WASTE / MATERIAL TRACKING NOTE

Emf 18.2

Toureen Group
Solving complex challenges since 1991

TICK APPROPRIATE BOX
- MATERIAL CONVEYANCE
- WASTE TRANSFER
- CONSIGNMENT

ONLY FILL IN PARTS WITH THIS SYMBOL (×3)

A1 – Note Code: / 32758

PART A – Notification Details VARIES

A2 – Address of Transfer / Collection Point (Site): Shell blackhorse,
Postcode: TW9 1XD
A3 – Premises Code
A5 – Current Holder/ Producer of the Waste Material — Transferor
Toureen Group, 25 Cecil Rd. Wealdstone, HA3 5QY. tel: 020 8424 7998

A4 – Name & Address of Destination: DAYS ASHBRIDGE
Postcode:
Permit/Exemption No:

PART B – Description of Waste / Material VARIES

B1 – Process giving rise to the waste: Excavation (FILL IN OR TICK BELOW)
B2 – SIC Code: 17 01 01 (FILL IN OR TICK BELOW)

- 42.99/0 Civil Engineering
- 41.20/1 Commercial Building
- 41.20/2 Residential Building
- 43.11/0 Demolition
- 42.22/0 Infrastructure/Utilities
- 39.00/0 Remediation/Waste Recycling
- 42.11/0 Groundwork's
- 42.13/0 Tunnelling

B3 – EWC Code & Description of Waste/Original Waste Material (FILL IN OR TICK BELOW)

- 17 05 04 – Clean/Inert muck
- 17 05 04 – Non-Hazardous muck
- 17 05 03 – Hazardous muck
- [✓] 17 01 01 – Concrete
- 17 01 02 – Brick
- 17 01 07 – Demo Rubble
- 17 09 04 – Mixed Con. Waste
- 17 03 02 – Tarmac
- 17 02 01 – Timber/Wood
- 17 02 03 – Plastics
- 17 02 02 – Glass
- 17 06 04 – Insulation
- 17 01 03 – Tiles & Ceramics
- 13 05 07 – Oily Water
- 17 06 05 – Asbestos Containing Mat.
- 17 04 07 – Mixed Metals

Classification of Waste/Recovered Material:
- [✓] Clean/Inert
- Non-Hazardous
- Hazardous

The Concentration of Chemicals/Biological component of concern:
Hazard Codes

B4 – If the "waste" material has been recycled/treated please identify to what specification it conforms?
- Type I
- Type II
- 6F2
- 6F3
- Other (State)

B5 – How is the Waste Transported: No./weight/volume if applicable: (FILL IN OR TICK BELOW)

- Articulated Lorry
- [✓] Tipper (20 Ton)
- Grab (16 Ton)
- Tanker
- Drum/IBC/1 Ton Bag
- RO/RO 40 Yd Bin
- 20 Yd Skip
- 16 Yd Skip
- 12 Yd Skip
- 8 Yd Skip
- 8 Yd Skip
- 6 Yd Skip
- Mini Skip
- Other (State)

PART C – Carriers Certificate VARIES

I certify that I today collected the consignment and that the details in A2, A4 and B3 are correct and I have been advised of any special handling requirements.

Company name: Toureen group.
Address: 25 Cecil rd, Harrow
Postcode: HA3 5QY
Waste Carriers Licence No: CB/AN33445F
Vehicle Registration: EU14 PKVE
Driver Name: [illegible]
Signature: [signature]
Date: 09/12/15
Time:

PART D – Consignor's Certificate

I certify that the information completed in A, B and C is correct, that the carrier is registered or exempt and was advised of the appropriate precautionary measures. All of the waste/recovered material is packaged and labelled correctly and the carrier has been advised of any special handling requirements.

I confirm that I have fulfilled my duty to apply the waste hierarchy as required by Regulation 12 of the Waste (England & Wales) regulations 2011

Name: L MARTYN
Signature: [signature]
Date: 09/12/15.
Time:

PART E – Consignee's Certificate VARIES

Quantity Received (tons)
Material/Waste Accepted: YES NO
Waste Management Operation (R or D Code)

I received this waste/material at the address detailed in A4 on – Date: Time:

I confirm the Vehicle Registration and Type as Detailed in B5 and Part C: YES NO (IF NO PLEASE PROVIDE DETAILS)

Where waste/material is rejected; please provide details:

I certify that waste/material reuse permit/exemption operation number/reference:
authorises the management/receipt of the waste/material described in B at the address given in A4.

Name: Signature: Date:

WASTE / MATERIAL TRACKING NOTE

Emf 18.2

Toureen Group
Solving complex challenges since 1991

TICK APPROPRIATE BOX
- MATERIAL CONVEYANCE
- WASTE TRANSFER
- CONSIGNMENT

▲ ONLY FILL IN PARTS WITH THIS SYMBOL
● ONLY FILL IN PARTS WITH THIS SYMBOL
▮ ONLY FILL IN PARTS WITH THIS SYMBOL

A1 – Note Code: ▮●▲

/ 32777

PART A – Notification Details ▮●▲ VARIES

A2 – Address of Transfer / Collection Point (Site): ▮●▲
Shell Blackhorse
Postcode: TW9 1XD
A3 – Premises Code ▮

A4 – Name & Address of Destination: ▮●▲
Days. Brentford.
Postcode:
Permit/Exemption No: ▮●

A5 – Current Holder/ Producer of the Waste Material — Transferor
Toureen Group, 25 Cecil Rd. Wealdstone, HA3 5QY. tel: 020 8424 7998

PART B – Description of Waste / Material ▮●▲ VARIES

B1 – Process giving rise to the waste: ▮● Excavation
FILL IN OR TICK BELOW

B2 – SIC Code: ▮● 17 01 01
FILL IN OR TICK BELOW

- ☐ 42.99/0 Civil Engineering
- ☐ 41.20/1 Commercial Building
- ☐ 41.20/2 Residential Building
- ☐ 43.11/0 Demolition
- ☐ 42.22/0 Infrastructure/Utilities
- ☐ 39.00/0 Remediation/Waste Recycling
- ☐ 42.11/0 Groundwork's
- ☐ 42.13/0 Tunnelling

B3 – EWC Code & Description of Waste/Original Waste Material ▮●▲
FILL IN OR TICK BELOW

- ☐ 17 05 04 – Clean/Inert muck
- ☐ 17 05 04 – Non-Hazardous muck
- ☐ 17 05 03 – Hazardous muck
- ✓ 17 01 01 – Concrete
- ☐ 17 01 02 – Brick
- ☐ 17 01 07 – Demo Rubble
- ☐ 17 09 04 – Mixed Con. Waste
- ☐ 17 03 02 – Tarmac
- ☐ 17 02 01 – Timber/Wood
- ☐ 17 02 03 – Plastics
- ☐ 17 02 02 – Glass
- ☐ 17 06 04 – Insulation
- ☐ 17 01 03 – Tiles & Ceramics
- ☐ 13 05 07 – Oily Water
- ☐ 17 06 05 – Asbestos Containing Mat.
- ☐ 17 04 07 – Mixed Metals

Classification of Waste/Recovered Material: ▮●▲

- ✓ Clean/Inert
- ☐ Non-Hazardous
- ☐ Hazardous

The Concentration of Chemicals/Biological component of concern: ▮
Hazard Codes ▮

B4 – If the "waste" material has been recycled/treated please identify to what specification it conforms? ▲

- ☐ Type I
- ☐ Type II
- ☐ 6F2
- ☐ 6F3
- ☐ Other (State)

B5 – How is the Waste Transported: No./weight/volume if applicable: ▮●▲
FILL IN OR TICK BELOW

- ☐ Articulated Lorry
- ✓ Tipper (20 Ton)
- ☐ Grab (16 Ton)
- ☐ Tanker
- ☐ Drum/IBC/1 Ton Bag
- ☐ RO/RO 40 Yd Bin
- ☐ 20 Yd Skip
- ☐ 16 Yd Skip
- ☐ 12 Yd Skip
- ☐ 8 Yd Skip
- ☐ 8 Yd Skip
- ☐ 6 Yd Skip
- ☐ Mini Skip
- ☐ Other (State)

PART C – Carriers Certificate ▮●▲ VARIES

I certify that I today collected the consignment and that the details in A2, A4 and B3 are correct and I have been advised of any special handling requirements.

Company name: ▮●▲ Toureen plant
Address: ▮●▲ 25 cecil rd.
Postcode: ▮●▲ HA3 5AR
Waste Carriers Licence No: ▮●▲ CB/RE5985TT
Vehicle Registration: ▮●▲ EU14 KVC
Driver Name: ▮●▲ CHRIS
Signature: ▮●▲
Date: ▮●▲ 15/01/16 Time: ▮●▲

PART D – Consignor's Certificate ▮●▲

I certify that the information completed in A, B and C is correct, that the carrier is registered or exempt and was advised of the appropriate precautionary measures. All of the waste/recovered material is packaged and labelled correctly and the carrier has been advised of any special handling requirements.

I confirm that I have fulfilled my duty to apply the waste hierarchy as required by Regulation 12 of the Waste (England & Wales) regulations 2011

Name: ▮●▲ L MARTIN
Signature: ▮●▲
Date: ▮●▲ 15/1/16 Time: ▮●▲

PART E – Consignee's Certificate ▮●▲ VARIES

Quantity Received (tons) ▮●▲

Material/Waste Accepted ▮●▲
☐ YES ☐ NO

Waste Management Operation (R or D Code) ▮●

I received this waste/material at the address detailed in A4 on – Date: Time: ▮●▲

I confirm the Vehicle Registration and Type as Detailed in B5 and Part C: ▮●▲ ☐ YES ☐ NO
IF NO PLEASE PROVIDE DETAILS

Where waste/material is rejected; please provide details:

I certify that waste/material reuse permit/exemption operation number/reference: ▮●▲
authorises the management/receipt of the waste/material described in B at the address given in A4.

Name: ▮●▲ Signature: ▮●▲ Date: ▮●▲

*** White copy: Head Office Blue copy: Haulier Yellow copy: Waste facility Pink copy: PC/site ***

WASTE / MATERIAL TRACKING NOTE

Emf 18.2

Toureen Group
Solving complex challenges since 1991

TICK APPROPRIATE BOX
- MATERIAL CONVEYANCE
- WASTE TRANSFER
- CONSIGNMENT

▲ ONLY FILL IN PARTS WITH THIS SYMBOL
● ONLY FILL IN PARTS WITH THIS SYMBOL
▮ ONLY FILL IN PARTS WITH THIS SYMBOL

A1 – Note Code: ▮●▲

/ 32765

PART A – Notification Details ▮●▲ VARIES

A2 – Address of Transfer / Collection Point (Site): ▮●▲
Shell Blackhorse
Postcode: TW9 1XD
A3 – Premises Code ▮

A4 – Name & Address of Destination: ▮●▲
Day Group Brentford
Postcode:
Permit/Exemption No: ▮● EPR/CB7630RP

A5 – Current Holder/ Producer of the Waste Material — Transferor
Toureen Group, 25 Cecil Rd. Wealdstone, HA3 5QY. tel: 020 8424 7998

PART B – Description of Waste / Material ▮●▲ VARIES

B1 – Process giving rise to the waste: ▮● Excavation
FILL IN OR TICK BELOW

B2 – SIC Code: ▮● 17 01 91
FILL IN OR TICK BELOW

- ☐ 42.99/0 Civil Engineering
- ☐ 41.20/1 Commercial Building
- ☐ 41.20/2 Residential Building
- ☐ 43.11/0 Demolition
- ☐ 42.22/0 Infrastructure/Utilities
- ☐ 39.00/0 Remediation/Waste Recycling
- ☐ 42.11/0 Groundwork's
- ☐ 42.13/0 Tunnelling

B3 – EWC Code & Description of Waste/Original Waste Material ▮●▲
FILL IN OR TICK BELOW

- ☐ 17 05 04 – Clean/Inert muck
- ☐ 17 05 04 – Non-Hazardous muck
- ☐ 17 05 03 – Hazardous muck
- ✓ 17 01 01 – Concrete
- ☐ 17 01 02 – Brick
- ☐ 17 01 07 – Demo Rubble
- ☐ 17 09 04 – Mixed Con. Waste
- ☐ 17 03 02 – Tarmac
- ☐ 17 02 01 – Timber/Wood
- ☐ 17 02 03 – Plastics
- ☐ 17 02 02 – Glass
- ☐ 17 06 04 – Insulation
- ☐ 17 01 03 – Tiles & Ceramics
- ☐ 13 05 07 – Oily Water
- ☐ 17 06 05 – Asbestos Containing Mat.
- ☐ 17 04 07 – Mixed Metals

Classification of Waste/Recovered Material: ▮●▲

- ✓ Clean/Inert
- ☐ Non-Hazardous
- ☐ Hazardous

The Concentration of Chemicals/Biological component of concern: ▮
Hazard Codes ▮

B4 – If the "waste" material has been recycled/treated please identify to what specification it conforms? ▲

- ☐ Type I
- ☐ Type II
- ☐ 6F2
- ☐ 6F3
- ☐ Other (State)

B5 – How is the Waste Transported: No./weight/volume if applicable: ▮●▲
FILL IN OR TICK BELOW

- ☐ Articulated Lorry
- ✓ Tipper (20 Ton)
- ☐ Grab (16 Ton)
- ☐ Tanker
- ☐ Drum/IBC/1 Ton Bag
- ☐ RO/RO 40 Yd Bin
- ☐ 20 Yd Skip
- ☐ 16 Yd Skip
- ☐ 12 Yd Skip
- ☐ 8 Yd Skip
- ☐ 8 Yd Skip
- ☐ 6 Yd Skip
- ☐ Mini Skip
- ☐ Other (State)

PART C – Carriers Certificate ▮●▲ VARIES

I certify that I today collected the consignment and that the details in A2, A4 and B3 are correct and I have been advised of any special handling requirements.

Company name: ▮●▲ Day Group
Address: ▮●▲ Brentford
Postcode: ▮●▲
Waste Carriers Licence No: ▮●▲ CB/PC5939KB.
Vehicle Registration: ▮●▲ AO63 DAY
Driver Name: ▮●▲ MALCOLM BOND
Signature: ▮●▲ M P Bond
Date: ▮●▲ 15.12.15. Time: ▮●▲

PART D – Consignor's Certificate ▮●▲

I certify that the information completed in A, B and C is correct, that the carrier is registered or exempt and was advised of the appropriate precautionary measures. All of the waste/recovered material is packaged and labelled correctly and the carrier has been advised of any special handling requirements.

I confirm that I have fulfilled my duty to apply the waste hierarchy as required by Regulation 12 of the Waste (England & Wales) Regulations 2011

Name: ▮●▲ L Morrow
Signature: ▮●▲
Date: ▮●▲ 15.12.15 Time: ▮●▲

PART E – Consignee's Certificate ▮●▲ VARIES

Quantity Received (tons) ▮●▲

Material/Waste Accepted ▮●▲
☐ YES ☐ NO

Waste Management Operation (R or D Code) ▮●

I received this waste/material at the address detailed in A4 on – Date: Time: ▮●▲

I confirm the Vehicle Registration and Type as Detailed in B5 and Part C: ▮●▲ ☐ YES ☐ NO
IF NO PLEASE PROVIDE DETAILS

Where waste/material is rejected; please provide details:

I certify that waste/material reuse permit/exemption operation number/reference: ▮●▲
authorises the management/receipt of the waste/material described in B at the address given in A4.

Name: ▮●▲ Signature: ▮●▲ Date: ▮●▲

*** White copy: Head Office Blue copy: Haulier Yellow copy: Waste facility Pink copy: PC/site ***

WASTE / MATERIAL TRACKING NOTE

Emf 18.2

Toureen Group
Solving complex challenges since 1991

TICK APPROPRIATE BOX
- MATERIAL CONVEYANCE
- WASTE TRANSFER
- CONSIGNMENT

▲ ONLY FILL IN PARTS WITH THIS SYMBOL
● ONLY FILL IN PARTS WITH THIS SYMBOL
▮ ONLY FILL IN PARTS WITH THIS SYMBOL

A1 – Note Code: ▮●▲

/ 32764

PART A – Notification Details ▮●▲ VARIES

A2 – Address of Transfer / Collection Point (Site): ▮●▲
Shell Blackheath
Postcode: TW9 1XD

A3 – Premises Code ▮

A4 – Name & Address of Destination: ▮●▲
Day Group
Postcode:
Permit/Exemption No: ▮● EPR/CB3607RP

A5 – Current Holder/ Producer of the Waste Material — Transferor

Toureen Group, 25 Cecil Rd. Wealdstone, HA3 5QY. tel: 020 8424 7998

PART B – Description of Waste / Material ▮●▲ VARIES

B1 – Process giving rise to the waste: ▮● Excavation (FILL IN OR TICK BELOW)

B2 – SIC Code: ▮● 17 01 01 (FILL IN OR TICK BELOW)

- ☐ 42.99/0 Civil Engineering
- ☐ 41.20/1 Commercial Building
- ☐ 41.20/2 Residential Building
- ☐ 43.11/0 Demolition
- ☐ 42.22/0 Infrastructure/Utilities
- ☐ 39.00/0 Remediation/Waste Recycling
- ☐ 42.11/0 Groundwork's
- ☐ 42.13/0 Tunnelling

B3 – EWC Code & Description of Waste/Original Waste Material ▮●▲ FILL IN OR TICK BELOW

- ☐ 17 05 04 – Clean/Inert muck
- ☐ 17 05 04 – Non-Hazardous muck
- ☐ 17 05 03 – Hazardous muck
- ✓ 17 01 01 – Concrete
- ☐ 17 01 02 – Brick
- ☐ 17 01 07 – Demo Rubble
- ☐ 17 09 04 – Mixed Con. Waste
- ☐ 17 03 02 – Tarmac
- ☐ 17 02 01 – Timber/Wood
- ☐ 17 02 03 – Plastics
- ☐ 17 02 02 – Glass
- ☐ 17 06 04 – Insulation
- ☐ 17 01 03 – Tiles & Ceramics
- ☐ 13 05 07 – Oily Water
- ☐ 17 06 05 – Asbestos Containing Mat.
- ☐ 17 04 07 – Mixed Metals

Classification of Waste/Recovered Material: ▮●▲

- ✓ Clean/Inert
- ☐ Non-Hazardous
- ☐ Hazardous

The Concentration of Chemicals/Biological component of concern: ▮

Hazard Codes ▮

B4 – If the "waste" material has been recycled/treated please identify to what specification it conforms? ▲

- ☐ Type I
- ☐ Type II
- ☐ 6F2
- ☐ 6F3
- ☐ Other (State)

B5 – How is the Waste Transported: No./weight/volume if applicable: ▮●▲ FILL IN OR TICK BELOW

- ☐ Articulated Lorry
- ✓ Tipper (20 Ton)
- ☐ Grab (16 Ton)
- ☐ Tanker
- ☐ Drum/IBC/1 Ton Bag
- ☐ RO/RO 40 Yd Bin
- ☐ 20 Yd Skip
- ☐ 16 Yd Skip
- ☐ 12 Yd Skip
- ☐ 8 Yd Skip
- ☐ 8 Yd Skip
- ☐ 6 Yd Skip
- ☐ Mini Skip
- ☐ Other (State)

PART C – Carriers Certificate ▮●▲ VARIES

I certify that I today collected the consignment and that the details in A2, A4 and B3 are correct and I have been advised of any special handling requirements.

Company name: ▮●▲ DAYGROUP
Address: ▮●▲
Postcode: ▮●▲
Waste Carriers Licence No: ▮●▲ CBIPE 59394B
Vehicle Registration: ▮●▲ AD61 DAY
Driver Name: ▮●▲ A SANDERS
Signature: ▮●▲
Date: ▮●▲ 14/12/15 Time: ▮●▲

PART D – Consignor's Certificate ▮●▲

I certify that the information completed in A, B and C is correct, that the carrier is registered or exempt and was advised of the appropriate precautionary measures. All of the waste/recovered material is packaged and labelled correctly and the carrier has been advised of any special handling requirements.

I confirm that I have fulfilled my duty to apply the waste hierarchy as required by Regulation 12 of the Waste (England & Wales) regulations 2011

Name: ▮●▲ L MARTIN
Signature: ▮●▲
Date: ▮●▲ 14/12/15 Time: ▮●▲

PART E – Consignee's Certificate ▮●▲ VARIES

Quantity Received (tons) ▮●▲

Material/Waste Accepted ▮●▲
☐ YES ☐ NO

Waste Management Operation (R or D Code) ▮●

I received this waste/material at the address detailed in A4 on – Date: Time: ▮●▲

I confirm the Vehicle Registration and Type as Detailed in B5 and Part C: ▮●▲ ☐ YES ☐ NO (IF NO PLEASE PROVIDE DETAILS)

Where waste/material is rejected; please provide details:

I certify that waste/material reuse permit/exemption operation number/reference: ▮●▲
authorises the management/receipt of the waste/material described in B at the address given in A4.

Name: ▮●▲ Signature: ▮●▲ Date: ▮●▲

*** White copy: Head Office Blue copy: Haulier Yellow copy: Waste facility Pink copy: PC/site ***

WASTE / MATERIAL TRACKING NOTE

Emf 18.2

COMBINED FORMS:

Toureen Group
Solving complex challenges since 1991

TICK APPROPRIATE BOX
- MATERIAL CONVEYANCE
- WASTE TRANSFER
- CONSIGNMENT

ONLY FILL IN PARTS WITH THIS SYMBOL (▲)
ONLY FILL IN PARTS WITH THIS SYMBOL (●)
ONLY FILL IN PARTS WITH THIS SYMBOL (▮)

A1 – Note Code:

/ 32761

PART A – Notification Details VARIES

A2 – Address of Transfer / Collection Point (Site): Shell blackhorse.
Postcode: TW9 1XD

A3 – Premises Code

A4 – Name & Address of Destination: Days Group. Brentwood.
Postcode:
Permit/Exemption No: EPR/CB363ORF

A5 – Current Holder/ Producer of the Waste Material — Transferor

Toureen Group, 25 Cecil Rd. Wealdstone, HA3 5QY. tel: 020 8424 7998

PART B – Description of Waste / Material VARIES

B1 – Process giving rise to the waste: Excavation (FILL IN OR TICK BELOW)

B2 – SIC Code: 17 01 01 (FILL IN OR TICK BELOW)

- 42.99/0 Civil Engineering
- 41.20/1 Commercial Building
- 41.20/2 Residential Building
- 43.11/0 Demolition
- 42.22/0 Infrastructure/Utilities
- 39.00/0 Remediation/Waste Recycling
- 42.11/0 Groundwork's
- 42.13/0 Tunnelling

B3 – EWC Code & Description of Waste/Original Waste Material (FILL IN OR TICK BELOW)

- 17 05 04 – Clean/Inert muck
- 17 05 04 – Non-Hazardous muck
- 17 05 03 – Hazardous muck
- ✓ 17 01 01 – Concrete
- 17 01 02 – Brick
- 17 01 07 – Demo Rubble
- 17 09 04 – Mixed Con. Waste
- 17 03 02 – Tarmac
- 17 02 01 – Timber/Wood
- 17 02 03 – Plastics
- 17 02 02 – Glass
- 17 06 04 – Insulation
- 17 01 03 – Tiles & Ceramics
- 13 05 07 – Oily Water
- 17 06 05 – Asbestos Containing Mat.
- 17 04 07 – Mixed Metals

Classification of Waste/Recovered Material:

- ✓ Clean/Inert
- Non-Hazardous
- Hazardous

The Concentration of Chemicals/Biological component of concern:

Hazard Codes

B4 – If the "waste" material has been recycled/treated please identify to what specification it conforms?

- Type I
- Type II
- 6F2
- 6F3
- Other (State)

B5 – How is the Waste Transported: No./weight/volume if applicable: (FILL IN OR TICK BELOW)

- Articulated Lorry
- ✓ Tipper (20 Ton)
- Grab (16 Ton)
- Tanker
- Drum/IBC/1 Ton Bag
- RO/RO 40 Yd Bin
- 20 Yd Skip
- 16 Yd Skip
- 12 Yd Skip
- 8 Yd Skip
- 8 Yd Skip
- 6 Yd Skip
- Mini Skip
- Other (State)

PART C – Carriers Certificate VARIES

I certify that I today collected the consignment and that the details in A2, A4 and B3 are correct and I have been advised of any special handling requirements.

Company name: Days Group.
Address:
Postcode:
Waste Carriers Licence No: CB/PE5939KR
Vehicle Registration: DF58 DAY
Driver Name: C. ODOS
Signature: [signature]
Date: 14.12.15.
Time:

PART D – Consignor's Certificate

I certify that the information completed in A, B and C is correct, that the carrier is registered or exempt and was advised of the appropriate precautionary measures. All of the waste/recovered material is packaged and labelled correctly and the carrier has been advised of any special handling requirements.

I confirm that I have fulfilled my duty to apply the waste hierarchy as required by Regulation 12 of the Waste (England & Wales) regulations 2011

Name: L MAZON
Signature: [signature]
Date: 14.12.15
Time:

PART E – Consignee's Certificate VARIES

Quantity Received (tons)

Material/Waste Accepted
- YES
- NO

Waste Management Operation (R or D Code)

I received this waste/material at the address detailed in A4 on – Date:

Time:

I confirm the Vehicle Registration and Type as Detailed in B5 and Part C: YES NO (IF NO PLEASE PROVIDE DETAILS)

Where waste/material is rejected; please provide details:

I certify that waste/material reuse permit/exemption operation number/reference:
authorises the management/receipt of the waste/material described in B at the address given in A4.

Name:

Signature:

Date:

*** White copy: Head Office — Blue copy: Haulier — Yellow copy: Waste facility — Pink copy: PC/site ***

WASTE / MATERIAL TRACKING NOTE

Emf 18.2

Toureen Group
Solving complex challenges since 1991

TICK APPROPRIATE BOX
- MATERIAL CONVEYANCE
- WASTE TRANSFER
- CONSIGNMENT

▲ ONLY FILL IN PARTS WITH THIS SYMBOL
● ONLY FILL IN PARTS WITH THIS SYMBOL
▮ ONLY FILL IN PARTS WITH THIS SYMBOL

A1 – Note Code: ▮●▲

/ 32762

PART A – Notification Details ▮●▲ VARIES

A2 – Address of Transfer / Collection Point (Site): ▮●▲
Shell Blackhorse
Postcode: TW9 1XO

A3 – Premises Code ▮

A4 – Name & Address of Destination: ▮●▲
Brentwood
Postcode:
Permit/Exemption No: ▮● EPR/EB3630RP

A5 – Current Holder/ Producer of the Waste Material — Transferor
Toureen Group, 25 Cecil Rd. Wealdstone, HA3 5QY. tel: 020 8424 7998

PART B – Description of Waste / Material ▮●▲ VARIES

B1 – Process giving rise to the waste: ▮● Excavation (FILL IN OR TICK BELOW)

B2 – SIC Code: ▮● 17 01 01 (FILL IN OR TICK BELOW)

- ☐ 42.99/0 Civil Engineering
- ☐ 41.20/1 Commercial Building
- ☐ 41.20/2 Residential Building
- ☐ 43.11/0 Demolition
- ☐ 42.22/0 Infrastructure/Utilities
- ☐ 39.00/0 Remediation/Waste Recycling
- ☐ 42.11/0 Groundwork's
- ☐ 42.13/0 Tunnelling

B3 – EWC Code & Description of Waste/Original Waste Material ▮●▲ (FILL IN OR TICK BELOW)

- ☐ 17 05 04 – Clean/Inert muck
- ☐ 17 05 04 – Non-Hazardous muck
- ☐ 17 05 03 – Hazardous muck
- ☑ 17 01 01 – Concrete
- ☐ 17 01 02 – Brick
- ☐ 17 01 07 – Demo Rubble
- ☐ 17 09 04 – Mixed Con. Waste
- ☐ 17 03 02 – Tarmac
- ☐ 17 02 01 – Timber/Wood
- ☐ 17 02 03 – Plastics
- ☐ 17 02 02 – Glass
- ☐ 17 06 04 – Insulation
- ☐ 17 01 03 – Tiles & Ceramics
- ☐ 13 05 07 – Oily Water
- ☐ 17 06 05 – Asbestos Containing Mat.
- ☐ 17 04 07 – Mixed Metals

Classification of Waste/Recovered Material: ▮●▲

- ☑ Clean/Inert
- ☐ Non-Hazardous
- ☐ Hazardous

The Concentration of Chemicals/Biological component of concern: ▮
Hazard Codes ▮

B4 – If the "waste" material has been recycled/treated please identify to what specification it conforms? ▲

- ☐ Type I
- ☐ Type II
- ☐ 6F2
- ☐ 6F3
- ☐ Other (State)

B5 – How is the Waste Transported; No./weight/volume if applicable: ▮●▲ (FILL IN OR TICK BELOW)

- ☐ Articulated Lorry
- ☑ Tipper (20 Ton)
- ☐ Grab (16 Ton)
- ☐ Tanker
- ☐ Drum/IBC/1 Ton Bag
- ☐ RO/RO 40 Yd Bin
- ☐ 20 Yd Skip
- ☐ 16 Yd Skip
- ☐ 12 Yd Skip
- ☐ 8 Yd Skip
- ☐ 8 Yd Skip
- ☐ 6 Yd Skip
- ☐ Mini Skip
- ☐ Other (State)

PART C – Carriers Certificate ▮●▲ VARIES

I certify that I today collected the consignment and that the details in A2, A4 and B3 are correct and I have been advised of any special handling requirements.

Company name: ▮●▲ DAY Group
Address: ▮●▲
Postcode: ▮●▲
Waste Carriers Licence No: ▮●▲ CBDES9397EB
Vehicle Registration: ▮●▲ AC62 DAY
Driver Name: ▮●▲ A. SANDERS
Signature: ▮●▲
Date: ▮●▲ 14/12/15 Time: ▮●▲

PART D – Consignor's Certificate ▮●▲

I certify that the information completed in A, B and C is correct, that the carrier is registered or exempt and was advised of the appropriate precautionary measures. All of the waste/recovered material is packaged and labelled correctly and the carrier has been advised of any special handling requirements.

I confirm that I have fulfilled my duty to apply the waste hierarchy as required by Regulation 12 of the Waste (England & Wales) regulations 2011

Name: ▮●▲ L Murray
Signature: ▮●▲
Date: ▮●▲ 14/12/15 Time: ▮●▲

PART E – Consignee's Certificate ▮●▲ VARIES

Quantity Received (tons) ▮●▲

Material/Waste Accepted ▮●▲
☐ YES ☐ NO

Waste Management Operation (R or D Code) ▮●

I received this waste/material at the address detailed in A4 on – Date: Time: ▮●▲

I confirm the Vehicle Registration and Type as Detailed in B5 and Part C: ▮●▲ ☐ YES ☐ NO
(IF NO PLEASE PROVIDE DETAILS)

Where waste/material is rejected; please provide details:

I certify that waste/material reuse permit/exemption operation number/reference: ▮●▲
authorises the management/receipt of the waste/material described in B at the address given in A4.

Name: ▮●▲ Signature: ▮●▲ Date: ▮●▲

*** White copy: Head Office Blue copy: Haulier Yellow copy: Waste facility Pink copy: PC/site ***

WASTE / MATERIAL TRACKING NOTE

Emf 18.2

Toureen Group
Solving complex challenges since 1991

TICK APPROPRIATE BOX
- MATERIAL CONVEYANCE
- WASTE TRANSFER
- CONSIGNMENT

▲ ONLY FILL IN PARTS WITH THIS SYMBOL
● ONLY FILL IN PARTS WITH THIS SYMBOL
▮ ONLY FILL IN PARTS WITH THIS SYMBOL

A1 – Note Code: ▮●▲

/ 32763

PART A – Notification Details ▮●▲ VARIES

A2 – Address of Transfer / Collection Point (Site): ▮●▲
Shell Blackhorse

Postcode:

A3 – Premises Code ▮

A4 – Name & Address of Destination: ▮●▲
Days Group

Postcode:

Permit/Exemption No: ▮● EPR/CB3630RP

A5 – Current Holder/ Producer of the Waste Material — Transferor

Toureen Group, 25 Cecil Rd. Wealdstone, HA3 5QY. tel: 020 8424 7998

PART B – Description of Waste / Material ▮●▲ VARIES

B1 – Process giving rise to the waste: ▮● Excavation (FILL IN OR TICK BELOW)

B2 – SIC Code: ▮● 17 01 01 (FILL IN OR TICK BELOW)

- ☐ 42.99/0 Civil Engineering
- ☐ 41.20/1 Commercial Building
- ☐ 41.20/2 Residential Building
- ☐ 43.11/0 Demolition
- ☐ 42.22/0 Infrastructure/Utilities
- ☐ 39.00/0 Remediation/Waste Recycling
- ☐ 42.11/0 Groundwork's
- ☐ 42.13/0 Tunnelling

B3 – EWC Code & Description of Waste/Original Waste Material ▮●▲ (FILL IN OR TICK BELOW)

- ☐ 17 05 04 – Clean/Inert muck
- ☐ 17 05 04 – Non-Hazardous muck
- ☐ 17 05 03 – Hazardous muck
- ✓ 17 01 01 – Concrete
- ☐ 17 01 02 – Brick
- ☐ 17 01 07 – Demo Rubble
- ☐ 17 09 04 – Mixed Con. Waste
- ☐ 17 03 02 – Tarmac
- ☐ 17 02 01 – Timber/Wood
- ☐ 17 02 03 – Plastics
- ☐ 17 02 02 – Glass
- ☐ 17 06 04 – Insulation
- ☐ 17 01 03 – Tiles & Ceramics
- ☐ 13 05 07 – Oily Water
- ☐ 17 06 05 – Asbestos Containing Mat.
- ☐ 17 04 07 – Mixed Metals

Classification of Waste/Recovered Material: ▮●▲

- ✓ Clean/Inert
- ☐ Non-Hazardous
- ☐ Hazardous

The Concentration of Chemicals/Biological component of concern: ▮

Hazard Codes ▮

B4 – If the "waste" material has been recycled/treated please identify to what specification it conforms? ▲

- ☐ Type I
- ☐ Type II
- ☐ 6F2
- ☐ 6F3
- ☐ Other (State)

B5 – How is the Waste Transported: No./weight/volume if applicable: ▮●▲ (FILL IN OR TICK BELOW)

- ☐ Articulated Lorry
- ✓ Tipper (20 Ton)
- ☐ Grab (16 Ton)
- ☐ Tanker
- ☐ Drum/IBC/1 Ton Bag
- ☐ RO/RO 40 Yd Bin
- ☐ 20 Yd Skip
- ☐ 16 Yd Skip
- ☐ 12 Yd Skip
- ☐ 8 Yd Skip
- ☐ 8 Yd Skip
- ☐ 6 Yd Skip
- ☐ Mini Skip
- ☐ Other (State)

PART C – Carriers Certificate ▮●▲ VARIES

I certify that I today collected the consignment and that the details in A2, A4 and B3 are correct and I have been advised of any special handling requirements.

Company name: ▮●▲ Day Group

Address: ▮●▲

Postcode: ▮●▲

Waste Carriers Licence No: ▮●▲ CB/PB3934KB

Vehicle Registration: ▮●▲ BX61 DAY

Driver Name: ▮●▲ GARY PRICE

Signature: ▮●▲

Date: ▮●▲ 14/12/15 Time: ▮●▲

PART D – Consignor's Certificate ▮●▲

I certify that the information completed in A, B and C is correct, that the carrier is registered or exempt and was advised of the appropriate precautionary measures. All of the waste/recovered material is packaged and labelled correctly and the carrier has been advised of any special handling requirements.

I confirm that I have fulfilled my duty to apply the waste hierarchy as required by Regulation 12 of the Waste (England & Wales) regulations 2011

Name: ▮●▲ L MANSON

Signature: ▮●▲

Date: ▮●▲ 14/12/15 Time: ▮●▲

PART E – Consignee's Certificate ▮●▲ VARIES

Quantity Received (tons) ▮●▲

Material/Waste Accepted ▮●▲ ☐ YES ☐ NO

Waste Management Operation (R or D Code) ▮●

I received this waste/material at the address detailed in A4 on – Date: Time: ▮●▲

I confirm the Vehicle Registration and Type as Detailed in B5 and Part C: ▮●▲ ☐ YES ☐ NO (IF NO PLEASE PROVIDE DETAILS)

Where waste/material is rejected; please provide details:

I certify that waste/material reuse permit/exemption operation number/reference: ▮●▲
authorises the management/receipt of the waste/material described in B at the address given in A4.

Name: ▮●▲ Signature: ▮●▲ Date: ▮●▲

*** White copy: Head Office Blue copy: Haulier Yellow copy: Waste facility Pink copy: PC/site ***

WASTE / MATERIAL TRACKING NOTE

Emf 18.2

Toureen Group
Solving complex challenges since 1991

TICK APPROPRIATE BOX
- MATERIAL CONVEYANCE
- WASTE TRANSFER
- CONSIGNMENT

▲ ONLY FILL IN PARTS WITH THIS SYMBOL
● ONLY FILL IN PARTS WITH THIS SYMBOL
▮ ONLY FILL IN PARTS WITH THIS SYMBOL

A1 – Note Code: ▮●▲

/ 32772

PART A – Notification Details ▮●▲ VARIES

A2 – Address of Transfer / Collection Point (Site): ▮●▲
Shell Blackhorse

Postcode: TW9 1XD

A3 – Premises Code ▮

A4 – Name & Address of Destination: ▮●▲
Transport Ave Brentford

Postcode: TW8 9HF

Permit/Exemption No: ▮● EPR/BB3232RX

A5 – Current Holder/ Producer of the Waste Material — Transferor

Toureen Group, 25 Cecil Rd. Wealdstone, HA3 5QY. tel: 020 8424 7998

PART B – Description of Waste / Material ▮●▲ VARIES

B1 – Process giving rise to the waste: ▮● Excavation
FILL IN OR TICK BELOW

B2 – SIC Code: ▮● 17 01 01
FILL IN OR TICK BELOW

- ☐ 42.99/0 Civil Engineering
- ☐ 41.20/1 Commercial Building
- ☐ 41.20/2 Residential Building
- ☐ 43.11/0 Demolition
- ☐ 42.22/0 Infrastructure/Utilities
- ☐ 39.00/0 Remediation/Waste Recycling
- ☐ 42.11/0 Groundwork's
- ☐ 42.13/0 Tunnelling

B3 – EWC Code & Description of Waste/Original Waste Material ▮●▲
FILL IN OR TICK BELOW

- ☐ 17 05 04 – Clean/Inert muck
- ☐ 17 05 04 – Non-Hazardous muck
- ☐ 17 05 03 – Hazardous muck
- ✓ 17 01 01 – Concrete
- ☐ 17 01 02 – Brick
- ☐ 17 01 07 – Demo Rubble
- ☐ 17 09 04 – Mixed Con. Waste
- ☐ 17 03 02 – Tarmac
- ☐ 17 02 01 – Timber/Wood
- ☐ 17 02 03 – Plastics
- ☐ 17 02 02 – Glass
- ☐ 17 06 04 – Insulation
- ☐ 17 01 03 – Tiles & Ceramics
- ☐ 13 05 07 – Oily Water
- ☐ 17 06 05 – Asbestos Containing Mat.
- ☐ 17 04 07 – Mixed Metals

Classification of Waste/Recovered Material: ▮●▲

- ✓ Clean/Inert
- ☐ Non-Hazardous
- ☐ Hazardous

The Concentration of Chemicals/Biological component of concern: ▮

Hazard Codes ▮

B4 – If the "waste" material has been recycled/treated please identify to what specification it conforms? ▲

- ☐ Type I
- ☐ Type II
- ☐ 6F2
- ☐ 6F3
- ☐ Other (State)

B5 – How is the Waste Transported: No./weight/volume if applicable: ▮●▲
FILL IN OR TICK BELOW

- ☐ Articulated Lorry
- ✓ Tipper (20 Ton)
- ☐ Grab (16 Ton)
- ☐ Tanker
- ☐ Drum/IBC/1 Ton Bag
- ☐ RO/RO 40 Yd Bin
- ☐ 20 Yd Skip
- ☐ 16 Yd Skip
- ☐ 12 Yd Skip
- ☐ 8 Yd Skip
- ☐ 8 Yd Skip
- ☐ 6 Yd Skip
- ☐ Mini Skip
- ☐ Other (State)

PART C – Carriers Certificate ▮●▲ VARIES

I certify that I today collected the consignment and that the details in A2, A4 and B3 are correct and I have been advised of any special handling requirements.

Company name: ▮●▲ Days Group.
Address: ▮●▲ Transport Ave Brentford
Postcode: ▮●▲ TW8 9HF
Waste Carriers Licence No: ▮●▲ CB/PR5939KB.
Vehicle Registration: ▮●▲ BP15 DAY
Driver Name: ▮●▲ PAUL WOOD
Signature: ▮●▲
Date: ▮●▲ 12/01/16 Time: ▮●▲

PART D – Consignor's Certificate ▮●▲

I certify that the information completed in A, B and C is correct, that the carrier is registered or exempt and was advised of the appropriate precautionary measures. All of the waste/recovered material is packaged and labelled correctly and the carrier has been advised of any special handling requirements.

I confirm that I have fulfilled my duty to apply the waste hierarchy as required by Regulation 12 of the Waste (England & Wales) regulations 2011

Name: ▮●▲ L Martin
Signature: ▮●▲
Date: ▮●▲ 12/01/16 Time: ▮●▲

PART E – Consignee's Certificate ▮●▲ VARIES

Quantity Received (tons) ▮●▲

Material/Waste Accepted ▮●▲
- ☐ YES
- ☐ NO

Waste Management Operation (R or D Code) ▮●

I received this waste/material at the address detailed in A4 on – Date: Time: ▮●▲

I confirm the Vehicle Registration and Type as Detailed in B5 and Part C: ▮●▲ ☐ YES ☐ NO
IF NO PLEASE PROVIDE DETAILS

Where waste/material is rejected; please provide details:

I certify that waste/material reuse permit/exemption operation number/reference: ▮●▲
authorises the management/receipt of the waste/material described in B at the address given in A4.

Name: ▮●▲ Signature: ▮●▲ Date: ▮●▲

*** White copy: Head Office Blue copy: Haulier Yellow copy: Waste facility Pink copy: PC/site ***

WASTE / MATERIAL TRACKING NOTE

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TICK APPROPRIATE BOX
- MATERIAL CONVEYANCE
- WASTE TRANSFER
- CONSIGNMENT

▲ ONLY FILL IN PARTS WITH THIS SYMBOL
● ONLY FILL IN PARTS WITH THIS SYMBOL
▮ ONLY FILL IN PARTS WITH THIS SYMBOL

A1 – Note Code: ▮●▲

/ 32771

PART A – Notification Details ▮●▲ VARIES

A2 – Address of Transfer / Collection Point (Site): ▮●▲
Shell Blackhorse
Postcode: TW9 1XD

A3 – Premises Code ▮

A4 – Name & Address of Destination: ▮●▲
Transport Ave Brentford
Postcode: TW8 9HF
Permit/Exemption No: ▮● EPR/BB3232RX

A5 – Current Holder/ Producer of the Waste Material — Transferor

Toureen Group, 25 Cecil Rd. Wealdstone, HA3 5QY. tel: 020 8424 7998

PART B – Description of Waste / Material ▮●▲ VARIES

B1 – Process giving rise to the waste: ▮● Excavation (FILL IN OR TICK BELOW)

B2 – SIC Code: ▮● 17 01 01 (FILL IN OR TICK BELOW)

- ☐ 42.99/0 Civil Engineering
- ☐ 41.20/1 Commercial Building
- ☐ 41.20/2 Residential Building
- ☐ 43.11/0 Demolition
- ☐ 42.22/0 Infrastructure/Utilities
- ☐ 39.00/0 Remediation/Waste Recycling
- ☐ 42.11/0 Groundwork's
- ☐ 42.13/0 Tunnelling

B3 – EWC Code & Description of Waste/Original Waste Material ▮●▲ (FILL IN OR TICK BELOW)

- ☐ 17 05 04 – Clean/Inert muck
- ☐ 17 05 04 – Non-Hazardous muck
- ☐ 17 05 03 – Hazardous muck
- ✓ 17 01 01 – Concrete
- ☐ 17 01 02 – Brick
- ☐ 17 01 07 – Demo Rubble
- ☐ 17 09 04 – Mixed Con. Waste
- ☐ 17 03 02 – Tarmac
- ☐ 17 02 01 – Timber/Wood
- ☐ 17 02 03 – Plastics
- ☐ 17 02 02 – Glass
- ☐ 17 06 04 – Insulation
- ☐ 17 01 03 – Tiles & Ceramics
- ☐ 13 05 07 – Oily Water
- ☐ 17 06 05 – Asbestos Containing Mat.
- ☐ 17 04 07 – Mixed Metals

Classification of Waste/Recovered Material: ▮●▲

- ✓ Clean/Inert
- ☐ Non-Hazardous
- ☐ Hazardous

The Concentration of Chemicals/Biological component of concern: ▮

Hazard Codes ▮

B4 – If the "waste" material has been recycled/treated please identify to what specification it conforms? ▲

- ☐ Type I
- ☐ Type II
- ☐ 6F2
- ☐ 6F3
- ☐ Other (State)

B5 – How is the Waste Transported: No./weight/volume if applicable: ▮●▲ (FILL IN OR TICK BELOW)

- ☐ Articulated Lorry
- ✓ Tipper (20 Ton)
- ☐ Grab (16 Ton)
- ☐ Tanker
- ☐ Drum/IBC/1 Ton Bag
- ☐ RO/RO 40 Yd Bin
- ☐ 20 Yd Skip
- ☐ 16 Yd Skip
- ☐ 12 Yd Skip
- ☐ 8 Yd Skip
- ☐ 8 Yd Skip
- ☐ 6 Yd Skip
- ☐ Mini Skip
- ☐ Other (State)

PART C – Carriers Certificate ▮●▲ VARIES

I certify that I today collected the consignment and that the details in A2, A4 and B3 are correct and I have been advised of any special handling requirements.

Company name: ▮●▲ DAYS Group.
Address: ▮●▲ Transport Ave Brentford
Postcode: ▮●▲ TW8 9HF
Waste Carriers Licence No: ▮●▲ CB/AE5939KB.
Vehicle Registration: ▮●▲ BH15 DAY
Driver Name: ▮●▲ P Hales
Signature: ▮●▲
Date: ▮●▲ 12/01/16 Time: ▮●▲

PART D – Consignor's Certificate ▮●▲

I certify that the information completed in A, B and C is correct, that the carrier is registered or exempt and was advised of the appropriate precautionary measures. All of the waste/recovered material is packaged and labelled correctly and the carrier has been advised of any special handling requirements.

I confirm that I have fulfilled my duty to apply the waste hierarchy as required by Regulation 12 of the Waste (England & Wales) regulations 2011

Name: ▮●▲ L MARTIN
Signature: ▮●▲
Date: ▮●▲ 12/01/16 Time: ▮●▲

PART E – Consignee's Certificate ▮●▲ VARIES

Quantity Received (tons) ▮●▲

Material/Waste Accepted ▮●▲
☐ YES ☐ NO

Waste Management Operation (R or D Code) ▮●

I received this waste/material at the address detailed in A4 on – Date: Time: ▮●▲

I confirm the Vehicle Registration and Type as Detailed in B5 and Part C: ▮●▲ ☐ YES ☐ NO (IF NO PLEASE PROVIDE DETAILS)

Where waste/material is rejected; please provide details:

I certify that waste/material reuse permit/exemption operation number/reference: ▮●▲
authorises the management/receipt of the waste/material described in B at the address given in A4.

