
Units :
Dilution :
CF : 1
Multiplier : 0.008



CERTIFICATE OF ANALYSIS

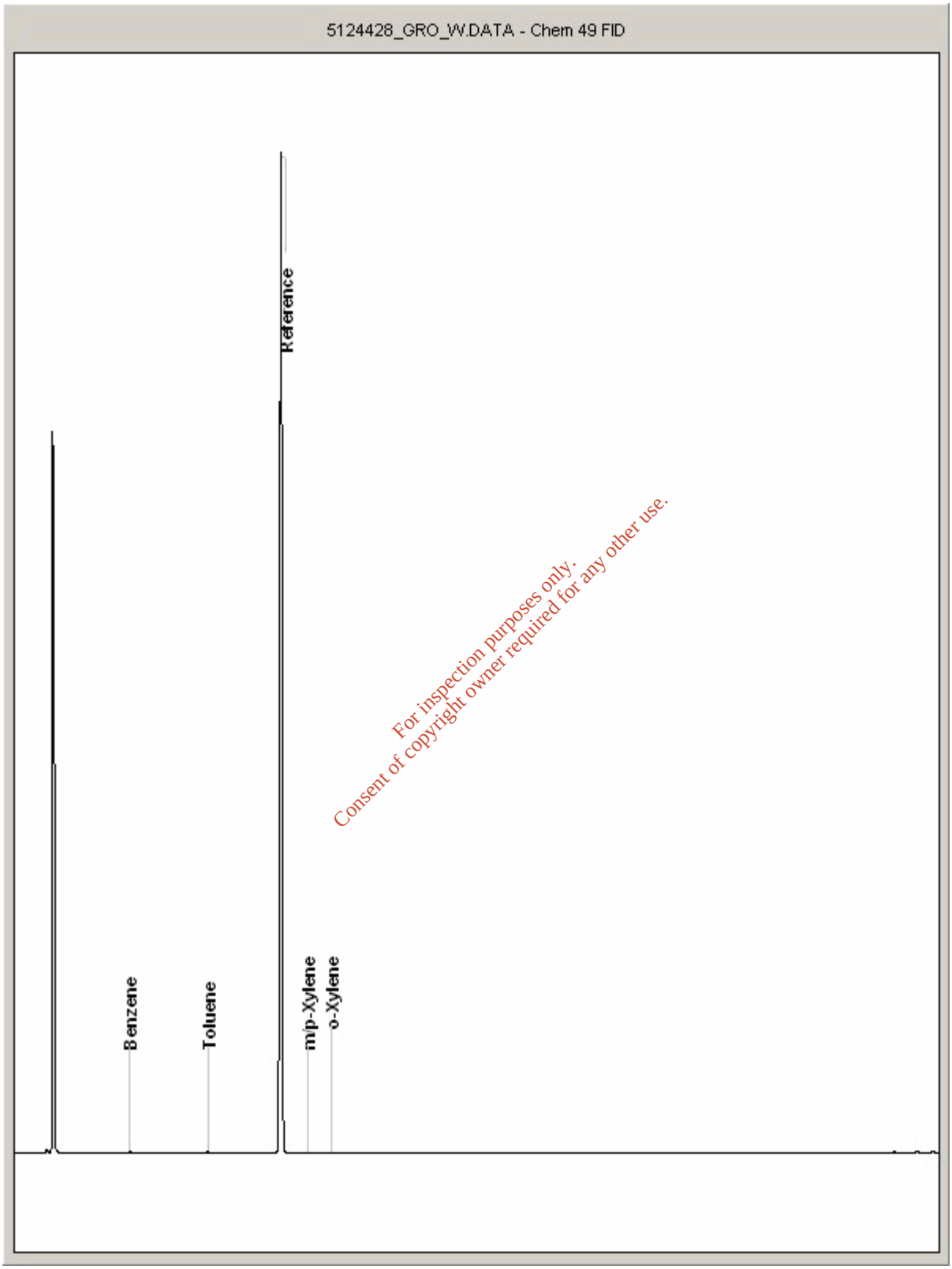
SDG:	120203-121	**Location:**	Limerick Gasworks	**Order Number:**	4500089829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	170465
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	170459

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 5124428
Sample ID : A9

Depth : 2.00 - 2.40



CERTIFICATE OF ANALYSIS

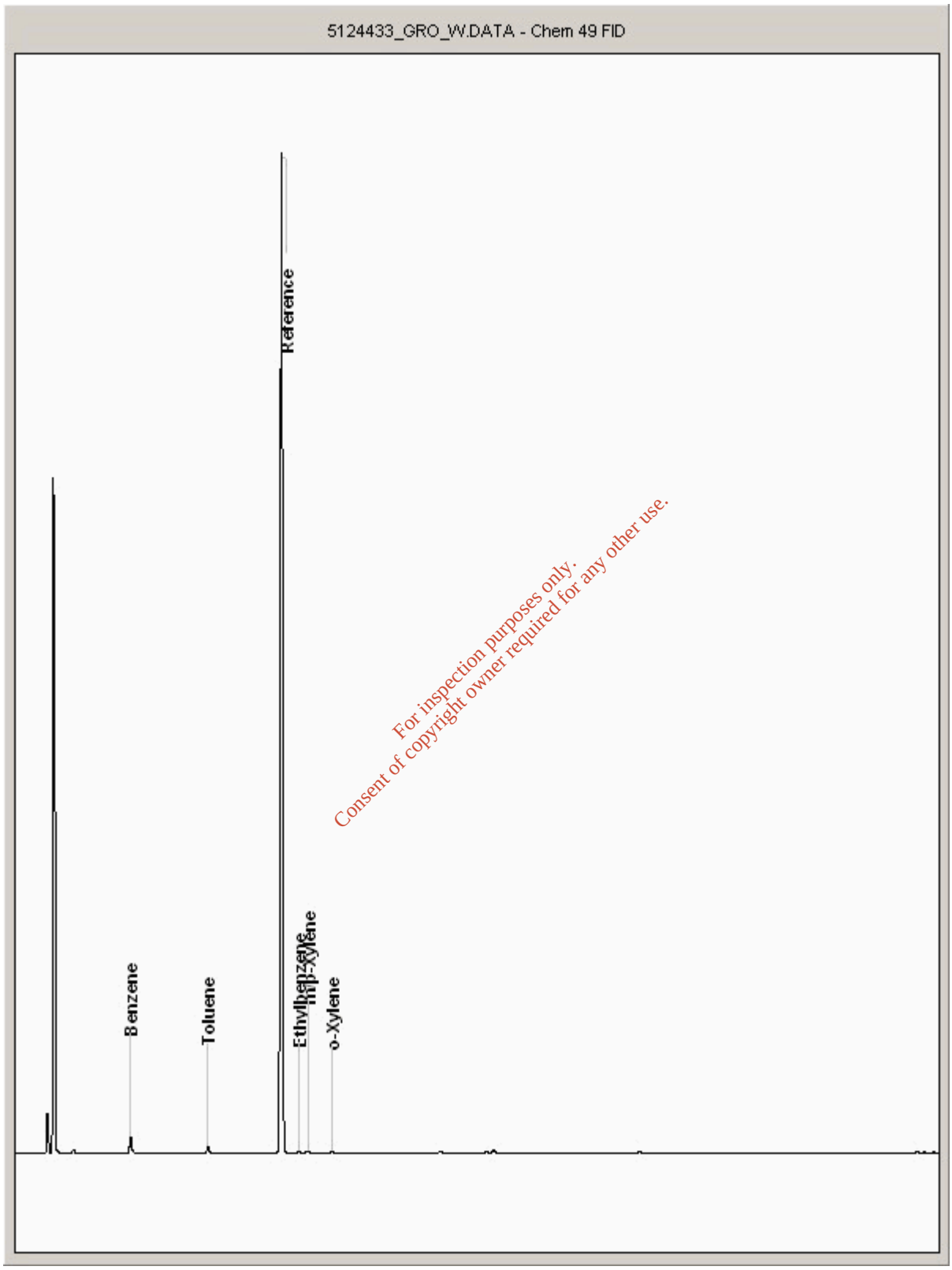
SDG:	120203-121	**Location:**	Limerick Gasworks	**Order Number:**	4500089829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	170465
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	170459

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 5124433
Sample ID : D5

Depth : 1.50 - 1.90



CERTIFICATE OF ANALYSIS

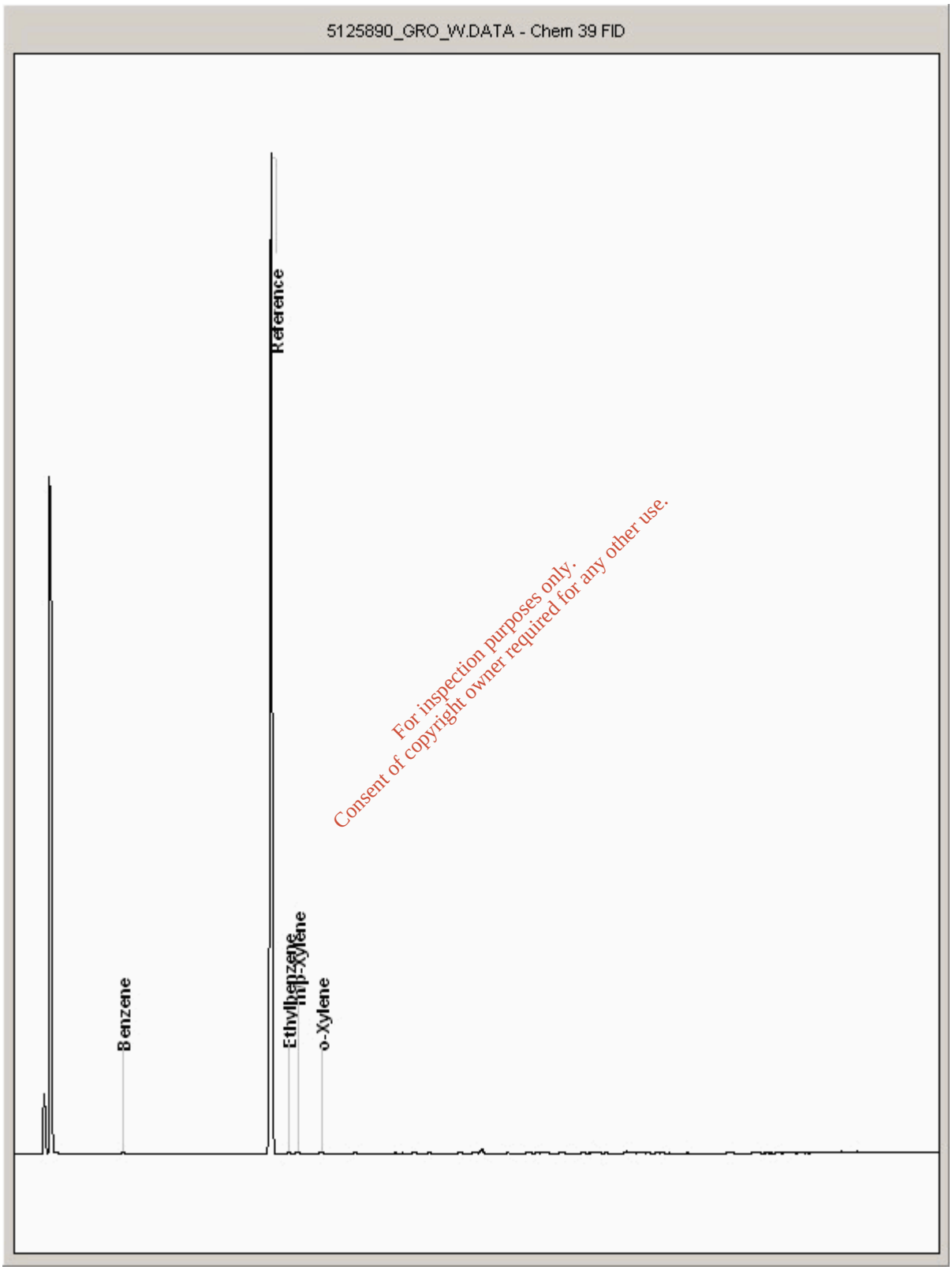
SDG:	120203-121	**Location:**	Limerick Gasworks	**Order Number:**	4500089829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	170465
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	170459

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 5125890
Sample ID : A4

Depth : 3.00 - 4.00



CERTIFICATE OF ANALYSIS

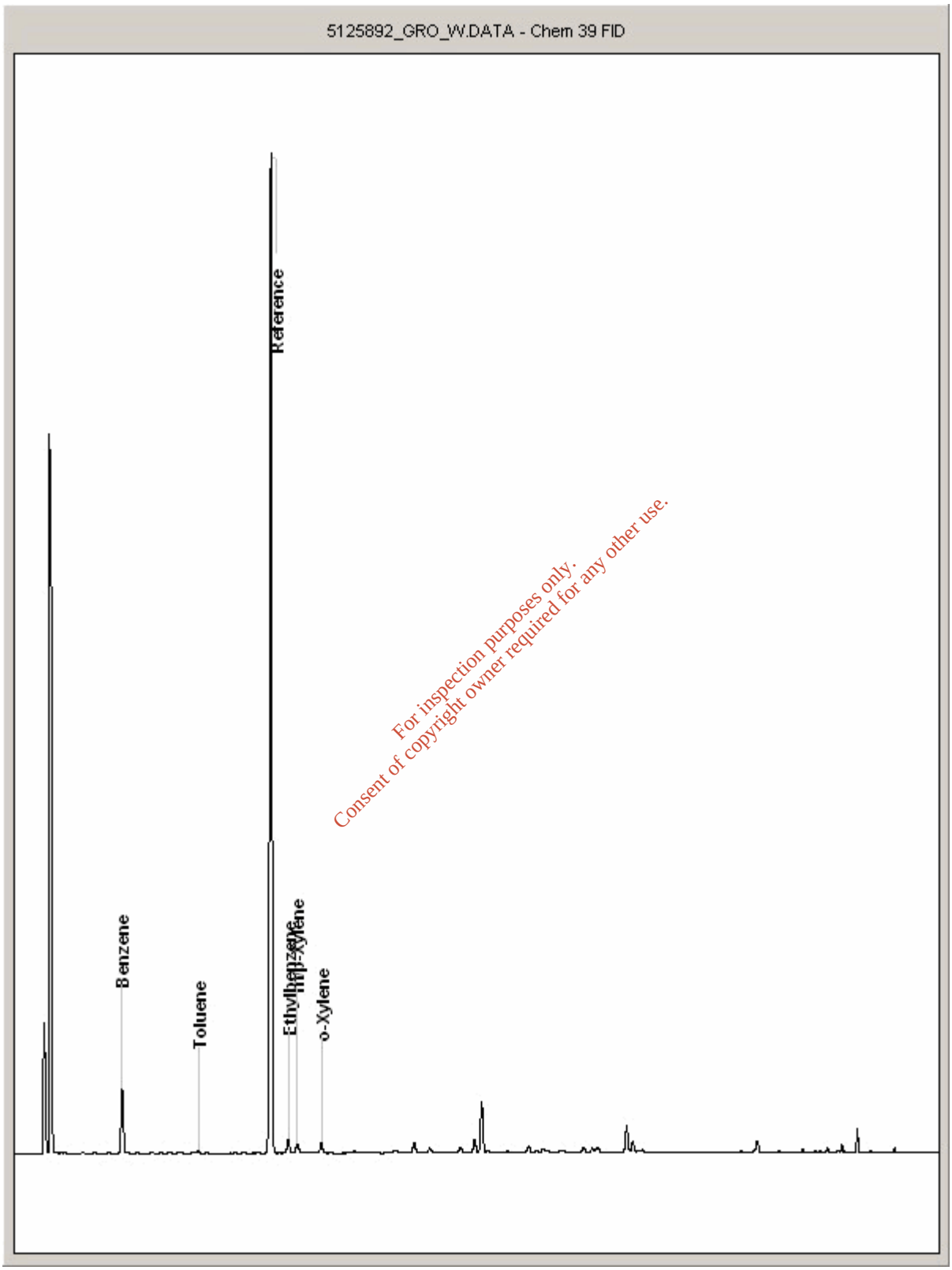
SDG:	120203-121	**Location:**	Limerick Gasworks	**Order Number:**	4500089829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	170465
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	170459

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 5125892
Sample ID : A3

Depth : 1.50 - 2.00



CERTIFICATE OF ANALYSIS

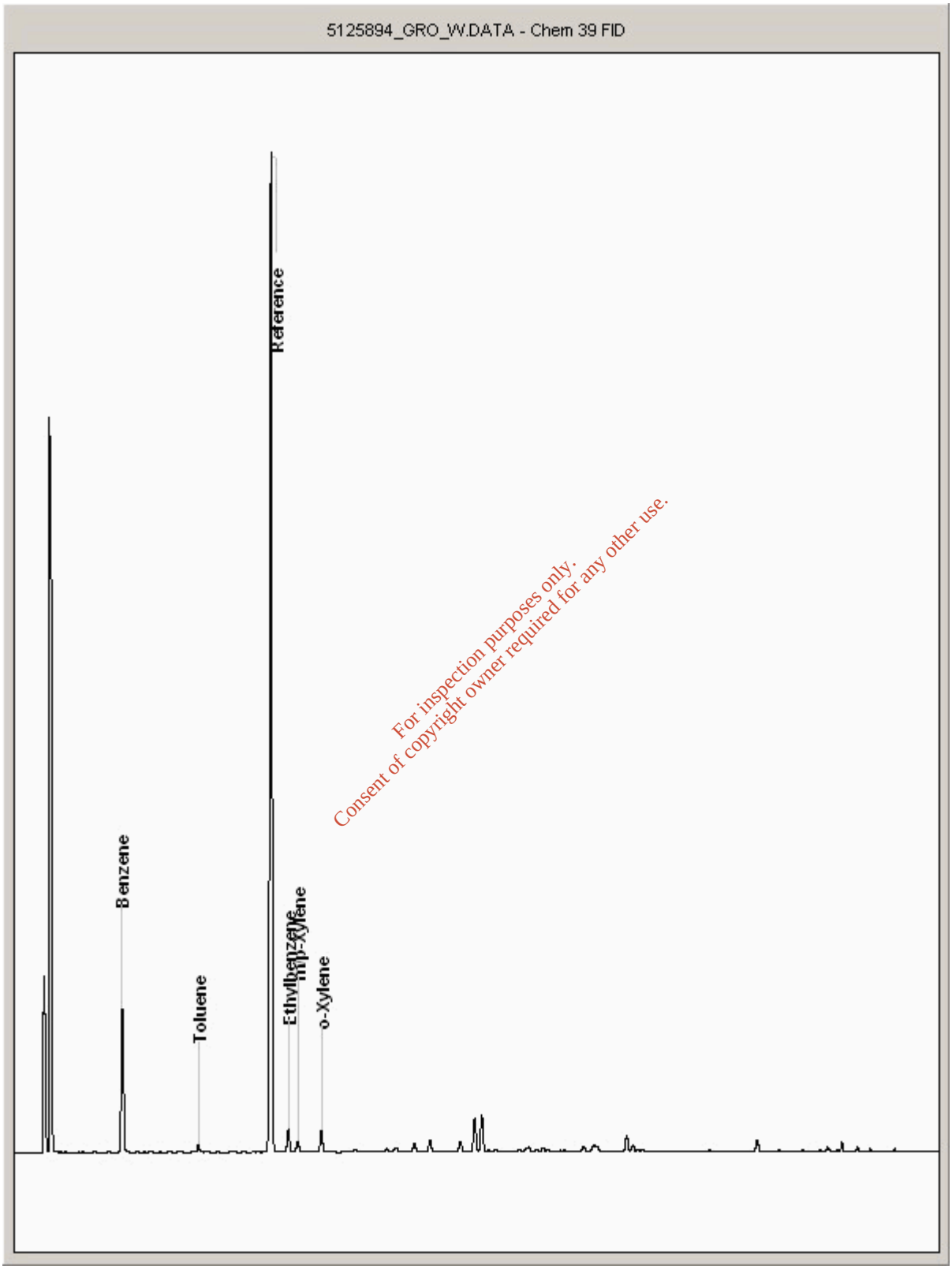
SDG:	120203-121	**Location:**	Limerick Gasworks	**Order Number:**	4500089829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	170465
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	170459

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 5125894
Sample ID : A1

Depth : 2.50 - 3.50



CERTIFICATE OF ANALYSIS

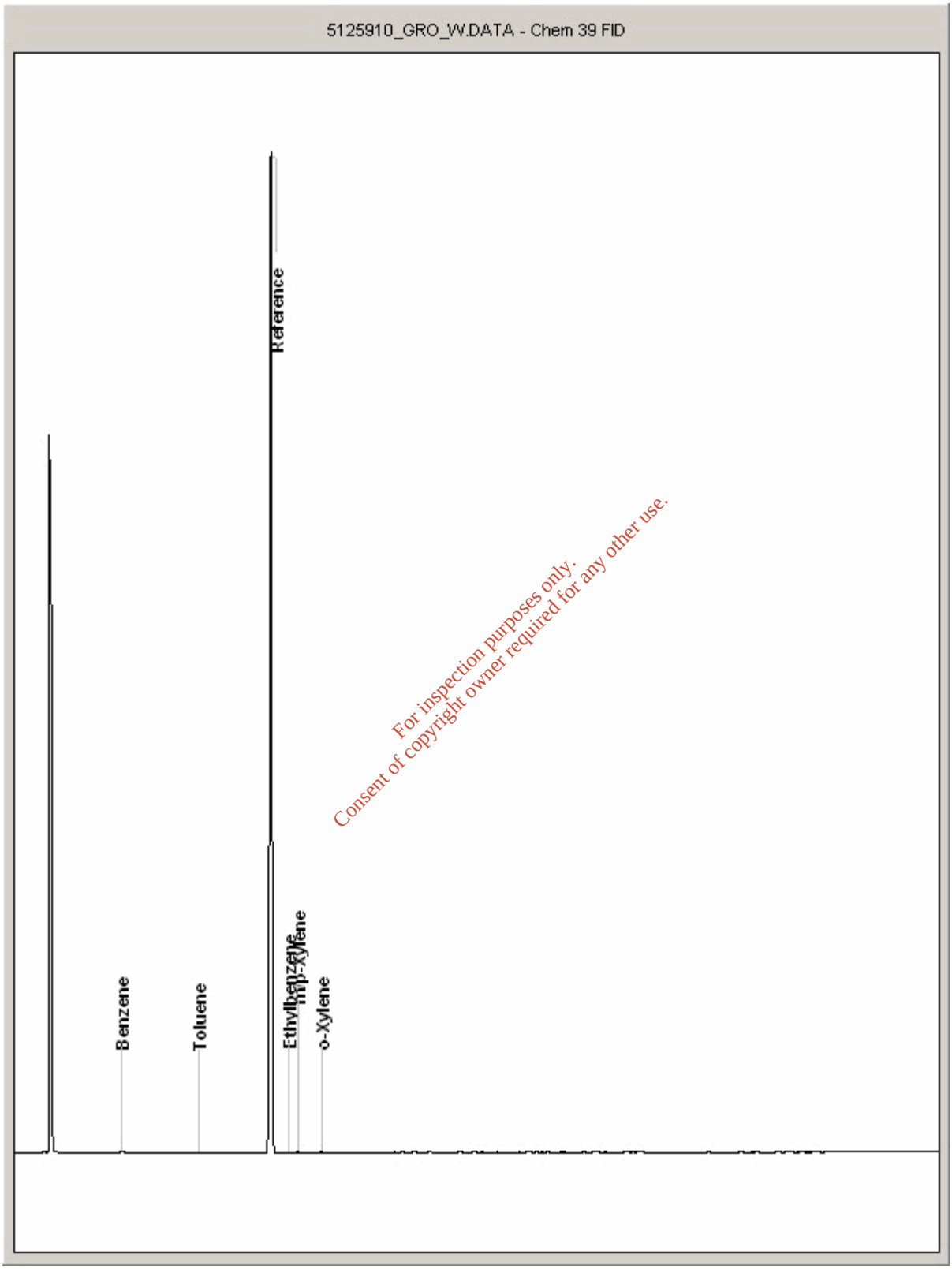
SDG:	120203-121	**Location:**	Limerick Gasworks	**Order Number:**	4500089829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	170465
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	170459

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 5125910
Sample ID : C2

Depth : 2.00 - 2.50



CERTIFICATE OF ANALYSIS

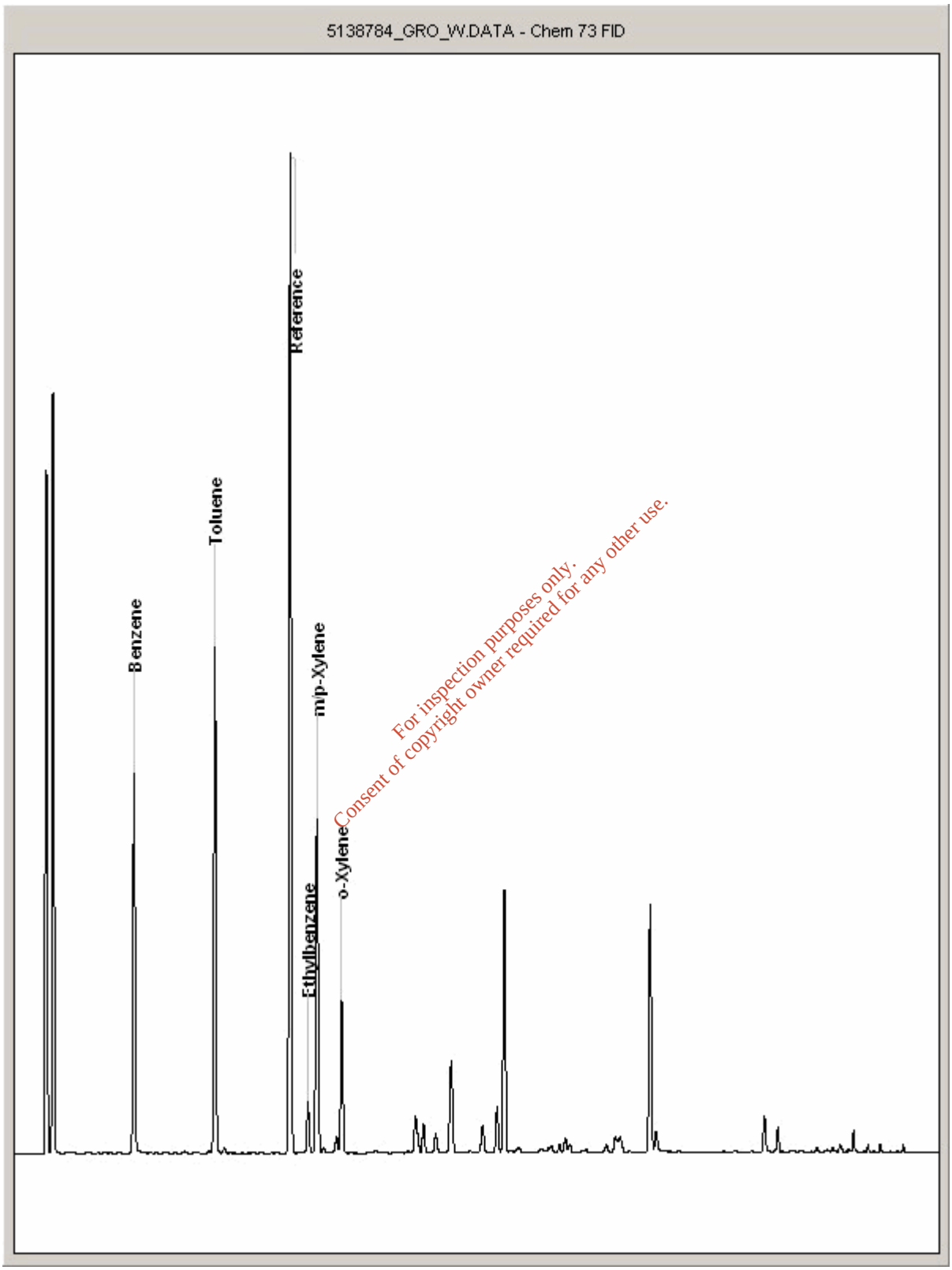
SDG:	120203-121	**Location:**	Limerick Gasworks	**Order Number:**	4500089829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	170465
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	170459

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 5138784
Sample ID : G4

Depth : 3.00 - 4.00



CERTIFICATE OF ANALYSIS

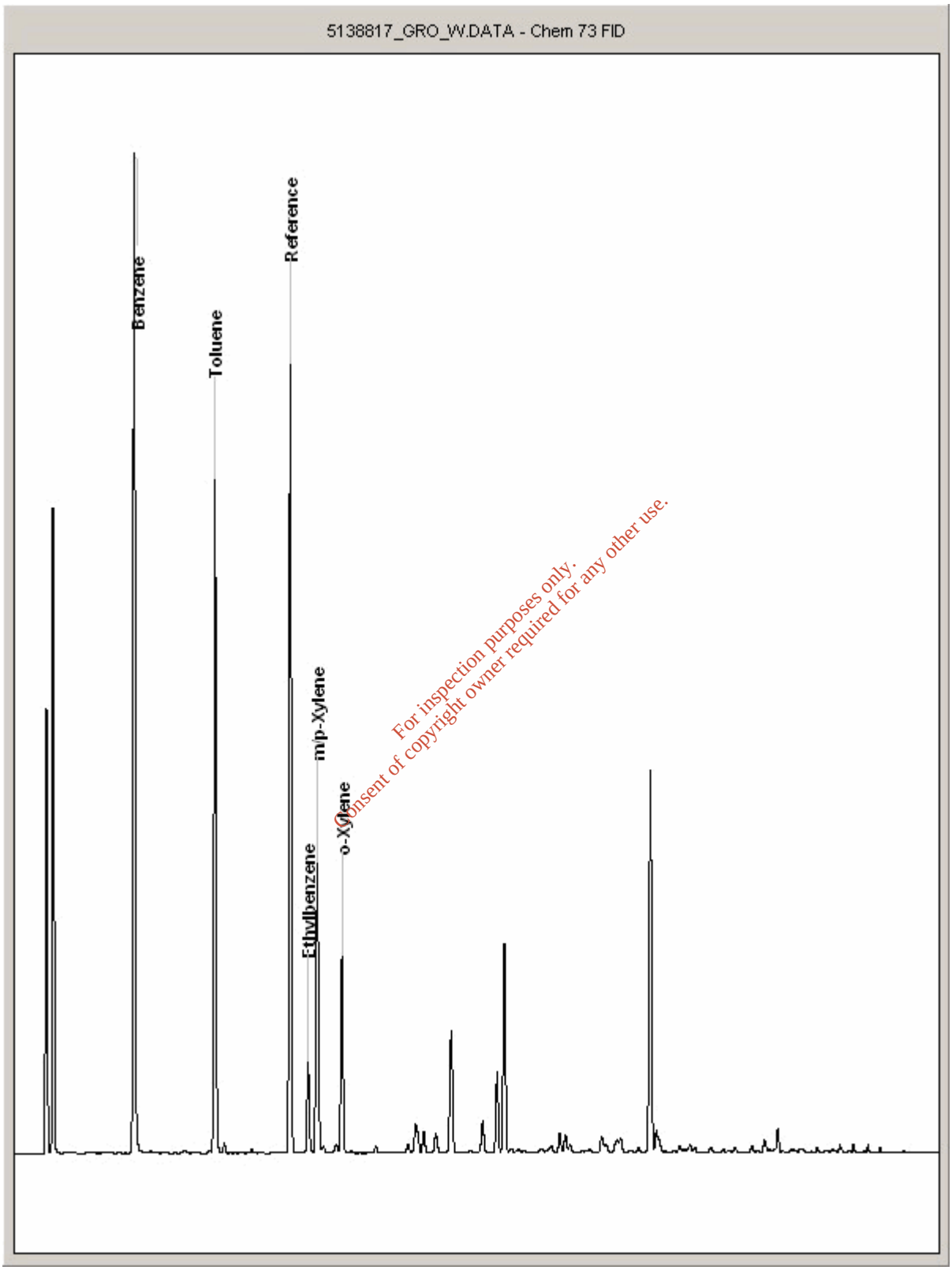
SDG:	120203-121	**Location:**	Limerick Gasworks	**Order Number:**	4500089829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	170465
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	170459

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 5138817
Sample ID : G2

Depth : 3.00 - 4.00



CERTIFICATE OF ANALYSIS

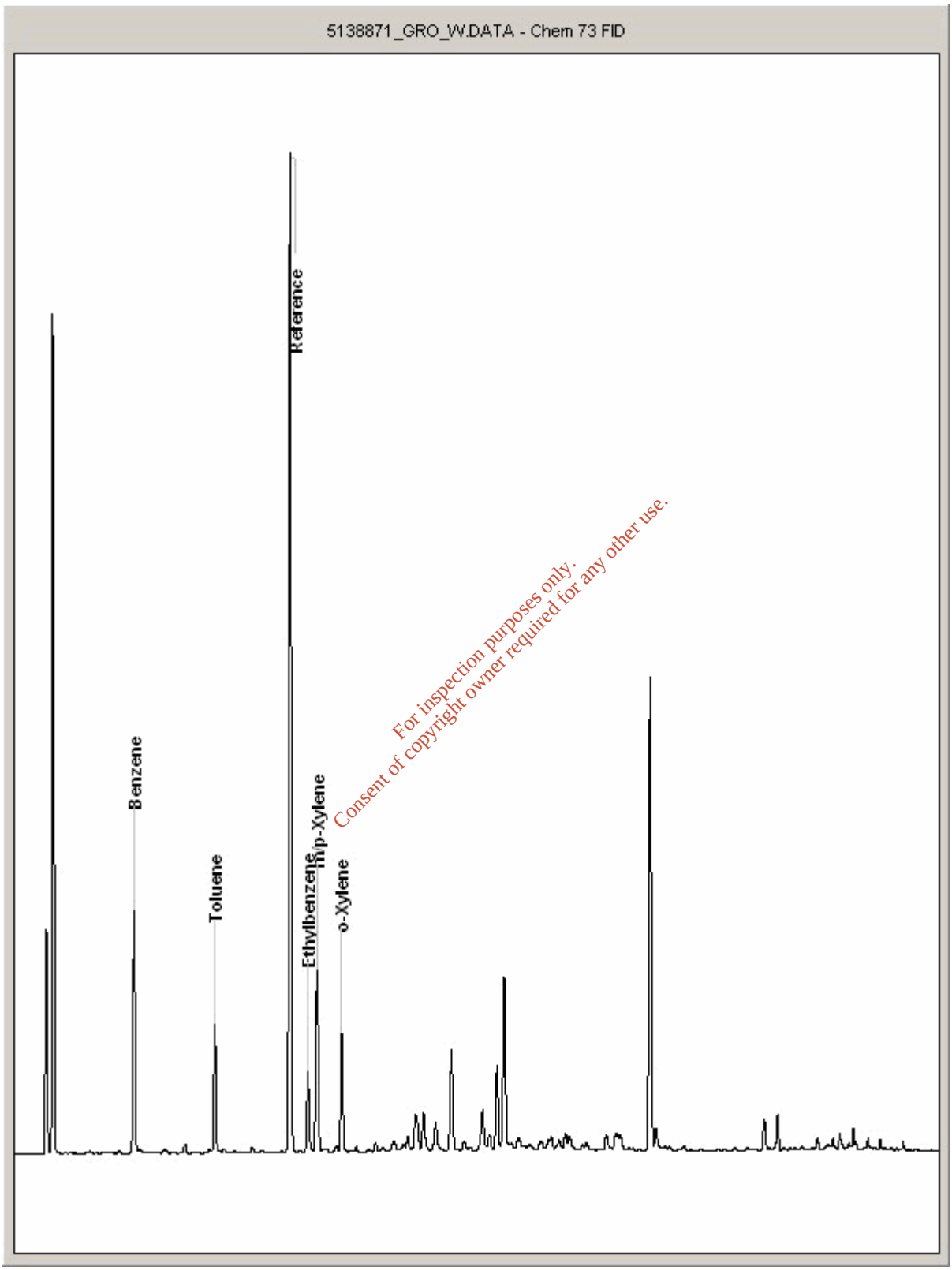
SDG:	120203-121	**Location:**	Limerick Gasworks	**Order Number:**	4500089829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	170465
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	170459

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 5138871
Sample ID : D1

Depth : 3.00 - 4.00



CERTIFICATE OF ANALYSIS

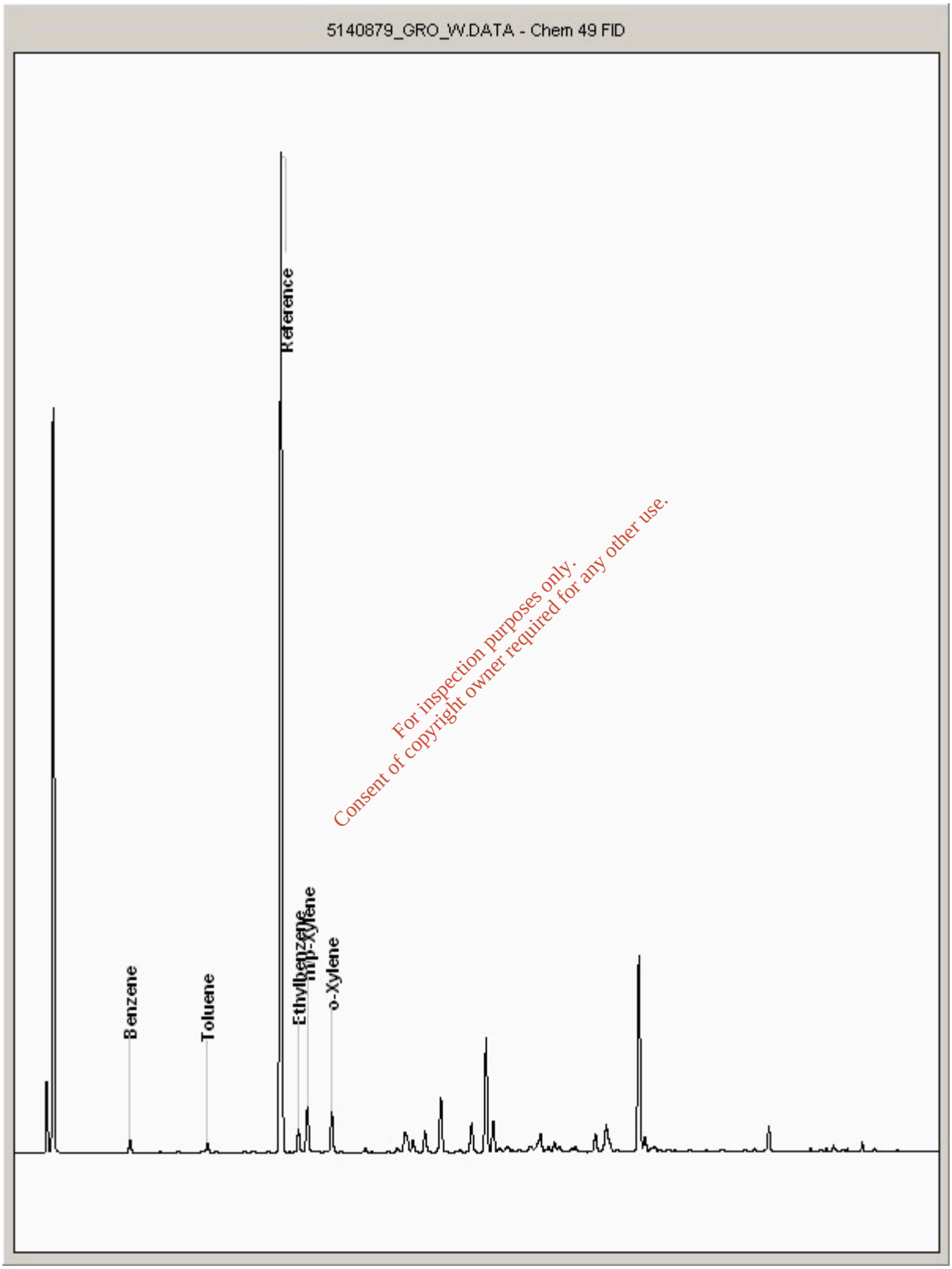
SDG:	120203-121	**Location:**	Limerick Gasworks	**Order Number:**	4500089829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	170465
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	170459

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 5140879
Sample ID : C11

Depth : 1.50 - 2.40



CERTIFICATE OF ANALYSIS

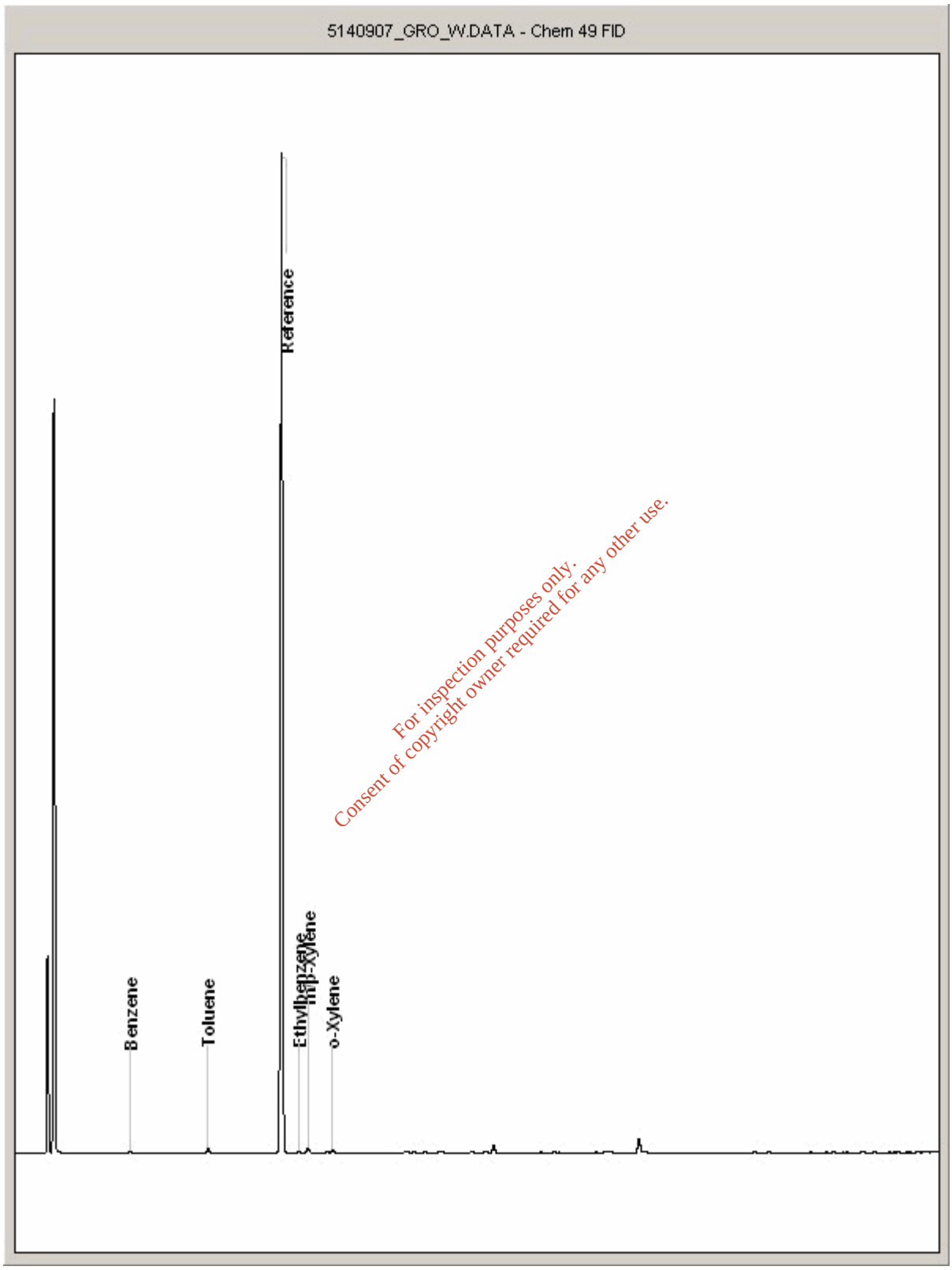
SDG:	120203-121	**Location:**	Limerick Gasworks	**Order Number:**	4500089829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	170465
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	170459

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 5140907
Sample ID : A11

Depth : 2.00 - 2.50



CERTIFICATE OF ANALYSIS

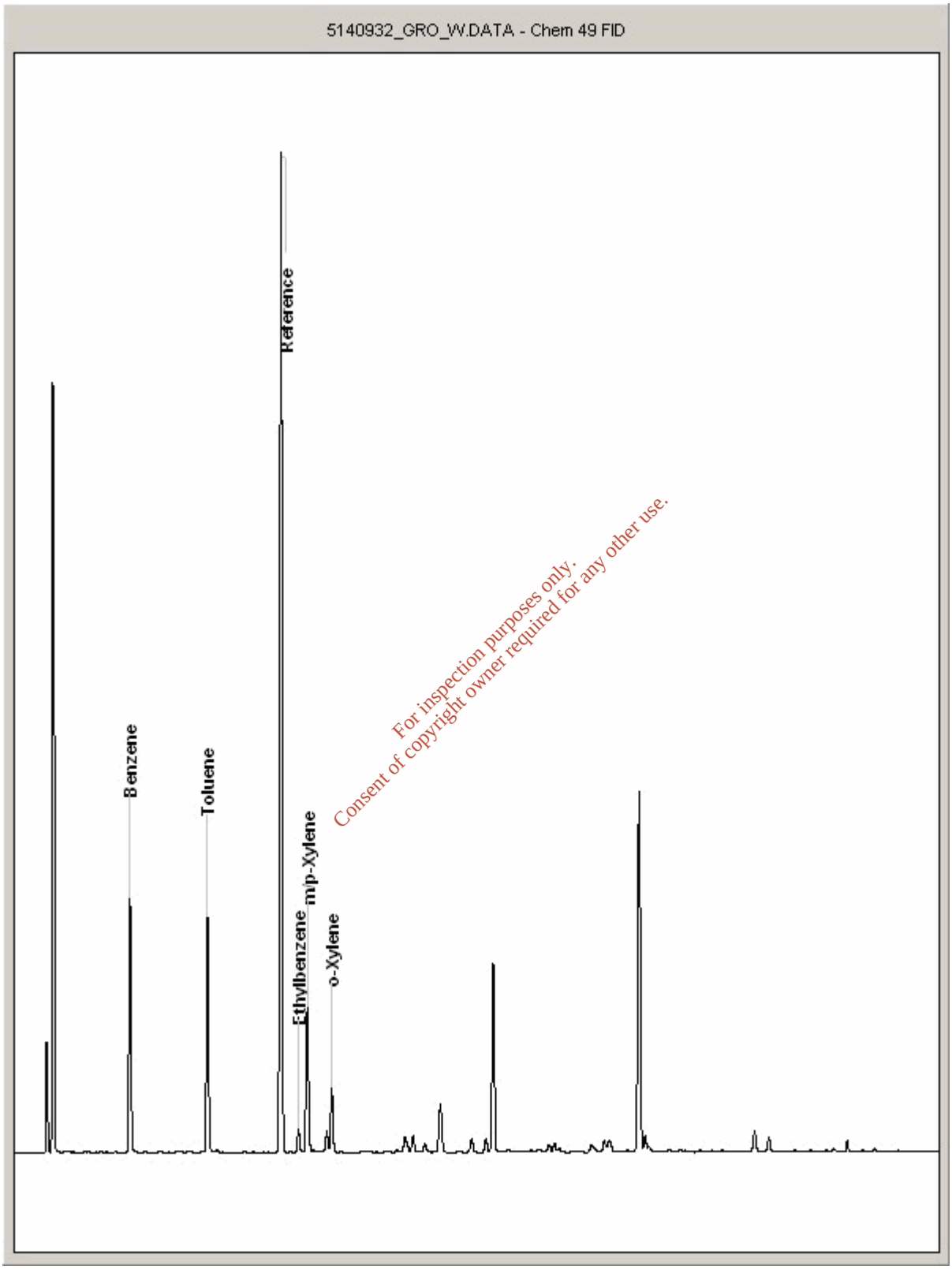
SDG:	120203-121	**Location:**	Limerick Gasworks	**Order Number:**	4500089829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	170465
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	170459

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 5140932
Sample ID : G8

Depth : 1.50 - 2.40



CERTIFICATE OF ANALYSIS

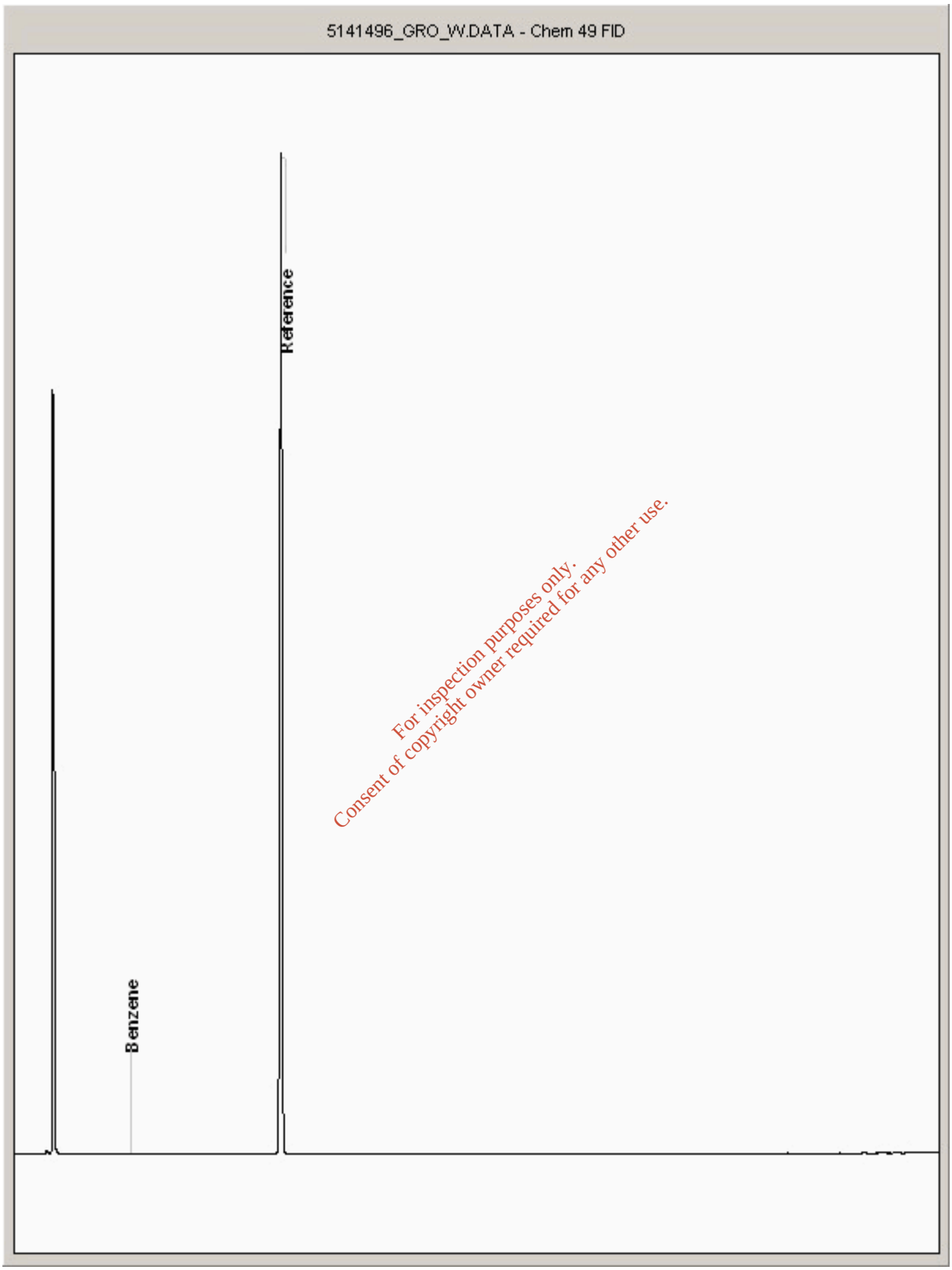
SDG:	120203-121	**Location:**	Limerick Gasworks	**Order Number:**	4500089829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	170465
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	170459

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 5141496
Sample ID : K1

Depth : 2.00 - 3.00



CERTIFICATE OF ANALYSIS

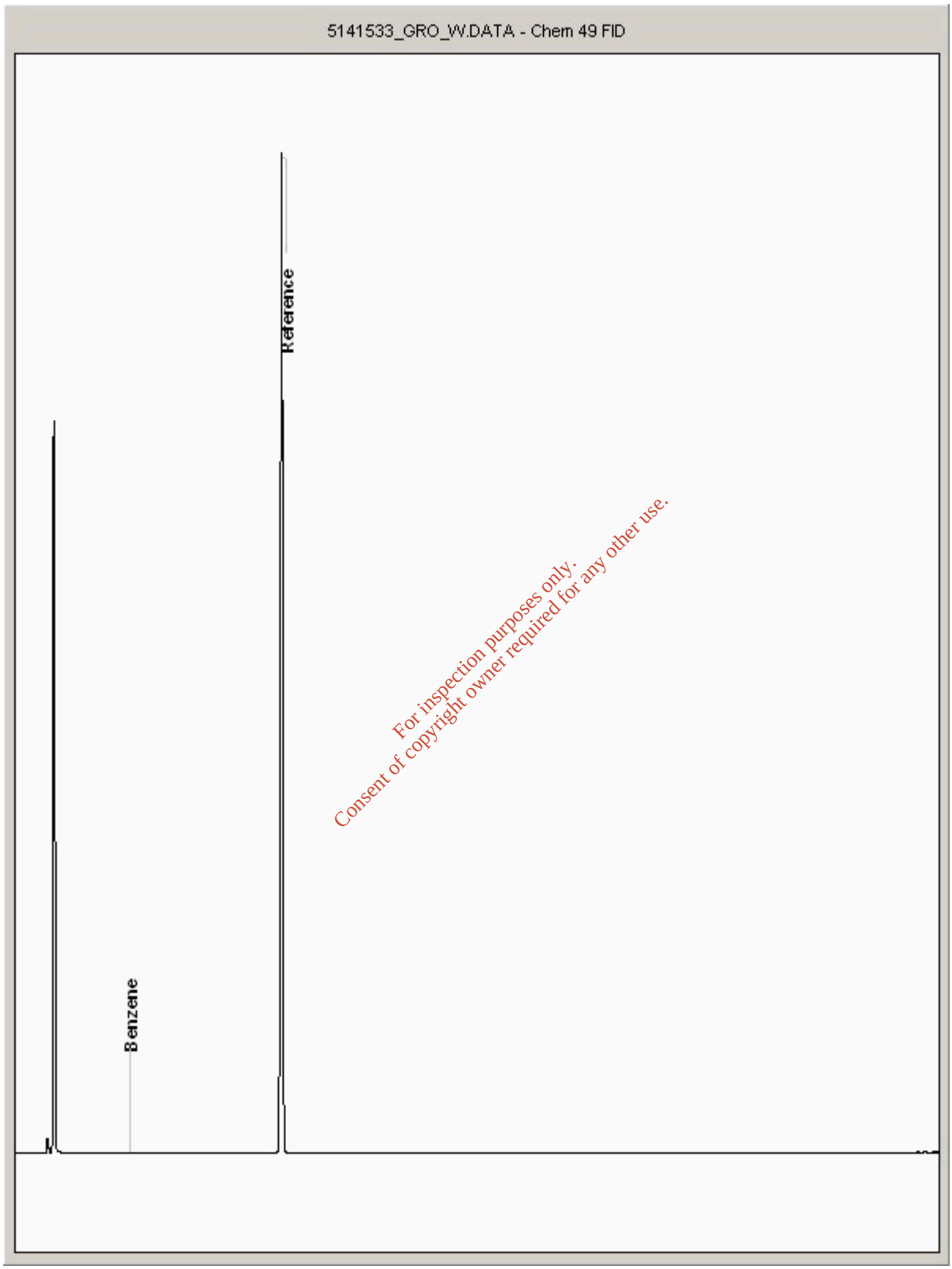
SDG:	120203-121	**Location:**	Limerick Gasworks	**Order Number:**	4500089829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	170465
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	170459

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 5141533
Sample ID : M3

Depth : 2.70 - 3.70



CERTIFICATE OF ANALYSIS

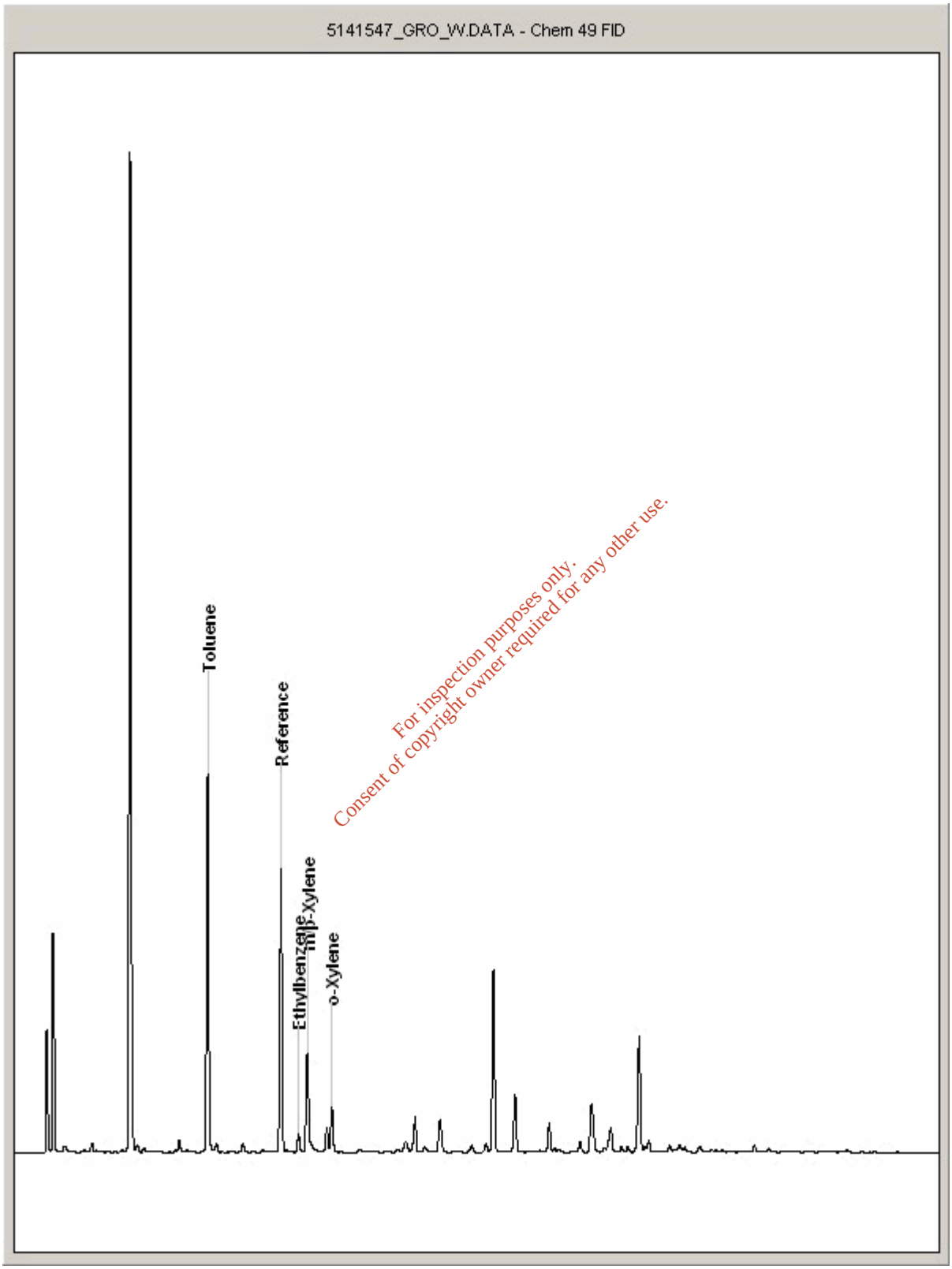
SDG:	120203-121	**Location:**	Limerick Gasworks	**Order Number:**	4500089829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	170465
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	170459

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 5141547
Sample ID : K5

Depth : 1.00 - 2.00



CERTIFICATE OF ANALYSIS

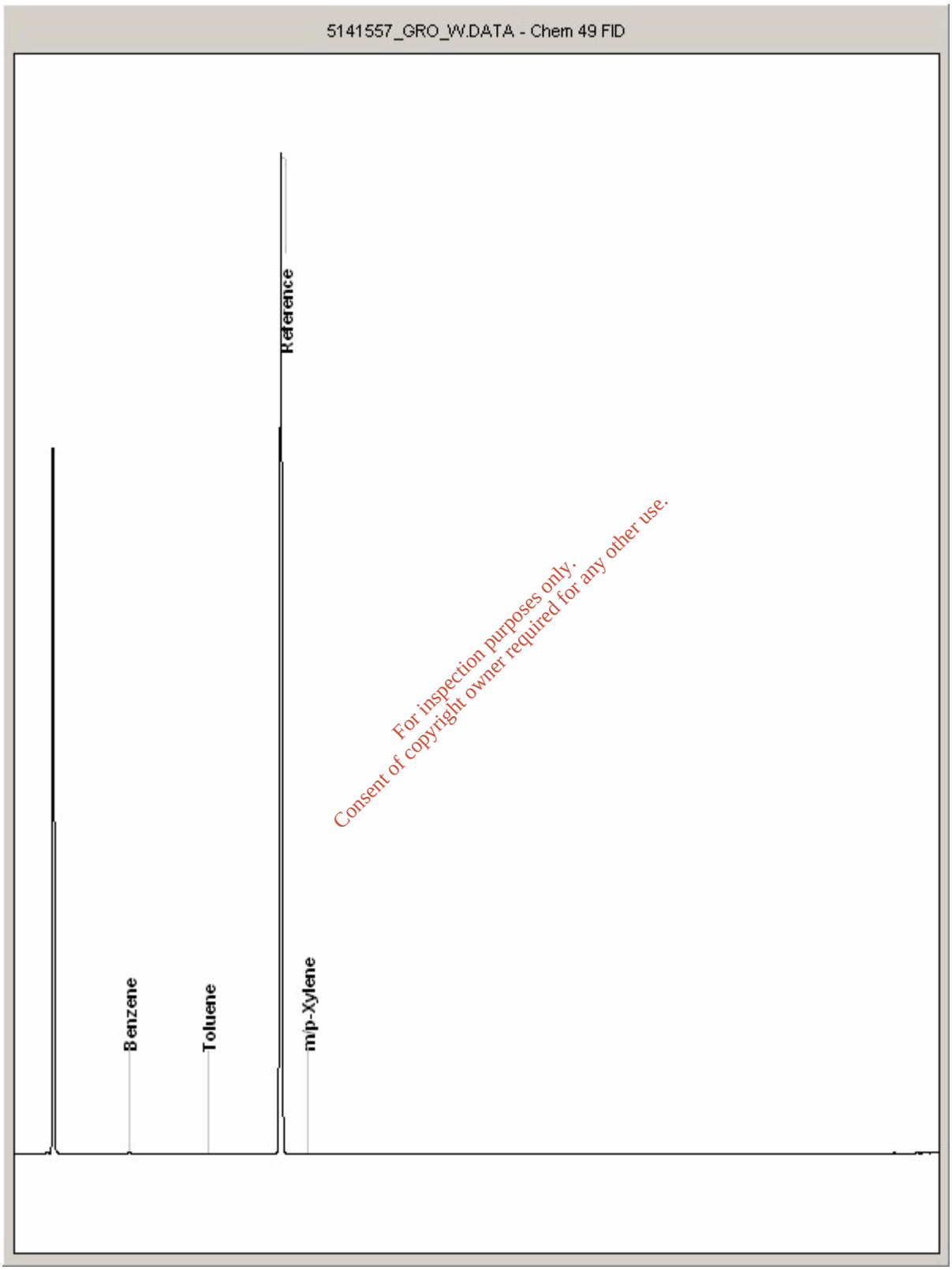
SDG:	120203-121	**Location:**	Limerick Gasworks	**Order Number:**	4500089829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	170465
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	170459

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 5141557
Sample ID : J10

Depth : 0.00 - 1.00



CERTIFICATE OF ANALYSIS

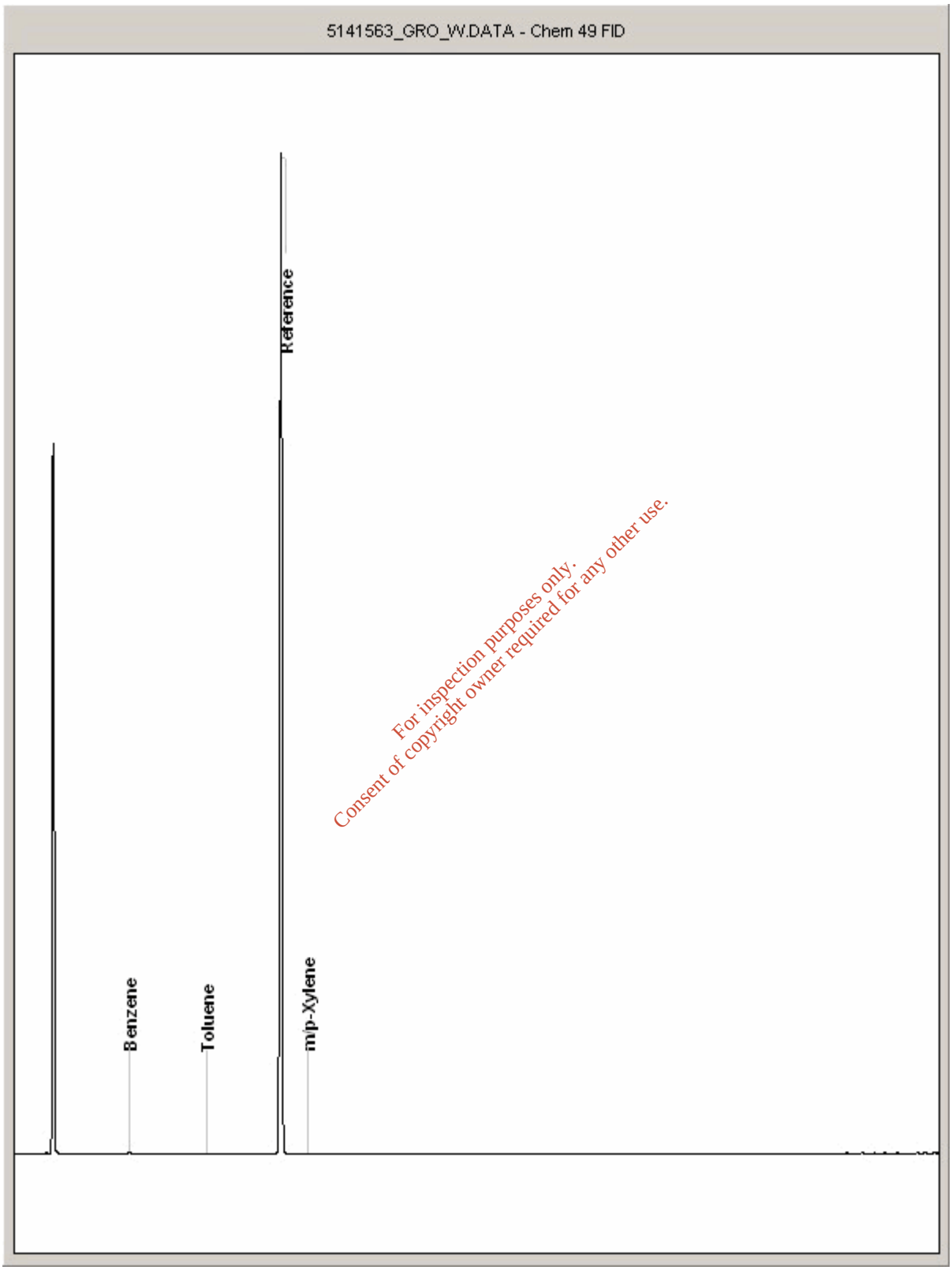
SDG:	120203-121	**Location:**	Limerick Gasworks	**Order Number:**	4500089829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	170465
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	170459

