# Energy Laboratories Inc

# ANALYTICAL RUN Summary

*03-Nov-21*

**Run ID** GCFID-HP5-B_211102A

| | |
|---|---|
| **Run Start Date:** | 11/2/2021 |
| **Analyst:** | Ann Nebel |
| **Ical:** | |
| **Column ID:** | |
| **Comments:** | ICAL for 8015C_DRO211002IA |

| Std ID | Std Name | Std Amount | Std Units | Samp Amount | Samp Units | SampType | Expiration Date |
|---|---|---|---|---|---|---|---|
| DRO211012A | Diesel Fuel #2 50,000 ug/mL in DCM | | | | | CAL-DIESE | 4/30/2023 |
| DRO211012B | #2 Diesel in Acetone 150,000 ug/mL | | | | | SECOND S | 11/5/2023 |
| DRO211025A | ALI CCV Mix-200ug/mL | | | | | MARKER | 5/31/2022 |
| DRO211101A | OTP-4000 ug/mL DCM | | | | | CAL-SURR | 9/30/2024 |

| Seq No | Lab ID | Test Code | Sample Typ | File ID | Analysis Date | DF | Batch ID | Prep Date | SPKref | RPDref | pmoist |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 14822192 | CCV_1102HP50 | HC-8015-DRO- | CCV | | 11/2/2021 8:31:3 | 1 | R369667 | | 0 | 0 | |

| Analyte | T | Units | RAW | Final | Text | Spike | SPKref | RPDref | MDL | PQL | UQL | %REC | LOW | HIGH | %RPD | Q |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Extractable Hydrocarbons | A | mg/L | | 3.665751 | | 15 | 0 | 0 | 0.0749 | 0.3 | 50 | 24% | 80 | 120 | 0% | S |
| o-Terphenyl | S | mg/L | | 0.2015393 | | 0.2 | 0 | 0 | 0.000429 | 0.002 | 0 | 101% | 80 | 120 | 0% | |

| Seq No | Lab ID | Test Code | Sample Typ | File ID | Analysis Date | DF | Batch ID | Prep Date | SPKref | RPDref | pmoist |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 14822193 | CCV_1102HP50 | HC-8015-DRO- | CAL1 | | 11/2/2021 9:57:0 | 1 | R369667 | | 0 | 0 | |

| Analyte | T | Units | RAW | Final | Text | Spike | SPKref | RPDref | MDL | PQL | UQL | %REC | LOW | HIGH | %RPD | Q |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| o-Terphenyl | S | mg/L | | 0.00195342 | | 0.002 | 0 | 0 | 0.000429 | 0.002 | 0 | 98% | 80 | 120 | 0% | |

| Seq No | Lab ID | Test Code | Sample Typ | File ID | Analysis Date | DF | Batch ID | Prep Date | SPKref | RPDref | pmoist |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 14822194 | CCV_1102HP50 | HC-8015-DRO- | CAL2 | | 11/2/2021 10:39: | 1 | R369667 | | 0 | 0 | |

| Analyte | T | Units | RAW | Final | Text | Spike | SPKref | RPDref | MDL | PQL | UQL | %REC | LOW | HIGH | %RPD | Q |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| o-Terphenyl | S | mg/L | | 0.04992196 | | 0.05 | 0 | 0 | 0.000429 | 0.002 | 0 | 100% | 80 | 120 | 0% | |

| Seq No | Lab ID | Test Code | Sample Typ | File ID | Analysis Date | DF | Batch ID | Prep Date | SPKref | RPDref | pmoist |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 14822195 | CCV_1102HP50 | HC-8015-DRO- | CAL3 | | 11/2/2021 11:22: | 1 | R369667 | | 0 | 0 | |

| Analyte | T | Units | RAW | Final | Text | Spike | SPKref | RPDref | MDL | PQL | UQL | %REC | LOW | HIGH | %RPD | Q |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| o-Terphenyl | S | mg/L | | 0.1939565 | | 0.2 | 0 | 0 | 0.000429 | 0.002 | 0 | 97% | 80 | 120 | 0% | |

| Seq No | Lab ID | Test Code | Sample Typ | File ID | Analysis Date | DF | Batch ID | Prep Date | SPKref | RPDref | pmoist |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 14822196 | CCV_1102HP50 | HC-8015-DRO- | CAL4 | | 11/2/2021 12:05: | 1 | R369667 | | 0 | 0 | |

| Analyte | T | Units | RAW | Final | Text | Spike | SPKref | RPDref | MDL | PQL | UQL | %REC | LOW | HIGH | %RPD | Q |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| o-Terphenyl | S | mg/L | | 0.5113316 | | 0.5 | 0 | 0 | 0.000429 | 0.002 | 0 | 102% | 80 | 120 | 0% | |

| Seq No | Lab ID | Test Code | Sample Typ | File ID | Analysis Date | DF | Batch ID | Prep Date | SPKref | RPDref | pmoist |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 14822197 | CCV_1102HP50 | HC-8015-DRO- | CAL5 | | 11/2/2021 12:49: | 1 | R369667 | | 0 | 0 | |

| Analyte | T | Units | RAW | Final | Text | Spike | SPKref | RPDref | MDL | PQL | UQL | %REC | LOW | HIGH | %RPD | Q |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| o-Terphenyl | S | mg/L | | 1.032406 | | 1 | 0 | 0 | 0.000429 | 0.002 | 0 | 103% | 80 | 120 | 0% | |

| Seq No | Lab ID | Test Code | Sample Typ | File ID | Analysis Date | DF | Batch ID | Prep Date | SPKref | RPDref | pmoist |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 14822198 | CCV_1102HP51 | HC-8015-DRO- | CAL1 | | 11/2/2021 1:32:0 | 1 | R369667 | | 0 | 0 | |

| Analyte | T | Units | RAW | Final | Text | Spike | SPKref | RPDref | MDL | PQL | UQL | %REC | LOW | HIGH | %RPD | Q |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Extractable Hydrocarbons | A | mg/L | | 0.1551854 | | 0.15 | 0 | 0 | 0.0749 | 0.3 | 50 | 103% | 80 | 120 | 0% | |

| Seq No | Lab ID | Test Code | Sample Typ | File ID | Analysis Date | DF | Batch ID | Prep Date | SPKref | RPDref | pmoist |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 14822199 | CCV_1102HP51 | HC-8015-DRO- | CAL2 | | 11/2/2021 2:15:0 | 1 | R369667 | | 0 | 0 | |

| Analyte | T | Units | RAW | Final | Text | Spike | SPKref | RPDref | MDL | PQL | UQL | %REC | LOW | HIGH | %RPD | Q |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Extractable Hydrocarbons | A | mg/L | | 3.698073 | | 3.75 | 0 | 0 | 0.0749 | 0.3 | 50 | 99% | 80 | 120 | 0% | |

| Seq No | Lab ID | Test Code | Sample Typ | File ID | Analysis Date | DF | Batch ID | Prep Date | SPKref | RPDref | pmoist |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 14822200 | CCV_1102HP51 | HC-8015-DRO- | CAL3 | | 11/2/2021 2:58:2 | 1 | R369667 | | 0 | 0 | |

| Analyte | T | Units | RAW | Final | Text | Spike | SPKref | RPDref | MDL | PQL | UQL | %REC | LOW | HIGH | %RPD | Q |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Extractable Hydrocarbons | A | mg/L | | 15.26249 | | 15 | 0 | 0 | 0.0749 | 0.3 | 50 | 102% | 80 | 120 | 0% | |

| Seq No | Lab ID | Test Code | Sample Typ | File ID | Analysis Date | DF | Batch ID | Prep Date | SPKref | RPDref | pmoist |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 14822201 | CCV_1102HP51 | HC-8015-DRO- | CAL4 | | 11/2/2021 3:41:3 | 1 | R369667 | | 0 | 0 | |

| Analyte | T | Units | RAW | Final | Text | Spike | SPKref | RPDref | MDL | PQL | UQL | %REC | LOW | HIGH | %RPD | Q |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Extractable Hydrocarbons | A | mg/L | | 36.59341 | | 37.5 | 0 | 0 | 0.0749 | 0.3 | 50 | 98% | 80 | 120 | 0% | |

| Seq No | Lab ID | Test Code | Sample Typ | File ID | Analysis Date | DF | Batch ID | Prep Date | SPKref | RPDref | pmoist |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 14822202 | CCV_1102HP51 | HC-8015-DRO- | CAL5 | | 11/2/2021 4:24:5 | 1 | R369667 | | 0 | 0 | |

| Analyte | T | Units | RAW | Final | Text | Spike | SPKref | RPDref | MDL | PQL | UQL | %REC | LOW | HIGH | %RPD | Q |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Extractable Hydrocarbons | A | mg/L | | 49.2977 | | 50 | 0 | 0 | 0.0749 | 0.3 | 50 | 99% | 80 | 120 | 0% | |

| Seq No | Lab ID | Test Code | Sample Typ | File ID | Analysis Date | DF | Batch ID | Prep Date | SPKref | RPDref | pmoist |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 14822203 | CCV_1102HP51 | HC-8015-DRO- | ICV | | 11/2/2021 5:51:3 | 1 | R369667 | | 0 | 0 | |

| Analyte | T | Units | RAW | Final | Text | Spike | SPKref | RPDref | MDL | PQL | UQL | %REC | LOW | HIGH | %RPD | Q |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Extractable Hydrocarbons | A | mg/L | | 14.98994 | | 15 | 0 | 0 | 0.0749 | 0.3 | 50 | 100% | 80 | 120 | 0% | |

| Write Sequence<br>Data File | Insert Entries(Have the first cell for entries selecte<br>Sample Name | Method | Weight | Dil Factor | Amt Inj. | IS | Cal ID |
|---|---|---|---|---|---|---|---|
| :\org\HP5\DAT\HP5110221_b\1102HP5.03r | CCV_1102HP508r, DRO ;1102HP5 , DRO211025A | G:\Org\HP5\Methods\DC_8015-IA-L%.met | 1 | 1 | 1 | 1 | 0 |
| :\org\HP5\DAT\HP5110221_b\1102HP5.04r | DCM-Baseline Check-V04 | G:\Org\HP5\Methods\DR_8015-HP-LEXP.met | 1 | 1 | 1 | 1 | 0 |
| :\org\HP5\DAT\HP5110221_b\1102HP5.05r | CCV_1102HP505r, CAL1 ;1102HP5 , 2 ug per mL OTP (10 uL of Cal3 + 990 uL DCM(14408) | G:\Org\HP5\Methods\DS_8015-IA-L#.met | 1 | 1 | 1 | 1 | 0 |
| :\org\HP5\DAT\HP5110221_b\1102HP5.06r | CCV_1102HP506r, CAL2 ;1102HP5 , 50 ug per mL OTP (100 uL Cal4 + 900 uL of DCM(14408) | G:\Org\HP5\Methods\DS_8015-IA-L#.met | 1 | 1 | 1 | 1 | 0 |
| :\org\HP5\DAT\HP5110221_b\1102HP5.07r | CCV_1102HP507r, CAL3 ;1102HP5 , 200 ug per mL OTP (100uL of Cal5 + 400 uL DCM(14408) | G:\Org\HP5\Methods\DS_8015-IA-L#.met | 1 | 1 | 1 | 1 | 0 |
| :\org\HP5\DAT\HP5110221_b\1102HP5.08r | CCV_1102HP508r, CAL4 ;1102HP5 , 500 ug per mL OTP (250uL of Cal5 + 250 uL DCM(14408) | G:\Org\HP5\Methods\DS_8015-IA-L#.met | 1 | 1 | 1 | 1 | 0 |
| :\org\HP5\DAT\HP5110221_b\1102HP5.09r | CCV_1102HP509r, CAL5 ;1102HP5 , 1000 ug per mL OTP (250 uL 4000 ug/mL OTP DRO211101A + 750 DCM(14408) | G:\Org\HP5\Methods\DS_8015-IA-L#.met | 1 | 1 | 1 | 1 | 0 |
| :\org\HP5\DAT\HP5110221_b\1102HP5.10r | CCV_1102HP510r, CAL1 ;1102HP5 , 150 ug per mL Diesel (10 uL of Cal3 + 990 uL DCM(14408), | G:\Org\HP5\Methods\DC_8015-IA-L%.met | 1 | 1 | 1 | 1 | 0 |
| :\org\HP5\DAT\HP5110221_b\1102HP5.11r | CCV_1102HP511r, CAL2 ;1102HP5 , 3750 ug per mL Diesel (100 uL Cal4 + 900 uL of DCM(14408) | G:\Org\HP5\Methods\DC_8015-IA-L%.met | 1 | 1 | 1 | 1 | 0 |
| :\org\HP5\DAT\HP5110221_b\1102HP5.12r | CCV_1102HP512r, CAL3 ;1102HP5 , 15000 ug per mL Diesel (300 uL of DRO211012A + 700 uL DCM(14408) | G:\Org\HP5\Methods\DC_8015-IA-L%.met | 1 | 1 | 1 | 1 | 0 |
| :\org\HP5\DAT\HP5110221_b\1102HP5.13r | CCV_1102HP513r, CAL4 ;1102HP5 , 37500ug per mL Diesel (750 uL of DRO211012A + 250 uL DCM(14408) | G:\Org\HP5\Methods\DC_8015-IA-L%.met | 1 | 1 | 1 | 1 | 0 |
| :\org\HP5\DAT\HP5110221_b\1102HP5.14r | CCV_1102HP514r, CAL5 ;1102HP5 , 50000 ug per mL Diesel (200 uL of DRO211012A) | G:\Org\HP5\Methods\DC_8015-IA-L%.met | 1 | 1 | 1 | 1 | 0 |
| :\org\HP5\DAT\HP5110221_b\1102HP5.15r | DCM-Baseline Check-V15 | G:\Org\HP5\Methods\DR_8015-HP-LEXP.met | 1 | 1 | 1 | 1 | 0 |
| :\org\HP5\DAT\HP5110221_b\1102HP5.16r | CCV_1102HP516r, Second Source ;1102HP5 , 15000 ug per mL (100uL of DRO211012B + 900uL DCM(14408) | G:\Org\HP5\Methods\DC_8015-IA-L%.met | 1 | 1 | 1 | 1 | 0 |

File Name: G:\Org\HP5\Cals\SW8015C_DRO211102IA.CAL
Version: 14

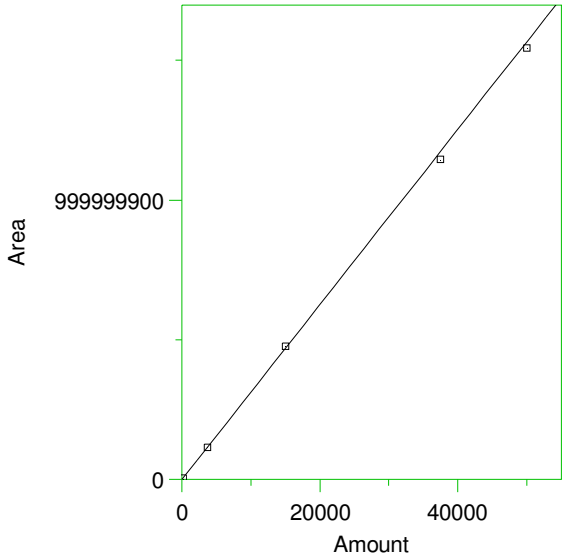
Creator: AMN 11/02/2021
Description: 8015C-DRO. New ICal Per 1102HP5 (2021)-2 uL Inj.; COD added using OTP RFs
Reason for change:

External standard calibration
Standard injection volume: 1
Standard sample weight: 1
Area reject threshold: 500
Reference peak area reject threshold: 500
Amount units: nanograms
No default component

Method of calculating data point averages: Equal weight for all updates
No calibration update report

All levels are normal data points.

1 DRO Range Start




| | |
|---|---|
| Expected retention time: | 6.64 minutes |
| Search window: | 0.05 minutes |
| No retention time reference component | |
| Group number: | 0 |
| High alarm limit: | 0 |
| Low alarm limit: | 0 |
| Component constant: | 0 |

Single peak quantification by area

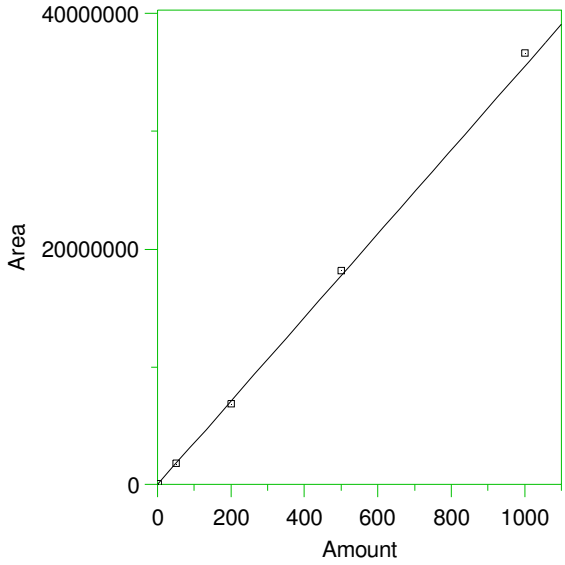
Y = 31353.19 X + 0

Average CF fit with equal weighting, forced to origin

| | |
|---|---|
| Coefficient of determination: | 0.9992341 |
| Average error: | 2.083% |
| Average CF: | 31353.19 |
| RSD: | 2.487% |

| Level | Amount | Response | Cal Factor | Error, % | Source | Date and time |
|---|---|---|---|---|---|---|
| 1 | 150 | 4865557 | 32437.05 | 3.457 | Manual | 11/3/2021 6:44:55 AM |
| 2 | 3750 | 1.159464E+08 | 30919.04 | -1.385 | Manual | 11/3/2021 6:45:31 AM |
| 3 | 15000 | 4.785279E+08 | 31901.86 | 1.750 | Manual | 11/3/2021 6:46:08 AM |
| 4 | 37500 | 1.14732E+09 | 30595.2 | -2.418 | Manual | 11/3/2021 6:45:45 AM |
| 5 | 50000 | 1.54564E+09 | 30912.8 | -1.405 | Manual | 11/3/2021 6:45:18 AM |

2 *o-Terphenyl




Expected retention time: 12.29 minutes
Search window: 0.05 minutes
No retention time reference component
Group number: 0

High alarm limit: 0
Low alarm limit: 0
Component constant: 0

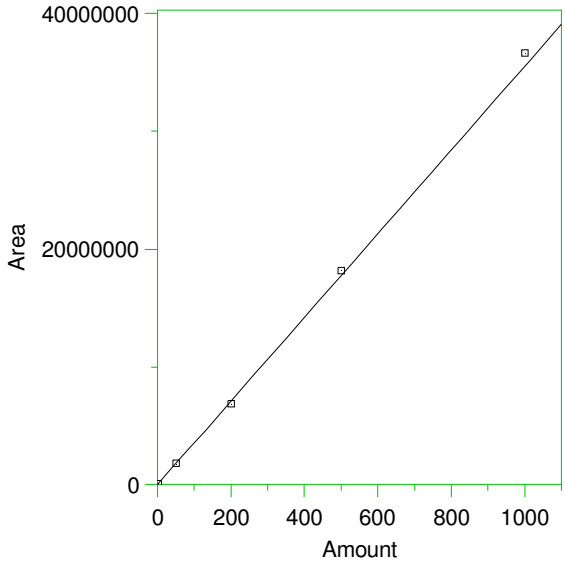
Single peak quantification by area

Y = 35509.21 X + 0

Average CF fit with equal weighting, forced to origin
Coefficient of determination: 0.9983284
Average error: 2.203%
Average CF: 35509.21
RSD: 2.749%

| Level | Amount | Response | Cal Factor | Error, % | Source | Date and time |
|---|---|---|---|---|---|---|
| 1 | 2 | 69364.34 | 34682.17 | -2.329 | G:\Org\HP5\DAT\HP5110221_b\1102HP5.0005.BND | 11/2/2021 2:21:29 PM |
| 2 | 50 | 1772689 | 35453.78 | -0.156 | G:\Org\HP5\DAT\HP5110221_b\1102HP5.0006.BND | 11/2/2021 2:21:35 PM |
| 3 | 200 | 6887244 | 34436.22 | -3.022 | G:\Org\HP5\DAT\HP5110221_b\1102HP5.0007.BND | 11/2/2021 2:21:41 PM |
| 4 | 500 | 1.815698E+07 | 36313.96 | 2.266 | G:\Org\HP5\DAT\HP5110221_b\1102HP5.0008.BND | 11/2/2021 2:21:47 PM |
| 5 | 1000 | 3.665993E+07 | 36659.93 | 3.241 | G:\Org\HP5\DAT\HP5110221_b\1102HP5.0009.BND | 11/2/2021 2:21:52 PM |

3 *1-Chlorooctadecane




| | |
|---|---|
| Expected retention time: | 13.1 minutes |
| Search window: | 0.05 minutes |
| No retention time reference component | |
| Group number: | 0 |
| High alarm limit: | 0 |
| Low alarm limit: | 0 |
| Component constant: | 0 |

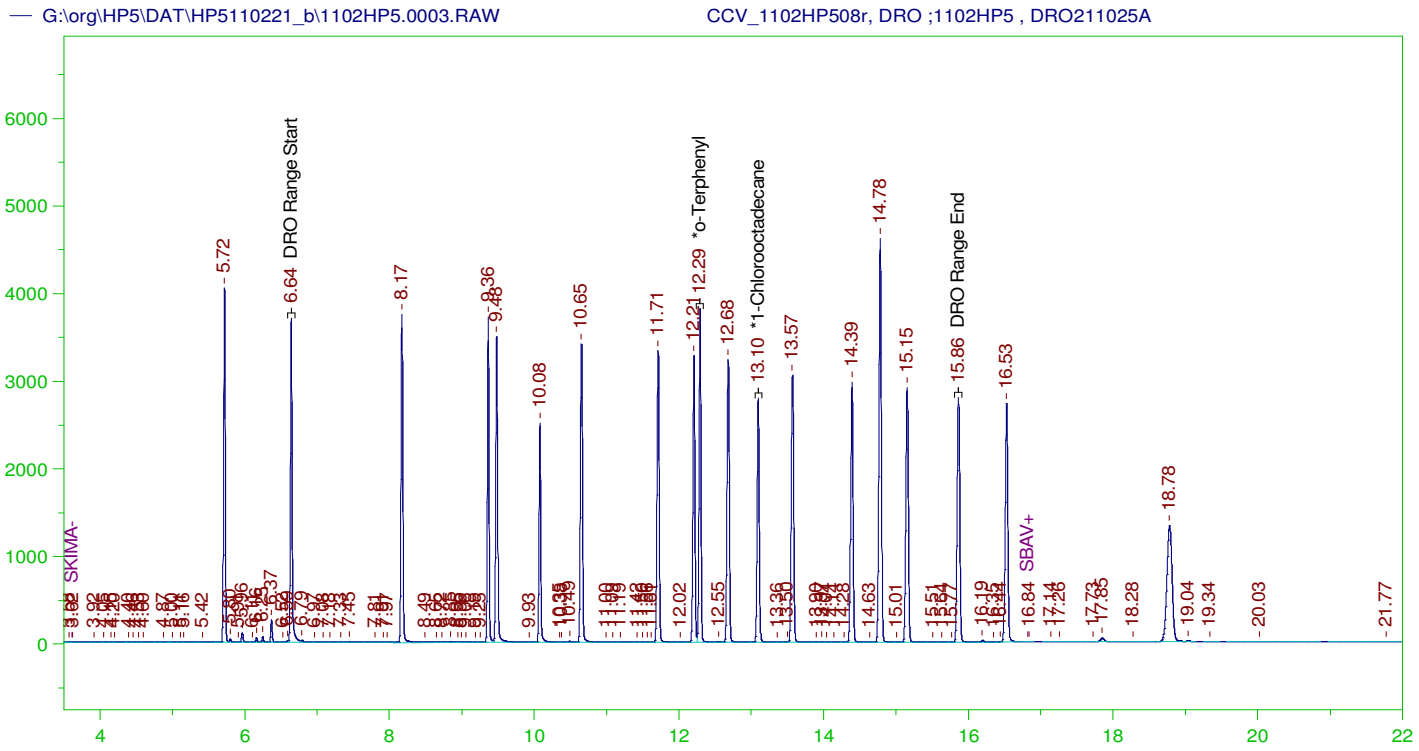
Single peak quantification by area

Y = 35509.21 X + 0

Average CF fit with equal weighting, forced to origin

| | |
|---|---|
| Coefficient of determination: | 0.9983284 |
| Average error: | 2.203% |
| Average CF: | 35509.21 |
| RSD: | 2.749% |

| Level | Amount | Response | Cal Factor | Error, % | Source | Date and time |
|---|---|---|---|---|---|---|
| 1 | 2 | 69364.34 | 34682.17 | -2.329 | Manual | 11/2/2021 2:21:57 PM |
| 2 | 50 | 1772689 | 35453.78 | -0.156 | Manual | 11/2/2021 2:21:58 PM |
| 3 | 200 | 6887244 | 34436.22 | -3.022 | Manual | 11/2/2021 2:22:00 PM |
| 4 | 500 | 1.815698E+07 | 36313.96 | 2.266 | Manual | 11/2/2021 2:22:02 PM |
| 5 | 1000 | 3.665993E+07 | 36659.93 | 3.241 | Manual | 11/2/2021 2:22:04 PM |




**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: CCV_1102HP508r, DRO ;1102HP5 , DRO211025A
Raw File: G:\org\HP5\DAT\HP5110221_b\1102HP5.0003.RAW
Date & Time Acquired: 11/2/2021 8:31:35 AM
Method File: G:\Org\HP5\Methods\DC_8015-IA-L%.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IA.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.59 to 15.91

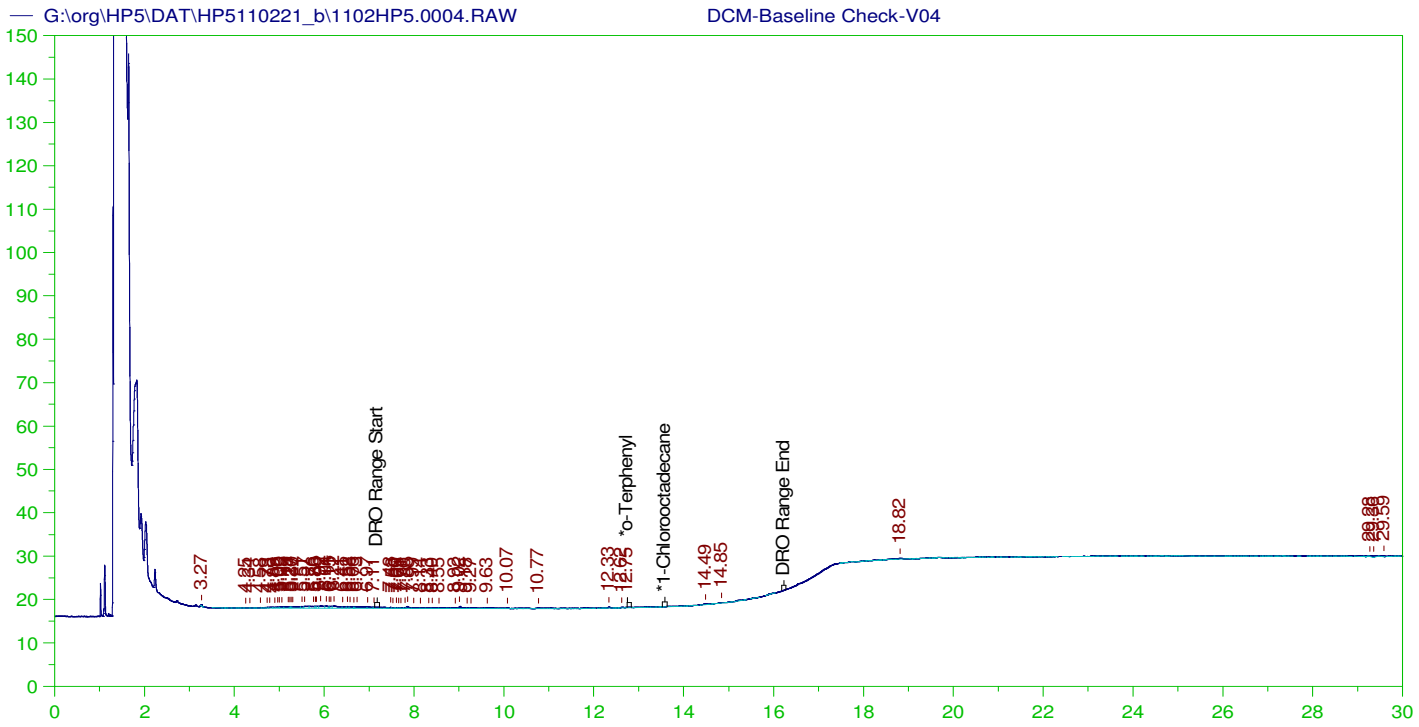
| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | |
|---|---|---|---|---|---|
| *o-Terphenyl | 12.292 | 200. | 201.539 | 100.77 | - |
| *1-Chlorooctadecane | 13.095 | 200. | 163.573 | 81.79 | - |

DRO Area:9.38791E+07 DRO Amount: 2994.244
TEH Area:1.14933E+08 TEH Amount: 3665.75

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5110221_b\1102HP5.0003.RAW

| COMPOUND | ACTUAL(NG) | MEASURED(NG) | %RECOVERY | LIMITS |
|---|---|---|---|---|
| TOTAL DRO | 15000. | 3665.75 | 24.44 | 85-115 |

| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | LIMITS |
|---|---|---|---|---|---|
| *o-Terphenyl | 12.292 | 200. | 201.539 | 100.77 | 85-115 |
| *1-Chlorooctadecane | 13.095 | 200. | 163.573 | 81.79 | 85-115 |



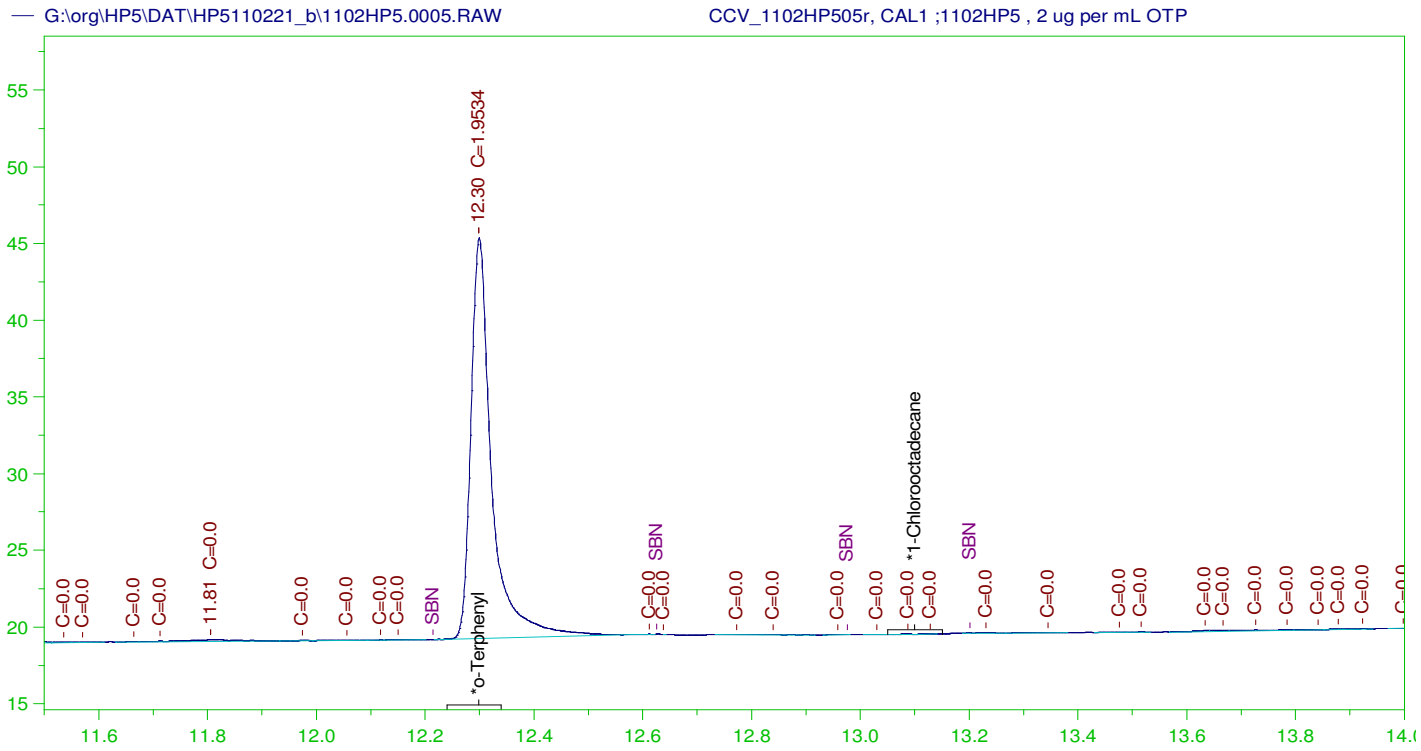

**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: DCM-Baseline Check-V04
Raw File: G:\org\HP5\DAT\HP5110221_b\1102HP5.0004.RAW
Date & Time Acquired: 11/2/2021 9:14:27 AM
Method File: G:\Org\HP5\Methods\DR_8015-HP-LEXP.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO210108HP.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 29457.33
Rt range for Diesel Range Organics: 7.125 to 16.28

| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | |
|---|---|---|---|---|---|
| *o-Terphenyl | 12.746 | 200. | .026 | .01 | - |
| *1-Chlorooctadecane | 29.929 | 200. | . | . | - |

DRO Area:35138 DRO Amount: 1.192844
TEH Area:110269.4 TEH Amount: 3.74336




**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**
Sample Name: CCV_1102HP505r, CAL1 ;1102HP5 , 2 ug per mL OTP
Raw File: G:\org\HP5\DAT\HP5110221_b\1102HP5.0005.RAW
Date & Time Acquired: 11/2/2021 9:57:01 AM
Method File: G:\Org\HP5\Methods\DS_8015-IA-L#.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IA.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.59 to 15.91

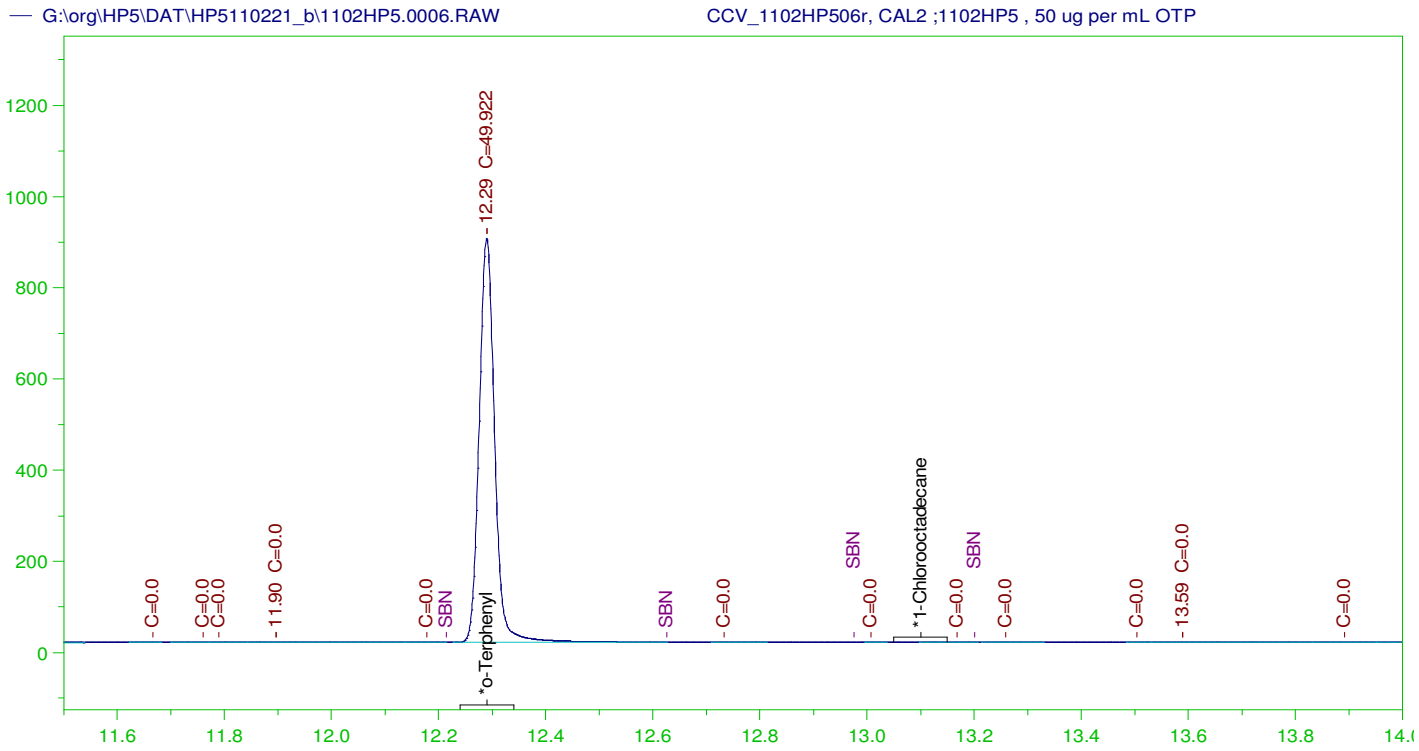
| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | |
|---|---|---|---|---|---|
| *o-Terphenyl | 12.299 | 200. | 1.953 | .98 | - |
| *1-Chlorooctadecane | 15.561 | 200. | . | . | - |

DRO Area:37026.36 DRO Amount: 1.180944
TEH Area:88429.33 TEH Amount: 2.820425

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5110221_b\1102HP5.0005.RAW

| COMPOUND | ACTUAL(NG) | MEASURED(NG) | %RECOVERY | LIMITS |
|---|---|---|---|---|
| TOTAL DRO | 15000. | . | . | 85-115 |

| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | LIMITS |
|---|---|---|---|---|---|
| *o-Terphenyl | 12.299 | 200. | 1.953 | .98 | 85-115 |
| *1-Chlorooctadecane | 15.561 | 200. | . | . | 85-115 |




**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**
Sample Name: CCV_1102HP506r, CAL2 ;1102HP5 , 50 ug per mL OTP
Raw File: G:\org\HP5\DAT\HP5110221_b\1102HP5.0006.RAW
Date & Time Acquired: 11/2/2021 10:39:43 AM
Method File: G:\Org\HP5\Methods\DS_8015-IA-L#.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IA.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.59 to 15.91

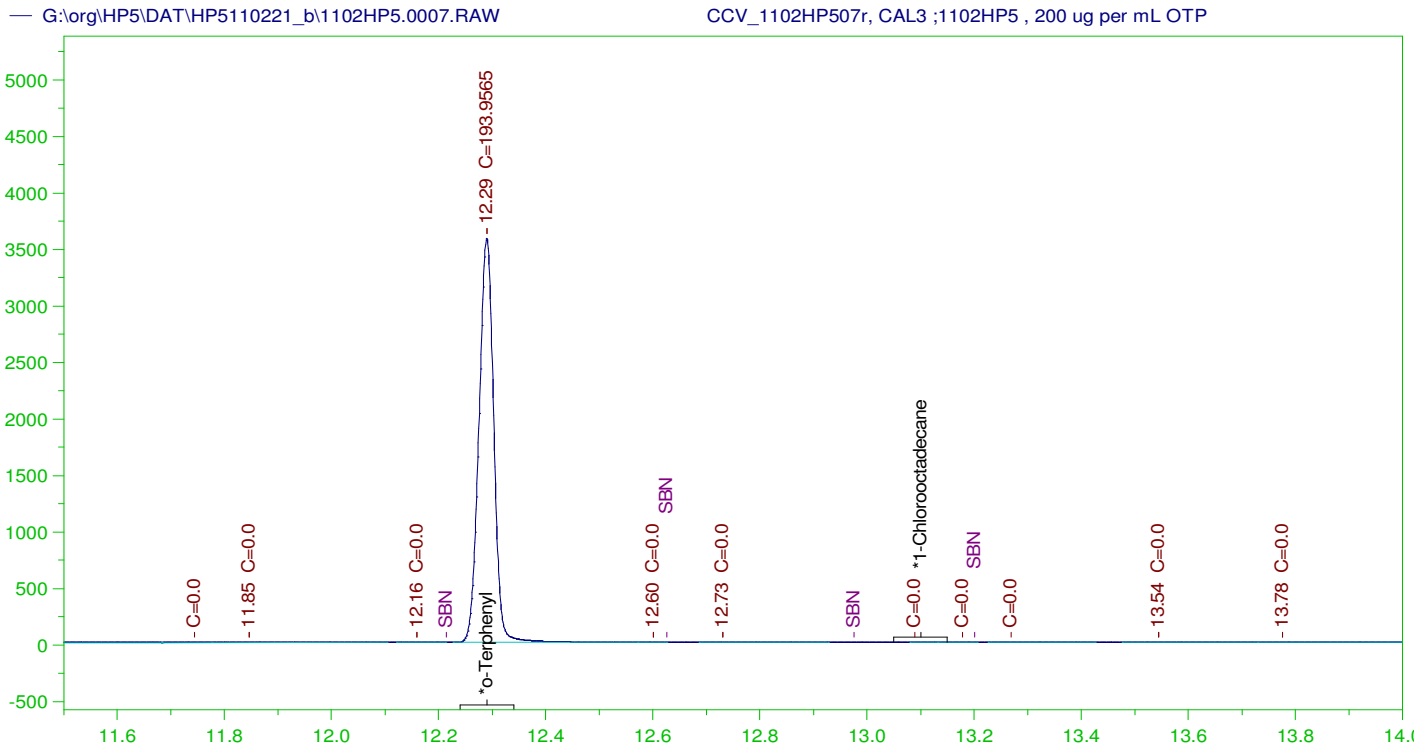
| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | |
|---|---|---|---|---|---|
| *o-Terphenyl | 12.29 | 200. | 49.922 | 24.96 | - |
| *1-Chlorooctadecane | 15.697 | 200. | . | . | - |

DRO Area:141449.5 DRO Amount: 4.511485
TEH Area:310030.7 TEH Amount: 9.88833

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5110221_b\1102HP5.0006.RAW

| COMPOUND | ACTUAL(NG) | MEASURED(NG) | %RECOVERY | LIMITS |
|---|---|---|---|---|
| TOTAL DRO | 15000. | . | . | 85-115 |

| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | LIMITS |
|---|---|---|---|---|---|
| *o-Terphenyl | 12.29 | 200. | 49.922 | 24.96 | 85-115 |
| *1-Chlorooctadecane | 15.697 | 200. | . | . | 85-115 |




**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**
Sample Name: CCV_1102HP507r, CAL3 ;1102HP5 , 200 ug per mL OTP
Raw File: G:\org\HP5\DAT\HP5110221_b\1102HP5.0007.RAW
Date & Time Acquired: 11/2/2021 11:22:37 AM
Method File: G:\Org\HP5\Methods\DS_8015-IA-L#.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IA.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.59 to 15.91

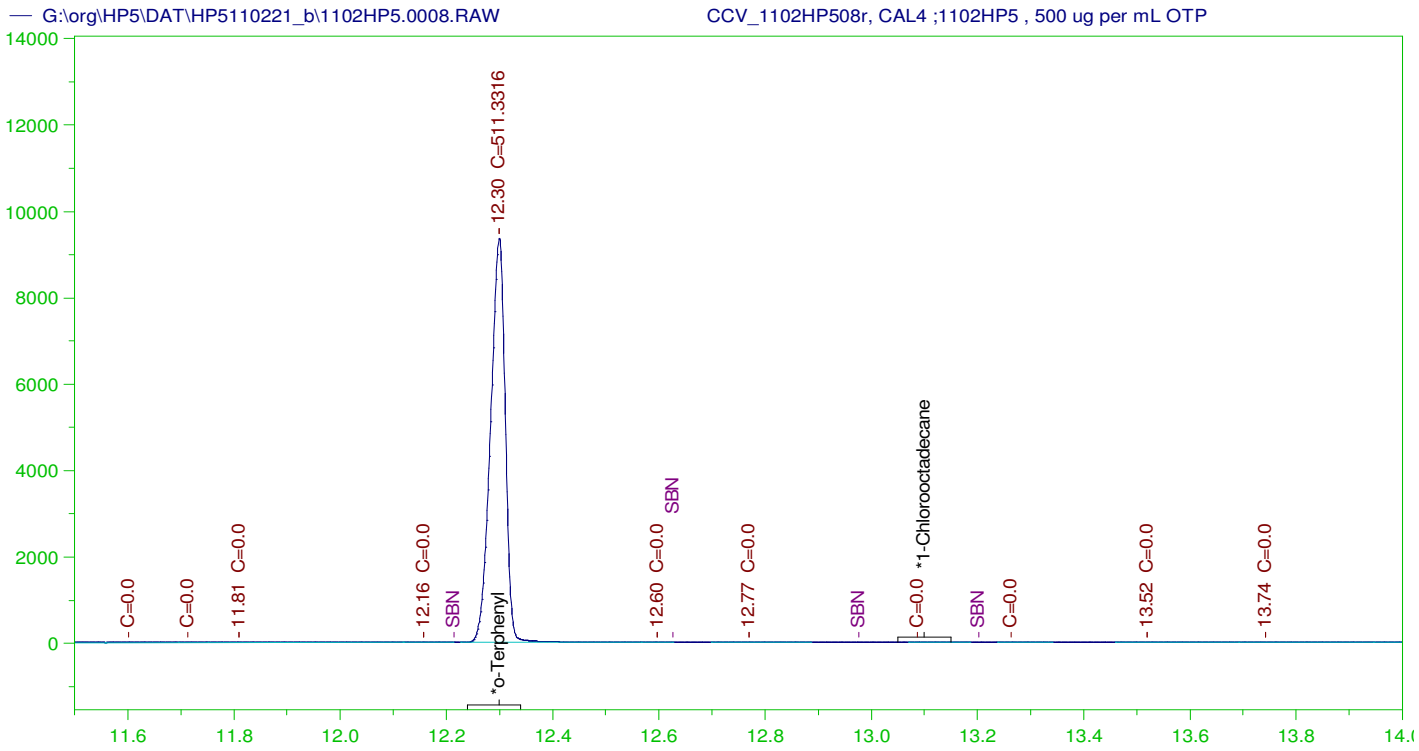
| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | |
|---|---|---|---|---|---|
| *o-Terphenyl | 12.29 | 200. | 193.957 | 96.98 | - |
| *1-Chlorooctadecane | 15.779 | 200. | . | . | - |

DRO Area:338082.7 DRO Amount: 10.78304
TEH Area:638415.8 TEH Amount: 20.36207

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5110221_b\1102HP5.0007.RAW

| COMPOUND | ACTUAL(NG) | MEASURED(NG) | %RECOVERY | LIMITS |
|---|---|---|---|---|
| TOTAL DRO | 15000. | 20.36 | .14 | 85-115 |

| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | LIMITS |
|---|---|---|---|---|---|
| *o-Terphenyl | 12.29 | 200. | 193.957 | 96.98 | 85-115 |
| *1-Chlorooctadecane | 15.779 | 200. | . | . | 85-115 |




**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: CCV_1102HP508r, CAL4 ;1102HP5 , 500 ug per mL OTP
Raw File: G:\org\HP5\DAT\HP5110221_b\1102HP5.0008.RAW
Date & Time Acquired: 11/2/2021 12:05:44 PM
Method File: G:\Org\HP5\Methods\DS_8015-IA-L#.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IA.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.59 to 15.91

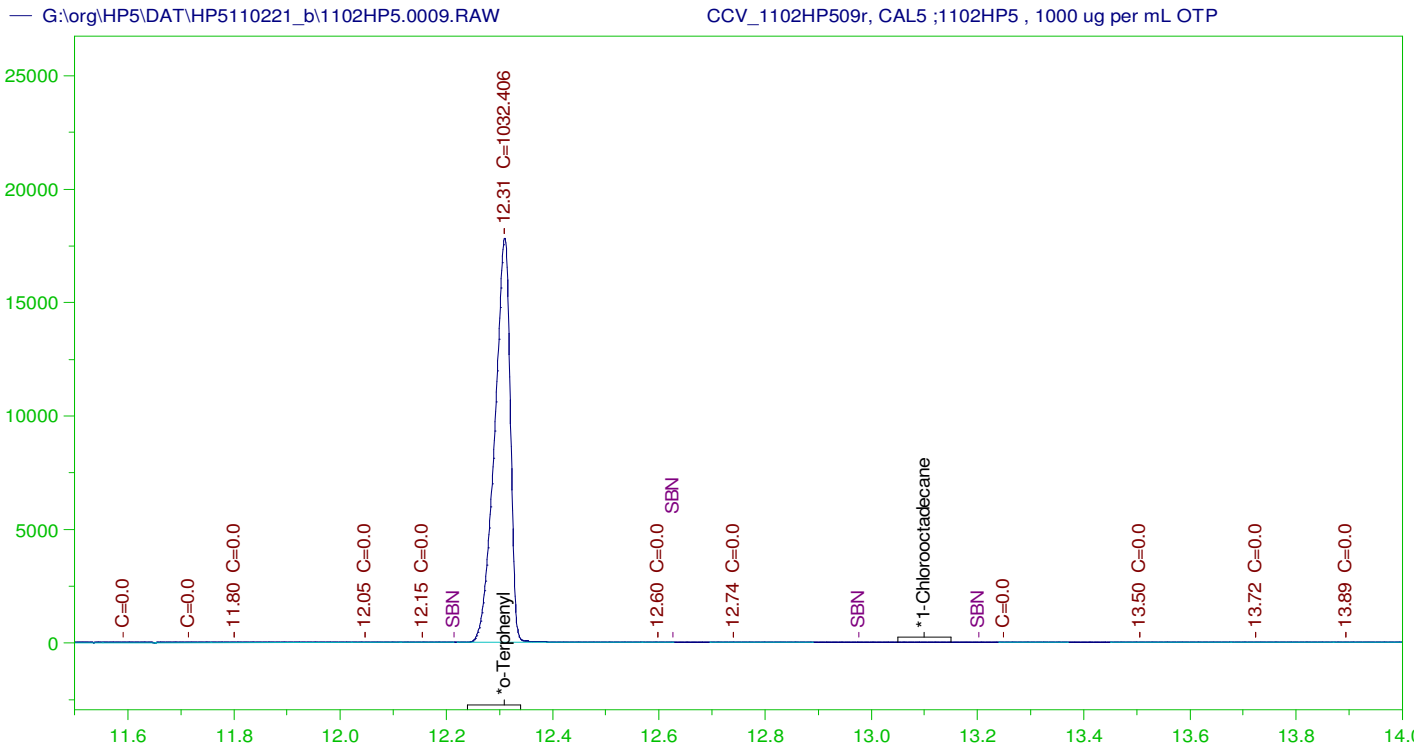
| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | |
|---|---|---|---|---|---|
| *o-Terphenyl | 12.3 | 200. | 511.332 | 255.67 | - |
| *1-Chlorooctadecane | 15.798 | 200. | . | . | - |

DRO Area:456992 DRO Amount: 14.57561
TEH Area:825752.1 TEH Amount: 26.3371

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5110221_b\1102HP5.0008.RAW

| COMPOUND | ACTUAL(NG) | MEASURED(NG) | %RECOVERY | LIMITS |
|---|---|---|---|---|
| TOTAL DRO | 15000. | 26.34 | .18 | 85-115 |

| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | LIMITS |
|---|---|---|---|---|---|
| *o-Terphenyl | 12.3 | 200. | 511.332 | 255.67 | 85-115 |
| *1-Chlorooctadecane | 15.798 | 200. | . | . | 85-115 |




**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: CCV_1102HP509r, CAL5 ;1102HP5 , 1000 ug per mL OTP
Raw File: G:\org\HP5\DAT\HP5110221_b\1102HP5.0009.RAW
Date & Time Acquired: 11/2/2021 12:49:02 PM
Method File: G:\Org\HP5\Methods\DS_8015-IA-L#.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IA.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.59 to 15.91

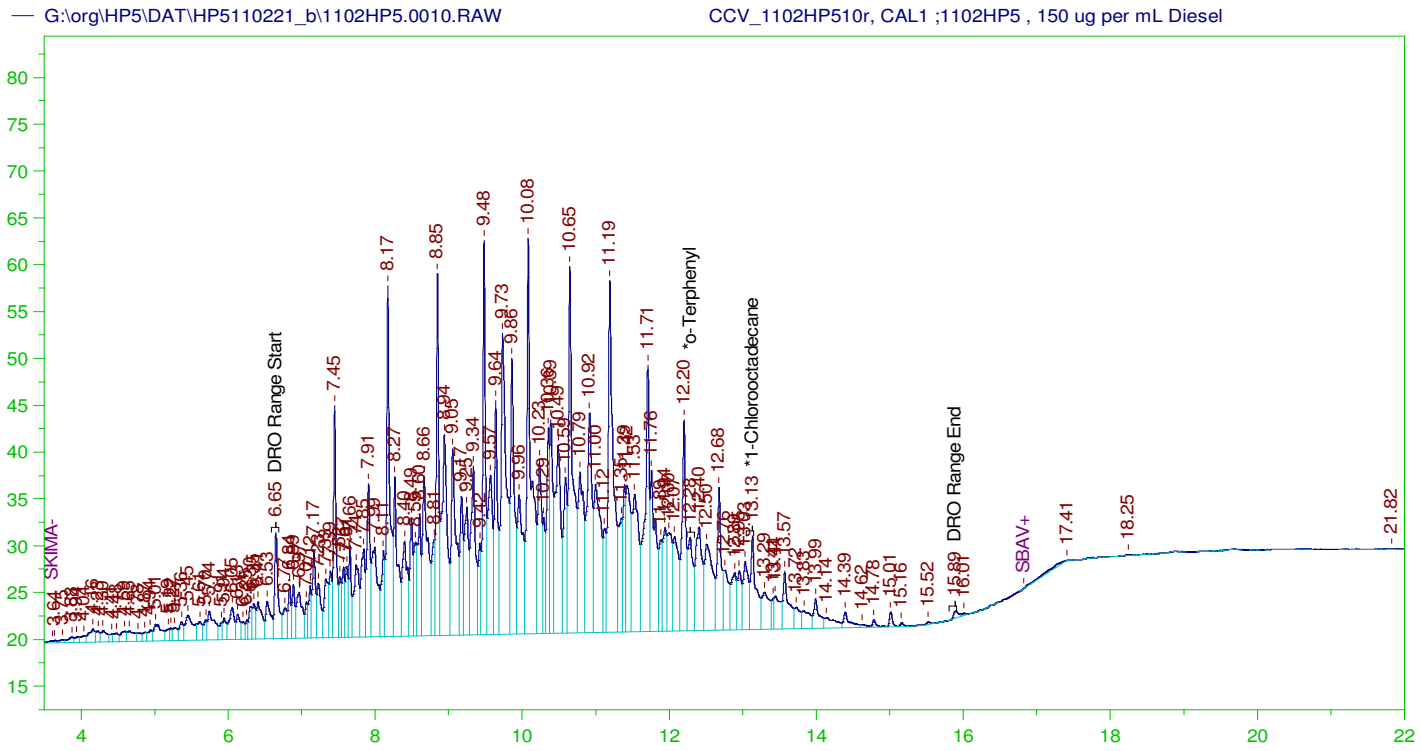
| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | |
|---|---|---|---|---|---|
| *o-Terphenyl | 12.31 | 200. | 1032.406 | 516.2 | - |
| *1-Chlorooctadecane | 15.803 | 200. | . | . | - |

DRO Area:461032.4 DRO Amount: 14.70448
TEH Area:724020.4 TEH Amount: 23.0924

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5110221_b\1102HP5.0009.RAW

| COMPOUND | ACTUAL(NG) | MEASURED(NG) | %RECOVERY | LIMITS |
|---|---|---|---|---|
| TOTAL DRO | 15000. | 23.09 | .15 | 85-115 |

| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | LIMITS |
|---|---|---|---|---|---|
| *o-Terphenyl | 12.31 | 200. | 1032.406 | 516.2 | 85-115 |
| *1-Chlorooctadecane | 15.803 | 200. | . | . | 85-115 |




**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: CCV_1102HP510r, CAL1 ;1102HP5 , 150 ug per mL Diesel
Raw File: G:\org\HP5\DAT\HP5110221_b\1102HP5.0010.RAW
Date & Time Acquired: 11/2/2021 1:32:06 PM
Method File: G:\Org\HP5\Methods\DC_8015-IA-L%.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IA.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.59 to 15.91

| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | |
|---|---|---|---|---|---|
| *o-Terphenyl | 12.285 | 200. | 1.416 | .71 | - |
| *1-Chlorooctadecane | 13.13 | 200. | 1.44 | .72 | - |

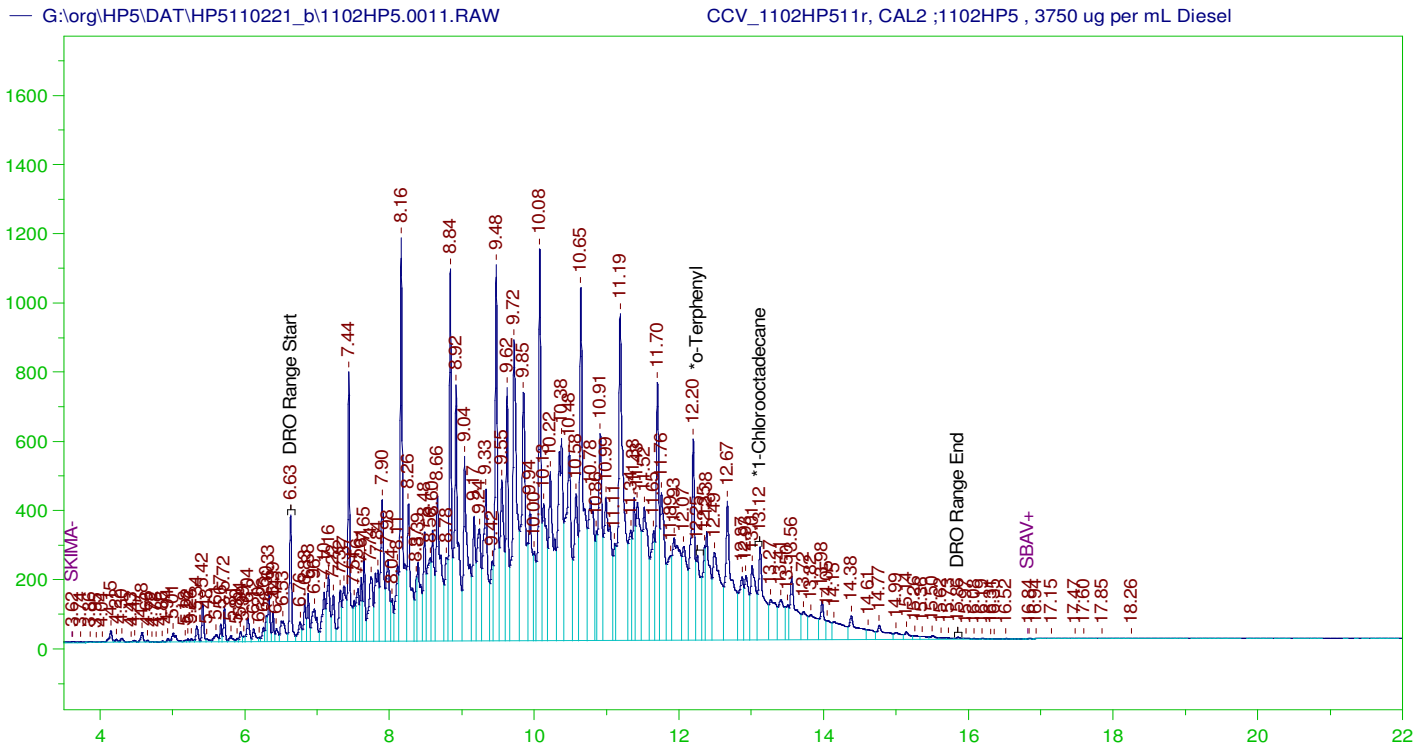
DRO Area:4571415 DRO Amount: 145.8038
TEH Area:4865557 TEH Amount: 155.1854

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5110221_b\1102HP5.0010.RAW

| COMPOUND | ACTUAL(NG) | MEASURED(NG) | %RECOVERY | LIMITS |
|---|---|---|---|---|
| TOTAL DRO | 15000. | 155.19 | 1.03 | 85-115 |

| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | LIMITS |
|---|---|---|---|---|---|
| *o-Terphenyl | 12.285 | 200. | 1.416 | .71 | 85-115 |
| *1-Chlorooctadecane | 13.13 | 200. | 1.44 | .72 | 85-115 |

G:\org\HP5\dat\HP5110221_b\Review\010_CCV_1102HP510r_DC_8015-IA-L%.xls




**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: CCV_1102HP511r, CAL2 ;1102HP5 , 3750 ug per mL Diesel
Raw File: G:\org\HP5\DAT\HP5110221_b\1102HP5.0011.RAW
Date & Time Acquired: 11/2/2021 2:15:08 PM
Method File: G:\Org\HP5\Methods\DC_8015-IA-L%.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IA.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.59 to 15.91

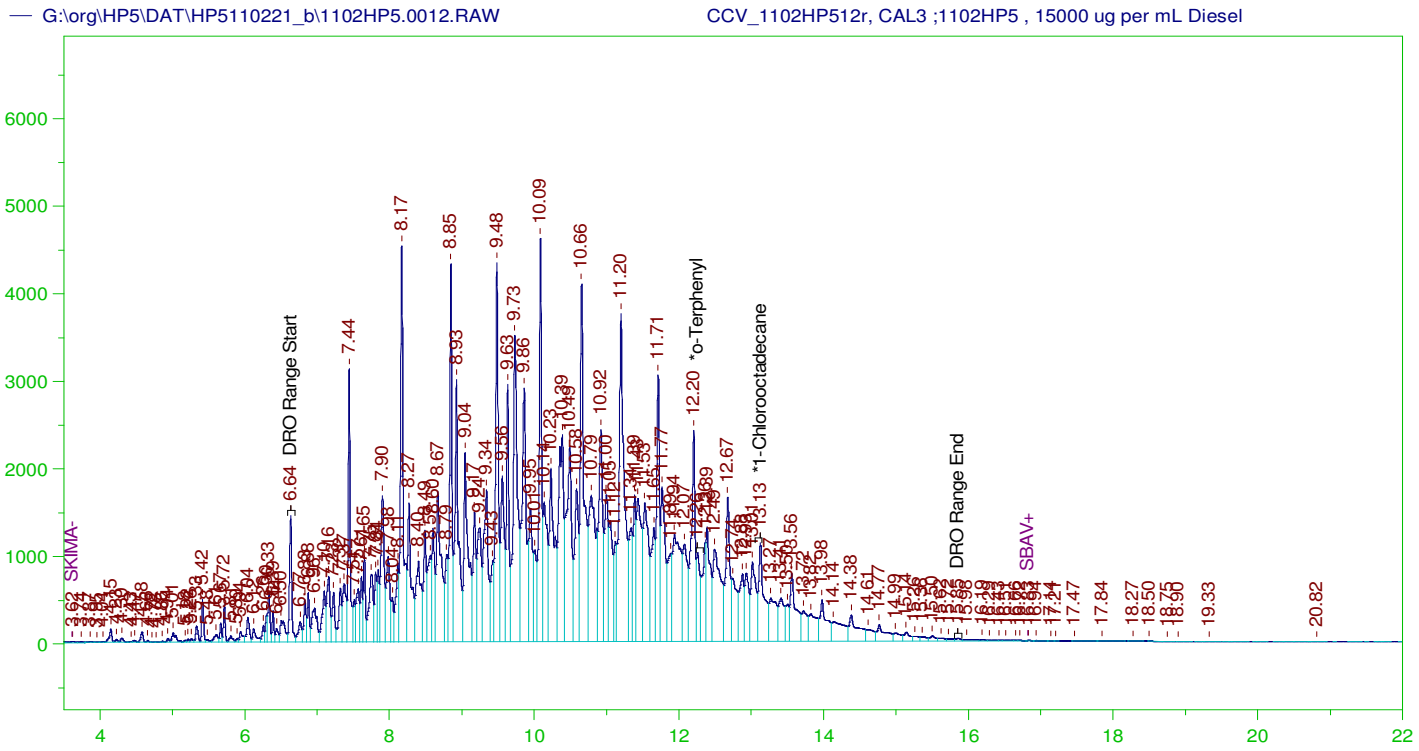
| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | |
|---|---|---|---|---|---|
| *o-Terphenyl | 12.252 | 200. | 28.988 | 14.49 | - |
| *1-Chlorooctadecane | 13.122 | 200. | 39.19 | 19.59 | - |

DRO Area:1.131291E+08 DRO Amount: 3608.216
TEH Area:1.159464E+08 TEH Amount: 3698.073

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5110221_b\1102HP5.0011.RAW

| COMPOUND | ACTUAL(NG) | MEASURED(NG) | %RECOVERY | LIMITS |
|---|---|---|---|---|
| TOTAL DRO | 15000. | 3698.07 | 24.65 | 85-115 |

| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | LIMITS |
|---|---|---|---|---|---|
| *o-Terphenyl | 12.252 | 200. | 28.988 | 14.49 | 85-115 |
| *1-Chlorooctadecane | 13.122 | 200. | 39.19 | 19.59 | 85-115 |




**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: CCV_1102HP512r, CAL3 ;1102HP5 , 15000 ug per mL Diesel
Raw File: G:\org\HP5\DAT\HP5110221_b\1102HP5.0012.RAW
Date & Time Acquired: 11/2/2021 2:58:26 PM
Method File: G:\Org\HP5\Methods\DC_8015-IA-L%.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IA.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.59 to 15.91

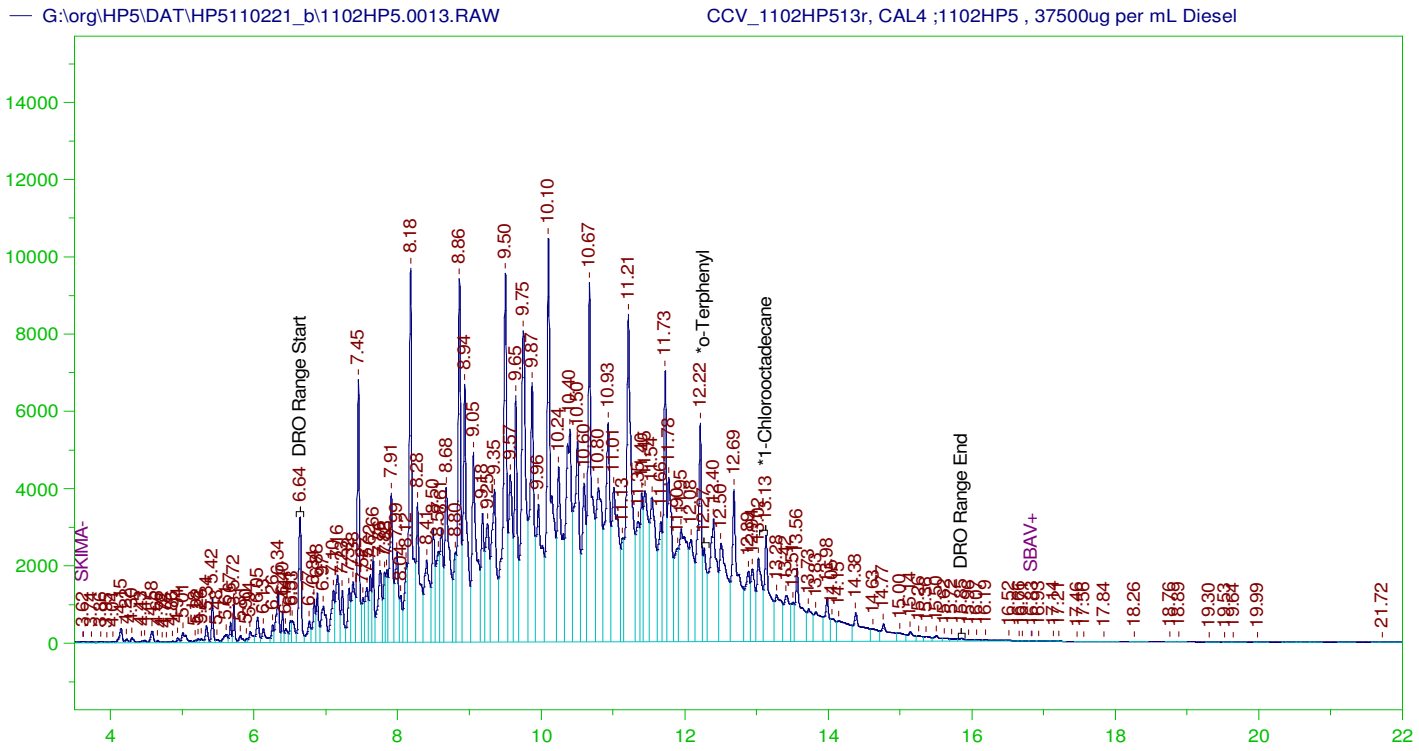
| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | |
|---|---|---|---|---|---|
| *o-Terphenyl | 12.257 | 200. | 92.35 | 46.18 | - |
| *1-Chlorooctadecane | 13.125 | 200. | 158.994 | 79.5 | - |

DRO Area:4.667999E+08 DRO Amount: 14888.43
TEH Area:4.785279E+08 TEH Amount: 15262.49

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5110221_b\1102HP5.0012.RAW

| COMPOUND | ACTUAL(NG) | MEASURED(NG) | %RECOVERY | LIMITS |
|---|---|---|---|---|
| TOTAL DRO | 15000. | 15262.49 | 101.75 | 85-115 |

| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | LIMITS |
|---|---|---|---|---|---|
| *o-Terphenyl | 12.257 | 200. | 92.35 | 46.18 | 85-115 |
| *1-Chlorooctadecane | 13.125 | 200. | 158.994 | 79.5 | 85-115 |




**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: CCV_1102HP513r, CAL4 ;1102HP5 , 37500ug per mL Diesel
Raw File: G:\org\HP5\DAT\HP5110221_b\1102HP5.0013.RAW
Date & Time Acquired: 11/2/2021 3:41:37 PM
Method File: G:\Org\HP5\Methods\DC_8015-IA-L%.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IA.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.59 to 15.91

| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | |
|---|---|---|---|---|---|
| *o-Terphenyl | 12.268 | 200. | 238.956 | 119.48 | - |
| *1-Chlorooctadecane | 13.133 | 200. | 386.008 | 193. | - |

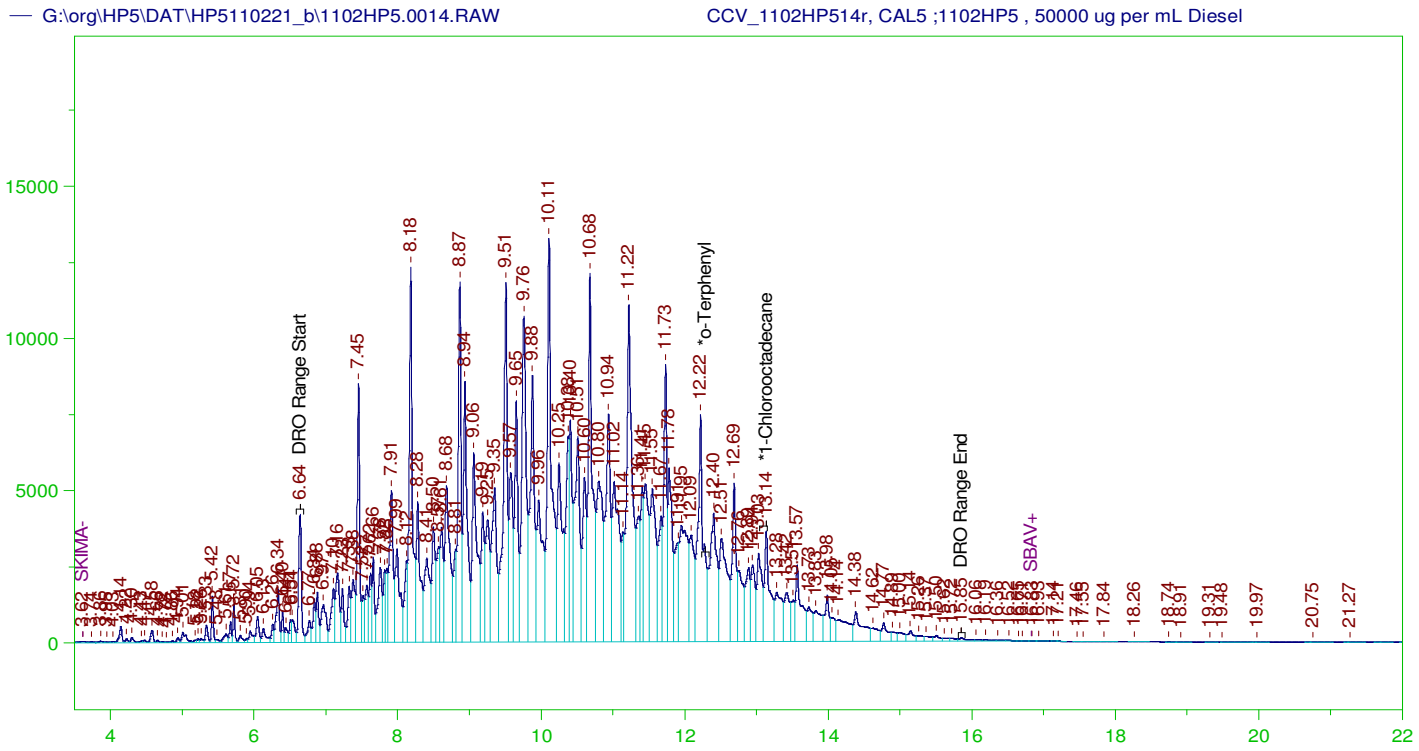
DRO Area:1.118993E+09 DRO Amount: 35689.91
TEH Area:1.14732E+09 TEH Amount: 36593.41

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5110221_b\1102HP5.0013.RAW

| COMPOUND | ACTUAL(NG) | MEASURED(NG) | %RECOVERY | LIMITS |
|---|---|---|---|---|
| TOTAL DRO | 15000. | 36593.41 | 243.96 | 85-115 |

| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | LIMITS |
|---|---|---|---|---|---|
| *o-Terphenyl | 12.268 | 200. | 238.956 | 119.48 | 85-115 |
| *1-Chlorooctadecane | 13.133 | 200. | 386.008 | 193. | 85-115 |

G:\org\HP5\dat\HP5110221_b\Review\013_CCV_1102HP513r_DC_8015-IA-L%.xls




**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: CCV_1102HP514r, CAL5 ;1102HP5 , 50000 ug per mL Diesel
Raw File: G:\org\HP5\DAT\HP5110221_b\1102HP5.0014.RAW
Date & Time Acquired: 11/2/2021 4:24:53 PM
Method File: G:\Org\HP5\Methods\DC_8015-IA-L%.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IA.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.59 to 15.91

| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | |
|---|---|---|---|---|---|
| *o-Terphenyl | 29.921 | 200. | . | . | - |
| *1-Chlorooctadecane | 13.135 | 200. | 512.63 | 256.31 | - |

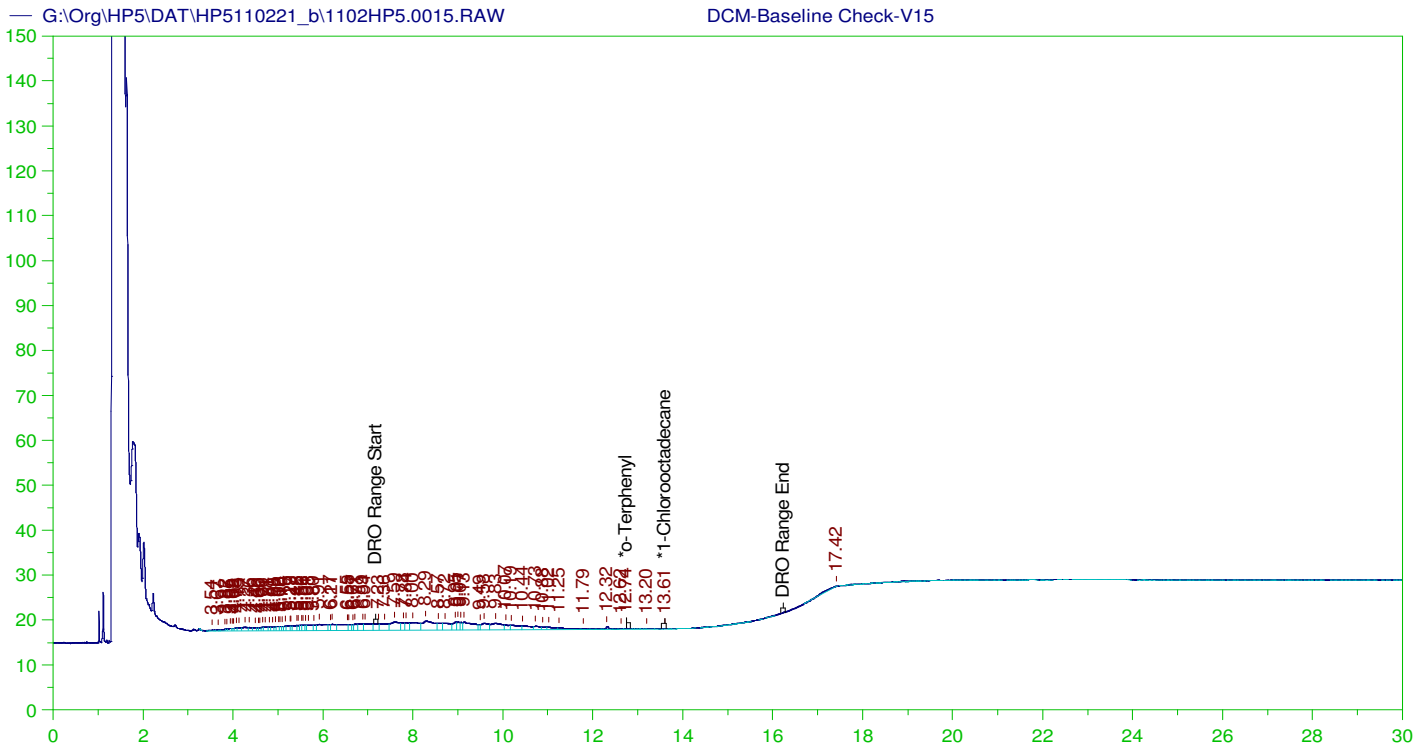
DRO Area:1.507978E+09 DRO Amount: 48096.49
TEH Area:1.54564E+09 TEH Amount: 49297.7

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5110221_b\1102HP5.0014.RAW

| COMPOUND | ACTUAL(NG) | MEASURED(NG) | %RECOVERY | LIMITS |
|---|---|---|---|---|
| TOTAL DRO | 15000. | 49297.7 | 328.65 | 85-115 |

| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | LIMITS |
|---|---|---|---|---|---|
| *o-Terphenyl | 29.921 | 200. | . | . | 85-115 |
| *1-Chlorooctadecane | 13.135 | 200. | 512.63 | 256.31 | 85-115 |

G:\org\HP5\dat\HP5110221_b\Review\014_CCV_1102HP514r_DC_8015-IA-L%.xls



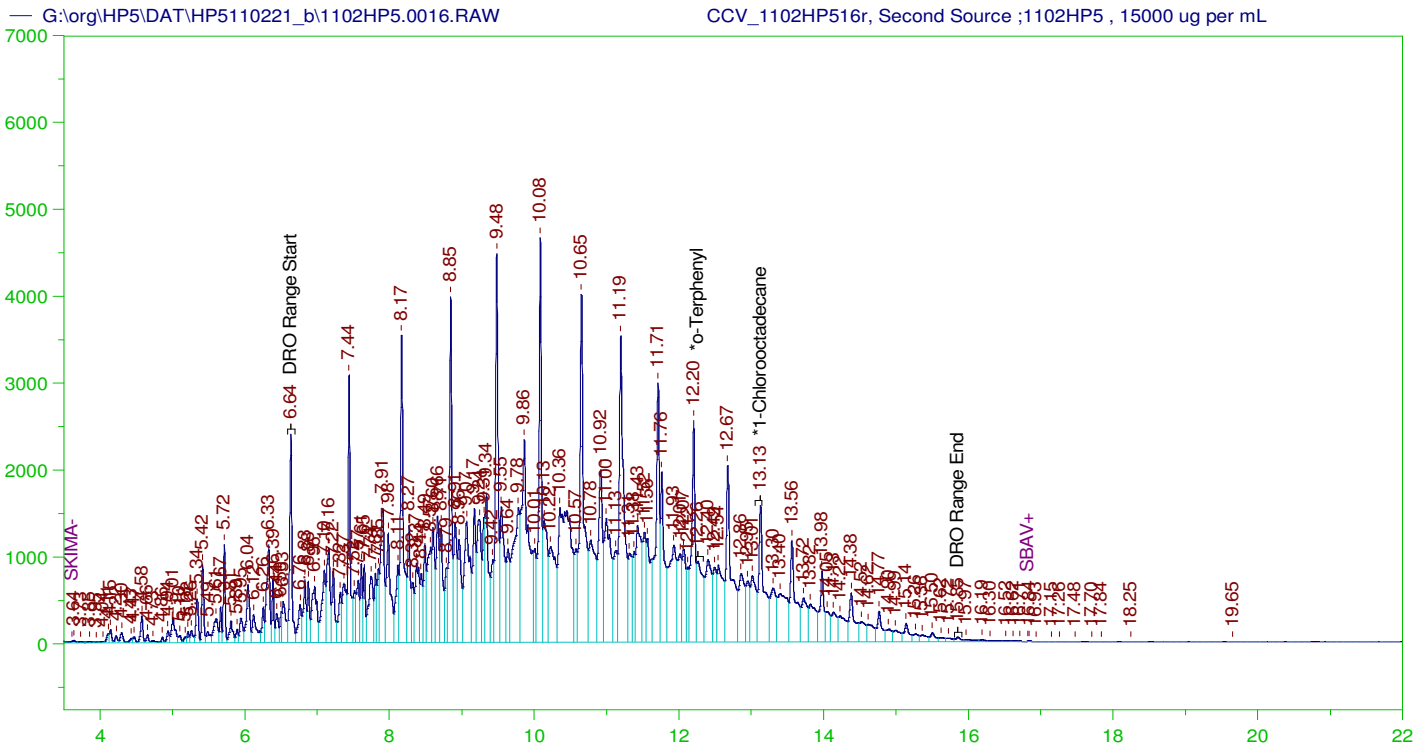

**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: DCM-Baseline Check-V15
Raw File: G:\Org\HP5\DAT\HP5110221_b\1102HP5.0015.RAW
Date & Time Acquired: 11/2/2021 5:08:11 PM
Method File: G:\Org\HP5\Methods\DR_8015-HP-LEXP.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO210108HP.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 29457.33
Rt range for Diesel Range Organics: 7.125 to 16.28

| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | |
|---|---|---|---|---|---|
| *o-Terphenyl | 12.744 | 200. | .041 | .02 | - |
| *1-Chlorooctadecane | 13.606 | 200. | .017 | .01 | - |

DRO Area:305831.5 DRO Amount: 10.38219
TEH Area:517467.1 TEH Amount: 17.56667




**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: CCV_1102HP516r, Second Source ;1102HP5 , 15000 ug per mL
Raw File: G:\org\HP5\DAT\HP5110221_b\1102HP5.0016.RAW
Date & Time Acquired: 11/2/2021 5:51:31 PM
Method File: G:\Org\HP5\Methods\DC_8015-IA-L%.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IA.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.59 to 15.91

| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | |
|---|---|---|---|---|---|
| *o-Terphenyl | 12.261 | 200. | 146.398 | 73.2 | - |
| *1-Chlorooctadecane | 13.127 | 200. | 209.876 | 104.94 | - |

DRO Area:4.432555E+08 DRO Amount: 14137.49
TEH Area:4.699825E+08 TEH Amount: 14989.94

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5110221_b\1102HP5.0016.RAW

| COMPOUND | ACTUAL(NG) | MEASURED(NG) | %RECOVERY | LIMITS |
|---|---|---|---|---|
| TOTAL DRO | 15000. | 14989.94 | 99.93 | 85-115 |

| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | LIMITS |
|---|---|---|---|---|---|
| *o-Terphenyl | 12.261 | 200. | 146.398 | 73.2 | 85-115 |
| *1-Chlorooctadecane | 13.127 | 200. | 209.876 | 104.94 | 85-115 |

| Write Sequence / Data File | Insert Entries(Have the first cell for entries selecte / Sample Name | Method | Weight | Dil Factor | Amt Inj. | IS | Cal ID | Manul Integrations |
|---|---|---|---|---|---|---|---|---|
| G:\org\HP5\DAT\HP5110221_b\1102HP5.03r | CCV_1102HP508r, DRO ;1102HP5 , DRO211025A | G:\Org\HP5\Methods\DC_8015-IA-L%.met | 1 | 1 | 1 | 1 | 0 | No integrations |
| G:\org\HP5\DAT\HP5110221_b\1102HP5.04r | DCM-Baseline Check-V04 | G:\Org\HP5\Methods\DR_8015-HP-LEXP.met | 1 | 1 | 1 | 1 | 0 | No integrations |
| G:\org\HP5\DAT\HP5110221_b\1102HP5.05r | CCV_1102HP505r, CAL1 ;1102HP5 , 2 ug per mL OTP (10 uL of Cal3 + 990 uL DCM(14408) | G:\Org\HP5\Methods\DS_8015-IA-L#.met | 1 | 1 | 1 | 1 | 0 | Surrogates are integrated using a valley to valley integration using Set Basline Now placed slight before at 12.21 and slightly after the surrogate peak at 12.63 and scaling showing surrogate peak from 11.5-14. |
| G:\org\HP5\DAT\HP5110221_b\1102HP5.06r | CCV_1102HP506r, CAL2 ;1102HP5 , 50 ug per mL OTP (100 uL Cal4 + 900 uL of DCM(14408) | G:\Org\HP5\Methods\DS_8015-IA-L#.met | 1 | 1 | 1 | 1 | 0 | Surrogates are integrated using a valley to valley integration using Set Basline Now placed slight before at 12.21 and slightly after the surrogate peak at 12.63 and scaling showing surrogate peak from 11.5-14. |
| G:\org\HP5\DAT\HP5110221_b\1102HP5.07r | CCV_1102HP507r, CAL3 ;1102HP5 , 200 ug per mL OTP (100uL of Cal5 + 400 uL DCM(14408) | G:\Org\HP5\Methods\DS_8015-IA-L#.met | 1 | 1 | 1 | 1 | 0 | Surrogates are integrated using a valley to valley integration using Set Basline Now placed slight before at 12.21 and slightly after the surrogate peak at 12.63 and scaling showing surrogate peak from 11.5-14. |
| G:\org\HP5\DAT\HP5110221_b\1102HP5.08r | CCV_1102HP508r, CAL4 ;1102HP5 , 500 ug per mL OTP (250uL of Cal5 + 250 uL DCM(14408) | G:\Org\HP5\Methods\DS_8015-IA-L#.met | 1 | 1 | 1 | 1 | 0 | Surrogates are integrated using a valley to valley integration using Set Basline Now placed slight before at 12.21 and slightly after the surrogate peak at 12.63 and scaling showing surrogate peak from 11.5-14. |
| G:\org\HP5\DAT\HP5110221_b\1102HP5.09r | CCV_1102HP509r, CAL5 ;1102HP5 , 1000 ug per mL OTP (250 uL 4000 ug/mL OTP DRO211101A + 750 DCM(14408) | G:\Org\HP5\Methods\DS_8015-IA-L#.met | 1 | 1 | 1 | 1 | 0 | Surrogates are integrated using a valley to valley integration using Set Basline Now placed slight before at 12.21 and slightly after the surrogate peak at 12.63 and scaling showing surrogate peak from 11.5-14. |
| G:\org\HP5\DAT\HP5110221_b\1102HP5.10r | CCV_1102HP510r, CAL1 ;1102HP5 , 150 ug per mL Diesel (10 uL of Cal3 + 990 uL DCM(14408), | G:\Org\HP5\Methods\DC_8015-IA-L%.met | 1 | 1 | 1 | 1 | 0 | The integration of Diesel Range Organics and Total Extractable Hydrocarbons is the hydrocarbon response with reference to the basline. Assigned Set Baseline All Valley on at 16.83 |
| G:\org\HP5\DAT\HP5110221_b\1102HP5.11r | CCV_1102HP511r, CAL2 ;1102HP5 , 3750 ug per mL Diesel (100 uL Cal4 + 900 uL of DCM(14408) | G:\Org\HP5\Methods\DC_8015-IA-L%.met | 1 | 1 | 1 | 1 | 0 | The integration of Diesel Range Organics and Total Extractable Hydrocarbons is the hydrocarbon response with reference to the basline. Assigned Set Baseline All Valley on at 17.5 |
| G:\org\HP5\DAT\HP5110221_b\1102HP5.12r | CCV_1102HP512r, CAL3 ;1102HP5 , 15000 ug per mL Diesel (300 uL of DRO211012A + 700 uL DCM(14408) | G:\Org\HP5\Methods\DC_8015-IA-L%.met | 1 | 1 | 1 | 1 | 0 | The integration of Diesel Range Organics and Total Extractable Hydrocarbons is the hydrocarbon response with reference to the basline. Assigned Set Baseline All Valley on at 17.5 |
| G:\org\HP5\DAT\HP5110221_b\1102HP5.13r | CCV_1102HP513r, CAL4 ;1102HP5 , 37500ug per mL Diesel (750 uL of DRO211012A + 250 uL DCM(14408) | G:\Org\HP5\Methods\DC_8015-IA-L%.met | 1 | 1 | 1 | 1 | 0 | The integration of Diesel Range Organics and Total Extractable Hydrocarbons is the hydrocarbon response with reference to the basline. Assigned Set Baseline All Valley on at 17.5 |
| G:\org\HP5\DAT\HP5110221_b\1102HP5.14r | CCV_1102HP514r, CAL5 ;1102HP5 , 50000 ug per mL Diesel (200 uL of DRO211012A) | G:\Org\HP5\Methods\DC_8015-IA-L%.met | 1 | 1 | 1 | 1 | 0 | The integration of Diesel Range Organics and Total Extractable Hydrocarbons is the hydrocarbon response with reference to the basline. Assigned Set Baseline All Valley on at 17.5 |
| G:\org\HP5\DAT\HP5110221_b\1102HP5.15r | DCM-Baseline Check-V15 | G:\Org\HP5\Methods\DR_8015-HP-LEXP.met | 1 | 1 | 1 | 1 | 0 | No integrations |
| G:\org\HP5\DAT\HP5110221_b\1102HP5.16r | CCV_1102HP516r, Second Source ;1102HP5 , 15000 ug per mL (100uL of DRO211012B + 900uL DCM(14408) | G:\Org\HP5\Methods\DC_8015-IA-L%.met | 1 | 1 | 1 | 1 | 0 | The integration of Diesel Range Organics and Total Extractable Hydrocarbons is the hydrocarbon response with reference to the basline. Assigned Set Baseline All Valley on at 17.5 |

Ann Nebel

Digitally signed by
Ann Nebel
Date: 2021.11.09 12:32:44 -07:00

# Energy Laboratories Inc

# ANALYTICAL RUN Summary

*31-Mar-21*

**Run ID** GCFID-HP5-B_210218B

| | |
|---|---|
| **Run Start Date:** | 2/18/2021 |
| **Analyst:** | Ann Nebel |
| **Ical:** | |
| **Column ID:** | |
| **Comments:** | 8015 OIL range calibration<br>SW8015_OIL210218 |

| Std ID | Std Name | Std Amount | Std Units | Samp Amount | Samp Units | SampType | Expiration Date |
|---|---|---|---|---|---|---|---|
| DRO180918C | 50,000 ug/mL Oil Std For AK103 RRO-In DCM | | | | | CAL | 8/31/2025 |
| DRO210204A | Carbon Scan STD | | | | | MARKER | 3/5/2028 |
| DRO210217A | 20,000 ug/mL Oil Std For AK103 RRO-In DCM | | | | | ICV | 8/23/2021 |

| Seq No | Lab ID | Test Code | Sample Typ | File ID | Analysis Date | DF | Batch ID | Prep Date | SPKref | RPDref | pmoist |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 14282665 | CCV_0218HP50 | HC-8015-DRO- | CAL1 | | 2/18/2021 12:03: | 1 | R356533 | | 0 | 0 | |

| Analyte | T | Units | RAW | Final | Text | Spike | SPKref | RPDref | MDL | PQL | UQL | %REC | LOW | HIGH | %RPD | Q |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TEH(Oil Range) | A | mg/L | | 0.1468323 | | 0.15 | 0 | 0 | 0 | 0.3 | 0 | 98% | 80 | 120 | 0% | |

| Seq No | Lab ID | Test Code | Sample Typ | File ID | Analysis Date | DF | Batch ID | Prep Date | SPKref | RPDref | pmoist |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 14282666 | CCV_0218HP50 | HC-8015-DRO- | CAL2 | | 2/18/2021 1:27:3 | 1 | R356533 | | 0 | 0 | |

| Analyte | T | Units | RAW | Final | Text | Spike | SPKref | RPDref | MDL | PQL | UQL | %REC | LOW | HIGH | %RPD | Q |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TEH(Oil Range) | A | mg/L | | 1.062811 | | 1 | 0 | 0 | 0.15 | 0.3 | 0 | 106% | 80 | 120 | 0% | |

| Seq No | Lab ID | Test Code | Sample Typ | File ID | Analysis Date | DF | Batch ID | Prep Date | SPKref | RPDref | pmoist |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 14282667 | CCV_0218HP50 | HC-8015-DRO- | CAL3 | | 2/18/2021 2:51:0 | 1 | R356533 | | 0 | 0 | |

| Analyte | T | Units | RAW | Final | Text | Spike | SPKref | RPDref | MDL | PQL | UQL | %REC | LOW | HIGH | %RPD | Q |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TEH(Oil Range) | A | mg/L | | 5.035713 | | 5 | 0 | 0 | 0.15 | 0.3 | 0 | 101% | 80 | 120 | 0% | |

| Seq No | Lab ID | Test Code | Sample Typ | File ID | Analysis Date | DF | Batch ID | Prep Date | SPKref | RPDref | pmoist |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 14282668 | CCV_0218HP50 | HC-8015-DRO- | CAL4 | | 2/18/2021 4:14:3 | 1 | R356533 | | 0 | 0 | |

| Analyte | T | Units | RAW | Final | Text | Spike | SPKref | RPDref | MDL | PQL | UQL | %REC | LOW | HIGH | %RPD | Q |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TEH(Oil Range) | A | mg/L | | 14.69295 | | 15 | 0 | 0 | 0.15 | 0.3 | 0 | 98% | 80 | 120 | 0% | |

| Seq No | Lab ID | Test Code | Sample Typ | File ID | Analysis Date | DF | Batch ID | Prep Date | SPKref | RPDref | pmoist |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 14282669 | CCV_0218HP51 | HC-8015-DRO- | CAL5 | | 2/18/2021 5:38:3 | 1 | R356533 | | 0 | 0 | |

| Analyte | T | Units | RAW | Final | Text | Spike | SPKref | RPDref | MDL | PQL | UQL | %REC | LOW | HIGH | %RPD | Q |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TEH(Oil Range) | A | mg/L | | 28.20769 | | 30 | 0 | 0 | 0.15 | 0.3 | 0 | 94% | 80 | 120 | 0% | |

| Seq No | Lab ID | Test Code | Sample Typ | File ID | Analysis Date | DF | Batch ID | Prep Date | SPKref | RPDref | pmoist |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 14282670 | CCV_0218HP51 | HC-8015-DRO- | ICV | | 2/18/2021 8:27:3 | 1 | R356533 | | 0 | 0 | |

| Analyte | T | Units | RAW | Final | Text | Spike | SPKref | RPDref | MDL | PQL | UQL | %REC | LOW | HIGH | %RPD | Q |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TEH(Oil Range) | A | mg/L | | 5.474465 | | 5 | 0 | 0 | 0.15 | 0.3 | 0 | 109% | 80 | 120 | 0% | |

| Write Sequence | Data File | Sample Nam | Insert Entries(Have the first cell for entries selected | Method | Weight | Dil Factor | Amt Inj. | IS | Cal ID |
|---|---|---|---|---|---|---|---|---|---|
| | g:\org\HP5\DAT\HP5021821_b\0218HP5.01r | Marker_0218HP501r, DRO C40 ;0218HP5 , DRO210204A | | g:\org\HP5\Methods\\CSC210212.met | 1 | 1 | 1 | 1 | 0 |
| | g:\org\HP5\DAT\HP5021821_b\0218HP5.02r | DCM-Baseline Check-V02 | | G:\Org\HP5\Methods\DR_8015-HE-LEXP.met | 1 | 1 | 1 | 1 | 0 |
| | g:\org\HP5\DAT\HP5021821_b\0218HP5.03r | CCV_0218HP503r, CAL1 ;0218HP5 , 150 ug per mLOil (10 uL of Cal4 + 990 uL DCM(13510) | | G:\Org\HP5\Methods\DR_OIL-021803-AA-L0.MET | 1 | 1 | 1 | 1 | 0 |
| | g:\org\HP5\DAT\HP5021821_b\0218HP5.04r | DCM-Baseline Check-V04 | | G:\Org\HP5\Methods\DR_8015-HE-LEXP.met | 1 | 1 | 1 | 1 | 0 |
| | g:\org\HP5\DAT\HP5021821_b\0218HP5.05r | CCV_0218HP505r, CAL2 ;0218HP5 , 1000 ug per mL Oil (200 uL of Cal 3 +800 uL DCM(13510) | | G:\Org\HP5\Methods\DR_OIL-021805-AA-L0.MET | 1 | 1 | 1 | 1 | 0 |
| | g:\org\HP5\DAT\HP5021821_b\0218HP5.06r | DCM-Baseline Check-V06 | | G:\Org\HP5\Methods\DR_8015-HE-LEXP.met | 1 | 1 | 1 | 1 | 0 |
| | g:\org\HP5\DAT\HP5021821_b\0218HP5.07r | CCV_0218HP507r, CAL3 ;0218HP5 , 5000 ug per mL Oil (100 uL of DRO180918C + 900 uL DCM(13510) | | G:\Org\HP5\Methods\DR_OIL-021807-AA-L0.MET | 1 | 1 | 1 | 1 | 0 |
| | g:\org\HP5\DAT\HP5021821_b\0218HP5.08r | DCM-Baseline Check-V08 | | G:\Org\HP5\Methods\DR_8015-HE-LEXP.met | 1 | 1 | 1 | 1 | 0 |
| | g:\org\HP5\DAT\HP5021821_b\0218HP5.09r | CCV_0218HP509r, CAL4 ;0218HP5 , 15000 ug per mL Oil (200 uL of CAL5 + 200 uL DCM(13510) | | G:\Org\HP5\Methods\DR_OIL-021807-AA-L0.MET | 1 | 1 | 1 | 1 | 0 |
| | g:\org\HP5\DAT\HP5021821_b\0218HP5.10r | DCM-Baseline Check-V10 | | G:\Org\HP5\Methods\DR_8015-HE-LEXP.met | 1 | 1 | 1 | 1 | 0 |
| | g:\org\HP5\DAT\HP5021821_b\0218HP5.11r | CCV_0218HP511r, CAL5 ;0218HP5 , 30000 ug per mL Oil (600 uL of DRO180918C + 400 uL of DCM) | | G:\Org\HP5\Methods\DR_OIL-021811-AA-L0.MET | 1 | 1 | 1 | 1 | 0 |
| | g:\org\HP5\DAT\HP5021821_b\0218HP5.12r | DCM-Baseline Check-V12 | | G:\Org\HP5\Methods\DR_8015-HE-LEXP.met | 1 | 1 | 1 | 1 | 0 |
| | g:\org\HP5\DAT\HP5021821_b\0218HP5.13r | DCM-Baseline Check-V13 | | G:\Org\HP5\Methods\DR_8015-HE-LEXP.met | 1 | 1 | 1 | 1 | 0 |
| | g:\org\HP5\DAT\HP5021821_b\0218HP5.14r | DCM-Baseline Check-V14 | | G:\Org\HP5\Methods\DR_8015-HE-LEXP.met | 1 | 1 | 1 | 1 | 0 |
| | g:\org\HP5\DAT\HP5021821_b\0218HP5.15r | CCV_0218HP515r, Second Source ;0218HP5 , 5000 ug per mL (100uL of DRO210217A + 300uL DCM(13510) | | G:\Org\HP5\Methods\DR_OIL-021811-AA-L0.MET | 1 | 1 | 1 | 1 | 0 |

File Name: G:\Org\HP5\Cals\SW8015C_OIL210218AA.CAL
Version: 4

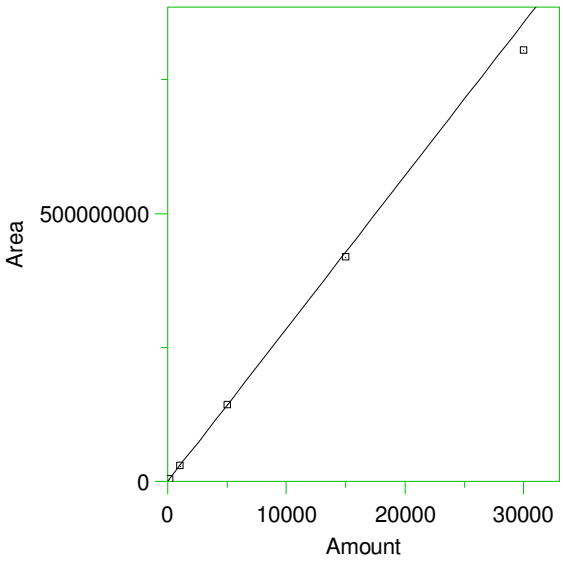
Creator: AMN 3/31/2021
Description: DRO-8015-Oil range. New ICal Per 0218HP5 (2021)-2 uL Inj.; COD added using OTP RFs
Reason for change:

External standard calibration
Standard injection volume: 1
Standard sample weight: 1
Area reject threshold: 500
Reference peak area reject threshold: 500
Amount units: nanograms
No default component

Method of calculating data point averages: Equal weight for all updates
No calibration update report

All levels are normal data points.