Name: ▮●▲ Signature: ▮●▲ Date: ▮●▲

*** White copy: Head Office Blue copy: Haulier Yellow copy: Waste facility Pink copy: PC/site ***

WASTE / MATERIAL TRACKING NOTE

Emf 18.2

Toureen Group
Solving complex challenges since 1991

TICK APPROPRIATE BOX
- MATERIAL CONVEYANCE
- WASTE TRANSFER
- CONSIGNMENT

▲ ONLY FILL IN PARTS WITH THIS SYMBOL
● ONLY FILL IN PARTS WITH THIS SYMBOL
▮ ONLY FILL IN PARTS WITH THIS SYMBOL

A1 – Note Code: ▮●▲

/ 32773

PART A – Notification Details ▮●▲ VARIES

A2 – Address of Transfer / Collection Point (Site): ▮●▲
Shell Blackheath.
Postcode: TW9 1XD.
A3 – Premises Code ▮

A4 – Name & Address of Destination: ▮●▲
Transport Ave Brentford
Postcode: TW8 9HF
Permit/Exemption No: ▮● EPR/BB3232RX

A5 – Current Holder/ Producer of the Waste Material — Transferor

Toureen Group, 25 Cecil Rd. Wealdstone, HA3 5QY. tel: 020 8424 7998

PART B – Description of Waste / Material ▮●▲ VARIES

B1 – Process giving rise to the waste: ▮● Excavation (FILL IN OR TICK BELOW)

B2 – SIC Code: ▮● 17 01 01 (FILL IN OR TICK BELOW)

- ☐ 42.99/0 Civil Engineering
- ☐ 41.20/1 Commercial Building
- ☐ 41.20/2 Residential Building
- ☐ 43.11/0 Demolition
- ☐ 42.22/0 Infrastructure/Utilities
- ☐ 39.00/0 Remediation/Waste Recycling
- ☐ 42.11/0 Groundwork's
- ☐ 42.13/0 Tunnelling

B3 – EWC Code & Description of Waste/Original Waste Material ▮●▲ (FILL IN OR TICK BELOW)

- ☐ 17 05 04 – Clean/Inert muck
- ☐ 17 05 04 – Non-Hazardous muck
- ☐ 17 05 03 – Hazardous muck
- ✓ 17 01 01 – Concrete
- ☐ 17 01 02 – Brick
- ☐ 17 01 07 – Demo Rubble
- ☐ 17 09 04 – Mixed Con. Waste
- ☐ 17 03 02 – Tarmac
- ☐ 17 02 01 – Timber/Wood
- ☐ 17 02 03 – Plastics
- ☐ 17 02 02 – Glass
- ☐ 17 06 04 – Insulation
- ☐ 17 01 03 – Tiles & Ceramics
- ☐ 13 05 07 – Oily Water
- ☐ 17 06 05 – Asbestos Containing Mat.
- ☐ 17 04 07 – Mixed Metals

Classification of Waste/Recovered Material: ▮●▲

- ✓ Clean/Inert
- ☐ Non-Hazardous
- ☐ Hazardous

The Concentration of Chemicals/Biological component of concern: ▮

Hazard Codes ▮

B4 – If the "waste" material has been recycled/treated please identify to what specification it conforms? ▲

- ☐ Type I
- ☐ Type II
- ☐ 6F2
- ☐ 6F3
- ☐ Other (State)

B5 – How is the Waste Transported: No./weight/volume if applicable: ▮●▲ (FILL IN OR TICK BELOW)

- ☐ Articulated Lorry
- ✓ Tipper (20 Ton)
- ☐ Grab (16 Ton)
- ☐ Tanker
- ☐ Drum/IBC/1 Ton Bag
- ☐ RO/RO 40 Yd Bin
- ☐ 20 Yd Skip
- ☐ 16 Yd Skip
- ☐ 12 Yd Skip
- ☐ 8 Yd Skip
- ☐ 8 Yd Skip
- ☐ 6 Yd Skip
- ☐ Mini Skip
- ☐ Other (State)

PART C – Carriers Certificate ▮●▲ VARIES

I certify that I today collected the consignment and that the details in A2, A4 and B3 are correct and I have been advised of any special handling requirements.

Company name: ▮●▲ Days group
Address: ▮●▲ Transport Ave. Brentford.
Postcode: ▮●▲ TW8 9HF.
Waste Carriers Licence No: ▮●▲ CB/PE5939KG.
Vehicle Registration: ▮●▲ AX63 DAY
Driver Name: ▮●▲ K. Hood
Signature: ▮●▲
Date: ▮●▲ 12/01/16 Time: ▮●▲

PART D – Consignor's Certificate ▮●▲

I certify that the information completed in A, B and C is correct, that the carrier is registered or exempt and was advised of the appropriate precautionary measures. All of the waste/recovered material is packaged and labelled correctly and the carrier has been advised of any special handling requirements.

I confirm that I have fulfilled my duty to apply the waste hierarchy as required by Regulation 12 of the Waste (England & Wales) regulations 2011

Name: ▮●▲ L MARTIN
Signature: ▮●▲
Date: ▮●▲ 12/01/16. Time: ▮●▲

PART E – Consignee's Certificate ▮●▲ VARIES

Quantity Received (tons) ▮●▲

Material/Waste Accepted ▮●▲ ☐ YES ☐ NO

Waste Management Operation (R or D Code) ▮●

I received this waste/material at the address detailed in A4 on – Date: Time: ▮●▲

I confirm the Vehicle Registration and Type as Detailed in B5 and Part C: ▮●▲ ☐ YES ☐ NO (IF NO PLEASE PROVIDE DETAILS)

Where waste/material is rejected; please provide details:

I certify that waste/material reuse permit/exemption operation number/reference: ▮●▲
authorises the management/receipt of the waste/material described in B at the address given in A4.

Name: ▮●▲ Signature: ▮●▲ Date: ▮●▲

*** White copy: Head Office Blue copy: Haulier Yellow copy: Waste facility Pink copy: PC/site ***

WASTE / MATERIAL TRACKING NOTE

Emf 18.2

Toureen Group
Solving complex challenges since 1991

- MATERIAL CONVEYANCE
- ✓ WASTE TRANSFER
- CONSIGNMENT

▲ ONLY FILL IN PARTS WITH THIS SYMBOL
● ONLY FILL IN PARTS WITH THIS SYMBOL
▮ ONLY FILL IN PARTS WITH THIS SYMBOL

A1 – Note Code:

/ 33801

PART A – Notification Details VARIES

A2 – Address of Transfer / Collection Point (Site): 174 Sheen rd. Richmond.
Postcode: TW9 1XD
A3 – Premises Code
A5 – Current Holder/ Producer of the Waste Material — Transferor
Toureen Group, 25 Cecil Rd. Wealdstone, HA3 5QY. tel: 020 8424 7998

A4 – Name & Address of Destination: ~~Days. Brentford~~ Hurnmoor, Stanwell
Postcode: EPR/AB3096EF
Permit/Exemption No: EPR/BU3232RX

PART B – Description of Waste / Material VARIES

B1 – Process giving rise to the waste: Excavation (FILL IN OR TICK BELOW)

B2 – SIC Code: 17 05 04 (FILL IN OR TICK BELOW)

- 42.99/0 Civil Engineering
- 41.20/1 Commercial Building
- 41.20/2 Residential Building
- 43.11/0 Demolition
- 42.22/0 Infrastructure/Utilities
- 39.00/0 Remediation/Waste Recycling
- 42.11/0 Groundwork's
- 42.13/0 Tunnelling

B3 – EWC Code & Description of Waste/Original Waste Material (FILL IN OR TICK BELOW)

- ✓ 17 05 04 – Clean/Inert muck
- 17 05 04 – Non-Hazardous muck
- 17 05 03 – Hazardous muck
- ✗ 17 01 01 – Concrete
- 17 01 02 – Brick
- 17 01 07 – Demo Rubble
- 17 09 04 – Mixed Con. Waste
- 17 03 02 – Tarmac
- 17 02 01 – Timber/Wood
- 17 02 03 – Plastics
- 17 02 02 – Glass
- 17 06 04 – Insulation
- 17 01 03 – Tiles & Ceramics
- 13 05 07 – Oily Water
- 17 06 05 – Asbestos Containing Mat.
- 17 04 07 – Mixed Metals

Classification of Waste/Recovered Material:

- ✓ Clean/Inert
- Non-Hazardous
- Hazardous

The Concentration of Chemicals/Biological component of concern:
Hazard Codes

B4 – If the "waste" material has been recycled/treated please identify to what specification it conforms?

- Type I
- Type II
- 6F2
- 6F3
- Other (State)

B5 – How is the Waste Transported: No./weight/volume if applicable: (FILL IN OR TICK BELOW)

- Articulated Lorry
- ✓ Tipper (20 Ton)
- Grab (16 Ton)
- Tanker
- Drum/IBC/1 Ton Bag
- RO/RO 40 Yd Bin
- 20 Yd Skip
- 16 Yd Skip
- 12 Yd Skip
- 8 Yd Skip
- 8 Yd Skip
- 6 Yd Skip
- Mini Skip
- Other (State)

PART C – Carriers Certificate VARIES

I certify that I today collected the consignment and that the details in A2, A4 and B3 are correct and I have been advised of any special handling requirements.

Company name: Toureen Group
Address: 25 Cecil rd Harrow
Postcode: HA3 5QY
Waste Carriers Licence No: CB/AM3344SF
Vehicle Registration: EY64 CFD
Driver Name: LOCON
Signature: [signature]
Date: 28/01/16
Time:

PART D – Consignor's Certificate

I certify that the information completed in A, B and C is correct, that the carrier is registered or exempt and was advised of the appropriate precautionary measures. All of the waste/recovered material is packaged and labelled correctly and the carrier has been advised of any special handling requirements.

I confirm that I have fulfilled my duty to apply the waste hierarchy as required by Regulation 12 of the Waste (England & Wales) regulations 2011

Name: L MARTIN
Signature: [signature]
Date: 28/01/16
Time:

PART E – Consignee's Certificate VARIES

Quantity Received (tons)
Material/Waste Accepted — YES / NO
Waste Management Operation (R or D Code)

I received this waste/material at the address detailed in A4 on – Date: Time:

I confirm the Vehicle Registration and Type as Detailed in B5 and Part C: YES NO (IF NO PLEASE PROVIDE DETAILS)

Where waste/material is rejected; please provide details:

I certify that waste/material reuse permit/exemption operation number/reference:
authorises the management/receipt of the waste/material described in B at the address given in A4.

Name: Signature: Date:

*** White copy: Head Office — Blue copy: Haulier — Yellow copy: Waste facility — Pink copy: PC/site ***

WASTE / MATERIAL TRACKING NOTE

Emf 18.2

Toureen Group
Solving complex challenges since 1991

TICK APPROPRIATE BOX
- MATERIAL CONVEYANCE
- WASTE TRANSFER
- CONSIGNMENT

▲ ONLY FILL IN PARTS WITH THIS SYMBOL
● ONLY FILL IN PARTS WITH THIS SYMBOL
▮ ONLY FILL IN PARTS WITH THIS SYMBOL

A1 – Note Code: ▮●▲

/ 32759

PART A – Notification Details ▮●▲ VARIES

A2 – Address of Transfer / Collection Point (Site): ▮●▲
Shell Blackthorne
Postcode: TW9 1XD

A3 – Premises Code ▮

A4 – Name & Address of Destination: ▮●▲
DAYS Group
Postcode:
Permit/Exemption No: ▮● EPR/CB3630RF

A5 – Current Holder/ Producer of the Waste Material — Transferor
Toureen Group, 25 Cecil Rd. Wealdstone, HA3 5QY. tel: 020 8424 7998

PART B – Description of Waste / Material ▮●▲ VARIES

B1 – Process giving rise to the waste: ▮● Excavation (FILL IN OR TICK BELOW)

B2 – SIC Code: ▮● 17 01 01 (FILL IN OR TICK BELOW)

- ☐ 42.99/0 Civil Engineering
- ☐ 41.20/1 Commercial Building
- ☐ 41.20/2 Residential Building
- ☐ 43.11/0 Demolition
- ☐ 42.22/0 Infrastructure/Utilities
- ☐ 39.00/0 Remediation/Waste Recycling
- ☐ 42.11/0 Groundwork's
- ☐ 42.13/0 Tunnelling

B3 – EWC Code & Description of Waste/Original Waste Material ▮●▲ (FILL IN OR TICK BELOW)

- ☑ 17 05 04 – Clean/Inert muck
- ☐ 17 05 04 – Non-Hazardous muck
- ☐ 17 05 03 – Hazardous muck
- ☑ 17 01 01 – Concrete
- ☐ 17 01 02 – Brick
- ☐ 17 01 07 – Demo Rubble
- ☐ 17 09 04 – Mixed Con. Waste
- ☐ 17 03 02 – Tarmac
- ☐ 17 02 01 – Timber/Wood
- ☐ 17 02 03 – Plastics
- ☐ 17 02 02 – Glass
- ☐ 17 06 04 – Insulation
- ☐ 17 01 03 – Tiles & Ceramics
- ☐ 13 05 07 – Oily Water
- ☐ 17 06 05 – Asbestos Containing Mat.
- ☐ 17 04 07 – Mixed Metals

Classification of Waste/Recovered Material: ▮●▲

- ☑ Clean/Inert
- ☐ Non-Hazardous
- ☐ Hazardous

The Concentration of Chemicals/Biological component of concern: ▮
Hazard Codes ▮

B4 – If the "waste" material has been recycled/treated please identify to what specification it conforms? ▲

- ☐ Type I
- ☐ Type II
- ☐ 6F2
- ☐ 6F3
- ☐ Other (State)

B5 – How is the Waste Transported: No./weight/volume if applicable: ▮●▲ (FILL IN OR TICK BELOW)

- ☐ Articulated Lorry
- ☑ Tipper (20 Ton)
- ☐ Grab (16 Ton)
- ☐ Tanker
- ☐ Drum/IBC/1 Ton Bag
- ☐ RO/RO 40 Yd Bin
- ☐ 20 Yd Skip
- ☐ 16 Yd Skip
- ☐ 12 Yd Skip
- ☐ 8 Yd Skip
- ☐ 8 Yd Skip
- ☐ 6 Yd Skip
- ☐ Mini Skip
- ☐ Other (State)

PART C – Carriers Certificate ▮●▲ VARIES

I certify that I today collected the consignment and that the details in A2, A4 and B3 are correct and I have been advised of any special handling requirements.

Company name: ▮●▲ DAY Group
Address: ▮●▲
Postcode: ▮●▲
Waste Carriers Licence No: ▮●▲ CB/PE5939KB
Vehicle Registration: ▮●▲ AC62 DAY
Driver Name: ▮●▲ A. SAMPSON
Signature: ▮●▲
Date: ▮●▲ 10/12/15 Time: ▮●▲

PART D – Consignor's Certificate ▮●▲

I certify that the information completed in A, B and C is correct, that the carrier is registered or exempt and was advised of the appropriate precautionary measures. All of the waste/recovered material is packaged and labelled correctly and the carrier has been advised of any special handling requirements.

I confirm that I have fulfilled my duty to apply the waste hierarchy as required by Regulation 12 of the Waste (England & Wales) regulations 2011

Name: ▮●▲ L MAZZEY
Signature: ▮●▲
Date: ▮●▲ 10/12/15 Time: ▮●▲

PART E – Consignee's Certificate ▮●▲ VARIES

Quantity Received (tons) ▮●▲

Material/Waste Accepted ▮●▲ ☐ YES ☐ NO

Waste Management Operation (R or D Code) ▮●

I received this waste/material at the address detailed in A4 on – Date: Time: ▮●▲

I confirm the Vehicle Registration and Type as Detailed in B5 and Part C: ▮●▲ ☐ YES ☐ NO (IF NO PLEASE PROVIDE DETAILS)

Where waste/material is rejected; please provide details:

I certify that waste/material reuse permit/exemption operation number/reference: ▮●▲
authorises the management/receipt of the waste/material described in B at the address given in A4.

Name: ▮●▲ Signature: ▮●▲ Date: ▮●▲

*** White copy: Head Office Blue copy: Haulier Yellow copy: Waste facility Pink copy: PC/site ***

APPENDIX F LABORATORY CERTIFICATES

ALcontrol Laboratories

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

AECOM
St. George's House
2nd Floor
5 St. George's Road
Wimbledon
Greater London
SW19 4DR

Attention: Phil Allen

CERTIFICATE OF ANALYSIS

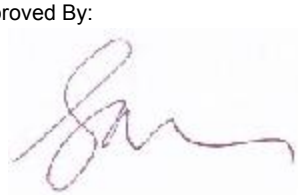
Date:	29 September 2015
Customer:	H_URS_WIM
Sample Delivery Group (SDG):	150922-33
Your Reference:	46370438
Location:	Shell Blackhorse
Report No:	331469

We received 9 samples on Tuesday September 22, 2015 and 9 of these samples were scheduled for analysis which was completed on Tuesday September 29, 2015. Accredited laboratory tests are defined within the report, but opinions, interpretations and on-site data expressed herein are outside the scope of ISO 17025 accreditation.

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

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

Approved By:



Sonia McWhan

Operations Manager

CERTIFICATE OF ANALYSIS

SDG:	150922-33	**Location:**	Shell Blackhorse	**Order Number:**	
Job:	H_URS_WIM-282	**Customer:**	AECOM	**Report Number:**	331469
Client Reference:	46370438	**Attention:**	Phil Allen	**Superseded Report:**	

Received Sample Overview

Lab Sample No(s)	Customer Sample Ref.	AGS Ref.	Depth (m)	Sampled Date
12103788	Active			21/09/2015
12103785	Dup		7.00	21/09/2015
12103786	EB			21/09/2015
12103780	MW1		7.25	21/09/2015
12103781	MW2		6.91	21/09/2015
12103783	MW3		7.00	21/09/2015
12103784	MW4		7.00	21/09/2015
12103787	Static			21/09/2015
12103789	Trip Blank			

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

SDG:	150922-33	**Location:**	Shell Blackhorse	**Order Number:**	
Job:	H_URS_WIM-282	**Customer:**	AECOM	**Report Number:**	331469
Client Reference:	46370438	**Attention:**	Phil Allen	**Superseded Report:**	

LIQUID

Results Legend

X Test

N No Determination Possible

Lab Sample No(s)			12103788						12103785						12103786						12103780						12103781						12103783						12103784			
Customer Sample Reference			Active						Dup						EB						MW1						MW2						MW3						MW4			
AGS Reference																																										
Depth (m)									7.00												7.25						6.91						7.00						7.00			
Container			1000ml glass bottle	1plastic (ALE221)	Dissolved Metals Pr	HCl Filtered (ALE25	HNO3 Filtered (ALE	Vial (ALE297)	1000ml glass bottle	1plastic (ALE221)	Dissolved Metals Pr	HCl Filtered (ALE25	HNO3 Filtered (ALE	Vial (ALE297)	1000ml glass bottle	1plastic (ALE221)	Dissolved Metals Pr	HCl Filtered (ALE25	HNO3 Filtered (ALE	Vial (ALE297)	1000ml glass bottle	1plastic (ALE221)	Dissolved Metals Pr	HCl Filtered (ALE25	HNO3 Filtered (ALE	Vial (ALE297)	1000ml glass bottle	1plastic (ALE221)	Dissolved Metals Pr	HCl Filtered (ALE25	HNO3 Filtered (ALE	Vial (ALE297)	1000ml glass bottle	1plastic (ALE221)	Dissolved Metals Pr	HCl Filtered (ALE25	HNO3 Filtered (ALE	Vial (ALE297)	1000ml glass bottle	1plastic (ALE221)	Dissolved Metals Pr	HCl Filtered (ALE25
Anions by Kone (w)	All	NDPs: 0 Tests: 8		X						X						X						X						X						X						X		
Determination of Dissolved Gases	All	NDPs: 0 Tests: 6												X						X						X						X						X				
Dissolved Metals by ICP-MS	All	NDPs: 0 Tests: 8					X						X						X						X						X						X					
EPH CWG (Aliphatic) Aqueous GC (W)	All	NDPs: 0 Tests: 8	X						X						X						X						X						X						X			
EPH CWG (Aromatic) Aqueous GC (W)	All	NDPs: 0 Tests: 8	X						X						X						X						X						X						X			
Ferrous Iron	All	NDPs: 0 Tests: 8				X						X						X						X						X						X						X
GRO by GC-FID (W)	All	NDPs: 0 Tests: 8						X						X						X						X						X						X				
Hexavalent Chromium (w)	All	NDPs: 0 Tests: 8		X						X						X						X						X						X						X		
Mercury Dissolved	All	NDPs: 0 Tests: 8			X						X						X						X						X						X						X	
Oxygenates (W)	All	NDPs: 0 Tests: 8						X						X						X						X						X						X				
PAH Spec MS - Aqueous (W)	All	NDPs: 0 Tests: 8	X						X						X						X						X						X						X			
VOC MS (W)	All	NDPs: 0 Tests: 9						X						X						X						X						X						X				

CERTIFICATE OF ANALYSIS

SDG:	150922-33	**Location:**	Shell Blackhorse	**Order Number:**	
Job:	H_URS_WIM-282	**Customer:**	AECOM	**Report Number:**	331469
Client Reference:	46370438	**Attention:**	Phil Allen	**Superseded Report:**	

LIQUID

Results Legend

X **Test**

N **No Determination Possible**

		Lab Sample No(s)	Customer Sample Reference	AGS Reference	Depth (m)	Container								
		12103784	MW4		7.00	HNO3 Filtered (ALE	Vial (ALE297)	1000ml glass bottle	1plastic (ALE221)	Dissolved Metals Pr	HCl Filtered (ALE25	HNO3 Filtered (ALE	Vial (ALE297)	Vial (ALE297)
		12103787	Static											
		12103789	Trip Blank											
Anions by Kone (w)	All	NDPs: 0 Tests: 8							X					
Determination of Dissolved Gases	All	NDPs: 0 Tests: 6					X							
Dissolved Metals by ICP-MS	All	NDPs: 0 Tests: 8				X						X		
EPH CWG (Aliphatic) Aqueous GC (W)	All	NDPs: 0 Tests: 8						X						
EPH CWG (Aromatic) Aqueous GC (W)	All	NDPs: 0 Tests: 8						X						
Ferrous Iron	All	NDPs: 0 Tests: 8									X			
GRO by GC-FID (W)	All	NDPs: 0 Tests: 8					X						X	
Hexavalent Chromium (w)	All	NDPs: 0 Tests: 8							X					
Mercury Dissolved	All	NDPs: 0 Tests: 8								X				
Oxygenates (W)	All	NDPs: 0 Tests: 8					X						X	
PAH Spec MS - Aqueous (W)	All	NDPs: 0 Tests: 8						X						
VOC MS (W)	All	NDPs: 0 Tests: 9					X						X	X

CERTIFICATE OF ANALYSIS

SDG:	150922-33	**Location:**	Shell Blackhorse	**Order Number:**	
Job:	H_URS_WIM-282	**Customer:**	AECOM	**Report Number:**	331469
Client Reference:	46370438	**Attention:**	Phil Allen	**Superseded Report:**	

Results Legend

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

Component	LOD/Units	Method	Customer Sample R	Active	Dup	EB	MW1	MW2	MW3
			Depth (m)	.	7.00	.	7.25	6.91	7.00
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	21/09/2015	21/09/2015	21/09/2015	21/09/2015	21/09/2015	21/09/2015
			Sampled Time	.	.	.	.	.	.
			Date Received	22/09/2015	22/09/2015	22/09/2015	22/09/2015	22/09/2015	22/09/2015
			SDG Ref	150922-33	150922-33	150922-33	150922-33	150922-33	150922-33
			Lab Sample No.(s)	12103788	12103785	12103786	12103780	12103781	12103783
			AGS Reference						
Iron, Ferrous	<0.1 mg/l	TM125		<0.1 #	<0.1 #	<0.1 #	<0.1 #	<0.1 #	<0.1 #
Arsenic (diss.filt)	<0.12 µg/l	TM152		2.74 #	1.48 #	2.56 #	1.69 #	5.24 #	2.24 #
Boron (diss.filt)	<9.4 µg/l	TM152		37.8 #	27.3 #	34.5 #	50.1 #	33.5 #	35 #
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		3.55 #	1.85 #	7.84 #	2.92 #	1.64 #	2.52 #
Cobalt (diss.filt)	<0.06 µg/l	TM152		0.214 #	0.256 #	0.213 #	0.132 #	0.155 #	10 #
Copper (diss.filt)	<0.85 µg/l	TM152		15.4 #	4.84 #	130 #	<0.85 #	<0.85 #	8.18 #
Lead (diss.filt)	<0.02 µg/l	TM152		0.332 #	0.137 #	0.549 #	0.185 #	0.057 #	0.035 #
Manganese (diss.filt)	<0.04 µg/l	TM152			0.992 #	0.398 #	0.122 #	0.135 #	41.9 #
Molybdenum (diss.filt)	<0.24 µg/l	TM152		0.465 #	<0.24 #	0.3 #	<0.24 #	<0.24 #	0.315 #
Nickel (diss.filt)	<0.15 µg/l	TM152		2.47 #	3.05 #	3.29 #	1.3 #	1.21 #	22.2 #
Selenium (diss.filt)	<0.39 µg/l	TM152		<0.39 #	<0.39 #	0.583 #	<0.39 #	<0.39 #	<0.39 #
Tin (diss.filt)	<0.36 µg/l	TM152		0.441 #	<0.36 #	<0.36 #	<0.36 #	<0.36 #	<0.36 #
Zinc (diss.filt)	<0.41 µg/l	TM152		3.35 #	11.5 #	101 #	7 #	11.3 #	6.79 #
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		48.5 #	48.2 #	48.5 #	48 #	46.9 #	46.3 #
Nitrate as NO3	<0.3 mg/l	TM184		27.3 #	26.5 #	27.2 #	27.4 #	27.1 #	25.8 #
Methane, dissolved	<1 µg/l	TM223			<2.27	<2.27	<2.27	<2.27	<2.27
Chromium, Hexavalent	<0.03 mg/l	TM241		<0.03 #	<0.03 #	<0.03 #	<0.03 #	<0.03 #	<0.03 #
Ethanol	<50 µg/l	TM289		<50	<50	<50	<50	<50	<50
tert Butanol	<10 µg/l	TM289		<10	<10	<10	<10	<10	<10
Diisopropyl ether	<1 µg/l	TM289		<1	<1	<1	<1	<1	<1
tert-butyl ethyl ether	<1 µg/l	TM289		<1	<1	<1	<1	<1	<1

CERTIFICATE OF ANALYSIS

SDG:	150922-33	**Location:**	Shell Blackhorse	**Order Number:**	
Job:	H_URS_WIM-282	**Customer:**	AECOM	**Report Number:**	331469
Client Reference:	46370438	**Attention:**	Phil Allen	**Superseded Report:**	

Results Legend

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

Component	LOD/Units	Method	Customer Sample R	MW4	Static
			Depth (m)	7.00	.
			Sample Type	Water(GW/SW)	Water(GW/SW)
			Date Sampled	21/09/2015	21/09/2015
			Sampled Time	.	.
			Date Received	22/09/2015	22/09/2015
			SDG Ref	150922-33	150922-33
			Lab Sample No.(s)	12103784	12103787
			AGS Reference		
Iron, Ferrous	<0.1 mg/l	TM125		<0.1 #	<0.1 #
Arsenic (diss.filt)	<0.12 µg/l	TM152		1.48 #	2.54 #
Boron (diss.filt)	<9.4 µg/l	TM152		23.3 #	36.7 #
Cadmium (diss.filt)	<0.1 µg/l	TM152		<0.1 #	<0.1 #
Chromium (diss.filt)	<0.22 µg/l	TM152		2.43 #	2.21 #
Cobalt (diss.filt)	<0.06 µg/l	TM152		0.254 #	0.535 #
Copper (diss.filt)	<0.85 µg/l	TM152		5.04 #	91.1 #
Lead (diss.filt)	<0.02 µg/l	TM152		0.133 #	0.354 #
Manganese (diss.filt)	<0.04 µg/l	TM152		1.13 #	
Molybdenum (diss.filt)	<0.24 µg/l	TM152		<0.24 #	0.315 #
Nickel (diss.filt)	<0.15 µg/l	TM152		3.37 #	2.66 #
Selenium (diss.filt)	<0.39 µg/l	TM152		<0.39 #	0.83 #
Tin (diss.filt)	<0.36 µg/l	TM152		<0.36 #	<0.36 #
Zinc (diss.filt)	<0.41 µg/l	TM152		5.51 #	28.4 #
Mercury (diss.filt)	<0.01 µg/l	TM183		<0.01 #	<0.01 #
Sulphate	<2 mg/l	TM184		45.5 #	48.4 #
Nitrate as NO3	<0.3 mg/l	TM184		26 #	27.4 #
Methane, dissolved	<1 µg/l	TM223		<2.27	
Chromium, Hexavalent	<0.03 mg/l	TM241		<0.03 #	<0.03 #
Ethanol	<50 µg/l	TM289		<50	<50
tert Butanol	<10 µg/l	TM289		<10	<10
Diisopropyl ether	<1 µg/l	TM289		<1	<1
tert-butyl ethyl ether	<1 µg/l	TM289		<1	<1

CERTIFICATE OF ANALYSIS

SDG:	150922-33	**Location:**	Shell Blackhorse	**Order Number:**	
Job:	H_URS_WIM-282	**Customer:**	AECOM	**Report Number:**	331469
Client Reference:	46370438	**Attention:**	Phil Allen	**Superseded Report:**	

EPH CWG (Aliphatic) Aqueous GC (W)

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

Component	LOD/Units	Method	Customer Sample R	Active	Dup	EB	MW1	MW2	MW3
			Depth (m)	.	7.00	.	7.25	6.91	7.00
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	21/09/2015	21/09/2015	21/09/2015	21/09/2015	21/09/2015	21/09/2015
			Sampled Time	.	.	.	.	.	.
			Date Received	22/09/2015	22/09/2015	22/09/2015	22/09/2015	22/09/2015	22/09/2015
			SDG Ref	150922-33	150922-33	150922-33	150922-33	150922-33	150922-33
			Lab Sample No.(s)	12103788	12103785	12103786	12103780	12103781	12103783
			AGS Reference						
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	<10	<10
Aliphatics >C21-C35 (aq)	<10 µg/l	TM174		<10	<10	<10	<10	<10	<10

CERTIFICATE OF ANALYSIS

SDG:	150922-33	**Location:**	Shell Blackhorse	**Order Number:**	
Job:	H_URS_WIM-282	**Customer:**	AECOM	**Report Number:**	331469
Client Reference:	46370438	**Attention:**	Phil Allen	**Superseded Report:**	

EPH CWG (Aliphatic) Aqueous GC (W)

Results Legend

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

Component	LOD/Units	Method	Customer Sample R	MW4	Static				
			Depth (m)	7.00	.				
			Sample Type	Water(GW/SW)	Water(GW/SW)				
			Date Sampled	21/09/2015	21/09/2015				
			Sampled Time	.	.				
			Date Received	22/09/2015	22/09/2015				
			SDG Ref	150922-33	150922-33				
			Lab Sample No.(s)	12103784	12103787				
			AGS Reference						
Aliphatics >C12-C16 (aq)	<10 µg/l	TM174		<10	<10				
Aliphatics >C16-C21 (aq)	<10 µg/l	TM174		<10	<10				
Aliphatics >C21-C35 (aq)	<10 µg/l	TM174		<10	<10				

CERTIFICATE OF ANALYSIS

SDG:	150922-33	**Location:**	Shell Blackhorse	**Order Number:**	
Job:	H_URS_WIM-282	**Customer:**	AECOM	**Report Number:**	331469
Client Reference:	46370438	**Attention:**	Phil Allen	**Superseded Report:**	

EPH CWG (Aromatic) Aqueous GC (W)

Results Legend

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

Component	LOD/Units	Method	Customer Sample R	Active	Dup	EB	MW1	MW2	MW3
			Depth (m)	.	7.00	.	7.25	6.91	7.00
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	21/09/2015	21/09/2015	21/09/2015	21/09/2015	21/09/2015	21/09/2015
			Sampled Time	.	.	.	.	.	.
			Date Received	22/09/2015	22/09/2015	22/09/2015	22/09/2015	22/09/2015	22/09/2015
			SDG Ref	150922-33	150922-33	150922-33	150922-33	150922-33	150922-33
			Lab Sample No.(s)	12103788	12103785	12103786	12103780	12103781	12103783
			AGS Reference						
Aromatics >EC12-EC16 (aq)	<10 µg/l	TM174		<10	<10	<10	<10	<10	<10
Aromatics >EC16-EC21 (aq)	<10 µg/l	TM174		<10	<10	<10	<10	<10	<10
Aromatics >EC21-EC35 (aq)	<10 µg/l	TM174		<10	<10	<10	<10	<10	<10

CERTIFICATE OF ANALYSIS

SDG:	150922-33	**Location:**	Shell Blackhorse	**Order Number:**	
Job:	H_URS_WIM-282	**Customer:**	AECOM	**Report Number:**	331469
Client Reference:	46370438	**Attention:**	Phil Allen	**Superseded Report:**	

EPH CWG (Aromatic) Aqueous GC (W)

Results Legend

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

Component	LOD/Units	Method	Customer Sample R	MW4	Static				
			Depth (m)	7.00	.				
			Sample Type	Water(GW/SW)	Water(GW/SW)				
			Date Sampled	21/09/2015	21/09/2015				
			Sampled Time	.	.				
			Date Received	22/09/2015	22/09/2015				
			SDG Ref	150922-33	150922-33				
			Lab Sample No.(s)	12103784	12103787				
			AGS Reference						
Aromatics >EC12-EC16 (aq)	<10 µg/l	TM174		<10	<10				
Aromatics >EC16-EC21 (aq)	<10 µg/l	TM174		<10	<10				
Aromatics >EC21-EC35 (aq)	<10 µg/l	TM174		<10	<10				

CERTIFICATE OF ANALYSIS

SDG:	150922-33	**Location:**	Shell Blackhorse	**Order Number:**	
Job:	H_URS_WIM-282	**Customer:**	AECOM	**Report Number:**	331469
Client Reference:	46370438	**Attention:**	Phil Allen	**Superseded Report:**	

GRO by GC-FID (W)

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

Component	LOD/Units	Method	Customer Sample R	Active	Dup	EB	MW1	MW2	MW3
			Depth (m)	.	7.00	.	7.25	6.91	7.00
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	21/09/2015	21/09/2015	21/09/2015	21/09/2015	21/09/2015	21/09/2015
			Sampled Time	.	.	.	.	.	.
			Date Received	22/09/2015	22/09/2015	22/09/2015	22/09/2015	22/09/2015	22/09/2015
			SDG Ref	150922-33	150922-33	150922-33	150922-33	150922-33	150922-33
			Lab Sample No.(s)	12103788	12103785	12103786	12103780	12103781	12103783
			AGS Reference						
GRO Surrogate % recovery**	%	TM245		104	98	111	99	97	98
Aliphatics >C5-C6	<10 µg/l	TM245		<10	<10	<10	<10	<10	<10
Aliphatics >C6-C8	<10 µg/l	TM245		<10	<10	<10	<10	<10	<10
Aliphatics >C8-C10	<10 µg/l	TM245		<10	<10	<10	<10	<10	<10
Aliphatics >C10-C12	<10 µg/l	TM245		<10	<10	<10	<10	<10	<10
Aromatics >EC5-EC7	<10 µg/l	TM245		<10	<10	<10	<10	<10	<10
Aromatics >EC7-EC8	<10 µg/l	TM245		<10	<10	<10	<10	<10	<10
Aromatics >EC8-EC10	<10 µg/l	TM245		<10	<10	<10	<10	<10	<10
Aromatics >EC10-EC12	<10 µg/l	TM245		<10	<10	<10	<10	<10	<10

CERTIFICATE OF ANALYSIS

SDG:	150922-33	**Location:**	Shell Blackhorse	**Order Number:**	
Job:	H_URS_WIM-282	**Customer:**	AECOM	**Report Number:**	331469
Client Reference:	46370438	**Attention:**	Phil Allen	**Superseded Report:**	

GRO by GC-FID (W)

Results Legend

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

Component	LOD/Units	Method	Customer Sample R	MW4	Static
			Depth (m)	7.00	.
			Sample Type	Water(GW/SW)	Water(GW/SW)
			Date Sampled	21/09/2015	21/09/2015
			Sampled Time	.	.
			Date Received	22/09/2015	22/09/2015
			SDG Ref	150922-33	150922-33
			Lab Sample No.(s)	12103784	12103787
			AGS Reference		
GRO Surrogate % recovery**	%	TM245		110	110
Aliphatics >C5-C6	<10 µg/l	TM245		<10	<10
Aliphatics >C6-C8	<10 µg/l	TM245		<10	<10
Aliphatics >C8-C10	<10 µg/l	TM245		<10	<10
Aliphatics >C10-C12	<10 µg/l	TM245		<10	<10
Aromatics >EC5-EC7	<10 µg/l	TM245		<10	<10
Aromatics >EC7-EC8	<10 µg/l	TM245		<10	<10
Aromatics >EC8-EC10	<10 µg/l	TM245		<10	<10
Aromatics >EC10-EC12	<10 µg/l	TM245		<10	<10

CERTIFICATE OF ANALYSIS

SDG:	150922-33	**Location:**	Shell Blackhorse	**Order Number:**	
Job:	H_URS_WIM-282	**Customer:**	AECOM	**Report Number:**	331469
Client Reference:	46370438	**Attention:**	Phil Allen	**Superseded Report:**	

PAH Spec MS - Aqueous (W)

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

Component	LOD/Units	Method	Customer Sample R	Active	Dup	EB	MW1	MW2	MW3
			Depth (m)	.	7.00	.	7.25	6.91	7.00
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	21/09/2015	21/09/2015	21/09/2015	21/09/2015	21/09/2015	21/09/2015
			Sampled Time	.	.	.	.	.	.
			Date Received	22/09/2015	22/09/2015	22/09/2015	22/09/2015	22/09/2015	22/09/2015
			SDG Ref	150922-33	150922-33	150922-33	150922-33	150922-33	150922-33
			Lab Sample No.(s)	12103788	12103785	12103786	12103780	12103781	12103783
			AGS Reference						
Naphthalene (aq)	<0.1 µg/l	TM178		<0.1 #	<0.1 #	<0.1 #	<0.1 #	<0.1 #	<0.1 #
Acenaphthene (aq)	<0.015 µg/l	TM178		<0.015 #	<0.015 #	<0.015 #	<0.015 #	<0.015 #	<0.015 #
Acenaphthylene (aq)	<0.011 µg/l	TM178		<0.011 #	<0.011 #	<0.011 #	<0.011 #	<0.011 #	<0.011 #
Fluoranthene (aq)	<0.017 µg/l	TM178		<0.017 #	<0.017 #	<0.017 #	<0.017 #	<0.017 #	<0.017 #
Anthracene (aq)	<0.015 µg/l	TM178		<0.015 #	<0.015 #	<0.015 #	<0.015 #	<0.015 #	<0.015 #
Phenanthrene (aq)	<0.022 µg/l	TM178		<0.022 #	<0.022 #	<0.022 #	<0.022 #	<0.022 #	<0.022 #
Fluorene (aq)	<0.014 µg/l	TM178		<0.014 #	<0.014 #	<0.014 #	<0.014 #	<0.014 #	<0.014 #
Chrysene (aq)	<0.013 µg/l	TM178		<0.013 #	<0.013 #	<0.013 #	<0.013 #	<0.013 #	<0.013 #
Pyrene (aq)	<0.015 µg/l	TM178		<0.015 #	<0.015 #	<0.015 #	<0.015 #	<0.015 #	<0.015 #
Benzo(a)anthracene (aq)	<0.017 µg/l	TM178		<0.017 #	<0.017 #	<0.017 #	<0.017 #	<0.017 #	<0.017 #
Benzo(b)fluoranthene (aq)	<0.023 µg/l	TM178		<0.023 #	<0.023 #	<0.023 #	<0.023 #	<0.023 #	<0.023 #
Benzo(k)fluoranthene (aq)	<0.027 µg/l	TM178		<0.027 #	<0.027 #	<0.027 #	<0.027 #	<0.027 #	<0.027 #
Benzo(a)pyrene (aq)	<0.009 µg/l	TM178		<0.009 #	<0.009 #	<0.009 #	<0.009 #	<0.009 #	<0.009 #
Dibenzo(a,h)anthracene (aq)	<0.016 µg/l	TM178		<0.016 #	<0.016 #	<0.016 #	<0.016 #	<0.016 #	<0.016 #
Benzo(g,h,i)perylene (aq)	<0.016 µg/l	TM178		<0.016 #	<0.016 #	<0.016 #	<0.016 #	<0.016 #	<0.016 #
Indeno(1,2,3-cd)pyrene (aq)	<0.014 µg/l	TM178		<0.014 #	<0.014 #	<0.014 #	<0.014 #	<0.014 #	<0.014 #
PAH, Total Detected USEPA 16 (aq)	<0.344 µg/l	TM178		<0.344	<0.344	<0.344	<0.344	<0.344	<0.344

CERTIFICATE OF ANALYSIS

SDG:	150922-33	**Location:**	Shell Blackhorse	**Order Number:**	
Job:	H_URS_WIM-282	**Customer:**	AECOM	**Report Number:**	331469
Client Reference:	46370438	**Attention:**	Phil Allen	**Superseded Report:**	

PAH Spec MS - Aqueous (W)

Results Legend

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

Component	LOD/Units	Method	Customer Sample R	MW4	Static
			Depth (m)	7.00	.
			Sample Type	Water(GW/SW)	Water(GW/SW)
			Date Sampled	21/09/2015	21/09/2015
			Sampled Time	.	.
			Date Received	22/09/2015	22/09/2015
			SDG Ref	150922-33	150922-33
			Lab Sample No.(s)	12103784	12103787
			AGS Reference		
Naphthalene (aq)	<0.1 µg/l	TM178		<0.1 #	<0.1 #
Acenaphthene (aq)	<0.015 µg/l	TM178		<0.015 #	<0.015 #
Acenaphthylene (aq)	<0.011 µg/l	TM178		<0.011 #	<0.011 #
Fluoranthene (aq)	<0.017 µg/l	TM178		<0.017 #	<0.017 #
Anthracene (aq)	<0.015 µg/l	TM178		<0.015 #	<0.015 #
Phenanthrene (aq)	<0.022 µg/l	TM178		<0.022 #	<0.022 #
Fluorene (aq)	<0.014 µg/l	TM178		<0.014 #	<0.014 #
Chrysene (aq)	<0.013 µg/l	TM178		<0.013 #	<0.013 #
Pyrene (aq)	<0.015 µg/l	TM178		<0.015 #	<0.015 #
Benzo(a)anthracene (aq)	<0.017 µg/l	TM178		<0.017 #	<0.017 #
Benzo(b)fluoranthene (aq)	<0.023 µg/l	TM178		<0.023 #	<0.023 #
Benzo(k)fluoranthene (aq)	<0.027 µg/l	TM178		<0.027 #	<0.027 #
Benzo(a)pyrene (aq)	<0.009 µg/l	TM178		<0.009 #	<0.009 #
Dibenzo(a,h)anthracene (aq)	<0.016 µg/l	TM178		<0.016 #	<0.016 #
Benzo(g,h,i)perylene (aq)	<0.016 µg/l	TM178		<0.016 #	<0.016 #
Indeno(1,2,3-cd)pyrene (aq)	<0.014 µg/l	TM178		<0.014 #	<0.014 #
PAH, Total Detected USEPA 16 (aq)	<0.344 µg/l	TM178		<0.344	<0.344

CERTIFICATE OF ANALYSIS

SDG:	150922-33	**Location:**	Shell Blackhorse	**Order Number:**	
Job:	H_URS_WIM-282	**Customer:**	AECOM	**Report Number:**	331469
Client Reference:	46370438	**Attention:**	Phil Allen	**Superseded Report:**	

VOC MS (W)

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

Component	LOD/Units	Method	Customer Sample R	Active	Dup	EB	MW1	MW2	MW3
			Depth (m)	.	7.00	.	7.25	6.91	7.00
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)
			Date Sampled	21/09/2015	21/09/2015	21/09/2015	21/09/2015	21/09/2015	21/09/2015
			Sampled Time	.	.	.	.	.	.
			Date Received	22/09/2015	22/09/2015	22/09/2015	22/09/2015	22/09/2015	22/09/2015
			SDG Ref	150922-33	150922-33	150922-33	150922-33	150922-33	150922-33
			Lab Sample No.(s)	12103788	12103785	12103786	12103780	12103781	12103783
			AGS Reference						
Toluene-d8**	%	TM208		104	105	104	104	105	105
Methyl tertiary butyl ether (MTBE)	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Benzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Toluene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Ethylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
m,p-Xylene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
o-Xylene	<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 #

CERTIFICATE OF ANALYSIS

SDG:	150922-33	**Location:**	Shell Blackhorse	**Order Number:**	
Job:	H_URS_WIM-282	**Customer:**	AECOM	**Report Number:**	331469
Client Reference:	46370438	**Attention:**	Phil Allen	**Superseded Report:**	

VOC MS (W)

Results Legend

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

Component	LOD/Units	Method	Customer Sample R	MW4	Static	Trip Blank			
			Depth (m)	7.00	.	.			
			Sample Type	Water(GW/SW)	Water(GW/SW)	Water(GW/SW)			
			Date Sampled	21/09/2015	21/09/2015	-			
			Sampled Time	.	.	.			
			Date Received	22/09/2015	22/09/2015	22/09/2015			
			SDG Ref	150922-33	150922-33	150922-33			
			Lab Sample No.(s)	12103784	12103787	12103789			
			AGS Reference						
Toluene-d8**	%	TM208		105	105				
Methyl tertiary butyl ether (MTBE)	<1 µg/l	TM208		<1 #	<1 #				
Benzene	<1 µg/l	TM208		<1 #	<1 #	<1 § #			
Toluene	<1 µg/l	TM208		<1 #	<1 #	<1 § #			
Ethylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 § #			
m,p-Xylene	<1 µg/l	TM208		<1 #	<1 #	<1 § #			
o-Xylene	<1 µg/l	TM208		<1 #	<1 #	<1 § #			
tert-Amyl methyl ether (TAME)	<1 µg/l	TM208		<1 #	<1 #				
Sum of detected Xylenes	<2 µg/l	TM208				<2 §			

CERTIFICATE OF ANALYSIS

SDG:	150922-33	**Location:**	Shell Blackhorse	**Order Number:**	
Job:	H_URS_WIM-282	**Customer:**	AECOM	**Report Number:**	331469
Client Reference:	46370438	**Attention:**	Phil Allen	**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)		
TM125	DIN 38405 D17	Determination of Ferrous Iron		
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		
TM223	ASTM D-1945-91	Determination of Dissolved C1-7 Hydrocarbon gases in waters		
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		
TM289		Determination of Oxygenates in Waters by Headspace/GC-MS		

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

CERTIFICATE OF ANALYSIS

SDG:	150922-33	**Location:**	Shell Blackhorse	**Order Number:**	
Job:	H_URS_WIM-282	**Customer:**	AECOM	**Report Number:**	331469
Client Reference:	46370438	**Attention:**	Phil Allen	**Superseded Report:**	

Test Completion Dates

Lab Sample No(s)	12103788	12103785	12103786	12103780	12103781	12103783	12103784	12103787	12103789
Customer Sample Ref.	Active	Dup	EB	MW1	MW2	MW3	MW4	Static	Trip Blank
AGS Ref.									
Depth		7.00		7.25	6.91	7.00	7.00		
Type	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID
Anions by Kone (w)	28-Sep-2015	28-Sep-2015	28-Sep-2015	28-Sep-2015	28-Sep-2015	28-Sep-2015	28-Sep-2015	28-Sep-2015	
Determination of Dissolved Gases		29-Sep-2015	29-Sep-2015	29-Sep-2015	29-Sep-2015	29-Sep-2015	29-Sep-2015		
Dissolved Metals by ICP-MS	29-Sep-2015	29-Sep-2015	29-Sep-2015	29-Sep-2015	29-Sep-2015	29-Sep-2015	29-Sep-2015	29-Sep-2015	
EPH CWG (Aliphatic) Aqueous GC (W)	26-Sep-2015	26-Sep-2015	26-Sep-2015	26-Sep-2015	26-Sep-2015	26-Sep-2015	26-Sep-2015	26-Sep-2015	
EPH CWG (Aromatic) Aqueous GC (W)	26-Sep-2015	26-Sep-2015	26-Sep-2015	26-Sep-2015	26-Sep-2015	26-Sep-2015	26-Sep-2015	26-Sep-2015	
Ferrous Iron	24-Sep-2015	24-Sep-2015	24-Sep-2015	24-Sep-2015	24-Sep-2015	24-Sep-2015	24-Sep-2015	24-Sep-2015	
GRO by GC-FID (W)	24-Sep-2015	24-Sep-2015	24-Sep-2015	24-Sep-2015	24-Sep-2015	24-Sep-2015	24-Sep-2015	24-Sep-2015	
Hexavalent Chromium (w)	24-Sep-2015	24-Sep-2015	24-Sep-2015	24-Sep-2015	24-Sep-2015	24-Sep-2015	24-Sep-2015	24-Sep-2015	
Mercury Dissolved	25-Sep-2015	25-Sep-2015	25-Sep-2015	25-Sep-2015	25-Sep-2015	25-Sep-2015	25-Sep-2015	25-Sep-2015	
Nitrite by Kone (w)	26-Sep-2015	26-Sep-2015	26-Sep-2015	26-Sep-2015	26-Sep-2015	26-Sep-2015	26-Sep-2015	26-Sep-2015	
Oxygenates (W)	24-Sep-2015	23-Sep-2015	23-Sep-2015	23-Sep-2015	23-Sep-2015	23-Sep-2015	23-Sep-2015	24-Sep-2015	
PAH Spec MS - Aqueous (W)	25-Sep-2015	25-Sep-2015	25-Sep-2015	25-Sep-2015	25-Sep-2015	25-Sep-2015	25-Sep-2015	25-Sep-2015	
TPH CWG (W)	26-Sep-2015	26-Sep-2015	26-Sep-2015	26-Sep-2015	26-Sep-2015	26-Sep-2015	26-Sep-2015	26-Sep-2015	
VOC MS (W)	26-Sep-2015	26-Sep-2015	26-Sep-2015	26-Sep-2015	26-Sep-2015	26-Sep-2015	26-Sep-2015	26-Sep-2015	26-Sep-2015

