

Energy Laboratories Inc

ANALYTICAL RUN Summary

13-Jan-22

Run ID GCFID-HP5-B_220111A

Run Start Date:	1/11/2022
Analyst:	Ann Nebel
Ical:	
Column ID:	
Comments:	ICAL-SW8015C_DRO220111JA.CAL

Std ID	Std Name	Std Amount	Std Units	Samp Amount	Samp Units	SampType	Expiration Date
DRO211012B	#2 Diesel in Acetone 150,000 ug/mL					ICV	11/5/2023
DRO211101A	OTP-4000 ug/mL DCM					OTP-CAL	9/30/2024
DRO211214C	Diesel Fuel #2 50,000 ug/mL in DCM					CCV-CAL	4/30/2023
DRO220102D	ALASKA MARKER-200ug/mL					MARKER	5/31/2022

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist						
14976981	CCV_0111HP50	HC-8015-DRO-	CCV		1/11/2022 8:59:2	1	R373149		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		3.205893		15	0	0	0.0749	0.3	50	21%	80	120	0%	S
o-Terphenyl		S	mg/L		0.1968894		0.2	0	0	0.000429	0.002	0	98%	80	120	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist						
14976982	CCV_0111HP50	HC-8015-DRO-	CAL1		1/11/2022 10:25:	1	R373149		0	0							
Analyte		T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
o-Terphenyl		S	mg/L		0.00201677		0.002	0	0	0.000429	0.002	0	101%	80	120	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist						
14976983	CCV_0111HP50	HC-8015-DRO-	CAL2		1/11/2022 11:08:	1	R373149		0	0							
Analyte		T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
o-Terphenyl		S	mg/L		0.0489019		0.05	0	0	0.000429	0.002	0	98%	80	120	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14976984	CCV_0111HP50	HC-8015-DRO-	CAL3		1/11/2022 11:51:	1	R373149		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
o-Terphenyl	S	mg/L		0.2047389		0.2	0	0	0.000429	0.002	0	102%	80	120	0%	
Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14976985	CCV_0111HP50	HC-8015-DRO-	CAL4		1/11/2022 12:34:	1	R373149		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
o-Terphenyl	S	mg/L		0.4884362		0.5	0	0	0.000429	0.002	0	98%	80	120	0%	
Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14976986	CCV_0111HP50	HC-8015-DRO-	CAL5		1/11/2022 1:17:0	1	R373149		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
o-Terphenyl	S	mg/L		1.013008		1	0	0	0.000429	0.002	0	101%	80	120	0%	
Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14976987	CCV_0111HP50	HC-8015-DRO-	CAL1		1/11/2022 1:59:5	1	R373149		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		0.1635249		0.15	0	0	0.0749	0.3	50	109%	80	120	0%	
Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14976989	CCV_0111HP51	HC-8015-DRO-	CAL2		1/11/2022 2:42:3	1	R373149		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		3.698293		3.75	0	0	0.0749	0.3	50	99%	80	120	0%	
Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14976990	CCV_0111HP51	HC-8015-DRO-	CAL3		1/11/2022 3:25:2	1	R373149		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		14.75864		15	0	0	0.0749	0.3	50	98%	80	120	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14976991	CCV_0111HP51	HC-8015-DRO-	CAL4		1/11/2022 4:08:0	1	R373149		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Total Extractable Hydrocarbons	A	mg/L		36.29137		37.5	0	0	0.0749	0.3	50	97%	80	120	0%	
Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14976992	CCV_0111HP51	HC-8015-DRO-	CAL5		1/11/2022 4:51:0	1	R373149		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		48.59718		50	0	0	0.0749	0.3	50	97%	80	120	0%	
Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14976993	CCV_0111HP51	HC-8015-DRO-	ICV		1/11/2022 5:34:2	1	R373149		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		14.05379		15	0	0	0.0749	0.3	50	94%	80	120	0%	

Write Sequence	Data File	Sample Name	Method	Weight	Dil Factor	Amt Inj.	IS	Cal ID
	G:\org\HP5\DAT\HP5011122_b\0111HP5.01r	DCM-Baseline Check-V01	G:\Org\HP5\Methods\DR_8015-IC-LEXP.met	1	1	1	1	0
	G:\org\HP5\DAT\HP5011122_b\0111HP5.02r	CCV_0111HP502r, DRO ;0111HP5 , DRO220102D	G:\Org\HP5\Methods\DC_8015-JA-L%.met	1	1	1	1	0
	G:\org\HP5\DAT\HP5011122_b\0111HP5.03r	DCM-Baseline Check-V03	G:\Org\HP5\Methods\DR_8015-IC-LEXP.met	1	1	1	1	0
	G:\org\HP5\DAT\HP5011122_b\0111HP5.04r	CCV_0111HP504r, CAL1 ;0111HP5 , 2 ug per mL OTP (10 uL of Cal3 + 990 uL DCM(14647)	G:\Org\HP5\Methods\DS_8015-JA-L#.met	1	1	1	1	0
	G:\org\HP5\DAT\HP5011122_b\0111HP5.05r	CCV_0111HP505r, CAL2 ;0111HP5 , 50 ug per mL OTP (100 uL Cal4 + 900 uL of DCM(14647)	G:\Org\HP5\Methods\DS_8015-JA-L#.met	1	1	1	1	0
	G:\org\HP5\DAT\HP5011122_b\0111HP5.06r	CCV_0111HP506r, CAL3 ;0111HP5 , 200 ug per mL OTP (100uL of Cal5 + 400 uL DCM(14647)	G:\Org\HP5\Methods\DS_8015-JA-L#.met	1	1	1	1	0
	G:\org\HP5\DAT\HP5011122_b\0111HP5.07r	CCV_0111HP507r, CAL4 ;0111HP5 , 500 ug per mL OTP (250uL of Cal5 + 250 uL DCM(14647)	G:\Org\HP5\Methods\DS_8015-JA-L#.met	1	1	1	1	0
	G:\org\HP5\DAT\HP5011122_b\0111HP5.08r	CCV_0111HP508r, CAL5 ;0111HP5 , 1000 ug per mL OTP (250 uL 4000 ug/mL OTP DRO211101A + 750 DCM(14647)	G:\Org\HP5\Methods\DS_8015-JA-L#.met	1	1	1	1	0
	G:\org\HP5\DAT\HP5011122_b\0111HP5.09r	CCV_0111HP509r, CAL1 ;0111HP5 , 150 ug per mL Diesel (20 uL of Cal3 + 980 uL DCM(14647), then 100 uL of that + 100 uL of DCM (14647)	G:\Org\HP5\Methods\DC_8015-JA-L%.met	1	1	1	1	0
	G:\org\HP5\DAT\HP5011122_b\0111HP5.10r	CCV_0111HP510r, CAL2 ;0111HP5 , 3750 ug per mL Diesel (100 uL Cal4 + 900 uL of DCM(14647)	G:\Org\HP5\Methods\DC_8015-JA-L%.met	1	1	1	1	0
	G:\org\HP5\DAT\HP5011122_b\0111HP5.11r	CCV_0111HP511r, CAL3 ;0111HP5 , 15000 ug per mL Diesel (300 uL of DRO211214C + 700 uL DCM(14647)	G:\Org\HP5\Methods\DC_8015-JA-L%.met	1	1	1	1	0
	G:\org\HP5\DAT\HP5011122_b\0111HP5.12r	CCV_0111HP512r, CAL4 ;0111HP5 , 37500ug per mL Diesel (750 uL of DRO211214C + 250 uL DCM(14647)	G:\Org\HP5\Methods\DC_8015-JA-L%.met	1	1	1	1	0
	G:\org\HP5\DAT\HP5011122_b\0111HP5.13r	CCV_0111HP513r, CAL5 ;0111HP5 , 50000 ug per mL Diesel (200 uL of DRO211214C)	G:\Org\HP5\Methods\DC_8015-JA-L%.met	1	1	1	1	0
	G:\org\HP5\DAT\HP5011122_b\0111HP5.14r	CCV_0111HP514r, Second Source ;0111HP5 , 15000 ug per mL (100uL of DRO211012B + 900uL DCM(14647)	G:\Org\HP5\Methods\DC_8015-JA-L%.met	1	1	1	1	0

File Name: G:\Org\HP5\Cals\SW8015C_DRO220111JA.CAL

Version: 12

Creator: AMN 01/13/2022

Description: 8015C-DRO. New ICal Per 0111HP5 (2022)-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

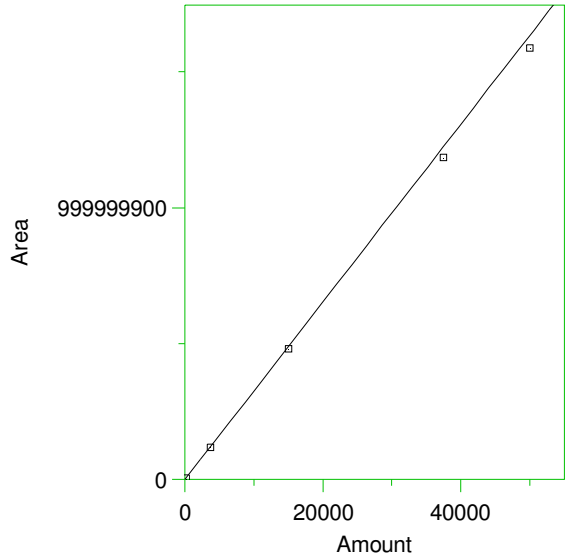
No default component

Method of calculating data point averages: Equal weight for all updates

No calibration update report

All levels are normal data points.

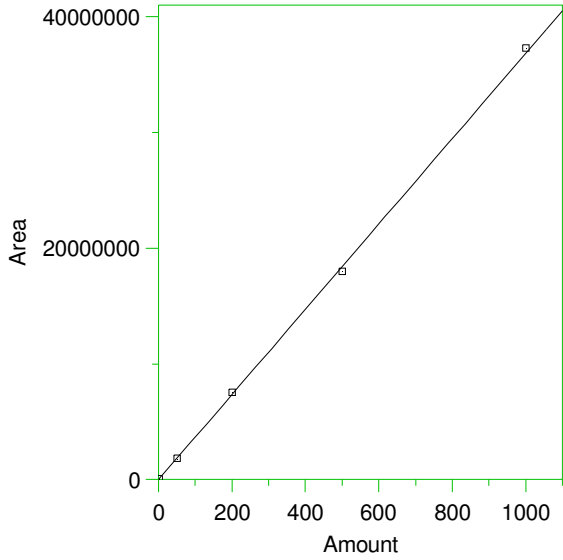
1 DRO Range Start



Expected retention time: 6.68 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
 $Y = 32675.36 X + 0$
 Average CF fit with equal weighting, forced to origin
 Coefficient of determination: 0.9980255
 Average error: 3.607%
 Average CF: 32675.36
 RSD: 5.100%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	150	5343235	35621.57	9.017	Manual	1/13/2022 12:28:36 PM
2	3750	1.20843E+08	32224.8	-1.379	Manual	1/13/2022 12:29:11 PM
3	15000	4.82244E+08	32149.6	-1.609	Manual	1/13/2022 12:29:24 PM
4	37500	1.185834E+09	31622.24	-3.223	Manual	1/13/2022 12:29:37 PM
5	50000	1.58793E+09	31758.6	-2.806	Manual	1/13/2022 12:28:57 PM

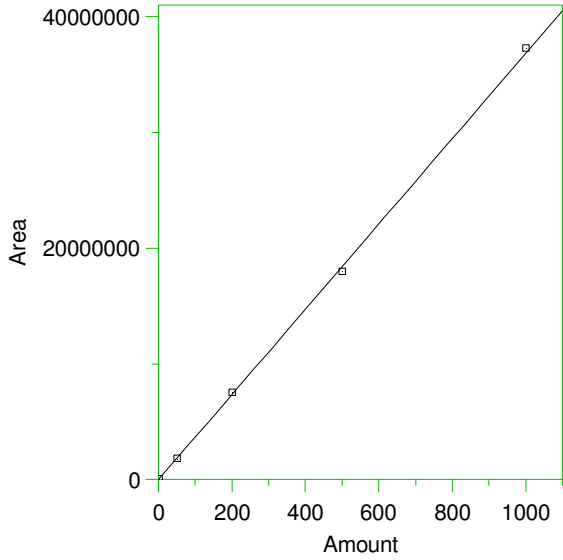
2 *o-Terphenyl



Expected retention time: 12.35 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 = 36857.86 X + 0
 Average CF fit with equal weighting, forced to origin
 Coefficient of determination: 0.9995278
 Average error: 1.804%
 Average CF: 36857.86
 RSD: 2.132%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	2	74333.97	37166.98	0.839	G:\Org\HP5\DAT\HP5011122_b\0111HP5.0004.BND	1/13/2022 12:27:15 PM
2	50	1802420	36048.4	-2.196	G:\Org\HP5\DAT\HP5011122_b\0111HP5.0005.BND	1/13/2022 12:27:23 PM
3	200	7546240	37731.2	2.369	G:\Org\HP5\DAT\HP5011122_b\0111HP5.0006.BND	1/13/2022 12:27:28 PM
4	500	1.800271E+07	36005.42	-2.313	G:\Org\HP5\DAT\HP5011122_b\0111HP5.0007.BND	1/13/2022 12:27:34 PM
5	1000	3.733731E+07	37337.31	1.301	G:\Org\HP5\DAT\HP5011122_b\0111HP5.0008.BND	1/13/2022 12:27:40 PM

3 *1-Chlorooctadecane



Expected retention time: 13.16 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
 $Y = 36857.86 X + 0$
 Average CF fit with equal weighting, forced to origin
 Coefficient of determination: 0.9995278
 Average error: 1.804%
 Average CF: 36857.86
 RSD: 2.132%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	2	74333.97	37166.98	0.839	Manual	1/13/2022 12:27:45 PM
2	50	1802420	36048.4	-2.196	Manual	1/13/2022 12:27:47 PM
3	200	7546240	37731.2	2.369	Manual	1/13/2022 12:27:49 PM
4	500	1.800271E+07	36005.42	-2.313	Manual	1/13/2022 12:27:51 PM
5	1000	3.733731E+07	37337.31	1.301	Manual	1/13/2022 12:27:53 PM

Write Sequence	Data File	Sample Name	Method	Weight	Dil Factor	Amt Inj.	IS	Cal ID	Manual Integrations
		DCM-Baseline Check-V01	G:\Org\HP5-Methods\DR_8015-IC-LEXP.met	1	1	1	1	0	No Integration
		CCV_0111HP502r, DRO ;0111HP5 , DRO220102D	G:\Org\HP5-Methods\DC_8015-JA-L%.met	1	1	1	1	0	No Integration
		DCM-Baseline Check-V03	G:\Org\HP5-Methods\DR_8015-IC-LEXP.met	1	1	1	1	0	No Integration
		CCV_0111HP504r, CAL1 ;0111HP5 , 2 ug per mL OTP (10 uL of Cal3 + 990 uL DCM(14647)	G:\Org\HP5-Methods\DS_8015-JA-L#.met	1	1	1	1	0	Surrogates are integrated using a valley to valley integration Set Baseline All Valley on at 12.01 minutes.
		CCV_0111HP505r, CAL2 ;0111HP5 , 50 ug per mL OTP (100 uL Cal4 + 900 uL of DCM(14647)	G:\Org\HP5-Methods\DS_8015-JA-L#.met	1	1	1	1	0	Surrogates are integrated using a valley to valley integration Set Baseline All Valley on at 12.01 minutes.
		CCV_0111HP506r, CAL3 ;0111HP5 , 200 ug per mL OTP (100uL of Cal5 + 400 uL DCM(14647)	G:\Org\HP5-Methods\DS_8015-JA-L#.met	1	1	1	1	0	Surrogates are integrated using a valley to valley integration Set Baseline All Valley on at 12.01 minutes.
		CCV_0111HP507r, CAL4 ;0111HP5 , 500 ug per mL OTP (250uL of Cal5 + 250 uL DCM(14647)	G:\Org\HP5-Methods\DS_8015-JA-L#.met	1	1	1	1	0	Surrogates are integrated using a valley to valley integration Set Baseline All Valley on at 12.01 minutes.
		CCV_0111HP508r, CAL5 ;0111HP5 , 1000 ug per mL OTP (250 uL 4000 ug/mL OTP DRO211101A + 750 DCM(14647)	G:\Org\HP5-Methods\DS_8015-JA-L#.met	1	1	1	1	0	Surrogates are integrated using a valley to valley integration Set Baseline All Valley on at 12.01 minutes.
		CCV_0111HP509r, CAL1 ;0111HP5 , 150 ug per mL Diesel (20 uL of Cal3 + 980 uL DCM(14647), then 100 uL of that + 100 uL of DCM (14647))	G:\Org\HP5-Methods\DC_8015-JA-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 baseline. Assigned Set Baseline on All Valley on at 16.36 minutes.
		CCV_0111HP510r, CAL2 ;0111HP5 , 3750 ug per mL Diesel (100 uL Cal4 + 900 uL of DCM(14647)	G:\Org\HP5-Methods\DC_8015-JA-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 baseline. Assigned Set Baseline on All Valley on at 16.36 minutes.
		CCV_0111HP511r, CAL3 ;0111HP5 , 15000 ug per mL Diesel (300 uL of DRO211214C + 700 uL DCM(14647)	G:\Org\HP5-Methods\DC_8015-JA-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 baseline. Assigned Set Baseline on All Valley on at 16.36 minutes.
		CCV_0111HP512r, CAL4 ;0111HP5 , 37500ug per mL Diesel (750 uL of DRO211214C + 250 uL DCM(14647)	G:\Org\HP5-Methods\DC_8015-JA-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 baseline. Assigned Set Baseline on All Valley on at 16.36 minutes.
		CCV_0111HP513r, CAL5 ;0111HP5 , 50000 ug per mL Diesel (200 uL of DRO211214C)	G:\Org\HP5-Methods\DC_8015-JA-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 baseline. Assigned Set Baseline on All Valley on at 16.36 minutes.
		CCV_0111HP514r, Second Source ;0111HP5 , 15000 ug per mL (100uL of DRO211012B + 900uL DCM(14647)	G:\Org\HP5-Methods\DC_8015-JA-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 baseline. Assigned Set Baseline on All Valley on at 16.36 minutes.

Ann Nebel

Digitally signed by
Ann Nebel
Date: 2022.02.11 10:29:19 -07:00

Write Sequence	Data File	Sample Name	Method	Weight	Dil Factor	Amt Inj.	IS	Cal ID	Manual Integrations
		DCM-Baseline Check-V01	G:\Org\HP5-Methods\DR_8015-IC-LEXP.met	1	1	1	1	0	No Integration
		CCV_0111HP502r, DRO ,0111HP5 , DRO220102D	G:\Org\HP5-Methods\DC_8015-JA-L%.met	1	1	1	1	0	No Integration
		DCM-Baseline Check-V03	G:\Org\HP5-Methods\DR_8015-IC-LEXP.met	1	1	1	1	0	No Integration
		CCV_0111HP504r, CAL1 ,0111HP5 , 2 ug per mL OTP (10 uL of Cal3 + 990 uL DCM(14647)	G:\Org\HP5-Methods\DS_8015-JA-L#.met	1	1	1	1	0	Surrogates are integrated using a valley to valley integration Set Baseline All Valley on at 12.01 minutes.
		CCV_0111HP505r, CAL2 ,0111HP5 , 50 ug per mL OTP (100 uL Cal4 + 900 uL of DCM(14647)	G:\Org\HP5-Methods\DS_8015-JA-L#.met	1	1	1	1	0	Surrogates are integrated using a valley to valley integration Set Baseline All Valley on at 12.01 minutes.
		CCV_0111HP506r, CAL3 ,0111HP5 , 200 ug per mL OTP (100uL of Cal5 + 400 uL DCM(14647)	G:\Org\HP5-Methods\DS_8015-JA-L#.met	1	1	1	1	0	Surrogates are integrated using a valley to valley integration Set Baseline All Valley on at 12.01 minutes.
		CCV_0111HP507r, CAL4 ,0111HP5 , 500 ug per mL OTP (250uL of Cal5 + 250 uL DCM(14647)	G:\Org\HP5-Methods\DS_8015-JA-L#.met	1	1	1	1	0	Surrogates are integrated using a valley to valley integration Set Baseline All Valley on at 12.01 minutes.
		CCV_0111HP508r, CAL5 ,0111HP5 , 1000 ug per mL OTP (250 uL 4000 ug/mL OTP DRO211101A + 750 DCM(14647)	G:\Org\HP5-Methods\DS_8015-JA-L#.met	1	1	1	1	0	Surrogates are integrated using a valley to valley integration Set Baseline All Valley on at 12.01 minutes.
		CCV_0111HP509r, CAL1 ,0111HP5 , 150 ug per mL Diesel (20 uL of Cal3 + 980 uL DCM(14647), then 100 uL of that + 100 uL of DCM (14647))	G:\Org\HP5-Methods\DC_8015-JA-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 baseline. Assigned Set Baseline on All Valley on at 16.36 minutes.
		CCV_0111HP510r, CAL2 ,0111HP5 , 3750 ug per mL Diesel (100 uL Cal4 + 900 uL of DCM(14647)	G:\Org\HP5-Methods\DC_8015-JA-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 baseline. Assigned Set Baseline on All Valley on at 16.36 minutes.
		CCV_0111HP511r, CAL3 ,0111HP5 , 15000 ug per mL Diesel (300 uL of DRO211214C + 700 uL DCM(14647)	G:\Org\HP5-Methods\DC_8015-JA-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 baseline. Assigned Set Baseline on All Valley on at 16.36 minutes.
		CCV_0111HP512r, CAL4 ,0111HP5 , 37500ug per mL Diesel (750 uL of DRO211214C + 250 uL DCM(14647)	G:\Org\HP5-Methods\DC_8015-JA-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 baseline. Assigned Set Baseline on All Valley on at 16.36 minutes.
		CCV_0111HP513r, CAL5 ,0111HP5 , 50000 ug per mL Diesel (200 uL of DRO211214C)	G:\Org\HP5-Methods\DC_8015-JA-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 baseline. Assigned Set Baseline on All Valley on at 16.36 minutes.
		CCV_0111HP514r, Second Source ,0111HP5 , 15000 ug per mL (100uL of DRO211012B + 900uL DCM(14647)	G:\Org\HP5-Methods\DC_8015-JA-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 baseline. Assigned Set Baseline on All Valley on at 16.36 minutes.

Ann Nebel

Digitally signed by
Ann Nebel
Date: 2022.02.11 10:29:19 -07:00

Energy Laboratories Inc

ANALYTICAL RUN Summary

14-Jan-22

Run ID GCFID-HP5-B_220111C

Run Start Date: 1/11/2022
Analyst: Ann Nebel
Ical:
Column ID:
Comments: ICAL- SW8015C_ORO220111BA.CAL with Triacontane

Std ID	Std Name	Std Amount	Std Units	Samp Amount	Samp Units	SampType	Expiration Date
DRO210902A	50,000 ug/mL Oil Std for RRO-In DCM					ICV	9/1/2026
DRO211006A	Triacontane SURR 2000 ug/mL					CAL-SURR	4/6/2026
DRO211118A	50,000 ug/mL Oil Std For AK103 RRO-In DCM					CAL-ORO	10/31/2028

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14977288	CCV_0111HP52	HC-8015-DRO-	CAL1		1/12/2022 3:39:1	1	R373160		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
n-Triacontane	S	mg/L		0.00190245		0.002	0	0	0.000336	0.002	0	95%	80	120	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14977289	CCV_0111HP52	HC-8015-DRO-	CAL2		1/12/2022 4:22:1	1	R373160		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
n-Triacontane	S	mg/L		0.04984459		0.05	0	0	0.000336	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					
14977290	CCV_0111HP53	HC-8015-DRO-	CAL3		1/12/2022 5:05:2	1	R373160		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
n-Triacontane	S	mg/L		0.2024053		0.2	0	0	0.000336	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					
14977291	CCV_0111HP53	HC-8015-DRO-	CAL4		1/12/2022 5:48:3	1	R373160		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
n-Triacontane	S	mg/L		0.5035697		0.5	0	0	0.000336	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					
14977292	CCV_0111HP55	HC-8015-DRO-	CAL5		1/12/2022 8:49:5	1	R373160		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
n-Triacontane	S	mg/L		1.032718		1	0	0	0.000336	0.002	0	103%	80	120	0%	
Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14977293	CCV_0111HP55	HC-8015-DRO-	CAL1		1/13/2022 3:06:1	1	R373160		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
TEH(Oil Range)	A	mg/L		0.15954587		0.15	0	0	0.0879	0.3	0	106%	80	120	0%	
Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14977294	CCV_0111HP55	HC-8015-DRO-	CAL2		1/13/2022 4:31:3	1	R373160		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
TEH(Oil Range)	A	mg/L		1.03294141		1	0	0	0.0879	0.3	0	103%	80	120	0%	
Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14977295	CCV_0111HP55	HC-8015-DRO-	CAL3		1/13/2022 5:57:4	1	R373160		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
TEH(Oil Range)	A	mg/L		4.9326875		5	0	0	0.0879	0.3	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					
14977296	CCV_0111HP56	HC-8015-DRO-	CAL4		1/13/2022 7:24:1	1	R373160		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
TEH(Oil Range)	A	mg/L		14.328667		15	0	0	0.0879	0.3	0	96%	80	120	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14977297	CCV_0111HP56	HC-8015-DRO-	CAL5		1/13/2022 8:50:3	1	R373160		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
TEH(Oil Range)	A	mg/L		28.7914395		30	0	0	0.0879	0.3	0	96%	80	120	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14977298	CCV_0111HP56	HC-8015-DRO-	ICV		1/14/2022 8:18:1	0	R373160		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
TEH(Oil Range)	A	mg/L		5.07699902		5	0	0	0	0.3	0	102%	80	120	0%	

Write Sequence	Data File	Sample Name	Method	Weight	Dil Factor	Amt Inj.	IS	Cal ID
	G:\org\HP5\DAT\HP5011122 b\0111HP5.25r	DCM-Baseline Check-V25	G:\Org\HP5\Methods\DR_8015-IC-LEXP.met	1	1	1	1	0
	G:\org\HP5\DAT\HP5011122 b\0111HP5.26r	Marker_0111HP526r, DRO :0111HP5 , DRO220111A	G:\org\HP5\Methods\CSC210212.met	1	1	1	1	0
	G:\org\HP5\DAT\HP5011122 b\0111HP5.27r	DCM-Baseline Check-V27	G:\Org\HP5\Methods\DR_8015-HS-LEXP.met	1	1	1	1	0
	G:\org\HP5\DAT\HP5011122 b\0111HP5.28r	CCV_0111HP528r, CAL1 :0111HP5 , 2 ug per mL Triacotane (10 uL of Cal3 + 990 uL DCM(14647)	G:\Org\HP5\Methods\DS_ORO-BA-L#.MET	1	1	1	1	0
	G:\org\HP5\DAT\HP5011122 b\0111HP5.29r	CCV_0111HP529r, CAL2 :0111HP5 , 50 ug per mL Triacotane (100 uL Cal4 + 900 uL of DCM(14647)	G:\Org\HP5\Methods\DS_ORO-BA-L#.MET	1	1	1	1	0
	G:\org\HP5\DAT\HP5011122 b\0111HP5.30r	CCV_0111HP530r, CAL3 :0111HP5 , 200 ug per mL Triacotane (100uL of Cal5 + 400 uL DCM(14647)	G:\Org\HP5\Methods\DS_ORO-BA-L#.MET	1	1	1	1	0
	G:\org\HP5\DAT\HP5011122 b\0111HP5.31r	CCV_0111HP531r, CAL4 :0111HP5 , 500 ug per mL Triacotane (250uL of Cal5 + 250 uL DCM(14647)	G:\Org\HP5\Methods\DS_ORO-BA-L#.MET	1	1	1	1	0
	G:\org\HP5\DAT\HP5011122 b\0111HP5.32r	DCM-Baseline Check-V32	G:\Org\HP5\Methods\DR_8015-HE-LEXP.met	1	1	1	1	0
	G:\org\HP5\DAT\HP5011122 b\0111HP5.50r	CCV_0111HP550r, CAL5 :0111HP5 , 1000 ug per mL Triacotane (DRO211006A)	G:\Org\HP5\Methods\DS_ORO-BA-L#.MET	1	1	1	1	0
	G:\org\HP5\DAT\HP5011122 b\0111HP5.51r	DCM-Baseline Check-V51	G:\Org\HP5\Methods\DR_8015-IC-LEXP.met	1	1	1	1	0
	G:\org\HP5\DAT\HP5011122 b\0111HP5.52r	DCM-Baseline Check-V52	G:\Org\HP5\Methods\DR_8015-IC-LEXP.met	1	1	1	1	0
	G:\org\HP5\DAT\HP5011122 b\0111HP5.53r	Marker_0111HP553r, DRO :0111HP5 , DRO220111A	G:\org\HP5\Methods\CSC210212.met	1	1	1	1	0
	G:\org\HP5\DAT\HP5011122 b\0111HP5.54r	DCM-Baseline Check-V54	G:\Org\HP5\Methods\DR_8015-IC-LEXP.met	1	1	1	1	0
	G:\org\HP5\DAT\HP5011122 b\0111HP5.55r	CCV_0111HP555r, CAL1 :0111HP5 , 150 ug per mL Oil (10 uL of Cal4 + 990 uL DCM(14647)	G:\Org\HP5\Methods\DC_ORO-55-BA-L%.xls	1	1	1	1	0
	G:\org\HP5\DAT\HP5011122 b\0111HP5.56r	DCM-Baseline Check-V56	G:\Org\HP5\Methods\DR_8015-HE-LEXP.met	1	1	1	1	0
	G:\org\HP5\DAT\HP5011122 b\0111HP5.57r	CCV_0111HP557r, CAL2 :0111HP5 , 1000 ug per mL Oil (200 uL of Cal 3 +800 uL DCM(14647)	G:\Org\HP5\Methods\DC_ORO-57-BA-L%.xls	1	1	1	1	0
	G:\org\HP5\DAT\HP5011122 b\0111HP5.58r	DCM-Baseline Check-V58	G:\Org\HP5\Methods\DR_8015-HE-LEXP.met	1	1	1	1	0
	G:\org\HP5\DAT\HP5011122 b\0111HP5.59r	CCV_0111HP559r, CAL3 :0111HP5 , 5000 ug per mL Oil (100 uL of DRO211118A + 900 uL DCM(14647)	G:\Org\HP5\Methods\DC_ORO-59-BA-L%.xls	1	1	1	1	0
	G:\org\HP5\DAT\HP5011122 b\0111HP5.60r	DCM-Baseline Check-V60	G:\Org\HP5\Methods\DR_8015-HE-LEXP.met	1	1	1	1	0
	G:\org\HP5\DAT\HP5011122 b\0111HP5.61r	CCV_0111HP561r, CAL4 :0111HP5 , 15000 ug per mL Oil (200 uL of CAL5 + 200 uL DCM(14647)	G:\Org\HP5\Methods\DC_ORO-61-BA-L%.xls	1	1	1	1	0
	G:\org\HP5\DAT\HP5011122 b\0111HP5.62r	DCM-Baseline Check-V62	G:\Org\HP5\Methods\DR_8015-HE-LEXP.met	1	1	1	1	0
	G:\org\HP5\DAT\HP5011122 b\0111HP5.63r	CCV_0111HP563r, CAL5 :0111HP5 , 30000 ug per mL Oil (600 uL of DRO211118A + 400 uL of DCM)	G:\Org\HP5\Methods\DC_ORO-BA-L%.xls	1	1	1	1	0
	G:\org\HP5\DAT\HP5011122 b\0111HP5.64r	DCM-Baseline Check-V64	G:\Org\HP5\Methods\DR_8015-HE-LEXP.met	1	1	1	1	0
	G:\org\HP5\DAT\HP5011122 b\0111HP5.65r	DCM-Baseline Check-V65	G:\Org\HP5\Methods\DR_8015-HE-LEXP.met	1	1	1	1	0
	G:\org\HP5\DAT\HP5011122 b\0111HP5.66r	DCM-Baseline Check-V66	G:\Org\HP5\Methods\DR_8015-HE-LEXP.met	1	1	1	1	0
	G:\org\HP5\DAT\HP5011122 b\0111HP5.68r	DCM-Baseline Check-V68	G:\Org\HP5\Methods\DR_8015-IC-LEXP.met	1	1	1	1	0
	G:\org\HP5\DAT\HP5011122 b\0111HP5.69r	CCV_0111HP567r, Second Source :0111HP5 , 5000 ug per mL (100uL of DRO210902A + 900uL DCM(14647)	G:\Org\HP5\Methods\DC_ORO-59-BA-L%.xls	1	1	1	1	0

File Name: G:\Org\HP5\Cals\SW8015C_ORO220111BA.CAL
Version: 11

Creator: AMN
Description: 8015C-Oil Range with Triacontane. New ICal Per 0111HP5,(2022)-2 uL Inj.;
Reason for change:

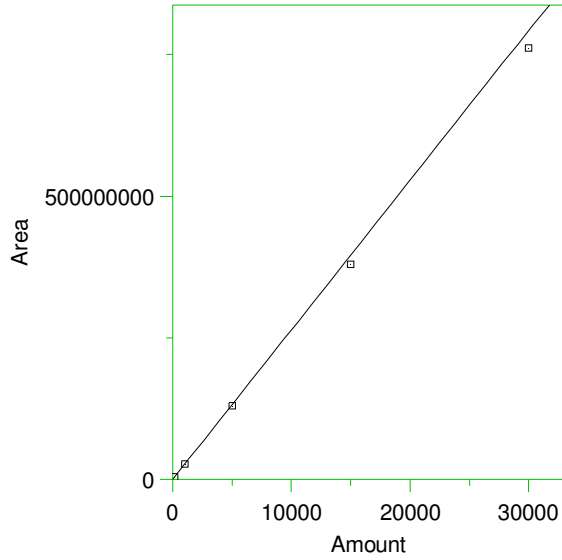
External standard calibration

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

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

All levels are normal data points.

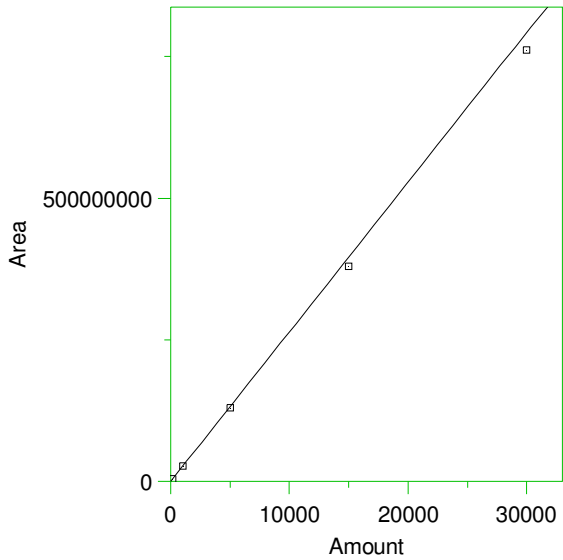
1 *30-40 Motor Oil



Expected retention time: 6.4 minutes
 Search window: 0.05 minutes
 No retention time reference component
 Group number: 0
 High alarm limit: 0
 Low alarm limit: 0
 Component constant: 0
 Single peak quantification by area
 $Y = 26424.55 X + 0$
 Average CF fit with equal weighting, forced to origin
 Coefficient of determination: 0.9969108
 Average error: 3.495%
 Average CF: 26424.55
 RSD: 4.293%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	150	4177025	27846.83	5.382	Manual	1/14/2022 7:51:42 AM
2	1000	2.73111E+07	27311.1	3.355	Manual	1/14/2022 8:05:40 AM
3	5000	1.313247E+08	26264.94	-0.604	Manual	1/14/2022 8:05:24 AM
4	15000	3.796282E+08	25308.55	-4.223	Manual	1/14/2022 8:05:07 AM
5	30000	7.617404E+08	25391.35	-3.910	Manual	1/14/2022 8:04:35 AM

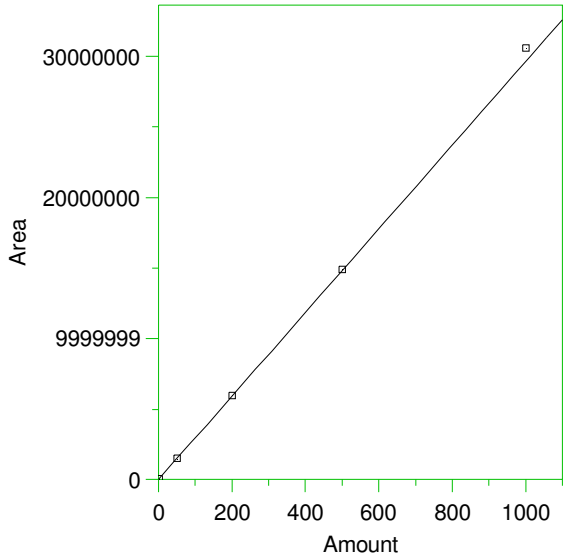
2 #C20



Expected retention time: 12.56 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 = 26424.55 X + 0
 Average CF fit with equal weighting, forced to origin
 Coefficient of determination: 0.9969108
 Average error: 3.495%
 Average CF: 26424.55
 RSD: 4.293%

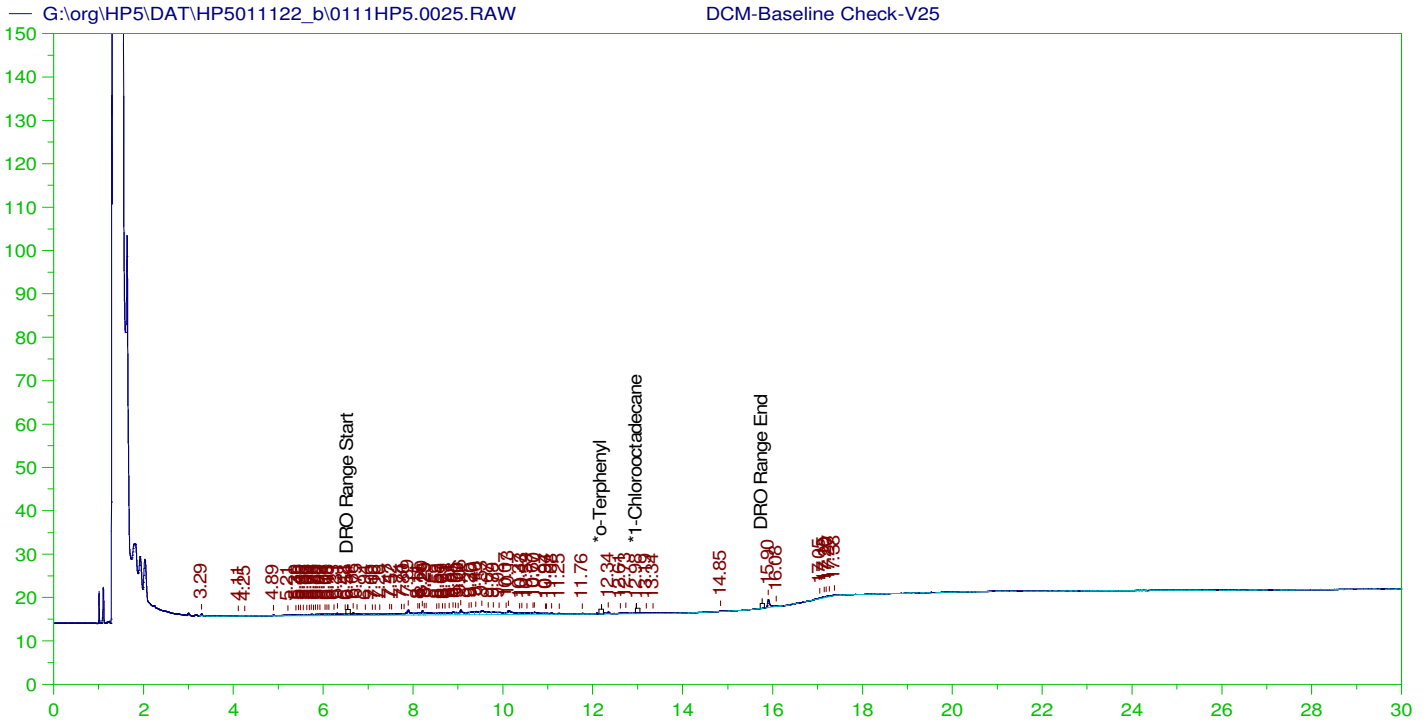
Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	150	4177025	27846.83	5.382	Manual	1/14/2022 8:06:03 AM
2	1000	2.73111E+07	27311.1	3.355	Manual	1/14/2022 8:06:05 AM
3	5000	1.313247E+08	26264.94	-0.604	Manual	1/14/2022 8:06:06 AM
4	15000	3.796282E+08	25308.55	-4.223	Manual	1/14/2022 8:06:11 AM
5	30000	7.617404E+08	25391.35	-3.910	Manual	1/14/2022 8:06:13 AM

3 *#Triacontane



Expected retention time: 16.44 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 = 29636.1 X + 0
 Average CF fit with equal weighting, forced to origin
 Coefficient of determination: 0.9984925
 Average error: 2.075%
 Average CF: 29636.1
 RSD: 3.023%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	2	56381.2	28190.6	-4.878	Manual	1/13/2022 12:38:47 PM
2	50	1477199	29543.98	-0.311	Manual	1/13/2022 12:38:50 PM
3	200	5998503	29992.52	1.203	Manual	1/13/2022 12:38:53 PM
4	500	1.492384E+07	29847.68	0.714	Manual	1/13/2022 12:38:56 PM
5	1000	3.060573E+07	30605.73	3.272	Manual	1/13/2022 12:39:03 PM



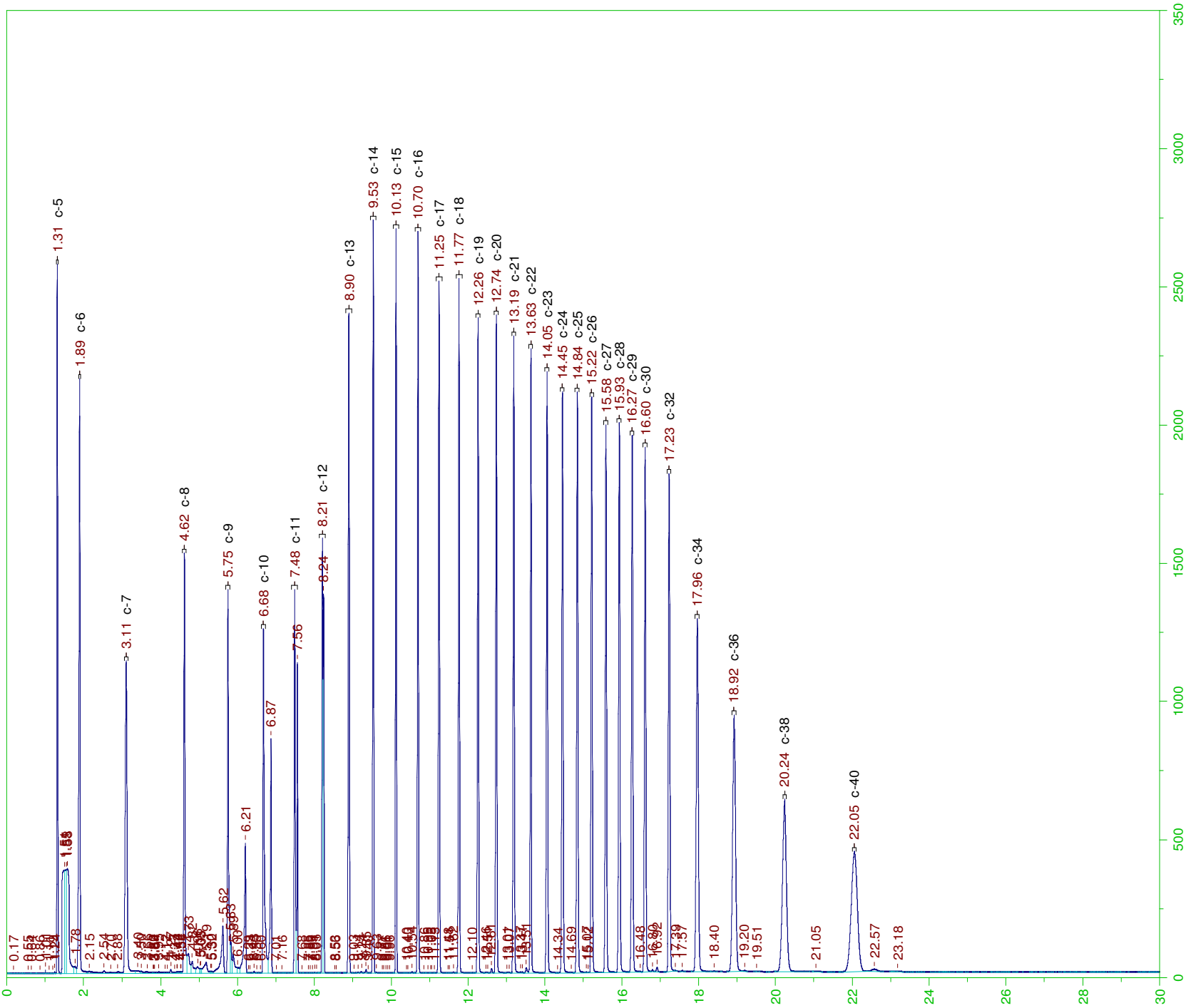
DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