1 DRO Range Start




| | |
|---|---|
| Expected retention time: | 6.54 minutes |
| Search window: | 0.05 minutes |
| No retention time reference component | |
| Group number: | 0 |
| High alarm limit: | 0 |
| Low alarm limit: | 0 |
| Component constant: | 0 |

Single peak quantification by area

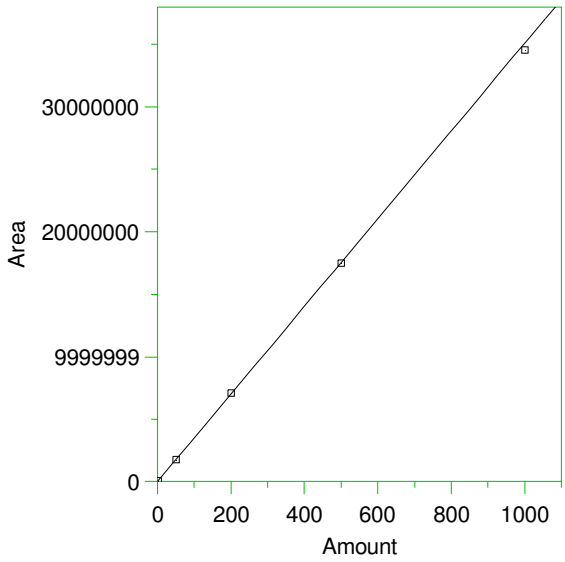
Y = 28542.41 X + 0

Average CF fit with equal weighting, forced to origin

| | |
|---|---|
| Coefficient of determination: | 0.9940317 |
| Average error: | 3.209% |
| Average CF: | 28542.41 |
| RSD: | 4.497% |

| Level | Amount | Response | Cal Factor | Error, % | Source | Date and time |
|---|---|---|---|---|---|---|
| 1 | 150 | 4325287 | 28835.25 | 1.026 | Manual | 3/30/2021 11:50:57 AM |
| 2 | 1000 | 3.03352E+07 | 30335.2 | 6.281 | Manual | 3/30/2021 11:51:41 AM |
| 3 | 5000 | 1.437314E+08 | 28746.28 | 0.714 | Manual | 3/30/2021 11:52:00 AM |
| 4 | 15000 | 4.193721E+08 | 27958.14 | -2.047 | Manual | 3/30/2021 11:52:55 AM |
| 5 | 30000 | 8.051155E+08 | 26837.18 | -5.974 | Manual | 3/30/2021 11:52:32 AM |

2 *o-Terphenyl




| | |
|---|---|
| Expected retention time: | 12.14 minutes |
| Search window: | 0.05 minutes |
| No retention time reference component | |
| Group number: | 0 |
| High alarm limit: | 0 |
| Low alarm limit: | 0 |
| Component constant: | 0 |

Single peak quantification by area

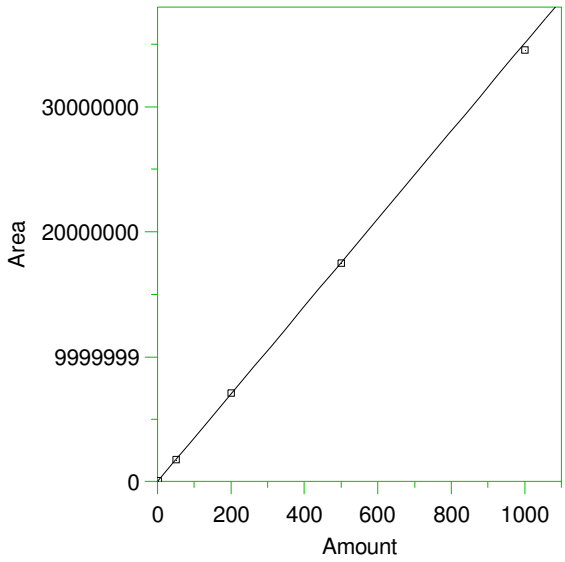
Y = 35071.26 X + 0

Average CF fit with equal weighting, forced to origin

| | |
|---|---|
| Coefficient of determination: | 0.9996535 |
| Average error: | 0.838% |
| Average CF: | 35071.26 |
| RSD: | 1.097% |

| Level | Amount | Response | Cal Factor | Error, % | Source | Date and time |
|---|---|---|---|---|---|---|
| 1 | 2 | 70648.41 | 35324.2 | 0.721 | G:\Org\HP5\DAT\HP5010821_b\0108HP5.0011.BND | 1/11/2021 9:44:43 AM |
| 2 | 50 | 1746406 | 34928.12 | -0.408 | G:\Org\HP5\DAT\HP5010821_b\0108HP5.0012.BND | 1/11/2021 9:44:50 AM |
| 3 | 200 | 7110604 | 35553.02 | 1.374 | G:\Org\HP5\DAT\HP5010821_b\0108HP5.0013.BND | 1/11/2021 9:44:58 AM |
| 4 | 500 | 1.749965E+07 | 34999.3 | -0.205 | G:\Org\HP5\DAT\HP5010821_b\0108HP5.0014.BND | 1/11/2021 9:45:02 AM |
| 5 | 1000 | 3.455164E+07 | 34551.64 | -1.482 | G:\Org\HP5\DAT\HP5010821_b\0108HP5.0015.BND | 1/11/2021 9:45:07 AM |

3 *1-Chlorooctadecane




| | |
|---|---|
| Expected retention time: | 12.95 minutes |
| Search window: | 0.05 minutes |
| No retention time reference component | |
| Group number: | 0 |
| High alarm limit: | 0 |
| Low alarm limit: | 0 |
| Component constant: | 0 |

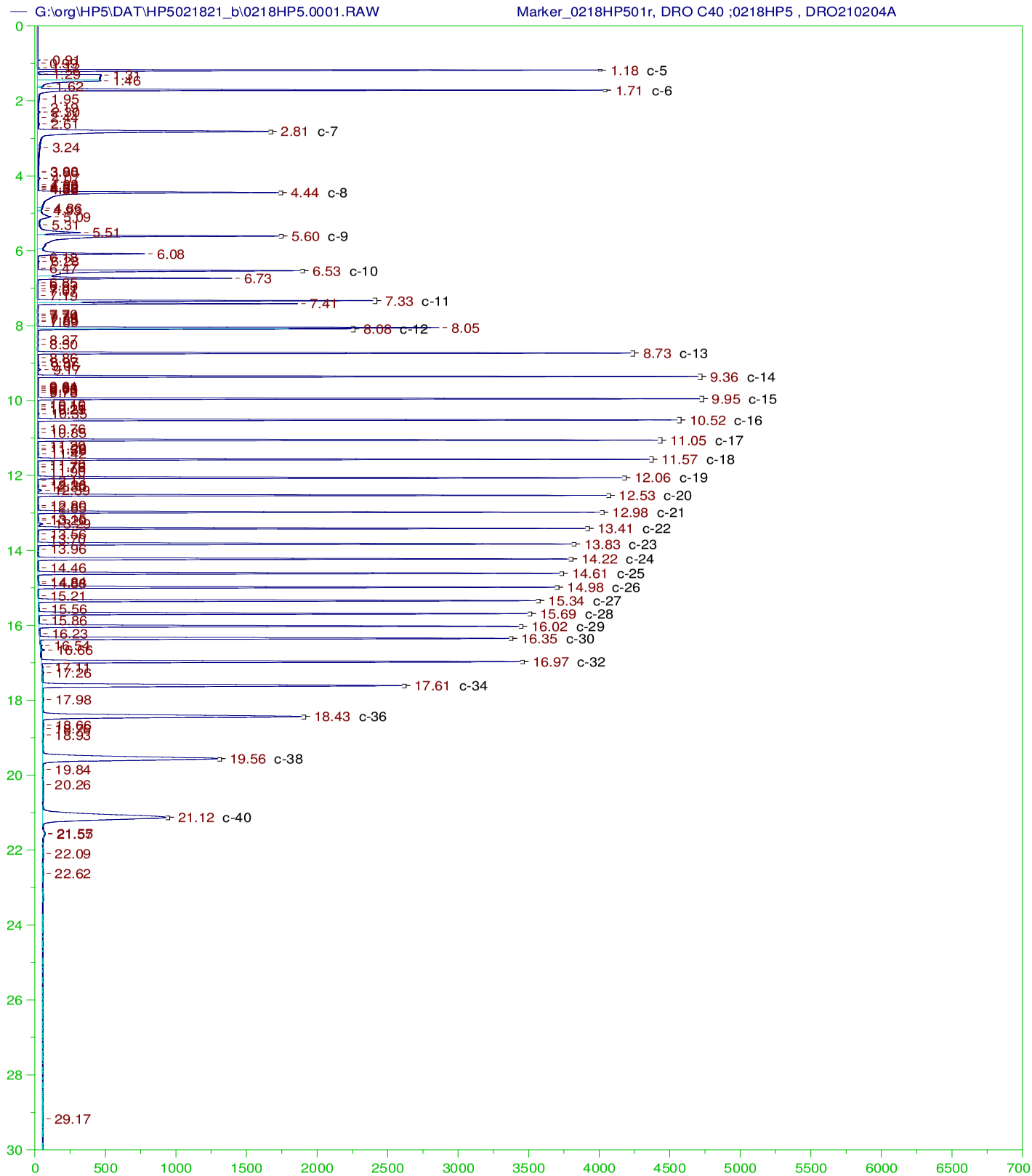
Single peak quantification by area

Y = 35071.26 X + 0

Average CF fit with equal weighting, forced to origin

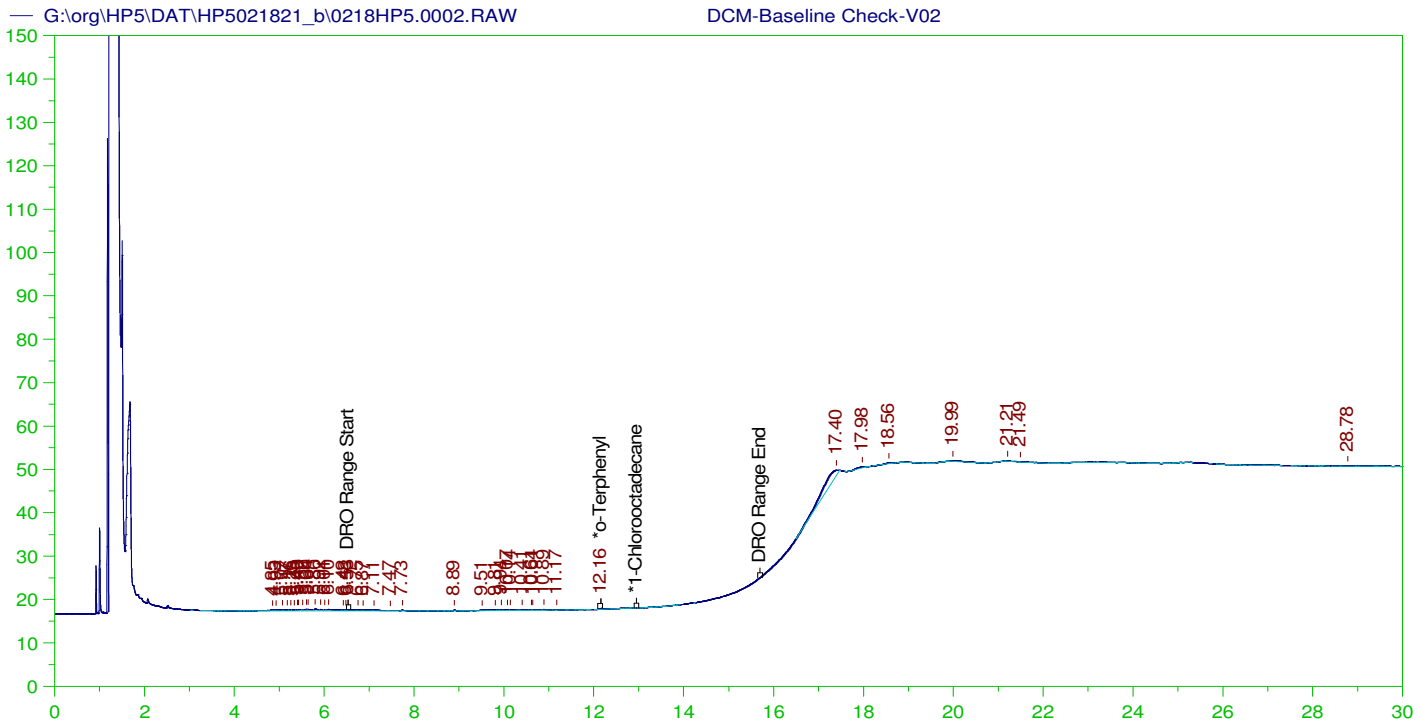
| | |
|---|---|
| Coefficient of determination: | 0.9996535 |
| Average error: | 0.838% |
| Average CF: | 35071.26 |
| RSD: | 1.097% |

| Level | Amount | Response | Cal Factor | Error, % | Source | Date and time |
|---|---|---|---|---|---|---|
| 1 | 2 | 70648.41 | 35324.2 | 0.721 | Manual | 1/11/2021 9:45:13 AM |
| 2 | 50 | 1746406 | 34928.12 | -0.408 | Manual | 1/11/2021 9:45:15 AM |
| 3 | 200 | 7110604 | 35553.02 | 1.374 | Manual | 1/11/2021 9:45:17 AM |
| 4 | 500 | 1.749965E+07 | 34999.3 | -0.205 | Manual | 1/11/2021 9:45:19 AM |
| 5 | 1000 | 3.455164E+07 | 34551.64 | -1.482 | Manual | 1/11/2021 9:45:21 AM |






G:\org\HP5\dat\HP5021821_b\Review\001_Marker_0218HP501r_CSC210212.xls



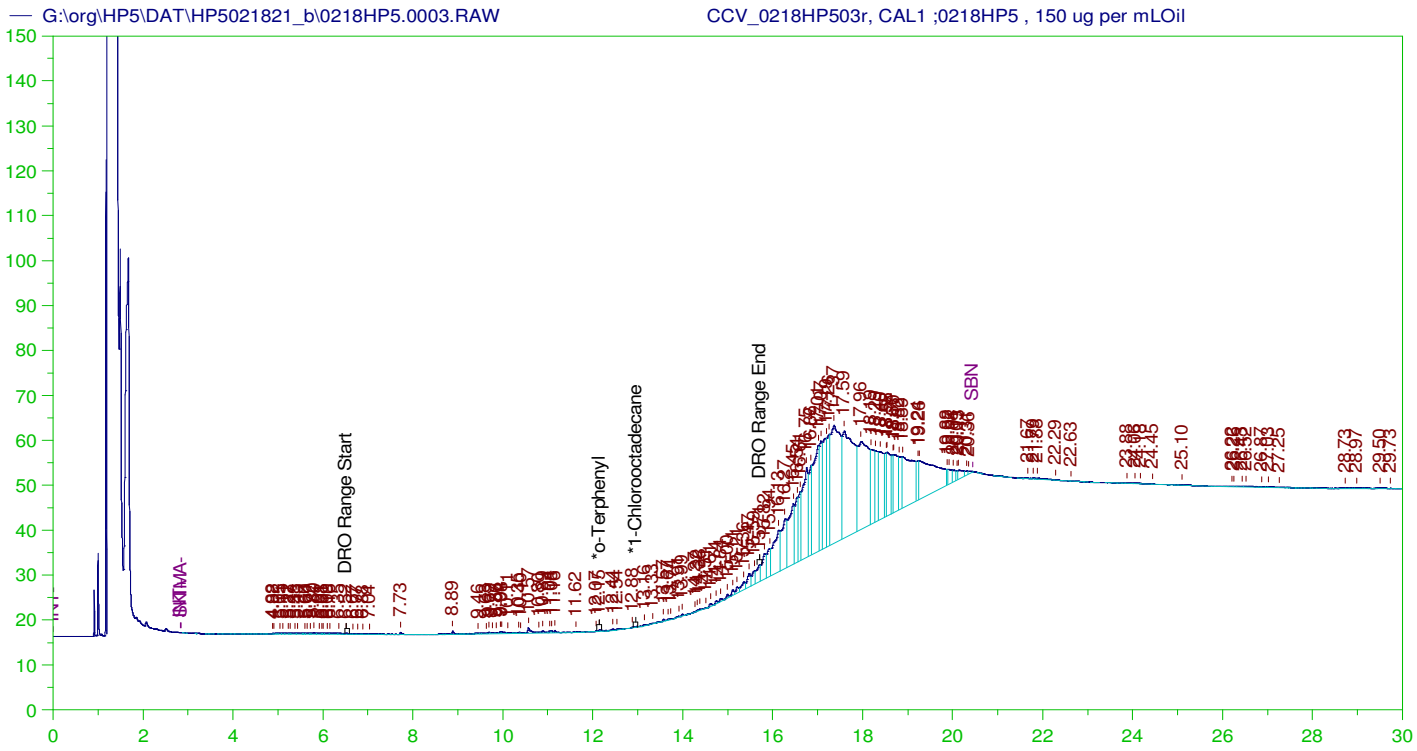

**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: DCM-Baseline Check-V02
Raw File: G:\org\HP5\DAT\HP5021821_b\0218HP5.0002.RAW
Date & Time Acquired: 2/18/2021 11:21:40 AM
Method File: G:\Org\HP5\Methods\DR_8015-HE-LEXP.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO210108HE.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 29457.33
Rt range for Diesel Range Organics: 6.49 to 15.75

| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | |
|---|---|---|---|---|---|
| *o-Terphenyl | 12.158 | 200. | .034 | .02 | - |
| *1-Chlorooctadecane | 29.927 | 200. | . | . | - |

DRO Area:29553.31 DRO Amount: 1.003258
TEH Area:144057.3 TEH Amount: 4.890373




**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**
Sample Name: CCV_0218HP503r, CAL1 ;0218HP5 , 150 ug per mLOil
Raw File: G:\org\HP5\DAT\HP5021821_b\0218HP5.0003.RAW
Date & Time Acquired: 2/18/2021 12:03:33 PM
Method File: G:\ORG\HP5\METHODS\DR_OIL-021803-AA-L0.MET
Calibration File: G:\Org\HP5\Cals\SW8015C_OIL210218AA.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 28542.41
Rt range for Diesel Range Organics: 6.49 to 15.75

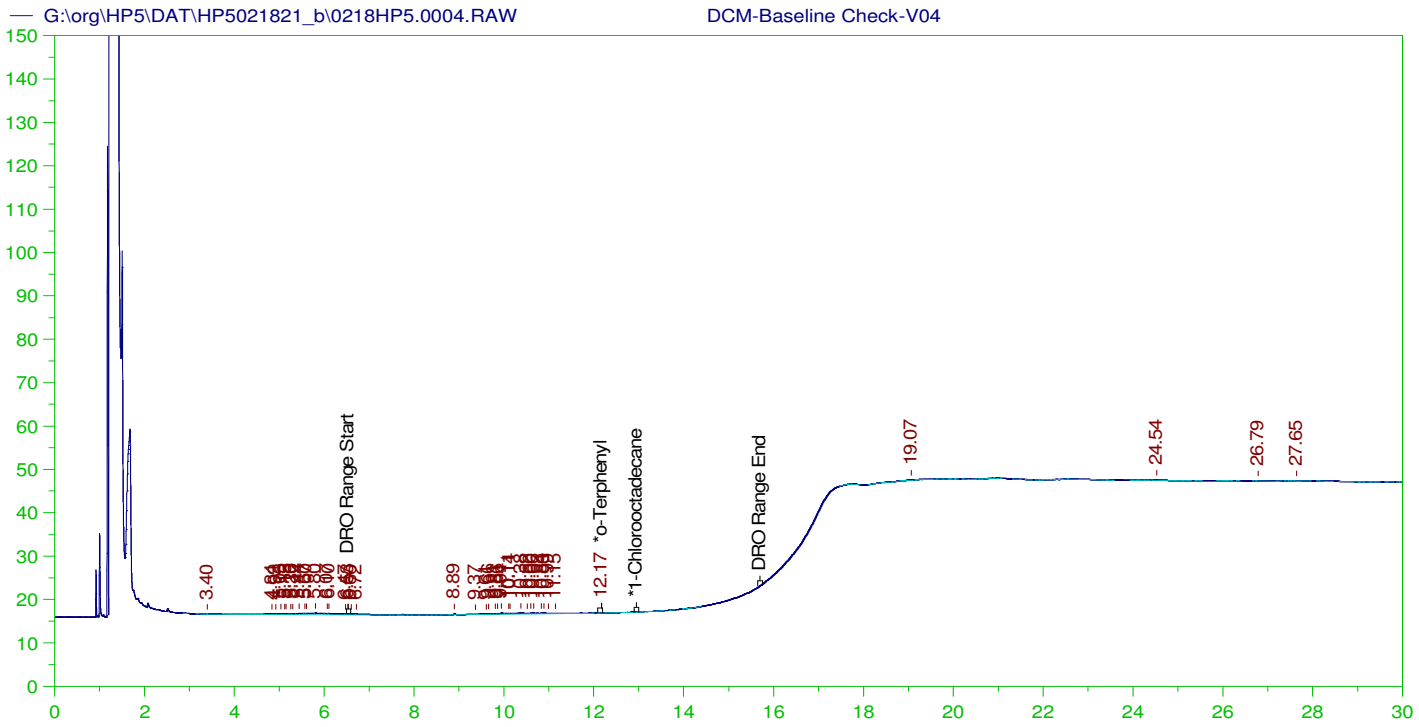
| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | |
|---|---|---|---|---|---|
| *o-Terphenyl | 12.146 | 200. | .02 | .01 | - |
| *1-Chlorooctadecane | 29.979 | 200. | . | . | - |

DRO Area:141843.8 DRO Amount: 4.969579
TEH Area:3766485 TEH Amount: 131.961

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5021821_b\0218HP5.0003.RAW

| COMPOUND | ACTUAL(NG) | MEASURED(NG) | %RECOVERY | LIMITS |
|---|---|---|---|---|
| TOTAL DRO | 5000. | 131.96 | 2.64 | 85-115 |

| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | LIMITS |
|---|---|---|---|---|---|
| *o-Terphenyl | 12.146 | 200. | .02 | .01 | 85-115 |
| *1-Chlorooctadecane | 29.979 | 200. | . | . | 85-115 |



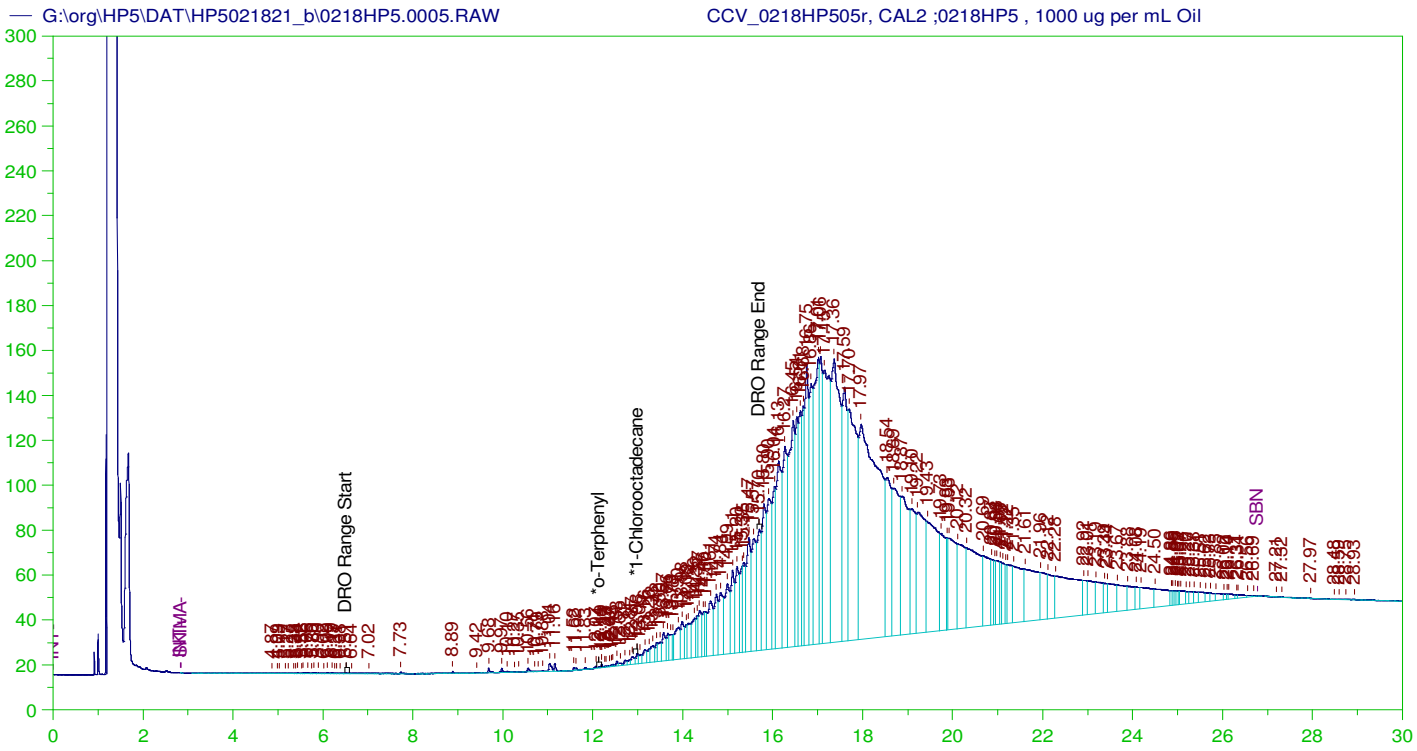

**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: DCM-Baseline Check-V04
Raw File: G:\org\HP5\DAT\HP5021821_b\0218HP5.0004.RAW
Date & Time Acquired: 2/18/2021 12:45:36 PM
Method File: G:\Org\HP5\Methods\DR_8015-HE-LEXP.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO210108HE.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 29457.33
Rt range for Diesel Range Organics: 6.49 to 15.75

| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | |
|---|---|---|---|---|---|
| *o-Terphenyl | 12.171 | 200. | .017 | .01 | - |
| *1-Chlorooctadecane | 29.958 | 200. | . | . | - |

DRO Area:27245.38 DRO Amount: 0.9249101
TEH Area:63574.01 TEH Amount: 2.158173




**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: CCV_0218HP505r, CAL2 ;0218HP5 , 1000 ug per mL Oil
Raw File: G:\org\HP5\DAT\HP5021821_b\0218HP5.0005.RAW
Date & Time Acquired: 2/18/2021 1:27:30 PM
Method File: G:\ORG\HP5\METHODS\DR_OIL-021805-AA-L0.MET
Calibration File: G:\Org\HP5\Cals\SW8015C_OIL210218AA.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 28542.41
Rt range for Diesel Range Organics: 6.49 to 15.75

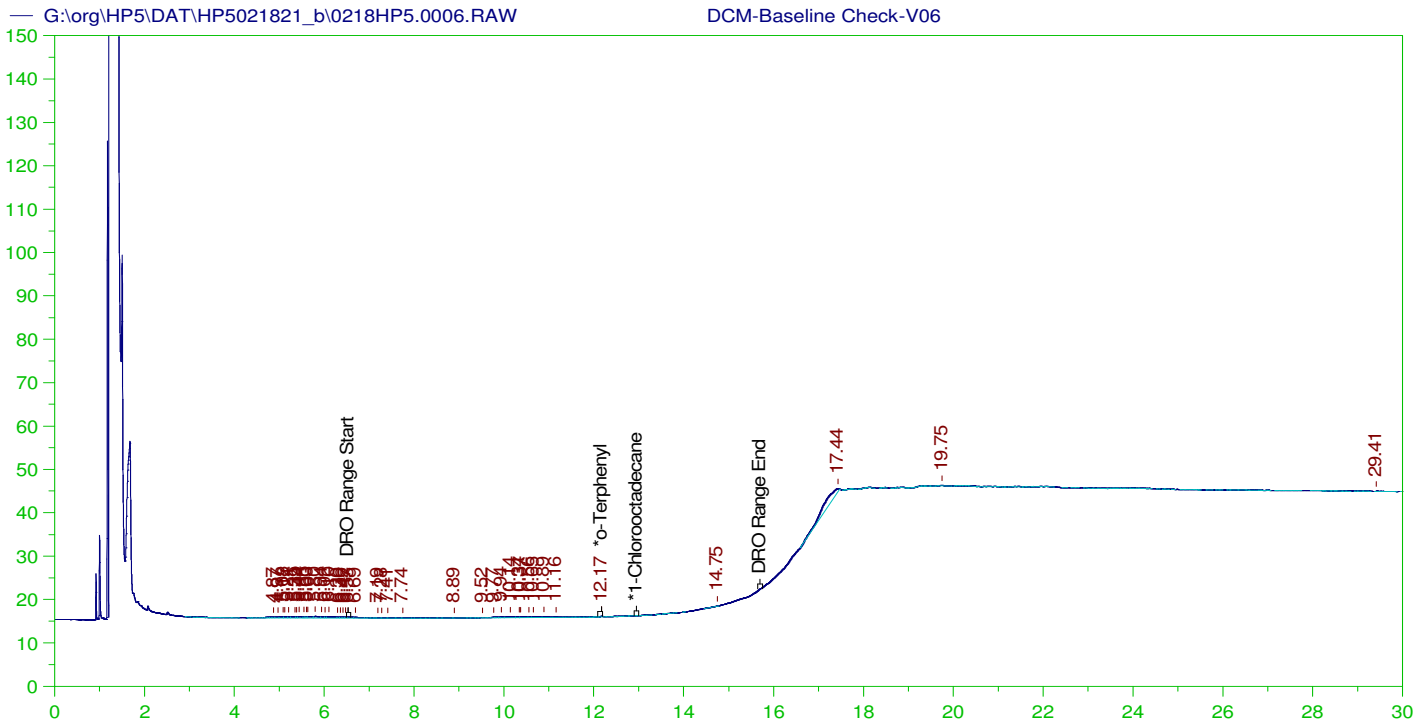
| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | |
|---|---|---|---|---|---|
| *o-Terphenyl | 12.136 | 200. | .034 | .02 | - |
| *1-Chlorooctadecane | 12.983 | 200. | .496 | .25 | - |

DRO Area:3721460 DRO Amount: 130.3835
TEH Area:3.03352E+07 TEH Amount: 1062.811

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5021821_b\0218HP5.0005.RAW

| COMPOUND | ACTUAL(NG) | MEASURED(NG) | %RECOVERY | LIMITS |
|---|---|---|---|---|
| TOTAL DRO | 5000. | 1062.81 | 21.26 | 85-115 |

| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | LIMITS |
|---|---|---|---|---|---|
| *o-Terphenyl | 12.136 | 200. | .034 | .02 | 85-115 |
| *1-Chlorooctadecane | 12.983 | 200. | .496 | .25 | 85-115 |



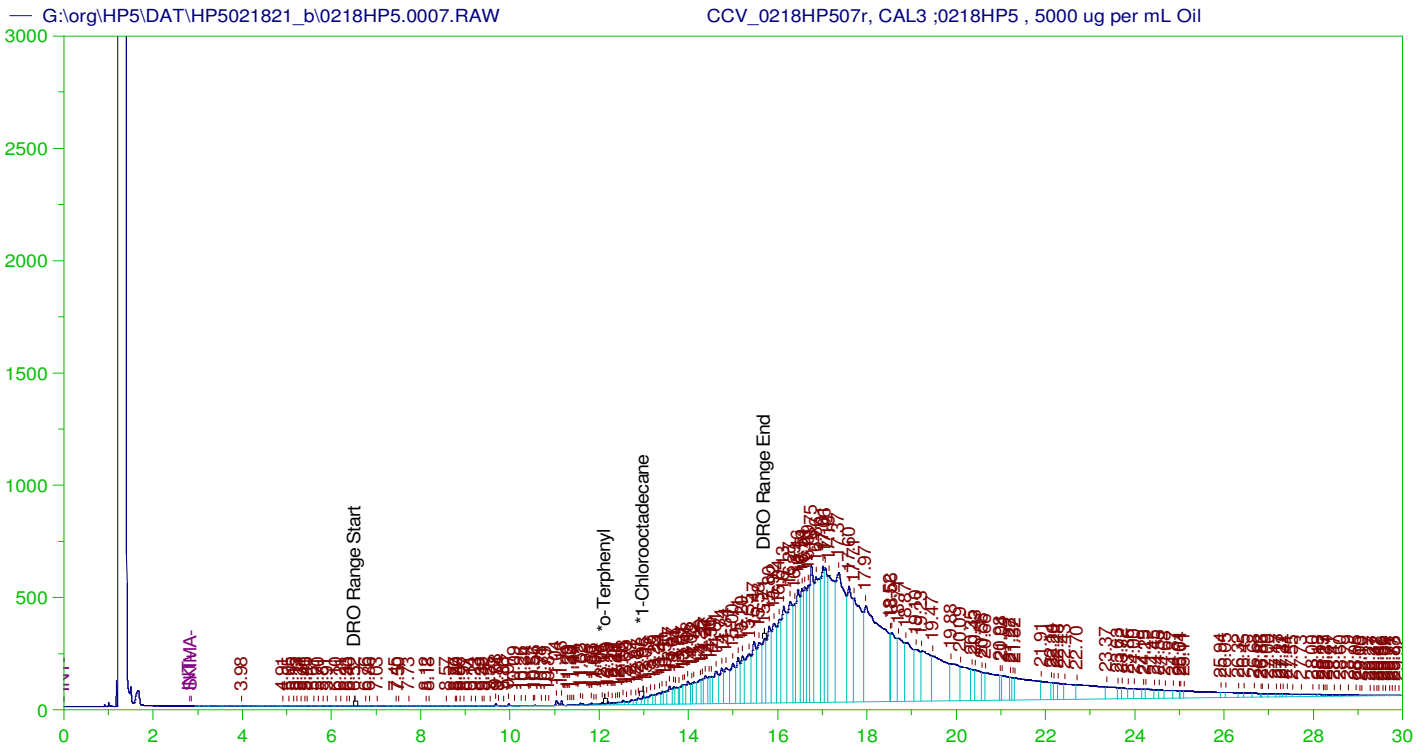

**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: DCM-Baseline Check-V06
Raw File: G:\org\HP5\DAT\HP5021821_b\0218HP5.0006.RAW
Date & Time Acquired: 2/18/2021 2:09:12 PM
Method File: G:\Org\HP5\Methods\DR_8015-HE-LEXP.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO210108HE.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 29457.33
Rt range for Diesel Range Organics: 6.49 to 15.75

| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | |
|---|---|---|---|---|---|
| *o-Terphenyl | 12.17 | 200. | .017 | .01 | - |
| *1-Chlorooctadecane | 29.977 | 200. | . | . | - |

DRO Area:29249.25 DRO Amount: 0.9929362
TEH Area:123949.1 TEH Amount: 4.20775




**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: CCV_0218HP507r, CAL3 ;0218HP5 , 5000 ug per mL Oil
Raw File: G:\org\HP5\DAT\HP5021821_b\0218HP5.0007.RAW
Date & Time Acquired: 2/18/2021 2:51:00 PM
Method File: G:\ORG\HP5\METHODS\DR_OIL-021807-AA-L0.MET
Calibration File: G:\Org\HP5\Cals\SW8015C_OIL210218AA.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 28542.41
Rt range for Diesel Range Organics: 6.49 to 15.75

| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | |
|---|---|---|---|---|---|
| *o-Terphenyl | 12.129 | 200. | .538 | .27 | - |
| *1-Chlorooctadecane | 12.981 | 200. | 4.244 | 2.12 | - |

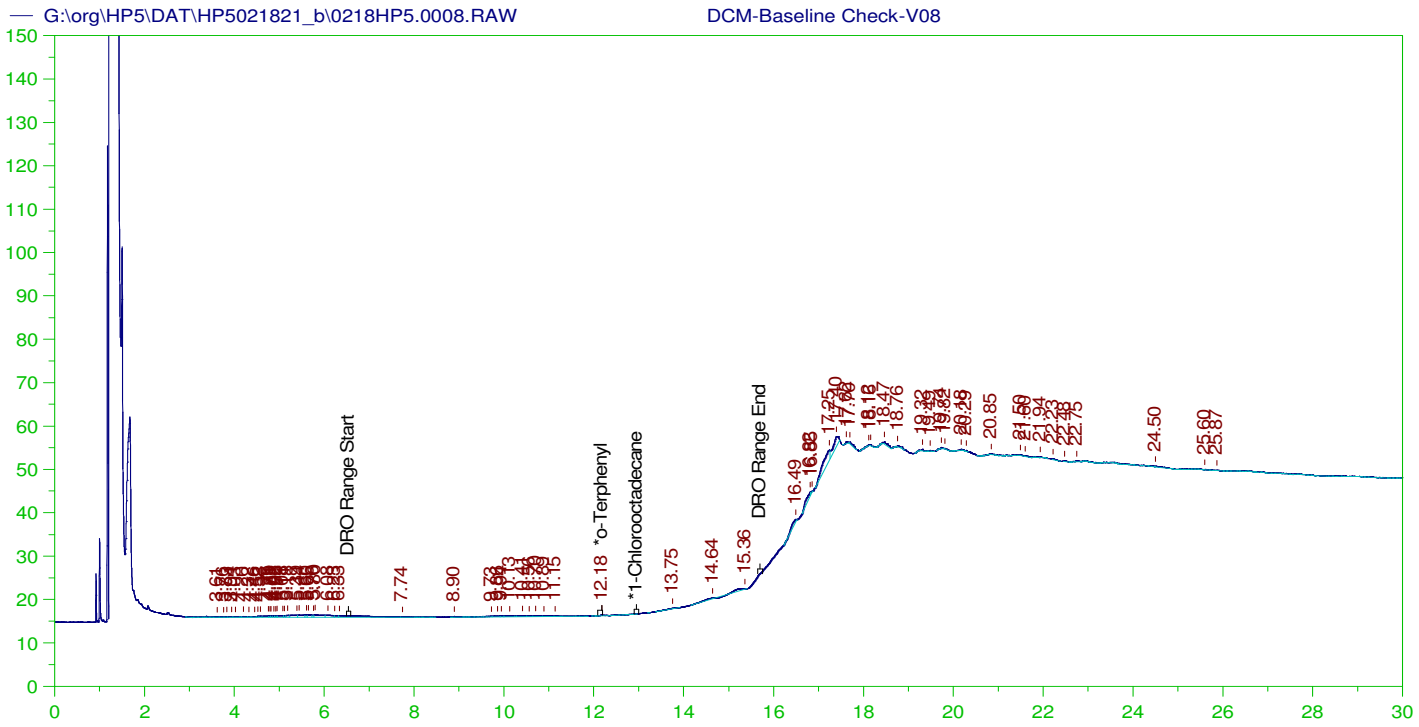
DRO Area:2.19239E+07 DRO Amount: 768.1166
TEH Area:1.437314E+08 TEH Amount: 5035.713

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5021821_b\0218HP5.0007.RAW

| COMPOUND | ACTUAL(NG) | MEASURED(NG) | %RECOVERY | LIMITS |
|---|---|---|---|---|
| TOTAL DRO | 5000. | 5035.71 | 100.71 | 85-115 |

| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | LIMITS |
|---|---|---|---|---|---|
| *o-Terphenyl | 12.129 | 200. | .538 | .27 | 85-115 |
| *1-Chlorooctadecane | 12.981 | 200. | 4.244 | 2.12 | 85-115 |

G:\org\HP5\dat\HP5021821_b\Review\007_CCV_0218HP507r_DR_OIL-021807-AA-L0.xls



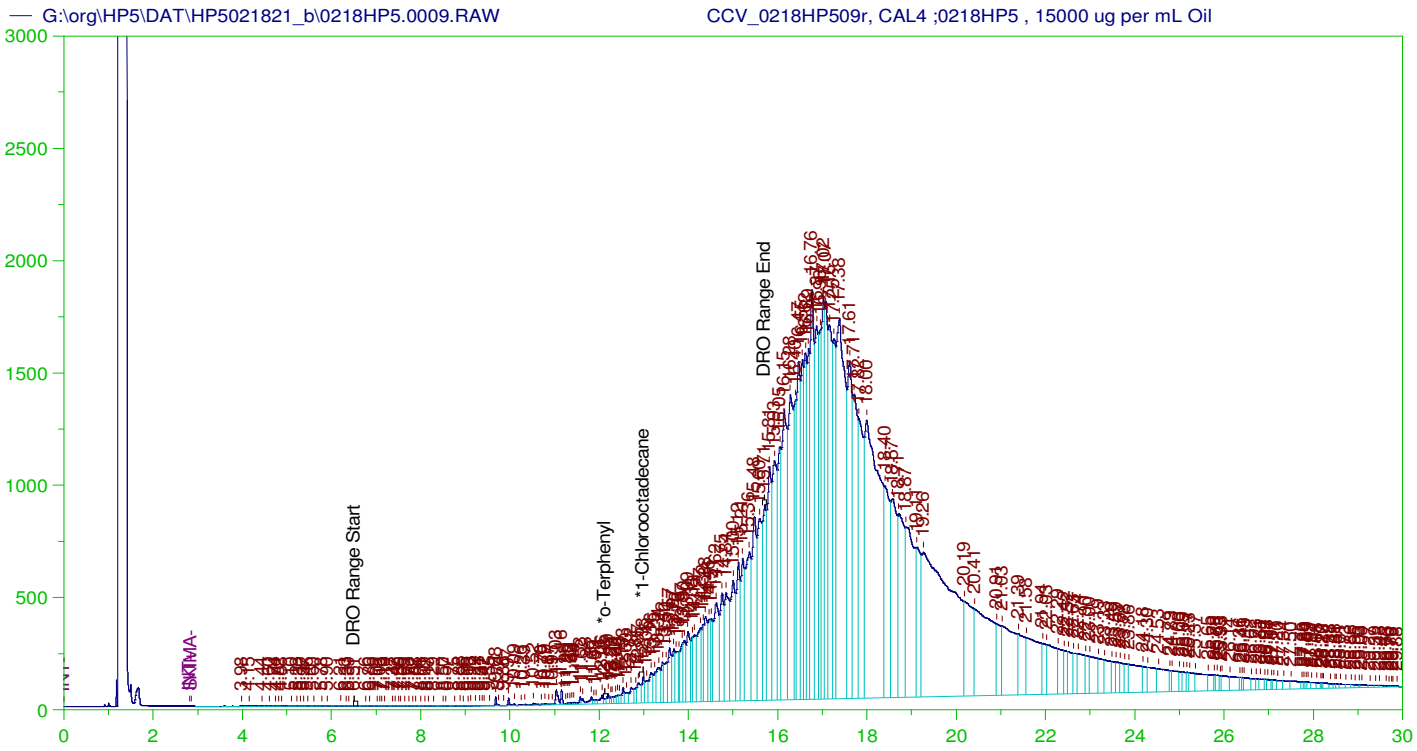

**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: DCM-Baseline Check-V08
Raw File: G:\org\HP5\DAT\HP5021821_b\0218HP5.0008.RAW
Date & Time Acquired: 2/18/2021 3:32:46 PM
Method File: G:\Org\HP5\Methods\DR_8015-HE-LEXP.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO210108HE.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 29457.33
Rt range for Diesel Range Organics: 6.49 to 15.75

| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | |
|---|---|---|---|---|---|
| *o-Terphenyl | 12.176 | 200. | .026 | .01 | - |
| *1-Chlorooctadecane | 29.982 | 200. | . | . | - |

DRO Area:30717.07 DRO Amount: 1.042765
TEH Area:223672.8 TEH Amount: 7.593112




**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**
Sample Name: CCV_0218HP509r, CAL4 ;0218HP5 , 15000 ug per mL Oil
Raw File: G:\org\HP5\DAT\HP5021821_b\0218HP5.0009.RAW
Date & Time Acquired: 2/18/2021 4:14:34 PM
Method File: G:\ORG\HP5\METHODS\DR_OIL-021807-AA-L0.MET
Calibration File: G:\Org\HP5\Cals\SW8015C_OIL210218AA.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 28542.41
Rt range for Diesel Range Organics: 6.49 to 15.75

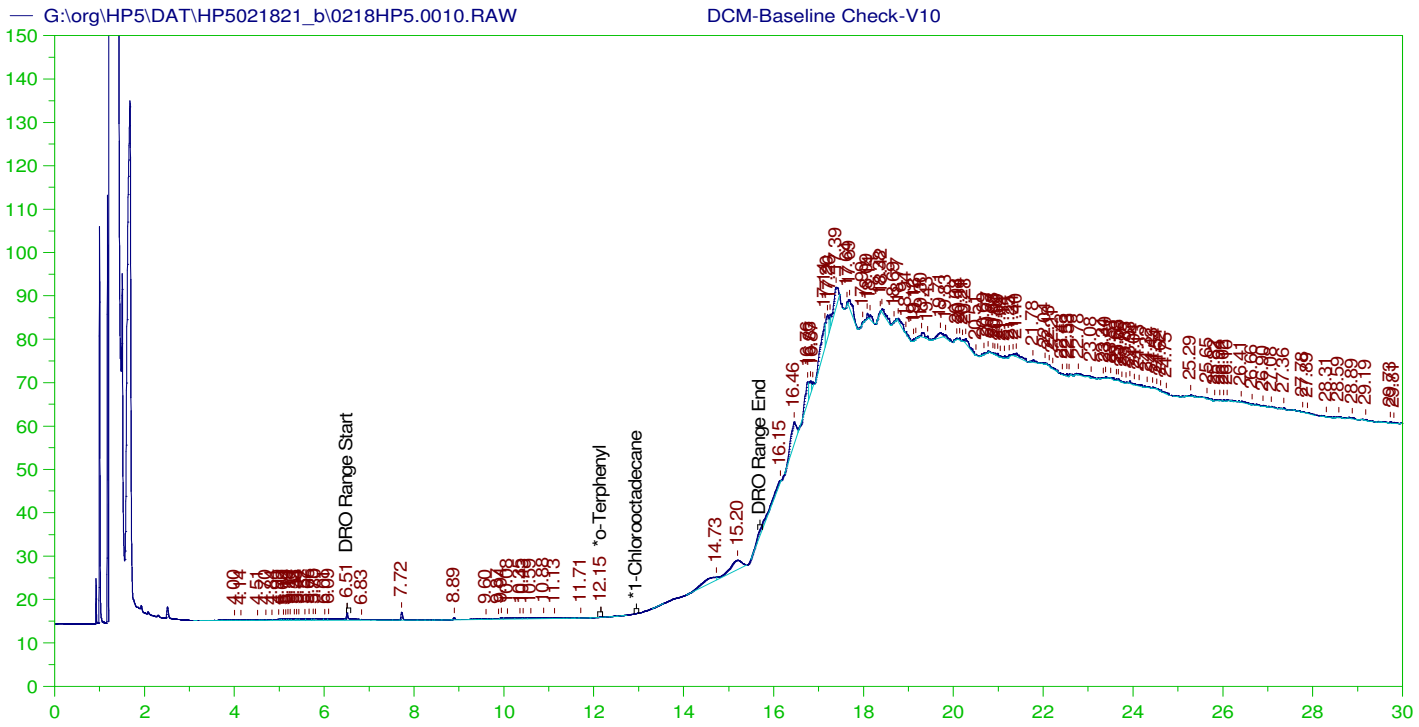
| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | |
|---|---|---|---|---|---|
| *o-Terphenyl | 12.124 | 200. | 1.888 | .94 | - |
| *1-Chlorooctadecane | 12.984 | 200. | 13.129 | 6.56 | - |

DRO Area:6.73131E+07 DRO Amount: 2358.354
TEH Area:4.193721E+08 TEH Amount: 14692.95

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5021821_b\0218HP5.0009.RAW

| COMPOUND | ACTUAL(NG) | MEASURED(NG) | %RECOVERY | LIMITS |
|---|---|---|---|---|
| TOTAL DRO | 5000. | 14692.95 | 293.86 | 85-115 |

| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | LIMITS |
|---|---|---|---|---|---|
| *o-Terphenyl | 12.124 | 200. | 1.888 | .94 | 85-115 |
| *1-Chlorooctadecane | 12.984 | 200. | 13.129 | 6.56 | 85-115 |

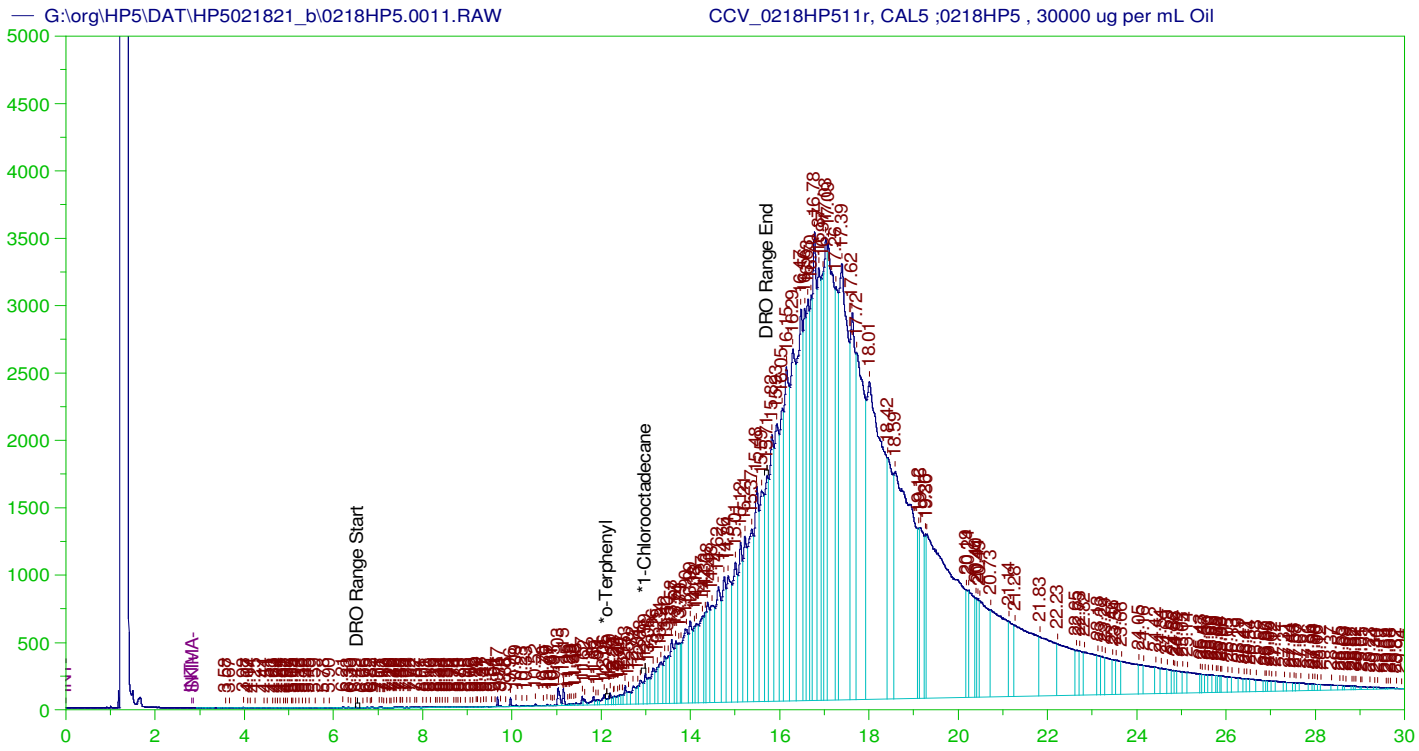



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**
Sample Name: DCM-Baseline Check-V10
Raw File: G:\org\HP5\DAT\HP5021821_b\0218HP5.0010.RAW
Date & Time Acquired: 2/18/2021 4:56:16 PM
Method File: G:\Org\HP5\Methods\DR_8015-HE-LEXP.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO210108HE.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 29457.33
Rt range for Diesel Range Organics: 6.49 to 15.75

| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | |
|---|---|---|---|---|---|
| *o-Terphenyl | 12.153 | 200. | .023 | .01 | - |
| *1-Chlorooctadecane | 29.957 | 200. | . | . | - |

DRO Area:108629.1 DRO Amount: 3.687675
TEH Area:543425.7 TEH Amount: 18.44789




**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: CCV_0218HP511r, CAL5 ;0218HP5 , 30000 ug per mL Oil
Raw File: G:\org\HP5\DAT\HP5021821_b\0218HP5.0011.RAW
Date & Time Acquired: 2/18/2021 5:38:33 PM
Method File: G:\ORG\HP5\METHODS\DR_OIL-021811-AA-L0.MET
Calibration File: G:\Org\HP5\Cals\SW8015C_OIL210218AA.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 28542.41
Rt range for Diesel Range Organics: 6.49 to 15.75

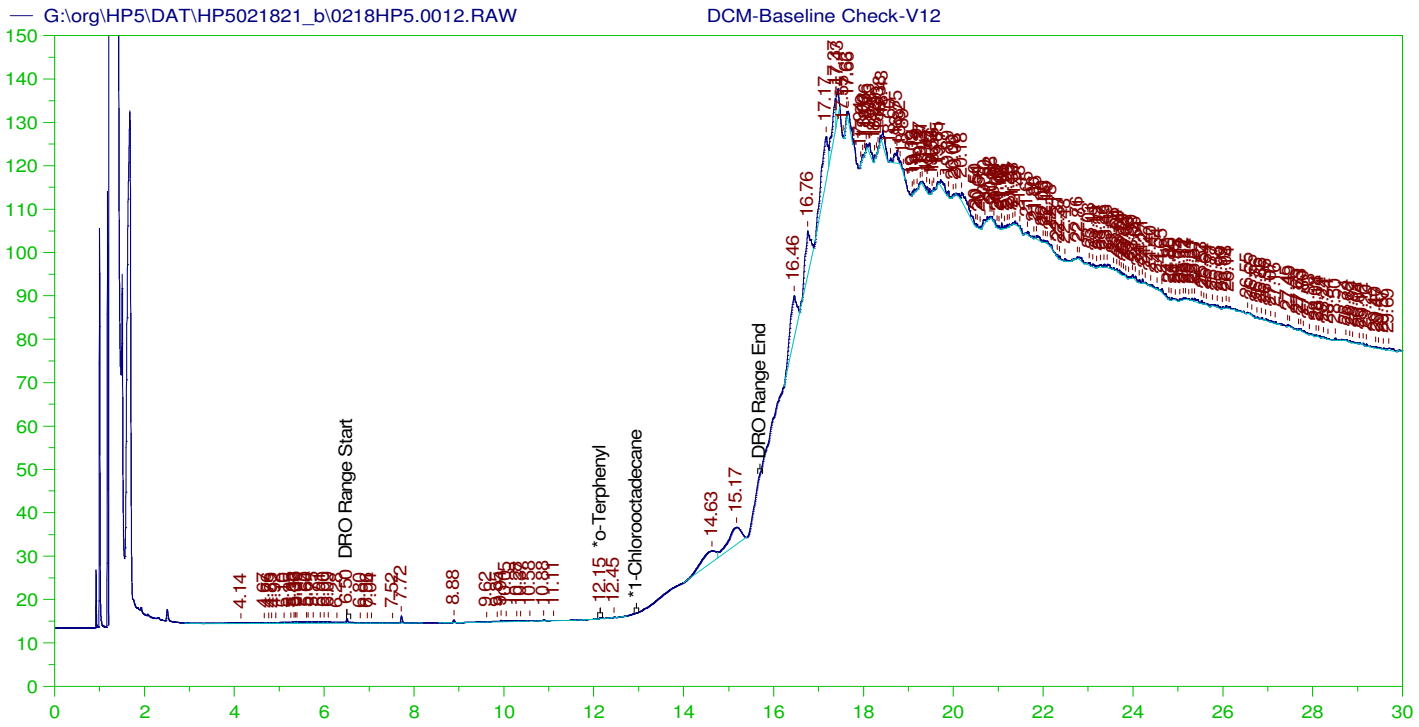
| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | |
|---|---|---|---|---|---|
| *o-Terphenyl | 12.128 | 200. | 3.828 | 1.91 | - |
| *1-Chlorooctadecane | 12.985 | 200. | 28.22 | 14.11 | - |

DRO Area:1.319327E+08 DRO Amount: 4622.338
TEH Area:8.051155E+08 TEH Amount: 28207.69

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5021821_b\0218HP5.0011.RAW

| COMPOUND | ACTUAL(NG) | MEASURED(NG) | %RECOVERY | LIMITS |
|---|---|---|---|---|
| TOTAL DRO | 5000. | 28207.69 | 564.15 | 85-115 |

| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | LIMITS |
|---|---|---|---|---|---|
| *o-Terphenyl | 12.128 | 200. | 3.828 | 1.91 | 85-115 |
| *1-Chlorooctadecane | 12.985 | 200. | 28.22 | 14.11 | 85-115 |



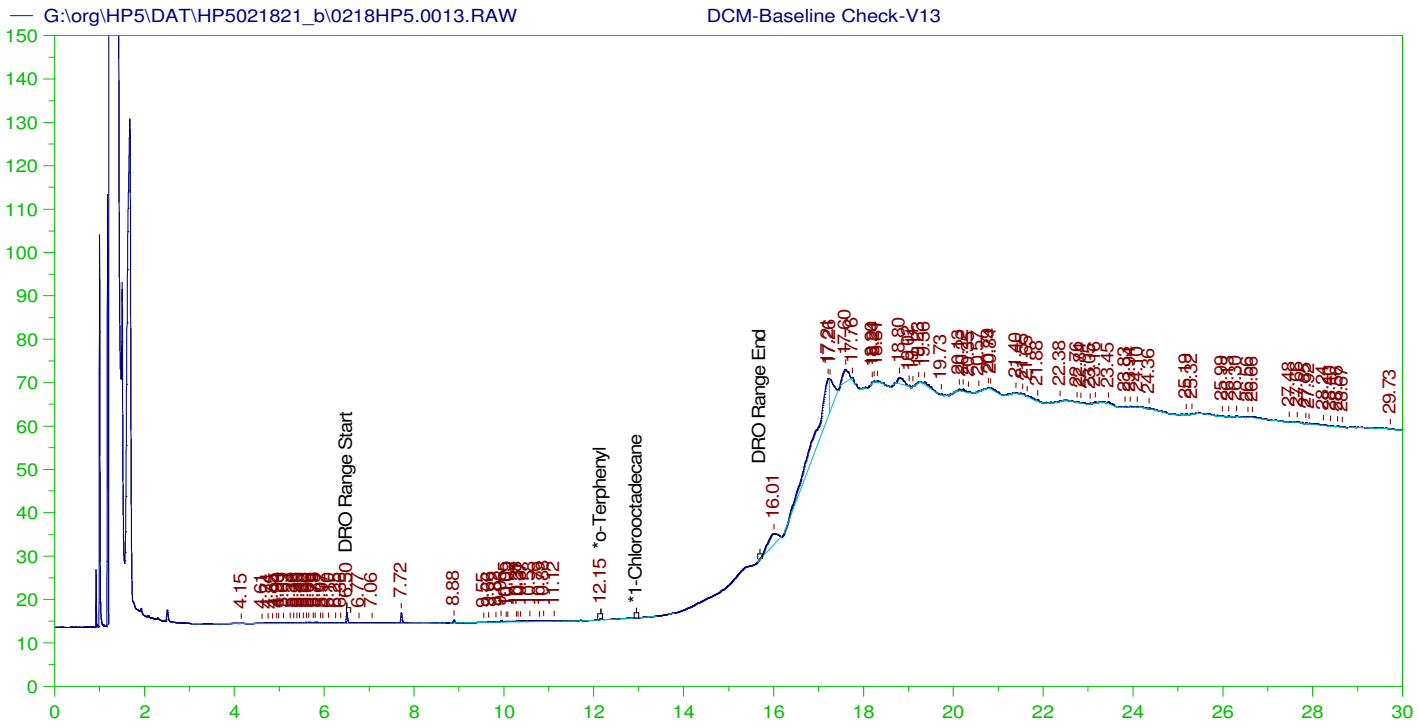

**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: DCM-Baseline Check-V12
Raw File: G:\org\HP5\DAT\HP5021821_b\0218HP5.0012.RAW
Date & Time Acquired: 2/18/2021 6:20:48 PM
Method File: G:\Org\HP5\Methods\DR_8015-HE-LEXP.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO210108HE.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 29457.33
Rt range for Diesel Range Organics: 6.49 to 15.75

| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | |
|---|---|---|---|---|---|
| *o-Terphenyl | 12.146 | 200. | .024 | .01 | - |
| *1-Chlorooctadecane | 29.981 | 200. | . | . | - |

DRO Area:186033.1 DRO Amount: 6.31534
TEH Area:888262.2 TEH Amount: 30.1542



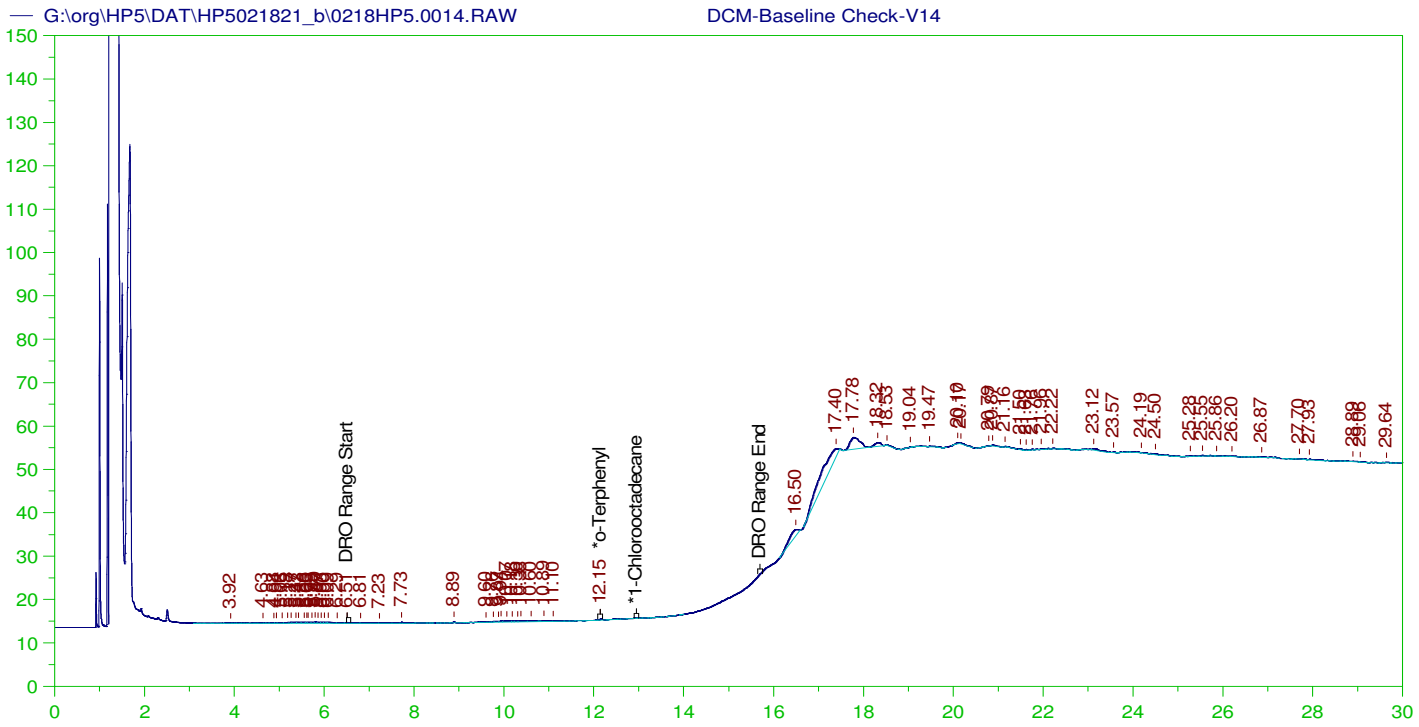

**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: DCM-Baseline Check-V13
Raw File: G:\org\HP5\DAT\HP5021821_b\0218HP5.0013.RAW
Date & Time Acquired: 2/18/2021 7:03:01 PM
Method File: G:\Org\HP5\Methods\DR_8015-HE-LEXP.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO210108HE.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 29457.33
Rt range for Diesel Range Organics: 6.49 to 15.75

| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | |
|---|---|---|---|---|---|
| *o-Terphenyl | 12.152 | 200. | .033 | .02 | - |
| *1-Chlorooctadecane | 29.967 | 200. | . | . | - |

DRO Area:40824.55 DRO Amount: 1.385888
TEH Area:476705.3 TEH Amount: 16.18291



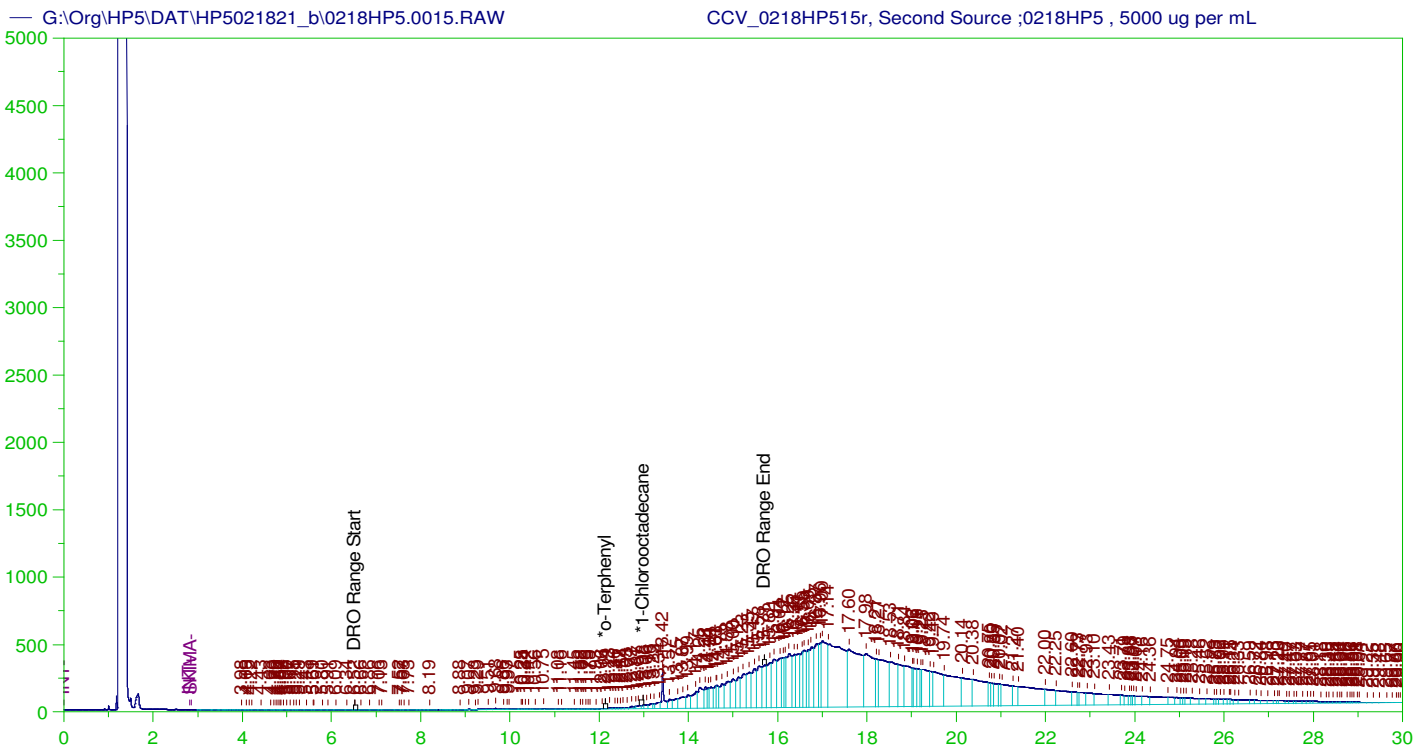

**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: DCM-Baseline Check-V14
Raw File: G:\org\HP5\DAT\HP5021821_b\0218HP5.0014.RAW
Date & Time Acquired: 2/18/2021 7:45:21 PM
Method File: G:\Org\HP5\Methods\DR_8015-HE-LEXP.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO210108HE.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 29457.33
Rt range for Diesel Range Organics: 6.49 to 15.75

| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | |
|---|---|---|---|---|---|
| *o-Terphenyl | 12.148 | 200. | .03 | .01 | - |
| *1-Chlorooctadecane | 29.949 | 200. | . | . | - |

DRO Area:30445.24 DRO Amount: 1.033537
TEH Area:297634.4 TEH Amount: 10.10392




**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: CCV_0218HP515r, Second Source ;0218HP5 , 5000 ug per mL
Raw File: G:\Org\HP5\DAT\HP5021821_b\0218HP5.0015.RAW
Date & Time Acquired: 2/18/2021 8:27:37 PM
Method File: G:\ORG\HP5\METHODS\DR_OIL-021811-AA-L0.MET
Calibration File: G:\Org\HP5\Cals\SW8015C_OIL210218AA.CAL
Sample Weight: 1000 Dilution: 1 S.A.: 1

Mean RF for TEH: 28542.41
Rt range for Diesel Range Organics: 6.49 to 15.75

| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | |
|---|---|---|---|---|---|
| *o-Terphenyl | 12.137 | .2 | .19 | - | |
| *1-Chlorooctadecane | 12.984 | .2 | .003 | 1.62 | - |

DRO Area:2.558549E+07 DRO Amount: 0.8964027
TEH Area:1.562544E+08 TEH Amount: 5.474465

CONTINUING CALIBRATION REPORT: G:\Org\HP5\DAT\HP5021821_b\0218HP5.0015.RAW

| COMPOUND | ACTUAL(NG) | MEASURED(NG) | %RECOVERY | LIMITS |
|---|---|---|---|---|
| TOTAL DRO | 5000. | 5.47 | .11 | 85-115 |

| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | LIMITS |
|---|---|---|---|---|---|
| *o-Terphenyl | 12.137 | .2 | .19 | 85-115 | |
| *1-Chlorooctadecane | 12.984 | .2 | .003 | 1.62 | 85-115 |

G:\org\HP5\dat\HP5021821_b\Review\015_CCV_0218HP515r_DR_OIL-021811-AA-L0.xls

| Write Sequence | Data File | Sample Nan | Insert Entries(Have the first cell for entries selecte | Method | Weight | Dil Factor | Amt Inj. | IS | Cal ID | Manual Integration |
|---|---|---|---|---|---|---|---|---|---|---|
| | :\org\HP5\DAT\HP5021821_b\0218HP5.01r | Marker_0218HP501r, DRO C40 ;0218HP5 , DRO210204A | | g:\org\HP5\Methods\\CSC210212.met | 1 | 1 | 1 | 1 | 0 | No Integration |
| | :\org\HP5\DAT\HP5021821_b\0218HP5.02r | DCM-Baseline Check-V02 | | G:\Org\HP5\Methods\DR_8015-HE-LEXP.met | 1 | 1 | 1 | 1 | 0 | No Integration |
| | :\org\HP5\DAT\HP5021821_b\0218HP5.03r | CCV_0218HP503r, CAL1 ;0218HP5 , 150 ug per mLOil (10 uL of Cal4 + 990 uL DCM(13510) | | G:\Org\HP5\Methods\DR_OIL-021803-AA-L0.MET | 1 | 1 | 1 | 1 | 0 | The integration of Total Extractable Hydrocarbons (OIL) is the hydrocarbon response with reference to the basline. Assigned Set Baseline All Valley on at 20.91 changed peak width and scale was set at 150 for the Yaxis. |
| | :\org\HP5\DAT\HP5021821_b\0218HP5.04r | DCM-Baseline Check-V04 | | G:\Org\HP5\Methods\DR_8015-HE-LEXP.met | 1 | 1 | 1 | 1 | 0 | No Integration |
| | :\org\HP5\DAT\HP5021821_b\0218HP5.05r | CCV_0218HP505r, CAL2 ;0218HP5 , 1000 ug per mL Oil (200 uL of Cal 3 +800 uL DCM(13510) | | G:\Org\HP5\Methods\DR_OIL-021805-AA-L0.MET | 1 | 1 | 1 | 1 | 0 | The integration of Total Extractable Hydrocarbons (OIL) is the hydrocarbon response with reference to the basline. Assigned Set Baseline All Valley on at 26.79 changed peak width and scale was set at 300 for the Yaxis. |
| | :\org\HP5\DAT\HP5021821_b\0218HP5.06r | DCM-Baseline Check-V06 | | G:\Org\HP5\Methods\DR_8015-HE-LEXP.met | 1 | 1 | 1 | 1 | 0 | No Integration |
| | :\org\HP5\DAT\HP5021821_b\0218HP5.07r | CCV_0218HP507r, CAL3 ;0218HP5 , 5000 ug per mL Oil (100 uL of DRO180918C + 900 uL DCM(13510) | | G:\Org\HP5\Methods\DR_OIL-021807-AA-L0.MET | 1 | 1 | 1 | 1 | 0 | The integration of Total Extractable Hydrocarbons (OIL) is the hydrocarbon response with reference to the basline. Scale was set at 3000 for the Yaxis. |
| | :\org\HP5\DAT\HP5021821_b\0218HP5.08r | DCM-Baseline Check-V08 | | G:\Org\HP5\Methods\DR_8015-HE-LEXP.met | 1 | 1 | 1 | 1 | 0 | No Integration |
| | :\org\HP5\DAT\HP5021821_b\0218HP5.09r | CCV_0218HP509r, CAL4 ;0218HP5 , 15000 ug per mL Oil (200 uL of CAL5 + 200 uL DCM(13510) | | G:\Org\HP5\Methods\DR_OIL-021807-AA-L0.MET | 1 | 1 | 1 | 1 | 0 | The integration of Total Extractable Hydrocarbons (OIL) is the hydrocarbon response with reference to the basline. Scale was set at 3000 for the Yaxis. |
| | :\org\HP5\DAT\HP5021821_b\0218HP5.10r | DCM-Baseline Check-V10 | | G:\Org\HP5\Methods\DR_8015-HE-LEXP.met | 1 | 1 | 1 | 1 | 0 | No Integration |
| | :\org\HP5\DAT\HP5021821_b\0218HP5.11r | CCV_0218HP511r, CAL5 ;0218HP5 , 30000 ug per mL Oil (600 uL of DRO180918C + 400 uL of DCM) | | G:\Org\HP5\Methods\DR_OIL-021811-AA-L0.MET | 1 | 1 | 1 | 1 | 0 | The integration of Total Extractable Hydrocarbons (OIL) is the hydrocarbon response with reference to the basline. Scale was set at 5000 for the Yaxis. |
| | :\org\HP5\DAT\HP5021821_b\0218HP5.12r | DCM-Baseline Check-V12 | | G:\Org\HP5\Methods\DR_8015-HE-LEXP.met | 1 | 1 | 1 | 1 | 0 | No Integration |
| | :\org\HP5\DAT\HP5021821_b\0218HP5.13r | DCM-Baseline Check-V13 | | G:\Org\HP5\Methods\DR_8015-HE-LEXP.met | 1 | 1 | 1 | 1 | 0 | No Integration |
| | :\org\HP5\DAT\HP5021821_b\0218HP5.14r | DCM-Baseline Check-V14 | | G:\Org\HP5\Methods\DR_8015-HE-LEXP.met | 1 | 1 | 1 | 1 | 0 | No Integration |
| | :\org\HP5\DAT\HP5021821_b\0218HP5.15r | CCV_0218HP515r, Second Source ;0218HP5 , 5000 ug per mL (100uL of DRO210217A + 300uL DCM(13510) | | G:\Org\HP5\Methods\DR_OIL-021811-AA-L0.MET | 1 | 1 | 1 | 1 | 0 | The integration of Total Extractable Hydrocarbons (OIL) is the hydrocarbon response with reference to the basline. Scale was set at 5000 for the Yaxis. |

Ann Nebel

Digitally signed by
Ann Nebel
Date: 2021.10.29 12:03:40 -06:00

# Energy Laboratories Inc

# ANALYTICAL RUN Summary

*25-Oct-21*

**Run ID** GCFID-HP5-B_211017A

**Run Start Date:** 10/17/2021
**Analyst:** Ann Nebel
**Ical:**
**Column ID:**
**Comments:** Triacontane ICAL

| Std ID | Std Name | Std Amount | Std Units | Samp Amount | Samp Units | SampType | Expiration Date |
|---|---|---|---|---|---|---|---|
| DRO211006A | Triacontane SURR 2000 ug/mL | | | | | SURR | 4/6/2026 |

| Seq No | Lab ID | Test Code | Sample Typ | File ID | Analysis Date | DF | Batch ID | Prep Date | SPKref | RPDref | pmoist |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 14777567 | CCV_1017HP50 | HC-8015-DRO- | CAL1 | | 10/17/2021 3:30: | 1 | R368813 | | 0 | 0 | |

| Analyte | T | Units | RAW | Final | Text | Spike | SPKref | RPDref | MDL | PQL | UQL | %REC | LOW | HIGH | %RPD | Q |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| n-Triacontane | S | mg/L | | 0.00202757 | | 0.002 | 0 | 0 | 0.002 | 0.002 | 0 | 101% | 80 | 120 | 0% | |

| Seq No | Lab ID | Test Code | Sample Typ | File ID | Analysis Date | DF | Batch ID | Prep Date | SPKref | RPDref | pmoist |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 14777568 | CCV_1017HP50 | HC-8015-DRO- | CAL2 | | 10/17/2021 4:12: | 1 | R368813 | | 0 | 0 | |

| Analyte | T | Units | RAW | Final | Text | Spike | SPKref | RPDref | MDL | PQL | UQL | %REC | LOW | HIGH | %RPD | Q |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| n-Triacontane | S | mg/L | | 0.04817772 | | 0.05 | 0 | 0 | 0.002 | 0.002 | 0 | 96% | 80 | 120 | 0% | |

| Seq No | Lab ID | Test Code | Sample Typ | File ID | Analysis Date | DF | Batch ID | Prep Date | SPKref | RPDref | pmoist |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 14777569 | CCV_1017HP50 | HC-8015-DRO- | CAL3 | | 10/17/2021 4:55: | 1 | R368813 | | 0 | 0 | |

| Analyte | T | Units | RAW | Final | Text | Spike | SPKref | RPDref | MDL | PQL | UQL | %REC | LOW | HIGH | %RPD | Q |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| n-Triacontane | S | mg/L | | 0.2231112 | | 0.2 | 0 | 0 | 0.002 | 0.002 | 0 | 112% | 80 | 120 | 0% | |

| Seq No | Lab ID | Test Code | Sample Typ | File ID | Analysis Date | DF | Batch ID | Prep Date | SPKref | RPDref | pmoist |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 14777570 | CCV_1017HP50 | HC-8015-DRO- | CAL4 | | 10/17/2021 5:38: | 1 | R368813 | | 0 | 0 | |

| Analyte | T | Units | RAW | Final | Text | Spike | SPKref | RPDref | MDL | PQL | UQL | %REC | LOW | HIGH | %RPD | Q |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| n-Triacontane | S | mg/L | | 0.4700634 | | 0.5 | 0 | 0 | 0.002 | 0.002 | 0 | 94% | 80 | 120 | 0% | |

| Seq No | Lab ID | Test Code | Sample Typ | File ID | Analysis Date | DF | Batch ID | Prep Date | SPKref | RPDref | pmoist |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 14777571 | CCV_1017HP50 | HC-8015-DRO- | CAL5 | | 10/17/2021 6:20: | 1 | R368813 | | 0 | 0 | |

| Analyte | T | Units | RAW | Final | Text | Spike | SPKref | RPDref | MDL | PQL | UQL | %REC | LOW | HIGH | %RPD | Q |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| n-Triacontane | S | mg/L | | 0.9372648 | | 1 | 0 | 0 | 0.002 | 0.002 | 0 | 94% | 80 | 120 | 0% | |

| Write Sequence<br>Data File | Insert Entries(Have the first cell for entries selecte<br>Sample Name | Method | Weight | Dil Factor | Amt Inj. | IS | Cal ID |
|---|---|---|---|---|---|---|---|
| G:\org\HP5\DAT\HP5101721_b\1017HP5.01r | DCM-Baseline Check-V01 | G:\Org\HP5\Methods\DR_8015-HS-LEXP.met | 1 | 1 | 1 | 1 | 0 |
| G:\org\HP5\DAT\HP5101721_b\1017HP5.02r | DCM-Baseline Check-V02 | G:\Org\HP5\Methods\DR_8015-HS-LEXP.met | 1 | 1 | 1 | 1 | 0 |
| G:\org\HP5\DAT\HP5101721_b\1017HP5.03r | CCV_1017HP503r, DRO ;1017HP5 , DRO210708A | G:\Org\HP5\Methods\DR_8015-HS-LEXP.met | 1 | 1 | 1 | 1 | 0 |
| G:\org\HP5\DAT\HP5101721_b\1017HP5.04r | DCM-Baseline Check-V04 | G:\Org\HP5\Methods\DR_8015-HS-LEXP.met | 1 | 1 | 1 | 1 | 0 |
| G:\org\HP5\DAT\HP5101721_b\1017HP5.05r | CCV_1017HP505r, CAL1 ;1017HP5 , 2 ug per mL Triacontane (10 uL of Cal3 + 990 uL DCM(14354) | G:\Org\HP5\Methods\DS_ORO-AA-L0.met | 1 | 1 | 1 | 1 | 0 |
| G:\org\HP5\DAT\HP5101721_b\1017HP5.06r | CCV_1017HP506r, CAL2 ;1017HP5 , 50 ug per mL Triacontane (100 uL Cal4 + 900 uL of DCM(14354) | G:\Org\HP5\Methods\DS_ORO-AA-L0.met | 1 | 1 | 1 | 1 | 0 |
| G:\org\HP5\DAT\HP5101721_b\1017HP5.07r | CCV_1017HP507r, CAL3 ;1017HP5 , 200 ug per mL Triacontane (100uL of Cal5 + 400 uL DCM(14354) | G:\Org\HP5\Methods\DS_ORO-AA-L0.met | 1 | 1 | 1 | 1 | 0 |
| G:\org\HP5\DAT\HP5101721_b\1017HP5.08r | CCV_1017HP508r, CAL4 ;1017HP5 , 500 ug per mL Triacontane (250uL of Cal5 + 250 uL DCM(14354) | G:\Org\HP5\Methods\DS_ORO-AA-L0.met | 1 | 1 | 1 | 1 | 0 |
| G:\org\HP5\DAT\HP5101721_b\1017HP5.09r | CCV_1017HP509r, CAL5 ;1017HP5 , 1000 ug per mL Triacontane (500 uL 2000 ug/mL Triacontane DRO211006A + 500 DCM(14354) | G:\Org\HP5\Methods\DS_ORO-AA-L0.met | 1 | 1 | 1 | 1 | 0 |

File Name: G:\Org\HP5\Cals\SW8015C_ORO211017AA.CAL
Version: 11

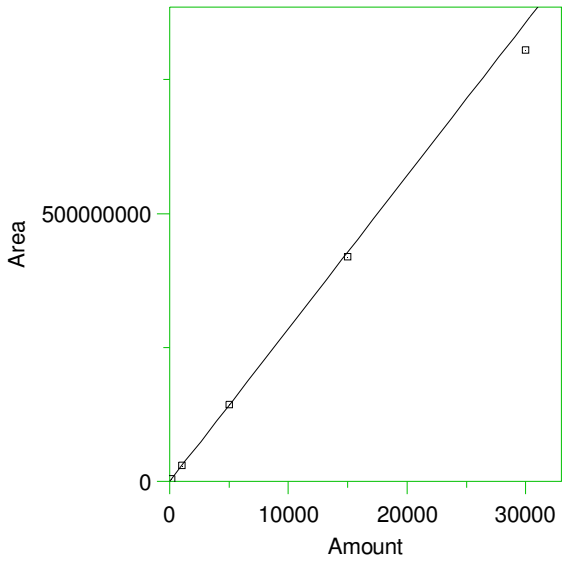
Creator: AMN
Description: 8015C-Oil Range. New ICal Per 1017HP5 (2021)-2 uL Inj.; RRO copied from 8015 cal for Oil
Reason for change:

External standard calibration
Standard injection volume: 1
Standard sample weight: 1
Area reject threshold: 500
Reference peak area reject threshold: 500
Amount units: nanograms
No default component

Method of calculating data point averages: Equal weight for all updates
No calibration update report

All levels are normal data points.

1 *30-40 Motor Oil




| | |
|---|---|
| Expected retention time: | 6.4 minutes |
| Search window: | 0.05 minutes |
| No retention time reference component | |
| Group number: | 0 |
| High alarm limit: | 0 |
| Low alarm limit: | 0 |
| Component constant: | 0 |

Single peak quantification by area

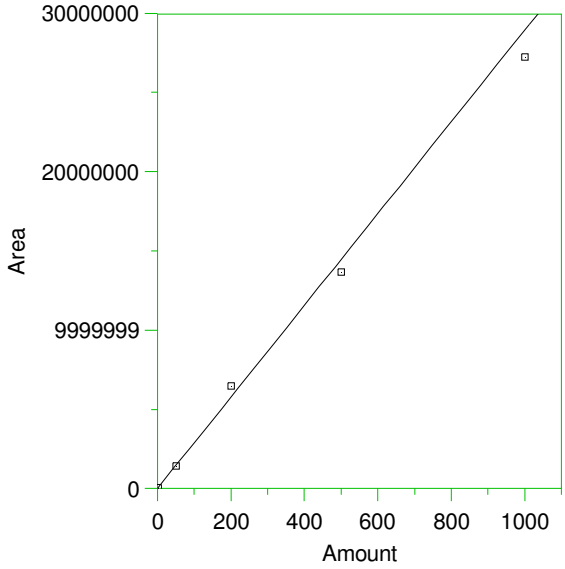
Y = 28542.41 X + 0

Average CF fit with equal weighting, forced to origin

| | |
|---|---|
| Coefficient of determination: | 0.9940317 |
| Average error: | 3.209% |
| Average CF: | 28542.41 |
| RSD: | 4.497% |

| Level | Amount | Response | Cal Factor | Error, % | Source | Date and time |
|---|---|---|---|---|---|---|
| 1 | 150 | 4325287 | 28835.25 | 1.026 | Manual | 10/18/2021 2:26:35 PM |
| 2 | 1000 | 3.03352E+07 | 30335.2 | 6.281 | Manual | 10/18/2021 2:26:39 PM |
| 3 | 5000 | 1.437314E+08 | 28746.28 | 0.714 | Manual | 10/18/2021 2:26:42 PM |
| 4 | 15000 | 4.193721E+08 | 27958.14 | -2.047 | Manual | 10/18/2021 2:26:45 PM |
| 5 | 30000 | 8.051155E+08 | 26837.18 | -5.974 | Manual | 10/18/2021 2:26:47 PM |

3 *#Triacontane




| | |
|---|---|
| Expected retention time: | 16.26 minutes |
| Search window: | 0.05 minutes |
| No retention time reference component | |
| Group number: | 0 |
| High alarm limit: | 0 |
| Low alarm limit: | 0 |
| Component constant: | 0 |

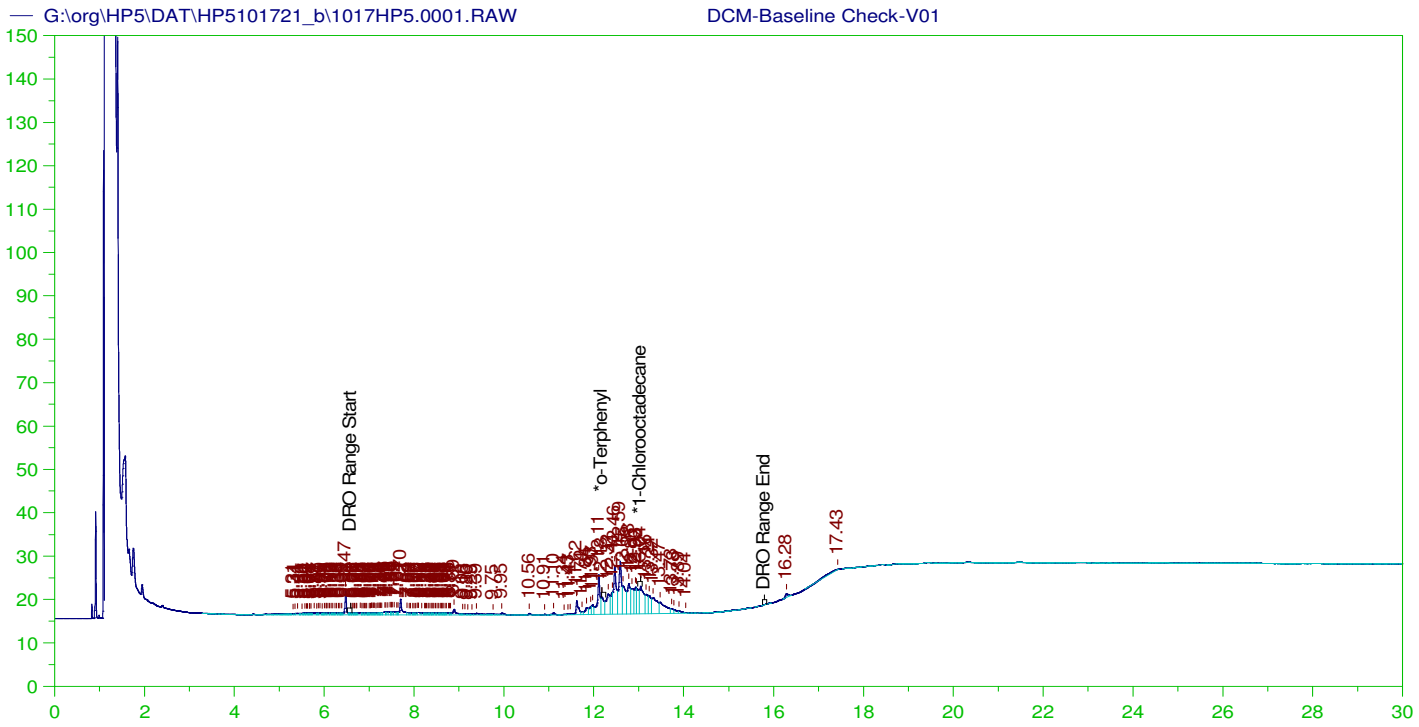
Single peak quantification by area

Y = 28930.14 X + 0

Average CF fit with equal weighting, forced to origin

| | |
|---|---|
| Coefficient of determination: | 0.9919451 |
| Average error: | 5.737% |
| Average CF: | 28930.14 |
| RSD: | 7.577% |

| Level | Amount | Response | Cal Factor | Error, % | Source | Date and time |
|---|---|---|---|---|---|---|
| 1 | 2 | 59020.1 | 29510.05 | 2.005 | Manual | 10/18/2021 2:42:38 PM |
| 2 | 50 | 1403134 | 28062.68 | -2.998 | G:\Org\HP4\DAT\HP4100621_b\1006HP4.0015.BND | 10/7/2021 12:47:26 PM |
| 3 | 200 | 6499949 | 32499.74 | 12.339 | G:\Org\HP4\DAT\HP4100621_b\1006HP4.0017.BND | 10/7/2021 12:47:56 PM |
| 4 | 500 | 1.366713E+07 | 27334.26 | -5.516 | Manual | 10/18/2021 2:44:43 PM |
| 5 | 1000 | 2.724398E+07 | 27243.98 | -5.828 | Manual | 10/18/2021 2:43:45 PM |



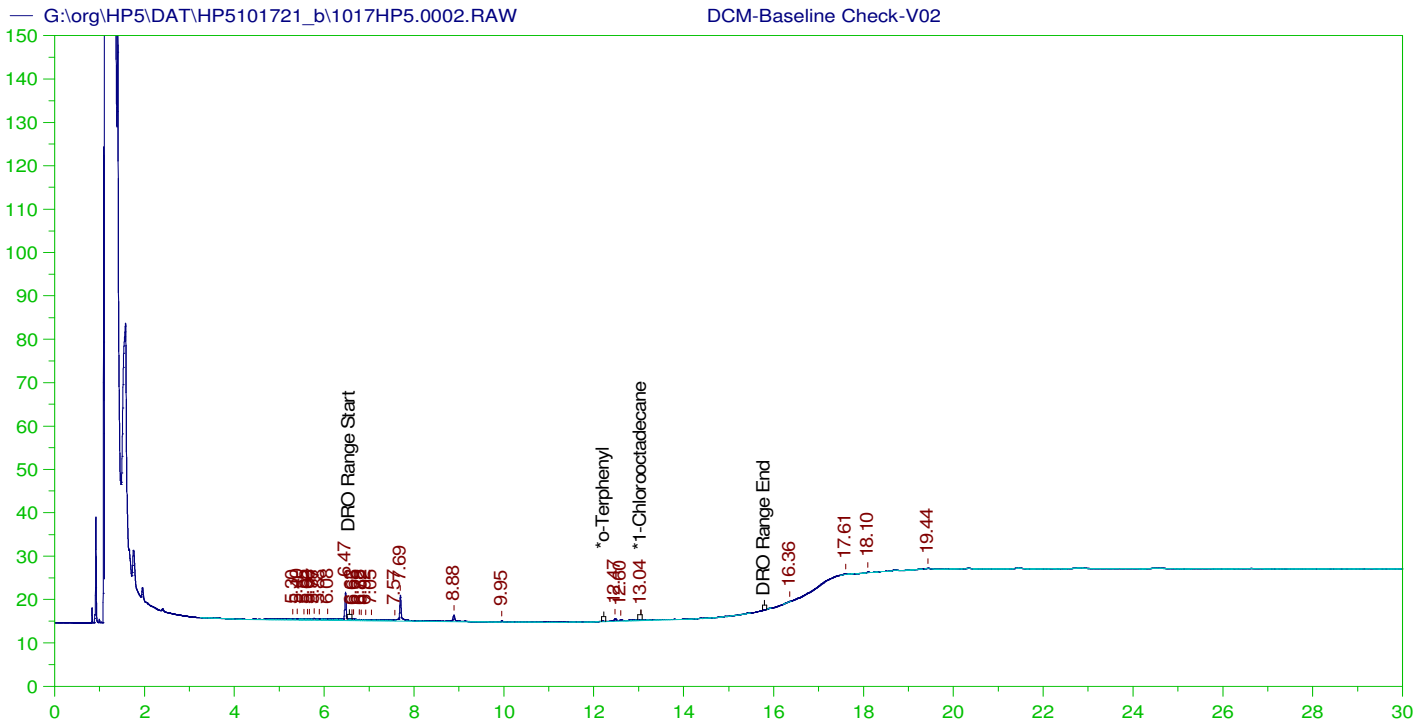

**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: DCM-Baseline Check-V01
Raw File: G:\org\HP5\DAT\HP5101721_b\1017HP5.0001.RAW
Date & Time Acquired: 10/17/2021 12:40:02 PM
Method File: G:\Org\HP5\Methods\DR_8015-HS-LEXP.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO210108Hs.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 29457.33
Rt range for Diesel Range Organics: 6.51 to 15.85

| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | |
|---|---|---|---|---|---|
| *o-Terphenyl | 12.178 | 200. | .522 | .26 | - |
| *1-Chlorooctadecane | 13.04 | 200. | 1.235 | .62 | - |

DRO Area:571771.5 DRO Amount: 19.41016
TEH Area:639555.1 TEH Amount: 21.71124



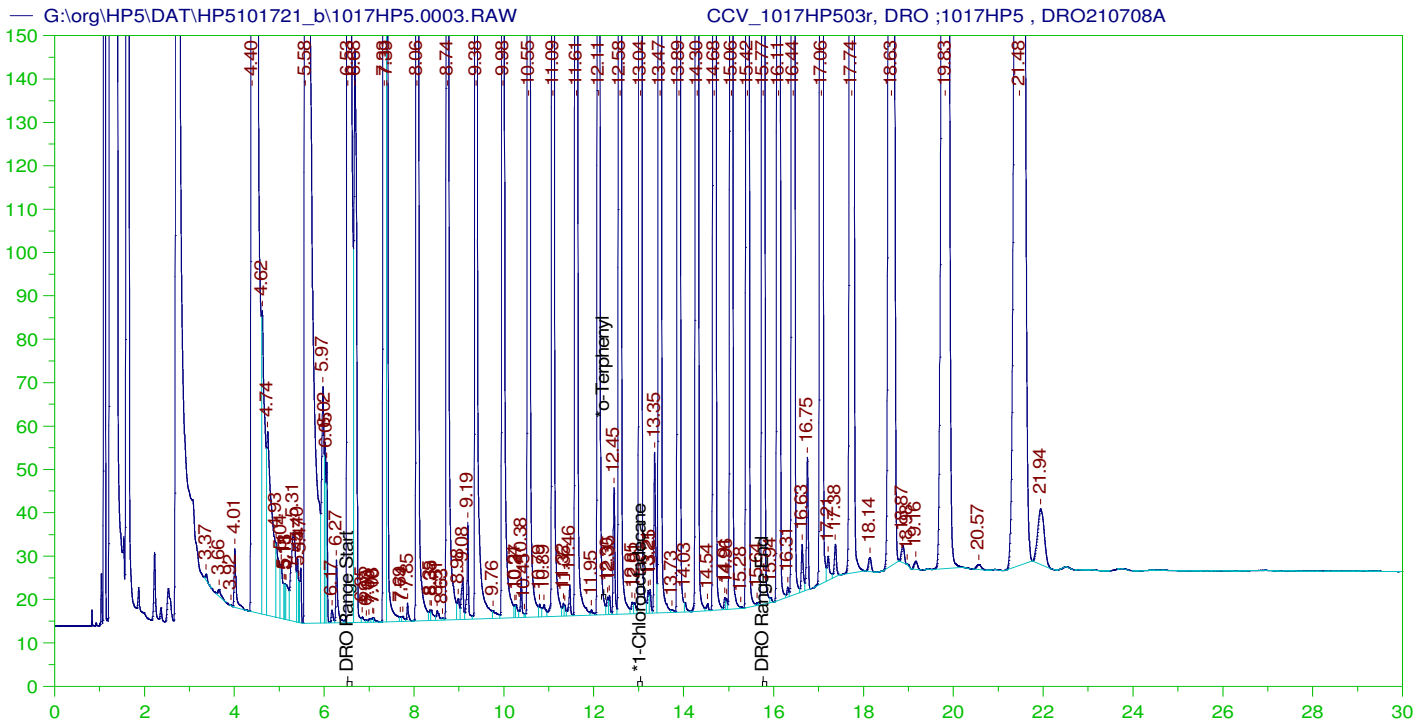

**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: DCM-Baseline Check-V02
Raw File: G:\org\HP5\DAT\HP5101721_b\1017HP5.0002.RAW
Date & Time Acquired: 10/17/2021 1:22:21 PM
Method File: G:\Org\HP5\Methods\DR_8015-HS-LEXP.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO210108Hs.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 29457.33
Rt range for Diesel Range Organics: 6.51 to 15.85

| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC |
|---|---|---|---|---|
| *o-Terphenyl | 29.973 | 200. | . | . - |
| *1-Chlorooctadecane | 13.043 | 200. | .018 | .01 - |

DRO Area:58862.56 DRO Amount: 1.998231
TEH Area:105899.4 TEH Amount: 3.595009




**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: CCV_1017HP503r, DRO ;1017HP5 , DRO210708A
Raw File: G:\org\HP5\DAT\HP5101721_b\1017HP5.0003.RAW
Date & Time Acquired: 10/17/2021 2:04:53 PM
Method File: G:\Org\HP5\Methods\DR_8015-HS-LEXP.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO210108Hs.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 29457.33
Rt range for Diesel Range Organics: 6.51 to 15.85

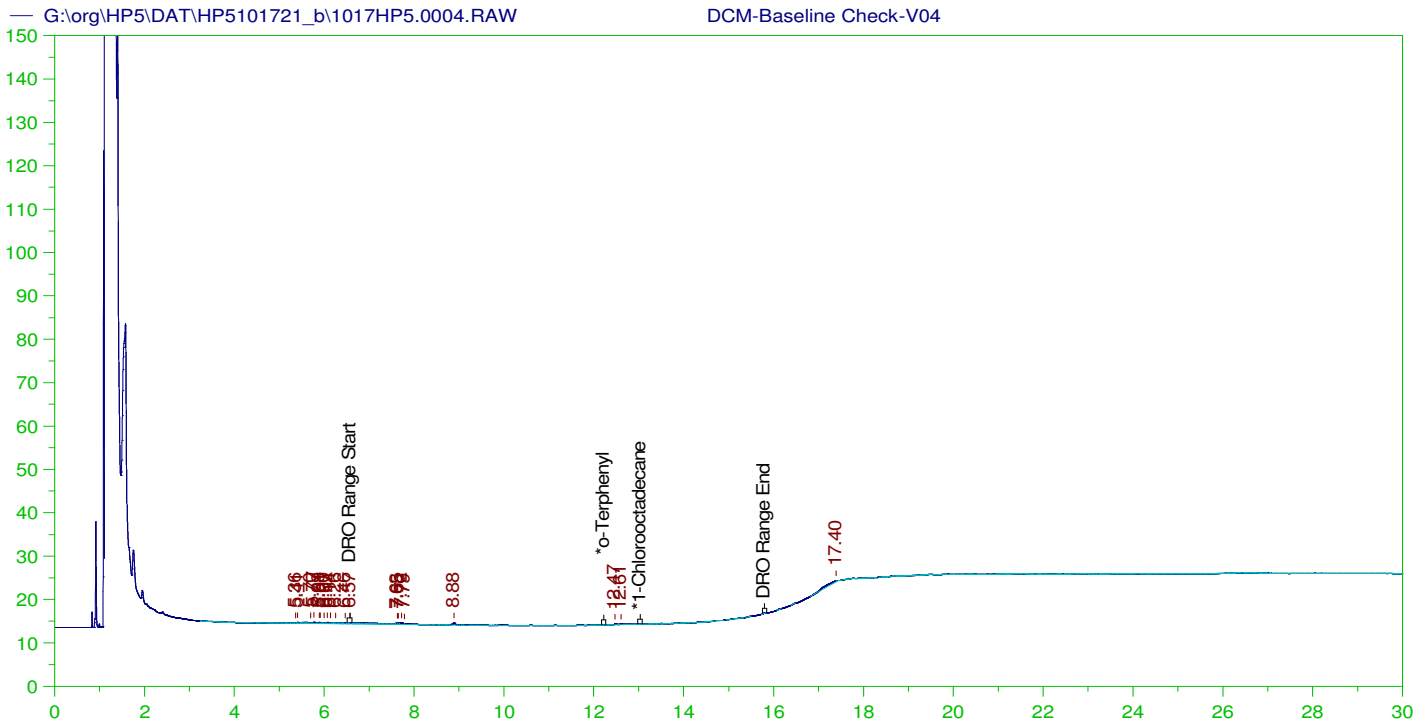
| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | |
|---|---|---|---|---|---|
| *o-Terphenyl | 29.982 | 200. | . | . | - |
| *1-Chlorooctadecane | 13.037 | 200. | 255.634 | 127.82 | - |

DRO Area:1.592713E+08 DRO Amount: 5406.847
TEH Area:2.370861E+08 TEH Amount: 8048.458

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5101721_b\1017HP5.0003.RAW

| COMPOUND | ACTUAL(NG) | MEASURED(NG) | %RECOVERY | LIMITS |
|---|---|---|---|---|
| TOTAL DRO | 15000. | 8048.46 | 53.66 | 85-115 |

| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | LIMITS |
|---|---|---|---|---|---|
| *o-Terphenyl | 29.982 | 200. | . | . | 85-115 |
| *1-Chlorooctadecane | 13.037 | 200. | 255.634 | 127.82 | 85-115 |



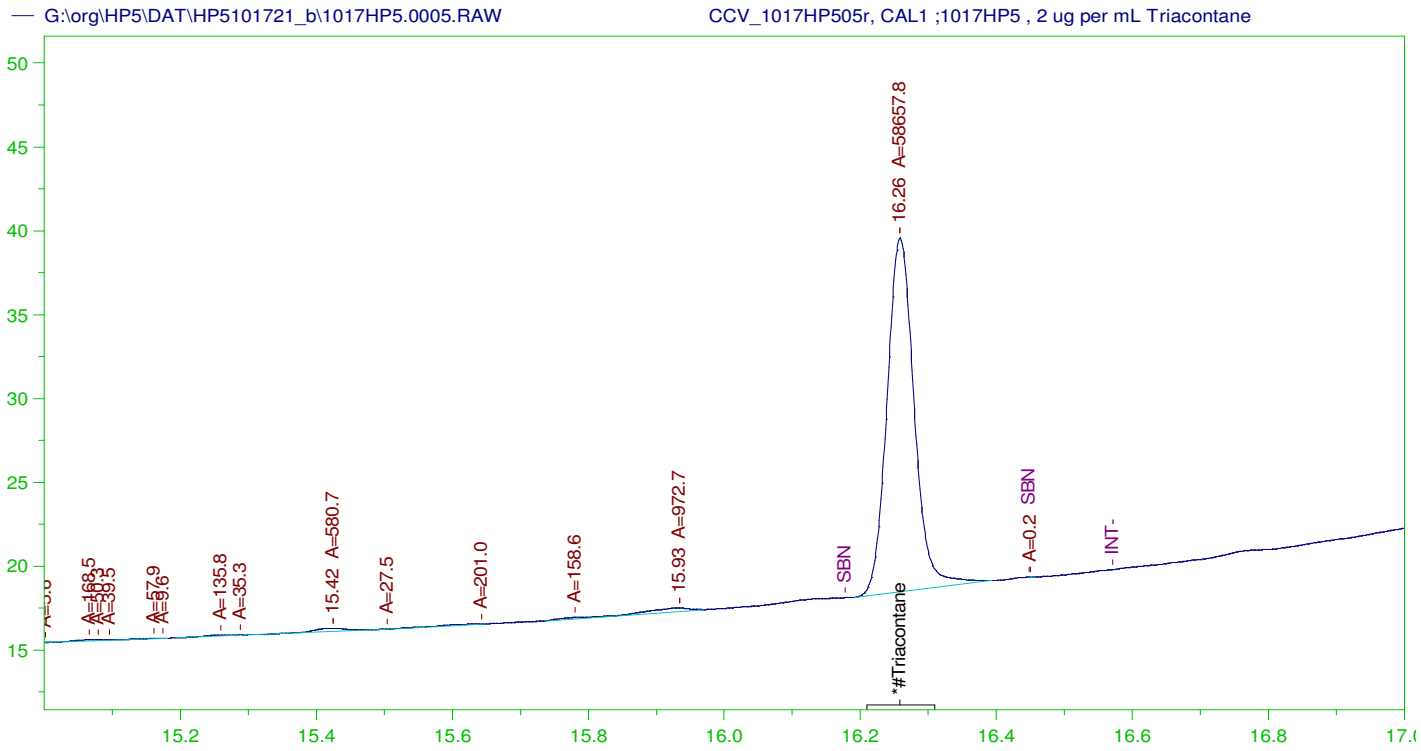

**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: DCM-Baseline Check-V04
Raw File: G:\org\HP5\DAT\HP5101721_b\1017HP5.0004.RAW
Date & Time Acquired: 10/17/2021 2:47:29 PM
Method File: G:\Org\HP5\Methods\DR_8015-HS-LEXP.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO210108Hs.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 29457.33
Rt range for Diesel Range Organics: 6.51 to 15.85

| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | | %REC |
|---|---|---|---|---|---|
| *o-Terphenyl | 29.987 | 200. | . | . | - |
| *1-Chlorooctadecane | 29.987 | 200. | . | . | - |

DRO Area:32637.46 DRO Amount: 1.107957
TEH Area:75218.02 TEH Amount: 2.553457




**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

Sample Name: CCV_1017HP505r, CAL1 ;1017HP5 , 2 ug per mL Triacontane
Raw File: G:\org\HP5\DAT\HP5101721_b\1017HP5.0005.RAW
Date & Time Acquired: 10/17/2021 3:30:16 PM
Method File: G:\Org\HP5\Methods\DS_ORO-AA-L0.met
Calibration File: G:\Org\HP5\Cals\SW8015C_ORO211017AA.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 28542.41
Rt range for Residual Range Organics: 12.53 to 30.05

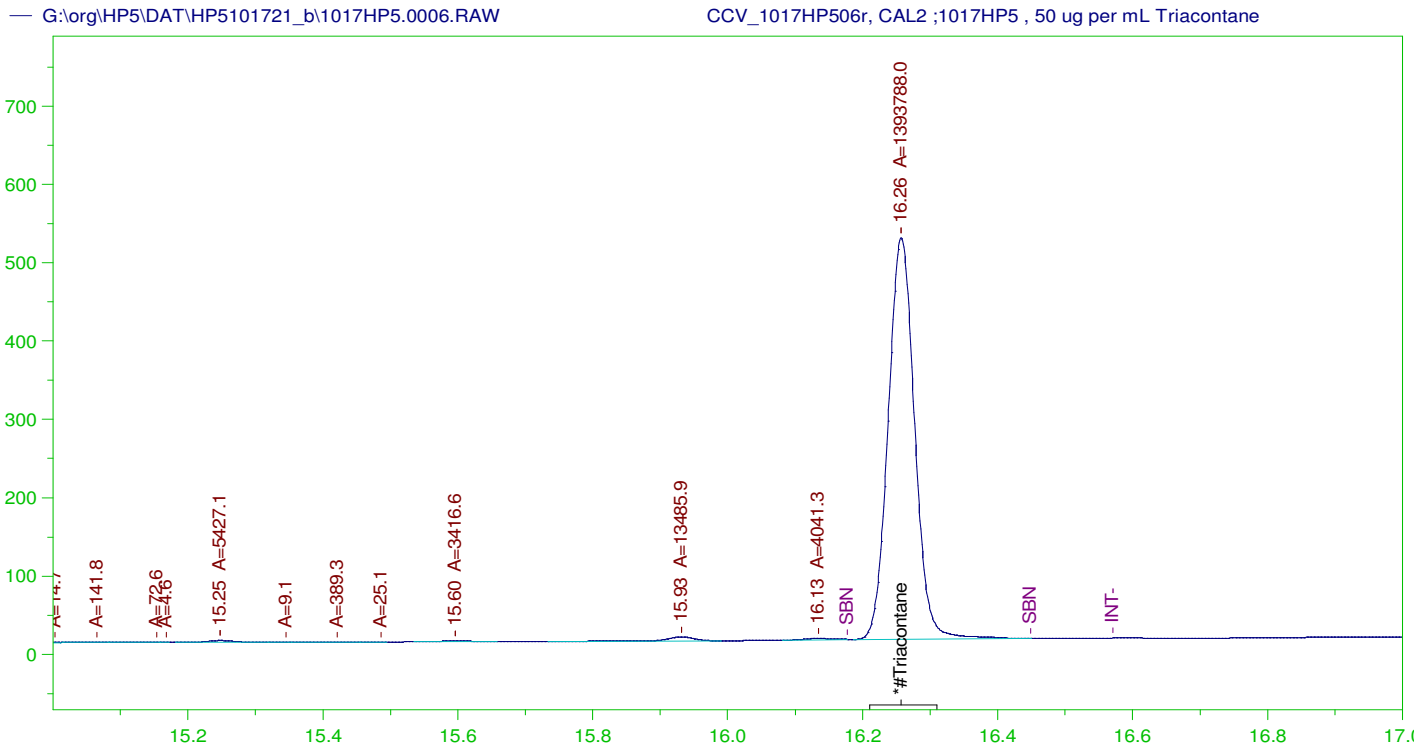
| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | |
|---|---|---|---|---|---|
| *#Triacontane | 16.258 | 500. | 2.028 | .41 | - |

RRO Area:2747.039 RRO AMOUNT: 9.624412E-02

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5101721_b\1017HP5.0005.RAW

| COMPOUND | ACTUAL(NG) | MEASURED(NG) | %RECOVERY | LIMITS |
|---|---|---|---|---|
| *30-40 Motor Oil | 5000. | . | . | 75-125 |

| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | LIMITS |
|---|---|---|---|---|---|
| *#Triacontane | 16.258 | 200. | 2.028 | 1.01 | 75-125 |




**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

Sample Name: CCV_1017HP506r, CAL2 ;1017HP5 , 50 ug per mL Triacontane
Raw File: G:\org\HP5\DAT\HP5101721_b\1017HP5.0006.RAW
Date & Time Acquired: 10/17/2021 4:12:57 PM
Method File: G:\Org\HP5\Methods\DS_ORO-AA-L0.met
Calibration File: G:\Org\HP5\Cals\SW8015C_ORO211017AA.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 28542.41
Rt range for Residual Range Organics: 12.53 to 30.05

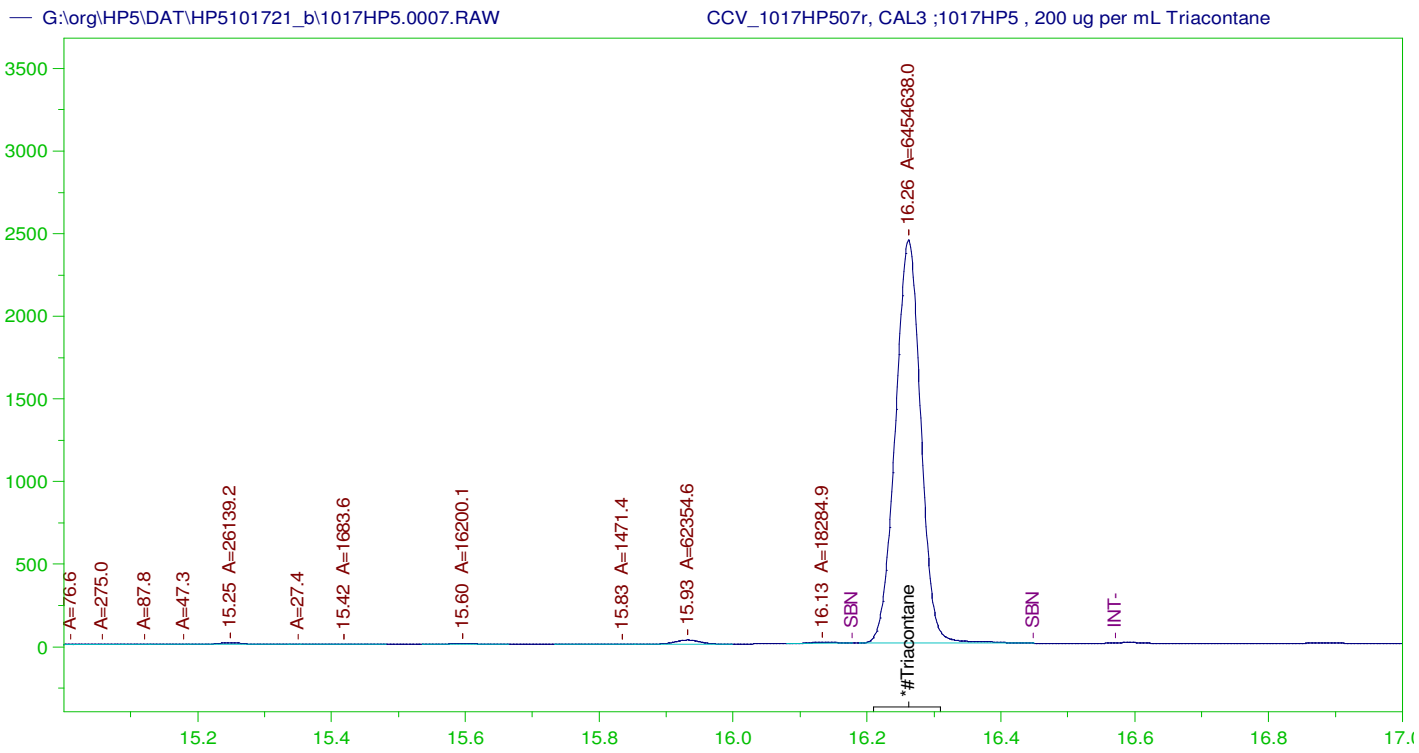
| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | |
|---|---|---|---|---|---|
| *#Triacontane | 16.257 | 500. | 48.178 | 9.64 | - |

RRO Area:45902.25 RRO AMOUNT: 1.608212

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5101721_b\1017HP5.0006.RAW

| COMPOUND | ACTUAL(NG) | MEASURED(NG) | %RECOVERY | LIMITS |
|---|---|---|---|---|
| *30-40 Motor Oil | 5000. | . | . | 75-125 |

| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | LIMITS |
|---|---|---|---|---|---|
| *#Triacontane | 16.257 | 200. | 48.178 | 24.09 | 75-125 |




**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

Sample Name: CCV_1017HP507r, CAL3 ;1017HP5 , 200 ug per mL Triacontane
Raw File: G:\org\HP5\DAT\HP5101721_b\1017HP5.0007.RAW
Date & Time Acquired: 10/17/2021 4:55:33 PM
Method File: G:\Org\HP5\Methods\DS_ORO-AA-L0.met
Calibration File: G:\Org\HP5\Cals\SW8015C_ORO211017AA.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 28542.41
Rt range for Residual Range Organics: 12.53 to 30.05

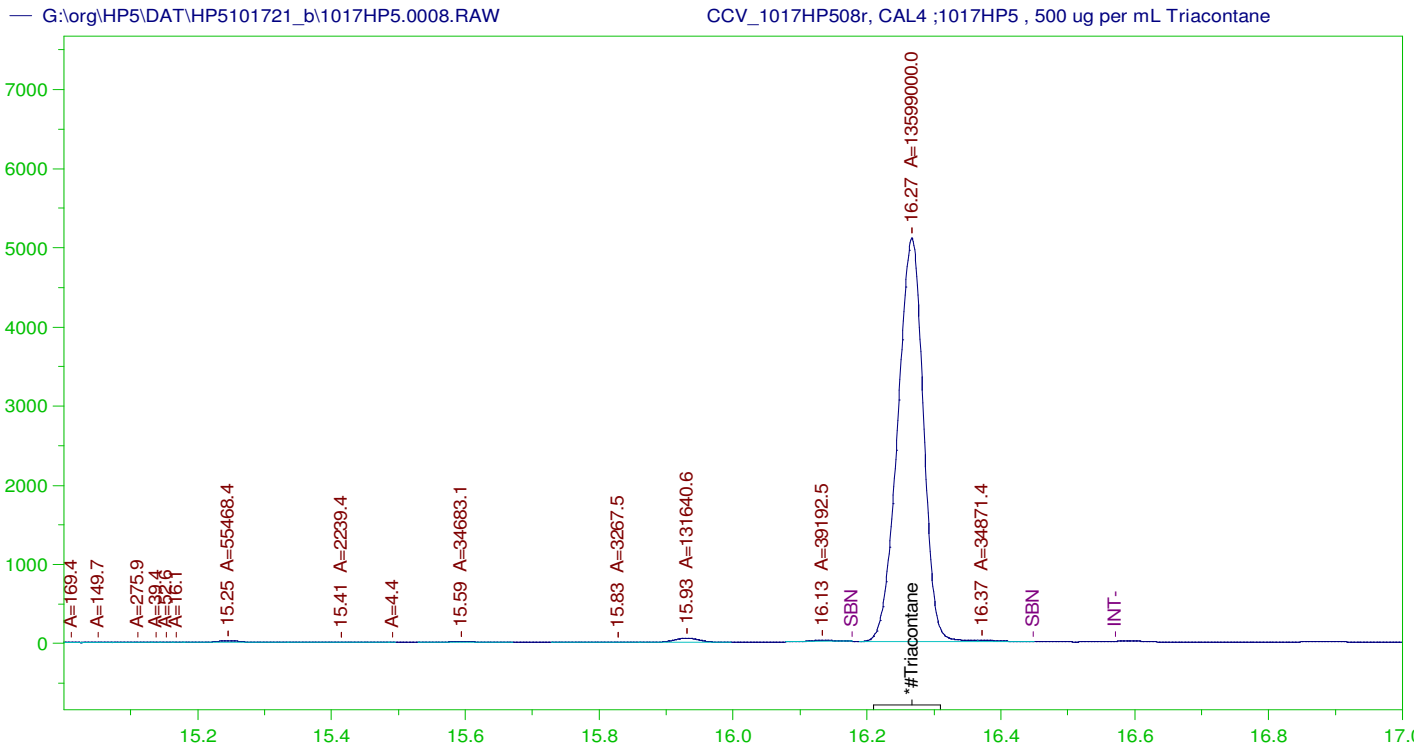
| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | |
|---|---|---|---|---|---|
| *#Triacontane | 16.262 | 500. | 223.111 | 44.62 | - |

RRO Area:219754.5 RRO AMOUNT: 7.699227

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5101721_b\1017HP5.0007.RAW

| COMPOUND | ACTUAL(NG) | MEASURED(NG) | %RECOVERY | LIMITS |
|---|---|---|---|---|
| *30-40 Motor Oil | 5000. | . | . | 75-125 |

| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | LIMITS |
|---|---|---|---|---|---|
| *#Triacontane | 16.262 | 200. | 223.111 | 111.56 | 75-125 |




**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

Sample Name: CCV_1017HP508r, CAL4 ;1017HP5 , 500 ug per mL Triacontane
Raw File: G:\org\HP5\DAT\HP5101721_b\1017HP5.0008.RAW
Date & Time Acquired: 10/17/2021 5:38:10 PM
Method File: G:\Org\HP5\Methods\DS_ORO-AA-L0.met
Calibration File: G:\Org\HP5\Cals\SW8015C_ORO211017AA.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 28542.41
Rt range for Residual Range Organics: 12.53 to 30.05