CERTIFICATE OF ANALYSIS

SDG:	150922-33	**Location:**	Shell Blackhorse	**Order Number:**	
Job:	H_URS_WIM-282	**Customer:**	AECOM	**Report Number:**	331469
Client Reference:	46370438	**Attention:**	Phil Allen	**Superseded Report:**	

ASSOCIATED AQC DATA

Anions by Kone (w)

Component	Method Code	QC 1264	QC 1275
Chloride	TM184	94.64 : 106.82	**95.5** 94.64 : 106.82
Phosphate (Ortho as PO4)	TM184	96.40 : 108.40	**104.4** 96.40 : 108.40
Sulphate (soluble)	TM184	**100.4** 96.47 : 104.74	**96.8** 96.47 : 104.74
TON as NO3	TM184	**107.5** 93.05 : 112.12	**101.0** 93.05 : 112.12

Determination of Dissolved Gases

Component	Method Code	QC 1221
Carbon Dioxide Dissolved Raw	TM223	**52.6** 85.00 : 115.00
Ethane Dissolved Raw	TM223	**99.99** 96.29 : 102.65
Methane Dissolved Raw	TM223	**97.54** 92.64 : 110.66
Propane Dissolved Raw	TM223	**100.32** 91.79 : 106.67

Dissolved Metals by ICP-MS

Component	Method Code	QC 1208	QC 1216
Aluminium	TM152	**102.0** 88.58 : 117.87	**107.07** 91.20 : 114.81
Antimony	TM152	**98.4** 87.01 : 109.33	**98.4** 81.22 : 110.09
Arsenic	TM152	**99.47** 89.45 : 113.51	**100.27** 90.72 : 113.37
Barium	TM152	**99.07** 90.47 : 113.85	**102.53** 89.19 : 113.10
Beryllium	TM152	**100.53** 84.68 : 120.26	**100.53** 84.91 : 118.83
Boron	TM152	**101.47** 82.95 : 121.47	**104.53** 83.37 : 121.28
Cadmium	TM152	**104.27** 90.40 : 113.29	**102.93** 88.71 : 110.88
Chromium	TM152	**101.87** 90.01 : 114.05	**102.53** 89.62 : 113.97
Cobalt	TM152	**102.0** 87.14 : 117.85	**103.2** 88.94 : 114.00
Copper	TM152	**97.47** 88.43 : 114.27	**102.53** 88.20 : 113.61
Lead	TM152	**96.0** 89.53 : 109.90	**101.2** 86.09 : 113.27
Lithium	TM152	**103.2** 84.32 : 123.11	**106.4** 88.12 : 120.26
Manganese	TM152	**103.6** 91.43 : 113.17	**104.0** 90.23 : 113.36
Molybdenum	TM152	**98.27** 80.73 : 113.85	**96.93** 86.81 : 113.52

CERTIFICATE OF ANALYSIS

SDG:	150922-33	**Location:**	Shell Blackhorse	**Order Number:**	
Job:	H_URS_WIM-282	**Customer:**	AECOM	**Report Number:**	331469
Client Reference:	46370438	**Attention:**	Phil Allen	**Superseded Report:**	

Dissolved Metals by ICP-MS

		QC 1208	QC 1216
Nickel	TM152	**103.6** 87.68 : 113.94	**104.93** 87.97 : 112.75
Phosphorus	TM152	**100.0** 86.68 : 118.34	**105.2** 88.63 : 116.49
Selenium	TM152	**105.47** 91.03 : 113.34	**100.27** 90.82 : 110.60
Strontium	TM152	**104.13** 90.44 : 114.09	**103.47** 88.45 : 113.83
Tellurium	TM152	**95.87** 80.93 : 116.91	**95.2** 88.98 : 112.40
Thallium	TM152	**93.73** 90.27 : 111.31	**98.53** 86.36 : 110.64
Tin	TM152	**91.73** 83.07 : 112.37	**102.53** 85.77 : 112.09
Titanium	TM152	**90.8** 92.65 : 111.58	**109.47** 91.39 : 111.36
Uranium	TM152	**94.4** 88.60 : 110.35	**96.13** 86.02 : 110.14
Vanadium	TM152	**103.33** 88.43 : 116.60	**104.53** 89.62 : 114.91
Zinc	TM152	**104.13** 89.84 : 113.06	**106.13** 90.00 : 112.54

EPH CWG (Aliphatic) Aqueous GC (W)

Component	Method Code	QC 1264
Total Aliphatics >C12-C35	TM174	**92.29** 66.67 : 110.42

EPH CWG (Aromatic) Aqueous GC (W)

Component	Method Code	QC 1280
Total Aromatics >EC12-EC35	TM174	**93.33** 63.00 : 121.00

Ferrous Iron

Component	Method Code	QC 1207
Ferrous Iron	TM125	**95.0** 94.00 : 102.00

GRO by GC-FID (W)

CERTIFICATE OF ANALYSIS

SDG:	150922-33	**Location:**	Shell Blackhorse	**Order Number:**	
Job:	H_URS_WIM-282	**Customer:**	AECOM	**Report Number:**	331469
Client Reference:	46370438	**Attention:**	Phil Allen	**Superseded Report:**	

GRO by GC-FID (W)

Component	Method Code	QC 1294
Benzene by GC	TM245	**95.0** 77.50 : 122.50
Ethylbenzene by GC	TM245	**92.5** 77.50 : 122.50
m & p Xylene by GC	TM245	**92.75** 77.50 : 122.50
MTBE GC-FID	TM245	**100.5** 77.50 : 122.50
o Xylene by GC	TM245	**95.5** 77.50 : 122.50
QC	TM245	**81.71** 74.88 : 125.54
Toluene by GC	TM245	**94.5** 77.50 : 122.50

Hexavalent Chromium (w)

Component	Method Code	QC 1221	QC 1244
Hexavalent Chromium	TM241	**101.6** 91.10 : 105.14	**101.8** 91.10 : 105.14

Mercury Dissolved

Component	Method Code	QC 1255	QC 1291
Mercury Dissolved (CVAF)	TM183	**114.0** 73.51 : 120.83	**101.0** 73.51 : 120.83

Oxygenates (W)

Component	Method Code	QC 1224	QC 1270
Benzene	TM289	**96.0** 87.69 : 119.72	**100.5** 87.69 : 119.72
Diisopropyl ether	TM289	**95.5** 86.70 : 122.79	**101.0** 86.70 : 122.79
Ethanol	TM289	**120.6** 74.12 : 156.61	**125.4** 74.12 : 156.61
Ethylbenzene	TM289	**93.0** 84.52 : 113.38	**98.0** 84.52 : 113.38
o-Xylene	TM289	**94.5** 84.40 : 112.41	**100.0** 84.40 : 112.41
p/m-Xylene	TM289	**94.0** 83.20 : 115.01	**99.5** 83.20 : 115.01
tert Butanol	TM289	**118.0** 70.51 : 143.48	**123.0** 70.51 : 143.48
tert-amyl methyl ether	TM289	**97.0** 78.92 : 124.29	**101.0** 78.92 : 124.29

CERTIFICATE OF ANALYSIS

SDG:	150922-33	**Location:**	Shell Blackhorse	**Order Number:**	
Job:	H_URS_WIM-282	**Customer:**	AECOM	**Report Number:**	331469
Client Reference:	46370438	**Attention:**	Phil Allen	**Superseded Report:**	

Oxygenates (W)

		QC 1224	QC 1270
tert-butyl ethyl ether	TM289	**97.5** 78.17 : 124.34	**103.0** 78.17 : 124.34
tert-butyl methyl ether	TM289	**99.5** 87.75 : 127.35	**105.0** 87.75 : 127.35
Toluene	TM289	**94.5** 79.08 : 122.51	**99.5** 79.08 : 122.51

PAH Spec MS - Aqueous (W)

Component	Method Code	QC 1212	QC 1233
Acenaphthene by GCMS	TM178	**100.0** 91.90 : 109.30	**97.5** 91.90 : 109.30
Acenaphthylene by GCMS	TM178	**96.5** 87.74 : 109.69	**99.0** 87.74 : 109.69
Anthracene by GCMS	TM178	**99.0** 89.70 : 111.80	**100.0** 89.70 : 111.80
Benz(a)anthracene by GCMS	TM178	**100.0** 88.64 : 112.43	**99.5** 88.64 : 112.43
Benzo(a)pyrene by GCMS	TM178	**105.0** 85.00 : 130.00	**111.0** 85.00 : 130.00
Benzo(b)fluoranthene by GCMS	TM178	**108.5** 85.50 : 130.50	**113.0** 85.50 : 130.50
Benzo(ghi)perylene by GCMS	TM178	**98.5** 81.04 : 111.10	**98.5** 81.04 : 111.10
Benzo(k)fluoranthene by GCMS	TM178	**107.5** 87.50 : 132.50	**113.5** 87.50 : 132.50
Chrysene by GCMS	TM178	**104.0** 89.75 : 115.25	**102.0** 89.75 : 115.25
Dibenzo(ah)anthracene by GCMS	TM178	**95.0** 77.91 : 107.68	**96.0** 77.91 : 107.68
Fluoranthene by GCMS	TM178	**102.0** 86.85 : 115.35	**100.5** 86.85 : 115.35
Fluorene by GCMS	TM178	**99.5** 92.39 : 113.85	**106.5** 92.39 : 113.85
Indeno(123cd)pyrene by GCMS	TM178	**104.0** 84.94 : 119.98	**105.5** 84.94 : 119.98
Naphthalene by GCMS	TM178	**100.0** 88.20 : 115.80	**96.5** 88.20 : 115.80
Phenanthrene by GCMS	TM178	**101.5** 88.40 : 114.20	**100.0** 88.40 : 114.20
Pyrene by GCMS	TM178	**100.5** 87.50 : 116.00	**101.5** 87.50 : 116.00

VOC MS (W)

Component	Method Code	QC 1212
1,1,1,2-Tetrachloroethane	TM208	**92.5** 87.29 : 112.22
1,1,1-Trichloroethane	TM208	**109.0** 83.02 : 113.68
1,1-Dichloroethane	TM208	**120.5** 77.85 : 123.56
1,2-Dichloroethane	TM208	**125.5** 80.96 : 124.37

CERTIFICATE OF ANALYSIS

SDG:	150922-33	**Location:**	Shell Blackhorse	**Order Number:**	
Job:	H_URS_WIM-282	**Customer:**	AECOM	**Report Number:**	331469
Client Reference:	46370438	**Attention:**	Phil Allen	**Superseded Report:**	

VOC MS (W)

		QC 1212
2-Chlorotoluene	TM208	**85.0** 82.27 : 113.28
4-Chlorotoluene	TM208	**84.5** 82.43 : 113.78
Benzene	TM208	**112.5** 85.85 : 118.22
Bromomethane	TM208	**100.5** 78.68 : 126.84
Carbontetrachloride	TM208	**109.5** 82.06 : 117.49
Chlorobenzene	TM208	**93.5** 77.50 : 122.50
Chloroform	TM208	**116.5** 77.50 : 122.50
Chloromethane	TM208	**134.5** 64.99 : 145.80
Cis-1,2-Dichloroethene	TM208	**122.0** 87.80 : 126.43
Dichloromethane	TM208	**121.5** 80.45 : 125.21
Ethylbenzene	TM208	**93.5** 81.00 : 111.00
Hexachlorobutadiene	TM208	**90.0** 79.39 : 111.07
o-Xylene	TM208	**92.5** 84.32 : 113.42
p/m-Xylene	TM208	**90.25** 82.25 : 112.25
Tert-butyl methyl ether	TM208	**109.5** 76.57 : 125.98
Tetrachloroethene	TM208	**84.0** 80.21 : 115.87
Toluene	TM208	**96.0** 85.71 : 113.18
Trichloroethene	TM208	**98.0** 87.32 : 112.88
Vinyl Chloride	TM208	**106.0** 67.57 : 130.24

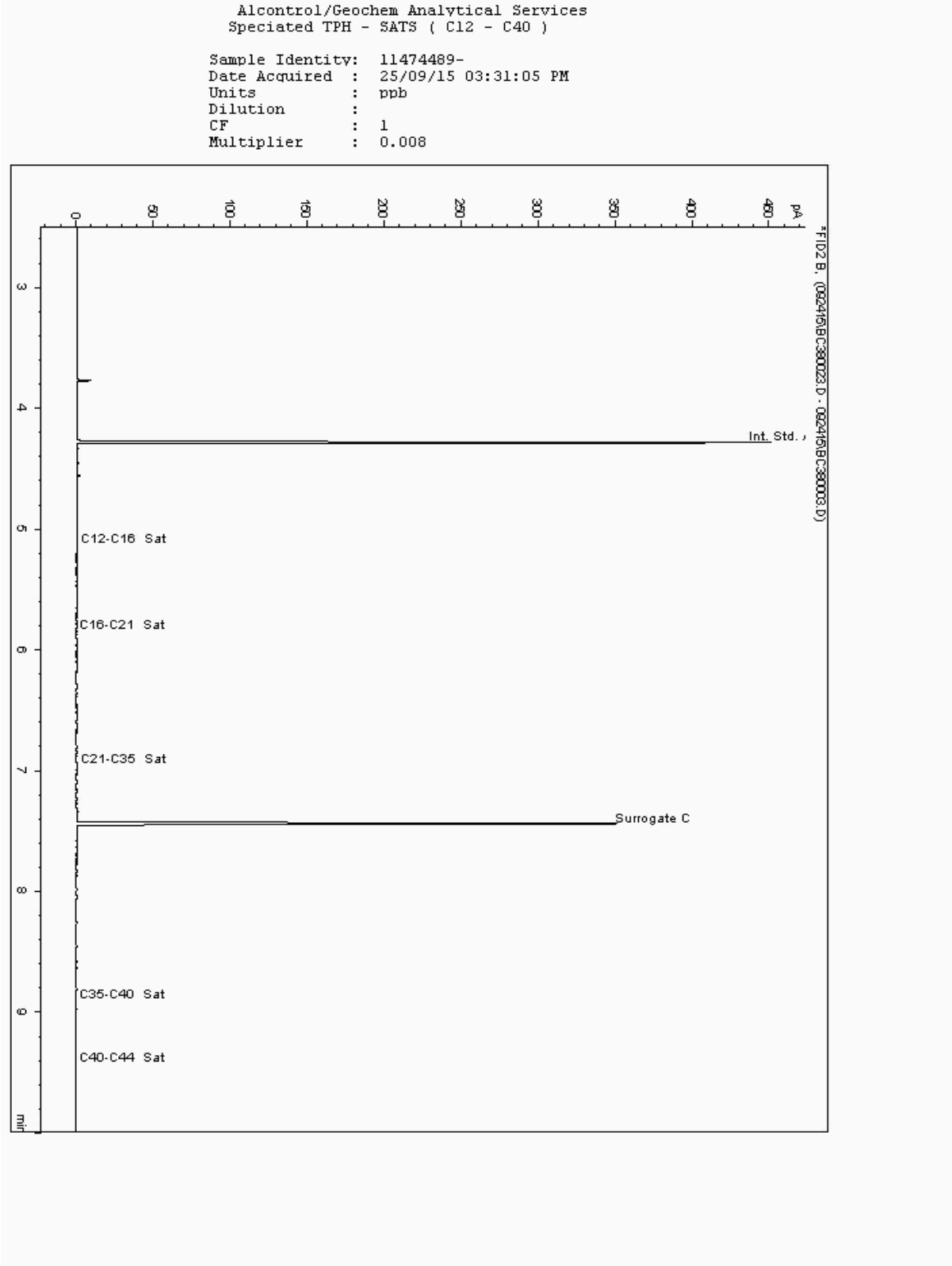
The above information details the reference name of the analytical quality control sample (AQC) that has been run with the samples contained in this report for the different methods of analysis.
The figure detailed is the percentage recovery result for the AQC.
The subscript numbers below are the percentage recovery lower control limit (LCL) and the upper control limit (UCL). The percentage recovery result for the AQC should be between these limits to be statistically in control.

CERTIFICATE OF ANALYSIS

SDG:	150922-33	**Location:**	Shell Blackhorse	**Order Number:**	
Job:	H_URS_WIM-282	**Customer:**	AECOM	**Report Number:**	331469
Client Reference:	46370438	**Attention:**	Phil Allen	**Superseded Report:**	

Chromatogram

Analysis: EPH CWG (Aliphatic) Aqueous GC (W) **Sample No :** 12112839 **Sample ID :** Dup **Depth :** 7.00



CERTIFICATE OF ANALYSIS

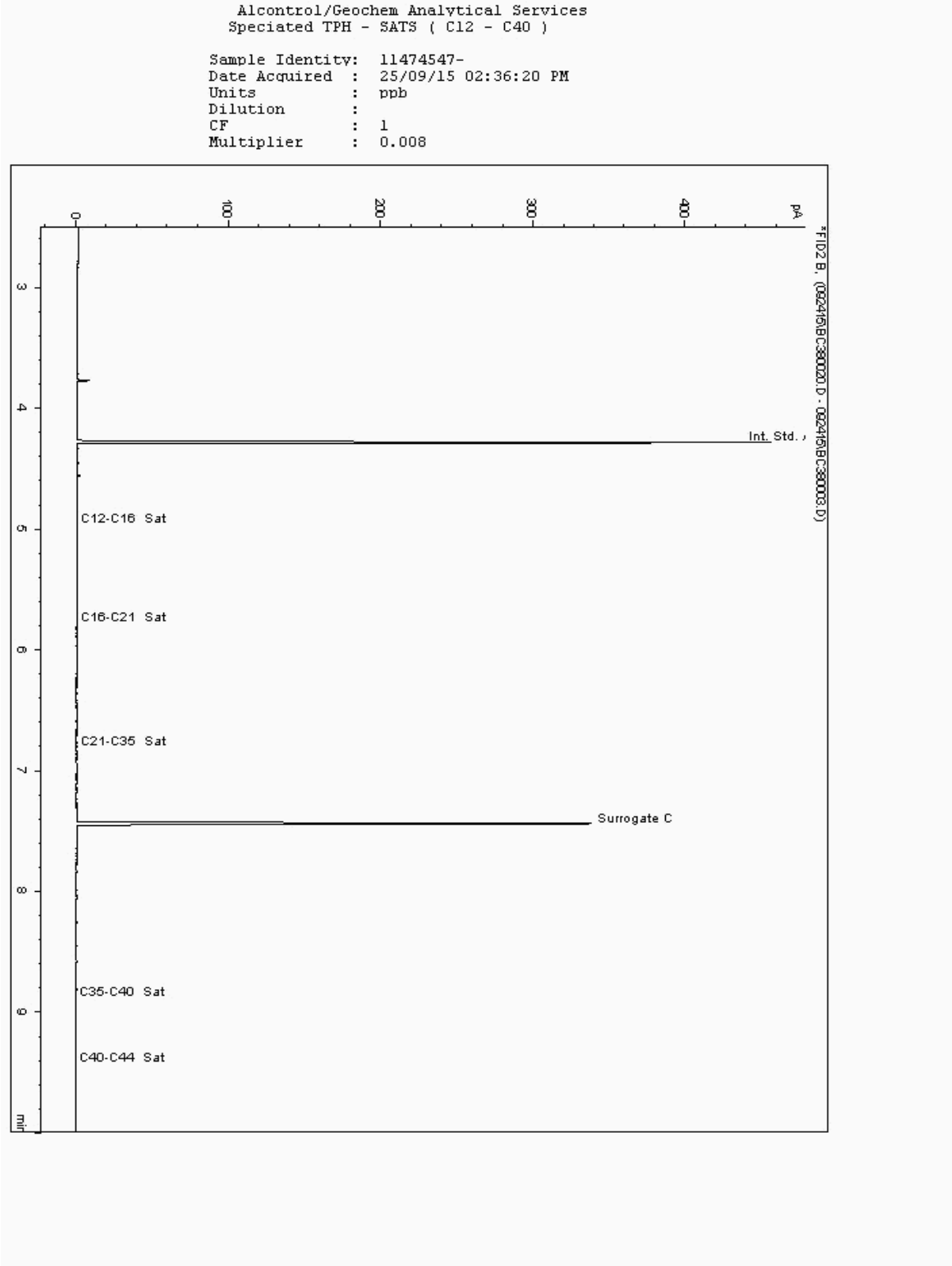
SDG:	150922-33	**Location:**	Shell Blackhorse	**Order Number:**	
Job:	H_URS_WIM-282	**Customer:**	AECOM	**Report Number:**	331469
Client Reference:	46370438	**Attention:**	Phil Allen	**Superseded Report:**	

Chromatogram

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

Sample No : 12112861
Sample ID : Active

Depth :

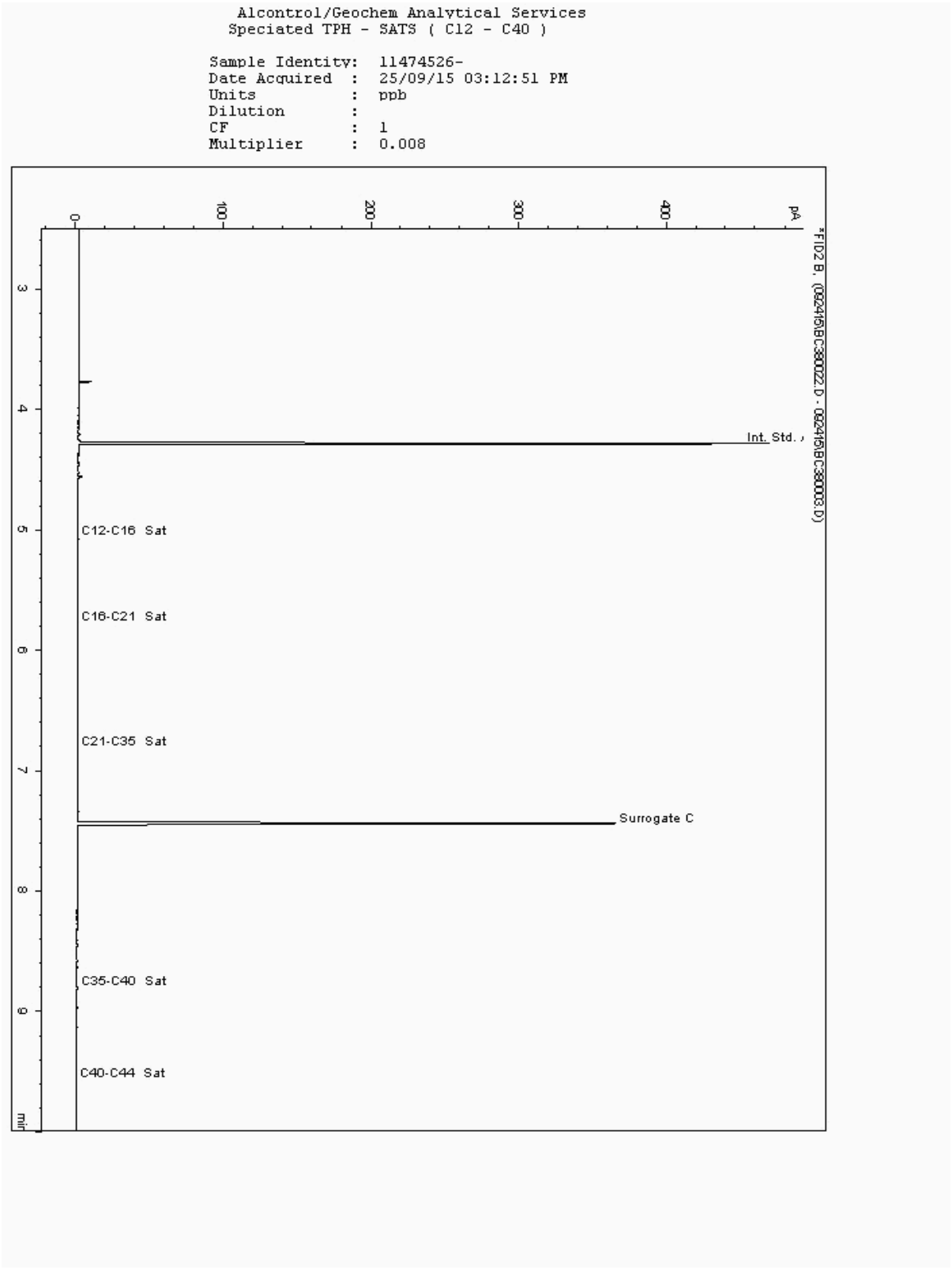


CERTIFICATE OF ANALYSIS

SDG:	150922-33	**Location:**	Shell Blackhorse	**Order Number:**	
Job:	H_URS_WIM-282	**Customer:**	AECOM	**Report Number:**	331469
Client Reference:	46370438	**Attention:**	Phil Allen	**Superseded Report:**	

Chromatogram

Analysis: EPH CWG (Aliphatic) Aqueous GC (W) **Sample No :** 12112935 **Sample ID :** Static **Depth :**

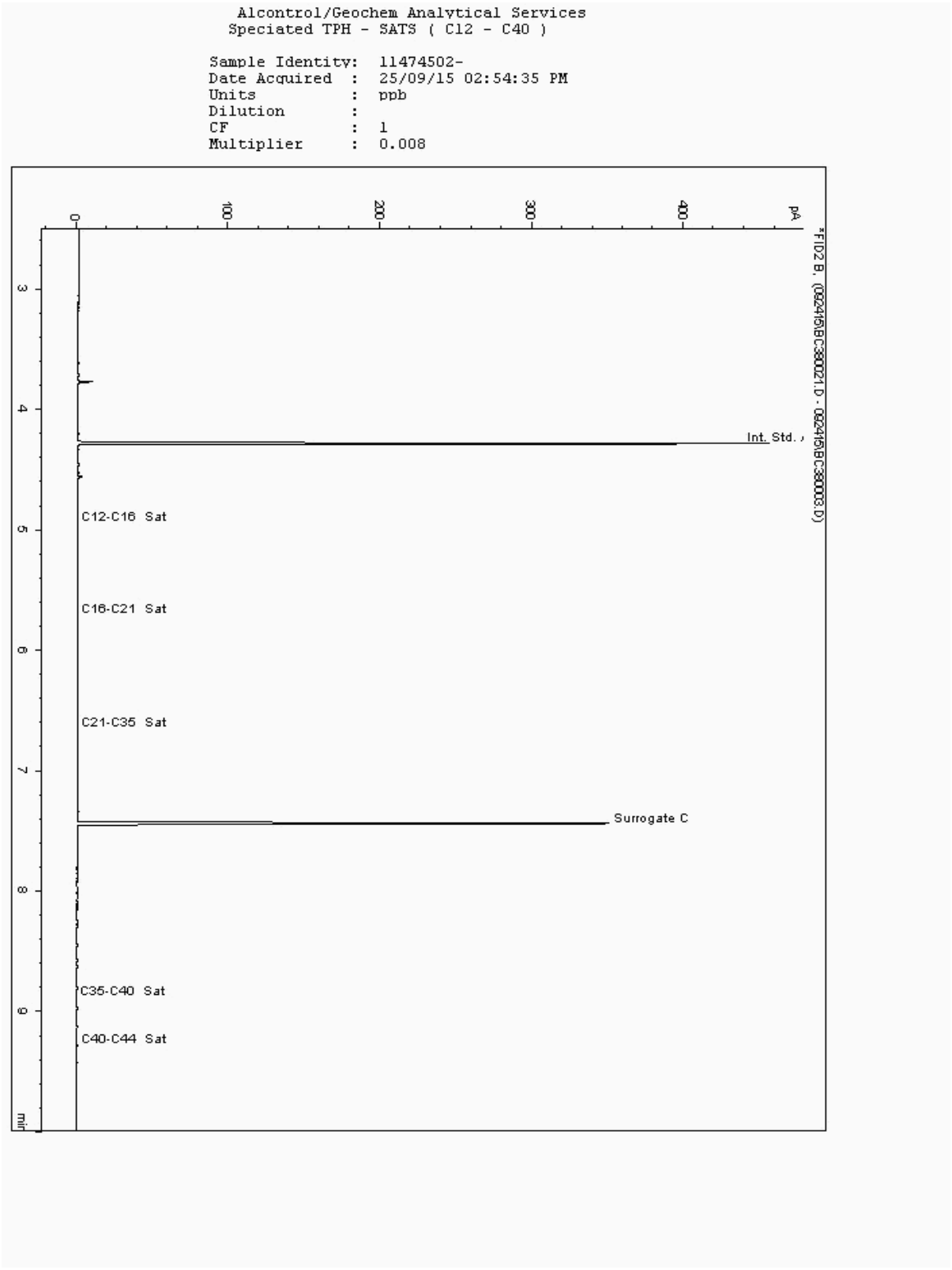


CERTIFICATE OF ANALYSIS

SDG:	150922-33	**Location:**	Shell Blackhorse	**Order Number:**	
Job:	H_URS_WIM-282	**Customer:**	AECOM	**Report Number:**	331469
Client Reference:	46370438	**Attention:**	Phil Allen	**Superseded Report:**	

Chromatogram

Analysis: EPH CWG (Aliphatic) Aqueous GC (W) **Sample No :** 12113078 **Sample ID :** EB **Depth :**

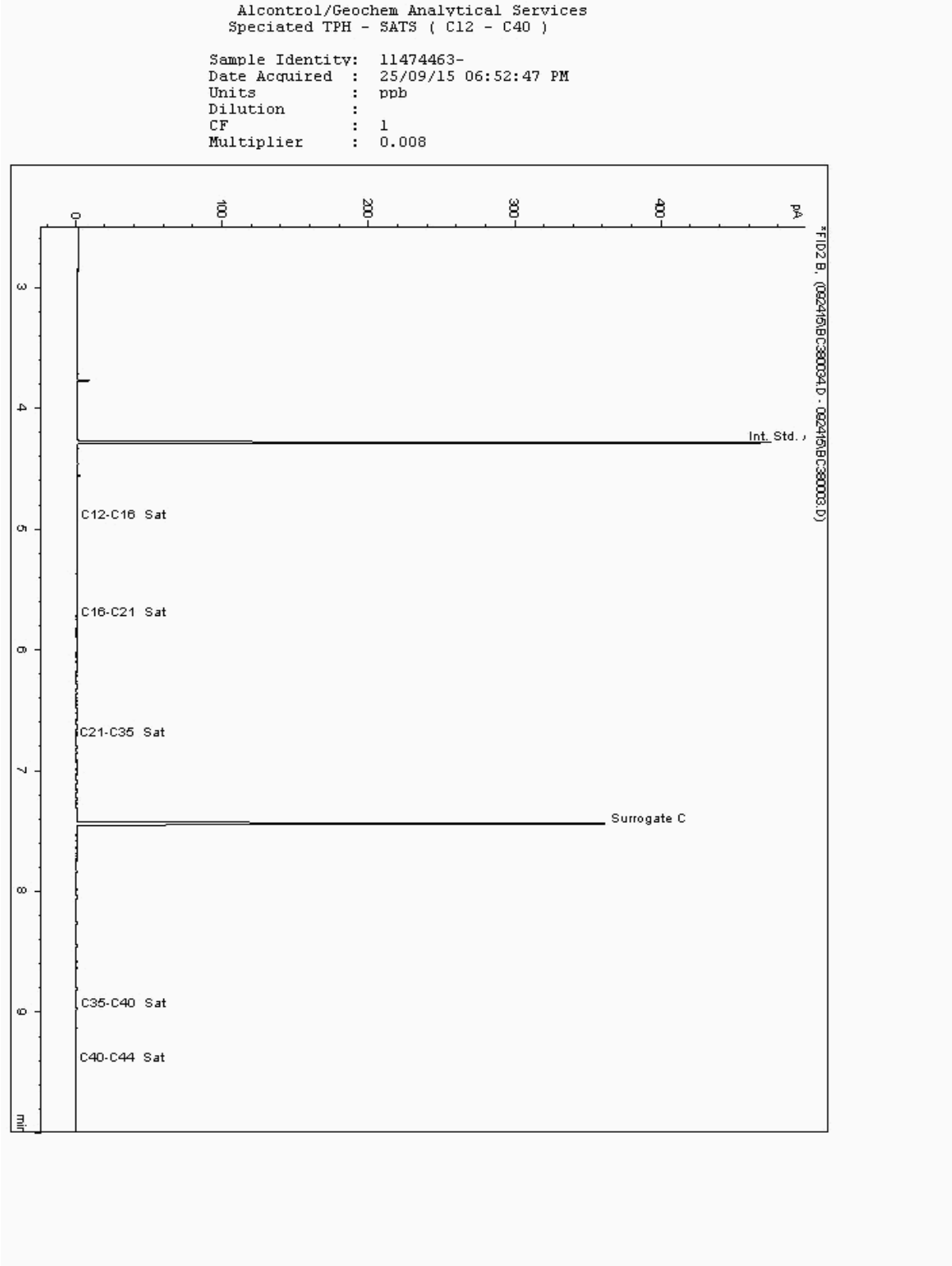


CERTIFICATE OF ANALYSIS

SDG:	150922-33	**Location:**	Shell Blackhorse	**Order Number:**	
Job:	H_URS_WIM-282	**Customer:**	AECOM	**Report Number:**	331469
Client Reference:	46370438	**Attention:**	Phil Allen	**Superseded Report:**	

Chromatogram

Analysis: EPH CWG (Aliphatic) Aqueous GC (W) **Sample No :** 12113738 **Sample ID :** MW3 **Depth :** 7.00

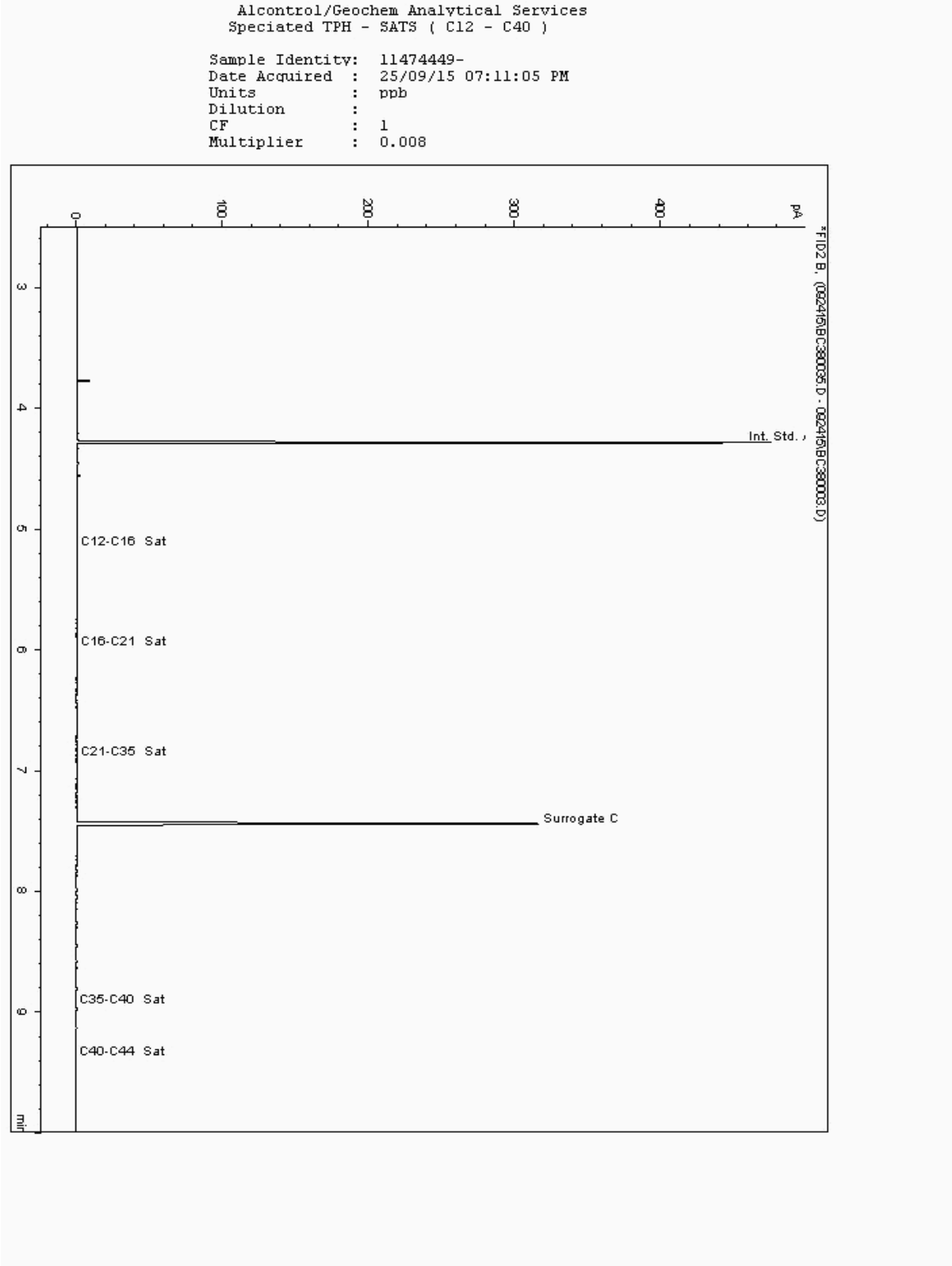


CERTIFICATE OF ANALYSIS

SDG:	150922-33	**Location:**	Shell Blackhorse	**Order Number:**	
Job:	H_URS_WIM-282	**Customer:**	AECOM	**Report Number:**	331469
Client Reference:	46370438	**Attention:**	Phil Allen	**Superseded Report:**	

Chromatogram

Analysis: EPH CWG (Aliphatic) Aqueous GC (W) **Sample No :** 12113743 **Sample ID :** MW2 **Depth :** 6.91

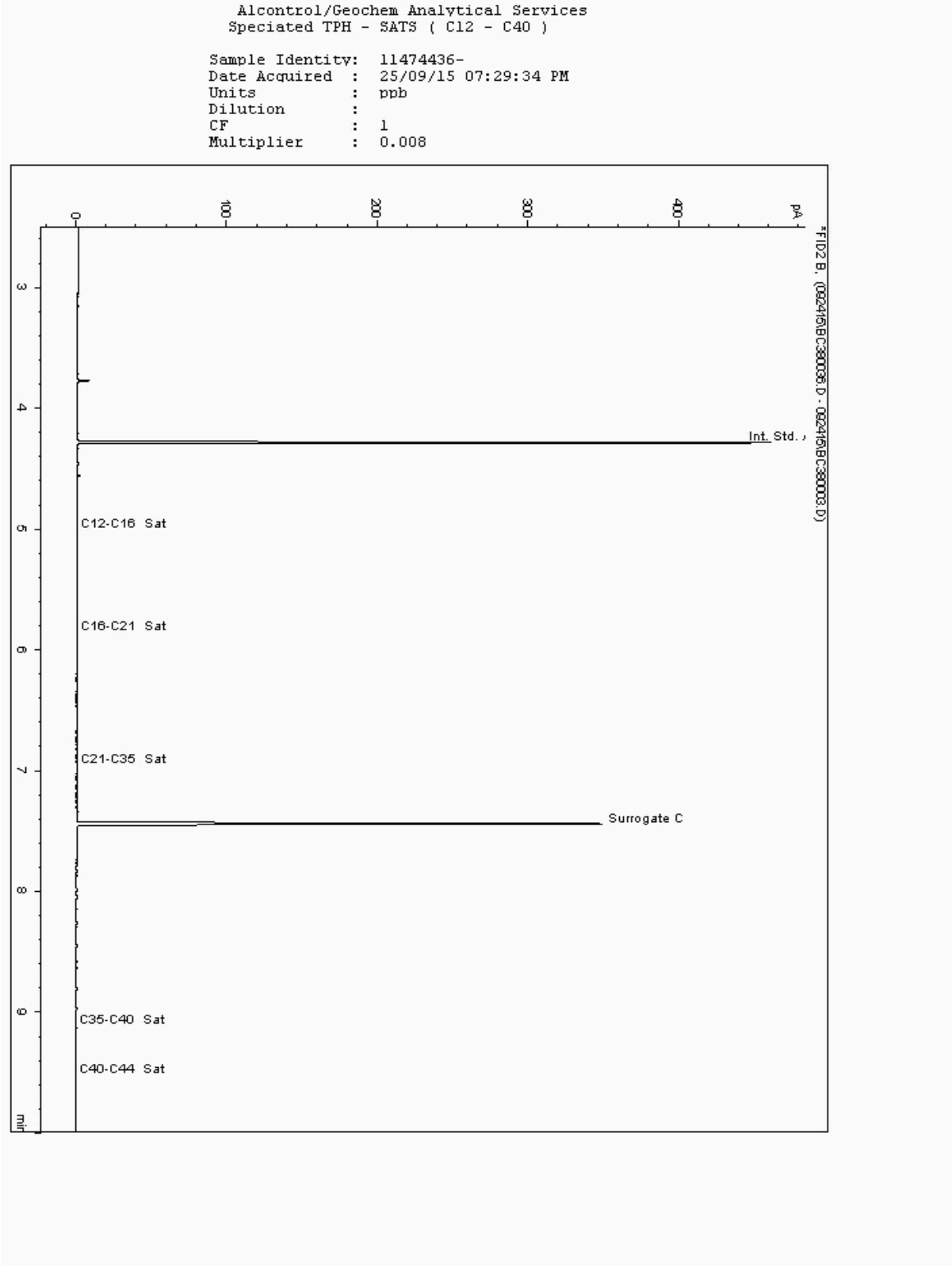


CERTIFICATE OF ANALYSIS

SDG:	150922-33	**Location:**	Shell Blackhorse	**Order Number:**	
Job:	H_URS_WIM-282	**Customer:**	AECOM	**Report Number:**	331469
Client Reference:	46370438	**Attention:**	Phil Allen	**Superseded Report:**	

Chromatogram

Analysis: EPH CWG (Aliphatic) Aqueous GC (W) **Sample No :** 12113745 **Sample ID :** MW1 **Depth :** 7.25

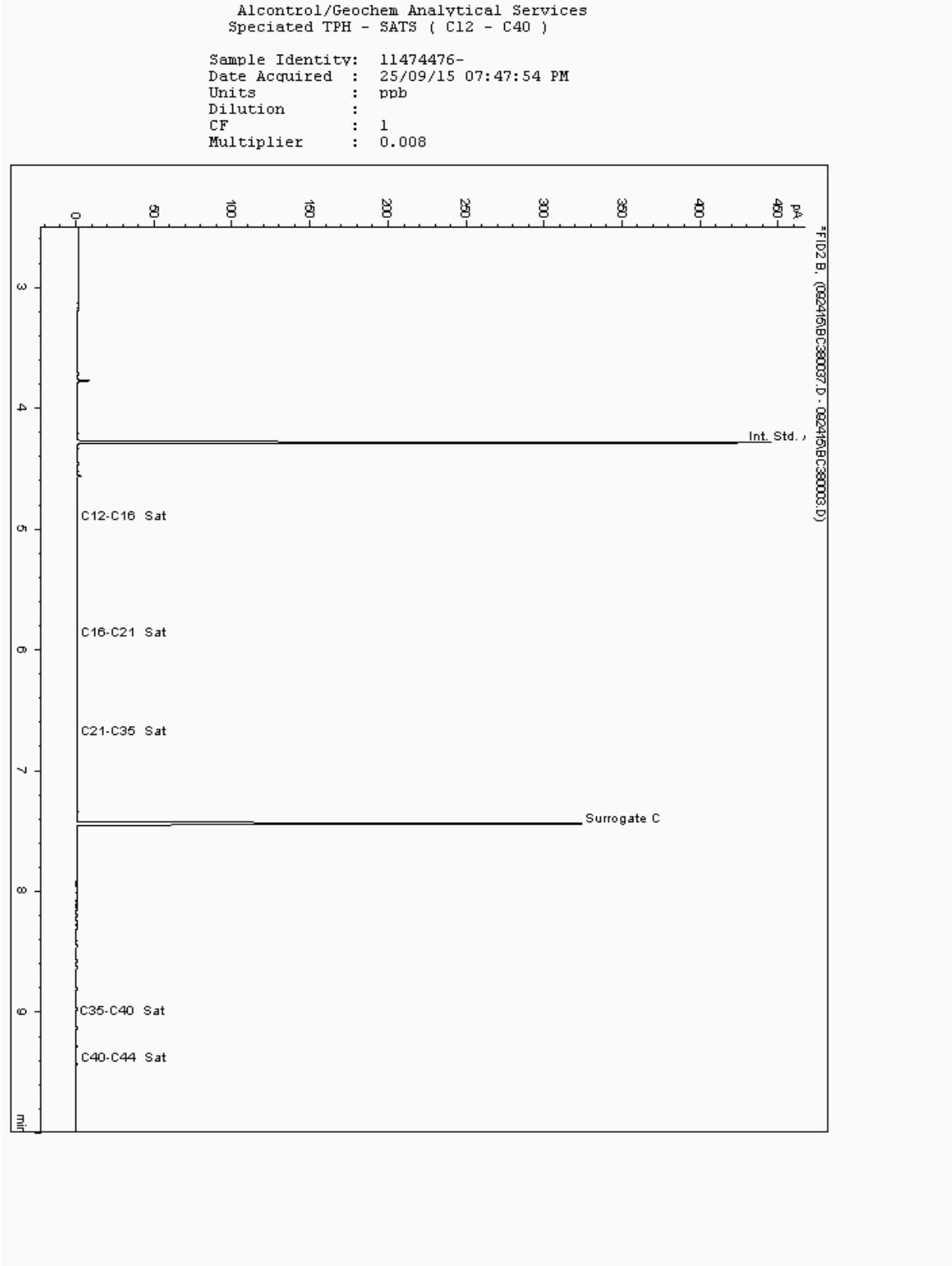


CERTIFICATE OF ANALYSIS

SDG:	150922-33	**Location:**	Shell Blackhorse	**Order Number:**	
Job:	H_URS_WIM-282	**Customer:**	AECOM	**Report Number:**	331469
Client Reference:	46370438	**Attention:**	Phil Allen	**Superseded Report:**	

Chromatogram

Analysis: EPH CWG (Aliphatic) Aqueous GC (W) **Sample No :** 12113750 **Sample ID :** MW4 **Depth :** 7.00

