



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.

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Approved By:

Sonia McWhan
Operations Manager





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Superseded Report:

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.

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

Location: Limerick Gasworks
 Customer: Mouchel
 Attention: Neil Balderstone

Order Number: 4500094829
 Report Number: 180196
 Superseded Report:

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



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) | Customer Sample Reference | AGS Reference | Depth (m) | Container | |
|--|------------------|---------------------------|---------------|-------------|--|--|
| | | 5503944 | A1 | | 1.50 - 3.00 | 11 green glass bottle H2SO4 (ALE244) 11 plastic (ALE221) |
| | | 5503947 | D1 | | 3.00 - 3.50 | 11 green glass bottle H2SO4 (ALE244) 11 plastic (ALE221) |
| | | 5503945 | C2 | | 1.60 - 2.50 | 11 green glass bottle H2SO4 (ALE244) 11 plastic (ALE221) |
| | | 5503948 | G2 | | 5.00 | 11 green glass bottle H2SO4 (ALE244) 11 plastic (ALE221) |
| | 5503942 | A3 | | 2.00 | 11 green glass bottle H2SO4 (ALE244) 11 plastic (ALE221) | |
| | 5503950 | G3 | | 4.50 | 11 green glass bottle H2SO4 (ALE244) 11 plastic (ALE221) | |
| | 5503951 | G4 | | 2.50 - 3.50 | 11 green glass bottle H2SO4 (ALE244) 11 plastic (ALE221) | |
| | 5503943 | A4 | | 2.50 | 11 green glass bottle H2SO4 (ALE244) 11 plastic (ALE221) | |
| | 5503941 | D5 | | 1.90 | 11 green glass bottle H2SO4 (ALE244) 11 plastic (ALE221) | |
| | 5503939 | C7 | | 1.80 - 2.50 | 11 green glass bottle H2SO4 (ALE244) 11 plastic (ALE221) | |
| | 5503946 | G8 | | 0.50 - 1.50 | 11 green glass bottle H2SO4 (ALE244) 11 plastic (ALE221) | |
| Ammoniacal Nitrogen | All | NDPs: 0 Tests: 22 | | | | |
| Anions by Kone (w) | All | NDPs: 0 Tests: 22 | | | | |
| Cyanide Comp/Free/Total/Thiocyanate | All | NDPs: 0 Tests: 22 | | | | |
| Dissolved Metals by ICP-MS | All | NDPs: 0 Tests: 22 | | | | |
| EPH CWG (Aliphatic) Aqueous GC (W) | All | NDPs: 0 Tests: 22 | | | | |
| EPH CWG (Aromatic) Aqueous GC (W) | All | NDPs: 0 Tests: 22 | | | | |
| GRO by GC-FID (W) | All | NDPs: 0 Tests: 22 | | | | |
| Hexavalent Chromium (w) | All | NDPs: 0 Tests: 22 | | | | |
| Mercury Dissolved | All | NDPs: 0 Tests: 22 | | | | |
| PAH Spec MS - Aqueous (W) | All | NDPs: 0 Tests: 22 | | | | |
| pH Value | All | NDPs: 0 Tests: 22 | | | | |
| Phenols by HPLC (W) | All | NDPs: 0 Tests: 22 | | | | |
| Sulphide | All | NDPs: 0 Tests: 22 | | | | |
| TPH CWG (W) | All | NDPs: 0 Tests: 22 | | | | |
| VOC MS (W) | All | NDPs: 0 Tests: 11 | | | | |

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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 Test 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 | H2SO4 (ALE244) Vial (ALE297) 11 green glass bottle 11 plastic (ALE221) | Vial (ALE297) H2SO4 (ALE244) 11 plastic (ALE221) |
| Ammoniacal Nitrogen | All | NDPs: 0 Tests: 22 | |
| Anions by Kone (w) | All | NDPs: 0 Tests: 22 | |
| Cyanide Comp/Free/Total/Thiocyanate | All | NDPs: 0 Tests: 22 | |
| Dissolved Metals by ICP-MS | All | NDPs: 0 Tests: 22 | |
| EPH CWG (Aliphatic) Aqueous GC (W) | All | NDPs: 0 Tests: 22 | |
| EPH CWG (Aromatic) Aqueous GC (W) | All | NDPs: 0 Tests: 22 | |
| GRO by GC-FID (W) | All | NDPs: 0 Tests: 22 | |
| Hexavalent Chromium (w) | All | NDPs: 0 Tests: 22 | |
| Mercury Dissolved | All | NDPs: 0 Tests: 22 | |
| PAH Spec MS - Aqueous (W) | All | NDPs: 0 Tests: 22 | |
| pH Value | All | NDPs: 0 Tests: 22 | |
| Phenols by HPLC (W) | All | NDPs: 0 Tests: 22 | |
| Sulphide | All | NDPs: 0 Tests: 22 | |
| TPH CWG (W) | All | NDPs: 0 Tests: 22 | |
| VOC MS (W) | All | NDPs: 0 Tests: 11 | |

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CERTIFICATE OF ANALYSIS

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:

| Results Legend | | | Customer Sample R | | A1 | A3 | A4 | A9 | A11 | C2 |
|-------------------------------------|--|--------|--|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| # | ISO17025 accredited. | | Depth (m) Sample Type Date Sampled Sampled Time Date Received SDG Ref Lab Sample No.(s) AGS Reference | 1.50 - 3.00 | 2.00 | 2.50 | 1.80 - 2.40 | 1.50 | 1.60 - 2.50 | |
| M | mCERTS accredited. | | | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) |
| S | Deviating sample. | | | 24/04/2012 | 24/04/2012 | 24/04/2012 | 24/04/2012 | 24/04/2012 | 24/04/2012 | 24/04/2012 |
| 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 | | | 25/04/2012 | 25/04/2012 | 25/04/2012 | 25/04/2012 | 25/04/2012 | 25/04/2012 | 25/04/2012 |
| | Trigger breach confirmed | | | 120426-45 | 120426-45 | 120426-45 | 120426-45 | 120426-45 | 120426-45 | 120426-45 |
| (F) | | | | 5503944 | 5503942 | 5503943 | 5503938 | 5503935 | 5503945 | 5503945 |
| Component | LOD/Units | Method | | | | | | | | |
| 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 | | |



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Job: D_MOUCHEL_ELE-1
Client Reference:

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

Order Number: 4500094829
Report Number: 180196
Superseded Report:

| Results Legend | | Customer Sample R | C7 | C11 | D1 | D5 | E8 | F11 |
|-------------------------------------|--|--|--------------|--------------|--------------|--------------|--------------|--------------|
| # | ISO17025 accredited. | Depth (m) Sample Type Date Sampled Sampled Time Date Received SDG Ref Lab Sample No.(s) AGS Reference | | | | | | |
| M | mCERTS accredited. | | 1.80 - 2.50 | 2.00 | 3.00 - 3.50 | 1.90 | 3.50 | 3.00 |
| S | Deviating sample. | | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) |
| aq | Aqueous / settled sample. | | 24/04/2012 | 24/04/2012 | 24/04/2012 | 24/04/2012 | 24/04/2012 | 24/04/2012 |
| 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 | | 25/04/2012 | 25/04/2012 | 25/04/2012 | 25/04/2012 | 25/04/2012 | 25/04/2012 |
| | Trigger breach confirmed | | 120426-45 | 120426-45 | 120426-45 | 120426-45 | 120426-45 | 120426-45 |
| (F) | | | 5503939 | 5503934 | 5503947 | 5503941 | 5503937 | 5503933 |
| Component | LOD/Units | Method | | | | | | |
| 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
Job: D_MOUCHEL_ELE-1
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Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

Order Number: 4500094829
Report Number: 180196
Superseded Report:

| Results Legend | | Customer Sample R | G2 | G3 | G4 | G5 | G8 | H12 |
|-------------------------------------|--|--|--------------|--------------|--------------|--------------|--------------|--------------|
| # | ISO17025 accredited. | Depth (m) Sample Type Date Sampled Sampled Time Date Received SDG Ref Lab Sample No.(s) AGS Reference | G2 | G3 | G4 | G5 | G8 | H12 |
| M | mCERTS accredited. | | 5.00 | 4.50 | 2.50 - 3.50 | 4.00 | 0.50 - 1.50 | 2.50 |
| S | Deviating sample. | | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) |
| aq | Aqueous / settled sample. | | 24/04/2012 | 24/04/2012 | 24/04/2012 | 24/04/2012 | 24/04/2012 | 24/04/2012 |
| 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 | | 25/04/2012 | 25/04/2012 | 25/04/2012 | 25/04/2012 | 25/04/2012 | 25/04/2012 |
| (F) | Trigger breach confirmed | | 120426-45 | 120426-45 | 120426-45 | 120426-45 | 120426-45 | 120426-45 |
| | | | 5503948 | 5503950 | 5503951 | 5503952 | 5503946 | 5503931 |
| Component | LOD/Units | Method | | | | | | |
| 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
Job: D_MOUCHEL_ELE-1
Client Reference:

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

Order Number: 4500094829
Report Number: 180196
Superseded Report:

| Results Legend | | Customer Sample R | J10 | K1 | K5 | M3 | | |
|-------------------------------------|--|--|--------------|--------------|--------------|--------------|---|---|
| # | ISO17025 accredited. | Depth (m) Sample Type Date Sampled Sampled Time Date Received SDG Ref Lab Sample No.(s) AGS Reference | J10 | K1 | K5 | M3 | | |
| M | mCERTS accredited. | | 1.00 | 3.25 | 3.00 | 4.00 - 5.00 | | |
| S | Deviating sample. | | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | | |
| aq | Aqueous / settled sample. | | 24/04/2012 | 24/04/2012 | 24/04/2012 | 24/04/2012 | | |
| 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 | | 25/04/2012 | 25/04/2012 | 25/04/2012 | 25/04/2012 | | |
| (F) | Trigger breach confirmed | | 120426-45 | 120426-45 | 120426-45 | 120426-45 | | |
| | | | 5503930 | 5503926 | 5503929 | 5503927 | | |
| Component | LOD/Units | Method | | | | | | |
| 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
Job: D_MOUCHEL_ELE-1
Client Reference:

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

Order Number: 4500094829
Report Number: 180196
Superseded Report:

PAH Spec MS - Aqueous (W)

| Results Legend | | Customer Sample R | A1 | A3 | A4 | A9 | A11 | C2 |
|-----------------------------------|--|--|--------------|--------------|--------------|--------------|--------------|--------------|
| # | ISO17025 accredited. | Depth (m) Sample Type Date Sampled Sampled Time Date Received SDG Ref Lab Sample No.(s) AGS Reference | 1.50 - 3.00 | 2.00 | 2.50 | 1.80 - 2.40 | 1.50 | 1.60 - 2.50 |
| M | mCERTS accredited. | | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) |
| S | Deviating sample. | | 24/04/2012 | 24/04/2012 | 24/04/2012 | 24/04/2012 | 24/04/2012 | 24/04/2012 |
| 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 | | 25/04/2012 | 25/04/2012 | 25/04/2012 | 25/04/2012 | 25/04/2012 | 25/04/2012 |
| | Trigger breach confirmed | | 120426-45 | 120426-45 | 120426-45 | 120426-45 | 120426-45 | 120426-45 |
| (F) | | | 5503944 | 5503942 | 5503943 | 5503938 | 5503935 | 5503945 |
| Component | LOD/Units | Method | | | | | | |
| 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 # | 0.038 # | 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 |

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CERTIFICATE OF ANALYSIS

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:

PAH Spec MS - Aqueous (W)

| Results Legend | | | Customer Sample R | C7 | C11 | D1 | D5 | E8 | F11 | |
|-----------------------------------|--|--------|--|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| # | ISO17025 accredited. | | Depth (m) Sample Type Date Sampled Sampled Time Date Received SDG Ref Lab Sample No.(s) AGS Reference | 1.80 - 2.50 | 2.00 | 3.00 - 3.50 | 1.90 | 3.50 | 3.00 | |
| M | mCERTS accredited. | | | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) |
| S | Deviating sample. | | | 24/04/2012 | 24/04/2012 | 24/04/2012 | 24/04/2012 | 24/04/2012 | 24/04/2012 | 24/04/2012 |
| 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 | | | 25/04/2012 | 25/04/2012 | 25/04/2012 | 25/04/2012 | 25/04/2012 | 25/04/2012 | 25/04/2012 |
| | Trigger breach confirmed | | | 120426-45 | 120426-45 | 120426-45 | 120426-45 | 120426-45 | 120426-45 | 120426-45 |
| (F) | | | | 5503939 | 5503934 | 5503947 | 5503941 | 5503937 | 5503933 | 5503933 |
| Component | LOD/Units | Method | | | | | | | | |
| 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 | 0.0752 | 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
Job: D_MOUCHEL_ELE-1
Client Reference:

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

Order Number: 4500094829
Report Number: 180196
Superseded Report:

PAH Spec MS - Aqueous (W)

| Results Legend | | Customer Sample R | G2 | G3 | G4 | G5 | G8 | H12 | |
|-----------------------------------|--|--|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| # | ISO17025 accredited. | Depth (m) Sample Type Date Sampled Sampled Time Date Received SDG Ref Lab Sample No.(s) AGS Reference | 5.00 | 4.50 | 2.50 - 3.50 | 4.00 | 0.50 - 1.50 | 2.50 | |
| M | mCERTS accredited. | | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) |
| S | Deviating sample. | | 24/04/2012 | 24/04/2012 | 24/04/2012 | 24/04/2012 | 24/04/2012 | 24/04/2012 | 24/04/2012 |
| 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 | | | | | | | | |
| | | | | 5503948 | 5503950 | 5503951 | 5503952 | 5503946 | 5503931 |
| Component | LOD/Units | Method | | | | | | | |
| 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 | |

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CERTIFICATE OF ANALYSIS

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:

PAH Spec MS - Aqueous (W)

Table with columns for Component, LOD/Units, Method, and concentrations for samples J10, K1, K5, M3. Includes a Results Legend and a large red watermark: 'Consent of copyright owner required for any other use'.



CERTIFICATE OF ANALYSIS

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:

TPH CWG (W)

| Results Legend | | Customer Sample R | A1 | A3 | A4 | A9 | A11 | C2 |
|--|--|--|--------------|--------------|--------------|--------------|--------------|--------------|
| # | ISO17025 accredited. | Depth (m) Sample Type Date Sampled Sampled Time Date Received SDG Ref Lab Sample No.(s) AGS Reference | A1 | A3 | A4 | A9 | A11 | C2 |
| M | mCERTS accredited. | | 1.50 - 3.00 | 2.00 | 2.50 | 1.80 - 2.40 | 1.50 | 1.60 - 2.50 |
| S | Deviating sample. | | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) |
| aq | Aqueous / settled sample. | | 24/04/2012 | 24/04/2012 | 24/04/2012 | 24/04/2012 | 24/04/2012 | 24/04/2012 |
| 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 | | 25/04/2012 | 25/04/2012 | 25/04/2012 | 25/04/2012 | 25/04/2012 | 25/04/2012 |
| | Trigger breach confirmed | | 120426-45 | 120426-45 | 120426-45 | 120426-45 | 120426-45 | 120426-45 |
| (F) | | | 5503944 | 5503942 | 5503943 | 5503938 | 5503935 | 5503945 |
| Component | LOD/Units | Method | | | | | | |
| 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 |



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:

TPH CWG (W)

| Results Legend | | Customer Sample R | C7 | C11 | D1 | D5 | E8 | F11 |
|--|--|--|--------------|--------------|--------------|--------------|--------------|--------------|
| # | ISO17025 accredited. | Depth (m) Sample Type Date Sampled Sampled Time Date Received SDG Ref Lab Sample No.(s) AGS Reference | | | | | | |
| M | mCERTS accredited. | | 1.80 - 2.50 | 2.00 | 3.00 - 3.50 | 1.90 | 3.50 | 3.00 |
| S | Deviating sample. | | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) |
| aq | Aqueous / settled sample. | | 24/04/2012 | 24/04/2012 | 24/04/2012 | 24/04/2012 | 24/04/2012 | 24/04/2012 |
| 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 | | 25/04/2012 | 25/04/2012 | 25/04/2012 | 25/04/2012 | 25/04/2012 | 25/04/2012 |
| | Trigger breach confirmed | | 120426-45 | 120426-45 | 120426-45 | 120426-45 | 120426-45 | 120426-45 |
| (F) | | | 5503939 | 5503934 | 5503947 | 5503941 | 5503937 | 5503933 |
| Component | LOD/Units | Method | | | | | | |
| 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 # |



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:

TPH CWG (W)

| Results Legend | | Customer Sample R | G2 | G3 | G4 | G5 | G8 | H12 |
|--|--|--|--------------|--------------|--------------|--------------|--------------|--------------|
| # | ISO17025 accredited. | Depth (m) Sample Type Date Sampled Sampled Time Date Received SDG Ref Lab Sample No.(s) AGS Reference | | | | | | |
| M | mCERTS accredited. | | 5.00 | 4.50 | 2.50 - 3.50 | 4.00 | 0.50 - 1.50 | 2.50 |
| S | Deviating sample. | | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) |
| aq | Aqueous / settled sample. | | 24/04/2012 | 24/04/2012 | 24/04/2012 | 24/04/2012 | 24/04/2012 | 24/04/2012 |
| 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 | | 25/04/2012 | 25/04/2012 | 25/04/2012 | 25/04/2012 | 25/04/2012 | 25/04/2012 |
| | Trigger breach confirmed | | 120426-45 | 120426-45 | 120426-45 | 120426-45 | 120426-45 | 120426-45 |
| (F) | | | 5503948 | 5503950 | 5503951 | 5503952 | 5503946 | 5503931 |
| Component | LOD/Units | Method | | | | | | |
| 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
 Job: D_MOUCHEL_ELE-1
 Client Reference:

Location: Limerick Gasworks
 Customer: Mouchel
 Attention: Neil Balderstone

Order Number: 4500094829
 Report Number: 180196
 Superseded Report:

TPH CWG (W)

| Results Legend | | Customer Sample R | J10 | K1 | K5 | M3 | | |
|--|--|--|--------------|--------------|--------------|--------------|---|---|
| # | ISO17025 accredited. | Depth (m) Sample Type Date Sampled Sampled Time Date Received SDG Ref Lab Sample No.(s) AGS Reference | J10 | K1 | K5 | M3 | | |
| M | mCERTS accredited. | | 1.00 | 3.25 | 3.00 | 4.00 - 5.00 | | |
| S | Deviating sample. | | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | | |
| aq | Aqueous / settled sample. | | 24/04/2012 | 24/04/2012 | 24/04/2012 | 24/04/2012 | | |
| diss.filt | Dissolved / filtered sample. | | . | . | . | . | | |
| tot.unfilt | Total / unfiltered sample. | | 25/04/2012 | 25/04/2012 | 25/04/2012 | 25/04/2012 | | |
| * | Subcontracted test. | | 120426-45 | 120426-45 | 120426-45 | 120426-45 | | |
| ** | % 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 | | 5503930 | 5503926 | 5503929 | 5503927 | | |
| (F) | Trigger breach confirmed | | | | | | | |
| Component | LOD/Units | | Method | | | | | |
| 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 | | |



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:

VOC MS (W)

| Results Legend | | Customer Sample R | A1 | A3 | A4 | A11 | C7 | D1 |
|------------------------------------|--|--|---|------------------------------------|------------------------------------|------------------------------------|---|---|
| # | ISO17025 accredited. | Depth (m) Sample Type Date Sampled Sampled Time Date Received SDG Ref Lab Sample No.(s) AGS Reference | 1.50 - 3.00 Water(GW/SW) 24/04/2012 | 2.00 Water(GW/SW) 24/04/2012 | 2.50 Water(GW/SW) 24/04/2012 | 1.50 Water(GW/SW) 24/04/2012 | 1.80 - 2.50 Water(GW/SW) 24/04/2012 | 3.00 - 3.50 Water(GW/SW) 24/04/2012 |
| M | mCERTS accredited. | | | | | | | |
| S | 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 | | | | | | | |
| 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 |



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:

VOC MS (W)

| Results Legend | | | Customer Sample R | | A1 | A3 | A4 | A11 | C7 | D1 |
|-------------------------------|--|--------|-------------------|---|--------------|--------------|--------------|--------------|--------------|--------------|
| # | ISO17025 accredited. | | Depth (m) | | 1.50 - 3.00 | 2.00 | 2.50 | 1.50 | 1.80 - 2.50 | 3.00 - 3.50 |
| M | mCERTS accredited. | | Sample Type | | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) |
| S | Deviating sample. | | Date Sampled | | 24/04/2012 | 24/04/2012 | 24/04/2012 | 24/04/2012 | 24/04/2012 | 24/04/2012 |
| aq | Aqueous / settled sample. | | Date Received | | 25/04/2012 | 25/04/2012 | 25/04/2012 | 25/04/2012 | 25/04/2012 | 25/04/2012 |
| diss.filt | Dissolved / filtered sample. | | SDG Ref | | 120426-45 | 120426-45 | 120426-45 | 120426-45 | 120426-45 | 120426-45 |
| tot.unfilt | Total / unfiltered sample. | | Lab Sample No.(s) | | 5503944 | 5503942 | 5503943 | 5503935 | 5503939 | 5503947 |
| ** | Subcontracted test. | | AGS Reference | | | | | | | |
| | % 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 | | | | | | | | |
| 1,2-Dibromoethane | <1 µg/l | TM208 | <1 | # | <1 | # | <1 | # | <1 | # |
| Chlorobenzene | <1 µg/l | TM208 | <1 | # | <1 | # | <1 | # | <1 | # |
| 1,1,1,2-Tetrachloroethane | <1 µg/l | TM208 | <1 | # | <1 | # | <1 | # | <1 | # |
| Ethylbenzene | <1 µg/l | TM208 | 60 | # | 152 | # | 4.81 | # | 331 | # |
| m,p-Xylene | <1 µg/l | TM208 | 48 | # | 43.7 | # | <1 | # | 2390 | # |
| o-Xylene | <1 µg/l | TM208 | 92.1 | # | 40 | # | 1.3 | # | 897 | # |
| Styrene | <1 µg/l | TM208 | <1 | # | <1 | # | <1 | # | <1 | # |
| Bromoform | <1 µg/l | TM208 | <1 | # | <1 | # | <1 | # | <1 | # |
| Isopropylbenzene | <1 µg/l | TM208 | 7.22 | # | 12 | # | <1 | # | 13.3 | # |
| 1,1,2,2-Tetrachloroethane | <1 µg/l | TM208 | <1 | # | <1 | # | <1 | # | <1 | # |
| 1,2,3-Trichloropropane | <1 µg/l | TM208 | <1 | # | <1 | # | <1 | # | <1 | # |
| Bromobenzene | <1 µg/l | TM208 | <1 | # | <1 | # | <1 | # | <1 | # |
| Propylbenzene | <1 µg/l | TM208 | 2.31 | # | 10.5 | # | <1 | # | 17.7 | # |
| 2-Chlorotoluene | <1 µg/l | TM208 | <1 | # | <1 | # | <1 | # | <1 | # |
| 1,3,5-Trimethylbenzene | <1 µg/l | TM208 | 3.19 | # | 4.30 | # | <1 | # | 101 | # |
| 4-Chlorotoluene | <1 µg/l | TM208 | <1 | # | <1 | # | <1 | # | <1 | # |
| tert-Butylbenzene | <1 µg/l | TM208 | <1 | # | <1 | # | <1 | # | <1 | # |
| 1,2,4-Trimethylbenzene | <1 µg/l | TM208 | 31.9 | # | 17.9 | # | <1 | # | 244 | # |
| sec-Butylbenzene | <1 µg/l | TM208 | <1 | # | <1 | # | <1 | # | <1 | # |
| 4-iso-Propyltoluene | <1 µg/l | TM208 | <1 | # | <1 | # | <1 | # | <1 | # |
| 1,3-Dichlorobenzene | <1 µg/l | TM208 | <1 | # | <1 | # | <1 | # | <1 | # |
| 1,4-Dichlorobenzene | <1 µg/l | TM208 | <1 | # | <1 | # | <1 | # | <1 | # |
| n-Butylbenzene | <1 µg/l | TM208 | <1 | # | <1 | # | <1 | # | <1 | # |
| 1,2-Dichlorobenzene | <1 µg/l | TM208 | <1 | # | <1 | # | <1 | # | <1 | # |
| 1,2-Dibromo-3-chloropropane | <1 µg/l | TM208 | <1 | # | <1 | # | <1 | # | <1 | # |
| 1,2,4-Trichlorobenzene | <1 µg/l | TM208 | <1 | # | <1 | # | <1 | # | <1 | # |
| Hexachlorobutadiene | <1 µg/l | TM208 | <1 | # | <1 | # | <1 | # | <1 | # |
| tert-Amyl methyl ether (TAME) | <1 µg/l | TM208 | <1 | # | <1 | # | <1 | # | <1 | # |
| Naphthalene | <1 µg/l | TM208 | 19.3 | # | 263 | # | 2.27 | # | 8710 | # |
| 1,2,3-Trichlorobenzene | <1 µg/l | TM208 | <1 | # | <1 | # | <1 | # | <1 | # |
| 1,3,5-Trichlorobenzene | <1 µg/l | TM208 | <1 | # | <1 | # | <1 | # | <1 | # |



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:

VOC MS (W)

| Results Legend | | Customer Sample R | G2 | G4 | G5 | K5 | M3 | |
|------------------------------------|--|--|--------------|--------------|--------------|--------------|--------------|---|
| # | ISO17025 accredited. | Depth (m) Sample Type Date Sampled Sampled Time Date Received SDG Ref Lab Sample No.(s) AGS Reference | | | | | | |
| M | mCERTS accredited. | | 5.00 | 2.50 - 3.50 | 4.00 | 3.00 | 4.00 - 5.00 | |
| S | Deviating sample. | | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | |
| aq | Aqueous / settled sample. | | 24/04/2012 | 24/04/2012 | 24/04/2012 | 24/04/2012 | 24/04/2012 | |
| 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 | | 25/04/2012 | 25/04/2012 | 25/04/2012 | 25/04/2012 | 25/04/2012 | |
| (F) | Trigger breach confirmed | | 120426-45 | 120426-45 | 120426-45 | 120426-45 | 120426-45 | |
| | | | 5503948 | 5503951 | 5503952 | 5503929 | 5503927 | |
| Component | LOD/Units | Method | | | | | | |
| 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
Job: D_MOUCHEL_ELE-1
Client Reference:

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

Order Number: 4500094829
Report Number: 180196
Superseded Report:

VOC MS (W)

| Results Legend | | | Customer Sample R | | G2 | G4 | G5 | K5 | M3 | |
|-------------------------------|---|--------|-------------------|---|--------------|--------------|--------------|--------------|--------------|---|
| # | ISO17025 accredited. | | Depth (m) | | 5.00 | 2.50 - 3.50 | 4.00 | 3.00 | 4.00 - 5.00 | |
| M | mCERTS accredited. | | Sample Type | | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | |
| S | Deviating sample. | | Date Sampled | | 24/04/2012 | 24/04/2012 | 24/04/2012 | 24/04/2012 | 24/04/2012 | |
| aq | Aqueous / settled sample. | | Date Received | | 25/04/2012 | 25/04/2012 | 25/04/2012 | 25/04/2012 | 25/04/2012 | |
| diss.filt | Dissolved / filtered sample. | | SDG Ref | | 120426-45 | 120426-45 | 120426-45 | 120426-45 | 120426-45 | |
| tot.unfilt | Total / unfiltered sample. | | Lab Sample No.(s) | | 5503948 | 5503951 | 5503952 | 5503929 | 5503927 | |
| ** | Subcontracted test. | | AGS Reference | | | | | | | |
| ** | % 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 Trigger breach confirmed | | | | | | | | | |
| Component | LOD/Units | Method | | | | | | | | |
| 1,2-Dibromoethane | <1 µg/l | TM208 | <1 | # | <1 | # | <1 | # | <1 | # |
| Chlorobenzene | <1 µg/l | TM208 | <1 | # | <1 | # | <1 | # | <1 | # |
| 1,1,1,2-Tetrachloroethane | <1 µg/l | TM208 | <1 | # | <1 | # | <1 | # | <1 | # |
| Ethylbenzene | <1 µg/l | TM208 | 462 | # | 283 | # | 2.17 | # | 199 | # |
| m,p-Xylene | <1 µg/l | TM208 | 1650 | # | 1480 | # | 7.71 | # | 1050 | # |
| o-Xylene | <1 µg/l | TM208 | 788 | # | 554 | # | 10.8 | # | 528 | # |
| Styrene | <1 µg/l | TM208 | 65.6 | # | 103 | # | <1 | # | 331 | # |
| Bromoform | <1 µg/l | TM208 | <1 | # | <1 | # | <1 | # | <1 | # |
| Isopropylbenzene | <1 µg/l | TM208 | 29.5 | # | 16.7 | # | 1.24 | # | 8.51 | # |
| 1,1,2,2-Tetrachloroethane | <1 µg/l | TM208 | <1 | # | <1 | # | <1 | # | <1 | # |
| 1,2,3-Trichloropropane | <1 µg/l | TM208 | <1 | # | <1 | # | <1 | # | <1 | # |
| Bromobenzene | <1 µg/l | TM208 | <1 | # | <1 | # | <1 | # | <1 | # |
| Propylbenzene | <1 µg/l | TM208 | 29.9 | # | 16 | # | <1 | # | 10.1 | # |
| 2-Chlorotoluene | <1 µg/l | TM208 | <1 | # | <1 | # | <1 | # | <1 | # |
| 1,3,5-Trimethylbenzene | <1 µg/l | TM208 | 98.7 | # | 123 | # | <1 | # | 55.1 | # |
| 4-Chlorotoluene | <1 µg/l | TM208 | <1 | # | <1 | # | <1 | # | <1 | # |
| tert-Butylbenzene | <1 µg/l | TM208 | <1 | # | <1 | # | <1 | # | <1 | # |
| 1,2,4-Trimethylbenzene | <1 µg/l | TM208 | 375 | # | 314 | # | 2.88 | # | 145 | # |
| sec-Butylbenzene | <1 µg/l | TM208 | <1 | # | <1 | # | <1 | # | <1 | # |
| 4-iso-Propyltoluene | <1 µg/l | TM208 | 44 | # | 26.5 | # | <1 | # | <1 | # |
| 1,3-Dichlorobenzene | <1 µg/l | TM208 | <1 | # | <1 | # | <1 | # | <1 | # |
| 1,4-Dichlorobenzene | <1 µg/l | TM208 | <1 | # | <1 | # | <1 | # | <1 | # |
| n-Butylbenzene | <1 µg/l | TM208 | <1 | # | <1 | # | <1 | # | <1 | # |
| 1,2-Dichlorobenzene | <1 µg/l | TM208 | <1 | # | <1 | # | <1 | # | <1 | # |
| 1,2-Dibromo-3-chloropropane | <1 µg/l | TM208 | <1 | # | <1 | # | <1 | # | <1 | # |
| 1,2,4-Trichlorobenzene | <1 µg/l | TM208 | <1 | # | <1 | # | <1 | # | <1 | # |
| Hexachlorobutadiene | <1 µg/l | TM208 | <1 | # | <1 | # | <1 | # | <1 | # |
| tert-Amyl methyl ether (TAME) | <1 µg/l | TM208 | <1 | # | <1 | # | <1 | # | <1 | # |
| Naphthalene | <1 µg/l | TM208 | 3100 | # | 2310 | # | 2.78 | # | 3750 | # |
| 1,2,3-Trichlorobenzene | <1 µg/l | TM208 | <1 | # | <1 | # | <1 | # | <1 | # |
| 1,3,5-Trichlorobenzene | <1 µg/l | TM208 | <1 | # | <1 | # | <1 | # | <1 | # |



CERTIFICATE OF ANALYSIS

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:

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.

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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:

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 | 2.00 - 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 |



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:

Chromatogram

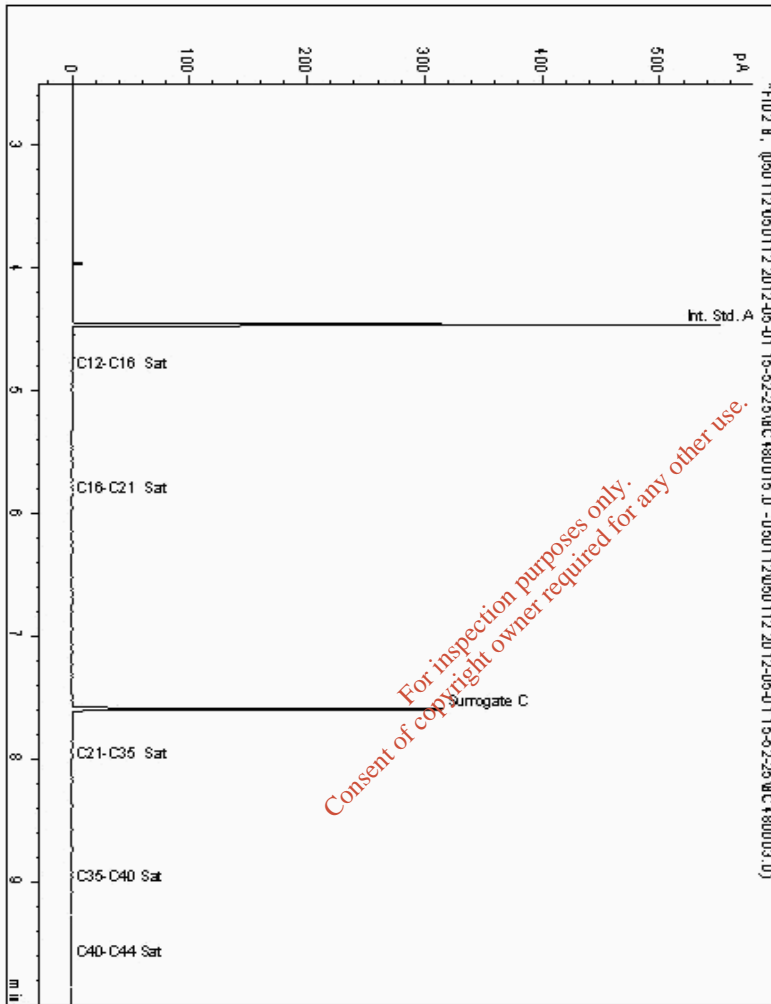
Analysis: EPH CWG (Aliphatic) Aqueous GC (W)

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





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:

Chromatogram

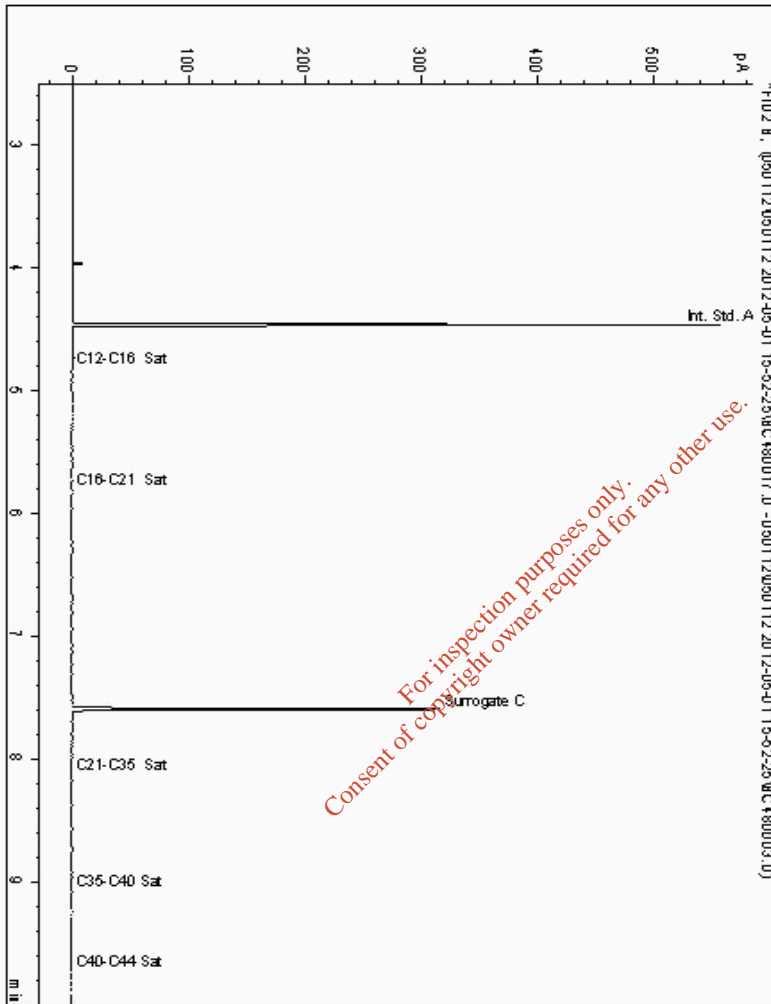
Analysis: EPH CWG (Aliphatic) Aqueous GC (W)

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
Job: D_MOUCHEL_ELE-1
Client Reference:

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

Order Number: 4500094829
Report Number: 180196
Superseded Report:

Chromatogram

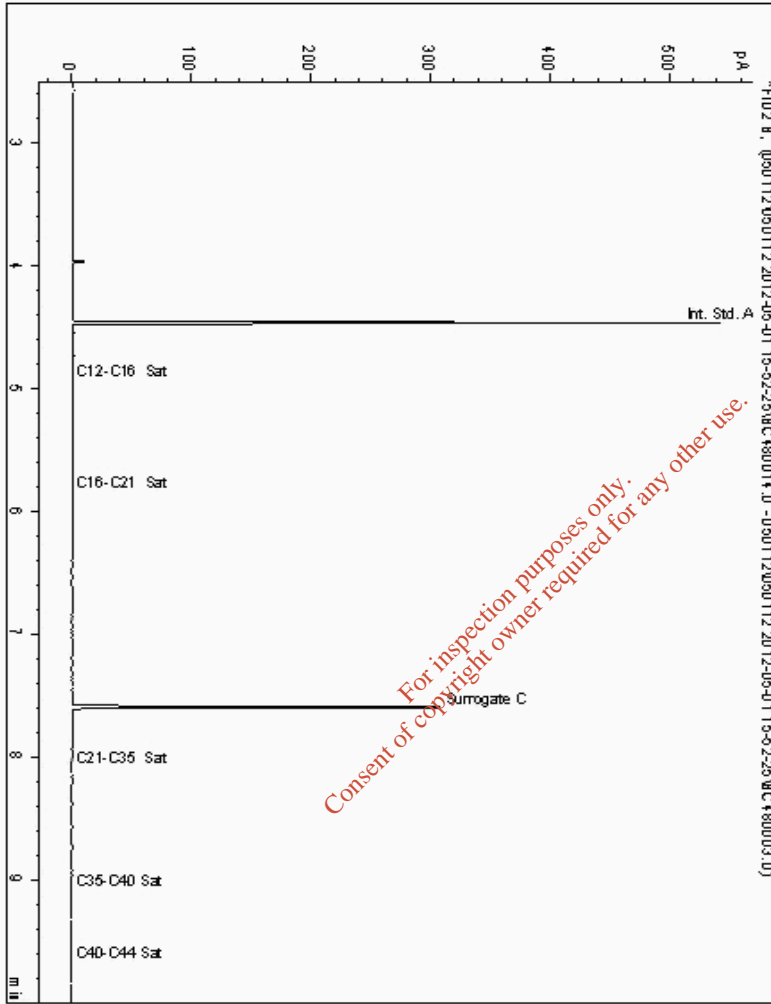
Analysis: EPH CWG (Aliphatic) Aqueous GC (W)

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



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CERTIFICATE OF ANALYSIS

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:

Chromatogram

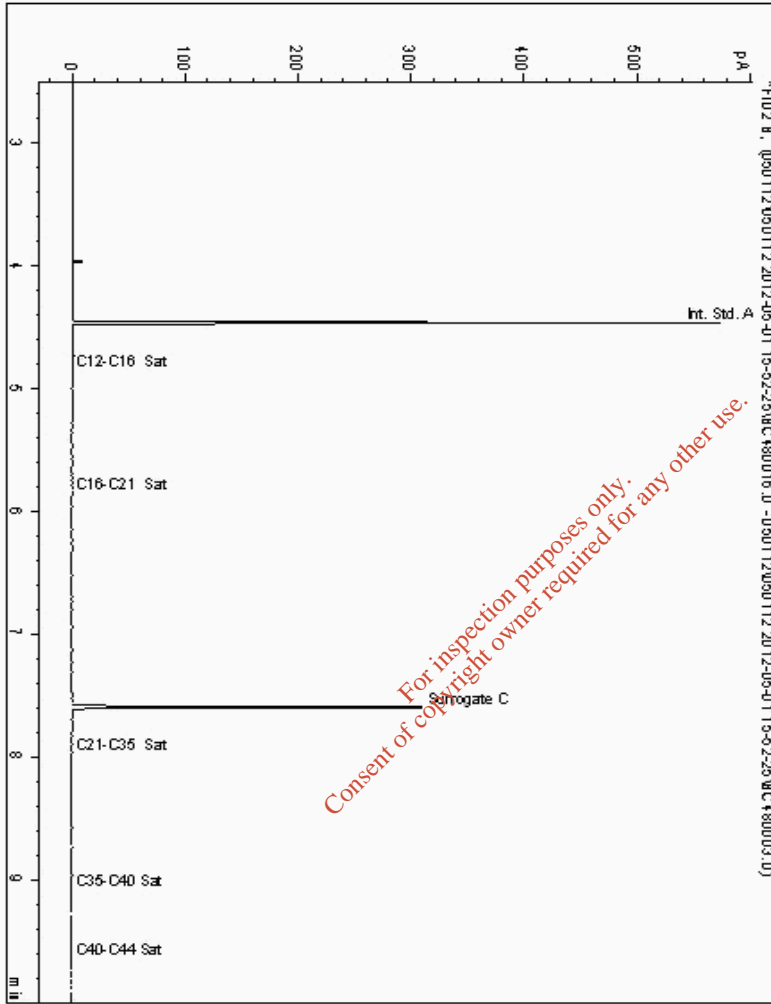
Analysis: EPH CWG (Aliphatic) Aqueous GC (W)

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





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:

Chromatogram

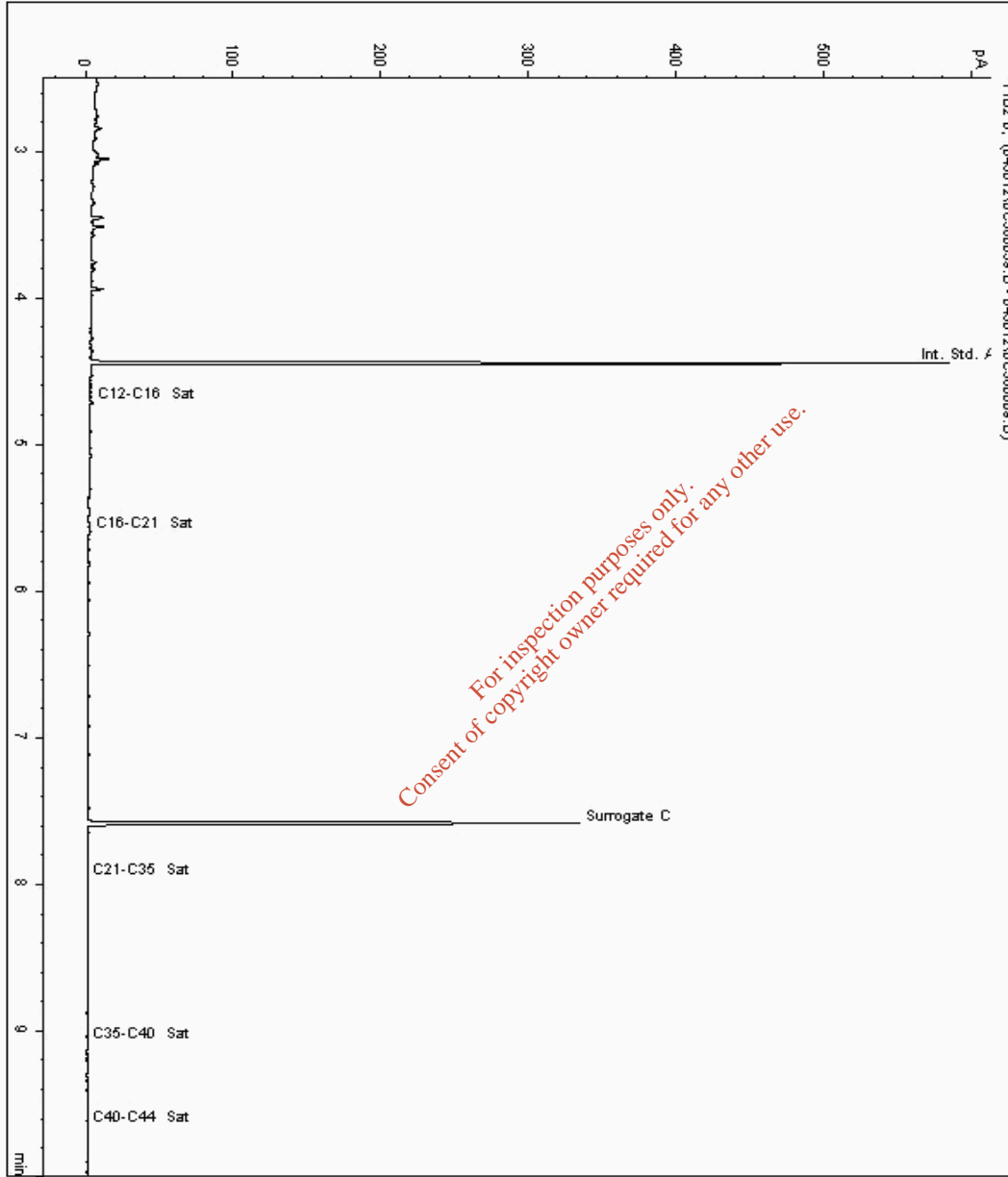
Analysis: EPH CWG (Aliphatic) Aqueous GC (W)

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
Job: D_MOUCHEL_ELE-1
Client Reference:

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

Order Number: 4500094829
Report Number: 180196
Superseded Report:

Chromatogram

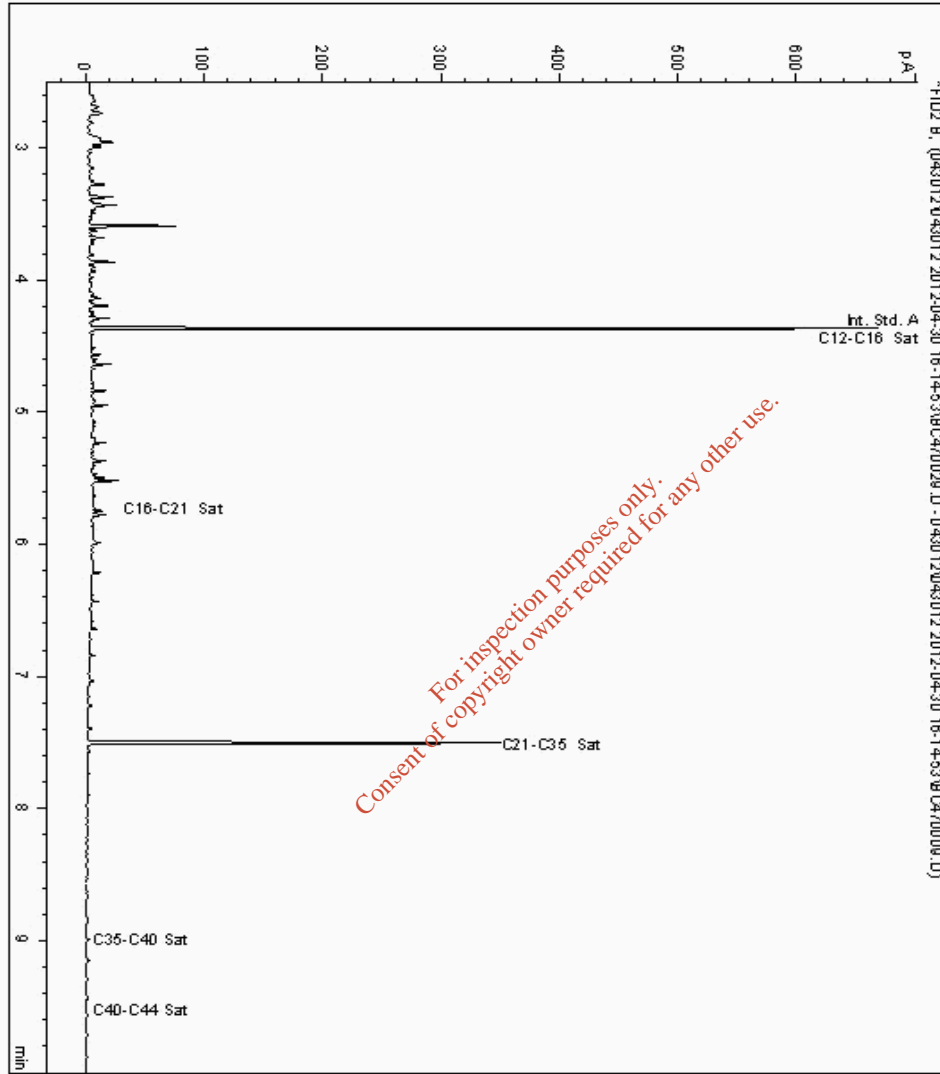
Analysis: EPH CWG (Aliphatic) Aqueous GC (W)

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





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:

Chromatogram

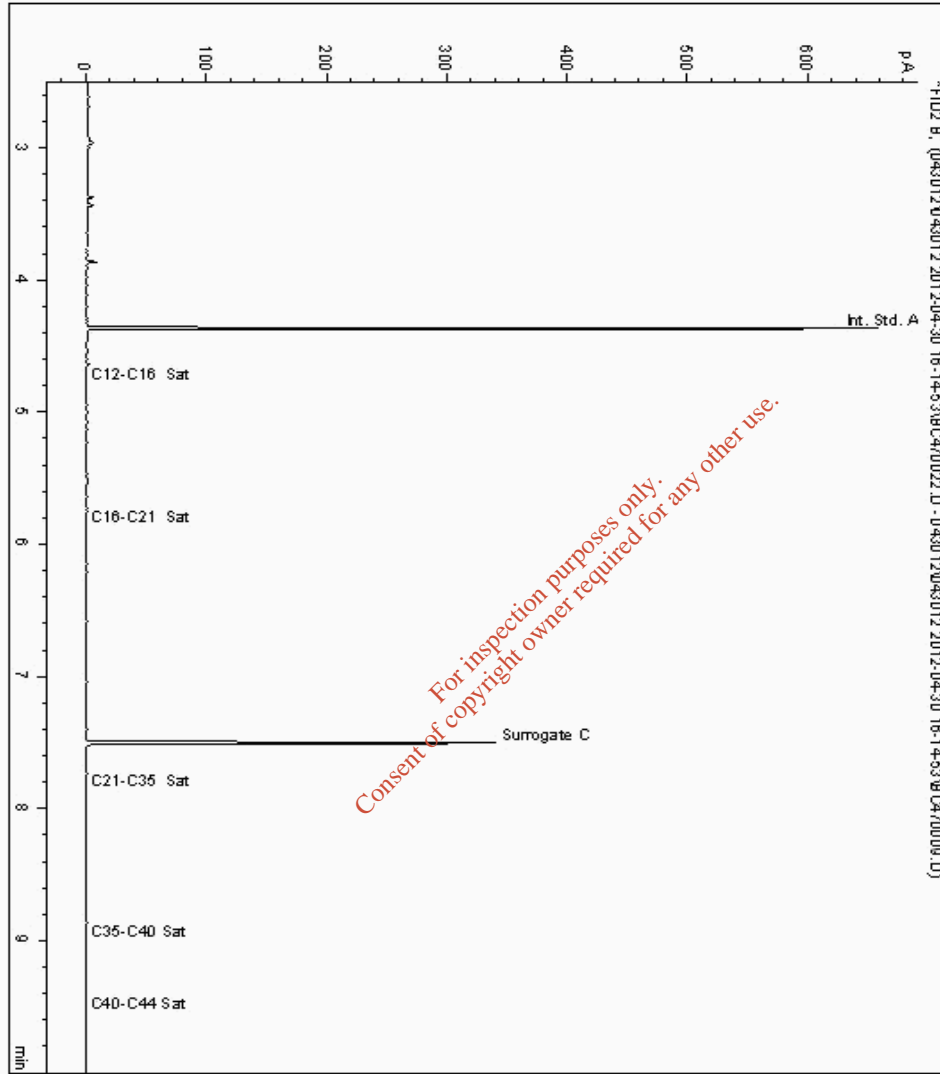
Analysis: EPH CWG (Aliphatic) Aqueous GC (W)

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





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:

Chromatogram

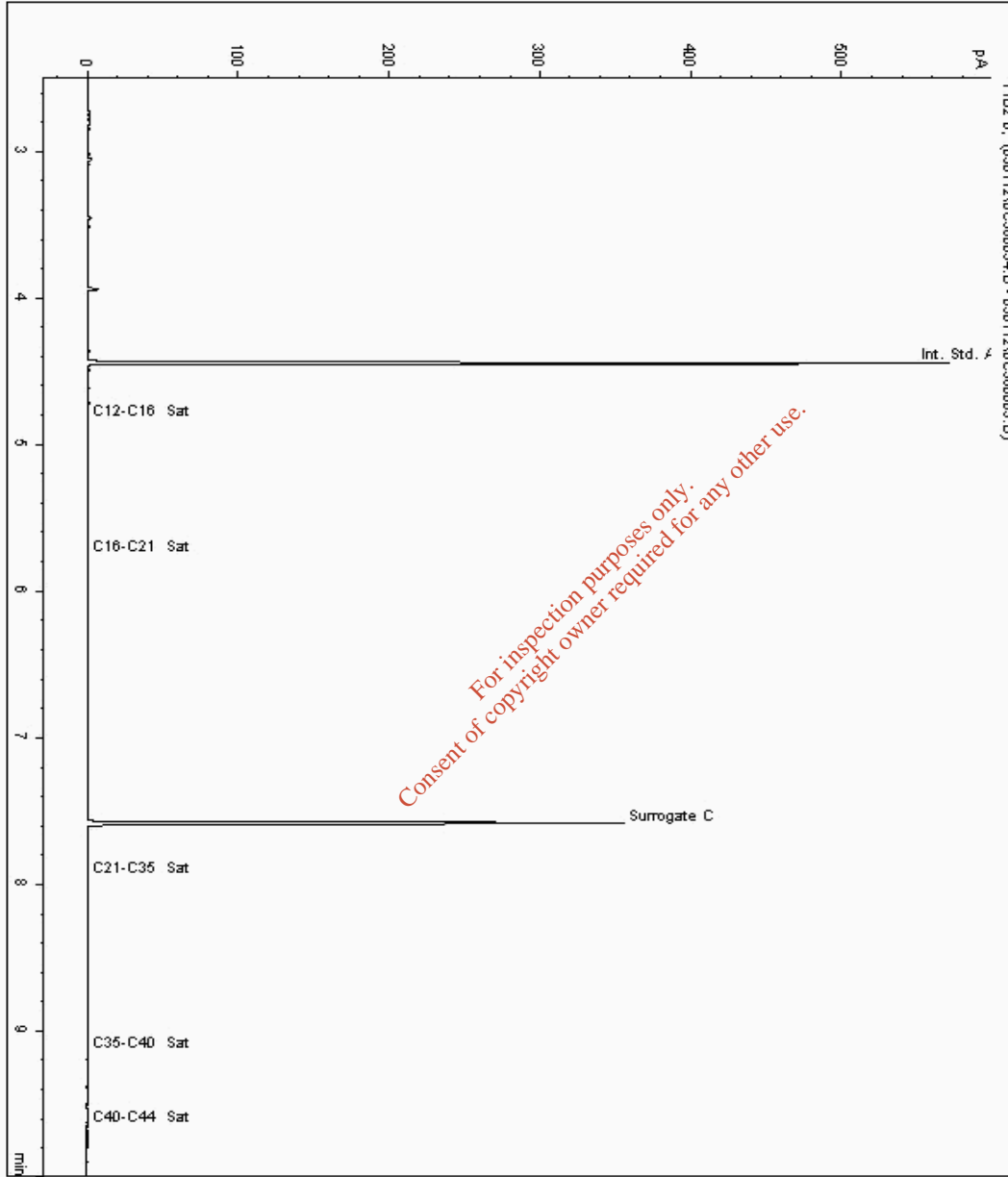
Analysis: EPH CWG (Aliphatic) Aqueous GC (W)

Sample No : 5511009
Sample ID : G2

Depth : 5.00

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

Sample Identity: 5390336-5511009
Date Acquired : 02/05/12 13:38:53 PM
Units : ppb
Dilution :
CF : 1
Multiplier : 0.008





CERTIFICATE OF ANALYSIS

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:

Chromatogram

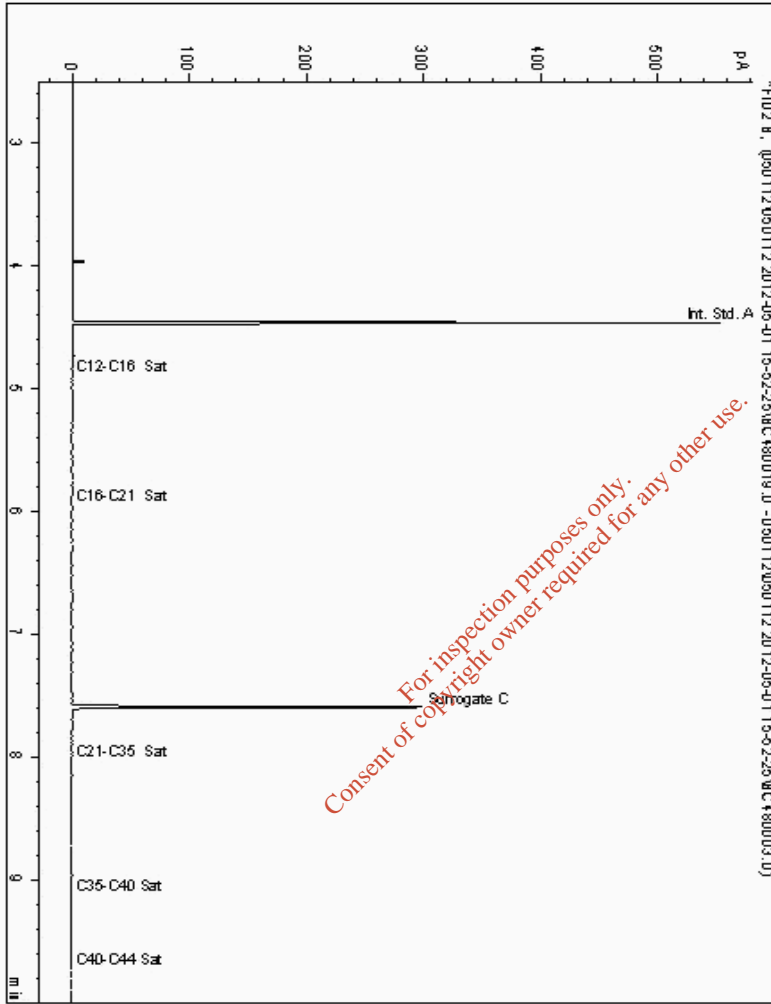
Analysis: EPH CWG (Aliphatic) Aqueous GC (W)

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
Job: D_MOUCHEL_ELE-1
Client Reference:

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

Order Number: 4500094829
Report Number: 180196
Superseded Report:

Chromatogram

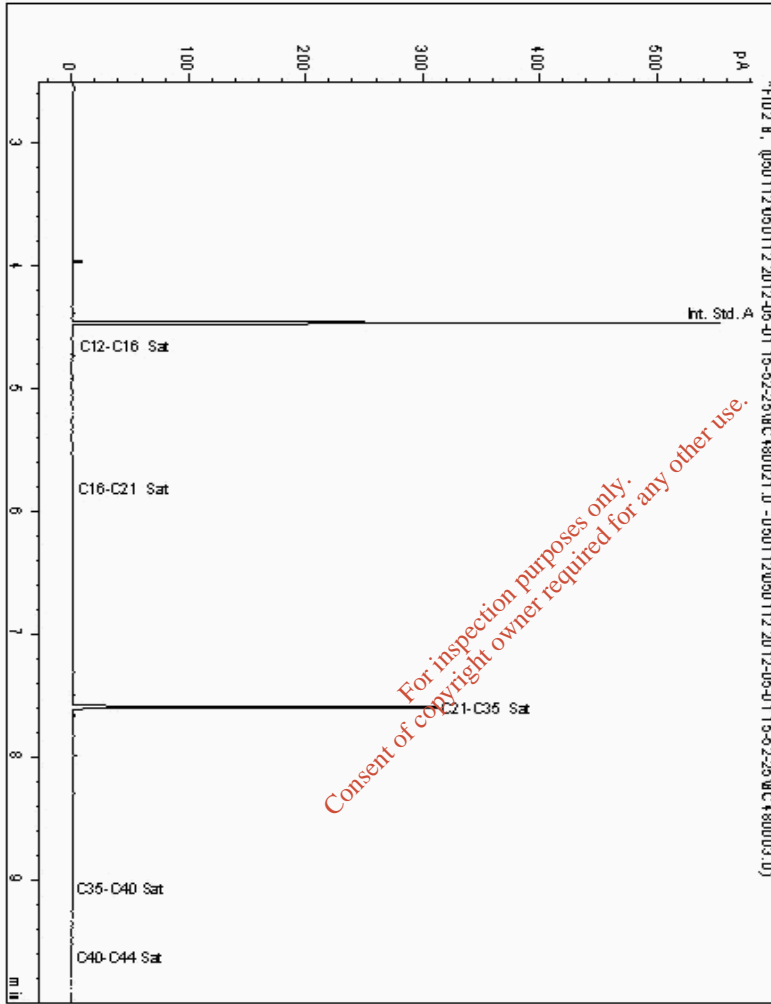
Analysis: EPH CWG (Aliphatic) Aqueous GC (W)

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





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:

Chromatogram

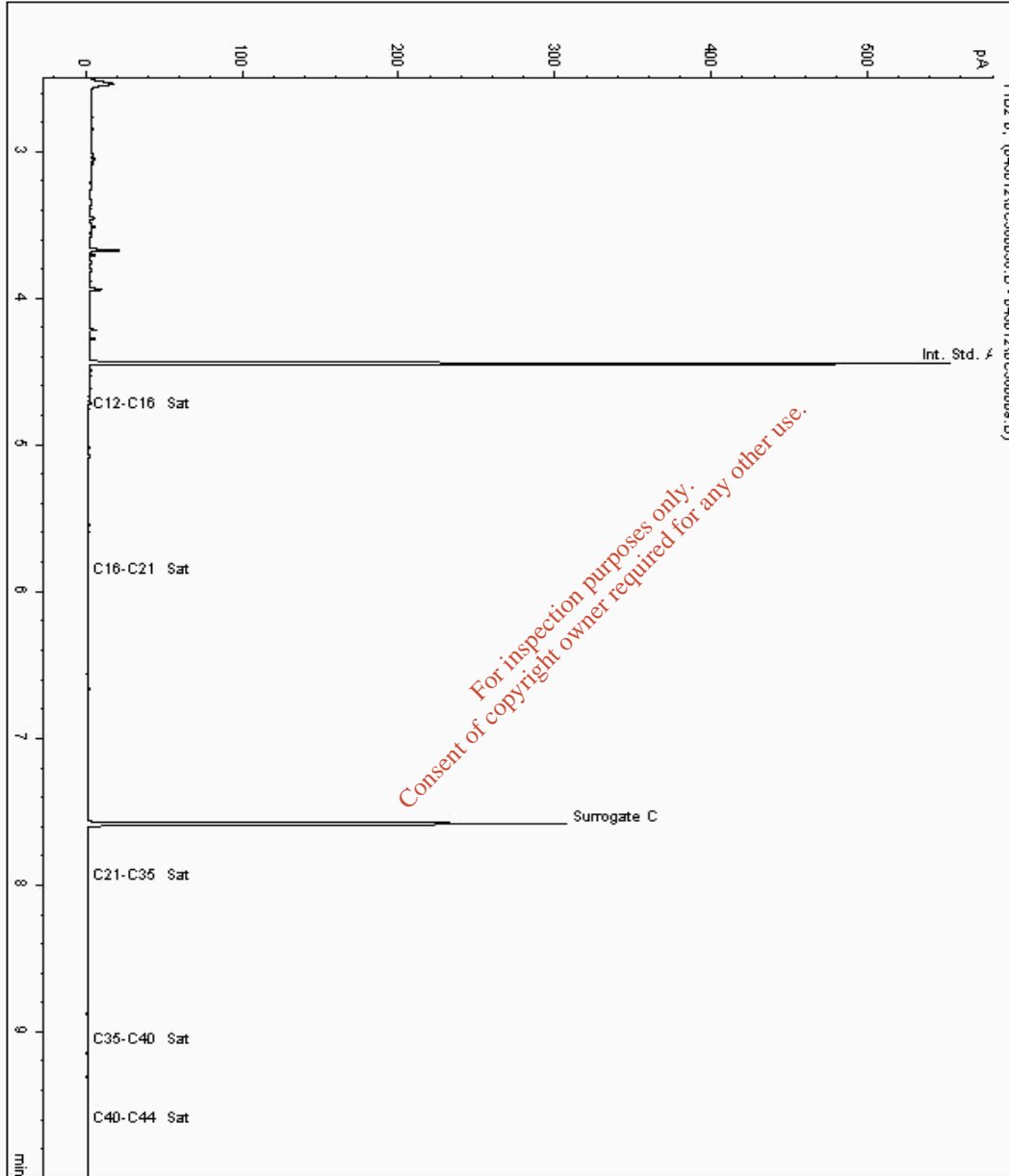
Analysis: EPH CWG (Aliphatic) Aqueous GC (W)

Sample No : 5511185
Sample ID : G8

Depth : 0.50 - 1.50

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

Sample Identity: 5390281-5511185
Date Acquired : 01/05/12 02:41:00 PM
Units : ppb
Dilution :
CF : 1
Multiplier : 0.008





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:

Chromatogram

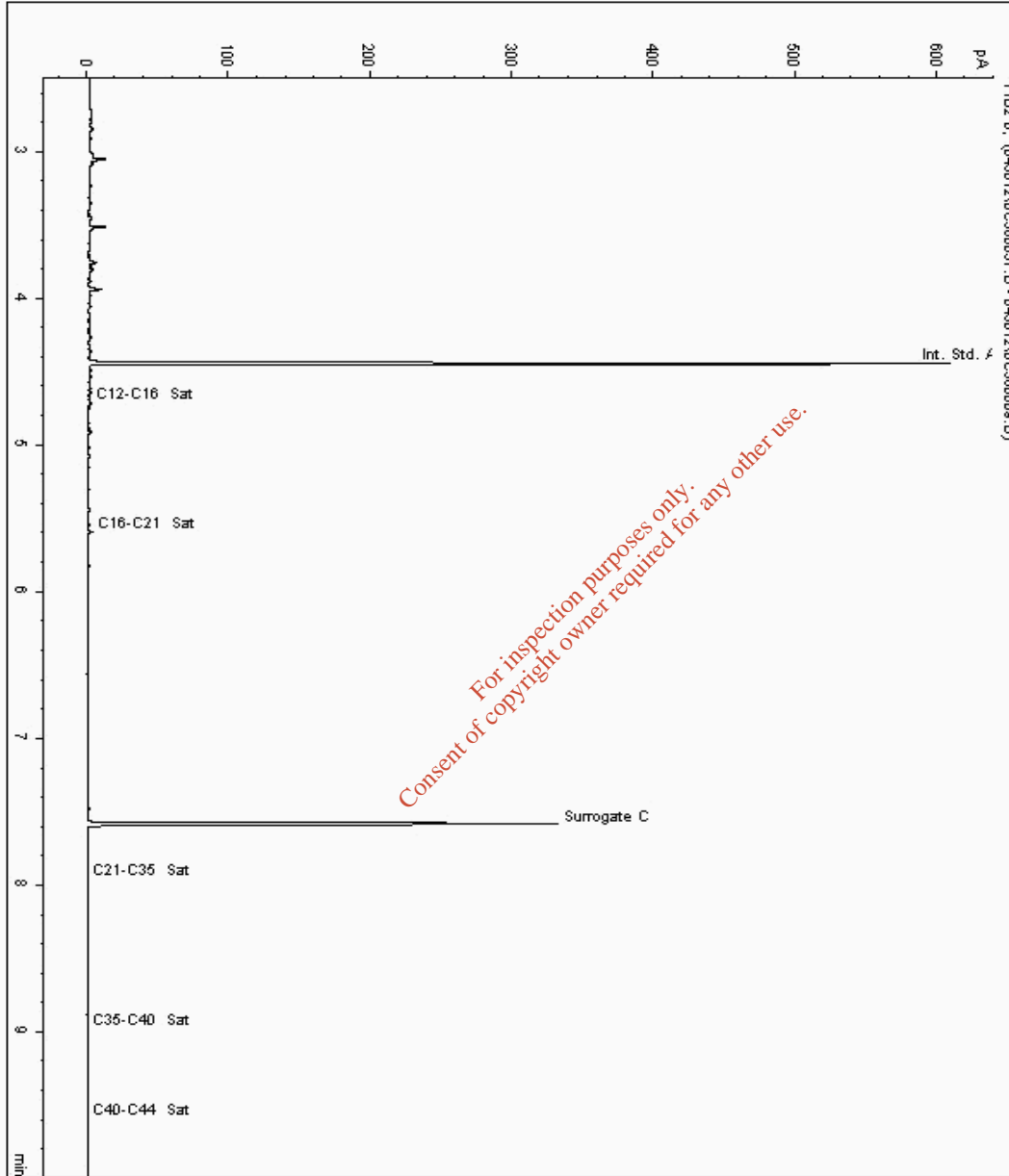
Analysis: EPH CWG (Aliphatic) Aqueous GC (W)

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





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:

Chromatogram

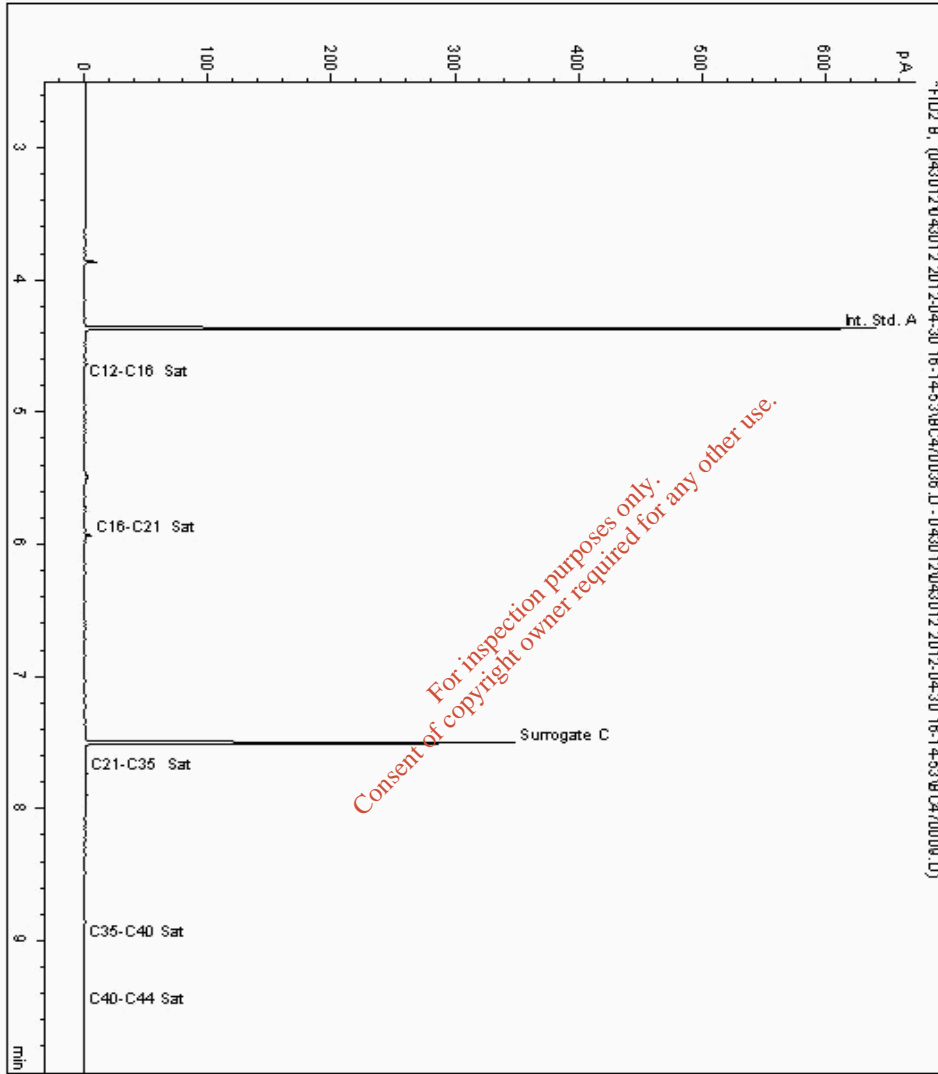
Analysis: EPH CWG (Aliphatic) Aqueous GC (W)

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





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:

Chromatogram

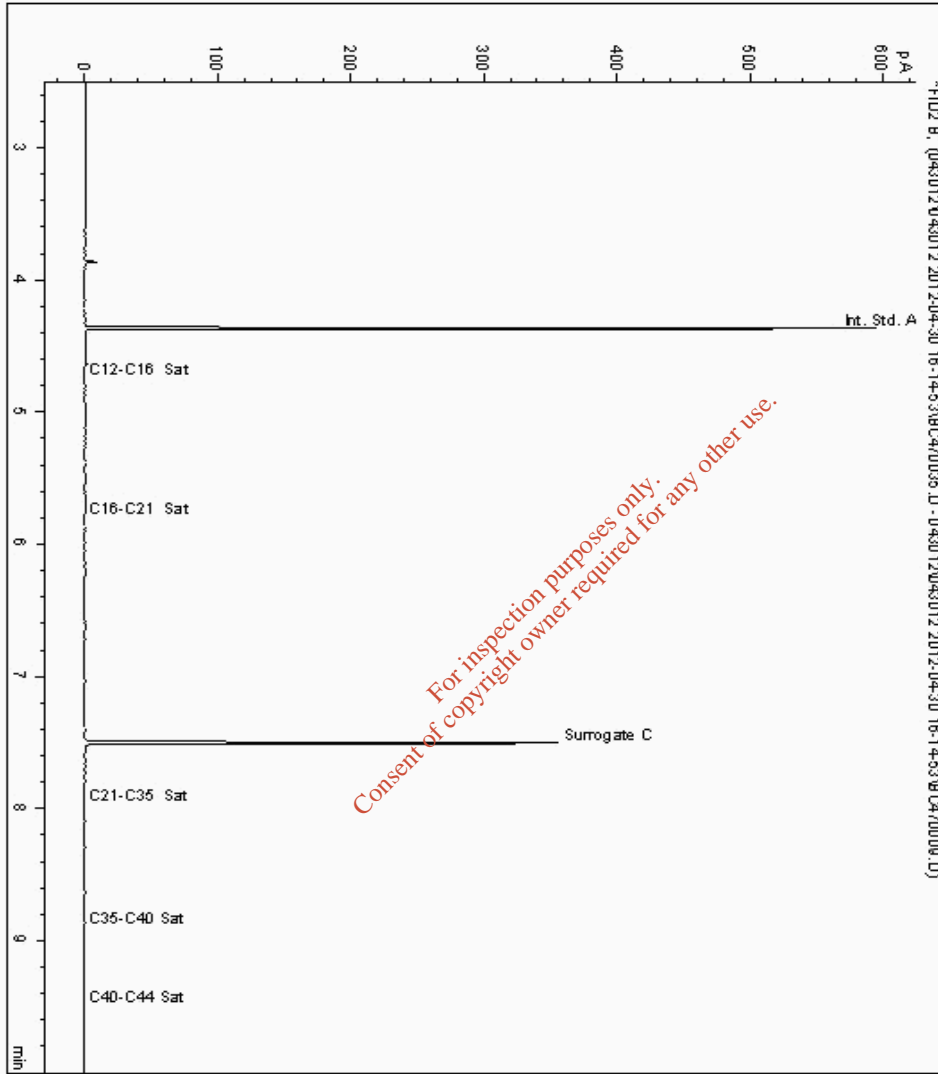
Analysis: EPH CWG (Aliphatic) Aqueous GC (W)

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
Job: D_MOUCHEL_ELE-1
Client Reference:

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

Order Number: 4500094829
Report Number: 180196
Superseded Report:

Chromatogram

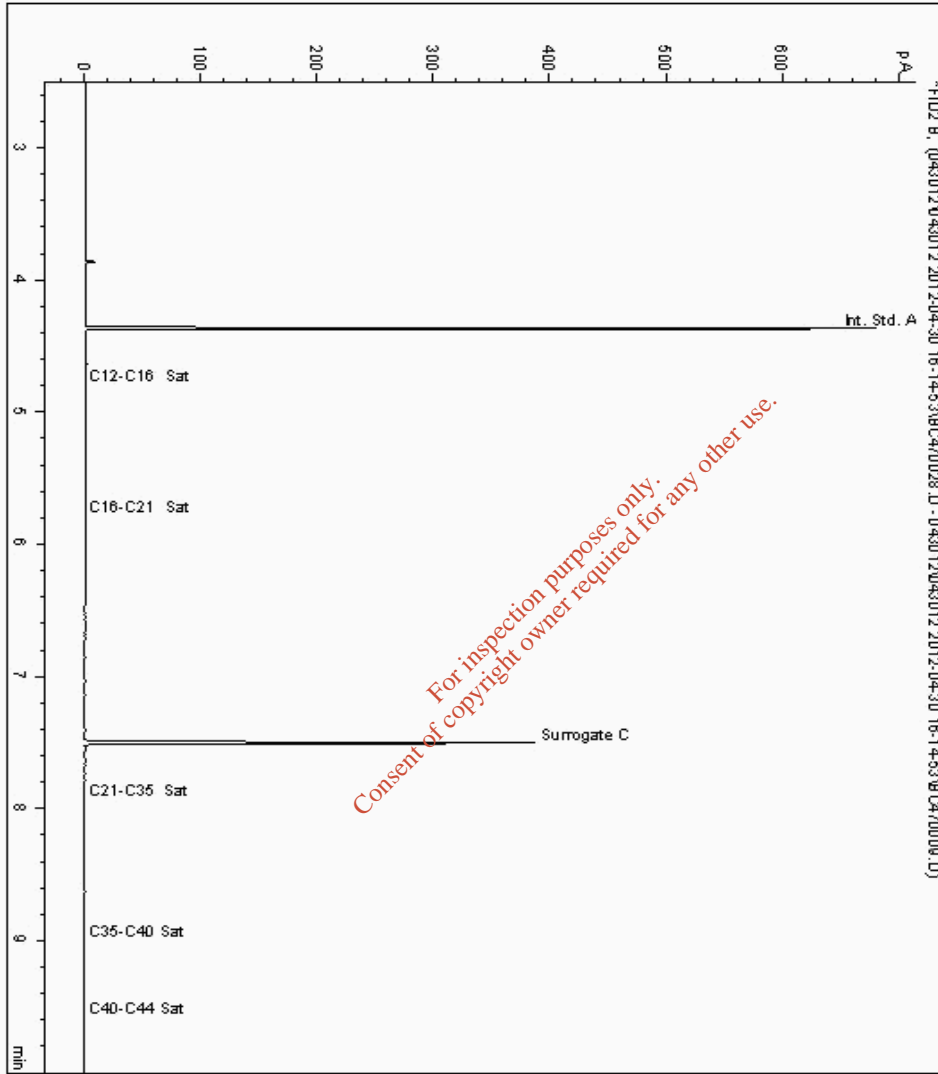
Analysis: EPH CWG (Aliphatic) Aqueous GC (W)

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



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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:

Chromatogram

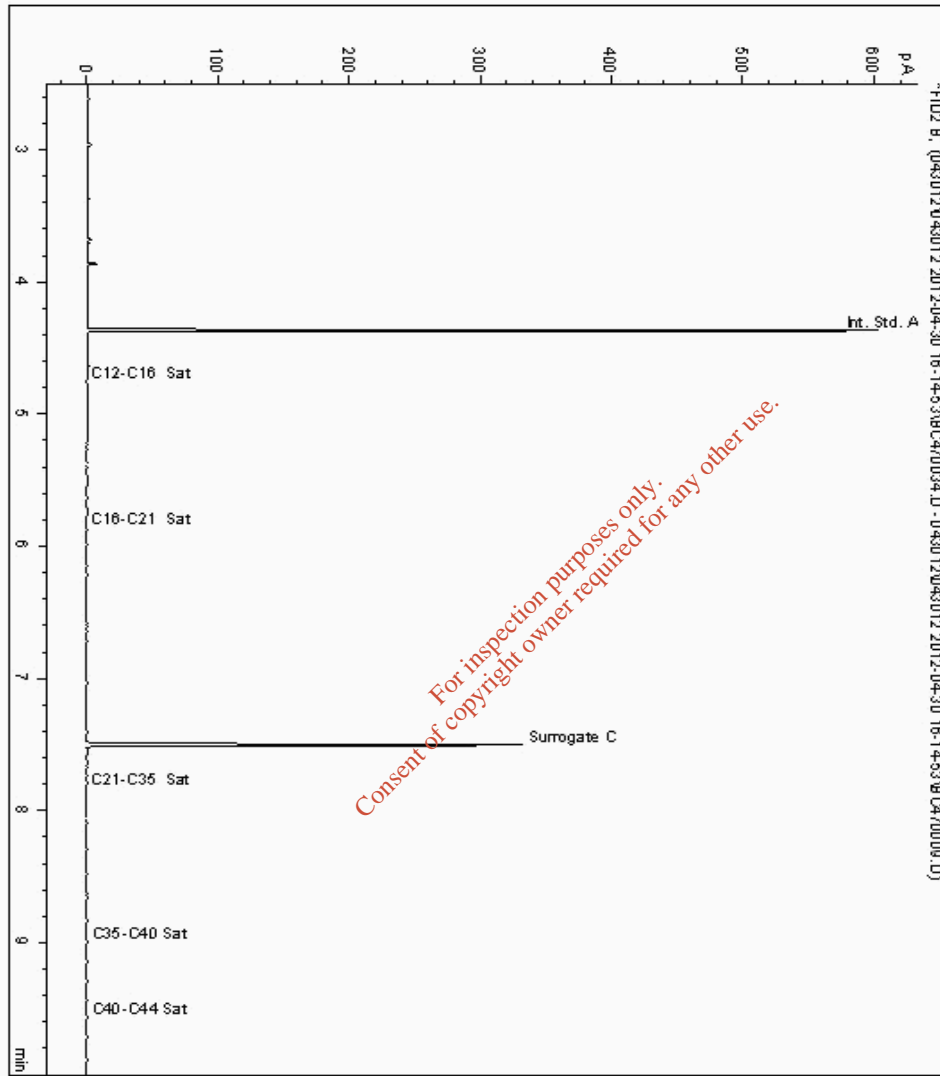
Analysis: EPH CWG (Aliphatic) Aqueous GC (W)

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





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:

Chromatogram

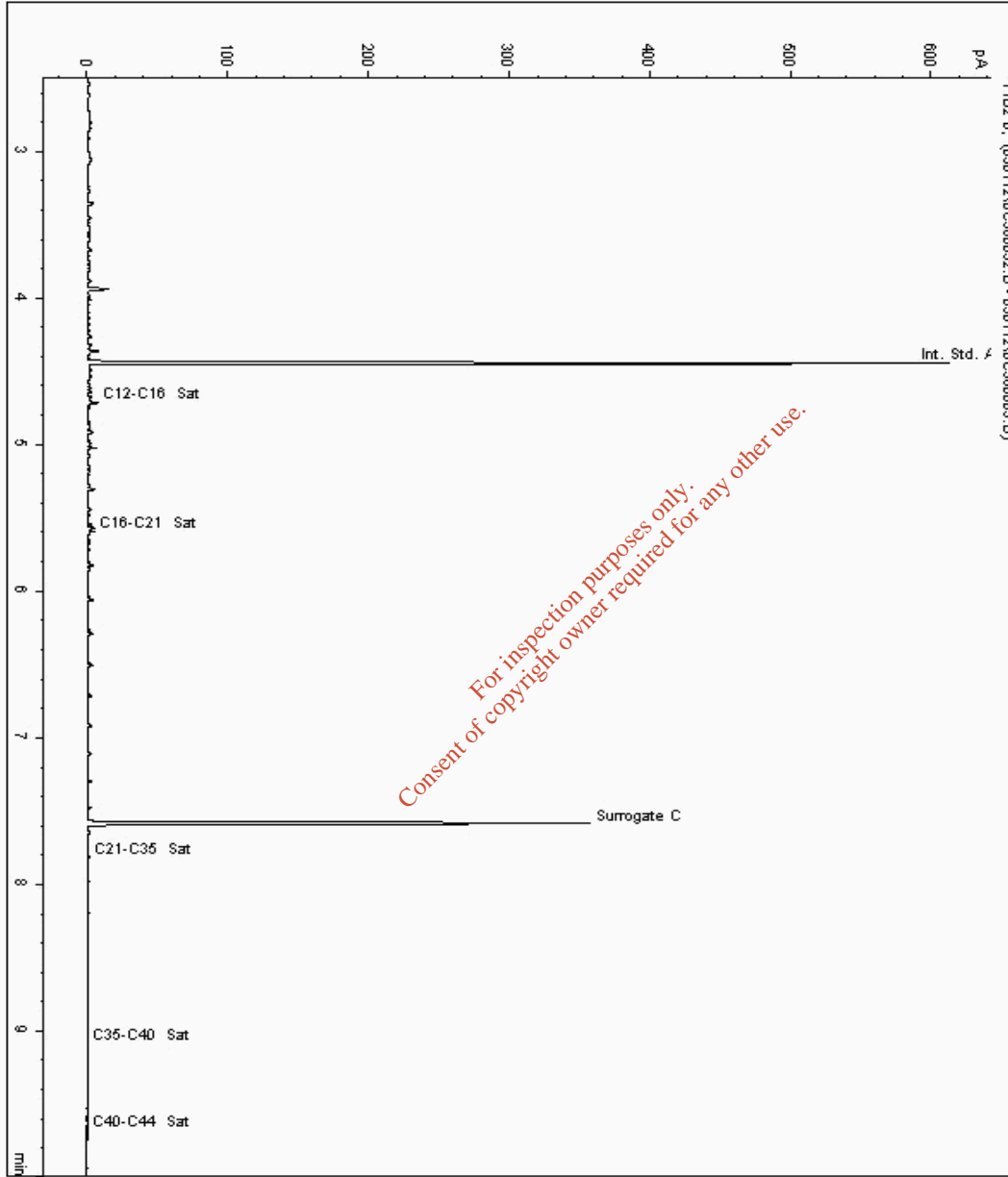
Analysis: EPH CWG (Aliphatic) Aqueous GC (W)

Sample No : 5512082
Sample ID : C7

Depth : 1.80 - 2.50

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

Sample Identity: 5390924-5512082
Date Acquired : 02/05/12 13:10:45 PM
Units : ppb
Dilution :
CF : 1
Multiplier : 0.009





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:

Chromatogram

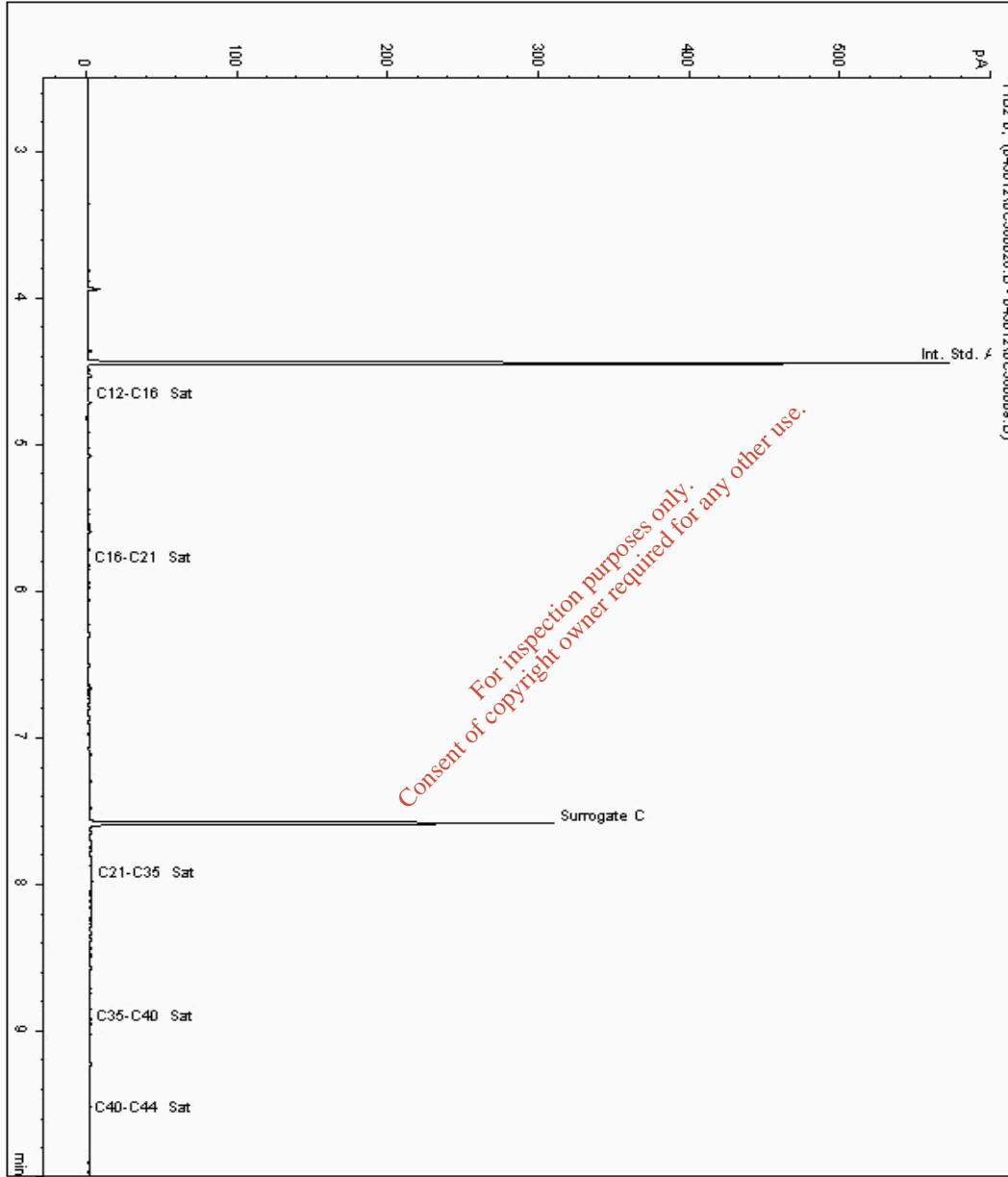
Analysis: EPH CWG (Aliphatic) Aqueous GC (W)

Sample No : 5512103
Sample ID : A11

Depth : 1.50

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

Sample Identity: 5390879-5512103
Date Acquired : 30/04/12 23:03:48 PM
Units : ppb
Dilution :
CF : 1
Multiplier : 0.008





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:

Chromatogram

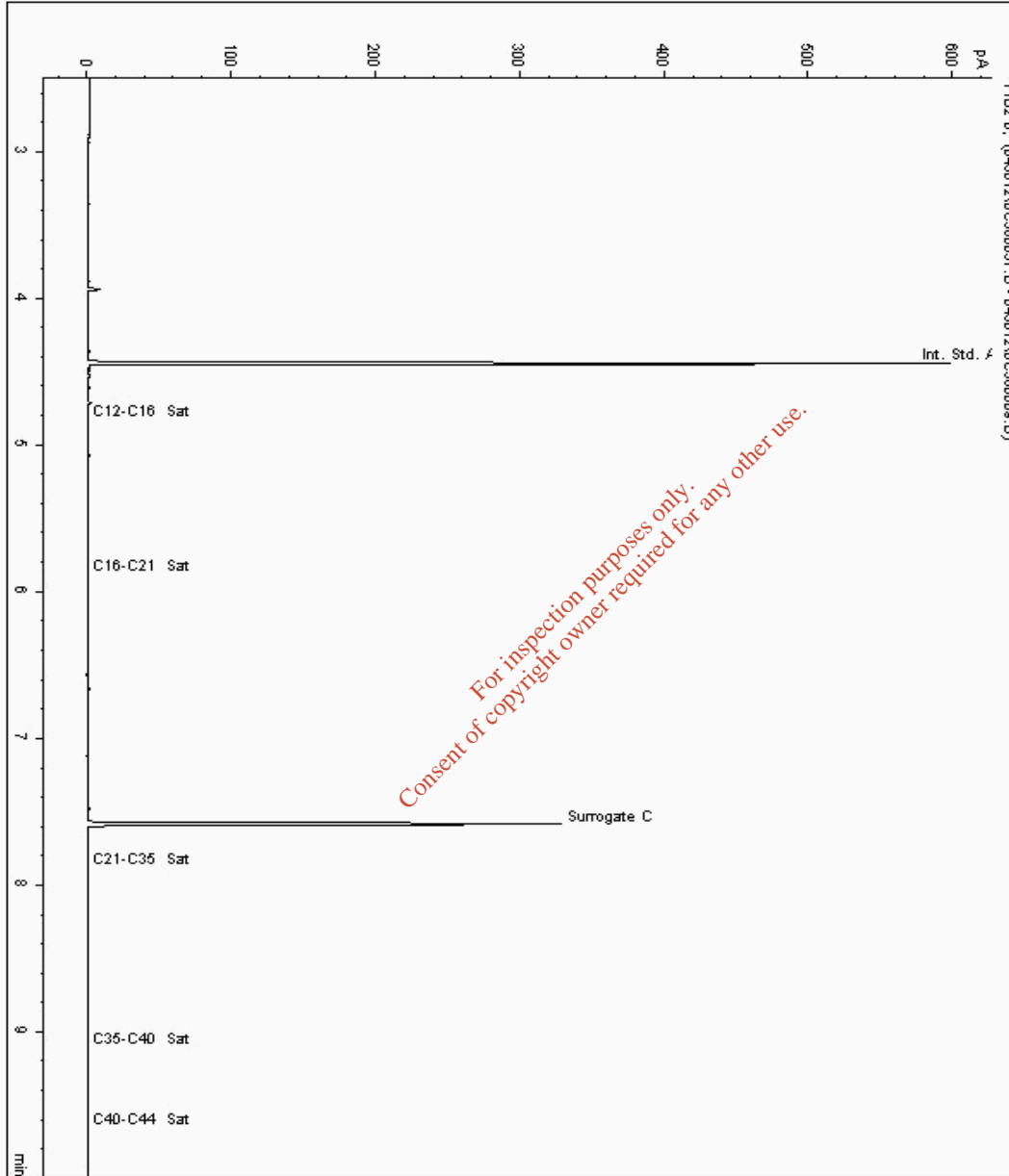
Analysis: EPH CWG (Aliphatic) Aqueous GC (W)

Sample No : 5512105
Sample ID : A9

Depth : 1.80 - 2.40

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

Sample Identity: 5390909-5512105
Date Acquired : 01/05/12 08:10:30 PM
Units : ppb
Dilution :
CF : 1
Multiplier : 0.009





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:

Chromatogram

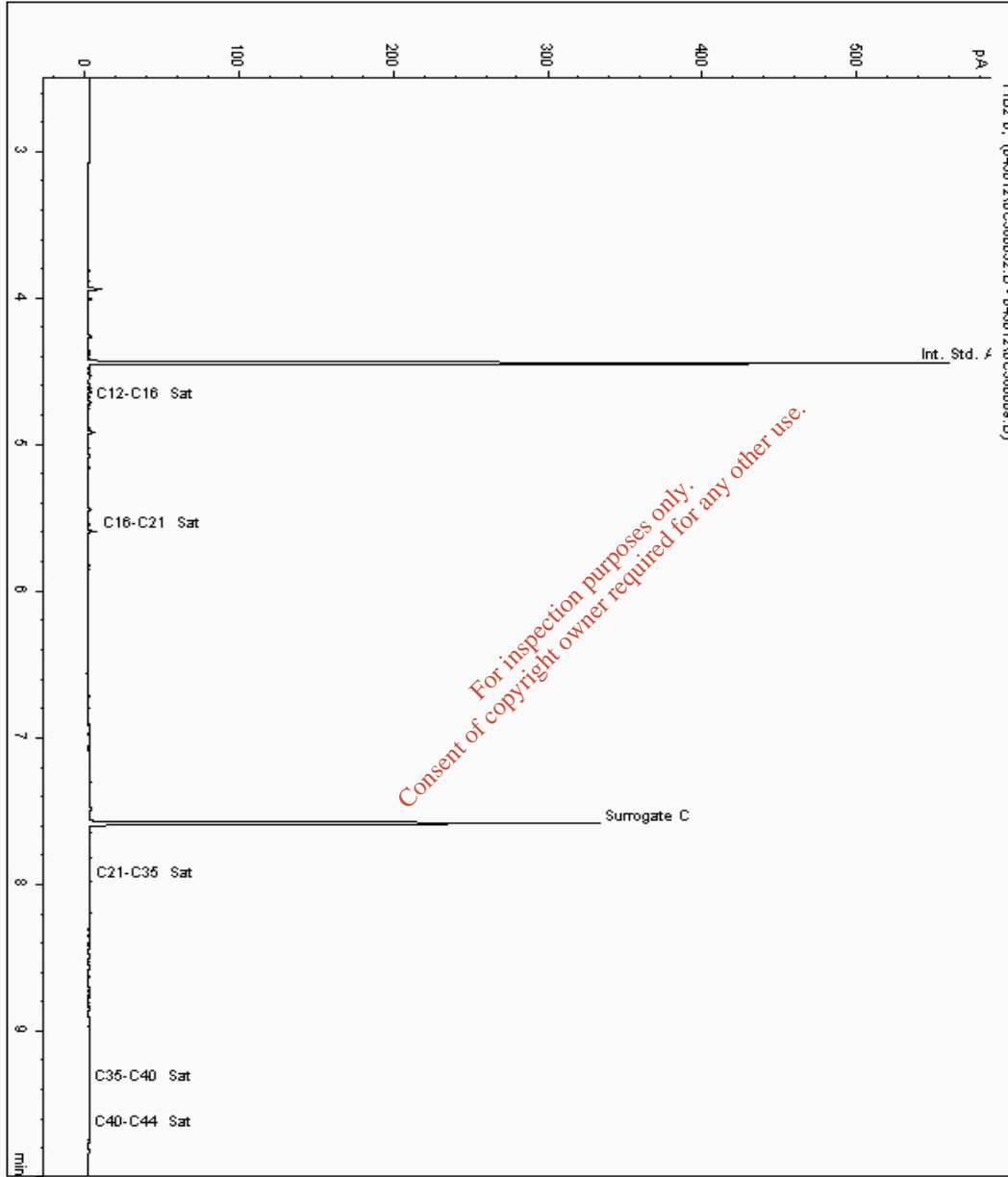
Analysis: EPH CWG (Aliphatic) Aqueous GC (W)

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





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:

Chromatogram

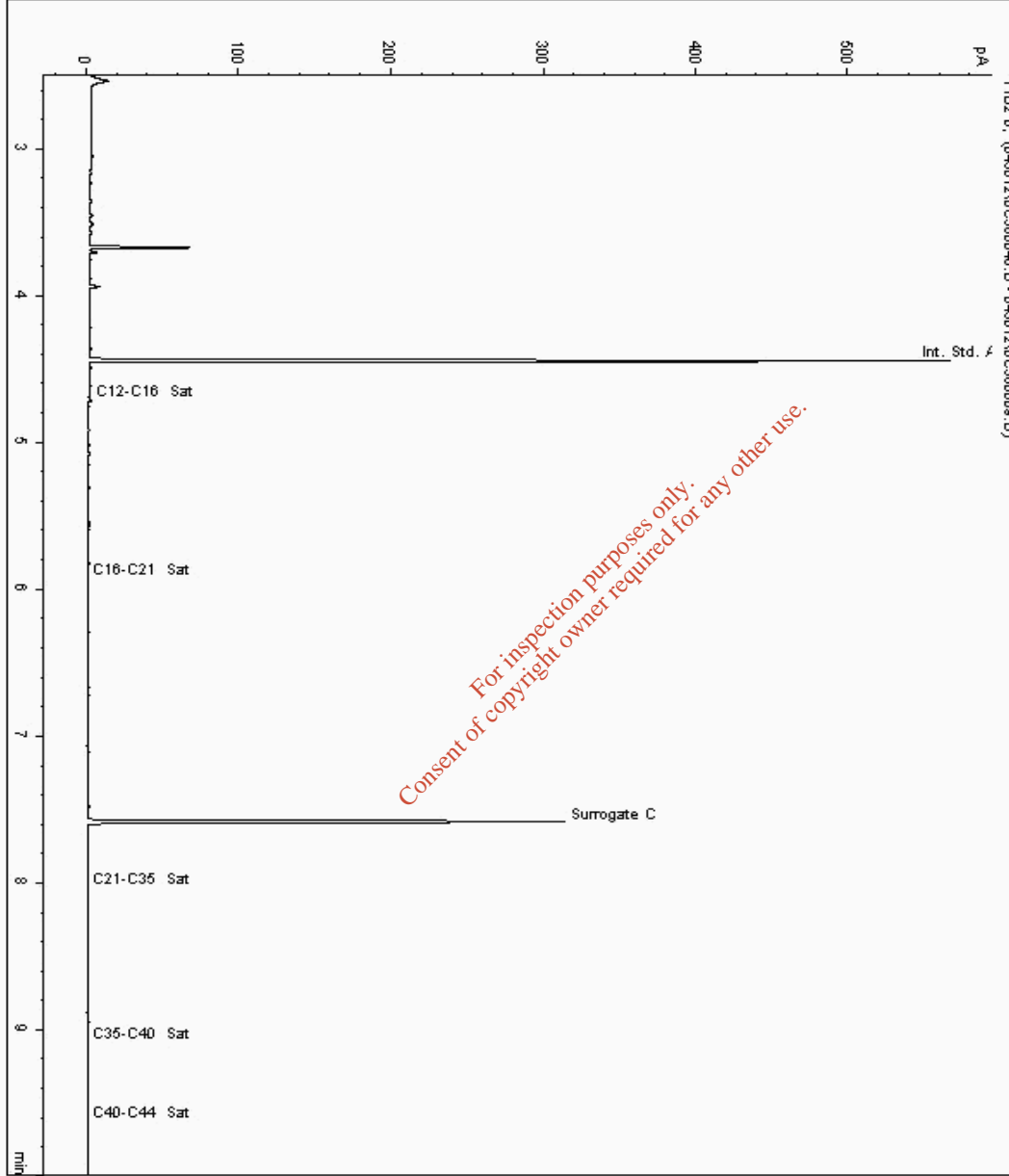
Analysis: EPH CWG (Aliphatic) Aqueous GC (W)

Sample No : 5512148
Sample ID : E8

Depth : 3.50

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

Sample Identity: 5390894-5512148
Date Acquired : 01/05/12 05:02:52 PM
Units : ppb
Dilution :
CF : 1
Multiplier : 0.008





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:

Chromatogram

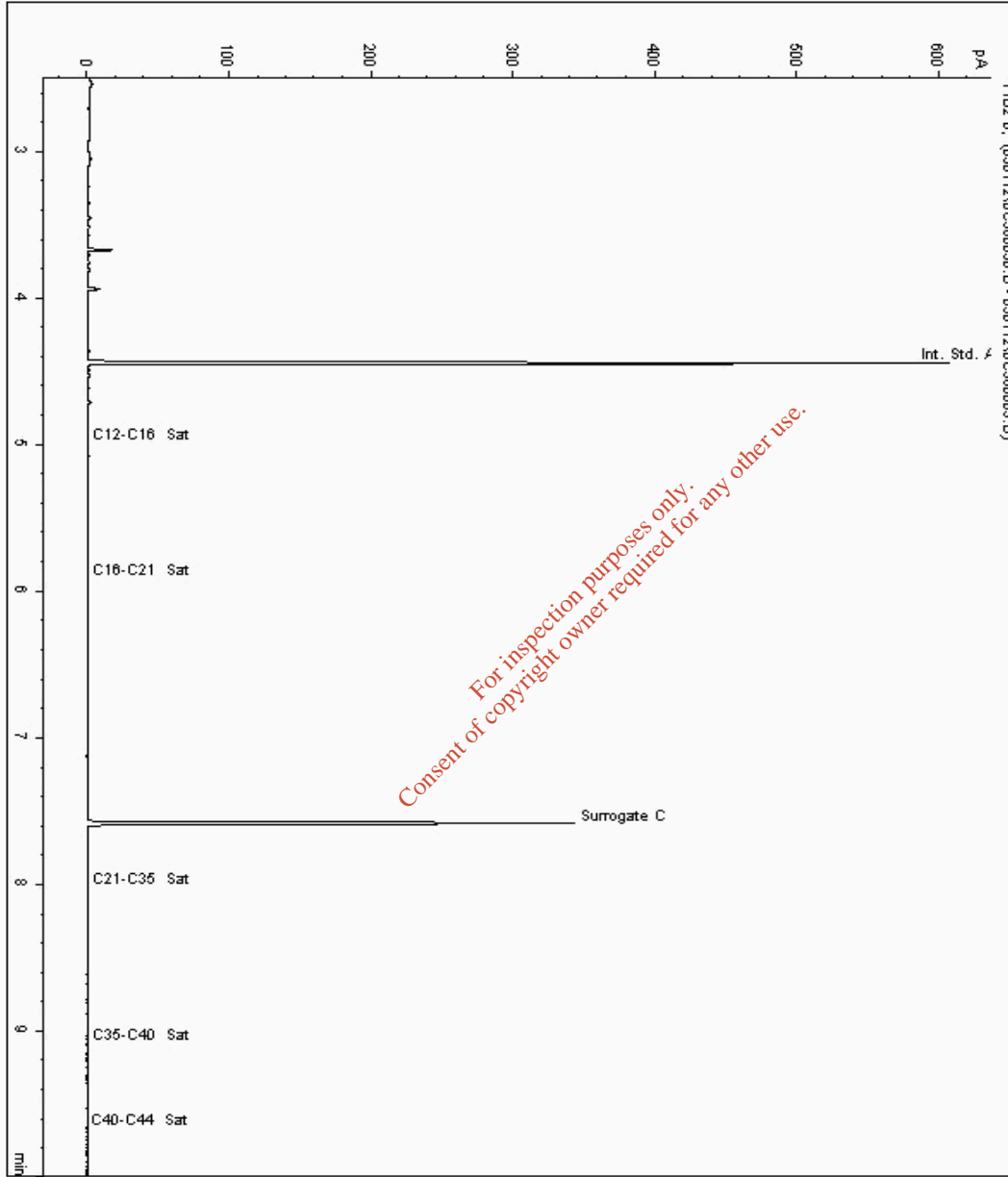
Analysis: EPH CWG (Aliphatic) Aqueous GC (W)

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
Job: D_MOUCHEL_ELE-1
Client Reference:

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

Order Number: 4500094829
Report Number: 180196
Superseded Report:

Chromatogram

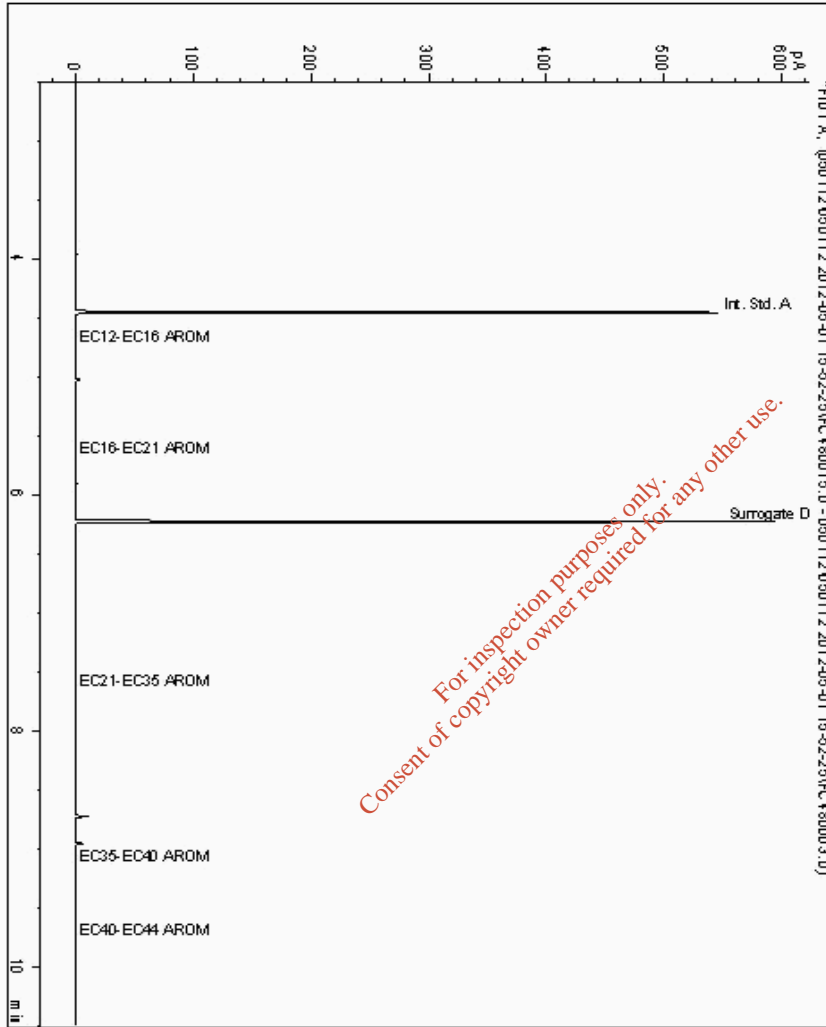
Analysis: EPH CWG (Aromatic) Aqueous GC (W)