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 5141563
Sample ID : H12

Depth : 1.10 - 2.00



CERTIFICATE OF ANALYSIS

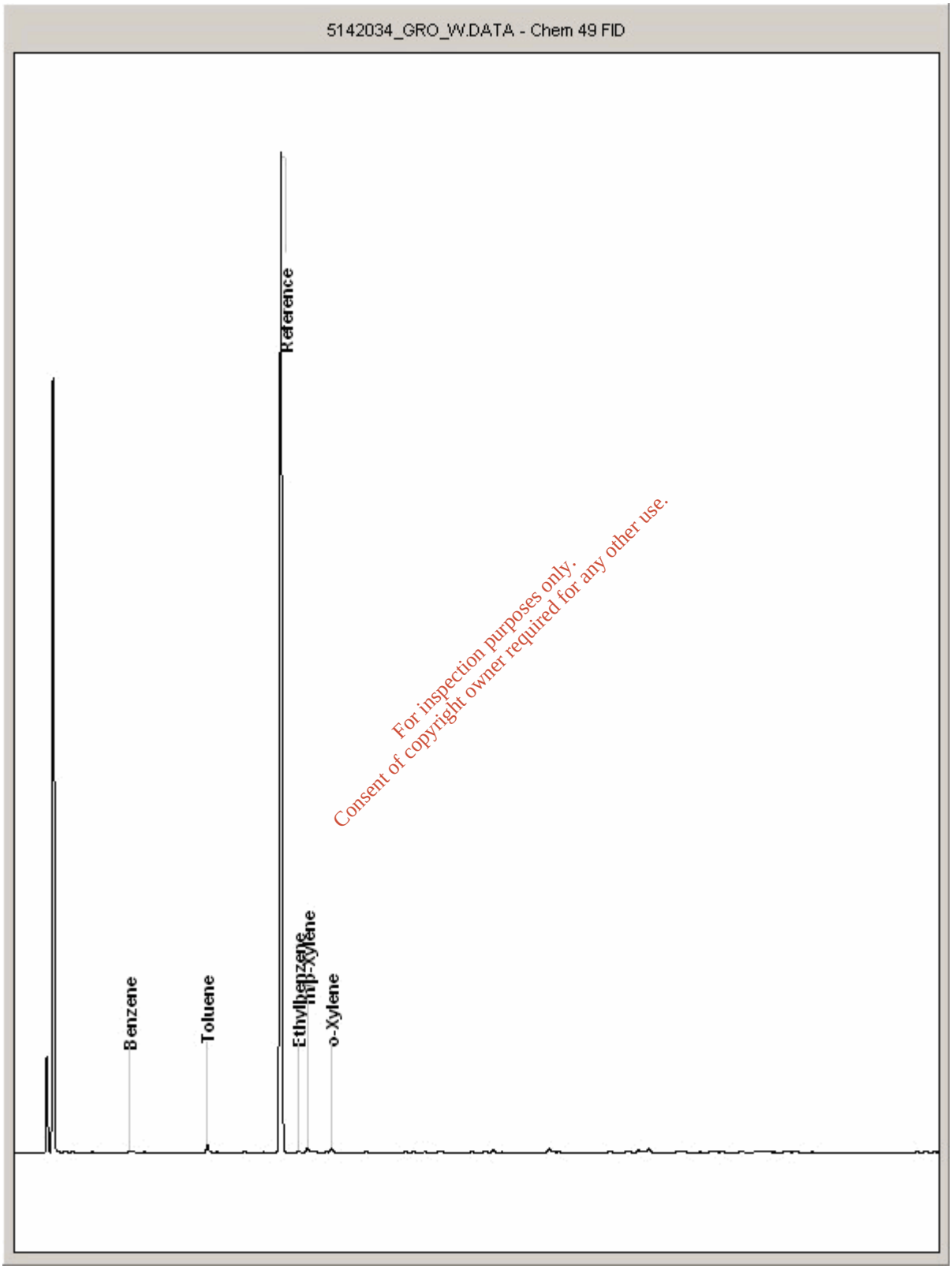
SDG:	120203-121	**Location:**	Limerick Gasworks	**Order Number:**	4500089829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	170465
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	170459

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 5142034
Sample ID : F11

Depth : 4.00 - 4.80



CERTIFICATE OF ANALYSIS

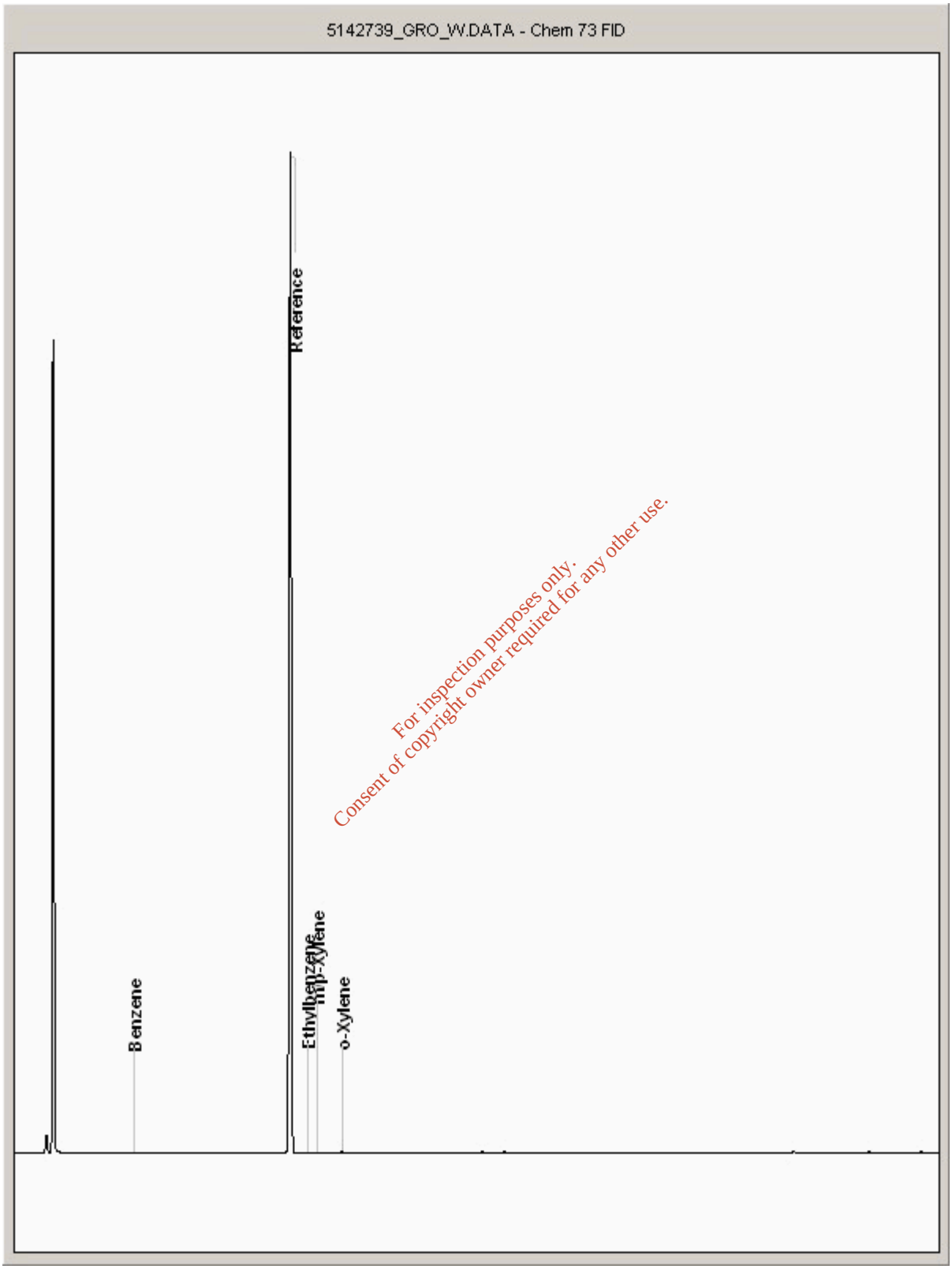
SDG:	120203-121	**Location:**	Limerick Gasworks	**Order Number:**	4500089829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	170465
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	170459

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 5142739
Sample ID : G5

Depth : 3.00 - 4.00



CERTIFICATE OF ANALYSIS

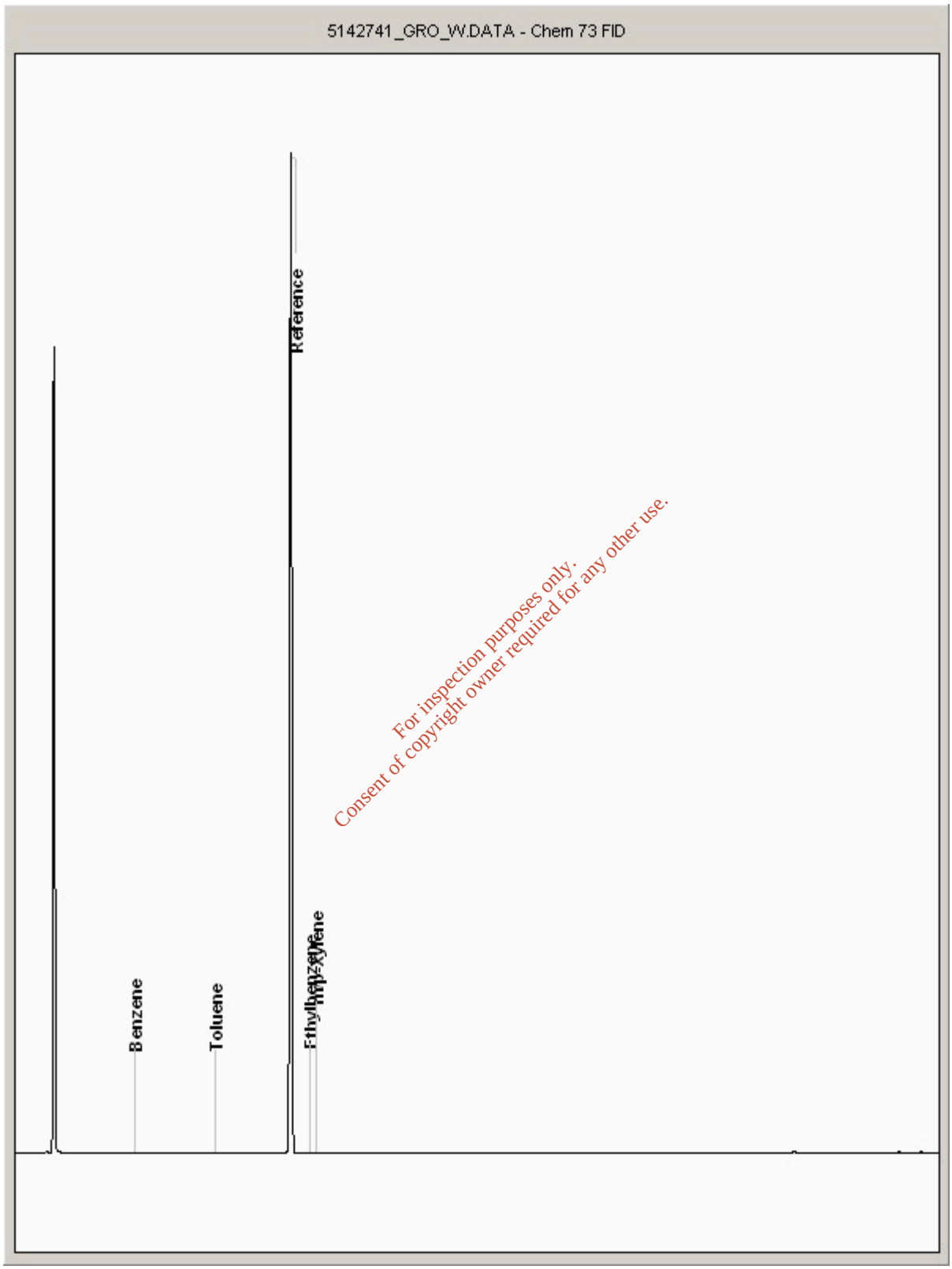
SDG:	120203-121	**Location:**	Limerick Gasworks	**Order Number:**	4500089829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	170465
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	170459

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 5142741
Sample ID : G3

Depth : 2.50 - 3.50



CERTIFICATE OF ANALYSIS

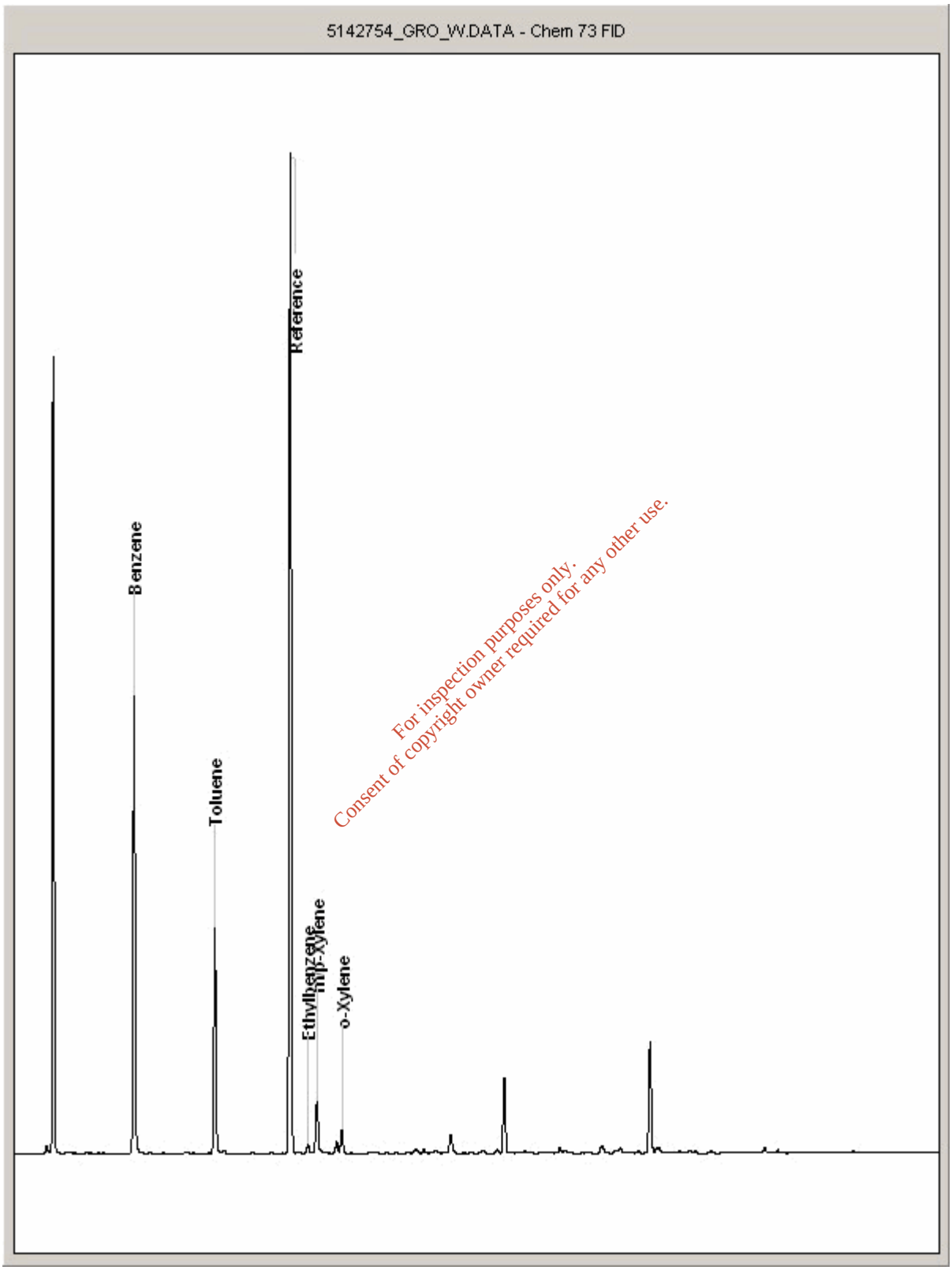
SDG:	120203-121	**Location:**	Limerick Gasworks	**Order Number:**	4500089829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	170465
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	170459

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 5142754
Sample ID : C7

Depth : 5.50 - 6.50



CERTIFICATE OF ANALYSIS

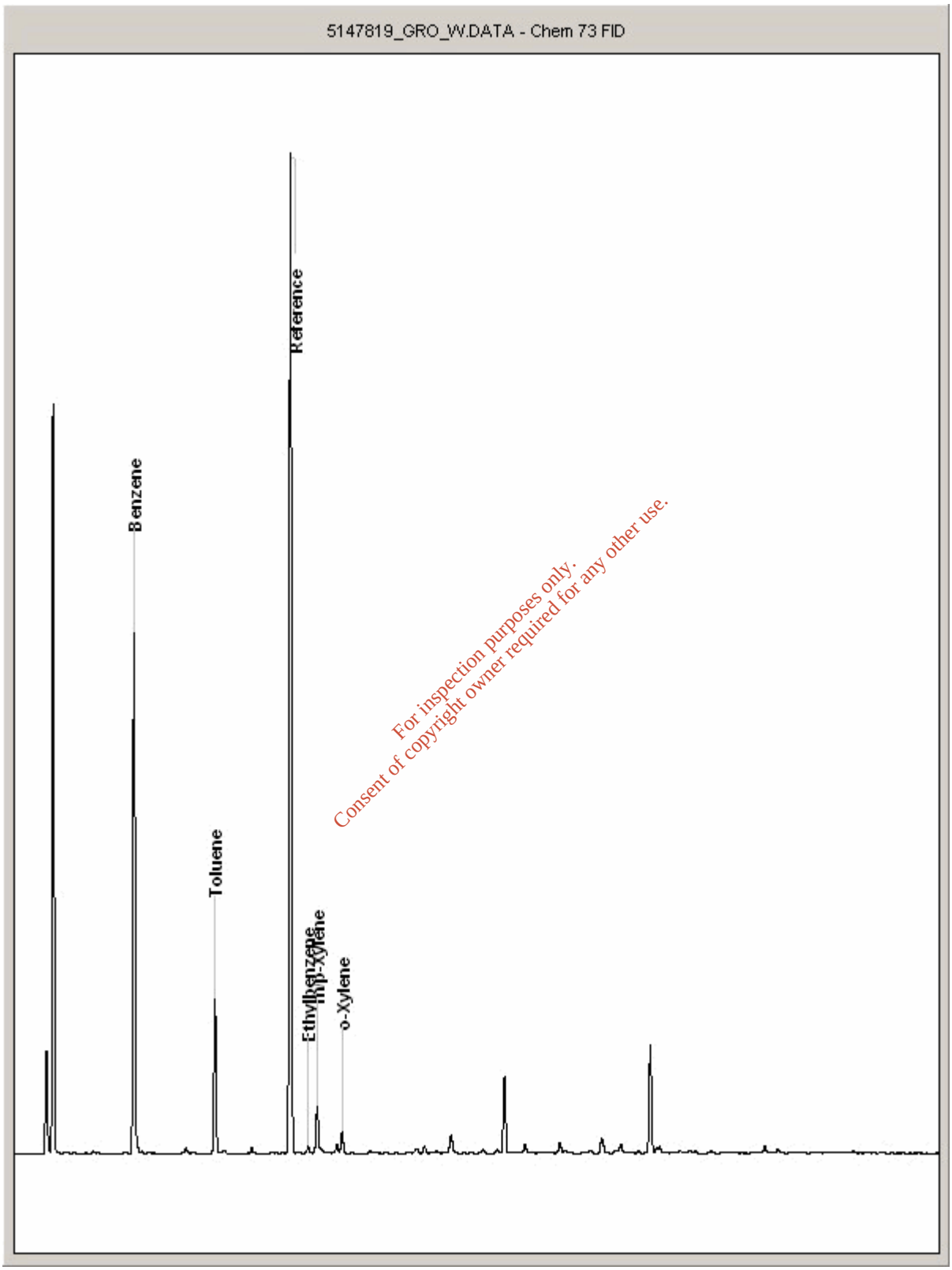
SDG:	120203-121	**Location:**	Limerick Gasworks	**Order Number:**	4500089829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	170465
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	170459

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 5147819
Sample ID : E8

Depth : 1.00 - 2.00



CERTIFICATE OF ANALYSIS

SDG:	120203-121	**Location:**	Limerick Gasworks	**Order Number:**	4500089829
Job:	D_MOUCHEL_ELE-1	**Customer:**	Mouchel	**Report Number:**	170465
Client Reference:		**Attention:**	Neil Balderstone	**Superseded Report:**	170459

Appendix

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

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

3. If sufficient sample is received a sub sample will be retained free of charge for 30 days after analysis is completed (e-mailed) for all sample types unless the sample is destroyed on testing. The prepared soil sub sample that is analysed for asbestos will be retained for a period of 2 months after the analysis date. All bulk samples will be retained for a period of 6 months after the analysis date. All samples received and not scheduled will be disposed of one month after the date of receipt unless we are instructed to the contrary. Once the initial period has expired, a storage charge will be applied for each month or part thereof until the client cancels the request for sample storage. ALcontrol Laboratories reserve the right to charge for samples received and stored but not analysed.

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

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

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

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

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

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

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

11. Results relate only to the items tested.

12. LODs for wet tests reported on a dry weight basis are not corrected for moisture content.

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

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

15. Phenols monohydric by HPLC include phenol, cresols (2-Methylphenol, 3-Methylphenol and 4-Methylphenol) and Xylenols (2,3 Dimethylphenol, 2,4 Dimethylphenol, 2,5 Dimethylphenol, 2,6 Dimethylphenol, 3,4 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 the major part of the sample. Other coarse granular material such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

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

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 AROCLOR 1254 / PCB CON	D&C	HEXANE:ACETONE	END OVER END	GC-MS
POLYAROMATIC HYDROCARBONS (MS)	WET	HEXANE:ACETONE	MICROWAVE TM218.	GC-MS
>C6-C40	WET	HEXANE:ACETONE	SHAKER	GC-FID
POLYAROMATIC HYDROCARBONS RAPID GC	WET	HEXANE:ACETONE	SHAKER	GC-FID
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 AROCLOR 1254	HEXANE	STIRRED EXTRACTION (STIR-BAR)	GC MS
SVOC	DCM	LIQUID/LIQUID SHAKE	GC MS
FREE SULPHUR	DCM	SOLID PHASE EXTRACTION	HPLC
PESTOC PCP P	DCM	LIQUID/LIQUID SHAKE	GC MS
TRIAZINE HERBS	DCM	LIQUID/LIQUID SHAKE	GC MS
PHENOLS MS	ACETONE	SOLID PHASE EXTRACTION	GC MS
TPH by INFRARED (IR)	TCE	STIRRED EXTRACTION (STIR-BAR)	IR
MINERAL OIL by IR	TCE	STIRRED EXTRACTION (STIR-BAR)	IR
GLYCOLS	NONE	DIRECT INJECTION	GC FID

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

Mouchel
Ground Engineering
Rowan House
Lloyd Drive
Cheshire
CH65 9HQ

Attention: Neil Balderstone

CERTIFICATE OF ANALYSIS

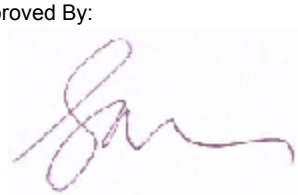
Date:	07 August 2012
Customer:	D_MOUCHEL_ELE
Sample Delivery Group (SDG):	120727-57
Your Reference:	1034973
Location:	Limerick Gasworks
Report No:	189981

We received 22 samples on Friday July 27, 2012 and 22 of these samples were scheduled for analysis which was completed on Tuesday August 07, 2012. 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:	120727-57	**Location:**	Limerick Gasworks	**Order Number:**	4500099608
Job:	D_MOUCHEL_ELE-107	**Customer:**	Mouchel	**Report Number:**	189981
Client Reference:	1034973	**Attention:**	Neil Balderstone	**Superseded Report:**	

Received Sample Overview

Lab Sample No(s)	Customer Sample Ref.	AGS Ref.	Depth (m)	Sampled Date
5947849	A1		1.50 - 2.50	25/07/2012
5947855	A11		1.00 - 2.00	25/07/2012
5947850	A3		1.50 - 2.50	25/07/2012
5947852	A4		2.00 - 3.00	25/07/2012
5947842	A9		2.00	25/07/2012
5947856	C11		1.00 - 2.00	25/07/2012
5947853	C2		1.00 - 2.00	25/07/2012
5947843	C7		4.00	25/07/2012
5947865	D1		3.00 - 4.00	25/07/2012
5947844	D5		1.75	25/07/2012
5947847	E8		4.00	25/07/2012
5947857	F11		3.50 - 4.50	25/07/2012
5947866	G2		3.00 - 4.00	25/07/2012
5947868	G3		6.00	25/07/2012
5947869	G4		3.50	25/07/2012
5947870	G5		5.00	25/07/2012
5947848	G8		1.00	25/07/2012
5947859	H12		2.00 - 3.00	25/07/2012
5947860	J10		1.50	25/07/2012
5947861	K1		3.00 - 4.00	25/07/2012
5947863	K5		1.00 - 2.00	25/07/2012
5947864	M3		3.00 - 4.00	25/07/2012

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

CERTIFICATE OF ANALYSIS

Validated

SDG:	120727-57	**Location:**	Limerick Gasworks	**Order Number:**	4500099608
Job:	D_MOUCHEL_ELE-107	**Customer:**	Mouchel	**Report Number:**	189981
Client Reference:	1034973	**Attention:**	Neil Balderstone	**Superseded Report:**	

LIQUID

Results Legend

X Test

N No Determination Possible

Lab Sample No(s)			5947849				5947853				5947850				5947852				5947844			
Customer Sample Reference			A1				C2				A3				A4				D5			
AGS Reference																						
Depth (m)			1.50 - 2.50				1.00 - 2.00				1.50 - 2.50				2.00 - 3.00				1.75			
Container			1l green glass bottle	1lplastic (ALE221)	H2SO4 (ALE244)	Vial (ALE297)	1l green glass bottle	1lplastic (ALE221)	H2SO4 (ALE244)	Vial (ALE297)	1l green glass bottle	1lplastic (ALE221)	H2SO4 (ALE244)	Vial (ALE297)	1l green glass bottle	1lplastic (ALE221)	H2SO4 (ALE244)	Vial (ALE297)	1l green glass bottle	1lplastic (ALE221)	H2SO4 (ALE244)	Vial (ALE297)
Ammoniacal Nitrogen	All	NDPs: 0 Tests: 22			X				X				X				X				X	
Anions by Kone (w)	All	NDPs: 0 Tests: 22		X				X				X				X				X		
Cyanide Comp/Free/Total/Thiocyanate	All	NDPs: 0 Tests: 22	X				X				X				X				X			
Dissolved Metals by ICP-MS	All	NDPs: 0 Tests: 22		X				X				X				X				X		
EPH CWG (Aliphatic) Aqueous GC (W)	All	NDPs: 0 Tests: 22	X				X				X				X				X			
EPH CWG (Aromatic) Aqueous GC (W)	All	NDPs: 0 Tests: 22	X				X				X				X				X			
GRO by GC-FID (W)	All	NDPs: 0 Tests: 22				X				X				X				X				X
Hexavalent Chromium (w)	All	NDPs: 0 Tests: 22		X				X				X				X				X		
Mercury Dissolved	All	NDPs: 0 Tests: 22	X				X				X				X				X			
PAH Spec MS - Aqueous (W)	All	NDPs: 0 Tests: 22	X				X				X				X				X			
pH Value	All	NDPs: 0 Tests: 22		X				X				X				X				X		
Phenols by HPLC (W)	All	NDPs: 0 Tests: 22			X				X				X				X				X	
Sulphide	All	NDPs: 0 Tests: 22		X				X				X				X				X		
TPH CWG (W)	All	NDPs: 0 Tests: 22	X				X				X				X				X			
VOC MS (W)	All	NDPs: 0 Tests: 11				X								X				X				

Lab Sample No(s)			5947843				5947847				5947848				5947842				5947855			
Customer Sample Reference			C7				E8				G8				A9				A11			
AGS Reference																						
Depth (m)			4.00				4.00				1.00				2.00				1.00 - 2.00			
Container			1l green glass bottle	1lplastic (ALE221)	H2SO4 (ALE244)	Vial (ALE297)	1l green glass bottle	1lplastic (ALE221)	H2SO4 (ALE244)	Vial (ALE297)	1l green glass bottle	1lplastic (ALE221)	H2SO4 (ALE244)	Vial (ALE297)	1l green glass bottle	1lplastic (ALE221)	H2SO4 (ALE244)	Vial (ALE297)	1l green glass bottle	1lplastic (ALE221)	H2SO4 (ALE244)	Vial (ALE297)
Ammoniacal Nitrogen	All	NDPs: 0 Tests: 22			X				X				X				X				X	
Anions by Kone (w)	All	NDPs: 0 Tests: 22		X				X				X				X				X		
Cyanide Comp/Free/Total/Thiocyanate	All	NDPs: 0 Tests: 22	X				X				X				X				X			
Dissolved Metals by ICP-MS	All	NDPs: 0 Tests: 22		X				X				X				X				X		
EPH CWG (Aliphatic) Aqueous GC (W)	All	NDPs: 0 Tests: 22	X				X				X				X				X			
EPH CWG (Aromatic) Aqueous GC (W)	All	NDPs: 0 Tests: 22	X				X				X				X				X			
GRO by GC-FID (W)	All	NDPs: 0 Tests: 22				X				X				X				X				X
Hexavalent Chromium (w)	All	NDPs: 0 Tests: 22		X				X				X				X				X		
Mercury Dissolved	All	NDPs: 0 Tests: 22	X				X				X				X				X			
PAH Spec MS - Aqueous (W)	All	NDPs: 0 Tests: 22	X				X				X				X				X			
pH Value	All	NDPs: 0 Tests: 22		X				X				X				X				X		
Phenols by HPLC (W)	All	NDPs: 0 Tests: 22			X				X				X				X				X	
Sulphide	All	NDPs: 0 Tests: 22		X				X				X				X				X		
TPH CWG (W)	All	NDPs: 0 Tests: 22	X				X				X				X				X			
VOC MS (W)	All	NDPs: 0 Tests: 11				X																X

CERTIFICATE OF ANALYSIS

SDG:	120727-57	**Location:**	Limerick Gasworks	**Order Number:**	4500099608
Job:	D_MOUCHEL_ELE-107	**Customer:**	Mouchel	**Report Number:**	189981
Client Reference:	1034973	**Attention:**	Neil Balderstone	**Superseded Report:**	

LIQUID

Results Legend

- **X** Test
- **N** No Determination Possible

Lab Sample No(s)			5947865				5947861				5947866				5947868				5947864			
Customer Sample Reference			D1				K1				G2				G3				M3			
AGS Reference																						
Depth (m)			3.00 - 4.00				3.00 - 4.00				3.00 - 4.00				6.00				3.00 - 4.00			
Container			1l green glass bottle	1lplastic (ALE221)	H2SO4 (ALE244)	Vial (ALE297)	1l green glass bottle	1lplastic (ALE221)	H2SO4 (ALE244)	Vial (ALE297)	1l green glass bottle	1lplastic (ALE221)	H2SO4 (ALE244)	Vial (ALE297)	1l green glass bottle	1lplastic (ALE221)	H2SO4 (ALE244)	Vial (ALE297)	1l green glass bottle	1lplastic (ALE221)	H2SO4 (ALE244)	Vial (ALE297)
Ammoniacal Nitrogen	All	NDPs: 0 Tests: 22			X				X				X				X				X	
Anions by Kone (w)	All	NDPs: 0 Tests: 22		X				X				X				X				X		
Cyanide Comp/Free/Total/Thiocyanate	All	NDPs: 0 Tests: 22	X				X				X				X				X			
Dissolved Metals by ICP-MS	All	NDPs: 0 Tests: 22		X				X				X				X				X		
EPH CWG (Aliphatic) Aqueous GC (W)	All	NDPs: 0 Tests: 22	X				X				X				X				X			
EPH CWG (Aromatic) Aqueous GC (W)	All	NDPs: 0 Tests: 22	X				X				X				X				X			
GRO by GC-FID (W)	All	NDPs: 0 Tests: 22				X				X				X				X				X
Hexavalent Chromium (w)	All	NDPs: 0 Tests: 22		X				X				X				X				X		
Mercury Dissolved	All	NDPs: 0 Tests: 22	X				X				X				X				X			
PAH Spec MS - Aqueous (W)	All	NDPs: 0 Tests: 22	X				X				X				X				X			
pH Value	All	NDPs: 0 Tests: 22		X				X				X				X				X		
Phenols by HPLC (W)	All	NDPs: 0 Tests: 22			X				X				X				X				X	
Sulphide	All	NDPs: 0 Tests: 22		X				X				X				X				X		
TPH CWG (W)	All	NDPs: 0 Tests: 22	X				X				X				X				X			
VOC MS (W)	All	NDPs: 0 Tests: 11				X								X								X

Lab Sample No(s)			5947863				5947860				5947856				5947857				5947859			
Customer Sample Reference			K5				J10				C11				F11				H12			
AGS Reference																						
Depth (m)			1.00 - 2.00				1.50				1.00 - 2.00				3.50 - 4.50				2.00 - 3.00			
Container			1l green glass bottle	1lplastic (ALE221)	H2SO4 (ALE244)	Vial (ALE297)	1l green glass bottle	1lplastic (ALE221)	H2SO4 (ALE244)	Vial (ALE297)	1l green glass bottle	1lplastic (ALE221)	H2SO4 (ALE244)	Vial (ALE297)	1l green glass bottle	1lplastic (ALE221)	H2SO4 (ALE244)	Vial (ALE297)	1l green glass bottle	1lplastic (ALE221)	H2SO4 (ALE244)	Vial (ALE297)
Ammoniacal Nitrogen	All	NDPs: 0 Tests: 22			X				X				X				X				X	
Anions by Kone (w)	All	NDPs: 0 Tests: 22		X				X				X				X				X		
Cyanide Comp/Free/Total/Thiocyanate	All	NDPs: 0 Tests: 22	X				X				X				X				X			
Dissolved Metals by ICP-MS	All	NDPs: 0 Tests: 22		X				X				X				X				X		
EPH CWG (Aliphatic) Aqueous GC (W)	All	NDPs: 0 Tests: 22	X				X				X				X				X			
EPH CWG (Aromatic) Aqueous GC (W)	All	NDPs: 0 Tests: 22	X				X				X				X				X			
GRO by GC-FID (W)	All	NDPs: 0 Tests: 22				X				X				X				X				X
Hexavalent Chromium (w)	All	NDPs: 0 Tests: 22		X				X				X				X				X		
Mercury Dissolved	All	NDPs: 0 Tests: 22	X				X				X				X				X			
PAH Spec MS - Aqueous (W)	All	NDPs: 0 Tests: 22	X				X				X				X				X			
pH Value	All	NDPs: 0 Tests: 22		X				X				X				X				X		
Phenols by HPLC (W)	All	NDPs: 0 Tests: 22			X				X				X				X				X	
Sulphide	All	NDPs: 0 Tests: 22		X				X				X				X				X		
TPH CWG (W)	All	NDPs: 0 Tests: 22	X				X				X				X				X			
VOC MS (W)	All	NDPs: 0 Tests: 11				X																

CERTIFICATE OF ANALYSIS

SDG:	120727-57	**Location:**	Limerick Gasworks	**Order Number:**	4500099608
Job:	D_MOUCHEL_ELE-107	**Customer:**	Mouchel	**Report Number:**	189981
Client Reference:	1034973	**Attention:**	Neil Balderstone	**Superseded Report:**	

LIQUID

Results Legend

X Test

N No Determination Possible

Lab Sample No(s)			5947869	5947870
Customer Sample Reference			G4	G5
AGS Reference				
Depth (m)			3.50	5.00
Container			1l green glass bottle / 1lplastic (ALE221) / H2SO4 (ALE244) / Vial (ALE297)	1l green glass bottle / 1lplastic (ALE221) / H2SO4 (ALE244) / Vial (ALE297)
Ammoniacal Nitrogen	All	NDPs: 0 Tests: 22	H2SO4 (ALE244)	H2SO4 (ALE244)
Anions by Kone (w)	All	NDPs: 0 Tests: 22	1lplastic (ALE221)	1lplastic (ALE221)
Cyanide Comp/Free/Total/Thiocyanate	All	NDPs: 0 Tests: 22	1l green glass bottle	1l green glass bottle
Dissolved Metals by ICP-MS	All	NDPs: 0 Tests: 22	1lplastic (ALE221)	1lplastic (ALE221)
EPH CWG (Aliphatic) Aqueous GC (W)	All	NDPs: 0 Tests: 22	1l green glass bottle	1l green glass bottle
EPH CWG (Aromatic) Aqueous GC (W)	All	NDPs: 0 Tests: 22	1l green glass bottle	1l green glass bottle
GRO by GC-FID (W)	All	NDPs: 0 Tests: 22	Vial (ALE297)	Vial (ALE297)
Hexavalent Chromium (w)	All	NDPs: 0 Tests: 22	1lplastic (ALE221)	1lplastic (ALE221)
Mercury Dissolved	All	NDPs: 0 Tests: 22	1l green glass bottle	1l green glass bottle
PAH Spec MS - Aqueous (W)	All	NDPs: 0 Tests: 22	1l green glass bottle	1l green glass bottle
pH Value	All	NDPs: 0 Tests: 22	1lplastic (ALE221)	1lplastic (ALE221)
Phenols by HPLC (W)	All	NDPs: 0 Tests: 22	H2SO4 (ALE244)	H2SO4 (ALE244)
Sulphide	All	NDPs: 0 Tests: 22	1lplastic (ALE221)	1lplastic (ALE221)
TPH CWG (W)	All	NDPs: 0 Tests: 22	1l green glass bottle	1l green glass bottle
VOC MS (W)	All	NDPs: 0 Tests: 11	Vial (ALE297)	Vial (ALE297)

CERTIFICATE OF ANALYSIS

SDG:	120727-57	**Location:**	Limerick Gasworks	**Order Number:**	4500099608
Job:	D_MOUCHEL_ELE-107	**Customer:**	Mouchel	**Report Number:**	189981
Client Reference:	1034973	**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	A3	A4	A9	A11	C2
			Depth (m)	1.50 - 2.50	1.50 - 2.50	2.00 - 3.00	2.00	1.00 - 2.00	1.00 - 2.00
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	25/07/2012	25/07/2012	25/07/2012	25/07/2012	25/07/2012	25/07/2012
			Sampled Time	13:00	12:50	12:45	12:20	12:10	13:15
			Date Received	27/07/2012	27/07/2012	27/07/2012	27/07/2012	27/07/2012	27/07/2012
			SDG Ref	120727-57	120727-57	120727-57	120727-57	120727-57	120727-57
			Lab Sample No.(s)	5947849	5947850	5947852	5947842	5947855	5947853
			AGS Reference						
Ammoniacal Nitrogen as N	<200 µg/l	TM099		10800 #	9390 #	300 #	<200 #	<200 #	777 #
Ammoniacal Nitrogen as NH4	<300 µg/l	TM099		13900 #	12100 #	386 #	<300 #	<300 #	999 #
Sulphide	<10 µg/l	TM101		<10 #	<10 #	<10 #	<10 #	<10 #	<10 #
Arsenic (diss.filt)	<0.12 µg/l	TM152		18.9 #	30.9 #	5.6 #	1.36 #	2.46 #	2.93 #
Cadmium (diss.filt)	<0.1 µg/l	TM152		<0.1 #	<0.1 #	<0.1 #	<0.1 #	<0.1 #	0.164 #
Chromium (diss.filt)	<0.22 µg/l	TM152		0.89 #	1.02 #	2.02 #	3.63 #	0.808 #	0.544 #
Copper (diss.filt)	<0.85 µg/l	TM152		4.3 #	4.57 #	11.3 #	2.02 #	5.24 #	6.83 #
Lead (diss.filt)	<0.02 µg/l	TM152		<0.02 #	<0.02 #	0.223 #	<0.02 #	0.401 #	0.101 #
Nickel (diss.filt)	<0.15 µg/l	TM152		5.54 #	3.88 #	5.01 #	1.43 #	2.01 #	3.77 #
Selenium (diss.filt)	<0.39 µg/l	TM152		4.83 #	4.44 #	6.74 #	0.898 #	4.57 #	7.97 #
Zinc (diss.filt)	<0.41 µg/l	TM152		1.93 #	1.56 #	6.7 #	0.601 #	1.74 #	5.8 #
Mercury (diss.filt)	<0.01 µg/l	TM183		<0.01 #	<0.01 #	<0.01 #	<0.01 #	<0.01 #	<0.01 #
Sulphate	<2000 µg/l	TM184		483000 #	347000 #	224000 #	207000 #	28500 #	97700 #
Cyanide, Total	<50 µg/l	TM227		718 #	266 #	211 #	247 #	<50 #	133 #
Chromium, Hexavalent	<30 µg/l	TM241		<30 #	<30 #	<30 #	<30 #	<30 #	<30 #
pH	<1 pH Units	TM256		7.61 #	7.83 #	7.63 #	8 #	7.81 #	7.78 #
Resorcinol	<10 µg/l	TM259		<10	<10	<10	<10	<10	<10
Catechol	<10 µg/l	TM259		<10	<10	<10	<10	<10	<10
Phenol	<2 µg/l	TM259		<2 #	10 #	<2 #	<2 #	<2 #	<2 #
Cresols	<6 µg/l	TM259		140 #	<6 #	<6 #	<6 #	<6 #	<6 #
Xylenols	<8 µg/l	TM259		390 #	<8 #	<8 #	<8 #	<8 #	20 #
1-Naphthol	<10 µg/l	TM259		<10	10	<10	<10	<10	<10
2,3,5-Trimethylphenol	<3 µg/l	TM259		<3 #	50 #	<3 #	<3 #	<3 #	10 #
2-Isopropylphenol	<6 µg/l	TM259		<6 #	30 #	<6 #	<6 #	<6 #	10 #
Phenols, Total Detected 5 speciated	<25 µg/l	TM259		530	90	<25	<25	<25	40

CERTIFICATE OF ANALYSIS

SDG:	120727-57	**Location:**	Limerick Gasworks	**Order Number:**	4500099608
Job:	D_MOUCHEL_ELE-107	**Customer:**	Mouchel	**Report Number:**	189981
Client Reference:	1034973	**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	C7	C11	D1	D5	E8	F11
			Depth (m)	4.00	1.00 - 2.00	3.00 - 4.00	1.75	4.00	3.50 - 4.50
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	25/07/2012	25/07/2012	25/07/2012	25/07/2012	25/07/2012	25/07/2012
			Sampled Time	13:18	12:00	15:00	12:51	12:00	11:45
			Date Received	27/07/2012	27/07/2012	27/07/2012	27/07/2012	27/07/2012	27/07/2012
			SDG Ref	120727-57	120727-57	120727-57	120727-57	120727-57	120727-57
			Lab Sample No.(s)	5947843	5947856	5947865	5947844	5947847	5947857
			AGS Reference						
Ammoniacal Nitrogen as N	<200 µg/l	TM099		94100 #	4150 #	11600 #	30100 #	101000 #	66700 #
Ammoniacal Nitrogen as NH4	<300 µg/l	TM099		121000 #	5340 #	14900 #	38700 #	130000 #	85800 #
Sulphide	<10 µg/l	TM101		31 #	<10 #	21800 #	25 #	<10 #	<10 #
Arsenic (diss.filt)	<0.12 µg/l	TM152		25.3 #	10.2 #	11.7 #	2.23 #	338 #	15.5 #
Cadmium (diss.filt)	<0.1 µg/l	TM152		<0.1 #	<0.1 #	<0.1 #	<0.1 #	0.505 #	<0.1 #
Chromium (diss.filt)	<0.22 µg/l	TM152		1.41 #	0.83 #	1.8 #	1.83 #	2.76 #	1.6 #
Copper (diss.filt)	<0.85 µg/l	TM152		1.87 #	<0.85 #	1.8 #	1.89 #	13.6 #	2.55 #
Lead (diss.filt)	<0.02 µg/l	TM152		<0.02 #	<0.02 #	<0.02 #	0.763 #	0.051 #	<0.02 #
Nickel (diss.filt)	<0.15 µg/l	TM152		2.25 #	3.02 #	2.63 #	2.28 #	52.3 #	4.52 #
Selenium (diss.filt)	<0.39 µg/l	TM152		22.4 #	4.79 #	1.52 #	0.489 #	32.5 #	7.62 #
Zinc (diss.filt)	<0.41 µg/l	TM152		<0.41 #	<0.41 #	0.895 #	5.35 #	60.7 #	0.984 #
Mercury (diss.filt)	<0.01 µg/l	TM183		0.0439 #	<0.01 #	<0.01 #	<0.01 #	0.0631 #	<0.01 #
Sulphate	<2000 µg/l	TM184		47600 #	65300 #	421000 #	19600 #	791000 #	58500 #
Cyanide, Total	<50 µg/l	TM227		491 #	162 #	920 #	<50 #	20500 #	104 #
Chromium, Hexavalent	<30 µg/l	TM241		<150 #	<30 #	<30 #	<30 #	<150 #	<30 #
pH	<1 pH Units	TM256		8.63 #	7.57 #	7.77 #	7.52 #	9.55 #	7.59 #
Resorcinol	<10 µg/l	TM259		<10	<10	<50	<10	1890	<10
Catechol	<10 µg/l	TM259		140	<10	<50	<10	140	<10
Phenol	<2 µg/l	TM259		2470 #	230 #	760 #	50 #	36500 #	2060 #
Cresols	<6 µg/l	TM259		6530 #	200 #	40 #	590 #	55400 #	5300 #
Xylenols	<8 µg/l	TM259		8730 #	400 #	<40 #	1500 #	54500 #	7850 #
1-Naphthol	<10 µg/l	TM259		<10	40	<50	50	960	<10
2,3,5-Trimethylphenol	<3 µg/l	TM259		<3 #	<3 #	<15 #	<3 #	5950 #	1700 #
2-Isopropylphenol	<6 µg/l	TM259		1720 #	940 #	<30 #	1210 #	12400 #	3900 #
Phenols, Total Detected 5 speciated	<25 µg/l	TM259		19500	1770	800	3350	165000	20800

CERTIFICATE OF ANALYSIS

SDG:	120727-57	**Location:**	Limerick Gasworks	**Order Number:**	4500099608
Job:	D_MOUCHEL_ELE-107	**Customer:**	Mouchel	**Report Number:**	189981
Client Reference:	1034973	**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	G2	G3	G4	G5	G8	H12
			Depth (m)	3.00 - 4.00	6.00	3.50	5.00	1.00	2.00 - 3.00
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	25/07/2012	25/07/2012	25/07/2012	25/07/2012	25/07/2012	25/07/2012
			Sampled Time	15:45	15:57	16:10	15:01	13:06	12:30
			Date Received	27/07/2012	27/07/2012	27/07/2012	27/07/2012	27/07/2012	27/07/2012
			SDG Ref	120727-57	120727-57	120727-57	120727-57	120727-57	120727-57
			Lab Sample No.(s)	5947866	5947868	5947869	5947870	5947848	5947859
			AGS Reference						
Ammoniacal Nitrogen as N	<200 µg/l	TM099		46600 #	6980 #	1320 #	1140 #	17300 #	15500 #
Ammoniacal Nitrogen as NH4	<300 µg/l	TM099		59900 #	8970 #	1700 #	1470 #	22200 #	19900 #
Sulphide	<10 µg/l	TM101		<10 #	<10 #	<10 #	12 #	11 #	<10 #
Arsenic (diss.filt)	<0.12 µg/l	TM152		20.2 #	3.67 #	4.11 #	1.49 #	11.2 #	3.99 #
Cadmium (diss.filt)	<0.1 µg/l	TM152		<0.1 #	<0.1 #	<0.1 #	<0.1 #	<0.1 #	<0.1 #
Chromium (diss.filt)	<0.22 µg/l	TM152		2.36 #	1.44 #	0.778 #	1.92 #	1.95 #	0.863 #
Copper (diss.filt)	<0.85 µg/l	TM152		5.31 #	4.88 #	2.46 #	7.02 #	1.63 #	3.35 #
Lead (diss.filt)	<0.02 µg/l	TM152		<0.02 #	0.149 #	0.995 #	0.051 #	0.043 #	<0.02 #
Nickel (diss.filt)	<0.15 µg/l	TM152		6.3 #	5.56 #	3.72 #	10.1 #	4.49 #	3.49 #
Selenium (diss.filt)	<0.39 µg/l	TM152		11.7 #	2.65 #	1.64 #	10.5 #	1.84 #	4.87 #
Zinc (diss.filt)	<0.41 µg/l	TM152		1.91 #	5.71 #	9.79 #	3.74 #	0.88 #	1.37 #
Mercury (diss.filt)	<0.01 µg/l	TM183		<0.01 #	0.0108 #	<0.01 #	<0.01 #	<0.01 #	<0.01 #
Sulphate	<2000 µg/l	TM184		648000 #	807000 #	183000 #	690000 #	111000 #	170000 #
Cyanide, Total	<50 µg/l	TM227		1060 #	2540 #	171 #	1490 #	314 #	<50 #
Chromium, Hexavalent	<30 µg/l	TM241		<30 #	<30 #	<30 #	<30 #	<30 #	<30 #
pH	<1 pH Units	TM256		7.76 #	7.49 #	7.61 #	7.36 #	7.78 #	7.67 #
Resorcinol	<10 µg/l	TM259		<10	<10	<10	<10	<10	<10
Catechol	<10 µg/l	TM259		<10	<10	<10	<10	330	<10
Phenol	<2 µg/l	TM259		4790 #	20 #	10 #	<2 #	1460 #	<2 #
Cresols	<6 µg/l	TM259		7690 #	130 #	<6 #	<6 #	1220 #	<6 #
Xylenols	<8 µg/l	TM259		18100 #	600 #	<8 #	<8 #	2900 #	<8 #
1-Naphthol	<10 µg/l	TM259		<10	<10	30	<10	90	<10
2,3,5-Trimethylphenol	<3 µg/l	TM259		3720 #	<3 #	<3 #	<3 #	<3 #	<3 #
2-Isopropylphenol	<6 µg/l	TM259		6550 #	330 #	<6 #	<6 #	4270 #	<6 #
Phenols, Total Detected 5 speciated	<25 µg/l	TM259		40900	1080	<25	<25	9850	<25

CERTIFICATE OF ANALYSIS

SDG:	120727-57	**Location:**	Limerick Gasworks	**Order Number:**	4500099608
Job:	D_MOUCHEL_ELE-107	**Customer:**	Mouchel	**Report Number:**	189981
Client Reference:	1034973	**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	J10	K1	K5	M3		
			Depth (m)	1.50	3.00 - 4.00	1.00 - 2.00	3.00 - 4.00		
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)		
			Date Sampled	25/07/2012	25/07/2012	25/07/2012	25/07/2012		
			Sampled Time	11:05	11:15	10:40	09:50		
			Date Received	27/07/2012	27/07/2012	27/07/2012	27/07/2012		
			SDG Ref	120727-57	120727-57	120727-57	120727-57		
			Lab Sample No.(s)	5947860	5947861	5947863	5947864		
			AGS Reference						
Ammoniacal Nitrogen as N	<200 µg/l	TM099		333 #	3070 #	441000 #	980 #		
Ammoniacal Nitrogen as NH4	<300 µg/l	TM099		428 #	3950 #	567000 #	1260 #		
Sulphide	<10 µg/l	TM101		<10 #	<10 #	<100 #	<10 #		
Arsenic (diss.filt)	<0.12 µg/l	TM152		2.83 #	3.31 #	426 #	4.33 #		
Cadmium (diss.filt)	<0.1 µg/l	TM152		<0.1 #	<0.1 #	0.365 #	<0.1 #		
Chromium (diss.filt)	<0.22 µg/l	TM152		<0.22 #	0.303 #	25.1 #	0.534 #		
Copper (diss.filt)	<0.85 µg/l	TM152		2.55 #	4.54 #	7.61 #	4.44 #		
Lead (diss.filt)	<0.02 µg/l	TM152		<0.02 #	0.023 #	0.151 #	<0.02 #		
Nickel (diss.filt)	<0.15 µg/l	TM152		7.04 #	7.92 #	37 #	4.35 #		
Selenium (diss.filt)	<0.39 µg/l	TM152		5.05 #	6.68 #	29.8 #	4.46 #		
Zinc (diss.filt)	<0.41 µg/l	TM152		0.754 #	1.95 #	105 #	0.903 #		
Mercury (diss.filt)	<0.01 µg/l	TM183		<0.01 #	<0.01 #	0.108 #	<0.01 #		
Sulphate	<2000 µg/l	TM184		33900 #	651000 #	732000 #	529000 #		
Cyanide, Total	<50 µg/l	TM227		<50 #	494 #	27800 #	1850 #		
Chromium, Hexavalent	<30 µg/l	TM241		<30 #	<30 #	<150 #	<30 #		
pH	<1 pH Units	TM256		7.52 #	7.39 #	10.1 #	7.78 #		
Resorcinol	<10 µg/l	TM259		<10	<10	<2000	<10		
Catechol	<10 µg/l	TM259		<10	<10	15200	<10		
Phenol	<2 µg/l	TM259		60 #	340 #	569000 #	<2 #		
Cresols	<6 µg/l	TM259		60 #	180 #	715000 #	10 #		
Xylenols	<8 µg/l	TM259		<8 #	<8 #	361000 #	<8 #		
1-Naphthol	<10 µg/l	TM259		<10	<10	<2000	<10		
2,3,5-Trimethylphenol	<3 µg/l	TM259		<3 #	<3 #	<600 #	<3 #		
2-Isopropylphenol	<6 µg/l	TM259		<6 #	<6 #	28500 #	<6 #		
Phenols, Total Detected 5 speciated	<25 µg/l	TM259		120	520	1670000	<25		

CERTIFICATE OF ANALYSIS

SDG:	120727-57	**Location:**	Limerick Gasworks	**Order Number:**	4500099608
Job:	D_MOUCHEL_ELE-107	**Customer:**	Mouchel	**Report Number:**	189981
Client Reference:	1034973	**Attention:**	Neil Balderstone	**Superseded Report:**	

PAH Spec MS - Aqueous (W)

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	A3	A4	A9	A11	C2
			Depth (m)	1.50 - 2.50	1.50 - 2.50	2.00 - 3.00	2.00	1.00 - 2.00	1.00 - 2.00
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	25/07/2012	25/07/2012	25/07/2012	25/07/2012	25/07/2012	25/07/2012
			Sampled Time	13.:00	12:50	12:45	12:20	12:10	13:15
			Date Received	27/07/2012	27/07/2012	27/07/2012	27/07/2012	27/07/2012	27/07/2012
			SDG Ref	120727-57	120727-57	120727-57	120727-57	120727-57	120727-57
			Lab Sample No.(s)	5947849	5947850	5947852	5947842	5947855	5947853
			AGS Reference						
Naphthalene (aq)	<0.1 µg/l	TM178		0.151 #	0.124 #	0.111 #	<0.1 #	0.133 #	<0.1 #
Acenaphthene (aq)	<0.015 µg/l	TM178		0.0193 #	0.0969 #	0.0228 #	<0.015 #	0.0303 #	0.0174 #
Acenaphthylene (aq)	<0.011 µg/l	TM178		0.371 #	0.191 #	0.198 #	0.0705 #	0.414 #	0.0198 #
Fluoranthene (aq)	<0.017 µg/l	TM178		0.278 #	0.279 #	0.401 #	0.35 #	1.12 #	0.31 #
Anthracene (aq)	<0.015 µg/l	TM178		0.071 #	0.131 #	0.0912 #	0.0347 #	0.354 #	0.0374 #
Phenanthrene (aq)	<0.022 µg/l	TM178		0.156 #	0.0982 #	0.133 #	0.123 #	0.343 #	0.127 #
Fluorene (aq)	<0.014 µg/l	TM178		0.0871 #	0.064 #	0.0668 #	0.0166 #	0.0893 #	0.0181 #
Chrysene (aq)	<0.013 µg/l	TM178		0.0797 #	0.0501 #	0.278 #	0.272 #	1.09 #	0.189 #
Pyrene (aq)	<0.015 µg/l	TM178		0.587 #	0.769 #	0.373 #	0.359 #	1.09 #	0.268 #
Benzo(a)anthracene (aq)	<0.017 µg/l	TM178		0.0756 #	0.0449 #	0.263 #	0.231 #	0.939 #	0.178 #
Benzo(b)fluoranthene (aq)	<0.023 µg/l	TM178		0.118 #	0.043 #	0.497 #	0.333 #	1.94 #	0.113 #
Benzo(k)fluoranthene (aq)	<0.027 µg/l	TM178		0.123 #	0.0548 #	0.442 #	0.363 #	1.74 #	0.141 #
Benzo(a)pyrene (aq)	<0.009 µg/l	TM178		0.118 #	0.081 #	0.524 #	0.349 #	2.01 #	0.143 #
Dibenzo(a,h)anthracene (aq)	<0.016 µg/l	TM178		0.0161 #	<0.016 #	0.0888 #	0.0632 #	0.432 #	0.0206 #
Benzo(g,h,i)perylene (aq)	<0.016 µg/l	TM178		0.0613 #	0.0298 #	0.307 #	0.255 #	1.54 #	0.0796 #
Indeno(1,2,3-cd)pyrene (aq)	<0.014 µg/l	TM178		0.0557 #	0.024 #	0.281 #	0.212 #	1.43 #	0.0614 #
PAH, Total Detected USEPA 16 (aq)	<0.247 µg/l	TM178		2.37	2.08	4.08	3.03	14.7	1.72

CERTIFICATE OF ANALYSIS

SDG:	120727-57	**Location:**	Limerick Gasworks	**Order Number:**	4500099608
Job:	D_MOUCHEL_ELE-107	**Customer:**	Mouchel	**Report Number:**	189981
Client Reference:	1034973	**Attention:**	Neil Balderstone	**Superseded Report:**	

PAH Spec MS - Aqueous (W)

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	C7	C11	D1	D5	E8	F11
			Depth (m)	4.00	1.00 - 2.00	3.00 - 4.00	1.75	4.00	3.50 - 4.50
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	25/07/2012	25/07/2012	25/07/2012	25/07/2012	25/07/2012	25/07/2012
			Sampled Time	13:18	12:00	15:00	12:51	12:00	11:45
			Date Received	27/07/2012	27/07/2012	27/07/2012	27/07/2012	27/07/2012	27/07/2012
			SDG Ref	120727-57	120727-57	120727-57	120727-57	120727-57	120727-57
			Lab Sample No.(s)	5947843	5947856	5947865	5947844	5947847	5947857
			AGS Reference						
Naphthalene (aq)	<0.1 µg/l	TM178		25200 #	0.526 #	167 #	1.71 #	5690 #	0.515 #
Acenaphthene (aq)	<0.015 µg/l	TM178		417 #	0.726 #	285 #	0.44 #	25 #	0.825 #
Acenaphthylene (aq)	<0.011 µg/l	TM178		2420 #	0.862 #	346 #	11.5 #	166 #	0.258 #
Fluoranthene (aq)	<0.017 µg/l	TM178		3180 #	2.61 #	662 #	48.8 #	7.23 #	0.22 #
Anthracene (aq)	<0.015 µg/l	TM178		1510 #	0.514 #	244 #	2.92 #	10.4 #	0.152 #
Phenanthrene (aq)	<0.022 µg/l	TM178		4450 #	1.54 #	749 #	10.1 #	40.1 #	<0.11 #
Fluorene (aq)	<0.014 µg/l	TM178		1930 #	0.467 #	413 #	1.73 #	53.2 #	0.624 #
Chrysene (aq)	<0.013 µg/l	TM178		921 #	0.757 #	131 #	30.8 #	0.865 #	<0.065 #
Pyrene (aq)	<0.015 µg/l	TM178		2150 #	1.93 #	413 #	39.9 #	4.51 #	0.14 #
Benzo(a)anthracene (aq)	<0.017 µg/l	TM178		1110 #	0.808 #	156 #	24.5 #	0.903 #	<0.085 #
Benzo(b)fluoranthene (aq)	<0.023 µg/l	TM178		628 #	1.11 #	95.8 #	43.4 #	0.469 #	<0.115 #
Benzo(k)fluoranthene (aq)	<0.027 µg/l	TM178		642 #	0.933 #	87.1 #	41.4 #	0.467 #	<0.135 #
Benzo(a)pyrene (aq)	<0.009 µg/l	TM178		857 #	1.06 #	109 #	40.9 #	0.422 #	<0.045 #
Dibenzo(a,h)anthracene (aq)	<0.016 µg/l	TM178		124 #	0.185 #	12.7 #	7.14 #	0.165 #	<0.08 #
Benzo(g,h,i)perylene (aq)	<0.016 µg/l	TM178		413 #	0.568 #	57.6 #	30.8 #	0.222 #	<0.08 #
Indeno(1,2,3-cd)pyrene (aq)	<0.014 µg/l	TM178		391 #	0.559 #	44.3 #	26.8 #	0.219 #	<0.07 #
PAH, Total Detected USEPA 16 (aq)	<0.247 µg/l	TM178		46300	15.2	3970	363	6000	2.91

CERTIFICATE OF ANALYSIS

SDG:	120727-57	**Location:**	Limerick Gasworks	**Order Number:**	4500099608
Job:	D_MOUCHEL_ELE-107	**Customer:**	Mouchel	**Report Number:**	189981
Client Reference:	1034973	**Attention:**	Neil Balderstone	**Superseded Report:**	

PAH Spec MS - Aqueous (W)

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	G2	G3	G4	G5	G8	H12
			Depth (m)	3.00 - 4.00	6.00	3.50	5.00	1.00	2.00 - 3.00
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	25/07/2012	25/07/2012	25/07/2012	25/07/2012	25/07/2012	25/07/2012
			Sampled Time	15:45	15:57	16:10	15:01	13:06	12:30
			Date Received	27/07/2012	27/07/2012	27/07/2012	27/07/2012	27/07/2012	27/07/2012
			SDG Ref	120727-57	120727-57	120727-57	120727-57	120727-57	120727-57
			Lab Sample No.(s)	5947866	5947868	5947869	5947870	5947848	5947859
			AGS Reference						
Naphthalene (aq)	<0.1 µg/l	TM178		1.31 #	0.217 #	0.928 #	0.138 #	31.1 #	0.15 #
Acenaphthene (aq)	<0.015 µg/l	TM178		42.9 #	0.145 #	30.1 #	0.37 #	19.8 #	0.0628 #
Acenaphthylene (aq)	<0.011 µg/l	TM178		41.8 #	0.0915 #	34.9 #	3.64 #	51.9 #	0.214 #
Fluoranthene (aq)	<0.017 µg/l	TM178		3.6 #	0.0799 #	16 #	9.19 #	7.5 #	1.07 #
Anthracene (aq)	<0.015 µg/l	TM178		4.17 #	<0.03 #	6.11 #	0.689 #	10.8 #	0.111 #
Phenanthrene (aq)	<0.022 µg/l	TM178		27.8 #	<0.044 #	1.06 #	1.28 #	34.9 #	0.267 #
Fluorene (aq)	<0.014 µg/l	TM178		31.4 #	0.0735 #	28.5 #	0.509 #	51.4 #	0.13 #
Chrysene (aq)	<0.013 µg/l	TM178		0.145 #	<0.026 #	1.53 #	5.99 #	1.52 #	0.398 #
Pyrene (aq)	<0.015 µg/l	TM178		1.77 #	<0.03 #	9.74 #	6.57 #	4.48 #	0.483 #
Benzo(a)anthracene (aq)	<0.017 µg/l	TM178		0.194 #	<0.034 #	1.73 #	6.12 #	1.98 #	0.357 #
Benzo(b)fluoranthene (aq)	<0.023 µg/l	TM178		0.0473 #	<0.046 #	0.842 #	5.89 #	1.21 #	0.675 #
Benzo(k)fluoranthene (aq)	<0.027 µg/l	TM178		<0.054 #	<0.054 #	0.811 #	8.06 #	1.41 #	0.646 #
Benzo(a)pyrene (aq)	<0.009 µg/l	TM178		0.0184 #	<0.018 #	0.857 #	8.93 #	1.34 #	0.744 #
Dibenzo(a,h)anthracene (aq)	<0.016 µg/l	TM178		<0.032 #	<0.032 #	0.085 #	1.59 #	0.195 #	0.11 #
Benzo(g,h,i)perylene (aq)	<0.016 µg/l	TM178		<0.032 #	<0.032 #	0.333 #	5.71 #	0.47 #	0.397 #
Indeno(1,2,3-cd)pyrene (aq)	<0.014 µg/l	TM178		<0.028 #	<0.028 #	0.302 #	5.08 #	0.515 #	0.371 #
PAH, Total Detected USEPA 16 (aq)	<0.247 µg/l	TM178		155	0.747	134	69.8	221	6.19

CERTIFICATE OF ANALYSIS

SDG:	120727-57	**Location:**	Limerick Gasworks	**Order Number:**	4500099608
Job:	D_MOUCHEL_ELE-107	**Customer:**	Mouchel	**Report Number:**	189981
Client Reference:	1034973	**Attention:**	Neil Balderstone	**Superseded Report:**	

PAH Spec MS - Aqueous (W)

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	J10	K1	K5	M3		
			Depth (m)	1.50	3.00 - 4.00	1.00 - 2.00	3.00 - 4.00		
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)		
			Date Sampled	25/07/2012	25/07/2012	25/07/2012	25/07/2012		
			Sampled Time	11:05	11:15	10:40	09:50		
			Date Received	27/07/2012	27/07/2012	27/07/2012	27/07/2012		
			SDG Ref	120727-57	120727-57	120727-57	120727-57		
			Lab Sample No.(s)	5947860	5947861	5947863	5947864		
			AGS Reference						
Naphthalene (aq)	<0.1 µg/l	TM178		0.124 #	0.405 #	7380 #	0.144 #		
Acenaphthene (aq)	<0.015 µg/l	TM178		0.179 #	0.714 #	136 #	<0.015 #		
Acenaphthylene (aq)	<0.011 µg/l	TM178		0.294 #	0.62 #	661 #	0.0548 #		
Fluoranthene (aq)	<0.017 µg/l	TM178		0.757 #	8.72 #	336 #	0.679 #		
Anthracene (aq)	<0.015 µg/l	TM178		0.0645 #	0.903 #	209 #	0.062 #		
Phenanthrene (aq)	<0.022 µg/l	TM178		0.125 #	2.25 #	605 #	0.133 #		
Fluorene (aq)	<0.014 µg/l	TM178		0.0426 #	0.403 #	359 #	0.035 #		
Chrysene (aq)	<0.013 µg/l	TM178		0.545 #	7.51 #	86.4 #	0.588 #		
Pyrene (aq)	<0.015 µg/l	TM178		0.561 #	7.87 #	220 #	0.581 #		
Benzo(a)anthracene (aq)	<0.017 µg/l	TM178		0.638 #	7.47 #	96.5 #	0.474 #		
Benzo(b)fluoranthene (aq)	<0.023 µg/l	TM178		0.852 #	10.9 #	61.3 #	1.13 #		
Benzo(k)fluoranthene (aq)	<0.027 µg/l	TM178		0.876 #	13 #	57.5 #	0.787 #		
Benzo(a)pyrene (aq)	<0.009 µg/l	TM178		1.1 #	14 #	67.4 #	0.894 #		
Dibenzo(a,h)anthracene (aq)	<0.016 µg/l	TM178		0.167 #	2.87 #	9.15 #	0.184 #		
Benzo(g,h,i)perylene (aq)	<0.016 µg/l	TM178		0.579 #	11.6 #	27.5 #	0.87 #		
Indeno(1,2,3-cd)pyrene (aq)	<0.014 µg/l	TM178		0.469 #	9.86 #	27.5 #	0.706 #		
PAH, Total Detected USEPA 16 (aq)	<0.247 µg/l	TM178		7.37	99.1	10300	7.32		

CERTIFICATE OF ANALYSIS

SDG:	120727-57	**Location:**	Limerick Gasworks	**Order Number:**	4500099608
Job:	D_MOUCHEL_ELE-107	**Customer:**	Mouchel	**Report Number:**	189981
Client Reference:	1034973	**Attention:**	Neil Balderstone	**Superseded Report:**	