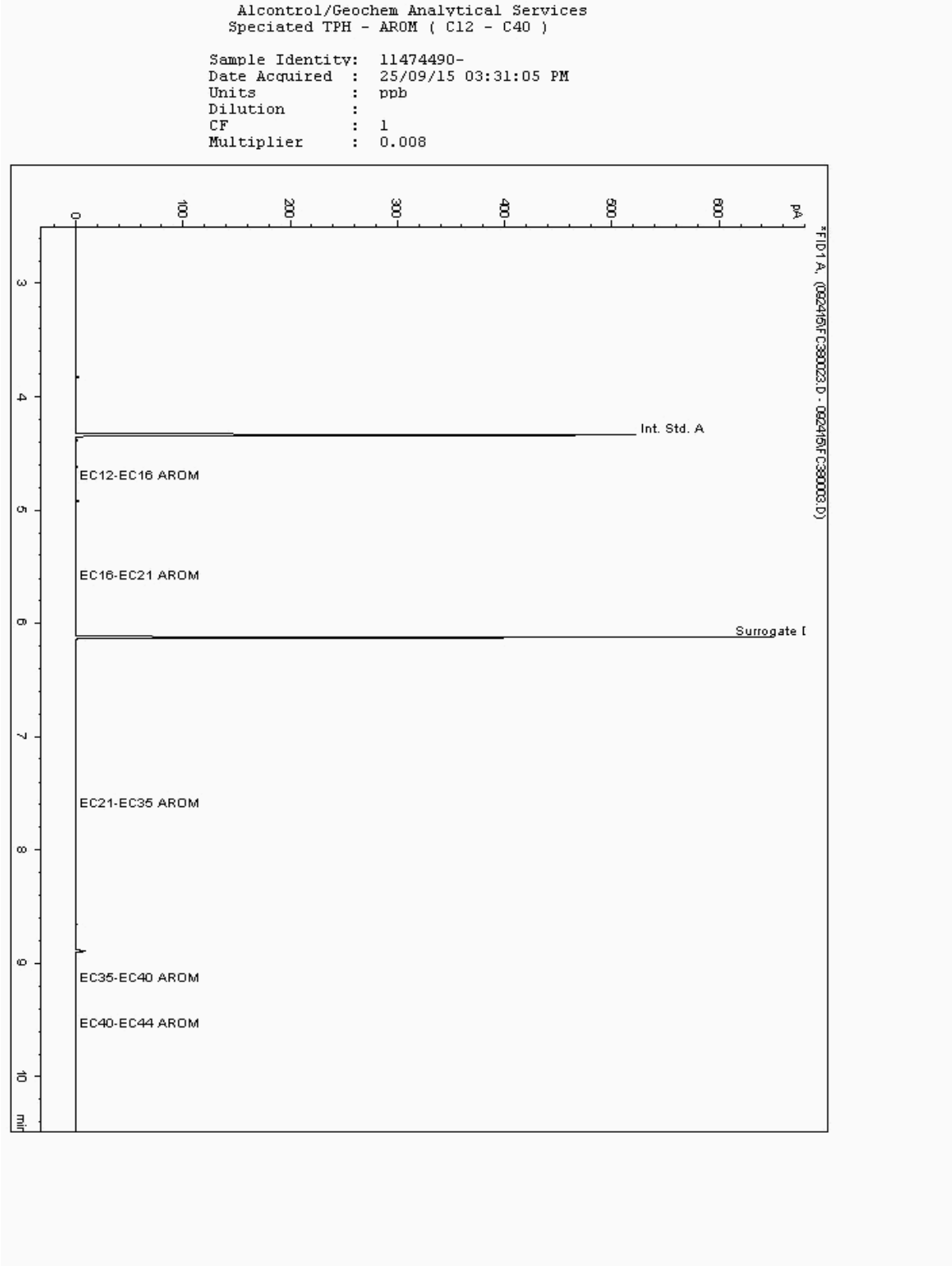


CERTIFICATE OF ANALYSIS

SDG:	150922-33	**Location:**	Shell Blackhorse	**Order Number:**	
Job:	H_URS_WIM-282	**Customer:**	AECOM	**Report Number:**	331469
Client Reference:	46370438	**Attention:**	Phil Allen	**Superseded Report:**	

Chromatogram

Analysis: EPH CWG (Aromatic) Aqueous GC (W) **Sample No :** 12112839 **Depth :** 7.00
Sample ID : Dup

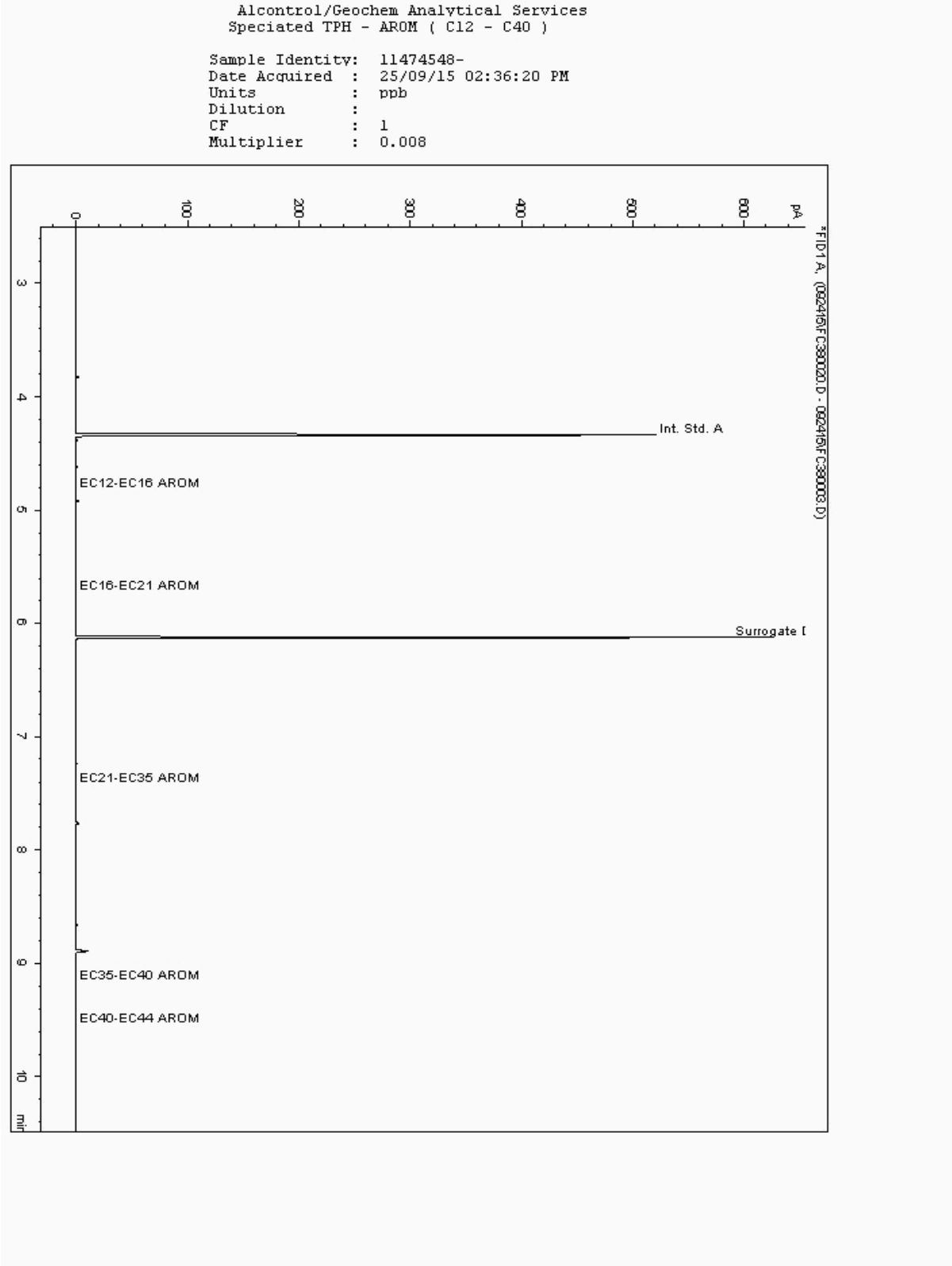


CERTIFICATE OF ANALYSIS

SDG:	150922-33	**Location:**	Shell Blackhorse	**Order Number:**	
Job:	H_URS_WIM-282	**Customer:**	AECOM	**Report Number:**	331469
Client Reference:	46370438	**Attention:**	Phil Allen	**Superseded Report:**	

Chromatogram

Analysis: EPH CWG (Aromatic) Aqueous GC (W) **Sample No :** 12112861 **Sample ID :** Active **Depth :**



CERTIFICATE OF ANALYSIS

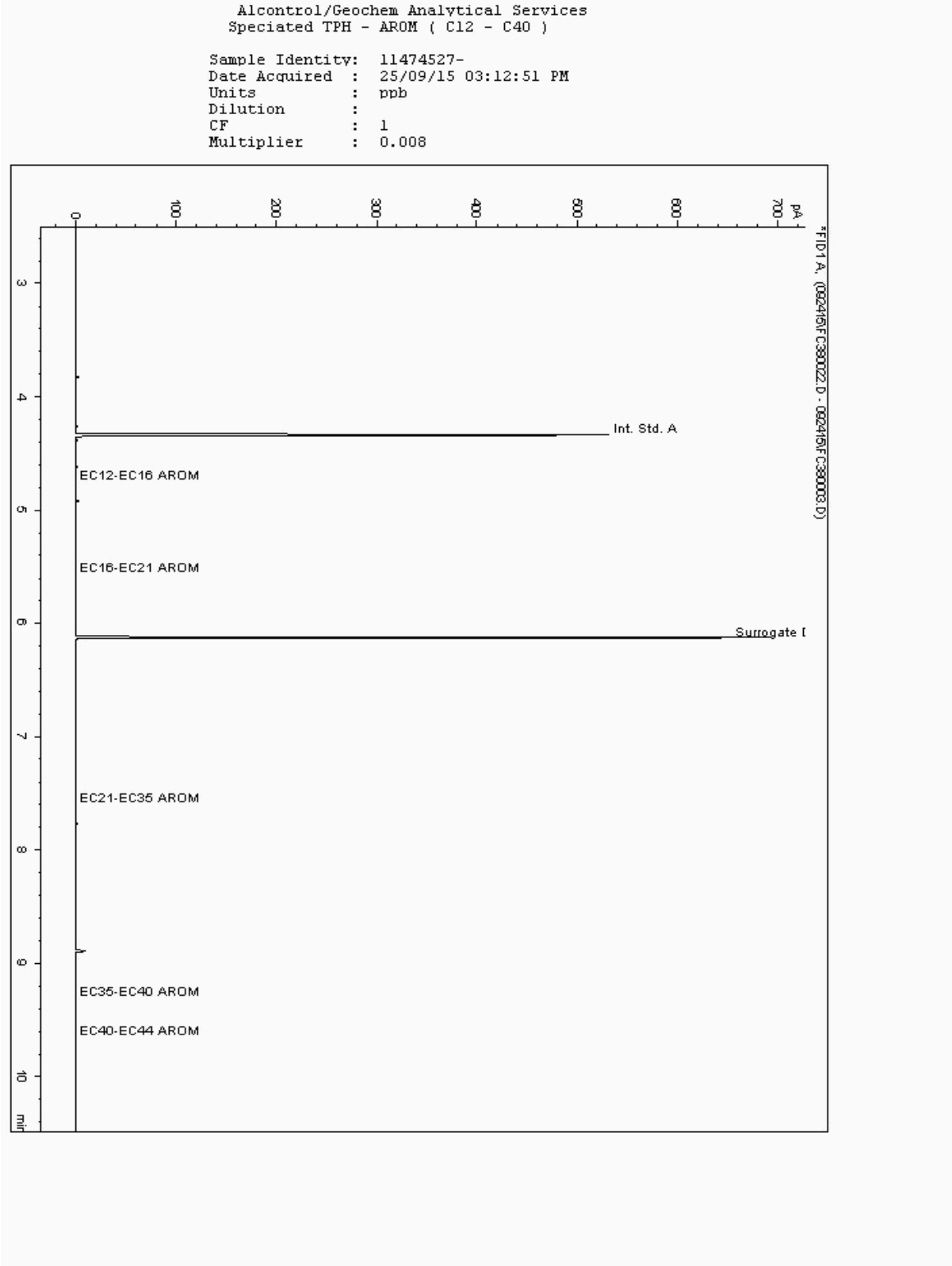
SDG:	150922-33	**Location:**	Shell Blackhorse	**Order Number:**	
Job:	H_URS_WIM-282	**Customer:**	AECOM	**Report Number:**	331469
Client Reference:	46370438	**Attention:**	Phil Allen	**Superseded Report:**	

Chromatogram

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

Sample No : 12112935
Sample ID : Static

Depth :



CERTIFICATE OF ANALYSIS

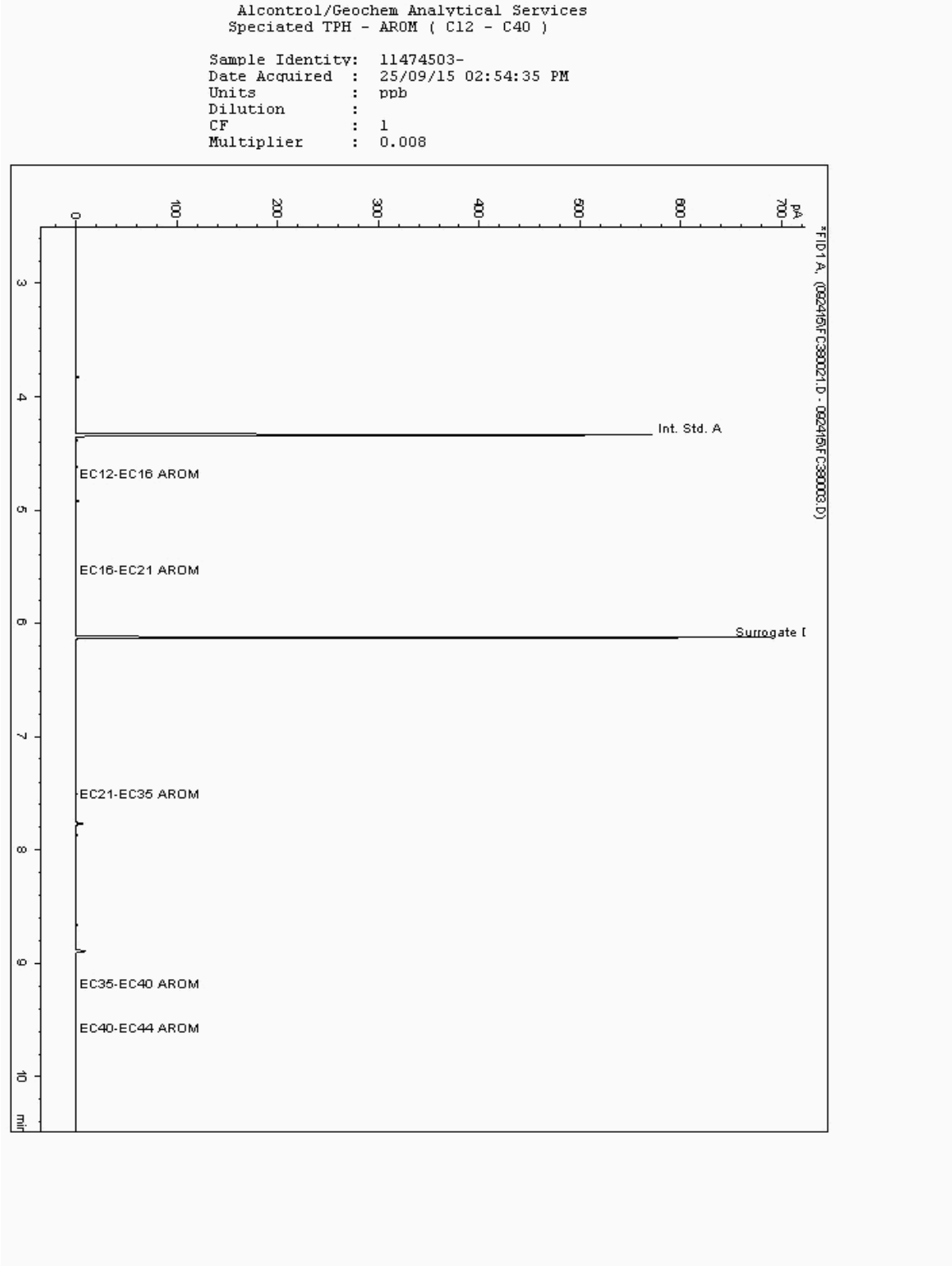
SDG:	150922-33	**Location:**	Shell Blackhorse	**Order Number:**	
Job:	H_URS_WIM-282	**Customer:**	AECOM	**Report Number:**	331469
Client Reference:	46370438	**Attention:**	Phil Allen	**Superseded Report:**	

Chromatogram

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

Sample No : 12113078
Sample ID : EB

Depth :

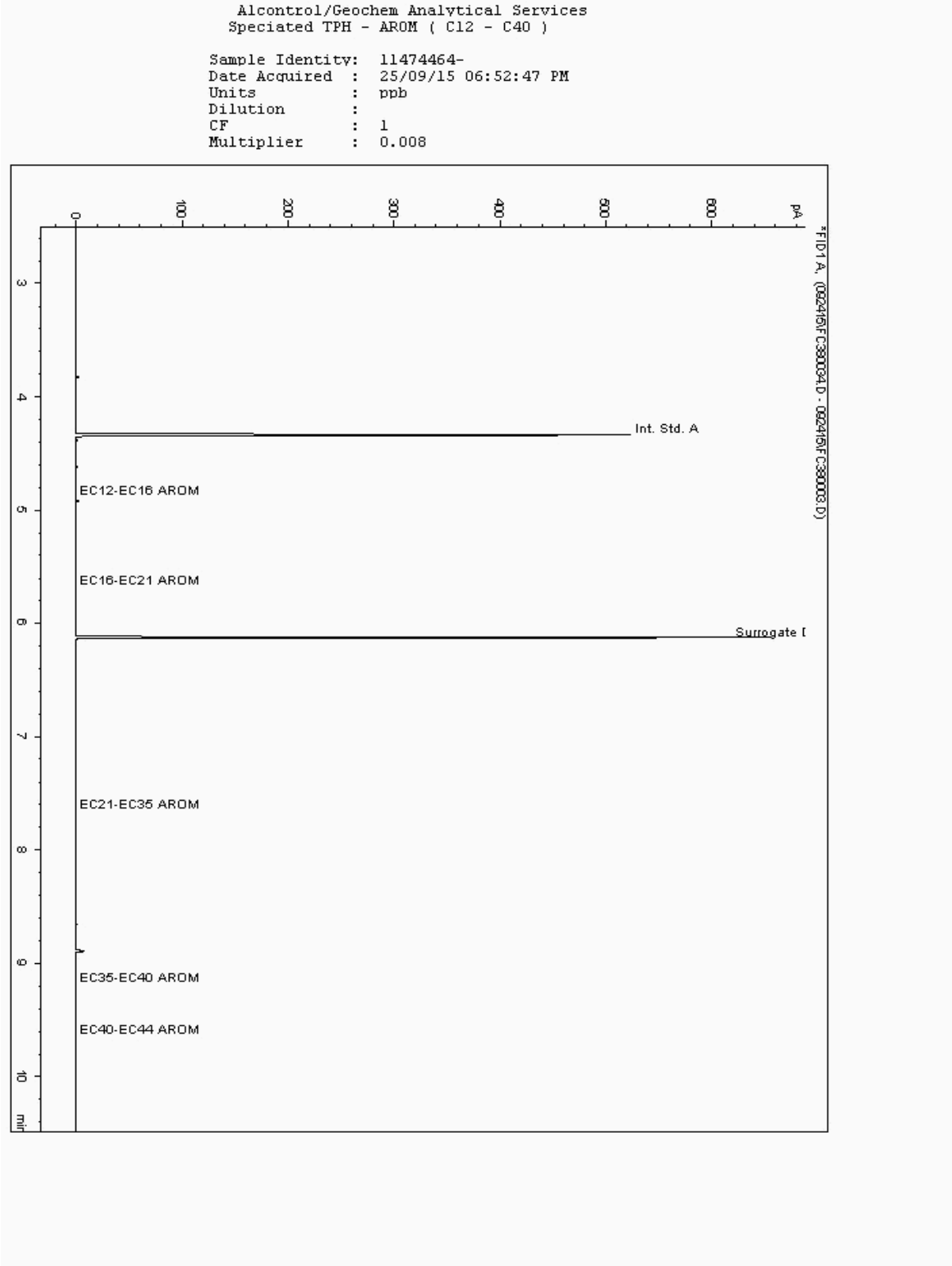


CERTIFICATE OF ANALYSIS

SDG:	150922-33	**Location:**	Shell Blackhorse	**Order Number:**	
Job:	H_URS_WIM-282	**Customer:**	AECOM	**Report Number:**	331469
Client Reference:	46370438	**Attention:**	Phil Allen	**Superseded Report:**	

Chromatogram

Analysis: EPH CWG (Aromatic) Aqueous GC (W) **Sample No :** 12113738 **Sample ID :** MW3 **Depth :** 7.00

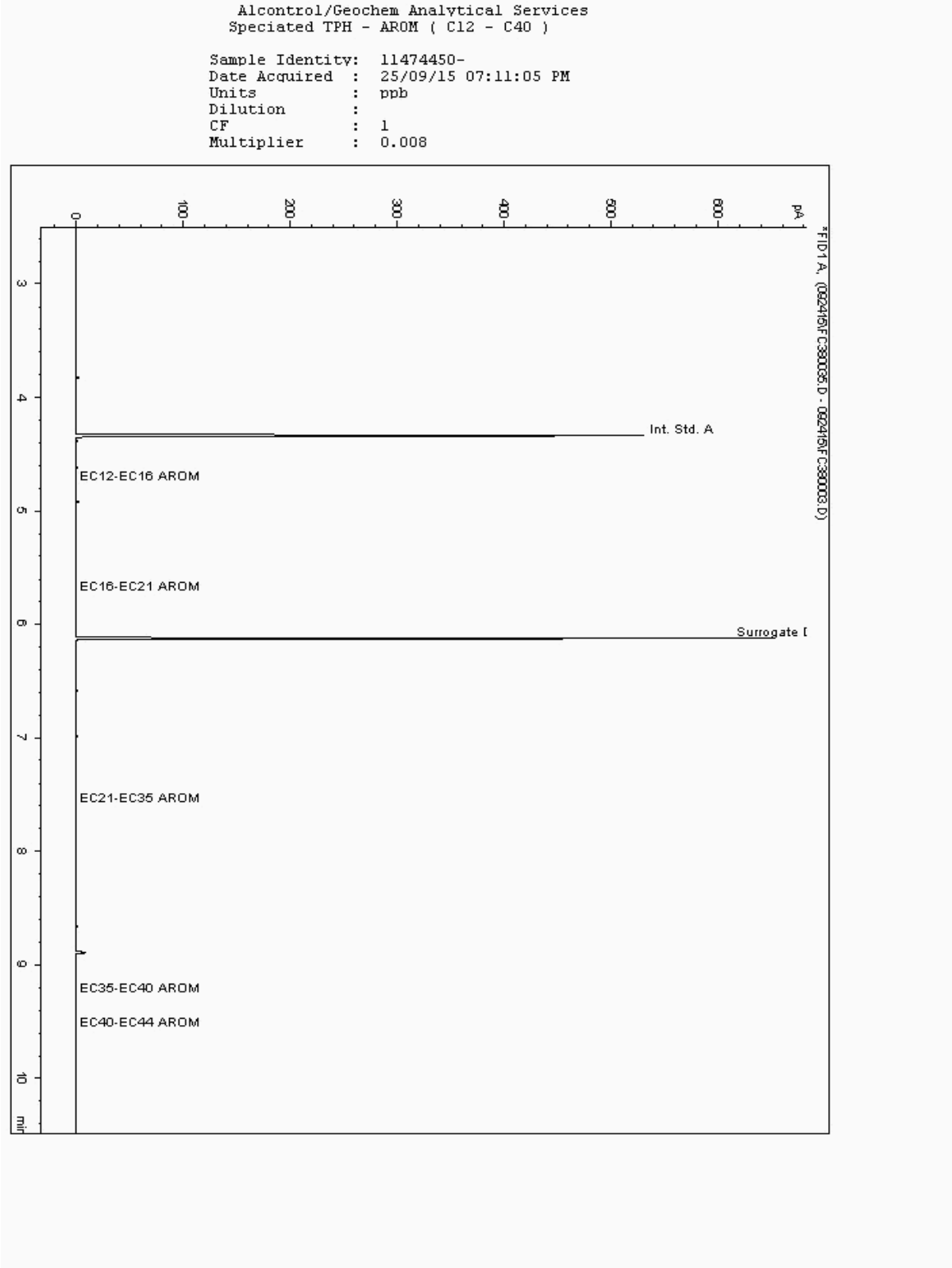


CERTIFICATE OF ANALYSIS

SDG:	150922-33	**Location:**	Shell Blackhorse	**Order Number:**	
Job:	H_URS_WIM-282	**Customer:**	AECOM	**Report Number:**	331469
Client Reference:	46370438	**Attention:**	Phil Allen	**Superseded Report:**	

Chromatogram

Analysis: EPH CWG (Aromatic) Aqueous GC (W) **Sample No :** 12113743 **Sample ID :** MW2 **Depth :** 6.91

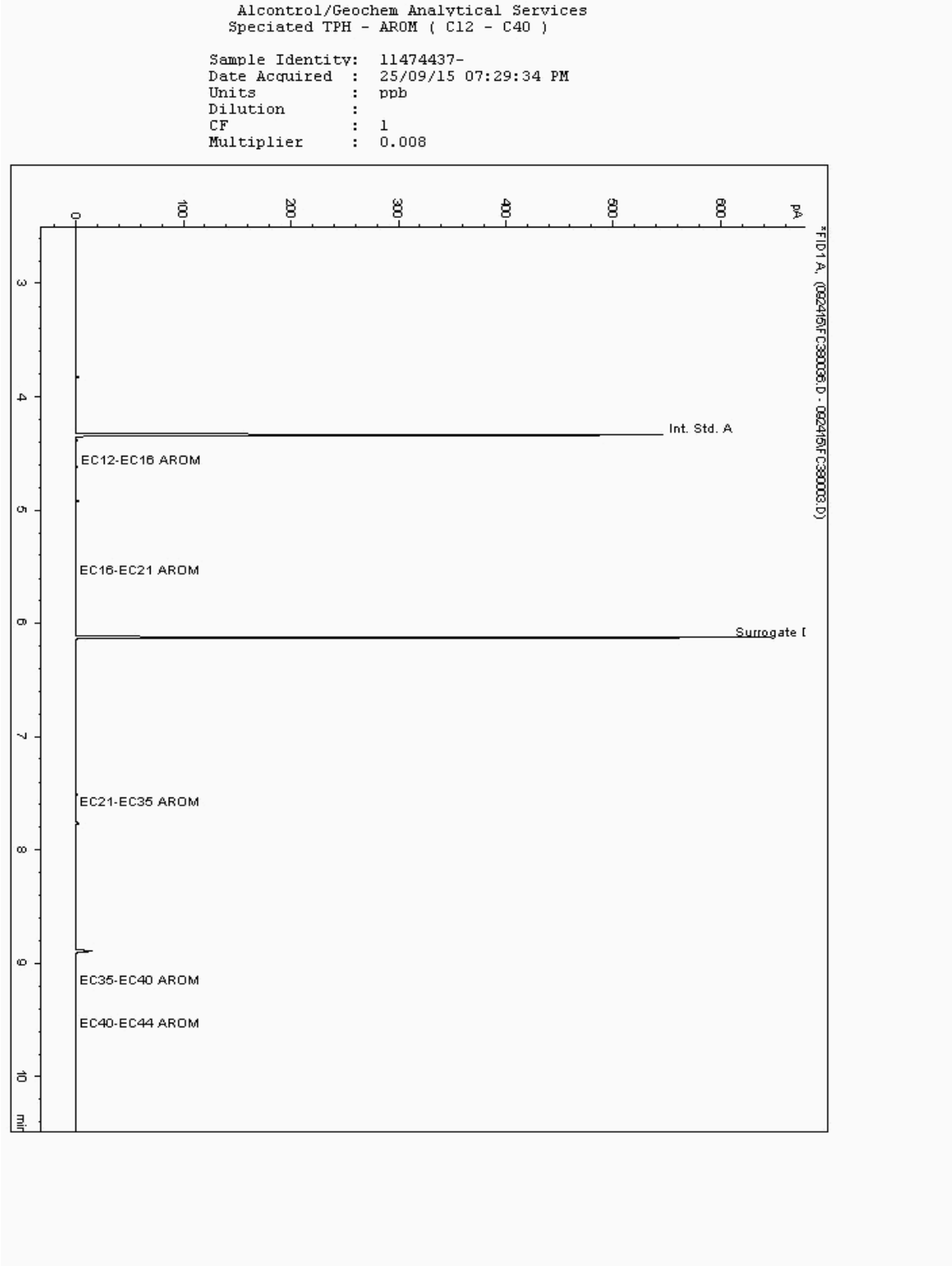


CERTIFICATE OF ANALYSIS

SDG:	150922-33	**Location:**	Shell Blackhorse	**Order Number:**	
Job:	H_URS_WIM-282	**Customer:**	AECOM	**Report Number:**	331469
Client Reference:	46370438	**Attention:**	Phil Allen	**Superseded Report:**	

Chromatogram

Analysis: EPH CWG (Aromatic) Aqueous GC (W) **Sample No :** 12113745 **Sample ID :** MW1 **Depth :** 7.25

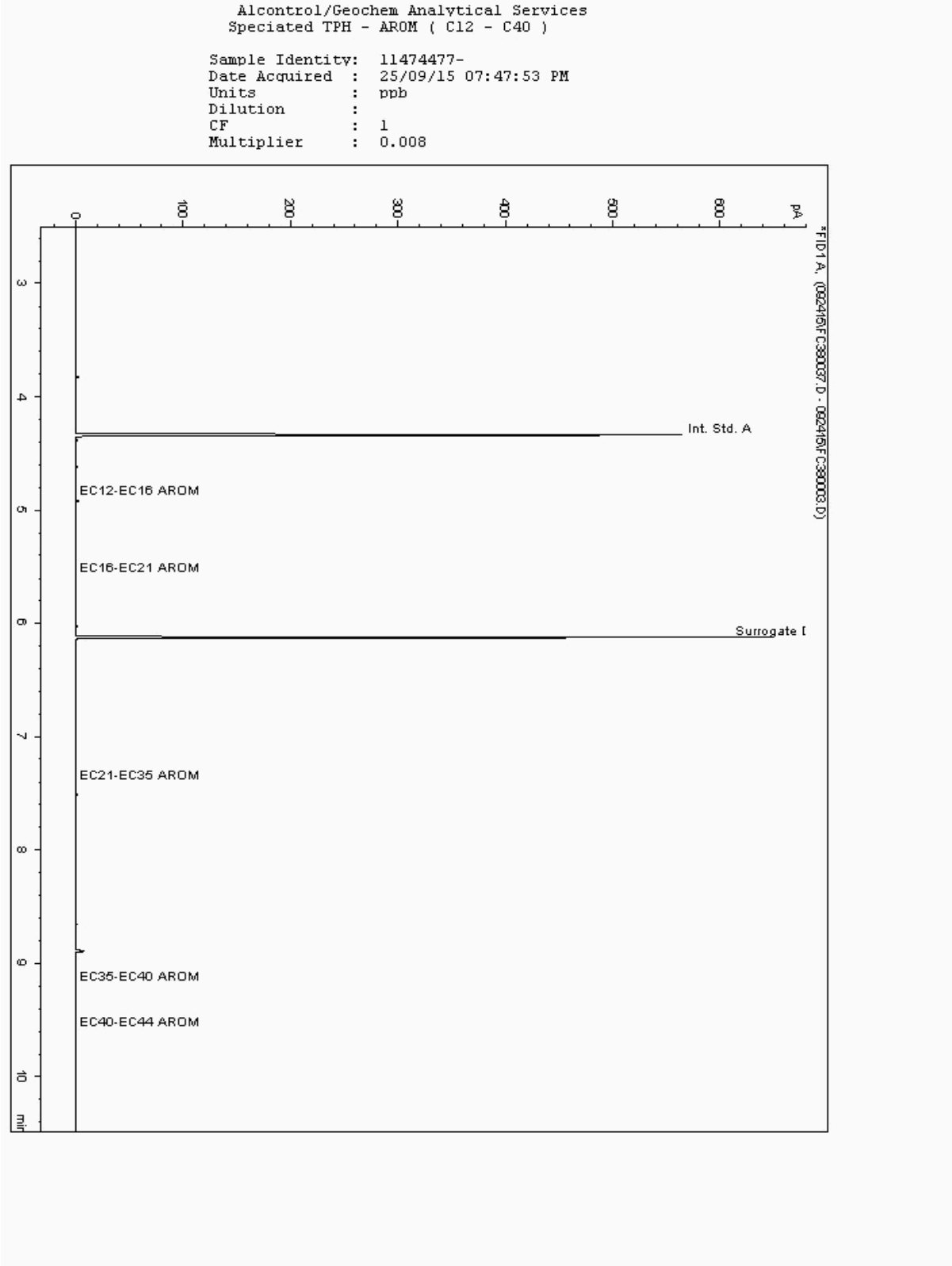


CERTIFICATE OF ANALYSIS

SDG:	150922-33	**Location:**	Shell Blackhorse	**Order Number:**	
Job:	H_URS_WIM-282	**Customer:**	AECOM	**Report Number:**	331469
Client Reference:	46370438	**Attention:**	Phil Allen	**Superseded Report:**	

Chromatogram

Analysis: EPH CWG (Aromatic) Aqueous GC (W) **Sample No :** 12113750 **Sample ID :** MW4 **Depth :** 7.00



CERTIFICATE OF ANALYSIS

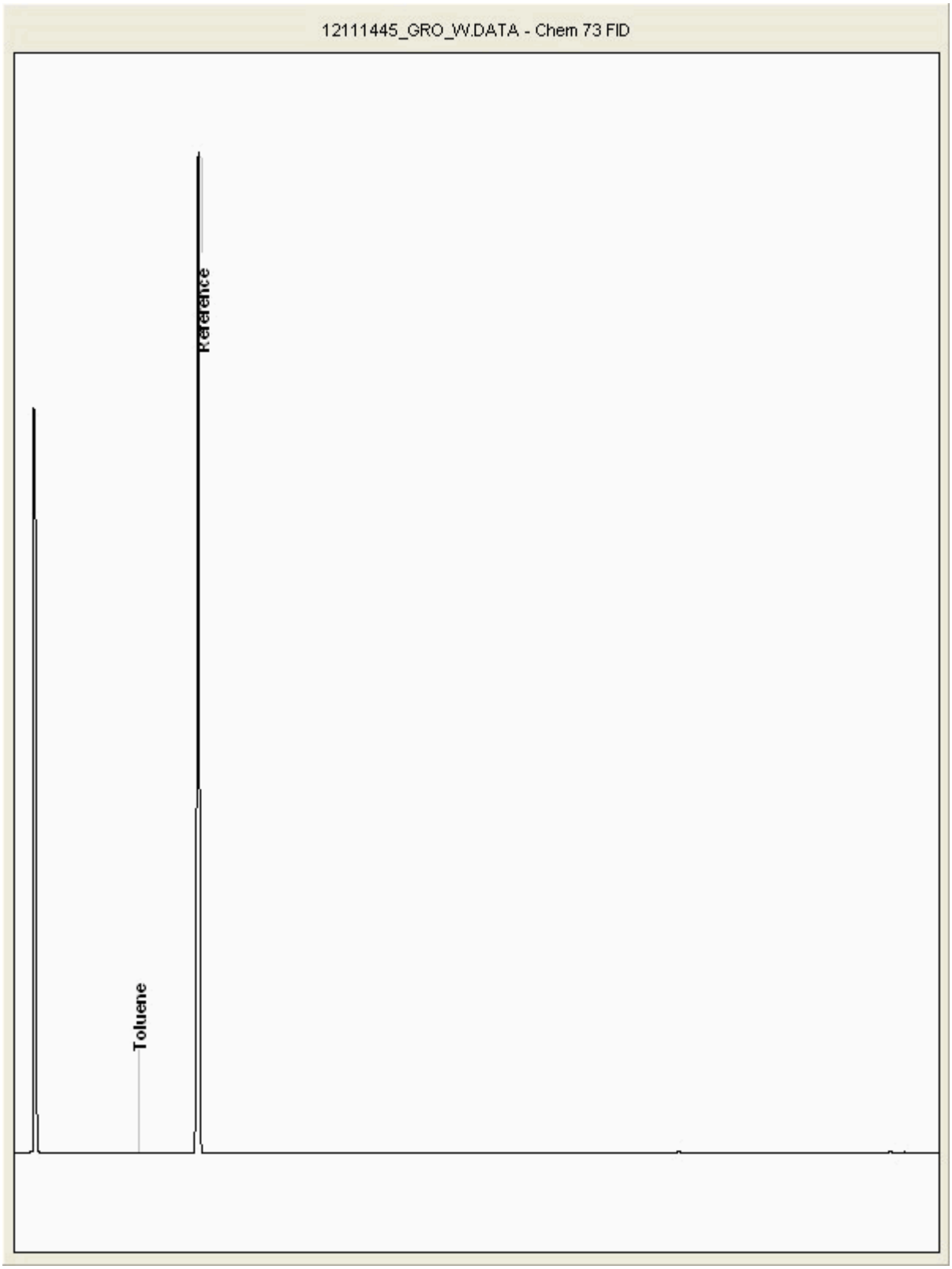
SDG:	150922-33	**Location:**	Shell Blackhorse	**Order Number:**	
Job:	H_URS_WIM-282	**Customer:**	AECOM	**Report Number:**	331469
Client Reference:	46370438	**Attention:**	Phil Allen	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 12111445
Sample ID : EB

Depth :



CERTIFICATE OF ANALYSIS

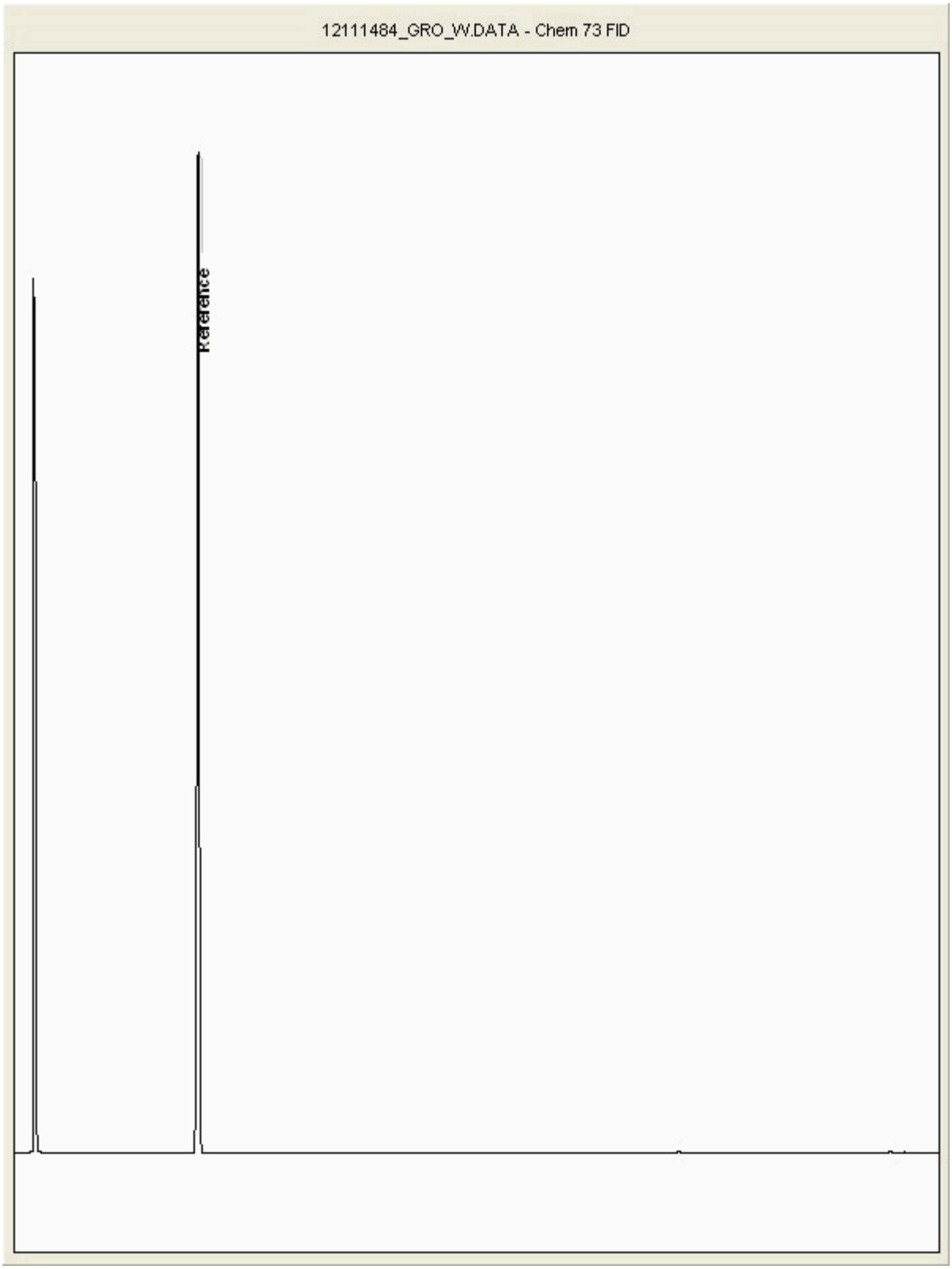
SDG:	150922-33	**Location:**	Shell Blackhorse	**Order Number:**	
Job:	H_URS_WIM-282	**Customer:**	AECOM	**Report Number:**	331469
Client Reference:	46370438	**Attention:**	Phil Allen	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 12111484
Sample ID : MW1

Depth : 7.25



CERTIFICATE OF ANALYSIS

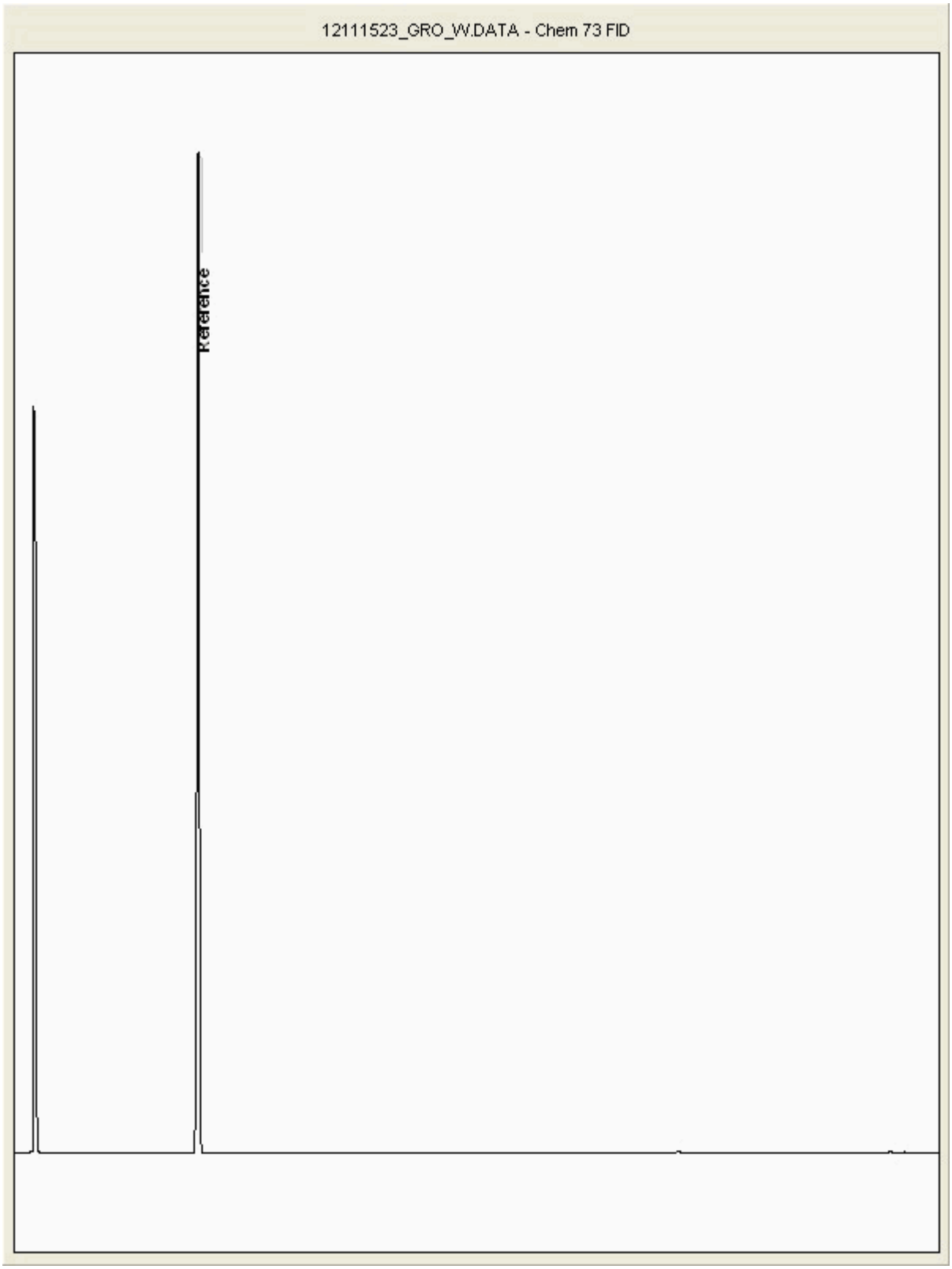
SDG:	150922-33	**Location:**	Shell Blackhorse	**Order Number:**	
Job:	H_URS_WIM-282	**Customer:**	AECOM	**Report Number:**	331469
Client Reference:	46370438	**Attention:**	Phil Allen	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 12111523
Sample ID : Active

Depth :



CERTIFICATE OF ANALYSIS

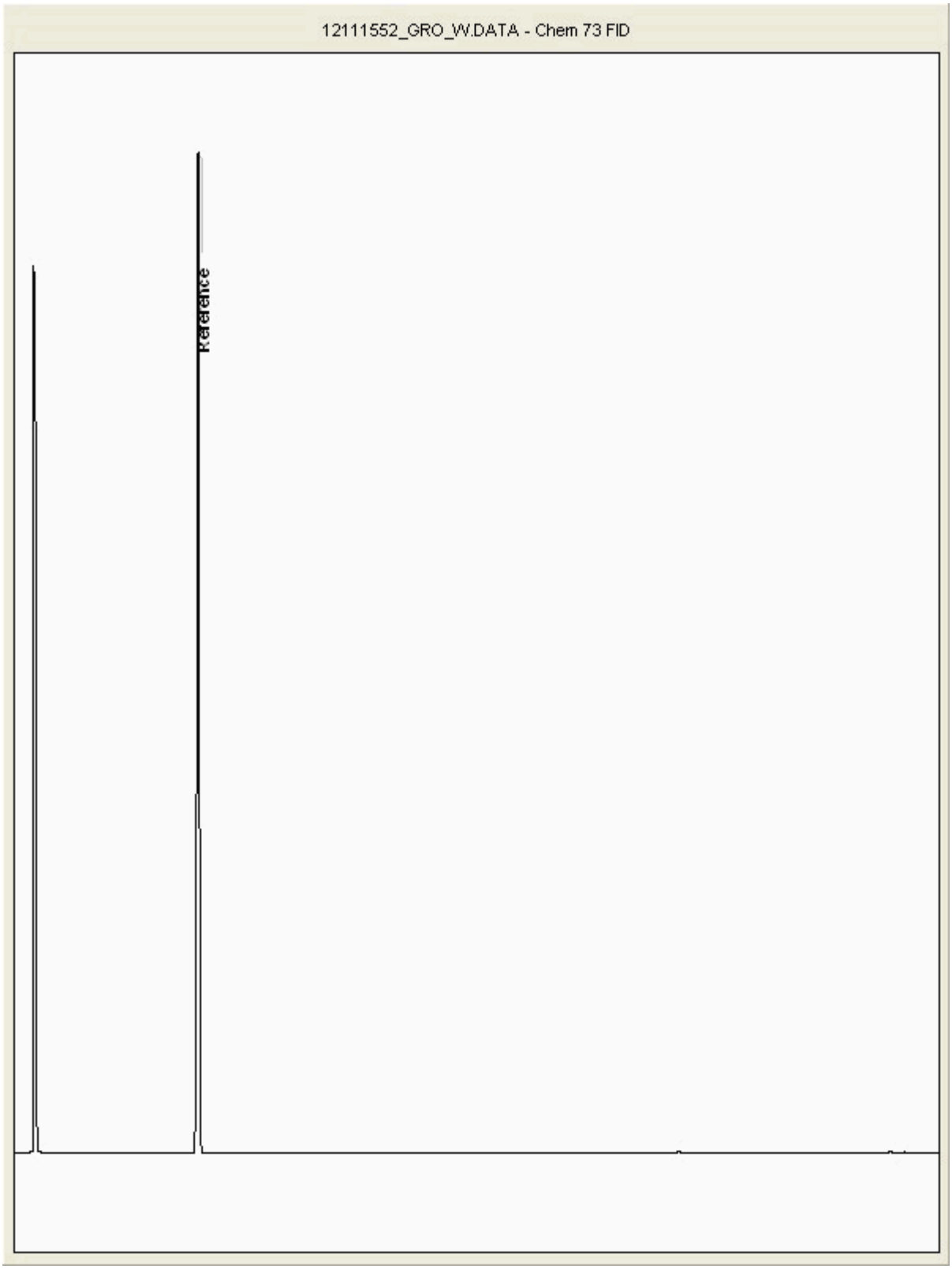
SDG:	150922-33	**Location:**	Shell Blackhorse	**Order Number:**	
Job:	H_URS_WIM-282	**Customer:**	AECOM	**Report Number:**	331469
Client Reference:	46370438	**Attention:**	Phil Allen	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 12111552
Sample ID : MW2