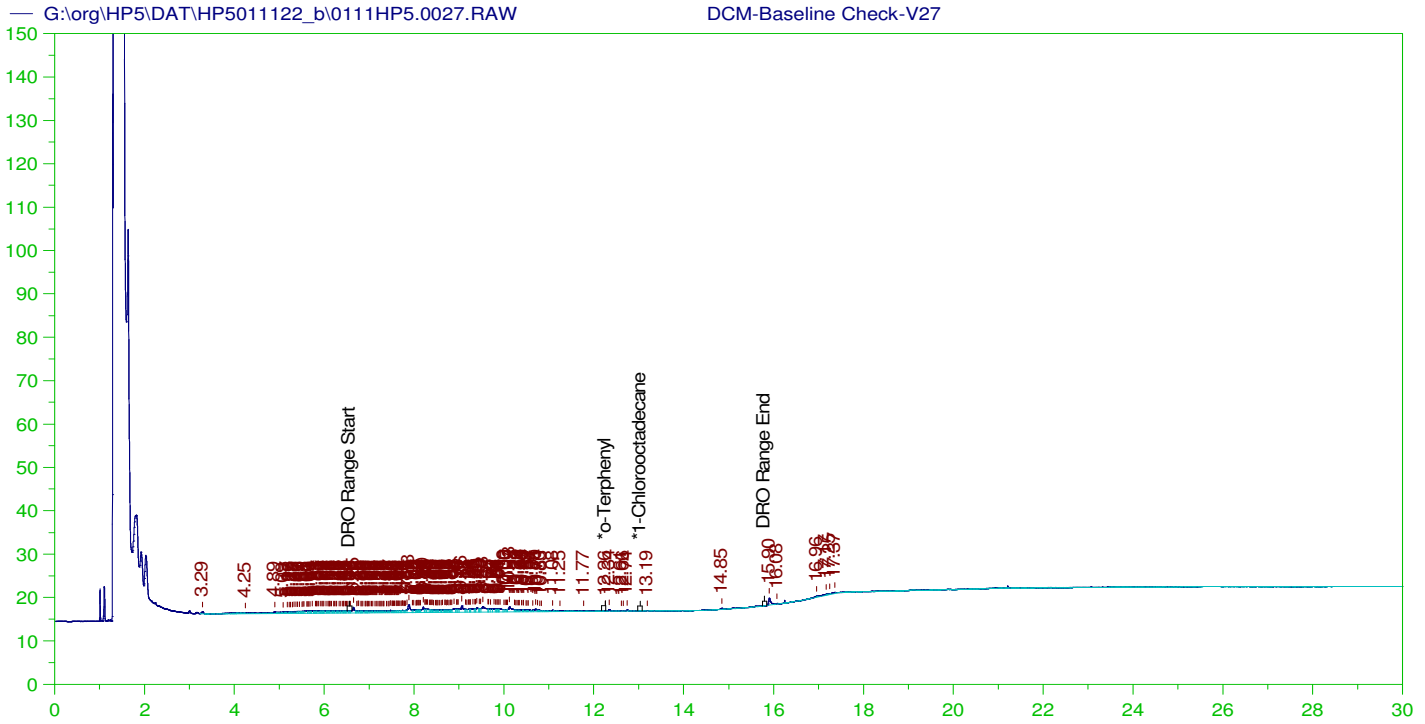
Sample Name: DCM-Baseline Check-V25
 Raw File: G:\org\HP5\DAT\HP5011122_b\0111HP5.0025.RAW
 Date & Time Acquired: 1/12/2022 1:29:46 AM
 Method File: G:\Org\HP5\Methods\DR_8015-IC-LEXP.met
 Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IC.CAL
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19
 Rt range for Diesel Range Organics: 6.5 to 15.82

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	29.899	200.	.	-
*1-Chlorooctadecane	12.975	200.	.017	.01

DRO Area:132028.6 DRO Amount: 4.211011
 TEH Area:186308.4 TEH Amount: 5.942247





DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: DCM-Baseline Check-V27
 Raw File: G:\org\HP5\DAT\HP5011122_b\0111HP5.0027.RAW
 Date & Time Acquired: 1/12/2022 2:56:04 AM
 Method File: G:\Org\HP5\Methods\DR_8015-HS-LEXP.met
 Calibration File: G:\Org\HP5\Cals\SW8015C_DRO210108Hs.CAL
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 29457.33

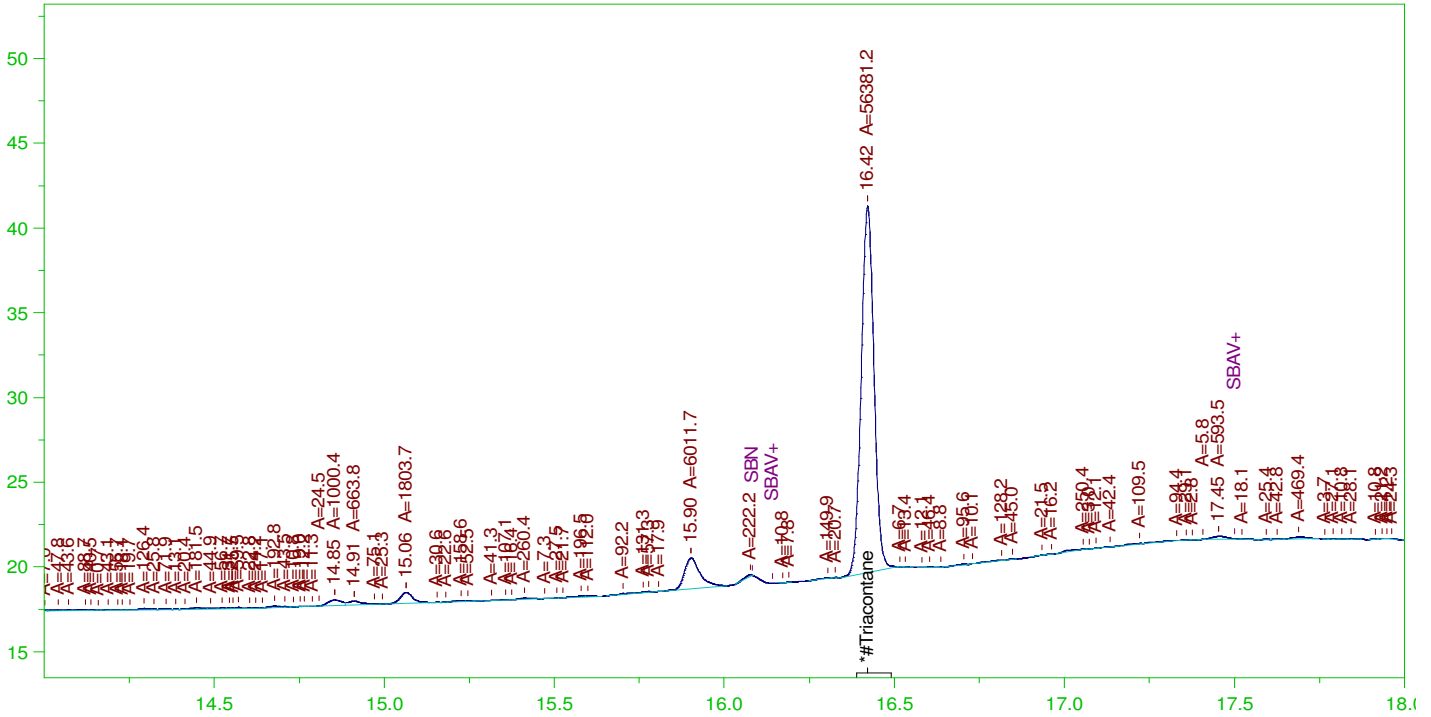
Rt range for Diesel Range Organics: 6.51 to 15.85

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.261	200.	.017	.01	-
*1-Chlorooctadecane	29.983	200.	.	.	-

DRO Area:193795.7 DRO Amount: 6.578862
 TEH Area:272770 TEH Amount: 9.259835

G:\Org\HP5\DAT\HP5011122_b\0111HP5.0028.RAW

CCV_0111HP528r, CAL1 ;0111HP5 , 2 ug per mL Triacontane



RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: CCV_0111HP528r, CAL1 ;0111HP5 , 2 ug per mL Triacontane
 Raw File: G:\Org\HP5\DAT\HP5011122_b\0111HP5.0028.RAW
 Date & Time Acquired: 1/12/2022 3:39:11 AM
 Method File: G:\Org\HP5\Methods\DS_ORO-BA-L%.MET
 Calibration File: G:\Org\HP5\Cals\SW8015C_ORO220111ba.CAL
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 28542.41
 Rt range for Residual Range Organics: 12.51 to 30.05

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*#Triacontane	16.421	500.	1.902	.38

RRO Area:11465.21 RRO AMOUNT: 0.4016902

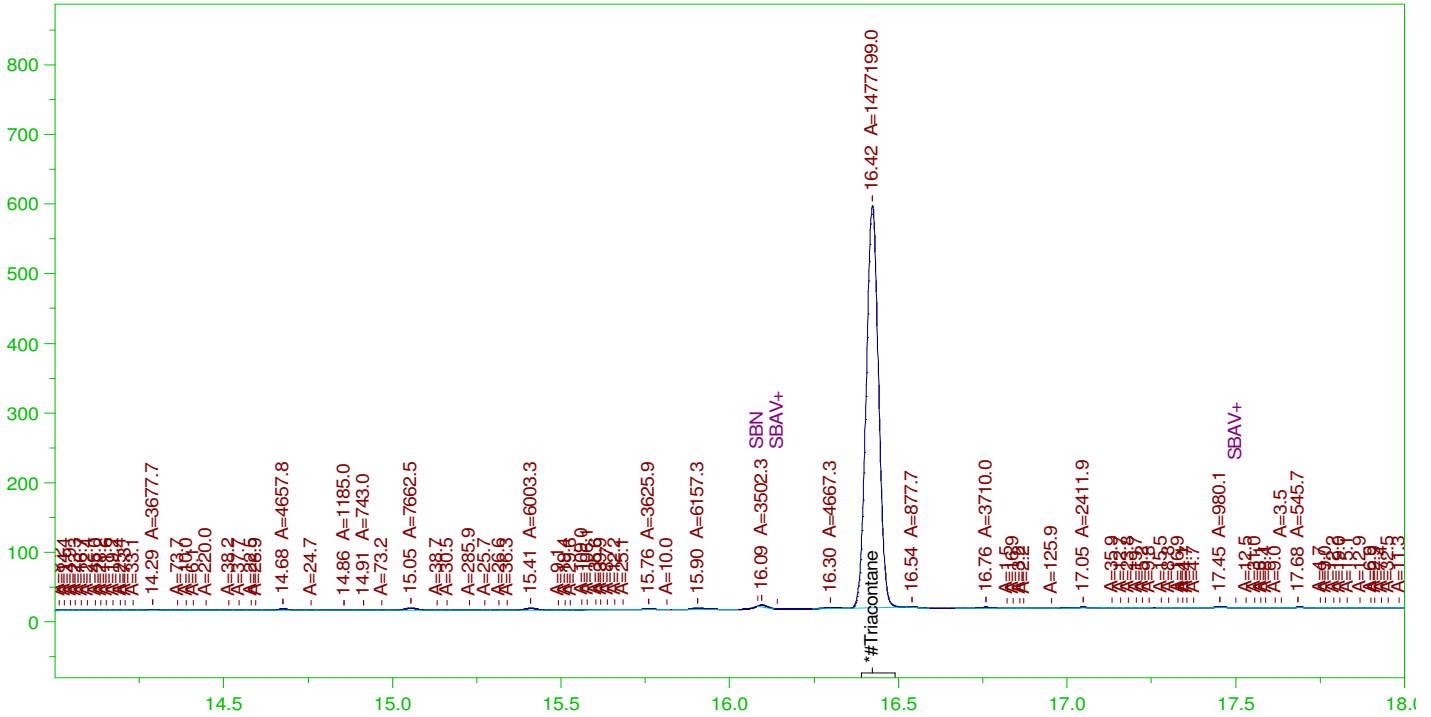
CONTINUING CALIBRATION REPORT: G:\Org\HP5\DAT\HP5011122_b\0111HP5.0028.RAW

COMPOUND	ACTUAL (NG)	MEASURED (NG)	%RECOVERY	LIMITS
*30-40 Motor Oil	5000.	.056	.	75-125

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*#Triacontane	16.421	200.	1.902	.95	75-125

G:\org\HP5\DAT\HP5011122_b\0111HP5.0029.RAW

CCV_0111HP529r, CAL2 ;0111HP5 , 50 ug per mL Triacontane



RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: CCV_0111HP529r, CAL2 ;0111HP5 , 50 ug per mL Triacontane
 Raw File: G:\org\HP5\DAT\HP5011122_b\0111HP5.0029.RAW
 Date & Time Acquired: 1/12/2022 4:22:15 AM
 Method File: G:\Org\HP5\Methods\DS_ORO-BA-L%.MET
 Calibration File: G:\Org\HP5\Cals\SW8015C_ORO220111ba.CAL
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 28542.41
 Rt range for Residual Range Organics: 12.51 to 30.05

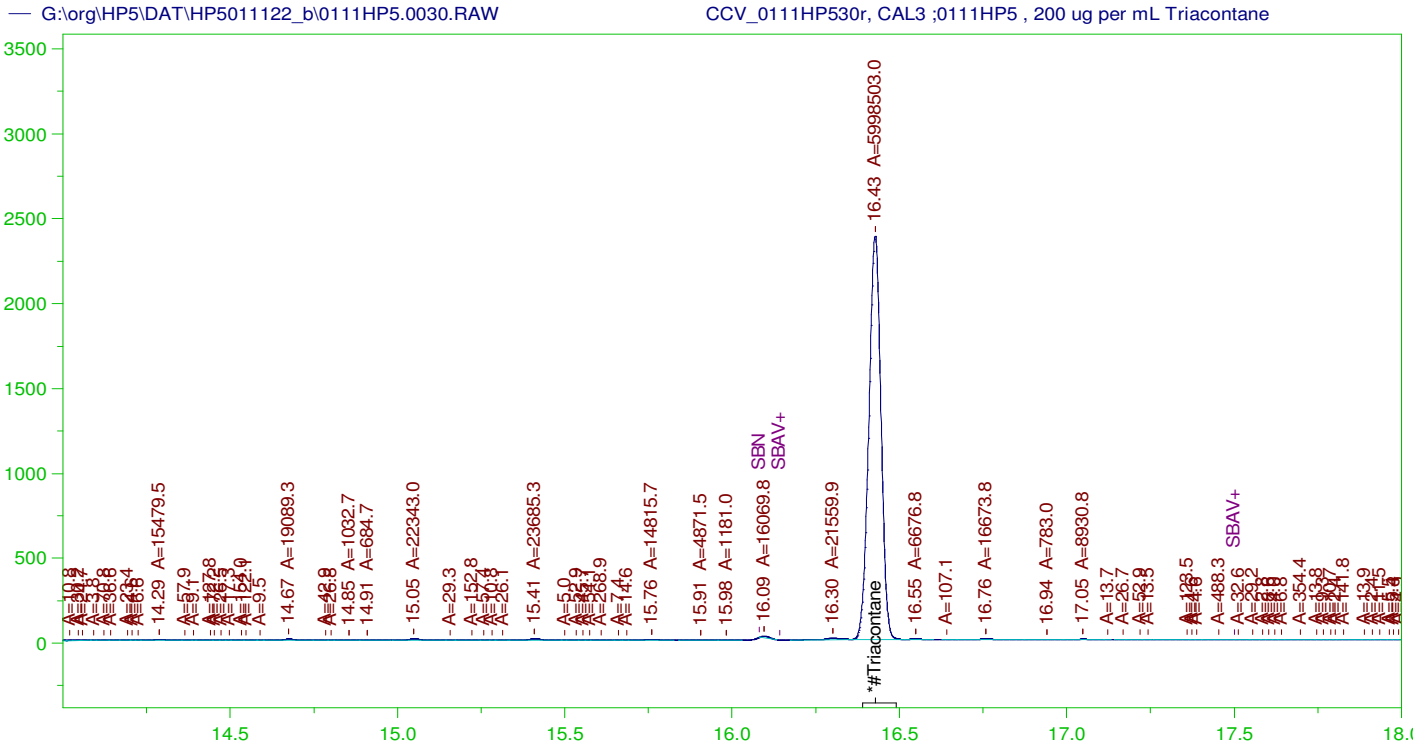
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.423	500.	49.845	9.97	-

RRO Area:60154.51 RRO AMOUNT: 2.107548

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5011122_b\0111HP5.0029.RAW

COMPOUND	ACTUAL (NG)	MEASURED (NG)	%RECOVERY	LIMITS
*30-40 Motor Oil	5000.	.023	.	75-125

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*#Triacontane	16.423	200.	49.845	24.92	75-125



RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: CCV_0111HP530r, CAL3 ;0111HP5 , 200 ug per mL Triacontane
 Raw File: G:\org\HP5\DAT\HP5011122_b\0111HP5.0030.RAW
 Date & Time Acquired: 1/12/2022 5:05:25 AM
 Method File: G:\Org\HP5\Methods\DS_ORO-BA-L%.MET
 Calibration File: G:\Org\HP5\Cals\SW8015C_ORO220111ba.CAL
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 28542.41
 Rt range for Residual Range Organics: 12.51 to 30.05

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.427	500.	202.405	40.48	-

RRO Area:200104.8 RRO AMOUNT: 7.01079

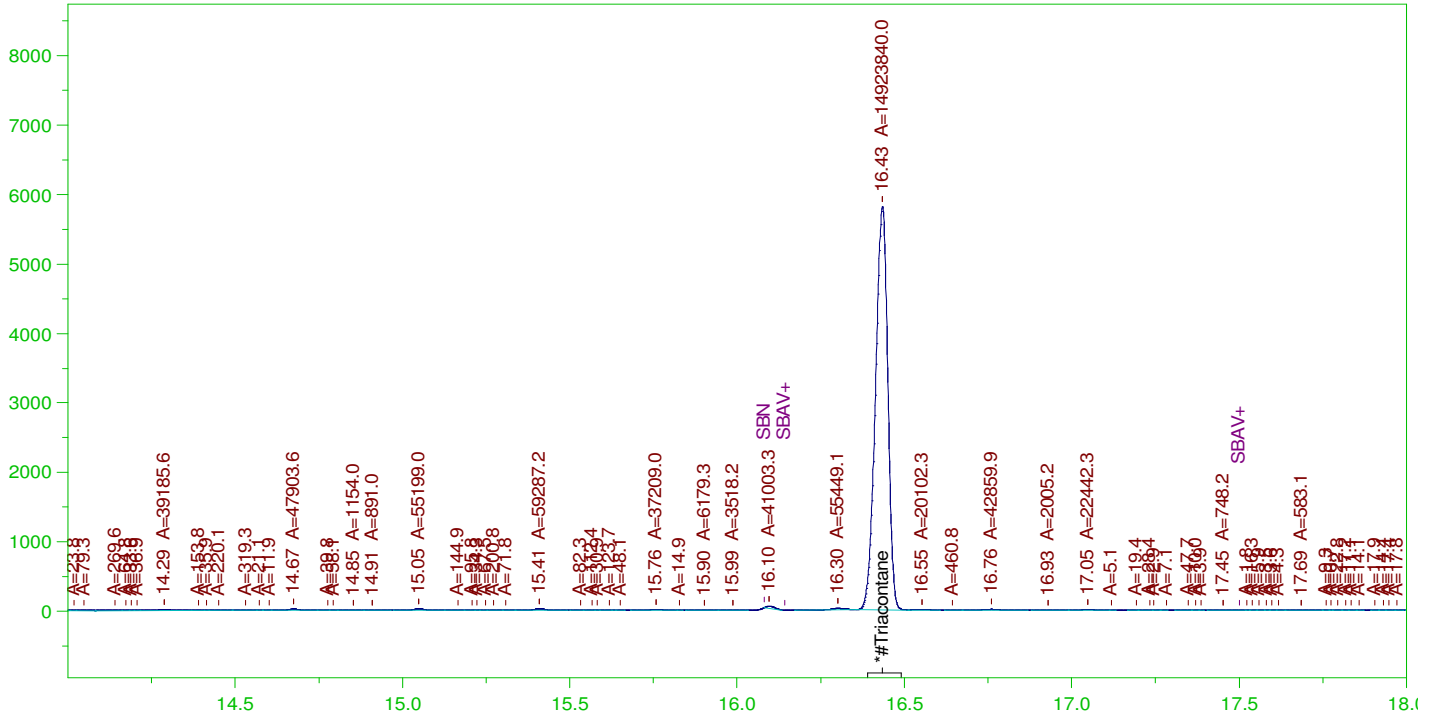
CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5011122_b\0111HP5.0030.RAW

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

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*#Triacontane	16.427	200.	202.405	101.2	75-125

G:\org\HP5\DAT\HP5011122_b\0111HP5.0031.RAW

CCV_0111HP531r, CAL4 ;0111HP5 , 500 ug per mL Triacontane



RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: CCV_0111HP531r, CAL4 ;0111HP5 , 500 ug per mL Triacontane
 Raw File: G:\org\HP5\DAT\HP5011122_b\0111HP5.0031.RAW
 Date & Time Acquired: 1/12/2022 5:48:34 AM
 Method File: G:\Org\HP5\Methods\DS_ORO-BA-L%.MET
 Calibration File: G:\Org\HP5\Cals\SW8015C_ORO220111ba.CAL
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 28542.41
 Rt range for Residual Range Organics: 12.51 to 30.05

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*#Triacontane	16.434	500.	503.57	100.71

RRO Area:497882.9 RRO AMOUNT: 17.44362

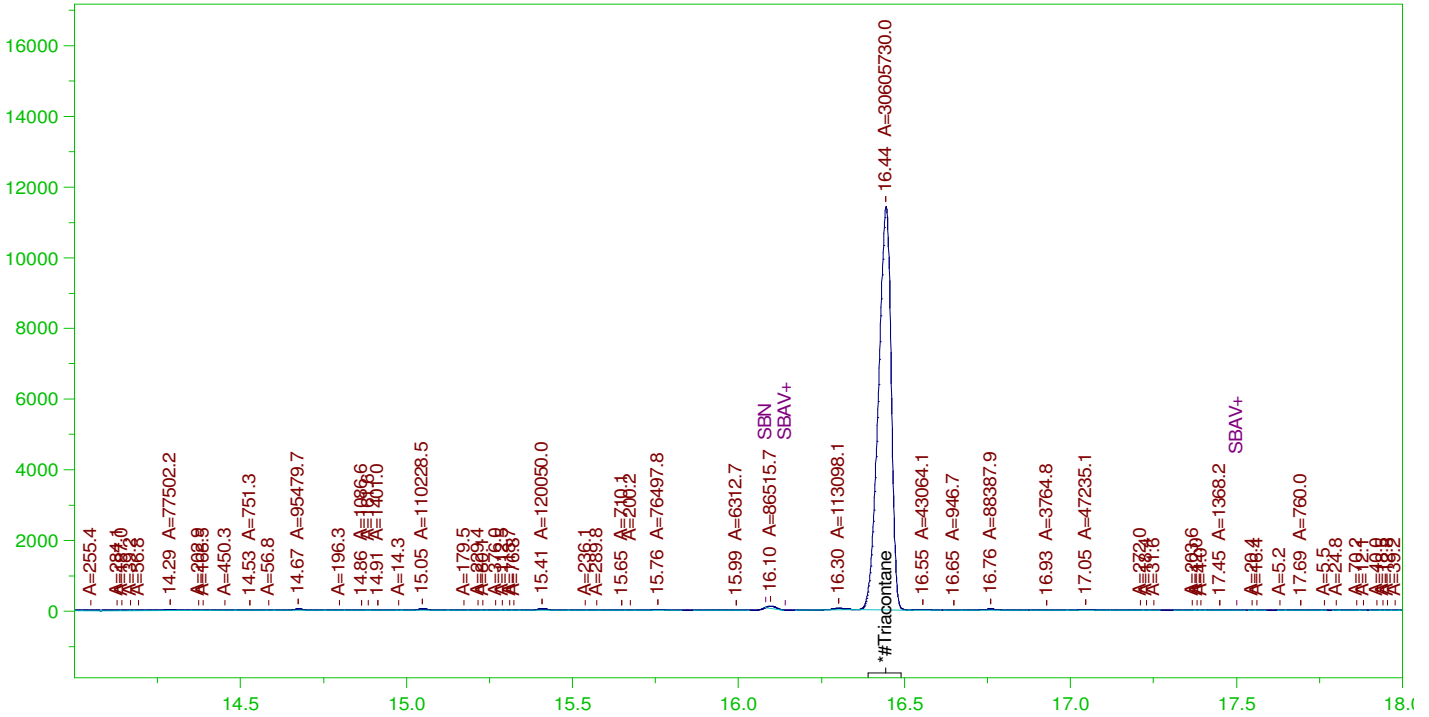
CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5011122_b\0111HP5.0031.RAW

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

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*#Triacontane	16.434	200.	503.57	251.78	75-125

G:\org\HP5\DAT\HP5011122_b\0111HP5.0050.RAW

CCV_0111HP550r, CAL5 ;0111HP5 , 1000 ug per mL Triacontane



RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: CCV_0111HP550r, CAL5 ;0111HP5 , 1000 ug per mL Triacontane
 Raw File: G:\org\HP5\DAT\HP5011122_b\0111HP5.0050.RAW
 Date & Time Acquired: 1/12/2022 8:49:58 PM
 Method File: G:\Org\HP5\Methods\DS_ORO-BA-L%.MET
 Calibration File: G:\Org\HP5\Cals\SW8015C_ORO220111ba.CAL
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 28542.41
 Rt range for Residual Range Organics: 12.51 to 30.05

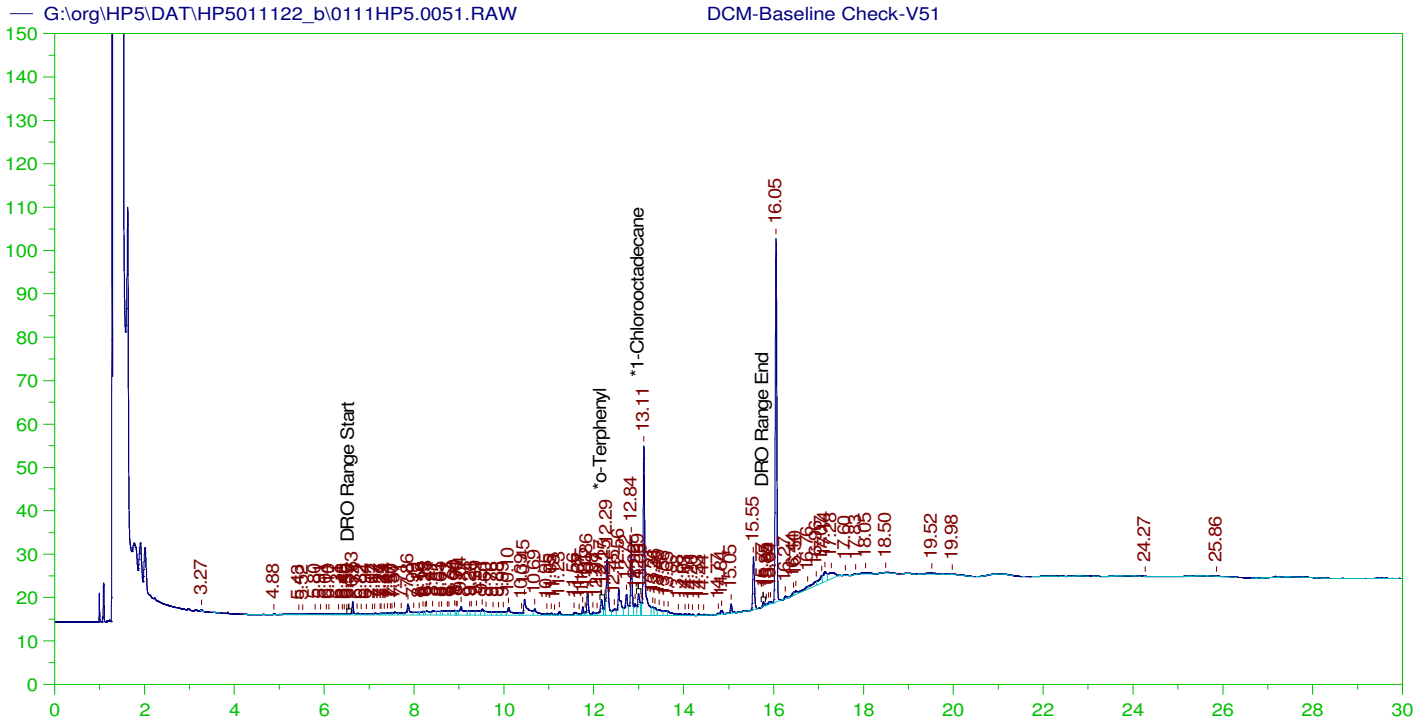
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.444	500.	1032.718	206.54	-

RRO Area:993904.8 RRO AMOUNT: 34.82203

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5011122_b\0111HP5.0050.RAW

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

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*#Triacontane	16.444	200.	1032.718	516.36	75-125



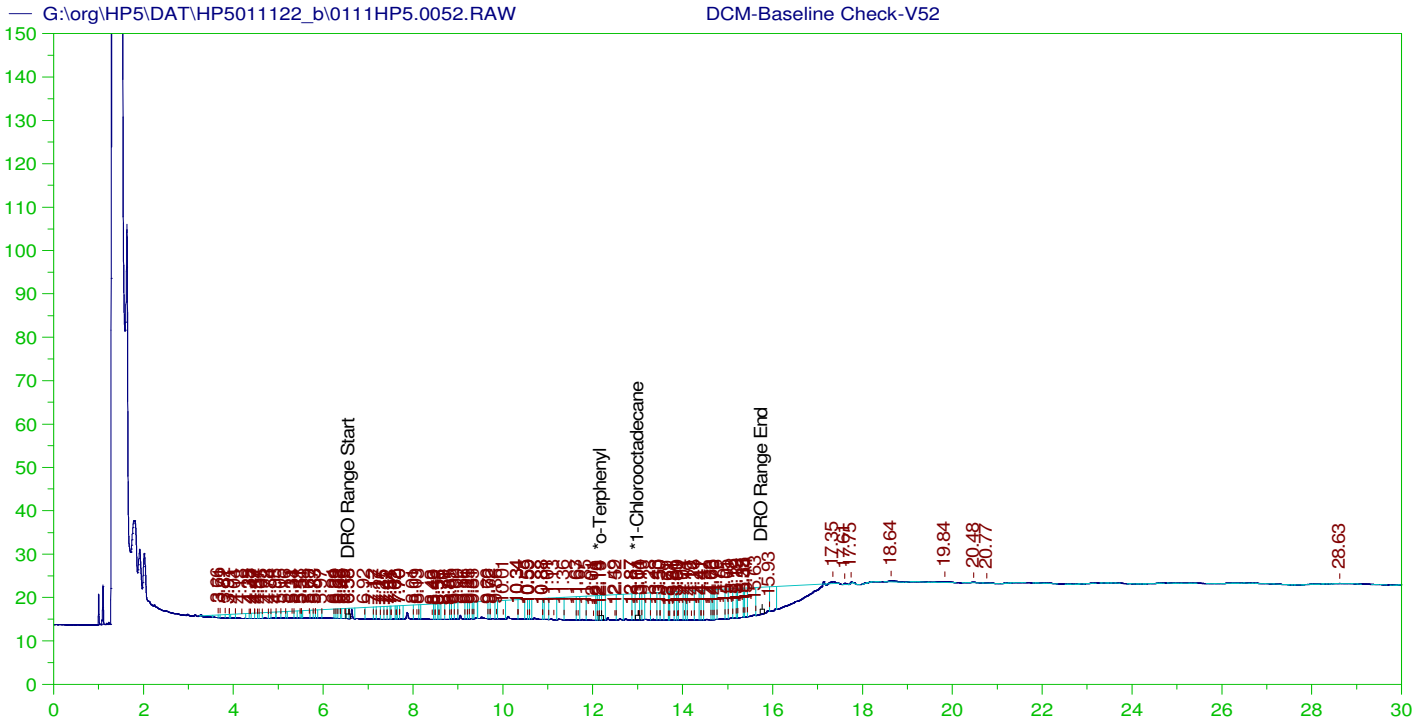
DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: DCM-Baseline Check-V51
 Raw File: G:\org\HP5\DAT\HP5011122_b\0111HP5.0051.RAW
 Date & Time Acquired: 1/13/2022 12:15:29 PM
 Method File: G:\Org\HP5\Methods\DR_8015-IC-LEXP.met
 Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IC.CAL
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19
 Rt range for Diesel Range Organics: 6.5 to 15.82

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.166	200.	.369	.18	-
*1-Chlorooctadecane	12.994	200.	.464	.23	-

DRO Area: 587062.5 DRO Amount: 18.72417
 TEH Area: 891448.4 TEH Amount: 28.43246



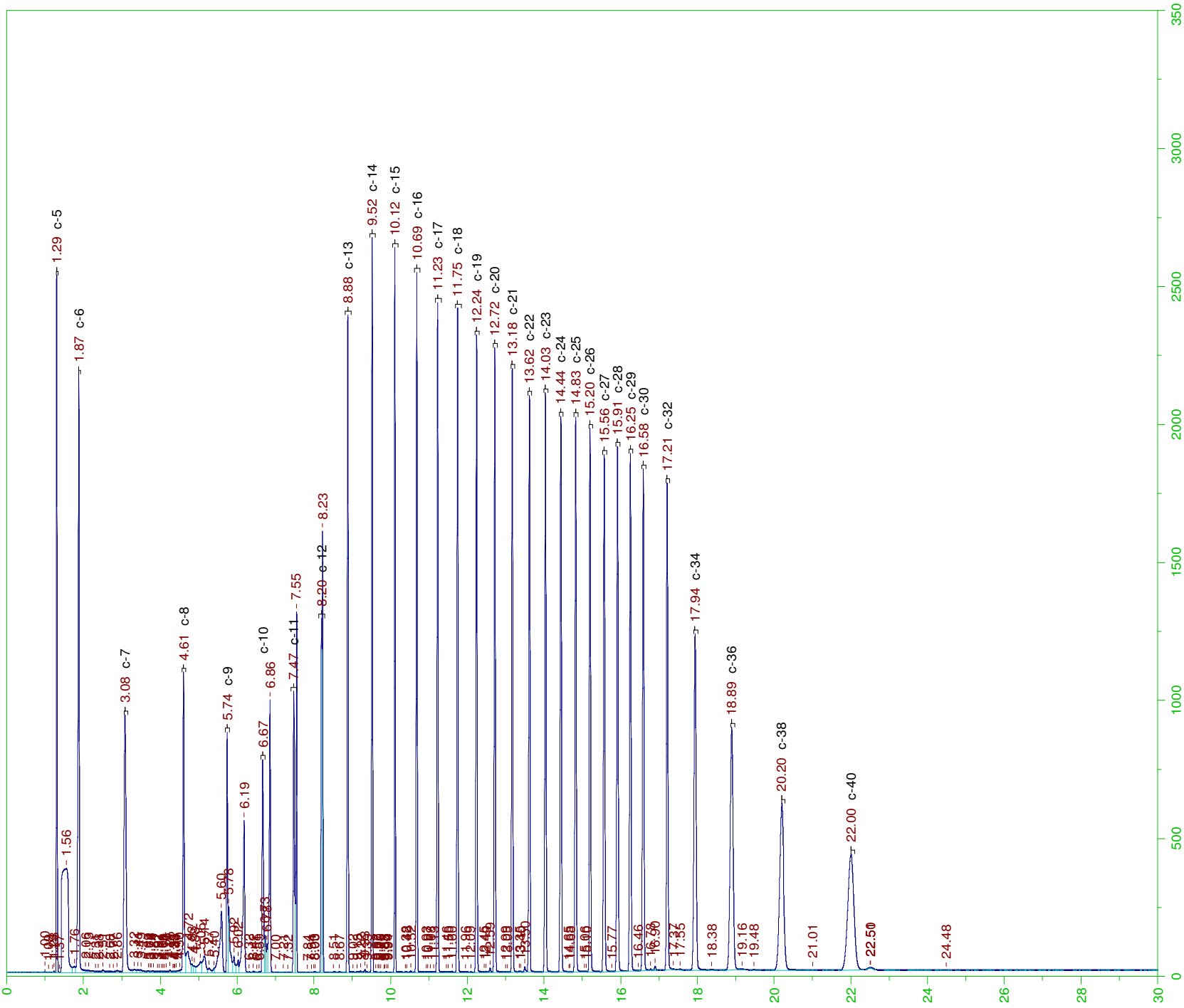
DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

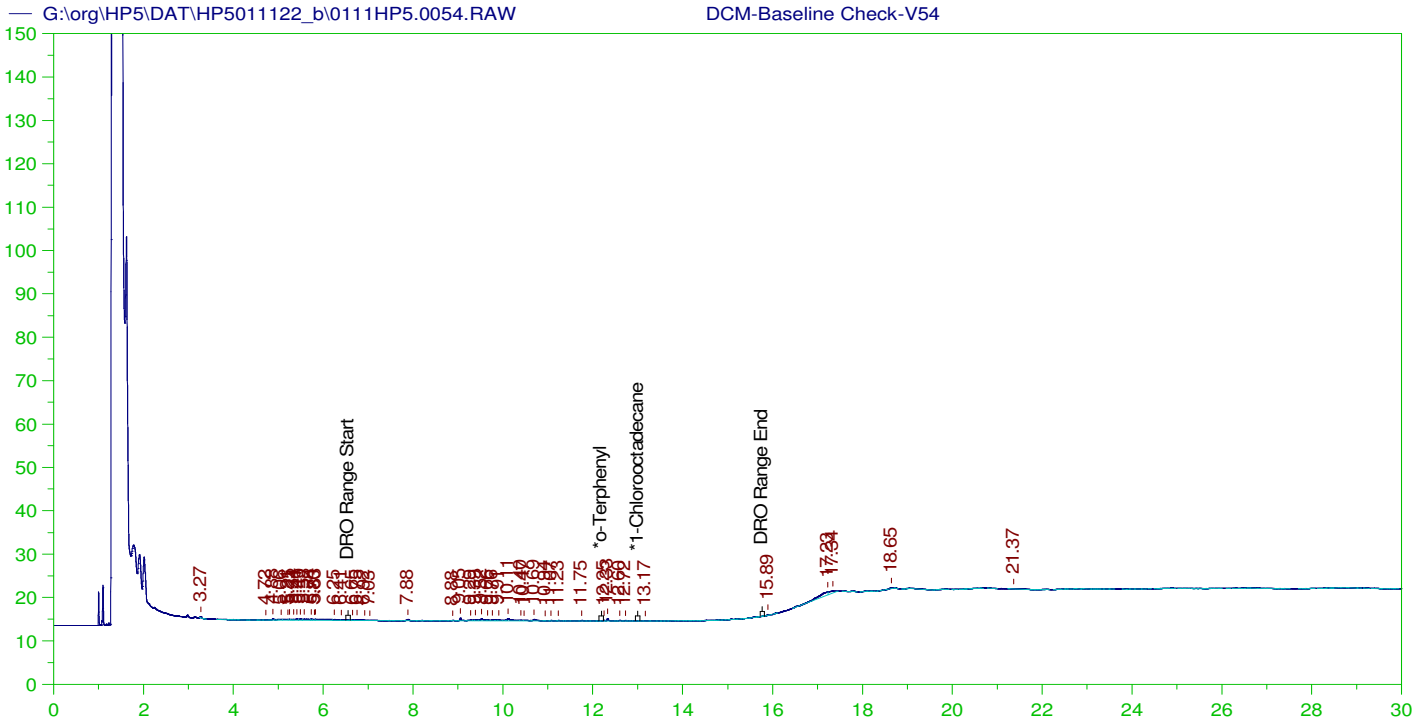
Sample Name: DCM-Baseline Check-V52
 Raw File: G:\org\HP5\DAT\HP5011122_b\0111HP5.0052.RAW
 Date & Time Acquired: 1/13/2022 12:58:31 PM
 Method File: G:\Org\HP5\Methods\DR_8015-IC-LEXP.met
 Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IC.CAL
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19
 Rt range for Diesel Range Organics: 6.5 to 15.82

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.192	200.	.855	.43	-
*1-Chlorooctadecane	13.007	200.	.955	.48	-

DRO Area:2710300 DRO Amount: 86.44414
 TEH Area:2842315 TEH Amount: 90.65472





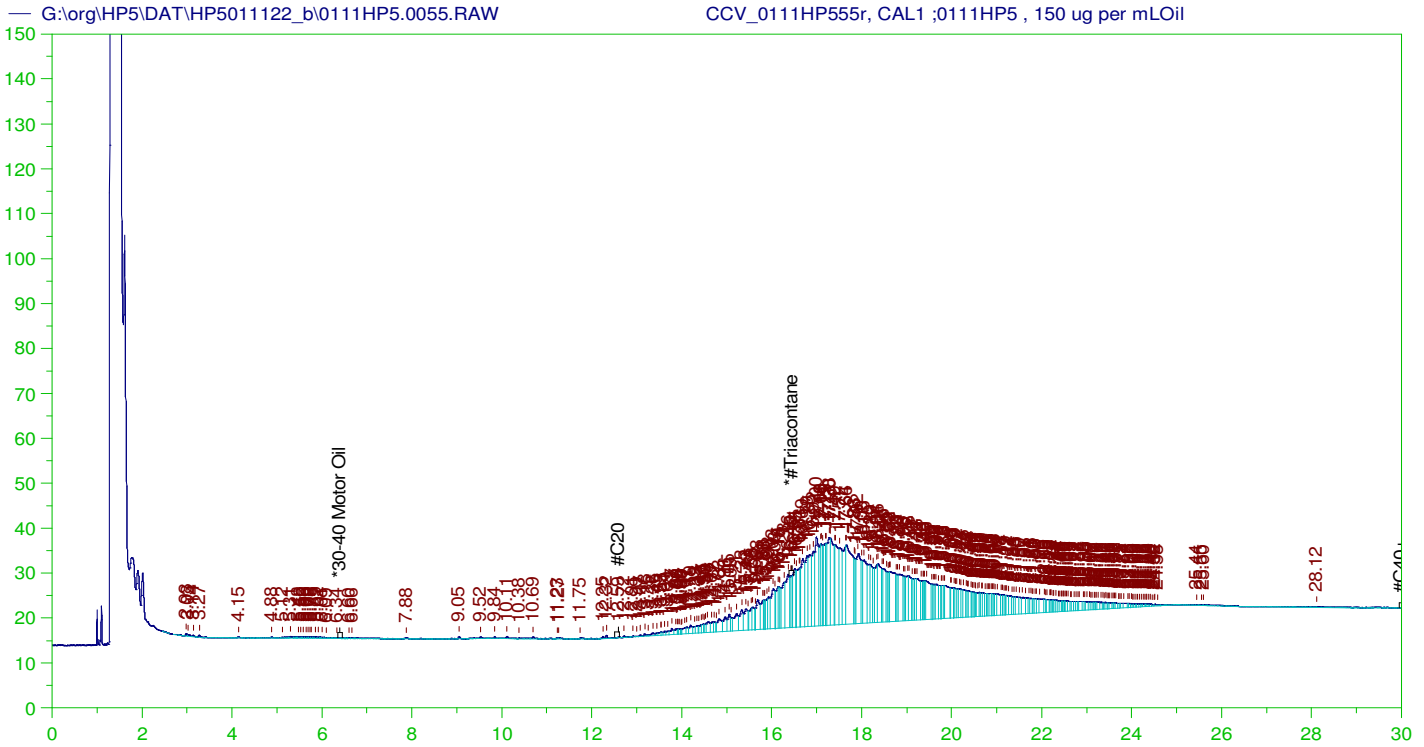
DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: DCM-Baseline Check-V54
 Raw File: G:\org\HP5\DAT\HP5011122_b\0111HP5.0054.RAW
 Date & Time Acquired: 1/13/2022 2:23:42 PM
 Method File: G:\Org\HP5\Methods\DR_8015-IC-LEXP.met
 Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IC.CAL
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19
 Rt range for Diesel Range Organics: 6.5 to 15.82

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	29.882	200.	.	-
*1-Chlorooctadecane	29.882	200.	.	-

DRO Area:44798.44 DRO Amount: 1.428832
 TEH Area:97771.24 TEH Amount: 3.118382



RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: CCV_0111HP555r, CAL1 ;0111HP5 , 150 ug per mL Oil
 Raw File: G:\org\HP5\DAT\HP5011122_b\0111HP5.0055.RAW
 Date & Time Acquired: 1/13/2022 3:06:11 PM
 Method File: G:\Org\HP5\Methods\DC_ORO-55-BA-L%.MET
 Calibration File: G:\Org\HP5\Cals\SW8015C_ORO220111BA.CAL
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 26424.55
 Rt range for Residual Range Organics: 12.51 to 30.05

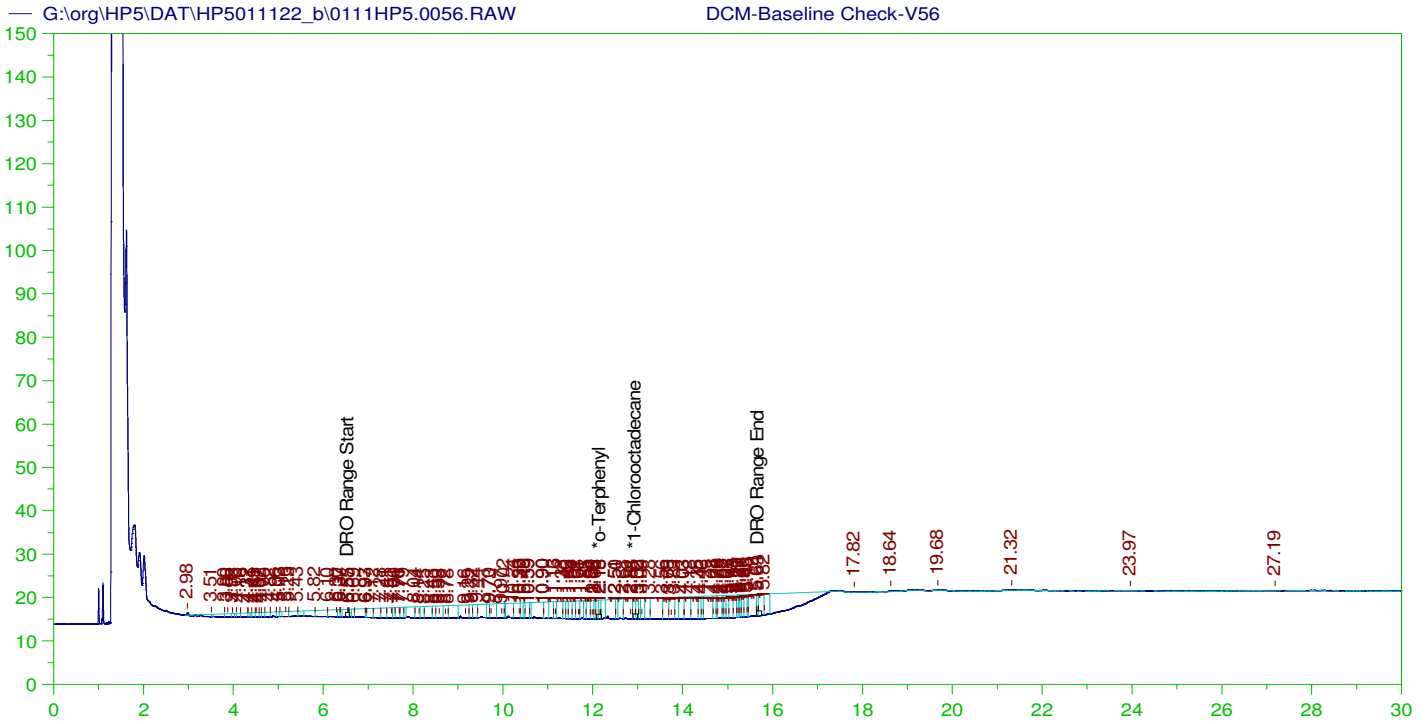
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.447	500.	.47	.09	-

RRO Area: 4215928 RRO AMOUNT: 159.5459

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5011122_b\0111HP5.0055.RAW

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

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*#Triacontane	16.447	200.	.47	.23	75-125



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

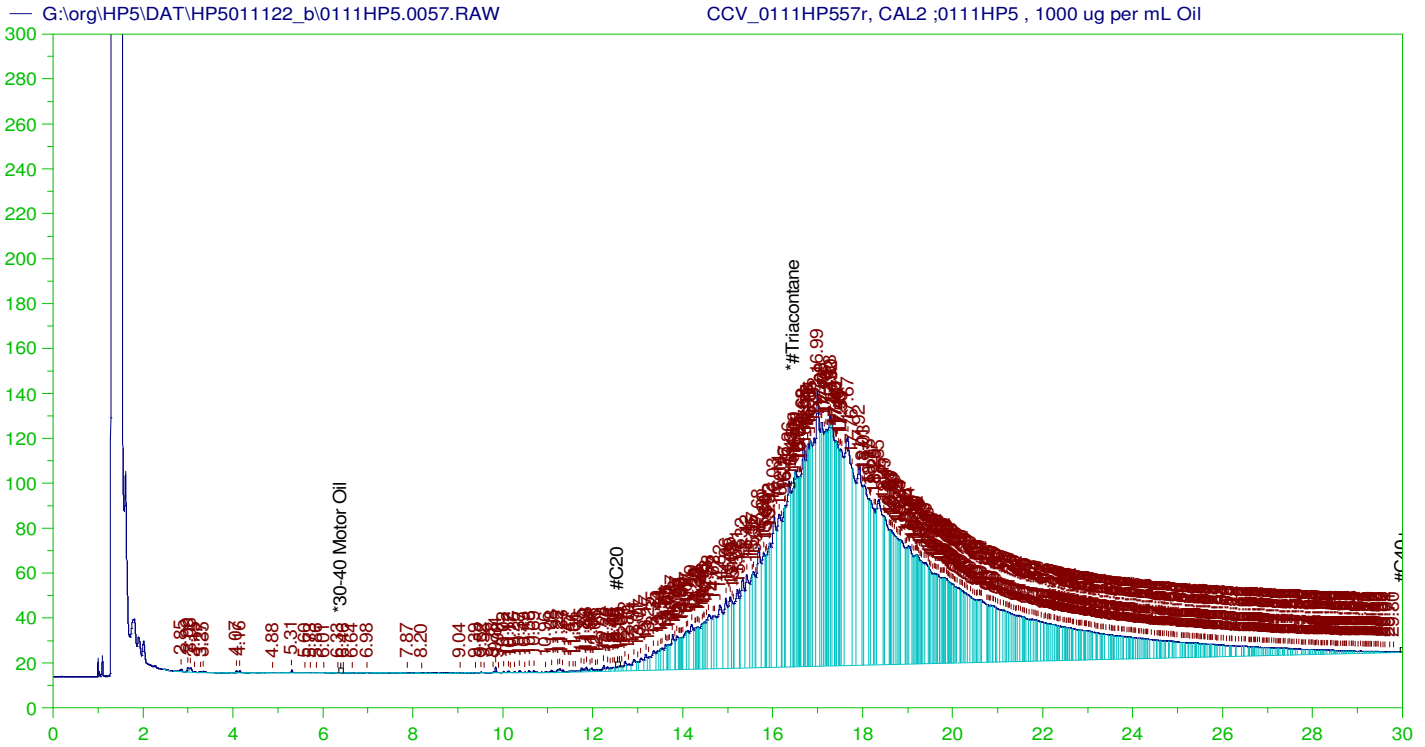
Sample Name: DCM-Baseline Check-V56
 Raw File: G:\org\HP5\DAT\HP5011122_b\0111HP5.0056.RAW
 Date & Time Acquired: 1/13/2022 3:48:53 PM
 Method File: G:\Org\HP5\Methods\DR_8015-HE-LEXP.met
 Calibration File: G:\Org\HP5\Cals\SW8015C_DRO210108HE.CAL
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 29457.33

Rt range for Diesel Range Organics: 6.49 to 15.75

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.162	200.	.406	.2
*1-Chlorooctadecane	29.946	200.	.	.