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





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:

Chromatogram

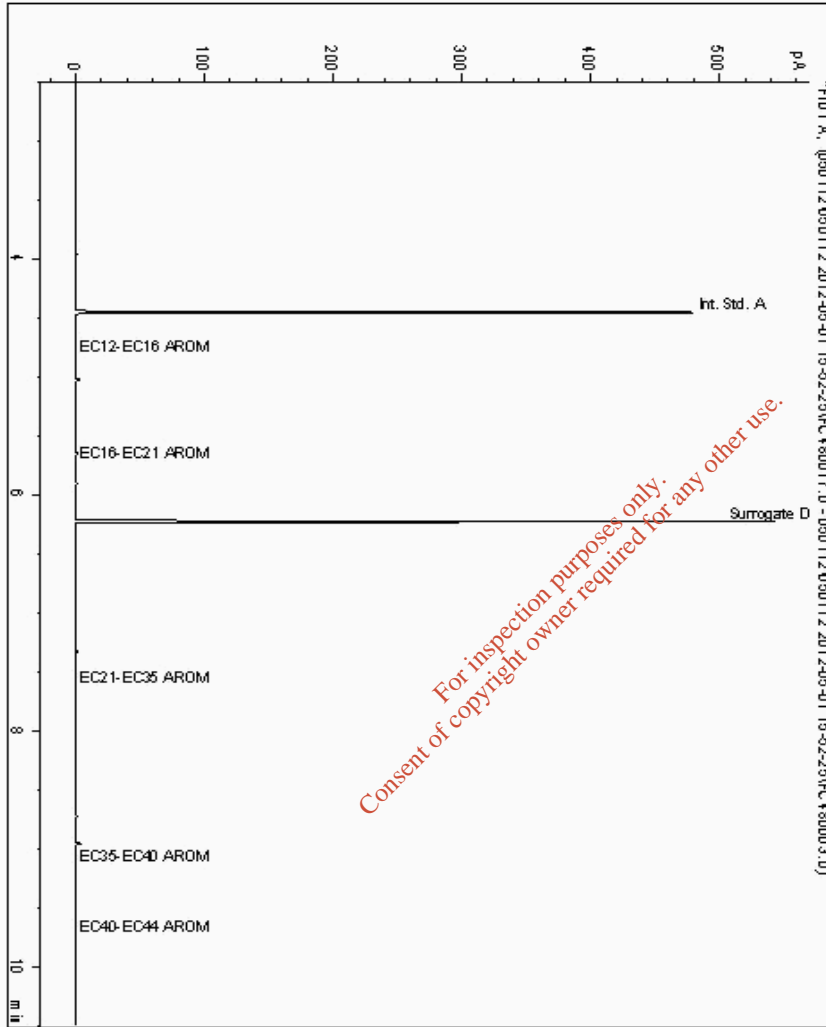
Analysis: EPH CWG (Aromatic) Aqueous GC (W)

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





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:

Chromatogram

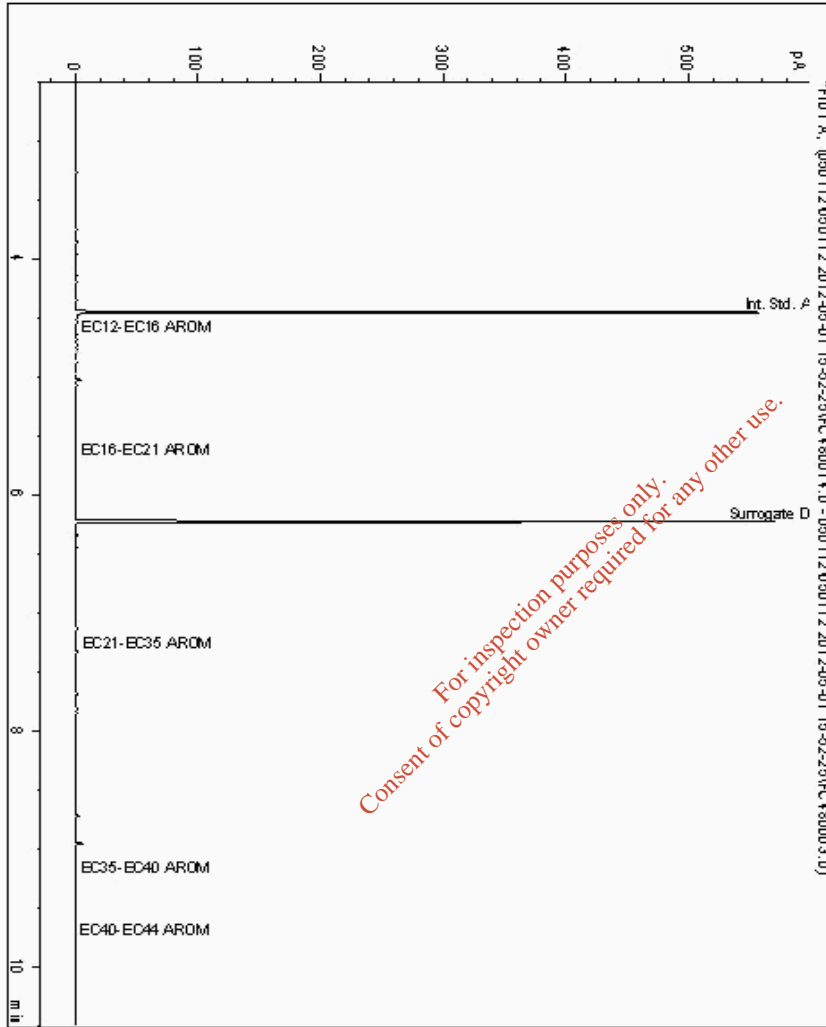
Analysis: EPH CWG (Aromatic) Aqueous GC (W)

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
Job: D_MOUCHEL_ELE-1
Client Reference:

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

Order Number: 4500094829
Report Number: 180196
Superseded Report:

Chromatogram

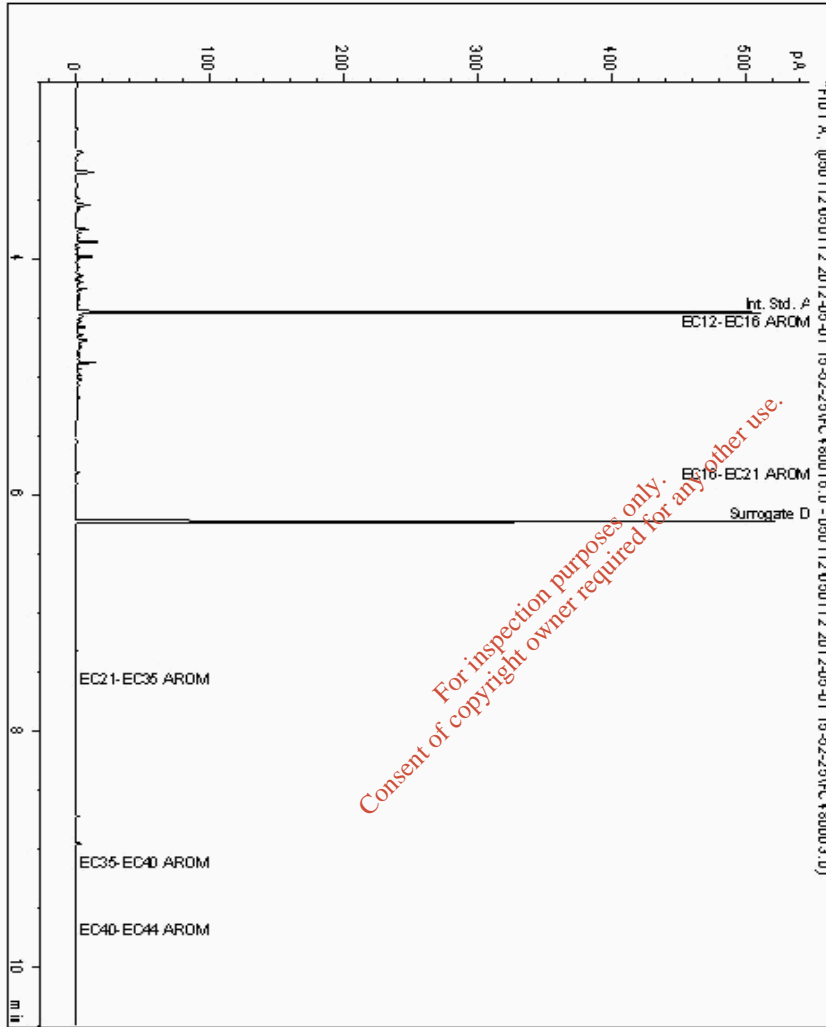
Analysis: EPH CWG (Aromatic) Aqueous GC (W)

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





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:

Chromatogram

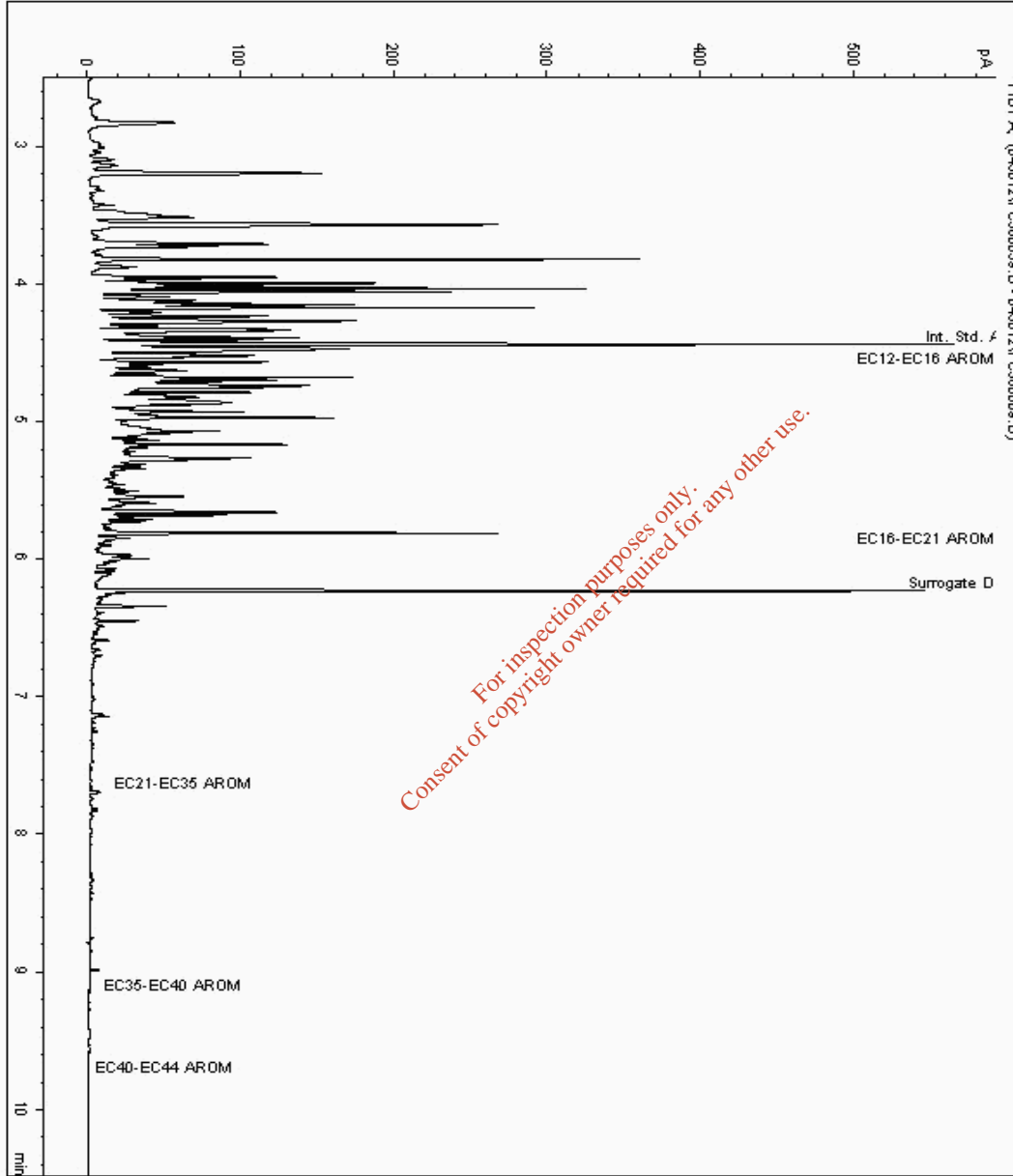
Analysis: EPH CWG (Aromatic) Aqueous GC (W)

Sample No : 5510835
Sample ID : G4

Depth : 2.50 - 3.50

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

Sample Identity: 5390377-5510835
Date Acquired : 01/05/12 02:59:52 PM
Units : ppb
Dilution :
CF : 1
Multiplier : 0.008





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:

Chromatogram

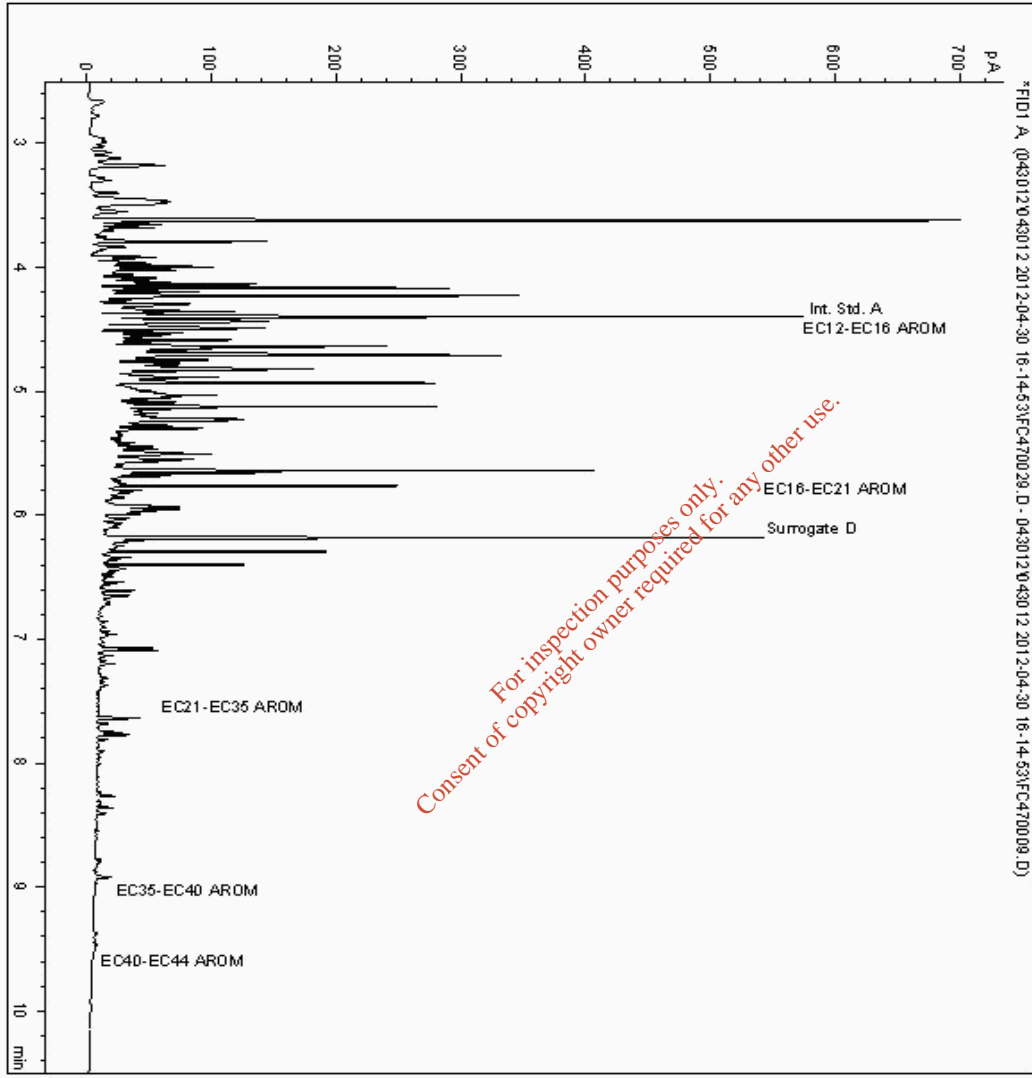
Analysis: EPH CWG (Aromatic) Aqueous GC (W)

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





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:

Chromatogram

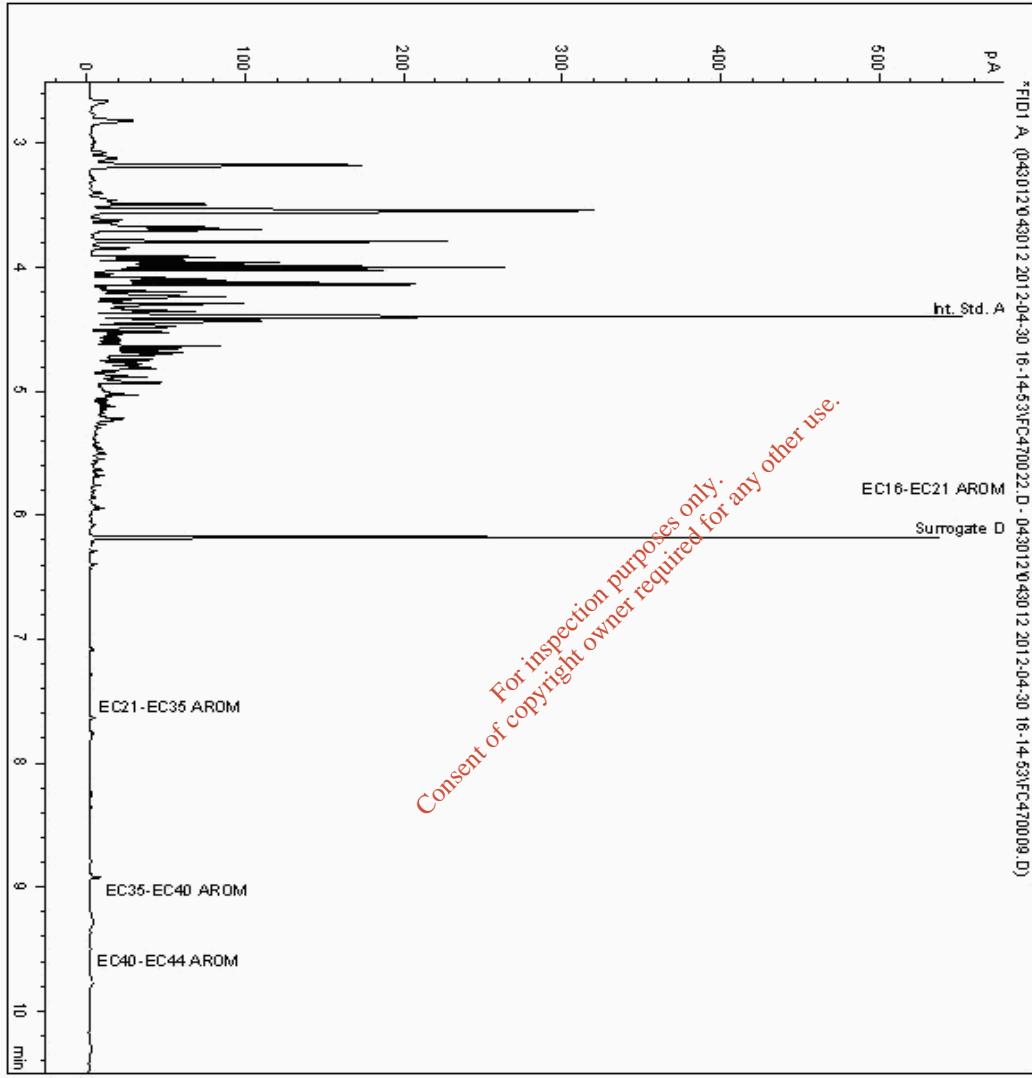
Analysis: EPH CWG (Aromatic) Aqueous GC (W)

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



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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:

Chromatogram

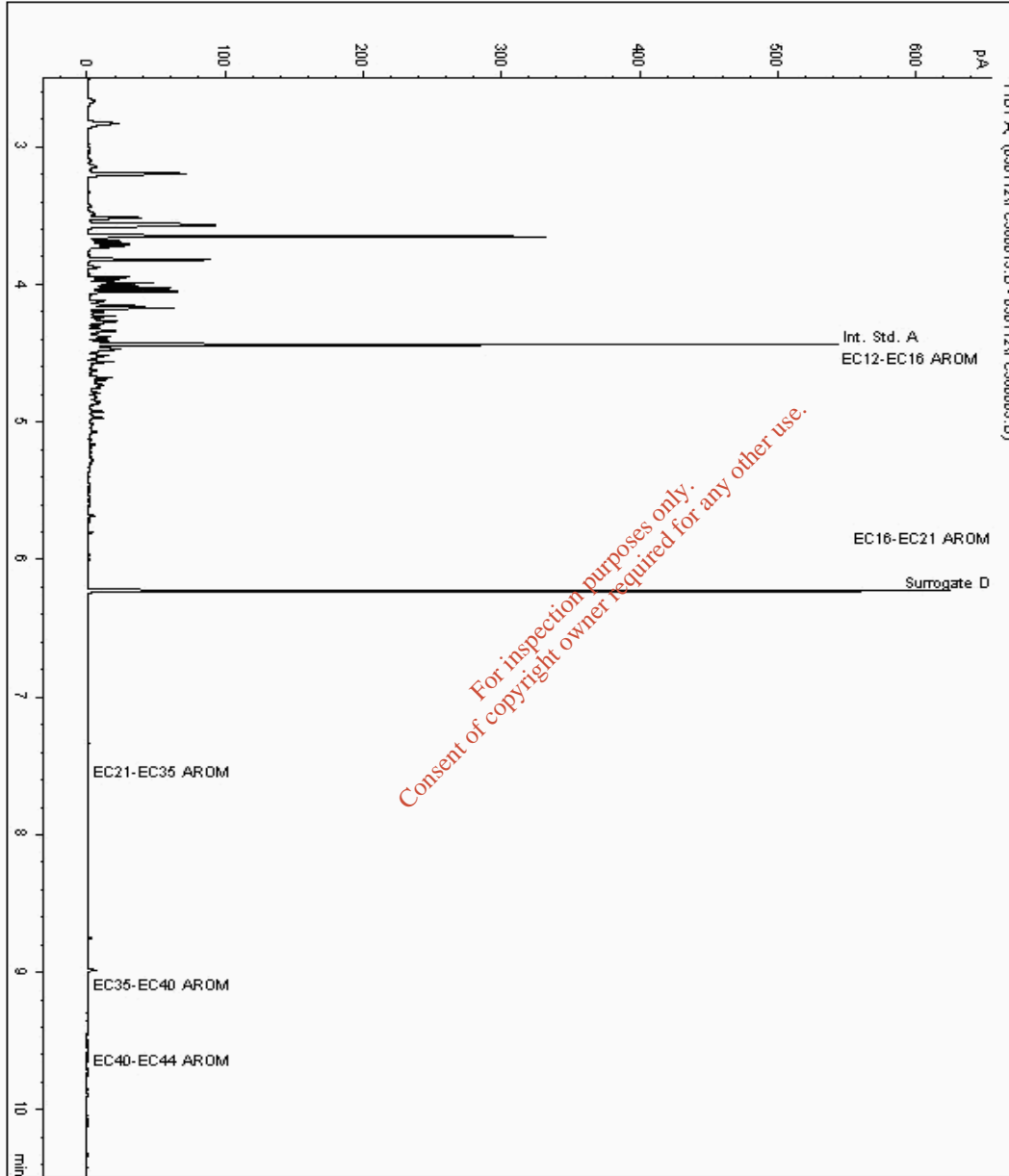
Analysis: EPH CWG (Aromatic) Aqueous GC (W)

Sample No : 5511009
Sample ID : G2

Depth : 5.00

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

Sample Identity: 5390337-5511009
Date Acquired : 01/05/12 19:14:44 PM
Units : ppb
Dilution :
CF : 1
Multiplier : 0.083





CERTIFICATE OF ANALYSIS

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:

Chromatogram

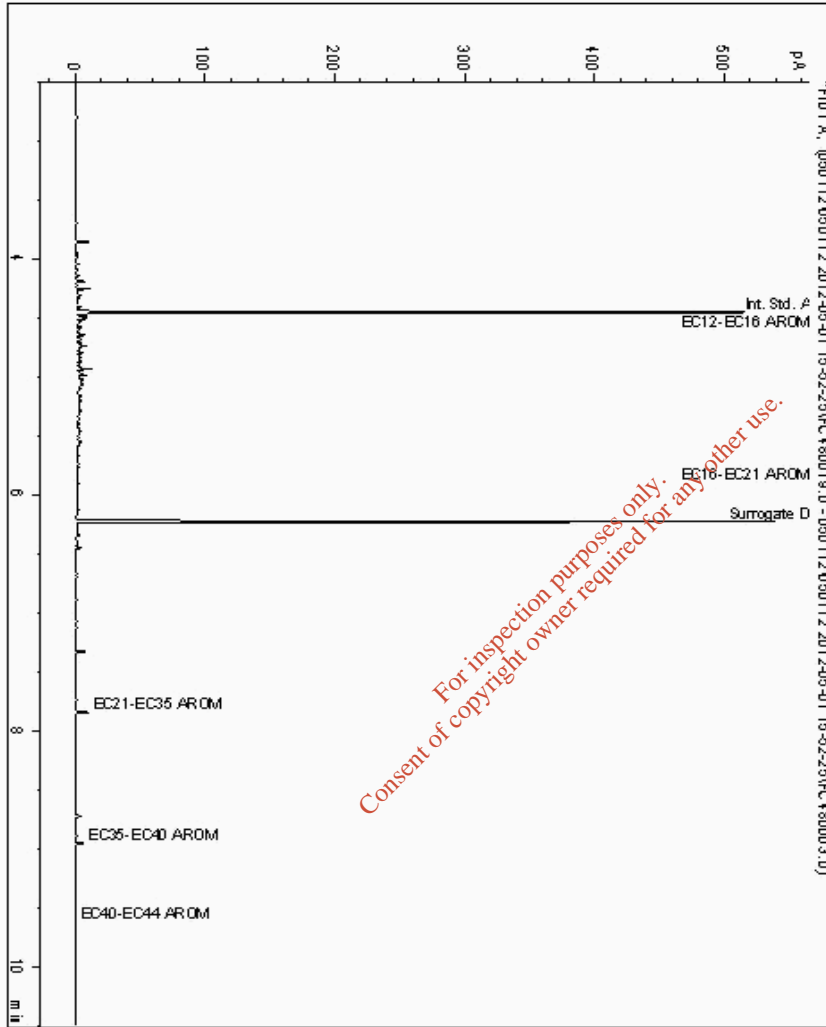
Analysis: EPH CWG (Aromatic) Aqueous GC (W)

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





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:

Chromatogram

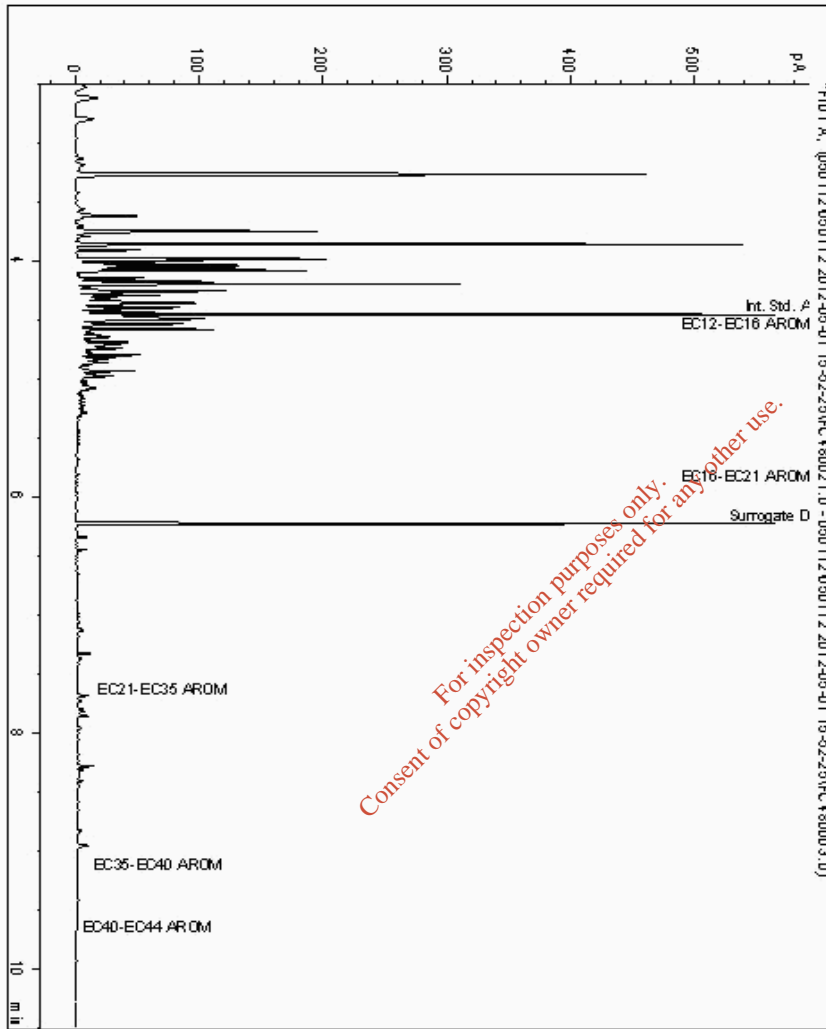
Analysis: EPH CWG (Aromatic) Aqueous GC (W)

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





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:

Chromatogram

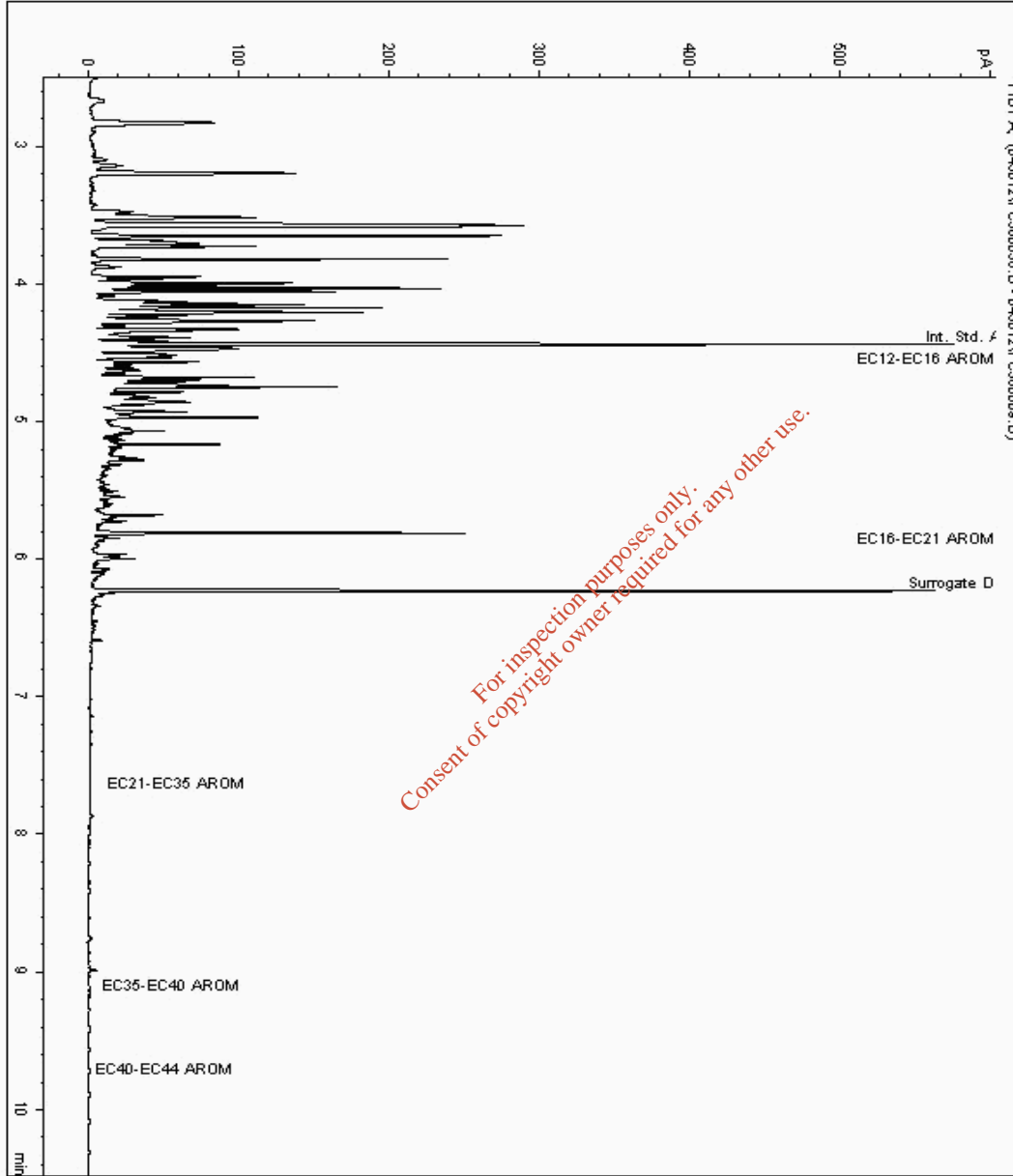
Analysis: EPH CWG (Aromatic) Aqueous GC (W)

Sample No : 5511185
Sample ID : G8

Depth : 0.50 - 1.50

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

Sample Identity: 5390282-5511185
Date Acquired : 01/05/12 02:41:00 PM
Units : ppb
Dilution :
CF : 1
Multiplier : 0.008





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:

Chromatogram

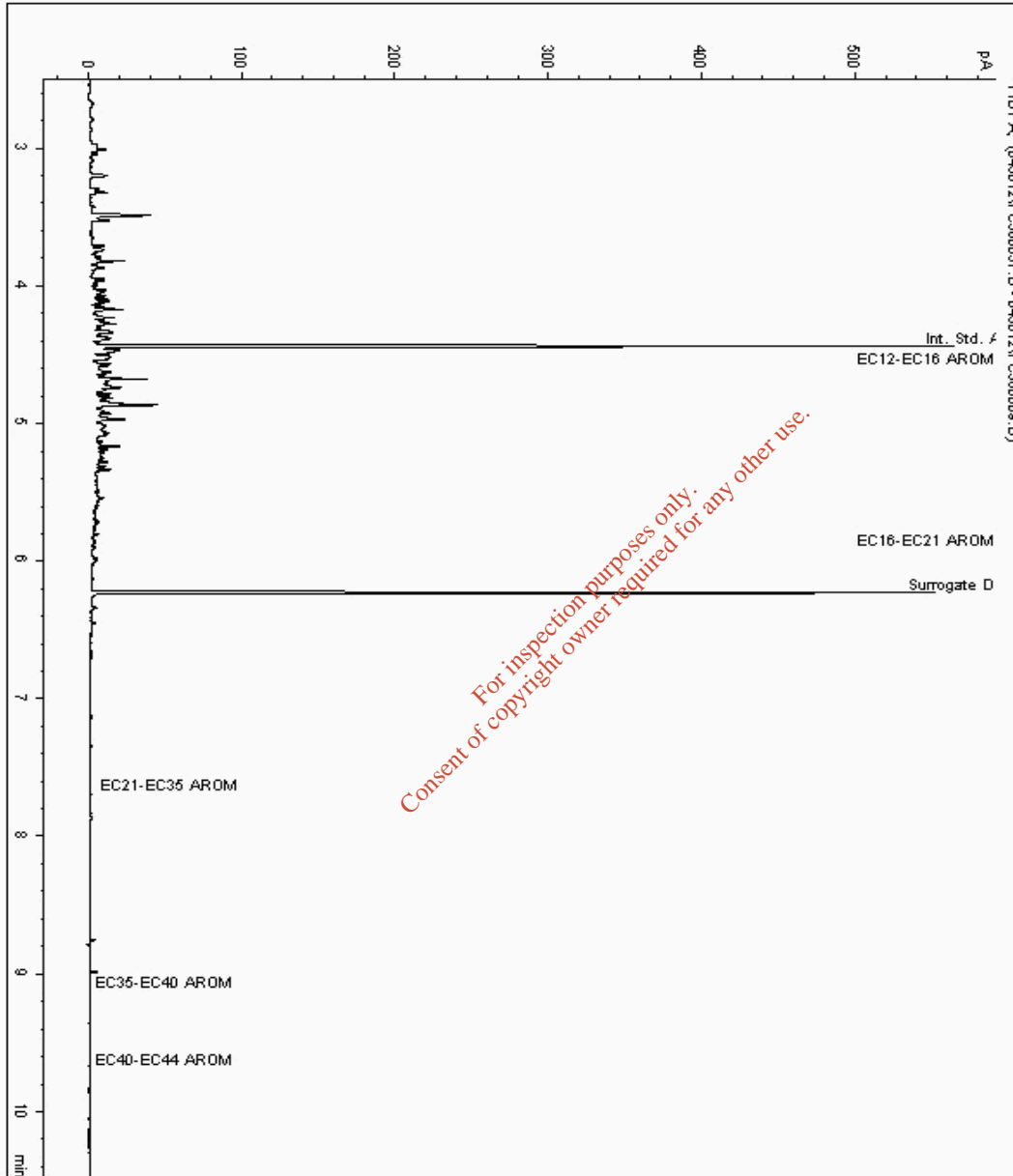
Analysis: EPH CWG (Aromatic) Aqueous GC (W)

Sample No : 5511236
Sample ID : C11

Depth : 2.00

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

Sample Identity: 5390865-5511236
Date Acquired : 01/05/12 02:22:12 PM
Units : ppb
Dilution :
CF : 1
Multiplier : 0.008





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:

Chromatogram

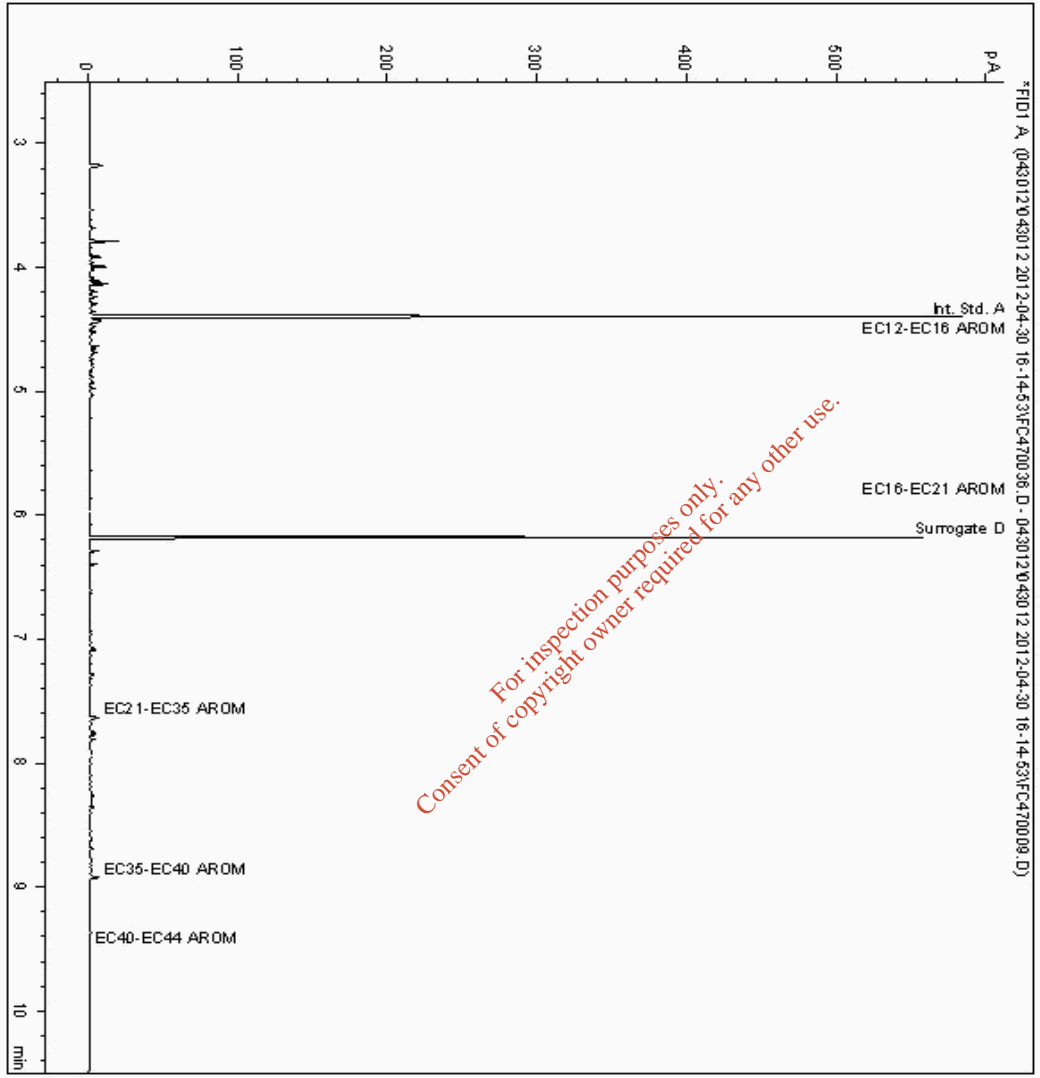
Analysis: EPH CWG (Aromatic) Aqueous GC (W)

Sample No : 5511269
Sample ID : D5

Depth : 1.90

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

Sample Identity: 5390940-5511269
Date Acquired : 01/05/12 02:05:07
Units :
Dilution :
CF : 1
Multiplier : 0.008





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:

Chromatogram

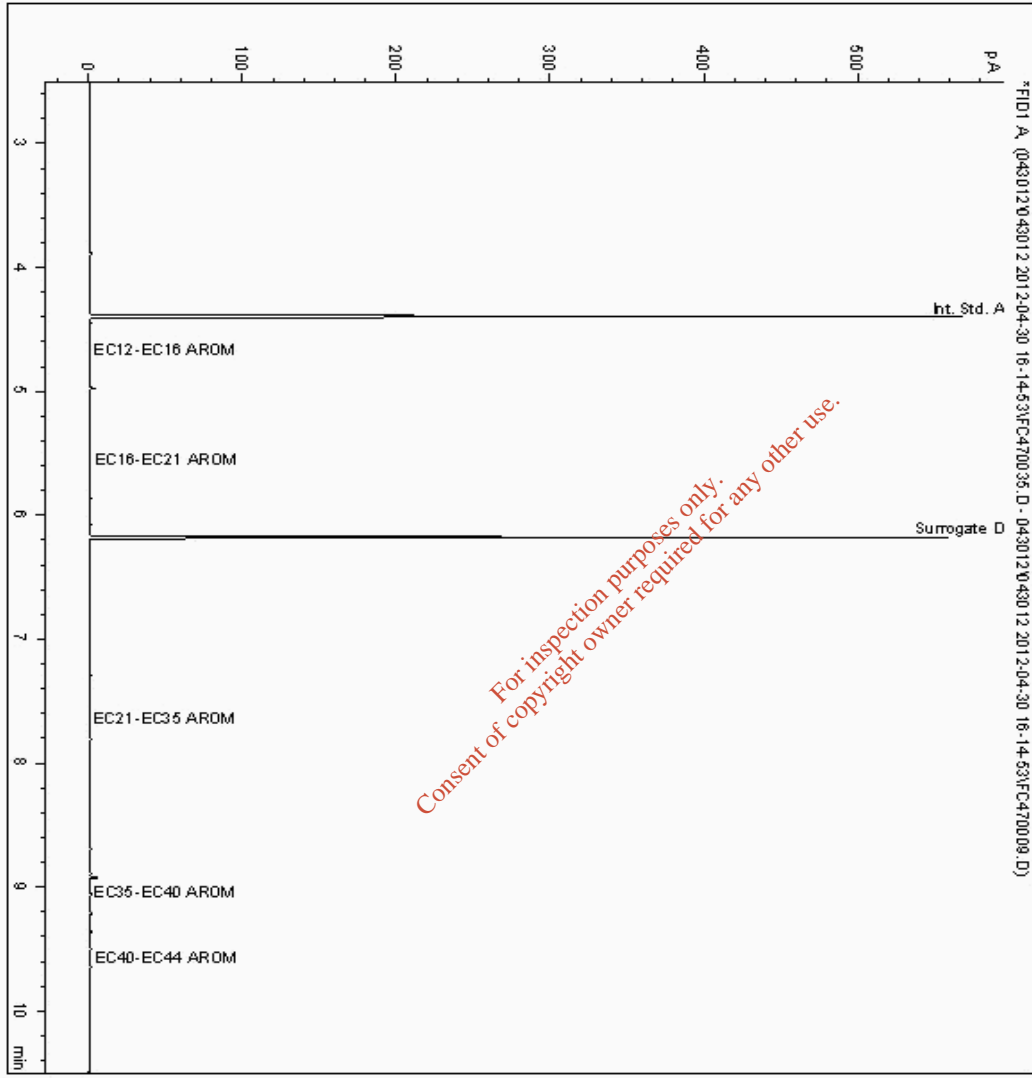
Analysis: EPH CWG (Aromatic) Aqueous GC (W)

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





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:

Chromatogram

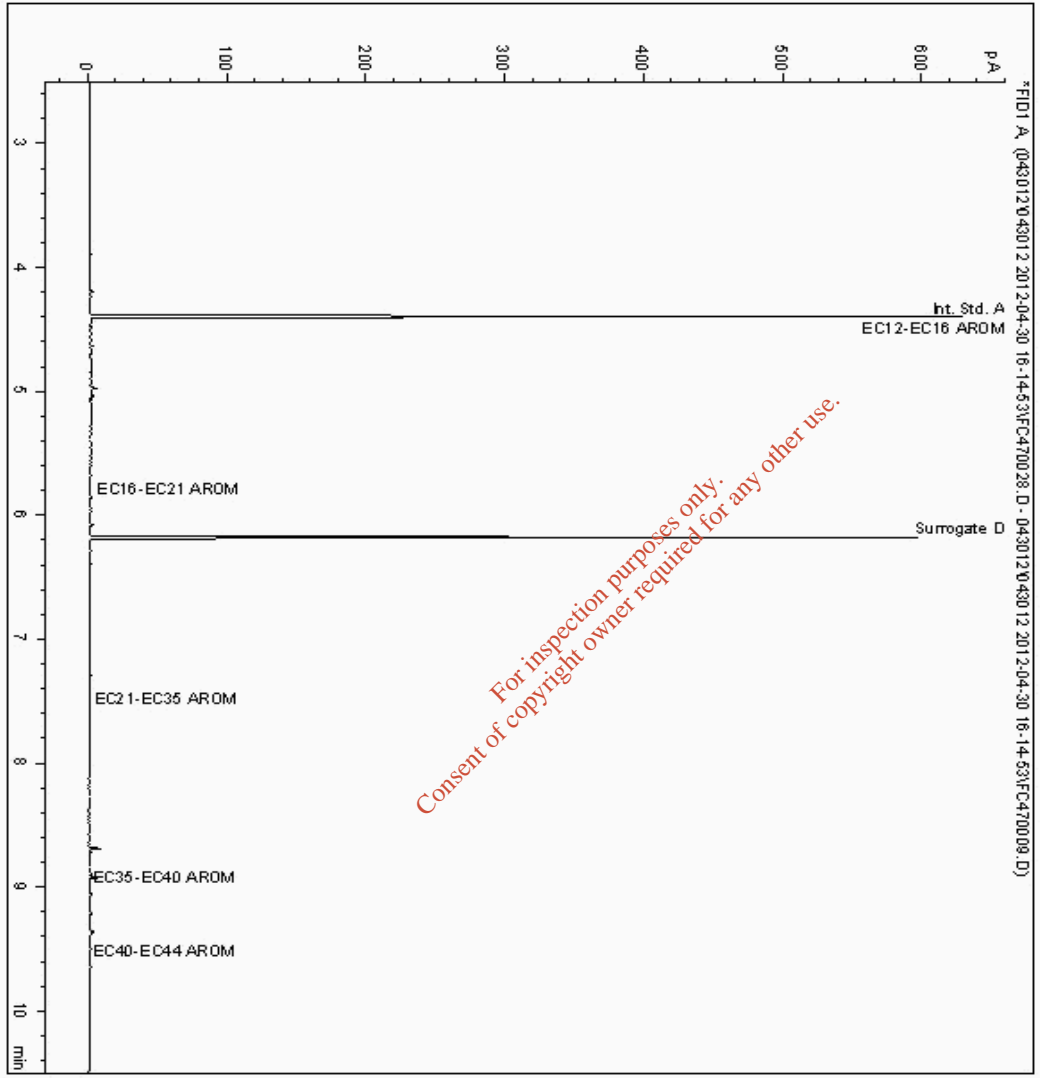
Analysis: EPH CWG (Aromatic) Aqueous GC (W)

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





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:

Chromatogram

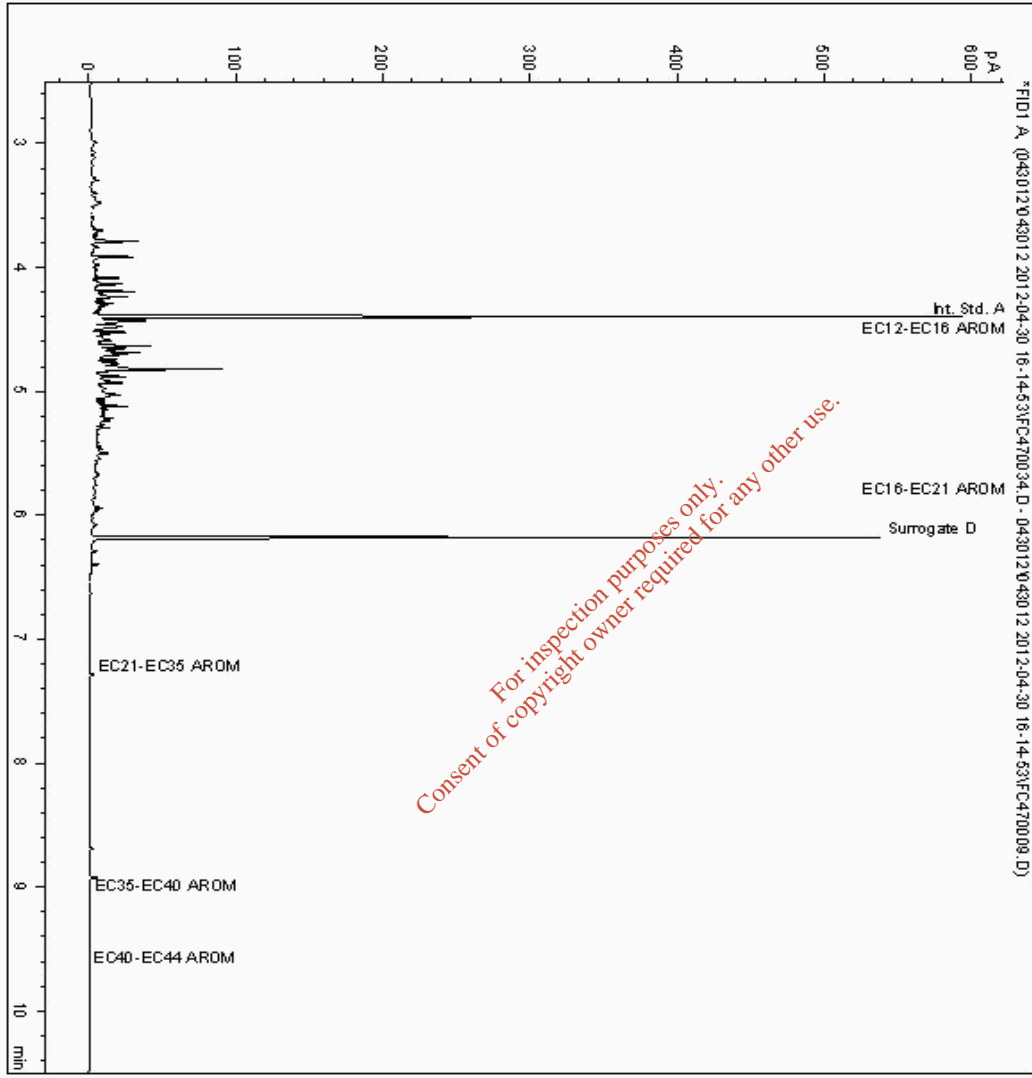
Analysis: EPH CWG (Aromatic) Aqueous GC (W)

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





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:

Chromatogram

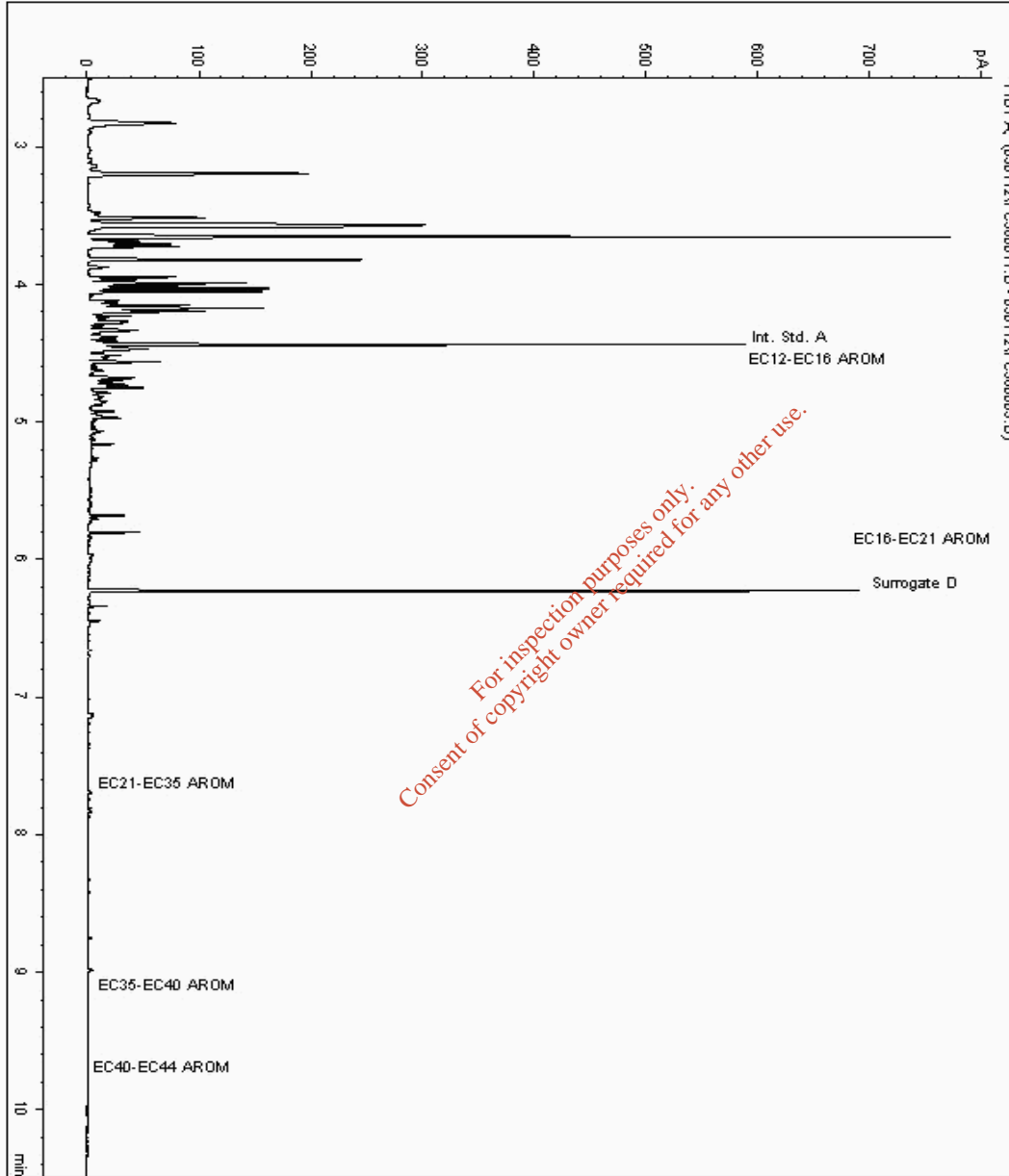
Analysis: EPH CWG (Aromatic) Aqueous GC (W)

Sample No : 5512082
Sample ID : C7

Depth : 1.80 - 2.50

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

Sample Identity: 5390925-5512082
Date Acquired : 01/05/12 18:46:40 PM
Units : ppb
Dilution :
CF : 1
Multiplier : 0.086





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:

Chromatogram

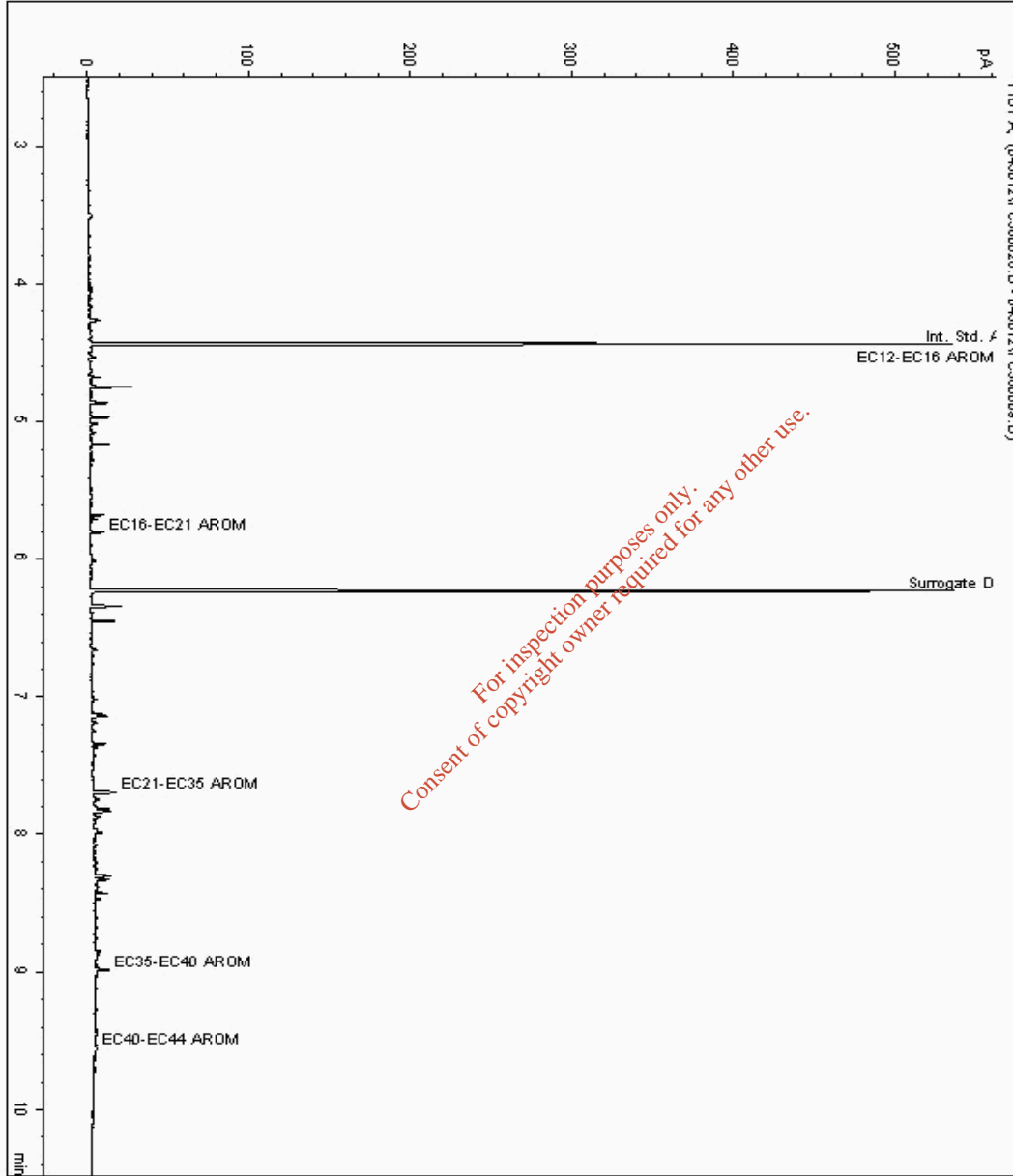
Analysis: EPH CWG (Aromatic) Aqueous GC (W)

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





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:

Chromatogram

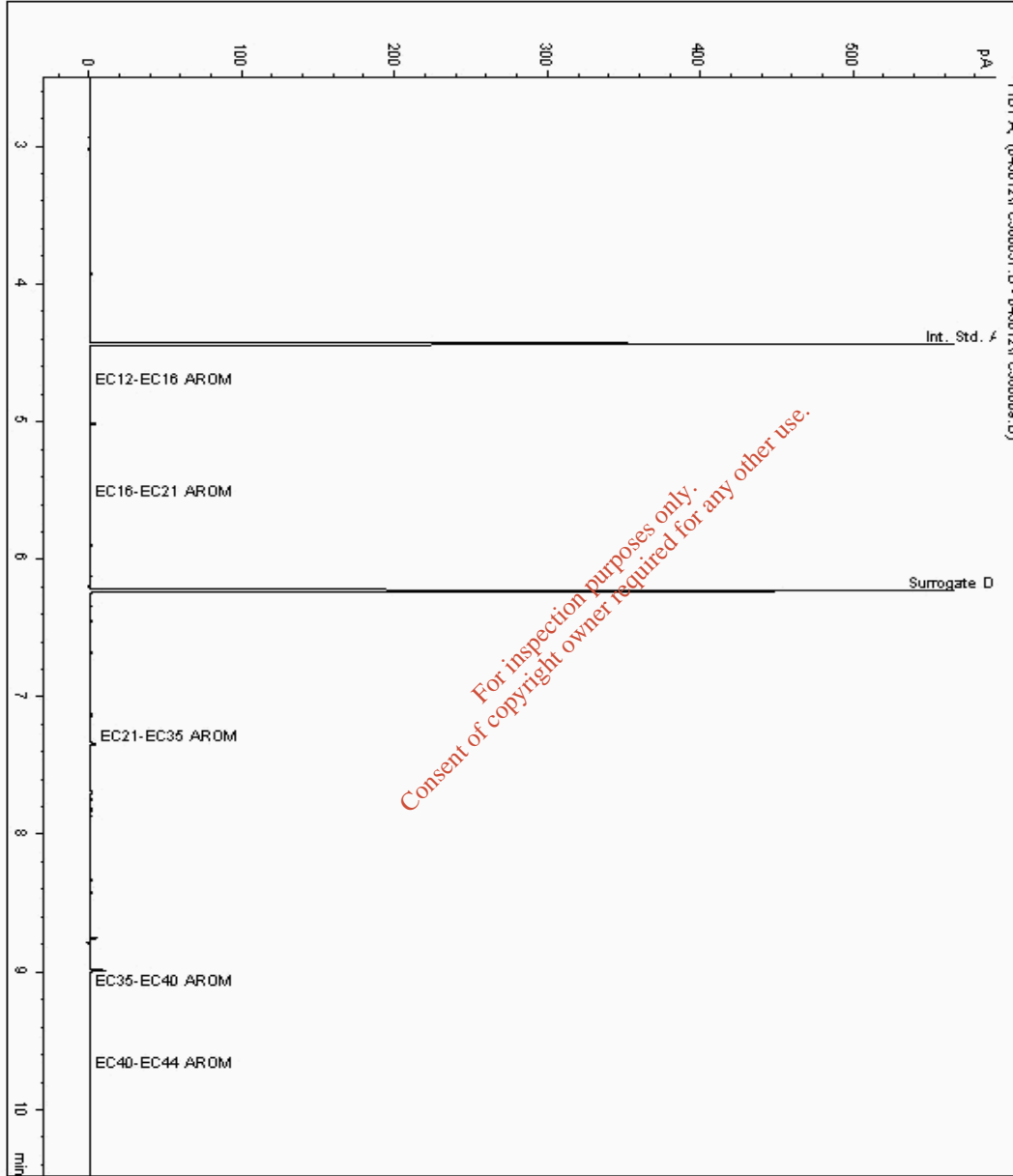
Analysis: EPH CWG (Aromatic) Aqueous GC (W)

Sample No : 5512105
Sample ID : A9

Depth : 1.80 - 2.40

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

Sample Identity: 5390910-5512105
Date Acquired : 01/05/12 08:10:30 PM
Units : ppb
Dilution :
CF : 1
Multiplier : 0.009





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:

Chromatogram

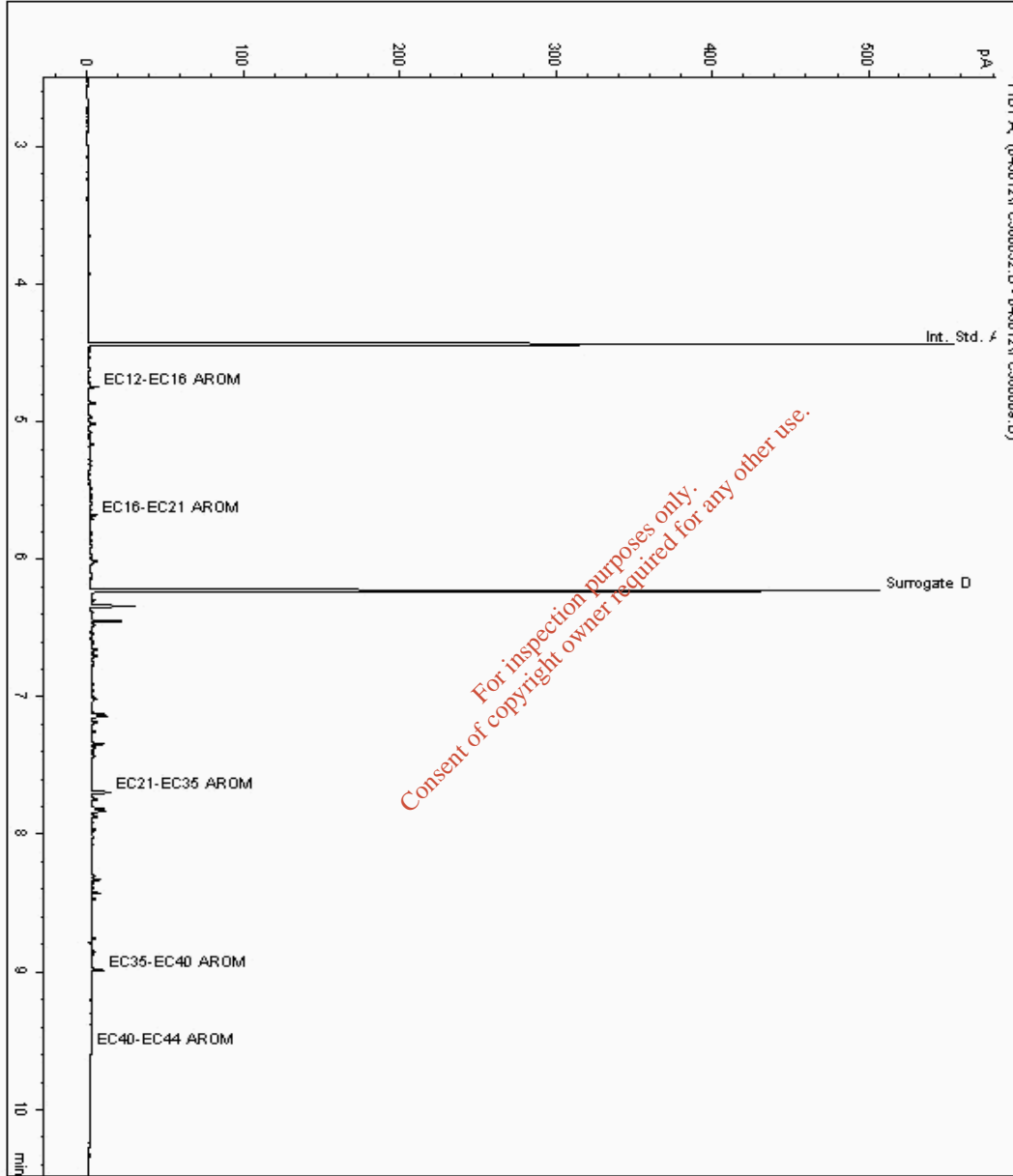
Analysis: EPH CWG (Aromatic) Aqueous GC (W)

Sample No : 5512118
Sample ID : H12

Depth : 2.50

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

Sample Identity: 5390835-5512118
Date Acquired : 01/05/12 06:47:08 PM
Units : ppb
Dilution :
CF : 1
Multiplier : 0.008





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:

Chromatogram

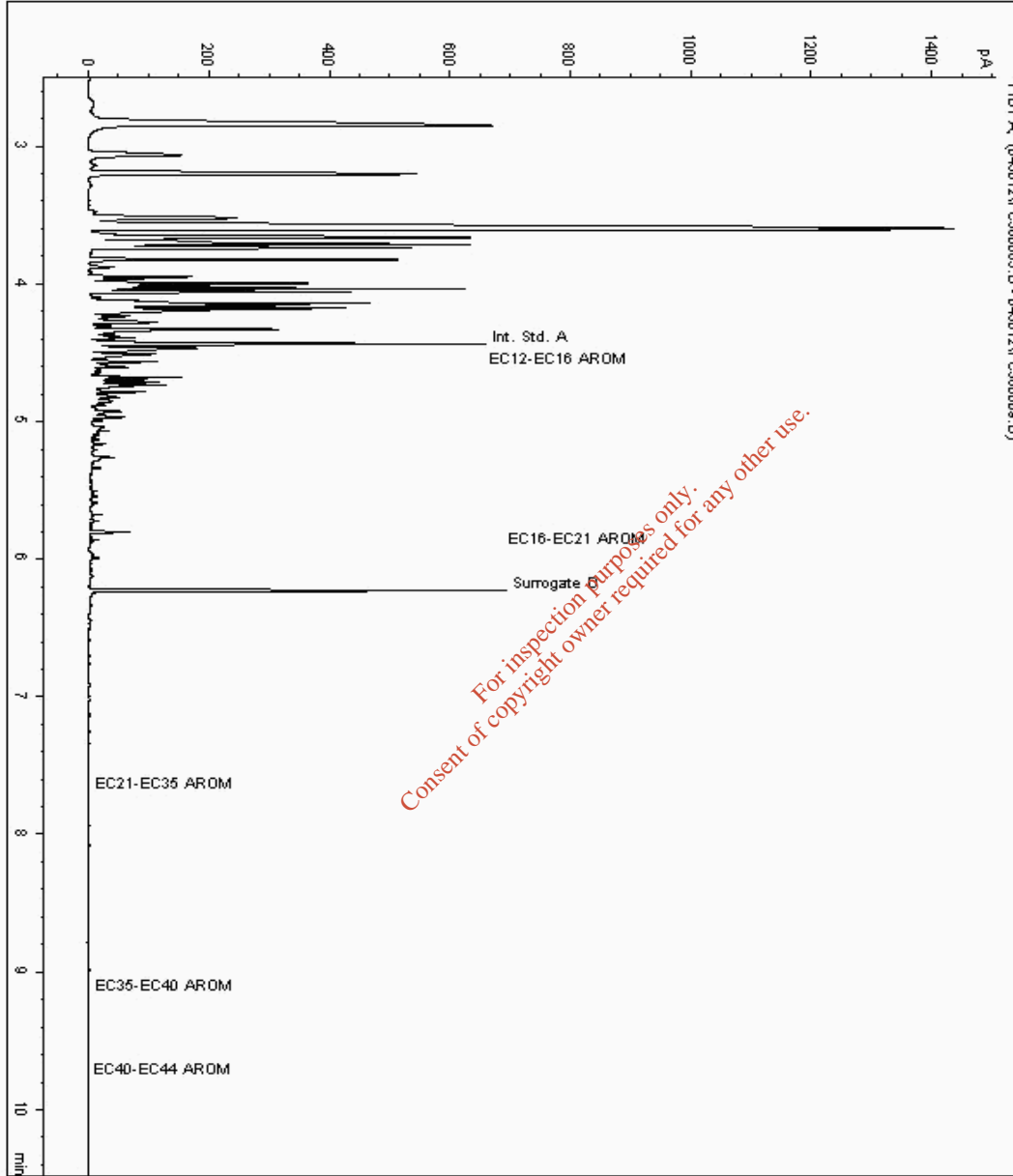
Analysis: EPH CWG (Aromatic) Aqueous GC (W)

Sample No : 5512148
Sample ID : E8

Depth : 3.50

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

Sample Identity: 5390895-5512148
Date Acquired : 01/05/12 13:36:05 PM
Units : ppb
Dilution :
CF : 1
Multiplier : 0.017





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:

Chromatogram

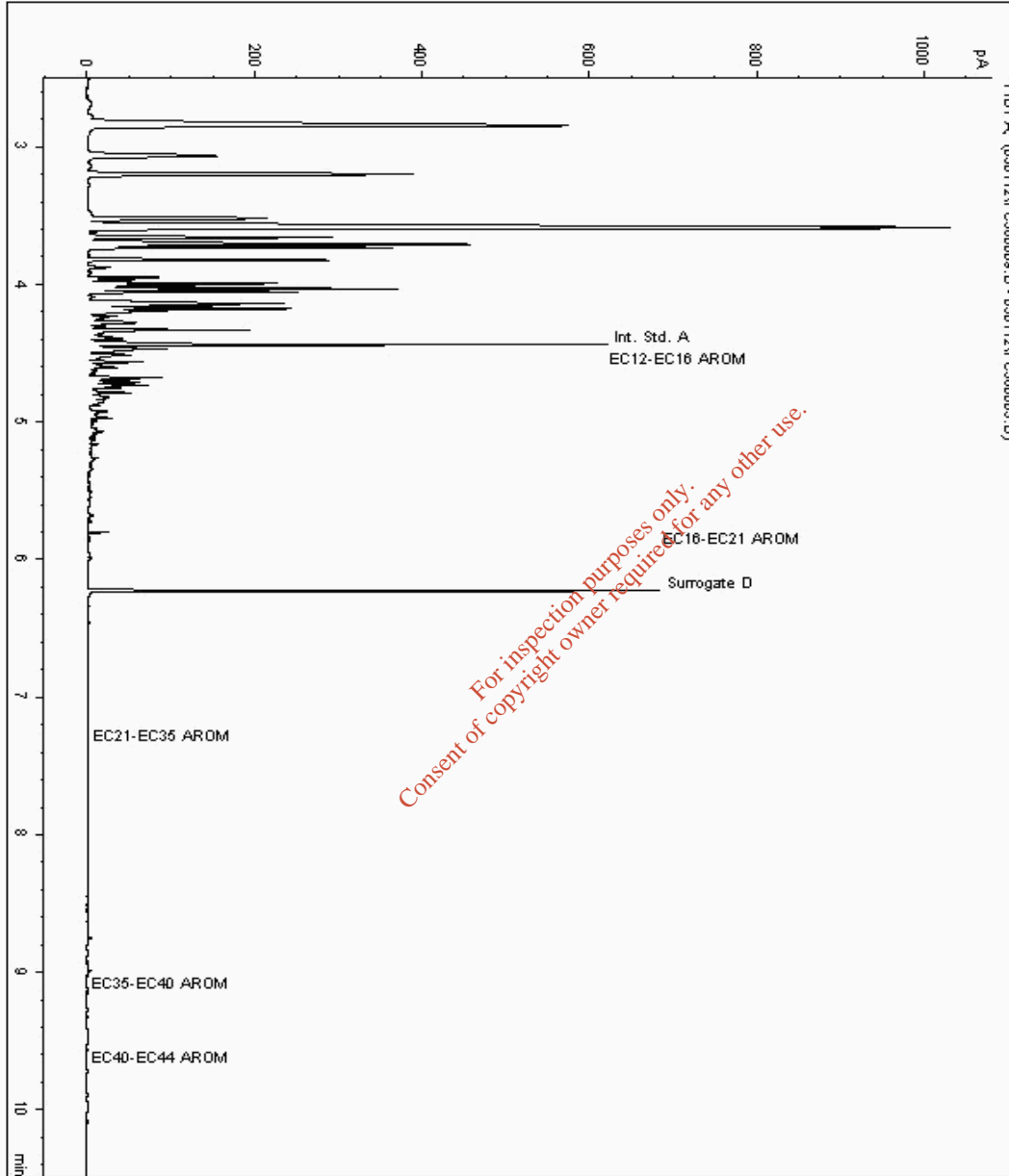
Analysis: EPH CWG (Aromatic) Aqueous GC (W)

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





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

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

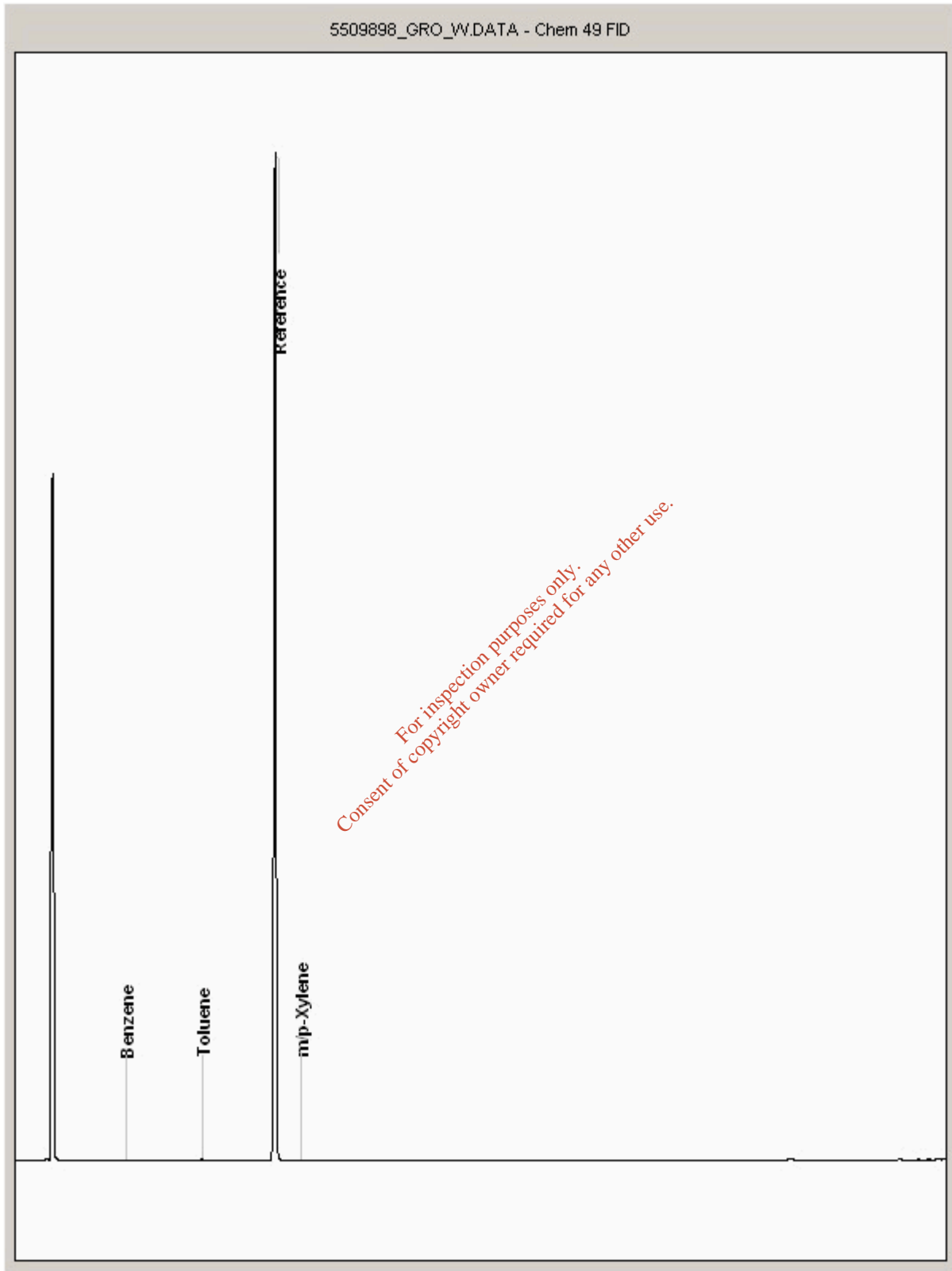
Order Number: 4500094829
Report Number: 180196
Superseded Report:

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 5509898
Sample ID : A9

Depth : 1.80 - 2.40





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

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

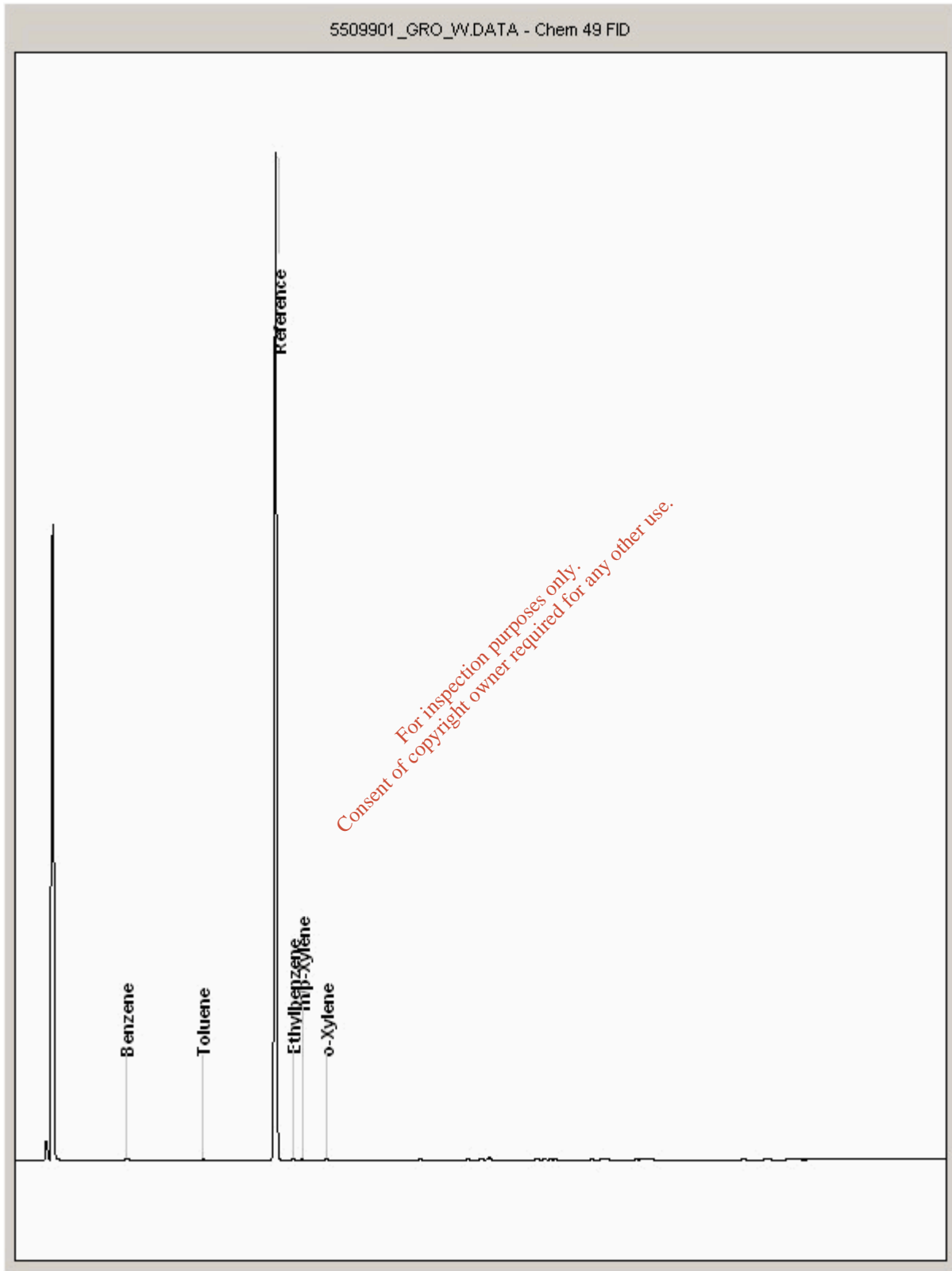
Order Number: 4500094829
Report Number: 180196
Superseded Report:

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 5509901
Sample ID : A4

Depth : 2.50





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

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

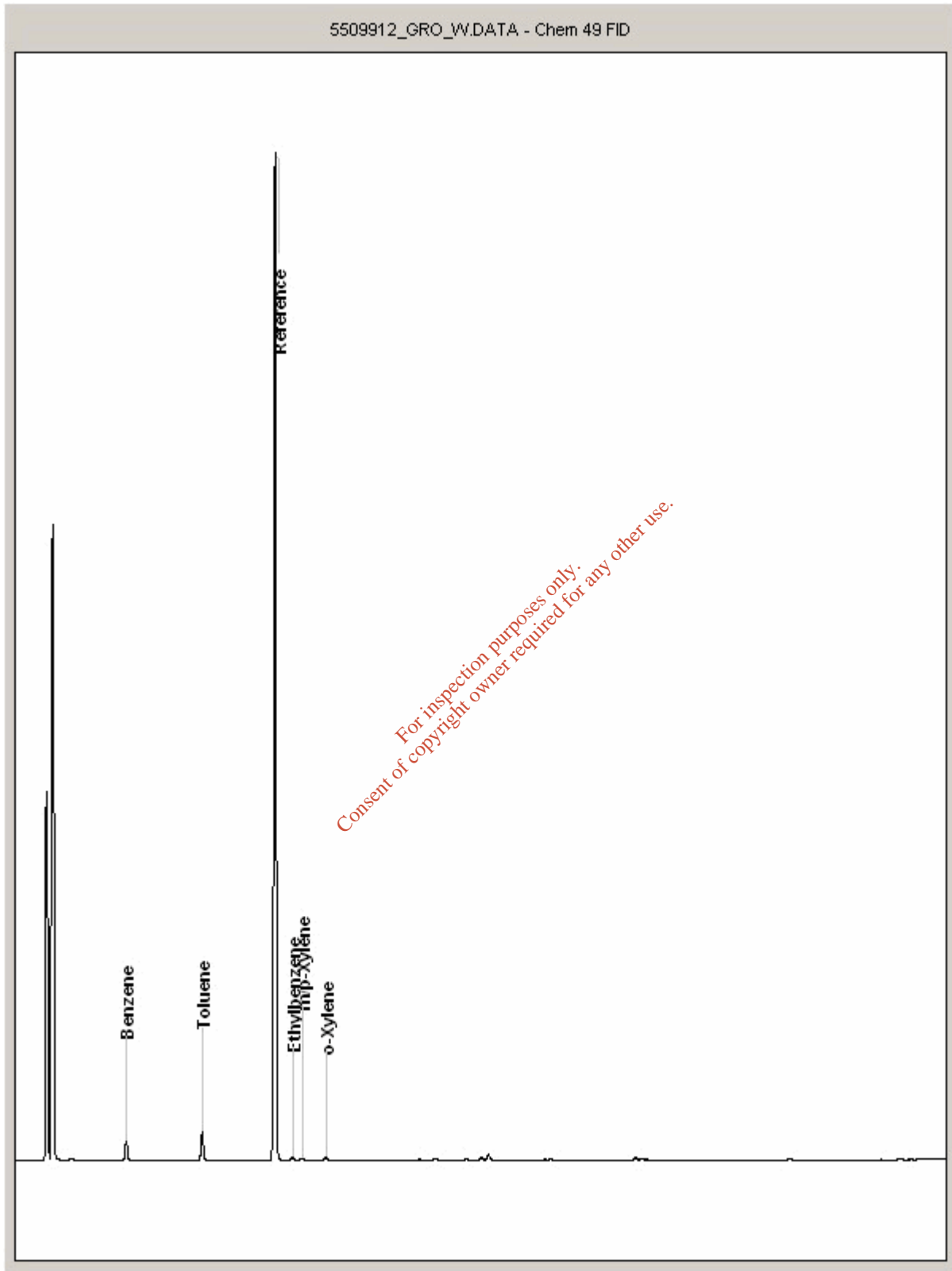
Order Number: 4500094829
Report Number: 180196
Superseded Report:

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 5509912
Sample ID : D5

Depth : 1.90





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

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

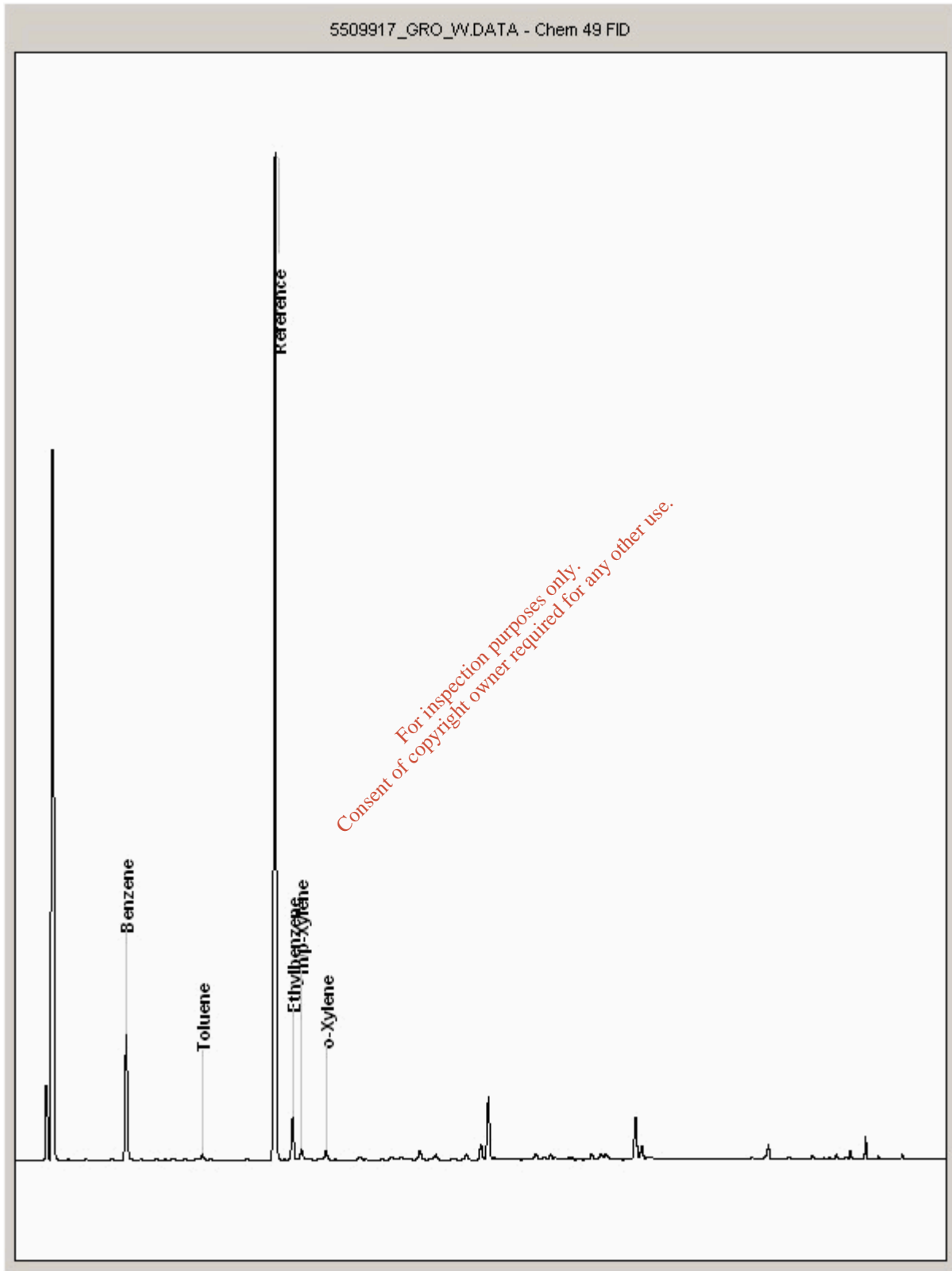
Order Number: 4500094829
Report Number: 180196
Superseded Report:

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 5509917
Sample ID : A3

Depth : 2.00





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

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

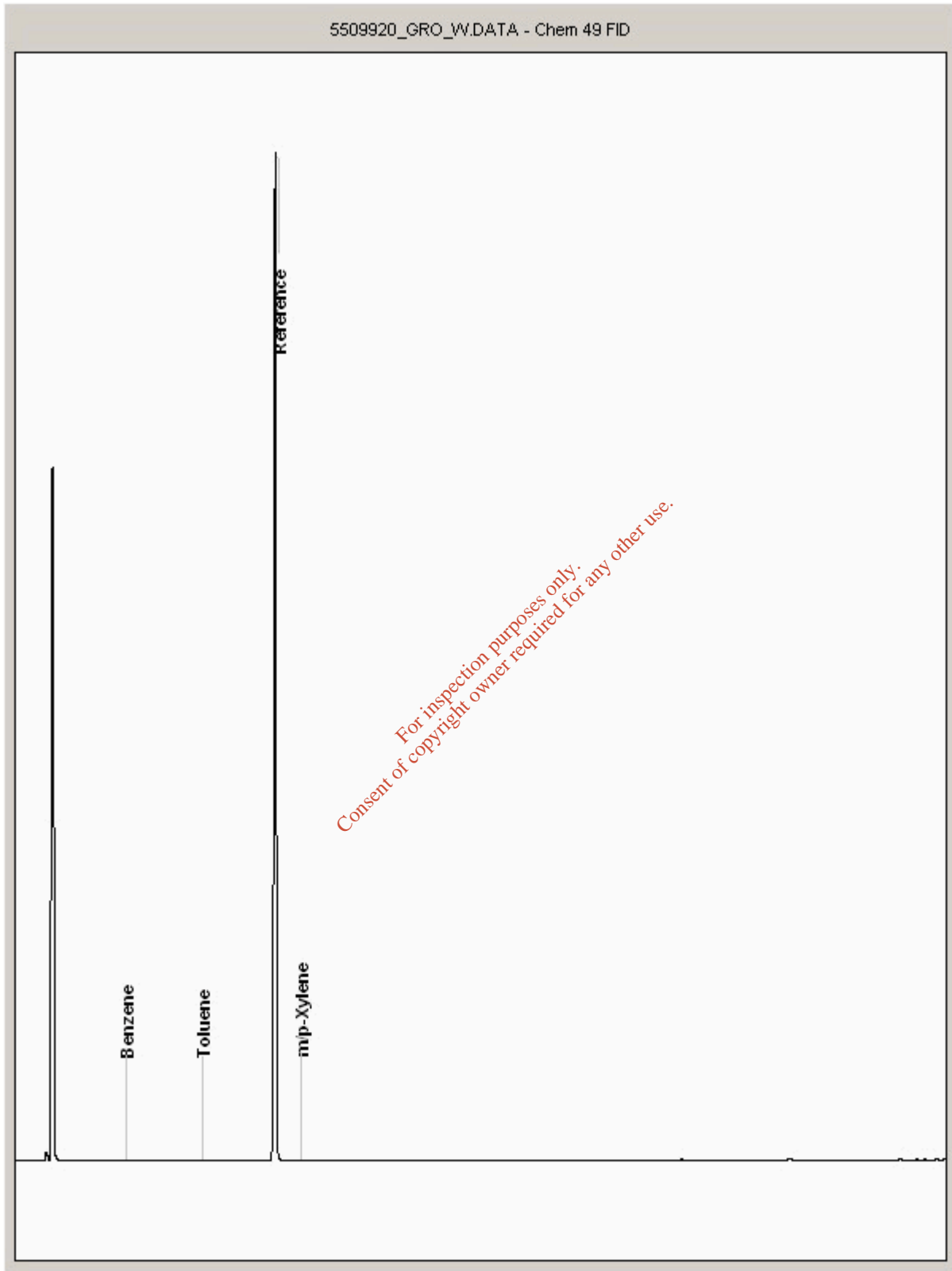
Order Number: 4500094829
Report Number: 180196
Superseded Report:

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 5509920
Sample ID : K1

Depth : 3.25





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

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

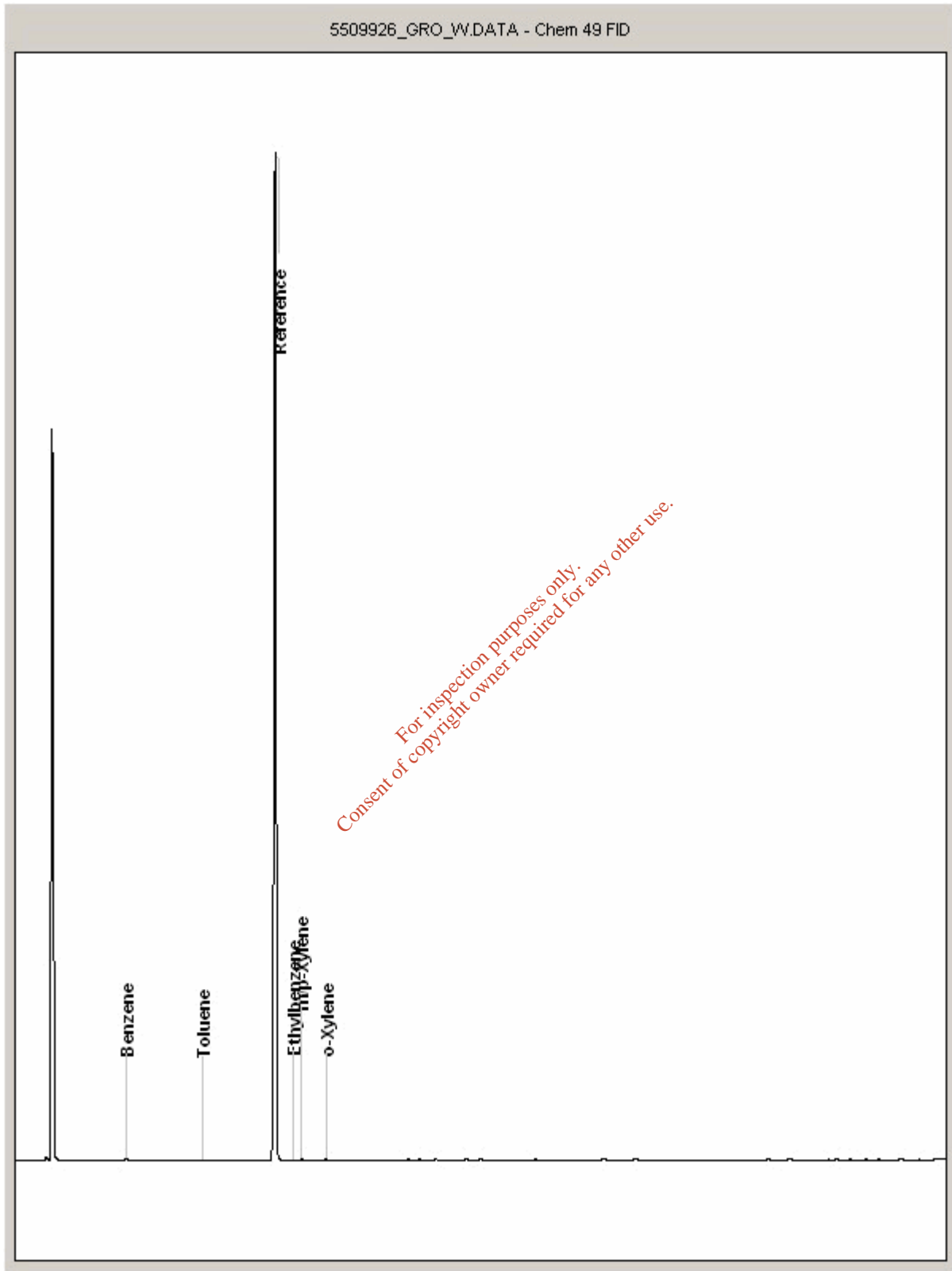
Order Number: 4500094829
Report Number: 180196
Superseded Report:

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 5509926
Sample ID : J10

Depth : 1.00





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

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

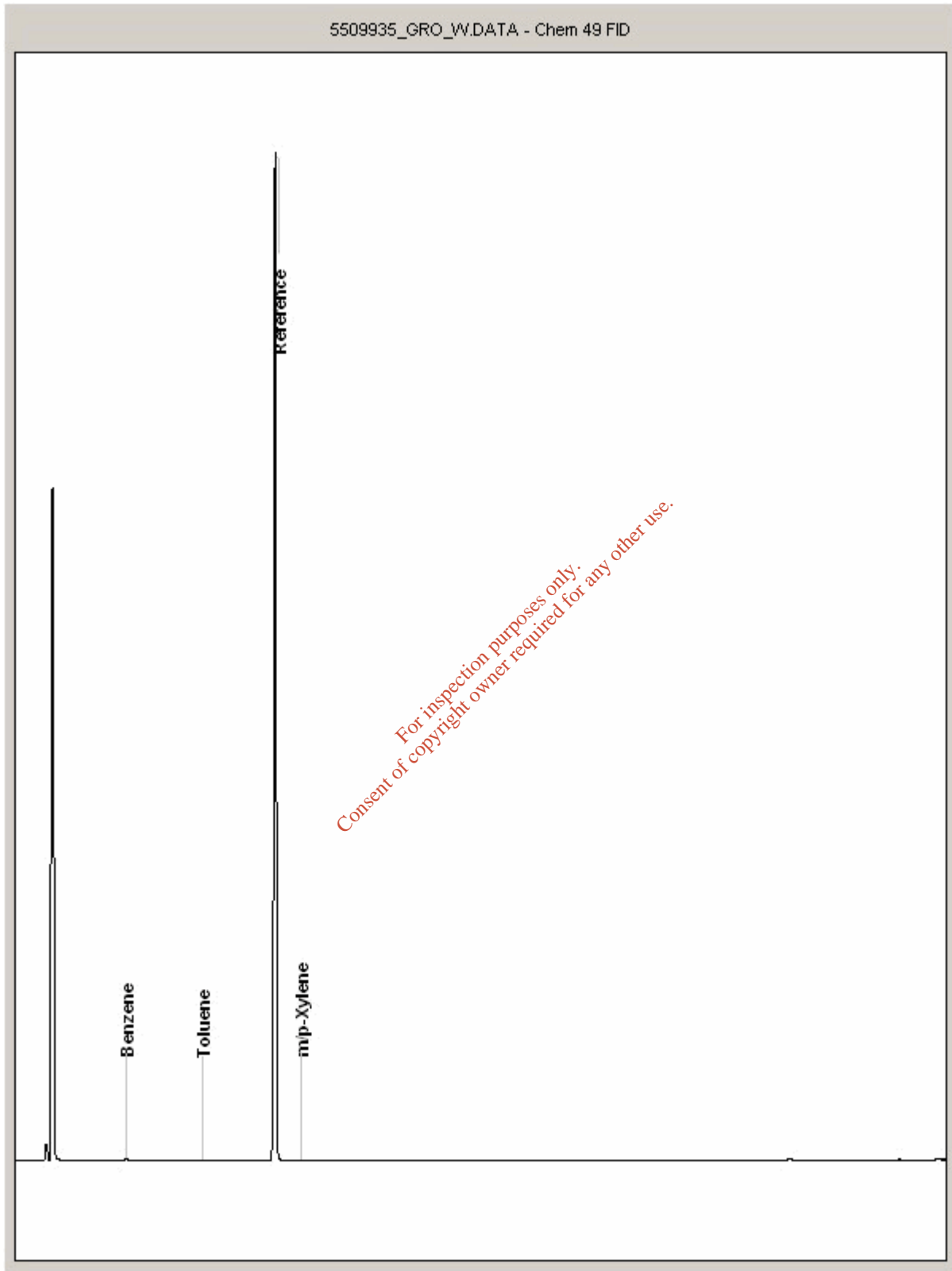
Order Number: 4500094829
Report Number: 180196
Superseded Report:

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 5509935
Sample ID : M3

Depth : 4.00 - 5.00





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

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

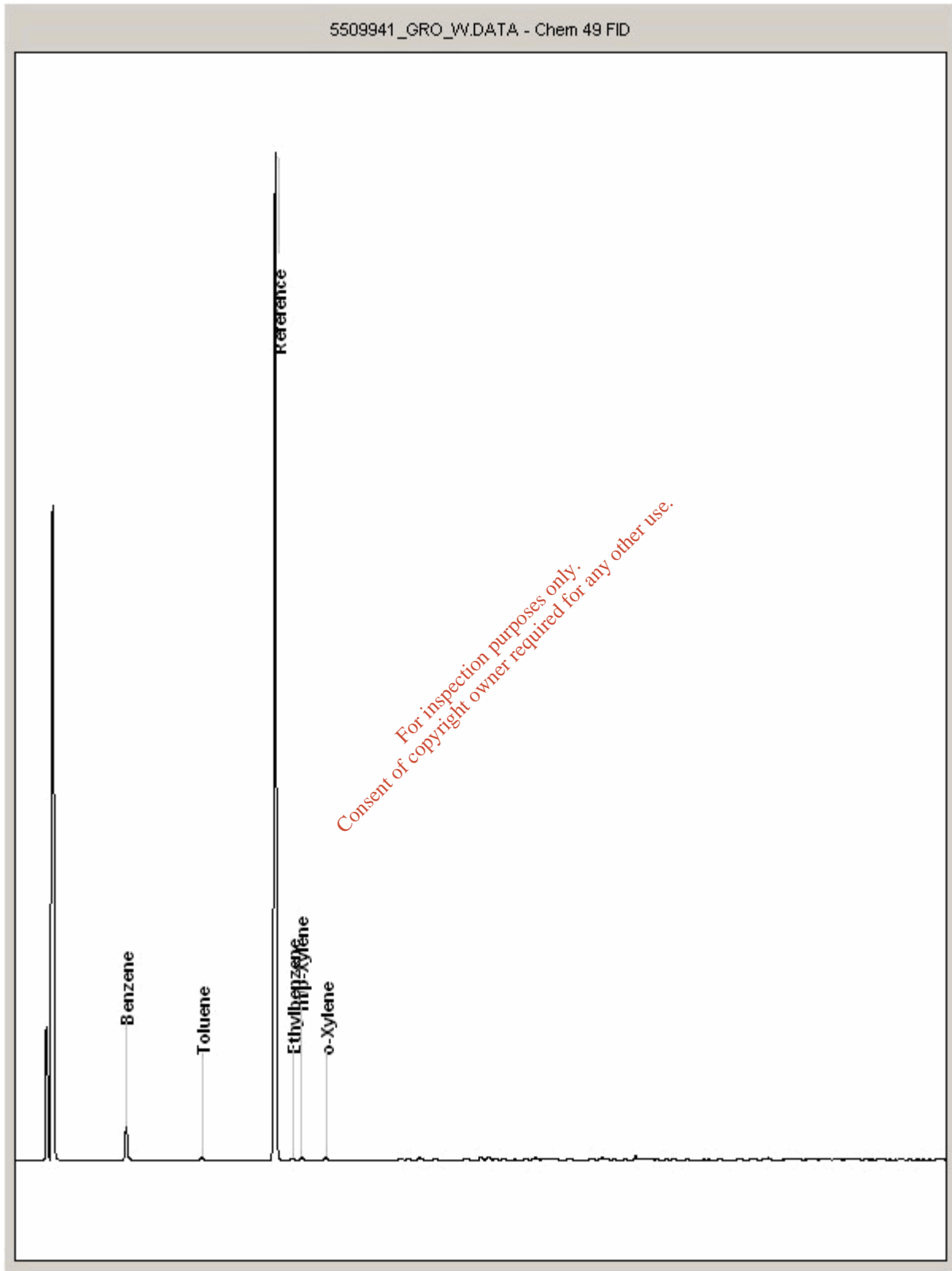
Order Number: 4500094829
Report Number: 180196
Superseded Report:

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 5509941
Sample ID : C2

Depth : 1.60 - 2.50





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

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

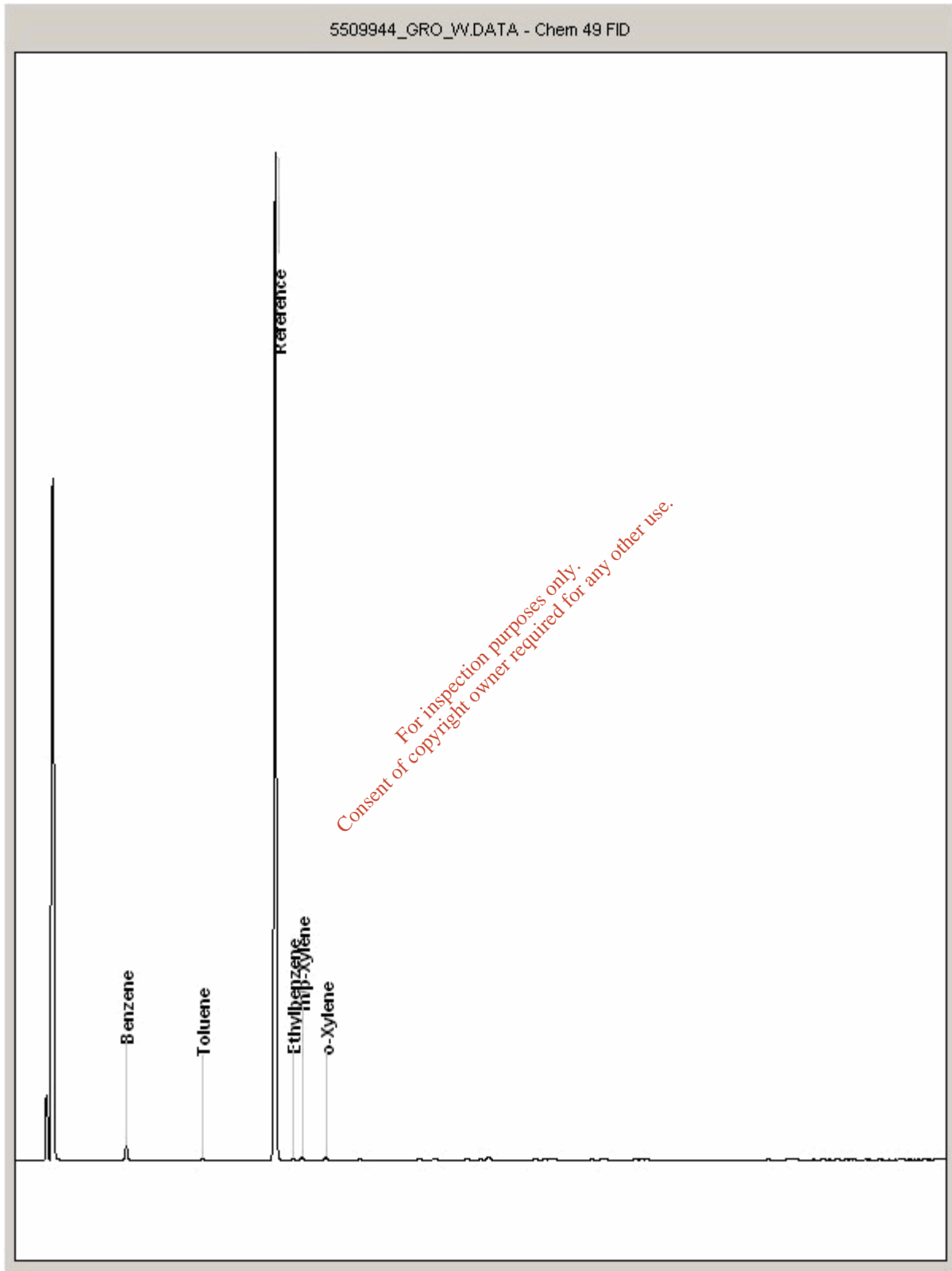
Order Number: 4500094829
Report Number: 180196
Superseded Report:

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 5509944
Sample ID : G5

Depth : 4.00





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

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

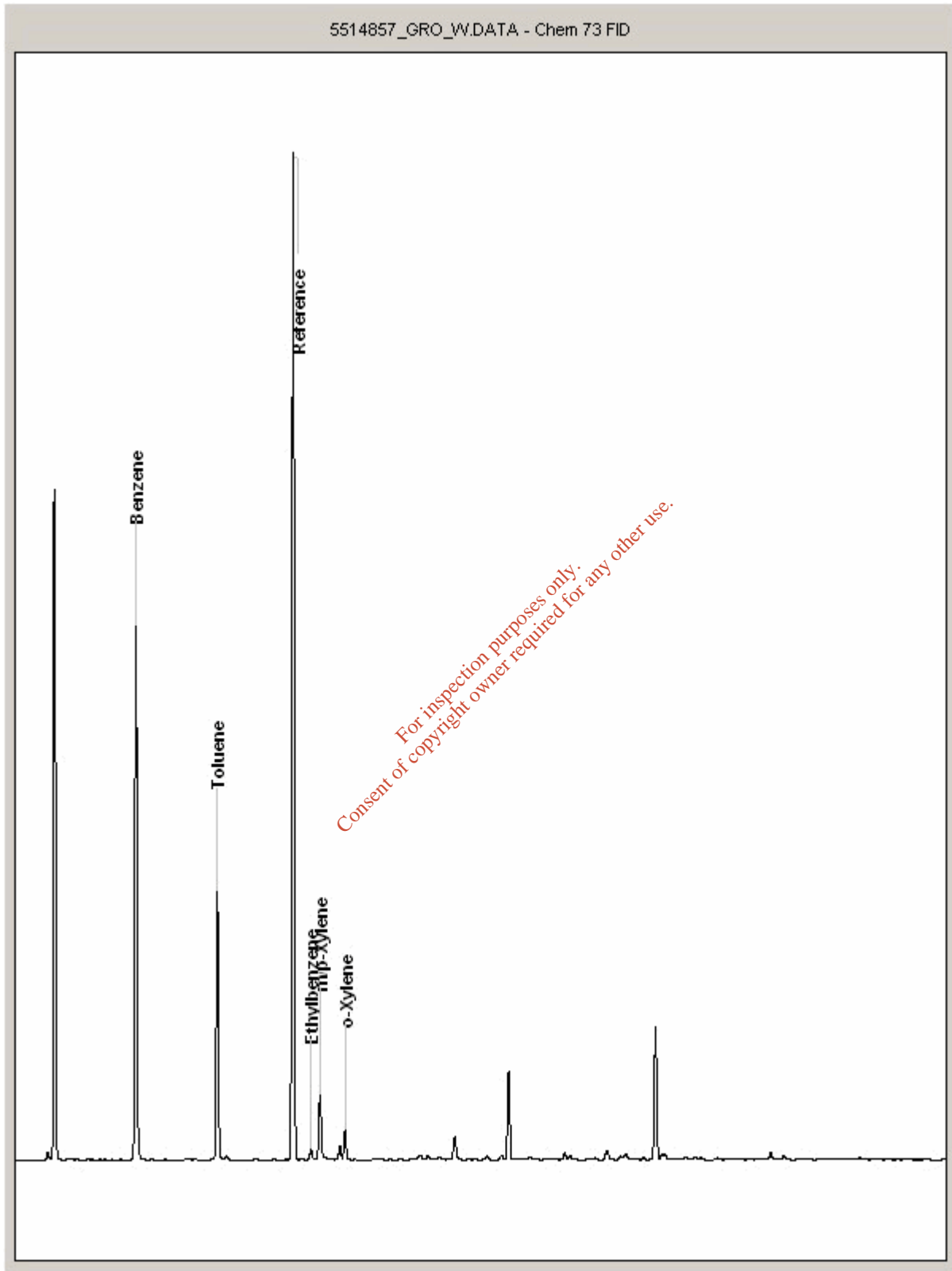
Order Number: 4500094829
Report Number: 180196
Superseded Report:

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 5514857
Sample ID : C7

Depth : 1.80 - 2.50





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

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

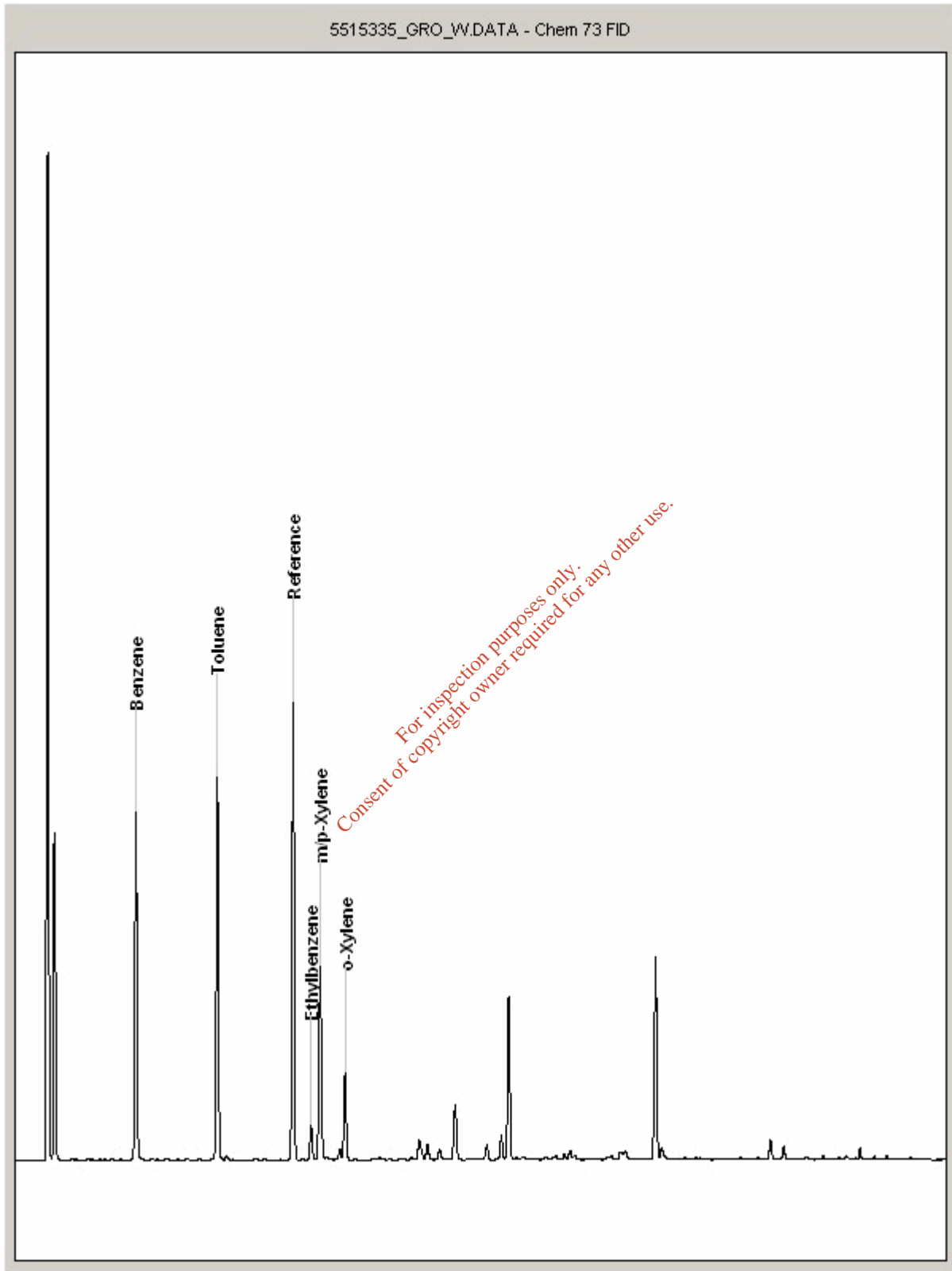
Order Number: 4500094829
Report Number: 180196
Superseded Report:

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 5515335
Sample ID : G4

Depth : 2.50 - 3.50





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

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

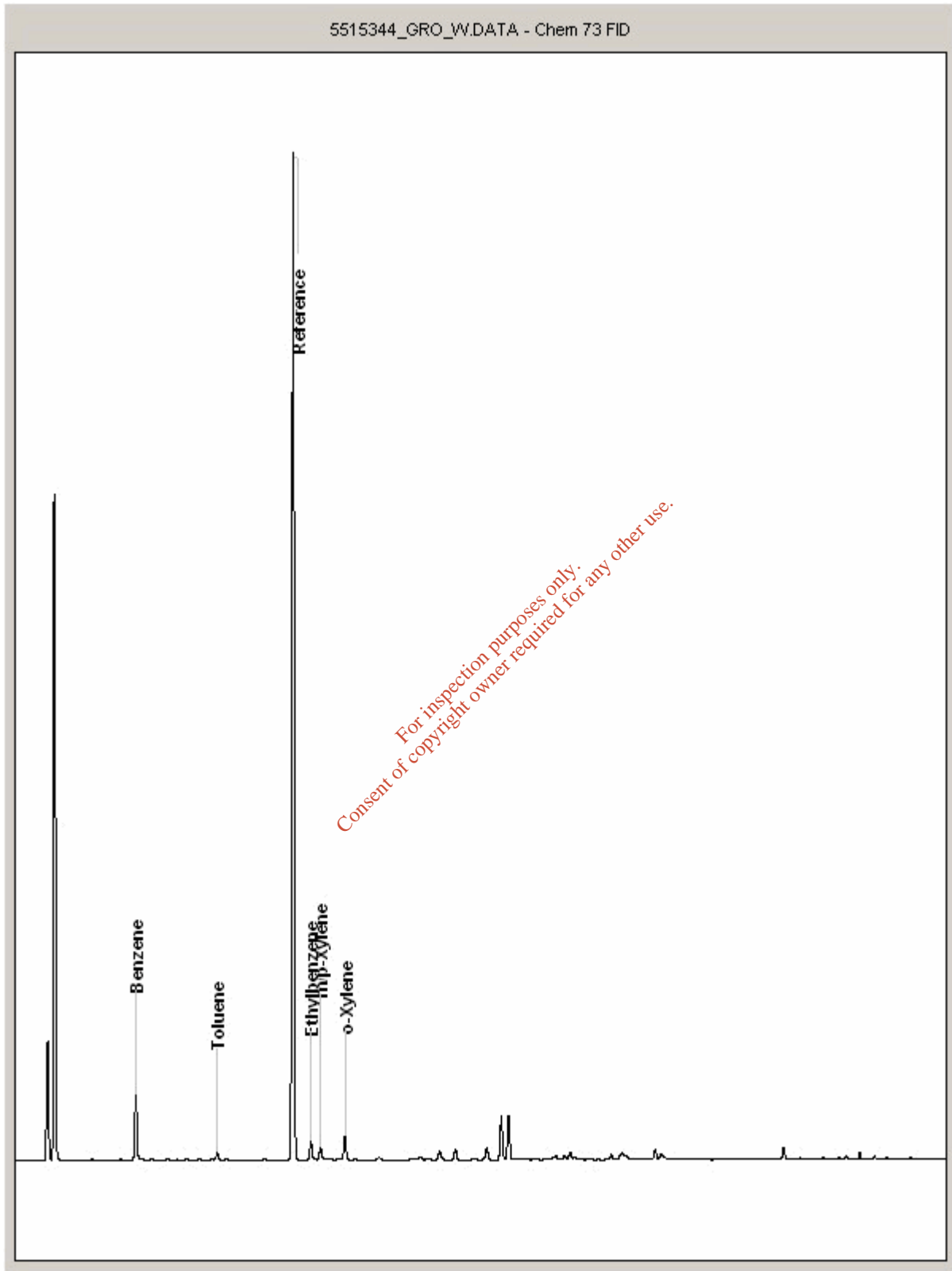
Order Number: 4500094829
Report Number: 180196
Superseded Report:

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 5515344
Sample ID : A1

Depth : 1.50 - 3.00





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

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

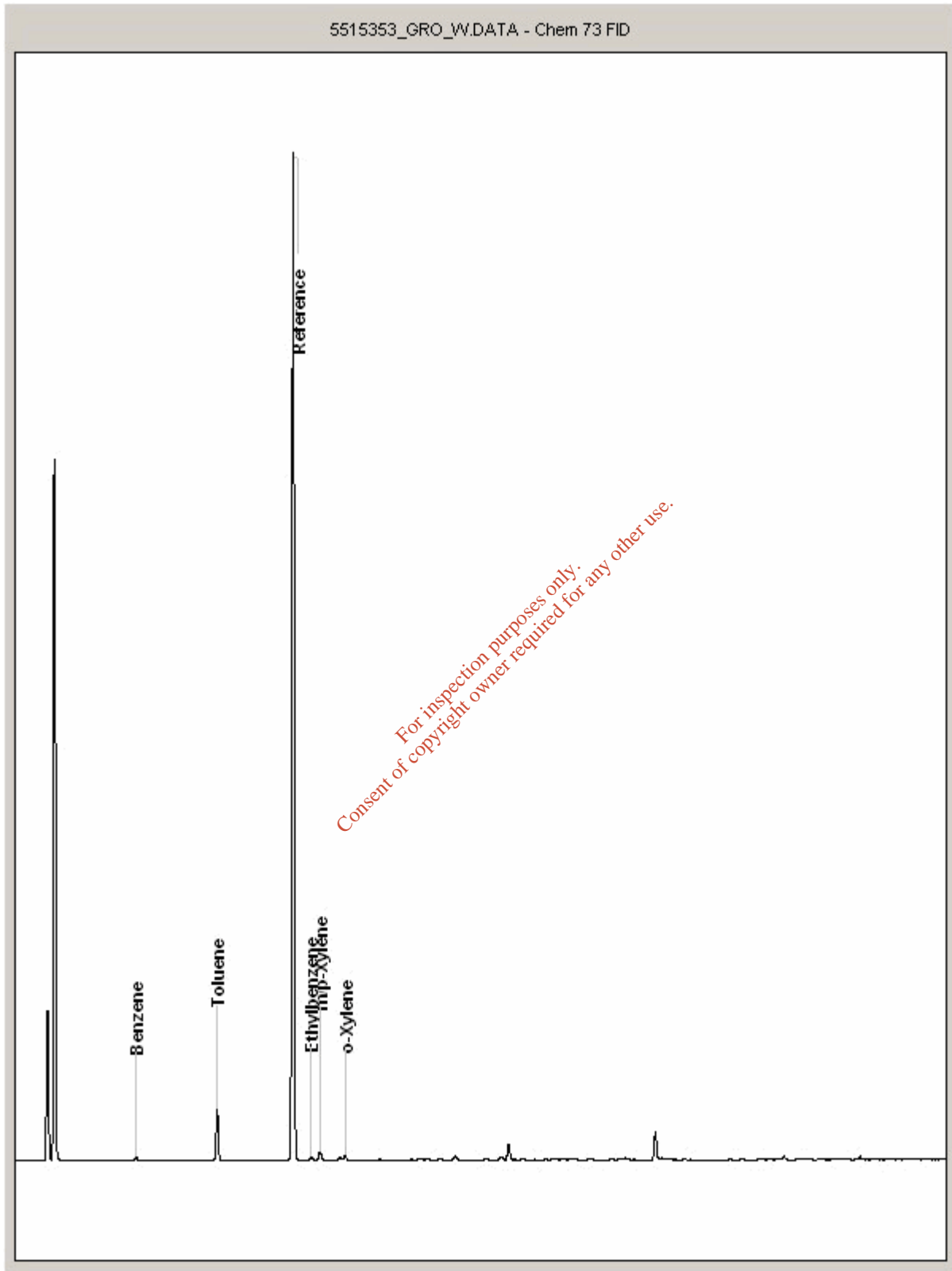
Order Number: 4500094829
Report Number: 180196
Superseded Report:

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 5515353
Sample ID : A11

Depth : 1.50





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

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

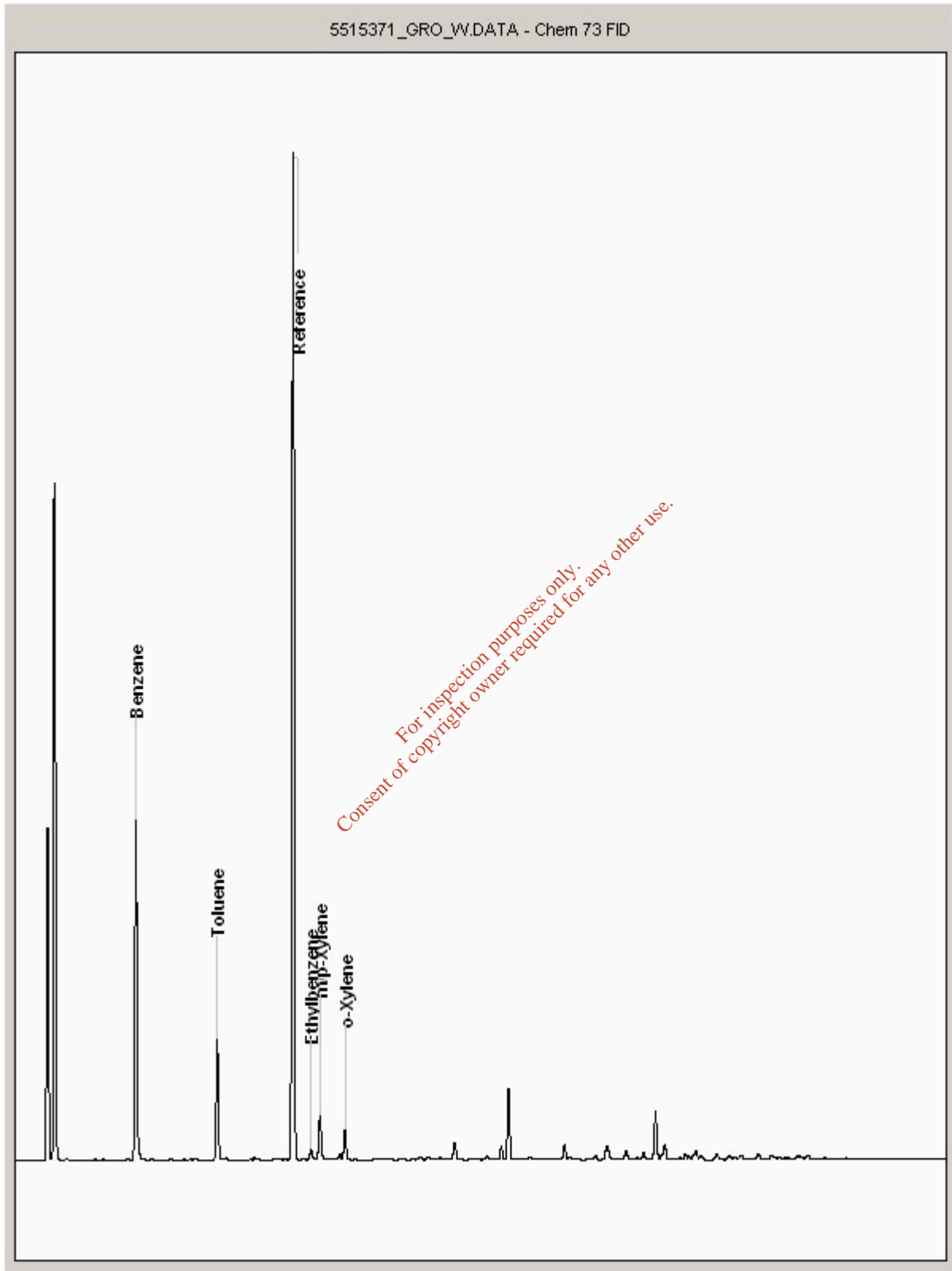
Order Number: 4500094829
Report Number: 180196
Superseded Report:

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 5515371
Sample ID : F11

Depth : 3.00





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

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

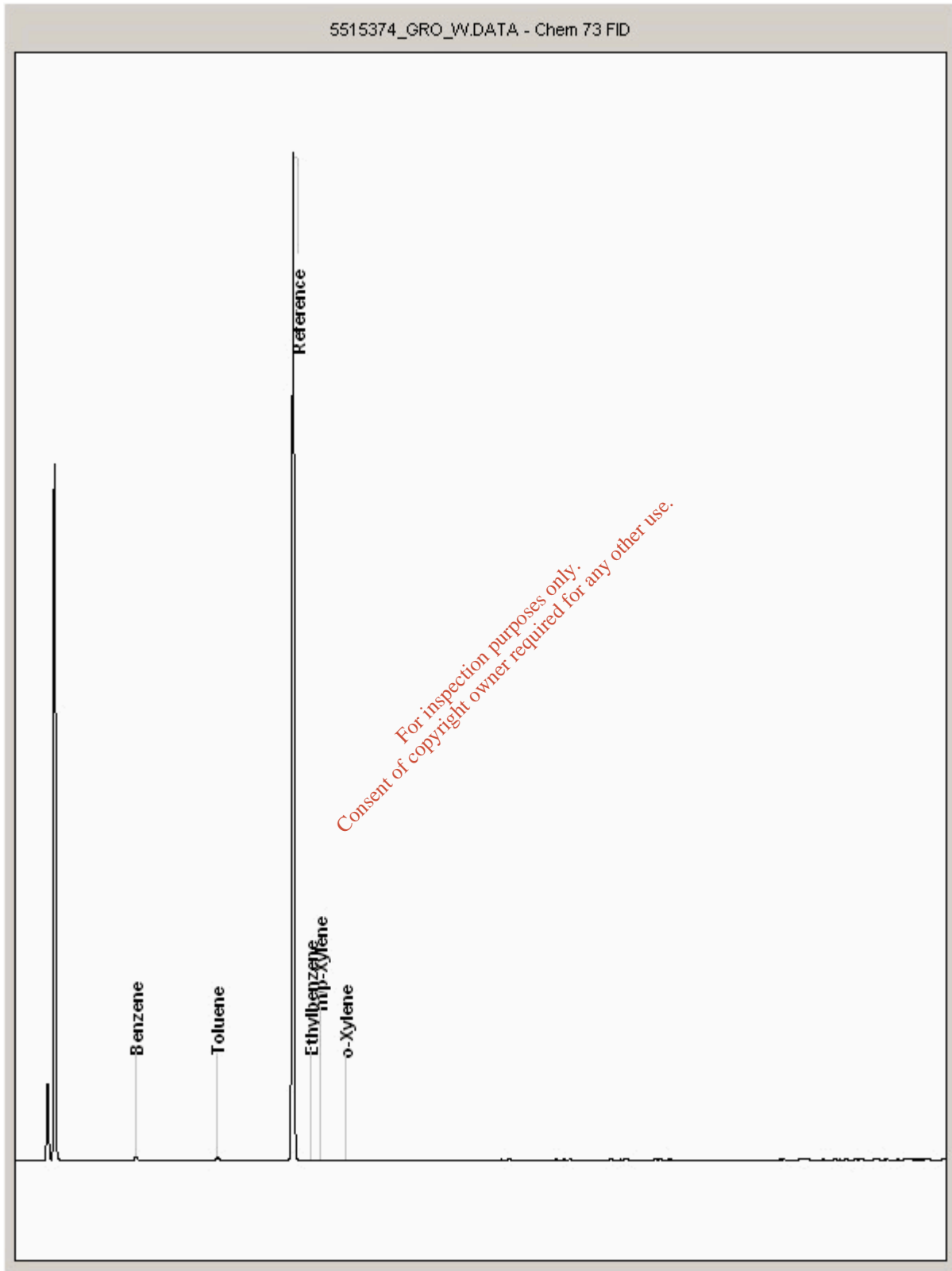
Order Number: 4500094829
Report Number: 180196
Superseded Report:

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 5515374
Sample ID : H12

Depth : 2.50





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

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

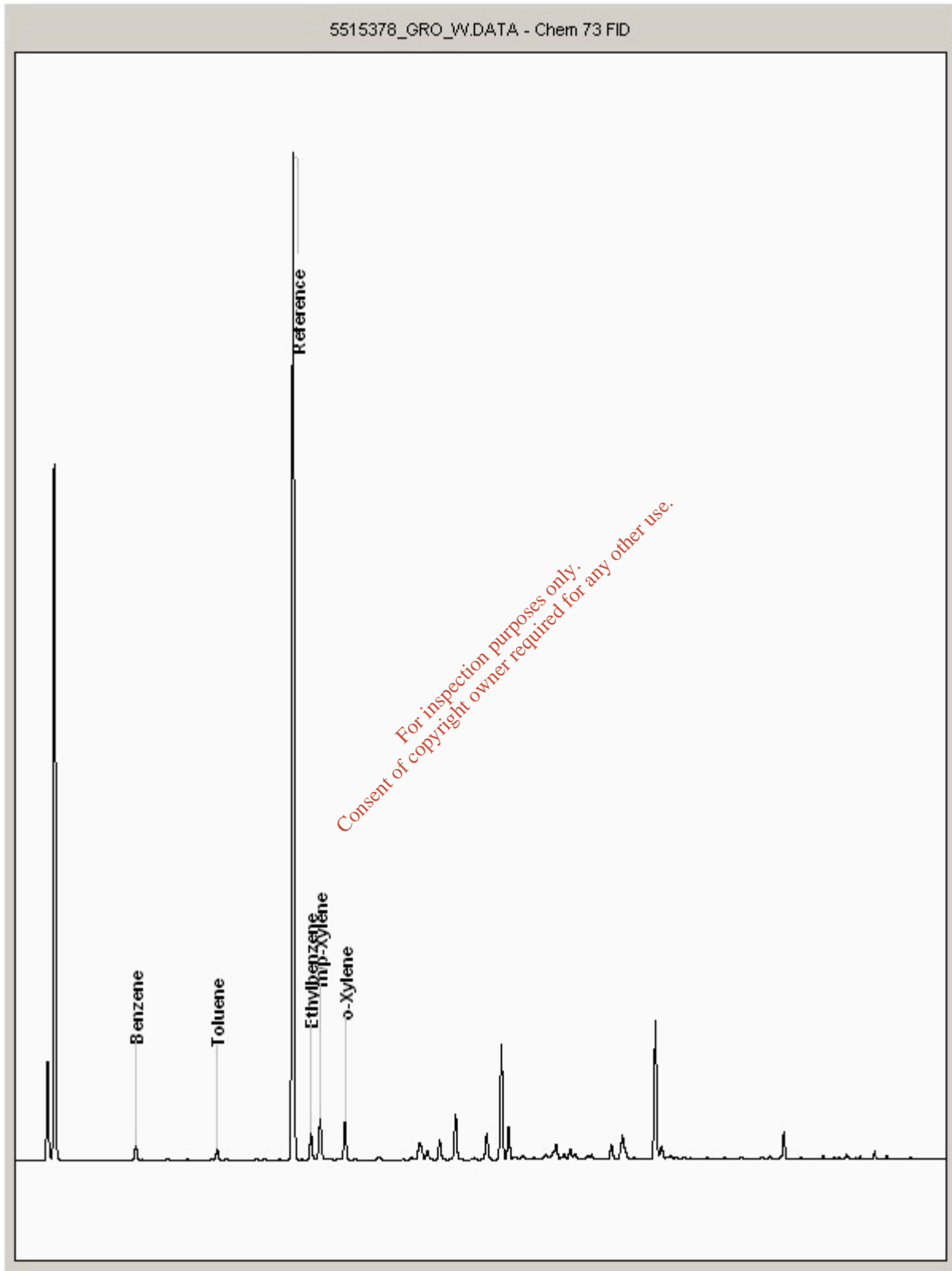
Order Number: 4500094829
Report Number: 180196
Superseded Report:

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 5515378
Sample ID : C11

Depth : 2.00





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

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

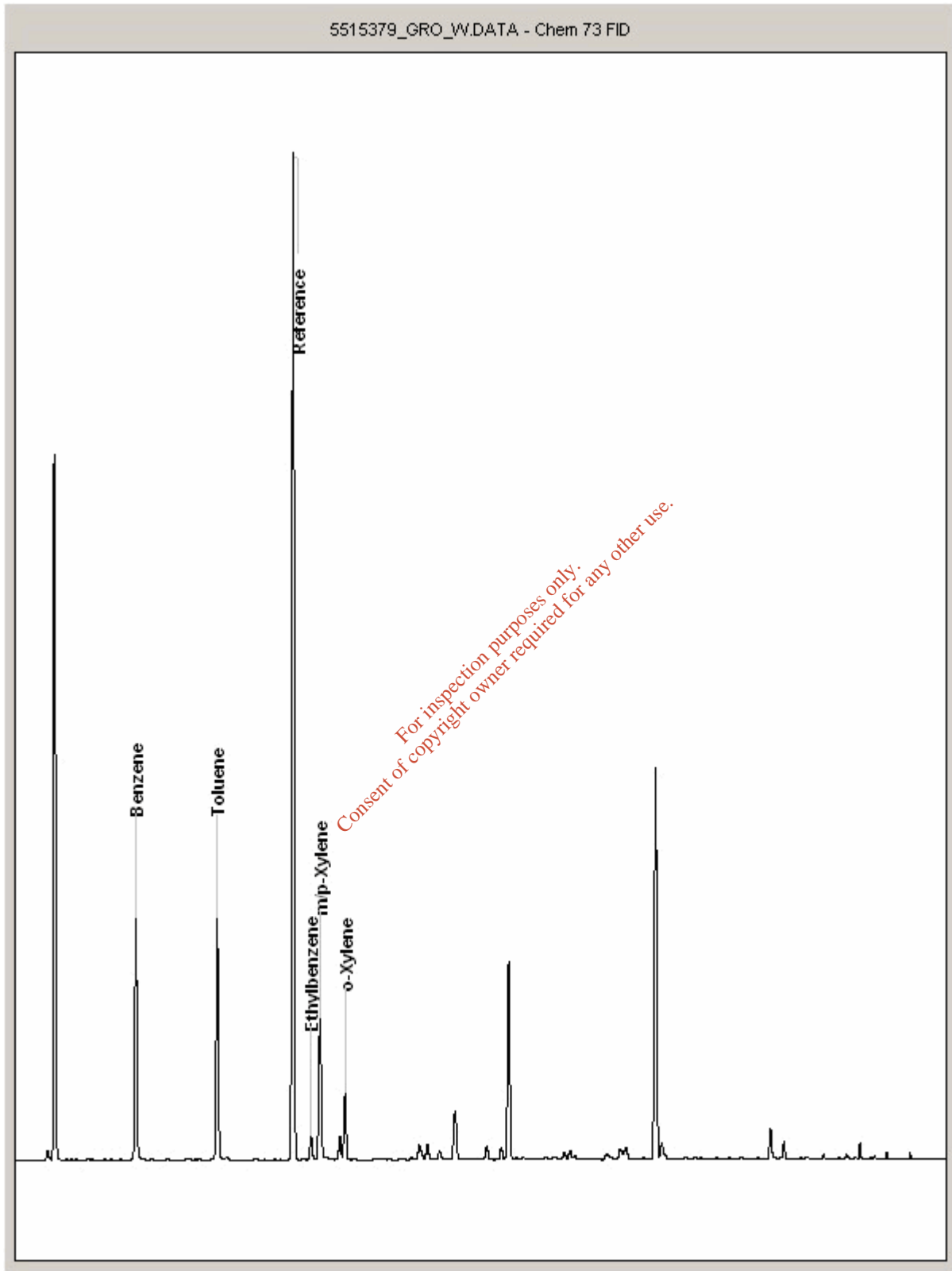
Order Number: 4500094829
Report Number: 180196
Superseded Report:

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 5515379
Sample ID : G8

Depth : 0.50 - 1.50





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

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

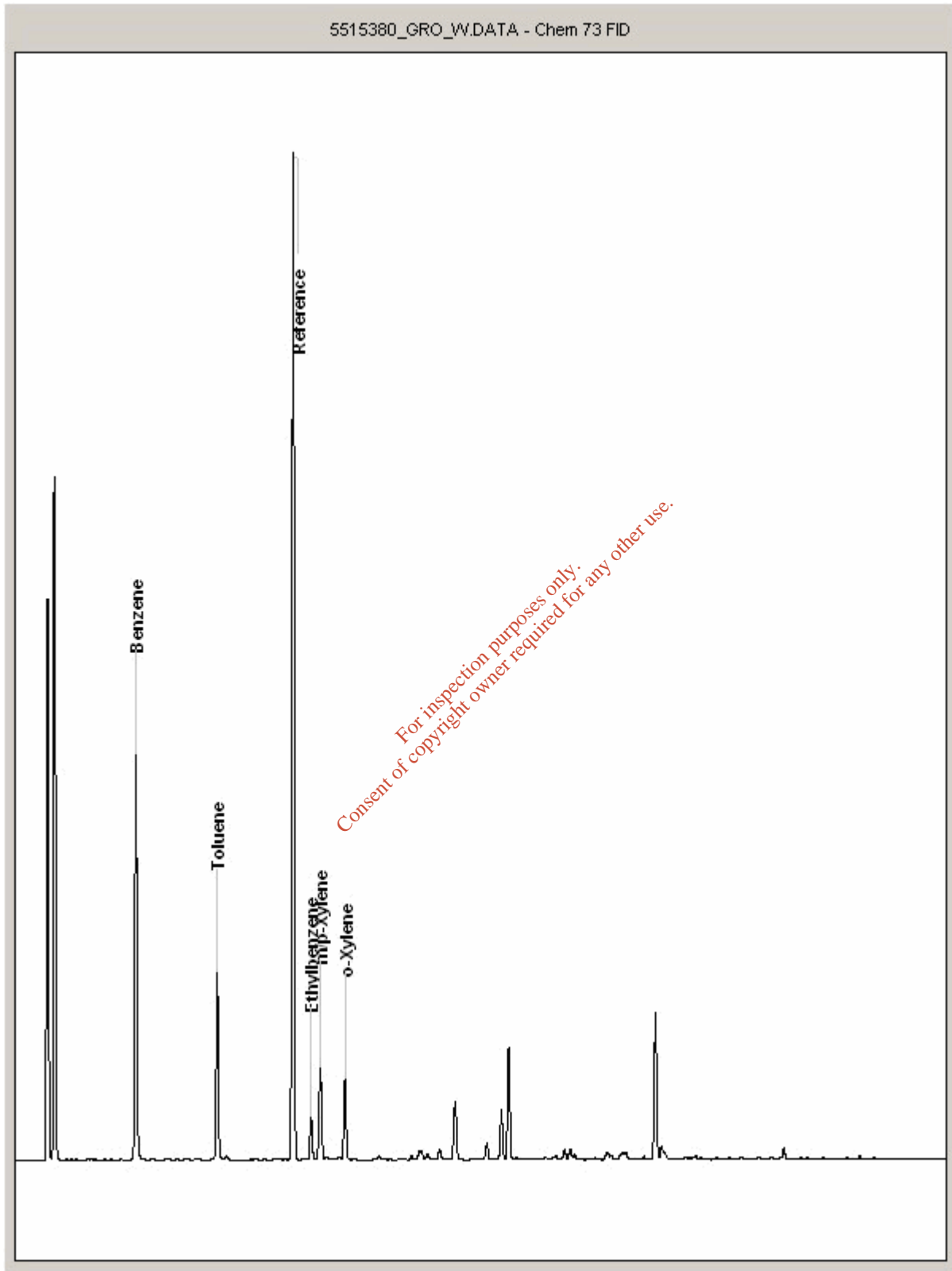
Order Number: 4500094829
Report Number: 180196
Superseded Report:

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 5515380
Sample ID : G3

Depth : 4.50





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

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

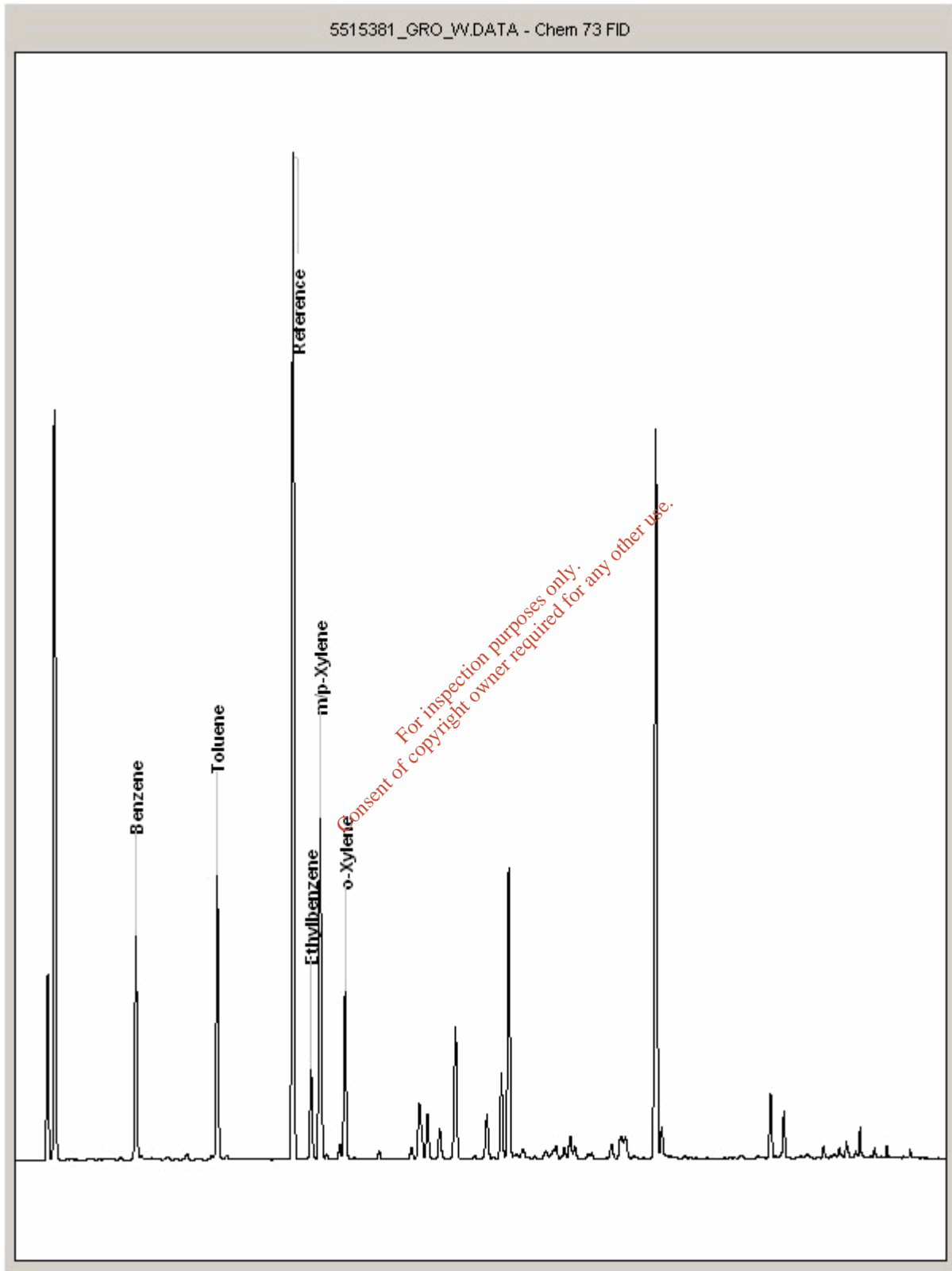
Order Number: 4500094829
Report Number: 180196
Superseded Report:

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 5515381
Sample ID : D1

Depth : 3.00 - 3.50





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

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

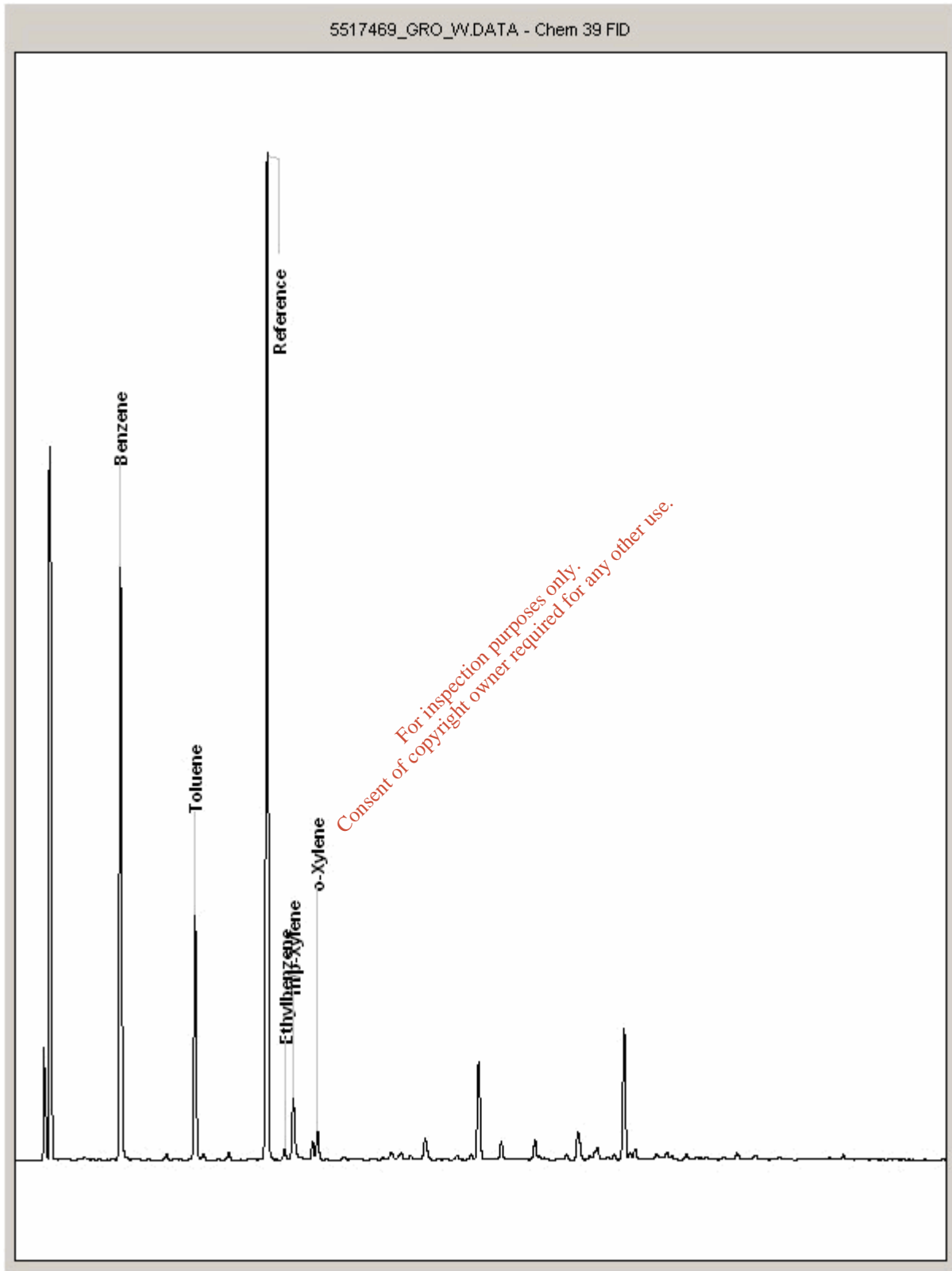
Order Number: 4500094829
Report Number: 180196
Superseded Report:

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 5517469
Sample ID : K5

Depth : 3.00





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

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

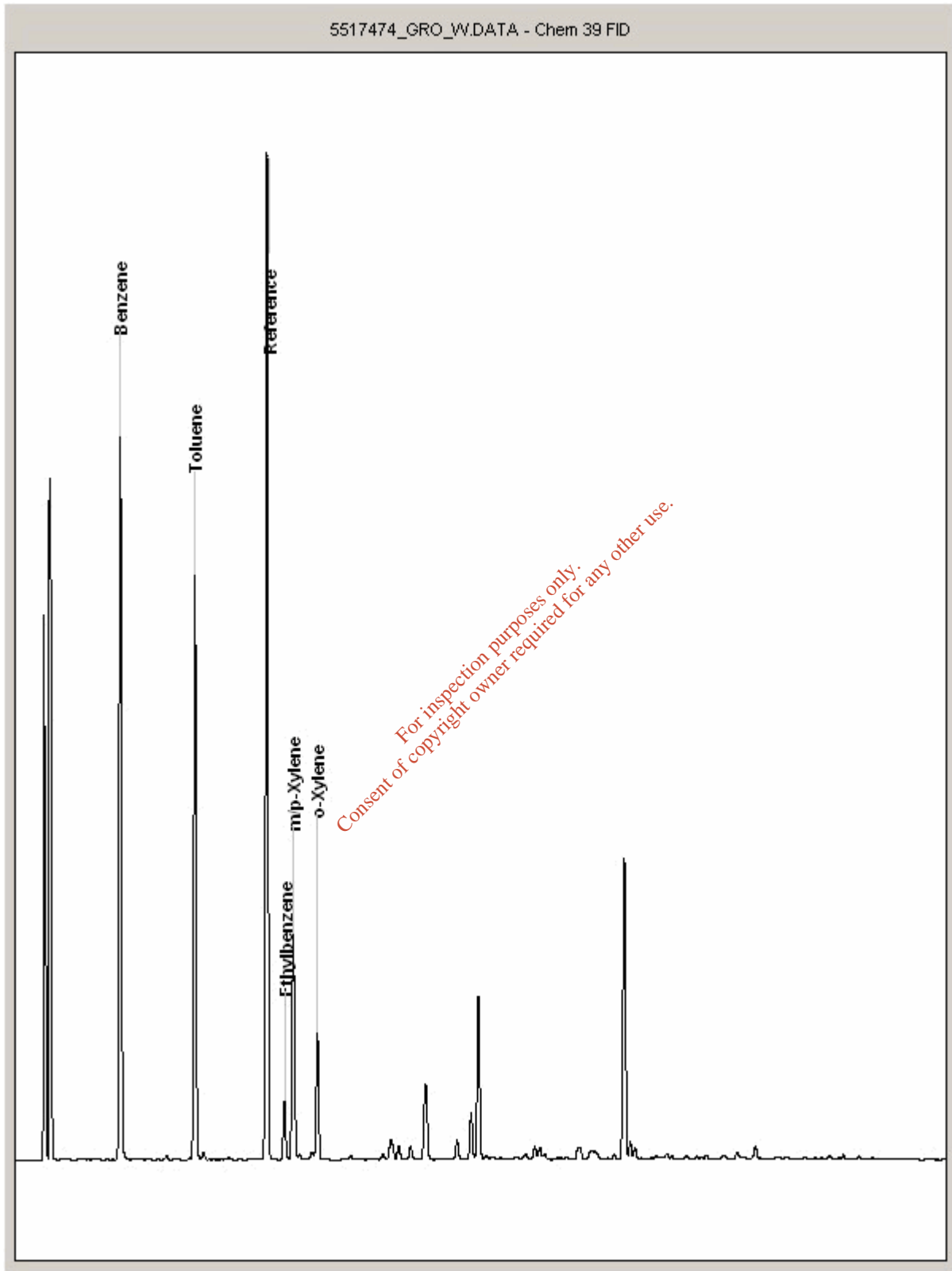
Order Number: 4500094829
Report Number: 180196
Superseded Report:

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 5517474
Sample ID : G2

Depth : 5.00





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

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

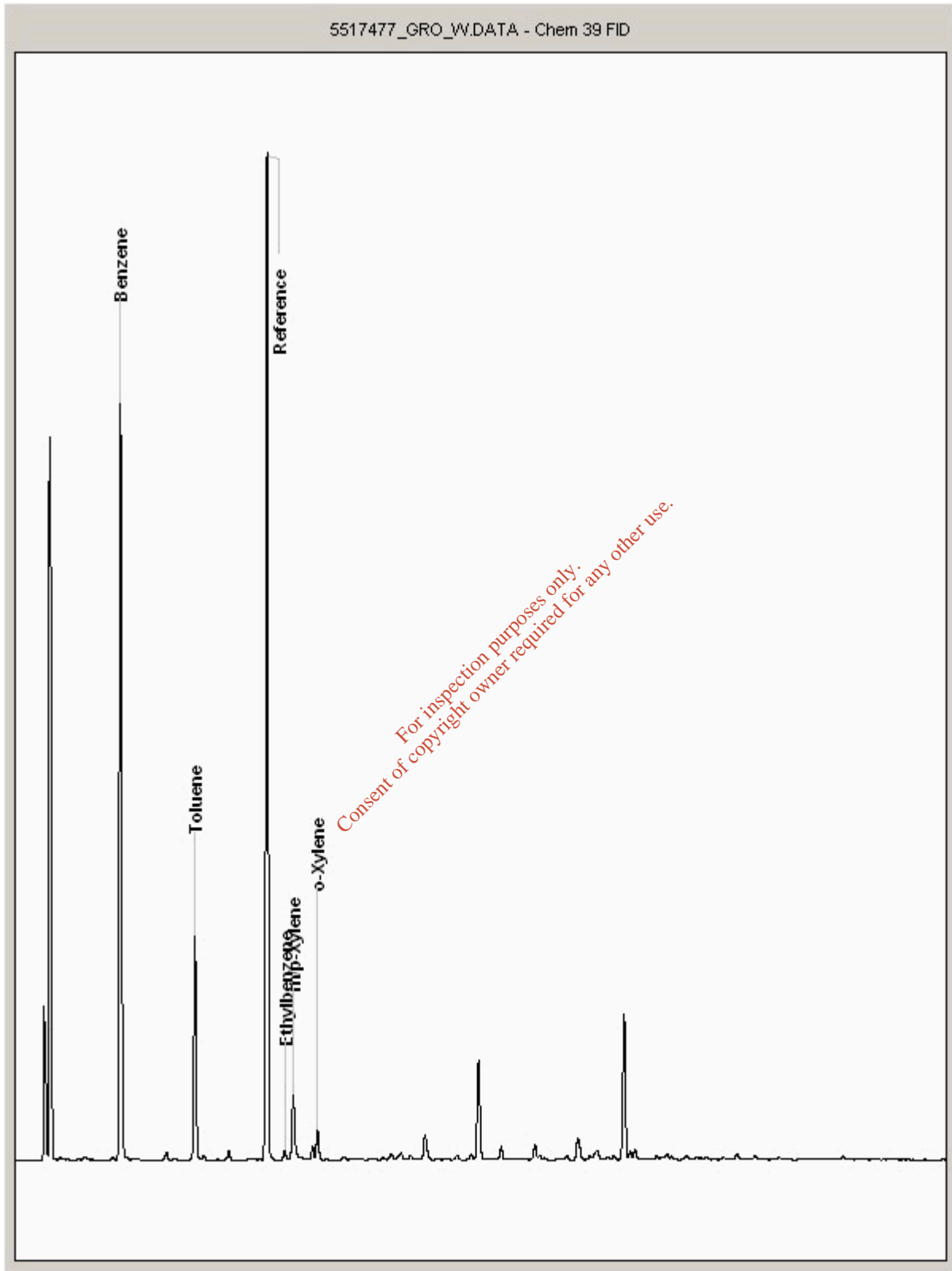
Order Number: 4500094829
Report Number: 180196
Superseded Report:

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 5517477
Sample ID : E8

Depth : 3.50



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:

Appendix

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

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

3. If sufficient sample is received a sub sample will be retained free of charge for 30 days after analysis is completed (e-mailed) for all sample types unless the sample is destroyed on testing. The prepared soil sub sample that is analysed for asbestos will be retained for a period of 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 Dimethylphenol, 3,5 Dimethylphenol).

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

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

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

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

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

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

22. We are accredited to 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 |
| SOLVENTEXTRACTABLE MATTER | D&C | DOM | SOX THERM | GRAVIMETRIC |
| CYCLOHEXANE EXT. MATTER | D&C | CYCLOHEXANE | SOX THERM | GRAVIMETRIC |
| ELEMENTAL SULPHUR | D&C | DOM | SOX THERM | HPLC |
| PHENOLS BY GCMS | WET | DOM | SOX THERM | GC-MS |
| HERBICIDES | D&C | HEXANE ACETONE | SOX THERM | GC-MS |
| PESTICIDES | D&C | HEXANE ACETONE | SOX THERM | 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 CWGBY GC | D&C | HEXANE ACETONE | END OVER END | GC-FID |
| PCBAROCLOR 1254/PCB CON | D&C | HEXANE ACETONE | END OVER END | GC-MS |
| POLYAROMATIC HYDROCARBONS (MS) | WET | HEXANE ACETONE | MICROWAVE TM218. | GC-MS |
| >C6C40 | WET | HEXANE ACETONE | SHAKER | GC-FID |
| POLYAROMATIC HYDROCARBONS RAPID GC | WET | HEXANE ACETONE | SHAKER | GC-FID |
| SEMI VOLATILE ORGANIC COMPOUNDS | WET | DOM ACETONE | SONICATE | GC-MS |

| LIQUID MATRICES EXTRACTION SUMMARY | | | |
|------------------------------------|--------------------|-------------------------------|----------|
| ANALYSIS | EXTRACTION SOLVENT | EXTRACTION METHOD | ANALYSIS |
| PAHMS | HEXANE | STIRRED EXTRACTION (STIR-BAR) | GC MS |
| EPH | HEXANE | STIRRED EXTRACTION (STIR-BAR) | GC FD |
| EPH CWG | HEXANE | STIRRED EXTRACTION (STIR-BAR) | GC FD |
| MINERAL OIL | HEXANE | STIRRED EXTRACTION (STIR-BAR) | GC FD |
| PCB7 CONGENERS | HEXANE | STIRRED EXTRACTION (STIR-BAR) | GC MS |
| PCBAROCLOR 1254 | HEXANE | STIRRED EXTRACTION (STIR-BAR) | GC MS |
| SVCC | DCM | LIQUID/LIQUID SHAKE | GC MS |
| FREESULPHUR | DCM | SOLID PHASE EXTRACTION | HPLC |
| PESTOPOPP | 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 (R) | TCE | STIRRED EXTRACTION (STIR-BAR) | R |
| MINERAL OIL BY R | TCE | STIRRED EXTRACTION (STIR-BAR) | R |
| GLYCOLS | NONE | DIRECT INJECTION | GC FD |

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 Anorthophyllite | - |
| 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.



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.

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Consent of copyright owner required for any other use.

Approved By:

Sonia McWhan

Operations Manager





SDG: 120203-121
Job: D_MOUCHEL_ELE-1
Client Reference:

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

Order Number: 4500089829
Report Number: 170465
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.

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Consent of copyright owner required for any other use.



SDG: 120203-121
Job: D_MOUCHEL_ELE-1
Client Reference:

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

Order Number: 4500089829
Report Number: 170465
Superseded Report: 170459

Table with columns: Lab Sample No(s), Customer Sample Reference, AGS Reference, Depth (m), Container, and various chemical tests (e.g., Ammoniacal Nitrogen, Anions by Kone, Cyanide, etc.). Includes a legend for 'LIQUID' results (X for Test, N for No Determination Possible).



SDG: 120203-121
 Job: D_MOUCHEL_ELE-1
 Client Reference:

Location: Limerick Gasworks
 Customer: Mouchel
 Attention: Neil Balderstone

Order Number: 4500089829
 Report Number: 170465
 Superseded Report: 170459

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



CERTIFICATE OF ANALYSIS

SDG: 120203-121
Job: D_MOUCHEL_ELE-1
Client Reference:

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

Order Number: 4500089829
Report Number: 170465
Superseded Report: 170459

| Results Legend | | | Customer Sample R | | A1 | A3 | A4 | A9 | A11 | C2 | | | | |
|-------------------------------------|--|--------|-------------------|----|--------------|--------------|--------------|--------------|--------------|--------------|--------|----|--------|----|
| # | ISO17025 accredited. | | 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 | | | | |
| M | mCERTS accredited. | | Sample Type | | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | | | | |
| S | Deviating sample. | | Date Sampled | | 01/02/2012 | 01/02/2012 | 01/02/2012 | 01/02/2012 | 01/02/2012 | 01/02/2012 | | | | |
| aq | Aqueous / settled sample. | | Date Received | | 02/02/2012 | 02/02/2012 | 02/02/2012 | 02/02/2012 | 02/02/2012 | 02/02/2012 | | | | |
| diss.filt | Dissolved / filtered sample. | | SDG Ref | | 120203-121 | 120203-121 | 120203-121 | 120203-121 | 120203-121 | 120203-121 | | | | |
| tot.unfilt | Total / unfiltered sample. | | Lab Sample No.(s) | | 5120525 | 5120524 | 5120522 | 5120713 | 5124843 | 5120526 | | | | |
| * | Subcontracted test. | | AGS Reference | | | | | | | | | | | |
| ** | % 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 | | | | | | | | | | | | |
| 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 | <0.002 | §# | <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
Job: D_MOUCHEL_ELE-1
Client Reference:

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

Order Number: 4500089829
Report Number: 170465
Superseded Report: 170459

| Results Legend | | | Customer Sample R | | C7 | C11 | D1 | D5 | E8 | F11 | | | | |
|-------------------------------------|--|--------|-------------------|----|--------------|--------------|--------------|--------------|--------------|--------------|--------|----|--------|----|
| # | ISO17025 accredited. | | 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 | | | | |
| M | mCERTS accredited. | | Sample Type | | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | | | | |
| S | Deviating sample. | | Date Sampled | | 01/02/2012 | 01/02/2012 | 01/02/2012 | 01/02/2012 | 01/02/2012 | 01/02/2012 | | | | |
| aq | Aqueous / settled sample. | | Date Received | | 02/02/2012 | 02/02/2012 | 02/02/2012 | 02/02/2012 | 02/02/2012 | 02/02/2012 | | | | |
| diss.filt | Dissolved / filtered sample. | | SDG Ref | | 120203-121 | 120203-121 | 120203-121 | 120203-121 | 120203-121 | 120203-121 | | | | |
| tot.unfilt | Total / unfiltered sample. | | Lab Sample No.(s) | | 5120719 | 5124842 | 5124728 | 5120721 | 5124844 | 5124841 | | | | |
| * | Subcontracted test. | | AGS Reference | | | | | | | | | | | |
| ** | % 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 | | | | | | | | | | | | |
| 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 | # | <0.06 | # | <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
Job: D_MOUCHEL_ELE-1
Client Reference:

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

Order Number: 4500089829
Report Number: 170465
Superseded Report: 170459

| Results Legend | | | Customer Sample R | | G2 | G3 | G4 | G5 | G8 | H12 | | | | |
|-------------------------------------|--|--------|-------------------|----|--------------|--------------|--------------|--------------|--------------|--------------|--------|----|--------|----|
| # | ISO17025 accredited. | | 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 | | | | |
| M | mCERTS accredited. | | Sample Type | | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | | | | |
| S | Deviating sample. | | Date Sampled | | 01/02/2012 | 01/02/2012 | 01/02/2012 | 01/02/2012 | 01/02/2012 | 01/02/2012 | | | | |
| aq | Aqueous / settled sample. | | Date Received | | 02/02/2012 | 02/02/2012 | 02/02/2012 | 02/02/2012 | 02/02/2012 | 02/02/2012 | | | | |
| diss.filt | Dissolved / filtered sample. | | SDG Ref | | 120203-121 | 120203-121 | 120203-121 | 120203-121 | 120203-121 | 120203-121 | | | | |
| tot.unfilt | Total / unfiltered sample. | | Lab Sample No.(s) | | 5124739 | 5124740 | 5124741 | 5124742 | 5124846 | 5125379 | | | | |
| - | Subcontracted test. | | AGS Reference | | | | | | | | | | | |
| ** | % 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 | | | | | | | | | | | | |
| 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
Job: D_MOUCHEL_ELE-1
Client Reference:

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

Order Number: 4500089829
Report Number: 170465
Superseded Report: 170459

| Results Legend | | Customer Sample R | J10 | K1 | K5 | M3 | | |
|-------------------------------------|--|---|--------------|--------------|--------------|--------------|----|----|
| # | ISO17025 accredited. | Depth (m) Sample Type Date Sampled Date Received SDG Ref Lab Sample No.(s) AGS Reference | 0.00 - 1.00 | 2.00 - 3.00 | 1.00 - 2.00 | 2.70 - 3.70 | | |
| M | mCERTS accredited. | | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | | |
| S | Deviating sample. | | 01/02/2012 | 01/02/2012 | 01/02/2012 | 01/02/2012 | | |
| aq | Aqueous / settled sample. | | 02/02/2012 | 02/02/2012 | 02/02/2012 | 02/02/2012 | | |
| diss.filt | Dissolved / filtered sample. | | 120203-121 | 120203-121 | 120203-121 | 120203-121 | | |
| tot.unfilt | Total / unfiltered sample. | | 5125378 | 5125375 | 5125377 | 5125376 | | |
| * | 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 | | | | | |
| 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
Job: D_MOUCHEL_ELE-1
Client Reference:

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

Order Number: 4500089829
Report Number: 170465
Superseded Report: 170459

PAH Spec MS - Aqueous (W)

| Results Legend | | | Customer Sample R | | | | | | |
|-----------------------------------|--|---|-------------------|--------------|--------------|--------------|--------------|--------------|--|
| # | ISO17025 accredited. | Depth (m) Sample Type Date Sampled Date Received SDG Ref Lab Sample No.(s) AGS Reference | A1 | A3 | A4 | A9 | A11 | C2 | |
| M | mCERTS accredited. | | 2.50 - 3.50 | 1.50 - 2.00 | 3.00 - 4.00 | 2.00 - 2.40 | 2.00 - 2.50 | 2.00 - 2.50 | |
| S | Deviating sample. | | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | |
| aq | Aqueous / settled sample. | | 01/02/2012 | 01/02/2012 | 01/02/2012 | 01/02/2012 | 01/02/2012 | 01/02/2012 | |
| diss.filt | Dissolved / filtered sample. | | 02/02/2012 | 02/02/2012 | 02/02/2012 | 02/02/2012 | 02/02/2012 | 02/02/2012 | |
| tot.unfilt | Total / unfiltered sample. | | 120203-121 | 120203-121 | 120203-121 | 120203-121 | 120203-121 | 120203-121 | |
| * | Subcontracted test. | | 5120525 | 5120524 | 5120522 | 5120713 | 5124843 | 5120526 | |
| ** | % 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 | | | | | | |
| 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 # | |

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CERTIFICATE OF ANALYSIS

SDG: 120203-121
Job: D_MOUCHEL_ELE-1
Client Reference:

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

Order Number: 4500089829
Report Number: 170465
Superseded Report: 170459

PAH Spec MS - Aqueous (W)

| Results Legend | | | Customer Sample R | | | | | | |
|-----------------------------------|--|---|-------------------|--------------|--------------|--------------|--------------|--------------|--|
| # | ISO17025 accredited. | Depth (m) Sample Type Date Sampled Date Received SDG Ref Lab Sample No.(s) AGS Reference | C7 | C11 | D1 | D5 | E8 | F11 | |
| M | mCERTS accredited. | | 5.50 - 6.50 | 1.50 - 2.40 | 3.00 - 4.00 | 1.50 - 1.90 | 1.00 - 2.00 | 4.00 - 4.80 | |
| S | Deviating sample. | | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | |
| aq | Aqueous / settled sample. | | 01/02/2012 | 01/02/2012 | 01/02/2012 | 01/02/2012 | 01/02/2012 | 01/02/2012 | |
| diss.filt | Dissolved / filtered sample. | | 02/02/2012 | 02/02/2012 | 02/02/2012 | 02/02/2012 | 02/02/2012 | 02/02/2012 | |
| tot.unfilt | Total / unfiltered sample. | | 120203-121 | 120203-121 | 120203-121 | 120203-121 | 120203-121 | 120203-121 | |
| * | Subcontracted test. | | 5120719 | 5124842 | 5124728 | 5120721 | 5124844 | 5124841 | |
| ** | % 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 | | | | | | |
| 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 | |

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CERTIFICATE OF ANALYSIS

SDG: 120203-121
Job: D_MOUCHEL_ELE-1
Client Reference:

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

Order Number: 4500089829
Report Number: 170465
Superseded Report: 170459

PAH Spec MS - Aqueous (W)

| Results Legend | | | Customer Sample R | | | | | | |
|-----------------------------------|--|---|-------------------|--------------|--------------|--------------|--------------|--------------|--|
| # | ISO17025 accredited. | Depth (m) Sample Type Date Sampled Date Received SDG Ref Lab Sample No.(s) AGS Reference | G2 | G3 | G4 | G5 | G8 | H12 | |
| M | mCERTS accredited. | | 3.00 - 4.00 | 2.50 - 3.50 | 3.00 - 4.00 | 3.00 - 4.00 | 1.50 - 2.40 | 1.10 - 2.00 | |
| S | Deviating sample. | | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | |
| aq | Aqueous / settled sample. | | 01/02/2012 | 01/02/2012 | 01/02/2012 | 01/02/2012 | 01/02/2012 | 01/02/2012 | |
| diss.filt | Dissolved / filtered sample. | | 02/02/2012 | 02/02/2012 | 02/02/2012 | 02/02/2012 | 02/02/2012 | 02/02/2012 | |
| tot.unfilt | Total / unfiltered sample. | | 120203-121 | 120203-121 | 120203-121 | 120203-121 | 120203-121 | 120203-121 | |
| * | Subcontracted test. | | 5124739 | 5124740 | 5124741 | 5124742 | 5124846 | 5125379 | |
| ** | % 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 | | | | | | |
| 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 | |

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CERTIFICATE OF ANALYSIS

SDG: 120203-121
 Job: D_MOUCHEL_ELE-1
 Client Reference:

Location: Limerick Gasworks
 Customer: Mouchel
 Attention: Neil Balderstone

Order Number: 4500089829
 Report Number: 170465
 Superseded Report: 170459

PAH Spec MS - Aqueous (W)

| Results Legend | | Customer Sample R | J10 | K1 | K5 | M3 | | |
|-----------------------------------|--|--|--------------|--------------|--------------|--------------|--|--|
| # | ISO17025 accredited. | Depth (m) Sample Type Date Sampled Date Received SDG Ref Lab Sample No.(s) AGS Reference | 0.00 - 1.00 | 2.00 - 3.00 | 1.00 - 2.00 | 2.70 - 3.70 | | |
| M | mCERTS accredited. | | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | | |
| S | Deviating sample. | | 01/02/2012 | 01/02/2012 | 01/02/2012 | 01/02/2012 | | |
| aq | Aqueous / settled sample. | | 02/02/2012 | 02/02/2012 | 02/02/2012 | 02/02/2012 | | |
| diss.filt | Dissolved / filtered sample. | | 120203-121 | 120203-121 | 120203-121 | 120203-121 | | |
| tot.unfilt | Total / unfiltered sample. | | 5125378 | 5125375 | 5125377 | 5125376 | | |
| * | 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 | | | | | |
| 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 # | | |

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CERTIFICATE OF ANALYSIS

SDG: 120203-121
Job: D_MOUCHEL_ELE-1
Client Reference:

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

Order Number: 4500089829
Report Number: 170465
Superseded Report: 170459

TPH CWG (W)

| Results Legend | | | Customer Sample R | | A1 | A3 | A4 | A9 | A11 | C2 |
|--|--|--------|-------------------|--|--------------|--------------|--------------|--------------|--------------|--------------|
| # | ISO17025 accredited. | | 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 |
| M | mCERTS accredited. | | Sample Type | | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) |
| S | Deviating sample. | | Date Sampled | | 01/02/2012 | 01/02/2012 | 01/02/2012 | 01/02/2012 | 01/02/2012 | 01/02/2012 |
| aq | Aqueous / settled sample. | | Date Received | | 02/02/2012 | 02/02/2012 | 02/02/2012 | 02/02/2012 | 02/02/2012 | 02/02/2012 |
| diss.filt | Dissolved / filtered sample. | | SDG Ref | | 120203-121 | 120203-121 | 120203-121 | 120203-121 | 120203-121 | 120203-121 |
| tot.unfilt | Total / unfiltered sample. | | Lab Sample No.(s) | | 5120525 | 5120524 | 5120522 | 5120713 | 5124843 | 5120526 |
| * | Subcontracted test. | | AGS Reference | | | | | | | |
| ** | % 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 | | | | | | | | |
| 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 | 3 | <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 |



SDG: 120203-121
Job: D_MOUCHEL_ELE-1
Client Reference:

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

Order Number: 4500089829
Report Number: 170465
Superseded Report: 170459

TPH CWG (W)

| Results Legend | | | Customer Sample R | | C7 | C11 | D1 | D5 | E8 | F11 |
|--|--|--------|---|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| # | ISO17025 accredited. | | Depth (m) Sample Type Date Sampled Date Received SDG Ref Lab Sample No.(s) AGS Reference | 5.50 - 6.50 | 1.50 - 2.40 | 3.00 - 4.00 | 1.50 - 1.90 | 1.00 - 2.00 | 4.00 - 4.80 | |
| M | mCERTS accredited. | | | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) |
| S | Deviating sample. | | | 01/02/2012 | 01/02/2012 | 01/02/2012 | 01/02/2012 | 01/02/2012 | 01/02/2012 | 01/02/2012 |
| aq | Aqueous / settled sample. | | | 02/02/2012 | 02/02/2012 | 02/02/2012 | 02/02/2012 | 02/02/2012 | 02/02/2012 | 02/02/2012 |
| diss.filt | Dissolved / filtered sample. | | | 120203-121 | 120203-121 | 120203-121 | 120203-121 | 120203-121 | 120203-121 | 120203-121 |
| tot.unfilt | Total / unfiltered sample. | | | 5120719 | 5124842 | 5124728 | 5120721 | 5124844 | 5124841 | 5124841 |
| * | 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 | | | | | | | | |
| 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 | \$ | |



SDG: 120203-121
Job: D_MOUCHEL_ELE-1
Client Reference:

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

Order Number: 4500089829
Report Number: 170465
Superseded Report: 170459

TPH CWG (W)

| Results Legend | | | Customer Sample R | G2 | G3 | G4 | G5 | G8 | H12 | |
|--|--|--------|--|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| # | ISO17025 accredited. | | Depth (m) Sample Type Date Sampled Date Received SDG Ref Lab Sample No.(s) AGS Reference | 3.00 - 4.00 | 2.50 - 3.50 | 3.00 - 4.00 | 3.00 - 4.00 | 1.50 - 2.40 | 1.10 - 2.00 | |
| M | mCERTS accredited. | | | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) |
| S | Deviating sample. | | | 01/02/2012 | 01/02/2012 | 01/02/2012 | 01/02/2012 | 01/02/2012 | 01/02/2012 | 01/02/2012 |
| aq | Aqueous / settled sample. | | | 02/02/2012 | 02/02/2012 | 02/02/2012 | 02/02/2012 | 02/02/2012 | 02/02/2012 | 02/02/2012 |
| diss.filt | Dissolved / filtered sample. | | | 120203-121 | 120203-121 | 120203-121 | 120203-121 | 120203-121 | 120203-121 | 120203-121 |
| tot.unfilt | Total / unfiltered sample. | | | 5124739 | 5124740 | 5124741 | 5124742 | 5124846 | 5125379 | |
| * | 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 | | | | | | | | |
| 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 | |



SDG: 120203-121
 Job: D_MOUCHEL_ELE-1
 Client Reference:

Location: Limerick Gasworks
 Customer: Mouchel
 Attention: Neil Balderstone

Order Number: 4500089829
 Report Number: 170465
 Superseded Report: 170459

TPH CWG (W)

| Results Legend | | Customer Sample R | J10 | K1 | K5 | M3 | | |
|--|--|--|--------------|--------------|--------------|--------------|---|---|
| # | ISO17025 accredited. | Depth (m) Sample Type Date Sampled Date Received SDG Ref Lab Sample No.(s) AGS Reference | 0.00 - 1.00 | 2.00 - 3.00 | 1.00 - 2.00 | 2.70 - 3.70 | | |
| M | mCERTS accredited. | | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | | |
| S | Deviating sample. | | 01/02/2012 | 01/02/2012 | 01/02/2012 | 01/02/2012 | | |
| aq | Aqueous / settled sample. | | 02/02/2012 | 02/02/2012 | 02/02/2012 | 02/02/2012 | | |
| diss.filt | Dissolved / filtered sample. | | 120203-121 | 120203-121 | 120203-121 | 120203-121 | | |
| tot.unfilt | Total / unfiltered sample. | | 5125378 | 5125375 | 5125377 | 5125376 | | |
| * | 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 | | | | | |
| 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 | | |



SDG: 120203-121
Job: D_MOUCHEL_ELE-1
Client Reference:

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

Order Number: 4500089829
Report Number: 170465
Superseded Report: 170459

VOC MS (W)

| Results Legend | | Customer Sample R | A1 | A3 | A4 | A11 | C7 | D1 | |
|------------------------------------|--|---|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| # | ISO17025 accredited. | Depth (m) Sample Type Date Sampled Date Received SDG Ref Lab Sample No.(s) AGS Reference | 2.50 - 3.50 | 1.50 - 2.00 | 3.00 - 4.00 | 2.00 - 2.50 | 5.50 - 6.50 | 3.00 - 4.00 | |
| M | mCERTS accredited. | | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) |
| S | Deviating sample. | | 01/02/2012 | 01/02/2012 | 01/02/2012 | 01/02/2012 | 01/02/2012 | 01/02/2012 | 01/02/2012 |
| aq | Aqueous / settled sample. | | 02/02/2012 | 02/02/2012 | 02/02/2012 | 02/02/2012 | 02/02/2012 | 02/02/2012 | 02/02/2012 |
| diss.filt | Dissolved / filtered sample. | | 120203-121 | 120203-121 | 120203-121 | 120203-121 | 120203-121 | 120203-121 | 120203-121 |
| tot.unfilt | Total / unfiltered sample. | | 5120525 | 5120524 | 5120522 | 5124843 | 5120719 | | 5124728 |
| * | 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 | | | | | | |
| 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 | |



SDG: 120203-121
Job: D_MOUCHEL_ELE-1
Client Reference:

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

Order Number: 4500089829
Report Number: 170465
Superseded Report: 170459

VOC MS (W)

| Results Legend | | Customer Sample R | A1 | A3 | A4 | A11 | C7 | D1 |
|-------------------------------|--|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| # | ISO17025 accredited. | | 2.50 - 3.50 | 1.50 - 2.00 | 3.00 - 4.00 | 2.00 - 2.50 | 5.50 - 6.50 | 3.00 - 4.00 |
| M | mCERTS accredited. | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) |
| S | Deviating sample. | 01/02/2012 | 01/02/2012 | 01/02/2012 | 01/02/2012 | 01/02/2012 | 01/02/2012 | 01/02/2012 |
| aq | Aqueous / settled sample. | Date Sampled | Date Sampled | Date Sampled | Date Sampled | Date Sampled | Date Sampled | Date Sampled |
| diss.filt | Dissolved / filtered sample. | Date Received | Date Received | Date Received | Date Received | Date Received | Date Received | Date Received |
| tot.unfilt | Total / unfiltered sample. | SDG Ref | SDG Ref | SDG Ref | SDG Ref | SDG Ref | SDG Ref | SDG Ref |
| * | Subcontracted test. | Lab Sample No.(s) | Lab Sample No.(s) | Lab Sample No.(s) | Lab Sample No.(s) | Lab Sample No.(s) | Lab Sample No.(s) | Lab Sample No.(s) |
| ** | % 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 | AGS Reference | AGS Reference | AGS Reference | AGS Reference | AGS Reference | AGS Reference | AGS Reference |
| (F) | Trigger breach confirmed | | | | | | | |
| Component | LOD/Units | Method | | | | | | |
| 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 # | 3.63 # | <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 # |



SDG: 120203-121
Job: D_MOUCHEL_ELE-1
Client Reference:

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

Order Number: 4500089829
Report Number: 170465
Superseded Report: 170459

VOC MS (W)

| Results Legend | | | Customer Sample R | | G2 | G4 | G5 | K5 | M3 |
|------------------------------------|--|--------|---|--------------|--------------|--------------|--------------|--------------|----|
| # | ISO17025 accredited. | | Depth (m) Sample Type Date Sampled Date Received SDG Ref Lab Sample No.(s) AGS Reference | | | | | | |
| M | mCERTS accredited. | | | 3.00 - 4.00 | 3.00 - 4.00 | 3.00 - 4.00 | 1.00 - 2.00 | 2.70 - 3.70 | |
| S | Deviating sample. | | | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | |
| aq | Aqueous / settled sample. | | | 01/02/2012 | 01/02/2012 | 01/02/2012 | 01/02/2012 | 01/02/2012 | |
| diss.filt | Dissolved / filtered sample. | | | 02/02/2012 | 02/02/2012 | 02/02/2012 | 02/02/2012 | 02/02/2012 | |
| tot.unfilt | Total / unfiltered sample. | | | 120203-121 | 120203-121 | 120203-121 | 120203-121 | 120203-121 | |
| * | Subcontracted test. | | | 5124739 | 5124741 | 5124742 | 5125377 | 5125376 | |
| ** | % 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 | | | | | | | |
| 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 | | |



SDG: 120203-121
 Job: D_MOUCHEL_ELE-1
 Client Reference:

Location: Limerick Gasworks
 Customer: Mouchel
 Attention: Neil Balderstone

Order Number: 4500089829
 Report Number: 170465
 Superseded Report: 170459

VOC MS (W)

| Results Legend | | Customer Sample R | G2 | G4 | G5 | K5 | M3 | | |
|-------------------------------|--|--|--------------|--------------|--------------|--------------|--------------|--------------|------|
| # | ISO17025 accredited. | | | | | | | | |
| M | mCERTS accredited. | Depth (m) Sample Type Date Sampled Date Received SDG Ref Lab Sample No.(s) AGS Reference | 3.00 - 4.00 | 3.00 - 4.00 | 3.00 - 4.00 | 1.00 - 2.00 | 2.70 - 3.70 | | |
| S | Deviating sample. | | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | |
| aq | Aqueous / settled sample. | | 01/02/2012 | 01/02/2012 | 01/02/2012 | 01/02/2012 | 01/02/2012 | 01/02/2012 | |
| diss.filt | Dissolved / filtered sample. | | 02/02/2012 | 02/02/2012 | 02/02/2012 | 02/02/2012 | 02/02/2012 | 02/02/2012 | |
| tot.unfilt | Total / unfiltered sample. | | 120203-121 | 120203-121 | 120203-121 | 120203-121 | 120203-121 | 120203-121 | |
| + | Subcontracted test. | | 5124739 | 5124741 | 5124742 | 5125377 | 5125377 | 5125376 | |
| ** | % 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 | | | | | | |
| 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 | 426 # | 174 # | <1 # | 222 # | <1 # | <1 # | |
| m,p-Xylene | <1 µg/l | TM208 | 1520 # | 1330 # | <1 # | 1400 # | <1 # | <1 # | |
| o-Xylene | <1 µg/l | TM208 | 906 # | 533 # | <1 # | 591 # | <1 # | <1 # | |
| Styrene | <1 µg/l | TM208 | <1 # | <1 # | <1 # | 296 # | <1 # | <1 # | |
| Bromoform | <1 µg/l | TM208 | <1 # | <1 # | <1 # | <1 # | <1 # | <1 # | |
| Isopropylbenzene | <1 µg/l | TM208 | 31 # | 9.13 # | <1 # | 9.59 # | <1 # | <1 # | |
| 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 | 33.7 # | 5.82 # | <1 # | 13.1 # | <1 # | <1 # | |
| 2-Chlorotoluene | <1 µg/l | TM208 | <1 # | <1 # | <1 # | <1 # | <1 # | <1 # | |
| 1,3,5-Trimethylbenzene | <1 µg/l | TM208 | 89.7 # | 107 # | <1 # | 61.3 # | <1 # | <1 # | |
| 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 | 404 # | 281 # | <1 # | 153 # | <1 # | <1 # | |
| sec-Butylbenzene | <1 µg/l | TM208 | <1 # | <1 # | <1 # | <1 # | <1 # | <1 # | |
| 4-iso-Propyltoluene | <1 µg/l | TM208 | 51.3 # | <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 | 4540 # | 1800 # | <1 # | 5480 # | <1 # | <1 # | |
| 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 # | |



SDG: 120203-121
Job: D_MOUCHEL_ELE-1
Client Reference:

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

Order Number: 4500089829
Report Number: 170465
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 |

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CERTIFICATE OF ANALYSIS

SDG: 120203-121
Job: D_MOUCHEL_ELE-1
Client Reference:

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

Order Number: 4500089829
Report Number: 170465
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
Job: D_MOUCHEL_ELE-1
Client Reference:

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

Order Number: 4500089829
Report Number: 170465
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
Job: D_MOUCHEL_ELE-1
Client Reference:

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

Order Number: 4500089829
Report Number: 170465
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
Job: D_MOUCHEL_ELE-1
Client Reference:

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

Order Number: 4500089829
Report Number: 170465
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 |

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CERTIFICATE OF ANALYSIS

SDG: 120203-121
Job: D_MOUCHEL_ELE-1
Client Reference:

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

Order Number: 4500089829
Report Number: 170465
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
Job: D_MOUCHEL_ELE-1
Client Reference:

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

Order Number: 4500089829
Report Number: 170465
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: Part 2.11:1984 | 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.

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SDG: 120203-121
Job: D_MOUCHEL_ELE-1
Client Reference:

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

Order Number: 4500089829
Report Number: 170465
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 | 09-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 | 09-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 | 08-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 | 09-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 |



SDG: 120203-121
Job: D_MOUCHEL_ELE-1
Client Reference:

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

Order Number: 4500089829
Report Number: 170465
Superseded Report: 170459

Chromatogram

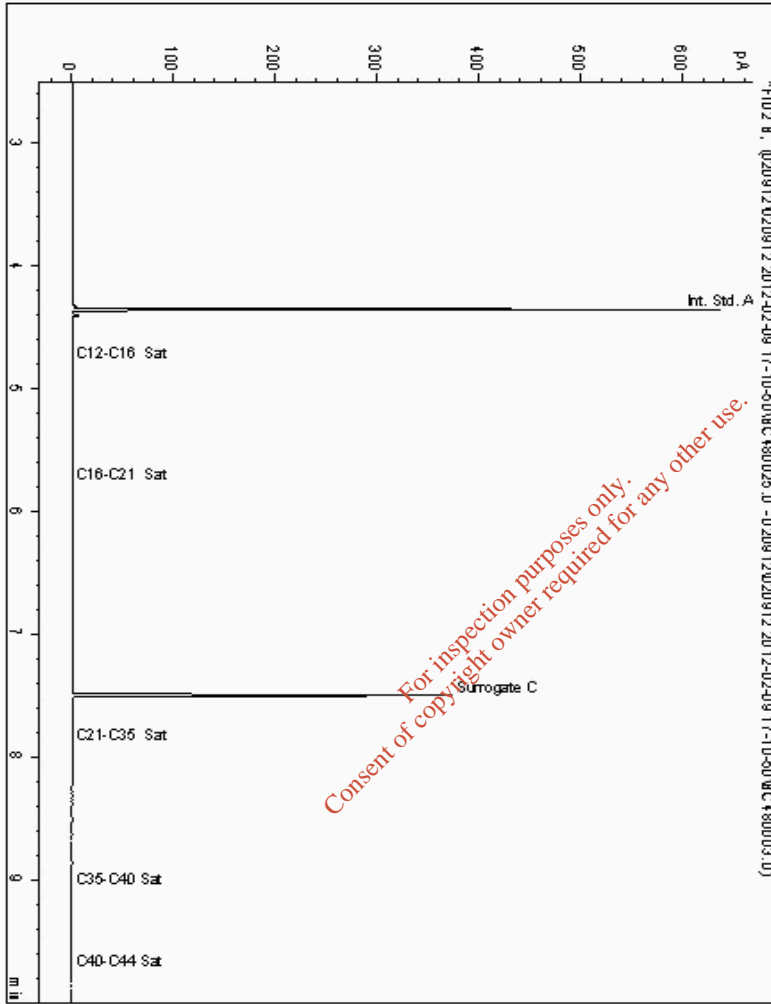
Analysis: EPH CWG (Aliphatic) Aqueous GC (W)

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
Job: D_MOUCHEL_ELE-1
Client Reference:

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

Order Number: 4500089829
Report Number: 170465
Superseded Report: 170459

Chromatogram

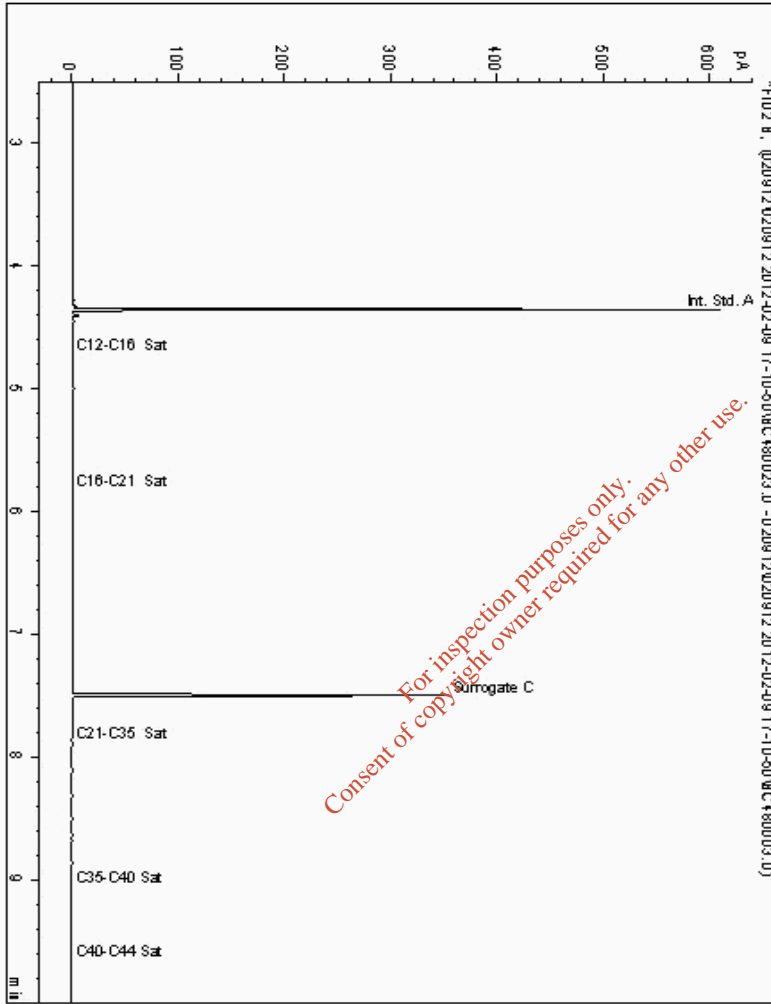
Analysis: EPH CWG (Aliphatic) Aqueous GC (W)

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





SDG: 120203-121
Job: D_MOUCHEL_ELE-1
Client Reference:

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

Order Number: 4500089829
Report Number: 170465
Superseded Report: 170459

Chromatogram

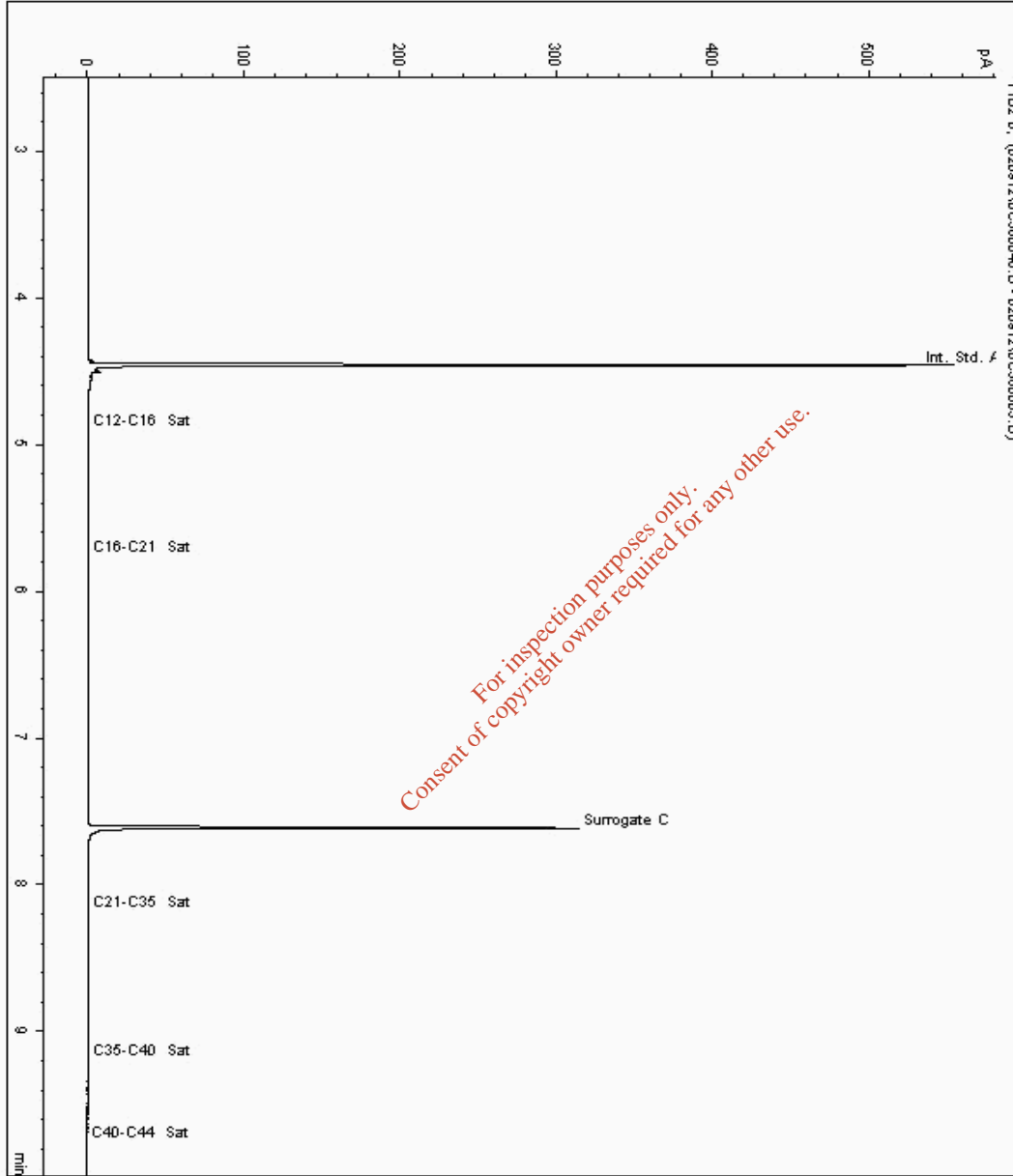
Analysis: EPH CWG (Aliphatic) Aqueous GC (W)

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
Job: D_MOUCHEL_ELE-1
Client Reference:

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

Order Number: 4500089829
Report Number: 170465
Superseded Report: 170459

Chromatogram

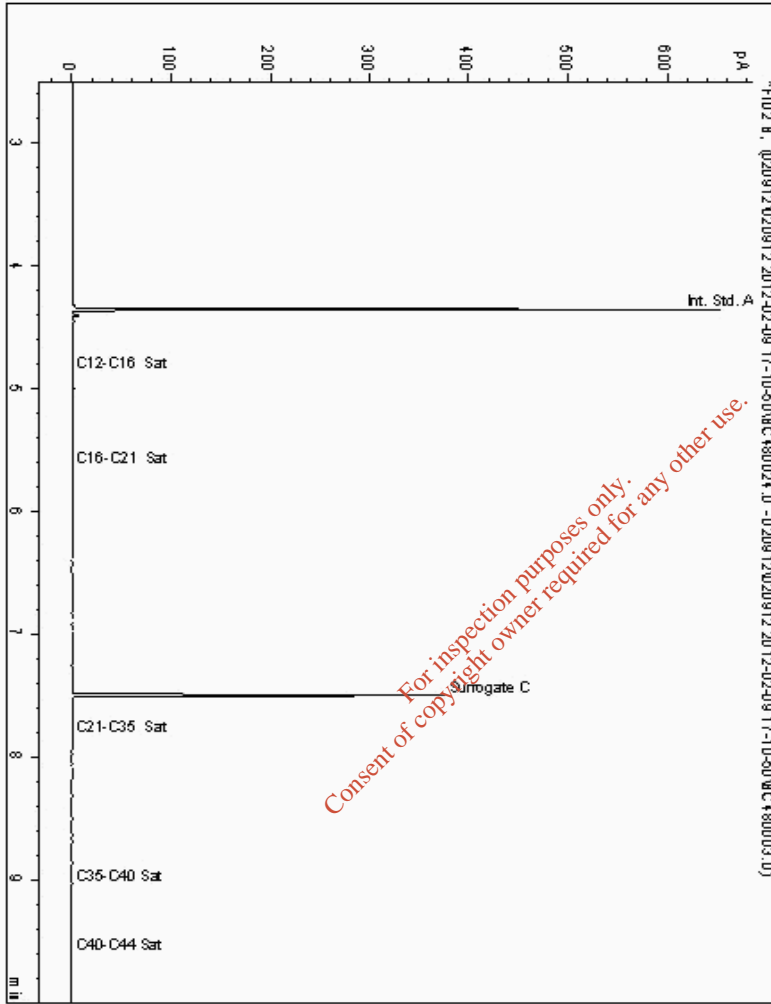
Analysis: EPH CWG (Aliphatic) Aqueous GC (W)

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





SDG: 120203-121
Job: D_MOUCHEL_ELE-1
Client Reference:

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

Order Number: 4500089829
Report Number: 170465
Superseded Report: 170459

Chromatogram

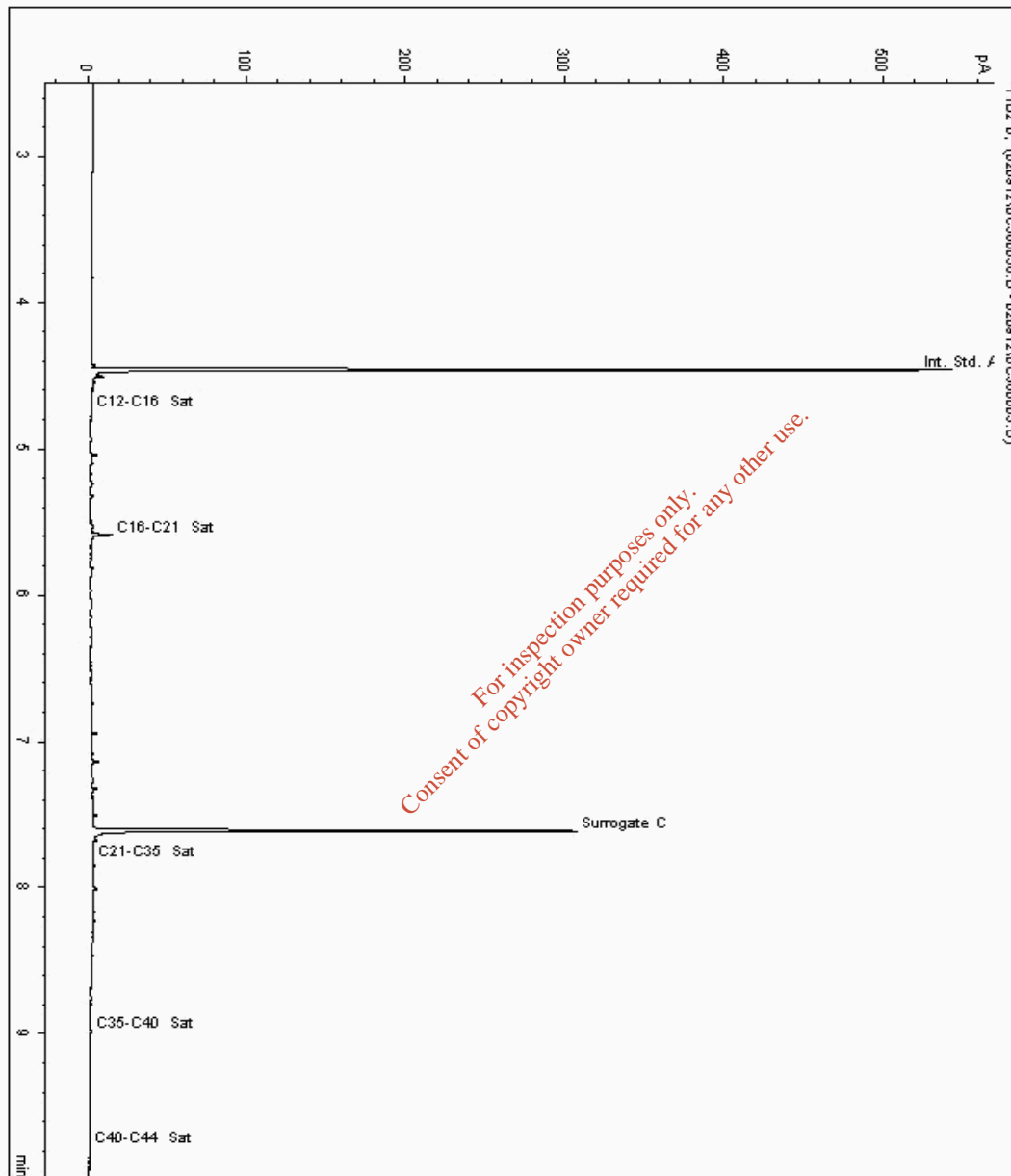
Analysis: EPH CWG (Aliphatic) Aqueous GC (W)

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





SDG: 120203-121
Job: D_MOUCHEL_ELE-1
Client Reference:

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

Order Number: 4500089829
Report Number: 170465
Superseded Report: 170459

Chromatogram

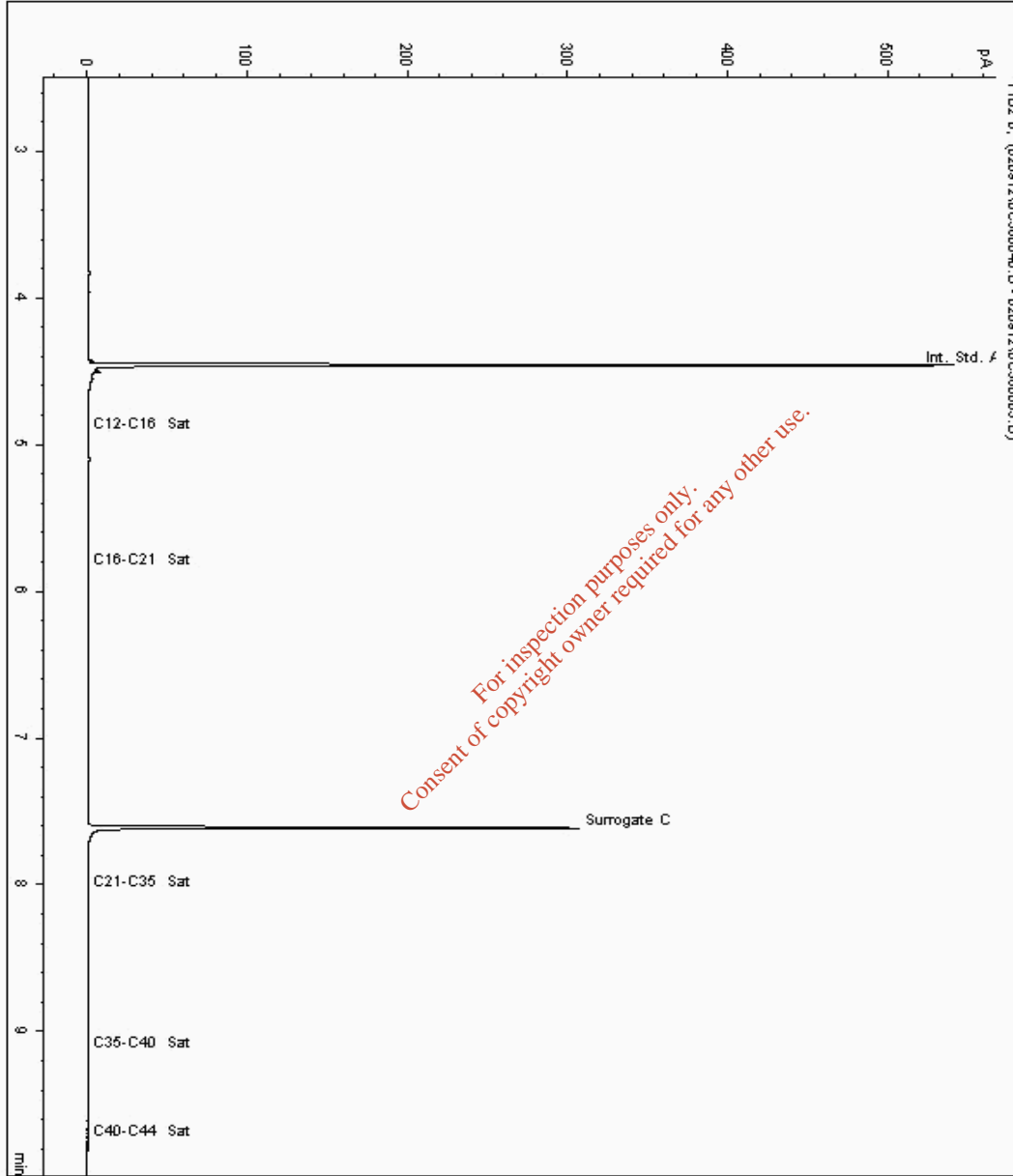
Analysis: EPH CWG (Aliphatic) Aqueous GC (W)

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





SDG: 120203-121
Job: D_MOUCHEL_ELE-1
Client Reference:

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

Order Number: 4500089829
Report Number: 170465
Superseded Report: 170459

Chromatogram

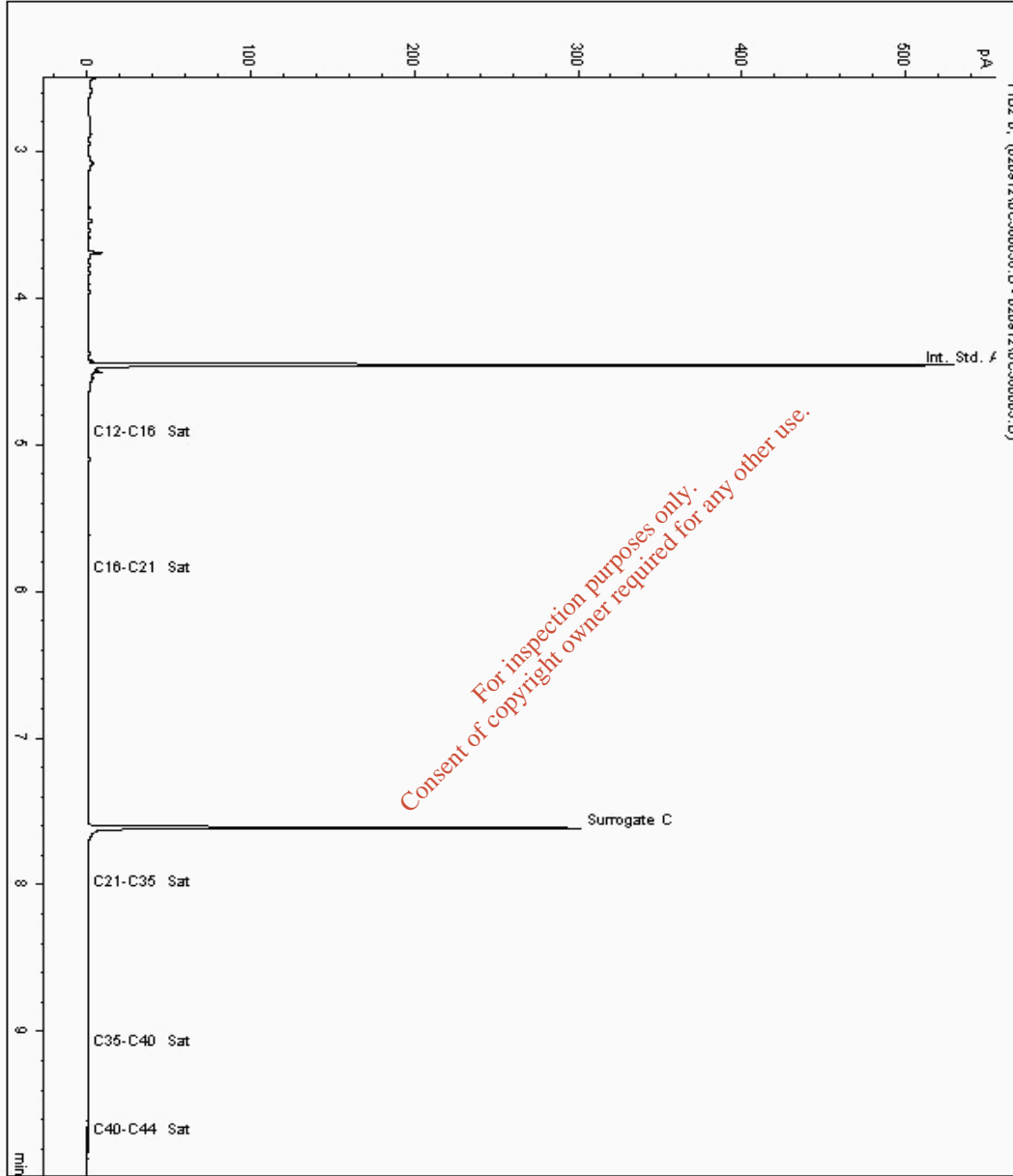
Analysis: EPH CWG (Aliphatic) Aqueous GC (W)