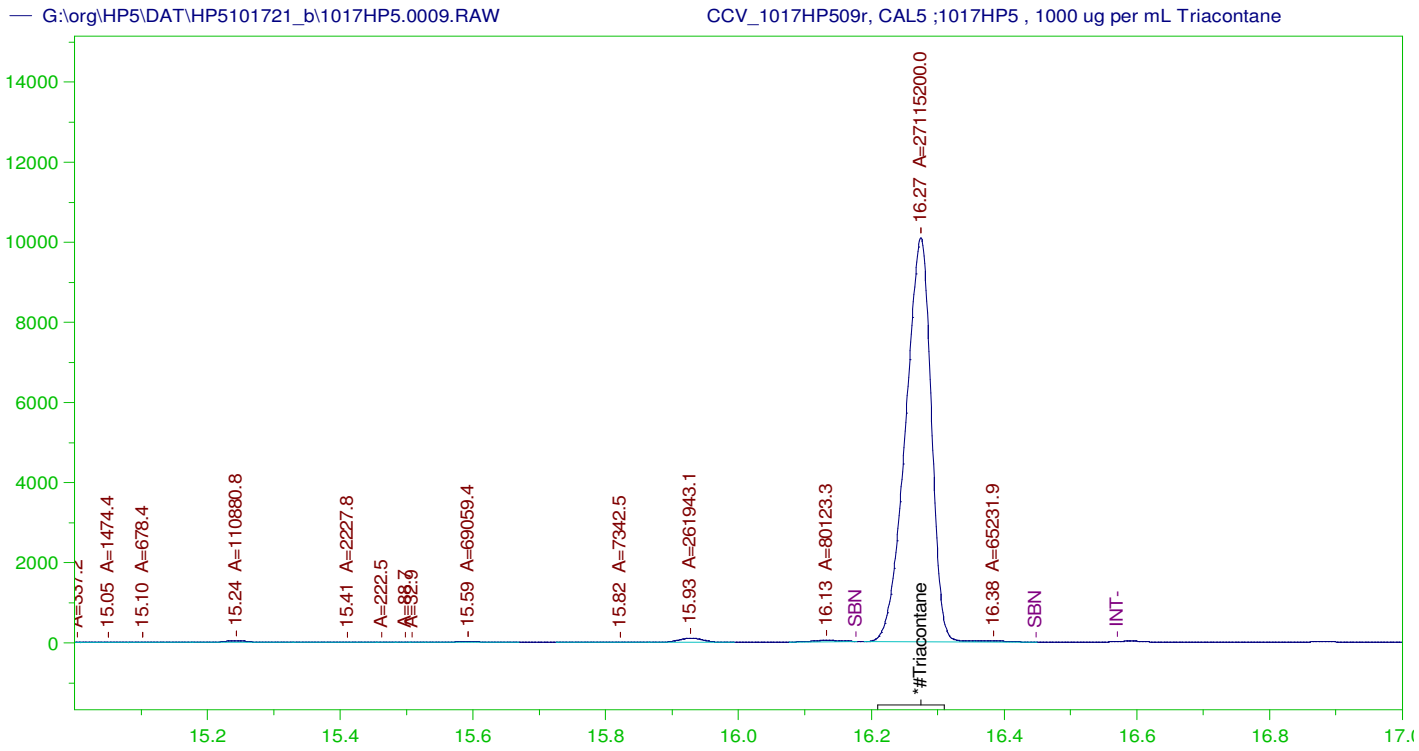
| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | |
|---|---|---|---|---|---|
| *#Triacontane | 16.267 | 500. | 470.063 | 94.01 | - |

RRO Area:496538.4 RRO AMOUNT: 17.39651

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5101721_b\1017HP5.0008.RAW

| COMPOUND | ACTUAL(NG) | MEASURED(NG) | %RECOVERY | LIMITS |
|---|---|---|---|---|
| *30-40 Motor Oil | 5000. | . | . | 75-125 |

| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | LIMITS |
|---|---|---|---|---|---|
| *#Triacontane | 16.267 | 200. | 470.063 | 235.03 | 75-125 |




**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

Sample Name: CCV_1017HP509r, CAL5 ;1017HP5 , 1000 ug per mL Triacontane
Raw File: G:\org\HP5\DAT\HP5101721_b\1017HP5.0009.RAW
Date & Time Acquired: 10/17/2021 6:20:57 PM
Method File: G:\Org\HP5\Methods\DS_ORO-AA-L0.met
Calibration File: G:\Org\HP5\Cals\SW8015C_ORO211017AA.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 28542.41
Rt range for Residual Range Organics: 12.53 to 30.05

| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | |
|---|---|---|---|---|---|
| *#Triacontane | 16.275 | 500. | 937.265 | 187.45 | - |

RRO Area:979213.9 RRO AMOUNT: 34.30733

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5101721_b\1017HP5.0009.RAW

| COMPOUND | ACTUAL(NG) | MEASURED(NG) | %RECOVERY | LIMITS |
|---|---|---|---|---|
| *30-40 Motor Oil | 5000. | . | . | 75-125 |

| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | LIMITS |
|---|---|---|---|---|---|
| *#Triacontane | 16.275 | 200. | 937.265 | 468.63 | 75-125 |

| Write Sequence | Insert Entries(Have the first cell for entries selecte | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Data File | Sample Name | Method | Weight | Dil Factor | Amt Inj. | IS | Cal ID | Manual Integration |
| G:\org\HP5\DAT\HP5101721_b\1017HP5.01r | DCM-Baseline Check-V01 | G:\Org\HP5\Methods\DR_8015-HS-LEXP.met | 1 | 1 | 1 | 1 | 0 | No integration |
| G:\org\HP5\DAT\HP5101721_b\1017HP5.02r | DCM-Baseline Check-V02 | G:\Org\HP5\Methods\DR_8015-HS-LEXP.met | 1 | 1 | 1 | 1 | 0 | No integration |
| G:\org\HP5\DAT\HP5101721_b\1017HP5.03r | CCV_1017HP503r, DRO ;1017HP5 , DRO210708A | G:\Org\HP5\Methods\DR_8015-HS-LEXP.met | 1 | 1 | 1 | 1 | 0 | No integration |
| G:\org\HP5\DAT\HP5101721_b\1017HP5.04r | DCM-Baseline Check-V04 | G:\Org\HP5\Methods\DR_8015-HS-LEXP.met | 1 | 1 | 1 | 1 | 0 | No integration |
| G:\org\HP5\DAT\HP5101721_b\1017HP5.05r | CCV_1017HP505r, CAL1 ;1017HP5 , 2 ug per mL Triacontane (10 uL of Cal3 + 990 uL DCM(14354) | G:\Org\HP5\Methods\DS_ORO-AA-L0.met | 1 | 1 | 1 | 1 | 0 | Surrogates are integrated using a valley to valley integration using Set Basline Now placed slight before at 16.18 and slightly after the surrogate peak at 16.45 and scaling showing surrogate peak from 15.0-17.0 |
| G:\org\HP5\DAT\HP5101721_b\1017HP5.06r | CCV_1017HP506r, CAL2 ;1017HP5 , 50 ug per mL Triacontane (100 uL Cal4 + 900 uL of DCM(14354) | G:\Org\HP5\Methods\DS_ORO-AA-L0.met | 1 | 1 | 1 | 1 | 0 | Surrogates are integrated using a valley to valley integration using Set Basline Now placed slight before at 16.18 and slightly after the surrogate peak at 16.45 and scaling showing surrogate peak from 15.0-17.0 |
| G:\org\HP5\DAT\HP5101721_b\1017HP5.07r | CCV_1017HP507r, CAL3 ;1017HP5 , 200 ug per mL Triacontane (100uL of Cal5 + 400 uL DCM(14354) | G:\Org\HP5\Methods\DS_ORO-AA-L0.met | 1 | 1 | 1 | 1 | 0 | Surrogates are integrated using a valley to valley integration using Set Basline Now placed slight before at 16.18 and slightly after the surrogate peak at 16.45 and scaling showing surrogate peak from 15.0-17.0 |
| G:\org\HP5\DAT\HP5101721_b\1017HP5.08r | CCV_1017HP508r, CAL4 ;1017HP5 , 500 ug per mL Triacontane (250uL of Cal5 + 250 uL DCM(14354) | G:\Org\HP5\Methods\DS_ORO-AA-L0.met | 1 | 1 | 1 | 1 | 0 | Surrogates are integrated using a valley to valley integration using Set Basline Now placed slight before at 16.18 and slightly after the surrogate peak at 16.45 and scaling showing surrogate peak from 15.0-17.0 |
| G:\org\HP5\DAT\HP5101721_b\1017HP5.09r | CCV_1017HP509r, CAL5 ;1017HP5 , 1000 ug per mL Triacontane (500 uL 2000 ug/mL Triacontane DRO211006A + 500 DCM(14354) | G:\Org\HP5\Methods\DS_ORO-AA-L0.met | 1 | 1 | 1 | 1 | 0 | Surrogates are integrated using a valley to valley integration using Set Basline Now placed slight before at 16.18 and slightly after the surrogate peak at 16.45 and scaling showing surrogate peak from 15.0-17.0 |

Digitally signed by
Ann Nebel
Date: 2021.10.25 17:42:58 -06:00

# PREP BATCH REPORT

Prep Code: **HC-3520-DRO** Technician: **Jillian L Bostwick** Prep Start Date: **12/16/2021 3:01:23 P**

Prep Batch **162268** Prep Temp **NA °C** Batch Units: **ML** Prep End Date: **12/17/2021 11:20:00 A**

| Sample ID | Matrix | pH | Initial Samp Amt | Sol Added | Sol Recovered | Final Vol (mL) | Factor | Balance | Prep Start Date | Prep End Date |
|---|---|---|---|---|---|---|---|---|---|---|
| MB-162268 | | | 1000 | 0 | 0 | 1.00 | 0.001 | | 12/16/2021 | 12/17/2021 |
| Start time: 2:55 PM, 12/16/2021. End time: 12/17/2021 at 8:55 AM. SGT was carried out on remainder of samples by ALN on 12/20/2021. | | | | | | | | | | |
| LCS-162268 | | | 1000 | 0 | 0 | 1.00 | 0.001 | | 12/16/2021 | 12/17/2021 |
| All bottles were completely used, defaced and disposed of on 12/16/2021. SGT was carried out on remainder of samples by ALN on 12/20/2021. | | | | | | | | | | |
| LCSD-162268 | | | 1000 | 0 | 0 | 1.00 | 0.001 | | 12/16/2021 | 12/17/2021 |
| SGT was carried out on remainder of samples by ALN on 12/20/2021. | | | | | | | | | | |
| LCS-162268-RRO | | | 1000 | 0 | 0 | 1.00 | 0.001 | | 12/16/2021 | 12/17/2021 |
| SGT was carried out on remainder of samples by ALN on 12/20/2021. | | | | | | | | | | |
| LCSD-162268-RRO | | | 1000 | 0 | 0 | 1.00 | 0.001 | | 12/16/2021 | 12/17/2021 |
| SGT was carried out on remainder of samples by ALN on 12/20/2021. | | | | | | | | | | |
| B21121402-001B | Ground Water | 2 | 990 | 0 | 0 | 1.00 | 0.00101 | | 12/16/2021 | 12/17/2021 |
| Bottle 1/2. Clear. SGT was carried out on remainder of samples by ALN on 12/20/2021. | | | | | | | | | | |
| B21121402-001BMS | Ground Water | 2 | 1000 | 0 | 0 | 1.00 | 0.001 | | 12/16/2021 | 12/17/2021 |
| Bottle 2/2. Clear. SGT was carried out on remainder of samples by ALN on 12/20/2021. | | | | | | | | | | |
| B21121402-003B | Ground Water | 2 | 1020 | 0 | 0 | 1.00 | 0.00098 | | 12/16/2021 | 12/17/2021 |
| Bottle 1/2. Clear. SGT was carried out on remainder of samples by ALN on 12/20/2021. | | | | | | | | | | |
| B21121402-003BMS-RRO | Ground Water | 2 | 1050 | 0 | 0 | 1.00 | 0.000952 | | 12/16/2021 | 12/17/2021 |
| Bottle 2/2. Clear. SGT was carried out on remainder of samples by ALN on 12/20/2021. | | | | | | | | | | |
| B21121402-002B | Ground Water | 2 | 960 | 0 | 0 | 1.00 | 0.00104 | | 12/16/2021 | 12/17/2021 |
| Bottle 1/2. Clear. SGT was carried out on remainder of samples by ALN on 12/20/2021. | | | | | | | | | | |

| Number | Reagent Name | Exp Date | |
|---|---|---|---|
| 11 | Carbon Filter Water | 1/1/2023 | |
| 13379 | PTFE Boiling Stones 27463755 | 12/30/2025 | |
| 14206 | pH-indicator Strips 0-14 HC160347 | 8/26/2026 | |
| 14563 | 4ML, Amber Vial, 171001407106 | 11/30/2022 | |
| 14596 | Dichloromethane EC757 | 10/20/2023 | |

| Spk ID | Spike Name | SampType | AmtAdd | Exp Date |
|---|---|---|---|---|
| FP211207 14244 | DCM RINSED FILTER PAPER | all | 1 | 4/6/2026 |
| SG211217(13376) | Baked Silica Gel | all | 5g | 2/28/2030 |
| Sulfate 12/10/21 ( | Baked Sodium Sulfate | all | Varies | 11/29/2026 |
| DRO211129A | Triacontane SURR 1000 ug/mL | all except LCS/D, | 100 uL | 4/6/2026 |
| DRO211213A | OTP only SURR 2000 ug/mL | All except RRO-L | 100 uL | 9/30/2024 |
| DRO211012B | #2 Diesel in Acetone 150,000 ug/mL | LCS, LCSD, MS | 100 uL | 11/5/2023 |
| DRO210902A | 50,000 ug/mL Oil Std for RRO-In D | LCS/D-RRO, MS- | 100 uL | 9/1/2026 |

# Energy Laboratories Inc

# ANALYTICAL RUN Summary

*20-Dec-21*

**Run ID** GCFID-HP5-B_211217A

**Run Start Date:** 12/17/2021
**Analyst:** Ann Nebel
**Ical:**
**Column ID:**
**Comments:** DRO-8015-ICAL information is in Index GCFID-HP5-B_211102A 8015C OIL range calibration GCFID-HP5-B_210218B

| Std ID | Std Name | Std Amount | Std Units | Samp Amount | Samp Units | SampType | Expiration Date |
|---|---|---|---|---|---|---|---|
| DRO211201A | 5,000 ug/mL RRO CCV 200 ug/mL Triacontane | | | | | CCV | 4/6/2026 |
| DRO211207A | Carbon Scan STD-Marker | | | | | MARKER | 3/5/2028 |
| DRO211214A | 8015 CCV-15,000ug/mL + 200 OTP | | | | | CCV | 4/30/2023 |

| Seq No | Lab ID | Test Code | Sample Typ | File ID | Analysis Date | DF | Batch ID | Prep Date | SPKref | RPDref | pmoist |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 14935176 | CCV_1217HP53 | HC-8015-DRO- | CCV | | 12/18/2021 8:53: | 1 | R372036 | | 0 | 0 | |

| Analyte | T | Units | RAW | Final | Text | Spike | SPKref | RPDref | MDL | PQL | UQL | %REC | LOW | HIGH | %RPD | Q |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TEH(Oil Range) | A | mg/L | | 4.70297705 | | 5 | 0 | 0 | 0.0879 | 0.3 | 0 | 94% | 80 | 120 | 0% | |
| n-Triacontane | S | mg/L | | 0.2075543 | | 0.2 | 0 | 0 | 0.000336 | 0.002 | 0 | 104% | 80 | 120 | 0% | |

| Seq No | Lab ID | Test Code | Sample Typ | File ID | Analysis Date | DF | Batch ID | Prep Date | SPKref | RPDref | pmoist |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 14935177 | CCV_1217HP53 | HC-8015-DRO- | CCV | | 12/18/2021 9:36: | 1 | R372036 | | 0 | 0 | |

| Analyte | T | Units | RAW | Final | Text | Spike | SPKref | RPDref | MDL | PQL | UQL | %REC | LOW | HIGH | %RPD | Q |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Diesel Range Organics (C10 to C24) | A | mg/L | | 14.98727 | | 15 | 0 | 0 | 0.0389 | 0.3 | 0 | 100% | 80 | 120 | 0% | |
| Total Extractable Hydrocarbons | A | mg/L | | 15.5468 | | 15 | 0 | 0 | 0.0749 | 0.3 | 50 | 104% | 80 | 120 | 0% | |
| o-Terphenyl | S | mg/L | | 0.2020502 | | 0.2 | 0 | 0 | 0.000429 | 0.002 | 0 | 101% | 80 | 120 | 0% | |

| Seq No | Lab ID | Test Code | Sample Typ | File ID | Analysis Date | DF | Batch ID | Prep Date | SPKref | RPDref | pmoist |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 14935178 | LCS-162268 | HC-8015-DRO- | LCS-DOD | | 12/18/2021 11:0 | 1 | 162268 | 12/16/2021 | 0 | 0 | |

| Analyte | T | Units | RAW | Final | Text | Spike | SPKref | RPDref | MDL | PQL | UQL | %REC | LOW | HIGH | %RPD | Q |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

| Seq No | Lab ID | Test Code | Sample Typ | File ID | Analysis Date | DF | Batch ID | Prep Date | SPKref | RPDref | pmoist |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 14935178 | LCS-162268 | HC-8015-DRO- | LCS-DOD | | 12/18/2021 11:0 | 1 | 162268 | 12/16/2021 | 0 | 0 | |

| Analyte | T | Units | RAW | Final | Text | Spike | SPKref | RPDref | MDL | PQL | UQL | %REC | LOW | HIGH | %RPD | Q |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Diesel Range Organics (C10 to C24) | A | mg/L | | 13.20946 | | 15 | 0 | 0 | 0.0389 | 0.3 | 0 | 88% | 36 | 132 | 0% | |
| Total Extractable Hydrocarbons | A | mg/L | | 14.12545 | | 15 | 0 | 0 | 0.0749 | 0.3 | 50 | 94% | 60 | 132 | 0% | |
| o-Terphenyl | S | mg/L | | 0.1859527 | | 0.2 | 0 | 0 | 0.000429 | 0.002 | 0 | 93% | 56 | 125 | 0% | |

| Seq No | Lab ID | Test Code | Sample Typ | File ID | Analysis Date | DF | Batch ID | Prep Date | SPKref | RPDref | pmoist |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 14935179 | LCSD-162268 | HC-8015-DRO- | LCSD-DOD | | 12/18/2021 11:4 | 1 | 162268 | 12/16/2021 | 0 | 1E+07 | |

| Analyte | T | Units | RAW | Final | Text | Spike | SPKref | RPDref | MDL | PQL | UQL | %REC | LOW | HIGH | %RPD | Q |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Diesel Range Organics (C10 to C24) | A | mg/L | | 13.32981 | | 15 | 0 | 13.20946 | 0.0389 | 0.3 | 0 | 89% | 36 | 132 | 1% | |
| Total Extractable Hydrocarbons | A | mg/L | | 14.25753 | | 15 | 0 | 14.12545 | 0.0749 | 0.3 | 50 | 95% | 60 | 132 | 1% | |
| o-Terphenyl | S | mg/L | | 0.1827914 | | 0.2 | 0 | 0 | 0.000429 | 0.002 | 0 | 91% | 56 | 125 | 0% | |

| Seq No | Lab ID | Test Code | Sample Typ | File ID | Analysis Date | DF | Batch ID | Prep Date | SPKref | RPDref | pmoist |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 14935180 | MB-162268 | HC-8015-DRO- | MBLK | | 12/18/2021 12:2 | 1 | 162268 | 12/16/2021 | 0 | 0 | |

| Analyte | T | Units | RAW | Final | Text | Spike | SPKref | RPDref | MDL | PQL | UQL | %REC | LOW | HIGH | %RPD | Q |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Diesel Range Organics (C10 to C24) | A | mg/L | | 0 | | 0 | 0 | 0 | 0.0389 | 0.15 | 0 | 0% | 0 | 0 | 0% | |
| Oil Range Hydrocarbons (C24 to C40 | A | mg/L | | 0 | | 0 | 0 | 0 | 0.0879 | 0.15 | 0 | 0% | 0 | 0 | 0% | |
| Total Extractable Hydrocarbons | A | mg/L | | 0 | | 0 | 0 | 0 | 0.0749 | 0.15 | 50 | 0% | 0 | 0 | 0% | |
| n-Triacontane | S | mg/L | | 0.0906 | | 0.1 | 0 | 0 | 0.000336 | 0.002 | 0 | 91% | 50 | 150 | 0% | |
| o-Terphenyl | S | mg/L | | 0.1760516 | | 0.2 | 0 | 0 | 0.000429 | 0.002 | 0 | 88% | 56 | 125 | 0% | |

| Seq No | Lab ID | Test Code | Sample Typ | File ID | Analysis Date | DF | Batch ID | Prep Date | SPKref | RPDref | pmoist |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 14935181 | B21121402-002 | HC-8015-DRO- | SAMP | | 12/18/2021 1:10: | 1 | 162268 | 12/16/2021 | 0 | 0 | |

| Analyte | T | Units | RAW | Final | Text | Spike | SPKref | RPDref | MDL | PQL | UQL | %REC | LOW | HIGH | %RPD | Q |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Diesel Range Organics (C10 to C24) | A | mg/L | | 0.1294788 | | 0 | 0 | 0 | 0.040456 | 0.312 | 0 | 0% | 0 | 0 | 0% | J |
| Oil Range Hydrocarbons (C24 to C40 | A | mg/L | | 0 | | 0 | 0 | 0 | 0.091416 | 0.312 | 0 | 0% | 0 | 0 | 0% | U |
| Total Extractable Hydrocarbons | A | mg/L | | 0.2375629 | | 0 | 0 | 0 | 0.077896 | 0.312 | 50 | 0% | 0 | 0 | 0% | J |
| n-Triacontane | S | mg/L | | 0.0963 | | 0.104 | 0 | 0 | 0.0003494 | 0.00208 | 0 | 93% | 50 | 150 | 0% | |
| o-Terphenyl | S | mg/L | | 0.187158 | | 0.208 | 0 | 0 | 0.0004462 | 0.00208 | 0 | 90% | 56 | 125 | 0% | |

| Seq No | Lab ID | Test Code | Sample Typ | File ID | Analysis Date | DF | Batch ID | Prep Date | SPKref | RPDref | pmoist |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 14935182 | B21121402-003 | HC-8015-DRO- | MS-DOD | | 12/18/2021 6:09: | 1 | 162268 | 12/16/2021 | 1E+07 | 0 | |

| Analyte | T | Units | RAW | Final | Text | Spike | SPKref | RPDref | MDL | PQL | UQL | %REC | LOW | HIGH | %RPD | Q |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TEH(Oil Range) | A | mg/L | | 4.68485737 | | 4.76 | 0.7572937 | 0.7572937 | 0.0836808 | 0.3 | 0 | 83% | 41 | 113 | 0% | |
| n-Triacontane | S | mg/L | | 0.0896 | | 0.0952 | 0 | 0 | 0.0003199 | 0.002 | 0 | 94% | 50 | 150 | 0% | |

| Seq No | Lab ID | Test Code | Sample Typ | File ID | Analysis Date | DF | Batch ID | Prep Date | SPKref | RPDref | pmoist |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 14935183 | CCV_1217HP55 | HC-8015-DRO- | CCV | | 12/18/2021 7:35: | 1 | R372036 | | 0 | 0 | |

| Analyte | T | Units | RAW | Final | Text | Spike | SPKref | RPDref | MDL | PQL | UQL | %REC | LOW | HIGH | %RPD | Q |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TEH(Oil Range) | A | mg/L | | 5.03082227 | | 5 | 0 | 0 | 0.0879 | 0.3 | 0 | 101% | 80 | 120 | 0% | |
| n-Triacontane | S | mg/L | | 0.2153464 | | 0.2 | 0 | 0 | 0.000336 | 0.002 | 0 | 108% | 80 | 120 | 0% | |

| Seq No | Lab ID | Test Code | Sample Typ | File ID | Analysis Date | DF | Batch ID | Prep Date | SPKref | RPDref | pmoist |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 14935184 | CCV_1217HP55 | HC-8015-DRO- | CCV | | 12/18/2021 8:19: | 1 | R372036 | | 0 | 0 | |

| Analyte | T | Units | RAW | Final | Text | Spike | SPKref | RPDref | MDL | PQL | UQL | %REC | LOW | HIGH | %RPD | Q |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Diesel Range Organics (C10 to C24) | A | mg/L | | 15.55429 | | 15 | 0 | 0 | 0.0389 | 0.3 | 0 | 104% | 80 | 120 | 0% | |
| Total Extractable Hydrocarbons | A | mg/L | | 16.12691 | | 15 | 0 | 0 | 0.0749 | 0.3 | 50 | 108% | 80 | 120 | 0% | |
| o-Terphenyl | S | mg/L | | 0.2099951 | | 0.2 | 0 | 0 | 0.000429 | 0.002 | 0 | 105% | 80 | 120 | 0% | |

| Seq No | Lab ID | Test Code | Sample Typ | File ID | Analysis Date | DF | Batch ID | Prep Date | SPKref | RPDref | pmoist |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 14935185 | LCS-162268-RR | HC-8015-DRO- | LCS-DOD | | 12/19/2021 12:3 | 1 | 162268 | 12/16/2021 | 0 | 0 | |

| Analyte | T | Units | RAW | Final | Text | Spike | SPKref | RPDref | MDL | PQL | UQL | %REC | LOW | HIGH | %RPD | Q |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TEH(Oil Range) | A | mg/L | | 4.61714220 | | 5 | 0 | 4.6171422 | 0.0879 | 0.3 | 0 | 92% | 41 | 113 | 0% | |
| n-Triacontane | S | mg/L | | 0.0935 | | 0.1 | 0 | 0 | 0.000336 | 0.002 | 0 | 93% | 50 | 150 | 0% | |

| Seq No | Lab ID | Test Code | Sample Typ | File ID | Analysis Date | DF | Batch ID | Prep Date | SPKref | RPDref | pmoist |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 14935186 | LCSD-162268-R | HC-8015-DRO- | LCSD-DOD | | 12/19/2021 2:04: | 1 | 162268 | 12/16/2021 | 0 | 1E+07 | |

| Analyte | T | Units | RAW | Final | Text | Spike | SPKref | RPDref | MDL | PQL | UQL | %REC | LOW | HIGH | %RPD | Q |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TEH(Oil Range) | A | mg/L | | 4.72746229 | | 5 | 0 | 4.6171422 | 0.0879 | 0.3 | 0 | 95% | 41 | 113 | 2% | |
| n-Triacontane | S | mg/L | | 0.0942 | | 0.1 | 0 | 0 | 0.000336 | 0.002 | 0 | 94% | 50 | 150 | 0% | |

| Seq No | Lab ID | Test Code | Sample Typ | File ID | Analysis Date | DF | Batch ID | Prep Date | SPKref | RPDref | pmoist | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 14935187 | CCV_1217HP56 | HC-8015-DRO- | CCV | | 12/19/2021 3:31: | 1 | R372036 | | 0 | 0 | | | | | |

| Analyte | T | Units | RAW | Final | Text | Spike | SPKref | RPDref | MDL | PQL | UQL | %REC | LOW | HIGH | %RPD | Q |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TEH(Oil Range) | A | mg/L | | 4.82259473 | | 5 | 0 | 0 | 0.0879 | 0.3 | 0 | 96% | 80 | 120 | 0% | |
| n-Triacontane | S | mg/L | | 0.2104079 | | 0.2 | 0 | 0 | 0.000336 | 0.002 | 0 | 105% | 80 | 120 | 0% | |

# Energy Laboratories Inc

# ANALYTICAL RUN Summary

*21-Dec-21*

**Run ID** GCFID-HP5-B_211220A

**Run Start Date:** 12/20/2021
**Analyst:** Ann Nebel
**Ical:**
**Column ID:**
**Comments:** DRO-8015-ICAL information is in Index GCFID-HP5-B_211102A 8015C OIL range calibration GCFID-HP5-B_210218B

| Std ID | Std Name | Std Amount | Std Units | Samp Amount | Samp Units | SampType | Expiration Date |
|---|---|---|---|---|---|---|---|
| DRO211201A | 5,000 ug/mL RRO CCV 200 ug/mL Triacontane | | | | | CCV | 4/6/2026 |
| DRO211207A | Carbon Scan STD-Marker | | | | | MARKER | 3/5/2028 |
| DRO211214A | 8015 CCV-15,000ug/mL + 200 OTP | | | | | CCV | 4/30/2023 |

| Seq No | Lab ID | Test Code | Sample Typ | File ID | Analysis Date | DF | Batch ID | Prep Date | SPKref | RPDref | pmoist |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 14936322 | CCV_1220HP50 | HC-8015-DRO- | CCV | | 12/20/2021 10:5 | 1 | R372064 | | 0 | 0 | |

| Analyte | T | Units | RAW | Final | Text | Spike | SPKref | RPDref | MDL | PQL | UQL | %REC | LOW | HIGH | %RPD | Q |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TEH(Oil Range) | A | mg/L | | 4.81020508 | | 5 | 0 | 0 | 0.0879 | 0.3 | 0 | 96% | 80 | 120 | 0% | |
| n-Triacontane | S | mg/L | | 0.2113596 | | 0.2 | 0 | 0 | 0.000336 | 0.002 | 0 | 106% | 80 | 120 | 0% | |

| Seq No | Lab ID | Test Code | Sample Typ | File ID | Analysis Date | DF | Batch ID | Prep Date | SPKref | RPDref | pmoist |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 14936323 | CCV_1220HP50 | HC-8015-DRO- | CCV | | 12/20/2021 11:4 | 1 | R372064 | | 0 | 0 | |

| Analyte | T | Units | RAW | Final | Text | Spike | SPKref | RPDref | MDL | PQL | UQL | %REC | LOW | HIGH | %RPD | Q |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Diesel Range Organics (C10 to C24) | A | mg/L | | 15.37124 | | 15 | 0 | 0 | 0.0389 | 0.3 | 0 | 102% | 80 | 120 | 0% | |
| Total Extractable Hydrocarbons | A | mg/L | | 15.94691 | | 15 | 0 | 0 | 0.0749 | 0.3 | 50 | 106% | 80 | 120 | 0% | |
| o-Terphenyl | S | mg/L | | 0.2060809 | | 0.2 | 0 | 0 | 0.000429 | 0.002 | 0 | 103% | 80 | 120 | 0% | |

| Seq No | Lab ID | Test Code | Sample Typ | File ID | Analysis Date | DF | Batch ID | Prep Date | SPKref | RPDref | pmoist |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 14936324 | B21121402-003 | HC-8015-DRO- | SAMP | | 12/20/2021 1:06: | 1 | 162268 | 12/16/2021 | 0 | 0 | |

| Analyte | T | Units | RAW | Final | Text | Spike | SPKref | RPDref | MDL | PQL | UQL | %REC | LOW | HIGH | %RPD | Q |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

| Seq No | Lab ID | Test Code | Sample Typ | File ID | Analysis Date | DF | Batch ID | Prep Date | SPKref | RPDref | pmoist |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 14936324 | B21121402-003 | HC-8015-DRO- | SAMP | | 12/20/2021 1:06: | 1 | 162268 | 12/16/2021 | 0 | 0 | |

| Analyte | T | Units | RAW | Final | Text | Spike | SPKref | RPDref | MDL | PQL | UQL | %REC | LOW | HIGH | %RPD | Q |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Diesel Range Organics (C10 to C24) | A | mg/L | | 0.6354541 | | 0 | 0 | 0 | 0.038122 | 0.3 | 0 | 0% | 0 | 0 | 0% | |
| Oil Range Hydrocarbons (C24 to C40 | A | mg/L | | 0.62127674 | | 0 | 0 | 0 | 0.086142 | 0.3 | 0 | 0% | 0 | 0 | 0% | |
| Total Extractable Hydrocarbons | A | mg/L | | 1.37125 | | 0 | 0 | 0 | 0.073402 | 0.3 | 50 | 0% | 0 | 0 | 0% | |
| n-Triacontane | S | mg/L | | 0.0768 | | 0.098 | 0 | 0 | 0.0003293 | 0.00196 | 0 | 78% | 50 | 150 | 0% | |
| o-Terphenyl | S | mg/L | | 0.1481786 | | 0.196 | 0 | 0 | 0.0004204 | 0.002 | 0 | 76% | 56 | 125 | 0% | |
| TEH(Oil Range) | X | mg/L | | 0.75729370 | | 0 | 0 | 0 | 0.086142 | 0.3 | 0 | 0% | 0 | 0 | 0% | |

| Seq No | Lab ID | Test Code | Sample Typ | File ID | Analysis Date | DF | Batch ID | Prep Date | SPKref | RPDref | pmoist |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 14936325 | B21121402-001 | HC-8015-DRO- | SAMP | | 12/20/2021 1:49: | 1 | 162268 | 12/16/2021 | 0 | 0 | |

| Analyte | T | Units | RAW | Final | Text | Spike | SPKref | RPDref | MDL | PQL | UQL | %REC | LOW | HIGH | %RPD | Q |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Diesel Range Organics (C10 to C24) | A | mg/L | | 0.625467 | | 0 | 0 | 0 | 0.039289 | 0.303 | 0 | 0% | 0 | 0 | 0% | |
| Oil Range Hydrocarbons (C24 to C40 | A | mg/L | | 1.39269018 | | 0 | 0 | 0 | 0.088779 | 0.303 | 0 | 0% | 0 | 0 | 0% | |
| Total Extractable Hydrocarbons | A | mg/L | | 4.446082 | | 0 | 0 | 0 | 0.075649 | 0.303 | 50 | 0% | 0 | 0 | 0% | |
| n-Triacontane | S | mg/L | | 0.0889 | | 0.101 | 0 | 0 | 0.0003394 | 0.00202 | 0 | 88% | 50 | 150 | 0% | |
| o-Terphenyl | S | mg/L | | 0.1460022 | | 0.202 | 0 | 0 | 0.0004333 | 0.00202 | 0 | 72% | 56 | 125 | 0% | |

| Seq No | Lab ID | Test Code | Sample Typ | File ID | Analysis Date | DF | Batch ID | Prep Date | SPKref | RPDref | pmoist |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 14936738 | B21121402-001 | HC-8015-DRO- | MS-DOD | | 12/20/2021 3:14: | 1 | 162268 | 12/16/2021 | 1E+07 | 0 | |

| Analyte | T | Units | RAW | Final | Text | Spike | SPKref | RPDref | MDL | PQL | UQL | %REC | LOW | HIGH | %RPD | Q |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Diesel Range Organics (C10 to C24) | A | mg/L | | 13.49379 | | 15 | 0.625467 | 0 | 0.0389 | 0.3 | 0 | 86% | 36 | 132 | 0% | |
| Total Extractable Hydrocarbons | A | mg/L | | 17.01228 | | 15 | 4.446082 | 0 | 0.0749 | 0.3 | 50 | 84% | 60 | 132 | 0% | |
| o-Terphenyl | S | mg/L | | 0.1788722 | | 0.2 | 0 | 0 | 0.000429 | 0.002 | 0 | 89% | 56 | 125 | 0% | |

| Seq No | Lab ID | Test Code | Sample Typ | File ID | Analysis Date | DF | Batch ID | Prep Date | SPKref | RPDref | pmoist |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 14939502 | CCV_1220HP51 | HC-8015-DRO- | CCV | | 12/20/2021 4:42: | 1 | R372064 | | 0 | 0 | |

| Analyte | T | Units | RAW | Final | Text | Spike | SPKref | RPDref | MDL | PQL | UQL | %REC | LOW | HIGH | %RPD | Q |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TEH(Oil Range) | A | mg/L | | 5.17825488 | | 5 | 0 | 0 | 0.0879 | 0.3 | 0 | 104% | 80 | 120 | 0% | |
| n-Triacontane | S | mg/L | | 0.2171877 | | 0.2 | 0 | 0 | 0.000336 | 0.002 | 0 | 109% | 80 | 120 | 0% | |

| Seq No | Lab ID | Test Code | Sample Typ | File ID | Analysis Date | DF | Batch ID | Prep Date | SPKref | RPDref | pmoist | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 14939503 | CCV_1220HP51 | HC-8015-DRO- | CCV | | 12/20/2021 5:25: | 1 | R372064 | | 0 | 0 | | | | | |

| Analyte | T | Units | RAW | Final | Text | Spike | SPKref | RPDref | MDL | PQL | UQL | %REC | LOW | HIGH | %RPD | Q |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Diesel Range Organics (C10 to C24) | A | mg/L | | 15.17061 | | 15 | 0 | 0 | 0.0389 | 0.3 | 0 | 101% | 80 | 120 | 0% | |
| Total Extractable Hydrocarbons | A | mg/L | | 15.6681 | | 15 | 0 | 0 | 0.0749 | 0.3 | 50 | 104% | 80 | 120 | 0% | |
| o-Terphenyl | S | mg/L | | 0.2166517 | | 0.2 | 0 | 0 | 0.000429 | 0.002 | 0 | 108% | 80 | 120 | 0% | |

# Energy Laboratories Inc

# ANALYTICAL RUN Summary

*07-Jan-22*

**Run ID** GCFID-HP5-B_211220B

| | |
|---|---|
| **Run Start Date:** | 12/20/2021 |
| **Analyst:** | Ann Nebel |
| **Ical:** | |
| **Column ID:** | |
| **Comments:** | DRO-8015-ICAL information is in Index GCFID-HP5-B_211102A 8015C OIL range calibration GCFID-HP5-B_210218B |

| Std ID | Std Name | Std Amount | Std Units | Samp Amount | Samp Units | SampType | Expiration Date |
|---|---|---|---|---|---|---|---|
| DRO211201A | 5,000 ug/mL RRO CCV 200 ug/mL Triacontane | | | | | CCV | 4/6/2026 |
| DRO211207A | Carbon Scan STD-Marker | | | | | MARKER | 3/5/2028 |
| DRO211214A | 8015 CCV-15,000ug/mL + 200 OTP | | | | | CCV | 4/30/2023 |

| Seq No | Lab ID | Test Code | Sample Typ | File ID | Analysis Date | DF | Batch ID | Prep Date | SPKref | RPDref | pmoist |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 14939657 | CCV_1220HP51 | HC-8015-DRO- | CCV | | 12/20/2021 4:42: | 1 | R372135 | | 0 | 0 | |

| Analyte | T | Units | RAW | Final | Text | Spike | SPKref | RPDref | MDL | PQL | UQL | %REC | LOW | HIGH | %RPD | Q |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TEH(Oil Range) | A | mg/L | | 5.17825488 | | 5 | 0 | 0 | 0.0879 | 0.3 | 0 | 104% | 80 | 120 | 0% | |
| n-Triacontane | S | mg/L | | 0.2171877 | | 0.2 | 0 | 0 | 0.000336 | 0.002 | 0 | 109% | 80 | 120 | 0% | |

| Seq No | Lab ID | Test Code | Sample Typ | File ID | Analysis Date | DF | Batch ID | Prep Date | SPKref | RPDref | pmoist |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 14939658 | CCV_1220HP51 | HC-8015-DRO- | CCV | | 12/20/2021 5:25: | 1 | R372135 | | 0 | 0 | |

| Analyte | T | Units | RAW | Final | Text | Spike | SPKref | RPDref | MDL | PQL | UQL | %REC | LOW | HIGH | %RPD | Q |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Diesel Range Organics (C10 to C24) | A | mg/L | | 15.17061 | | 15 | 0 | 0 | 0.0389 | 0.3 | 0 | 101% | 80 | 120 | 0% | |
| Total Extractable Hydrocarbons | A | mg/L | | 15.6681 | | 15 | 0 | 0 | 0.0749 | 0.3 | 50 | 104% | 80 | 120 | 0% | |
| o-Terphenyl | S | mg/L | | 0.2166517 | | 0.2 | 0 | 0 | 0.000429 | 0.002 | 0 | 108% | 80 | 120 | 0% | |

| Seq No | Lab ID | Test Code | Sample Typ | File ID | Analysis Date | DF | Batch ID | Prep Date | SPKref | RPDref | pmoist |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 14939659 | B21121402-003 | HC-8015-DRO- | SAMP | | 12/20/2021 11:5 | 1 | 162268 | 12/16/2021 | 0 | 0 | |

| Analyte | T | Units | RAW | Final | Text | Spike | SPKref | RPDref | MDL | PQL | UQL | %REC | LOW | HIGH | %RPD | Q |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

| Seq No | Lab ID | Test Code | Sample Typ | File ID | Analysis Date | DF | Batch ID | Prep Date | SPKref | RPDref | pmoist |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 14939659 | B21121402-003 | HC-8015-DRO- | SAMP | | 12/20/2021 11:5 | 1 | 162268 | 12/16/2021 | 0 | 0 | |

| Analyte | T | Units | RAW | Final | Text | Spike | SPKref | RPDref | MDL | PQL | UQL | %REC | LOW | HIGH | %RPD | Q |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Diesel Range Organics (SGT-C10 to | A | mg/L | | 0 | | 0 | 0 | 0 | 0.038122 | 0.3 | 0 | 0% | 0 | 0 | 0% | U |
| Oil Range Hydrocarbons (SGT-C24 t | A | mg/L | | 0 | | 0 | 0 | 0 | 0.086142 | 0.3 | 0 | 0% | 0 | 0 | 0% | U |
| Total Extractable Hydrocarbons (SGT | A | mg/L | | 0 | | 0 | 0 | 0 | 0.032242 | 0.3 | 0 | 0% | 0 | 0 | 0% | U |
| n-Triacontane (SGT) | S | mg/L | | 0.0711 | | 0.098 | 0 | 0 | 0.0003293 | 0.00196 | 0 | 73% | 50 | 150 | 0% | |
| o-Terphenyl (SGT) | S | mg/L | | 0.1491463 | | 0.196 | 0 | 0 | 0.0004204 | 0.00196 | 0 | 76% | 56 | 125 | 0% | |
| TEH(Oil Range) | X | mg/L | | 0 | | 0 | 0 | 0 | 0.086142 | 0.3 | 0 | 0% | 0 | 0 | 0% | U |

| Seq No | Lab ID | Test Code | Sample Typ | File ID | Analysis Date | DF | Batch ID | Prep Date | SPKref | RPDref | pmoist |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 14939660 | B21121402-001 | HC-8015-DRO- | SAMP | | 12/21/2021 1:18: | 1 | 162268 | 12/16/2021 | 0 | 0 | |

| Analyte | T | Units | RAW | Final | Text | Spike | SPKref | RPDref | MDL | PQL | UQL | %REC | LOW | HIGH | %RPD | Q |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Diesel Range Organics (SGT-C10 to | A | mg/L | | 0.04268059 | | 0 | 0 | 0 | 0.039289 | 0.303 | 0 | 0% | 0 | 0 | 0% | J |
| Oil Range Hydrocarbons (SGT-C24 t | A | mg/L | | 0.15694213 | | 0 | 0 | 0 | 0.088779 | 0.303 | 0 | 0% | 0 | 0 | 0% | J |
| Total Extractable Hydrocarbons (SGT | A | mg/L | | 0.1994266 | | 0 | 0 | 0 | 0.033229 | 0.303 | 0 | 0% | 0 | 0 | 0% | J |
| n-Triacontane (SGT) | S | mg/L | | 0.0732 | | 0.101 | 0 | 0 | 0.0003394 | 0.00202 | 0 | 72% | 50 | 150 | 0% | |
| o-Terphenyl (SGT) | S | mg/L | | 0.1311267 | | 0.202 | 0 | 0 | 0.0004333 | 0.00202 | 0 | 65% | 56 | 125 | 0% | |

| Seq No | Lab ID | Test Code | Sample Typ | File ID | Analysis Date | DF | Batch ID | Prep Date | SPKref | RPDref | pmoist |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 14939661 | B21121402-001 | HC-8015-DRO- | MS-DOD | | 12/21/2021 2:01: | 1 | 162268 | 12/16/2021 | 1E+07 | 0 | |

| Analyte | T | Units | RAW | Final | Text | Spike | SPKref | RPDref | MDL | PQL | UQL | %REC | LOW | HIGH | %RPD | Q |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Diesel Range Organics (SGT-C10 to | A | mg/L | | 11.41748 | | 15 | 0.0426806 | 0 | 0.0389 | 0.3 | 0 | 76% | 36 | 132 | 0% | |
| Total Extractable Hydrocarbons (SGT | A | mg/L | | 12.22162 | | 15 | 0.1994266 | 0 | 0.0329 | 0.3 | 0 | 80% | 60 | 132 | 0% | |
| o-Terphenyl (SGT) | S | mg/L | | 0.1635356 | | 0.2 | 0 | 0 | 0.000429 | 0.002 | 0 | 82% | 56 | 125 | 0% | |

| Seq No | Lab ID | Test Code | Sample Typ | File ID | Analysis Date | DF | Batch ID | Prep Date | SPKref | RPDref | pmoist |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 14939662 | CCV_1220HP52 | HC-8015-DRO- | CCV | | 12/21/2021 3:27: | 1 | R372135 | | 0 | 0 | |

| Analyte | T | Units | RAW | Final | Text | Spike | SPKref | RPDref | MDL | PQL | UQL | %REC | LOW | HIGH | %RPD | Q |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TEH(Oil Range) | A | mg/L | | 5.14207129 | | 5 | 0 | 0 | 0.0879 | 0.3 | 0 | 103% | 80 | 120 | 0% | |
| n-Triacontane | S | mg/L | | 0.2210395 | | 0.2 | 0 | 0 | 0.000336 | 0.002 | 0 | 111% | 80 | 120 | 0% | |

| Seq No | Lab ID | Test Code | Sample Typ | File ID | Analysis Date | DF | Batch ID | Prep Date | SPKref | RPDref | pmoist |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 14939663 | CCV_1220HP52 | HC-8015-DRO- | CCV | | 12/21/2021 4:10: | 1 | R372135 | | 0 | 0 | |

| Analyte | T | Units | RAW | Final | Text | Spike | SPKref | RPDref | MDL | PQL | UQL | %REC | LOW | HIGH | %RPD | Q |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Diesel Range Organics (C10 to C24) | A | mg/L | | 15.27324 | | 15 | 0 | 0 | 0.0389 | 0.3 | 0 | 102% | 80 | 120 | 0% | |
| Total Extractable Hydrocarbons | A | mg/L | | 15.83776 | | 15 | 0 | 0 | 0.0749 | 0.3 | 50 | 106% | 80 | 120 | 0% | |
| o-Terphenyl | S | mg/L | | 0.2072211 | | 0.2 | 0 | 0 | 0.000429 | 0.002 | 0 | 104% | 80 | 120 | 0% | |

| Seq No | Lab ID | Test Code | Sample Typ | File ID | Analysis Date | DF | Batch ID | Prep Date | SPKref | RPDref | pmoist |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 14939664 | B21121402-003 | HC-8015-DRO- | MS-DOD | | 12/21/2021 5:36: | 1 | 162268 | 12/16/2021 | 1E+07 | 0 | |

| Analyte | T | Units | RAW | Final | Text | Spike | SPKref | RPDref | MDL | PQL | UQL | %REC | LOW | HIGH | %RPD | Q |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TEH (SGT-Oil Range) | A | mg/L | | 4.87501335 | | 4.76 | 0 | 0 | 0.0836808 | 0.3 | 0 | 102% | 41 | 113 | 0% | |
| n-Triacontane (SGT) | S | mg/L | | 0.0893 | | 0.0952 | 0 | 0 | 0.0003199 | 0.002 | 0 | 94% | 50 | 150 | 0% | |

| Seq No | Lab ID | Test Code | Sample Typ | File ID | Analysis Date | DF | Batch ID | Prep Date | SPKref | RPDref | pmoist |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 14939665 | LCS-162268 | HC-8015-DRO- | LCS-DOD | | 12/21/2021 7:02: | 1 | 162268 | 12/16/2021 | 0 | 0 | |

| Analyte | T | Units | RAW | Final | Text | Spike | SPKref | RPDref | MDL | PQL | UQL | %REC | LOW | HIGH | %RPD | Q |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Diesel Range Organics (SGT-C10 to | A | mg/L | | 13.43223 | | 15 | 0 | 0 | 0.0389 | 0.3 | 0 | 90% | 36 | 132 | 0% | |
| Total Extractable Hydrocarbons (SGT | A | mg/L | | 14.3789 | | 15 | 0 | 0 | 0.0329 | 0.3 | 0 | 96% | 60 | 132 | 0% | |
| o-Terphenyl (SGT) | S | mg/L | | 0.1960824 | | 0.2 | 0 | 0 | 0.000429 | 0.002 | 0 | 98% | 56 | 125 | 0% | |

| Seq No | Lab ID | Test Code | Sample Typ | File ID | Analysis Date | DF | Batch ID | Prep Date | SPKref | RPDref | pmoist |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 14939666 | LCSD-162268 | HC-8015-DRO- | LCSD-DOD | | 12/21/2021 7:45: | 1 | 162268 | 12/16/2021 | 0 | 1E+07 | |

| Analyte | T | Units | RAW | Final | Text | Spike | SPKref | RPDref | MDL | PQL | UQL | %REC | LOW | HIGH | %RPD | Q |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Diesel Range Organics (SGT-C10 to | A | mg/L | | 14.57384 | | 15 | 0 | 13.43223 | 0.0389 | 0.3 | 0 | 97% | 36 | 132 | 8% | |
| Total Extractable Hydrocarbons (SGT | A | mg/L | | 15.52536 | | 15 | 0 | 14.3789 | 0.0329 | 0.3 | 0 | 104% | 60 | 132 | 8% | |
| o-Terphenyl (SGT) | S | mg/L | | 0.2094339 | | 0.2 | 0 | 0 | 0.000429 | 0.002 | 0 | 105% | 56 | 125 | 0% | |

| Seq No | Lab ID | Test Code | Sample Typ | File ID | Analysis Date | DF | Batch ID | Prep Date | SPKref | RPDref | pmoist |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 14939667 | MB-162268 | HC-8015-DRO- | MBLK | | 12/21/2021 8:28: | 1 | 162268 | 12/16/2021 | 0 | 0 | |

| Analyte | T | Units | RAW | Final | Text | Spike | SPKref | RPDref | MDL | PQL | UQL | %REC | LOW | HIGH | %RPD | Q |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Diesel Range Organics (SGT-C10 to | A | mg/L | | 0 | | 0 | 0 | 0 | 0.0389 | 0.15 | 0 | 0% | 0 | 0 | 0% | |
| Oil Range Hydrocarbons (SGT-C24 t | A | mg/L | | 0 | | 0 | 0 | 0 | 0.0879 | 0.15 | 0 | 0% | 0 | 0 | 0% | |
| Total Extractable Hydrocarbons (SGT | A | mg/L | | 0 | | 0 | 0 | 0 | 0.0329 | 0.15 | 0 | 0% | 0 | 0 | 0% | |

| Seq No | Lab ID | Test Code | Sample Typ | File ID | Analysis Date | DF | Batch ID | Prep Date | SPKref | RPDref | pmoist |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 14939667 | MB-162268 | HC-8015-DRO- | MBLK | | 12/21/2021 8:28: | 1 | 162268 | 12/16/2021 | 0 | 0 | |

| Analyte | T | Units | RAW | Final | Text | Spike | SPKref | RPDref | MDL | PQL | UQL | %REC | LOW | HIGH | %RPD | Q |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| n-Triacontane (SGT) | S | mg/L | | 0.0968 | | 0.1 | 0 | 0 | 0.000336 | 0.002 | 0 | 97% | 50 | 150 | 0% | |
| o-Terphenyl (SGT) | S | mg/L | | 0.197085 | | 0.2 | 0 | 0 | 0.000429 | 0.002 | 0 | 99% | 56 | 125 | 0% | |

| Seq No | Lab ID | Test Code | Sample Typ | File ID | Analysis Date | DF | Batch ID | Prep Date | SPKref | RPDref | pmoist |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 14939668 | B21121402-002 | HC-8015-DRO- | SAMP | | 12/21/2021 9:10: | 1 | 162268 | 12/16/2021 | 0 | 0 | |

| Analyte | T | Units | RAW | Final | Text | Spike | SPKref | RPDref | MDL | PQL | UQL | %REC | LOW | HIGH | %RPD | Q |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Diesel Range Organics (SGT-C10 to | A | mg/L | | 0 | | 0 | 0 | 0 | 0.040456 | 0.312 | 0 | 0% | 0 | 0 | 0% | U |
| Oil Range Hydrocarbons (SGT-C24 t | A | mg/L | | 0 | | 0 | 0 | 0 | 0.091416 | 0.312 | 0 | 0% | 0 | 0 | 0% | U |
| Total Extractable Hydrocarbons (SGT | A | mg/L | | 0.03460202 | | 0 | 0 | 0 | 0.034216 | 0.312 | 0 | 0% | 0 | 0 | 0% | J |
| n-Triacontane (SGT) | S | mg/L | | 0.0918 | | 0.104 | 0 | 0 | 0.0003494 | 0.00208 | 0 | 88% | 50 | 150 | 0% | |
| o-Terphenyl (SGT) | S | mg/L | | 0.1948943 | | 0.208 | 0 | 0 | 0.0004462 | 0.00208 | 0 | 94% | 56 | 125 | 0% | |

| Seq No | Lab ID | Test Code | Sample Typ | File ID | Analysis Date | DF | Batch ID | Prep Date | SPKref | RPDref | pmoist |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 14939669 | LCS-162268-RR | HC-8015-DRO- | LCS-DOD | | 12/21/2021 9:53: | 1 | 162268 | 12/16/2021 | 0 | 0 | |

| Analyte | T | Units | RAW | Final | Text | Spike | SPKref | RPDref | MDL | PQL | UQL | %REC | LOW | HIGH | %RPD | Q |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TEH (SGT-Oil Range) | A | mg/L | | 5.13554096 | | 5 | 0 | 0 | 0.0879 | 0.3 | 0 | 103% | 41 | 113 | 0% | |
| n-Triacontane (SGT) | S | mg/L | | 0.0953 | | 0.1 | 0 | 0 | 0.000336 | 0.002 | 0 | 95% | 50 | 150 | 0% | |

| Seq No | Lab ID | Test Code | Sample Typ | File ID | Analysis Date | DF | Batch ID | Prep Date | SPKref | RPDref | pmoist |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 14939670 | LCSD-162268-R | HC-8015-DRO- | LCSD-DOD | | 12/21/2021 11:1 | 1 | 162268 | 12/16/2021 | 0 | 1E+07 | |

| Analyte | T | Units | RAW | Final | Text | Spike | SPKref | RPDref | MDL | PQL | UQL | %REC | LOW | HIGH | %RPD | Q |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TEH (SGT-Oil Range) | A | mg/L | | 5.09264994 | | 5 | 0 | 5.135541 | 0.0879 | 0.3 | 0 | 102% | 41 | 113 | 1% | |
| n-Triacontane (SGT) | S | mg/L | | 0.0926 | | 0.1 | 0 | 0 | 0.000336 | 0.002 | 0 | 93% | 50 | 150 | 0% | |

| Seq No | Lab ID | Test Code | Sample Typ | File ID | Analysis Date | DF | Batch ID | Prep Date | SPKref | RPDref | pmoist |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 14939671 | CCV_1220HP54 | HC-8015-DRO- | CCV | | 12/21/2021 12:4 | 1 | R372135 | | 0 | 0 | |

| Analyte | T | Units | RAW | Final | Text | Spike | SPKref | RPDref | MDL | PQL | UQL | %REC | LOW | HIGH | %RPD | Q |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TEH(Oil Range) | A | mg/L | | 4.67897852 | | 5 | 0 | 0 | 0.0879 | 0.3 | 0 | 94% | 80 | 120 | 0% | |
| n-Triacontane | S | mg/L | | 0.2117017 | | 0.2 | 0 | 0 | 0.000336 | 0.002 | 0 | 106% | 80 | 120 | 0% | |

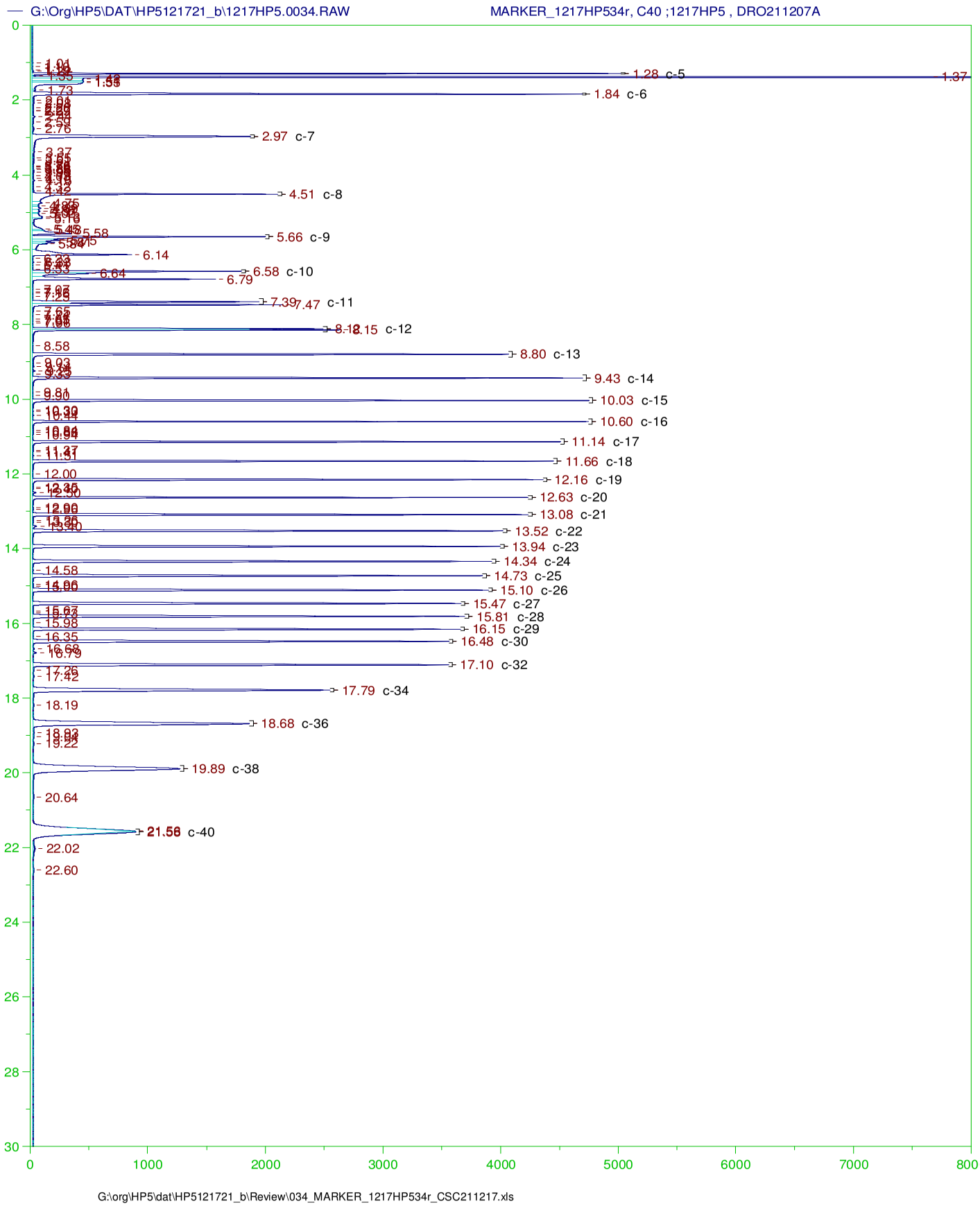
| Seq No | Lab ID | Test Code | Sample Typ | File ID | Analysis Date | DF | Batch ID | Prep Date | SPKref | RPDref | pmoist |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 14939672 | CCV_1220HP54 | HC-8015-DRO- | CCV | | 12/21/2021 1:27: | 1 | R372135 | | 0 | 0 | |

| Analyte | T | Units | RAW | Final | Text | Spike | SPKref | RPDref | MDL | PQL | UQL | %REC | LOW | HIGH | %RPD | Q |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Diesel Range Organics (C10 to C24) | A | mg/L | | 14.46064 | | 15 | 0 | 0 | 0.0389 | 0.3 | 0 | 96% | 80 | 120 | 0% | |
| Total Extractable Hydrocarbons | A | mg/L | | 14.96739 | | 15 | 0 | 0 | 0.0749 | 0.3 | 50 | 100% | 80 | 120 | 0% | |
| o-Terphenyl | S | mg/L | | 0.1926969 | | 0.2 | 0 | 0 | 0.000429 | 0.002 | 0 | 96% | 80 | 120 | 0% | |

| Write Sequence<br>Data File | Insert Entries(Have the first cell for entries selecte<br>Sample Name | Method | Weight | Dil Factor | Amt Inj. | IS | Cal ID |
|---|---|---|---|---|---|---|---|
| G:\org\HP5\DAT\HP5121721_b\1217HP5.34r | MARKER_1217HP534r, C40 ;1217HP5 , DRO211207A | g:\org\HP5\Methods\\CSC211217.met | 1 | 1 | 1 | 1 | 0 |
| G:\org\HP5\DAT\HP5121721_b\1217HP5.35r | CCV_1217HP535r, RRO ;1217HP5 , DRO211201A | G:\Org\HP5\Methods\DC_ORO-AK-L%.MET<br>G:\Org\HP5\Methods\DS_ORO-AK-L%.MET | 1 | 1 | 1 | 1 | 0 |
| G:\org\HP5\DAT\HP5121721_b\1217HP5.36r | CCV_1217HP536r, DRO ;1217HP5 , DRO211214A | G:\Org\HP5\Methods\DC_8015-24-IJ-L%.met<br>G:\Org\HP5\Methods\DS_8015-24-IJ-L#.met | 1 | 1 | 1 | 1 | 0 |
| G:\org\HP5\DAT\HP5121721_b\1217HP5.37r | DCM-Baseline Check-V37 | G:\Org\HP5\Methods\DR_8015-IBb-LEXP.met | 1 | 1 | 1 | 1 | 0 |
| G:\org\HP5\DAT\HP5121721_b\1217HP5.38r | LCS-162268 ;1217HP5 , | G:\Org\HP5\Methods\D3_8015-24-IJ-L%.met<br>G:\Org\HP5\Methods\DS_8015-24-IJ-L#.met | 1000 | 1 | 1 | 1 | 0 |
| G:\org\HP5\DAT\HP5121721_b\1217HP5.39r | LCSD-162268 ;1217HP5 , | G:\Org\HP5\Methods\D3_8015-24-IJ-L%.met<br>G:\Org\HP5\Methods\DS_8015-24-IJ-L#.met | 1000 | 1 | 1 | 1 | 0 |
| G:\org\HP5\DAT\HP5121721_b\1217HP5.40r | MB-162268 ;1217HP5 , | G:\Org\HP5\Methods\DR_8015-C24T-IJ-L%.met<br>G:\Org\HP5\Methods\DR_OROS-AK-L%.MET<br>G:\Org\HP5\Methods\DS_8015-C24T-IJ-L#.met | 1000 | 1 | 1 | 1 | 0 |
| G:\org\HP5\DAT\HP5121721_b\1217HP5.41r | B21121402-002B ;1217HP5 , $HC-8015-DRO-W, | G:\Org\HP5\Methods\DR_8015-121741-IJ-L%.met<br>G:\Org\HP5\Methods\DR_OROS-121741-AK-L%.MET<br>G:\Org\HP5\Methods\DS_8015-121741-IJ-L#.met | 960 | 1 | 1 | 1 | 0 |
| G:\org\HP5\DAT\HP5121721_b\1217HP5.42r | DCM-Baseline Check-V42 | G:\Org\HP5\Methods\DR_8015-IBb-LEXP.met | 1 | 1 | 1 | 1 | 0 |
| G:\org\HP5\DAT\HP5121721_b\1217HP5.43r | B21121402-001B ;1217HP5 , $HC-8015-DRO-W, ,(1,10) needs rr undil | G:\Org\HP5\Methods\DR_8015-C24T-IJ-L0.met | 990 | 10 | 1 | 1 | 0 |
| G:\org\HP5\DAT\HP5121721_b\1217HP5.44r | DCM-Baseline Check-V44 | G:\Org\HP5\Methods\DR_8015-IBb-LEXP.met | 1 | 1 | 1 | 1 | 0 |
| G:\org\HP5\DAT\HP5121721_b\1217HP5.45r | B21121402-003B ;1217HP5 , $HC-8015-DRO-W, rerun due to baseline | G:\Org\HP5\Methods\DR_8015-C24T-IJ-L0.met | 1020 | 1 | 1 | 1 | 0 |
| G:\org\HP5\DAT\HP5121721_b\1217HP5.46r | DCM-Baseline Check-V46 | G:\Org\HP5\Methods\DR_8015-IBb-LEXP.met | 1 | 1 | 1 | 1 | 0 |
| G:\org\HP5\DAT\HP5121721_b\1217HP5.47r | B21121402-001BMS ;1217HP5 , ,(1,10) rerun undiluted | G:\Org\HP5\Methods\D3_8015-24-IJ-L0.met | 1000 | 10 | 1 | 1 | 0 |
| G:\org\HP5\DAT\HP5121721_b\1217HP5.48r | B21121402-003BMS-RRO ;1217HP5 , | G:\Org\HP5\Methods\D3_ORO-AK-L%.MET<br>G:\Org\HP5\Methods\DS_ORO-AK-L%.MET | 1050 | 1 | 1 | 1 | 0 |
| G:\org\HP5\DAT\HP5121721_b\1217HP5.49r | MARKER_1217HP549r, C40 ;1217HP5 , DRO211207A | g:\org\HP5\Methods\\CSC211217.met | 1 | 1 | 1 | 1 | 0 |
| G:\org\HP5\DAT\HP5121721_b\1217HP5.50r | CCV_1217HP550r, RRO ;1217HP5 , DRO211201A | G:\Org\HP5\Methods\DC_ORO-AK-L%.MET<br>G:\Org\HP5\Methods\DS_ORO-AK-L%.MET | 1 | 1 | 1 | 1 | 0 |
| G:\org\HP5\DAT\HP5121721_b\1217HP5.51r | CCV_1217HP551r, DRO ;1217HP5 , DRO211214A | G:\Org\HP5\Methods\DC_8015-24-IJ-L%.met<br>G:\Org\HP5\Methods\DS_8015-24-IJ-L#.met | 1 | 1 | 1 | 1 | 0 |
| G:\org\HP5\DAT\HP5121721_b\1217HP5.53r | DCM-Baseline Check-V53 | G:\Org\HP5\Methods\DR_8015-IBb-LEXP.met | 1 | 1 | 1 | 1 | 0 |
| G:\org\HP5\DAT\HP5121721_b\1217HP5.56r | DCM-Baseline Check-V56 | G:\Org\HP5\Methods\DR_8015-IBb-LEXP.met | 1 | 1 | 1 | 1 | 0 |
| G:\org\HP5\DAT\HP5121721_b\1217HP5.57r | LCS-162268-RRO ;1217HP5 , | G:\Org\HP5\Methods\D3_ORO-AK-L%.MET<br>G:\Org\HP5\Methods\DS_ORO-AK-L%.MET | 1000 | 1 | 1 | 1 | 0 |
| G:\org\HP5\DAT\HP5121721_b\1217HP5.58r | DCM-Baseline Check-V58 | G:\Org\HP5\Methods\DR_8015-IBb-LEXP.met | 1 | 1 | 1 | 1 | 0 |
| G:\org\HP5\DAT\HP5121721_b\1217HP5.59r | LCSD-162268-RRO ;1217HP5 , | G:\Org\HP5\Methods\D3_ORO-AK-L%.MET<br>G:\Org\HP5\Methods\DS_ORO-AK-L%.MET | 1000 | 1 | 1 | 1 | 0 |
| G:\org\HP5\DAT\HP5121721_b\1217HP5.60r | MARKER_1217HP560r, C40 ;1217HP5 , DRO211207A | g:\org\HP5\Methods\\CSC211217.met | 1 | 1 | 1 | 1 | 0 |
| G:\org\HP5\DAT\HP5121721_b\1217HP5.61r | CCV_1217HP561r, RRO ;1217HP5 , DRO211201A | G:\Org\HP5\Methods\DC_ORO-AK-L%.MET<br>G:\Org\HP5\Methods\DS_ORO-AK-L%.MET | 1 | 1 | 1 | 1 | 0 |

| Write Sequence<br>Data File | Insert Entries(Have the first cell for entries selecte<br>Sample Name | Method | Weight | Dil Factor | Amt Inj. | IS | Cal ID |
|---|---|---|---|---|---|---|---|
| G:\org\HP5\DAT\HP5122021_b\1220HP5.01r | DCM-Baseline Check-V01 | G:\Org\HP5\Methods\DR_8015-IBb-LEXP.met | 1 | 1 | 1 | 1 | 0 |
| G:\org\HP5\DAT\HP5122021_b\1220HP5.02r | DCM-Baseline Check-V02 | G:\Org\HP5\Methods\DR_8015-IBb-LEXP.met | 1 | 1 | 1 | 1 | 0 |
| G:\org\HP5\DAT\HP5122021_b\1220HP5.03r | MARKER_1220HP503r, C40 ;1220HP5 , DRO211207A | g:\org\HP5\Methods\\CSC211217.met | 1 | 1 | 1 | 1 | 0 |
| G:\org\HP5\DAT\HP5122021_b\1220HP5.04r | CCV_1220HP504r, RRO ;1220HP5 , DRO211201A | G:\Org\HP5\Methods\DC_ORO-AK-L%.MET<br>G:\Org\HP5\Methods\DS_ORO-AK-L%.MET | 1 | 1 | 1 | 1 | 0 |
| G:\org\HP5\DAT\HP5122021_b\1220HP5.05r | CCV_1220HP505r, DRO ;1220HP5 , DRO211214A | G:\Org\HP5\Methods\DC_8015-24-IJ-L%.met<br>G:\Org\HP5\Methods\DS_8015-24-IJ-L#.met | 1 | 1 | 1 | 1 | 0 |
| G:\org\HP5\DAT\HP5122021_b\1220HP5.06r | DCM-Baseline Check-V06 | G:\Org\HP5\Methods\DR_8015-IBb-LEXP.met | 1 | 1 | 1 | 1 | 0 |
| G:\org\HP5\DAT\HP5122021_b\1220HP5.07r | B21121402-003B ;1220HP5 ,  $HC-8015-DRO-W, | G:\Org\HP5\Methods\DR_8015-122007-IJ-L%.met<br>G:\Org\HP5\Methods\DR_OROS-122007-AK-L%.MET<br>G:\Org\HP5\Methods\DS_8015-C24T-IJ-L#.met | 1020 | 1 | 1 | 1 | 0 |
| G:\org\HP5\DAT\HP5122021_b\1220HP5.08r | B21121402-001B ;1220HP5 ,  $HC-8015-DRO-W, | G:\Org\HP5\Methods\DR_8015-122007-IJ-L%.met<br>G:\Org\HP5\Methods\DR_OROS-122007-AK-L%.MET<br>G:\Org\HP5\Methods\DS_8015-C24T-IJ-L#.met | 990 | 1 | 1 | 1 | 0 |
| G:\org\HP5\DAT\HP5122021_b\1220HP5.09r | DCM-Baseline Check-V09 | G:\Org\HP5\Methods\DR_8015-IBb-LEXP.met | 1 | 1 | 1 | 1 | 0 |
| G:\org\HP5\DAT\HP5122021_b\1220HP5.10r | B21121402-001BMS ;1220HP5 , | G:\Org\HP5\Methods\D3_8015-24-IJ-L%.met<br>G:\Org\HP5\Methods\DS_8015-24-IJ-L#.met | 1000 | 1 | 1 | 1 | 0 |
| G:\org\HP5\DAT\HP5122021_b\1220HP5.11r | MARKER_1220HP511r, C40 ;1220HP5 , DRO211207A | g:\org\HP5\Methods\\CSC211217.met | 1 | 1 | 1 | 1 | 0 |
| G:\org\HP5\DAT\HP5122021_b\1220HP5.12r | CCV_1220HP512r, RRO ;1220HP5 , DRO211201A | G:\Org\HP5\Methods\DC_ORO-AK-L%.MET<br>G:\Org\HP5\Methods\DS_ORO-AK-L%.MET | 1 | 1 | 1 | 1 | 0 |
| G:\org\HP5\DAT\HP5122021_b\1220HP5.13r | CCV_1220HP513r, DRO ;1220HP5 , DRO211214A | G:\Org\HP5\Methods\DC_8015-24-IJ-L%.met<br>G:\Org\HP5\Methods\DS_8015-24-IJ-L#.met | 1 | 1 | 1 | 1 | 0 |

| Write Sequence<br>Data File | Insert Entries(Have the first cell for entries selecte<br>Sample Name | Method | Weight | Dil Factor | Amt Inj. | IS | Cal ID |
|---|---|---|---|---|---|---|---|
| G:\org\HP5\DAT\HP5122021_b\1220HP5.11r | MARKER_1220HP511r, C40 ;1220HP5 , DRO211207A | g:\org\HP5\Methods\\CSC211217.met | 1 | 1 | 1 | 1 | 0 |
| G:\org\HP5\DAT\HP5122021_b\1220HP5.12r | CCV_1220HP512r, RRO ;1220HP5 , DRO211201A | G:\Org\HP5\Methods\DC_ORO-AK-L%.MET<br>G:\Org\HP5\Methods\DS_ORO-AK-L%.MET | 1 | 1 | 1 | 1 | 0 |
| G:\org\HP5\DAT\HP5122021_b\1220HP5.13r | CCV_1220HP513r, DRO ;1220HP5 , DRO211214A | G:\Org\HP5\Methods\DC_8015-24-IJ-L%.met<br>G:\Org\HP5\Methods\DS_8015-24-IJ-L#.met | 1 | 1 | 1 | 1 | 0 |
| G:\org\HP5\DAT\HP5122021_b\1220HP5.14r | DCM-Baseline Check-V14 | G:\Org\HP5\Methods\DR_8015-IBb-LEXP.met | 1 | 1 | 1 | 1 | 0 |
| G:\org\HP5\DAT\HP5122021_b\1220HP5.15r | DCM-Baseline Check-V15 | G:\Org\HP5\Methods\DR_8015-IBb-LEXP.met | 1 | 1 | 1 | 1 | 0 |
| G:\org\HP5\DAT\HP5122021_b\1220HP5.21r | DCM-Baseline Check-V21 | G:\Org\HP5\Methods\DR_8015-IBb-LEXP.met | 1 | 1 | 1 | 1 | 0 |
| G:\org\HP5\DAT\HP5122021_b\1220HP5.22r | B21121402-003B ;1220HP5 , $HC-8015-DRO-W, SGT | G:\Org\HP5\Methods\DR_8015-C24T-IJ-L%.met<br>G:\Org\HP5\Methods\DR_OROS-AK-L%.MET<br>G:\Org\HP5\Methods\DS_8015-C24T-IJ-L#.met | 1020 | 1 | 1 | 1 | 0 |
| G:\org\HP5\DAT\HP5122021_b\1220HP5.23r | DCM-Baseline Check-V23 | G:\Org\HP5\Methods\DR_8015-IBb-LEXP.met | 1 | 1 | 1 | 1 | 0 |
| G:\org\HP5\DAT\HP5122021_b\1220HP5.24r | B21121402-001B ;1220HP5 , $HC-8015-DRO-W, SGT | G:\Org\HP5\Methods\DR_8015-122024-IJ-L%.met<br>G:\Org\HP5\Methods\DR_OROS-122024-AK-L%.MET<br>G:\Org\HP5\Methods\DS_8015-C24T-IJ-L#.met | 990 | 1 | 1 | 1 | 0 |
| G:\org\HP5\DAT\HP5122021_b\1220HP5.25r | B21121402-001BMS ;1220HP5 , SGT | G:\Org\HP5\Methods\D3_8015-24-IJ-L%.met<br>G:\Org\HP5\Methods\DS_8015-24-IJ-L#.met | 1000 | 1 | 1 | 1 | 0 |
| G:\org\HP5\DAT\HP5122021_b\1220HP5.26r | MARKER_1220HP526r, C40 ;1220HP5 , DRO211207A | g:\org\HP5\Methods\\CSC211217.met | 1 | 1 | 1 | 1 | 0 |
| G:\org\HP5\DAT\HP5122021_b\1220HP5.27r | CCV_1220HP527r, RRO ;1220HP5 , DRO211201A | G:\Org\HP5\Methods\DC_ORO-AK-L%.MET<br>G:\Org\HP5\Methods\DS_ORO-AK-L%.MET | 1 | 1 | 1 | 1 | 0 |
| G:\org\HP5\DAT\HP5122021_b\1220HP5.28r | CCV_1220HP528r, DRO ;1220HP5 , DRO211214A | G:\Org\HP5\Methods\DC_8015-24-IJ-L%.met<br>G:\Org\HP5\Methods\DS_8015-24-IJ-L#.met | 1 | 1 | 1 | 1 | 0 |
| G:\org\HP5\DAT\HP5122021_b\1220HP5.29r | DCM-Baseline Check-V29 | G:\Org\HP5\Methods\DR_8015-IBb-LEXP.met | 1 | 1 | 1 | 1 | 0 |
| G:\org\HP5\DAT\HP5122021_b\1220HP5.30r | B21121402-003BMS-RRO ;1220HP5 , SGT | G:\Org\HP5\Methods\D3_ORO-AK-L%.MET<br>G:\Org\HP5\Methods\DS_ORO-AK-L%.MET | 1050 | 1 | 1 | 1 | 0 |
| G:\org\HP5\DAT\HP5122021_b\1220HP5.31r | DCM-Baseline Check-V31 | G:\Org\HP5\Methods\DR_8015-IBb-LEXP.met | 1 | 1 | 1 | 1 | 0 |
| G:\org\HP5\DAT\HP5122021_b\1220HP5.32r | LCS-162268 ;1220HP5 , SGT | G:\Org\HP5\Methods\D3_8015-24-IJ-L%.met<br>G:\Org\HP5\Methods\DS_8015-24-IJ-L#.met | 1000 | 1 | 1 | 1 | 0 |
| G:\org\HP5\DAT\HP5122021_b\1220HP5.33r | LCSD-162268 ;1220HP5 , SGT | G:\Org\HP5\Methods\D3_8015-24-IJ-L%.met<br>G:\Org\HP5\Methods\DS_8015-24-IJ-L#.met | 1000 | 1 | 1 | 1 | 0 |
| G:\org\HP5\DAT\HP5122021_b\1220HP5.34r | MB-162268 ;1220HP5 , SGT | G:\Org\HP5\Methods\DR_8015-C24Ta-IJ-L%.met<br>G:\Org\HP5\Methods\DR_OROS-AK-L%.MET<br>G:\Org\HP5\Methods\DS_8015-C24T-IJ-L#.met | 1000 | 1 | 1 | 1 | 0 |
| G:\org\HP5\DAT\HP5122021_b\1220HP5.35r | B21121402-002B ;1220HP5 , $HC-8015-DRO-W, SGT | G:\Org\HP5\Methods\DR_8015-C24Ta-IJ-L%.met<br>G:\Org\HP5\Methods\DR_OROS-AK-L%.MET<br>G:\Org\HP5\Methods\DS_8015-C24T-IJ-L#.met | 960 | 1 | 1 | 1 | 0 |
| G:\org\HP5\DAT\HP5122021_b\1220HP5.36r | LCS-162268-RRO ;1220HP5 , SGT | G:\Org\HP5\Methods\D3_ORO-AK-L%.MET<br>G:\Org\HP5\Methods\DS_ORO-AK-L%.MET | 1000 | 1 | 1 | 1 | 0 |
| G:\org\HP5\DAT\HP5122021_b\1220HP5.37r | DCM-Baseline Check-V37 | G:\Org\HP5\Methods\DR_8015-IBb-LEXP.met | 1 | 1 | 1 | 1 | 0 |
| G:\org\HP5\DAT\HP5122021_b\1220HP5.38r | LCSD-162268-RRO ;1220HP5 , SGT | G:\Org\HP5\Methods\D3_ORO-AK-L%.MET<br>G:\Org\HP5\Methods\DS_ORO-AK-L%.MET | 1000 | 1 | 1 | 1 | 0 |
| G:\org\HP5\DAT\HP5122021_b\1220HP5.39r | MARKER_1220HP539r, C40 ;1220HP5 , DRO211207A | g:\org\HP5\Methods\\CSC211217.met | 1 | 1 | 1 | 1 | 0 |
| G:\org\HP5\DAT\HP5122021_b\1220HP5.40r | CCV_1220HP540r, RRO ;1220HP5 , DRO211201A | G:\Org\HP5\Methods\DC_ORO-AK-L%.MET<br>G:\Org\HP5\Methods\DS_ORO-AK-L%.MET | 1 | 1 | 1 | 1 | 0 |
| G:\org\HP5\DAT\HP5122021_b\1220HP5.41r | CCV_1220HP541r, DRO ;1220HP5 , DRO211214A | G:\Org\HP5\Methods\DC_8015-24-IJ-L%.met<br>G:\Org\HP5\Methods\DS_8015-24-IJ-L#.met | 1 | 1 | 1 | 1 | 0 |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8.15 c-12
8.80 c-13
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10.03 c-15
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11.14 c-17
11.66 c-18
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12.63 c-20
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15.47 c-27
15.81 c-28
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16.48 c-30
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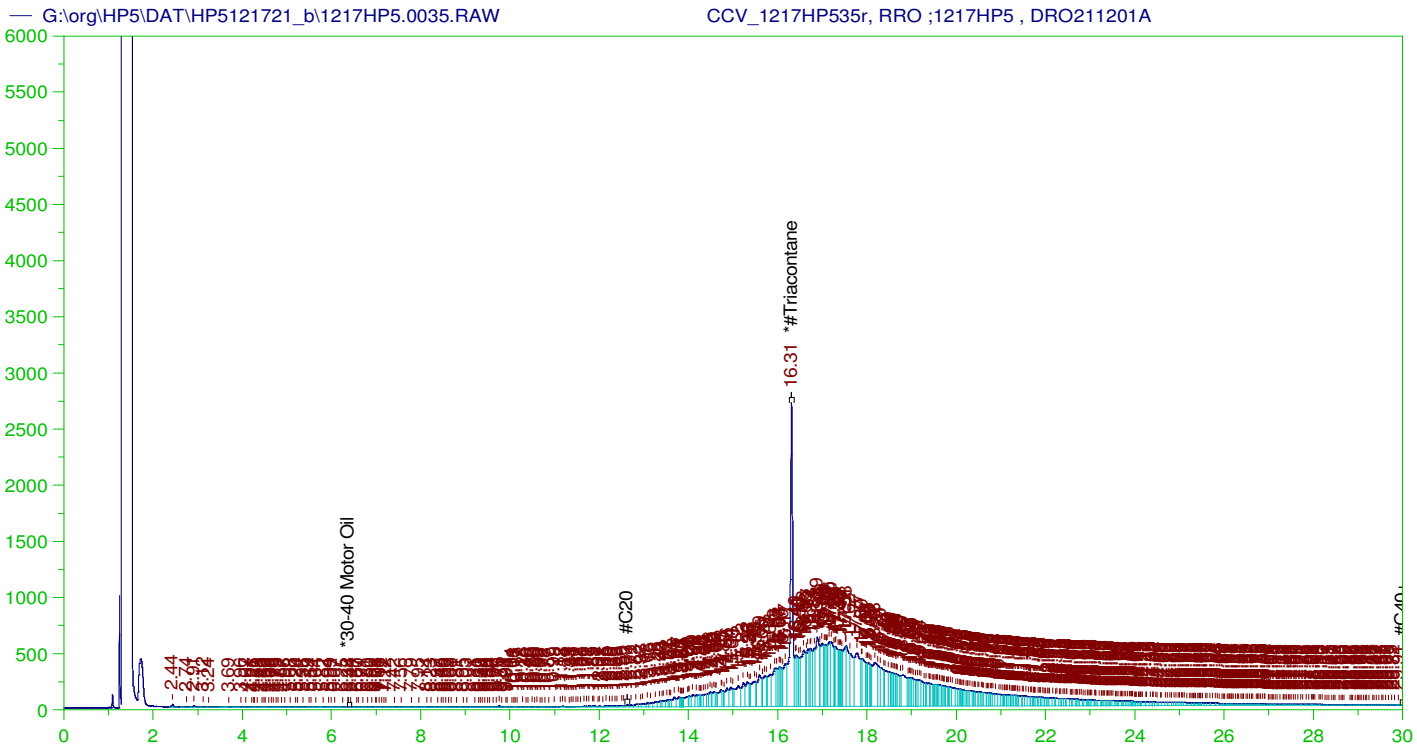



**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

Sample Name: CCV_1217HP535r, RRO ;1217HP5 , DRO211201A
Raw File: G:\org\HP5\DAT\HP5121721_b\1217HP5.0035.RAW
Date & Time Acquired: 12/18/2021 8:53:24 AM
Method File: G:\Org\HP5\Methods\DC_ORO-AK-L%.MET
Calibration File: G:\Org\HP5\Cals\SW8015C_ORO211017AK.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for for ~~Residual~~ TEH (Oil Range) Organics Calculations: 28542.41
Rt range for ~~Residual~~ TEH (Oil Range) Organics: 12.58 to 30.05

| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | |
|---|---|---|---|---|---|
| *#Triacontane | 16.309 | 500. | 350.951 | 70.19 | - |

~~RRO~~ TEH (Oil Range) Area:1.342343E+08 ~~RRO~~ TEH (Oil Range) AMOUNT: 4702.977

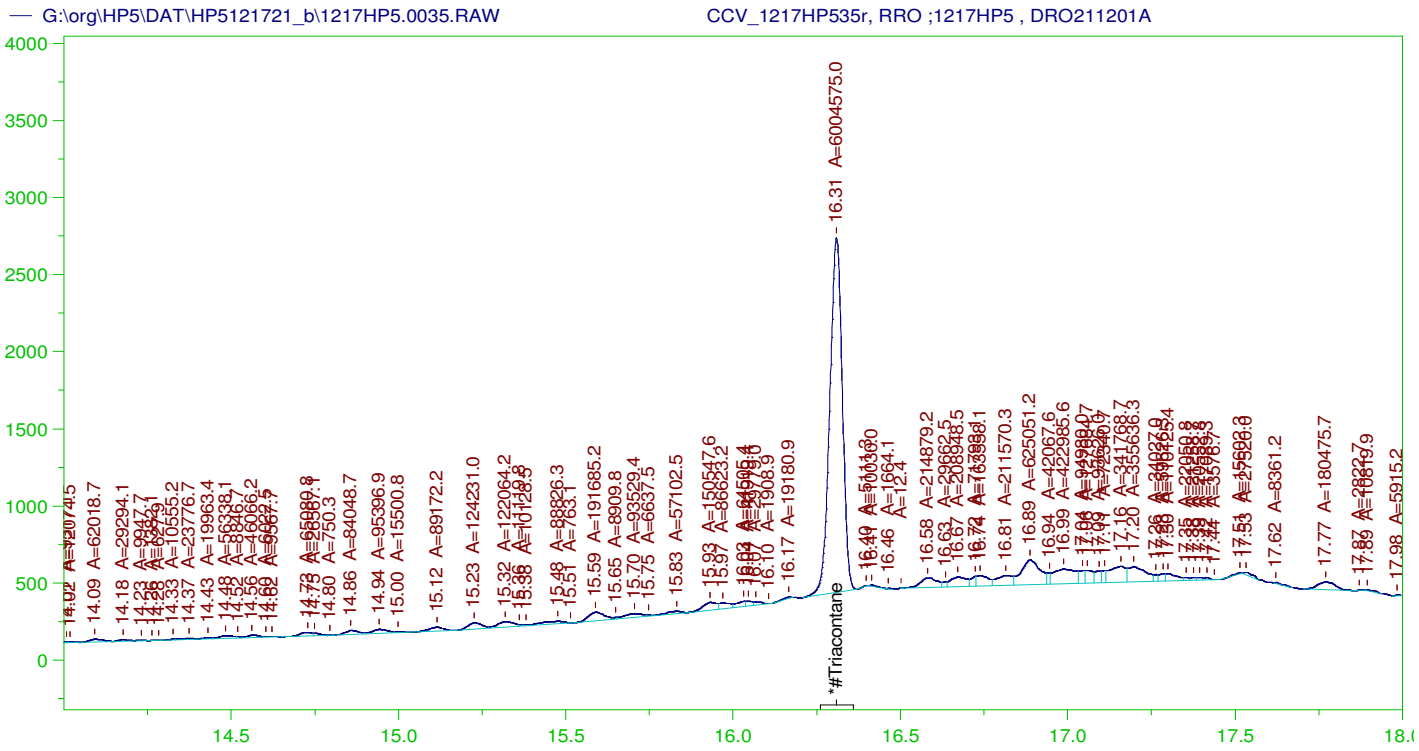
CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5121721_b\1217HP5.0035.RAW

| COMPOUND | ACTUAL(NG) | MEASURED(NG) | %RECOVERY | LIMITS |
|---|---|---|---|---|
| *30-40 Motor Oil | 5000. | .046 | . | 75-125 |

| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | LIMITS |
|---|---|---|---|---|---|
| *#Triacontane | 16.309 | 200. | 350.951 | 175.48 | 75-125 |

AMN 01/07/2022

G:\org\HP5\dat\HP5121721_b\Review\035_CCV_1217HP535r_DC_ORO-AK-L%.xls




**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

Sample Name: CCV_1217HP535r, RRO ;1217HP5 , DRO211201A
Raw File: G:\org\HP5\DAT\HP5121721_b\1217HP5.0035.RAW
Date & Time Acquired: 12/18/2021 8:53:24 AM
Method File: G:\Org\HP5\Methods\DS_ORO-AK-L%.MET
Calibration File: G:\Org\HP5\Cals\SW8015C_ORO211017AK.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 28542.41
Rt range for Residual Range Organics: 12.58 to 30.05

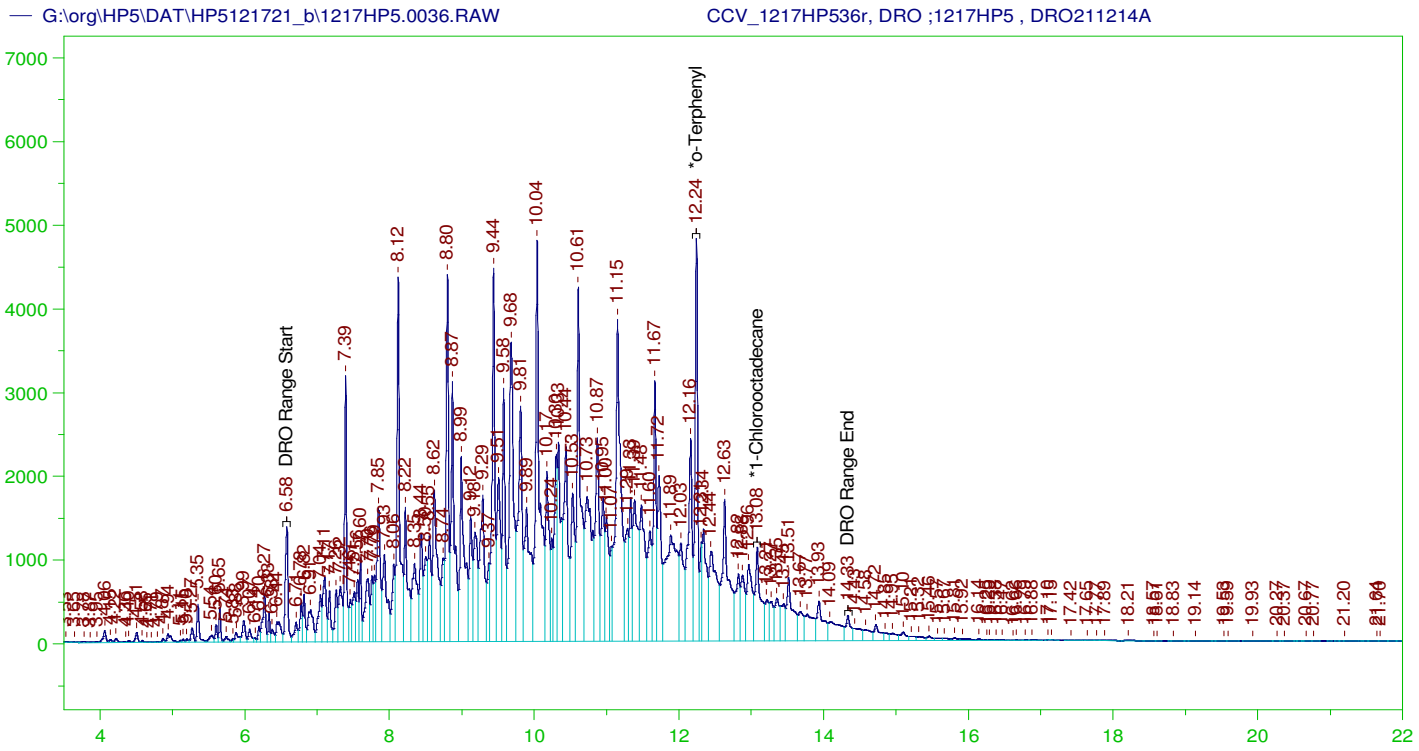
| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | |
|---|---|---|---|---|---|
| *#Triacontane | 16.309 | 500. | 207.554 | 41.51 | - |

RRO Area:6276758 RRO AMOUNT: 219.9099

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5121721_b\1217HP5.0035.RAW

| COMPOUND | ACTUAL(NG) | MEASURED(NG) | %RECOVERY | LIMITS |
|---|---|---|---|---|
| *30-40 Motor Oil | 5000. | .046 | . | 75-125 |

| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | LIMITS |
|---|---|---|---|---|---|
| *#Triacontane | 16.309 | 200. | 207.554 | 103.78 | 75-125 |




**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: CCV_1217HP536r, DRO ;1217HP5 , DRO211214A
Raw File: G:\org\HP5\DAT\HP5121721_b\1217HP5.0036.RAW
Date & Time Acquired: 12/18/2021 9:36:22 AM
Method File: G:\Org\HP5\Methods\DC_8015-24-IJ-L%.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IJ-24.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.53 to 14.39

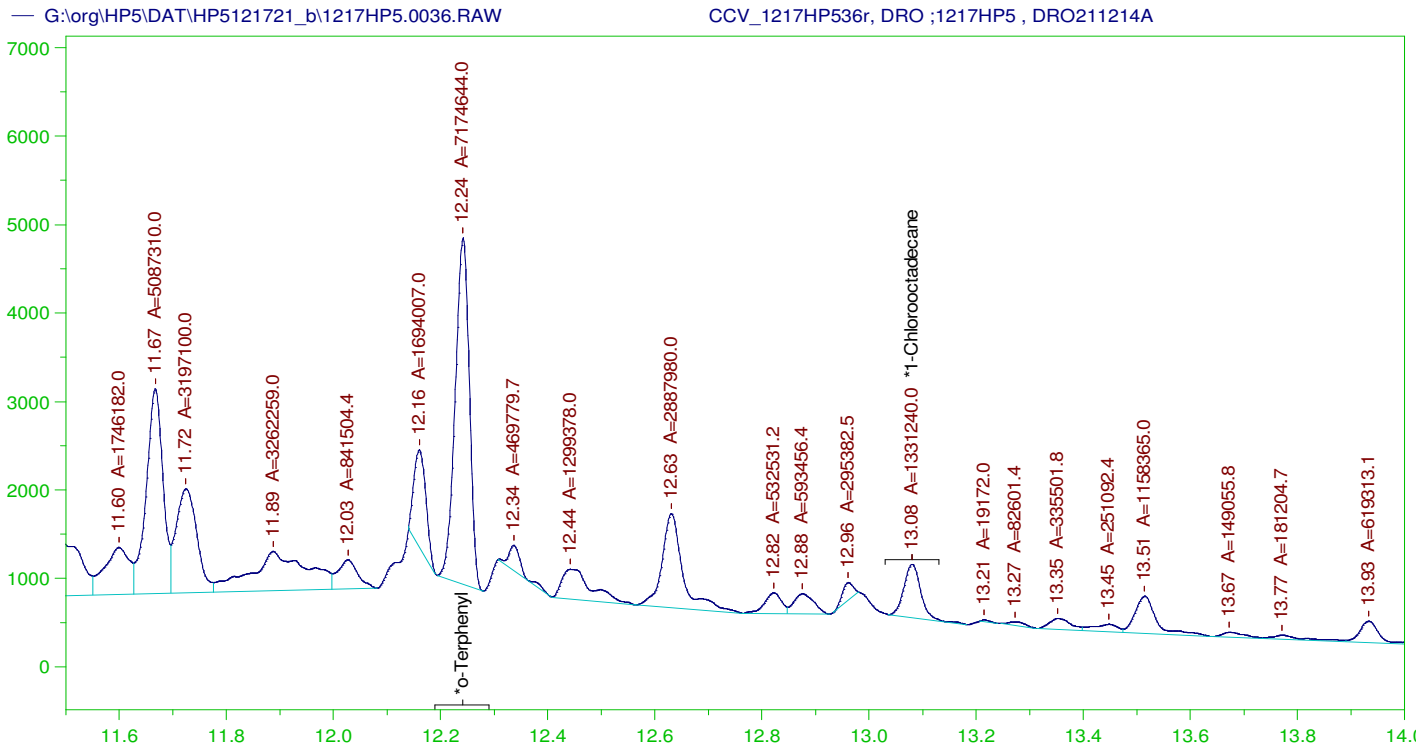
| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | |
|---|---|---|---|---|---|
| *o-Terphenyl | 12.242 | 200. | 332.326 | 166.16 | - |
| *1-Chlorooctadecane | 13.08 | 200. | 159.534 | 79.77 | - |

DRO Area:4.698986E+08 DRO Amount: 14987.27
TEH Area:4.874419E+08 TEH Amount: 15546.8

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5121721_b\1217HP5.0036.RAW

| COMPOUND | ACTUAL(NG) | MEASURED(NG) | %RECOVERY | LIMITS |
|---|---|---|---|---|
| TOTAL DRO | 15000. | 15546.8 | 103.65 | 85-115 |

| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | LIMITS |
|---|---|---|---|---|---|
| *o-Terphenyl | 12.242 | 200. | 332.326 | 166.16 | 85-115 |
| *1-Chlorooctadecane | 13.08 | 200. | 159.534 | 79.77 | 85-115 |




**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**
Sample Name: CCV_1217HP536r, DRO ;1217HP5 , DRO211214A
Raw File: G:\org\HP5\DAT\HP5121721_b\1217HP5.0036.RAW
Date & Time Acquired: 12/18/2021 9:36:22 AM
Method File: G:\Org\HP5\Methods\DS_8015-24-IJ-L#.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IJ-24.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.53 to 14.39

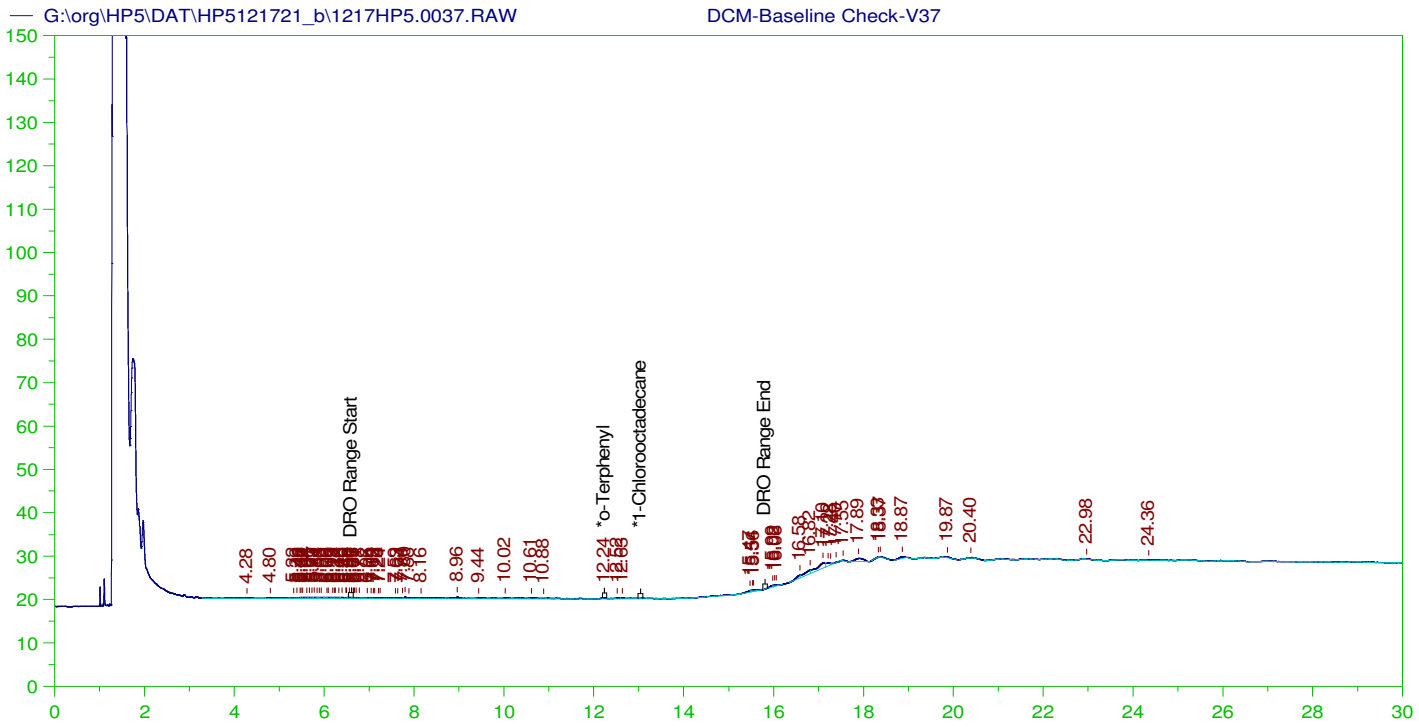
| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | |
|---|---|---|---|---|---|
| *o-Terphenyl | 12.242 | 200. | 202.05 | 101.03 | - |
| *1-Chlorooctadecane | 13.08 | 200. | 37.49 | 18.74 | - |

DRO Area:2.615582E+08 DRO Amount: 8342.316
TEH Area:2.72049E+08 TEH Amount: 8676.914

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5121721_b\1217HP5.0036.RAW

| COMPOUND | ACTUAL(NG) | MEASURED(NG) | %RECOVERY | LIMITS |
|---|---|---|---|---|
| TOTAL DRO | 15000. | 8676.91 | 57.85 | 85-115 |

| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | LIMITS |
|---|---|---|---|---|---|
| *o-Terphenyl | 12.242 | 200. | 202.05 | 101.03 | 85-115 |
| *1-Chlorooctadecane | 13.08 | 200. | 37.49 | 18.74 | 85-115 |




**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

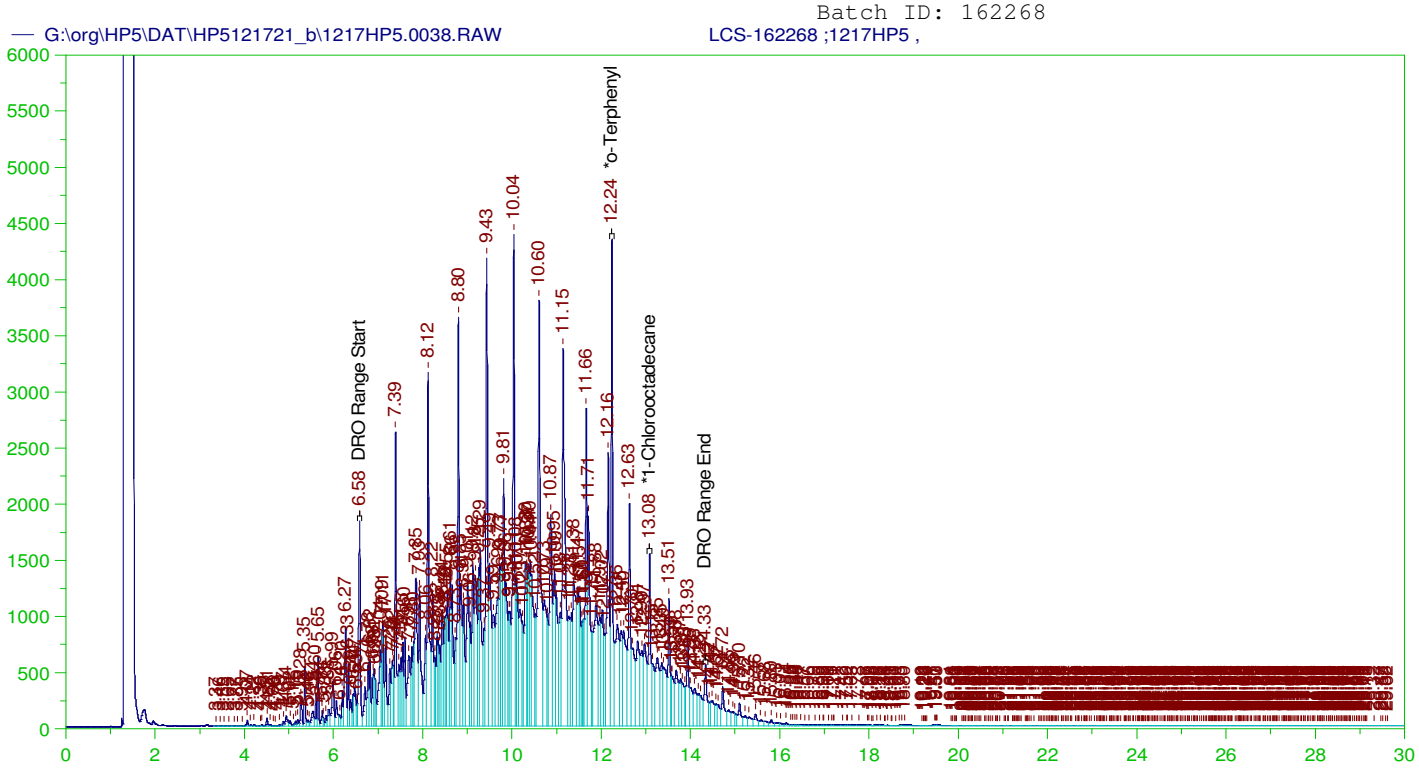
Sample Name: DCM-Baseline Check-V37
Raw File: G:\org\HP5\DAT\HP5121721_b\1217HP5.0037.RAW
Date & Time Acquired: 12/18/2021 10:19:17 AM
Method File: G:\Org\HP5\Methods\DR_8015-IBb-LEXP.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IB.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.54 to 15.86

| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | |
|---|---|---|---|---|---|
| *o-Terphenyl | 12.239 | 200. | .032 | .02 | - |
| *1-Chlorooctadecane | 29.976 | 200. | . | . | - |

DRO Area:63703.41 DRO Amount: 2.0318
TEH Area:166121.1 TEH Amount: 5.29838

Batch ID: 162268




**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

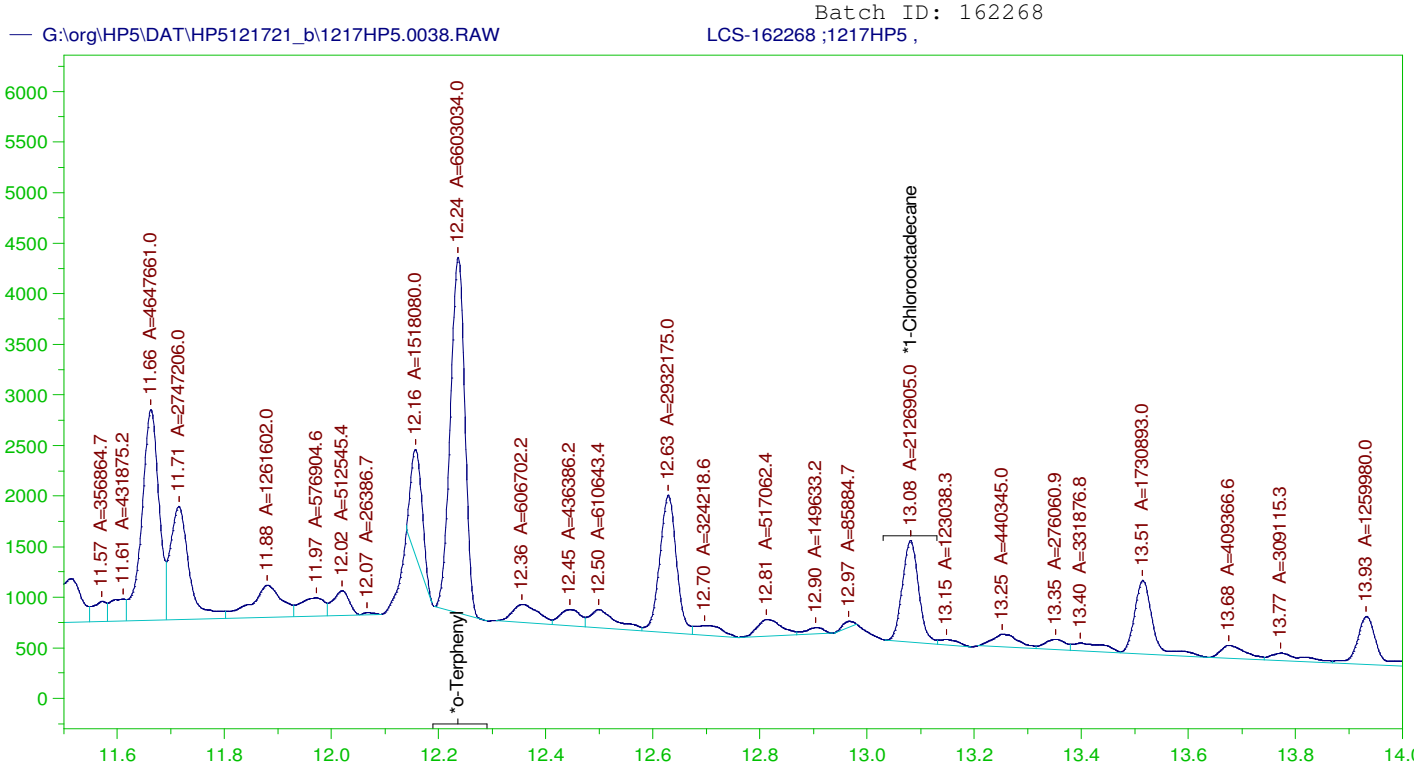
Sample Name: LCS-162268 ;1217HP5 ,
Raw File: G:\org\HP5\DAT\HP5121721_b\1217HP5.0038.RAW
Date & Time Acquired: 12/18/2021 11:01:58 AM
Method File: G:\Org\HP5\Methods\D3_8015-24-IJ-L%.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IJ-24.CAL
Sample Weight: 1000 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.53 to 14.39

| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | |
|---|---|---|---|---|---|
| *o-Terphenyl | 12.236 | .2 | .323 | 161.53 | - |
| *1-Chlorooctadecane | 13.081 | .2 | .148 | 73.83 | - |

DRO Area:4.141588E+08 DRO Amount: 13.20946
TEH Area:4.42878E+08 TEH Amount: 14.12545