DRO Area:2125703 DRO Amount: 72.16209
 TEH Area:2146824 TEH Amount: 72.8791



RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: CCV_0111HP557r, CAL2 ;0111HP5 , 1000 ug per mL Oil
 Raw File: G:\org\HP5\DAT\HP5011122_b\0111HP5.0057.RAW
 Date & Time Acquired: 1/13/2022 4:31:31 PM
 Method File: G:\Org\HP5\Methods\DC_ORO-57-BA-L\MET
 Calibration File: G:\Org\HP5\Cals\SW8015C_ORO220111BA.CAL
 Sample Weight: 1 Dilution: 1 S.A.: 1

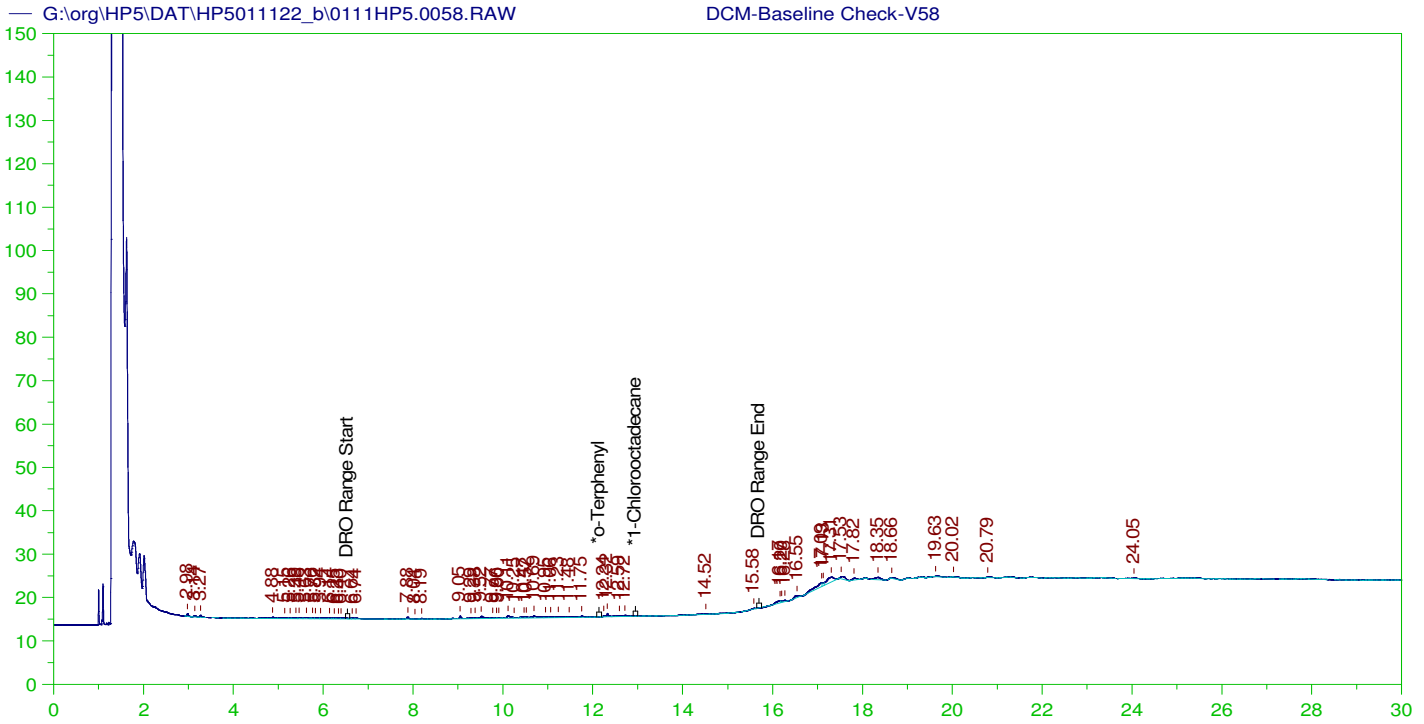
Mean RF for for Residual Range Organics Calculations: 26424.55
 Rt range for Residual Range Organics: 12.51 to 30.05

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*#Triacontane	16.454	500.	3.058	.61

RRO Area: 2.729502E+07 RRO AMOUNT: 1032.941

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5011122_b\0111HP5.0057.RAW
 COMPOUND ACTUAL (NG) MEASURED (NG) %RECOVERY LIMITS
 *30-40 Motor Oil 5000. . 75-125

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*#Triacontane	16.454	200.	3.058	1.53	75-125



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

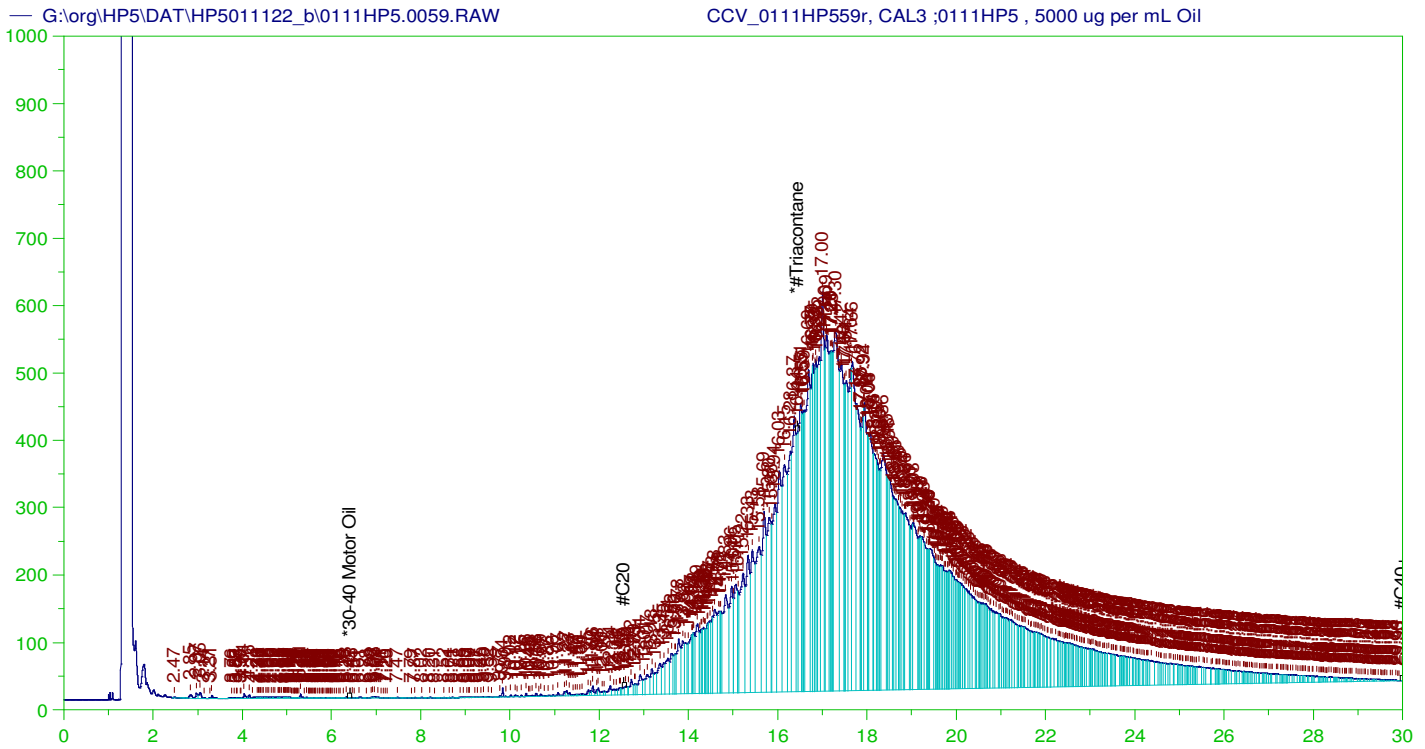
Sample Name: DCM-Baseline Check-V58
 Raw File: G:\org\HP5\DAT\HP5011122_b\0111HP5.0058.RAW
 Date & Time Acquired: 1/13/2022 5:14:45 PM
 Method File: G:\Org\HP5\Methods\DR_8015-HE-LEXP.met
 Calibration File: G:\Org\HP5\Cals\SW8015C_DRO210108HE.CAL
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 29457.33

Rt range for Diesel Range Organics: 6.49 to 15.75

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	29.94	200.	.	-
*1-Chlorooctadecane	29.94	200.	.	-

DRO Area:48306.73 DRO Amount: 1.639888
 TEH Area:141285.5 TEH Amount: 4.796276



RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: CCV_0111HP559r, CAL3 ;0111HP5 , 5000 ug per mL Oil
 Raw File: G:\org\HP5\DAT\HP5011122_b\0111HP5.0059.RAW
 Date & Time Acquired: 1/13/2022 5:57:48 PM
 Method File: G:\Org\HP5\Methods\DC_ORO-59-BA-L%.MET
 Calibration File: G:\Org\HP5\Cals\SW8015C_ORO220111BA.CAL
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 26424.55
 Rt range for Residual Range Organics: 12.51 to 30.05

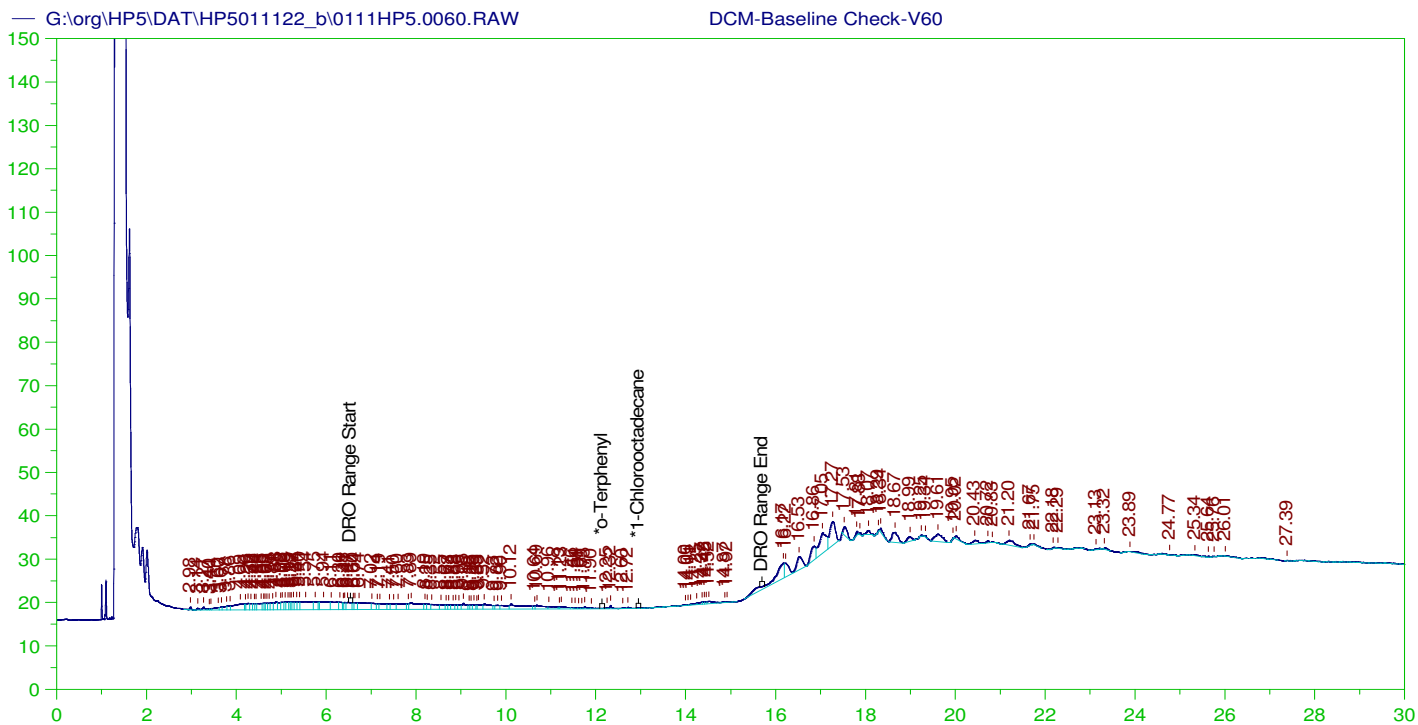
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.442	500.	33.09	6.62	-

RRO Area:1.303441E+08 RRO AMOUNT: 4932.688

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5011122_b\0111HP5.0059.RAW

COMPOUND	ACTUAL (NG)	MEASURED (NG)	%RECOVERY	LIMITS
*30-40 Motor Oil	5000.	.037	.	75-125

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*#Triacontane	16.442	200.	33.09	16.54	75-125



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

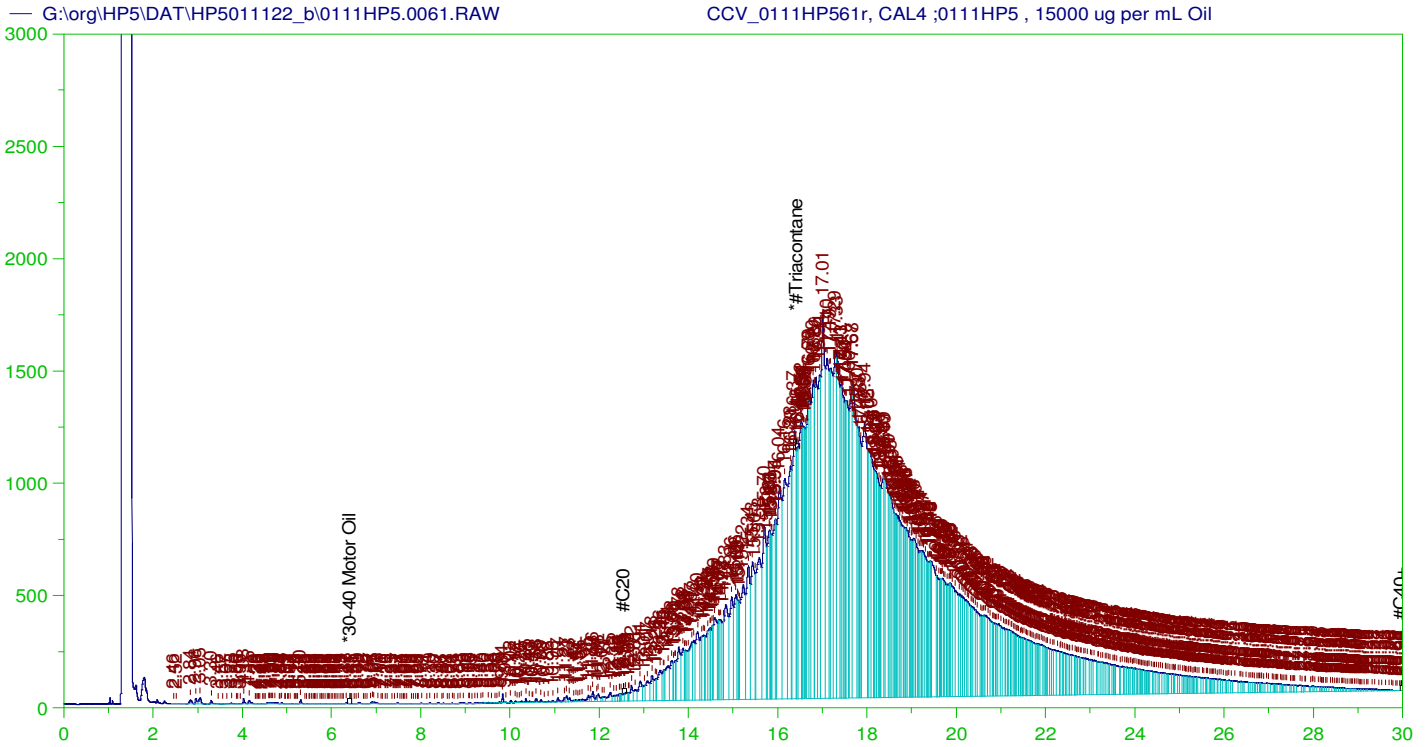
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 Date & Time Acquired: 1/13/2022 6:41:03 PM
 Method File: G:\Org\HP5\Methods\DR_8015-HE-LEXP.met
 Calibration File: G:\Org\HP5\Cals\SW8015C_DRO210108HE.CAL
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 29457.33

Rt range for Diesel Range Organics: 6.49 to 15.75

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	29.911	200.	.	-
*1-Chlorooctadecane	29.911	200.	.	-

DRO Area:316779.5 DRO Amount: 10.75384
 TEH Area:980005.5 TEH Amount: 33.26864



RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: CCV_0111HP561r, CAL4 ;0111HP5 , 15000 ug per mL Oil
 Raw File: G:\org\HP5\DAT\HP5011122_b\0111HP5.0061.RAW
 Date & Time Acquired: 1/13/2022 7:24:16 PM
 Method File: G:\Org\HP5\Methods\DC_ORO-61-BA-L%.MET
 Calibration File: G:\Org\HP5\Cals\SW8015C_ORO220111BA.CAL
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 26424.55
 Rt range for Residual Range Organics: 12.51 to 30.05

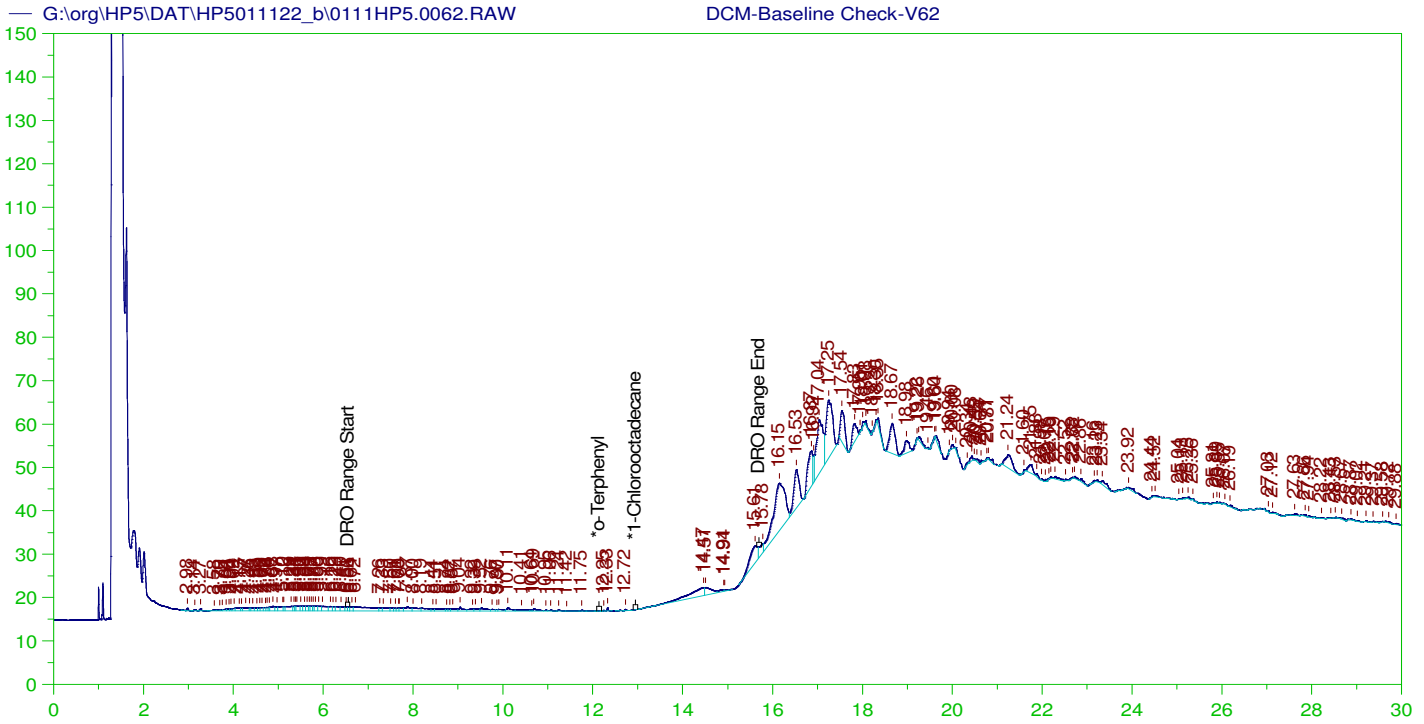
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.429	500.	33.728	6.75	-

RRO Area: 3.786286E+08 RRO AMOUNT: 14328.67

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5011122_b\0111HP5.0061.RAW

COMPOUND	ACTUAL (NG)	MEASURED (NG)	%RECOVERY	LIMITS
*30-40 Motor Oil	5000.	.086	.	75-125

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*#Triacontane	16.429	200.	33.728	16.86	75-125



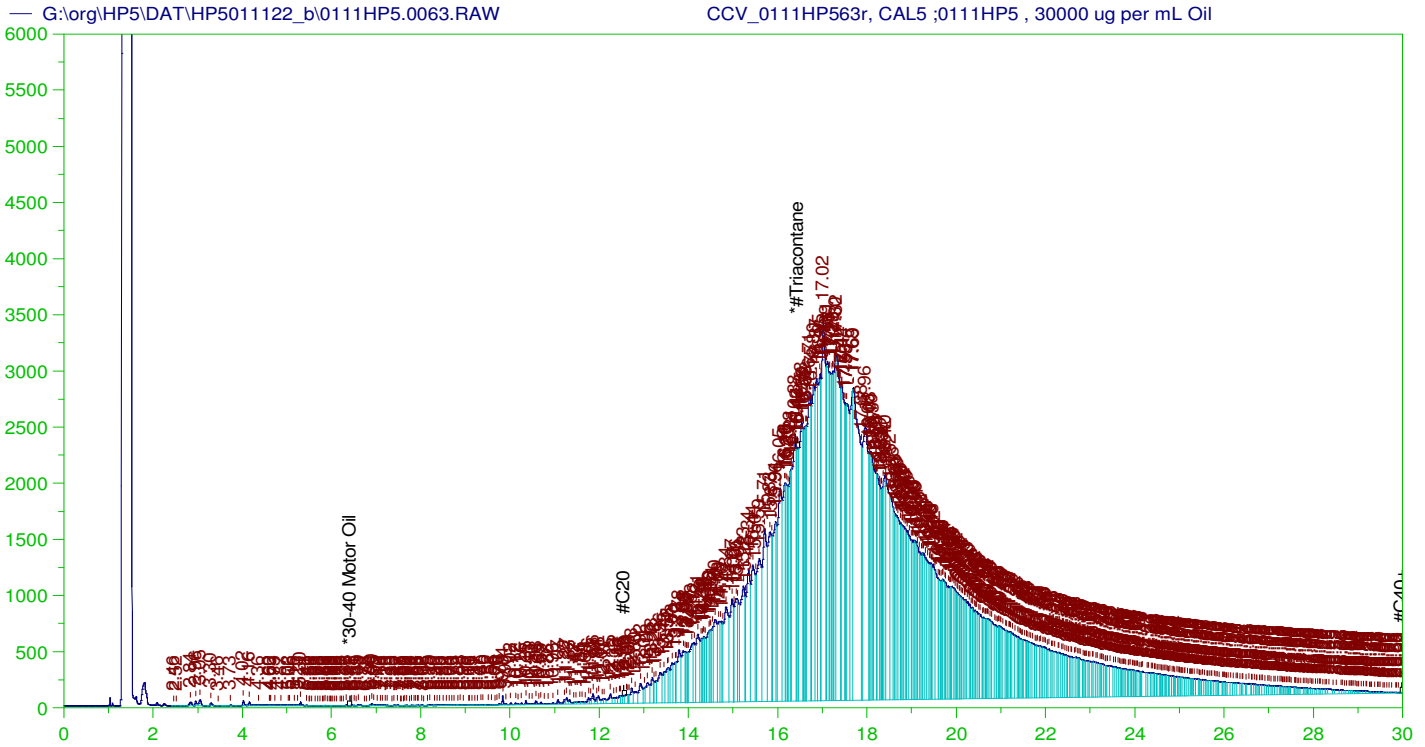
DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: DCM-Baseline Check-V62
 Raw File: G:\org\HP5\DAT\HP5011122_b\0111HP5.0062.RAW
 Date & Time Acquired: 1/13/2022 8:07:28 PM
 Method File: G:\Org\HP5\Methods\DR_8015-HE-LEXP.met
 Calibration File: G:\Org\HP5\Cals\SW8015C_DRO210108HE.CAL
 Sample Weight: 1 Dilution: 1 S.A.: 1

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

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	29.883	200.	.	.
*1-Chlorooctadecane	29.883	200.	.	.

DRO Area:289041.4 DRO Amount: 9.812207
 TEH Area:1408450 TEH Amount: 47.81323



RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: CCV_0111HP563r, CAL5 ;0111HP5 , 30000 ug per mL Oil
 Raw File: G:\org\HP5\DAT\HP5011122_b\0111HP5.0063.RAW
 Date & Time Acquired: 1/13/2022 8:50:32 PM
 Method File: G:\Org\HP5\Methods\DC_ORO-BA-L%.MET
 Calibration File: G:\Org\HP5\Cals\SW8015C_ORO220111BA.CAL
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 26424.55
 Rt range for Residual Range Organics: 12.51 to 30.05

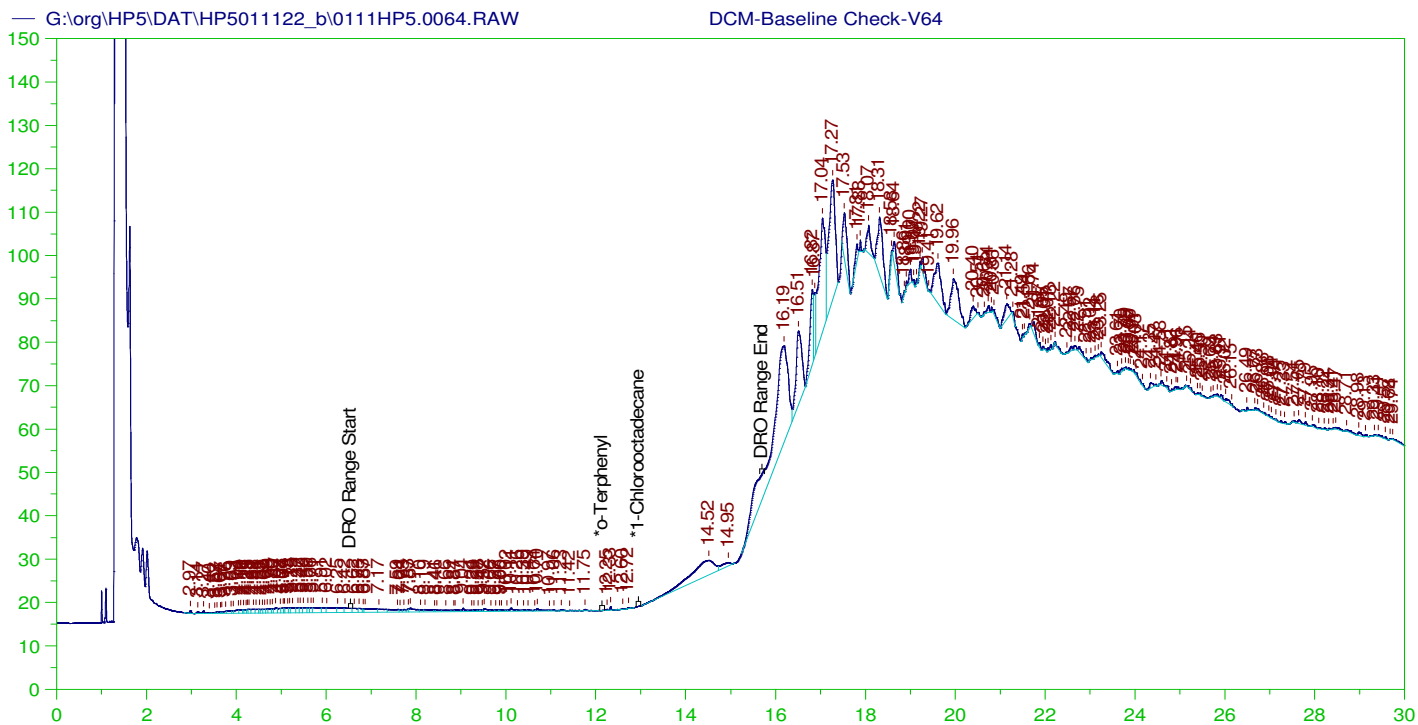
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.44	500.	102.625	20.52	-

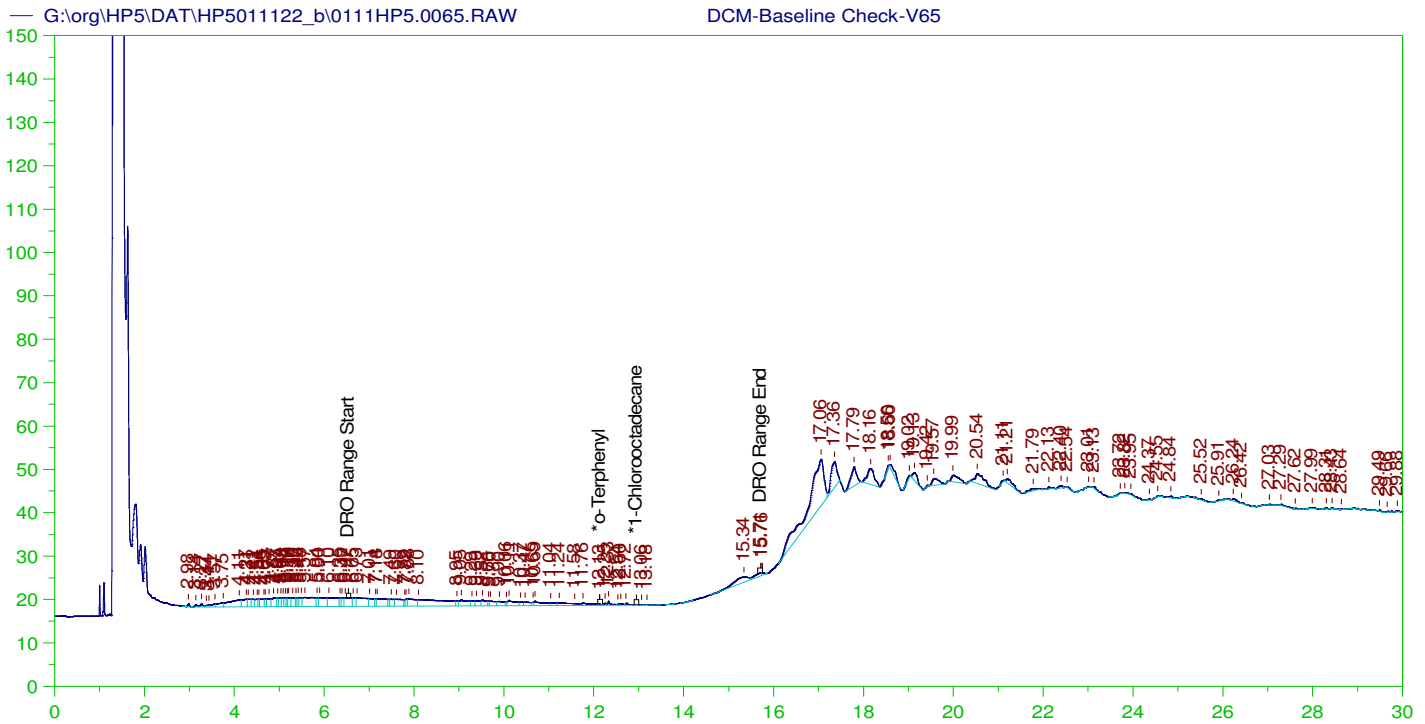
RRO Area: 7.608009E+08 RRO AMOUNT: 28791.44

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5011122_b\0111HP5.0063.RAW

COMPOUND	ACTUAL (NG)	MEASURED (NG)	%RECOVERY	LIMITS
*30-40 Motor Oil	5000.	.102	.	75-125

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*#Triacontane	16.44	200.	102.625	51.31	75-125





DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

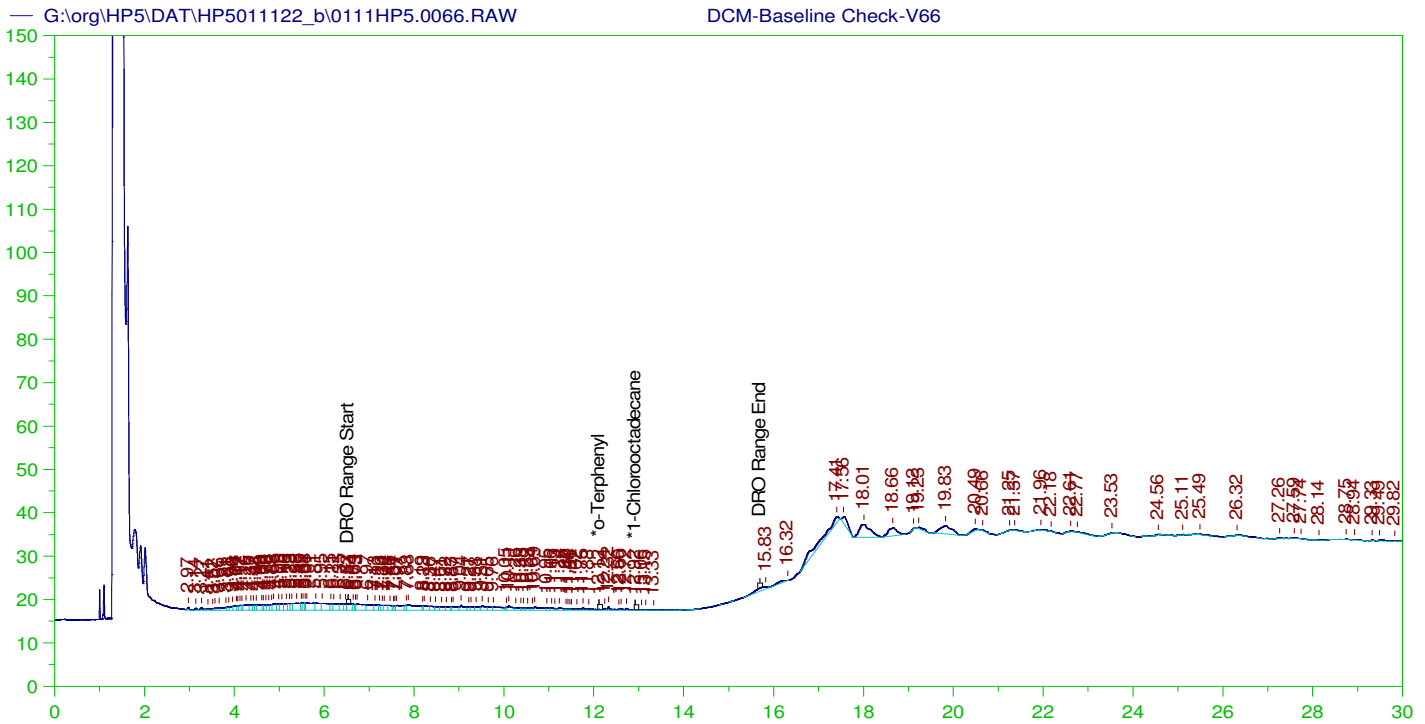
Sample Name: DCM-Baseline Check-V65
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 Date & Time Acquired: 1/13/2022 10:16:33 PM
 Method File: G:\Org\HP5\Methods\DR_8015-HE-LEXP.met
 Calibration File: G:\Org\HP5\Cals\SW8015C_DRO210108HE.CAL
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 29457.33

Rt range for Diesel Range Organics: 6.49 to 15.75

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.129	200.	.021	.01
*1-Chlorooctadecane	29.884	200.	.	.

DRO Area:397141.5 DRO Amount: 13.48192
 TEH Area:1310457 TEH Amount: 44.48662



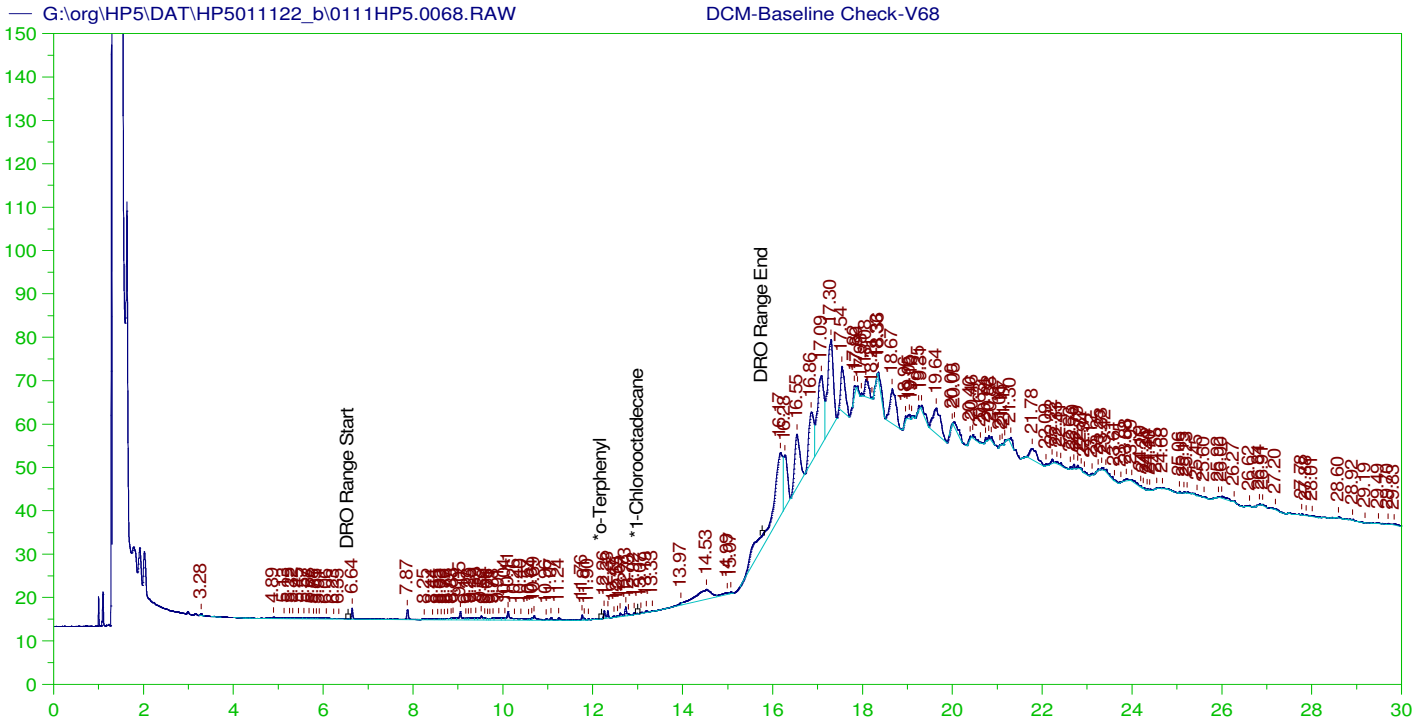
DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: DCM-Baseline Check-V66
 Raw File: G:\org\HP5\DAT\HP5011122_b\0111HP5.0066.RAW
 Date & Time Acquired: 1/13/2022 10:59:39 PM
 Method File: G:\Org\HP5\Methods\DR_8015-HE-LEXP.met
 Calibration File: G:\Org\HP5\Cals\SW8015C_DRO210108HE.CAL
 Sample Weight: 1 Dilution: 1 S.A.: 1

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

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.12	200.	.025	.01	-
*1-Chlorooctadecane	12.922	200.	.037	.02	-

DRO Area: 278500.4 DRO Amount: 9.454367
 TEH Area: 757930.2 TEH Amount: 25.72976



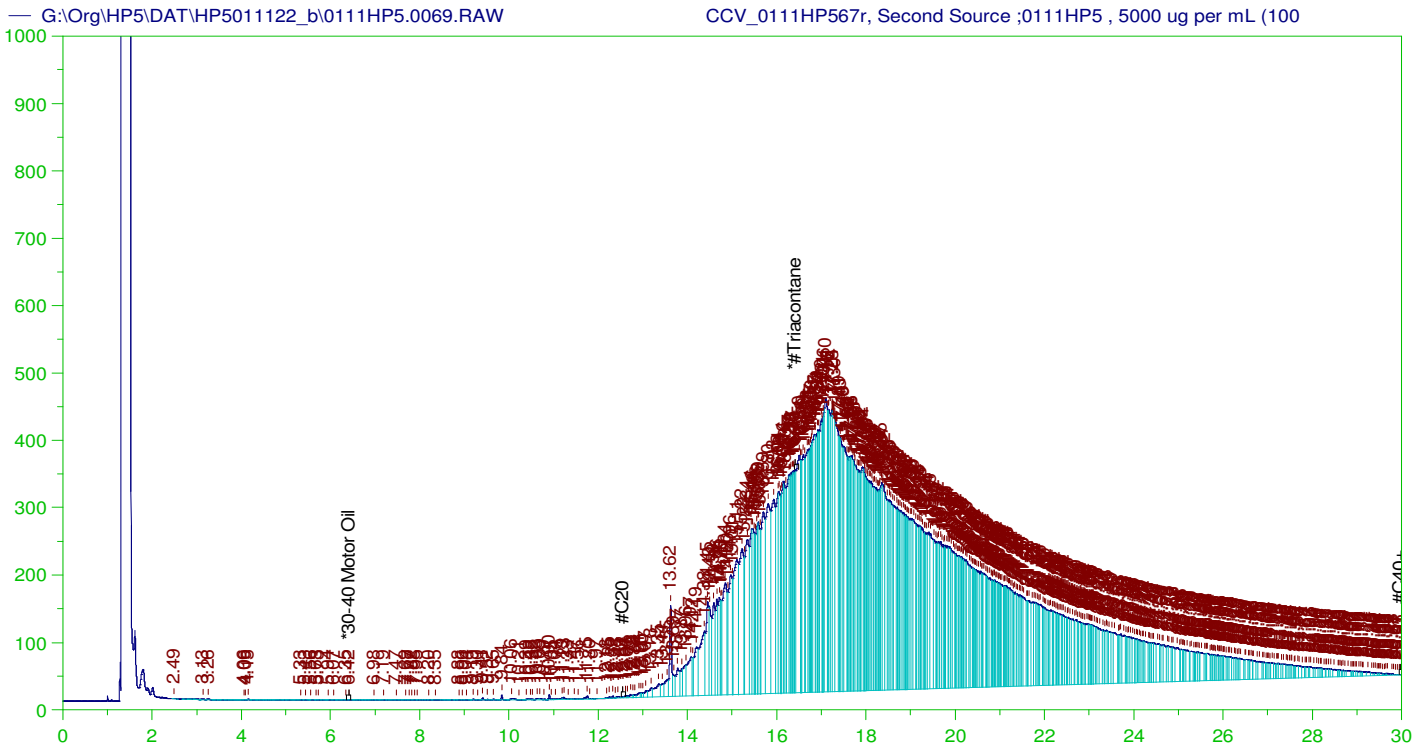
DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: DCM-Baseline Check-V68
 Raw File: G:\org\HP5\DAT\HP5011122_b\0111HP5.0068.RAW
 Date & Time Acquired: 1/14/2022 7:35:26 AM
 Method File: G:\Org\HP5\Methods\DR_8015-IC-LEXP.met
 Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IC.CAL
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19
 Rt range for Diesel Range Organics: 6.5 to 15.82

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	29.833	200.	.	-
*1-Chlorooctadecane	29.833	200.	.	-