Depth : 6.91

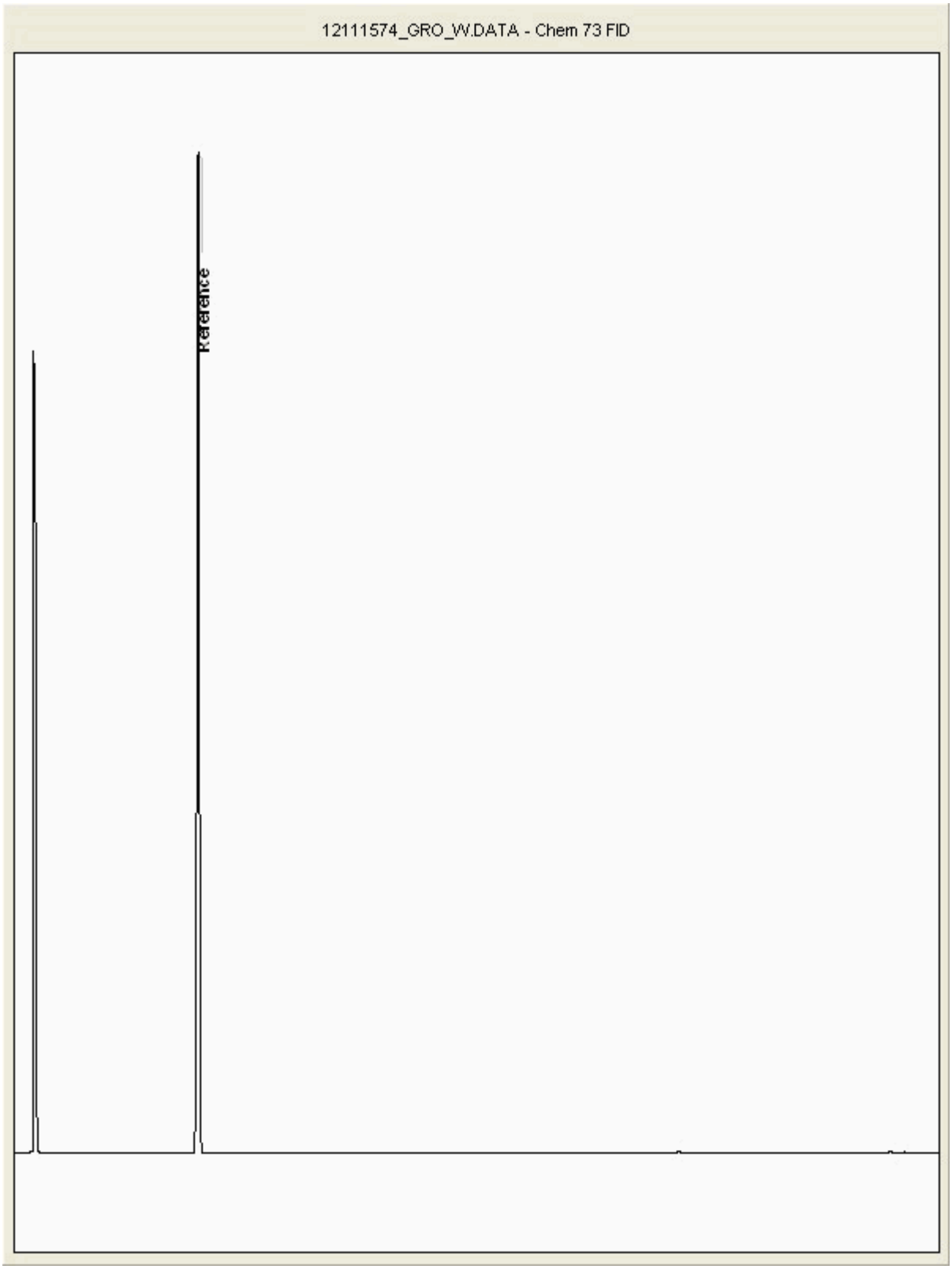


CERTIFICATE OF ANALYSIS

SDG:	150922-33	**Location:**	Shell Blackhorse	**Order Number:**	
Job:	H_URS_WIM-282	**Customer:**	AECOM	**Report Number:**	331469
Client Reference:	46370438	**Attention:**	Phil Allen	**Superseded Report:**	

Chromatogram

Analysis:	GRO by GC-FID (W)	**Sample No :**	12111574	**Depth :**	
		Sample ID :	Static		



CERTIFICATE OF ANALYSIS

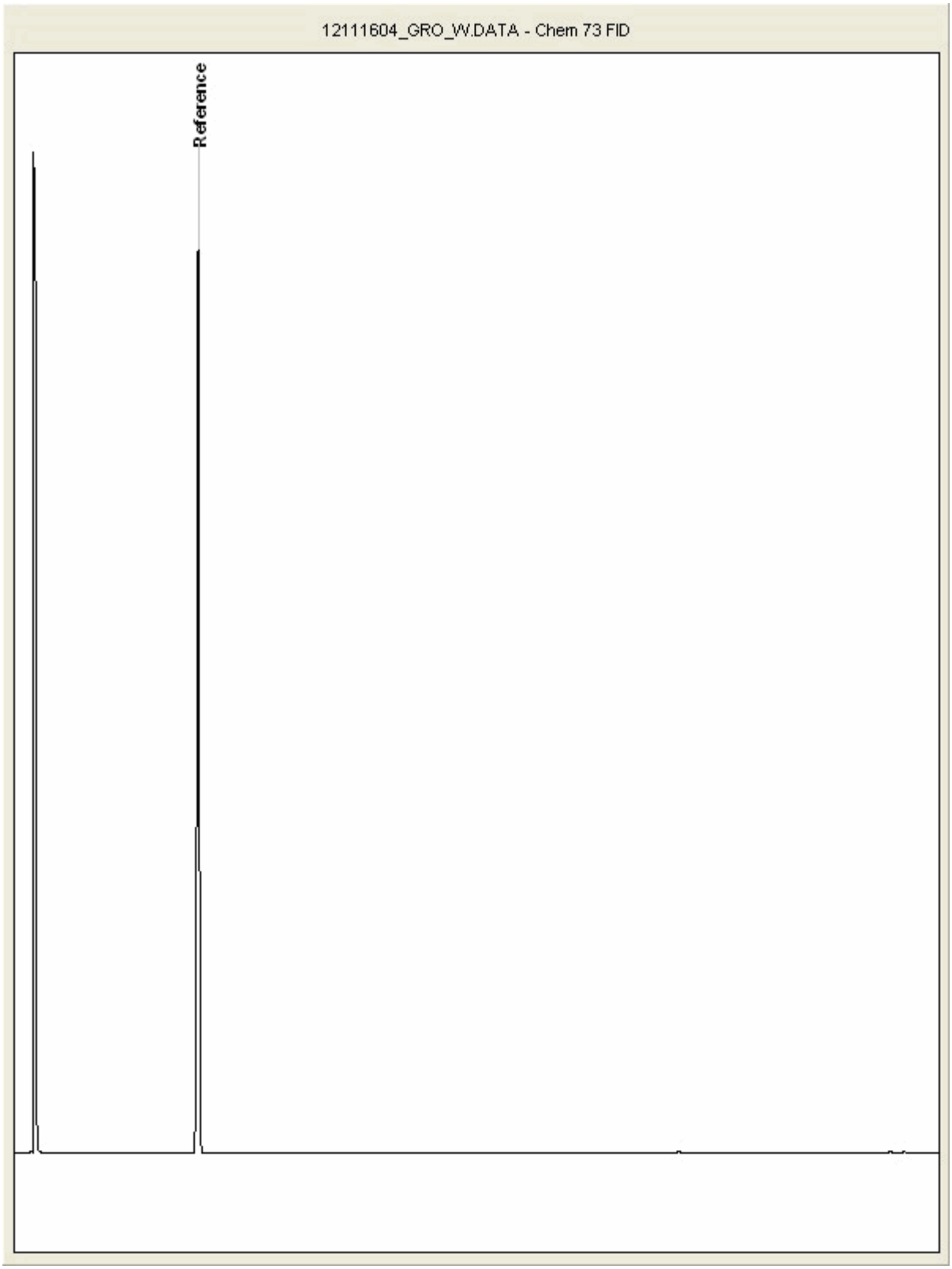
SDG:	150922-33	**Location:**	Shell Blackhorse	**Order Number:**	
Job:	H_URS_WIM-282	**Customer:**	AECOM	**Report Number:**	331469
Client Reference:	46370438	**Attention:**	Phil Allen	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 12111604
Sample ID : Dup

Depth : 7.00



CERTIFICATE OF ANALYSIS

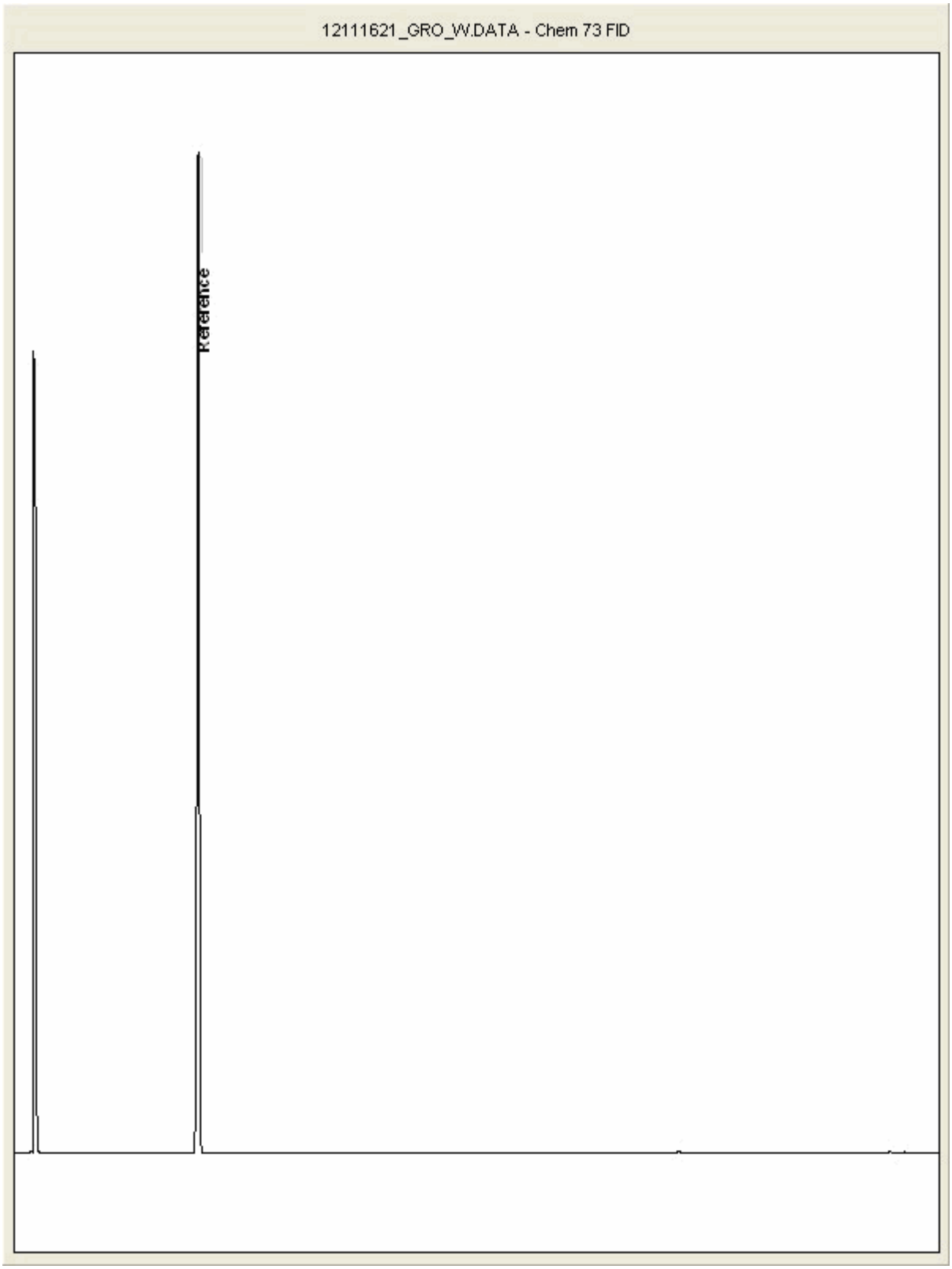
SDG:	150922-33	**Location:**	Shell Blackhorse	**Order Number:**	
Job:	H_URS_WIM-282	**Customer:**	AECOM	**Report Number:**	331469
Client Reference:	46370438	**Attention:**	Phil Allen	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 12111621
Sample ID : MW4

Depth : 7.00



CERTIFICATE OF ANALYSIS

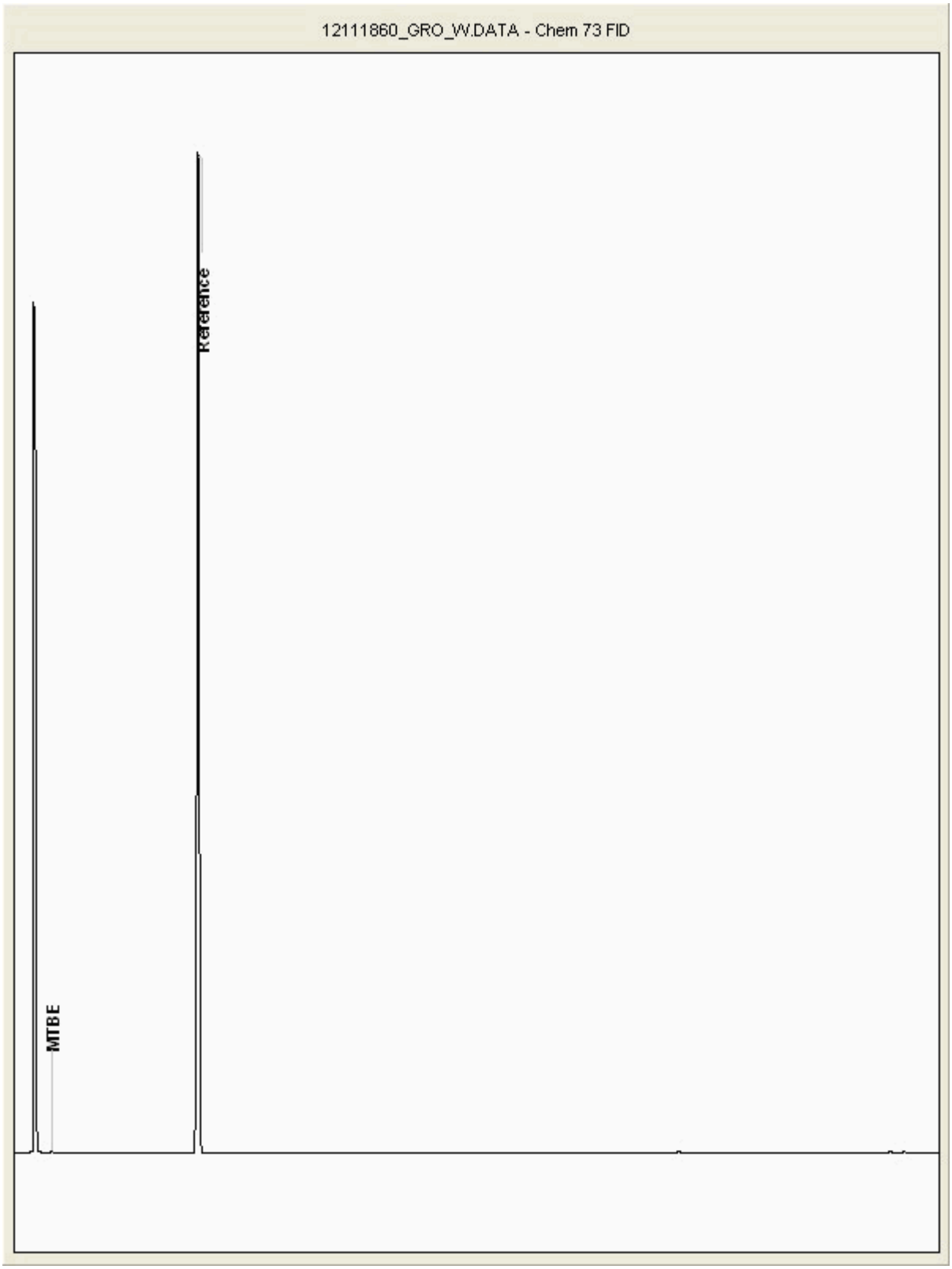
SDG:	150922-33	**Location:**	Shell Blackhorse	**Order Number:**	
Job:	H_URS_WIM-282	**Customer:**	AECOM	**Report Number:**	331469
Client Reference:	46370438	**Attention:**	Phil Allen	**Superseded Report:**	

Chromatogram

Analysis: GRO by GC-FID (W)

Sample No : 12111860
Sample ID : MW3

Depth : 7.00



CERTIFICATE OF ANALYSIS

SDG:	150922-33	**Location:**	Shell Blackhorse	**Order Number:**	
Job:	H_URS_WIM-282	**Customer:**	AECOM	**Report Number:**	331469
Client Reference:	46370438	**Attention:**	Phil Allen	**Superseded Report:**	

Appendix

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

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

3. If sufficient sample is received a sub sample will be retained free of charge for 30 days after analysis is completed (e-mailed) for both soil jars, tubs and volatile jars. All waters and vials will be discarded 10 days after the analysis is completed (e-mailed). All material removed during an asbestos containing material screen and analysed for the presence of asbestos will be retained for a period of 6 months after the analysis date. All samples received and not scheduled will be disposed of one month after the date of receipt unless we are instructed to the contrary. Once the initial period has expired, a storage charge will be applied for each month or part thereof until the client cancels the request for sample storage. ALcontrol Laboratories reserve the right to charge for samples received and stored but not analysed.

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

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

6. When requested, the individual sub sample scheduled will be screened in house for the presence of large asbestos containing material fragments/pieces. If no asbestos containing material is found this will be reported as 'no asbestos containing material detected'. If asbestos containing material is detected it will be removed and analysed by our documented in house method TM048 based on HSG 248 (2005), which is accredited to ISO17025. If asbestos containing material is present no further analysis will be undertaken. At no point is the fibre content of the soil sample determined.

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

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

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

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

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

12. Results relate only to the items tested

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

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

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

16. Total of 5 speciated phenols by HPLC includes Phenol, 2,3,5-Trimethyl Phenol, 2-Isopropylphenol, Cresols and Xylenols (as detailed in 14).

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

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

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

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

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

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

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

24. Analysis and identification of specific compounds using GCFID is by retention time only, and we routinely calibrate and quantify for benzene, toluene, ethylbenzenes and xylenes (BTEX). For total volatiles in the C4 -C10 range, the total area of the chromatogram is integrated and expressed as ug/kg or ug/l. Although this analysis is commonly used for the quantification of gasoline range organics (GRO), the system will also detect other compounds such as chlorinated solvents, and this may lead to a falsely high result with respect to hydrocarbons only. It is not possible to specifically identify these non-hydrocarbons, as standards are not routinely run for any other compounds, and for more definitive identification, volatiles by GCMS should be utilised.

SOLID MATRICES EXTRACTION SUMMARY

ANALYSIS	D/C OR WET	EXTRACTION SOLVENT	EXTRACTION METHOD	ANALYSIS
SOLVENT EXTRACTABLE MATTER	D&C	DCM	SOXTHERM	GRAVIMETRIC
CYCLOHEXANE EXT. MATTER	D&C	CYCLOHEXANE	SOXTHERM	GRAVIMETRIC
THIN LAYER CHROMATOGRAPHY	D&C	DCM	SOXTHERM	IATROSCAN
ELEMENTAL SULPHUR	D&C	DCM	SOXTHERM	HPLC
PHENOLS BY GCMS	WET	DCM	SOXTHERM	GC-MS
HERBICIDES	D&C	HEXANE/ACETONE	SOXTHERM	GC-MS
PESTICIDES	D&C	HEXANE/ACETONE	SOXTHERM	GC-MS
EPH (DRO)	D&C	HEXANE/ACETONE	END OVER END	GC-FID
EPH (MINOIL)	D&C	HEXANE/ACETONE	END OVER END	GC-FID
EPH (CLEANED UP)	D&C	HEXANE/ACETONE	END OVER END	GC-FID
EPH CWG BY GC	D&C	HEXANE/ACETONE	END OVER END	GC-FID
PCB TOT / PCB CON	D&C	HEXANE/ACETONE	END OVER END	GC-MS
POLYAROMATIC HYDROCARBONS (MS)	WET	HEXANE/ACETONE	MICROWAVE TM218.	GC-MS
C8-C40 (C8-C40) EZ FLASH	WET	HEXANE/ACETONE	SHAKER	GC-EZ
POLYAROMATIC HYDROCARBONS RAPID GC	WET	HEXANE/ACETONE	SHAKER	GC-EZ
SEMI VOLATILE ORGANIC COMPOUNDS	WET	DCM/ACETONE	SONICATE	GC-MS

LIQUID MATRICES EXTRACTION SUMMARY

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

Identification of Asbestos in Bulk Materials

The results for asbestos identification for soil samples are obtained from possible Asbestos Containing Material, removed during the 'Screening of soils for Asbestos Containing Materials', which have been examined to determine the presence of asbestos fibres using Alcontrol Laboratories (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2005).

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 MDHS 100.

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

Last Updated : 2010/09/08

SDG:	150922-33	**Location:**	Shell Blackhorse	**Order Number:**	
Job:	H_URS_WIM-282	**Customer:**	AECOM	**Report Number:**	331469
Client Reference:	46370438	**Attention:**	Phil Allen	**Superseded Report:**	

Appendix

General

1. Results are expressed on a dry weight basis (dried at 35ºC) for all soil analyses except for the following: NRA and CEN Leach tests, flash point LOI, pH, ammonium as NH_4 by the BRE method, VOC TICS and SVOC TICS.

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

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

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

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

6. When requested, the individual sub sample scheduled will be analysed in house for the presence of asbestos fibres and asbestos containing material by our documented in house method TM048 based on HSG 248 (2005), which is accredited to ISO17025. If a specific asbestos fibre type is not found this will be reported as “Not detected”. If no asbestos fibre types are found all will be reported as “Not detected” and the sub sample analysed deemed to be clear of asbestos. If an asbestos fibre type is found it will be reported as detected (for each fibre type found). Testing can be carried out on asbestos positive samples, but, due to Health and Safety considerations, may be replaced by alternative tests or reported as No Determination Possible. 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** - Surrogates are added to your sample to monitor recovery of the test requested. A % recovery is reported, results are not corrected for the recovery measured. Typical recoveries for organics tests are 70-130%, they are generally wider for volatiles analysis, 50-150%. Recoveries in soils are affected by organic rich or clay rich matrices. Waters can be affected by remediation fluids or high amounts of sediment. Test results are only ever reported if all of the associated quality checks pass; it is assumed that all recoveries outside of the values above are due to matrix affect.

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

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

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

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

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

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

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

21. For 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.

Sample Deviations

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

Asbestos

Identification of Asbestos in Bulk Materials & Soils

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

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

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

Visual Estimation Of Fibre Content

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

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

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

ALcontrol Laboratories

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Tel: (01244) 528700
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Website: www.alcontrol.com

AECOM
St. George's House
2nd Floor
5 St. George's Road
Wimbledon
Greater London
SW19 4DR

Attention: Phil Allen

CERTIFICATE OF ANALYSIS

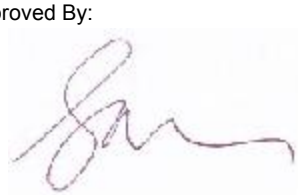
Date:	01 October 2015
Customer:	H_URS_WIM
Sample Delivery Group (SDG):	150923-55
Your Reference:	46370438
Location:	Shell Blackhorse
Report No:	331844

We received 4 samples on Wednesday September 23, 2015 and 4 of these samples were scheduled for analysis which was completed on Thursday October 01, 2015. Accredited laboratory tests are defined within the report, but opinions, interpretations and on-site data expressed herein are outside the scope of ISO 17025 accreditation.

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

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

Approved By:



Sonia McWhan

Operations Manager

CERTIFICATE OF ANALYSIS

SDG:	150923-55	**Location:**	Shell Blackhorse	**Order Number:**	
Job:	H_URS_WIM-282	**Customer:**	AECOM	**Report Number:**	331844
Client Reference:	46370438	**Attention:**	Phil Allen	**Superseded Report:**	

Received Sample Overview

Lab Sample No(s)	Customer Sample Ref.	AGS Ref.	Depth (m)	Sampled Date
12111201	TRIP BLANK 4229		0.00 - 0.00	22/09/2015
12111197	VM 1 651		1.33	22/09/2015
12111199	VM 2 224		1.33	22/09/2015
12111200	VM 3 199		1.33	22/09/2015

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

CERTIFICATE OF ANALYSIS

SDG: 150923-55
Job: H_URS_WIM-282
Client Reference: 46370438
Location: Shell Blackhorse
Customer: AECOM
Attention: Phil Allen
Order Number:
Report Number: 331844
Superseded Report:

GAS

Results Legend

X **Test**

N **No Determination Possible**

Lab Sample No(s)			12111201	12111197	12111199	12111200
Customer Sample Reference			TRIP BLANK 4229	VM 1 651	VM 2 224	VM 3 199
AGS Reference						
Depth (m)			0.00 - 0.00	1.33	1.33	1.33
Container			TD tube	TD tube	TD tube	TD tube
UST Gases	All	NDPs: 0 Tests: 4	X	X	X	X

CERTIFICATE OF ANALYSIS

SDG:	150923-55	**Location:**	Shell Blackhorse	**Order Number:**	
Job:	H_URS_WIM-282	**Customer:**	AECOM	**Report Number:**	331844
Client Reference:	46370438	**Attention:**	Phil Allen	**Superseded Report:**	

Results Legend

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

Component	LOD/Units	Method	Customer Sample R	TRIP BLANK 4229	VM 1 651	VM 2 224	VM 3 199		
			Depth (m)	0.00 - 0.00	1.33	1.33	1.33		
			Sample Type	Gas	Gas	Gas	Gas		
			Date Sampled	22/09/2015	22/09/2015	22/09/2015	22/09/2015		
			Sample Time	.	.	.	.		
			Date Received	23/09/2015	23/09/2015	23/09/2015	23/09/2015		
			SDG Ref	150923-55	150923-55	150923-55	150923-55		
			Lab Sample No.(s)	12111201	12111197	12111199	12111200		
			AGS Reference						
MTBE	ng	TM278		<10					
	ug/m³	TM278			<6.9	10	<6.9		
Hexane	ng	TM278		9.05					
	ug/m³	TM278			6.03	3.96	3.04		
DIPE	ng	TM278		<10					
	ug/m³	TM278			<6.9	<6.9	<6.9		
ETBE	ng	TM278		<10					
	ug/m³	TM278			<6.9	<6.9	<6.9		
Benzene	ng	TM278		<5					
	ug/m³	TM278			11.1	4.54	4.19		
TAME	ng	TM278		<10					
	ug/m³	TM278			<6.9	<6.9	<6.9		
Toluene	ng	TM278		2.83					
	ug/m³	TM278			59.1	36.5	13.9		
Octane	ng	TM278		<5					
	ug/m³	TM278			<3.45	<3.45	<3.45		
Ethylbenzene	ng	TM278		8.92					
	ug/m³	TM278			10.7	8.9	5.83		
p/m-Xylene	ng	TM278		5.74					
	ug/m³	TM278			31.1	26.3	13.1		
o-Xylene	ng	TM278		<2					
	ug/m³	TM278			11.4	9.77	5.36		
Decane	ng	TM278		<1.6					
	ug/m³	TM278			30.4	16.9	2.05		
1,2,3-Trimethylbenzene	ng	TM278		<6					
	ug/m³	TM278			<4.14	<4.14	<4.14		
Dodecane	ng	TM278		<6					
	ug/m³	TM278			<4.14	<4.14	<4.14		
Naphthalene	ng	TM278		<4					
	ug/m³	TM278			<2.76	<2.76	<2.76		
1-Methylnaphthalene	ng	TM278		<8					
	ug/m³	TM278			<5.52	<5.52	<5.52		

CERTIFICATE OF ANALYSIS

SDG:	150923-55	**Location:**	Shell Blackhorse	**Order Number:**	
Job:	H_URS_WIM-282	**Customer:**	AECOM	**Report Number:**	331844
Client Reference:	46370438	**Attention:**	Phil Allen	**Superseded Report:**	

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

Component	LOD/Units	Method	Customer Sample R	TRIP BLANK 4229	VM 1 651	VM 2 224	VM 3 199
			Depth (m)	0.00 - 0.00	1.33	1.33	1.33
			Sample Type	Gas	Gas	Gas	Gas
			Date Sampled	22/09/2015	22/09/2015	22/09/2015	22/09/2015
			Sample Time	.	.	.	.
			Date Received	23/09/2015	23/09/2015	23/09/2015	23/09/2015
			SDG Ref	150923-55	150923-55	150923-55	150923-55
			Lab Sample No.(s)	12111201	12111197	12111199	12111200
			AGS Reference				
GRO C6-C12	ng	TM278		<67			
	ug/m³	TM278			2250	1010	288

CERTIFICATE OF ANALYSIS

SDG:	150923-55	**Location:**	Shell Blackhorse	**Order Number:**	
Job:	H_URS_WIM-282	**Customer:**	AECOM	**Report Number:**	331844
Client Reference:	46370438	**Attention:**	Phil Allen	**Superseded Report:**	

Table of Results - Appendix

Method No	Reference	Description	Wet/Dry Sample [1]	Surrogate Corrected
TM278		Determination of Selective VOCs by TD-GC-MS		

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

CERTIFICATE OF ANALYSIS

SDG:	150923-55	**Location:**	Shell Blackhorse	**Order Number:**	
Job:	H_URS_WIM-282	**Customer:**	AECOM	**Report Number:**	331844
Client Reference:	46370438	**Attention:**	Phil Allen	**Superseded Report:**	

Test Completion Dates

Lab Sample No(s)	12111201	12111197	12111199	12111200
Customer Sample Ref.	TRIP BLANK 4229	VM 1 651	VM 2 224	VM 3 199
AGS Ref.				
Depth	0.00 - 0.00	1.33	1.33	1.33
Type	GAS	GAS	GAS	GAS
UST Gases	01-Oct-2015	01-Oct-2015	01-Oct-2015	01-Oct-2015

CERTIFICATE OF ANALYSIS

SDG:	150923-55	**Location:**	Shell Blackhorse	**Order Number:**	
Job:	H_URS_WIM-282	**Customer:**	AECOM	**Report Number:**	331844
Client Reference:	46370438	**Attention:**	Phil Allen	**Superseded Report:**	

ASSOCIATED AQC DATA

UST Gases

Component	Method Code	QC 1238
1,2,3-Trimethylbenzene raw	TM278	**91.0** 85.00 : 115.00
1-Methylnaphthalene raw	TM278	**91.2** 85.00 : 115.00
Benzene raw	TM278	**96.6** 85.00 : 115.00
Decane raw	TM278	**93.2** 85.00 : 115.00
DIPE raw	TM278	**97.0** 85.00 : 115.00
Dodecane raw	TM278	**97.0** 85.00 : 115.00
ETBE raw	TM278	**97.2** 85.00 : 115.00
Ethylbenzene raw	TM278	**94.6** 85.00 : 115.00
GRO C6 - C12 raw	TM278	**94.5** 83.79 : 121.12
Hexane raw	TM278	**99.8** 85.00 : 115.00
MTBE raw	TM278	**92.8** 85.00 : 115.00
Naphthalene raw	TM278	**90.2** 85.00 : 115.00
Octane raw	TM278	**96.0** 85.00 : 115.00
o-Xylene raw	TM278	**91.6** 85.00 : 115.00
p/m-Xylene raw	TM278	**94.1** 85.00 : 115.00
TAME raw	TM278	**98.0** 85.00 : 115.00
Toluene raw	TM278	**96.0** 85.00 : 115.00

The above information details the reference name of the analytical quality control sample (AQC) that has been run with the samples contained in this report for the different methods of analysis.
The figure detailed is the percentage recovery result for the AQC.
The subscript numbers below are the percentage recovery lower control limit (LCL) and the upper control limit (UCL). The percentage recovery result for the AQC should be between these limits to be statistically in control.

SDG:	150923-55	**Location:**	Shell Blackhorse	**Order Number:**	
Job:	H_URS_WIM-282	**Customer:**	AECOM	**Report Number:**	331844
Client Reference:	46370438	**Attention:**	Phil Allen	**Superseded Report:**	

Appendix

General

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

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

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

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

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

6. When requested, the individual sub sample scheduled will be analysed in house for the presence of asbestos fibres and asbestos containing material by our documented in house method TM048 based on HSG 248 (2005), which is accredited to ISO17025. If a specific asbestos fibre type is not found this will be reported as “Not detected”. If no asbestos fibre types are found all will be reported as “Not detected” and the sub sample analysed deemed to be clear of asbestos. If an asbestos fibre type is found it will be reported as detected (for each fibre type found). Testing can be carried out on asbestos positive samples, but, due to Health and Safety considerations, may be replaced by alternative tests or reported as No Determination Possible. 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** - Surrogates are added to your sample to monitor recovery of the test requested. A % recovery is reported, results are not corrected for the recovery measured. Typical recoveries for organics tests are 70-130%, they are generally wider for volatiles analysis, 50-150%. Recoveries in soils are affected by organic rich or clay rich matrices. Waters can be affected by remediation fluids or high amounts of sediment. Test results are only ever reported if all of the associated quality checks pass; it is assumed that all recoveries outside of the values above are due to matrix affect.

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

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

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

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

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

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

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

21. For 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.

Sample Deviations

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

Asbestos

Identification of Asbestos in Bulk Materials & Soils

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

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

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

Visual Estimation Of Fibre Content

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

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

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

ALcontrol Laboratories

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AECOM
St. George's House
2nd Floor
5 St. George's Road
Wimbledon
Greater London
SW19 4DR

Attention: Phil Allen

CERTIFICATE OF ANALYSIS

Date:	18 December 2015
Customer:	H_URS_WIM
Sample Delivery Group (SDG):	151202-56
Your Reference:	46370438
Location:	Shell Blackhorse
Report No:	342760

This report has been revised and directly supersedes 340898 in its entirety.

We received 4 samples on Wednesday December 02, 2015 and 4 of these samples were scheduled for analysis which was completed on Monday December 07, 2015. Accredited laboratory tests are defined within the report, but opinions, interpretations and on-site data expressed herein are outside the scope of ISO 17025 accreditation.

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

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

Approved By:

Sonia McWhan
Operations Manager

CERTIFICATE OF ANALYSIS

SDG:	151202-56	**Location:**	Shell Blackhorse	**Order Number:**	60479811
Job:	H_URS_WIM-282	**Customer:**	AECOM	**Report Number:**	342760
Client Reference:	46370438	**Attention:**	Phil Allen	**Superseded Report:**	340898

Received Sample Overview

Lab Sample No(s)	Customer Sample Ref.	AGS Ref.	Depth (m)	Sampled Date
12556160	MW201_0.65		0.65	01/12/2015
12556162	SB201_0.5		0.50	01/12/2015
12556164	SB202_0.8		0.80	01/12/2015
12556165	SB203_1.1		1.10	01/12/2015

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

CERTIFICATE OF ANALYSIS

SDG:	151202-56	**Location:**	Shell Blackhorse	**Order Number:**	60479811
Job:	H_URS_WIM-282	**Customer:**	AECOM	**Report Number:**	342760
Client Reference:	46370438	**Attention:**	Phil Allen	**Superseded Report:**	340898

SOLID

Results Legend

X Test

N No Determination Possible

			Lab Sample No(s)	Customer Sample Reference	AGS Reference	Depth (m)	Container
			12556160	MW201_0.65		0.65	1kg TUB
							250g Amber Jar
			12556162	SB201_0.5		0.50	1kg TUB
							250g Amber Jar
			12556164	SB202_0.8		0.80	1kg TUB
							250g Amber Jar
			12556165	SB203_1.1		1.10	1kg TUB
							250g Amber Jar
Asbestos ID in Solid Samples	All	NDPs: 0 Tests: 4	X	X	X	X	
EPH CWG (Aliphatic) GC (S)	All	NDPs: 0 Tests: 4	X	X	X	X	
EPH CWG (Aromatic) GC (S)	All	NDPs: 0 Tests: 4	X	X	X	X	
GRO by GC-FID (S)	All	NDPs: 0 Tests: 4	X	X	X	X	
Oxygenates (S)	All	NDPs: 0 Tests: 4	X	X	X	X	
PAH by GCMS	All	NDPs: 0 Tests: 4	X	X	X	X	
Sample description	All	NDPs: 0 Tests: 4	X	X	X	X	
VOC MS (S)	All	NDPs: 0 Tests: 4	X	X	X	X	

SDG:	151202-56	**Location:**	Shell Blackhorse	**Order Number:**	60479811
Job:	H_URS_WIM-282	**Customer:**	AECOM	**Report Number:**	342760
Client Reference:	46370438	**Attention:**	Phil Allen	**Superseded Report:**	340898

Sample Descriptions

Grain Sizes

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

Lab Sample No(s)	Customer Sample Ref.	Depth (m)	Colour	Description	Grain size	Inclusions	Inclusions 2
12556160	MW201_0.65	0.65	Dark Brown	Sand	0.1 - 2 mm	Stones	None
12556162	SB201_0.5	0.50	Dark Brown	Sand	0.1 - 2 mm	Brick	Stones
12556164	SB202_0.8	0.80	Dark Brown	Sand	> 10 mm	Stones	None
12556165	SB203_1.1	1.10	Dark Brown	Sand	0.1 - 2 mm	Stones	Vegetation

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

We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials - whether these are derived from naturally ocurring soil profiles, or from fill/made ground, as long as these materials constitute the major part of the sample.

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

CERTIFICATE OF ANALYSIS

SDG:	151202-56	**Location:**	Shell Blackhorse	**Order Number:**	60479811
Job:	H_URS_WIM-282	**Customer:**	AECOM	**Report Number:**	342760
Client Reference:	46370438	**Attention:**	Phil Allen	**Superseded Report:**	340898

Results Legend

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

Component	LOD/Units	Method	Customer Sample Ref.	MW201_0.65	SB201_0.5	SB202_0.8	SB203_1.1		
			Depth (m)	0.65	0.50	0.80	1.10		
			Sample Type	Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid		
			Date Sampled	01/12/2015	01/12/2015	01/12/2015	01/12/2015		
			Sampled Time	.	.	.	.		
			Date Received	02/12/2015	02/12/2015	02/12/2015	02/12/2015		
			SDG Ref	151202-56	151202-56	151202-56	151202-56		
			Lab Sample No.(s)	12556160	12556162	12556164	12556165		
			AGS Reference						
Moisture Content Ratio (% of as received sample)	%	PM024		8.2	8.9	17	9.4		
Ethanol	<50 µg/kg	TM288		<50	<50	<50	<50		
tert Butanol	<10 µg/kg	TM288		<10	<10	<10	<10		
Diisopropyl ether	<1 µg/kg	TM288		<1	<1	<1	<1		
tert-butyl ethyl ether	<1 µg/kg	TM288		<1	<1	<1	<1		

CERTIFICATE OF ANALYSIS

SDG:	151202-56	**Location:**	Shell Blackhorse	**Order Number:**	60479811
Job:	H_URS_WIM-282	**Customer:**	AECOM	**Report Number:**	342760
Client Reference:	46370438	**Attention:**	Phil Allen	**Superseded Report:**	340898

EPH CWG (Aliphatic) GC (S)

Results Legend

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

Component	LOD/Units	Method	Customer Sample Ref.	Depth (m)	Sample Type	Date Sampled	Sampled Time	Date Received	SDG Ref	Lab Sample No.(s)	AGS Reference
			MW201_0.65	0.65	Soil/Solid	01/12/2015	.	02/12/2015	151202-56	12556160	
			SB201_0.5	0.50	Soil/Solid	01/12/2015	.	02/12/2015	151202-56	12556162	
			SB202_0.8	0.80	Soil/Solid	01/12/2015	.	02/12/2015	151202-56	12556164	
			SB203_1.1	1.10	Soil/Solid	01/12/2015	.	02/12/2015	151202-56	12556165	
Aliphatics >C12-C16	<100 µg/kg	TM173	<100								
Aliphatics >C16-C21	<100 µg/kg	TM173	<100								
Aliphatics >C21-C35	<100 µg/kg	TM173	4080								
Aliphatics >C35-C44	<100 µg/kg	TM173	485								

CERTIFICATE OF ANALYSIS

SDG:	151202-56	**Location:**	Shell Blackhorse	**Order Number:**	60479811
Job:	H_URS_WIM-282	**Customer:**	AECOM	**Report Number:**	342760
Client Reference:	46370438	**Attention:**	Phil Allen	**Superseded Report:**	340898

EPH CWG (Aromatic) GC (S)

Results Legend

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

Component	LOD/Units	Method	Customer Sample Ref.	Depth (m)	Sample Type	Date Sampled	Sampled Time	Date Received	SDG Ref	Lab Sample No.(s)	AGS Reference
			MW201_0.65	0.65	Soil/Solid	01/12/2015	.	02/12/2015	151202-56	12556160	
			SB201_0.5	0.50	Soil/Solid	01/12/2015	.	02/12/2015	151202-56	12556162	
			SB202_0.8	0.80	Soil/Solid	01/12/2015	.	02/12/2015	151202-56	12556164	
			SB203_1.1	1.10	Soil/Solid	01/12/2015	.	02/12/2015	151202-56	12556165	
Aromatics >EC12-EC16	<100 µg/kg	TM173	<100								
Aromatics >EC16-EC21	<100 µg/kg	TM173	478								
Aromatics >EC21-EC35	<100 µg/kg	TM173	6930								

CERTIFICATE OF ANALYSIS

SDG:	151202-56	**Location:**	Shell Blackhorse	**Order Number:**	60479811
Job:	H_URS_WIM-282	**Customer:**	AECOM	**Report Number:**	342760
Client Reference:	46370438	**Attention:**	Phil Allen	**Superseded Report:**	340898

GRO by GC-FID (S)

Results Legend

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

Component	LOD/Units	Method	Customer Sample Ref.	MW201_0.65	SB201_0.5	SB202_0.8	SB203_1.1		
			Depth (m)	0.65	0.50	0.80	1.10		
			Sample Type	Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid		
			Date Sampled	01/12/2015	01/12/2015	01/12/2015	01/12/2015		
			Sampled Time	.	.	.	.		
			Date Received	02/12/2015	02/12/2015	02/12/2015	02/12/2015		
			SDG Ref	151202-56	151202-56	151202-56	151202-56		
			Lab Sample No.(s)	12556160	12556162	12556164	12556165		
			AGS Reference						
GRO Surrogate % recovery**	%	TM089		75	106	76	123		
Aliphatics >C5-C6	<10 µg/kg	TM089		<10	<10	<10	<10		
Aliphatics >C6-C8	<10 µg/kg	TM089		<10	<10	<10	<10		
Aliphatics >C8-C10	<10 µg/kg	TM089		<10	<10	<10	<10		
Aliphatics >C10-C12	<10 µg/kg	TM089		<10	<10	<10	<10		
Aromatics >EC5-EC7	<10 µg/kg	TM089		<10	<10	<10	<10		
Aromatics >EC7-EC8	<10 µg/kg	TM089		<10	<10	<10	<10		
Aromatics >EC8-EC10	<10 µg/kg	TM089		<10	<10	<10	<10		
Aromatics >EC10-EC12	<10 µg/kg	TM089		<10	<10	<10	<10		

CERTIFICATE OF ANALYSIS

SDG:	151202-56	**Location:**	Shell Blackhorse	**Order Number:**	60479811
Job:	H_URS_WIM-282	**Customer:**	AECOM	**Report Number:**	342760
Client Reference:	46370438	**Attention:**	Phil Allen	**Superseded Report:**	340898

PAH by GCMS

Results Legend

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

Component	LOD/Units	Method	Customer Sample Ref.	MW201_0.65	SB201_0.5	SB202_0.8	SB203_1.1		
			Depth (m)	0.65	0.50	0.80	1.10		
			Sample Type	Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid		
			Date Sampled	01/12/2015	01/12/2015	01/12/2015	01/12/2015		
			Sampled Time	.	.	.	.		
			Date Received	02/12/2015	02/12/2015	02/12/2015	02/12/2015		
			SDG Ref	151202-56	151202-56	151202-56	151202-56		
			Lab Sample No.(s)	12556160	12556162	12556164	12556165		
			AGS Reference						
Naphthalene-d8 % recovery**	%	TM218		94.1	93.9	89.8	94		
Acenaphthene-d10 % recovery**	%	TM218		91	90.8	83.7	91.9		
Phenanthrene-d10 % recovery**	%	TM218		88.5	87.7	81.3	88.9		
Chrysene-d12 % recovery**	%	TM218		88.6	86.7	78.9	87.2		
Perylene-d12 % recovery**	%	TM218		89.6	86.4	78.1	86.6		
Naphthalene	<9 µg/kg	TM218		<9 M	<9 M	<9 M	<9 M		
Acenaphthylene	<12 µg/kg	TM218		18.2 M	<12 M	<12 M	<12 M		
Acenaphthene	<8 µg/kg	TM218		<8 M	<8 M	<8 M	<8 M		
Fluorene	<10 µg/kg	TM218		<10 M	<10 M	<10 M	<10 M		
Phenanthrene	<15 µg/kg	TM218		35.8 M	48.3 M	61.4 M	22.2 M		
Anthracene	<16 µg/kg	TM218		<16 M	<16 M	<16 M	<16 M		
Fluoranthene	<17 µg/kg	TM218		60.5 M	90.8 M	105 M	49.9 M		
Pyrene	<15 µg/kg	TM218		55.3 M	77 M	88.2 M	42.2 M		
Benz(a)anthracene	<14 µg/kg	TM218		55.7 M	62.2 M	73.4 M	35.3 M		
Chrysene	<10 µg/kg	TM218		54.8 M	53.4 M	64.3 M	34.1 M		
Benzo(b)fluoranthene	<15 µg/kg	TM218		129 M	107 M	104 M	43 M		
Benzo(k)fluoranthene	<14 µg/kg	TM218		52.6 M	38.5 M	<14 M	<14 M		
Benzo(a)pyrene	<15 µg/kg	TM218		86.4 M	71.1 M	72.4 M	32.1 M		
Indeno(1,2,3-cd)pyrene	<18 µg/kg	TM218		80.4 M	50.6 M	48.5 M	27 M		
Dibenzo(a,h)anthracene	<23 µg/kg	TM218		<23 M	<23 M	<23 M	<23 M		
Benzo(g,h,i)perylene	<24 µg/kg	TM218		95.4 M	61.8 M	63.1 M	36.5 M		
PAH, Total Detected USEPA 16	<118 µg/kg	TM218		724	661	680	322		

CERTIFICATE OF ANALYSIS

SDG:	151202-56	**Location:**	Shell Blackhorse	**Order Number:**	60479811
Job:	H_URS_WIM-282	**Customer:**	AECOM	**Report Number:**	342760
Client Reference:	46370438	**Attention:**	Phil Allen	**Superseded Report:**	340898

VOC MS (S)

Results Legend

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

Component	LOD/Units	Method	Customer Sample Ref.	MW201_0.65	SB201_0.5	SB202_0.8	SB203_1.1		
			Depth (m)	0.65	0.50	0.80	1.10		
			Sample Type	Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid		
			Date Sampled	01/12/2015	01/12/2015	01/12/2015	01/12/2015		
			Sampled Time	.	.	.	.		
			Date Received	02/12/2015	02/12/2015	02/12/2015	02/12/2015		
			SDG Ref	151202-56	151202-56	151202-56	151202-56		
			Lab Sample No.(s)	12556160	12556162	12556164	12556165		
			AGS Reference						
Toluene-d8**	%	TM116		94.5	95.2	93.3	95.3		
Methyl Tertiary Butyl Ether	<10 µg/kg	TM116		<10 M	<10 M	<10 M	<10 M		
Benzene	<9 µg/kg	TM116		<9 M	<9 M	<9 M	<9 M		
Toluene	<7 µg/kg	TM116		<7 M	<7 M	<7 M	<7 M		
Ethylbenzene	<4 µg/kg	TM116		<4 M	<4 M	<4 M	<4 M		
p/m-Xylene	<10 µg/kg	TM116		<10 #	<10 #	<10 #	<10 #		
o-Xylene	<10 µg/kg	TM116		<10 M	<10 M	<10 M	<10 M		
Tert-amyl methyl ether	<10 µg/kg	TM116		<10 #	<10 #	<10 #	<10 #		

