ANALYTICAL SUMMARY REPORT

April 13, 2021

APPL Inc
908 N Temperance Ave.
Clovis CA, 93611-8606

Work Order: B21032068 Quote ID: 5675

Project Name: Not Indicated

Energy Laboratories Inc Billings MT received the following 2 samples from APPL Inc on 3/29/2021 for analysis.

Lab ID	Client Sample ID	Collect Date	Received Date	Matrix	Test
B21032068-001	BA29552 ERH1294	03/24/21 12:15	03/29/2021	Drinking Water	DRO-Liquid-Liquid Extraction SW3520C Diesel Range Organics SW8015C
B21032068-002	BA29553 ERH1295	03/24/21 12:55	03/29/2021	Drinking Water	Same As Above

The analyses presented in this report were performed by Energy Laboratories, Inc., 1120 S 27th St., Billings, MT 59101, unless otherwise noted. Any exceptions or problems with the analyses are noted in the Laboratory Analytical Report, the QA/QC Summary Report, or the Case Narrative. Any issues encountered during sample receipt are documented in the Work Order Receipt Checklist.

The results as reported relate only to the item(s) submitted for testing. This report shall be used or copied only in its entirety. Energy Laboratories, Inc. is not responsible for the consequences arising from the use of a partial report.

If you have any questions regarding these test results, please contact your Project Manager.

Report Approved By:

Quality Assurance Manager

Digitally signed by
Leigh Ann. Wise
Date: 2021.04.13 16:56:34 -06:00

CLIENT: APPL Inc
Project: Not Indicated
Work Order: B21032068

Report Date: 4/13/2021

CASE NARRATIVE

General Comments:

For any question please contact your Project Manage at (406) 252-6325 or billingspm@energylab.com.

All analyses have been performed in accordance with DOD QSM Version 5.3 unless otherwise noted below. The specific methodologies used in obtaining the enclosed analytical results are indicated on the Analytical Summary Report and the Laboratory Analytical Report. The samples were received at the appropriate temperature and in accordance with the chain of custody unless otherwise noted in the Work Order Receipt Checklist.

The tests listed below are accredited and meet the requirements of DoD QSM Version 5.3 as verified by ANSI-ASQ National Accreditation Board (ANAB) certificate number ADE-2588. Exceptions to this require client authorization and records documenting this approval are attached in the Sample Management Records. Accreditation may not be offered or required for all methods and analytes reported in this package. Refer to the certificate and scope of accreditation located at https://www.energylab.com/whyus/certifications-quality-control/ or contact your project manager.

Project specific matrix quality control samples may not be reported if site specific samples were not submitted. Matrix quality control samples were performed on project samples where adequate volume was available. All quality control measures met criteria unless otherwise noted in the Analytical QC Exceptions report and in the Analysis Specific Comments below. Where available, sample management records are attached.

The Level IV Validation Package includes data reports for all analyses associated with the instrument calibration, quality control (QC) sample analysis, and sample analysis. All analytical data is within method specifications except as noted in the Analytical QC Exceptions report or the Analysis Specific Comments below. The analytical report identifies preparation batch and analytical run IDs associated with each result for a sample. Only the raw data associated with the parameters listed on this report should be validated.

Analysis Specific Comments:

An Analytical QC Exceptions Report has been attached, summarizing all qualified QC results. All quality control measures met criteria; therefore there were no analytical QC exceptions on this report.

SUBCONTRACT ORDER

APPL, Inc.

ARF: 95603 **PO: 00-95603**

SENDING LABORATORY:	RECEIVING LABORATORY:
APPL Labs	Energy Labs
908 North Temperance Ave	1120 South 27th St
Clovis, CA 93611	Billings, MT 59101
Phone (559) 275-2175	Phone (406) 252-6325x
Fax (559) 275-4422 LAC	Fax
Project Manager Libby Cheeseborough (libby@applinc com)	DOD Expiration Date B210320068

Comments STD TAT, DVP 4 Report, results and questions to Libby EQWS EDD

	APPL ID	Sample ID	LOC ID	Matrix	Collected	Analysis	Price
1	BA29552	ERH1294		Water	03/24/21 09 15	TPH (C8-C18, C10-25) by EPA 8015	-001
2	BA29553	ERH1295		Water	03/24/21 09 55	TPH (C8-C18, C10-25) by EPA 8015	-002

Released By	Date	Time	Received By	Date	Time
[signature]	3/25/21	1440	Gabbie Aschim	3-29-21	08:40
Released By	Date	Time	Received By	Date	Time

Upon receipt, please email signed COC to APPL Inc.
To ensure timely payment, please include the PO number on your invoice.

Work Order Receipt Checklist

APPL Inc

B21032068

Login completed by:	Taylor K. Burris	Date Received:	3/29/2021
Reviewed by:	BL2000\tedwards	Received by:	gda
Reviewed Date:	3/30/2021	Carrier name:	FedEx

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on all shipping container(s)/cooler(s)?	Yes ☐	No ☐	Not Present ☑
Custody seals intact on all sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time? (Exclude analyses that are considered field parameters such as pH, DO, Res Cl, Sulfite, Ferrous Iron, etc.)	Yes ☑	No ☐	
Temp Blank received in all shipping container(s)/cooler(s)?	Yes ☑	No ☐	Not Applicable ☐
Container/Temp Blank temperature:	0.6°C On Ice		
Water - VOA vials have zero headspace?	Yes ☐	No ☐	Not Applicable ☑
Water - pH acceptable upon receipt?	Yes ☐	No ☐	Not Applicable ☑

Standard Reporting Procedures:

Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH, Dissolved Oxygen and Residual Chlorine, are qualified as being analyzed outside of recommended holding time.

Solid/soil samples are reported on a wet weight basis (as received) unless specifically indicated. If moisture corrected, data units are typically noted as –dry. For agricultural and mining soil parameters/characteristics, all samples are dried and ground prior to sample analysis.

Contact and Corrective Action Comments:

The state the sample was collected in was not provided. The sample was collected in Hawaii per phone conversation with Paul Henige on 3/30/21.

The collection time indicated on the Chain of Custody for all samples is in Hawaii-Aleutian Standard Time. The collection time has been converted to Mountain Standard Time.

Qualifiers and Abbreviations

Qualifier	Qualifier Description
##	Limit of Quantitation (LOQ) for this analyte exceeds the Maximum Contaminant Level (MCL)
*	Result exceeds the Maximum Contaminant Level (MCL)
A	The analyte level was greater than four times the spike level - in accordance with the method, percent recovery is not calculated
B	Analyte detected in the method blank
C	Continuing calibration verification was outside of the quality control advisory limits
D	Limit of Quantitation (LOQ) increased due to sample matrix
E	Estimated value - result exceeds the instrument upper quantitation limit
H	Analysis performed past the method holding time
J	The reported result is an estimated value
L	Lowest Limit of Quantitation (LOQ) available for the analytical method used
N	Analyte concentration was not sufficiently high to calculate a Relative Percent Difference (RPD) for the serial dilution test
O	Diluted out
P	Poor method performance - method validations have shown no recoveries at low concentrations or method performance was erratic
Q	Values reported below the Limit of Quantitation (LOQ) are statistically invalid
R	Relative Percent Difference (RPD) exceeds advisory limit
S	Spike recovery outside of advisory limits
T	Analyte detected in the associated trip blank
U	Not detected at the Limit of Detection (LOD)
V	The RPD value for this duplicate represents the RER value and the RPDLimit of 2 is the RER upper limit.

Qualifiers and Abbreviations

Abbreviation

Reporting	Explanation of Abbreviation
DF	Dilution Factor
DL	Detection Limit
LOD	Limit of Detection
LOQ	Limit of Quantitation
MCL	Maximum Contaminant Level
MDC	Minimum Detectable Concentration
ND	Not detected at the Limit of Quantitaton (LOQ)
RBSL	Risk-Based Screening Levels
REC	Recovery
RER	Relative Error Ratio
RPD	Relative Percent Difference
SPK	Spike

Sample Types	Explanation of Abbreviation
CCB	Continuing Calibration Blank
CCV	Continuing Calibration Verification Standard
DUP	Sample Duplicate
ICSA	Interference Check Sample A
ICSAB	Interference Check Sample AB
ICV	Initial Calibration Verification Standard
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
LFB	Laboratory Fortified Blank
LRB	Laboratory Reagent Blank
MBLK	Method Blank
MS	Sample Matrix Spike
MSD	Sample Matrix Spike Duplicate
PDS	Post Digestion/Distillation Spike
QCS	Quality Control Sample
SD	Serial Dilution
SRM	Standard Reference Material

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: APPL Inc
Client Sample ID: BA29552 ERH1294
Project: Not Indicated
Matrix: Drinking Water

Lab ID: B21032068-001
Collection Date: 03/24/2021 12:15
Date Received: 03/29/2021
Report Date: 04/13/2021

Analyses	Result	Units	DF	Qual	LOQ	LOD	DL	MCL	Method	Analysis Date / By	RunID : Run Order	BatchID
PETROLEUM HYDROCARBONS-SEMI-VOLATILE												
Diesel Range Organics (DRO)	ND	mg/L	1	U	0.30	0.11	0.037		SW8015C	03/31/2021 17:04/amn	GCFID-HP5-B_210331A : 5	154020
C10 to C25 Hyrocarbons	ND	mg/L	1	U	0.29	0.11	0.037		SW8015C	03/31/2021 17:04/amn	GCFID-HP5-B_210331A : 5	154020
C8 to C18 Hydrocarbons	ND	mg/L	1	U	0.29	0.11	0.048		SW8015C	03/31/2021 17:04/amn	GCFID-HP5-B_210331A : 5	154020
Total Extractable Hydrocarbons	ND	mg/L	1	U	0.30	0.11	0.048		SW8015C	03/31/2021 17:04/amn	GCFID-HP5-B_210331A : 5	154020
Surr: o-Terphenyl	107	%REC	1		50-150				SW8015C	03/31/2021 17:04/amn	GCFID-HP5-B_210331A : 5	154020

- Note 1: Diesel Range Organics are defined as all hydrocarbons eluting between C10 and C28.
- Note 2: Total Extractable Hydrocarbons are defined as the total hydrocarbon response regardless of elution time.

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: APPL Inc
Client Sample ID: BA29553 ERH1295
Project: Not Indicated
Matrix: Drinking Water

Lab ID: B21032068-002
Collection Date: 03/24/2021 12:55
Date Received: 03/29/2021
Report Date: 04/13/2021

Analyses	Result	Units	DF	Qual	LOQ	LOD	DL	MCL	Method	Analysis Date / By	RunID : Run Order	BatchID
PETROLEUM HYDROCARBONS-SEMI-VOLATILE												
Diesel Range Organics (DRO)	ND	mg/L	1	U	0.30	0.12	0.039		SW8015C	03/31/2021 19:52/amn	GCFID-HP5-B_210331A : 8	154020
C10 to C25 Hyrocarbons	ND	mg/L	1	U	0.30	0.12	0.039		SW8015C	03/31/2021 19:52/amn	GCFID-HP5-B_210331A : 8	154020
C8 to C18 Hydrocarbons	ND	mg/L	1	U	0.30	0.12	0.049		SW8015C	03/31/2021 19:52/amn	GCFID-HP5-B_210331A : 8	154020
Total Extractable Hydrocarbons	ND	mg/L	1	U	0.30	0.12	0.049		SW8015C	03/31/2021 19:52/amn	GCFID-HP5-B_210331A : 8	154020
Surr: o-Terphenyl	106	%REC	1		50-150				SW8015C	03/31/2021 19:52/amn	GCFID-HP5-B_210331A : 8	154020

- Note 1: Diesel Range Organics are defined as all hydrocarbons eluting between C10 and C28.
- Note 2: Total Extractable Hydrocarbons are defined as the total hydrocarbon response regardless of elution time.

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: APPL Inc
Workorder: B21032068
Project: Not Indicated
Report Date: 04/13/2021

Run ID: Run Order: GCFID-HP5-B_210331A: 4 **SampType:** Method Blank **Batch ID:** 154020
Method: SW8015C **Analysis Date:** 03/31/2021 16:22 **Prep Date:** 03/30/2021 15:20
Lab ID: MB-154020 **Units:** mg/L **Prep Method:** SW3520C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	0.15									
C10 to C25 Hyrocarbons	ND	0.15									
C8 to C18 Hydrocarbons	ND	0.15									
Total Extractable Hydrocarbons	ND	0.15									
Surr: o-Terphenyl	0.21	0.0020	0.20		104.0	50	150				

Associated Samples: **B21032068-001A, B21032068-002A**

Run ID: Run Order: GCFID-HP5-B_210331A: 3 **SampType:** Laboratory Control Sample **Batch ID:** 154020
Method: SW8015C **Analysis Date:** 03/31/2021 15:40 **Prep Date:** 03/30/2021 15:20
Lab ID: LCS-154020 **Units:** mg/L **Prep Method:** SW3520C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	16	0.30	15		107.0	36	132				
Total Extractable Hydrocarbons	17	0.30	15		112.0	60	132				
Surr: o-Terphenyl	0.22	0.0020	0.20		107.0	56	125				

Associated Samples: **B21032068-001A, B21032068-002A**

Analytical QC Summary Report

Prepared by Billings, MT Branch

Client: APPL Inc
Workorder: B21032068
Project: Not Indicated
Report Date: 04/13/2021

Run ID: Run Order: GCFID-HP5-B_210331A: 6 **SampType:** Sample Matrix Spike **Batch ID:** 154020
Method: SW8015C **Analysis Date:** 03/31/2021 17:46 **Prep Date:** 03/30/2021 15:20
Lab ID: B21032068-001AMS **Units:** mg/L **Prep Method:** SW3520C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	31	0.60	30	0.00	104.0	36	132				
Total Extractable Hydrocarbons	33	0.60	30	0.00	108.0	60	132				
Surr: o-Terphenyl	0.42	0.0040	0.40	0.00	105.0	56	125				

Associated Samples: **B21032068-001A, B21032068-002A**

Run ID: Run Order: GCFID-HP5-B_210331A: 7 **SampType:** Sample Matrix Spike Duplicate **Batch ID:** 154020
Method: SW8015C **Analysis Date:** 03/31/2021 18:28 **Prep Date:** 03/30/2021 15:20
Lab ID: B21032068-001AMSD **Units:** mg/L **Prep Method:** SW3520C

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	32	0.60	30	0.00	108.0	36	132	31	3.5	20.0	
Total Extractable Hydrocarbons	34	0.60	30	0.00	112.0	60	132	33	3.3	20.0	
Surr: o-Terphenyl	0.44	0.0040	0.40	0.00	109.0	56	125	0.00			

Associated Samples: **B21032068-001A, B21032068-002A**

Run ID: Run Order: GCFID-HP5-B_210331A: 2 **SampType:** Continuing Calibration Verification Standard **Batch ID:** R358548
Method: SW8015C **Analysis Date:** 03/31/2021 14:16 **Prep Date:**
Lab ID: CCV_0331HP504r **Units:** mg/L **Prep Method:**

Analytes	Result	LOQ	Spk value	Spk RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Total Extractable Hydrocarbons	16	0.30	15		107.0	80	120				
Surr: o-Terphenyl	0.20	0.0020	0.20		99.0	80	120				

Associated Samples: **B21032068-001A, B21032068-002A**

Analytical QC Exceptions Report

Prepared by Billings, MT Branch

Client: APPL Inc
Workorder: B21032068
Project: Not Indicated

Report Date: 04/13/2021

All quality control measures met criteria; there were no Analytical QC Exceptions.

Preparation and Analysis Dates Report

Work Order: B21032068
Client: APPL Inc
Project Name: Not Indicated
Report Date: 4/13/2021

Lab ID	Client Sample ID	Collection Date	Matrix	Test Name	TCLP Date	Prep Method	Prep Date	Prep Batch	Analysis Method	Analysis Date
001A	BA29552 ERH1294	03/24/2021 12:15	Drinking Water	Diesel Range Organics		SW3520C	03/30/2021 15:20	154020	SW8015C	03/31/2021 17:04
002A	BA29553 ERH1295	03/24/2021 12:55	Drinking Water	Diesel Range Organics		SW3520C	03/30/2021 15:20	154020	SW8015C	03/31/2021 19:52

Chemical Abstracts Service (CAS) Registry Numbers

Prepared by Billings, MT Branch

Client: APPL Inc

Workorder: B21032068

Project: Not Indicated

Report Date: 04/13/2021

Analyses	CAS No
Petroleum Hydrocarbons-Semi-Volatile	
Diesel Range Organics (DRO)	
C10 to C25 Hyrocarbons	
C8 to C18 Hydrocarbons	
Total Extractable Hydrocarbons	

Shari Endy

From: Paul Henige <phenige@applinc.com>
Sent: Tuesday, March 30, 2021 2:51 PM
To: 'Shari Endy'; 'Libby Cheeseborough'
Subject: RE: 32068

Hi Shari,

We have confirmed with AECOM all of your clarifications below and we and the client AECOM acknowledge them all as acceptable.

Thanks for all the help.

Paul Henige
Director of Business Development

Agriculture & Priority Pollutants Laboratories, Inc.
WOSB. NELAP Accredited.
Direct number 650 576-7765
Laboratory 559.275-2175
908 N. Temperance Ave., Clovis, CA 93611

phenige@applinc.com

DoD and DOE accredited for ISM, Dioxins and PCB congeners.
Now DoD Certified for PFAS. Contact your PM for details.

From: Shari Endy [mailto:sendy@energylab.com]
Sent: Tuesday, March 30, 2021 1:42 PM
To: Libby Cheeseborough

Cc: Paul Henige
Subject: 32068

Hi Libby–

I have visited with our QA Officer and have the following comments about the DOD samples received on March 29, 2021:

-Samples were received in bottles that were not provided by Energy Laboratories.
-Preservatives used for preserving the samples were not provided by Energy Laboratories, therefore, no preservative traceability exists for these two samples.
-Client did not use Energy Laboratories Chain of Custody form.
-Samples are drinking water and although Energy Laboratories maintains certification for DRO in water, this does not apply to drinking water.
-Hydrocarbons ranges requested for the analyses are C8-C18 and C10-C25. These ranges can be calculated for the client but are not specifically the ranges for which Energy Laboratories is certified under DOD.

Please acknowledge the above items and let me know if you would like us to proceed with analysis based on the above comments.

Regards,

Energy Laboratories, Inc.
Trust our People. Trust our Data.

Shari Endy | Sr. Project Manager | Billings, MT
O: 406-869-6253| sendy@energylab.com | www.energylab.com

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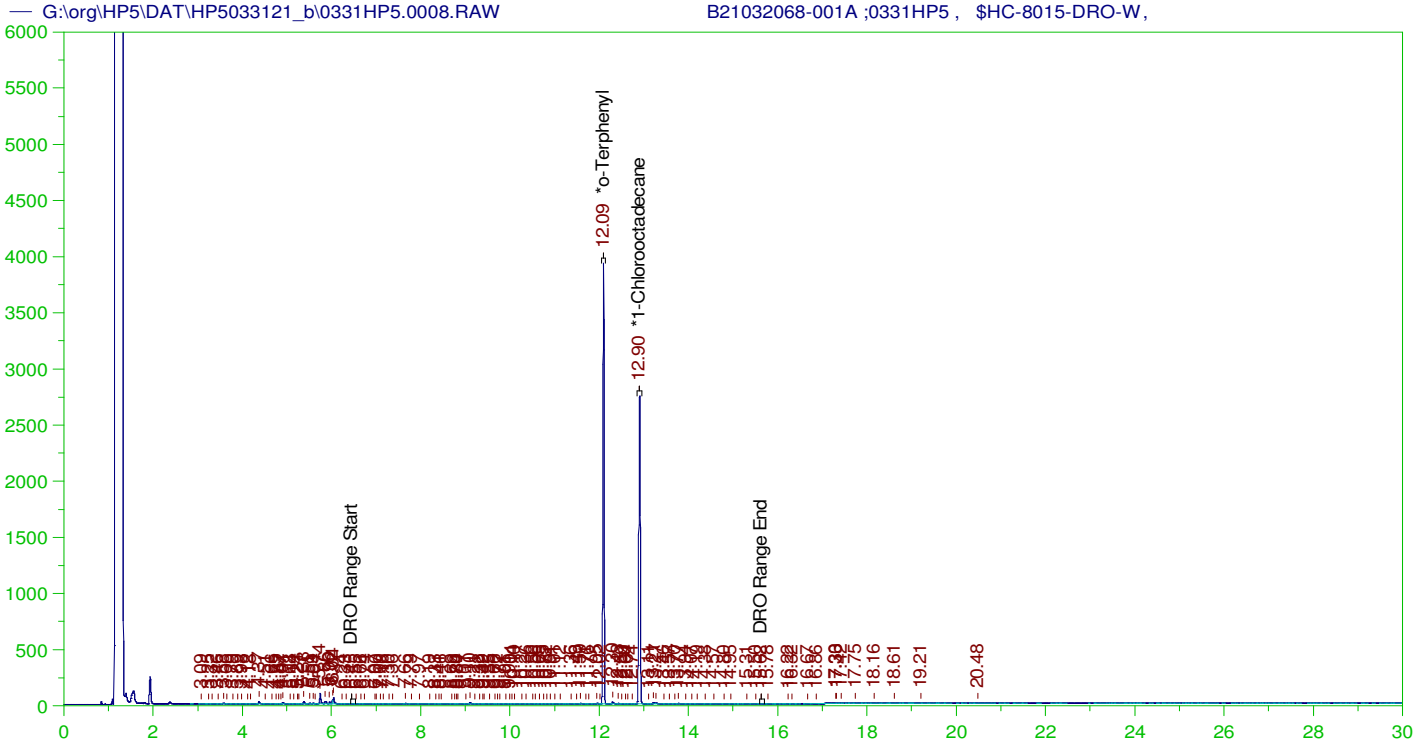
BA29552 ERH1294 Batch ID: 154020

G:\org\HP5\DAT\HP5033121_b\0331HP5.0008.RAW B21032068-001A ;0331HP5 , $HC-8015-DRO-W,



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B21032068-001A ;0331HP5 , $HC-8015-DRO-W,
Raw File: G:\org\HP5\DAT\HP5033121_b\0331HP5.0008.RAW
Date & Time Acquired: 3/31/2021 5:04:34 PM
Method File: G:\Org\HP5\Methods\DR_8015-HG-L%.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO210108HG.CAL
Sample Weight: 1040 Dilution: 1 S.A.: 1

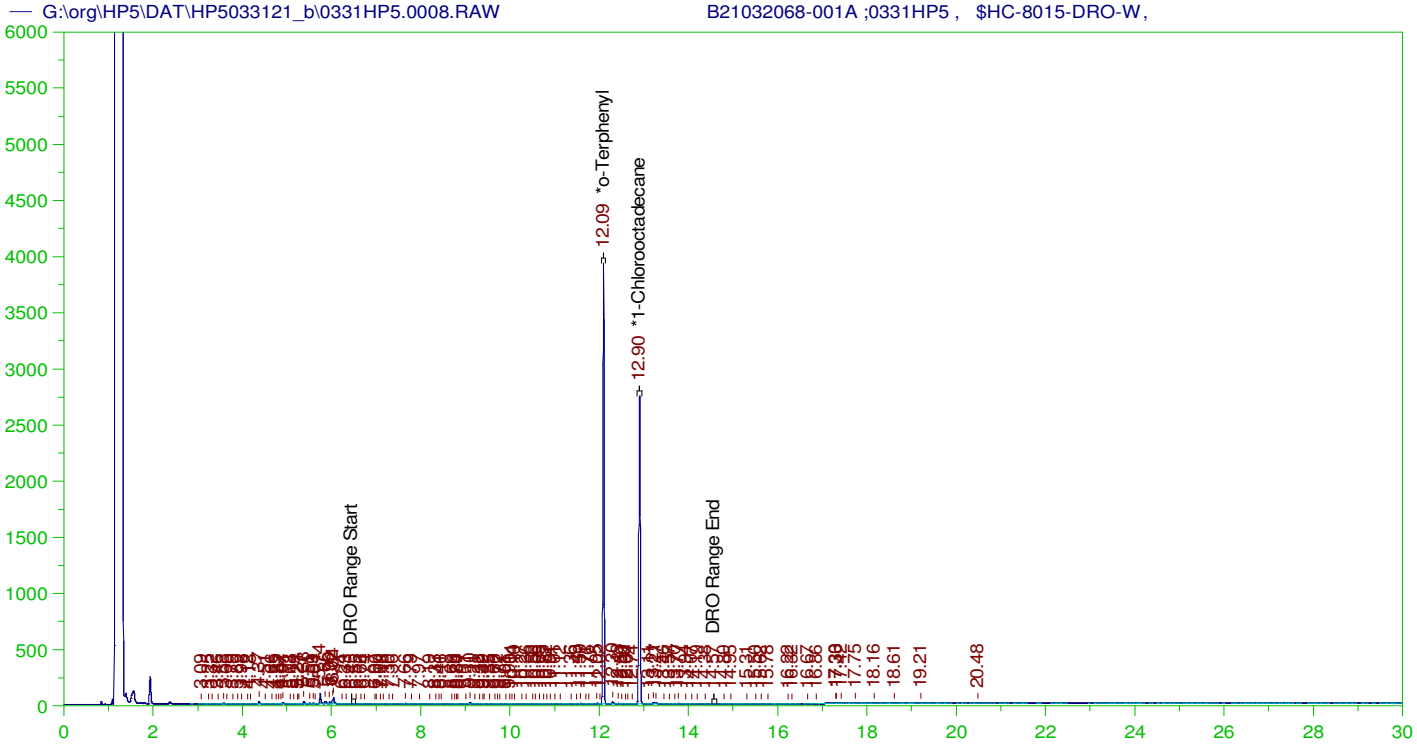
Mean RF for TEH: 29457.33
Rt range for Diesel Range Organics: 6.439 to 15.702

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.094	.192	.206	107.01	-
*1-Chlorooctadecane	12.901	.192	.162	84.3	-

DRO Area:563246.1 DRO Amount: 1.838533E-02
TEH Area:1378570 TEH Amount: 4.499892E-02

BA29552 ERH1294 Batch ID: 154020

G:\org\HP5\DAT\HP5033121_b\0331HP5.0008.RAW B21032068-001A ;0331HP5 , $HC-8015-DRO-W,



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

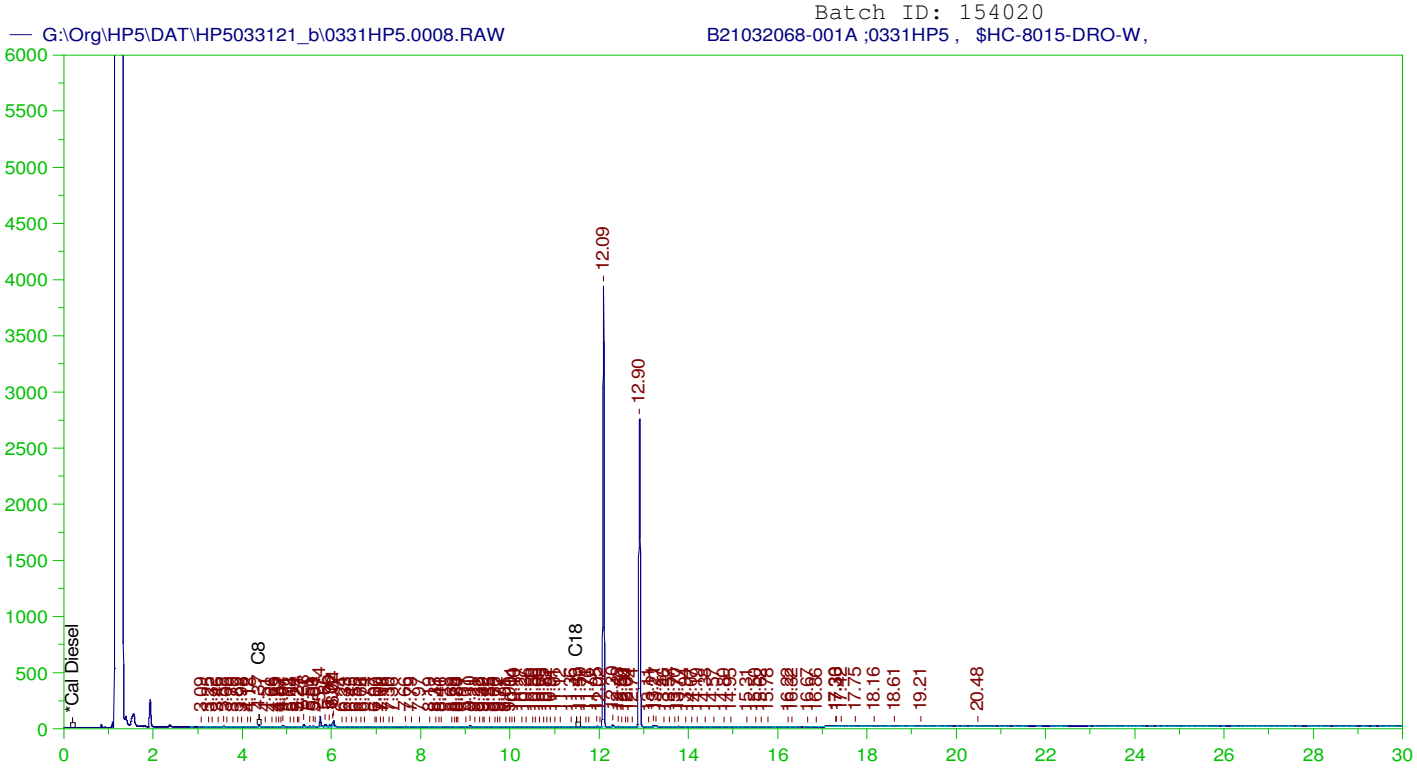
Sample Name: B21032068-001A ;0331HP5 , $HC-8015-DRO-W,
Raw File: G:\org\HP5\DAT\HP5033121_b\0331HP5.0008.RAW
Date & Time Acquired: 3/31/2021 5:04:34 PM
Method File: G:\Org\HP5\Methods\DR_C10-C25-HG-L%.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO210108-C10-C25-HG.CAL
Sample Weight: 1040 Dilution: 1 S.A.: 1

Mean RF for TEH: 29457.33
Rt range for Diesel Range Organics: 6.44 to 14.63

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.094	.192	.206	107.01	-
*1-Chlorooctadecane	12.901	.192	.162	84.3	-

(C10-C25) DRO Area:615766.9 (C10-C25) DRO Amount: 2.069672E-02
TEH Area:1378570 TEH Amount: 4.499892E-02