TPH CWG (W)

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	A3	A4	A9	A11	C2
			Depth (m)	1.50 - 2.50	1.50 - 2.50	2.00 - 3.00	2.00	1.00 - 2.00	1.00 - 2.00
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	25/07/2012	25/07/2012	25/07/2012	25/07/2012	25/07/2012	25/07/2012
			Sampled Time	13.:00	12:50	12:45	12:20	12:10	13:15
			Date Received	27/07/2012	27/07/2012	27/07/2012	27/07/2012	27/07/2012	27/07/2012
			SDG Ref	120727-57	120727-57	120727-57	120727-57	120727-57	120727-57
			Lab Sample No.(s)	5947849	5947850	5947852	5947842	5947855	5947853
			AGS Reference						
GRO Surrogate % recovery**	%	TM245		107	104	108	103	101	92
GRO >C5-C12	<50 µg/l	TM245		2240 #	758 #	<50 #	<50 #	<50 #	105 #
Methyl tertiary butyl ether (MTBE)	<3 µg/l	TM245		<3 #	<3 #	<3 #	<3 #	<3 #	<3 #
Benzene	<7 µg/l	TM245		607 #	<7 #	<7 #	<7 #	<7 #	<7 #
Toluene	<4 µg/l	TM245		62 #	<4 #	<4 #	<4 #	<4 #	<4 #
Ethylbenzene	<5 µg/l	TM245		114 #	<5 #	<5 #	<5 #	<5 #	<5 #
m,p-Xylene	<8 µg/l	TM245		59 #	29 #	<8 #	<8 #	<8 #	<8 #
o-Xylene	<3 µg/l	TM245		96 #	26 #	<3 #	<3 #	<3 #	<3 #
Sum of detected Xylenes	<11 µg/l	TM245		155	55	<11	<11	<11	<11
Sum of detected BTEX	<28 µg/l	TM245		938	55	<28	<28	<28	<28
Aliphatics >C5-C6	<10 µg/l	TM245		<10	<10	<10	<10	<10	<10
Aliphatics >C6-C8	<10 µg/l	TM245		50	41	<10	<10	<10	<10
Aliphatics >C8-C10	<10 µg/l	TM245		129	86	<10	<10	<10	15
Aliphatics >C10-C12	<10 µg/l	TM245		621	308	<10	<10	<10	43
Aliphatics >C12-C16 (aq)	<10 µg/l	TM174		<10	<10	26	<10	<10	<10
Aliphatics >C16-C21 (aq)	<10 µg/l	TM174		<10	<10	51	<10	<10	<10
Aliphatics >C21-C35 (aq)	<10 µg/l	TM174		<10	<10	19	<10	<10	<10
Total Aliphatics >C12-C35 (aq)	<10 µg/l	TM174		<10	<10	96	<10	<10	<10
Aromatics >EC5-EC7	<10 µg/l	TM245		607	<10	<10	<10	<10	<10
Aromatics >EC7-EC8	<10 µg/l	TM245		62	<10	<10	<10	<10	<10
Aromatics >EC8-EC10	<10 µg/l	TM245		356	112	<10	<10	<10	10
Aromatics >EC10-EC12	<10 µg/l	TM245		414	206	<10	<10	<10	29
Aromatics >EC12-EC16 (aq)	<10 µg/l	TM174		430	210	11	<10	<10	<10
Aromatics >EC16-EC21 (aq)	<10 µg/l	TM174		290	163	24	<10	<10	<10
Aromatics >EC21-EC35 (aq)	<10 µg/l	TM174		45	10	26	<10	106	<10
Total Aromatics >EC12-EC35 (aq)	<10 µg/l	TM174		765	383	61	<10	106	<10
Total Aliphatics & Aromatics >C5-35 (aq)	<10 µg/l	TM174		3010	1140	181	<10	107	105

CERTIFICATE OF ANALYSIS

SDG:	120727-57	**Location:**	Limerick Gasworks	**Order Number:**	4500099608
Job:	D_MOUCHEL_ELE-107	**Customer:**	Mouchel	**Report Number:**	189981
Client Reference:	1034973	**Attention:**	Neil Balderstone	**Superseded Report:**	

TPH CWG (W)

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	C7	C11	D1	D5	E8	F11
			Depth (m)	4.00	1.00 - 2.00	3.00 - 4.00	1.75	4.00	3.50 - 4.50
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	25/07/2012	25/07/2012	25/07/2012	25/07/2012	25/07/2012	25/07/2012
			Sampled Time	13:18	12:00	15:00	12:51	12:00	11:45
			Date Received	27/07/2012	27/07/2012	27/07/2012	27/07/2012	27/07/2012	27/07/2012
			SDG Ref	120727-57	120727-57	120727-57	120727-57	120727-57	120727-57
			Lab Sample No.(s)	5947843	5947856	5947865	5947844	5947847	5947857
			AGS Reference						
GRO Surrogate % recovery**	%	TM245		119 §	100	97	98	100	107
GRO >C5-C12	<50 µg/l	TM245		77700 § #	3360 #	7640 #	74 #	35000 #	4380 #
Methyl tertiary butyl ether (MTBE)	<3 µg/l	TM245		<30 § #	<3 #	<3 #	<3 #	<30 #	<3 #
Benzene	<7 µg/l	TM245		20800 § #	74 #	743 #	<7 #	15200 #	1330 #
Toluene	<4 µg/l	TM245		10500 § #	51 #	373 #	<4 #	4220 #	577 #
Ethylbenzene	<5 µg/l	TM245		534 § #	47 #	222 #	<5 #	177 #	60 #
m,p-Xylene	<8 µg/l	TM245		4010 § #	168 #	583 #	8 #	1440 #	298 #
o-Xylene	<3 µg/l	TM245		1610 § #	143 #	333 #	10 #	510 #	186 #
Sum of detected Xylenes	<11 µg/l	TM245		5620 §	311	916	18	1950	484
Sum of detected BTEX	<28 µg/l	TM245		37500 §	483	2250	<28	21500	2450
Aliphatics >C5-C6	<10 µg/l	TM245		<100 §	<10	14	<10	129	<10
Aliphatics >C6-C8	<10 µg/l	TM245		893 §	24	141	<10	1310	84
Aliphatics >C8-C10	<10 µg/l	TM245		4750 §	308	628	<10	1600	252
Aliphatics >C10-C12	<10 µg/l	TM245		18800 §	1400	2510	17	5670	846
Aliphatics >C12-C16 (aq)	<10 µg/l	TM174		3660	<10	1410	25	<10	<10
Aliphatics >C16-C21 (aq)	<10 µg/l	TM174		3110	<10	2380	85	<10	30
Aliphatics >C21-C35 (aq)	<10 µg/l	TM174		3590	<10	1090	447	<10	194
Total Aliphatics >C12-C35 (aq)	<10 µg/l	TM174		10400	<10	4890	557	<10	224
Aromatics >EC5-EC7	<10 µg/l	TM245		20800 §	74	743	<10	15200	1330
Aromatics >EC7-EC8	<10 µg/l	TM245		10500 §	51	373	<10	4220	577
Aromatics >EC8-EC10	<10 µg/l	TM245		9320 §	563	1560	28	3200	712
Aromatics >EC10-EC12	<10 µg/l	TM245		12500 §	936	1670	11	3780	564
Aromatics >EC12-EC16 (aq)	<10 µg/l	TM174		50800	739	3440	77	16800	3900
Aromatics >EC16-EC21 (aq)	<10 µg/l	TM174		32700	266	4110	246	1430	261
Aromatics >EC21-EC35 (aq)	<10 µg/l	TM174		35900	60	3880	1350	302	486
Total Aromatics >EC12-EC35 (aq)	<10 µg/l	TM174		119000	1070	11400	1680	18500	4650
Total Aliphatics & Aromatics >C5-35 (aq)	<10 µg/l	TM174		207000	4430	23900	2310	53600	9250

CERTIFICATE OF ANALYSIS

SDG:	120727-57	**Location:**	Limerick Gasworks	**Order Number:**	4500099608
Job:	D_MOUCHEL_ELE-107	**Customer:**	Mouchel	**Report Number:**	189981
Client Reference:	1034973	**Attention:**	Neil Balderstone	**Superseded Report:**	

TPH CWG (W)

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	G2	G3	G4	G5	G8	H12
			Depth (m)	3.00 - 4.00	6.00	3.50	5.00	1.00	2.00 - 3.00
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	25/07/2012	25/07/2012	25/07/2012	25/07/2012	25/07/2012	25/07/2012
			Sampled Time	15:45	15:57	16:10	15:01	13:06	12:30
			Date Received	27/07/2012	27/07/2012	27/07/2012	27/07/2012	27/07/2012	27/07/2012
			SDG Ref	120727-57	120727-57	120727-57	120727-57	120727-57	120727-57
			Lab Sample No.(s)	5947866	5947868	5947869	5947870	5947848	5947859
			AGS Reference						
GRO Surrogate % recovery**	%	TM245		105	98	98	96	100	104
GRO >C5-C12	<50 µg/l	TM245		22400 #	1170 #	7360 #	<50 #	5610 #	98 #
Methyl tertiary butyl ether (MTBE)	<3 µg/l	TM245		<6 #	<3 #	<3 #	<3 #	<3 #	<3 #
Benzene	<7 µg/l	TM245		5460 #	312 #	584 #	<7 #	704 #	8 #
Toluene	<4 µg/l	TM245		4070 #	31 #	793 #	<4 #	729 #	<4 #
Ethylbenzene	<5 µg/l	TM245		465 #	28 #	162 #	<5 #	75 #	<5 #
m,p-Xylene	<8 µg/l	TM245		1900 #	57 #	1080 #	<8 #	552 #	<8 #
o-Xylene	<3 µg/l	TM245		1010 #	89 #	421 #	<3 #	210 #	3 #
Sum of detected Xylenes	<11 µg/l	TM245		2910	146	1500	<11	762	<11
Sum of detected BTEX	<28 µg/l	TM245		12900	517	3040	<28	2270	<28
Aliphatics >C5-C6	<10 µg/l	TM245		30	<10	13	<10	<10	<10
Aliphatics >C6-C8	<10 µg/l	TM245		368	28	92	<10	86	<10
Aliphatics >C8-C10	<10 µg/l	TM245		1310	100	646	<10	460	11
Aliphatics >C10-C12	<10 µg/l	TM245		4140	275	1890	11	1490	33
Aliphatics >C12-C16 (aq)	<10 µg/l	TM174		<10	<10	78	<10	<10	<10
Aliphatics >C16-C21 (aq)	<10 µg/l	TM174		<10	<10	63	<10	<10	<10
Aliphatics >C21-C35 (aq)	<10 µg/l	TM174		<10	<10	89	<10	<10	<10
Total Aliphatics >C12-C35 (aq)	<10 µg/l	TM174		<10	<10	230	<10	<10	<10
Aromatics >EC5-EC7	<10 µg/l	TM245		5460	312	584	<10	704	<10
Aromatics >EC7-EC8	<10 µg/l	TM245		4070	31	793	<10	729	<10
Aromatics >EC8-EC10	<10 µg/l	TM245		4240	241	2090	<10	1150	14
Aromatics >EC10-EC12	<10 µg/l	TM245		2760	183	1260	<10	991	22
Aromatics >EC12-EC16 (aq)	<10 µg/l	TM174		9070	80	705	34	1710	10
Aromatics >EC16-EC21 (aq)	<10 µg/l	TM174		824	65	612	69	518	11
Aromatics >EC21-EC35 (aq)	<10 µg/l	TM174		47	196	713	313	64	25
Total Aromatics >EC12-EC35 (aq)	<10 µg/l	TM174		9940	341	2030	416	2290	46
Total Aliphatics & Aromatics >C5-35 (aq)	<10 µg/l	TM174		32300	1510	9620	453	7900	145

CERTIFICATE OF ANALYSIS

SDG:	120727-57	**Location:**	Limerick Gasworks	**Order Number:**	4500099608
Job:	D_MOUCHEL_ELE-107	**Customer:**	Mouchel	**Report Number:**	189981
Client Reference:	1034973	**Attention:**	Neil Balderstone	**Superseded Report:**	

TPH CWG (W)

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	J10	K1	K5	M3		
			Depth (m)	1.50	3.00 - 4.00	1.00 - 2.00	3.00 - 4.00		
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)		
			Date Sampled	25/07/2012	25/07/2012	25/07/2012	25/07/2012		
			Sampled Time	11:05	11:15	10:40	09:50		
			Date Received	27/07/2012	27/07/2012	27/07/2012	27/07/2012		
			SDG Ref	120727-57	120727-57	120727-57	120727-57		
			Lab Sample No.(s)	5947860	5947861	5947863	5947864		
			AGS Reference						
GRO Surrogate % recovery**	%	TM245		111	107	98	108		
GRO >C5-C12	<50 µg/l	TM245		89 #	<50 #	53600 #	<50 #		
Methyl tertiary butyl ether (MTBE)	<3 µg/l	TM245		<3 #	<3 #	<30 #	<3 #		
Benzene	<7 µg/l	TM245		<7 #	<7 #	16700 #	<7 #		
Toluene	<4 µg/l	TM245		<4 #	<4 #	5460 #	<4 #		
Ethylbenzene	<5 µg/l	TM245		<5 #	<5 #	265 #	<5 #		
m,p-Xylene	<8 µg/l	TM245		<8 #	<8 #	1870 #	<8 #		
o-Xylene	<3 µg/l	TM245		<3 #	<3 #	605 #	<3 #		
Sum of detected Xylenes	<11 µg/l	TM245		<11	<11	2480	<11		
Sum of detected BTEX	<28 µg/l	TM245		<28	<28	24900	<28		
Aliphatics >C5-C6	<10 µg/l	TM245		<10	<10	721	<10		
Aliphatics >C6-C8	<10 µg/l	TM245		<10	<10	2480	<10		
Aliphatics >C8-C10	<10 µg/l	TM245		12	<10	2750	<10		
Aliphatics >C10-C12	<10 µg/l	TM245		39	<10	12500	<10		
Aliphatics >C12-C16 (aq)	<10 µg/l	TM174		<10	<10	<250	<10		
Aliphatics >C16-C21 (aq)	<10 µg/l	TM174		<10	17	<250	<10		
Aliphatics >C21-C35 (aq)	<10 µg/l	TM174		<10	14	<250	<10		
Total Aliphatics >C12-C35 (aq)	<10 µg/l	TM174		<10	31	<250	<10		
Aromatics >EC5-EC7	<10 µg/l	TM245		<10	<10	16700	<10		
Aromatics >EC7-EC8	<10 µg/l	TM245		<10	<10	5460	<10		
Aromatics >EC8-EC10	<10 µg/l	TM245		<10	<10	4580	<10		
Aromatics >EC10-EC12	<10 µg/l	TM245		26	<10	8350	<10		
Aromatics >EC12-EC16 (aq)	<10 µg/l	TM174		<10	12	50500	<10		
Aromatics >EC16-EC21 (aq)	<10 µg/l	TM174		<10	48	4910	<10		
Aromatics >EC21-EC35 (aq)	<10 µg/l	TM174		<10	181	1400	11		
Total Aromatics >EC12-EC35 (aq)	<10 µg/l	TM174		<10	241	56800	11		
Total Aliphatics & Aromatics >C5-35 (aq)	<10 µg/l	TM174		89	272	110000	13		

CERTIFICATE OF ANALYSIS

SDG:	120727-57	**Location:**	Limerick Gasworks	**Order Number:**	4500099608
Job:	D_MOUCHEL_ELE-107	**Customer:**	Mouchel	**Report Number:**	189981
Client Reference:	1034973	**Attention:**	Neil Balderstone	**Superseded Report:**	

VOC MS (W)

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	A3	A4	A11	C7	D1
			Depth (m)	1.50 - 2.50	1.50 - 2.50	2.00 - 3.00	1.00 - 2.00	4.00	3.00 - 4.00
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	25/07/2012	25/07/2012	25/07/2012	25/07/2012	25/07/2012	25/07/2012
			Sampled Time	13.:00	12:50	12:45	12:10	13:18	15:00
			Date Received	27/07/2012	27/07/2012	27/07/2012	27/07/2012	27/07/2012	27/07/2012
			SDG Ref	120727-57	120727-57	120727-57	120727-57	120727-57	120727-57
			Lab Sample No.(s)	5947849	5947850	5947852	5947855	5947843	5947865
			AGS Reference						
Dibromofluoromethane**	%	TM208		106	105	105	111 §	106	109
Toluene-d8**	%	TM208		97.5	101	99.6	100 §	97.3	97.4
4-Bromofluorobenzene**	%	TM208		101	99.8	103	102 §	84.8	91.5
Dichlorodifluoromethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 § #	<1 #	<1 #
Chloromethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 § #	<1 #	<1 #
Vinyl chloride	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 § #	<1 #	<1 #
Bromomethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 § #	<1 #	<1 #
Chloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 § #	<1 #	<1 #
Trichlorofluoromethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 § #	<1 #	<1 #
1,1-Dichloroethene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 § #	<1 #	<1 #
Carbon disulphide	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 § #	2.92 #	2.72 #
Dichloromethane	<3 µg/l	TM208		<3 #	<3 #	<3 #	<3 § #	<3 #	<3 #
Methyl tertiary butyl ether (MTBE)	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 § #	<1 #	<1 #
trans-1,2-Dichloroethene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 § #	<1 #	<1 #
1,1-Dichloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 § #	<1 #	<1 #
cis-1,2-Dichloroethene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 § #	<1 #	<1 #
2,2-Dichloropropane	<1 µg/l	TM208		<1	<1	<1	<1 §	<1	<1
Bromochloromethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 § #	<1 #	<1 #
Chloroform	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 § #	<1 #	<1 #
1,1,1-Trichloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 § #	<1 #	<1 #
1,1-Dichloropropene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 § #	<1 #	<1 #
Carbontetrachloride	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 § #	<1 #	<1 #
1,2-Dichloroethane	<1 µg/l	TM208		<1	<1	<1	<1 §	<1	<1
Benzene	<1 µg/l	TM208		633 #	<1 #	<1 #	<1 § #	28300 #	770 #
Trichloroethene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 § #	<1 #	<1 #
1,2-Dichloropropane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 § #	<1 #	<1 #
Dibromomethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 § #	<1 #	<1 #
Bromodichloromethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 § #	<1 #	<1 #
cis-1,3-Dichloropropene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 § #	<1 #	<1 #
Toluene	<1 µg/l	TM208		56.8 #	<1 #	<1 #	<1 § #	11900 #	387 #
trans-1,3-Dichloropropene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 § #	<1 #	<1 #
1,1,2-Trichloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 § #	<1 #	<1 #
1,3-Dichloropropane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 § #	<1 #	<1 #
Tetrachloroethene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 § #	<1 #	<1 #
Dibromochloromethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 § #	<1 #	<1 #

CERTIFICATE OF ANALYSIS

SDG:	120727-57	**Location:**	Limerick Gasworks	**Order Number:**	4500099608
Job:	D_MOUCHEL_ELE-107	**Customer:**	Mouchel	**Report Number:**	189981
Client Reference:	1034973	**Attention:**	Neil Balderstone	**Superseded Report:**	

VOC MS (W)

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	A3	A4	A11	C7	D1
			Depth (m)	1.50 - 2.50	1.50 - 2.50	2.00 - 3.00	1.00 - 2.00	4.00	3.00 - 4.00
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	25/07/2012	25/07/2012	25/07/2012	25/07/2012	25/07/2012	25/07/2012
			Sampled Time	13.:00	12:50	12:45	12:10	13:18	15:00
			Date Received	27/07/2012	27/07/2012	27/07/2012	27/07/2012	27/07/2012	27/07/2012
			SDG Ref	120727-57	120727-57	120727-57	120727-57	120727-57	120727-57
			Lab Sample No.(s)	5947849	5947850	5947852	5947855	5947843	5947865
			AGS Reference						
1,2-Dibromoethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 § #	<1 #	<1 #
Chlorobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 § #	<1 #	<1 #
1,1,1,2-Tetrachloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 § #	<1 #	<1 #
Ethylbenzene	<1 µg/l	TM208		101 #	<1 #	<1 #	<1 § #	413 #	223 #
m,p-Xylene	<1 µg/l	TM208		52.4 #	23.9 #	<1 #	<1 § #	2790 #	598 #
o-Xylene	<1 µg/l	TM208		89 #	21.9 #	<1 #	<1 § #	1090 #	344 #
Styrene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 § #	501 #	<1 #
Bromoform	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 § #	<1 #	<1 #
Isopropylbenzene	<1 µg/l	TM208		9.19 #	<1 #	<1 #	<1 § #	17.3 #	23 #
1,1,2,2-Tetrachloroethane	<1 µg/l	TM208		<1	<1	<1	<1 §	<1	<1
1,2,3-Trichloropropane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 § #	<1 #	<1 #
Bromobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 § #	<1 #	<1 #
Propylbenzene	<1 µg/l	TM208		8.34 #	<1 #	<1 #	<1 § #	25.5 #	28.4 #
2-Chlorotoluene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 § #	<1 #	<1 #
1,3,5-Trimethylbenzene	<1 µg/l	TM208		3.41 #	2.46 #	<1 #	<1 § #	150 #	68.9 #
4-Chlorotoluene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 § #	<1 #	<1 #
tert-Butylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 § #	<1 #	<1 #
1,2,4-Trimethylbenzene	<1 µg/l	TM208		26.2 #	9.11 #	<1 #	<1 § #	360 #	231 #
sec-Butylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 § #	<1 #	2.61 #
4-iso-Propyltoluene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 § #	<1 #	<1 #
1,3-Dichlorobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 § #	<1 #	<1 #
1,4-Dichlorobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 § #	<1 #	<1 #
n-Butylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 § #	<1 #	<1 #
1,2-Dichlorobenzene	<1 µg/l	TM208		<1	<1	<1	<1 §	<1	<1
1,2-Dibromo-3-chloropropane	<1 µg/l	TM208		<1	<1	<1	<1 §	<1	<1
1,2,4-Trichlorobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 § #	<1 #	<1 #
Hexachlorobutadiene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 § #	<1 #	<1 #
tert-Amyl methyl ether (TAME)	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 § #	<1 #	<1 #
Naphthalene	<1 µg/l	TM208		236 #	<1 #	<1 #	<1 § #	31400 #	2830 #
1,2,3-Trichlorobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 § #	<1 #	<1 #
1,3,5-Trichlorobenzene	<1 µg/l	TM208		<1	<1	<1	<1 §	<1	<1

CERTIFICATE OF ANALYSIS

SDG:	120727-57	**Location:**	Limerick Gasworks	**Order Number:**	4500099608
Job:	D_MOUCHEL_ELE-107	**Customer:**	Mouchel	**Report Number:**	189981
Client Reference:	1034973	**Attention:**	Neil Balderstone	**Superseded Report:**	

VOC MS (W)

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	G2	G4	G5	K5	M3
			Depth (m)	3.00 - 4.00	3.50	5.00	1.00 - 2.00	3.00 - 4.00
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	25/07/2012	25/07/2012	25/07/2012	25/07/2012	25/07/2012
			Sampled Time	15:45	16:10	15:01	10:40	09:50
			Date Received	27/07/2012	27/07/2012	27/07/2012	27/07/2012	27/07/2012
			SDG Ref	120727-57	120727-57	120727-57	120727-57	120727-57
			Lab Sample No.(s)	5947866	5947869	5947870	5947863	5947864
			AGS Reference					
Dibromofluoromethane**	%	TM208		109	107	113	98.1	105
Toluene-d8**	%	TM208		99.2	99.1	99.8	100	101
4-Bromofluorobenzene**	%	TM208		98.4	99.7	101	95.7	101
Dichlorodifluoromethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<10 #	<1 #
Chloromethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<10 #	<1 #
Vinyl chloride	<1 µg/l	TM208		<1 #	<1 #	<1 #	<10 #	<1 #
Bromomethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<10 #	<1 #
Chloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<10 #	<1 #
Trichlorofluoromethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<10 #	<1 #
1,1-Dichloroethene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<10 #	<1 #
Carbon disulphide	<1 µg/l	TM208		4.67 #	<1 #	<1 #	<10 #	<1 #
Dichloromethane	<3 µg/l	TM208		<3 #	<3 #	<3 #	<30 #	<3 #
Methyl tertiary butyl ether (MTBE)	<1 µg/l	TM208		<1 #	<1 #	<1 #	<10 #	<1 #
trans-1,2-Dichloroethene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<10 #	<1 #
1,1-Dichloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<10 #	<1 #
cis-1,2-Dichloroethene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<10 #	<1 #
2,2-Dichloropropane	<1 µg/l	TM208		<1	<1	<1	<10	<1
Bromochloromethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<10 #	<1 #
Chloroform	<1 µg/l	TM208		<1 #	<1 #	<1 #	<10 #	<1 #
1,1,1-Trichloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<10 #	<1 #
1,1-Dichloropropene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<10 #	<1 #
Carbontetrachloride	<1 µg/l	TM208		<1 #	<1 #	<1 #	<10 #	<1 #
1,2-Dichloroethane	<1 µg/l	TM208		<1	<1	<1	<10	<1
Benzene	<1 µg/l	TM208		5840 #	679 #	<1 #	21300 #	1.77 #
Trichloroethene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<10 #	<1 #
1,2-Dichloropropane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<10 #	<1 #
Dibromomethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<10 #	<1 #
Bromodichloromethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<10 #	<1 #
cis-1,3-Dichloropropene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<10 #	<1 #
Toluene	<1 µg/l	TM208		4220 #	895 #	<1 #	6460 #	<1 #
trans-1,3-Dichloropropene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<10 #	<1 #
1,1,2-Trichloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<10 #	<1 #
1,3-Dichloropropane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<10 #	<1 #
Tetrachloroethene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<10 #	<1 #
Dibromochloromethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<10 #	<1 #

CERTIFICATE OF ANALYSIS

SDG:	120727-57	**Location:**	Limerick Gasworks	**Order Number:**	4500099608
Job:	D_MOUCHEL_ELE-107	**Customer:**	Mouchel	**Report Number:**	189981
Client Reference:	1034973	**Attention:**	Neil Balderstone	**Superseded Report:**	

VOC MS (W)

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	G2	G4	G5	K5	M3
			Depth (m)	3.00 - 4.00	3.50	5.00	1.00 - 2.00	3.00 - 4.00
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	25/07/2012	25/07/2012	25/07/2012	25/07/2012	25/07/2012
			Sampled Time	15:45	16:10	15:01	10:40	09:50
			Date Received	27/07/2012	27/07/2012	27/07/2012	27/07/2012	27/07/2012
			SDG Ref	120727-57	120727-57	120727-57	120727-57	120727-57
			Lab Sample No.(s)	5947866	5947869	5947870	5947863	5947864
			AGS Reference					
1,2-Dibromoethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<10 #	<1 #
Chlorobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<10 #	<1 #
1,1,1,2-Tetrachloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<10 #	<1 #
Ethylbenzene	<1 µg/l	TM208		458 #	158 #	<1 #	271 #	<1 #
m,p-Xylene	<1 µg/l	TM208		1690 #	1080 #	<1 #	1740 #	<1 #
o-Xylene	<1 µg/l	TM208		805 #	431 #	<1 #	758 #	<1 #
Styrene	<1 µg/l	TM208		<1 #	<1 #	<1 #	402 #	<1 #
Bromoform	<1 µg/l	TM208		<1 #	<1 #	<1 #	<10 #	<1 #
Isopropylbenzene	<1 µg/l	TM208		30.8 #	9.89 #	<1 #	12.5 #	<1 #
1,1,2,2-Tetrachloroethane	<1 µg/l	TM208		<1	<1	<1	<10	<1
1,2,3-Trichloropropane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<10 #	<1 #
Bromobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<10 #	<1 #
Propylbenzene	<1 µg/l	TM208		33.7 #	7.6 #	<1 #	17.9 #	<1 #
2-Chlorotoluene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<10 #	<1 #
1,3,5-Trimethylbenzene	<1 µg/l	TM208		103 #	99.2 #	<1 #	91 #	<1 #
4-Chlorotoluene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<10 #	<1 #
tert-Butylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<10 #	<1 #
1,2,4-Trimethylbenzene	<1 µg/l	TM208		407 #	243 #	<1 #	248 #	<1 #
sec-Butylbenzene	<1 µg/l	TM208		2 #	1.14 #	<1 #	<10 #	<1 #
4-iso-Propyltoluene	<1 µg/l	TM208		<1 #	<1 #	<1 #	35.4 #	<1 #
1,3-Dichlorobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<10 #	<1 #
1,4-Dichlorobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<10 #	<1 #
n-Butylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<10 #	<1 #
1,2-Dichlorobenzene	<1 µg/l	TM208		<1	<1	<1	<10	<1
1,2-Dibromo-3-chloropropane	<1 µg/l	TM208		<1	<1	<1	<10	<1
1,2,4-Trichlorobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<10 #	<1 #
Hexachlorobutadiene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<10 #	<1 #
tert-Amyl methyl ether (TAME)	<1 µg/l	TM208		<1 #	<1 #	<1 #	<10 #	<1 #
Naphthalene	<1 µg/l	TM208		3530 #	953 #	<1 #	4800 #	<1 #
1,2,3-Trichlorobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<10 #	<1 #
1,3,5-Trichlorobenzene	<1 µg/l	TM208		<1	<1	<1	<1	<1

CERTIFICATE OF ANALYSIS

SDG:	120727-57	**Location:**	Limerick Gasworks	**Order Number:**	4500099608
Job:	D_MOUCHEL_ELE-107	**Customer:**	Mouchel	**Report Number:**	189981
Client Reference:	1034973	**Attention:**	Neil Balderstone	**Superseded Report:**	

Notification of Deviating Samples

Sample Number	Customer Sample Ref.	Depth (m)	Matrix	Test Name	Component Name	Comment
5961570	A11	1.00 - 2.00	LIQUID	VOC MS (W)	1,1,1,2-Tetrachloroethane	Container with Headspace provided for volatiles analysis
5961570	A11	1.00 - 2.00	LIQUID	VOC MS (W)	1,1,1-Trichloroethane	Container with Headspace provided for volatiles analysis
5961570	A11	1.00 - 2.00	LIQUID	VOC MS (W)	1,1,2,2-Tetrachloroethane	Container with Headspace provided for volatiles analysis
5961570	A11	1.00 - 2.00	LIQUID	VOC MS (W)	1,1,2-Trichloroethane	Container with Headspace provided for volatiles analysis
5961570	A11	1.00 - 2.00	LIQUID	VOC MS (W)	1,1-Dichloroethane	Container with Headspace provided for volatiles analysis
5961570	A11	1.00 - 2.00	LIQUID	VOC MS (W)	1,1-Dichloroethene	Container with Headspace provided for volatiles analysis
5961570	A11	1.00 - 2.00	LIQUID	VOC MS (W)	1,1-Dichloropropene	Container with Headspace provided for volatiles analysis
5961570	A11	1.00 - 2.00	LIQUID	VOC MS (W)	1,2,3-Trichlorobenzene	Container with Headspace provided for volatiles analysis
5961570	A11	1.00 - 2.00	LIQUID	VOC MS (W)	1,2,3-Trichloropropane	Container with Headspace provided for volatiles analysis
5961570	A11	1.00 - 2.00	LIQUID	VOC MS (W)	1,2,4-Trichlorobenzene	Container with Headspace provided for volatiles analysis
5961570	A11	1.00 - 2.00	LIQUID	VOC MS (W)	1,2,4-Trimethylbenzene	Container with Headspace provided for volatiles analysis
5961570	A11	1.00 - 2.00	LIQUID	VOC MS (W)	1,2-Dibromo-3-chloropropane	Container with Headspace provided for volatiles analysis
5961570	A11	1.00 - 2.00	LIQUID	VOC MS (W)	1,2-Dibromoethane	Container with Headspace provided for volatiles analysis
5961570	A11	1.00 - 2.00	LIQUID	VOC MS (W)	1,2-Dichlorobenzene	Container with Headspace provided for volatiles analysis
5961570	A11	1.00 - 2.00	LIQUID	VOC MS (W)	1,2-Dichloroethane	Container with Headspace provided for volatiles analysis
5961570	A11	1.00 - 2.00	LIQUID	VOC MS (W)	1,2-Dichloropropane	Container with Headspace provided for volatiles analysis
5961570	A11	1.00 - 2.00	LIQUID	VOC MS (W)	1,3,5-Trichlorobenzene	Container with Headspace provided for volatiles analysis
5961570	A11	1.00 - 2.00	LIQUID	VOC MS (W)	1,3,5-Trimethylbenzene	Container with Headspace provided for volatiles analysis
5961570	A11	1.00 - 2.00	LIQUID	VOC MS (W)	1,3-Dichlorobenzene	Container with Headspace provided for volatiles analysis
5961570	A11	1.00 - 2.00	LIQUID	VOC MS (W)	1,3-Dichloropropane	Container with Headspace provided for volatiles analysis
5961570	A11	1.00 - 2.00	LIQUID	VOC MS (W)	1,4-Dichlorobenzene	Container with Headspace provided for volatiles analysis
5961570	A11	1.00 - 2.00	LIQUID	VOC MS (W)	2,2-Dichloropropane	Container with Headspace provided for volatiles analysis
5961570	A11	1.00 - 2.00	LIQUID	VOC MS (W)	2-Chlorotoluene	Container with Headspace provided for volatiles analysis
5961570	A11	1.00 - 2.00	LIQUID	VOC MS (W)	4-Bromofluorobenzene**	Container with Headspace provided for volatiles analysis
5961570	A11	1.00 - 2.00	LIQUID	VOC MS (W)	4-Chlorotoluene	Container with Headspace provided for volatiles analysis
5961570	A11	1.00 - 2.00	LIQUID	VOC MS (W)	4-iso-Propyltoluene	Container with Headspace provided for volatiles analysis
5961570	A11	1.00 - 2.00	LIQUID	VOC MS (W)	Benzene	Container with Headspace provided for volatiles analysis
5961570	A11	1.00 - 2.00	LIQUID	VOC MS (W)	Bromobenzene	Container with Headspace provided for volatiles analysis
5961570	A11	1.00 - 2.00	LIQUID	VOC MS (W)	Bromochloromethane	Container with Headspace provided for volatiles analysis
5961570	A11	1.00 - 2.00	LIQUID	VOC MS (W)	Bromodichloromethane	Container with Headspace provided for volatiles analysis
5961570	A11	1.00 - 2.00	LIQUID	VOC MS (W)	Bromoform	Container with Headspace provided for volatiles analysis
5961570	A11	1.00 - 2.00	LIQUID	VOC MS (W)	Bromomethane	Container with Headspace provided for volatiles analysis
5961570	A11	1.00 - 2.00	LIQUID	VOC MS (W)	Carbon disulphide	Container with Headspace provided for volatiles analysis
5961570	A11	1.00 - 2.00	LIQUID	VOC MS (W)	Carbontetrachloride	Container with Headspace provided for volatiles analysis
5961570	A11	1.00 - 2.00	LIQUID	VOC MS (W)	Chlorobenzene	Container with Headspace provided for volatiles analysis
5961570	A11	1.00 - 2.00	LIQUID	VOC MS (W)	Chloroethane	Container with Headspace provided for volatiles analysis

CERTIFICATE OF ANALYSIS

SDG:	120727-57	**Location:**	Limerick Gasworks	**Order Number:**	4500099608
Job:	D_MOUCHEL_ELE-107	**Customer:**	Mouchel	**Report Number:**	189981
Client Reference:	1034973	**Attention:**	Neil Balderstone	**Superseded Report:**	

Sample Number	Customer Sample Ref.	Depth (m)	Matrix	Test Name	Component Name	Comment
5961570	A11	1.00 - 2.00	LIQUID	VOC MS (W)	Chloroform	Container with Headspace provided for volatiles analysis
5961570	A11	1.00 - 2.00	LIQUID	VOC MS (W)	Chloromethane	Container with Headspace provided for volatiles analysis
5961570	A11	1.00 - 2.00	LIQUID	VOC MS (W)	cis-1,2-Dichloroethene	Container with Headspace provided for volatiles analysis
5961570	A11	1.00 - 2.00	LIQUID	VOC MS (W)	cis-1,3-Dichloropropene	Container with Headspace provided for volatiles analysis
5961570	A11	1.00 - 2.00	LIQUID	VOC MS (W)	Dibromochloromethane	Container with Headspace provided for volatiles analysis
5961570	A11	1.00 - 2.00	LIQUID	VOC MS (W)	Dibromofluoromethane**	Container with Headspace provided for volatiles analysis
5961570	A11	1.00 - 2.00	LIQUID	VOC MS (W)	Dibromomethane	Container with Headspace provided for volatiles analysis
5961570	A11	1.00 - 2.00	LIQUID	VOC MS (W)	Dichlorodifluoromethane	Container with Headspace provided for volatiles analysis
5961570	A11	1.00 - 2.00	LIQUID	VOC MS (W)	Dichloromethane	Container with Headspace provided for volatiles analysis
5961570	A11	1.00 - 2.00	LIQUID	VOC MS (W)	Ethylbenzene	Container with Headspace provided for volatiles analysis
5961570	A11	1.00 - 2.00	LIQUID	VOC MS (W)	Hexachlorobutadiene	Container with Headspace provided for volatiles analysis
5961570	A11	1.00 - 2.00	LIQUID	VOC MS (W)	Isopropylbenzene	Container with Headspace provided for volatiles analysis
5961570	A11	1.00 - 2.00	LIQUID	VOC MS (W)	m,p-Xylene	Container with Headspace provided for volatiles analysis
5961570	A11	1.00 - 2.00	LIQUID	VOC MS (W)	Methyl tertiary butyl ether (MTBE)	Container with Headspace provided for volatiles analysis
5961570	A11	1.00 - 2.00	LIQUID	VOC MS (W)	Naphthalene	Container with Headspace provided for volatiles analysis
5961570	A11	1.00 - 2.00	LIQUID	VOC MS (W)	n-Butylbenzene	Container with Headspace provided for volatiles analysis
5961570	A11	1.00 - 2.00	LIQUID	VOC MS (W)	o-Xylene	Container with Headspace provided for volatiles analysis
5961570	A11	1.00 - 2.00	LIQUID	VOC MS (W)	Propylbenzene	Container with Headspace provided for volatiles analysis
5961570	A11	1.00 - 2.00	LIQUID	VOC MS (W)	sec-Butylbenzene	Container with Headspace provided for volatiles analysis
5961570	A11	1.00 - 2.00	LIQUID	VOC MS (W)	Styrene	Container with Headspace provided for volatiles analysis
5961570	A11	1.00 - 2.00	LIQUID	VOC MS (W)	tert-Amyl methyl ether (TAME)	Container with Headspace provided for volatiles analysis
5961570	A11	1.00 - 2.00	LIQUID	VOC MS (W)	tert-Butylbenzene	Container with Headspace provided for volatiles analysis
5961570	A11	1.00 - 2.00	LIQUID	VOC MS (W)	Tetrachloroethene	Container with Headspace provided for volatiles analysis
5961570	A11	1.00 - 2.00	LIQUID	VOC MS (W)	Toluene	Container with Headspace provided for volatiles analysis
5961570	A11	1.00 - 2.00	LIQUID	VOC MS (W)	Toluene-d8**	Container with Headspace provided for volatiles analysis
5961570	A11	1.00 - 2.00	LIQUID	VOC MS (W)	trans-1,2-Dichloroethene	Container with Headspace provided for volatiles analysis
5961570	A11	1.00 - 2.00	LIQUID	VOC MS (W)	trans-1,3-Dichloropropene	Container with Headspace provided for volatiles analysis
5961570	A11	1.00 - 2.00	LIQUID	VOC MS (W)	Trichloroethene	Container with Headspace provided for volatiles analysis
5961570	A11	1.00 - 2.00	LIQUID	VOC MS (W)	Trichlorofluoromethane	Container with Headspace provided for volatiles analysis
5961570	A11	1.00 - 2.00	LIQUID	VOC MS (W)	Vinyl chloride	Container with Headspace provided for volatiles analysis
5986769	C7	4.00	LIQUID	GRO by GC-FID (W)	Aliphatics >C10-C12	Container with Headspace provided for volatiles analysis
5986769	C7	4.00	LIQUID	GRO by GC-FID (W)	Aliphatics >C5-C6	Container with Headspace provided for volatiles analysis
5986769	C7	4.00	LIQUID	GRO by GC-FID (W)	Aliphatics >C6-C8	Container with Headspace provided for volatiles analysis
5986769	C7	4.00	LIQUID	GRO by GC-FID (W)	Aliphatics >C8-C10	Container with Headspace provided for volatiles analysis
5986769	C7	4.00	LIQUID	GRO by GC-FID (W)	Aromatics >EC10-EC12	Container with Headspace provided for volatiles analysis
5986769	C7	4.00	LIQUID	GRO by GC-FID (W)	Aromatics >EC5-EC7	Container with Headspace provided for volatiles analysis
5986769	C7	4.00	LIQUID	GRO by GC-FID (W)	Aromatics >EC7-EC8	Container with Headspace provided for volatiles analysis

Validated

CERTIFICATE OF ANALYSIS

SDG:	120727-57	**Location:**	Limerick Gasworks	**Order Number:**	4500099608
Job:	D_MOUCHEL_ELE-107	**Customer:**	Mouchel	**Report Number:**	189981
Client Reference:	1034973	**Attention:**	Neil Balderstone	**Superseded Report:**	

Sample Number	Customer Sample Ref.	Depth (m)	Matrix	Test Name	Component Name	Comment
5986769	C7	4.00	LIQUID	GRO by GC-FID (W)	Aromatics >EC8-EC10	Container with Headspace provided for volatiles analysis
5986769	C7	4.00	LIQUID	GRO by GC-FID (W)	Benzene	Container with Headspace provided for volatiles analysis
5986769	C7	4.00	LIQUID	GRO by GC-FID (W)	Ethylbenzene	Container with Headspace provided for volatiles analysis
5986769	C7	4.00	LIQUID	GRO by GC-FID (W)	GRO >C5-C12	Container with Headspace provided for volatiles analysis
5986769	C7	4.00	LIQUID	GRO by GC-FID (W)	GRO Surrogate % recovery**	Container with Headspace provided for volatiles analysis
5986769	C7	4.00	LIQUID	GRO by GC-FID (W)	m,p-Xylene	Container with Headspace provided for volatiles analysis
5986769	C7	4.00	LIQUID	GRO by GC-FID (W)	Methyl tertiary butyl ether (MTBE)	Container with Headspace provided for volatiles analysis
5986769	C7	4.00	LIQUID	GRO by GC-FID (W)	o-Xylene	Container with Headspace provided for volatiles analysis
5986769	C7	4.00	LIQUID	GRO by GC-FID (W)	Sum of detected BTEX	Container with Headspace provided for volatiles analysis
5986769	C7	4.00	LIQUID	GRO by GC-FID (W)	Sum of detected Xylenes	Container with Headspace provided for volatiles analysis
5986769	C7	4.00	LIQUID	GRO by GC-FID (W)	Toluene	Container with Headspace provided for volatiles analysis

Note : Test results may be compromised

CERTIFICATE OF ANALYSIS

SDG:	120727-57	**Location:**	Limerick Gasworks	**Order Number:**	4500099608
Job:	D_MOUCHEL_ELE-107	**Customer:**	Mouchel	**Report Number:**	189981
Client Reference:	1034973	**Attention:**	Neil Balderstone	**Superseded Report:**	

Table of Results - Appendix

Method No	Reference	Description	Wet/Dry Sample [1]	Surrogate Corrected
TM061	Method for the Determination of EPH,Massachusetts Dept.of EP, 1998	Determination of Extractable Petroleum Hydrocarbons by GC-FID (C10-C40)		
TM099	BS 2690: Part 7:1968 / BS 6068: Part2.11:1984	Determination of Ammonium in Water Samples using the Kone Analyser		
TM101	Method 4500B & C, AWWA/APHA, 20th Ed., 1999	Determination of Sulphide in soil and water samples using the Kone Analyser		
TM152	Method 3125B, AWWA/APHA, 20th Ed., 1999	Analysis of Aqueous Samples by ICP-MS		
TM174	Analysis of Petroleum Hydrocarbons in Environmental Media – Total Petroleum Hydrocarbon Criteria	Determination of Speciated Extractable Petroleum Hydrocarbons in Waters by GC-FID		
TM178	Modified: US EPA Method 8100	Determination of Polynuclear Aromatic Hydrocarbons (PAH) by GC-MS in Waters		
TM183	BS EN 23506:2002, (BS 6068-2.74:2002) ISBN 0 580 38924 3	Determination of Trace Level Mercury in Waters and Leachates by PSA Cold Vapour Atomic Fluorescence Spectrometry		
TM184	EPA Methods 325.1 & 325.2,	The Determination of Anions in Aqueous Matrices using the Kone Spectrophotometric Analysers		
TM208	Modified: US EPA Method 8260b & 624	Determination of Volatile Organic Compounds by Headspace / GC-MS in Waters		
TM227	Standard methods for the examination of waters and wastewaters 20th Edition, AWWA/APHA Method 4500.	Determination of Total Cyanide, Free (Easily Liberatable) Cyanide and Thiocyanate		
TM241	Methods for the Examination of Waters and Associated Materials; Chromium in Raw and Potable Waters and Sewage Effluents 1980.	The Determination of Hexavalent Chromium in Waters and Leachates using the Kone Analyser		
TM245	By GC-FID	Determination of GRO by Headspace in waters		
TM256	The measurement of Electrical Conductivity and the Laboratory determination of pH Value of Natural, Treated and Wastewaters. HMSO, 1978. ISBN 011 751428 4.	Determination of pH in Water and Leachate using the GLpH pH Meter		
TM259	by HPLC	Determination of Phenols in Waters and Leachates by HPLC		

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

SDG:	120727-57	**Location:**	Limerick Gasworks	**Order Number:**	4500099608
Job:	D_MOUCHEL_ELE-107	**Customer:**	Mouchel	**Report Number:**	189981
Client Reference:	1034973	**Attention:**	Neil Balderstone	**Superseded Report:**	

Test Completion Dates

Lab Sample No(s)	5947849	5947850	5947852	5947842	5947855	5947853	5947843	5947856	5947865	5947844
Customer Sample Ref.	A1	A3	A4	A9	A11	C2	C7	C11	D1	D5
AGS Ref.										
Depth	1.50 - 2.50	1.50 - 2.50	2.00 - 3.00	2.00	1.00 - 2.00	1.00 - 2.00	4.00	1.00 - 2.00	3.00 - 4.00	1.75
Type	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID
Ammoniacal Nitrogen	03-Aug-2012	03-Aug-2012	03-Aug-2012	03-Aug-2012	03-Aug-2012	03-Aug-2012	03-Aug-2012	03-Aug-2012	03-Aug-2012	03-Aug-2012
Anions by Kone (w)	03-Aug-2012	03-Aug-2012	03-Aug-2012	03-Aug-2012	03-Aug-2012	03-Aug-2012	06-Aug-2012	03-Aug-2012	03-Aug-2012	03-Aug-2012
Cyanide Comp/Free/Total/Thiocyanate	31-Jul-2012	31-Jul-2012	31-Jul-2012	31-Jul-2012	31-Jul-2012	31-Jul-2012	31-Jul-2012	31-Jul-2012	31-Jul-2012	31-Jul-2012
Dissolved Metals by ICP-MS	02-Aug-2012	02-Aug-2012	02-Aug-2012	02-Aug-2012	02-Aug-2012	02-Aug-2012	02-Aug-2012	02-Aug-2012	02-Aug-2012	02-Aug-2012
EPH CWG (Aliphatic) Aqueous GC (W)	06-Aug-2012	06-Aug-2012	06-Aug-2012	06-Aug-2012	06-Aug-2012	06-Aug-2012	06-Aug-2012	06-Aug-2012	06-Aug-2012	06-Aug-2012
EPH CWG (Aromatic) Aqueous GC (W)	06-Aug-2012	06-Aug-2012	06-Aug-2012	06-Aug-2012	06-Aug-2012	06-Aug-2012	06-Aug-2012	06-Aug-2012	06-Aug-2012	06-Aug-2012
GRO by GC-FID (W)	31-Jul-2012	31-Jul-2012	31-Jul-2012	03-Aug-2012	01-Aug-2012	31-Jul-2012	05-Aug-2012	01-Aug-2012	01-Aug-2012	03-Aug-2012
Hexavalent Chromium (w)	02-Aug-2012	02-Aug-2012	02-Aug-2012	02-Aug-2012	02-Aug-2012	02-Aug-2012	02-Aug-2012	02-Aug-2012	02-Aug-2012	02-Aug-2012
Mercury Dissolved	01-Aug-2012	01-Aug-2012	01-Aug-2012	31-Jul-2012	01-Aug-2012	01-Aug-2012	01-Aug-2012	01-Aug-2012	01-Aug-2012	31-Jul-2012
PAH Spec MS - Aqueous (W)	06-Aug-2012	06-Aug-2012	06-Aug-2012	06-Aug-2012	06-Aug-2012	06-Aug-2012	06-Aug-2012	06-Aug-2012	06-Aug-2012	06-Aug-2012
pH Value	01-Aug-2012	02-Aug-2012	02-Aug-2012	02-Aug-2012	01-Aug-2012	02-Aug-2012	02-Aug-2012	01-Aug-2012	02-Aug-2012	02-Aug-2012
Phenols by HPLC (W)	03-Aug-2012	06-Aug-2012	03-Aug-2012	02-Aug-2012	06-Aug-2012	06-Aug-2012	06-Aug-2012	01-Aug-2012	06-Aug-2012	02-Aug-2012
Sulphide	02-Aug-2012	02-Aug-2012	02-Aug-2012	02-Aug-2012	02-Aug-2012	02-Aug-2012	02-Aug-2012	02-Aug-2012	02-Aug-2012	02-Aug-2012
TPH CWG (W)	06-Aug-2012	06-Aug-2012	06-Aug-2012	06-Aug-2012	06-Aug-2012	06-Aug-2012	06-Aug-2012	06-Aug-2012	06-Aug-2012	06-Aug-2012
VOC MS (W)	02-Aug-2012	31-Jul-2012	31-Jul-2012		31-Jul-2012		02-Aug-2012		02-Aug-2012	

Lab Sample No(s)	5947847	5947857	5947866	5947868	5947869	5947870	5947848	5947859	5947860	5947861
Customer Sample Ref.	E8	F11	G2	G3	G4	G5	G8	H12	J10	K1
AGS Ref.										
Depth	4.00	3.50 - 4.50	3.00 - 4.00	6.00	3.50	5.00	1.00	2.00 - 3.00	1.50	3.00 - 4.00
Type	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID
Ammoniacal Nitrogen	03-Aug-2012	03-Aug-2012	03-Aug-2012	03-Aug-2012	03-Aug-2012	03-Aug-2012	03-Aug-2012	03-Aug-2012	03-Aug-2012	03-Aug-2012
Anions by Kone (w)	06-Aug-2012	03-Aug-2012	03-Aug-2012	03-Aug-2012	03-Aug-2012	03-Aug-2012	03-Aug-2012	03-Aug-2012	06-Aug-2012	06-Aug-2012
Cyanide Comp/Free/Total/Thiocyanate	31-Jul-2012	31-Jul-2012	31-Jul-2012	31-Jul-2012	31-Jul-2012	31-Jul-2012	31-Jul-2012	31-Jul-2012	31-Jul-2012	31-Jul-2012
Dissolved Metals by ICP-MS	02-Aug-2012	02-Aug-2012	02-Aug-2012	02-Aug-2012	02-Aug-2012	02-Aug-2012	02-Aug-2012	02-Aug-2012	02-Aug-2012	02-Aug-2012
EPH CWG (Aliphatic) Aqueous GC (W)	06-Aug-2012	06-Aug-2012	06-Aug-2012	06-Aug-2012	06-Aug-2012	06-Aug-2012	06-Aug-2012	06-Aug-2012	06-Aug-2012	06-Aug-2012
EPH CWG (Aromatic) Aqueous GC (W)	06-Aug-2012	06-Aug-2012	06-Aug-2012	06-Aug-2012	06-Aug-2012	06-Aug-2012	06-Aug-2012	06-Aug-2012	06-Aug-2012	06-Aug-2012
GRO by GC-FID (W)	03-Aug-2012	31-Jul-2012	07-Aug-2012	01-Aug-2012	01-Aug-2012	01-Aug-2012	03-Aug-2012	31-Jul-2012	31-Jul-2012	31-Jul-2012
Hexavalent Chromium (w)	02-Aug-2012	02-Aug-2012	02-Aug-2012	02-Aug-2012	02-Aug-2012	02-Aug-2012	02-Aug-2012	02-Aug-2012	02-Aug-2012	02-Aug-2012
Mercury Dissolved	31-Jul-2012	01-Aug-2012	01-Aug-2012	01-Aug-2012	01-Aug-2012	01-Aug-2012	31-Jul-2012	01-Aug-2012	01-Aug-2012	01-Aug-2012
PAH Spec MS - Aqueous (W)	06-Aug-2012	06-Aug-2012	06-Aug-2012	06-Aug-2012	06-Aug-2012	06-Aug-2012	06-Aug-2012	06-Aug-2012	06-Aug-2012	06-Aug-2012
pH Value	02-Aug-2012	30-Jul-2012	01-Aug-2012	02-Aug-2012	02-Aug-2012	02-Aug-2012	02-Aug-2012	02-Aug-2012	02-Aug-2012	02-Aug-2012
Phenols by HPLC (W)	02-Aug-2012	06-Aug-2012	06-Aug-2012	06-Aug-2012	06-Aug-2012	06-Aug-2012	02-Aug-2012	06-Aug-2012	03-Aug-2012	03-Aug-2012
Sulphide	02-Aug-2012	02-Aug-2012	02-Aug-2012	02-Aug-2012	02-Aug-2012	02-Aug-2012	02-Aug-2012	02-Aug-2012	02-Aug-2012	02-Aug-2012
TPH CWG (W)	06-Aug-2012	06-Aug-2012	07-Aug-2012	06-Aug-2012	06-Aug-2012	06-Aug-2012	06-Aug-2012	06-Aug-2012	06-Aug-2012	06-Aug-2012
VOC MS (W)			02-Aug-2012		02-Aug-2012	31-Jul-2012				

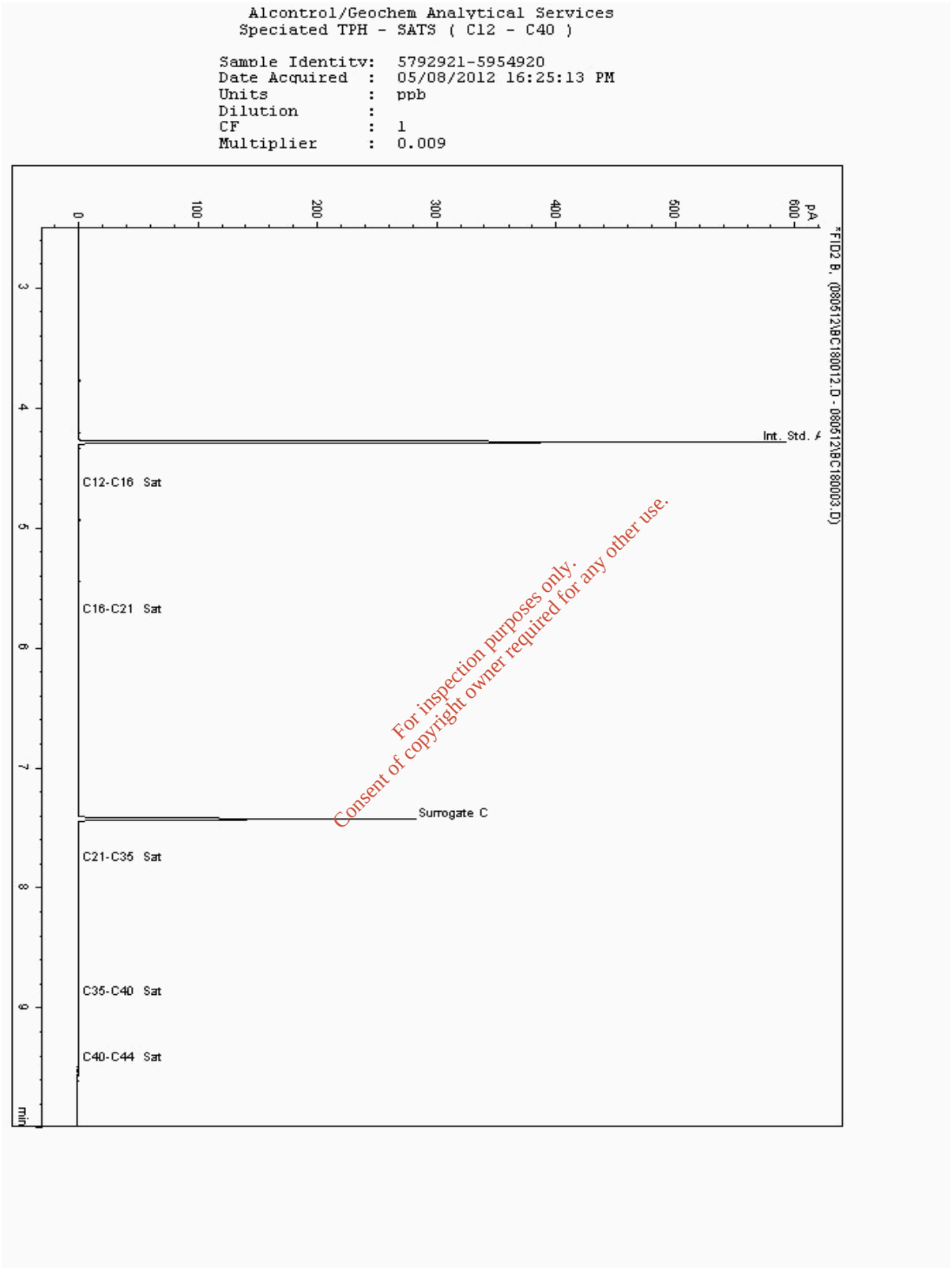
Lab Sample No(s)	5947863	5947864
Customer Sample Ref.	K5	M3
AGS Ref.		
Depth	1.00 - 2.00	3.00 - 4.00
Type	LIQUID	LIQUID
Ammoniacal Nitrogen	03-Aug-2012	03-Aug-2012
Anions by Kone (w)	06-Aug-2012	06-Aug-2012
Cyanide Comp/Free/Total/Thiocyanate	01-Aug-2012	31-Jul-2012
Dissolved Metals by ICP-MS	02-Aug-2012	02-Aug-2012
EPH CWG (Aliphatic) Aqueous GC (W)	06-Aug-2012	06-Aug-2012
EPH CWG (Aromatic) Aqueous GC (W)	06-Aug-2012	06-Aug-2012
GRO by GC-FID (W)	03-Aug-2012	31-Jul-2012
Hexavalent Chromium (w)	02-Aug-2012	02-Aug-2012
Mercury Dissolved	01-Aug-2012	01-Aug-2012
PAH Spec MS - Aqueous (W)	06-Aug-2012	06-Aug-2012
pH Value	02-Aug-2012	02-Aug-2012
Phenols by HPLC (W)	06-Aug-2012	03-Aug-2012
Sulphide	02-Aug-2012	02-Aug-2012
TPH CWG (W)	06-Aug-2012	06-Aug-2012
VOC MS (W)	02-Aug-2012	31-Jul-2012

CERTIFICATE OF ANALYSIS

SDG:	120727-57	**Location:**	Limerick Gasworks	**Order Number:**	4500099608
Job:	D_MOUCHEL_ELE-107	**Customer:**	Mouchel	**Report Number:**	189981
Client Reference:	1034973	**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: EPH CWG (Aliphatic) Aqueous GC (W) **Sample No :** 5954920 **Sample ID :** G8 **Depth :** 1.00



CERTIFICATE OF ANALYSIS

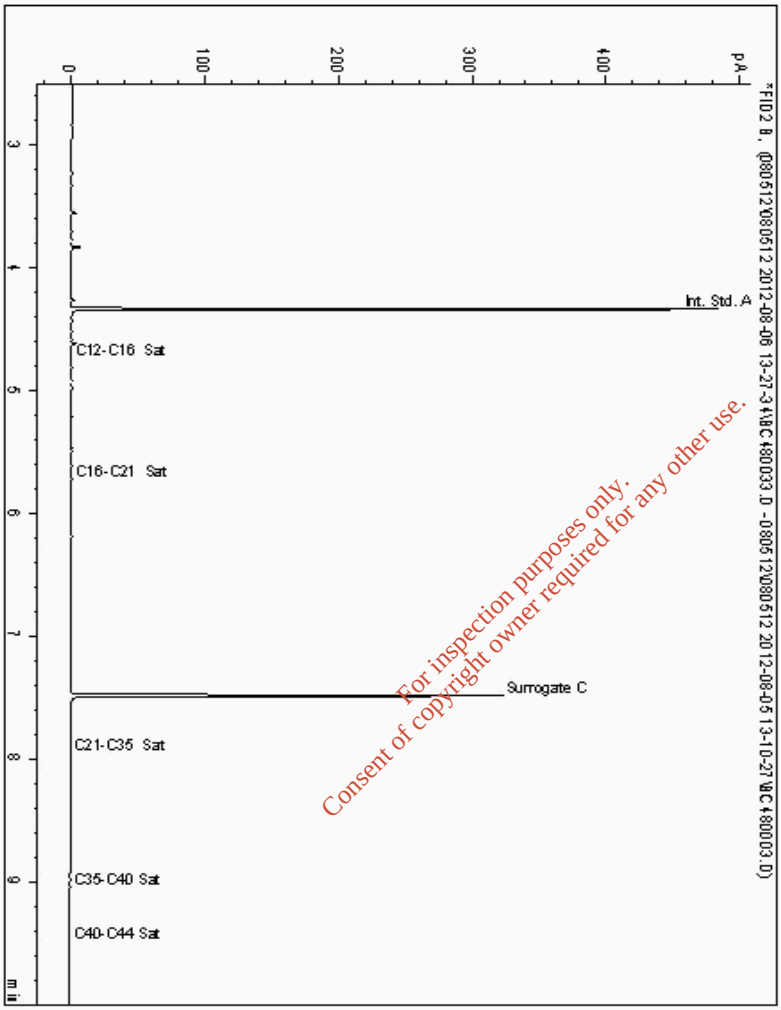
SDG:	120727-57	**Location:**	Limerick Gasworks	**Order Number:**	4500099608
Job:	D_MOUCHEL_ELE-107	**Customer:**	Mouchel	**Report Number:**	189981
Client Reference:	1034973	**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: EPH CWG (Aliphatic) Aqueous GC (W) **Sample No :** 5954925 **Sample ID :** E8 **Depth :** 4.00

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

Sample Identity: 5792906-5954925
Date Acquired : 06/08/12 13:55:37
Units : ppb
Dilution :
CF : 1
Multiplier : 0.008

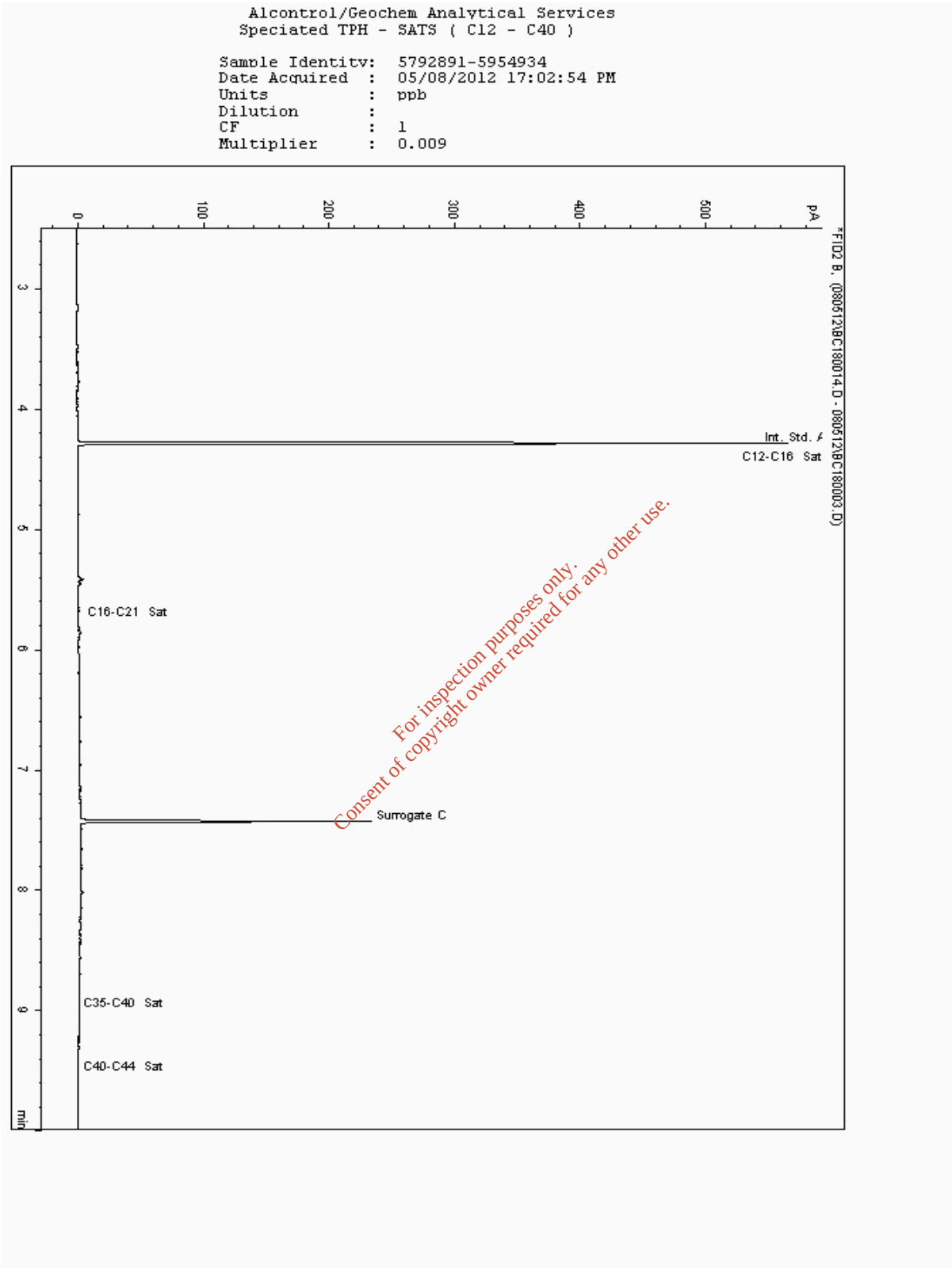


CERTIFICATE OF ANALYSIS

SDG:	120727-57	**Location:**	Limerick Gasworks	**Order Number:**	4500099608
Job:	D_MOUCHEL_ELE-107	**Customer:**	Mouchel	**Report Number:**	189981
Client Reference:	1034973	**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: EPH CWG (Aliphatic) Aqueous GC (W) **Sample No :** 5954934 **Sample ID :** D5 **Depth :** 1.75