Batch ID: 162268




**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

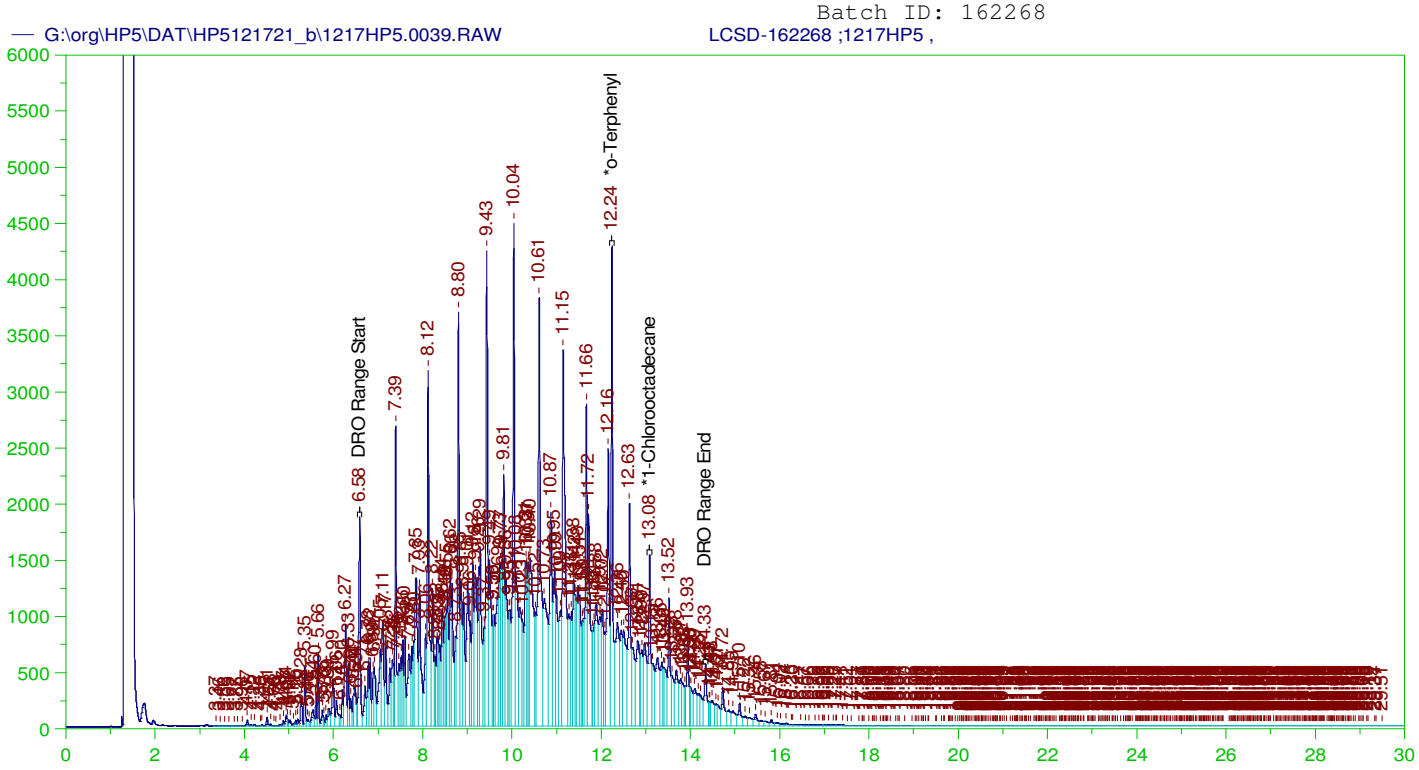
Sample Name: LCS-162268 ;1217HP5 ,
Raw File: G:\org\HP5\DAT\HP5121721_b\1217HP5.0038.RAW
Date & Time Acquired: 12/18/2021 11:01:58 AM
Method File: G:\Org\HP5\Methods\DS_8015-24-IJ-L#.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IJ-24.CAL
Sample Weight: 1000 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.53 to 14.39

| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | |
|---|---|---|---|---|---|
| *o-Terphenyl | 12.236 | .2 | .186 | 92.98 | - |
| *1-Chlorooctadecane | 13.081 | .2 | .06 | 29.95 | - |

DRO Area:2.055301E+08 DRO Amount: 6.555316
TEH Area:2.195418E+08 TEH Amount: 7.002217

Batch ID: 162268




**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

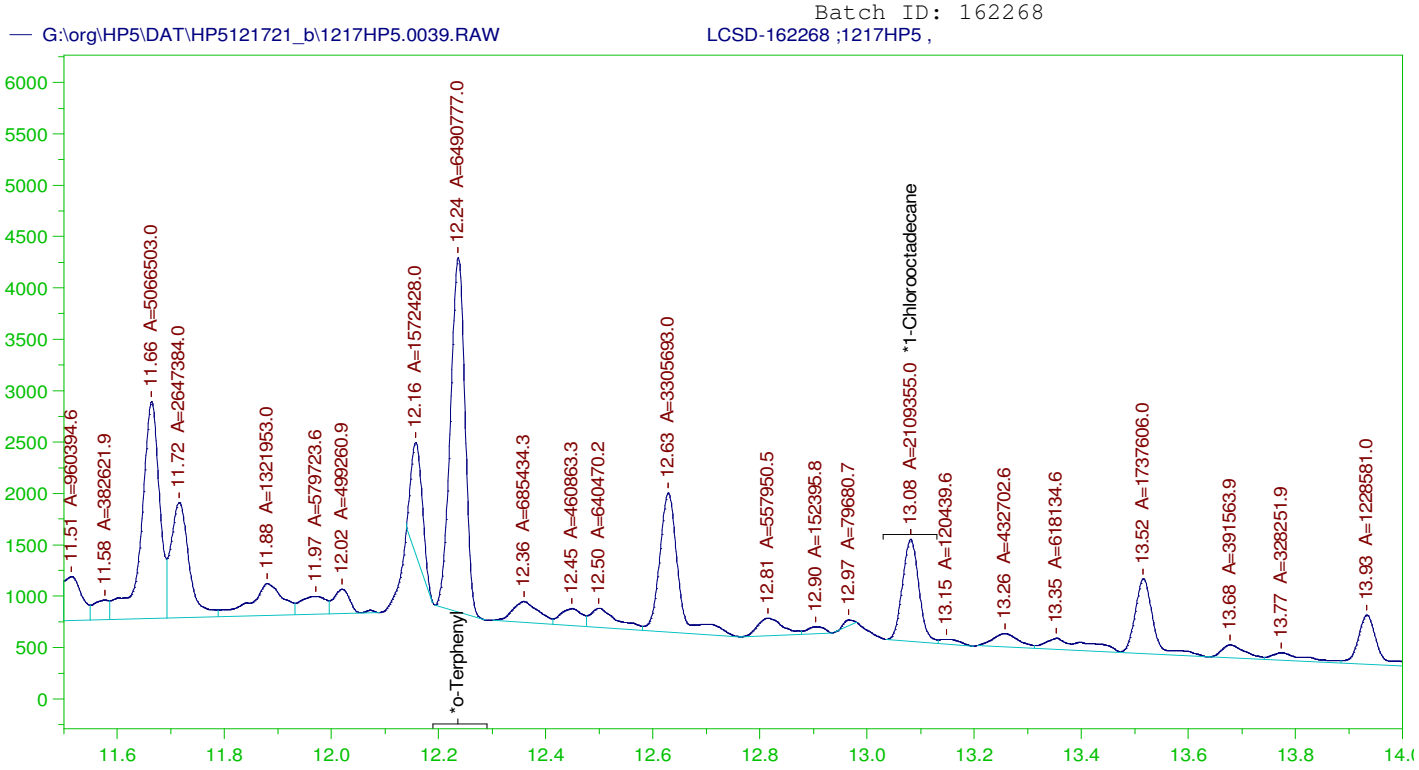
Sample Name: LCSD-162268 ;1217HP5 ,
Raw File: G:\org\HP5\DAT\HP5121721_b\1217HP5.0039.RAW
Date & Time Acquired: 12/18/2021 11:44:49 AM
Method File: G:\Org\HP5\Methods\D3_8015-24-IJ-L%.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IJ-24.CAL
Sample Weight: 1000 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.53 to 14.39

| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | |
|---|---|---|---|---|---|
| *o-Terphenyl | 12.237 | .2 | .331 | 165.25 | - |
| *1-Chlorooctadecane | 13.081 | .2 | .147 | 73.61 | - |

DRO Area:4.179322E+08 DRO Amount: 13.32981
TEH Area:4.470192E+08 TEH Amount: 14.25753

Batch ID: 162268




**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

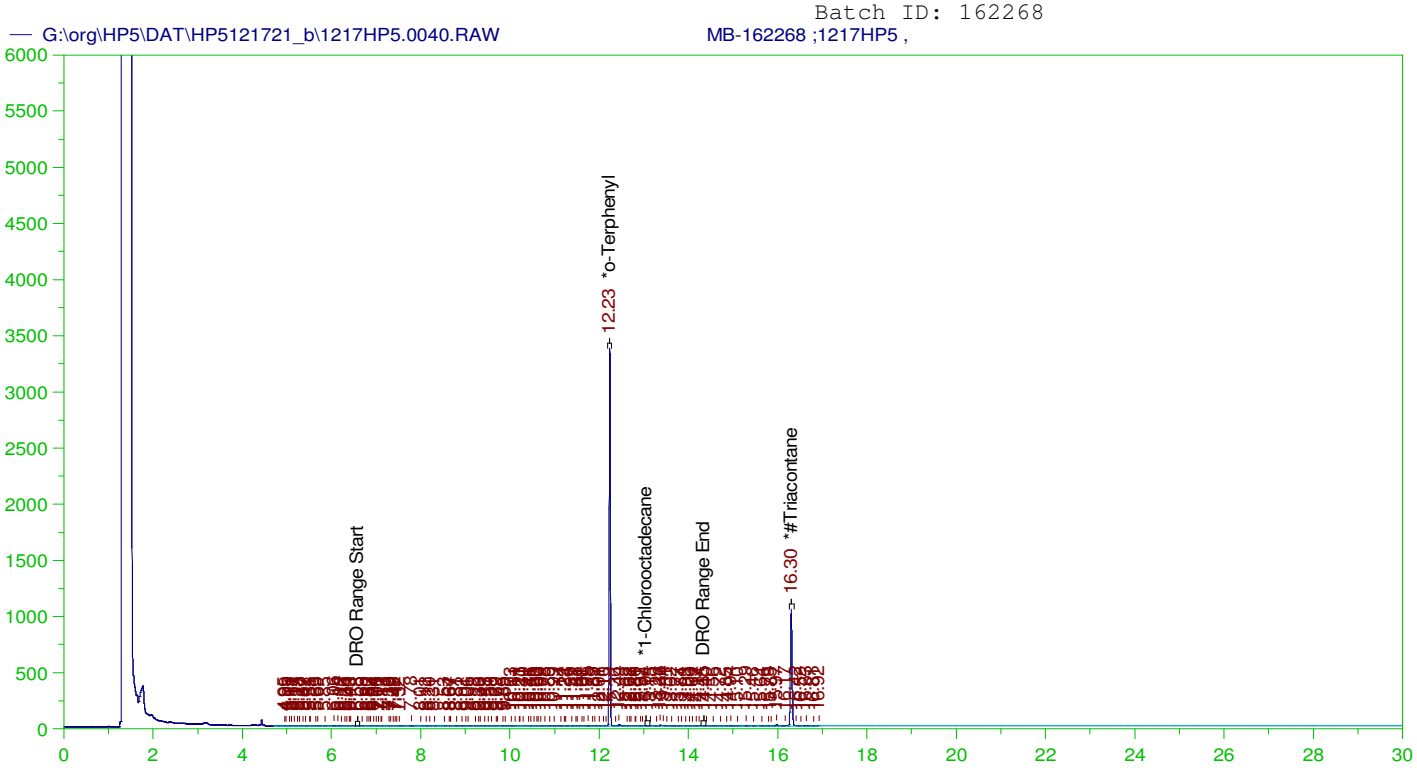
Sample Name: LCSD-162268 ;1217HP5 ,
Raw File: G:\org\HP5\DAT\HP5121721_b\1217HP5.0039.RAW
Date & Time Acquired: 12/18/2021 11:44:49 AM
Method File: G:\Org\HP5\Methods\DS_8015-24-IJ-L#.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IJ-24.CAL
Sample Weight: 1000 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.53 to 14.39

| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | |
|---|---|---|---|---|---|
| *o-Terphenyl | 12.237 | .2 | .183 | 91.4 | - |
| *1-Chlorooctadecane | 13.081 | .2 | .059 | 29.7 | - |

DRO Area:2.070173E+08 DRO Amount: 6.60275
TEH Area:2.216194E+08 TEH Amount: 7.068479

Batch ID: 162268



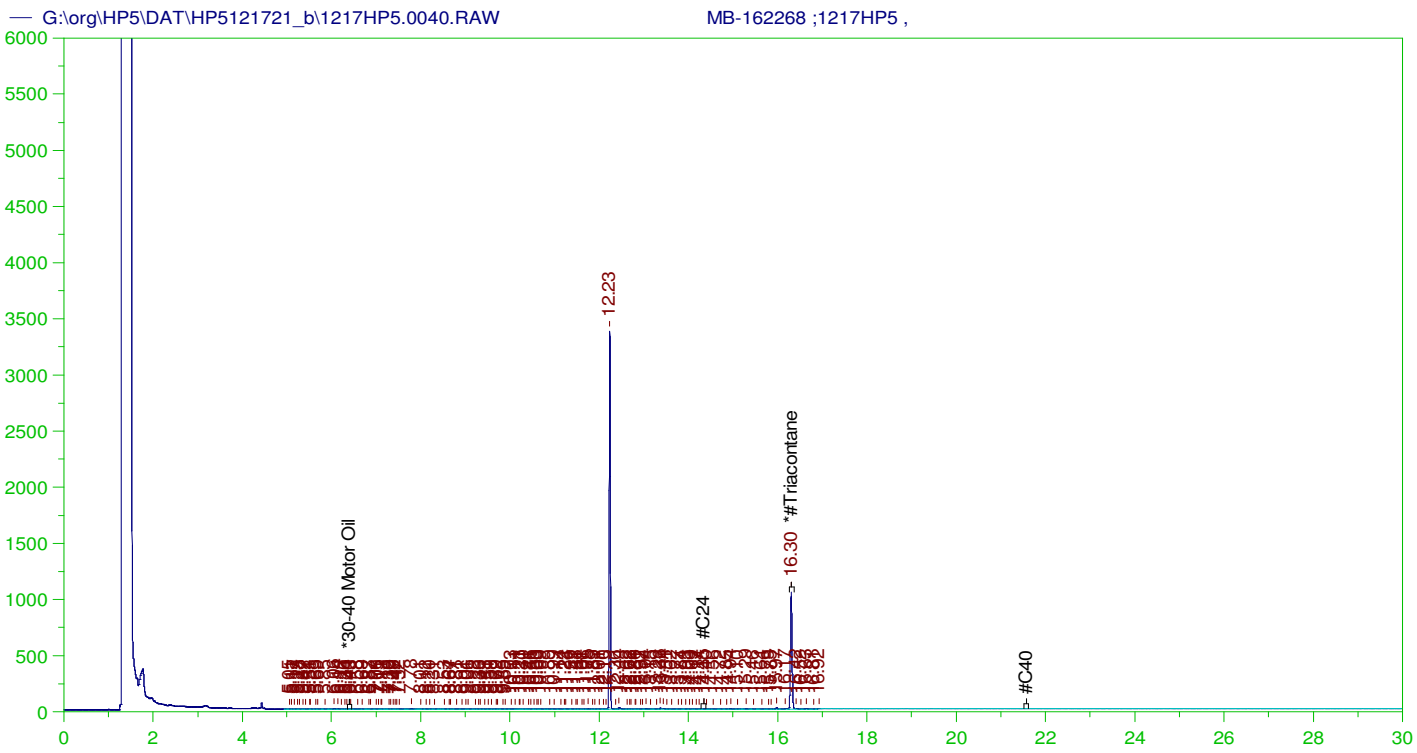

**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: MB-162268 ;1217HP5 ,
Raw File: G:\org\HP5\DAT\HP5121721_b\1217HP5.0040.RAW
Date & Time Acquired: 12/18/2021 12:27:38 PM
Method File: G:\Org\HP5\Methods\DR_8015-C24T-IJ-L%.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IJ-24-Tri.CAL
Sample Weight: 1000 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.53 to 14.39

| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | |
|---|---|---|---|---|---|
| *o-Terphenyl | 12.234 | .2 | .177 | 88.25 | - |
| *1-Chlorooctadecane | 13.041 | .2 | .22 | | - |
| *#Triacontane | 16.301 | .2 | .091 | 45.67 | - |

DRO Area:416258 DRO Amount: 1.327641E-02
TEH Area:687872.1 TEH Amount: 2.193946E-02




**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

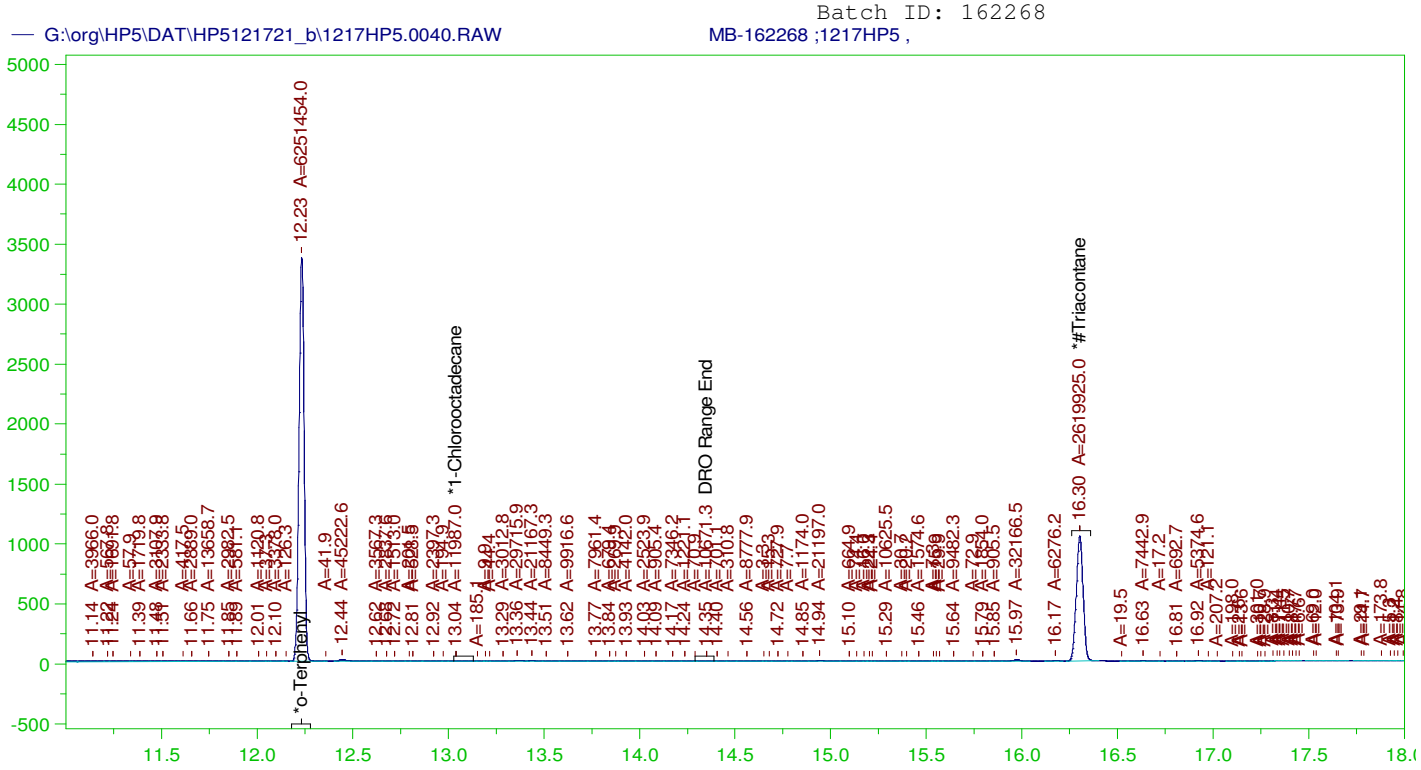
Sample Name: MB-162268 ;1217HP5 ,
Raw File: G:\org\HP5\DAT\HP5121721_b\1217HP5.0040.RAW
Date & Time Acquired: 12/18/2021 12:27:38 PM
Method File: G:\Org\HP5\Methods\DR_OROS-AK-L%.MET
Calibration File: G:\Org\HP5\Cals\SW8015C_ORO211017AK-SAMP.CAL
Sample Weight: 1000 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 28542.41
Rt range for Residual Range Organics: 14.29 to 21.62

| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | |
|---|---|---|---|---|---|
| *#Triacontane | 16.301 | .5 | .091 | 18.27 | - |

RRO Area:150271.3 RRO AMOUNT: 5.264841E-03

Batch ID: 162268




**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: MB-162268 ;1217HP5 ,
Raw File: G:\org\HP5\DAT\HP5121721_b\1217HP5.0040.RAW
Date & Time Acquired: 12/18/2021 12:27:38 PM
Method File: G:\Org\HP5\Methods\DS_8015-C24T-IJ-L#.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IJ-24-Tri.CAL
Sample Weight: 1000 Dilution: 1 S.A.: 1

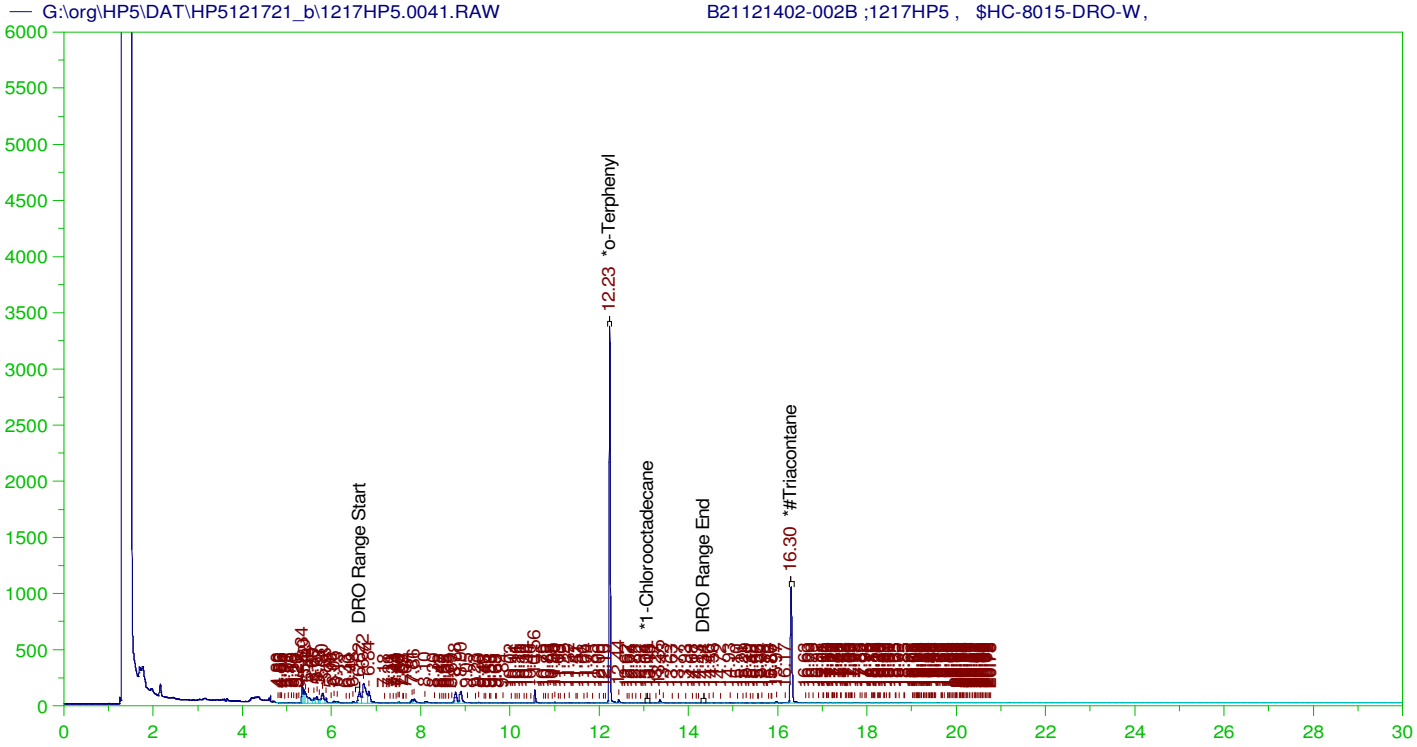
Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.53 to 14.39

| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | |
|---|---|---|---|---|---|
| *o-Terphenyl | 12.234 | .2 | .176 | 88.03 | - |
| *1-Chlorooctadecane | 13.041 | .2 | .17 | 85 | - |
| *#Triacontane | 16.301 | .2 | .091 | 45.28 | - |

DRO Area:344185.2 DRO Amount: 1.097768E-02
TEH Area:906758.9 TEH Amount: 2.892079E-02

**ERH2197 (OWDFMW01)** Batch ID: 162268

G:\org\HP5\DAT\HP5121721_b\1217HP5.0041.RAW B21121402-002B ;1217HP5 , $HC-8015-DRO-W,




**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: B21121402-002B ;1217HP5 , $HC-8015-DRO-W,
Raw File: G:\org\HP5\DAT\HP5121721_b\1217HP5.0041.RAW
Date & Time Acquired: 12/18/2021 1:10:19 PM
Method File: G:\Org\HP5\Methods\DR_8015-121741-IJ-L%.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IJ-24-Tri.CAL
Sample Weight: 960 Dilution: 1 S.A.: 1

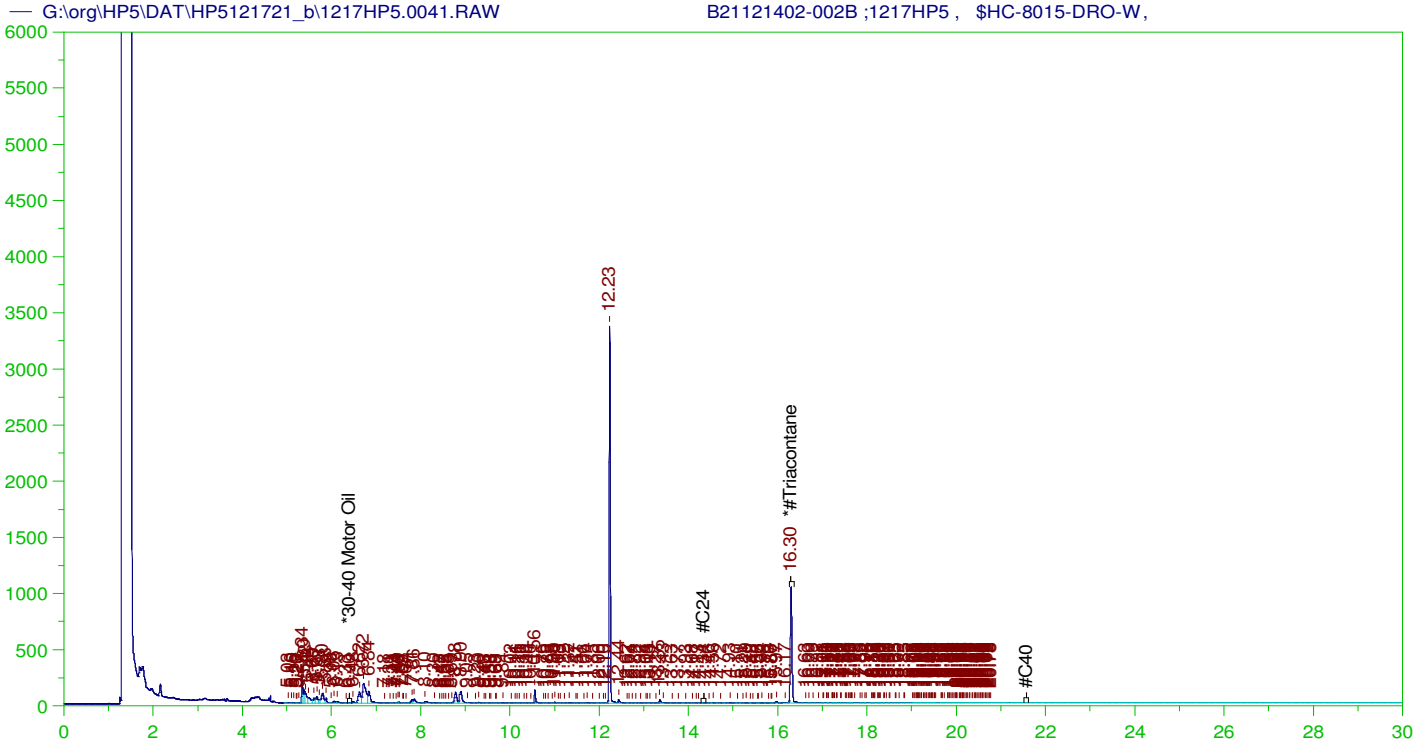
Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.53 to 14.39

| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | |
|---|---|---|---|---|---|
| *o-Terphenyl | 12.232 | .208 | .188 | 90.22 | - |
| *1-Chlorooctadecane | 13.082 | .208 | . | .01 | - |
| *#Triacontane | 16.298 | .208 | .099 | 47.43 | - |

DRO Area:3897191 DRO Amount: 0.1294788
TEH Area:7150422 TEH Amount: 0.2375629

**ERH2197 (OWDFMW01)** Batch ID: 162268

G:\org\HP5\DAT\HP5121721_b\1217HP5.0041.RAW B21121402-002B ;1217HP5 , $HC-8015-DRO-W,




**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

Sample Name: B21121402-002B ;1217HP5 , $HC-8015-DRO-W,
Raw File: G:\org\HP5\DAT\HP5121721_b\1217HP5.0041.RAW
Date & Time Acquired: 12/18/2021 1:10:19 PM
Method File: G:\Org\HP5\Methods\DR_OROS-121741-AK-L%.MET
Calibration File: G:\Org\HP5\Cals\SW8015C_ORO211017AK-SAMP.CAL
Sample Weight: 960 Dilution: 1 S.A.: 1

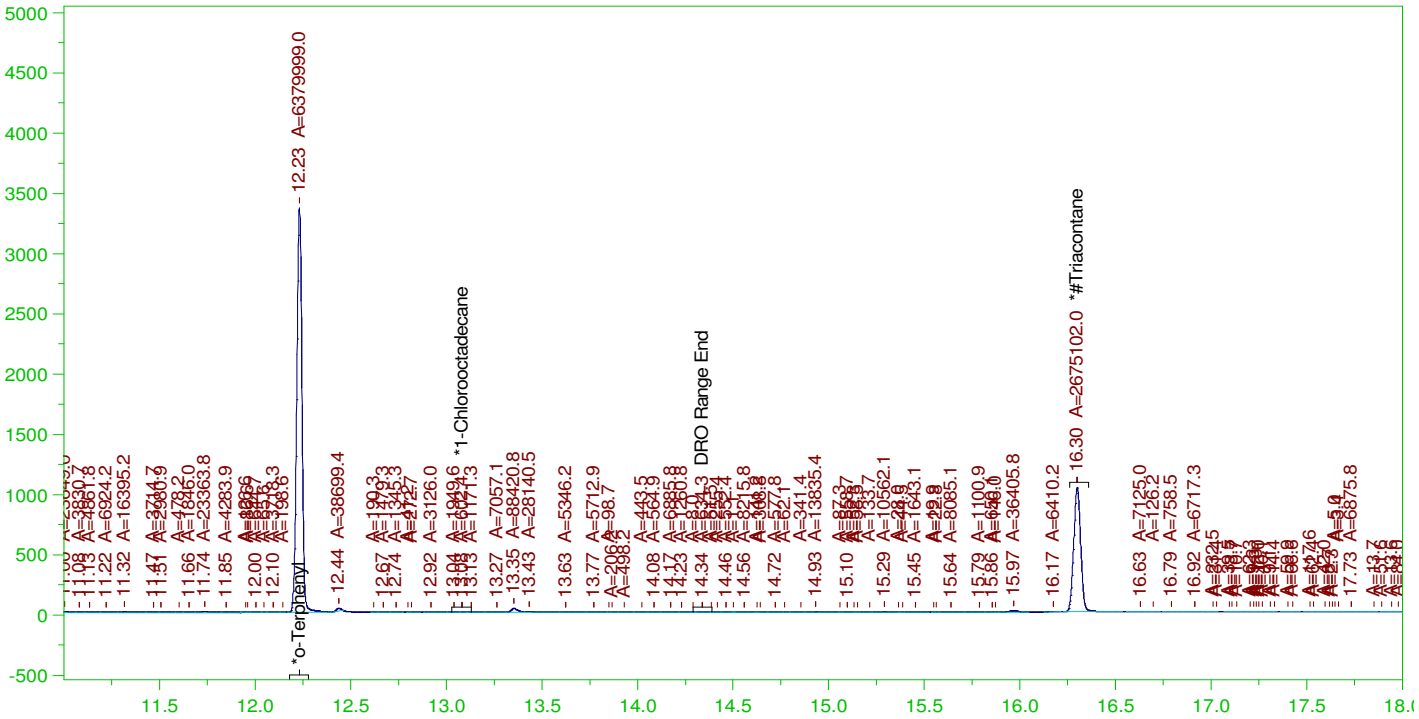
Mean RF for for Residual Range Organics Calculations: 28542.41
Rt range for Residual Range Organics: 14.29 to 21.62

| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | |
|---|---|---|---|---|---|
| *#Triacontane | 16.298 | .521 | .099 | 18.97 | - |

RRO Area:884390.1 RRO AMOUNT: 3.227617E-02

**ERH2197 (OWDFMW01)** Batch ID: 162268

G:\org\HP5\DAT\HP5121721_b\1217HP5.0041.RAW B21121402-002B ;1217HP5 , $HC-8015-DRO-W,



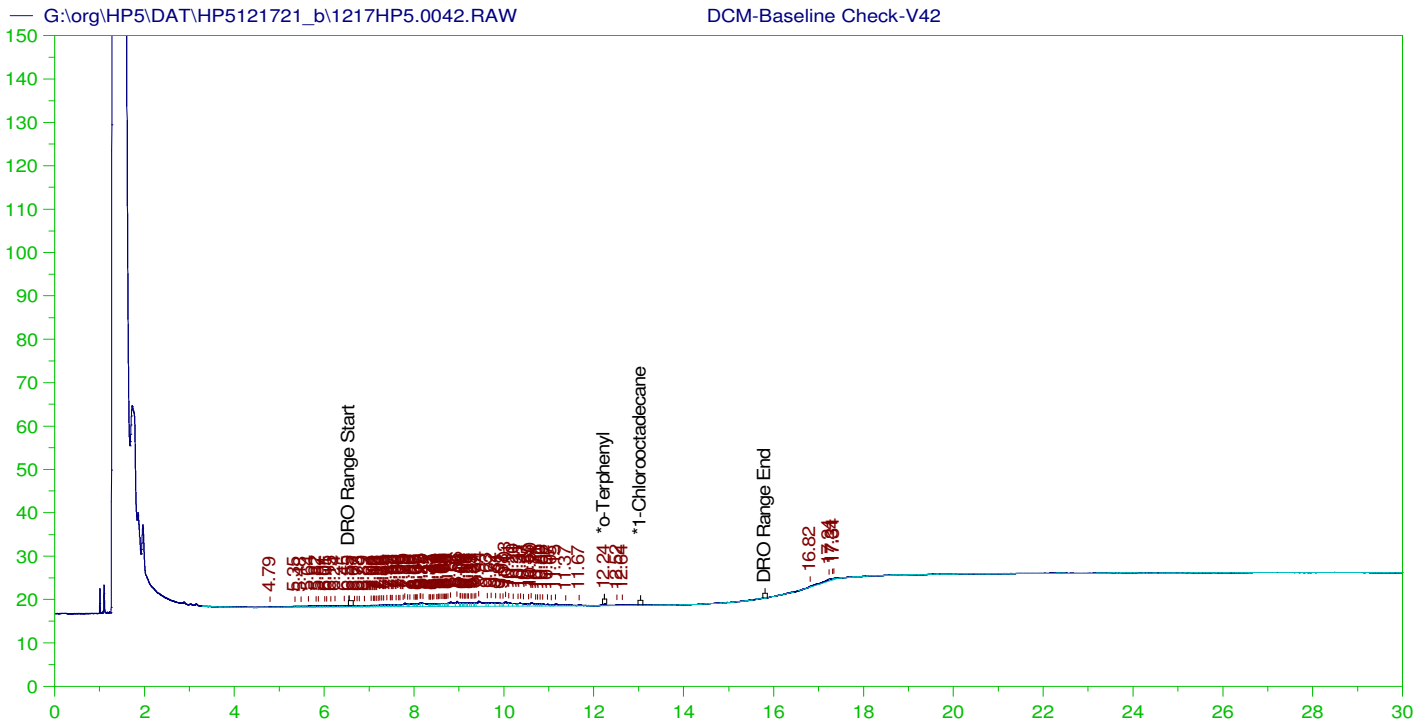

**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: B21121402-002B ;1217HP5 , $HC-8015-DRO-W,
Raw File: G:\org\HP5\DAT\HP5121721_b\1217HP5.0041.RAW
Date & Time Acquired: 12/18/2021 1:10:19 PM
Method File: G:\Org\HP5\Methods\DS_8015-121741-IJ-L#.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IJ-24-Tri.CAL
Sample Weight: 960 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.53 to 14.39

| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | |
|---|---|---|---|---|---|
| *o-Terphenyl | 12.232 | .208 | .187 | 89.84 | - |
| *1-Chlorooctadecane | 13.082 | .208 | .01 | | - |
| *#Triacontane | 16.298 | .208 | .096 | 46.23 | - |

DRO Area:3802501 DRO Amount: 0.1263329
TEH Area:7510209 TEH Amount: 0.2495164




**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: DCM-Baseline Check-V42
Raw File: G:\org\HP5\DAT\HP5121721_b\1217HP5.0042.RAW
Date & Time Acquired: 12/18/2021 1:53:01 PM
Method File: G:\Org\HP5\Methods\DR_8015-IBb-LEXP.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IB.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

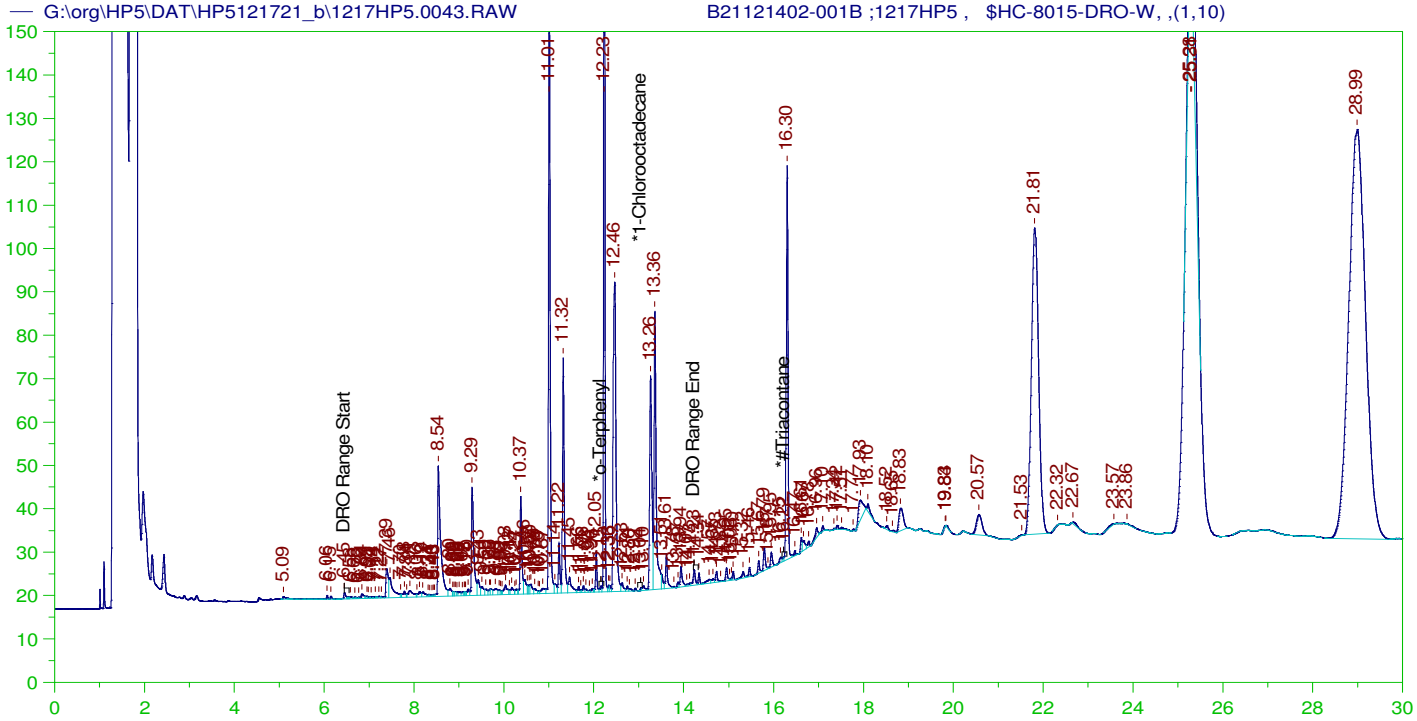
Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.54 to 15.86

| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | |
|---|---|---|---|---|---|
| *o-Terphenyl | 12.239 | 200. | .037 | .02 | - |
| *1-Chlorooctadecane | 29.979 | 200. | . | . | - |

DRO Area:166039.6 DRO Amount: 5.29578
TEH Area:204974.1 TEH Amount: 6.537584

**ERH2186 (RHMW06)** Batch ID: 162268

G:\org\HP5\DAT\HP5121721_b\1217HP5.0043.RAW B21121402-001B ;1217HP5 , $HC-8015-DRO-W, ,(1,10)



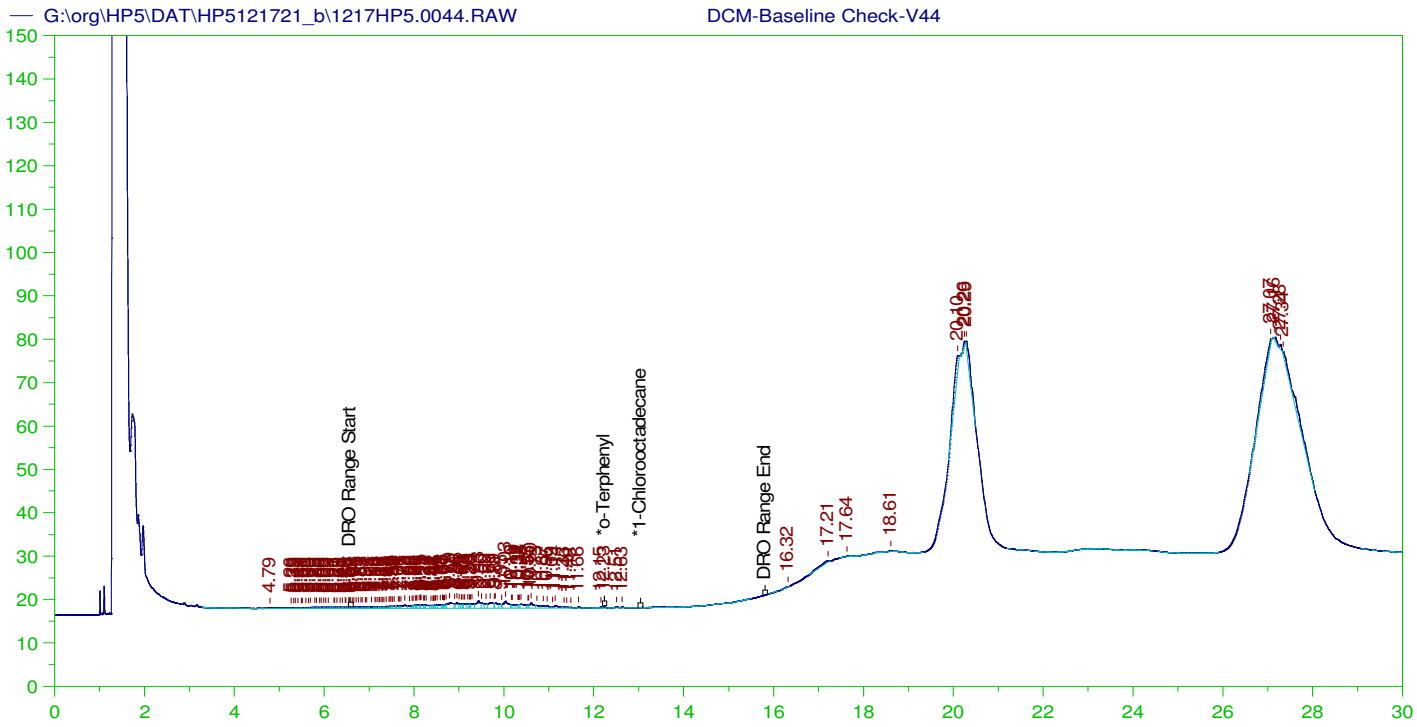

**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: B21121402-001B ;1217HP5 , $HC-8015-DRO-W, ,(1,10)
Raw File: G:\org\HP5\DAT\HP5121721_b\1217HP5.0043.RAW
Date & Time Acquired: 12/18/2021 2:35:45 PM
Method File: G:\Org\HP5\Methods\DR_8015-C24T-II-L0.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102II-24-Tri.CAL
Sample Weight: 990 Dilution: 10 S.A.: 1

Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.45 to 14.32

| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | |
|---|---|---|---|---|---|
| *o-Terphenyl | 12.154 | .202 | .001 | .53 | - |
| *1-Chlorooctadecane | 13.042 | .202 | . | .23 | - |
| *#Triacontane | 16.223 | .202 | .001 | .38 | - |

DRO Area:2345148 DRO Amount: 0.7555329
TEH Area:6379919 TEH Amount: 2.055409




**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: DCM-Baseline Check-V44
Raw File: G:\org\HP5\DAT\HP5121721_b\1217HP5.0044.RAW
Date & Time Acquired: 12/18/2021 3:18:22 PM
Method File: G:\Org\HP5\Methods\DR_8015-IBb-LEXP.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IB.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

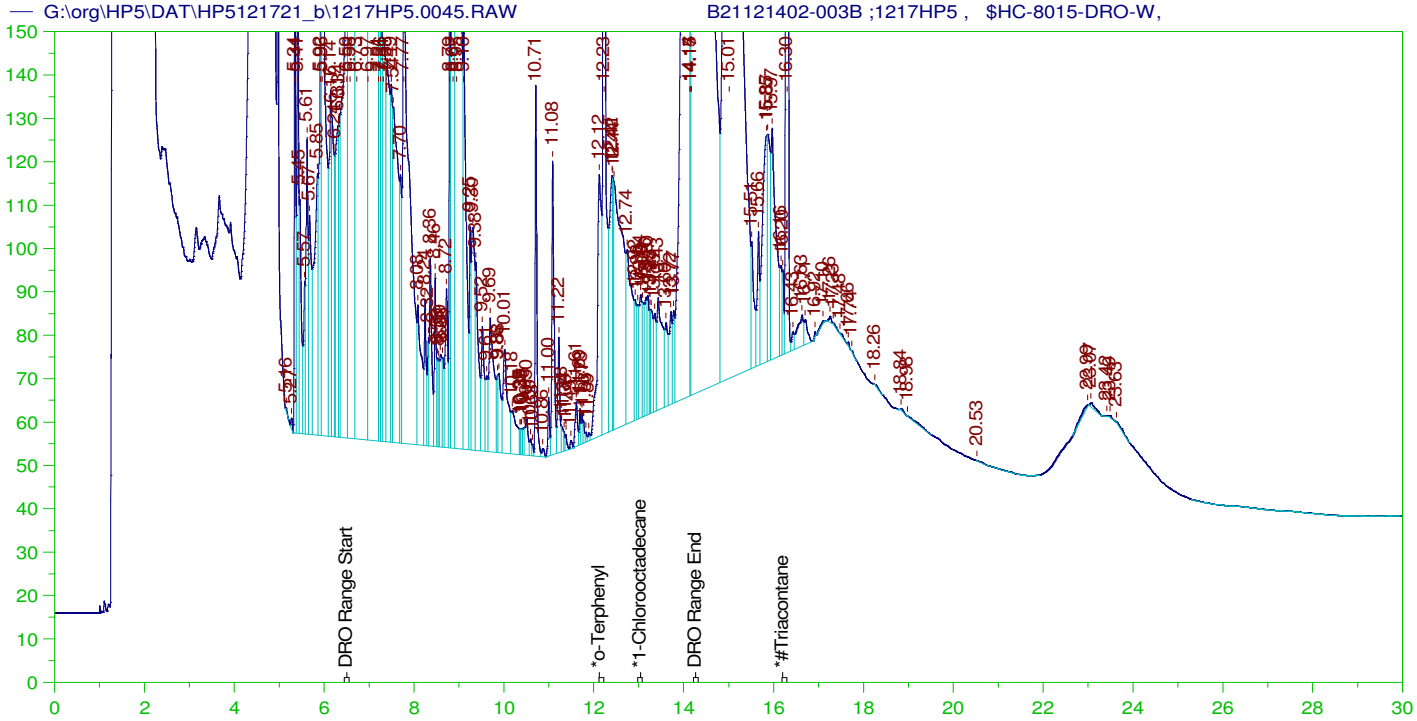
Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.54 to 15.86

| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | |
|---|---|---|---|---|---|
| *o-Terphenyl | 12.234 | 200. | .043 | .02 | - |
| *1-Chlorooctadecane | 29.957 | 200. | . | . | - |

DRO Area:222257.3 DRO Amount: 7.088826
TEH Area:428314.8 TEH Amount: 13.66096

**ERH2203 (RHMW14-03)** Batch ID: 162268

G:\org\HP5\DAT\HP5121721_b\1217HP5.0045.RAW B21121402-003B ;1217HP5 , $HC-8015-DRO-W,



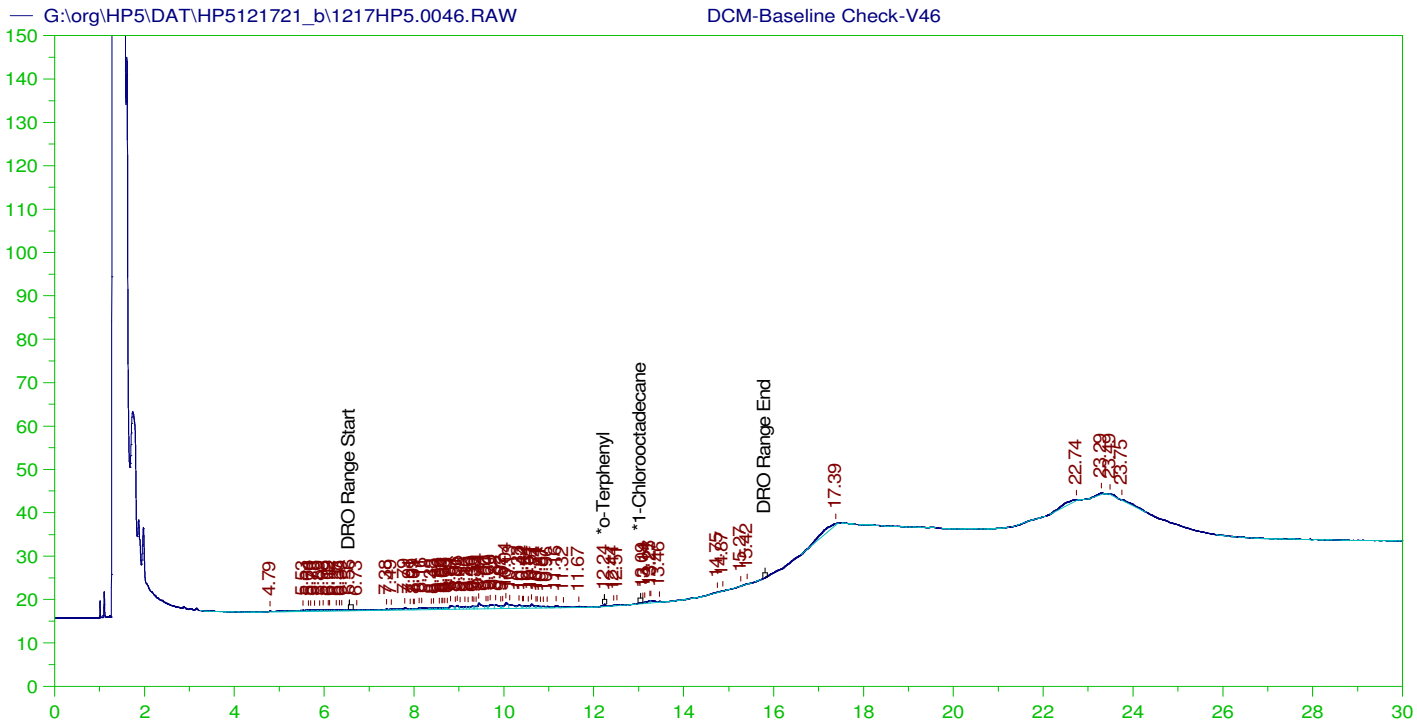

**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: B21121402-003B ;1217HP5 , $HC-8015-DRO-W,
Raw File: G:\org\HP5\DAT\HP5121721_b\1217HP5.0045.RAW
Date & Time Acquired: 12/18/2021 4:00:59 PM
Method File: G:\Org\HP5\Methods\DR_8015-C24T-II-L0.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102II-24-Tri.CAL
Sample Weight: 1020 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.45 to 14.32

| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | |
|---|---|---|---|---|---|
| *o-Terphenyl | 12.122 | .196 | .011 | 5.42 | - |
| *1-Chlorooctadecane | 13.039 | .196 | .003 | 1.74 | - |
| *#Triacontane | 16.205 | .196 | .002 | .83 | - |

DRO Area:3.818759E+07 DRO Amount: 1.194099
TEH Area:5.174431E+07 TEH Amount: 1.618008




**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

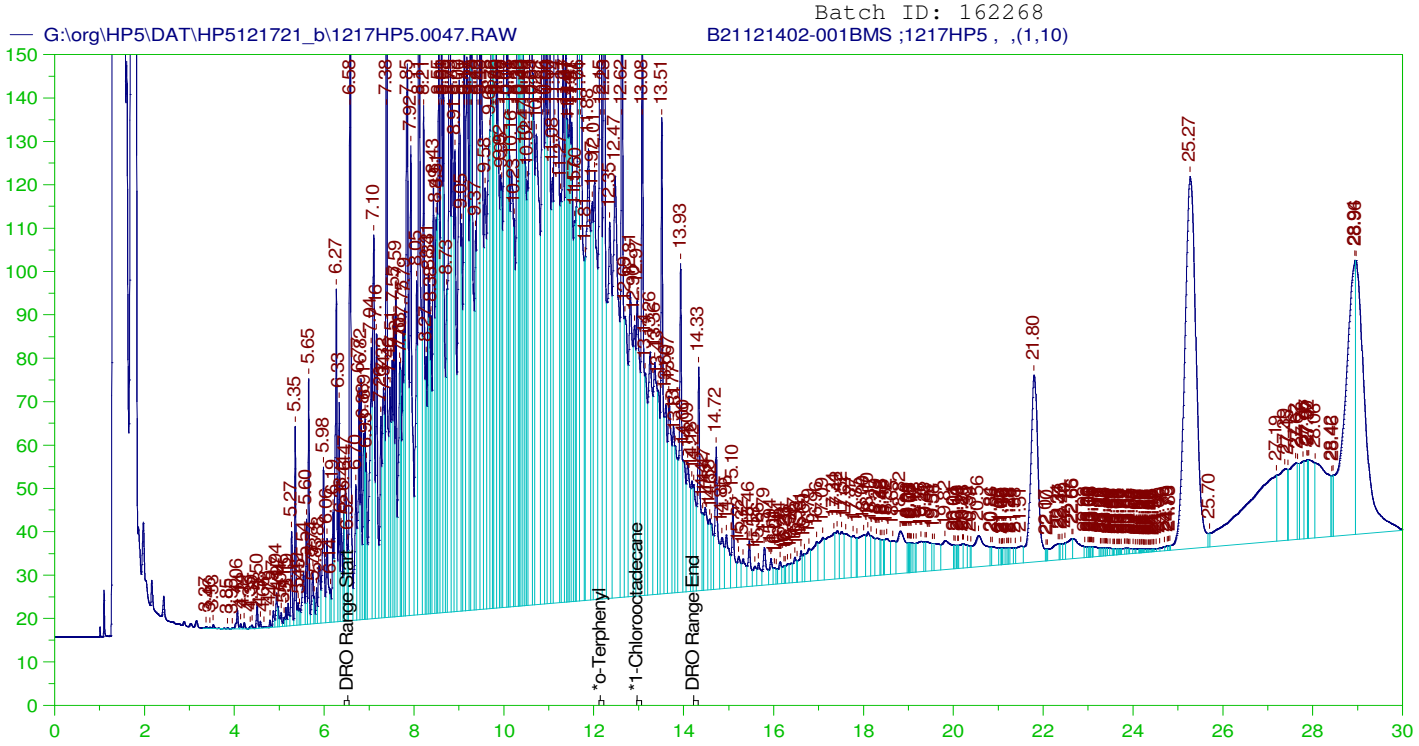
Sample Name: DCM-Baseline Check-V46
Raw File: G:\org\HP5\DAT\HP5121721_b\1217HP5.0046.RAW
Date & Time Acquired: 12/18/2021 4:43:40 PM
Method File: G:\Org\HP5\Methods\DR_8015-IBb-LEXP.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IB.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.54 to 15.86

| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | |
|---|---|---|---|---|---|
| *o-Terphenyl | 12.237 | 200. | .039 | .02 | - |
| *1-Chlorooctadecane | 29.941 | 200. | . | . | - |

DRO Area:142843.7 DRO Amount: 4.555955
TEH Area:230264.8 TEH Amount: 7.344222

Batch ID: 162268



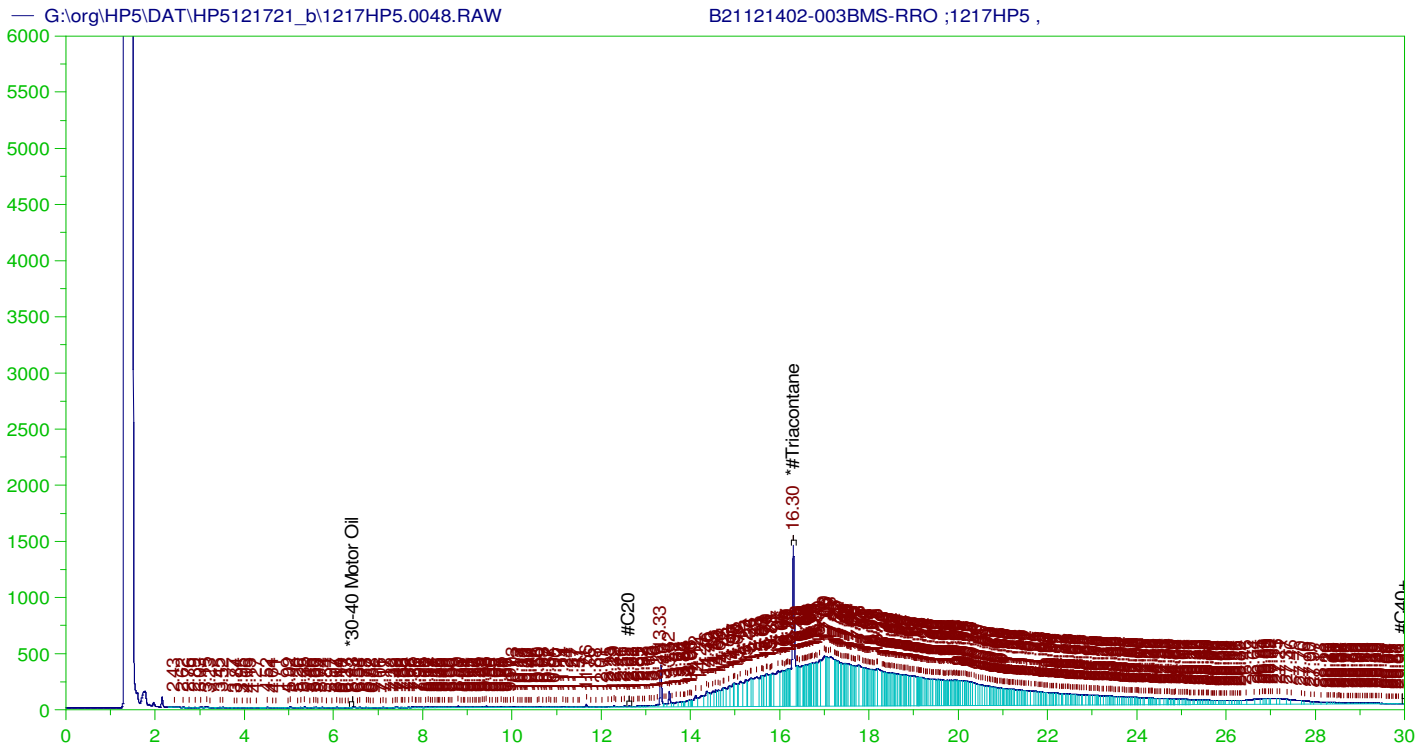

**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: B21121402-001BMS ;1217HP5 , ,(1,10)
Raw File: G:\org\HP5\DAT\HP5121721_b\1217HP5.0047.RAW
Date & Time Acquired: 12/18/2021 5:26:38 PM
Method File: G:\Org\HP5\Methods\D3_8015-24-II-L0.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102II-24.CAL
Sample Weight: 1000 Dilution: 10 S.A.: 1

Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.45 to 14.32

| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | |
|---|---|---|---|---|---|
| *o-Terphenyl | 12.15 | .2 | .232 | 115.91 | - |
| *1-Chlorooctadecane | 12.965 | .2 | .101 | 50.51 | - |

DRO Area:4.006893E+07 DRO Amount: 12.77986
TEH Area:5.093151E+07 TEH Amount: 16.24444




**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

Sample Name: B21121402-003BMS-RRO ;1217HP5 ,
Raw File: G:\org\HP5\DAT\HP5121721_b\1217HP5.0048.RAW
Date & Time Acquired: 12/18/2021 6:09:45 PM
Method File: G:\Org\HP5\Methods\D3_ORO-AK-L%.MET
Calibration File: G:\Org\HP5\Cals\SW8015C_ORO211017AK.CAL
Sample Weight: 1050 Dilution: 1 S.A.: 1

Mean RF for for ~~Residual~~ TEH (Oil Range) Organics Calculations: 28542.41
Rt range for ~~Residual~~ TEH (Oil Range) Organics: 12.58 to 30.05

| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | |
|---|---|---|---|---|---|
| *#Triacontane | 16.304 | .476 | .176 | 36.94 | - |

~~RRO~~ TEH (Oil Range) Area:1.40403E+08 ~~RRO~~ TEH (Oil Range) AMOUNT: 4.684857

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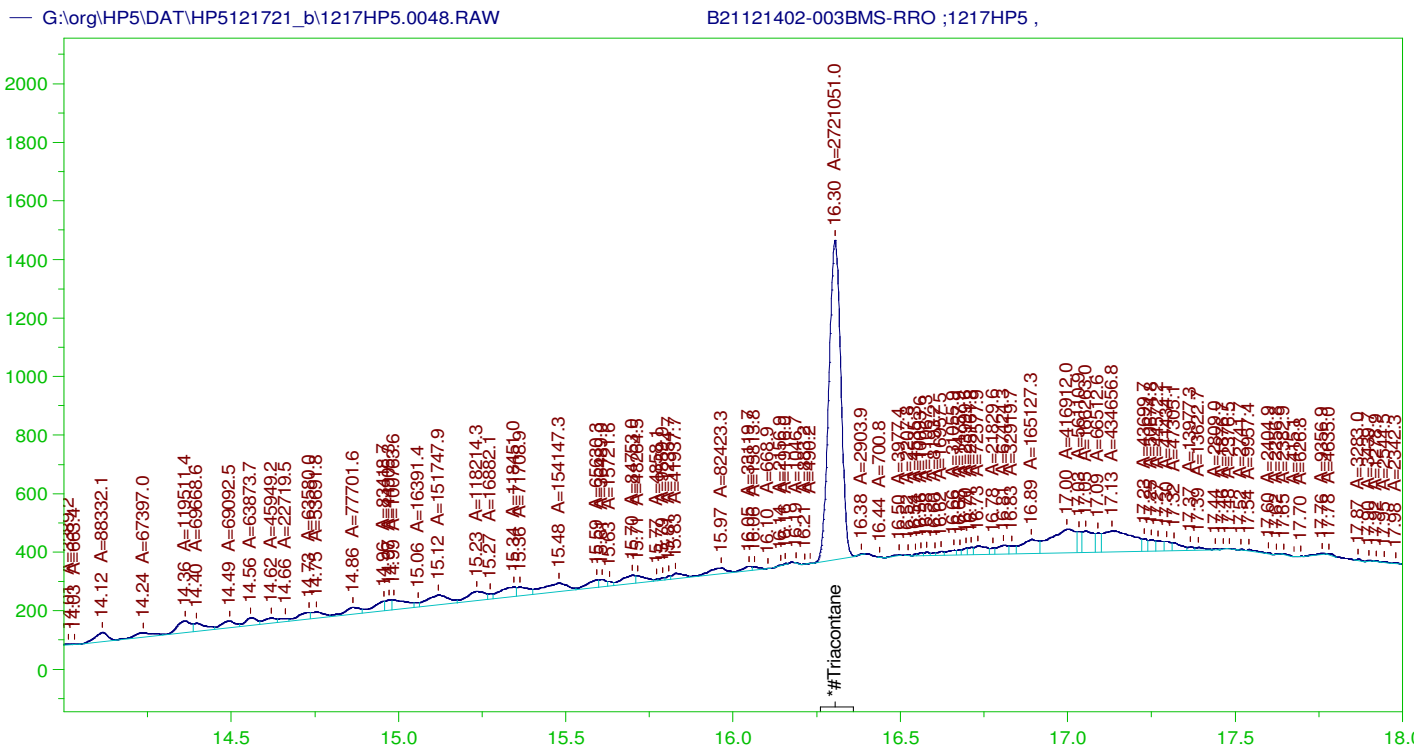
G:\org\HP5\dat\HP5121721_b\Review\048_B21121402-003BMS-RRO_D3_ORO-AK-L%.xls



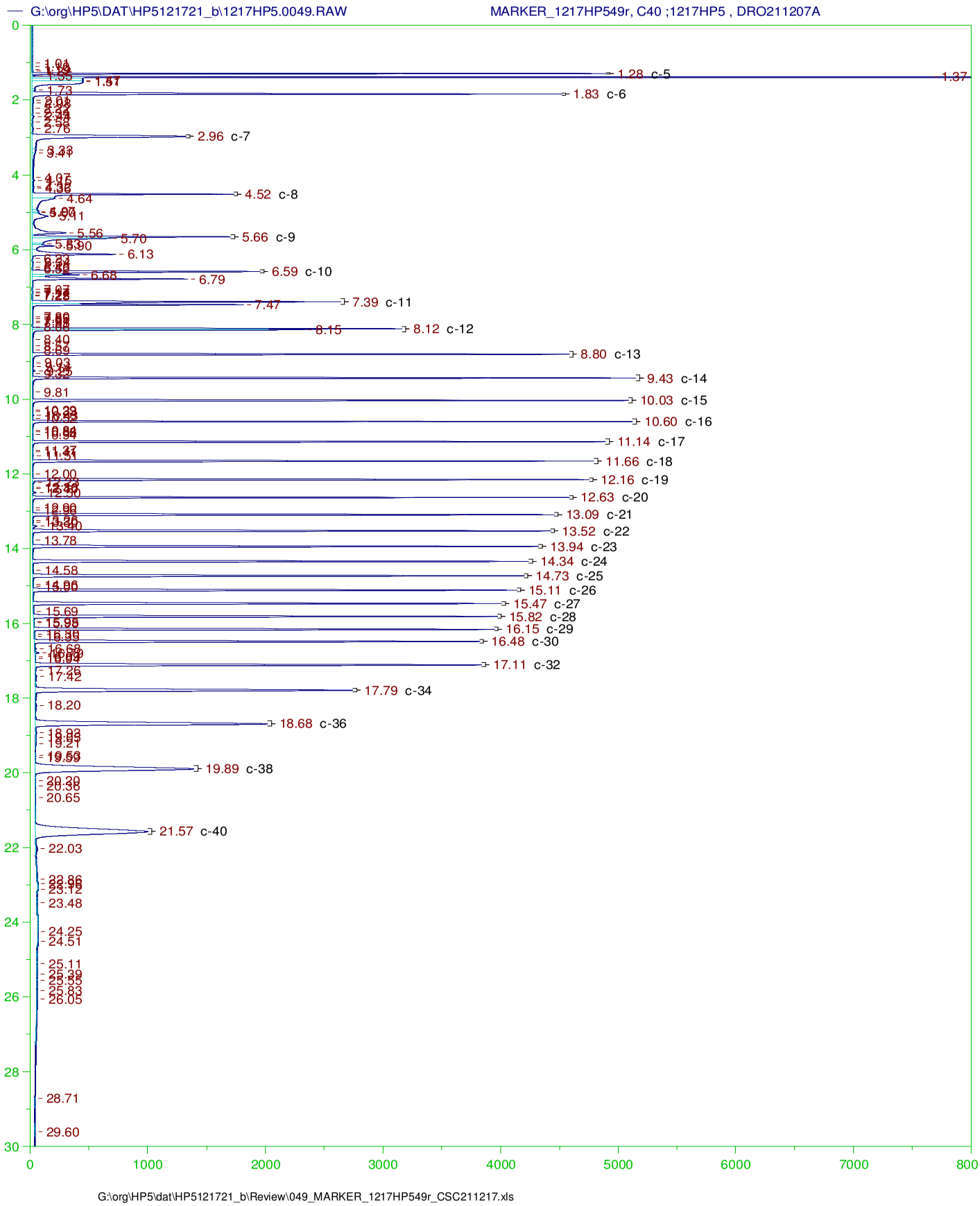

**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

Sample Name: B21121402-003BMS-RRO ;1217HP5 ,
Raw File: G:\org\HP5\DAT\HP5121721_b\1217HP5.0048.RAW
Date & Time Acquired: 12/18/2021 6:09:45 PM
Method File: G:\Org\HP5\Methods\DS_ORO-AK-L%.MET
Calibration File: G:\Org\HP5\Cals\SW8015C_ORO211017AK.CAL
Sample Weight: 1050 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 28542.41
Rt range for Residual Range Organics: 12.58 to 30.05

| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | |
|---|---|---|---|---|---|
| *#Triacontane | 16.304 | .476 | .09 | 18.81 | - |

RRO Area:5533653 RRO AMOUNT: 0.1846426


G:\org\HP5\DAT\HP5121721_b\1217HP5.0049.RAW
MARKER_1217HP549r, C40 ;1217HP5 , DRO211207A
1.28 c-5
1.37
1.83 c-6
2.96 c-7
4.52 c-8
4.64
5.56
5.66 c-9
5.70
6.13
6.59 c-10
6.68
6.79
7.39 c-11
7.47
8.12 c-12
8.15
8.80 c-13
9.43 c-14
9.81
10.03 c-15
10.60 c-16
11.14 c-17
11.66 c-18
12.00
12.16 c-19
12.63 c-20
13.09 c-21
13.52 c-22
13.78
13.94 c-23
14.34 c-24
14.58
14.73 c-25
15.11 c-26
15.47 c-27
15.69
15.82 c-28
16.15 c-29
16.48 c-30
17.11 c-32
17.42
17.79 c-34
18.20
18.68 c-36
19.89 c-38
20.65
21.57 c-40
22.03
23.48
24.25
24.51
25.11
26.05
28.71
29.60
0
1000
2000
3000
4000
5000
6000
7000
800
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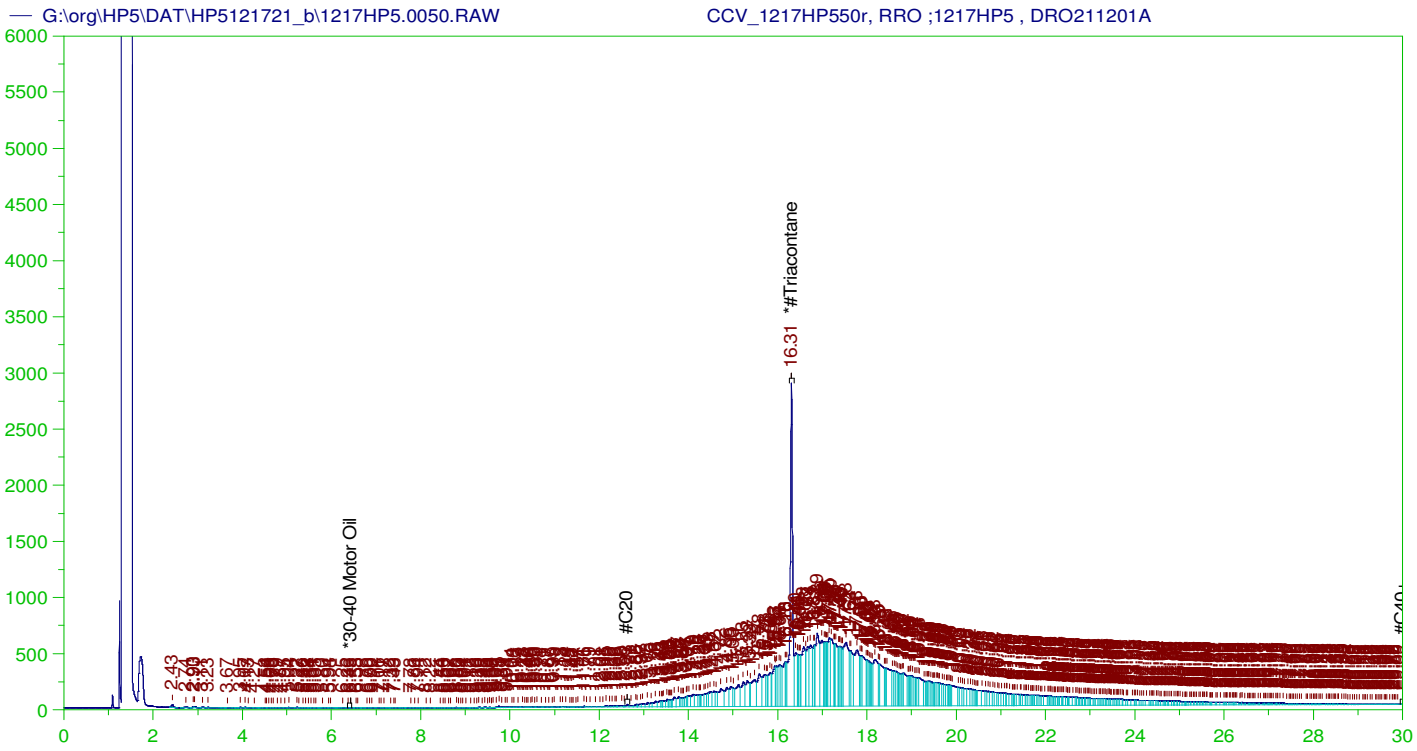



**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

Sample Name: CCV_1217HP550r, RRO ;1217HP5 , DRO211201A
Raw File: G:\org\HP5\DAT\HP5121721_b\1217HP5.0050.RAW
Date & Time Acquired: 12/18/2021 7:35:55 PM
Method File: G:\Org\HP5\Methods\DC_ORO-AK-L%.MET
Calibration File: G:\Org\HP5\Cals\SW8015C_ORO211017AK.CAL
Sample Weight: 30 Dilution: 1 S.A.: 1

Mean RF for for ~~Residual~~ TEH (Oil Range) Organics Calculations: 28542.41
Rt range for ~~Residual~~ TEH (Oil Range) Organics: 12.58 to 30.05

| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | |
|---|---|---|---|---|---|
| *#Triacontane | 16.306 | 16.667 | 11.71 | 70.26 | - |

~~RRO~~ TEH (Oil Range) Area:1.435918E+08 ~~RRO~~ TEH (Oil Range) AMOUNT: 167.6941

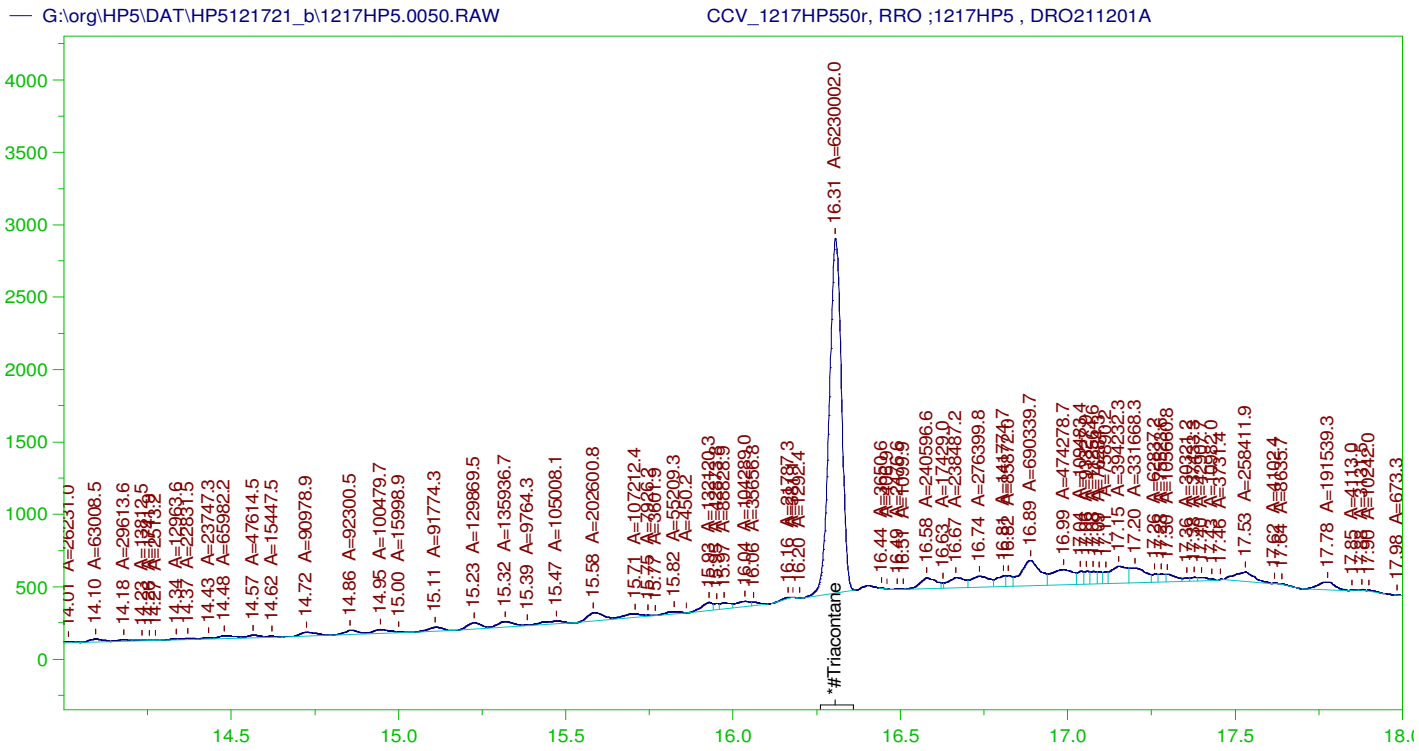
CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5121721_b\1217HP5.0050.RAW

| COMPOUND | ACTUAL(NG) | MEASURED(NG) | %RECOVERY | LIMITS |
|---|---|---|---|---|
| *30-40 Motor Oil | 5000. | .001 | . | 75-125 |

| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | LIMITS |
|---|---|---|---|---|---|
| *#Triacontane | 16.306 | 6.667 | 11.71 | 175.65 | 75-125 |

AMN 01/07/2022

G:\org\HP5\dat\HP5121721_b\Review\050_CCV_1217HP550r_DC_ORO-AK-L%.xls




**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

Sample Name: CCV_1217HP550r, RRO ;1217HP5 , DRO211201A
Raw File: G:\org\HP5\DAT\HP5121721_b\1217HP5.0050.RAW
Date & Time Acquired: 12/18/2021 7:35:55 PM
Method File: G:\Org\HP5\Methods\DS_ORO-AK-L%.MET
Calibration File: G:\Org\HP5\Cals\SW8015C_ORO211017AK.CAL
Sample Weight: 30 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 28542.41
Rt range for Residual Range Organics: 12.58 to 30.05

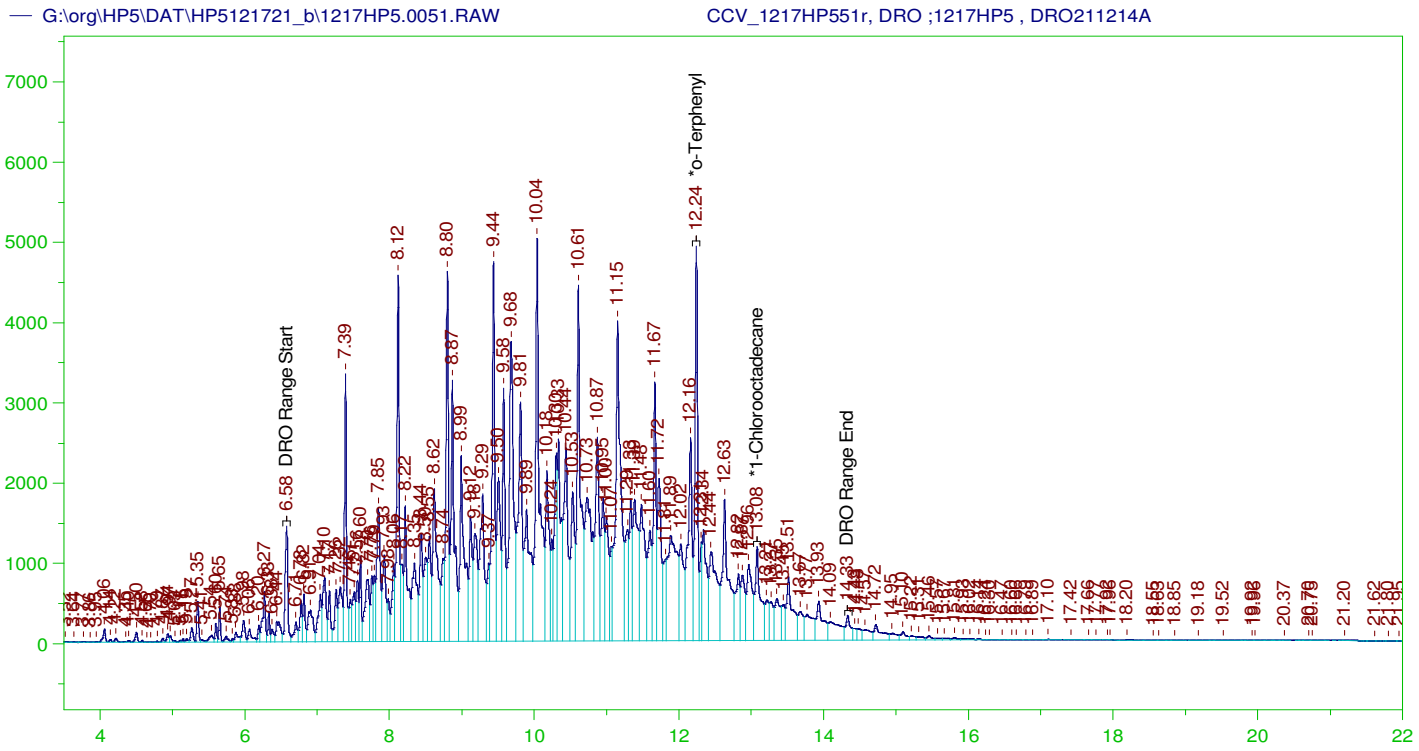
| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | |
|---|---|---|---|---|---|
| *#Triacontane | 16.306 | 16.667 | 7.178 | 43.07 | - |

RRO Area:7015783 RRO AMOUNT: 8.193401

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5121721_b\1217HP5.0050.RAW

| COMPOUND | ACTUAL(NG) | MEASURED(NG) | %RECOVERY | LIMITS |
|---|---|---|---|---|
| *30-40 Motor Oil | 5000. | .001 | . | 75-125 |

| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | LIMITS |
|---|---|---|---|---|---|
| *#Triacontane | 16.306 | 6.667 | 7.178 | 107.67 | 75-125 |




**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: CCV_1217HP551r, DRO ;1217HP5 , DRO211214A
Raw File: G:\org\HP5\DAT\HP5121721_b\1217HP5.0051.RAW
Date & Time Acquired: 12/18/2021 8:19:02 PM
Method File: G:\Org\HP5\Methods\DC_8015-24-IJ-L%.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IJ-24.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.53 to 14.39

| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | |
|---|---|---|---|---|---|
| *o-Terphenyl | 12.241 | 200. | 344.951 | 172.48 | - |
| *1-Chlorooctadecane | 13.079 | 200. | 167.046 | 83.52 | - |

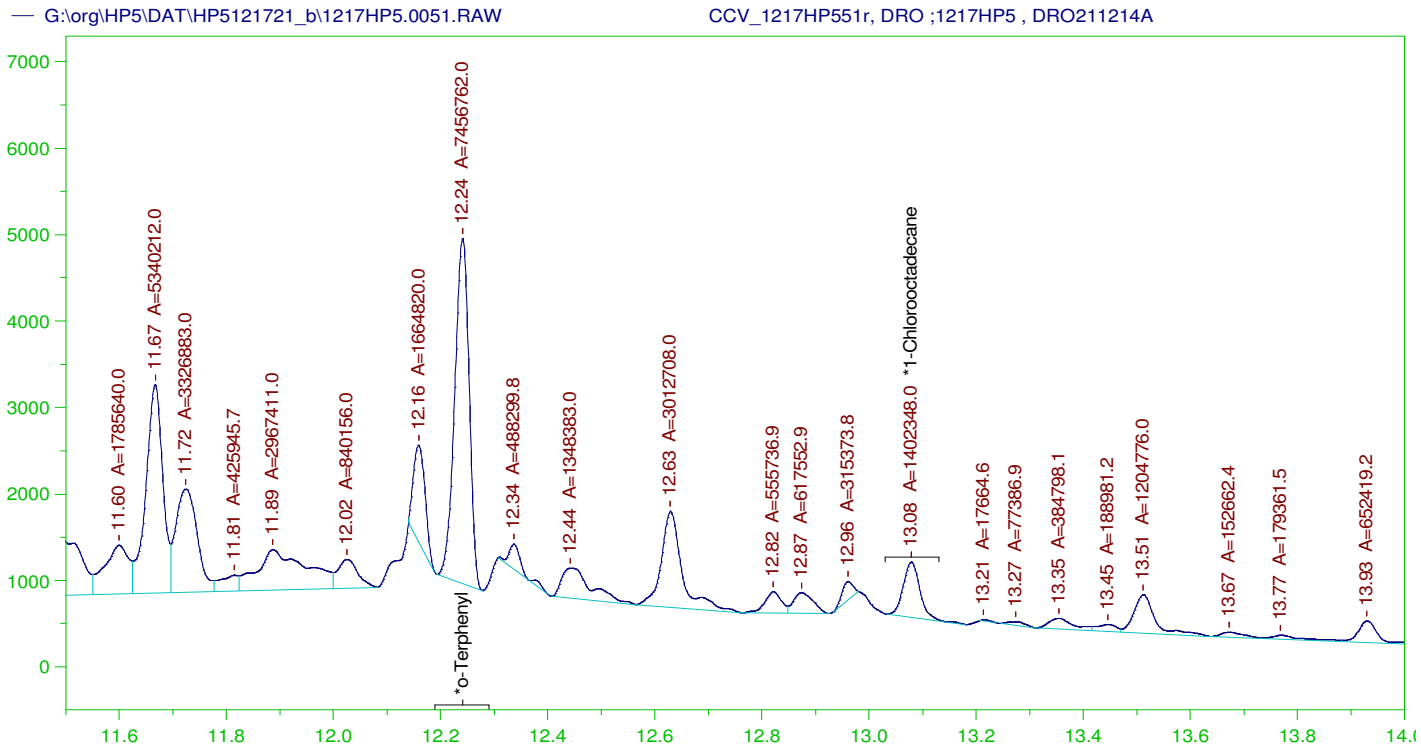
DRO Area:4.876768E+08 DRO Amount: 15554.29
TEH Area:5.056302E+08 TEH Amount: 16126.91

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5121721_b\1217HP5.0051.RAW

| COMPOUND | ACTUAL(NG) | MEASURED(NG) | %RECOVERY | LIMITS |
|---|---|---|---|---|
| TOTAL DRO | 15000. | 16126.91 | 107.51 | 85-115 |

| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | LIMITS |
|---|---|---|---|---|---|
| *o-Terphenyl | 12.241 | 200. | 344.951 | 172.48 | 85-115 |
| *1-Chlorooctadecane | 13.079 | 200. | 167.046 | 83.52 | 85-115 |

G:\org\HP5\dat\HP5121721_b\Review\051_CCV_1217HP551r_DC_8015-24-IJ-L%.xls




**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: CCV_1217HP551r, DRO ;1217HP5 , DRO211214A
Raw File: G:\org\HP5\DAT\HP5121721_b\1217HP5.0051.RAW
Date & Time Acquired: 12/18/2021 8:19:02 PM
Method File: G:\Org\HP5\Methods\DS_8015-24-IJ-L#.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IJ-24.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.53 to 14.39

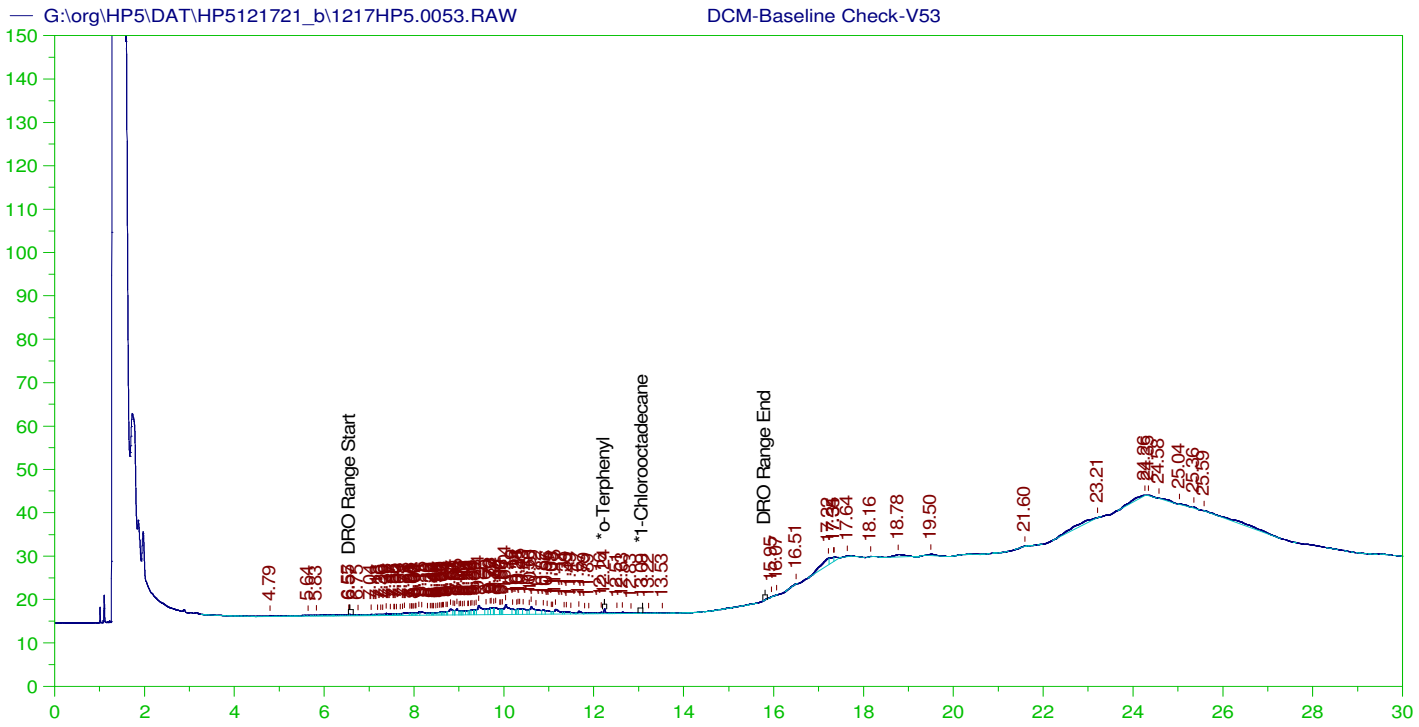
| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | |
|---|---|---|---|---|---|
| *o-Terphenyl | 12.241 | 200. | 209.995 | 105. | - |
| *1-Chlorooctadecane | 13.079 | 200. | 39.493 | 19.75 | - |

DRO Area:2.718525E+08 DRO Amount: 8670.648
TEH Area:2.827539E+08 TEH Amount: 9018.344

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5121721_b\1217HP5.0051.RAW

| COMPOUND | ACTUAL(NG) | MEASURED(NG) | %RECOVERY | LIMITS |
|---|---|---|---|---|
| TOTAL DRO | 15000. | 9018.34 | 60.12 | 85-115 |

| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | LIMITS |
|---|---|---|---|---|---|
| *o-Terphenyl | 12.241 | 200. | 209.995 | 105. | 85-115 |
| *1-Chlorooctadecane | 13.079 | 200. | 39.493 | 19.75 | 85-115 |



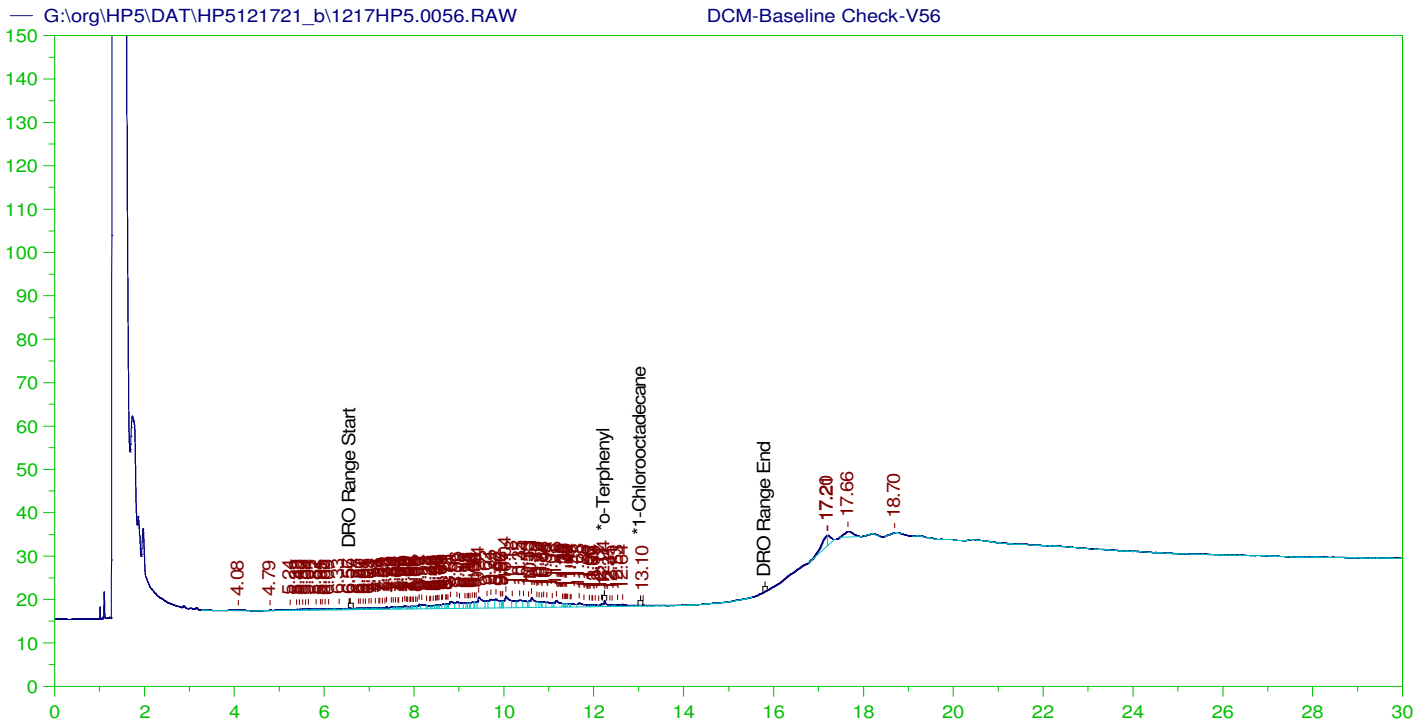

**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: DCM-Baseline Check-V53
Raw File: G:\org\HP5\DAT\HP5121721_b\1217HP5.0053.RAW
Date & Time Acquired: 12/18/2021 9:45:24 PM
Method File: G:\Org\HP5\Methods\DR_8015-IBb-LEXP.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IB.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.54 to 15.86

| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | |
|---|---|---|---|---|---|
| *o-Terphenyl | 12.237 | 200. | .11 | .05 | - |
| *1-Chlorooctadecane | 13.088 | 200. | .014 | .01 | - |

DRO Area:260460.7 DRO Amount: 8.307311
TEH Area:407738.9 TEH Amount: 13.0047



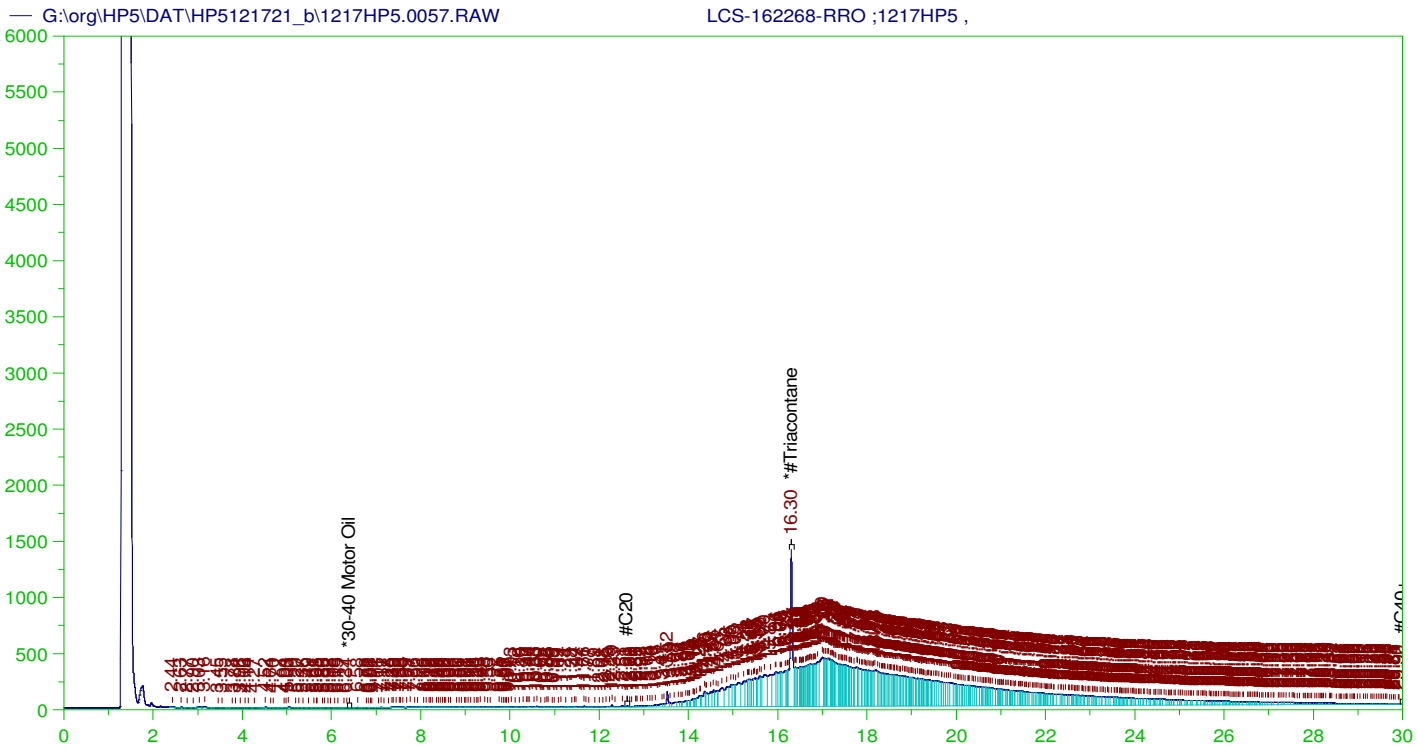

**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: DCM-Baseline Check-V56
Raw File: G:\org\HP5\DAT\HP5121721_b\1217HP5.0056.RAW
Date & Time Acquired: 12/18/2021 11:55:01 PM
Method File: G:\Org\HP5\Methods\DR_8015-IBb-LEXP.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IB.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.54 to 15.86

| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | |
|---|---|---|---|---|---|
| *o-Terphenyl | 12.241 | 200. | .158 | .08 | - |
| *1-Chlorooctadecane | 29.929 | 200. | . | . | - |

DRO Area:338084.1 DRO Amount: 10.78308
TEH Area:429845.4 TEH Amount: 13.70978




**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

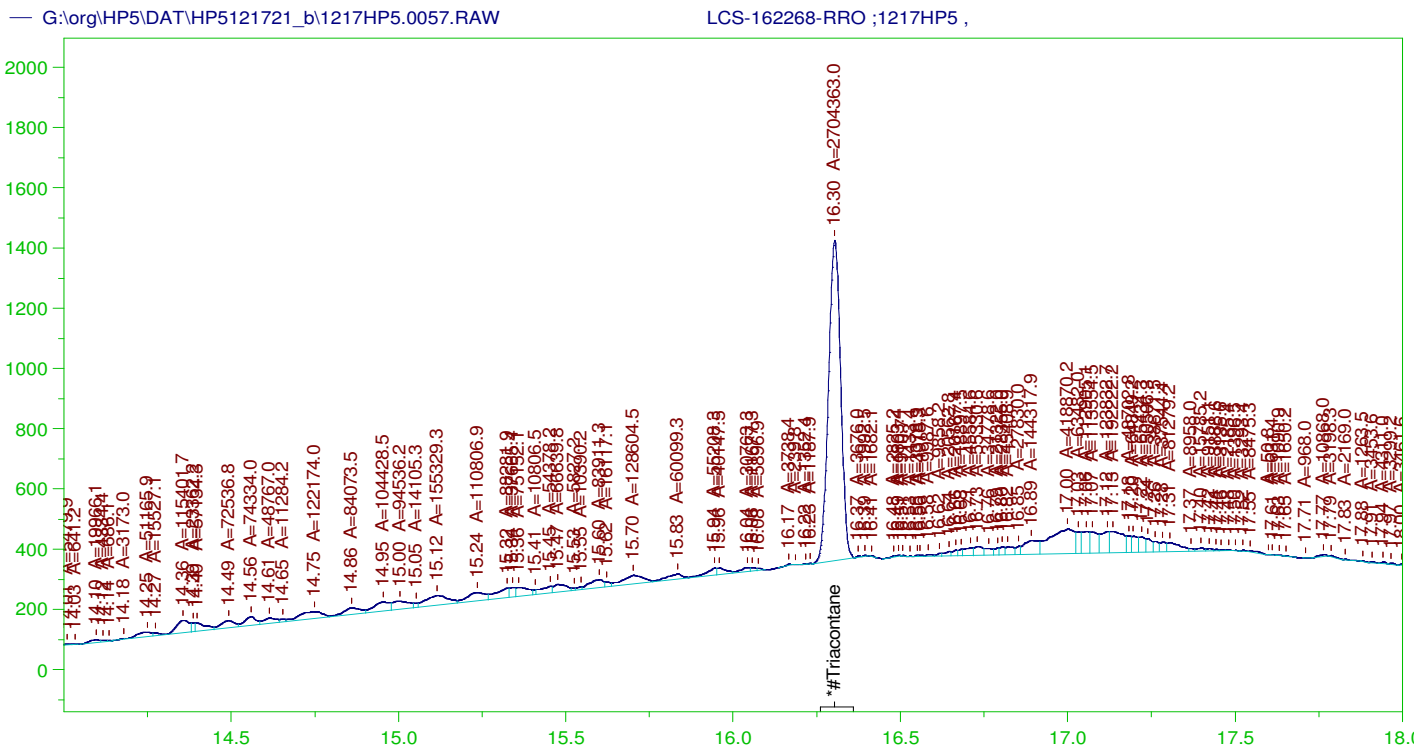
Sample Name: LCS-162268-RRO ;1217HP5 ,
Raw File: G:\org\HP5\DAT\HP5121721_b\1217HP5.0057.RAW
Date & Time Acquired: 12/19/2021 12:38:13 AM
Method File: G:\Org\HP5\Methods\D3_ORO-AK-L%.MET
Calibration File: G:\Org\HP5\Cals\SW8015C_ORO211017AK.CAL
Sample Weight: 1000 Dilution: 1 S.A.: 1

Mean RF for for ~~Residual~~ TEH (Oil Range) Organics Calculations: 28542.41
Rt range for ~~Residual~~ TEH (Oil Range) Organics: 12.58 to 30.05

| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | |
|---|---|---|---|---|---|
| *#Triacontane | 16.303 | .5 | .179 | 35.88 | - |

~~RRO~~ TEH (Oil Range) Area:1.317844E+08 ~~RRO~~ TEH (Oil Range) AMOUNT: 4.617142

AMN 01/07/2022



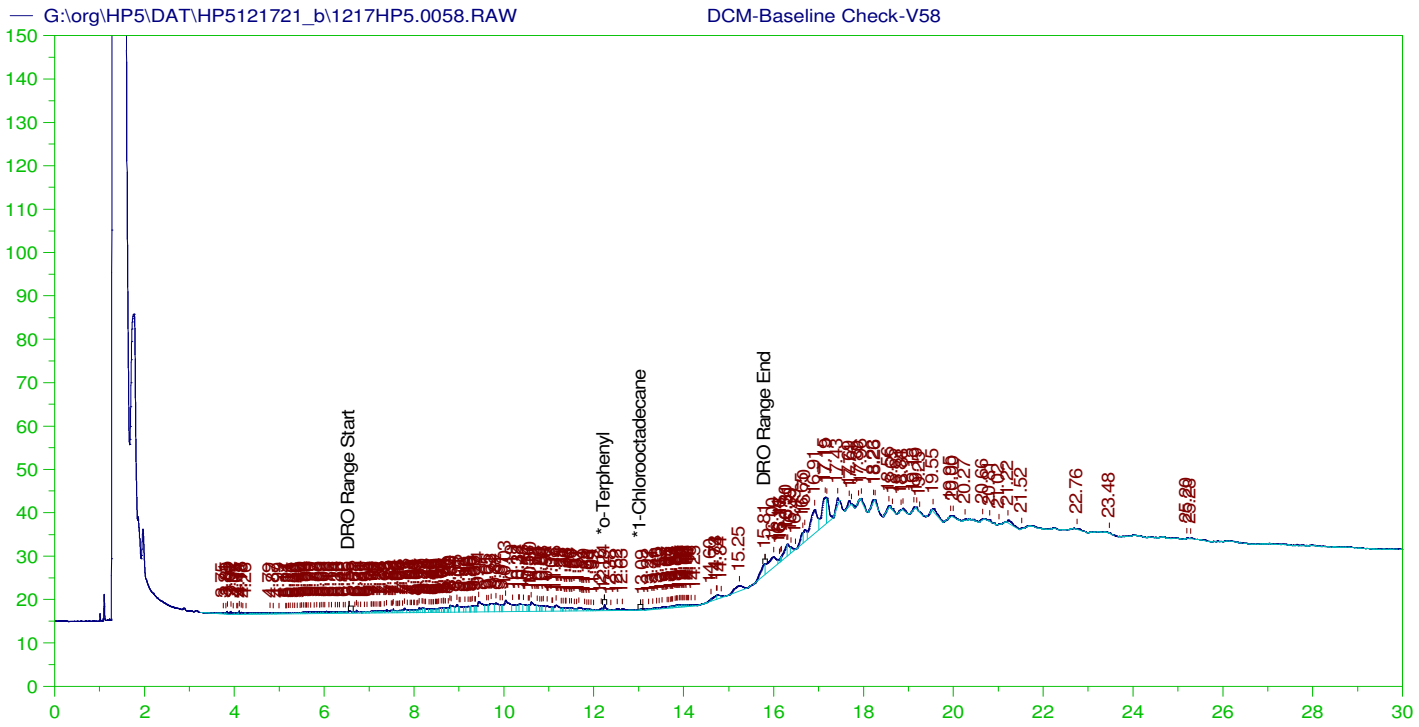

**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

Sample Name: LCS-162268-RRO ;1217HP5 ,
Raw File: G:\org\HP5\DAT\HP5121721_b\1217HP5.0057.RAW
Date & Time Acquired: 12/19/2021 12:38:13 AM
Method File: G:\Org\HP5\Methods\DS_ORO-AK-L%.MET
Calibration File: G:\Org\HP5\Cals\SW8015C_ORO211017AK.CAL
Sample Weight: 1000 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 28542.41
Rt range for Residual Range Organics: 12.58 to 30.05

| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | |
|---|---|---|---|---|---|
| *#Triacontane | 16.303 | .5 | .093 | 18.7 | - |

RRO Area:4716050 RRO AMOUNT: 0.1652296



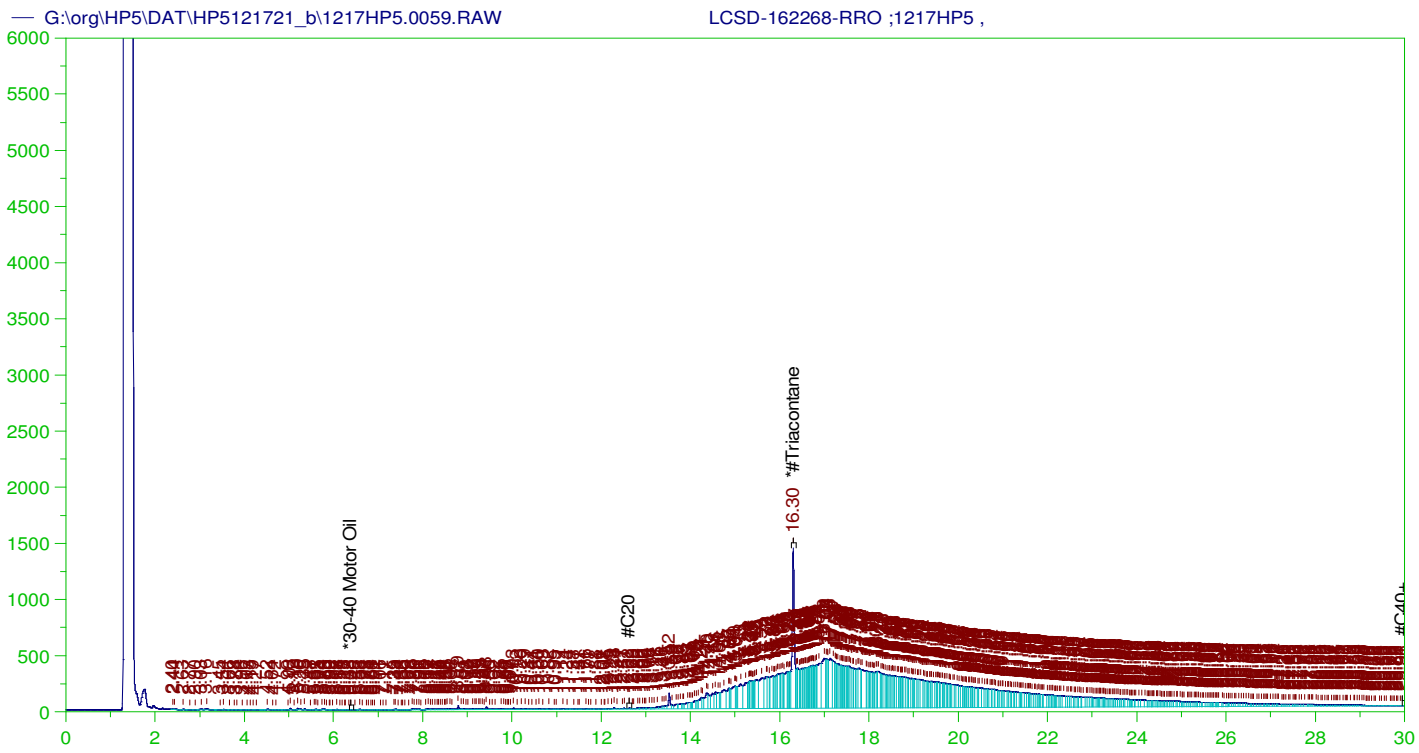

**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: DCM-Baseline Check-V58
Raw File: G:\org\HP5\DAT\HP5121721_b\1217HP5.0058.RAW
Date & Time Acquired: 12/19/2021 1:21:23 AM
Method File: G:\Org\HP5\Methods\DR_8015-IBb-LEXP.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IB.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.54 to 15.86

| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | |
|---|---|---|---|---|---|
| *o-Terphenyl | 12.238 | 200. | .134 | .07 | - |
| *1-Chlorooctadecane | 29.947 | 200. | . | . | - |