DRO Area:178261.1 DRO Amount: 5.685582
 TEH Area:1513925 TEH Amount: 48.28614



RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: CCV_0111HP567r, Second Source ;0111HP5 , 5000 ug per mL (100
 Raw File: G:\Org\HP5\DAT\HP5011122_b\0111HP5.0069.RAW
 Date & Time Acquired: 1/14/2022 8:18:14 AM
 Method File: G:\Org\HP5\Methods\DC_ORO-59-BA-L%.MET
 Calibration File: G:\Org\HP5\Cals\SW8015C_ORO220111BA.CAL
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 26424.55
 Rt range for Residual Range Organics: 12.51 to 30.05

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane_____	16.408	500.	23.958	4.79	-

RRO Area:1.341574E+08 RRO AMOUNT: 5076.999

CONTINUING CALIBRATION REPORT: G:\Org\HP5\DAT\HP5011122_b\0111HP5.0069.RAW

COMPOUND	ACTUAL (NG)	MEASURED (NG)	%RECOVERY	LIMITS
*30-40 Motor Oil_____	5000.	.033	.	75-125

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*#Triacontane_____	16.408	200.	23.958	11.98	75-125

Write Sequence	Data File	Sample Name	Method	Weight	Dil Factor	Amt Inj.	IS	Cal ID	Manual Integrations
	G:\org\HP5\DAT\HP5011122_b\0111HP5.25r	DCM-Baseline Check-V25	G:\Org\HP5\Methods\DR_8015-IC-LEXP.met	1	1	1	1	0	No Integrations
	G:\org\HP5\DAT\HP5011122_b\0111HP5.26r	Marker_0111HP526r_DRO_0111HP5 , DRO220111A	G:\org\HP5\Methods\CSC210212.met	1	1	1	1	0	No Integrations
	G:\org\HP5\DAT\HP5011122_b\0111HP5.27r	DCM-Baseline Check-V27	G:\Org\HP5\Methods\DR_8015-HS-LEXP.met	1	1	1	1	0	No Integrations
	G:\org\HP5\DAT\HP5011122_b\0111HP5.28r	CCV_0111HP528r, CAL1 :0111HP5 , 2 ug per mL Triacotane (10 uL of Cal3 + 990 uL DCM(14647)	G:\Org\HP5\Methods\DS_ORO-BA-L#.MET	1	1	1	1	0	Surrogates are integrated using a valley to valley integration Set Baseline All Valley on at 16.04 minutes.
	G:\org\HP5\DAT\HP5011122_b\0111HP5.29r	CCV_0111HP529r, CAL2 :0111HP5 , 50 ug per mL Triacotane (100 uL Cal4 + 900 uL of DCM(14647)	G:\Org\HP5\Methods\DS_ORO-BA-L#.MET	1	1	1	1	0	Surrogates are integrated using a valley to valley integration Set Baseline All Valley on at 16.04 minutes.
	G:\org\HP5\DAT\HP5011122_b\0111HP5.30r	CCV_0111HP530r, CAL3 :0111HP5 , 200 ug per mL Triacotane (100uL of Cal5 + 400 uL DCM(14647)	G:\Org\HP5\Methods\DS_ORO-BA-L#.MET	1	1	1	1	0	Surrogates are integrated using a valley to valley integration Set Baseline All Valley on at 16.04 minutes.
	G:\org\HP5\DAT\HP5011122_b\0111HP5.31r	CCV_0111HP531r, CAL4 :0111HP5 , 500 ug per mL Triacotane (250uL of Cal5 + 250 uL DCM(14647)	G:\Org\HP5\Methods\DS_ORO-BA-L#.MET	1	1	1	1	0	Surrogates are integrated using a valley to valley integration Set Baseline All Valley on at 16.04 minutes.
	G:\org\HP5\DAT\HP5011122_b\0111HP5.32r	DCM-Baseline Check-V33	G:\Org\HP5\Methods\DR_8015-HE-LEXP.met	1	1	1	1	0	No Integrations
	G:\org\HP5\DAT\HP5011122_b\0111HP5.50r	CCV_0111HP550r, CAL5 :0111HP5 , 1000 ug per mL Triacotane (DRO211006A)	G:\Org\HP5\Methods\DS_ORO-BA-L#.MET	1	1	1	1	0	Surrogates are integrated using a valley to valley integration Set Baseline All Valley on at 16.04 minutes.
	G:\org\HP5\DAT\HP5011122_b\0111HP5.51r	DCM-Baseline Check-V51	G:\Org\HP5\Methods\DR_8015-IC-LEXP.met	1	1	1	1	0	No Integrations
	G:\org\HP5\DAT\HP5011122_b\0111HP5.52r	DCM-Baseline Check-V52	G:\Org\HP5\Methods\DR_8015-IC-LEXP.met	1	1	1	1	0	No Integrations
	G:\org\HP5\DAT\HP5011122_b\0111HP5.53r	Marker_0111HP553r_DRO_0111HP5 , DRO220111A	G:\org\HP5\Methods\CSC210212.met	1	1	1	1	0	No Integrations
	G:\org\HP5\DAT\HP5011122_b\0111HP5.54r	DCM-Baseline Check-V54	G:\Org\HP5\Methods\DR_8015-IC-LEXP.met	1	1	1	1	0	No Integrations
	G:\org\HP5\DAT\HP5011122_b\0111HP5.55r	CCV_0111HP555r, CAL1 :0111HP5 , 150 ug per mL Oil (10 uL of Cal4 + 990 uL DCM(14647)	G:\Org\HP5\Methods\DC_ORO-55-BA-L%.xls	1	1	1	1	0	The integration of TEH(Oil Range)is the hydrocarbon response with reference to the baseline. Assigned Set Baseline Now at 25 minutes. Y-Scale adjusted.
	G:\org\HP5\DAT\HP5011122_b\0111HP5.56r	DCM-Baseline Check-V56	G:\Org\HP5\Methods\DR_8015-HE-LEXP.met	1	1	1	1	0	No Integrations
	G:\org\HP5\DAT\HP5011122_b\0111HP5.57r	CCV_0111HP557r, CAL2 :0111HP5 , 1000 ug per mL Oil (200 uL of Cal 3 +800 uL DCM(14647)	G:\Org\HP5\Methods\DC_ORO-57-BA-L%.xls	1	1	1	1	0	The integration of TEH(Oil Range)is the hydrocarbon response with reference to the baseline. Y-Scale adjusted.
	G:\org\HP5\DAT\HP5011122_b\0111HP5.58r	DCM-Baseline Check-V58	G:\Org\HP5\Methods\DR_8015-HE-LEXP.met	1	1	1	1	0	No Integrations
	G:\org\HP5\DAT\HP5011122_b\0111HP5.59r	CCV_0111HP559r, CAL3 :0111HP5 , 5000 ug per mL Oil (100 uL of DRO211118A + 900 uL DCM(14647)	G:\Org\HP5\Methods\DC_ORO-59-BA-L%.xls	1	1	1	1	0	The integration of TEH(Oil Range)is the hydrocarbon response with reference to the baseline. Y-Scale adjusted.
	G:\org\HP5\DAT\HP5011122_b\0111HP5.60r	DCM-Baseline Check-V60	G:\Org\HP5\Methods\DR_8015-HE-LEXP.met	1	1	1	1	0	No Integrations
	G:\org\HP5\DAT\HP5011122_b\0111HP5.61r	CCV_0111HP561r, CAL4 :0111HP5 , 15000 ug per mL Oil (200 uL of CAL5 + 200 uL DCM(14647)	G:\Org\HP5\Methods\DC_ORO-61-BA-L%.xls	1	1	1	1	0	The integration of TEH(Oil Range)is the hydrocarbon response with reference to the baseline. Y-Scale adjusted.
	G:\org\HP5\DAT\HP5011122_b\0111HP5.62r	DCM-Baseline Check-V62	G:\Org\HP5\Methods\DR_8015-HE-LEXP.met	1	1	1	1	0	No Integrations
	G:\org\HP5\DAT\HP5011122_b\0111HP5.63r	CCV_0111HP563r, CAL5 :0111HP5 , 30000 ug per mL Oil (600 uL of DRO211118A + 400 uL of DCM)	G:\Org\HP5\Methods\DC_ORO-BA-L%.xls	1	1	1	1	0	The integration of TEH(Oil Range)is the hydrocarbon response with reference to the baseline. Y-Scale adjusted.
	G:\org\HP5\DAT\HP5011122_b\0111HP5.64r	DCM-Baseline Check-V64	G:\Org\HP5\Methods\DR_8015-HE-LEXP.met	1	1	1	1	0	No Integrations
	G:\org\HP5\DAT\HP5011122_b\0111HP5.65r	DCM-Baseline Check-V65	G:\Org\HP5\Methods\DR_8015-HE-LEXP.met	1	1	1	1	0	No Integrations
	G:\org\HP5\DAT\HP5011122_b\0111HP5.66r	DCM-Baseline Check-V66	G:\Org\HP5\Methods\DR_8015-HE-LEXP.met	1	1	1	1	0	No Integrations
	G:\org\HP5\DAT\HP5011122_b\0111HP5.68r	DCM-Baseline Check-V68	G:\Org\HP5\Methods\DR_8015-IC-LEXP.met	1	1	1	1	0	No Integrations
	G:\org\HP5\DAT\HP5011122_b\0111HP5.69r	CCV_0111HP567r, Second Source :0111HP5 , 5000 ug per mL (100uL of DRO210902A + 900uL DCM(14647)	G:\Org\HP5\Methods\DC_ORO-59-BA-L%.xls	1	1	1	1	0	The integration of TEH(Oil Range)is the hydrocarbon response with reference to the baseline. Y-Scale adjusted.

Ann Nebel

Digitally signed by
Ann Nebel
Date: 2022.02.11 10:29:31 -07:00

PREP BATCH REPORT

Prep Code: **HC-3520-DRO**
 Prep Batch **162917** Prep Temp **NA °C**

Technician: **Jillian L Bostwick**
 Batch Units: **ML**

Prep Start Date: **1/13/2022 3:39:19 PM**
 Prep End Date: **1/14/2022 12:17:00 P**

Sample ID	Matrix	pH	Initial Samp Amt	Sol Added	Sol Recovered	Final Vol (mL)	Factor	Balance	Prep Start Date	Prep End Date
MB-162917			1000	0	0	1.00	0.001		1/13/2022	1/14/2022
Start time: 3:30 PM, 1/13/2022. End time: 01/14/2022 at 9:30 AM. SGT on remainder of sample by ALN on 1/17/2022.										
LCS-162917			1000	0	0	1.00	0.001		1/13/2022	1/14/2022
All bottles were completely used, defaced and disposed of on 1/13/2022. SGT on remainder of sample by ALN on 1/17/2022.										
LCS-162917-RRO			1000	0	0	1.00	0.001		1/13/2022	1/14/2022
SGT on remainder of sample by ALN on 1/17/2022.										
B22010759-001D	Ground Water	2	1060	0	0	1.00	0.000943		1/13/2022	1/14/2022
Bottle 1/6. Clear, orange sediment. SGT on remainder of sample by ALN on 1/17/2022.										
B22010759-001DMS	Ground Water	2	1020	0	0	1.00	0.00098		1/13/2022	1/14/2022
Bottle 2/6. Clear, orange sediment. SGT on remainder of sample by ALN on 1/17/2022.										
B22010759-001DMSD	Ground Water	2	1040	0	0	1.00	0.000962		1/13/2022	1/14/2022
Bottle 3/6. Clear, orange sediment. SGT on remainder of sample by ALN on 1/17/2022.										
B22010759-001DMS-RRO	Ground Water	2	1020	0	0	1.00	0.00098		1/13/2022	1/14/2022
Bottle 4/6. Clear, orange sediment. SGT on remainder of sample by ALN on 1/17/2022.										
B22010759-001DMSD-RRO	Ground Water	2	1040	0	0	1.00	0.000962		1/13/2022	1/14/2022
Bottle 5/6. Clear, orange sediment. SGT on remainder of sample by ALN on 1/17/2022.										
B22010750-001D	Ground Water	2	1030	0	0	1.00	0.000971		1/13/2022	1/14/2022
Bottle 1/2. Clear.										
B22010751-001D	Ground Water	2	990	0	0	1.00	0.00101		1/13/2022	1/14/2022
Bottle 1/2. Clear, light sediment. SGT on remainder of sample by AMN on 1/18/2022.										
B22010753-001D	Ground Water	2	1020	0	0	1.00	0.00098		1/13/2022	1/14/2022
Bottle 1/2. Clear. SGT on remainder of sample by AMN on 1/18/2022.										
B22010754-001D	Ground Water	2	1050	0	0	1.00	0.000952		1/13/2022	1/14/2022
Bottle 1/2. Clear.										
B22010755-001D	Ground Water	2	1000	0	0	1.00	0.001		1/13/2022	1/14/2022
Bottle 1/2. Clear. SGT on remainder of sample by AMN on 1/18/2022.										
B22010756-001D	Ground Water	2	1030	0	0	1.00	0.000971		1/13/2022	1/14/2022
Bottle 1/2. Clear, light sediment. SGT on remainder of sample by AMN on 1/18/2022.										

Number	Reagent Name	Exp Date
11	Carbon Filter Water	1/1/2023
13379	PTFE Boiling Stones 27463755	12/30/2025
14206	pH-indicator Strips 0-14 HC160347	8/26/2026
14634	4ML, Amber Vial, 20211215	12/15/2022
14647	Dichloromethane EC832	10/28/2023
14747	Dichloromethane EC849	11/1/2023

Spk ID	Spike Name	SampType	AmtAdd	Exp Date
FP220102 14446	DCM RINSED FILTER PAPER	all	1	4/6/2026
SG220101(13376)	Baked Silica Gel	all	5g	2/28/2030
Sulfate 12/27/21 (Baked Sodium Sulfate	all	Varies	11/29/2026
DRO220106B	Triacotane SURR 1000 ug/mL	All except LCS, L	100 uL	4/6/2026
DRO211213A	OTP only SURR 2000 ug/mL	All except RRO-L	100 uL	9/30/2024
DRO220106C	#2 Diesel in Acetone 150,000 ug/mL	LCS, LCSD, MS,	100 uL	11/5/2023
DRO220112A	50,000 ug/mL Oil Std for RRO-In D	LCS-RRO, LCSD	100 uL	9/1/2026

PREP BATCH REPORT

Prep Code: **HC-3520-DRO**
 Prep Batch **162917** Prep Temp **NA °C**

Technician: **Jillian L Bostwick**
 Batch Units: **ML**

Prep Start Date: **1/13/2022 3:39:19 PM**
 Prep End Date: **1/14/2022 12:17:00 P**

Sample ID	Matrix	pH	Initial Samp Amt	Sol Added	Sol Recovered	Final Vol (mL)	Factor	Balance	Prep Start Date	Prep End Date
B22010757-001D	Ground Water	2	1030	0	0	1.00	0.000971		1/13/2022	1/14/2022
Bottle 1/2. Clear, light sediment. SGT on remainder of sample by AMN on 1/18/2022.										
B22010758-001D	Ground Water	2	1000	0	0	1.00	0.001		1/13/2022	1/14/2022
Bottle 1/2. Clear. SGT on remainder of sample by AMN on 1/18/2022.										
B22010758-002B	Ground Water	2	1020	0	0	1.00	0.00098		1/13/2022	1/14/2022
Bottle 1/2. Clear. SGT on remainder of sample by AMN on 1/18/2022.										

Number	Reagent Name	Exp Date
11	Carbon Filter Water	1/1/2023
13379	PTFE Boiling Stones 27463755	12/30/2025
14206	pH-indicator Strips 0-14 HC160347	8/26/2026
14634	4ML, Amber Vial, 20211215	12/15/2022
14647	Dichloromethane EC832	10/28/2023
14747	Dichloromethane EC849	11/1/2023

Spk ID	Spike Name	SampType	AmtAdd	Exp Date
FP220102 14446	DCM RINSED FILTER PAPER	all	1	4/6/2026
SG220101(13376)	Baked Silica Gel	all	5g	2/28/2030
Sulfate 12/27/21 (Baked Sodium Sulfate	all	Varies	11/29/2026
DRO220106B	Triacontane SURR 1000 ug/mL	All except LCS, L	100 uL	4/6/2026
DRO211213A	OTP only SURR 2000 ug/mL	All except RRO-L	100 uL	9/30/2024
DRO220106C	#2 Diesel in Acetone 150,000 ug/mL	LCS, LCSD, MS,	100 uL	11/5/2023
DRO220112A	50,000 ug/mL Oil Std for RRO-In D	LCS-RRO, LCSD	100 uL	9/1/2026

Energy Laboratories Inc

ANALYTICAL RUN Summary

17-Jan-22

Run ID GCFID-HP5-B_220114A

Run Start Date: 1/14/2022
Analyst: Ann Nebel
Ical:
Column ID:
Comments: DRO-8015-ICAL information is in Index GCFID-HP5-B_220111A 8015C OIL range calibration GCFID-HP5-B_220111C

Std ID	Std Name	Std Amount	Std Units	Samp Amount	Samp Units	SampType	Expiration Date
DRO220105B	8015 CCV-15,000ug/mL + 200 OTP					CCV-DRO	4/30/2023
DRO220106A	5,000 ug/mL RRO CCV 200 ug/mL Triacontane					CCV-RRO	4/6/2026
DRO220111A	Carbon Scan STD-Marker					MARKER	7/13/2026

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist						
14981190	CCV_0114HP50	HC-8015-DRO-	CCV		1/14/2022 1:09:0	1	R373250			0	0						
Analyte		T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
TEH(Oil Range)		A	mg/L	4.496366211			5	0	0	0.0879	0.3	0	90%	80	120	0%	
n-Triacontane		S	mg/L	0.1740737			0.2	0	0	0.000336	0.002	0	87%	80	120	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist						
14981191	CCV_0114HP50	HC-8015-DRO-	CCV		1/14/2022 1:51:4	1	R373250			0	0						
Analyte		T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Diesel Range Organics (C10 to C24)		A	mg/L	13.354953			15	0	0	0.0389	0.3	0	89%	80	120	0%	
Total Extractable Hydrocarbons		A	mg/L	14.02992			15	0	0	0.0749	0.3	50	94%	80	120	0%	
o-Terphenyl		S	mg/L	0.1785873			0.2	0	0	0.000429	0.002	0	89%	80	120	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist						
14981192	LCS-162917	HC-8015-DRO-	LCS-DOD		1/14/2022 3:59:3	1	162917	1/13/2022 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					
14981192	LCS-162917	HC-8015-DRO-	LCS-DOD		1/14/2022 3:59:3	1	162917	1/13/2022 3:	0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Diesel Range Organics (C10 to C24)	A	mg/L		12.21674		15	0	0	0.0389	0.3	0	81%	36	132	0%	
Total Extractable Hydrocarbons	A	mg/L		13.05223		15	0	0	0.0749	0.3	50	87%	60	132	0%	
o-Terphenyl	S	mg/L		0.187281		0.2	0	0	0.000429	0.002	0	94%	56	125	0%	
Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14981193	MB-162917	HC-8015-DRO-	MBLK		1/14/2022 4:42:1	1	162917	1/13/2022 3:	0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Diesel Range Organics (C10 to C24)	A	mg/L		0		0	0	0	0.0389	0.15	0	0%	0	0	0%	
Oil Range Hydrocarbons (C24 to C40)	A	mg/L		0		0	0	0	0.0879	0.15	0	0%	0	0	0%	
Total Extractable Hydrocarbons	A	mg/L		0		0	0	0	0.0749	0.15	50	0%	0	0	0%	
n-Triacontane	S	mg/L		0.1003		0.1	0	0	0.000336	0.002	0	100%	50	150	0%	
o-Terphenyl	S	mg/L		0.1805766		0.2	0	0	0.000429	0.002	0	90%	56	125	0%	
Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14981194	B22010759-001	HC-8015-DRO-	SAMP		1/14/2022 5:24:5	1	162917	1/13/2022 3:	0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Diesel Range Organics (C10 to C24)	A	mg/L		0.0640049		0	0	0	0.0366827	0.3	0	0%	0	0	0%	J
Oil Range Hydrocarbons (C24 to C40)	A	mg/L		0.119451389		0	0	0	0.0828897	0.3	0	0%	0	0	0%	J
Total Extractable Hydrocarbons	A	mg/L		0.1852756		0	0	0	0.0706307	0.3	50	0%	0	0	0%	J
n-Triacontane	S	mg/L		0.0919		0.0943	0	0	0.0003168	0.001886	0	97%	50	150	0%	
o-Terphenyl	S	mg/L		0.1324583		0.1886	0	0	0.0004045	0.002	0	70%	56	125	0%	
TEH(Oil Range)	X	mg/L		0.175269112		0	0	0	0.0828897	0.3	0	0%	0	0	0%	J
Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14981195	B22010759-001	HC-8015-DRO-	MS-DOD		1/14/2022 6:07:4	1	162917	1/13/2022 3:	1E+07	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Diesel Range Organics (C10 to C24)	A	mg/L		11.56722		14.7	0.0640049	0	0.086142	0.3	0	78%	36	132	0%	
Total Extractable Hydrocarbons	A	mg/L		12.44571		14.7	0.1852756	0	0.073402	0.3	50	83%	60	132	0%	
o-Terphenyl	S	mg/L		0.1661031		0.196	0	0	0.0004204	0.002	0	85%	56	125	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14981196	B22010759-001	HC-8015-DRO-	MSD-DOD		1/14/2022 6:50:3	1	162917	1/13/2022 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 (C10 to C24)	A	mg/L		11.08257		14.43	0.0640049	11.56722	0.0845598	0.3	0	76%	36	132	4%	
Total Extractable Hydrocarbons	A	mg/L		11.90007		14.43	0.1852756	12.44571	0.0720538	0.3	50	81%	60	132	4%	
o-Terphenyl	S	mg/L		0.1449922		0.1924	0	0	0.0004127	0.002	0	75%	56	125	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14981197	B22010750-001	HC-8015-DRO-	SAMP		1/14/2022 8:16:0	1	162917	1/13/2022 3:	0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Diesel Range Organics (C10 to C24)	A	mg/L		0		0	0	0	0.0377719	0.3	0	0%	0	0	0%	U
Oil Range Hydrocarbons (C24 to C40)	A	mg/L		0		0	0	0	0.0853509	0.3	0	0%	0	0	0%	U
Total Extractable Hydrocarbons	A	mg/L		0		0	0	0	0.0727279	0.3	50	0%	0	0	0%	U
n-Triacontane	S	mg/L		0.0911		0.0971	0	0	0.0003263	0.001942	0	94%	50	150	0%	
o-Terphenyl	S	mg/L		0.1636159		0.1942	0	0	0.0004166	0.002	0	84%	56	125	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14981198	B22010751-001	HC-8015-DRO-	SAMP		1/14/2022 8:58:5	1	162917	1/13/2022 3:	0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Diesel Range Organics (C10 to C24)	A	mg/L		1.494578		0	0	0	0.039289	0.303	0	0%	0	0	0%	
Oil Range Hydrocarbons (C24 to C40)	A	mg/L		0.333586037		0	0	0	0.088779	0.303	0	0%	0	0	0%	
Total Extractable Hydrocarbons	A	mg/L		1.842043		0	0	0	0.075649	0.303	50	0%	0	0	0%	
n-Triacontane	S	mg/L		0.0993		0.101	0	0	0.0003394	0.00202	0	98%	50	150	0%	
o-Terphenyl	S	mg/L		0.1751863		0.202	0	0	0.0004333	0.00202	0	87%	56	125	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14981199	B22010756-001	HC-8015-DRO-	SAMP		1/14/2022 10:24:	1	162917	1/13/2022 3:	0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Diesel Range Organics (C10 to C24)	A	mg/L		0.1504632		0	0	0	0.0377719	0.3	0	0%	0	0	0%	J
Oil Range Hydrocarbons (C24 to C40)	A	mg/L		0.300269783		0	0	0	0.0853509	0.3	0	0%	0	0	0%	
Total Extractable Hydrocarbons	A	mg/L		0.4217544		0	0	0	0.0727279	0.3	50	0%	0	0	0%	
n-Triacontane	S	mg/L		0.1018		0.0971	0	0	0.0003263	0.001942	0	105%	50	150	0%	
o-Terphenyl	S	mg/L		0.1805726		0.1942	0	0	0.0004166	0.002	0	93%	56	125	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14981200	B22010757-001	HC-8015-DRO-	SAMP		1/14/2022 11:07:	1	162917	1/13/2022 3:	0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Diesel Range Organics (C10 to C24)	A	mg/L		3.569376		0	0	0	0.0377719	0.3	0	0%	0	0	0%	
Oil Range Hydrocarbons (C24 to C40)	A	mg/L		0.7844643		0	0	0	0.0853509	0.3	0	0%	0	0	0%	
Total Extractable Hydrocarbons	A	mg/L		4.281919		0	0	0	0.0727279	0.3	50	0%	0	0	0%	
n-Triacontane	S	mg/L		0.0974		0.0971	0	0	0.0003263	0.001942	0	100%	50	150	0%	
o-Terphenyl	S	mg/L		0.1534449		0.1942	0	0	0.0004166	0.002	0	79%	56	125	0%	
Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14981201	CCV_0114HP50	HC-8015-DRO-	CCV		1/15/2022 12:32:	1	R373250				0	0				
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
TEH(Oil Range)	A	mg/L		4.881887207		5	0	0	0.0879	0.3	0	98%	80	120	0%	
n-Triacontane	S	mg/L		0.1873868		0.2	0	0	0.000336	0.002	0	94%	80	120	0%	
Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14981202	CCV_0114HP50	HC-8015-DRO-	CCV		1/15/2022 1:15:1	1	R373250				0	0				
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Diesel Range Organics (C10 to C24)	A	mg/L		14.75616		15	0	0	0.0389	0.3	0	98%	80	120	0%	
Total Extractable Hydrocarbons	A	mg/L		15.27004		15	0	0	0.0749	0.3	50	102%	80	120	0%	
o-Terphenyl	S	mg/L		0.1935764		0.2	0	0	0.000429	0.002	0	97%	80	120	0%	
Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14981203	B22010758-001	HC-8015-DRO-	SAMP		1/15/2022 2:40:4	1	162917	1/13/2022 3:	0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Diesel Range Organics (C10 to C24)	A	mg/L		0.1419005		0	0	0	0.0389	0.3	0	0%	0	0	0%	J
Oil Range Hydrocarbons (C24 to C40)	A	mg/L		0.119194292		0	0	0	0.0879	0.3	0	0%	0	0	0%	J
Total Extractable Hydrocarbons	A	mg/L		0.2656993		0	0	0	0.0749	0.3	50	0%	0	0	0%	J
n-Triacontane	S	mg/L		0.0991		0.1	0	0	0.000336	0.002	0	99%	50	150	0%	
o-Terphenyl	S	mg/L		0.1799365		0.2	0	0	0.000429	0.002	0	90%	56	125	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14981204	B22010758-002	HC-8015-DRO-	SAMP		1/15/2022 3:23:2	1	162917	1/13/2022 3:	0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Diesel Range Organics (C10 to C24)	A	mg/L		0.1616746		0	0	0	0.038122	0.3	0	0%	0	0	0%	J
Oil Range Hydrocarbons (C24 to C40)	A	mg/L		0.118461907		0	0	0	0.086142	0.3	0	0%	0	0	0%	J
Total Extractable Hydrocarbons	A	mg/L		0.2838722		0	0	0	0.073402	0.3	50	0%	0	0	0%	J
n-Triacontane	S	mg/L		0.0988		0.098	0	0	0.0003293	0.00196	0	101%	50	150	0%	
o-Terphenyl	S	mg/L		0.1754738		0.196	0	0	0.0004204	0.002	0	90%	56	125	0%	
Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14981205	B22010753-001	HC-8015-DRO-	SAMP		1/15/2022 5:31:4	1	162917	1/13/2022 3:	0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Diesel Range Organics (C10 to C24)	A	mg/L		0.107011		0	0	0	0.038122	0.3	0	0%	0	0	0%	J
Oil Range Hydrocarbons (C24 to C40)	A	mg/L		0.188364312		0	0	0	0.086142	0.3	0	0%	0	0	0%	J
Total Extractable Hydrocarbons	A	mg/L		0.3049091		0	0	0	0.073402	0.3	50	0%	0	0	0%	
n-Triacontane	S	mg/L		0.0992		0.098	0	0	0.0003293	0.00196	0	101%	50	150	0%	
o-Terphenyl	S	mg/L		0.1691705		0.196	0	0	0.0004204	0.002	0	86%	56	125	0%	
Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14981206	B22010754-001	HC-8015-DRO-	SAMP		1/15/2022 7:39:4	1	162917	1/13/2022 3:	0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Diesel Range Organics (C10 to C24)	A	mg/L		0		0	0	0	0.0370328	0.3	0	0%	0	0	0%	U
Oil Range Hydrocarbons (C24 to C40)	A	mg/L		0		0	0	0	0.0836808	0.3	0	0%	0	0	0%	U
Total Extractable Hydrocarbons	A	mg/L		0		0	0	0	0.0713048	0.3	50	0%	0	0	0%	U
n-Triacontane	S	mg/L		0.0952		0.0952	0	0	0.0003199	0.001904	0	100%	50	150	0%	
o-Terphenyl	S	mg/L		0.1741585		0.1904	0	0	0.0004084	0.002	0	91%	56	125	0%	
Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14981207	B22010755-001	HC-8015-DRO-	SAMP		1/15/2022 9:47:3	1	162917	1/13/2022 3:	0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Diesel Range Organics (C10 to C24)	A	mg/L		0		0	0	0	0.0389	0.3	0	0%	0	0	0%	U
Oil Range Hydrocarbons (C24 to C40)	A	mg/L		0.097920924		0	0	0	0.0879	0.3	0	0%	0	0	0%	J
Total Extractable Hydrocarbons	A	mg/L		0.1380567		0	0	0	0.0749	0.3	50	0%	0	0	0%	J
n-Triacontane	S	mg/L		0.0966		0.1	0	0	0.000336	0.002	0	97%	50	150	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14981207	B22010755-001	HC-8015-DRO-	SAMP		1/15/2022 9:47:3	1	162917	1/13/2022 3:	0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
o-Terphenyl	S	mg/L		0.1734511		0.2	0	0	0.000429	0.002	0	87%	56	125	0%	
Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14981208	CCV_0114HP53	HC-8015-DRO-	CCV		1/15/2022 11:12:	1	R373250				0	0				
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
TEH(Oil Range)	A	mg/L		4.720291992		5	0	0	0.0879	0.3	0	94%	80	120	0%	
n-Triacontane	S	mg/L		0.1836897		0.2	0	0	0.000336	0.002	0	92%	80	120	0%	
Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14981209	CCV_0114HP53	HC-8015-DRO-	CCV		1/15/2022 11:55:	1	R373250				0	0				
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Diesel Range Organics (C10 to C24)	A	mg/L		13.19972		15	0	0	0.0389	0.3	0	88%	80	120	0%	
Total Extractable Hydrocarbons	A	mg/L		13.66227		15	0	0	0.0749	0.3	50	91%	80	120	0%	
o-Terphenyl	S	mg/L		0.1900158		0.2	0	0	0.000429	0.002	0	95%	80	120	0%	
Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14981210	CCV_0114HP54	HC-8015-DRO-	CCV		1/16/2022 11:44:	1	R373250				0	0				
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
TEH(Oil Range)	A	mg/L		4.628584961		5	0	0	0.0879	0.3	0	93%	80	120	0%	
n-Triacontane	S	mg/L		0.1793895		0.2	0	0	0.000336	0.002	0	90%	80	120	0%	
Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14981211	B22010759-001	HC-8015-DRO-	MS-DOD		1/16/2022 1:09:4	1	162917	1/13/2022 3:	1E+07	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
TEH(Oil Range)	A	mg/L		4.624453545		4.9	0.1752691	0	0.086142	0.3	0	91%	41	113	0%	
n-Triacontane	S	mg/L		0.0954		0.098	0	0	0.0003293	0.002	0	97%	50	150	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14981212	B22010759-001	HC-8015-DRO-	MSD-DOD		1/16/2022 2:34:3	1	162917	1/13/2022 3:	1E+07	1E+07						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
TEH(Oil Range)	A	mg/L	4.419436932			4.81	0.1752691	4.6244535	0.0845598	0.3	0	88%	41	113	5%	
n-Triacontane	S	mg/L	0.092			0.0962	0	0	0.0003232	0.002	0	96%	50	150	0%	
Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14981213	LCS-162917-RR	HC-8015-DRO-	LCS-DOD		1/16/2022 3:59:4	1	162917	1/13/2022 3:	0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
TEH(Oil Range)	A	mg/L	4.736527443			5	0	0	0.0879	0.3	0	95%	41	113	0%	
n-Triacontane	S	mg/L	0.0983			0.1	0	0	0.000336	0.002	0	98%	50	150	0%	
Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14981214	CCV_0114HP55	HC-8015-DRO-	CCV		1/16/2022 5:25:1	1	R373250				0	0				
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
TEH(Oil Range)	A	mg/L	4.483484863			5	0	0	0.0879	0.3	0	90%	80	120	0%	
n-Triacontane	S	mg/L	0.171247			0.2	0	0	0.000336	0.002	0	86%	80	120	0%	

Energy Laboratories Inc

ANALYTICAL RUN Summary

19-Jan-22

Run ID GCFID-HP5-B_220118A

Run Start Date: 1/18/2022
Analyst: Ann Nebel
Ical:
Column ID:
Comments: DRO-8015-ICAL information is in Index GCFID-HP5-B_220111A 8015C OIL range calibration GCFID-HP5-B_220111C

Std ID	Std Name	Std Amount	Std Units	Samp Amount	Samp Units	SampType	Expiration Date
DRO220105B	8015 CCV-15,000ug/mL + 200 OTP					CCV-DRO	4/30/2023
DRO220106A	5,000 ug/mL RRO CCV 200 ug/mL Triacontane					CCV-RRO	4/6/2026
DRO220111A	Carbon Scan STD-Marker					MARKER	7/13/2026

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985779	CCV_0118HP50	HC-8015-DRO-	CCV		1/18/2022 8:54:2	1	R373364		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
TEH(Oil Range)	A	mg/L		4.75602832		5	0	0	0.0879	0.3	0	95%	80	120	0%	
n-Triacontane	S	mg/L		0.1870436		0.2	0	0	0.000336	0.002	0	94%	80	120	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985780	CCV_0118HP50	HC-8015-DRO-	CCV		1/18/2022 9:36:5	1	R373364		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Diesel Range Organics (C10 to C24)	A	mg/L		13.10787		15	0	0	0	0.3	0	87%	80	120	0%	
Total Extractable Hydrocarbons	A	mg/L		13.58763		15	0	0	0.0749	0.3	50	91%	80	120	0%	
o-Terphenyl	S	mg/L		0.1885873		0.2	0	0	0.000429	0.002	0	94%	80	120	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985783	LCS-162917	HC-8015-DRO-	LCS-DOD		1/18/2022 1:56:3	1	162917	1/13/2022 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					
14985783	LCS-162917	HC-8015-DRO-	LCS-DOD		1/18/2022 1:56:3	1	162917	1/13/2022 3:	0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Diesel Range Organics (SGT-C10 to	A	mg/L		11.7675		15	0	0	0	0.3	0	78%	36	132	0%	
Total Extractable Hydrocarbons (SGT	A	mg/L		12.52359		15	0	0	0.0329	0.3	0	83%	60	132	0%	
o-Terphenyl (SGT)	S	mg/L		0.1837694		0.2	0	0	0.000429	0.002	0	92%	56	125	0%	
Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985784	MB-162917	HC-8015-DRO-	MBLK		1/18/2022 2:39:1	1	162917	1/13/2022 3:	0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Diesel Range Organics (SGT-C10 to	A	mg/L		0		0	0	0	0.0389	0.15	0	0%	0	0	0%	
Oil Range Hydrocarbons (SGT-C24 t	A	mg/L		0		0	0	0	0.0879	0.15	0	0%	0	0	0%	
Total Extractable Hydrocarbons (SGT	A	mg/L		0		0	0	0	0.0329	0.15	0	0%	0	0	0%	
n-Triacontane (SGT)	S	mg/L		0.0993		0.1	0	0	0.000336	0.002	0	99%	50	150	0%	
o-Terphenyl (SGT)	S	mg/L		0.1874022		0.2	0	0	0.000429	0.002	0	94%	56	125	0%	
Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985785	B22010759-001	HC-8015-DRO-	SAMP		1/18/2022 3:22:0	1	162917	1/13/2022 3:	0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Diesel Range Organics (SGT-C10 to	A	mg/L		0		0	0	0	0.0366827	0.3	0	0%	0	0	0%	U
Oil Range Hydrocarbons (SGT-C24 t	A	mg/L		0		0	0	0	0.0828897	0.3	0	0%	0	0	0%	U
Total Extractable Hydrocarbons (SGT	A	mg/L		0		0	0	0	0.0310247	0.3	0	0%	0	0	0%	U
n-Triacontane (SGT)	S	mg/L		0.0822		0.0943	0	0	0.0003168	0.001886	0	87%	50	150	0%	
o-Terphenyl (SGT)	S	mg/L		0.1275598		0.1886	0	0	0.0004045	0.001886	0	68%	56	125	0%	
Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985786	B22010755-001	HC-8015-DRO-	SAMP		1/18/2022 4:04:3	1	162917	1/13/2022 3:	0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Diesel Range Organics (SGT-C10 to	A	mg/L		0		0	0	0	0.0389	0.3	0	0%	0	0	0%	U
Oil Range Hydrocarbons (SGT-C24 t	A	mg/L		0		0	0	0	0.0879	0.3	0	0%	0	0	0%	U
Total Extractable Hydrocarbons (SGT	A	mg/L		0		0	0	0	0.0329	0.3	0	0%	0	0	0%	U
n-Triacontane (SGT)	S	mg/L		0.083		0.1	0	0	0.000336	0.002	0	83%	50	150	0%	
o-Terphenyl (SGT)	S	mg/L		0.142085		0.2	0	0	0.000429	0.002	0	71%	56	125	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985787	B22010758-001	HC-8015-DRO-	SAMP		1/18/2022 4:47:1	1	162917	1/13/2022 3:	0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Diesel Range Organics (SGT-C10 to	A	mg/L		0		0	0	0	0.0389	0.3	0	0%	0	0	0%	U
Oil Range Hydrocarbons (SGT-C24 t	A	mg/L		0		0	0	0	0.0879	0.3	0	0%	0	0	0%	U
Total Extractable Hydrocarbons (SGT	A	mg/L		0.03637348		0	0	0	0.0329	0.3	0	0%	0	0	0%	J
n-Triacontane (SGT)	S	mg/L		0.0829		0.1	0	0	0.000336	0.002	0	83%	50	150	0%	
o-Terphenyl (SGT)	S	mg/L		0.1481894		0.2	0	0	0.000429	0.002	0	74%	56	125	0%	
Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985788	B22010758-002	HC-8015-DRO-	SAMP		1/18/2022 5:29:5	1	162917	1/13/2022 3:	0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Diesel Range Organics (SGT-C10 to	A	mg/L		0		0	0	0	0.038122	0.3	0	0%	0	0	0%	U
Oil Range Hydrocarbons (SGT-C24 t	A	mg/L		0		0	0	0	0.086142	0.3	0	0%	0	0	0%	U
Total Extractable Hydrocarbons (SGT	A	mg/L		0.03973714		0	0	0	0.032242	0.3	0	0%	0	0	0%	J
n-Triacontane (SGT)	S	mg/L		0.083		0.098	0	0	0.0003293	0.00196	0	85%	50	150	0%	
o-Terphenyl (SGT)	S	mg/L		0.1483443		0.196	0	0	0.0004204	0.00196	0	76%	56	125	0%	
Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985789	B22010759-001	HC-8015-DRO-	MS-DOD		1/18/2022 6:12:3	1	162917	1/13/2022 3:	1E+07	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Diesel Range Organics (SGT-C10 to	A	mg/L		10.65786		14.7	0	0	0.038122	0.3	0	73%	36	132	0%	
Total Extractable Hydrocarbons (SGT	A	mg/L		11.30401		14.7	0	0	0.032242	0.3	0	77%	60	132	0%	
o-Terphenyl (SGT)	S	mg/L		0.1621548		0.196	0	0	0.0004204	0.002	0	83%	56	125	0%	
Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985790	B22010759-001	HC-8015-DRO-	MSD-DOD		1/18/2022 6:55:1	1	162917	1/13/2022 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 (SGT-C10 to	A	mg/L		10.43198		14.43	0	10.65786	0.0374218	0.3	0	72%	36	132	2%	
Total Extractable Hydrocarbons (SGT	A	mg/L		11.0807		14.43	0	11.30401	0.0316498	0.3	0	77%	60	132	2%	
o-Terphenyl (SGT)	S	mg/L		0.1415238		0.1924	0	0	0.0004127	0.002	0	74%	56	125	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985791	CCV_0118HP51	HC-8015-DRO-	CCV		1/18/2022 8:20:3	1	R373364		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
TEH(Oil Range)	A	mg/L		4.96241016		5	0	0	0.0879	0.3	0	99%	80	120	0%	
n-Triacontane	S	mg/L		0.1944733		0.2	0	0	0.000336	0.002	0	97%	80	120	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985792	CCV_0118HP52	HC-8015-DRO-	CCV		1/18/2022 9:03:1	1	R373364		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Diesel Range Organics (C10 to C24)	A	mg/L		13.93597		15	0	0	0.0389	0.3	0	93%	80	120	0%	
Total Extractable Hydrocarbons	A	mg/L		14.44334		15	0	0	0.0749	0.3	50	96%	80	120	0%	
o-Terphenyl	S	mg/L		0.1997624		0.2	0	0	0.000429	0.002	0	100%	80	120	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985793	B22010753-001	HC-8015-DRO-	SAMP		1/18/2022 10:28:	1	162917	1/13/2022 3:	0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Diesel Range Organics (SGT-C10 to	A	mg/L		0		0	0	0	0.038122	0.3	0	0%	0	0	0%	U
Oil Range Hydrocarbons (SGT-C24 t	A	mg/L		0		0	0	0	0.086142	0.3	0	0%	0	0	0%	U
Total Extractable Hydrocarbons (SGT	A	mg/L		0		0	0	0	0.032242	0.3	0	0%	0	0	0%	U
n-Triacontane (SGT)	S	mg/L		0.087		0.098	0	0	0.0003293	0.00196	0	89%	50	150	0%	
o-Terphenyl (SGT)	S	mg/L		0.1480674		0.196	0	0	0.0004204	0.00196	0	76%	56	125	0%	

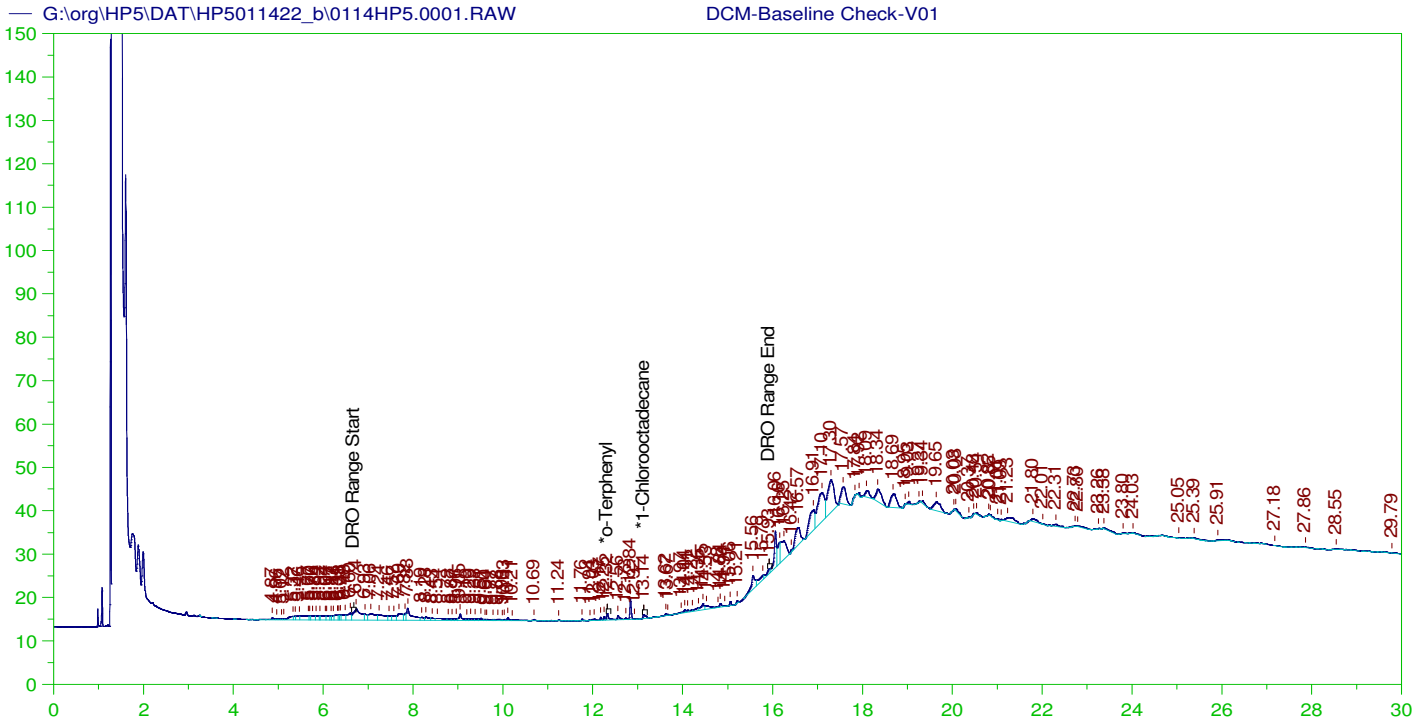
Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985794	B22010756-001	HC-8015-DRO-	SAMP		1/18/2022 11:10:	1	162917	1/13/2022 3:	0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Diesel Range Organics (SGT-C10 to	A	mg/L		0		0	0	0	0.0377719	0.3	0	0%	0	0	0%	U
Oil Range Hydrocarbons (SGT-C24 t	A	mg/L		0		0	0	0	0.0853509	0.3	0	0%	0	0	0%	U
Total Extractable Hydrocarbons (SGT	A	mg/L		0		0	0	0	0.0319459	0.3	0	0%	0	0	0%	U
n-Triacontane (SGT)	S	mg/L		0.0815		0.0971	0	0	0.0003263	0.001942	0	84%	50	150	0%	
o-Terphenyl (SGT)	S	mg/L		0.1459197		0.1942	0	0	0.0004166	0.001942	0	75%	56	125	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985795	B22010751-001	HC-8015-DRO-	SAMP		1/19/2022 12:36:	1	162917	1/13/2022 3:	0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Diesel Range Organics (SGT-C10 to	A	mg/L		0.7767612		0	0	0	0.039289	0.303	0	0%	0	0	0%	
Oil Range Hydrocarbons (SGT-C24 t	A	mg/L		0		0	0	0	0.088779	0.303	0	0%	0	0	0%	U
Total Extractable Hydrocarbons (SGT	A	mg/L		0.8387781		0	0	0	0.033229	0.303	0	0%	0	0	0%	
n-Triacontane (SGT)	S	mg/L		0.0769		0.101	0	0	0.0003394	0.00202	0	76%	50	150	0%	
o-Terphenyl (SGT)	S	mg/L		0.1364487		0.202	0	0	0.0004333	0.00202	0	68%	56	125	0%	
Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985796	B22010757-001	HC-8015-DRO-	SAMP		1/19/2022 1:18:3	1	162917	1/13/2022 3:	0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Diesel Range Organics (SGT-C10 to	A	mg/L		0.5905755		0	0	0	0.0377719	0.3	0	0%	0	0	0%	
Oil Range Hydrocarbons (SGT-C24 t	A	mg/L		0		0	0	0	0.0853509	0.3	0	0%	0	0	0%	U
Total Extractable Hydrocarbons (SGT	A	mg/L		0.6652289		0	0	0	0.0319459	0.3	0	0%	0	0	0%	
n-Triacontane (SGT)	S	mg/L		0.0911		0.0971	0	0	0.0003263	0.001942	0	94%	50	150	0%	
o-Terphenyl (SGT)	S	mg/L		0.1466119		0.1942	0	0	0.0004166	0.001942	0	75%	56	125	0%	
Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985797	B22010759-001	HC-8015-DRO-	MS-DOD		1/19/2022 2:01:1	1	162917	1/13/2022 3:	1E+07	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
TEH (SGT-Oil Range)	A	mg/L		3.80218172		4.9	0	0	0.086142	0.3	0	78%	41	113	0%	
n-Triacontane (SGT)	S	mg/L		0.0725		0.098	0	0	0.0003293	0.002	0	74%	50	150	0%	
Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985798	B22010759-001	HC-8015-DRO-	MSD-DOD		1/19/2022 3:26:1	1	162917	1/13/2022 3:	1E+07	1E+07						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
TEH (SGT-Oil Range)	A	mg/L		3.5259769		4.81	0	3.8021817	0.0845598	0.3	0	73%	41	113	8%	
n-Triacontane (SGT)	S	mg/L		0.0672		0.0962	0	0	0.0003232	0.002	0	70%	50	150	0%	
Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985799	LCS-162917-RR	HC-8015-DRO-	LCS-DOD		1/19/2022 4:51:1	1	162917	1/13/2022 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					
14985799	LCS-162917-RR	HC-8015-DRO-	LCS-DOD		1/19/2022 4:51:1	1	162917	1/13/2022 3:	0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
TEH (SGT-Oil Range)	A	mg/L		4.16202831		5	0	0	0.0879	0.3	0	83%	41	113	0%	
n-Triacontane (SGT)	S	mg/L		0.0797		0.1	0	0	0.000336	0.002	0	80%	50	150	0%	
Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14985800	CCV_0118HP53	HC-8015-DRO-	CCV		1/19/2022 6:16:2	1	R373364				0	0				
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
TEH(Oil Range)	A	mg/L		4.44773193		5	0	0	0.0879	0.3	0	89%	80	120	0%	
n-Triacontane	S	mg/L		0.2002077		0.2	0	0	0.000336	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					
14985801	CCV_0118HP53	HC-8015-DRO-	CCV		1/19/2022 6:58:4	1	R373364				0	0				
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Diesel Range Organics (C10 to C24)	A	mg/L		12.91928		15	0	0	0.0389	0.3	0	86%	80	120	0%	
Total Extractable Hydrocarbons	A	mg/L		13.39146		15	0	0	0.0749	0.3	50	89%	80	120	0%	
o-Terphenyl	S	mg/L		0.1860127		0.2	0	0	0.000429	0.002	0	93%	80	120	0%	