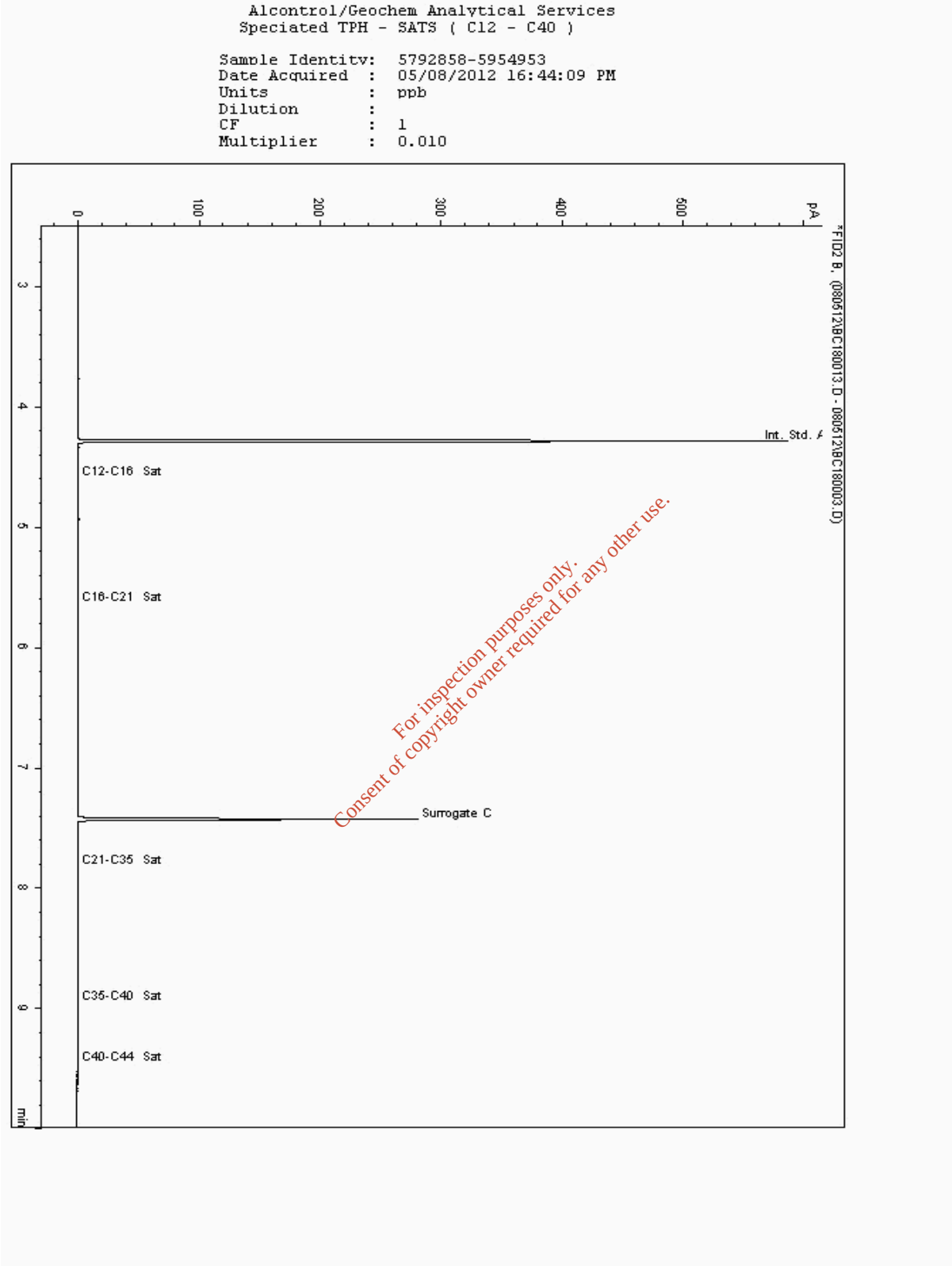


CERTIFICATE OF ANALYSIS

SDG:	120727-57	**Location:**	Limerick Gasworks	**Order Number:**	4500099608
Job:	D_MOUCHEL_ELE-107	**Customer:**	Mouchel	**Report Number:**	189981
Client Reference:	1034973	**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: EPH CWG (Aliphatic) Aqueous GC (W) **Sample No :** 5954953 **Sample ID :** A9 **Depth :** 2.00



CERTIFICATE OF ANALYSIS

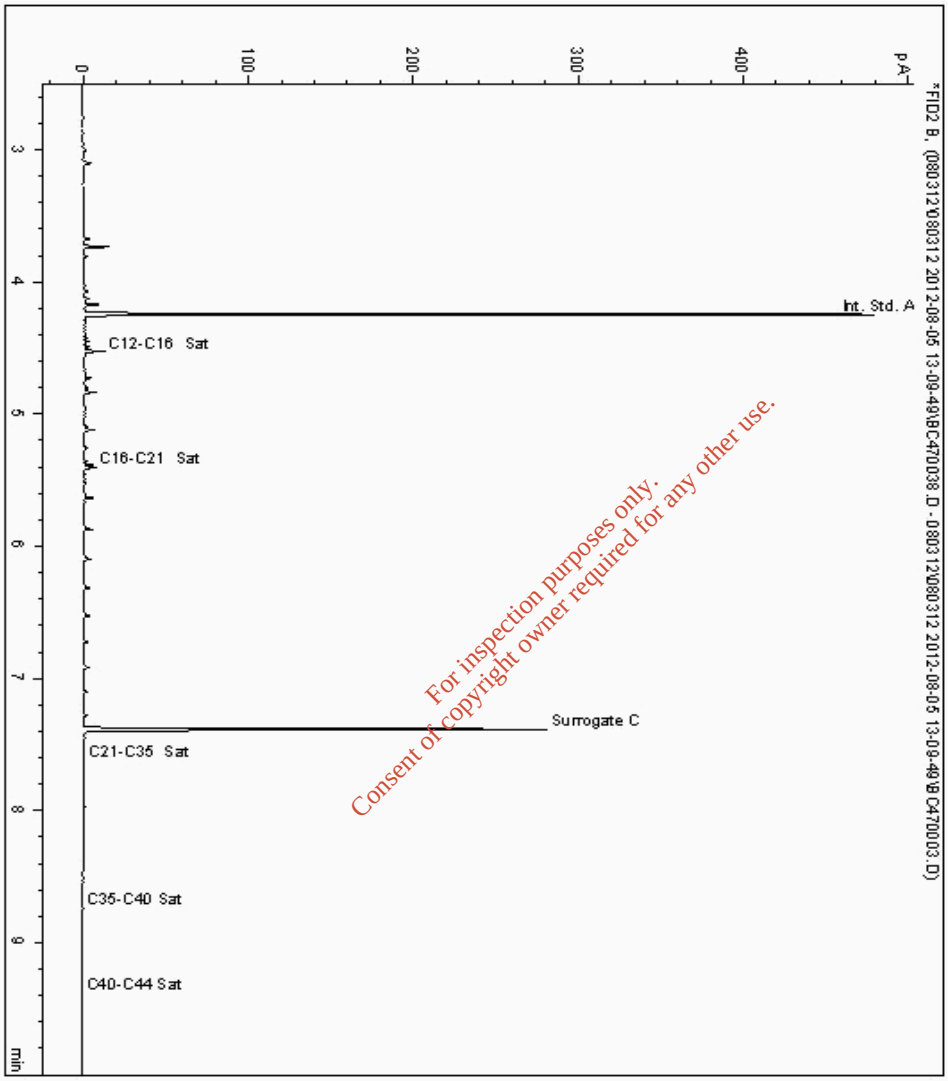
SDG:	120727-57	**Location:**	Limerick Gasworks	**Order Number:**	4500099608
Job:	D_MOUCHEL_ELE-107	**Customer:**	Mouchel	**Report Number:**	189981
Client Reference:	1034973	**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: EPH CWG (Aliphatic) Aqueous GC (W) **Sample No :** 5958160 **Sample ID :** C7 **Depth :** 4.00

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

Sample Identity: 5792873-5958160
Date Acquired : 05/08/12 14:05:15
Units : ppb
Dilution :
CF : 1
Multiplier : 0.223



CERTIFICATE OF ANALYSIS

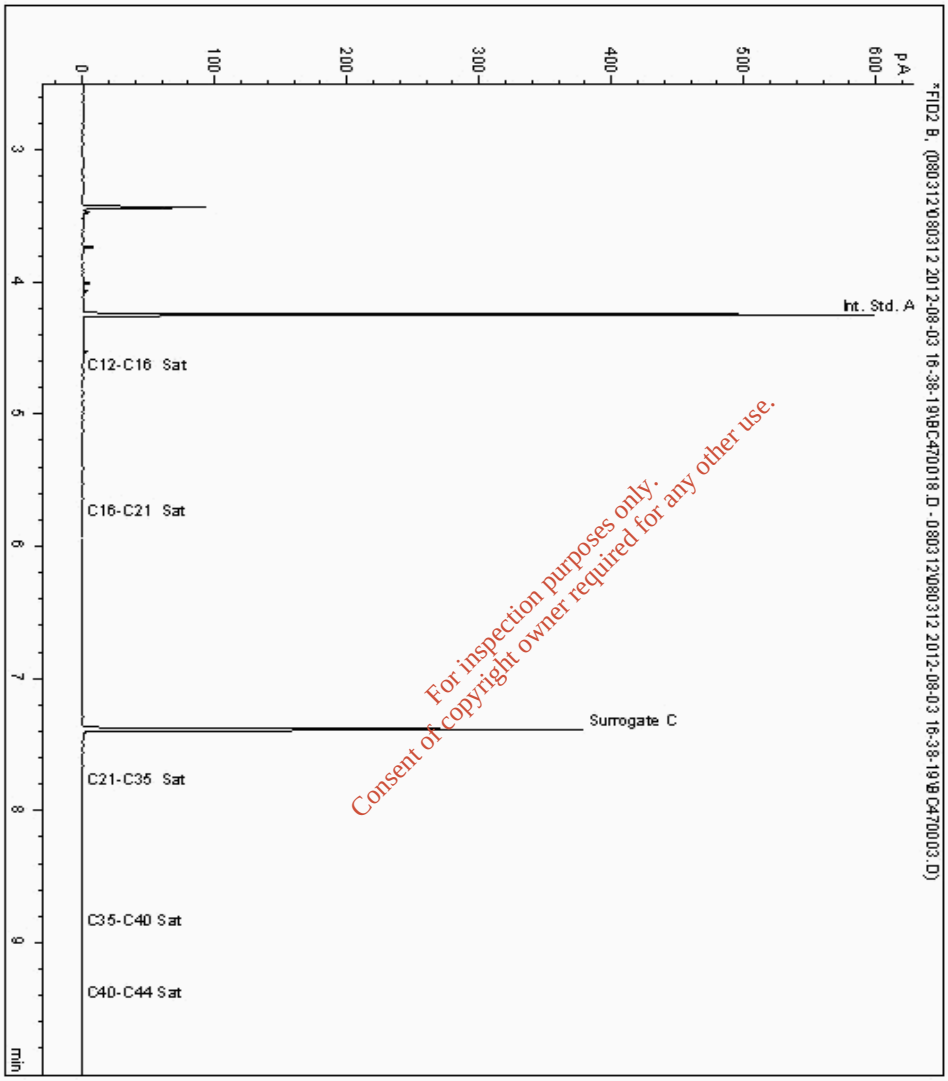
SDG:	120727-57	**Location:**	Limerick Gasworks	**Order Number:**	4500099608
Job:	D_MOUCHEL_ELE-107	**Customer:**	Mouchel	**Report Number:**	189981
Client Reference:	1034973	**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: EPH CWG (Aliphatic) Aqueous GC (W) **Sample No :** 5958174 **Sample ID :** K5 **Depth :** 1.00 - 2.00

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

Sample Identity: 5793090-5958174
Date Acquired : 03/08/12 21:36:45
Units : ppb
Dilution :
CF : 1
Multiplier : 0.223



CERTIFICATE OF ANALYSIS

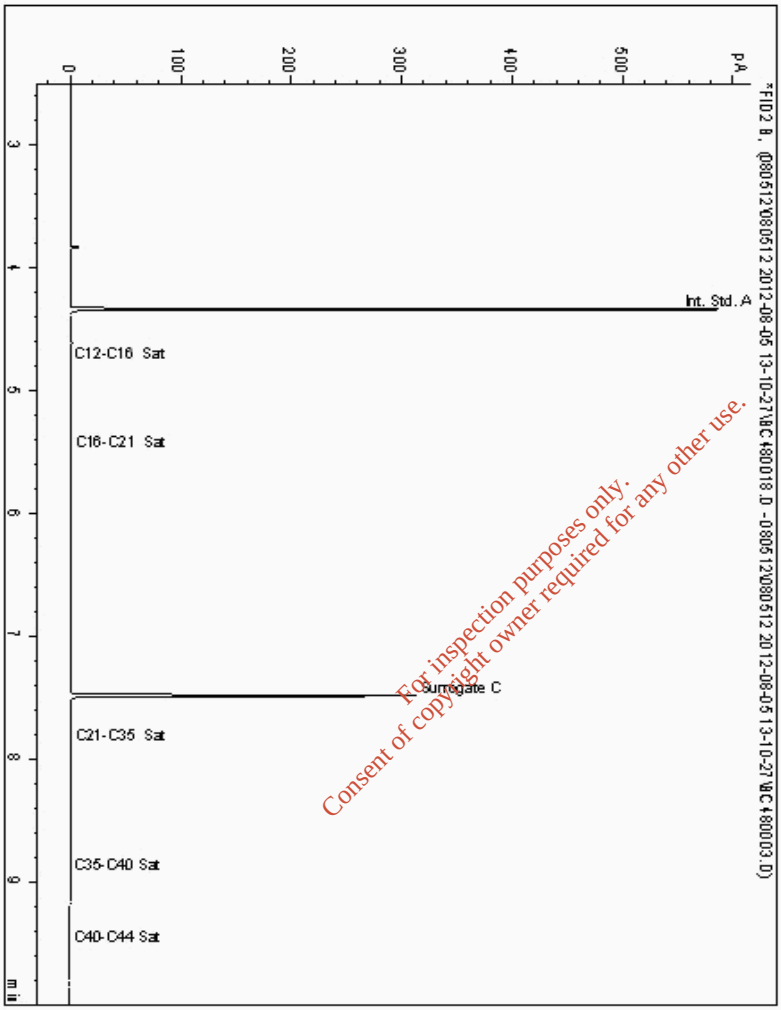
SDG:	120727-57	**Location:**	Limerick Gasworks	**Order Number:**	4500099608
Job:	D_MOUCHEL_ELE-107	**Customer:**	Mouchel	**Report Number:**	189981
Client Reference:	1034973	**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: EPH CWG (Aliphatic) Aqueous GC (W) **Sample No :** 5958200 **Sample ID :** K1 **Depth :** 3.00 - 4.00

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

Sample Identity: 5793075-5958200
Date Acquired : 05/08/12 18:29:40
Units : ppb
Dilution :
CF : 1
Multiplier : 0.008



CERTIFICATE OF ANALYSIS

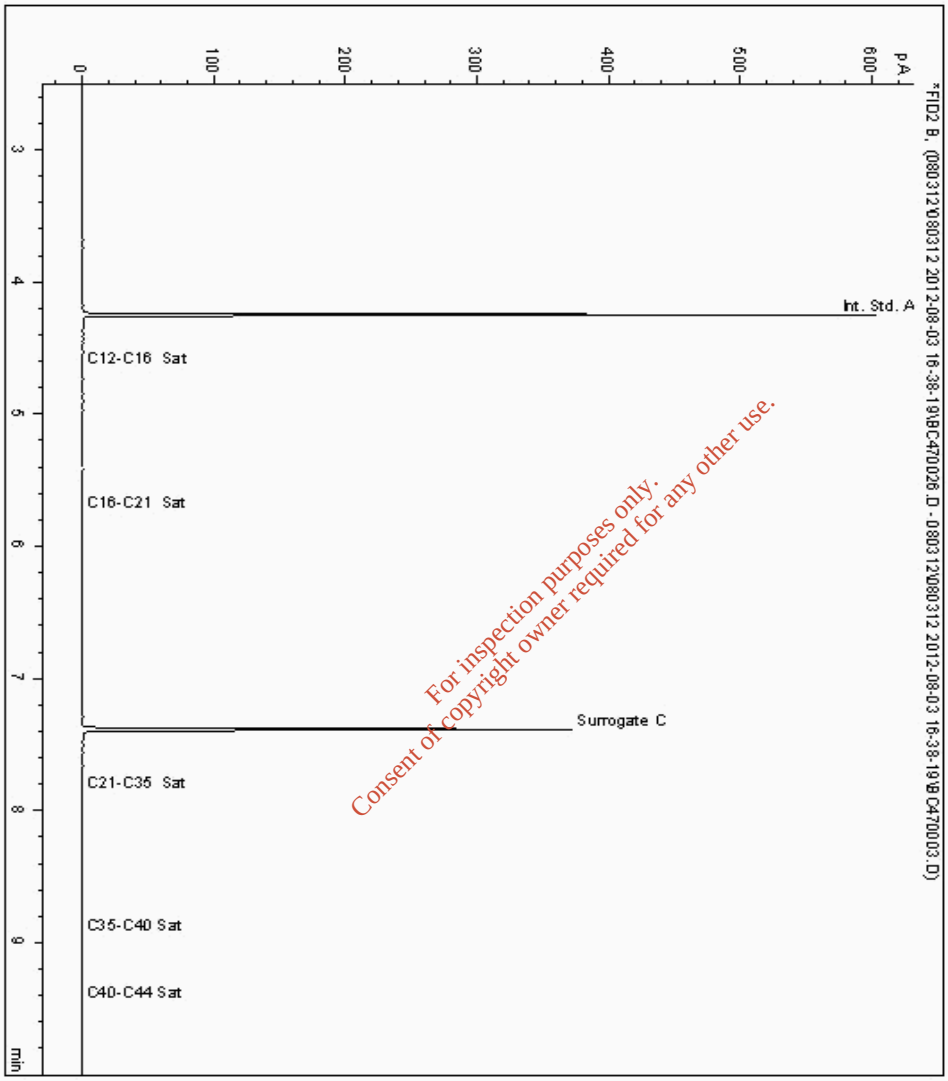
SDG:	120727-57	**Location:**	Limerick Gasworks	**Order Number:**	4500099608
Job:	D_MOUCHEL_ELE-107	**Customer:**	Mouchel	**Report Number:**	189981
Client Reference:	1034973	**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: EPH CWG (Aliphatic) Aqueous GC (W) **Sample No :** 5958211 **Sample ID :** J10 **Depth :** 1.50

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

Sample Identity: 5793060-5958211
Date Acquired : 03/08/12 23:14:22
Units : ppb
Dilution :
CF : 1
Multiplier : 0.009



CERTIFICATE OF ANALYSIS

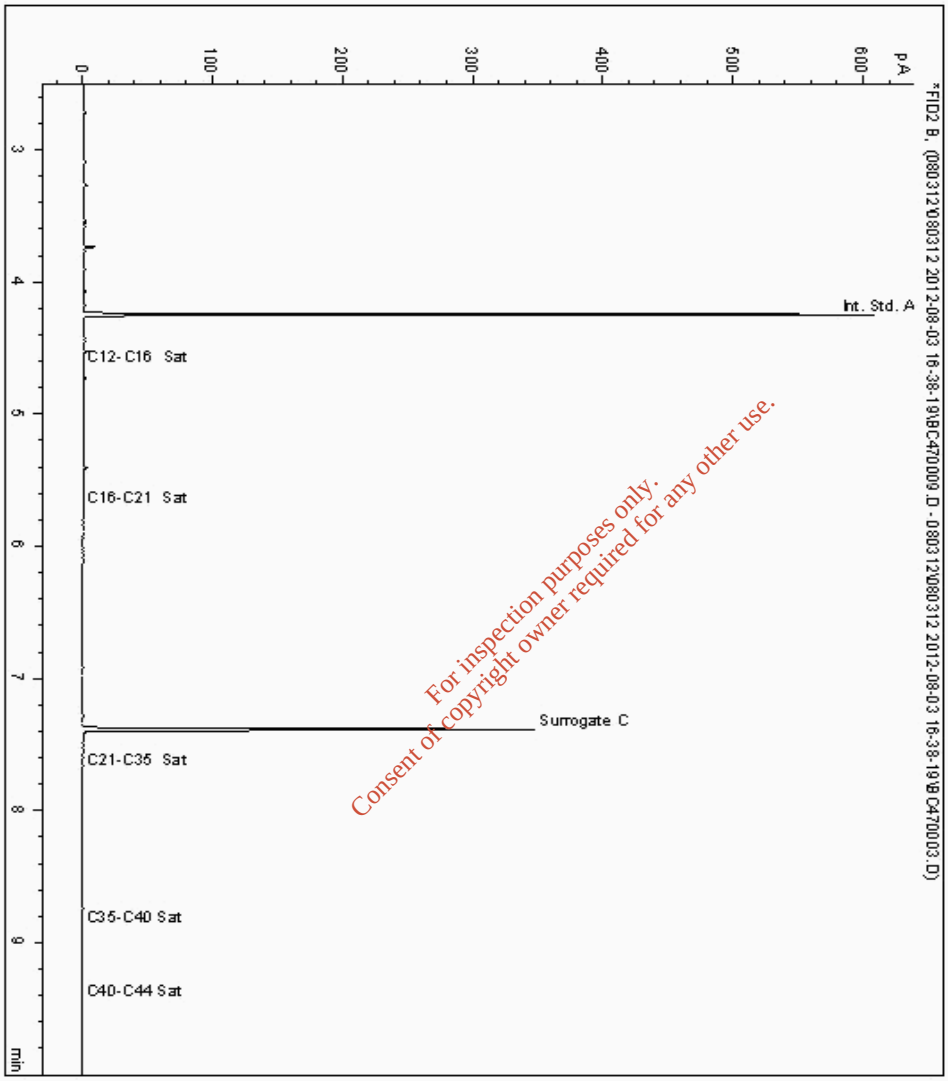
SDG:	120727-57	**Location:**	Limerick Gasworks	**Order Number:**	4500099608
Job:	D_MOUCHEL_ELE-107	**Customer:**	Mouchel	**Report Number:**	189981
Client Reference:	1034973	**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: EPH CWG (Aliphatic) Aqueous GC (W) **Sample No :** 5958979 **Sample ID :** C11 **Depth :** 1.00 - 2.00

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

Sample Identity: 5793015-5958979
Date Acquired : 03/08/12 19:09:51
Units : ppb
Dilution :
CF : 1
Multiplier : 0.008

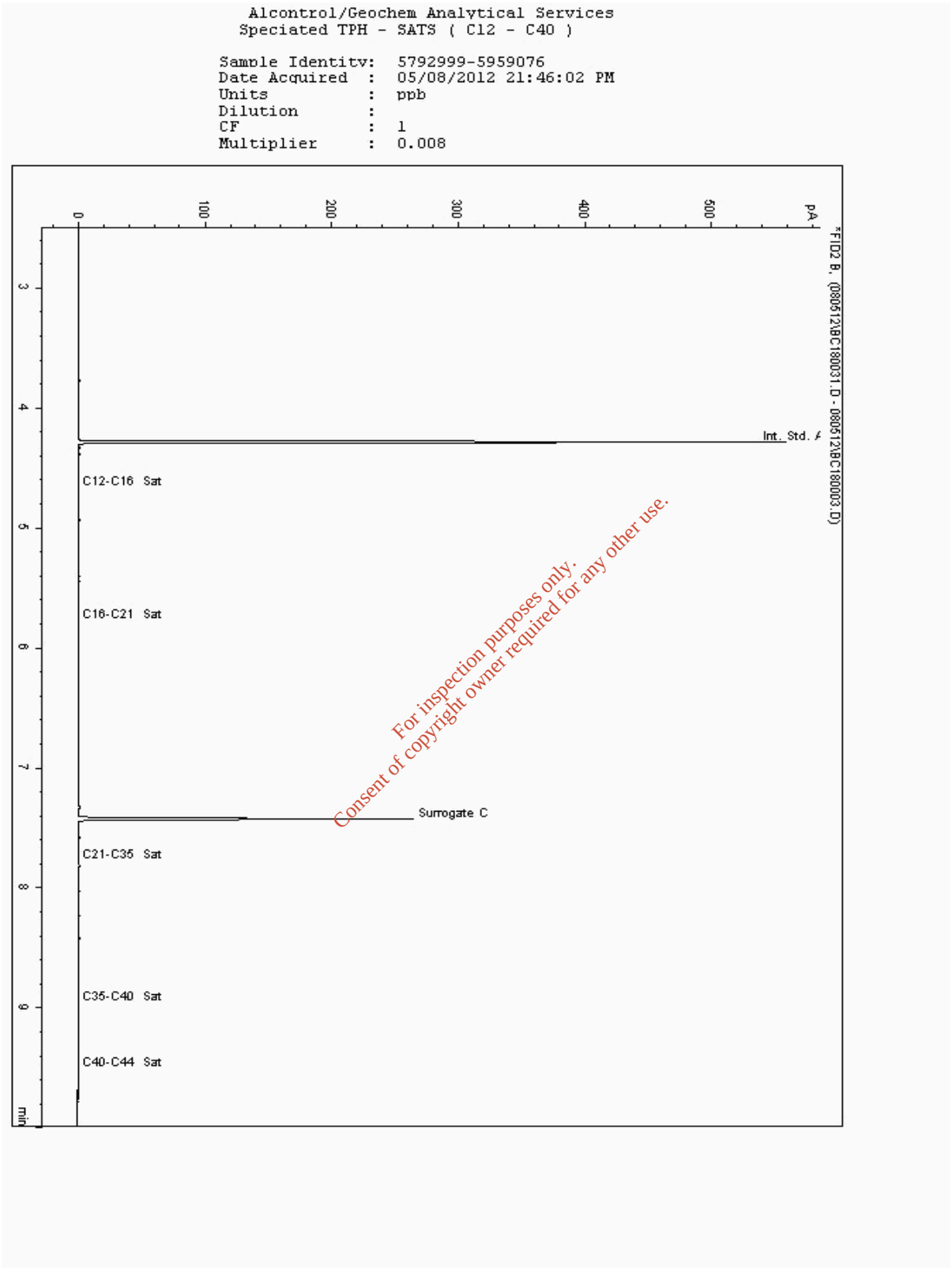


CERTIFICATE OF ANALYSIS

SDG:	120727-57	**Location:**	Limerick Gasworks	**Order Number:**	4500099608
Job:	D_MOUCHEL_ELE-107	**Customer:**	Mouchel	**Report Number:**	189981
Client Reference:	1034973	**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: EPH CWG (Aliphatic) Aqueous GC (W) **Sample No :** 5959076 **Sample ID :** A11 **Depth :** 1.00 - 2.00

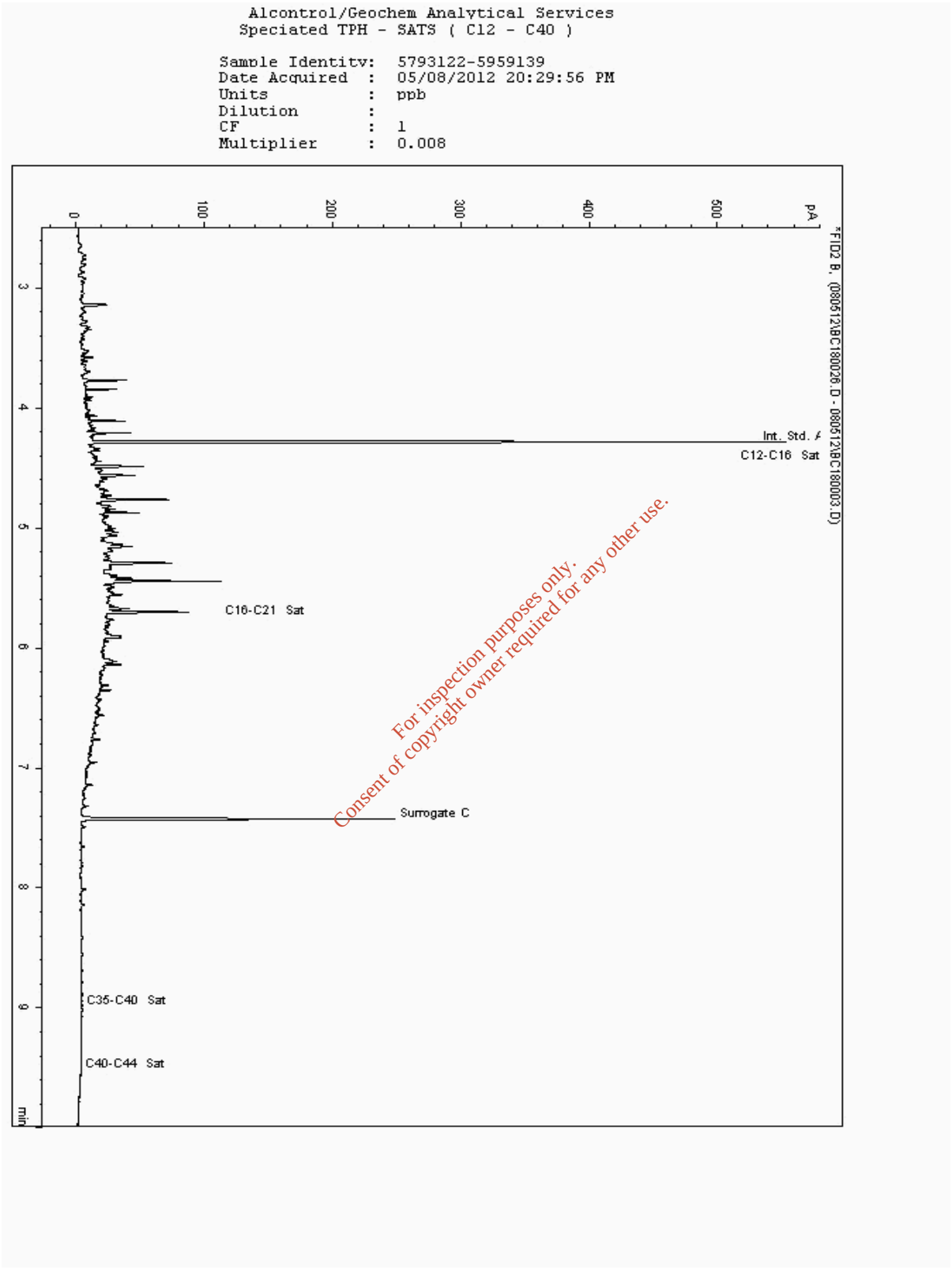


CERTIFICATE OF ANALYSIS

SDG:	120727-57	**Location:**	Limerick Gasworks	**Order Number:**	4500099608
Job:	D_MOUCHEL_ELE-107	**Customer:**	Mouchel	**Report Number:**	189981
Client Reference:	1034973	**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: EPH CWG (Aliphatic) Aqueous GC (W) **Sample No :** 5959139 **Sample ID :** D1 **Depth :** 3.00 - 4.00

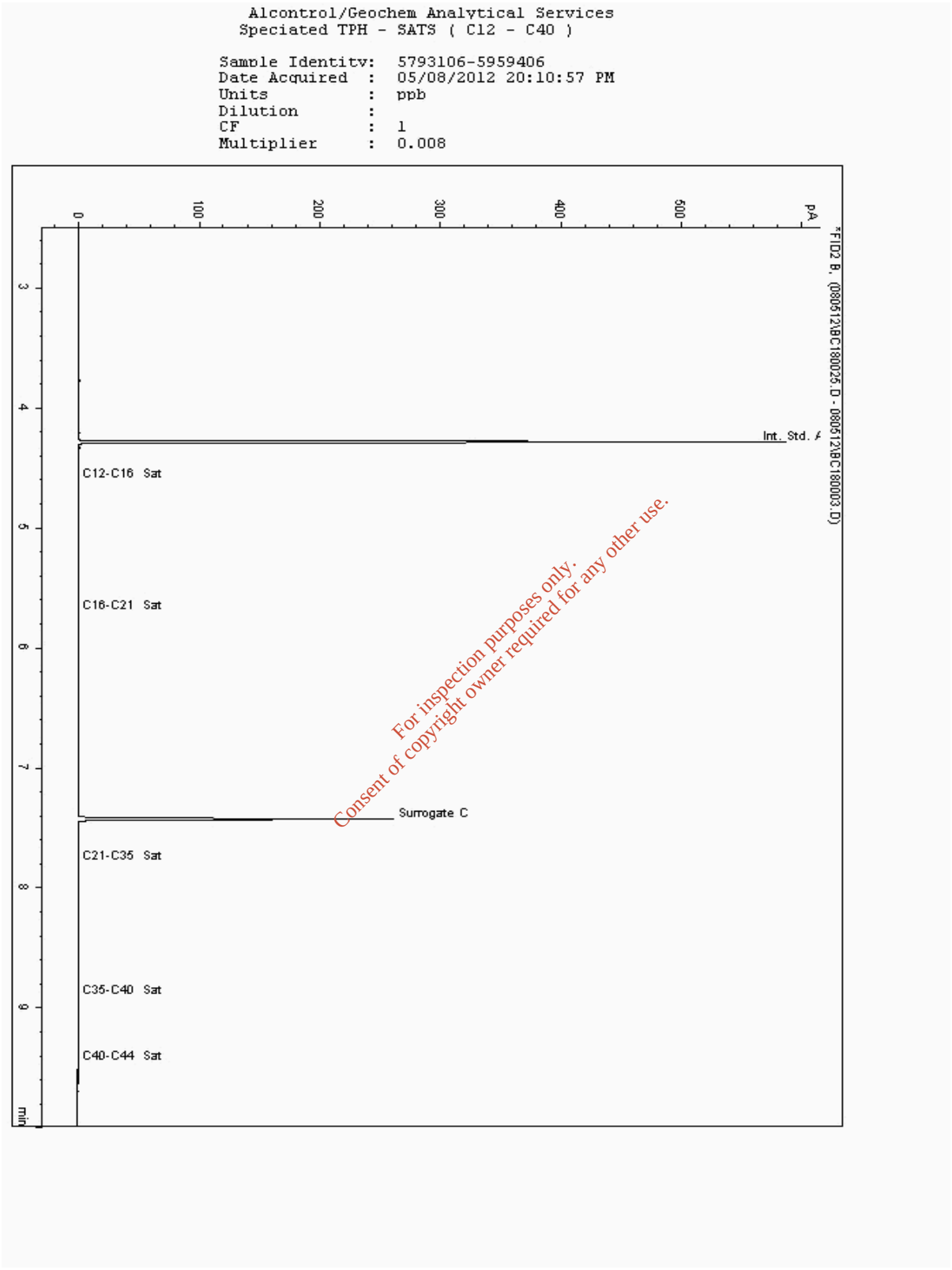


CERTIFICATE OF ANALYSIS

SDG:	120727-57	**Location:**	Limerick Gasworks	**Order Number:**	4500099608
Job:	D_MOUCHEL_ELE-107	**Customer:**	Mouchel	**Report Number:**	189981
Client Reference:	1034973	**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: EPH CWG (Aliphatic) Aqueous GC (W) **Sample No :** 5959406 **Sample ID :** M3 **Depth :** 3.00 - 4.00



CERTIFICATE OF ANALYSIS

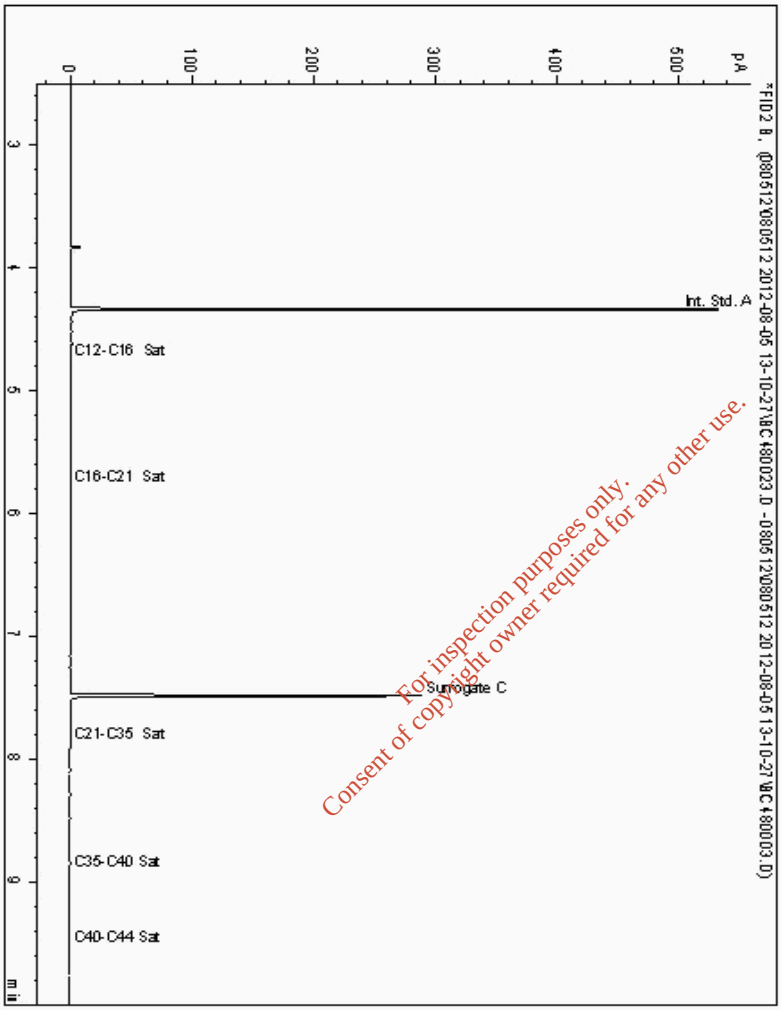
SDG:	120727-57	**Location:**	Limerick Gasworks	**Order Number:**	4500099608
Job:	D_MOUCHEL_ELE-107	**Customer:**	Mouchel	**Report Number:**	189981
Client Reference:	1034973	**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: EPH CWG (Aliphatic) Aqueous GC (W) **Sample No :** 5959450 **Sample ID :** A3 **Depth :** 1.50 - 2.50

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

Sample Identity: 5792952-5959450
Date Acquired : 05/08/12 19:55:10
Units : ppb
Dilution :
CF : 1
Multiplier : 0.008



CERTIFICATE OF ANALYSIS

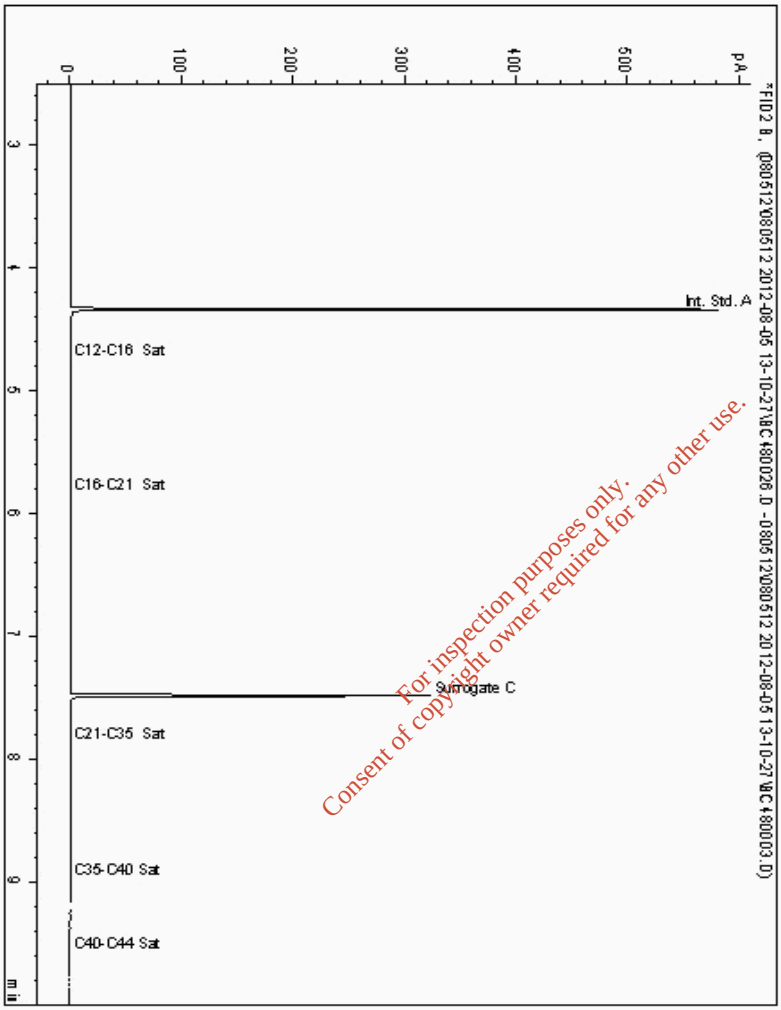
SDG:	120727-57	**Location:**	Limerick Gasworks	**Order Number:**	4500099608
Job:	D_MOUCHEL_ELE-107	**Customer:**	Mouchel	**Report Number:**	189981
Client Reference:	1034973	**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: EPH CWG (Aliphatic) Aqueous GC (W) **Sample No :** 5959457 **Sample ID :** H12 **Depth :** 2.00 - 3.00

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

Sample Identity: 5793045-5959457
Date Acquired : 05/08/12 20:43:03
Units : ppb
Dilution :
CF : 1
Multiplier : 0.008



CERTIFICATE OF ANALYSIS

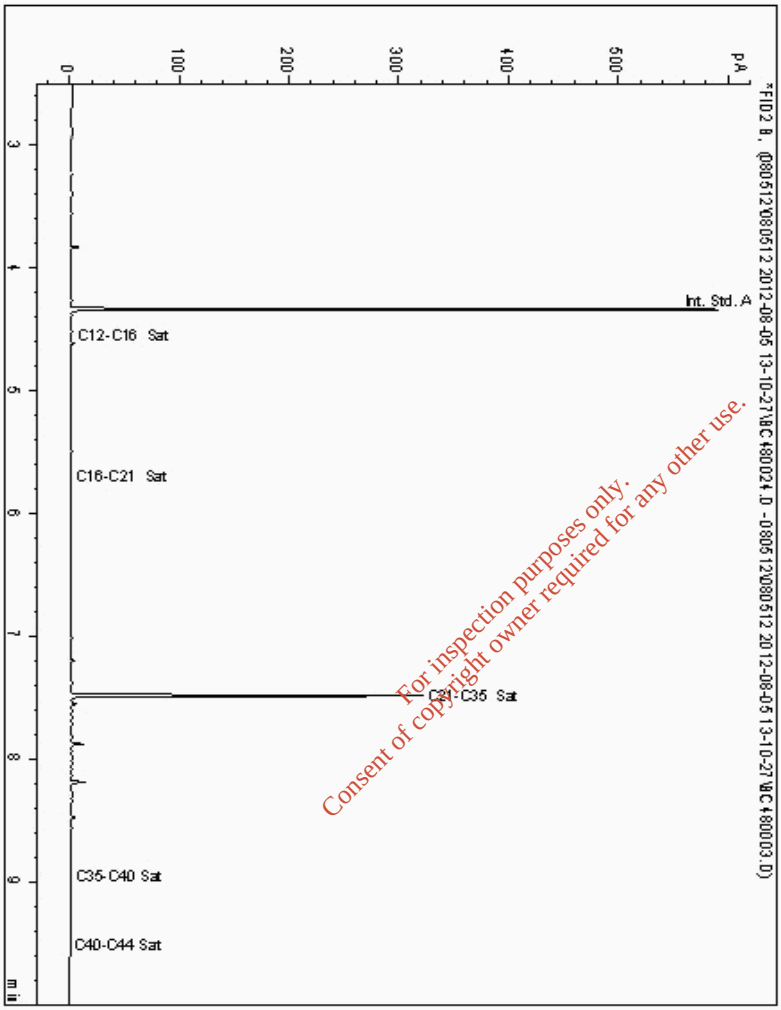
SDG:	120727-57	**Location:**	Limerick Gasworks	**Order Number:**	4500099608
Job:	D_MOUCHEL_ELE-107	**Customer:**	Mouchel	**Report Number:**	189981
Client Reference:	1034973	**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: EPH CWG (Aliphatic) Aqueous GC (W) **Sample No :** 5959473 **Sample ID :** F11 **Depth :** 3.50 - 4.50

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

Sample Identity: 5793030-5959473
Date Acquired : 05/08/12 20:14:09
Units : ppb
Dilution :
CF : 1
Multiplier : 0.008

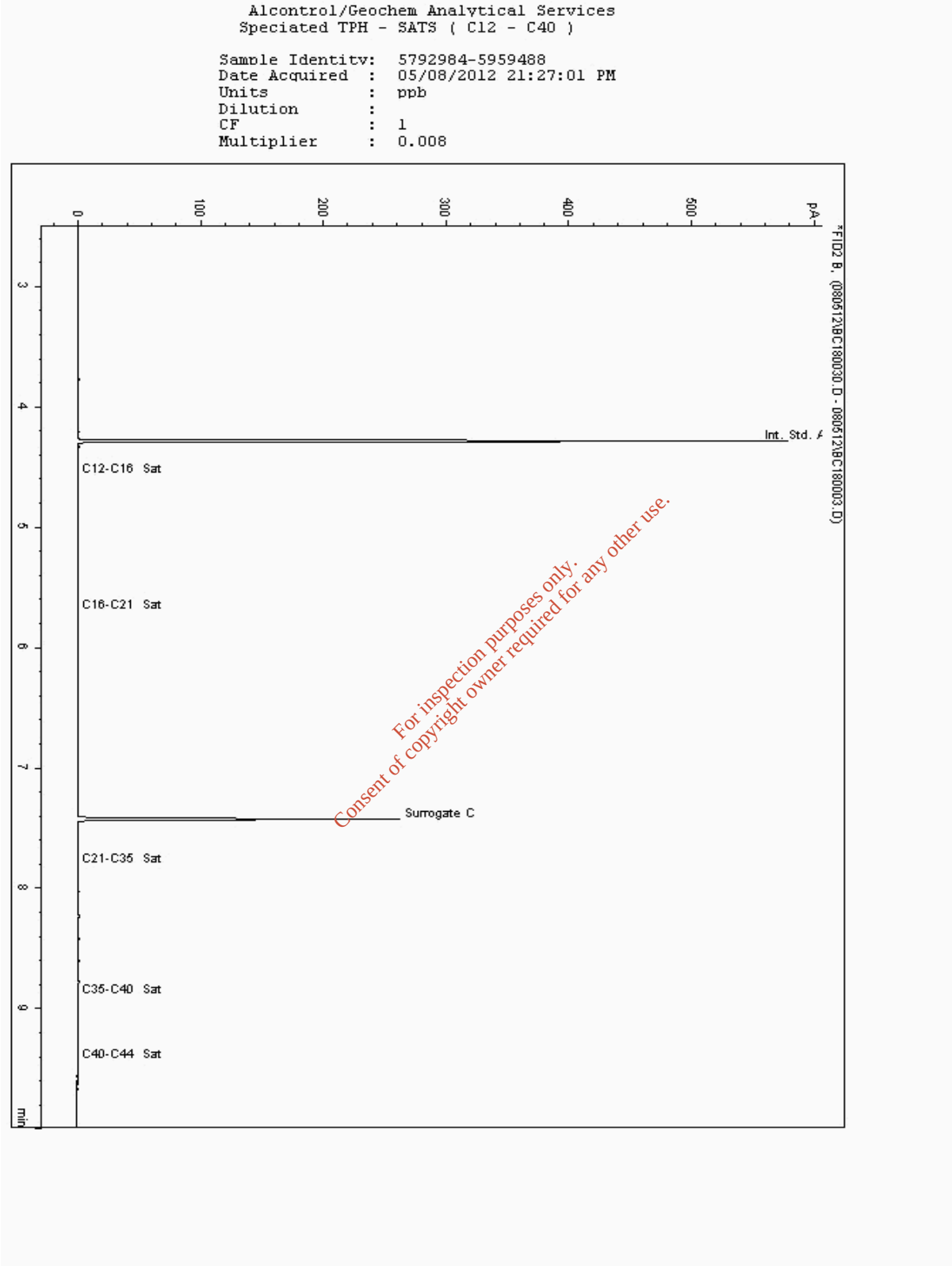


CERTIFICATE OF ANALYSIS

SDG:	120727-57	**Location:**	Limerick Gasworks	**Order Number:**	4500099608
Job:	D_MOUCHEL_ELE-107	**Customer:**	Mouchel	**Report Number:**	189981
Client Reference:	1034973	**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: EPH CWG (Aliphatic) Aqueous GC (W) **Sample No :** 5959488 **Sample ID :** C2 **Depth :** 1.00 - 2.00



CERTIFICATE OF ANALYSIS

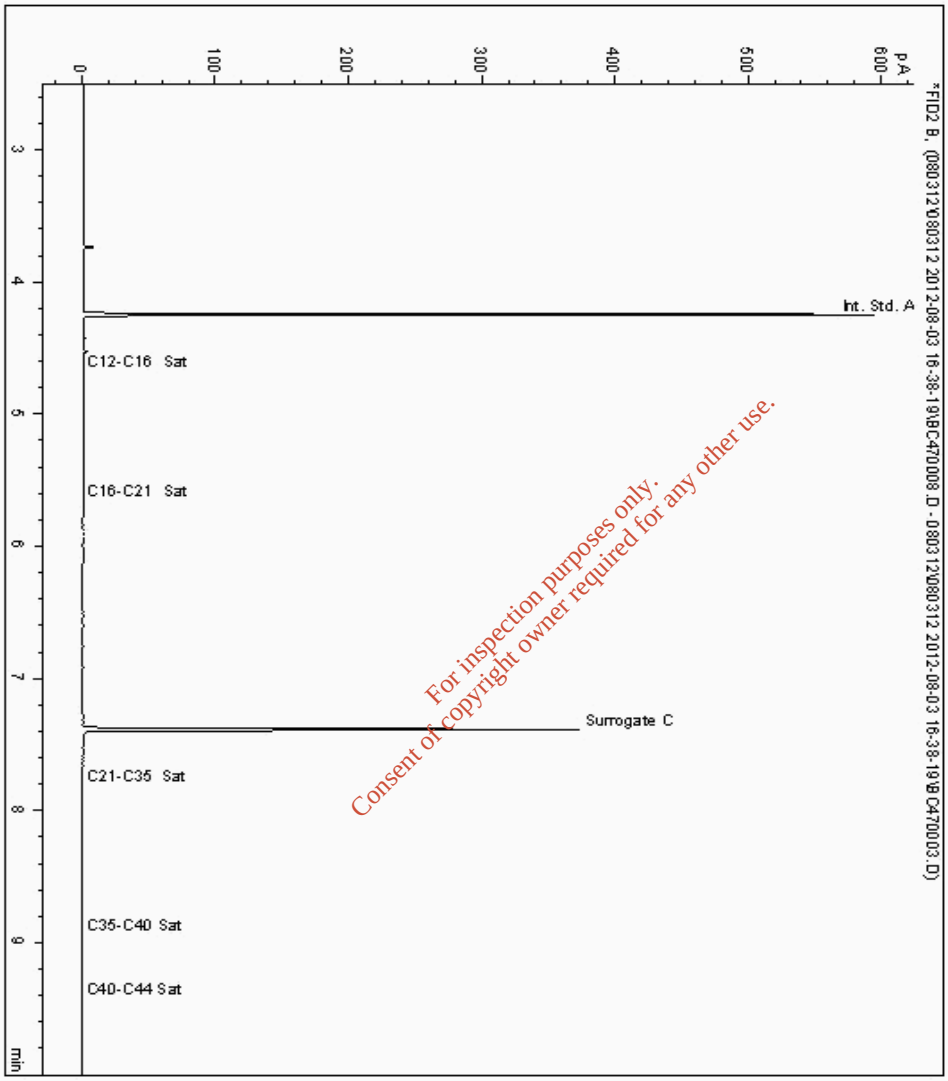
SDG:	120727-57	**Location:**	Limerick Gasworks	**Order Number:**	4500099608
Job:	D_MOUCHEL_ELE-107	**Customer:**	Mouchel	**Report Number:**	189981
Client Reference:	1034973	**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: EPH CWG (Aliphatic) Aqueous GC (W) **Sample No :** 5959508 **Sample ID :** A1 **Depth :** 1.50 - 2.50

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

Sample Identity: 5792936-5959508
Date Acquired : 03/08/12 18:50:36
Units : ppb
Dilution :
CF : 1
Multiplier : 0.008



CERTIFICATE OF ANALYSIS

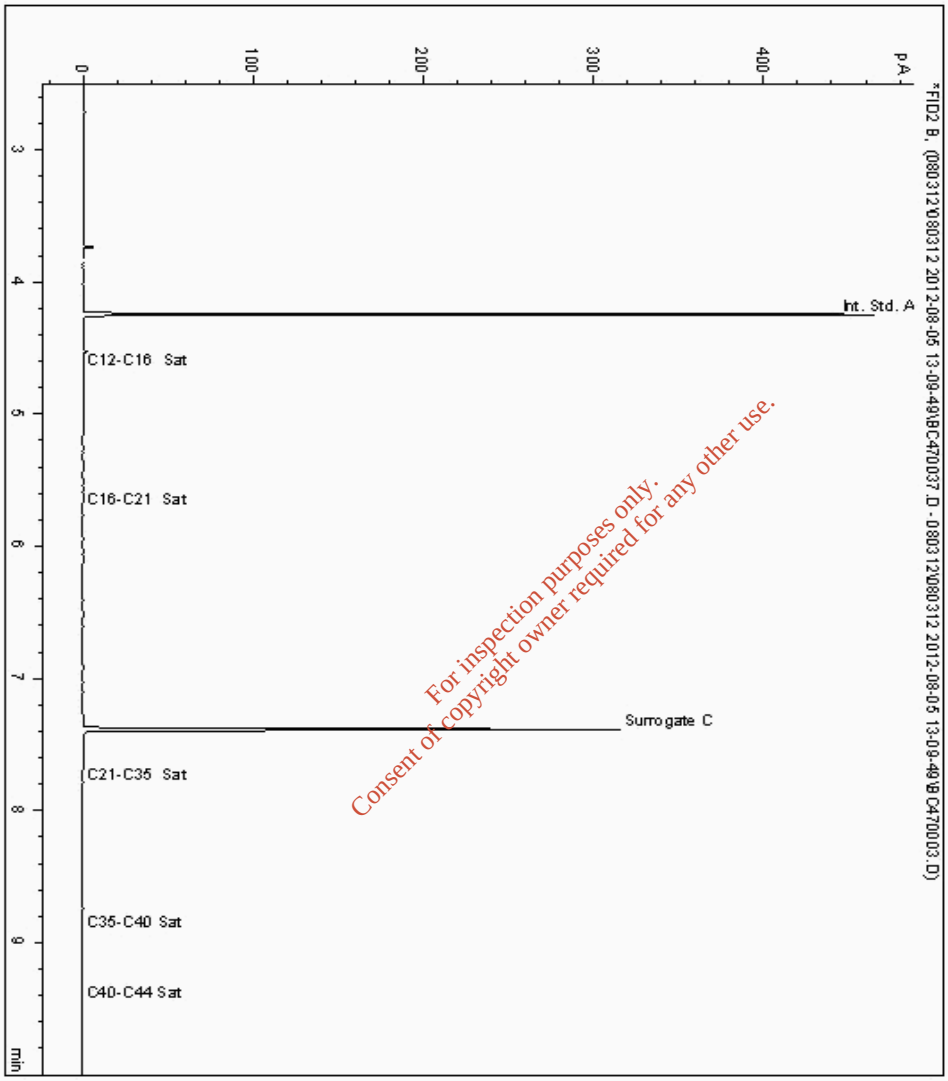
SDG:	120727-57	**Location:**	Limerick Gasworks	**Order Number:**	4500099608
Job:	D_MOUCHEL_ELE-107	**Customer:**	Mouchel	**Report Number:**	189981
Client Reference:	1034973	**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: EPH CWG (Aliphatic) Aqueous GC (W) **Sample No :** 5959517 **Sample ID :** G2 **Depth :** 3.00 - 4.00

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

Sample Identity: 5793138-5959517
Date Acquired : 05/08/12 13:46:13
Units : ppb
Dilution :
CF : 1
Multiplier : 0.008

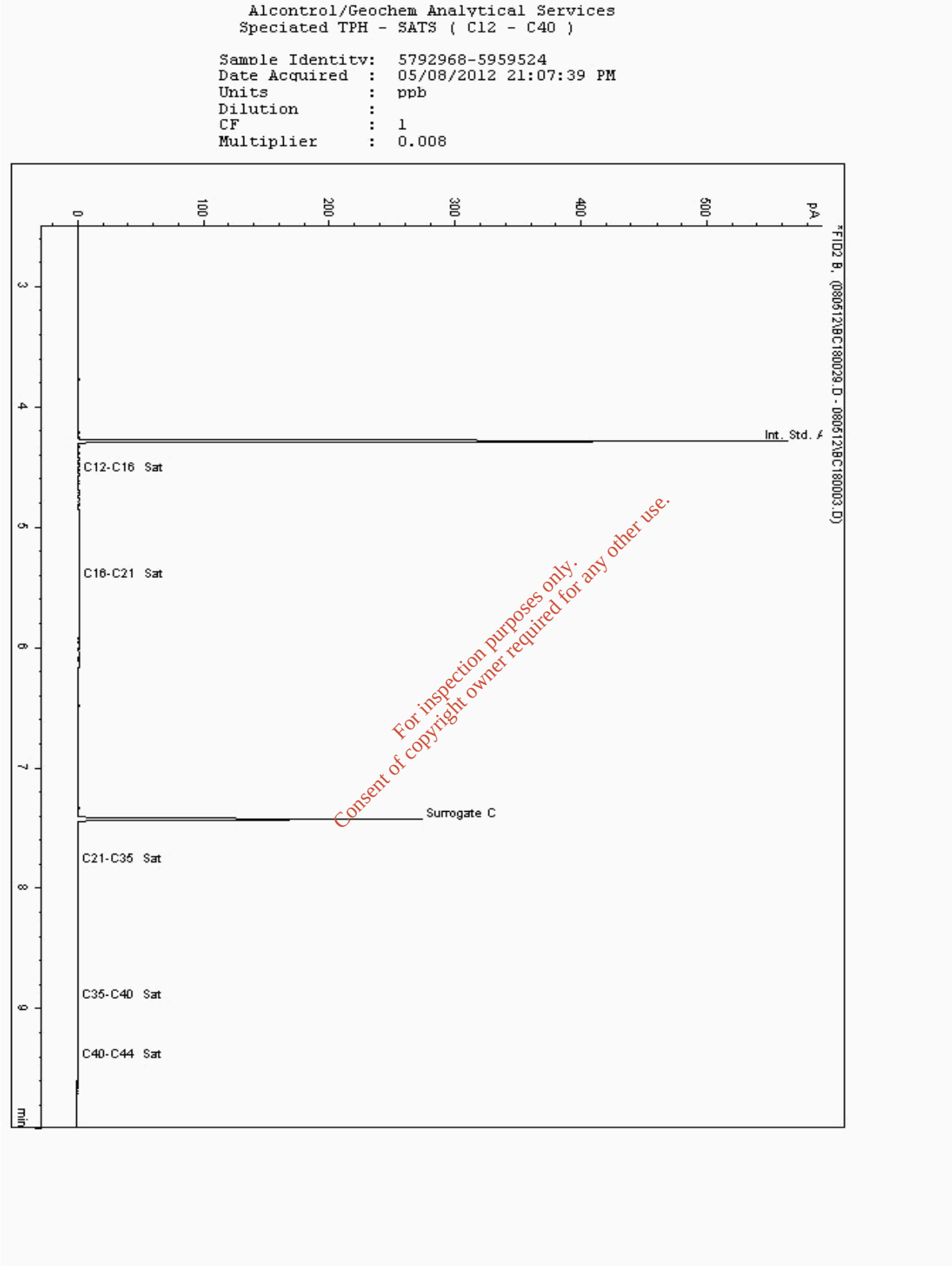


CERTIFICATE OF ANALYSIS

SDG:	120727-57	**Location:**	Limerick Gasworks	**Order Number:**	4500099608
Job:	D_MOUCHEL_ELE-107	**Customer:**	Mouchel	**Report Number:**	189981
Client Reference:	1034973	**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: EPH CWG (Aliphatic) Aqueous GC (W) **Sample No :** 5959524 **Sample ID :** A4 **Depth :** 2.00 - 3.00

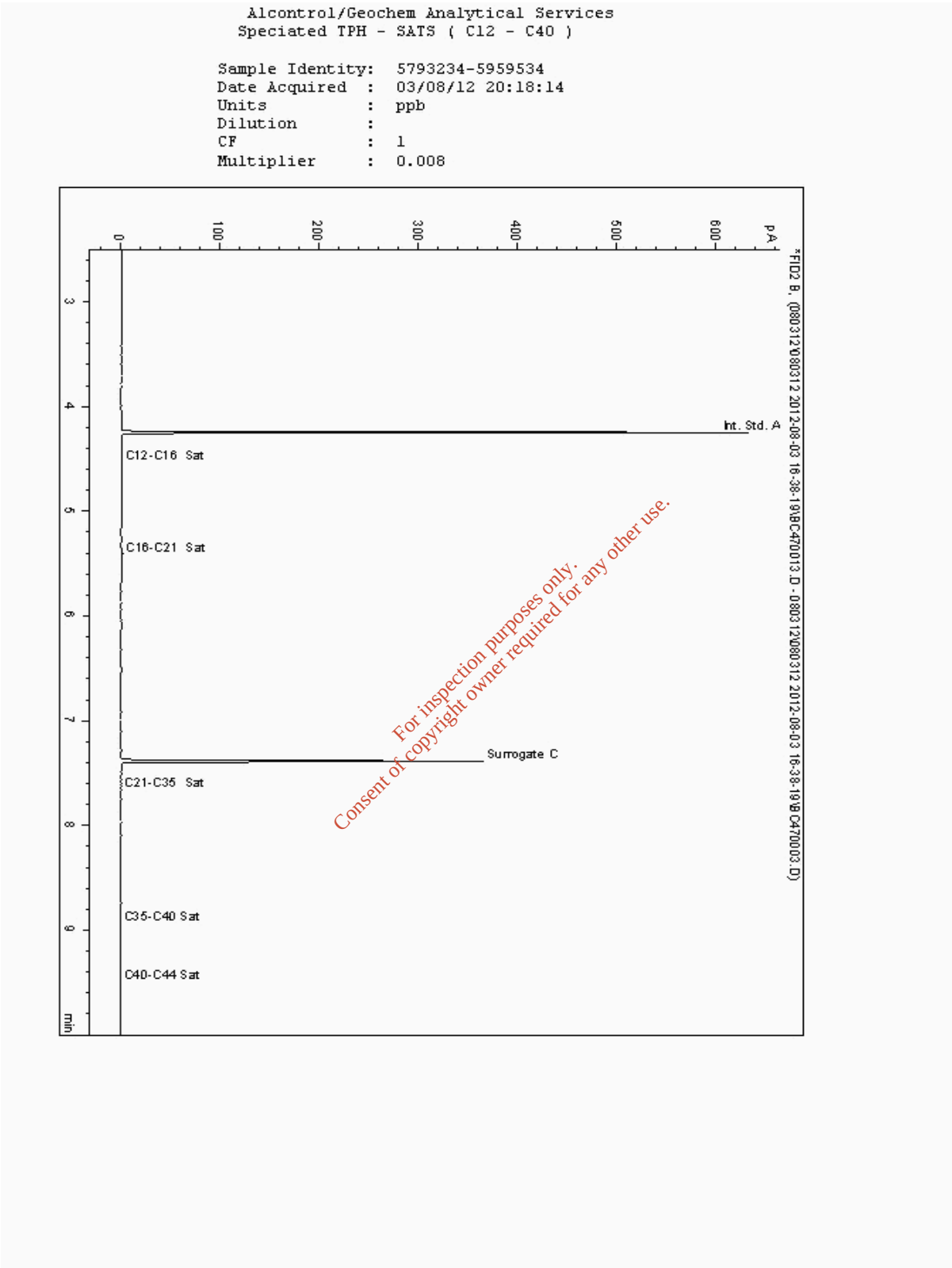


CERTIFICATE OF ANALYSIS

SDG:	120727-57	**Location:**	Limerick Gasworks	**Order Number:**	4500099608
Job:	D_MOUCHEL_ELE-107	**Customer:**	Mouchel	**Report Number:**	189981
Client Reference:	1034973	**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: EPH CWG (Aliphatic) Aqueous GC (W) **Sample No :** 5959534 **Sample ID :** G5 **Depth :** 5.00



CERTIFICATE OF ANALYSIS

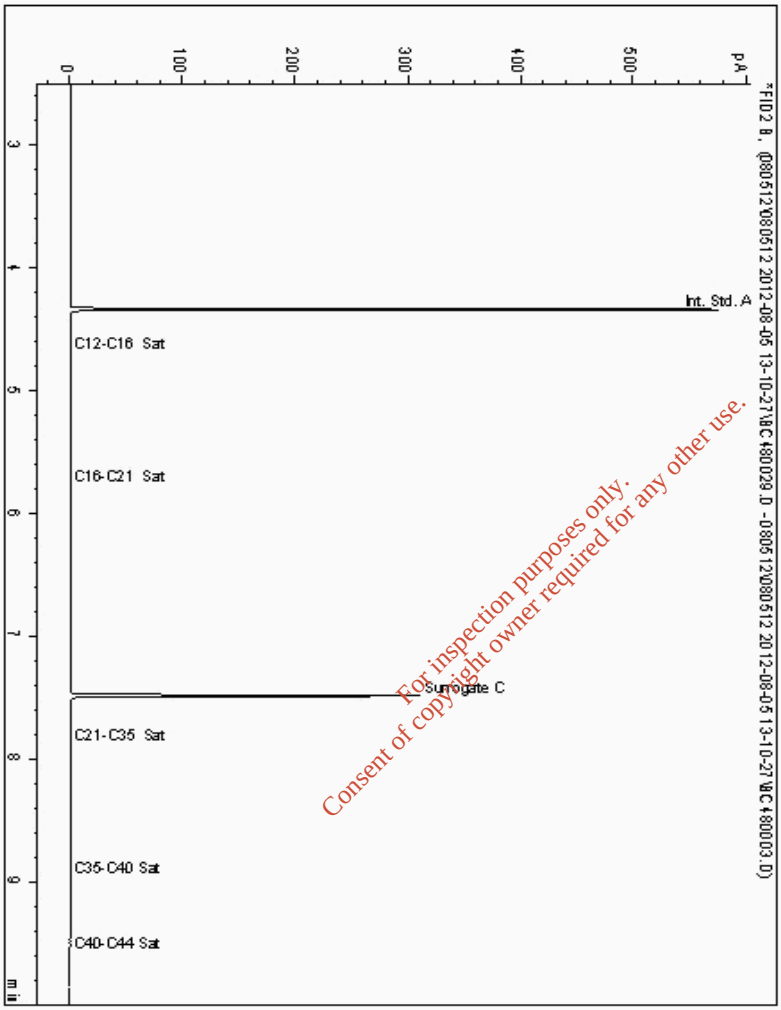
SDG:	120727-57	**Location:**	Limerick Gasworks	**Order Number:**	4500099608
Job:	D_MOUCHEL_ELE-107	**Customer:**	Mouchel	**Report Number:**	189981
Client Reference:	1034973	**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: EPH CWG (Aliphatic) Aqueous GC (W) **Sample No :** 5959582 **Sample ID :** G3 **Depth :** 6.00

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

Sample Identity: 5793167-5959582
Date Acquired : 05/08/12 21:31:17
Units : ppb
Dilution :
CF : 1
Multiplier : 0.008