DRO Area:415514.6 DRO Amount: 13.25271
TEH Area:764525.8 TEH Amount: 24.3843




**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

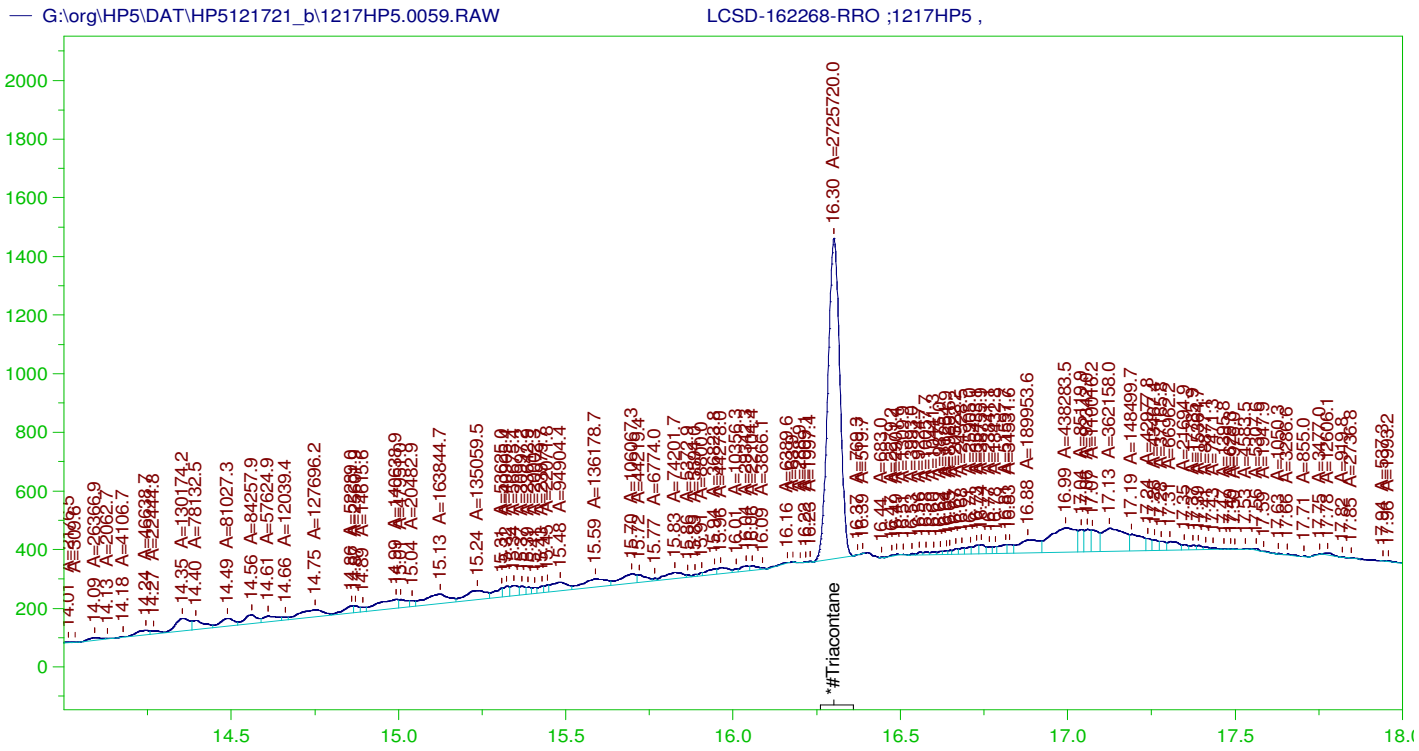
Sample Name: LCSD-162268-RRO ;1217HP5 ,
Raw File: G:\org\HP5\DAT\HP5121721_b\1217HP5.0059.RAW
Date & Time Acquired: 12/19/2021 2:04:31 AM
Method File: G:\Org\HP5\Methods\D3_ORO-AK-L%.MET
Calibration File: G:\Org\HP5\Cals\SW8015C_ORO211017AK.CAL
Sample Weight: 1000 Dilution: 1 S.A.: 1

Mean RF for for ~~Residual~~ TEH (Oil Range) Organics Calculations: 28542.41
Rt range for ~~Residual~~ TEH (Oil Range) Organics: 12.58 to 30.05

| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | |
|---|---|---|---|---|---|
| *#Triacontane | 16.301 | .5 | .178 | 35.66 | - |

~~RRO~~ TEH (Oil Range) Area:1.349332E+08 ~~RRO~~ TEH (Oil Range) AMOUNT: 4.727462

AMN 01/07/2022



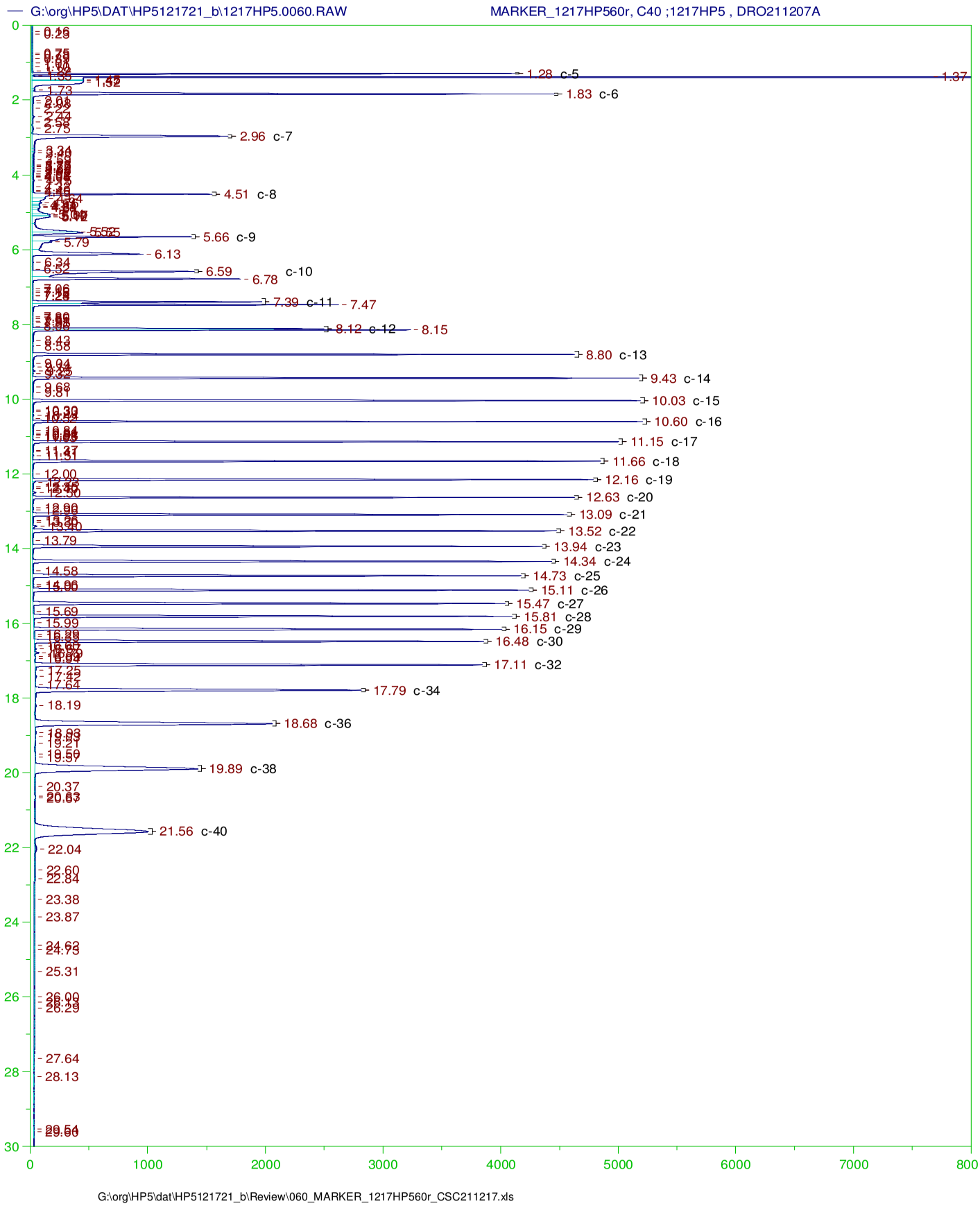

**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

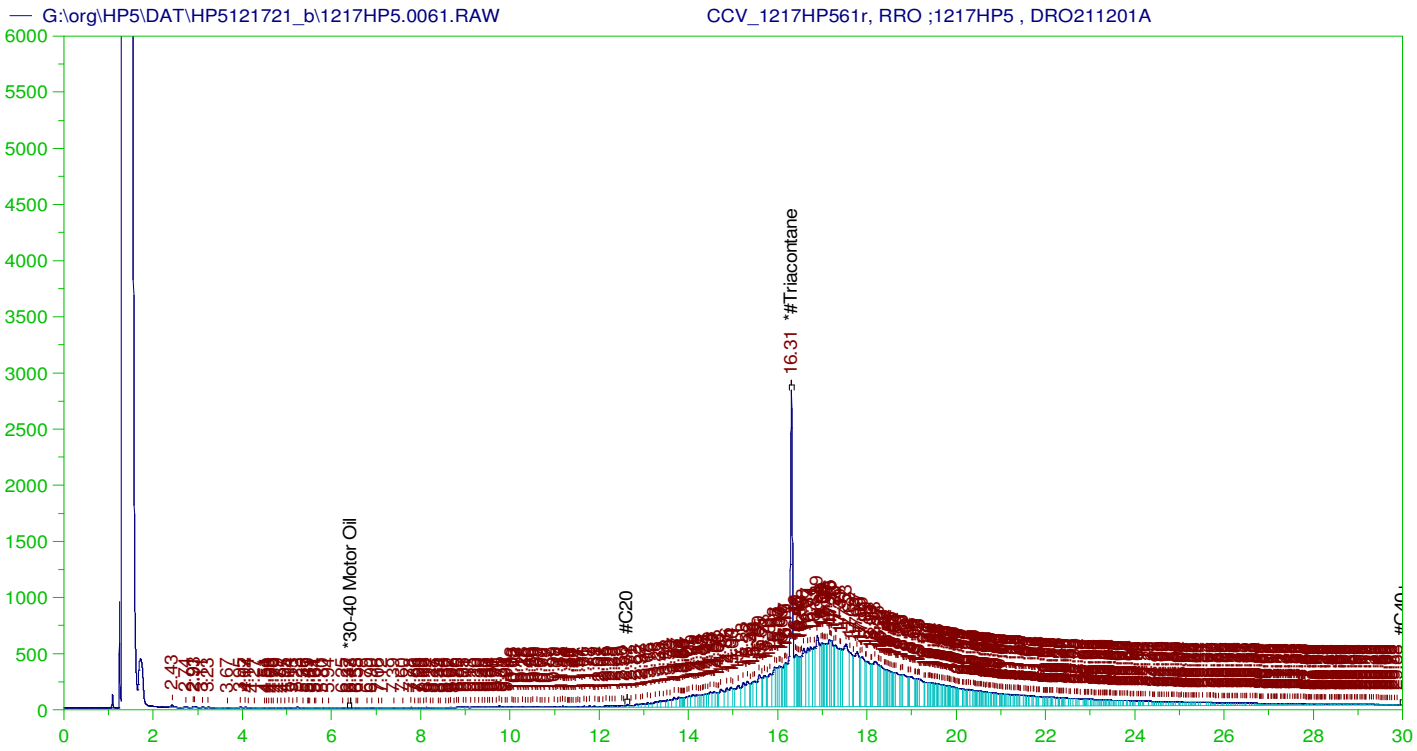
Sample Name: LCSD-162268-RRO ;1217HP5 ,
Raw File: G:\org\HP5\DAT\HP5121721_b\1217HP5.0059.RAW
Date & Time Acquired: 12/19/2021 2:04:31 AM
Method File: G:\Org\HP5\Methods\DS_ORO-AK-L%.MET
Calibration File: G:\Org\HP5\Cals\SW8015C_ORO211017AK.CAL
Sample Weight: 1000 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 28542.41
Rt range for Residual Range Organics: 12.58 to 30.05

| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | |
|---|---|---|---|---|---|
| *#Triacontane | 16.301 | .5 | .094 | 18.84 | - |

RRO Area:5004708 RRO AMOUNT: 0.1753428


G:\org\HP5\DAT\HP5121721_b\1217HP5.0060.RAW
MARKER_1217HP560r, C40 ;1217HP5 , DRO211207A
1.28 c-5
1.37
1.83 c-6
2.96 c-7
4.51 c-8
5.66 c-9
6.59 c-10
7.39 c-11
8.12 c-12
8.80 c-13
9.43 c-14
10.03 c-15
10.60 c-16
11.15 c-17
11.66 c-18
12.16 c-19
12.63 c-20
13.09 c-21
13.52 c-22
13.94 c-23
14.34 c-24
14.73 c-25
15.11 c-26
15.47 c-27
15.81 c-28
16.15 c-29
16.48 c-30
17.11 c-32
17.79 c-34
18.68 c-36
19.89 c-38
21.56 c-40
0
1000
2000
3000
4000
5000
6000
7000
800
G:\org\HP5\dat\HP5121721_b\Review\060_MARKER_1217HP560r_CSC211217.xls




**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

Sample Name: CCV_1217HP561r, RRO ;1217HP5 , DRO211201A
Raw File: G:\org\HP5\DAT\HP5121721_b\1217HP5.0061.RAW
Date & Time Acquired: 12/19/2021 3:31:00 AM
Method File: G:\Org\HP5\Methods\DC_ORO-AK-L%.MET
Calibration File: G:\Org\HP5\Cals\SW8015C_ORO211017AK.CAL
Sample Weight: 30 Dilution: 1 S.A.: 1

Mean RF for for ~~Residual~~ TEH (Oil Range) Organics Calculations: 28542.41
Rt range for ~~Residual~~ TEH (Oil Range) Organics: 12.58 to 30.05

| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | |
|---|---|---|---|---|---|
| *#Triacontane | 16.306 | 16.667 | 11.58 | 69.48 | - |

~~RRO~~ TEH (Oil Range) Area:1.376485E+08 ~~RRO~~ TEH (Oil Range) AMOUNT: 160.7532

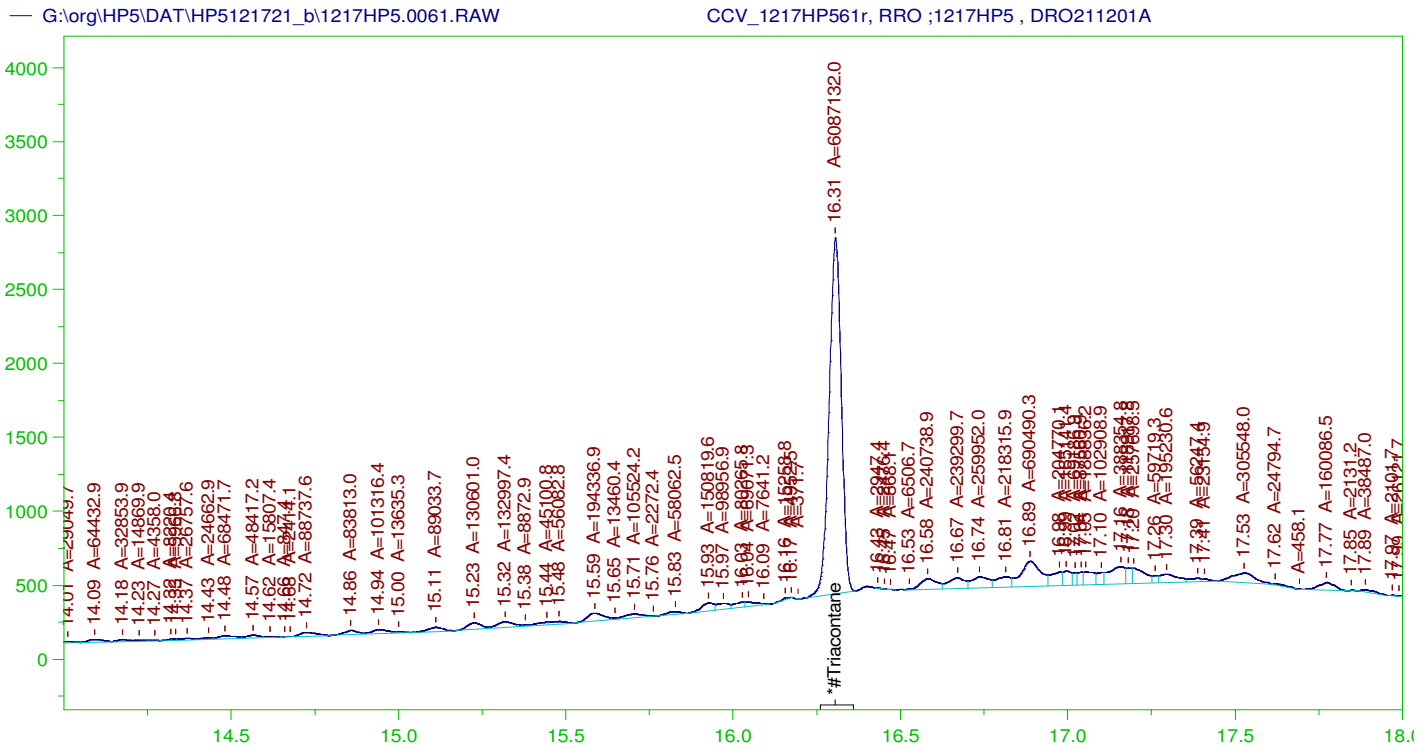
CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5121721_b\1217HP5.0061.RAW

| COMPOUND | ACTUAL(NG) | MEASURED(NG) | %RECOVERY | LIMITS |
|---|---|---|---|---|
| *30-40 Motor Oil | 5000. | .001 | . | 75-125 |

| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | LIMITS |
|---|---|---|---|---|---|
| *#Triacontane | 16.306 | 6.667 | 11.58 | 173.7 | 75-125 |

AMN 01/07/2022

G:\org\HP5\dat\HP5121721_b\Review\061_CCV_1217HP561r_DC_ORO-AK-L%.xls




**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

Sample Name: CCV_1217HP561r, RRO ;1217HP5 , DRO211201A
Raw File: G:\org\HP5\DAT\HP5121721_b\1217HP5.0061.RAW
Date & Time Acquired: 12/19/2021 3:31:00 AM
Method File: G:\Org\HP5\Methods\DS_ORO-AK-L%.MET
Calibration File: G:\Org\HP5\Cals\SW8015C_ORO211017AK.CAL
Sample Weight: 30 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 28542.41
Rt range for Residual Range Organics: 12.58 to 30.05

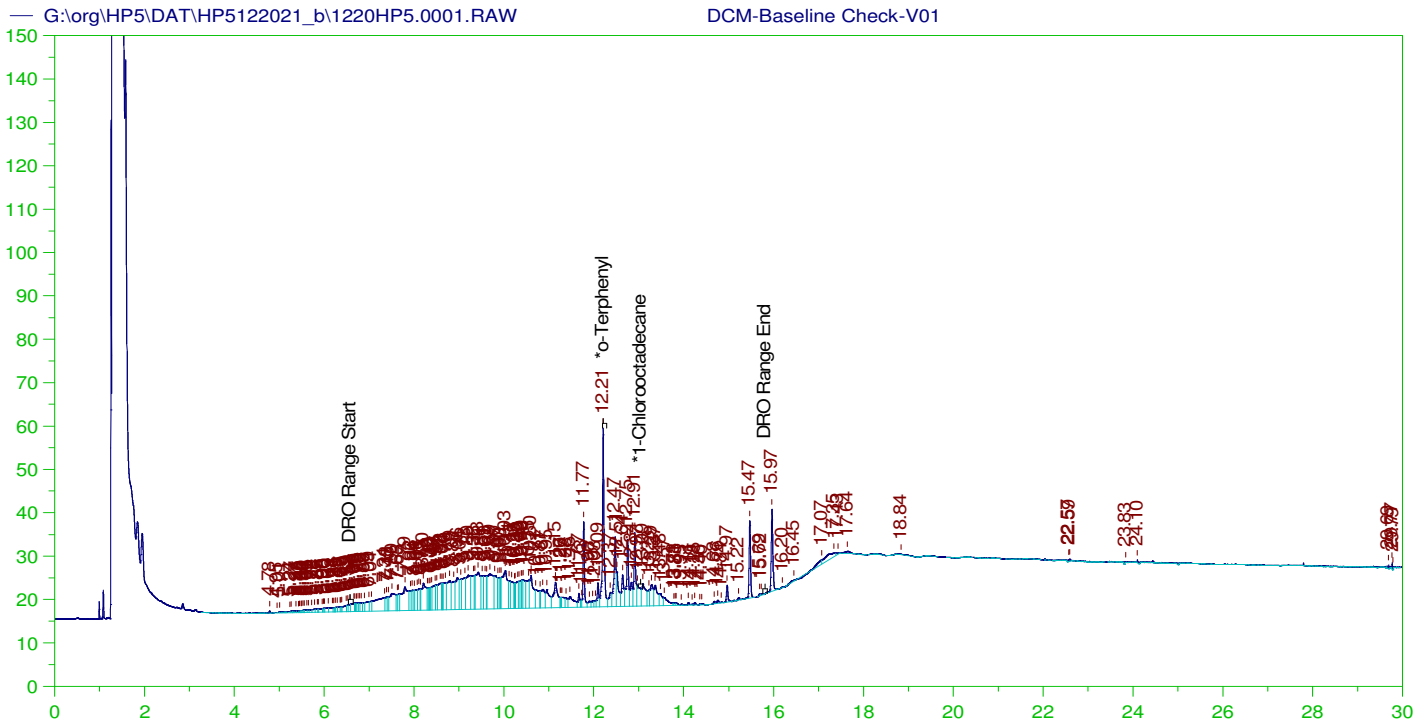
| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | |
|---|---|---|---|---|---|
| *#Triacontane | 16.306 | 16.667 | 7.014 | 42.08 | - |

RRO Area:6857826 RRO AMOUNT: 8.00893

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5121721_b\1217HP5.0061.RAW

| COMPOUND | ACTUAL(NG) | MEASURED(NG) | %RECOVERY | LIMITS |
|---|---|---|---|---|
| *30-40 Motor Oil | 5000. | .001 | . | 75-125 |

| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | LIMITS |
|---|---|---|---|---|---|
| *#Triacontane | 16.306 | 6.667 | 7.014 | 105.2 | 75-125 |



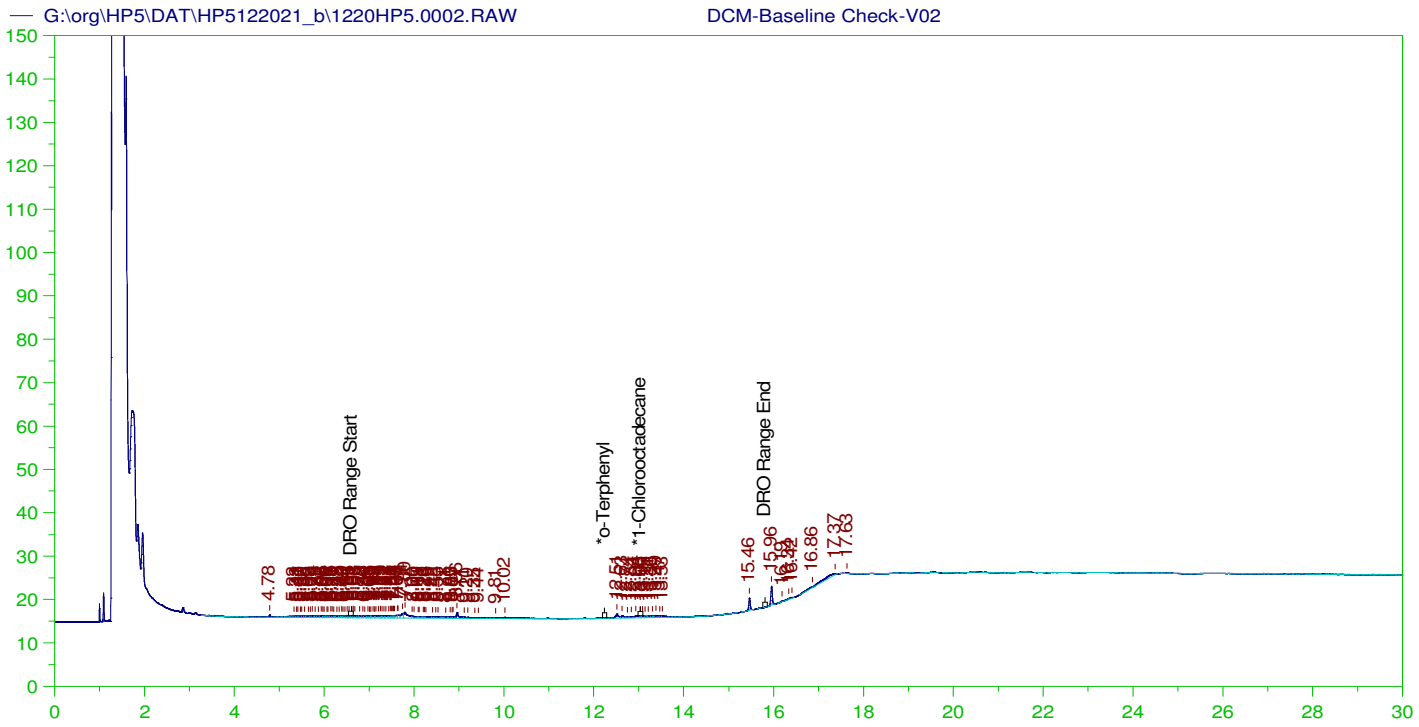

**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: DCM-Baseline Check-V01
Raw File: G:\org\HP5\DAT\HP5122021_b\1220HP5.0001.RAW
Date & Time Acquired: 12/20/2021 8:49:51 AM
Method File: G:\Org\HP5\Methods\DR_8015-IBb-LEXP.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IB.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.54 to 15.86

| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | |
|---|---|---|---|---|---|
| *o-Terphenyl | 12.205 | 200. | 3.221 | 1.61 | - |
| *1-Chlorooctadecane | 29.932 | 200. | . | . | - |

DRO Area:2042137 DRO Amount: 65.1333
TEH Area:2220910 TEH Amount: 70.8352



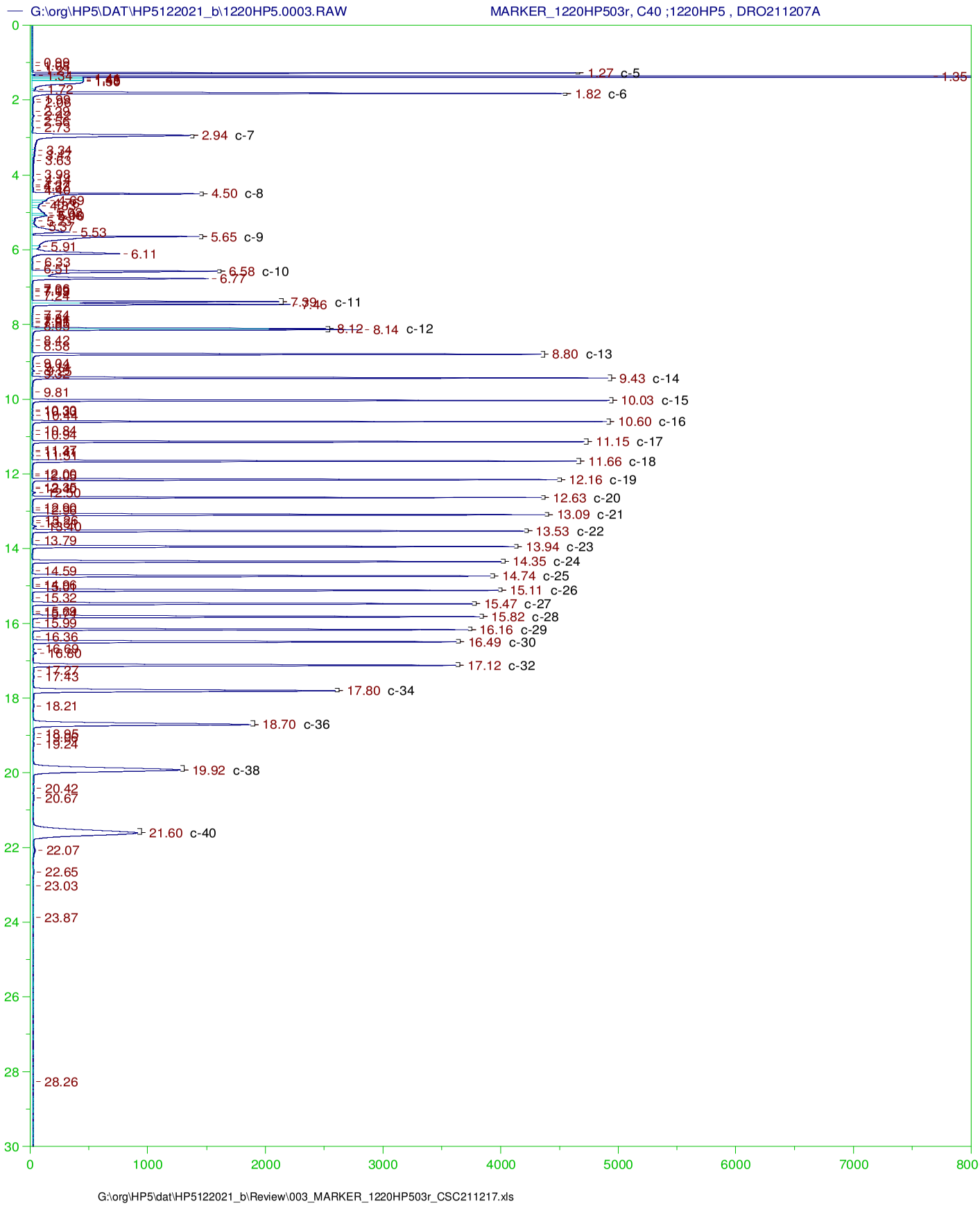

**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

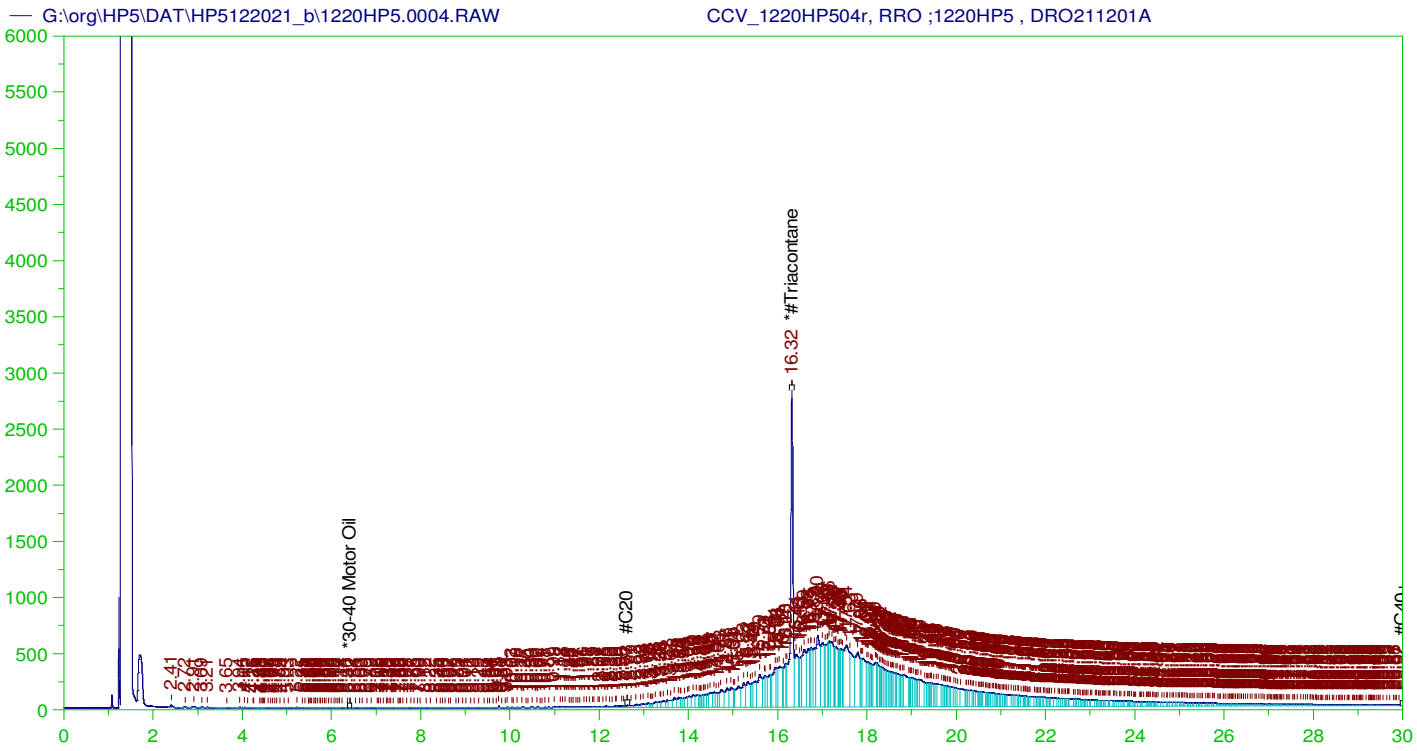
Sample Name: DCM-Baseline Check-V02
Raw File: G:\org\HP5\DAT\HP5122021_b\1220HP5.0002.RAW
Date & Time Acquired: 12/20/2021 9:32:26 AM
Method File: G:\Org\HP5\Methods\DR_8015-IBb-LEXP.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IB.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.54 to 15.86

| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC |
|---|---|---|---|---|
| *o-Terphenyl | 29.972 | 200. | . | . - |
| *1-Chlorooctadecane | 13.031 | 200. | .022 | .01 - |

DRO Area:111386.2 DRO Amount: 3.552626
TEH Area:181761.3 TEH Amount: 5.797219


G:\org\HP5\DAT\HP5122021_b\1220HP5.0003.RAW
MARKER_1220HP503r, C40 ;1220HP5 , DRO211207A
1.27 c-5
1.35
1.82 c-6
2.94 c-7
4.50 c-8
5.53
5.65 c-9
5.91
6.11
6.58 c-10
6.77
7.39
7.46 c-11
8.12
8.14 c-12
8.80 c-13
9.43 c-14
9.81
10.03 c-15
10.60 c-16
11.15 c-17
11.66 c-18
12.16 c-19
12.63 c-20
13.09 c-21
13.53 c-22
13.79
13.94 c-23
14.35 c-24
14.59
14.74 c-25
15.11 c-26
15.32
15.47 c-27
15.82 c-28
15.99
16.16 c-29
16.36
16.49 c-30
16.69
16.80
17.12 c-32
17.27
17.43
17.80 c-34
18.21
18.70 c-36
19.24
19.92 c-38
20.42
20.67
21.60 c-40
22.07
22.65
23.03
23.87
28.26
0
1000
2000
3000
4000
5000
6000
7000
800
G:\org\HP5\dat\HP5122021_b\Review\003_MARKER_1220HP503r_CSC211217.xls




**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

Sample Name: CCV_1220HP504r, RRO ;1220HP5 , DRO211201A
Raw File: G:\org\HP5\DAT\HP5122021_b\1220HP5.0004.RAW
Date & Time Acquired: 12/20/2021 10:58:37 AM
Method File: G:\Org\HP5\Methods\DC_ORO-AK-L%.MET
Calibration File: G:\Org\HP5\Cals\SW8015C_ORO211017AK.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for for ~~Residual~~ TEH (Oil Range) Organics Calculations: 28542.41
Rt range for ~~Residual~~ TEH (Oil Range) Organics: 12.58 to 30.05

| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | |
|---|---|---|---|---|---|
| *#Triacontane | 16.316 | 500. | 350.157 | 70.03 | - |

~~RRO~~ TEH (Oil Range) Area:1.372948E+08 ~~RRO~~ TEH (Oil Range) AMOUNT: 4810.205

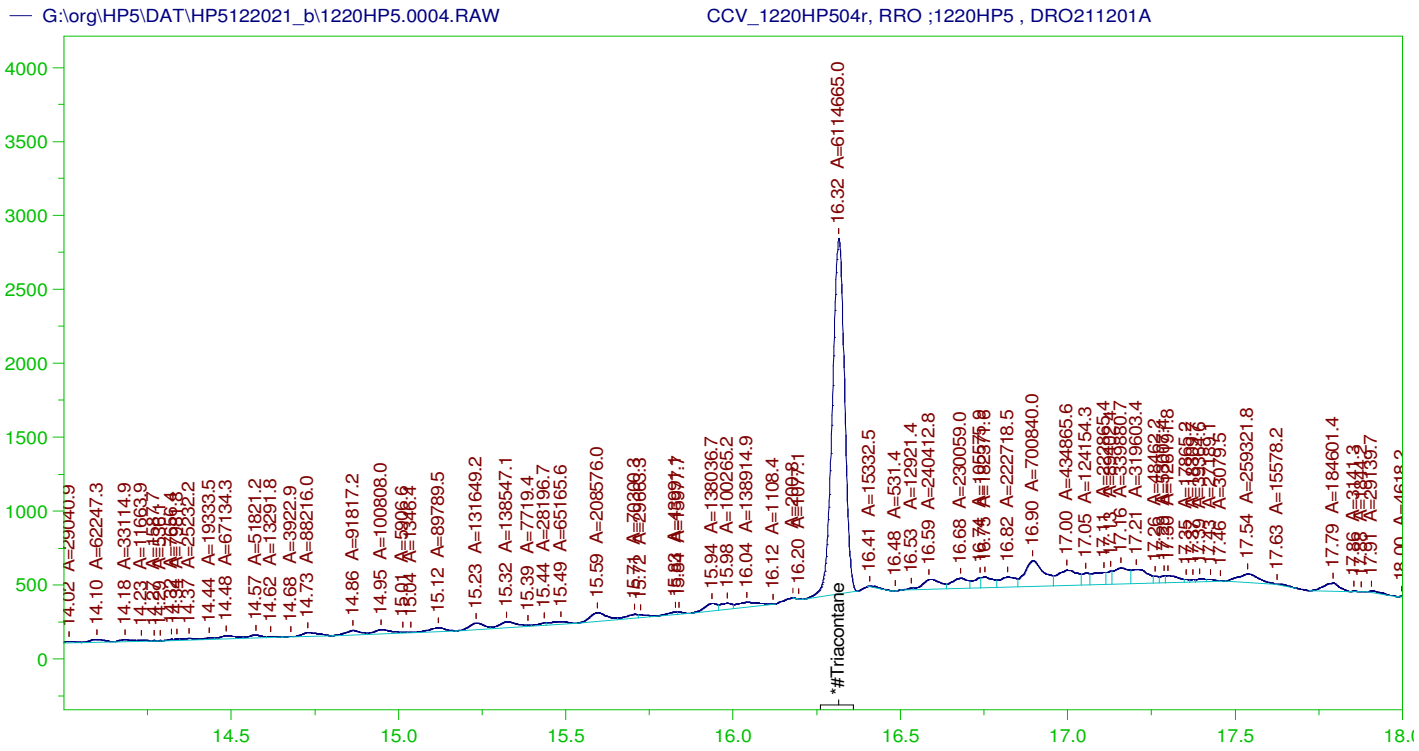
CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5122021_b\1220HP5.0004.RAW

| COMPOUND | ACTUAL(NG) | MEASURED(NG) | %RECOVERY | LIMITS |
|---|---|---|---|---|
| *30-40 Motor Oil | 5000. | .046 | . | 75-125 |

| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | LIMITS |
|---|---|---|---|---|---|
| *#Triacontane | 16.316 | 200. | 350.157 | 175.08 | 75-125 |

AMN 01/10/2022

G:\org\HP5\dat\HP5122021_b\Review\004_CCV_1220HP504r_DC_ORO-AK-L%.xls




**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

Sample Name: CCV_1220HP504r, RRO ;1220HP5 , DRO211201A
Raw File: G:\org\HP5\DAT\HP5122021_b\1220HP5.0004.RAW
Date & Time Acquired: 12/20/2021 10:58:37 AM
Method File: G:\Org\HP5\Methods\DS_ORO-AK-L%.MET
Calibration File: G:\Org\HP5\Cals\SW8015C_ORO211017AK.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 28542.41
Rt range for Residual Range Organics: 12.58 to 30.05

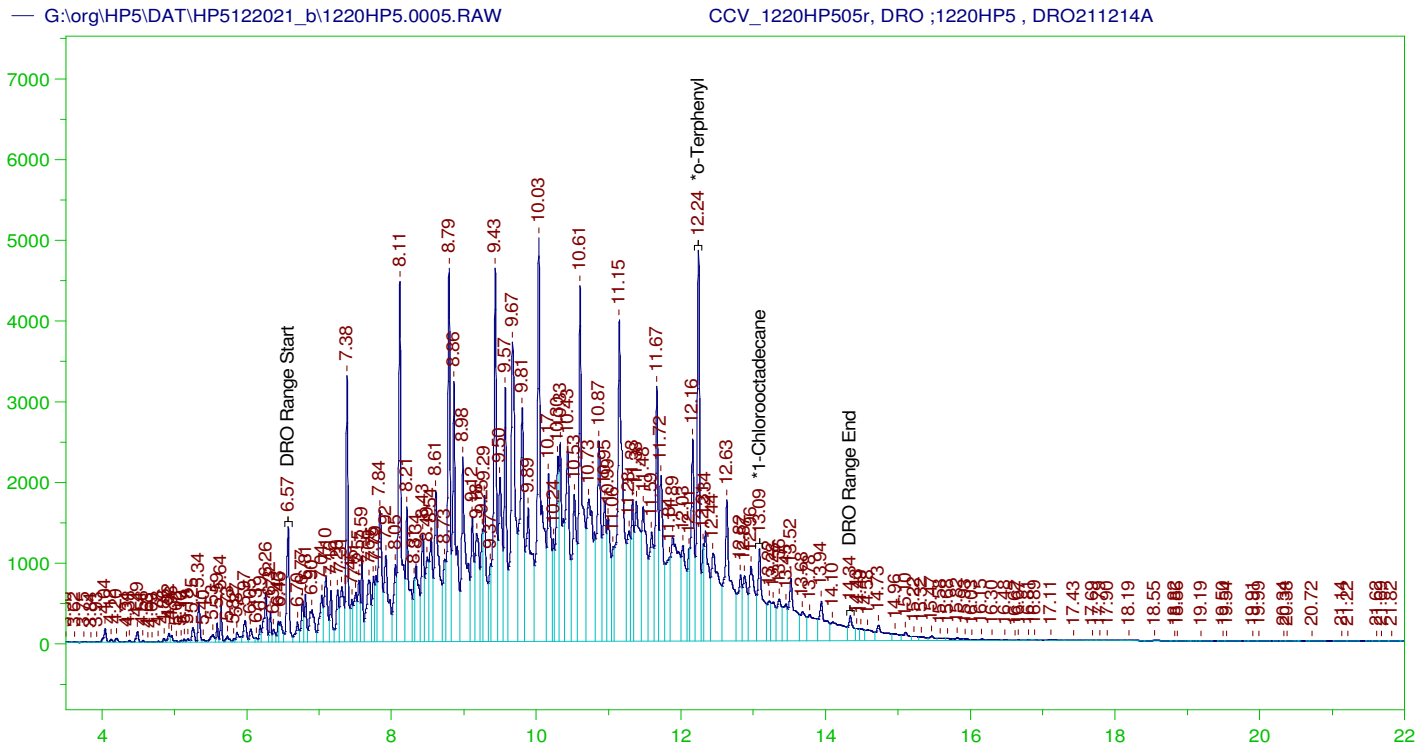
| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | |
|---|---|---|---|---|---|
| *#Triacontane | 16.316 | 500. | 211.36 | 42.27 | - |

RRO Area:6661766 RRO AMOUNT: 233.3988

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5122021_b\1220HP5.0004.RAW

| COMPOUND | ACTUAL(NG) | MEASURED(NG) | %RECOVERY | LIMITS |
|---|---|---|---|---|
| *30-40 Motor Oil | 5000. | .046 | . | 75-125 |

| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | LIMITS |
|---|---|---|---|---|---|
| *#Triacontane | 16.316 | 200. | 211.36 | 105.68 | 75-125 |




**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: CCV_1220HP505r, DRO ;1220HP5 , DRO211214A
Raw File: G:\org\HP5\DAT\HP5122021_b\1220HP5.0005.RAW
Date & Time Acquired: 12/20/2021 11:41:23 AM
Method File: G:\Org\HP5\Methods\DC_8015-24-IJ-L%.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IJ-24.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.53 to 14.39

| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | |
|---|---|---|---|---|---|
| *o-Terphenyl | 12.242 | 200. | 338.7 | 169.35 | - |
| *1-Chlorooctadecane | 13.085 | 200. | 163.385 | 81.69 | - |

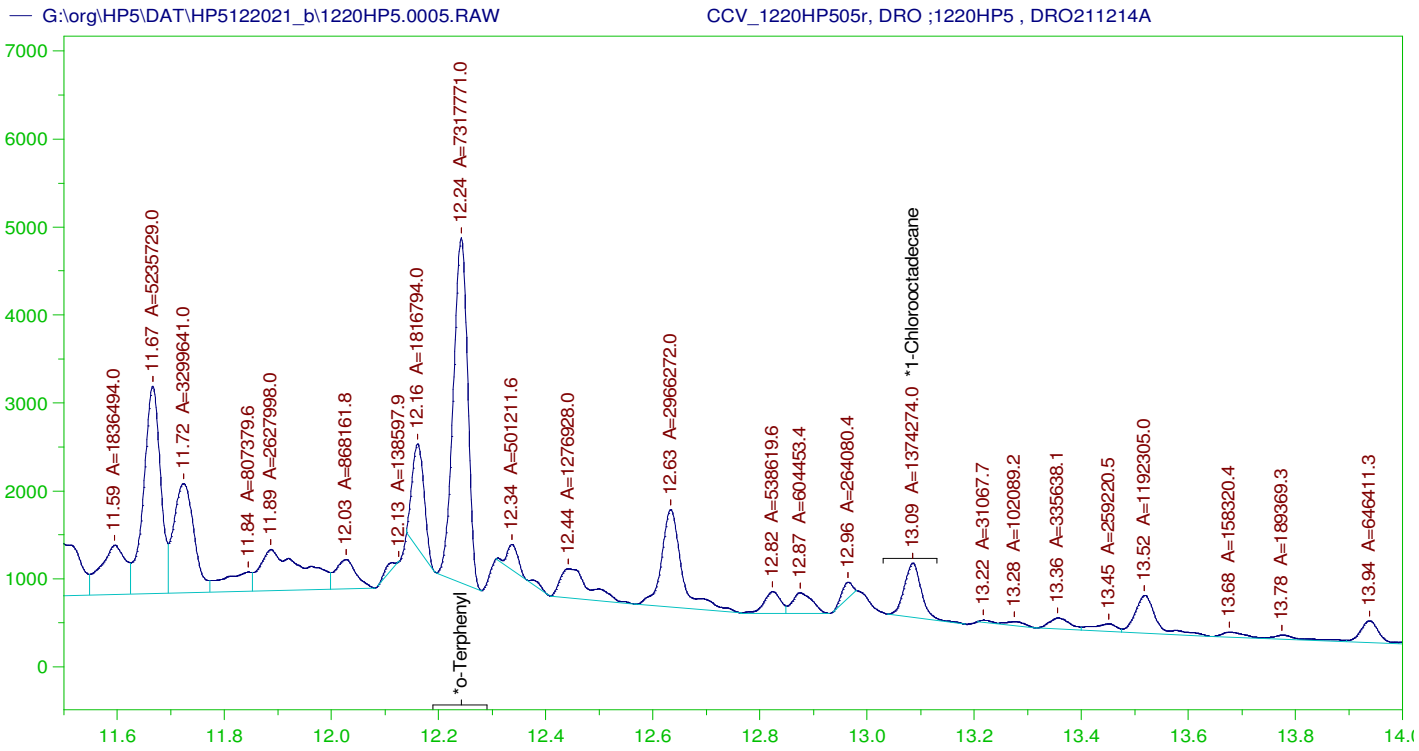
DRO Area:4.819373E+08 DRO Amount: 15371.24
TEH Area:4.999866E+08 TEH Amount: 15946.91

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5122021_b\1220HP5.0005.RAW

| COMPOUND | ACTUAL(NG) | MEASURED(NG) | %RECOVERY | LIMITS |
|---|---|---|---|---|
| TOTAL DRO | 15000. | 15946.91 | 106.31 | 85-115 |

| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | LIMITS |
|---|---|---|---|---|---|
| *o-Terphenyl | 12.242 | 200. | 338.7 | 169.35 | 85-115 |
| *1-Chlorooctadecane | 13.085 | 200. | 163.385 | 81.69 | 85-115 |

G:\org\HP5\dat\HP5122021_b\Review\005_CCV_1220HP505r_DC_8015-24-IJ-L%.xls




**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: CCV_1220HP505r, DRO ;1220HP5 , DRO211214A
Raw File: G:\org\HP5\DAT\HP5122021_b\1220HP5.0005.RAW
Date & Time Acquired: 12/20/2021 11:41:23 AM
Method File: G:\Org\HP5\Methods\DS_8015-24-IJ-L#.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IJ-24.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.53 to 14.39

| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | |
|---|---|---|---|---|---|
| *o-Terphenyl | 12.242 | 200. | 206.081 | 103.04 | - |
| *1-Chlorooctadecane | 13.085 | 200. | 38.702 | 19.35 | - |

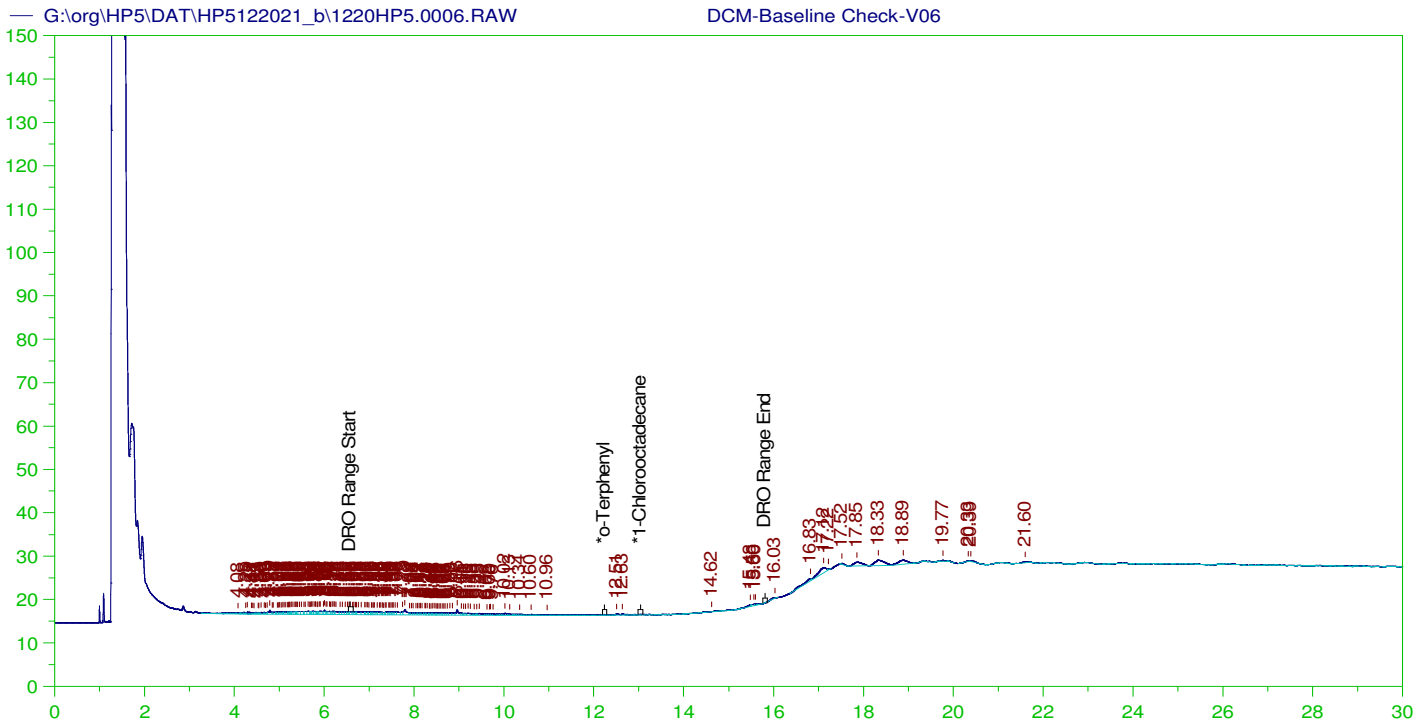
DRO Area:2.699696E+08 DRO Amount: 8610.595
TEH Area:2.810183E+08 TEH Amount: 8962.988

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5122021_b\1220HP5.0005.RAW

| COMPOUND | ACTUAL(NG) | MEASURED(NG) | %RECOVERY | LIMITS |
|---|---|---|---|---|
| TOTAL DRO | 15000. | 8962.99 | 59.75 | 85-115 |

| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | LIMITS |
|---|---|---|---|---|---|
| *o-Terphenyl | 12.242 | 200. | 206.081 | 103.04 | 85-115 |
| *1-Chlorooctadecane | 13.085 | 200. | 38.702 | 19.35 | 85-115 |

G:\org\HP5\dat\HP5122021_b\Review\005_CCV_1220HP505r_DS_8015-24-IJ-L#.xls




**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: DCM-Baseline Check-V06
Raw File: G:\org\HP5\DAT\HP5122021_b\1220HP5.0006.RAW
Date & Time Acquired: 12/20/2021 12:24:06 PM
Method File: G:\Org\HP5\Methods\DR_8015-IBb-LEXP.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IB.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

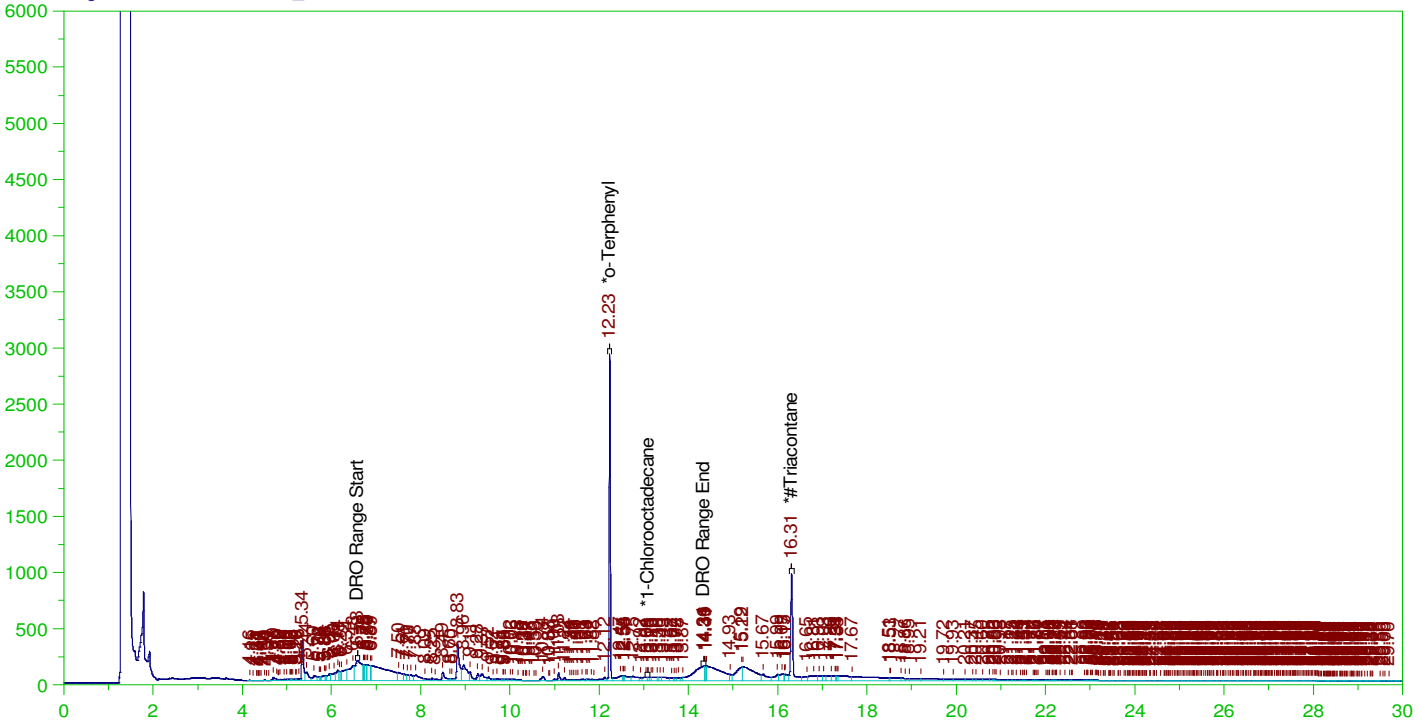
Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.54 to 15.86

| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | | %REC |
|---|---|---|---|---|---|
| *o-Terphenyl | 29.969 | 200. | . | . | - |
| *1-Chlorooctadecane | 29.969 | 200. | . | . | - |

DRO Area:128882.4 DRO Amount: 4.110663
TEH Area:307564.3 TEH Amount: 9.809665

**ERH2203 (RHMW14-03)** Batch ID: 162268

G:\org\HP5\DAT\HP5122021_b\1220HP5.0007.RAW B21121402-003B ;1220HP5 , $HC-8015-DRO-W,




**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: B21121402-003B ;1220HP5 , $HC-8015-DRO-W,
Raw File: G:\org\HP5\DAT\HP5122021_b\1220HP5.0007.RAW
Date & Time Acquired: 12/20/2021 1:06:52 PM
Method File: G:\Org\HP5\Methods\DR_8015-122007-IJ-L%.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IJ-24-Tri.CAL
Sample Weight: 1020 Dilution: 1 S.A.: 1

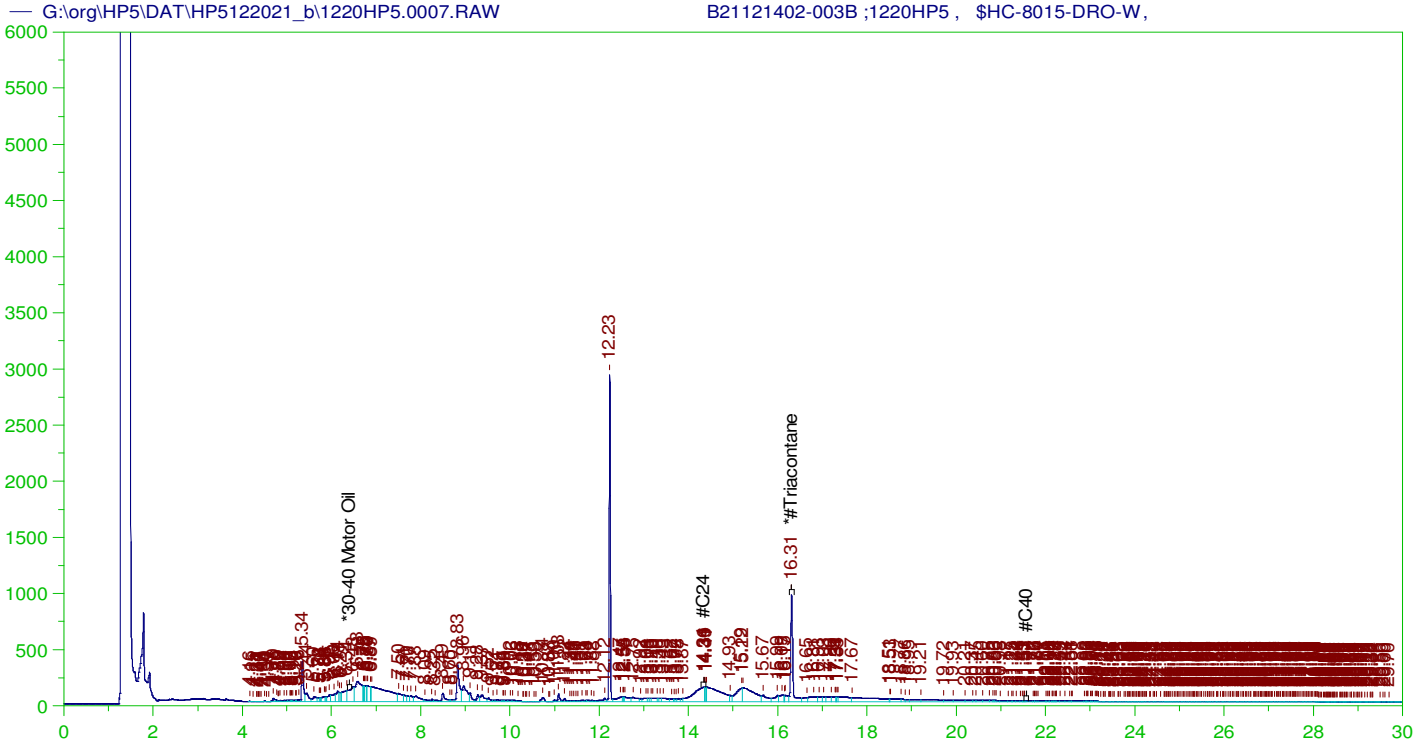
Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.53 to 14.39

| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | |
|---|---|---|---|---|---|
| *o-Terphenyl | 12.233 | .196 | .153 | 78. | - |
| *1-Chlorooctadecane | 13.083 | .196 | .002 | 1.13 | - |
| *#Triacontane | 16.309 | .196 | .1 | 50.8 | - |

DRO Area:2.032198E+07 DRO Amount: 0.6354541
TEH Area:4.385293E+07 TEH Amount: 1.37125

**ERH2203 (RHMW14-03)** Batch ID: 162268

G:\org\HP5\DAT\HP5122021_b\1220HP5.0007.RAW B21121402-003B ;1220HP5 , $HC-8015-DRO-W,




**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

Sample Name: B21121402-003B ;1220HP5 , $HC-8015-DRO-W,
Raw File: G:\org\HP5\DAT\HP5122021_b\1220HP5.0007.RAW
Date & Time Acquired: 12/20/2021 1:06:52 PM
Method File: G:\Org\HP5\Methods\DR_OROS-122007-AK-L%.MET
Calibration File: G:\Org\HP5\Cals\SW8015C_ORO211017AK-SAMP.CAL
Sample Weight: 1020 Dilution: 1 S.A.: 1

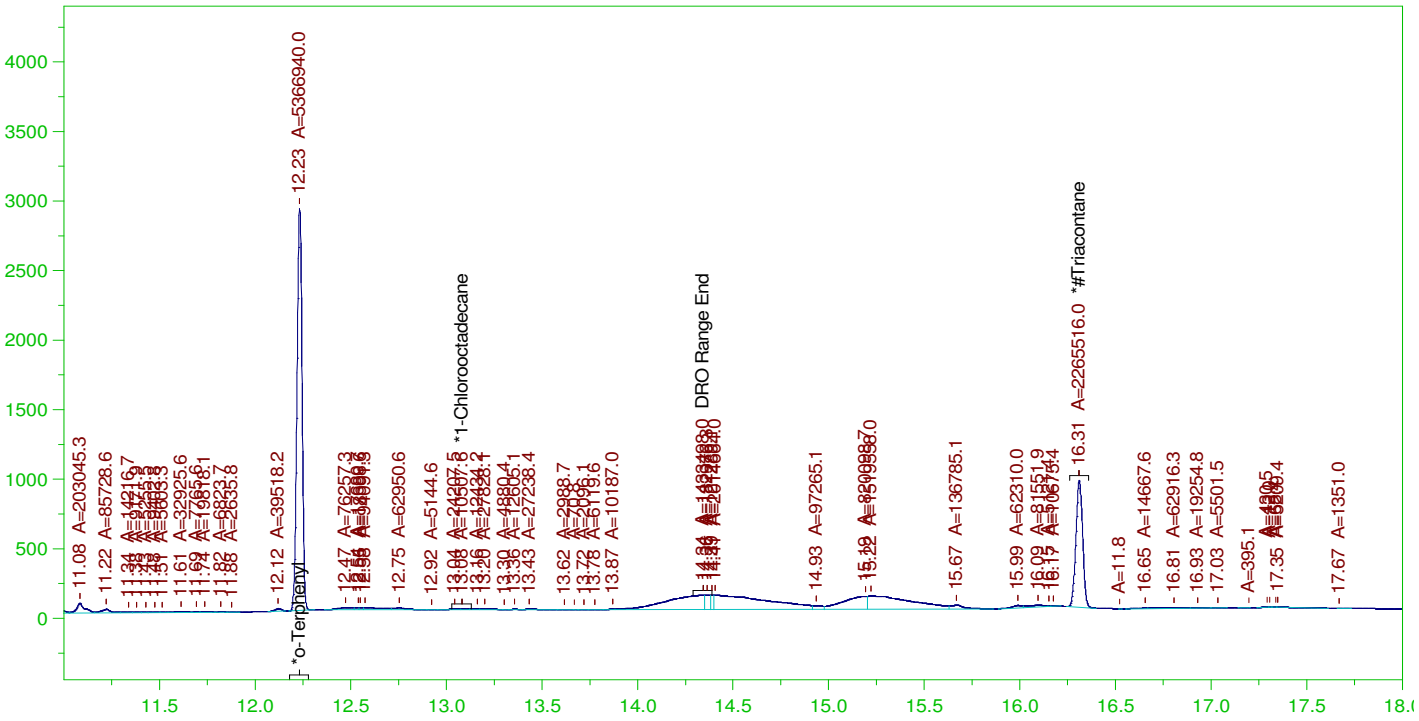
Mean RF for for Residual Range Organics Calculations: 28542.41
Rt range for Residual Range Organics: 14.29 to 21.62

| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | |
|---|---|---|---|---|---|
| *#Triacontane | 16.309 | .49 | .099 | 20.28 | - |

RRO Area:1.808739E+07 RRO AMOUNT: 0.6212767

**ERH2203 (RHMW14-03)** Batch ID: 162268

G:\org\HP5\DAT\HP5122021_b\1220HP5.0007.RAW B21121402-003B ;1220HP5 , $HC-8015-DRO-W,




**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: B21121402-003B ;1220HP5 , $HC-8015-DRO-W,
Raw File: G:\org\HP5\DAT\HP5122021_b\1220HP5.0007.RAW
Date & Time Acquired: 12/20/2021 1:06:52 PM
Method File: G:\Org\HP5\Methods\DS_8015-C24T-IJ-L#.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IJ-24-Tri.CAL
Sample Weight: 1020 Dilution: 1 S.A.: 1

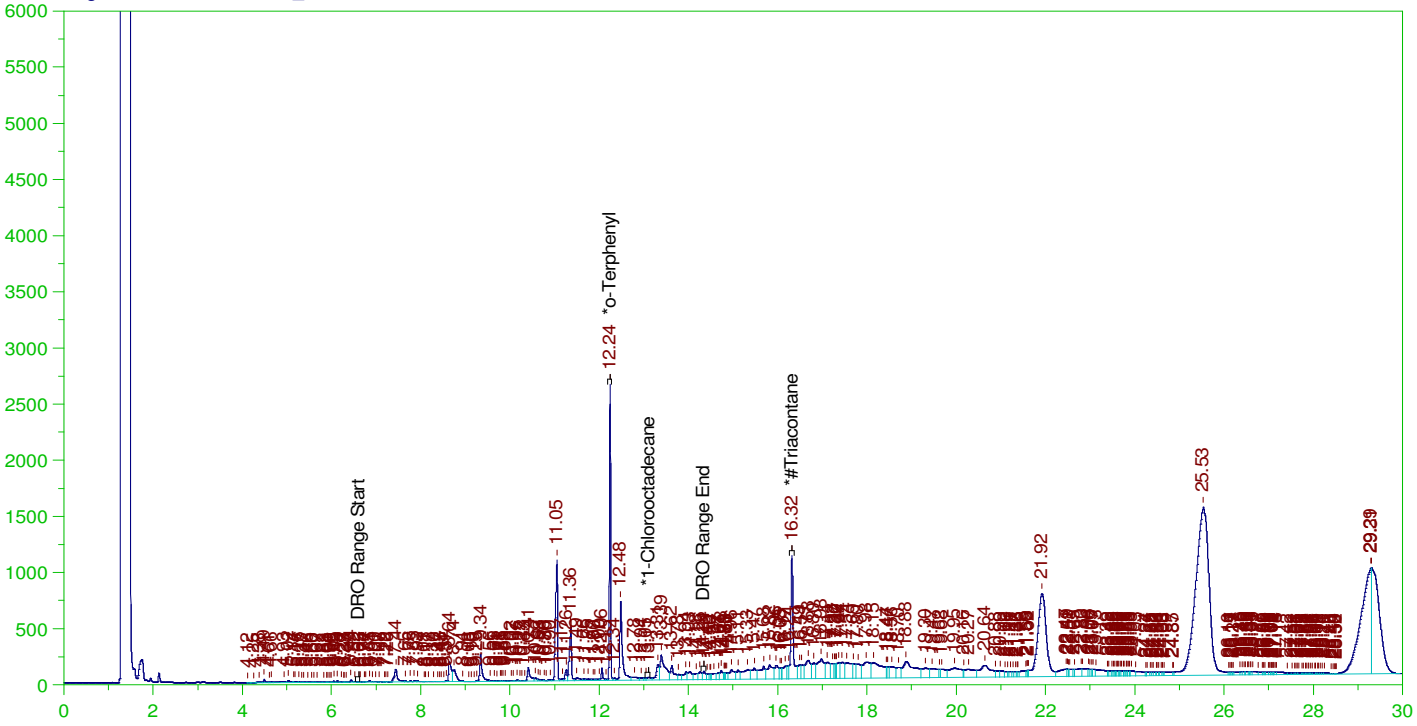
Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.53 to 14.39

| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | |
|---|---|---|---|---|---|
| *o-Terphenyl | 12.233 | .196 | .148 | 75.57 | - |
| *1-Chlorooctadecane | 13.083 | .196 | . .15 | | - |
| *#Triacontane | 16.309 | .196 | .077 | 39.15 | - |

DRO Area:1.609103E+07 DRO Amount: 0.5031551
TEH Area:2.727245E+07 TEH Amount: 0.8527901

**ERH2186 (RHMW06)** Batch ID: 162268

G:\org\HP5\DAT\HP5122021_b\1220HP5.0008.RAW B21121402-001B ;1220HP5 , $HC-8015-DRO-W,




**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: B21121402-001B ;1220HP5 , $HC-8015-DRO-W,
Raw File: G:\org\HP5\DAT\HP5122021_b\1220HP5.0008.RAW
Date & Time Acquired: 12/20/2021 1:49:32 PM
Method File: G:\Org\HP5\Methods\DR_8015-122007-IJ-L%.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IJ-24-Tri.CAL
Sample Weight: 990 Dilution: 1 S.A.: 1

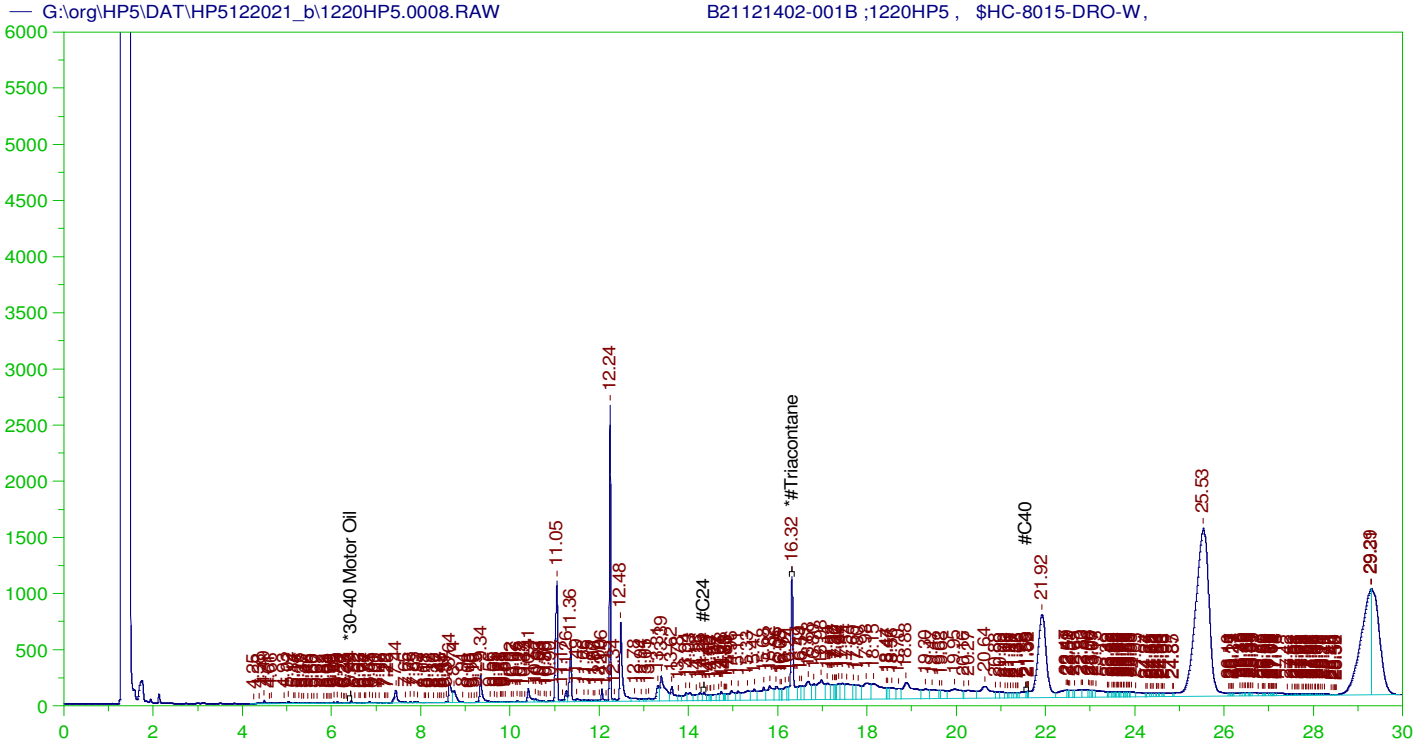
Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.53 to 14.39

| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | |
|---|---|---|---|---|---|
| *o-Terphenyl | 12.241 | .202 | .149 | 73.57 | - |
| *1-Chlorooctadecane | 13.108 | .202 | .005 | 2.38 | - |
| *#Triacontane | 16.316 | .202 | .134 | 66.13 | - |

DRO Area:1.941428E+07 DRO Amount: 0.625467
TEH Area:1.380049E+08 TEH Amount: 4.446082

**ERH2186 (RHMW06)** Batch ID: 162268

G:\org\HP5\DAT\HP5122021_b\1220HP5.0008.RAW B21121402-001B ;1220HP5 , $HC-8015-DRO-W,




**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

Sample Name: B21121402-001B ;1220HP5 , $HC-8015-DRO-W,
Raw File: G:\org\HP5\DAT\HP5122021_b\1220HP5.0008.RAW
Date & Time Acquired: 12/20/2021 1:49:32 PM
Method File: G:\Org\HP5\Methods\DR_OROS-122007-AK-L%.MET
Calibration File: G:\Org\HP5\Cals\SW8015C_ORO211017AK-SAMP.CAL
Sample Weight: 990 Dilution: 1 S.A.: 1

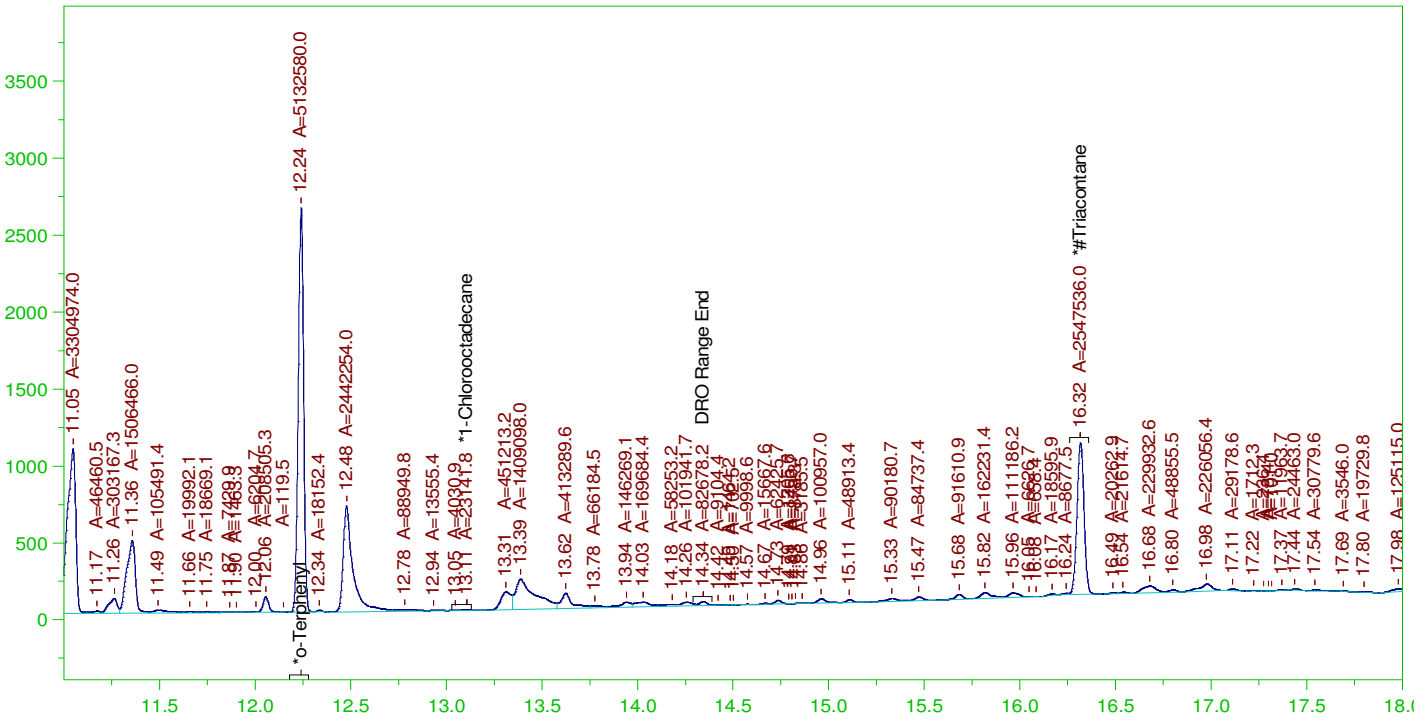
Mean RF for for Residual Range Organics Calculations: 28542.41
Rt range for Residual Range Organics: 14.29 to 21.62

| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | |
|---|---|---|---|---|---|
| *#Triacontane | 16.316 | .505 | .134 | 26.45 | - |

RRO Area:3.935323E+07 RRO AMOUNT: 1.39269

**ERH2186 (RHMW06)** Batch ID: 162268

G:\org\HP5\DAT\HP5122021_b\1220HP5.0008.RAW B21121402-001B ;1220HP5 , $HC-8015-DRO-W,



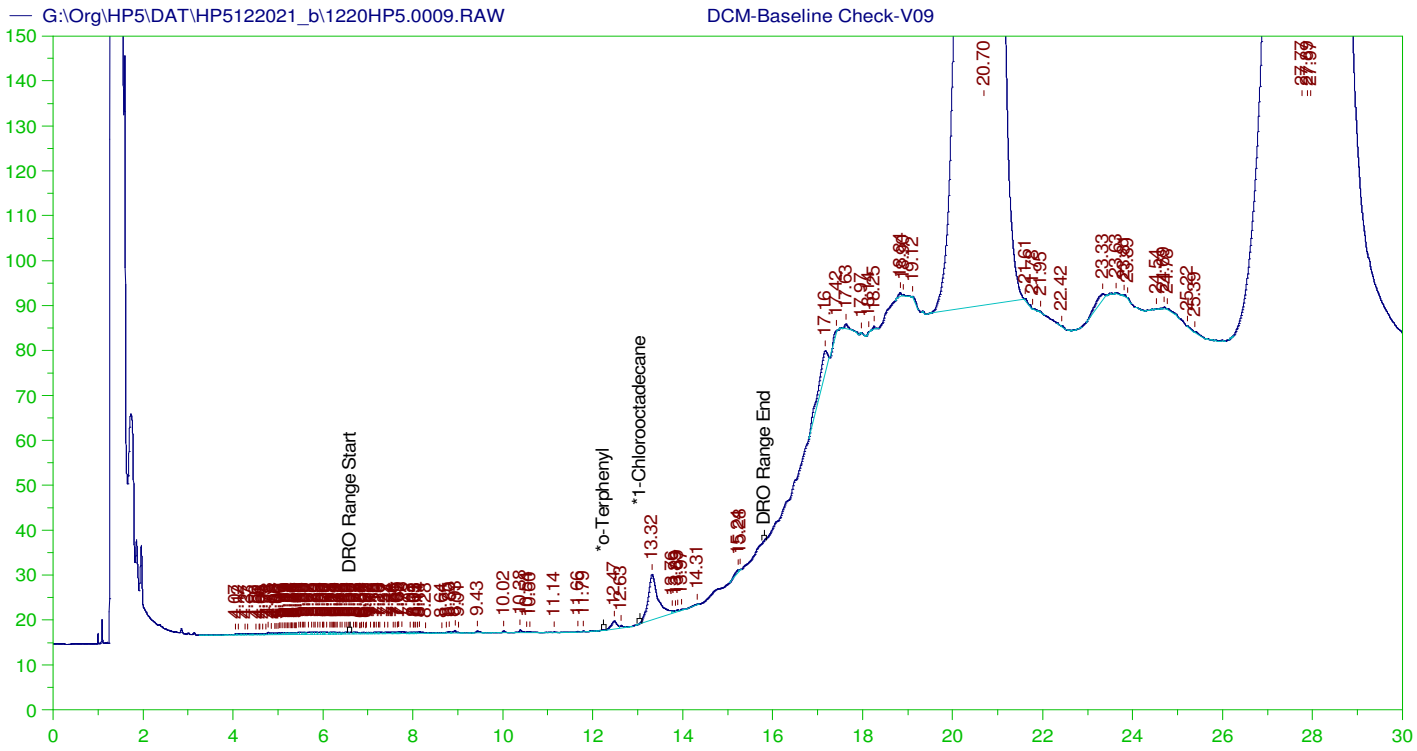

**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: B21121402-001B ;1220HP5 , $HC-8015-DRO-W,
Raw File: G:\org\HP5\DAT\HP5122021_b\1220HP5.0008.RAW
Date & Time Acquired: 12/20/2021 1:49:32 PM
Method File: G:\Org\HP5\Methods\DS_8015-C24T-IJ-L#.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IJ-24-Tri.CAL
Sample Weight: 990 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.53 to 14.39

| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | |
|---|---|---|---|---|---|
| *o-Terphenyl | 12.241 | .202 | .146 | 72.27 | - |
| *1-Chlorooctadecane | 13.108 | .202 | .001 | .33 | - |
| *#Triacontane | 16.316 | .202 | .089 | 44.03 | - |

DRO Area:1.517328E+07 DRO Amount: 0.4888354
TEH Area:5.909033E+07 TEH Amount: 1.903704




**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

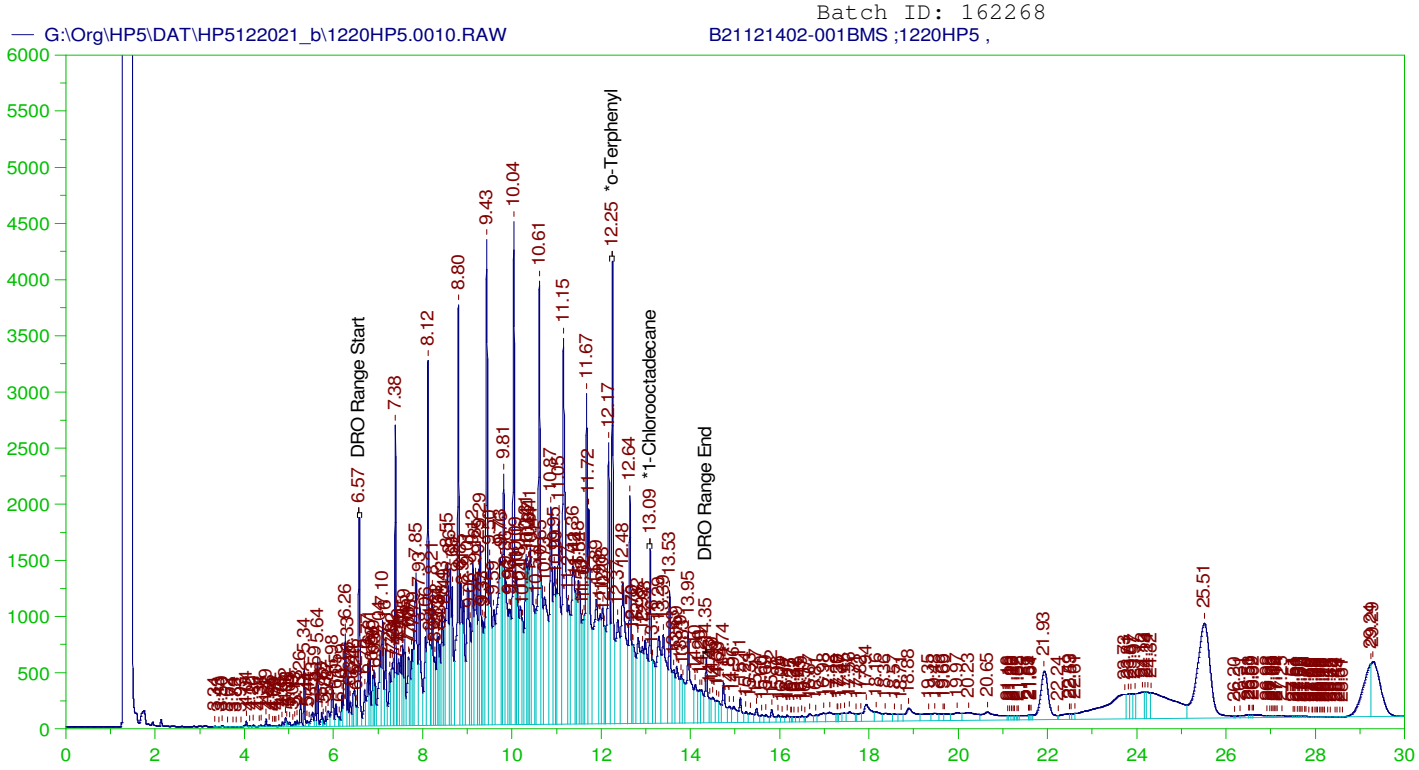
Sample Name: DCM-Baseline Check-V09
Raw File: G:\Org\HP5\DAT\HP5122021_b\1220HP5.0009.RAW
Date & Time Acquired: 12/20/2021 2:32:04 PM
Method File: G:\Org\HP5\Methods\DR_8015-IBb-Lexp.MET
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IB.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.54 to 15.86

| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | | %REC |
|---|---|---|---|---|---|
| *o-Terphenyl | 27.97 | 200. | . | . | - |
| *1-Chlorooctadecane | 27.97 | 200. | . | . | - |

DRO Area:257334.7 DRO Amount: 8.207608
TEH Area:2.481018E+07 TEH Amount: 791.3127

Batch ID: 162268




**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

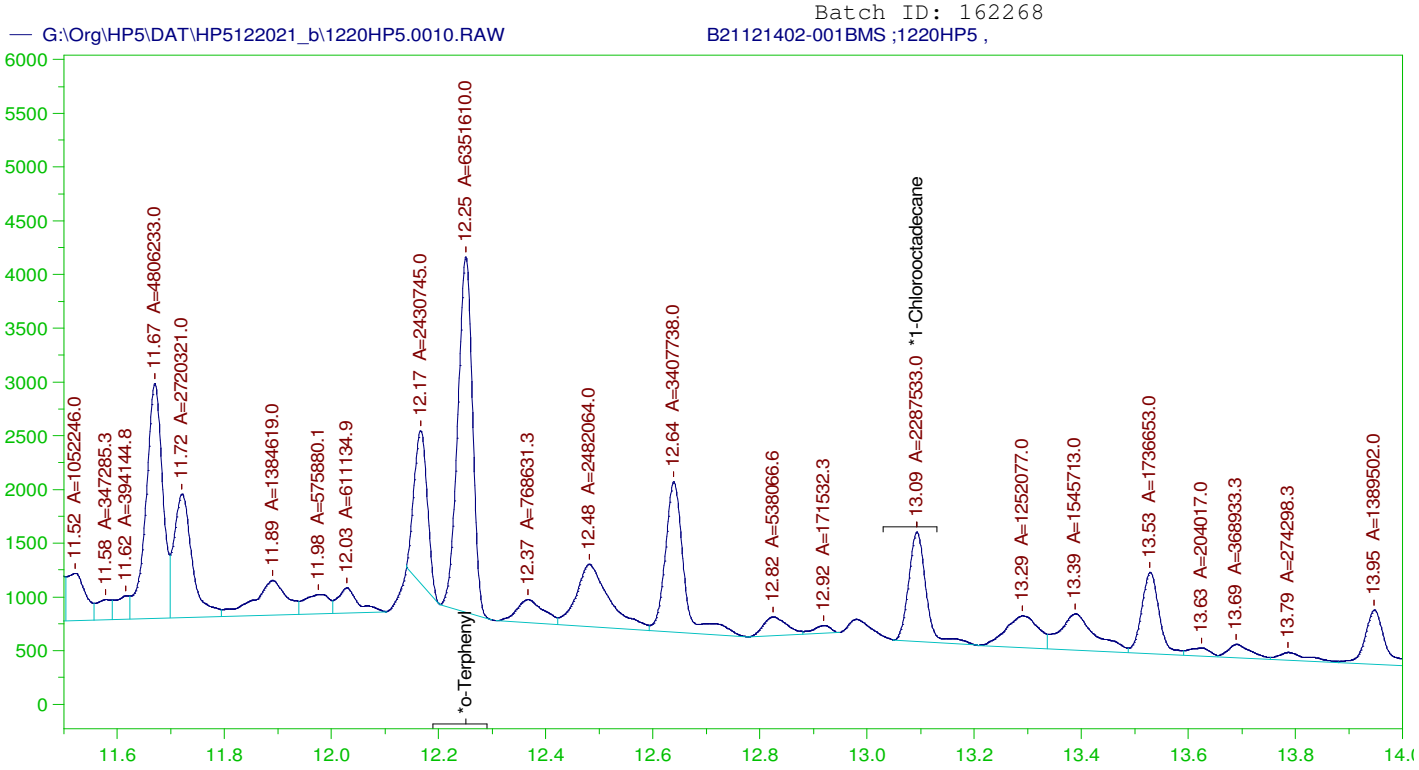
Sample Name: B21121402-001BMS ;1220HP5 ,
Raw File: G:\Org\HP5\DAT\HP5122021_b\1220HP5.0010.RAW
Date & Time Acquired: 12/20/2021 3:14:34 PM
Method File: G:\Org\HP5\Methods\D3_8015-24-IJ-L%.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IJ-24.CAL
Sample Weight: 1000 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.53 to 14.39

| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | |
|---|---|---|---|---|---|
| *o-Terphenyl | 12.251 | .2 | .323 | 161.53 | - |
| *1-Chlorooctadecane | 13.093 | .2 | .147 | 73.68 | - |

DRO Area:4.230734E+08 DRO Amount: 13.49379
TEH Area:5.333892E+08 TEH Amount: 17.01228

Batch ID: 162268



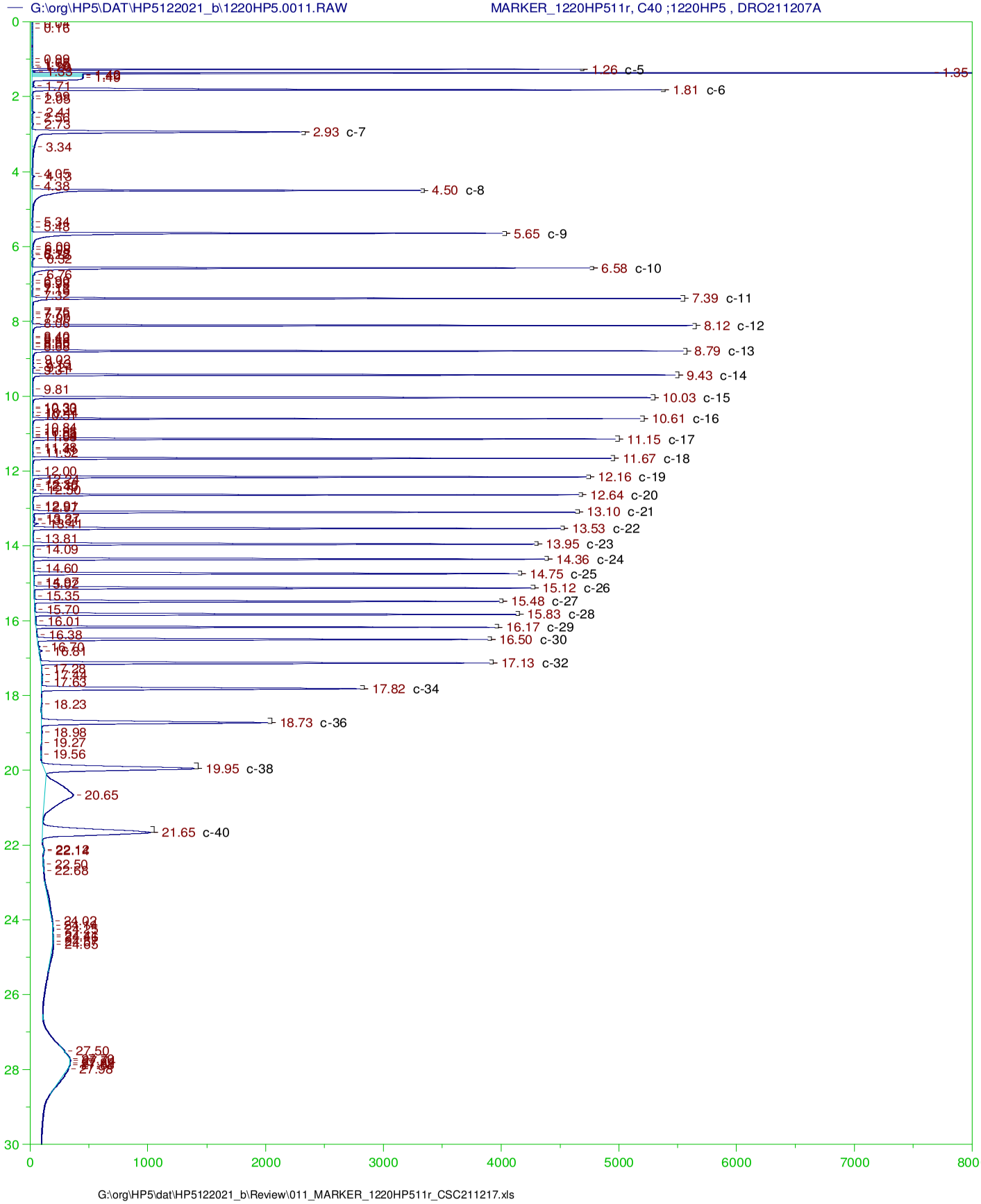

**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

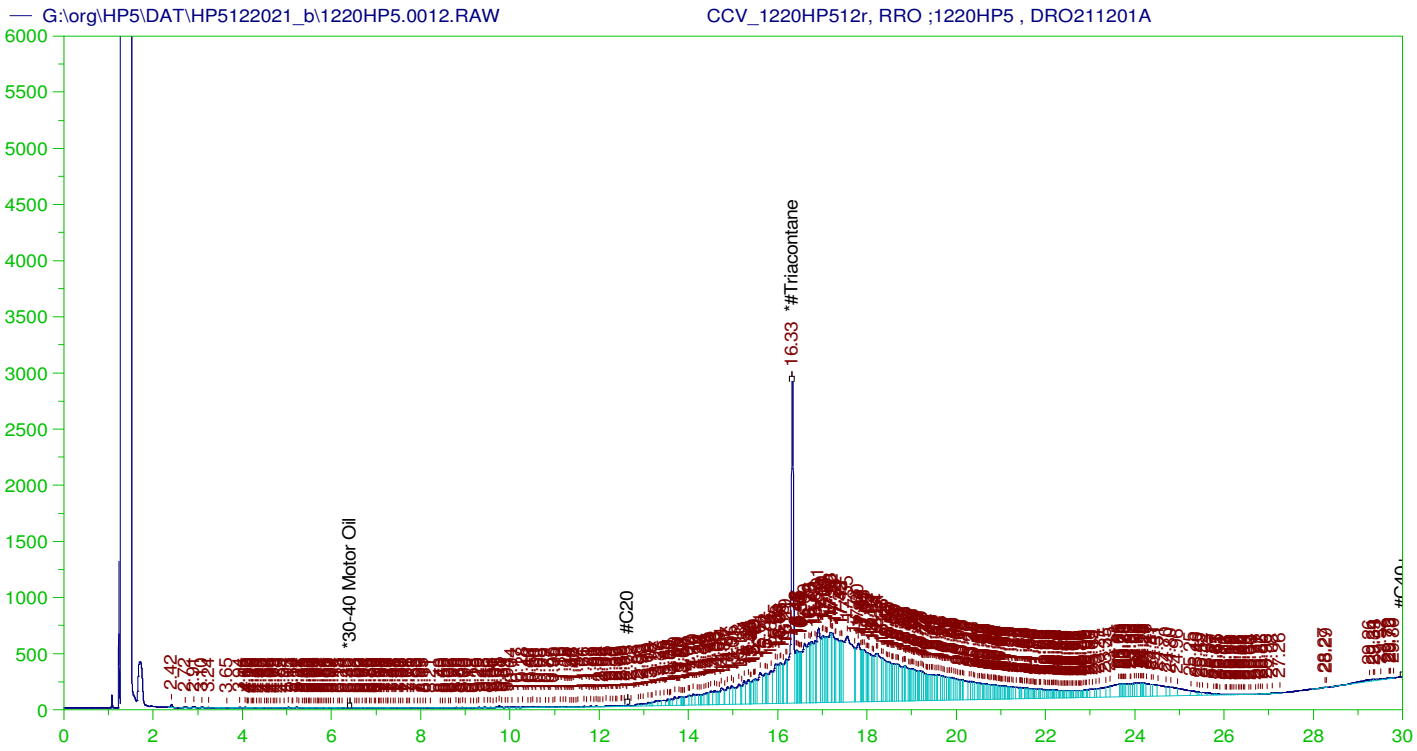
Sample Name: B21121402-001BMS ;1220HP5 ,
Raw File: G:\Org\HP5\DAT\HP5122021_b\1220HP5.0010.RAW
Date & Time Acquired: 12/20/2021 3:14:34 PM
Method File: G:\Org\HP5\Methods\DS_8015-24-IJ-L#.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IJ-24.CAL
Sample Weight: 1000 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.53 to 14.39

| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | |
|---|---|---|---|---|---|
| *o-Terphenyl | 12.251 | .2 | .179 | 89.44 | - |
| *1-Chlorooctadecane | 13.093 | .2 | .064 | 32.21 | - |

DRO Area:2.14939E+08 DRO Amount: 6.855411
TEH Area:2.285673E+08 TEH Amount: 7.290081


G:\org\HP5\DAT\HP5122021_b\1220HP5.0011.RAW
MARKER_1220HP511r, C40 ;1220HP5 , DRO211207A
1.26 c-5
1.35
1.81 c-6
2.93 c-7
4.50 c-8
5.65 c-9
6.58 c-10
7.39 c-11
8.12 c-12
8.79 c-13
9.43 c-14
10.03 c-15
10.61 c-16
11.15 c-17
11.67 c-18
12.16 c-19
12.64 c-20
13.10 c-21
13.53 c-22
13.95 c-23
14.36 c-24
14.75 c-25
15.12 c-26
15.48 c-27
15.83 c-28
16.17 c-29
16.50 c-30
17.13 c-32
17.82 c-34
18.73 c-36
19.95 c-38
20.65
21.65 c-40
0
1000
2000
3000
4000
5000
6000
7000
800
G:\org\HP5\dat\HP5122021_b\Review\011_MARKER_1220HP511r_CSC211217.xls




**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

Sample Name: CCV_1220HP512r, RRO ;1220HP5 , DRO211201A
Raw File: G:\org\HP5\DAT\HP5122021_b\1220HP5.0012.RAW
Date & Time Acquired: 12/20/2021 4:42:11 PM
Method File: G:\Org\HP5\Methods\DC_ORO-AK-L%.MET
Calibration File: G:\Org\HP5\Cals\SW8015C_ORO211017AK.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for for ~~Residual~~ TEH (Oil Range) Organics Calculations: 28542.41
Rt range for ~~Residual~~ TEH (Oil Range) Organics: 12.58 to 30.05

| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | |
|---|---|---|---|---|---|
| *#Triacontane | 16.327 | 500. | 357.44 | 71.49 | - |

~~RRO~~ TEH (Oil Range) Area:1.477999E+08 ~~RRO~~ TEH (Oil Range) AMOUNT: 5178.255

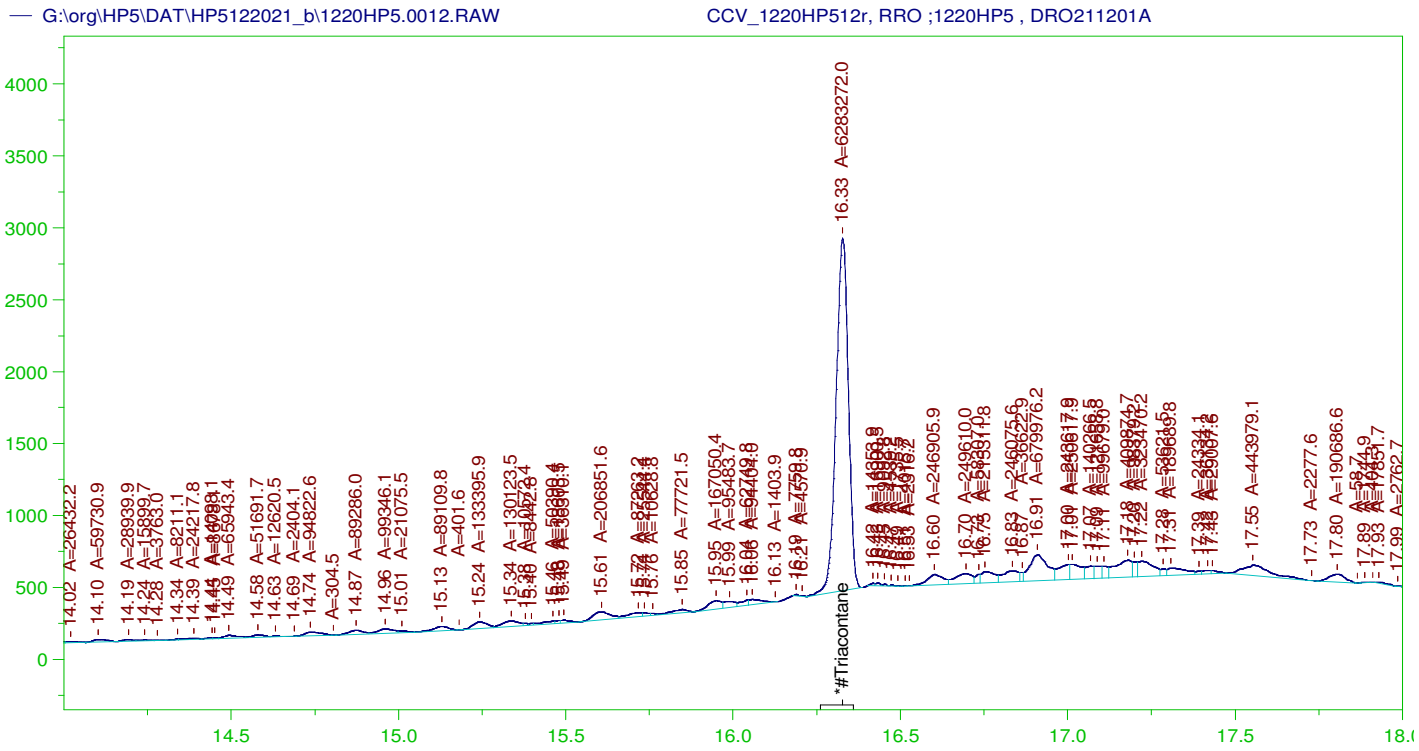
CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5122021_b\1220HP5.0012.RAW

| COMPOUND | ACTUAL(NG) | MEASURED(NG) | %RECOVERY | LIMITS |
|---|---|---|---|---|
| *30-40 Motor Oil | 5000. | .09 | . | 75-125 |

| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | LIMITS |
|---|---|---|---|---|---|
| *#Triacontane | 16.327 | 200. | 357.44 | 178.72 | 75-125 |

AMN 01/10/2022

G:\org\HP5\dat\HP5122021_b\Review\012_CCV_1220HP512r_DC_ORO-AK-L%.xls




**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

Sample Name: CCV_1220HP512r, RRO ;1220HP5 , DRO211201A
Raw File: G:\org\HP5\DAT\HP5122021_b\1220HP5.0012.RAW
Date & Time Acquired: 12/20/2021 4:42:11 PM
Method File: G:\Org\HP5\Methods\DS_ORO-AK-L%.MET
Calibration File: G:\Org\HP5\Cals\SW8015C_ORO211017AK.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 28542.41
Rt range for Residual Range Organics: 12.58 to 30.05

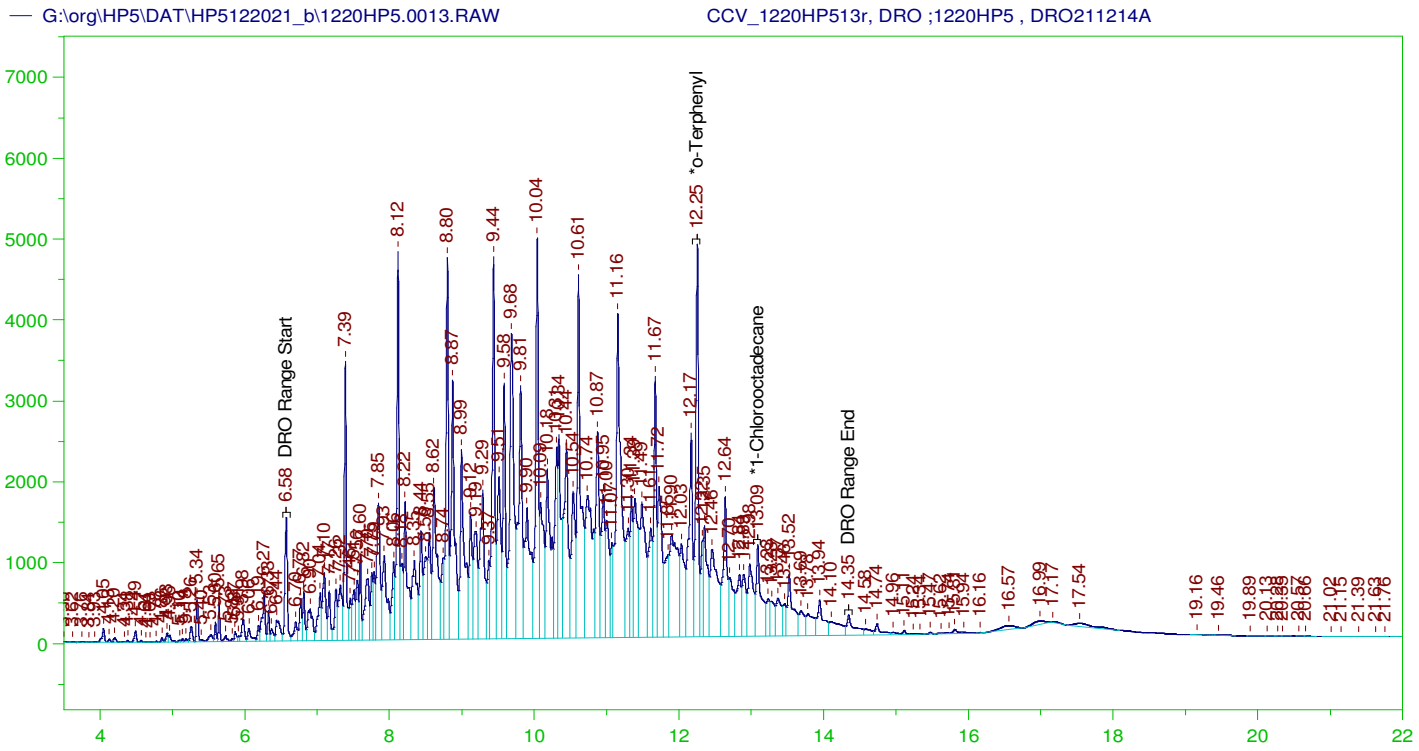
| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | |
|---|---|---|---|---|---|
| *#Triacontane | 16.327 | 500. | 217.188 | 43.44 | - |

RRO Area:7332777 RRO AMOUNT: 256.9081

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5122021_b\1220HP5.0012.RAW

| COMPOUND | ACTUAL(NG) | MEASURED(NG) | %RECOVERY | LIMITS |
|---|---|---|---|---|
| *30-40 Motor Oil | 5000. | .09 | . | 75-125 |

| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | LIMITS |
|---|---|---|---|---|---|
| *#Triacontane | 16.327 | 200. | 217.188 | 108.59 | 75-125 |




**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: CCV_1220HP513r, DRO ;1220HP5 , DRO211214A
Raw File: G:\org\HP5\DAT\HP5122021_b\1220HP5.0013.RAW
Date & Time Acquired: 12/20/2021 5:25:06 PM
Method File: G:\Org\HP5\Methods\DC_8015-24-IJ-L%.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IJ-24.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.53 to 14.39