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





SDG: 120203-121
Job: D_MOUCHEL_ELE-1
Client Reference:

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

Order Number: 4500089829
Report Number: 170465
Superseded Report: 170459

Chromatogram

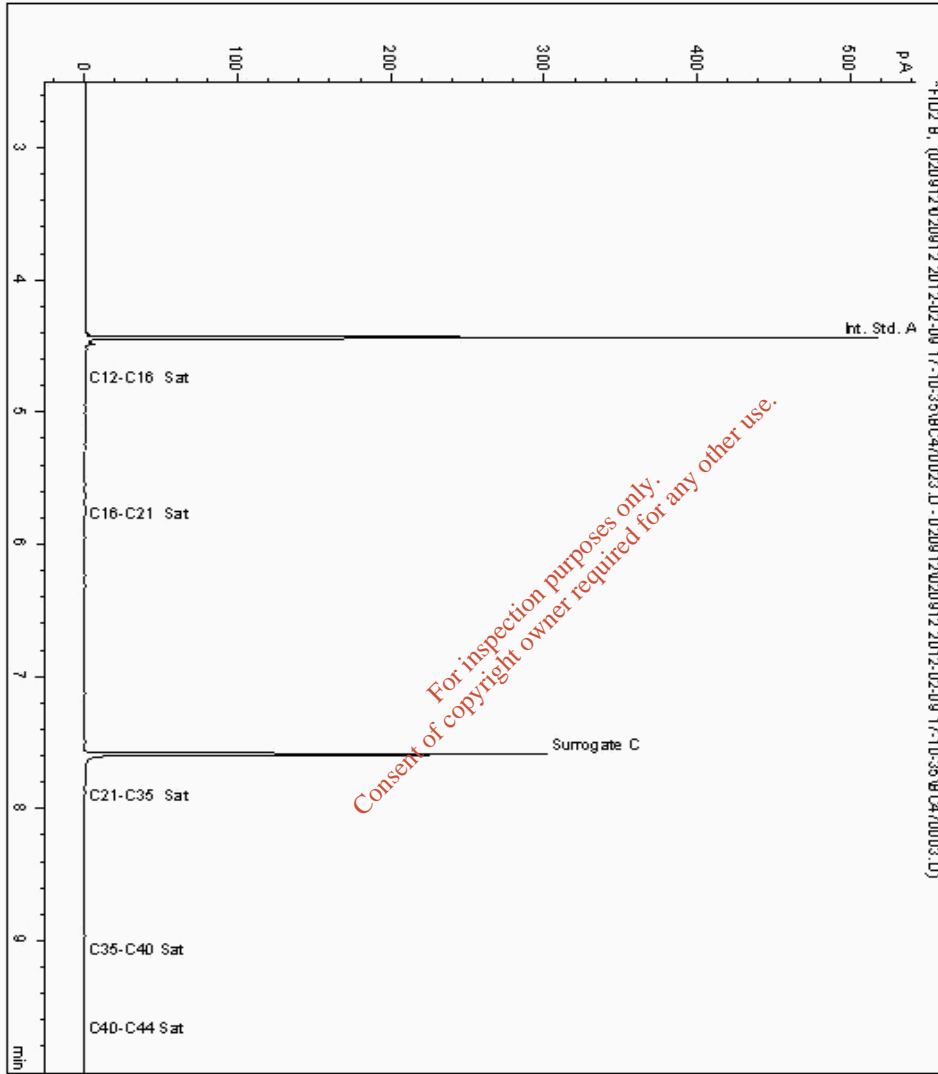
Analysis: EPH CWG (Aliphatic) Aqueous GC (W)

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





SDG: 120203-121
Job: D_MOUCHEL_ELE-1
Client Reference:

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

Order Number: 4500089829
Report Number: 170465
Superseded Report: 170459

Chromatogram

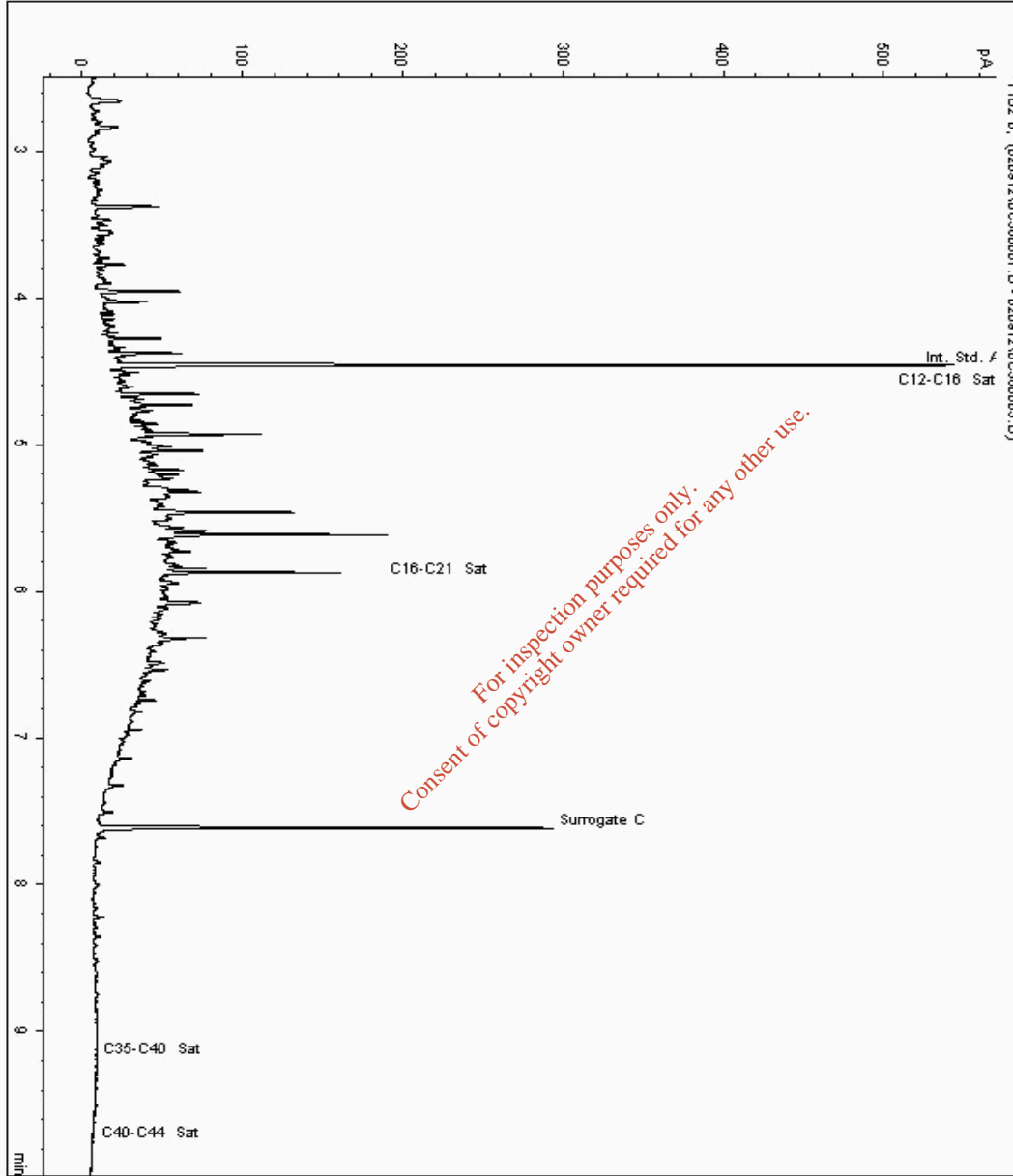
Analysis: EPH CWG (Aliphatic) Aqueous GC (W)

Sample No : 5132746
Sample ID : D1

Depth : 3.00 - 4.00

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

Sample Identity: 5033120-5132746
Date Acquired : 09/02/12 19:19:28 PM
Units : ppb
Dilution :
CF : 1
Multiplier : 0.008





CERTIFICATE OF ANALYSIS

SDG: 120203-121
Job: D_MOUCHEL_ELE-1
Client Reference:

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

Order Number: 4500089829
Report Number: 170465
Superseded Report: 170459

Chromatogram

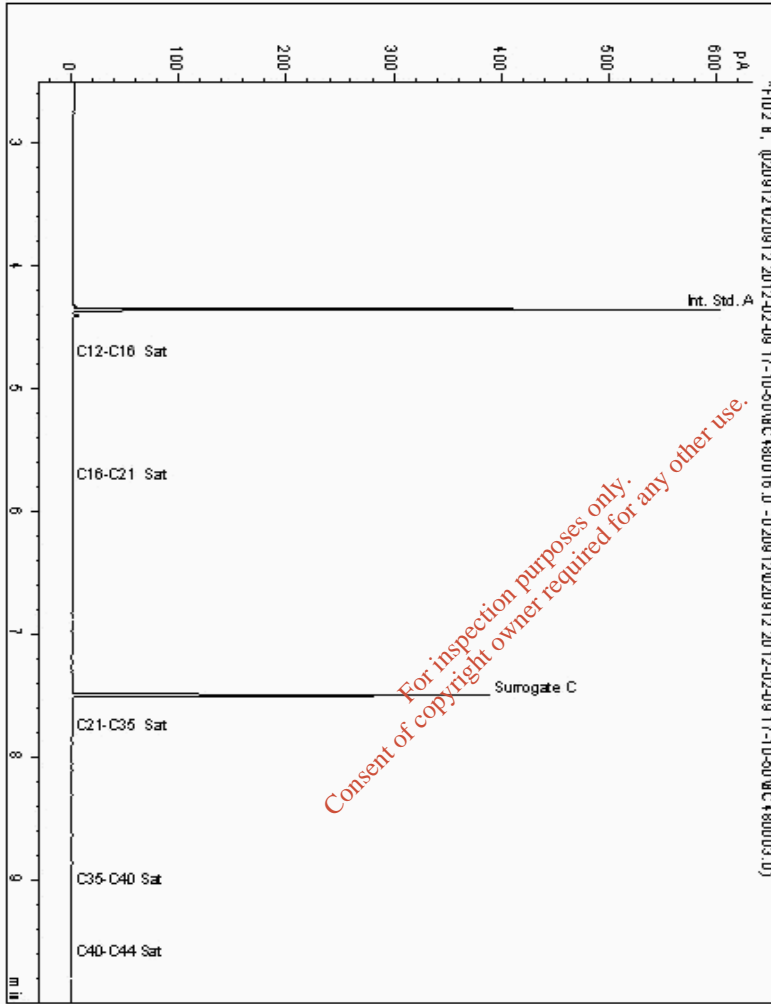
Analysis: EPH CWG (Aliphatic) Aqueous GC (W)

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
Job: D_MOUCHEL_ELE-1
Client Reference:

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

Order Number: 4500089829
Report Number: 170465
Superseded Report: 170459

Chromatogram

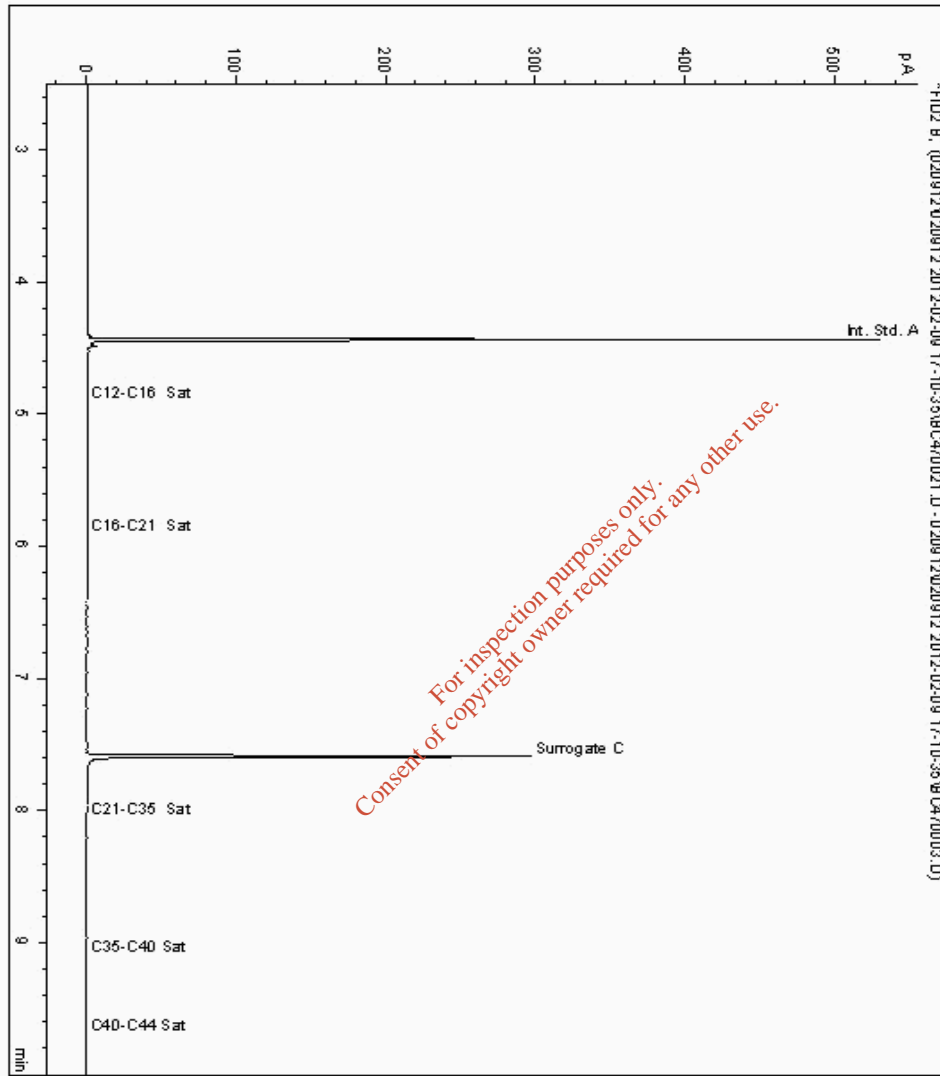
Analysis: EPH CWG (Aliphatic) Aqueous GC (W)

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



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CERTIFICATE OF ANALYSIS

SDG: 120203-121
Job: D_MOUCHEL_ELE-1
Client Reference:

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

Order Number: 4500089829
Report Number: 170465
Superseded Report: 170459

Chromatogram

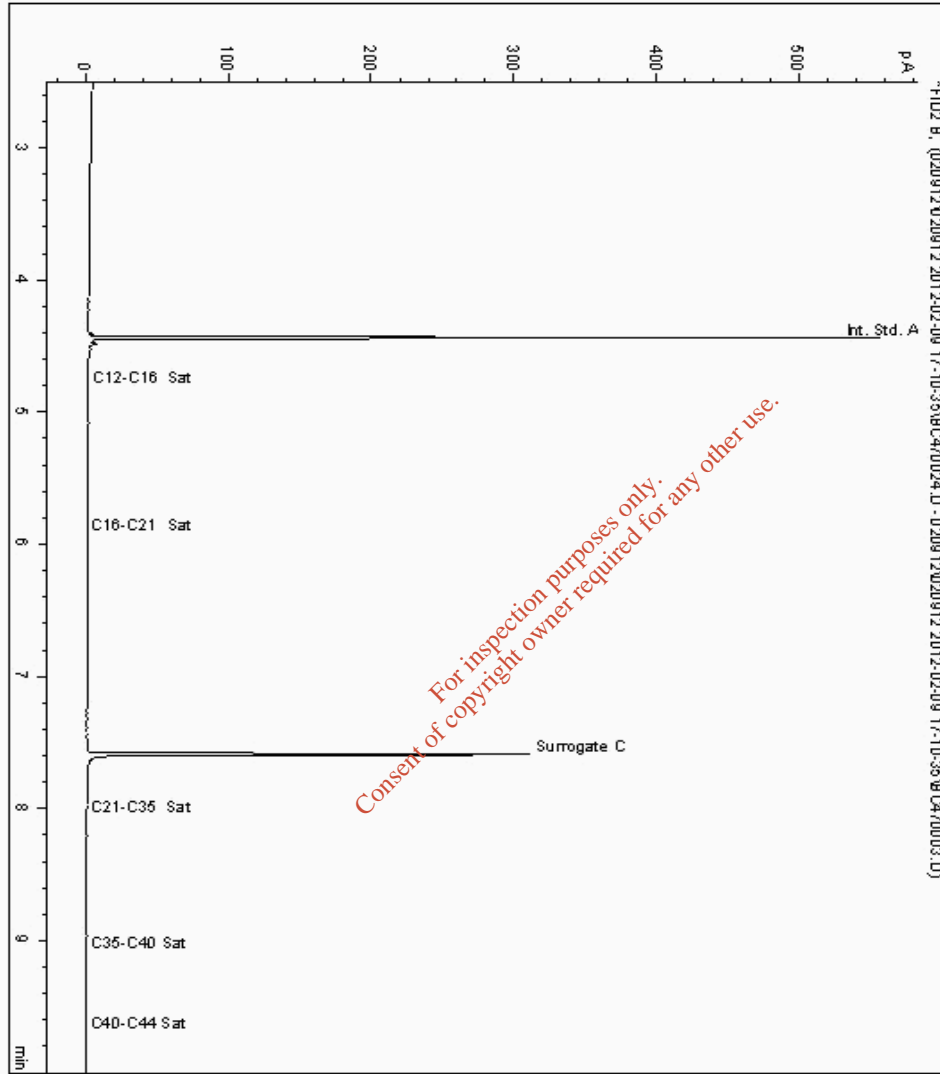
Analysis: EPH CWG (Aliphatic) Aqueous GC (W)

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





SDG: 120203-121
Job: D_MOUCHEL_ELE-1
Client Reference:

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

Order Number: 4500089829
Report Number: 170465
Superseded Report: 170459

Chromatogram

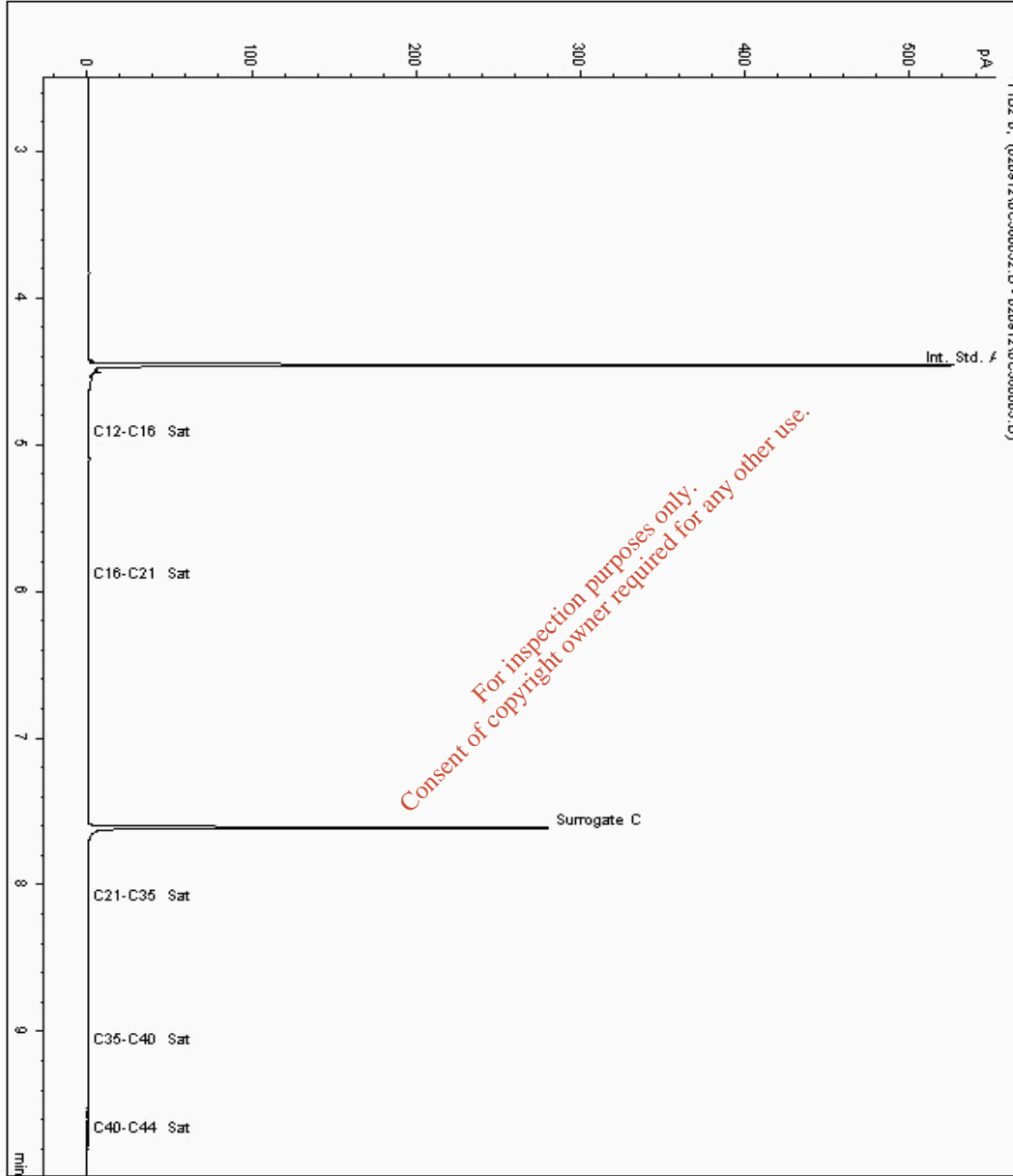
Analysis: EPH CWG (Aliphatic) Aqueous GC (W)

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





SDG: 120203-121
Job: D_MOUCHEL_ELE-1
Client Reference:

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

Order Number: 4500089829
Report Number: 170465
Superseded Report: 170459

Chromatogram

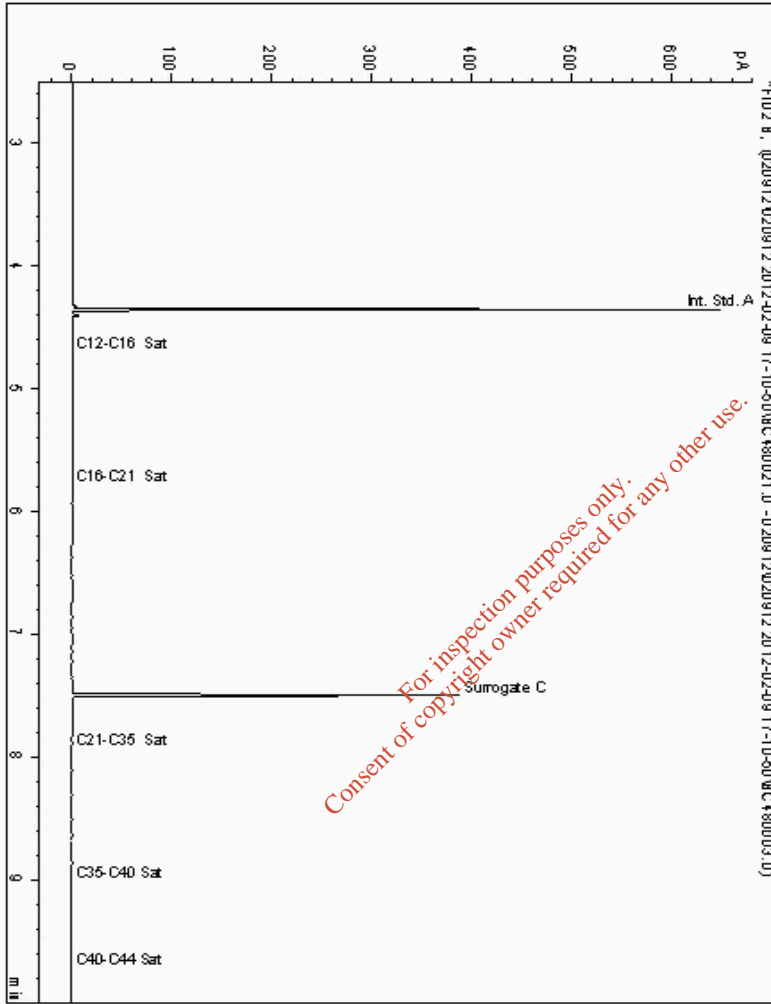
Analysis: EPH CWG (Aliphatic) Aqueous GC (W)

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
Job: D_MOUCHEL_ELE-1
Client Reference:

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

Order Number: 4500089829
Report Number: 170465
Superseded Report: 170459

Chromatogram

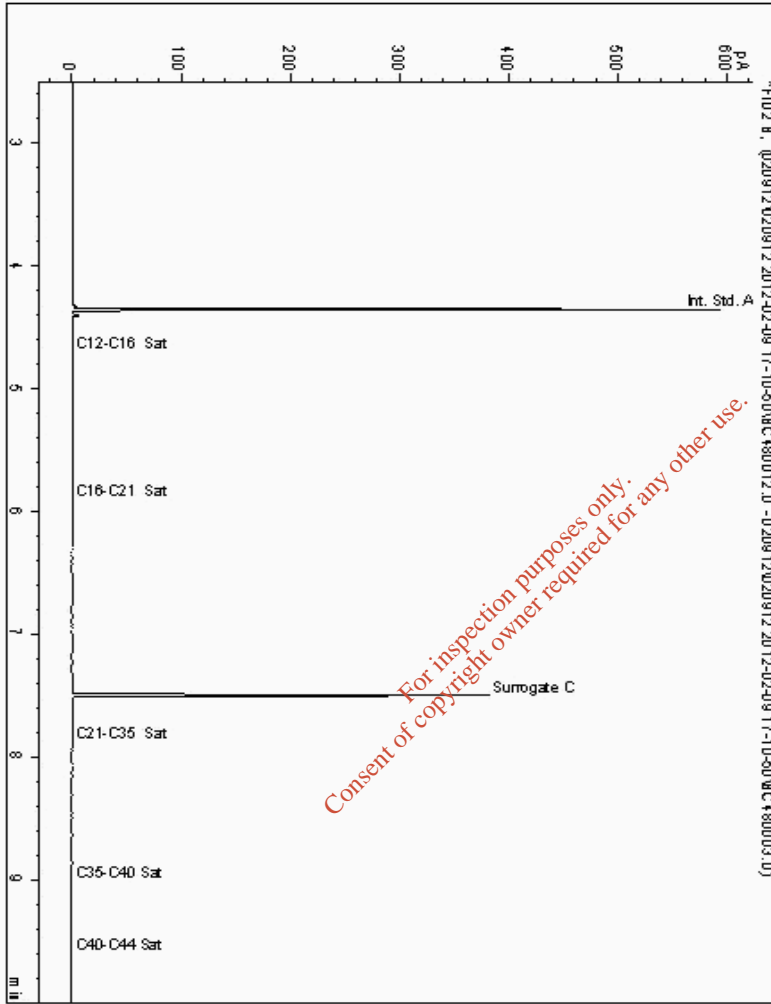
Analysis: EPH CWG (Aliphatic) Aqueous GC (W)

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



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SDG: 120203-121
Job: D_MOUCHEL_ELE-1
Client Reference:

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

Order Number: 4500089829
Report Number: 170465
Superseded Report: 170459

Chromatogram

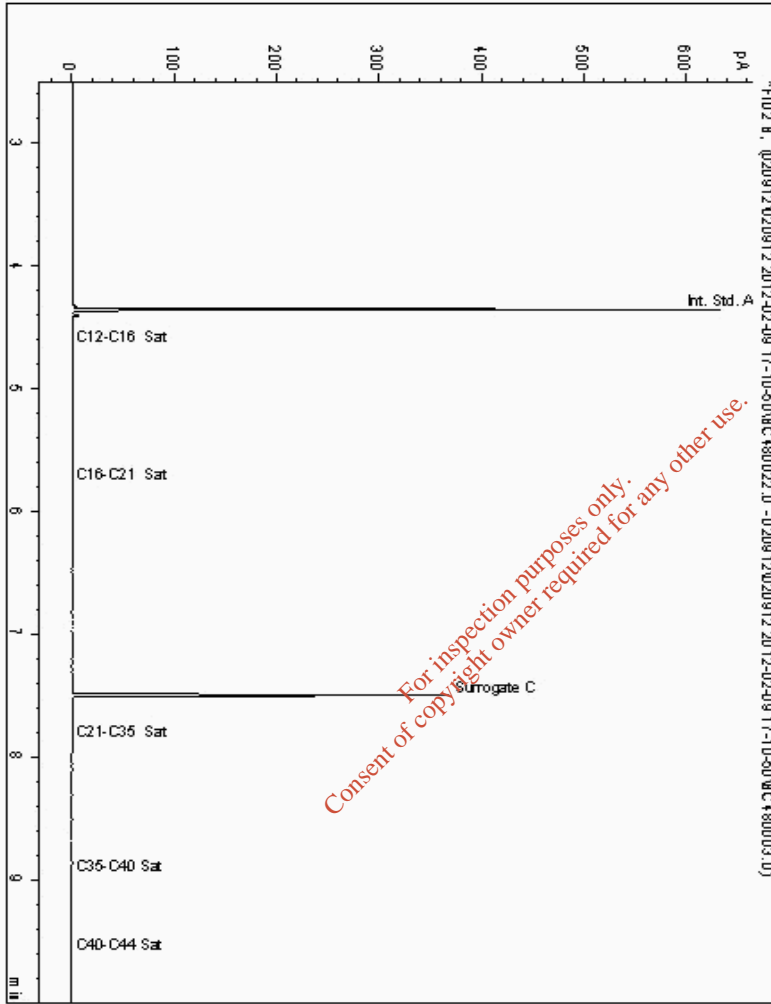
Analysis: EPH CWG (Aliphatic) Aqueous GC (W)

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





SDG: 120203-121
Job: D_MOUCHEL_ELE-1
Client Reference:

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

Order Number: 4500089829
Report Number: 170465
Superseded Report: 170459

Chromatogram

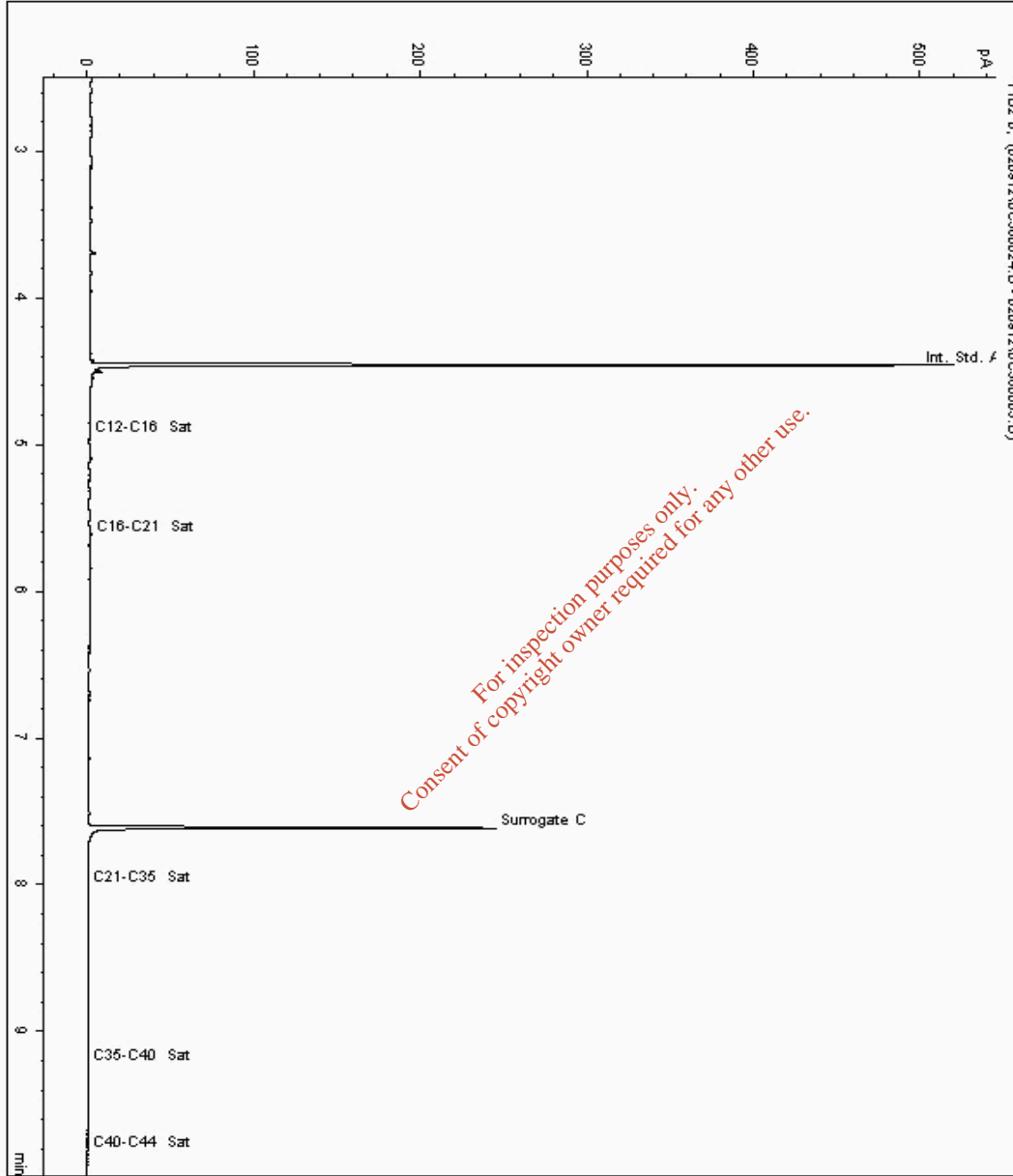
Analysis: EPH CWG (Aliphatic) Aqueous GC (W)

Sample No : 5133076
Sample ID : G8

Depth : 1.50 - 2.40

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

Sample Identity: 5033260-5133076
Date Acquired : 09/02/12 23:55:07 PM
Units : ppb
Dilution :
CF : 1
Multiplier : 0.008





CERTIFICATE OF ANALYSIS

SDG: 120203-121
Job: D_MOUCHEL_ELE-1
Client Reference:

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

Order Number: 4500089829
Report Number: 170465
Superseded Report: 170459

Chromatogram

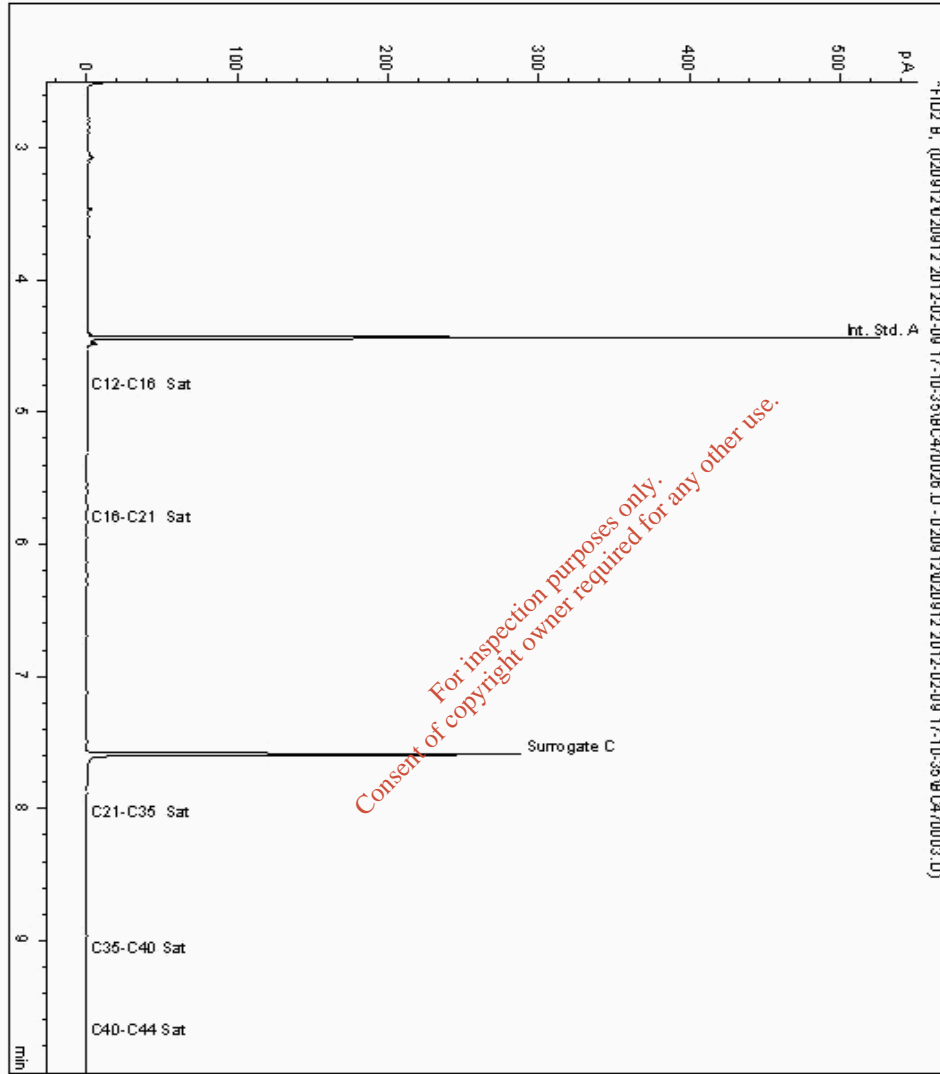
Analysis: EPH CWG (Aliphatic) Aqueous GC (W)

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





SDG: 120203-121
Job: D_MOUCHEL_ELE-1
Client Reference:

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

Order Number: 4500089829
Report Number: 170465
Superseded Report: 170459

Chromatogram

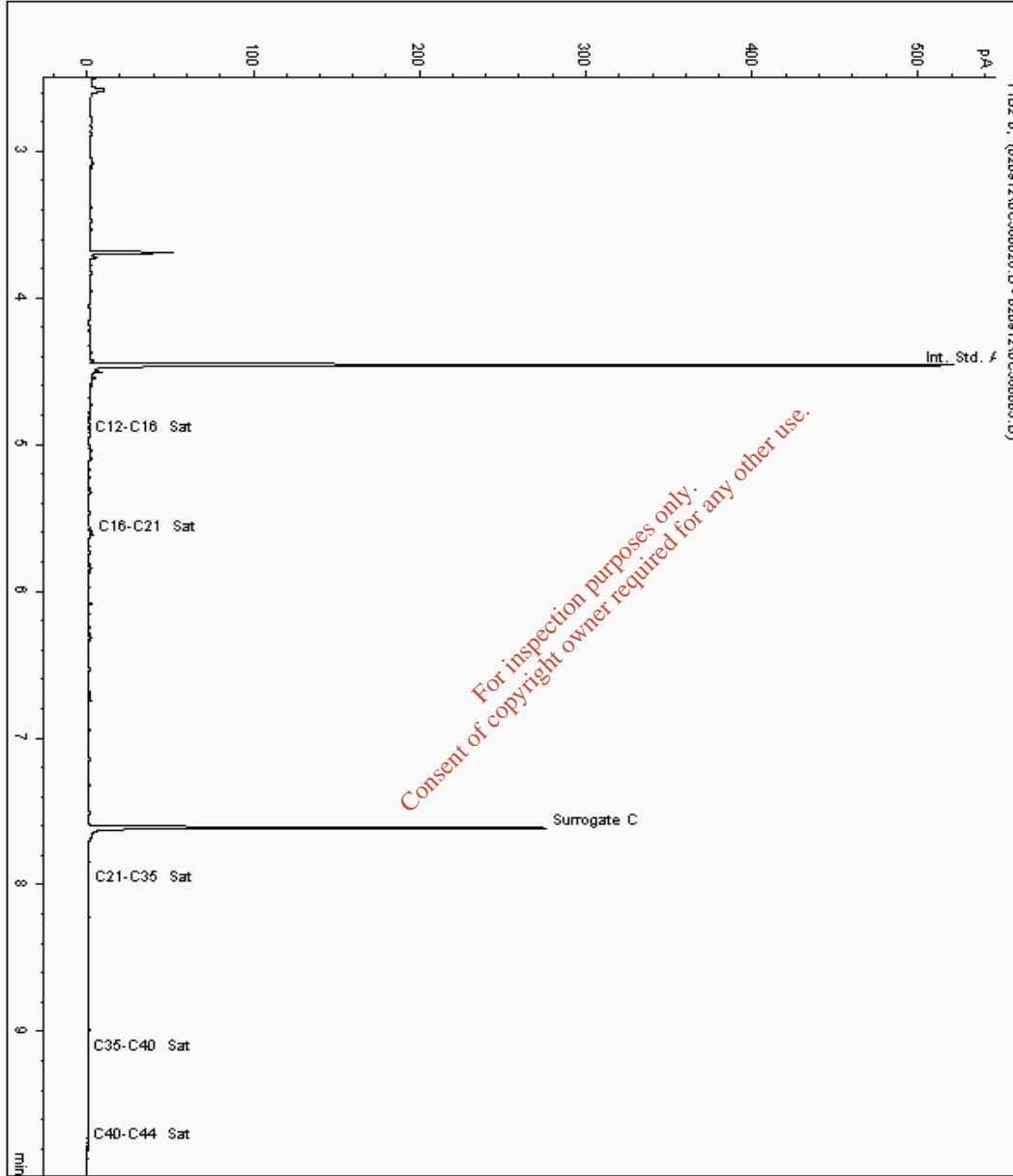
Analysis: EPH CWG (Aliphatic) Aqueous GC (W)

Sample No : 5133120
Sample ID : E8

Depth : 1.00 - 2.00

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

Sample Identity: 5033245-5133120
Date Acquired : 10/02/12 00:23:46 PM
Units : ppb
Dilution :
CF : 1
Multiplier : 0.008





SDG: 120203-121
Job: D_MOUCHEL_ELE-1
Client Reference:

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

Order Number: 4500089829
Report Number: 170465
Superseded Report: 170459

Chromatogram

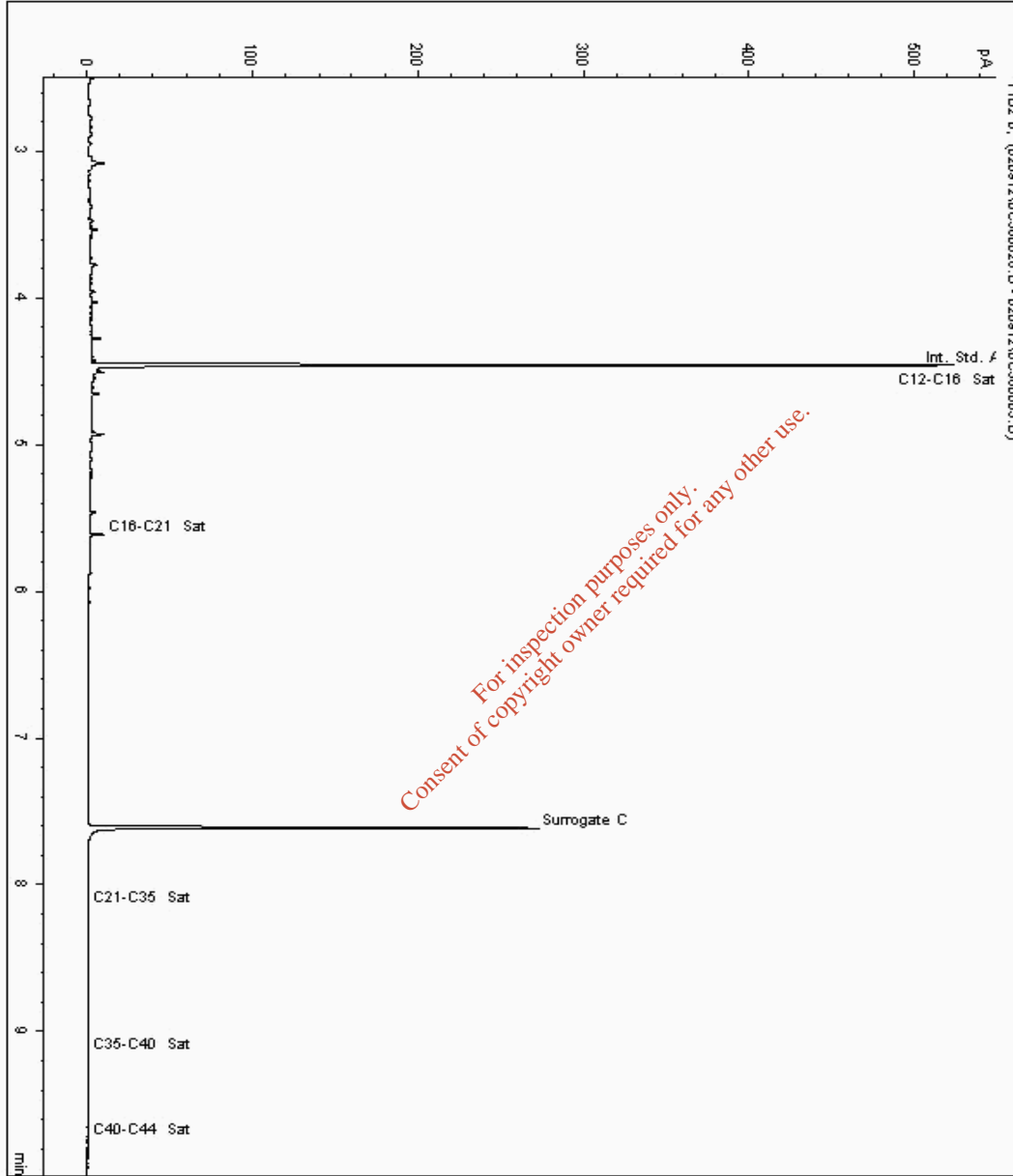
Analysis: EPH CWG (Aliphatic) Aqueous GC (W)

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





SDG: 120203-121
Job: D_MOUCHEL_ELE-1
Client Reference:

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

Order Number: 4500089829
Report Number: 170465
Superseded Report: 170459

Chromatogram

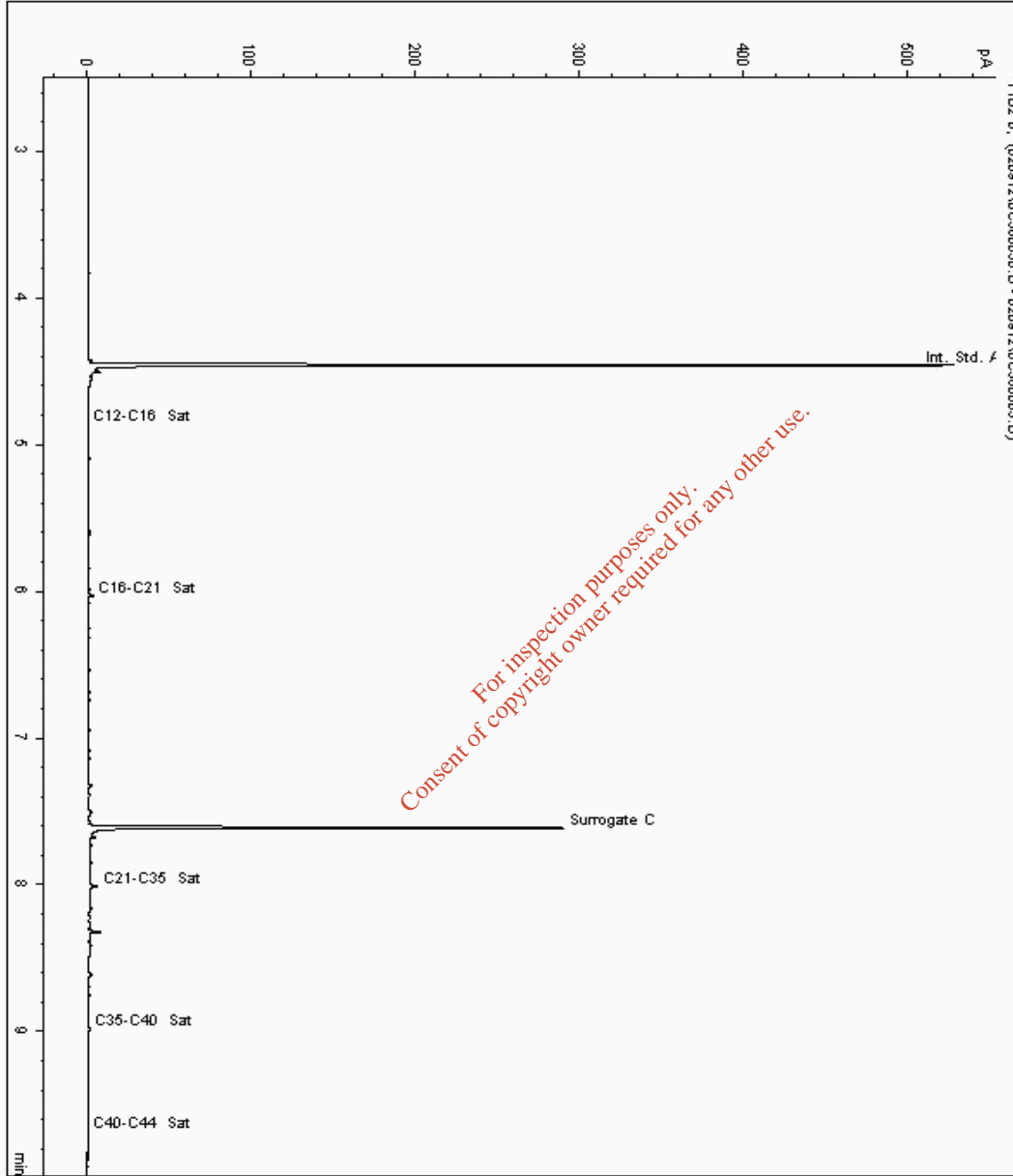
Analysis: EPH CWG (Aliphatic) Aqueous GC (W)

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



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CERTIFICATE OF ANALYSIS

SDG: 120203-121
Job: D_MOUCHEL_ELE-1
Client Reference:

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

Order Number: 4500089829
Report Number: 170465
Superseded Report: 170459

Chromatogram

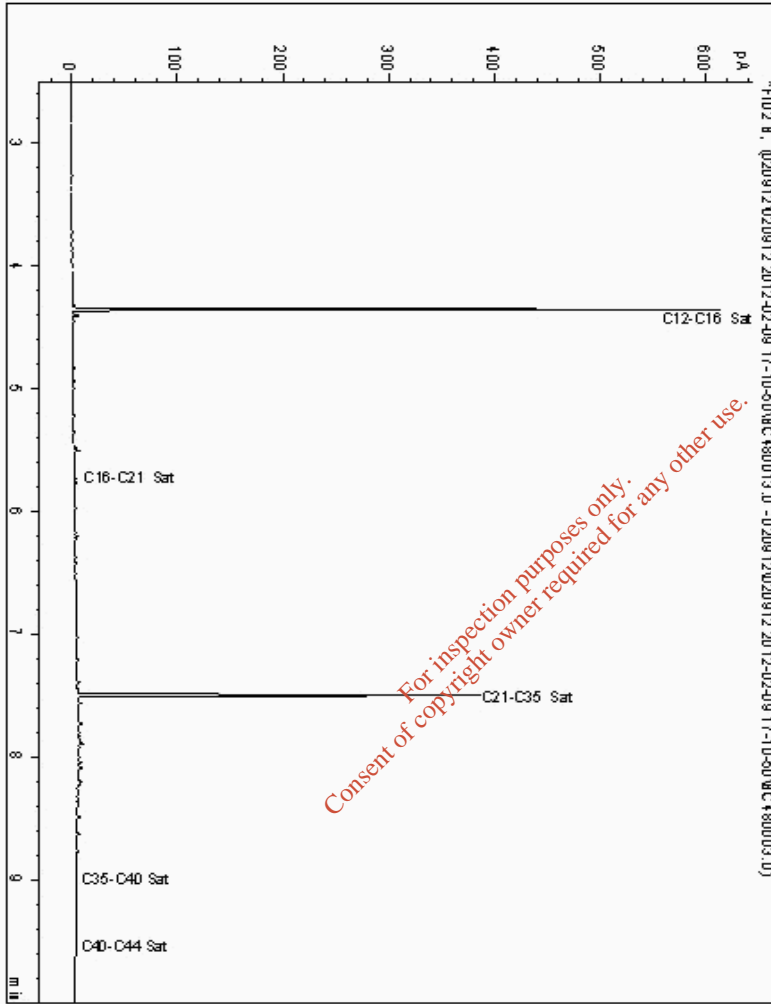
Analysis: EPH CWG (Aliphatic) Aqueous GC (W)

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
Job: D_MOUCHEL_ELE-1
Client Reference:

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

Order Number: 4500089829
Report Number: 170465
Superseded Report: 170459

Chromatogram

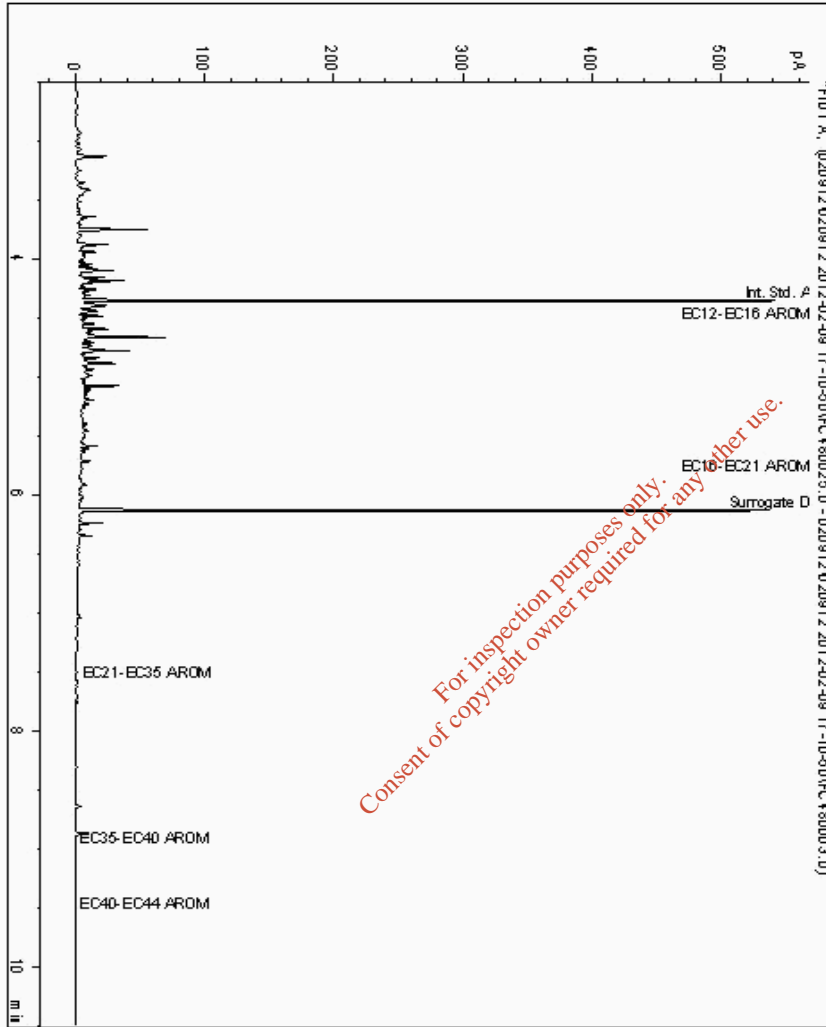
Analysis: EPH CWG (Aromatic) Aqueous GC (W)

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





SDG: 120203-121
Job: D_MOUCHEL_ELE-1
Client Reference:

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

Order Number: 4500089829
Report Number: 170465
Superseded Report: 170459

Chromatogram

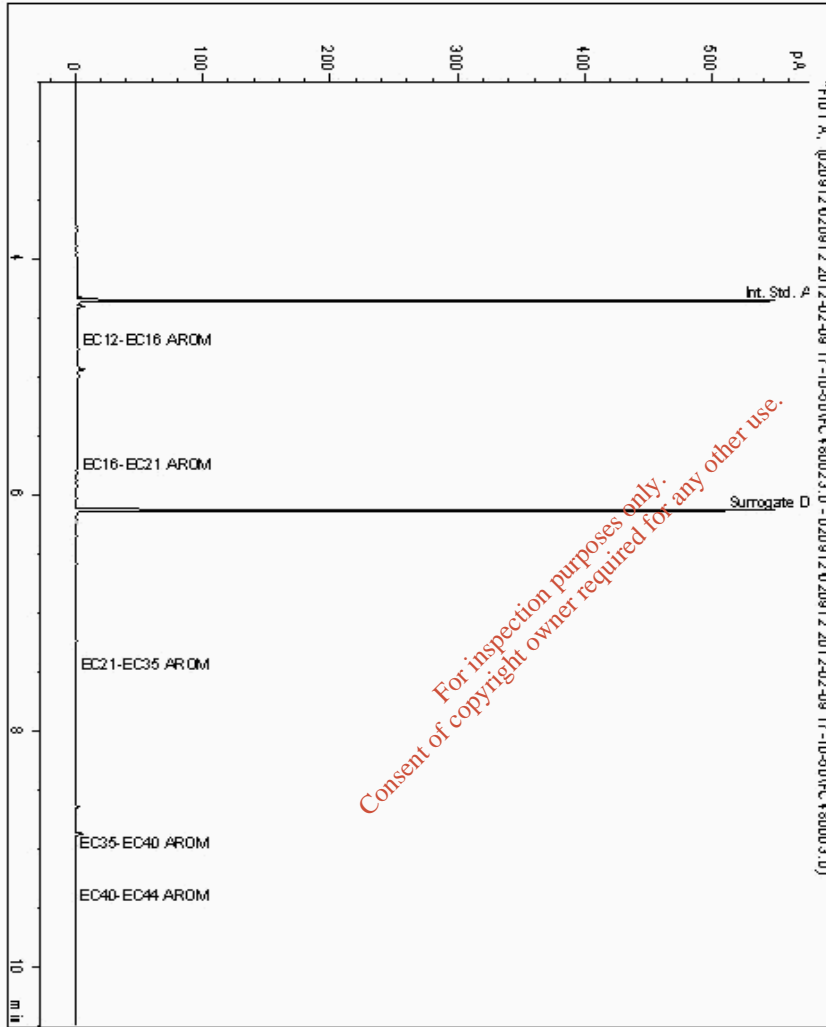
Analysis: EPH CWG (Aromatic) Aqueous GC (W)

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



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SDG: 120203-121
Job: D_MOUCHEL_ELE-1
Client Reference:

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

Order Number: 4500089829
Report Number: 170465
Superseded Report: 170459

Chromatogram

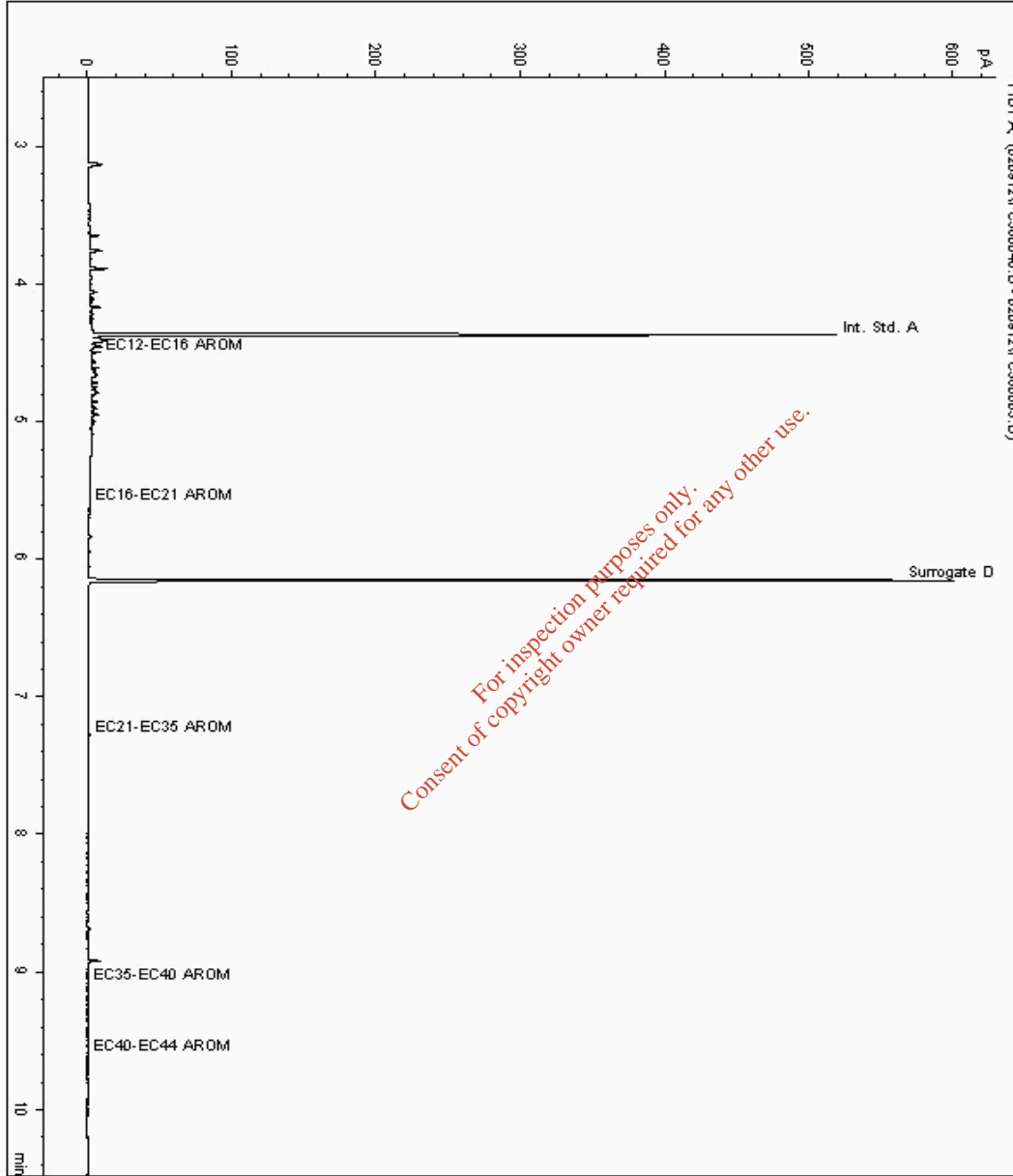
Analysis: EPH CWG (Aromatic) Aqueous GC (W)

Sample No : 5127982
Sample ID : C2

Depth : 2.00 - 2.50

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

Sample Identity: 5026657-5127982
Date Acquired : 10/02/12 05:55:00 PM
Units : ppb
Dilution :
CF : 1
Multiplier : 0.008





CERTIFICATE OF ANALYSIS

SDG: 120203-121
Job: D_MOUCHEL_ELE-1
Client Reference:

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

Order Number: 4500089829
Report Number: 170465
Superseded Report: 170459

Chromatogram

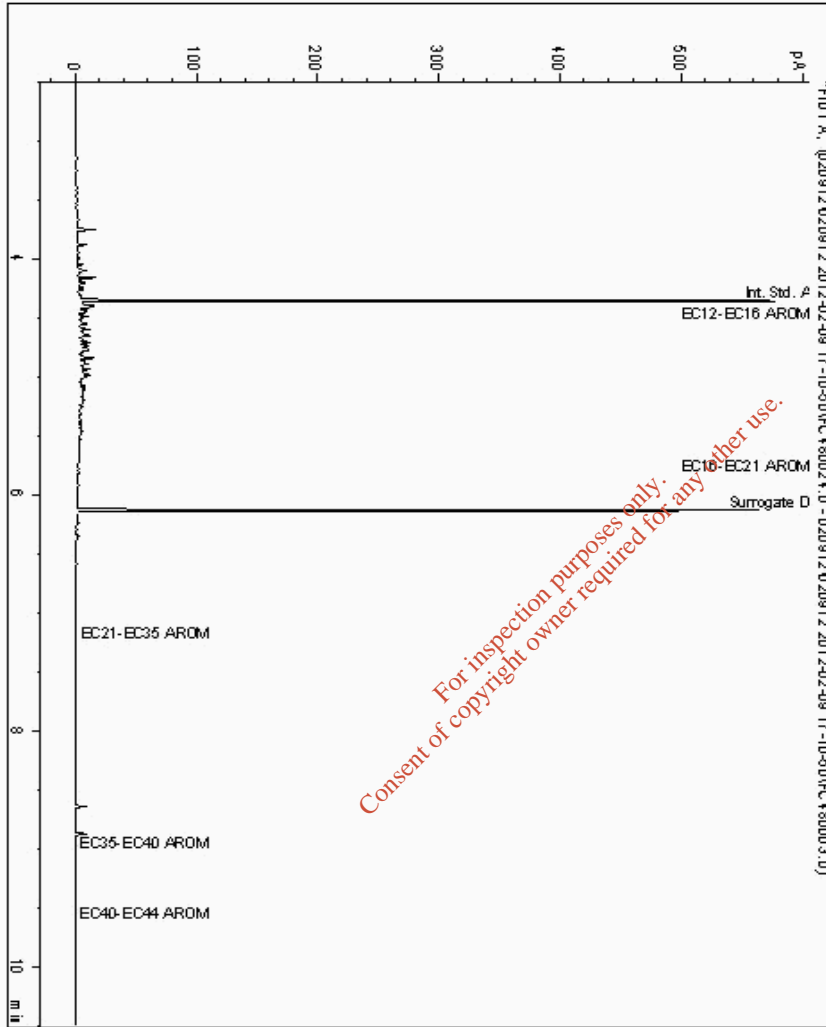
Analysis: EPH CWG (Aromatic) Aqueous GC (W)

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





SDG: 120203-121
Job: D_MOUCHEL_ELE-1
Client Reference:

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

Order Number: 4500089829
Report Number: 170465
Superseded Report: 170459

Chromatogram

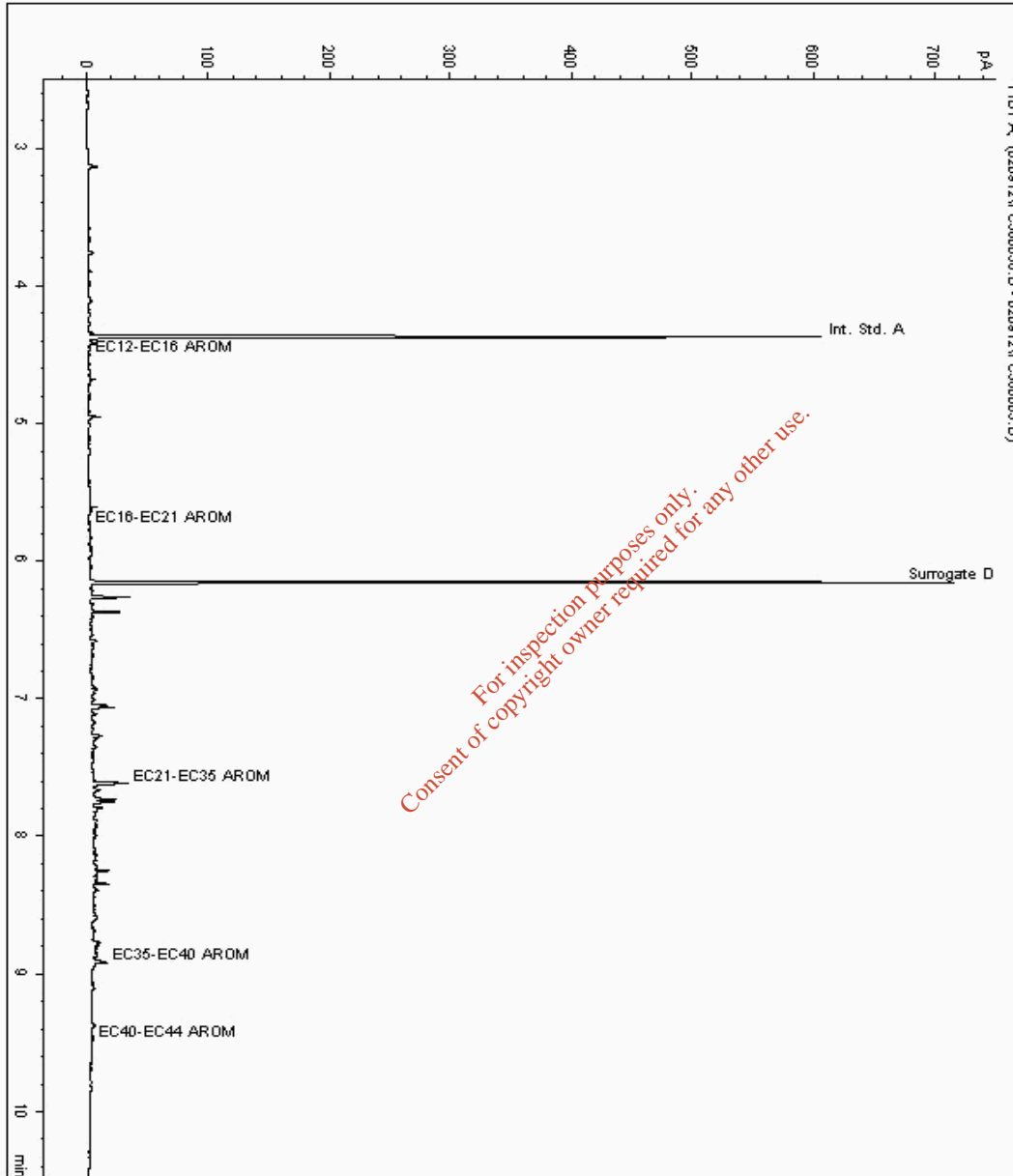
Analysis: EPH CWG (Aromatic) Aqueous GC (W)

Sample No : 5128129
Sample ID : D5

Depth : 1.50 - 1.90

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

Sample Identity: 5026345-5128129
Date Acquired : 10/02/12 03:04:45 PM
Units : ppb
Dilution :
CF : 1
Multiplier : 0.008





SDG: 120203-121
Job: D_MOUCHEL_ELE-1
Client Reference:

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

Order Number: 4500089829
Report Number: 170465
Superseded Report: 170459

Chromatogram

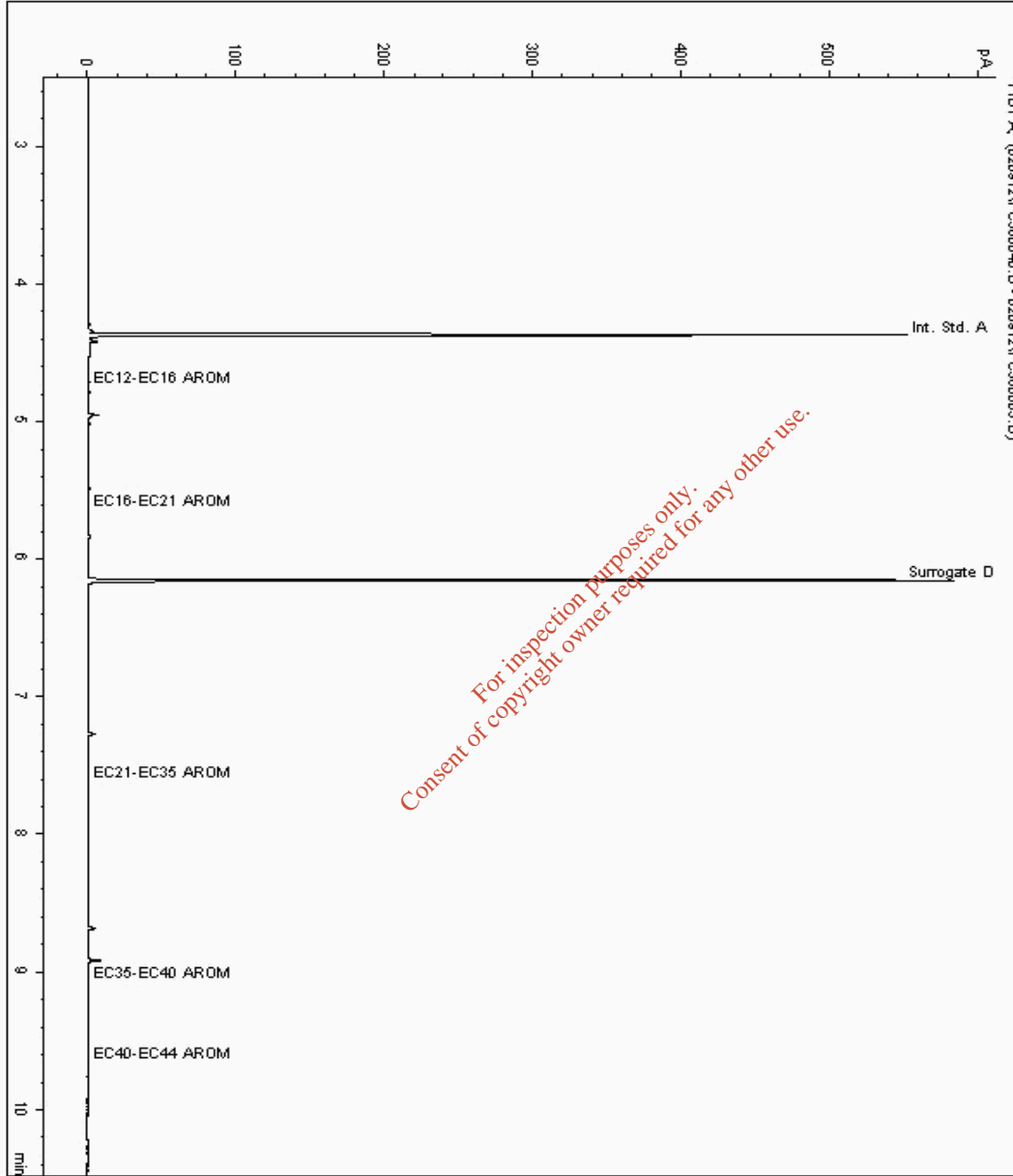
Analysis: EPH CWG (Aromatic) Aqueous GC (W)

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





SDG: 120203-121
Job: D_MOUCHEL_ELE-1
Client Reference:

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

Order Number: 4500089829
Report Number: 170465
Superseded Report: 170459

Chromatogram

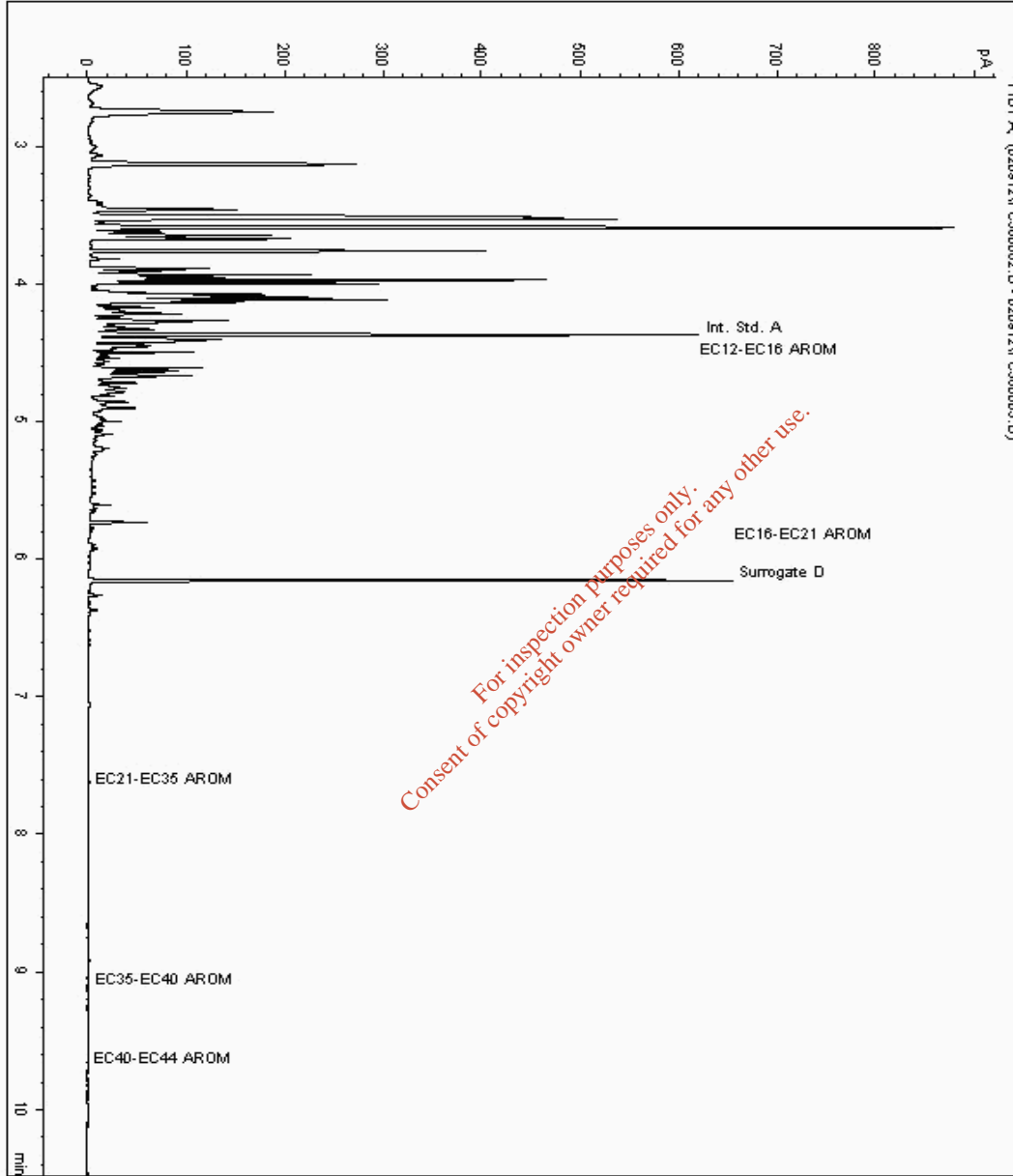
Analysis: EPH CWG (Aromatic) Aqueous GC (W)

Sample No : 5128890
Sample ID : C7

Depth : 5.50 - 6.50

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

Sample Identity: 5026329-5128890
Date Acquired : 10/02/12 14:52:36 PM
Units : ppb
Dilution :
CF : 1
Multiplier : 0.042





SDG: 120203-121
Job: D_MOUCHEL_ELE-1
Client Reference:

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

Order Number: 4500089829
Report Number: 170465
Superseded Report: 170459

Chromatogram

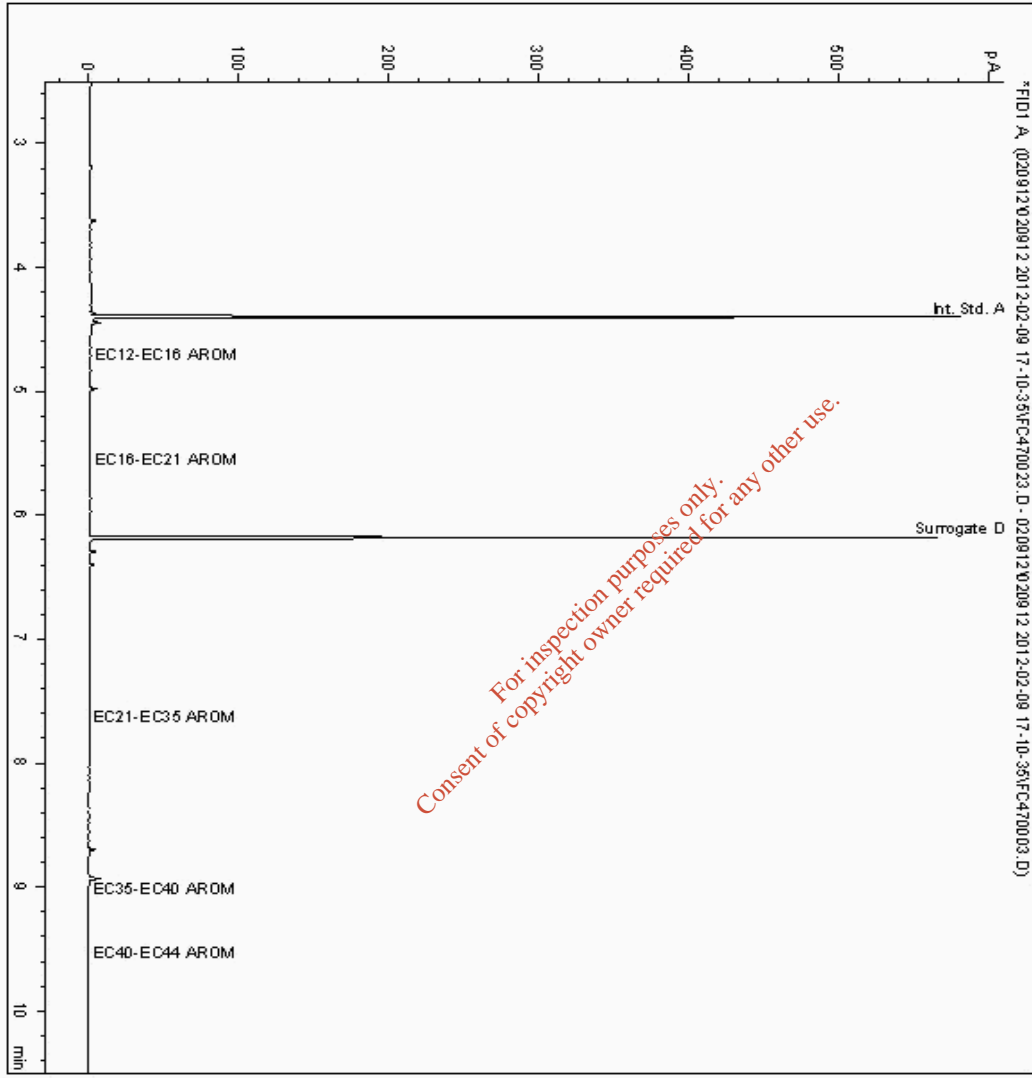
Analysis: EPH CWG (Aromatic) Aqueous GC (W)

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





SDG: 120203-121
Job: D_MOUCHEL_ELE-1
Client Reference:

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

Order Number: 4500089829
Report Number: 170465
Superseded Report: 170459

Chromatogram

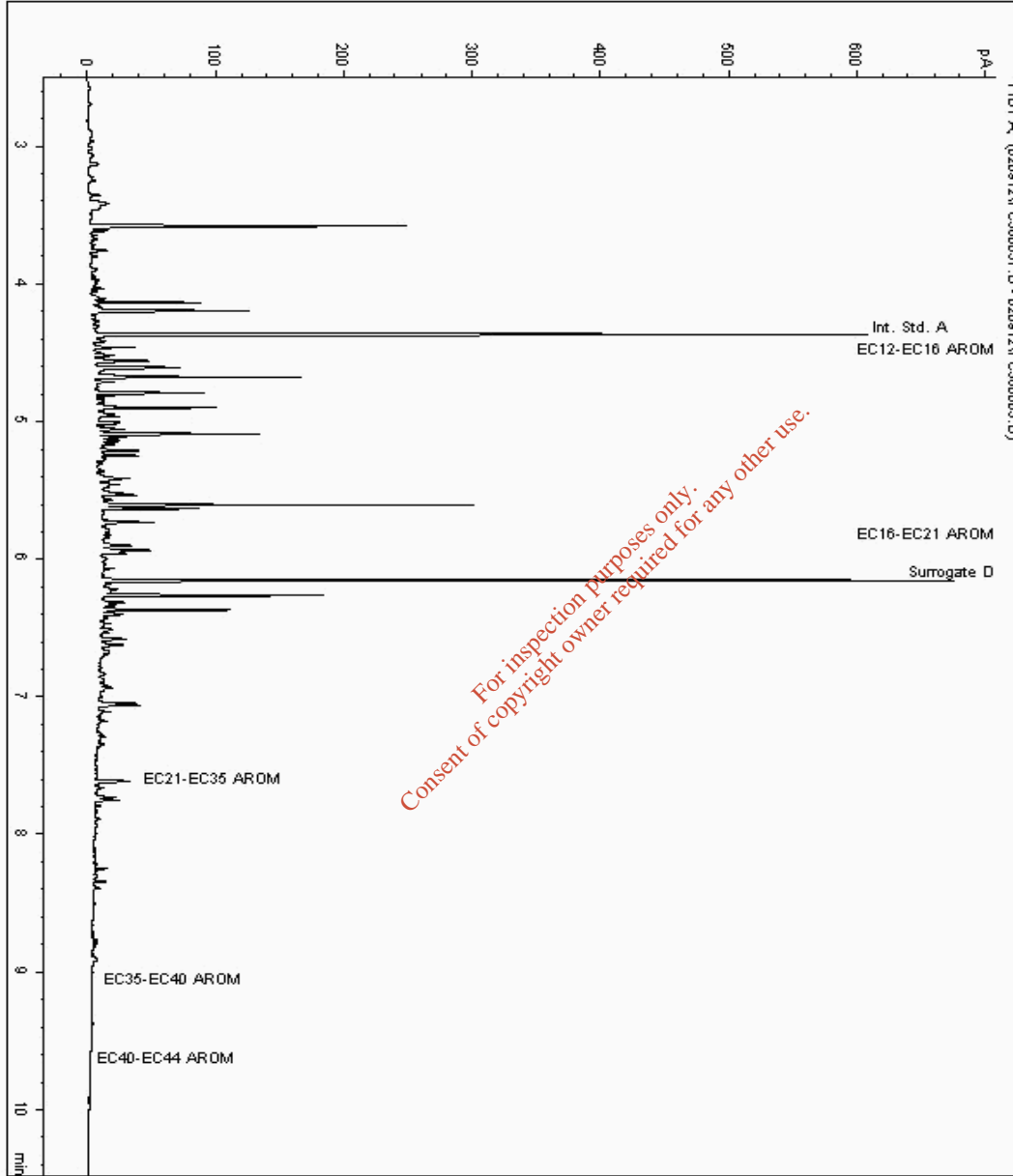
Analysis: EPH CWG (Aromatic) Aqueous GC (W)

Sample No : 5132746
Sample ID : D1

Depth : 3.00 - 4.00

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

Sample Identity: 5033121-5132746
Date Acquired : 10/02/12 13:19:23 PM
Units : ppb
Dilution :
CF : 1
Multiplier : 0.042





SDG: 120203-121
Job: D_MOUCHEL_ELE-1
Client Reference:

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

Order Number: 4500089829
Report Number: 170465
Superseded Report: 170459

Chromatogram

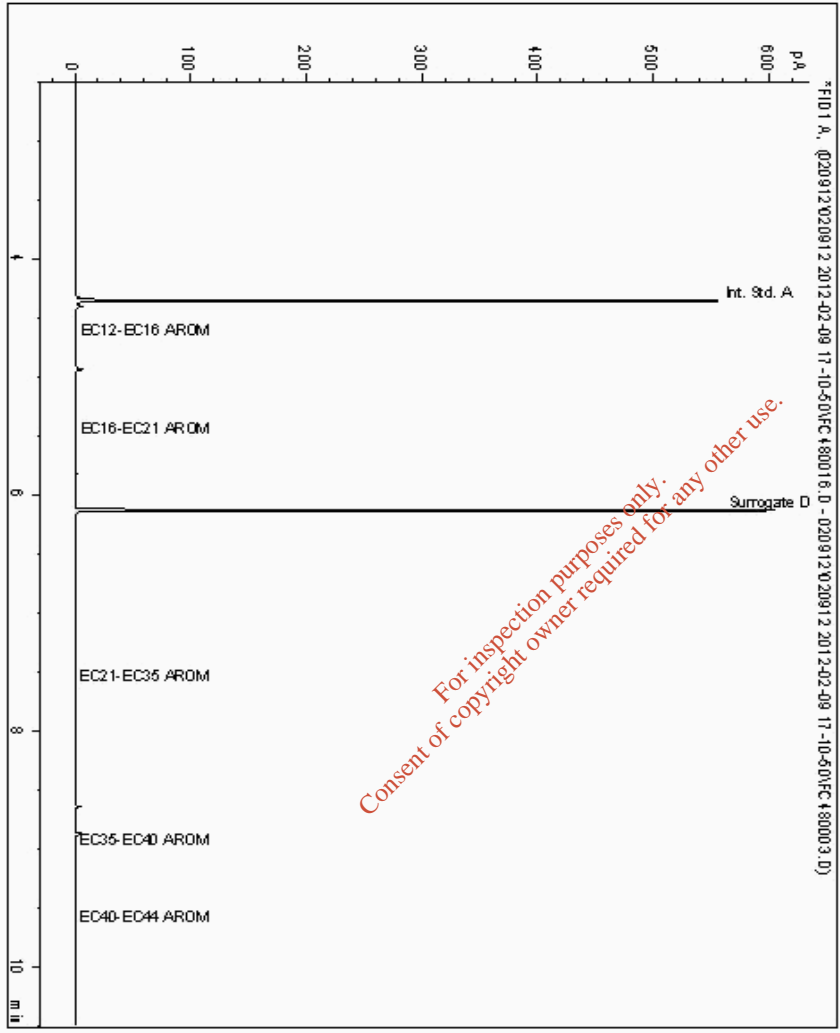
Analysis: EPH CWG (Aromatic) Aqueous GC (W)

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





SDG: 120203-121
Job: D_MOUCHEL_ELE-1
Client Reference:

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

Order Number: 4500089829
Report Number: 170465
Superseded Report: 170459

Chromatogram

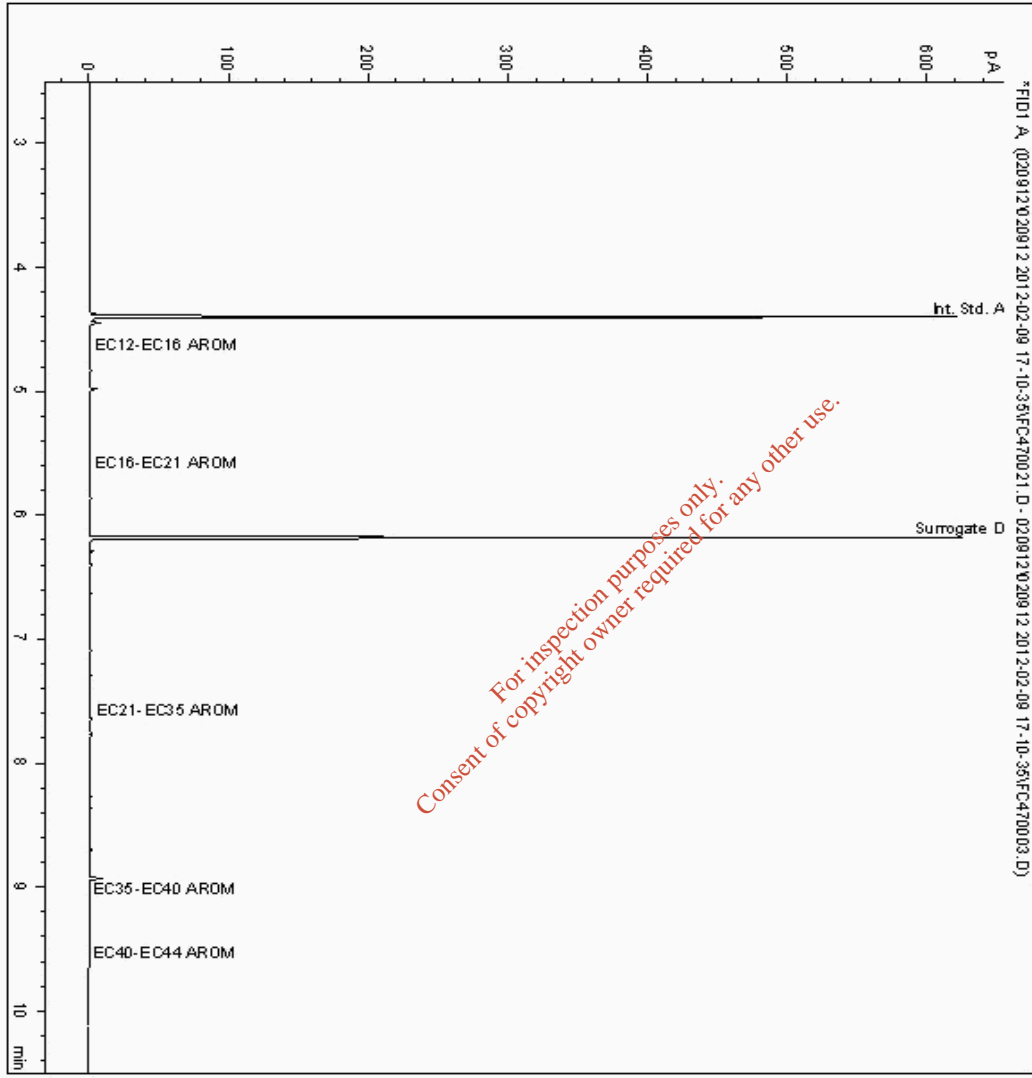
Analysis: EPH CWG (Aromatic) Aqueous GC (W)

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





SDG: 120203-121
Job: D_MOUCHEL_ELE-1
Client Reference:

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

Order Number: 4500089829
Report Number: 170465
Superseded Report: 170459

Chromatogram

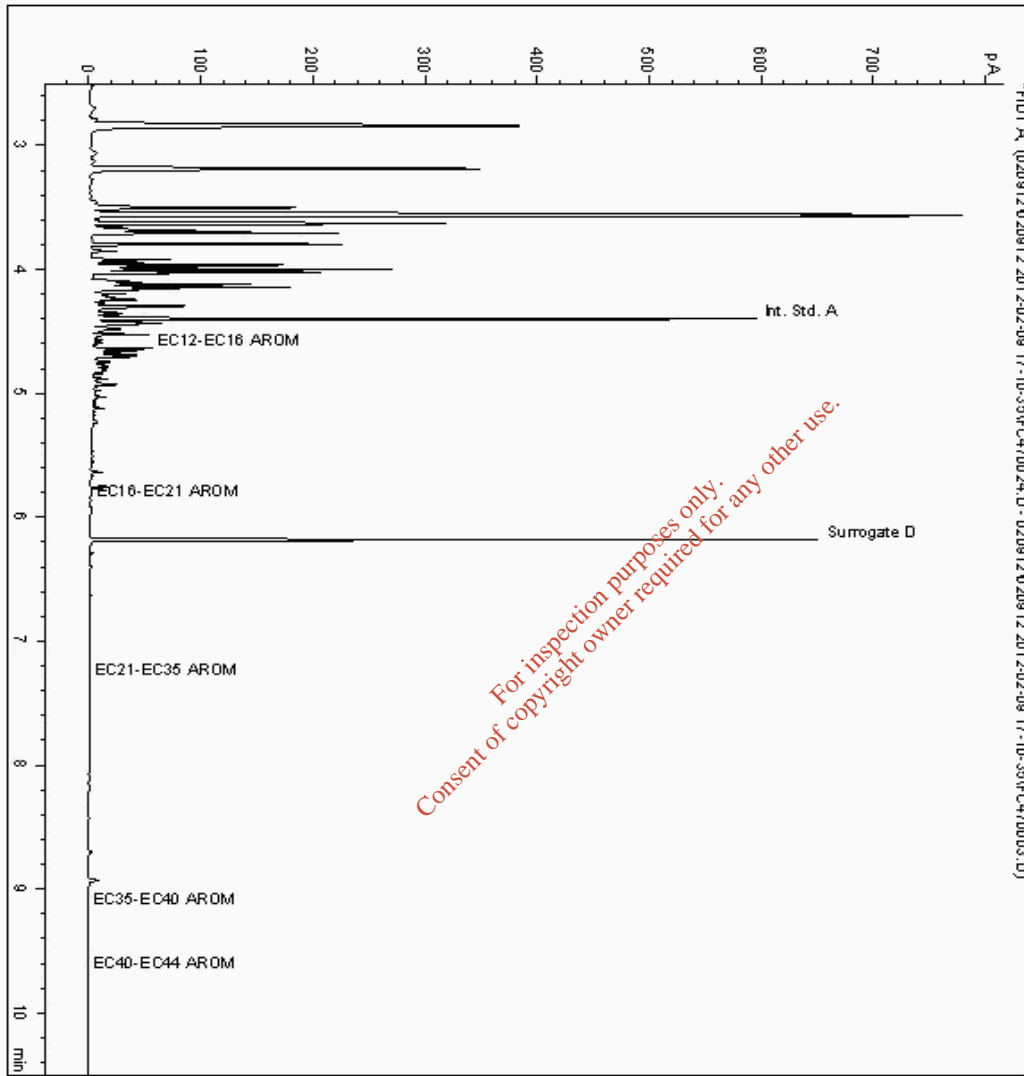
Analysis: EPH CWG (Aromatic) Aqueous GC (W)

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





SDG: 120203-121
Job: D_MOUCHEL_ELE-1
Client Reference:

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

Order Number: 4500089829
Report Number: 170465
Superseded Report: 170459

Chromatogram

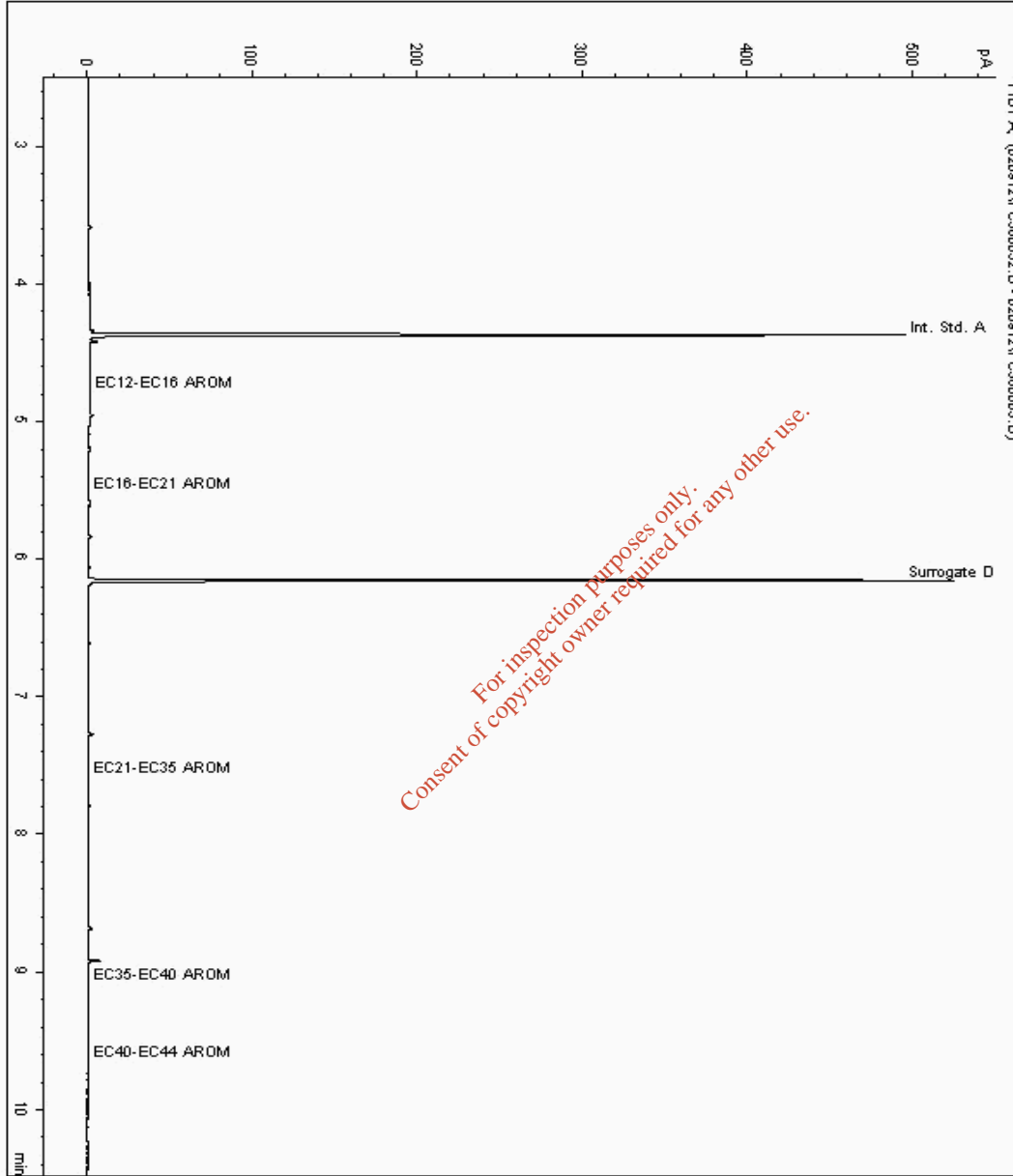
Analysis: EPH CWG (Aromatic) Aqueous GC (W)

Sample No : 5132836
Sample ID : G3

Depth : 2.50 - 3.50

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

Sample Identity: 5033153-5132836
Date Acquired : 10/02/12 01:49:11 PM
Units : ppb
Dilution :
CF : 1
Multiplier : 0.008





SDG: 120203-121
Job: D_MOUCHEL_ELE-1
Client Reference:

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

Order Number: 4500089829
Report Number: 170465
Superseded Report: 170459

Chromatogram

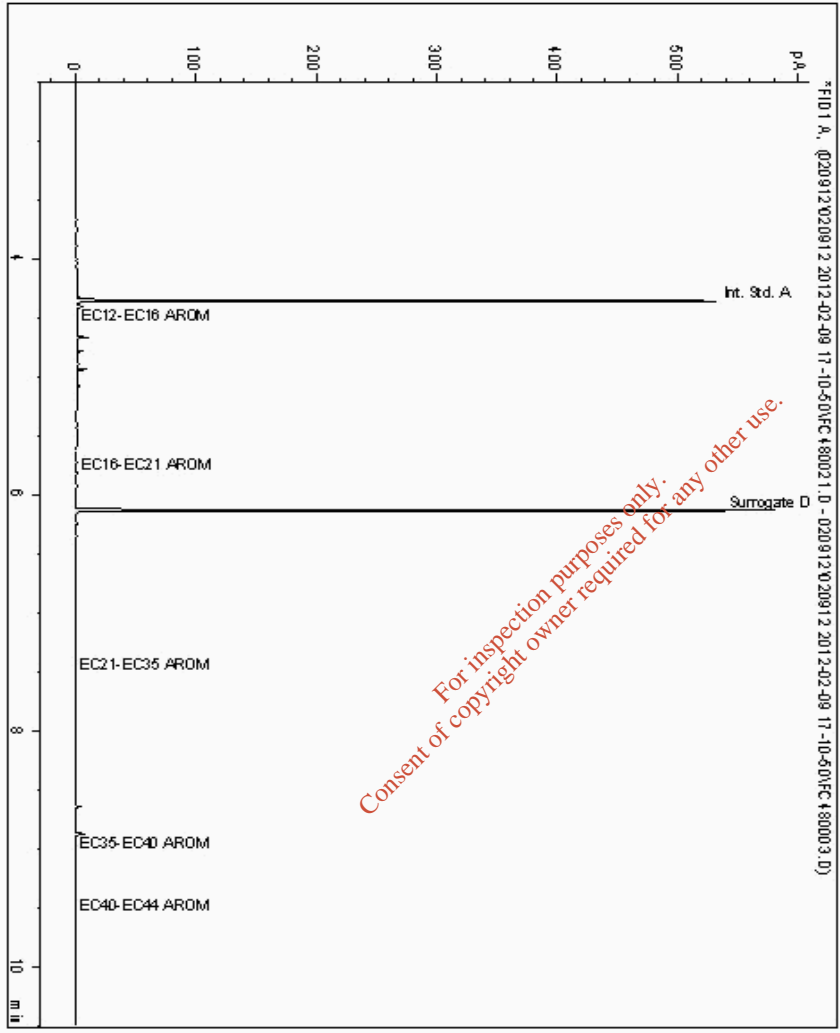
Analysis: EPH CWG (Aromatic) Aqueous GC (W)

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
Job: D_MOUCHEL_ELE-1
Client Reference:

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

Order Number: 4500089829
Report Number: 170465
Superseded Report: 170459

Chromatogram

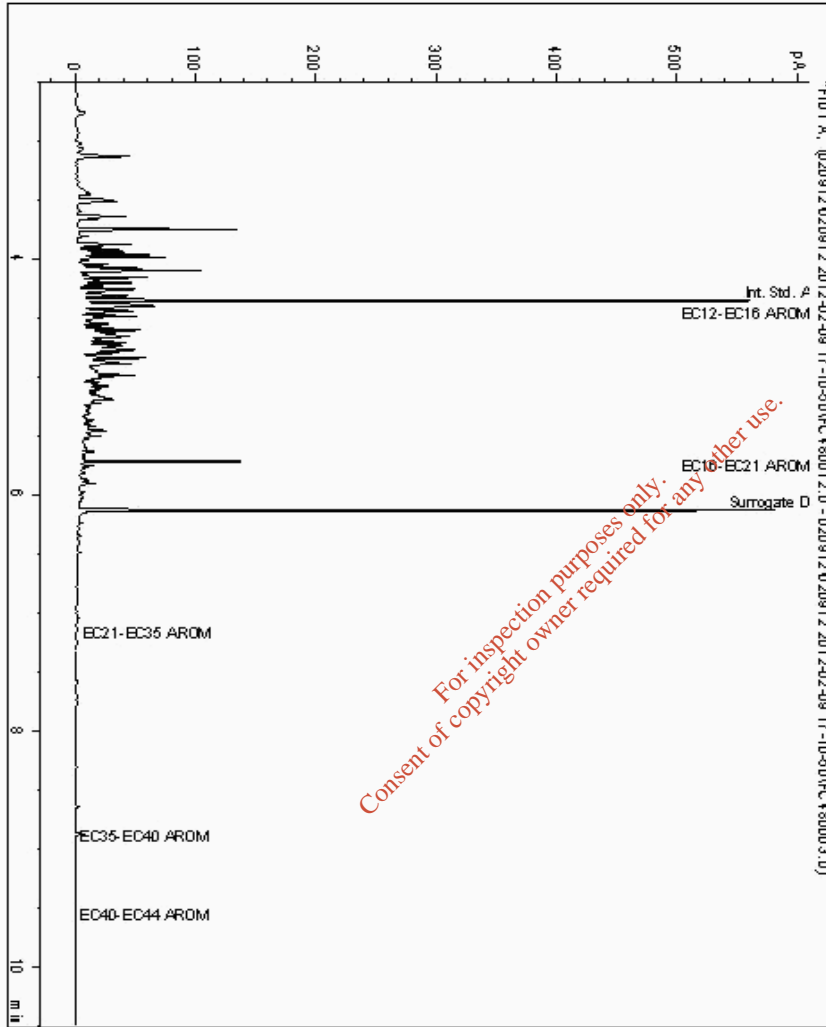
Analysis: EPH CWG (Aromatic) Aqueous GC (W)

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
Job: D_MOUCHEL_ELE-1
Client Reference:

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

Order Number: 4500089829
Report Number: 170465
Superseded Report: 170459

Chromatogram

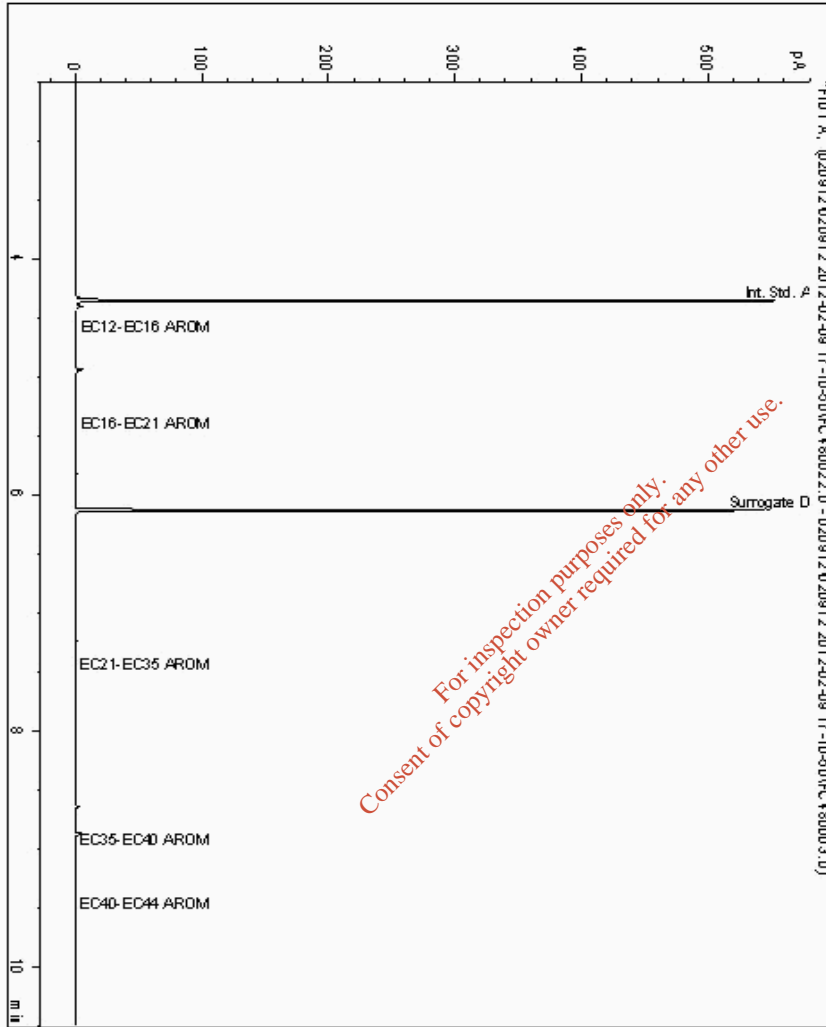
Analysis: EPH CWG (Aromatic) Aqueous GC (W)