Batch ID: 154020



RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: B21032068-001A ;0331HP5 , $HC-8015-DRO-W,
Raw File: G:\Org\HP5\DAT\HP5033121_b\0331HP5.0008.RAW
Date & Time Acquired: 3/31/2021 5:04:34 PM
Method File: G:\Org\HP5\Methods\DR_C8-C18-HG-L%.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO210108-C8-C18-HGb.CAL
Sample Weight: 1040 Dilution: 1 S.A.: 1

Mean RF for for ~~Residual~~ TEH Range Organics Calculations: 29457.33
Rt range for ~~Residual~~ (C8-C18) Range Organics: 4.33 to 11.58

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC

~~RRO~~ (C8-C18) Area:1037235 ~~RRO~~ (C8-C18) AMOUNT: 3.385714E-02

AMN 04/01/2021

BA29553 ERH1295 Batch ID: 154020

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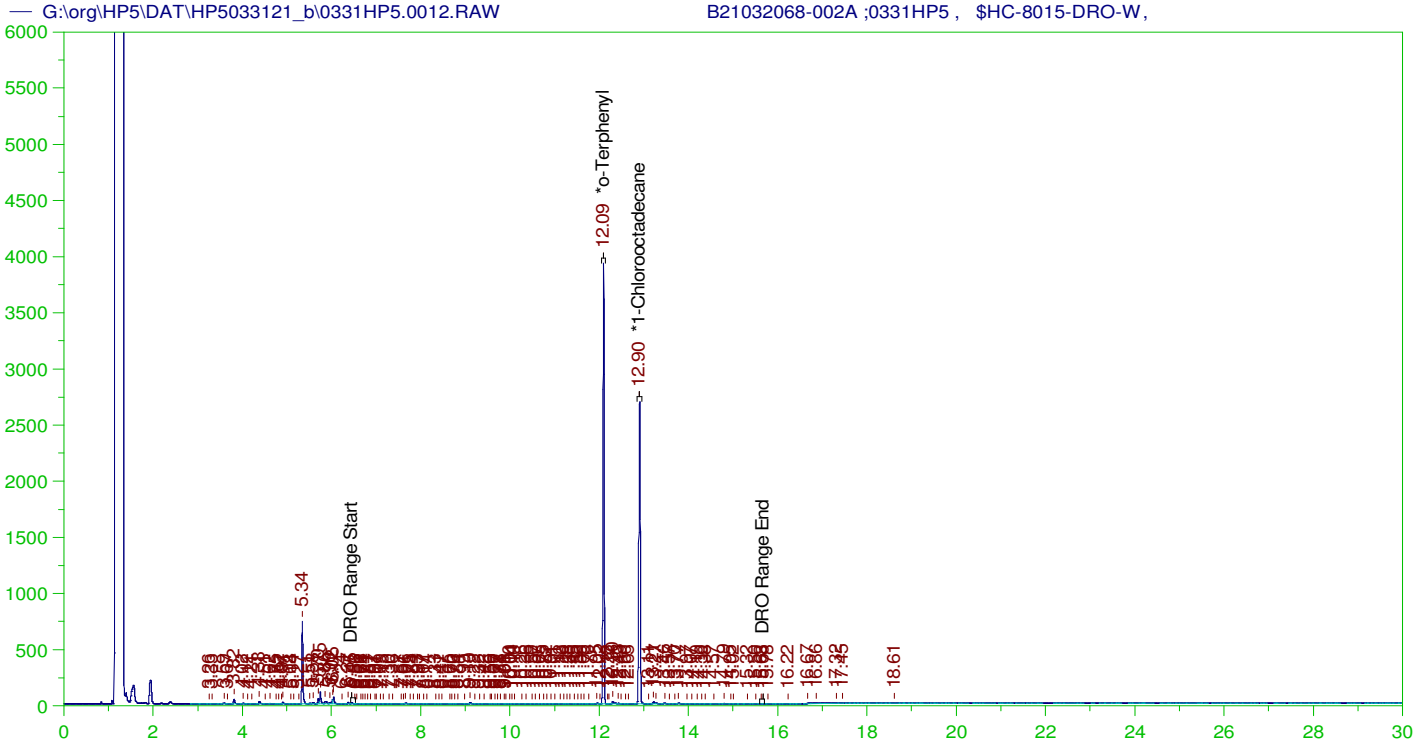


DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B21032068-002A ;0331HP5 , $HC-8015-DRO-W,
Raw File: G:\org\HP5\DAT\HP5033121_b\0331HP5.0012.RAW
Date & Time Acquired: 3/31/2021 7:52:27 PM
Method File: G:\Org\HP5\Methods\DR_8015-HG-L%.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO210108HG.CAL
Sample Weight: 1010 Dilution: 1 S.A.: 1

Mean RF for TEH: 29457.33
Rt range for Diesel Range Organics: 6.439 to 15.702

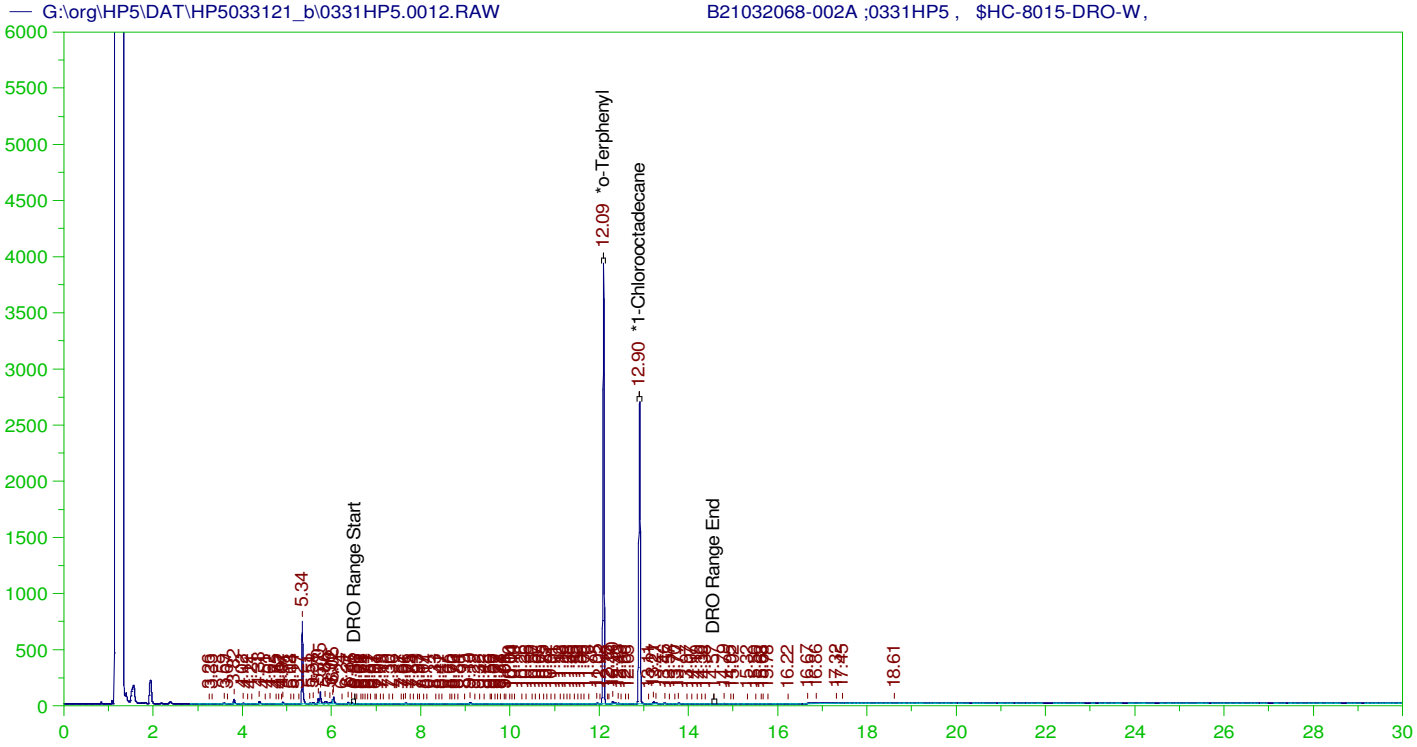
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.095	.198	.209	105.76	-
*1-Chlorooctadecane	12.901	.198	.162	81.94	-

DRO Area:634764.4 DRO Amount: 2.133525E-02
TEH Area:3019305 TEH Amount: 0.1014827

G:\org\HP5\dat\HP5033121_b\Review\012_B21032068-002A_DR_8015-HG-L%.xls

BA29553 ERH1295 Batch ID: 154020

G:\org\HP5\DAT\HP5033121_b\0331HP5.0012.RAW B21032068-002A ;0331HP5 , $HC-8015-DRO-W,



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

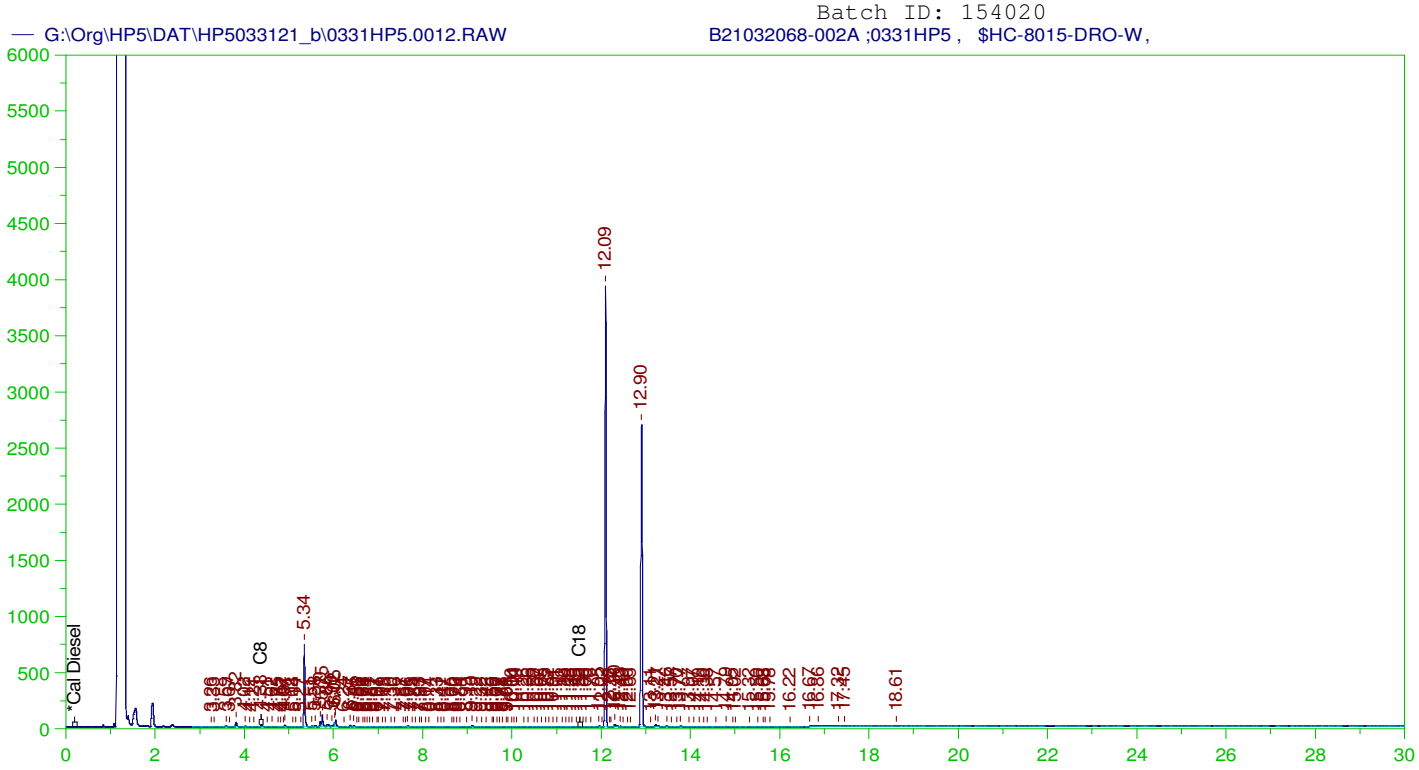
Sample Name: B21032068-002A ;0331HP5 , $HC-8015-DRO-W,
Raw File: G:\org\HP5\DAT\HP5033121_b\0331HP5.0012.RAW
Date & Time Acquired: 3/31/2021 7:52:27 PM
Method File: G:\Org\HP5\Methods\DR_C10-C25-HG-L%.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO210108-C10-C25-HG.CAL
Sample Weight: 1010 Dilution: 1 S.A.: 1

Mean RF for TEH: 29457.33
Rt range for Diesel Range Organics: 6.44 to 14.63

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.095	.198	.209	105.76	-
*1-Chlorooctadecane	12.901	.198	.162	81.94	-

(C10-C25) DRO Area:615766.9 (C10-C25) DRO Amount: 2.069672E-02
TEH Area:3019305 TEH Amount: 0.1014827

Batch ID: 154020



RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: B21032068-002A ;0331HP5 , $HC-8015-DRO-W,
Raw File: G:\Org\HP5\DAT\HP5033121_b\0331HP5.0012.RAW
Date & Time Acquired: 3/31/2021 7:52:27 PM
Method File: G:\Org\HP5\Methods\DR_C8-C18-HG-L%.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO210108-C8-C18-HGb.CAL
Sample Weight: 1010 Dilution: 1 S.A.: 1

Mean RF for for ~~Residual~~ TEH Range Organics Calculations: 29457.33
Rt range for ~~Residual~~ (C8-C18) Range Organics: 4.33 to 11.58

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC

~~RRO~~ (C8-C18) Area:1037235 ~~RRO~~ (C8-C18) AMOUNT: 3.385714E-02

AMN 04/01/2021

Energy Laboratories Inc

ANALYTICAL RUN Summary

12-Jan-21

Run ID GCFID-HP5-B_210108B

Run Start Date:	1/8/2021
Analyst:	Ann Nebel
Ical:	
Column ID:	
Comments:	NEW ICAL SW8015C_DRO210108HA.CAL

Std ID	Std Name	Std Amount	Std Units	Samp Amount	Samp Units	SampType	Expiration Date
DRO200917B	Diesel Fuel #2 50,000 ug/mL in DCM					CALS	12/31/2021
DRO201210A	#2 Diesel in Acetone 150,000 ug/mL					SECOND S	6/10/2021
DRO210105B	EPH (4) SURR-1000 ug/mL ea. in Hexane					SURRS	5/31/2022

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14154799	CCV_0108HP51	HC-8015-DRO-	CAL1		1/8/2021 2:21:25	1	R354713		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		0.1350772		0.15	0	0	0	0.3	50	90%	80	120	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14154800	CCV_0108HP51	HC-8015-DRO-	CAL2		1/8/2021 3:03:30	1	R354713		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		3.865478		3.75	0	0	0	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
14154801	CCV_0108HP51	HC-8015-DRO-	CAL3		1/8/2021 3:45:32	1	R354713		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		15.3786		15	0	0	0	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
14154802	CCV_0108HP51	HC-8015-DRO-	CAL4		1/8/2021 4:27:38	1	R354713		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		39.10215		37.5	0	0	0.0499	0.3	50	104%	80	120	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14154803	CCV_0108HP51	HC-8015-DRO-	CAL5		1/8/2021 5:09:49	1	R354713		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		50.03634		50	0	0	0.0499	0.3	50	100%	80	120	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14154804	CCV_0108HP50	HC-8015-DRO-	CAL1		1/8/2021 5:52:15	1	R354713		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
o-Terphenyl	S	mg/L		0.00201784		0.002	0	0	0	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
14154805	CCV_0108HP50	HC-8015-DRO-	CAL2		1/8/2021 6:34:45	1	R354713		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
o-Terphenyl	S	mg/L		0.04980491		0.05	0	0	0	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
14154806	CCV_0108HP50	HC-8015-DRO-	CAL3		1/8/2021 7:17:18	1	R354713		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
o-Terphenyl	S	mg/L		0.2027571		0.2	0	0	0	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
14154807	CCV_0108HP50	HC-8015-DRO-	CAL4		1/8/2021 7:59:52	1	R354713		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
o-Terphenyl	S	mg/L		0.4989882		0.5	0	0	0.000327	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
14154808	CCV_0108HP51	HC-8015-DRO-	CAL5		1/8/2021 8:42:33	1	R354713		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
o-Terphenyl	S	mg/L		0.9852039		1	0	0	0.000327	0.002	0	99%	80	120	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14154809	CCV_0108HP51	HC-8015-DRO-	ICV		1/8/2021 9:25:08	1	R354713		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		14.94195		15	0	0	0.0499	0.3	50	100%	80	120	0%	

Write Sequence	Insert Entries(Have the first cell for entries selecte							
Data File	Sample Name	Method	Weight	Dil Factor	Amt Inj.	IS	Cal ID
:\org\HP5\DAT\HP5010821_b\0108HP5.04r	CCV_0108HP504r, DRO ;0108HP5 , DRO201215A	G:\Org\HP5\Methods\DC_8015-HA-L%.met	1	1	1	1	0
:\org\HP5\DAT\HP5010821_b\0108HP5.05r	DCM-Baseline Check-V05	G:\Org\HP5\Methods\DR_8015-GX-LEXP.met	1	1	1	1	0
:\org\HP5\DAT\HP5010821_b\0108HP5.06r	CCV_0108HP511r, CAL1 ;0108HP5 , 150 ug per mL Diesel (20 uL of Cal3 + 980 uL DCM(13322), then 100 uL of that + 100 uL of DCM (13322))	G:\Org\HP5\Methods\DC_8015-HA-L%.met	1	1	1	1	0
:\org\HP5\DAT\HP5010821_b\0108HP5.07r	CCV_0108HP512r, CAL2 ;0108HP5 , 3750 ug per mL Diesel (100 uL Cal4 + 900 uL of DCM(13322)	G:\Org\HP5\Methods\DC_8015-HA-L%.met	1	1	1	1	0
:\org\HP5\DAT\HP5010821_b\0108HP5.08r	CCV_0108HP513r, CAL3 ;0108HP5 , 15000 ug per mL Diesel (300 uL of DRO20917B + 700 uL DCM(13322)	G:\Org\HP5\Methods\DC_8015-HA-L%.met	1	1	1	1	0
:\org\HP5\DAT\HP5010821_b\0108HP5.09r	CCV_0108HP514r, CAL4 ;0108HP5 , 37500ug per mL Diesel (750 uL of DRO20917B + 250 uL DCM(13322)	G:\Org\HP5\Methods\DC_8015-HA-L%.met	1	1	1	1	0
:\org\HP5\DAT\HP5010821_b\0108HP5.10r	CCV_0108HP515r, CAL5 ;0108HP5 , 50000 ug per mL Diesel (200 uL of DRO20917B)	G:\Org\HP5\Methods\DC_8015-HA-L%.met	1	1	1	1	0
:\org\HP5\DAT\HP5010821_b\0108HP5.11r	CCV_0108HP506r, CAL1 ;0108HP5 , 2 ug per mL OTP (10 uL of Cal3 + 990 uL DCM(13322)	G:\Org\HP5\Methods\DS_8015-HA-L#.met	1	1	1	1	0
:\org\HP5\DAT\HP5010821_b\0108HP5.12r	CCV_0108HP507r, CAL2 ;0108HP5 , 50 ug per mL OTP (100 uL Cal4 + 900 uL of DCM(13322)	G:\Org\HP5\Methods\DS_8015-HA-L#.met	1	1	1	1	0
:\org\HP5\DAT\HP5010821_b\0108HP5.13r	CCV_0108HP508r, CAL3 ;0108HP5 , 200 ug per mL OTP (100uL of Cal5 + 400 uL DCM(13322)	G:\Org\HP5\Methods\DS_8015-HA-L#.met	1	1	1	1	0
:\org\HP5\DAT\HP5010821_b\0108HP5.14r	CCV_0108HP509r, CAL4 ;0108HP5 , 500 ug per mL OTP (250uL of Cal5 + 250 uL DCM(13322)	G:\Org\HP5\Methods\DS_8015-HA-L#.met	1	1	1	1	0
:\org\HP5\DAT\HP5010821_b\0108HP5.15r	CCV_0108HP510r, CAL5 ;0108HP5 , 1000 ug per mL OTP (250 uL 4000 ug/mL OTP DRO210105B + 750 DCM(13322)	G:\Org\HP5\Methods\DS_8015-HA-L#.met	1	1	1	1	0
:\org\HP5\DAT\HP5010821_b\0108HP5.16r	CCV_0108HP516r, Second Source ;0108HP5 , 15000 ug per mL (100uL of DRO201210A + 900uL DCM(13322)	G:\Org\HP5\Methods\DC_8015-HA-L%.met	1	1	1	1	0

File Name: G:\Org\HP5\Cals\SW8015C_DRO210108HA.CAL
Version: 5

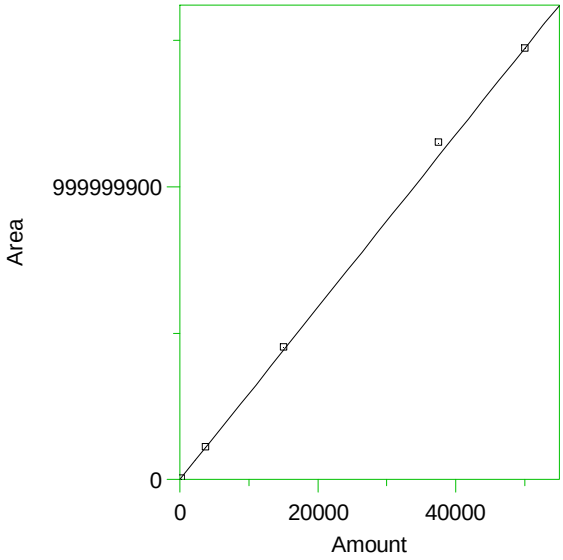
Creator: AMN 1/11/2021
Description: DRO-8015. New ICal Per 0108HP5 (2021)-2 uL Inj.; COD added using OTP RFs
Reason for change:

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:	6.82 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

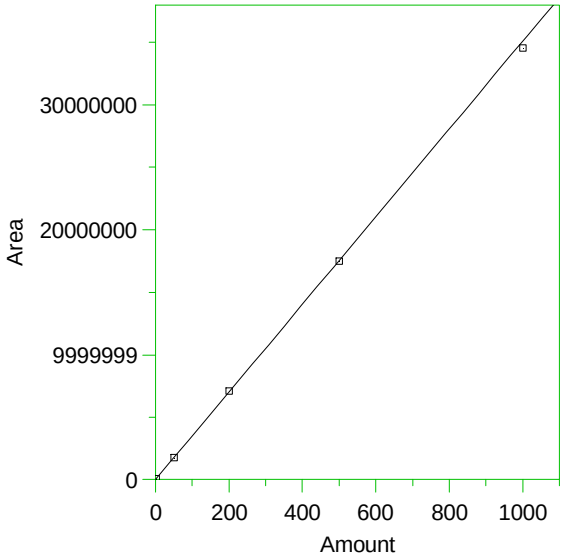
Y = 29457.33 X + 0

Average CF fit with equal weighting, forced to origin

Coefficient of determination:	0.9985872
Average error:	3.979%
Average CF:	29457.33
RSD:	5.768%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	150	3979014	26526.76	-9.949	Manual	1/11/2021 9:46:00 AM
2	3750	1.138667E+08	30364.46	3.079	Manual	1/11/2021 9:46:09 AM
3	15000	4.530125E+08	30200.83	2.524	Manual	1/11/2021 9:46:18 AM
4	37500	1.151845E+09	30715.87	4.272	Manual	1/11/2021 9:46:27 AM
5	50000	1.473937E+09	29478.74	0.073	Manual	1/11/2021 9:46:39 AM

2 *o-Terphenyl



Expected retention time:	12.57 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

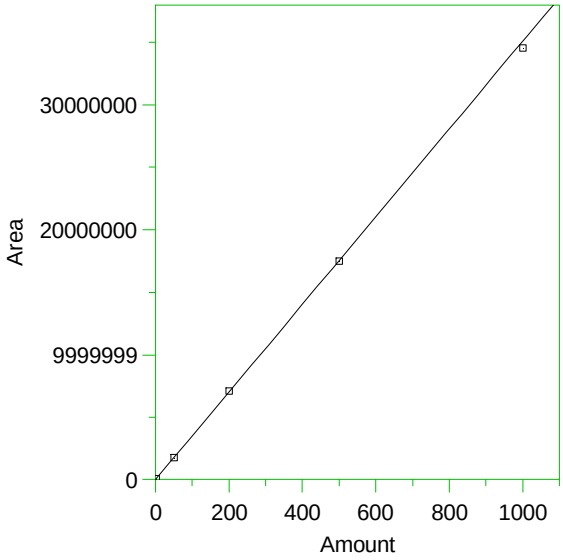
Y = 35071.26 X + 0

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:	13.36 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

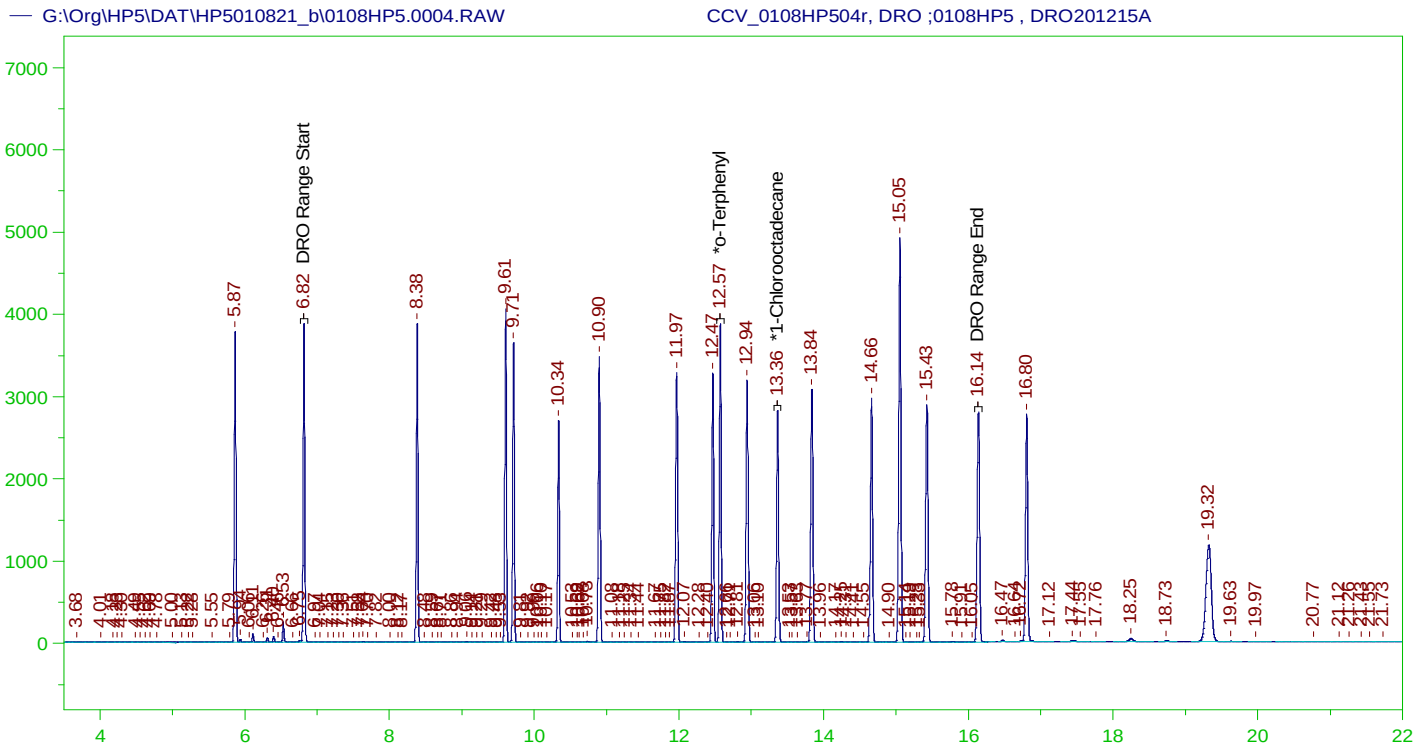
Single peak quantification by area

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



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT
Sample Name: CCV_0108HP504r, DRO ;0108HP5 , DRO201215A
Raw File: G:\Org\HP5\DAT\HP5010821_b\0108HP5.0004.RAW
Date & Time Acquired: 1/8/2021 12:47:29 PM
Method File: G:\Org\HP5\Methods\DC_8015-HA-L%.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO210108HA.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 29457.33
Rt range for Diesel Range Organics: 6.77 to 16.19

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.572	200.	197.718	98.86	-
*1-Chlorooctadecane	13.364	200.	156.111	78.06	-

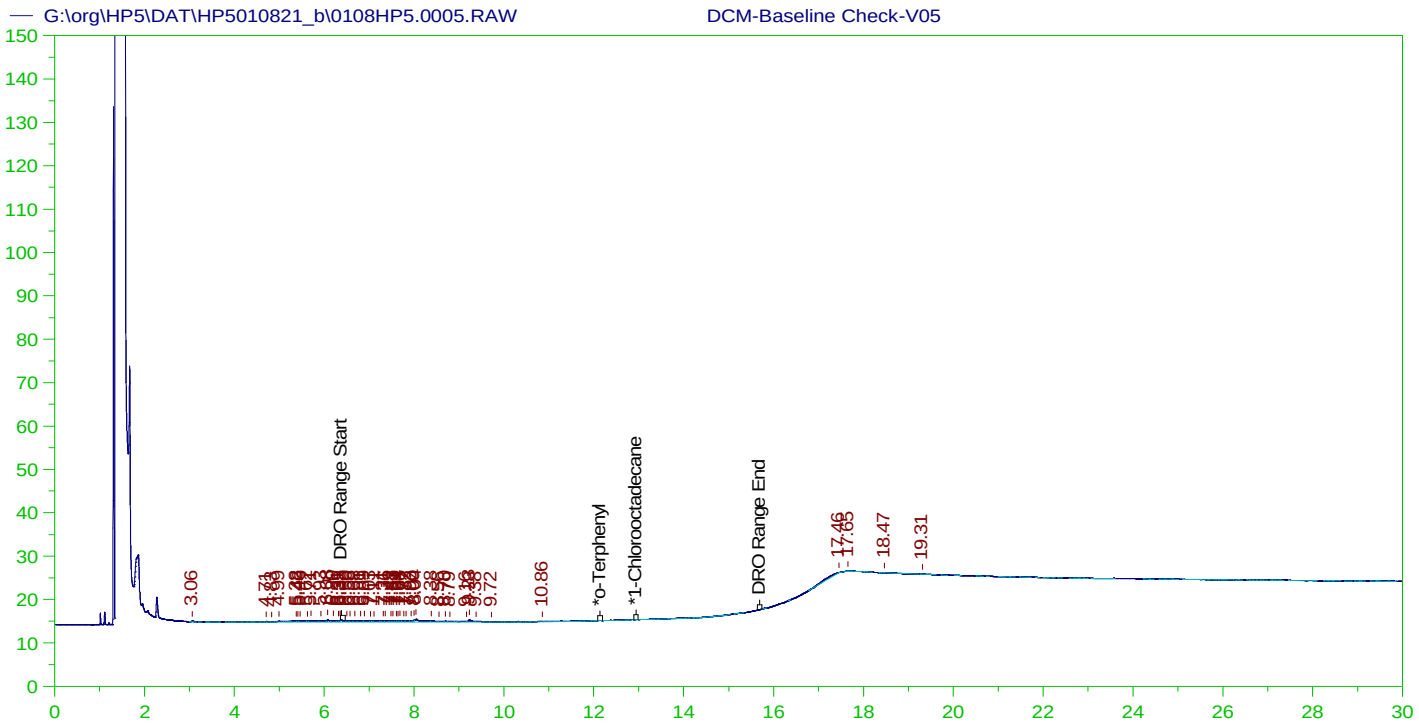
DRO Area:8.880706E+07 DRO Amount: 3014.77
TEH Area:1.082932E+08 TEH Amount: 3676.273