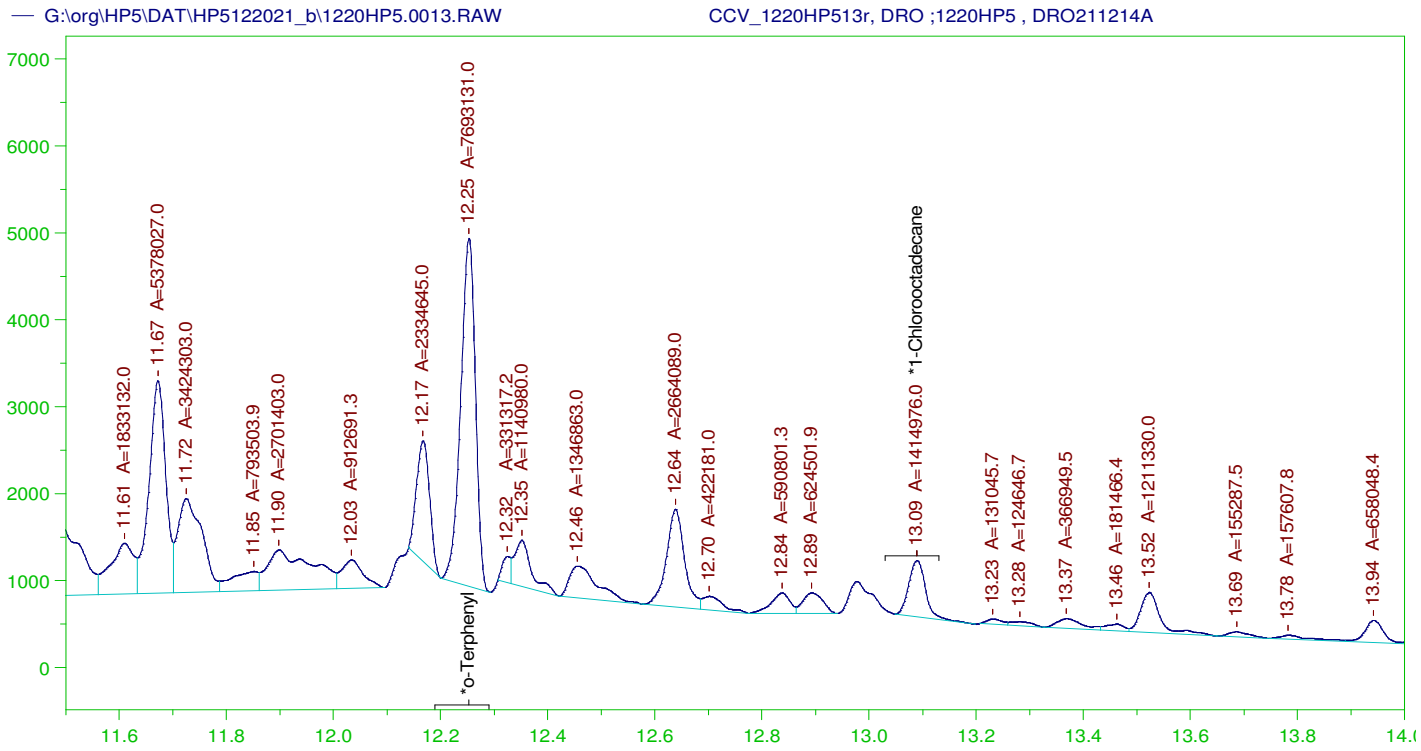
| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | |
|---|---|---|---|---|---|
| *o-Terphenyl | 12.253 | 200. | 349.648 | 174.82 | - |
| *1-Chlorooctadecane | 13.089 | 200. | 157.996 | 79. | - |

DRO Area:4.756471E+08 DRO Amount: 15170.61
TEH Area:4.912448E+08 TEH Amount: 15668.1

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5122021_b\1220HP5.0013.RAW

| COMPOUND | ACTUAL(NG) | MEASURED(NG) | %RECOVERY | LIMITS |
|---|---|---|---|---|
| TOTAL DRO | 15000. | 15668.1 | 104.45 | 85-115 |

| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | LIMITS |
|---|---|---|---|---|---|
| *o-Terphenyl | 12.253 | 200. | 349.648 | 174.82 | 85-115 |
| *1-Chlorooctadecane | 13.089 | 200. | 157.996 | 79. | 85-115 |




**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: CCV_1220HP513r, DRO ;1220HP5 , DRO211214A
Raw File: G:\org\HP5\DAT\HP5122021_b\1220HP5.0013.RAW
Date & Time Acquired: 12/20/2021 5:25:06 PM
Method File: G:\Org\HP5\Methods\DS_8015-24-IJ-L#.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IJ-24.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.53 to 14.39

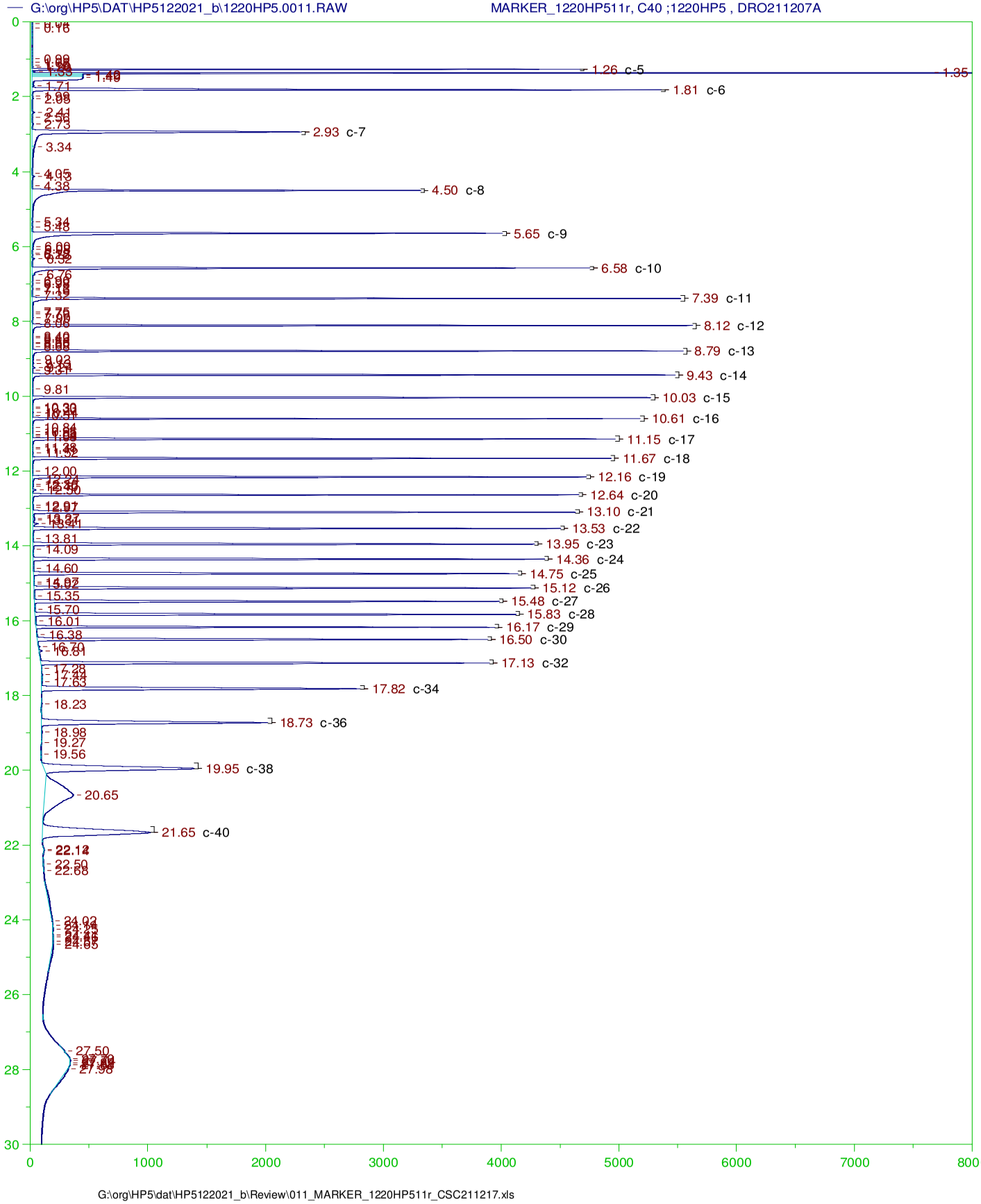
| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | |
|---|---|---|---|---|---|
| *o-Terphenyl | 12.253 | 200. | 216.652 | 108.33 | - |
| *1-Chlorooctadecane | 13.089 | 200. | 39.848 | 19.92 | - |

DRO Area:2.777844E+08 DRO Amount: 8859.844
TEH Area:2.890983E+08 TEH Amount: 9220.697

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5122021_b\1220HP5.0013.RAW

| COMPOUND | ACTUAL(NG) | MEASURED(NG) | %RECOVERY | LIMITS |
|---|---|---|---|---|
| TOTAL DRO | 15000. | 9220.7 | 61.47 | 85-115 |

| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | LIMITS |
|---|---|---|---|---|---|
| *o-Terphenyl | 12.253 | 200. | 216.652 | 108.33 | 85-115 |
| *1-Chlorooctadecane | 13.089 | 200. | 39.848 | 19.92 | 85-115 |



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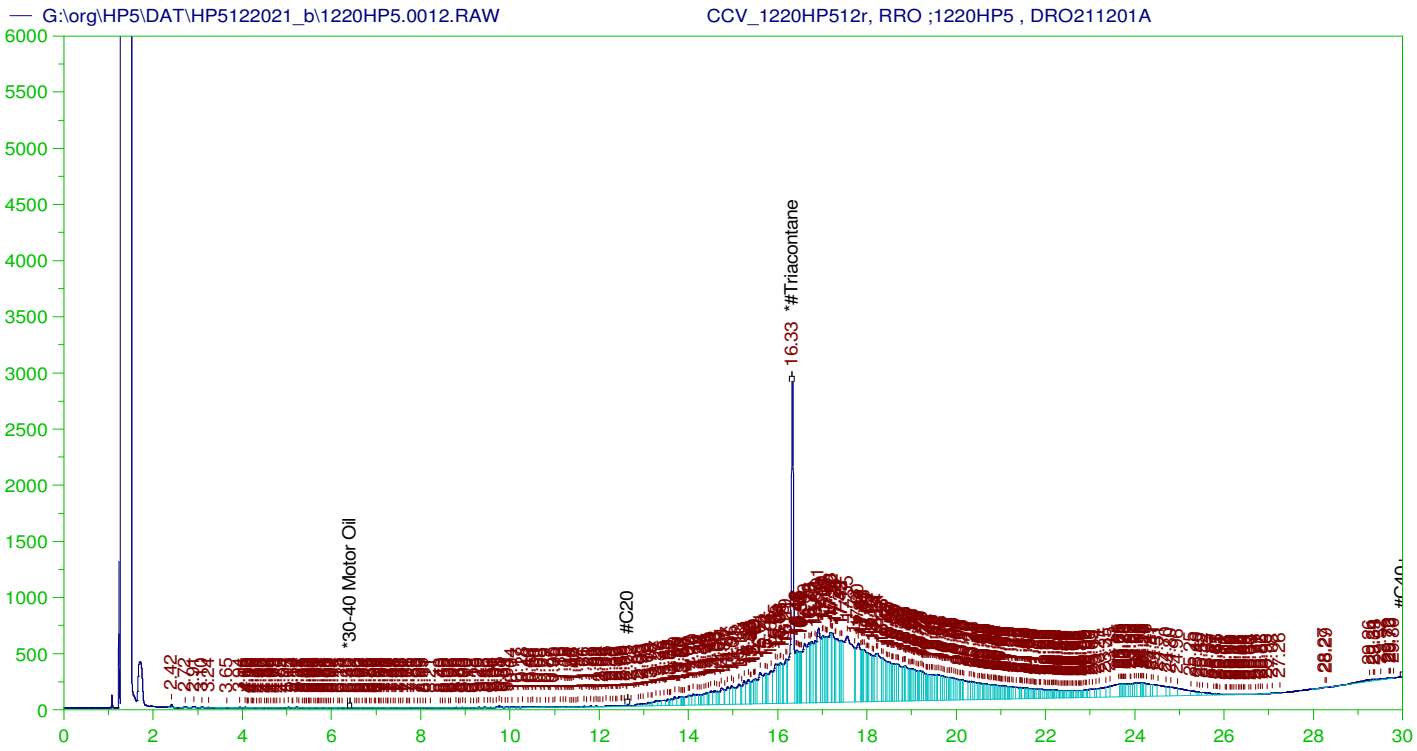



**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

Sample Name: CCV_1220HP512r, RRO ;1220HP5 , DRO211201A
Raw File: G:\org\HP5\DAT\HP5122021_b\1220HP5.0012.RAW
Date & Time Acquired: 12/20/2021 4:42:11 PM
Method File: G:\Org\HP5\Methods\DC_ORO-AK-L%.MET
Calibration File: G:\Org\HP5\Cals\SW8015C_ORO211017AK.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for for ~~Residual~~ TEH (Oil Range) Organics Calculations: 28542.41
Rt range for ~~Residual~~ TEH (Oil Range) Organics: 12.58 to 30.05

| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | |
|---|---|---|---|---|---|
| *#Triacontane | 16.327 | 500. | 357.44 | 71.49 | - |

~~RRO~~ TEH (Oil Range) Area:1.477999E+08 ~~RRO~~ TEH (Oil Range) AMOUNT: 5178.255

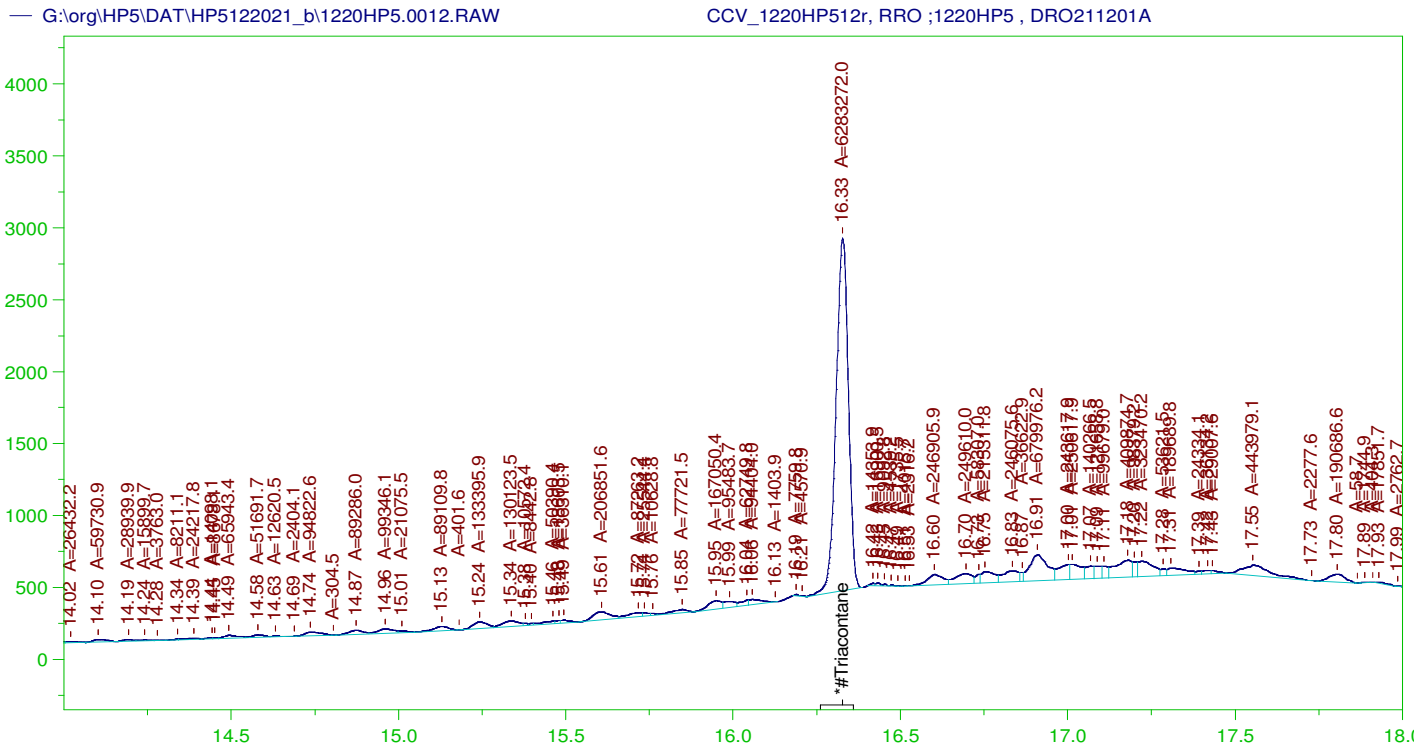
CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5122021_b\1220HP5.0012.RAW

| COMPOUND | ACTUAL(NG) | MEASURED(NG) | %RECOVERY | LIMITS |
|---|---|---|---|---|
| *30-40 Motor Oil | 5000. | .09 | . | 75-125 |

| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | LIMITS |
|---|---|---|---|---|---|
| *#Triacontane | 16.327 | 200. | 357.44 | 178.72 | 75-125 |

AMN 01/10/2022

G:\org\HP5\dat\HP5122021_b\Review\012_CCV_1220HP512r_DC_ORO-AK-L%.xls




**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

Sample Name: CCV_1220HP512r, RRO ;1220HP5 , DRO211201A
Raw File: G:\org\HP5\DAT\HP5122021_b\1220HP5.0012.RAW
Date & Time Acquired: 12/20/2021 4:42:11 PM
Method File: G:\Org\HP5\Methods\DS_ORO-AK-L%.MET
Calibration File: G:\Org\HP5\Cals\SW8015C_ORO211017AK.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 28542.41
Rt range for Residual Range Organics: 12.58 to 30.05

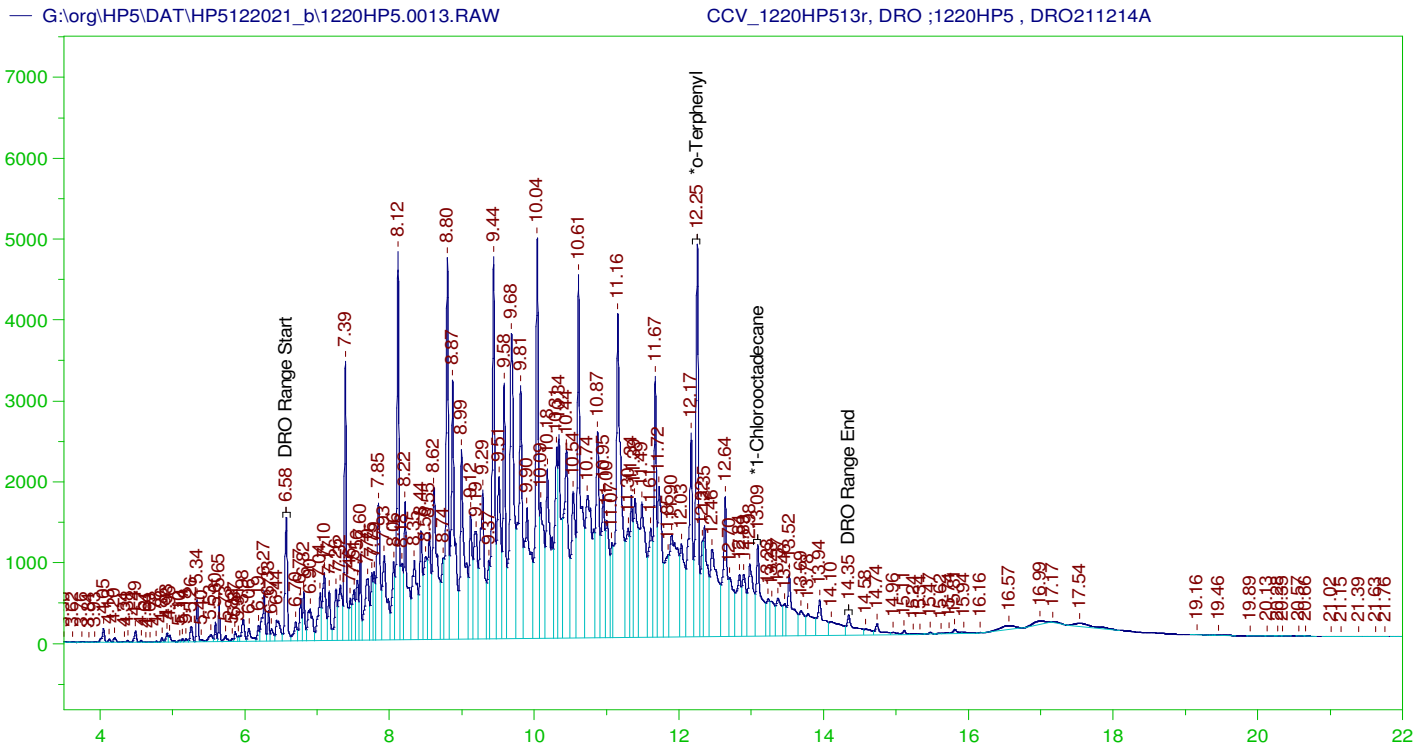
| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | |
|---|---|---|---|---|---|
| *#Triacontane | 16.327 | 500. | 217.188 | 43.44 | - |

RRO Area:7332777 RRO AMOUNT: 256.9081

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5122021_b\1220HP5.0012.RAW

| COMPOUND | ACTUAL(NG) | MEASURED(NG) | %RECOVERY | LIMITS |
|---|---|---|---|---|
| *30-40 Motor Oil | 5000. | .09 | . | 75-125 |

| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | LIMITS |
|---|---|---|---|---|---|
| *#Triacontane | 16.327 | 200. | 217.188 | 108.59 | 75-125 |




**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: CCV_1220HP513r, DRO ;1220HP5 , DRO211214A
Raw File: G:\org\HP5\DAT\HP5122021_b\1220HP5.0013.RAW
Date & Time Acquired: 12/20/2021 5:25:06 PM
Method File: G:\Org\HP5\Methods\DC_8015-24-IJ-L%.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IJ-24.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.53 to 14.39

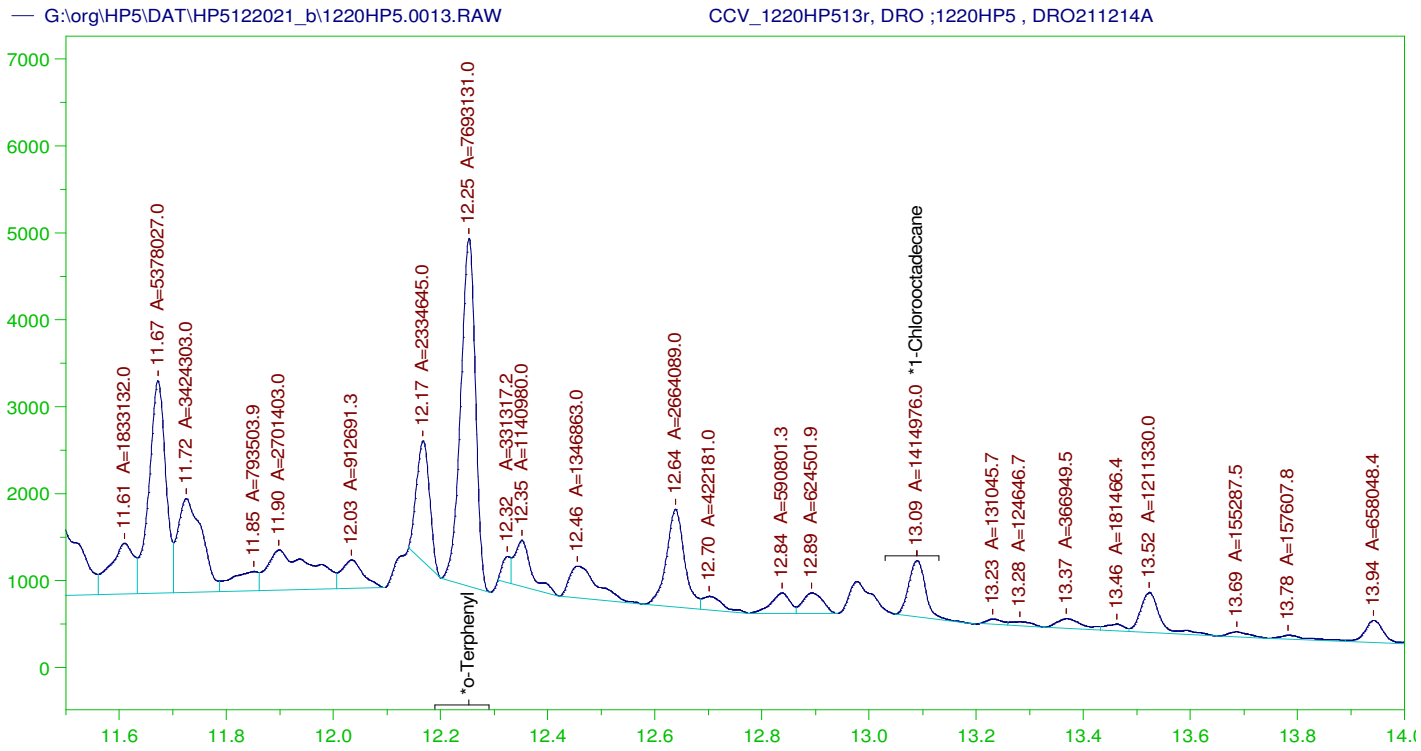
| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | |
|---|---|---|---|---|---|
| *o-Terphenyl | 12.253 | 200. | 349.648 | 174.82 | - |
| *1-Chlorooctadecane | 13.089 | 200. | 157.996 | 79. | - |

DRO Area:4.756471E+08 DRO Amount: 15170.61
TEH Area:4.912448E+08 TEH Amount: 15668.1

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5122021_b\1220HP5.0013.RAW

| COMPOUND | ACTUAL(NG) | MEASURED(NG) | %RECOVERY | LIMITS |
|---|---|---|---|---|
| TOTAL DRO | 15000. | 15668.1 | 104.45 | 85-115 |

| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | LIMITS |
|---|---|---|---|---|---|
| *o-Terphenyl | 12.253 | 200. | 349.648 | 174.82 | 85-115 |
| *1-Chlorooctadecane | 13.089 | 200. | 157.996 | 79. | 85-115 |




**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**
Sample Name: CCV_1220HP513r, DRO ;1220HP5 , DRO211214A
Raw File: G:\org\HP5\DAT\HP5122021_b\1220HP5.0013.RAW
Date & Time Acquired: 12/20/2021 5:25:06 PM
Method File: G:\Org\HP5\Methods\DS_8015-24-IJ-L#.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IJ-24.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.53 to 14.39

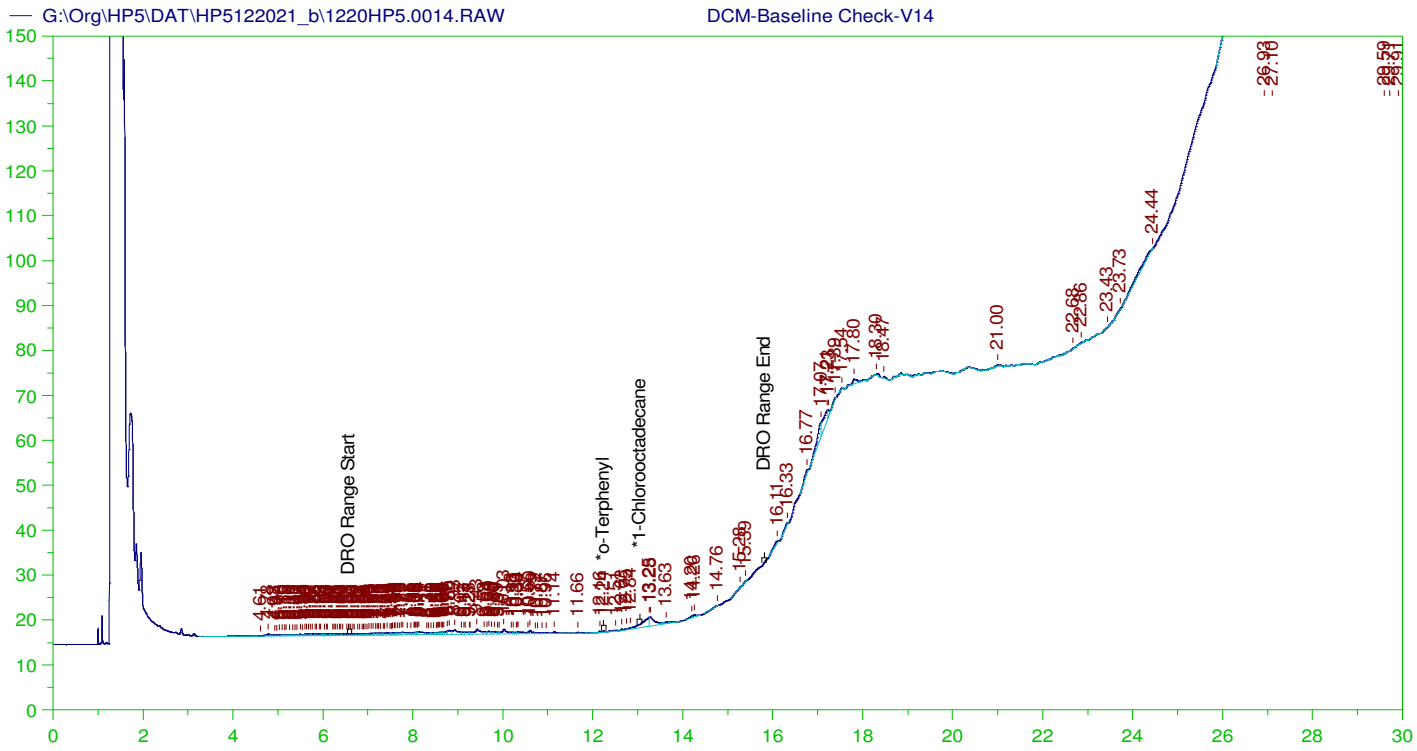
| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | |
|---|---|---|---|---|---|
| *o-Terphenyl | 12.253 | 200. | 216.652 | 108.33 | - |
| *1-Chlorooctadecane | 13.089 | 200. | 39.848 | 19.92 | - |

DRO Area:2.777844E+08 DRO Amount: 8859.844
TEH Area:2.890983E+08 TEH Amount: 9220.697

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5122021_b\1220HP5.0013.RAW

| COMPOUND | ACTUAL(NG) | MEASURED(NG) | %RECOVERY | LIMITS |
|---|---|---|---|---|
| TOTAL DRO | 15000. | 9220.7 | 61.47 | 85-115 |

| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | LIMITS |
|---|---|---|---|---|---|
| *o-Terphenyl | 12.253 | 200. | 216.652 | 108.33 | 85-115 |
| *1-Chlorooctadecane | 13.089 | 200. | 39.848 | 19.92 | 85-115 |

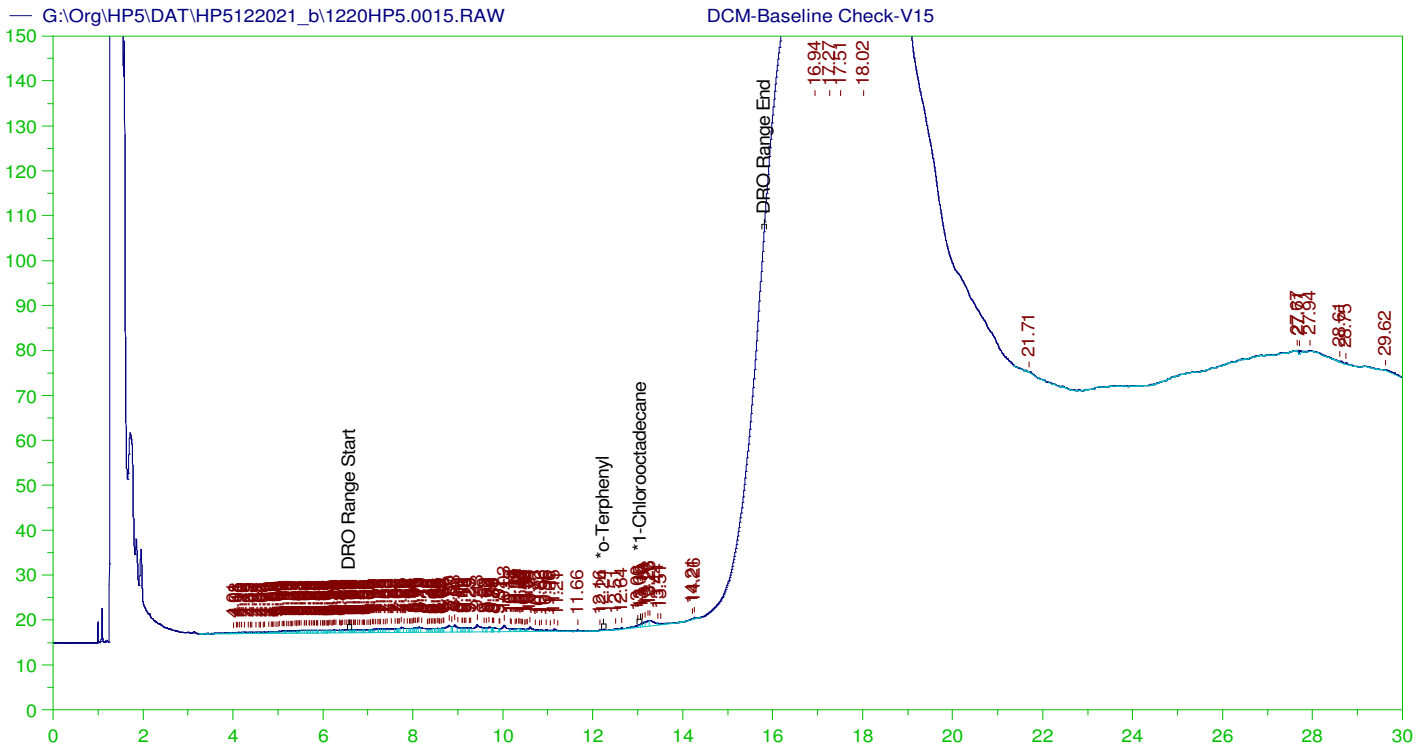



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**
Sample Name: DCM-Baseline Check-V14
Raw File: G:\Org\HP5\DAT\HP5122021_b\1220HP5.0014.RAW
Date & Time Acquired: 12/20/2021 6:07:57 PM
Method File: G:\Org\HP5\Methods\DR_8015-IBb-Lexp.MET
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IB.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.54 to 15.86

| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | |
|---|---|---|---|---|---|
| *o-Terphenyl | 12.24 | 200. | .029 | .01 | - |
| *1-Chlorooctadecane | 29.913 | 200. | . | . | - |

DRO Area:186069.3 DRO Amount: 5.934622
TEH Area:757286.6 TEH Amount: 24.15341



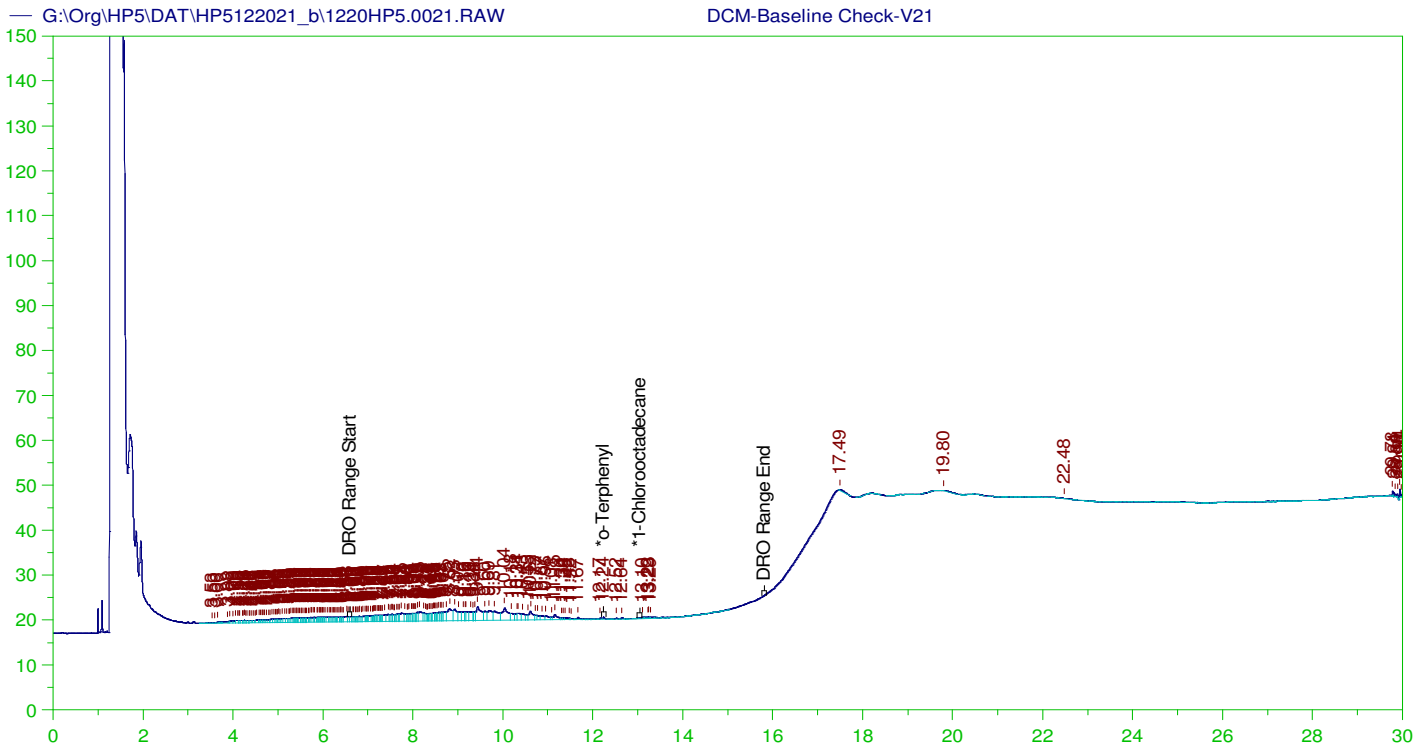

**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: DCM-Baseline Check-V15
Raw File: G:\Org\HP5\DAT\HP5122021_b\1220HP5.0015.RAW
Date & Time Acquired: 12/20/2021 6:50:57 PM
Method File: G:\Org\HP5\Methods\DR_8015-IBb-Lexp.MET
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IB.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.54 to 15.86

| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | |
|---|---|---|---|---|---|
| *o-Terphenyl | 12.24 | 200. | .022 | .01 | - |
| *1-Chlorooctadecane | 13.054 | 200. | .043 | .02 | - |

DRO Area:262917.8 DRO Amount: 8.385679
TEH Area:3854921 TEH Amount: 122.9515




**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: DCM-Baseline Check-V21
Raw File: G:\Org\HP5\DAT\HP5122021_b\1220HP5.0021.RAW
Date & Time Acquired: 12/20/2021 11:08:59 PM
Method File: G:\Org\HP5\Methods\DR_8015-IBb-Lexp.MET
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IB.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

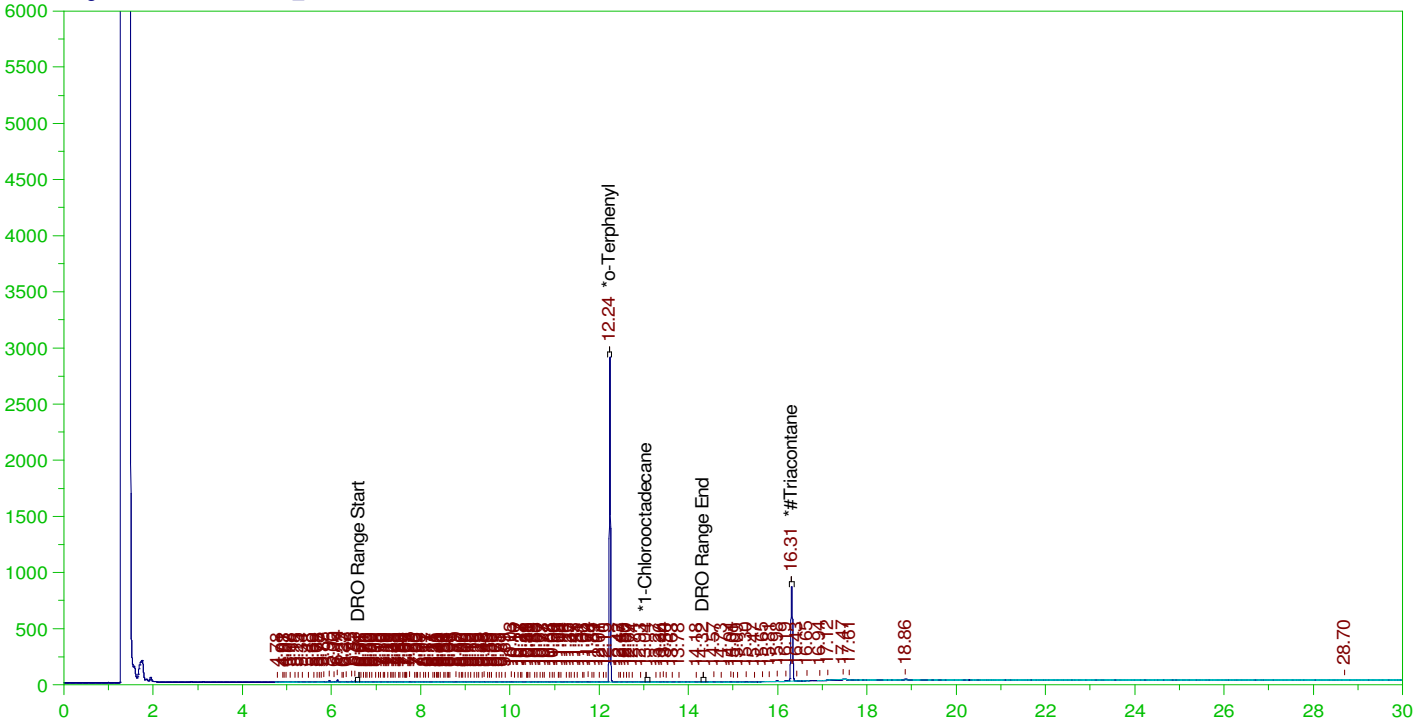
Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.54 to 15.86

| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | |
|---|---|---|---|---|---|
| *o-Terphenyl | 12.24 | 200. | .043 | .02 | - |
| *1-Chlorooctadecane | 29.964 | 200. | . | . | - |

DRO Area:480232.6 DRO Amount: 15.31687
TEH Area:650908.7 TEH Amount: 20.76052

**ERH2203 (RHMW14-03)** Batch ID: 162268

G:\org\HP5\DAT\HP5122021_b\1220HP5.0022.RAW B21121402-003B ;1220HP5 , $HC-8015-DRO-W, SGT




**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: B21121402-003B ;1220HP5 , $HC-8015-DRO-W, SGT
Raw File: G:\org\HP5\DAT\HP5122021_b\1220HP5.0022.RAW
Date & Time Acquired: 12/20/2021 11:51:58 PM
Method File: G:\Org\HP5\Methods\DR_8015-C24T-IJ-L%.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IJ-24-Tri.CAL
Sample Weight: 1020 Dilution: 1 S.A.: 1

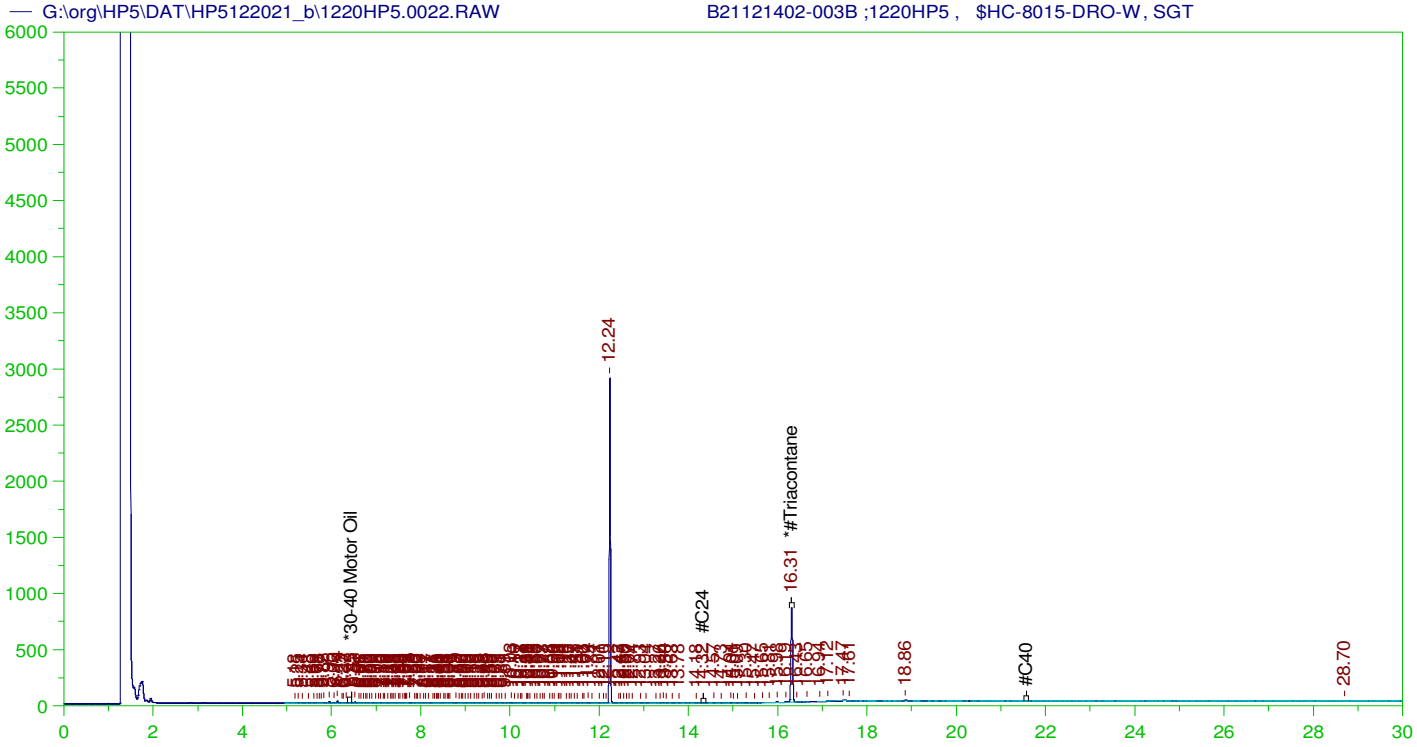
Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.53 to 14.39

| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | |
|---|---|---|---|---|---|
| *o-Terphenyl | 12.236 | .196 | .149 | 76.24 | - |
| *1-Chlorooctadecane | 13.043 | .196 | . | .07 | - |
| *#Triacontane | 16.311 | .196 | .071 | 36.46 | - |

DRO Area:581825.4 DRO Amount: 1.819327E-02
TEH Area:934758.3 TEH Amount: 2.922923E-02

**ERH2203 (RHMW14-03)** Batch ID: 162268

G:\org\HP5\DAT\HP5122021_b\1220HP5.0022.RAW B21121402-003B ;1220HP5 , $HC-8015-DRO-W, SGT




**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

Sample Name: B21121402-003B ;1220HP5 , $HC-8015-DRO-W, SGT
Raw File: G:\org\HP5\DAT\HP5122021_b\1220HP5.0022.RAW
Date & Time Acquired: 12/20/2021 11:51:58 PM
Method File: G:\Org\HP5\Methods\DR_OROS-AK-L%.MET
Calibration File: G:\Org\HP5\Cals\SW8015C_ORO211017AK-SAMP.CAL
Sample Weight: 1020 Dilution: 1 S.A.: 1

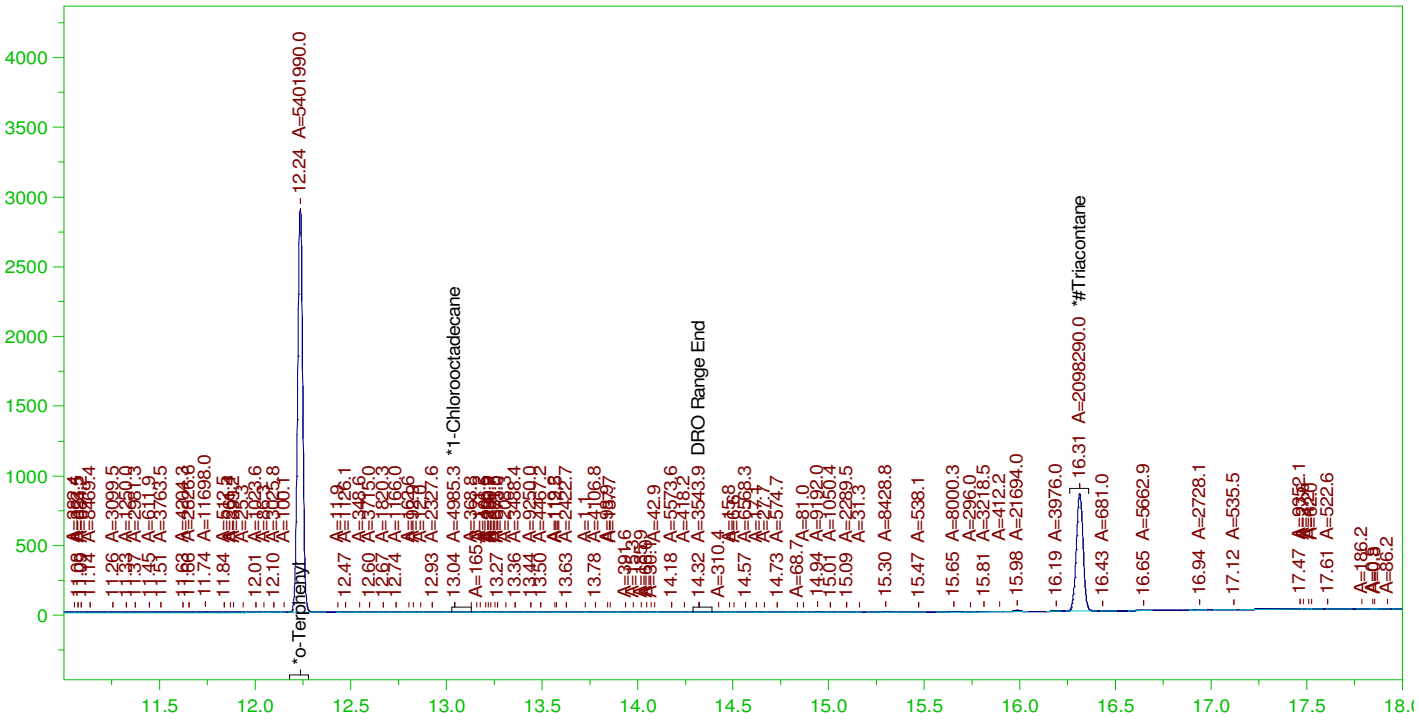
Mean RF for for Residual Range Organics Calculations: 28542.41
Rt range for Residual Range Organics: 14.29 to 21.62

| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | |
|---|---|---|---|---|---|
| *#Triacontane | 16.311 | .49 | .071 | 14.58 | - |

RRO Area:115441.9 RRO AMOUNT: 3.96527E-03

**ERH2203 (RHMW14-03)** Batch ID: 162268

G:\org\HP5\DAT\HP5122021_b\1220HP5.0022.RAW B21121402-003B ;1220HP5 , $HC-8015-DRO-W, SGT



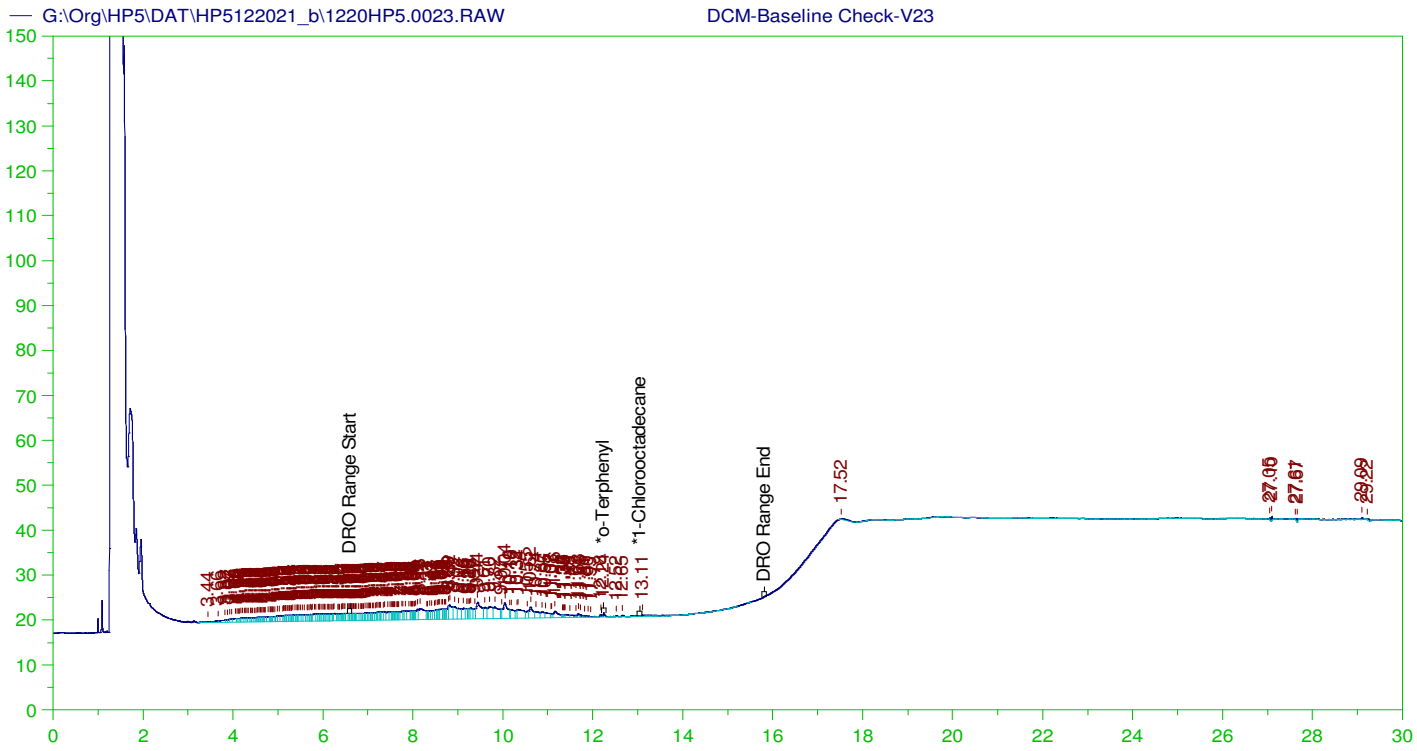

**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: B21121402-003B ;1220HP5 , $HC-8015-DRO-W, SGT
Raw File: G:\org\HP5\DAT\HP5122021_b\1220HP5.0022.RAW
Date & Time Acquired: 12/20/2021 11:51:58 PM
Method File: G:\Org\HP5\Methods\DS_8015-C24T-IJ-L#.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IJ-24-Tri.CAL
Sample Weight: 1020 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.53 to 14.39

| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | |
|---|---|---|---|---|---|
| *o-Terphenyl | 12.236 | .196 | .149 | 76.06 | - |
| *1-Chlorooctadecane | 13.043 | .196 | . .07 | | - |
| *#Triacontane | 16.311 | .196 | .071 | 36.26 | - |

DRO Area:640545.7 DRO Amount: 2.002941E-02
TEH Area:1091283 TEH Amount: 3.412363E-02




**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: DCM-Baseline Check-V23
Raw File: G:\Org\HP5\DAT\HP5122021_b\1220HP5.0023.RAW
Date & Time Acquired: 12/21/2021 12:35:00 AM
Method File: G:\Org\HP5\Methods\DR_8015-IBb-Lexp.MET
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IB.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

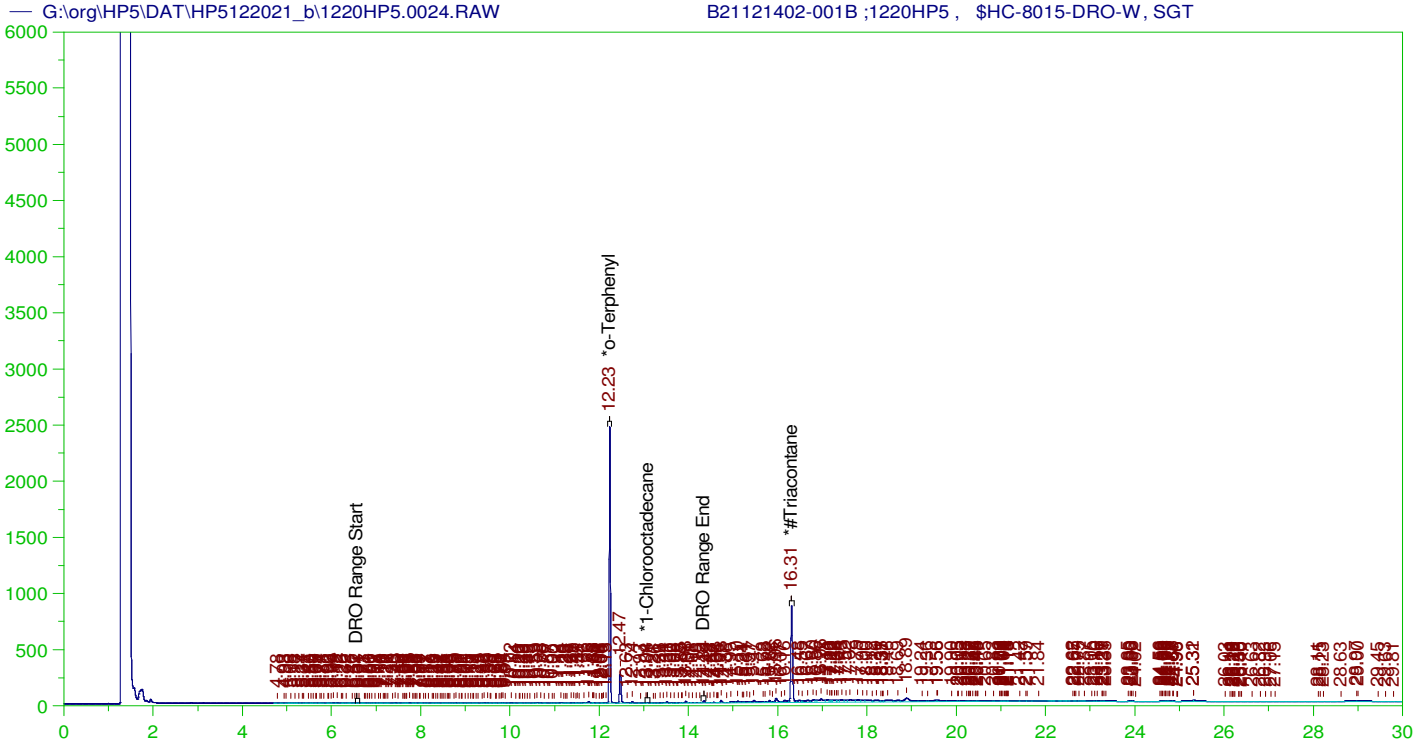
Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.54 to 15.86

| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | |
|---|---|---|---|---|---|
| *o-Terphenyl | 12.242 | 200. | .073 | .04 | - |
| *1-Chlorooctadecane | 29.936 | 200. | . | . | - |

DRO Area:569760.4 DRO Amount: 18.17233
TEH Area:782520.8 TEH Amount: 24.95825

**ERH2186 (RHMW06)** Batch ID: 162268

G:\org\HP5\DAT\HP5122021_b\1220HP5.0024.RAW B21121402-001B ;1220HP5 , $HC-8015-DRO-W, SGT




**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: B21121402-001B ;1220HP5 , $HC-8015-DRO-W, SGT
Raw File: G:\org\HP5\DAT\HP5122021_b\1220HP5.0024.RAW
Date & Time Acquired: 12/21/2021 1:18:02 AM
Method File: G:\Org\HP5\Methods\DR_8015-122024-IJ-L%.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IJ-24-Tri.CAL
Sample Weight: 990 Dilution: 1 S.A.: 1

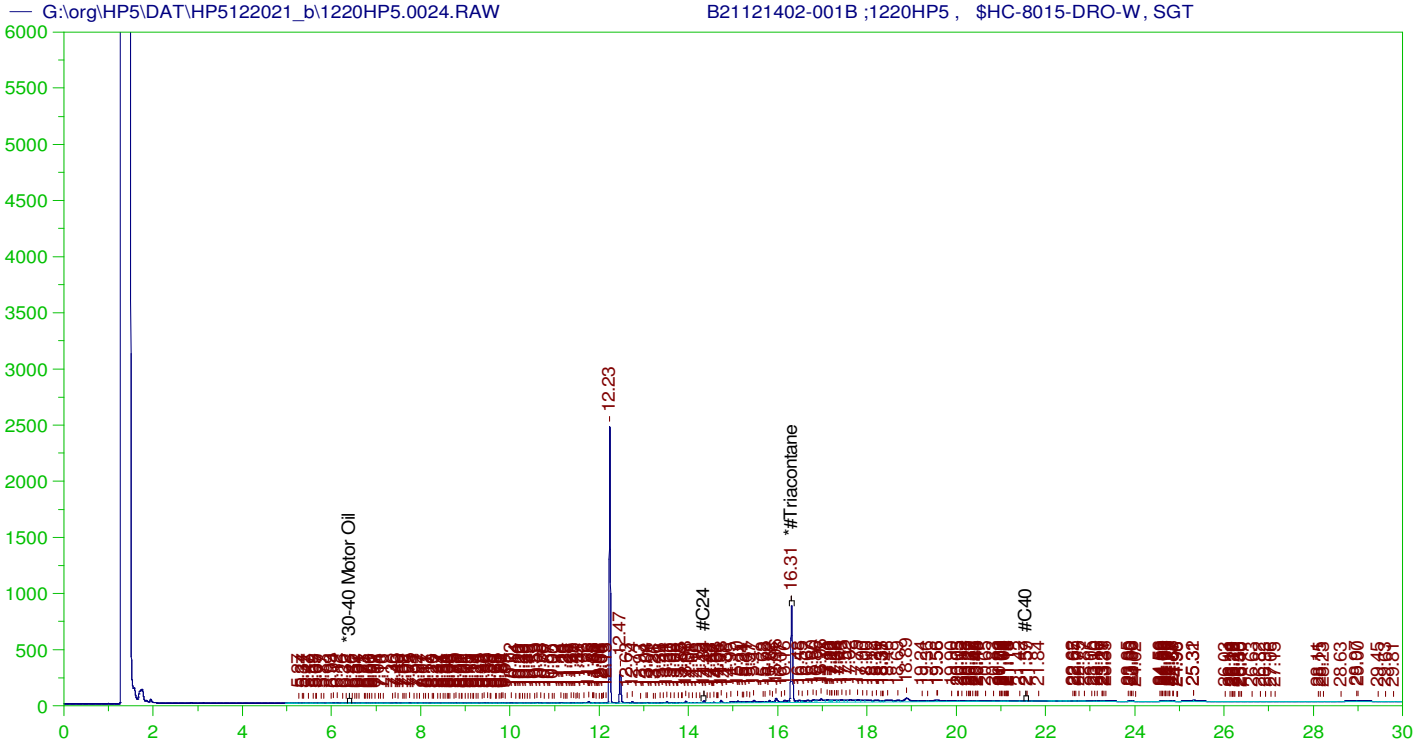
Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.53 to 14.39

| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | |
|---|---|---|---|---|---|
| *o-Terphenyl | 12.235 | .202 | .132 | 65.16 | - |
| *1-Chlorooctadecane | 13.08 | .202 | . .15 | | - |
| *#Triacontane | 16.311 | .202 | .078 | 38.75 | - |

DRO Area:1324791 DRO Amount: 4.268059E-02
TEH Area:6190134 TEH Amount: 0.1994266

**ERH2186 (RHMW06)** Batch ID: 162268

G:\org\HP5\DAT\HP5122021_b\1220HP5.0024.RAW B21121402-001B ;1220HP5 , $HC-8015-DRO-W, SGT




**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

Sample Name: B21121402-001B ;1220HP5 , $HC-8015-DRO-W, SGT
Raw File: G:\org\HP5\DAT\HP5122021_b\1220HP5.0024.RAW
Date & Time Acquired: 12/21/2021 1:18:02 AM
Method File: G:\Org\HP5\Methods\DR_OROS-122024-AK-L%.MET
Calibration File: G:\Org\HP5\Cals\SW8015C_ORO211017AK-SAMP.CAL
Sample Weight: 990 Dilution: 1 S.A.: 1

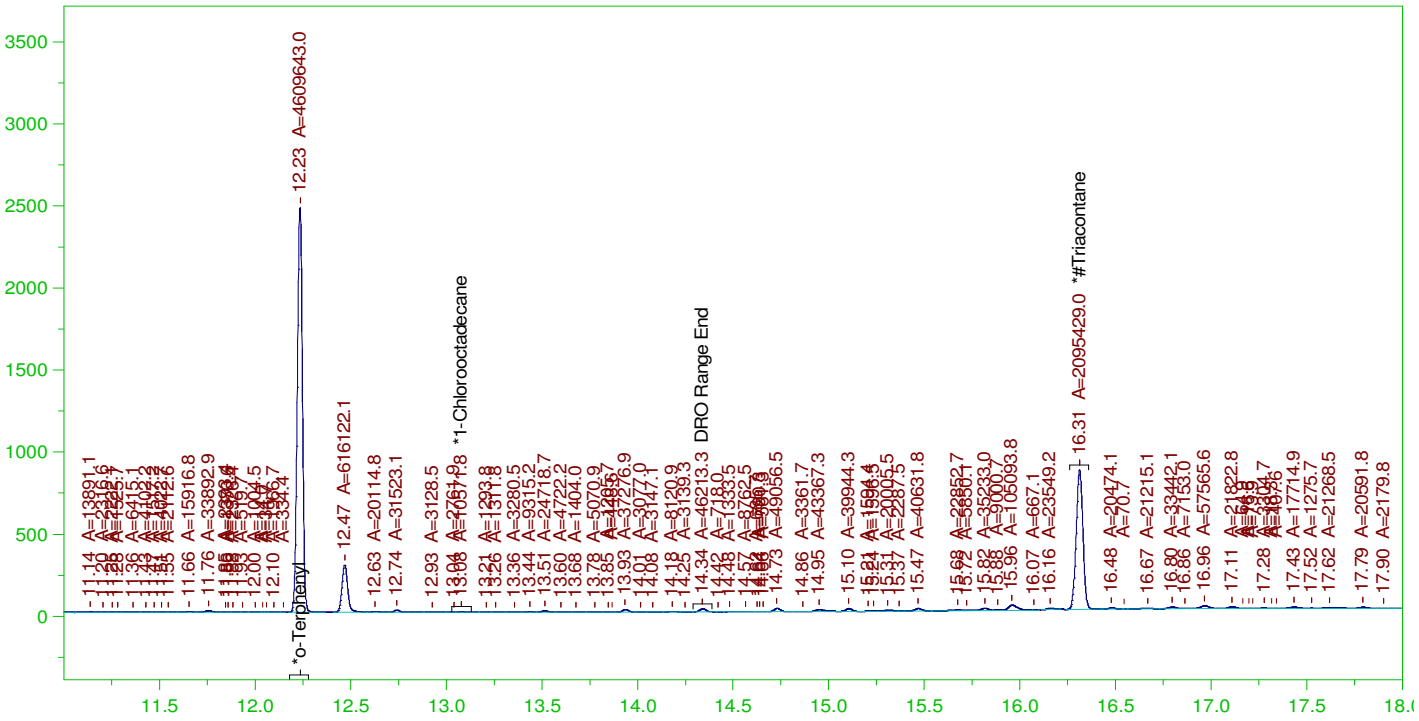
Mean RF for for Residual Range Organics Calculations: 28542.41
Rt range for Residual Range Organics: 14.29 to 21.62

| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | |
|---|---|---|---|---|---|
| *#Triacontane | 16.311 | .505 | .078 | 15.5 | - |

RRO Area:4434712 RRO AMOUNT: 0.1569421

**ERH2186 (RHMW06)** Batch ID: 162268

G:\org\HP5\DAT\HP5122021_b\1220HP5.0024.RAW B21121402-001B ;1220HP5 , $HC-8015-DRO-W, SGT




**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

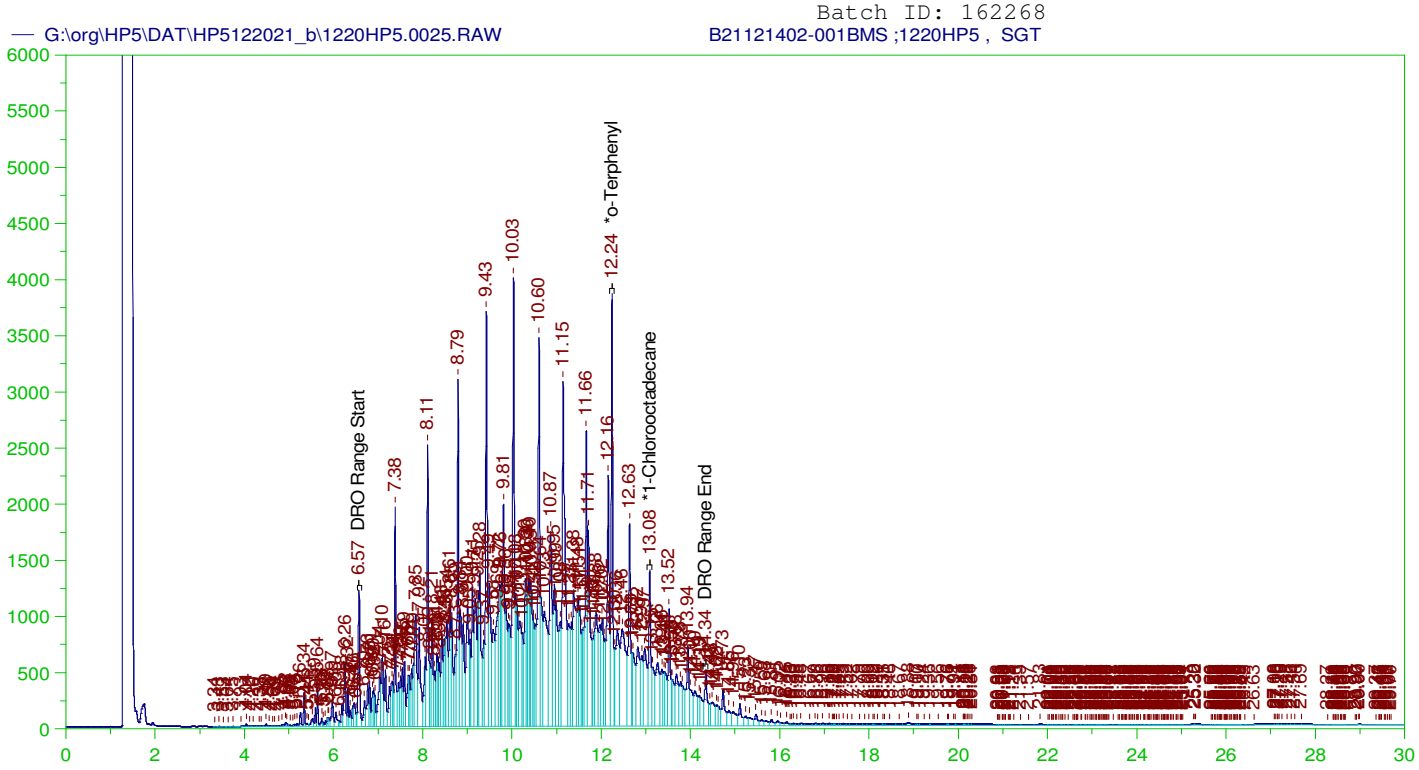
Sample Name: B21121402-001B ;1220HP5 , $HC-8015-DRO-W, SGT
Raw File: G:\org\HP5\DAT\HP5122021_b\1220HP5.0024.RAW
Date & Time Acquired: 12/21/2021 1:18:02 AM
Method File: G:\Org\HP5\Methods\DS_8015-C24T-IJ-L#.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IJ-24-Tri.CAL
Sample Weight: 990 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.53 to 14.39

| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | |
|---|---|---|---|---|---|
| *o-Terphenyl | 12.235 | .202 | .131 | 64.91 | - |
| *1-Chlorooctadecane | 13.08 | .202 | . | .15 | - |
| *#Triacontane | 16.311 | .202 | .073 | 36.22 | - |

DRO Area:1207010 DRO Amount: 3.888605E-02
TEH Area:2315378 TEH Amount: 7.459416E-02

Batch ID: 162268




**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

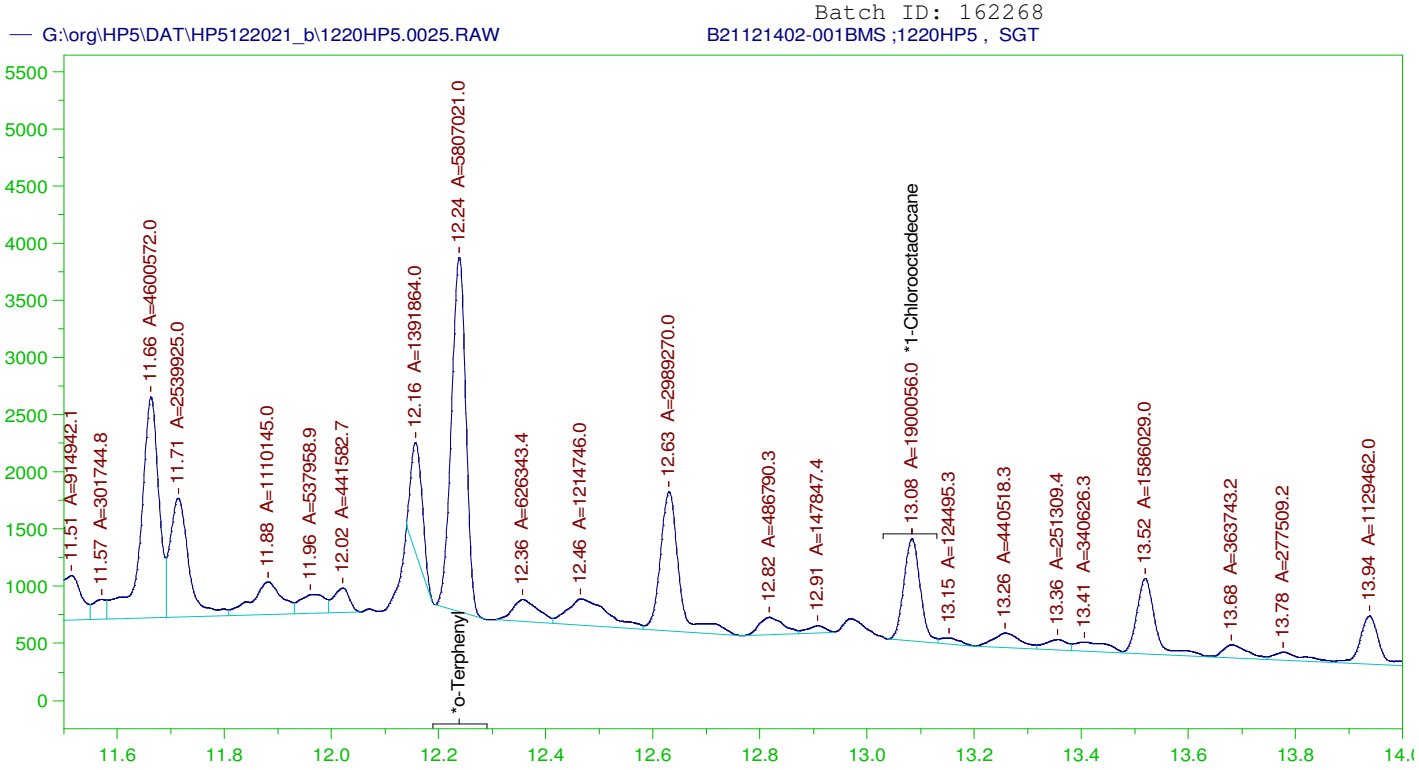
Sample Name: B21121402-001BMS ;1220HP5 , SGT
Raw File: G:\org\HP5\DAT\HP5122021_b\1220HP5.0025.RAW
Date & Time Acquired: 12/21/2021 2:01:03 AM
Method File: G:\Org\HP5\Methods\D3_8015-24-IJ-L%.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IJ-24.CAL
Sample Weight: 1000 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.53 to 14.39

| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | |
|---|---|---|---|---|---|
| *o-Terphenyl | 12.238 | .2 | .288 | 144.25 | - |
| *1-Chlorooctadecane | 13.084 | .2 | .133 | 66.44 | - |

DRO Area:3.579743E+08 DRO Amount: 11.41748
TEH Area:3.831868E+08 TEH Amount: 12.22162

Batch ID: 162268



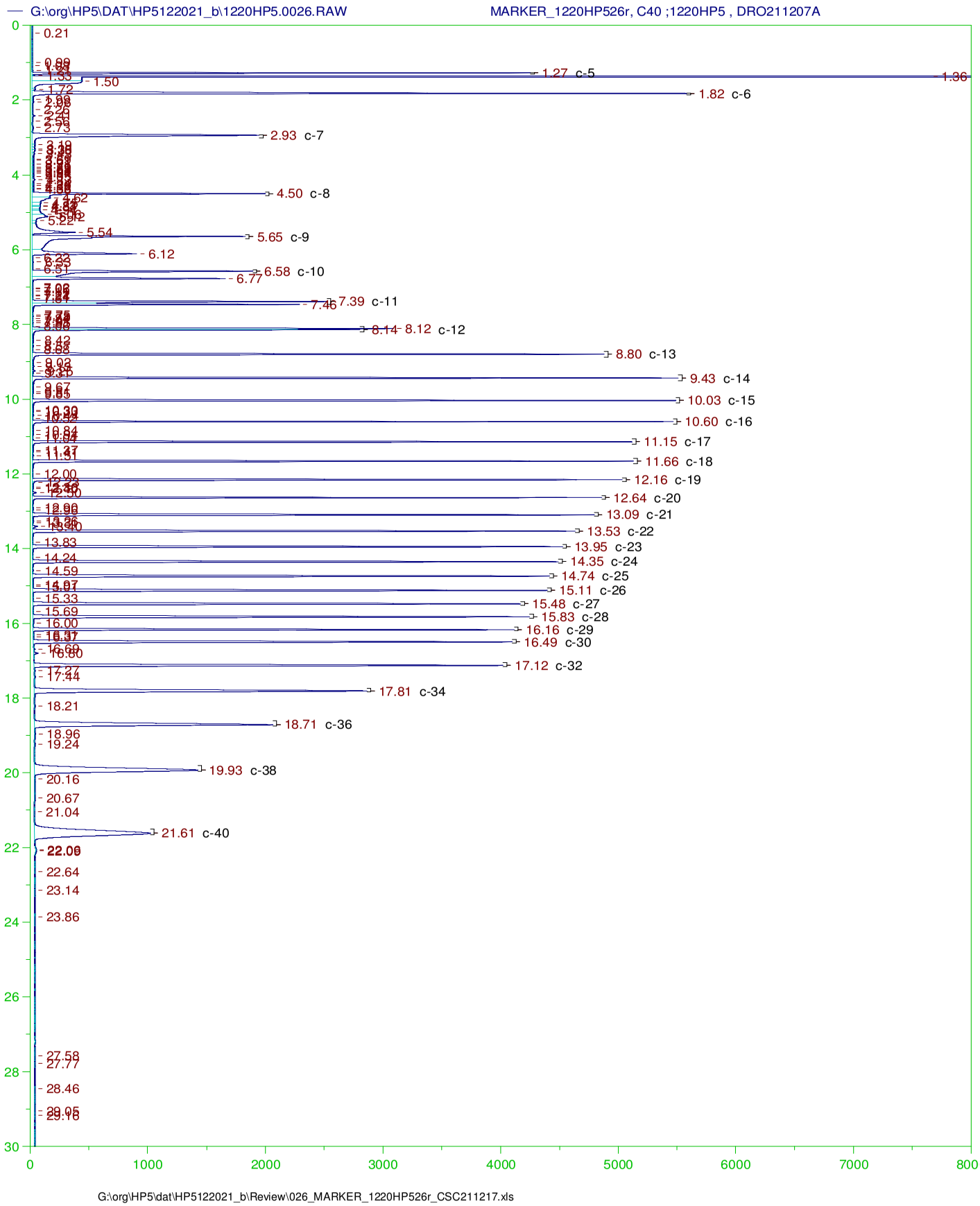

**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

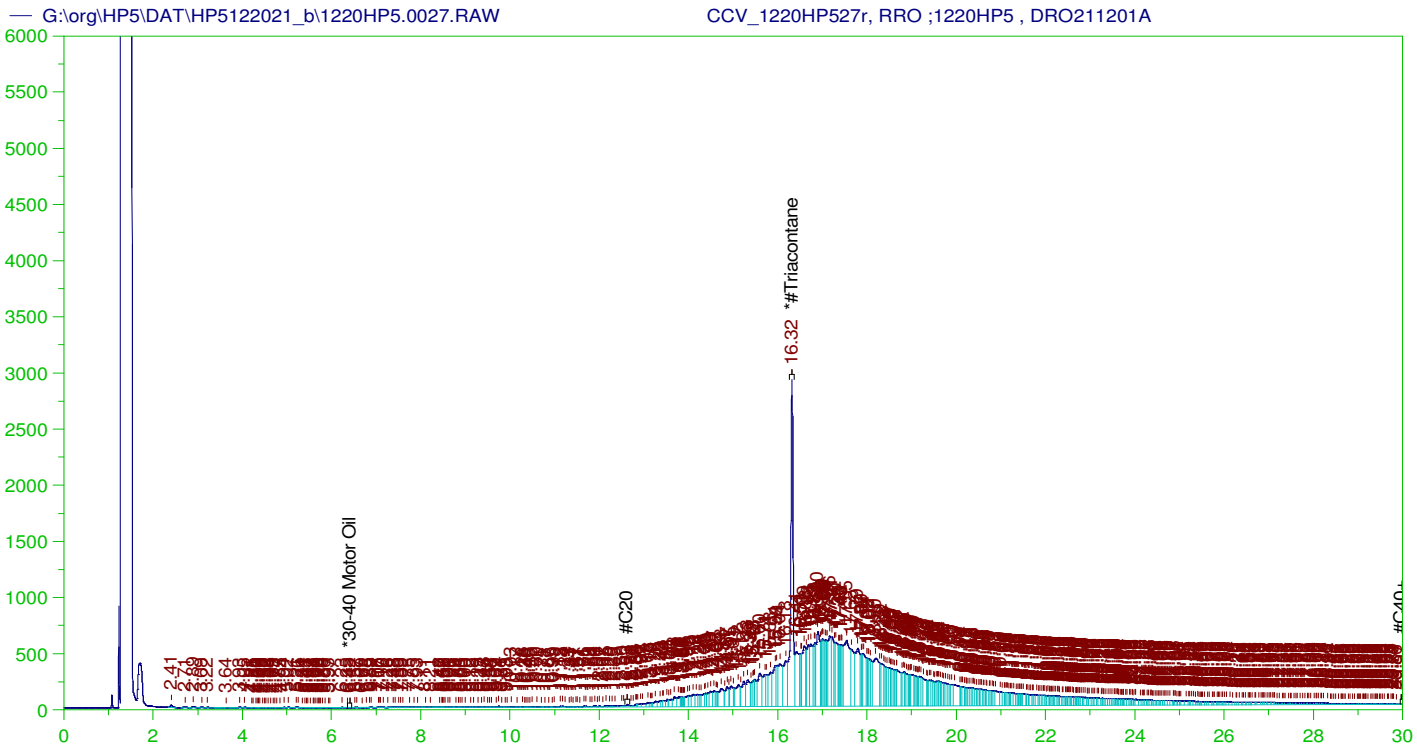
Sample Name: B21121402-001BMS ;1220HP5 , SGT
Raw File: G:\org\HP5\DAT\HP5122021_b\1220HP5.0025.RAW
Date & Time Acquired: 12/21/2021 2:01:03 AM
Method File: G:\Org\HP5\Methods\DS_8015-24-IJ-L#.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IJ-24.CAL
Sample Weight: 1000 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.53 to 14.39

| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | |
|---|---|---|---|---|---|
| *o-Terphenyl | 12.238 | .2 | .164 | 81.77 | - |
| *1-Chlorooctadecane | 13.084 | .2 | .054 | 26.75 | - |

DRO Area:1.689079E+08 DRO Amount: 5.387263
TEH Area:1.774032E+08 TEH Amount: 5.658218


G:\org\HP5\DAT\HP5122021_b\1220HP5.0026.RAW
MARKER_1220HP526r, C40 ;1220HP5 , DRO211207A
0.21
1.27 c-5
1.36
1.50
1.82 c-6
2.93 c-7
4.50 c-8
5.54
5.65 c-9
6.12
6.58 c-10
6.77
7.39 c-11
7.46
8.12 c-12
8.14
8.80 c-13
9.43 c-14
10.03 c-15
10.60 c-16
11.15 c-17
11.66 c-18
12.00
12.16 c-19
12.64 c-20
13.09 c-21
13.53 c-22
13.83
13.95 c-23
14.24
14.35 c-24
14.59
14.74 c-25
15.11 c-26
15.33
15.48 c-27
15.69
15.83 c-28
16.00
16.16 c-29
16.49 c-30
16.80
17.12 c-32
17.44
17.81 c-34
18.21
18.71 c-36
18.96
19.24
19.93 c-38
20.16
20.67
21.04
21.61 c-40
22.64
23.14
23.86
27.58
27.77
28.46
0
1000
2000
3000
4000
5000
6000
7000
800
G:\org\HP5\dat\HP5122021_b\Review\026_MARKER_1220HP526r_CSC211217.xls




**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

Sample Name: CCV_1220HP527r, RRO ;1220HP5 , DRO211201A
Raw File: G:\org\HP5\DAT\HP5122021_b\1220HP5.0027.RAW
Date & Time Acquired: 12/21/2021 3:27:15 AM
Method File: G:\Org\HP5\Methods\DC_ORO-AK-L%.MET
Calibration File: G:\Org\HP5\Cals\SW8015C_ORO211017AK.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for for ~~Residual~~ TEH (Oil Range) Organics Calculations: 28542.41
Rt range for ~~Residual~~ TEH (Oil Range) Organics: 12.58 to 30.05

| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | |
|---|---|---|---|---|---|
| *#Triacontane | 16.318 | 500. | 367.544 | 73.51 | - |

~~RRO~~ TEH (Oil Range) Area:1.467671E+08 ~~RRO~~ TEH (Oil Range) AMOUNT: 5142.071

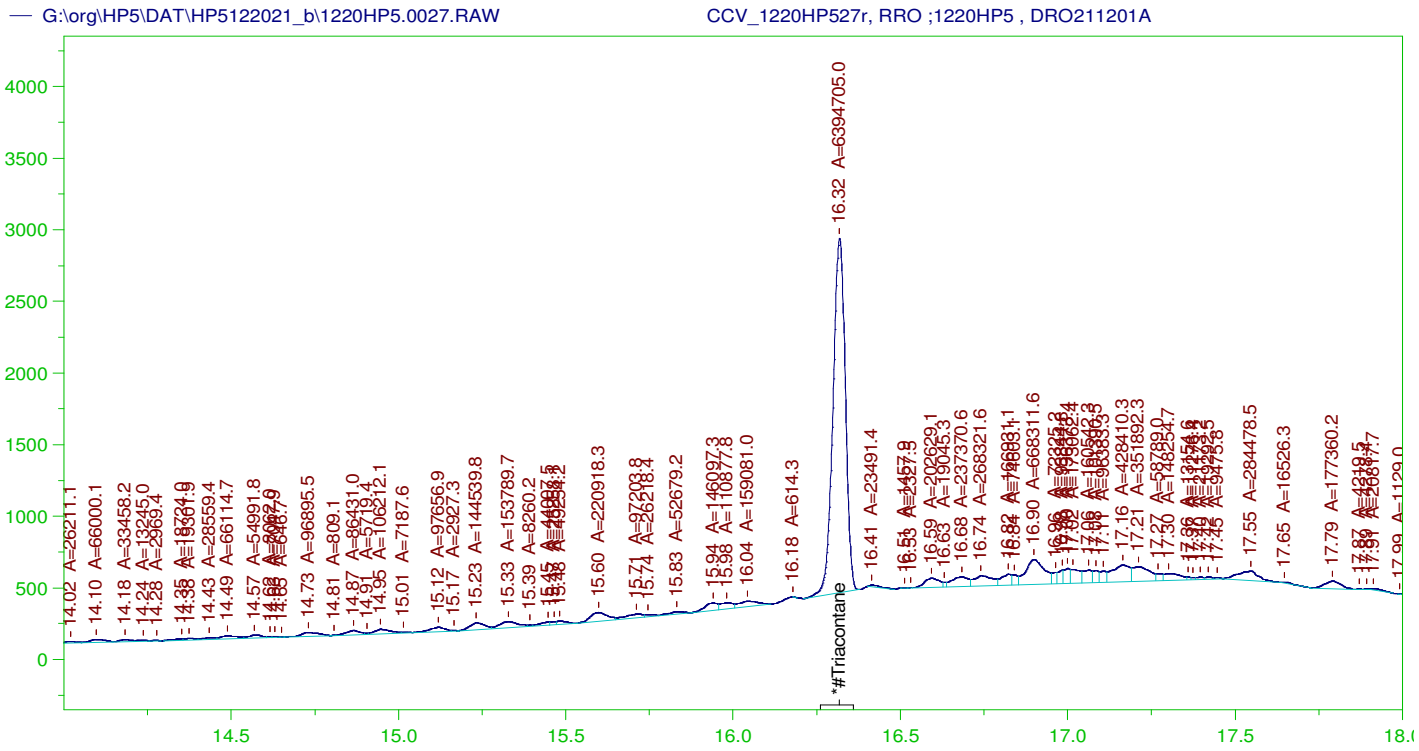
CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5122021_b\1220HP5.0027.RAW

| COMPOUND | ACTUAL(NG) | MEASURED(NG) | %RECOVERY | LIMITS |
|---|---|---|---|---|
| *30-40 Motor Oil | 5000. | .03 | . | 75-125 |

| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | LIMITS |
|---|---|---|---|---|---|
| *#Triacontane | 16.318 | 200. | 367.544 | 183.77 | 75-125 |

AMN 01/10/2022

G:\org\HP5\dat\HP5122021_b\Review\027_CCV_1220HP527r_DC_ORO-AK-L%.xls




**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

Sample Name: CCV_1220HP527r, RRO ;1220HP5 , DRO211201A
Raw File: G:\org\HP5\DAT\HP5122021_b\1220HP5.0027.RAW
Date & Time Acquired: 12/21/2021 3:27:15 AM
Method File: G:\Org\HP5\Methods\DS_ORO-AK-L%.MET
Calibration File: G:\Org\HP5\Cals\SW8015C_ORO211017AK.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 28542.41
Rt range for Residual Range Organics: 12.58 to 30.05

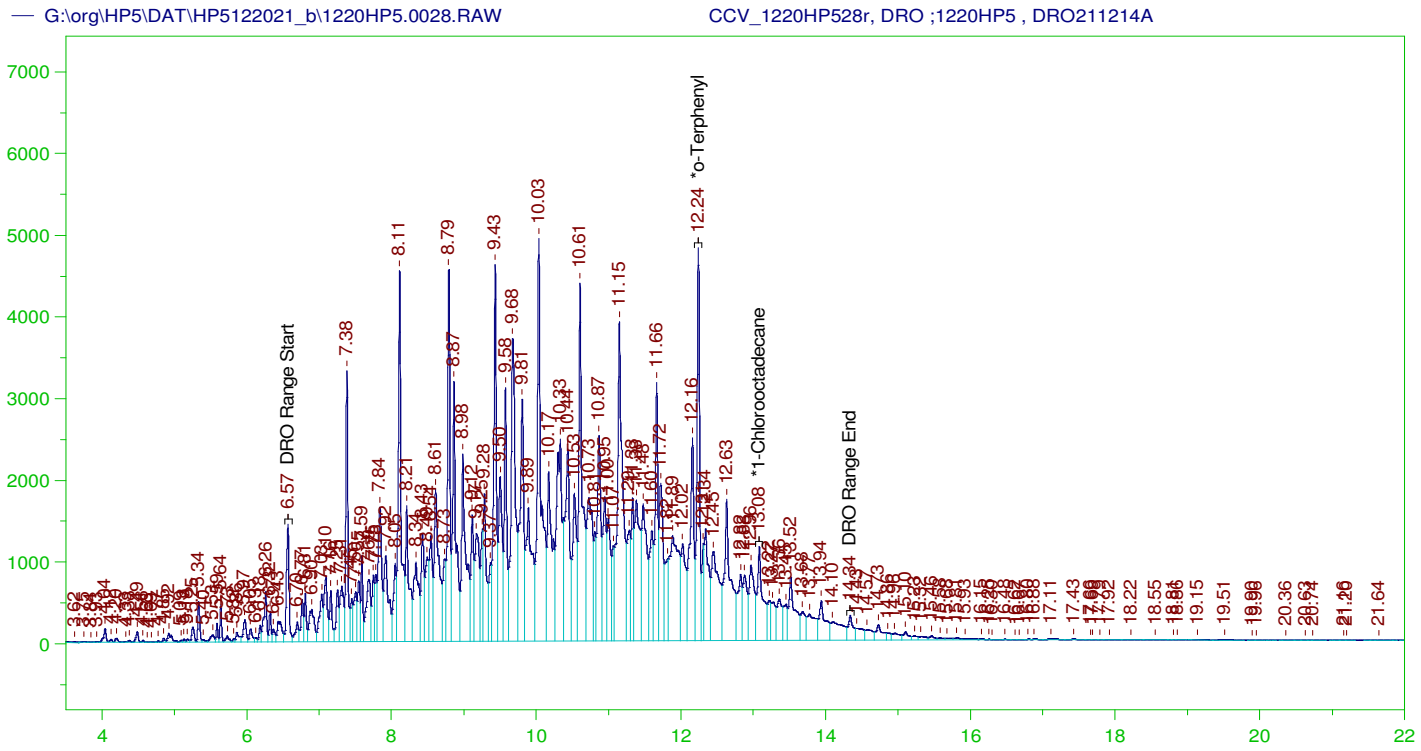
| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | |
|---|---|---|---|---|---|
| *#Triacontane | 16.318 | 500. | 221.04 | 44.21 | - |

RRO Area:6973207 RRO AMOUNT: 244.3104

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5122021_b\1220HP5.0027.RAW

| COMPOUND | ACTUAL(NG) | MEASURED(NG) | %RECOVERY | LIMITS |
|---|---|---|---|---|
| *30-40 Motor Oil | 5000. | .03 | . | 75-125 |

| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | LIMITS |
|---|---|---|---|---|---|
| *#Triacontane | 16.318 | 200. | 221.04 | 110.52 | 75-125 |




**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: CCV_1220HP528r, DRO ;1220HP5 , DRO211214A
Raw File: G:\org\HP5\DAT\HP5122021_b\1220HP5.0028.RAW
Date & Time Acquired: 12/21/2021 4:10:19 AM
Method File: G:\Org\HP5\Methods\DC_8015-24-IJ-L%.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IJ-24.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.53 to 14.39

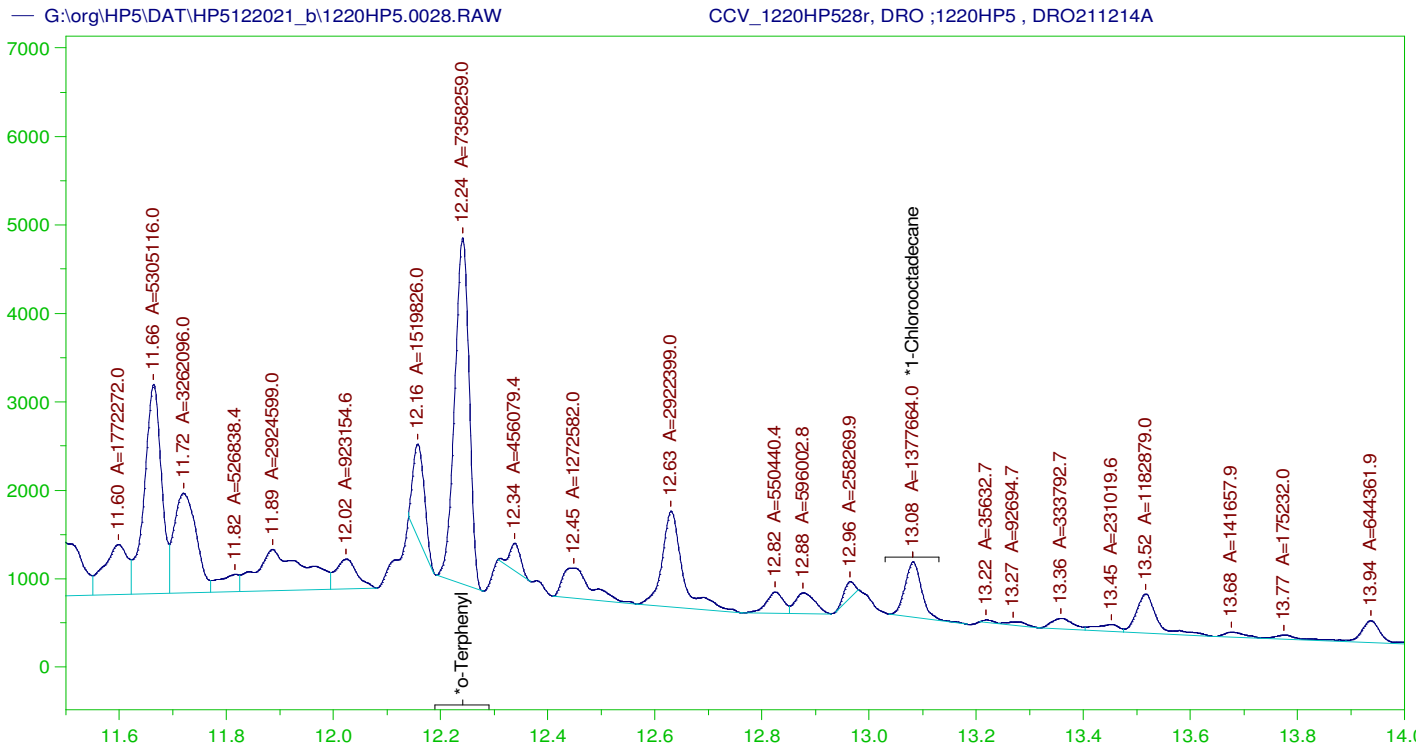
| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | |
|---|---|---|---|---|---|
| *o-Terphenyl | 12.241 | 200. | 341.462 | 170.73 | - |
| *1-Chlorooctadecane | 13.082 | 200. | 165.282 | 82.64 | - |

DRO Area:4.788648E+08 DRO Amount: 15273.24
TEH Area:4.965643E+08 TEH Amount: 15837.76

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5122021_b\1220HP5.0028.RAW

| COMPOUND | ACTUAL(NG) | MEASURED(NG) | %RECOVERY | LIMITS |
|---|---|---|---|---|
| TOTAL DRO | 15000. | 15837.76 | 105.59 | 85-115 |

| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | LIMITS |
|---|---|---|---|---|---|
| *o-Terphenyl | 12.241 | 200. | 341.462 | 170.73 | 85-115 |
| *1-Chlorooctadecane | 13.082 | 200. | 165.282 | 82.64 | 85-115 |




**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**
Sample Name: CCV_1220HP528r, DRO ;1220HP5 , DRO211214A
Raw File: G:\org\HP5\DAT\HP5122021_b\1220HP5.0028.RAW
Date & Time Acquired: 12/21/2021 4:10:19 AM
Method File: G:\Org\HP5\Methods\DS_8015-24-IJ-L#.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IJ-24.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.53 to 14.39

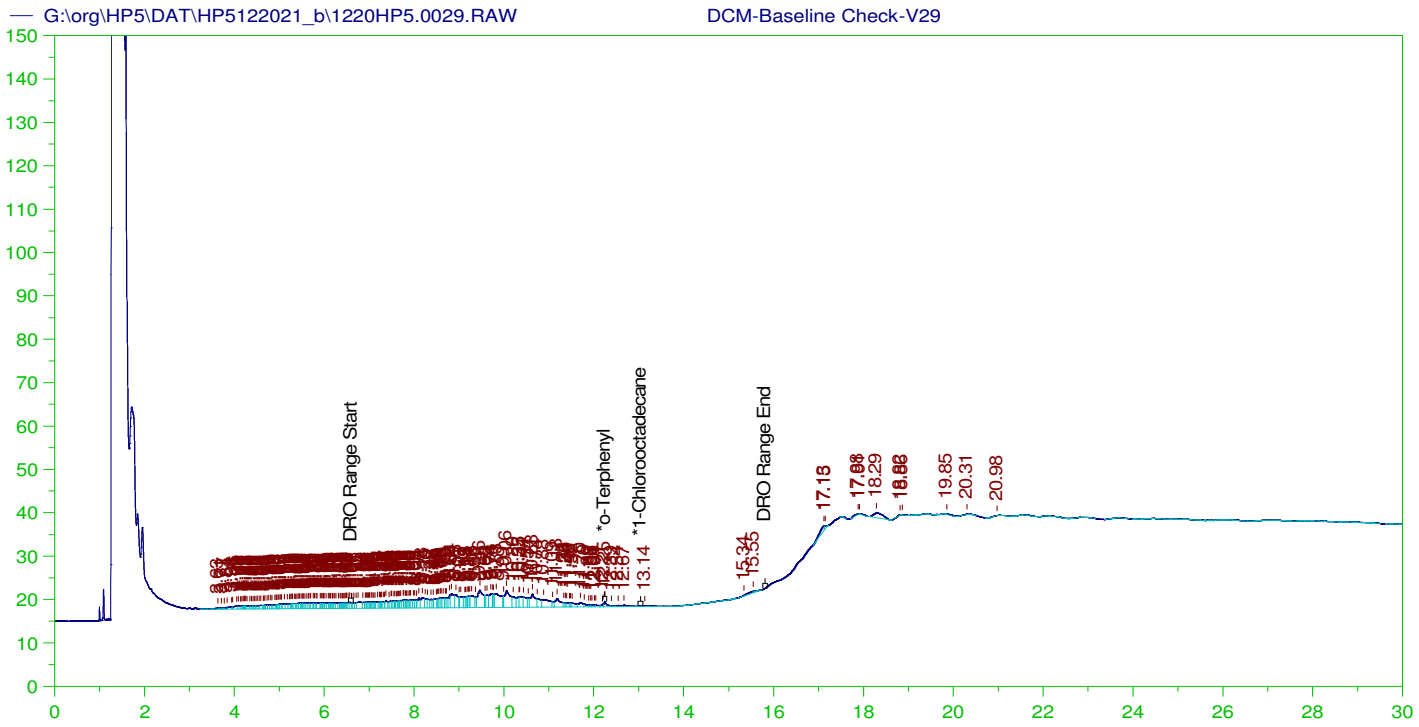
| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | |
|---|---|---|---|---|---|
| *o-Terphenyl | 12.241 | 200. | 207.221 | 103.61 | - |
| *1-Chlorooctadecane | 13.082 | 200. | 38.797 | 19.4 | - |

DRO Area:2.687772E+08 DRO Amount: 8572.563
TEH Area:2.797471E+08 TEH Amount: 8922.444

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5122021_b\1220HP5.0028.RAW

| COMPOUND | ACTUAL(NG) | MEASURED(NG) | %RECOVERY | LIMITS |
|---|---|---|---|---|
| TOTAL DRO | 15000. | 8922.44 | 59.48 | 85-115 |

| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | LIMITS |
|---|---|---|---|---|---|
| *o-Terphenyl | 12.241 | 200. | 207.221 | 103.61 | 85-115 |
| *1-Chlorooctadecane | 13.082 | 200. | 38.797 | 19.4 | 85-115 |



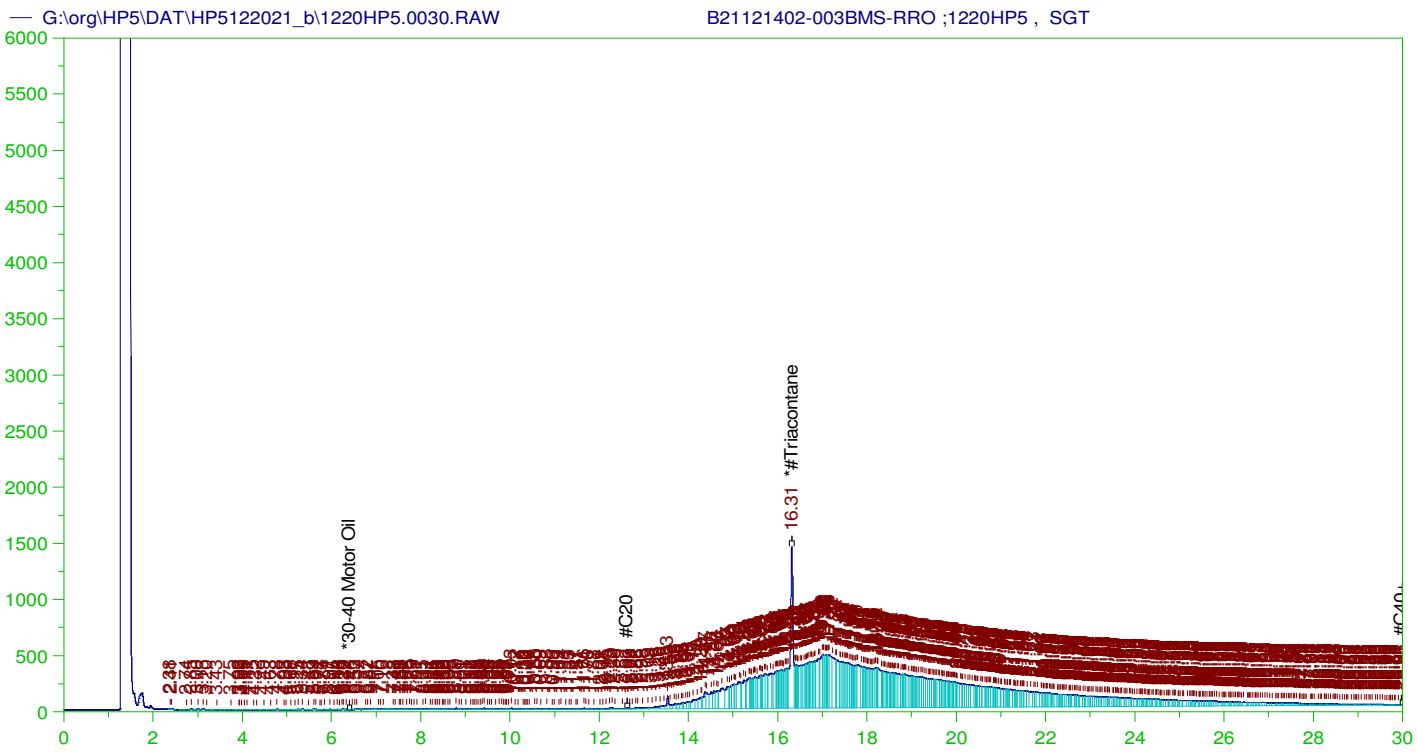

**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: DCM-Baseline Check-V29
Raw File: G:\org\HP5\DAT\HP5122021_b\1220HP5.0029.RAW
Date & Time Acquired: 12/21/2021 4:53:20 AM
Method File: G:\Org\HP5\Methods\DR_8015-IBb-LEXP.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IB.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.54 to 15.86

| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | |
|---|---|---|---|---|---|
| *o-Terphenyl | 12.246 | 200. | .155 | .08 | - |
| *1-Chlorooctadecane | 29.977 | 200. | . | . | - |

DRO Area:655133.6 DRO Amount: 20.89528
TEH Area:880226.9 TEH Amount: 28.07456




**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

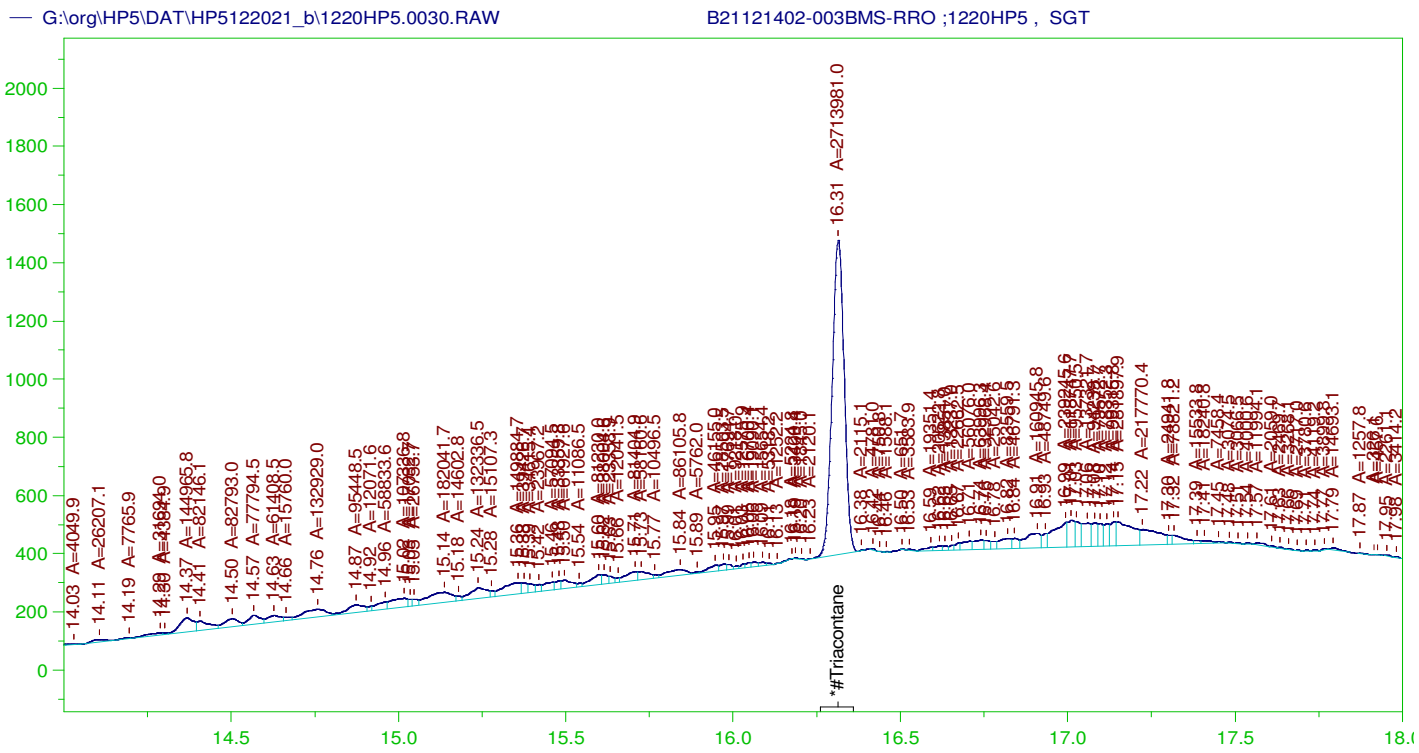
Sample Name: B21121402-003BMS-RRO ;1220HP5 , SGT
Raw File: G:\org\HP5\DAT\HP5122021_b\1220HP5.0030.RAW
Date & Time Acquired: 12/21/2021 5:36:25 AM
Method File: G:\Org\HP5\Methods\D3_ORO-AK-L%.MET
Calibration File: G:\Org\HP5\Cals\SW8015C_ORO211017AK.CAL
Sample Weight: 1050 Dilution: 1 S.A.: 1

Mean RF for for ~~Residual~~ TEH (Oil Range) Organics Calculations: 28542.41
Rt range for ~~Residual~~ TEH (Oil Range) Organics: 12.58 to 30.05

| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | |
|---|---|---|---|---|---|
| *#Triacontane | 16.314 | .476 | .187 | 39.18 | - |

~~RRO~~ TEH (Oil Range) Area:1.461019E+08 ~~RRO~~ TEH (Oil Range) AMOUNT: 4.875013