Write Sequence	Data File	Insert Entries(Have the first cell for entries select)	Method	Weight	Dil Factor	Amt Inj.	IS	Cal ID
G:\org\HP5\DAT\HP5011422_b0114HP5.01	DCM-Baseline Check-V01		G:\Org\HP5\Methods\DR_8015-JA-LEXP.met	1	1	1	1	0
G:\org\HP5\DAT\HP5011422_b0114HP5.02	DCM-Baseline Check-V02		G:\Org\HP5\Methods\DR_8015-JA-LEXP.met	1	1	1	1	0
G:\org\HP5\DAT\HP5011422_b0114HP5.03	MARKER_0114HP503r, DRO_0114HP5 , DRO220111A		G:\org\HP5\Methods\CSC220114.met	1	1	1	1	0
G:\org\HP5\DAT\HP5011422_b0114HP5.04	CCV_0114HP504r, RRO_0114HP5 , DRO220106A		G:\Org\HP5\Methods\DC_ORO-BB-L%.MET	1	1	1	1	0
G:\org\HP5\DAT\HP5011422_b0114HP5.05	CCV_0114HP505r, DRO_0114HP5 , DRO220105B-		G:\Org\HP5\Methods\DS_ORO-BB-L%.MET	1	1	1	1	0
G:\org\HP5\DAT\HP5011422_b0114HP5.06	DCM-Baseline Check-V06		G:\Org\HP5\Methods\DC_8015-C24-JB-L%.met	1	1	1	1	0
G:\org\HP5\DAT\HP5011422_b0114HP5.07	DCM-Baseline Check-V07		G:\Org\HP5\Methods\DS_8015-C24-JB-L%.met	1	1	1	1	0
G:\org\HP5\DAT\HP5011422_b0114HP5.08	LCS-162917_0114HP5 ,		G:\Org\HP5\Methods\DR_8015-JA-LEXP.met	1000	1	1	1	0
G:\org\HP5\DAT\HP5011422_b0114HP5.09	MB-162917_0114HP5 ,		G:\Org\HP5\Methods\DS_8015-C24-JB-L%.met	1000	1	1	1	0
G:\org\HP5\DAT\HP5011422_b0114HP5.10	B22010759-001D_0114HP5 , \$HC-8015-DRO-W,		G:\Org\HP5\Methods\DR_OROS-BB-L%.MET	1060	1	1	1	0
G:\org\HP5\DAT\HP5011422_b0114HP5.11	B22010759-001DMS_0114HP5 ,		G:\Org\HP5\Methods\DS_8015-C24-JB-L%.met	1020	1	1	1	0
G:\org\HP5\DAT\HP5011422_b0114HP5.12	B22010759-001DMSD_0114HP5 ,		G:\Org\HP5\Methods\DS_8015-C24-JB-L%.met	1040	1	1	1	0
G:\org\HP5\DAT\HP5011422_b0114HP5.13	DCM-Baseline Check-V13		G:\Org\HP5\Methods\DR_8015-JA-LEXP.met	1	1	1	1	0
G:\org\HP5\DAT\HP5011422_b0114HP5.14	B22010759-001D_0114HP5 , \$HC-8015-DRO-W,		G:\Org\HP5\Methods\DR_8015-C24-JB-L%.met	1030	1	1	1	0
G:\org\HP5\DAT\HP5011422_b0114HP5.15	B22010751-001D_0114HP5 , \$HC-8015-DRO-W,		G:\Org\HP5\Methods\DR_OROS-BB-L%.MET	990	1	1	1	0
G:\org\HP5\DAT\HP5011422_b0114HP5.16	DCM-Baseline Check-V16		G:\Org\HP5\Methods\DS_8015-C24-JB-L%.met	1030	1	1	1	0
G:\org\HP5\DAT\HP5011422_b0114HP5.17	B22010756-001D_0114HP5 , \$HC-8015-DRO-W,		G:\Org\HP5\Methods\DR_8015-JA-LEXP.met	1030	1	1	1	0
G:\org\HP5\DAT\HP5011422_b0114HP5.18	B22010757-001D_0114HP5 , \$HC-8015-DRO-W,		G:\Org\HP5\Methods\DR_OROS-BB-L%.MET	1030	1	1	1	0
G:\org\HP5\DAT\HP5011422_b0114HP5.19	MARKER_0114HP503r, DRO_0114HP5 , DRO220111A		G:\Org\HP5\Methods\DS_8015-C24-JB-L%.met	1	1	1	1	0
G:\org\HP5\DAT\HP5011422_b0114HP5.20	CCV_0114HP504r, RRO_0114HP5 , DRO220106A		G:\Org\HP5\Methods\DC_ORO-BB-L%.MET	1	1	1	1	0
G:\org\HP5\DAT\HP5011422_b0114HP5.21	CCV_0114HP505r, DRO_0114HP5 , DRO220105B-		G:\Org\HP5\Methods\DS_ORO-BB-L%.MET	1	1	1	1	0
G:\org\HP5\DAT\HP5011422_b0114HP5.22	DCM-Baseline Check-V22		G:\Org\HP5\Methods\DC_8015-C24-JB-L%.met	1	1	1	1	0
G:\org\HP5\DAT\HP5011422_b0114HP5.23	B22010759-001D_0114HP5 , \$HC-8015-DRO-W,		G:\Org\HP5\Methods\DS_8015-C24-JB-L%.met	1000	1	1	1	0
G:\org\HP5\DAT\HP5011422_b0114HP5.24	B22010758-002B_0114HP5 , \$HC-8015-DRO-W,		G:\Org\HP5\Methods\DR_OROS-BB-L%.MET	1020	1	1	1	0
G:\org\HP5\DAT\HP5011422_b0114HP5.25	DCM-Baseline Check-V25		G:\Org\HP5\Methods\DS_8015-C24-JB-L%.met	1	1	1	1	0
G:\org\HP5\DAT\HP5011422_b0114HP5.26	DCM-Baseline Check-V26		G:\Org\HP5\Methods\DR_8015-JA-LEXP.met	1	1	1	1	0
G:\org\HP5\DAT\HP5011422_b0114HP5.27	B22010759-001D_0114HP5 , \$HC-8015-DRO-W,		G:\Org\HP5\Methods\DS_8015-C24-JB-L%.met	1020	1	1	1	0
G:\org\HP5\DAT\HP5011422_b0114HP5.28	DCM-Baseline Check-V28		G:\Org\HP5\Methods\DR_8015-JA-LEXP.met	1	1	1	1	0
G:\org\HP5\DAT\HP5011422_b0114HP5.29	DCM-Baseline Check-V29		G:\Org\HP5\Methods\DR_8015-JA-LEXP.met	1	1	1	1	0
G:\org\HP5\DAT\HP5011422_b0114HP5.30	B22010754-001D_0114HP5 , \$HC-8015-DRO-W,		G:\Org\HP5\Methods\DR_8015-C24-JB-L%.met	1050	1	1	1	0
G:\org\HP5\DAT\HP5011422_b0114HP5.31	DCM-Baseline Check-V31		G:\Org\HP5\Methods\DR_OROS-BB-L%.MET	1	1	1	1	0
G:\org\HP5\DAT\HP5011422_b0114HP5.32	DCM-Baseline Check-V32		G:\Org\HP5\Methods\DR_8015-JA-LEXP.met	1	1	1	1	0
G:\org\HP5\DAT\HP5011422_b0114HP5.33	B22010755-001D_0114HP5 , \$HC-8015-DRO-W,		G:\Org\HP5\Methods\DS_8015-C24-JB-L%.met	1000	1	1	1	0
G:\org\HP5\DAT\HP5011422_b0114HP5.34	MARKER_0114HP534r, DRO_0114HP5 , DRO220111A		G:\Org\HP5\Methods\DS_OROS-BB-L%.MET	1	1	1	1	0
G:\org\HP5\DAT\HP5011422_b0114HP5.35	CCV_0114HP535r, RRO_0114HP5 , DRO220106A		G:\org\HP5\Methods\CSC220114.met	1	1	1	1	0
G:\org\HP5\DAT\HP5011422_b0114HP5.36	CCV_0114HP536r, DRO_0114HP5 , DRO220105B-		G:\Org\HP5\Methods\DC_ORO-BB-L%.MET	1	1	1	1	0
G:\org\HP5\DAT\HP5011422_b0114HP5.37	DCM-Baseline Check-V38		G:\Org\HP5\Methods\DS_8015-C24-JB-L%.met	1	1	1	1	0
G:\org\HP5\DAT\HP5011422_b0114HP5.38	B22010759-001DMS-RRO_0114HP5 , Needs rerun due to turret error		G:\Org\HP5\Methods\DR_8015-JA-LEXP.met	1020	1	1	1	0
G:\org\HP5\DAT\HP5011422_b0114HP5.39	DCM-Baseline Check-V39		G:\Org\HP5\Methods\DS_ORO-BB-L%.MET	1	1	1	1	0
G:\org\HP5\DAT\HP5011422_b0114HP5.40	B22010759-001DMSD-RRO_0114HP5 , Turret error on tower nothing injected		G:\Org\HP5\Methods\DR_8015-JA-LEXP.met	1040	1	1	1	0
G:\org\HP5\DAT\HP5011422_b0114HP5.41	MARKER_0114HP541r, DRO_0114HP5 , DRO220111A		G:\Org\HP5\Methods\DS_ORO-BB-L%.MET	1000	1	1	1	0
G:\org\HP5\DAT\HP5011422_b0114HP5.42	CCV_0114HP542r, RRO_0114HP5 , DRO220106A		G:\org\HP5\Methods\CSC220114.met	1	1	1	1	0
G:\org\HP5\DAT\HP5011422_b0114HP5.43	DCM-Baseline Check-V43		G:\Org\HP5\Methods\DC_ORO-BB-L%.MET	1	1	1	1	0
G:\org\HP5\DAT\HP5011422_b0114HP5.44	B22010759-001DMS-RRO_0114HP5 ,		G:\Org\HP5\Methods\DS_ORO-BB-L%.MET	1020	1	1	1	0
G:\org\HP5\DAT\HP5011422_b0114HP5.45	DCM-Baseline Check-V45		G:\Org\HP5\Methods\DR_8015-JA-LEXP.met	1	1	1	1	0
G:\org\HP5\DAT\HP5011422_b0114HP5.46	B22010759-001DMSD-RRO_0114HP5 ,		G:\Org\HP5\Methods\DS_ORO-BB-L%.MET	1040	1	1	1	0
G:\org\HP5\DAT\HP5011422_b0114HP5.47	DCM-Baseline Check-V47		G:\Org\HP5\Methods\DR_8015-JA-LEXP.met	1	1	1	1	0
G:\org\HP5\DAT\HP5011422_b0114HP5.48	LCS-162917-RRO_0114HP5 ,		G:\Org\HP5\Methods\DR_8015-JA-LEXP.met	1000	1	1	1	0
G:\org\HP5\DAT\HP5011422_b0114HP5.49	MARKER_0114HP549r, DRO_0114HP5 , DRO220111A		G:\Org\HP5\Methods\DS_ORO-BB-L%.MET	1	1	1	1	0
G:\org\HP5\DAT\HP5011422_b0114HP5.50	CCV_0114HP550r, RRO_0114HP5 , DRO220106A		G:\org\HP5\Methods\CSC220114.met	1	1	1	1	0
			G:\Org\HP5\Methods\DC_ORO-BB-L%.MET	1	1	1	1	0
			G:\Org\HP5\Methods\DS_ORO-BB-L%.MET					

Write Sequence	Data File	Sample Name	Method	Weight	Dil Factor	Amt Inj.	IS	Cal ID
	G:\org\HP5\DAT\HP5011822_b\0118HP5.01r	DCM-Baseline Check-V01	G:\Org\HP5\Methods\DR_8015-JA-LEXP.met	1	1	1	1	0
	G:\org\HP5\DAT\HP5011822_b\0118HP5.02r	MARKER_0118HP502r, DRO :0118HP5 , DRO220111A	G:\org\HP5\Methods\CS\CS220118.met	1	1	1	1	0
	G:\org\HP5\DAT\HP5011822_b\0118HP5.03r	CCV_0118HP503r, RRO :0118HP5 , DRO220106A	G:\Org\HP5\Methods\DC_ORO-BB-L%.MET G:\Org\HP5\Methods\DS_ORO-BB-L%.MET	1	1	1	1	0
	G:\org\HP5\DAT\HP5011822_b\0118HP5.04r	CCV_0118HP504r, DRO :0118HP5 , DRO220105B-	G:\Org\HP5\Methods\DC_8015-C24-JB-L%.met G:\Org\HP5\Methods\DS_8015-C24-JB-L%.met	1	1	1	1	0
	G:\org\HP5\DAT\HP5011822_b\0118HP5.05r	DCM-Baseline Check-V05	G:\Org\HP5\Methods\DR_8015-JA-LEXP.met	1	1	1	1	0
	G:\org\HP5\DAT\HP5011822_b\0118HP5.10r	LCS-162917 :0118HP5 , SGT	G:\Org\HP5\Methods\D3_8015-C24-JB-L%.met G:\Org\HP5\Methods\DS_8015-C24-JB-L%.met	1000	1	1	1	0
	G:\org\HP5\DAT\HP5011822_b\0118HP5.11r	MB-162917 :0118HP5 , SGT	G:\Org\HP5\Methods\DR_8015-C24T-JB-L%.met G:\Org\HP5\Methods\DR_OROS-BB-L%.MET G:\Org\HP5\Methods\DS_8015-C24T-BB-L%.met	1000	1	1	1	0
	G:\org\HP5\DAT\HP5011822_b\0118HP5.12r	B22010759-001D :0118HP5 , \$HC-8015-DRO-W, SGT	G:\Org\HP5\Methods\DR_8015-C24T-JB-L%.met G:\Org\HP5\Methods\DR_OROS-BB-L%.MET G:\Org\HP5\Methods\DS_8015-C24T-BB-L%.met	1060	1	1	1	0
	G:\org\HP5\DAT\HP5011822_b\0118HP5.13r	B22010755-001D :0118HP5 , \$HC-8015-DRO-W, SGT	G:\Org\HP5\Methods\DR_8015-C24T-JB-L%.met G:\Org\HP5\Methods\DR_OROS-BB-L%.MET G:\Org\HP5\Methods\DS_8015-C24T-BB-L%.met	1000	1	1	1	0
	G:\org\HP5\DAT\HP5011822_b\0118HP5.14r	B22010758-001D :0118HP5 , \$HC-8015-DRO-W, SGT	G:\Org\HP5\Methods\DR_8015-C24T-JB-L%.met G:\Org\HP5\Methods\DR_OROS-BB-L%.MET G:\Org\HP5\Methods\DS_8015-C24T-BB-L%.met	1000	1	1	1	0
	G:\org\HP5\DAT\HP5011822_b\0118HP5.15r	B22010758-002B :0118HP5 , \$HC-8015-DRO-W, SGT	G:\Org\HP5\Methods\DR_8015-C24T-JB-L%.met G:\Org\HP5\Methods\DR_OROS-BB-L%.MET G:\Org\HP5\Methods\DS_8015-C24T-BB-L%.met	1020	1	1	1	0
	G:\org\HP5\DAT\HP5011822_b\0118HP5.16r	B22010759-001DMS :0118HP5 , SGT	G:\Org\HP5\Methods\D3_8015-C24-JB-L%.met G:\Org\HP5\Methods\DS_8015-C24-JB-L%.met	1020	1	1	1	0
	G:\org\HP5\DAT\HP5011822_b\0118HP5.17r	B22010759-001DMSD :0118HP5 , SGT	G:\Org\HP5\Methods\D3_8015-C24-JB-L%.met G:\Org\HP5\Methods\DS_8015-C24-JB-L%.met	1040	1	1	1	0
	G:\org\HP5\DAT\HP5011822_b\0118HP5.18r	MARKER_0118HP518r, DRO :0118HP5 , DRO220111A	G:\org\HP5\Methods\CS\CS220118.met	1	1	1	1	0
	G:\org\HP5\DAT\HP5011822_b\0118HP5.19r	CCV_0118HP519r, RRO :0118HP5 , DRO220106A	G:\Org\HP5\Methods\DC_ORO-BB-L%.MET G:\Org\HP5\Methods\DS_ORO-BB-L%.MET	1	1	1	1	0
	G:\org\HP5\DAT\HP5011822_b\0118HP5.20r	CCV_0118HP520r, DRO :0118HP5 , DRO220105B-	G:\Org\HP5\Methods\DC_8015-C24-JB-L%.met G:\Org\HP5\Methods\DS_8015-C24-JB-L%.met	1	1	1	1	0
	G:\org\HP5\DAT\HP5011822_b\0118HP5.21r	DCM-Baseline Check-V21	G:\Org\HP5\Methods\DR_8015-JA-LEXP.met	1	1	1	1	0
	G:\org\HP5\DAT\HP5011822_b\0118HP5.22r	B22010753-001D :0118HP5 , \$HC-8015-DRO-W, SGT	G:\Org\HP5\Methods\DR_8015-C24T-JB-L%.met G:\Org\HP5\Methods\DR_OROS-BB-L%.MET G:\Org\HP5\Methods\DS_8015-C24T-BB-L%.met	1020	1	1	1	0
	G:\org\HP5\DAT\HP5011822_b\0118HP5.23r	B22010756-001D :0118HP5 , \$HC-8015-DRO-W, SGT	G:\Org\HP5\Methods\DR_8015-C24T-JB-L%.met G:\Org\HP5\Methods\DR_OROS-BB-L%.MET G:\Org\HP5\Methods\DS_8015-C24T-BB-L%.met	1030	1	1	1	0
	G:\org\HP5\DAT\HP5011822_b\0118HP5.24r	DCM-Baseline Check-V24	G:\Org\HP5\Methods\DR_8015-JA-LEXP.met	1	1	1	1	0
	G:\org\HP5\DAT\HP5011822_b\0118HP5.25r	B22010751-001D :0118HP5 , \$HC-8015-DRO-W, SGT	G:\Org\HP5\Methods\DR_8015-011825-JB-L%.met G:\Org\HP5\Methods\DR_OROS-011825-BB-L%.MET G:\Org\HP5\Methods\DS_8015-C24T-BB-L%.met	990	1	1	1	0
	G:\org\HP5\DAT\HP5011822_b\0118HP5.26r	B22010757-001D :0118HP5 , \$HC-8015-DRO-W, SGT	G:\Org\HP5\Methods\DR_8015-011826-JB-L%.met G:\Org\HP5\Methods\DR_OROS-011826-BB-L%.MET G:\Org\HP5\Methods\DS_8015-C24T-BB-L%.met	1030	1	1	1	0
	G:\org\HP5\DAT\HP5011822_b\0118HP5.27r	B22010759-001DMS-RRO :0118HP5 , SGT	G:\Org\HP5\Methods\D3_ORO-BB-L%.MET G:\Org\HP5\Methods\DS_ORO-BB-L%.MET	1020	1	1	1	0
	G:\org\HP5\DAT\HP5011822_b\0118HP5.28r	DCM-Baseline Check-V28	G:\Org\HP5\Methods\DR_8015-JA-LEXP.met	1	1	1	1	0
	G:\org\HP5\DAT\HP5011822_b\0118HP5.29r	B22010759-001DMSD-RRO :0118HP5 , SGT	G:\Org\HP5\Methods\D3_ORO-BB-L%.MET G:\Org\HP5\Methods\DS_ORO-BB-L%.MET	1040	1	1	1	0
	G:\org\HP5\DAT\HP5011822_b\0118HP5.30r	DCM-Baseline Check-V30	G:\Org\HP5\Methods\DR_8015-JA-LEXP.met	1	1	1	1	0
	G:\org\HP5\DAT\HP5011822_b\0118HP5.31r	LCS-162917-RRO :0118HP5 , SGT	G:\Org\HP5\Methods\D3_ORO-BB-L%.MET G:\Org\HP5\Methods\DS_ORO-BB-L%.MET	1000	1	1	1	0
	G:\org\HP5\DAT\HP5011822_b\0118HP5.32r	MARKER_0118HP532r, DRO :0118HP5 , DRO220111A	G:\org\HP5\Methods\CS\CS220118.met	1	1	1	1	0
	G:\org\HP5\DAT\HP5011822_b\0118HP5.33r	CCV_0118HP533r, RRO :0118HP5 , DRO220106A	G:\Org\HP5\Methods\DC_ORO-BB-L%.MET G:\Org\HP5\Methods\DS_ORO-BB-L%.MET	1	1	1	1	0
	G:\org\HP5\DAT\HP5011822_b\0118HP5.34r	CCV_0118HP534r, DRO :0118HP5 , DRO220105B-	G:\Org\HP5\Methods\DC_8015-C24-JB-L%.met G:\Org\HP5\Methods\DS_8015-C24-JB-L%.met	1	1	1	1	0



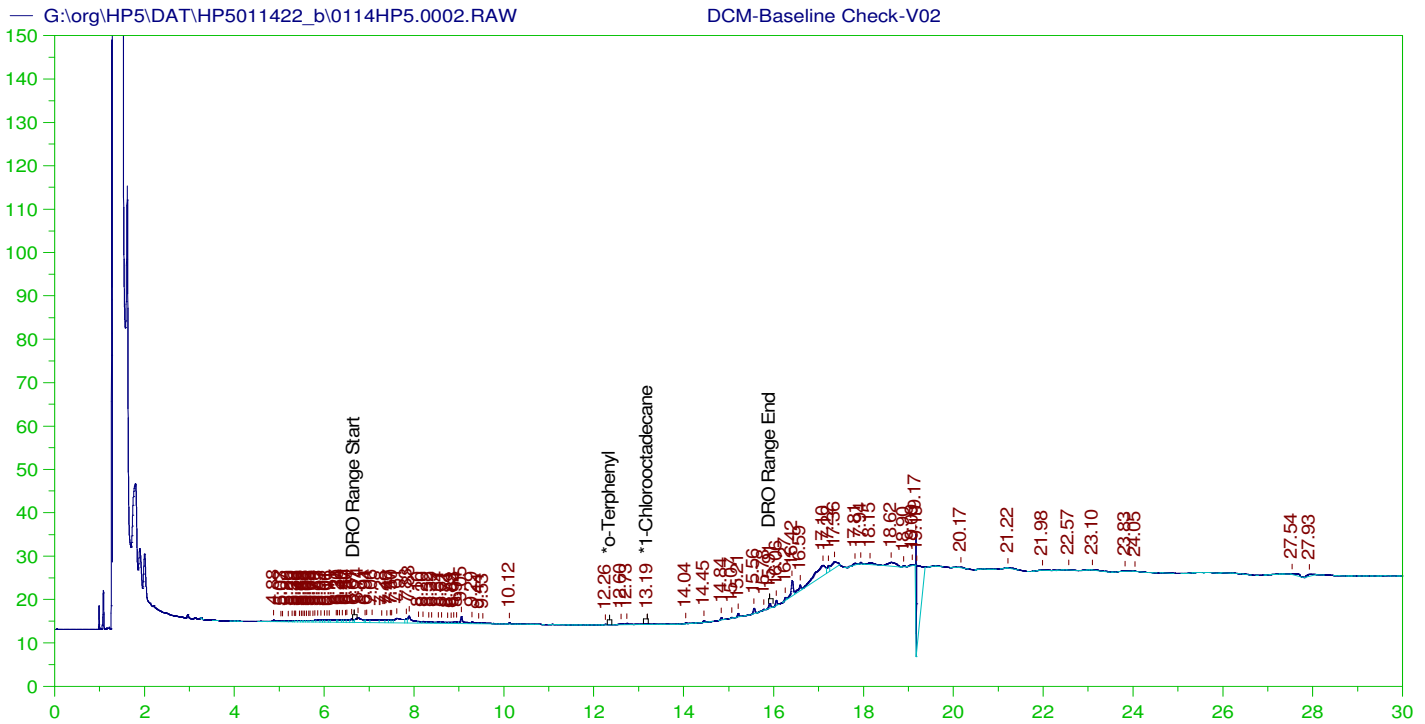
DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: DCM-Baseline Check-V01
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 Method File: G:\Org\HP5\Methods\DR_8015-JA-LEXP.met
 Calibration File: G:\Org\HP5\Cals\SW8015C_DRO220111JA.CAL
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36
 Rt range for Diesel Range Organics: 6.63 to 15.99

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.317	200.	.157	.08	-
*1-Chlorooctadecane	13.135	200.	.107	.05	-

DRO Area:268601.5 DRO Amount: 8.220307
 TEH Area:865343.9 TEH Amount: 26.48307



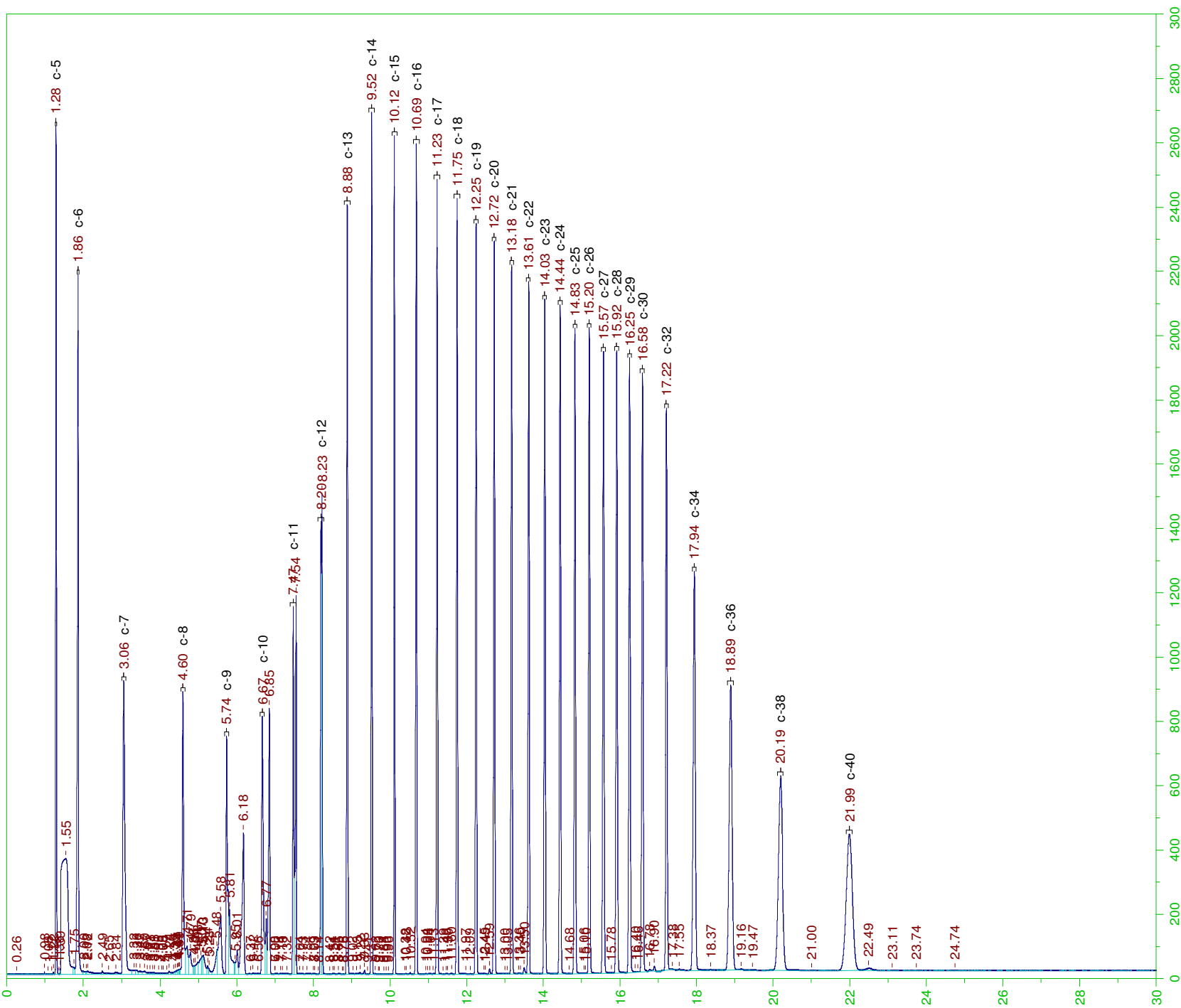
DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

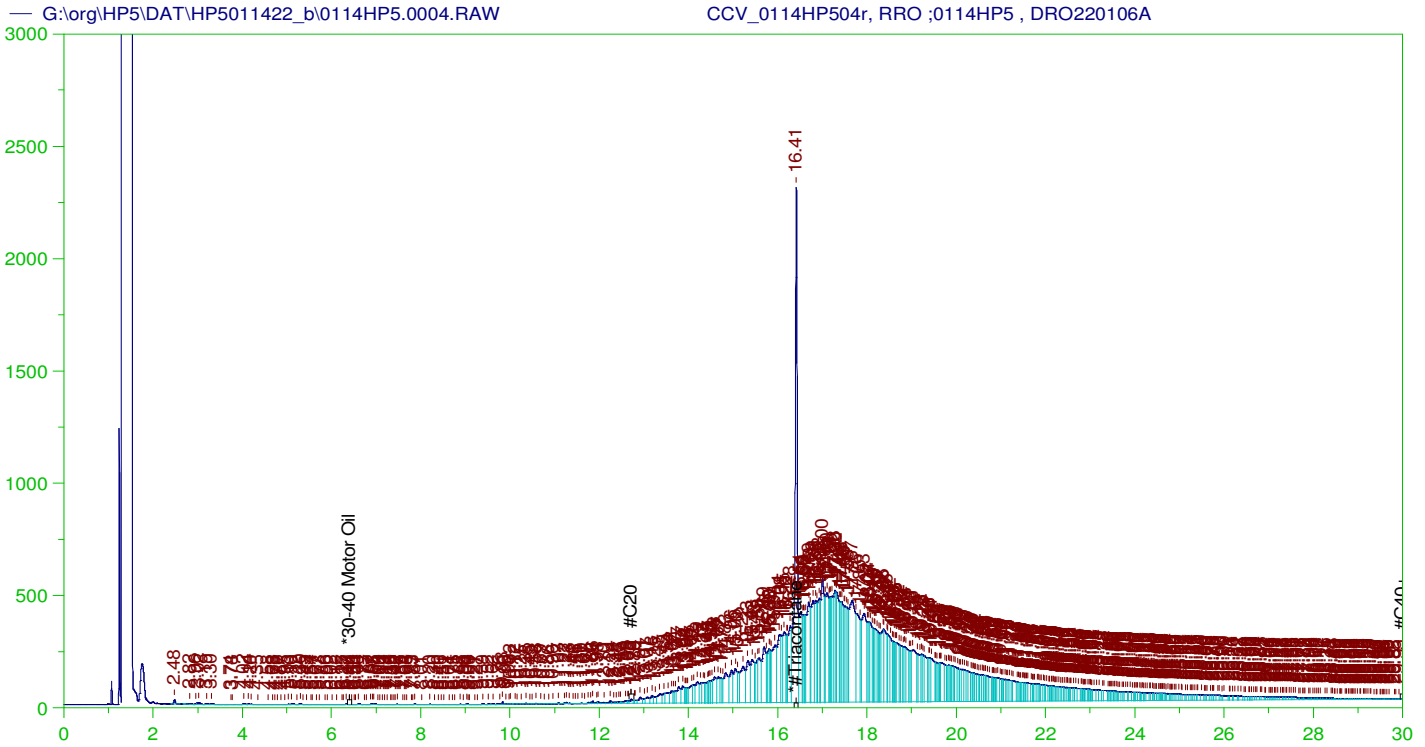
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 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36
 Rt range for Diesel Range Organics: 6.63 to 15.99

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	29.964	200.	.	-
*1-Chlorooctadecane	13.191	200.	.027	.01

DRO Area:118911.1 DRO Amount: 3.639166
 TEH Area:431059.7 TEH Amount: 13.19219





RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: CCV_0114HP504r, RRO ;0114HP5 , DRO220106A
 Raw File: G:\org\HP5\DAT\HP5011422_b\0114HP5.0004.RAW
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 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for for ~~Residual~~ TEH(Oil Range) Organics Calculations: 26424.55
 Rt range for ~~Residual~~ TEH(Oil Range) Organics: 12.67 to 30.05

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.414	500.	291.627	58.33	-

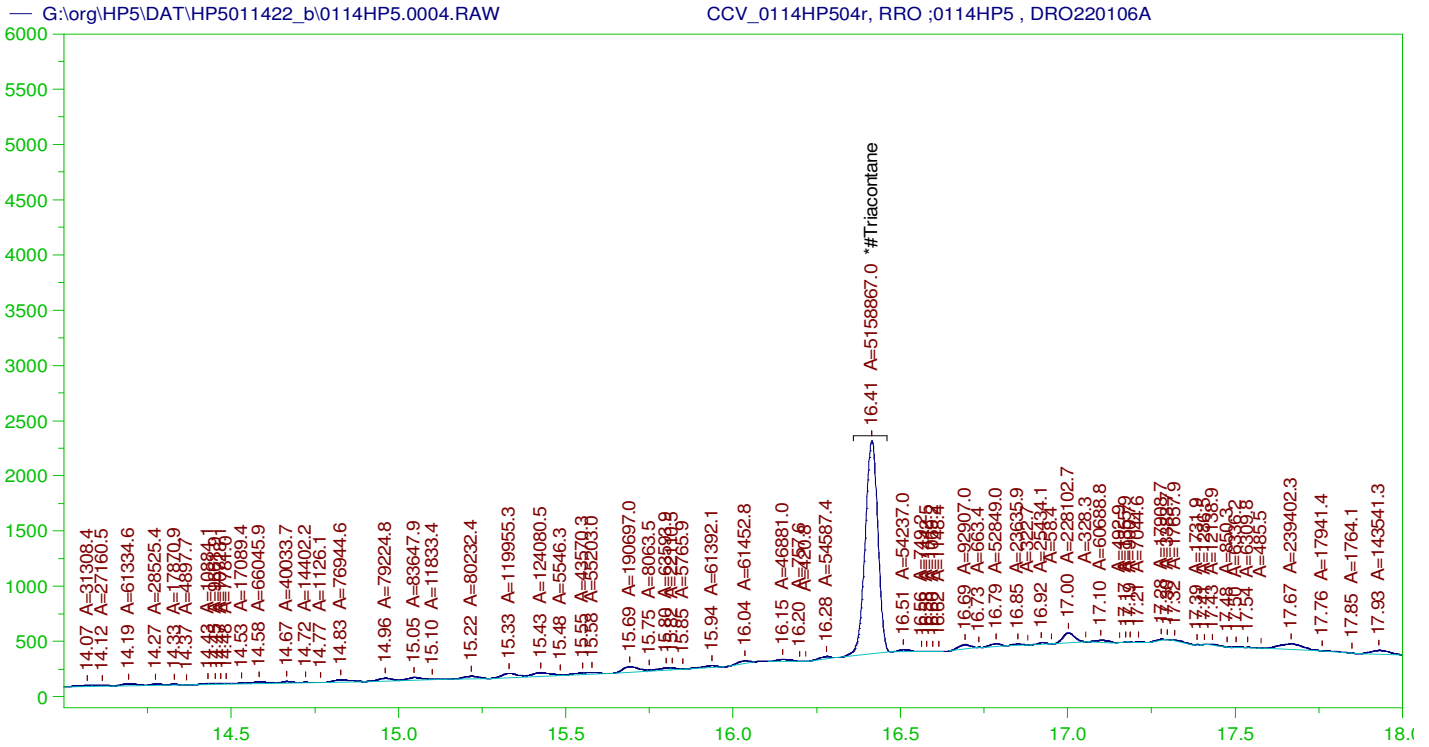
RRO TEH(Oil Range) Area:1.188145E+08 RRO TEH(Oil Range) AMOUNT: 4496.366

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5011422_b\0114HP5.0004.RAW

COMPOUND	ACTUAL (NG)	MEASURED (NG)	%RECOVERY	LIMITS
*30-40 Motor Oil	5000.	.036	.	75-125

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*#Triacontane	16.414	200.	291.627	145.81	75-125

AMN 02/14/2022



RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: CCV_0114HP504r, RRO ;0114HP5 , DRO220106A
Raw File: G:\org\HP5\DAT\HP5011422_b\0114HP5.0004.RAW
Date & Time Acquired: 1/14/2022 1:09:01 PM
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Calibration File: G:\Org\HP5\Cals\SW8015C_ORO220111BB.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 26424.55
Rt range for Residual Range Organics: 12.67 to 30.05

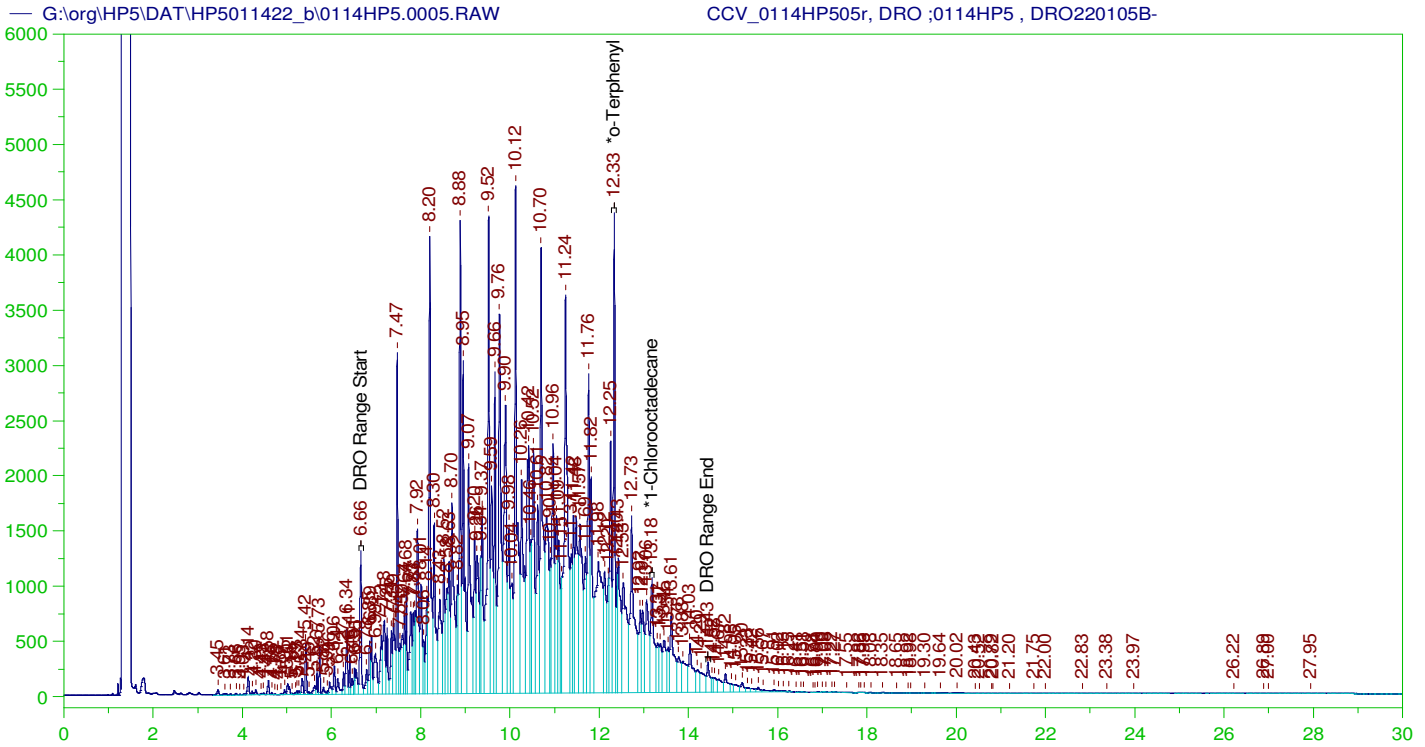
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.414	500.	174.074	34.81	-

RRO Area:3220641 RRO AMOUNT: 121.8806

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5011422_b\0114HP5.0004.RAW

COMPOUND	ACTUAL (NG)	MEASURED (NG)	%RECOVERY	LIMITS
*30-40 Motor Oil	5000.	.036	.	75-125

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*#Triacontane	16.414	200.	174.074	87.04	75-125



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: CCV_0114HP505r, DRO ;0114HP5 , DRO220105B-
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Date & Time Acquired: 1/14/2022 1:51:41 PM
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Calibration File: G:\Org\HP5\Cals\SW8015C_DRO220111JB-C24.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36
Rt range for Diesel Range Organics: 6.62 to 14.49

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.333	200.	295.501	147.75
*1-Chlorooctadecane	13.178	200.	144.932	72.47

DRO Area: 4.427358E+08 DRO Amount: 13549.53
TEH Area: 4.584327E+08 TEH Amount: 14029.92

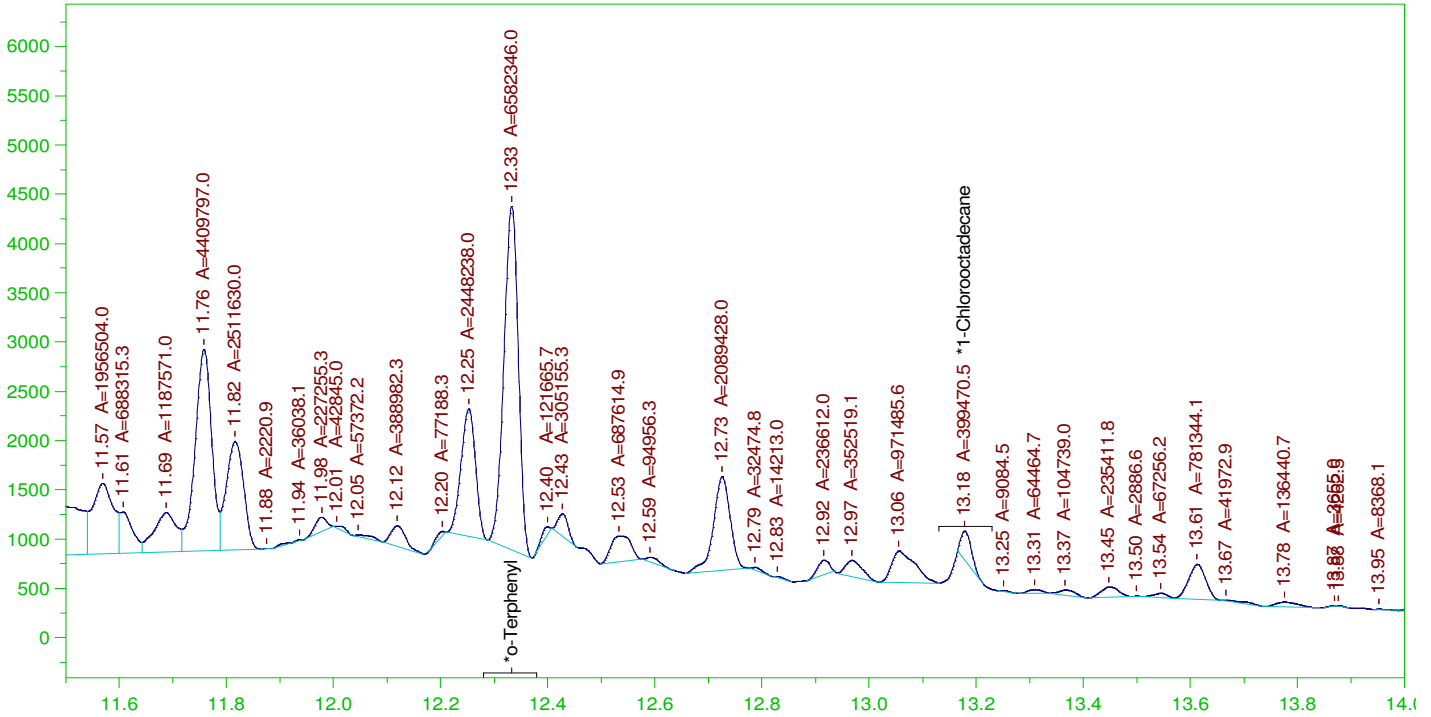
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COMPOUND	ACTUAL (NG)	MEASURED (NG)	%RECOVERY	LIMITS
TOTAL DRO	15000.	14029.92	93.53	85-115