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





SDG: 120203-121
Job: D_MOUCHEL_ELE-1
Client Reference:

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

Order Number: 4500089829
Report Number: 170465
Superseded Report: 170459

Chromatogram

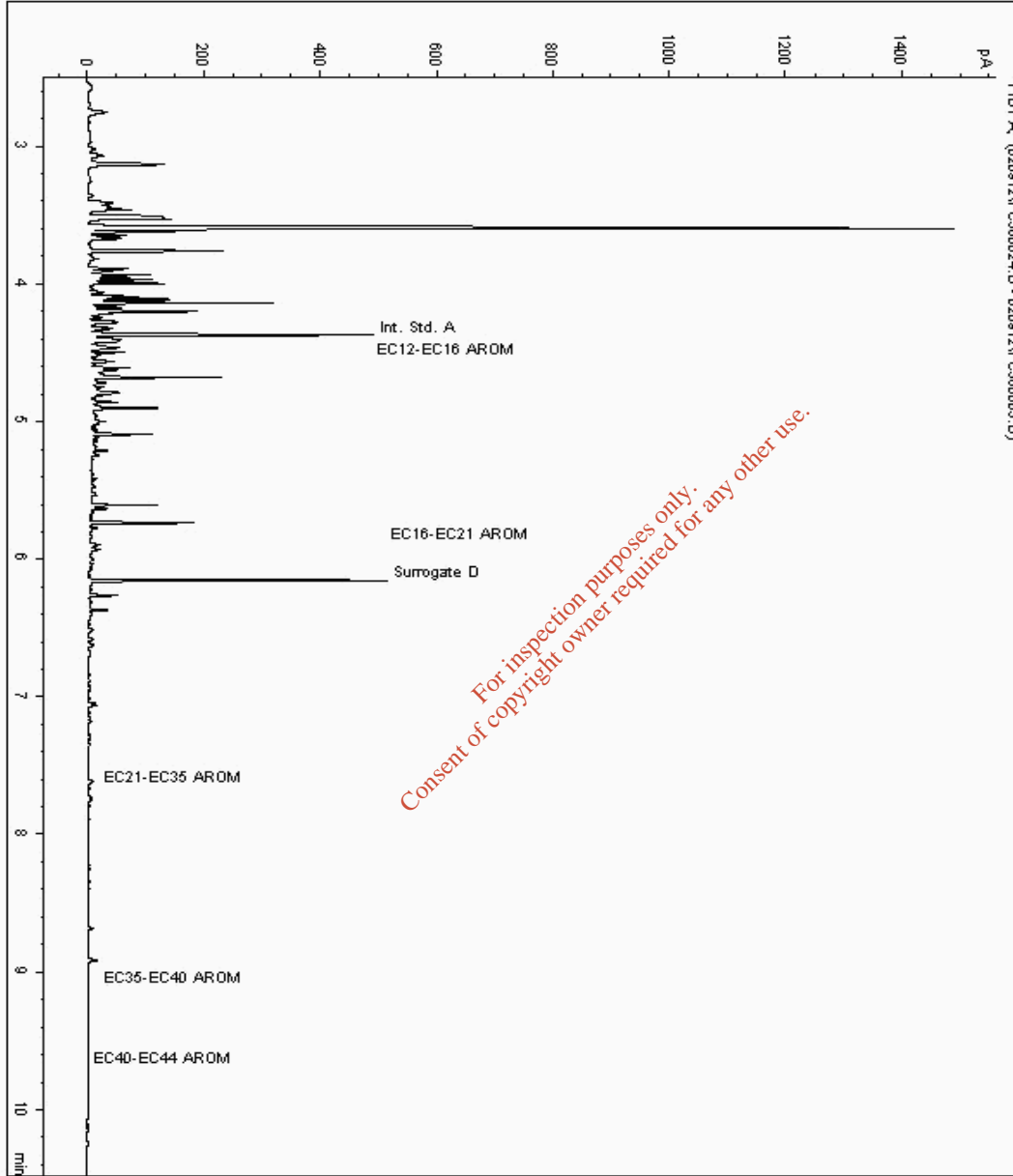
Analysis: EPH CWG (Aromatic) Aqueous GC (W)

Sample No : 5133076
Sample ID : G8

Depth : 1.50 - 2.40

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

Sample Identity: 5033261-5133076
Date Acquired : 09/02/12 23:55:07 PM
Units : ppb
Dilution :
CF : 1
Multiplier : 0.008





SDG: 120203-121
Job: D_MOUCHEL_ELE-1
Client Reference:

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

Order Number: 4500089829
Report Number: 170465
Superseded Report: 170459

Chromatogram

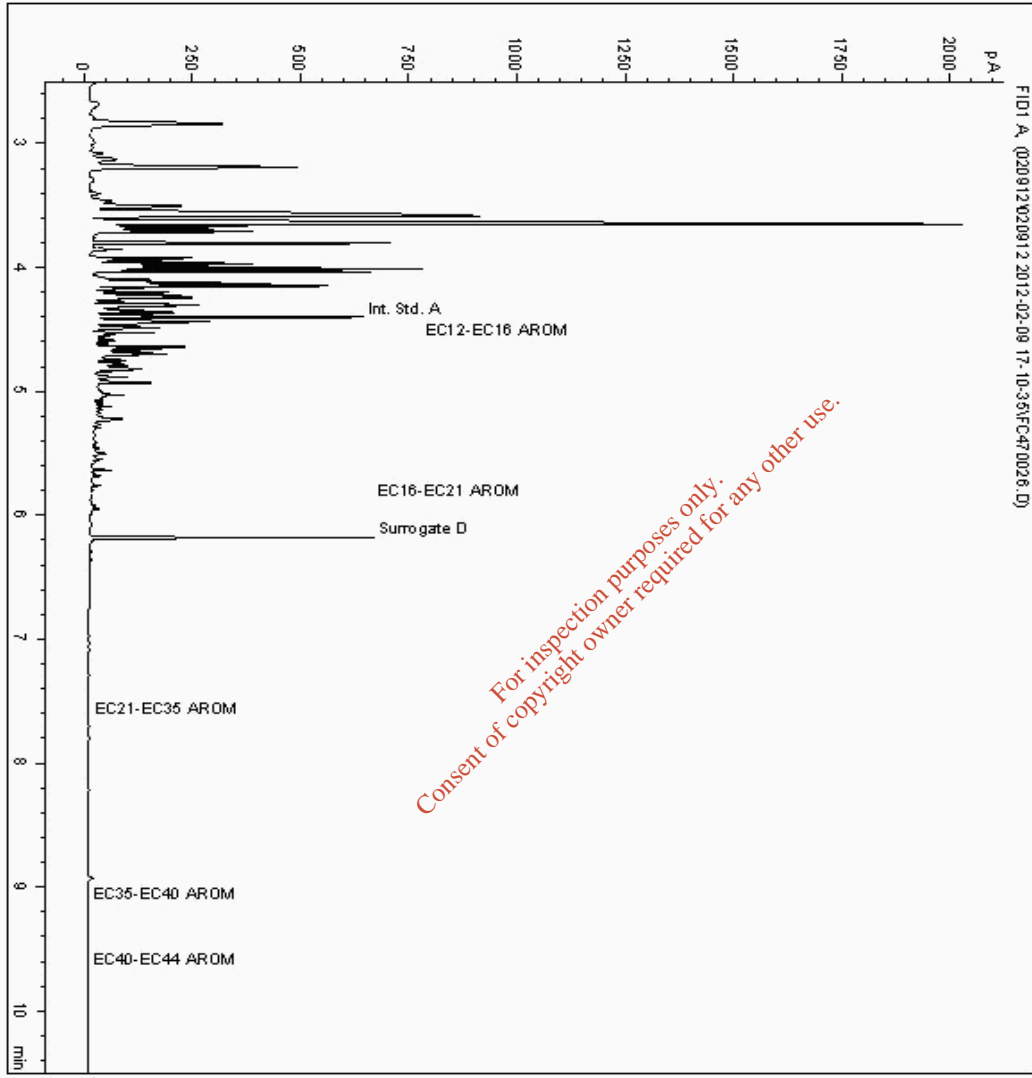
Analysis: EPH CWG (Aromatic) Aqueous GC (W)

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



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SDG: 120203-121
Job: D_MOUCHEL_ELE-1
Client Reference:

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

Order Number: 4500089829
Report Number: 170465
Superseded Report: 170459

Chromatogram

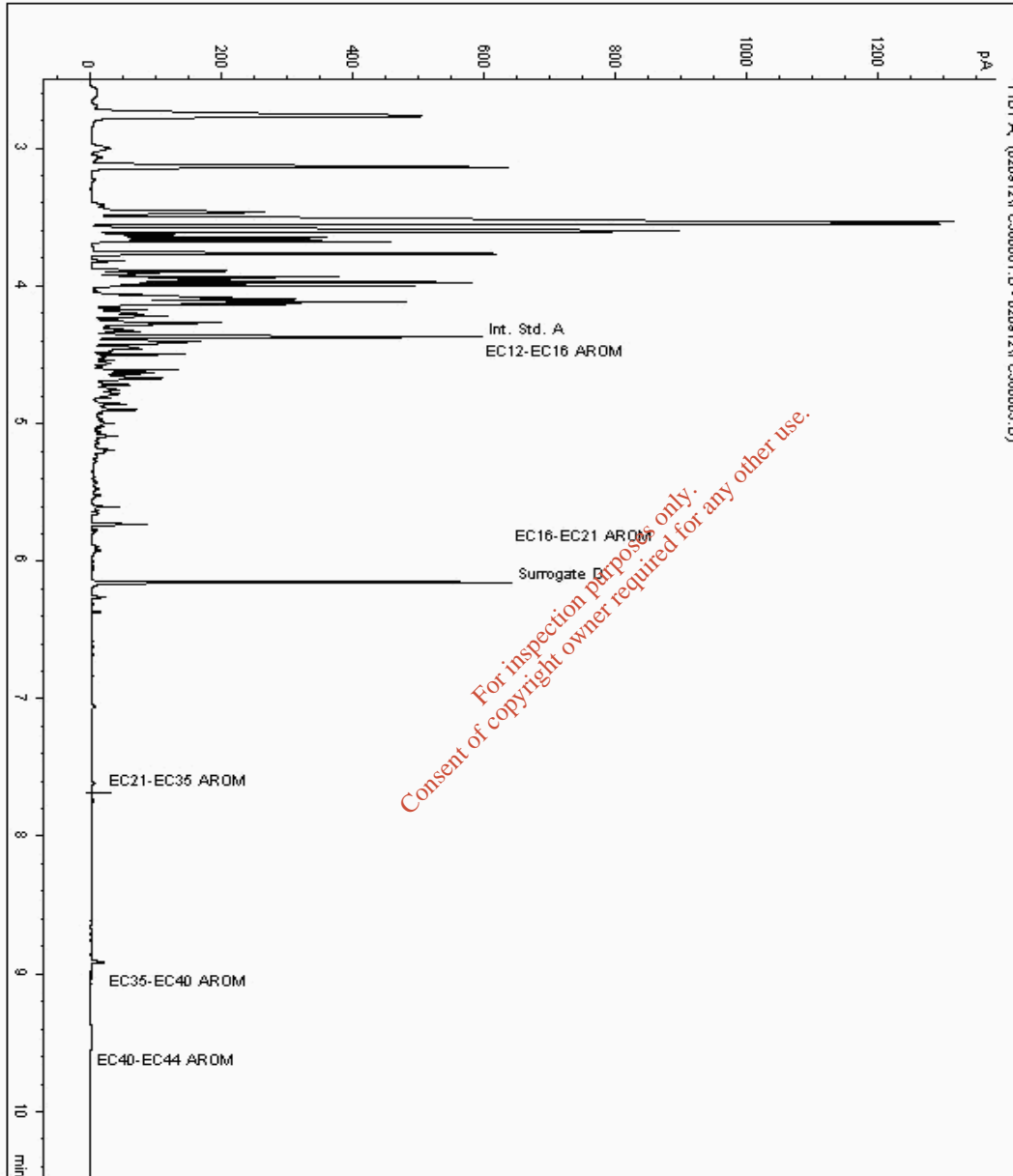
Analysis: EPH CWG (Aromatic) Aqueous GC (W)

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





SDG: 120203-121
Job: D_MOUCHEL_ELE-1
Client Reference:

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

Order Number: 4500089829
Report Number: 170465
Superseded Report: 170459

Chromatogram

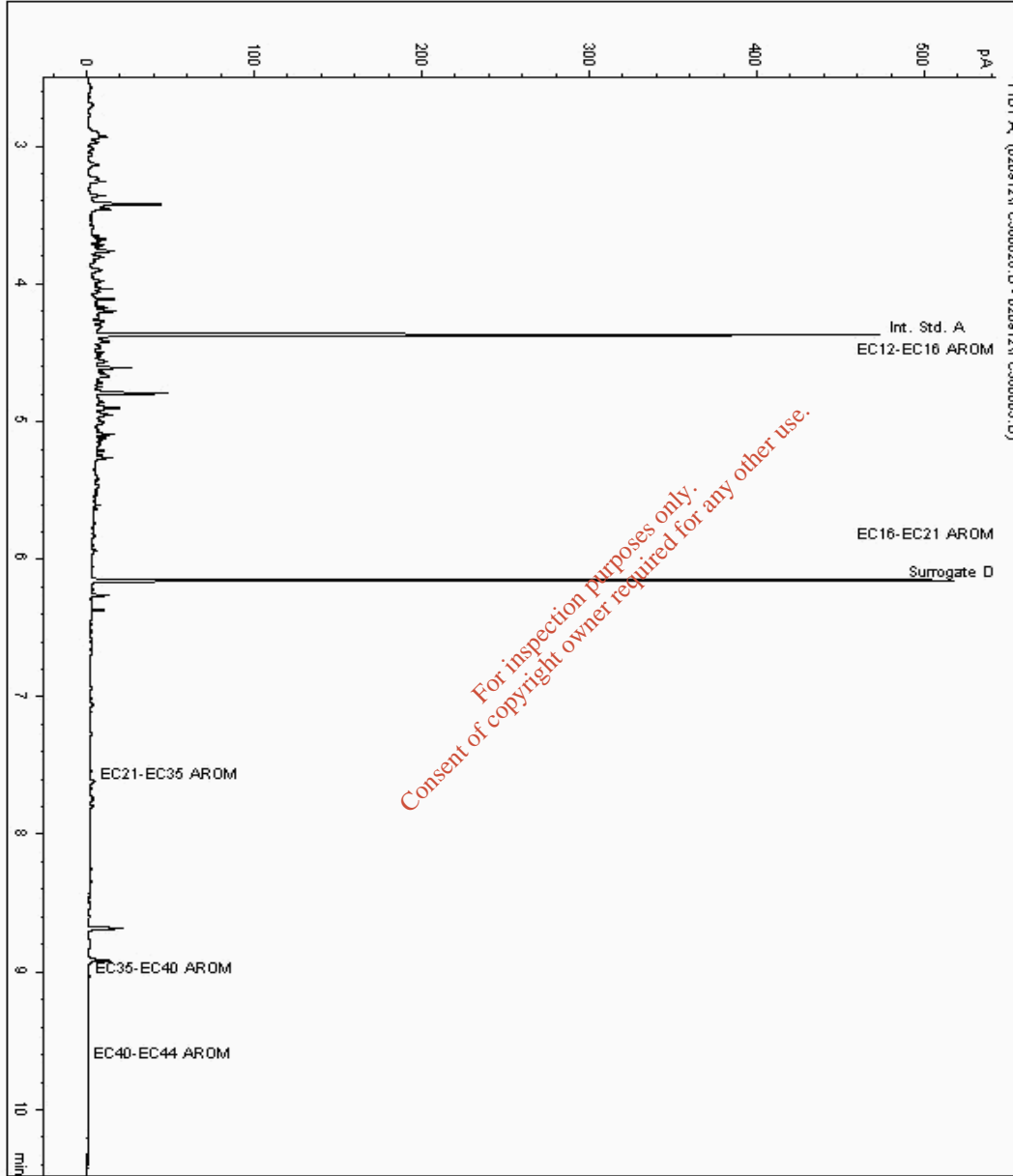
Analysis: EPH CWG (Aromatic) Aqueous GC (W)

Sample No : 5133163
Sample ID : C11

Depth : 1.50 - 2.40

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

Sample Identity: 5033215-5133163
Date Acquired : 10/02/12 00:52:14 PM
Units : ppb
Dilution :
CF : 1
Multiplier : 0.008





SDG: 120203-121
Job: D_MOUCHEL_ELE-1
Client Reference:

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

Order Number: 4500089829
Report Number: 170465
Superseded Report: 170459

Chromatogram

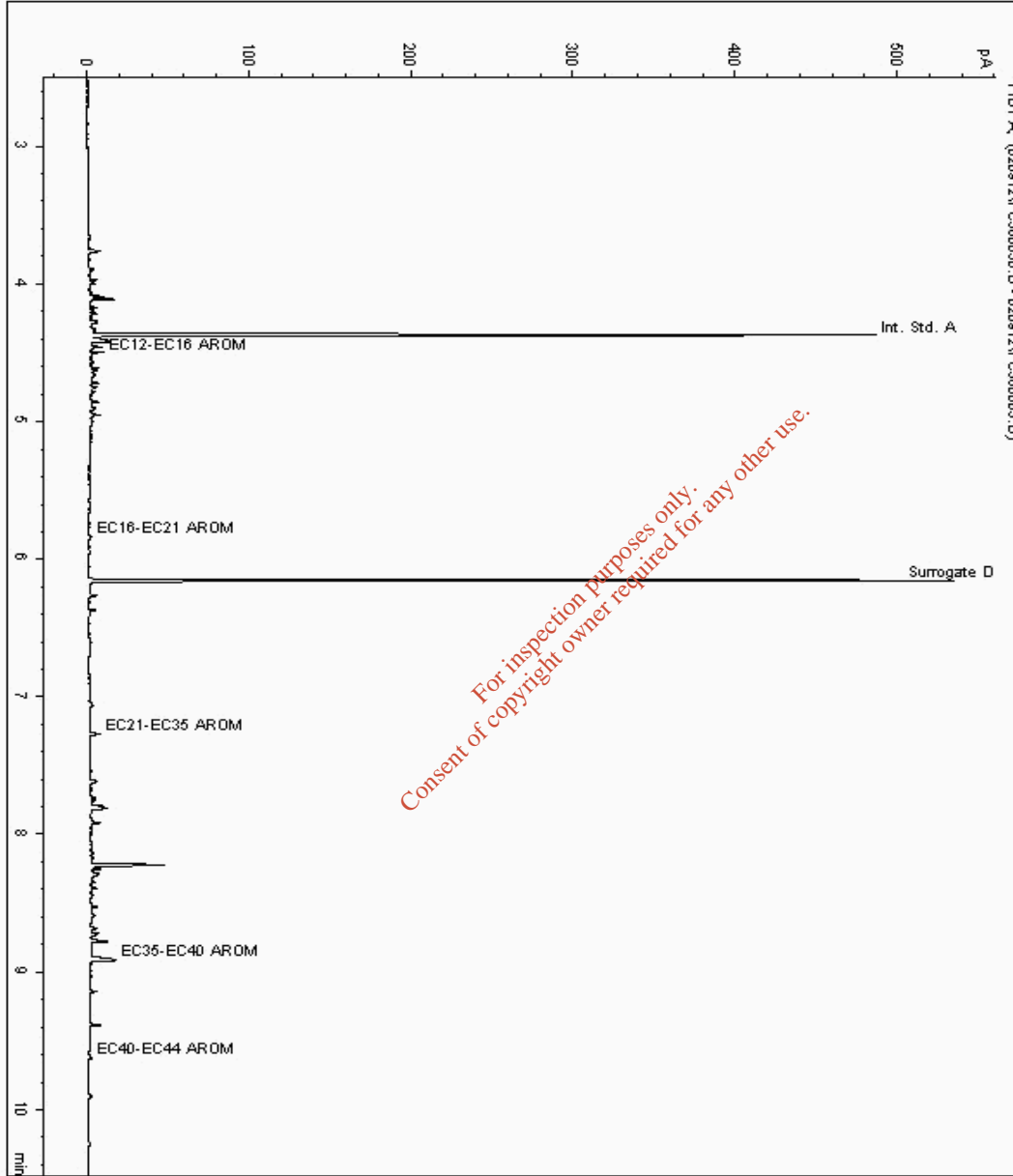
Analysis: EPH CWG (Aromatic) Aqueous GC (W)

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





SDG: 120203-121
Job: D_MOUCHEL_ELE-1
Client Reference:

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

Order Number: 4500089829
Report Number: 170465
Superseded Report: 170459

Chromatogram

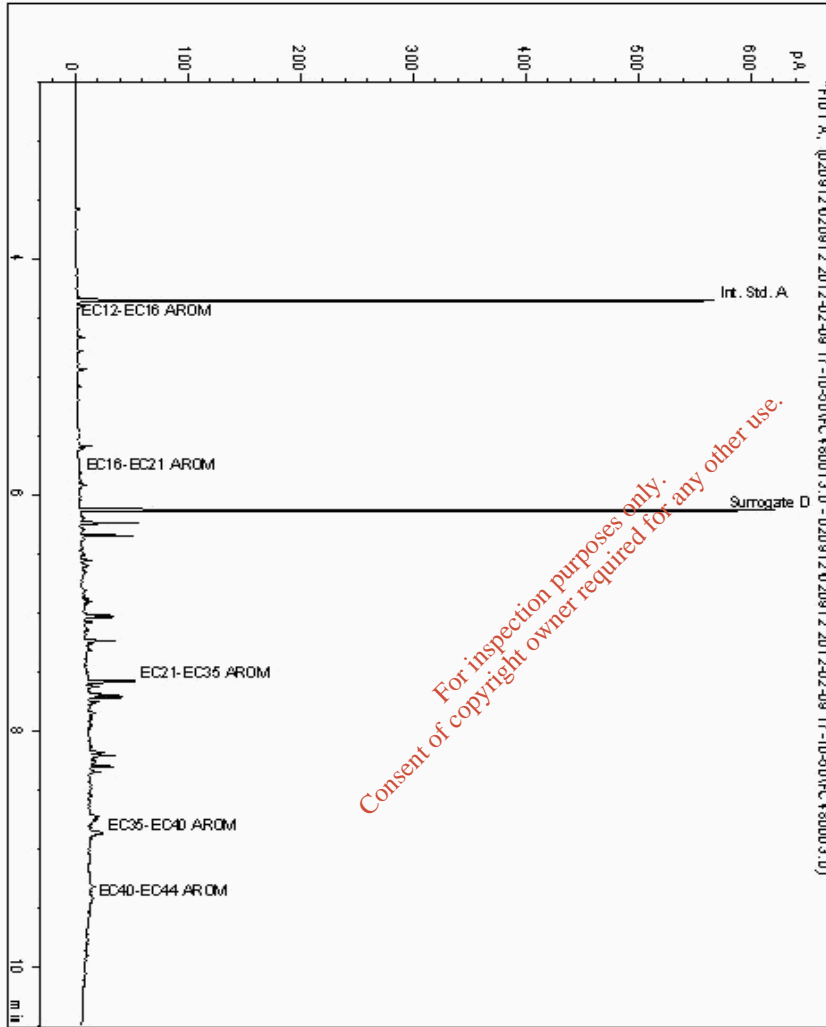
Analysis: EPH CWG (Aromatic) Aqueous GC (W)

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





SDG: 120203-121
Job: D_MOUCHEL_ELE-1
Client Reference:

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

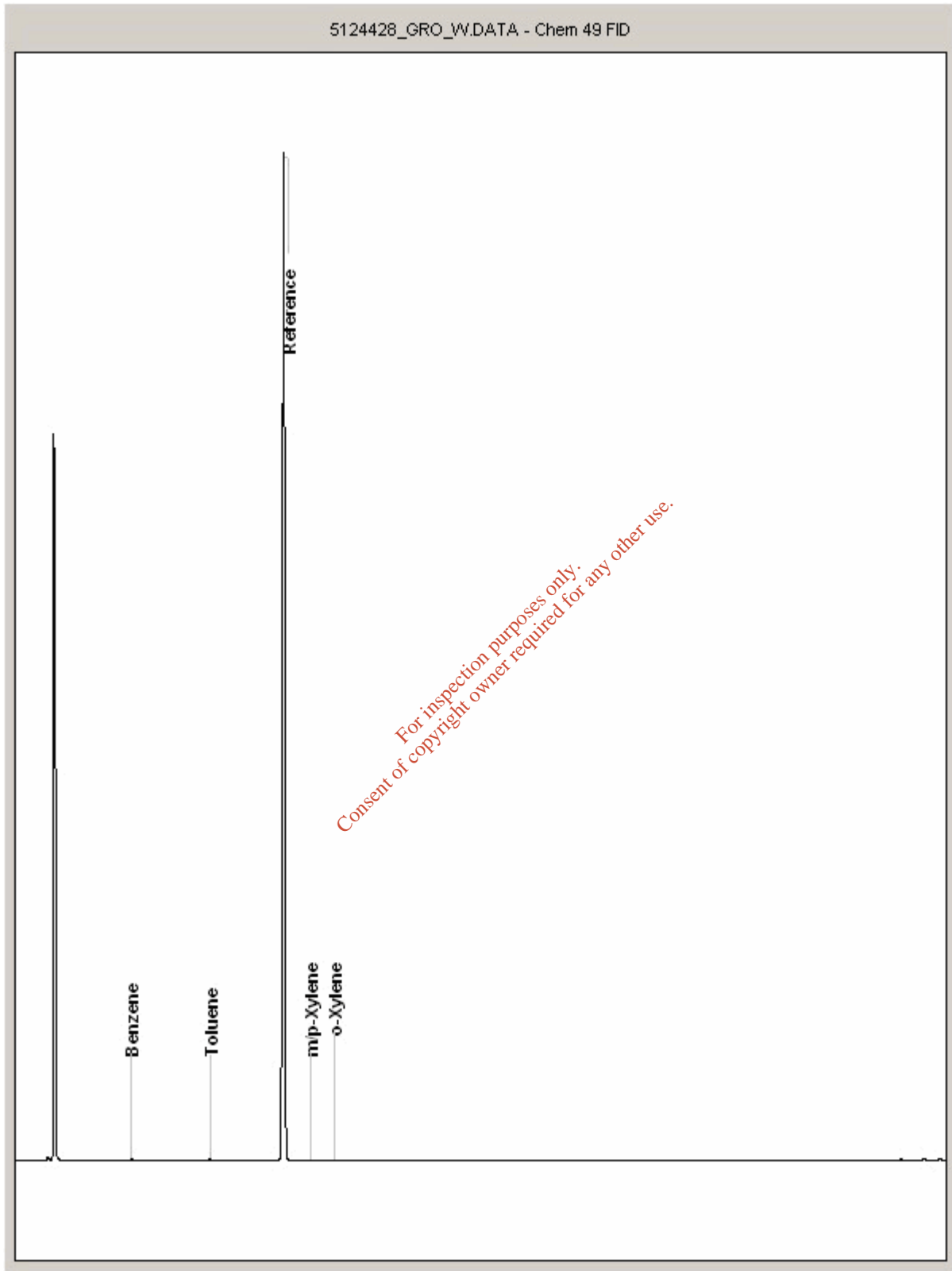
Order Number: 4500089829
Report Number: 170465
Superseded Report: 170459

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 5124428
Sample ID : A9

Depth : 2.00 - 2.40





SDG: 120203-121
Job: D_MOUCHEL_ELE-1
Client Reference:

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

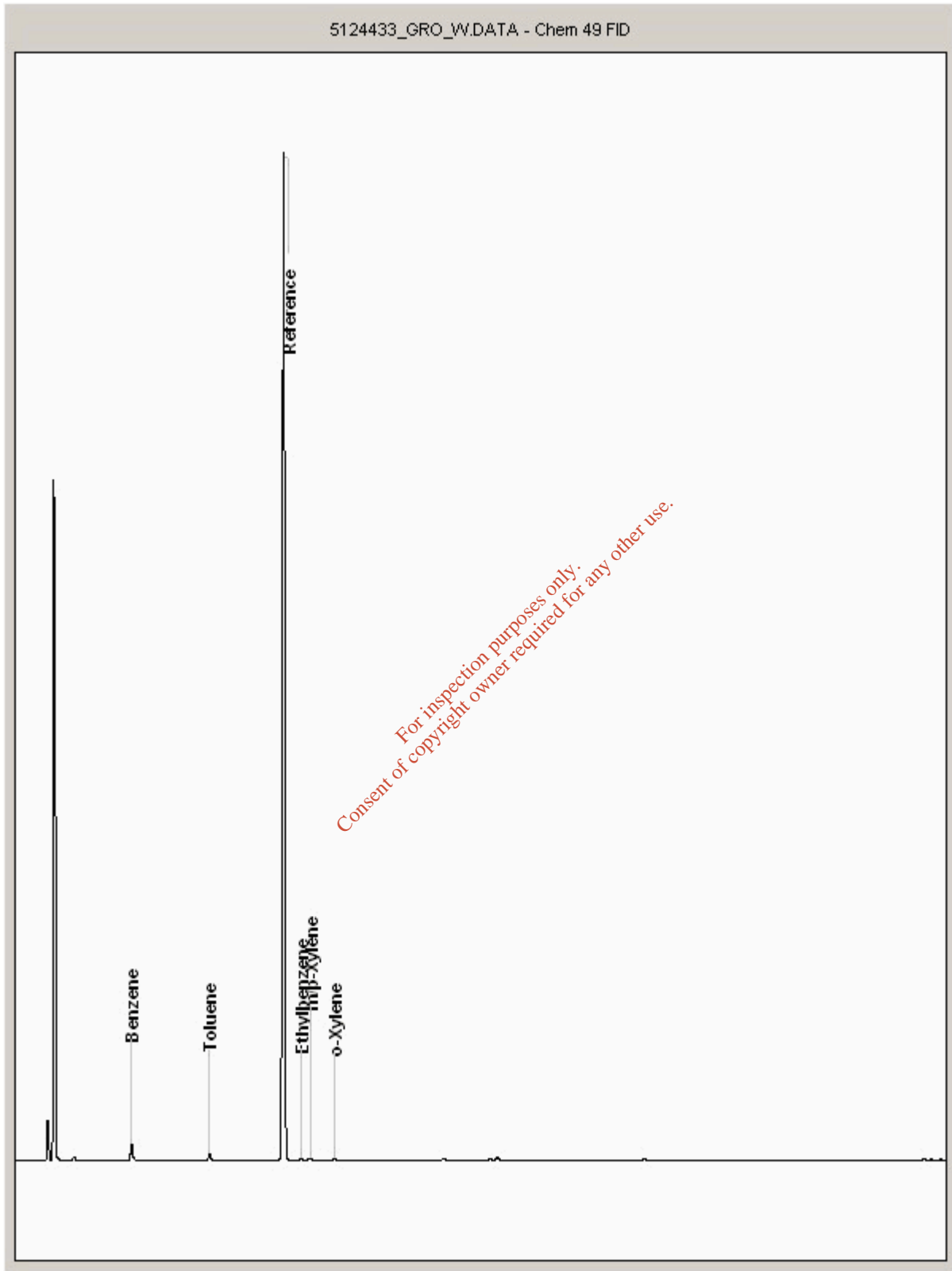
Order Number: 4500089829
Report Number: 170465
Superseded Report: 170459

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 5124433
Sample ID : D5

Depth : 1.50 - 1.90





SDG: 120203-121
Job: D_MOUCHEL_ELE-1
Client Reference:

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

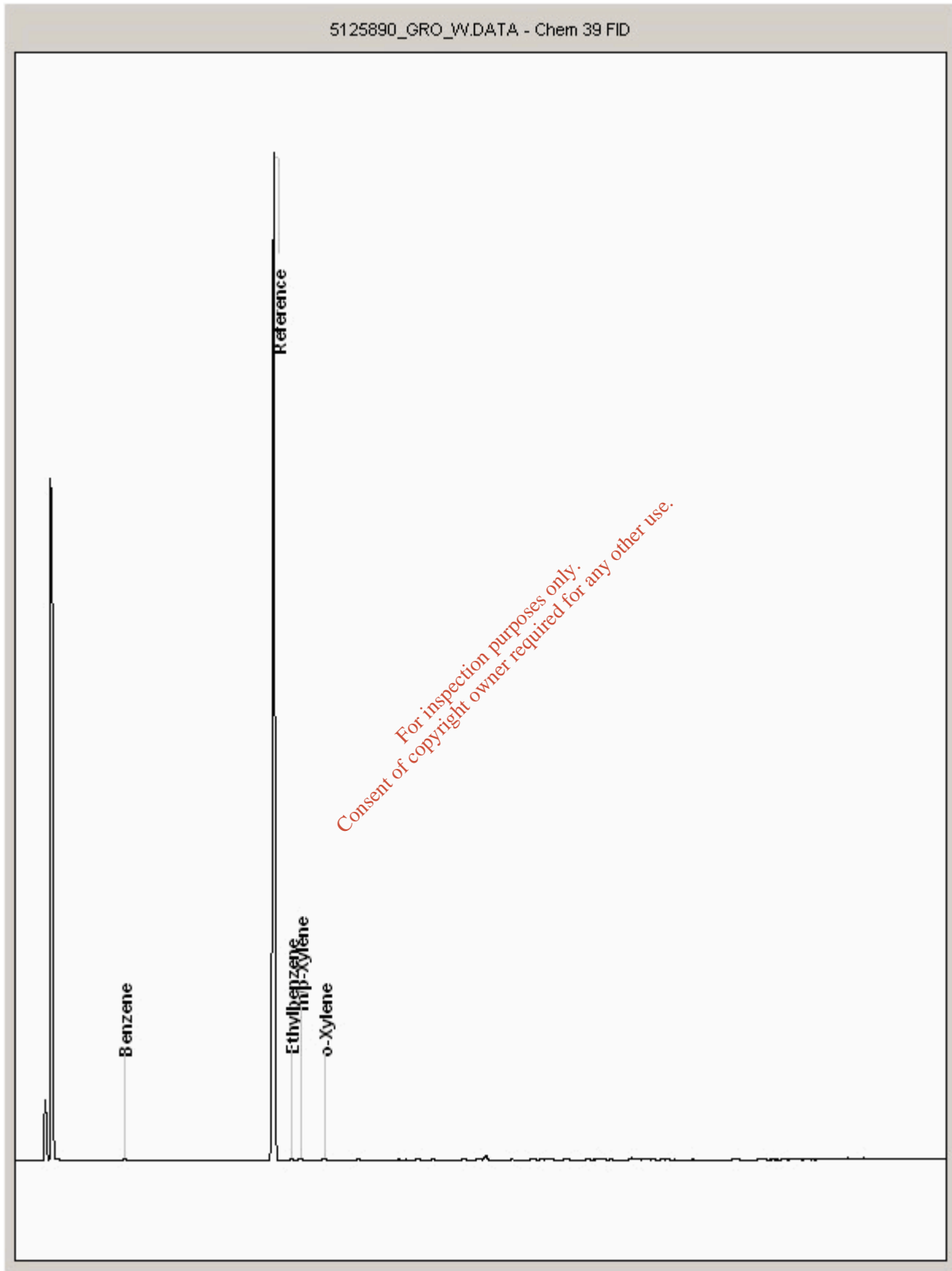
Order Number: 4500089829
Report Number: 170465
Superseded Report: 170459

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 5125890
Sample ID : A4

Depth : 3.00 - 4.00





SDG: 120203-121
Job: D_MOUCHEL_ELE-1
Client Reference:

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

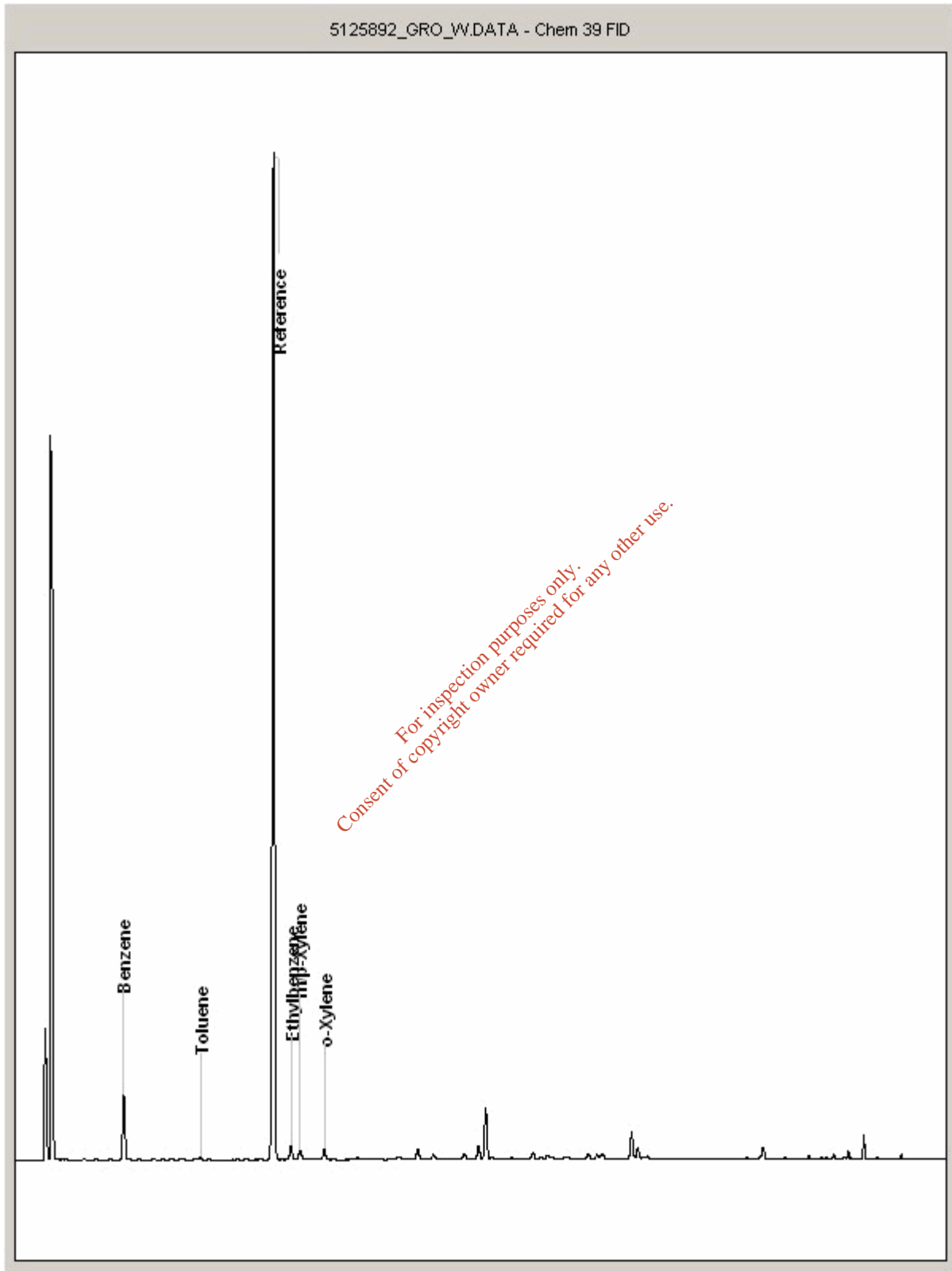
Order Number: 4500089829
Report Number: 170465
Superseded Report: 170459

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 5125892
Sample ID : A3

Depth : 1.50 - 2.00





SDG: 120203-121
Job: D_MOUCHEL_ELE-1
Client Reference:

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

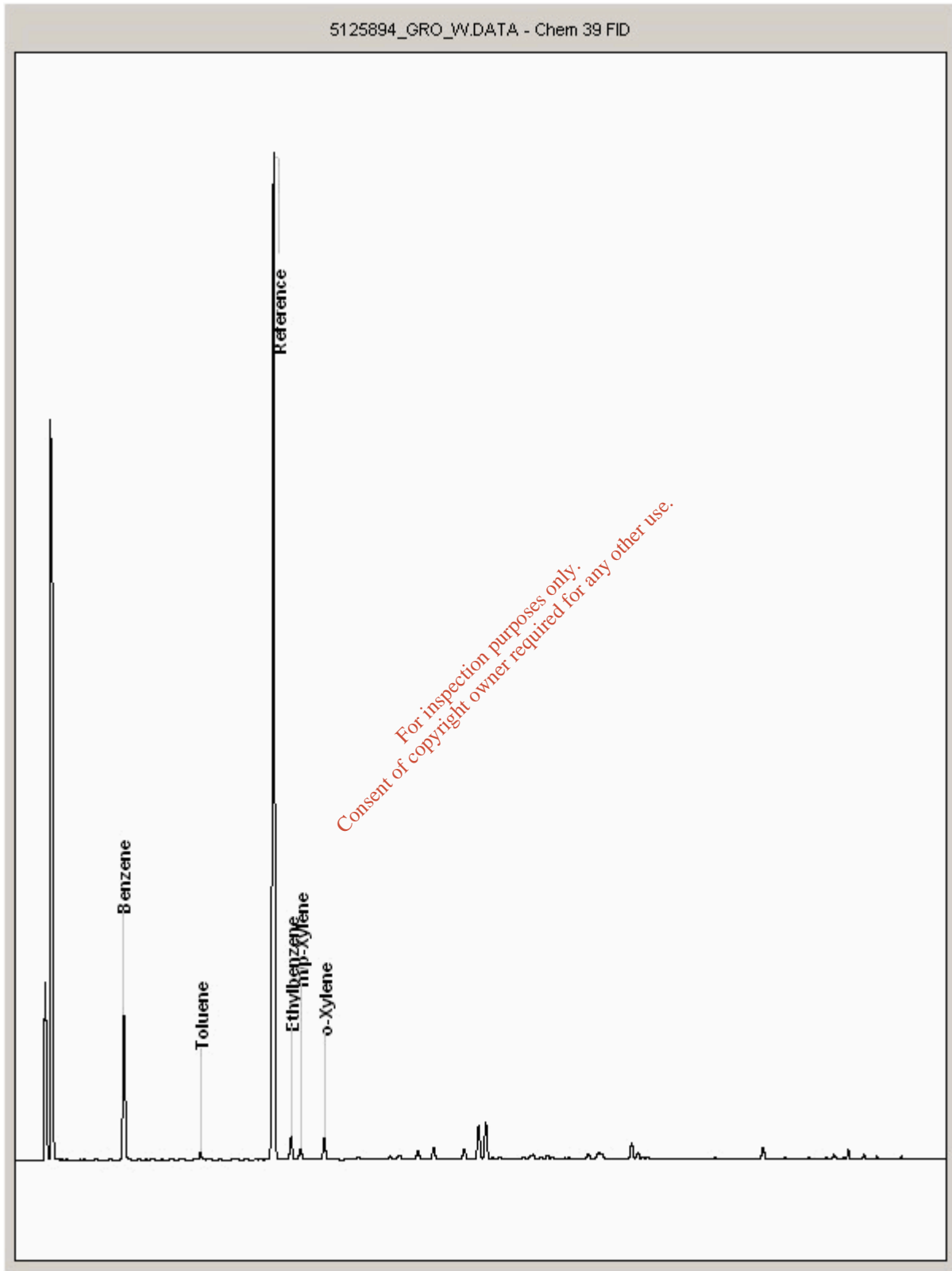
Order Number: 4500089829
Report Number: 170465
Superseded Report: 170459

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 5125894
Sample ID : A1

Depth : 2.50 - 3.50





SDG: 120203-121
Job: D_MOUCHEL_ELE-1
Client Reference:

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

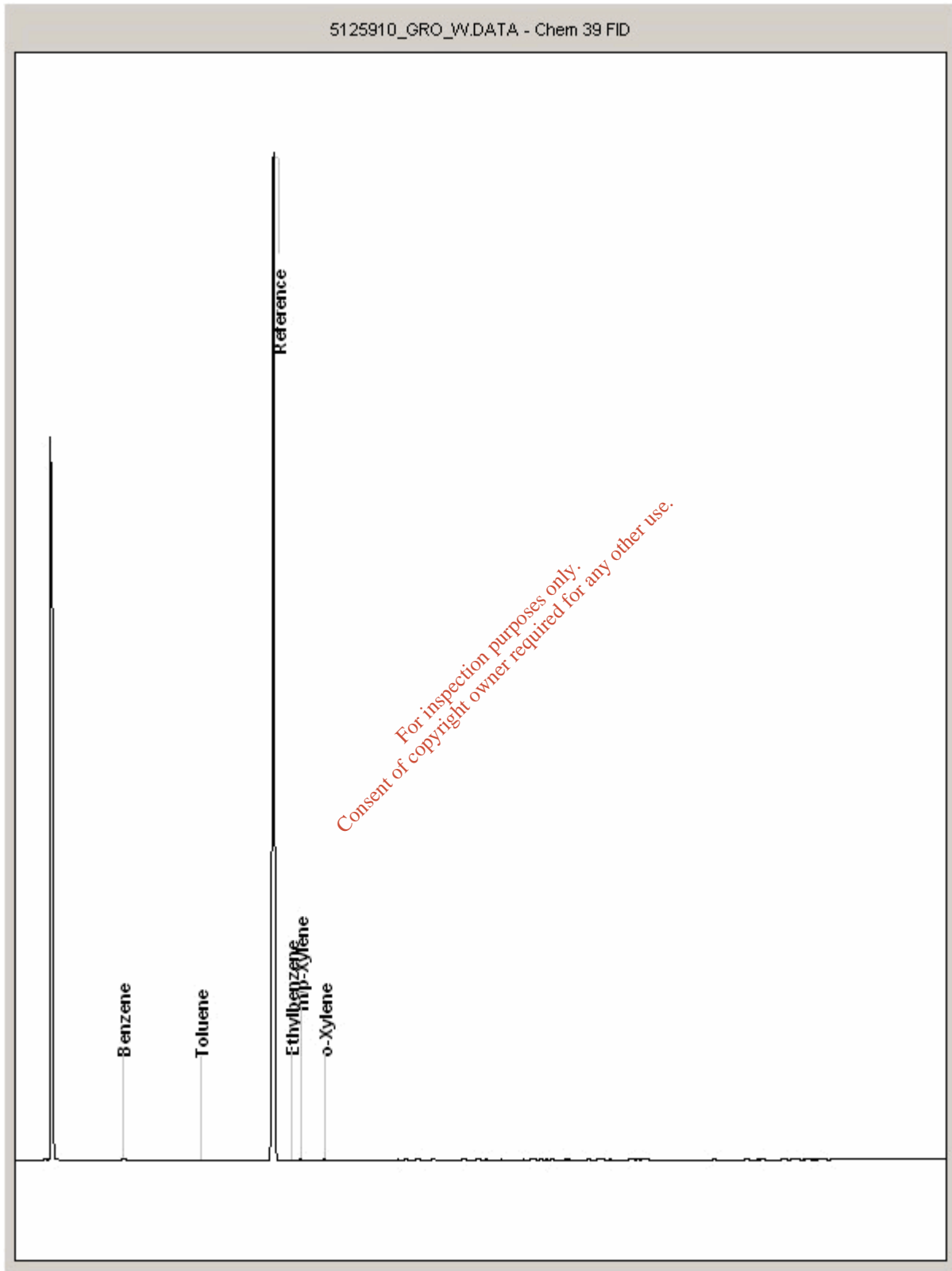
Order Number: 4500089829
Report Number: 170465
Superseded Report: 170459

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 5125910
Sample ID : C2

Depth : 2.00 - 2.50





SDG: 120203-121
Job: D_MOUCHEL_ELE-1
Client Reference:

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

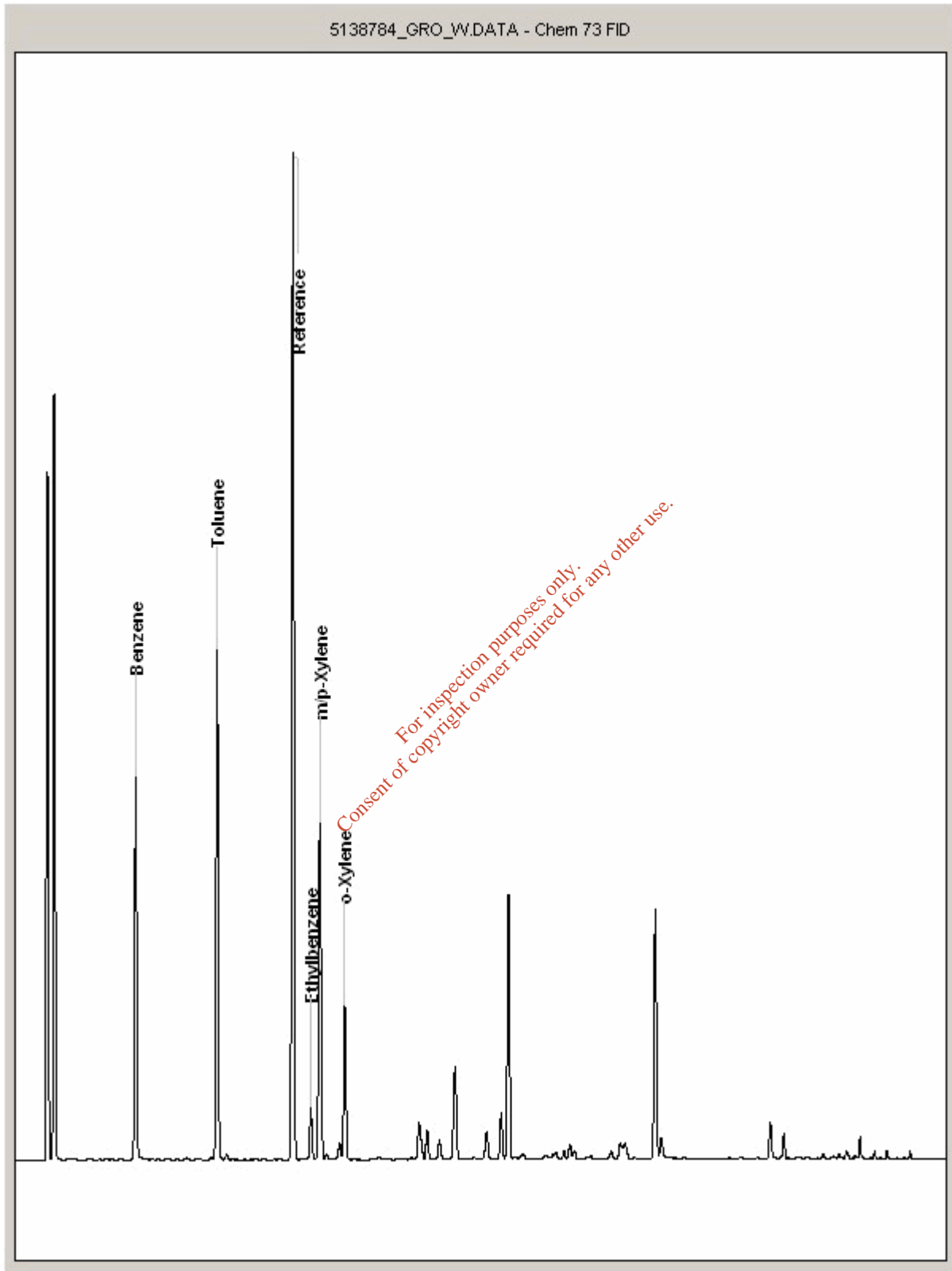
Order Number: 4500089829
Report Number: 170465
Superseded Report: 170459

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 5138784
Sample ID : G4

Depth : 3.00 - 4.00





SDG: 120203-121
Job: D_MOUCHEL_ELE-1
Client Reference:

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

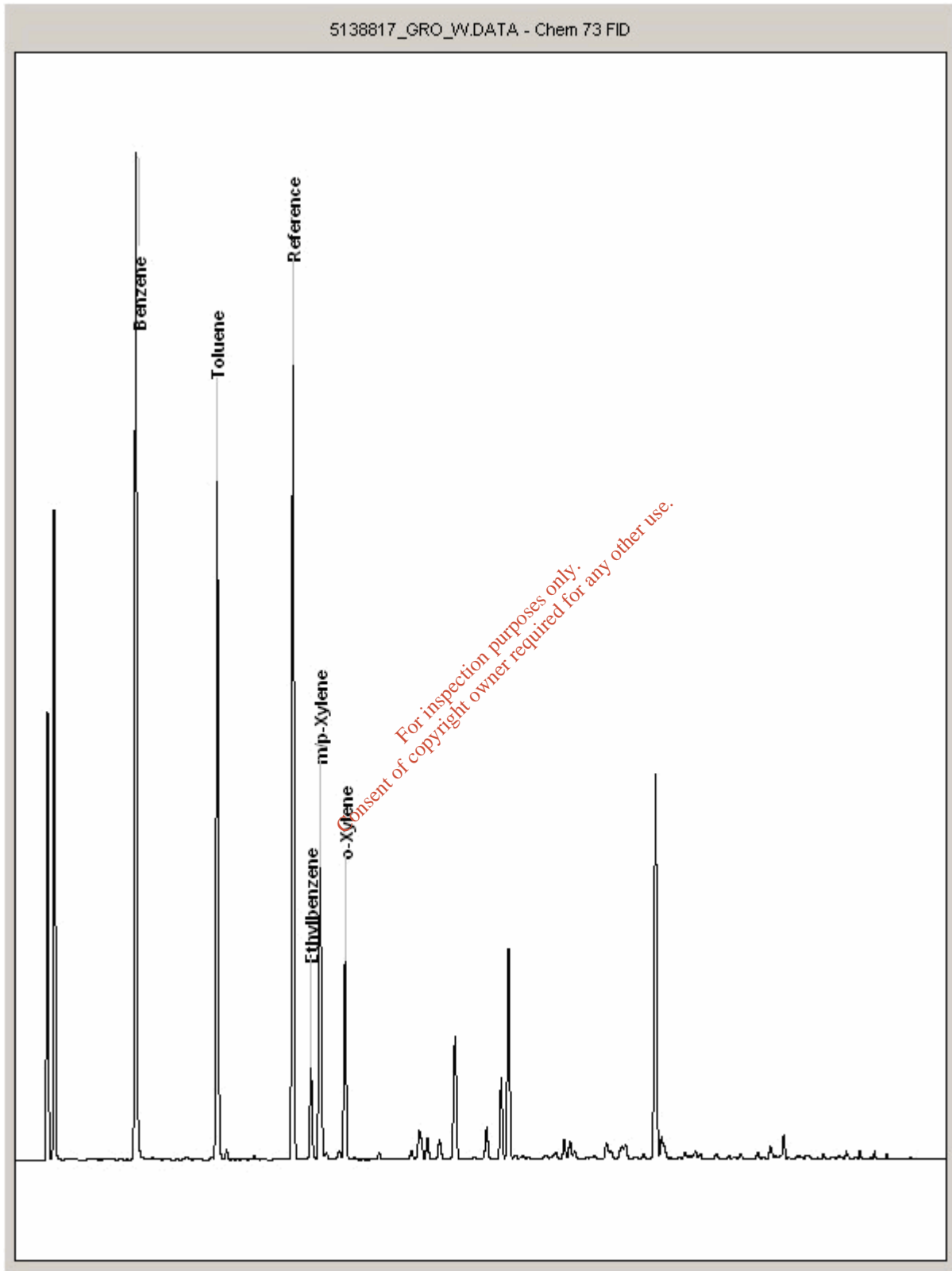
Order Number: 4500089829
Report Number: 170465
Superseded Report: 170459

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 5138817
Sample ID : G2

Depth : 3.00 - 4.00





SDG: 120203-121
Job: D_MOUCHEL_ELE-1
Client Reference:

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

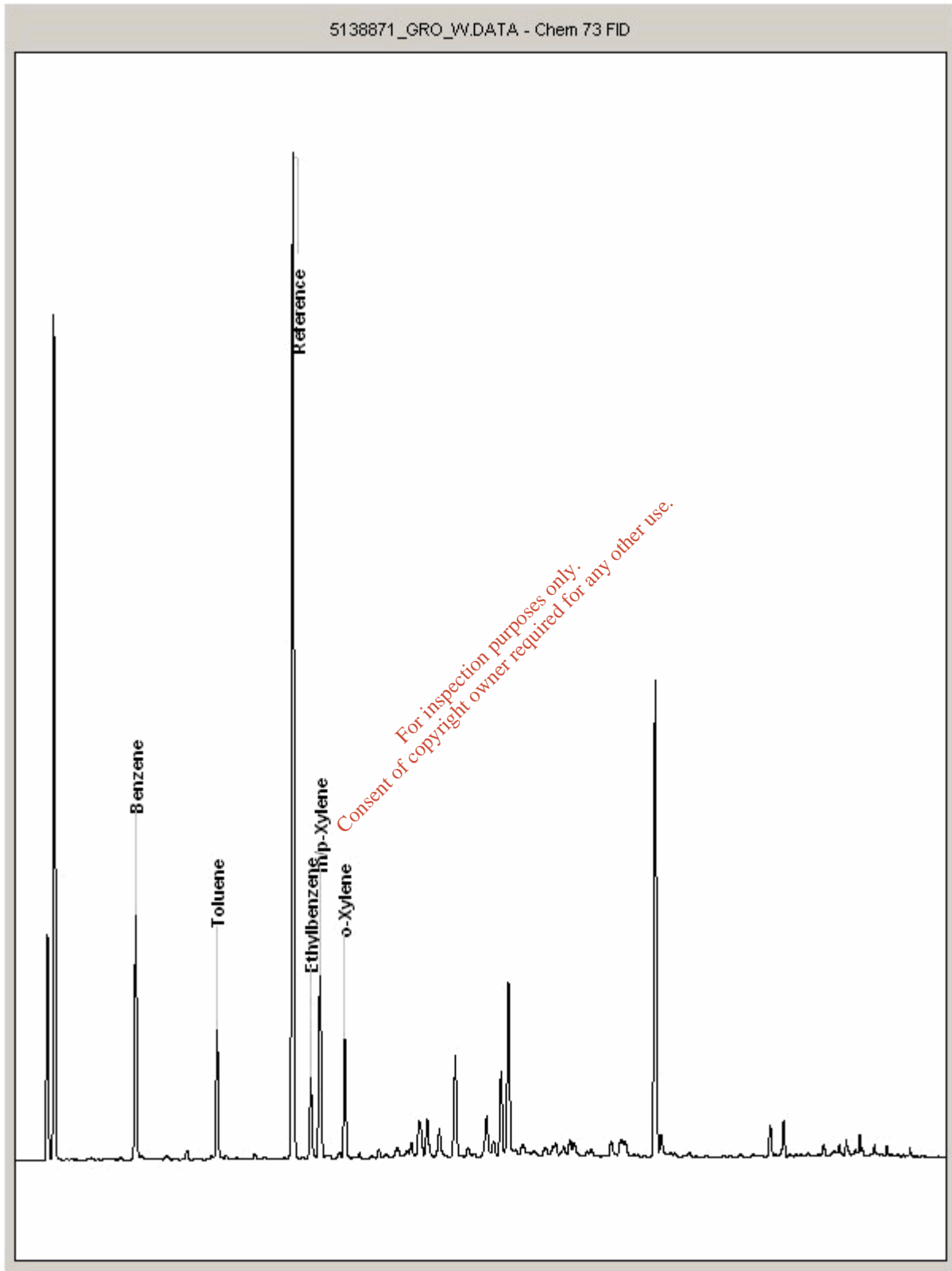
Order Number: 4500089829
Report Number: 170465
Superseded Report: 170459

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 5138871
Sample ID : D1

Depth : 3.00 - 4.00





SDG: 120203-121
Job: D_MOUCHEL_ELE-1
Client Reference:

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

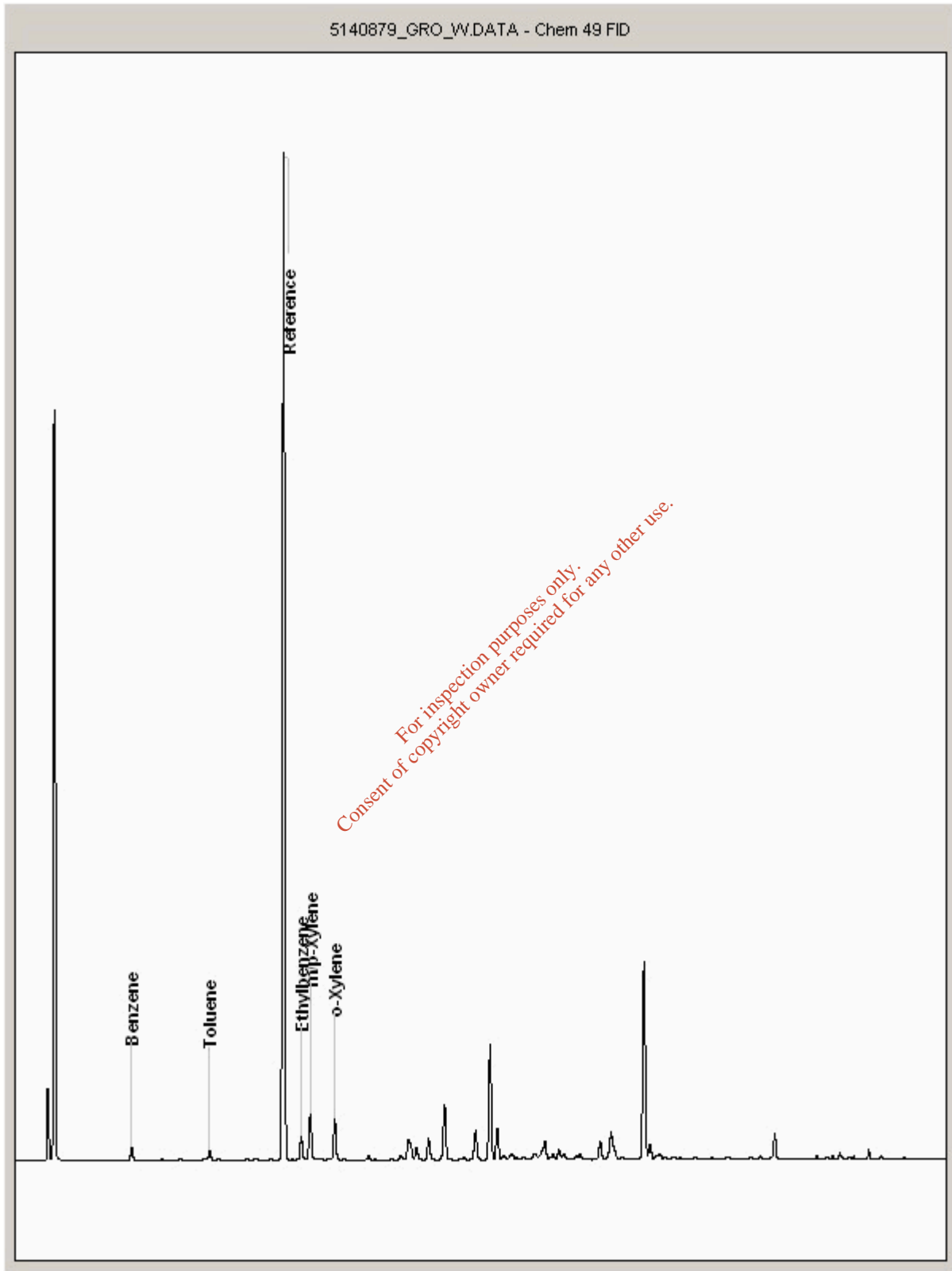
Order Number: 4500089829
Report Number: 170465
Superseded Report: 170459

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 5140879
Sample ID : C11

Depth : 1.50 - 2.40





SDG: 120203-121
Job: D_MOUCHEL_ELE-1
Client Reference:

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

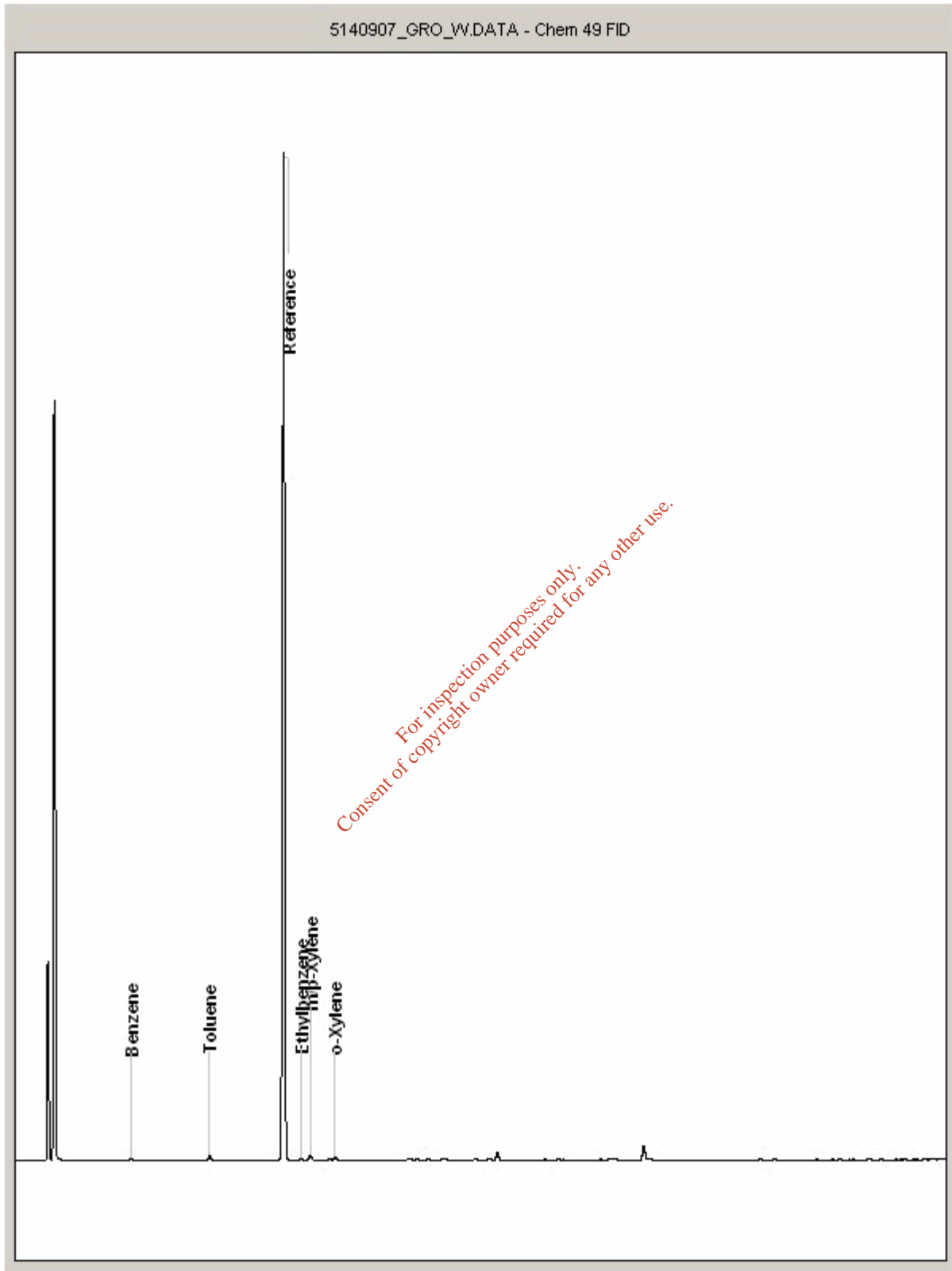
Order Number: 4500089829
Report Number: 170465
Superseded Report: 170459

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 5140907
Sample ID : A11

Depth : 2.00 - 2.50





SDG: 120203-121
Job: D_MOUCHEL_ELE-1
Client Reference:

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

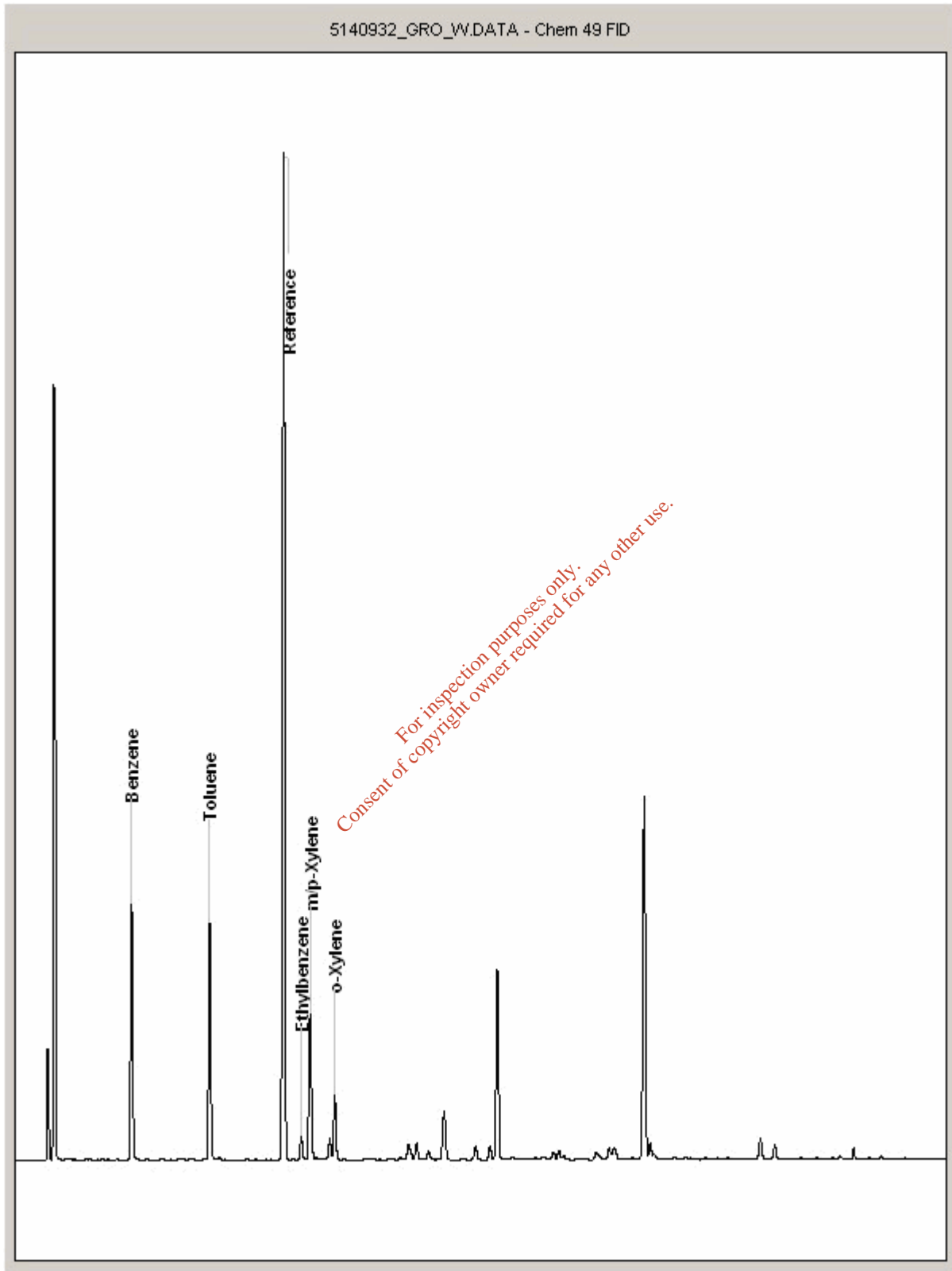
Order Number: 4500089829
Report Number: 170465
Superseded Report: 170459

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 5140932
Sample ID : G8

Depth : 1.50 - 2.40





SDG: 120203-121
Job: D_MOUCHEL_ELE-1
Client Reference:

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

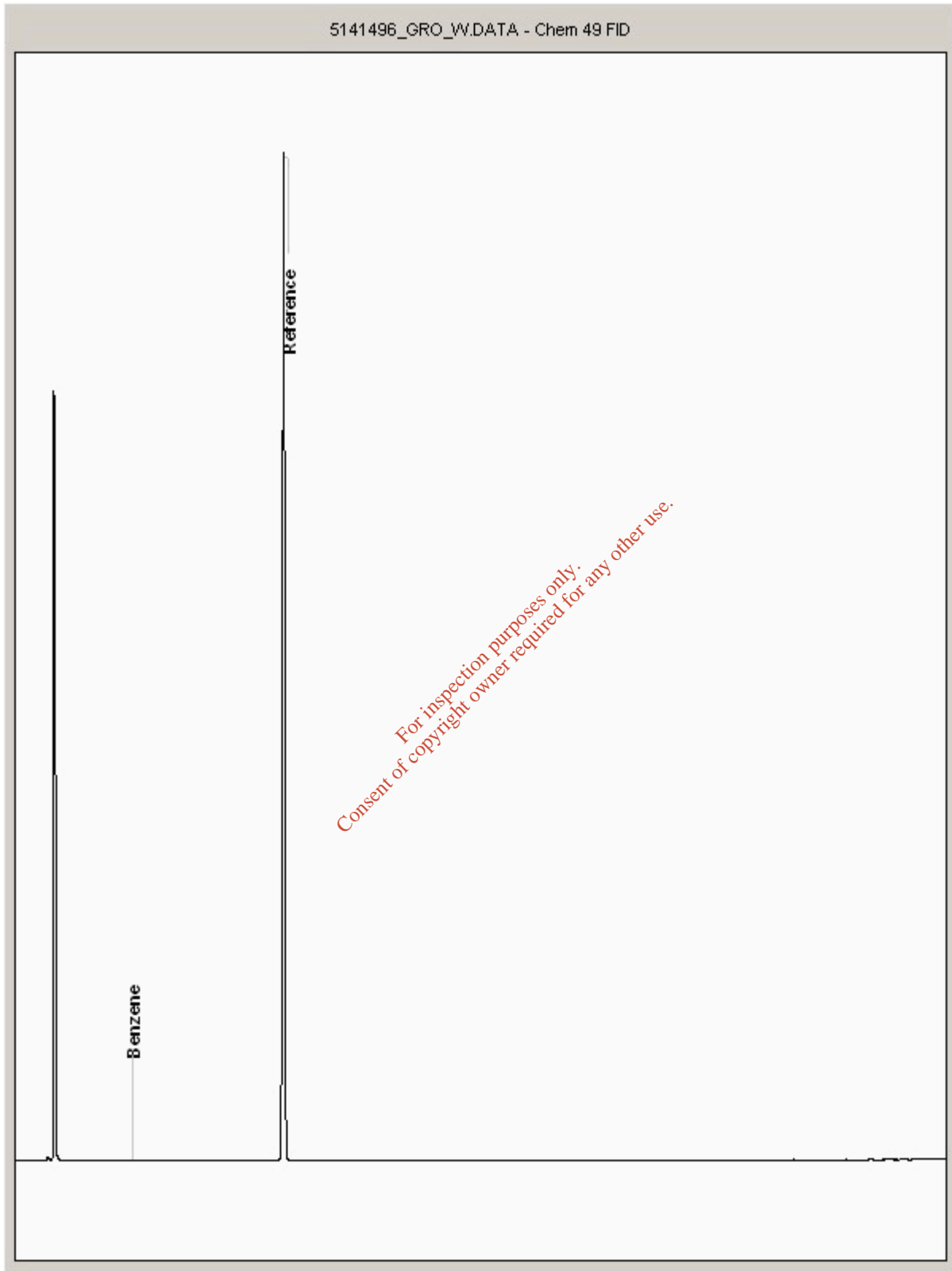
Order Number: 4500089829
Report Number: 170465
Superseded Report: 170459

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 5141496
Sample ID : K1

Depth : 2.00 - 3.00





SDG: 120203-121
Job: D_MOUCHEL_ELE-1
Client Reference:

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

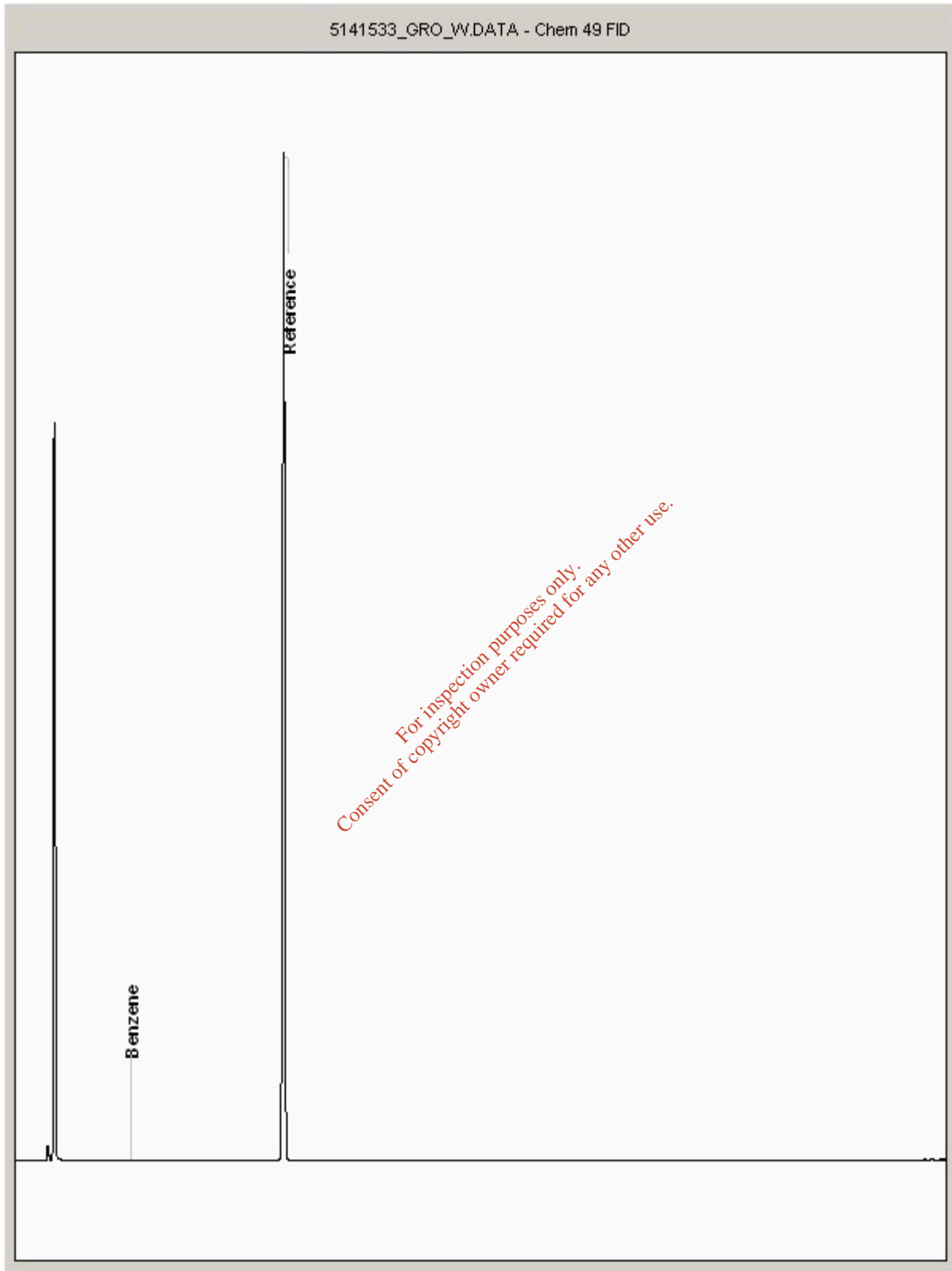
Order Number: 4500089829
Report Number: 170465
Superseded Report: 170459

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 5141533
Sample ID : M3

Depth : 2.70 - 3.70





SDG: 120203-121
Job: D_MOUCHEL_ELE-1
Client Reference:

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

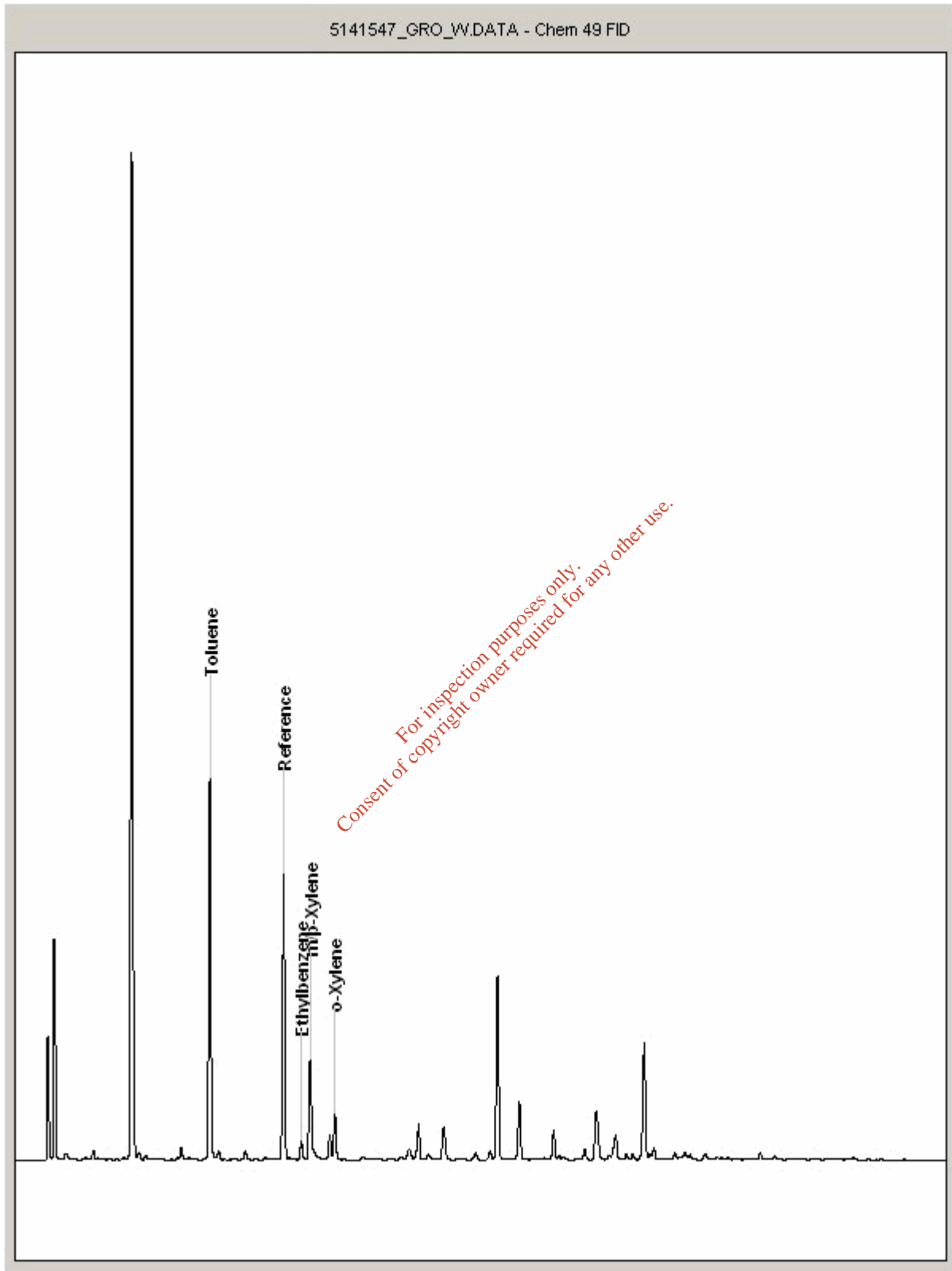
Order Number: 4500089829
Report Number: 170465
Superseded Report: 170459

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 5141547
Sample ID : K5

Depth : 1.00 - 2.00





SDG: 120203-121
Job: D_MOUCHEL_ELE-1
Client Reference:

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

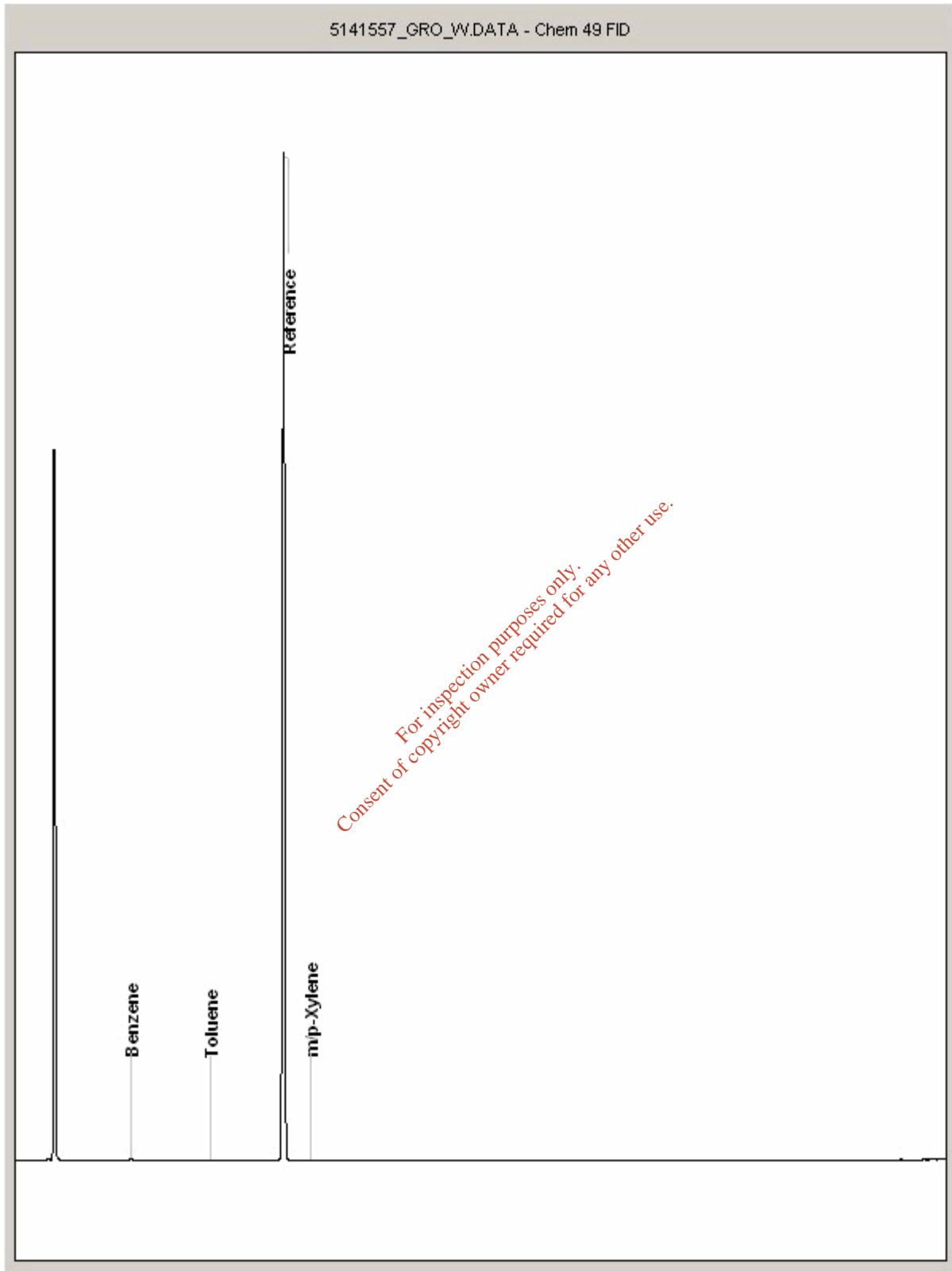
Order Number: 4500089829
Report Number: 170465
Superseded Report: 170459

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 5141557
Sample ID : J10

Depth : 0.00 - 1.00





SDG: 120203-121
Job: D_MOUCHEL_ELE-1
Client Reference:

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

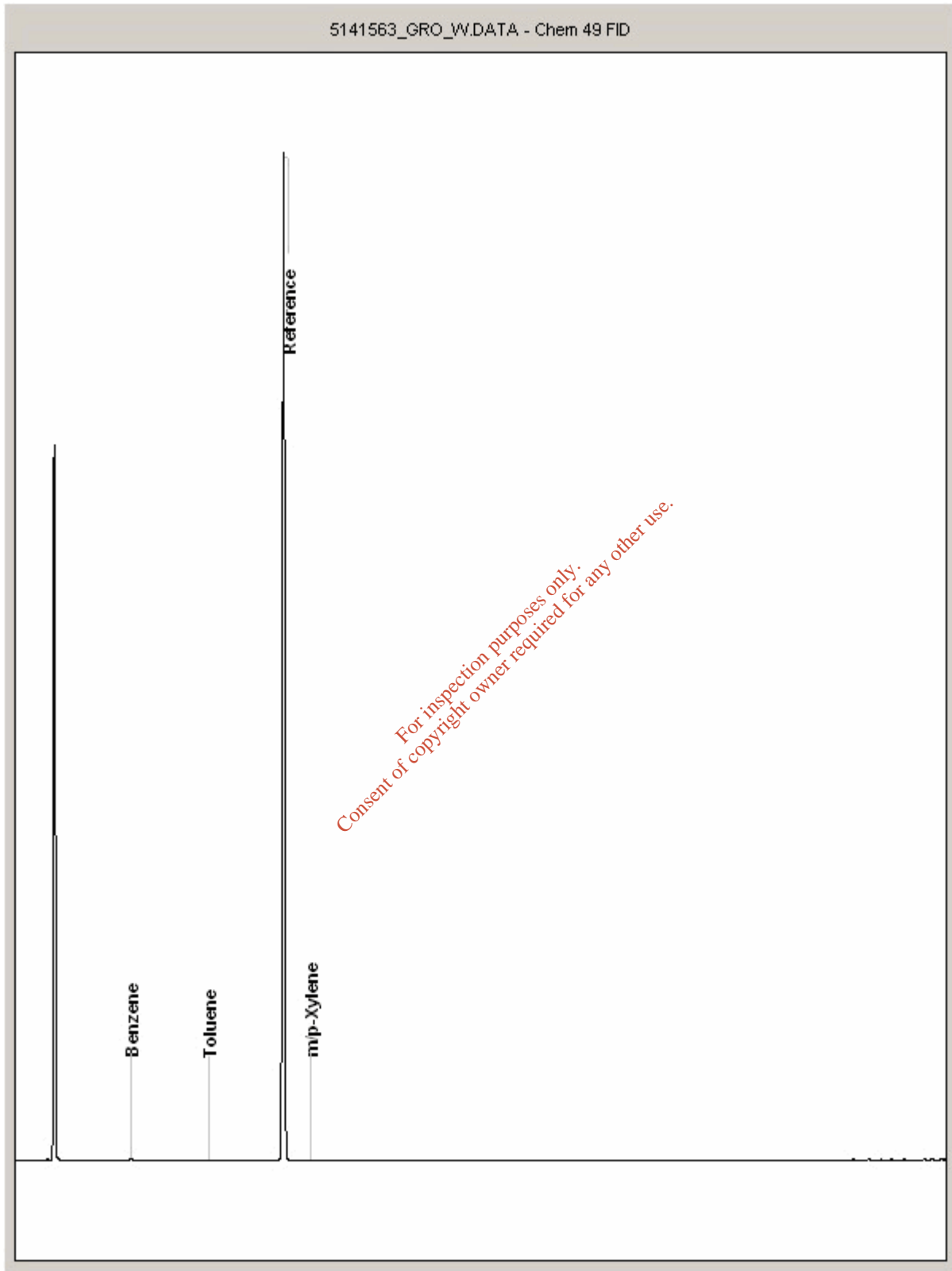
Order Number: 4500089829
Report Number: 170465
Superseded Report: 170459

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 5141563
Sample ID : H12

Depth : 1.10 - 2.00





SDG: 120203-121
Job: D_MOUCHEL_ELE-1
Client Reference:

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

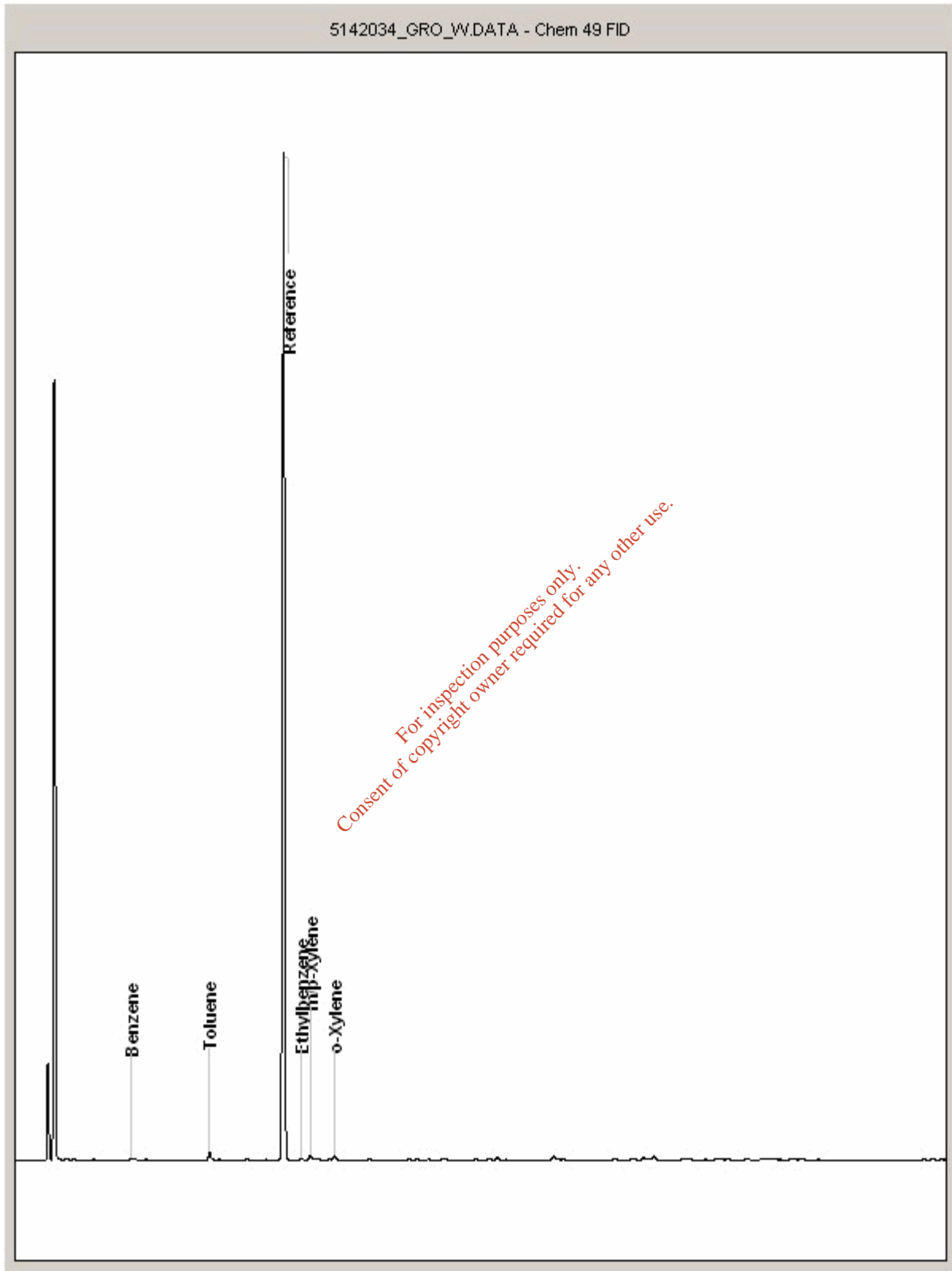
Order Number: 4500089829
Report Number: 170465
Superseded Report: 170459

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 5142034
Sample ID : F11

Depth : 4.00 - 4.80





SDG: 120203-121
Job: D_MOUCHEL_ELE-1
Client Reference:

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

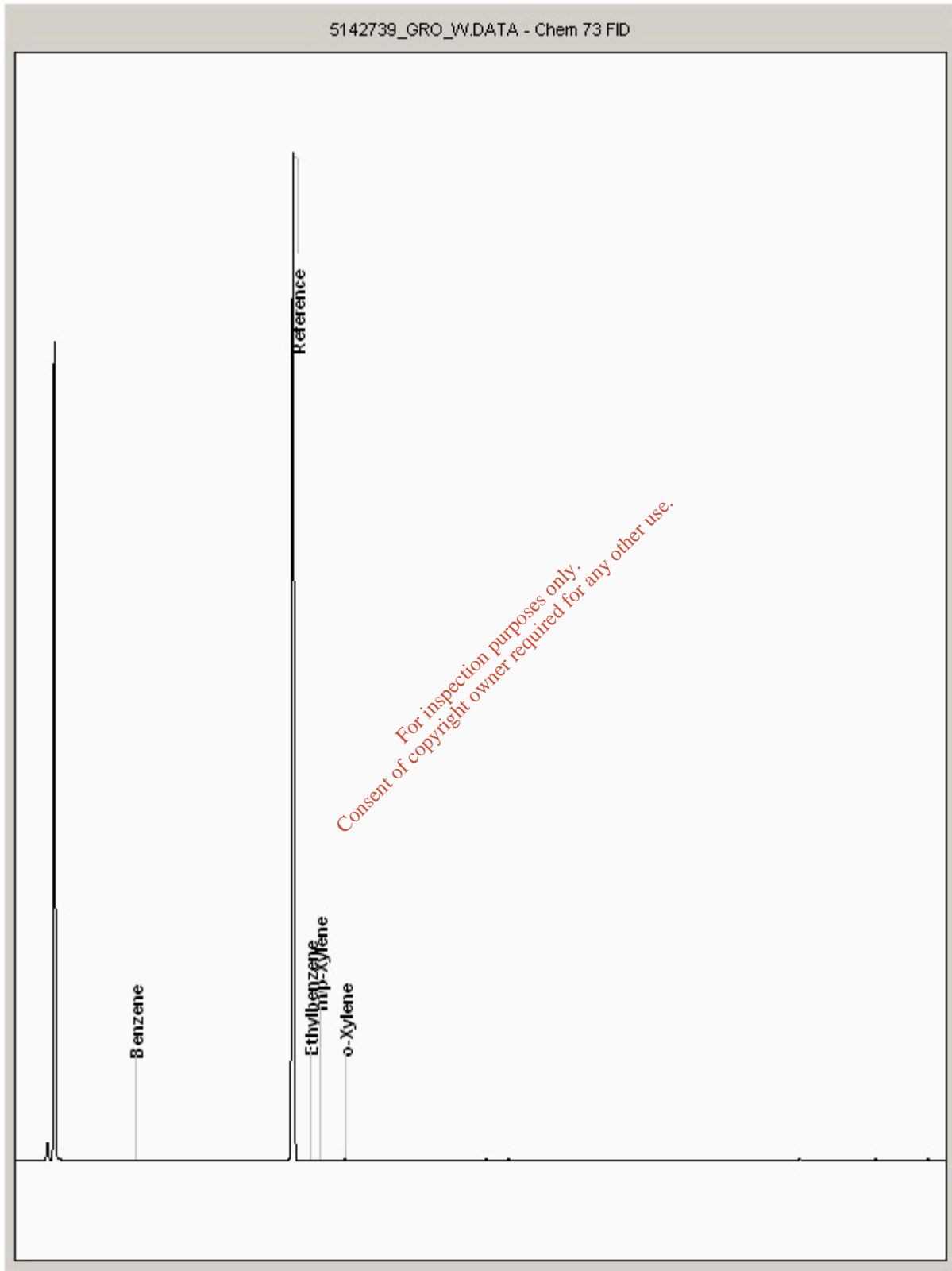
Order Number: 4500089829
Report Number: 170465
Superseded Report: 170459

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 5142739
Sample ID : G5

Depth : 3.00 - 4.00





SDG: 120203-121
Job: D_MOUCHEL_ELE-1
Client Reference:

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

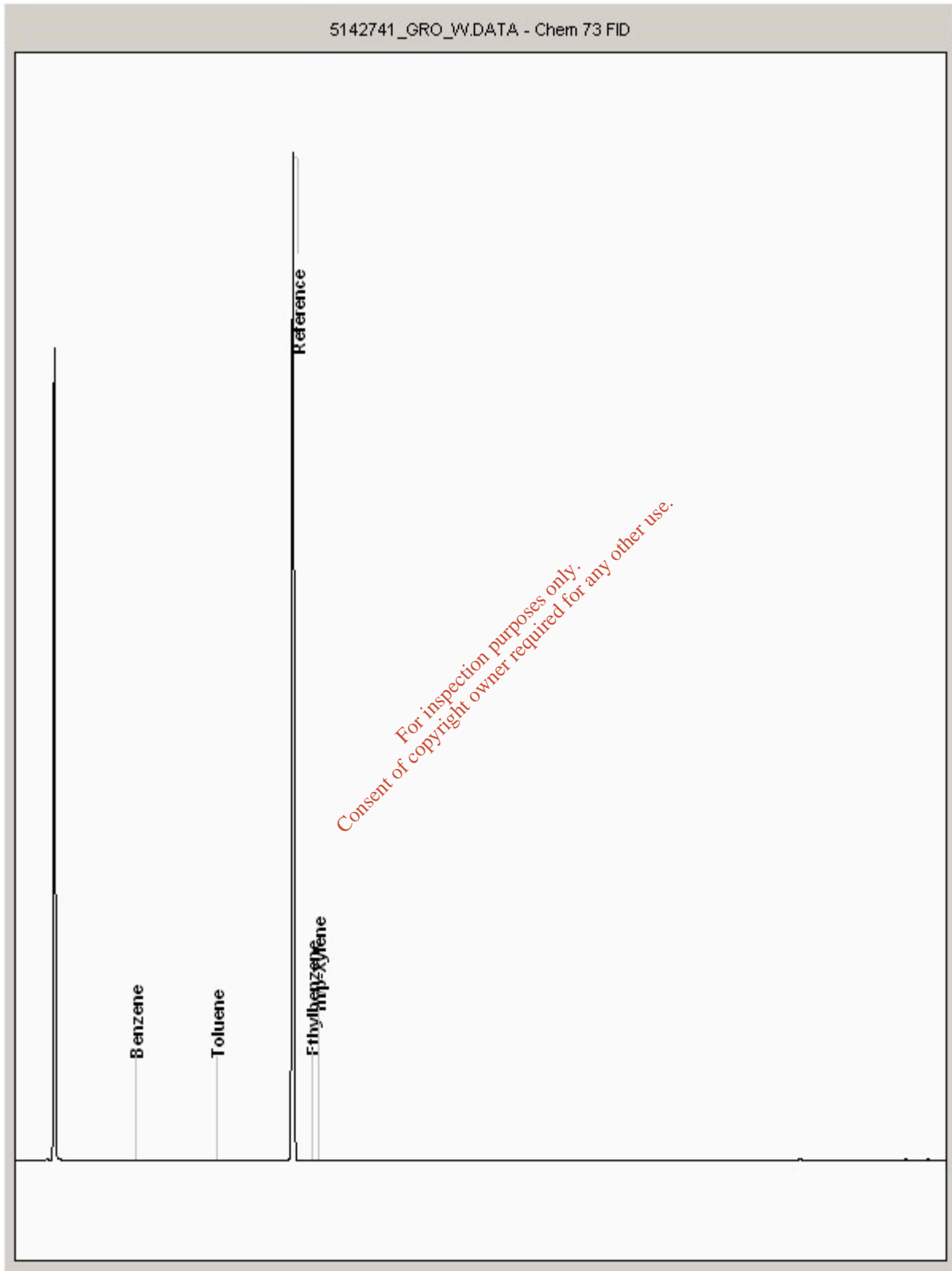
Order Number: 4500089829
Report Number: 170465
Superseded Report: 170459

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 5142741
Sample ID : G3

Depth : 2.50 - 3.50





SDG: 120203-121
Job: D_MOUCHEL_ELE-1
Client Reference:

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

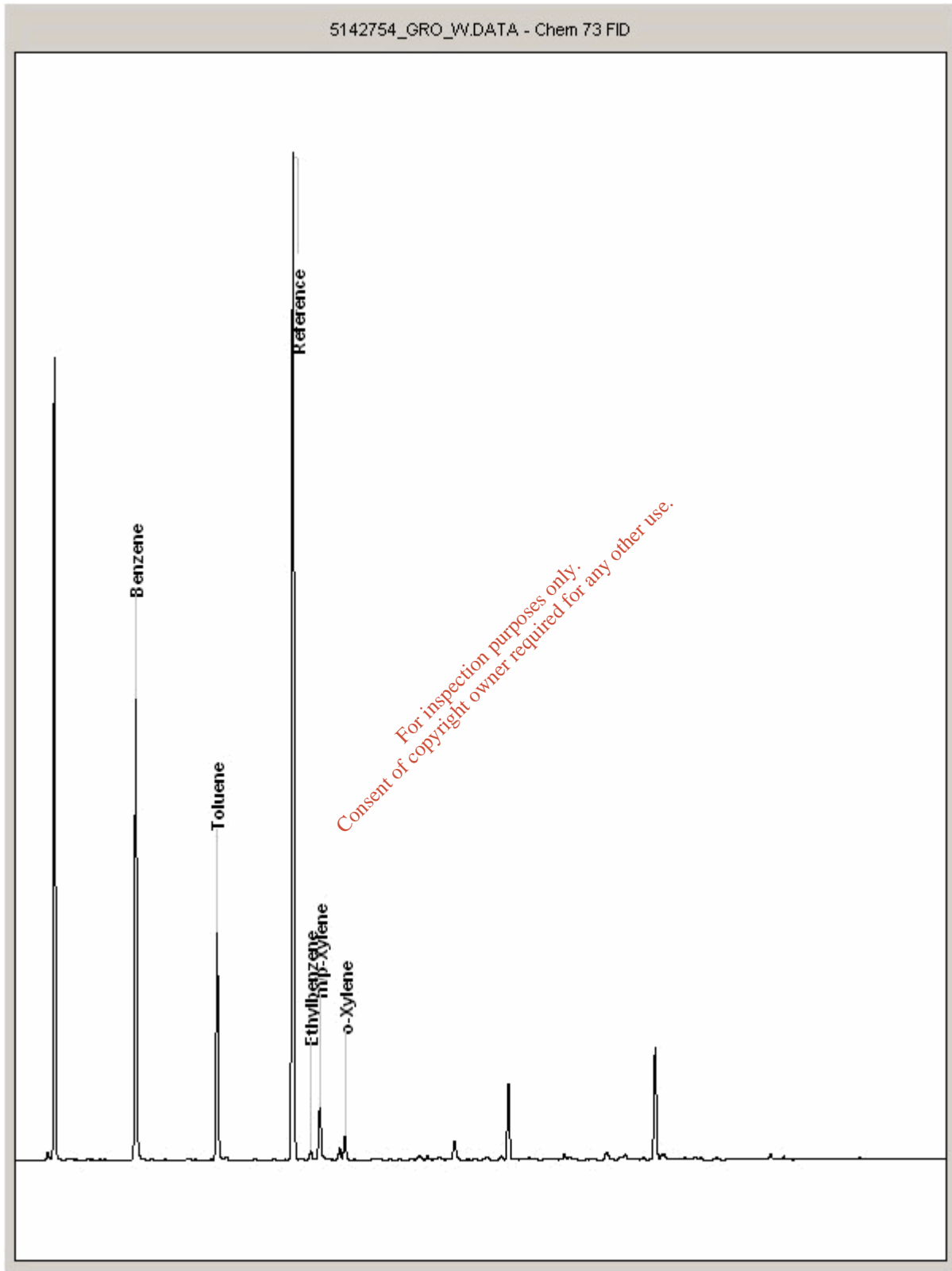
Order Number: 4500089829
Report Number: 170465
Superseded Report: 170459

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 5142754
Sample ID : C7

Depth : 5.50 - 6.50





SDG: 120203-121
Job: D_MOUCHEL_ELE-1
Client Reference:

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

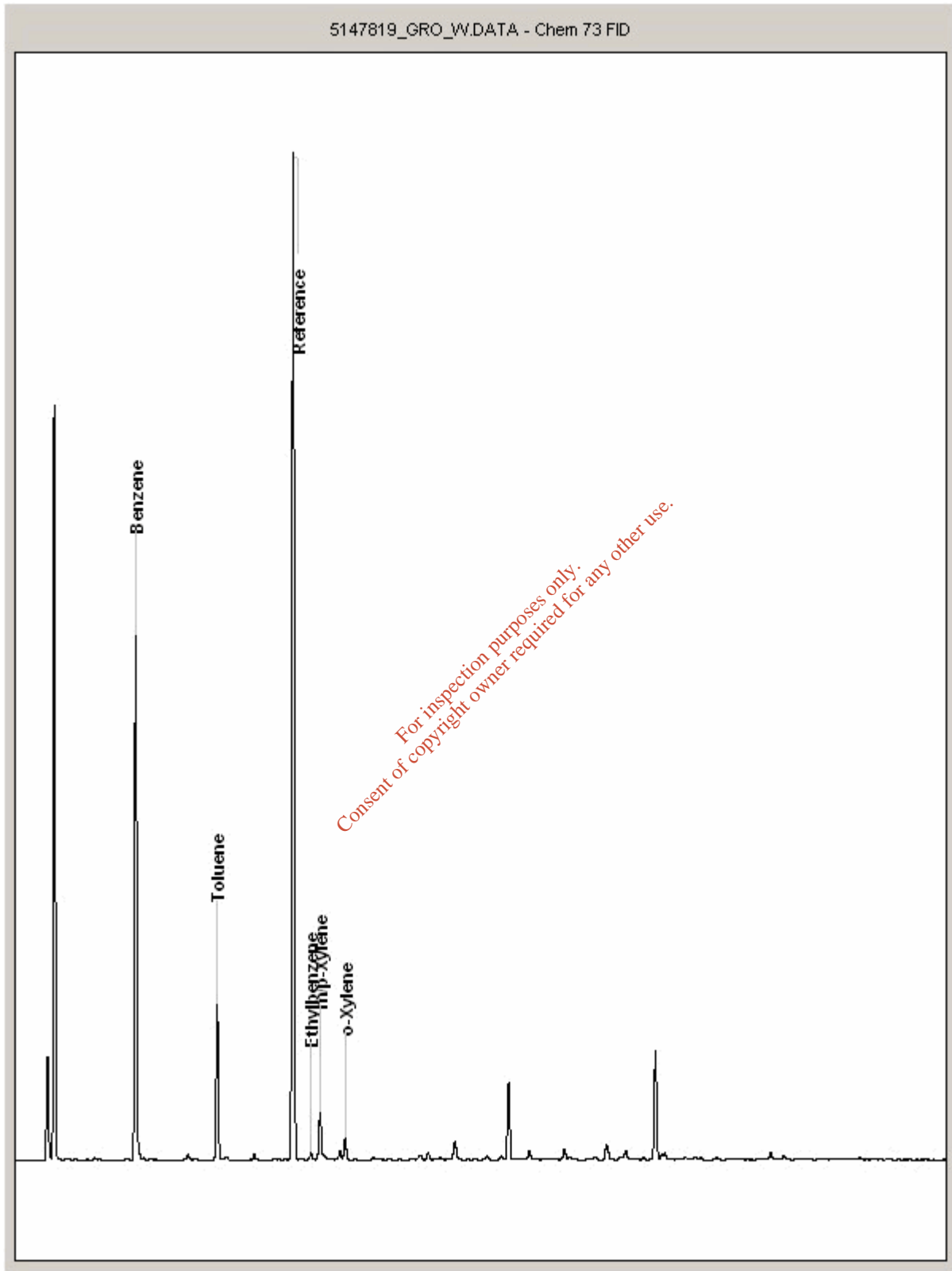
Order Number: 4500089829
Report Number: 170465
Superseded Report: 170459

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 5147819
Sample ID : E8

Depth : 1.00 - 2.00



SDG: 120203-121
 Job: D_MOUCHEL_ELE-1
 Client Reference:

Location: Limerick Gasworks
 Customer: Mouchel
 Attention: Neil Balderstone

Order Number: 4500089829
 Report Number: 170465
 Superseded Report: 170459

Appendix

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

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

3. If sufficient sample is received a sub sample will be retained free of charge for 30 days after analysis is completed (e-mailed) for all sample types unless the sample is destroyed on testing. The prepared soil sub sample that is analysed for asbestos will be retained for a period of 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 Dimethylphenol, 3,5 Dimethylphenol).