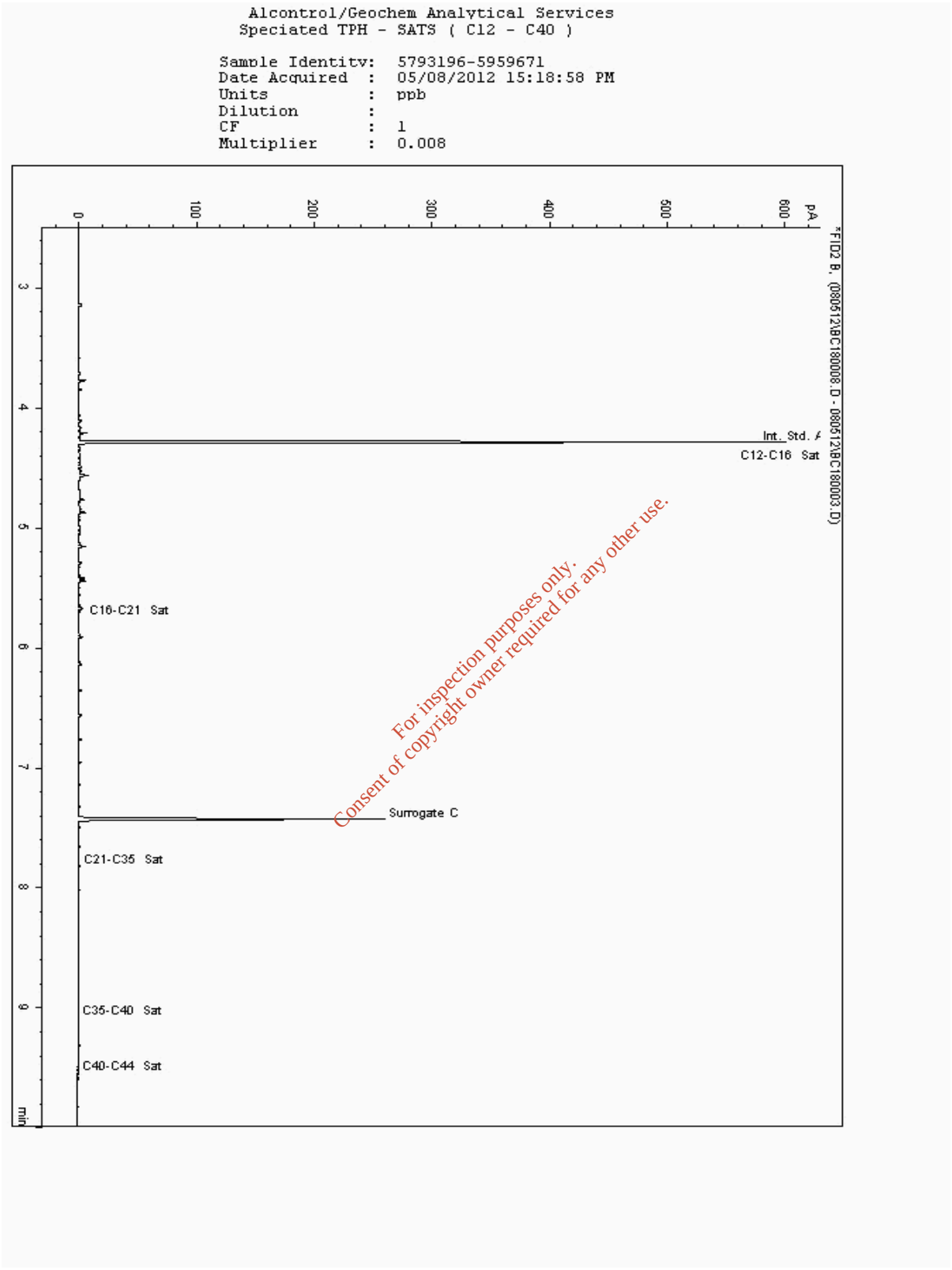


CERTIFICATE OF ANALYSIS

SDG:	120727-57	**Location:**	Limerick Gasworks	**Order Number:**	4500099608
Job:	D_MOUCHEL_ELE-107	**Customer:**	Mouchel	**Report Number:**	189981
Client Reference:	1034973	**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: EPH CWG (Aliphatic) Aqueous GC (W) **Sample No :** 5959671 **Sample ID :** G4 **Depth :** 3.50

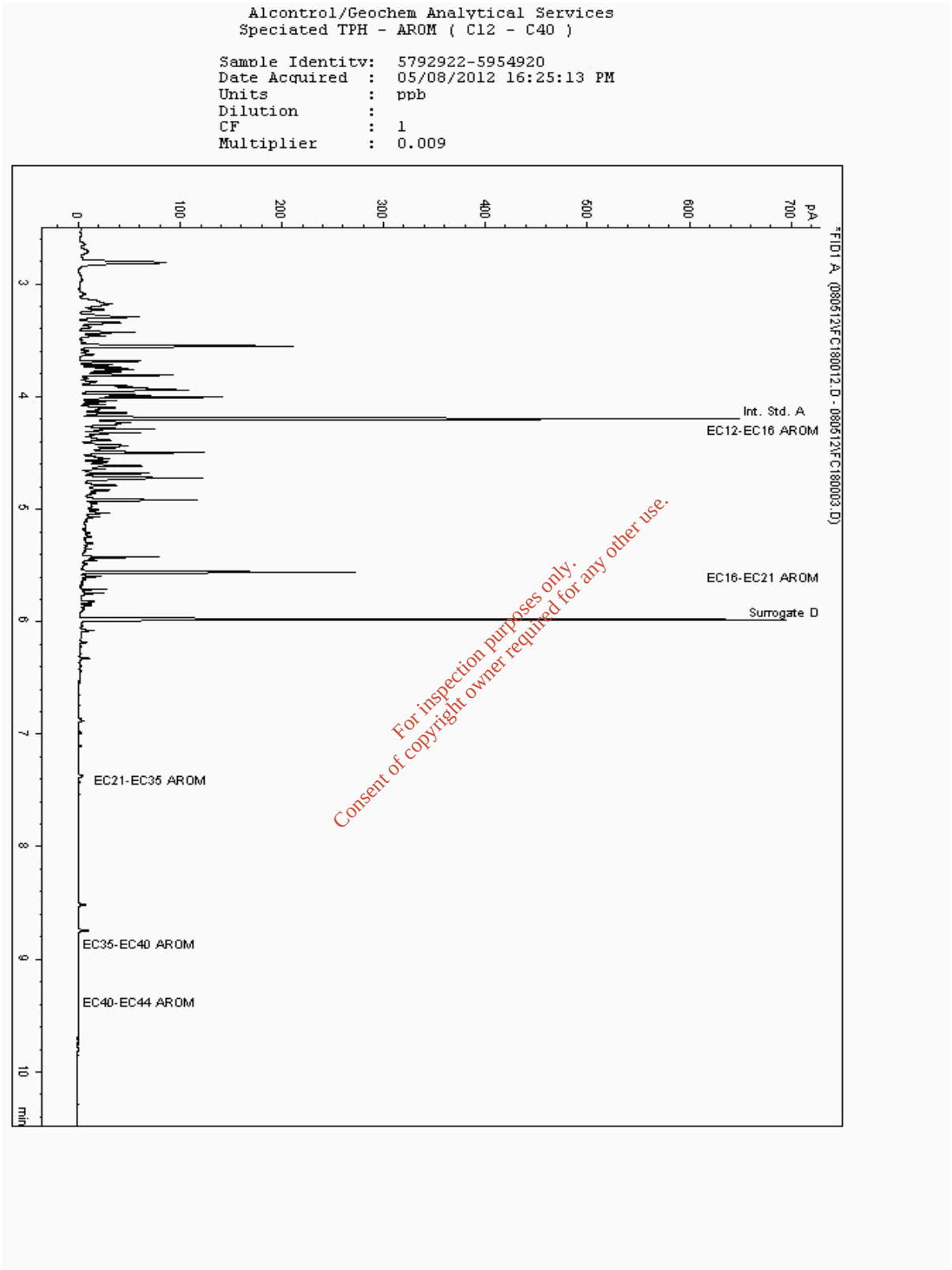


CERTIFICATE OF ANALYSIS

SDG:	120727-57	**Location:**	Limerick Gasworks	**Order Number:**	4500099608
Job:	D_MOUCHEL_ELE-107	**Customer:**	Mouchel	**Report Number:**	189981
Client Reference:	1034973	**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: EPH CWG (Aromatic) Aqueous GC (W) **Sample No :** 5954920 **Sample ID :** G8 **Depth :** 1.00



CERTIFICATE OF ANALYSIS

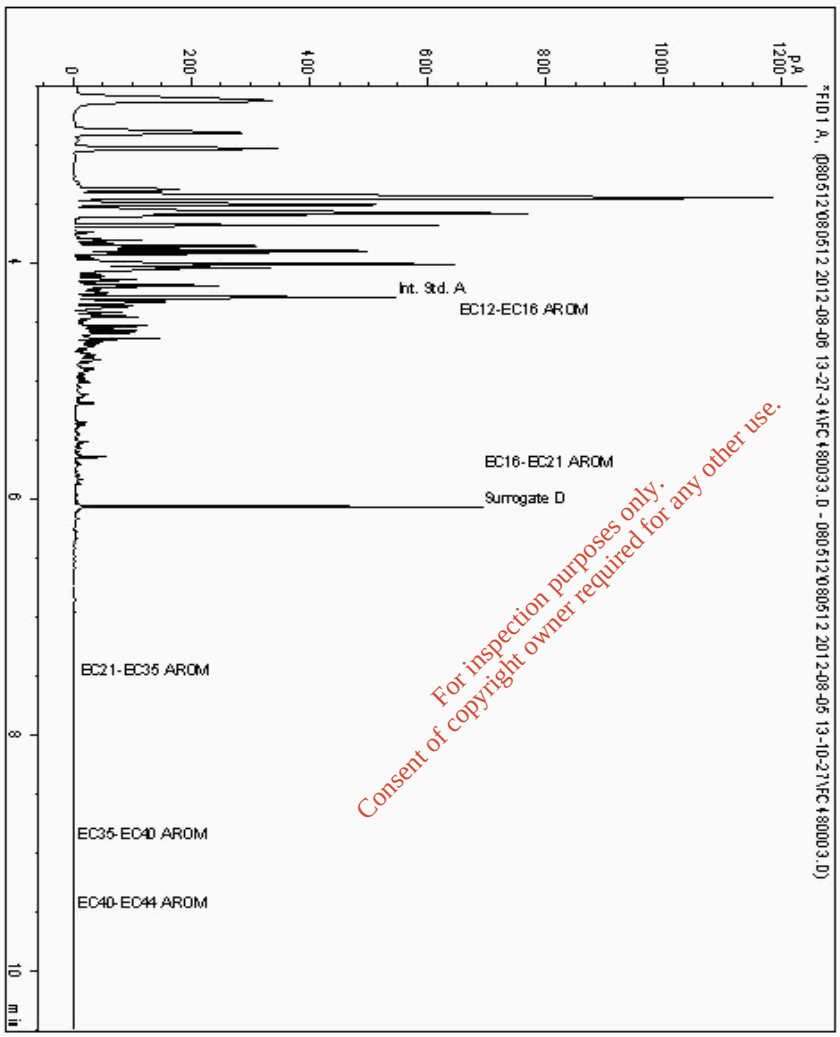
SDG:	120727-57	**Location:**	Limerick Gasworks	**Order Number:**	4500099608
Job:	D_MOUCHEL_ELE-107	**Customer:**	Mouchel	**Report Number:**	189981
Client Reference:	1034973	**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: EPH CWG (Aromatic) Aqueous GC (W) **Sample No :** 5954925 **Sample ID :** E8 **Depth :** 4.00

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

Sample Identity: 5792907-5954925
Date Acquired : 06/08/12 13:55:38
Units :
Dilution :
CF : 1
Multiplier : 0.042

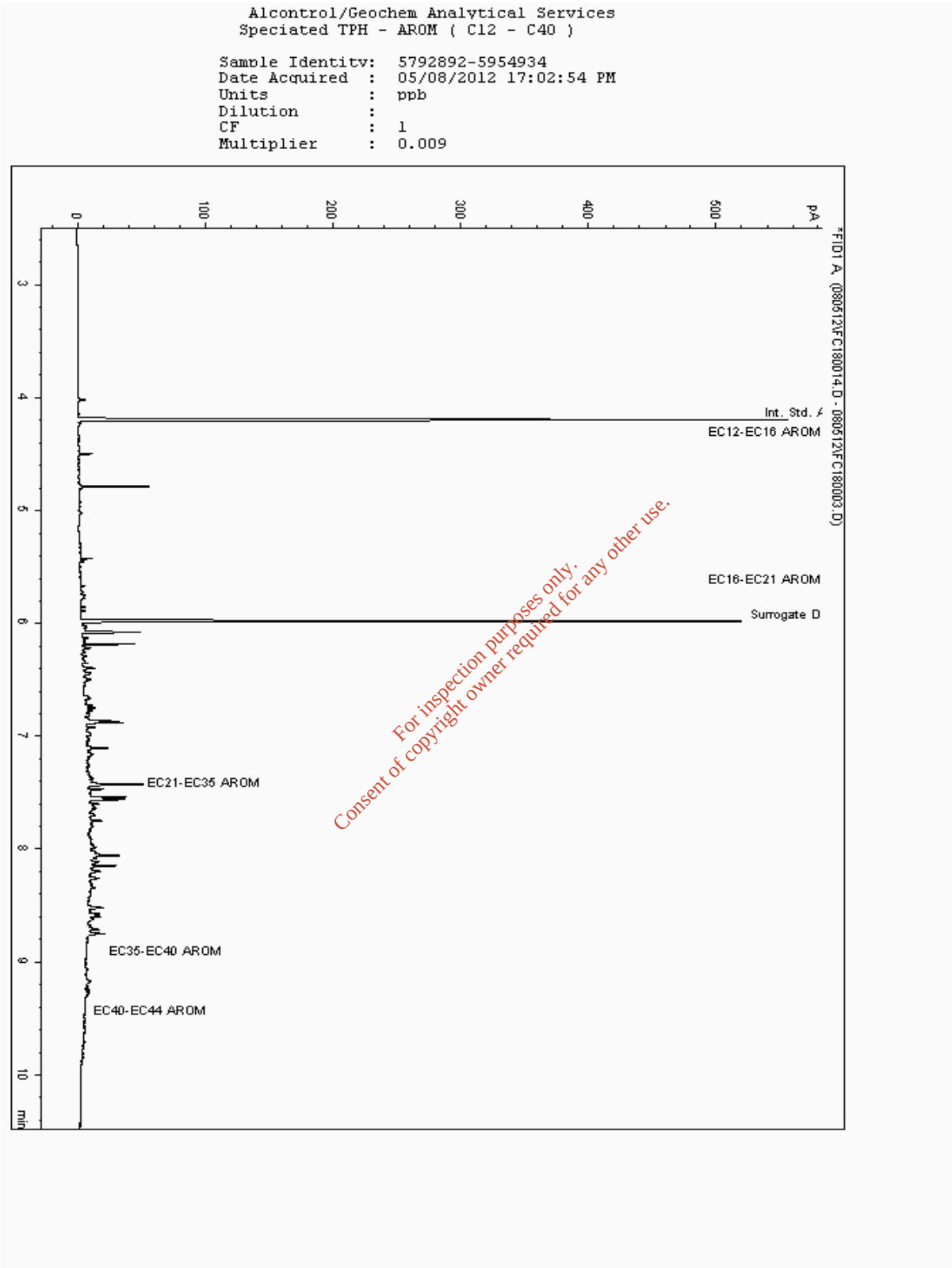


CERTIFICATE OF ANALYSIS

SDG:	120727-57	**Location:**	Limerick Gasworks	**Order Number:**	4500099608
Job:	D_MOUCHEL_ELE-107	**Customer:**	Mouchel	**Report Number:**	189981
Client Reference:	1034973	**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: EPH CWG (Aromatic) Aqueous GC (W) **Sample No :** 5954934 **Sample ID :** D5 **Depth :** 1.75

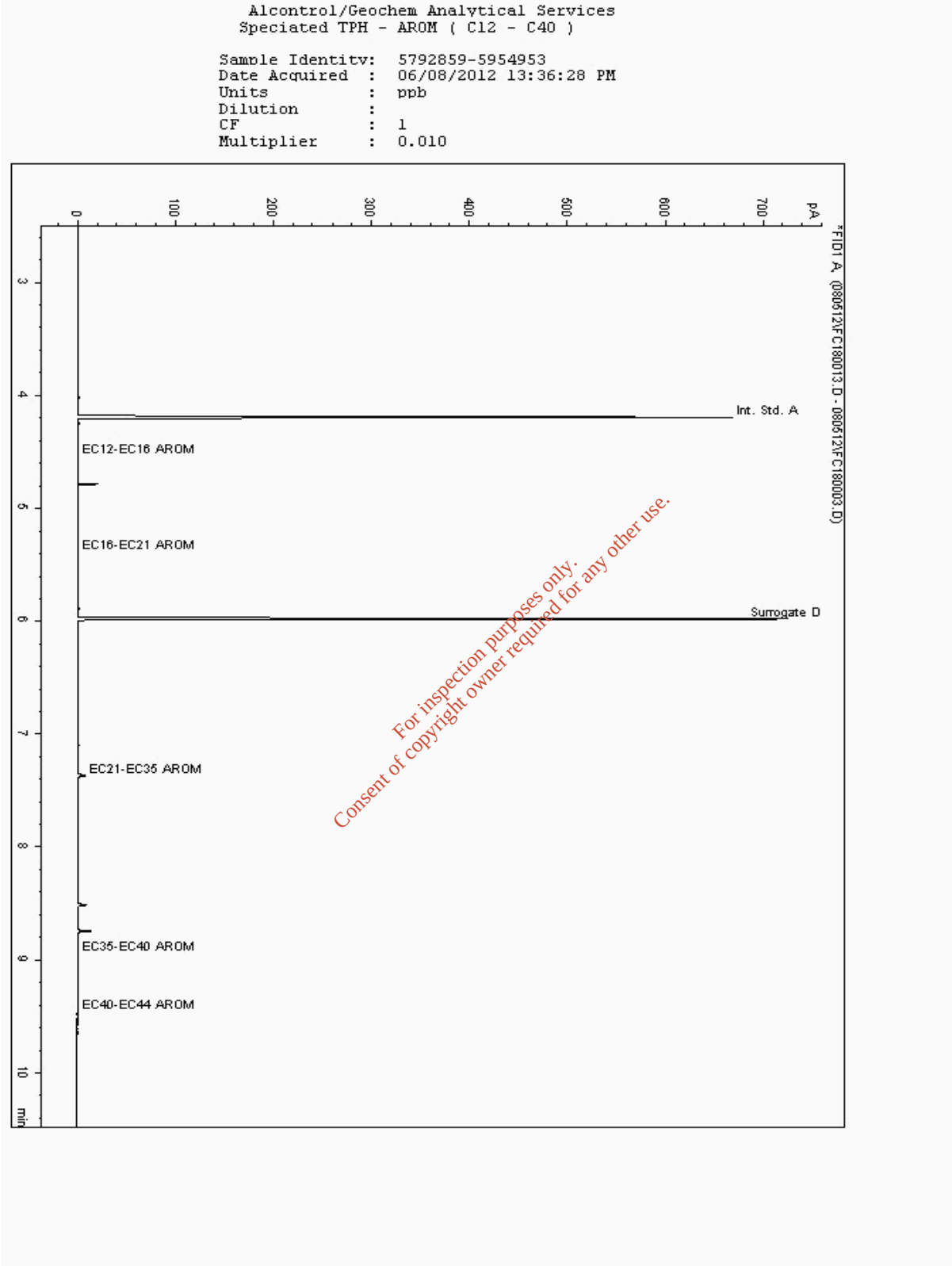


CERTIFICATE OF ANALYSIS

SDG:	120727-57	**Location:**	Limerick Gasworks	**Order Number:**	4500099608
Job:	D_MOUCHEL_ELE-107	**Customer:**	Mouchel	**Report Number:**	189981
Client Reference:	1034973	**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: EPH CWG (Aromatic) Aqueous GC (W) **Sample No :** 5954953 **Sample ID :** A9 **Depth :** 2.00



CERTIFICATE OF ANALYSIS

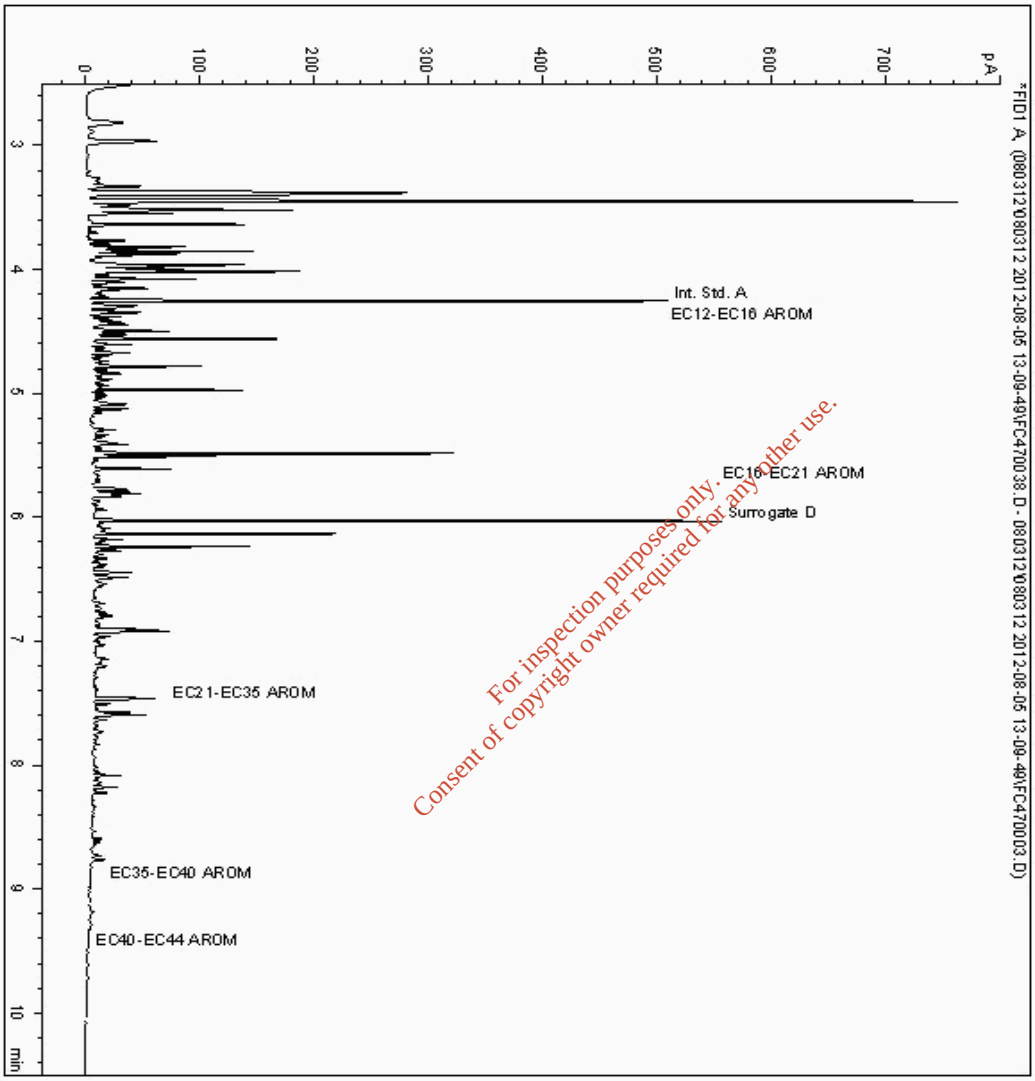
SDG:	120727-57	**Location:**	Limerick Gasworks	**Order Number:**	4500099608
Job:	D_MOUCHEL_ELE-107	**Customer:**	Mouchel	**Report Number:**	189981
Client Reference:	1034973	**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: EPH CWG (Aromatic) Aqueous GC (W) **Sample No :** 5958160 **Sample ID :** C7 **Depth :** 4.00

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

Sample Identity: 5792874-5958160
Date Acquired : 05/08/12 14:05:15
Units :
Dilution :
CF : 1
Multiplier : 0.223

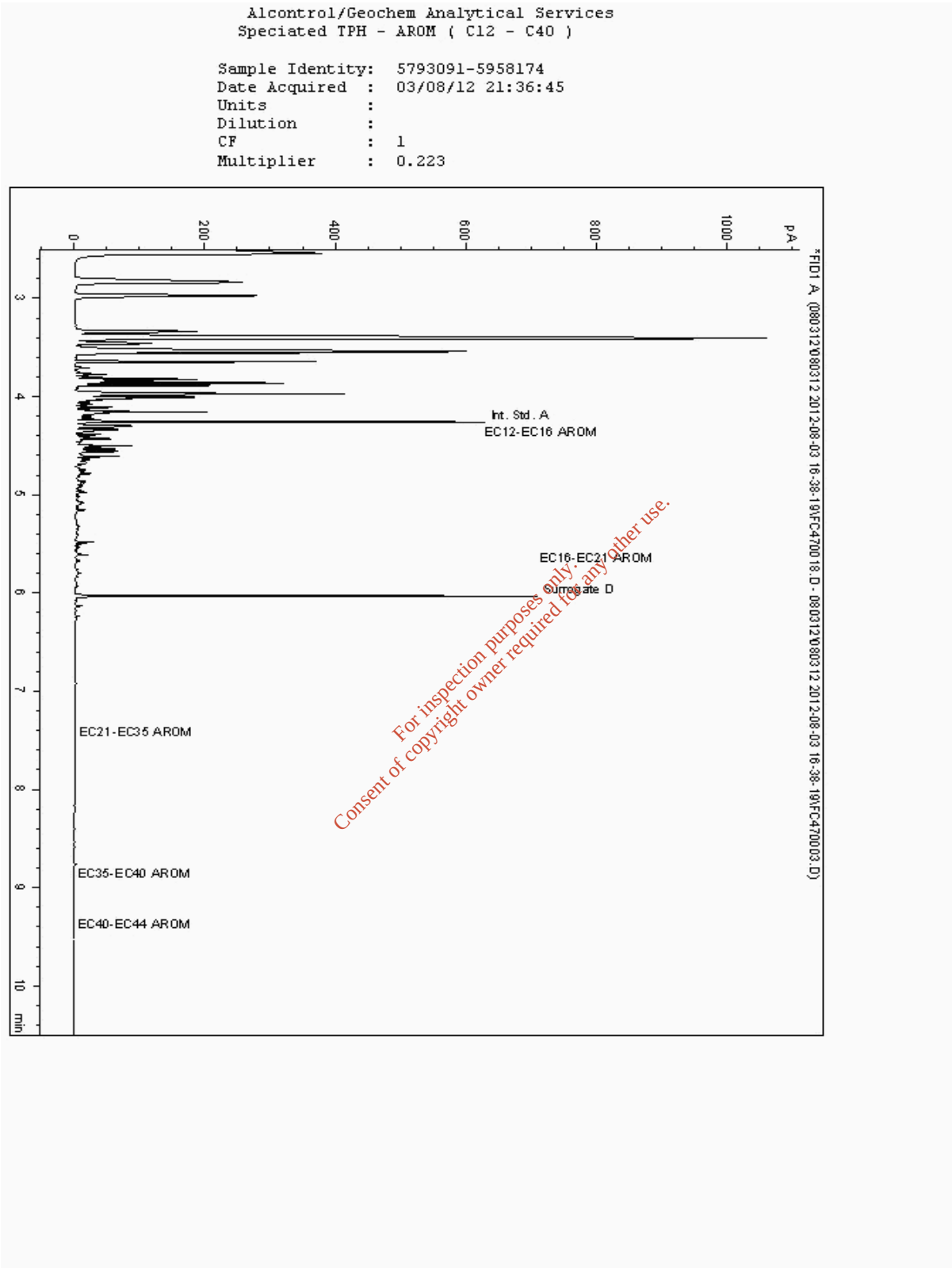


CERTIFICATE OF ANALYSIS

SDG:	120727-57	**Location:**	Limerick Gasworks	**Order Number:**	4500099608
Job:	D_MOUCHEL_ELE-107	**Customer:**	Mouchel	**Report Number:**	189981
Client Reference:	1034973	**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: EPH CWG (Aromatic) Aqueous GC (W) **Sample No :** 5958174 **Sample ID :** K5 **Depth :** 1.00 - 2.00



CERTIFICATE OF ANALYSIS

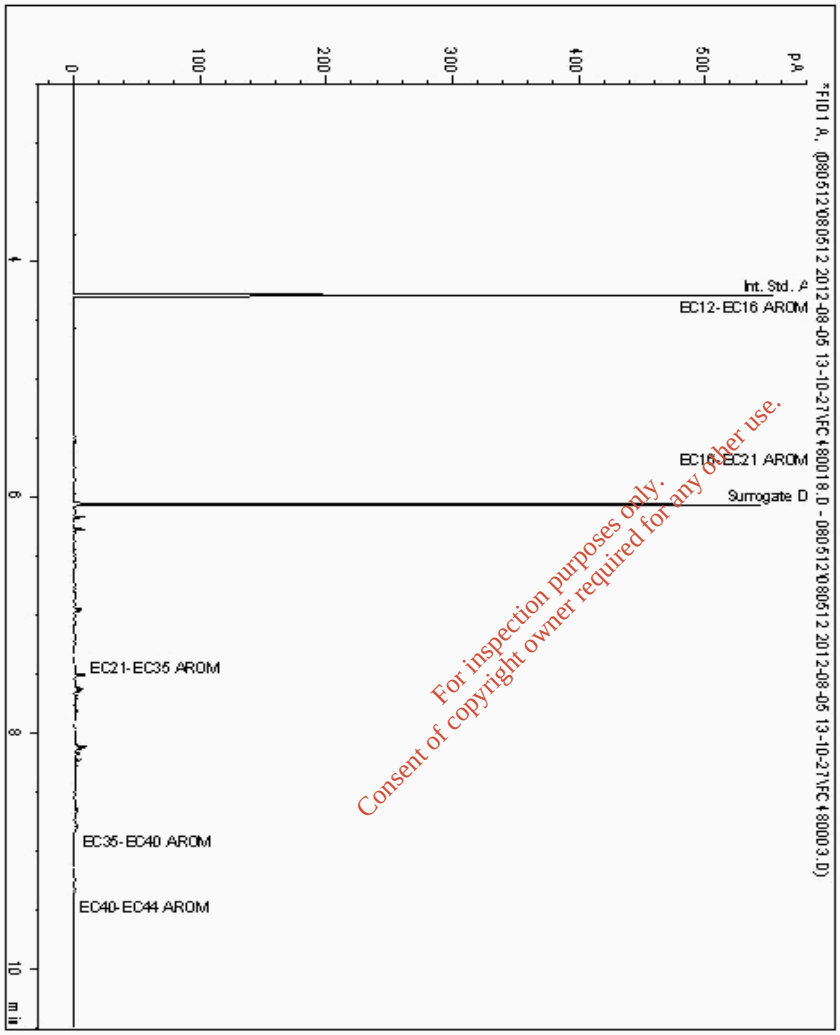
SDG:	120727-57	**Location:**	Limerick Gasworks	**Order Number:**	4500099608
Job:	D_MOUCHEL_ELE-107	**Customer:**	Mouchel	**Report Number:**	189981
Client Reference:	1034973	**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: EPH CWG (Aromatic) Aqueous GC (W) **Sample No :** 5958200 **Sample ID :** K1 **Depth :** 3.00 - 4.00

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

Sample Identity: 5793076-5958200
Date Acquired : 05/08/12 18:29:40
Units :
Dilution :
CF : 1
Multiplier : 0.008

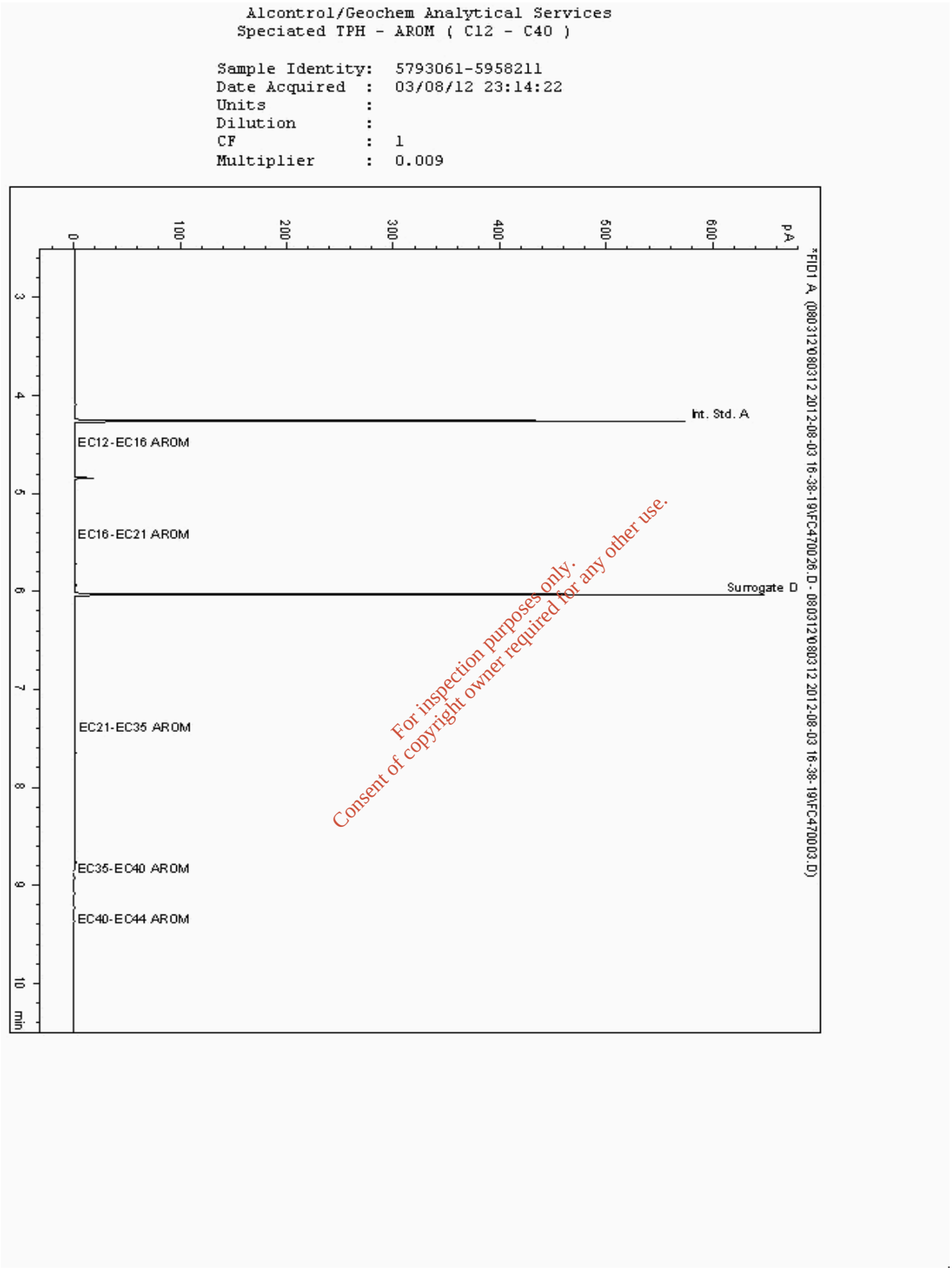


CERTIFICATE OF ANALYSIS

SDG:	120727-57	**Location:**	Limerick Gasworks	**Order Number:**	4500099608
Job:	D_MOUCHEL_ELE-107	**Customer:**	Mouchel	**Report Number:**	189981
Client Reference:	1034973	**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: EPH CWG (Aromatic) Aqueous GC (W) **Sample No :** 5958211 **Sample ID :** J10 **Depth :** 1.50

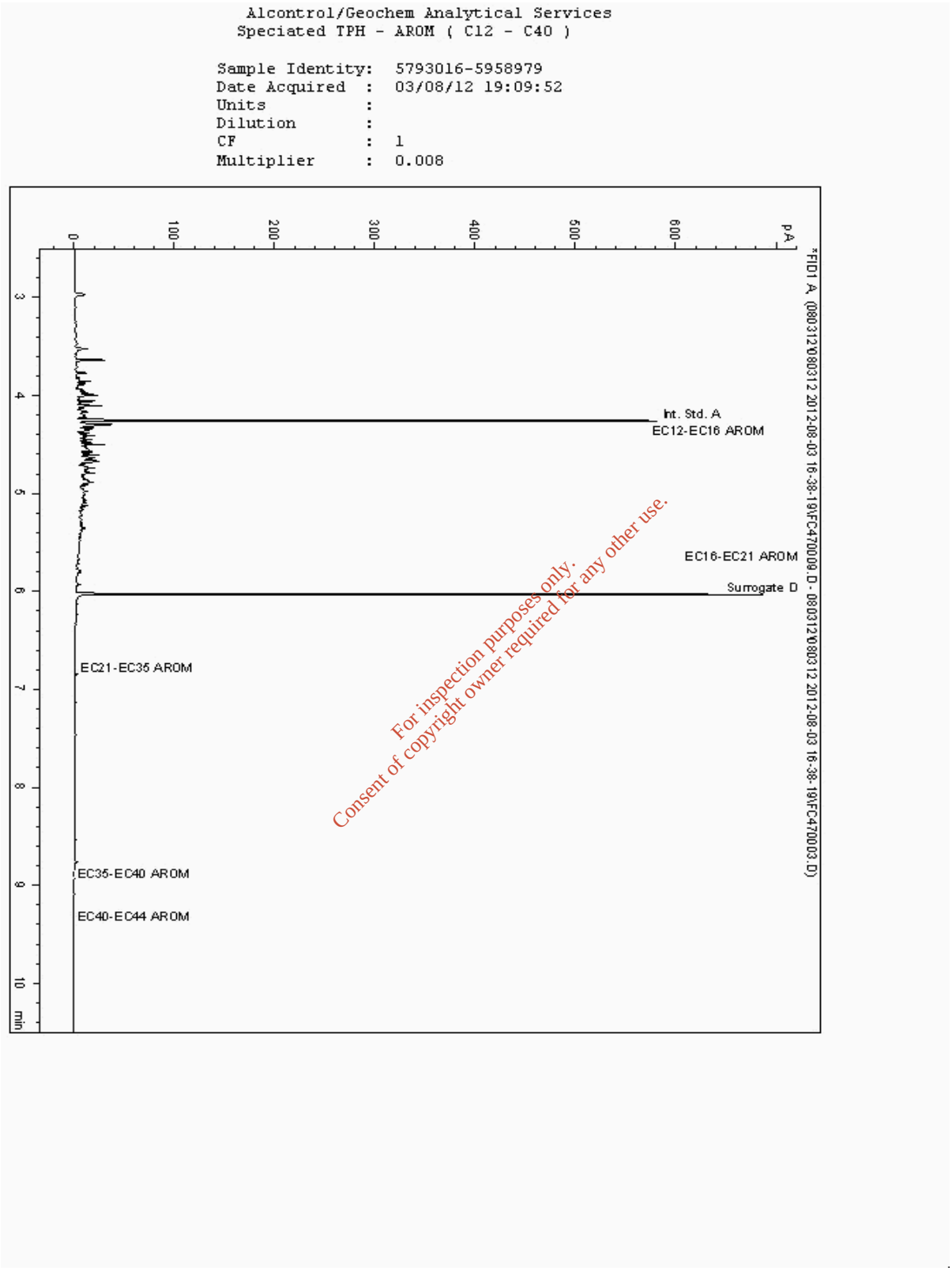


CERTIFICATE OF ANALYSIS

SDG:	120727-57	**Location:**	Limerick Gasworks	**Order Number:**	4500099608
Job:	D_MOUCHEL_ELE-107	**Customer:**	Mouchel	**Report Number:**	189981
Client Reference:	1034973	**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: EPH CWG (Aromatic) Aqueous GC (W) **Sample No :** 5958979 **Sample ID :** C11 **Depth :** 1.00 - 2.00

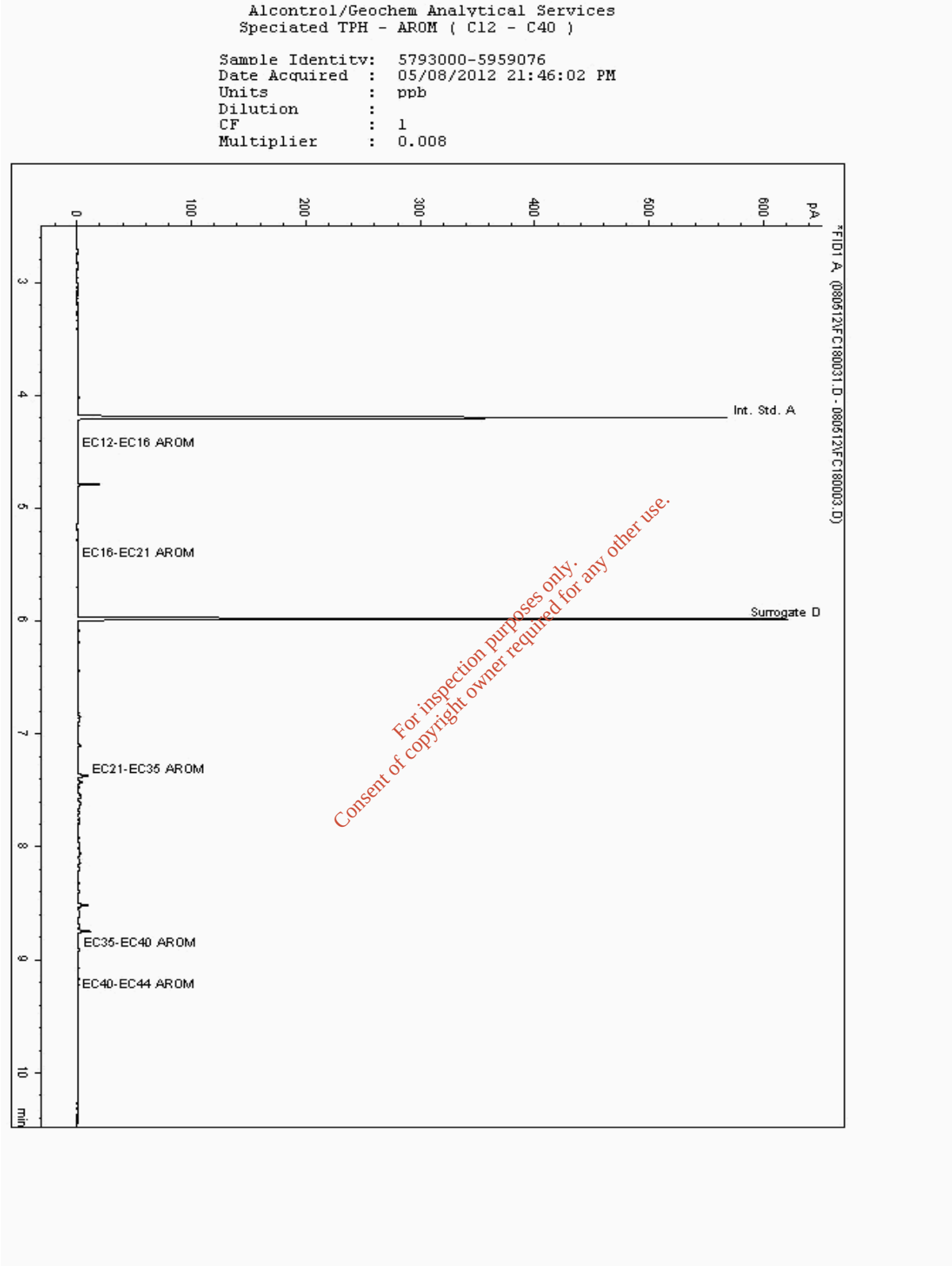


CERTIFICATE OF ANALYSIS

SDG:	120727-57	**Location:**	Limerick Gasworks	**Order Number:**	4500099608
Job:	D_MOUCHEL_ELE-107	**Customer:**	Mouchel	**Report Number:**	189981
Client Reference:	1034973	**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: EPH CWG (Aromatic) Aqueous GC (W) **Sample No :** 5959076 **Sample ID :** A11 **Depth :** 1.00 - 2.00

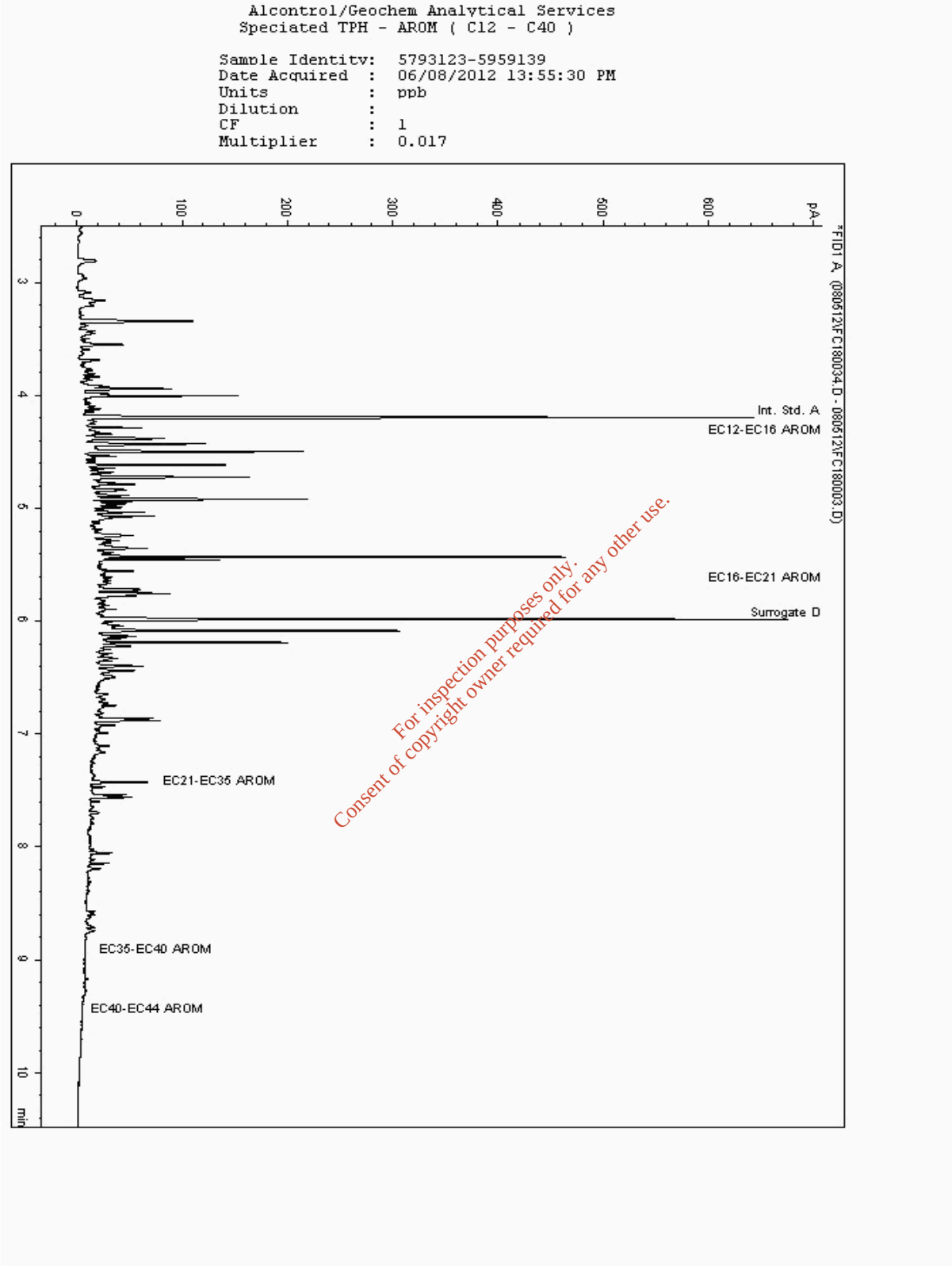


CERTIFICATE OF ANALYSIS

SDG:	120727-57	**Location:**	Limerick Gasworks	**Order Number:**	4500099608
Job:	D_MOUCHEL_ELE-107	**Customer:**	Mouchel	**Report Number:**	189981
Client Reference:	1034973	**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: EPH CWG (Aromatic) Aqueous GC (W) **Sample No :** 5959139 **Sample ID :** D1 **Depth :** 3.00 - 4.00



CERTIFICATE OF ANALYSIS

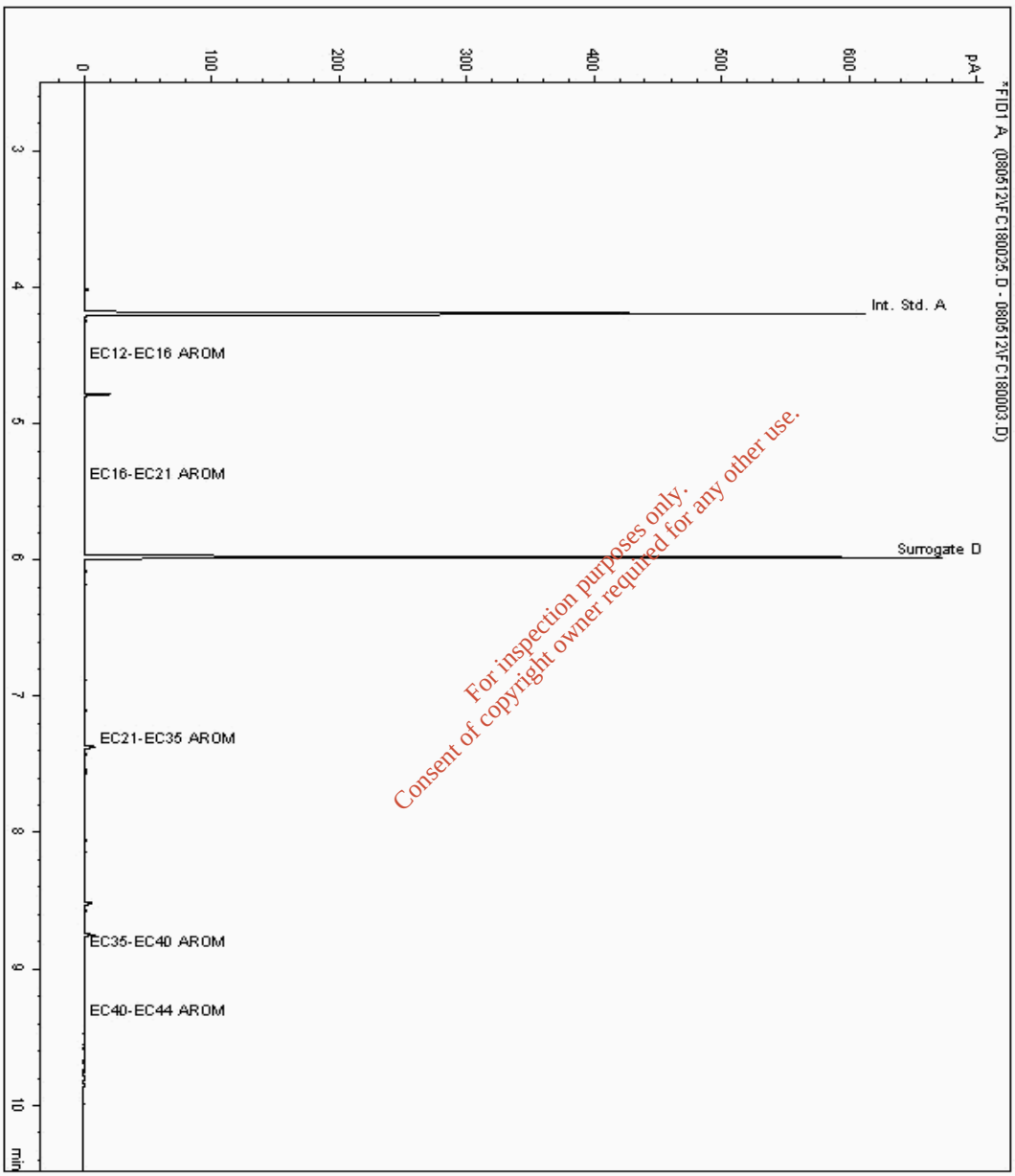
SDG:	120727-57	**Location:**	Limerick Gasworks	**Order Number:**	4500099608
Job:	D_MOUCHEL_ELE-107	**Customer:**	Mouchel	**Report Number:**	189981
Client Reference:	1034973	**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: EPH CWG (Aromatic) Aqueous GC (W) **Sample No :** 5959406 **Sample ID :** M3 **Depth :** 3.00 - 4.00

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

Sample Identity: 5793107-5959406
Date Acquired : 05/08/2012 20:10:57 PM
Units : ppb
Dilution :
CF : 1
Multiplier : 0.008



CERTIFICATE OF ANALYSIS

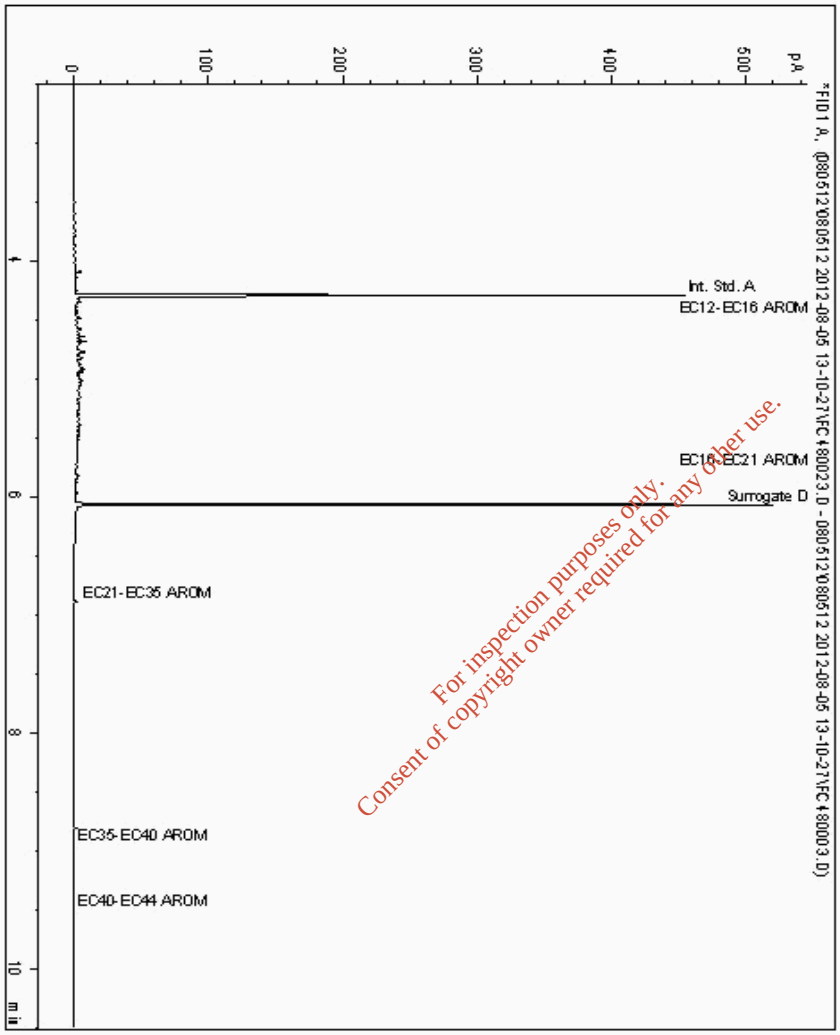
SDG:	120727-57	**Location:**	Limerick Gasworks	**Order Number:**	4500099608
Job:	D_MOUCHEL_ELE-107	**Customer:**	Mouchel	**Report Number:**	189981
Client Reference:	1034973	**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: EPH CWG (Aromatic) Aqueous GC (W) **Sample No :** 5959450 **Sample ID :** A3 **Depth :** 1.50 - 2.50

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

Sample Identity: 5792953-5959450
Date Acquired : 05/08/12 19:55:10
Units :
Dilution :
CF : 1
Multiplier : 0.008



CERTIFICATE OF ANALYSIS

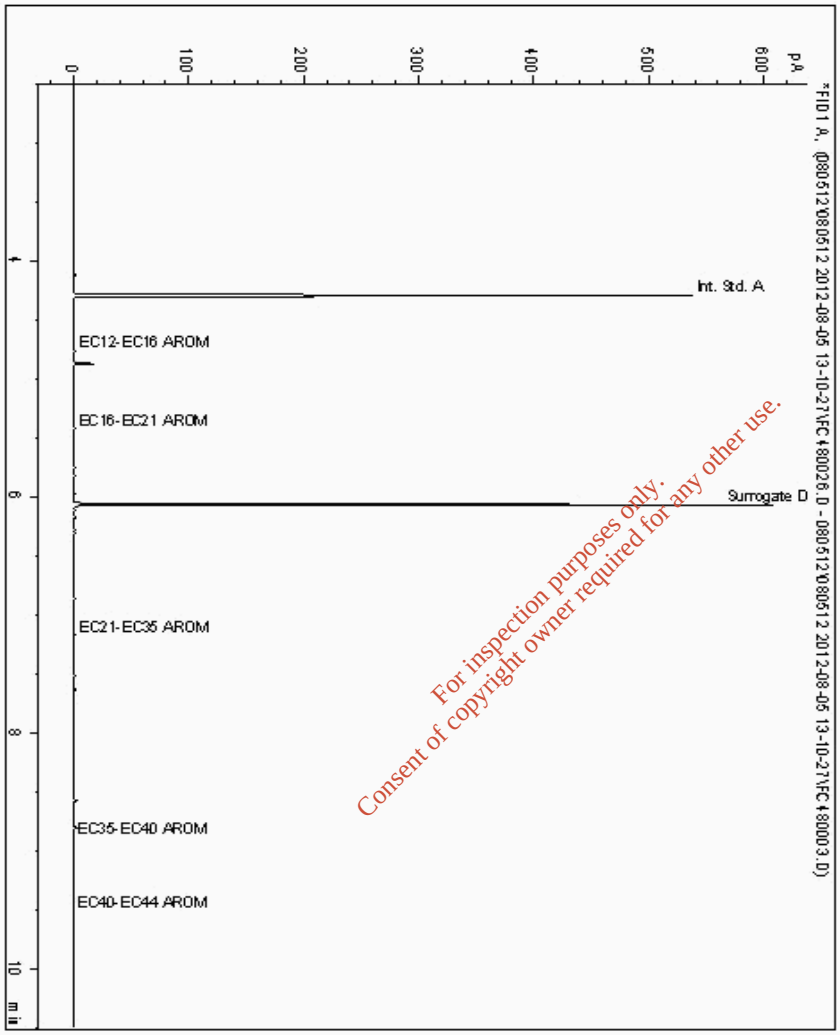
SDG:	120727-57	**Location:**	Limerick Gasworks	**Order Number:**	4500099608
Job:	D_MOUCHEL_ELE-107	**Customer:**	Mouchel	**Report Number:**	189981
Client Reference:	1034973	**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: EPH CWG (Aromatic) Aqueous GC (W) **Sample No :** 5959457 **Sample ID :** H12 **Depth :** 2.00 - 3.00

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

Sample Identity: 5793046-5959457
Date Acquired : 05/08/12 20:43:03
Units :
Dilution :
CF : 1
Multiplier : 0.008



CERTIFICATE OF ANALYSIS

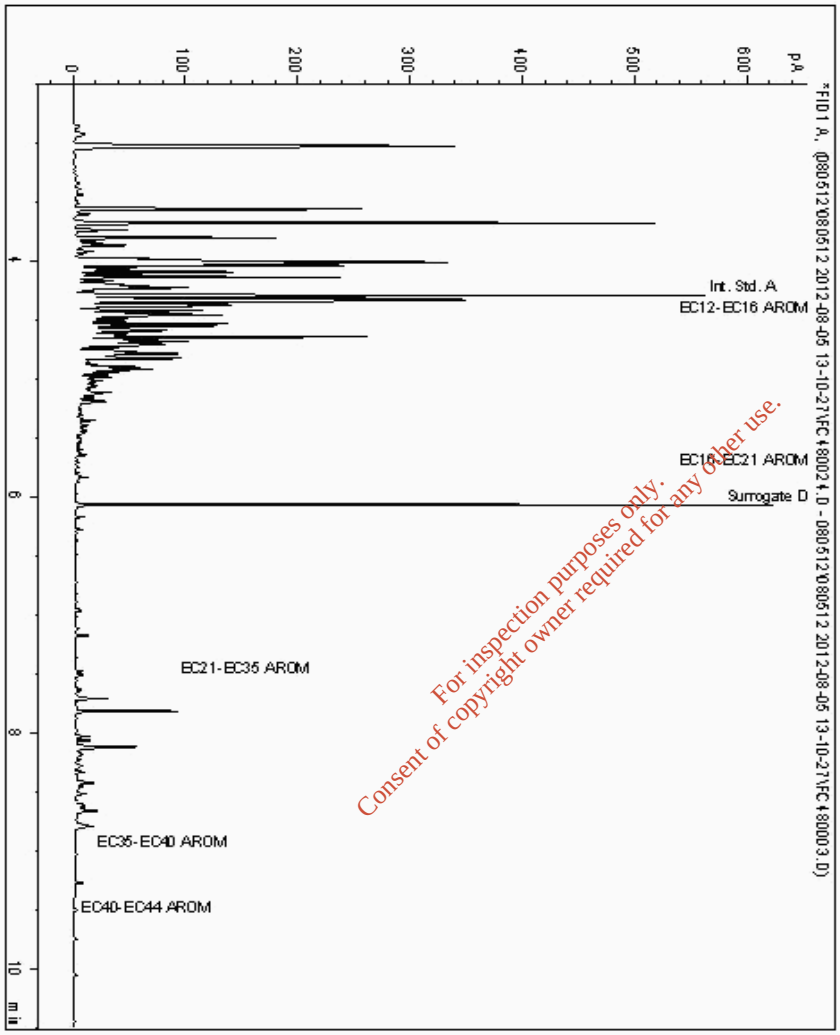
SDG:	120727-57	**Location:**	Limerick Gasworks	**Order Number:**	4500099608
Job:	D_MOUCHEL_ELE-107	**Customer:**	Mouchel	**Report Number:**	189981
Client Reference:	1034973	**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: EPH CWG (Aromatic) Aqueous GC (W) **Sample No :** 5959473 **Sample ID :** F11 **Depth :** 3.50 - 4.50

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

Sample Identity: 5793031-5959473
Date Acquired : 05/08/12 20:14:09
Units :
Dilution :
CF : 1
Multiplier : 0.008

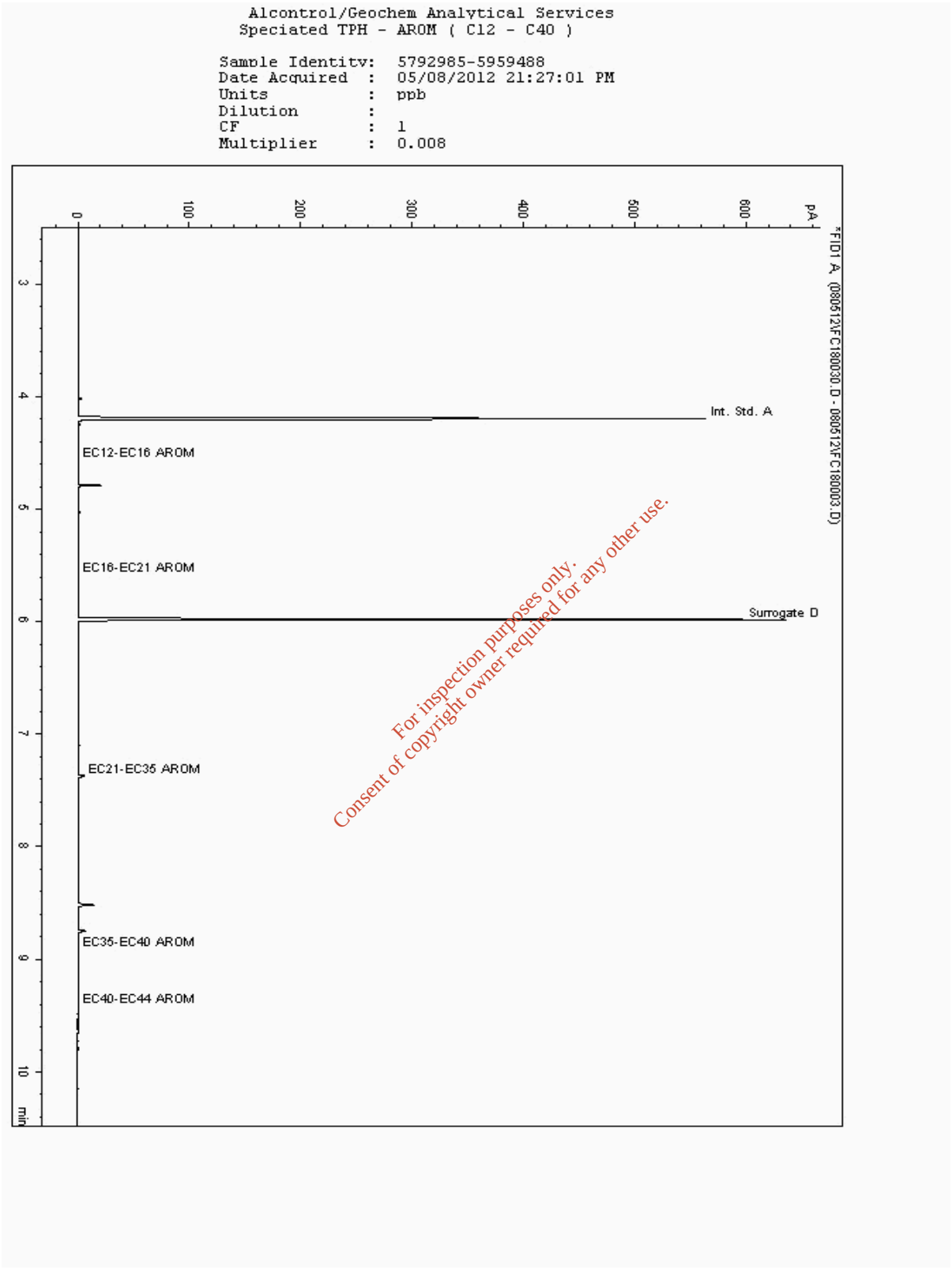


CERTIFICATE OF ANALYSIS

SDG:	120727-57	**Location:**	Limerick Gasworks	**Order Number:**	4500099608
Job:	D_MOUCHEL_ELE-107	**Customer:**	Mouchel	**Report Number:**	189981
Client Reference:	1034973	**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: EPH CWG (Aromatic) Aqueous GC (W) **Sample No :** 5959488 **Sample ID :** C2 **Depth :** 1.00 - 2.00

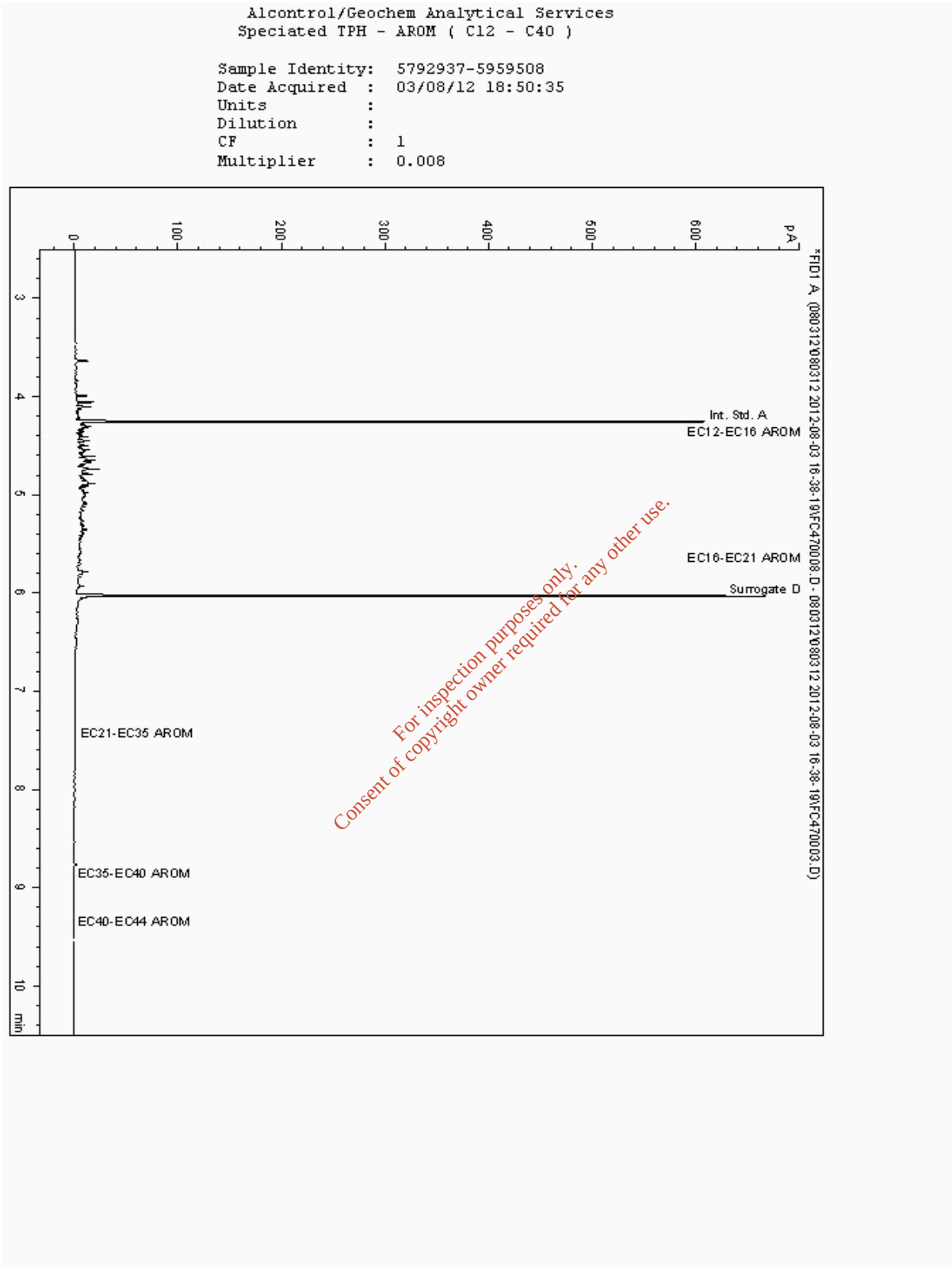


CERTIFICATE OF ANALYSIS

SDG:	120727-57	**Location:**	Limerick Gasworks	**Order Number:**	4500099608
Job:	D_MOUCHEL_ELE-107	**Customer:**	Mouchel	**Report Number:**	189981
Client Reference:	1034973	**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: EPH CWG (Aromatic) Aqueous GC (W) **Sample No :** 5959508 **Sample ID :** A1 **Depth :** 1.50 - 2.50