CERTIFICATE OF ANALYSIS

SDG:	151202-56	**Location:**	Shell Blackhorse	**Order Number:**	60479811
Job:	H_URS_WIM-282	**Customer:**	AECOM	**Report Number:**	342760
Client Reference:	46370438	**Attention:**	Phil Allen	**Superseded Report:**	340898

Asbestos Identification - Soil

		Date of Analysis	Analysed By	Comments	Amosite (Brown) Asbestos	Chrysotile (White) Asbestos	Crocidolite (Blue) Asbestos	Fibrous Actinolite	Fibrous Anthophyllite	Fibrous Tremolite	Non-Asbestos Fibre
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Receieved SDG Original Sample Method Number	MW201_0.65 0.65 SOLID 01/12/2015 00:00:00 02/12/2015 20:31:10 151202-56 12556160 TM048	04/12/15	Chris Swindells	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Receieved SDG Original Sample Method Number	SB201_0.5 0.50 SOLID 01/12/2015 00:00:00 02/12/2015 20:32:21 151202-56 12556162 TM048	04/12/15	Chris Swindells	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Receieved SDG Original Sample Method Number	SB202_0.8 0.80 SOLID 01/12/2015 00:00:00 02/12/2015 20:28:52 151202-56 12556164 TM048	04/12/15	Chris Swindells	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Receieved SDG Original Sample Method Number	SB203_1.1 1.10 SOLID 01/12/2015 00:00:00 02/12/2015 20:34:17 151202-56 12556165 TM048	04/12/15	Chris Swindells	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected

CERTIFICATE OF ANALYSIS

SDG:	151202-56	**Location:**	Shell Blackhorse	**Order Number:**	60479811
Job:	H_URS_WIM-282	**Customer:**	AECOM	**Report Number:**	342760
Client Reference:	46370438	**Attention:**	Phil Allen	**Superseded Report:**	340898

SDG:	151202-56	**Location:**	Shell Blackhorse	**Order Number:**	60479811
Job:	H_URS_WIM-282	**Customer:**	AECOM	**Report Number:**	342760
Client Reference:	46370438	**Attention:**	Phil Allen	**Superseded Report:**	340898

Table of Results - Appendix

Method No	Reference	Description	Wet/Dry Sample [1]	Surrogate Corrected
ASB_PREP				
PM024	Modified BS 1377	Soil preparation including homogenisation, moisture screens of soils for Asbestos Containing Material		
TM048	HSG 248, Asbestos: The analysts' guide for sampling, analysis and clearance procedures	Identification of Asbestos in Bulk Material		
TM089	Modified: US EPA Methods 8020 & 602	Determination of Gasoline Range Hydrocarbons (GRO) and BTEX (MTBE) compounds by Headspace GC-FID (C4-C12)		
TM116	Modified: US EPA Method 8260, 8120, 8020, 624, 610 & 602	Determination of Volatile Organic Compounds by Headspace / GC-MS		
TM173	Analysis of Petroleum Hydrocarbons in Environmental Media – Total Petroleum Hydrocarbon Criteria	Determination of Speciated Extractable Petroleum Hydrocarbons in Soils by GC-FID		
TM218	Microwave extraction – EPA method 3546	Microwave extraction - EPA method 3546		
TM288		Determination of Oxygenates in Soils by Headspace/GC-MS		

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

CERTIFICATE OF ANALYSIS

SDG:	151202-56	**Location:**	Shell Blackhorse	**Order Number:**	60479811
Job:	H_URS_WIM-282	**Customer:**	AECOM	**Report Number:**	342760
Client Reference:	46370438	**Attention:**	Phil Allen	**Superseded Report:**	340898

Test Completion Dates

Lab Sample No(s)	12556160	12556162	12556164	12556165
Customer Sample Ref.	MW201_0.65	SB201_0.5	SB202_0.8	SB203_1.1
AGS Ref.				
Depth	0.65	0.50	0.80	1.10
Type	SOLID	SOLID	SOLID	SOLID
Asbestos ID in Solid Samples	04-Dec-2015	04-Dec-2015	04-Dec-2015	04-Dec-2015
EPH CWG (Aliphatic) GC (S)	04-Dec-2015	04-Dec-2015	04-Dec-2015	04-Dec-2015
EPH CWG (Aromatic) GC (S)	04-Dec-2015	04-Dec-2015	04-Dec-2015	04-Dec-2015
GRO by GC-FID (S)	03-Dec-2015	03-Dec-2015	03-Dec-2015	03-Dec-2015
Oxygenates (S)	03-Dec-2015	03-Dec-2015	03-Dec-2015	03-Dec-2015
PAH by GCMS	07-Dec-2015	07-Dec-2015	07-Dec-2015	07-Dec-2015
Sample description	02-Dec-2015	03-Dec-2015	02-Dec-2015	02-Dec-2015
VOC MS (S)	04-Dec-2015	04-Dec-2015	04-Dec-2015	04-Dec-2015

SDG:	151202-56	**Location:**	Shell Blackhorse	**Order Number:**	60479811
Job:	H_URS_WIM-282	**Customer:**	AECOM	**Report Number:**	342760
Client Reference:	46370438	**Attention:**	Phil Allen	**Superseded Report:**	340898

ASSOCIATED AQC DATA

EPH CWG (Aliphatic) GC (S)

Component	Method Code	QC 1279
Total Aliphatics >C12-C35	TM173	**87.71** 68.25 : 114.73

EPH CWG (Aromatic) GC (S)

Component	Method Code	QC 1279
Total Aromatics >EC12-EC35	TM173	**88.67** 60.67 : 124.27

GRO by GC-FID (S)

Component	Method Code	QC 1281
Benzene by GC (Moisture Corrected)	TM089	**106.0** 76.23 : 120.71
Ethylbenzene by GC (Moisture Corrected)	TM089	**107.0** 73.32 : 122.02
m & p Xylene by GC (Moisture Corrected)	TM089	**106.75** 72.90 : 122.64
MTBE GC-FID (Moisture Corrected)	TM089	**99.0** 72.17 : 124.81
o Xylene by GC (Moisture Corrected)	TM089	**107.0** 71.65 : 124.40
QC	TM089	**94.12** 74.05 : 133.87
Toluene by GC (Moisture Corrected)	TM089	**105.5** 74.60 : 120.38

Oxygenates (S)

Component	Method Code	QC 1200
Benzene raw	TM288	**98.5** 77.75 : 124.62
Diisopropyl ether raw	TM288	**90.25** 81.07 : 125.84
Ethanol raw	TM288	**136.0** 12.71 : 182.13
Ethylbenzene raw	TM288	**108.25** 86.91 : 124.43
o-Xylene raw	TM288	**97.75** 82.52 : 115.85
p/m-Xylene raw	TM288	**105.25** 82.74 : 124.08
tert Butanol raw	TM288	**130.5** 27.29 : 165.57
tert-amyl methyl ether raw	TM288	**91.5** 82.15 : 125.05

CERTIFICATE OF ANALYSIS

SDG:	151202-56	**Location:**	Shell Blackhorse	**Order Number:**	60479811
Job:	H_URS_WIM-282	**Customer:**	AECOM	**Report Number:**	342760
Client Reference:	46370438	**Attention:**	Phil Allen	**Superseded Report:**	340898

Oxygenates (S)

		QC 1200
tert-butyl ethyl ether raw	TM288	**89.75** 81.24 : 125.04
tert-butyl methyl ether raw	TM288	**93.5** 80.97 : 130.09
Toluene raw	TM288	**94.5** 78.97 : 116.51

PAH by GCMS

Component	Method Code	QC 1252
Acenaphthene	TM218	**90.5** 78.41 : 114.87
Acenaphthylene	TM218	**82.5** 72.38 : 111.60
Anthracene	TM218	**84.5** 72.78 : 117.53
Benz(a)anthracene	TM218	**95.0** 79.50 : 130.50
Benzo(a)pyrene	TM218	**95.0** 79.50 : 130.50
Benzo(b)fluoranthene	TM218	**99.0** 78.10 : 127.57
Benzo(ghi)perylene	TM218	**96.0** 81.67 : 122.61
Benzo(k)fluoranthene	TM218	**97.5** 81.20 : 118.10
Chrysene	TM218	**91.0** 80.60 : 117.80
Dibenzo(ah)anthracene	TM218	**98.0** 77.93 : 124.42
Fluoranthene	TM218	**89.5** 80.39 : 114.39
Fluorene	TM218	**89.5** 79.50 : 118.50
Indeno(123cd)pyrene	TM218	**95.5** 80.30 : 128.30
Naphthalene	TM218	**93.5** 82.25 : 118.25
Phenanthrene	TM218	**90.0** 71.53 : 114.48
Pyrene	TM218	**88.0** 79.12 : 114.39

VOC MS (S)

Component	Method Code	QC 1259
1,1,1,2-tetrachloroethane	TM116	**101.4** 76.60 : 121.00
1,1,1-Trichloroethane	TM116	**101.2** 77.80 : 123.40
1,1,2-Trichloroethane	TM116	**96.6** 75.40 : 119.80
1,1-Dichloroethane	TM116	**103.2** 80.84 : 124.49

SDG:	151202-56	**Location:**	Shell Blackhorse	**Order Number:**	60479811
Job:	H_URS_WIM-282	**Customer:**	AECOM	**Report Number:**	342760
Client Reference:	46370438	**Attention:**	Phil Allen	**Superseded Report:**	340898

VOC MS (S)

		QC 1259
1,2-Dichloroethane	TM116	**115.0** 88.45 : 118.84
1,4-Dichlorobenzene	TM116	**93.4** 80.88 : 114.60
2-Chlorotoluene	TM116	**90.0** 74.00 : 117.20
4-Chlorotoluene	TM116	**86.4** 71.20 : 113.20
Benzene	TM116	**100.8** 79.60 : 125.20
Carbon Disulphide	TM116	**101.2** 74.91 : 122.14
Carbontetrachloride	TM116	**110.4** 87.07 : 120.37
Chlorobenzene	TM116	**100.2** 83.47 : 116.82
Chloroform	TM116	**111.2** 82.00 : 128.80
Chloromethane	TM116	**114.8** 68.36 : 154.01
Cis-1,2-Dichloroethene	TM116	**116.2** 81.20 : 128.00
Dibromomethane	TM116	**98.8** 73.40 : 116.60
Dichloromethane	TM116	**120.4** 86.60 : 137.00
Ethylbenzene	TM116	**97.8** 73.60 : 115.60
Hexachlorobutadiene	TM116	**116.0** 42.69 : 142.65
Isopropylbenzene	TM116	**96.4** 72.52 : 117.52
Naphthalene	TM116	**107.0** 83.23 : 126.48
o-Xylene	TM116	**85.2** 69.60 : 110.40
p/m-Xylene	TM116	**93.0** 71.30 : 112.70
Sec-Butylbenzene	TM116	**107.6** 59.20 : 125.20
Tetrachloroethene	TM116	**112.6** 85.92 : 127.92
Toluene	TM116	**92.0** 76.08 : 110.17
Trichloroethene	TM116	**100.8** 78.17 : 121.37
Trichlorofluoromethane	TM116	**127.8** 83.78 : 132.82
Vinyl Chloride	TM116	**98.2** 66.81 : 138.46

CERTIFICATE OF ANALYSIS

SDG:	151202-56	**Location:**	Shell Blackhorse	**Order Number:**	60479811
Job:	H_URS_WIM-282	**Customer:**	AECOM	**Report Number:**	342760
Client Reference:	46370438	**Attention:**	Phil Allen	**Superseded Report:**	340898

The above information details the reference name of the analytical quality control sample (AQC) that has been run with the samples contained in this report for the different methods of analysis.
The figure detailed is the percentage recovery result for the AQC.
The subscript numbers below are the percentage recovery lower control limit (LCL) and the upper control limit (UCL). The percentage recovery result for the AQC should be between these limits to be statistically in control.

CERTIFICATE OF ANALYSIS

SDG:	151202-56	**Location:**	Shell Blackhorse	**Order Number:**	60479811
Job:	H_URS_WIM-282	**Customer:**	AECOM	**Report Number:**	342760
Client Reference:	46370438	**Attention:**	Phil Allen	**Superseded Report:**	340898

Chromatogram

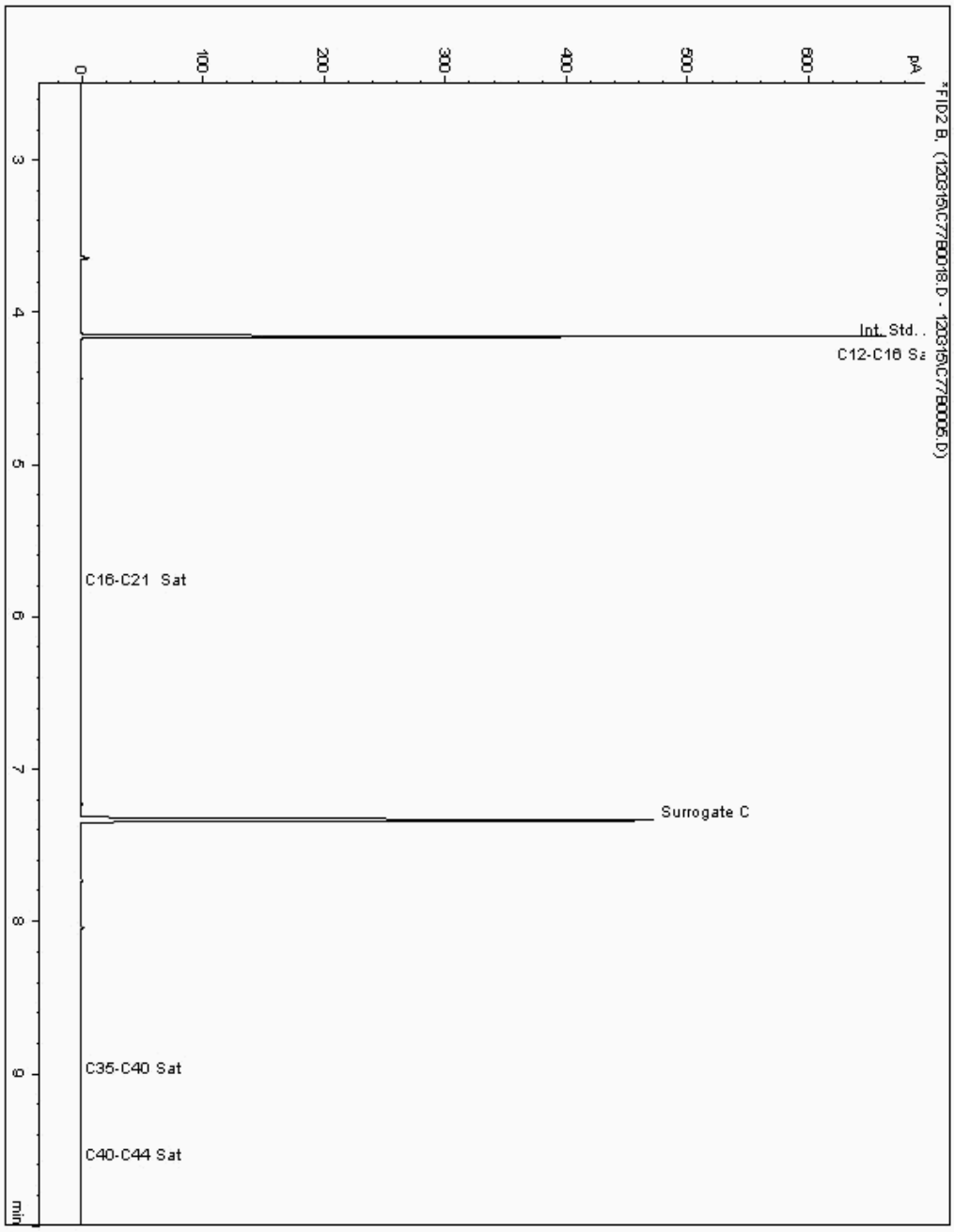
Analysis: EPH CWG (Aliphatic) GC (S)

Sample No : 12560069
Sample ID : SB201_0.5

Depth : 0.50

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

Sample Identity: 11870805-
Date Acquired : 03/12/2015 19:02:30 PM
Units : ppb
Dilution :
CF : 1
Multiplier : 1.016



CERTIFICATE OF ANALYSIS

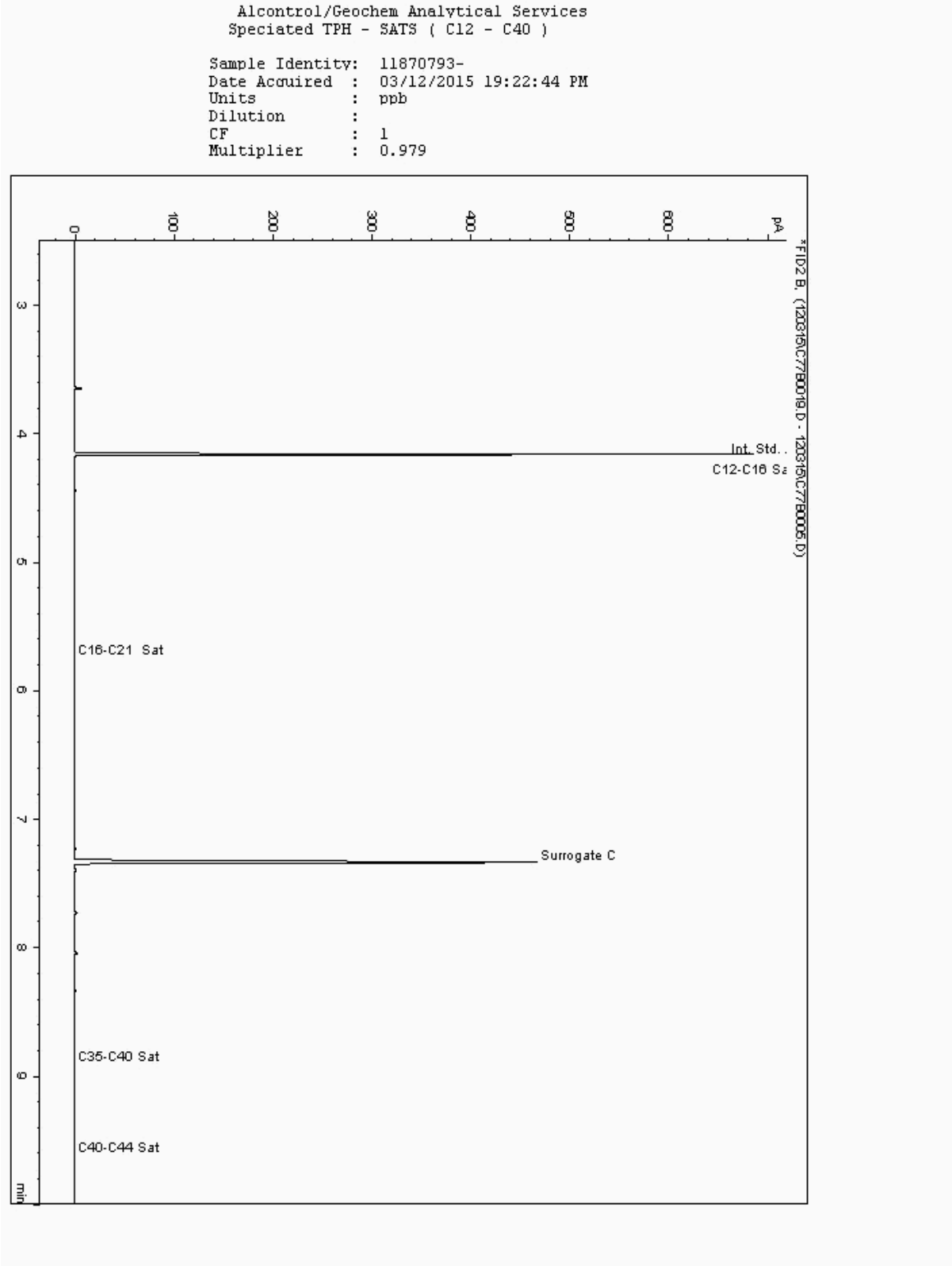
SDG:	151202-56	**Location:**	Shell Blackhorse	**Order Number:**	60479811
Job:	H_URS_WIM-282	**Customer:**	AECOM	**Report Number:**	342760
Client Reference:	46370438	**Attention:**	Phil Allen	**Superseded Report:**	340898

Chromatogram

Analysis: EPH CWG (Aliphatic) GC (S)

Sample No : 12560073
Sample ID : MW201_0.65

Depth : 0.65



CERTIFICATE OF ANALYSIS

SDG:	151202-56	**Location:**	Shell Blackhorse	**Order Number:**	60479811
Job:	H_URS_WIM-282	**Customer:**	AECOM	**Report Number:**	342760
Client Reference:	46370438	**Attention:**	Phil Allen	**Superseded Report:**	340898

Chromatogram

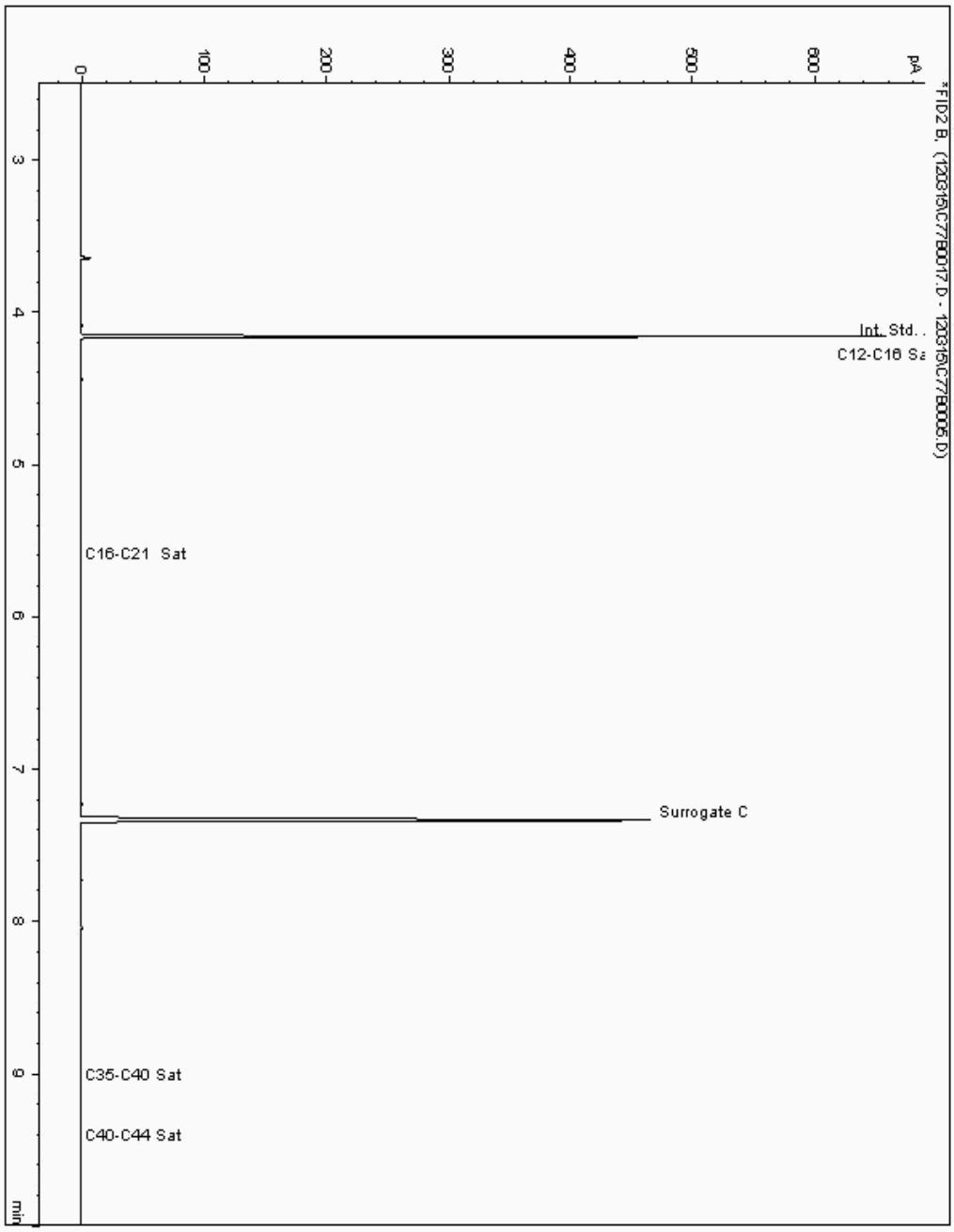
Analysis: EPH CWG (Aliphatic) GC (S)

Sample No : 12560077
Sample ID : SB203_1.1

Depth : 1.10

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

Sample Identity: 11870834-
Date Acquired : 03/12/2015 18:42:17 PM
Units : ppb
Dilution :
CF : 1
Multiplier : 1.009



CERTIFICATE OF ANALYSIS

SDG:	151202-56	**Location:**	Shell Blackhorse	**Order Number:**	60479811
Job:	H_URS_WIM-282	**Customer:**	AECOM	**Report Number:**	342760
Client Reference:	46370438	**Attention:**	Phil Allen	**Superseded Report:**	340898

Chromatogram

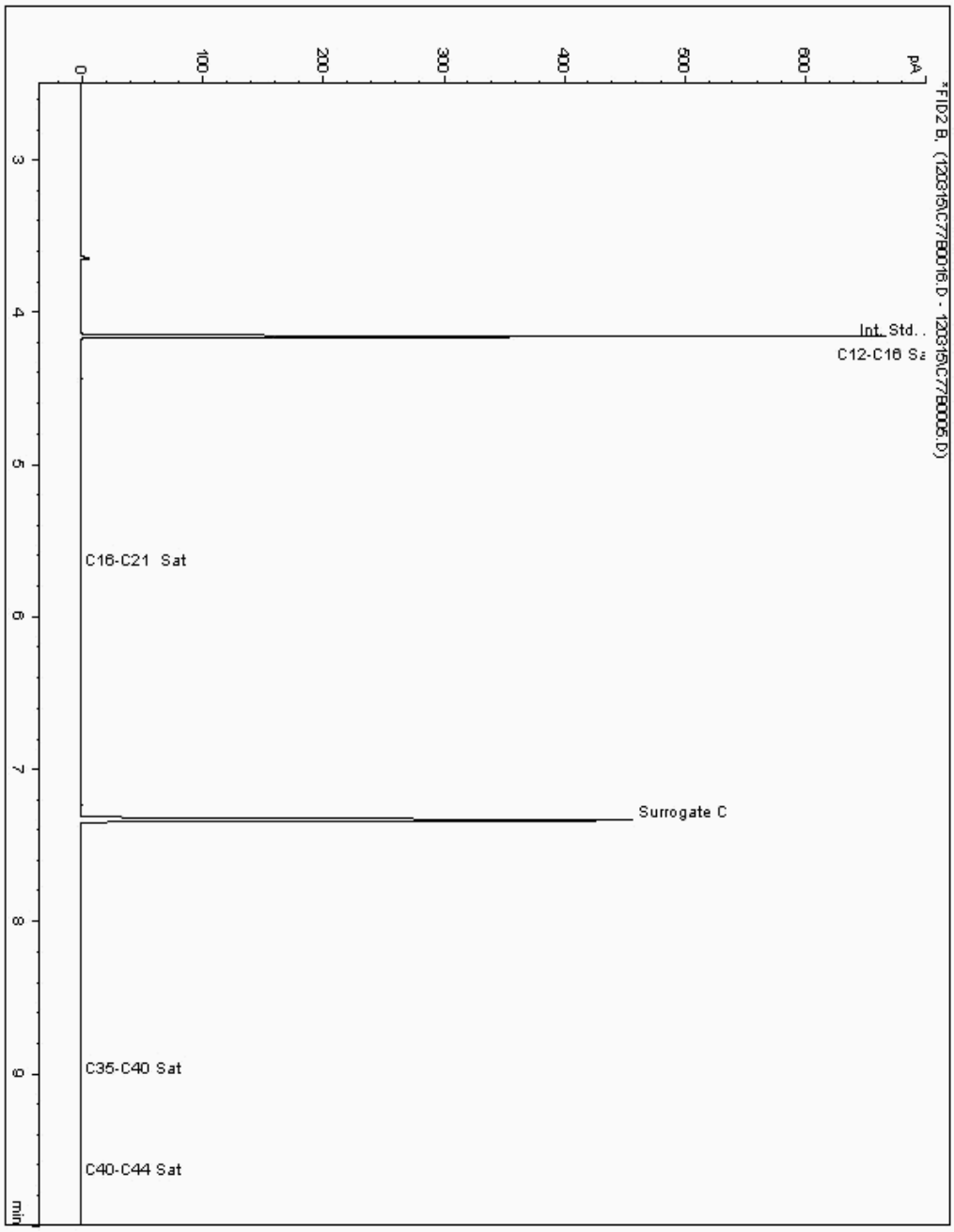
Analysis: EPH CWG (Aliphatic) GC (S)

Sample No : 12560080
Sample ID : SB202_0.8

Depth : 0.80

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

Sample Identity: 11870822-
Date Acquired : 03/12/2015 18:22:02 PM
Units : ppb
Dilution :
CF : 1
Multiplier : 0.970



CERTIFICATE OF ANALYSIS

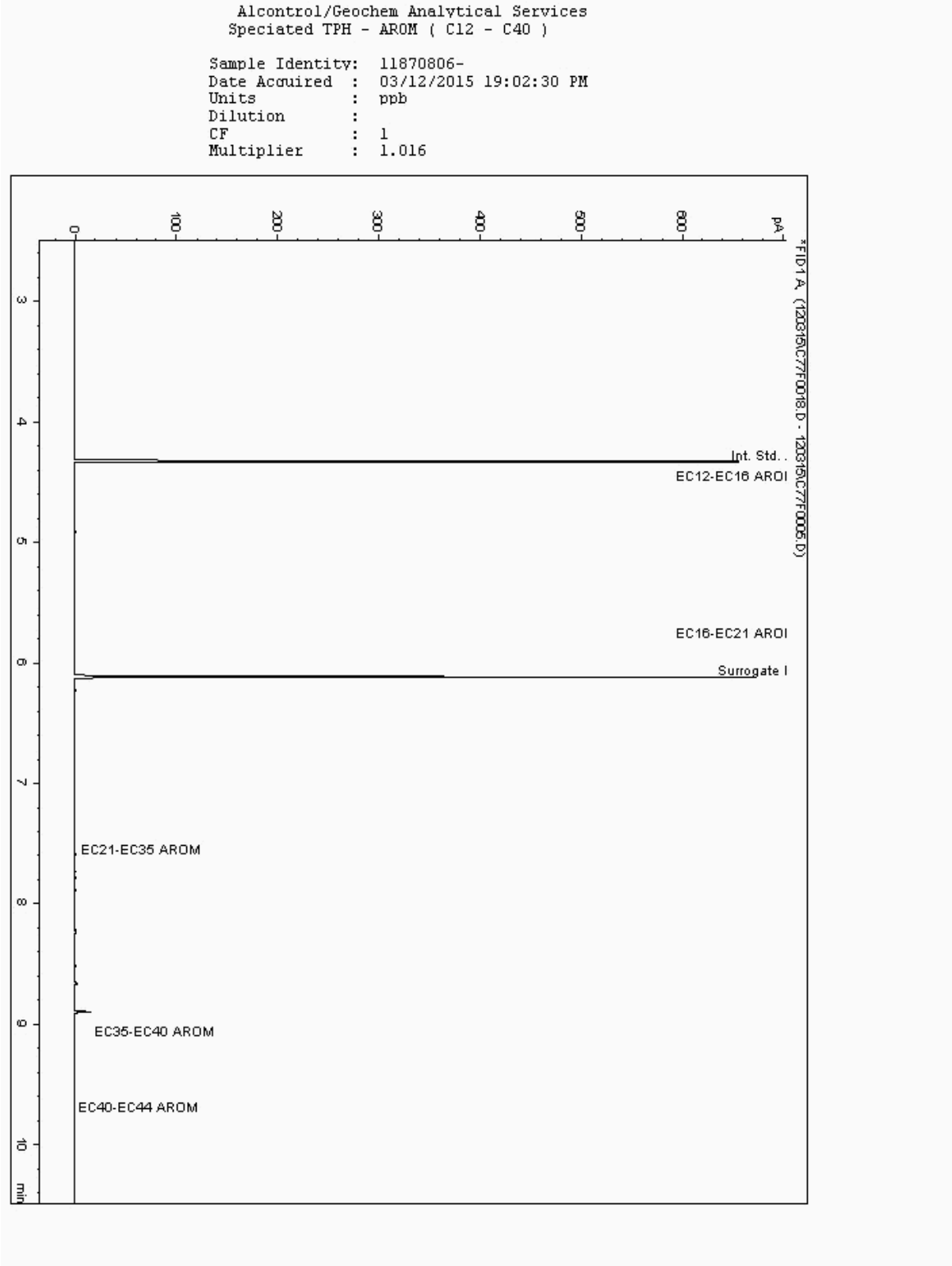
SDG:	151202-56	**Location:**	Shell Blackhorse	**Order Number:**	60479811
Job:	H_URS_WIM-282	**Customer:**	AECOM	**Report Number:**	342760
Client Reference:	46370438	**Attention:**	Phil Allen	**Superseded Report:**	340898

Chromatogram

Analysis: EPH CWG (Aromatic) GC (S)

Sample No : 12560069
Sample ID : SB201_0.5

Depth : 0.50



CERTIFICATE OF ANALYSIS

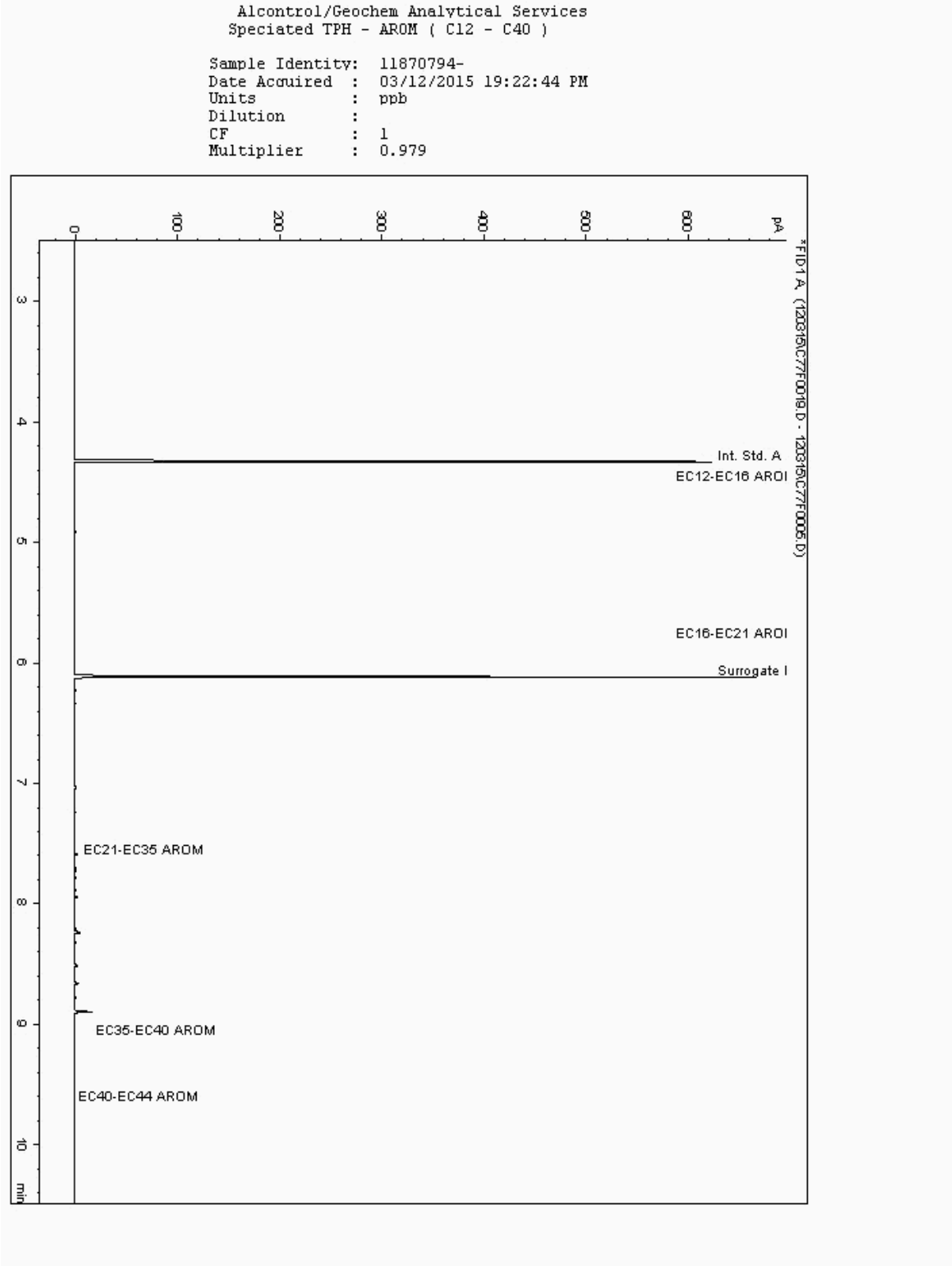
SDG:	151202-56	**Location:**	Shell Blackhorse	**Order Number:**	60479811
Job:	H_URS_WIM-282	**Customer:**	AECOM	**Report Number:**	342760
Client Reference:	46370438	**Attention:**	Phil Allen	**Superseded Report:**	340898

Chromatogram

Analysis: EPH CWG (Aromatic) GC (S)

Sample No : 12560073
Sample ID : MW201_0.65

Depth : 0.65



CERTIFICATE OF ANALYSIS

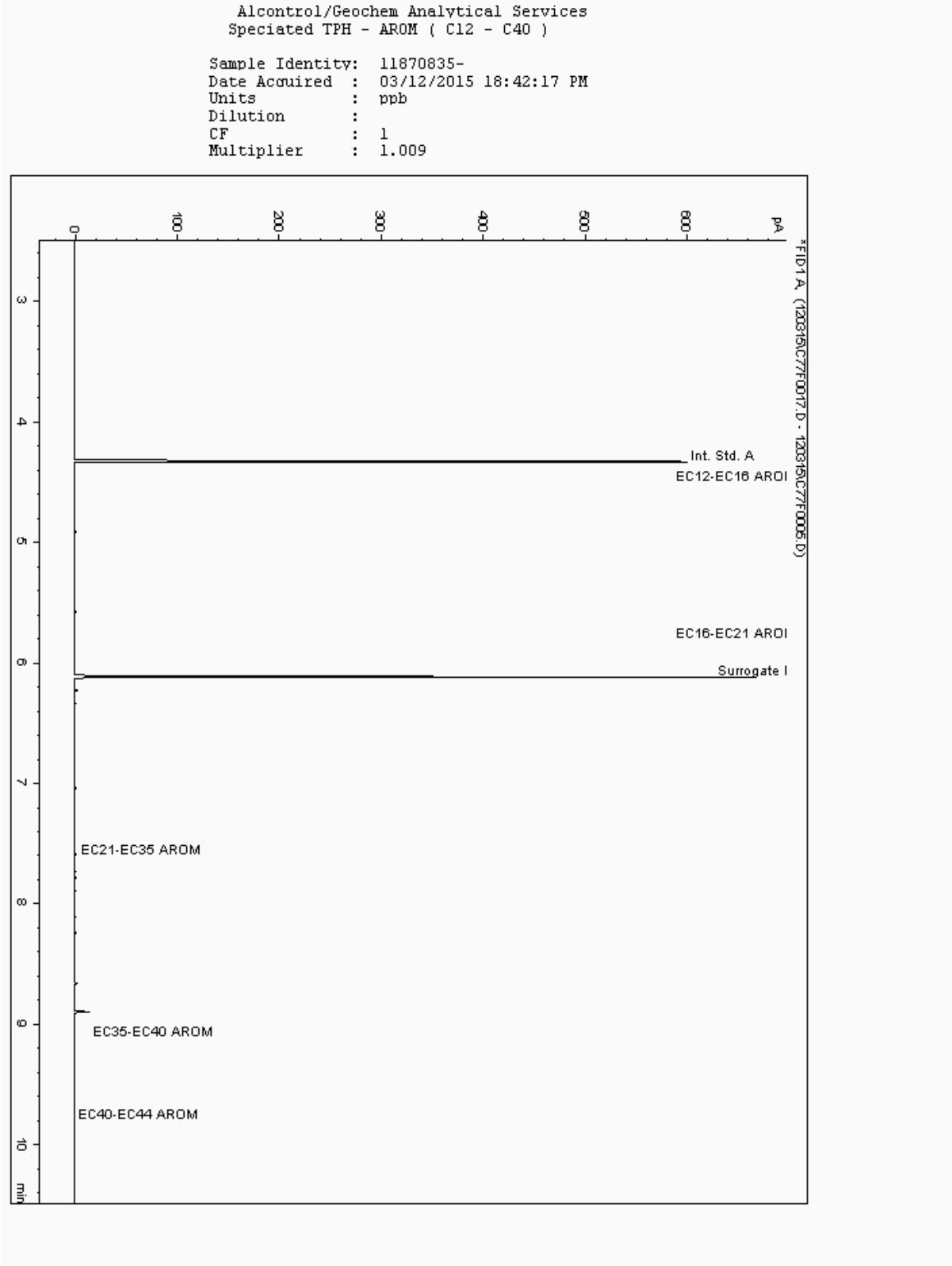
SDG:	151202-56	**Location:**	Shell Blackhorse	**Order Number:**	60479811
Job:	H_URS_WIM-282	**Customer:**	AECOM	**Report Number:**	342760
Client Reference:	46370438	**Attention:**	Phil Allen	**Superseded Report:**	340898

Chromatogram

Analysis: EPH CWG (Aromatic) GC (S)

Sample No : 12560077
Sample ID : SB203_1.1

Depth : 1.10



CERTIFICATE OF ANALYSIS

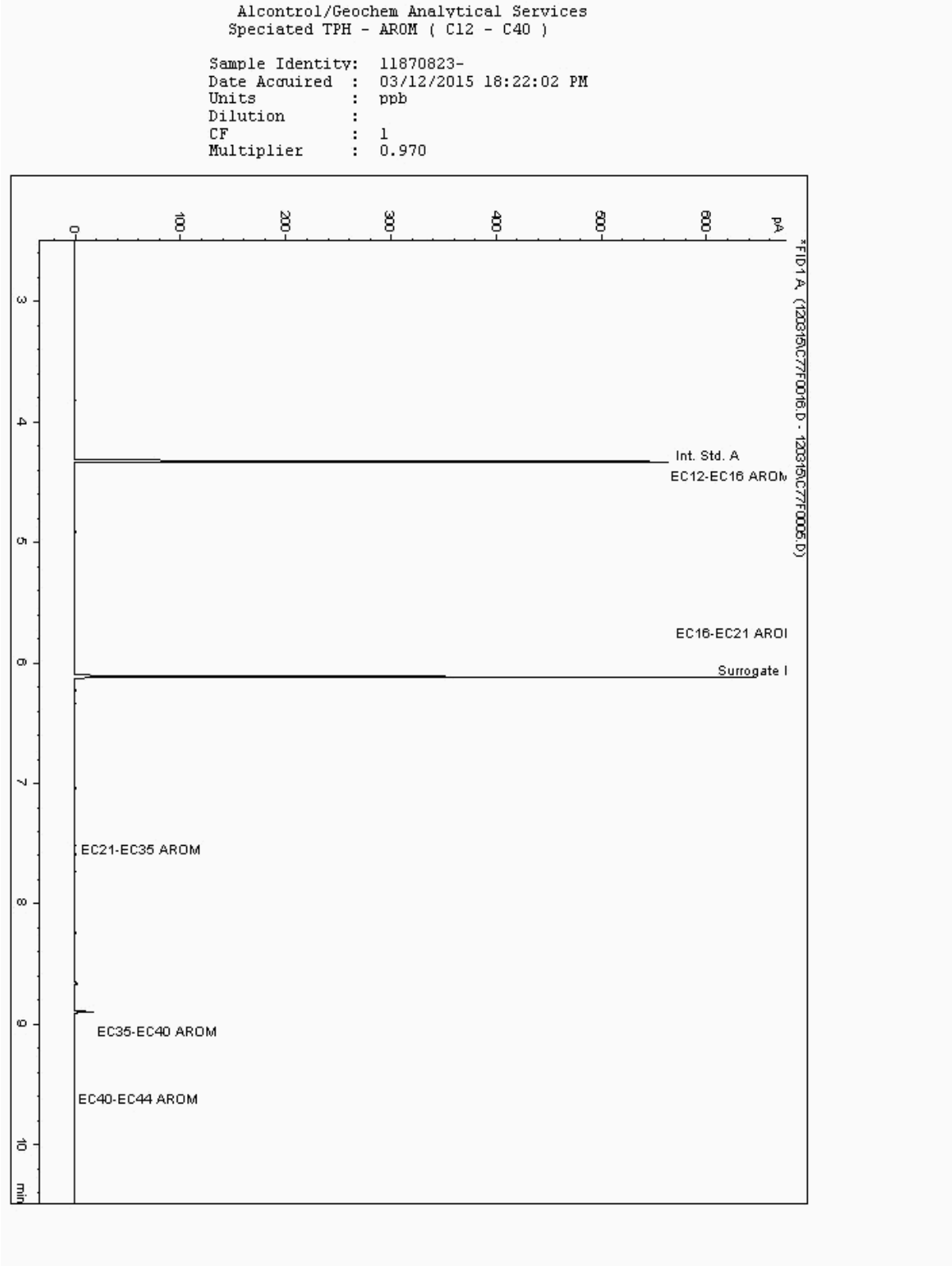
SDG:	151202-56	**Location:**	Shell Blackhorse	**Order Number:**	60479811
Job:	H_URS_WIM-282	**Customer:**	AECOM	**Report Number:**	342760
Client Reference:	46370438	**Attention:**	Phil Allen	**Superseded Report:**	340898

Chromatogram

Analysis: EPH CWG (Aromatic) GC (S)

Sample No : 12560080
Sample ID : SB202_0.8

Depth : 0.80



CERTIFICATE OF ANALYSIS

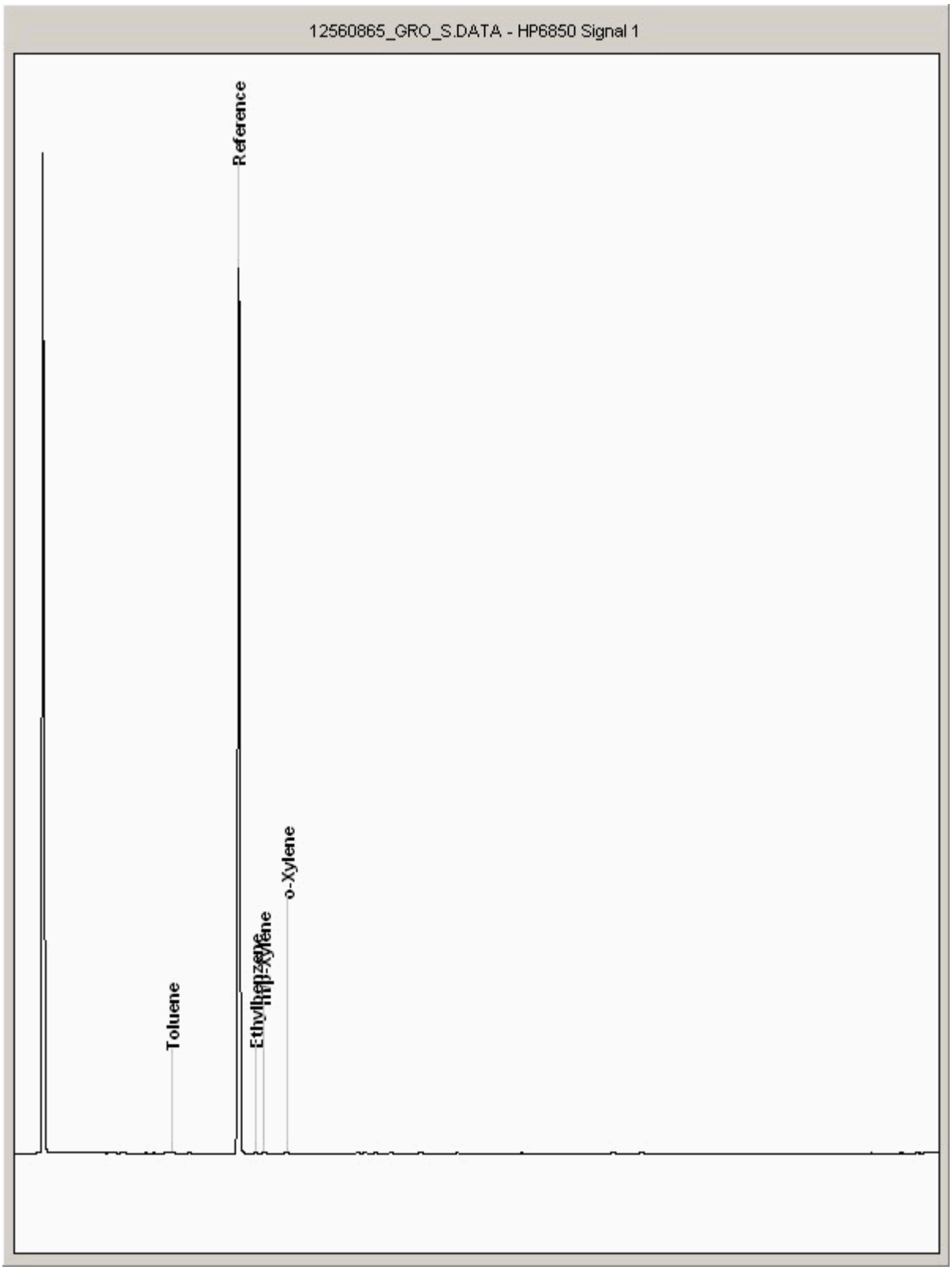
SDG:	151202-56	**Location:**	Shell Blackhorse	**Order Number:**	60479811
Job:	H_URS_WIM-282	**Customer:**	AECOM	**Report Number:**	342760
Client Reference:	46370438	**Attention:**	Phil Allen	**Superseded Report:**	340898