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

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

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

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

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

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

22. We are accredited to 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 |
| SOLVENTEXTRACTABLE MATTER | D&C | DOM | SOX THERM | GRAVIMETRIC |
| CYCLOHEXANE EXT. MATTER | D&C | CYCLOHEXANE | SOX THERM | GRAVIMETRIC |
| ELEMENTAL SULPHUR | D&C | DOM | SOX THERM | HPLC |
| PHENOLS BY GCMS | WET | DOM | SOX THERM | GC-MS |
| HERBICIDES | D&C | HEXANE ACETONE | SOX THERM | GC-MS |
| PESTICIDES | D&C | HEXANE ACETONE | SOX THERM | 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 CWGBY GC | D&C | HEXANE ACETONE | END OVER END | GC-FID |
| PCBAROCLOR 1254/PCB CON | D&C | HEXANE ACETONE | END OVER END | GC-MS |
| POLYAROMATIC HYDROCARBONS (MS) | WET | HEXANE ACETONE | MICROWAVE TM218. | GC-MS |
| >C6C40 | WET | HEXANE ACETONE | SHAKER | GC-FID |
| POLYAROMATIC HYDROCARBONS RAPID GC | WET | HEXANE ACETONE | SHAKER | GC-FID |
| SEMI VOLATILE ORGANIC COMPOUNDS | WET | DOM ACETONE | SONICATE | GC-MS |

| LIQUID MATRICES EXTRACTION SUMMARY | | | |
|------------------------------------|--------------------|-------------------------------|----------|
| ANALYSIS | EXTRACTION SOLVENT | EXTRACTION METHOD | ANALYSIS |
| PAHMS | 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 |
| PCB7 CONGENERS | HEXANE | STIRRED EXTRACTION (STIR-BAR) | GC-MS |
| PCBAROCLOR 1254 | HEXANE | STIRRED EXTRACTION (STIR-BAR) | GC-MS |
| SVCC | DCM | LIQUID/LIQUID SHAKE | GC-MS |
| FREESULPHUR | DCM | SOLID PHASE EXTRACTION | HPLC |
| PESTOPOPP | 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 (R) | TCE | STIRRED EXTRACTION (STIR-BAR) | R |
| MINERAL OIL BY R | TCE | STIRRED EXTRACTION (STIR-BAR) | R |
| 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 Anorthophyllite | - |
| 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.



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.

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Consent of Copyright owner required for any other use.*

Approved By:

Sonia McWhan

Operations Manager





SDG: 120727-57
Job: D_MOUCHEL_ELE-107
Client Reference: 1034973

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

Order Number: 4500099608
Report Number: 189981
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.

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SDG: 120727-57
Job: D_MOUCHEL_ELE-107
Client Reference: 1034973

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

Order Number: 4500099608
Report Number: 189981
Superseded Report:

Table with columns: Lab Sample No(s), Customer Sample Reference, AGS Reference, Depth (m), Container, and various chemical tests (Ammoniacal Nitrogen, Anions by Kone, Cyanide, etc.). Includes a 'LIQUID Results Legend' with 'X' for Test and 'N' for No Determination Possible.



SDG: 120727-57
 Job: D_MOUCHEL_ELE-107
 Client Reference: 1034973

Location: Limerick Gasworks
 Customer: Mouchel
 Attention: Neil Balderstone

Order Number: 4500099608
 Report Number: 189981
 Superseded Report:

| LIQUID Results Legend | Lab Sample No(s) | Customer Sample Reference | AGS Reference | Depth (m) | Container |
|---|------------------|---------------------------|---------------|-------------|--|
| | | | | | |
| X Test N No Determination Possible | 5947859 | H12 | | 2.00 - 3.00 | Vial (ALE297) H2SO4 (ALE244) 11plastic (ALE221) 11 green glass bottle |
| | 5947857 | F11 | | 3.50 - 4.50 | Vial (ALE297) H2SO4 (ALE244) 11plastic (ALE221) 11 green glass bottle |
| | 5947856 | C11 | | 1.00 - 2.00 | Vial (ALE297) H2SO4 (ALE244) 11plastic (ALE221) 11 green glass bottle |
| | 5947860 | J10 | | 1.50 | Vial (ALE297) H2SO4 (ALE244) 11plastic (ALE221) 11 green glass bottle |
| | 5947863 | K5 | | 1.00 - 2.00 | Vial (ALE297) H2SO4 (ALE244) 11plastic (ALE221) 11 green glass bottle |
| | 5947864 | M3 | | 3.00 - 4.00 | Vial (ALE297) H2SO4 (ALE244) 11plastic (ALE221) 11 green glass bottle |
| | 5947868 | G3 | | 6.00 | Vial (ALE297) H2SO4 (ALE244) 11plastic (ALE221) 11 green glass bottle |
| | 5947866 | G2 | | 3.00 - 4.00 | Vial (ALE297) H2SO4 (ALE244) 11plastic (ALE221) 11 green glass bottle |
| | 5947861 | K1 | | 3.00 - 4.00 | Vial (ALE297) H2SO4 (ALE244) 11plastic (ALE221) 11 green glass bottle |
| | 5947865 | D1 | | 3.00 - 4.00 | Vial (ALE297) H2SO4 (ALE244) 11plastic (ALE221) 11 green glass bottle |
| Ammoniacal Nitrogen | All | NDPs: 0 Tests: 22 | | | |
| Anions by Kone (w) | All | NDPs: 0 Tests: 22 | | | |
| Cyanide Comp/Free/Total/Thiocyanate | All | NDPs: 0 Tests: 22 | | | |
| Dissolved Metals by ICP-MS | All | NDPs: 0 Tests: 22 | | | |
| EPH CWG (Aliphatic) Aqueous GC (W) | All | NDPs: 0 Tests: 22 | | | |
| EPH CWG (Aromatic) Aqueous GC (W) | All | NDPs: 0 Tests: 22 | | | |
| GRO by GC-FID (W) | All | NDPs: 0 Tests: 22 | | | |
| Hexavalent Chromium (w) | All | NDPs: 0 Tests: 22 | | | |
| Mercury Dissolved | All | NDPs: 0 Tests: 22 | | | |
| PAH Spec MS - Aqueous (W) | All | NDPs: 0 Tests: 22 | | | |
| pH Value | All | NDPs: 0 Tests: 22 | | | |
| Phenols by HPLC (W) | All | NDPs: 0 Tests: 22 | | | |
| Sulphide | All | NDPs: 0 Tests: 22 | | | |
| TPH CWG (W) | All | NDPs: 0 Tests: 22 | | | |
| VOC MS (W) | All | NDPs: 0 Tests: 11 | | | |



SDG: 120727-57
 Job: D_MOUCHEL_ELE-107
 Client Reference: 1034973

Location: Limerick Gasworks
 Customer: Mouchel
 Attention: Neil Balderstone

Order Number: 4500099608
 Report Number: 189981
 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 | 1 green glass bottle H2SO4 (ALE244) 1 plastic (ALE221) Vial (ALE297) | 1 green glass bottle H2SO4 (ALE244) 1 plastic (ALE221) 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 |
| 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 |
| 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 |

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CERTIFICATE OF ANALYSIS

SDG: 120727-57
Job: D_MOUCHEL_ELE-107
Client Reference: 1034973

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

Order Number: 4500099608
Report Number: 189981
Superseded Report:

| Results Legend | | Customer Sample R | A1 | A3 | A4 | A9 | A11 | C2 |
|-------------------------------------|--|--|--------------|--------------|--------------|--------------|--------------|--------------|
| # | ISO17025 accredited. | Depth (m) Sample Type Date Sampled Sampled Time Date Received SDG Ref Lab Sample No.(s) AGS Reference | A1 | A3 | A4 | A9 | A11 | C2 |
| M | mCERTS accredited. | | 1.50 - 2.50 | 1.50 - 2.50 | 2.00 - 3.00 | 2.00 | 1.00 - 2.00 | 1.00 - 2.00 |
| S | Deviating sample. | | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) |
| aq | Aqueous / settled sample. | | 25/07/2012 | 25/07/2012 | 25/07/2012 | 25/07/2012 | 25/07/2012 | 25/07/2012 |
| diss.filt | Dissolved / filtered sample. | | 13:00 | 12:50 | 12:45 | 12:20 | 12:10 | 13:15 |
| tot.unfilt | Total / unfiltered sample. | | 27/07/2012 | 27/07/2012 | 27/07/2012 | 27/07/2012 | 27/07/2012 | 27/07/2012 |
| * | Subcontracted test. | | 120727-57 | 120727-57 | 120727-57 | 120727-57 | 120727-57 | 120727-57 |
| ** | % 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 | | 5947849 | 5947850 | 5947852 | 5947842 | 5947855 | 5947853 |
| (F) | Trigger breach confirmed | | | | | | | |
| Component | LOD/Units | | Method | | | | | |
| 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
Job: D_MOUCHEL_ELE-107
Client Reference: 1034973

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

Order Number: 4500099608
Report Number: 189981
Superseded Report:

| Results Legend | | Customer Sample R | C7 | C11 | D1 | D5 | E8 | F11 |
|-------------------------------------|--|--|--------------|--------------|--------------|--------------|--------------|--------------|
| # | ISO17025 accredited. | Depth (m) Sample Type Date Sampled Sampled Time Date Received SDG Ref Lab Sample No.(s) AGS Reference | | | | | | |
| M | mCERTS accredited. | | 4.00 | 1.00 - 2.00 | 3.00 - 4.00 | 1.75 | 4.00 | 3.50 - 4.50 |
| S | Deviating sample. | | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) |
| aq | Aqueous / settled sample. | | 25/07/2012 | 25/07/2012 | 25/07/2012 | 25/07/2012 | 25/07/2012 | 25/07/2012 |
| diss.filt | Dissolved / filtered sample. | | 13:18 | 12:00 | 15:00 | 12:51 | 12:00 | 11:45 |
| tot.unfilt | Total / unfiltered sample. | | 27/07/2012 | 27/07/2012 | 27/07/2012 | 27/07/2012 | 27/07/2012 | 27/07/2012 |
| * | Subcontracted test. | | 120727-57 | 120727-57 | 120727-57 | 120727-57 | 120727-57 | 120727-57 |
| ** | % 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 | | 5947843 | 5947856 | 5947865 | 5947844 | 5947847 | 5947857 |
| (F) | Trigger breach confirmed | | | | | | | |
| Component | LOD/Units | | Method | | | | | |
| 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
Job: D_MOUCHEL_ELE-107
Client Reference: 1034973

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

Order Number: 4500099608
Report Number: 189981
Superseded Report:

| Results Legend | | Customer Sample R | G2 | G3 | G4 | G5 | G8 | H12 |
|-------------------------------------|--|--|--------------|--------------|--------------|--------------|--------------|--------------|
| # | ISO17025 accredited. | Depth (m) Sample Type Date Sampled Sampled Time Date Received SDG Ref Lab Sample No.(s) AGS Reference | 3.00 - 4.00 | 6.00 | 3.50 | 5.00 | 1.00 | 2.00 - 3.00 |
| M | mCERTS accredited. | | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) |
| S | Deviating sample. | | 25/07/2012 | 25/07/2012 | 25/07/2012 | 25/07/2012 | 25/07/2012 | 25/07/2012 |
| aq | Aqueous / settled sample. | | 15:45 | 15:57 | 16:10 | 15:01 | 13:06 | 12:30 |
| diss.filt | Dissolved / filtered sample. | | 27/07/2012 | 27/07/2012 | 27/07/2012 | 27/07/2012 | 27/07/2012 | 27/07/2012 |
| tot.unfilt | Total / unfiltered sample. | | 120727-57 | 120727-57 | 120727-57 | 120727-57 | 120727-57 | 120727-57 |
| * | Subcontracted test. | | 5947866 | 5947868 | 5947869 | 5947870 | 5947848 | 5947859 |
| ** | % 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 | | | | | |
| 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
Job: D_MOUCHEL_ELE-107
Client Reference: 1034973

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

Order Number: 4500099608
Report Number: 189981
Superseded Report:

| Results Legend | | Customer Sample R | J10 | K1 | K5 | M3 | | |
|-------------------------------------|--|--|--------------|--------------|--------------|--------------|--|--|
| # | ISO17025 accredited. | Depth (m) Sample Type Date Sampled Sampled Time Date Received SDG Ref Lab Sample No.(s) AGS Reference | J10 | K1 | K5 | M3 | | |
| M | mCERTS accredited. | | 1.50 | 3.00 - 4.00 | 1.00 - 2.00 | 3.00 - 4.00 | | |
| S | Deviating sample. | | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | | |
| aq | Aqueous / settled sample. | | 25/07/2012 | 25/07/2012 | 25/07/2012 | 25/07/2012 | | |
| diss.filt | Dissolved / filtered sample. | | 11:05 | 11:15 | 10:40 | 09:50 | | |
| tot.unfilt | Total / unfiltered sample. | | 27/07/2012 | 27/07/2012 | 27/07/2012 | 27/07/2012 | | |
| * | Subcontracted test. | | 120727-57 | 120727-57 | 120727-57 | 120727-57 | | |
| ** | % 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 | | 5947860 | 5947861 | 5947863 | 5947864 | | |
| (F) | Trigger breach confirmed | | | | | | | |
| Component | LOD/Units | | Method | | | | | |
| 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
Job: D_MOUCHEL_ELE-107
Client Reference: 1034973

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

Order Number: 4500099608
Report Number: 189981
Superseded Report:

PAH Spec MS - Aqueous (W)

| Results Legend | | Customer Sample R | A1 | A3 | A4 | A9 | A11 | C2 |
|-----------------------------------|--|--|--------------|--------------|--------------|--------------|--------------|--------------|
| # | ISO17025 accredited. | Depth (m) Sample Type Date Sampled Sampled Time Date Received SDG Ref Lab Sample No.(s) AGS Reference | 1.50 - 2.50 | 1.50 - 2.50 | 2.00 - 3.00 | 2.00 | 1.00 - 2.00 | 1.00 - 2.00 |
| M | mCERTS accredited. | | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) |
| S | Deviating sample. | | 25/07/2012 | 25/07/2012 | 25/07/2012 | 25/07/2012 | 25/07/2012 | 25/07/2012 |
| aq | Aqueous / settled sample. | | 13:00 | 12:50 | 12:45 | 12:20 | 12:10 | 13:15 |
| diss.filt | Dissolved / filtered sample. | | 27/07/2012 | 27/07/2012 | 27/07/2012 | 27/07/2012 | 27/07/2012 | 27/07/2012 |
| tot.unfilt | Total / unfiltered sample. | | 120727-57 | 120727-57 | 120727-57 | 120727-57 | 120727-57 | 120727-57 |
| * | Subcontracted test. | | 5947849 | 5947850 | 5947852 | 5947842 | 5947855 | 5947853 |
| ** | % 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 | | | | | |
| 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 |

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CERTIFICATE OF ANALYSIS

SDG: 120727-57
Job: D_MOUCHEL_ELE-107
Client Reference: 1034973

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

Order Number: 4500099608
Report Number: 189981
Superseded Report:

PAH Spec MS - Aqueous (W)

| Results Legend | | Customer Sample R | C7 | C11 | D1 | D5 | E8 | F11 |
|-----------------------------------|--|--|--------------|--------------|--------------|--------------|--------------|--------------|
| # | ISO17025 accredited. | Depth (m) Sample Type Date Sampled Sampled Time Date Received SDG Ref Lab Sample No.(s) AGS Reference | 4.00 | 1.00 - 2.00 | 3.00 - 4.00 | 1.75 | 4.00 | 3.50 - 4.50 |
| M | mCERTS accredited. | | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) |
| S | Deviating sample. | | 25/07/2012 | 25/07/2012 | 25/07/2012 | 25/07/2012 | 25/07/2012 | 25/07/2012 |
| aq | Aqueous / settled sample. | | 13:18 | 12:00 | 15:00 | 12:51 | 12:00 | 11:45 |
| diss.filt | Dissolved / filtered sample. | | 27/07/2012 | 27/07/2012 | 27/07/2012 | 27/07/2012 | 27/07/2012 | 27/07/2012 |
| tot.unfilt | Total / unfiltered sample. | | 120727-57 | 120727-57 | 120727-57 | 120727-57 | 120727-57 | 120727-57 |
| * | Subcontracted test. | | 5947843 | 5947856 | 5947865 | 5947844 | 5947847 | 5947857 |
| ** | % 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 | | | | | |
| 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 # | 0.566 # | 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 |

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CERTIFICATE OF ANALYSIS

SDG: 120727-57
Job: D_MOUCHEL_ELE-107
Client Reference: 1034973

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

Order Number: 4500099608
Report Number: 189981
Superseded Report:

PAH Spec MS - Aqueous (W)

| Results Legend | | | Customer Sample R | | | | | | |
|-----------------------------------|--|--------------------------|-------------------|--------------|--------------|--------------|--------------|--------------|--|
| # | ISO17025 accredited. | | G2 | G3 | G4 | G5 | G8 | H12 | |
| M | mCERTS accredited. | | | | | | | | |
| S | Deviating sample. | | | | | | | | |
| aq | Aqueous / settled sample. | Depth (m) | 3.00 - 4.00 | 6.00 | 3.50 | 5.00 | 1.00 | 2.00 - 3.00 | |
| diss.filt | Dissolved / filtered sample. | Sample Type | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | |
| tot.unfilt | Total / unfiltered sample. | Date Sampled | 25/07/2012 | 25/07/2012 | 25/07/2012 | 25/07/2012 | 25/07/2012 | 25/07/2012 | |
| * | Subcontracted test. | Sampled Time | 15:45 | 15:57 | 16:10 | 15:01 | 13:06 | 12:30 | |
| ** | % 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 | Date Received | 27/07/2012 | 27/07/2012 | 27/07/2012 | 27/07/2012 | 27/07/2012 | 27/07/2012 | |
| (F) | Trigger breach confirmed | 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 | | | | | | | |
| Component | LOD/Units | Method | | | | | | | |
| 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 | |

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CERTIFICATE OF ANALYSIS

SDG: 120727-57
 Job: D_MOUCHEL_ELE-107
 Client Reference: 1034973

Location: Limerick Gasworks
 Customer: Mouchel
 Attention: Neil Balderstone

Order Number: 4500099608
 Report Number: 189981
 Superseded Report:

PAH Spec MS - Aqueous (W)

| Results Legend | | Customer Sample R | J10 | K1 | K5 | M3 | | |
|-----------------------------------|--|--|--------------|--------------|--------------|--------------|--|--|
| # | ISO17025 accredited. | Depth (m) Sample Type Date Sampled Sampled Time Date Received SDG Ref Lab Sample No.(s) AGS Reference | | | | | | |
| M | mCERTS accredited. | | 1.50 | 3.00 - 4.00 | 1.00 - 2.00 | 3.00 - 4.00 | | |
| S | Deviating sample. | | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | | |
| aq | Aqueous / settled sample. | | 25/07/2012 | 25/07/2012 | 25/07/2012 | 25/07/2012 | | |
| diss.filt | Dissolved / filtered sample. | | 11:05 | 11:15 | 10:40 | 09:50 | | |
| tot.unfilt | Total / unfiltered sample. | | 27/07/2012 | 27/07/2012 | 27/07/2012 | 27/07/2012 | | |
| * | Subcontracted test. | | 120727-57 | 120727-57 | 120727-57 | 120727-57 | | |
| ** | % 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 | | 5947860 | 5947861 | 5947863 | 5947864 | | |
| (F) | Trigger breach confirmed | | | | | | | |
| Component | LOD/Units | | Method | | | | | |
| 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 | | |

Consent of copyright owner required for any other use.



SDG: 120727-57
 Job: D_MOUCHEL_ELE-107
 Client Reference: 1034973

Location: Limerick Gasworks
 Customer: Mouchel
 Attention: Neil Balderstone

Order Number: 4500099608
 Report Number: 189981
 Superseded Report:

TPH CWG (W)

| Results Legend | | Customer Sample R | A1 | A3 | A4 | A9 | A11 | C2 |
|--|--|--|--------------|--------------|--------------|--------------|--------------|--------------|
| # | ISO17025 accredited. | Depth (m) Sample Type Date Sampled Sampled Time Date Received SDG Ref Lab Sample No.(s) AGS Reference | 1.50 - 2.50 | 1.50 - 2.50 | 2.00 - 3.00 | 2.00 | 1.00 - 2.00 | 1.00 - 2.00 |
| M | mCERTS accredited. | | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) |
| S | Deviating sample. | | 25/07/2012 | 25/07/2012 | 25/07/2012 | 25/07/2012 | 25/07/2012 | 25/07/2012 |
| aq | Aqueous / settled sample. | | 13:00 | 12:50 | 12:45 | 12:20 | 12:10 | 13:15 |
| diss.filt | Dissolved / filtered sample. | | 27/07/2012 | 27/07/2012 | 27/07/2012 | 27/07/2012 | 27/07/2012 | 27/07/2012 |
| tot.unfilt | Total / unfiltered sample. | | 120727-57 | 120727-57 | 120727-57 | 120727-57 | 120727-57 | 120727-57 |
| * | Subcontracted test. | | 5947849 | 5947850 | 5947852 | 5947842 | 5947855 | 5947853 |
| ** | % 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 | | | | | |
| 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 # |



SDG: 120727-57
 Job: D_MOUCHEL_ELE-107
 Client Reference: 1034973

Location: Limerick Gasworks
 Customer: Mouchel
 Attention: Neil Balderstone

Order Number: 4500099608
 Report Number: 189981
 Superseded Report:

TPH CWG (W)

| Results Legend | | Customer Sample R | C7 | C11 | D1 | D5 | E8 | F11 |
|--|--|--|--------------|--------------|--------------|--------------|--------------|--------------|
| # | ISO17025 accredited. | Depth (m) Sample Type Date Sampled Sampled Time Date Received SDG Ref Lab Sample No.(s) AGS Reference | 4.00 | 1.00 - 2.00 | 3.00 - 4.00 | 1.75 | 4.00 | 3.50 - 4.50 |
| M | mCERTS accredited. | | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) |
| S | Deviating sample. | | 25/07/2012 | 25/07/2012 | 25/07/2012 | 25/07/2012 | 25/07/2012 | 25/07/2012 |
| aq | Aqueous / settled sample. | | 13:18 | 12:00 | 15:00 | 12:51 | 12:00 | 11:45 |
| diss.filt | Dissolved / filtered sample. | | 27/07/2012 | 27/07/2012 | 27/07/2012 | 27/07/2012 | 27/07/2012 | 27/07/2012 |
| tot.unfilt | Total / unfiltered sample. | | 120727-57 | 120727-57 | 120727-57 | 120727-57 | 120727-57 | 120727-57 |
| * | Subcontracted test. | | 5947843 | 5947856 | 5947865 | 5947844 | 5947847 | 5947857 |
| ** | % 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 | | | | | |
| 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 |



SDG: 120727-57
Job: D_MOUCHEL_ELE-107
Client Reference: 1034973

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

Order Number: 4500099608
Report Number: 189981
Superseded Report:

TPH CWG (W)

| Results Legend | | | Customer Sample R | | G2 | G3 | G4 | G5 | G8 | H12 |
|--|--|--------|-------------------|------|--------------|--------------|--------------|--------------|--------------|--------------|
| # | ISO17025 accredited. | | Depth (m) | | 3.00 - 4.00 | 6.00 | 3.50 | 5.00 | 1.00 | 2.00 - 3.00 |
| M | mCERTS accredited. | | Sample Type | | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) |
| S | Deviating sample. | | Date Sampled | | 25/07/2012 | 25/07/2012 | 25/07/2012 | 25/07/2012 | 25/07/2012 | 25/07/2012 |
| aq | Aqueous / settled sample. | | Sampled Time | | 15:45 | 15:57 | 16:10 | 15:01 | 13:06 | 12:30 |
| diss.filt | Dissolved / filtered sample. | | Date Received | | 27/07/2012 | 27/07/2012 | 27/07/2012 | 27/07/2012 | 27/07/2012 | 27/07/2012 |
| tot.unfilt | Total / unfiltered sample. | | SDG Ref | | 120727-57 | 120727-57 | 120727-57 | 120727-57 | 120727-57 | 120727-57 |
| * | Subcontracted test. | | Lab Sample No.(s) | | 5947866 | 5947868 | 5947869 | 5947870 | 5947848 | 5947859 |
| ** | % 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 | | AGS Reference | | | | | | | |
| (F) | Trigger breach confirmed | | | | | | | | | |
| Component | LOD/Units | Method | | | | | | | | |
| 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 | 62 | <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 | | |



SDG: 120727-57
 Job: D_MOUCHEL_ELE-107
 Client Reference: 1034973

Location: Limerick Gasworks
 Customer: Mouchel
 Attention: Neil Balderstone

Order Number: 4500099608
 Report Number: 189981
 Superseded Report:

TPH CWG (W)

| Results Legend | | Customer Sample R | J10 | K1 | K5 | M3 | | |
|--|--|--|--------------|--------------|--------------|--------------|---|---|
| # | ISO17025 accredited. | Depth (m) Sample Type Date Sampled Sampled Time Date Received SDG Ref Lab Sample No.(s) AGS Reference | J10 | K1 | K5 | M3 | | |
| M | mCERTS accredited. | | 1.50 | 3.00 - 4.00 | 1.00 - 2.00 | 3.00 - 4.00 | | |
| S | Deviating sample. | | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | | |
| aq | Aqueous / settled sample. | | 25/07/2012 | 25/07/2012 | 25/07/2012 | 25/07/2012 | | |
| diss.filt | Dissolved / filtered sample. | | 11:05 | 11:15 | 10:40 | 09:50 | | |
| tot.unfilt | Total / unfiltered sample. | | 27/07/2012 | 27/07/2012 | 27/07/2012 | 27/07/2012 | | |
| * | Subcontracted test. | | 120727-57 | 120727-57 | 120727-57 | 120727-57 | | |
| ** | % 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 | | 5947860 | 5947861 | 5947863 | 5947864 | | |
| (F) | Trigger breach confirmed | | | | | | | |
| Component | LOD/Units | | Method | | | | | |
| 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 | | |



SDG: 120727-57
Job: D_MOUCHEL_ELE-107
Client Reference: 1034973

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

Order Number: 4500099608
Report Number: 189981
Superseded Report:

VOC MS (W)

| Results Legend | | Customer Sample R | A1 | A3 | A4 | A11 | C7 | D1 |
|------------------------------------|--|--|--------------|--------------|--------------|--------------|--------------|--------------|
| # | ISO17025 accredited. | Depth (m) Sample Type Date Sampled Sampled Time Date Received SDG Ref Lab Sample No.(s) AGS Reference | A1 | A3 | A4 | A11 | C7 | D1 |
| M | mCERTS accredited. | | 1.50 - 2.50 | 1.50 - 2.50 | 2.00 - 3.00 | 1.00 - 2.00 | 4.00 | 3.00 - 4.00 |
| S | Deviating sample. | | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) |
| aq | Aqueous / settled sample. | | 25/07/2012 | 25/07/2012 | 25/07/2012 | 25/07/2012 | 25/07/2012 | 25/07/2012 |
| diss.filt | Dissolved / filtered sample. | | 13:00 | 12:50 | 12:45 | 12:10 | 13:18 | 15:00 |
| tot.unfilt | Total / unfiltered sample. | | 27/07/2012 | 27/07/2012 | 27/07/2012 | 27/07/2012 | 27/07/2012 | 27/07/2012 |
| * | Subcontracted test. | | 120727-57 | 120727-57 | 120727-57 | 120727-57 | 120727-57 | 120727-57 |
| ** | % 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 | | 5947849 | 5947850 | 5947852 | 5947855 | 5947843 | 5947865 |
| (F) | Trigger breach confirmed | | | | | | | |
| Component | LOD/Units | | Method | | | | | |
| 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 |



SDG: 120727-57
 Job: D_MOUCHEL_ELE-107
 Client Reference: 1034973

Location: Limerick Gasworks
 Customer: Mouchel
 Attention: Neil Balderstone

Order Number: 4500099608
 Report Number: 189981
 Superseded Report:

VOC MS (W)

| Results Legend | | Customer Sample R | A1 | A3 | A4 | A11 | C7 | D1 |
|-------------------------------|--|--|--------------|--------------|--------------|--------------|--------------|--------------|
| # | ISO17025 accredited. | Depth (m) Sample Type Date Sampled Sampled Time Date Received SDG Ref Lab Sample No.(s) AGS Reference | 1.50 - 2.50 | 1.50 - 2.50 | 2.00 - 3.00 | 1.00 - 2.00 | 4.00 | 3.00 - 4.00 |
| M | mCERTS accredited. | | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) |
| S | Deviating sample. | | 25/07/2012 | 25/07/2012 | 25/07/2012 | 25/07/2012 | 25/07/2012 | 25/07/2012 |
| aq | Aqueous / settled sample. | | 13:00 | 12:50 | 12:45 | 12:10 | 13:18 | 15:00 |
| diss.filt | Dissolved / filtered sample. | | 27/07/2012 | 27/07/2012 | 27/07/2012 | 27/07/2012 | 27/07/2012 | 27/07/2012 |
| tot.unfilt | Total / unfiltered sample. | | 120727-57 | 120727-57 | 120727-57 | 120727-57 | 120727-57 | 120727-57 |
| * | Subcontracted test. | | 5947849 | 5947850 | 5947852 | 5947855 | 5947843 | 5947865 |
| ** | % 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 | | | | | |
| 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 # | 2.42 # | <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 # |



SDG: 120727-57
 Job: D_MOUCHEL_ELE-107
 Client Reference: 1034973

Location: Limerick Gasworks
 Customer: Mouchel
 Attention: Neil Balderstone

Order Number: 4500099608
 Report Number: 189981
 Superseded Report:

VOC MS (W)

| Results Legend | | Customer Sample R | G2 | G4 | G5 | K5 | M3 | |
|------------------------------------|--|--|--|---|---|--|--|--------|
| # | ISO17025 accredited. | Depth (m) Sample Type Date Sampled Sampled Time Date Received SDG Ref Lab Sample No.(s) AGS Reference | 3.00 - 4.00 Water(GW/SW) 25/07/2012 15:45 27/07/2012 120727-57 5947866 | 3.50 Water(GW/SW) 25/07/2012 16:10 27/07/2012 120727-57 5947869 | 5.00 Water(GW/SW) 25/07/2012 15:01 27/07/2012 120727-57 5947870 | 1.00 - 2.00 Water(GW/SW) 25/07/2012 10:40 27/07/2012 120727-57 5947863 | 3.00 - 4.00 Water(GW/SW) 25/07/2012 09:50 27/07/2012 120727-57 5947864 | |
| M | mCERTS accredited. | | | | | | | |
| S | 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 |
| 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 | # |



SDG: 120727-57
 Job: D_MOUCHEL_ELE-107
 Client Reference: 1034973

Location: Limerick Gasworks
 Customer: Mouchel
 Attention: Neil Balderstone

Order Number: 4500099608
 Report Number: 189981
 Superseded Report:

VOC MS (W)

| Results Legend | | | Customer Sample R | | G2 | G4 | G5 | K5 | M3 | |
|-------------------------------|--|--------|-------------------|---|--------------|--------------|--------------|--------------|--------------|---|
| # | ISO17025 accredited. | | Depth (m) | | 3.00 - 4.00 | 3.50 | 5.00 | 1.00 - 2.00 | 3.00 - 4.00 | |
| M | mCERTS accredited. | | Sample Type | | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | |
| S | Deviating sample. | | Date Sampled | | 25/07/2012 | 25/07/2012 | 25/07/2012 | 25/07/2012 | 25/07/2012 | |
| aq | Aqueous / settled sample. | | Sampled Time | | 15:45 | 16:10 | 15:01 | 10:40 | 09:50 | |
| diss.filt | Dissolved / filtered sample. | | Date Received | | 27/07/2012 | 27/07/2012 | 27/07/2012 | 27/07/2012 | 27/07/2012 | |
| tot.unfilt | Total / unfiltered sample. | | SDG Ref | | 120727-57 | 120727-57 | 120727-57 | 120727-57 | 120727-57 | |
| ** | Subcontracted test. | | Lab Sample No.(s) | | 5947866 | 5947869 | 5947870 | 5947863 | 5947864 | |
| * | % 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 | | AGS Reference | | | | | | | |
| (F) | Trigger breach confirmed | | | | | | | | | |
| Component | LOD/Units | Method | | | | | | | | |
| 1,2-Dibromoethane | <1 µg/l | TM208 | <1 | # | <1 | # | <1 | # | <1 | # |
| Chlorobenzene | <1 µg/l | TM208 | <1 | # | <1 | # | <1 | # | <1 | # |
| 1,1,1,2-Tetrachloroethane | <1 µg/l | TM208 | <1 | # | <1 | # | <1 | # | <1 | # |
| Ethylbenzene | <1 µg/l | TM208 | 458 | # | 158 | # | <1 | # | <1 | # |
| m,p-Xylene | <1 µg/l | TM208 | 1690 | # | 1080 | # | <1 | # | <1 | # |
| o-Xylene | <1 µg/l | TM208 | 805 | # | 431 | # | <1 | # | <1 | # |
| Styrene | <1 µg/l | TM208 | <1 | # | <1 | # | <1 | # | <1 | # |
| Bromoform | <1 µg/l | TM208 | <1 | # | <1 | # | <1 | # | <1 | # |
| Isopropylbenzene | <1 µg/l | TM208 | 30.8 | # | 9.89 | # | <1 | # | <1 | # |
| 1,1,2,2-Tetrachloroethane | <1 µg/l | TM208 | <1 | # | <1 | # | <1 | # | <1 | # |
| 1,2,3-Trichloropropane | <1 µg/l | TM208 | <1 | # | <1 | # | <1 | # | <1 | # |
| Bromobenzene | <1 µg/l | TM208 | <1 | # | <1 | # | <1 | # | <1 | # |
| Propylbenzene | <1 µg/l | TM208 | 33.7 | # | 7.6 | # | <1 | # | <1 | # |
| 2-Chlorotoluene | <1 µg/l | TM208 | <1 | # | <1 | # | <1 | # | <1 | # |
| 1,3,5-Trimethylbenzene | <1 µg/l | TM208 | 103 | # | 99.4 | # | <1 | # | <1 | # |
| 4-Chlorotoluene | <1 µg/l | TM208 | <1 | # | <1 | # | <1 | # | <1 | # |
| tert-Butylbenzene | <1 µg/l | TM208 | <1 | # | <1 | # | <1 | # | <1 | # |
| 1,2,4-Trimethylbenzene | <1 µg/l | TM208 | 407 | # | 243 | # | <1 | # | <1 | # |
| sec-Butylbenzene | <1 µg/l | TM208 | 2 | # | 1.14 | # | <1 | # | <1 | # |
| 4-iso-Propyltoluene | <1 µg/l | TM208 | <1 | # | <1 | # | <1 | # | <1 | # |
| 1,3-Dichlorobenzene | <1 µg/l | TM208 | <1 | # | <1 | # | <1 | # | <1 | # |
| 1,4-Dichlorobenzene | <1 µg/l | TM208 | <1 | # | <1 | # | <1 | # | <1 | # |
| n-Butylbenzene | <1 µg/l | TM208 | <1 | # | <1 | # | <1 | # | <1 | # |
| 1,2-Dichlorobenzene | <1 µg/l | TM208 | <1 | # | <1 | # | <1 | # | <1 | # |
| 1,2-Dibromo-3-chloropropane | <1 µg/l | TM208 | <1 | # | <1 | # | <1 | # | <1 | # |
| 1,2,4-Trichlorobenzene | <1 µg/l | TM208 | <1 | # | <1 | # | <1 | # | <1 | # |
| Hexachlorobutadiene | <1 µg/l | TM208 | <1 | # | <1 | # | <1 | # | <1 | # |
| tert-Amyl methyl ether (TAME) | <1 µg/l | TM208 | <1 | # | <1 | # | <1 | # | <1 | # |
| Naphthalene | <1 µg/l | TM208 | 3530 | # | 953 | # | <1 | # | <1 | # |
| 1,2,3-Trichlorobenzene | <1 µg/l | TM208 | <1 | # | <1 | # | <1 | # | <1 | # |
| 1,3,5-Trichlorobenzene | <1 µg/l | TM208 | <1 | # | <1 | # | <1 | # | <1 | # |

SDG: 120727-57
Job: D_MOUCHEL_ELE-107
Client Reference: 1034973

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

Order Number: 4500099608
Report Number: 189981
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 |

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CERTIFICATE OF ANALYSIS

SDG: 120727-57
Job: D_MOUCHEL_ELE-107
Client Reference: 1034973

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

Order Number: 4500099608
Report Number: 189981
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 |

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CERTIFICATE OF ANALYSIS

SDG: 120727-57
Job: D_MOUCHEL_ELE-107
Client Reference: 1034973

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

Order Number: 4500099608
Report Number: 189981
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

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CERTIFICATE OF ANALYSIS

SDG: 120727-57
Job: D_MOUCHEL_ELE-107
Client Reference: 1034973

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

Order Number: 4500099608
Report Number: 189981
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: Part 2.11:1984 | 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.

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SDG: 120727-57
Job: D_MOUCHEL_ELE-107
Client Reference: 1034973

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

Order Number: 4500099608
Report Number: 189981
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 | 03-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 |



SDG: 120727-57
Job: D_MOUCHEL_ELE-107
Client Reference: 1034973

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

Order Number: 4500099608
Report Number: 189981
Superseded Report:

Chromatogram

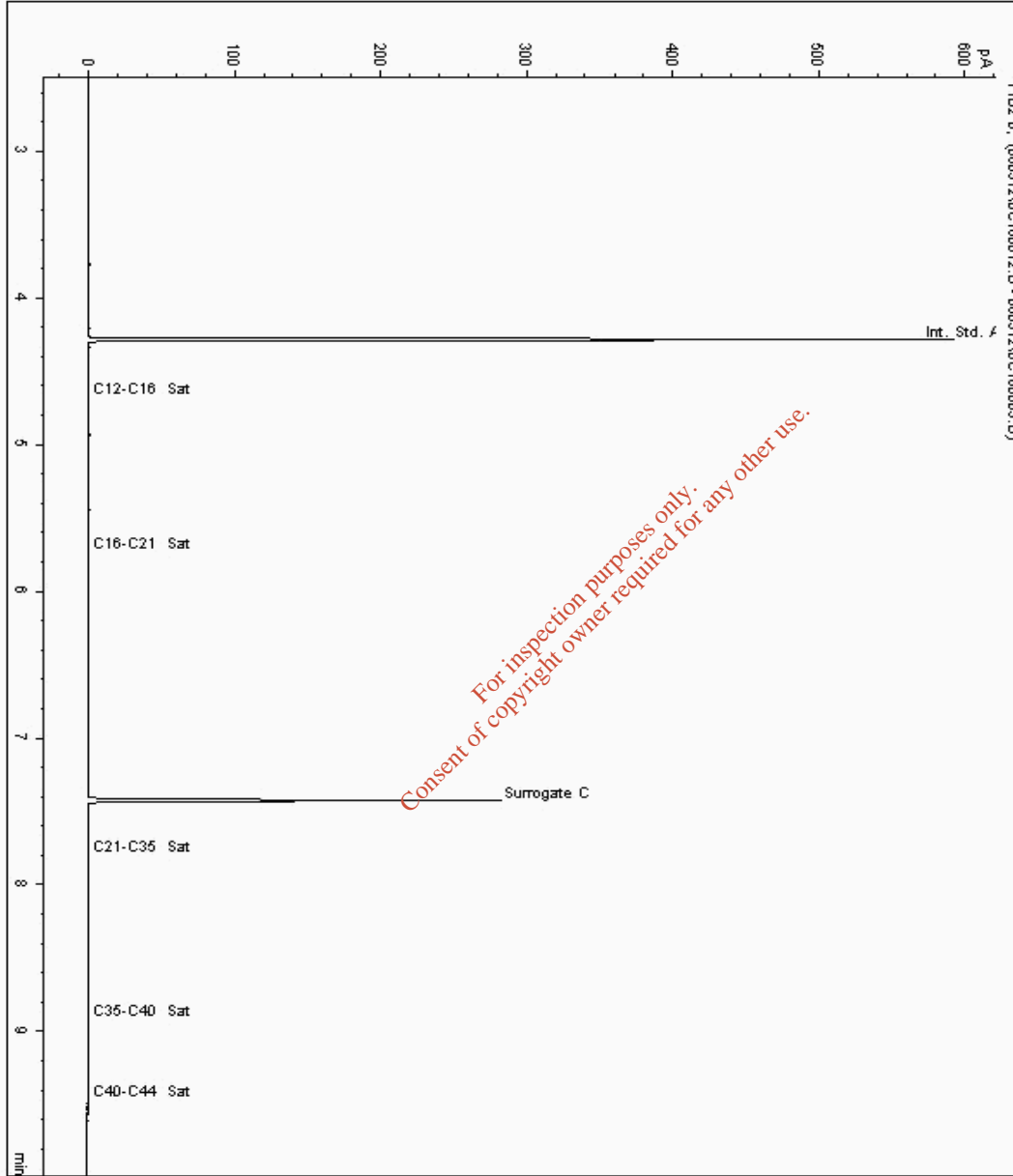
Analysis: EPH CWG (Aliphatic) Aqueous GC (W)

Sample No : 5954920
Sample ID : G8

Depth : 1.00

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

Sample Identity: 5792921-5954920
Date Acquired : 05/08/2012 16:25:13 PM
Units : ppb
Dilution :
CF : 1
Multiplier : 0.009





SDG: 120727-57
Job: D_MOUCHEL_ELE-107
Client Reference: 1034973

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

Order Number: 4500099608
Report Number: 189981
Superseded Report:

Chromatogram

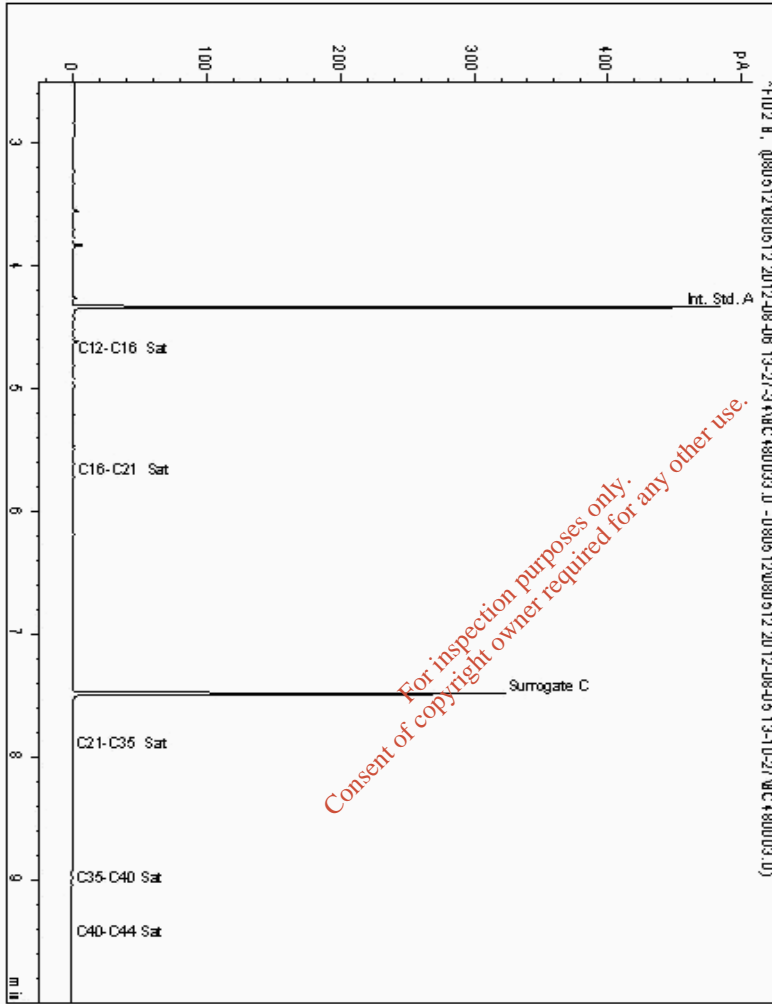
Analysis: EPH CWG (Aliphatic) Aqueous GC (W)

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





SDG: 120727-57
Job: D_MOUCHEL_ELE-107
Client Reference: 1034973

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

Order Number: 4500099608
Report Number: 189981
Superseded Report:

Chromatogram

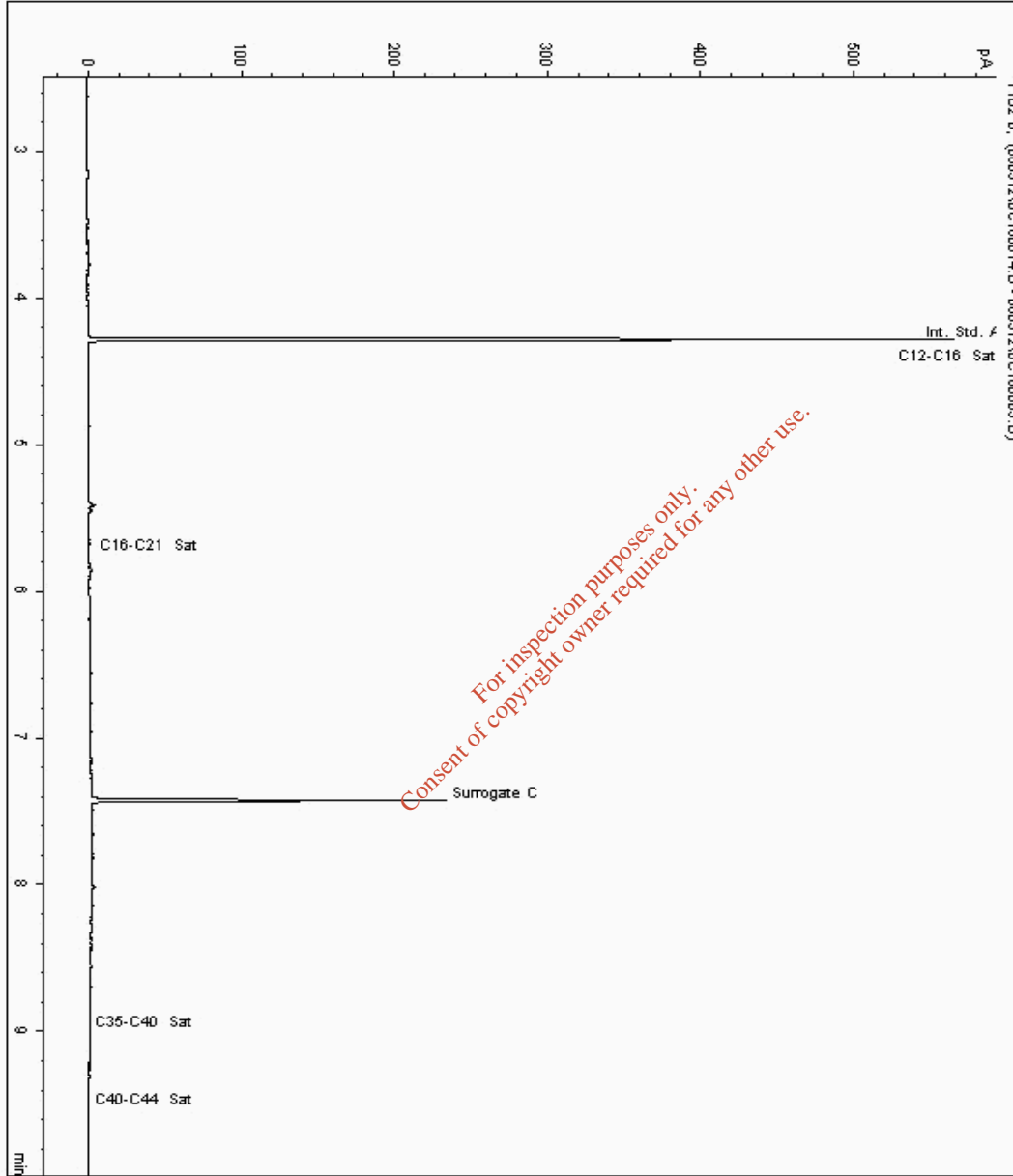
Analysis: EPH CWG (Aliphatic) Aqueous GC (W)

Sample No : 5954934
Sample ID : D5

Depth : 1.75

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

Sample Identity: 5792891-5954934
Date Acquired : 05/08/2012 17:02:54 PM
Units : ppb
Dilution :
CF : 1
Multiplier : 0.009





SDG: 120727-57
Job: D_MOUCHEL_ELE-107
Client Reference: 1034973

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

Order Number: 4500099608
Report Number: 189981
Superseded Report:

Chromatogram

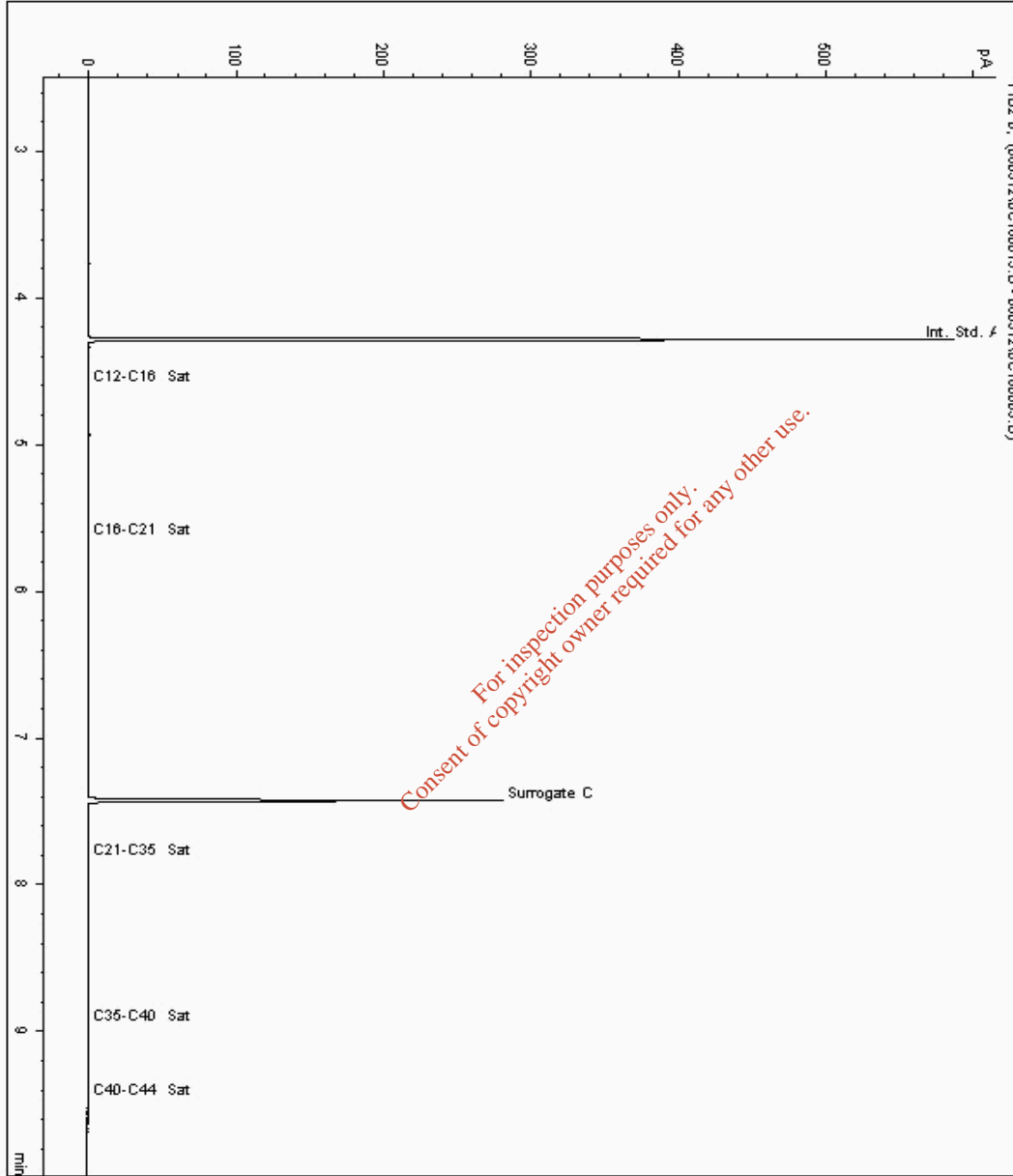
Analysis: EPH CWG (Aliphatic) Aqueous GC (W)

Sample No : 5954953
Sample ID : A9

Depth : 2.00

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

Sample Identity: 5792858-5954953
Date Acquired : 05/08/2012 16:44:09 PM
Units : ppb
Dilution :
CF : 1
Multiplier : 0.010





SDG: 120727-57
Job: D_MOUCHEL_ELE-107
Client Reference: 1034973

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

Order Number: 4500099608
Report Number: 189981
Superseded Report:

Chromatogram

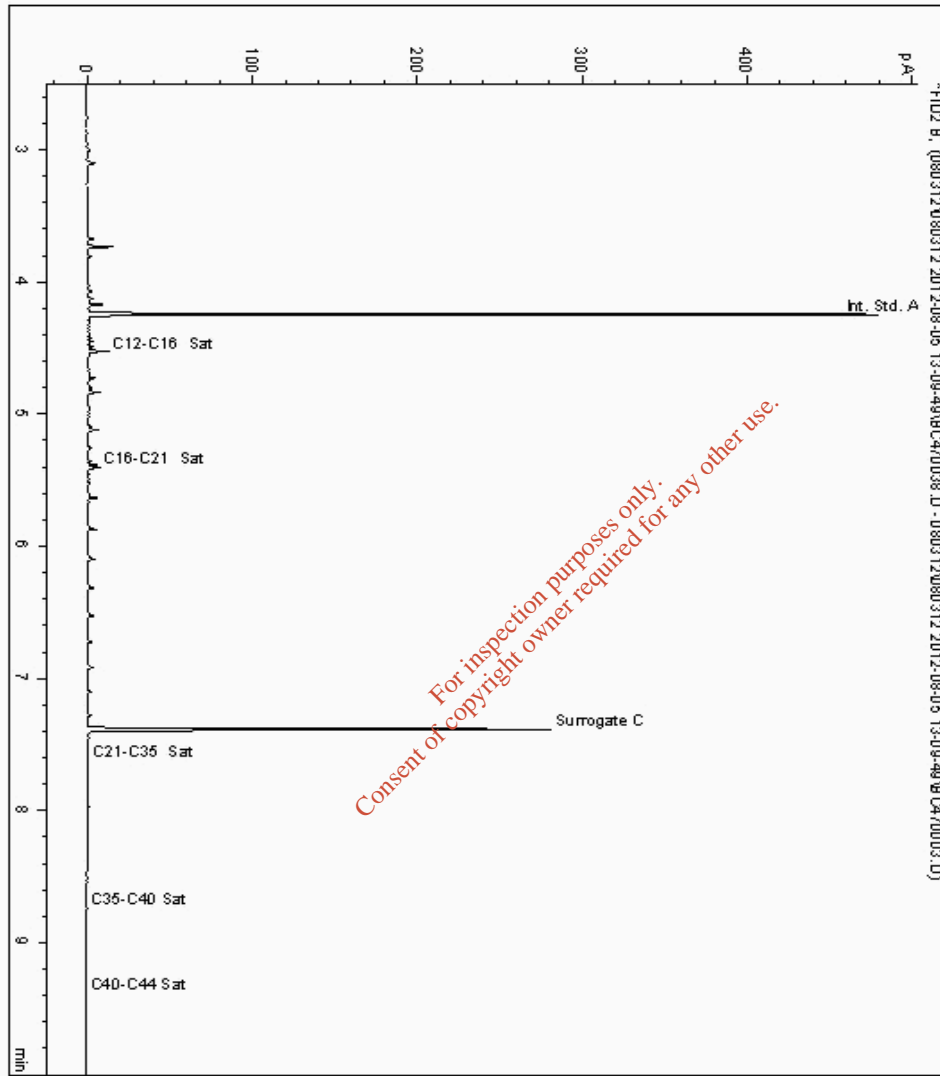
Analysis: EPH CWG (Aliphatic) Aqueous GC (W)

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





SDG: 120727-57
Job: D_MOUCHEL_ELE-107
Client Reference: 1034973

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

Order Number: 4500099608
Report Number: 189981
Superseded Report:

Chromatogram

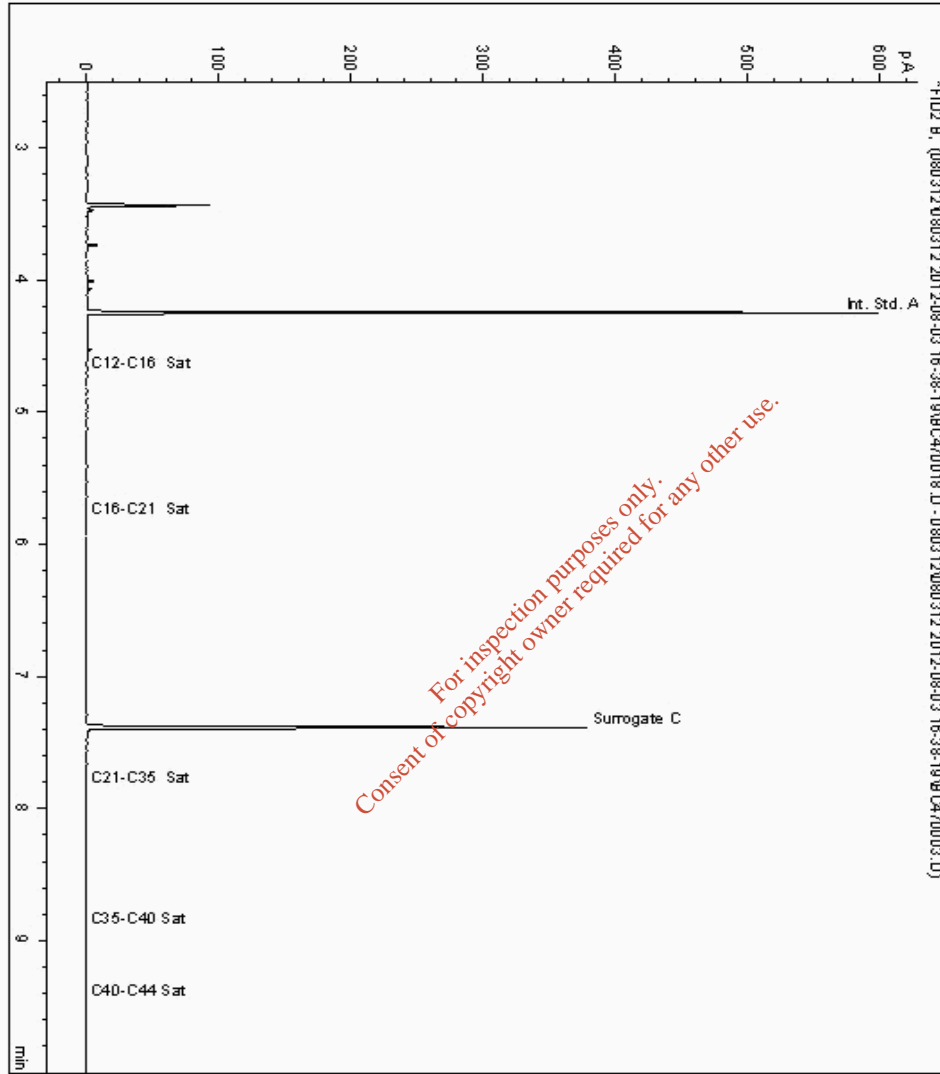
Analysis: EPH CWG (Aliphatic) Aqueous GC (W)

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





SDG: 120727-57
Job: D_MOUCHEL_ELE-107
Client Reference: 1034973

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

Order Number: 4500099608
Report Number: 189981
Superseded Report:

Chromatogram

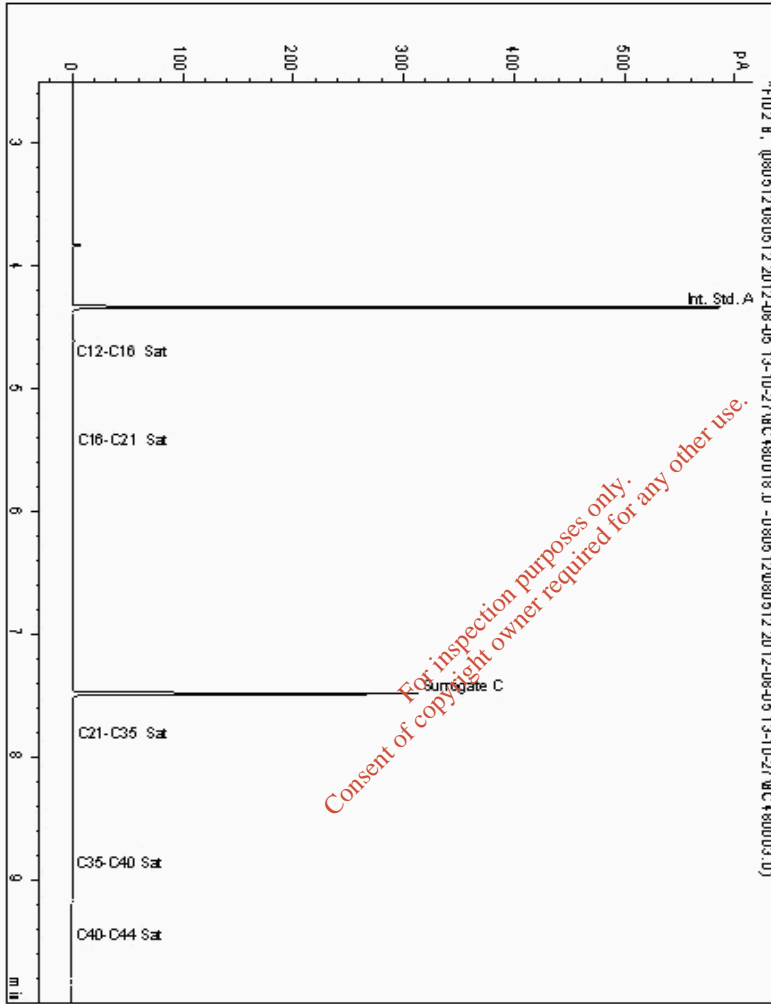
Analysis: EPH CWG (Aliphatic) Aqueous GC (W)

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 16:29:40
Units : ppb
Dilution :
CF : 1
Multiplier : 0.008





SDG: 120727-57
Job: D_MOUCHEL_ELE-107
Client Reference: 1034973

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

Order Number: 4500099608
Report Number: 189981
Superseded Report:

Chromatogram

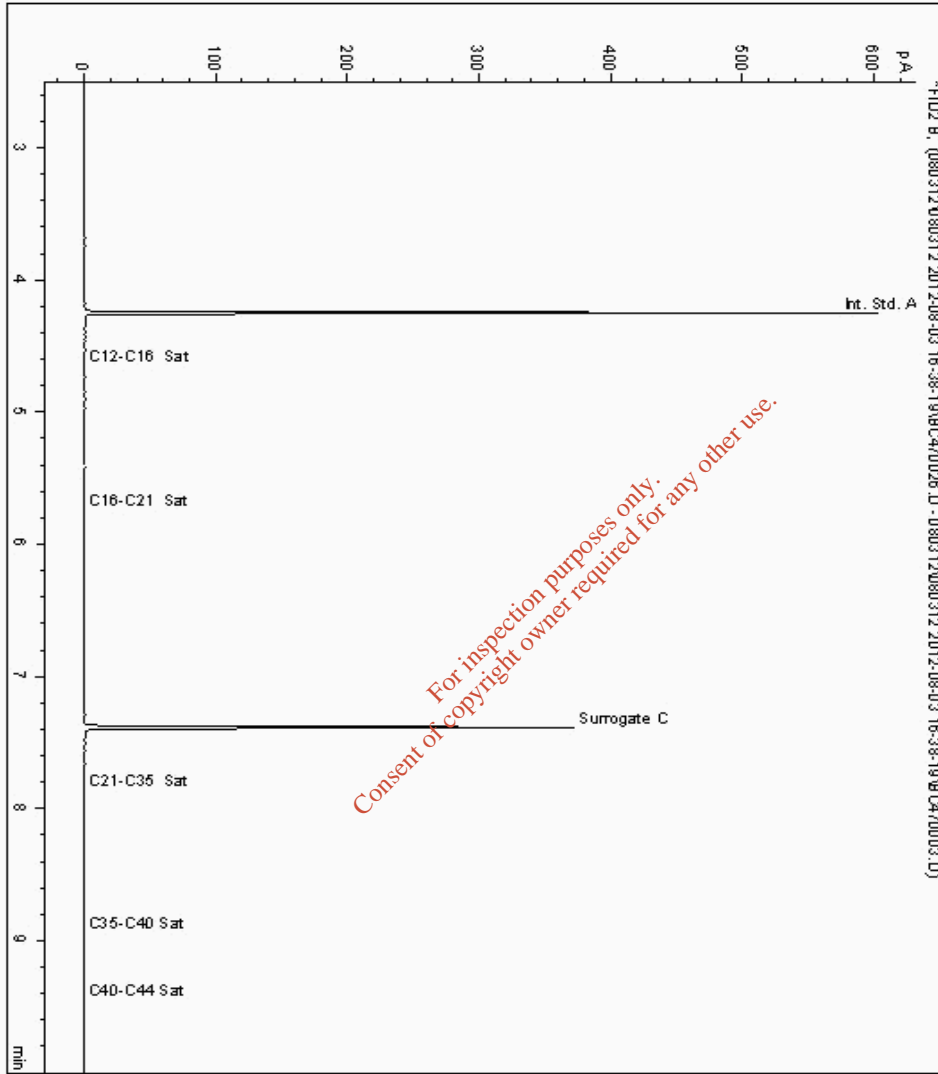
Analysis: EPH CWG (Aliphatic) Aqueous GC (W)

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





SDG: 120727-57
Job: D_MOUCHEL_ELE-107
Client Reference: 1034973

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

Order Number: 4500099608
Report Number: 189981
Superseded Report:

Chromatogram

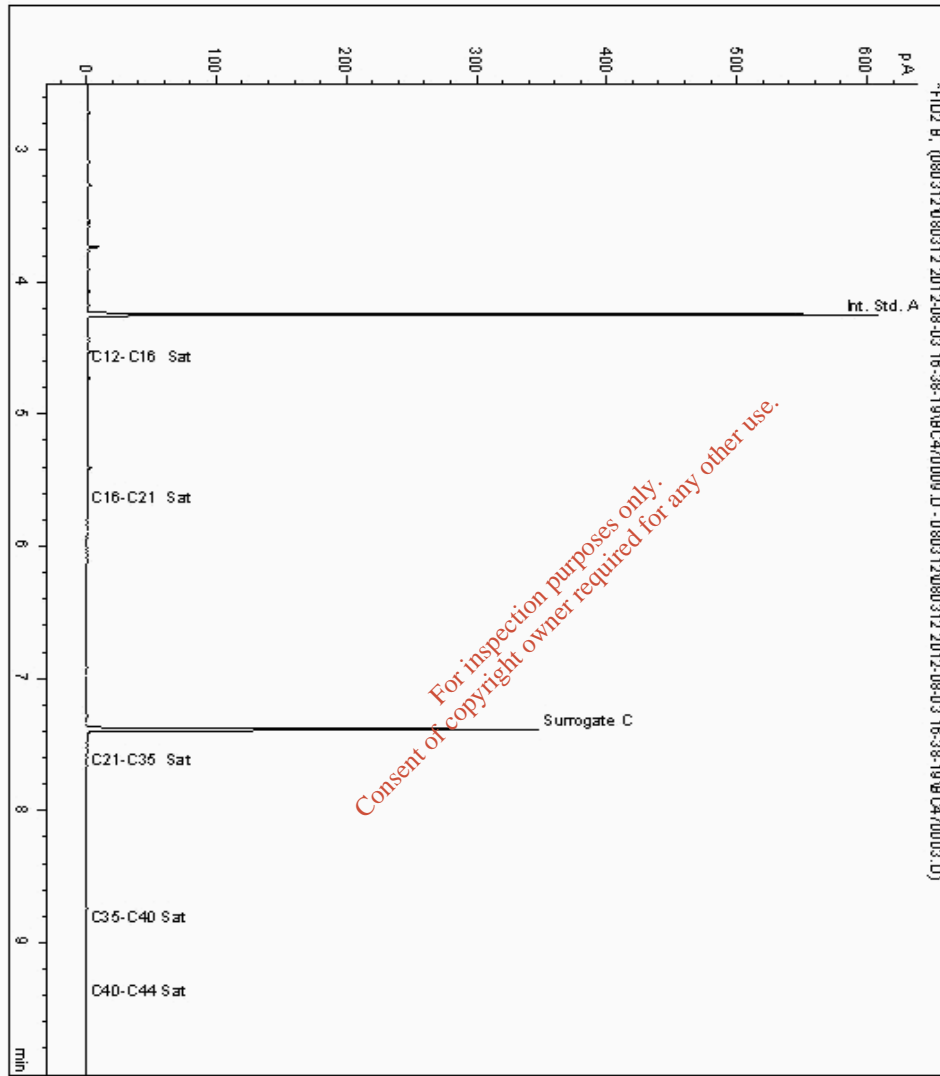
Analysis: EPH CWG (Aliphatic) Aqueous GC (W)

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





SDG: 120727-57
Job: D_MOUCHEL_ELE-107
Client Reference: 1034973

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

Order Number: 4500099608
Report Number: 189981
Superseded Report:

Chromatogram

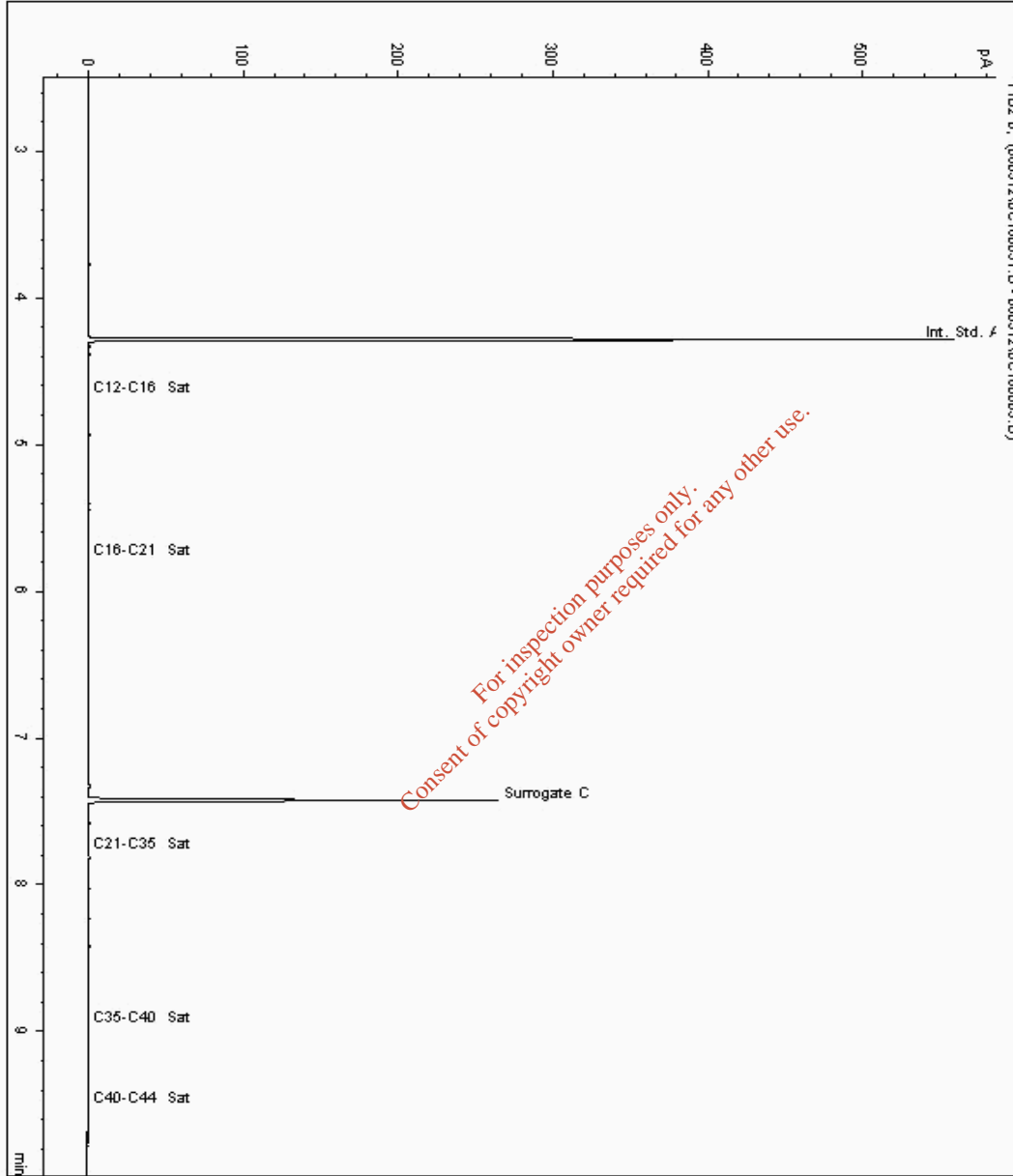
Analysis: EPH CWG (Aliphatic) Aqueous GC (W)

Sample No : 5959076
Sample ID : A11

Depth : 1.00 - 2.00

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

Sample Identity: 5792999-5959076
Date Acquired : 05/08/2012 21:46:02 PM
Units : ppb
Dilution :
CF : 1
Multiplier : 0.008





SDG: 120727-57
Job: D_MOUCHEL_ELE-107
Client Reference: 1034973

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

Order Number: 4500099608
Report Number: 189981
Superseded Report:

Chromatogram

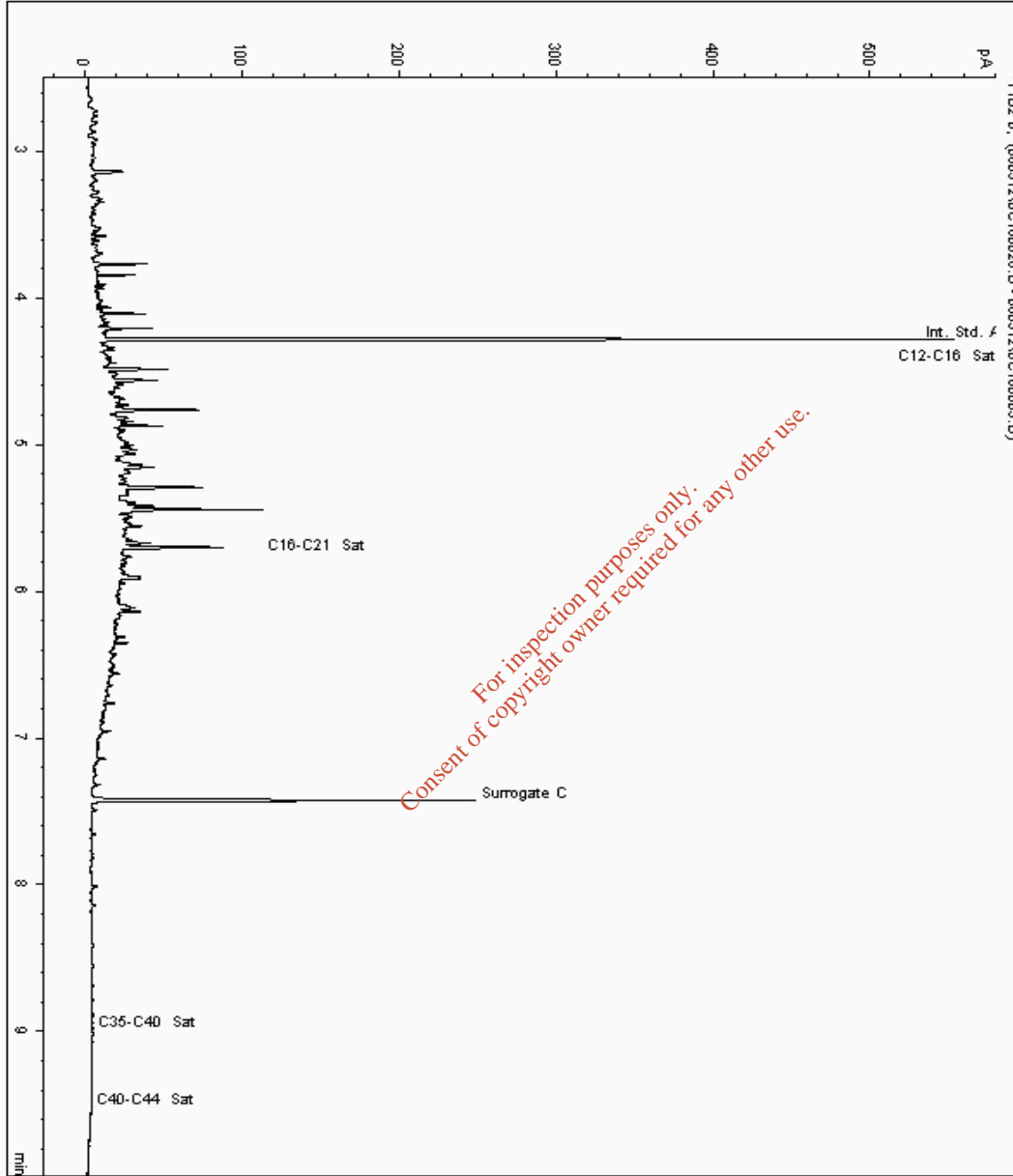
Analysis: EPH CWG (Aliphatic) Aqueous GC (W)

Sample No : 5959139
Sample ID : D1

Depth : 3.00 - 4.00

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

Sample Identity: 5793122-5959139
Date Acquired : 05/08/2012 20:29:56 PM
Units : ppb
Dilution :
CF : 1
Multiplier : 0.008





SDG: 120727-57
Job: D_MOUCHEL_ELE-107
Client Reference: 1034973

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

Order Number: 4500099608
Report Number: 189981
Superseded Report:

Chromatogram

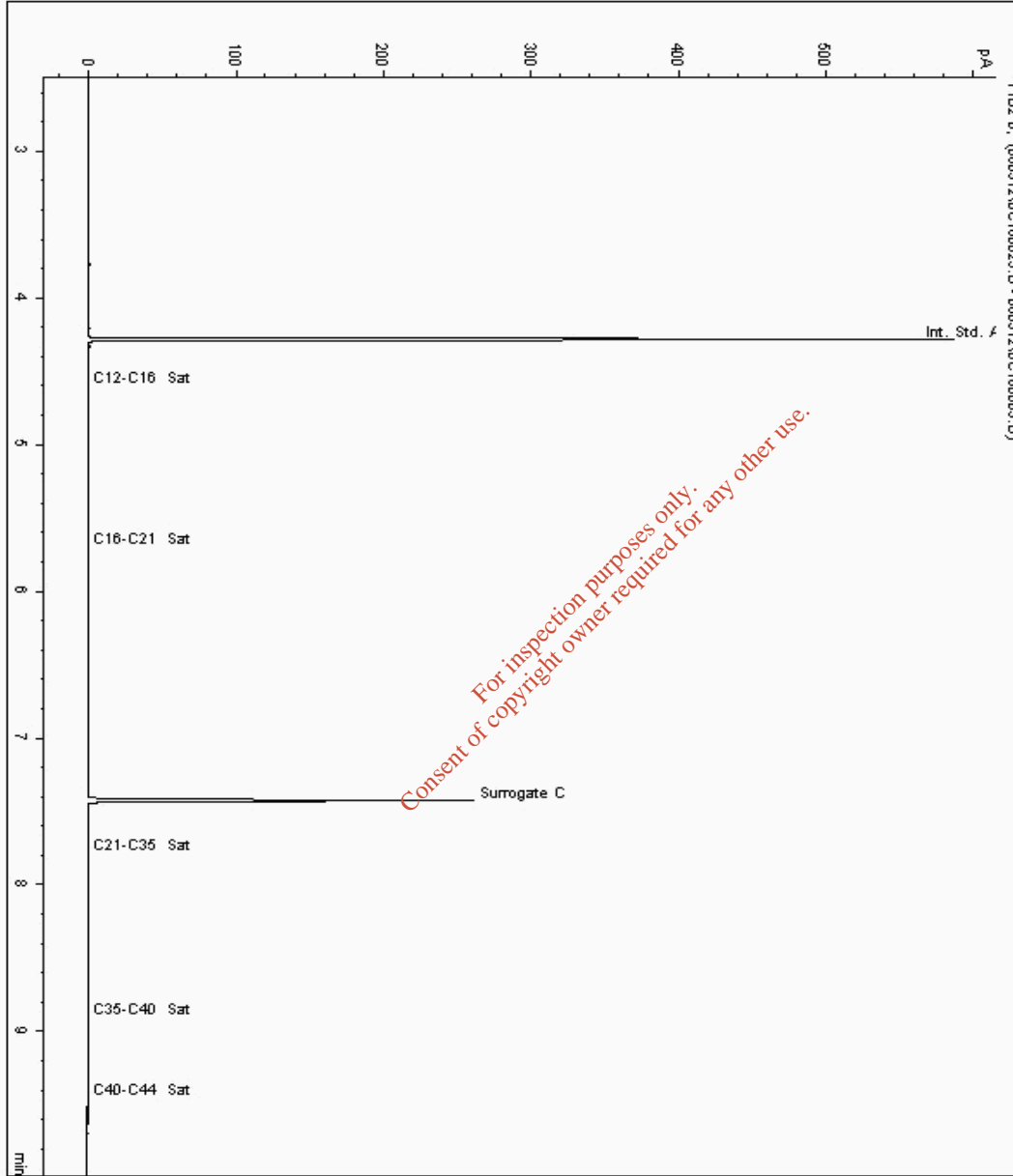
Analysis: EPH CWG (Aliphatic) Aqueous GC (W)

Sample No : 5959406
Sample ID : M3

Depth : 3.00 - 4.00

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

Sample Identity: 5793106-5959406
Date Acquired : 05/08/2012 20:10:57 PM
Units : ppb
Dilution :
CF : 1
Multiplier : 0.008





CERTIFICATE OF ANALYSIS

SDG: 120727-57
Job: D_MOUCHEL_ELE-107
Client Reference: 1034973

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

Order Number: 4500099608
Report Number: 189981
Superseded Report:

Chromatogram

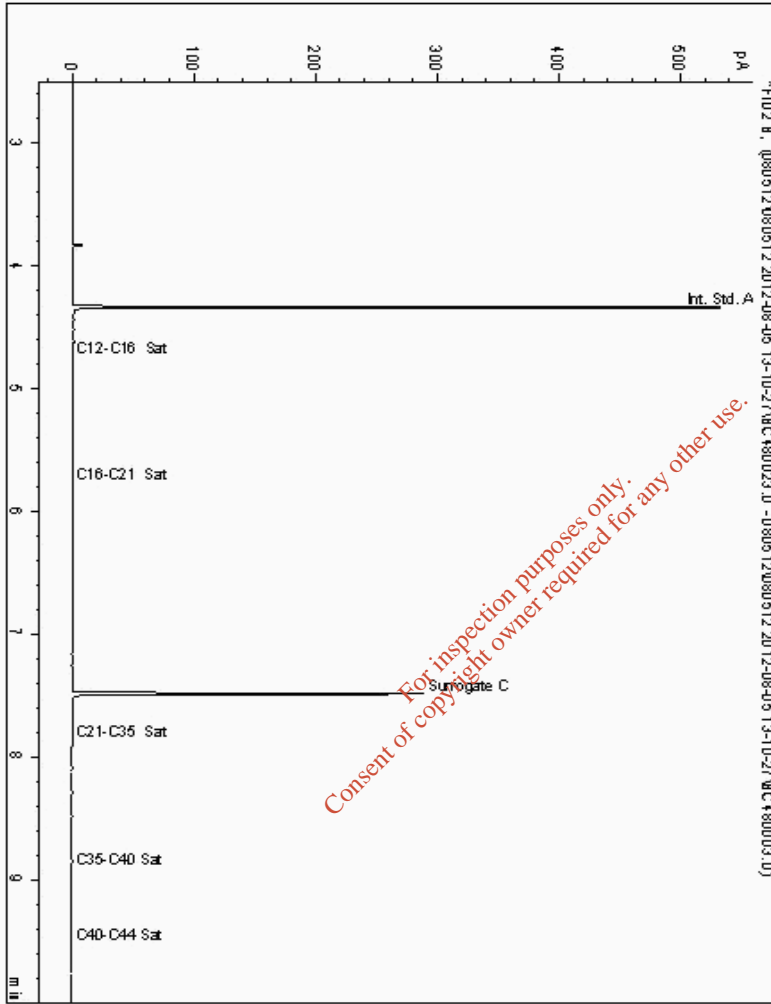
Analysis: EPH CWG (Aliphatic) Aqueous GC (W)

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
Job: D_MOUCHEL_ELE-107
Client Reference: 1034973

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

Order Number: 4500099608
Report Number: 189981
Superseded Report:

Chromatogram

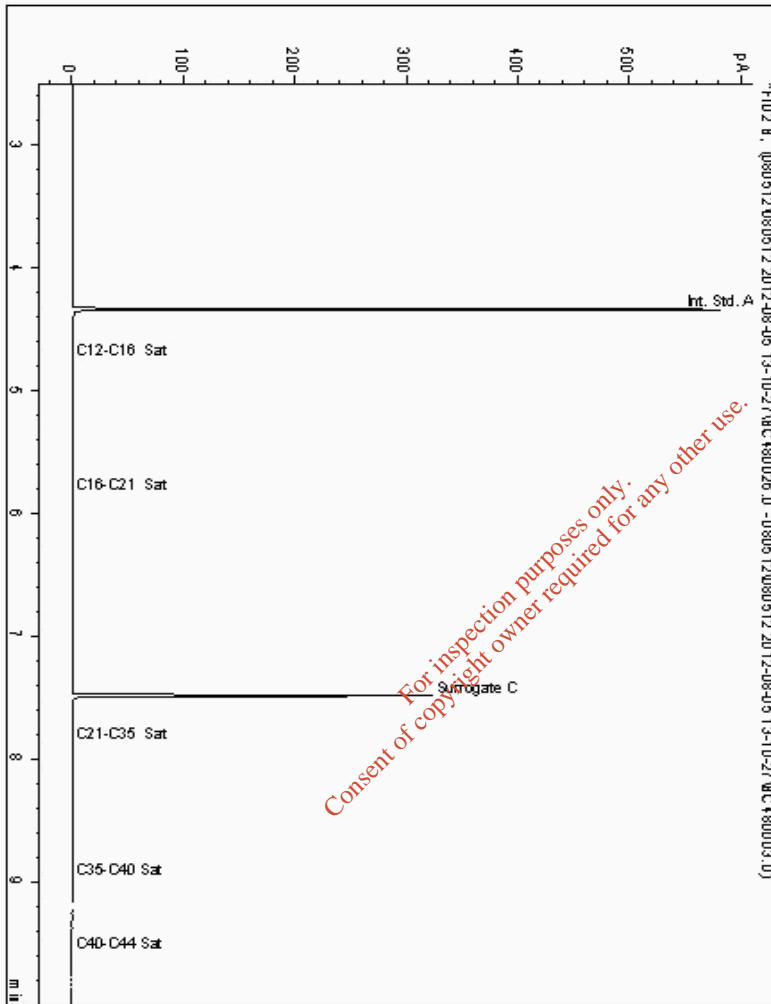
Analysis: EPH CWG (Aliphatic) Aqueous GC (W)

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





SDG: 120727-57
Job: D_MOUCHEL_ELE-107
Client Reference: 1034973

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

Order Number: 4500099608
Report Number: 189981
Superseded Report:

Chromatogram

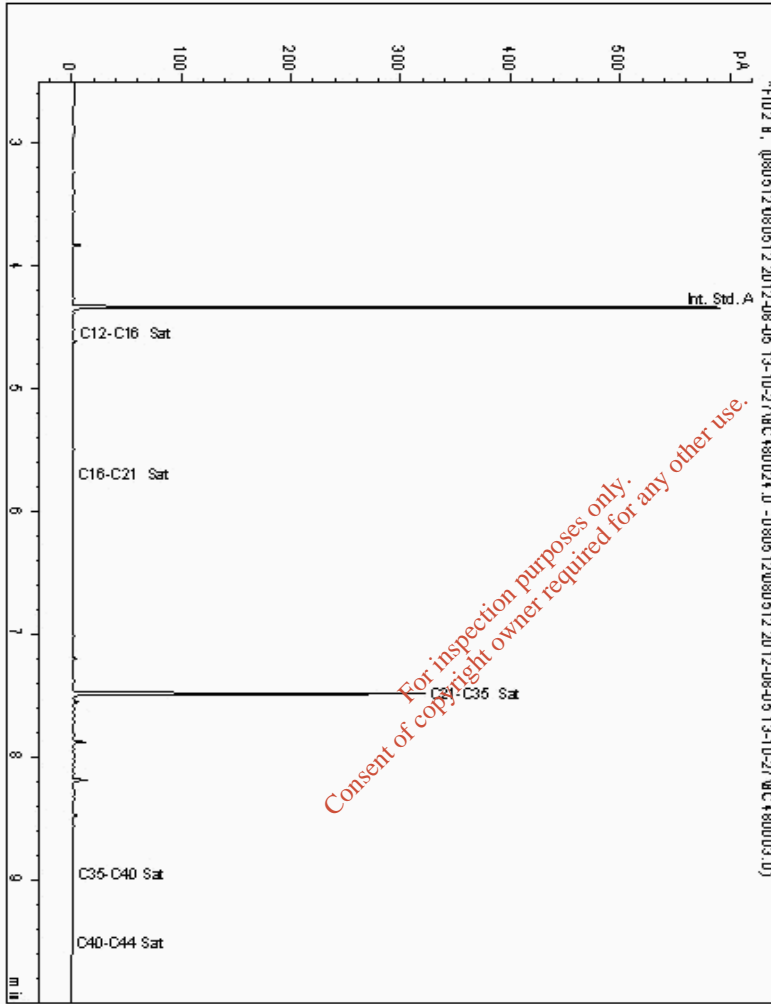
Analysis: EPH CWG (Aliphatic) Aqueous GC (W)

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





SDG: 120727-57
Job: D_MOUCHEL_ELE-107
Client Reference: 1034973

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

Order Number: 4500099608
Report Number: 189981
Superseded Report:

Chromatogram

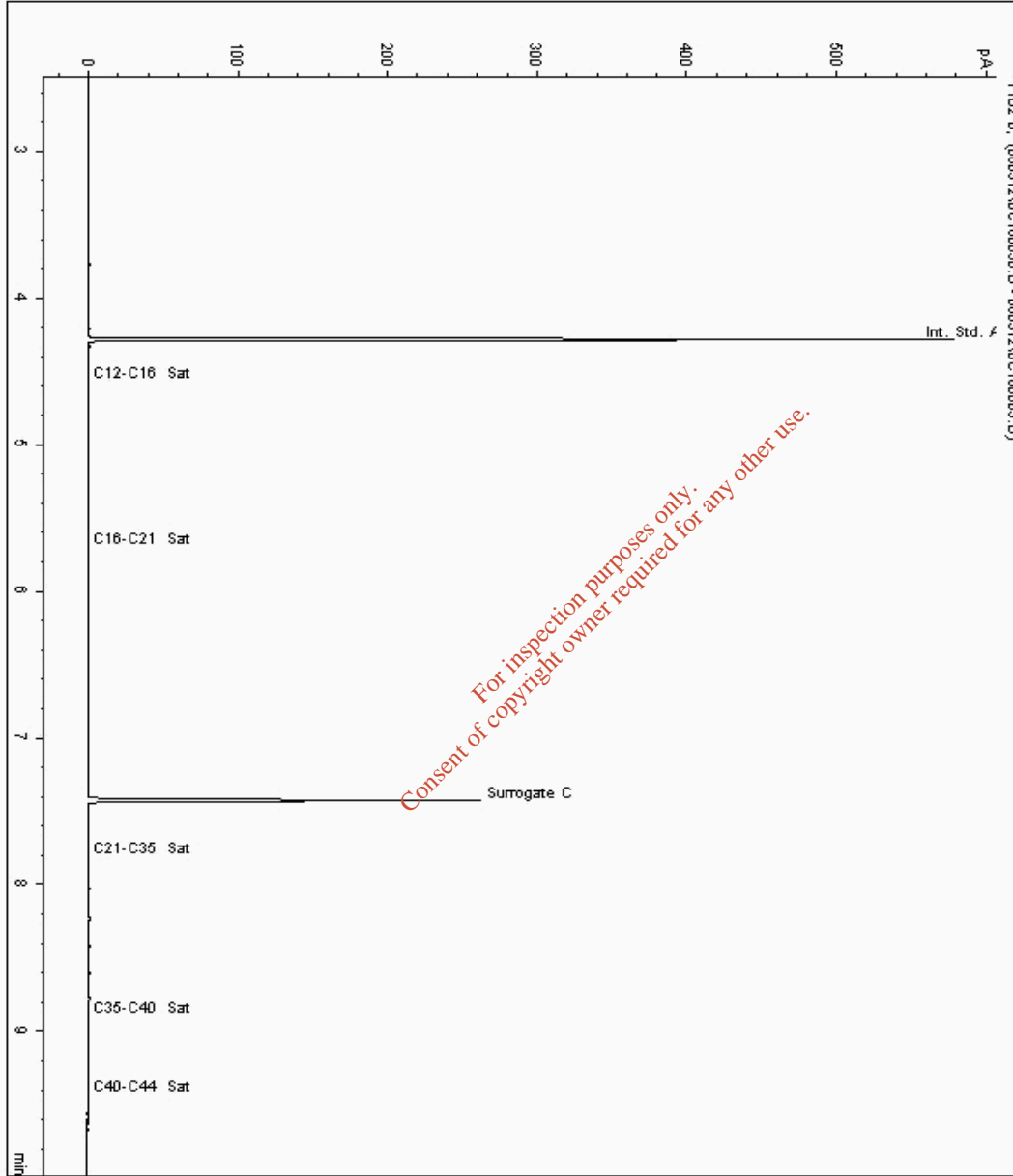
Analysis: EPH CWG (Aliphatic) Aqueous GC (W)

Sample No : 5959488
Sample ID : C2

Depth : 1.00 - 2.00

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

Sample Identity: 5792984-5959488
Date Acquired : 05/08/2012 21:27:01 PM
Units : ppb
Dilution :
CF : 1
Multiplier : 0.008





SDG: 120727-57
Job: D_MOUCHEL_ELE-107
Client Reference: 1034973

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

Order Number: 4500099608
Report Number: 189981
Superseded Report:

Chromatogram

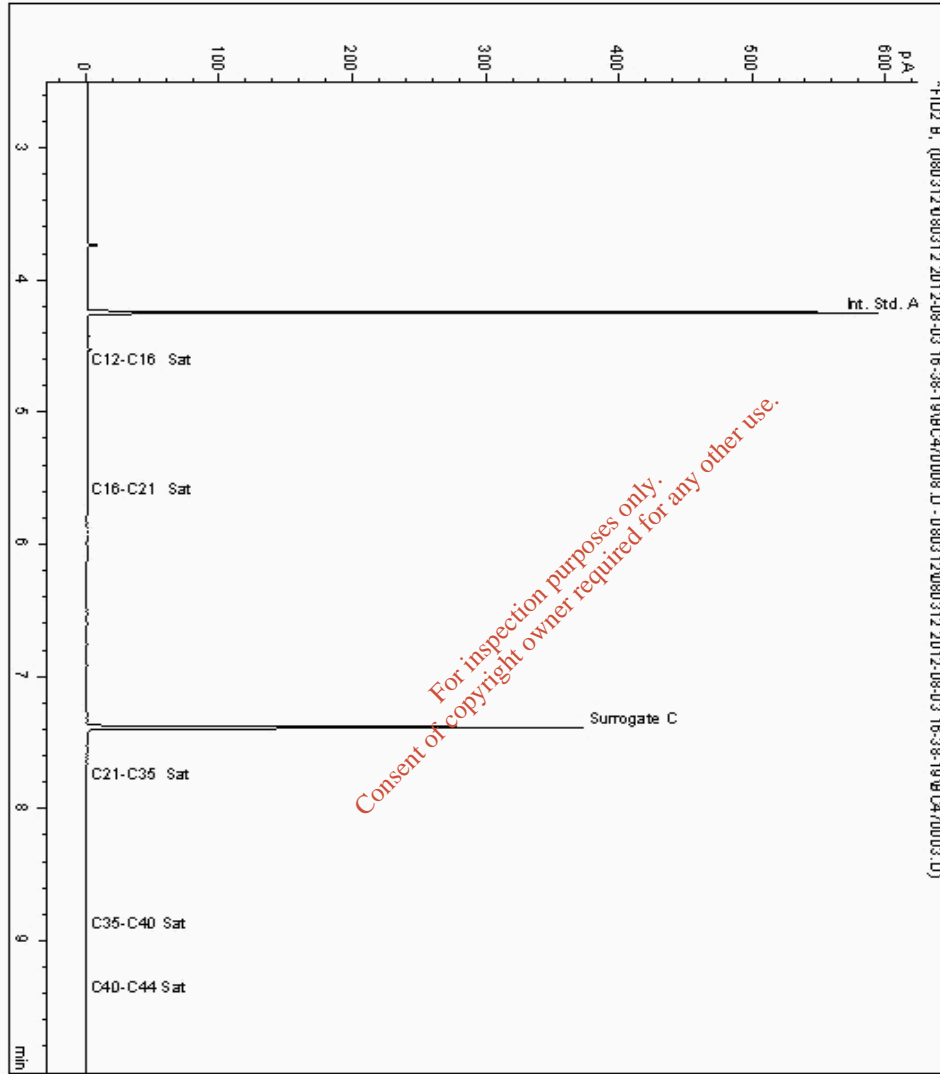
Analysis: EPH CWG (Aliphatic) Aqueous GC (W)

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





SDG: 120727-57
Job: D_MOUCHEL_ELE-107
Client Reference: 1034973

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

Order Number: 4500099608
Report Number: 189981
Superseded Report:

Chromatogram

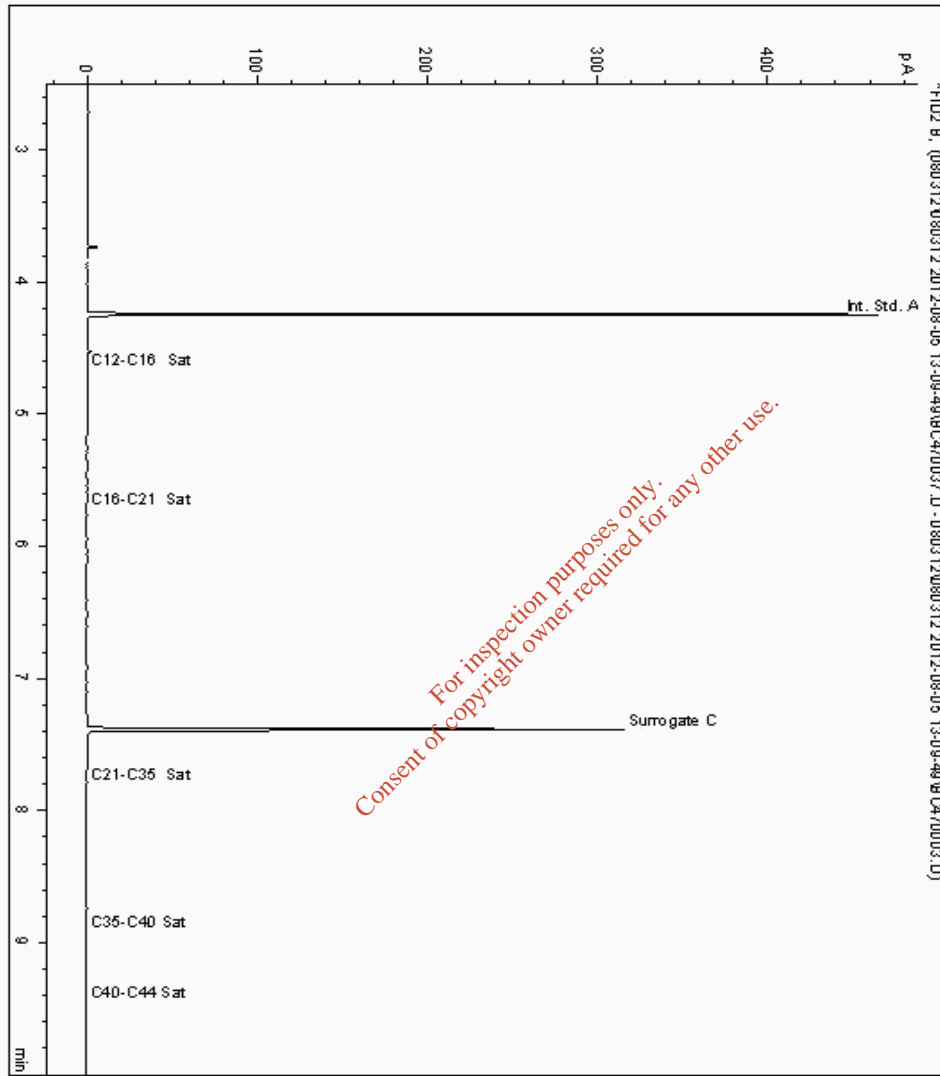
Analysis: EPH CWG (Aliphatic) Aqueous GC (W)

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





SDG: 120727-57
Job: D_MOUCHEL_ELE-107
Client Reference: 1034973

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

Order Number: 4500099608
Report Number: 189981
Superseded Report:

Chromatogram

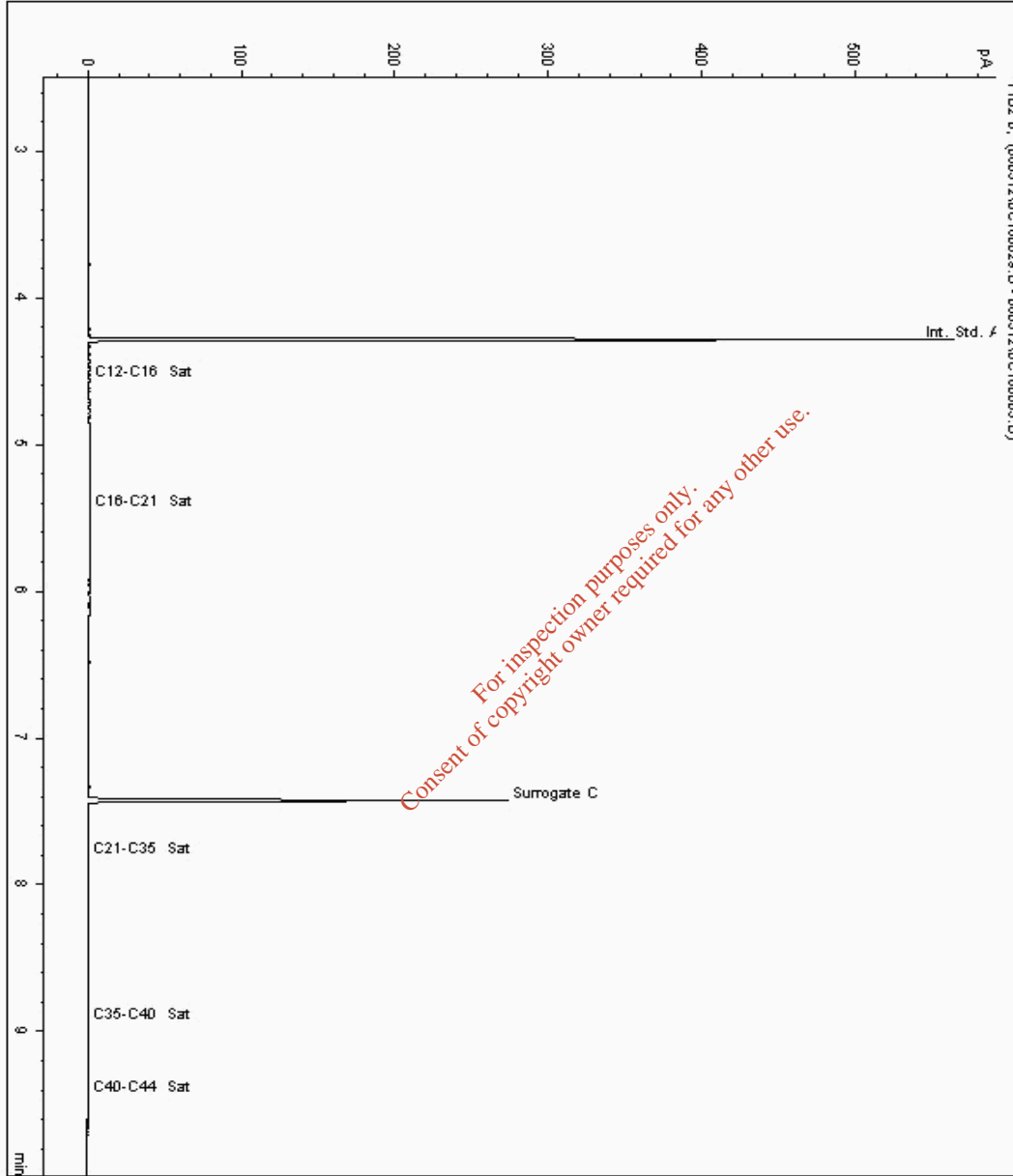
Analysis: EPH CWG (Aliphatic) Aqueous GC (W)