AMN 01/10/2022



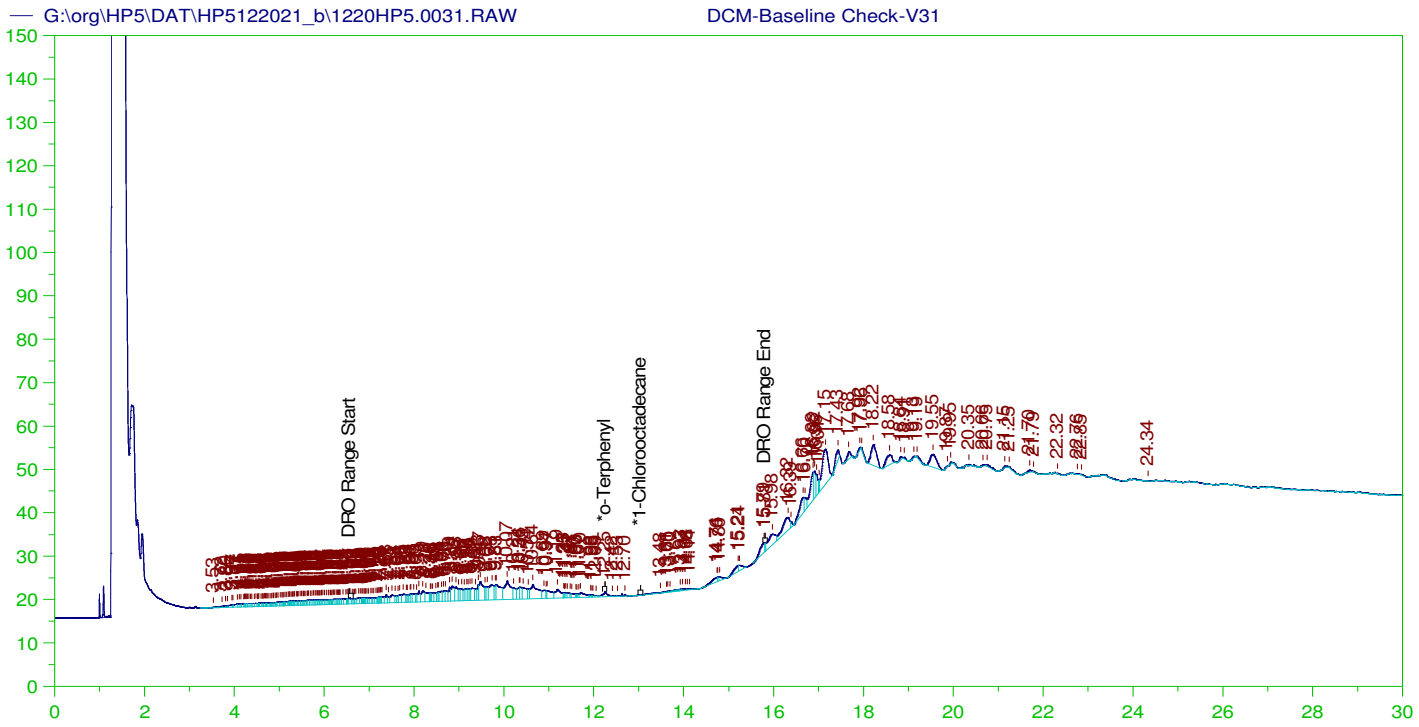

**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

Sample Name: B21121402-003BMS-RRO ;1220HP5 , SGT
Raw File: G:\org\HP5\DAT\HP5122021_b\1220HP5.0030.RAW
Date & Time Acquired: 12/21/2021 5:36:25 AM
Method File: G:\Org\HP5\Methods\DS_ORO-AK-L%.MET
Calibration File: G:\Org\HP5\Cals\SW8015C_ORO211017AK.CAL
Sample Weight: 1050 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 28542.41
Rt range for Residual Range Organics: 12.58 to 30.05

| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | |
|---|---|---|---|---|---|
| *#Triacontane | 16.314 | .476 | .089 | 18.76 | - |

RRO Area:5329313 RRO AMOUNT: 0.1778244




**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

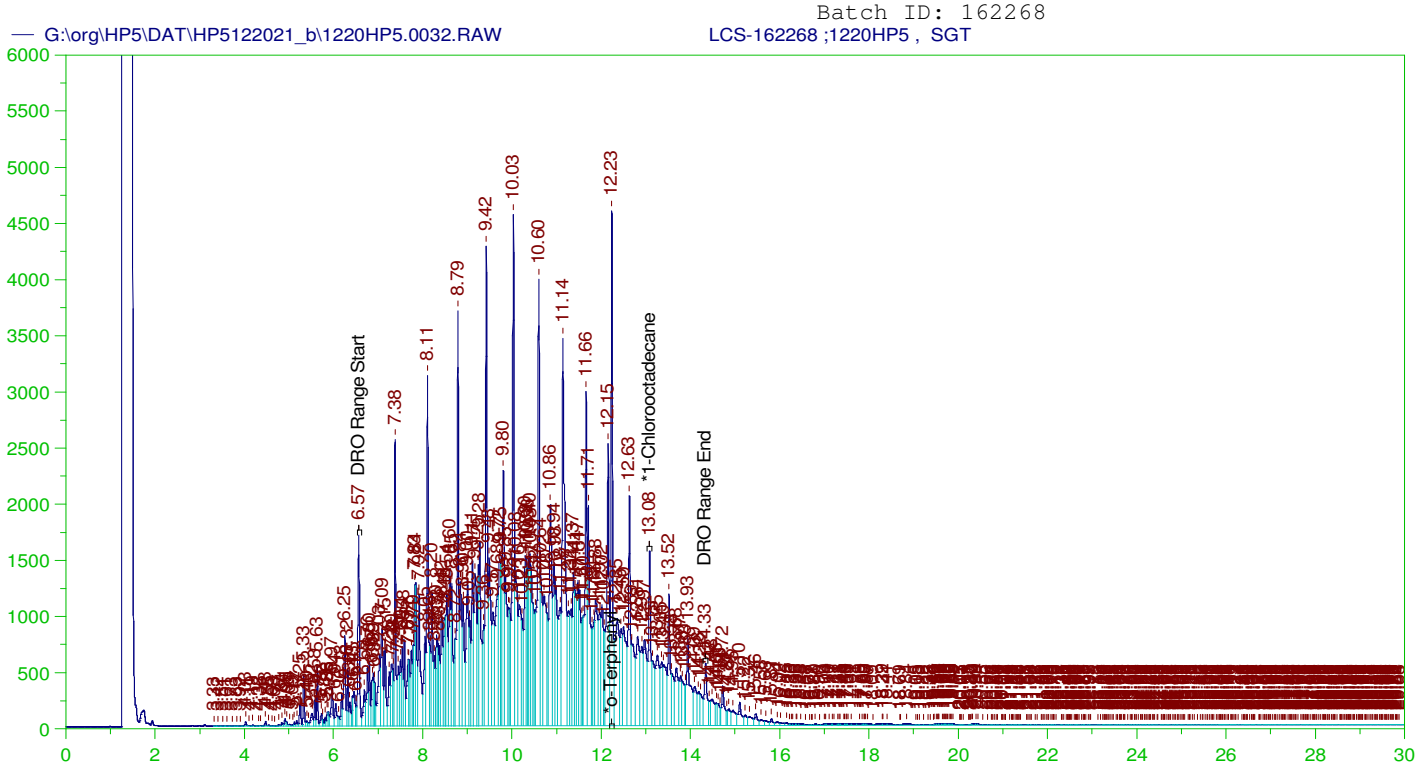
Sample Name: DCM-Baseline Check-V31
Raw File: G:\org\HP5\DAT\HP5122021_b\1220HP5.0031.RAW
Date & Time Acquired: 12/21/2021 6:19:31 AM
Method File: G:\Org\HP5\Methods\DR_8015-IBb-LEXP.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IB.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.54 to 15.86

| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | |
|---|---|---|---|---|---|
| *o-Terphenyl | 12.254 | 200. | .216 | .11 | - |
| *1-Chlorooctadecane | 29.977 | 200. | . | . | - |

DRO Area:730368.5 DRO Amount: 23.29487
TEH Area:1316758 TEH Amount: 41.99756

Batch ID: 162268




**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

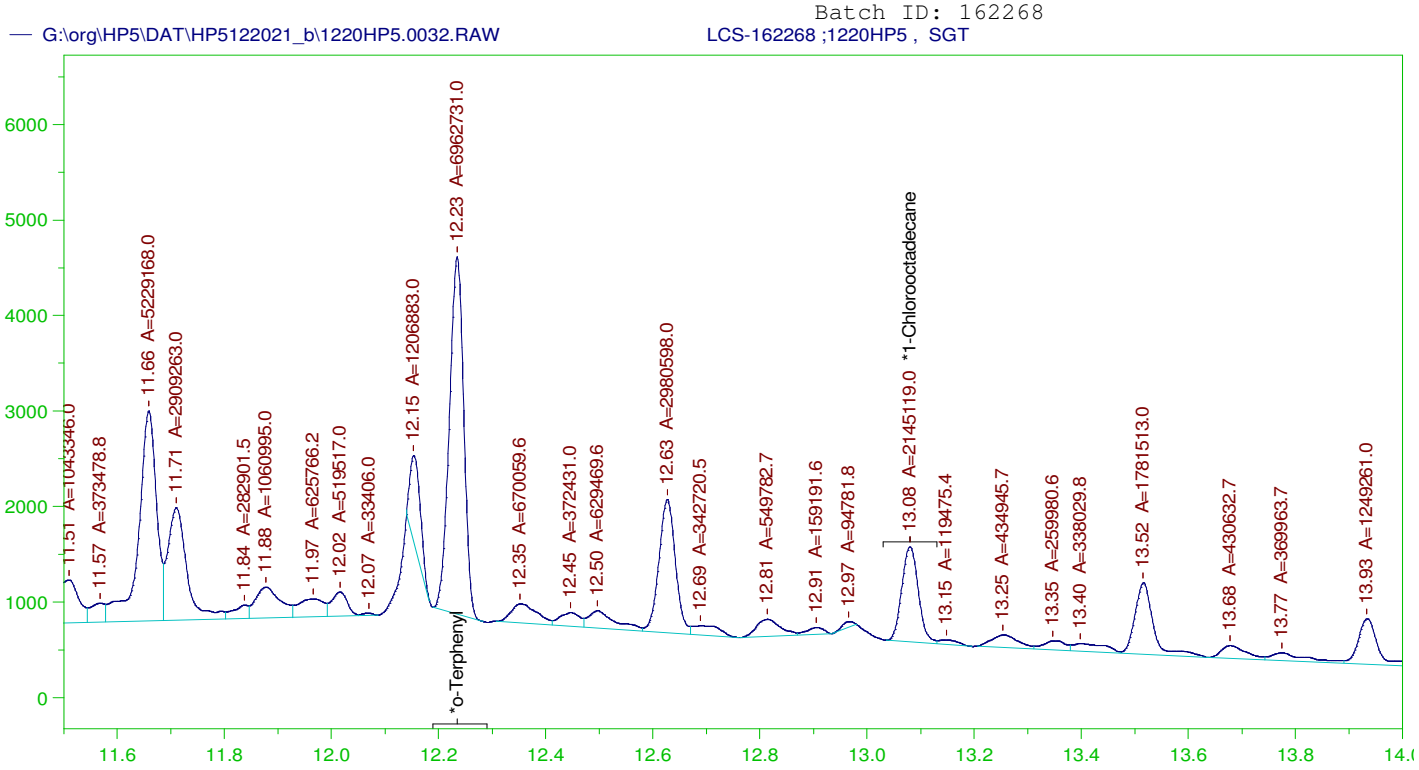
Sample Name: LCS-162268 ;1220HP5 , SGT
Raw File: G:\org\HP5\DAT\HP5122021_b\1220HP5.0032.RAW
Date & Time Acquired: 12/21/2021 7:02:35 AM
Method File: G:\Org\HP5\Methods\D3_8015-24-IJ-L%.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IJ-24.CAL
Sample Weight: 1000 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.53 to 14.39

| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | |
|---|---|---|---|---|---|
| *o-Terphenyl | 12.234 | .2 | .34 | 170.06 | - |
| *1-Chlorooctadecane | 13.08 | .2 | .15 | 74.8 | - |

DRO Area:4.211432E+08 DRO Amount: 13.43223
TEH Area:4.508245E+08 TEH Amount: 14.3789

Batch ID: 162268




**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

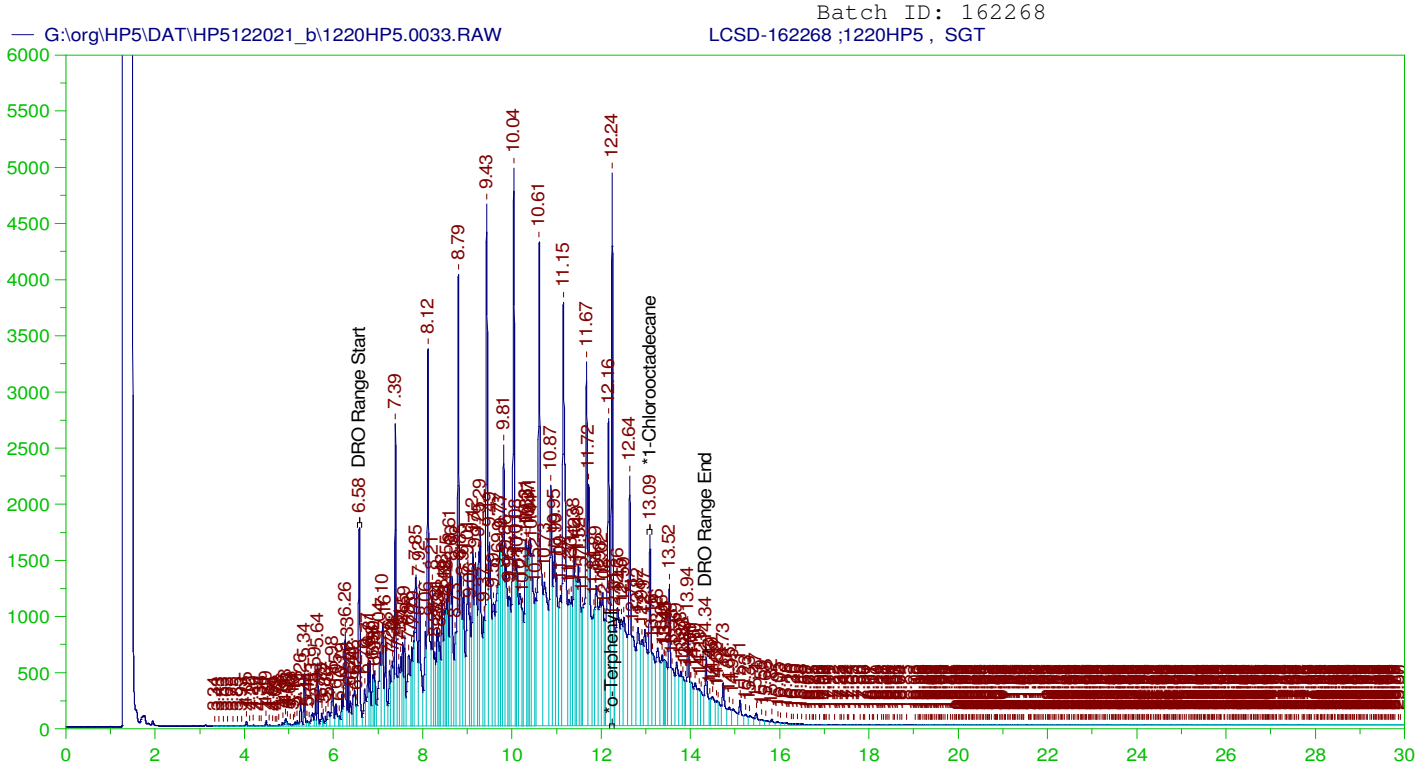
Sample Name: LCS-162268 ;1220HP5 , SGT
Raw File: G:\org\HP5\DAT\HP5122021_b\1220HP5.0032.RAW
Date & Time Acquired: 12/21/2021 7:02:35 AM
Method File: G:\Org\HP5\Methods\DS_8015-24-IJ-L#.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IJ-24.CAL
Sample Weight: 1000 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.53 to 14.39

| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | |
|---|---|---|---|---|---|
| *o-Terphenyl | 12.234 | .2 | .196 | 98.04 | - |
| *1-Chlorooctadecane | 13.08 | .2 | .06 | 30.21 | - |

DRO Area:2.057742E+08 DRO Amount: 6.563104
TEH Area:2.181256E+08 TEH Amount: 6.957047

Batch ID: 162268




**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

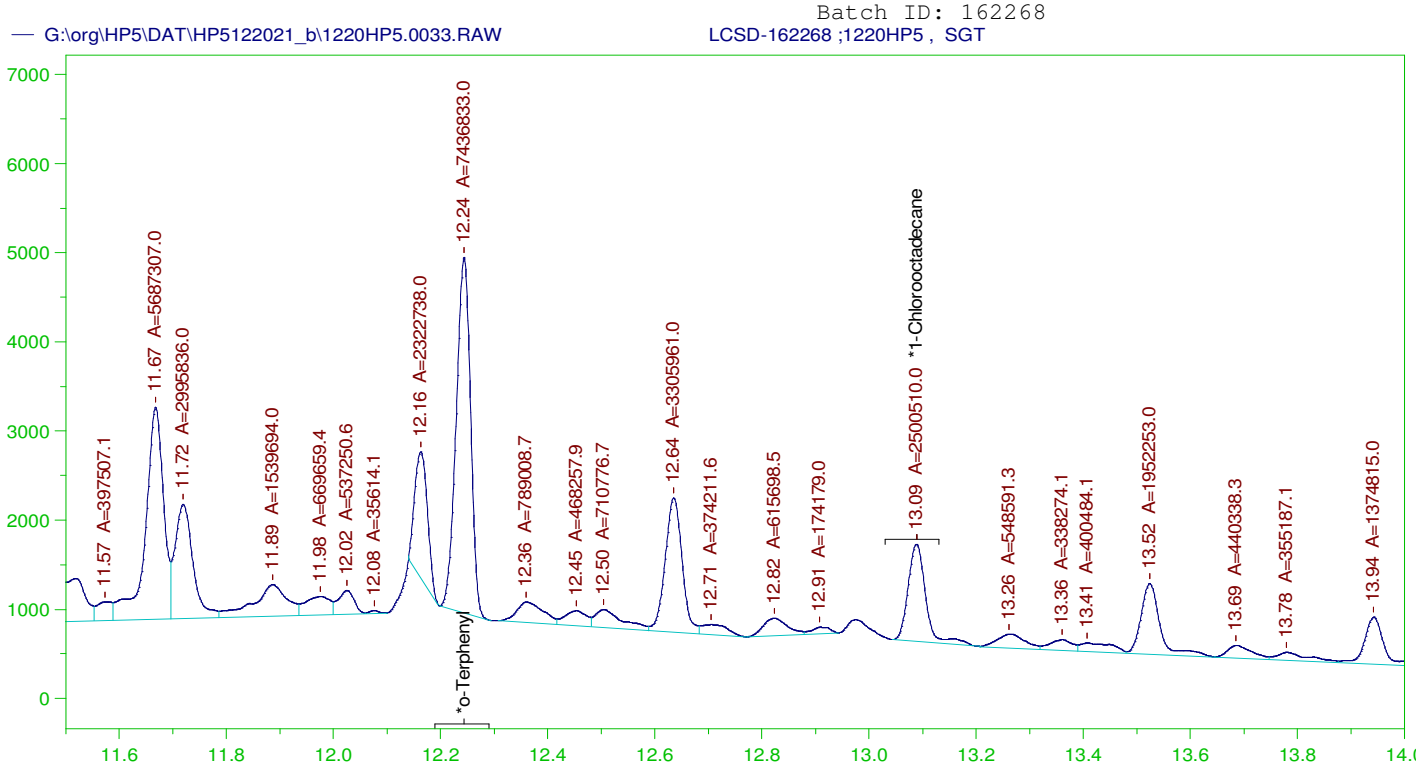
Sample Name: LCSD-162268 ;1220HP5 , SGT
Raw File: G:\org\HP5\DAT\HP5122021_b\1220HP5.0033.RAW
Date & Time Acquired: 12/21/2021 7:45:22 AM
Method File: G:\Org\HP5\Methods\D3_8015-24-IJ-L%.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IJ-24.CAL
Sample Weight: 1000 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.53 to 14.39

| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | |
|---|---|---|---|---|---|
| *o-Terphenyl | 12.244 | .2 | .363 | 181.7 | - |
| *1-Chlorooctadecane | 13.089 | .2 | .167 | 83.53 | - |

DRO Area:4.569363E+08 DRO Amount: 14.57384
TEH Area:4.867697E+08 TEH Amount: 15.52536

Batch ID: 162268




**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

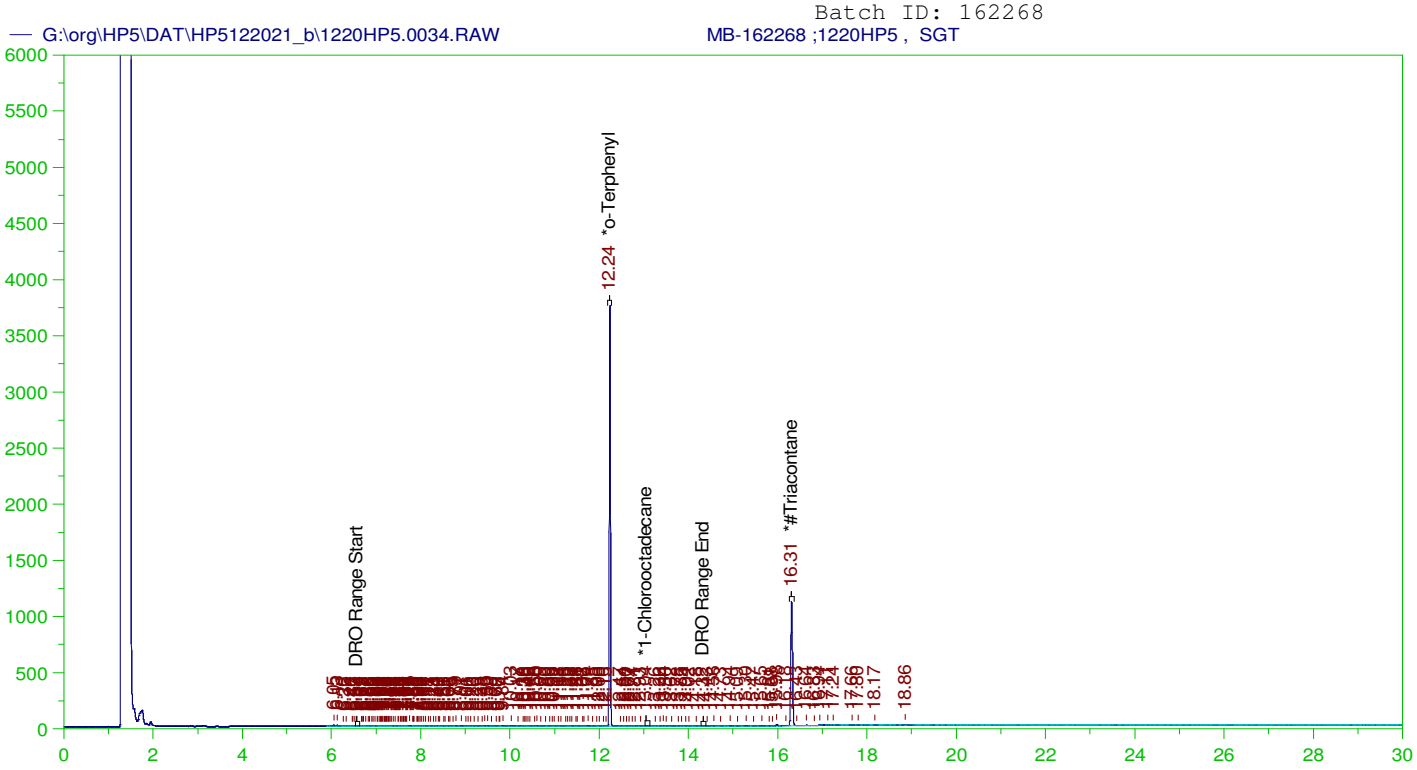
Sample Name: LCSD-162268 ;1220HP5 , SGT
Raw File: G:\org\HP5\DAT\HP5122021_b\1220HP5.0033.RAW
Date & Time Acquired: 12/21/2021 7:45:22 AM
Method File: G:\Org\HP5\Methods\DS_8015-24-IJ-L#.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IJ-24.CAL
Sample Weight: 1000 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.53 to 14.39

| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | |
|---|---|---|---|---|---|
| *o-Terphenyl | 12.244 | .2 | .209 | 104.72 | - |
| *1-Chlorooctadecane | 13.089 | .2 | .07 | 35.21 | - |

DRO Area:2.201212E+08 DRO Amount: 7.020695
TEH Area:2.328771E+08 TEH Amount: 7.427541

Batch ID: 162268



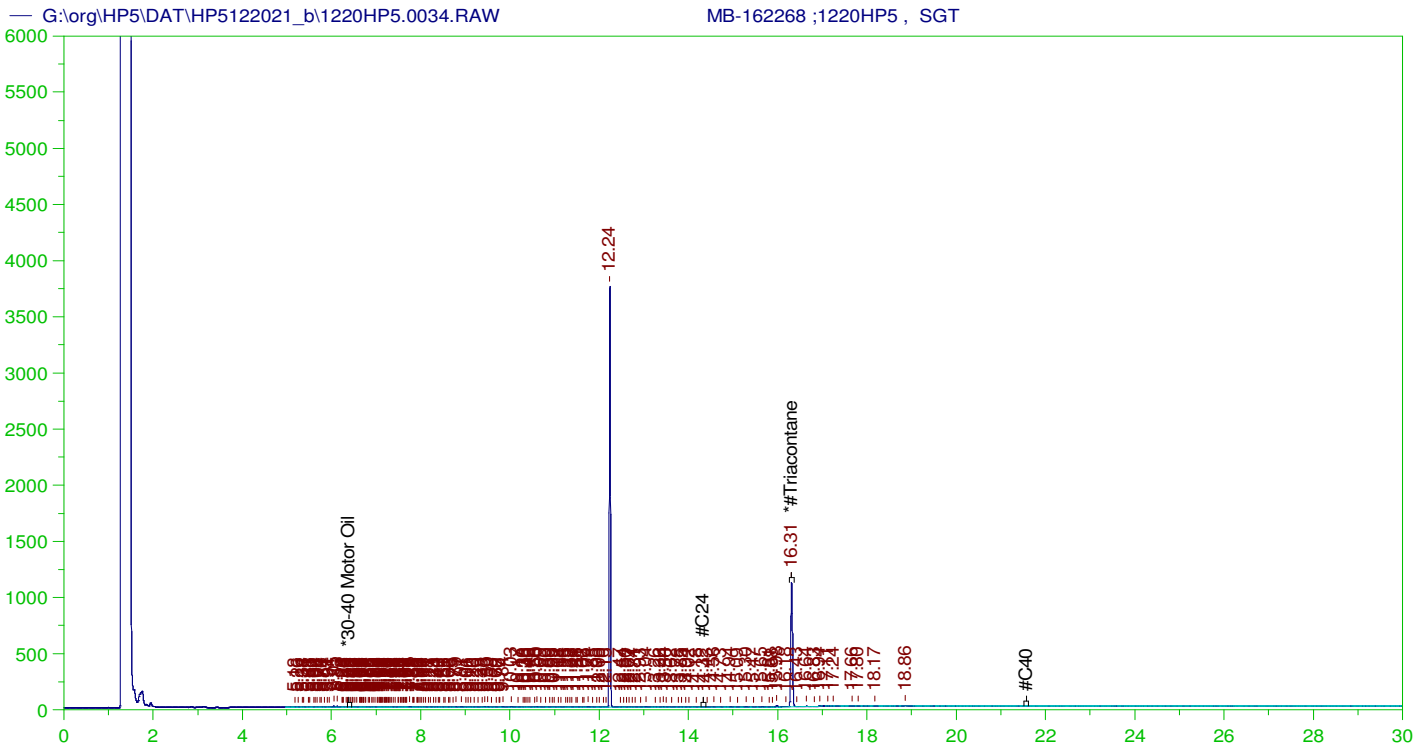

**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: MB-162268 ;1220HP5 , SGT
Raw File: G:\org\HP5\DAT\HP5122021_b\1220HP5.0034.RAW
Date & Time Acquired: 12/21/2021 8:28:04 AM
Method File: G:\Org\HP5\Methods\DR_8015-C24Ta-IJ-L%.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IJ-24-Tri.CAL
Sample Weight: 1000 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.53 to 14.39

| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | |
|---|---|---|---|---|---|
| *o-Terphenyl | 12.236 | .2 | .198 | 98.85 | - |
| *1-Chlorooctadecane | 13.043 | .2 | .21 | | - |
| *#Triacontane | 16.309 | .2 | .098 | 48.78 | - |

DRO Area:715656.8 DRO Amount: 2.282564E-02
TEH Area:932407.8 TEH Amount: 2.973885E-02



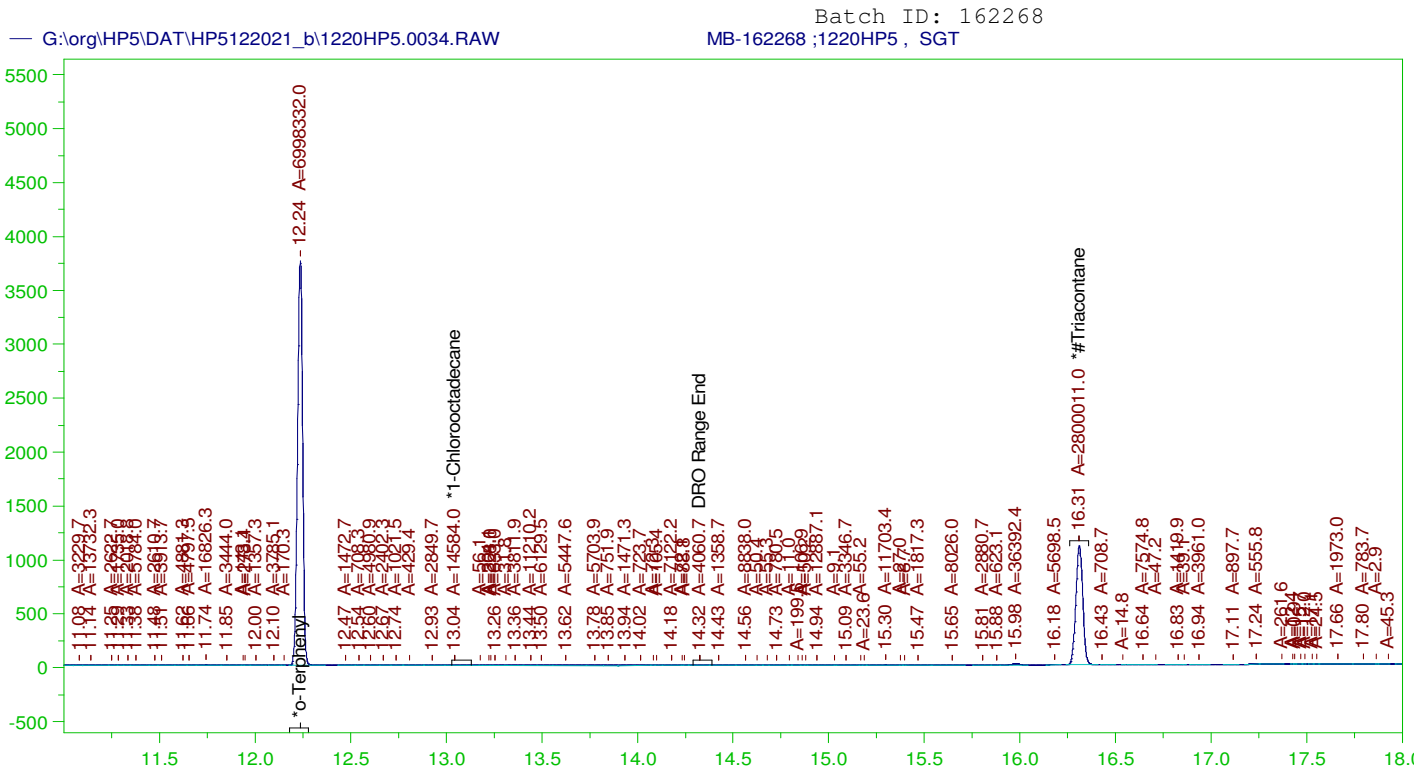

**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

Sample Name: MB-162268 ;1220HP5 , SGT
Raw File: G:\org\HP5\DAT\HP5122021_b\1220HP5.0034.RAW
Date & Time Acquired: 12/21/2021 8:28:04 AM
Method File: G:\Org\HP5\Methods\DR_OROS-AK-L%.MET
Calibration File: G:\Org\HP5\Cals\SW8015C_ORO211017AK-SAMP.CAL
Sample Weight: 1000 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 28542.41
Rt range for Residual Range Organics: 14.29 to 21.62

| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | |
|---|---|---|---|---|---|
| *#Triacontane | 16.309 | .5 | .098 | 19.51 | - |

RRO Area:156660.6 RRO AMOUNT: 5.488697E-03




**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: MB-162268 ;1220HP5 , SGT
Raw File: G:\org\HP5\DAT\HP5122021_b\1220HP5.0034.RAW
Date & Time Acquired: 12/21/2021 8:28:04 AM
Method File: G:\Org\HP5\Methods\DS_8015-C24T-IJ-L#.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IJ-24-Tri.CAL
Sample Weight: 1000 Dilution: 1 S.A.: 1

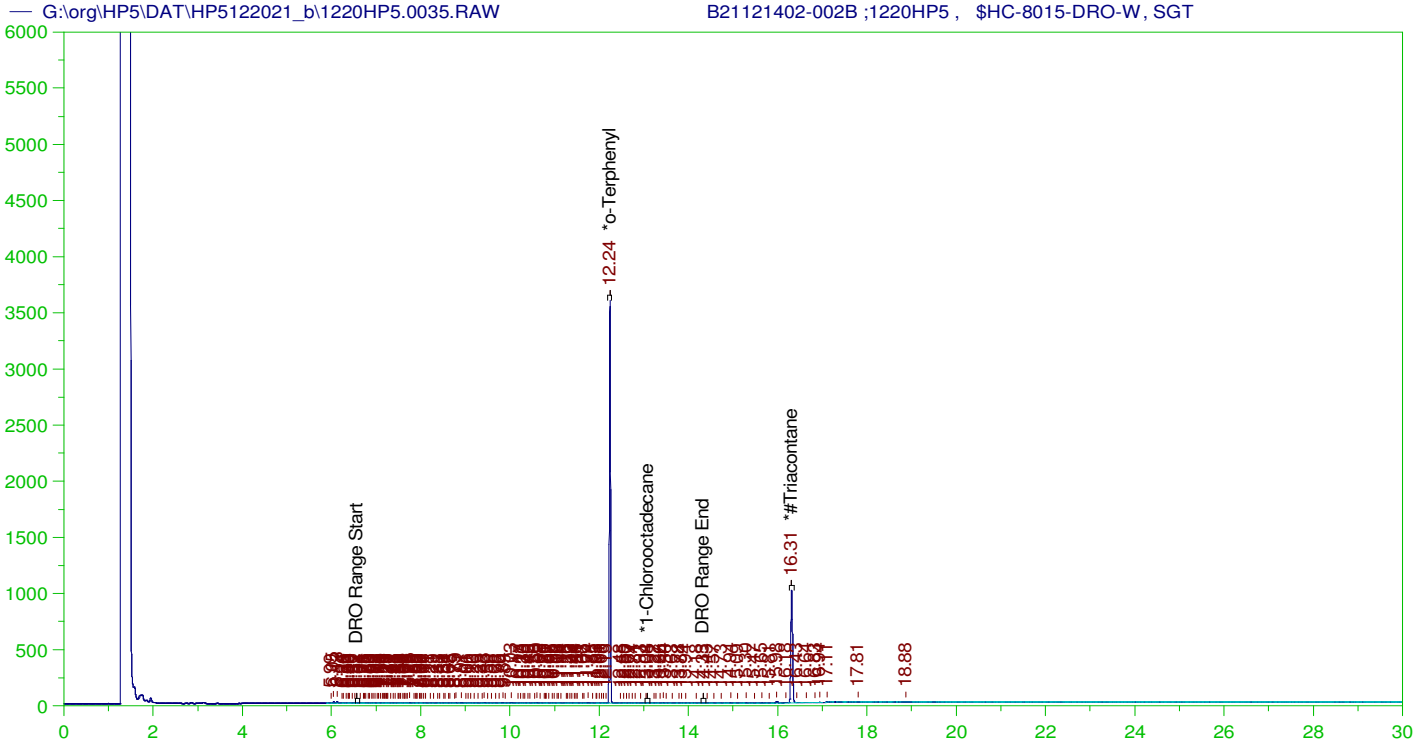
Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.53 to 14.39

| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | |
|---|---|---|---|---|---|
| *o-Terphenyl | 12.236 | .2 | .197 | 98.54 | - |
| *1-Chlorooctadecane | 13.043 | .2 | .21 | | - |
| *#Triacontane | 16.309 | .2 | .097 | 48.39 | - |

DRO Area:865243.1 DRO Amount: 2.759665E-02
TEH Area:1277438 TEH Amount: 4.074348E-02

**ERH2197 (OWDFMW01)** Batch ID: 162268

G:\org\HP5\DAT\HP5122021_b\1220HP5.0035.RAW B21121402-002B ;1220HP5 , $HC-8015-DRO-W, SGT




**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: B21121402-002B ;1220HP5 , $HC-8015-DRO-W, SGT
Raw File: G:\org\HP5\DAT\HP5122021_b\1220HP5.0035.RAW
Date & Time Acquired: 12/21/2021 9:10:53 AM
Method File: G:\Org\HP5\Methods\DR_8015-C24Ta-IJ-L%.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IJ-24-Tri.CAL
Sample Weight: 960 Dilution: 1 S.A.: 1

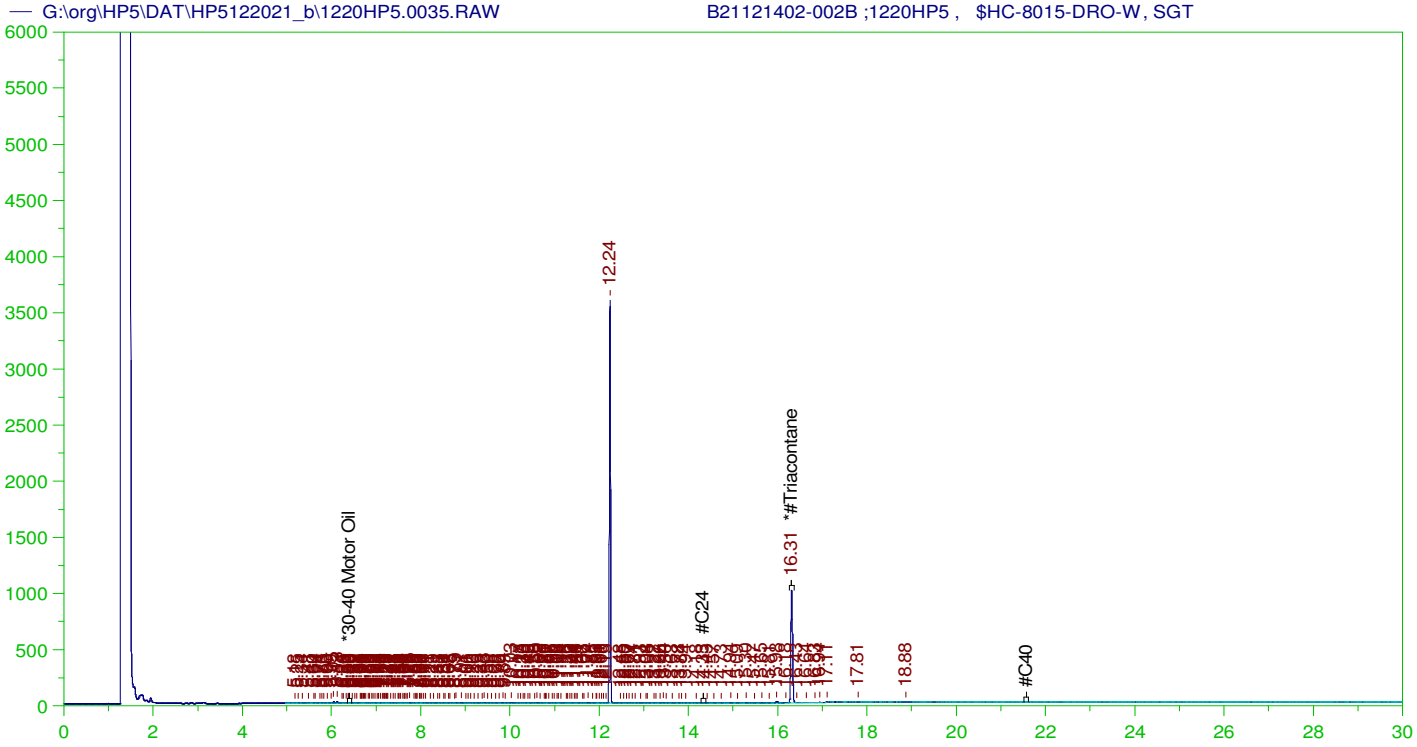
Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.53 to 14.39

| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | |
|---|---|---|---|---|---|
| *o-Terphenyl | 12.238 | .208 | .196 | 93.92 | - |
| *1-Chlorooctadecane | 13.078 | .208 | . | .04 | - |
| *#Triacontane | 16.31 | .208 | .093 | 44.44 | - |

DRO Area:795310.3 DRO Amount: 2.642309E-02
TEH Area:1041488 TEH Amount: 3.460202E-02

**ERH2197 (OWDFMW01)** Batch ID: 162268

G:\org\HP5\DAT\HP5122021_b\1220HP5.0035.RAW B21121402-002B ;1220HP5 , $HC-8015-DRO-W, SGT




**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

Sample Name: B21121402-002B ;1220HP5 , $HC-8015-DRO-W, SGT
Raw File: G:\org\HP5\DAT\HP5122021_b\1220HP5.0035.RAW
Date & Time Acquired: 12/21/2021 9:10:53 AM
Method File: G:\Org\HP5\Methods\DR_OROS-AK-L%.MET
Calibration File: G:\Org\HP5\Cals\SW8015C_ORO211017AK-SAMP.CAL
Sample Weight: 960 Dilution: 1 S.A.: 1

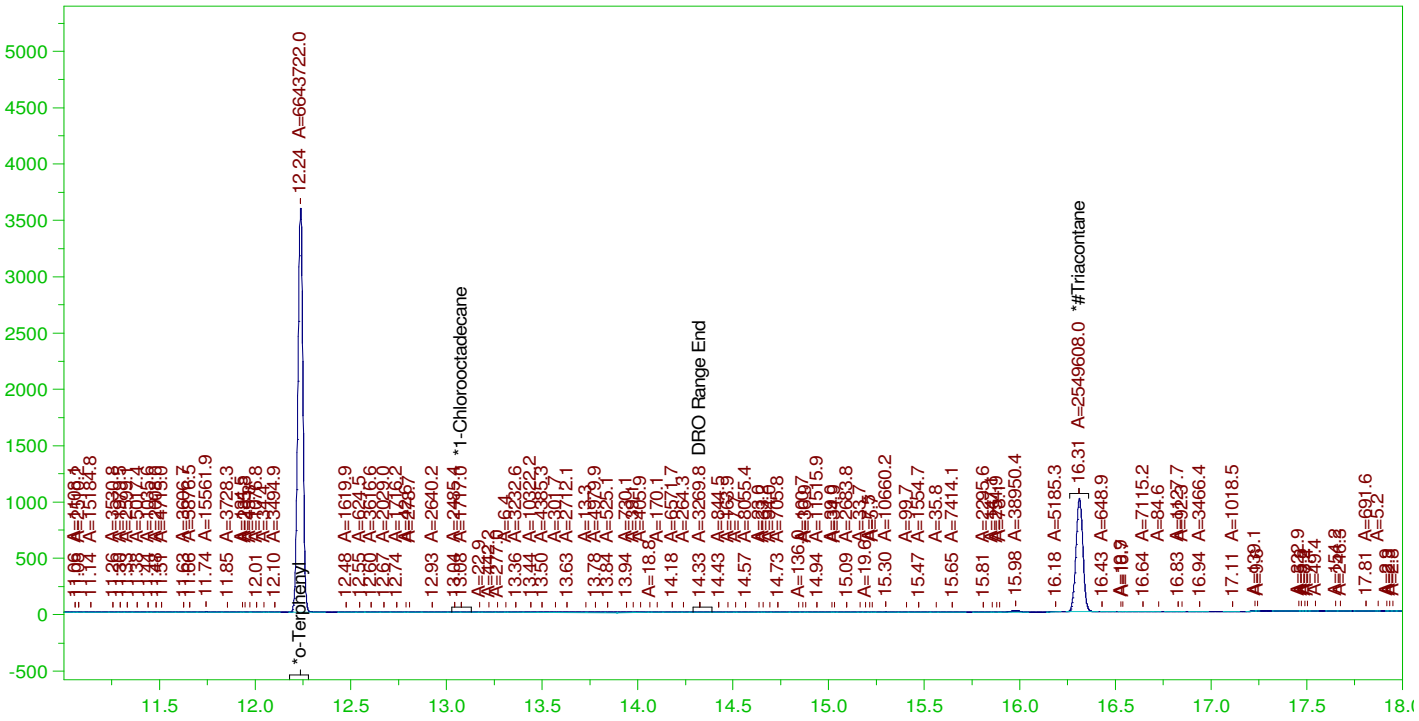
Mean RF for for Residual Range Organics Calculations: 28542.41
Rt range for Residual Range Organics: 14.29 to 21.62

| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | |
|---|---|---|---|---|---|
| *#Triacontane | 16.31 | .521 | .093 | 17.77 | - |

RRO Area:143518.3 RRO AMOUNT: 5.237759E-03

**ERH2197 (OWDFMW01)** Batch ID: 162268

G:\org\HP5\DAT\HP5122021_b\1220HP5.0035.RAW B21121402-002B ;1220HP5 , $HC-8015-DRO-W, SGT



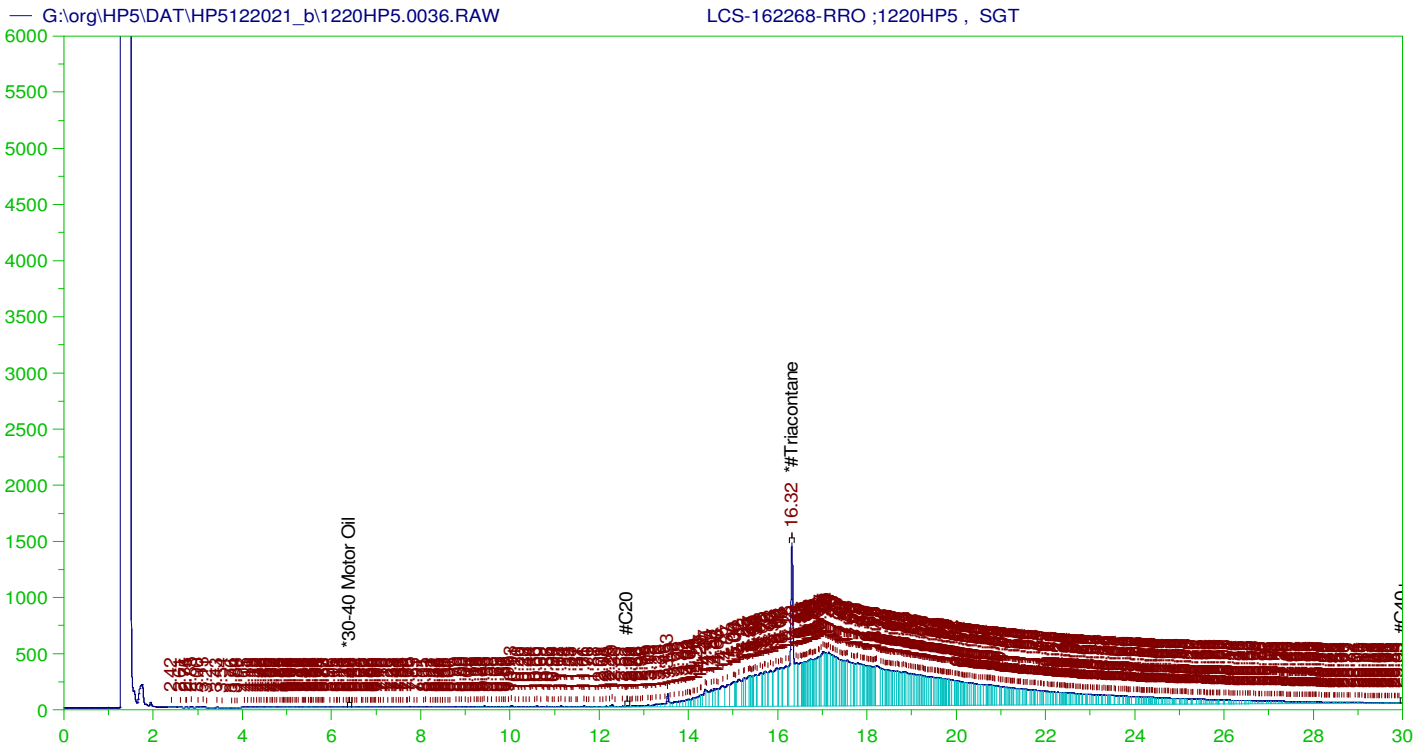

**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: B21121402-002B ;1220HP5 , $HC-8015-DRO-W, SGT
Raw File: G:\org\HP5\DAT\HP5122021_b\1220HP5.0035.RAW
Date & Time Acquired: 12/21/2021 9:10:53 AM
Method File: G:\Org\HP5\Methods\DS_8015-C24T-IJ-L#.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IJ-24-Tri.CAL
Sample Weight: 960 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.53 to 14.39

| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | |
|---|---|---|---|---|---|
| *o-Terphenyl | 12.238 | .208 | .195 | 93.55 | - |
| *1-Chlorooctadecane | 13.078 | .208 | . | .02 | - |
| *#Triacontane | 16.31 | .208 | .092 | 44.06 | - |

DRO Area:855444 DRO Amount: 2.842095E-02
TEH Area:1306883 TEH Amount: 4.341938E-02




**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

Sample Name: LCS-162268-RRO ;1220HP5 , SGT
Raw File: G:\org\HP5\DAT\HP5122021_b\1220HP5.0036.RAW
Date & Time Acquired: 12/21/2021 9:53:46 AM
Method File: G:\Org\HP5\Methods\D3_ORO-AK-L%.MET
Calibration File: G:\Org\HP5\Cals\SW8015C_ORO211017AK.CAL
Sample Weight: 1000 Dilution: 1 S.A.: 1

Mean RF for for ~~Residual~~ TEH (Oil Range) Organics Calculations: 28542.41
Rt range for ~~Residual~~ TEH (Oil Range) Organics: 12.58 to 30.05

| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | |
|---|---|---|---|---|---|
| *#Triacontane | 16.316 | .5 | .187 | 37.42 | - |

~~RRO~~ TEH (Oil Range) Area:1.465807E+08 ~~RRO~~ TEH (Oil Range) AMOUNT: 5.135541

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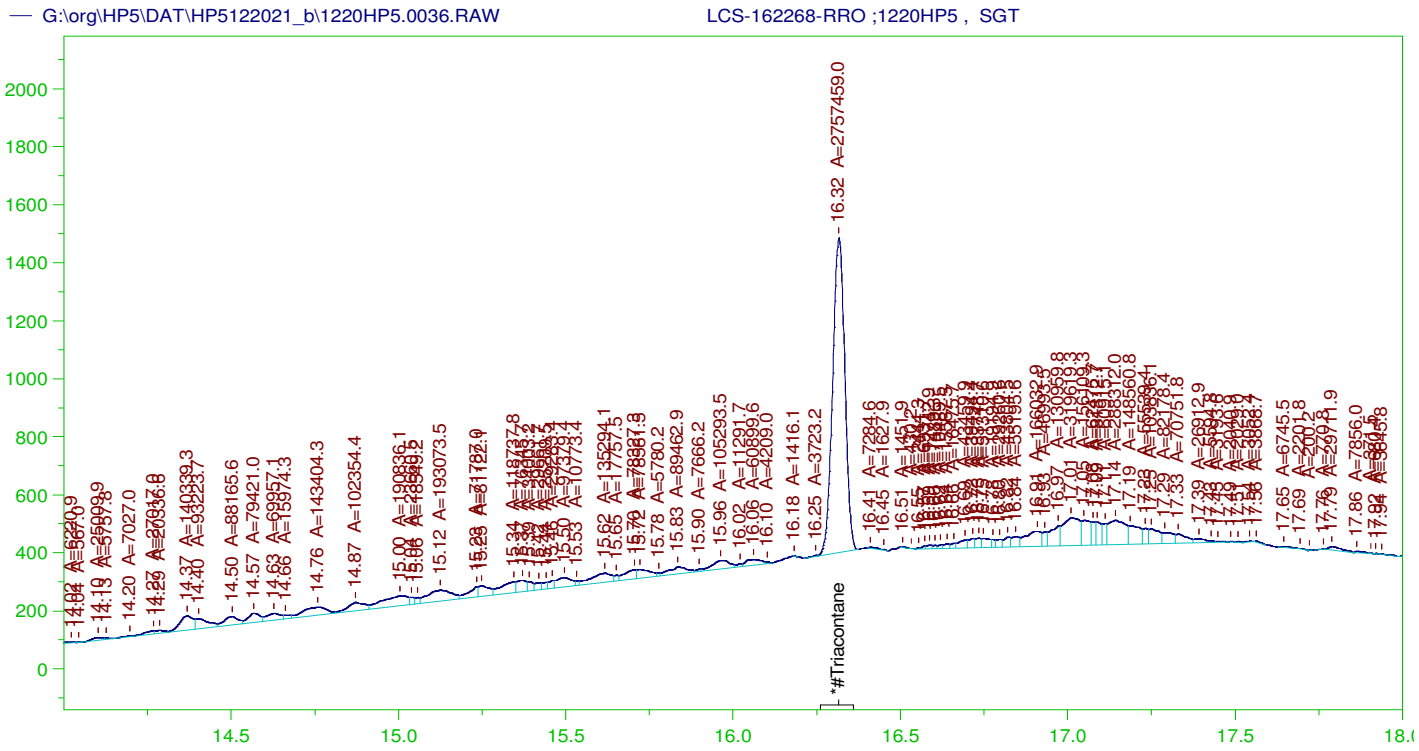


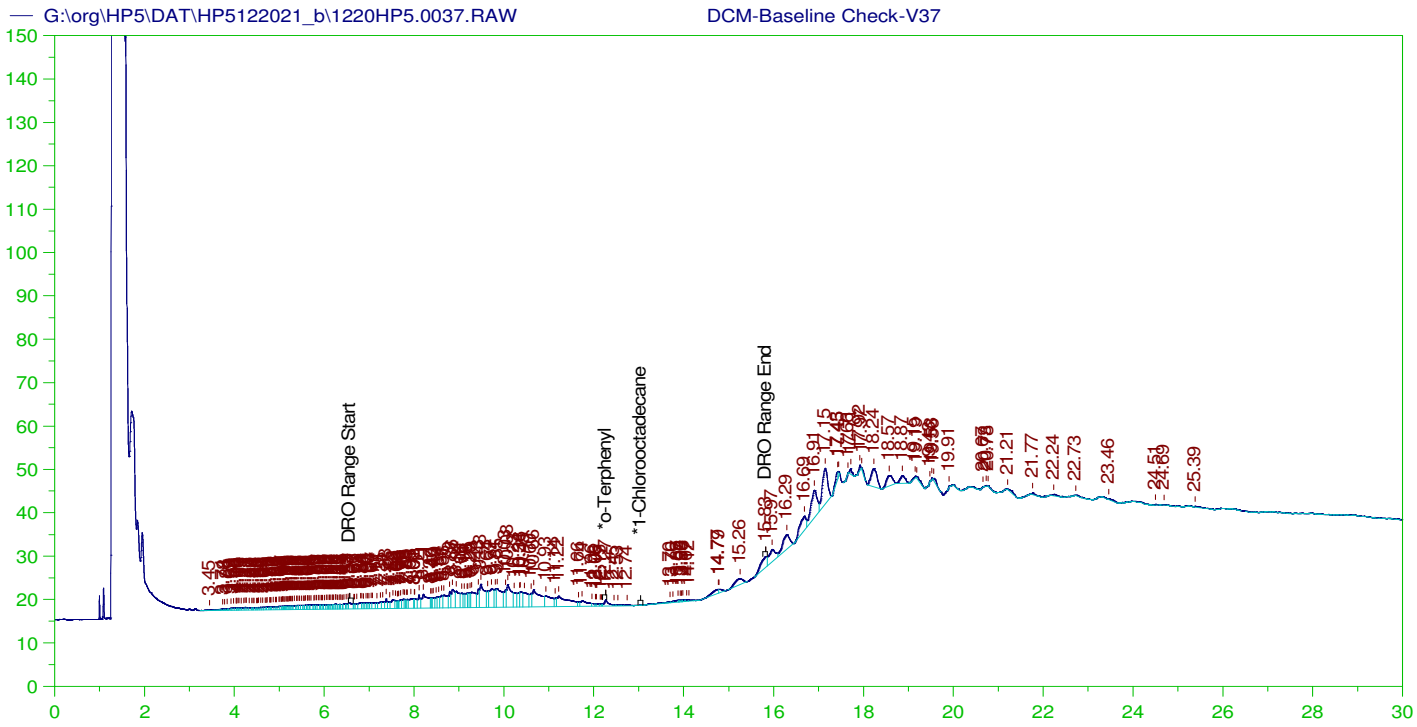

**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

Sample Name: LCS-162268-RRO ;1220HP5 , SGT
Raw File: G:\org\HP5\DAT\HP5122021_b\1220HP5.0036.RAW
Date & Time Acquired: 12/21/2021 9:53:46 AM
Method File: G:\Org\HP5\Methods\DS_ORO-AK-L%.MET
Calibration File: G:\Org\HP5\Cals\SW8015C_ORO211017AK.CAL
Sample Weight: 1000 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 28542.41
Rt range for Residual Range Organics: 12.58 to 30.05

| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | |
|---|---|---|---|---|---|
| *#Triacontane | 16.316 | .5 | .095 | 19.06 | - |

RRO Area:5417491 RRO AMOUNT: 0.189805



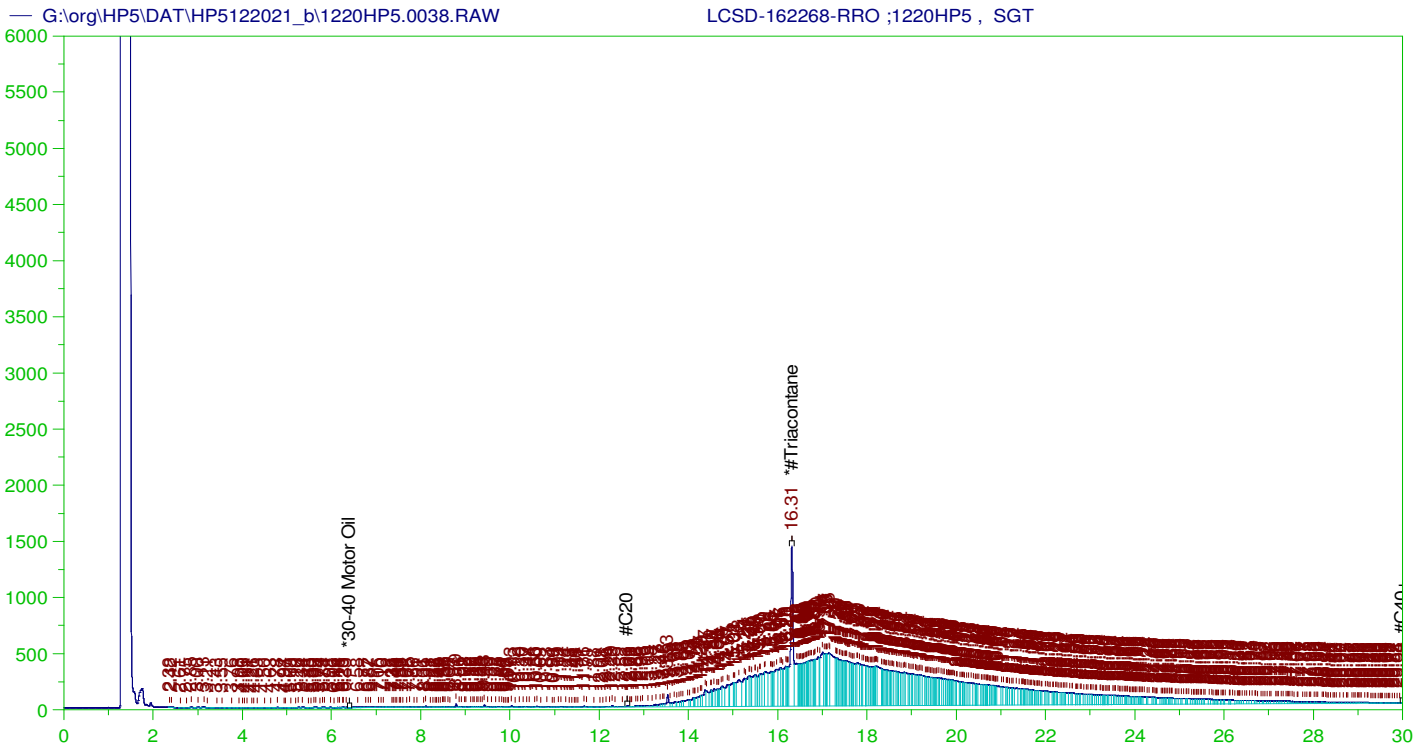

**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: DCM-Baseline Check-V37
Raw File: G:\org\HP5\DAT\HP5122021_b\1220HP5.0037.RAW
Date & Time Acquired: 12/21/2021 10:36:33 AM
Method File: G:\Org\HP5\Methods\DR_8015-IBb-LEXP.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IB.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.54 to 15.86

| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | |
|---|---|---|---|---|---|
| *o-Terphenyl | 12.266 | 200. | .253 | .13 | - |
| *1-Chlorooctadecane | 29.898 | 200. | . | . | - |

DRO Area:872805.1 DRO Amount: 27.83784
TEH Area:1383109 TEH Amount: 44.11382




**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

Sample Name: LCSD-162268-RRO ;1220HP5 , SGT
Raw File: G:\org\HP5\DAT\HP5122021_b\1220HP5.0038.RAW
Date & Time Acquired: 12/21/2021 11:19:16 AM
Method File: G:\Org\HP5\Methods\D3_ORO-AK-L%.MET
Calibration File: G:\Org\HP5\Cals\SW8015C_ORO211017AK.CAL
Sample Weight: 1000 Dilution: 1 S.A.: 1

Mean RF for for ~~Residual~~ TEH (Oil Range) Organics Calculations: 28542.41
Rt range for ~~Residual~~ TEH (Oil Range) Organics: 12.58 to 30.05

| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | |
|---|---|---|---|---|---|
| *#Triacontane | 16.315 | .5 | .192 | 38.44 | - |

~~RRO~~ TEH (Oil Range) Area:1.453565E+08 ~~RRO~~ TEH (Oil Range) AMOUNT: 5.09265

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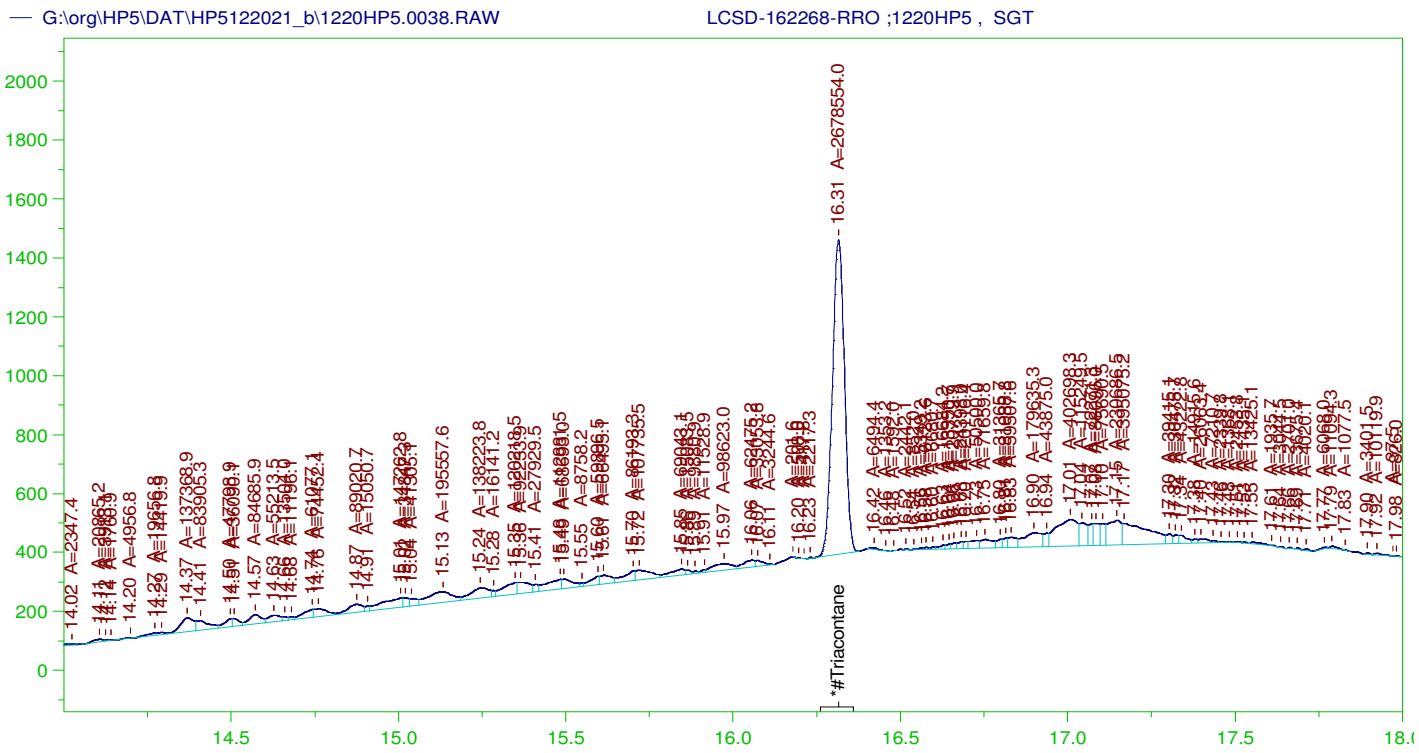


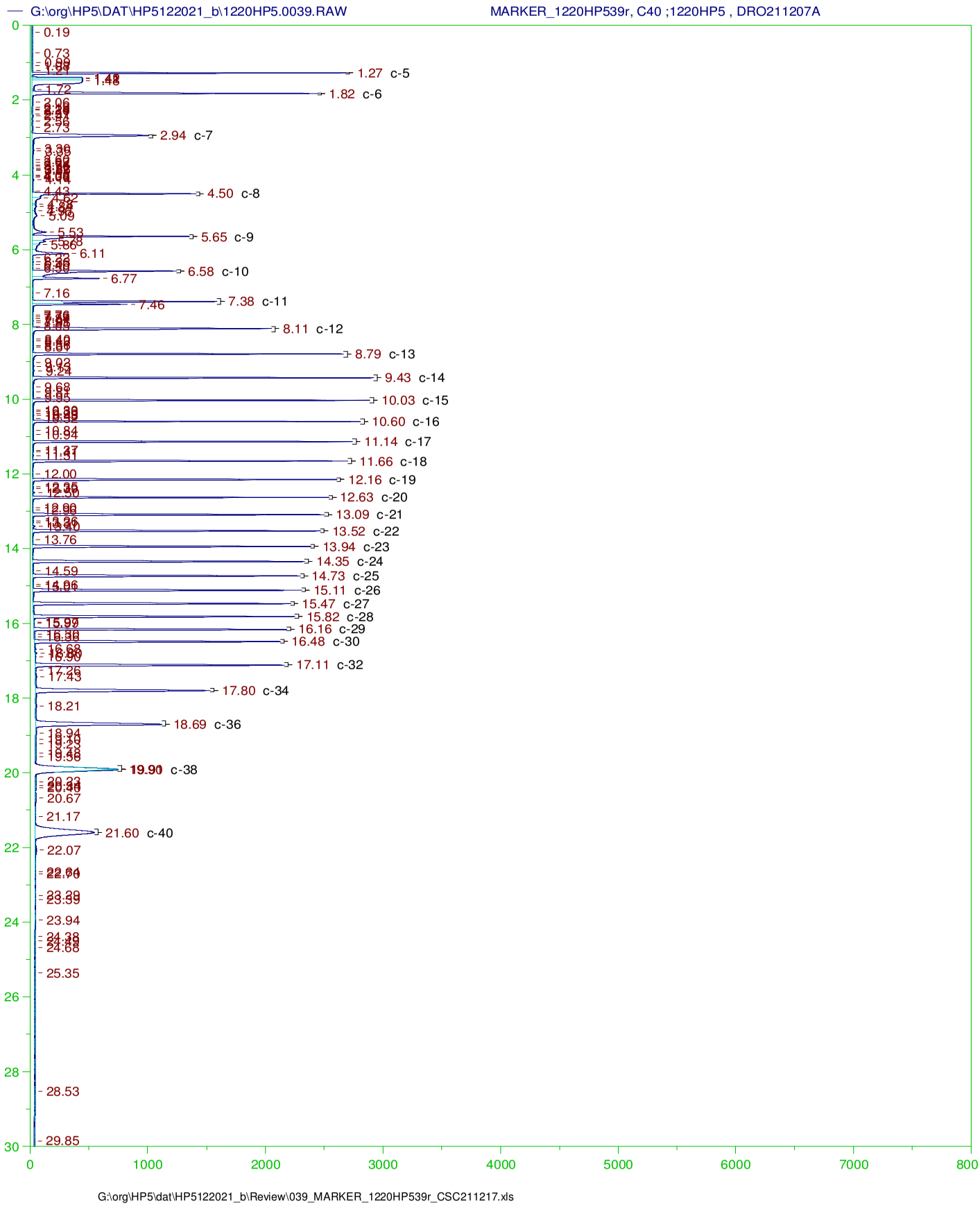

**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

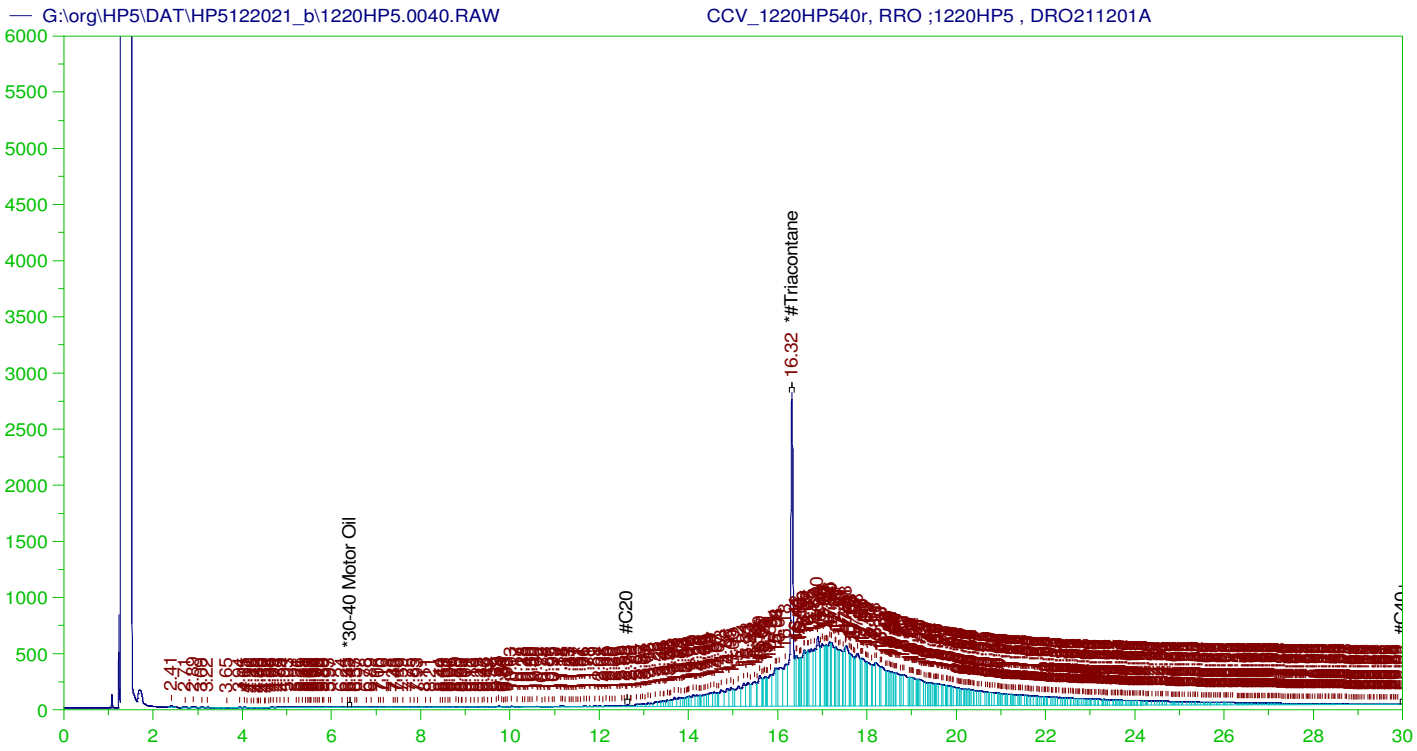
Sample Name: LCSD-162268-RRO ;1220HP5 , SGT
Raw File: G:\org\HP5\DAT\HP5122021_b\1220HP5.0038.RAW
Date & Time Acquired: 12/21/2021 11:19:16 AM
Method File: G:\Org\HP5\Methods\DS_ORO-AK-L%.MET
Calibration File: G:\Org\HP5\Cals\SW8015C_ORO211017AK.CAL
Sample Weight: 1000 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 28542.41
Rt range for Residual Range Organics: 12.58 to 30.05

| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | |
|---|---|---|---|---|---|
| *#Triacontane | 16.315 | .5 | .093 | 18.52 | - |

RRO Area:5349319 RRO AMOUNT: 0.1874165


G:\org\HP5\DAT\HP5122021_b\1220HP5.0039.RAW
MARKER_1220HP539r, C40 ;1220HP5 , DRO211207A
1.27 c-5
1.82 c-6
2.94 c-7
4.50 c-8
5.65 c-9
6.58 c-10
7.38 c-11
8.11 c-12
8.79 c-13
9.43 c-14
10.03 c-15
10.60 c-16
11.14 c-17
11.66 c-18
12.16 c-19
12.63 c-20
13.09 c-21
13.52 c-22
13.94 c-23
14.35 c-24
14.73 c-25
15.11 c-26
15.47 c-27
15.82 c-28
16.16 c-29
16.48 c-30
17.11 c-32
17.80 c-34
18.69 c-36
19.90 c-38
21.60 c-40
0.19
0.73
1.72
2.73
4.13
5.09
5.53
5.66
6.11
6.77
7.16
7.46
9.24
10.84
11.27
12.00
13.76
14.59
17.43
18.21
20.67
21.17
22.07
23.94
25.35
28.53
29.85
0
1000
2000
3000
4000
5000
6000
7000
800
G:\org\HP5\dat\HP5122021_b\Review\039_MARKER_1220HP539r_CSC211217.xls




**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

Sample Name: CCV_1220HP540r, RRO ;1220HP5 , DRO211201A
Raw File: G:\org\HP5\DAT\HP5122021_b\1220HP5.0040.RAW
Date & Time Acquired: 12/21/2021 12:44:59 PM
Method File: G:\Org\HP5\Methods\DC_ORO-AK-L%.MET
Calibration File: G:\Org\HP5\Cals\SW8015C_ORO211017AK.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for for ~~Residual~~ TEH (Oil Range) Organics Calculations: 28542.41
Rt range for ~~Residual~~ TEH (Oil Range) Organics: 12.58 to 30.05

| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | |
|---|---|---|---|---|---|
| *#Triacontane | 16.315 | 500. | 343.432 | 68.69 | - |

~~RRO~~ TEH (Oil Range) Area:1.335493E+08 ~~RRO~~ TEH (Oil Range) AMOUNT: 4678.979

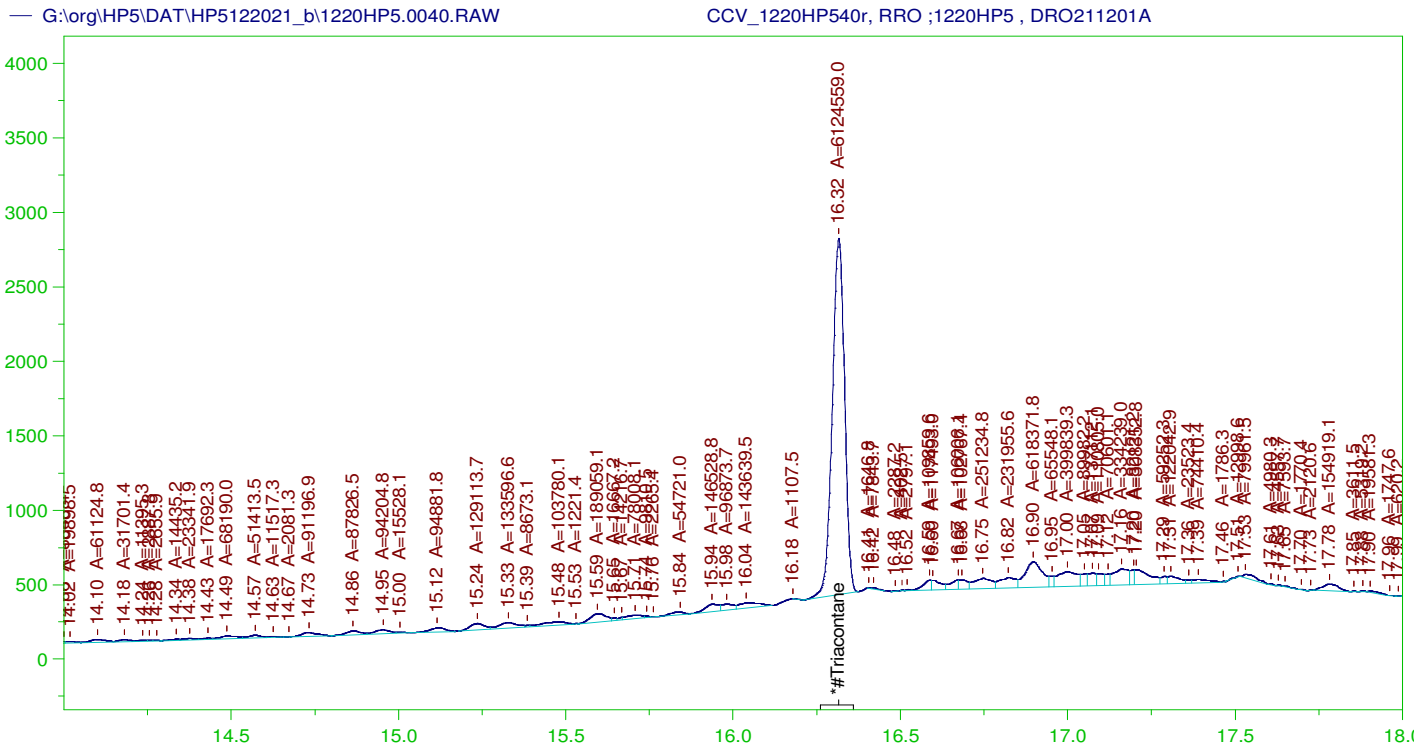
CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5122021_b\1220HP5.0040.RAW

| COMPOUND | ACTUAL(NG) | MEASURED(NG) | %RECOVERY | LIMITS |
|---|---|---|---|---|
| *30-40 Motor Oil | 5000. | .019 | . | 75-125 |

| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | LIMITS |
|---|---|---|---|---|---|
| *#Triacontane | 16.315 | 200. | 343.432 | 171.72 | 75-125 |

AMN 01/10/2022

G:\org\HP5\dat\HP5122021_b\Review\040_CCV_1220HP540r_DC_ORO-AK-L%.xls




**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

Sample Name: CCV_1220HP540r, RRO ;1220HP5 , DRO211201A
Raw File: G:\org\HP5\DAT\HP5122021_b\1220HP5.0040.RAW
Date & Time Acquired: 12/21/2021 12:44:59 PM
Method File: G:\Org\HP5\Methods\DS_ORO-AK-L%.MET
Calibration File: G:\Org\HP5\Cals\SW8015C_ORO211017AK.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 28542.41
Rt range for Residual Range Organics: 12.58 to 30.05

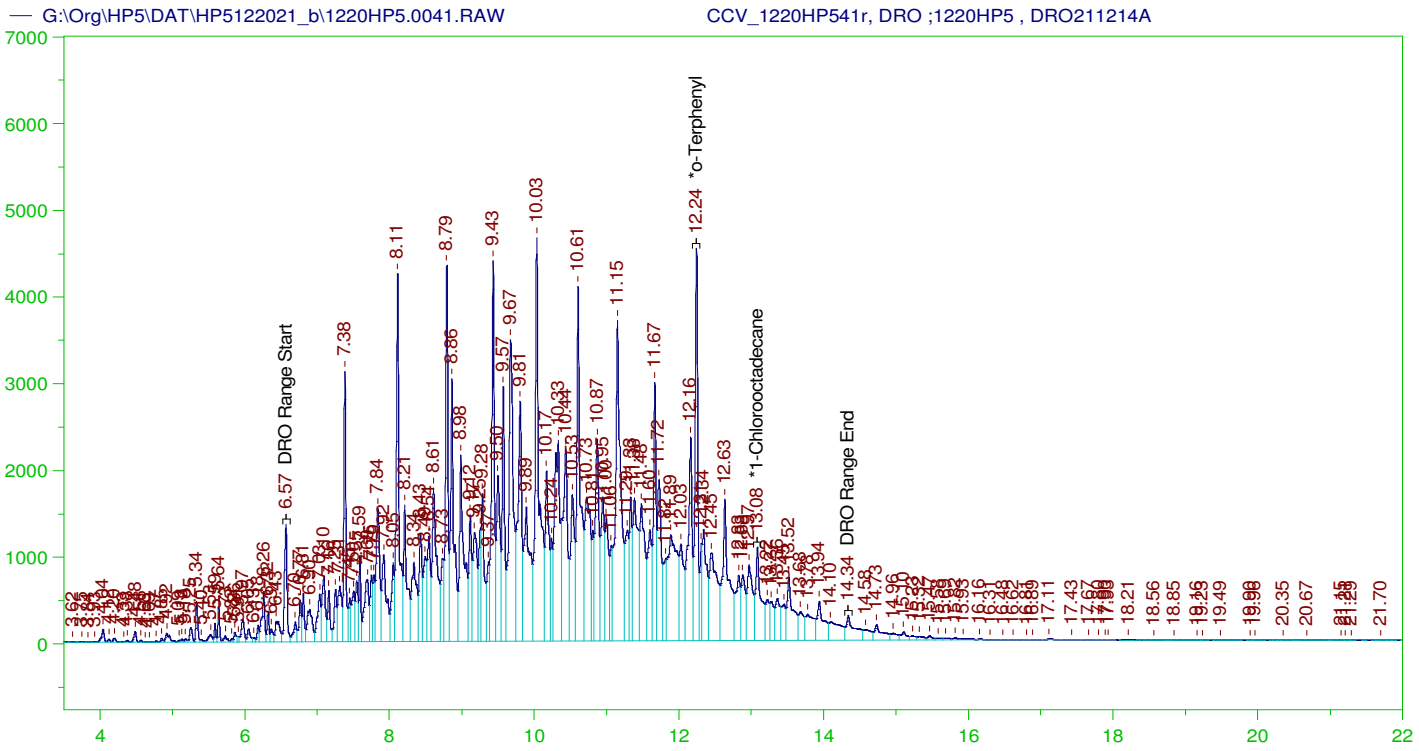
| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | |
|---|---|---|---|---|---|
| *#Triacontane | 16.315 | 500. | 211.702 | 42.34 | - |

RRO Area:6273275 RRO AMOUNT: 219.7879

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5122021_b\1220HP5.0040.RAW

| COMPOUND | ACTUAL(NG) | MEASURED(NG) | %RECOVERY | LIMITS |
|---|---|---|---|---|
| *30-40 Motor Oil | 5000. | .019 | . | 75-125 |

| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | LIMITS |
|---|---|---|---|---|---|
| *#Triacontane | 16.315 | 200. | 211.702 | 105.85 | 75-125 |




**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: CCV_1220HP541r, DRO ;1220HP5 , DRO211214A
Raw File: G:\Org\HP5\DAT\HP5122021_b\1220HP5.0041.RAW
Date & Time Acquired: 12/21/2021 1:27:39 PM
Method File: G:\Org\HP5\Methods\DC_8015-24-IJ-L%.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IJ-24.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.53 to 14.39

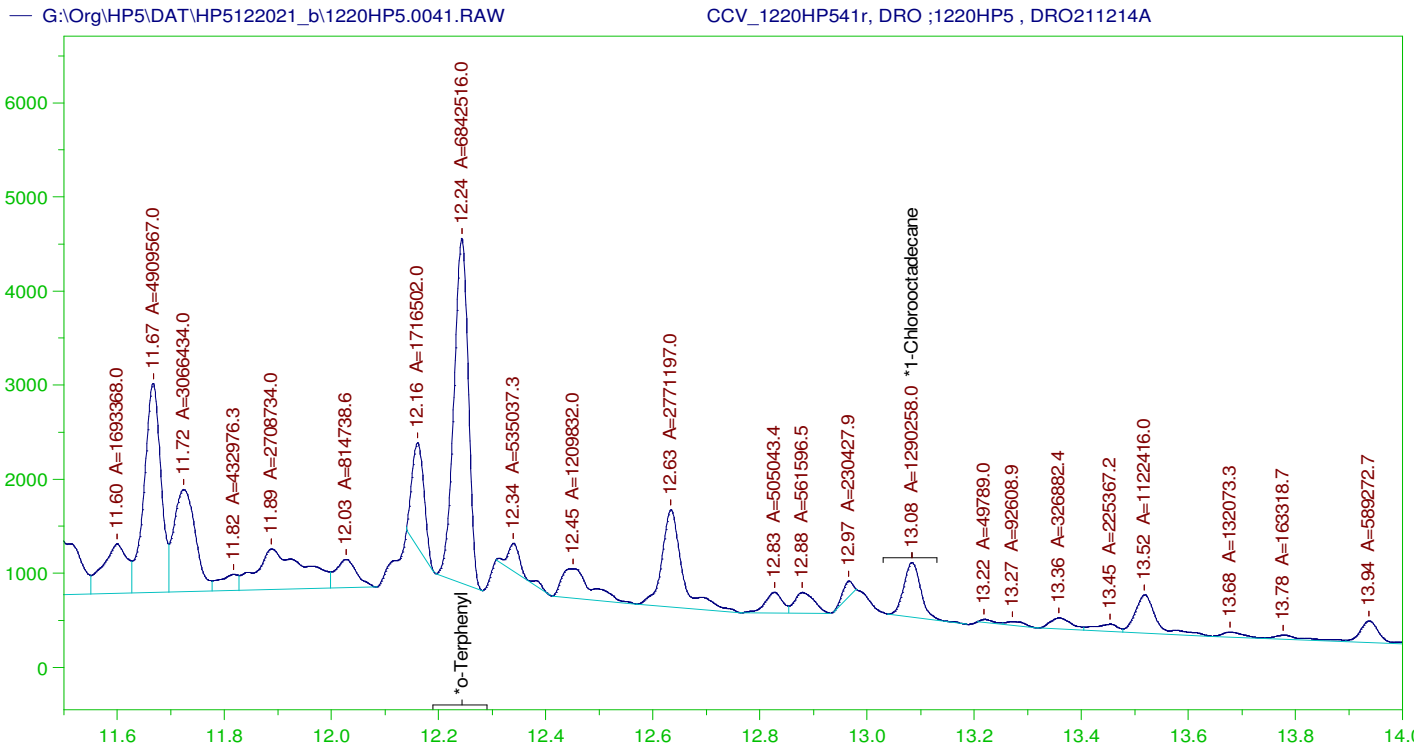
| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | |
|---|---|---|---|---|---|
| *o-Terphenyl | 12.243 | 200. | 319.82 | 159.91 | - |
| *1-Chlorooctadecane | 13.084 | 200. | 154.804 | 77.4 | - |

DRO Area:4.533873E+08 DRO Amount: 14460.64
TEH Area:4.692756E+08 TEH Amount: 14967.39

CONTINUING CALIBRATION REPORT: G:\Org\HP5\DAT\HP5122021_b\1220HP5.0041.RAW

| COMPOUND | ACTUAL(NG) | MEASURED(NG) | %RECOVERY | LIMITS |
|---|---|---|---|---|
| TOTAL DRO | 15000. | 14967.39 | 99.78 | 85-115 |

| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | LIMITS |
|---|---|---|---|---|---|
| *o-Terphenyl | 12.243 | 200. | 319.82 | 159.91 | 85-115 |
| *1-Chlorooctadecane | 13.084 | 200. | 154.804 | 77.4 | 85-115 |




**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**
Sample Name: CCV_1220HP541r, DRO ;1220HP5 , DRO211214A
Raw File: G:\Org\HP5\DAT\HP5122021_b\1220HP5.0041.RAW
Date & Time Acquired: 12/21/2021 1:27:39 PM
Method File: G:\Org\HP5\Methods\DS_8015-24-IJ-L#.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IJ-24.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.53 to 14.39

| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | |
|---|---|---|---|---|---|
| *o-Terphenyl | 12.243 | 200. | 192.697 | 96.35 | - |
| *1-Chlorooctadecane | 13.084 | 200. | 36.336 | 18.17 | - |

DRO Area:2.527445E+08 DRO Amount: 8061.206
TEH Area:2.631083E+08 TEH Amount: 8391.754

CONTINUING CALIBRATION REPORT: G:\Org\HP5\DAT\HP5122021_b\1220HP5.0041.RAW

| COMPOUND | ACTUAL(NG) | MEASURED(NG) | %RECOVERY | LIMITS |
|---|---|---|---|---|
| TOTAL DRO | 15000. | 8391.75 | 55.95 | 85-115 |

| SURROGATE COMPOUND | RT | ACTUAL | MEASURED | %REC | LIMITS |
|---|---|---|---|---|---|
| *o-Terphenyl | 12.243 | 200. | 192.697 | 96.35 | 85-115 |
| *1-Chlorooctadecane | 13.084 | 200. | 36.336 | 18.17 | 85-115 |

| Write Sequence | Insert Entries|Have the fist cell for entries selecte | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Data File | Sample Name | Method | Weight | Dil Factor | Amt Inj. | IS | Cal ID | Manual Integrations |
| G:\org\HP5\DAT\HP5121721_b\1217HP5.34r | MARKER_1217HP534r, C40 ;1217HP5 , DRO211207A | g:\org\HP5\Methods\\CSC211217.met | 1 | 1 | 1 | 1 | 0 | No integrations |
| G:\org\HP5\DAT\HP5121721_b\1217HP5.35r | CCV_1217HP535r, RRO ;1217HP5 , DRO211201A | G:\Org\HP5\Methods\DC_ORO-AK-L%.MET<br>G:\Org\HP5\Methods\DS_ORO-AK-L%.MET | 1 | 1 | 1 | 1 | 0 | The integration of Oil Range hydrocarbon is the hydrocarbon response with reference to the basline. Surrogates are integrated using a valley to valley integration using Set Basline Now placed slight before at 16.18 minutes slightly after the surrogate peak at 16.4 minutes and X-axis scaling showing surrogate peak from 14-18 minutes. |
| G:\org\HP5\DAT\HP5121721_b\1217HP5.36r | CCV_1217HP536r, DRO ;1217HP5 , DRO211214A | G:\Org\HP5\Methods\DC_8015-24-IJ-L%.met<br>G:\Org\HP5\Methods\DS_8015-24-IJ-L#.met | 1 | 1 | 1 | 1 | 0 | The integration of Diesel Range Organics (C10-C24) and Total Extractable Hydrocarbons is the hydrocarbon response with reference to the basline. Assigned Set Baseline All Valley on at 16.83 minutes.<br>Surrogates are integrated using a valley to valley integration using Set Basline Now placed slight before at 12.14 minutes and slightly after the surrogate peak at 12.31 minutes and X-axis scaling showing surrogate peak from 11.5-14 minutes. |
| G:\org\HP5\DAT\HP5121721_b\1217HP5.37r | DCM-Baseline Check-V37 | G:\Org\HP5\Methods\DR_8015-IBb-LEXP.met | 1 | 1 | 1 | 1 | 0 | No integrations |
| G:\org\HP5\DAT\HP5121721_b\1217HP5.38r | LCS-162268 ;1217HP5 , | G:\Org\HP5\Methods\D3_8015-24-IJ-L%.met<br>G:\Org\HP5\Methods\DS_8015-24-IJ-L#.met | 1000 | 1 | 1 | 1 | 0 | The integration of Diesel Range Organics (C10-C24) and Total Extractable Hydrocarbons is the hydrocarbon response with reference to the basline. Surrogates are integrated using a valley to valley integration using Set Basline Now placed slight before at 12.09 minutes and slightly after the surrogate peak at 12.27 minutes and X-axis scaling showing surrogate peak from 11.5-14 minutes. |
| G:\org\HP5\DAT\HP5121721_b\1217HP5.39r | LCSD-162268 ;1217HP5 , | G:\Org\HP5\Methods\D3_8015-24-IJ-L%.met<br>G:\Org\HP5\Methods\DS_8015-24-IJ-L#.met | 1000 | 1 | 1 | 1 | 0 | The integration of Diesel Range Organics (C10-C24) and Total Extractable Hydrocarbons is the hydrocarbon response with reference to the basline. Surrogates are integrated using a valley to valley integration using Set Basline Now placed slight before at 12.09 minutes and slightly after the surrogate peak at 12.27 minutes and X-axis scaling showing surrogate peak from 11.5-14 minutes. |
| G:\org\HP5\DAT\HP5121721_b\1217HP5.40r | MB-162268 ;1217HP5 , | G:\Org\HP5\Methods\DR_8015-C24T-IJ-L%.met<br>G:\Org\HP5\Methods\DR_OROS-AK-L%.MET<br>G:\Org\HP5\Methods\DS_8015-C24T-IJ-L#.met | 1000 | 1 | 1 | 1 | 0 | The integration of Diesel Range Organics (C10-C24), C24-C40, and Total Extractable Hydrocarbons (TEH) is the hydrocarbon response with reference to the basline. Assigned Set Baseline All Valley on at 17.12 minutes.<br>Surrogates are integrated using a valley to valley integration using Set Basline Now placed slight before at 12.16 minutes and 16.21 minutes and slightly after the surrogate peaks at 12.36 and 16.42 minutes. X-axis scaling showing surrogate peak from 11-18 minutes. |
| G:\org\HP5\DAT\HP5121721_b\1217HP5.41r | B21121402-002B ;1217HP5 , $HC-8015-DRO-W, | G:\Org\HP5\Methods\DR_8015-121741-IJ-L%.met<br>G:\Org\HP5\Methods\DR_OROS-121741-AK-L%.MET<br>G:\Org\HP5\Methods\DS_8015-121741-IJ-L#.met | 960 | 1 | 1 | 1 | 0 | The integration of Diesel Range Organics (C10-C24), C24-C40, and Total Extractable Hydrocarbons (TEH) is the hydrocarbon response with reference to the basline with peak width adjusted.<br>Surrogates are integrated using a valley to valley integration using Set Basline Now placed slight before at 12.16 minutes and 16.21 minutes and slightly after the surrogate peaks at 12.46 and 16.53 minutes. X-axis scaling showing surrogate peak from 11-18 minutes. |
| G:\org\HP5\DAT\HP5121721_b\1217HP5.42r | DCM-Baseline Check-V42 | G:\Org\HP5\Methods\DR_8015-IBb-LEXP.met | 1 | 1 | 1 | 1 | 0 | No integrations |
| G:\org\HP5\DAT\HP5121721_b\1217HP5.43r | B21121402-001B ;1217HP5 , $HC-8015-DRO-W, ,(1,10) needs rr undil | G:\Org\HP5\Methods\DR_8015-C24T-IJ-L0.met | 990 | 10 | 1 | 1 | 0 | No integrations |
| G:\org\HP5\DAT\HP5121721_b\1217HP5.44r | DCM-Baseline Check-V44 | G:\Org\HP5\Methods\DR_8015-IBb-LEXP.met | 1 | 1 | 1 | 1 | 0 | No integrations |
| G:\org\HP5\DAT\HP5121721_b\1217HP5.45r | B21121402-003B ;1217HP5 , $HC-8015-DRO-W, rerun due to baseline | G:\Org\HP5\Methods\DR_8015-C24T-IJ-L0.met | 1020 | 1 | 1 | 1 | 0 | No integrations |
| G:\org\HP5\DAT\HP5121721_b\1217HP5.46r | DCM-Baseline Check-V46 | G:\Org\HP5\Methods\DR_8015-IBb-LEXP.met | 1 | 1 | 1 | 1 | 0 | No integrations |
| G:\org\HP5\DAT\HP5121721_b\1217HP5.47r | B21121402-001BMS ;1217HP5 , _(1,10) rerun undiluted | G:\Org\HP5\Methods\D3_8015-24-IJ-L0.met | 1000 | 10 | 1 | 1 | 0 | No integrations |
| G:\org\HP5\DAT\HP5121721_b\1217HP5.48r | B21121402-003BMS-RRO ;1217HP5 , | G:\Org\HP5\Methods\D3_ORO-AK-L%.MET<br>G:\Org\HP5\Methods\DS_ORO-AK-L%.MET | 1050 | 1 | 1 | 1 | 0 | The integration of Oil Range hydrocarbon is the hydrocarbon response with reference to the basline. Surrogates are integrated using a valley to valley integration using Set Basline Now placed slight before at 16.18 minutes slightly after the surrogate peak at 16.4 minutes and X-axis scaling showing surrogate peak from 14-18 minutes. |
| G:\org\HP5\DAT\HP5121721_b\1217HP5.49r | MARKER_1217HP549r, C40 ;1217HP5 , DRO211207A | g:\org\HP5\Methods\\CSC211217.met | 1 | 1 | 1 | 1 | 0 | No integrations |
| G:\org\HP5\DAT\HP5121721_b\1217HP5.50r | CCV_1217HP550r, RRO ;1217HP5 , DRO211201A | G:\Org\HP5\Methods\DC_ORO-AK-L%.MET<br>G:\Org\HP5\Methods\DS_ORO-AK-L%.MET | 1 | 1 | 1 | 1 | 0 | The integration of Oil Range hydrocarbon is the hydrocarbon response with reference to the basline. Surrogates are integrated using a valley to valley integration using Set Basline Now placed slight before at 16.18 minutes slightly after the surrogate peak at 16.4 minutes and X-axis scaling showing surrogate peak from 14-18 minutes. |
| G:\org\HP5\DAT\HP5121721_b\1217HP5.51r | CCV_1217HP551r, DRO ;1217HP5 , DRO211214A | G:\Org\HP5\Methods\DC_8015-24-IJ-L%.met<br>G:\Org\HP5\Methods\DS_8015-24-IJ-L#.met | 1 | 1 | 1 | 1 | 0 | The integration of Diesel Range Organics (C10-C24) and Total Extractable Hydrocarbons is the hydrocarbon response with reference to the basline. Assigned Set Baseline All Valley on at 16.83 minutes.<br>Surrogates are integrated using a valley to valley integration using Set Basline Now placed slight before at 12.14 minutes and slightly after the surrogate peak at 12.31 minutes and X-axis scaling showing surrogate peak from 11.5-14 minutes. |
| G:\org\HP5\DAT\HP5121721_b\1217HP5.53r | DCM-Baseline Check-V53 | G:\Org\HP5\Methods\DR_8015-IBb-LEXP.met | 1 | 1 | 1 | 1 | 0 | No integrations |
| G:\org\HP5\DAT\HP5121721_b\1217HP5.56r | DCM-Baseline Check-V56 | G:\Org\HP5\Methods\DR_8015-IBb-LEXP.met | 1 | 1 | 1 | 1 | 0 | No integrations |
| G:\org\HP5\DAT\HP5121721_b\1217HP5.57r | LCS-162268-RRO ;1217HP5 , | G:\Org\HP5\Methods\D3_ORO-AK-L%.MET<br>G:\Org\HP5\Methods\DS_ORO-AK-L%.MET | 1000 | 1 | 1 | 1 | 0 | The integration of Oil Range hydrocarbon is the hydrocarbon response with reference to the basline. Surrogates are integrated using a valley to valley integration using Set Basline Now placed slight before at 16.18 minutes slightly after the surrogate peak at 16.4 minutes and X-axis scaling showing surrogate peak from 14-18 minutes. |
| G:\org\HP5\DAT\HP5121721_b\1217HP5.58r | DCM-Baseline Check-V58 | G:\Org\HP5\Methods\DR_8015-IBb-LEXP.met | 1 | 1 | 1 | 1 | 0 | No integrations |
| G:\org\HP5\DAT\HP5121721_b\1217HP5.59r | LCSD-162268-RRO ;1217HP5 , | G:\Org\HP5\Methods\D3_ORO-AK-L%.MET<br>G:\Org\HP5\Methods\DS_ORO-AK-L%.MET | 1000 | 1 | 1 | 1 | 0 | The integration of Oil Range hydrocarbon is the hydrocarbon response with reference to the basline. Surrogates are integrated using a valley to valley integration using Set Basline Now placed slight before at 16.18 minutes slightly after the surrogate peak at 16.4 minutes and X-axis scaling showing surrogate peak from 14-18 minutes. |
| G:\org\HP5\DAT\HP5121721_b\1217HP5.60r | MARKER_1217HP560r, C40 ;1217HP5 , DRO211207A | g:\org\HP5\Methods\\CSC211217.met | 1 | 1 | 1 | 1 | 0 | No integrations |
| G:\org\HP5\DAT\HP5121721_b\1217HP5.61r | CCV_1217HP561r, RRO ;1217HP5 , DRO211201A | G:\Org\HP5\Methods\DC_ORO-AK-L%.MET<br>G:\Org\HP5\Methods\DS_ORO-AK-L%.MET | 1 | 1 | 1 | 1 | 0 | The integration of Oil Range hydrocarbon is the hydrocarbon response with reference to the basline. Surrogates are integrated using a valley to valley integration using Set Basline Now placed slight before at 16.18 minutes slightly after the surrogate peak at 16.4 minutes and X-axis scaling showing surrogate peak from 14-18 minutes. |



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Date: 2022.01.11 08:24:36 -07:00

| Write Sequence / Data File | Insert Entries(Have the first cell for entries selected) / Sample Name | Method | Weight | Dil Factor | Amt Inj. | IS | Cal ID | Manual Integrations |
|---|---|---|---|---|---|---|---|---|
| G:\org\HP5\DAT\HP5122021_b\1220HP5.01r | DCM-Baseline Check-V01 | G:\Org\HP5\Methods\DR_8015-IBb-LEXP.met | 1 | 1 | 1 | 1 | 0 | No integrations. |
| G:\org\HP5\DAT\HP5122021_b\1220HP5.02r | DCM-Baseline Check-V02 | G:\Org\HP5\Methods\DR_8015-IBb-LEXP.met | 1 | 1 | 1 | 1 | 0 | No integrations. |
| G:\org\HP5\DAT\HP5122021_b\1220HP5.03r | MARKER_1220HP503r, C40 ;1220HP5 , DRO211207A | g:\org\HP5\Methods\\CSC211217.met | 1 | 1 | 1 | 1 | 0 | No integrations. |
| G:\org\HP5\DAT\HP5122021_b\1220HP5.04r | CCV_1220HP504r, RRO ;1220HP5 , DRO211201A | G:\Org\HP5\Methods\DC_ORO-AK-L%.MET<br>G:\Org\HP5\Methods\DS_ORO-AK-L%.MET | 1 | 1 | 1 | 1 | 0 | The integration of Oil Range hydrocarbon is the hydrocarbon response with reference to the basline. Surrogates are integrated using a valley to valley integration using Set Basline Now placed slight before at 16.18 minutes slightly after the surrogate peak at 16.4 minutes and X-axis scaling showing surrogate peak from 14-18 minutes. |
| G:\org\HP5\DAT\HP5122021_b\1220HP5.05r | CCV_1220HP505r, DRO ;1220HP5 , DRO211214A | G:\Org\HP5\Methods\DC_8015-24-IJ-L%.met<br>G:\Org\HP5\Methods\DS_8015-24-IJ-L#.met | 1 | 1 | 1 | 1 | 0 | The integration of Diesel Range Organics (C10-C24) and Total Extractable Hydrocarbons is the hydrocarbon response with reference to the basline. Assigned Set Baseline All Valley on at 16.83 minutes. Surrogates are integrated using a valley to valley integration using Set Basline Now placed slight before at 12.14 minutes and slightly after the surrogate peak at 12.31 minutes and X-axis scaling showing surrogate peak from 11.5-14 minutes. |
| G:\org\HP5\DAT\HP5122021_b\1220HP5.06r | DCM-Baseline Check-V06 | G:\Org\HP5\Methods\DR_8015-IBb-LEXP.met | 1 | 1 | 1 | 1 | 0 | No integrations. |
| G:\org\HP5\DAT\HP5122021_b\1220HP5.07r | B21121402-003B ;1220HP5 , $HC-8015-DRO-W, | G:\Org\HP5\Methods\DR_8015-122007-IJ-L%.met<br>G:\Org\HP5\Methods\DR_OROS-122007-AK-L%.MET<br>G:\Org\HP5\Methods\DS_8015-C24T-IJ-L#.met | 1020 | 1 | 1 | 1 | 0 | The integration of Diesel Range Organics (C10-C24), C24-C40, and Total Extractable Hydrocarbons (TEH) is the hydrocarbon response with reference to the basline with peak width adjusted. Surrogates are integrated using a valley to valley integration using Set Basline Now placed slight before at 12.16 minutes and 16.21 minutes and slightly after the surrogate peaks at 12.46 and 16.53 minutes. X-axis scaling showing surrogate peak from 11-18 minutes. |
| G:\org\HP5\DAT\HP5122021_b\1220HP5.08r | B21121402-001B ;1220HP5 , $HC-8015-DRO-W, | G:\Org\HP5\Methods\DR_8015-122007-IJ-L%.met<br>G:\Org\HP5\Methods\DR_OROS-122007-AK-L%.MET<br>G:\Org\HP5\Methods\DS_8015-C24T-IJ-L#.met | 990 | 1 | 1 | 1 | 0 | The integration of Diesel Range Organics (C10-C24), C24-C40, and Total Extractable Hydrocarbons (TEH) is the hydrocarbon response with reference to the basline with peak width adjusted. Surrogates are integrated using a valley to valley integration using Set Basline Now placed slight before at 12.16 minutes and 16.21 minutes and slightly after the surrogate peaks at 12.46 and 16.53 minutes. X-axis scaling showing surrogate peak from 11-18 minutes. |
| G:\org\HP5\DAT\HP5122021_b\1220HP5.09r | DCM-Baseline Check-V09 | G:\Org\HP5\Methods\DR_8015-IBb-LEXP.met | 1 | 1 | 1 | 1 | 0 | No integrations. |
| G:\org\HP5\DAT\HP5122021_b\1220HP5.10r | B21121402-001BMS ;1220HP5 , | G:\Org\HP5\Methods\D3_8015-24-IJ-L%.met<br>G:\Org\HP5\Methods\DS_8015-24-IJ-L#.met | 1000 | 1 | 1 | 1 | 0 | The integration of Diesel Range Organics (C10-C24) and Total Extractable Hydrocarbons is the hydrocarbon response with reference to the basline. Surrogates are integrated using a valley to valley integration using Set Basline Now placed slight before at 12.09 minutes and slightly after the surrogate peak at 12.27 minutes and X-axis scaling showing surrogate peak from 11.5-14 minutes. |
| G:\org\HP5\DAT\HP5122021_b\1220HP5.11r | MARKER_1220HP511r, C40 ;1220HP5 , DRO211207A | g:\org\HP5\Methods\\CSC211217.met | 1 | 1 | 1 | 1 | 0 | No integrations. |
| G:\org\HP5\DAT\HP5122021_b\1220HP5.12r | CCV_1220HP512r, RRO ;1220HP5 , DRO211201A | G:\Org\HP5\Methods\DC_ORO-AK-L%.MET<br>G:\Org\HP5\Methods\DS_ORO-AK-L%.MET | 1 | 1 | 1 | 1 | 0 | The integration of Oil Range hydrocarbon is the hydrocarbon response with reference to the basline. Surrogates are integrated using a valley to valley integration using Set Basline Now placed slight before at 16.18 minutes slightly after the surrogate peak at 16.4 minutes and X-axis scaling showing surrogate peak from 14-18 minutes. |
| G:\org\HP5\DAT\HP5122021_b\1220HP5.13r | CCV_1220HP513r, DRO ;1220HP5 , DRO211214A | G:\Org\HP5\Methods\DC_8015-24-IJ-L%.met<br>G:\Org\HP5\Methods\DS_8015-24-IJ-L#.met | 1 | 1 | 1 | 1 | 0 | The integration of Diesel Range Organics (C10-C24) and Total Extractable Hydrocarbons is the hydrocarbon response with reference to the basline. Assigned Set Baseline All Valley on at 16.83 minutes. Surrogates are integrated using a valley to valley integration using Set Basline Now placed slight before at 12.14 minutes and slightly after the surrogate peak at 12.31 minutes and X-axis scaling showing surrogate peak from 11.5-14 minutes. |

Ann Nebel

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Ann Nebel
Date: 2022.01.11 08:25:09 -07:00

| Write Sequence | Insert Entries(Have the first cell for entries selecte | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Data File | Sample Name | Method | Weight | Dil Factor | Amt Inj. | IS | Cal ID | Manual Integrations |
| G:\org\HP5\DAT\HP5122021_b\1220HP5.11r | MARKER_1220HP511r, C40 ;1220HP5 , DRO211207A | g:\org\HP5\Methods\\CSC211217.met | 1 | 1 | 1 | 1 | 0 | No integrations. |
| G:\org\HP5\DAT\HP5122021_b\1220HP5.12r | CCV_1220HP512r, RRO ;1220HP5 , DRO211201A | G:\Org\HP5\Methods\DC_ORO-AK-L%.MET<br>G:\Org\HP5\Methods\DS_ORO-AK-L%.MET | 1 | 1 | 1 | 1 | 0 | The integration of Oil Range hydrocarbon is the hydrocarbon response with reference to the basline. Surrogates are integrated using a valley to valley integration using Set Basline Now placed slight before at 16.18 minutes slightly after the surrogate peak at 16.4 minutes and X-axis scaling showing surrogate peak from 14-18 minutes. |
| G:\org\HP5\DAT\HP5122021_b\1220HP5.13r | CCV_1220HP513r, DRO ;1220HP5 , DRO211214A | G:\Org\HP5\Methods\DC_8015-24-IJ-L%.met<br>G:\Org\HP5\Methods\DS_8015-24-IJ-L#.met | 1 | 1 | 1 | 1 | 0 | The integration of Diesel Range Organics (C10-C24) and Total Extractable Hydrocarbons is the hydrocarbon response with reference to the basline. Assigned Set Baseline All Valley on at 16.83 minutes. Surrogates are integrated using a valley to valley integration using Set Basline Now placed slight before at 12.14 minutes and slightly after the surrogate peak at 12.31 minutes and X-axis scaling showing surrogate peak from 11.5-14 minutes. |
| G:\org\HP5\DAT\HP5122021_b\1220HP5.14r | DCM-Baseline Check-V14 | G:\Org\HP5\Methods\DR_8015-IBb-LEXP.met | 1 | 1 | 1 | 1 | 0 | No integrations. |
| G:\org\HP5\DAT\HP5122021_b\1220HP5.15r | DCM-Baseline Check-V15 | G:\Org\HP5\Methods\DR_8015-IBb-LEXP.met | 1 | 1 | 1 | 1 | 0 | No integrations. |
| G:\org\HP5\DAT\HP5122021_b\1220HP5.21r | DCM-Baseline Check-V21 | G:\Org\HP5\Methods\DR_8015-IBb-LEXP.met | 1 | 1 | 1 | 1 | 0 | No integrations. |
| G:\org\HP5\DAT\HP5122021_b\1220HP5.22r | B21121402-003B ;1220HP5 , $HC-8015-DRO-W, SGT | G:\Org\HP5\Methods\DR_8015-C24T-IJ-L%.met<br>G:\Org\HP5\Methods\DR_OROS-AK-L%.MET<br>G:\Org\HP5\Methods\DS_8015-C24T-IJ-L#.met | 1020 | 1 | 1 | 1 | 0 | The integration of Diesel Range Organics (C10-C24), C24-C40, and Total Extractable Hydrocarbons (TEH) is the hydrocarbon response with reference to the basline. Assigned Set Baseline All Valley on at 17.12 minutes. Surrogates are integrated using a valley to valley integration using Set Basline Now placed slight before at 12.16 minutes and 16.21 minutes and slightly after the surrogate peaks at 12.36 and 16.42 minutes. X-axis scaling showing surrogate peak from 11-18 minutes. |
| G:\org\HP5\DAT\HP5122021_b\1220HP5.23r | DCM-Baseline Check-V23 | G:\Org\HP5\Methods\DR_8015-IBb-LEXP.met | 1 | 1 | 1 | 1 | 0 | No integrations. |
| G:\org\HP5\DAT\HP5122021_b\1220HP5.24r | B21121402-001B ;1220HP5 , $HC-8015-DRO-W, SGT | G:\Org\HP5\Methods\DR_8015-122024-IJ-L%.met<br>G:\Org\HP5\Methods\DR_OROS-122024-AK-L%.MET<br>G:\Org\HP5\Methods\DS_8015-C24T-IJ-L#.met | 990 | 1 | 1 | 1 | 0 | The integration of Diesel Range Organics (C10-C24), C24-C40, and Total Extractable Hydrocarbons (TEH) is the hydrocarbon response with reference to the basline. Assigned Set Baseline Now at 22.05 minutes. Surrogates are integrated using a valley to valley integration using Set Basline Now placed slight before at 12.16 minutes and 16.21 minutes and slightly after the surrogate peaks at 12.36 and 16.42 minutes. X-axis scaling showing surrogate peak from 11-18 minutes. |
| G:\org\HP5\DAT\HP5122021_b\1220HP5.25r | B21121402-001BMS ;1220HP5 , SGT | G:\Org\HP5\Methods\D3_8015-24-IJ-L%.met<br>G:\Org\HP5\Methods\DS_8015-24-IJ-L#.met | 1000 | 1 | 1 | 1 | 0 | The integration of Diesel Range Organics (C10-C24) and Total Extractable Hydrocarbons is the hydrocarbon response with reference to the basline. Surrogates are integrated using a valley to valley integration using Set Basline Now placed slight before at 12.09 minutes and slightly after the surrogate peak at 12.27 minutes and X-axis scaling showing surrogate peak from 11.5-14 minutes. |
| G:\org\HP5\DAT\HP5122021_b\1220HP5.26r | MARKER_1220HP526r, C40 ;1220HP5 , DRO211207A | g:\org\HP5\Methods\\CSC211217.met | 1 | 1 | 1 | 1 | 0 | No integrations. |
| G:\org\HP5\DAT\HP5122021_b\1220HP5.27r | CCV_1220HP527r, RRO ;1220HP5 , DRO211201A | G:\Org\HP5\Methods\DC_ORO-AK-L%.MET<br>G:\Org\HP5\Methods\DS_ORO-AK-L%.MET | 1 | 1 | 1 | 1 | 0 | The integration of Oil Range hydrocarbon is the hydrocarbon response with reference to the basline. Surrogates are integrated using a valley to valley integration using Set Basline Now placed slight before at 16.18 minutes slightly after the surrogate peak at 16.4 minutes and X-axis scaling showing surrogate peak from 14-18 minutes. |
| G:\org\HP5\DAT\HP5122021_b\1220HP5.28r | CCV_1220HP528r, DRO ;1220HP5 , DRO211214A | G:\Org\HP5\Methods\DC_8015-24-IJ-L%.met<br>G:\Org\HP5\Methods\DS_8015-24-IJ-L#.met | 1 | 1 | 1 | 1 | 0 | The integration of Diesel Range Organics (C10-C24) and Total Extractable Hydrocarbons is the hydrocarbon response with reference to the basline. Assigned Set Baseline All Valley on at 16.83 minutes. Surrogates are integrated using a valley to valley integration using Set Basline Now placed slight before at 12.14 minutes and slightly after the surrogate peak at 12.31 minutes and X-axis scaling showing surrogate peak from 11.5-14 minutes. |
| G:\org\HP5\DAT\HP5122021_b\1220HP5.29r | DCM-Baseline Check-V29 | G:\Org\HP5\Methods\DR_8015-IBb-LEXP.met | 1 | 1 | 1 | 1 | 0 | No integrations. |
| G:\org\HP5\DAT\HP5122021_b\1220HP5.30r | B21121402-003BMS-RRO ;1220HP5 , SGT | G:\Org\HP5\Methods\D3_ORO-AK-L%.MET<br>G:\Org\HP5\Methods\DS_ORO-AK-L%.MET | 1050 | 1 | 1 | 1 | 0 | The integration of Oil Range hydrocarbon is the hydrocarbon response with reference to the basline. Surrogates are integrated using a valley to valley integration using Set Basline Now placed slight before at 16.18 minutes slightly after the surrogate peak at 16.4 minutes and X-axis scaling showing surrogate peak from 14-18 minutes. |
| G:\org\HP5\DAT\HP5122021_b\1220HP5.31r | DCM-Baseline Check-V31 | G:\Org\HP5\Methods\DR_8015-IBb-LEXP.met | 1 | 1 | 1 | 1 | 0 | No integrations. |
| G:\org\HP5\DAT\HP5122021_b\1220HP5.32r | LCS-162268 ;1220HP5 , SGT | G:\Org\HP5\Methods\D3_8015-24-IJ-L%.met<br>G:\Org\HP5\Methods\DS_8015-24-IJ-L#.met | 1000 | 1 | 1 | 1 | 0 | The integration of Diesel Range Organics (C10-C24) and Total Extractable Hydrocarbons is the hydrocarbon response with reference to the basline. Surrogates are integrated using a valley to valley integration using Set Basline Now placed slight before at 12.09 minutes and slightly after the surrogate peak at 12.27 minutes and X-axis scaling showing surrogate peak from 11.5-14 minutes. |
| G:\org\HP5\DAT\HP5122021_b\1220HP5.33r | LCSD-162268 ;1220HP5 , SGT | G:\Org\HP5\Methods\D3_8015-24-IJ-L%.met<br>G:\Org\HP5\Methods\DS_8015-24-IJ-L#.met | 1000 | 1 | 1 | 1 | 0 | The integration of Diesel Range Organics (C10-C24) and Total Extractable Hydrocarbons is the hydrocarbon response with reference to the basline. Surrogates are integrated using a valley to valley integration using Set Basline Now placed slight before at 12.09 minutes and slightly after the surrogate peak at 12.27 minutes and X-axis scaling showing surrogate peak from 11.5-14 minutes. |
| G:\org\HP5\DAT\HP5122021_b\1220HP5.34r | MB-162268 ;1220HP5 , SGT | G:\Org\HP5\Methods\DR_8015-C24Ta-IJ-L%.met<br>G:\Org\HP5\Methods\DR_OROS-AK-L%.MET<br>G:\Org\HP5\Methods\DS_8015-C24T-IJ-L#.met | 1000 | 1 | 1 | 1 | 0 | The integration of Diesel Range Organics (C10-C24), C24-C40, and Total Extractable Hydrocarbons (TEH) is the hydrocarbon response with reference to the basline. Assigned Set Baseline All Valley on at 17.12 minutes. Surrogates are integrated using a valley to valley integration using Set Basline Now placed slight before at 12.16 minutes and 16.21 minutes and slightly after the surrogate peaks at 12.36 and 16.42 minutes. X-axis scaling showing surrogate peak from 11-18 minutes. |
| G:\org\HP5\DAT\HP5122021_b\1220HP5.35r | B21121402-002B ;1220HP5 , $HC-8015-DRO-W, SGT | G:\Org\HP5\Methods\DR_8015-C24Ta-IJ-L%.met<br>G:\Org\HP5\Methods\DR_OROS-AK-L%.MET<br>G:\Org\HP5\Methods\DS_8015-C24T-IJ-L#.met | 960 | 1 | 1 | 1 | 0 | The integration of Diesel Range Organics (C10-C24), C24-C40, and Total Extractable Hydrocarbons (TEH) is the hydrocarbon response with reference to the basline. Assigned Set Baseline All Valley on at 17.12 minutes. Surrogates are integrated using a valley to valley integration using Set Basline Now placed slight before at 12.16 minutes and 16.21 minutes and slightly after the surrogate peaks at 12.36 and 16.42 minutes. X-axis scaling showing surrogate peak from 11-18 minutes. |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| G:\org\HP5\DAT\HP5122021_b\1220HP5.36r | LCS-162268-RRO ;1220HP5 , SGT | G:\Org\HP5\Methods\D3_ORO-AK-L%.MET<br>G:\Org\HP5\Methods\DS_ORO-AK-L%.MET | 1000 | 1 | 1 | 1 | 0 | The integration of Oil Range hydrocarbon is the hydrocarbon response with reference to the basline. Surrogates are integrated using a valley to valley integration using Set Basline Now placed slight before at 16.18 minutes slightly after the surrogate peak at 16.4 minutes and X-axis scaling showing surrogate peak from 14-18 minutes. |
| G:\org\HP5\DAT\HP5122021_b\1220HP5.37r | DCM-Baseline Check-V37 | G:\Org\HP5\Methods\DR_8015-IBb-LEXP.met | 1 | 1 | 1 | 1 | 0 | No integrations. |
| G:\org\HP5\DAT\HP5122021_b\1220HP5.38r | LCSD-162268-RRO ;1220HP5 , SGT | G:\Org\HP5\Methods\D3_ORO-AK-L%.MET<br>G:\Org\HP5\Methods\DS_ORO-AK-L%.MET | 1000 | 1 | 1 | 1 | 0 | The integration of Oil Range hydrocarbon is the hydrocarbon response with reference to the basline. Surrogates are integrated using a valley to valley integration using Set Basline Now placed slight before at 16.18 minutes slightly after the surrogate peak at 16.4 minutes and X-axis scaling showing surrogate peak from 14-18 minutes. |
| G:\org\HP5\DAT\HP5122021_b\1220HP5.39r | MARKER_1220HP539r, C40 ;1220HP5 , DRO211207A | g:\org\HP5\Methods\\CSC211217.met | 1 | 1 | 1 | 1 | 0 | No integrations. |
| G:\org\HP5\DAT\HP5122021_b\1220HP5.40r | CCV_1220HP540r, RRO ;1220HP5 , DRO211201A | G:\Org\HP5\Methods\DC_ORO-AK-L%.MET<br>G:\Org\HP5\Methods\DS_ORO-AK-L%.MET | 1 | 1 | 1 | 1 | 0 | The integration of Oil Range hydrocarbon is the hydrocarbon response with reference to the basline. Surrogates are integrated using a valley to valley integration using Set Basline Now placed slight before at 16.18 minutes slightly after the surrogate peak at 16.4 minutes and X-axis scaling showing surrogate peak from 14-18 minutes. |
| G:\org\HP5\DAT\HP5122021_b\1220HP5.41r | CCV_1220HP541r, DRO ;1220HP5 , DRO211214A | G:\Org\HP5\Methods\DC_8015-24-IJ-L%.met<br>G:\Org\HP5\Methods\DS_8015-24-IJ-L#.met | 1 | 1 | 1 | 1 | 0 | The integration of Diesel Range Organics (C10-C24) and Total Extractable Hydrocarbons is the hydrocarbon response with reference to the basline. Assigned Set Baseline All Valley on at 16.83 minutes.<br>Surrogates are integrated using a valley to valley integration using Set Basline Now placed slight before at 12.14 minutes and slightly after the surrogate peak at 12.31 minutes and X-axis scaling showing surrogate peak from 11.5-14 minutes. |

Ann Nebel

Digitally signed by
Ann Nebel
Date: 2022.01.11 08:25:30 -07:00

# Energy Laboratories Inc

# Spike LOG

| | | | |
|---|---|---|---|
| Standard ID: | DRO211101A | | |
| Standard Name | OTP-4000 ug/mL DCM | Type: | Secondary |
| Date Prepared | 11/1/2021 | BY: | Ann Nebel |
| Date Expires: | 9/30/2024 | | |
| Department | dropr | Status: | Open |
| Vendor: | | | |
| Lot Number: | | | |
| Balance ID: | BAL-DRO | | |
| Comments: | Used to Prep DRO-8015 ICAL and CCV Solutions | | |

| Chemical / Solvent Used | BottleNo | Amt | Units | Exp |
|---|---|---|---|---|
| Dichloromethane EC328 | 14408 | 25 | mL | 8/19/ |

**Final Volume:** 25 mL

| Stock Source | | Base Units | Amount Added |
|---|---|---|---|
| DRO200430B | O-Terphenyl | ug/mL | 0.1012 g |

| Analytes | | CAS | Conc: | ug/mL |
|---|---|---|---|---|
| A | O-Terphenyl | 84-15-1 | | 4000 |

# Energy Laboratories Inc

# Standard LOG

| | | | |
|---|---|---|---|
| Standard ID: | DRO200430B | | |
| Standard Name | O-Terphenyl | Type: | Neat |
| Date Prepared | 4/30/2020 | BY: | Ann Nebel |
| Date Expires: | 9/30/2024 | | |
| Department | dropr | Status: | New |
| Vendor: | Chemservice | | |
| Lot Number: | 9972100 | | |
| Balance ID: | | | |
| Comments: | ID#: 6271 | | |

| Chemical / Solvent Used | BottleNo | Amt | Units | Exp |
|---|---|---|---|---|
| o-Terphenyl | 12650 | 500 | mg | 9/30/ |

**Final Volume:** mL

**Stock Source** **Base Units** **Amount Added**

| **Analytes** | | **CAS** | Conc: | **ug/mL** |
|---|---|---|---|---|
| A | O-Terphenyl | 84-15-1 | | 1 |

660 Tower Lane • P.O. Box 599 • West Chester, PA 19381-0599
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info@chemservice.com • www.chemservice.com

# CERTIFICATE OF ANALYSIS

## o-Terphenyl

| | |
|---|---|
| CATALOG NUMBER | N-12693-500MG |
| LOT NUMBER | 9972100 |
| DATE CERTIFIED | 09/23/19 |
| EXPIRATION DATE | 09/30/24 |
| CAS NUMBER | 84-15-1 |
| MOLECULAR FORMULA | C18H14 |
| MOLECULAR WEIGHT | 230.32 |
| STORAGE | Store in a cool dry place. |
| HANDLING | See Safety Data Sheet |
| INTENDED USE | For laboratory use only. |

| Analytical Test | Value |
|---|---|
| FT-IR SPECTROSCOPY | CONFORMS TO STRUCTURE |
| GC/MS SPECTRA ID | MATCHES NIST DATABASE |
| MELTING POINT (°C) | 57.1 |
| % PURITY (GC/FID) | 99.5 |

Chem Service, Inc. guarantees the purity to be +/- 0.5% deviation prior to the expiration date shown on the label and exclusive of any customer contamination.