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*o-Terphenyl	12.333	200.	295.501	147.75	85-115
*1-Chlorooctadecane	13.178	200.	144.932	72.47	85-115

G:\org\HP5\DAT\HP5011422_b\0114HP5.0005.RAW

CCV_0114HP505r, DRO ;0114HP5 , DRO220105B-



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: CCV_0114HP505r, DRO ;0114HP5 , DRO220105B-
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 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36

Rt range for Diesel Range Organics: 6.62 to 14.49

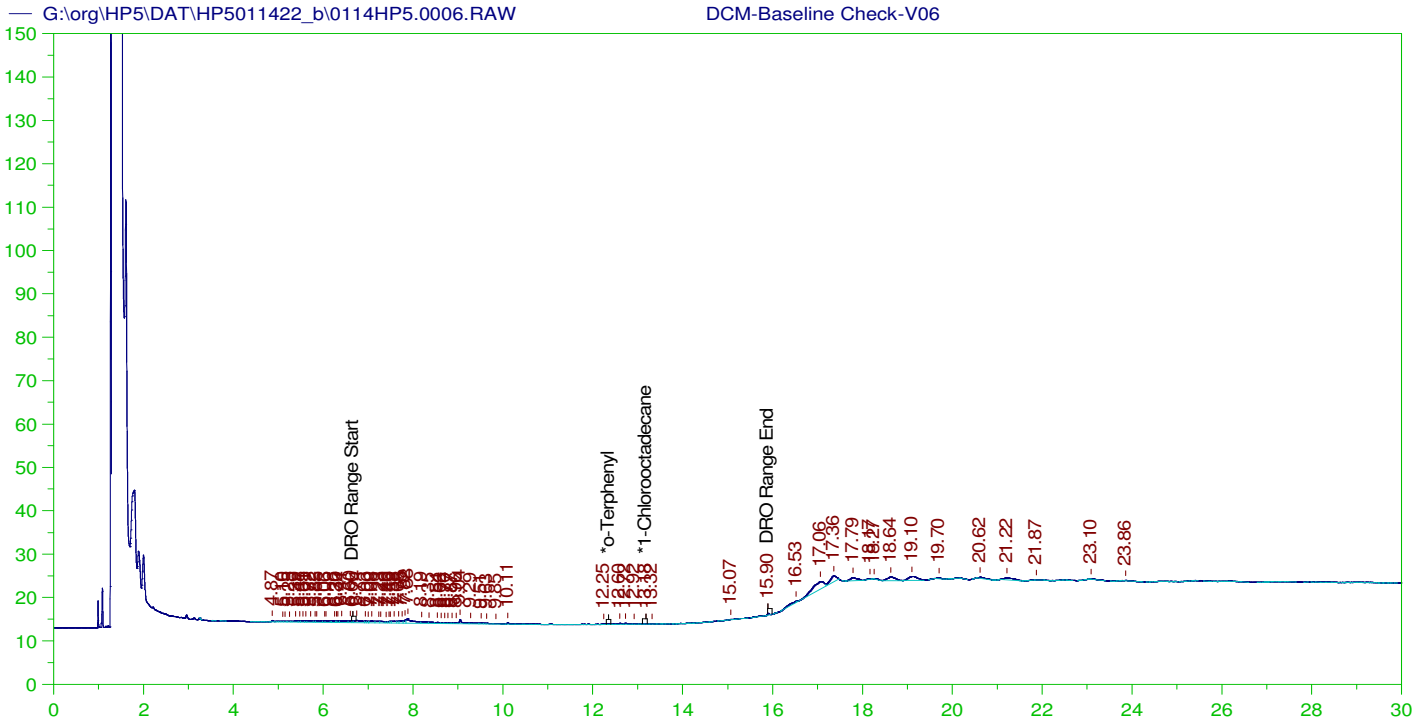
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.333	200.	178.587	89.29
*1-Chlorooctadecane	13.178	200.	10.838	5.42

DRO Area: 2.296404E+08 DRO Amount: 7027.938
 TEH Area: 2.40024E+08 TEH Amount: 7345.719

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5011422_b\0114HP5.0005.RAW

COMPOUND	ACTUAL (NG)	MEASURED (NG)	%RECOVERY	LIMITS
TOTAL DRO	15000.	7345.72	48.97	85-115

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*o-Terphenyl	12.333	200.	178.587	89.29	85-115
*1-Chlorooctadecane	13.178	200.	10.838	5.42	85-115



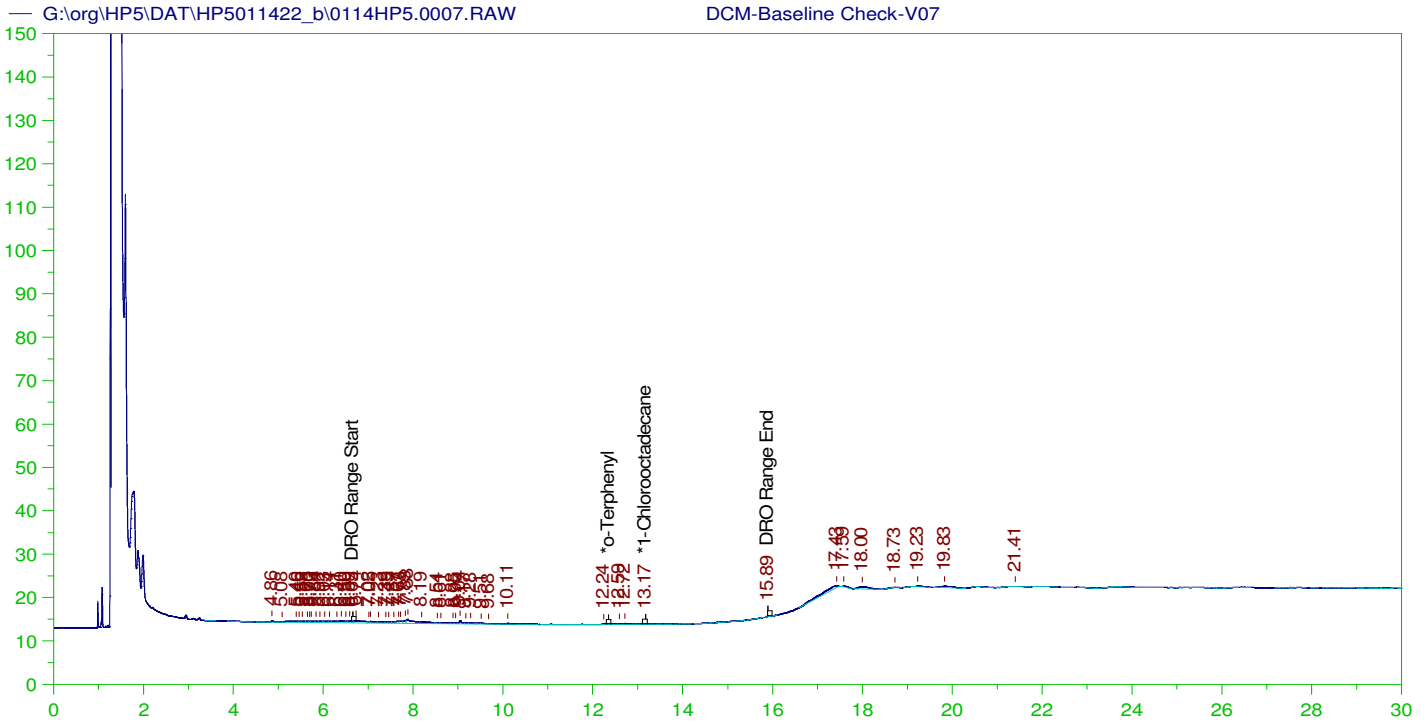
DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

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 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36
 Rt range for Diesel Range Organics: 6.63 to 15.99

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	29.851	200.	.	-
*1-Chlorooctadecane	13.183	200.	.014	.01 -

DRO Area: 76291.07 DRO Amount: 2.33482
 TEH Area: 209655.2 TEH Amount: 6.416307



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

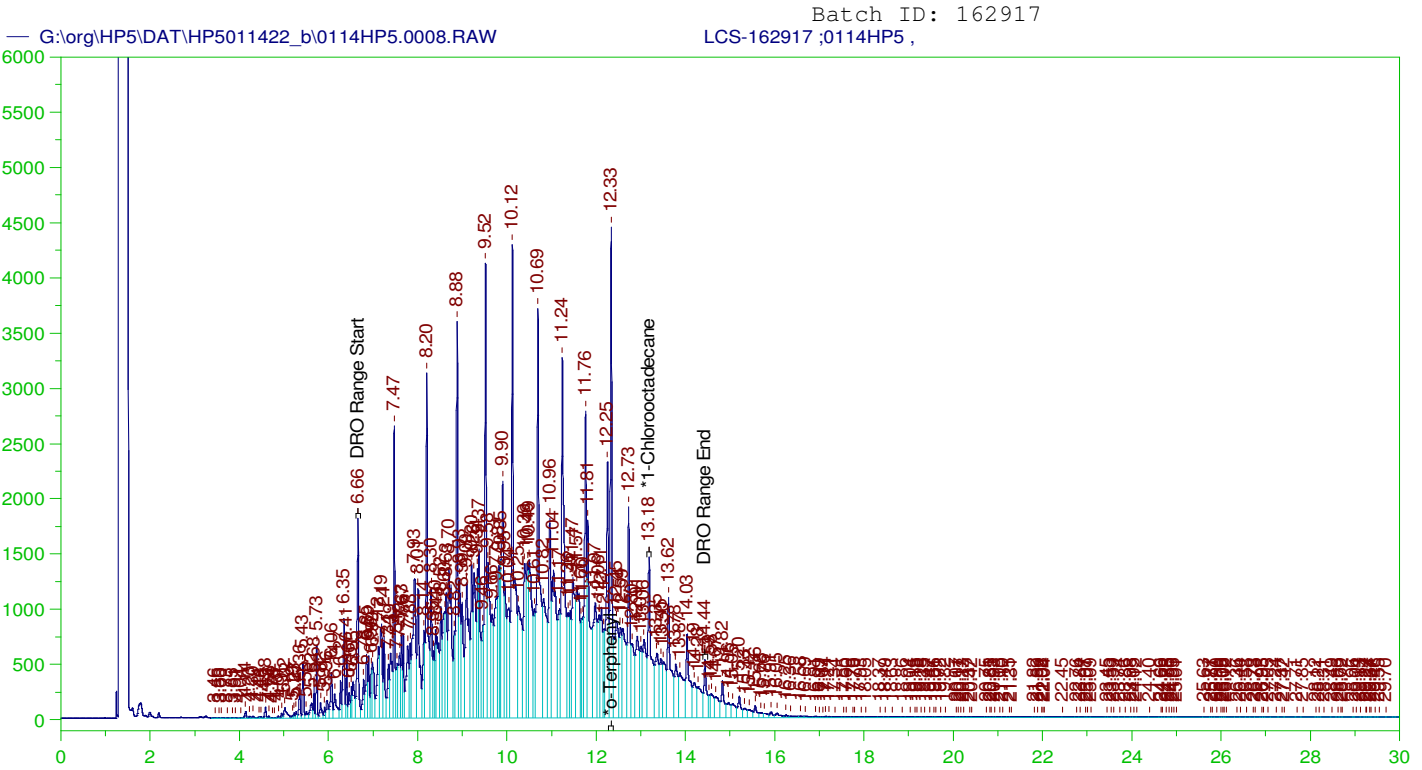
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 Date & Time Acquired: 1/14/2022 3:17:02 PM
 Method File: G:\Org\HP5\Methods\DR_8015-JA-LEXP.met
 Calibration File: G:\Org\HP5\Cals\SW8015C_DRO220111JA.CAL
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36

Rt range for Diesel Range Organics: 6.63 to 15.99

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	29.926	200.	.	-
*1-Chlorooctadecane	13.174	200.	.033	.02 -

DRO Area:63426.3 DRO Amount: 1.941105
 TEH Area:136206 TEH Amount: 4.168461



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: LCS-162917 ;0114HP5 ,
Raw File: G:\org\HP5\DAT\HP5011422_b\0114HP5.0008.RAW
Date & Time Acquired: 1/14/2022 3:59:38 PM
Method File: G:\Org\HP5\Methods\D3_8015-C24-JB-L%.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO220111JB-C24.CAL
Sample Weight: 1000 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36

Rt range for Diesel Range Organics: 6.62 to 14.49

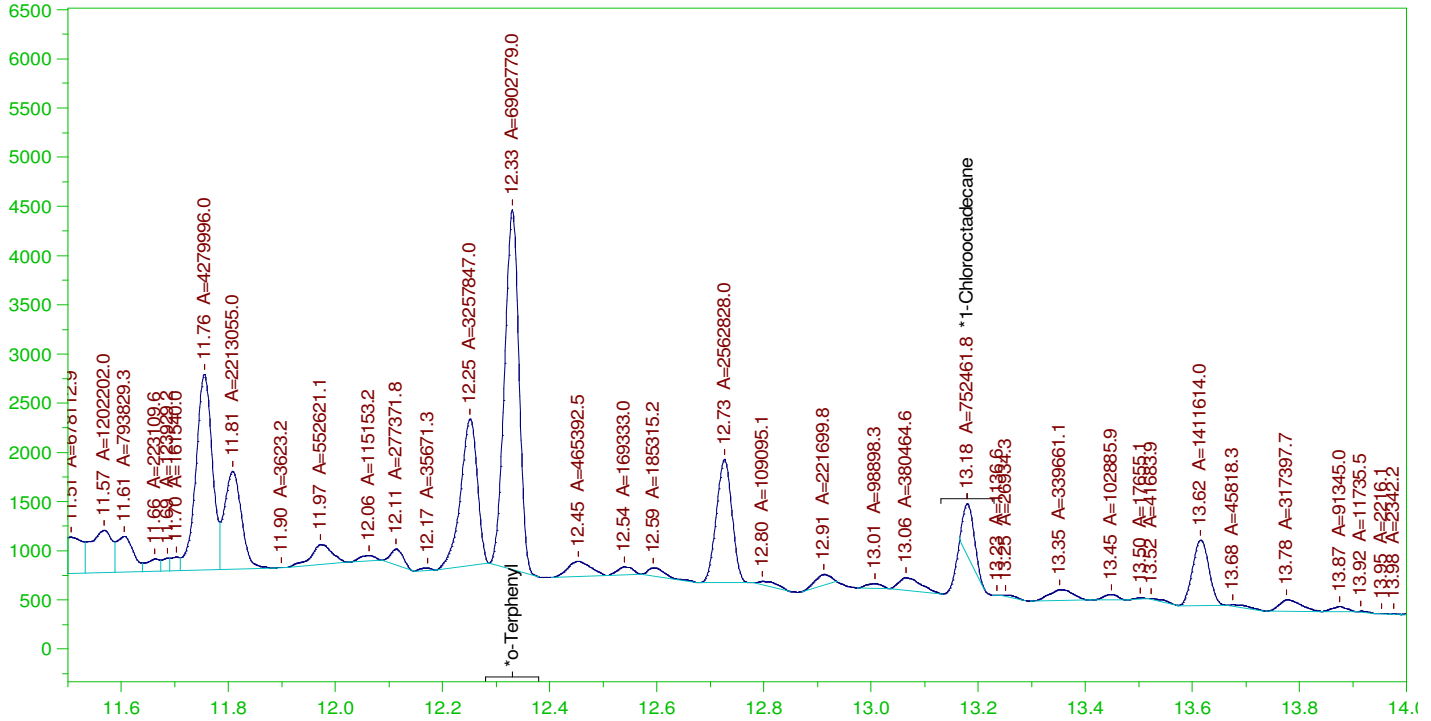
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.33	.2	.314	157.24	-
*1-Chlorooctadecane	13.179	.2	.193	96.75	-

DRO Area: 3.991864E+08 DRO Amount: 12.21674
TEH Area: 4.264862E+08 TEH Amount: 13.05223

Batch ID: 162917

G:\org\HP5\DAT\HP5011422_b\0114HP5.0008.RAW

LCS-162917 ;0114HP5 ,



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: LCS-162917 ;0114HP5 ,
 Raw File: G:\org\HP5\DAT\HP5011422_b\0114HP5.0008.RAW
 Date & Time Acquired: 1/14/2022 3:59:38 PM
 Method File: G:\Org\HP5\Methods\DS_8015-C24-JB-L#.met
 Calibration File: G:\Org\HP5\Cals\SW8015C_DRO220111JB-C24.CAL
 Sample Weight: 1000 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36

Rt range for Diesel Range Organics: 6.62 to 14.49

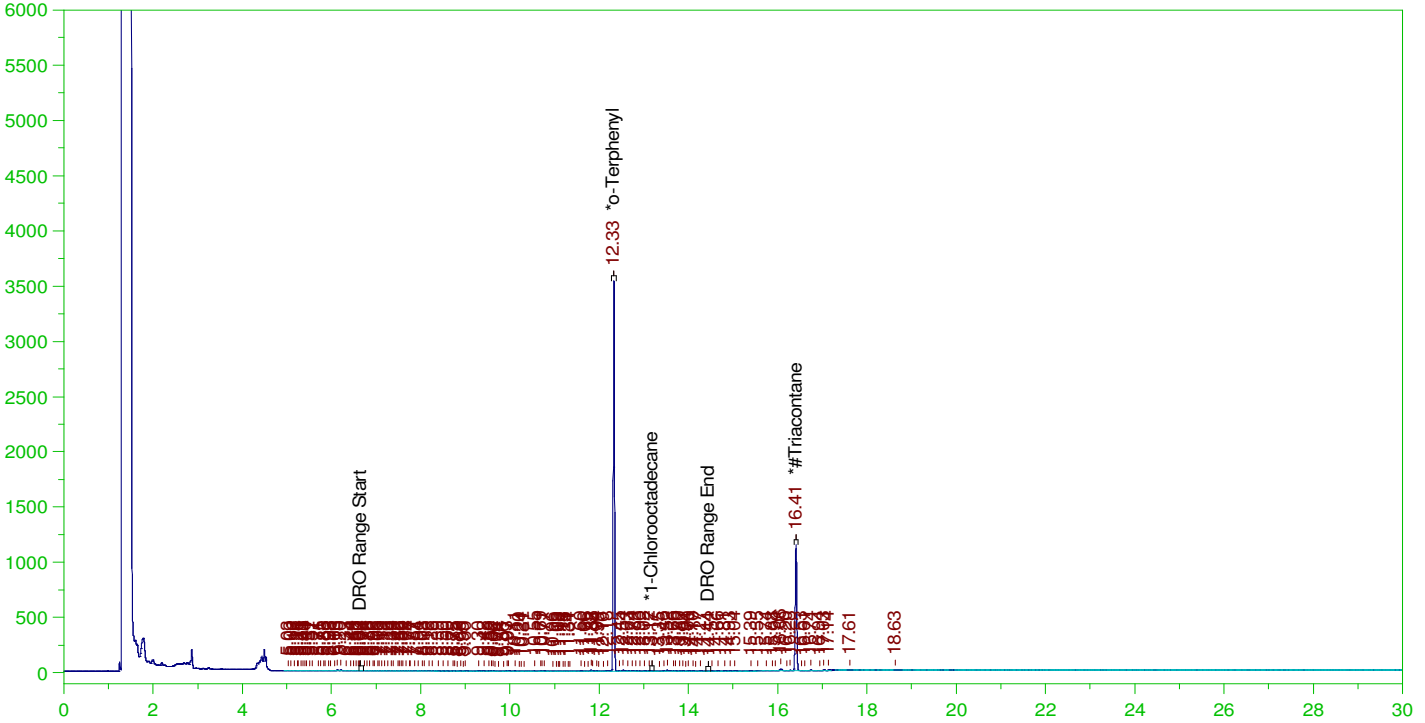
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.33	.2	.187	93.64
*1-Chlorooctadecane	13.179	.2	.02	10.21

DRO Area:1.887381E+08 DRO Amount: 5.776161
 TEH Area:2.029813E+08 TEH Amount: 6.212061

Batch ID: 162917

MB-162917 ;0114HP5 ,

G:\org\HP5\DAT\HP5011422_b\0114HP5.0009.RAW



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: MB-162917 ;0114HP5 ,
Raw File: G:\org\HP5\DAT\HP5011422_b\0114HP5.0009.RAW
Date & Time Acquired: 1/14/2022 4:42:10 PM
Method File: G:\Org\HP5\Methods\DR_8015-C24T-JB-L%.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO220111JB-C24-T.CAL
Sample Weight: 1000 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36

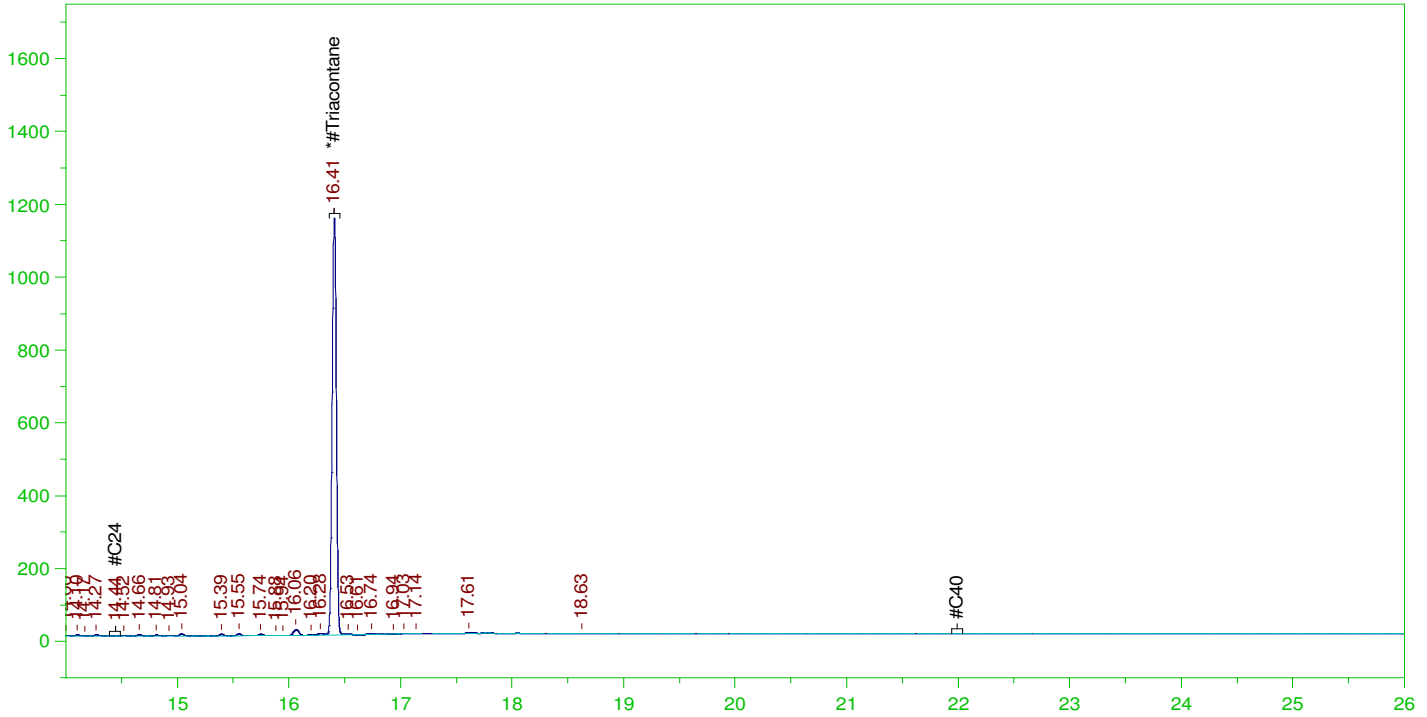
Rt range for Diesel Range Organics: 6.62 to 14.49

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.326	.2	.181	90.35	-
*1-Chlorooctadecane	13.173	.2	.	.02	-
*#Triacontane	16.406	.2	.101	50.39	-

DRO Area: 359021.3 DRO Amount: 1.098752E-02
TEH Area: 674109.6 TEH Amount: 2.063052E-02

G:\org\HP5\DAT\HP5011422_b\0114HP5.0009.RAW

MB-162917 ;0114HP5 ,



RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: MB-162917 ;0114HP5 ,
Raw File: G:\org\HP5\DAT\HP5011422_b\0114HP5.0009.RAW
Date & Time Acquired: 1/14/2022 4:42:10 PM
Method File: G:\Org\HP5\Methods\DR_OROS-BB-L%.MET
Calibration File: G:\Org\HP5\Cals\SW8015C_ORO220111BB_SAMP.CAL
Sample Weight: 1000 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 26424.55
Rt range for Residual Range Organics: 14.39 to 22.04

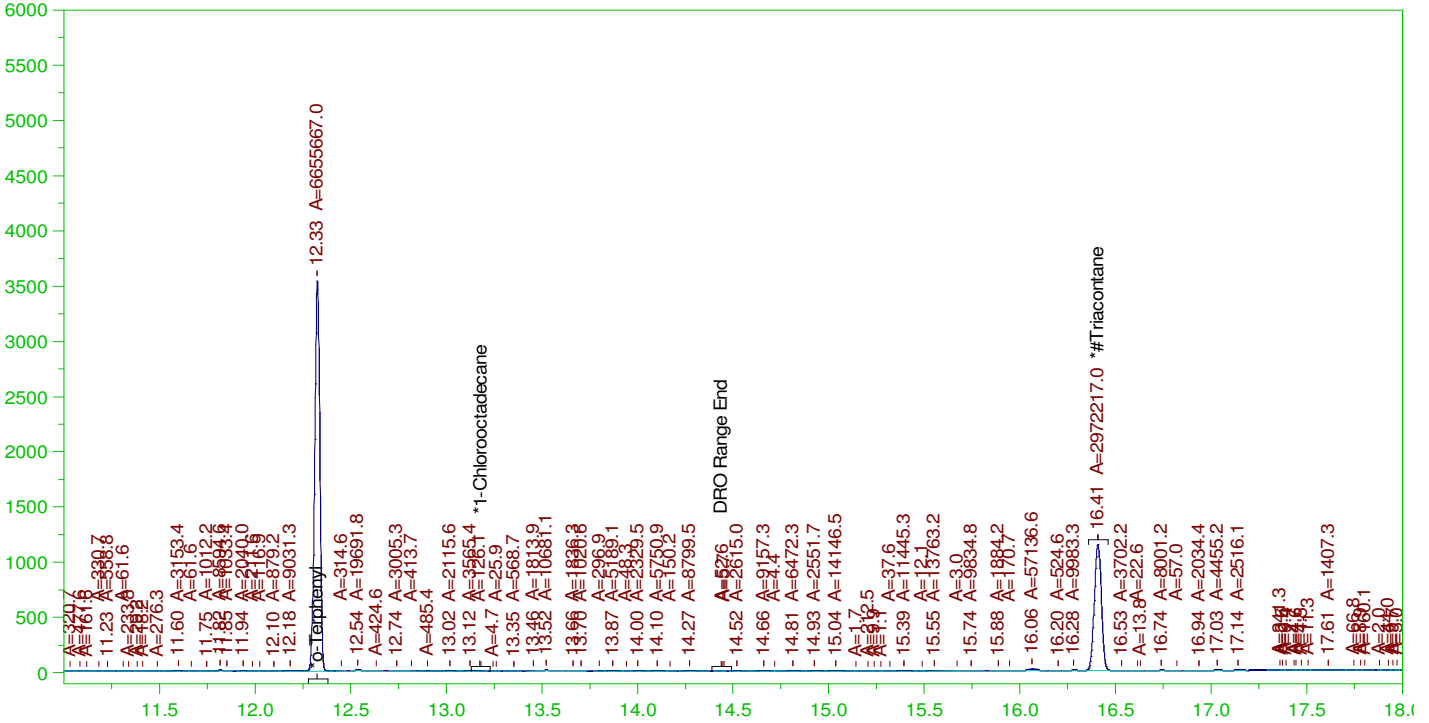
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane_____	16.406	.5	.101	20.15	-

RRO Area:186744.2 RRO AMOUNT: 7.067069E-03

Batch ID: 162917

MB-162917 ;0114HP5 ,

G:\org\HP5\DAT\HP5011422_b\0114HP5.0009.RAW



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: MB-162917 ;0114HP5 ,
Raw File: G:\org\HP5\DAT\HP5011422_b\0114HP5.0009.RAW
Date & Time Acquired: 1/14/2022 4:42:10 PM
Method File: G:\Org\HP5\Methods\DS_8015-C24T-BB-L#.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO220111JB-C24-T.CAL
Sample Weight: 1000 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36

Rt range for Diesel Range Organics: 6.62 to 14.49

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.326	.2	.181	90.29
*1-Chlorooctadecane	29.979	.2	.	-
*#Triacontane	16.406	.2	.1	50.15

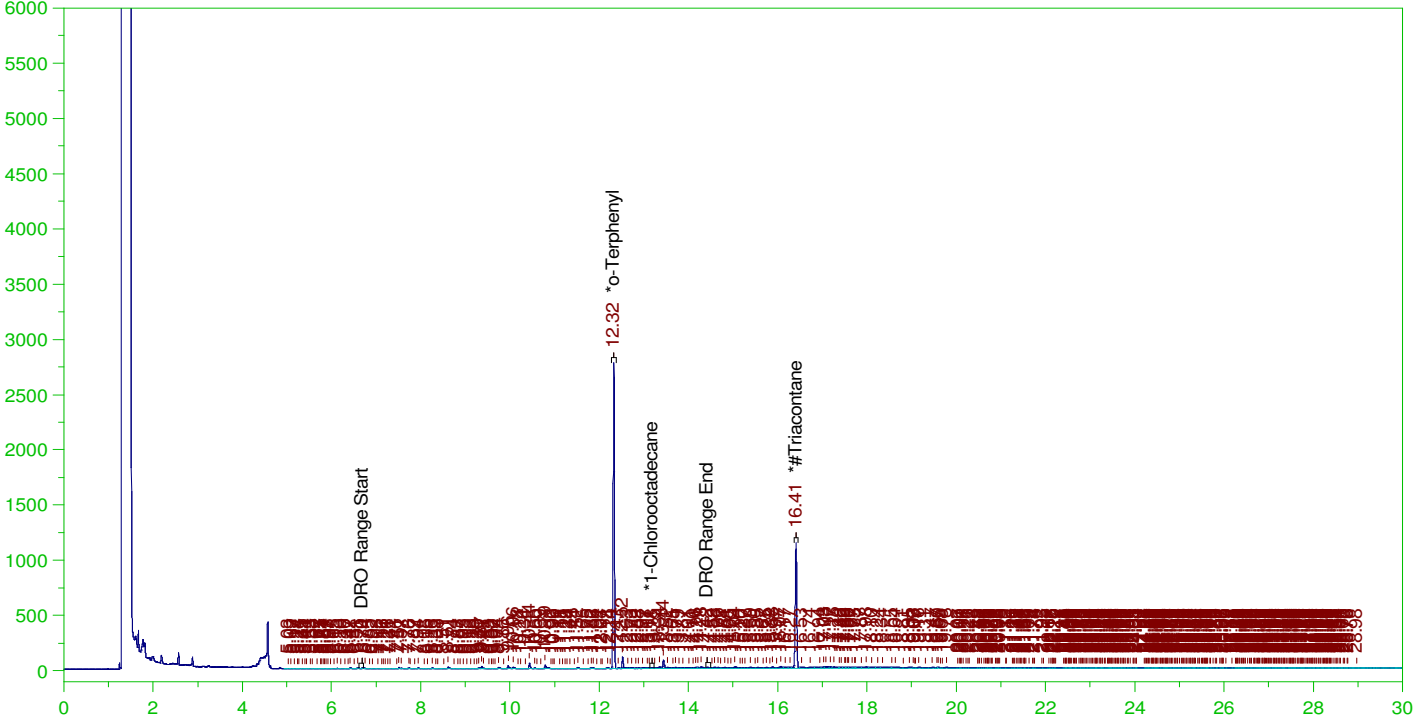
DRO Area:252365.7 DRO Amount: 7.723425E-03
TEH Area:2277079 TEH Amount: 6.968795E-02

ERH2383 (RHMW05 w/MS/MSD vols)

G:\org\HP5\DAT\HP5011422_b\0114HP5.0010.RAW

Batch ID: 162917

B22010759-001D ;0114HP5 , \$HC-8015-DRO-W,



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B22010759-001D ;0114HP5 , \$HC-8015-DRO-W,
Raw File: G:\org\HP5\DAT\HP5011422_b\0114HP5.0010.RAW
Date & Time Acquired: 1/14/2022 5:24:55 PM
Method File: G:\Org\HP5\Methods\D3_8015-C24T-JB-L%.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO220111JB-C24-T.CAL
Sample Weight: 1060 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36

Rt range for Diesel Range Organics: 6.62 to 14.49

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.323	.189	.133	70.46	-
*1-Chlorooctadecane	13.177	.189	.	.25	-
*#Triacontane	16.407	.189	.095	50.26	-

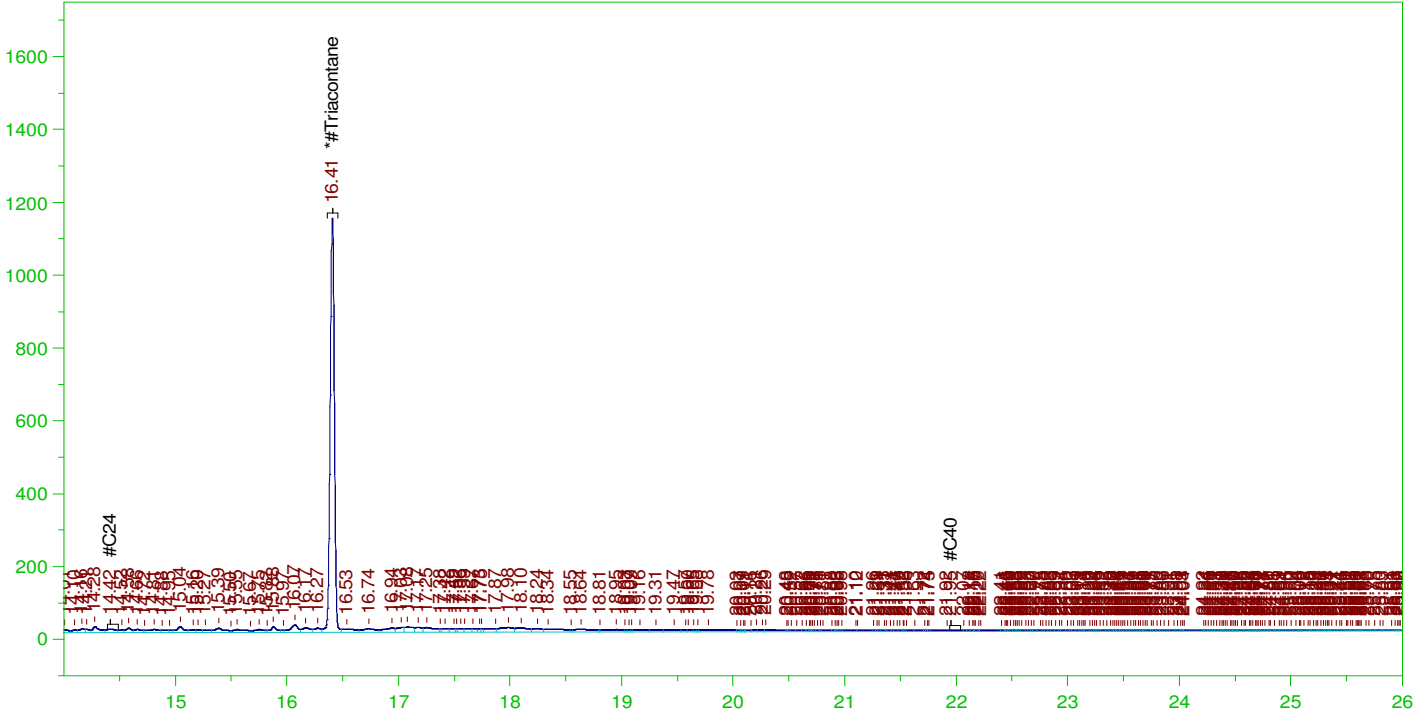
DRO Area:2216866 DRO Amount: 0.0640049
TEH Area:6417185 TEH Amount: 0.1852756

ERH2383 (RHMW05 w/MS/MSD vols)

Batch ID: 162917

G:\org\HP5\DAT\HP5011422_b\0114HP5.0010.RAW

B22010759-001D ;0114HP5 , \$HC-8015-DRO-W,



RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: B22010759-001D ;0114HP5 , \$HC-8015-DRO-W,
Raw File: G:\org\HP5\DAT\HP5011422_b\0114HP5.0010.RAW
Date & Time Acquired: 1/14/2022 5:24:55 PM
Method File: G:\Org\HP5\Methods\D3_OROS-BB-L%.MET
Calibration File: G:\Org\HP5\Cals\SW8015C_ORO220111BB_SAMP.CAL
Sample Weight: 1060 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 26424.55
Rt range for Residual Range Organics: 14.39 to 22.04

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*#Triacontane_____	16.407	.472	.095	20.1

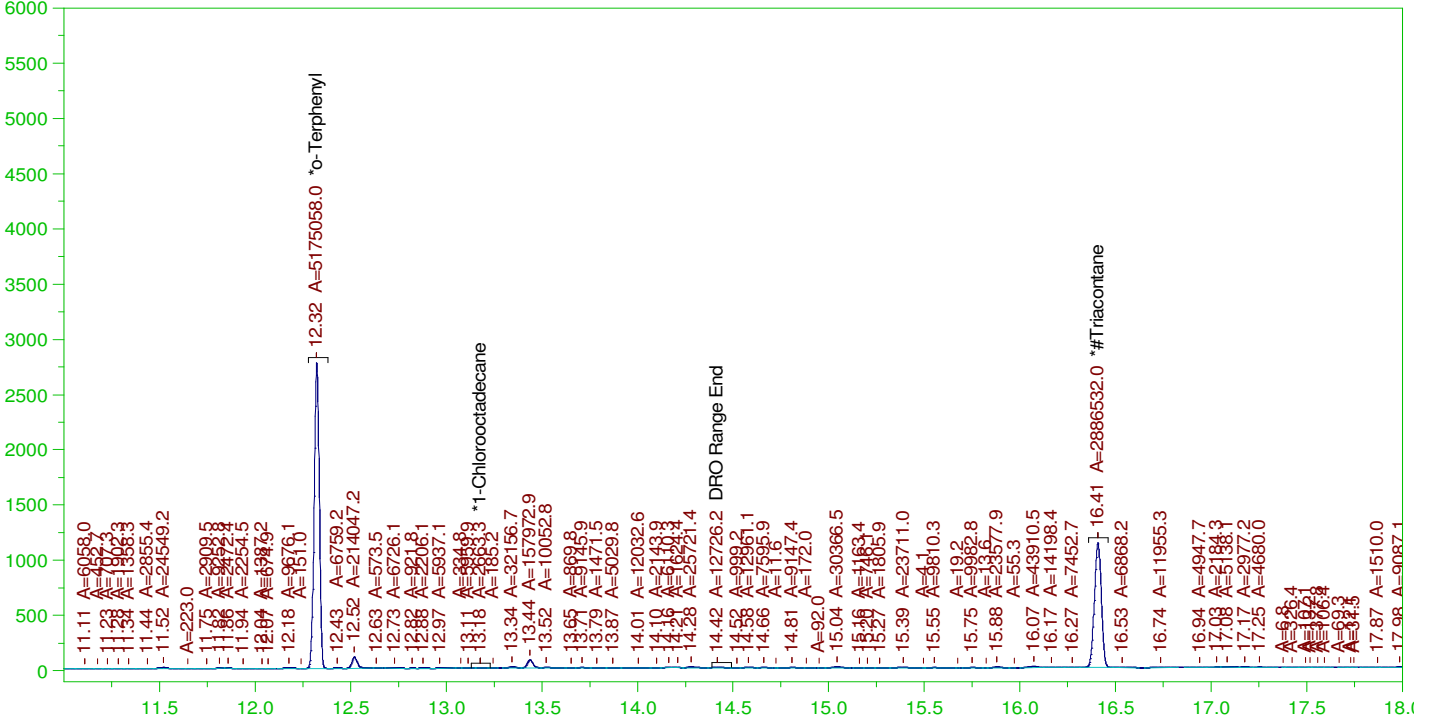
RRO Area:3345837 RRO AMOUNT: 0.1194514

ERH2383 (RHMW05 w/MS/MSD vols)

Batch ID: 162917

G:\org\HP5\DAT\HP5011422_b\0114HP5.0010.RAW

B22010759-001D ;0114HP5 , \$HC-8015-DRO-W,



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B22010759-001D ;0114HP5 , \$HC-8015-DRO-W,
Raw File: G:\org\HP5\DAT\HP5011422_b\0114HP5.0010.RAW
Date & Time Acquired: 1/14/2022 5:24:55 PM
Method File: G:\Org\HP5\Methods\DS_8015-C24T-BB-L#.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO220111JB-C24-T.CAL
Sample Weight: 1060 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36

Rt range for Diesel Range Organics: 6.62 to 14.49

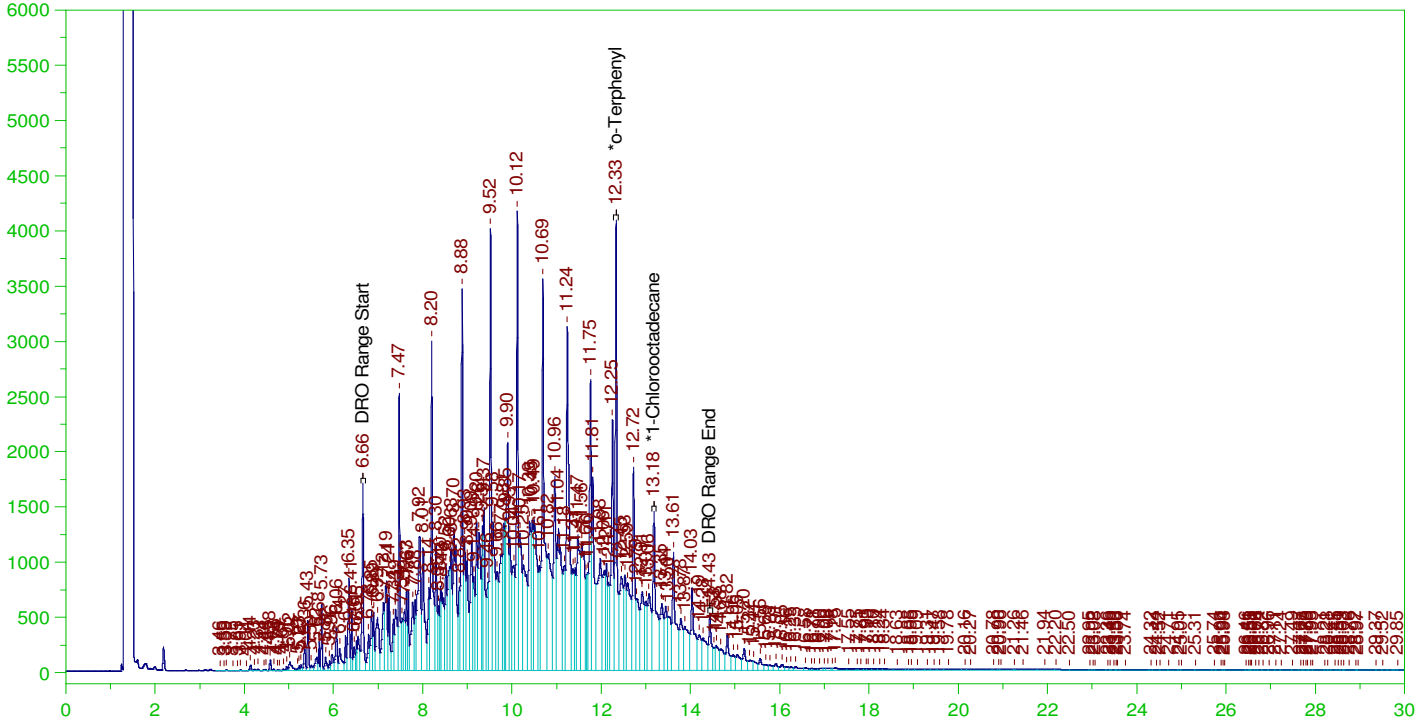
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.323	.189	.132	70.2	-
*1-Chlorooctadecane	13.177	.189	.	.04	-
*#Triacontane	16.407	.189	.092	48.7	-

DRO Area:1398779 DRO Amount: 4.038527E-02
TEH Area:3987366 TEH Amount: 0.1151224

Batch ID: 162917

B22010759-001DMS ;0114HP5 ,

G:\org\HP5\DAT\HP5011422_b\0114HP5.0011.RAW



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B22010759-001DMS ;0114HP5 ,
 Raw File: G:\org\HP5\DAT\HP5011422_b\0114HP5.0011.RAW
 Date & Time Acquired: 1/14/2022 6:07:46 PM
 Method File: G:\Org\HP5\Methods\D3_8015-C24-JB-L%.met
 Calibration File: G:\Org\HP5\Cals\SW8015C_DRO220111JB-C24.CAL
 Sample Weight: 1020 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36