CERTIFICATE OF ANALYSIS

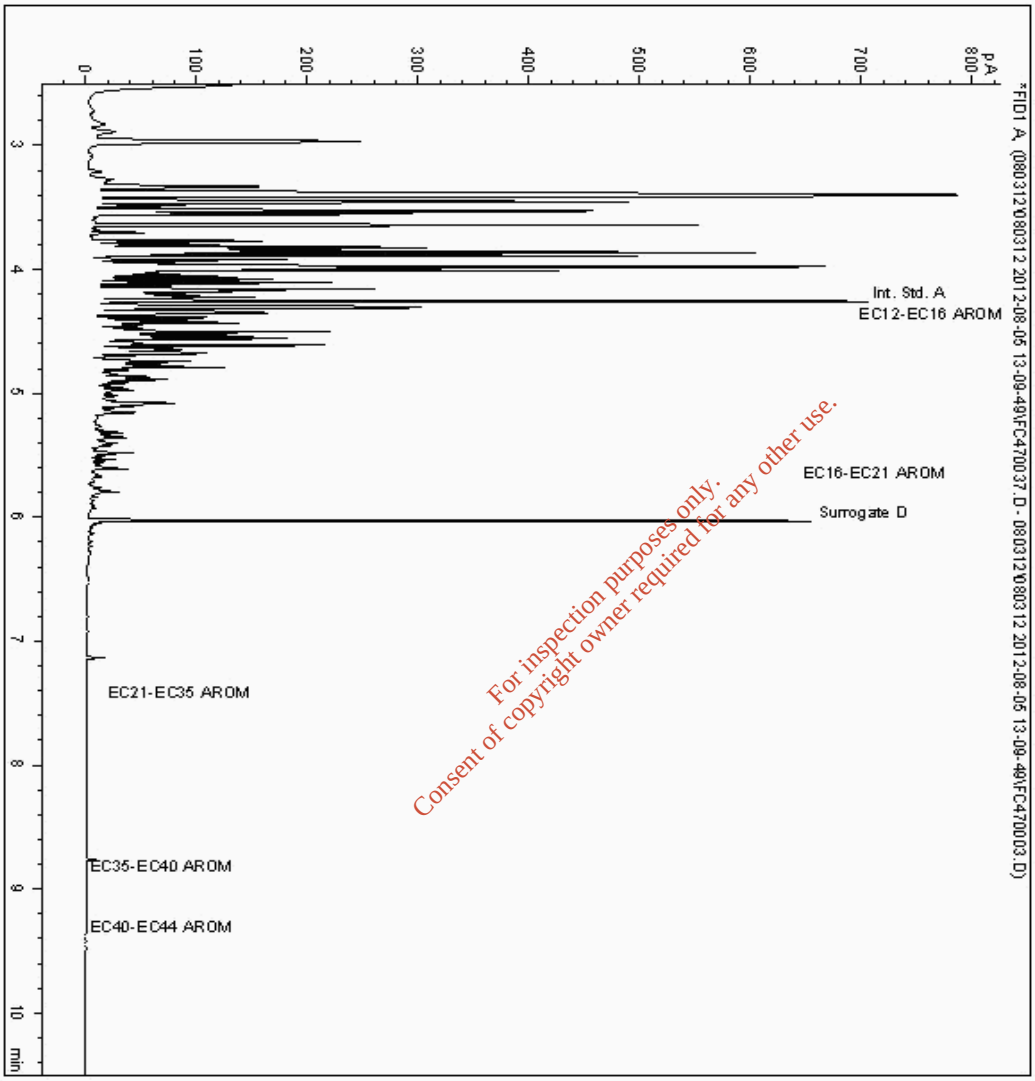
SDG:	120727-57	**Location:**	Limerick Gasworks	**Order Number:**	4500099608
Job:	D_MOUCHEL_ELE-107	**Customer:**	Mouchel	**Report Number:**	189981
Client Reference:	1034973	**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: EPH CWG (Aromatic) Aqueous GC (W) **Sample No :** 5959517 **Sample ID :** G2 **Depth :** 3.00 - 4.00

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

Sample Identity: 5793139-5959517
Date Acquired : 05/08/12 13:46:13
Units :
Dilution :
CF : 1
Multiplier : 0.017

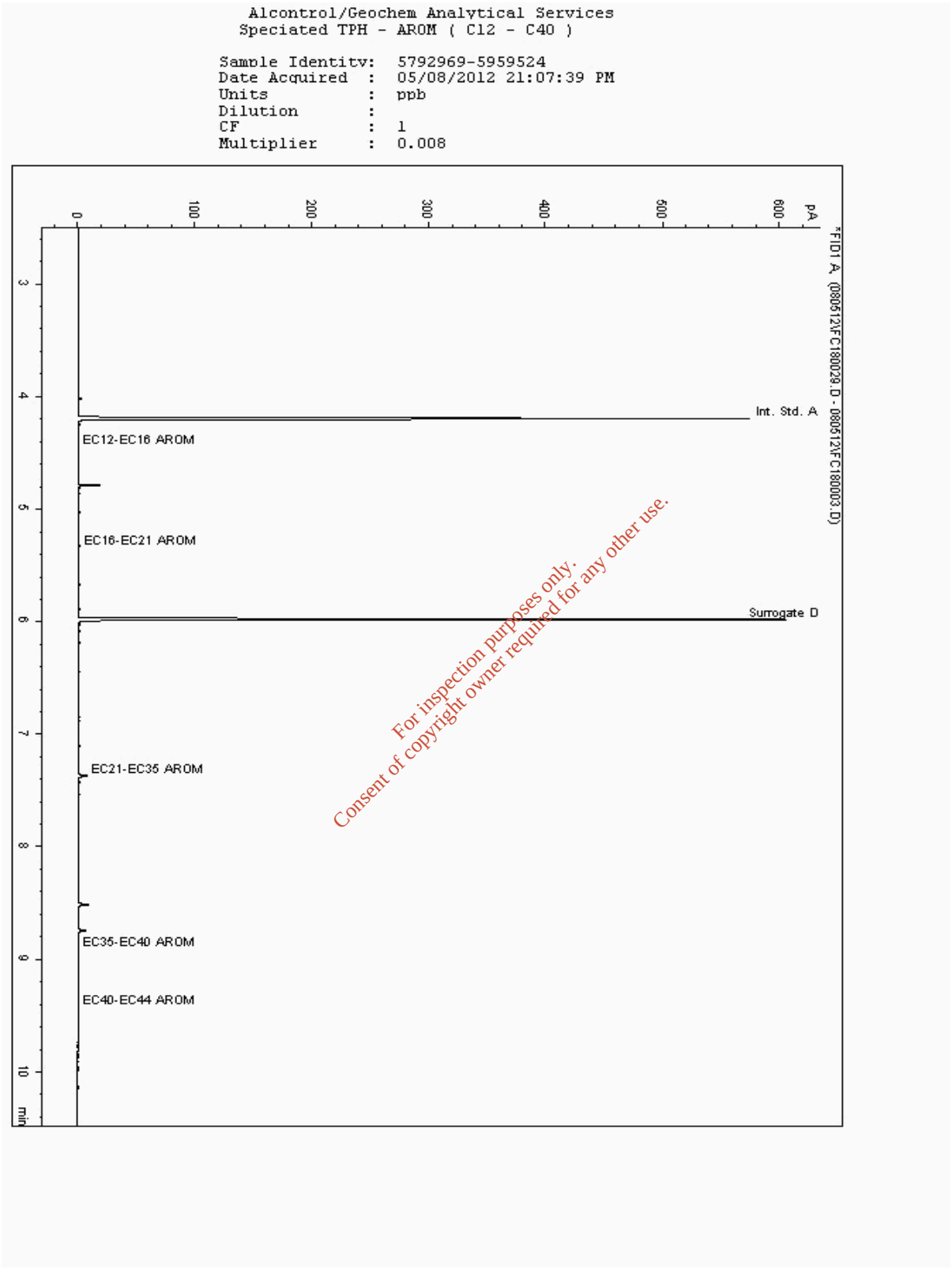


CERTIFICATE OF ANALYSIS

SDG:	120727-57	**Location:**	Limerick Gasworks	**Order Number:**	4500099608
Job:	D_MOUCHEL_ELE-107	**Customer:**	Mouchel	**Report Number:**	189981
Client Reference:	1034973	**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: EPH CWG (Aromatic) Aqueous GC (W) **Sample No :** 5959524 **Sample ID :** A4 **Depth :** 2.00 - 3.00



CERTIFICATE OF ANALYSIS

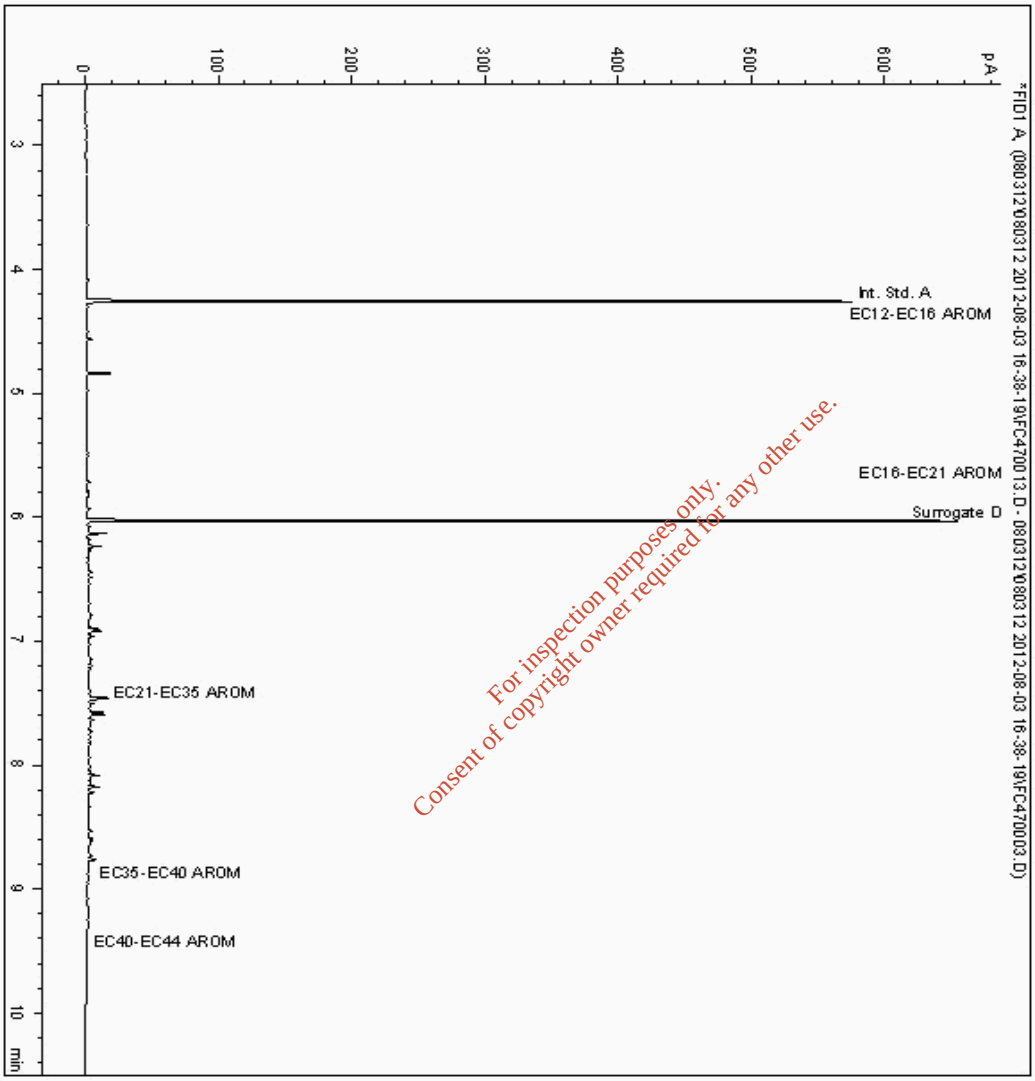
SDG:	120727-57	**Location:**	Limerick Gasworks	**Order Number:**	4500099608
Job:	D_MOUCHEL_ELE-107	**Customer:**	Mouchel	**Report Number:**	189981
Client Reference:	1034973	**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: EPH CWG (Aromatic) Aqueous GC (W) **Sample No :** 5959534 **Sample ID :** G5 **Depth :** 5.00

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

Sample Identity: 5793235-5959534
Date Acquired : 03/08/12 20:18:14
Units :
Dilution :
CF : 1
Multiplier : 0.008



CERTIFICATE OF ANALYSIS

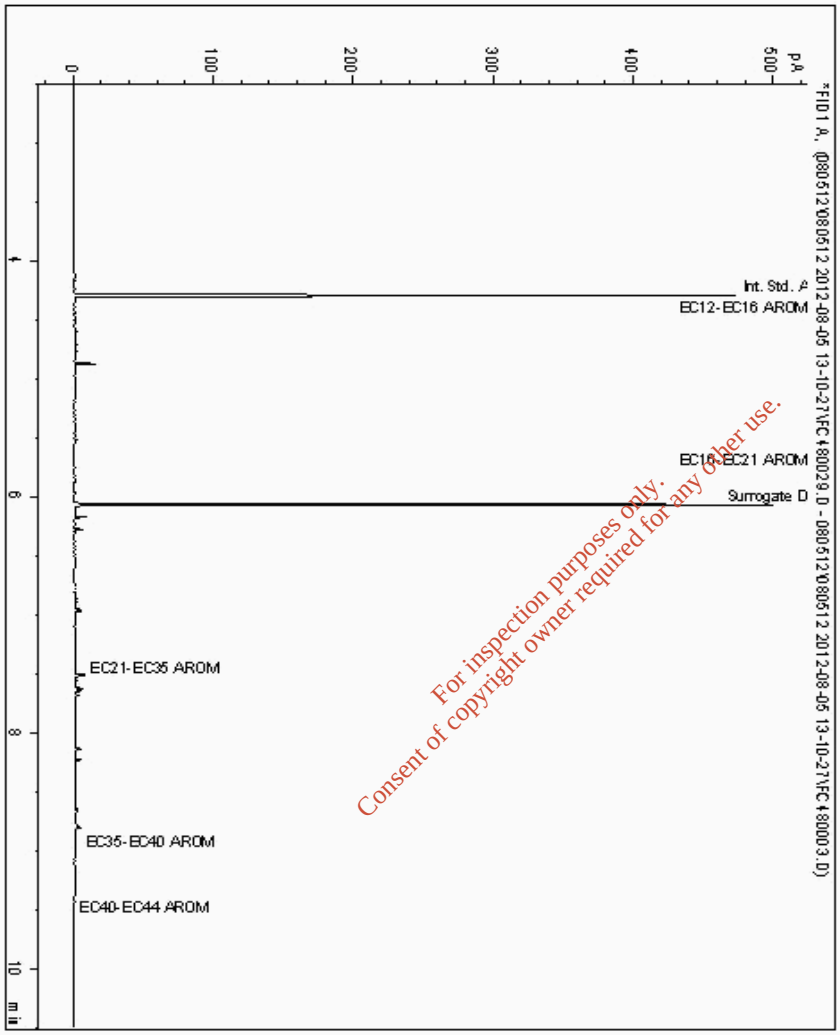
SDG:	120727-57	**Location:**	Limerick Gasworks	**Order Number:**	4500099608
Job:	D_MOUCHEL_ELE-107	**Customer:**	Mouchel	**Report Number:**	189981
Client Reference:	1034973	**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: EPH CWG (Aromatic) Aqueous GC (W) **Sample No :** 5959582 **Sample ID :** G3 **Depth :** 6.00

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

Sample Identity: 5793168-5959582
Date Acquired : 05/08/12 21:31:17
Units :
Dilution :
CF : 1
Multiplier : 0.008



CERTIFICATE OF ANALYSIS

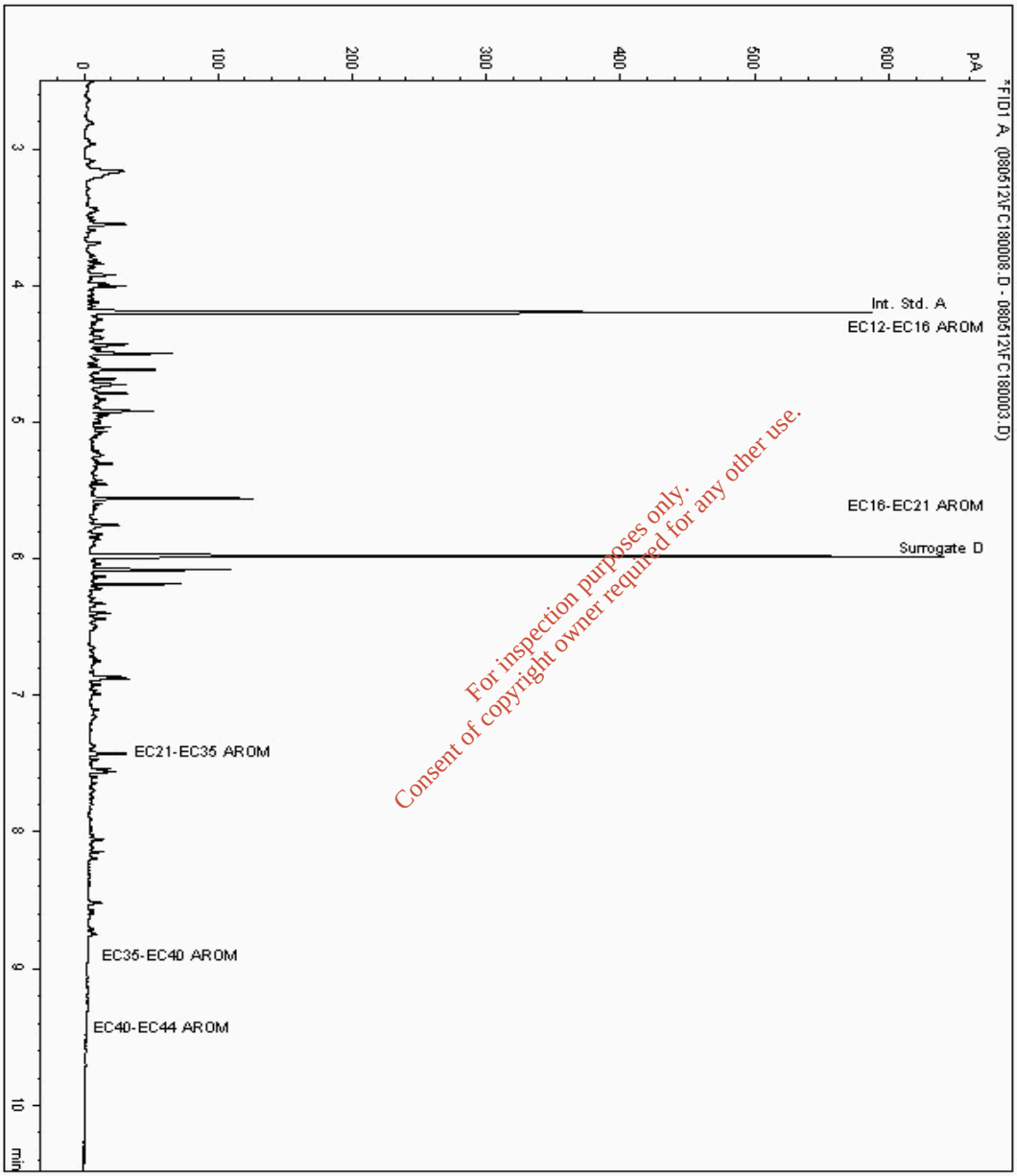
SDG:	120727-57	**Location:**	Limerick Gasworks	**Order Number:**	4500099608
Job:	D_MOUCHEL_ELE-107	**Customer:**	Mouchel	**Report Number:**	189981
Client Reference:	1034973	**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: EPH CWG (Aromatic) Aqueous GC (W) **Sample No :** 5959671 **Sample ID :** G4 **Depth :** 3.50

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

Sample Identity: 5793197-5959671
Date Acquired : 05/08/2012 15:18:58 PM
Units : ppb
Dilution :
CF : 1
Multiplier : 0.008



CERTIFICATE OF ANALYSIS

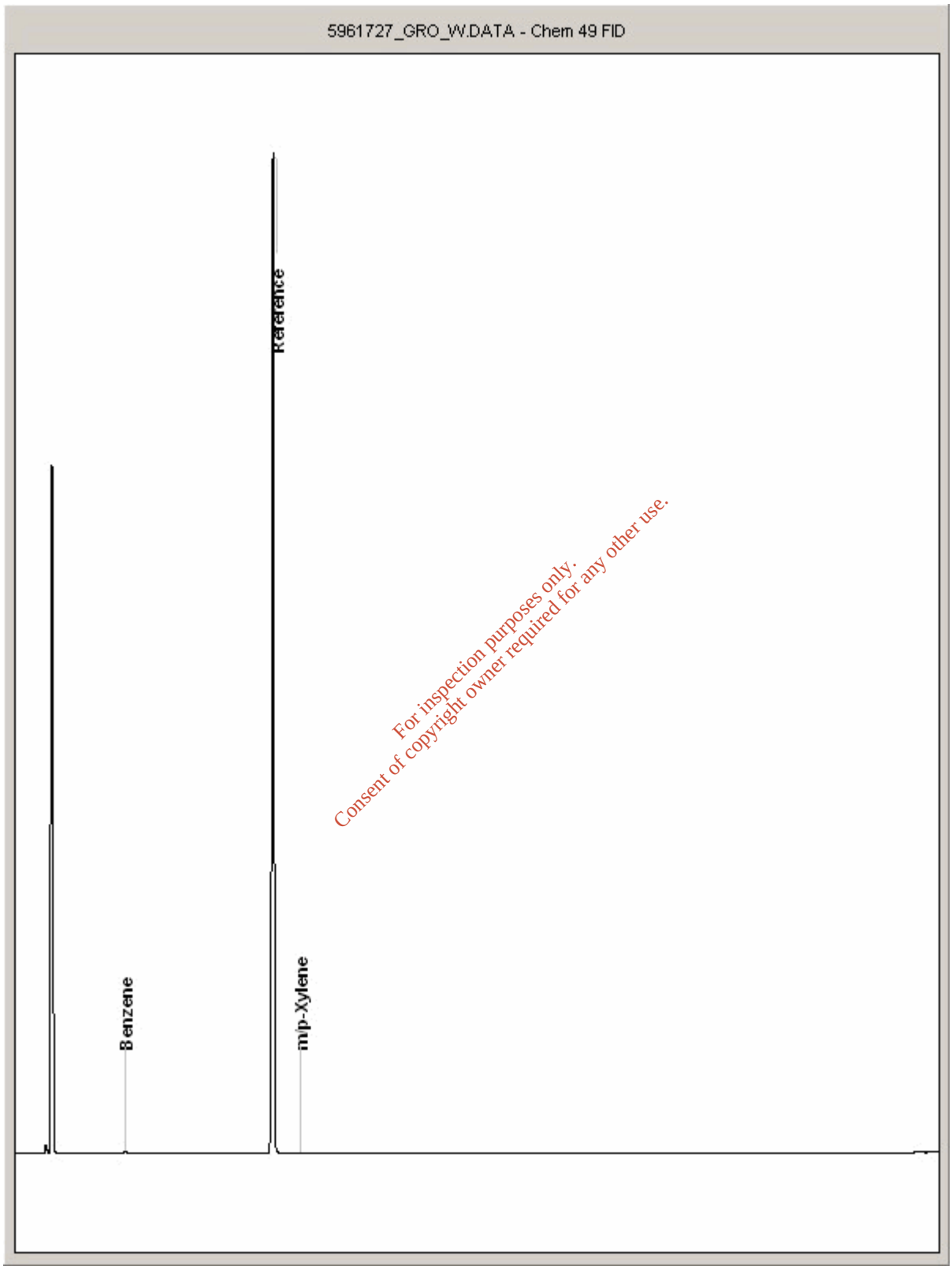
SDG:	120727-57	**Location:**	Limerick Gasworks	**Order Number:**	4500099608
Job:	D_MOUCHEL_ELE-107	**Customer:**	Mouchel	**Report Number:**	189981
Client Reference:	1034973	**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 5961727
Sample ID : M3

Depth : 3.00 - 4.00



CERTIFICATE OF ANALYSIS

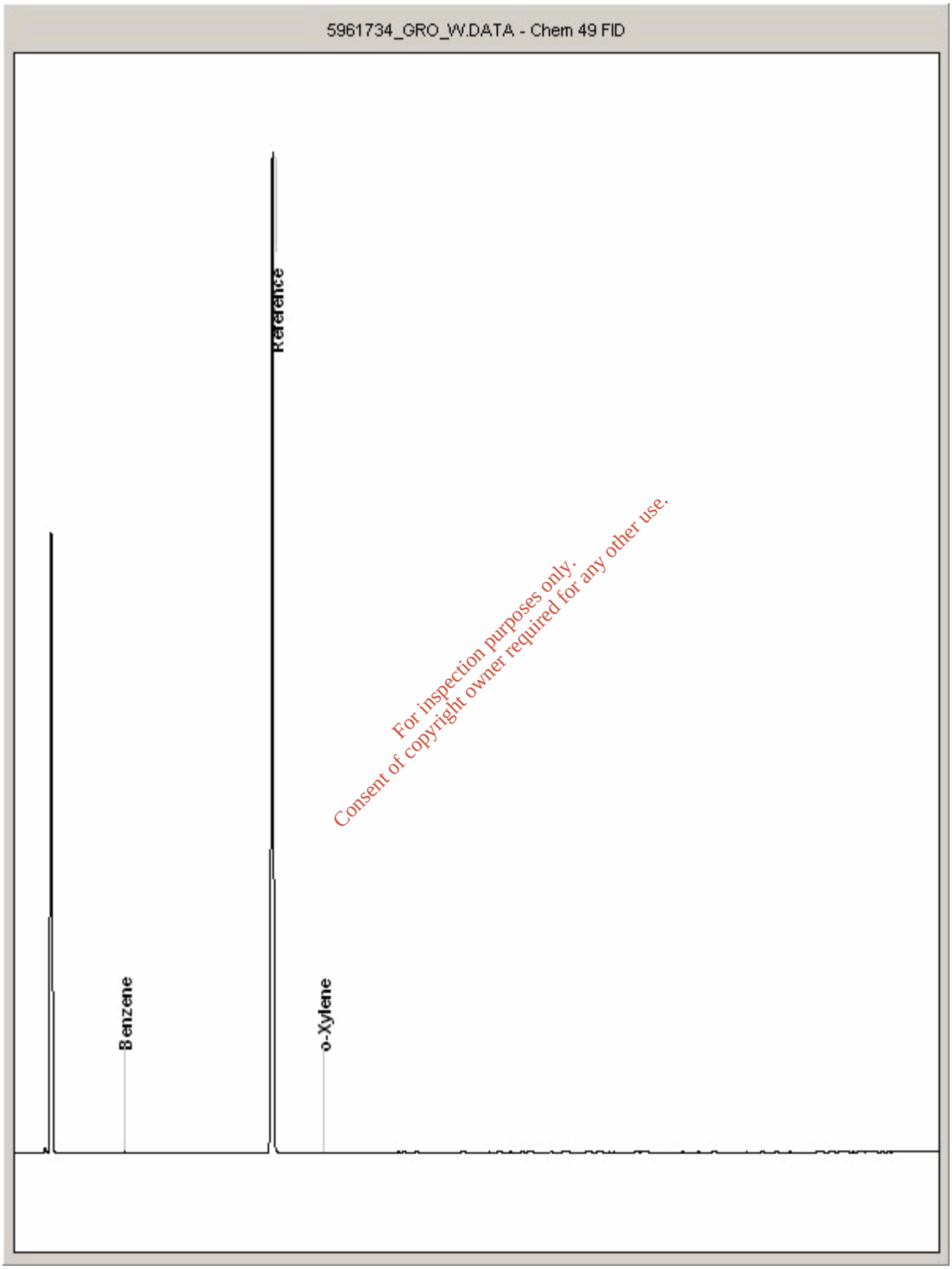
SDG:	120727-57	**Location:**	Limerick Gasworks	**Order Number:**	4500099608
Job:	D_MOUCHEL_ELE-107	**Customer:**	Mouchel	**Report Number:**	189981
Client Reference:	1034973	**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 5961734
Sample ID : J10

Depth : 1.50



CERTIFICATE OF ANALYSIS

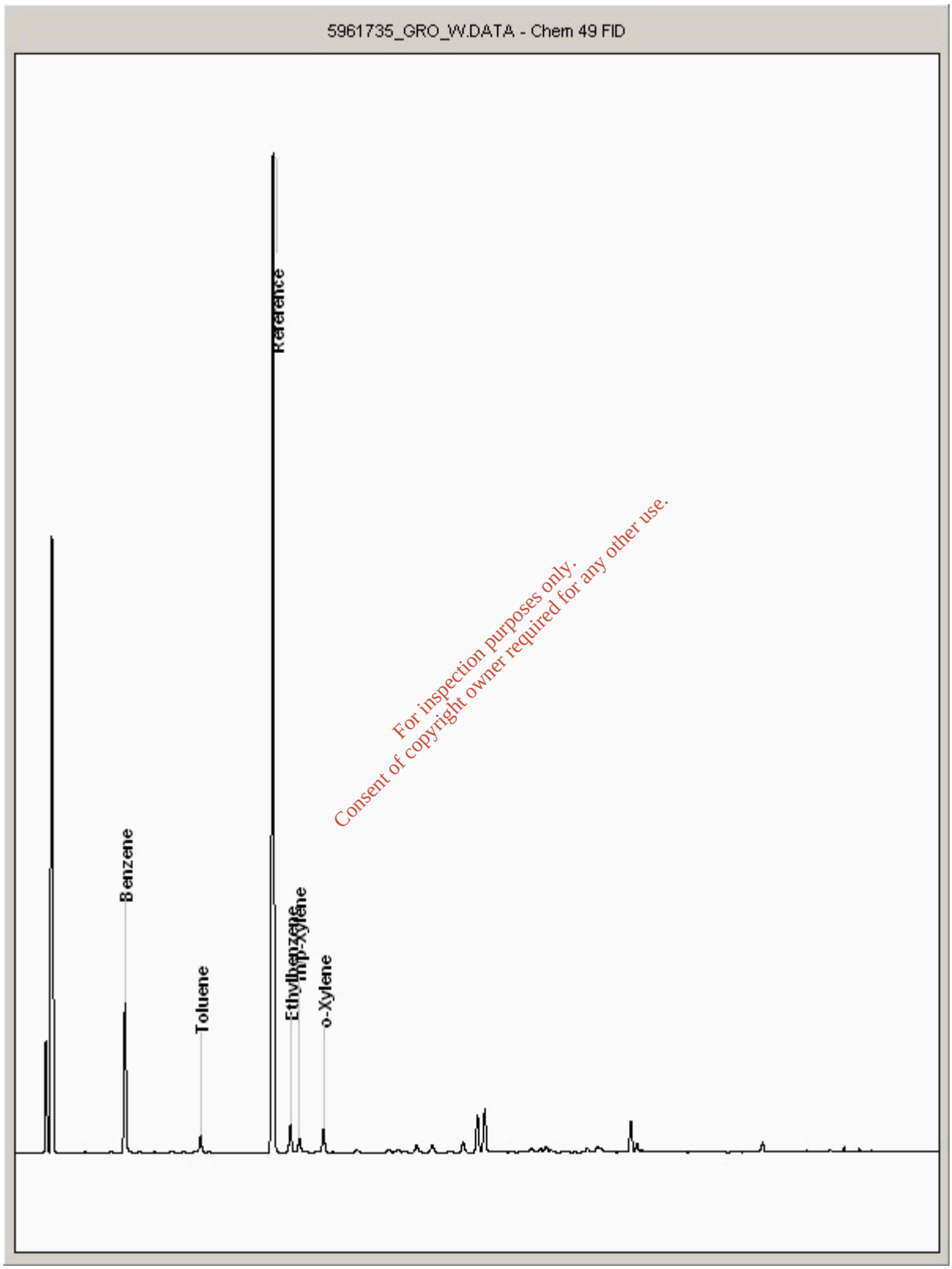
SDG:	120727-57	**Location:**	Limerick Gasworks	**Order Number:**	4500099608
Job:	D_MOUCHEL_ELE-107	**Customer:**	Mouchel	**Report Number:**	189981
Client Reference:	1034973	**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 5961735
Sample ID : A1

Depth : 1.50 - 2.50



CERTIFICATE OF ANALYSIS

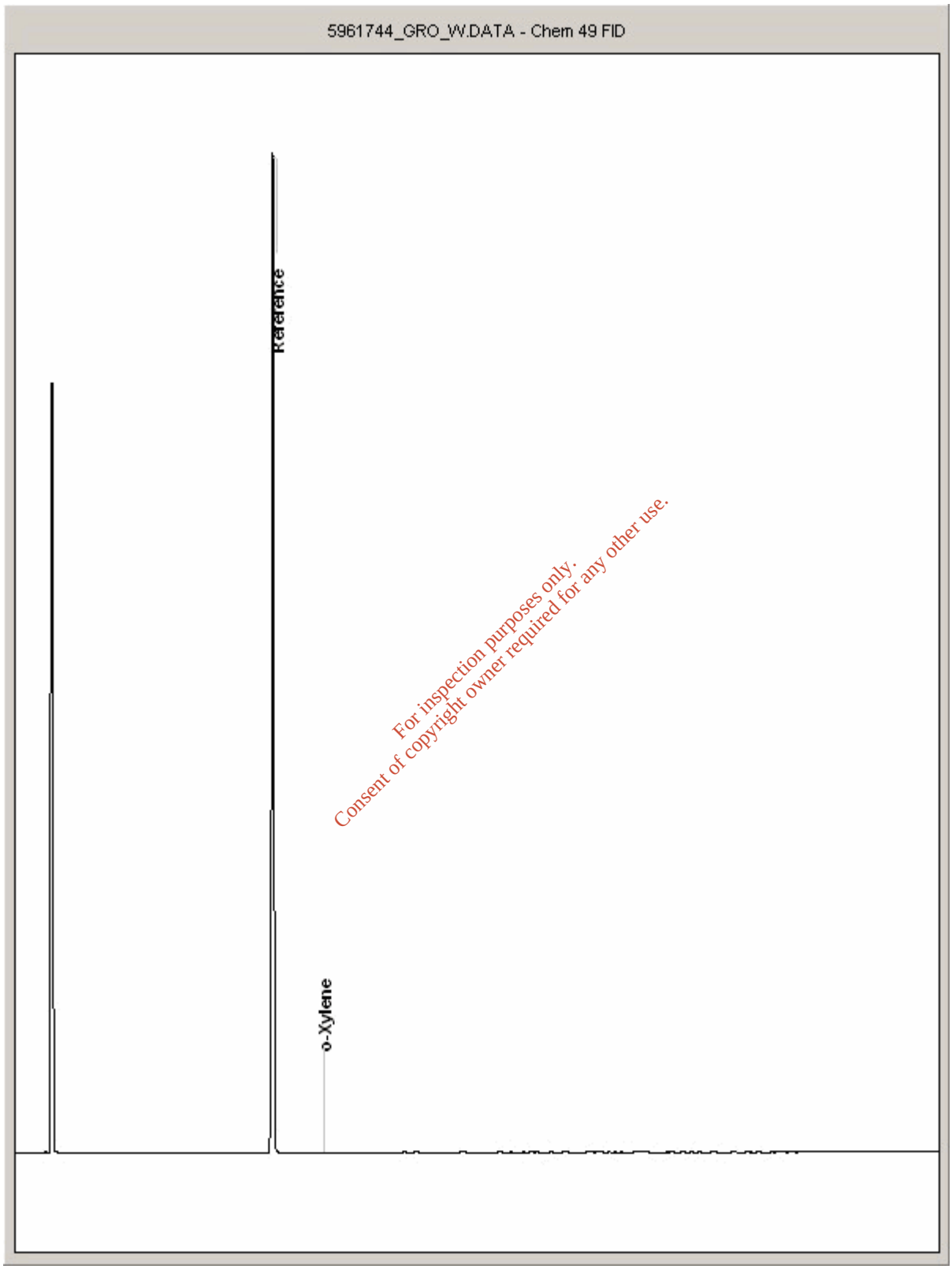
SDG:	120727-57	**Location:**	Limerick Gasworks	**Order Number:**	4500099608
Job:	D_MOUCHEL_ELE-107	**Customer:**	Mouchel	**Report Number:**	189981
Client Reference:	1034973	**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 5961744
Sample ID : C2

Depth : 1.00 - 2.00



CERTIFICATE OF ANALYSIS

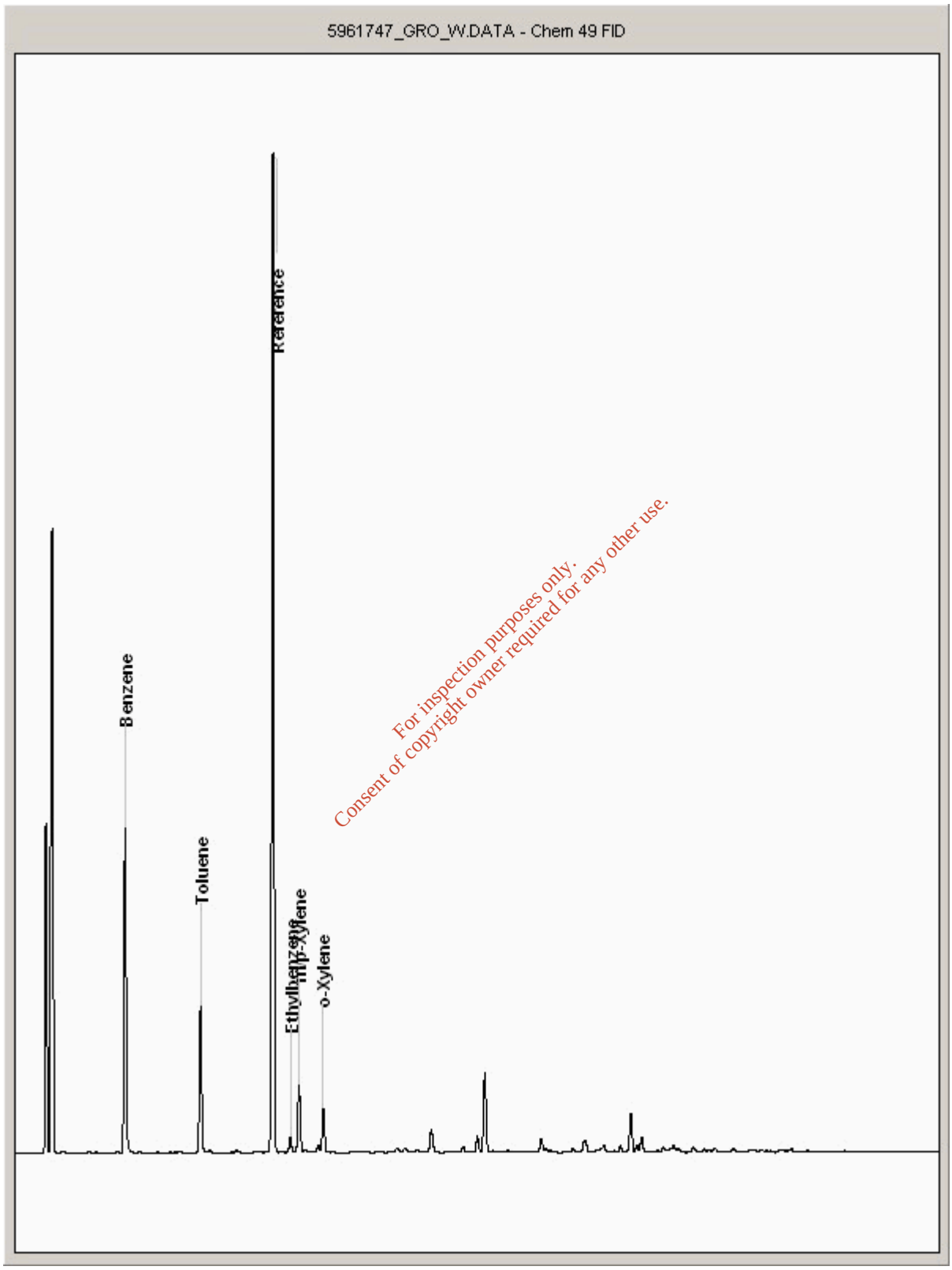
SDG:	120727-57	**Location:**	Limerick Gasworks	**Order Number:**	4500099608
Job:	D_MOUCHEL_ELE-107	**Customer:**	Mouchel	**Report Number:**	189981
Client Reference:	1034973	**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 5961747
Sample ID : F11

Depth : 3.50 - 4.50



CERTIFICATE OF ANALYSIS

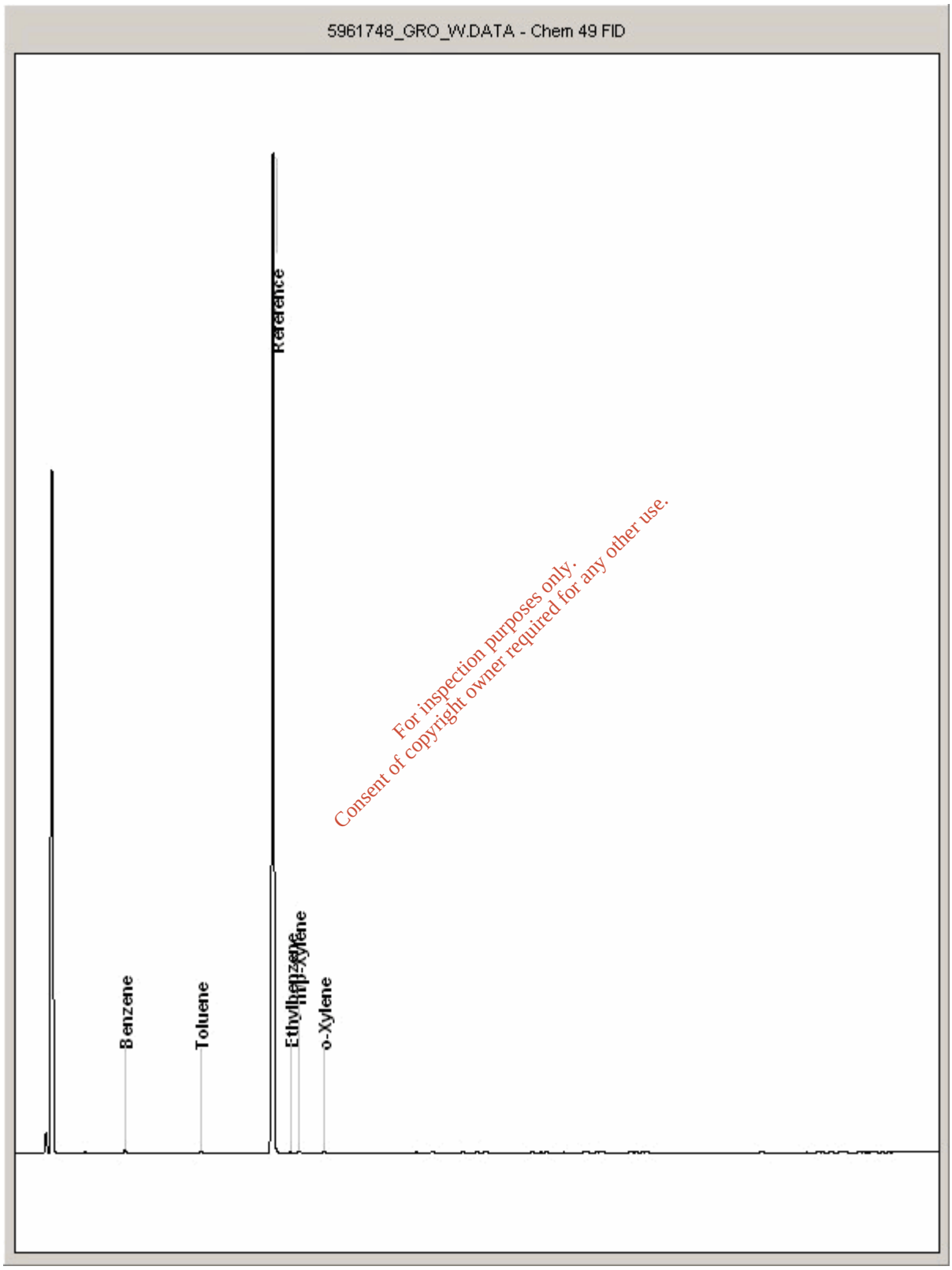
SDG:	120727-57	**Location:**	Limerick Gasworks	**Order Number:**	4500099608
Job:	D_MOUCHEL_ELE-107	**Customer:**	Mouchel	**Report Number:**	189981
Client Reference:	1034973	**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 5961748
Sample ID : H12

Depth : 2.00 - 3.00



CERTIFICATE OF ANALYSIS

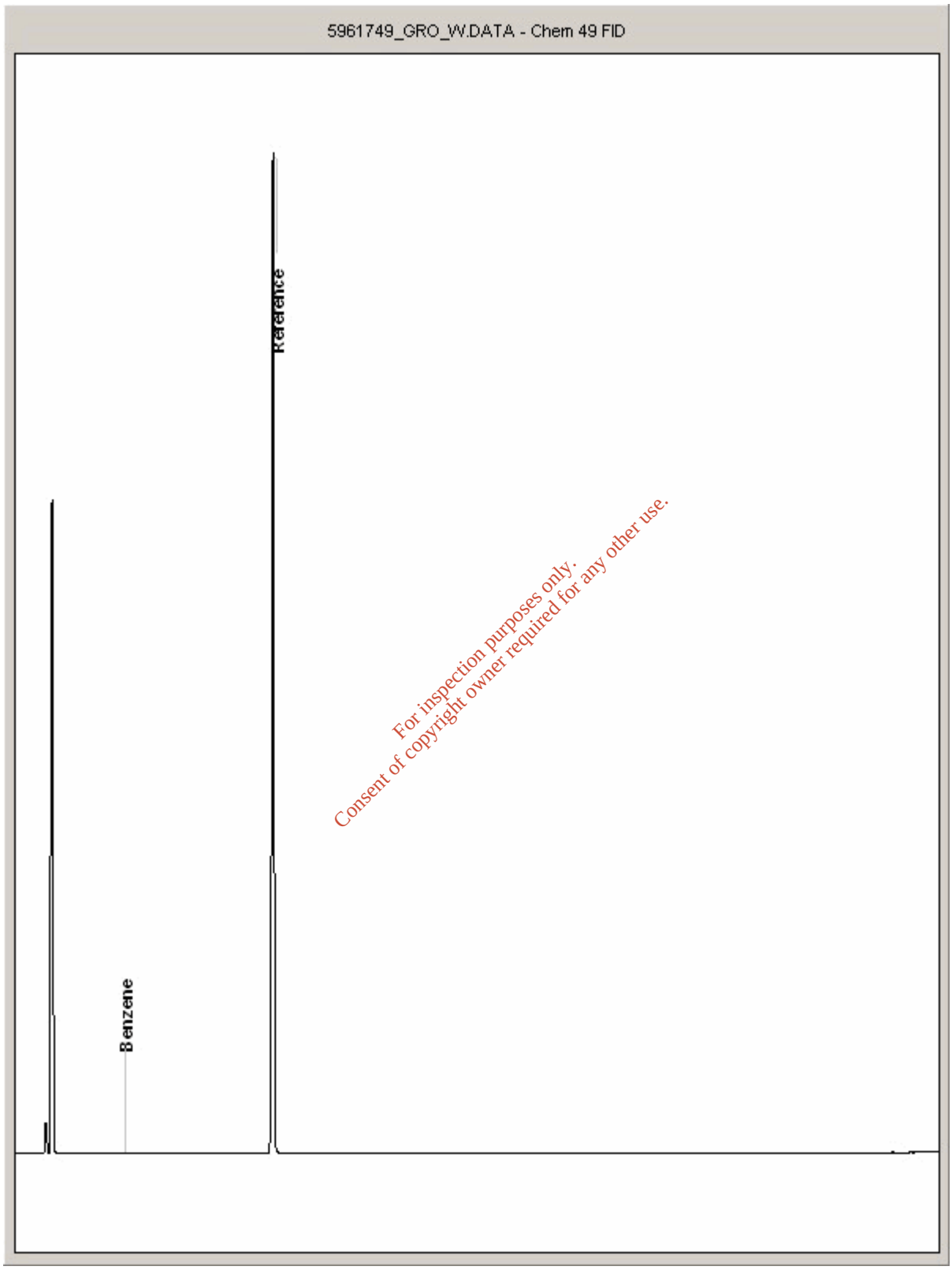
SDG:	120727-57	**Location:**	Limerick Gasworks	**Order Number:**	4500099608
Job:	D_MOUCHEL_ELE-107	**Customer:**	Mouchel	**Report Number:**	189981
Client Reference:	1034973	**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 5961749
Sample ID : K1

Depth : 3.00 - 4.00



CERTIFICATE OF ANALYSIS

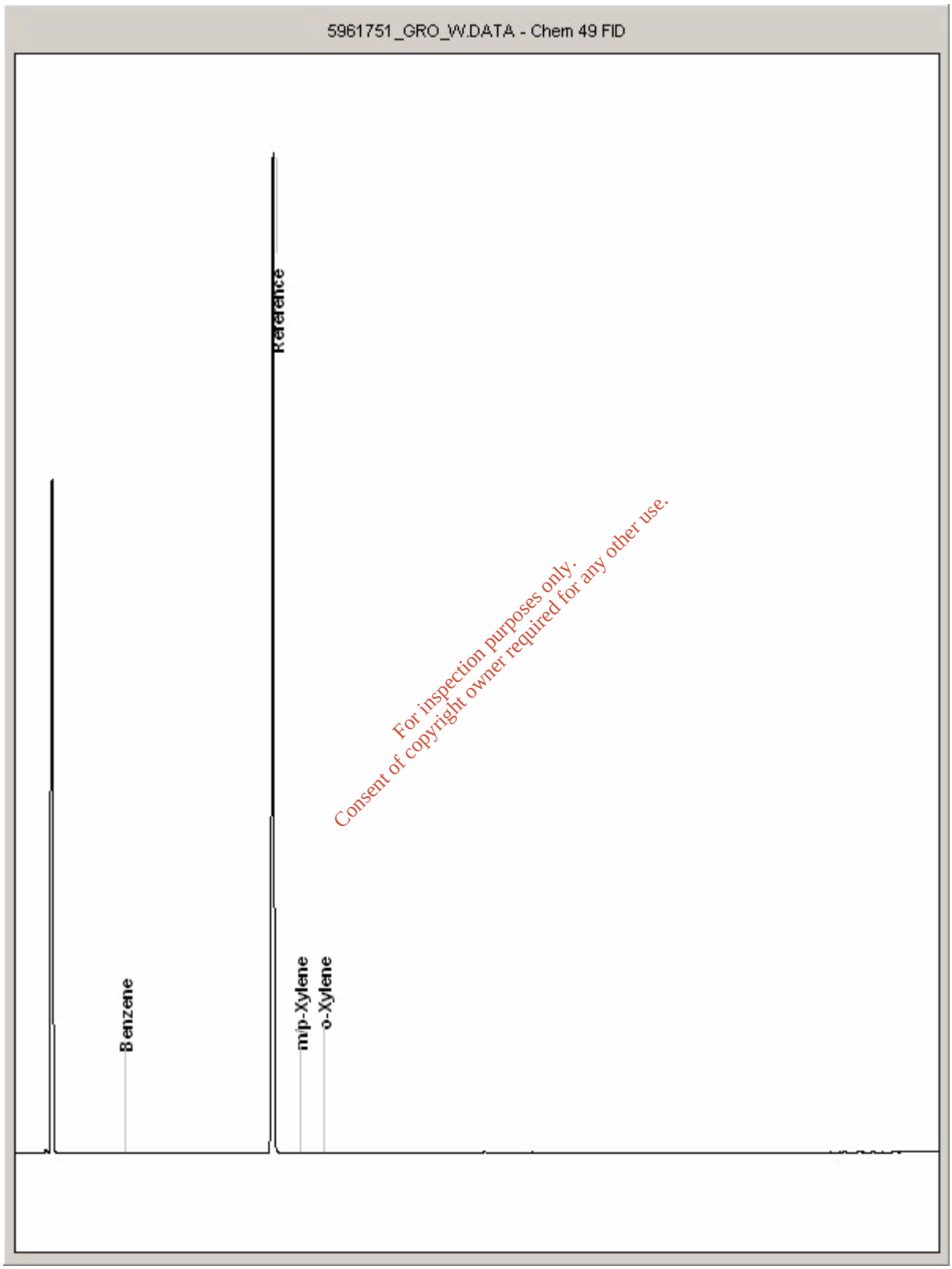
SDG:	120727-57	**Location:**	Limerick Gasworks	**Order Number:**	4500099608
Job:	D_MOUCHEL_ELE-107	**Customer:**	Mouchel	**Report Number:**	189981
Client Reference:	1034973	**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 5961751
Sample ID : A4

Depth : 2.00 - 3.00



CERTIFICATE OF ANALYSIS

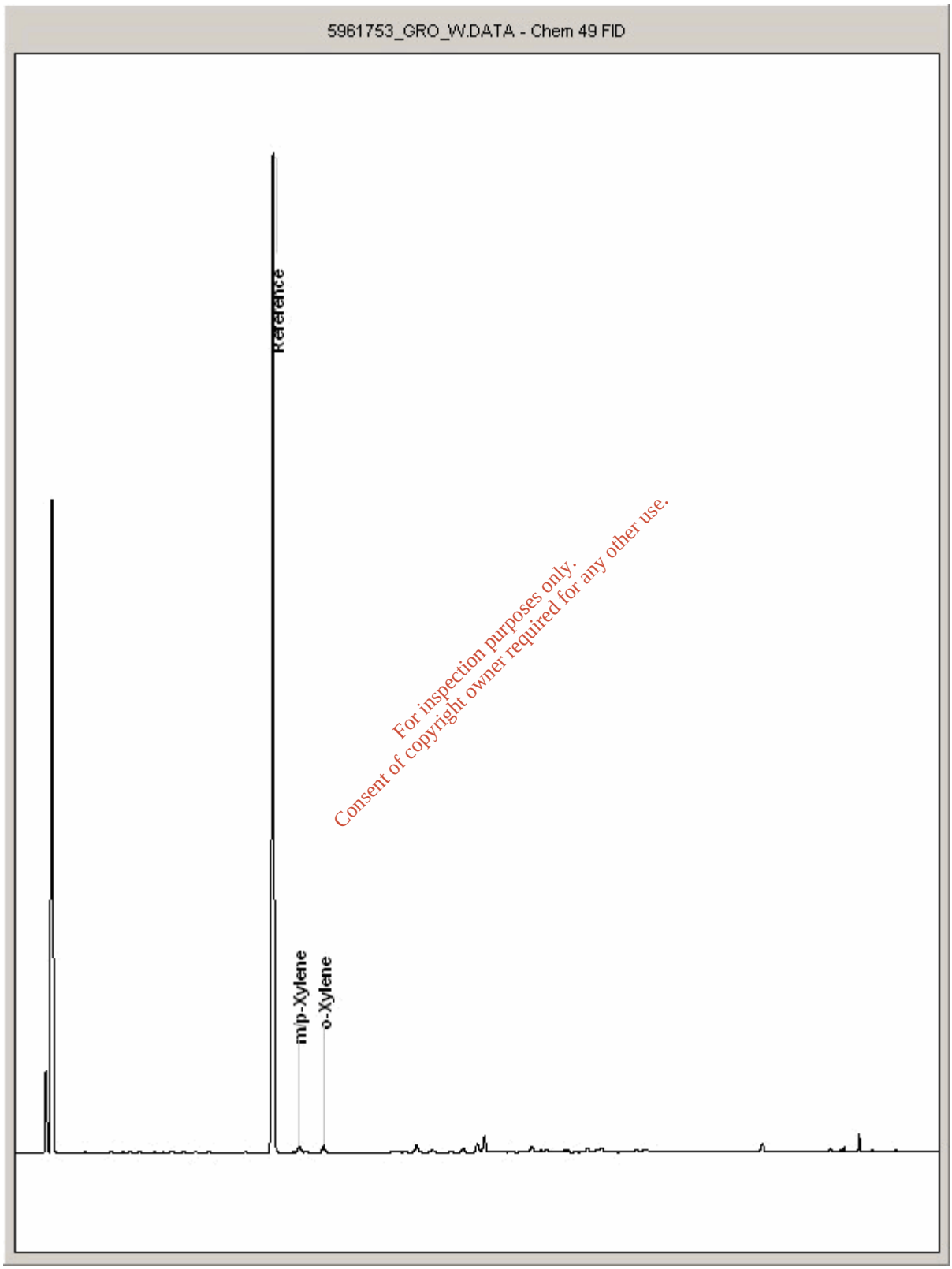
SDG:	120727-57	**Location:**	Limerick Gasworks	**Order Number:**	4500099608
Job:	D_MOUCHEL_ELE-107	**Customer:**	Mouchel	**Report Number:**	189981
Client Reference:	1034973	**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 5961753
Sample ID : A3

Depth : 1.50 - 2.50



CERTIFICATE OF ANALYSIS

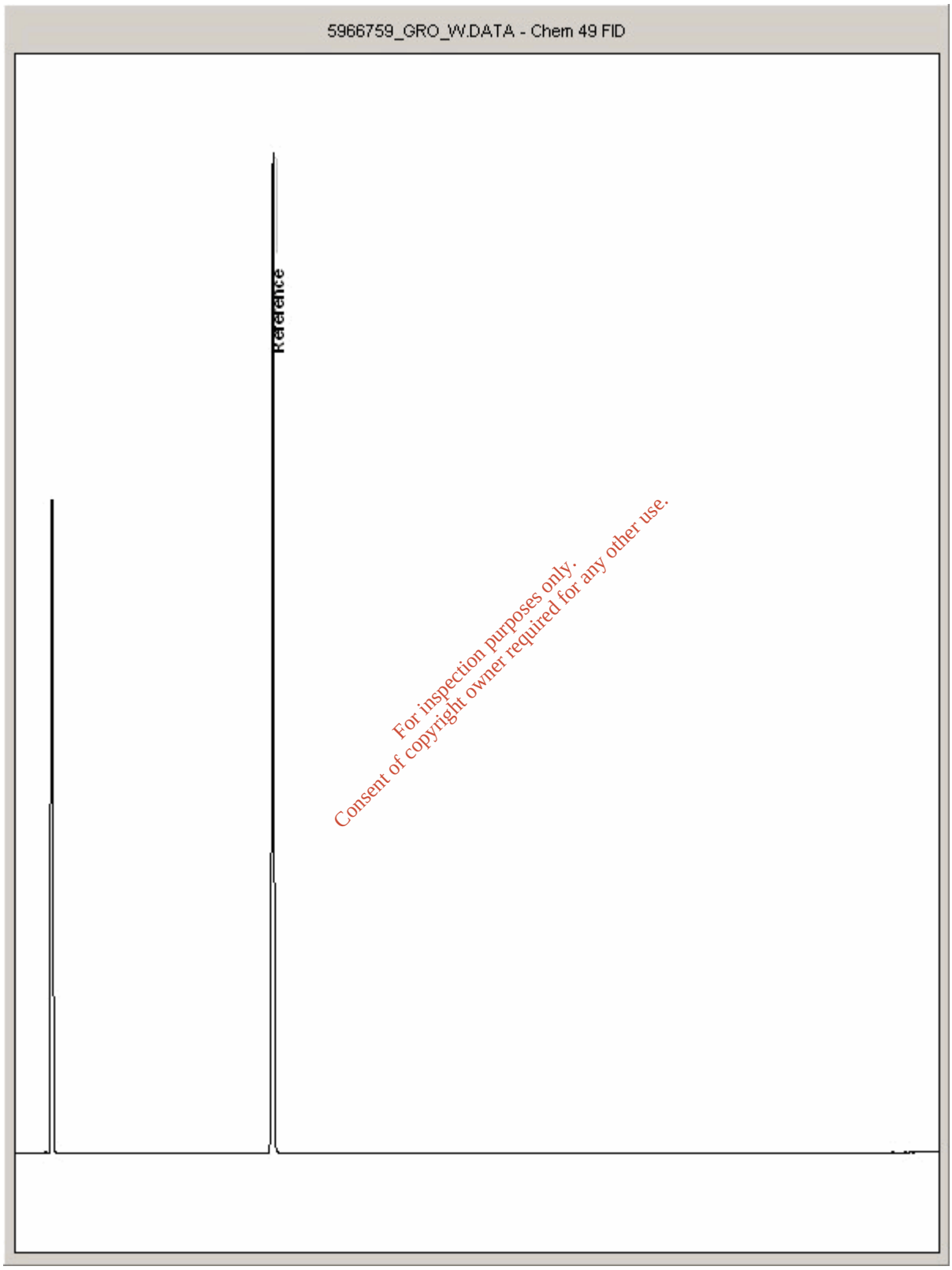
SDG:	120727-57	**Location:**	Limerick Gasworks	**Order Number:**	4500099608
Job:	D_MOUCHEL_ELE-107	**Customer:**	Mouchel	**Report Number:**	189981
Client Reference:	1034973	**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 5966759
Sample ID : A11

Depth : 1.00 - 2.00



CERTIFICATE OF ANALYSIS

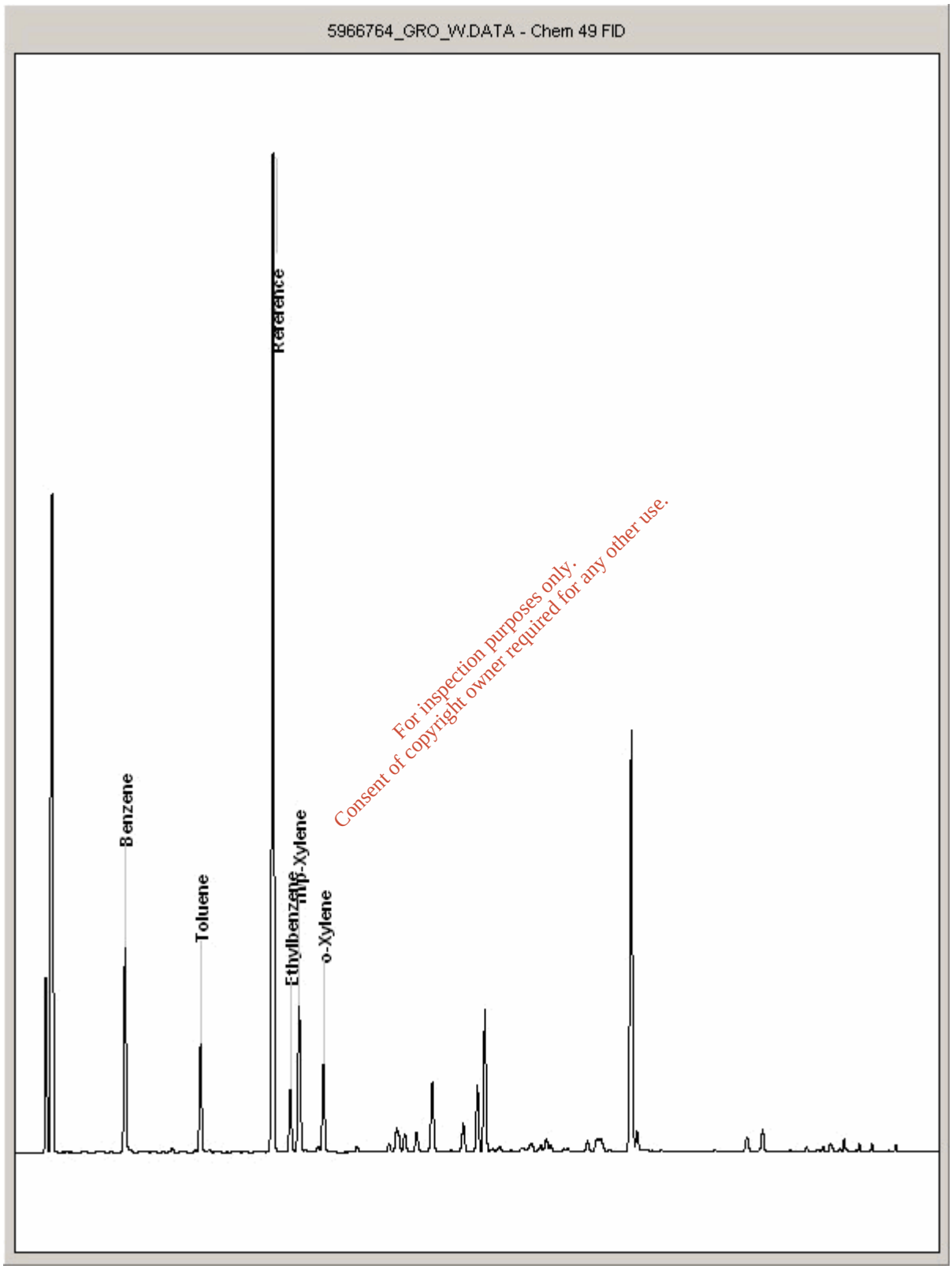
SDG:	120727-57	**Location:**	Limerick Gasworks	**Order Number:**	4500099608
Job:	D_MOUCHEL_ELE-107	**Customer:**	Mouchel	**Report Number:**	189981
Client Reference:	1034973	**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 5966764
Sample ID : D1