CONTINUING CALIBRATION REPORT: G:\Org\HP5\DAT\HP5010821_b\0108HP5.0004.RAW

COMPOUND	ACTUAL(NG)	MEASURED(NG)	%RECOVERY	LIMITS
TOTAL DRO	15000.	3676.27	24.51	85-115

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*o-Terphenyl	12.572	200.	197.718	98.86	85-115
*1-Chlorooctadecane	13.364	200.	156.111	78.06	85-115

G:\org\HP5\dat\HP5010821_b\Review\004_CCV_0108HP504r_DC_8015-HA-L%.xls

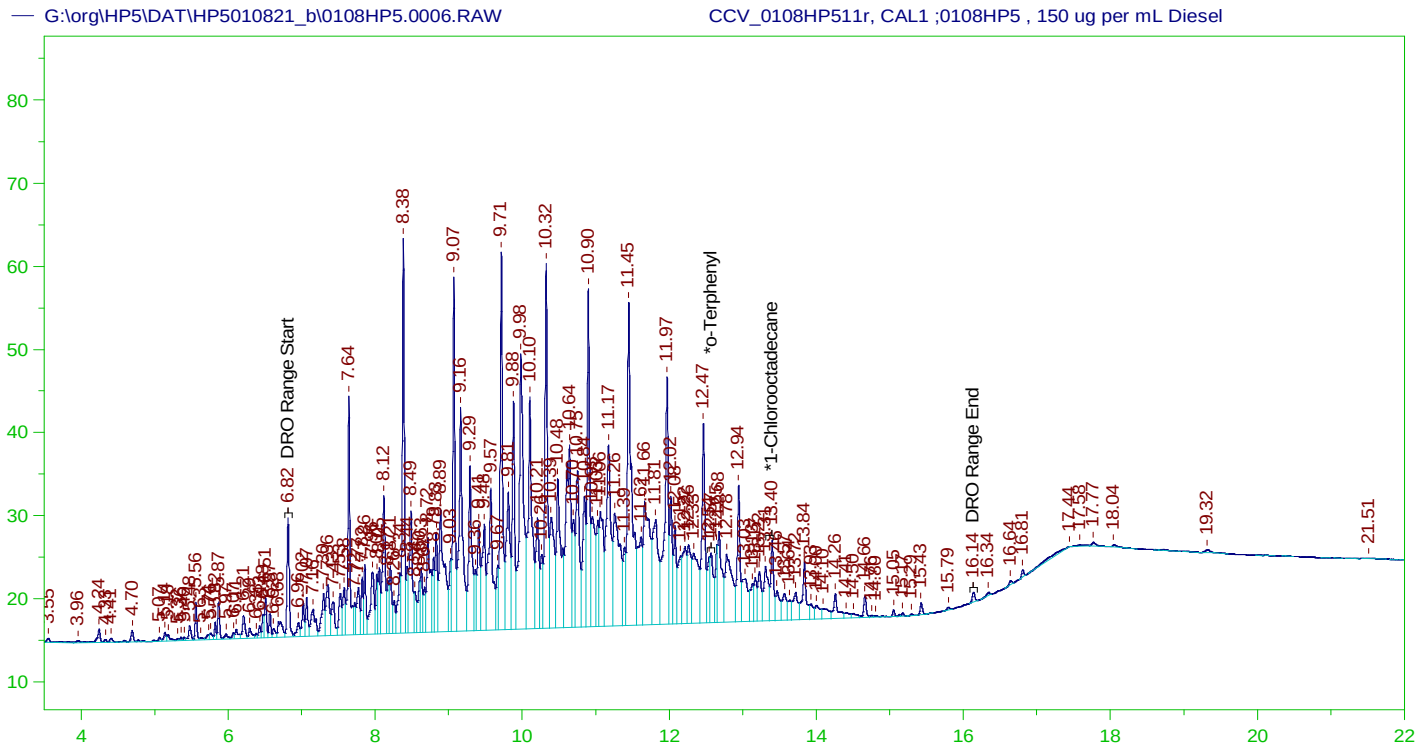


DIESEL RANGE ORGANICS CHROMATOGRAM REPORT
Sample Name: DCM-Baseline Check-V05
Raw File: G:\org\HP5\DAT\HP5010821_b\0108HP5.0005.RAW
Date & Time Acquired: 1/8/2021 1:29:38 PM
Method File: G:\Org\HP5\Methods\DR_8015-GX-LEXP.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO200123GX.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 28963.21
Rt range for Diesel Range Organics: 6.36 to 15.74

SURROGATE COMPOUND	RT	ACTUAL	MEASURED		%REC
*o-Terphenyl	29.787	200.	.	.	-
*1-Chlorooctadecane	29.787	200.	.	.	-

DRO Area:48911.73 DRO Amount: 1.688754
TEH Area:90991.55 TEH Amount: 3.141625



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT
Sample Name: CCV_0108HP511r, CAL1 ;0108HP5 , 150 ug per mL Diesel
Raw File: G:\org\HP5\DAT\HP5010821_b\0108HP5.0006.RAW
Date & Time Acquired: 1/8/2021 2:21:25 PM
Method File: G:\Org\HP5\Methods\DC_8015-HA-L%.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO210108HA.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 29457.33
Rt range for Diesel Range Organics: 6.77 to 16.19

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.568	200.	.738	.37	-
*1-Chlorooctadecane	13.399	200.	.796	.4	-

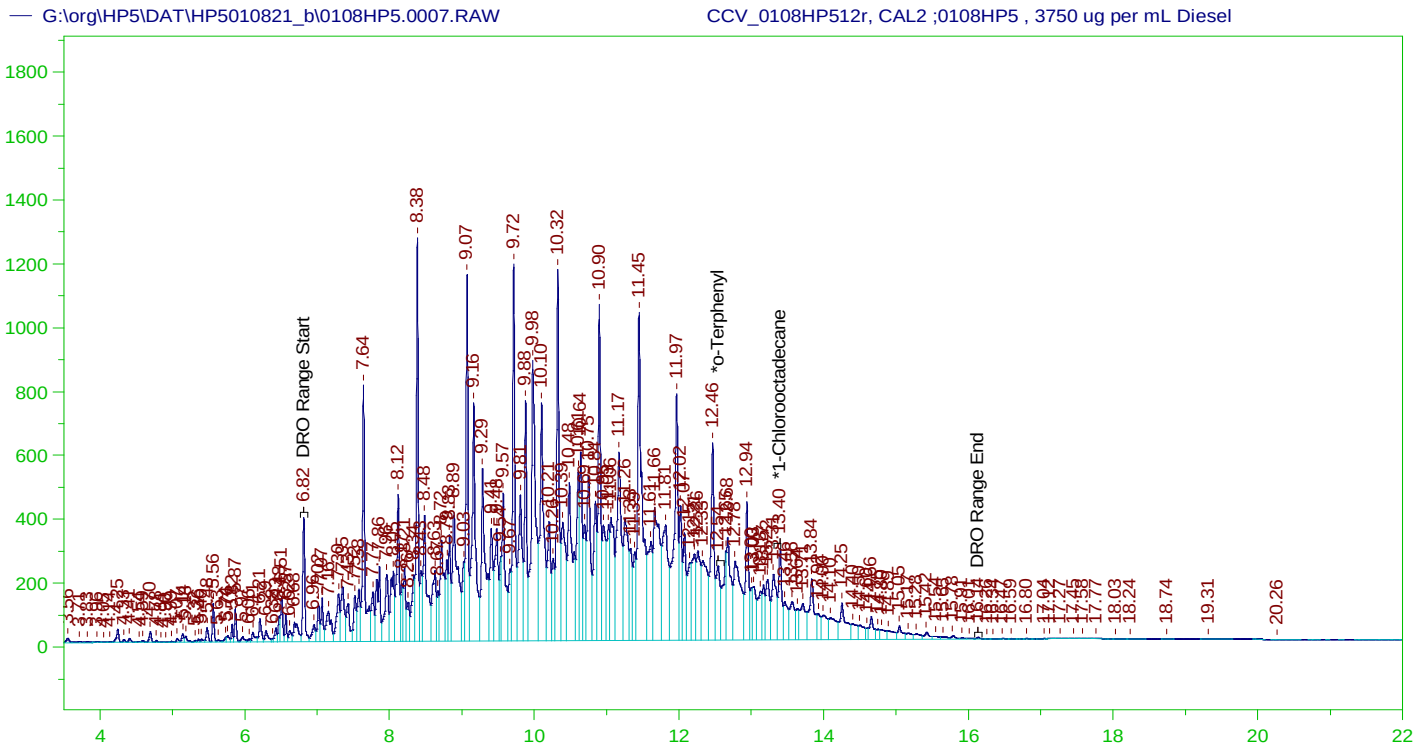
DRO Area:3854036 DRO Amount: 130.8345
TEH Area:3979014 TEH Amount: 135.0772

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5010821_b\0108HP5.0006.RAW

COMPOUND	ACTUAL(NG)	MEASURED(NG)	%RECOVERY	LIMITS
TOTAL DRO	15000.	135.08	.9	85-115

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*o-Terphenyl	12.568	200.	.738	.37	85-115
*1-Chlorooctadecane	13.399	200.	.796	.4	85-115

G:\org\HP5\dat\HP5010821_b\Review\006_CCV_0108HP511r_DC_8015-HA-L%.xls



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT
Sample Name: CCV_0108HP512r, CAL2 ;0108HP5 , 3750 ug per mL Diesel
Raw File: G:\org\HP5\DAT\HP5010821_b\0108HP5.0007.RAW
Date & Time Acquired: 1/8/2021 3:03:30 PM
Method File: G:\Org\HP5\Methods\DC_8015-HA-L%.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO210108HA.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 29457.33
Rt range for Diesel Range Organics: 6.77 to 16.19

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.54	200.	26.506	13.25	-
*1-Chlorooctadecane	13.397	200.	24.988	12.49	-

DRO Area:1.111179E+08 DRO Amount: 3772.164
TEH Area:1.138667E+08 TEH Amount: 3865.478

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5010821_b\0108HP5.0007.RAW

COMPOUND	ACTUAL(NG)	MEASURED(NG)	%RECOVERY	LIMITS
TOTAL DRO	15000.	3865.48	25.77	85-115

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*o-Terphenyl	12.54	200.	26.506	13.25	85-115
*1-Chlorooctadecane	13.397	200.	24.988	12.49	85-115

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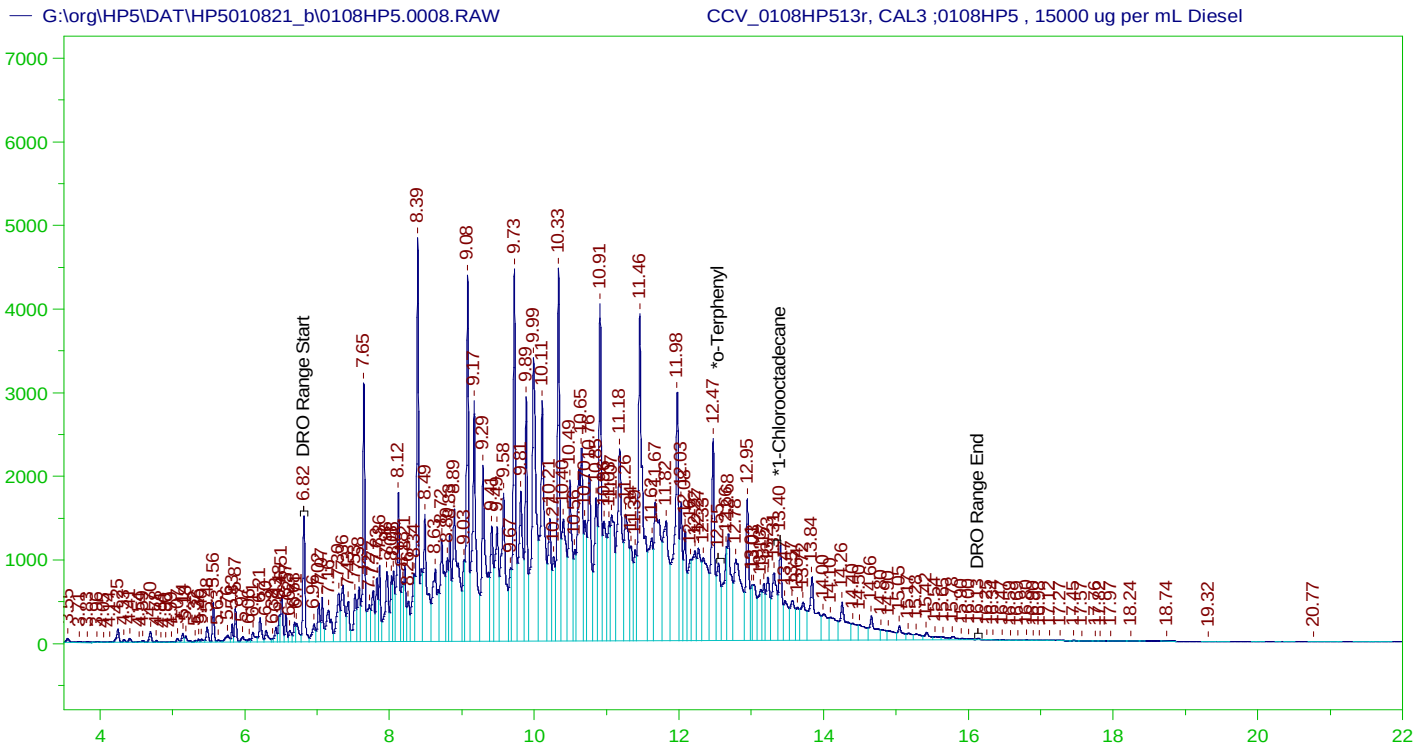


DIESEL RANGE ORGANICS CHROMATOGRAM REPORT
Sample Name: CCV_0108HP513r, CAL3 ;0108HP5 , 15000 ug per mL Diesel
Raw File: G:\org\HP5\DAT\HP5010821_b\0108HP5.0008.RAW
Date & Time Acquired: 1/8/2021 3:45:32 PM
Method File: G:\Org\HP5\Methods\DC_8015-HA-L%.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO210108HA.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 29457.33
Rt range for Diesel Range Organics: 6.77 to 16.19

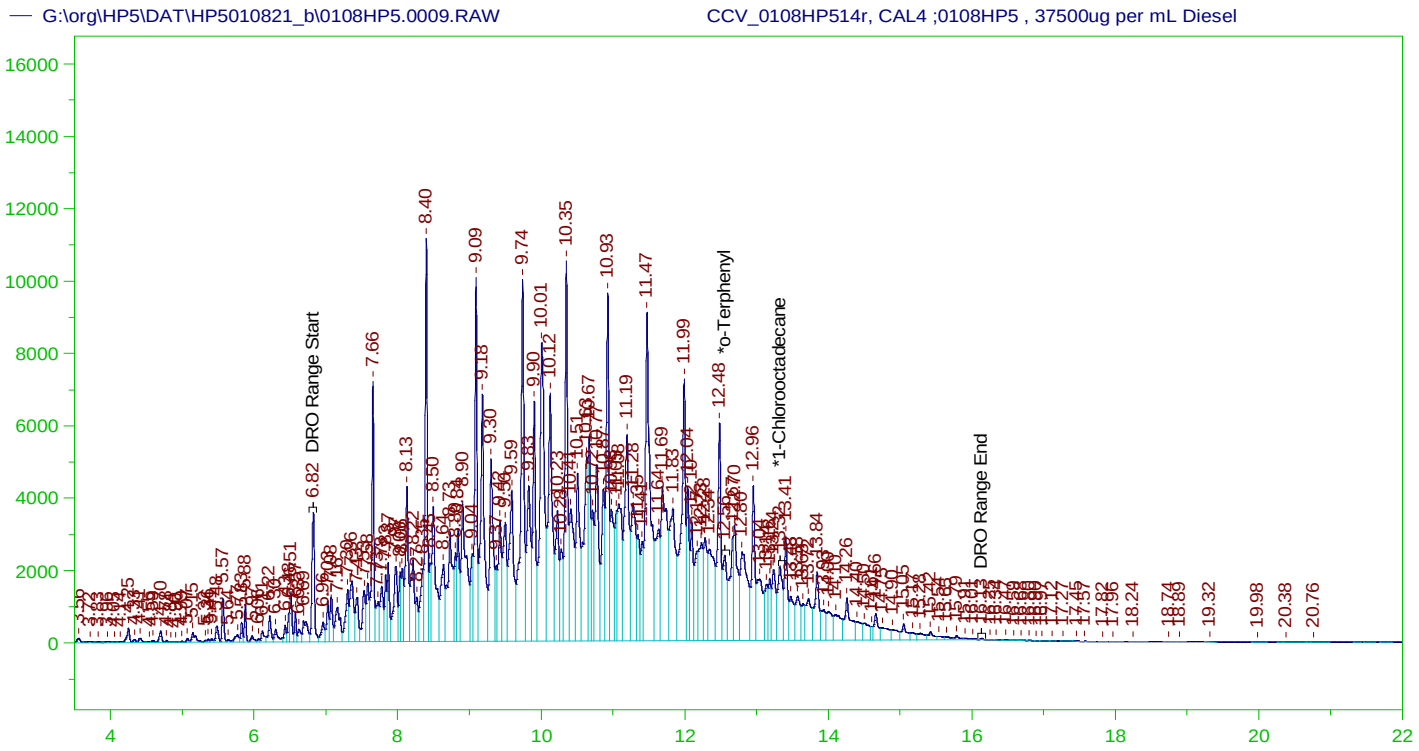
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.545	200.	101.663	50.83	-
*1-Chlorooctadecane	13.401	200.	99.24	49.62	-

DRO Area:4.420163E+08 DRO Amount: 15005.31
TEH Area:4.530125E+08 TEH Amount: 15378.6

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5010821_b\0108HP5.0008.RAW

COMPOUND	ACTUAL(NG)	MEASURED(NG)	%RECOVERY	LIMITS
TOTAL DRO	15000.	15378.6	102.52	85-115

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*o-Terphenyl	12.545	200.	101.663	50.83	85-115
*1-Chlorooctadecane	13.401	200.	99.24	49.62	85-115



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT
Sample Name: CCV_0108HP514r, CAL4 ;0108HP5 , 37500ug per mL Diesel
Raw File: G:\org\HP5\DAT\HP5010821_b\0108HP5.0009.RAW
Date & Time Acquired: 1/8/2021 4:27:38 PM
Method File: G:\Org\HP5\Methods\DC_8015-HA-L%.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO210108HA.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 29457.33
Rt range for Diesel Range Organics: 6.77 to 16.19

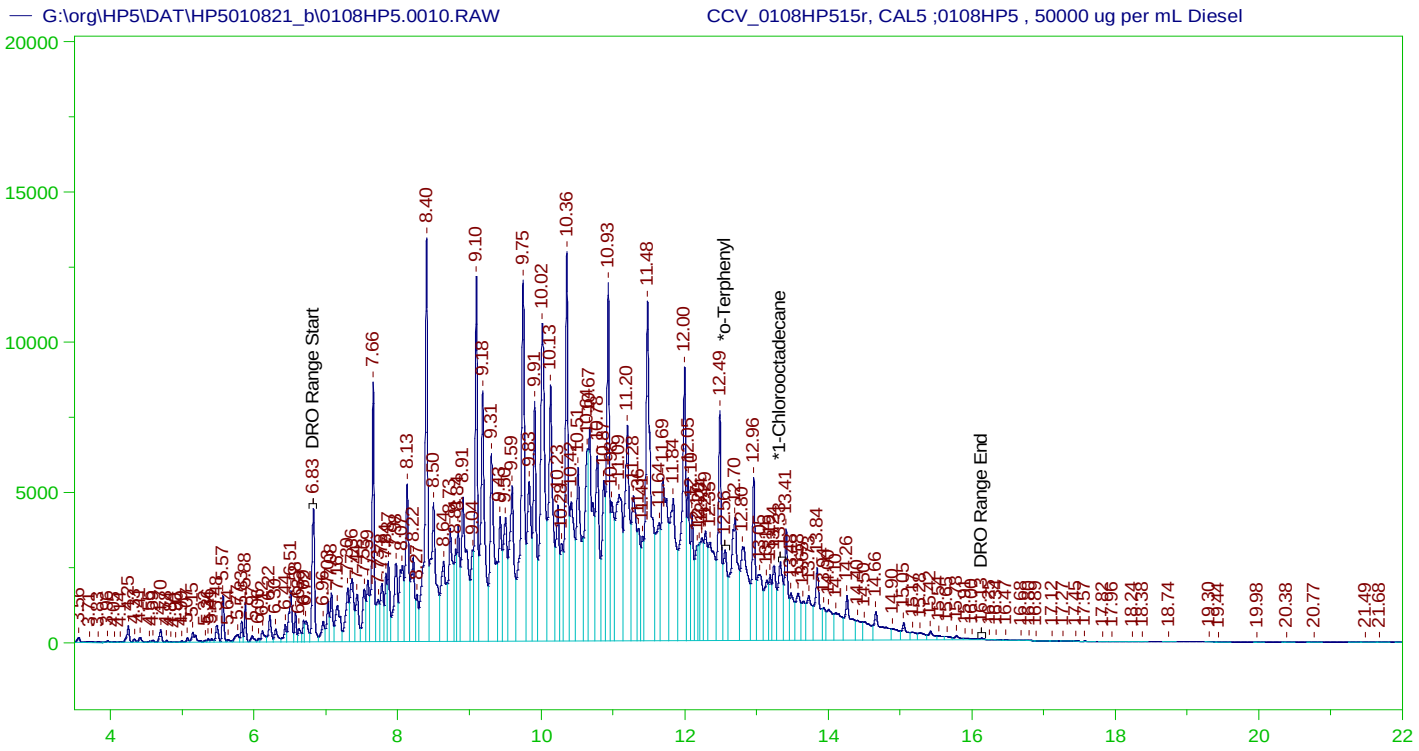
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.557	200.	266.864	133.43	-
*1-Chlorooctadecane	13.324	200.	269.818	134.91	-

DRO Area:1.1239E+09 DRO Amount: 38153.5
TEH Area:1.151845E+09 TEH Amount: 39102.15

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5010821_b\0108HP5.0009.RAW

COMPOUND	ACTUAL(NG)	MEASURED(NG)	%RECOVERY	LIMITS
TOTAL DRO	15000.	39102.15	260.68	85-115

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*o-Terphenyl	12.557	200.	266.864	133.43	85-115
*1-Chlorooctadecane	13.324	200.	269.818	134.91	85-115



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT
Sample Name: CCV_0108HP515r, CAL5 ;0108HP5 , 50000 ug per mL Diesel
Raw File: G:\org\HP5\DAT\HP5010821_b\0108HP5.0010.RAW
Date & Time Acquired: 1/8/2021 5:09:49 PM
Method File: G:\Org\HP5\Methods\DC_8015-HA-L%.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO210108HA.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 29457.33
Rt range for Diesel Range Organics: 6.77 to 16.19

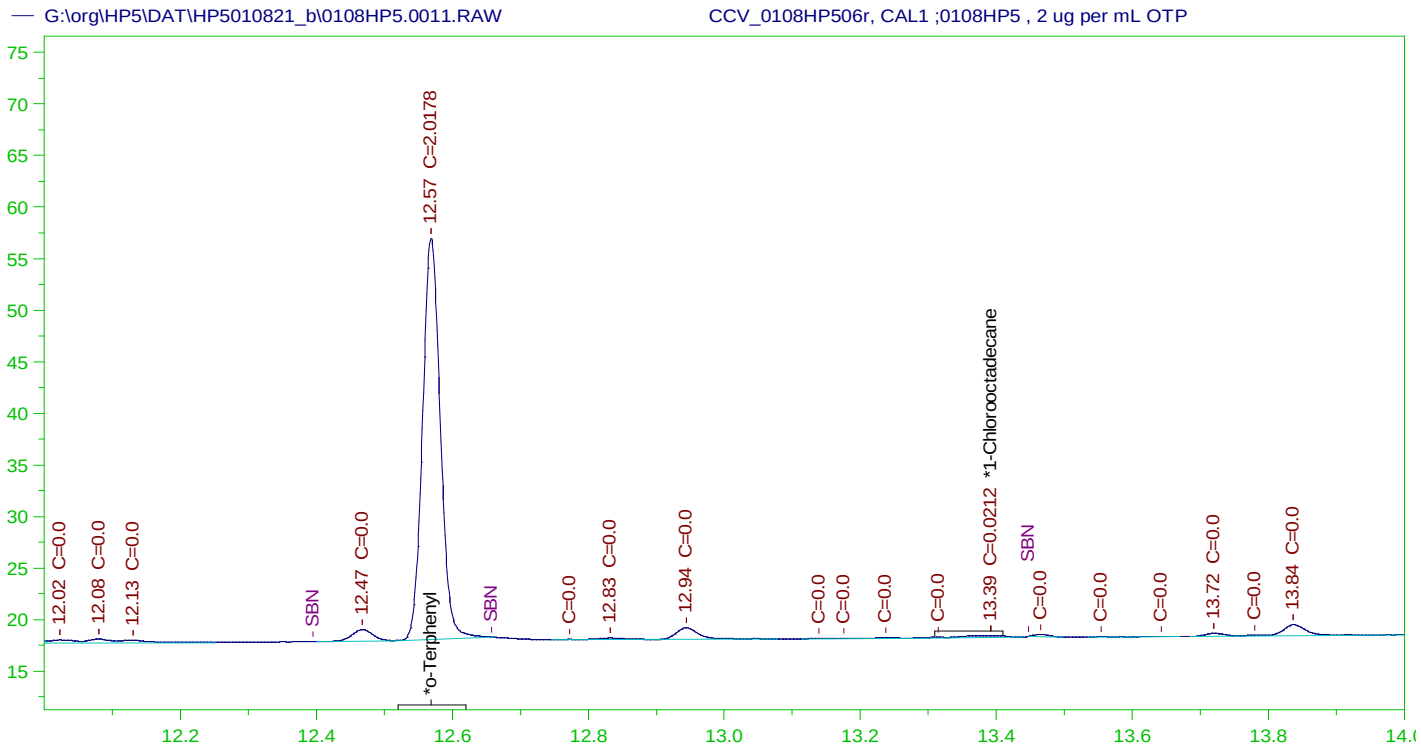
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.561	200.	341.952	170.98	-
*1-Chlorooctadecane	13.329	200.	347.521	173.76	-

DRO Area:1.438162E+09 DRO Amount: 48821.87
TEH Area:1.473937E+09 TEH Amount: 50036.34

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5010821_b\0108HP5.0010.RAW

COMPOUND	ACTUAL(NG)	MEASURED(NG)	%RECOVERY	LIMITS
TOTAL DRO	15000.	50036.34	333.58	85-115

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*o-Terphenyl	12.561	200.	341.952	170.98	85-115
*1-Chlorooctadecane	13.329	200.	347.521	173.76	85-115



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT
Sample Name: CCV_0108HP506r, CAL1 ;0108HP5 , 2 ug per mL OTP
Raw File: G:\org\HP5\DAT\HP5010821_b\0108HP5.0011.RAW
Date & Time Acquired: 1/8/2021 5:52:15 PM
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Calibration File: G:\Org\HP5\Cals\SW8015C_DRO210108HA.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 29457.33
Rt range for Diesel Range Organics: 6.77 to 16.19

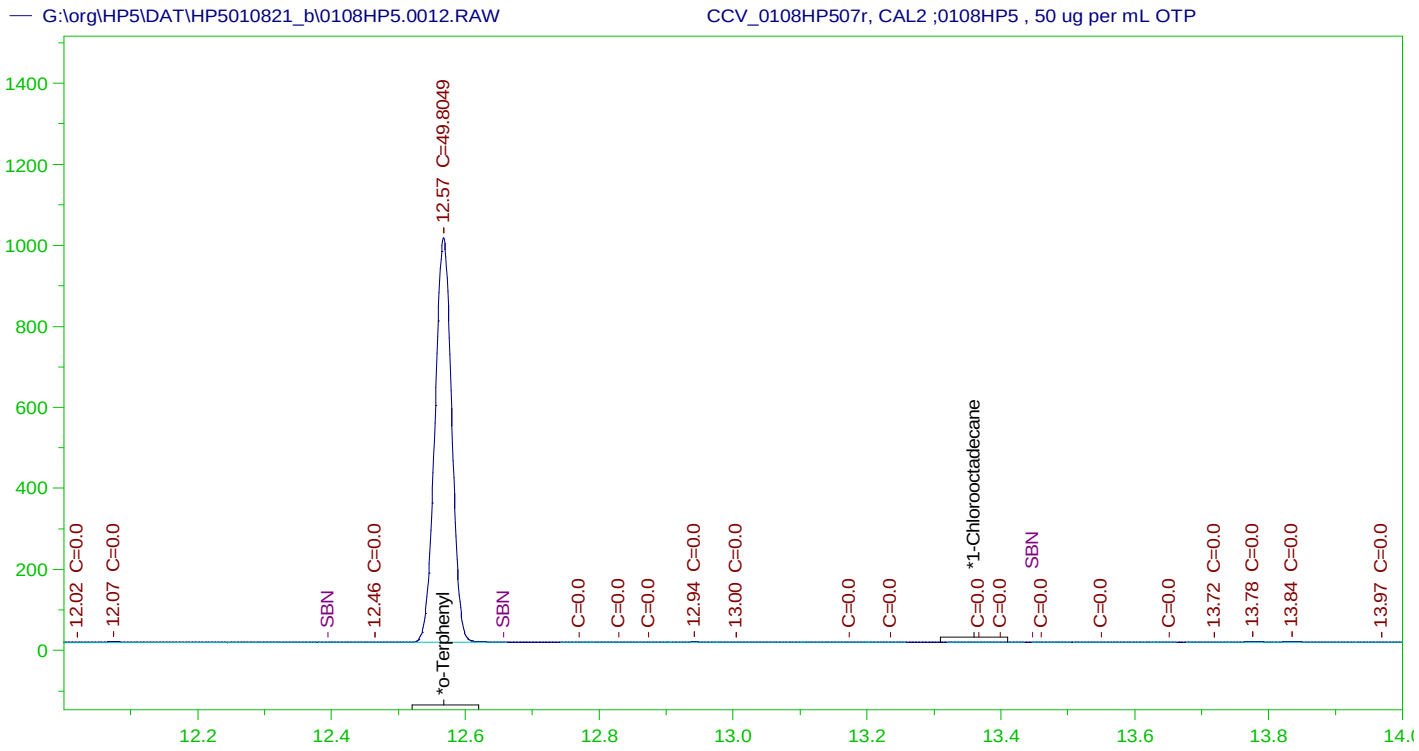
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.569	200.	2.018	1.01	-
*1-Chlorooctadecane	13.392	200.	.021	.01	-