Chromatogram

Analysis: GRO by GC-FID (S)

Sample No : 12560865
Sample ID : SB202_0.8

Depth : 0.80



CERTIFICATE OF ANALYSIS

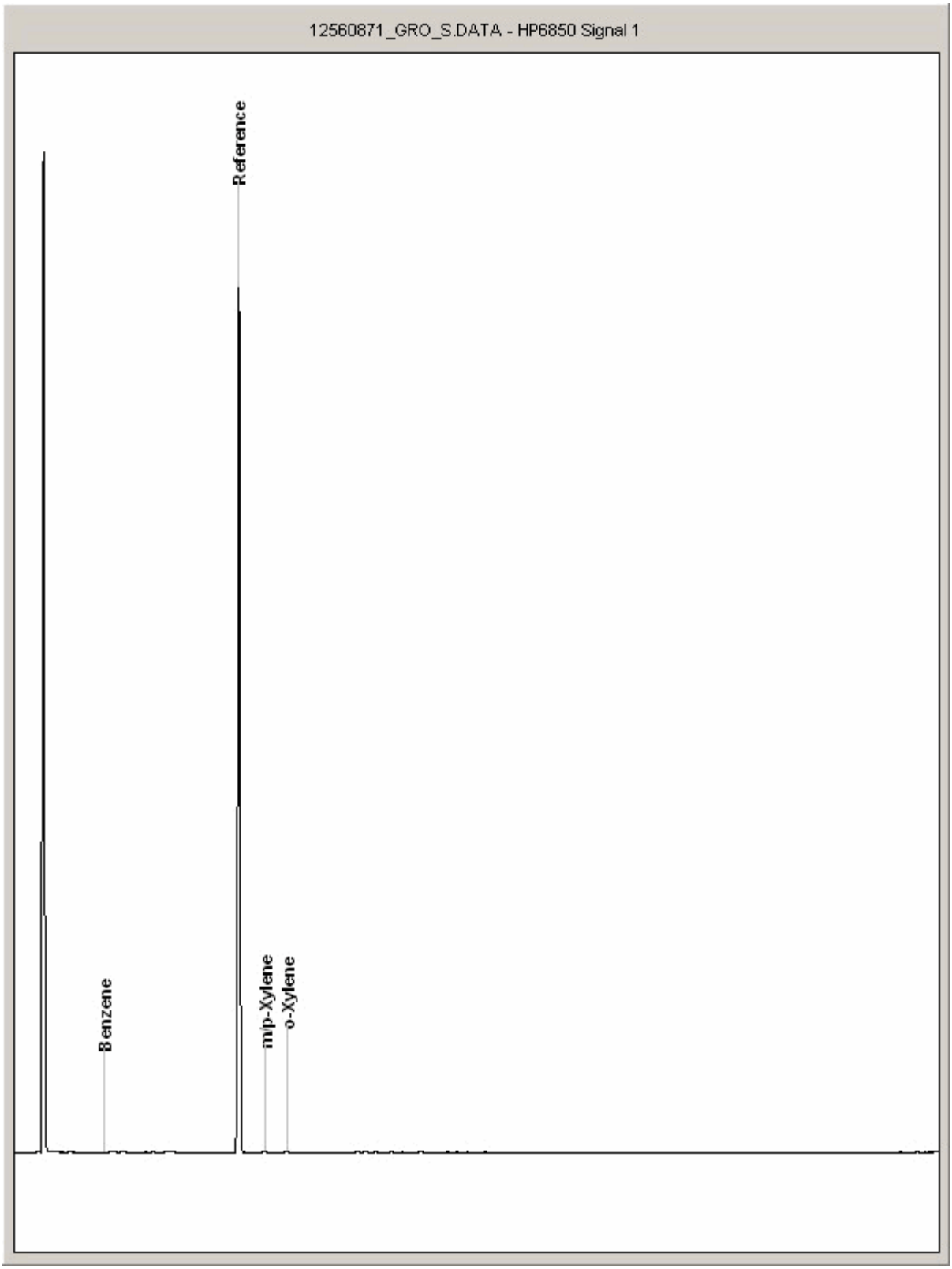
SDG:	151202-56	**Location:**	Shell Blackhorse	**Order Number:**	60479811
Job:	H_URS_WIM-282	**Customer:**	AECOM	**Report Number:**	342760
Client Reference:	46370438	**Attention:**	Phil Allen	**Superseded Report:**	340898

Chromatogram

Analysis: GRO by GC-FID (S)

Sample No : 12560871
Sample ID : MW201_0.65

Depth : 0.65



CERTIFICATE OF ANALYSIS

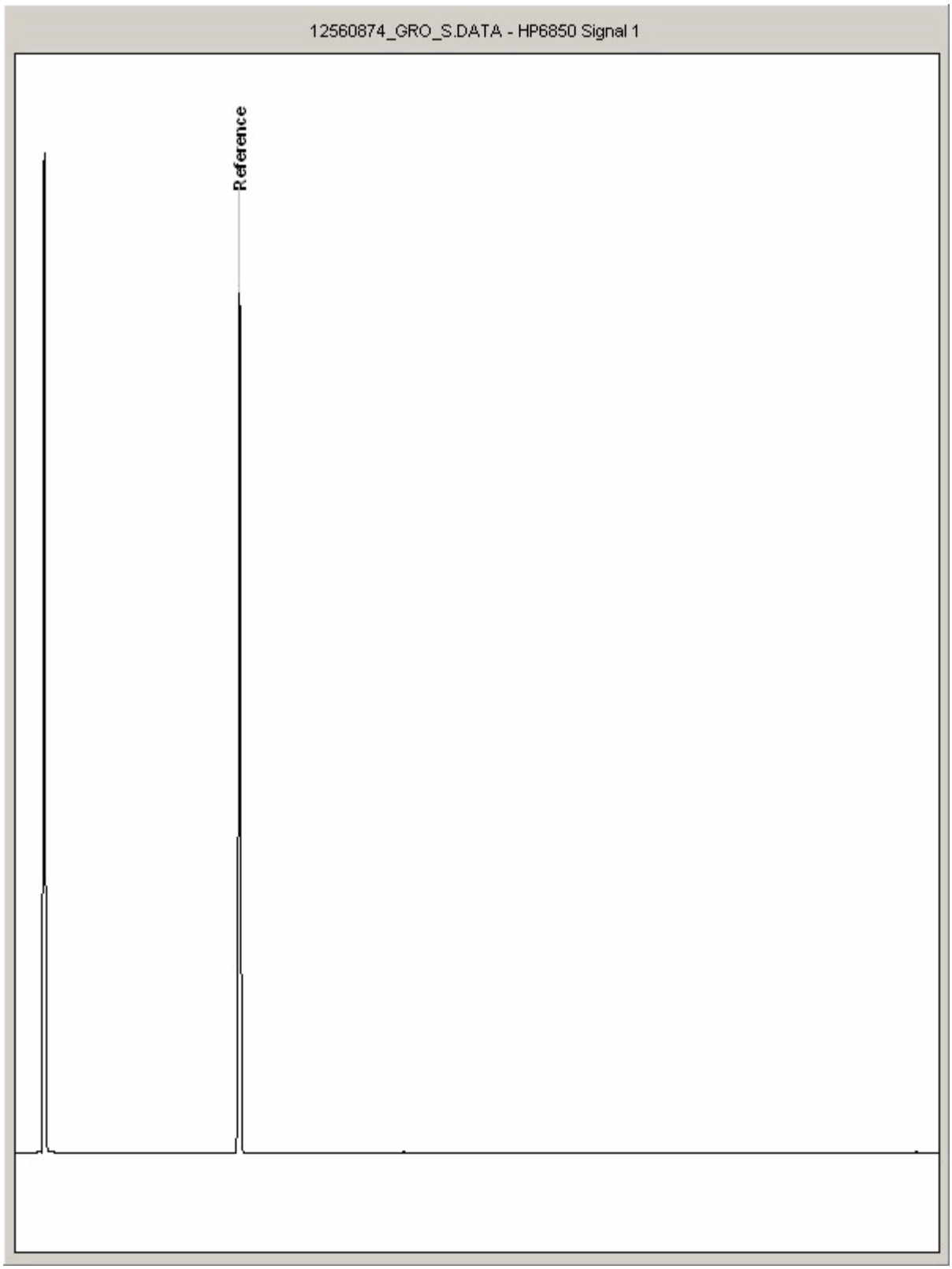
SDG:	151202-56	**Location:**	Shell Blackhorse	**Order Number:**	60479811
Job:	H_URS_WIM-282	**Customer:**	AECOM	**Report Number:**	342760
Client Reference:	46370438	**Attention:**	Phil Allen	**Superseded Report:**	340898

Chromatogram

Analysis: GRO by GC-FID (S)

Sample No : 12560874
Sample ID : SB203_1.1

Depth : 1.10



CERTIFICATE OF ANALYSIS

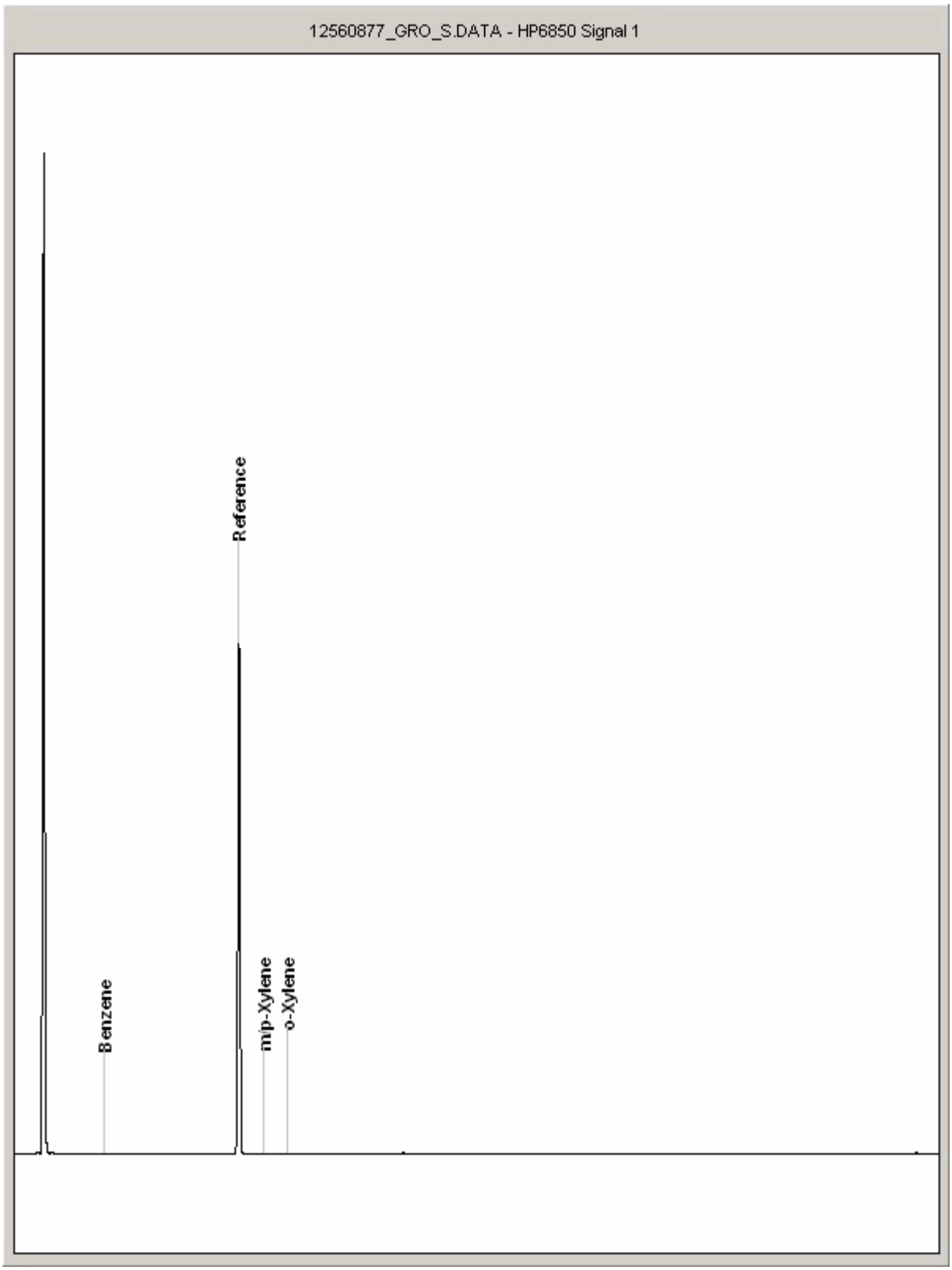
SDG:	151202-56	**Location:**	Shell Blackhorse	**Order Number:**	60479811
Job:	H_URS_WIM-282	**Customer:**	AECOM	**Report Number:**	342760
Client Reference:	46370438	**Attention:**	Phil Allen	**Superseded Report:**	340898

Chromatogram

Analysis: GRO by GC-FID (S)

Sample No : 12560877
Sample ID : SB201_0.5

Depth : 0.50



CERTIFICATE OF ANALYSIS

SDG:	151202-56	**Location:**	Shell Blackhorse	**Order Number:**	60479811
Job:	H_URS_WIM-282	**Customer:**	AECOM	**Report Number:**	342760
Client Reference:	46370438	**Attention:**	Phil Allen	**Superseded Report:**	340898

Appendix

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

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

3. If sufficient sample is received a sub sample will be retained free of charge for 30 days after analysis is completed (e-mailed) for both soil jars, tubs and volatile jars. All waters and vials will be discarded 10 days after the analysis is completed (e-mailed). All material removed during an asbestos containing material screen and analysed for the presence of asbestos will be retained for a period of 6 months after the analysis date. All samples received and not scheduled will be disposed of one month after the date of receipt unless we are instructed to the contrary. Once the initial period has expired, a storage charge will be applied for each month or part thereof until the client cancels the request for sample storage. ALcontrol Laboratories reserve the right to charge for samples received and stored but not analysed.

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

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

6. When requested, the individual sub sample scheduled will be screened in house for the presence of large asbestos containing material fragments/pieces. If no asbestos containing material is found this will be reported as 'no asbestos containing material detected'. If asbestos containing material is detected it will be removed and analysed by our documented in house method TM048 based on HSG 248 (2005), which is accredited to ISO17025. If asbestos containing material is present no further analysis will be undertaken. At no point is the fibre content of the soil sample determined.

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

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

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

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

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

12. Results relate only to the items tested

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

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

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

16. Total of 5 speciated phenols by HPLC includes Phenol, 2,3,5-Trimethyl Phenol, 2-Isopropylphenol, Cresols and Xylenols (as detailed in 14).

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

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

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

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

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

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

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

24. Analysis and identification of specific compounds using GCFID is by retention time only, and we routinely calibrate and quantify for benzene, toluene, ethylbenzenes and xylenes (BTEX). For total volatiles in the C4 -C10 range, the total area of the chromatogram is integrated and expressed as ug/kg or ug/l. Although this analysis is commonly used for the quantification of gasoline range organics (GRO), the system will also detect other compounds such as chlorinated solvents, and this may lead to a falsely high result with respect to hydrocarbons only. It is not possible to specifically identify these non-hydrocarbons, as standards are not routinely run for any other compounds, and for more definitive identification, volatiles by GCMS should be utilised.

SOLID MATRICES EXTRACTION SUMMARY

ANALYSIS	D/C OR WET	EXTRACTION SOLVENT	EXTRACTION METHOD	ANALYSIS
SOLVENT EXTRACTABLE MATTER	D&C	DCM	SOXTHERM	GRAVIMETRIC
CYCLOHEXANE EXT. MATTER	D&C	CYCLOHEXANE	SOXTHERM	GRAVIMETRIC
THIN LAYER CHROMATOGRAPHY	D&C	DCM	SOXTHERM	IATROSCAN
ELEMENTAL SULPHUR	D&C	DCM	SOXTHERM	HPLC
PHENOLS BY GCMS	WET	DCM	SOXTHERM	GC-MS
HERBICIDES	D&C	HEXANE:ACETONE	SOXTHERM	GC-MS
PESTICIDES	D&C	HEXANE:ACETONE	SOXTHERM	GC-MS
EPH (DRO)	D&C	HEXANE:ACETONE	END OVEREND	GC-FID
EPH (MINOIL)	D&C	HEXANE:ACETONE	END OVEREND	GC-FID
EPH (CLEANED UP)	D&C	HEXANE:ACETONE	END OVEREND	GC-FID
EPH CWG BY GC	D&C	HEXANE:ACETONE	END OVEREND	GC-FID
PCB TOT / PCB CON	D&C	HEXANE:ACETONE	END OVEREND	GC-MS
POLYAROMATIC HYDROCARBONS (MS)	WET	HEXANE:ACETONE	MICROWAVE TM218.	GC-MS
C8-C40 (C6-C40) EZ FLASH	WET	HEXANE:ACETONE	SHAKER	GC-EZ
POLYAROMATIC HYDROCARBONS RAPID GC	WET	HEXANE:ACETONE	SHAKER	GC-EZ
SEMI VOLATILE ORGANIC COMPOUNDS	WET	DCM:ACETONE	SONICATE	GC-MS

LIQUID MATRICES EXTRACTION SUMMARY

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

Identification of Asbestos in Bulk Materials

The results for asbestos identification for soil samples are obtained from possible Asbestos Containing Material, removed during the 'Screening of soils for Asbestos Containing Materials', which have been examined to determine the presence of asbestos fibres using Alcontrol Laboratories (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2005).

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 MDHS 100.

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

Last Updated : 2010/09/08

SDG:	151202-56	**Location:**	Shell Blackhorse	**Order Number:**	60479811
Job:	H_URS_WIM-282	**Customer:**	AECOM	**Report Number:**	342760
Client Reference:	46370438	**Attention:**	Phil Allen	**Superseded Report:**	340898

Appendix

General

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

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

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

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

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

6. When requested, the individual sub sample scheduled will be analysed in house for the presence of asbestos fibres and asbestos containing material by our documented in house method TM048 based on HSG 248 (2005), which is accredited to ISO17025. If a specific asbestos fibre type is not found this will be reported as “Not detected”. If no asbestos fibre types are found all will be reported as “Not detected” and the sub sample analysed deemed to be clear of asbestos. If an asbestos fibre type is found it will be reported as detected (for each fibre type found). Testing can be carried out on asbestos positive samples, but, due to Health and Safety considerations, may be replaced by alternative tests or reported as No Determination Possible. 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** - Surrogates are added to your sample to monitor recovery of the test requested. A % recovery is reported, results are not corrected for the recovery measured. Typical recoveries for organics tests are 70-130%, they are generally wider for volatiles analysis, 50-150%. Recoveries in soils are affected by organic rich or clay rich matrices. Waters can be affected by remediation fluids or high amounts of sediment. Test results are only ever reported if all of the associated quality checks pass; it is assumed that all recoveries outside of the values above are due to matrix affect.

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

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

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

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

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

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

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

21. For 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.

Sample Deviations

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

Asbestos

Identification of Asbestos in Bulk Materials & Soils

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

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

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

Visual Estimation Of Fibre Content

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

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

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

ALcontrol Laboratories

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Greater London
SW19 4DR

Attention: Phil Allen

CERTIFICATE OF ANALYSIS

Date:	18 December 2015
Customer:	H_URS_WIM
Sample Delivery Group (SDG):	151203-38
Your Reference:	46370438
Location:	Shell Blackhorse
Report No:	342759

This report has been revised and directly supersedes 341318 in its entirety.

We received 4 samples on Thursday December 03, 2015 and 4 of these samples were scheduled for analysis which was completed on Wednesday December 09, 2015. Accredited laboratory tests are defined within the report, but opinions, interpretations and on-site data expressed herein are outside the scope of ISO 17025 accreditation.

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

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

Approved By:

Sonia McWhan
Operations Manager

CERTIFICATE OF ANALYSIS

SDG:	151203-38	**Location:**	Shell Blackhorse	**Order Number:**	60479811
Job:	H_URS_WIM-282	**Customer:**	AECOM	**Report Number:**	342759
Client Reference:	46370438	**Attention:**	Phil Allen	**Superseded Report:**	341318

Received Sample Overview

Lab Sample No(s)	Customer Sample Ref.	AGS Ref.	Depth (m)	Sampled Date
12562507	SB204		1.10	02/12/2015
12562508	SB204		2.00	02/12/2015
12562509	SB205		0.70	01/12/2015
12562506	VP201		0.50	01/12/2015

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

CERTIFICATE OF ANALYSIS

SDG:	151203-38	**Location:**	Shell Blackhorse	**Order Number:**	60479811
Job:	H_URS_WIM-282	**Customer:**	AECOM	**Report Number:**	342759
Client Reference:	46370438	**Attention:**	Phil Allen	**Superseded Report:**	341318

SOLID

Results Legend

X **Test**

N **No Determination Possible**

			Lab Sample No(s)	Customer Sample Reference	AGS Reference	Depth (m)	Container
			12562507	SB204		1.10	1kg TUB
							250g Amber Jar
							60g VOC (ALE215)
			12562508	SB204		2.00	250g Amber Jar
							60g VOC (ALE215)
							60g VOC (ALE215)
			12562509	SB205		0.70	1kg TUB
							250g Amber Jar
							60g VOC (ALE215)
			12562506	VP201		0.50	1kg TUB
							250g Amber Jar
							60g VOC (ALE215)
Asbestos ID in Solid Samples	All	NDPs: 0 Tests: 3	X				X				X		
EPH CWG (Aliphatic) GC (S)	All	NDPs: 0 Tests: 4		X		X			X			X	
EPH CWG (Aromatic) GC (S)	All	NDPs: 0 Tests: 4		X		X			X			X	
GRO by GC-FID (S)	All	NDPs: 0 Tests: 4			X		X			X			X
Oxygenates (S)	All	NDPs: 0 Tests: 4			X		X			X			X
PAH by GCMS	All	NDPs: 0 Tests: 4		X		X			X			X	
Sample description	All	NDPs: 0 Tests: 3		X					X			X	
Total Organic Carbon	All	NDPs: 0 Tests: 1				X							
VOC MS (S)	All	NDPs: 0 Tests: 4			X		X			X			X

CERTIFICATE OF ANALYSIS

SDG:	151203-38	**Location:**	Shell Blackhorse	**Order Number:**	60479811
Job:	H_URS_WIM-282	**Customer:**	AECOM	**Report Number:**	342759
Client Reference:	46370438	**Attention:**	Phil Allen	**Superseded Report:**	341318

Sample Descriptions

Grain Sizes

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

Lab Sample No(s)	Customer Sample Ref.	Depth (m)	Colour	Description	Grain size	Inclusions	Inclusions 2
12562507	SB204	1.10	Light Brown	Sand	0.1 - 2 mm	Stones	None
12562508	SB204	2.00	Light Brown	Sand	0.1 - 2 mm	Stones	None
12562509	SB205	0.70	Dark Brown	Sandy Loam	0.1 - 2 mm	Stones	Vegetation
12562506	VP201	0.50	Dark Brown	Sandy Loam	0.1 - 2 mm	Crushed Brick	Stones

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

We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials - whether these are derived from naturally ocurring soil profiles, or from fill/made ground, as long as these materials constitute the major part of the sample.

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

CERTIFICATE OF ANALYSIS

SDG:	151203-38	**Location:**	Shell Blackhorse	**Order Number:**	60479811
Job:	H_URS_WIM-282	**Customer:**	AECOM	**Report Number:**	342759
Client Reference:	46370438	**Attention:**	Phil Allen	**Superseded Report:**	341318

Results Legend

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

Component	LOD/Units	Method	Customer Sample Ref.	SB204	SB204	SB205	VP201		
			Depth (m)	1.10	2.00	0.70	0.50		
			Sample Type	Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid		
			Date Sampled	02/12/2015	02/12/2015	01/12/2015	01/12/2015		
			Sampled Time	.	.	.	.		
			Date Received	03/12/2015	03/12/2015	03/12/2015	03/12/2015		
			SDG Ref	151203-38	151203-38	151203-38	151203-38		
			Lab Sample No.(s)	12562507	12562508	12562509	12562506		
			AGS Reference						
Moisture Content Ratio (% of as received sample)	%	PM024		1.6	5.1	3.1	17		
Fraction Organic Carbon Low	<0.0002 -	TM132			0.000959 #				
Ethanol	<50 µg/kg	TM288		<50	<50	<50	<50		
tert Butanol	<10 µg/kg	TM288		<10	<10	<10	<10		
Diisopropyl ether	<1 µg/kg	TM288		<1	<1	<1	<1		
tert-butyl ethyl ether	<1 µg/kg	TM288		<1	<1	<1	<1		

CERTIFICATE OF ANALYSIS

SDG:	151203-38	**Location:**	Shell Blackhorse	**Order Number:**	60479811
Job:	H_URS_WIM-282	**Customer:**	AECOM	**Report Number:**	342759
Client Reference:	46370438	**Attention:**	Phil Allen	**Superseded Report:**	341318

EPH CWG (Aliphatic) GC (S)

Results Legend

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

Component	LOD/Units	Method	Customer Sample Ref.	Depth (m)	Sample Type	Date Sampled	Sampled Time	Date Received	SDG Ref	Lab Sample No.(s)	AGS Reference
Aliphatics >C12-C16	<100 µg/kg	TM173	SB204	1.10	Soil/Solid	02/12/2015	.	03/12/2015	151203-38	12562507	
Aliphatics >C16-C21	<100 µg/kg	TM173	SB204	2.00	Soil/Solid	02/12/2015	.	03/12/2015	151203-38	12562508	
Aliphatics >C21-C35	<100 µg/kg	TM173	SB205	0.70	Soil/Solid	01/12/2015	.	03/12/2015	151203-38	12562509	
Aliphatics >C35-C44	<100 µg/kg	TM173	VP201	0.50	Soil/Solid	01/12/2015	.	03/12/2015	151203-38	12562506	

Component	LOD/Units	Method	SB204	SB204	SB205	VP201		
Aliphatics >C12-C16	<100 µg/kg	TM173	<100	13800	<100	<100		
Aliphatics >C16-C21	<100 µg/kg	TM173	<100	1690	<100	<100		
Aliphatics >C21-C35	<100 µg/kg	TM173	<100	<100	4510	2120		
Aliphatics >C35-C44	<100 µg/kg	TM173	<100	<100	<100	<100		

CERTIFICATE OF ANALYSIS

SDG:	151203-38	**Location:**	Shell Blackhorse	**Order Number:**	60479811
Job:	H_URS_WIM-282	**Customer:**	AECOM	**Report Number:**	342759
Client Reference:	46370438	**Attention:**	Phil Allen	**Superseded Report:**	341318

EPH CWG (Aromatic) GC (S)

Results Legend

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

Component	LOD/Units	Method	Customer Sample Ref.	SB204	SB204	SB205	VP201		
			Depth (m)	1.10	2.00	0.70	0.50		
			Sample Type	Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid		
			Date Sampled	02/12/2015	02/12/2015	01/12/2015	01/12/2015		
			Sampled Time	.	.	.	.		
			Date Received	03/12/2015	03/12/2015	03/12/2015	03/12/2015		
			SDG Ref	151203-38	151203-38	151203-38	151203-38		
			Lab Sample No.(s)	12562507	12562508	12562509	12562506		
			AGS Reference						
Aromatics >EC12-EC16	<100 µg/kg	TM173		<100	45200	<100	<100		
Aromatics >EC16-EC21	<100 µg/kg	TM173		<100	9680	<100	2500		
Aromatics >EC21-EC35	<100 µg/kg	TM173		<100	4600	2920	11400		

CERTIFICATE OF ANALYSIS

SDG:	151203-38	**Location:**	Shell Blackhorse	**Order Number:**	60479811
Job:	H_URS_WIM-282	**Customer:**	AECOM	**Report Number:**	342759
Client Reference:	46370438	**Attention:**	Phil Allen	**Superseded Report:**	341318

GRO by GC-FID (S)

Results Legend

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

Component	LOD/Units	Method	Customer Sample Ref.	SB204	SB204	SB205	VP201		
			Depth (m)	1.10	2.00	0.70	0.50		
			Sample Type	Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid		
			Date Sampled	02/12/2015	02/12/2015	01/12/2015	01/12/2015		
			Sampled Time	.	.	.	.		
			Date Received	03/12/2015	03/12/2015	03/12/2015	03/12/2015		
			SDG Ref	151203-38	151203-38	151203-38	151203-38		
			Lab Sample No.(s)	12562507	12562508	12562509	12562506		
			AGS Reference						
GRO Surrogate % recovery**	%	TM089		81	123	113	72		
Aliphatics >C5-C6	<10 µg/kg	TM089		<10	<200 3	<10	<10		
Aliphatics >C6-C8	<10 µg/kg	TM089		<10	41400 3	<10	<10		
Aliphatics >C8-C10	<10 µg/kg	TM089		<10	1140000 3	<10	<10		
Aliphatics >C10-C12	<10 µg/kg	TM089		<10	934000 3	<10	<10		
Aromatics >EC5-EC7	<10 µg/kg	TM089		<10	<200 3	<10	<10		
Aromatics >EC7-EC8	<10 µg/kg	TM089		<10	2840 3	<10	<10		
Aromatics >EC8-EC10	<10 µg/kg	TM089		<10	1210000 3	<10	<10		
Aromatics >EC10-EC12	<10 µg/kg	TM089		<10	623000 3	<10	<10		

CERTIFICATE OF ANALYSIS

SDG:	151203-38	**Location:**	Shell Blackhorse	**Order Number:**	60479811
Job:	H_URS_WIM-282	**Customer:**	AECOM	**Report Number:**	342759
Client Reference:	46370438	**Attention:**	Phil Allen	**Superseded Report:**	341318

PAH by GCMS

Results Legend

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

Component	LOD/Units	Method	Customer Sample Ref.	SB204	SB204	SB205	VP201		
			Depth (m)	1.10	2.00	0.70	0.50		
			Sample Type	Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid		
			Date Sampled	02/12/2015	02/12/2015	01/12/2015	01/12/2015		
			Sampled Time	.	.	.	.		
			Date Received	03/12/2015	03/12/2015	03/12/2015	03/12/2015		
			SDG Ref	151203-38	151203-38	151203-38	151203-38		
			Lab Sample No.(s)	12562507	12562508	12562509	12562506		
			AGS Reference						
Naphthalene-d8 % recovery**	%	TM218		96.5	98.2	90.5	99.3		
Acenaphthene-d10 % recovery**	%	TM218		94.2	97.3	90.2	99.1		
Phenanthrene-d10 % recovery**	%	TM218		93.6	97.2	88.5	96.4		
Chrysene-d12 % recovery**	%	TM218		91.9	99.2	77	95.9		
Perylene-d12 % recovery**	%	TM218		91.9	102	76.4	99		
Naphthalene	<9 µg/kg	TM218		<9 M	1260 M	<9 M	24.3 M		
Acenaphthylene	<12 µg/kg	TM218		<12 M	<12 M	<12 M	74.4 M		
Acenaphthene	<8 µg/kg	TM218		<8 M	66.5 M	<8 M	10.2 M		
Fluorene	<10 µg/kg	TM218		<10 M	824 M	<10 M	<10 M		
Phenanthrene	<15 µg/kg	TM218		<15 M	982 M	20.3 M	249 M		
Anthracene	<16 µg/kg	TM218		<16 M	157 M	<16 M	119 M		
Fluoranthene	<17 µg/kg	TM218		<17 M	83.7 M	31.2 M	875 M		
Pyrene	<15 µg/kg	TM218		<15 M	165 M	25.2 M	909 M		
Benz(a)anthracene	<14 µg/kg	TM218		<14 M	22.1 M	<14 M	487 M		
Chrysene	<10 µg/kg	TM218		<10 M	<10 M	14 M	511 M		
Benzo(b)fluoranthene	<15 µg/kg	TM218		<15 M	18.8 M	26.2 M	692 M		
Benzo(k)fluoranthene	<14 µg/kg	TM218		<14 M	<14 M	<14 M	243 M		
Benzo(a)pyrene	<15 µg/kg	TM218		<15 M	16.3 M	23.3 M	476 M		
Indeno(1,2,3-cd)pyrene	<18 µg/kg	TM218		<18 M	<18 M	<18 M	286 M		
Dibenzo(a,h)anthracene	<23 µg/kg	TM218		<23 M	<23 M	<23 M	88.7 M		
Benzo(g,h,i)perylene	<24 µg/kg	TM218		<24 M	<24 M	<24 M	382 M		
PAH, Total Detected USEPA 16	<118 µg/kg	TM218		<118	3600	140	5430		

CERTIFICATE OF ANALYSIS

SDG:	151203-38	**Location:**	Shell Blackhorse	**Order Number:**	60479811
Job:	H_URS_WIM-282	**Customer:**	AECOM	**Report Number:**	342759
Client Reference:	46370438	**Attention:**	Phil Allen	**Superseded Report:**	341318

VOC MS (S)

Results Legend

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

Component	LOD/Units	Method	Customer Sample Ref.	SB204	SB204	SB205	VP201		
			Depth (m)	1.10	2.00	0.70	0.50		
			Sample Type	Soil/Solid	Soil/Solid	Soil/Solid	Soil/Solid		
			Date Sampled	02/12/2015	02/12/2015	01/12/2015	01/12/2015		
			Sampled Time	.	.	.	.		
			Date Received	03/12/2015	03/12/2015	03/12/2015	03/12/2015		
			SDG Ref	151203-38	151203-38	151203-38	151203-38		
			Lab Sample No.(s)	12562507	12562508	12562509	12562506		
			AGS Reference						
Toluene-d8**	%	TM116		95.7	88.5	97.2	91.6		
Methyl Tertiary Butyl Ether	<10 µg/kg	TM116		<10 M	<10 M	<10 M	<10 M		
Benzene	<9 µg/kg	TM116		<9 M	<9 M	<9 M	<9 M		
Toluene	<7 µg/kg	TM116		<7 M	2140 M	<7 M	<7 M		
Ethylbenzene	<4 µg/kg	TM116		<4 M	6360 M	<4 M	<4 M		
p/m-Xylene	<10 µg/kg	TM116		<10 #	149000 #	<10 #	<10 #		
o-Xylene	<10 µg/kg	TM116		<10 M	76800 M	<10 M	<10 M		
Tert-amyl methyl ether	<10 µg/kg	TM116		<10 #	<10 #	<10 #	<10 #		

CERTIFICATE OF ANALYSIS

SDG:	151203-38	**Location:**	Shell Blackhorse	**Order Number:**	60479811
Job:	H_URS_WIM-282	**Customer:**	AECOM	**Report Number:**	342759
Client Reference:	46370438	**Attention:**	Phil Allen	**Superseded Report:**	341318

Asbestos Identification - Soil

		Date of Analysis	Analysed By	Comments	Amosite (Brown) Asbestos	Chrysotile (White) Asbestos	Crocidolite (Blue) Asbestos	Fibrous Actinolite	Fibrous Anthophyllite	Fibrous Tremolite	Non-Asbestos Fibre
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Receieved SDG Original Sample Method Number	SB204 1.10 SOLID 02/12/2015 00:00:00 03/12/2015 13:25:39 151203-38 12562507 TM048	07/12/2015	Rebecca Rawlings	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Receieved SDG Original Sample Method Number	SB205 0.70 SOLID 01/12/2015 00:00:00 03/12/2015 14:17:10 151203-38 12562509 TM048	07/12/2015	Rebecca Rawlings	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Receieved SDG Original Sample Method Number	VP201 0.50 SOLID 01/12/2015 00:00:00 03/12/2015 14:15:03 151203-38 12562506 TM048	07/12/2015	Rebecca Rawlings	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected

CERTIFICATE OF ANALYSIS

SDG:	151203-38	**Location:**	Shell Blackhorse	**Order Number:**	60479811
Job:	H_URS_WIM-282	**Customer:**	AECOM	**Report Number:**	342759
Client Reference:	46370438	**Attention:**	Phil Allen	**Superseded Report:**	341318

CERTIFICATE OF ANALYSIS

SDG:	151203-38	**Location:**	Shell Blackhorse	**Order Number:**	60479811
Job:	H_URS_WIM-282	**Customer:**	AECOM	**Report Number:**	342759
Client Reference:	46370438	**Attention:**	Phil Allen	**Superseded Report:**	341318

Table of Results - Appendix

Method No	Reference	Description	Wet/Dry Sample [1]	Surrogate Corrected
ASB_PREP				
PM024	Modified BS 1377	Soil preparation including homogenisation, moisture screens of soils for Asbestos Containing Material		
TM048	HSG 248, Asbestos: The analysts' guide for sampling, analysis and clearance procedures	Identification of Asbestos in Bulk Material		
TM089	Modified: US EPA Methods 8020 & 602	Determination of Gasoline Range Hydrocarbons (GRO) and BTEX (MTBE) compounds by Headspace GC-FID (C4-C12)		
TM116	Modified: US EPA Method 8260, 8120, 8020, 624, 610 & 602	Determination of Volatile Organic Compounds by Headspace / GC-MS		
TM132	In - house Method	ELTRA CS800 Operators Guide		
TM173	Analysis of Petroleum Hydrocarbons in Environmental Media – Total Petroleum Hydrocarbon Criteria	Determination of Speciated Extractable Petroleum Hydrocarbons in Soils by GC-FID		
TM218	Microwave extraction – EPA method 3546	Microwave extraction - EPA method 3546		
TM288		Determination of Oxygenates in Soils by Headspace/GC-MS		

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

CERTIFICATE OF ANALYSIS

SDG:	151203-38	**Location:**	Shell Blackhorse	**Order Number:**	60479811
Job:	H_URS_WIM-282	**Customer:**	AECOM	**Report Number:**	342759
Client Reference:	46370438	**Attention:**	Phil Allen	**Superseded Report:**	341318

Test Completion Dates

Lab Sample No(s)	12562507	12562508	12562509	12562506
Customer Sample Ref.	SB204	SB204	SB205	VP201
AGS Ref.				
Depth	1.10	2.00	0.70	0.50
Type	SOLID	SOLID	SOLID	SOLID
Asbestos ID in Solid Samples	07-Dec-2015		07-Dec-2015	07-Dec-2015
EPH CWG (Aliphatic) GC (S)	07-Dec-2015	08-Dec-2015	07-Dec-2015	07-Dec-2015
EPH CWG (Aromatic) GC (S)	07-Dec-2015	08-Dec-2015	07-Dec-2015	07-Dec-2015
GRO by GC-FID (S)	04-Dec-2015	09-Dec-2015	09-Dec-2015	04-Dec-2015
Oxygenates (S)	08-Dec-2015	08-Dec-2015	08-Dec-2015	08-Dec-2015
PAH by GCMS	08-Dec-2015	08-Dec-2015	09-Dec-2015	08-Dec-2015
Sample description	03-Dec-2015	03-Dec-2015	03-Dec-2015	03-Dec-2015
Total Organic Carbon		07-Dec-2015		
VOC MS (S)	07-Dec-2015	08-Dec-2015	07-Dec-2015	07-Dec-2015

SDG:	151203-38	**Location:**	Shell Blackhorse	**Order Number:**	60479811
Job:	H_URS_WIM-282	**Customer:**	AECOM	**Report Number:**	342759
Client Reference:	46370438	**Attention:**	Phil Allen	**Superseded Report:**	341318

ASSOCIATED AQC DATA

EPH CWG (Aliphatic) GC (S)

Component	Method Code	QC 1220	QC 1209	QC 1211
Total Aliphatics >C12-C35	TM173	**82.92** 69.19 : 111.75	**81.88** 70.80 : 111.51	**82.92** 71.67 : 116.67

EPH CWG (Aromatic) GC (S)

Component	Method Code	QC 1220	QC 1209	QC 1211
Total Aromatics >EC12-EC35	TM173	**73.33** 65.81 : 108.48	**79.33** 65.21 : 121.32	**84.67** 59.92 : 107.95

GRO by GC-FID (S)

Component	Method Code	QC 1283	QC 1263
Benzene by GC (Moisture Corrected)	TM089	**105.5** 76.23 : 120.71	**100.5** 79.00 : 121.00
Ethylbenzene by GC (Moisture Corrected)	TM089	**105.5** 73.32 : 122.02	**103.0** 79.00 : 121.00
m & p Xylene by GC (Moisture Corrected)	TM089	**105.0** 72.90 : 122.64	**103.0** 79.00 : 121.00
MTBE GC-FID (Moisture Corrected)	TM089	**100.0** 72.17 : 124.81	**98.0** 74.48 : 125.29
o Xylene by GC (Moisture Corrected)	TM089	**104.5** 71.65 : 124.40	**103.5** 79.00 : 121.00
QC	TM089	**78.94** 74.05 : 133.87	**98.34** 73.70 : 123.60
Toluene by GC (Moisture Corrected)	TM089	**105.5** 74.60 : 120.38	**101.5** 79.00 : 121.00

Oxygenates (S)

Component	Method Code	QC 1276
Benzene raw	TM288	**95.25** 77.75 : 124.62
Diisopropyl ether raw	TM288	**114.25** 81.07 : 125.84
Ethanol raw	TM288	**61.7** 12.71 : 182.13
Ethylbenzene raw	TM288	**117.0** 86.91 : 124.43
o-Xylene raw	TM288	**108.5** 82.52 : 115.85
p/m-Xylene raw	TM288	**116.38** 82.74 : 124.08
tert Butanol raw	TM288	**82.5** 27.29 : 165.57
tert-amyl methyl ether raw	TM288	**107.25** 82.15 : 125.05

CERTIFICATE OF ANALYSIS

SDG:	151203-38	**Location:**	Shell Blackhorse	**Order Number:**	60479811
Job:	H_URS_WIM-282	**Customer:**	AECOM	**Report Number:**	342759
Client Reference:	46370438	**Attention:**	Phil Allen	**Superseded Report:**	341318

Oxygenates (S)

		QC 1276
tert-butyl ethyl ether raw	TM288	**111.0** 81.24 : 125.04
tert-butyl methyl ether raw	TM288	**110.75** 80.97 : 130.09
Toluene raw	TM288	**92.5** 78.97 : 116.51

PAH by GCMS

Component	Method Code	QC 1257	QC 1213	QC 1292
Acenaphthene	TM218	**95.0** 77.34 : 118.20	**97.0** 68.50 : 116.50	**90.0** 76.50 : 121.50
Acenaphthylene	TM218	**88.0** 62.65 : 116.35	**89.5** 65.00 : 110.00	**82.0** 73.50 : 118.50
Anthracene	TM218	**91.5** 73.54 : 114.21	**91.5** 75.14 : 109.30	**90.5** 74.25 : 117.75
Benz(a)anthracene	TM218	**102.0** 74.99 : 132.24	**106.5** 70.00 : 115.00	**89.0** 82.07 : 118.33
Benzo(a)pyrene	TM218	**105.5** 80.75 : 127.25	**110.5** 82.80 : 121.21	**92.5** 79.75 : 116.97
Benzo(b)fluoranthene	TM218	**107.5** 75.84 : 127.12	**107.0** 81.11 : 119.79	**89.0** 82.41 : 117.15
Benzo(ghi)perylene	TM218	**104.0** 74.74 : 124.03	**105.0** 81.23 : 116.67	**86.5** 77.09 : 114.38
Benzo(k)fluoranthene	TM218	**106.0** 80.00 : 125.00	**103.0** 79.07 : 114.76	**93.5** 81.43 : 115.17
Chrysene	TM218	**101.5** 77.24 : 120.84	**102.0** 77.94 : 118.46	**86.5** 82.50 : 113.51
Dibenzo(ah)anthracene	TM218	**108.0** 76.00 : 122.50	**103.0** 79.94 : 120.03	**85.0** 81.00 : 120.00
Fluoranthene	TM218	**96.0** 78.51 : 118.75	**95.5** 77.89 : 110.15	**91.0** 78.67 : 117.61
Fluorene	TM218	**95.0** 76.95 : 117.18	**96.5** 80.93 : 113.54	**92.0** 76.50 : 121.50
Indeno(123cd)pyrene	TM218	**103.5** 75.34 : 127.46	**103.0** 80.37 : 120.17	**83.5** 79.19 : 117.60
Naphthalene	TM218	**95.0** 76.24 : 112.91	**98.0** 79.70 : 112.37	**91.0** 77.00 : 117.50
Phenanthrene	TM218	**96.5** 76.49 : 119.30	**97.0** 78.44 : 113.95	**92.5** 75.00 : 123.00
Pyrene	TM218	**94.5** 78.25 : 118.17	**95.0** 66.00 : 114.00	**91.0** 77.82 : 116.98

Total Organic Carbon

Component	Method Code	QC 1222
Total Organic Carbon	TM132	**104.11** 88.82 : 111.18

VOC MS (S)

CERTIFICATE OF ANALYSIS

SDG:	151203-38	**Location:**	Shell Blackhorse	**Order Number:**	60479811
Job:	H_URS_WIM-282	**Customer:**	AECOM	**Report Number:**	342759
Client Reference:	46370438	**Attention:**	Phil Allen	**Superseded Report:**	341318

VOC MS (S)

Component	Method Code	QC 1284	QC 1243
1,1,1,2-tetrachloroethane	TM116	**99.8** 76.60 : 121.00	**95.8** 83.24 : 124.28
1,1,1-Trichloroethane	TM116	**95.4** 77.80 : 123.40	**94.6** 81.77 : 121.07
1,1,2-Trichloroethane	TM116	**88.2** 75.40 : 119.80	**89.0** 78.55 : 105.28
1,1-Dichloroethane	TM116	**97.6** 80.84 : 124.49	**93.0** 74.63 : 123.32
1,2-Dichloroethane	TM116	**106.4** 88.45 : 118.84	**104.4** 77.50 : 122.50
1,4-Dichlorobenzene	TM116	**108.4** 80.88 : 114.60	**98.2** 73.23 : 116.39
2-Chlorotoluene	TM116	**91.2** 74.00 : 117.20	**95.6** 69.22 : 110.64
4-Chlorotoluene	TM116	**86.4** 71.20 : 113.20	**95.6** 68.57 : 106.26
Benzene	TM116	**95.8** 79.60 : 125.20	**96.4** 84.33 : 124.27
Carbon Disulphide	TM116	**93.6** 74.91 : 122.14	**91.6** 77.20 : 122.80
Carbontetrachloride	TM116	**102.6** 87.07 : 120.37	**107.0** 84.20 : 119.90
Chlorobenzene	TM116	**99.6** 83.47 : 116.82	**99.4** 85.28 : 129.96
Chloroform	TM116	**104.8** 82.00 : 128.80	**94.0** 82.73 : 119.72
Chloromethane	TM116	**102.0** 68.36 : 154.01	**111.6** 55.16 : 145.46
Cis-1,2-Dichloroethene	TM116	**110.8** 81.20 : 128.00	**93.6** 80.55 : 123.13
Dibromomethane	TM116	**93.8** 73.40 : 116.60	**101.0** 73.40 : 116.60
Dichloromethane	TM116	**115.4** 86.60 : 137.00	**98.6** 81.68 : 125.21
Ethylbenzene	TM116	**92.8** 73.60 : 115.60	**97.2** 80.07 : 125.98
Hexachlorobutadiene	TM116	**106.2** 42.69 : 142.65	**116.4** 30.92 : 132.28
Isopropylbenzene	TM116	**85.8** 72.52 : 117.52	**94.8** 69.27 : 125.32
Naphthalene	TM116	**102.6** 83.23 : 126.48	**111.4** 79.15 : 121.98
o-Xylene	TM116	**82.6** 69.60 : 110.40	**86.6** 72.94 : 106.80
p/m-Xylene	TM116	**87.7** 71.30 : 112.70	**94.9** 76.97 : 121.75
Sec-Butylbenzene	TM116	**86.2** 59.20 : 125.20	**107.4** 49.27 : 129.90
Tetrachloroethene	TM116	**107.8** 85.92 : 127.92	**110.0** 87.96 : 133.65
Toluene	TM116	**85.4** 76.08 : 110.17	**94.2** 79.23 : 114.58

CERTIFICATE OF ANALYSIS

SDG:	151203-38	**Location:**	Shell Blackhorse	**Order Number:**	60479811
Job:	H_URS_WIM-282	**Customer:**	AECOM	**Report Number:**	342759
Client Reference:	46370438	**Attention:**	Phil Allen	**Superseded Report:**	341318

VOC MS (S)

		QC 1284	QC 1243
Trichloroethene	TM116	**93.2** 78.17 : 121.37	**92.2** 84.09 : 114.24
Trichlorofluoromethane	TM116	**116.6** 83.78 : 132.82	**100.8** 76.22 : 114.82
Vinyl Chloride	TM116	**89.6** 66.81 : 138.46	**84.0** 59.68 : 118.68

The above information details the reference name of the analytical quality control sample (AQC) that has been run with the samples contained in this report for the different methods of analysis.
The figure detailed is the percentage recovery result for the AQC.
The subscript numbers below are the percentage recovery lower control limit (LCL) and the upper control limit (UCL). The percentage recovery result for the AQC should be between these limits to be statistically in control.