Depth : 3.00 - 4.00



CERTIFICATE OF ANALYSIS

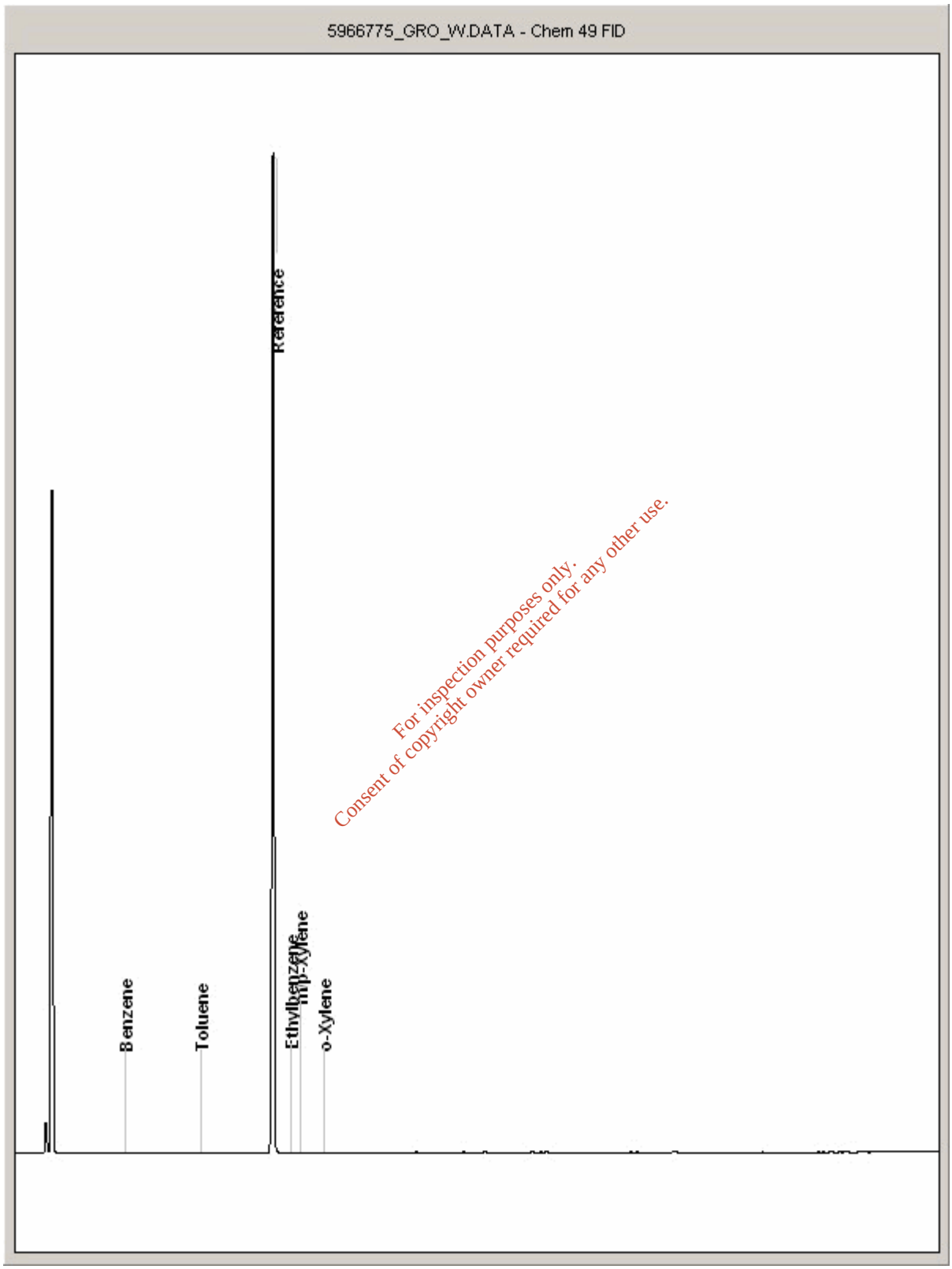
SDG:	120727-57	**Location:**	Limerick Gasworks	**Order Number:**	4500099608
Job:	D_MOUCHEL_ELE-107	**Customer:**	Mouchel	**Report Number:**	189981
Client Reference:	1034973	**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 5966775
Sample ID : G5

Depth : 5.00



CERTIFICATE OF ANALYSIS

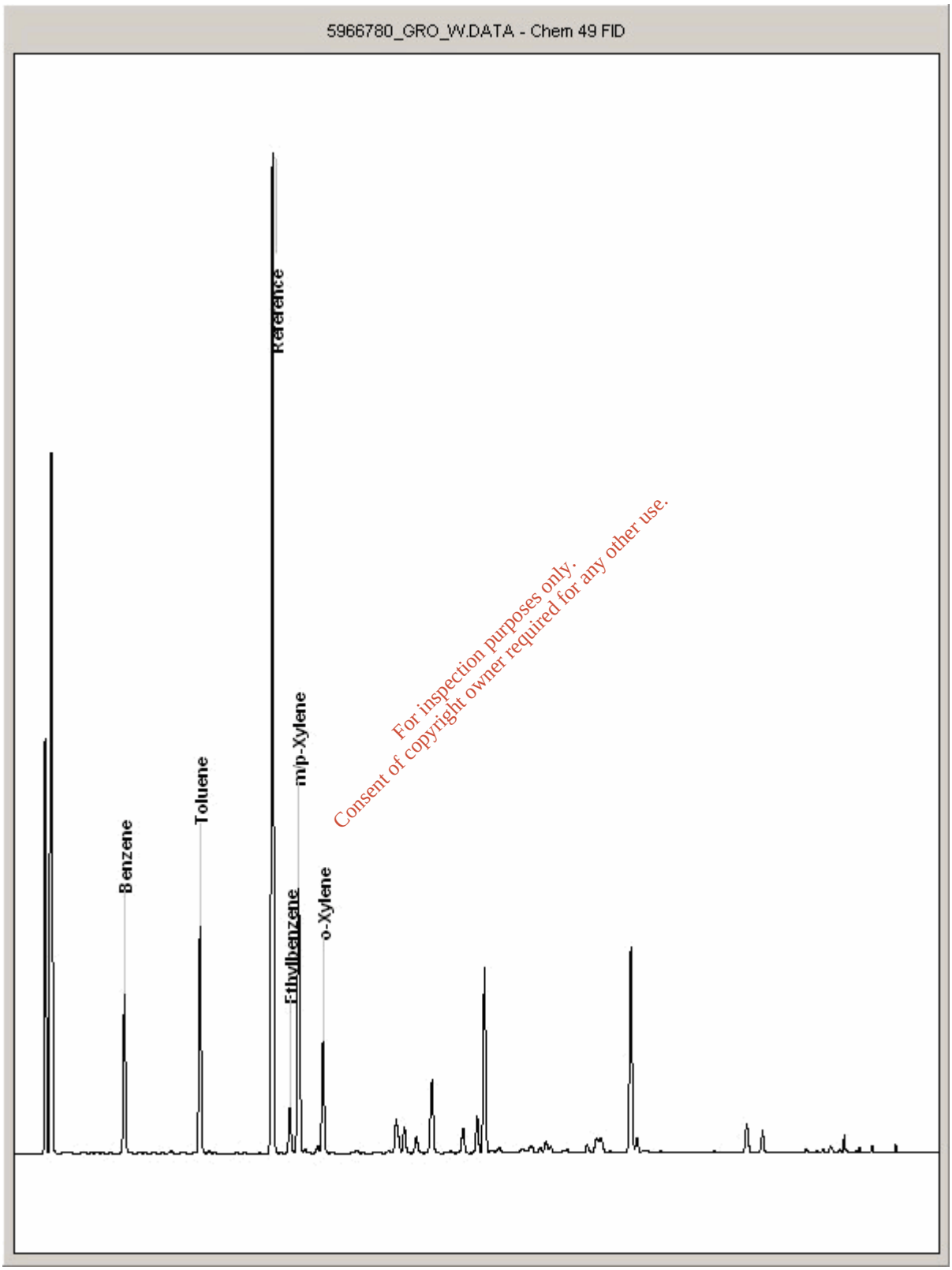
SDG:	120727-57	**Location:**	Limerick Gasworks	**Order Number:**	4500099608
Job:	D_MOUCHEL_ELE-107	**Customer:**	Mouchel	**Report Number:**	189981
Client Reference:	1034973	**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 5966780
Sample ID : G4

Depth : 3.50



CERTIFICATE OF ANALYSIS

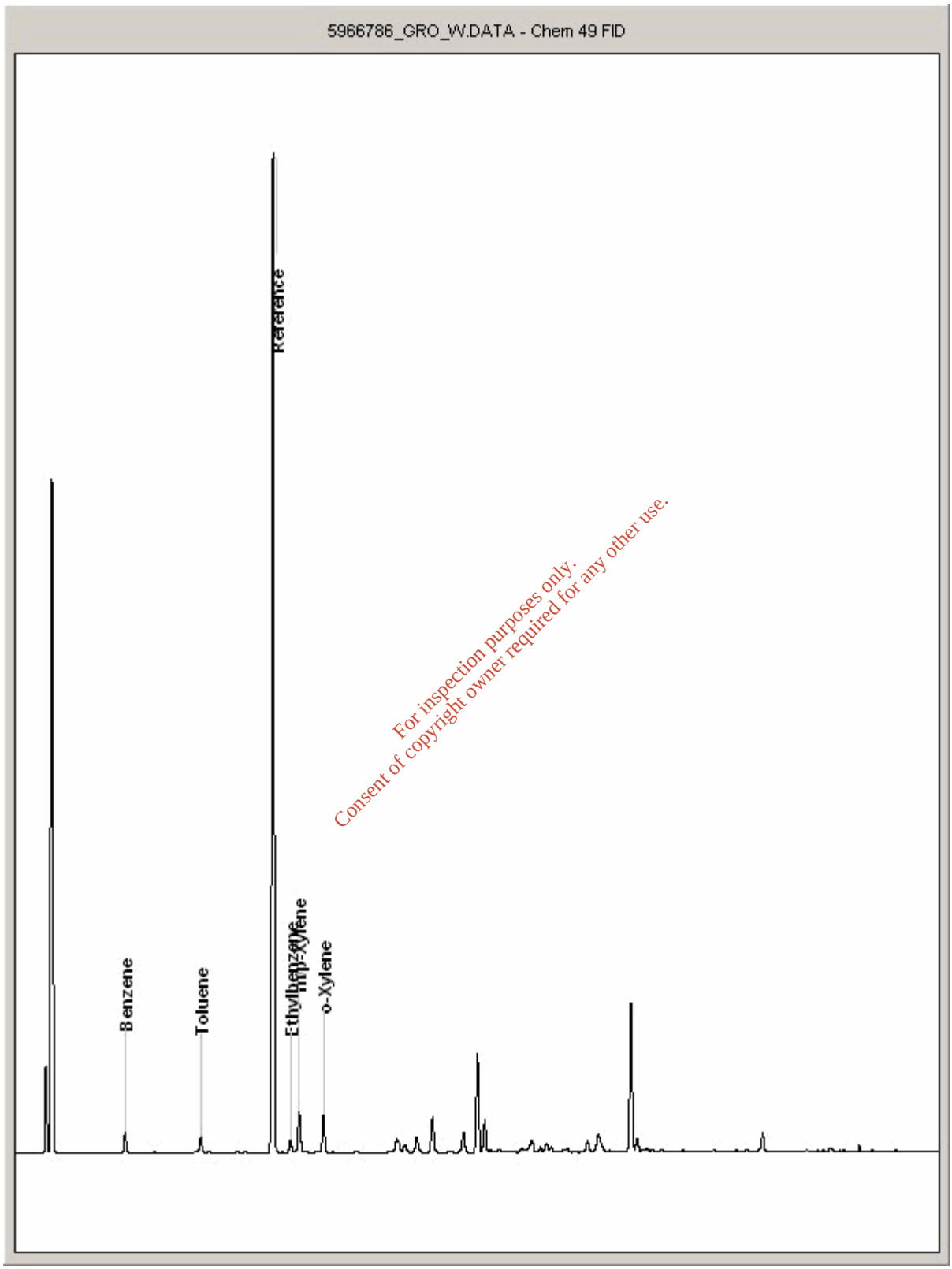
SDG:	120727-57	**Location:**	Limerick Gasworks	**Order Number:**	4500099608
Job:	D_MOUCHEL_ELE-107	**Customer:**	Mouchel	**Report Number:**	189981
Client Reference:	1034973	**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 5966786
Sample ID : C11

Depth : 1.00 - 2.00



CERTIFICATE OF ANALYSIS

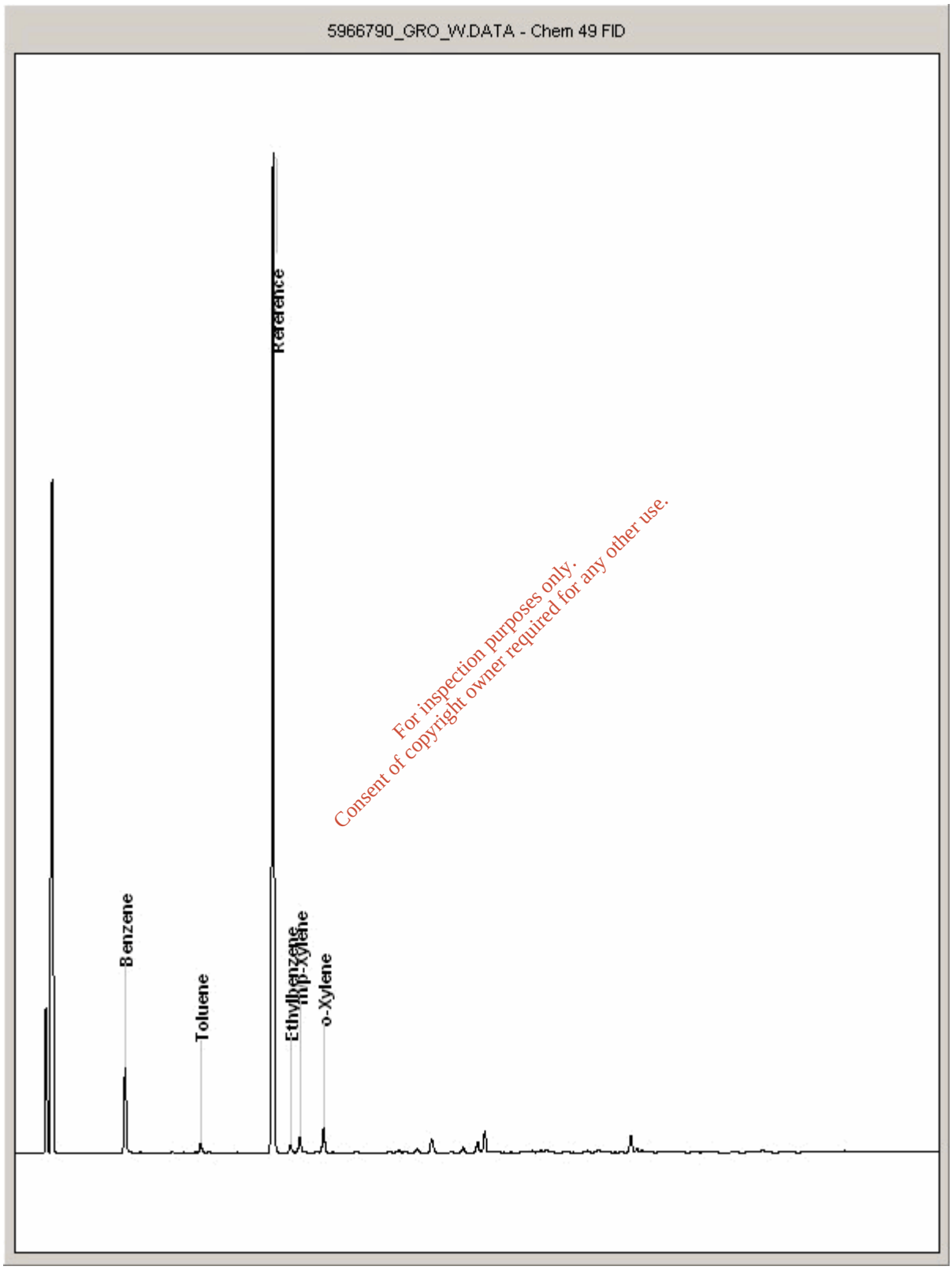
SDG:	120727-57	**Location:**	Limerick Gasworks	**Order Number:**	4500099608
Job:	D_MOUCHEL_ELE-107	**Customer:**	Mouchel	**Report Number:**	189981
Client Reference:	1034973	**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 5966790
Sample ID : G3

Depth : 6.00



CERTIFICATE OF ANALYSIS

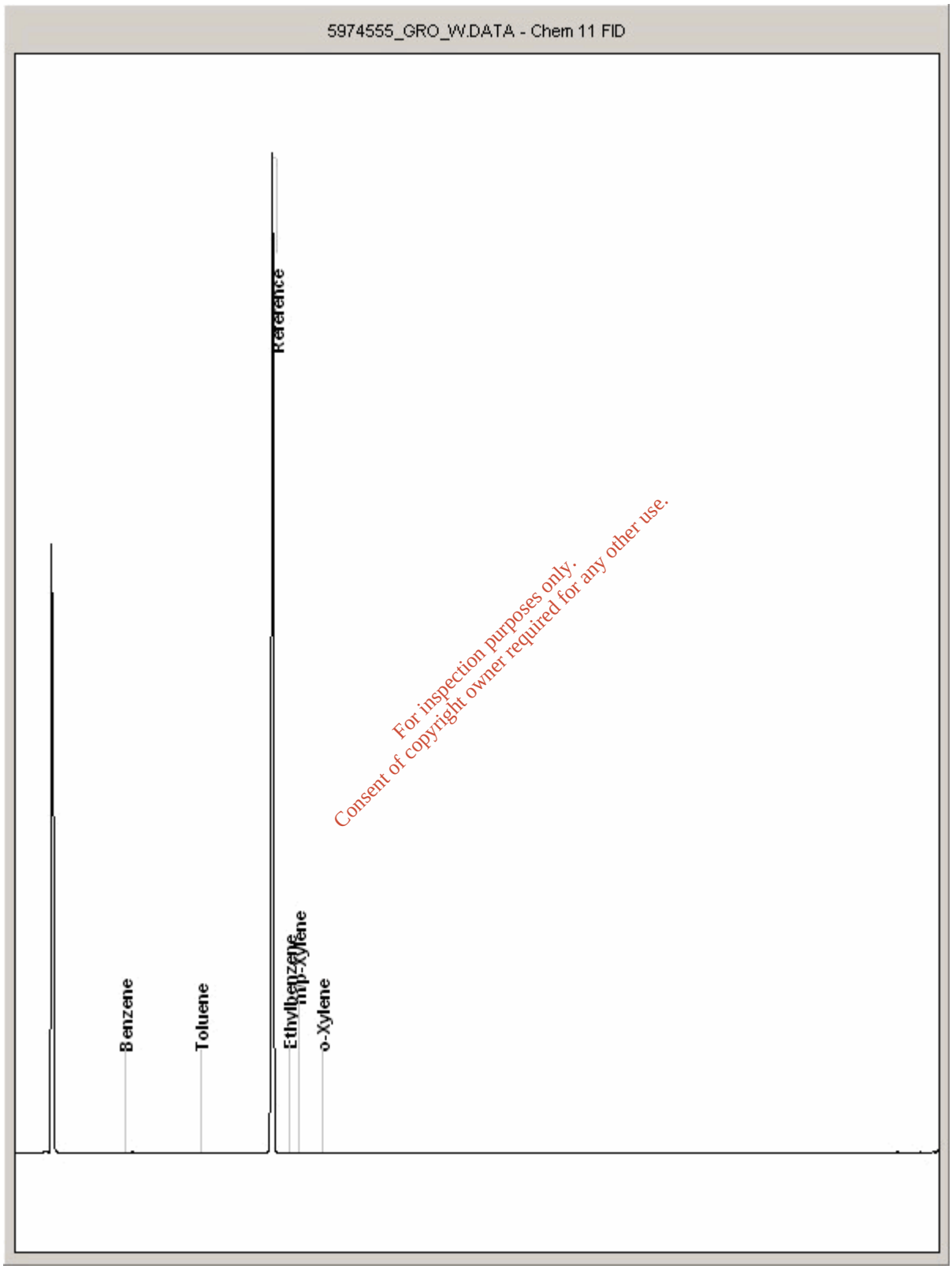
SDG:	120727-57	**Location:**	Limerick Gasworks	**Order Number:**	4500099608
Job:	D_MOUCHEL_ELE-107	**Customer:**	Mouchel	**Report Number:**	189981
Client Reference:	1034973	**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 5974555
Sample ID : A9

Depth : 2.00



CERTIFICATE OF ANALYSIS

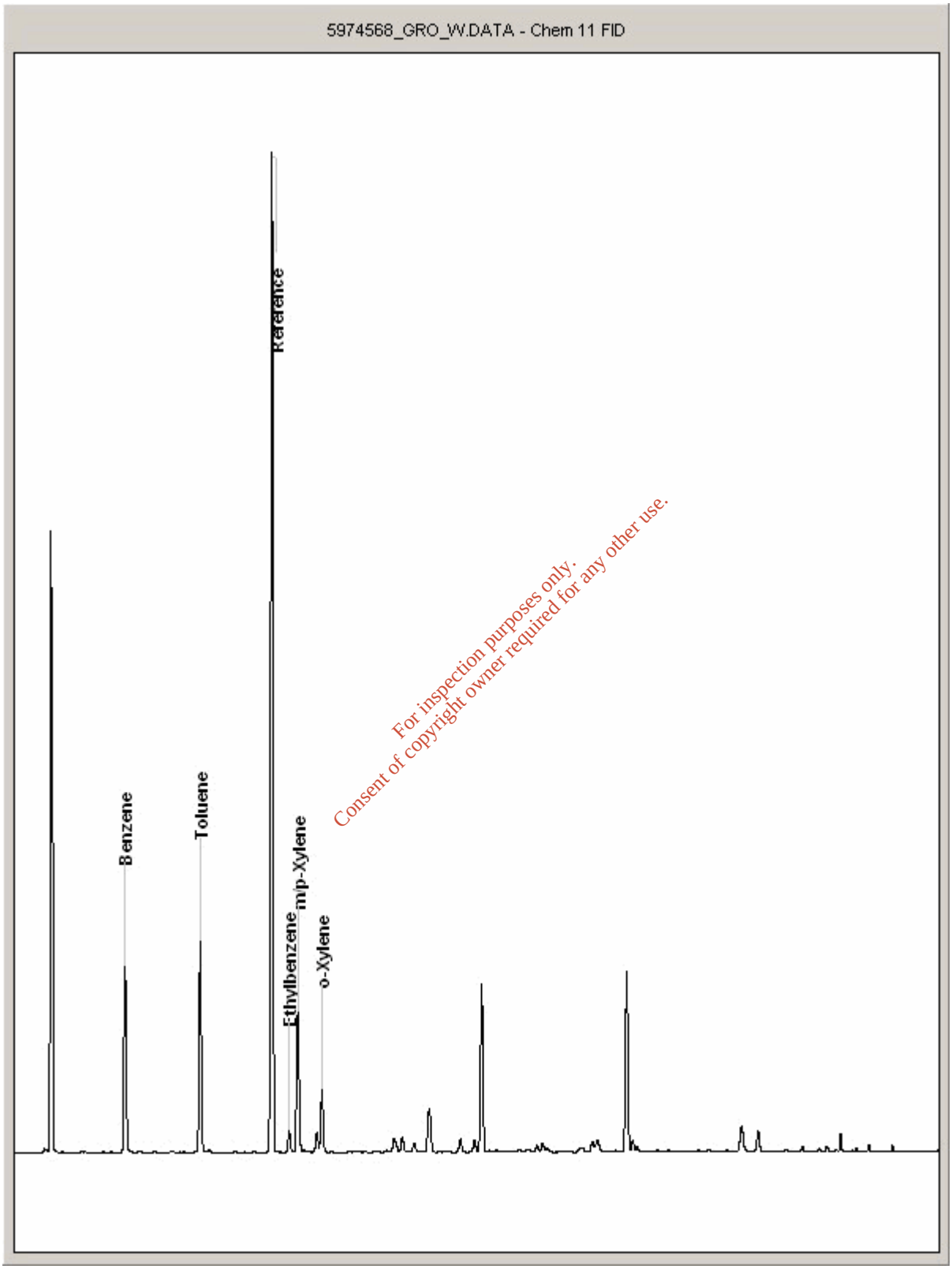
SDG:	120727-57	**Location:**	Limerick Gasworks	**Order Number:**	4500099608
Job:	D_MOUCHEL_ELE-107	**Customer:**	Mouchel	**Report Number:**	189981
Client Reference:	1034973	**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 5974568
Sample ID : G8

Depth : 1.00



CERTIFICATE OF ANALYSIS

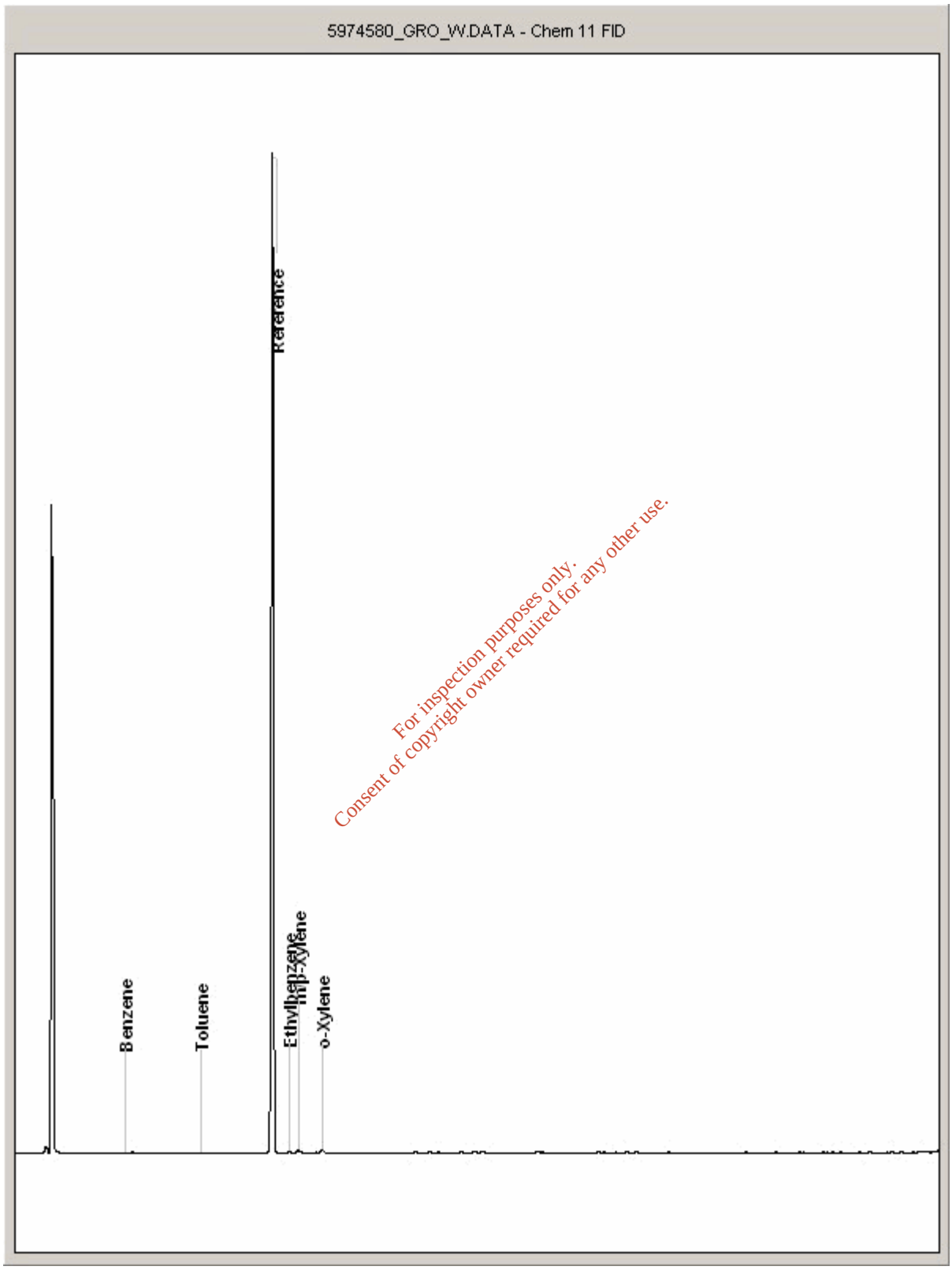
SDG:	120727-57	**Location:**	Limerick Gasworks	**Order Number:**	4500099608
Job:	D_MOUCHEL_ELE-107	**Customer:**	Mouchel	**Report Number:**	189981
Client Reference:	1034973	**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 5974580
Sample ID : D5

Depth : 1.75



CERTIFICATE OF ANALYSIS

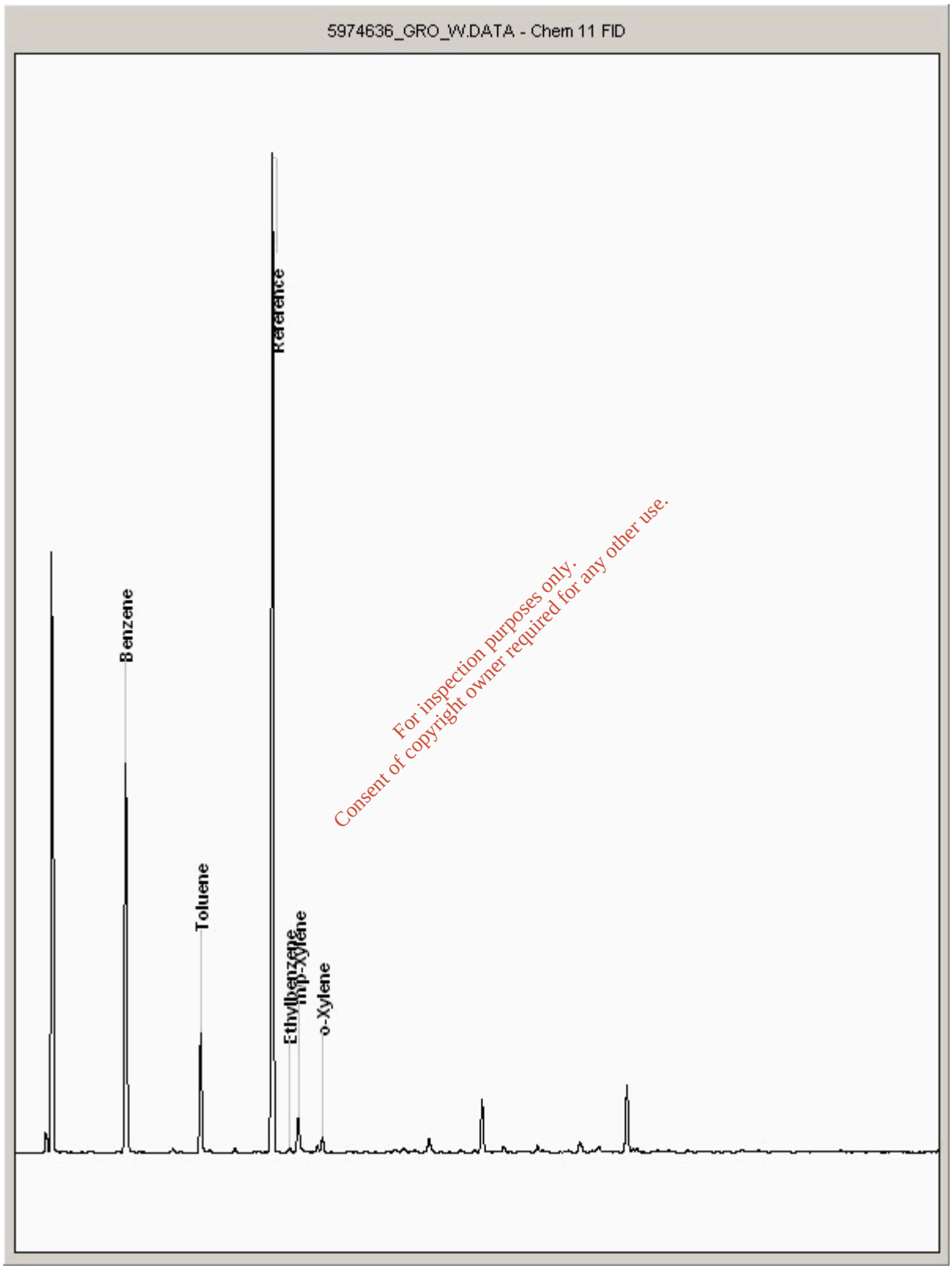
SDG:	120727-57	**Location:**	Limerick Gasworks	**Order Number:**	4500099608
Job:	D_MOUCHEL_ELE-107	**Customer:**	Mouchel	**Report Number:**	189981
Client Reference:	1034973	**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 5974636
Sample ID : E8

Depth : 4.00



CERTIFICATE OF ANALYSIS

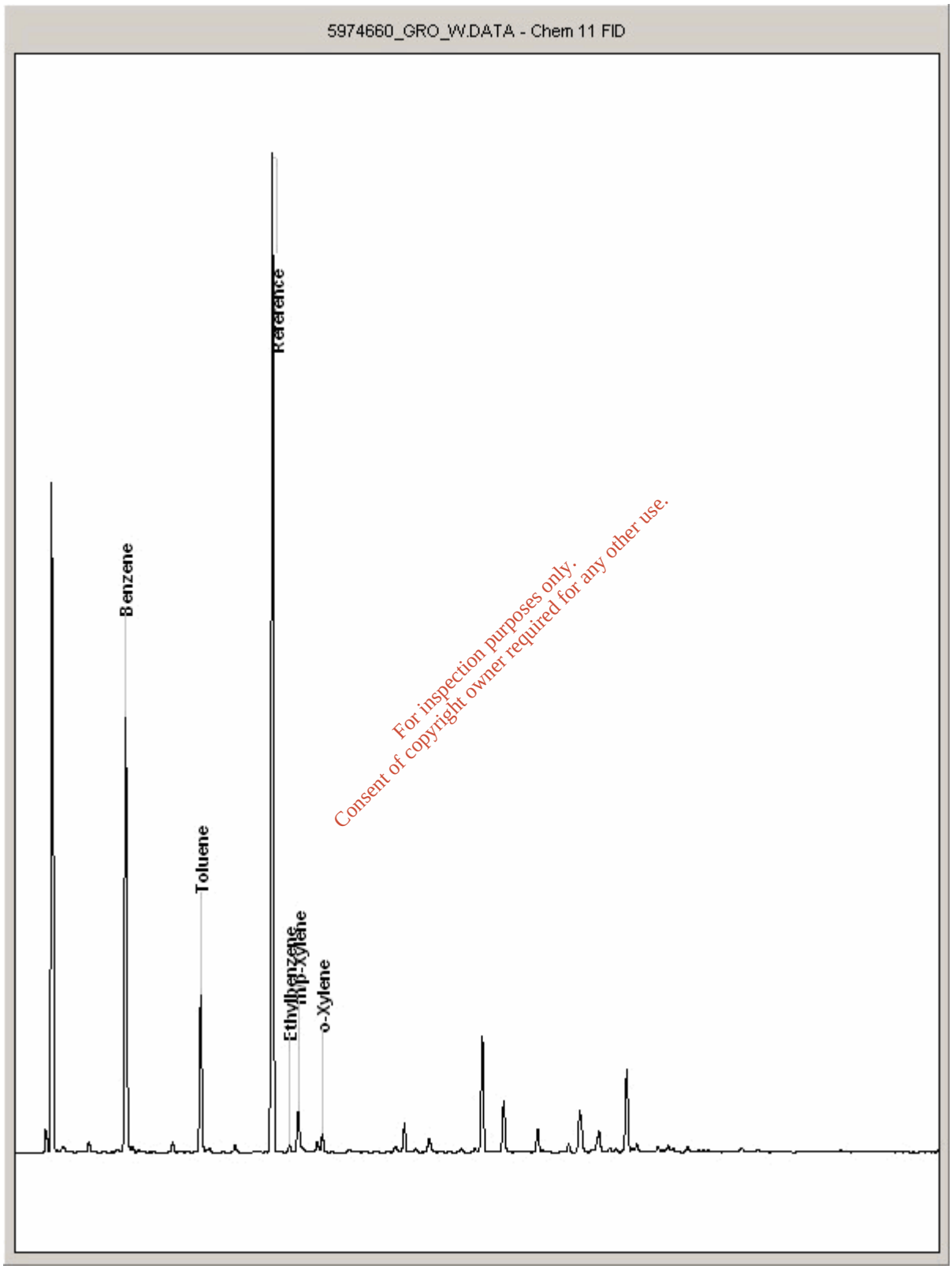
SDG:	120727-57	**Location:**	Limerick Gasworks	**Order Number:**	4500099608
Job:	D_MOUCHEL_ELE-107	**Customer:**	Mouchel	**Report Number:**	189981
Client Reference:	1034973	**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 5974660
Sample ID : K5

Depth : 1.00 - 2.00



CERTIFICATE OF ANALYSIS

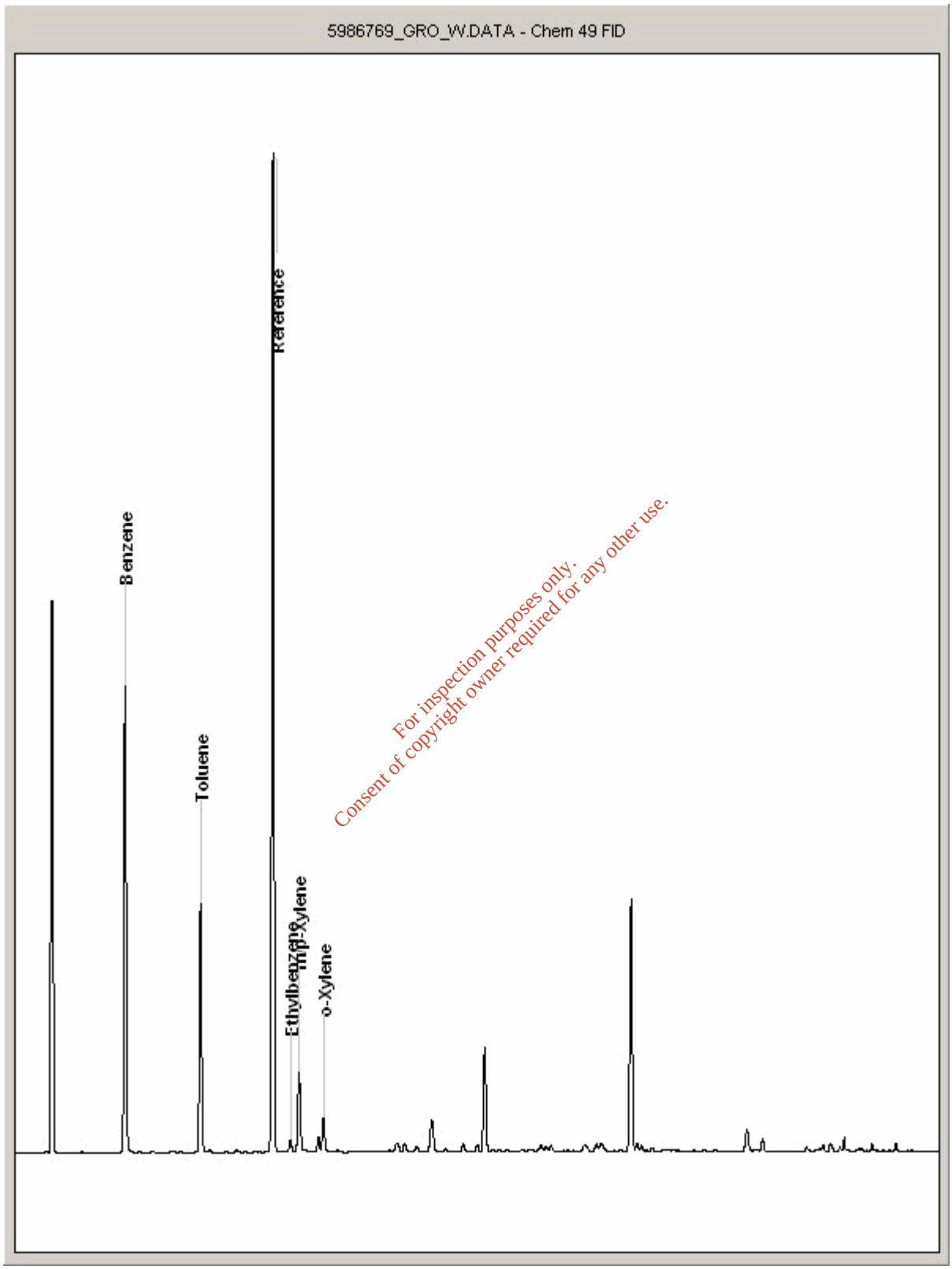
SDG:	120727-57	**Location:**	Limerick Gasworks	**Order Number:**	4500099608
Job:	D_MOUCHEL_ELE-107	**Customer:**	Mouchel	**Report Number:**	189981
Client Reference:	1034973	**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 5986769
Sample ID : C7

Depth : 4.00



CERTIFICATE OF ANALYSIS

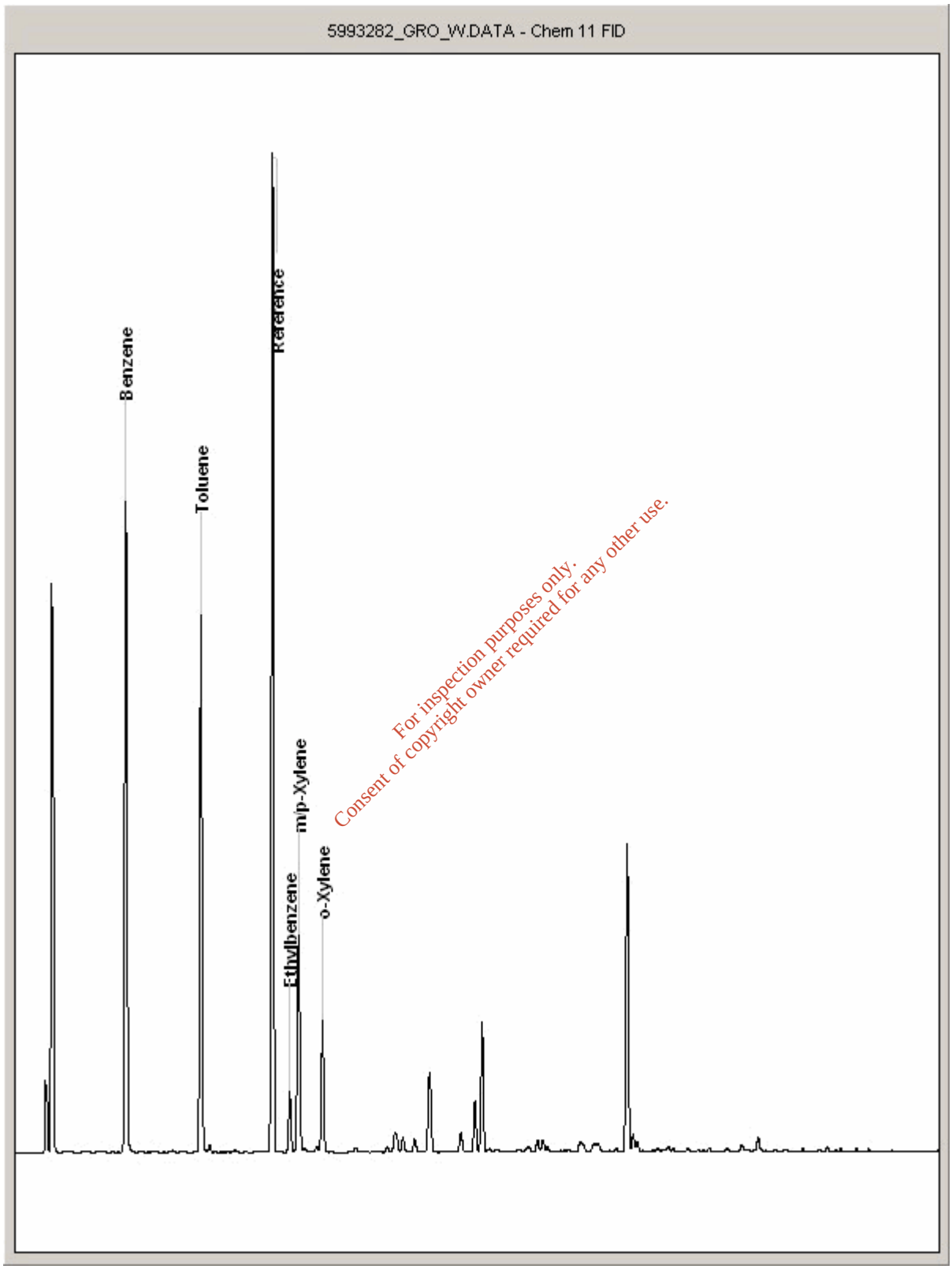
SDG:	120727-57	**Location:**	Limerick Gasworks	**Order Number:**	4500099608
Job:	D_MOUCHEL_ELE-107	**Customer:**	Mouchel	**Report Number:**	189981
Client Reference:	1034973	**Attention:**	Neil Balderstone	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 5993282
Sample ID : G2

Depth : 3.00 - 4.00



CERTIFICATE OF ANALYSIS

SDG:	120727-57	**Location:**	Limerick Gasworks	**Order Number:**	4500099608
Job:	D_MOUCHEL_ELE-107	**Customer:**	Mouchel	**Report Number:**	189981
Client Reference:	1034973	**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 and CEN Leach tests, flash point, pH, ammonium as NH4 by the BRE method, VOC TICS and SVOC TICS.

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

3. If sufficient sample is received a sub sample will be retained free of charge for 30 days after analysis is completed (e-mailed) for all sample types unless the sample is destroyed on testing. The prepared soil sub sample that is analysed for asbestos will be retained for a period of 2 months after the analysis date. All bulk samples will be retained for a period of 6 months after the analysis date. All samples received and not scheduled will be disposed of one month after the date of receipt unless we are instructed to the contrary. Once the initial period has expired, a storage charge will be applied for each month or part thereof until the client cancels the request for sample storage. ALcontrol Laboratories reserve the right to charge for samples received and stored but not analysed.

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

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

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

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

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

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

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

11. Results relate only to the items tested.

12. LODs for wet tests reported on a dry weight basis are not corrected for moisture content.

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

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

15. Phenols monohydric by HPLC include phenol, cresols (2-Methylphenol, 3-Methylphenol and 4-Methylphenol) and Xylenols (2,3 Dimethylphenol, 2,4 Dimethylphenol, 2,5 Dimethylphenol, 2,6 Dimethylphenol, 3,4 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 the major part of the sample. Other coarse granular material such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

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

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 AROCLOR 1254 / PCB CON	D&C	HEXANE:ACETONE	END OVER END	GC-MS
POLYAROMATIC HYDROCARBONS (MS)	WET	HEXANE:ACETONE	MICROWAVE TM218.	GC-MS
>C6-C40	WET	HEXANE:ACETONE	SHAKER	GC-FID
POLYAROMATIC HYDROCARBONS RAPID GC	WET	HEXANE:ACETONE	SHAKER	GC-FID
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 AROCLOR 1254	HEXANE	STIRRED EXTRACTION (STIR-BAR)	GC MS
SVOC	DCM	LIQUID/LIQUID SHAKE	GC MS
FREE SULPHUR	DCM	SOLID PHASE EXTRACTION	HPLC
PESTOCP/OPP	DCM	LIQUID/LIQUID SHAKE	GC MS
TRIAZINE HERBS	DCM	LIQUID/LIQUID SHAKE	GC MS
PHENOLS MS	ACETONE	SOLID PHASE EXTRACTION	GC MS
TPH by INFRARED (IR)	TCE	STIRRED EXTRACTION (STIR-BAR)	IR
MINERAL OIL by IR	TCE	STIRRED EXTRACTION (STIR-BAR)	IR
GLYCOLS	NONE	DIRECT INJECTION	GC FID

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

Mouchel
3rd Floor
Station House
Mercury Court
Titheburn Street
Liverpool
L2 2QP

Attention: Neil Balderstone

CERTIFICATE OF ANALYSIS

Date:	08 November 2012
Customer:	H_MOUCH_LIV
Sample Delivery Group (SDG):	121026-141
Your Reference:	1034973
Location:	Limerick
Report No:	201074

We received 22 samples on Friday October 26, 2012 and 22 of these samples were scheduled for analysis which was completed on Thursday November 08, 2012. 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:	121026-141	**Location:**	Limerick	**Order Number:**	4500103453
Job:	H_MOUCH_LIV-1	**Customer:**	Mouchel	**Report Number:**	201074
Client Reference:	1034973	**Attention:**	Neil Balderstone	**Superseded Report:**	

Received Sample Overview

Lab Sample No(s)	Customer Sample Ref.	AGS Ref.	Depth (m)	Sampled Date
6408350	A1		3.00 - 4.00	24/10/2012
6408353	A3		2.00 - 3.00	24/10/2012
6408355	A4		2.00 - 3.00	24/10/2012
6408341	A9		2.00 - 2.50	24/10/2012
6408358	A11		1.50 - 2.00	24/10/2012
6408356	C2		1.50 - 2.50	24/10/2012
6408342	C7		4.00 - 5.00	24/10/2012
6408365	C11		1.00 - 2.00	24/10/2012
6408374	D1		3.00 - 4.00	24/10/2012
6408346	D5		1.50 - 2.00	24/10/2012
6408347	E8		1.00 - 2.00	24/10/2012
6408366	F11		3.00 - 4.00	24/10/2012
6408377	G2		4.00 - 5.00	24/10/2012
6408378	G3		4.00	24/10/2012
6408380	G4		3.00 - 4.00	24/10/2012
6408381	G5		2.00 - 3.00	24/10/2012
6408349	G8		1.00 - 2.00	24/10/2012
6408367	H12		2.00 - 3.00	24/10/2012
6408368	J10		1.00 - 2.00	24/10/2012
6408369	K1		2.50 - 3.50	24/10/2012
6408371	K5		1.00 - 2.00	24/10/2012
6408373	M3		4.00 - 5.00	24/10/2012

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

ALcontrol Laboratories

CERTIFICATE OF ANALYSIS

Validated

SDG:	121026-141	**Location:**	Limerick	**Order Number:**	4500103453
Job:	H_MOUCH_LIV-1	**Customer:**	Mouchel	**Report Number:**	201074
Client Reference:	1034973	**Attention:**	Neil Balderstone	**Superseded Report:**	

LIQUID

Results Legend

- X — Test
- N — No Determination Possible

Lab Sample No(s)			6408350				6408356				6408353				6408355				6408346			
Customer Sample Reference			A1				C2				A3				A4				D5			
AGS Reference																						
Depth (m)			3.00 - 4.00				1.50 - 2.50				2.00 - 3.00				2.00 - 3.00				1.50 - 2.00			
Container			1l green glass bottle	1lplastic (ALE221)	H2SO4 (ALE244)	Vial (ALE297)	1l green glass bottle	1lplastic (ALE221)	H2SO4 (ALE244)	Vial (ALE297)	1l green glass bottle	1lplastic (ALE221)	H2SO4 (ALE244)	Vial (ALE297)	1l green glass bottle	1lplastic (ALE221)	H2SO4 (ALE244)	Vial (ALE297)	1l green glass bottle	1lplastic (ALE221)	H2SO4 (ALE244)	Vial (ALE297)
Ammoniacal Nitrogen	All	NDPs: 0 Tests: 22			X				X				X				X				X	
Anions by Kone (w)	All	NDPs: 0 Tests: 22		X				X				X				X				X		
Cyanide Comp/Free/Total/Thiocyanate	All	NDPs: 0 Tests: 22	X				X				X				X				X			
Dissolved Metals by ICP-MS	All	NDPs: 0 Tests: 22		X				X				X				X				X		
EPH CWG (Aliphatic) Aqueous GC (W)	All	NDPs: 0 Tests: 22	X				X				X				X				X			
EPH CWG (Aromatic) Aqueous GC (W)	All	NDPs: 0 Tests: 22	X				X				X				X				X			
GRO by GC-FID (W)	All	NDPs: 0 Tests: 22				X				X				X				X				X
Hexavalent Chromium (w)	All	NDPs: 0 Tests: 22		X				X				X				X				X		
Mercury Dissolved	All	NDPs: 0 Tests: 22	X				X				X				X				X			
PAH Spec MS - Aqueous (W)	All	NDPs: 0 Tests: 22	X				X				X				X				X			
pH Value	All	NDPs: 0 Tests: 22		X				X				X				X				X		
Phenols by HPLC (W)	All	NDPs: 0 Tests: 22			X				X				X				X				X	
Sulphide	All	NDPs: 0 Tests: 22		X				X				X				X				X		
TPH CWG (W)	All	NDPs: 0 Tests: 22	X				X				X				X				X			
VOC MS (W)	All	NDPs: 0 Tests: 11				X								X				X				

Lab Sample No(s)			6408342				6408347				6408349				6408341				6408358			
Customer Sample Reference			C7				E8				G8				A9				A11			
AGS Reference																						
Depth (m)			4.00 - 5.00				1.00 - 2.00				1.00 - 2.00				2.00 - 2.50				1.50 - 2.00			
Container			1l green glass bottle	1lplastic (ALE221)	H2SO4 (ALE244)	Vial (ALE297)	1l green glass bottle	1lplastic (ALE221)	H2SO4 (ALE244)	Vial (ALE297)	1l green glass bottle	1lplastic (ALE221)	H2SO4 (ALE244)	Vial (ALE297)	1l green glass bottle	1lplastic (ALE221)	H2SO4 (ALE244)	Vial (ALE297)	1l green glass bottle	1lplastic (ALE221)	H2SO4 (ALE244)	Vial (ALE297)
Ammoniacal Nitrogen	All	NDPs: 0 Tests: 22			X				X				X				X				X	
Anions by Kone (w)	All	NDPs: 0 Tests: 22		X				X				X				X				X		
Cyanide Comp/Free/Total/Thiocyanate	All	NDPs: 0 Tests: 22	X				X				X				X				X			
Dissolved Metals by ICP-MS	All	NDPs: 0 Tests: 22		X				X				X				X				X		
EPH CWG (Aliphatic) Aqueous GC (W)	All	NDPs: 0 Tests: 22	X				X				X				X				X			
EPH CWG (Aromatic) Aqueous GC (W)	All	NDPs: 0 Tests: 22	X				X				X				X				X			
GRO by GC-FID (W)	All	NDPs: 0 Tests: 22				X				X				X				X				X
Hexavalent Chromium (w)	All	NDPs: 0 Tests: 22		X				X				X				X				X		
Mercury Dissolved	All	NDPs: 0 Tests: 22	X				X				X				X				X			
PAH Spec MS - Aqueous (W)	All	NDPs: 0 Tests: 22	X				X				X				X				X			
pH Value	All	NDPs: 0 Tests: 22		X				X				X				X				X		
Phenols by HPLC (W)	All	NDPs: 0 Tests: 22			X				X				X				X				X	
Sulphide	All	NDPs: 0 Tests: 22		X				X				X				X				X		
TPH CWG (W)	All	NDPs: 0 Tests: 22	X				X				X				X				X			
VOC MS (W)	All	NDPs: 0 Tests: 11				X																X

CERTIFICATE OF ANALYSIS

SDG:	121026-141	**Location:**	Limerick	**Order Number:**	4500103453
Job:	H_MOUCH_LIV-1	**Customer:**	Mouchel	**Report Number:**	201074
Client Reference:	1034973	**Attention:**	Neil Balderstone	**Superseded Report:**	

LIQUID

Results Legend

X Test

N No Determination Possible

Lab Sample No(s)			6408374				6408369				6408377				6408378				6408373				6408371				6408368				6408365				6408366				6408367			
Customer Sample Reference			D1				K1				G2				G3				M3				K5				J10				C11				F11				H12			
AGS Reference																																										
Depth (m)			3.00 - 4.00				2.50 - 3.50				4.00 - 5.00				4.00				4.00 - 5.00				1.00 - 2.00				1.00 - 2.00				1.00 - 2.00				3.00 - 4.00				2.00 - 3.00			
Container			1l green glass bottle	1lplastic (ALE221)	H2SO4 (ALE244)	Vial (ALE297)	1l green glass bottle	1lplastic (ALE221)	H2SO4 (ALE244)	Vial (ALE297)	1l green glass bottle	1lplastic (ALE221)	H2SO4 (ALE244)	Vial (ALE297)	1l green glass bottle	1lplastic (ALE221)	H2SO4 (ALE244)	Vial (ALE297)	1l green glass bottle	1lplastic (ALE221)	H2SO4 (ALE244)	Vial (ALE297)	1l green glass bottle	1lplastic (ALE221)	H2SO4 (ALE244)	Vial (ALE297)	1l green glass bottle	1lplastic (ALE221)	H2SO4 (ALE244)	Vial (ALE297)	1l green glass bottle	1lplastic (ALE221)	H2SO4 (ALE244)	Vial (ALE297)	1l green glass bottle	1lplastic (ALE221)	H2SO4 (ALE244)	Vial (ALE297)	1l green glass bottle	1lplastic (ALE221)	H2SO4 (ALE244)	Vial (ALE297)
Ammoniacal Nitrogen	All	NDPs: 0 Tests: 22			X				X				X				X				X				X				X				X				X				X	
Anions by Kone (w)	All	NDPs: 0 Tests: 22		X				X				X				X				X				X				X				X				X				X		
Cyanide Comp/Free/Total/Thiocyanate	All	NDPs: 0 Tests: 22	X				X				X				X				X				X				X				X				X				X			
Dissolved Metals by ICP-MS	All	NDPs: 0 Tests: 22		X				X				X				X				X				X				X				X				X				X		
EPH CWG (Aliphatic) Aqueous GC (W)	All	NDPs: 0 Tests: 22	X				X				X				X				X				X				X				X				X				X			
EPH CWG (Aromatic) Aqueous GC (W)	All	NDPs: 0 Tests: 22	X				X				X				X				X				X				X				X				X				X			
GRO by GC-FID (W)	All	NDPs: 0 Tests: 22				X				X				X				X				X				X				X				X				X				X
Hexavalent Chromium (w)	All	NDPs: 0 Tests: 22		X				X				X				X				X				X				X				X				X				X		
Mercury Dissolved	All	NDPs: 0 Tests: 22	X				X				X				X				X				X				X				X				X				X			
PAH Spec MS - Aqueous (W)	All	NDPs: 0 Tests: 22	X				X				X				X				X				X				X				X				X				X			
pH Value	All	NDPs: 0 Tests: 22		X				X				X				X				X				X				X				X				X				X		
Phenols by HPLC (W)	All	NDPs: 0 Tests: 22			X				X				X				X				X				X				X				X				X				X	
Sulphide	All	NDPs: 0 Tests: 22		X				X				X				X				X				X				X				X				X				X		
TPH CWG (W)	All	NDPs: 0 Tests: 22	X				X				X				X				X				X				X				X				X				X			
VOC MS (W)	All	NDPs: 0 Tests: 11				X								X								X				X																

CERTIFICATE OF ANALYSIS

SDG:	121026-141	**Location:**	Limerick	**Order Number:**	4500103453
Job:	H_MOUCH_LIV-1	**Customer:**	Mouchel	**Report Number:**	201074
Client Reference:	1034973	**Attention:**	Neil Balderstone	**Superseded Report:**	

LIQUID

Results Legend

X Test

N No Determination Possible

Lab Sample No(s)			6408380	6408381
Customer Sample Reference			G4	G5
AGS Reference				
Depth (m)			3.00 - 4.00	2.00 - 3.00
Container			1l green glass bottle / 1lplastic (ALE221) / H2SO4 (ALE244) / Vial (ALE297)	1l green glass bottle / 1lplastic (ALE221) / H2SO4 (ALE244) / Vial (ALE297)
Ammoniacal Nitrogen	All	NDPs: 0 Tests: 22		X X
Anions by Kone (w)	All	NDPs: 0 Tests: 22	X	X
Cyanide Comp/Free/Total/Thiocyanate	All	NDPs: 0 Tests: 22	X	X
Dissolved Metals by ICP-MS	All	NDPs: 0 Tests: 22	X	X
EPH CWG (Aliphatic) Aqueous GC (W)	All	NDPs: 0 Tests: 22	X	X
EPH CWG (Aromatic) Aqueous GC (W)	All	NDPs: 0 Tests: 22	X	X
GRO by GC-FID (W)	All	NDPs: 0 Tests: 22		X X
Hexavalent Chromium (w)	All	NDPs: 0 Tests: 22	X	X
Mercury Dissolved	All	NDPs: 0 Tests: 22	X	X
PAH Spec MS - Aqueous (W)	All	NDPs: 0 Tests: 22	X	X
pH Value	All	NDPs: 0 Tests: 22	X	X
Phenols by HPLC (W)	All	NDPs: 0 Tests: 22		X X
Sulphide	All	NDPs: 0 Tests: 22	X	X
TPH CWG (W)	All	NDPs: 0 Tests: 22	X	X
VOC MS (W)	All	NDPs: 0 Tests: 11		X X

CERTIFICATE OF ANALYSIS

SDG:	121026-141	**Location:**	Limerick	**Order Number:**	4500103453
Job:	H_MOUCH_LIV-1	**Customer:**	Mouchel	**Report Number:**	201074
Client Reference:	1034973	**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 Ref.	A1	A3	A4	A9	A11	C2
			Depth (m)	3.00 - 4.00	2.00 - 3.00	2.00 - 3.00	2.00 - 2.50	1.50 - 2.00	1.50 - 2.50
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	24/10/2012	24/10/2012	24/10/2012	24/10/2012	24/10/2012	24/10/2012
			Sample Time	.	.	.	.	.	.
			Date Received	26/10/2012	26/10/2012	26/10/2012	26/10/2012	26/10/2012	26/10/2012
			SDG Ref	121026-141	121026-141	121026-141	121026-141	121026-141	121026-141
			Lab Sample No.(s)	6408350	6408353	6408355	6408341	6408358	6408356
			AGS Reference						
Ammoniacal Nitrogen as N	<0.2 mg/l	TM099		10.1 #	9.04 #	1.98 #	<0.2 #	1.56 #	0.446 #
Ammoniacal Nitrogen as NH4	<0.3 mg/l	TM099		13 #	11.6 #	2.55 #	<0.3 #	2.01 #	0.573 #
Sulphide	<0.01 mg/l	TM101		<0.01 #	<0.01 #	<0.01 #	<0.01 #	5.52 § #	<0.01 #
Arsenic (diss.filt)	<0.12 µg/l	TM152		11.4 #	34.2 #	10.6 #	0.892 #	13.4 #	1.34 #
Cadmium (diss.filt)	<0.1 µg/l	TM152		<0.1 #	<0.1 #	<0.1 #	<0.1 #	<0.1 #	0.111 #
Chromium (diss.filt)	<0.22 µg/l	TM152		3.46 #	3.23 #	2.5 #	5.11 #	2.25 #	2.96 #
Copper (diss.filt)	<0.85 µg/l	TM152		2.78 #	2.21 #	1.88 #	2.12 #	1 #	5.07 #
Lead (diss.filt)	<0.02 µg/l	TM152		0.179 #	0.084 #	0.107 #	0.028 #	0.586 #	0.195 #
Nickel (diss.filt)	<0.15 µg/l	TM152		4.17 #	3.32 #	3.06 #	1.12 #	3.64 #	3.5 #
Selenium (diss.filt)	<0.39 µg/l	TM152		1.29 #	0.676 #	0.765 #	1.02 #	0.422 #	1.77 #
Zinc (diss.filt)	<0.41 µg/l	TM152		2.7 #	2.87 #	1.83 #	1.15 #	2.46 #	6.84 #
Mercury (diss.filt)	<0.01 µg/l	TM183		<0.01 #	<0.01 #	<0.01 #	<0.01 #	<0.01 #	<0.01 #
Sulphate	<2 mg/l	TM184		487 #	300 #	203 #	207 #	<2 #	55.3 #
Cyanide, Total	<0.05 mg/l	TM227		0.885 #	0.267 #	0.228 #	<0.05 #	<0.05 #	0.108 #
Chromium, Hexavalent	<0.03 mg/l	TM241		<0.03 #	<0.03 #	<0.03 #	<0.03 #	<0.03 #	<0.03 #
pH	<1 pH Units	TM256		8.03 #	7.97 #	8.19 #	8.22 #	7.09 #	7.44 #
Resorcinol	<0.01 mg/l	TM259		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Catechol	<0.01 mg/l	TM259		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Phenol	<0.002 mg/l	TM259		<0.002 #	0.06 #	0.03 #	0.02 #	0.11 #	<0.002 #
Cresols	<0.006 mg/l	TM259		0.45 #	<0.006 #	0.01 #	<0.006 #	0.12 #	<0.006 #
Xylenols	<0.008 mg/l	TM259		0.63 #	<0.008 #	<0.008 #	<0.008 #	<0.008 #	<0.008 #
1-Naphthol	<0.01 mg/l	TM259		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
2,3,5-Trimethylphenol	<0.003 mg/l	TM259		<0.003 #	<0.003 #	<0.003 #	<0.003 #	<0.003 #	<0.003 #
2-Isopropylphenol	<0.006 mg/l	TM259		<0.006 #	<0.006 #	<0.006 #	<0.006 #	<0.006 #	<0.006 #
Phenols, Total Detected 5 speciated	<0.025 mg/l	TM259		1.08	0.06	0.04	<0.025	0.23	<0.025

CERTIFICATE OF ANALYSIS

SDG:	121026-141	**Location:**	Limerick	**Order Number:**	4500103453
Job:	H_MOUCH_LIV-1	**Customer:**	Mouchel	**Report Number:**	201074
Client Reference:	1034973	**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	C7	C11	D1	D5	E8	F11
Customer Sample Ref.								
Depth (m)			4.00 - 5.00	1.00 - 2.00	3.00 - 4.00	1.50 - 2.00	1.00 - 2.00	3.00 - 4.00
Sample Type			Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
Date Sampled			24/10/2012	24/10/2012	24/10/2012	24/10/2012	24/10/2012	24/10/2012
Sample Time			.	.	.	.	.	.
Date Received			26/10/2012	26/10/2012	26/10/2012	26/10/2012	26/10/2012	26/10/2012
SDG Ref			121026-141	121026-141	121026-141	121026-141	121026-141	121026-141
Lab Sample No.(s)			6408342	6408365	6408374	6408346	6408347	6408366
AGS Reference								
Ammoniacal Nitrogen as N	<0.2 mg/l	TM099	84.9 #	5.95 #	11.7 #	20.6 #	34.4 #	27.1 #
Ammoniacal Nitrogen as NH4	<0.3 mg/l	TM099	109 #	7.65 #	15 #	26.5 #	44.2 #	34.8 #
Sulphide	<0.01 mg/l	TM101	0.015 #	<0.01 #	44.4 § #	0.015 #	<0.01 #	0.354 #
Arsenic (diss.filt)	<0.12 µg/l	TM152	22.6 #	8.72 #	10.2 #	5.15 #	104 #	14.9 #
Cadmium (diss.filt)	<0.1 µg/l	TM152	<0.1 #	<0.1 #	<0.1 #	<0.1 #	0.169 #	<0.1 #
Chromium (diss.filt)	<0.22 µg/l	TM152	4.83 #	2.85 #	3.92 #	2.7 #	6.27 #	3.11 #
Copper (diss.filt)	<0.85 µg/l	TM152	1.68 #	1.04 #	3.46 #	1.37 #	4.57 #	<0.85 #
Lead (diss.filt)	<0.02 µg/l	TM152	0.116 #	0.134 #	0.041 #	0.159 #	0.219 #	0.205 #
Nickel (diss.filt)	<0.15 µg/l	TM152	3.25 #	2.99 #	3.16 #	2.04 #	22.5 #	2.27 #
Selenium (diss.filt)	<0.39 µg/l	TM152	16.7 #	0.783 #	2.01 #	1.63 #	10.5 #	0.804 #
Zinc (diss.filt)	<0.41 µg/l	TM152	1.31 #	1.3 #	2.09 #	1.6 #	15.5 #	1.3 #
Mercury (diss.filt)	<0.01 µg/l	TM183	0.0345 #	<0.01 #	<0.01 #	<0.01 #	0.0102 #	<0.01 #
Sulphate	<2 mg/l	TM184	41.7 #	117 #	421 #	23.2 #	257 #	<2 #
Cyanide, Total	<0.05 mg/l	TM227	0.536 #	0.094 #	1.06 #	<0.05 #	4.67 #	0.064 #
Chromium, Hexavalent	<0.03 mg/l	TM241	<0.03 #	<0.03 #	<0.03 #	<0.03 #	<0.03 #	<0.03 #
pH	<1 pH Units	TM256	8.69 #	7.3 #	7.83 #	7.54 #	8.37 #	7.06 #
Resorcinol	<0.01 mg/l	TM259	<0.1	<0.01	<0.02	<0.01	<0.05	<0.01
Catechol	<0.01 mg/l	TM259	1.11	<0.01	<0.02	<0.01	0.15	<0.01
Phenol	<0.002 mg/l	TM259	31.2 #	<0.002 #	<0.004 #	0.6 #	23.6 #	0.63 #
Cresols	<0.006 mg/l	TM259	79.4 #	0.45 #	<0.012 #	<0.006 #	40.4 #	1.84 #
Xylenols	<0.008 mg/l	TM259	89.5 #	1.16 #	<0.016 #	2.27 #	31.8 #	2.17 #
1-Naphthol	<0.01 mg/l	TM259	<0.1	<0.01	<0.02	<0.01	<0.05	<0.01
2,3,5-Trimethylphenol	<0.003 mg/l	TM259	<0.03 #	<0.003 #	<0.006 #	<0.003 #	<0.015 #	<0.003 #
2-Isopropylphenol	<0.006 mg/l	TM259	30.5 #	0.85 #	<0.012 #	<0.006 #	8.35 #	1.26 #
Phenols, Total Detected 5 speciated	<0.025 mg/l	TM259	231	2.46	<0.025	2.87	104	5.9