DRO Area:153898.5 DRO Amount: 5.224453
TEH Area:367701.2 TEH Amount: 12.4825

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5010821_b\0108HP5.0011.RAW

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

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*o-Terphenyl	12.569	200.	2.018	1.01	85-115
*1-Chlorooctadecane	13.392	200.	.021	.01	85-115



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT
Sample Name: CCV_0108HP507r, CAL2 ;0108HP5 , 50 ug per mL OTP
Raw File: G:\org\HP5\DAT\HP5010821_b\0108HP5.0012.RAW
Date & Time Acquired: 1/8/2021 6:34:45 PM
Method File: G:\Org\HP5\Methods\DS_8015-HA-L#.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO210108HA.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 29457.33
Rt range for Diesel Range Organics: 6.77 to 16.19

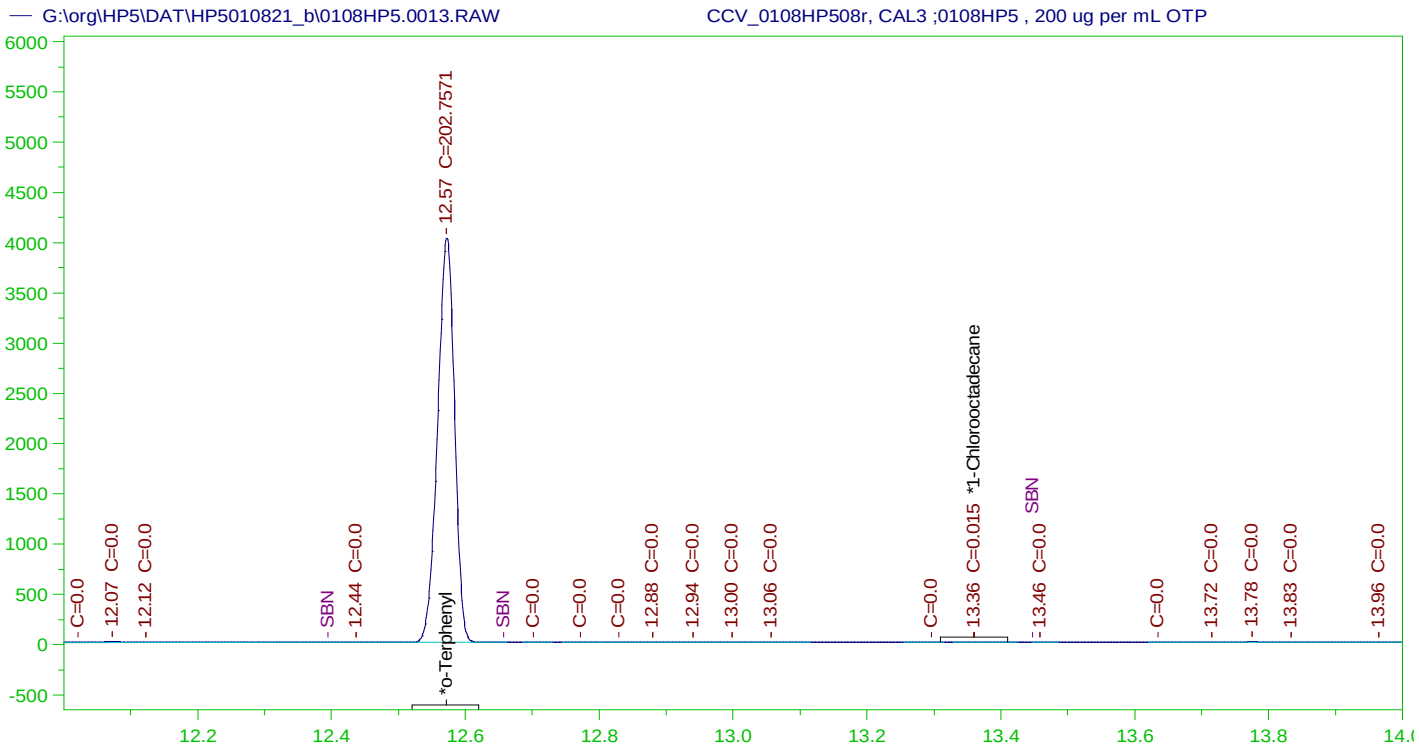
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.567	200.	49.805	24.9	-
*1-Chlorooctadecane	15.793	200.	.	.	-

DRO Area:198540.3 DRO Amount: 6.739929
TEH Area:443484.3 TEH Amount: 15.05514

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5010821_b\0108HP5.0012.RAW

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

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*o-Terphenyl	12.567	200.	49.805	24.9	85-115
*1-Chlorooctadecane	15.793	200.	.	.	85-115



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT
Sample Name: CCV_0108HP508r, CAL3 ;0108HP5 , 200 ug per mL OTP
Raw File: G:\org\HP5\DAT\HP5010821_b\0108HP5.0013.RAW
Date & Time Acquired: 1/8/2021 7:17:18 PM
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Calibration File: G:\Org\HP5\Cals\SW8015C_DRO210108HA.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 29457.33
Rt range for Diesel Range Organics: 6.77 to 16.19

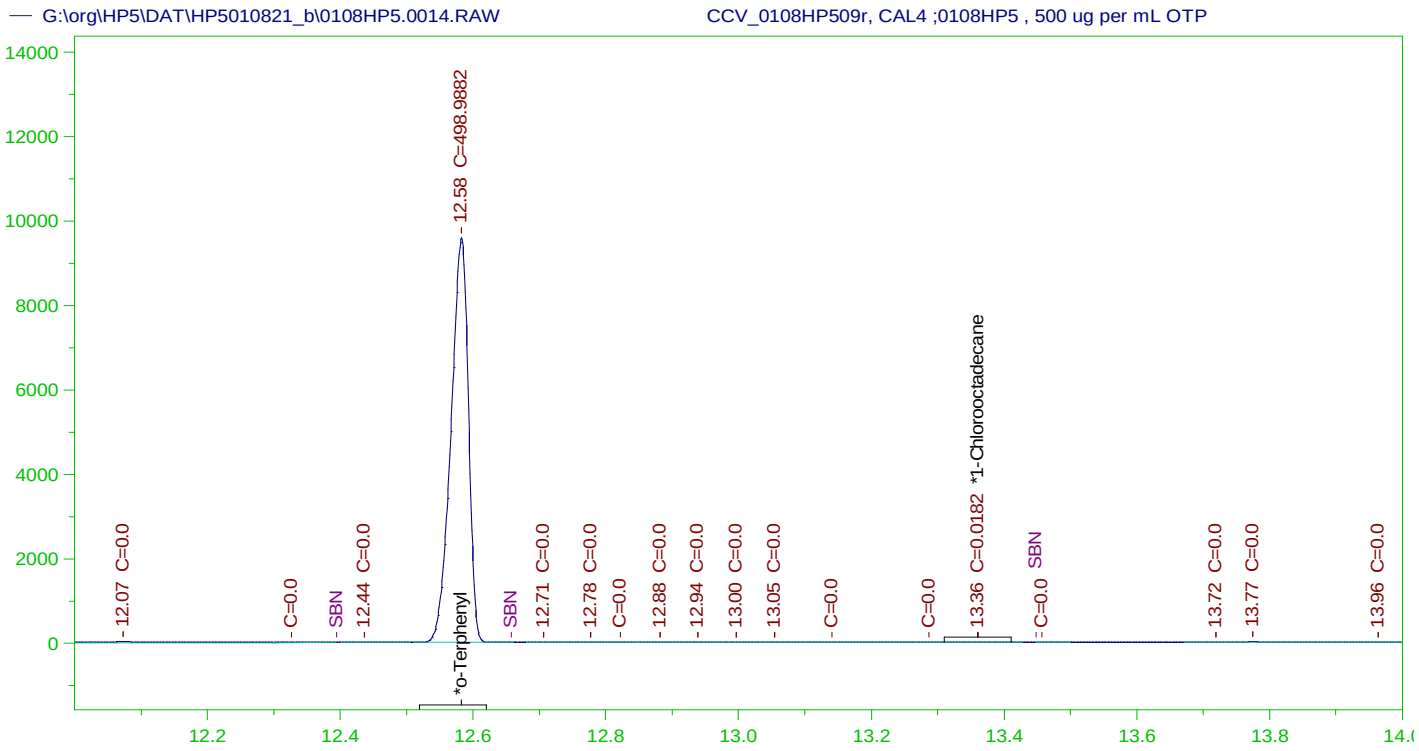
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.572	200.	202.757	101.38	-
*1-Chlorooctadecane	13.36	200.	.015	.01	-

DRO Area:425468.4 DRO Amount: 14.44355
TEH Area:809202.7 TEH Amount: 27.47033

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5010821_b\0108HP5.0013.RAW

COMPOUND	ACTUAL(NG)	MEASURED(NG)	%RECOVERY	LIMITS
TOTAL DRO	15000.	27.47	.18	85-115

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*o-Terphenyl	12.572	200.	202.757	101.38	85-115
*1-Chlorooctadecane	13.36	200.	.015	.01	85-115



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT
Sample Name: CCV_0108HP509r, CAL4 ;0108HP5 , 500 ug per mL OTP
Raw File: G:\org\HP5\DAT\HP5010821_b\0108HP5.0014.RAW
Date & Time Acquired: 1/8/2021 7:59:52 PM
Method File: G:\Org\HP5\Methods\DS_8015-HA-L#.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO210108HA.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 29457.33
Rt range for Diesel Range Organics: 6.77 to 16.19

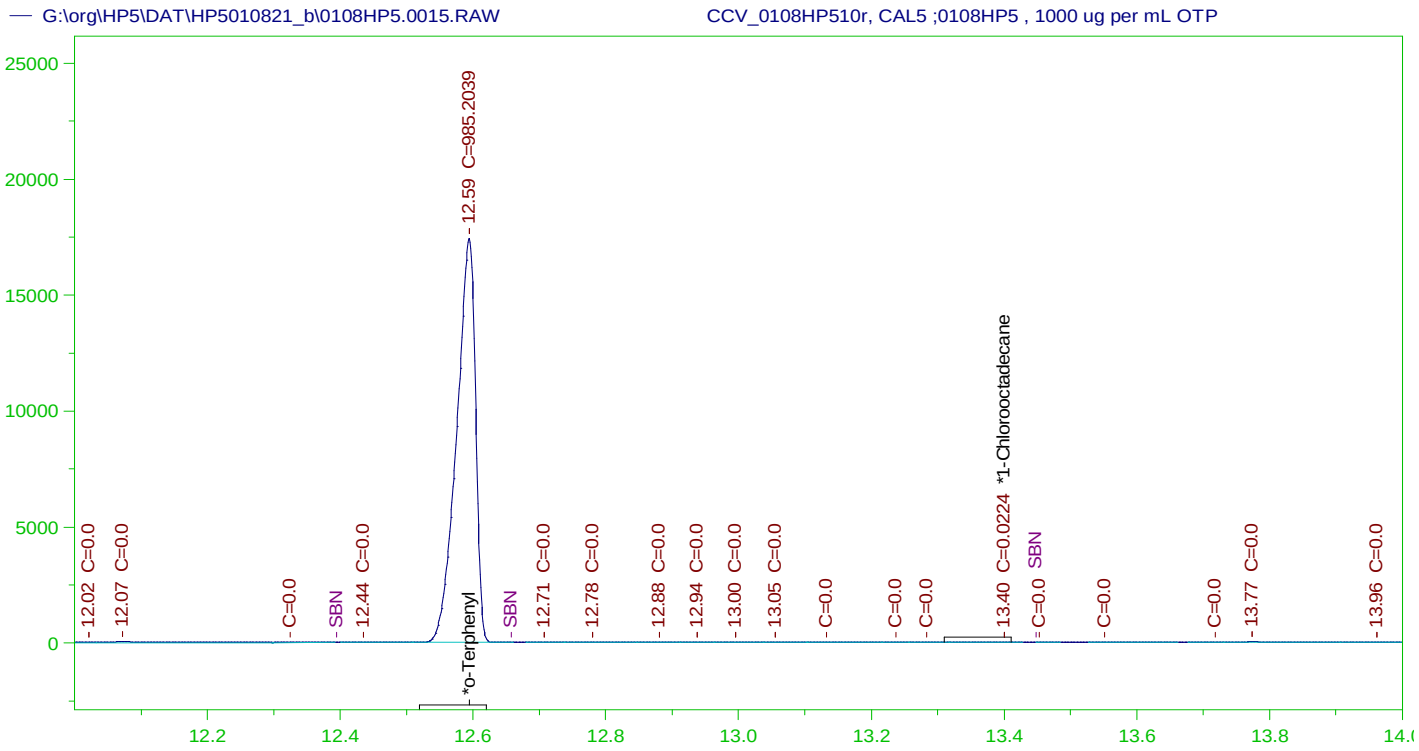
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.583	200.	498.988	249.49	-
*1-Chlorooctadecane	13.361	200.	.018	.01	-

DRO Area:651862.6 DRO Amount: 22.12904
TEH Area:1164840 TEH Amount: 39.5433

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5010821_b\0108HP5.0014.RAW

COMPOUND	ACTUAL(NG)	MEASURED(NG)	%RECOVERY	LIMITS
TOTAL DRO	15000.	39.54	.26	85-115

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*o-Terphenyl	12.583	200.	498.988	249.49	85-115
*1-Chlorooctadecane	13.361	200.	.018	.01	85-115



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT
Sample Name: CCV_0108HP510r, CAL5 ;0108HP5 , 1000 ug per mL OTP
Raw File: G:\org\HP5\DAT\HP5010821_b\0108HP5.0015.RAW
Date & Time Acquired: 1/8/2021 8:42:33 PM
Method File: G:\Org\HP5\Methods\DS_8015-HA-L#.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO210108HA.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 29457.33
Rt range for Diesel Range Organics: 6.77 to 16.19

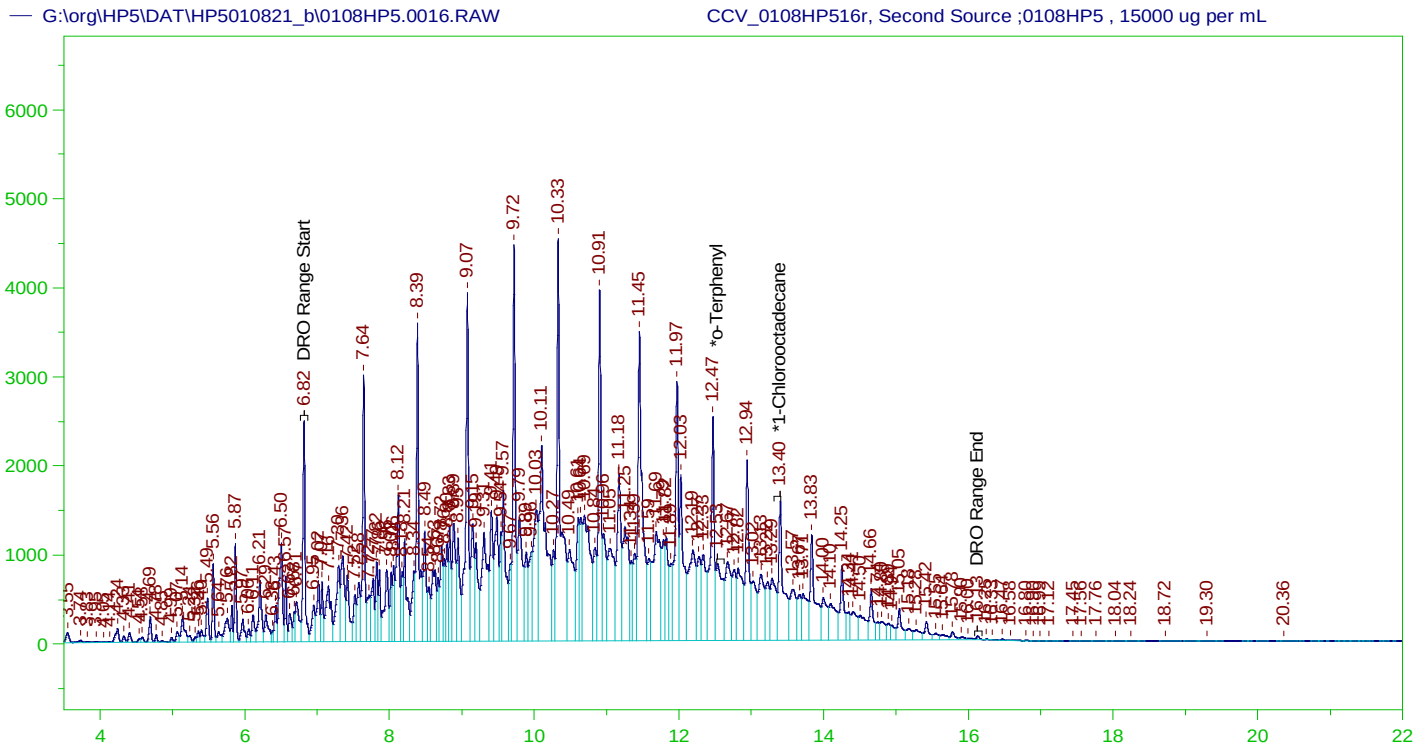
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.594	200.	985.204	492.6	-
*1-Chlorooctadecane	13.4	200.	.022	.01	-

DRO Area:856596.9 DRO Amount: 29.07924
TEH Area:1371563 TEH Amount: 46.561

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5010821_b\0108HP5.0015.RAW

COMPOUND	ACTUAL(NG)	MEASURED(NG)	%RECOVERY	LIMITS
TOTAL DRO	15000.	46.56	.31	85-115

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*o-Terphenyl	12.594	200.	985.204	492.6	85-115
*1-Chlorooctadecane	13.4	200.	.022	.01	85-115



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT
Sample Name: CCV_0108HP516r, Second Source ;0108HP5 , 15000 ug per mL
Raw File: G:\org\HP5\DAT\HP5010821_b\0108HP5.0016.RAW
Date & Time Acquired: 1/8/2021 9:25:08 PM
Method File: G:\Org\HP5\Methods\DC_8015-HA-L%.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO210108HA.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 29457.33
Rt range for Diesel Range Organics: 6.77 to 16.19

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.532	200.	148.336	74.17	-
*1-Chlorooctadecane	13.398	200.	200.158	100.08	-

DRO Area:4.138122E+08 DRO Amount: 14047.85
TEH Area:4.4015E+08 TEH Amount: 14941.95

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5010821_b\0108HP5.0016.RAW

COMPOUND	ACTUAL(NG)	MEASURED(NG)	%RECOVERY	LIMITS
TOTAL DRO	15000.	14941.95	99.61	85-115

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*o-Terphenyl	12.532	200.	148.336	74.17	85-115
*1-Chlorooctadecane	13.398	200.	200.158	100.08	85-115

G:\org\HP5\dat\HP5010821_b\Review\016_CCV_0108HP516r_DC_8015-HA-L%.xls

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 Integration
G:\org\HP5\DAT\HP5010821_b\0108HP5.04r	CCV_0108HP504r, DRO ;0108HP5 , DRO201215A	G:\Org\HP5\Methods\DC_8015-HA-L%.met	1	1	1	1	0	Integration is valley to valley. Assigned Set Baseline All Valley on at 17.5.
G:\org\HP5\DAT\HP5010821_b\0108HP5.05r	DCM-Baseline Check-V05	G:\Org\HP5\Methods\DR_8015-GX-LEXP.met	1	1	1	1	0	No integration.
G:\org\HP5\DAT\HP5010821_b\0108HP5.06r	CCV_0108HP511r, CAL1 ;0108HP5 , 150 ug per mL Diesel (20 uL of Cal3 + 980 uL DCM(13322), then 100 uL of that + 100 uL of DCM (13322))	G:\Org\HP5\Methods\DC_8015-HA-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\HP5010821_b\0108HP5.07r	CCV_0108HP512r, CAL2 ;0108HP5 , 3750 ug per mL Diesel (100 uL Cal4 + 900 uL of DCM(13322)	G:\Org\HP5\Methods\DC_8015-HA-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\HP5010821_b\0108HP5.08r	CCV_0108HP513r, CAL3 ;0108HP5 , 15000 ug per mL Diesel (300 uL of DRO20917B + 700 uL DCM(13322)	G:\Org\HP5\Methods\DC_8015-HA-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\HP5010821_b\0108HP5.09r	CCV_0108HP514r, CAL4 ;0108HP5 , 37500ug per mL Diesel (750 uL of DRO20917B + 250 uL DCM(13322)	G:\Org\HP5\Methods\DC_8015-HA-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\HP5010821_b\0108HP5.10r	CCV_0108HP515r, CAL5 ;0108HP5 , 50000 ug per mL Diesel (200 uL of DRO20917B)	G:\Org\HP5\Methods\DC_8015-HA-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\HP5010821_b\0108HP5.11r	CCV_0108HP506r, CAL1 ;0108HP5 , 2 ug per mL OTP (10 uL of Cal3 + 990 uL DCM(13322)	G:\Org\HP5\Methods\DS_8015-HA-L#.met	1	1	1	1	0	Surrogates are integrated using a valley to valley integration using Set Basline Now placed slight before at 12.4 and slightly after the surrogate peak at 12.66 and scaling showing surrogaete peak from 12-14.
G:\org\HP5\DAT\HP5010821_b\0108HP5.12r	CCV_0108HP507r, CAL2 ;0108HP5 , 50 ug per mL OTP (100 uL Cal4 + 900 uL of DCM(13322)	G:\Org\HP5\Methods\DS_8015-HA-L#.met	1	1	1	1	0	Surrogates are integrated using a valley to valley integration using Set Basline Now placed slight before at 12.4 and slightly after the surrogate peak at 12.66 and scaling showing surrogaete peak from 12-14.
G:\org\HP5\DAT\HP5010821_b\0108HP5.13r	CCV_0108HP508r, CAL3 ;0108HP5 , 200 ug per mL OTP (100uL of Cal5 + 400 uL DCM(13322)	G:\Org\HP5\Methods\DS_8015-HA-L#.met	1	1	1	1	0	Surrogates are integrated using a valley to valley integration using Set Basline Now placed slight before at 12.4 and slightly after the surrogate peak at 12.66 and scaling showing surrogaete peak from 12-14.
G:\org\HP5\DAT\HP5010821_b\0108HP5.14r	CCV_0108HP509r, CAL4 ;0108HP5 , 500 ug per mL OTP (250uL of Cal5 + 250 uL DCM(13322)	G:\Org\HP5\Methods\DS_8015-HA-L#.met	1	1	1	1	0	Surrogates are integrated using a valley to valley integration using Set Basline Now placed slight before at 12.4 and slightly after the surrogate peak at 12.66 and scaling showing surrogaete peak from 12-14.
G:\org\HP5\DAT\HP5010821_b\0108HP5.15r	CCV_0108HP510r, CAL5 ;0108HP5 , 1000 ug per mL OTP (250 uL 4000 ug/mL OTP DRO210105B + 750 DCM(13322)	G:\Org\HP5\Methods\DS_8015-HA-L#.met	1	1	1	1	0	Surrogates are integrated using a valley to valley integration using Set Basline Now placed slight before at 12.4 and slightly after the surrogate peak at 12.66 and scaling showing surrogaete peak from 12-14.
G:\org\HP5\DAT\HP5010821_b\0108HP5.16r	CCV_0108HP516r, Second Source ;0108HP5 , 15000 ug per mL (100uL of DRO201210A + 900uL DCM(13322)	G:\Org\HP5\Methods\DC_8015-HA-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: 2021.01.27 15:17:17 -07:00

PREP BATCH REPORT

Prep Batch **154020** Prep Code: **HC-3520-DRO** Prep Temp **NA °C** Technician: **Ann Nebel** Batch Units: **ML** Prep Start Date: **3/30/2021 3:20:20 PM** Prep End Date: **3/31/2021 1:01:00 PM**

Sample ID	Matrix	pH	Initial Samp Amt	Sol Added	Sol Recovered	Final Vol (mL)	Factor	Balance	Prep Start Date	Prep End Date
MB-154020			1000	0	0	1.00	0.001		3/30/2021	3/31/2021
Start time: 3:15 PM on 03/30/2021. End time: 9:20 AM on 03/31/2021										
LCS-154020			1000	0	0	1.00	0.001		3/30/2021	3/31/2021
All bottles used in the prep batch were used completely and then disposed of.										
B21032068-001A	Drinking Water	2	1040	0	0	1.00	0.000962		3/30/2021	3/31/2021
Bottle 1/2 Clear no sediment.										
B21032068-001AMS	Drinking Water	2	500	0	0	1.00	0.002		3/30/2021	3/31/2021
Bottle 2/2 Clear no sediment.										
B21032068-001AMSD	Drinking Water	2	500	0	0	1.00	0.002		3/30/2021	3/31/2021
Bottle 2/2 Clear no sediment.										
B21031979-001A	Aqueous	2	1010	0	0	2.00	0.00198		3/30/2021	3/31/2021
Bottle 1/2 Turbid with light sediment. DCM turned yellow in color. Blew down to 1.3mL bottled to 2mL.										
B21031997-001D	Aqueous	2	1030	0	0	1.00	0.000971		3/30/2021	3/31/2021
Bottle 1/2 Turbid no sediment.										
B21031999-001D	Aqueous	6-2	1000	0	0	3.00	0.003		3/30/2021	3/31/2021
Bottle 1/2 Grayish color liquid, very turbid with heavy sediment and DCM turned yellow in color. Blew down to 2.9mL, bottled to 3mL.										
B21032068-002A	Drinking Water	2	1010	0	0	1.00	0.00099		3/30/2021	3/31/2021
Bottle 1/2 Clear no sediment.										