Rt range for Diesel Range Organics: 6.62 to 14.49

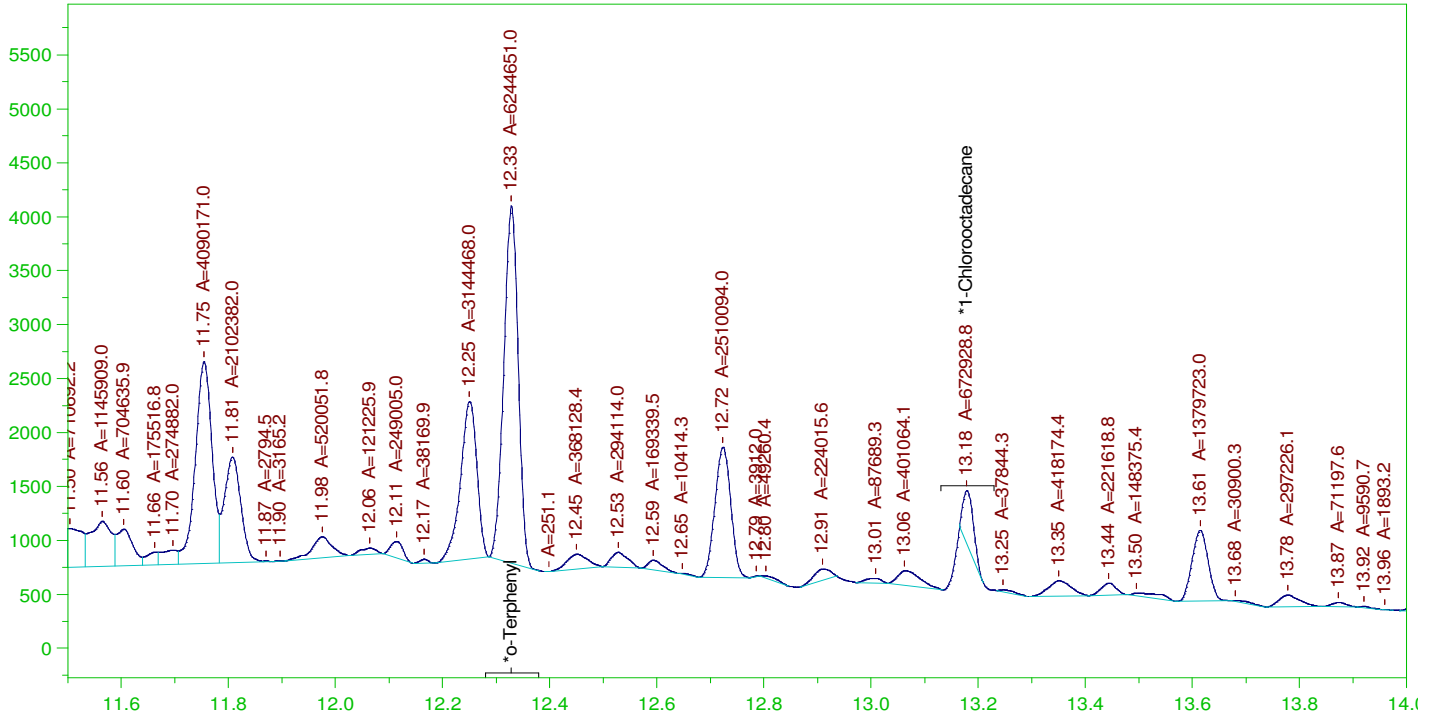
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.328	.196	.291	148.43	-
*1-Chlorooctadecane	13.179	.196	.182	92.89	-

DRO Area: 3.855222E+08 DRO Amount: 11.56722
 TEH Area: 4.148014E+08 TEH Amount: 12.44571

Batch ID: 162917

G:\org\HP5\DAT\HP5011422_b\0114HP5.0011.RAW

B22010759-001DMS ;0114HP5 ,



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B22010759-001DMS ;0114HP5 ,
 Raw File: G:\org\HP5\DAT\HP5011422_b\0114HP5.0011.RAW
 Date & Time Acquired: 1/14/2022 6:07:46 PM
 Method File: G:\Org\HP5\Methods\DS_8015-C24-JB-L#.met
 Calibration File: G:\Org\HP5\Cals\SW8015C_DRO220111JB-C24.CAL
 Sample Weight: 1020 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36

Rt range for Diesel Range Organics: 6.62 to 14.49

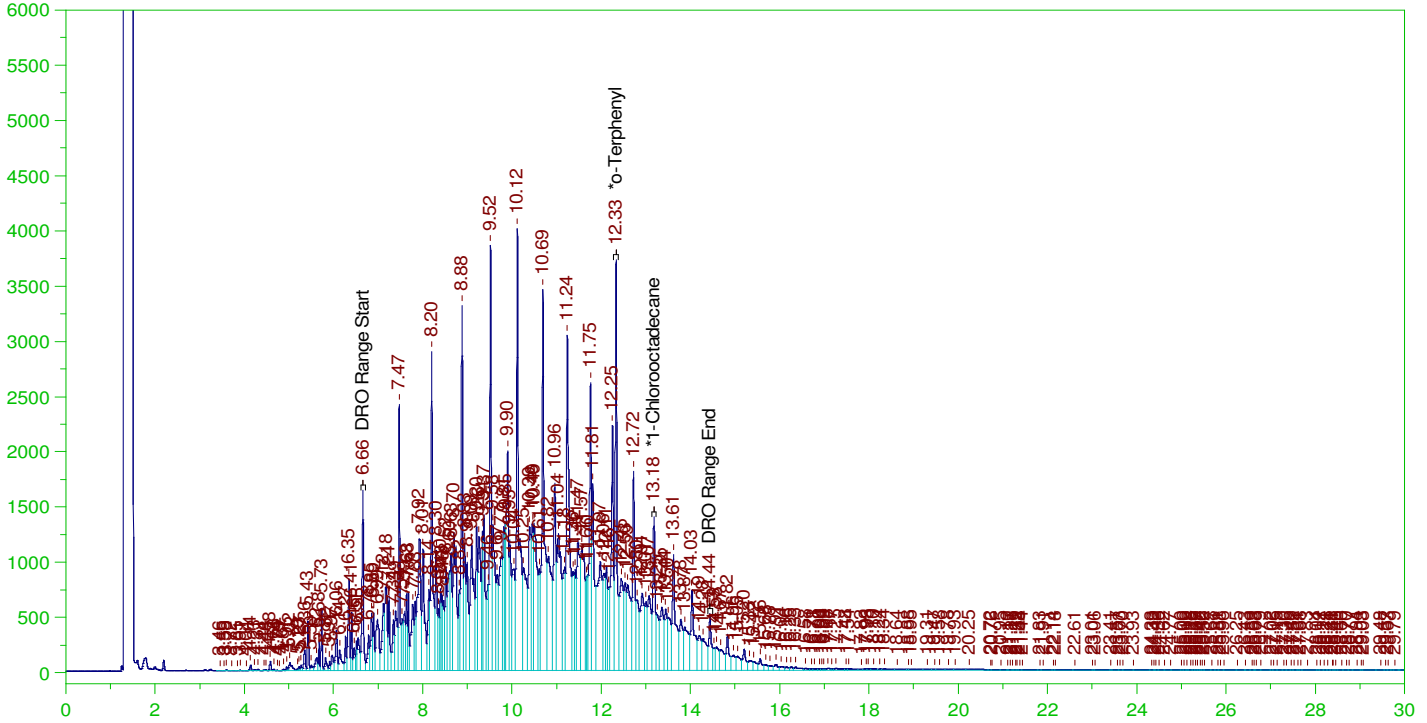
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.328	.196	.166	84.71	-
*1-Chlorooctadecane	13.179	.196	.018	9.13	-

DRO Area:1.807931E+08 DRO Amount: 5.424519
 TEH Area:1.939119E+08 TEH Amount: 5.818136

Batch ID: 162917

B22010759-001DMSD ;0114HP5 ,

G:\org\HP5\DAT\HP5011422_b\0114HP5.0012.RAW



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B22010759-001DMSD ;0114HP5 ,
Raw File: G:\org\HP5\DAT\HP5011422_b\0114HP5.0012.RAW
Date & Time Acquired: 1/14/2022 6:50:34 PM
Method File: G:\Org\HP5\Methods\D3_8015-C24-JB-L%.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO220111JB-C24.CAL
Sample Weight: 1040 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36

Rt range for Diesel Range Organics: 6.62 to 14.49

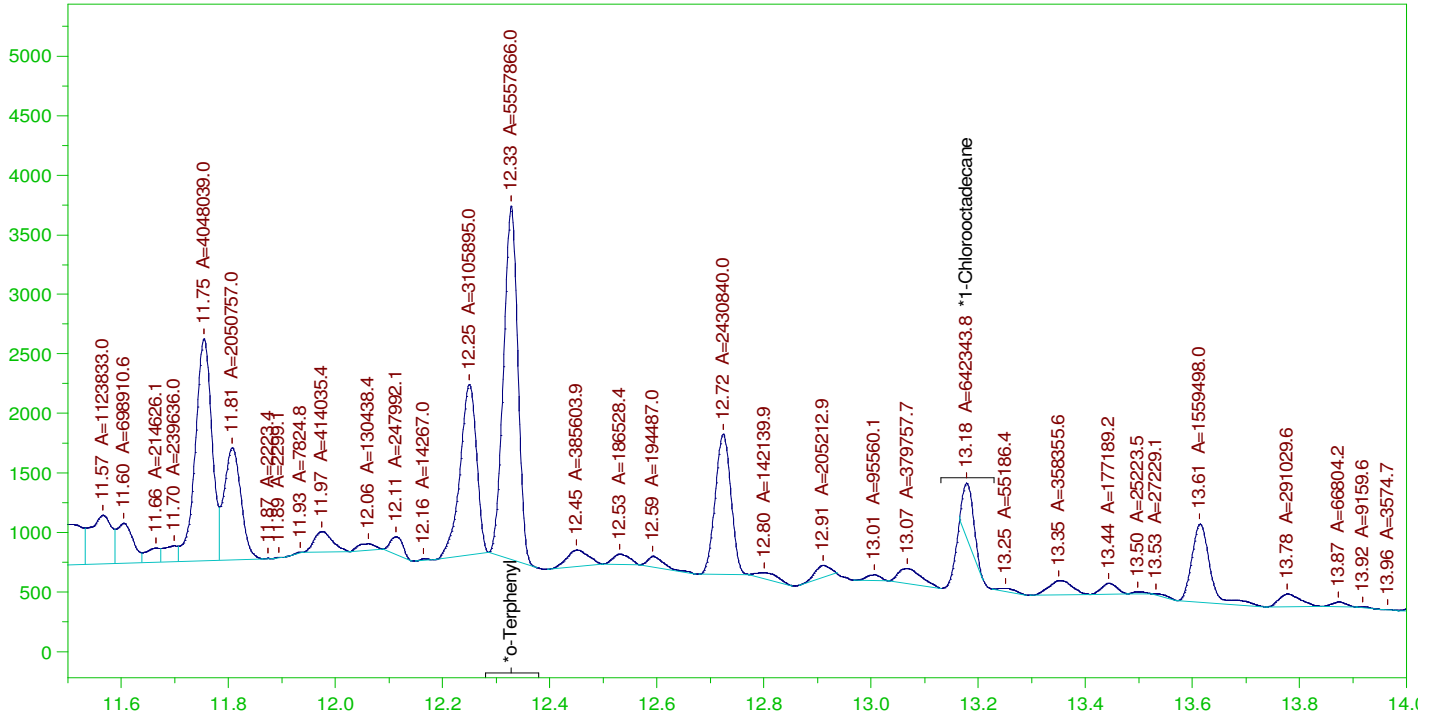
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.328	.192	.268	139.41	-
*1-Chlorooctadecane	13.178	.192	.125	65.14	-

DRO Area: 3.76612E+08 DRO Amount: 11.08257
TEH Area: 4.043925E+08 TEH Amount: 11.90007

Batch ID: 162917

G:\org\HP5\DAT\HP5011422_b\0114HP5.0012.RAW

B22010759-001DMSD ;0114HP5 ,



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

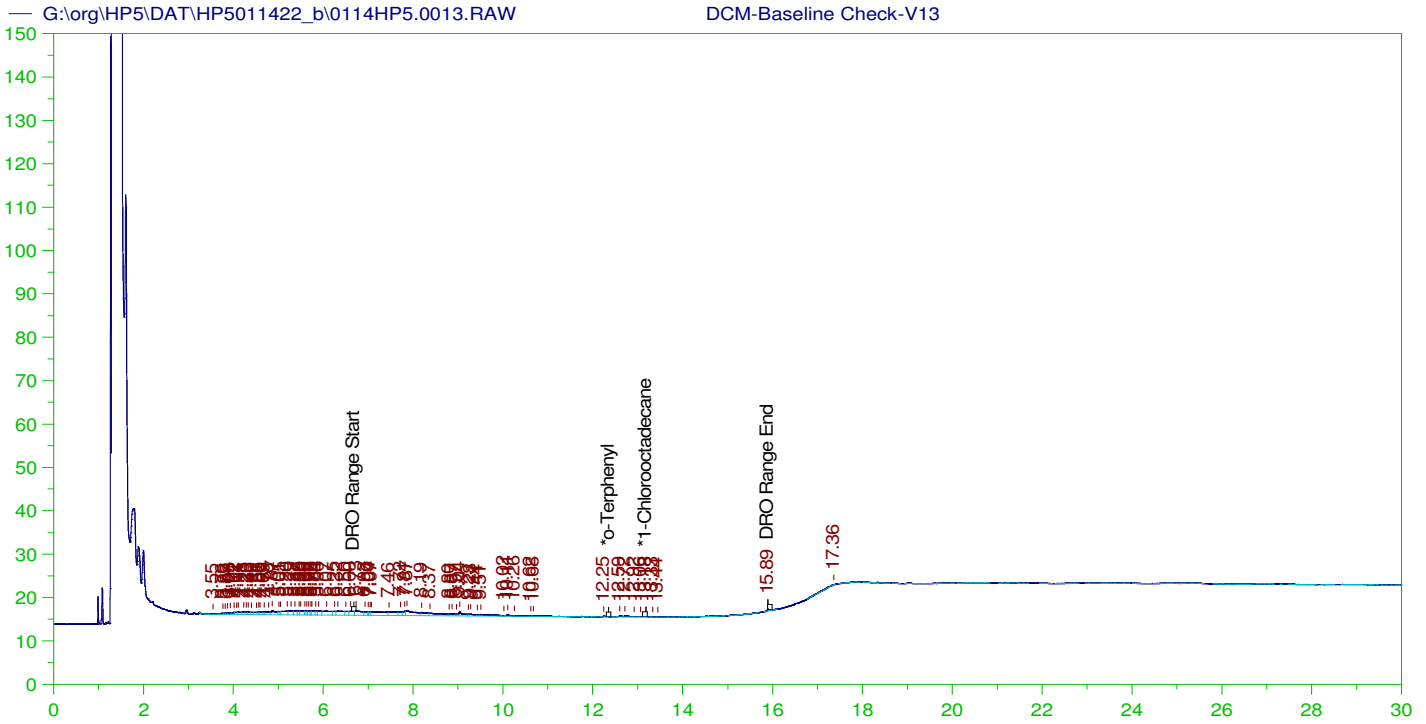
Sample Name: B22010759-001DMSD ;0114HP5 ,
 Raw File: G:\org\HP5\DAT\HP5011422_b\0114HP5.0012.RAW
 Date & Time Acquired: 1/14/2022 6:50:34 PM
 Method File: G:\Org\HP5\Methods\DS_8015-C24-JB-L#.met
 Calibration File: G:\Org\HP5\Cals\SW8015C_DRO220111JB-C24.CAL
 Sample Weight: 1040 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36

Rt range for Diesel Range Organics: 6.62 to 14.49

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.328	.192	.145	75.4
*1-Chlorooctadecane	13.178	.192	.017	8.71

DRO Area: 1.755467E+08 DRO Amount: 5.165817
 TEH Area: 1.881269E+08 TEH Amount: 5.536015



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: DCM-Baseline Check-V13
 Raw File: G:\org\HP5\DAT\HP5011422_b\0114HP5.0013.RAW
 Date & Time Acquired: 1/14/2022 7:33:23 PM
 Method File: G:\Org\HP5\Methods\DR_8015-JA-LEXP.met
 Calibration File: G:\Org\HP5\Cals\SW8015C_DRO220111JA.CAL
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36
 Rt range for Diesel Range Organics: 6.63 to 15.99

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	29.957	200.	.	-
*1-Chlorooctadecane	13.182	200.	.02	.01

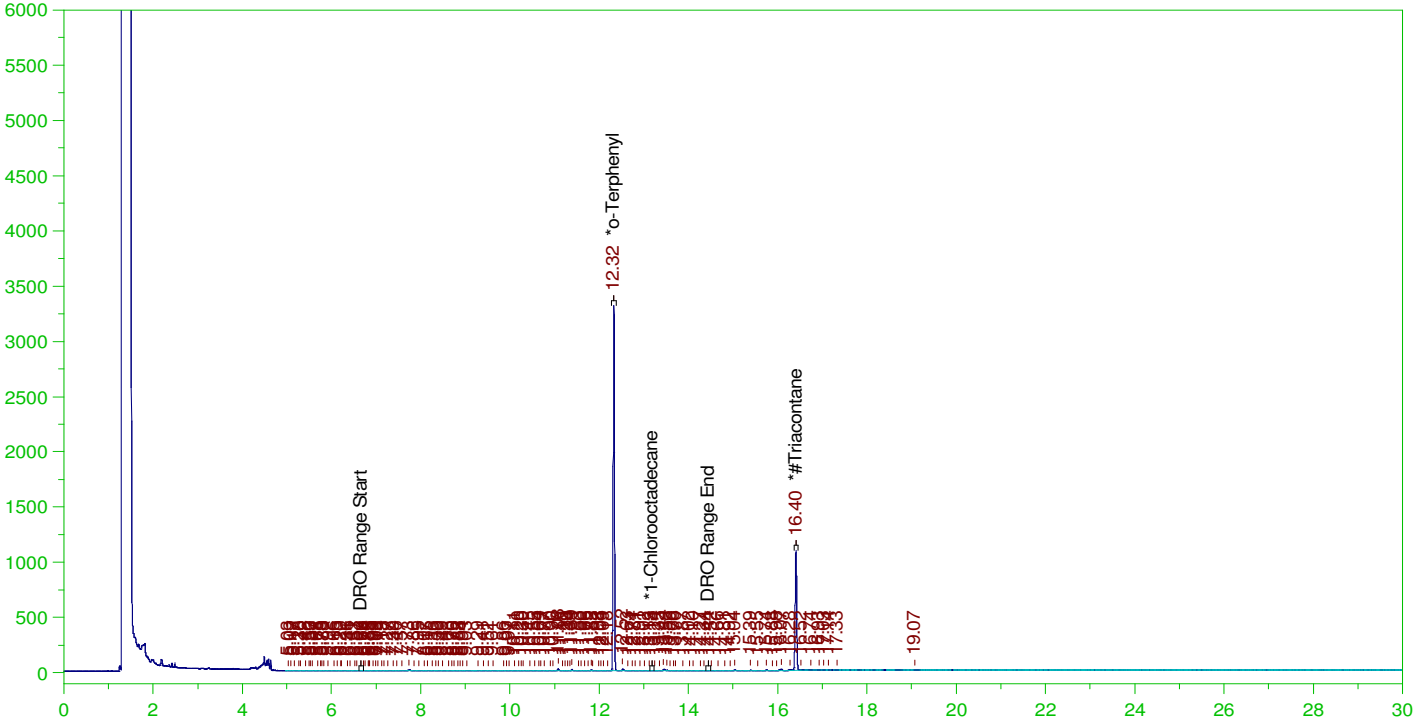
DRO Area:141784.8 DRO Amount: 4.339196
 TEH Area:281168.5 TEH Amount: 8.60491

ERH2394 (OWDFMW011)

G:\org\HP5\DAT\HP5011422_b\0114HP5.0014.RAW

Batch ID: 162917

B22010750-001D ;0114HP5 , \$HC-8015-DRO-W,



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B22010750-001D ;0114HP5 , \$HC-8015-DRO-W,
Raw File: G:\org\HP5\DAT\HP5011422_b\0114HP5.0014.RAW
Date & Time Acquired: 1/14/2022 8:16:06 PM
Method File: G:\Org\HP5\Methods\DR_8015-C24T-JB-L%.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO220111JB-C24-T.CAL
Sample Weight: 1030 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36

Rt range for Diesel Range Organics: 6.62 to 14.49

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.324	.194	.164	84.44	-
*1-Chlorooctadecane	13.18	.194	.	.03	-
*#Triacontane	16.405	.194	.092	47.24	-

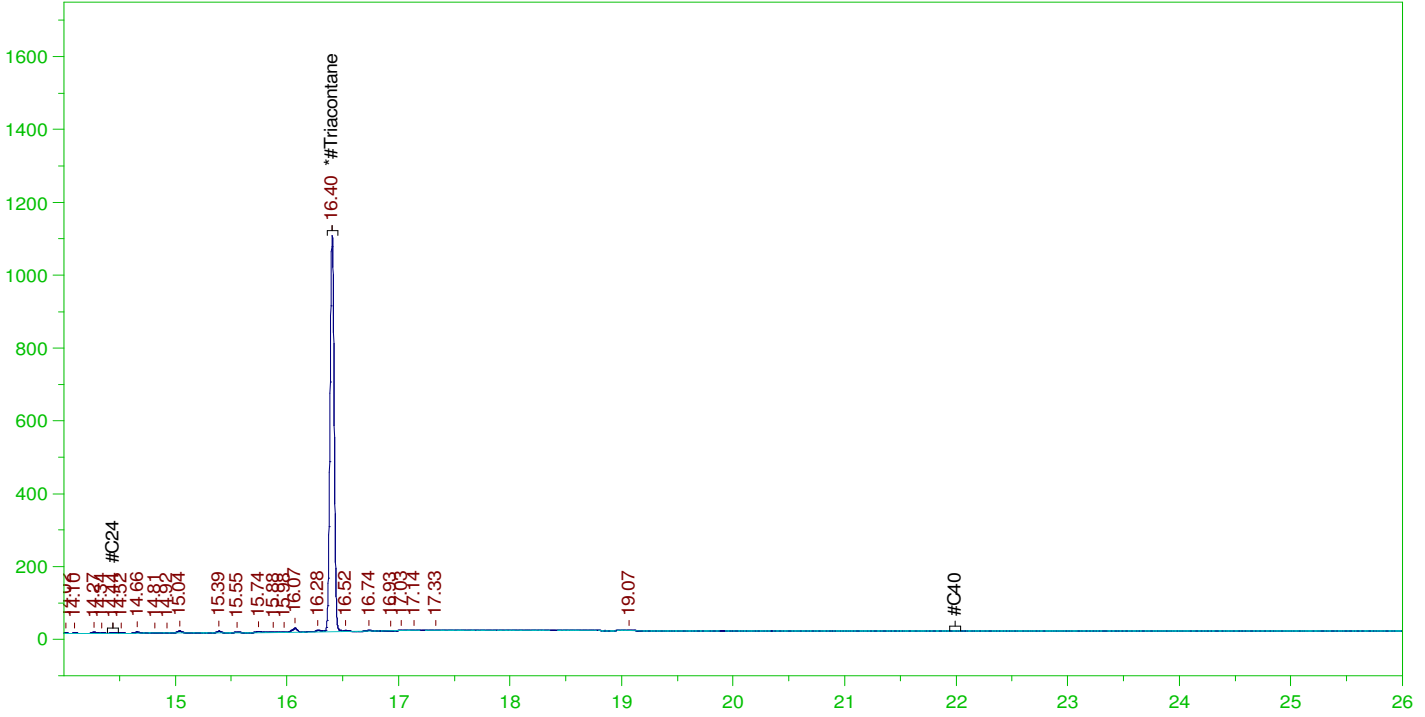
DRO Area:461285.3 DRO Amount: 1.370604E-02
TEH Area:692532.3 TEH Amount: 2.057702E-02

ERH2394 (OWDFMW011)

Batch ID: 162917

G:\org\HP5\DAT\HP5011422_b\0114HP5.0014.RAW

B22010750-001D ;0114HP5 , \$HC-8015-DRO-W,



RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: B22010750-001D ;0114HP5 , \$HC-8015-DRO-W,
Raw File: G:\org\HP5\DAT\HP5011422_b\0114HP5.0014.RAW
Date & Time Acquired: 1/14/2022 8:16:06 PM
Method File: G:\Org\HP5\Methods\DR_OROS-BB-L%.MET
Calibration File: G:\Org\HP5\Cals\SW8015C_ORO220111BB_SAMP.CAL
Sample Weight: 1030 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 26424.55
Rt range for Residual Range Organics: 14.39 to 22.04

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*#Triacontane_____	16.405	.485	.092	18.9

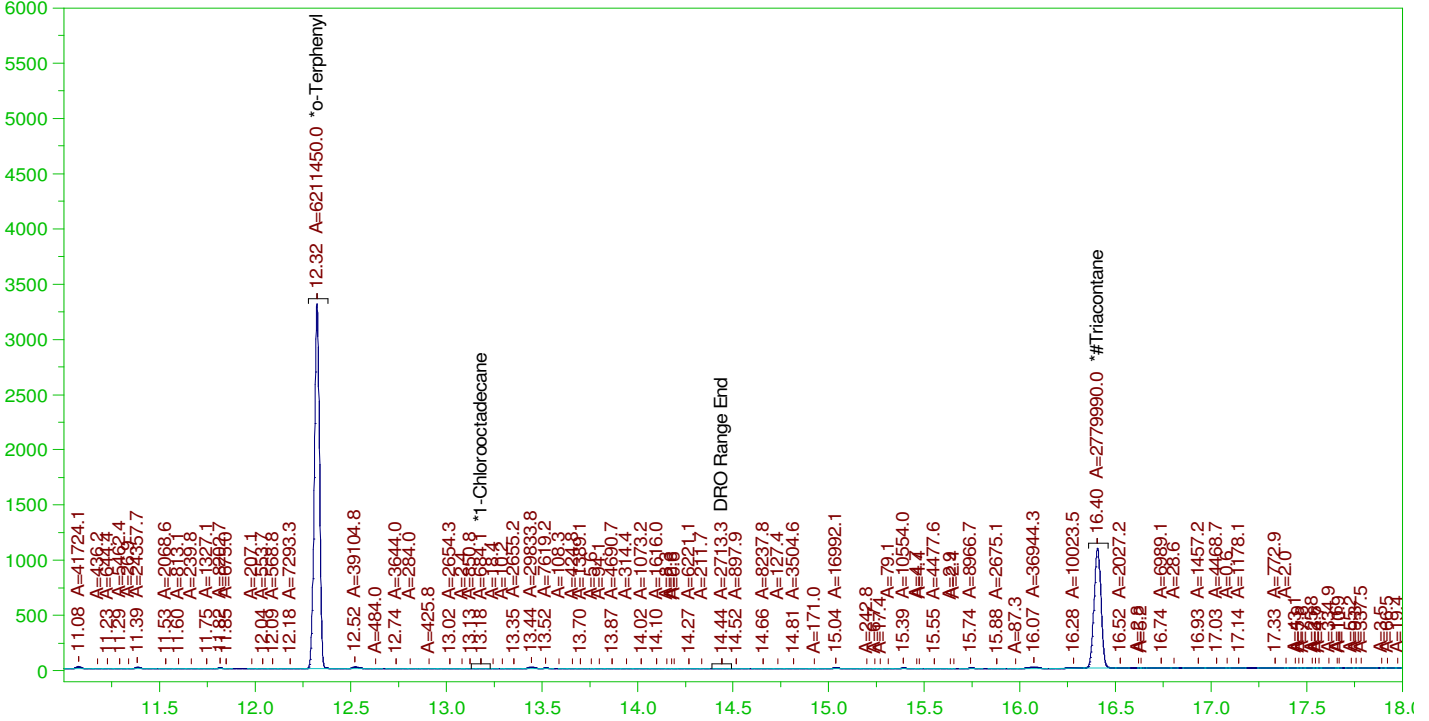
RRO Area:150700.5 RRO AMOUNT: 5.536939E-03

ERH2394 (OWDFMW011)

G:\org\HP5\DAT\HP5011422_b\0114HP5.0014.RAW

Batch ID: 162917

B22010750-001D ;0114HP5 , \$HC-8015-DRO-W,



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B22010750-001D ;0114HP5 , \$HC-8015-DRO-W,
Raw File: G:\org\HP5\DAT\HP5011422_b\0114HP5.0014.RAW
Date & Time Acquired: 1/14/2022 8:16:06 PM
Method File: G:\Org\HP5\Methods\DS_8015-C24T-BB-L#.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO220111JB-C24-T.CAL
Sample Weight: 1030 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36

Rt range for Diesel Range Organics: 6.62 to 14.49

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.324	.194	.164	84.26	-
*1-Chlorooctadecane	13.18	.194	.	.01	-
*#Triacontane	16.405	.194	.091	46.9	-

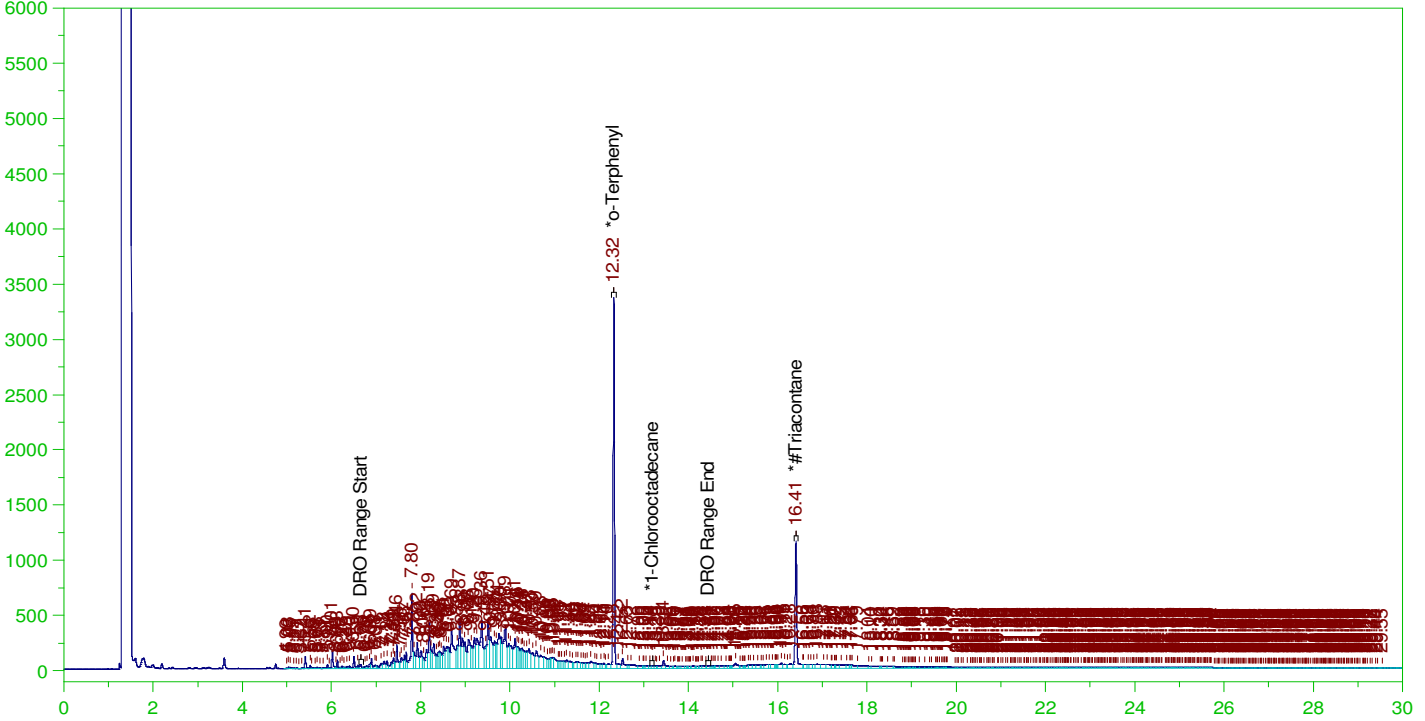
DRO Area:367444.2 DRO Amount: 1.091777E-02
TEH Area:1935522 TEH Amount: 5.750961E-02

ERH2392 (Sump Adit 3)

G:\org\HP5\DAT\HP5011422_b\0114HP5.0015.RAW

Batch ID: 162917

B22010751-001D ;0114HP5 , \$HC-8015-DRO-W,



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B22010751-001D ;0114HP5 , \$HC-8015-DRO-W,
Raw File: G:\org\HP5\DAT\HP5011422_b\0114HP5.0015.RAW
Date & Time Acquired: 1/14/2022 8:58:51 PM
Method File: G:\Org\HP5\Methods\D3_8015-C24T-JB-L%.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO220111JB-C24-T.CAL
Sample Weight: 990 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36

Rt range for Diesel Range Organics: 6.62 to 14.49

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.324	.202	.184	90.9	-
*1-Chlorooctadecane	13.19	.202	.003	1.4	-
*#Triacontane	16.405	.202	.116	57.42	-

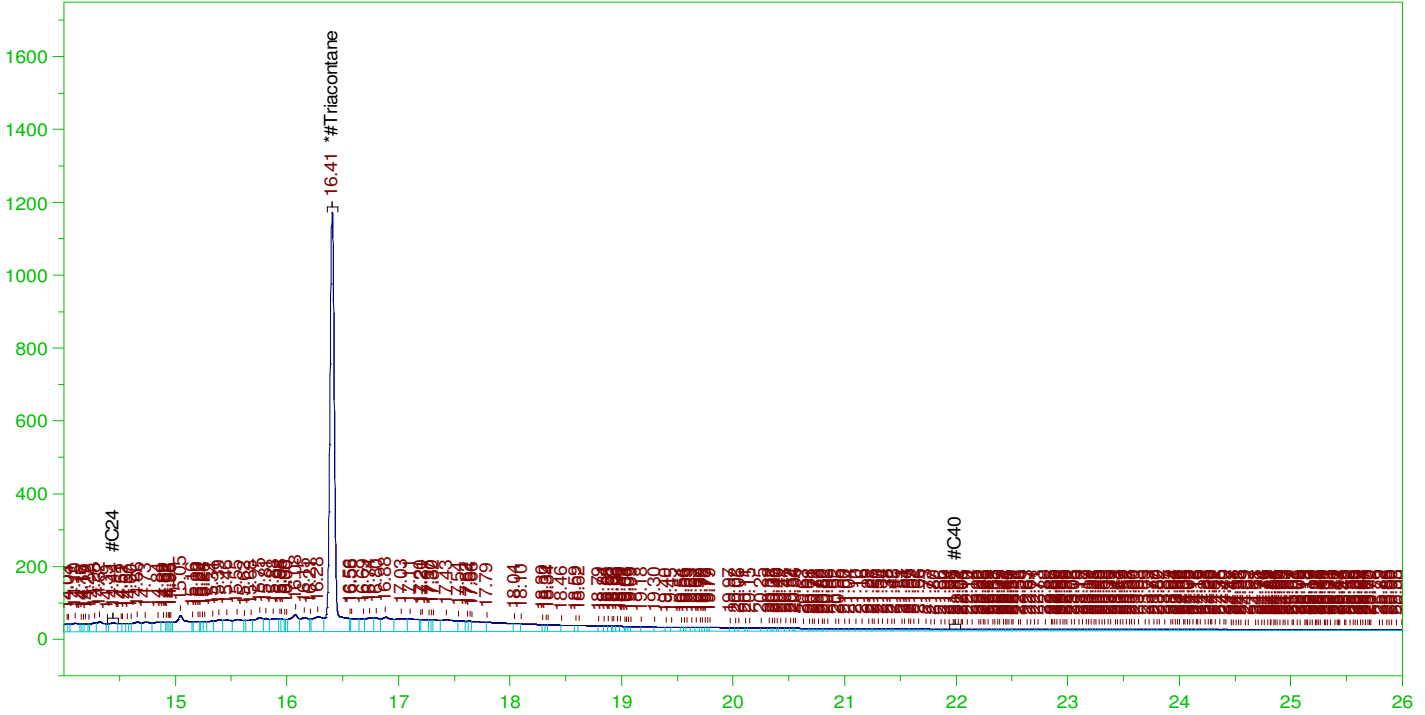
DRO Area: 4.83475E+07 DRO Amount: 1.494578
TEH Area: 5.958751E+07 TEH Amount: 1.842043

ERH2392 (Sump Adit 3)

Batch ID: 162917

G:\org\HP5\DAT\HP5011422_b\0114HP5.0015.RAW

B22010751-001D ;0114HP5 , \$HC-8015-DRO-W,



RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: B22010751-001D ;0114HP5 , \$HC-8015-DRO-W,
Raw File: G:\org\HP5\DAT\HP5011422_b\0114HP5.0015.RAW
Date & Time Acquired: 1/14/2022 8:58:51 PM
Method File: G:\Org\HP5\Methods\D3_OROS-BB-L%.MET
Calibration File: G:\Org\HP5\Cals\SW8015C_ORO220111BB_SAMP.CAL
Sample Weight: 990 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 26424.55
Rt range for Residual Range Organics: 14.39 to 22.04

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*#Triacontane_____	16.405	.505	.116	22.97

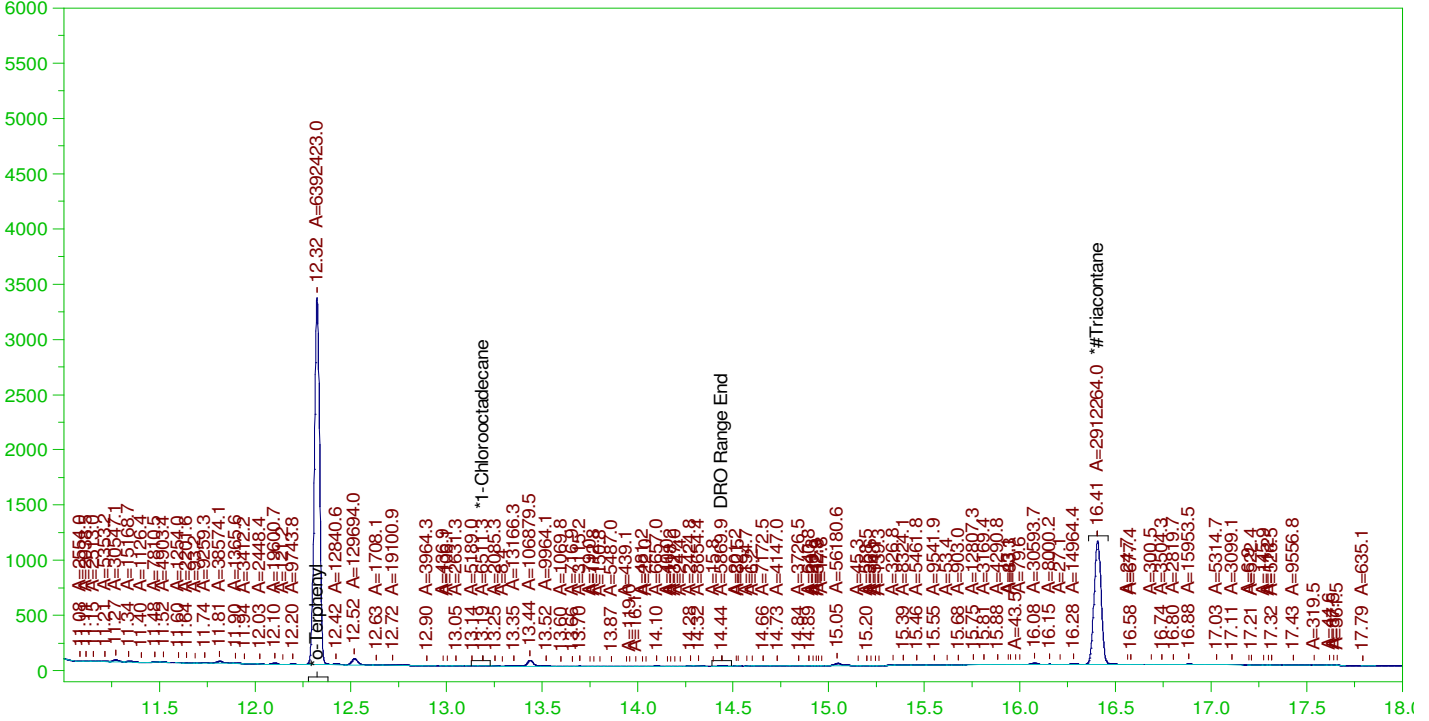
RRO Area:8726713 RRO AMOUNT: 0.333586

ERH2392 (Sump Adit 3)

Batch ID: 162917

G:\org\HP5\DAT\HP5011422_b\0114HP5.0015.RAW

B22010751-001D ;0114HP5 , \$HC-8015-DRO-W,



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

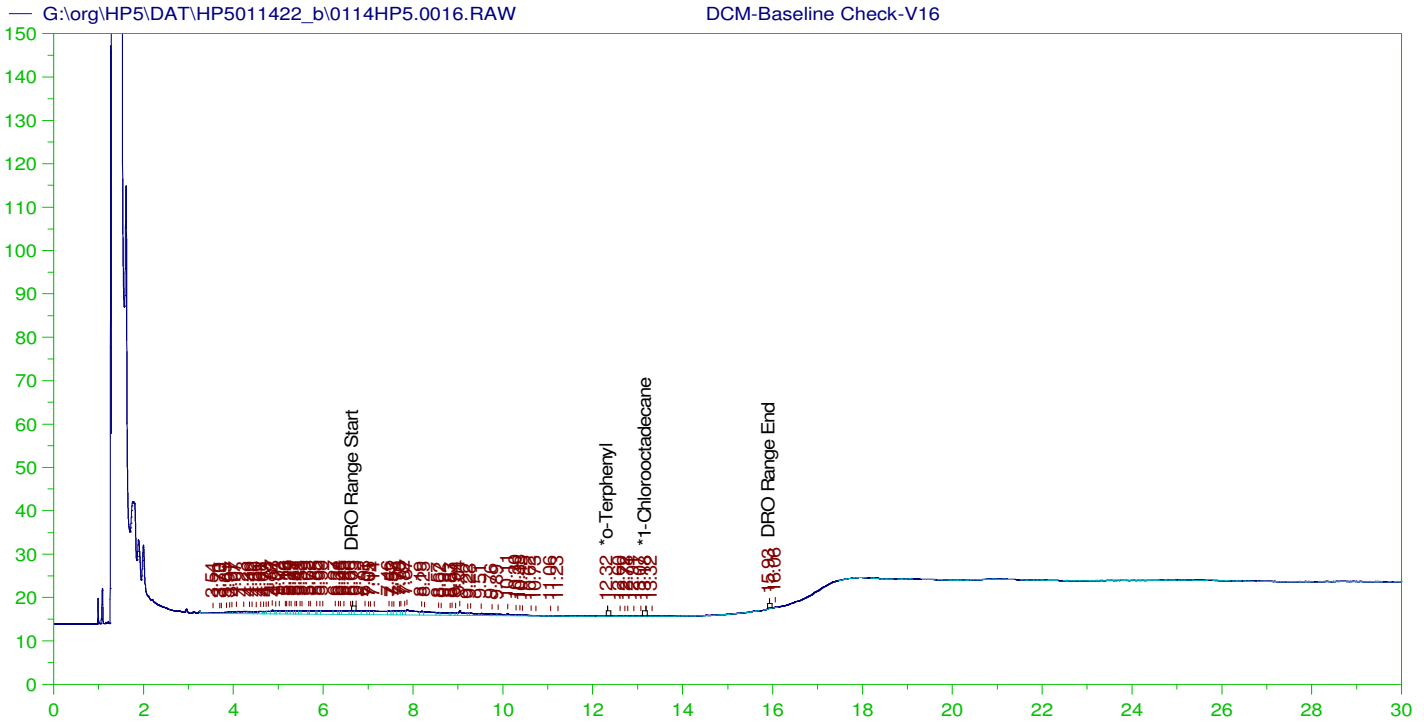
Sample Name: B22010751-001D ;0114HP5 , \$HC-8015-DRO-W,
Raw File: G:\org\HP5\DAT\HP5011422_b\0114HP5.0015.RAW
Date & Time Acquired: 1/14/2022 8:58:51 PM
Method File: G:\Org\HP5\Methods\DS_8015-C24T-BB-L#.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO220111JB-C24-T.CAL
Sample Weight: 990 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36

Rt range for Diesel Range Organics: 6.62 to 14.49

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.324	.202	.175	86.72	-
*1-Chlorooctadecane	13.19	.202	.	.09	-
*#Triacontane	16.405	.202	.099	49.13	-

DRO Area: 2.690626E+07 DRO Amount: 0.8317596
TEH Area: 2.888855E+07 TEH Amount: 0.8930385



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: DCM-Baseline Check-V16
 Raw File: G:\org\HP5\DAT\HP5011422_b\0114HP5.0016.RAW
 Date & Time Acquired: 1/14/2022 9:41:35 PM
 Method File: G:\Org\HP5\Methods\DR_8015-JA-LEXP.met
 Calibration File: G:\Org\HP5\Cals\SW8015C_DRO220111JA.CAL
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36
 Rt range for Diesel Range Organics: 6.63 to 15.99

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.323	200.	.026	.01	-
*1-Chlorooctadecane	13.181	200.	.019	.01	-

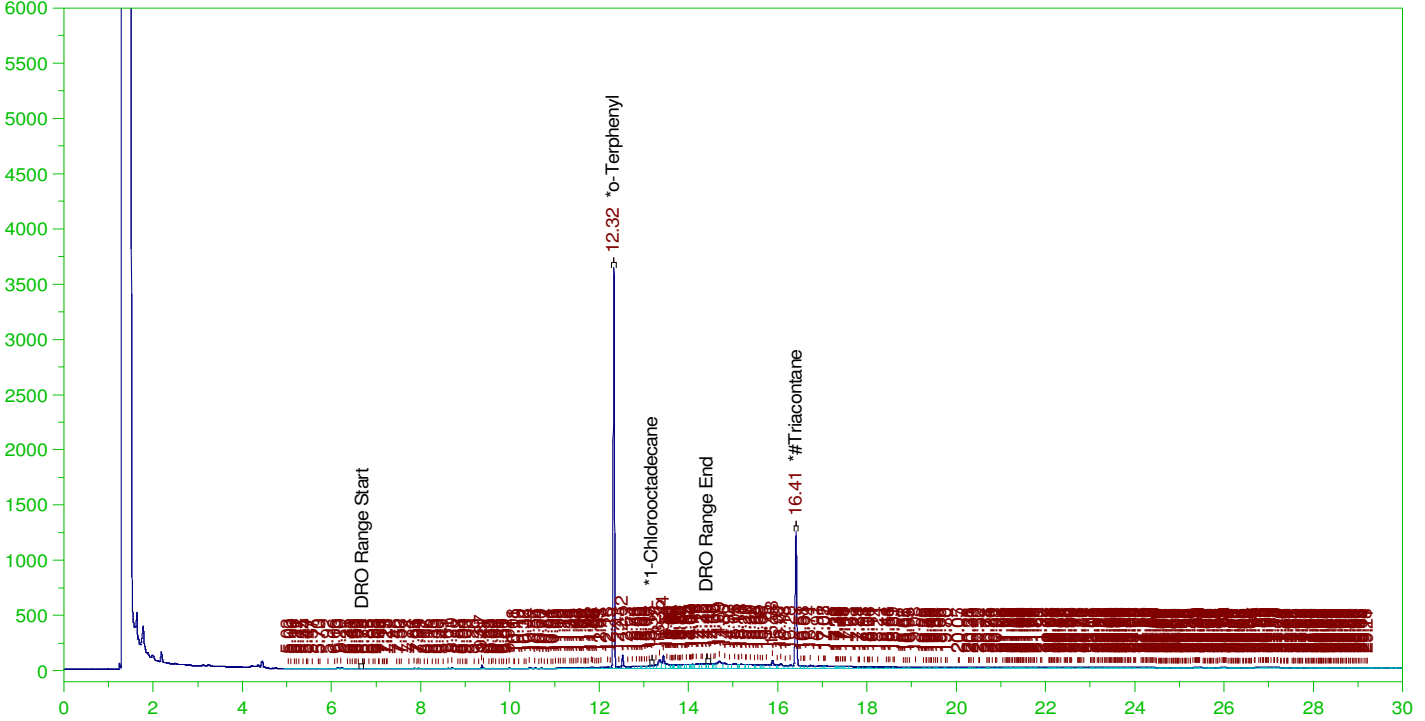
DRO Area:157189.8 DRO Amount: 4.810653
 TEH Area:282247.7 TEH Amount: 8.637936