CERTIFICATE OF ANALYSIS

SDG:	121026-141	**Location:**	Limerick	**Order Number:**	4500103453
Job:	H_MOUCH_LIV-1	**Customer:**	Mouchel	**Report Number:**	201074
Client Reference:	1034973	**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 Ref.	G2	G3	G4	G5	G8	H12
			Depth (m)	4.00 - 5.00	4.00	3.00 - 4.00	2.00 - 3.00	1.00 - 2.00	2.00 - 3.00
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	24/10/2012	24/10/2012	24/10/2012	24/10/2012	24/10/2012	24/10/2012
			Sample Time	.	.	.	.	.	.
			Date Received	26/10/2012	26/10/2012	26/10/2012	26/10/2012	26/10/2012	26/10/2012
			SDG Ref	121026-141	121026-141	121026-141	121026-141	121026-141	121026-141
			Lab Sample No.(s)	6408377	6408378	6408380	6408381	6408349	6408367
			AGS Reference						
Ammoniacal Nitrogen as N	<0.2 mg/l	TM099		65.1 #	8.64 #	1.78 #	0.796 #	2.28 #	16.2 #
Ammoniacal Nitrogen as NH4	<0.3 mg/l	TM099		83.7 #	11.1 #	2.29 #	1.02 #	2.93 #	20.8 #
Sulphide	<0.01 mg/l	TM101		0.013 #	<0.01 #	<0.01 #	0.016 #	<0.01 #	<0.01 #
Arsenic (diss.filt)	<0.12 µg/l	TM152		30.7 #	4.95 #	1.72 #	1.35 #	4.59 #	3.28 #
Cadmium (diss.filt)	<0.1 µg/l	TM152		<0.1 #	<0.1 #	<0.1 #	<0.1 #	<0.1 #	<0.1 #
Chromium (diss.filt)	<0.22 µg/l	TM152		6.46 #	2.87 #	1.56 #	5.71 #	2.13 #	3.35 #
Copper (diss.filt)	<0.85 µg/l	TM152		1.45 #	5.2 #	7.2 #	5.6 #	2.02 #	1.22 #
Lead (diss.filt)	<0.02 µg/l	TM152		0.077 #	0.235 #	0.228 #	0.063 #	0.122 #	0.461 #
Nickel (diss.filt)	<0.15 µg/l	TM152		2.5 #	7.63 #	6.84 #	10.4 #	3.46 #	2.35 #
Selenium (diss.filt)	<0.39 µg/l	TM152		4.12 #	3.63 #	2.37 #	11.7 #	0.988 #	0.802 #
Zinc (diss.filt)	<0.41 µg/l	TM152		3.98 #	3.34 #	5.76 #	3.12 #	1.87 #	5.16 #
Mercury (diss.filt)	<0.01 µg/l	TM183		<0.01 #	<0.01 #	<0.01 #	<0.01 #	<0.01 #	<0.01 #
Sulphate	<2 mg/l	TM184		119 #	918 #	127 #	629 #	87.1 #	153 #
Cyanide, Total	<0.05 mg/l	TM227		0.163 #	3.85 #	0.172 #	2.77 #	0.091 #	<0.05 #
Chromium, Hexavalent	<0.03 mg/l	TM241		<0.03 #	<0.03 #	<0.03 #	<0.03 #	<0.03 #	<0.03 #
pH	<1 pH Units	TM256		7.38 #	7.75 #	7.67 #	7.7 #	8 #	7.9 #
Resorcinol	<0.01 mg/l	TM259		<0.01	<0.01	0.02	<0.01	<0.01	<0.01
Catechol	<0.01 mg/l	TM259		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Phenol	<0.002 mg/l	TM259		1.54 #	0.08 #	<0.002 #	<0.002 #	0.03 #	<0.002 #
Cresols	<0.006 mg/l	TM259		2.47 #	0.28 #	0.01 #	<0.006 #	0.05 #	<0.006 #
Xylenols	<0.008 mg/l	TM259		2.43 #	1.16 #	0.05 #	<0.008 #	0.1 #	<0.008 #
1-Naphthol	<0.01 mg/l	TM259		<0.01	<0.01	0.01	<0.01	<0.01	<0.01
2,3,5-Trimethylphenol	<0.003 mg/l	TM259		<0.003 #	<0.003 #	<0.003 #	<0.003 #	<0.003 #	<0.003 #
2-Isopropylphenol	<0.006 mg/l	TM259		<0.006 #	0.45 #	0.06 #	<0.006 #	<0.006 #	<0.006 #
Phenols, Total Detected 5 speciated	<0.025 mg/l	TM259		6.44	1.97	0.12	<0.025	0.18	<0.025

CERTIFICATE OF ANALYSIS

SDG:	121026-141	**Location:**	Limerick	**Order Number:**	4500103453
Job:	H_MOUCH_LIV-1	**Customer:**	Mouchel	**Report Number:**	201074
Client Reference:	1034973	**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 Ref.	J10	K1	K5	M3		
			Depth (m)	1.00 - 2.00	2.50 - 3.50	1.00 - 2.00	4.00 - 5.00		
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)		
			Date Sampled	24/10/2012	24/10/2012	24/10/2012	24/10/2012		
			Sample Time	.	.	.	.		
			Date Received	26/10/2012	26/10/2012	26/10/2012	26/10/2012		
			SDG Ref	121026-141	121026-141	121026-141	121026-141		
			Lab Sample No.(s)	6408368	6408369	6408371	6408373		
			AGS Reference						
Ammoniacal Nitrogen as N	<0.2 mg/l	TM099		0.333 #	1.96 #	20.3 #	1.06 #		
Ammoniacal Nitrogen as NH4	<0.3 mg/l	TM099		0.428 #	2.52 #	26.1 #	1.36 #		
Sulphide	<0.01 mg/l	TM101		<0.01 #	<0.01 #	<0.01 #	<0.01 #		
Arsenic (diss.filt)	<0.12 µg/l	TM152		1.69 #	2.95 #	27.8 #	3.15 #		
Cadmium (diss.filt)	<0.1 µg/l	TM152		<0.1 #	<0.1 #	<0.1 #	<0.1 #		
Chromium (diss.filt)	<0.22 µg/l	TM152		3.37 #	2.2 #	4.57 #	1.06 #		
Copper (diss.filt)	<0.85 µg/l	TM152		3.42 #	3.29 #	1.45 #	5.94 #		
Lead (diss.filt)	<0.02 µg/l	TM152		0.083 #	0.556 #	0.256 #	0.101 #		
Nickel (diss.filt)	<0.15 µg/l	TM152		5.7 #	6.21 #	6.83 #	3.25 #		
Selenium (diss.filt)	<0.39 µg/l	TM152		1.38 #	6.13 #	9.39 #	0.892 #		
Zinc (diss.filt)	<0.41 µg/l	TM152		1.68 #	4.11 #	2.47 #	2.22 #		
Mercury (diss.filt)	<0.01 µg/l	TM183		<0.01 #	<0.01 #	0.0173 #	<0.01 #		
Sulphate	<2 mg/l	TM184		32.3 #	659 #	131 #	552 #		
Cyanide, Total	<0.05 mg/l	TM227		<0.05 #	1.44 #	0.496 #	1.22 #		
Chromium, Hexavalent	<0.03 mg/l	TM241		<0.03 #	<0.03 #	<0.03 #	<0.03 #		
pH	<1 pH Units	TM256		7.61 #	7.58 #	7.4 #	7.73 #		
Resorcinol	<0.01 mg/l	TM259		<0.01	<0.01	<0.2	<0.01		
Catechol	<0.01 mg/l	TM259		<0.01	<0.01	0.94	<0.01		
Phenol	<0.002 mg/l	TM259		<0.002 #	0.01 #	57.8 #	0.09 #		
Cresols	<0.006 mg/l	TM259		<0.006 #	0.2 #	165 #	0.06 #		
Xylenols	<0.008 mg/l	TM259		<0.008 #	<0.008 #	181 #	<0.008 #		
1-Naphthol	<0.01 mg/l	TM259		<0.01	<0.01	<0.2	<0.01		
2,3,5-Trimethylphenol	<0.003 mg/l	TM259		<0.003 #	<0.003 #	<0.06 #	<0.003 #		
2-Isopropylphenol	<0.006 mg/l	TM259		<0.006 #	<0.006 #	43.2 #	<0.006 #		
Phenols, Total Detected 5 speciated	<0.025 mg/l	TM259		<0.025	0.21	447	0.15		

CERTIFICATE OF ANALYSIS

SDG:	121026-141	**Location:**	Limerick	**Order Number:**	4500103453
Job:	H_MOUCH_LIV-1	**Customer:**	Mouchel	**Report Number:**	201074
Client Reference:	1034973	**Attention:**	Neil Balderstone	**Superseded Report:**	

PAH Spec MS - Aqueous (W)

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 Ref.	A1	A3	A4	A9	A11	C2
			Depth (m)	3.00 - 4.00	2.00 - 3.00	2.00 - 3.00	2.00 - 2.50	1.50 - 2.00	1.50 - 2.50
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	24/10/2012	24/10/2012	24/10/2012	24/10/2012	24/10/2012	24/10/2012
			Sample Time	.	.	.	.	.	.
			Date Received	26/10/2012	26/10/2012	26/10/2012	26/10/2012	26/10/2012	26/10/2012
			SDG Ref	121026-141	121026-141	121026-141	121026-141	121026-141	121026-141
			Lab Sample No.(s)	6408350	6408353	6408355	6408341	6408358	6408356
			AGS Reference						
Naphthalene (aq)	<0.1 µg/l	TM178		<0.2 #	<0.2 #	<0.1 #	<0.1 #	1.61 #	0.213 #
Acenaphthene (aq)	<0.015 µg/l	TM178		<0.03 #	0.0311 #	0.0228 #	<0.015 #	0.44 #	0.154 #
Acenaphthylene (aq)	<0.011 µg/l	TM178		0.256 #	0.111 #	0.254 #	0.0711 #	3.92 #	0.198 #
Fluoranthene (aq)	<0.017 µg/l	TM178		1.43 #	0.077 #	0.483 #	0.41 #	17.2 #	7 #
Anthracene (aq)	<0.015 µg/l	TM178		0.146 #	0.075 #	0.103 #	0.0468 #	1.55 #	0.504 #
Phenanthrene (aq)	<0.022 µg/l	TM178		0.133 #	0.0991 #	0.133 #	0.149 #	4.31 #	2.17 #
Fluorene (aq)	<0.014 µg/l	TM178		0.0834 #	<0.028 #	0.0484 #	<0.014 #	1.25 #	0.102 #
Chrysene (aq)	<0.013 µg/l	TM178		0.0863 #	<0.026 #	0.365 #	0.313 #	13.2 #	4.11 #
Pyrene (aq)	<0.015 µg/l	TM178		2.11 #	0.351 #	0.451 #	0.378 #	16.2 #	6.14 #
Benzo(a)anthracene (aq)	<0.017 µg/l	TM178		0.0609 #	<0.034 #	0.28 #	0.284 #	11.4 #	3.73 #
Benzo(b)fluoranthene (aq)	<0.023 µg/l	TM178		<0.046 #	<0.046 #	0.873 #	0.502 #	20.7 #	4.75 #
Benzo(k)fluoranthene (aq)	<0.027 µg/l	TM178		<0.054 #	<0.054 #	0.696 #	0.435 #	19.5 #	3.96 #
Benzo(a)pyrene (aq)	<0.009 µg/l	TM178		0.0307 #	<0.018 #	0.873 #	0.458 #	22.8 #	4.54 #
Dibenzo(a,h)anthracene (aq)	<0.016 µg/l	TM178		<0.032 #	<0.032 #	0.145 #	0.0765 #	4.78 #	0.932 #
Benzo(g,h,i)perylene (aq)	<0.016 µg/l	TM178		<0.032 #	<0.032 #	0.566 #	0.346 #	17.7 #	2.78 #
Indeno(1,2,3-cd)pyrene (aq)	<0.014 µg/l	TM178		<0.028 #	<0.028 #	0.499 #	0.275 #	15.5 #	2.48 #
PAH, Total Detected USEPA 16 (aq)	<0.247 µg/l	TM178		4.62	0.941	5.79	3.74	172	43.7

CERTIFICATE OF ANALYSIS

SDG:	121026-141	**Location:**	Limerick	**Order Number:**	4500103453
Job:	H_MOUCH_LIV-1	**Customer:**	Mouchel	**Report Number:**	201074
Client Reference:	1034973	**Attention:**	Neil Balderstone	**Superseded Report:**	

PAH Spec MS - Aqueous (W)

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 Ref.	C7	C11	D1	D5	E8	F11
			Depth (m)	4.00 - 5.00	1.00 - 2.00	3.00 - 4.00	1.50 - 2.00	1.00 - 2.00	3.00 - 4.00
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	24/10/2012	24/10/2012	24/10/2012	24/10/2012	24/10/2012	24/10/2012
			Sample Time	.	.	.	.	.	.
			Date Received	26/10/2012	26/10/2012	26/10/2012	26/10/2012	26/10/2012	26/10/2012
			SDG Ref	121026-141	121026-141	121026-141	121026-141	121026-141	121026-141
			Lab Sample No.(s)	6408342	6408365	6408374	6408346	6408347	6408366
			AGS Reference						
Naphthalene (aq)	<0.1 µg/l	TM178		32200 #	0.342 #	113 #	8.73 #	996 #	11.4 #
Acenaphthene (aq)	<0.015 µg/l	TM178		982 #	0.259 #	235 #	1.53 #	11.7 #	1.77 #
Acenaphthylene (aq)	<0.011 µg/l	TM178		4900 #	1.57 #	278 #	18.8 #	77.6 #	4.96 #
Fluoranthene (aq)	<0.017 µg/l	TM178		13400 #	3.15 #	224 #	83.9 #	7.34 #	5.03 #
Anthracene (aq)	<0.015 µg/l	TM178		5710 #	0.389 #	108 #	6.6 #	8.02 #	1.1 #
Phenanthrene (aq)	<0.022 µg/l	TM178		18500 #	0.871 #	278 #	19.9 #	28.4 #	2.79 #
Fluorene (aq)	<0.014 µg/l	TM178		5400 #	0.256 #	178 #	4.17 #	26.8 #	1.65 #
Chrysene (aq)	<0.013 µg/l	TM178		3880 #	1.54 #	39.7 #	46.1 #	1.17 #	3.42 #
Pyrene (aq)	<0.015 µg/l	TM178		9100 #	2.79 #	177 #	67.6 #	4.62 #	4.18 #
Benzo(a)anthracene (aq)	<0.017 µg/l	TM178		4290 #	1.44 #	46.2 #	35.9 #	1.29 #	2.92 #
Benzo(b)fluoranthene (aq)	<0.023 µg/l	TM178		3190 #	3.12 #	22.6 #	56.1 #	0.918 #	4.06 #
Benzo(k)fluoranthene (aq)	<0.027 µg/l	TM178		2740 #	2.59 #	23.3 #	54.5 #	0.987 #	4.4 #
Benzo(a)pyrene (aq)	<0.009 µg/l	TM178		3240 #	3.38 #	25.9 #	56.6 #	1.12 #	4.87 #
Dibenzo(a,h)anthracene (aq)	<0.016 µg/l	TM178		411 #	0.819 #	3.7 #	14.4 #	<0.4 #	1.64 #
Benzo(g,h,i)perylene (aq)	<0.016 µg/l	TM178		1540 #	2.81 #	20.4 #	46.7 #	0.985 #	5.18 #
Indeno(1,2,3-cd)pyrene (aq)	<0.014 µg/l	TM178		1410 #	2.59 #	17 #	41.2 #	0.799 #	4.13 #
PAH, Total Detected USEPA 16 (aq)	<0.247 µg/l	TM178		111000	27.9	1790	563	1170	63.5

CERTIFICATE OF ANALYSIS

SDG:	121026-141	**Location:**	Limerick	**Order Number:**	4500103453
Job:	H_MOUCH_LIV-1	**Customer:**	Mouchel	**Report Number:**	201074
Client Reference:	1034973	**Attention:**	Neil Balderstone	**Superseded Report:**	

PAH Spec MS - Aqueous (W)

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 Ref.	G2	G3	G4	G5	G8	H12
			Depth (m)	4.00 - 5.00	4.00	3.00 - 4.00	2.00 - 3.00	1.00 - 2.00	2.00 - 3.00
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	24/10/2012	24/10/2012	24/10/2012	24/10/2012	24/10/2012	24/10/2012
			Sample Time	.	.	.	.	.	.
			Date Received	26/10/2012	26/10/2012	26/10/2012	26/10/2012	26/10/2012	26/10/2012
			SDG Ref	121026-141	121026-141	121026-141	121026-141	121026-141	121026-141
			Lab Sample No.(s)	6408377	6408378	6408380	6408381	6408349	6408367
			AGS Reference						
Naphthalene (aq)	<0.1 µg/l	TM178		0.271 #	0.522 #	0.364 #	<0.1 #	0.269 #	0.102 #
Acenaphthene (aq)	<0.015 µg/l	TM178		0.0476 #	0.493 #	4.48 #	0.0282 #	0.0307 #	0.0408 #
Acenaphthylene (aq)	<0.011 µg/l	TM178		0.142 #	1.66 #	1.9 #	0.921 #	0.321 #	0.194 #
Fluoranthene (aq)	<0.017 µg/l	TM178		0.515 #	8.34 #	7.73 #	2.13 #	1.02 #	1.06 #
Anthracene (aq)	<0.015 µg/l	TM178		0.199 #	0.767 #	1.23 #	0.168 #	0.433 #	0.0851 #
Phenanthrene (aq)	<0.022 µg/l	TM178		0.19 #	2.37 #	0.23 #	0.296 #	0.728 #	0.166 #
Fluorene (aq)	<0.014 µg/l	TM178		0.334 #	0.394 #	0.497 #	0.0816 #	0.165 #	0.0975 #
Chrysene (aq)	<0.013 µg/l	TM178		0.191 #	6.57 #	0.743 #	1.47 #	0.575 #	0.415 #
Pyrene (aq)	<0.015 µg/l	TM178		0.696 #	7.45 #	6.37 #	1.57 #	0.751 #	0.432 #
Benzo(a)anthracene (aq)	<0.017 µg/l	TM178		0.162 #	5.78 #	0.564 #	1.5 #	0.576 #	0.321 #
Benzo(b)fluoranthene (aq)	<0.023 µg/l	TM178		0.135 #	8.23 #	0.692 #	2.08 #	0.592 #	0.967 #
Benzo(k)fluoranthene (aq)	<0.027 µg/l	TM178		0.191 #	8.11 #	0.694 #	2.08 #	0.696 #	0.764 #
Benzo(a)pyrene (aq)	<0.009 µg/l	TM178		0.181 #	9.39 #	0.77 #	2.67 #	0.904 #	0.929 #
Dibenzo(a,h)anthracene (aq)	<0.016 µg/l	TM178		0.0376 #	2.69 #	0.0921 #	0.49 #	0.223 #	0.14 #
Benzo(g,h,i)perylene (aq)	<0.016 µg/l	TM178		0.194 #	8.54 #	0.349 #	1.84 #	0.803 #	0.579 #
Indeno(1,2,3-cd)pyrene (aq)	<0.014 µg/l	TM178		0.165 #	7.63 #	0.314 #	1.73 #	0.688 #	0.497 #
PAH, Total Detected USEPA 16 (aq)	<0.247 µg/l	TM178		3.65	78.9	27	19	8.78	6.79

CERTIFICATE OF ANALYSIS

SDG:	121026-141	**Location:**	Limerick	**Order Number:**	4500103453
Job:	H_MOUCH_LIV-1	**Customer:**	Mouchel	**Report Number:**	201074
Client Reference:	1034973	**Attention:**	Neil Balderstone	**Superseded Report:**	

PAH Spec MS - Aqueous (W)

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 Ref.	J10	K1	K5	M3		
			Depth (m)	1.00 - 2.00	2.50 - 3.50	1.00 - 2.00	4.00 - 5.00		
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)		
			Date Sampled	24/10/2012	24/10/2012	24/10/2012	24/10/2012		
			Sample Time	.	.	.	.		
			Date Received	26/10/2012	26/10/2012	26/10/2012	26/10/2012		
			SDG Ref	121026-141	121026-141	121026-141	121026-141		
			Lab Sample No.(s)	6408368	6408369	6408371	6408373		
			AGS Reference						
Naphthalene (aq)	<0.1 µg/l	TM178		<0.1 #	0.232 #	5550 #	0.107 #		
Acenaphthene (aq)	<0.015 µg/l	TM178		<0.015 #	0.0669 #	83.9 #	<0.015 #		
Acenaphthylene (aq)	<0.011 µg/l	TM178		0.346 #	0.223 #	478 #	0.031 #		
Fluoranthene (aq)	<0.017 µg/l	TM178		0.579 #	3.15 #	260 #	0.281 #		
Anthracene (aq)	<0.015 µg/l	TM178		0.0757 #	0.357 #	149 #	0.0286 #		
Phenanthrene (aq)	<0.022 µg/l	TM178		0.13 #	1.01 #	470 #	0.0576 #		
Fluorene (aq)	<0.014 µg/l	TM178		0.0424 #	0.161 #	218 #	<0.014 #		
Chrysene (aq)	<0.013 µg/l	TM178		0.689 #	2.26 #	80.5 #	0.226 #		
Pyrene (aq)	<0.015 µg/l	TM178		0.471 #	3.11 #	181 #	0.239 #		
Benzo(a)anthracene (aq)	<0.017 µg/l	TM178		0.833 #	2.19 #	71 #	0.198 #		
Benzo(b)fluoranthene (aq)	<0.023 µg/l	TM178		1.24 #	3.45 #	68.4 #	0.4 #		
Benzo(k)fluoranthene (aq)	<0.027 µg/l	TM178		1.37 #	3.64 #	63.4 #	0.266 #		
Benzo(a)pyrene (aq)	<0.009 µg/l	TM178		1.66 #	4.21 #	59.6 #	0.307 #		
Dibenzo(a,h)anthracene (aq)	<0.016 µg/l	TM178		0.33 #	1.48 #	<16 #	0.058 #		
Benzo(g,h,i)perylene (aq)	<0.016 µg/l	TM178		0.955 #	5.68 #	34 #	0.308 #		
Indeno(1,2,3-cd)pyrene (aq)	<0.014 µg/l	TM178		0.89 #	4.57 #	29.2 #	0.223 #		
PAH, Total Detected USEPA 16 (aq)	<0.247 µg/l	TM178		9.6	35.8	7810	2.73		

CERTIFICATE OF ANALYSIS

SDG:	121026-141	**Location:**	Limerick	**Order Number:**	4500103453
Job:	H_MOUCH_LIV-1	**Customer:**	Mouchel	**Report Number:**	201074
Client Reference:	1034973	**Attention:**	Neil Balderstone	**Superseded Report:**	

TPH CWG (W)

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 Ref.	A1	A3	A4	A9	A11	C2
			Depth (m)	3.00 - 4.00	2.00 - 3.00	2.00 - 3.00	2.00 - 2.50	1.50 - 2.00	1.50 - 2.50
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	24/10/2012	24/10/2012	24/10/2012	24/10/2012	24/10/2012	24/10/2012
			Sample Time	.	.	.	.	.	.
			Date Received	26/10/2012	26/10/2012	26/10/2012	26/10/2012	26/10/2012	26/10/2012
			SDG Ref	121026-141	121026-141	121026-141	121026-141	121026-141	121026-141
			Lab Sample No.(s)	6408350	6408353	6408355	6408341	6408358	6408356
			AGS Reference						
GRO Surrogate % recovery**	%	TM245		102	96	95	95	97	104
GRO >C5-C12	<50 µg/l	TM245		829 #	59 #	2640 #	<50 #	263 #	148 #
Methyl tertiary butyl ether (MTBE)	<3 µg/l	TM245		<3 #	<3 #	<3 #	<3 #	<3 #	<3 #
Benzene	<7 µg/l	TM245		<7 #	<7 #	445 #	<7 #	<7 #	<7 #
Toluene	<4 µg/l	TM245		<4 #	<4 #	53 #	<4 #	32 #	<4 #
Ethylbenzene	<5 µg/l	TM245		<5 #	<5 #	112 #	<5 #	<5 #	<5 #
m,p-Xylene	<8 µg/l	TM245		19 #	<8 #	75 #	<8 #	13 #	<8 #
o-Xylene	<3 µg/l	TM245		7 #	<3 #	97 #	<3 #	7 #	<3 #
Sum of detected Xylenes	<11 µg/l	TM245		26	<11	172	<11	20	<11
Sum of detected BTEX	<28 µg/l	TM245		<28	<28	782	<28	52	<28
Aliphatics >C5-C6	<10 µg/l	TM245		<10	<10	<10	<10	<10	<10
Aliphatics >C6-C8	<10 µg/l	TM245		55	12	68	<10	<10	<10
Aliphatics >C8-C10	<10 µg/l	TM245		97	<10	201	<10	25	19
Aliphatics >C10-C12	<10 µg/l	TM245		345	15	870	<10	92	66
Aliphatics >C12-C16 (aq)	<10 µg/l	TM174		<10	<10	22	<10	10	58
Aliphatics >C16-C21 (aq)	<10 µg/l	TM174		<10	<10	37	<10	53	45
Aliphatics >C21-C35 (aq)	<10 µg/l	TM174		<10	<10	<10	<10	343	<10
Total Aliphatics >C12-C35 (aq)	<10 µg/l	TM174		<10	<10	59	<10	406	103
Aromatics >EC5-EC7	<10 µg/l	TM245		<10	<10	445	<10	<10	<10
Aromatics >EC7-EC8	<10 µg/l	TM245		<10	<10	53	<10	32	<10
Aromatics >EC8-EC10	<10 µg/l	TM245		91	<10	418	<10	39	13
Aromatics >EC10-EC12	<10 µg/l	TM245		230	10	580	<10	62	44
Aromatics >EC12-EC16 (aq)	<10 µg/l	TM174		253	219	23	<10	24	18
Aromatics >EC16-EC21 (aq)	<10 µg/l	TM174		219	173	21	<10	126	79
Aromatics >EC21-EC35 (aq)	<10 µg/l	TM174		112	33	12	<10	922	183
Total Aromatics >EC12-EC35 (aq)	<10 µg/l	TM174		584	425	56	<10	1070	280
Total Aliphatics & Aromatics >C5-35 (aq)	<10 µg/l	TM174		1410	483	2760	<10	1740	532

CERTIFICATE OF ANALYSIS

SDG:	121026-141	**Location:**	Limerick	**Order Number:**	4500103453
Job:	H_MOUCH_LIV-1	**Customer:**	Mouchel	**Report Number:**	201074
Client Reference:	1034973	**Attention:**	Neil Balderstone	**Superseded Report:**	

TPH CWG (W)

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 Ref.	C7	C11	D1	D5	E8	F11
			Depth (m)	4.00 - 5.00	1.00 - 2.00	3.00 - 4.00	1.50 - 2.00	1.00 - 2.00	3.00 - 4.00
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	24/10/2012	24/10/2012	24/10/2012	24/10/2012	24/10/2012	24/10/2012
			Sample Time	.	.	.	.	.	.
			Date Received	26/10/2012	26/10/2012	26/10/2012	26/10/2012	26/10/2012	26/10/2012
			SDG Ref	121026-141	121026-141	121026-141	121026-141	121026-141	121026-141
			Lab Sample No.(s)	6408342	6408365	6408374	6408346	6408347	6408366
			AGS Reference						
GRO Surrogate % recovery**	%	TM245		87	100	77	102	110	101
GRO >C5-C12	<50 µg/l	TM245		113000 #	4760 #	8000 #	1890 #	11400 #	2170 #
Methyl tertiary butyl ether (MTBE)	<3 µg/l	TM245		<15 #	<3 #	<3 #	<3 #	<6 #	<3 #
Benzene	<7 µg/l	TM245		24200 #	78 #	502 #	678 #	4300 #	530 #
Toluene	<4 µg/l	TM245		12700 #	62 #	269 #	116 #	1240 #	392 #
Ethylbenzene	<5 µg/l	TM245		750 #	75 #	181 #	49 #	56 #	29 #
m,p-Xylene	<8 µg/l	TM245		5880 #	217 #	538 #	75 #	447 #	116 #
o-Xylene	<3 µg/l	TM245		2040 #	145 #	286 #	82 #	188 #	65 #
Sum of detected Xylenes	<11 µg/l	TM245		7920	362	824	157	635	181
Sum of detected BTEX	<28 µg/l	TM245		45600	577	1780	1000	6230	1130
Aliphatics >C5-C6	<10 µg/l	TM245		218	<10	14	<10	43	<10
Aliphatics >C6-C8	<10 µg/l	TM245		3350	44	182	26	321	36
Aliphatics >C8-C10	<10 µg/l	TM245		9800	457	752	106	589	124
Aliphatics >C10-C12	<10 µg/l	TM245		28500	2020	2870	410	2300	471
Aliphatics >C12-C16 (aq)	<10 µg/l	TM174		9630	168	233	19	<10	11
Aliphatics >C16-C21 (aq)	<10 µg/l	TM174		7130	99	363	94	<10	29
Aliphatics >C21-C35 (aq)	<10 µg/l	TM174		7770	27	182	463	<10	976
Total Aliphatics >C12-C35 (aq)	<10 µg/l	TM174		24500	294	778	576	<10	1020
Aromatics >EC5-EC7	<10 µg/l	TM245		24200	78	502	678	4300	530
Aromatics >EC7-EC8	<10 µg/l	TM245		12700	62	269	116	1240	392
Aromatics >EC8-EC10	<10 µg/l	TM245		15200	742	1510	276	1080	293
Aromatics >EC10-EC12	<10 µg/l	TM245		19000	1350	1910	273	1530	314
Aromatics >EC12-EC16 (aq)	<10 µg/l	TM174		64700	208	2310	73	3700	1150
Aromatics >EC16-EC21 (aq)	<10 µg/l	TM174		77000	235	1590	291	321	110
Aromatics >EC21-EC35 (aq)	<10 µg/l	TM174		84900	354	851	1420	67	1760
Total Aromatics >EC12-EC35 (aq)	<10 µg/l	TM174		227000	797	4750	1790	4090	3020
Total Aliphatics & Aromatics >C5-35 (aq)	<10 µg/l	TM174		364000	5850	13500	4260	15500	6200

CERTIFICATE OF ANALYSIS

SDG:	121026-141	**Location:**	Limerick	**Order Number:**	4500103453
Job:	H_MOUCH_LIV-1	**Customer:**	Mouchel	**Report Number:**	201074
Client Reference:	1034973	**Attention:**	Neil Balderstone	**Superseded Report:**	

TPH CWG (W)

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 Ref.	G2	G3	G4	G5	G8	H12
			Depth (m)	4.00 - 5.00	4.00	3.00 - 4.00	2.00 - 3.00	1.00 - 2.00	2.00 - 3.00
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	24/10/2012	24/10/2012	24/10/2012	24/10/2012	24/10/2012	24/10/2012
			Sample Time	.	.	.	.	.	.
			Date Received	26/10/2012	26/10/2012	26/10/2012	26/10/2012	26/10/2012	26/10/2012
			SDG Ref	121026-141	121026-141	121026-141	121026-141	121026-141	121026-141
			Lab Sample No.(s)	6408377	6408378	6408380	6408381	6408349	6408367
			AGS Reference						
GRO Surrogate % recovery**	%	TM245		88	96	93	94	101	101
GRO >C5-C12	<50 µg/l	TM245		774 #	2410 #	3780 #	<50 #	<50 #	68 #
Methyl tertiary butyl ether (MTBE)	<3 µg/l	TM245		<3 #	<3 #	<3 #	<3 #	<3 #	<3 #
Benzene	<7 µg/l	TM245		157 #	712 #	295 #	<7 #	<7 #	<7 #
Toluene	<4 µg/l	TM245		85 #	72 #	252 #	<4 #	<4 #	<4 #
Ethylbenzene	<5 µg/l	TM245		15 #	81 #	<5 #	<5 #	<5 #	<5 #
m,p-Xylene	<8 µg/l	TM245		50 #	145 #	705 #	<8 #	<8 #	<8 #
o-Xylene	<3 µg/l	TM245		34 #	141 #	269 #	<3 #	<3 #	<3 #
Sum of detected Xylenes	<11 µg/l	TM245		84	286	974	<11	<11	<11
Sum of detected BTEX	<28 µg/l	TM245		341	1150	1520	<28	<28	<28
Aliphatics >C5-C6	<10 µg/l	TM245		<10	<10	16	<10	<10	<10
Aliphatics >C6-C8	<10 µg/l	TM245		18	68	76	<10	<10	<10
Aliphatics >C8-C10	<10 µg/l	TM245		55	196	394	<10	<10	12
Aliphatics >C10-C12	<10 µg/l	TM245		192	515	905	<10	<10	23
Aliphatics >C12-C16 (aq)	<10 µg/l	TM174		<10	<10	29	<10	<10	<10
Aliphatics >C16-C21 (aq)	<10 µg/l	TM174		<10	<10	37	<10	<10	<10
Aliphatics >C21-C35 (aq)	<10 µg/l	TM174		<10	<10	50	<10	<10	<10
Total Aliphatics >C12-C35 (aq)	<10 µg/l	TM174		<10	<10	116	<10	<10	<10
Aromatics >EC5-EC7	<10 µg/l	TM245		157	712	295	<10	<10	<10
Aromatics >EC7-EC8	<10 µg/l	TM245		85	72	252	<10	<10	<10
Aromatics >EC8-EC10	<10 µg/l	TM245		136	497	1240	<10	<10	<10
Aromatics >EC10-EC12	<10 µg/l	TM245		128	343	603	<10	<10	15
Aromatics >EC12-EC16 (aq)	<10 µg/l	TM174		276	70	238	<10	<10	<10
Aromatics >EC16-EC21 (aq)	<10 µg/l	TM174		49	77	324	<10	<10	<10
Aromatics >EC21-EC35 (aq)	<10 µg/l	TM174		<10	230	744	52	14	<10
Total Aromatics >EC12-EC35 (aq)	<10 µg/l	TM174		325	377	1310	52	14	<10
Total Aliphatics & Aromatics >C5-35 (aq)	<10 µg/l	TM174		1100	2790	5200	53	16	68

CERTIFICATE OF ANALYSIS

SDG:	121026-141	**Location:**	Limerick	**Order Number:**	4500103453
Job:	H_MOUCH_LIV-1	**Customer:**	Mouchel	**Report Number:**	201074
Client Reference:	1034973	**Attention:**	Neil Balderstone	**Superseded Report:**	

TPH CWG (W)

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 Ref.	J10	K1	K5	M3		
			Depth (m)	1.00 - 2.00	2.50 - 3.50	1.00 - 2.00	4.00 - 5.00		
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)		
			Date Sampled	24/10/2012	24/10/2012	24/10/2012	24/10/2012		
			Sample Time	.	.	.	.		
			Date Received	26/10/2012	26/10/2012	26/10/2012	26/10/2012		
			SDG Ref	121026-141	121026-141	121026-141	121026-141		
			Lab Sample No.(s)	6408368	6408369	6408371	6408373		
			AGS Reference						
GRO Surrogate % recovery**	%	TM245		103	101	90	103		
GRO >C5-C12	<50 µg/l	TM245		<50 #	<50 #	50100 #	<50 #		
Methyl tertiary butyl ether (MTBE)	<3 µg/l	TM245		<3 #	<3 #	<15 #	<3 #		
Benzene	<7 µg/l	TM245		<7 #	<7 #	16200 #	<7 #		
Toluene	<4 µg/l	TM245		<4 #	<4 #	6240 #	<4 #		
Ethylbenzene	<5 µg/l	TM245		<5 #	<5 #	319 #	<5 #		
m,p-Xylene	<8 µg/l	TM245		<8 #	<8 #	2270 #	<8 #		
o-Xylene	<3 µg/l	TM245		<3 #	<3 #	714 #	<3 #		
Sum of detected Xylenes	<11 µg/l	TM245		<11	<11	2980	<11		
Sum of detected BTEX	<28 µg/l	TM245		<28	<28	25700	<28		
Aliphatics >C5-C6	<10 µg/l	TM245		<10	<10	158	<10		
Aliphatics >C6-C8	<10 µg/l	TM245		<10	<10	1490	<10		
Aliphatics >C8-C10	<10 µg/l	TM245		<10	<10	2740	<10		
Aliphatics >C10-C12	<10 µg/l	TM245		<10	<10	10900	<10		
Aliphatics >C12-C16 (aq)	<10 µg/l	TM174		<10	<10	335	<10		
Aliphatics >C16-C21 (aq)	<10 µg/l	TM174		<10	<10	281	<10		
Aliphatics >C21-C35 (aq)	<10 µg/l	TM174		<10	<10	339	<10		
Total Aliphatics >C12-C35 (aq)	<10 µg/l	TM174		<10	<10	955	<10		
Aromatics >EC5-EC7	<10 µg/l	TM245		<10	<10	16200	<10		
Aromatics >EC7-EC8	<10 µg/l	TM245		<10	<10	6240	<10		
Aromatics >EC8-EC10	<10 µg/l	TM245		<10	<10	5130	<10		
Aromatics >EC10-EC12	<10 µg/l	TM245		<10	<10	7280	<10		
Aromatics >EC12-EC16 (aq)	<10 µg/l	TM174		<10	<10	21400	<10		
Aromatics >EC16-EC21 (aq)	<10 µg/l	TM174		<10	<10	2790	<10		
Aromatics >EC21-EC35 (aq)	<10 µg/l	TM174		20	58	1800	<10		
Total Aromatics >EC12-EC35 (aq)	<10 µg/l	TM174		20	58	26000	<10		
Total Aliphatics & Aromatics >C5-35 (aq)	<10 µg/l	TM174		20	59	77100	<10		

CERTIFICATE OF ANALYSIS

SDG:	121026-141	**Location:**	Limerick	**Order Number:**	4500103453
Job:	H_MOUCH_LIV-1	**Customer:**	Mouchel	**Report Number:**	201074
Client Reference:	1034973	**Attention:**	Neil Balderstone	**Superseded Report:**	

VOC MS (W)

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 Ref.	A1	A3	A4	A11	C7	D1
			Depth (m)	3.00 - 4.00	2.00 - 3.00	2.00 - 3.00	1.50 - 2.00	4.00 - 5.00	3.00 - 4.00
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	24/10/2012	24/10/2012	24/10/2012	24/10/2012	24/10/2012	24/10/2012
			Sample Time	.	.	.	.	.	.
			Date Received	26/10/2012	26/10/2012	26/10/2012	26/10/2012	26/10/2012	26/10/2012
			SDG Ref	121026-141	121026-141	121026-141	121026-141	121026-141	121026-141
			Lab Sample No.(s)	6408350	6408353	6408355	6408358	6408342	6408374
			AGS Reference						
Dibromofluoromethane**	%	TM208		104	110	105	113	106	110
Toluene-d8**	%	TM208		98.1	98.1	98.4	98	96.8	96.1
4-Bromofluorobenzene**	%	TM208		97.8	101	104	100	82.9	85.9
Dichlorodifluoromethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Chloromethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Vinyl chloride	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Bromomethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Chloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Trichlorofluoromethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,1-Dichloroethene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Carbon disulphide	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	3.38 #
Dichloromethane	<3 µg/l	TM208		<3 #	<3 #	<3 #	<3 #	<3 #	<3 #
Methyl tertiary butyl ether (MTBE)	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
trans-1,2-Dichloroethene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,1-Dichloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
cis-1,2-Dichloroethene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2,2-Dichloropropane	<1 µg/l	TM208		<1	<1	<1	<1	<1	<1
Bromochloromethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Chloroform	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,1,1-Trichloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,1-Dichloropropene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Carbontetrachloride	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,2-Dichloroethane	<1 µg/l	TM208		<1	<1	<1	<1	<1	<1
Benzene	<1 µg/l	TM208		529 #	1.72 #	1.48 #	3.62 #	26700 #	867 #
Trichloroethene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,2-Dichloropropane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Dibromomethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Bromodichloromethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
cis-1,3-Dichloropropene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Toluene	<1 µg/l	TM208		62.9 #	<1 #	<1 #	36.6 #	11100 #	409 #
trans-1,3-Dichloropropene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,1,2-Trichloroethane	<1 µg/l	TM208		<1 #	1.42 #	<1 #	<1 #	<1 #	<1 #

CERTIFICATE OF ANALYSIS

SDG:	121026-141	**Location:**	Limerick	**Order Number:**	4500103453
Job:	H_MOUCH_LIV-1	**Customer:**	Mouchel	**Report Number:**	201074
Client Reference:	1034973	**Attention:**	Neil Balderstone	**Superseded Report:**	

VOC MS (W)

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 Ref.	A1	A3	A4	A11	C7	D1
			Depth (m)	3.00 - 4.00	2.00 - 3.00	2.00 - 3.00	1.50 - 2.00	4.00 - 5.00	3.00 - 4.00
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	24/10/2012	24/10/2012	24/10/2012	24/10/2012	24/10/2012	24/10/2012
			Sample Time	.	.	.	.	.	.
			Date Received	26/10/2012	26/10/2012	26/10/2012	26/10/2012	26/10/2012	26/10/2012
			SDG Ref	121026-141	121026-141	121026-141	121026-141	121026-141	121026-141
			Lab Sample No.(s)	6408350	6408353	6408355	6408358	6408342	6408374
			AGS Reference						
1,3-Dichloropropane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Tetrachloroethene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Dibromochloromethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,2-Dibromoethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Chlorobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 § #	<1 #
1,1,1,2-Tetrachloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Ethylbenzene	<1 µg/l	TM208		122 #	<1 #	<1 #	2.9 #	399 #	280 #
m,p-Xylene	<1 µg/l	TM208		82.9 #	18.6 #	<1 #	12.6 #	2940 #	861 #
o-Xylene	<1 µg/l	TM208		113 #	6.97 #	<1 #	6.24 #	1160 #	449 #
Styrene	<1 µg/l	TM208		<1 #	<1 #	<1 #	2.44 #	601 #	<1 #
Bromoform	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Isopropylbenzene	<1 µg/l	TM208		13.8 #	<1 #	<1 #	<1 #	16.9 #	32.6 #
1,1,2,2-Tetrachloroethane	<1 µg/l	TM208		<1	<1	<1	<1	<1	<1
1,2,3-Trichloropropane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Bromobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Propylbenzene	<1 µg/l	TM208		15.8 #	<1 #	<1 #	<1 #	23.4 #	44.2 #
2-Chlorotoluene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,3,5-Trimethylbenzene	<1 µg/l	TM208		8.42 #	1.88 #	<1 #	1.48 #	144 #	115 #
4-Chlorotoluene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
tert-Butylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,2,4-Trimethylbenzene	<1 µg/l	TM208		49.4 #	5.22 #	<1 #	3.52 #	347 #	349 #
sec-Butylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	4.36 #
4-iso-Propyltoluene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	55.5 #	15.5 #
1,3-Dichlorobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,4-Dichlorobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
n-Butylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,2-Dichlorobenzene	<1 µg/l	TM208		<1	<1	<1	<1	<1	<1
1,2-Dibromo-3-chloropropane	<1 µg/l	TM208		<1	<1	<1	<1	<1	<1
1,2,4-Trichlorobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Hexachlorobutadiene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
tert-Amyl methyl ether (TAME)	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Naphthalene	<1 µg/l	TM208		383 #	<1 #	<1 #	81.8 #	12700 #	5930 #

CERTIFICATE OF ANALYSIS

SDG:	121026-141	**Location:**	Limerick	**Order Number:**	4500103453
Job:	H_MOUCH_LIV-1	**Customer:**	Mouchel	**Report Number:**	201074
Client Reference:	1034973	**Attention:**	Neil Balderstone	**Superseded Report:**	

VOC MS (W)

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 Ref.	A1	A3	A4	A11	C7	D1
			Depth (m)	3.00 - 4.00	2.00 - 3.00	2.00 - 3.00	1.50 - 2.00	4.00 - 5.00	3.00 - 4.00
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	24/10/2012	24/10/2012	24/10/2012	24/10/2012	24/10/2012	24/10/2012
			Sample Time	.	.	.	.	.	.
			Date Received	26/10/2012	26/10/2012	26/10/2012	26/10/2012	26/10/2012	26/10/2012
			SDG Ref	121026-141	121026-141	121026-141	121026-141	121026-141	121026-141
			Lab Sample No.(s)	6408350	6408353	6408355	6408358	6408342	6408374
			AGS Reference						
1,2,3-Trichlorobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,3,5-Trichlorobenzene	<1 µg/l	TM208		<1	<1	<1	<1	<1	<1

CERTIFICATE OF ANALYSIS

SDG:	121026-141	**Location:**	Limerick	**Order Number:**	4500103453
Job:	H_MOUCH_LIV-1	**Customer:**	Mouchel	**Report Number:**	201074
Client Reference:	1034973	**Attention:**	Neil Balderstone	**Superseded Report:**	

VOC MS (W)

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 Ref.	G2	G4	G5	K5	M3
			Depth (m)	4.00 - 5.00	3.00 - 4.00	2.00 - 3.00	1.00 - 2.00	4.00 - 5.00
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	24/10/2012	24/10/2012	24/10/2012	24/10/2012	24/10/2012
			Sample Time	.	.	.	.	.
			Date Received	26/10/2012	26/10/2012	26/10/2012	26/10/2012	26/10/2012
			SDG Ref	121026-141	121026-141	121026-141	121026-141	121026-141
			Lab Sample No.(s)	6408377	6408380	6408381	6408371	6408373
			AGS Reference					
Dibromofluoromethane**	%	TM208		105	107	110	108	107
Toluene-d8**	%	TM208		100	101	102	99.6	99.9
4-Bromofluorobenzene**	%	TM208		101	101	101	99.4	99.9
Dichlorodifluoromethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<10 #	<1 #
Chloromethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<10 #	<1 #
Vinyl chloride	<1 µg/l	TM208		<1 #	<1 #	<1 #	<10 #	<1 #
Bromomethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<10 #	<1 #
Chloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<10 #	<1 #
Trichlorofluoromethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<10 #	<1 #
1,1-Dichloroethene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<10 #	<1 #
Carbon disulphide	<1 µg/l	TM208		<1 #	<1 #	<1 #	<10 #	<1 #
Dichloromethane	<3 µg/l	TM208		<3 #	<3 #	<3 #	<30 #	<3 #
Methyl tertiary butyl ether (MTBE)	<1 µg/l	TM208		<1 #	<1 #	<1 #	<10 #	<1 #
trans-1,2-Dichloroethene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<10 #	<1 #
1,1-Dichloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<10 #	<1 #
cis-1,2-Dichloroethene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<10 #	<1 #
2,2-Dichloropropane	<1 µg/l	TM208		<1	<1	<1	<10	<1
Bromochloromethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<10 #	<1 #
Chloroform	<1 µg/l	TM208		<1 #	<1 #	<1 #	<10 #	<1 #
1,1,1-Trichloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<10 #	<1 #
1,1-Dichloropropene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<10 #	<1 #
Carbontetrachloride	<1 µg/l	TM208		<1 #	<1 #	<1 #	<10 #	<1 #
1,2-Dichloroethane	<1 µg/l	TM208		<1	<1	<1	<10	<1
Benzene	<1 µg/l	TM208		181 #	348 #	<1 #	15900 #	<1 #
Trichloroethene	<1 µg/l	TM208		<1 #	<1 #	<1 #	11 #	<1 #
1,2-Dichloropropane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<10 #	<1 #
Dibromomethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<10 #	<1 #
Bromodichloromethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<10 #	<1 #
cis-1,3-Dichloropropene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<10 #	<1 #
Toluene	<1 µg/l	TM208		95.6 #	296 #	<1 #	6040 #	<1 #
trans-1,3-Dichloropropene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<10 #	<1 #
1,1,2-Trichloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<10 #	<1 #

CERTIFICATE OF ANALYSIS

SDG:	121026-141	**Location:**	Limerick	**Order Number:**	4500103453
Job:	H_MOUCH_LIV-1	**Customer:**	Mouchel	**Report Number:**	201074
Client Reference:	1034973	**Attention:**	Neil Balderstone	**Superseded Report:**	

VOC MS (W)

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 Ref.	G2	G4	G5	K5	M3
			Depth (m)	4.00 - 5.00	3.00 - 4.00	2.00 - 3.00	1.00 - 2.00	4.00 - 5.00
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	24/10/2012	24/10/2012	24/10/2012	24/10/2012	24/10/2012
			Sample Time	.	.	.	.	.
			Date Received	26/10/2012	26/10/2012	26/10/2012	26/10/2012	26/10/2012
			SDG Ref	121026-141	121026-141	121026-141	121026-141	121026-141
			Lab Sample No.(s)	6408377	6408380	6408381	6408371	6408373
			AGS Reference					
1,3-Dichloropropane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<10 #	<1 #
Tetrachloroethene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<10 #	<1 #
Dibromochloromethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<10 #	<1 #
1,2-Dibromoethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<10 #	<1 #
Chlorobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<10 § #	<1 #
1,1,1,2-Tetrachloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<10 #	<1 #
Ethylbenzene	<1 µg/l	TM208		15.7 #	2.23 #	<1 #	251 #	<1 #
m,p-Xylene	<1 µg/l	TM208		53.4 #	798 #	<1 #	1610 #	<1 #
o-Xylene	<1 µg/l	TM208		37.7 #	314 #	<1 #	706 #	<1 #
Styrene	<1 µg/l	TM208		<1 #	<1 #	<1 #	420 #	<1 #
Bromoform	<1 µg/l	TM208		<1 #	<1 #	<1 #	<10 #	<1 #
Isopropylbenzene	<1 µg/l	TM208		1.22 #	2.88 #	<1 #	11.6 #	<1 #
1,1,2,2-Tetrachloroethane	<1 µg/l	TM208		<1	<1	<1	<10	<1
1,2,3-Trichloropropane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<10 #	<1 #
Bromobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<10 #	<1 #
Propylbenzene	<1 µg/l	TM208		1.44 #	1.24 #	<1 #	18.3 #	<1 #
2-Chlorotoluene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<10 #	<1 #
1,3,5-Trimethylbenzene	<1 µg/l	TM208		2.31 #	81.6 #	<1 #	93 #	<1 #
4-Chlorotoluene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<10 #	<1 #
tert-Butylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<10 #	<1 #
1,2,4-Trimethylbenzene	<1 µg/l	TM208		28.5 #	192 #	<1 #	255 #	<1 #
sec-Butylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<10 #	<1 #
4-iso-Propyltoluene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<10 #	<1 #
1,3-Dichlorobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<10 #	<1 #
1,4-Dichlorobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<10 #	<1 #
n-Butylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<10 #	<1 #
1,2-Dichlorobenzene	<1 µg/l	TM208		<1	<1	<1	<10	<1
1,2-Dibromo-3-chloropropane	<1 µg/l	TM208		<1	<1	<1	<10	<1
1,2,4-Trichlorobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<10 #	<1 #
Hexachlorobutadiene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<10 #	<1 #
tert-Amyl methyl ether (TAME)	<1 µg/l	TM208		<1 #	<1 #	<1 #	<10 #	<1 #
Naphthalene	<1 µg/l	TM208		251 #	258 #	<1 #	5650 #	<1 #

CERTIFICATE OF ANALYSIS

SDG:	121026-141	**Location:**	Limerick	**Order Number:**	4500103453
Job:	H_MOUCH_LIV-1	**Customer:**	Mouchel	**Report Number:**	201074
Client Reference:	1034973	**Attention:**	Neil Balderstone	**Superseded Report:**	

VOC MS (W)

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 Ref.	G2	G4	G5	K5	M3
			Depth (m)	4.00 - 5.00	3.00 - 4.00	2.00 - 3.00	1.00 - 2.00	4.00 - 5.00
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	24/10/2012	24/10/2012	24/10/2012	24/10/2012	24/10/2012
			Sample Time	.	.	.	.	.
			Date Received	26/10/2012	26/10/2012	26/10/2012	26/10/2012	26/10/2012
			SDG Ref	121026-141	121026-141	121026-141	121026-141	121026-141
			Lab Sample No.(s)	6408377	6408380	6408381	6408371	6408373
			AGS Reference					
1,2,3-Trichlorobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<10 #	<1 #
1,3,5-Trichlorobenzene	<1 µg/l	TM208		<1	<1	<1	<10	<1

CERTIFICATE OF ANALYSIS

SDG:	121026-141	**Location:**	Limerick	**Order Number:**	4500103453
Job:	H_MOUCH_LIV-1	**Customer:**	Mouchel	**Report Number:**	201074
Client Reference:	1034973	**Attention:**	Neil Balderstone	**Superseded Report:**	

Notification of Deviating Samples

Sample Number	Customer Sample Ref.	Depth (m)	Matrix	Test Name	Component Name	Comment
6417938	D1	3.00 - 4.00	LIQUID	Sulphide	Sulphide	Sample holding time exceeded
6418617	A11	1.50 - 2.00	LIQUID	Sulphide	Sulphide	Sample holding time exceeded
6462950	C7	4.00 - 5.00	LIQUID	VOC MS (W)	Chlorobenzene	Volatile Analysis performed on vessel with headspace due to testing requirement
6462951	K5	1.00 - 2.00	LIQUID	VOC MS (W)	Chlorobenzene	Volatile Analysis performed on vessel with headspace due to testing requirement

Note : Test results may be compromised

CERTIFICATE OF ANALYSIS

SDG:	121026-141	**Location:**	Limerick	**Order Number:**	4500103453
Job:	H_MOUCH_LIV-1	**Customer:**	Mouchel	**Report Number:**	201074
Client Reference:	1034973	**Attention:**	Neil Balderstone	**Superseded Report:**	

Table of Results - Appendix

Method No	Reference	Description	Wet/Dry Sample [1]	Surrogate Corrected
TM061	Method for the Determination of EPH,Massachusetts Dept.of EP, 1998	Determination of Extractable Petroleum Hydrocarbons by GC-FID (C10-C40)		
TM099	BS 2690: Part 7:1968 / BS 6068: Part2.11:1984	Determination of Ammonium in Water Samples using the Kone Analyser		
TM101	Method 4500B & C, AWWA/APHA, 20th Ed., 1999	Determination of Sulphide in soil and water samples using the Kone Analyser		
TM152	Method 3125B, AWWA/APHA, 20th Ed., 1999	Analysis of Aqueous Samples by ICP-MS		
TM174	Analysis of Petroleum Hydrocarbons in Environmental Media – Total Petroleum Hydrocarbon Criteria	Determination of Speciated Extractable Petroleum Hydrocarbons in Waters by GC-FID		
TM178	Modified: US EPA Method 8100	Determination of Polynuclear Aromatic Hydrocarbons (PAH) by GC-MS in Waters		
TM183	BS EN 23506:2002, (BS 6068-2.74:2002) ISBN 0 580 38924 3	Determination of Trace Level Mercury in Waters and Leachates by PSA Cold Vapour Atomic Fluorescence Spectrometry		
TM184	EPA Methods 325.1 & 325.2,	The Determination of Anions in Aqueous Matrices using the Kone Spectrophotometric Analysers		
TM208	Modified: US EPA Method 8260b & 624	Determination of Volatile Organic Compounds by Headspace / GC-MS in Waters		
TM227	Standard methods for the examination of waters and wastewaters 20th Edition, AWWA/APHA Method 4500.	Determination of Total Cyanide, Free (Easily Liberatable) Cyanide and Thiocyanate		
TM241	Methods for the Examination of Waters and Associated Materials; Chromium in Raw and Potable Waters and Sewage Effluents 1980.	The Determination of Hexavalent Chromium in Waters and Leachates using the Kone Analyser		
TM245	By GC-FID	Determination of GRO by Headspace in waters		
TM256	The measurement of Electrical Conductivity and the Laboratory determination of pH Value of Natural, Treated and Wastewaters. HMSO, 1978. ISBN 011 751428 4.	Determination of pH in Water and Leachate using the GLpH pH Meter		
TM259	by HPLC	Determination of Phenols in Waters and Leachates by HPLC		

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

CERTIFICATE OF ANALYSIS

SDG:	121026-141	**Location:**	Limerick	**Order Number:**	4500103453
Job:	H_MOUCH_LIV-1	**Customer:**	Mouchel	**Report Number:**	201074
Client Reference:	1034973	**Attention:**	Neil Balderstone	**Superseded Report:**	

Test Completion Dates

Lab Sample No(s)	6408350	6408353	6408355	6408341	6408358	6408356	6408342	6408365	6408374	6408346
Customer Sample Ref.	A1	A3	A4	A9	A11	C2	C7	C11	D1	D5
AGS Ref.										
Depth	3.00 - 4.00	2.00 - 3.00	2.00 - 3.00	2.00 - 2.50	1.50 - 2.00	1.50 - 2.50	4.00 - 5.00	1.00 - 2.00	3.00 - 4.00	1.50 - 2.00
Type	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID
Ammoniacal Nitrogen	30-Oct-2012	30-Oct-2012	30-Oct-2012	30-Oct-2012	30-Oct-2012	31-Oct-2012	30-Oct-2012	29-Oct-2012	29-Oct-2012	30-Oct-2012
Anions by Kone (w)	06-Nov-2012	06-Nov-2012	06-Nov-2012	06-Nov-2012	30-Oct-2012	06-Nov-2012	06-Nov-2012	06-Nov-2012	06-Nov-2012	05-Nov-2012
Cyanide Comp/Free/Total/Thiocyanate	30-Oct-2012	30-Oct-2012	30-Oct-2012	30-Oct-2012	31-Oct-2012	30-Oct-2012	30-Oct-2012	31-Oct-2012	30-Oct-2012	30-Oct-2012
Dissolved Metals by ICP-MS	06-Nov-2012	06-Nov-2012	06-Nov-2012	06-Nov-2012	06-Nov-2012	06-Nov-2012	06-Nov-2012	06-Nov-2012	06-Nov-2012	06-Nov-2012
EPH CWG (Aliphatic) Aqueous GC (W)	06-Nov-2012	06-Nov-2012	06-Nov-2012	06-Nov-2012	06-Nov-2012	06-Nov-2012	06-Nov-2012	06-Nov-2012	06-Nov-2012	06-Nov-2012
EPH CWG (Aromatic) Aqueous GC (W)	06-Nov-2012	06-Nov-2012	06-Nov-2012	06-Nov-2012	06-Nov-2012	06-Nov-2012	06-Nov-2012	06-Nov-2012	06-Nov-2012	06-Nov-2012
GRO by GC-FID (W)	06-Nov-2012	06-Nov-2012	06-Nov-2012	06-Nov-2012	06-Nov-2012	06-Nov-2012	06-Nov-2012	05-Nov-2012	06-Nov-2012	06-Nov-2012
Hexavalent Chromium (w)	29-Oct-2012	29-Oct-2012	29-Oct-2012	29-Oct-2012	29-Oct-2012	29-Oct-2012	29-Oct-2012	29-Oct-2012	29-Oct-2012	29-Oct-2012
Mercury Dissolved	31-Oct-2012	31-Oct-2012	31-Oct-2012	31-Oct-2012	30-Oct-2012	30-Oct-2012	31-Oct-2012	30-Oct-2012	30-Oct-2012	31-Oct-2012
PAH Spec MS - Aqueous (W)	06-Nov-2012	06-Nov-2012	06-Nov-2012	06-Nov-2012	06-Nov-2012	06-Nov-2012	07-Nov-2012	06-Nov-2012	06-Nov-2012	06-Nov-2012
pH Value	02-Nov-2012	02-Nov-2012	02-Nov-2012	02-Nov-2012	06-Nov-2012	06-Nov-2012	02-Nov-2012	06-Nov-2012	02-Nov-2012	02-Nov-2012
Phenols by HPLC (W)	05-Nov-2012	07-Nov-2012	05-Nov-2012	05-Nov-2012	06-Nov-2012	02-Nov-2012	07-Nov-2012	06-Nov-2012	07-Nov-2012	07-Nov-2012
Sulphide	01-Nov-2012	01-Nov-2012	01-Nov-2012	01-Nov-2012	06-Nov-2012	02-Nov-2012	01-Nov-2012	02-Nov-2012	06-Nov-2012	01-Nov-2012
TPH CWG (W)	06-Nov-2012	06-Nov-2012	06-Nov-2012	06-Nov-2012	06-Nov-2012	06-Nov-2012	06-Nov-2012	06-Nov-2012	06-Nov-2012	06-Nov-2012
VOC MS (W)	06-Nov-2012	06-Nov-2012	06-Nov-2012		06-Nov-2012		07-Nov-2012		06-Nov-2012	

Lab Sample No(s)	6408347	6408366	6408377	6408378	6408380	6408381	6408349	6408367	6408368	6408369
Customer Sample Ref.	E8	F11	G2	G3	G4	G5	G8	H12	J10	K1
AGS Ref.										
Depth	1.00 - 2.00	3.00 - 4.00	4.00 - 5.00	4.00	3.00 - 4.00	2.00 - 3.00	1.00 - 2.00	2.00 - 3.00	1.00 - 2.00	2.50 - 3.50
Type	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID
Ammoniacal Nitrogen	30-Oct-2012	30-Oct-2012	30-Oct-2012	30-Oct-2012	30-Oct-2012	30-Oct-2012	30-Oct-2012	30-Oct-2012	30-Oct-2012	30-Oct-2012
Anions by Kone (w)	06-Nov-2012	06-Nov-2012	06-Nov-2012	06-Nov-2012	05-Nov-2012	05-Nov-2012	06-Nov-2012	06-Nov-2012	05-Nov-2012	05-Nov-2012
Cyanide Comp/Free/Total/Thiocyanate	30-Oct-2012	30-Oct-2012	30-Oct-2012	30-Oct-2012	31-Oct-2012	31-Oct-2012	30-Oct-2012	30-Oct-2012	30-Oct-2012	30-Oct-2012
Dissolved Metals by ICP-MS	06-Nov-2012	06-Nov-2012	06-Nov-2012	06-Nov-2012	06-Nov-2012	06-Nov-2012	06-Nov-2012	06-Nov-2012	06-Nov-2012	06-Nov-2012
EPH CWG (Aliphatic) Aqueous GC (W)	06-Nov-2012	06-Nov-2012	06-Nov-2012	06-Nov-2012	06-Nov-2012	06-Nov-2012	06-Nov-2012	06-Nov-2012	06-Nov-2012	06-Nov-2012
EPH CWG (Aromatic) Aqueous GC (W)	06-Nov-2012	06-Nov-2012	06-Nov-2012	06-Nov-2012	06-Nov-2012	06-Nov-2012	06-Nov-2012	06-Nov-2012	06-Nov-2012	06-Nov-2012
GRO by GC-FID (W)	07-Nov-2012	06-Nov-2012	06-Nov-2012	06-Nov-2012	06-Nov-2012	06-Nov-2012	06-Nov-2012	06-Nov-2012	06-Nov-2012	06-Nov-2012
Hexavalent Chromium (w)	29-Oct-2012	29-Oct-2012	29-Oct-2012	29-Oct-2012	31-Oct-2012	31-Oct-2012	29-Oct-2012	29-Oct-2012	29-Oct-2012	29-Oct-2012
Mercury Dissolved	31-Oct-2012	30-Oct-2012	31-Oct-2012	31-Oct-2012	01-Nov-2012	01-Nov-2012	31-Oct-2012	31-Oct-2012	31-Oct-2012	31-Oct-2012
PAH Spec MS - Aqueous (W)	06-Nov-2012	06-Nov-2012	06-Nov-2012	06-Nov-2012	07-Nov-2012	07-Nov-2012	06-Nov-2012	06-Nov-2012	06-Nov-2012	06-Nov-2012
pH Value	02-Nov-2012	06-Nov-2012	02-Nov-2012	02-Nov-2012	05-Nov-2012	05-Nov-2012	02-Nov-2012	02-Nov-2012	02-Nov-2012	02-Nov-2012
Phenols by HPLC (W)	07-Nov-2012	06-Nov-2012	07-Nov-2012	07-Nov-2012	07-Nov-2012	07-Nov-2012	07-Nov-2012	06-Nov-2012	06-Nov-2012	07-Nov-2012
Sulphide	01-Nov-2012	02-Nov-2012	02-Nov-2012	02-Nov-2012	01-Nov-2012	01-Nov-2012	01-Nov-2012	01-Nov-2012	01-Nov-2012	01-Nov-2012
TPH CWG (W)	07-Nov-2012	06-Nov-2012	06-Nov-2012	06-Nov-2012	06-Nov-2012	06-Nov-2012	06-Nov-2012	06-Nov-2012	06-Nov-2012	06-Nov-2012
VOC MS (W)			05-Nov-2012		05-Nov-2012	06-Nov-2012				

Lab Sample No(s)	6408371	6408373
Customer Sample Ref.	K5	M3
AGS Ref.		
Depth	1.00 - 2.00	4.00 - 5.00
Type	LIQUID	LIQUID
Ammoniacal Nitrogen	29-Oct-2012	29-Oct-2012
Anions by Kone (w)	05-Nov-2012	06-Nov-2012
Cyanide Comp/Free/Total/Thiocyanate	30-Oct-2012	30-Oct-2012
Dissolved Metals by ICP-MS	06-Nov-2012	06-Nov-2012
EPH CWG (Aliphatic) Aqueous GC (W)	06-Nov-2012	06-Nov-2012
EPH CWG (Aromatic) Aqueous GC (W)	06-Nov-2012	06-Nov-2012
GRO by GC-FID (W)	06-Nov-2012	06-Nov-2012
Hexavalent Chromium (w)	29-Oct-2012	29-Oct-2012
Mercury Dissolved	31-Oct-2012	31-Oct-2012
PAH Spec MS - Aqueous (W)	07-Nov-2012	06-Nov-2012
pH Value	02-Nov-2012	02-Nov-2012
Phenols by HPLC (W)	07-Nov-2012	07-Nov-2012
Sulphide	01-Nov-2012	30-Oct-2012
TPH CWG (W)	06-Nov-2012	06-Nov-2012
VOC MS (W)	07-Nov-2012	06-Nov-2012

SDG:	121026-141	**Location:**	Limerick	**Order Number:**	4500103453
Job:	H_MOUCH_LIV-1	**Customer:**	Mouchel	**Report Number:**	201074
Client Reference:	1034973	**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 and CEN Leach tests, flash point, pH, ammonium as NH4 by the BRE method, VOC TICS and SVOC TICS.

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

3. If sufficient sample is received a sub sample will be retained free of charge for 30 days after analysis is completed (e-mailed) for all sample types unless the sample is destroyed on testing. The prepared soil sub sample that is analysed for asbestos will be retained for a period of 2 months after the analysis date. All bulk samples will be retained for a period of 6 months after the analysis date. All samples received and not scheduled will be disposed of one month after the date of receipt unless we are instructed to the contrary. Once the initial period has expired, a storage charge will be applied for each month or part thereof until the client cancels the request for sample storage. ALcontrol Laboratories reserve the right to charge for samples received and stored but not analysed.

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

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

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

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

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

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

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

11. Results relate only to the items tested.

12. LODs for wet tests reported on a dry weight basis are not corrected for moisture content.

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

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

15. Phenols monohydric by HPLC include phenol, cresols (2-Methylphenol, 3-Methylphenol and 4-Methylphenol) and Xylenols (2,3 Dimethylphenol, 2,4 Dimethylphenol, 2,5 Dimethylphenol, 2,6 Dimethylphenol, 3,4 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 the major part of the sample. Other coarse granular material such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

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

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 AROCLOR 1254 / PCB CON	D&C	HEXANE: ACETONE	END OVER END	GC-MS
POLYAROMATIC HYDROCARBONS (MS)	WET	HEXANE: ACETONE	MICROWAVE TM218.	GC-MS
>C6-C40	WET	HEXANE: ACETONE	SHAKER	GC-FID
POLYAROMATIC HYDROCARBONS RAPID GC	WET	HEXANE: ACETONE	SHAKER	GC-FID
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 AROCLOR 1254	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	ACETONE	SOLID PHASE EXTRACTION	GC MS
TPH by INFRA RED (IR)	TCE	STIRRED EXTRACTION (STIR-BAR)	IR
MINERAL OIL by IR	TCE	STIRRED EXTRACTION (STIR-BAR)	IR
GLYCOLS	NONE	DIRECT INJECTION	GC FID

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.