Number	Reagent Name	Exp Date	
11	Carbon Filter Water	1/1/2023	
11684	PTFE Boiling Stones 24928241	7/18/2024	
13019	Sulfuric Acid 2020050559	5/1/2022	
13273	pH-indicator Strips 0-14 HC025486	9/30/2024	
13680	Dichloromethane EA567	12/19/2022	

Spk ID	Spike Name	SampType	AmtAdd	Exp Date
DRO210105A	OTP/COD SURR 2000 ug/mL	all	100ul	9/30/2024
FP210225 13301	DCM RINSED FILTER PAPER	all	1	7/22/2021
Sulfate 03/08/21 (	Baked Sodium Sulfate	all	Varies	9/28/2025
DRO201210A	#2 Diesel in Acetone 150,000 ug/mL	LCS, LCSD, MS,	100ul	6/10/2021

Energy Laboratories Inc

ANALYTICAL RUN Summary

01-Apr-21

Run ID GCFID-HP5-B_210331A

Run Start Date: 3/31/2021
Analyst: Ann Nebel
Ical:
Column ID:
Comments: DRO-8015-ICAL information is in Index GCFID-HP5-B_210108C

Std ID	Std Name	Std Amount	Std Units	Samp Amount	Samp Units	SampType	Expiration Date
DRO210204A	Carbon Scan STD					MARKER	3/5/2028
DRO210311C	ALASKA MARKER-200ug/mL					MARKER	9/30/2021
DRO210319C	8015 CCV-15,000ug/mL + 200 OTP					CCV	8/8/2021

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14285727	MARKER_0331	HC-8015-DRO-	SAMP		3/31/2021 1:34:1	1	R358548		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Diesel Range Organics (DRO)	A	mg/L		3.212108		0	0	0	0.0389	0.3	50	0%	0	0	0%	
Total Extractable Hydrocarbons	A	mg/L		3.931292		0	0	0	0.0499	0.3	50	0%	0	0	0%	
o-Terphenyl	S	mg/L		0.2134707		0.2	0	0	0.00053	0.002	0	107%	50	150	0%	
Diesel Range Organics (C10 to C24)	X	mg/L		3.212108		0	0	0	0.15	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
14285728	CCV_0331HP50	HC-8015-DRO-	CCV		3/31/2021 2:16:1	1	R358548		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		16.03462		15	0	0	0.0499	0.3	50	107%	80	120	0%	
o-Terphenyl	S	mg/L		0.1986519		0.2	0	0	0.00053	0.002	0	99%	80	120	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14285729	LCS-154020	HC-8015-DRO-	LCS-DOD		3/31/2021 3:40:3	1	154020	3/30/2021 3:	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
14285729	LCS-154020	HC-8015-DRO-	LCS-DOD		3/31/2021 3:40:3	1	154020	3/30/2021 3:	0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Diesel Range Organics (DRO)	A	mg/L		16.06419		15	0	0	0.0389	0.3	50	107%	36	132	0%	
Total Extractable Hydrocarbons	A	mg/L		16.72554		15	0	0	0.0499	0.3	50	112%	60	132	0%	
o-Terphenyl	S	mg/L		0.2146244		0.2	0	0	0.00053	0.002	0	107%	56	125	0%	
Diesel Range Organics (C10 to C24)	X	mg/L		16.06419		15	0	0	0.15	0.3	0	107%	36	132	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14285730	MB-154020	HC-8015-DRO-	MBLK		3/31/2021 4:22:3	1	154020	3/30/2021 3:	0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
C10 to C25 Hyrocarbons	A	mg/L		0		0	0	0	0.0389	0.3	0	0%	0	0	0%	
C8 to C18 Hydrocarbons	A	mg/L		0		0	0	0	0.0499	0.3	0	0%	0	0	0%	
Diesel Range Organics (DRO)	A	mg/L		0		0	0	0	0.0389	0.3	50	0%	0	0	0%	
Total Extractable Hydrocarbons	A	mg/L		0		0	0	0	0.0499	0.3	50	0%	0	0	0%	
o-Terphenyl	S	mg/L		0.2082983		0.2	0	0	0.00053	0.002	0	104%	50	150	0%	
Diesel Range Organics (C10 to C24)	X	mg/L		0		0	0	0	0.15	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
14285731	B21032068-001	HC-8015-DRO-	SAMP		3/31/2021 5:04:3	1	154020	3/30/2021 3:	0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
C10 to C25 Hyrocarbons	A	mg/L		0		0	0	0	0.0374218	0.2886	0	0%	0	0	0%	U
C8 to C18 Hydrocarbons	A	mg/L		0		0	0	0	0.0480038	0.2886	0	0%	0	0	0%	U
Diesel Range Organics (DRO)	A	mg/L		0		0	0	0	0.0374218	0.3	50	0%	0	0	0%	U
Total Extractable Hydrocarbons	A	mg/L		0		0	0	0	0.0480038	0.3	50	0%	0	0	0%	U
o-Terphenyl	S	mg/L		0.2057819		0.1924	0	0	0.0005099	0.002	0	107%	50	150	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14285732	B21032068-001	HC-8015-DRO-	MS-DOD		3/31/2021 5:46:3	1	154020	3/30/2021 3:	1E+07	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Diesel Range Organics (DRO)	A	mg/L		31.18094		30	0	0	0.0778	0.6	50	104%	36	132	0%	
Total Extractable Hydrocarbons	A	mg/L		32.54864		30	0	0	0.0998	0.6	50	108%	60	132	0%	
o-Terphenyl	S	mg/L		0.4209306		0.4	0	0	0.00106	0.004	0	105%	56	125	0%	
Diesel Range Organics (C10 to C24)	X	mg/L		31.18094		30	0	0	0.3	0.6	0	104%	36	132	0%	

2

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14285733	B21032068-001	HC-8015-DRO-	MSD-DOD		3/31/2021 6:28:2	1	154020	3/30/2021 3:	1E+07	1E+07	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Diesel Range Organics (DRO)	A	mg/L		32.28234		30	0	31.18094	0.0778	0.6	50	108%	36	132	3%	
Total Extractable Hydrocarbons	A	mg/L		33.6459		30	0	32.54864	0.0998	0.6	50	112%	60	132	3%	
o-Terphenyl	S	mg/L		0.4371331		0.4	0	0	0.00106	0.004	0	109%	56	125	0%	
Diesel Range Organics (C10 to C24)	X	mg/L		32.28234		30	0	31.18094	0.3	0.6	0	108%	36	132	3%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14285734	B21032068-002	HC-8015-DRO-	SAMP		3/31/2021 7:52:2	1	154020	3/30/2021 3:	0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
C10 to C25 Hyrocarbons	A	mg/L		0		0	0	0	0.038511	0.297	0	0%	0	0	0%	U
C8 to C18 Hydrocarbons	A	mg/L		0		0	0	0	0.049401	0.297	0	0%	0	0	0%	U
Diesel Range Organics (DRO)	A	mg/L		0		0	0	0	0.038511	0.3	50	0%	0	0	0%	U
Total Extractable Hydrocarbons	A	mg/L		0		0	0	0	0.049401	0.3	50	0%	0	0	0%	U
o-Terphenyl	S	mg/L		0.2094215		0.198	0	0	0.0005247	0.002	0	106%	50	150	0%	

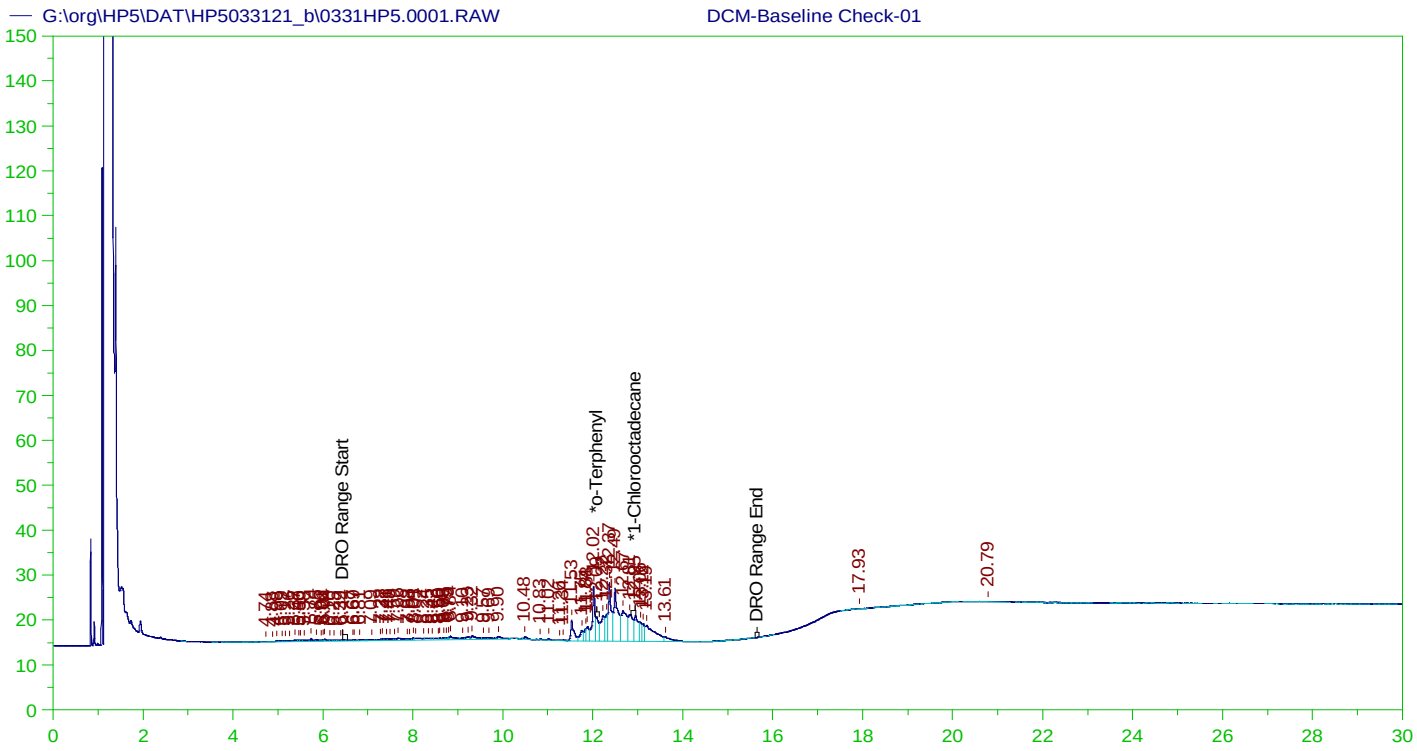
Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14285735	MARKER_0331	HC-8015-DRO-	SAMP		3/31/2021 9:16:4	1	R358548		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Diesel Range Organics (DRO)	A	mg/L		3.2534		0	0	0	0.0389	0.3	50	0%	0	0	0%	
Total Extractable Hydrocarbons	A	mg/L		3.978648		0	0	0	0.0499	0.3	50	0%	0	0	0%	
o-Terphenyl	S	mg/L		0.2163709		0.2	0	0	0.00053	0.002	0	108%	50	150	0%	
Diesel Range Organics (C10 to C24)	X	mg/L		3.2534		0	0	0	0.15	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
14285736	CCV_0331HP51	HC-8015-DRO-	CCV		3/31/2021 9:58:5	1	R358548		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		16.34783		15	0	0	0.0499	0.3	50	109%	80	120	0%	
o-Terphenyl	S	mg/L		0.2024086		0.2	0	0	0.00053	0.002	0	101%	80	120	0%	

Write Sequence Data File	Insert Entries(Have the first cell for entries selecte Sample Name	Method	Weight	Dil Factor	Amt Inj.	IS	Cal ID
G:\org\HP5\DAT\HP5033121_b\0331HP5.01r	DCM-Baseline Check-01	G:\Org\HP5\Methods\DR_8015-HG-LEXP.met	1	1	1	1	0
G:\org\HP5\DAT\HP5033121_b\0331HP5.02r	MARKER_0331HP502r, CSCAN ;0331HP5 , DRO210204A	g:\org\HP5\Methods\\CSC210331.met	1	1	1	1	0
G:\org\HP5\DAT\HP5033121_b\0331HP5.03r	MARKER_0331HP503r, DRO AK;0331HP5 , DRO210311C	G:\Org\HP5\Methods\DC_8015-HG-L%.met	1000	1	1	1	0
G:\org\HP5\DAT\HP5033121_b\0331HP5.04r	CCV_0331HP504r, DRO 8015;0331HP5 , DRO210319C	G:\Org\HP5\Methods\DC_8015-HG-L%.met G:\Org\HP5\Methods\DS_8015-HG-L#.met	1	1	1	1	0
G:\org\HP5\DAT\HP5033121_b\0331HP5.05r	DCM-Baseline Check-05	G:\Org\HP5\Methods\DR_8015-HG-LEXP.met	1	1	1	1	0
G:\org\HP5\DAT\HP5033121_b\0331HP5.06r	LCS-154020 ;0331HP5 ,	G:\Org\HP5\Methods\D3_8015-033106-HG-L%.met G:\Org\HP5\Methods\DS_8015-HG-L#.met	1000	1	1	1	0
G:\org\HP5\DAT\HP5033121_b\0331HP5.07r	MB-154020 ;0331HP5 ,	G:\Org\HP5\Methods\DR_8015-HG-L%.met G:\Org\HP5\Methods\DR_C8-C18-HG-L%.met G:\Org\HP5\Methods\DR_C10-C25-HG-L%.met	1000	1	1	1	0
G:\org\HP5\DAT\HP5033121_b\0331HP5.08r	B21032068-001A ;0331HP5 , $HC-8015-DRO-W,	G:\Org\HP5\Methods\DR_8015-HG-L%.met G:\Org\HP5\Methods\DR_C8-C18-HG-L%.met G:\Org\HP5\Methods\DR_C10-C25-HG-L%.met	1040	1	1	1	0
G:\org\HP5\DAT\HP5033121_b\0331HP5.09r	B21032068-001AMS ;0331HP5 ,	G:\Org\HP5\Methods\D3_8015-033106-HG-L%.met G:\Org\HP5\Methods\DS_8015-HG-L#.met	500	1	1	1	0
G:\org\HP5\DAT\HP5033121_b\0331HP5.10r	B21032068-001AMSD ;0331HP5 ,	G:\Org\HP5\Methods\D3_8015-033110-HG-L%.met G:\Org\HP5\Methods\DS_8015-HG-L#.met	500	1	1	1	0
G:\org\HP5\DAT\HP5033121_b\0331HP5.11r	DCM-Baseline Check-11	G:\Org\HP5\Methods\DR_8015-HG-LEXP.met	1	1	1	1	0
G:\org\HP5\DAT\HP5033121_b\0331HP5.12r	B21032068-002A ;0331HP5 , $HC-8015-DRO-W,	G:\Org\HP5\Methods\DR_8015-HG-L%.met G:\Org\HP5\Methods\DR_C8-C18-HG-L%.met G:\Org\HP5\Methods\DR_C10-C25-HG-L%.met	1010	1	1	1	0
G:\org\HP5\DAT\HP5033121_b\0331HP5.13r	MARKER_0331HP513r, CSCAN ;0331HP5 , DRO210204A	g:\org\HP5\Methods\\CSC210331.met	1	1	1	1	0
G:\org\HP5\DAT\HP5033121_b\0331HP5.14r	MARKER_0331HP514r, DRO AK;0331HP5 , DRO210311C	G:\Org\HP5\Methods\DC_8015-HG-L%.met	1000	1	1	1	0
G:\org\HP5\DAT\HP5033121_b\0331HP5.15r	CCV_0331HP515r, DRO 8015;0331HP5 , DRO210319C	G:\Org\HP5\Methods\DC_8015-HG-L%.met G:\Org\HP5\Methods\DS_8015-HG-L#.met	1	1	1	1	0

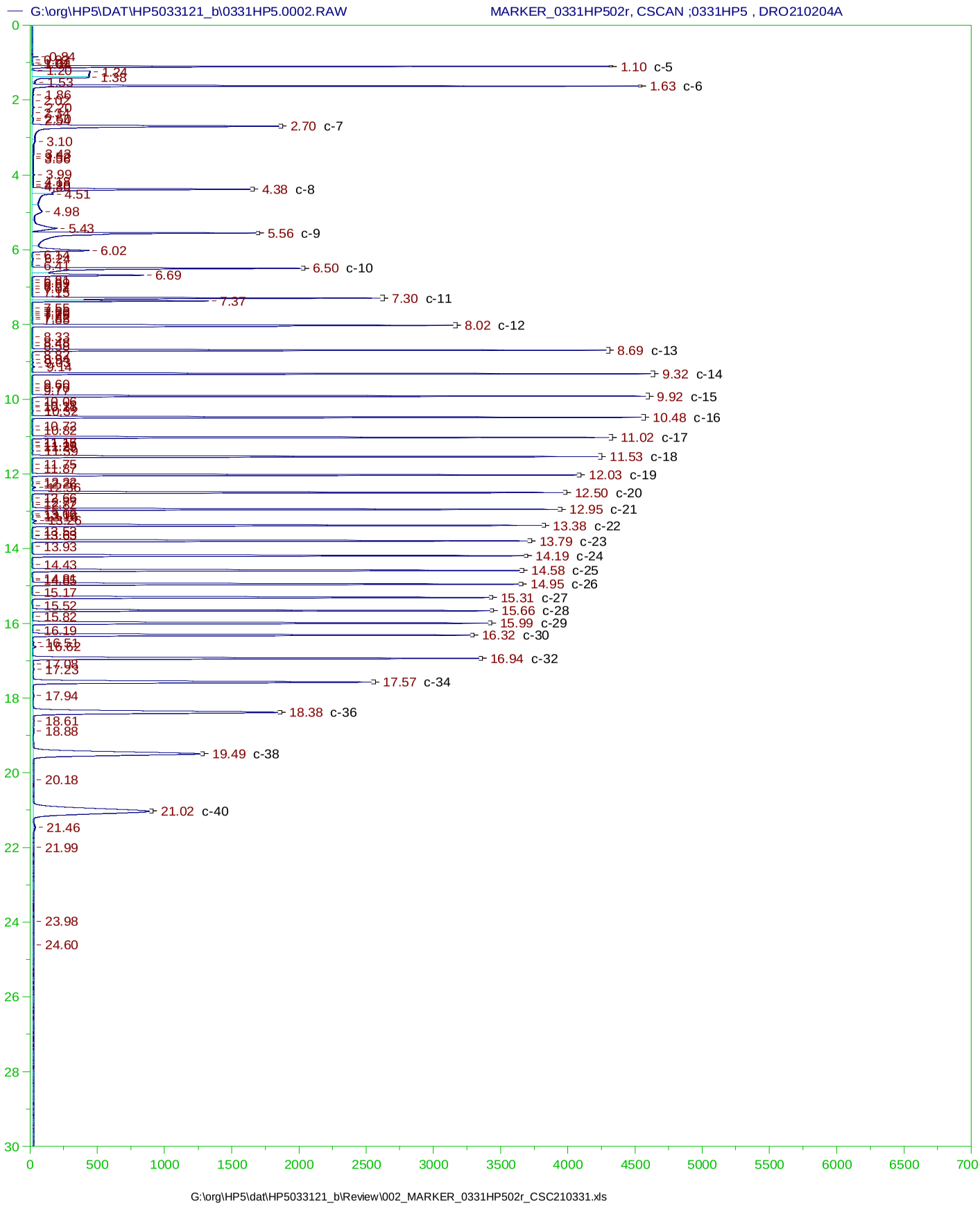


DIESEL RANGE ORGANICS CHROMATOGRAM REPORT
Sample Name: DCM-Baseline Check-01
Raw File: G:\org\HP5\DAT\HP5033121_b\0331HP5.0001.RAW
Date & Time Acquired: 3/31/2021 12:10:37 PM
Method File: G:\Org\HP5\Methods\DR_8015-HG-LEXP.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO210108HG.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 29457.33
Rt range for Diesel Range Organics: 6.439 to 15.702

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.087	200.	.616	.31	-
*1-Chlorooctadecane	12.948	200.	1.054	.53	-

DRO Area:561377.1 DRO Amount: 19.05729
TEH Area:595179.5 TEH Amount: 20.2048


G:\org\HP5\DAT\HP5033121_b\0331HP5.0002.RAW
MARKER_0331HP502r, CSCAN ;0331HP5 , DRO210204A
1.10 c-5
1.63 c-6
2.70 c-7
4.38 c-8
5.56 c-9
6.50 c-10
7.30 c-11
8.02 c-12
8.69 c-13
9.32 c-14
9.92 c-15
10.48 c-16
11.02 c-17
11.53 c-18
12.03 c-19
12.50 c-20
12.95 c-21
13.38 c-22
13.79 c-23
14.19 c-24
14.58 c-25
14.95 c-26
15.31 c-27
15.66 c-28
15.99 c-29
16.32 c-30
16.94 c-32
17.57 c-34
18.38 c-36
19.49 c-38
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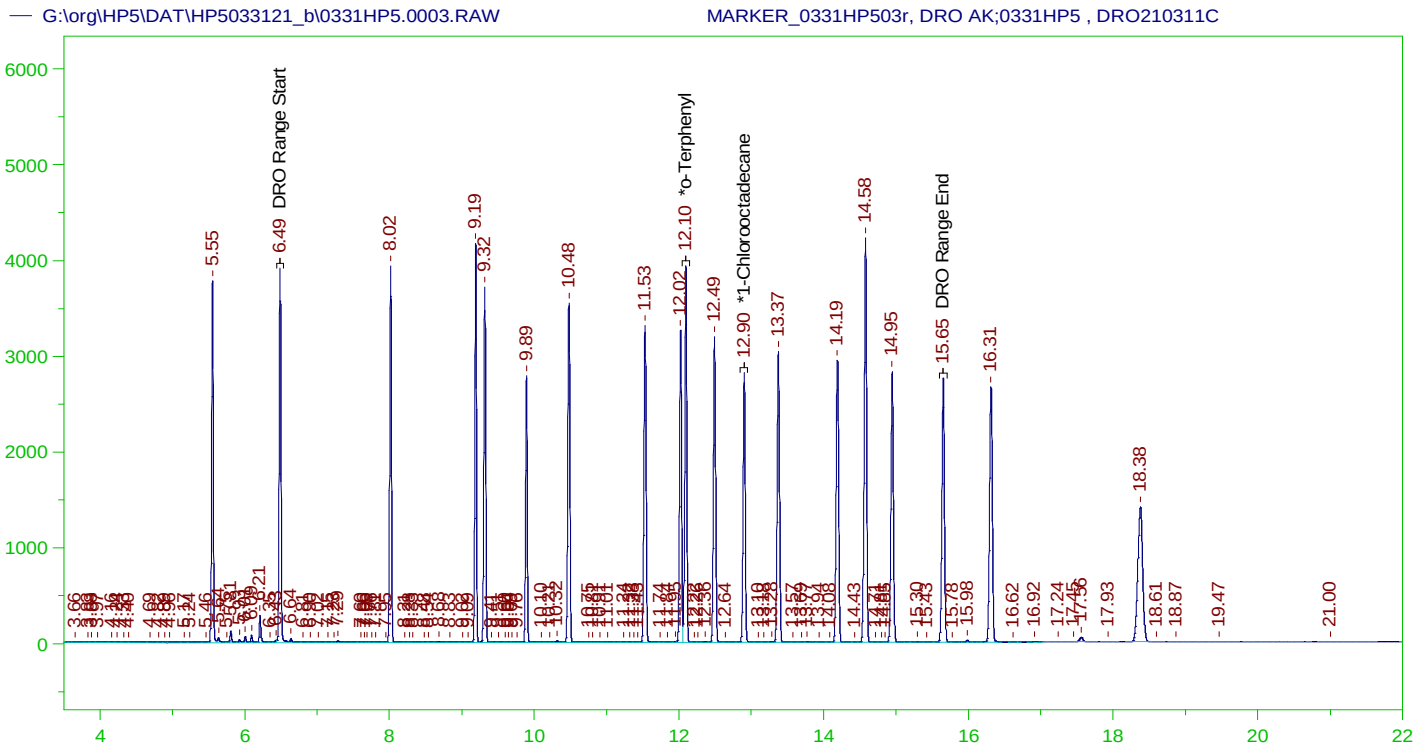
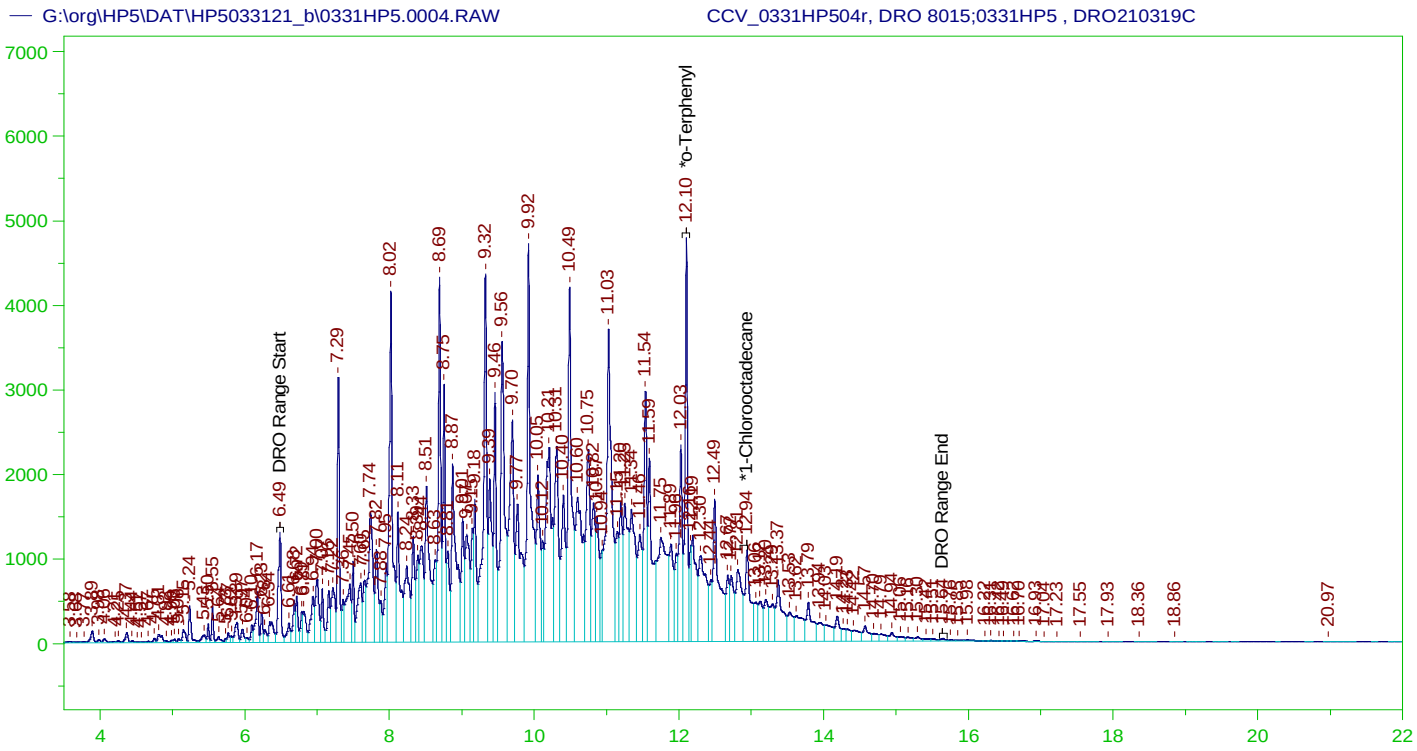


DIESEL RANGE ORGANICS CHROMATOGRAM REPORT
Sample Name: MARKER_0331HP503r, DRO AK;0331HP5 , DRO210311C
Raw File: G:\org\HP5\DAT\HP5033121_b\0331HP5.0003.RAW
Date & Time Acquired: 3/31/2021 1:34:15 PM
Method File: G:\Org\HP5\Methods\DC_8015-HG-L%.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO210108HG.CAL
Sample Weight: 1000 Dilution: 1 S.A.: 1

Mean RF for TEH: 29457.33
Rt range for Diesel Range Organics: 6.439 to 15.702

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.095	.2	.213	106.74	-
*1-Chlorooctadecane	12.901	.2	.17	85.05	-

DRO Area:9.462013E+07 DRO Amount: 3.212108
TEH Area:1.158054E+08 TEH Amount: 3.931292



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT
Sample Name: CCV_0331HP504r, DRO 8015;0331HP5 , DRO210319C
Raw File: G:\org\HP5\DAT\HP5033121_b\0331HP5.0004.RAW
Date & Time Acquired: 3/31/2021 2:16:16 PM
Method File: G:\Org\HP5\Methods\DC_8015-HG-L%.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO210108HG.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 29457.33
Rt range for Diesel Range Organics: 6.439 to 15.702

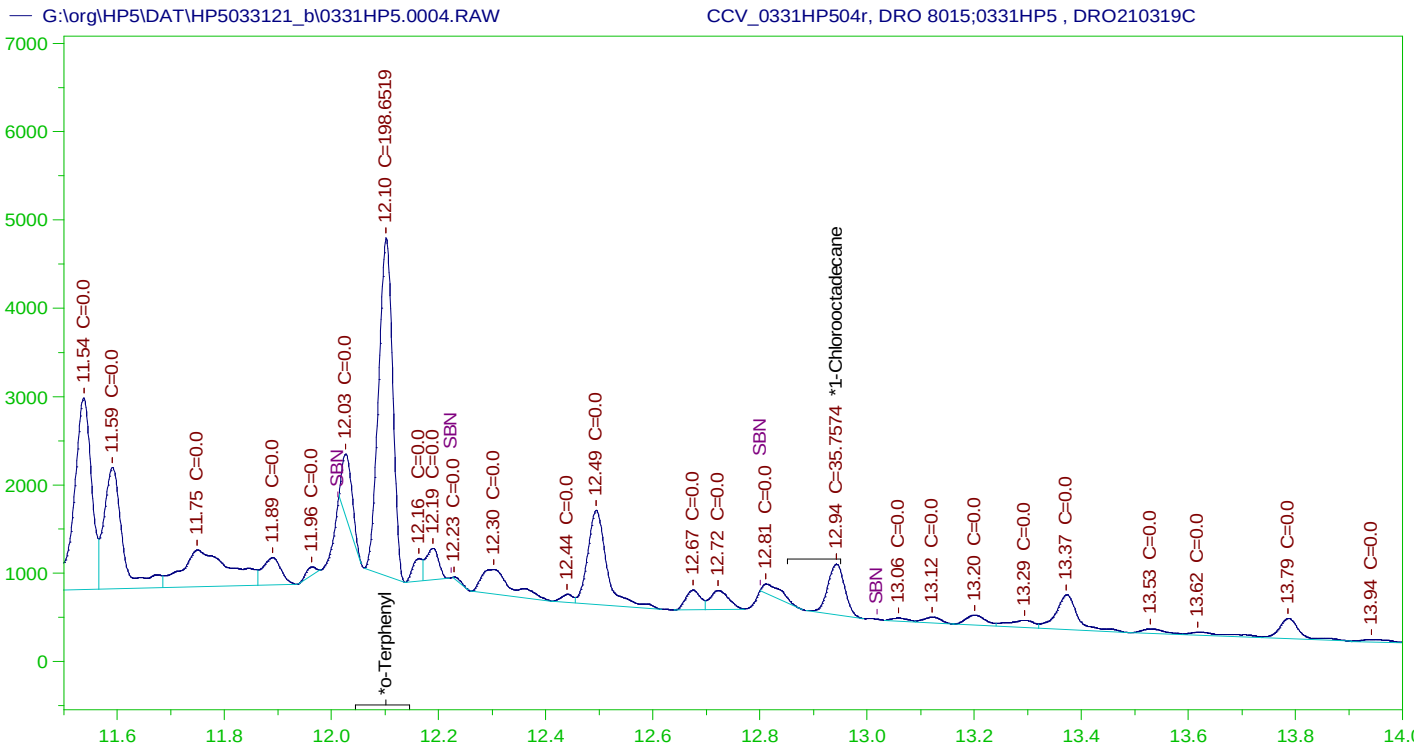
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.102	200.	322.798	161.4	-
*1-Chlorooctadecane	12.943	200.	157.275	78.64	-

DRO Area:4.612216E+08 DRO Amount: 15657.28
TEH Area:4.723372E+08 TEH Amount: 16034.62

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5033121_b\0331HP5.0004.RAW

COMPOUND	ACTUAL(NG)	MEASURED(NG)	%RECOVERY	LIMITS
TOTAL DRO	15000.	16034.62	106.9	85-115

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*o-Terphenyl	12.102	200.	322.798	161.4	85-115
*1-Chlorooctadecane	12.943	200.	157.275	78.64	85-115



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT
Sample Name: CCV_0331HP504r, DRO 8015;0331HP5 , DRO210319C
Raw File: G:\org\HP5\DAT\HP5033121_b\0331HP5.0004.RAW
Date & Time Acquired: 3/31/2021 2:16:16 PM
Method File: G:\Org\HP5\Methods\DS_8015-HG-L#.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO210108HG.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 29457.33
Rt range for Diesel Range Organics: 6.439 to 15.702