Certified By:

Mary Beth O'Donnell

Mary Beth O'Donnell
CSM/TC

ID #: 12650
Opened:
o-Terphenyl
Expires: 9/30/2024
Rec'd: 4/30/2020
Energy Laboratories Inc 1120 So. 27th Street
Billings MT 59107

Chem Service is accredited to ISO 17034:2016, ISO/IEC 17025:2017 and certified to ISO 9001:2015

PJLA Reference Material Producer
PJLA Testing

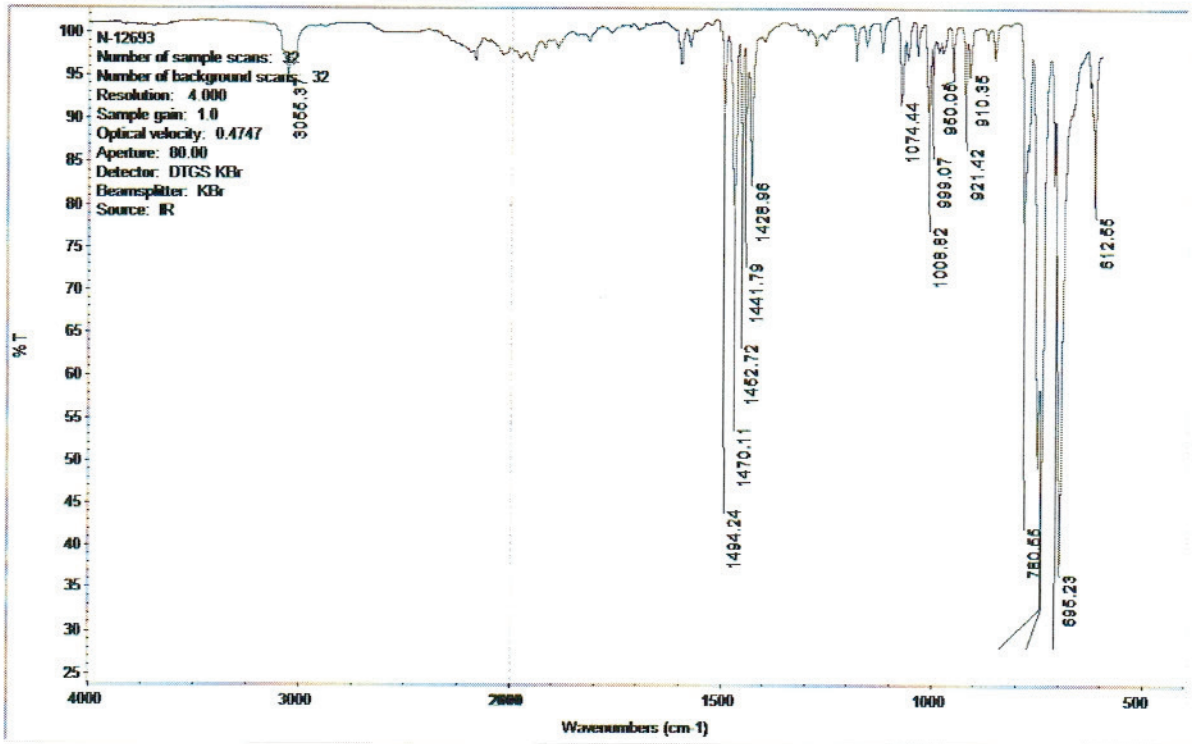
COA Form
Revision 3 (3/2015)

660 Tower Lane • P.O. Box 599 • West Chester, PA 19381-0599
1-800-452-9994 • 1-610-692-3026 • Fax 1-610-692-8729
info@chemservice.com • www.chemservice.com

# CERTIFICATE OF ANALYSIS

**Analysis Method:**

| | |
|---|---|
| Catalog Number: | N-12693-500MG |
| Description: | o-Terphenyl |
| Lot Number: | 9972100 |
| Expiration Date: | 09/30/24 |



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# CERTIFICATE OF ANALYSIS

**Analysis Method:**

| | |
|---|---|
| Catalog Number: | N-12693-500MG |
| Description: | o-Terphenyl |
| Lot Number: | 9972100 |
| Expiration Date: | 09/30/24 |

Chem Service Inc Area Percent Report

Data File: D:\msdchem\2019 DATA\0919\0923-01.D
Acq On : 23 Sep 2019 10:40
Operator :
Sample : n-12693
Misc :
ALS Vial : 95

Integration Parameters: autoint1.e
Integrator: ChemStation

DataAcq Meth:SCREEN.M
Method : D:\msdchem\2019 DATA\0919\0903-09.D\ERIN.M

Signal : TIC: 0923-01.D\data.ms

| peak # | R.T. min | first scan | max scan | last scan | PK TY | peak height | corr. area | corr. % max. | % of total |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 11.844 | 1597 | 1606 | 1613 | BB | 32038221 | 432253484 | 100.00% | 100.000% |

Sum of corrected areas: 432253484

ERIN.M Mon Sep 23 10:55:51 2019

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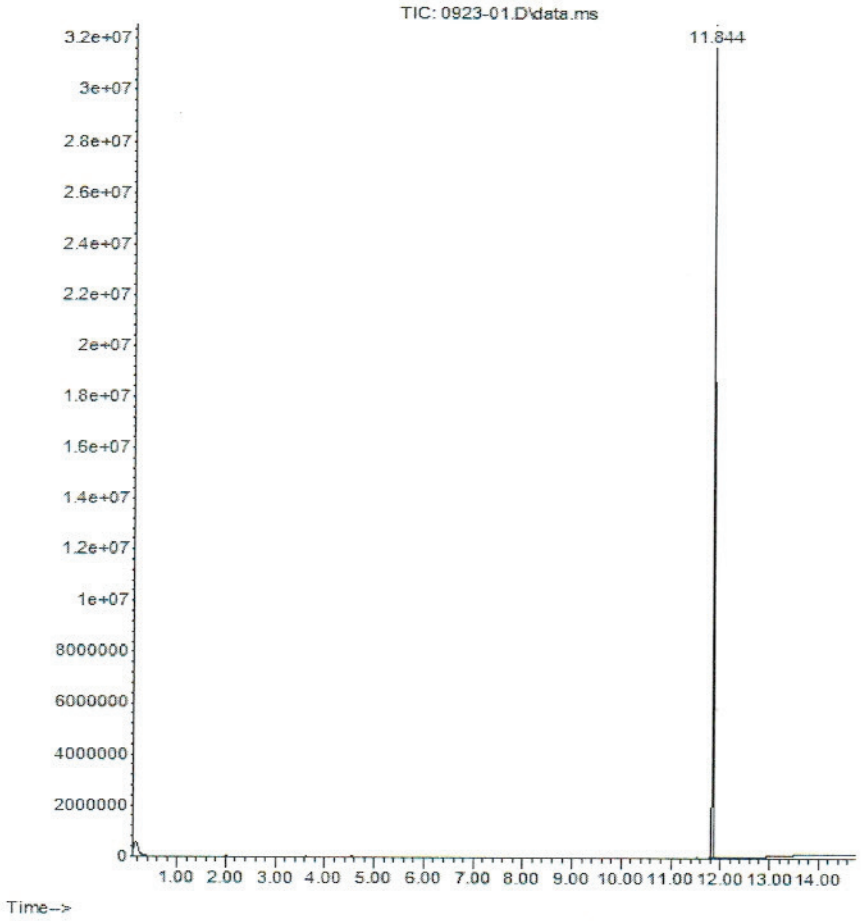
# CERTIFICATE OF ANALYSIS

**Analysis Method:**

| | |
|---|---|
| Catalog Number: | N-12693-500MG |
| Description: | o-Terphenyl |
| Lot Number: | 9972100 |
| Expiration Date: | 09/30/24 |



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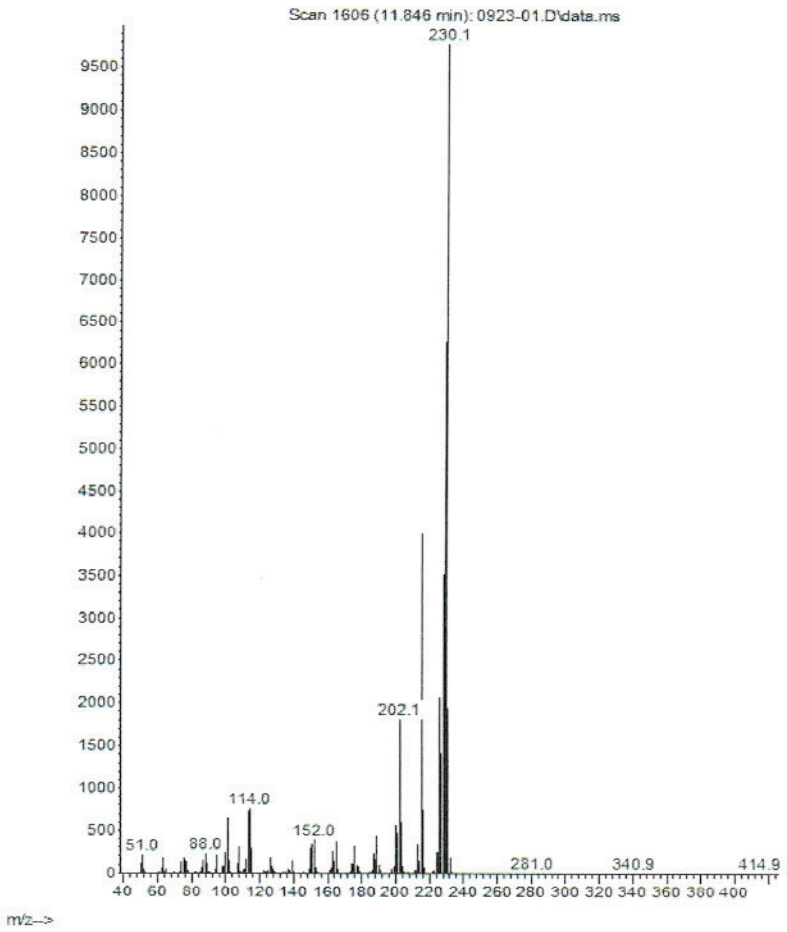
# CERTIFICATE OF ANALYSIS

**Analysis Method:**

| | |
|---|---|
| Catalog Number: | N-12693-500MG |
| Description: | o-Terphenyl |
| Lot Number: | 9972100 |
| Expiration Date: | 09/30/24 |



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# CERTIFICATE OF ANALYSIS

**Analysis Method:**

| | |
|---|---|
| Catalog Number: | N-12693-500MG |
| Description: | o-Terphenyl |
| Lot Number: | 9972100 |
| Expiration Date: | 09/30/24 |

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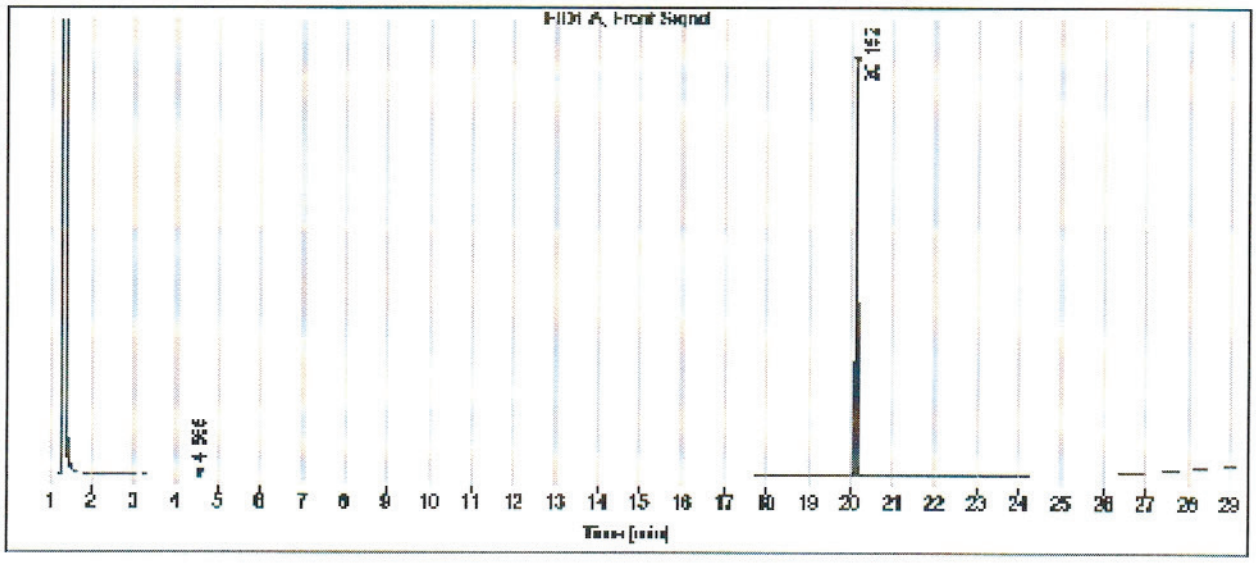
Gas

# CERTIFICATE OF ANALYSIS

| | | | |
|---|---|---|---|
| **Data file:** | C:\CHEM3\ | | |
| **Sample name:** | N-12693 | | |
| **Instrument:** | GC 2 | **Sample type:** | Sample |
| **Injection date:** | 9/23/2019 9:56:34 AM | **Location:** | Vial 141 |
| **Acq. method:** | SCREEN.M | **Injection volume:** | 1.0uL |
| **Column name:** | HP-5 | | |




Signal: FID1 A, Front Signal

| RT [min] | Type | Width [min] | Area | Height | Area% |
|---|---|---|---|---|---|
| 4.565 | BB | 0.0305 | 1.2408 | 0.5122 | 0.11 |
| 20.152 | BB | 0.0391 | 1171.9556 | 439.4599 | 99.89 |
| | | Sum | 1173.1963 | | |

# Energy Laboratories Inc

# Standard LOG

| | | | |
|---|---|---|---|
| Standard ID: | DRO211012A | | |
| Standard Name | Diesel Fuel #2 50,000 ug/mL in DCM | Type: | Primary |
| Date Prepared | 10/12/2021 | BY: | Ann Nebel |
| Date Expires: | 4/30/2023 | | |
| Department | dropr | Status: | New |
| Vendor: | Sigma-Aldrich | | |
| Lot Number: | LRAC6316 | | |
| Balance ID: | | | |
| Comments: | Diesel Fuel #2 For CCVs. | | |

| Chemical / Solvent Used | BottleNo | Amt | Units | Exp |
|---|---|---|---|---|
| Diesel Fuel No. 2 | 14376 | 1 | mL | 4/30/ |

**Final Volume:** mL

| **Stock Source** | **Base Units** | **Amount Added** |
|---|---|---|
| **Analytes** | **CAS** | Conc: **ug/mL** |
| Diesel Fuel #2 | | 0 |

Page: *1 of 1*

# Certificate of Analysis

## Diesel Fuel No. 2

*Certified Reference Material*

### Description

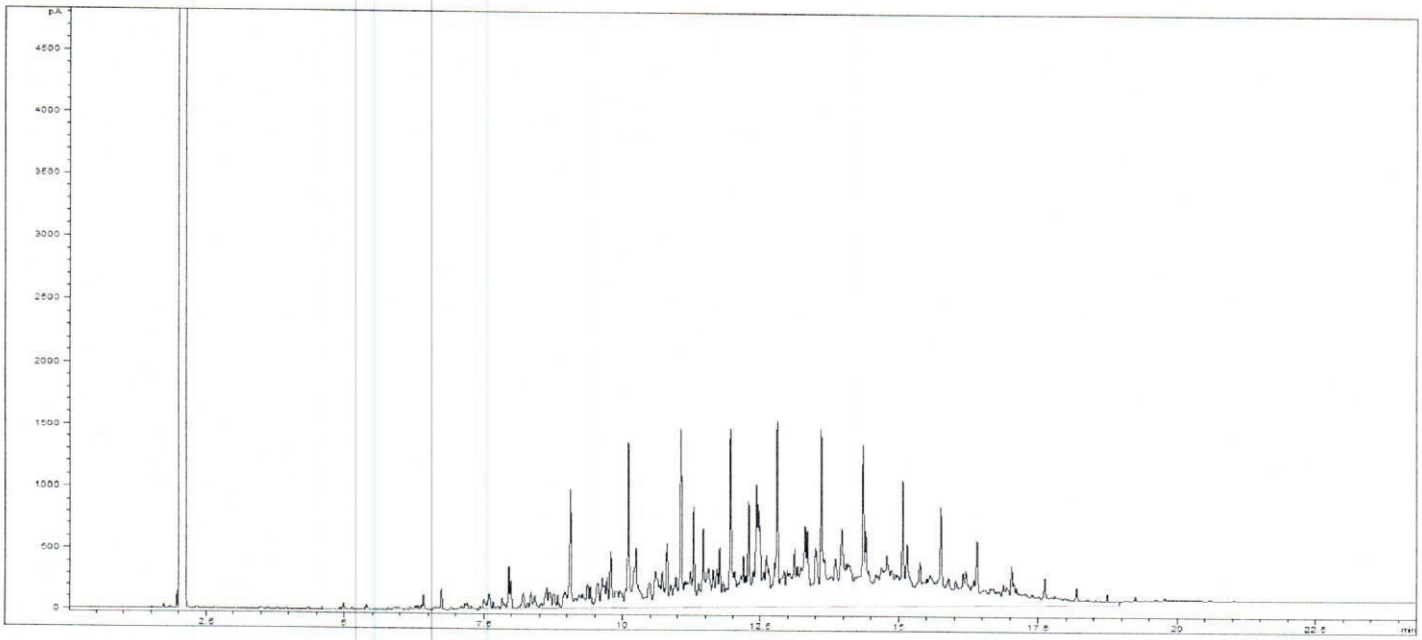
**Product ID** UST148
**Lot** **LRAC6316**
**Expiration Date** April 2023
**Manufacturing Date** April 2020
**Storage Conditions** Room Temperature
**Solvent/Matrix** DICHLOROMETHANE

**ID #: 14376**
Opened:
Diesel Fuel No. 2
**Expires: 4/30/2023**
Rec'd: 10/12/2021
Energy Laboratories Inc 1120 So. 27th Street
Billings MT 59107

### Certified Values

| *Analyte* | *Certified Value* [1,4] | *Units* | *Raw Material Purity,%* | *Raw Material Lot* | *CAS* |
|---|---|---|---|---|---|
| NO.2 FUEL OIL | 50001 ± 2770 | µg/mL | 100.0 | LA80505 | 68476-34-6 |

### Informational Values




***Additional Information***:

Analytical Method Parameters:
Column: SPB-5, 30 m × 0.53 mm I.D., 1.5 µm film thickness (Column #214)
Carrier Gas: H2, Flow: 4.0 mL/min
Inlet Temperature: 250 °C, Injection Volume: 1.0 µL
Injection Mode: Split, Split Ratio: 10: 1
Temperature Program: 40 °C (Hold 2 min) @ 15 °C/min to 300 °C (Hold 5 min)
Detector: FID
Detector Temperature: 300 °C

ANAB ACCREDITED 5017/2014 REFERENCE MATERIAL PRODUCER

SIGMA-ALDRICH®
2931 Soldier Springs Rd. Laramie, Wyoming 82070 USA
800-325-5832
TechService@milliporesigma.com www.sigma-aldrich.com

## Description

**Lot** LRAC6316
**Expiration Date** April 2023
**Manufacturing Date** April 2020
**Storage Conditions** Room Temperature
**Solvent/Matrix** DICHLOROMETHANE

1 **Metrological traceability:** Traceable to the SI and higher order standards from NIST through an unbroken chain of comparisons. The balance used to weigh raw materials is accurate to +/-0.0001 g and calibrated regularly using mass standards traceable to NIST. All dilutions were performed gravimetrically. Additionally, individual analytes are traceable to NIST SRMs where available and specified above.
4 Ucrm - Uncertainty values in this document are expressed as Expanded Uncertainty (Ucrm) corresponding to the 95% confidence interval. Ucrm is derived from the combined standard uncertainty multiplied by the coverage factor k, which is obtained from a *t*-distribution and degrees of freedom. The components of combined standard uncertainty include the uncertainties due to characterization, homogeneity, long term stability, and short term stability (transport). The components due to stability are generally considered to be negligible unless otherwise indicated by stability studies. The mathematical representation of the Ucrm calculation is as follows:

$$u_{CRM} = \sqrt{u_{char}^2 + u_{hom\ ogeneity}^2 + u_{stability}^2}$$

***k***: Coverage factor derived from a t-distribution table, based on the degrees of freedom of the data set. Assume 2.0 for a **Confidence interval = 95%**

6 Analytical Value- For QC verification of the certified value only- not to be used in calculations. Represents the analytical data obtained by comparison to a standard as analyzed by the method described in the CoA or another acceptable method. The result may differ from the certified value and UCRM based on method uncertainty as well as the uncertainty associated with the standard used for comparison.

Traceability: The standard was manufactured under an ISO/IEC 17025:2017 certified quality system. The balance used to weigh raw materials is accurate to +/- 0.0001g and calibrated regularly using mass standards traceable to NIST. All dilutions were preformed gravimetrically. Additionally, individual analytes are traceable to NIST SRMs where available and specified above.

Homogeneity: Homogeneity was assessed in accordance with ISO 17034:2016. Completed units were sampled using a random stratified sampling protocol. The results of chemical analysis were then compared using a one-way analysis of variance approach as described by TNI EL-V3-2009 Appendix A.2. See Instructions for minimum sub-sample size.

Expiration is at end of month given on certificate and label.

MSDS reports for components comprising greater than 1.0% of the solution or 0.1% for components known to be carcinogens are available upon request.

THIS PRODUCT WAS DESIGNED, PRODUCED AND VERIFIED FOR ACCURACY AND STABILITY IN ACCORDANCE WITH **ISO/IEC 17025:2017 (ANAB Cert AT-1467)** and **ISO 17034:2016 (ANAB Cert AR-1470).**

Andy Ommen - QC Manager

Mark Pooler - QA Supervisor

**Certification Date** April 30, 2020
**Version** 0-4302020

ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER

# Energy Laboratories Inc

# Standard LOG

| | | | |
|---|---|---|---|
| Standard ID: | DRO180918C | | |
| Standard Name | 50,000 ug/mL Oil Std For AK103 RRO-In DC | Type: | Primary |
| Date Prepared | 9/18/2018 | BY: | Ann Nebel |
| Date Expires: | 8/31/2025 | | |
| Department | dropr | Status: | Open |
| Vendor: | Restek | | |
| Lot Number: | A0140080 | | |
| Balance ID: | Sartorius 4 place balance | | |

Comments:

| Chemical / Solvent Used | BottleNo | Amt | Units | Exp |
|---|---|---|---|---|
| Residual Range Cailbration Standard | 10787 | 1 | mL | 8/31/ |

**Final Volume:** 1 mL

| **Stock Source** | **Base Units** | **Amount Added** |
|---|---|---|
| **Analytes** | **CAS** | Conc: **ug/mL** |

Page: *1 of 1*

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Bellefonte, PA 16823-8812
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# Certificate of Analysis

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

**FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.**

*This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.*

**Catalog No. :** 31817 **Lot No.:** A0140080

**Description :** Residual Range Calibration Standard (RCS)

Residual Range Calib Std (RCS) 50,000µg/mL, Methylene Chloride, 1mL/ampul

**Container Size :** 2 mL **Pkg Amt:** > 1 mL

**Expiration Date :** August 31, 2025 **Storage:** 25°C nominal

## CERTIFIED VALUES

| Elution Order | Compound | Grav. Conc. (weight/volume) | Expanded Uncertainty (95% C.L.; K=2) | | |
|---|---|---|---|---|---|
| 1 | Motor Oil SAE30 & SAE40 Blend (Pennzoil) | 50,113.0 µg/mL | +/- 293.4226 | µg/mL | Gravimetric |
| | **CAS #** 64742-65-0.F (Lot A0126386) | | +/- 1,492.4284 | µg/mL | Unstressed |
| | **Purity** ----% | | +/- 1,591.6738 | µg/mL | Stressed |

**Solvent:** Methylene chloride
**CAS #** 75-09-2
**Purity** 99%

**ID #: 10787**
Opened:
Residual Range Calibration Standard
**Expires: 8/31/2025**
Rec'd: 9/18/2018
Energy Laboratories Inc 1120 So. 27th Street
Billings MT 59107

**Column:**
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

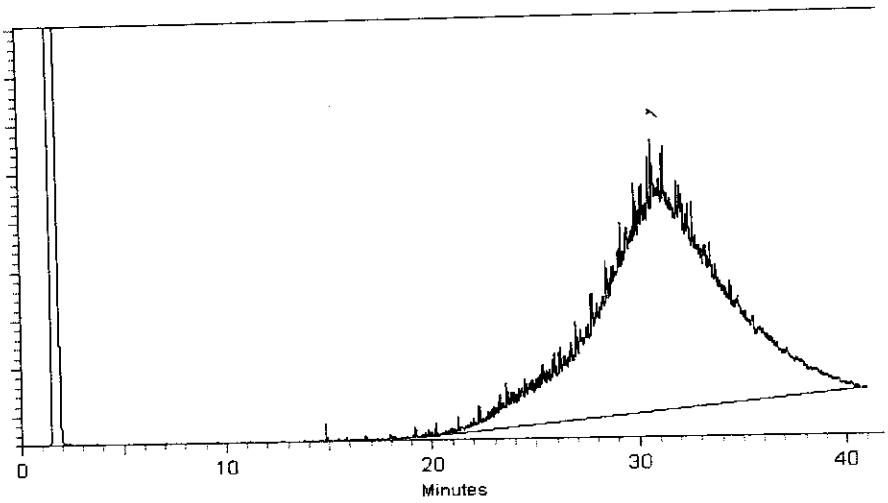
**Carrier Gas:**
hydrogen-constant pressure 10 psi.

**Temp. Program:**
40°C (hold 2 min.) to 330°C
@ 10°C/min. (hold 10 min.)

**Inj. Temp:**
250°C

**Det. Temp:**
330°C

**Det. Type:**
FID




This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Brandon Reish - Mix Technician

**Date Mixed:** 28-Jul-2018 **Balance:** B345965662

Diane Shaffer - Operations Tech-ARM QC

**Date Passed:** 30-Jul-2018

**Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397**

# Energy Laboratories Inc

# Standard LOG

| | | | |
|---|---|---|---|
| Standard ID: | DRO211006A | | |
| Standard Name | Triacontane SURR 2000 ug/mL | Type: | Secondary |
| Date Prepared | 10/6/2021 | BY: | Jillian L Bostwick |
| Date Expires: | 4/6/2026 | | |
| Department | dropr | Status: | New |
| Vendor: | | | |
| Lot Number: | | | |
| Balance ID: | BAL-DRO | | |
| Comments: | Triacontane SURR 2000 ug/mL | | |

| Chemical / Solvent Used | BottleNo | Amt | Units | Exp |
|---|---|---|---|---|
| Acetone DZ509 | 13553 | 50 | mL | 7/22/ |

**Final Volume:** 50 mL

| **Stock Source** | | **Base Units** | **Amount Added** |
|---|---|---|---|
| DRO210406A | Triacontane-d62 Surr For AK103 RRO | ug/mL | 0.1001 g |

| | **Analytes** | **CAS** | Conc: | **ug/mL** |
|---|---|---|---|---|
| A | Triacontane-d62 | | | 2000 |

# Energy Laboratories Inc

# Standard LOG

| | | | |
|---|---|---|---|
| Standard ID: | DRO210406A | | |
| Standard Name | Triacontane-d62 Surr For AK103 RRO | Type: | Neat |
| Date Prepared | 4/6/2021 | BY: | Ann Nebel |
| Date Expires: | 4/6/2026 | | |
| Department | dropr | Status: | New |
| Vendor: | Sigma-Aldrich | | |
| Lot Number: | MBBC4347 | | |
| Balance ID: | | | |
| Comments: | Alaska surr [for AK103 RRO] | | |

| Chemical / Solvent Used | BottleNo | Amt | Units | Exp |
|---|---|---|---|---|
| Triacontane-d62-98 atom % D | 13736 | | mL | 4/6/2 |

**Final Volume:** mL

| **Stock Source** | **Base Units** | **Amount Added** |
|---|---|---|
| **Analytes** | **CAS** | Conc: **ug/mL** |
| A Triacontane-d62 | | 1 |

Page: *1 of 1*

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Website: www.sigmaaldrich.com
Email USA: techserv@sial.com
Outside USA: eurtechserv@sial.com

# Certificate of Analysis

Product Name:
Triacontane-d62 - 98 atom % D

$CD_3(CD_2)_{28}CD_3$

| | |
|---|---|
| **Product Number:** | **451789** |
| **Batch Number:** | **MBBC4347** |
| Brand: | ALDRICH |
| CAS Number: | 93952-07-9 |
| MDL Number: | MFCD00209794 |
| Formula: | C30D62 |
| Formula Weight: | 485.20 g/mol |
| Quality Release Date: | 27 APR 2018 |

**ID #: 13736**
Opened:
Triacontane-d62-98 atom % D
**Expires: 4/6/2026**
Rec'd: 4/6/2021
Energy Laboratories Inc 1120 So. 27th Street
Billings MT 59107

| Test | Specification | Result |
|---|---|---|
| Purity (HPLC) | ≥ 99.0 % | 99.0 % |
| Proton NMR Spectrum | Conforms to Structure | Conforms |
| D Enrichment | ≥ 98.0 % | 99.0 % |
| Initial Melting Point | | 60.0 °C |
| Final Melting Point | | 62.0 °C |

Greg Abernathy, Supervisor
Quality Control
Miamisburg, Ohio US

# Energy Laboratories Inc

# Standard LOG

| | | | |
|---|---|---|---|
| Standard ID: | DRO211012B | | |
| Standard Name | #2 Diesel in Acetone 150,000 ug/mL | Type: | Secondary |
| Date Prepared | 10/12/2021 | BY: | Ann Nebel |
| Date Expires: | 11/5/2023 | | |
| Department | dropr | Status: | New |
| Vendor: | | | |
| Lot Number: | | | |
| Balance ID: | BAL-DRO | | |
| Comments: | #2 Diesel in Acetone 150,000 ug/mL. | | |

| Chemical / Solvent Used | BottleNo | Amt | Units | Exp |
|---|---|---|---|---|
| Acetone EA662 | 14050 | 25 | mL | 1/7/2 |

**Final Volume:** 25 mL

| **Stock Source** | | **Base Units** | **Amount Added** |
|---|---|---|---|
| DRO181105A | #2 Diesel (NEAT) | ug/mL | 3.7507 g |

| **Analytes** | | **CAS** | Conc: **ug/mL** |
|---|---|---|---|
| A | #2 Diesel | 68476-34-6 | 150000 |

Page: *1 of 1*

# Energy Laboratories Inc

# Standard LOG

| | | | |
|---|---|---|---|
| Standard ID: | DRO181105A | | |
| Standard Name | #2 Diesel (NEAT) | Type: | Neat |
| Date Prepared | 11/5/2018 | BY: | Ann Nebel |
| Date Expires: | 11/5/2023 | | |
| Department | dropr | Status: | New |
| Vendor: | conoco | | |
| Lot Number: | | | |
| Balance ID: | | | |

Comments: -18 Cloud peak. (Conoco Gas Sation 1240 S. 27th Billings, MT) 2nd Source

**Final Volume:** 250 mL

| Stock Source | | Base Units | Amount Added | |
|---|---|---|---|---|
| **Analytes** | | **CAS** | Conc: | **ug/mL** |
| A | #2 Diesel | 68476-34-6 | | 1 |

# Energy Laboratories Inc

# Standard LOG

| | | | |
|---|---|---|---|
| Standard ID: | DRO210217A | | |
| Standard Name | 20,000 ug/mL Oil Std For AK103 RRO-In DC | Type: | Secondary |
| Date Prepared | 2/17/2021 | BY: | Ann Nebel |
| Date Expires: | 8/23/2021 | | |
| Department | dropr | Status: | Expired |
| Vendor: | | | |
| Lot Number: | | | |
| Balance ID: | Sartorius 4 place balance | | |

Comments:

| Chemical / Solvent Used | BottleNo | Amt | Units | Exp |
|---|---|---|---|---|
| Dichloromethane EA342 | 13510 | 25 | mL | 11/17 |

**Final Volume:** 25 mL

| Stock Source | | Base Units | Amount Added |
|---|---|---|---|
| DRO160823C | 30W Motor Oil-Valvoline | ug/mL | 0.2501 g |
| DRO160823D | 40W Motor Oil-Valvoline | ug/mL | 0.2527 g |

| Analytes | | CAS | Conc: | ug/mL |
|---|---|---|---|---|
| A | 30W Motor Oil | | | 10000 |
| A | 30W-Motor oil | | | 0 |
| A | 40W Motor Oil | | | 10000 |
| A | 40W-Motor oil | | | 0 |

# Energy Laboratories Inc

# Standard LOG

| | | | |
|---|---|---|---|
| Standard ID: | DRO160823C | | |
| Standard Name | 30W Motor Oil-Valvoline | Type: | Primary |
| Date Prepared | 8/23/2016 | BY: | Todd C Cooper |
| Date Expires: | 8/23/2021 | | |
| Department | dropr | Status: | Expired |
| Vendor: | | | |
| Lot Number: | | | |
| Balance ID: | | | |

Comments: Used to make 2nd Source Standard for AK103 method.

| Chemical / Solvent Used | BottleNo | Amt | Units | Exp |
|---|---|---|---|---|
| Valvoline SAE 30 Motor Oil | 8637 | | mL | 8/23/ |

**Final Volume:** mL

| **Stock Source** | **Base Units** | **Amount Added** |
|---|---|---|
| **Analytes** | **CAS** | Conc: **ug/mL** |
| A 30W-Motor oil | | 1 |

Page: *1 of 1*

# Energy Laboratories Inc

# Standard LOG

| | | | |
|---|---|---|---|
| Standard ID: | DRO160823D | | |
| Standard Name | 40W Motor Oil-Valvoline | Type: | Primary |
| Date Prepared | 8/23/2016 | BY: | Todd C Cooper |
| Date Expires: | 8/23/2021 | | |
| Department | dropr | Status: | Expired |
| Vendor: | | | |
| Lot Number: | | | |
| Balance ID: | | | |

Comments: Used to Make 2nd Source Standards For Alaska AK103 RRO Method

| Chemical / Solvent Used | BottleNo | Amt | Units | Exp |
|---|---|---|---|---|
| Valvoline SAE 40 Motor Oil | 8638 | | mL | 8/23/ |

**Final Volume:** mL

| **Stock Source** | **Base Units** | **Amount Added** |
|---|---|---|
| **Analytes** | **CAS** | Conc: **ug/mL** |
| A 40W-Motor oil | | 1 |

Page: *1 of 1*

# Energy Laboratories Inc

# Standard LOG

| | | | |
|---|---|---|---|
| Standard ID: | DRO211214A | | |
| Standard Name | 8015 CCV-15,000ug/mL + 200 OTP | Type: | Secondary |
| Date Prepared | 12/14/2021 | BY: | Ann Nebel |
| Date Expires: | 4/30/2023 | | |
| Department | dropr | Status: | New |
| Vendor: | | | |
| Lot Number: | | | |
| Balance ID: | | | |
| Comments: | 8015DRO CCV MIX-15,000ug/mL +200 OTP #2 Diesel | | |

| Chemical / Solvent Used | BottleNo | Amt | Units | Exp |
|---|---|---|---|---|
| Dichloromethane EC757 | 14596 | 2.6 | mL | 10/20 |

**Final Volume:** 4 mL

| Stock Source | | Base Units | Amount Added |
|---|---|---|---|
| DRO211101A | OTP-4000 ug/mL DCM | ug/mL | 0.2 mL |
| DRO211102B | Diesel Fuel #2 50,000 ug/mL in DCM | ug/mL | 1.2 mL |

| | Analytes | CAS | Conc: ug/mL |
|---|---|---|---|
| A | #2 Diesel | | 15000 |
| | Diesel Fuel #2 | | 0 |
| A | O-Terphenyl | 84-15-1 | 200 |

# Energy Laboratories Inc

# Standard LOG

| | | | |
|---|---|---|---|
| Standard ID: | DRO211102B | | |
| Standard Name | Diesel Fuel #2 50,000 ug/mL in DCM | Type: | Primary |
| Date Prepared | 11/2/2021 | BY: | Ann Nebel |
| Date Expires: | 4/30/2023 | | |
| Department | dropr | Status: | New |
| Vendor: | Sigma-Aldrich | | |
| Lot Number: | LRAC6316 | | |
| Balance ID: | | | |
| Comments: | Diesel Fuel #2 For CCVs. | | |

| Chemical / Solvent Used | BottleNo | Amt | Units | Exp |
|---|---|---|---|---|
| Diesel Fuel No. 2 | 14478 | 1 | mL | 4/30/ |

**Final Volume:** mL

| **Stock Source** | **Base Units** | **Amount Added** |
|---|---|---|
| **Analytes** | **CAS** | Conc: **ug/mL** |
| Diesel Fuel #2 | | 0 |

Page: *1 of 1*

# Certificate of Analysis

## Diesel Fuel No. 2

*Certified Reference Material*

### Description

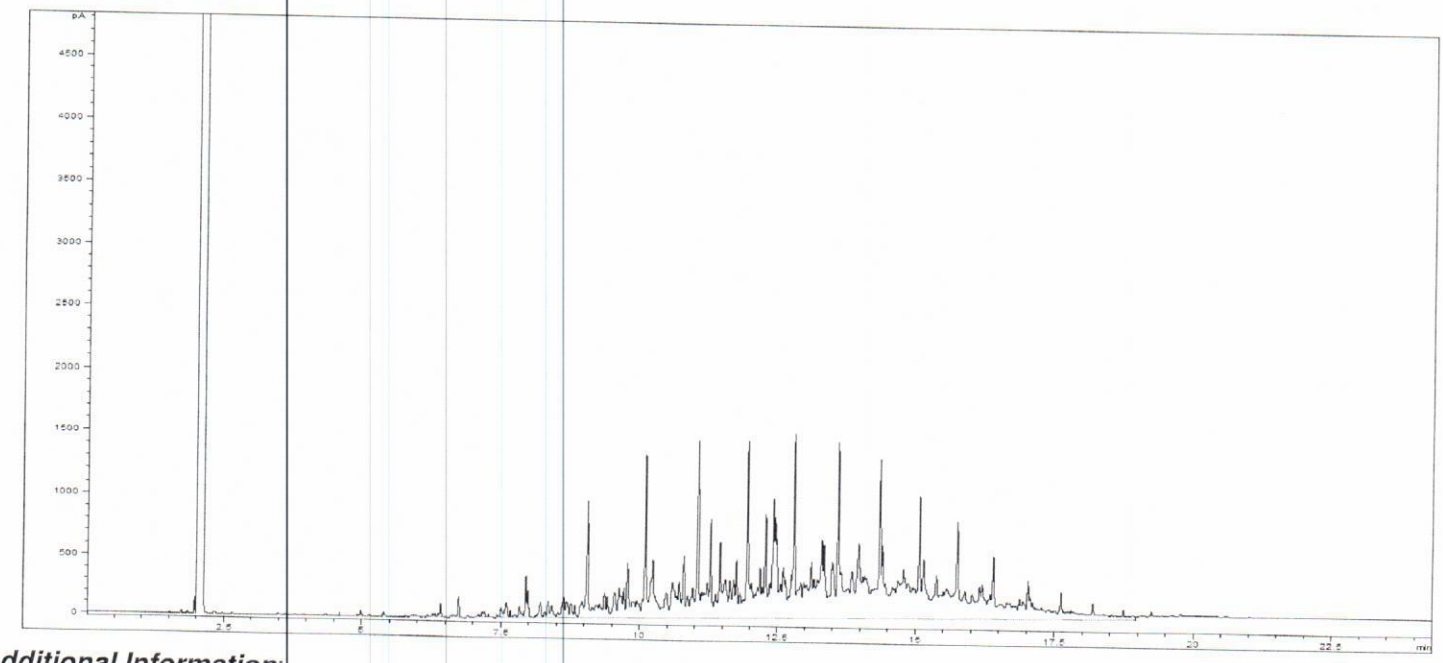
**Product ID** UST148
**Lot** **LRAC6316**
**Expiration Date** April 2023
**Manufacturing Date** April 2020
**Storage Conditions** Room Temperature
**Solvent/Matrix** DICHLOROMETHANE

**ID #: 14478**
Opened:_____
Diesel Fuel No. 2
**Expires: 4/30/2023**
Rec'd: 11/2/2021
Energy Laboratories Inc 1120 So. 27th Street
Billings MT 59107

### Certified Values

| *Analyte* | *Certified Value* [1,4] | *Units* | *Raw Material Purity,%* | *Raw Material Lot* | *CAS* |
|---|---|---|---|---|---|
| NO.2 FUEL OIL | 50001 ± 2770 | µg/mL | 100.0 | LA80505 | 68476-34-6 |

### Informational Values




***Additional Information***:

Analytical Method Parameters:
Column: SPB-5, 30 m × 0.53 mm I.D., 1.5 µm film thickness (Column #214)
Carrier Gas: H2, Flow: 4.0 mL/min
Inlet Temperature: 250 °C, Injection Volume: 1.0 µL
Injection Mode: Split, Split Ratio: 10: 1
Temperature Program: 40 °C (Hold 2 min) @ 15 °C/min to 300 °C (Hold 5 min)
Detector: FID
Detector Temperature: 300 °C

ANAB ACCREDITED
REFERENCE MATERIAL PRODUCER

SIGMA-ALDRICH
2931 Soldier Springs Rd. Laramie, Wyoming 82070 USA
800-325-5832
TechService@millipore sigma.com www.sigma-aldrich.com

## Description

**Lot** LRAC6316
**Expiration Date** April 2023
**Manufacturing Date** April 2020
**Storage Conditions** Room Temperature
**Solvent/Matrix** DICHLOROMETHANE

1 **Metrological traceability:** Traceable to the SI and higher order standards from NIST through an unbroken chain of comparisons. The balance used to weigh raw materials is accurate to +/-0.0001 g and calibrated regularly using mass standards traceable to NIST. All dilutions were performed gravimetrically. Additionally, individual analytes are traceable to NIST SRMs where available and specified above.
4 Ucrm - Uncertainty values in this document are expressed as Expanded Uncertainty (Ucrm) corresponding to the 95% confidence interval. Ucrm is derived from the combined standard uncertainty multiplied by the coverage factor k, which is obtained from a *t*-distribution and degrees of freedom. The components of combined standard uncertainty include the uncertainties due to characterization, homogeneity, long term stability, and short term stability (transport). The components due to stability are generally considered to be negligible unless otherwise indicated by stability studies. The mathematical representation of the Ucrm calculation is as follows:

$$u_{CRM} = \sqrt{u_{char}^2 + u_{hom\ ogeneity}^2 + u_{stability}^2}$$

***k***: Coverage factor derived from a t-distribution table, based on the degrees of freedom of the data set. Assume 2.0 for a **Confidence interval = 95%**

6 Analytical Value- For QC verification of the certified value only- not to be used in calculations. Represents the analytical data obtained by comparison to a standard as analyzed by the method described in the CoA or another acceptable method. The result may differ from the certified value and UCRM based on method uncertainty as well as the uncertainty associated with the standard used for comparison.

Traceability: The standard was manufactured under an ISO/IEC 17025:2017 certified quality system. The balance used to weigh raw materials is accurate to +/- 0.0001g and calibrated regularly using mass standards traceable to NIST. All dilutions were preformed gravimetrically. Additionally, individual analytes are traceable to NIST SRMs where available and specified above.

Homogeneity: Homogeneity was assessed in accordance with ISO 17034:2016. Completed units were sampled using a random stratified sampling protocol. The results of chemical analysis were then compared using a one-way analysis of variance approach as described by TNI EL-V3-2009 Appendix A.2. See Instructions for minimum sub-sample size.

Expiration is at end of month given on certificate and label.

MSDS reports for components comprising greater than 1.0% of the solution or 0.1% for components known to be carcinogens are available upon request.

THIS PRODUCT WAS DESIGNED, PRODUCED AND VERIFIED FOR ACCURACY AND STABILITY IN ACCORDANCE WITH **ISO/IEC 17025:2017 (ANAB Cert AT-1467)** and **ISO 17034:2016 (ANAB Cert AR-1470).**

Andy Ommen - QC Manager

Mark Pooler - QA Supervisor

**Certification Date** April 30, 2020
**Version** 0-4302020

ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER

# Energy Laboratories Inc

# Spike LOG

| | | | |
|---|---|---|---|
| Standard ID: | DRO211101A | | |
| Standard Name | OTP-4000 ug/mL DCM | Type: | Secondary |
| Date Prepared | 11/1/2021 | BY: | Ann Nebel |
| Date Expires: | 9/30/2024 | | |
| Department | dropr | Status: | Open |
| Vendor: | | | |
| Lot Number: | | | |
| Balance ID: | BAL-DRO | | |
| Comments: | Used to Prep DRO-8015 ICAL and CCV Solutions | | |

| Chemical / Solvent Used | BottleNo | Amt | Units | Exp |
|---|---|---|---|---|
| Dichloromethane EC328 | 14408 | 25 | mL | 8/19/ |

**Final Volume:** 25 mL

| **Stock Source** | | **Base Units** | **Amount Added** |
|---|---|---|---|
| DRO200430B | O-Terphenyl | ug/mL | 0.1012 g |

| **Analytes** | | **CAS** | Conc: | **ug/mL** |
|---|---|---|---|---|
| A | O-Terphenyl | 84-15-1 | | 4000 |

# Energy Laboratories Inc

# Standard LOG

| | | | |
|---|---|---|---|
| Standard ID: | DRO200430B | | |
| Standard Name | O-Terphenyl | Type: | Neat |
| Date Prepared | 4/30/2020 | BY: | Ann Nebel |
| Date Expires: | 9/30/2024 | | |
| Department | dropr | Status: | New |
| Vendor: | Chemservice | | |
| Lot Number: | 9972100 | | |
| Balance ID: | | | |
| Comments: | ID#: 6271 | | |

| Chemical / Solvent Used | BottleNo | Amt | Units | Exp |
|---|---|---|---|---|
| o-Terphenyl | 12650 | 500 | mg | 9/30/ |

**Final Volume:** mL

**Stock Source** **Base Units** **Amount Added**

| **Analytes** | | **CAS** | Conc: | **ug/mL** |
|---|---|---|---|---|
| A | O-Terphenyl | 84-15-1 | | 1 |

660 Tower Lane • P.O. Box 599 • West Chester, PA 19381-0599
1-800-452-9994 • 1-610-692-3026 • Fax 1-610-692-8729
info@chemservice.com • www.chemservice.com

# CERTIFICATE OF ANALYSIS

## o-Terphenyl

| | |
|---|---|
| CATALOG NUMBER | N-12693-500MG |
| LOT NUMBER | 9972100 |
| DATE CERTIFIED | 09/23/19 |
| EXPIRATION DATE | 09/30/24 |
| CAS NUMBER | 84-15-1 |
| MOLECULAR FORMULA | C18H14 |
| MOLECULAR WEIGHT | 230.32 |
| STORAGE | Store in a cool dry place. |
| HANDLING | See Safety Data Sheet |
| INTENDED USE | For laboratory use only. |

| Analytical Test | Value |
|---|---|
| FT-IR SPECTROSCOPY | CONFORMS TO STRUCTURE |
| GC/MS SPECTRA ID | MATCHES NIST DATABASE |
| MELTING POINT (°C) | 57.1 |
| % PURITY (GC/FID) | 99.5 |

Chem Service, Inc. guarantees the purity to be +/- 0.5% deviation prior to the expiration date shown on the label and exclusive of any customer contamination.

Certified By:

Mary Beth O'Donnell

Mary Beth O'Donnell
CSM/TC

ID #: 12650
Opened:
o-Terphenyl
Expires: 9/30/2024
Rec'd: 4/30/2020
Energy Laboratories Inc 1120 So. 27th Street
Billings MT 59107

Chem Service is accredited to ISO 17034:2016, ISO/IEC 17025:2017 and certified to ISO 9001:2015

PJLA Reference Material Producer

PJLA Testing

COA Form
Revision 3 (3/2015)

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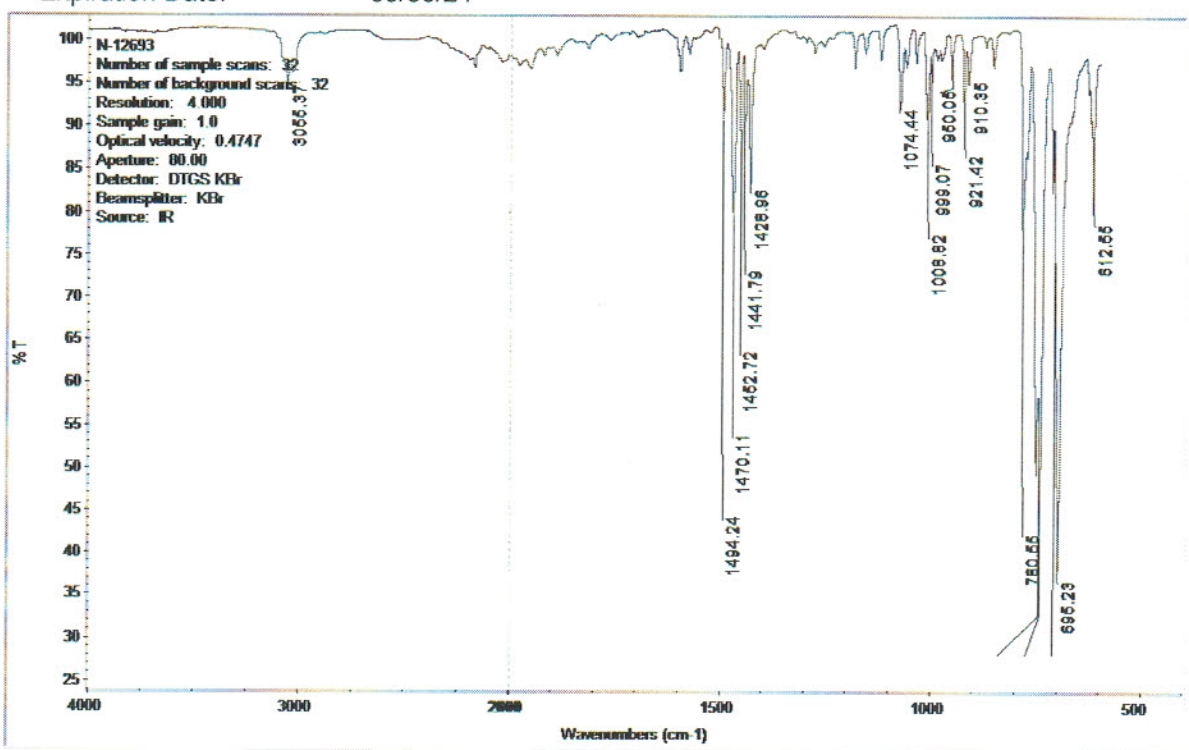
1-800-452-9994 • 1-610-692-3026 • Fax 1-610-692-8729
info@chemservice.com • www.chemservice.com

# CERTIFICATE OF ANALYSIS

**Analysis Method:**

| | |
|---|---|
| Catalog Number: | N-12693-500MG |
| Description: | o-Terphenyl |
| Lot Number: | 9972100 |
| Expiration Date: | 09/30/24 |



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# CERTIFICATE OF ANALYSIS

**Analysis Method:**

| | |
|---|---|
| Catalog Number: | N-12693-500MG |
| Description: | o-Terphenyl |
| Lot Number: | 9972100 |
| Expiration Date: | 09/30/24 |

Chem Service Inc Area Percent Report

Data File: D:\msdchem\2019 DATA\0919\0923-01.D
Acq On : 23 Sep 2019 10:40
Operator :
Sample : n-12693
Misc :
ALS Vial : 95

Integration Parameters: autoint1.e
Integrator: ChemStation

DataAcq Meth:SCREEN.M
Method : D:\msdchem\2019 DATA\0919\0903-09.D\ERIN.M

Signal : TIC: 0923-01.D\data.ms

| peak # | R.T. min | first scan | max scan | last scan | PK TY | peak height | corr. area | corr. % max. | % of total |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 11.844 | 1597 | 1606 | 1613 | BB | 32038221 | 432253484 | 100.00% | 100.000% |

Sum of corrected areas: 432253484

ERIN.M Mon Sep 23 10:55:51 2019

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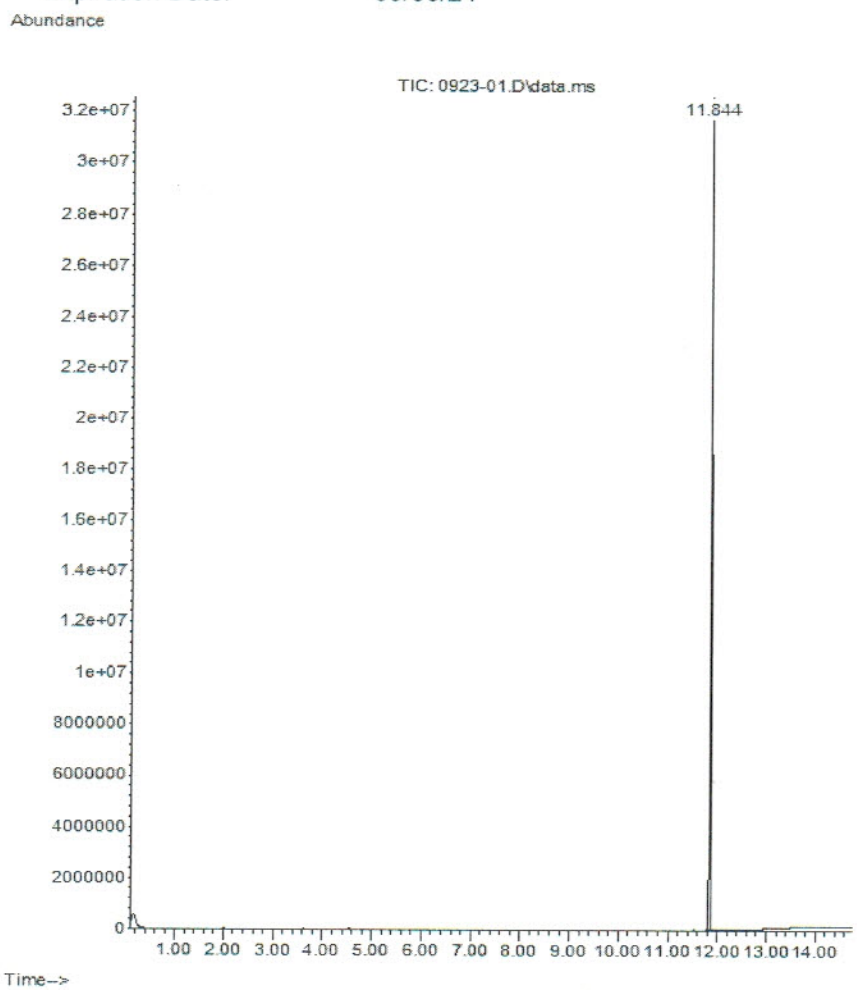
info@chemservice.com • www.chemservice.com

# CERTIFICATE OF ANALYSIS

**Analysis Method:**

| | |
|---|---|
| Catalog Number: | N-12693-500MG |
| Description: | o-Terphenyl |
| Lot Number: | 9972100 |
| Expiration Date: | 09/30/24 |



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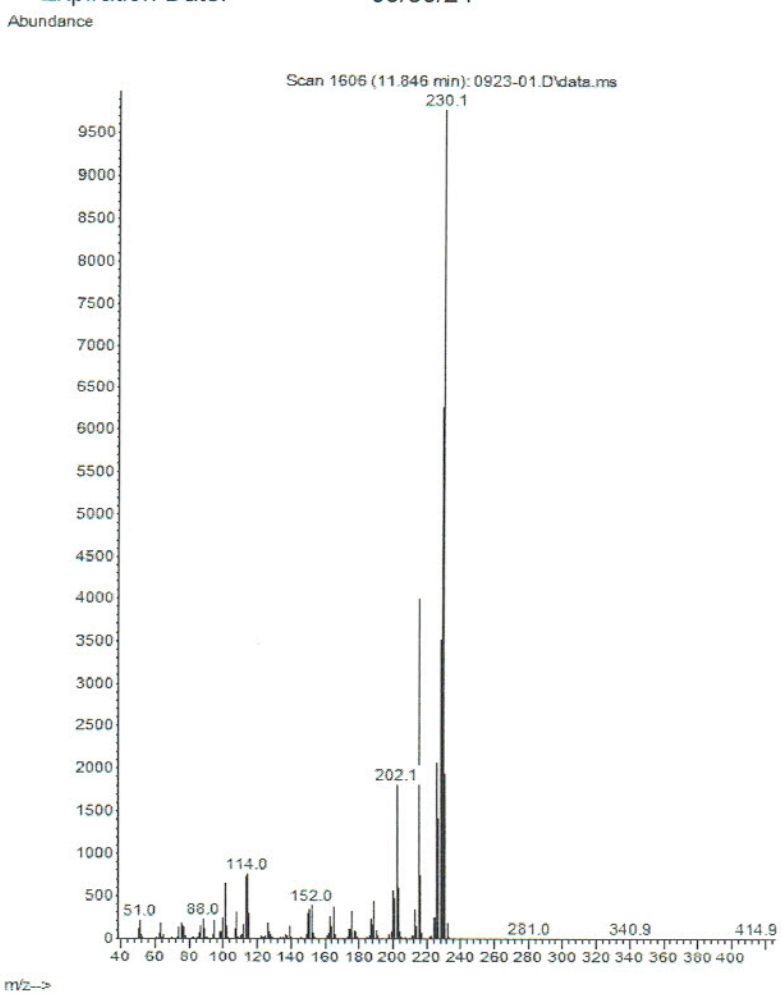
info@chemservice.com • www.chemservice.com

# CERTIFICATE OF ANALYSIS

**Analysis Method:**

| | |
|---|---|
| Catalog Number: | N-12693-500MG |
| Description: | o-Terphenyl |
| Lot Number: | 9972100 |
| Expiration Date: | 09/30/24 |



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# CERTIFICATE OF ANALYSIS

**Analysis Method:**

| | |
|---|---|
| Catalog Number: | N-12693-500MG |
| Description: | o-Terphenyl |
| Lot Number: | 9972100 |
| Expiration Date: | 09/30/24 |

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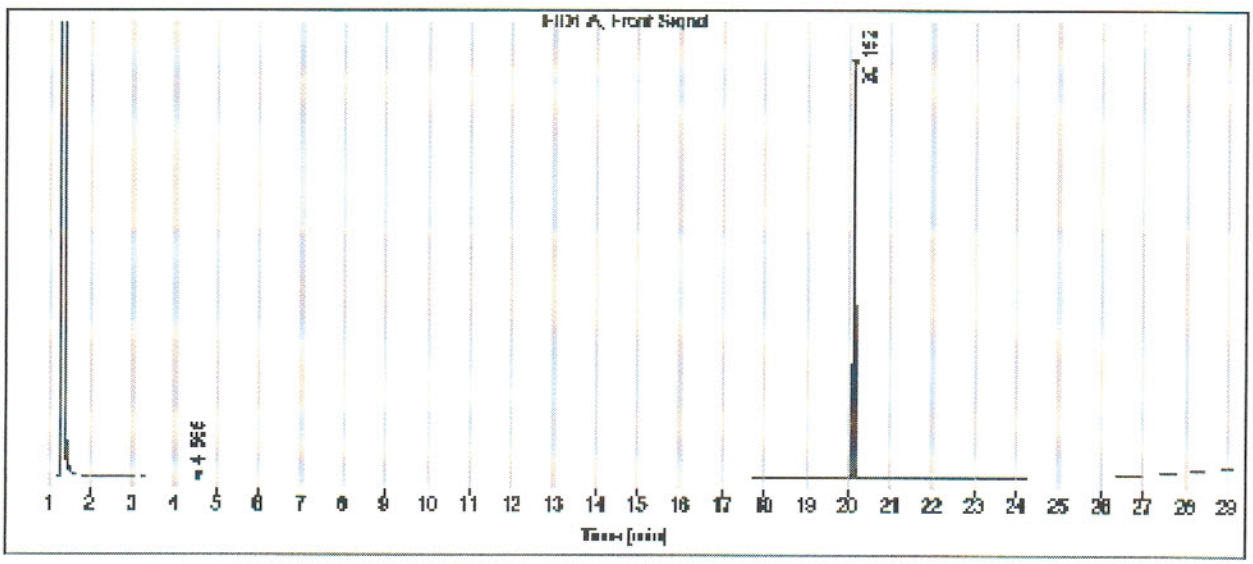
Gas

# CERTIFICATE OF ANALYSIS

| | | | |
|---|---|---|---|
| **Data file:** | C:\CHEM3\ | | |
| **Sample name:** | N-12693 | | |
| **Instrument:** | GC 2 | **Sample type:** | Sample |
| **Injection date:** | 9/23/2019 9:56:34 AM | **Location:** | Vial 141 |
| **Acq. method:** | SCREEN.M | **Injection volume:** | 1.0uL |
| **Column name:** | HP-5 | | |




Signal: FID1 A, Front Signal

| RT [min] | Type | Width [min] | Area | Height | Area% |
|---|---|---|---|---|---|
| 4.565 | BB | 0.0305 | 1.2408 | 0.5122 | 0.11 |
| 20.152 | BB | 0.0391 | 1171.9556 | 439.4599 | 99.89 |
| | | Sum | 1173.1963 | | |

# Energy Laboratories Inc

# Standard LOG

| | | | |
|---|---|---|---|
| Standard ID: | DRO211201A | | |
| Standard Name | 5,000 ug/mL RRO CCV 200 ug/mL Triaconta | Type: | Secondary |
| Date Prepared | 12/1/2021 | BY: | Ann Nebel |
| Date Expires: | 4/6/2026 | | |
| Department | dropr | Status: | New |
| Vendor: | | | |
| Lot Number: | | | |
| Balance ID: | Sartorius 4 place balance | | |
| Comments: | CCV for AK102 and 8015C RRO. | | |

| Chemical / Solvent Used | BottleNo | Amt | Units | Exp |
|---|---|---|---|---|
| Dichloromethane EC735 | 14518 | 2.8 | mL | 10/14 |

**Final Volume:** 4 mL

| Stock Source | | Base Units | Amount Added |
|---|---|---|---|
| DRO210401B | 50,000 ug/mL Oil Std For AK103 RRO-I | ug/mL | 400 µL |
| DRO211129A | Triacontane SURR 1000 ug/mL | ug/mL | 800 µL |

| Analytes | | CAS | Conc: | ug/mL |
|---|---|---|---|---|
| A | 30/40W Motor Oil | | | 5000 |
| A | Triacontane-d62 | | | 200 |

# Energy Laboratories Inc

# Standard LOG

| | | | |
|---|---|---|---|
| Standard ID: | DRO210401B | | |
| Standard Name | 50,000 ug/mL Oil Std For AK103 RRO-In DC | Type: | Primary |
| Date Prepared | 4/1/2021 | BY: | Ann Nebel |
| Date Expires: | 1/31/2028 | | |
| Department | dropr | Status: | Open |
| Vendor: | Restek | | |
| Lot Number: | A0166827 | | |
| Balance ID: | Sartorius 4 place balance | | |

Comments:

| Chemical / Solvent Used | BottleNo | Amt | Units | Exp |
|---|---|---|---|---|
| Residual Range Calibration Standard ( | 13714 | 1 | mL | 1/31/ |

**Final Volume:** 1 mL

| **Stock Source** | **Base Units** | **Amount Added** |
|---|---|---|
| **Analytes** | **CAS** | Conc: **ug/mL** |

RESTEK®
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

# CERTIFIED REFERENCE MATERIAL

## Certificate of Analysis

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

**FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.**

*This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.*

**Catalog No. :** 31817 **Lot No.:** A0166827

**Description :** Residual Range Calibration Standard (RCS)

Residual Range Calib Std (RCS) 50,000µg/mL, Methylene Chloride, 1mL/ampul

**Container Size :** 2 mL **Pkg Amt:** > 1 mL

**Expiration Date :** January 31, 2028 **Storage:** 25°C nominal

**Ship:** Ambient

**CERTIFIED VALUES**

| Elution Order | Compound | Grav. Conc. (weight/volume) | Expanded Uncertainty (95% C.L.; K=2) | | |
|---|---|---|---|---|---|
| 1 | Motor Oil SAE30 & SAE40 Blend (Pennzoil) | 50,056.0 µg/mL | +/- 293.0889 | µg/mL | Gravimetric |
| | **CAS #** 64742-65-0.F (Lot A0126386) | | +/- 1,490.7309 | µg/mL | Unstressed |
| | **Purity** ----% | | +/- 1,589.8634 | µg/mL | Stressed |

**Solvent:** Methylene chloride
**CAS #** 75-09-2
**Purity** 99%

**ID #: 13714**
Opened:
Residual Range Calibration Standard (RCS)
**Expires: 1/31/2028**
Rec'd: 4/1/2021
Energy Laboratories Inc 1120 So. 27th Street
Billings MT 59107

**Column:**
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

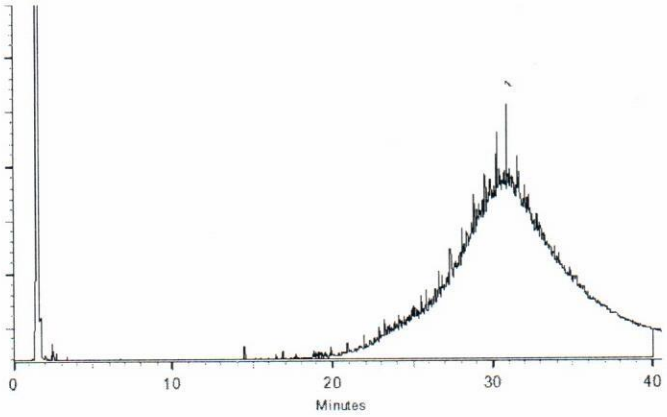
**Carrier Gas:**
hydrogen-constant pressure 10 psi.

**Temp. Program:**
40°C (hold 2 min.) to 330°C
@ 10°C/min. (hold 10 min.)

**Inj. Temp:**
250°C

**Det. Temp:**
330°C

**Det. Type:**
FID




This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Kylie Struble - Operations Technician I

**Date Mixed:** 02-Dec-2020 **Balance:** 1128353505

Justine Albertson - Operations Tech-ARM QC

**Date Passed:** 07-Dec-2020

**Manufactured under Restek's ISO 9001:2015**
**Registered Quality System**
**Certificate #FM 80397**

**General Certified Reference Material Notes**

**Expiration Notes:**

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

**Purity Notes:**

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

**Certified Uncertainty Value Notes:**

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value ( includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

$k$ is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

| Label Conditions | Standard Conditions | Non-Standard Conditions |
|---|---|---|
| 25°C Nominal (Room Temperature) | < 60°C | ≥ 60°C up to 7 days |
| 10°C or colder (Refrigerate) | < 40°C | ≥ 40°C up to 7 days |
| 0°C or colder (Freezer)<br>-20°C or colder (Deep Freezer) | < 25°C | ≥ 25°C up to 7 days |

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

**Manufacturing Notes:**

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

**Handling Notes:**

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.

# Energy Laboratories Inc

# Standard LOG

| | | | |
|---|---|---|---|
| Standard ID: | DRO211129A | | |
| Standard Name | Triacontane SURR 1000 ug/mL | Type: | Secondary |
| Date Prepared | 11/29/2021 | BY: | Jillian L Bostwick |
| Date Expires: | 4/6/2026 | | |
| Department | dropr | Status: | New |
| Vendor: | | | |
| Lot Number: | | | |
| Balance ID: | BAL-DRO | | |
| Comments: | 2X dilution of Triacontane SURR 2000 ug/mL | | |

| Chemical / Solvent Used | BottleNo | Amt | Units | Exp |
|---|---|---|---|---|
| Dichloromethane EC735 | 14518 | 5 | mL | 10/14 |

**Final Volume:** 10 mL

| **Stock Source** | | **Base Units** | **Amount Added** |
|---|---|---|---|
| DRO211006A | Triacontane SURR 2000 ug/mL | ug/mL | 5 mL |

| **Analytes** | | **CAS** | Conc: | **ug/mL** |
|---|---|---|---|---|
| A | Triacontane-d62 | | | 1000 |

Page: *1 of 1*

# Energy Laboratories Inc

# Standard LOG

| | | | |
|---|---|---|---|
| Standard ID: | DRO211006A | | |
| Standard Name | Triacontane SURR 2000 ug/mL | Type: | Secondary |
| Date Prepared | 10/6/2021 | BY: | Jillian L Bostwick |
| Date Expires: | 4/6/2026 | | |
| Department | dropr | Status: | New |
| Vendor: | | | |
| Lot Number: | | | |
| Balance ID: | BAL-DRO | | |
| Comments: | Triacontane SURR 2000 ug/mL | | |

| Chemical / Solvent Used | BottleNo | Amt | Units | Exp |
|---|---|---|---|---|
| Acetone DZ509 | 13553 | 50 | mL | 7/22/ |

**Final Volume:** 50 mL

| **Stock Source** | | **Base Units** | **Amount Added** |
|---|---|---|---|
| DRO210406A | Triacontane-d62 Surr For AK103 RRO | ug/mL | 0.1001 g |

| **Analytes** | | **CAS** | Conc: | **ug/mL** |
|---|---|---|---|---|
| A | Triacontane-d62 | | | 2000 |

# Energy Laboratories Inc

# Standard LOG

| | | | |
|---|---|---|---|
| Standard ID: | DRO210406A | | |
| Standard Name | Triacontane-d62 Surr For AK103 RRO | Type: | Neat |
| Date Prepared | 4/6/2021 | BY: | Ann Nebel |
| Date Expires: | 4/6/2026 | | |
| Department | dropr | Status: | New |
| Vendor: | Sigma-Aldrich | | |
| Lot Number: | MBBC4347 | | |
| Balance ID: | | | |
| Comments: | Alaska surr [for AK103 RRO] | | |

| Chemical / Solvent Used | BottleNo | Amt | Units | Exp |
|---|---|---|---|---|
| Triacontane-d62-98 atom % D | 13736 | | mL | 4/6/2 |

**Final Volume:** mL

**Stock Source** **Base Units** **Amount Added**

**Analytes** **CAS** Conc: **ug/mL**

A Triacontane-d62

Page: *1 of 1*

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3050 Spruce Street, Saint Louis, MO 63103, USA
Website: www.sigmaaldrich.com
Email USA: techserv@sial.com
Outside USA: eurtechserv@sial.com

# Certificate of Analysis

Product Name:
Triacontane-$d_{62}$ - 98 atom % D

$CD_3(CD_2)_{28}CD_3$

| | |
|---|---|
| **Product Number:** | **451789** |
| **Batch Number:** | **MBBC4347** |
| Brand: | ALDRICH |
| CAS Number: | 93952-07-9 |
| MDL Number: | MFCD00209794 |
| Formula: | C30D62 |
| Formula Weight: | 485.20 g/mol |
| Quality Release Date: | 27 APR 2018 |

**ID #: 13736**
Opened:
Triacontane-d62-98 atom % D
**Expires: 4/6/2026**
Rec'd: 4/6/2021
Energy Laboratories Inc 1120 So. 27th Street
Billings MT 59107

| Test | Specification | Result |
|---|---|---|
| Purity (HPLC) | ≥ 99.0 % | 99.0 % |
| Proton NMR Spectrum | Conforms to Structure | Conforms |
| D Enrichment | ≥ 98.0 % | 99.0 % |
| Initial Melting Point | | 60.0 °C |
| Final Melting Point | | 62.0 °C |

Greg Abernathy, Supervisor
Quality Control
Miamisburg, Ohio US

# Energy Laboratories Inc

# Standard LOG

| | | | |
|---|---|---|---|
| Standard ID: | DRO211213A | | |
| Standard Name | OTP only SURR 2000 ug/mL | Type: | Secondary |
| Date Prepared | 12/13/2021 | BY: | Jillian L Bostwick |
| Date Expires: | 9/30/2024 | | |
| Department | dropr | Status: | New |
| Vendor: | | | |
| Lot Number: | | | |
| Balance ID: | BAL-DRO | | |
| Comments: | OTP SURR 2000 ug/mL | | |

| Chemical / Solvent Used | BottleNo | Amt | Units | Exp |
|---|---|---|---|---|
| Acetone DZ509 | 13553 | 100 | mL | 7/22/ |

**Final Volume:** 100 mL

| Stock Source | | Base Units | Amount Added |
|---|---|---|---|
| DRO200430B | O-Terphenyl | ug/mL | 0.2015 g |

| Analytes | | CAS | Conc: | ug/mL |
|---|---|---|---|---|
| A | 1-Chlorooctadecane | 3386-33-2 | | 2000 |

Page: *1 of 1*

# Energy Laboratories Inc

# Standard LOG

| | | | |
|---|---|---|---|
| Standard ID: | DRO200430B | | |
| Standard Name | O-Terphenyl | Type: | Neat |
| Date Prepared | 4/30/2020 | BY: | Ann Nebel |
| Date Expires: | 9/30/2024 | | |
| Department | dropr | Status: | New |
| Vendor: | Chemservice | | |
| Lot Number: | 9972100 | | |
| Balance ID: | | | |
| Comments: | ID#: 6271 | | |

| Chemical / Solvent Used | BottleNo | Amt | Units | Exp |
|---|---|---|---|---|
| o-Terphenyl | 12650 | 500 | mg | 9/30/ |

**Final Volume:** mL

| **Stock Source** | **Base Units** | **Amount Added** |
|---|---|---|
| **Analytes** | **CAS** | Conc: **ug/mL** |
| A O-Terphenyl | 84-15-1 | 1 |

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info@chemservice.com • www.chemservice.com

# CERTIFICATE OF ANALYSIS

## o-Terphenyl

| | |
|---|---|
| CATALOG NUMBER | N-12693-500MG |
| LOT NUMBER | 9972100 |
| DATE CERTIFIED | 09/23/19 |
| EXPIRATION DATE | 09/30/24 |
| CAS NUMBER | 84-15-1 |
| MOLECULAR FORMULA | C18H14 |
| MOLECULAR WEIGHT | 230.32 |
| STORAGE | Store in a cool dry place. |
| HANDLING | See Safety Data Sheet |
| INTENDED USE | For laboratory use only. |

| Analytical Test | Value |
|---|---|
| FT-IR SPECTROSCOPY | CONFORMS TO STRUCTURE |
| GC/MS SPECTRA ID | MATCHES NIST DATABASE |
| MELTING POINT (°C) | 57.1 |
| % PURITY (GC/FID) | 99.5 |

Chem Service, Inc. guarantees the purity to be +/- 0.5% deviation prior to the expiration date shown on the label and exclusive of any customer contamination.

Certified By:

Mary Beth O'Donnell

Mary Beth O'Donnell
CSM/TC

ID #: 12650
Opened:
o-Terphenyl
Expires: 9/30/2024
Rec'd: 4/30/2020
Energy Laboratories Inc 1120 So. 27th Street
Billings MT 59107

Chem Service is accredited to ISO 17034:2016, ISO/IEC 17025:2017 and certified to ISO 9001:2015

PJLA Reference Material Producer

PJLA Testing

COA Form
Revision 3 (3/2015)

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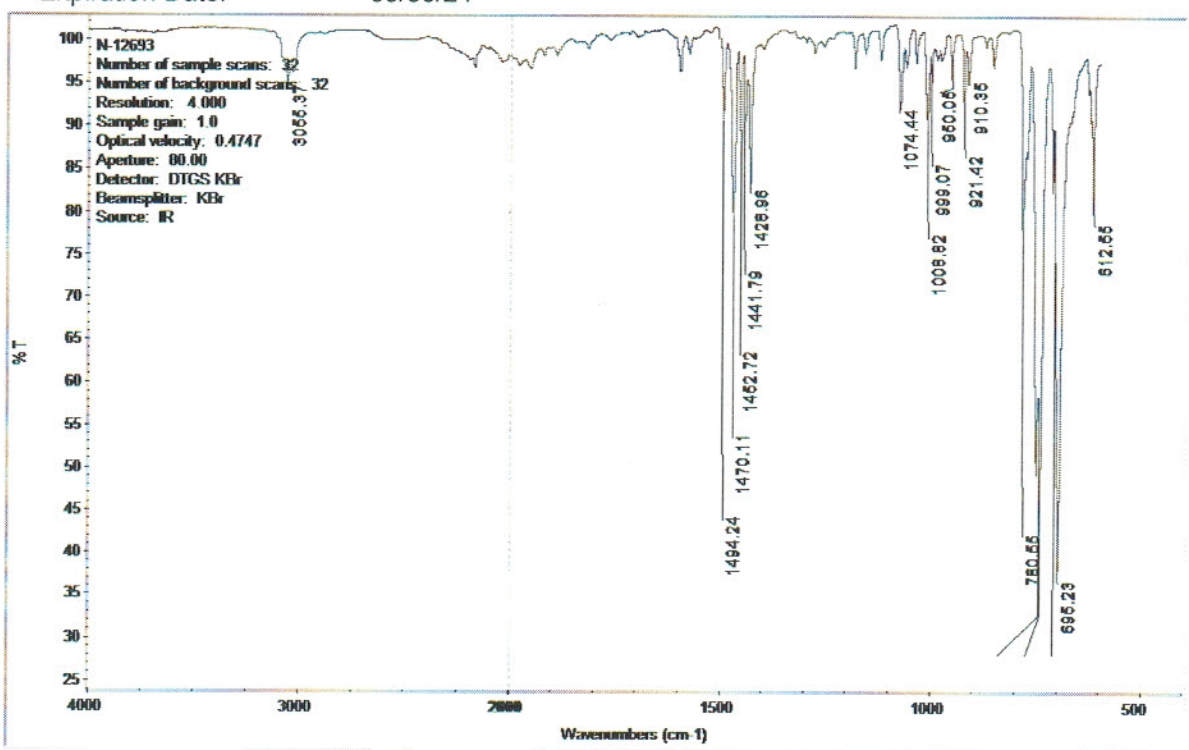
# CERTIFICATE OF ANALYSIS

**Analysis Method:**

| | |
|---|---|
| Catalog Number: | N-12693-500MG |
| Description: | o-Terphenyl |
| Lot Number: | 9972100 |
| Expiration Date: | 09/30/24 |



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# CERTIFICATE OF ANALYSIS

**Analysis Method:**

| | |
|---|---|
| Catalog Number: | N-12693-500MG |
| Description: | o-Terphenyl |
| Lot Number: | 9972100 |
| Expiration Date: | 09/30/24 |

Chem Service Inc Area Percent Report

Data File: D:\msdchem\2019 DATA\0919\0923-01.D
Acq On : 23 Sep 2019 10:40
Operator :
Sample : n-12693
Misc :
ALS Vial : 95

Integration Parameters: autoint1.e
Integrator: ChemStation

DataAcq Meth:SCREEN.M
Method : D:\msdchem\2019 DATA\0919\0903-09.D\ERIN.M

Signal : TIC: 0923-01.D\data.ms

| peak # | R.T. min | first scan | max scan | last scan | PK TY | peak height | corr. area | corr. % max. | % of total |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 11.844 | 1597 | 1606 | 1613 | BB | 32038221 | 432253484 | 100.00% | 100.000% |

Sum of corrected areas: 432253484

ERIN.M Mon Sep 23 10:55:51 2019

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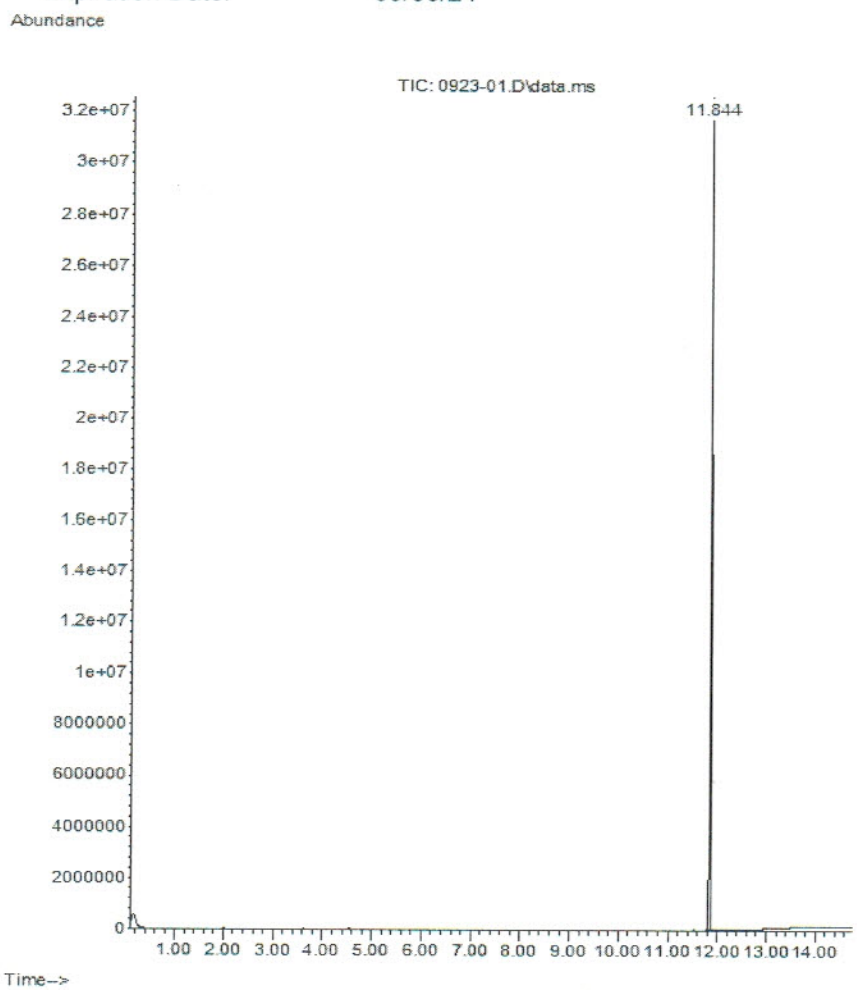
# CERTIFICATE OF ANALYSIS

**Analysis Method:**

| | |
|---|---|
| Catalog Number: | N-12693-500MG |
| Description: | o-Terphenyl |
| Lot Number: | 9972100 |
| Expiration Date: | 09/30/24 |



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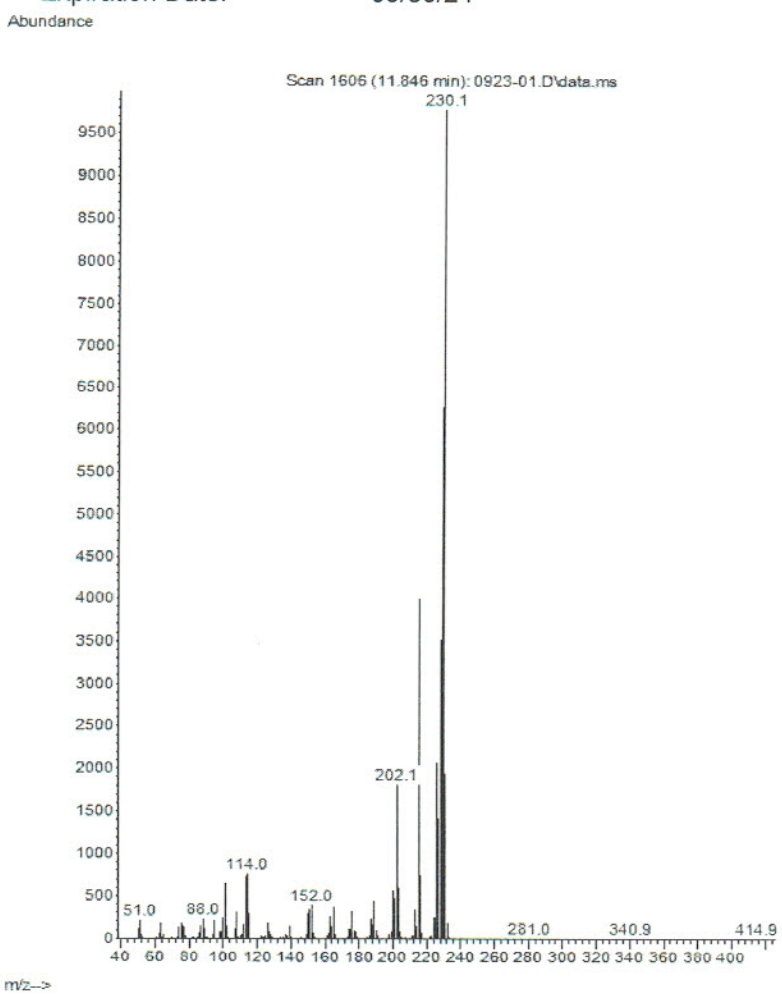
# CERTIFICATE OF ANALYSIS

**Analysis Method:**

| | |
|---|---|
| Catalog Number: | N-12693-500MG |
| Description: | o-Terphenyl |
| Lot Number: | 9972100 |
| Expiration Date: | 09/30/24 |



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# CERTIFICATE OF ANALYSIS

**Analysis Method:**

| | |
|---|---|
| Catalog Number: | N-12693-500MG |
| Description: | o-Terphenyl |
| Lot Number: | 9972100 |
| Expiration Date: | 09/30/24 |

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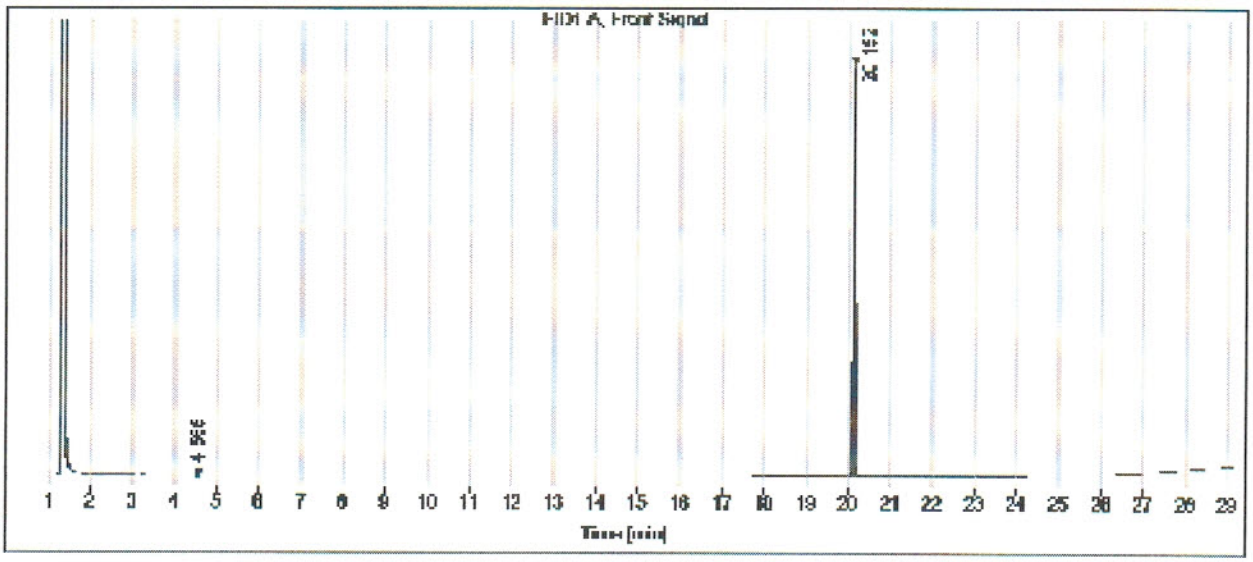
Gas

# CERTIFICATE OF ANALYSIS

| | | | |
|---|---|---|---|
| **Data file:** | C:\CHEM3\ | | |
| **Sample name:** | N-12693 | | |
| **Instrument:** | GC 2 | **Sample type:** | Sample |
| **Injection date:** | 9/23/2019 9:56:34 AM | **Location:** | Vial 141 |
| **Acq. method:** | SCREEN.M | **Injection volume:** | 1.0uL |
| **Column name:** | HP-5 | | |




Signal: FID1 A, Front Signal

| RT [min] | Type | Width [min] | Area | Height | Area% |
|---|---|---|---|---|---|
| 4.565 | BB | 0.0305 | 1.2408 | 0.5122 | 0.11 |
| 20.152 | BB | 0.0391 | 1171.9556 | 439.4599 | 99.89 |
| | | Sum | 1173.1963 | | |

# Energy Laboratories Inc

# Standard LOG

| | | | |
|---|---|---|---|
| Standard ID: | DRO210902A | | |
| Standard Name | 50,000 ug/mL Oil Std for RRO-In DCM | Type: | Secondary |
| Date Prepared | 9/2/2021 | BY: | Jillian L Bostwick |
| Date Expires: | 9/1/2026 | | |
| Department | dropr | Status: | New |
| Vendor: | | | |
| Lot Number: | | | |
| Balance ID: | BAL-DRO | | |
| Comments: | .625 g of 30W and 40 W each LCS for Oil range | | |

| Chemical / Solvent Used | BottleNo | Amt | Units | Exp |
|---|---|---|---|---|
| Dichloromethane EB867 | 14196 | 25 | mL | 6/18/ |

**Final Volume:** 25 mL

| Stock Source | | Base Units | Amount Added |
|---|---|---|---|
| DRO210901B | 40W Motor Oil-Valvoline | ug/mL | 0.6261 g |
| DRO210901A | 30W Motor Oil-Valvoline | ug/mL | 0.6254 g |

| Analytes | | CAS | Conc: ug/mL |
|---|---|---|---|
| A | 30W Motor Oil | | 10000 |
| A | 30W-Motor oil | | 0 |
| A | 40W Motor Oil | | 10000 |
| A | 40W-Motor oil | | 0 |

# Energy Laboratories Inc

# Standard LOG

| | | | |
|---|---|---|---|
| Standard ID: | DRO210901B | | |
| Standard Name | 40W Motor Oil-Valvoline | Type: | Primary |
| Date Prepared | 9/1/2021 | BY: | Jillian L Bostwick |
| Date Expires: | 9/1/2026 | | |
| Department | dropr | Status: | New |
| Vendor: | | | |
| Lot Number: | | | |
| Balance ID: | | | |

Comments: Used to Make 2nd Source Standards For Alaska AK103 RRO Method and Oil

| Chemical / Solvent Used | BottleNo | Amt | Units | Exp |
|---|---|---|---|---|
| Valvoline SAE 40 Motor Oil | 14231 | | mL | 9/1/2 |

**Final Volume:** mL

| **Stock Source** | **Base Units** | **Amount Added** |
|---|---|---|
| **Analytes** | **CAS** | Conc: **ug/mL** |
| A 40W-Motor oil | | 1 |

Page: *1 of 1*

# Energy Laboratories Inc

# Standard LOG

| | | | |
|---|---|---|---|
| Standard ID: | DRO210901A | | |
| Standard Name | 30W Motor Oil-Valvoline | Type: | Primary |
| Date Prepared | 9/1/2021 | BY: | Jillian L Bostwick |
| Date Expires: | 9/1/2026 | | |
| Department | dropr | Status: | New |
| Vendor: | | | |
| Lot Number: | | | |
| Balance ID: | | | |

Comments: Used to make 2nd Source Standard for AK103 method.

| Chemical / Solvent Used | BottleNo | Amt | Units | Exp |
|---|---|---|---|---|
| Valvoline SAE 30 Motor Oil | 14232 | | mL | 9/1/2 |

**Final Volume:** mL

| **Stock Source** | **Base Units** | **Amount Added** |
|---|---|---|
| **Analytes** | **CAS** | Conc: **ug/mL** |
| A 30W-Motor oil | | 1 |

Page: *1 of 1*

# Energy Laboratories Inc

# Standard LOG

| | | | |
|---|---|---|---|
| Standard ID: | DRO211129A | | |
| Standard Name | Triacontane SURR 1000 ug/mL | Type: | Secondary |
| Date Prepared | 11/29/2021 | BY: | Jillian L Bostwick |
| Date Expires: | 4/6/2026 | | |
| Department | dropr | Status: | New |
| Vendor: | | | |
| Lot Number: | | | |
| Balance ID: | BAL-DRO | | |
| Comments: | 2X dilution of Triacontane SURR 2000 ug/mL | | |

| Chemical / Solvent Used | BottleNo | Amt | Units | Exp |
|---|---|---|---|---|
| Dichloromethane EC735 | 14518 | 5 | mL | 10/14 |

**Final Volume:** 10 mL

| **Stock Source** | | **Base Units** | **Amount Added** |
|---|---|---|---|
| DRO211006A | Triacontane SURR 2000 ug/mL | ug/mL | 5 mL |

| **Analytes** | | **CAS** | Conc: | **ug/mL** |
|---|---|---|---|---|
| A | Triacontane-d62 | | | 1000 |

Page: *1 of 1*

# Energy Laboratories Inc

# Standard LOG

| | | | |
|---|---|---|---|
| Standard ID: | DRO211006A | | |
| Standard Name | Triacontane SURR 2000 ug/mL | Type: | Secondary |
| Date Prepared | 10/6/2021 | BY: | Jillian L Bostwick |
| Date Expires: | 4/6/2026 | | |
| Department | dropr | Status: | New |
| Vendor: | | | |
| Lot Number: | | | |
| Balance ID: | BAL-DRO | | |
| Comments: | Triacontane SURR 2000 ug/mL | | |

| Chemical / Solvent Used | BottleNo | Amt | Units | Exp |
|---|---|---|---|---|
| Acetone DZ509 | 13553 | 50 | mL | 7/22/ |

**Final Volume:** 50 mL

| **Stock Source** | | **Base Units** | **Amount Added** |
|---|---|---|---|
| DRO210406A | Triacontane-d62 Surr For AK103 RRO | ug/mL | 0.1001 g |

| **Analytes** | | **CAS** | Conc: | **ug/mL** |
|---|---|---|---|---|
| A | Triacontane-d62 | | | 2000 |

Page: *1 of 1*

# Energy Laboratories Inc

# Standard LOG

| | | | |
|---|---|---|---|
| Standard ID: | DRO210406A | | |
| Standard Name | Triacontane-d62 Surr For AK103 RRO | Type: | Neat |
| Date Prepared | 4/6/2021 | BY: | Ann Nebel |
| Date Expires: | 4/6/2026 | | |
| Department | dropr | Status: | New |
| Vendor: | Sigma-Aldrich | | |
| Lot Number: | MBBC4347 | | |
| Balance ID: | | | |
| Comments: | Alaska surr [for AK103 RRO] | | |

| Chemical / Solvent Used | BottleNo | Amt | Units | Exp |
|---|---|---|---|---|
| Triacontane-d62-98 atom % D | 13736 | | mL | 4/6/2 |

**Final Volume:** mL

**Stock Source** **Base Units** **Amount Added**

**Analytes** **CAS** Conc: **ug/mL**

A Triacontane-d62

Page: *1 of 1*

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Website: www.sigmaaldrich.com
Email USA: techserv@sial.com
Outside USA: eurtechserv@sial.com

# Certificate of Analysis

Product Name:
Triacontane-$d_{62}$ - 98 atom % D

$CD_3(CD_2)_{28}CD_3$

| | |
|---|---|
| **Product Number:** | **451789** |
| **Batch Number:** | **MBBC4347** |
| Brand: | ALDRICH |
| CAS Number: | 93952-07-9 |
| MDL Number: | MFCD00209794 |
| Formula: | C30D62 |
| Formula Weight: | 485.20 g/mol |
| Quality Release Date: | 27 APR 2018 |

**ID #: 13736**
Opened:
Triacontane-d62-98 atom % D
**Expires: 4/6/2026**
Rec'd: 4/6/2021
Energy Laboratories Inc 1120 So. 27th Street
Billings MT 59107

| Test | Specification | Result |
|---|---|---|
| Purity (HPLC) | ≥ 99.0 % | 99.0 % |
| Proton NMR Spectrum | Conforms to Structure | Conforms |
| D Enrichment | ≥ 98.0 % | 99.0 % |
| Initial Melting Point | | 60.0 °C |
| Final Melting Point | | 62.0 °C |

Greg Abernathy, Supervisor
Quality Control
Miamisburg, Ohio US