Sample No : 5959524
Sample ID : A4

Depth : 2.00 - 3.00

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

Sample Identity: 5792968-5959524
Date Acquired : 05/08/2012 21:07:39 PM
Units : ppb
Dilution :
CF : 1
Multiplier : 0.008





SDG: 120727-57
Job: D_MOUCHEL_ELE-107
Client Reference: 1034973

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

Order Number: 4500099608
Report Number: 189981
Superseded Report:

Chromatogram

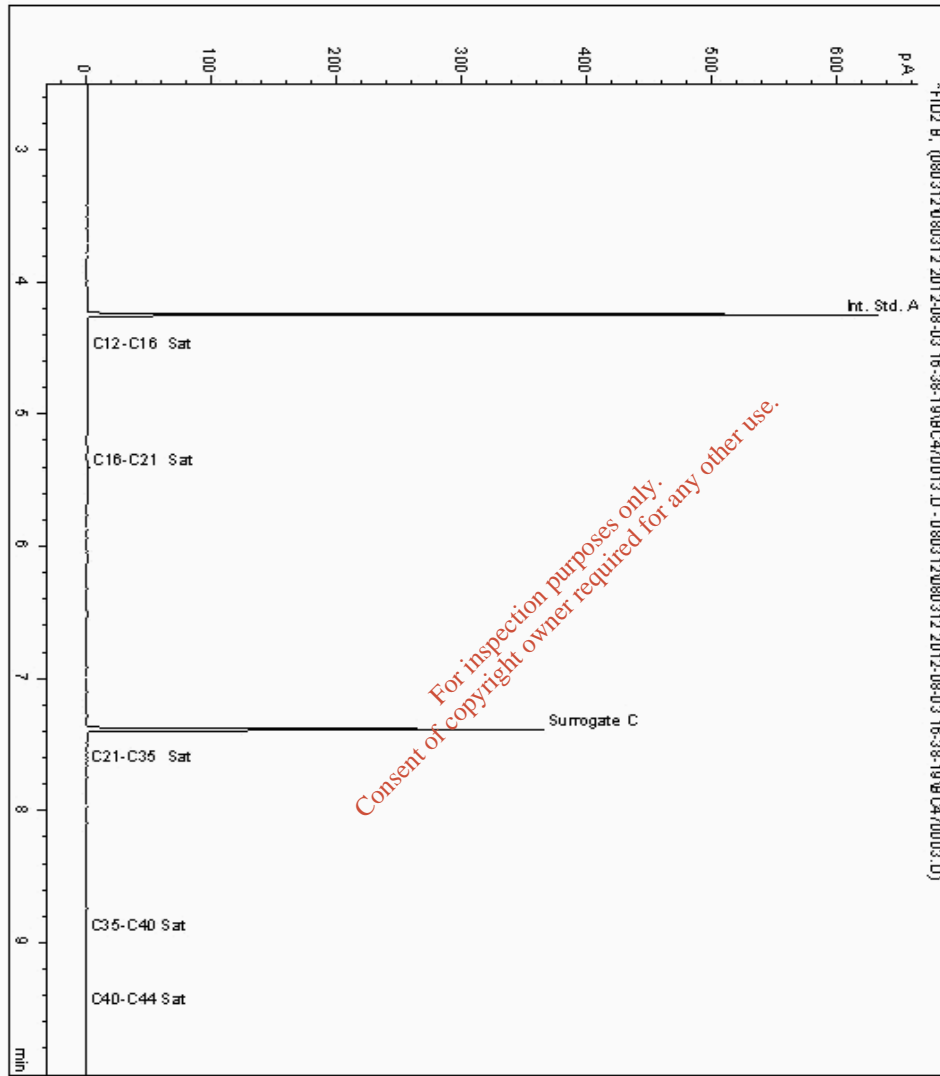
Analysis: EPH CWG (Aliphatic) Aqueous GC (W)

Sample No : 5959534
Sample ID : G5

Depth : 5.00

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

Sample Identity: 5793234-5959534
Date Acquired : 03/08/12 20:18:14
Units : ppb
Dilution :
CF : 1
Multiplier : 0.008





SDG: 120727-57
Job: D_MOUCHEL_ELE-107
Client Reference: 1034973

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

Order Number: 4500099608
Report Number: 189981
Superseded Report:

Chromatogram

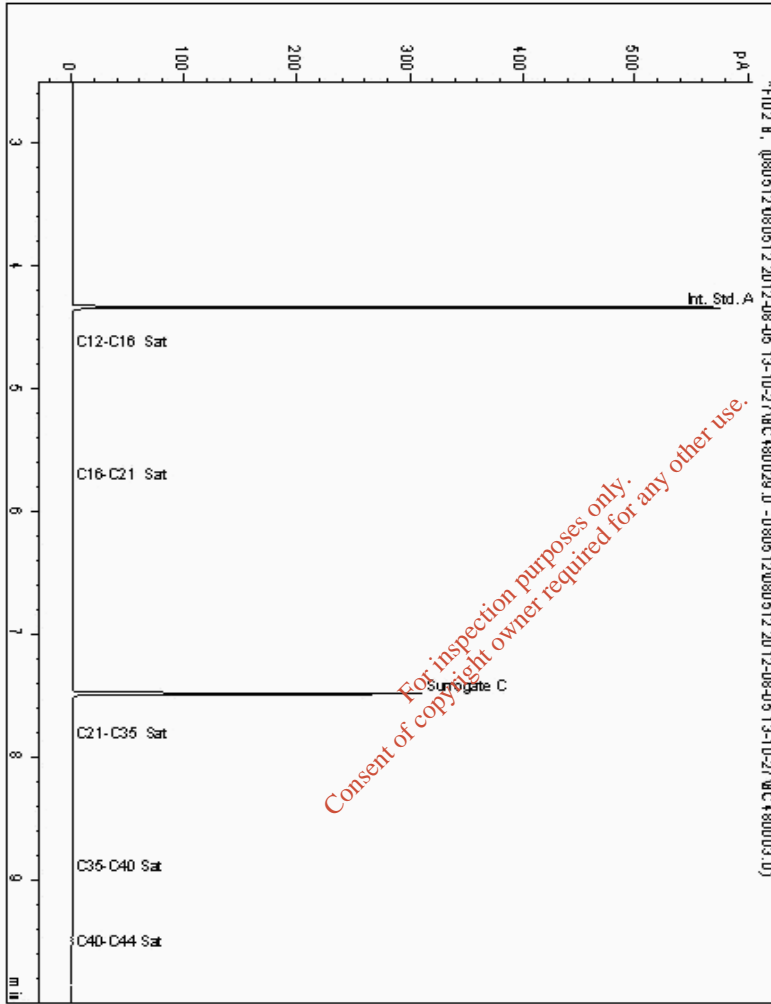
Analysis: EPH CWG (Aliphatic) Aqueous GC (W)

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





SDG: 120727-57
Job: D_MOUCHEL_ELE-107
Client Reference: 1034973

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

Order Number: 4500099608
Report Number: 189981
Superseded Report:

Chromatogram

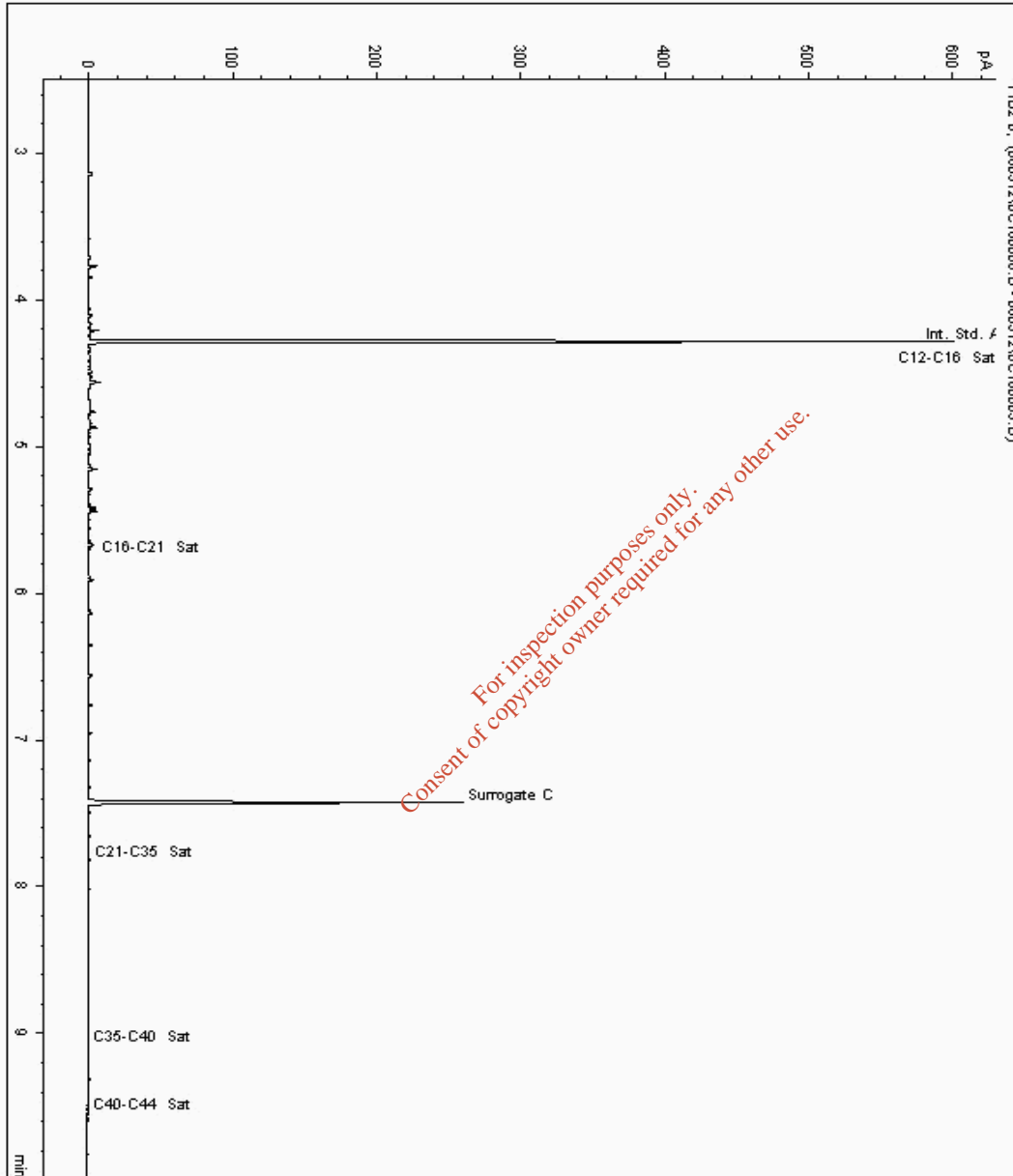
Analysis: EPH CWG (Aliphatic) Aqueous GC (W)

Sample No : 5959671
Sample ID : G4

Depth : 3.50

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

Sample Identity: 5793196-5959671
Date Acquired : 05/08/2012 15:18:58 PM
Units : ppb
Dilution :
CF : 1
Multiplier : 0.008





SDG: 120727-57
Job: D_MOUCHEL_ELE-107
Client Reference: 1034973

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

Order Number: 4500099608
Report Number: 189981
Superseded Report:

Chromatogram

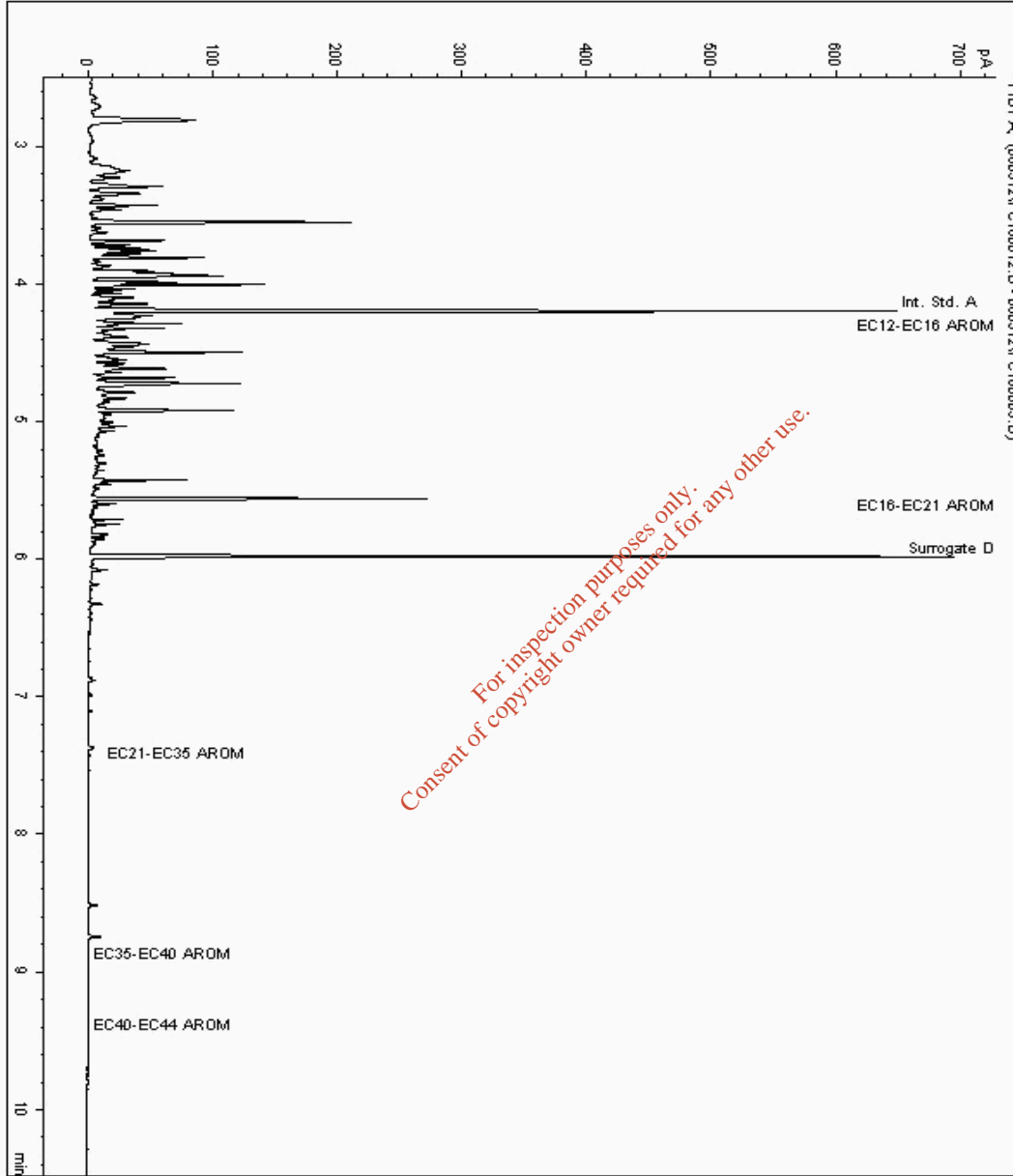
Analysis: EPH CWG (Aromatic) Aqueous GC (W)

Sample No : 5954920
Sample ID : G8

Depth : 1.00

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

Sample Identity: 5792922-5954920
Date Acquired : 05/08/2012 16:25:13 PM
Units : ppb
Dilution :
CF : 1
Multiplier : 0.009





SDG: 120727-57
Job: D_MOUCHEL_ELE-107
Client Reference: 1034973

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

Order Number: 4500099608
Report Number: 189981
Superseded Report:

Chromatogram

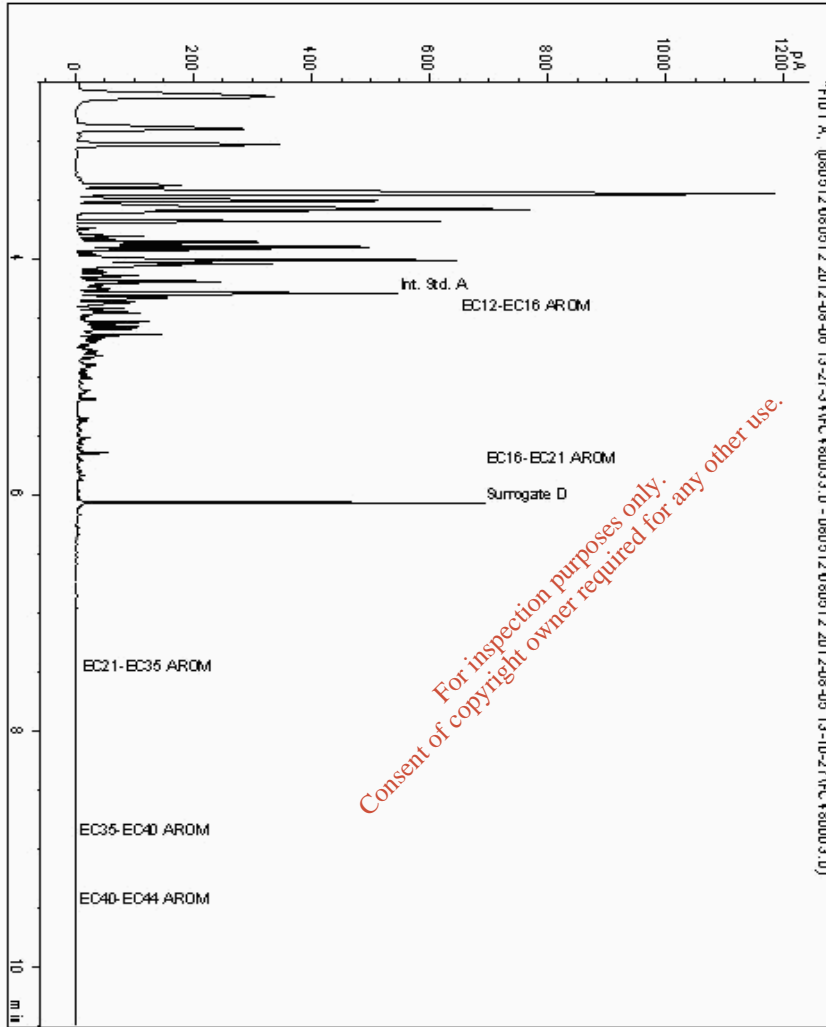
Analysis: EPH CWG (Aromatic) Aqueous GC (W)

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



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SDG: 120727-57
Job: D_MOUCHEL_ELE-107
Client Reference: 1034973

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

Order Number: 4500099608
Report Number: 189981
Superseded Report:

Chromatogram

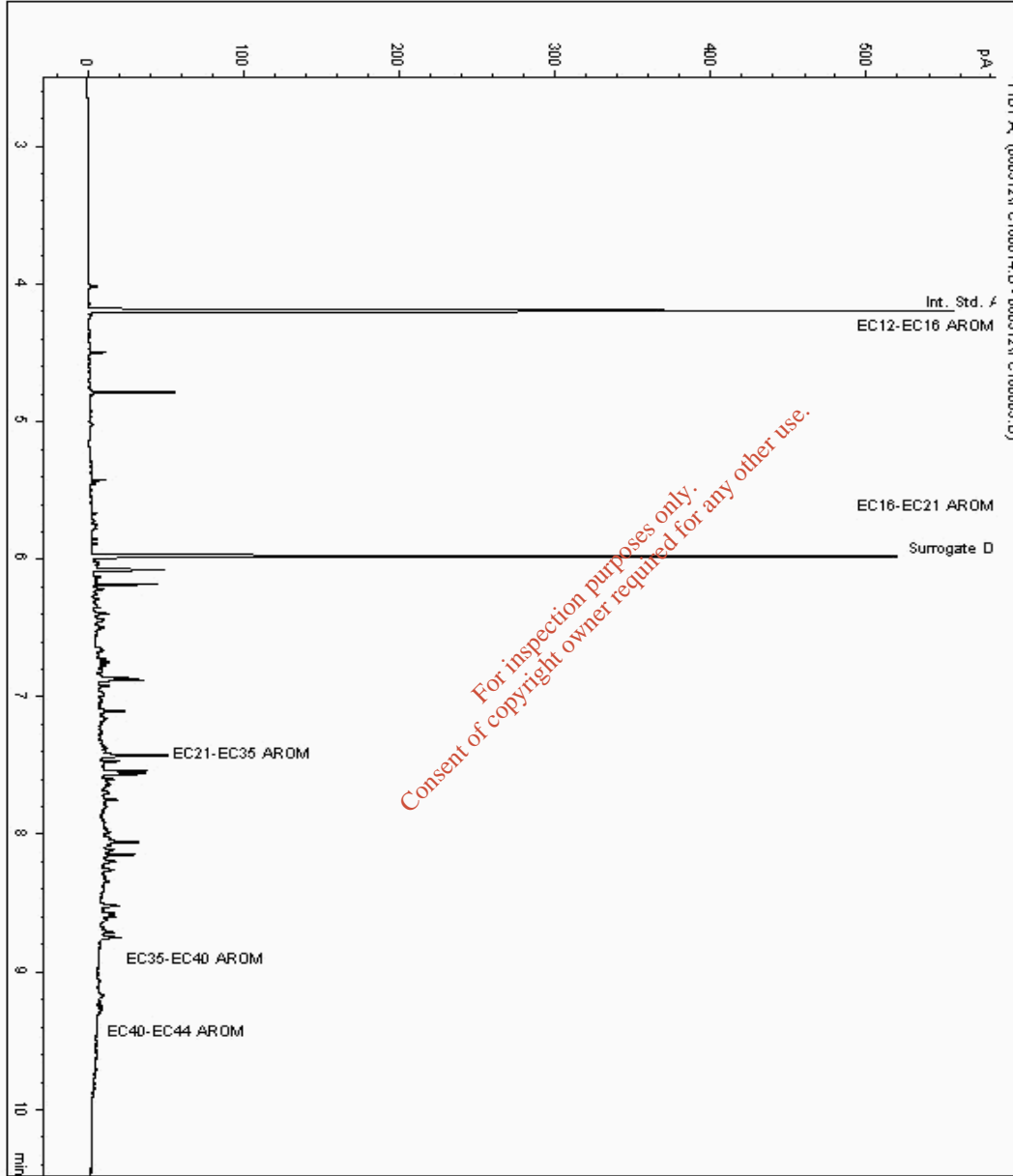
Analysis: EPH CWG (Aromatic) Aqueous GC (W)

Sample No : 5954934
Sample ID : D5

Depth : 1.75

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

Sample Identity: 5792892-5954934
Date Acquired : 05/08/2012 17:02:54 PM
Units : ppb
Dilution :
CF : 1
Multiplier : 0.009





SDG: 120727-57
Job: D_MOUCHEL_ELE-107
Client Reference: 1034973

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

Order Number: 4500099608
Report Number: 189981
Superseded Report:

Chromatogram

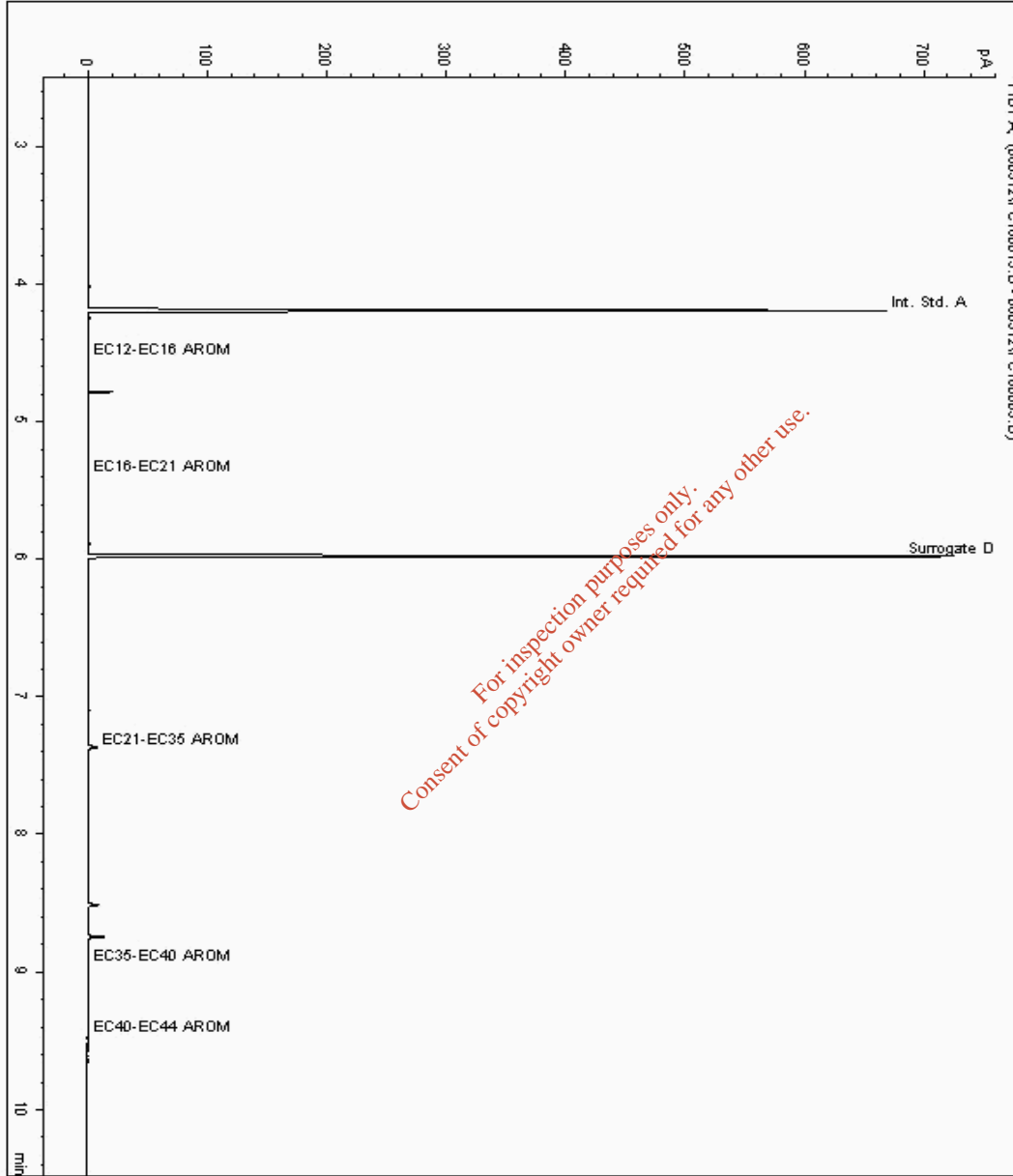
Analysis: EPH CWG (Aromatic) Aqueous GC (W)

Sample No : 5954953
Sample ID : A9

Depth : 2.00

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

Sample Identity: 5792859-5954953
Date Acquired : 06/08/2012 13:36:28 PM
Units : ppb
Dilution :
CF : 1
Multiplier : 0.010





SDG: 120727-57
Job: D_MOUCHEL_ELE-107
Client Reference: 1034973

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

Order Number: 4500099608
Report Number: 189981
Superseded Report:

Chromatogram

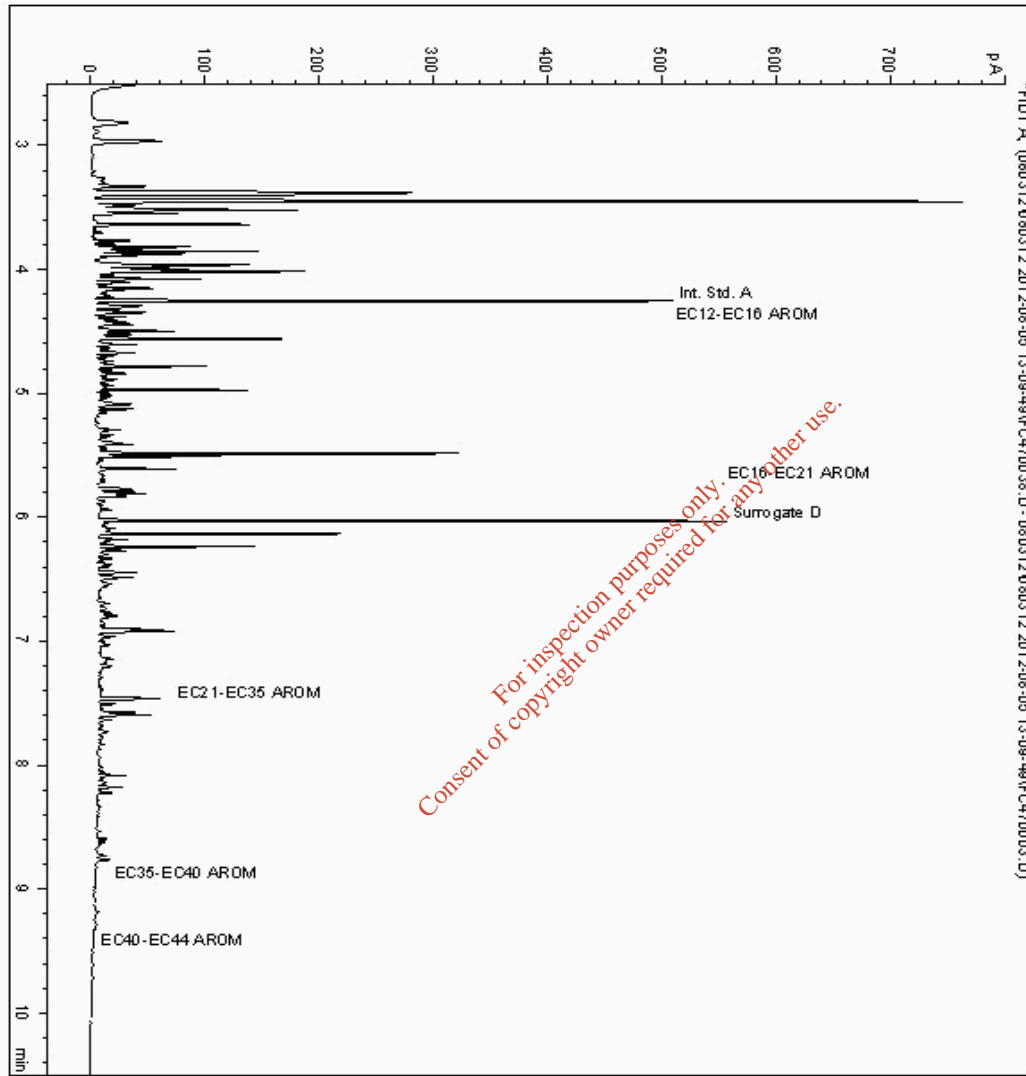
Analysis: EPH CWG (Aromatic) Aqueous GC (W)

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
Job: D_MOUCHEL_ELE-107
Client Reference: 1034973

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

Order Number: 4500099608
Report Number: 189981
Superseded Report:

Chromatogram

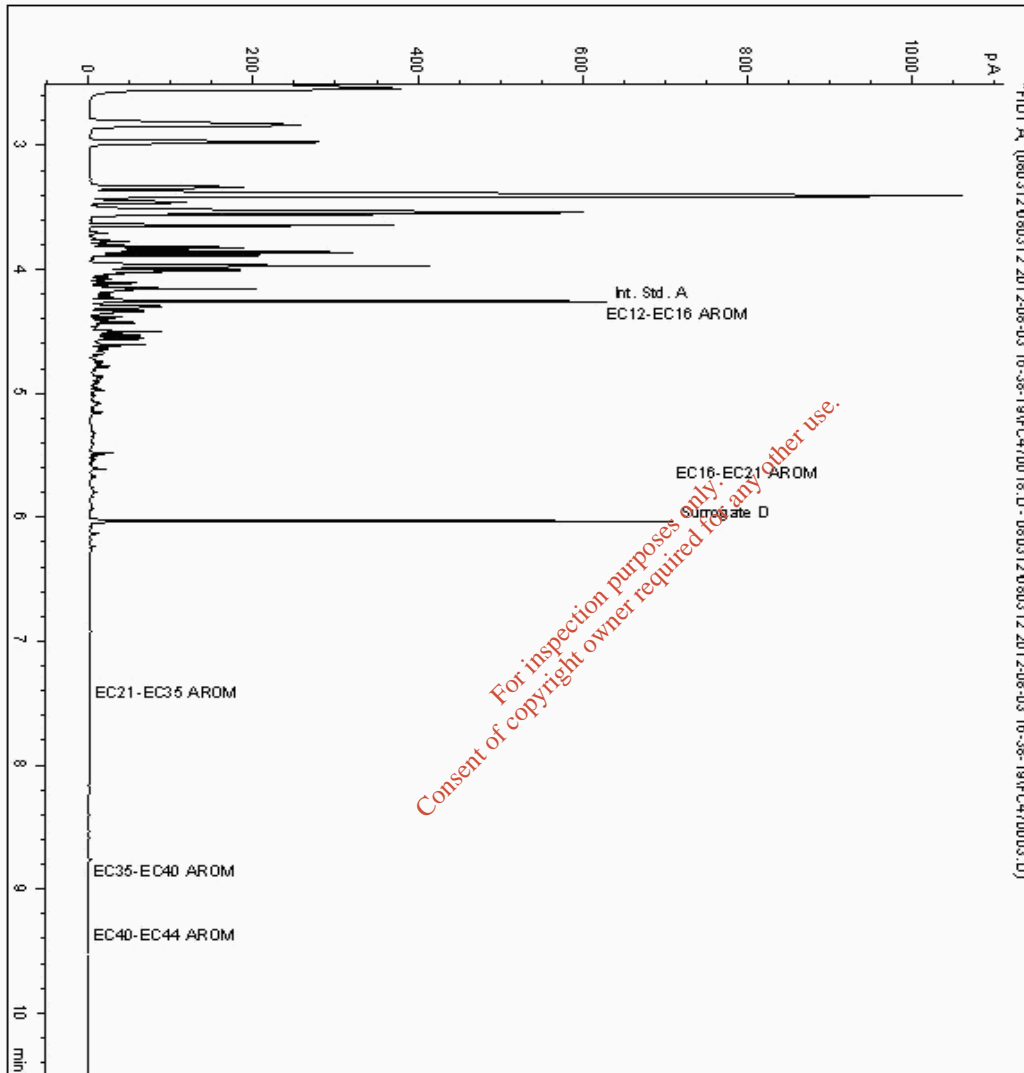
Analysis: EPH CWG (Aromatic) Aqueous GC (W)

Sample No : 5958174
Sample ID : K5

Depth : 1.00 - 2.00

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

Sample Identity: 5793091-5958174
Date Acquired : 03/08/12 21:36:45
Units :
Dilution :
CF : 1
Multiplier : 0.223





CERTIFICATE OF ANALYSIS

SDG: 120727-57
Job: D_MOUCHEL_ELE-107
Client Reference: 1034973

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

Order Number: 4500099608
Report Number: 189981
Superseded Report:

Chromatogram

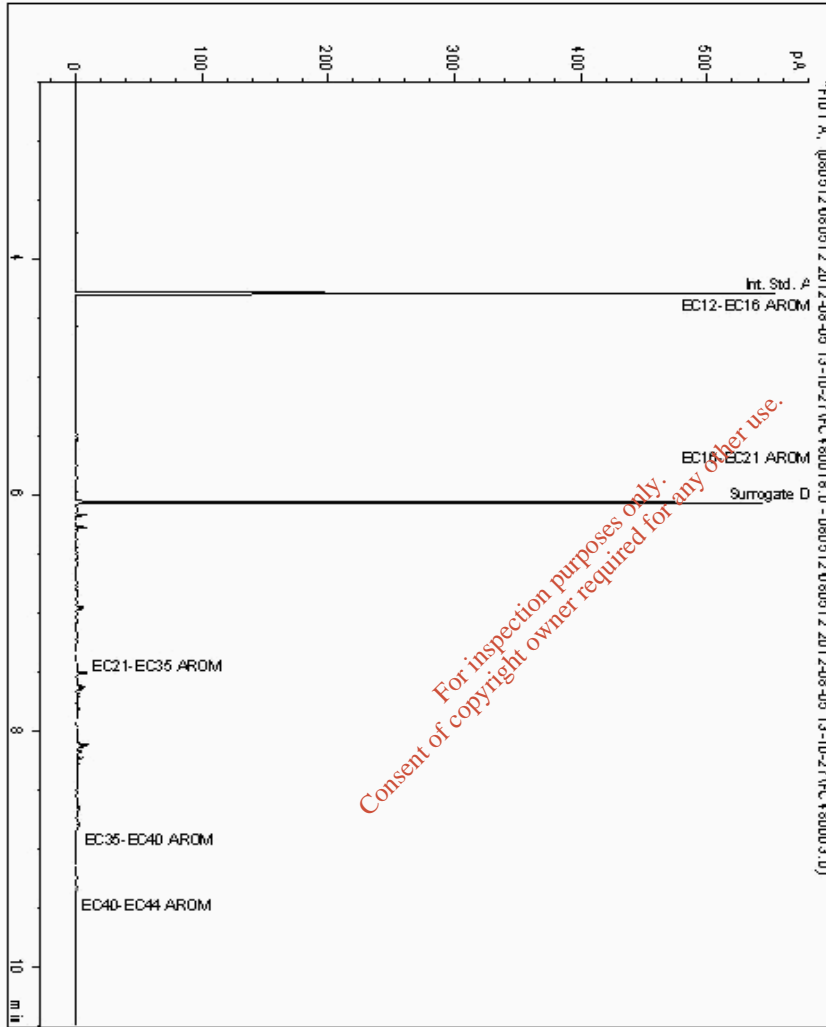
Analysis: EPH CWG (Aromatic) Aqueous GC (W)

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 16:29:40
Units :
Dilution :
CF : 1
Multiplier : 0.008



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SDG: 120727-57
Job: D_MOUCHEL_ELE-107
Client Reference: 1034973

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

Order Number: 4500099608
Report Number: 189981
Superseded Report:

Chromatogram

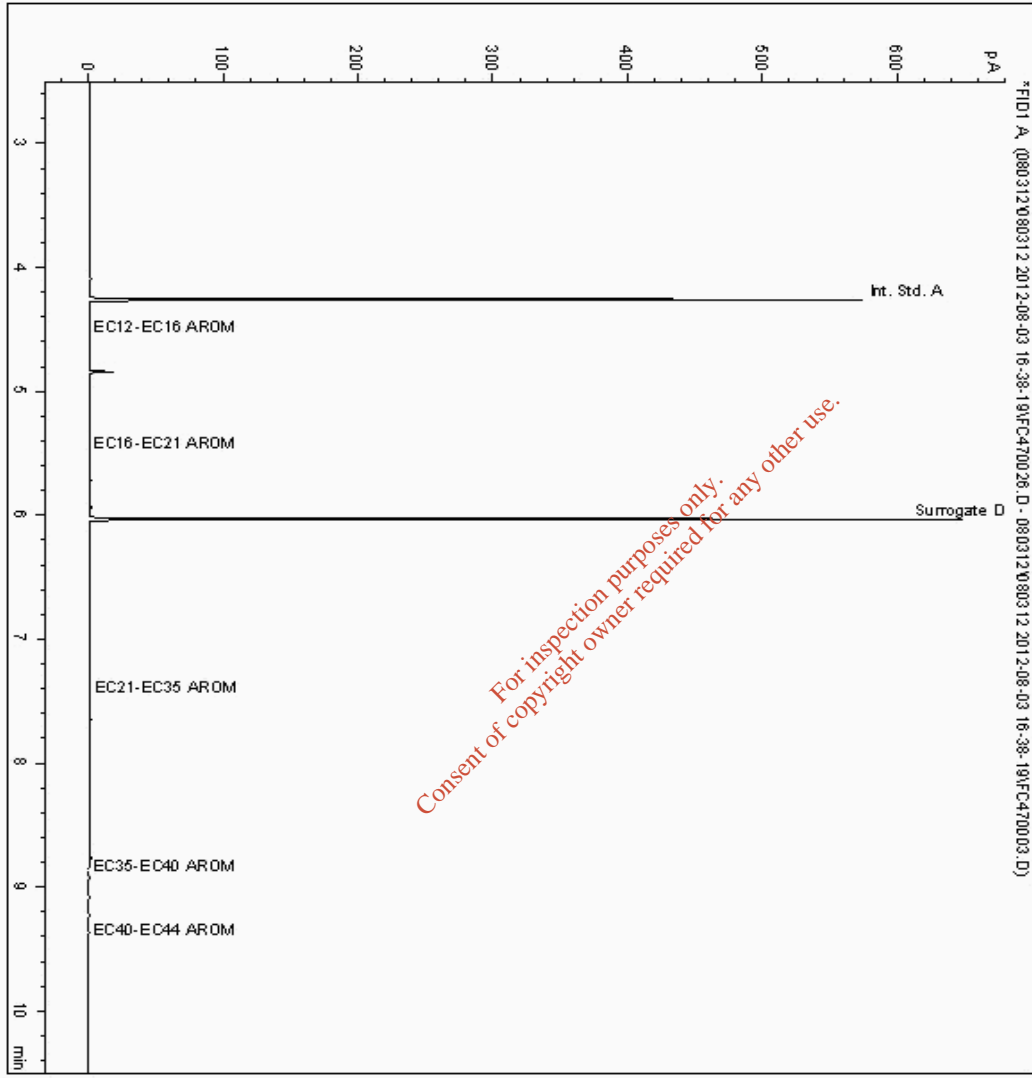
Analysis: EPH CWG (Aromatic) Aqueous GC (W)

Sample No : 5958211
Sample ID : J10

Depth : 1.50

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

Sample Identity: 5793061-5958211
Date Acquired : 03/08/12 23:14:22
Units :
Dilution :
CF : 1
Multiplier : 0.009





SDG: 120727-57
Job: D_MOUCHEL_ELE-107
Client Reference: 1034973

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

Order Number: 4500099608
Report Number: 189981
Superseded Report:

Chromatogram

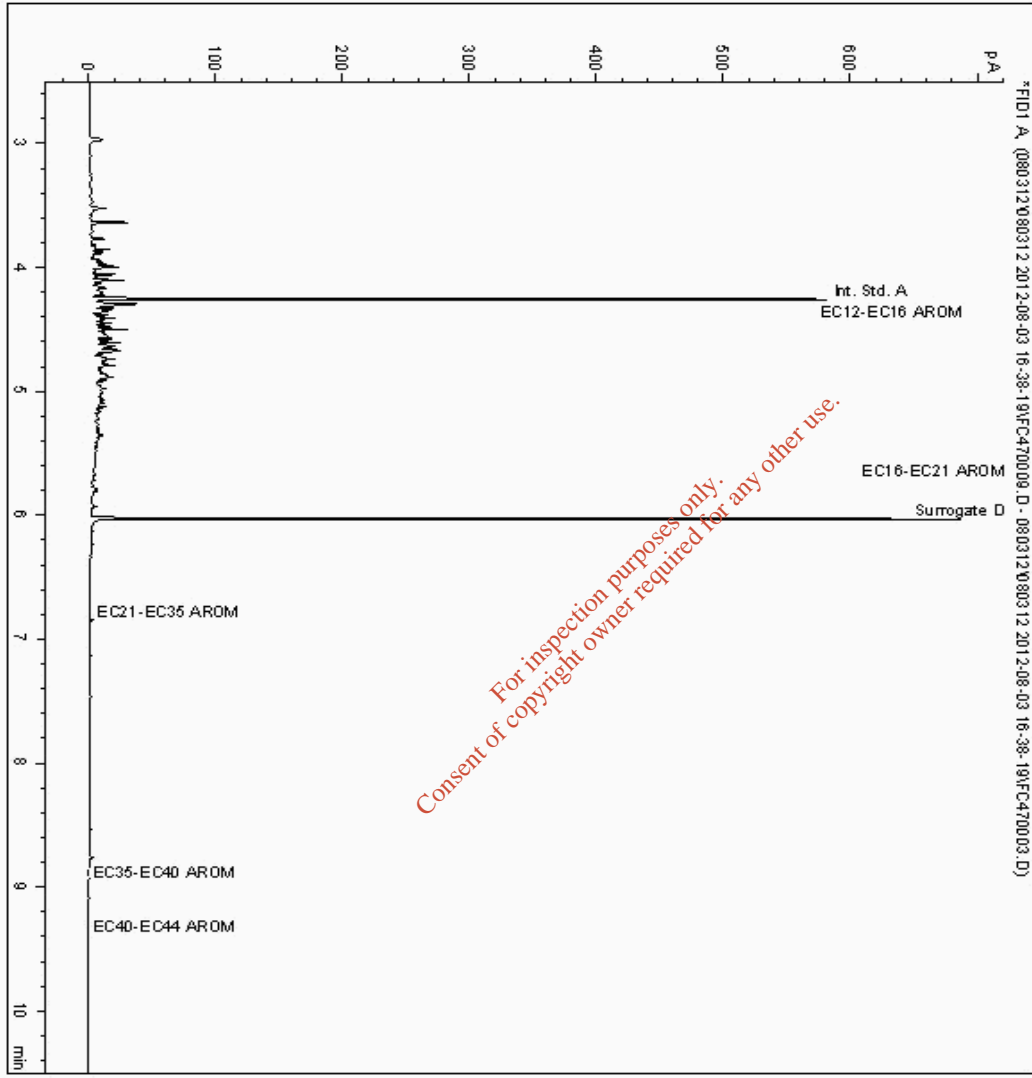
Analysis: EPH CWG (Aromatic) Aqueous GC (W)

Sample No : 5958979
Sample ID : C11

Depth : 1.00 - 2.00

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

Sample Identity: 5793016-5958979
Date Acquired : 03/08/12 19:09:52
Units :
Dilution :
CF : 1
Multiplier : 0.008





SDG: 120727-57
Job: D_MOUCHEL_ELE-107
Client Reference: 1034973

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

Order Number: 4500099608
Report Number: 189981
Superseded Report:

Chromatogram

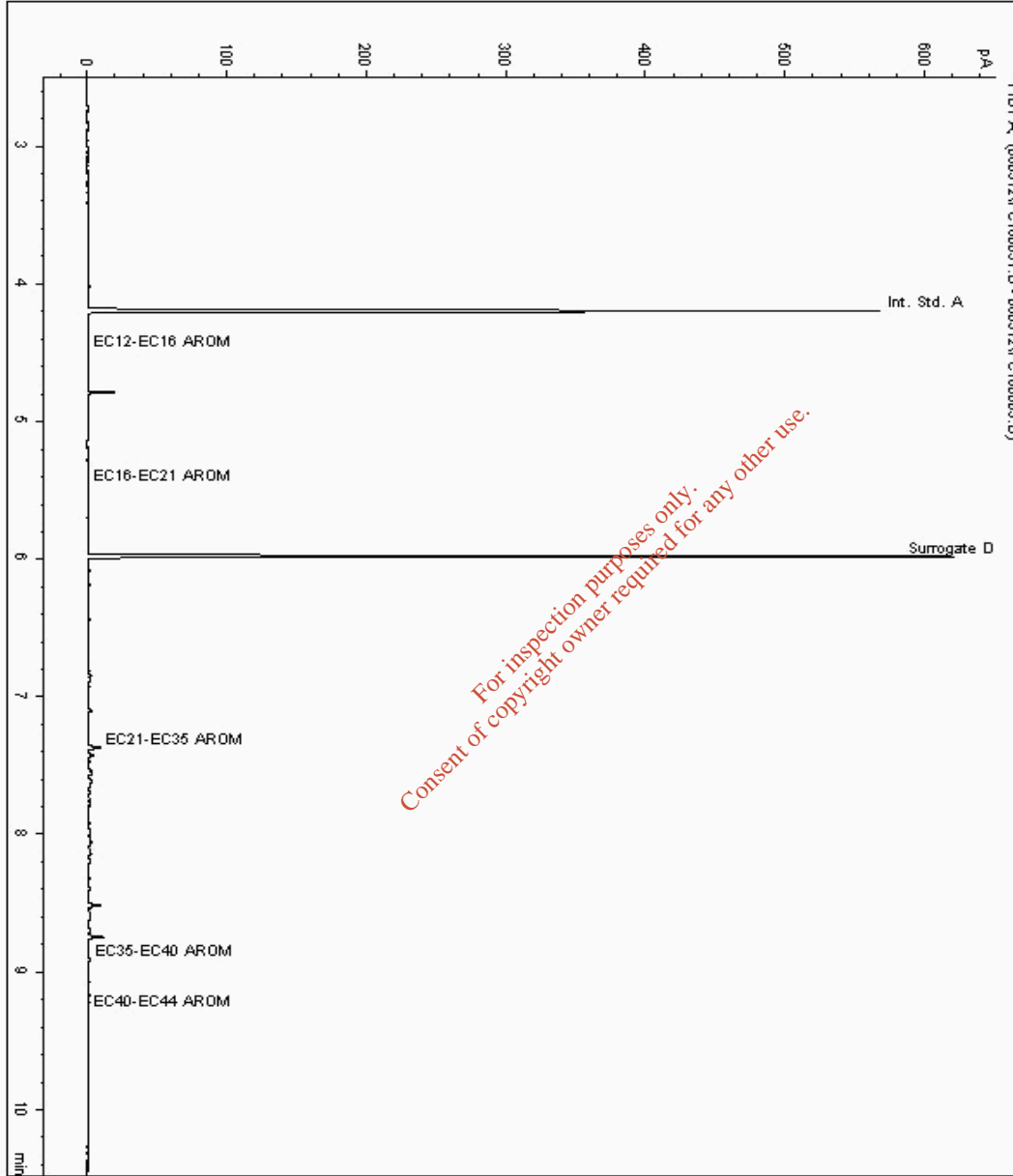
Analysis: EPH CWG (Aromatic) Aqueous GC (W)

Sample No : 5959076
Sample ID : A11

Depth : 1.00 - 2.00

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

Sample Identity: 5793000-5959076
Date Acquired : 05/08/2012 21:46:02 PM
Units : ppb
Dilution :
CF : 1
Multiplier : 0.008





SDG: 120727-57
Job: D_MOUCHEL_ELE-107
Client Reference: 1034973

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

Order Number: 4500099608
Report Number: 189981
Superseded Report:

Chromatogram

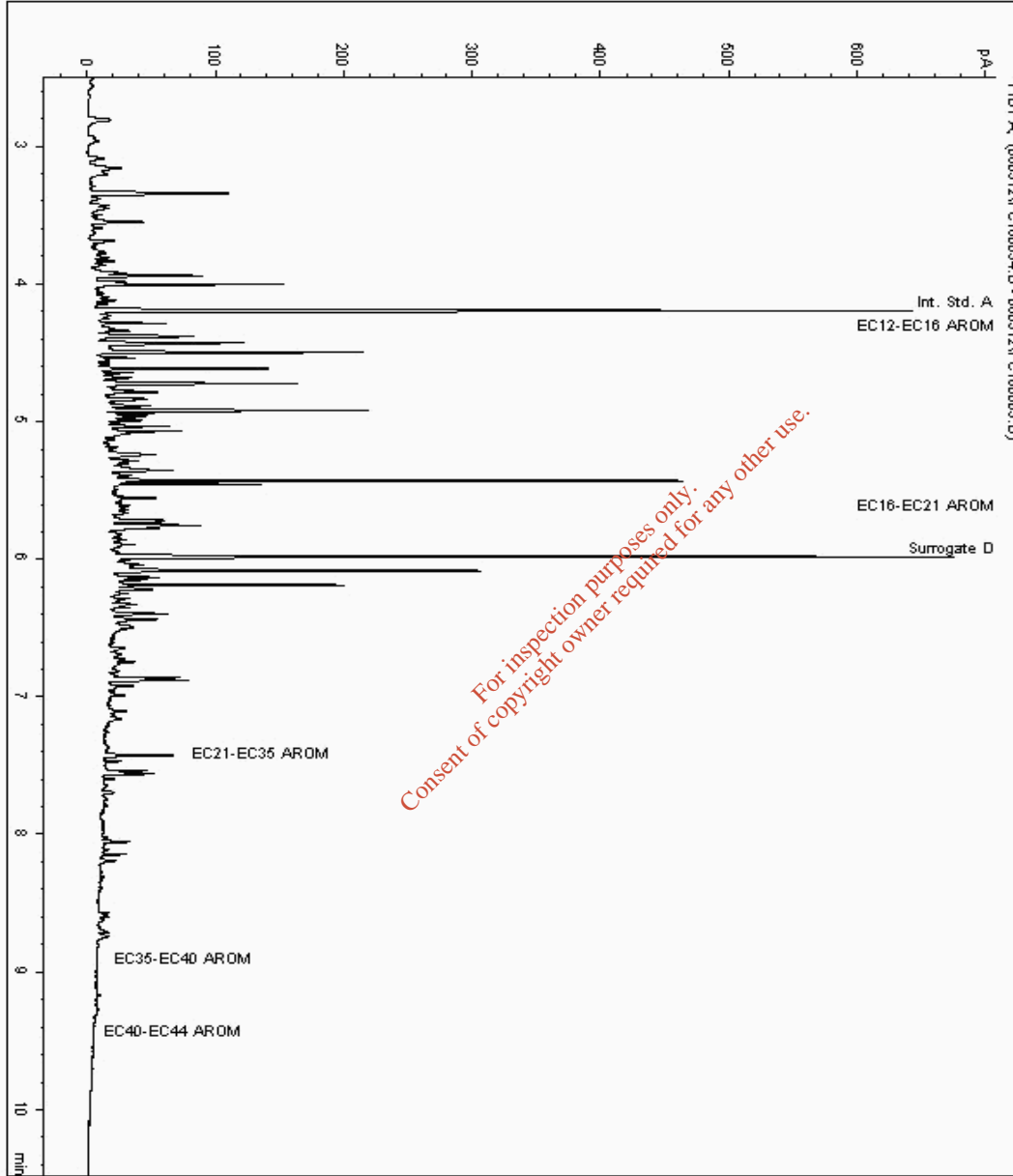
Analysis: EPH CWG (Aromatic) Aqueous GC (W)

Sample No : 5959139
Sample ID : D1

Depth : 3.00 - 4.00

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

Sample Identity: 5793123-5959139
Date Acquired : 06/08/2012 13:55:30 PM
Units : ppb
Dilution :
CF : 1
Multiplier : 0.017





SDG: 120727-57
Job: D_MOUCHEL_ELE-107
Client Reference: 1034973

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

Order Number: 4500099608
Report Number: 189981
Superseded Report:

Chromatogram

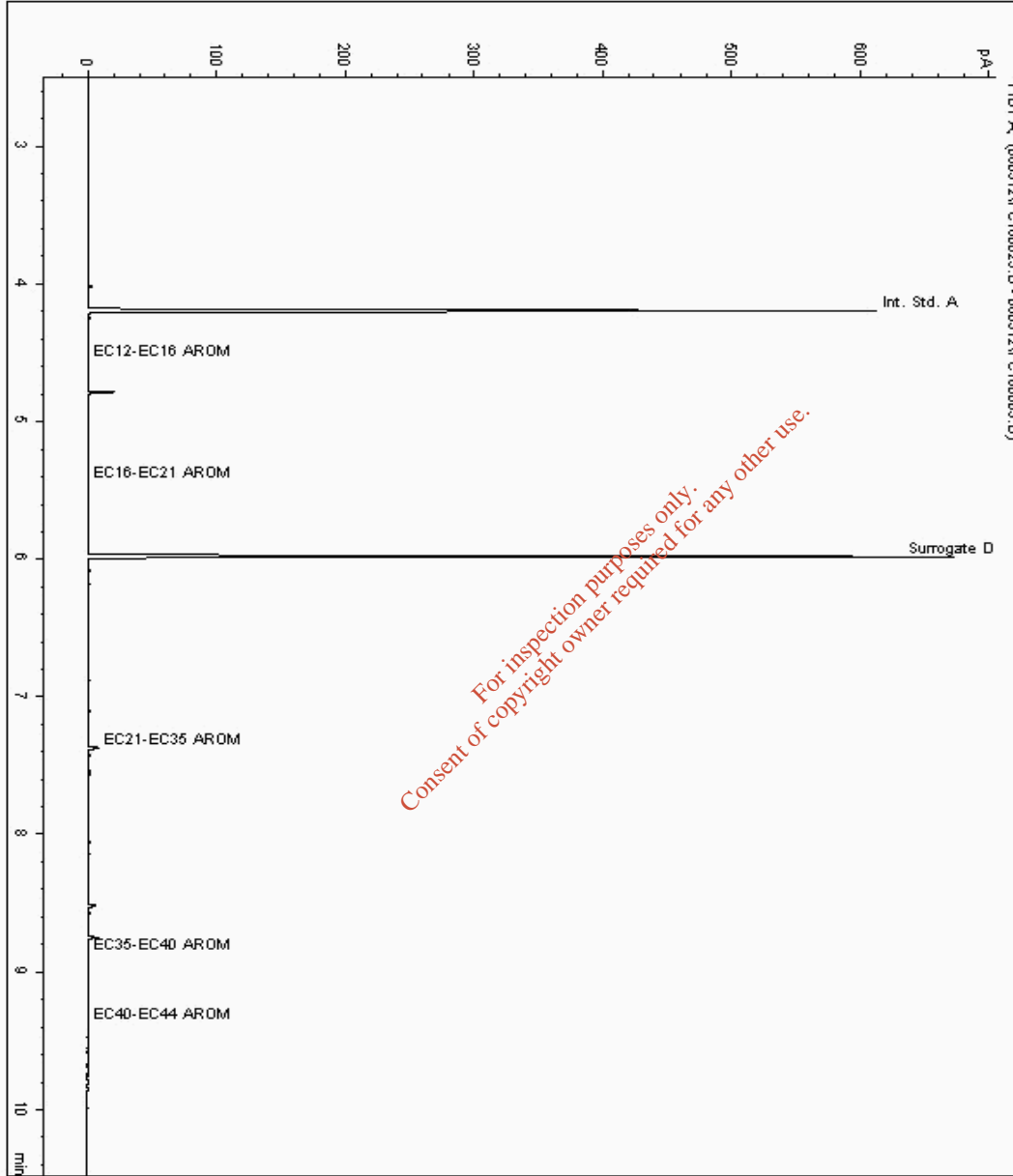
Analysis: EPH CWG (Aromatic) Aqueous GC (W)

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
Job: D_MOUCHEL_ELE-107
Client Reference: 1034973

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

Order Number: 4500099608
Report Number: 189981
Superseded Report:

Chromatogram

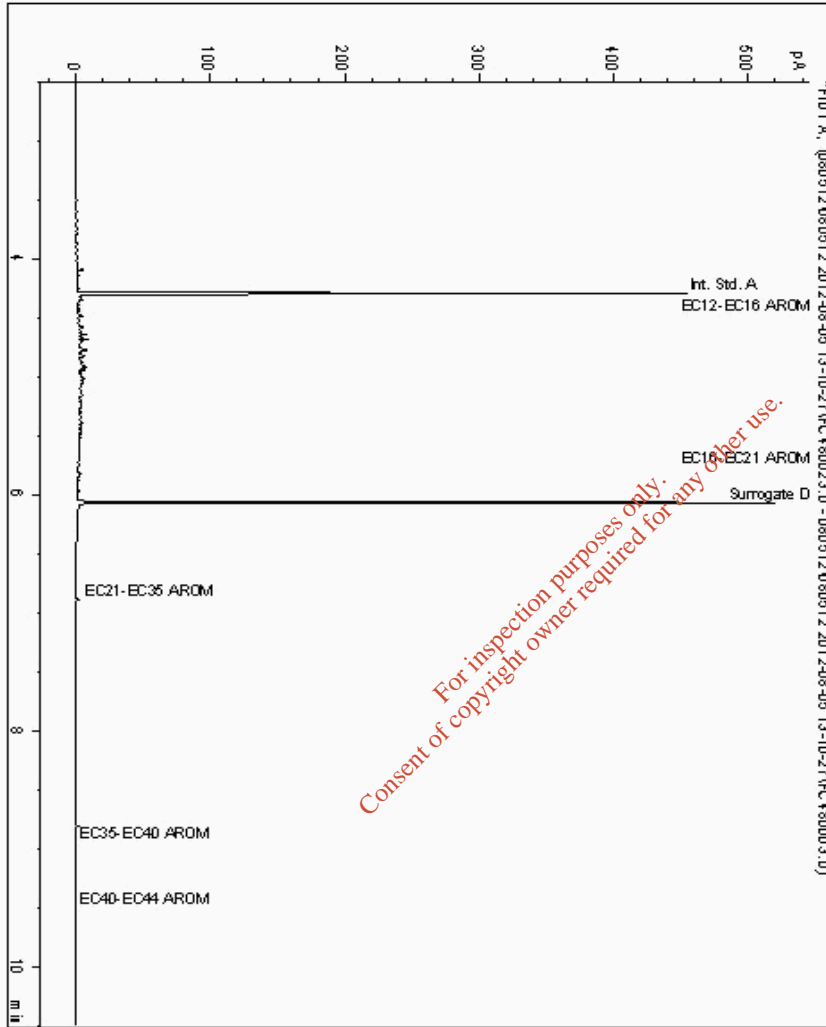
Analysis: EPH CWG (Aromatic) Aqueous GC (W)

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



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SDG: 120727-57
Job: D_MOUCHEL_ELE-107
Client Reference: 1034973

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

Order Number: 4500099608
Report Number: 189981
Superseded Report:

Chromatogram

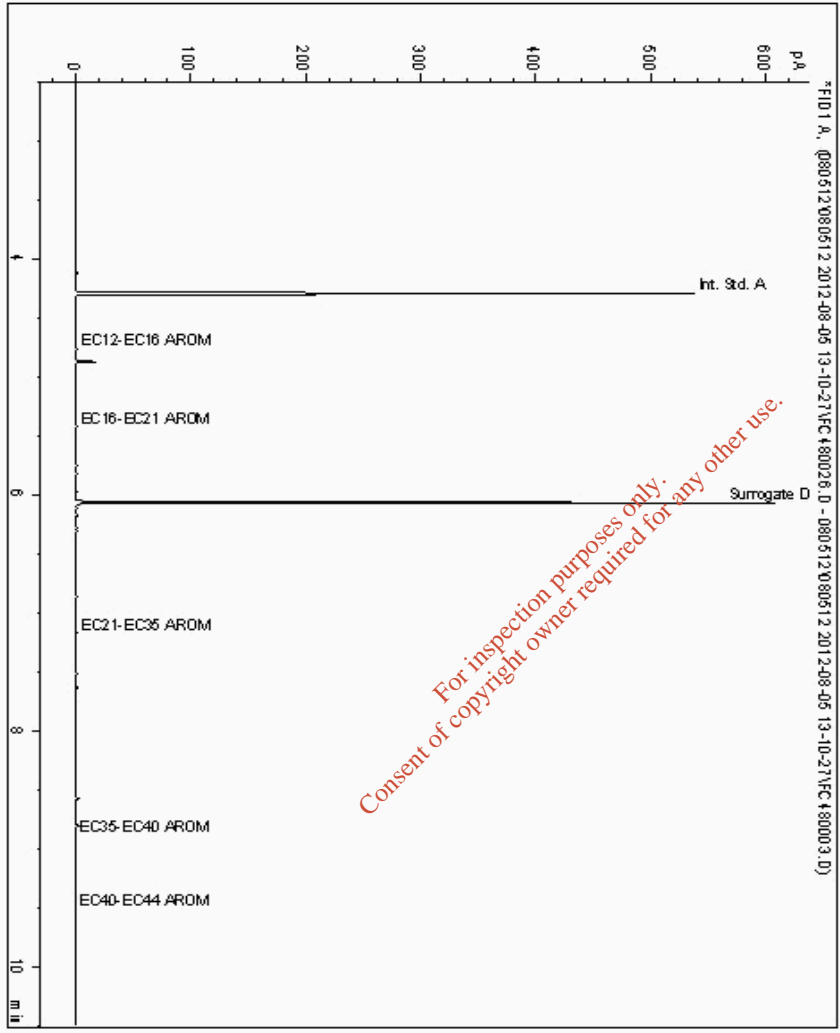
Analysis: EPH CWG (Aromatic) Aqueous GC (W)

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





SDG: 120727-57
Job: D_MOUCHEL_ELE-107
Client Reference: 1034973

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

Order Number: 4500099608
Report Number: 189981
Superseded Report:

Chromatogram

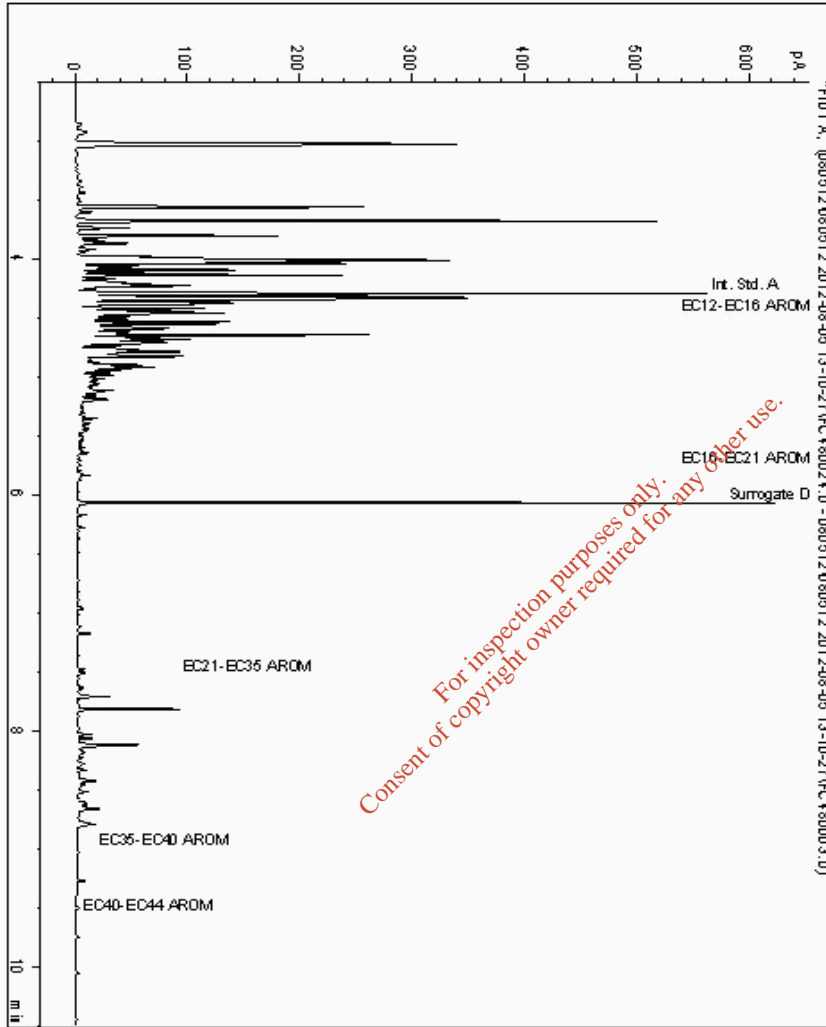
Analysis: EPH CWG (Aromatic) Aqueous GC (W)

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





SDG: 120727-57
Job: D_MOUCHEL_ELE-107
Client Reference: 1034973

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

Order Number: 4500099608
Report Number: 189981
Superseded Report:

Chromatogram

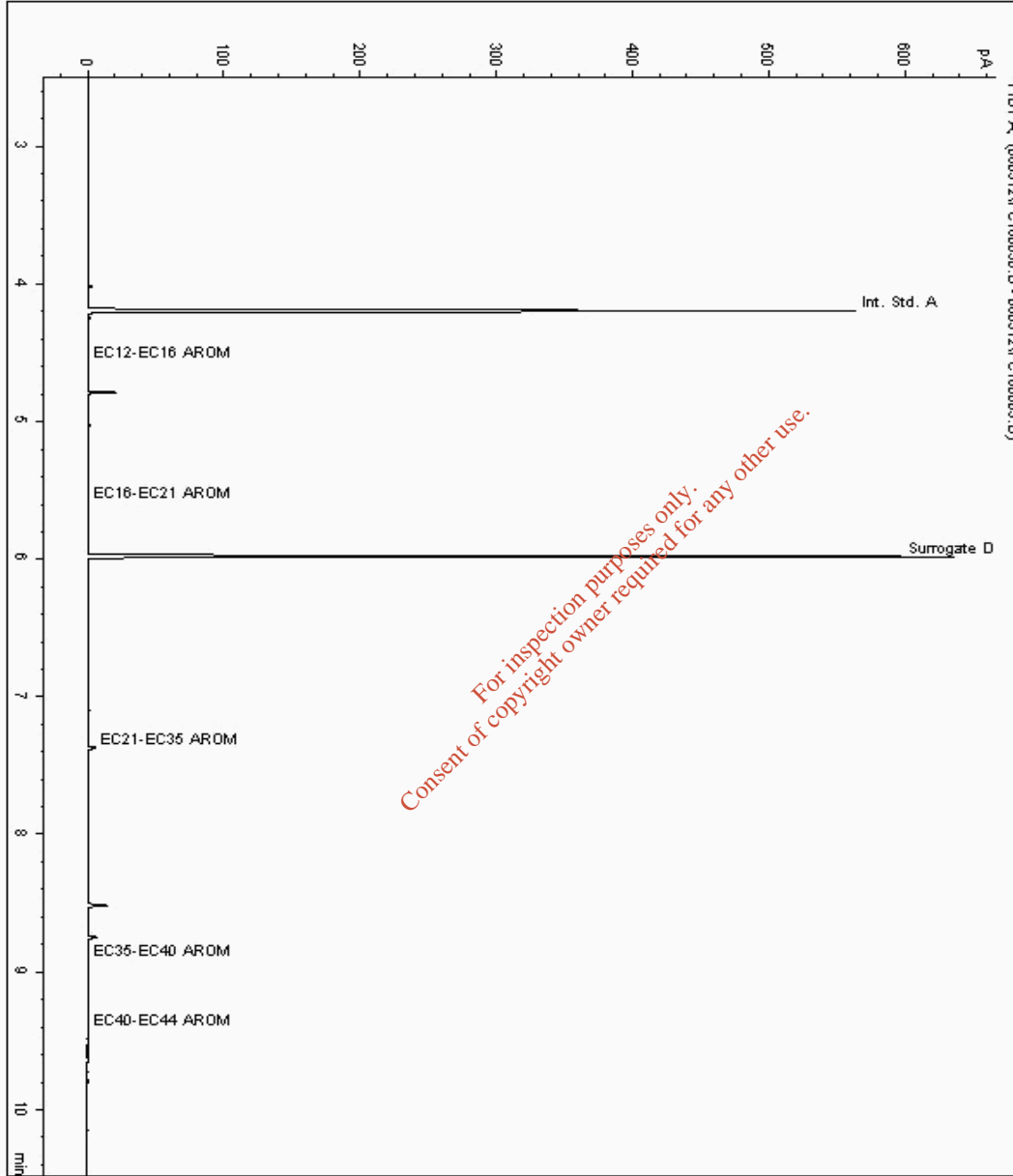
Analysis: EPH CWG (Aromatic) Aqueous GC (W)

Sample No : 5959488
Sample ID : C2

Depth : 1.00 - 2.00

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

Sample Identity: 5792985-5959488
Date Acquired : 05/08/2012 21:27:01 PM
Units : ppb
Dilution :
CF : 1
Multiplier : 0.008





CERTIFICATE OF ANALYSIS

SDG: 120727-57
Job: D_MOUCHEL_ELE-107
Client Reference: 1034973

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

Order Number: 4500099608
Report Number: 189981
Superseded Report:

Chromatogram

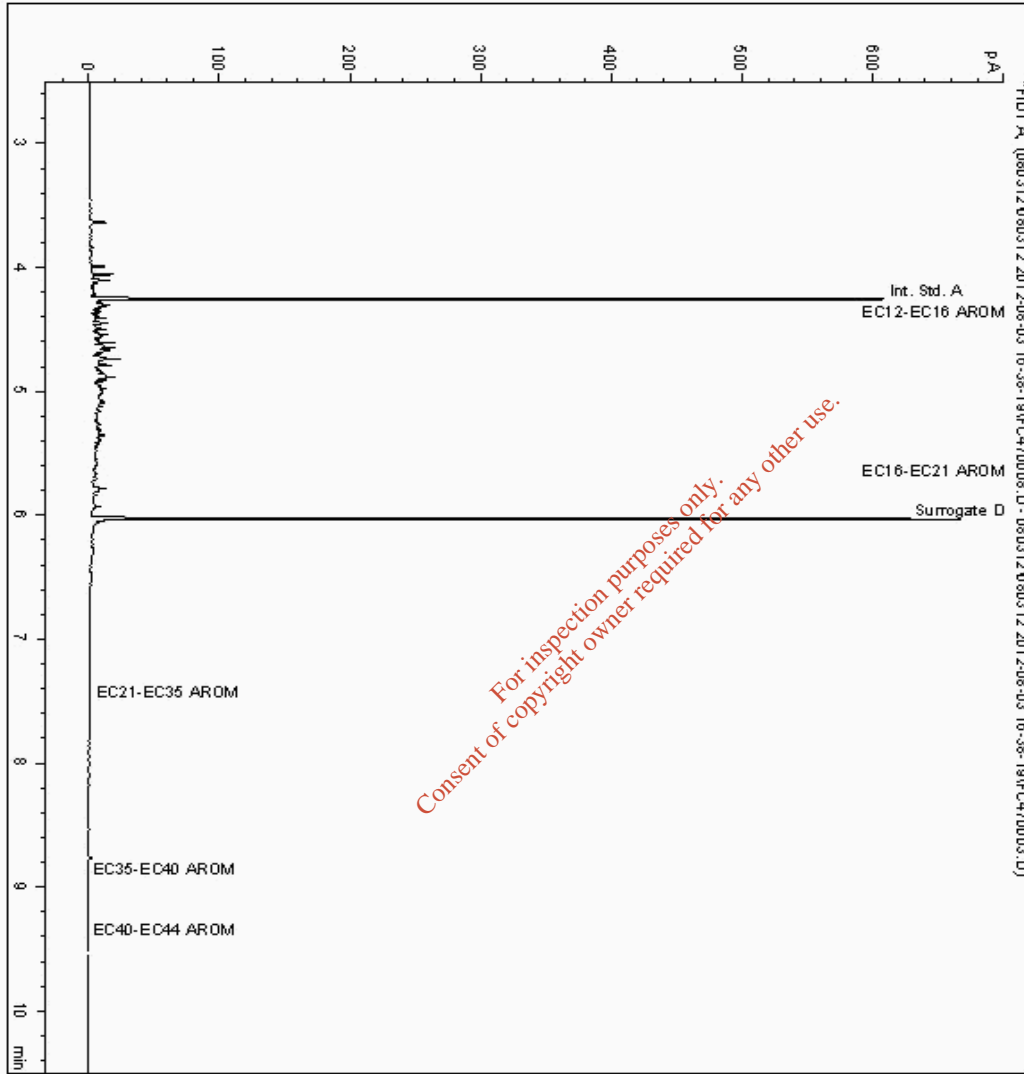
Analysis: EPH CWG (Aromatic) Aqueous GC (W)

Sample No : 5959508
Sample ID : A1

Depth : 1.50 - 2.50

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

Sample Identity: 5792937-5959508
Date Acquired : 03/08/12 18:50:35
Units :
Dilution :
CF : 1
Multiplier : 0.008





SDG: 120727-57
Job: D_MOUCHEL_ELE-107
Client Reference: 1034973

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

Order Number: 4500099608
Report Number: 189981
Superseded Report:

Chromatogram

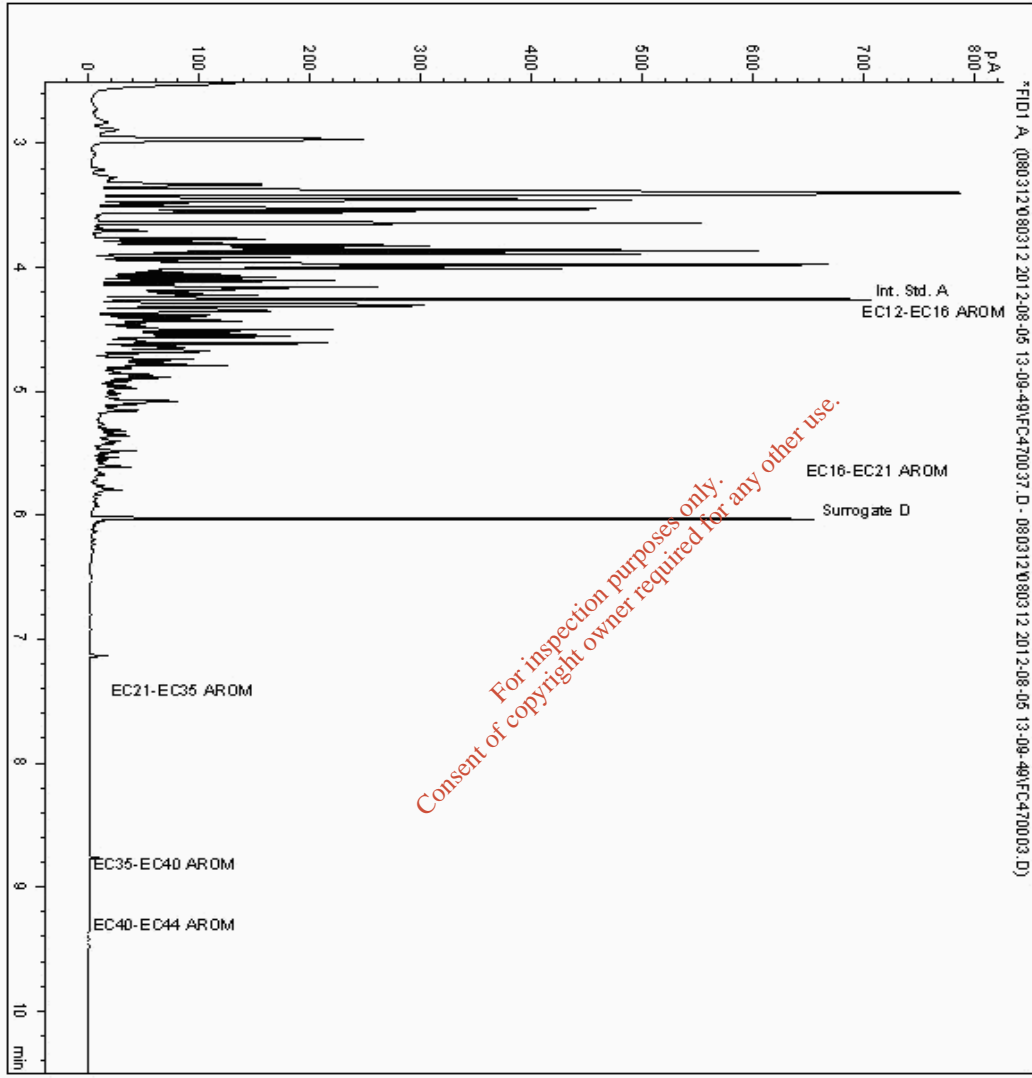
Analysis: EPH CWG (Aromatic) Aqueous GC (W)

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





SDG: 120727-57
Job: D_MOUCHEL_ELE-107
Client Reference: 1034973

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

Order Number: 4500099608
Report Number: 189981
Superseded Report:

Chromatogram

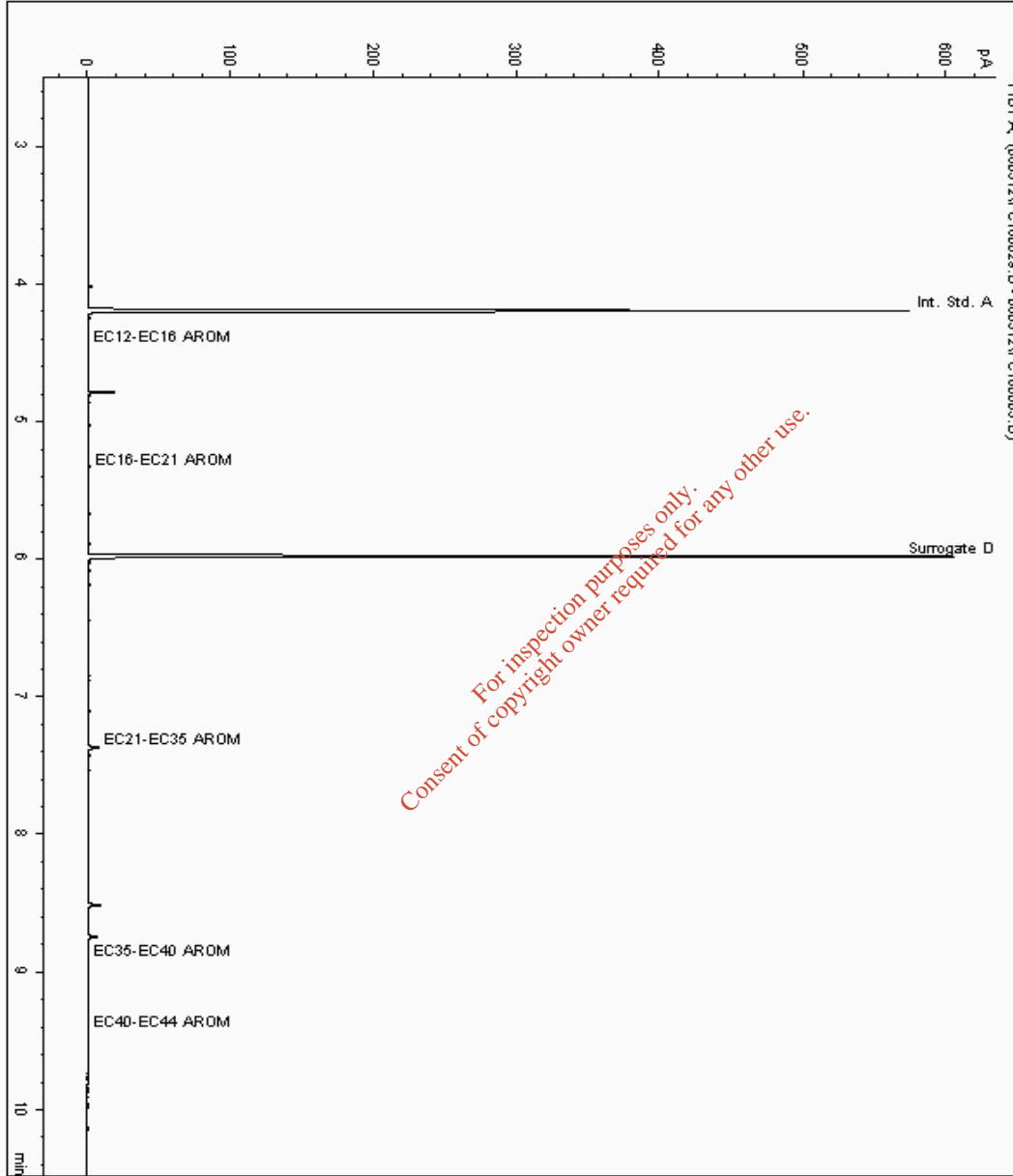
Analysis: EPH CWG (Aromatic) Aqueous GC (W)

Sample No : 5959524
Sample ID : A4

Depth : 2.00 - 3.00

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

Sample Identity: 5792969-5959524
Date Acquired : 05/08/2012 21:07:39 PM
Units : ppb
Dilution :
CF : 1
Multiplier : 0.008





SDG: 120727-57
Job: D_MOUCHEL_ELE-107
Client Reference: 1034973

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

Order Number: 4500099608
Report Number: 189981
Superseded Report:

Chromatogram

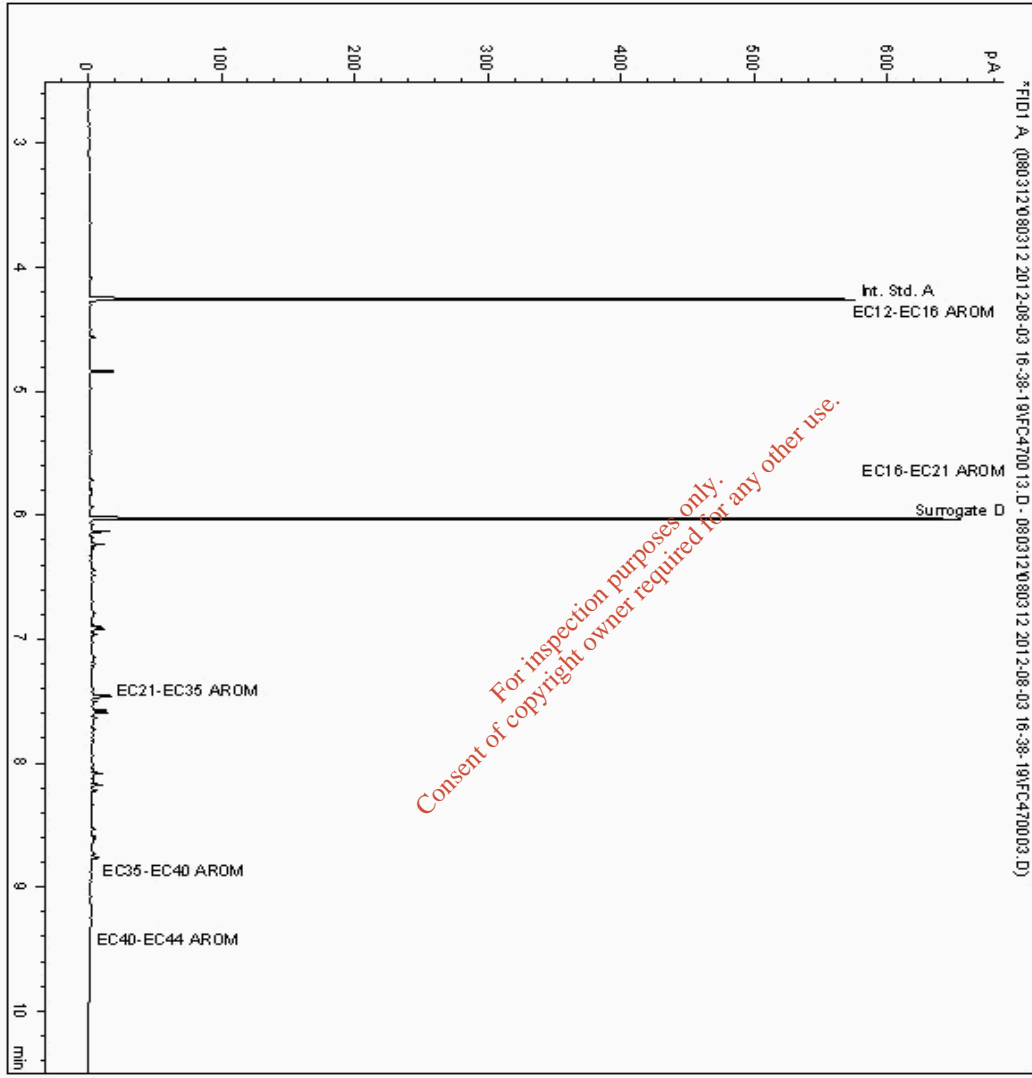
Analysis: EPH CWG (Aromatic) Aqueous GC (W)

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
Job: D_MOUCHEL_ELE-107
Client Reference: 1034973

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

Order Number: 4500099608
Report Number: 189981
Superseded Report:

Chromatogram

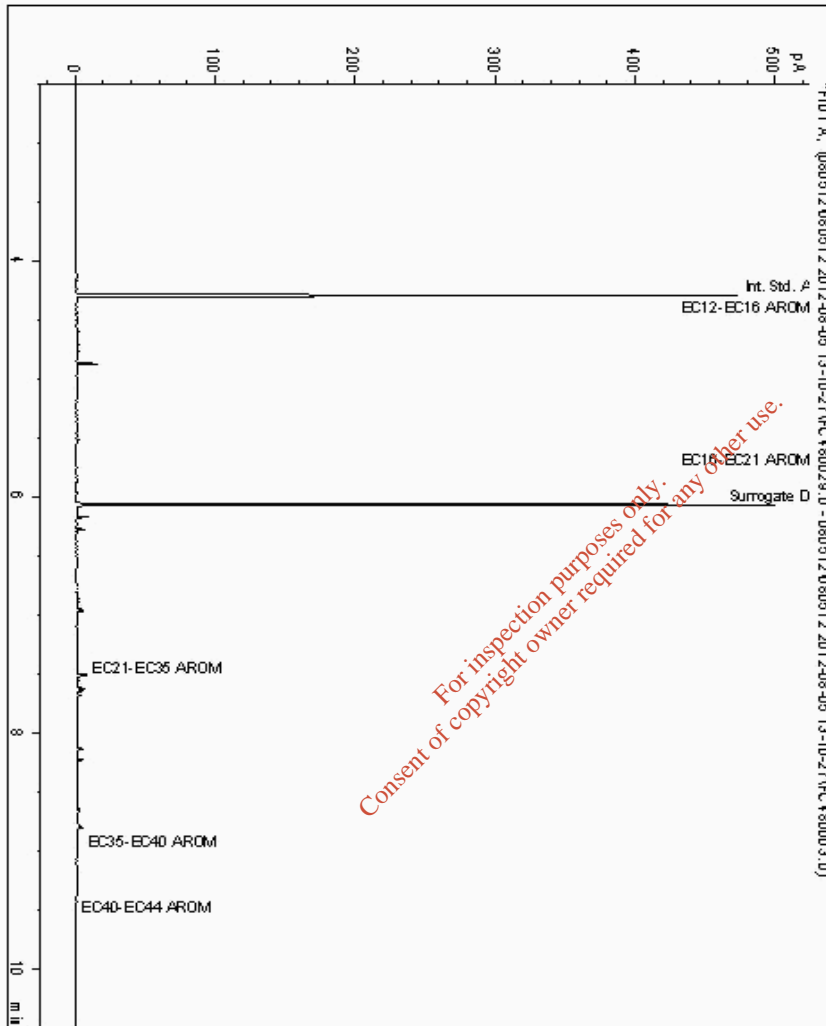
Analysis: EPH CWG (Aromatic) Aqueous GC (W)

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





SDG: 120727-57
Job: D_MOUCHEL_ELE-107
Client Reference: 1034973

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

Order Number: 4500099608
Report Number: 189981
Superseded Report:

Chromatogram

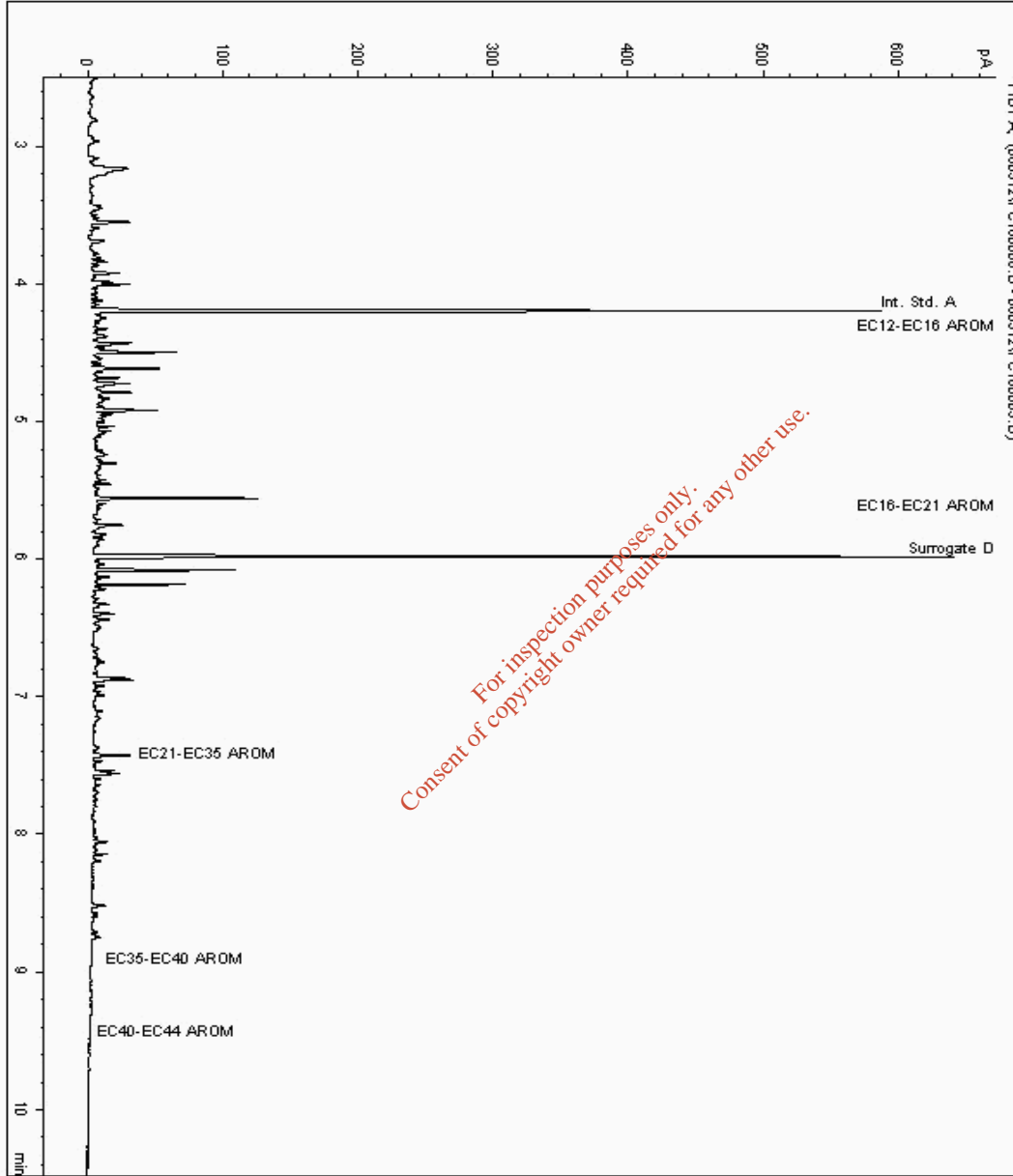
Analysis: EPH CWG (Aromatic) Aqueous GC (W)

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





SDG: 120727-57
Job: D_MOUCHEL_ELE-107
Client Reference: 1034973

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

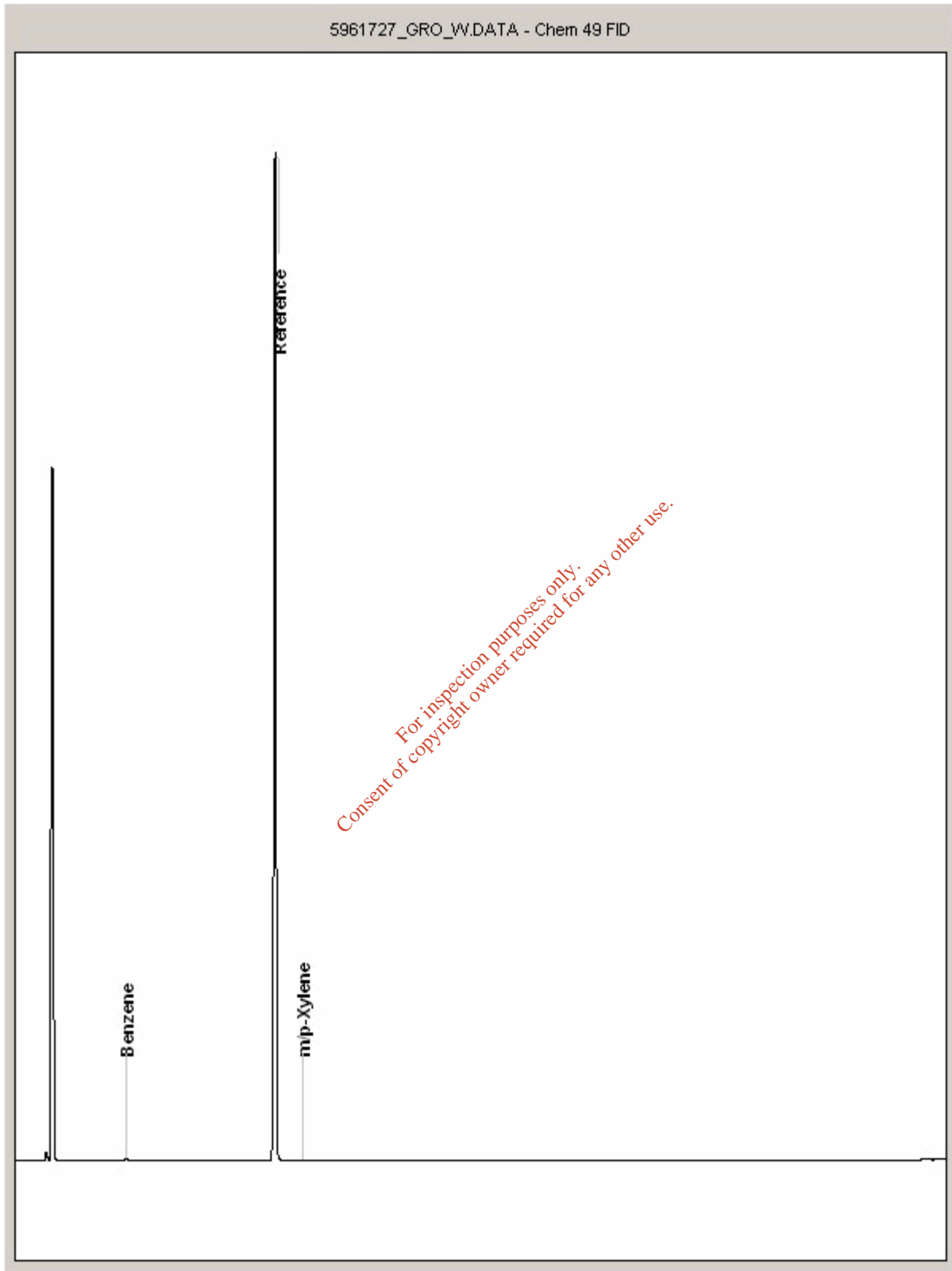
Order Number: 4500099608
Report Number: 189981
Superseded Report:

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 5961727
Sample ID : M3

Depth : 3.00 - 4.00





SDG: 120727-57
Job: D_MOUCHEL_ELE-107
Client Reference: 1034973

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

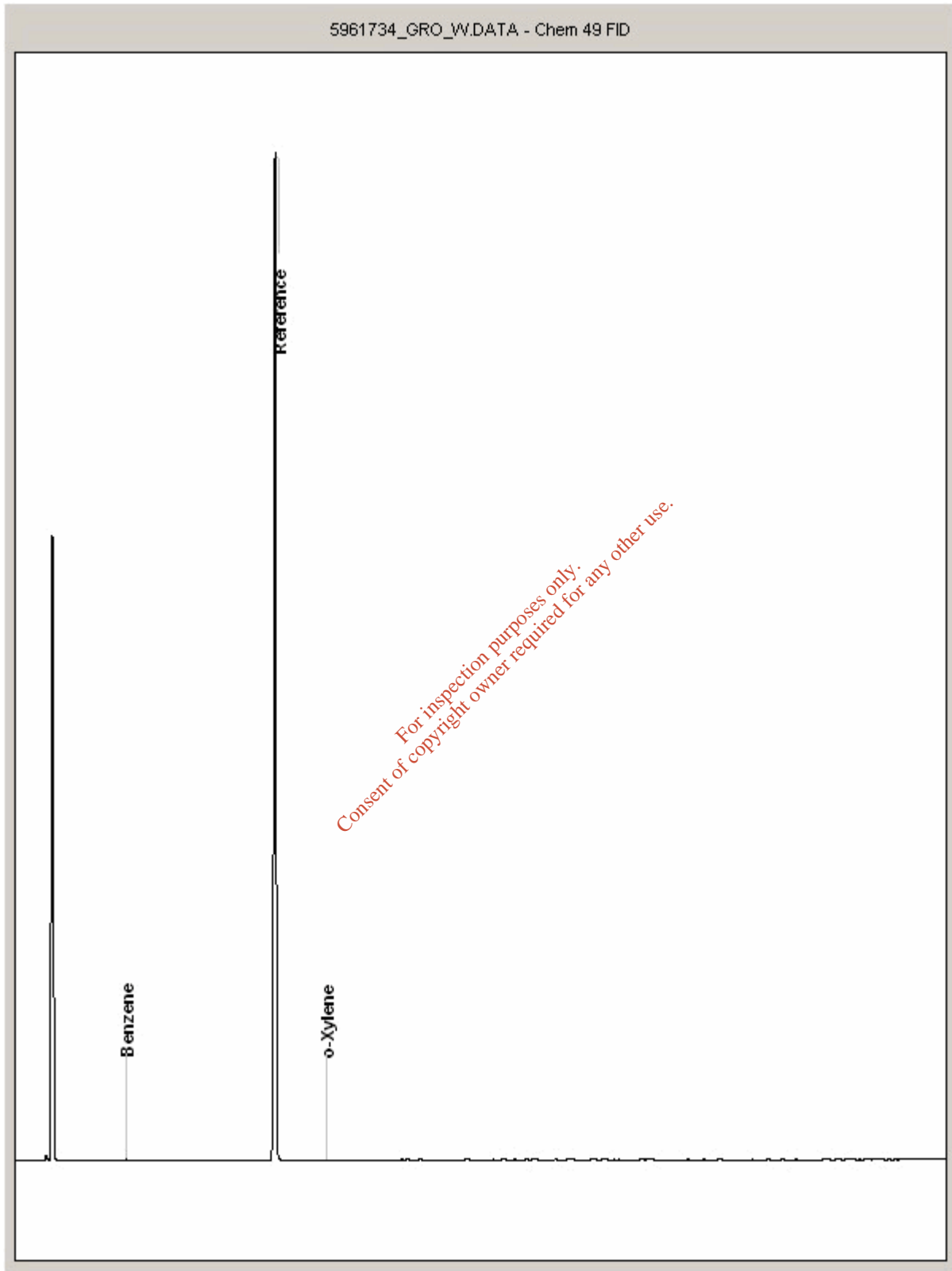
Order Number: 4500099608
Report Number: 189981
Superseded Report:

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 5961734
Sample ID : J10

Depth : 1.50





SDG: 120727-57
Job: D_MOUCHEL_ELE-107
Client Reference: 1034973

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

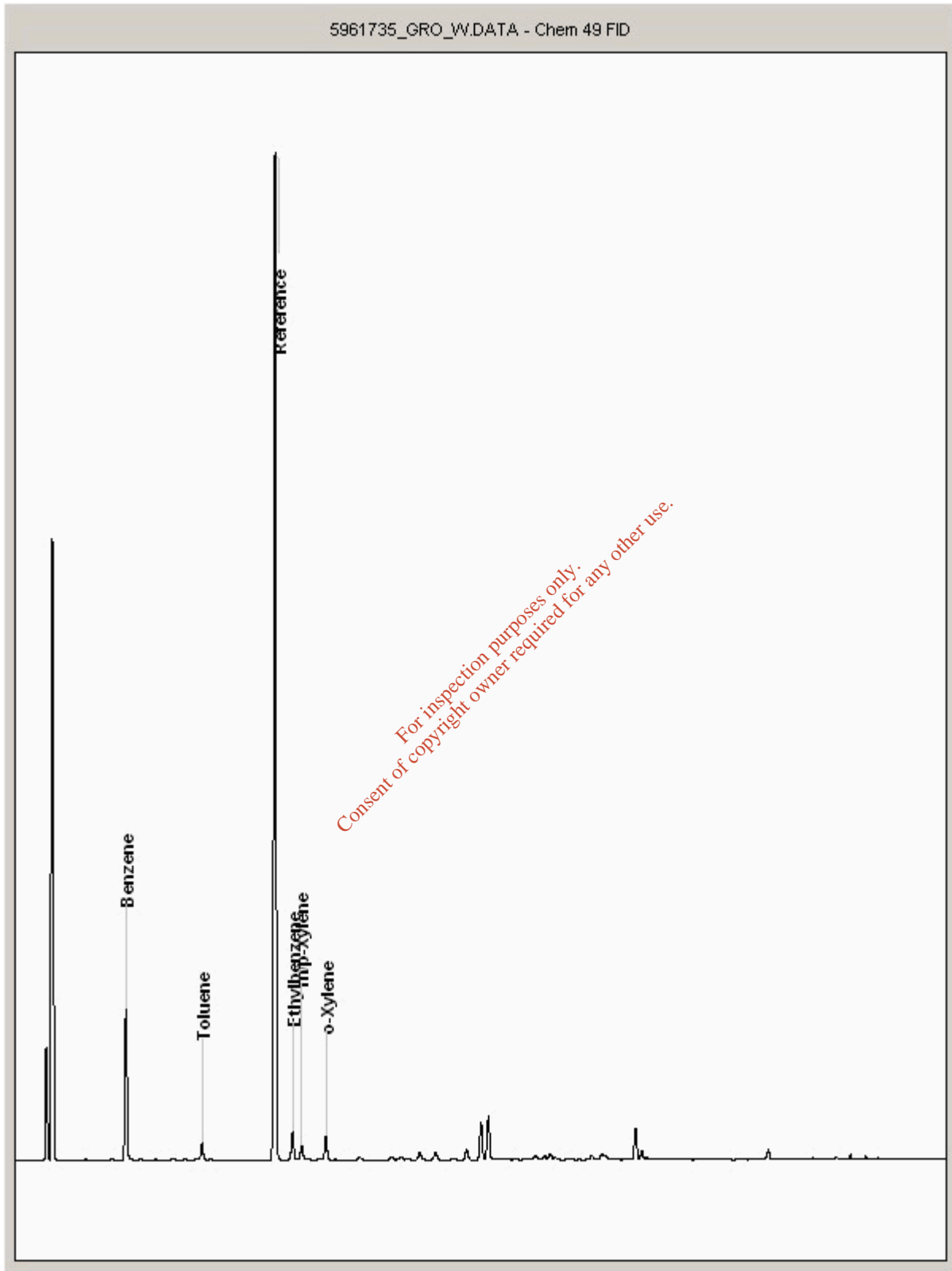
Order Number: 4500099608
Report Number: 189981
Superseded Report:

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 5961735
Sample ID : A1

Depth : 1.50 - 2.50





SDG: 120727-57
Job: D_MOUCHEL_ELE-107
Client Reference: 1034973

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

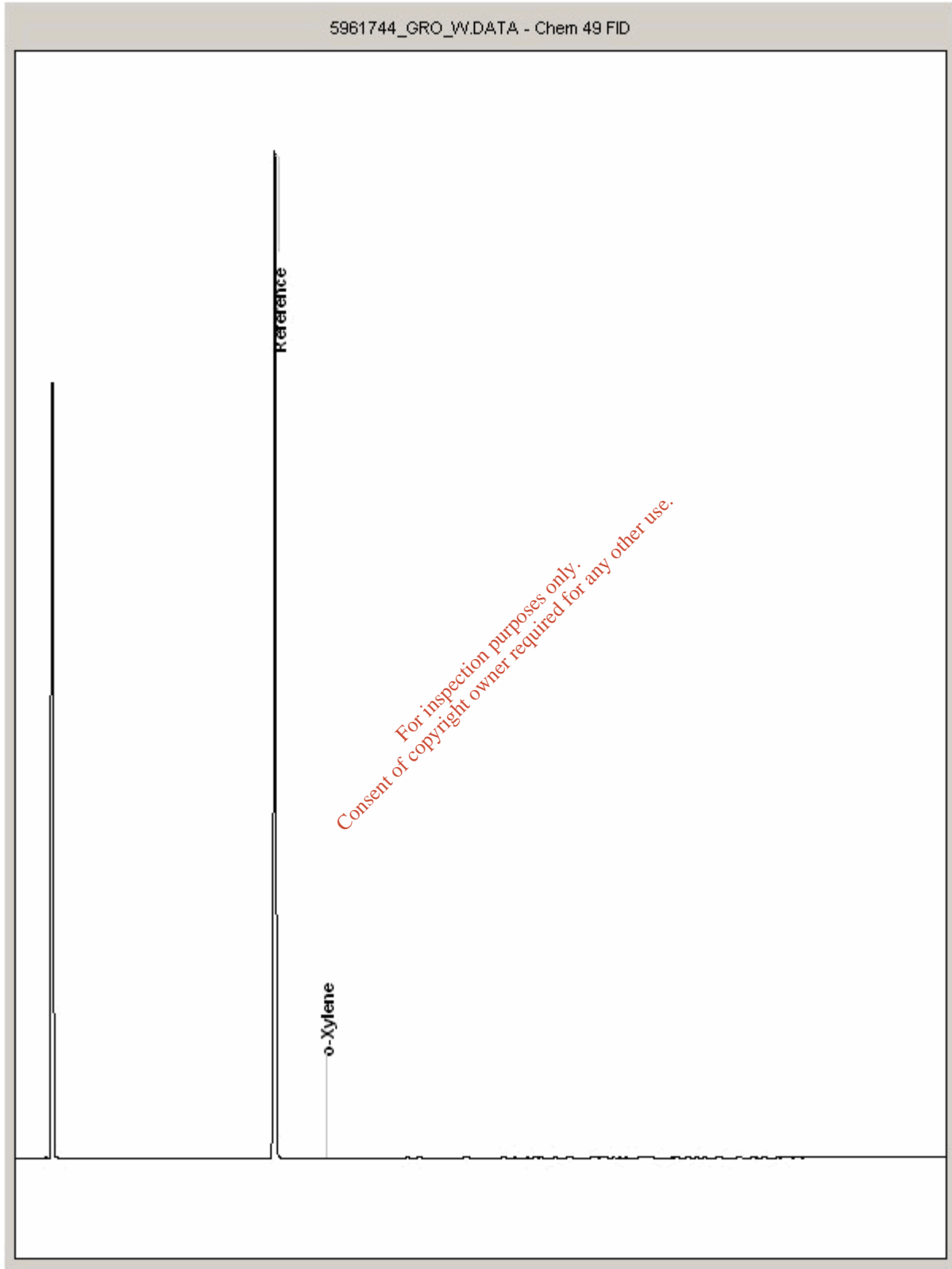
Order Number: 4500099608
Report Number: 189981
Superseded Report:

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 5961744
Sample ID : C2

Depth : 1.00 - 2.00





SDG: 120727-57
Job: D_MOUCHEL_ELE-107
Client Reference: 1034973

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

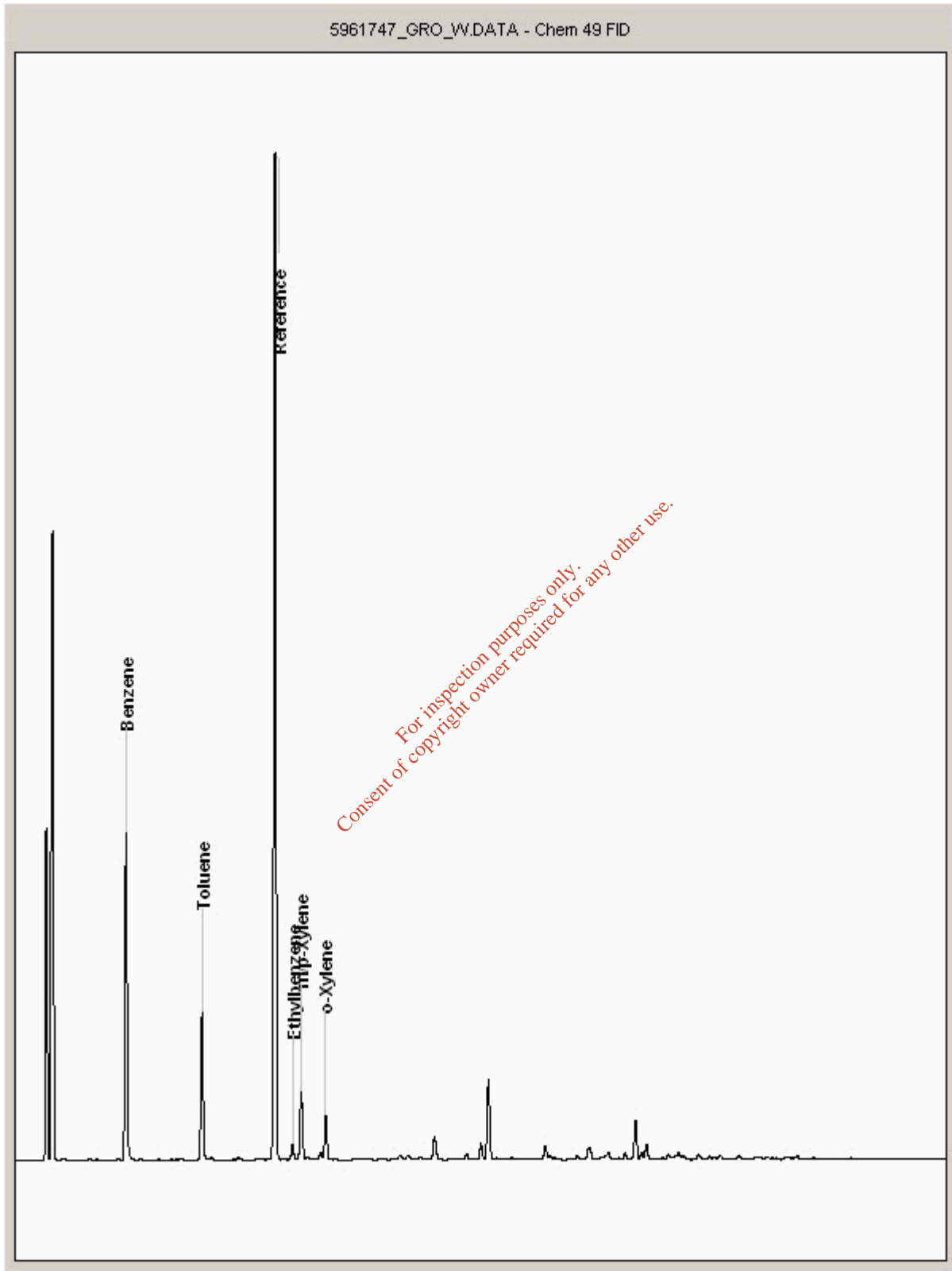
Order Number: 4500099608
Report Number: 189981
Superseded Report:

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 5961747
Sample ID : F11

Depth : 3.50 - 4.50





SDG: 120727-57
Job: D_MOUCHEL_ELE-107
Client Reference: 1034973

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

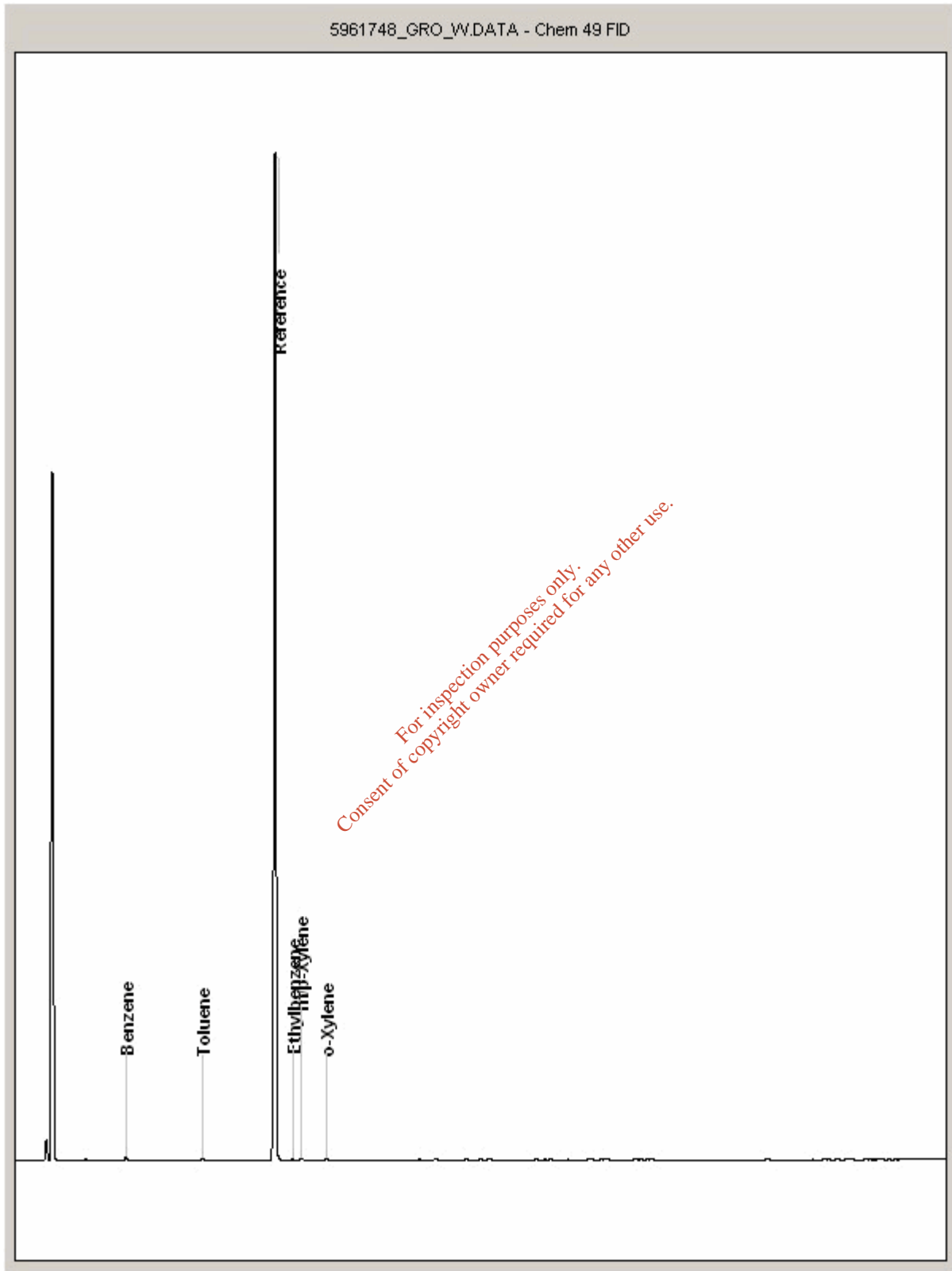
Order Number: 4500099608
Report Number: 189981
Superseded Report:

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 5961748
Sample ID : H12

Depth : 2.00 - 3.00





SDG: 120727-57
Job: D_MOUCHEL_ELE-107
Client Reference: 1034973

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

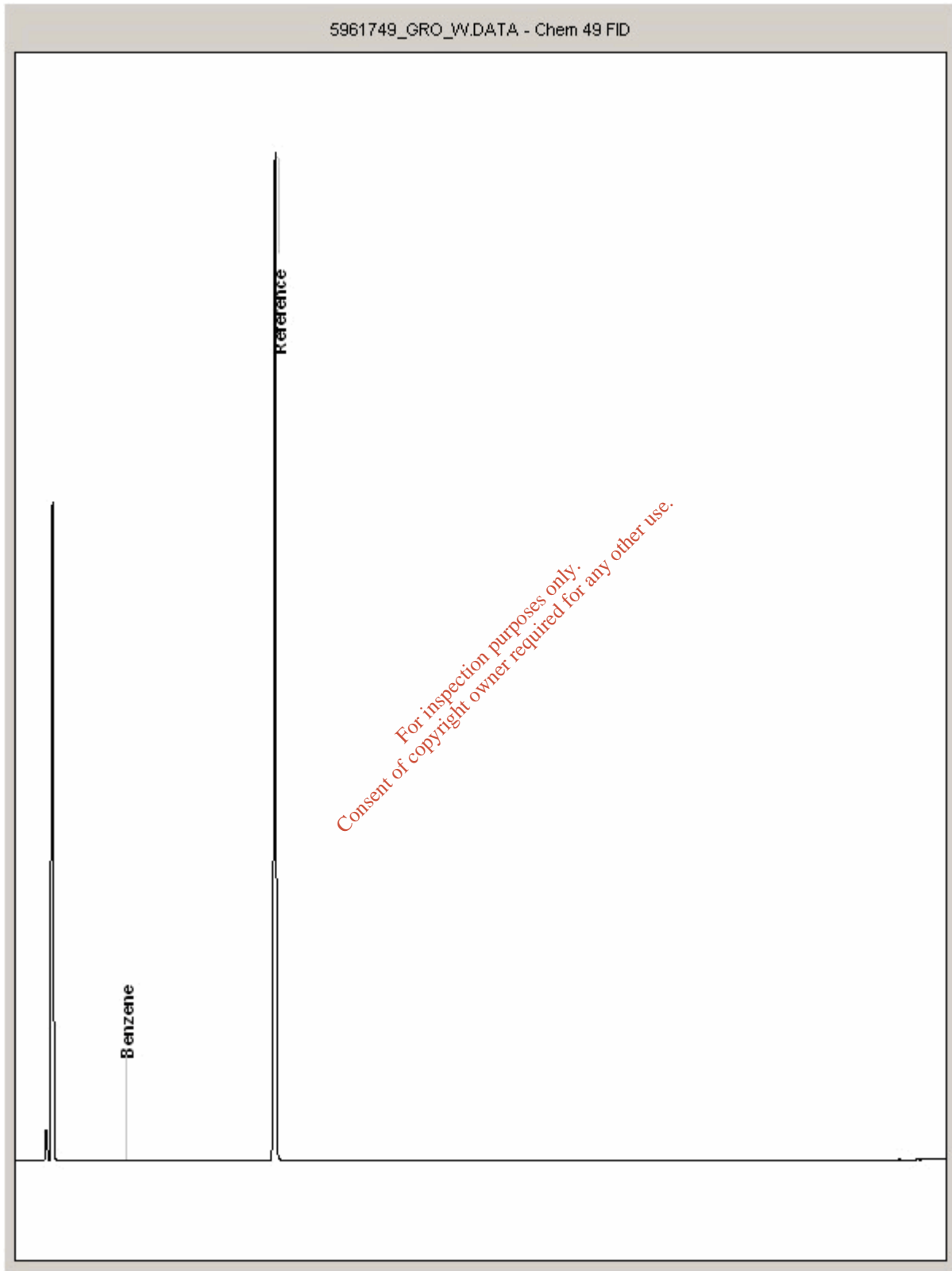
Order Number: 4500099608
Report Number: 189981
Superseded Report:

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 5961749
Sample ID : K1

Depth : 3.00 - 4.00



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SDG: 120727-57
Job: D_MOUCHEL_ELE-107
Client Reference: 1034973

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

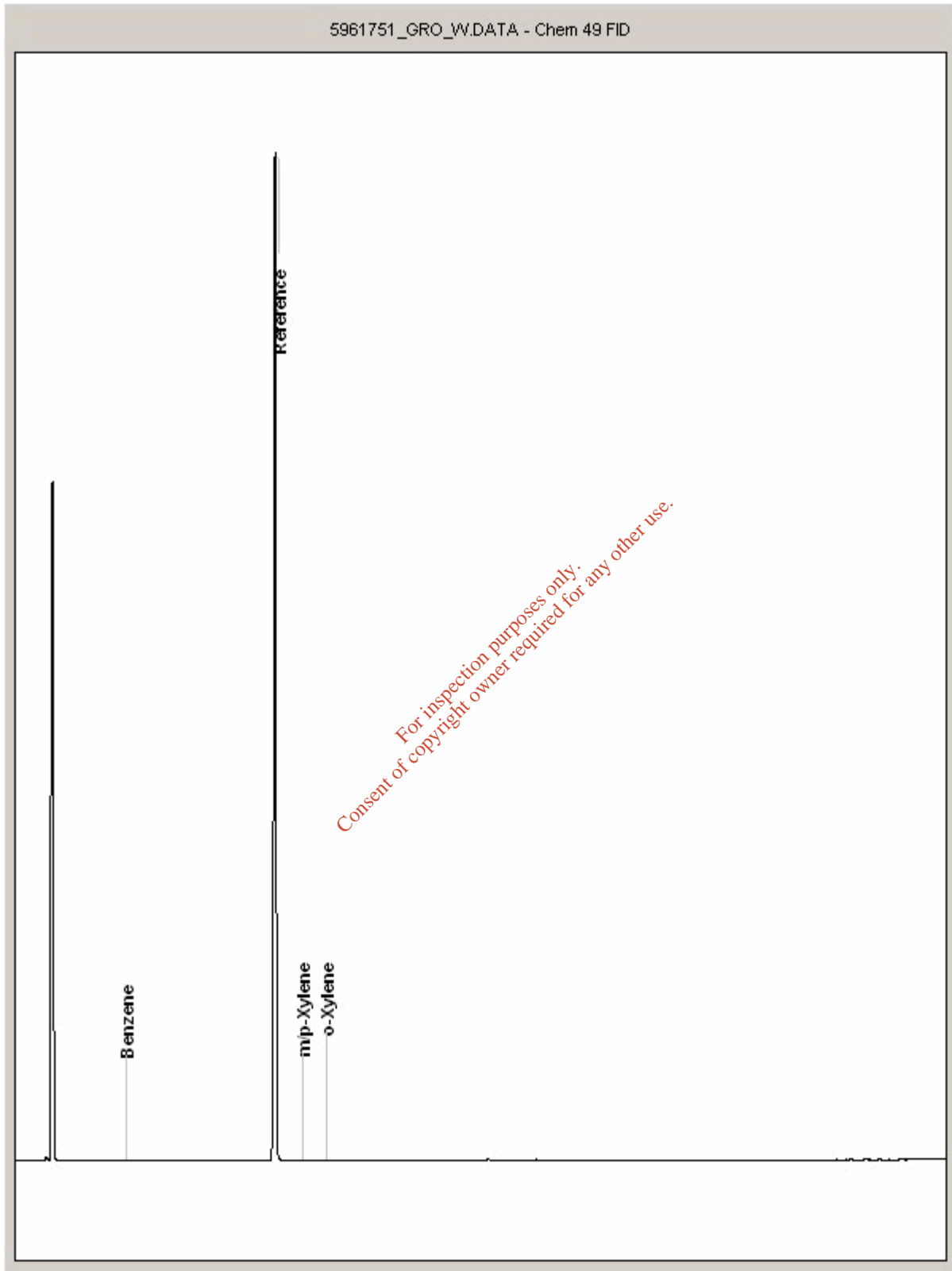
Order Number: 4500099608
Report Number: 189981
Superseded Report:

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 5961751
Sample ID : A4

Depth : 2.00 - 3.00





SDG: 120727-57
Job: D_MOUCHEL_ELE-107
Client Reference: 1034973

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

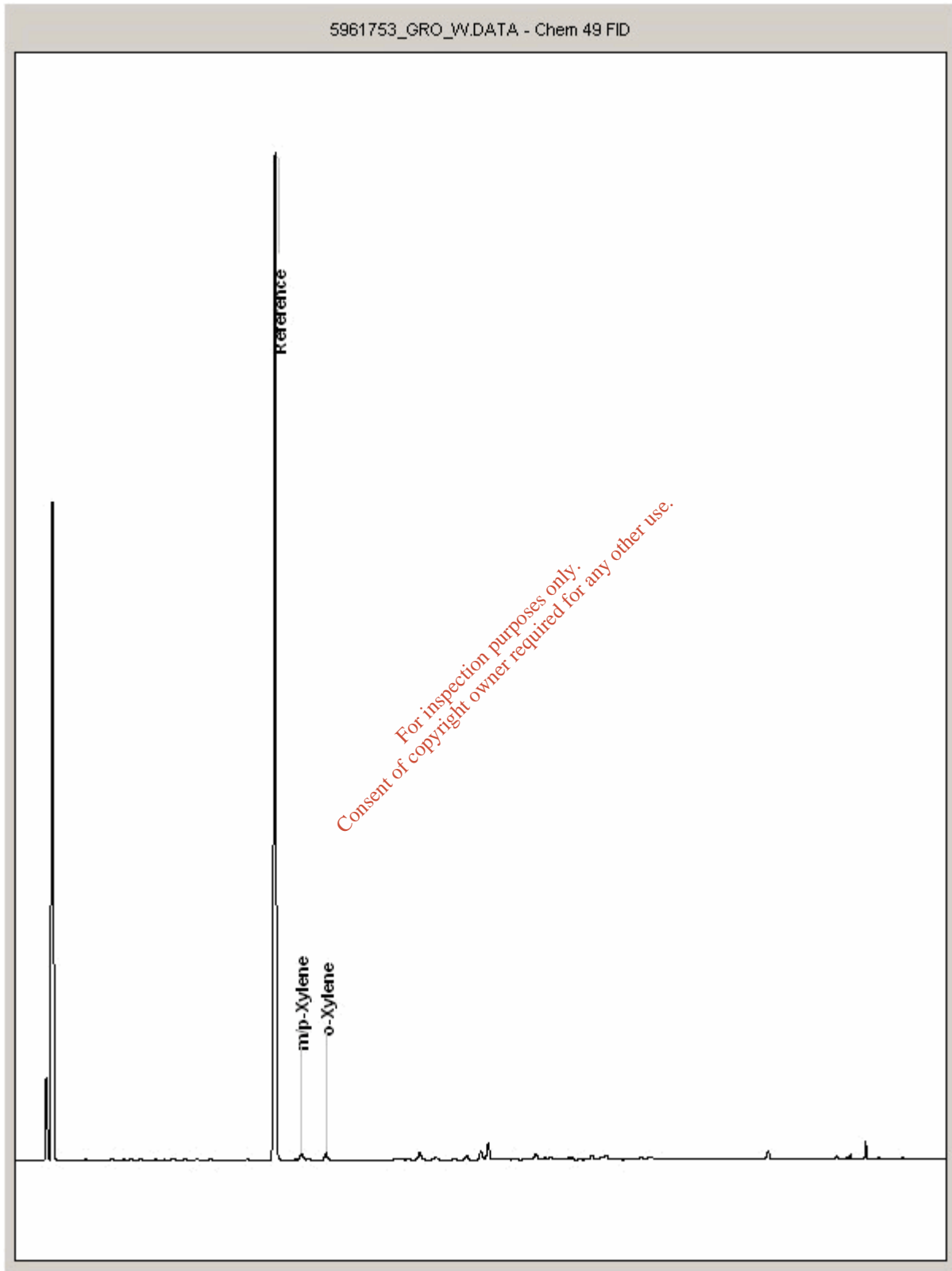
Order Number: 4500099608
Report Number: 189981
Superseded Report:

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 5961753
Sample ID : A3

Depth : 1.50 - 2.50





SDG: 120727-57
Job: D_MOUCHEL_ELE-107
Client Reference: 1034973

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

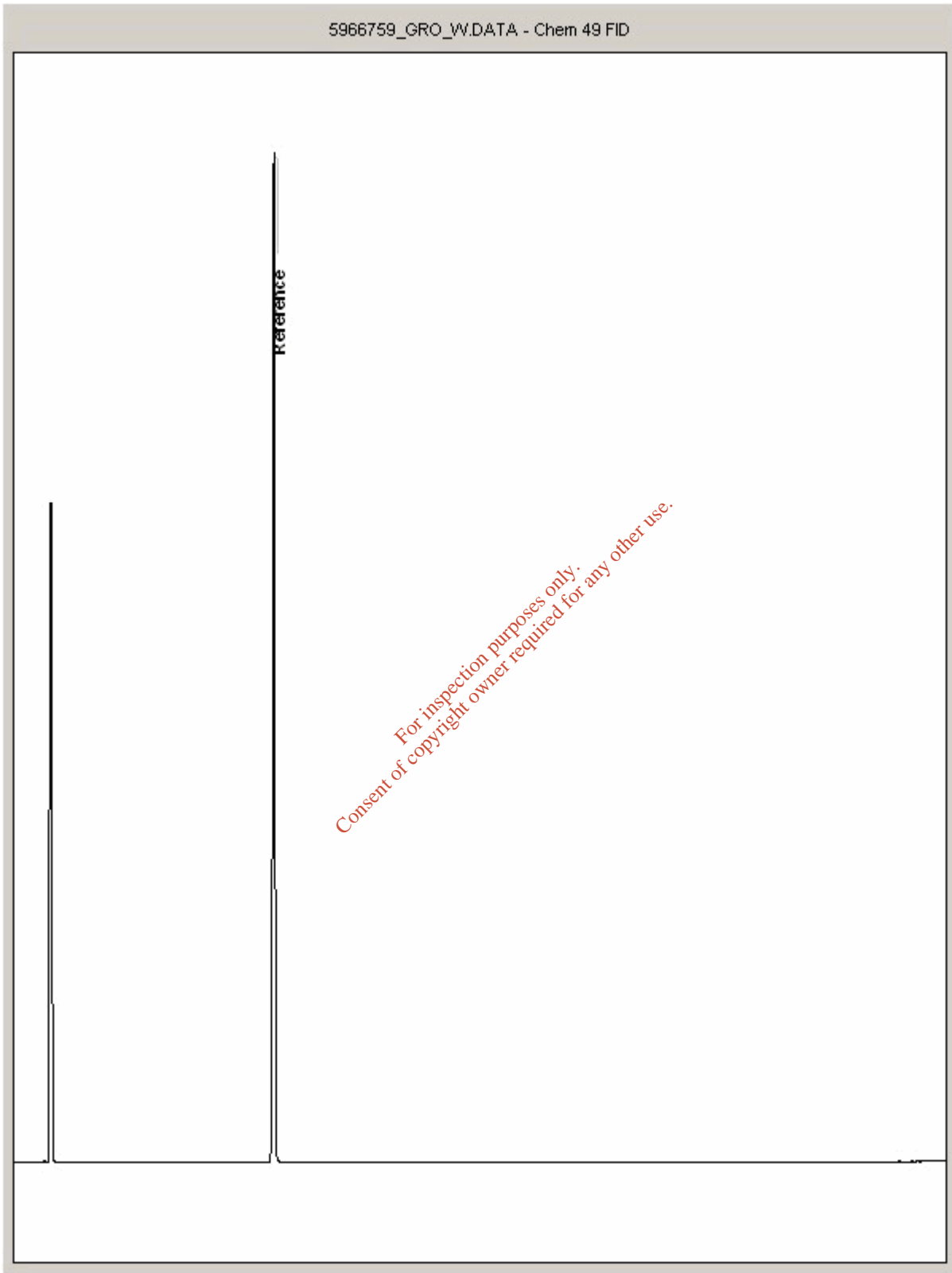
Order Number: 4500099608
Report Number: 189981
Superseded Report:

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 5966759
Sample ID : A11

Depth : 1.00 - 2.00





SDG: 120727-57
Job: D_MOUCHEL_ELE-107
Client Reference: 1034973

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

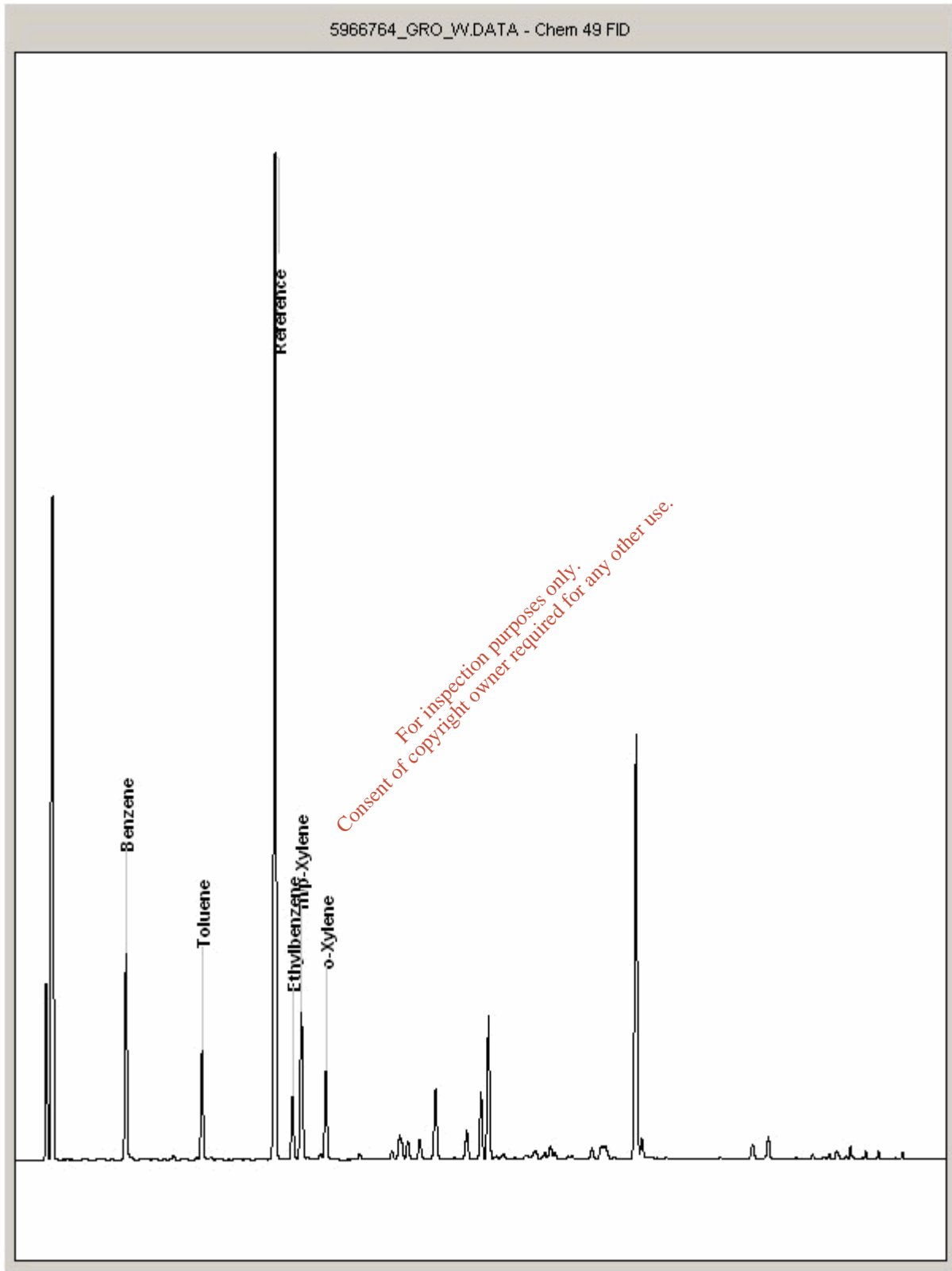
Order Number: 4500099608
Report Number: 189981
Superseded Report:

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 5966764
Sample ID : D1

Depth : 3.00 - 4.00





SDG: 120727-57
Job: D_MOUCHEL_ELE-107
Client Reference: 1034973

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

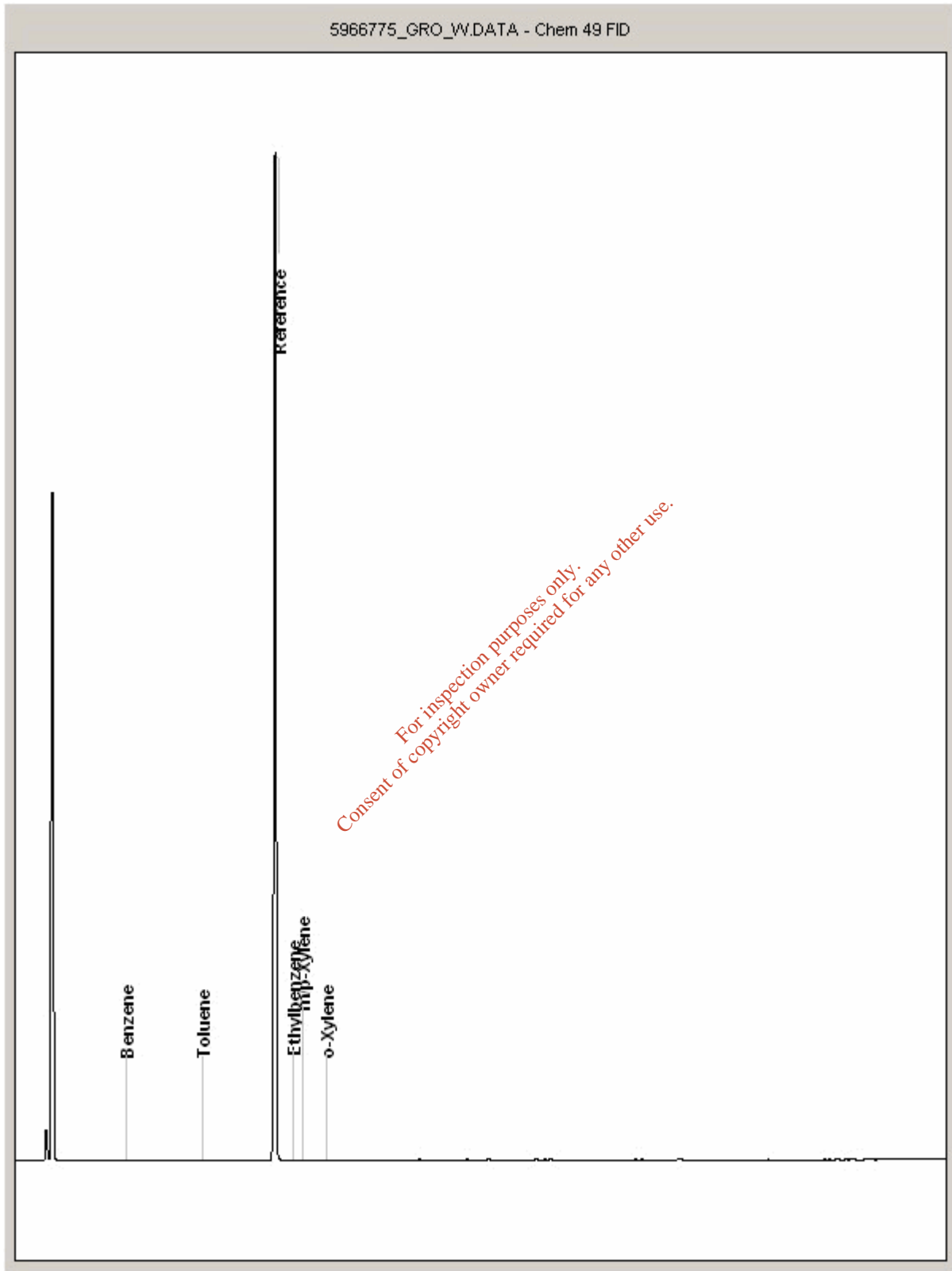
Order Number: 4500099608
Report Number: 189981
Superseded Report:

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 5966775
Sample ID : G5

Depth : 5.00





SDG: 120727-57
Job: D_MOUHEL_ELE-107
Client Reference: 1034973

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

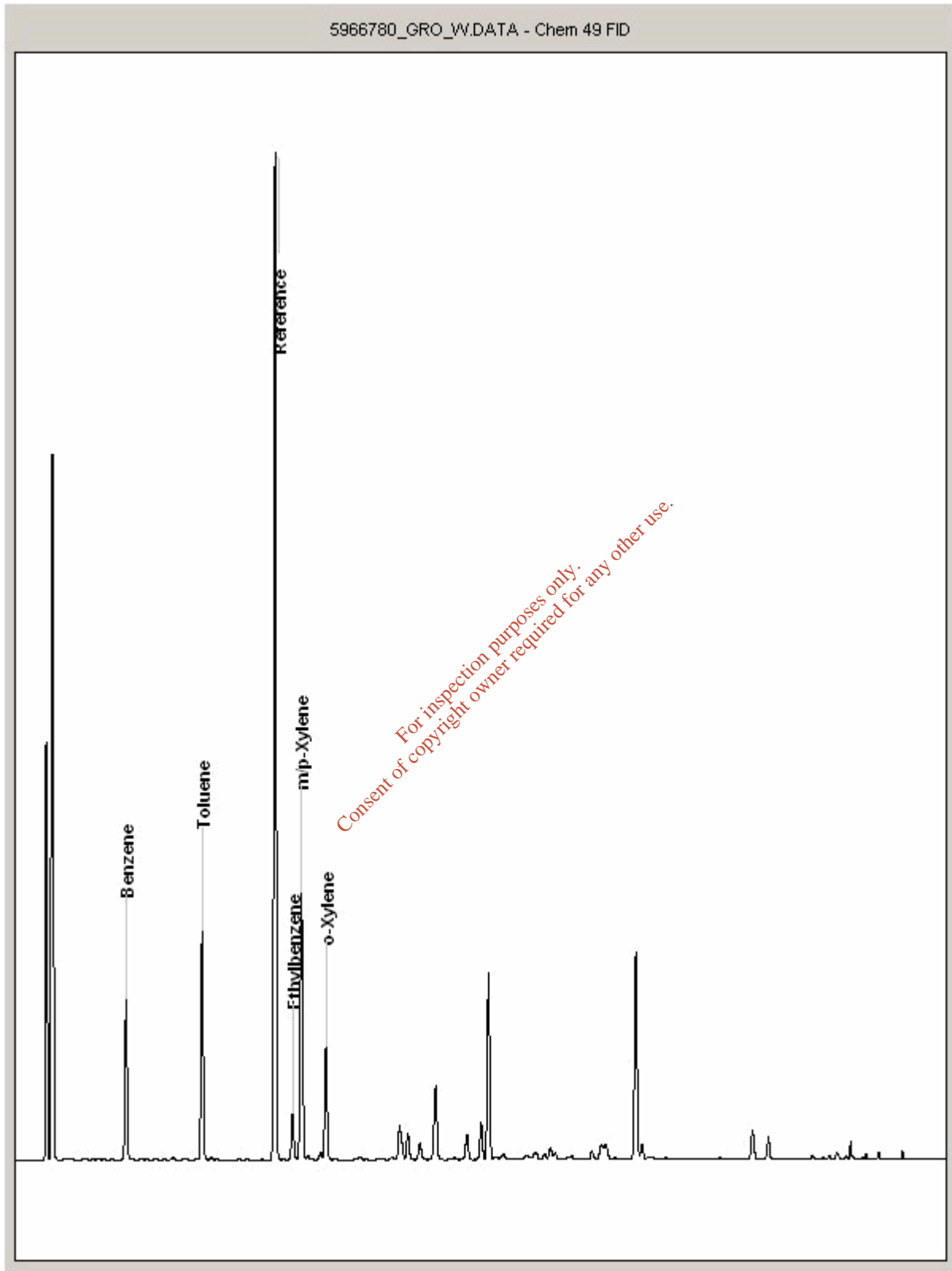
Order Number: 4500099608
Report Number: 189981
Superseded Report:

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 5966780
Sample ID : G4

Depth : 3.50





SDG: 120727-57
Job: D_MOUCHEL_ELE-107
Client Reference: 1034973

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

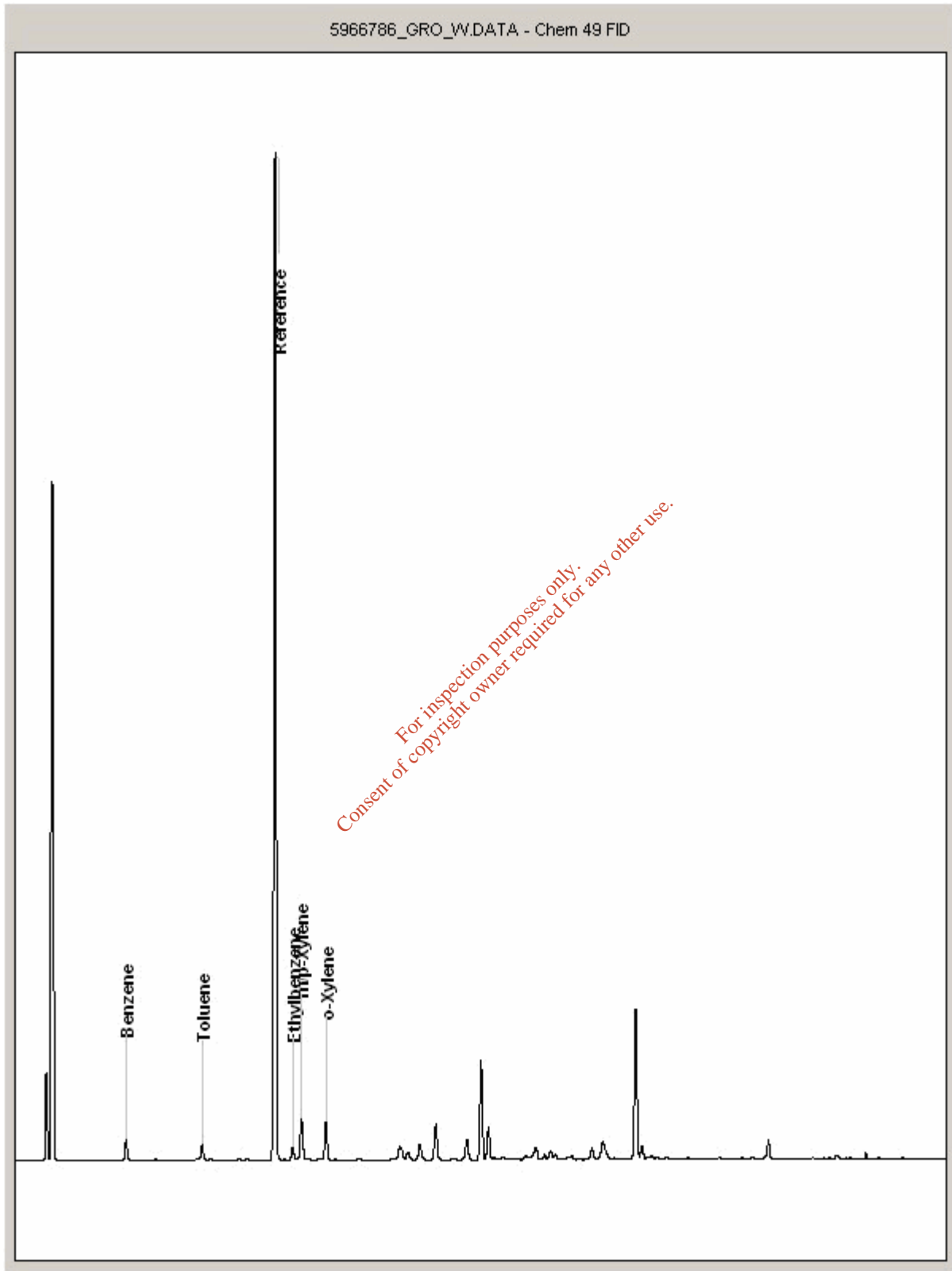
Order Number: 4500099608
Report Number: 189981
Superseded Report:

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 5966786
Sample ID : C11

Depth : 1.00 - 2.00





SDG: 120727-57
Job: D_MOUCHEL_ELE-107
Client Reference: 1034973

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

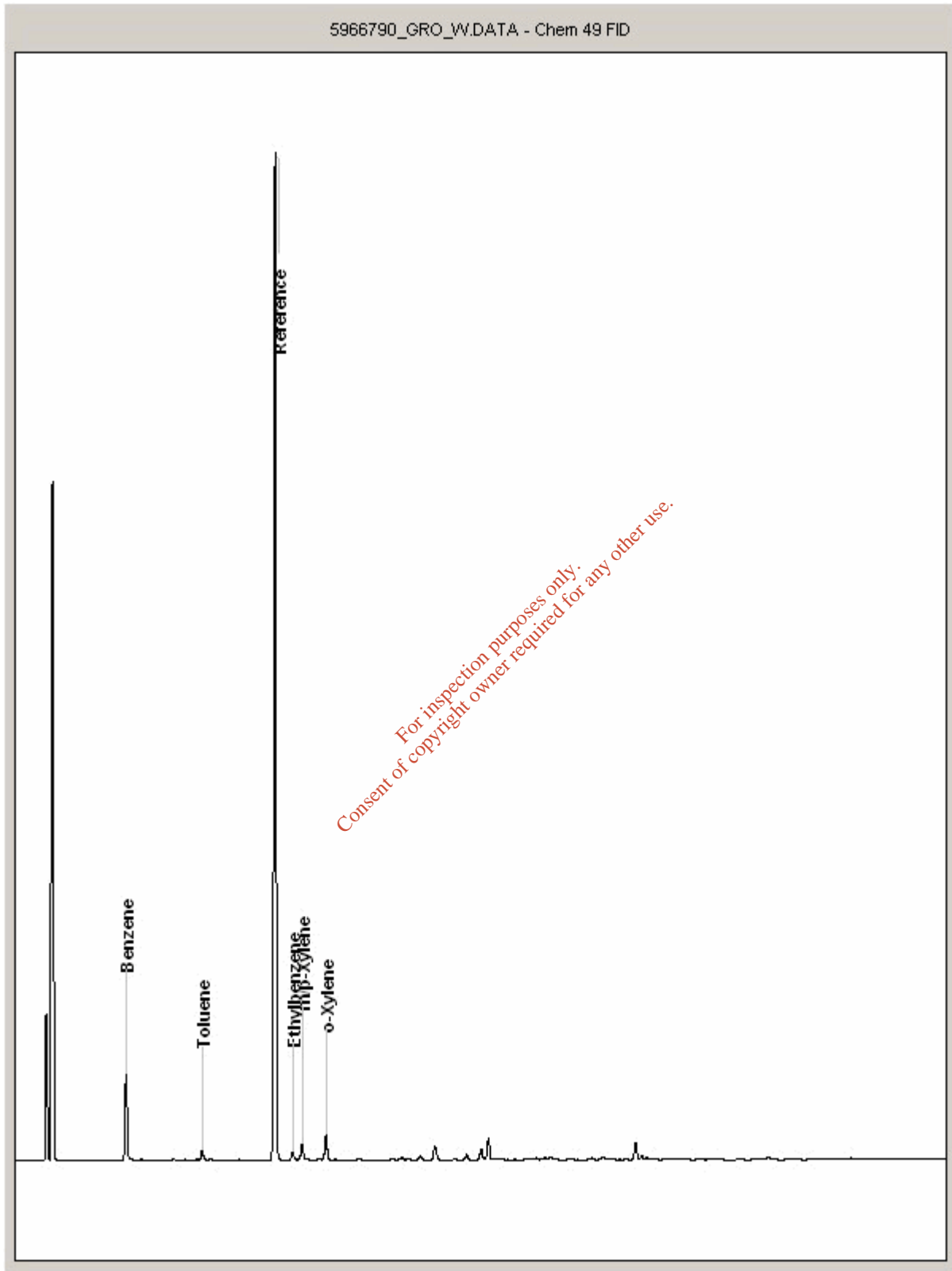
Order Number: 4500099608
Report Number: 189981
Superseded Report:

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 5966790
Sample ID : G3

Depth : 6.00





SDG: 120727-57
Job: D_MOUCHEL_ELE-107
Client Reference: 1034973

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

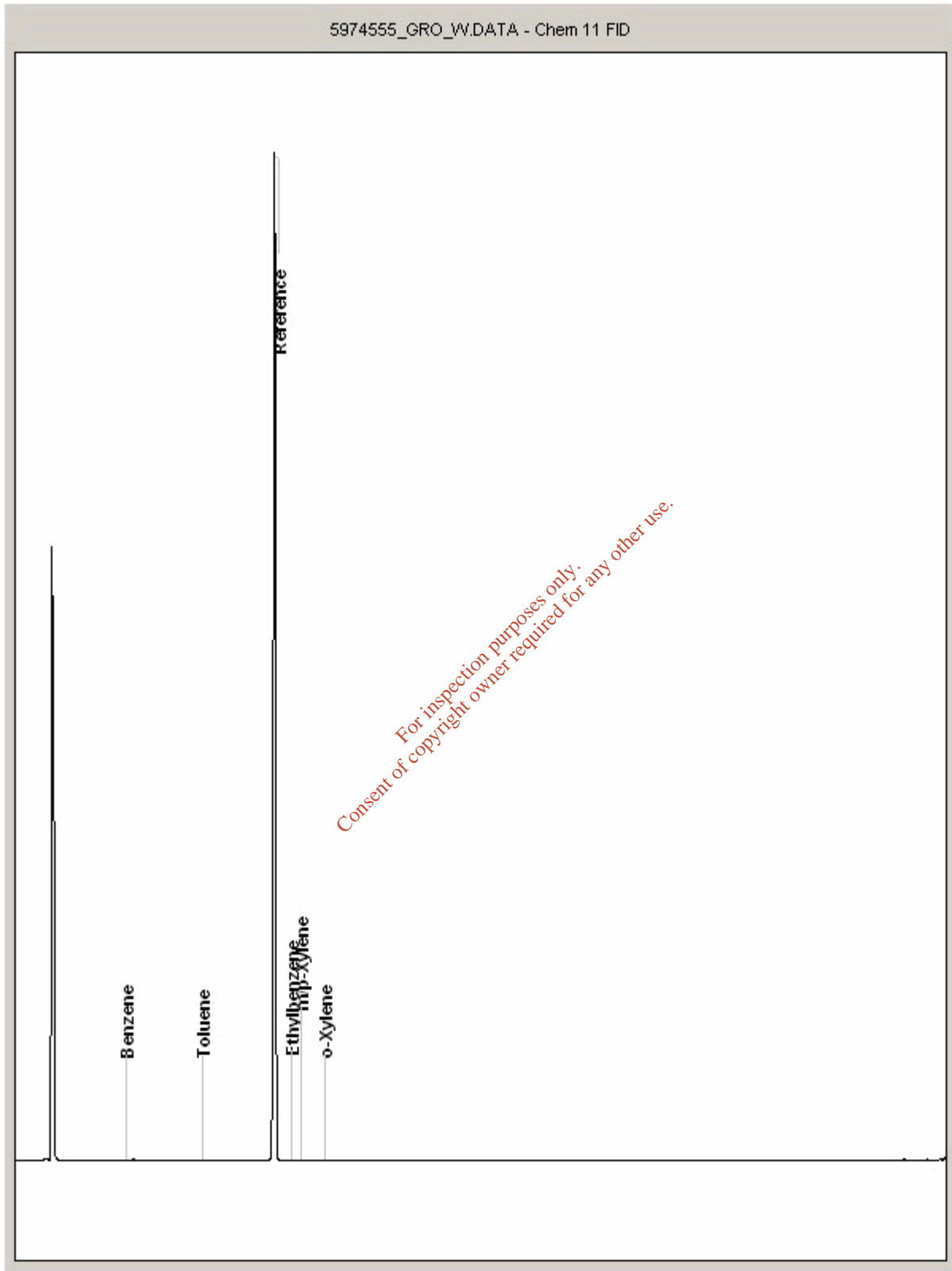
Order Number: 4500099608
Report Number: 189981
Superseded Report:

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 5974555
Sample ID : A9

Depth : 2.00





SDG: 120727-57
Job: D_MOUCHEL_ELE-107
Client Reference: 1034973

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

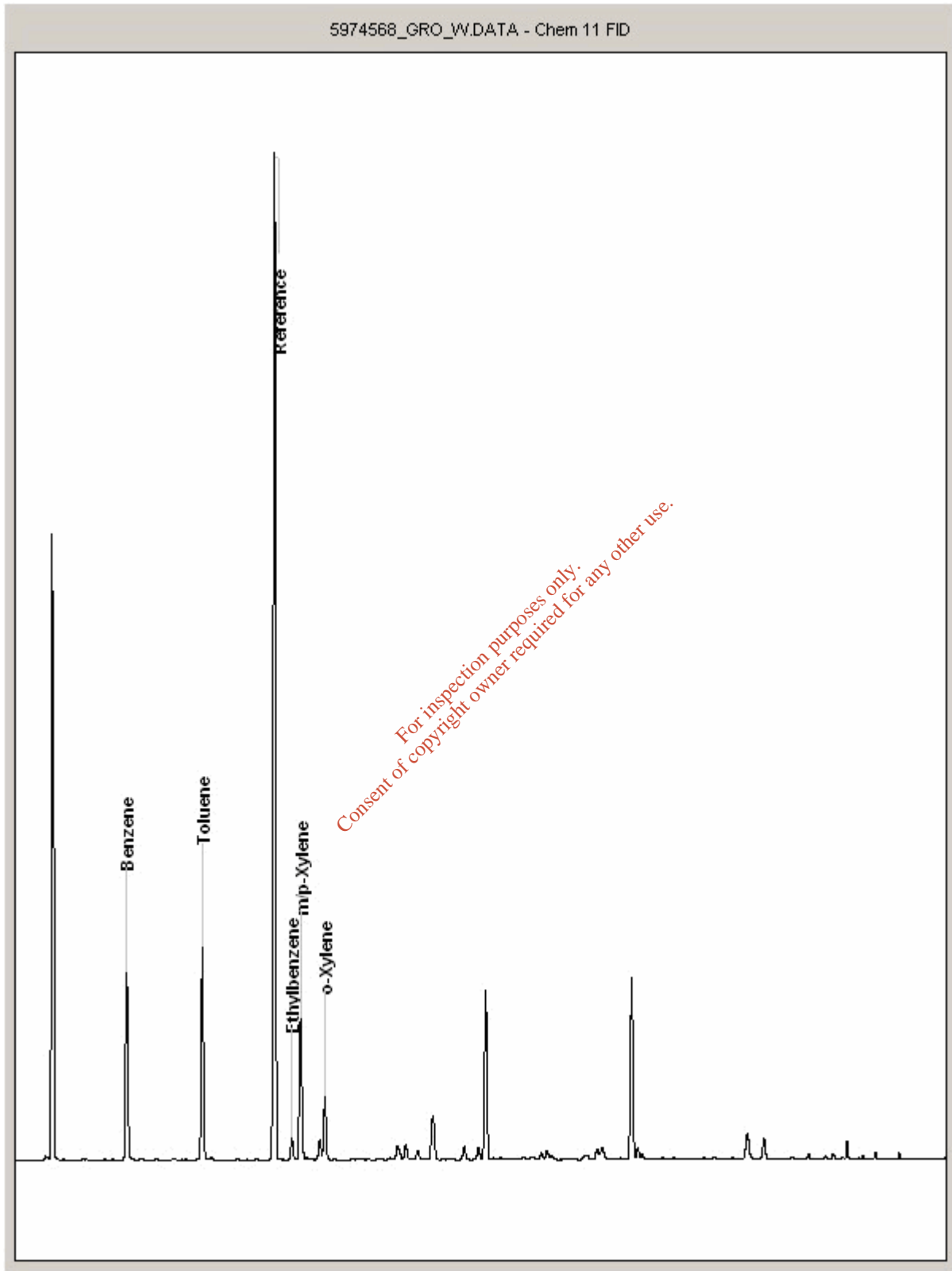
Order Number: 4500099608
Report Number: 189981
Superseded Report:

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 5974568
Sample ID : G8

Depth : 1.00





SDG: 120727-57
Job: D_MOUCHEL_ELE-107
Client Reference: 1034973

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

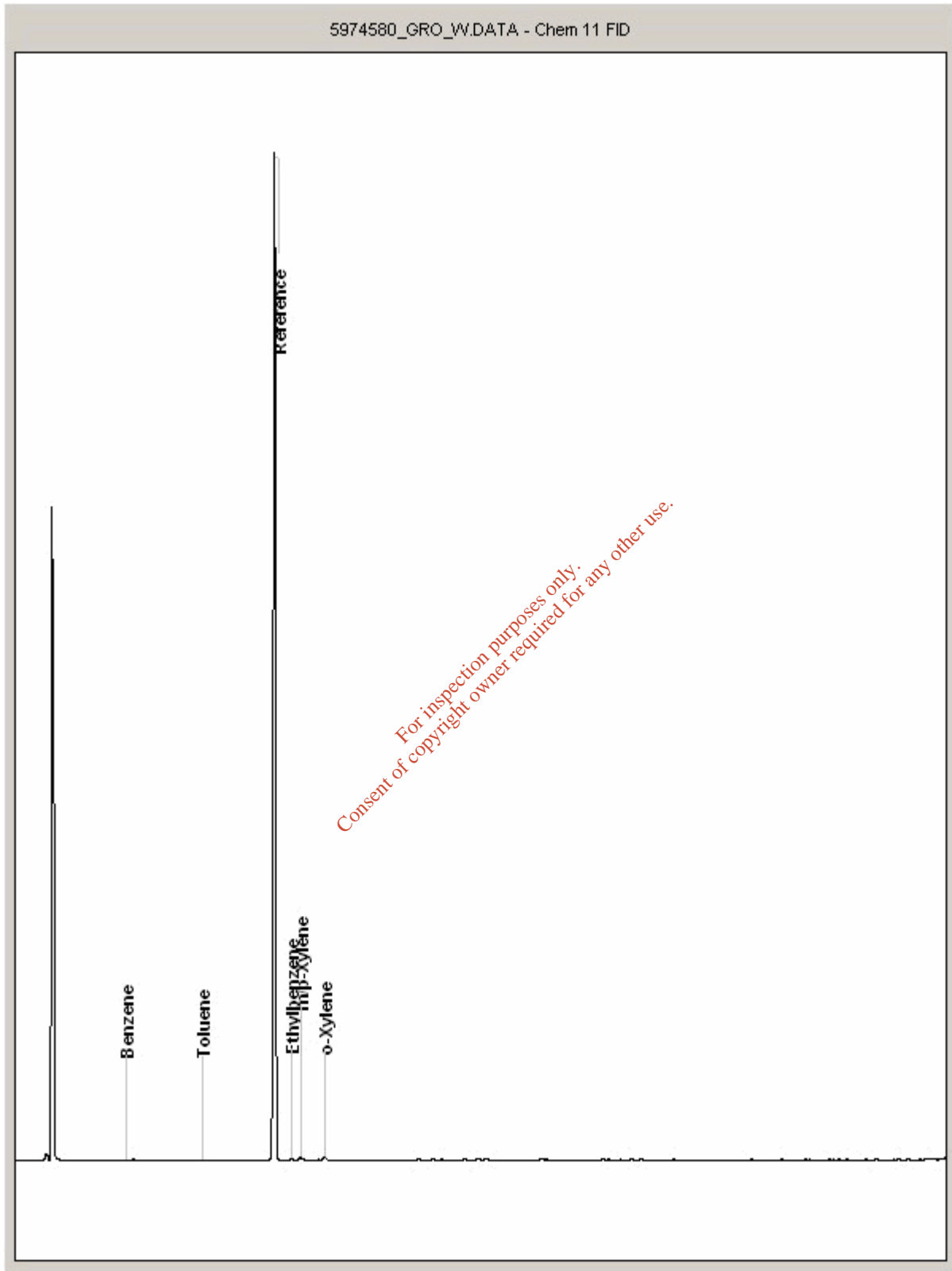
Order Number: 4500099608
Report Number: 189981
Superseded Report:

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 5974580
Sample ID : D5

Depth : 1.75





SDG: 120727-57
Job: D_MOUCHEL_ELE-107
Client Reference: 1034973

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

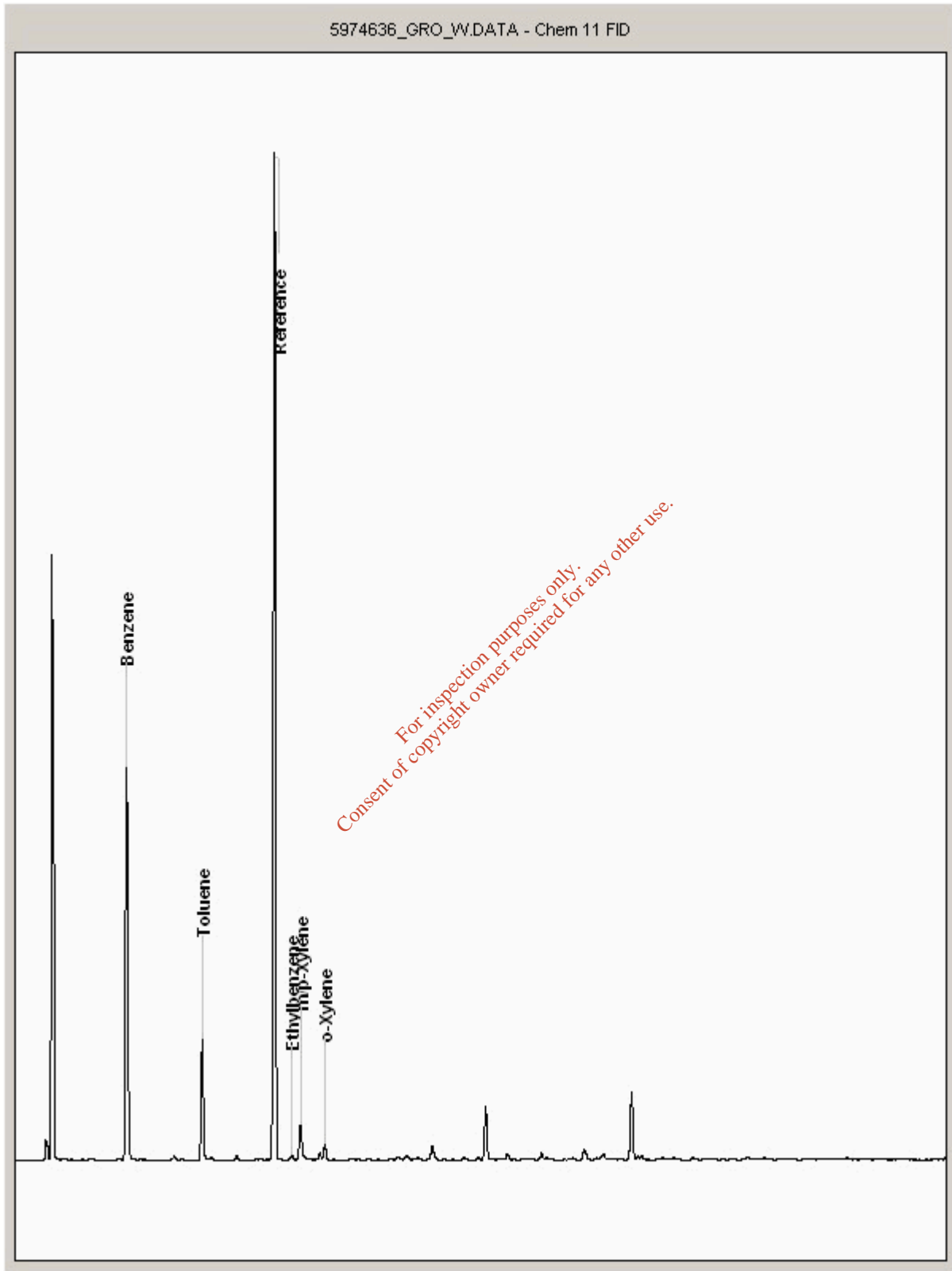
Order Number: 4500099608
Report Number: 189981
Superseded Report:

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 5974636
Sample ID : E8

Depth : 4.00





SDG: 120727-57
Job: D_MOUCHEL_ELE-107
Client Reference: 1034973

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

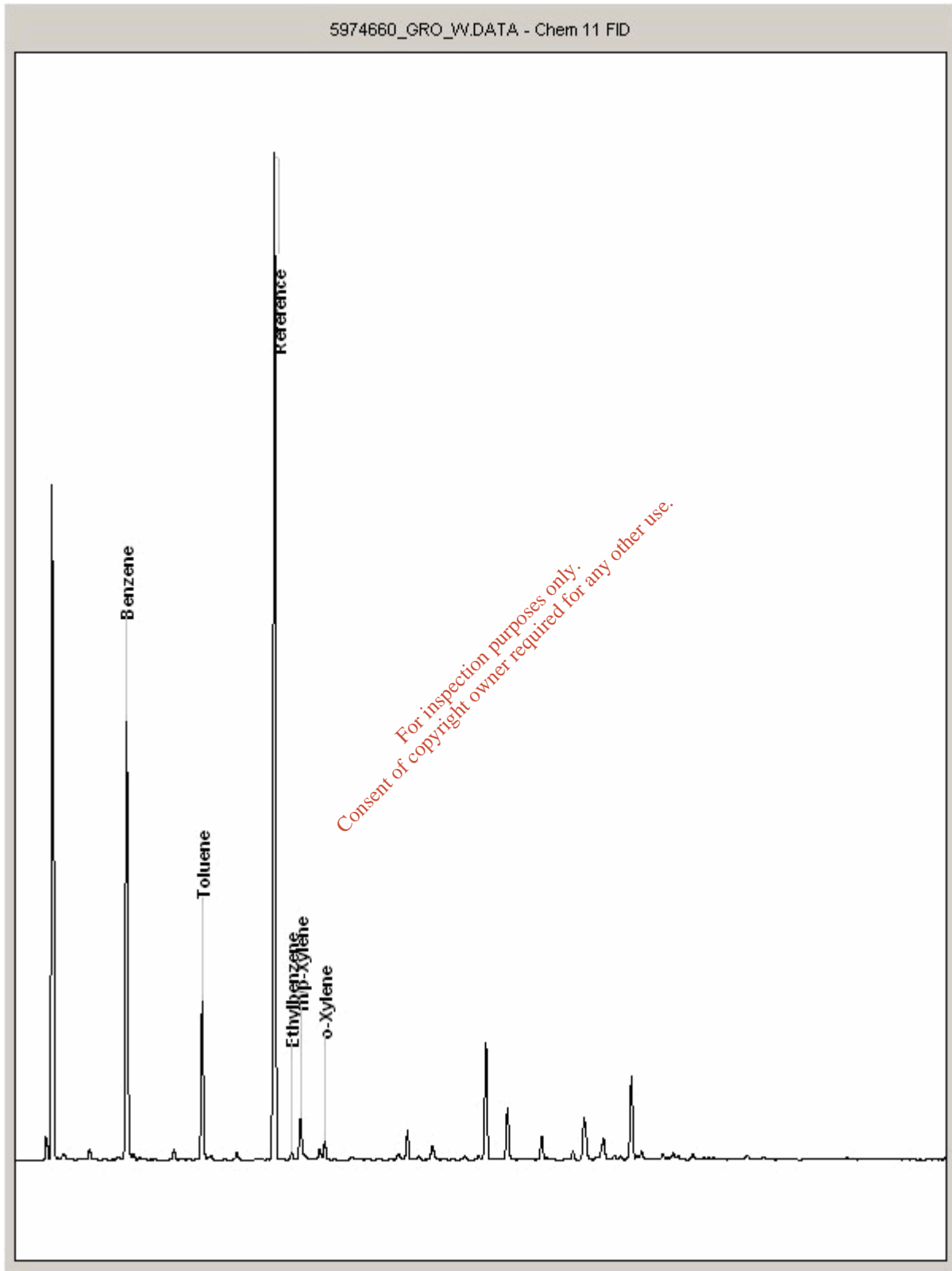
Order Number: 4500099608
Report Number: 189981
Superseded Report:

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 5974660
Sample ID : K5

Depth : 1.00 - 2.00





SDG: 120727-57
Job: D_MOUCHEL_ELE-107
Client Reference: 1034973

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

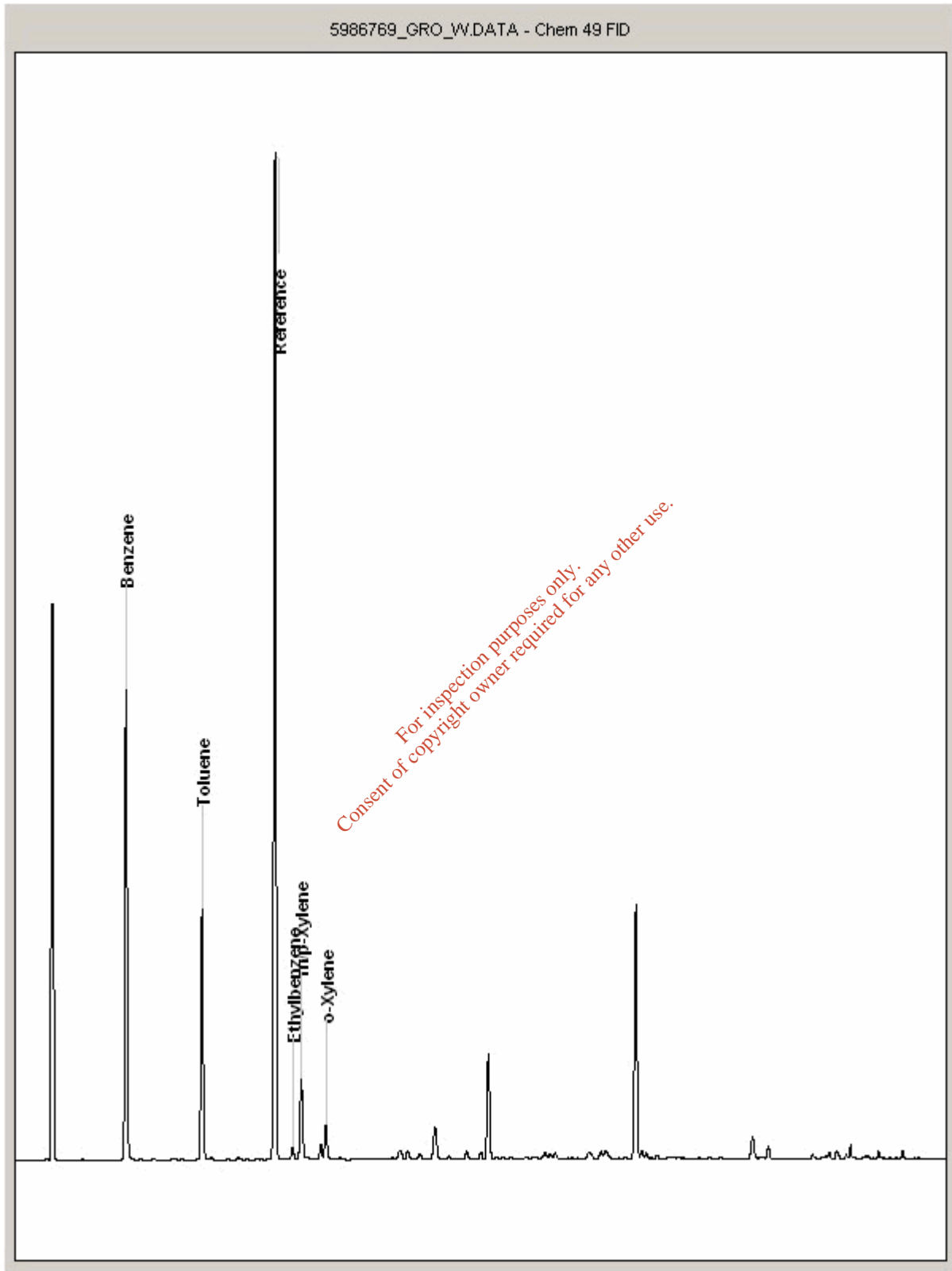
Order Number: 4500099608
Report Number: 189981
Superseded Report:

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 5986769
Sample ID : C7

Depth : 4.00





SDG: 120727-57
Job: D_MOUCHEL_ELE-107
Client Reference: 1034973

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

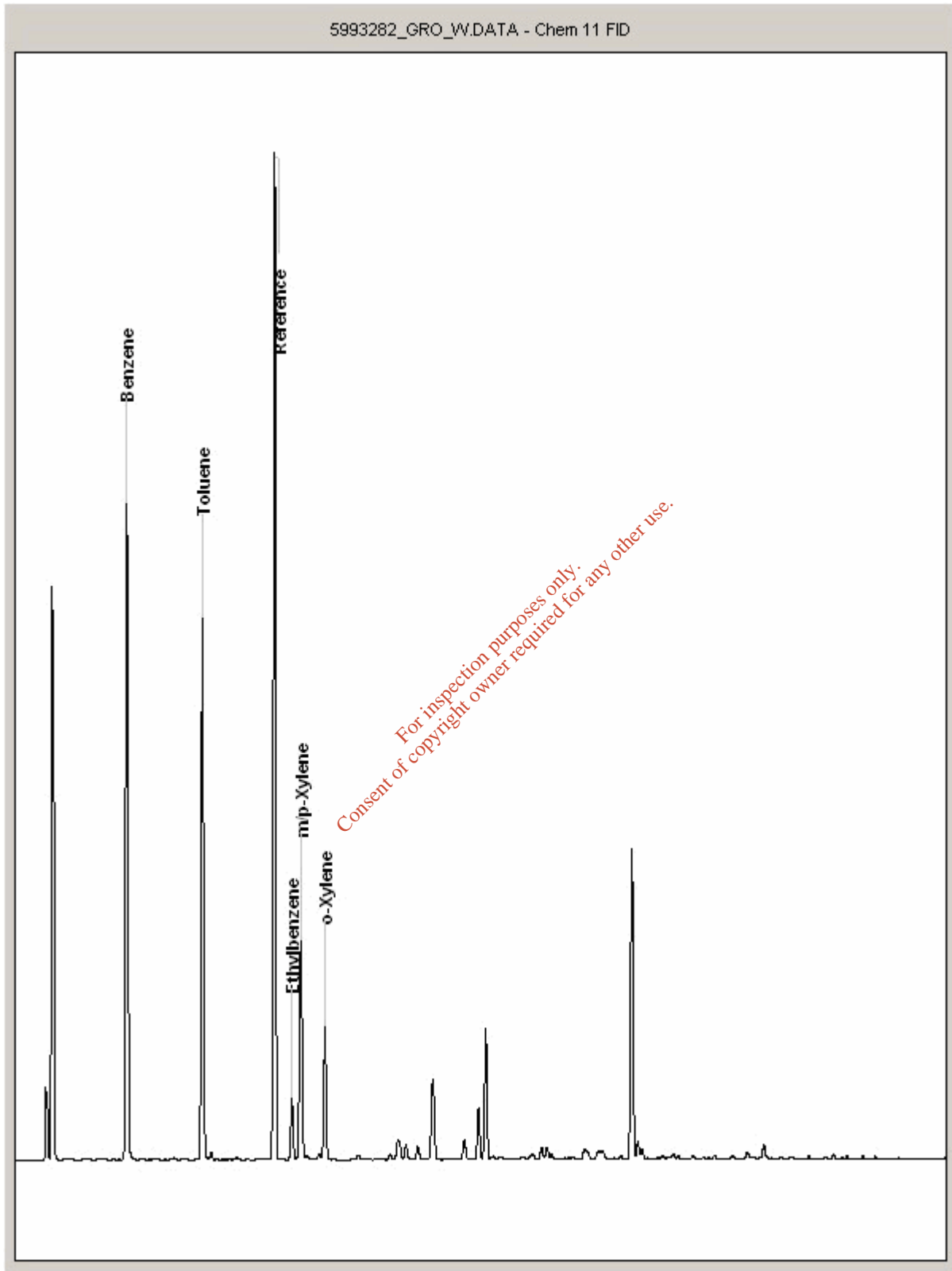
Order Number: 4500099608
Report Number: 189981
Superseded Report:

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 5993282
Sample ID : G2

Depth : 3.00 - 4.00



SDG: 120727-57
Job: D_MOUCHEL_ELE-107
Client Reference: 1034973

Location: Limerick Gasworks
Customer: Mouchel
Attention: Neil Balderstone

Order Number: 4500099608
Report Number: 189981
Superseded Report:

Appendix

1. Results are expressed on a dry weight basis (dried at 35°C) for all soil analyses except for the following: NRA 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 Dimethylphenol, 3,5 Dimethylphenol).

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

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

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

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

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

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

22. We are accredited to 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 |
| SOLVENTEXTRACTABLE MATTER | D&C | DOM | SOX THERM | GRAVIMETRIC |
| CYCLOHEXANE EXT. MATTER | D&C | CYCLOHEXANE | SOX THERM | GRAVIMETRIC |
| ELEMENTAL SULPHUR | D&C | DOM | SOX THERM | HPLC |
| PHENOLS BY GCMS | WET | DOM | SOX THERM | GCMS |
| HERBICIDES | D&C | HEXANE ACETONE | SOX THERM | GCMS |
| PESTICIDES | D&C | HEXANE ACETONE | SOX THERM | GCMS |
| EPH (DFO) | D&C | HEXANE ACETONE | END OVER END | GC FD |
| EPH (MIN OIL) | D&C | HEXANE ACETONE | END OVER END | GC FD |
| EPH (CLEANED UP) | D&C | HEXANE ACETONE | END OVER END | GC FD |
| EPH CWGBY GC | D&C | HEXANE ACETONE | END OVER END | GC FD |
| PCBAROCLOR 1254/PCBCON | D&C | HEXANE ACETONE | END OVER END | GCMS |
| POLYAROMATIC HYDROCARBONS (MS) | WET | HEXANE ACETONE | MICROWAVE TM218. | GCMS |
| >C6C40 | WET | HEXANE ACETONE | SHAKER | GC FD |
| POLYAROMATIC HYDROCARBONS RAPID GC | WET | HEXANE ACETONE | SHAKER | GC FD |
| SEMIVOLATILE ORGANIC COMPOUNDS | WET | DOM/ACETONE | SONICATE | GCMS |

| LIQUID MATRICES EXTRACTION SUMMARY | | | |
|------------------------------------|--------------------|-------------------------------|----------|
| ANALYSIS | EXTRACTION SOLVENT | EXTRACTION METHOD | ANALYSIS |
| PAHMS | HEXANE | STIRRED EXTRACTION (STIR-BAR) | GCMS |
| EPH | HEXANE | STIRRED EXTRACTION (STIR-BAR) | GC FD |
| EPH CWG | HEXANE | STIRRED EXTRACTION (STIR-BAR) | GC FD |
| MINERAL OIL | HEXANE | STIRRED EXTRACTION (STIR-BAR) | GC FD |
| PCB7 CONGENERS | HEXANE | STIRRED EXTRACTION (STIR-BAR) | GCMS |
| PCBAROCLOR 1254 | HEXANE | STIRRED EXTRACTION (STIR-BAR) | GCMS |
| SVCC | DCM | LIQUID/LIQUID SHAKE | GCMS |
| FREESULPHUR | DCM | SOLID PHASE EXTRACTION | HPLC |
| PESTOCPOPP | DCM | LIQUID/LIQUID SHAKE | GCMS |
| TRIAZINE HERBS | DCM | LIQUID/LIQUID SHAKE | GCMS |
| PHENOLS MS | ACETONE | SOLID PHASE EXTRACTION | GCMS |
| TPH by INFRARED (IR) | TCE | STIRRED EXTRACTION (STIR-BAR) | R |
| MINERAL OIL BY R | TCE | STIRRED EXTRACTION (STIR-BAR) | R |
| GLYCOLS | NONE | DIRECT INJECTION | GC FD |

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 Anorthophyllite | - |
| 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.



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





SDG: 121026-141
Job: H_MOUCH_LIV-1
Client Reference: 1034973

Location: Limerick
Customer: Mouchel
Attention: Neil Balderstone

Order Number: 4500103453
Report Number: 201074
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.

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SDG: 121026-141
 Job: H_MOUCH_LIV-1
 Client Reference: 1034973

Location: Limerick
 Customer: Mouchel
 Attention: Neil Balderstone

Order Number: 4500103453
 Report Number: 201074
 Superseded Report:

| LIQUID Results Legend <input checked="" type="checkbox"/> Test <input checked="" type="checkbox"/> No Determination Possible | Lab Sample No(s) | Customer Sample Reference | AGS Reference | Depth (m) | Container | |
|---|------------------|---------------------------|---------------|-------------|---|---|
| | | 6408350 | A1 | | 3.00 - 4.00 | Vial (ALE297) H2SO4 (ALE244) 11 plastic (ALE221) |
| | | 6408356 | C2 | | 1.50 - 2.50 | Vial (ALE297) H2SO4 (ALE244) 11 plastic (ALE221) 11 green glass bottle |
| | | 6408353 | A3 | | 2.00 - 3.00 | Vial (ALE297) H2SO4 (ALE244) 11 plastic (ALE221) 11 green glass bottle |
| | | 6408355 | A4 | | 2.00 - 3.00 | Vial (ALE297) H2SO4 (ALE244) 11 plastic (ALE221) 11 green glass bottle |
| | 6408346 | D5 | | 1.50 - 2.00 | Vial (ALE297) H2SO4 (ALE244) 11 plastic (ALE221) 11 green glass bottle | |
| | 6408342 | C7 | | 4.00 - 5.00 | Vial (ALE297) H2SO4 (ALE244) 11 plastic (ALE221) 11 green glass bottle | |
| | 6408347 | E8 | | 1.00 - 2.00 | Vial (ALE297) H2SO4 (ALE244) 11 plastic (ALE221) 11 green glass bottle | |
| | 6408349 | G8 | | 1.00 - 2.00 | Vial (ALE297) H2SO4 (ALE244) 11 plastic (ALE221) 11 green glass bottle | |
| | 6408341 | A9 | | 2.00 - 2.50 | Vial (ALE297) H2SO4 (ALE244) 11 plastic (ALE221) 11 green glass bottle | |
| | 6408358 | A11 | | 1.50 - 2.00 | Vial (ALE297) H2SO4 (ALE244) 11 plastic (ALE221) 11 green glass bottle | |
| Ammoniacal Nitrogen | All | NDPs: 0 Tests: 22 | | | | |
| Anions by Kone (w) | All | NDPs: 0 Tests: 22 | | | | |
| Cyanide Comp/Free/Total/Thiocyanate | All | NDPs: 0 Tests: 22 | | | | |
| Dissolved Metals by ICP-MS | All | NDPs: 0 Tests: 22 | | | | |
| EPH CWG (Aliphatic) Aqueous GC (W) | All | NDPs: 0 Tests: 22 | | | | |
| EPH CWG (Aromatic) Aqueous GC (W) | All | NDPs: 0 Tests: 22 | | | | |
| GRO by GC-FID (W) | All | NDPs: 0 Tests: 22 | | | | |
| Hexavalent Chromium (w) | All | NDPs: 0 Tests: 22 | | | | |
| Mercury Dissolved | All | NDPs: 0 Tests: 22 | | | | |
| PAH Spec MS - Aqueous (W) | All | NDPs: 0 Tests: 22 | | | | |
| pH Value | All | NDPs: 0 Tests: 22 | | | | |
| Phenols by HPLC (W) | All | NDPs: 0 Tests: 22 | | | | |
| Sulphide | All | NDPs: 0 Tests: 22 | | | | |
| TPH CWG (W) | All | NDPs: 0 Tests: 22 | | | | |
| VOC MS (W) | All | NDPs: 0 Tests: 11 | | | | |



SDG: 121026-141
 Job: H_MOUCH_LIV-1
 Client Reference: 1034973

Location: Limerick
 Customer: Mouchel
 Attention: Neil Balderstone

Order Number: 4500103453
 Report Number: 201074
 Superseded Report:

| LIQUID Results Legend <input checked="" type="checkbox"/> Test <input checked="" type="checkbox"/> No Determination Possible | Lab Sample No(s) | Customer Sample Reference | AGS Reference | Depth (m) | Container |
|---|------------------|---------------------------|---------------|---|---|
| | 6408374 | D1 | | 3.00 - 4.00 | Vial (ALE297) H2SO4 (ALE244) 11 plastic (ALE221) 11 green glass bottle |
| | 6408369 | K1 | | 2.50 - 3.50 | Vial (ALE297) H2SO4 (ALE244) 11 plastic (ALE221) 11 green glass bottle |
| | 6408377 | G2 | | 4.00 - 5.00 | Vial (ALE297) H2SO4 (ALE244) 11 plastic (ALE221) 11 green glass bottle |
| | 6408378 | G3 | | 4.00 | Vial (ALE297) H2SO4 (ALE244) 11 plastic (ALE221) 11 green glass bottle |
| 6408373 | M3 | | 4.00 - 5.00 | Vial (ALE297) H2SO4 (ALE244) 11 plastic (ALE221) 11 green glass bottle | |
| 6408371 | K5 | | 1.00 - 2.00 | Vial (ALE297) H2SO4 (ALE244) 11 plastic (ALE221) 11 green glass bottle | |
| 6408368 | J10 | | 1.00 - 2.00 | Vial (ALE297) H2SO4 (ALE244) 11 plastic (ALE221) 11 green glass bottle | |
| 6408365 | C11 | | 1.00 - 2.00 | Vial (ALE297) H2SO4 (ALE244) 11 plastic (ALE221) 11 green glass bottle | |
| 6408367 | H12 | | 2.00 - 3.00 | Vial (ALE297) H2SO4 (ALE244) 11 plastic (ALE221) 11 green glass bottle | |
| Ammoniacal Nitrogen | All | NDPs: 0 Tests: 22 | | | X |
| Anions by Kone (w) | All | NDPs: 0 Tests: 22 | | | X |
| Cyanide Comp/Free/Total/Thiocyanate | All | NDPs: 0 Tests: 22 | | | X |
| Dissolved Metals by ICP-MS | All | NDPs: 0 Tests: 22 | | | 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 |
| Hexavalent Chromium (w) | All | NDPs: 0 Tests: 22 | | | 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 |
| Phenols by HPLC (W) | All | NDPs: 0 Tests: 22 | | | X |
| Sulphide | All | NDPs: 0 Tests: 22 | | | X |
| TPH CWG (W) | All | NDPs: 0 Tests: 22 | | | X |
| VOC MS (W) | All | NDPs: 0 Tests: 11 | | | X |

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SDG: 121026-141
 Job: H_MOUCH_LIV-1
 Client Reference: 1034973

Location: Limerick
 Customer: Mouchel
 Attention: Neil Balderstone

Order Number: 4500103453
 Report Number: 201074
 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 | 1/1 green glass bottle H2SO4 (ALE244) H2SO4 (ALE221) | 1/1 green glass bottle H2SO4 (ALE244) H2SO4 (ALE221) 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 |

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SDG: 121026-141
Job: H_MOUCH_LIV-1
Client Reference: 1034973

Location: Limerick
Customer: Mouchel
Attention: Neil Balderstone

Order Number: 4500103453
Report Number: 201074
Superseded Report:

| Results Legend | | Customer Sample Ref. | A1 | A3 | A4 | A9 | A11 | C2 |
|-------------------------------------|--|---|---------------|--------------|--------------|--------------|--------------|--------------|
| # | ISO17025 accredited. | Depth (m) Sample Type Date Sampled Sample Time Date Received SDG Ref Lab Sample No.(s) AGS Reference | 3.00 - 4.00 | 2.00 - 3.00 | 2.00 - 3.00 | 2.00 - 2.50 | 1.50 - 2.00 | 1.50 - 2.50 |
| M | mCERTS accredited. | | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) |
| S | Deviating sample. | | 24/10/2012 | 24/10/2012 | 24/10/2012 | 24/10/2012 | 24/10/2012 | 24/10/2012 |
| 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 | | | | | |
| 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
Job: H_MOUCH_LIV-1
Client Reference: 1034973

Location: Limerick
Customer: Mouchel
Attention: Neil Balderstone

Order Number: 4500103453
Report Number: 201074
Superseded Report:

| Results Legend | | Customer Sample Ref. | C7 | C11 | D1 | D5 | E8 | F11 |
|-------------------------------------|--|---|--------------|--------------|--------------|--------------|--------------|--------------|
| # | ISO17025 accredited. | Depth (m) Sample Type Date Sampled Sample Time Date Received SDG Ref Lab Sample No.(s) AGS Reference | 4.00 - 5.00 | 1.00 - 2.00 | 3.00 - 4.00 | 1.50 - 2.00 | 1.00 - 2.00 | 3.00 - 4.00 |
| M | mCERTS accredited. | | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) |
| S | Deviating sample. | | 24/10/2012 | 24/10/2012 | 24/10/2012 | 24/10/2012 | 24/10/2012 | 24/10/2012 |
| 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 | | | | | | | |
| | | | | 6408342 | 6408365 | 6408374 | 6408346 | 6408347 |
| Component | LOD/Units | Method | | | | | | |
| 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
Job: H_MOUCH_LIV-1
Client Reference: 1034973

Location: Limerick
Customer: Mouchel
Attention: Neil Balderstone

Order Number: 4500103453
Report Number: 201074
Superseded Report:

| Results Legend | | Customer Sample Ref. | G2 | G3 | G4 | G5 | G8 | H12 |
|-------------------------------------|--|---|--------------|--------------|--------------|--------------|--------------|--------------|
| # | ISO17025 accredited. | Depth (m) Sample Type Date Sampled Sample Time Date Received SDG Ref Lab Sample No.(s) AGS Reference | 4.00 - 5.00 | 4.00 | 3.00 - 4.00 | 2.00 - 3.00 | 1.00 - 2.00 | 2.00 - 3.00 |
| M | mCERTS accredited. | | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) |
| S | Deviating sample. | | 24/10/2012 | 24/10/2012 | 24/10/2012 | 24/10/2012 | 24/10/2012 | 24/10/2012 |
| 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 | | | | | | | |
| | | | | 6408377 | 6408378 | 6408380 | 6408381 | 6408349 |
| Component | LOD/Units | Method | | | | | | |
| 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 | 3.89 | 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
Job: H_MOUCH_LIV-1
Client Reference: 1034973

Location: Limerick
Customer: Mouchel
Attention: Neil Balderstone

Order Number: 4500103453
Report Number: 201074
Superseded Report:

| Results Legend | | Customer Sample Ref. | J10 | K1 | K5 | M3 | | |
|-------------------------------------|--|----------------------|--------------|--------------|--------------|--------------|---|---|
| # | ISO17025 accredited. | | | | | | | |
| M | mCERTS accredited. | | | | | | | |
| S | Deviating sample. | | | | | | | |
| aq | Aqueous / settled sample. | Depth (m) | 1.00 - 2.00 | 2.50 - 3.50 | 1.00 - 2.00 | 4.00 - 5.00 | | |
| diss.filt | Dissolved / filtered sample. | Sample Type | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | | |
| tot.unfilt | Total / unfiltered sample. | Date Sampled | 24/10/2012 | 24/10/2012 | 24/10/2012 | 24/10/2012 | | |
| * | Subcontracted test. | Sample Time | | | | | | |
| ** | % 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 | Date Received | 26/10/2012 | 26/10/2012 | 26/10/2012 | 26/10/2012 | | |
| (F) | Trigger breach confirmed | SDG Ref | 121026-141 | 121026-141 | 121026-141 | 121026-141 | | |
| | | Lab Sample No.(s) | 6408368 | 6408369 | 6408371 | 6408373 | | |
| | | AGS Reference | | | | | | |
| Component | LOD/Units | Method | | | | | | |
| 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 | 1.41 | 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 | # | # |

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SDG: 121026-141
 Job: H_MOUCH_LIV-1
 Client Reference: 1034973

Location: Limerick
 Customer: Mouchel
 Attention: Neil Balderstone

Order Number: 4500103453
 Report Number: 201074
 Superseded Report:

PAH Spec MS - Aqueous (W)

| Results Legend | | Customer Sample Ref. | A1 | A3 | A4 | A9 | A11 | C2 |
|-----------------------------------|--|---|--------------|--------------|--------------|--------------|--------------|--------------|
| # | ISO17025 accredited. | Depth (m) Sample Type Date Sampled Sample Time Date Received SDG Ref Lab Sample No.(s) AGS Reference | 3.00 - 4.00 | 2.00 - 3.00 | 2.00 - 3.00 | 2.00 - 2.50 | 1.50 - 2.00 | 1.50 - 2.50 |
| M | mCERTS accredited. | | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) |
| S | Deviating sample. | | 24/10/2012 | 24/10/2012 | 24/10/2012 | 24/10/2012 | 24/10/2012 | 24/10/2012 |
| 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 | | | | | |
| 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 # |

SDG: 121026-141
 Job: H_MOUCH_LIV-1
 Client Reference: 1034973

Location: Limerick
 Customer: Mouchel
 Attention: Neil Balderstone

Order Number: 4500103453
 Report Number: 201074
 Superseded Report:

PAH Spec MS - Aqueous (W)

| Results Legend | | Customer Sample Ref. | C7 | C11 | D1 | D5 | E8 | F11 |
|-----------------------------------|--|---|--------------|--------------|--------------|--------------|--------------|--------------|
| # | ISO17025 accredited. | Depth (m) Sample Type Date Sampled Sample Time Date Received SDG Ref Lab Sample No.(s) AGS Reference | 4.00 - 5.00 | 1.00 - 2.00 | 3.00 - 4.00 | 1.50 - 2.00 | 1.00 - 2.00 | 3.00 - 4.00 |
| M | mCERTS accredited. | | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) |
| S | Deviating sample. | | 24/10/2012 | 24/10/2012 | 24/10/2012 | 24/10/2012 | 24/10/2012 | 24/10/2012 |
| 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 | | | | | | | |
| | | | | 6408342 | 6408365 | 6408374 | 6408346 | 6408347 |
| Component | LOD/Units | Method | | | | | | |
| 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 | 0.813 | 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 |

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SDG: 121026-141
 Job: H_MOUCH_LIV-1
 Client Reference: 1034973

Location: Limerick
 Customer: Mouchel
 Attention: Neil Balderstone

Order Number: 4500103453
 Report Number: 201074
 Superseded Report:

PAH Spec MS - Aqueous (W)

| Results Legend | | Customer Sample Ref. | G2 | G3 | G4 | G5 | G8 | H12 |
|-----------------------------------|--|---|---|------------------------------------|---|---|---|---|
| # | ISO17025 accredited. | Depth (m) Sample Type Date Sampled Sample Time Date Received SDG Ref Lab Sample No.(s) AGS Reference | 4.00 - 5.00 Water(GW/SW) 24/10/2012 | 4.00 Water(GW/SW) 24/10/2012 | 3.00 - 4.00 Water(GW/SW) 24/10/2012 | 2.00 - 3.00 Water(GW/SW) 24/10/2012 | 1.00 - 2.00 Water(GW/SW) 24/10/2012 | 2.00 - 3.00 Water(GW/SW) 24/10/2012 |
| M | mCERTS accredited. | | | | | | | |
| S | 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 | | | | | | | |
| 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 |

SDG: 121026-141
 Job: H_MOUCH_LIV-1
 Client Reference: 1034973

Location: Limerick
 Customer: Mouchel
 Attention: Neil Balderstone

Order Number: 4500103453
 Report Number: 201074
 Superseded Report:

PAH Spec MS - Aqueous (W)

| Results Legend | | Customer Sample Ref. | J10 | K1 | K5 | M3 | | |
|-----------------------------------|--|---|--------------|--------------|--------------|--------------|---|---|
| # | ISO17025 accredited. | Depth (m) Sample Type Date Sampled Sample Time Date Received SDG Ref Lab Sample No.(s) AGS Reference | 1.00 - 2.00 | 2.50 - 3.50 | 1.00 - 2.00 | 4.00 - 5.00 | | |
| M | mCERTS accredited. | | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | | |
| S | Deviating sample. | | 24/10/2012 | 24/10/2012 | 24/10/2012 | 24/10/2012 | | |
| 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 | | | | | |
| 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 | | |

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SDG: 121026-141
Job: H_MOUCH_LIV-1
Client Reference: 1034973

Location: Limerick
Customer: Mouchel
Attention: Neil Balderstone

Order Number: 4500103453
Report Number: 201074
Superseded Report:

TPH CWG (W)

| Results Legend | | Customer Sample Ref. | A1 | A3 | A4 | A9 | A11 | C2 |
|--|--|---|--------------|--------------|--------------|--------------|--------------|--------------|
| # | ISO17025 accredited. | Depth (m) Sample Type Date Sampled Sample Time Date Received SDG Ref Lab Sample No.(s) AGS Reference | 3.00 - 4.00 | 2.00 - 3.00 | 2.00 - 3.00 | 2.00 - 2.50 | 1.50 - 2.00 | 1.50 - 2.50 |
| M | mCERTS accredited. | | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) |
| S | Deviating sample. | | 24/10/2012 | 24/10/2012 | 24/10/2012 | 24/10/2012 | 24/10/2012 | 24/10/2012 |
| 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 | | | | | | | |
| | | | | 6408350 | 6408353 | 6408355 | 6408341 | 6408358 |
| Component | LOD/Units | Method | | | | | | |
| 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 |

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SDG: 121026-141
Job: H_MOUCH_LIV-1
Client Reference: 1034973

Location: Limerick
Customer: Mouchel
Attention: Neil Balderstone

Order Number: 4500103453
Report Number: 201074
Superseded Report:

TPH CWG (W)

| Results Legend | | Customer Sample Ref. | C7 | C11 | D1 | D5 | E8 | F11 |
|--|--|---|---------------|--------------|--------------|--------------|--------------|--------------|
| # | ISO17025 accredited. | Depth (m) Sample Type Date Sampled Sample Time Date Received SDG Ref Lab Sample No.(s) AGS Reference | | | | | | |
| M | mCERTS accredited. | | 4.00 - 5.00 | 1.00 - 2.00 | 3.00 - 4.00 | 1.50 - 2.00 | 1.00 - 2.00 | 3.00 - 4.00 |
| S | Deviating sample. | | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) |
| aq | Aqueous / settled sample. | | 24/10/2012 | 24/10/2012 | 24/10/2012 | 24/10/2012 | 24/10/2012 | 24/10/2012 |
| 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 | | | | | |
| 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 |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |



SDG: 121026-141
Job: H_MOUCH_LIV-1
Client Reference: 1034973

Location: Limerick
Customer: Mouchel
Attention: Neil Balderstone

Order Number: 4500103453
Report Number: 201074
Superseded Report:

TPH CWG (W)

| Results Legend | | Customer Sample Ref. | G2 | G3 | G4 | G5 | G8 | H12 |
|--|--|---|---------------|--------------|--------------|--------------|--------------|--------------|
| # | ISO17025 accredited. | Depth (m) Sample Type Date Sampled Sample Time Date Received SDG Ref Lab Sample No.(s) AGS Reference | 4.00 - 5.00 | 4.00 | 3.00 - 4.00 | 2.00 - 3.00 | 1.00 - 2.00 | 2.00 - 3.00 |
| M | mCERTS accredited. | | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) |
| S | Deviating sample. | | 24/10/2012 | 24/10/2012 | 24/10/2012 | 24/10/2012 | 24/10/2012 | 24/10/2012 |
| 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 | | | | | |
| 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 | 10 | <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 |

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SDG: 121026-141
Job: H_MOUCH_LIV-1
Client Reference: 1034973

Location: Limerick
Customer: Mouchel
Attention: Neil Balderstone

Order Number: 4500103453
Report Number: 201074
Superseded Report:

TPH CWG (W)

| Results Legend | | Customer Sample Ref. | J10 | K1 | K5 | M3 | | |
|--|--|---|--------------|--------------|--------------|--------------|---------|--|
| # | ISO17025 accredited. | Depth (m) Sample Type Date Sampled Sample Time Date Received SDG Ref Lab Sample No.(s) AGS Reference | 1.00 - 2.00 | 2.50 - 3.50 | 1.00 - 2.00 | 4.00 - 5.00 | | |
| M | mCERTS accredited. | | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | | |
| S | Deviating sample. | | 24/10/2012 | 24/10/2012 | 24/10/2012 | 24/10/2012 | | |
| 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 | | | | | | | |
| | | | | 6408368 | 6408369 | 6408371 | 6408373 | |
| Component | LOD/Units | Method | | | | | | |
| 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 | | |

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SDG: 121026-141
Job: H_MOUCH_LIV-1
Client Reference: 1034973

Location: Limerick
Customer: Mouchel
Attention: Neil Balderstone

Order Number: 4500103453
Report Number: 201074
Superseded Report:

VOC MS (W)

| Results Legend | | Customer Sample Ref. | A1 | A3 | A4 | A11 | C7 | D1 |
|------------------------------------|--|---|---------------|--------------|--------------|--------------|--------------|--------------|
| # | ISO17025 accredited. | Depth (m) Sample Type Date Sampled Sample Time Date Received SDG Ref Lab Sample No.(s) AGS Reference | 3.00 - 4.00 | 2.00 - 3.00 | 2.00 - 3.00 | 1.50 - 2.00 | 4.00 - 5.00 | 3.00 - 4.00 |
| M | mCERTS accredited. | | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) |
| S | Deviating sample. | | 24/10/2012 | 24/10/2012 | 24/10/2012 | 24/10/2012 | 24/10/2012 | 24/10/2012 |
| 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 | | | | | |
| 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 |



SDG: 121026-141
Job: H_MOUCH_LIV-1
Client Reference: 1034973

Location: Limerick
Customer: Mouchel
Attention: Neil Balderstone

Order Number: 4500103453
Report Number: 201074
Superseded Report:

VOC MS (W)

| Results Legend | | Customer Sample Ref. | A1 | A3 | A4 | A11 | C7 | D1 |
|-------------------------------|--|----------------------|--------------|--------------|--------------|--------------|--------------|--------------|
| # | ISO17025 accredited. | | | | | | | |
| M | mCERTS accredited. | | | | | | | |
| S | Deviating sample. | | | | | | | |
| aq | Aqueous / settled sample. | 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 |
| diss.filt | Dissolved / filtered sample. | Sample Type | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) |
| tot.unfilt | Total / unfiltered sample. | Date Sampled | 24/10/2012 | 24/10/2012 | 24/10/2012 | 24/10/2012 | 24/10/2012 | 24/10/2012 |
| * | Subcontracted test. | Sample Time | | | | | | |
| ** | % 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 | Date Received | 26/10/2012 | 26/10/2012 | 26/10/2012 | 26/10/2012 | 26/10/2012 | 26/10/2012 |
| (F) | Trigger breach confirmed | 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 | | | | | | |
| Component | LOD/Units | Method | | | | | | |
| 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

Validated

SDG: 121026-141
Job: H_MOUCH_LIV-1
Client Reference: 1034973

Location: Limerick
Customer: Mouchel
Attention: Neil Balderstone

Order Number: 4500103453
Report Number: 201074
Superseded Report:

VOC MS (W)

Table with columns for Component, LOD/Units, Method, and sample locations A1, A3, A4, A11, C7, D1. Includes a Results Legend and a large red watermark: 'For inspection purposes only. Consent of copyright owner required for any other use.'



SDG: 121026-141
Job: H_MOUCH_LIV-1
Client Reference: 1034973

Location: Limerick
Customer: Mouchel
Attention: Neil Balderstone

Order Number: 4500103453
Report Number: 201074
Superseded Report:

VOC MS (W)

| Results Legend | | Customer Sample Ref. | G2 | G4 | G5 | K5 | M3 | |
|------------------------------------|--|---|---|---|---|---|---|---|
| # | ISO17025 accredited. | Depth (m) Sample Type Date Sampled Sample Time Date Received SDG Ref Lab Sample No.(s) AGS Reference | 4.00 - 5.00 Water(GW/SW) 24/10/2012 | 3.00 - 4.00 Water(GW/SW) 24/10/2012 | 2.00 - 3.00 Water(GW/SW) 24/10/2012 | 1.00 - 2.00 Water(GW/SW) 24/10/2012 | 4.00 - 5.00 Water(GW/SW) 24/10/2012 | |
| M | mCERTS accredited. | | | | | | | |
| S | 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 | | | | | | |
| 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
Job: H_MOUCH_LIV-1
Client Reference: 1034973

Location: Limerick
Customer: Mouchel
Attention: Neil Balderstone

Order Number: 4500103453
Report Number: 201074
Superseded Report:

VOC MS (W)

| Results Legend | | Customer Sample Ref. | G2 | G4 | G5 | K5 | M3 | |
|-------------------------------|--|----------------------|--------------|--------------|--------------|--------------|--------------|---|
| # | ISO17025 accredited. | | | | | | | |
| M | mCERTS accredited. | | | | | | | |
| S | Deviating sample. | | | | | | | |
| aq | Aqueous / settled sample. | Depth (m) | 4.00 - 5.00 | 3.00 - 4.00 | 2.00 - 3.00 | 1.00 - 2.00 | 4.00 - 5.00 | |
| diss.filt | Dissolved / filtered sample. | Sample Type | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | Water(GW/SW) | |
| tot.unfilt | Total / unfiltered sample. | Date Sampled | 24/10/2012 | 24/10/2012 | 24/10/2012 | 24/10/2012 | 24/10/2012 | |
| * | Subcontracted test. | Sample Time | | | | | | |
| ** | % 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 | Date Received | 26/10/2012 | 26/10/2012 | 26/10/2012 | 26/10/2012 | 26/10/2012 | |
| (F) | Trigger breach confirmed | SDG Ref | 121026-141 | 121026-141 | 121026-141 | 121026-141 | 121026-141 | |
| | | Lab Sample No.(s) | 6408377 | 6408380 | 6408381 | 6408371 | 6408373 | |
| | | AGS Reference | | | | | | |
| Component | LOD/Units | Method | | | | | | |
| 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

Validated

SDG: 121026-141
Job: H_MOUCH_LIV-1
Client Reference: 1034973

Location: Limerick
Customer: Mouchel
Attention: Neil Balderstone

Order Number: 4500103453
Report Number: 201074
Superseded Report:

VOC MS (W)

Table with columns for Component, LOD/Units, Method, and sample locations G2, G4, G5, K5, M3. Includes a Results Legend and a large red watermark: 'For inspection purposes only. Consent of copyright owner required for any other use.'



SDG: 121026-141
Job: H_MOUCH_LIV-1
Client Reference: 1034973

Location: Limerick
Customer: Mouchel
Attention: Neil Balderstone

Order Number: 4500103453
Report Number: 201074
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

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SDG: 121026-141
Job: H_MOUCH_LIV-1
Client Reference: 1034973

Location: Limerick
Customer: Mouchel
Attention: Neil Balderstone

Order Number: 4500103453
Report Number: 201074
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: Part 2.11:1984 | 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.

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SDG: 121026-141
Job: H_MOUCH_LIV-1
Client Reference: 1034973

Location: Limerick
Customer: Mouchel
Attention: Neil Balderstone

Order Number: 4500103453
Report Number: 201074
Superseded Report:

Test Completion Dates

| Lab Sample No(s) Customer Sample Ref. | 6408350 | 6408353 | 6408355 | 6408341 | 6408358 | 6408356 | 6408342 | 6408365 | 6408374 | 6408346 |
|--|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| | A1 | A3 | A4 | A9 | A11 | C2 | C7 | C11 | D1 | D5 |
| | AGS Ref. | AGS Ref. | AGS Ref. | AGS Ref. | AGS Ref. | AGS Ref. | AGS Ref. | AGS Ref. | AGS Ref. | 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 | 06-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) Customer Sample Ref. | 6408347 | 6408366 | 6408377 | 6408378 | 6408380 | 6408381 | 6408349 | 6408367 | 6408368 | 6408369 |
|--|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| | E8 | F11 | G2 | G3 | G4 | G5 | G8 | H12 | J10 | K1 |
| | AGS Ref. | AGS Ref. | AGS Ref. | AGS Ref. | AGS Ref. | AGS Ref. | AGS Ref. | AGS Ref. | AGS Ref. | 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 | 06-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) Customer Sample Ref. | 6408371 | 6408373 |
|--|-------------|-------------|
| | K5 | M3 |
| | AGS Ref. | 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
Job: H_MOUCH_LIV-1
Client Reference: 1034973

Location: Limerick
Customer: Mouchel
Attention: Neil Balderstone

Order Number: 4500103453
Report Number: 201074
Superseded Report:

Appendix

1. Results are expressed on a dry weight basis (dried at 35°C) for all soil analyses except for the following: NRA 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 Dimethylphenol, 3,5 Dimethylphenol).

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

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

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

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

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

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

22. We are accredited to 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 | DOM | SOX THERM | GRAVIMETRIC |
| CYCLOHEXANE EXT. MATTER | D&C | CYCLOHEXANE | SOX THERM | GRAVIMETRIC |
| ELEMENTAL SULPHUR | D&C | DOM | SOX THERM | HPLC |
| PHENOLS BY GOMS | WET | DOM | SOX THERM | GC-MS |
| HERBICIDES | D&C | HEXANE: ACETONE | SOX THERM | GC-MS |
| PESTICIDES | D&C | HEXANE: ACETONE | SOX THERM | GC-MS |
| EPH (DFO) | 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 TM 218. | 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 | DOM:ACETONE | SONICATE | GC-MS |

| LIQUID MATRICES EXTRACTION SUMMARY | | | |
|------------------------------------|--------------------|-------------------------------|----------|
| ANALYSIS | EXTRACTION SOLVENT | EXTRACTION METHOD | ANALYSIS |
| PAH MS | HEXANE | STIRRED EXTRACTION (STIR-BAF) | GC MS |
| EPH | HEXANE | STIRRED EXTRACTION (STIR-BAF) | GC FID |
| EPH CWG | HEXANE | STIRRED EXTRACTION (STIR-BAF) | GC FID |
| MINERAL OIL | HEXANE | STIRRED EXTRACTION (STIR-BAF) | GC FID |
| PCB 7 CONGENERS | HEXANE | STIRRED EXTRACTION (STIR-BAF) | GC MS |
| PCB AROCLOR 1254 | HEXANE | STIRRED EXTRACTION (STIR-BAF) | GC MS |
| SVOC | DCM | LIQUID/LIQUID SHAKE | GC MS |
| FREESULPHUR | DCM | SOLID PHASE EXTRACTION | HPLC |
| PESTOCLOPP | 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 (R) | TCE | STIRRED EXTRACTION (STIR-BAF) | IR |
| MINERAL OIL BY IR | TCE | STIRRED EXTRACTION (STIR-BAF) | 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.