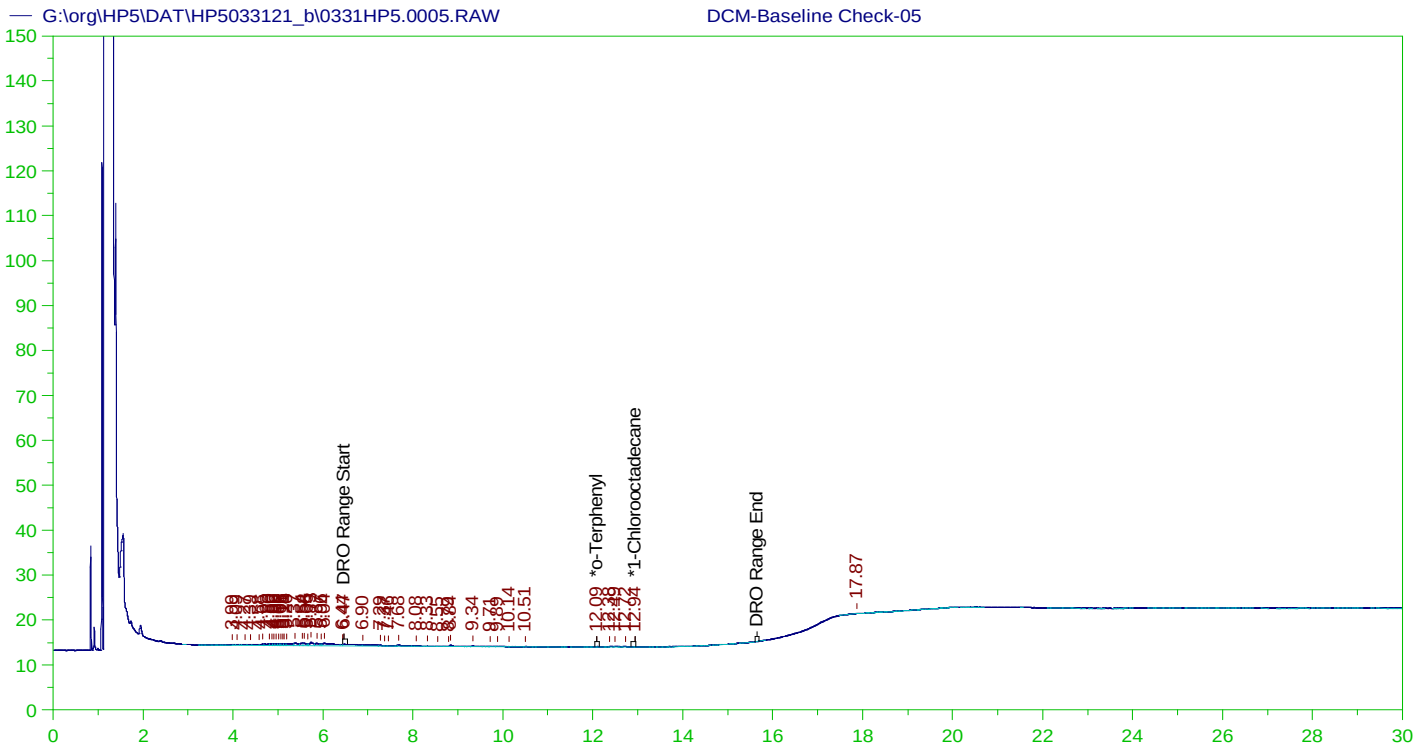
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.102	200.	198.652	99.33	-
*1-Chlorooctadecane	12.943	200.	35.757	17.88	-

DRO Area:2.518145E+08 DRO Amount: 8548.45
TEH Area:2.616162E+08 TEH Amount: 8881.191

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5033121_b\0331HP5.0004.RAW

COMPOUND	ACTUAL(NG)	MEASURED(NG)	%RECOVERY	LIMITS
TOTAL DRO	15000.	8881.19	59.21	85-115

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*o-Terphenyl	12.102	200.	198.652	99.33	85-115
*1-Chlorooctadecane	12.943	200.	35.757	17.88	85-115



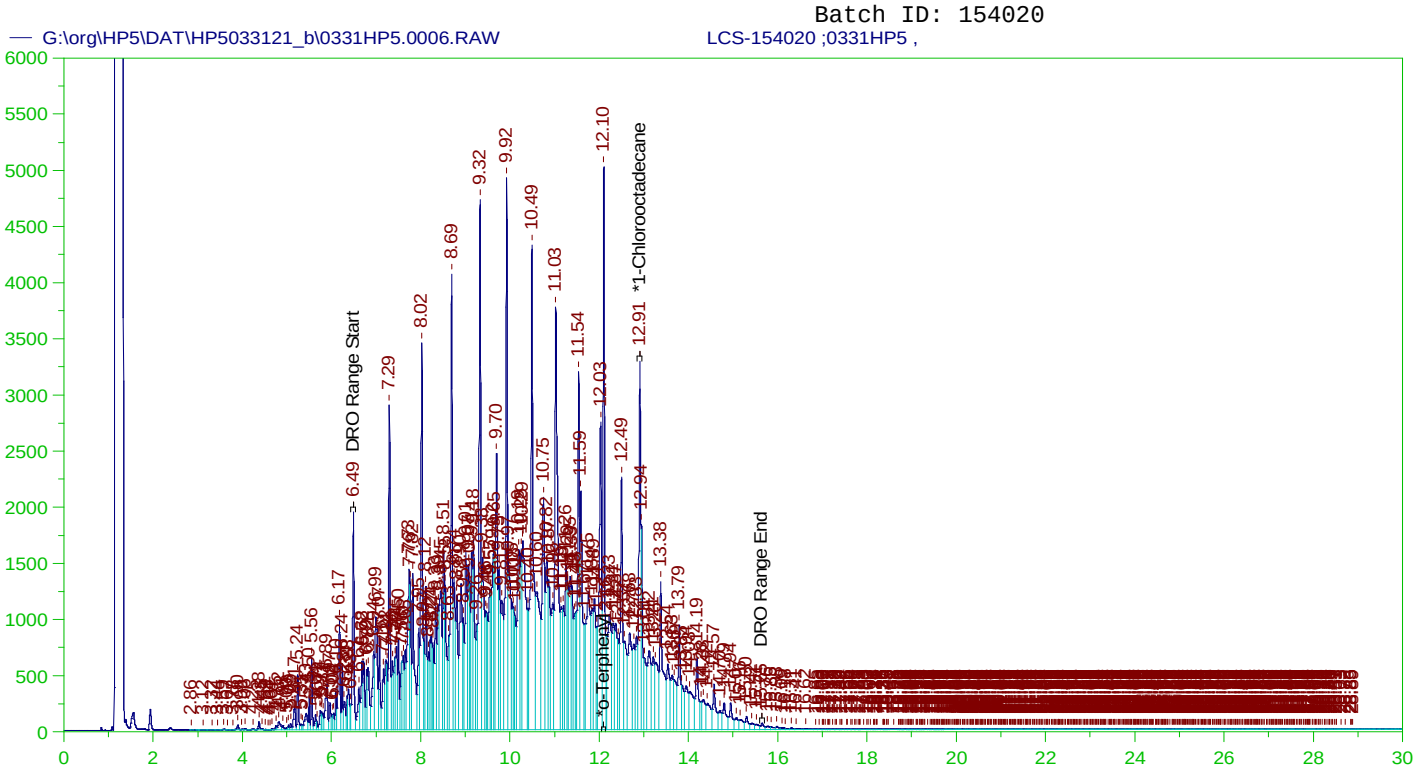
DIESEL RANGE ORGANICS CHROMATOGRAM REPORT
Sample Name: DCM-Baseline Check-05
Raw File: G:\org\HP5\DAT\HP5033121_b\0331HP5.0005.RAW
Date & Time Acquired: 3/31/2021 2:58:23 PM
Method File: G:\Org\HP5\Methods\DR_8015-HG-LEXP.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO210108HG.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 29457.33
Rt range for Diesel Range Organics: 6.439 to 15.702

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.094	200.	.026	.01	-
*1-Chlorooctadecane	12.939	200.	.02	.01	-

DRO Area:37814.24 DRO Amount: 1.283695
TEH Area:99220.93 TEH Amount: 3.368293

Batch ID: 154020



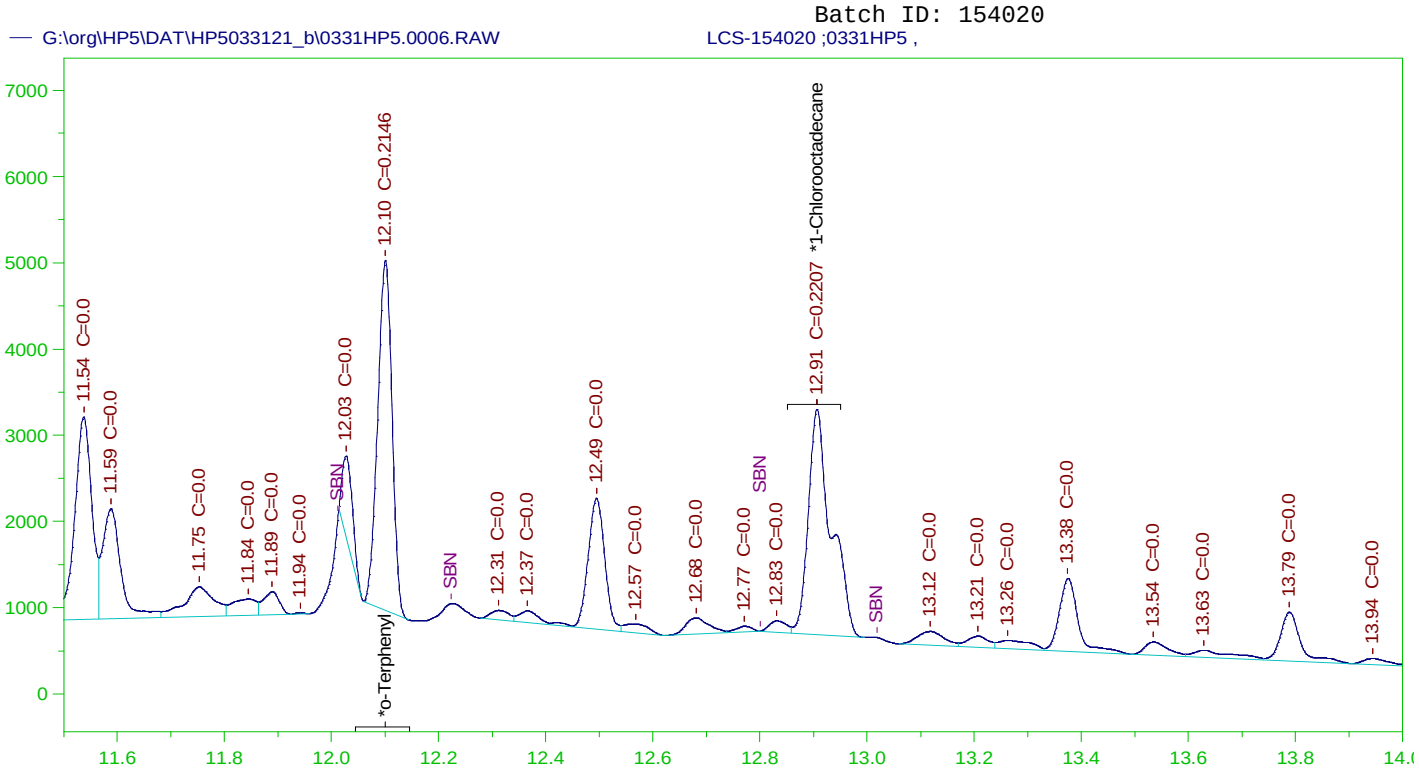
DIESEL RANGE ORGANICS CHROMATOGRAM REPORT
Sample Name: LCS-154020 ;0331HP5 ,
Raw File: G:\org\HP5\DAT\HP5033121_b\0331HP5.0006.RAW
Date & Time Acquired: 3/31/2021 3:40:30 PM
Method File: G:\Org\HP5\Methods\D3_8015-033106-HG-L%.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO210108HG.CAL
Sample Weight: 1000 Dilution: 1 S.A.: 1

Mean RF for TEH: 29457.33
Rt range for Diesel Range Organics: 6.439 to 15.702

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.1	.2	.363	181.67	-
*1-Chlorooctadecane	12.906	.2	.252	125.95	-

DRO Area:4.732082E+08 DRO Amount: 16.06419
TEH Area:4.926899E+08 TEH Amount: 16.72554

Batch ID: 154020



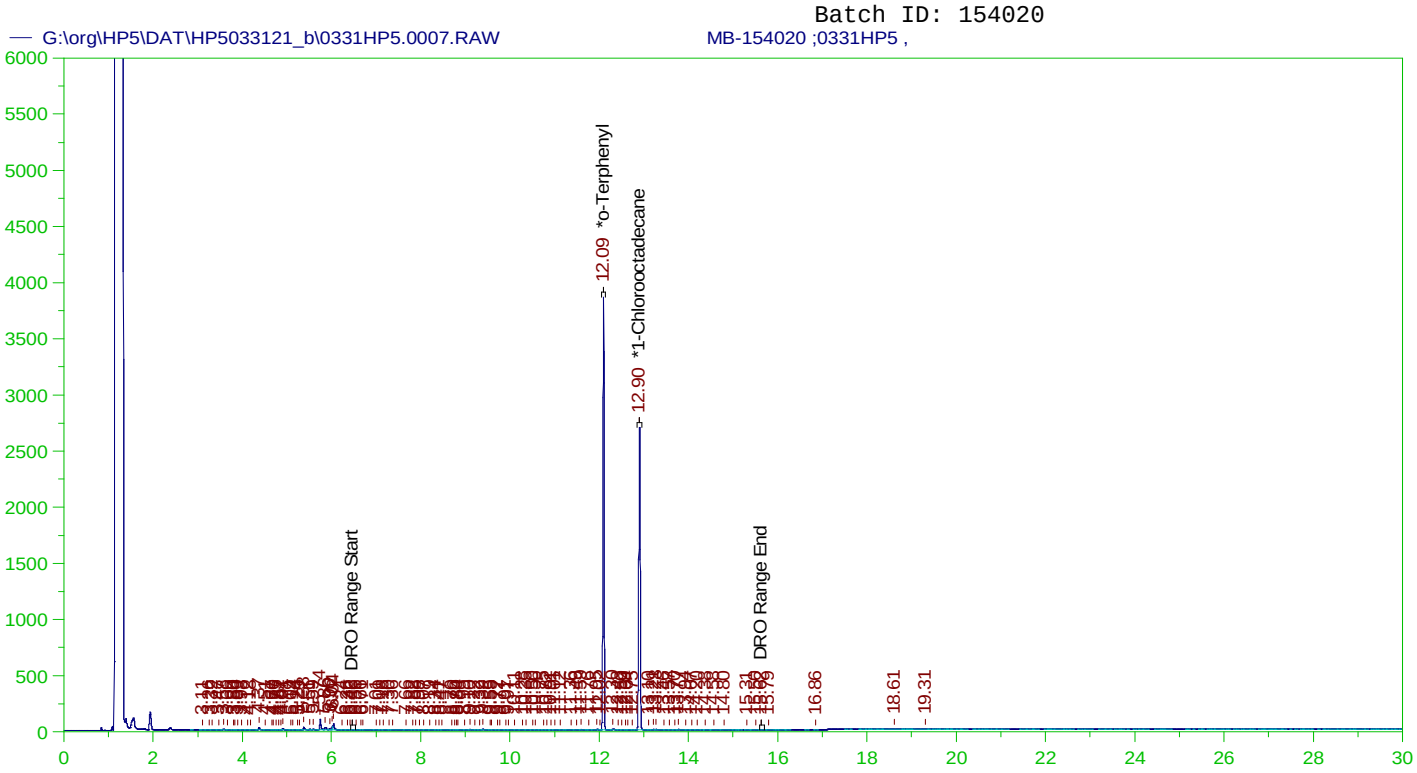
DIESEL RANGE ORGANICS CHROMATOGRAM REPORT
Sample Name: LCS-154020 ;0331HP5 ,
Raw File: G:\org\HP5\DAT\HP5033121_b\0331HP5.0006.RAW
Date & Time Acquired: 3/31/2021 3:40:30 PM
Method File: G:\Org\HP5\Methods\DS_8015-HG-L#.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO210108HG.CAL
Sample Weight: 1000 Dilution: 1 S.A.: 1

Mean RF for TEH: 29457.33
Rt range for Diesel Range Organics: 6.439 to 15.702

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.1	.2	.215	107.31	-
*1-Chlorooctadecane	12.906	.2	.221	110.33	-

DRO Area:2.244778E+08 DRO Amount: 7.620438
TEH Area:2.384943E+08 TEH Amount: 8.096262

Batch ID: 154020



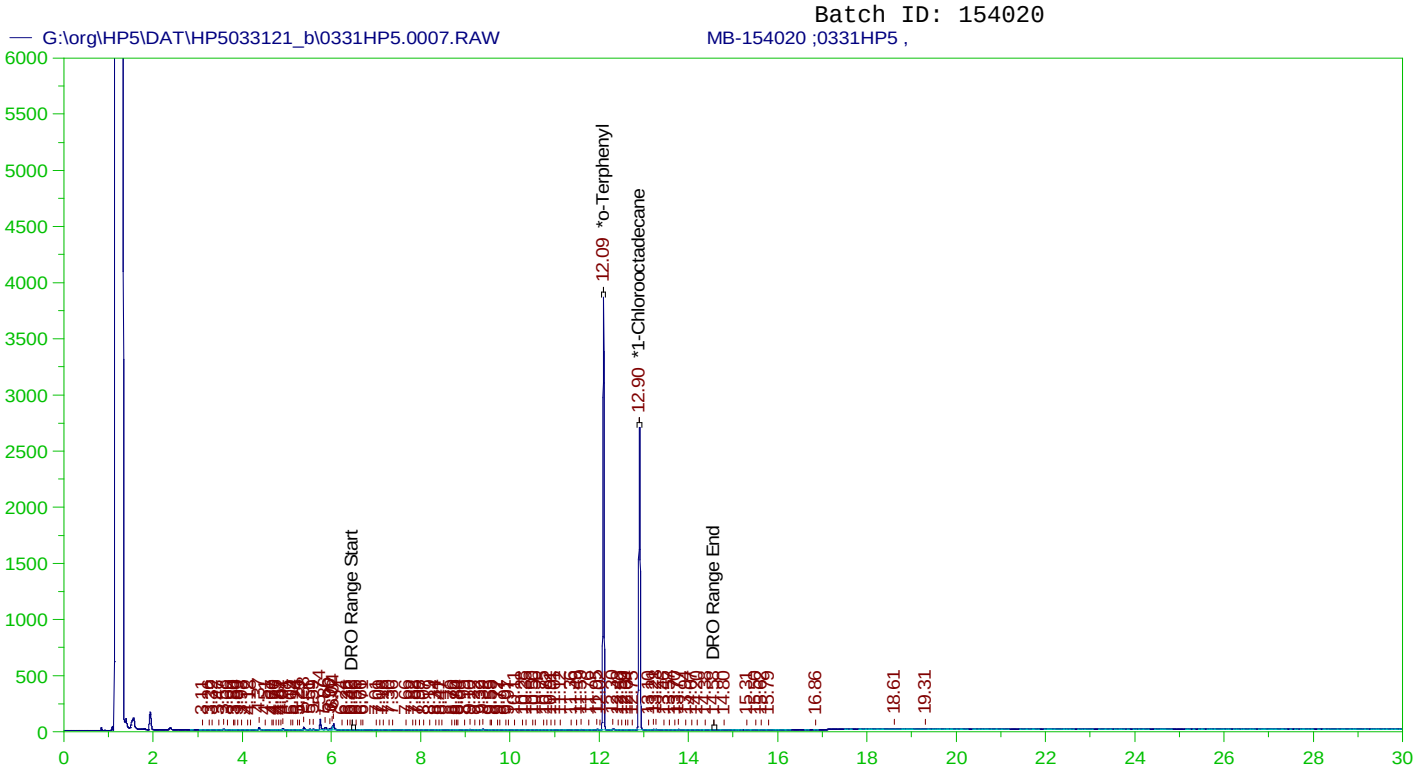
DIESEL RANGE ORGANICS CHROMATOGRAM REPORT
Sample Name: MB-154020 ;0331HP5 ,
Raw File: G:\org\HP5\DAT\HP5033121_b\0331HP5.0007.RAW
Date & Time Acquired: 3/31/2021 4:22:39 PM
Method File: G:\Org\HP5\Methods\DR_8015-HG-L%.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO210108HG.CAL
Sample Weight: 1000 Dilution: 1 S.A.: 1

Mean RF for TEH: 29457.33
Rt range for Diesel Range Organics: 6.439 to 15.702

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.094	.2	.208	104.15	-
*1-Chlorooctadecane	12.9	.2	.163	81.63	-

DRO Area:444151.9 DRO Amount: 0.0150778
TEH Area:1240178 TEH Amount: 4.210082E-02

Batch ID: 154020

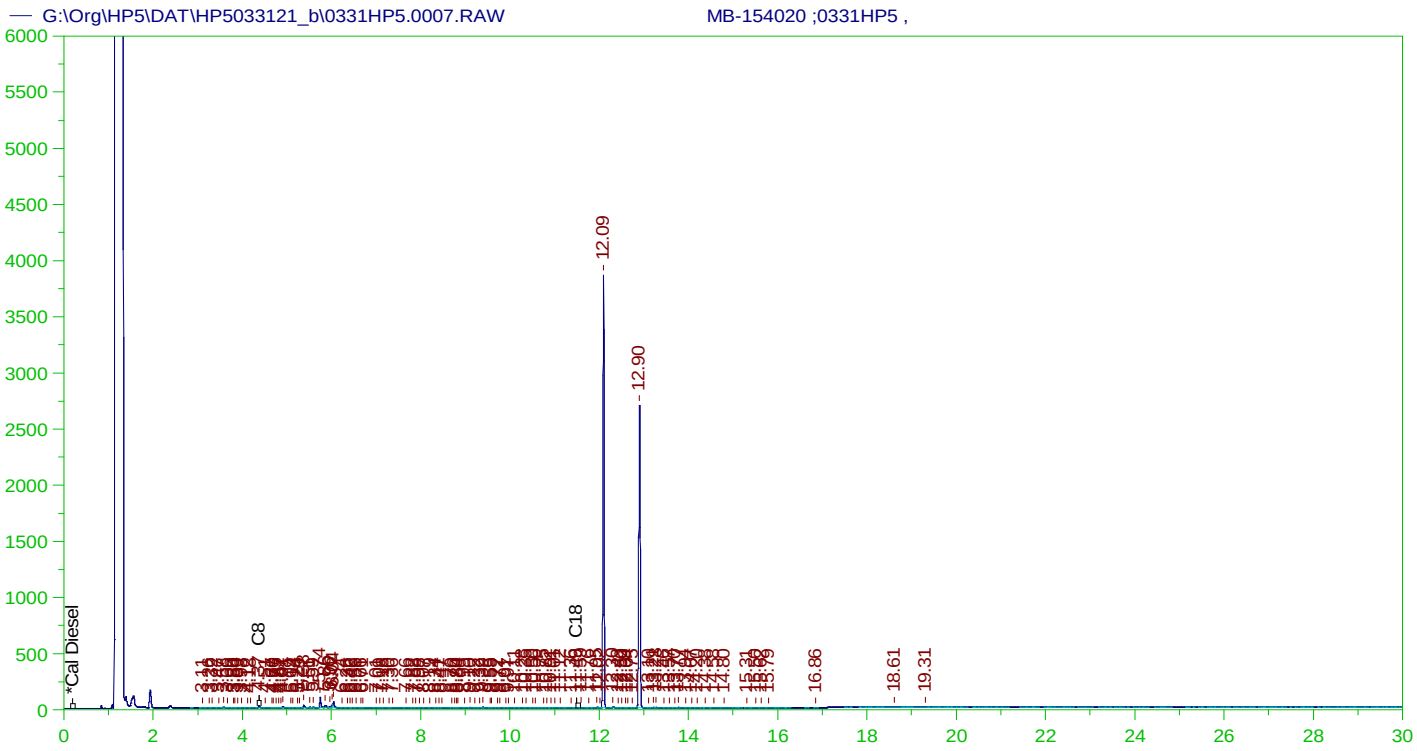


DIESEL RANGE ORGANICS CHROMATOGRAM REPORT
Sample Name: MB-154020 ;0331HP5 ,
Raw File: G:\org\HP5\DAT\HP5033121_b\0331HP5.0007.RAW
Date & Time Acquired: 3/31/2021 4:22:39 PM
Method File: G:\Org\HP5\Methods\DR_C10-C25-HG-L%.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO210108-C10-C25-HG.CAL
Sample Weight: 1000 Dilution: 1 S.A.: 1

Mean RF for TEH: 29457.33
Rt range for Diesel Range Organics: 6.44 to 14.63

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.094	.2	.208	104.15	-
*1-Chlorooctadecane	12.9	.2	.163	81.63	-

(C10-C25) DRO Area:615766.9 (C10-C25) DRO Amount: 2.069672E-02 AMN 04/01/2021
TEH Area:1240178 TEH Amount: 4.210082E-02



RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: MB-154020 ;0331HP5 ,
Raw File: G:\Org\HP5\DAT\HP5033121_b\0331HP5.0007.RAW
Date & Time Acquired: 3/31/2021 4:22:39 PM
Method File: G:\Org\HP5\Methods\DR_C8-C18-HG-L%.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO210108-C8-C18-HGb.CAL
Sample Weight: 1000 Dilution: 1 S.A.: 1

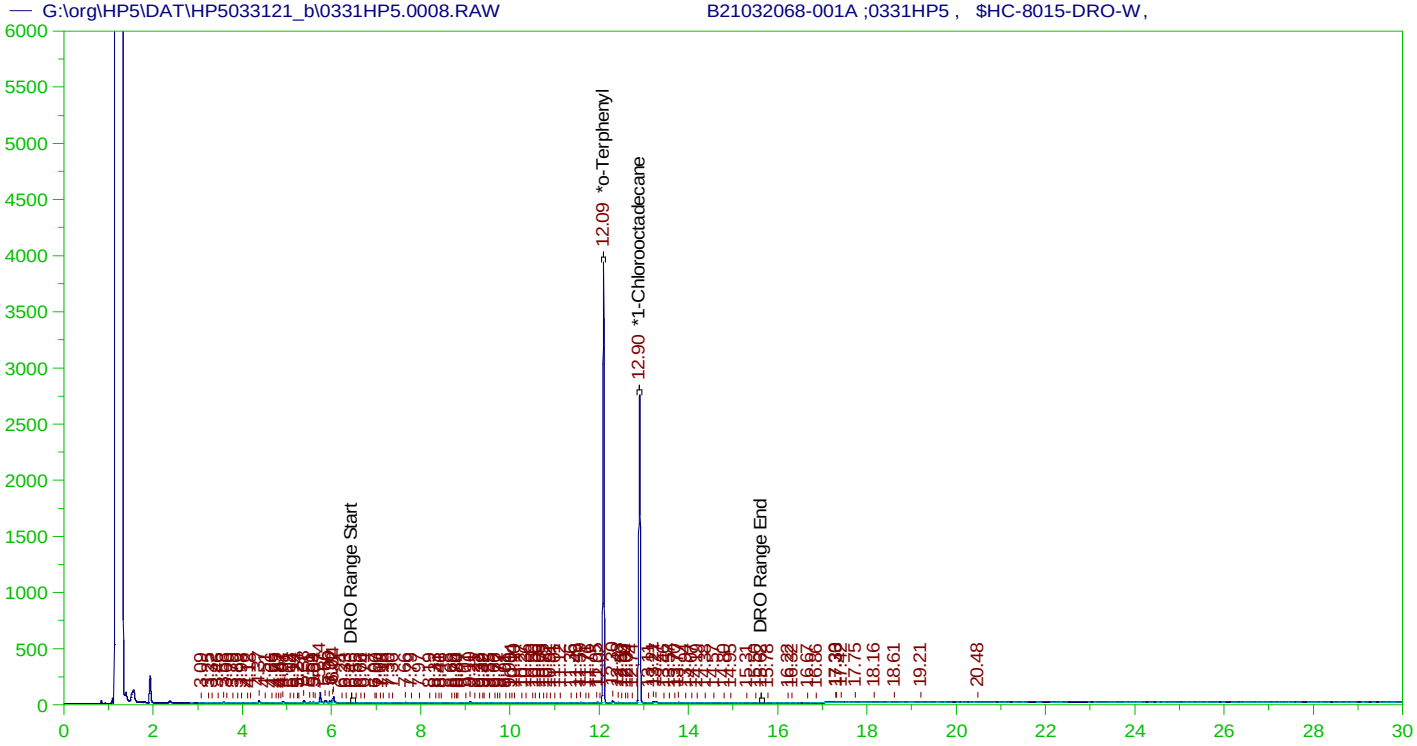
Mean RF for for ~~Residual~~ TEH Range Organics Calculations: 29457.33
Rt range for ~~Residual~~ (C8-C18) Range Organics: 4.33 to 11.58

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC

~~RRO~~ (C8-C18) Area:983604 ~~RRO~~ (C8-C18) AMOUNT: 3.339081E-02 AMN 04/01/2021

BA29552 ERH1294 Batch ID: 154020

G:\org\HP5\DAT\HP5033121_b\0331HP5.0008.RAW B21032068-001A ;0331HP5 , $HC-8015-DRO-W,



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B21032068-001A ;0331HP5 , $HC-8015-DRO-W,
Raw File: G:\org\HP5\DAT\HP5033121_b\0331HP5.0008.RAW
Date & Time Acquired: 3/31/2021 5:04:34 PM
Method File: G:\Org\HP5\Methods\DR_8015-HG-L%.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO210108HG.CAL
Sample Weight: 1040 Dilution: 1 S.A.: 1

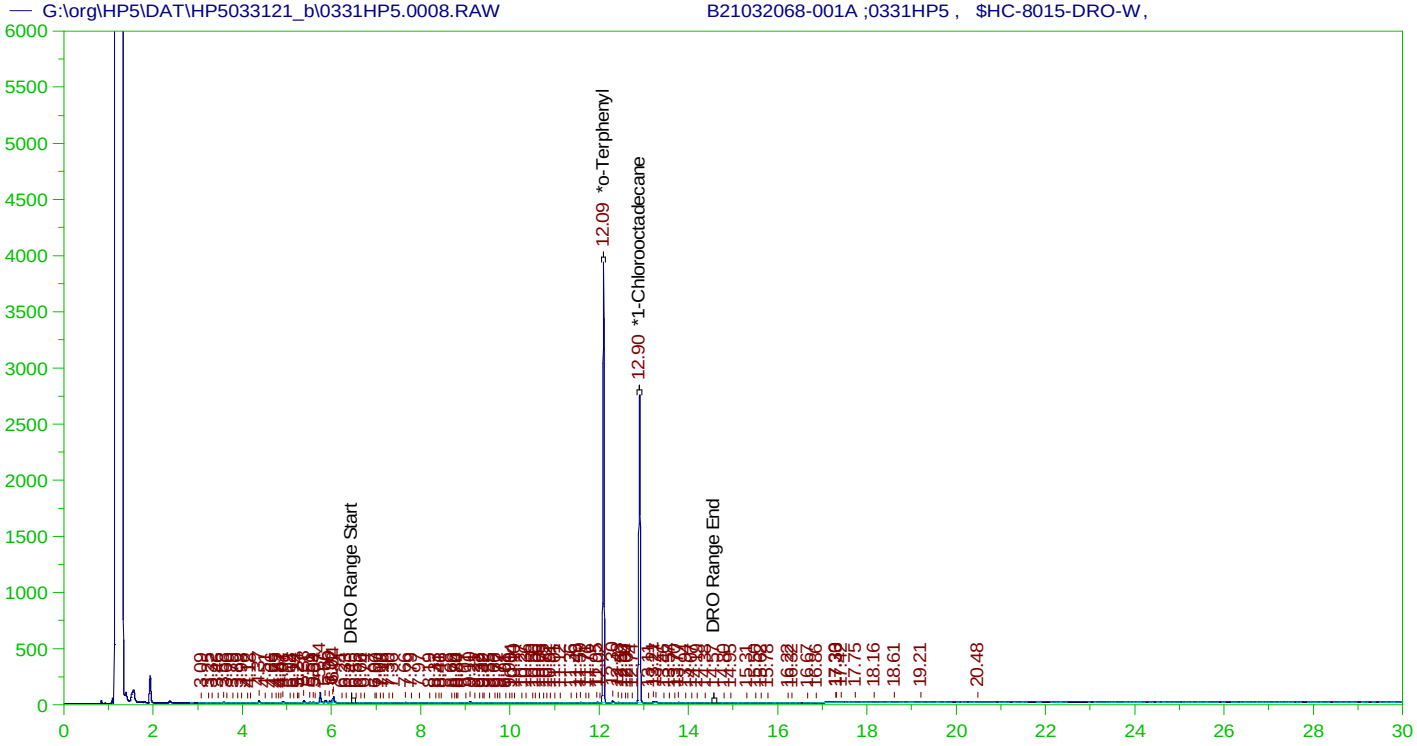
Mean RF for TEH: 29457.33
Rt range for Diesel Range Organics: 6.439 to 15.702