CERTIFICATE OF ANALYSIS

SDG:	151203-38	**Location:**	Shell Blackhorse	**Order Number:**	60479811
Job:	H_URS_WIM-282	**Customer:**	AECOM	**Report Number:**	342759
Client Reference:	46370438	**Attention:**	Phil Allen	**Superseded Report:**	341318

Chromatogram

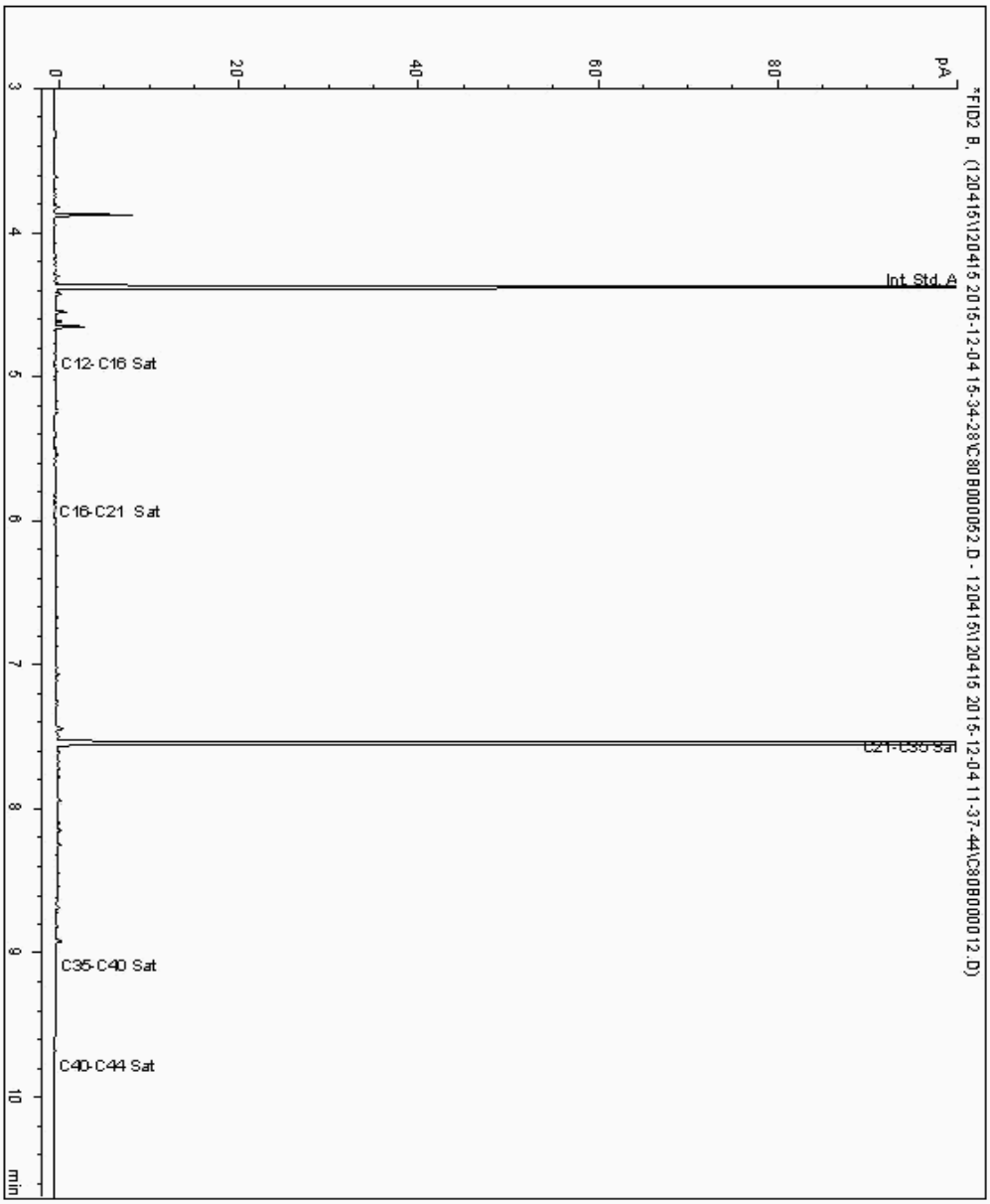
Analysis: EPH CWG (Aliphatic) GC (S)

Sample No : 12566174
Sample ID : VP201

Depth : 0.50

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

Sample Identity: 11873797-
Date Acquired : 05/12/15 01:23:53
Units : ppb
Dilution :
CF : 1
Multiplier : 0.979



CERTIFICATE OF ANALYSIS

SDG:	151203-38	**Location:**	Shell Blackhorse	**Order Number:**	60479811
Job:	H_URS_WIM-282	**Customer:**	AECOM	**Report Number:**	342759
Client Reference:	46370438	**Attention:**	Phil Allen	**Superseded Report:**	341318

Chromatogram

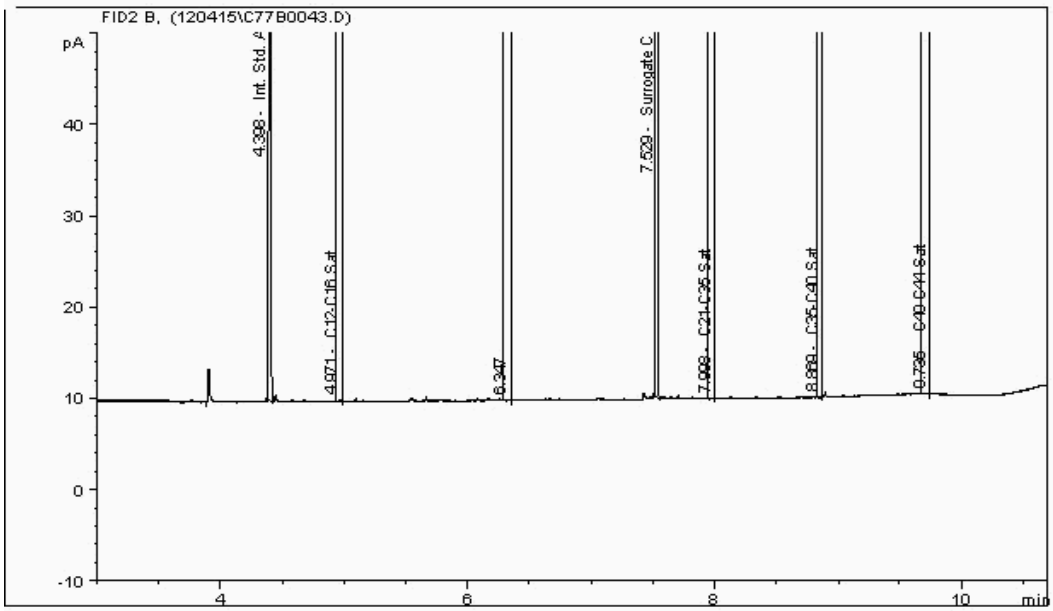
Analysis: EPH CWG (Aliphatic) GC (S)

Sample No : 12566228
Sample ID : SB204

Depth : 1.10

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

Sample Identity: 11873808-
Date Acquired : 04/12/2015 21:57:55 PM
Units : ppb
Dilution:



CERTIFICATE OF ANALYSIS

SDG:	151203-38	**Location:**	Shell Blackhorse	**Order Number:**	60479811
Job:	H_URS_WIM-282	**Customer:**	AECOM	**Report Number:**	342759
Client Reference:	46370438	**Attention:**	Phil Allen	**Superseded Report:**	341318

Chromatogram

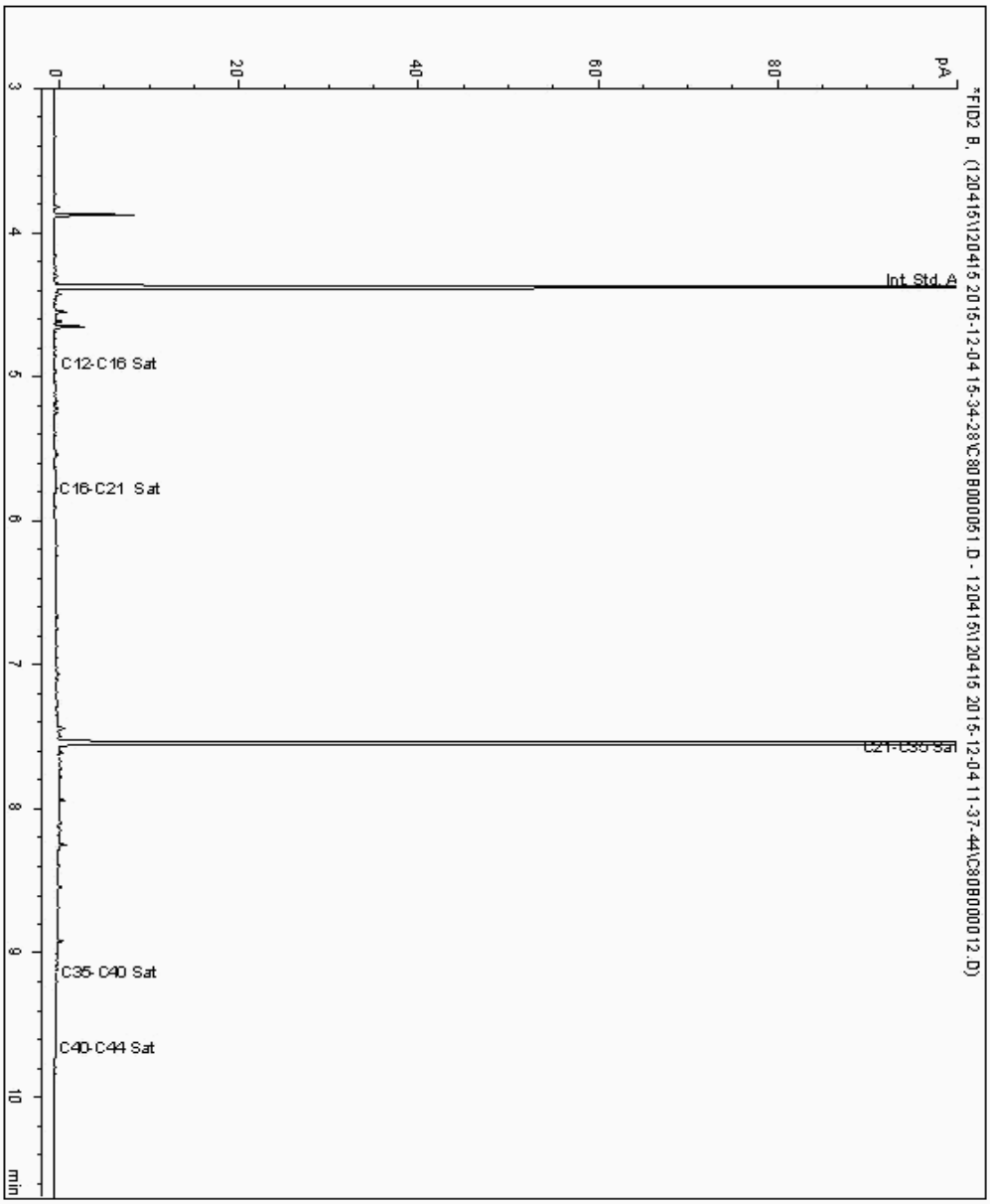
Analysis: EPH CWG (Aliphatic) GC (S)

Sample No : 12566745
Sample ID : SB205

Depth : 0.70

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

Sample Identity: 11873833-
Date Acquired : 05/12/15 01:03:34
Units : ppb
Dilution :
CF : 1
Multiplier : 1.008



CERTIFICATE OF ANALYSIS

SDG:	151203-38	**Location:**	Shell Blackhorse	**Order Number:**	60479811
Job:	H_URS_WIM-282	**Customer:**	AECOM	**Report Number:**	342759
Client Reference:	46370438	**Attention:**	Phil Allen	**Superseded Report:**	341318

Chromatogram

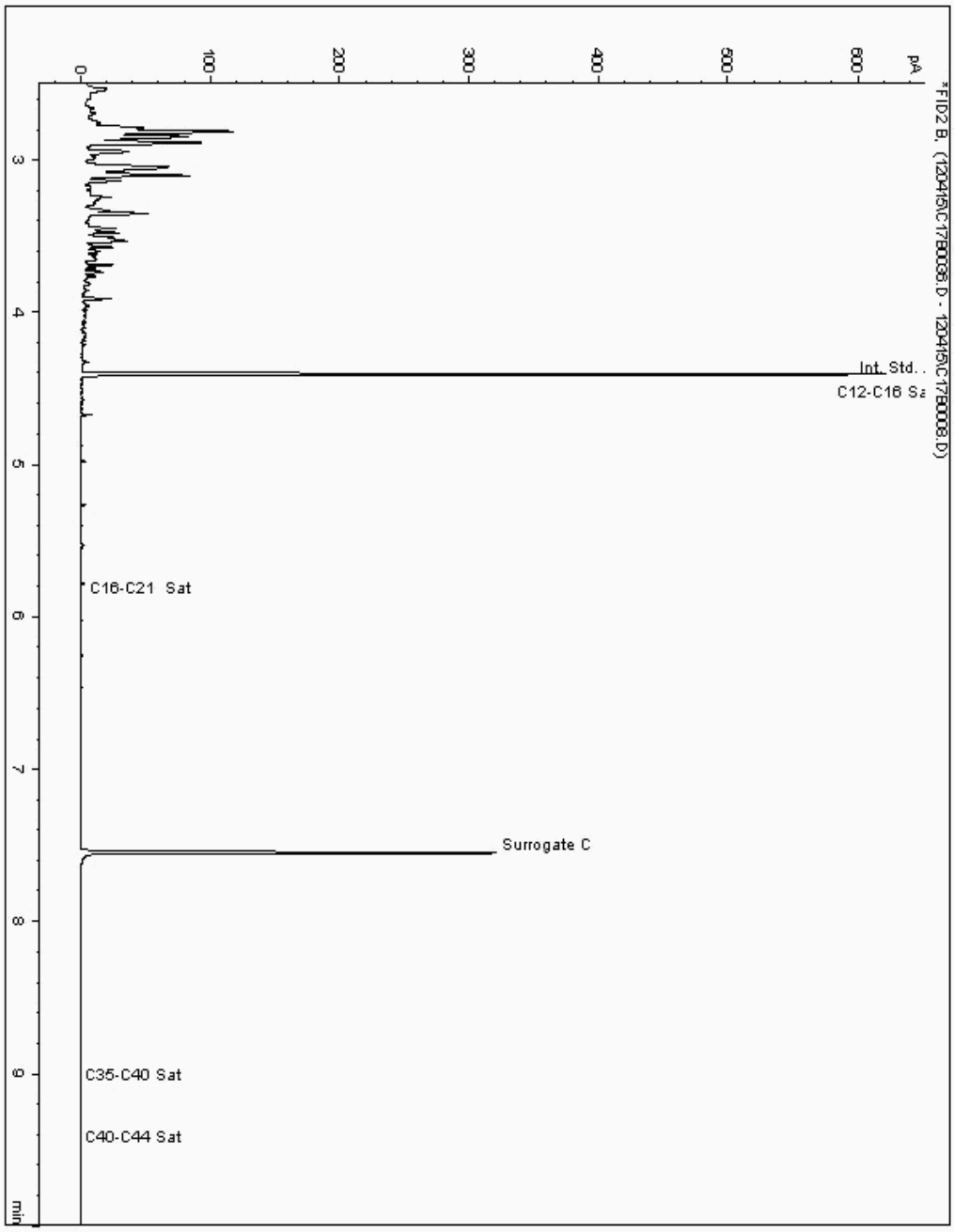
Analysis: EPH CWG (Aliphatic) GC (S)

Sample No : 12568491
Sample ID : SB204

Depth : 2.00

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

Sample Identity: 11873819-
Date Acquired : 05/12/2015 22:18:54 PM
Units : ppb
Dilution :
CF : 1
Multiplier : 0.987



CERTIFICATE OF ANALYSIS

SDG:	151203-38	**Location:**	Shell Blackhorse	**Order Number:**	60479811
Job:	H_URS_WIM-282	**Customer:**	AECOM	**Report Number:**	342759
Client Reference:	46370438	**Attention:**	Phil Allen	**Superseded Report:**	341318

Chromatogram

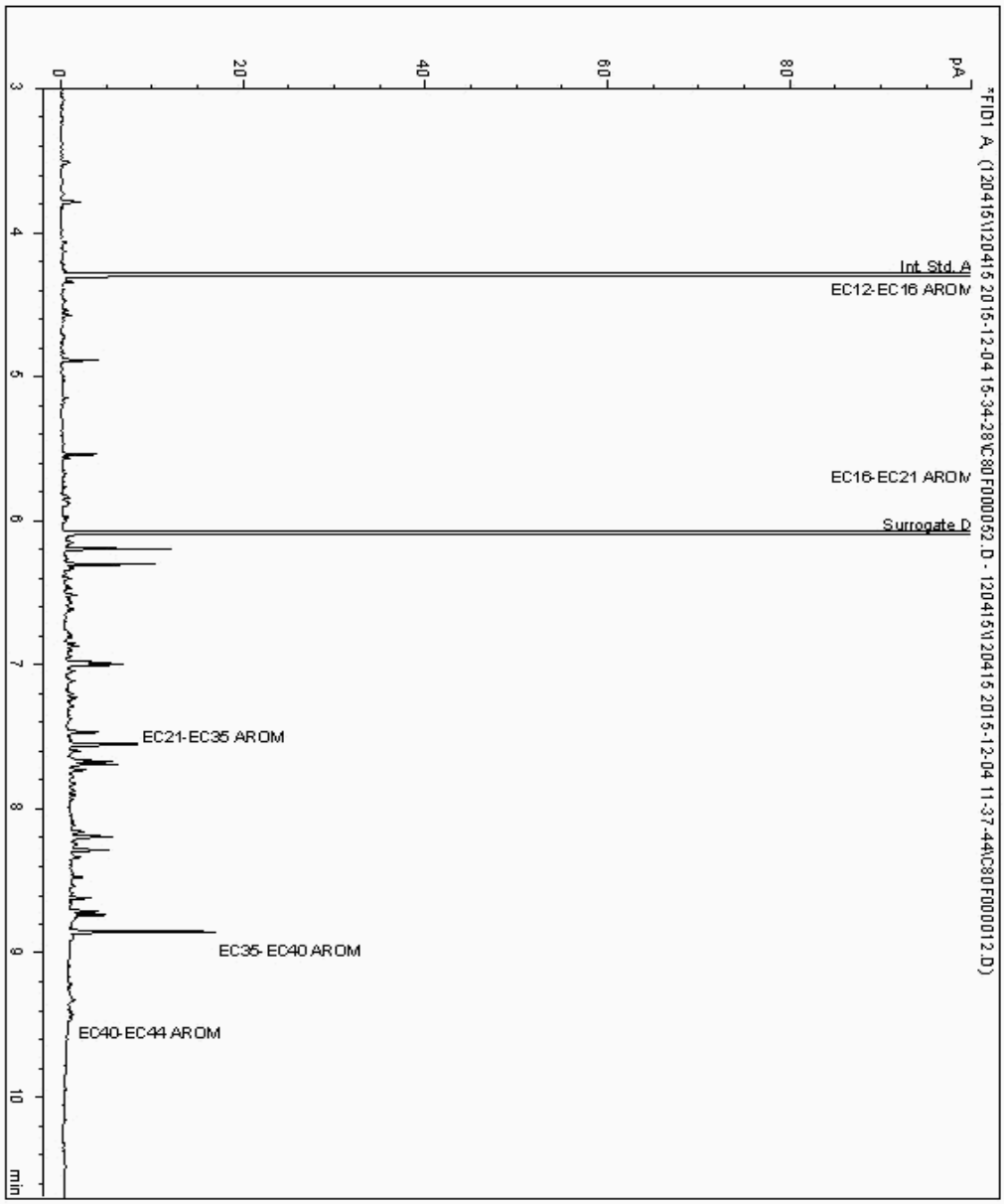
Analysis: EPH CWG (Aromatic) GC (S)

Sample No : 12566174
Sample ID : VP201

Depth : 0.50

Alcontrol/Geochem Analytical Services
Speciated TPH - AROMS (C12 - C44)

Sample Identity: 11873798-
Date Acquired : 05/12/15 01:23:53
Units : ppb
Dilution :
CF : 1
Multiplier : 0.979



CERTIFICATE OF ANALYSIS

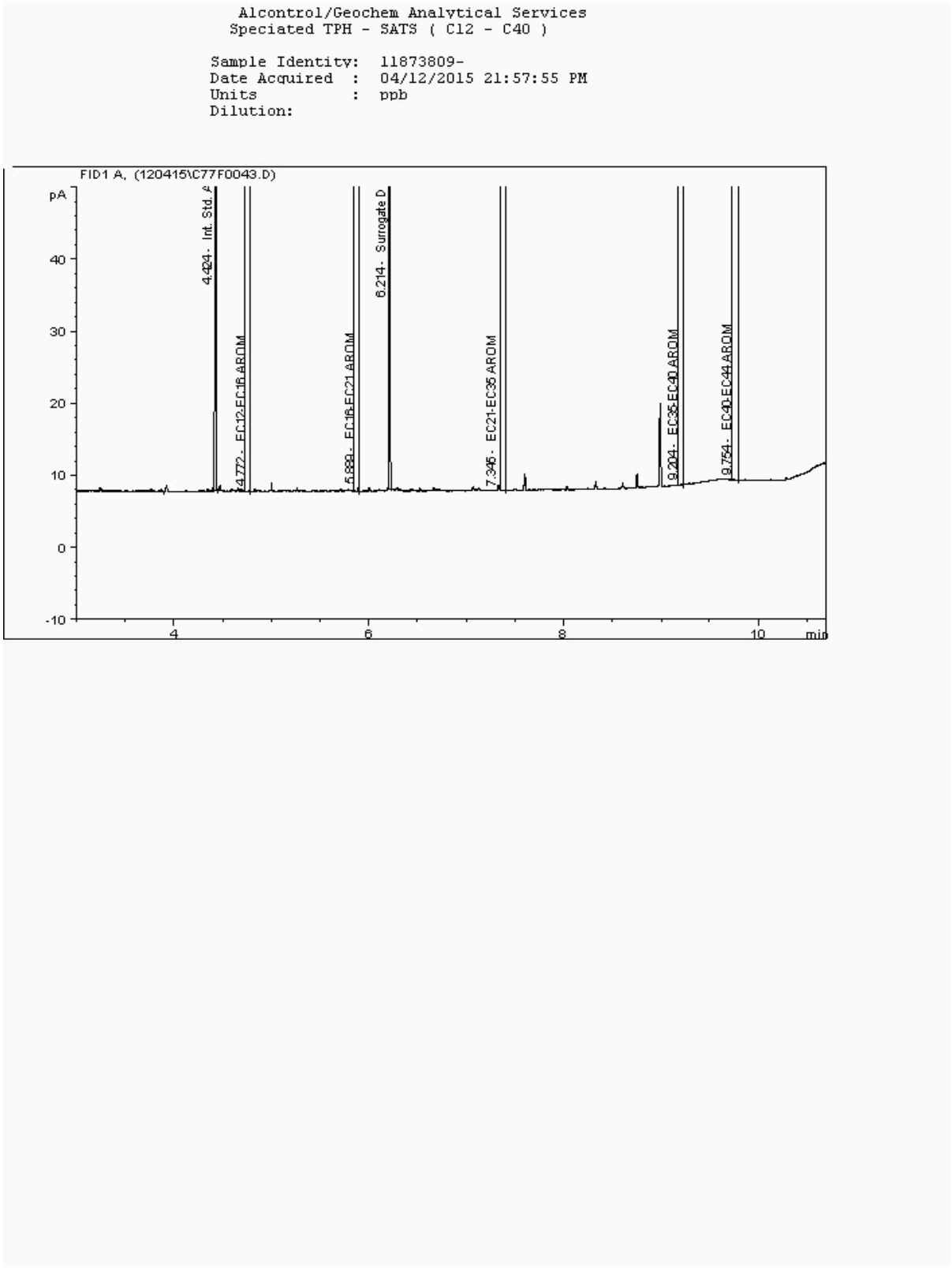
SDG:	151203-38	**Location:**	Shell Blackhorse	**Order Number:**	60479811
Job:	H_URS_WIM-282	**Customer:**	AECOM	**Report Number:**	342759
Client Reference:	46370438	**Attention:**	Phil Allen	**Superseded Report:**	341318

Chromatogram

Analysis: EPH CWG (Aromatic) GC (S)

Sample No : 12566228
Sample ID : SB204

Depth : 1.10



CERTIFICATE OF ANALYSIS

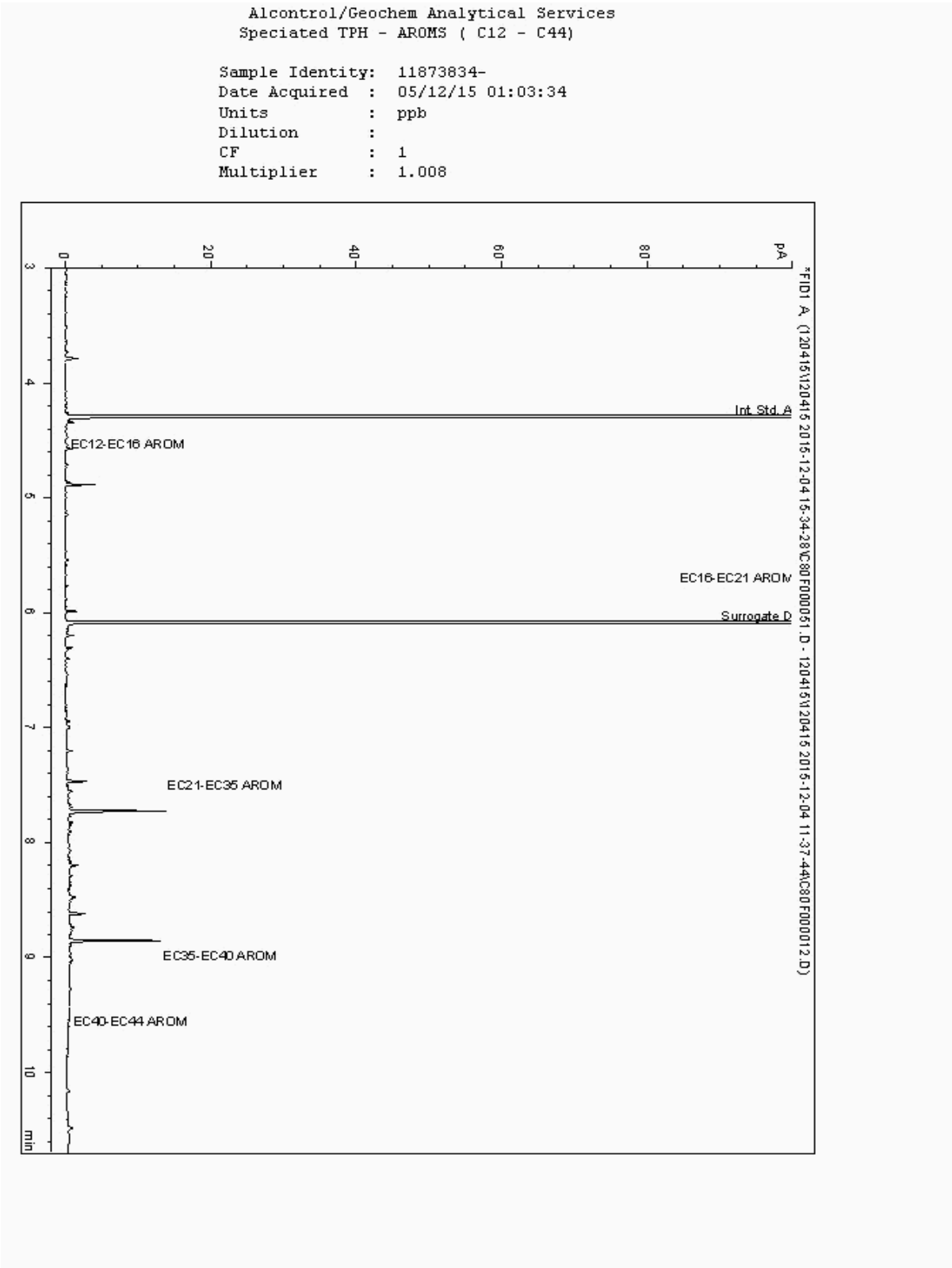
SDG:	151203-38	**Location:**	Shell Blackhorse	**Order Number:**	60479811
Job:	H_URS_WIM-282	**Customer:**	AECOM	**Report Number:**	342759
Client Reference:	46370438	**Attention:**	Phil Allen	**Superseded Report:**	341318

Chromatogram

Analysis: EPH CWG (Aromatic) GC (S)

Sample No : 12566745
Sample ID : SB205

Depth : 0.70



CERTIFICATE OF ANALYSIS

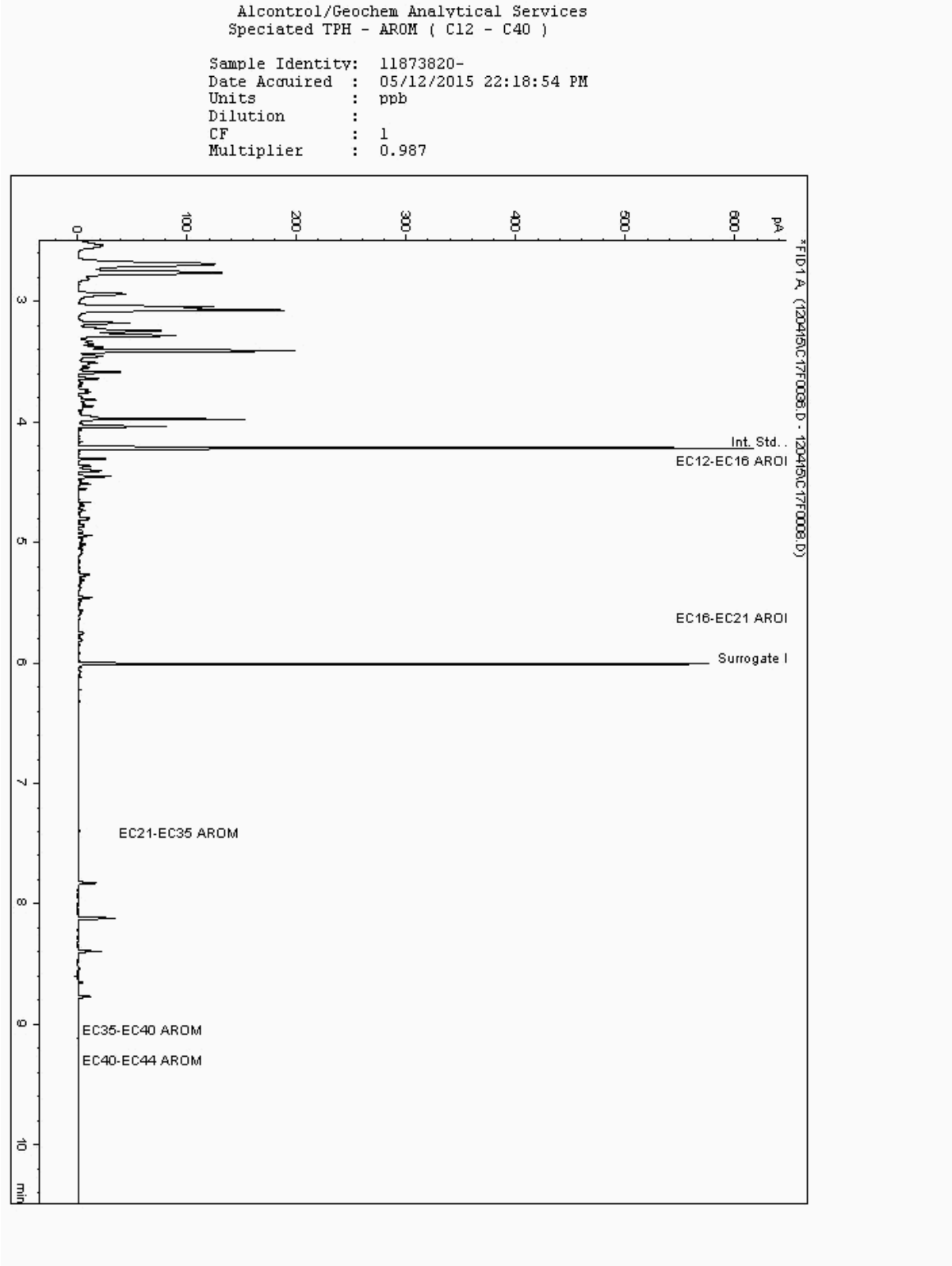
SDG:	151203-38	**Location:**	Shell Blackhorse	**Order Number:**	60479811
Job:	H_URS_WIM-282	**Customer:**	AECOM	**Report Number:**	342759
Client Reference:	46370438	**Attention:**	Phil Allen	**Superseded Report:**	341318

Chromatogram

Analysis: EPH CWG (Aromatic) GC (S)

Sample No : 12568491
Sample ID : SB204

Depth : 2.00



CERTIFICATE OF ANALYSIS

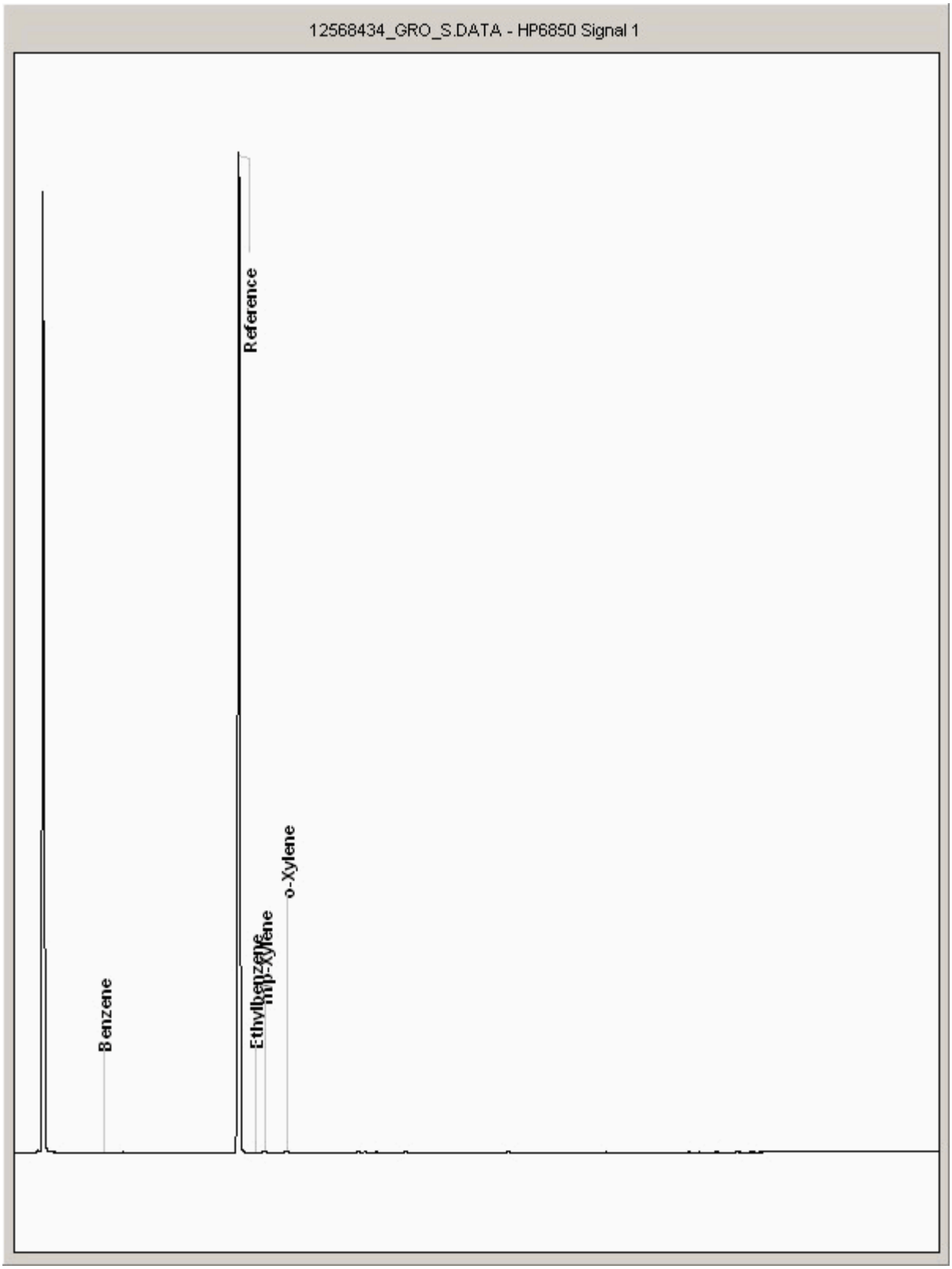
SDG:	151203-38	**Location:**	Shell Blackhorse	**Order Number:**	60479811
Job:	H_URS_WIM-282	**Customer:**	AECOM	**Report Number:**	342759
Client Reference:	46370438	**Attention:**	Phil Allen	**Superseded Report:**	341318

Chromatogram

Analysis: GRO by GC-FID (S)

Sample No : 12568434
Sample ID : SB204

Depth : 1.10



CERTIFICATE OF ANALYSIS

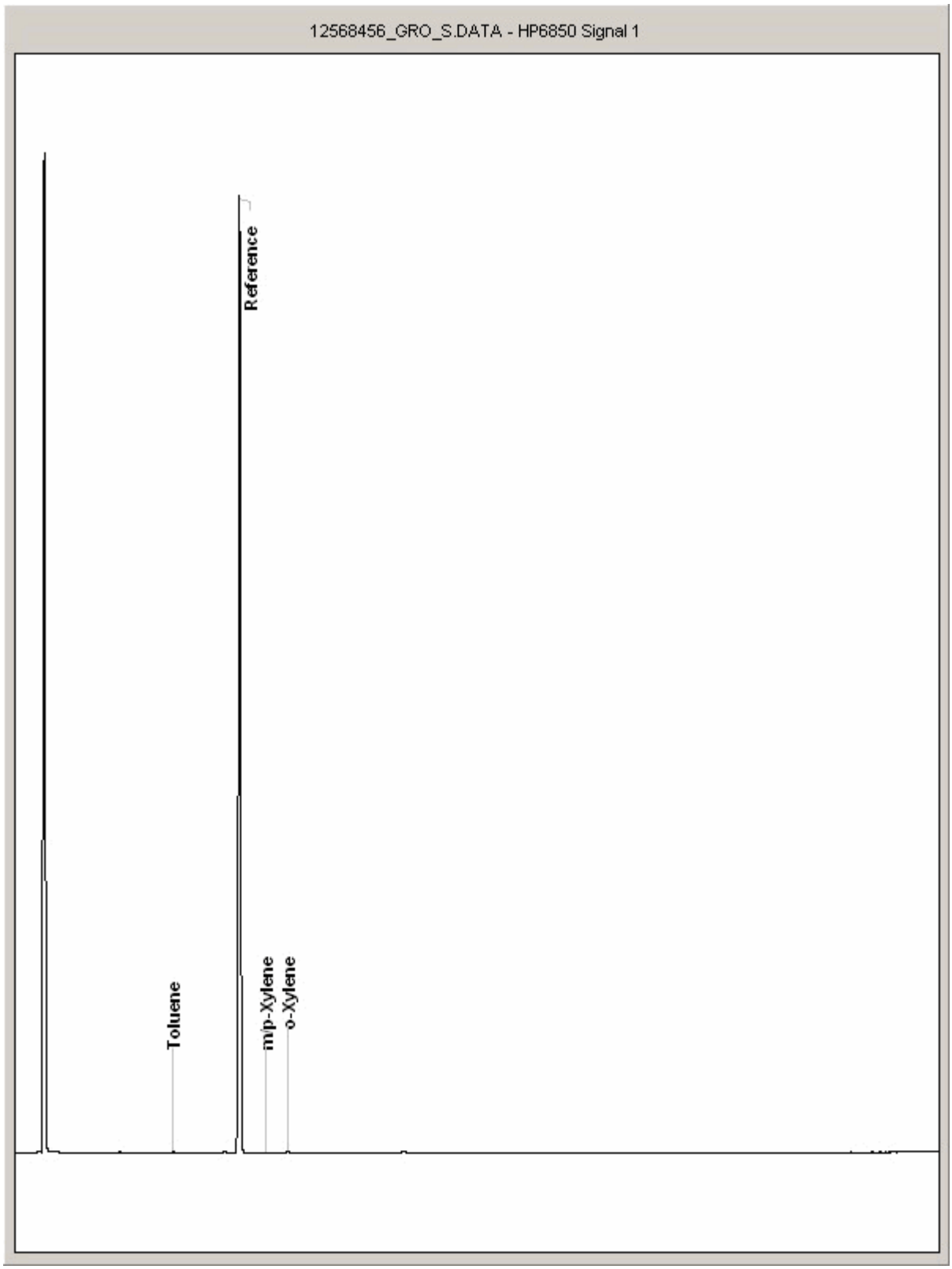
SDG:	151203-38	**Location:**	Shell Blackhorse	**Order Number:**	60479811
Job:	H_URS_WIM-282	**Customer:**	AECOM	**Report Number:**	342759
Client Reference:	46370438	**Attention:**	Phil Allen	**Superseded Report:**	341318

Chromatogram

Analysis: GRO by GC-FID (S)

Sample No : 12568456
Sample ID : VP201

Depth : 0.50



CERTIFICATE OF ANALYSIS

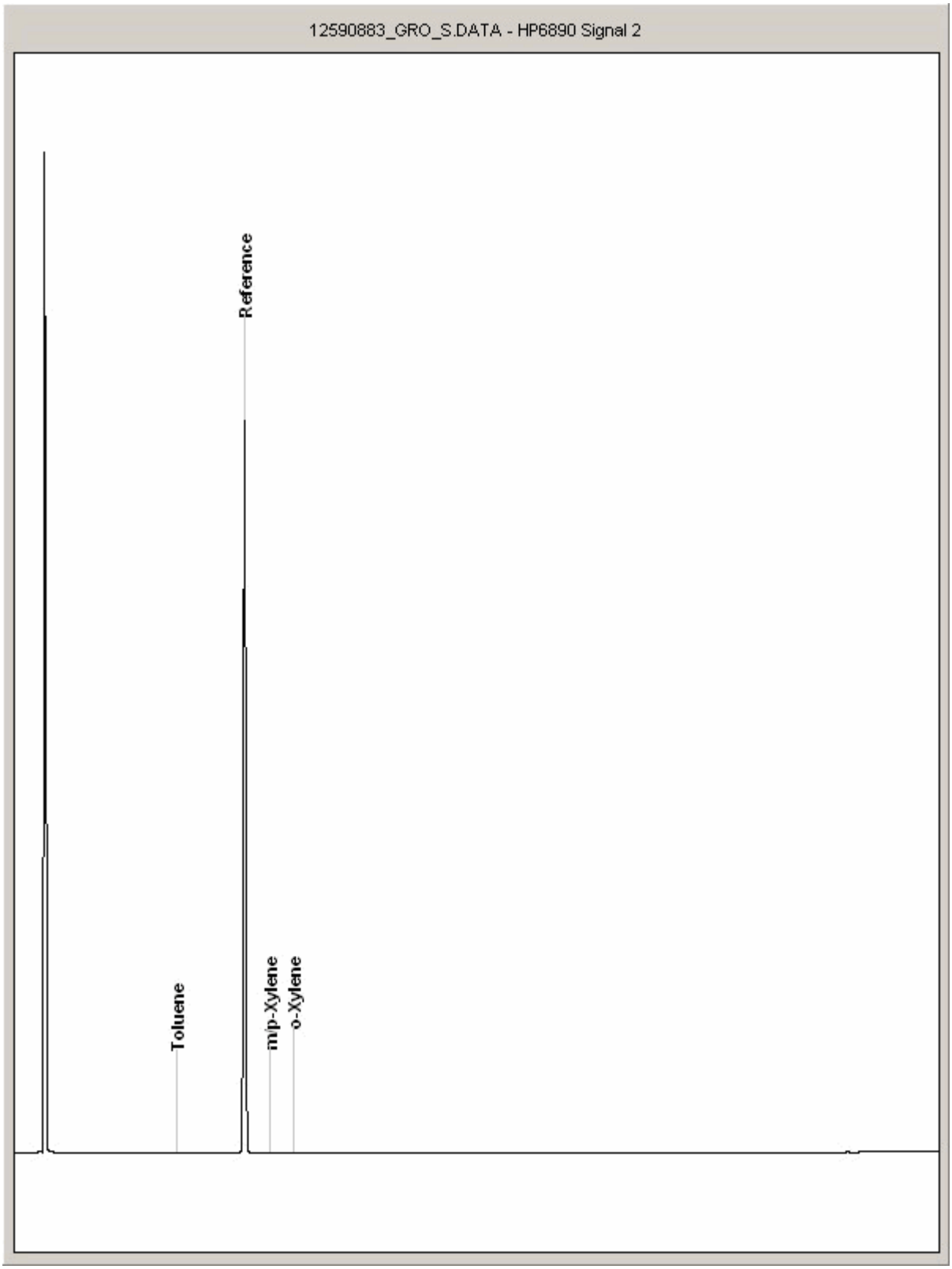
SDG:	151203-38	**Location:**	Shell Blackhorse	**Order Number:**	60479811
Job:	H_URS_WIM-282	**Customer:**	AECOM	**Report Number:**	342759
Client Reference:	46370438	**Attention:**	Phil Allen	**Superseded Report:**	341318

Chromatogram

Analysis: GRO by GC-FID (S)

Sample No : 12590883
Sample ID : SB205

Depth : 0.70



CERTIFICATE OF ANALYSIS

SDG:	151203-38	**Location:**	Shell Blackhorse	**Order Number:**	60479811
Job:	H_URS_WIM-282	**Customer:**	AECOM	**Report Number:**	342759
Client Reference:	46370438	**Attention:**	Phil Allen	**Superseded Report:**	341318

Chromatogram

Analysis: GRO by GC-FID (S)

Sample No : 12590889
Sample ID : SB204

Depth : 2.00