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.094	.192	.206	107.01	-
*1-Chlorooctadecane	12.901	.192	.162	84.3	-

DRO Area:563246.1 DRO Amount: 1.838533E-02
TEH Area:1378570 TEH Amount: 4.499892E-02

BA29552 ERH1294 Batch ID: 154020

G:\org\HP5\DAT\HP5033121_b\0331HP5.0008.RAW B21032068-001A ;0331HP5 , $HC-8015-DRO-W,



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

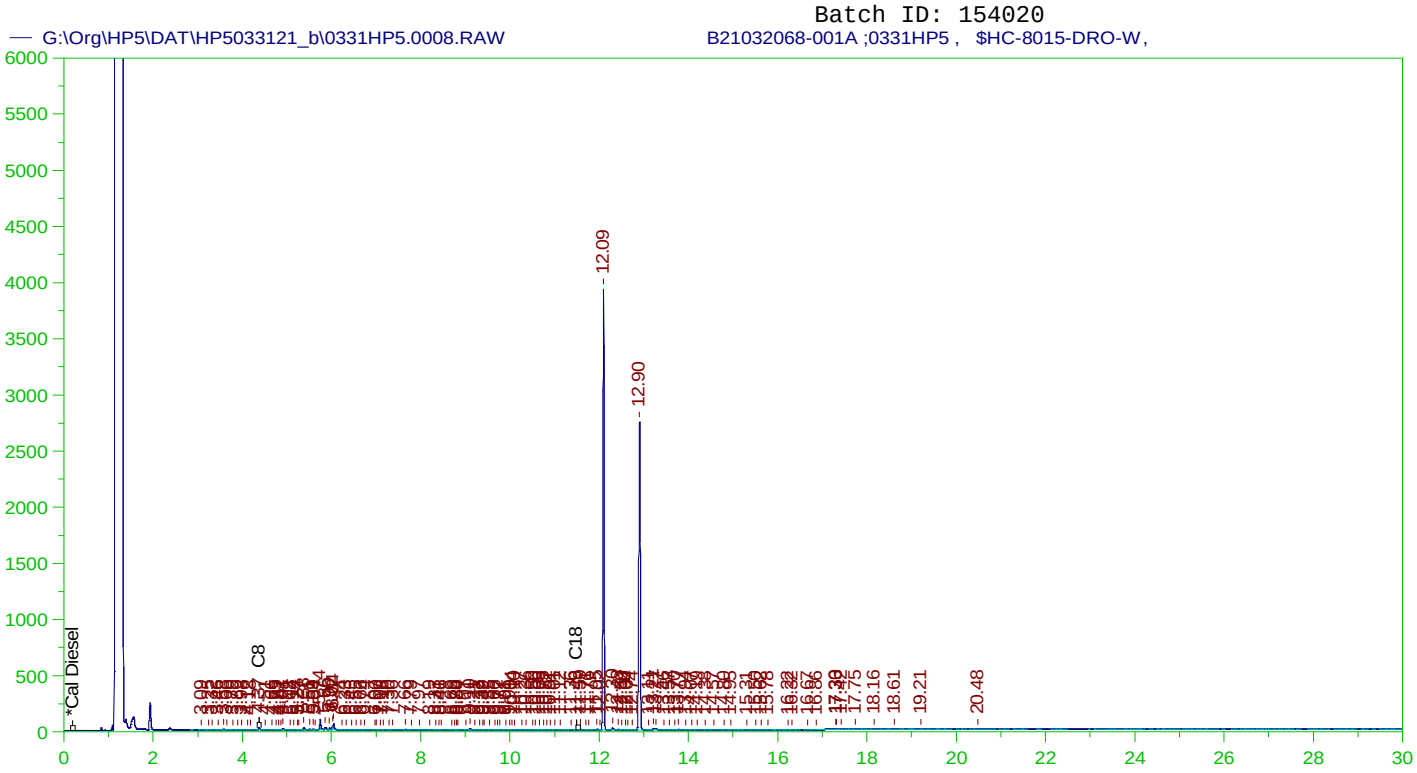
Sample Name: B21032068-001A ;0331HP5 , $HC-8015-DRO-W,
Raw File: G:\org\HP5\DAT\HP5033121_b\0331HP5.0008.RAW
Date & Time Acquired: 3/31/2021 5:04:34 PM
Method File: G:\Org\HP5\Methods\DR_C10-C25-HG-L%.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO210108-C10-C25-HG.CAL
Sample Weight: 1040 Dilution: 1 S.A.: 1

Mean RF for TEH: 29457.33
Rt range for Diesel Range Organics: 6.44 to 14.63

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.094	.192	.206	107.01	-
*1-Chlorooctadecane	12.901	.192	.162	84.3	-

(C10-C25) DRO Area:615766.9 (C10-C25) DRO Amount: 2.069672E-02 AMN 04/01/2021
TEH Area:1378570 TEH Amount: 4.499892E-02

Batch ID: 154020



RESIDUAL RANGE ORGANICS CHROMATOGRAM

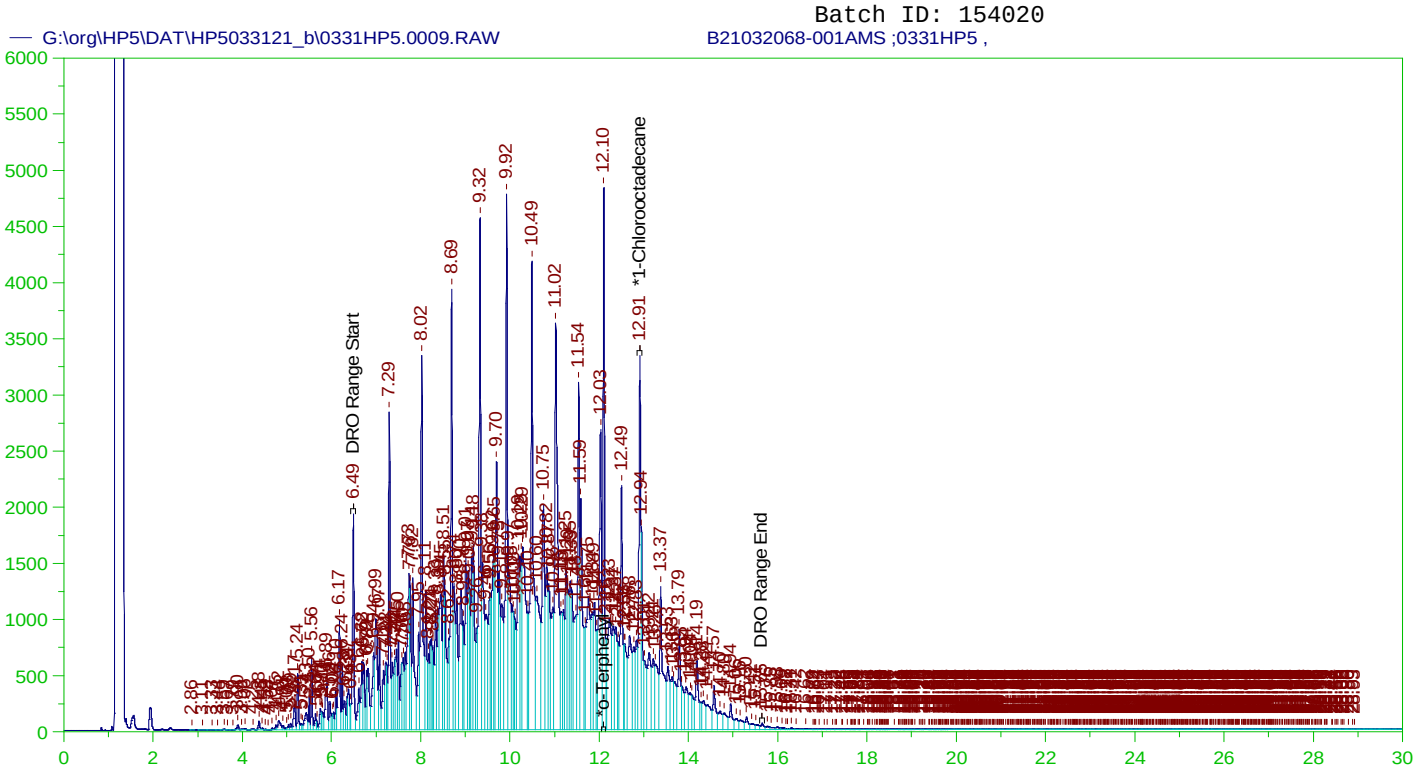
Sample Name: B21032068-001A ;0331HP5 , $HC-8015-DRO-W,
Raw File: G:\Org\HP5\DAT\HP5033121_b\0331HP5.0008.RAW
Date & Time Acquired: 3/31/2021 5:04:34 PM
Method File: G:\Org\HP5\Methods\DR_C8-C18-HG-L%.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO210108-C8-C18-HGb.CAL
Sample Weight: 1040 Dilution: 1 S.A.: 1

Mean RF for for ~~Residual~~ TEH Range Organics Calculations: 29457.33
Rt range for ~~Residual~~ (C8-C18) Range Organics: 4.33 to 11.58

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC

~~RRO~~ (C8-C18) Area:983604 ~~RRO~~ (C8-C18) AMOUNT: 3.339081E-02 AMN 04/01/2021

Batch ID: 154020

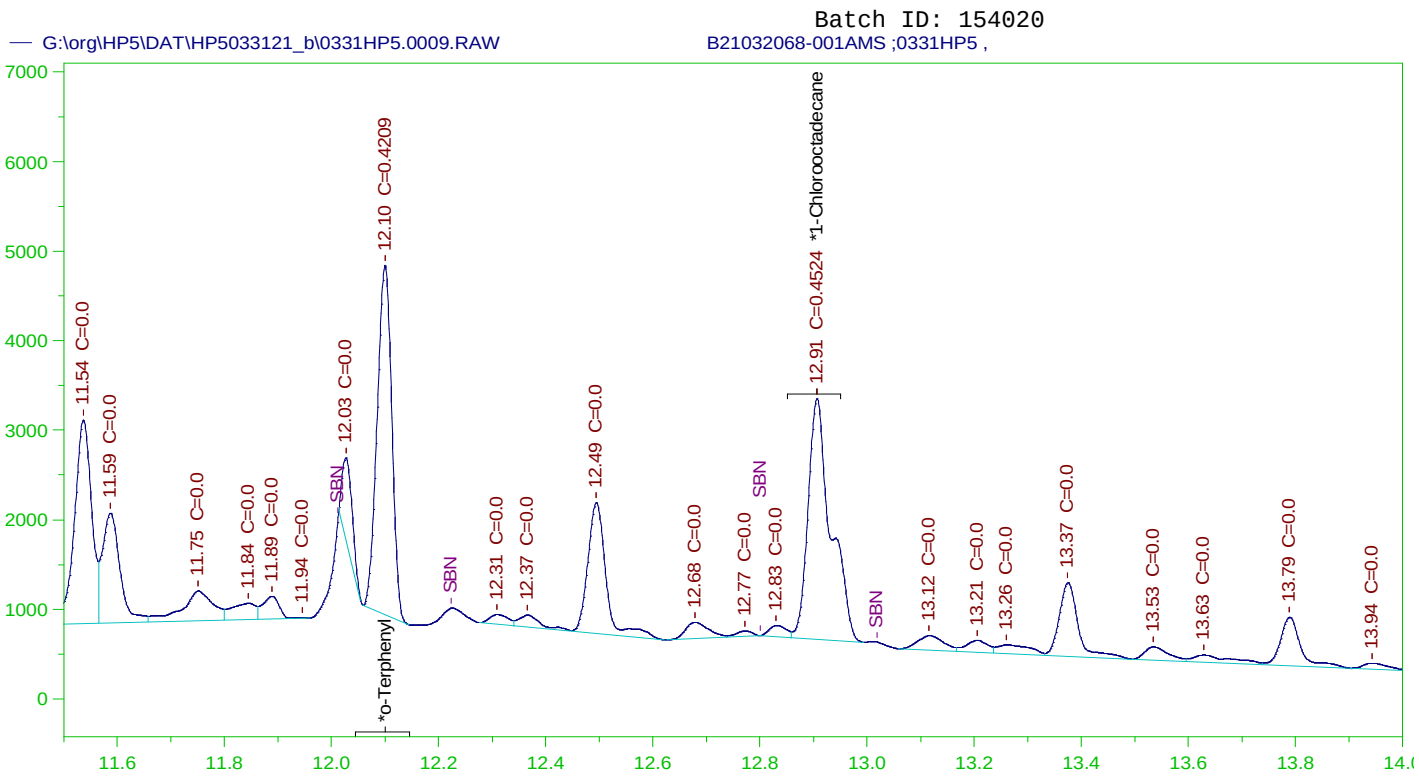


DIESEL RANGE ORGANICS CHROMATOGRAM REPORT
Sample Name: B21032068-001AMS ;0331HP5 ,
Raw File: G:\org\HP5\DAT\HP5033121_b\0331HP5.0009.RAW
Date & Time Acquired: 3/31/2021 5:46:31 PM
Method File: G:\Org\HP5\Methods\D3_8015-033106-HG-L%.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO210108HG.CAL
Sample Weight: 500 Dilution: 1 S.A.: 1

Mean RF for TEH: 29457.33
Rt range for Diesel Range Organics: 6.439 to 15.702

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.1	.4	.702	175.56	-
*1-Chlorooctadecane	12.906	.4	.523	130.63	-

DRO Area:4.592537E+08 DRO Amount: 31.18094
TEH Area:4.79398E+08 TEH Amount: 32.54864



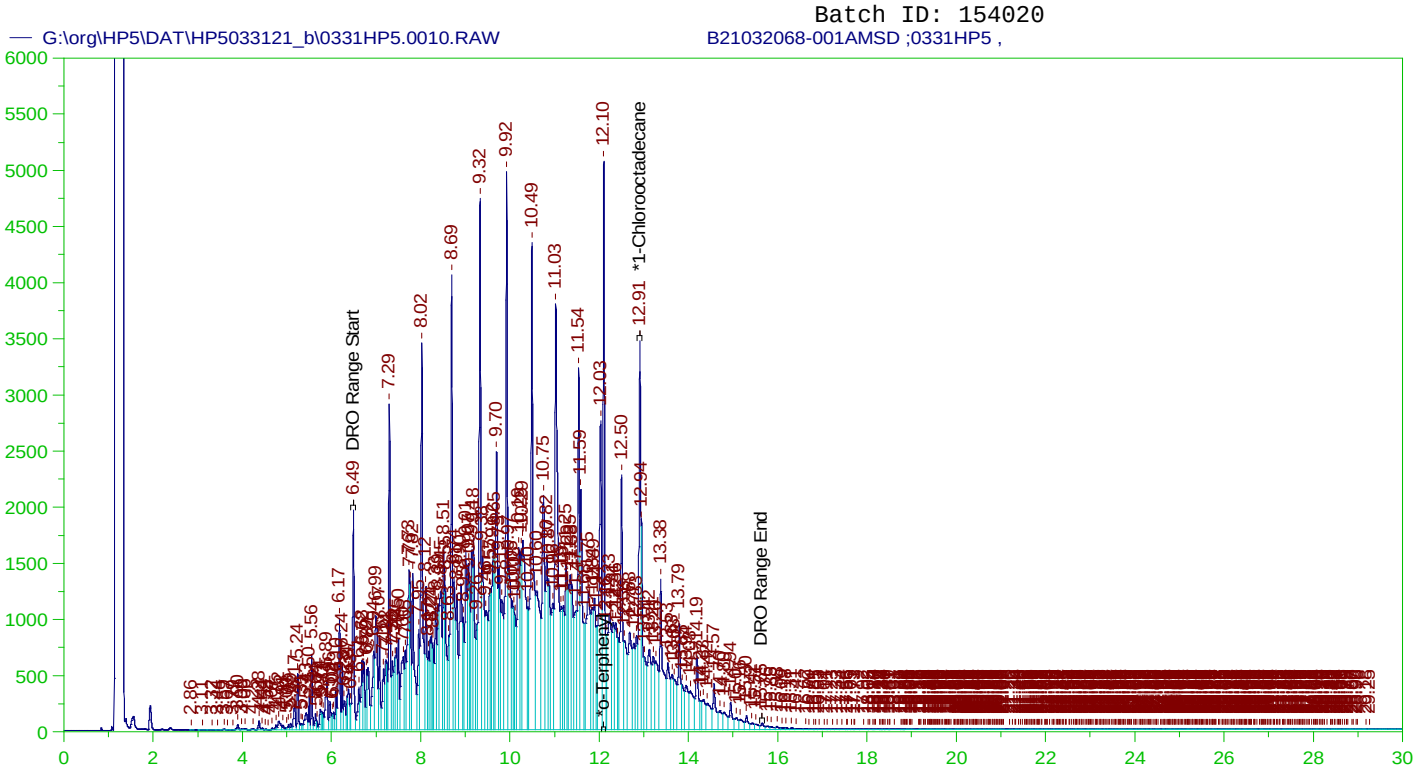
DIESEL RANGE ORGANICS CHROMATOGRAM REPORT
Sample Name: B21032068-001AMS ;0331HP5 ,
Raw File: G:\org\HP5\DAT\HP5033121_b\0331HP5.0009.RAW
Date & Time Acquired: 3/31/2021 5:46:31 PM
Method File: G:\Org\HP5\Methods\DS_8015-HG-L#.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO210108HG.CAL
Sample Weight: 500 Dilution: 1 S.A.: 1

Mean RF for TEH: 29457.33
Rt range for Diesel Range Organics: 6.439 to 15.702

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.1	.4	.421	105.23	-
*1-Chlorooctadecane	12.906	.4	.452	113.09	-

DRO Area:2.180606E+08 DRO Amount: 14.80518
TEH Area:2.324263E+08 TEH Amount: 15.78054

Batch ID: 154020



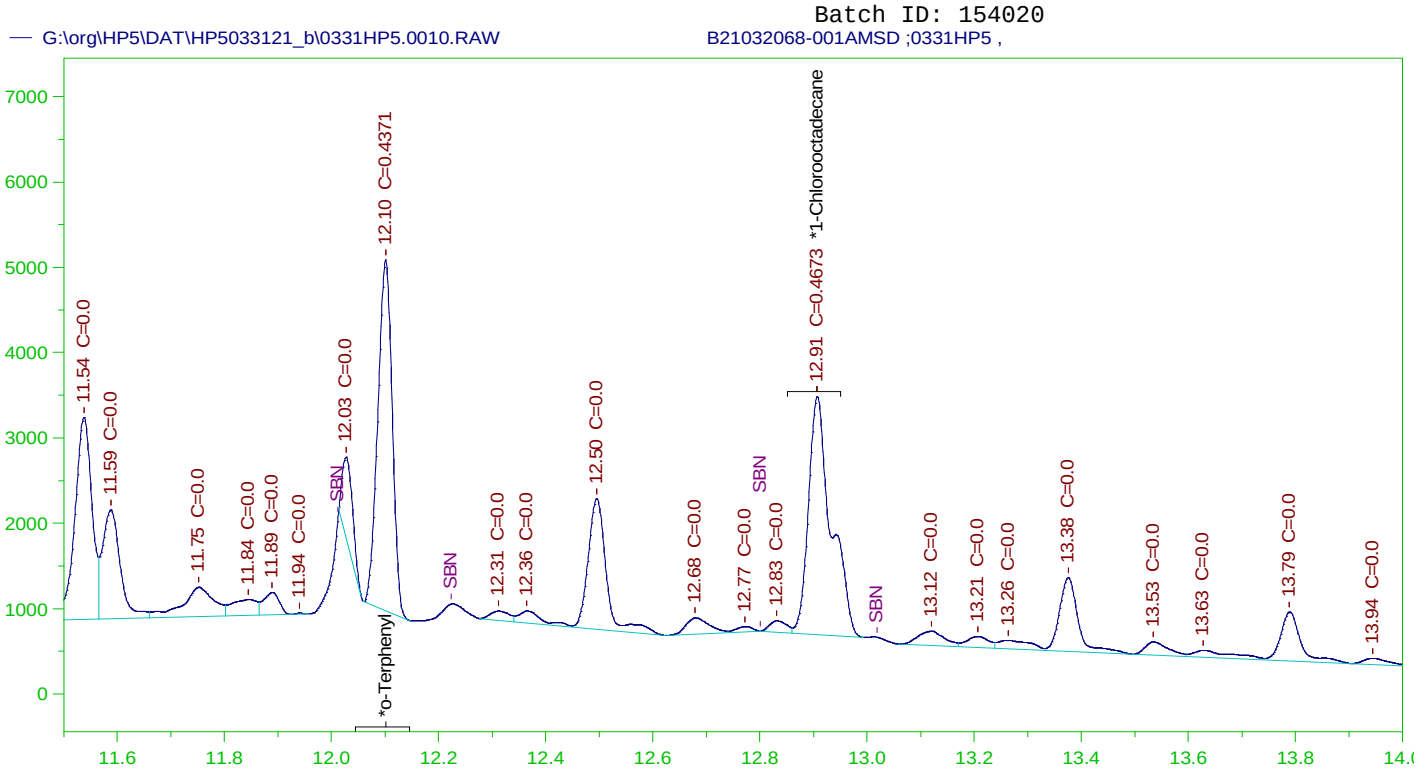
DIESEL RANGE ORGANICS CHROMATOGRAM REPORT
Sample Name: B21032068-001AMSD ;0331HP5 ,
Raw File: G:\org\HP5\DAT\HP5033121_b\0331HP5.0010.RAW
Date & Time Acquired: 3/31/2021 6:28:20 PM
Method File: G:\Org\HP5\Methods\D3_8015-033110-HG-L%.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO210108HG.CAL
Sample Weight: 500 Dilution: 1 S.A.: 1

Mean RF for TEH: 29457.33
Rt range for Diesel Range Organics: 6.439 to 15.702

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.101	.4	.729	182.31	-
*1-Chlorooctadecane	12.907	.4	.537	134.3	-

DRO Area:4.754757E+08 DRO Amount: 32.28234
TEH Area:4.955593E+08 TEH Amount: 33.6459

Batch ID: 154020

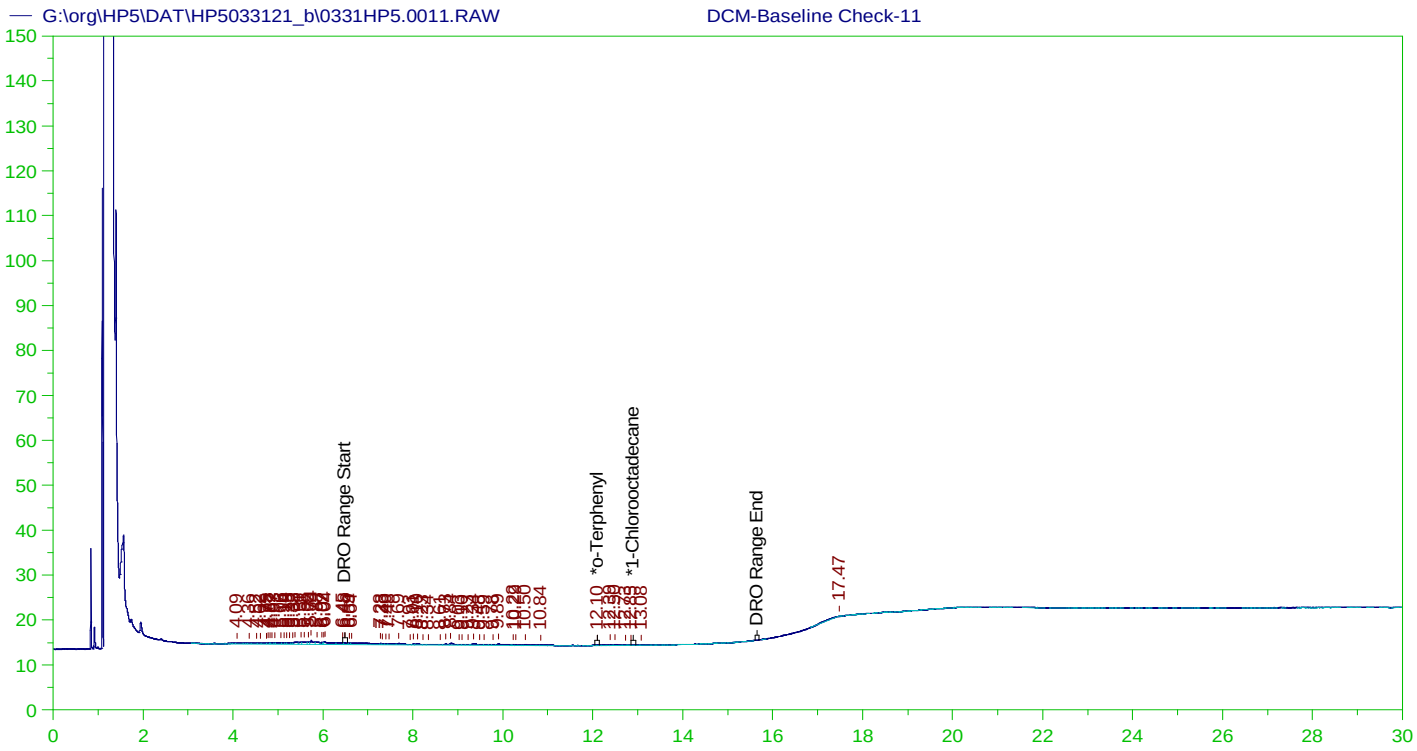


DIESEL RANGE ORGANICS CHROMATOGRAM REPORT
Sample Name: B21032068-001AMSD ;0331HP5 ,
Raw File: G:\org\HP5\DAT\HP5033121_b\0331HP5.0010.RAW
Date & Time Acquired: 3/31/2021 6:28:20 PM
Method File: G:\Org\HP5\Methods\DS_8015-HG-L#.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO210108HG.CAL
Sample Weight: 500 Dilution: 1 S.A.: 1

Mean RF for TEH: 29457.33
Rt range for Diesel Range Organics: 6.439 to 15.702

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.101	.4	.437	109.28	-
*1-Chlorooctadecane	12.907	.4	.467	116.84	-

DRO Area:2.247234E+08 DRO Amount: 15.25756
TEH Area:2.392495E+08 TEH Amount: 16.2438



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT
Sample Name: DCM-Baseline Check-11
Raw File: G:\org\HP5\DAT\HP5033121_b\0331HP5.0011.RAW
Date & Time Acquired: 3/31/2021 7:10:24 PM
Method File: G:\Org\HP5\Methods\DR_8015-HG-LEXP.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO210108HG.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

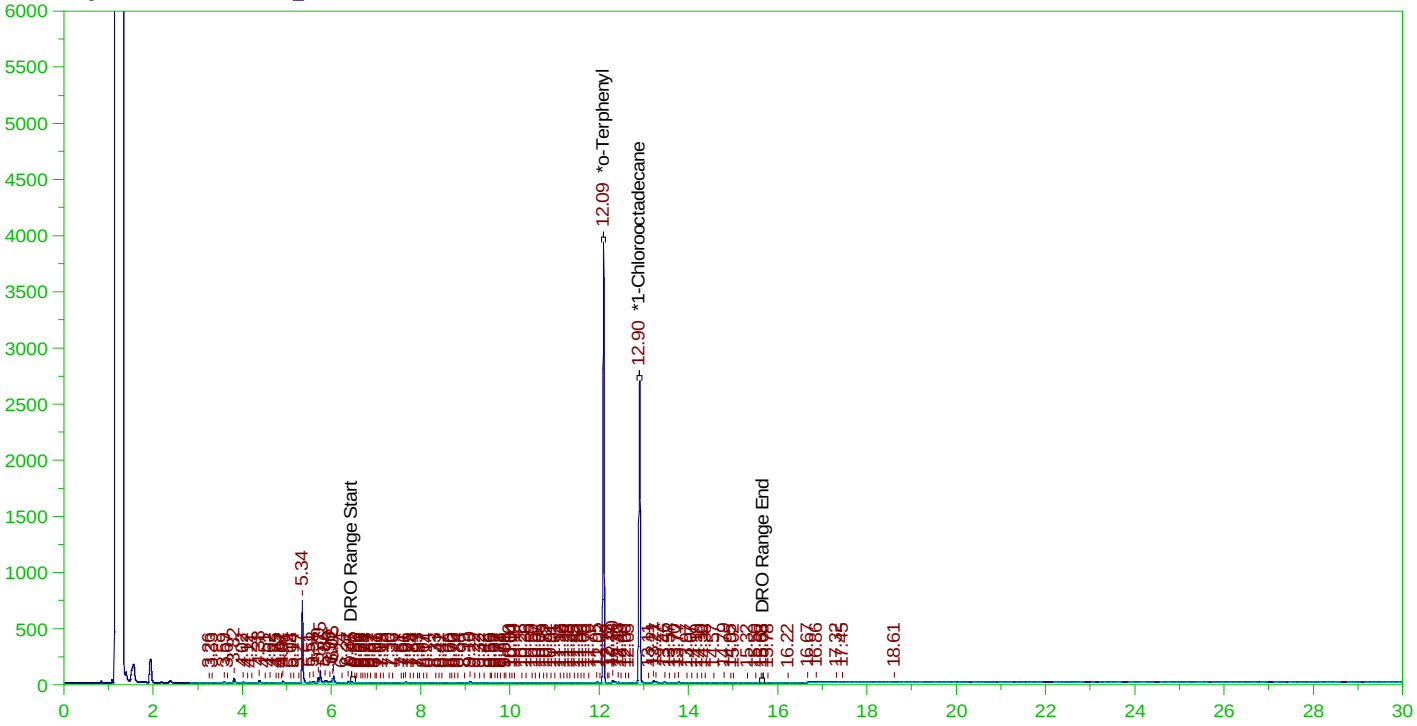
Mean RF for TEH: 29457.33
Rt range for Diesel Range Organics: 6.439 to 15.702

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.096	200.	.017	.01	-
*1-Chlorooctadecane	29.942	200.	.	.	-

DRO Area:61839.13 DRO Amount: 2.099278
TEH Area:118694.6 TEH Amount: 4.029376

BA29553 ERH1295 Batch ID: 154020

G:\org\HP5\DAT\HP5033121_b\0331HP5.0012.RAW B21032068-002A ;0331HP5 , $HC-8015-DRO-W,



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B21032068-002A ;0331HP5 , $HC-8015-DRO-W,
Raw File: G:\org\HP5\DAT\HP5033121_b\0331HP5.0012.RAW
Date & Time Acquired: 3/31/2021 7:52:27 PM
Method File: G:\Org\HP5\Methods\DR_8015-HG-L%.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO210108HG.CAL
Sample Weight: 1010 Dilution: 1 S.A.: 1

Mean RF for TEH: 29457.33
Rt range for Diesel Range Organics: 6.439 to 15.702

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.095	.198	.209	105.76	-
*1-Chlorooctadecane	12.901	.198	.162	81.94	-

DRO Area:634764.4 DRO Amount: 2.133525E-02
TEH Area:3019305 TEH Amount: 0.1014827

BA29553 ERH1295 Batch ID: 154020

G:\org\HP5\DAT\HP5033121_b\0331HP5.0012.RAW B21032068-002A ;0331HP5 , $HC-8015-DRO-W,

DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

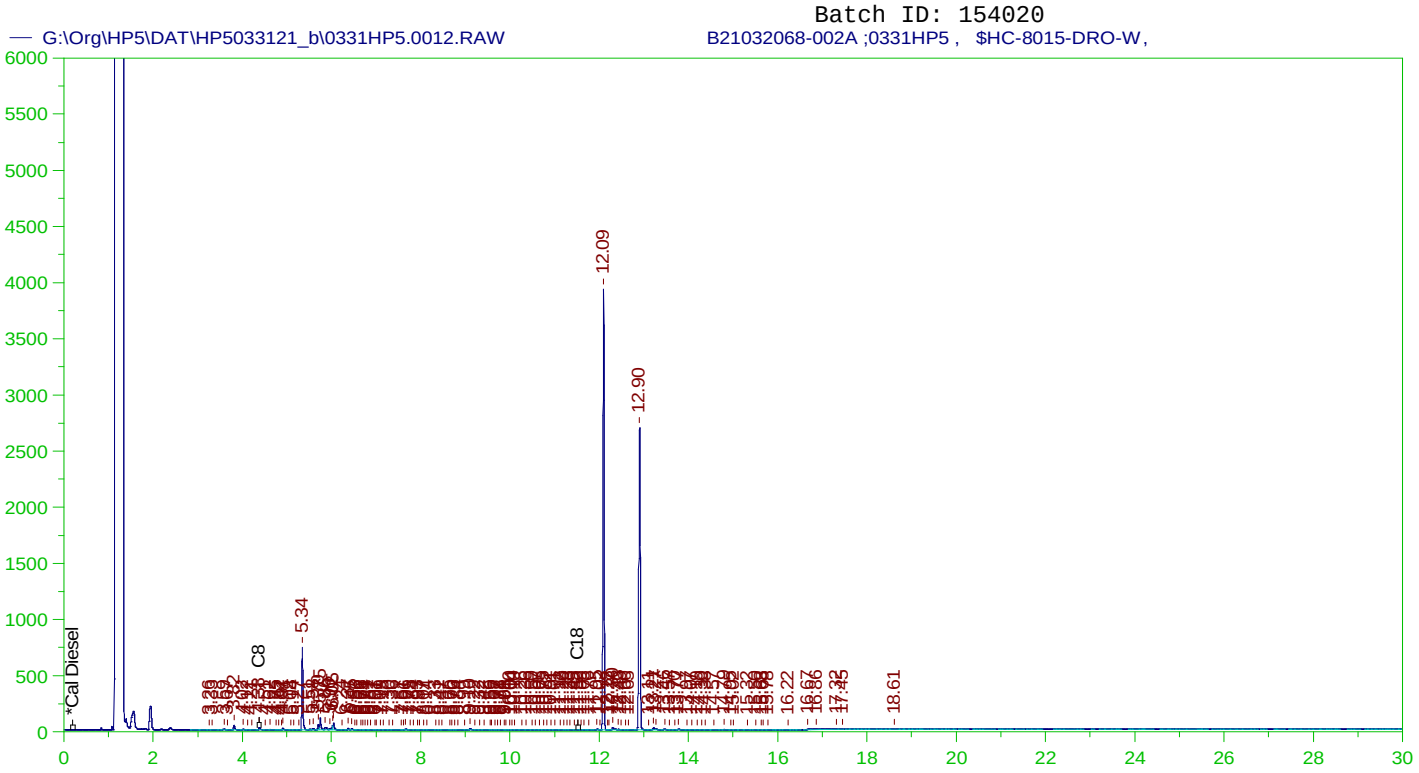
Sample Name: B21032068-002A ;0331HP5 , $HC-8015-DRO-W,
Raw File: G:\org\HP5\DAT\HP5033121_b\0331HP5.0012.RAW
Date & Time Acquired: 3/31/2021 7:52:27 PM
Method File: G:\Org\HP5\Methods\DR_C10-C25-HG-L%.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO210108-C10-C25-HG.CAL
Sample Weight: 1010 Dilution: 1 S.A.: 1

Mean RF for TEH: 29457.33
Rt range for Diesel Range Organics: 6.44 to 14.63

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.095	.198	.209	105.76	-
*1-Chlorooctadecane	12.901	.198	.162	81.94	-

(C10-C25) DRO Area:615766.9 (C10-C25) DRO Amount: 2.069672E-02 AMN 04/01/2021
TEH Area:3019305 TEH Amount: 0.1014827

Batch ID: 154020



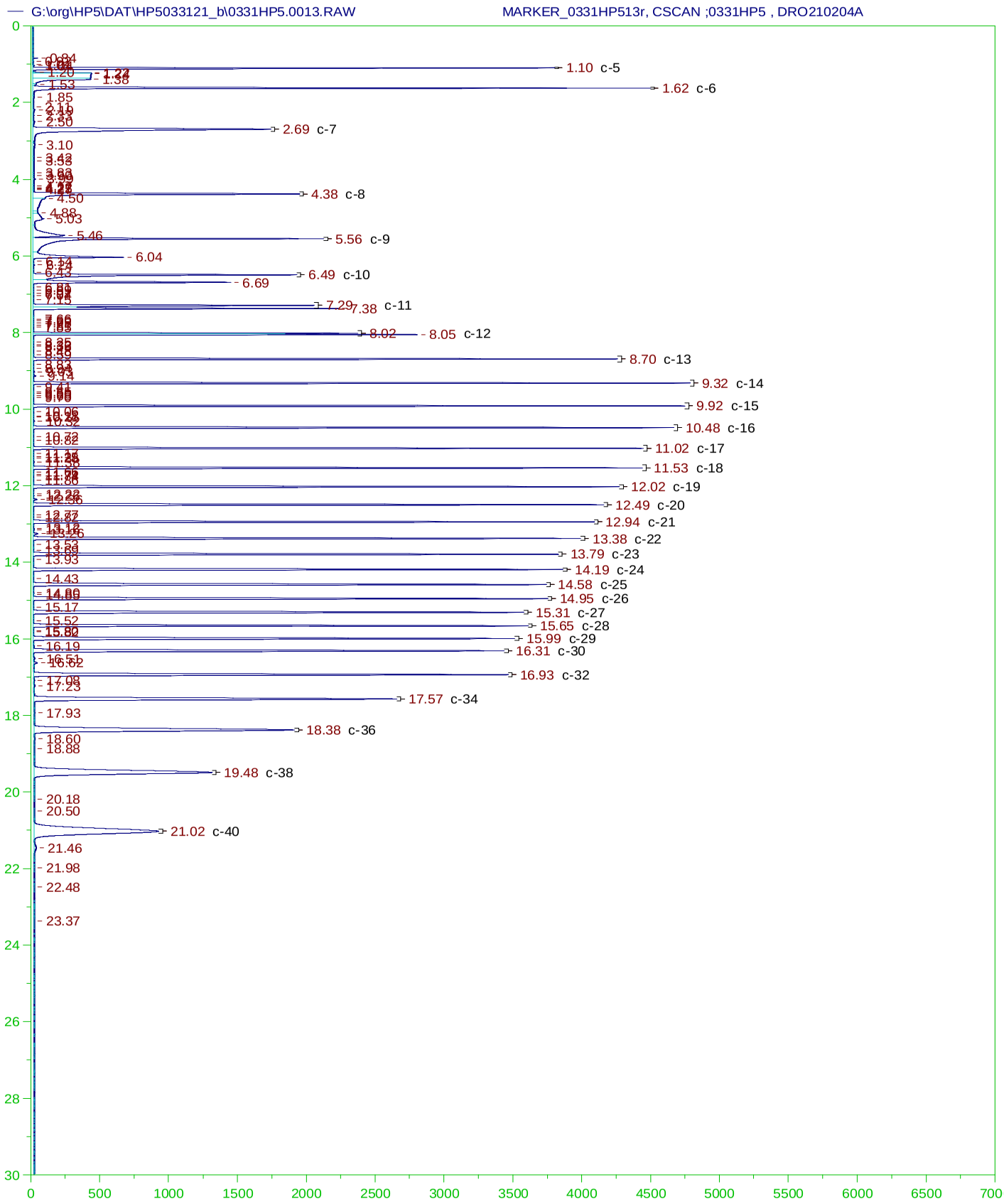
RESIDUAL RANGE ORGANICS CHROMATOGRAM

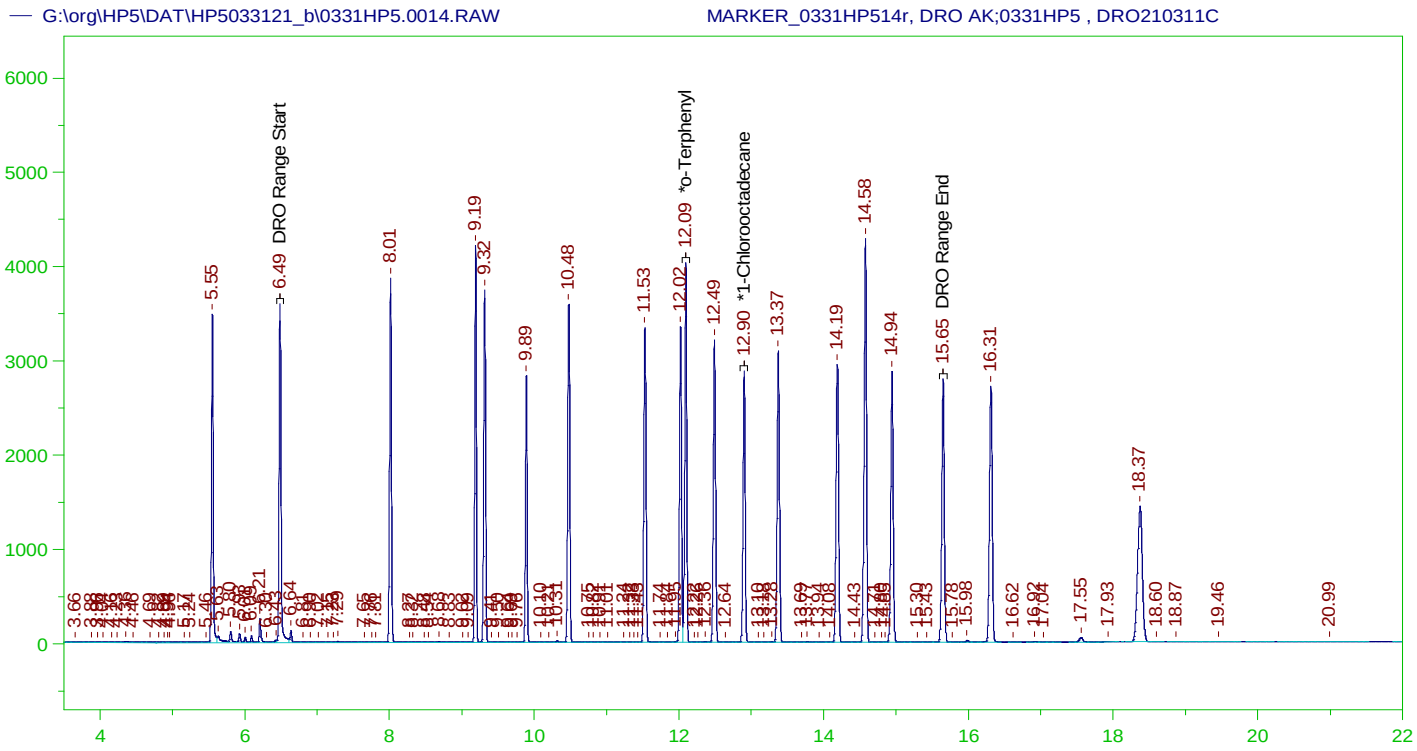
Sample Name: B21032068-002A ;0331HP5 , $HC-8015-DRO-W,
Raw File: G:\Org\HP5\DAT\HP5033121_b\0331HP5.0012.RAW
Date & Time Acquired: 3/31/2021 7:52:27 PM
Method File: G:\Org\HP5\Methods\DR_C8-C18-HG-L%.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO210108-C8-C18-HGb.CAL
Sample Weight: 1010 Dilution: 1 S.A.: 1

Mean RF for for ~~Residual~~ TEH Range Organics Calculations: 29457.33
Rt range for ~~Residual~~ (C8-C18) Range Organics: 4.33 to 11.58

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC

~~RRO~~ (C8-C18) Area:983604 ~~RRO~~ (C8-C18) AMOUNT: 3.339081E-02 AMN 04/01/2021


G:\org\HP5\DAT\HP5033121_b\0331HP5.0013.RAW
MARKER_0331HP513r, CSCAN ;0331HP5 , DRO210204A
1.10 c-5
1.62 c-6
2.69 c-7
4.38 c-8
5.56 c-9
6.49 c-10
7.38 c-11
8.05 c-12
8.70 c-13
9.32 c-14
9.92 c-15
10.48 c-16
11.02 c-17
11.53 c-18
12.02 c-19
12.49 c-20
12.94 c-21
13.38 c-22
13.79 c-23
14.19 c-24
14.58 c-25
14.95 c-26
15.31 c-27
15.65 c-28
15.99 c-29
16.31 c-30
16.93 c-32
17.57 c-34
18.38 c-36
19.48 c-38
21.02 c-40

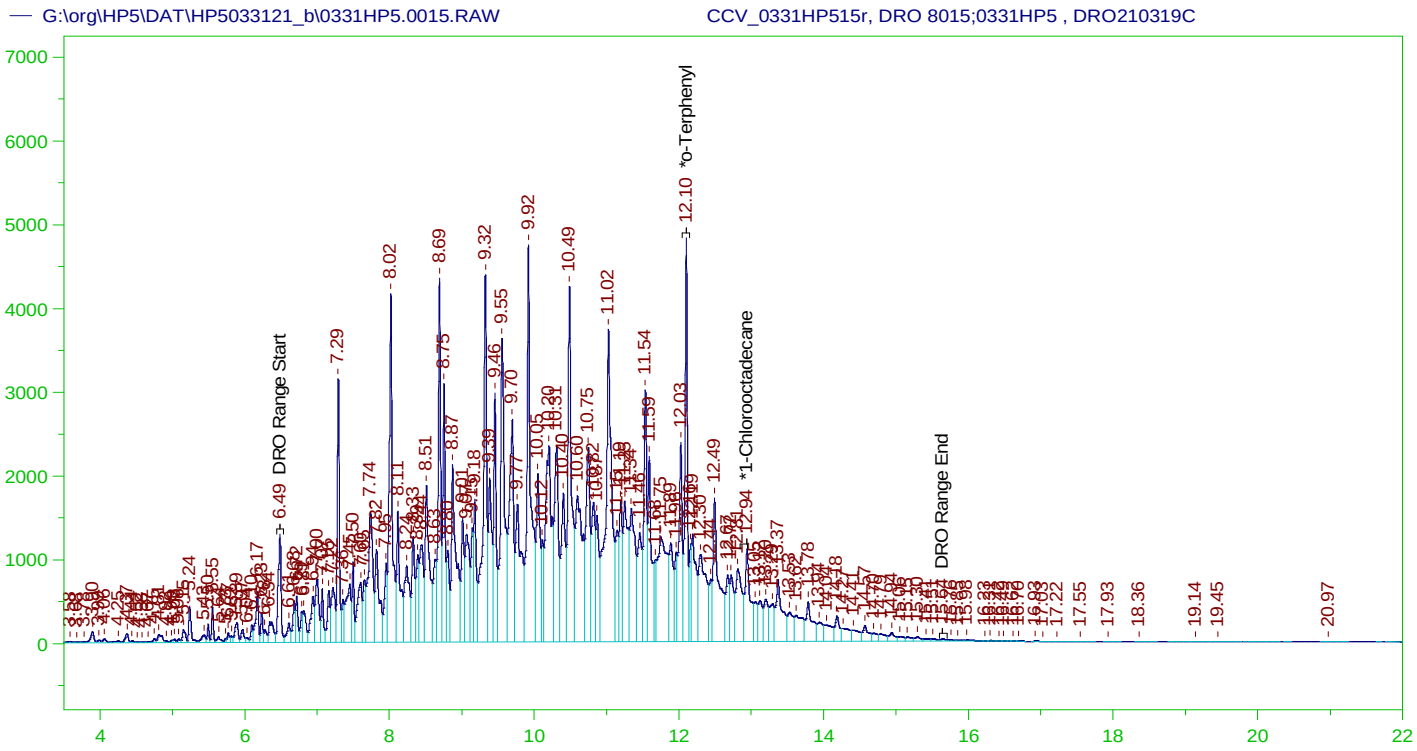


DIESEL RANGE ORGANICS CHROMATOGRAM REPORT
Sample Name: MARKER_0331HP514r, DRO AK;0331HP5 , DRO210311C
Raw File: G:\org\HP5\DAT\HP5033121_b\0331HP5.0014.RAW
Date & Time Acquired: 3/31/2021 9:16:43 PM
Method File: G:\Org\HP5\Methods\DC_8015-HG-L%.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO210108HG.CAL
Sample Weight: 1000 Dilution: 1 S.A.: 1

Mean RF for TEH: 29457.33
Rt range for Diesel Range Organics: 6.439 to 15.702

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.095	.2	.216	108.19	-
*1-Chlorooctadecane	12.9	.2	.172	86.19	-

DRO Area:9.583647E+07 DRO Amount: 3.2534
TEH Area:1.172004E+08 TEH Amount: 3.978648



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT
Sample Name: CCV_0331HP515r, DRO 8015;0331HP5 , DRO210319C
Raw File: G:\org\HP5\DAT\HP5033121_b\0331HP5.0015.RAW
Date & Time Acquired: 3/31/2021 9:58:59 PM
Method File: G:\Org\HP5\Methods\DC_8015-HG-L%.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO210108HG.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 29457.33
Rt range for Diesel Range Organics: 6.439 to 15.702

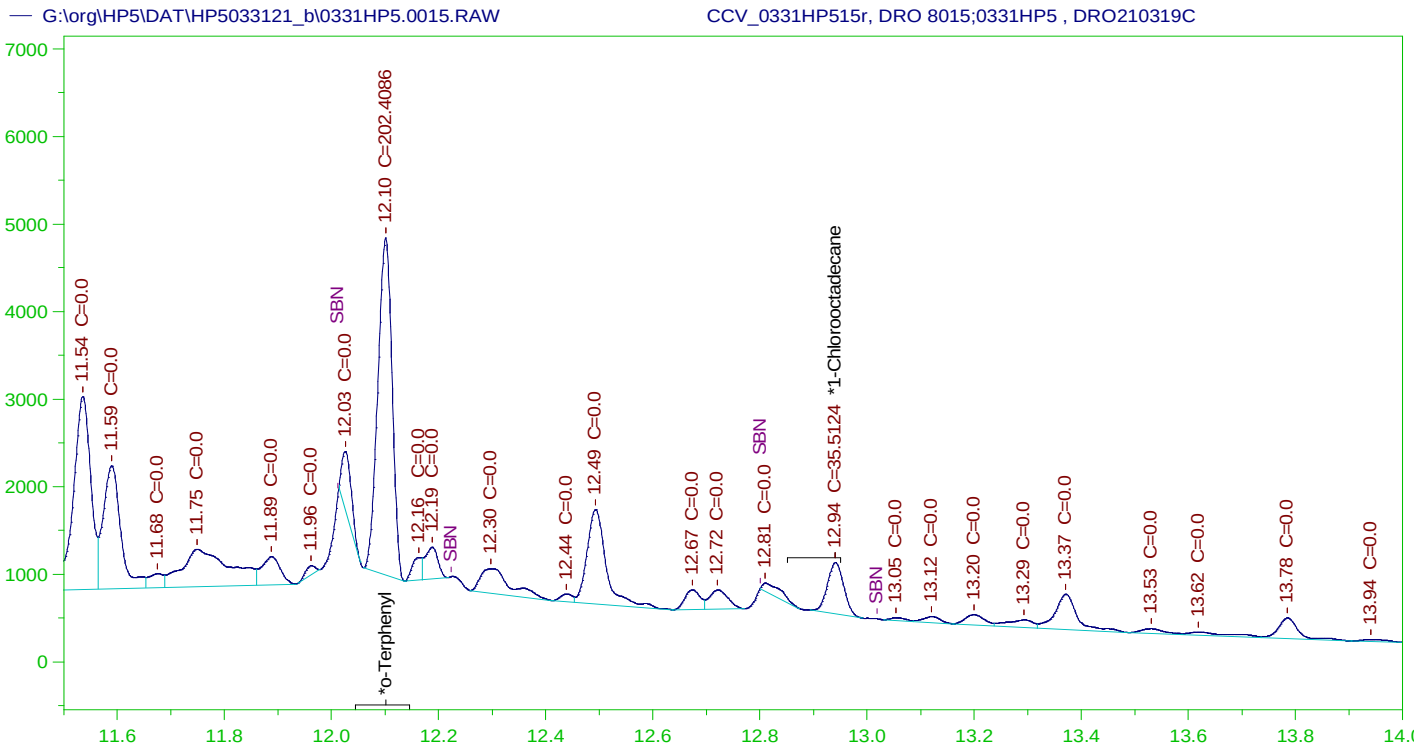
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.101	200.	328.872	164.44	-
*1-Chlorooctadecane	12.941	200.	151.673	75.84	-

DRO Area:4.702817E+08 DRO Amount: 15964.84
TEH Area:4.815636E+08 TEH Amount: 16347.83

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5033121_b\0331HP5.0015.RAW

COMPOUND	ACTUAL(NG)	MEASURED(NG)	%RECOVERY	LIMITS
TOTAL DRO	15000.	16347.83	108.99	85-115

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*o-Terphenyl	12.101	200.	328.872	164.44	85-115
*1-Chlorooctadecane	12.941	200.	151.673	75.84	85-115



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT
Sample Name: CCV_0331HP515r, DRO 8015;0331HP5 , DRO210319C
Raw File: G:\org\HP5\DAT\HP5033121_b\0331HP5.0015.RAW
Date & Time Acquired: 3/31/2021 9:58:59 PM
Method File: G:\Org\HP5\Methods\DS_8015-HG-L#.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO210108HG.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 29457.33
Rt range for Diesel Range Organics: 6.439 to 15.702

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.101	200.	202.409	101.2	-
*1-Chlorooctadecane	12.941	200.	35.512	17.76	-

DRO Area:2.567006E+08 DRO Amount: 8714.318
TEH Area:2.665386E+08 TEH Amount: 9048.293

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5033121_b\0331HP5.0015.RAW

COMPOUND	ACTUAL(NG)	MEASURED(NG)	%RECOVERY	LIMITS
TOTAL DRO	15000.	9048.29	60.32	85-115

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*o-Terphenyl	12.101	200.	202.409	101.2	85-115
*1-Chlorooctadecane	12.941	200.	35.512	17.76	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	**Manual Integrations**
G:\org\HP5\DAT\HP5033121_b\0331HP5.01r	DCM-Baseline Check-01	G:\Org\HP5\Methods\DR_8015-HG-LEXP.met	1	1	1	1	0	No integration
G:\org\HP5\DAT\HP5033121_b\0331HP5.02r	MARKER_0331HP502r, CSCAN ;0331HP5 , DRO210204A	g:\org\HP5\Methods\\CSC210331.met	1	1	1	1	0	No integration
G:\org\HP5\DAT\HP5033121_b\0331HP5.03r	MARKER_0331HP503r, DRO AK;0331HP5 , DRO210311C	G:\Org\HP5\Methods\DC_8015-HG-L%.met	1000	1	1	1	0	No integration
G:\org\HP5\DAT\HP5033121_b\0331HP5.04r	CCV_0331HP504r, DRO 8015;0331HP5 , DRO210319C	G:\Org\HP5\Methods\DC_8015-HG-L%.met G:\Org\HP5\Methods\DS_8015-HG-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 16.27. Surrogates are integrated using a valley to valley integration using Set Basline Now placed slight before at 12.01 and slightly after the surrogate peak at 12.23 and scaling showing surrogate peak from 11.5-14.
G:\org\HP5\DAT\HP5033121_b\0331HP5.05r	DCM-Baseline Check-05	G:\Org\HP5\Methods\DR_8015-HG-LEXP.met	1	1	1	1	0	No integration
G:\org\HP5\DAT\HP5033121_b\0331HP5.06r	LCS-154020 ;0331HP5 ,	G:\Org\HP5\Methods\D3_8015-033106-HG-L%.met G:\Org\HP5\Methods\DS_8015-HG-L#.met	1000	1	1	1	0	The integration of Diesel Range Organics and Total Extractable Hydrocarbons is the hydrocarbon response with reference to the basline. Peak width adjusted. Surrogates are integrated using a valley to valley integration using Set Basline Now placed slight before at 12.01 and slightly after the surrogate peak at 12.23 and scaling showing surrogate peak from 11.5-14.
G:\org\HP5\DAT\HP5033121_b\0331HP5.07r	MB-154020 ;0331HP5 ,	G:\Org\HP5\Methods\DR_8015-HG-L%.met G:\Org\HP5\Methods\DR_C8-C18-HG-L%.met G:\Org\HP5\Methods\DR_C10-C25-HG-L%.met	1000	1	1	1	0	The integration of Diesel Range Organics, Total Extractable Hydrocarbons, C8-C18 range, C10-C25 range is the hydrocarbon response with reference to the basline.
G:\org\HP5\DAT\HP5033121_b\0331HP5.08r	B21032068-001A ;0331HP5 , $HC-8015-DRO-W,	G:\Org\HP5\Methods\DR_8015-HG-L%.met G:\Org\HP5\Methods\DR_C8-C18-HG-L%.met G:\Org\HP5\Methods\DR_C10-C25-HG-L%.met	1040	1	1	1	0	The integration of Diesel Range Organics, Total Extractable Hydrocarbons, C8-C18 range, C10-C25 range is the hydrocarbon response with reference to the basline.
G:\org\HP5\DAT\HP5033121_b\0331HP5.09r	B21032068-001AMS ;0331HP5 ,	G:\Org\HP5\Methods\D3_8015-033106-HG-L%.met G:\Org\HP5\Methods\DS_8015-HG-L#.met	500	1	1	1	0	The integration of Diesel Range Organics and Total Extractable Hydrocarbons is the hydrocarbon response with reference to the basline. Peak width adjusted. Surrogates are integrated using a valley to valley integration using Set Basline Now placed slight before at 12.01 and slightly after the surrogate peak at 12.23 and scaling showing surrogate peak from 11.5-14.
G:\org\HP5\DAT\HP5033121_b\0331HP5.10r	B21032068-001AMSD ;0331HP5 ,	G:\Org\HP5\Methods\D3_8015-033110-HG-L%.met G:\Org\HP5\Methods\DS_8015-HG-L#.met	500	1	1	1	0	The integration of Diesel Range Organics and Total Extractable Hydrocarbons is the hydrocarbon response with reference to the basline. Peak width adjusted. Surrogates are integrated using a valley to valley integration using Set Basline Now placed slight before at 12.01 and slightly after the surrogate peak at 12.23 and scaling showing surrogate peak from 11.5-14.
G:\org\HP5\DAT\HP5033121_b\0331HP5.11r	DCM-Baseline Check-11	G:\Org\HP5\Methods\DR_8015-HG-LEXP.met	1	1	1	1	0	No integration
G:\org\HP5\DAT\HP5033121_b\0331HP5.12r	B21032068-002A ;0331HP5 , $HC-8015-DRO-W,	G:\Org\HP5\Methods\DR_8015-HG-L%.met G:\Org\HP5\Methods\DR_C8-C18-HG-L%.met G:\Org\HP5\Methods\DR_C10-C25-HG-L%.met	1010	1	1	1	0	The integration of Diesel Range Organics, Total Extractable Hydrocarbons, C8-C18 range, C10-C25 range is the hydrocarbon response with reference to the basline.
G:\org\HP5\DAT\HP5033121_b\0331HP5.13r	MARKER_0331HP513r, CSCAN ;0331HP5 , DRO210204A	g:\org\HP5\Methods\\CSC210331.met	1	1	1	1	0	No integration
G:\org\HP5\DAT\HP5033121_b\0331HP5.14r	MARKER_0331HP514r, DRO AK;0331HP5 , DRO210311C	G:\Org\HP5\Methods\DC_8015-HG-L%.met	1000	1	1	1	0	No integration
G:\org\HP5\DAT\HP5033121_b\0331HP5.15r	CCV_0331HP515r, DRO 8015;0331HP5 , DRO210319C	G:\Org\HP5\Methods\DC_8015-HG-L%.met G:\Org\HP5\Methods\DS_8015-HG-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 16.27. Surrogates are integrated using a valley to valley integration using Set Basline Now placed slight before at 12.01 and slightly after the surrogate peak at 12.23 and scaling showing surrogate peak from 11.5-14.

Ann Nebel

Digitally signed by
Ann Nebel
Date: 2021.04.01 12:27:47 -06:00