ERH2381 (RHMW03)

G:\org\HP5\DAT\HP5011422_b\0114HP5.0017.RAW

Batch ID: 162917

B22010756-001D ;0114HP5 , \$HC-8015-DRO-W,



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B22010756-001D ;0114HP5 , \$HC-8015-DRO-W,
Raw File: G:\org\HP5\DAT\HP5011422_b\0114HP5.0017.RAW
Date & Time Acquired: 1/14/2022 10:24:22 PM
Method File: G:\Org\HP5\Methods\D3_8015-C24T-JB-L%.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO220111JB-C24-T.CAL
Sample Weight: 1030 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36

Rt range for Diesel Range Organics: 6.62 to 14.49

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.324	.194	.183	94.35	-
*1-Chlorooctadecane	13.175	.194	.003	1.42	-
*#Triacontane	16.406	.194	.11	56.68	-

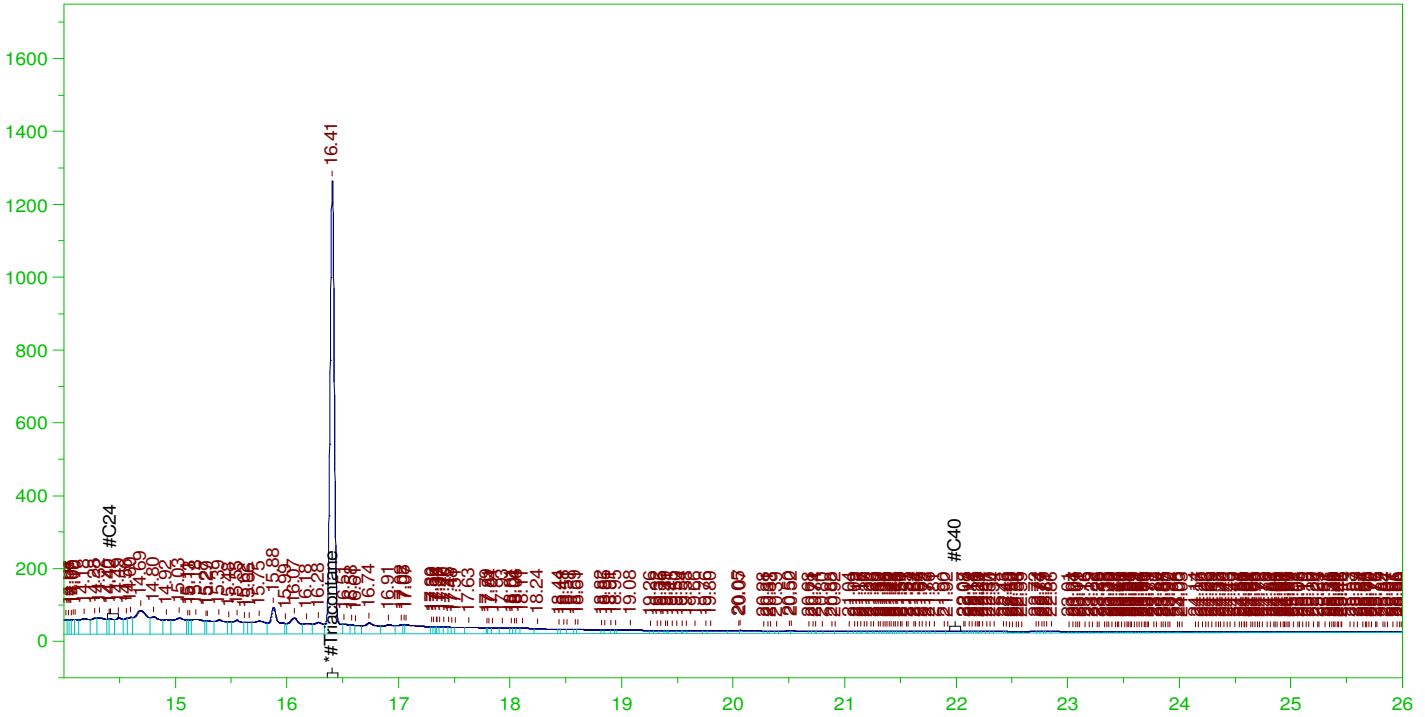
DRO Area:5063932 DRO Amount: 0.1504632
TEH Area:1.419441E+07 TEH Amount: 0.4217544

ERH2381 (RHMW03)

Batch ID: 162917

G:\org\HP5\DAT\HP5011422_b\0114HP5.0017.RAW

B22010756-001D ;0114HP5 , \$HC-8015-DRO-W,



RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: B22010756-001D ;0114HP5 , \$HC-8015-DRO-W,
Raw File: G:\org\HP5\DAT\HP5011422_b\0114HP5.0017.RAW
Date & Time Acquired: 1/14/2022 10:24:22 PM
Method File: G:\Org\HP5\Methods\D3_OROS-BB-L%.MET
Calibration File: G:\Org\HP5\Cals\SW8015C_ORO220111BB_SAMP.CAL
Sample Weight: 1030 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 26424.55
Rt range for Residual Range Organics: 14.39 to 22.04

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*#Triacontane_____	16.406	.485	.11	22.67

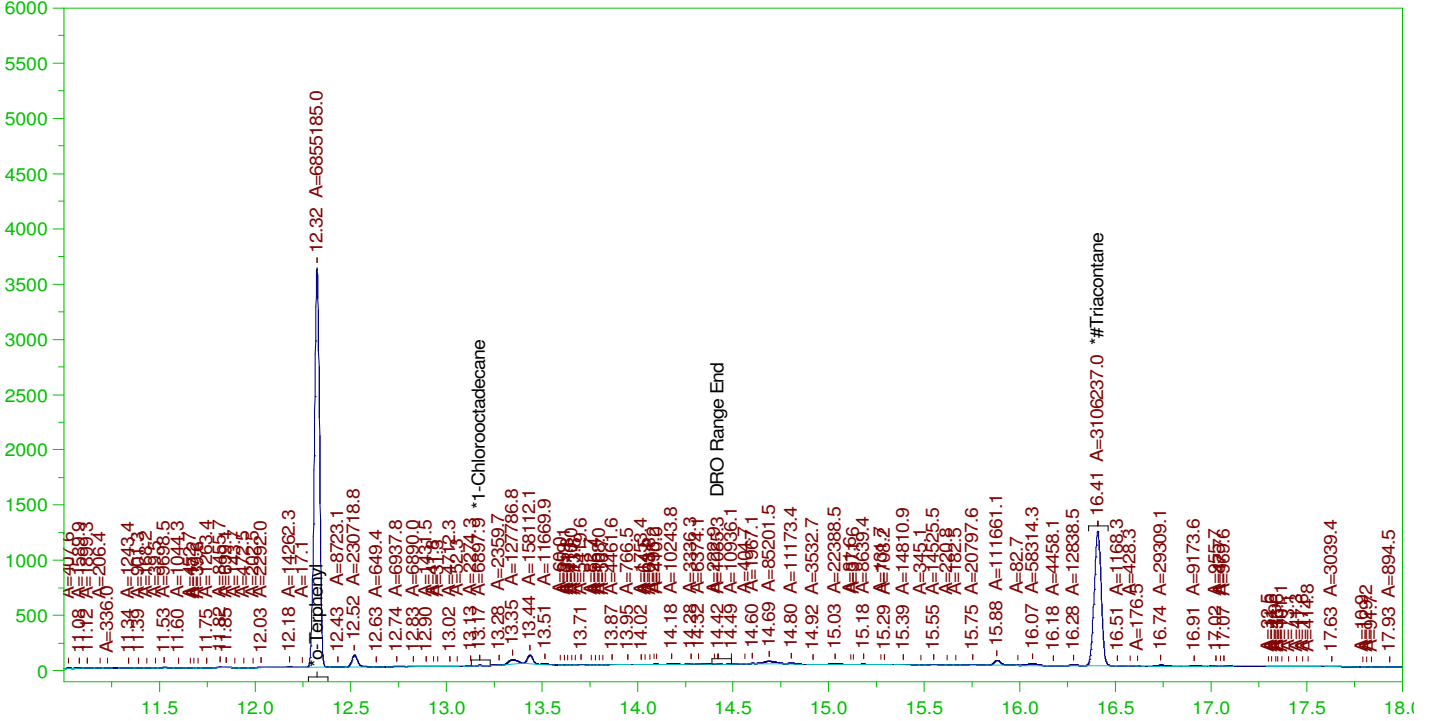
RRO Area:8172530 RRO AMOUNT: 0.3002698

ERH2381 (RHMW03)

Batch ID: 162917

G:\org\HP5\DAT\HP5011422_b\0114HP5.0017.RAW

B22010756-001D ;0114HP5 , \$HC-8015-DRO-W,



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B22010756-001D ;0114HP5 , \$HC-8015-DRO-W,
Raw File: G:\org\HP5\DAT\HP5011422_b\0114HP5.0017.RAW
Date & Time Acquired: 1/14/2022 10:24:22 PM
Method File: G:\Org\HP5\Methods\DS_8015-C24T-BB-L#.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO220111JB-C24-T.CAL
Sample Weight: 1030 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36

Rt range for Diesel Range Organics: 6.62 to 14.49

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.324	.194	.181	92.99	-
*1-Chlorooctadecane	13.175	.194	.	.09	-
*Triacontane	16.406	.194	.102	52.41	-

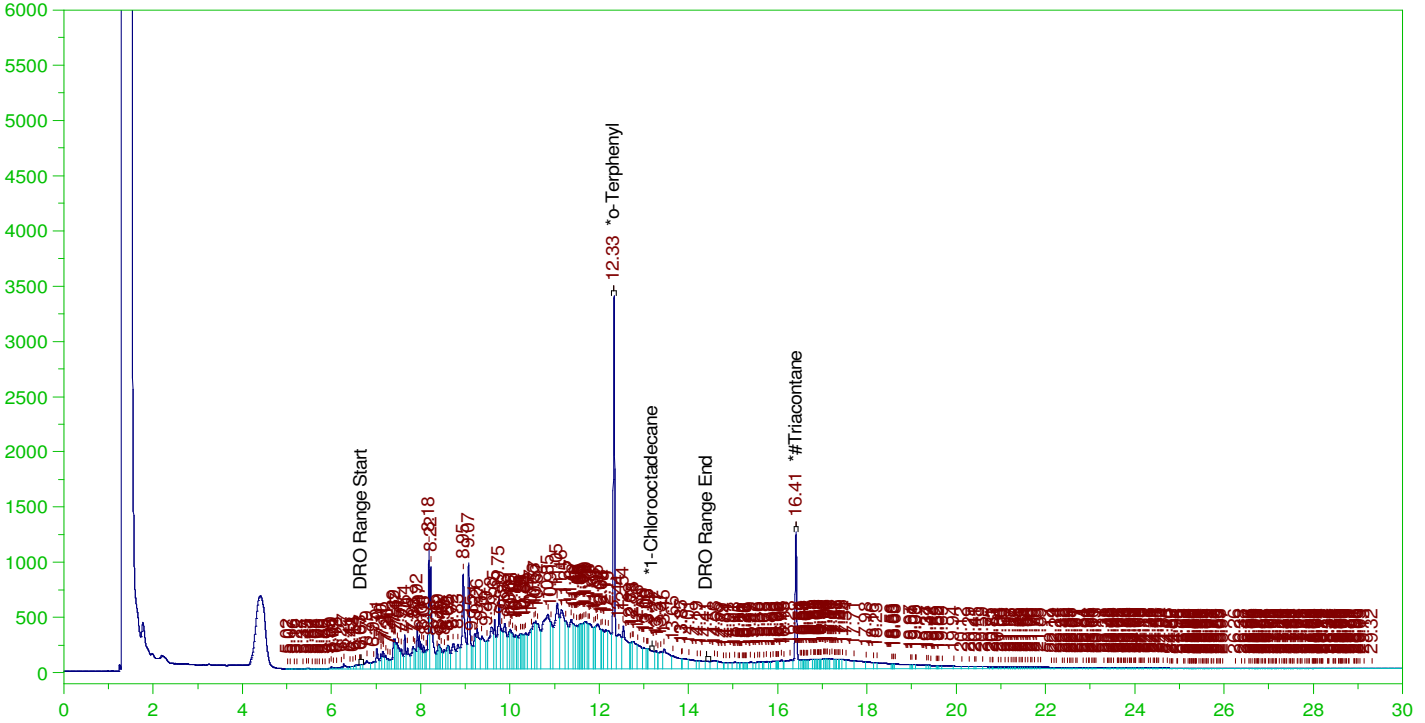
DRO Area:945922.1 DRO Amount: 2.810592E-02
TEH Area:2057908 TEH Amount: 6.114605E-02

ERH2379 (RHMW02)

Batch ID: 162917

G:\org\HP5\DAT\HP5011422_b\0114HP5.0018.RAW

B22010757-001D ;0114HP5 , \$HC-8015-DRO-W,



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B22010757-001D ;0114HP5 , \$HC-8015-DRO-W,
Raw File: G:\org\HP5\DAT\HP5011422_b\0114HP5.0018.RAW
Date & Time Acquired: 1/14/2022 11:07:07 PM
Method File: G:\Org\HP5\Methods\D3_8015-C24T-JB-L%.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO220111JB-C24-T.CAL
Sample Weight: 1030 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36

Rt range for Diesel Range Organics: 6.62 to 14.49

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.327	.194	.208	107.01	-
*1-Chlorooctadecane	29.991	.194	.	.	-
*#Triacontane	16.405	.194	.119	61.31	-

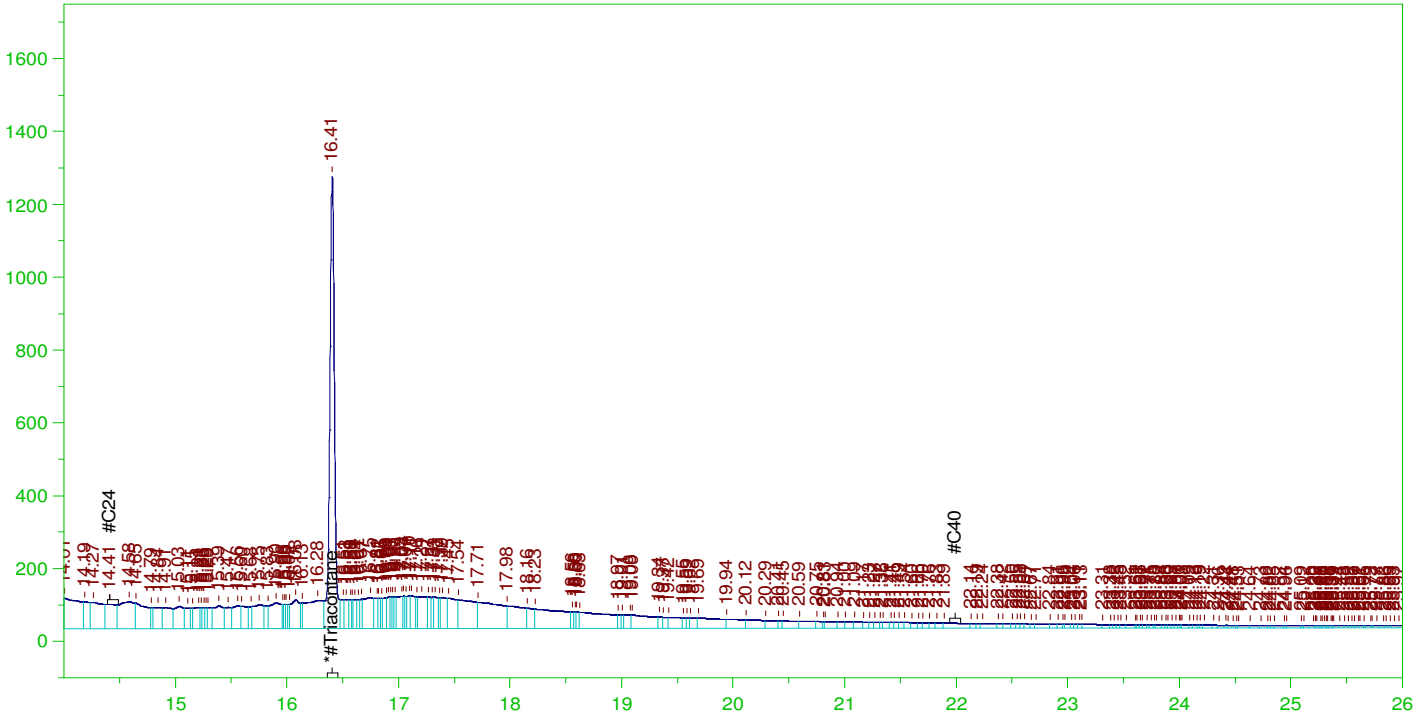
DRO Area:1.201295E+08 DRO Amount: 3.569376
TEH Area:1.441106E+08 TEH Amount: 4.281919

ERH2379 (RHMW02)

Batch ID: 162917

G:\org\HP5\DAT\HP5011422_b\0114HP5.0018.RAW

B22010757-001D ;0114HP5 , \$HC-8015-DRO-W,



RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: B22010757-001D ;0114HP5 , \$HC-8015-DRO-W,
Raw File: G:\org\HP5\DAT\HP5011422_b\0114HP5.0018.RAW
Date & Time Acquired: 1/14/2022 11:07:07 PM
Method File: G:\Org\HP5\Methods\D3_OROS-BB-L%.MET
Calibration File: G:\Org\HP5\Cals\SW8015C_ORO220111BB_SAMP.CAL
Sample Weight: 1030 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 26424.55
Rt range for Residual Range Organics: 14.39 to 22.04

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*#Triacontane_____	16.405	.485	.119	24.52

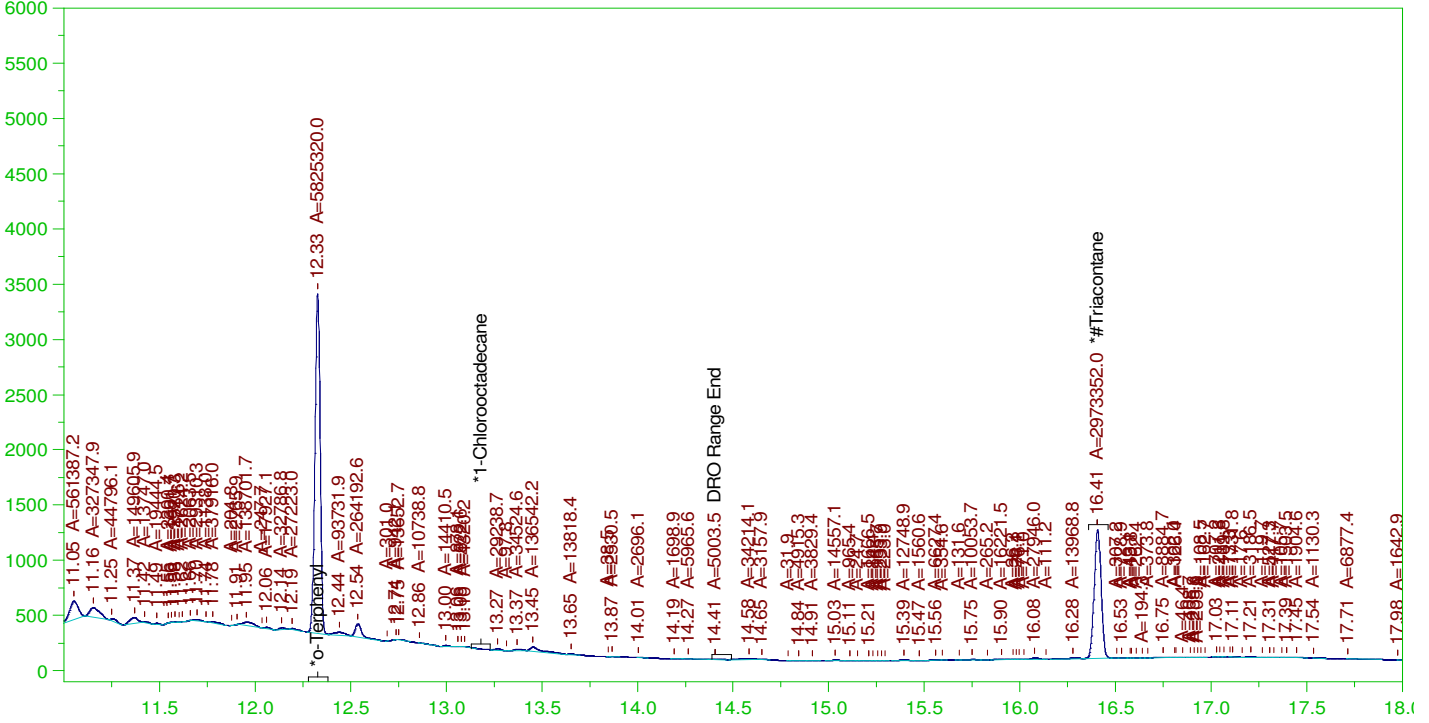
RRO Area:2.135099E+07 RRO AMOUNT: 0.7844643

ERH2379 (RHMW02)

Batch ID: 162917

G:\org\HP5\DAT\HP5011422_b\0114HP5.0018.RAW

B22010757-001D ;0114HP5 , \$HC-8015-DRO-W,



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B22010757-001D ;0114HP5 , \$HC-8015-DRO-W,
Raw File: G:\org\HP5\DAT\HP5011422_b\0114HP5.0018.RAW
Date & Time Acquired: 1/14/2022 11:07:07 PM
Method File: G:\Org\HP5\Methods\DS_8015-C24T-BB-L#.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO220111JB-C24-T.CAL
Sample Weight: 1030 Dilution: 1 S.A.: 1

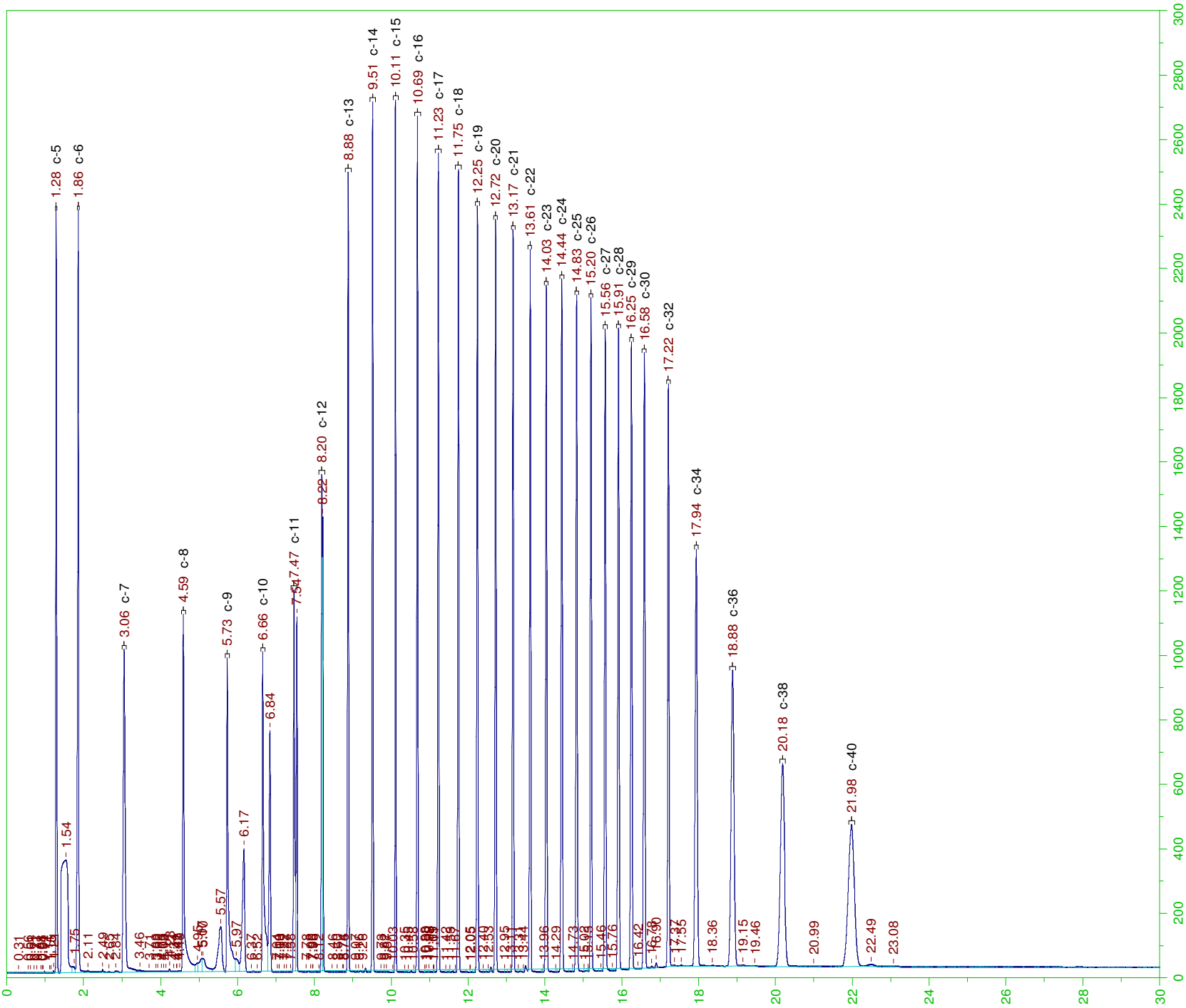
Mean RF for TEH: 32675.36

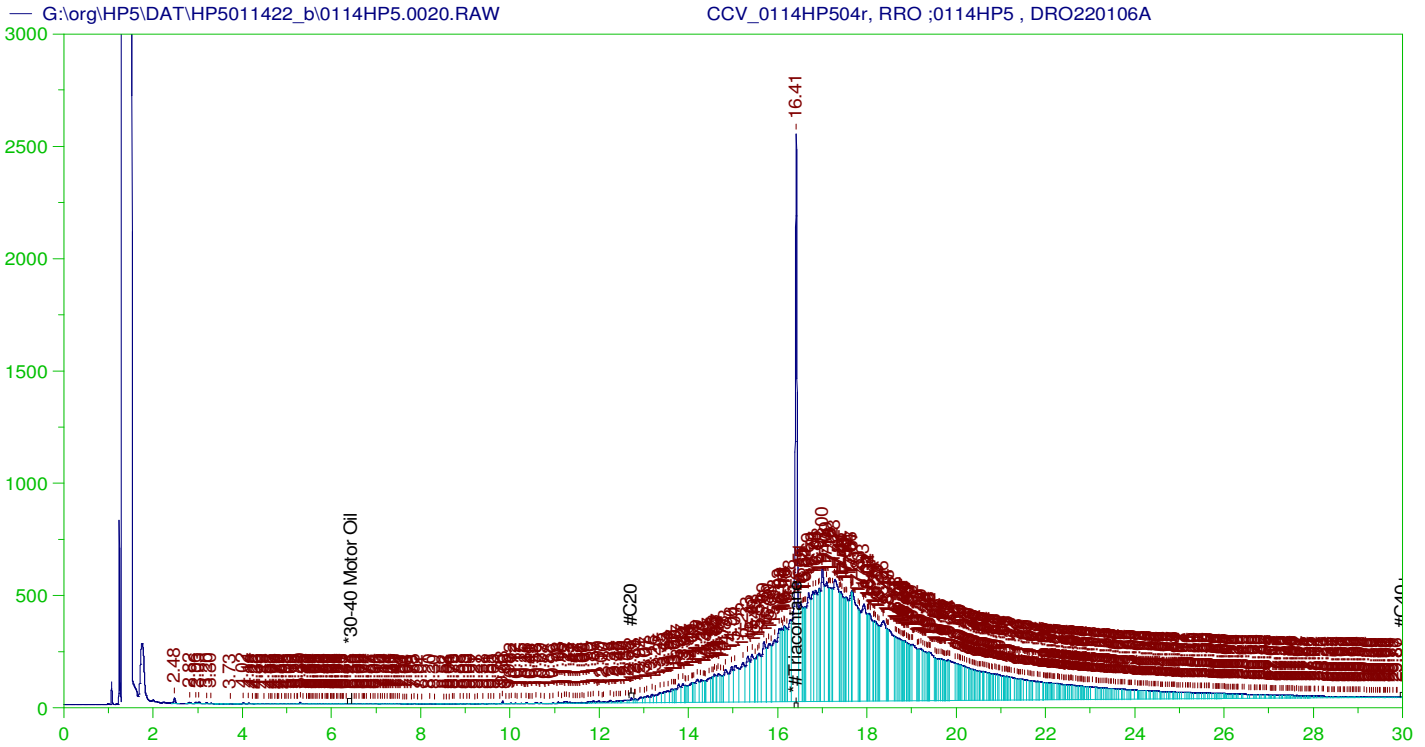
Rt range for Diesel Range Organics: 6.62 to 14.49

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.327	.194	.153	79.02
*1-Chlorooctadecane	29.991	.194	.	-
*#Triacontane	16.405	.194	.097	50.16

DRO Area: 2.574877E+07 DRO Amount: 0.7650661

TEH Area: 3.644281E+07 TEH Amount: 1.082815





RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: CCV_0114HP504r, RRO ;0114HP5 , DRO220106A
 Raw File: G:\org\HP5\DAT\HP5011422_b\0114HP5.0020.RAW
 Date & Time Acquired: 1/15/2022 12:32:34 AM
 Method File: G:\Org\HP5\Methods\DC_ORO-BB-L%.MET
 Calibration File: G:\Org\HP5\Cals\SW8015C_ORO220111BB.CAL
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for for ~~Residual~~ TEH(Oil Range) Organics Calculations: 26424.55
 Rt range for ~~Residual~~ TEH(Oil Range) Organics: 12.67 to 30.05

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.413	500.	321.191	64.24	-

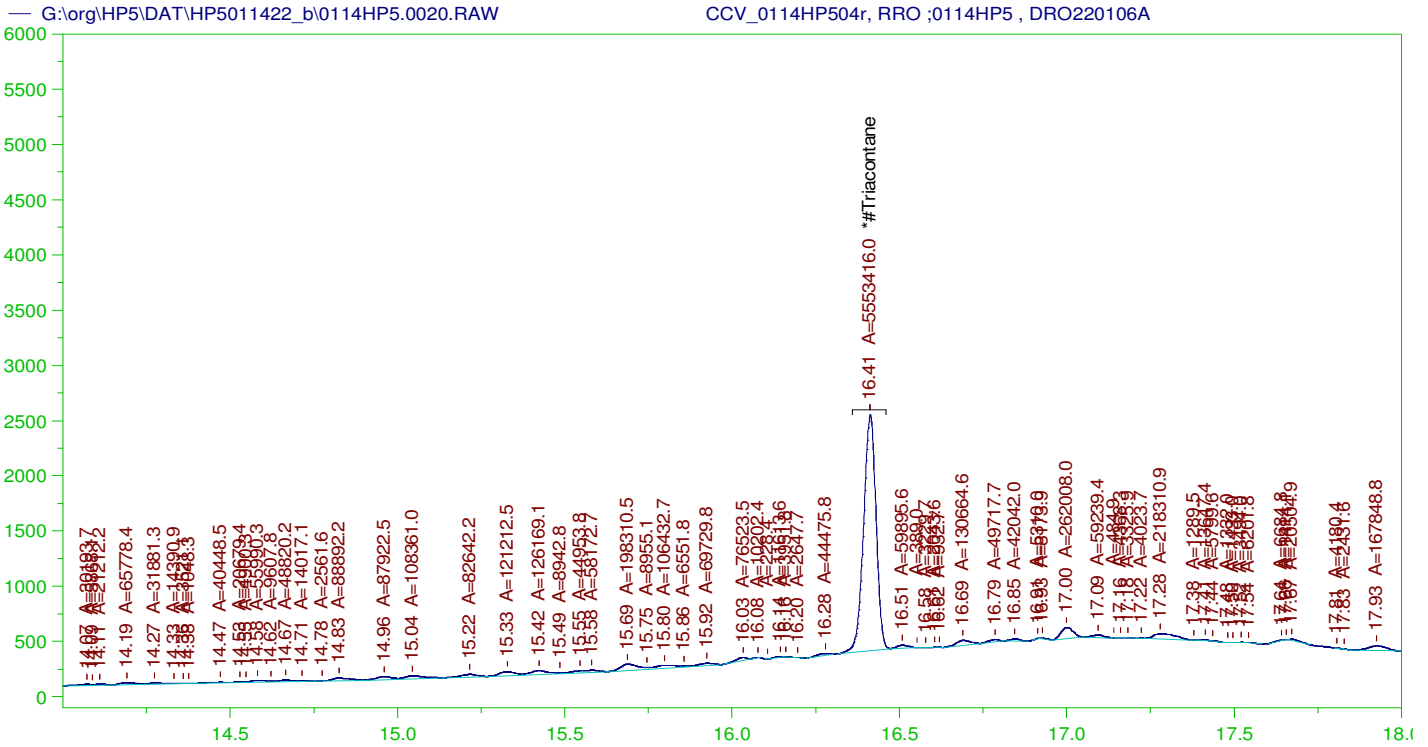
RRO TEH(Oil Range) Area:1.290017E+08 RRO TEH(Oil Range) AMOUNT: 4881.887

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5011422_b\0114HP5.0020.RAW

COMPOUND	ACTUAL (NG)	MEASURED (NG)	%RECOVERY	LIMITS
*30-40 Motor Oil	5000.	.197	.	75-125

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*#Triacontane	16.413	200.	321.191	160.6	75-125

AMN 02/14/2022



RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: CCV_0114HP504r, RRO ;0114HP5 , DRO220106A
 Raw File: G:\org\HP5\DAT\HP5011422_b\0114HP5.0020.RAW
 Date & Time Acquired: 1/15/2022 12:32:34 AM
 Method File: G:\Org\HP5\Methods\DS_ORO-BB-L%.MET
 Calibration File: G:\Org\HP5\Cals\SW8015C_ORO220111BB.CAL
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 26424.55
 Rt range for Residual Range Organics: 12.67 to 30.05

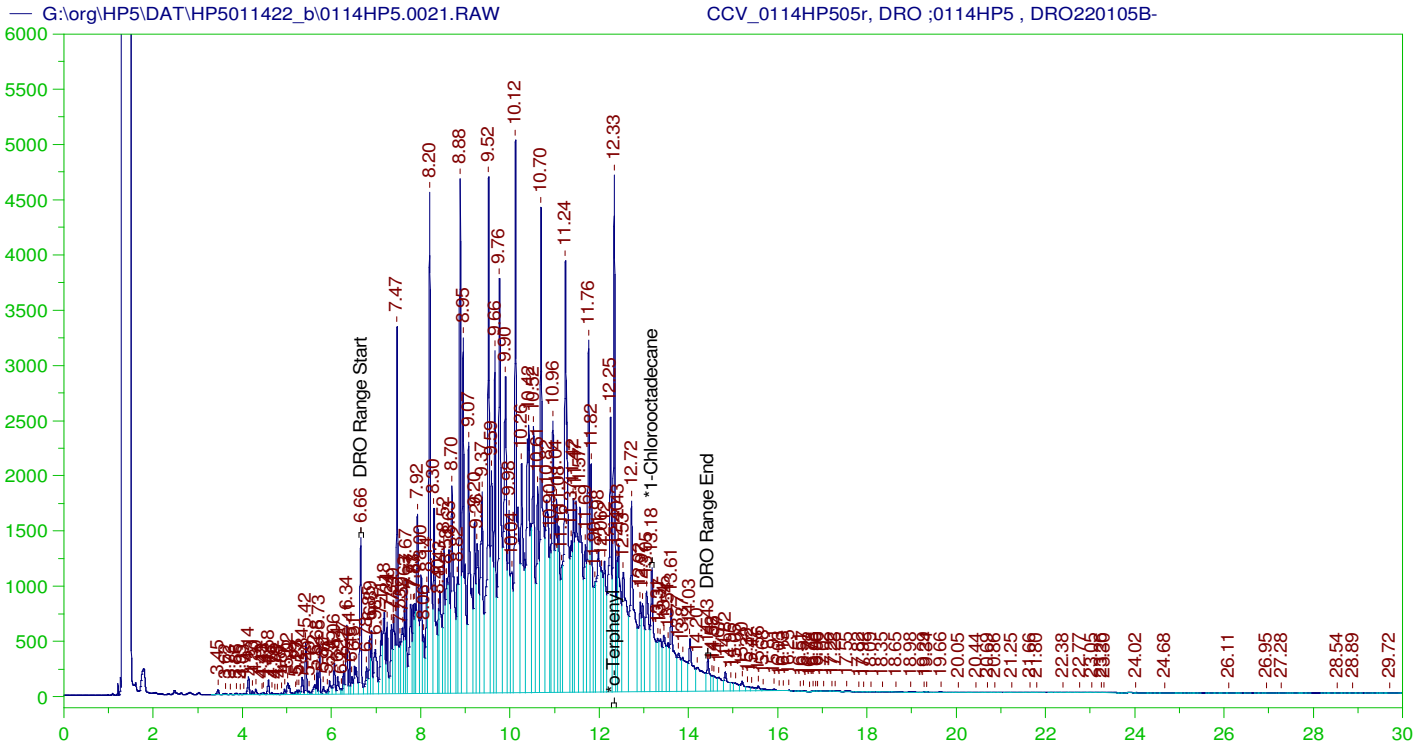
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.413	500.	187.387	37.48	-

RRO Area:3531438 RRO AMOUNT: 133.6423

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5011422_b\0114HP5.0020.RAW

COMPOUND	ACTUAL (NG)	MEASURED (NG)	%RECOVERY	LIMITS
*30-40 Motor Oil	5000.	.197	.	75-125

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*#Triacontane	16.413	200.	187.387	93.69	75-125



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: CCV_0114HP505r, DRO ;0114HP5 , DRO220105B-
 Raw File: G:\org\HP5\DAT\HP5011422_b\0114HP5.0021.RAW
 Date & Time Acquired: 1/15/2022 1:15:17 AM
 Method File: G:\Org\HP5\Methods\DC_8015-C24-JB-L%.met
 Calibration File: G:\Org\HP5\Cals\SW8015C_DRO220111JB-C24.CAL
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36
 Rt range for Diesel Range Organics: 6.62 to 14.49

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.333	200.	322.162	161.08
*1-Chlorooctadecane	13.176	200.	155.063	77.53

DRO Area: 4.821627E+08 DRO Amount: 14756.16
 TEH Area: 4.98954E+08 TEH Amount: 15270.04

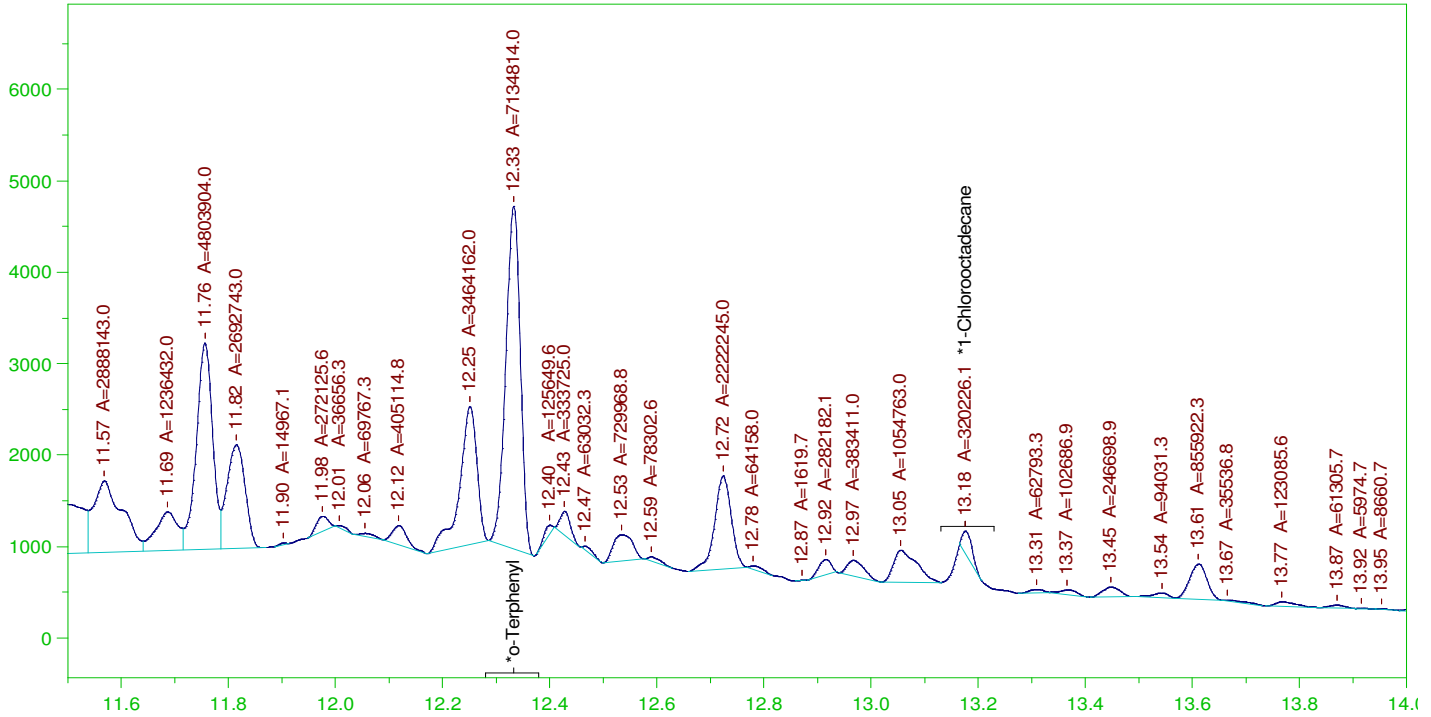
CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5011422_b\0114HP5.0021.RAW

COMPOUND	ACTUAL (NG)	MEASURED (NG)	%RECOVERY	LIMITS
TOTAL DRO	15000.	15270.04	101.8	85-115

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*o-Terphenyl	12.333	200.	322.162	161.08	85-115
*1-Chlorooctadecane	13.176	200.	155.063	77.53	85-115

G:\org\HP5\DAT\HP5011422_b\0114HP5.0021.RAW

CCV_0114HP505r, DRO ;0114HP5 , DRO220105B-



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: CCV_0114HP505r, DRO ;0114HP5 , DRO220105B-
 Raw File: G:\org\HP5\DAT\HP5011422_b\0114HP5.0021.RAW
 Date & Time Acquired: 1/15/2022 1:15:17 AM
 Method File: G:\Org\HP5\Methods\DS_8015-C24-JB-L#.met
 Calibration File: G:\Org\HP5\Cals\SW8015C_DRO220111JB-C24.CAL
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36

Rt range for Diesel Range Organics: 6.62 to 14.49

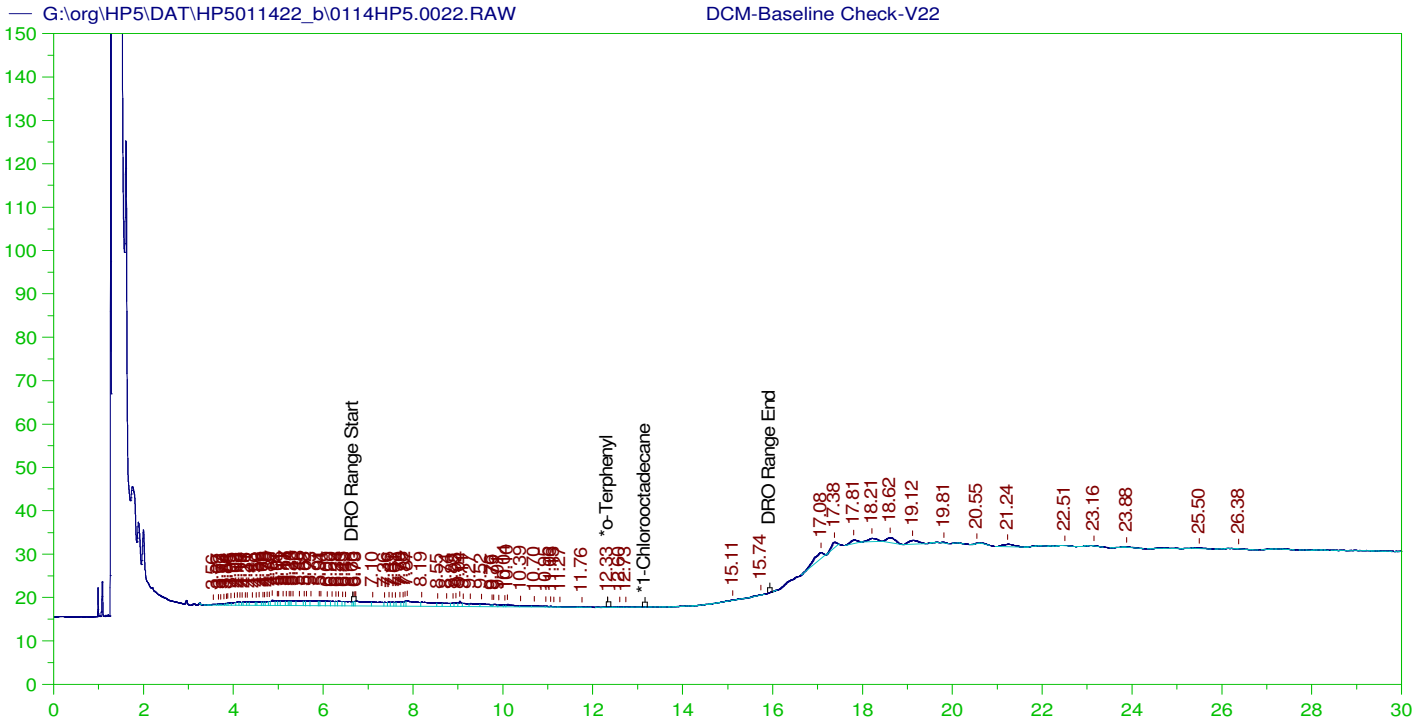
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.333	200.	193.576	96.79
*1-Chlorooctadecane	13.176	200.	8.688	4.34

DRO Area: 2.492415E+08 DRO Amount: 7627.812
 TEH Area: 2.600933E+08 TEH Amount: 7959.923

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5011422_b\0114HP5.0021.RAW

COMPOUND	ACTUAL (NG)	MEASURED (NG)	%RECOVERY	LIMITS
TOTAL DRO	15000.	7959.92	53.07	85-115

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*o-Terphenyl	12.333	200.	193.576	96.79	85-115
*1-Chlorooctadecane	13.176	200.	8.688	4.34	85-115



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: DCM-Baseline Check-V22
 Raw File: G:\org\HP5\DAT\HP5011422_b\0114HP5.0022.RAW
 Date & Time Acquired: 1/15/2022 1:57:57 AM
 Method File: G:\Org\HP5\Methods\DR_8015-JA-LEXP.met
 Calibration File: G:\Org\HP5\Cals\SW8015C_DRO220111JA.CAL
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36

Rt range for Diesel Range Organics: 6.63 to 15.99

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.325	200.	.017	.01
*1-Chlorooctadecane	29.972	200.	.	.

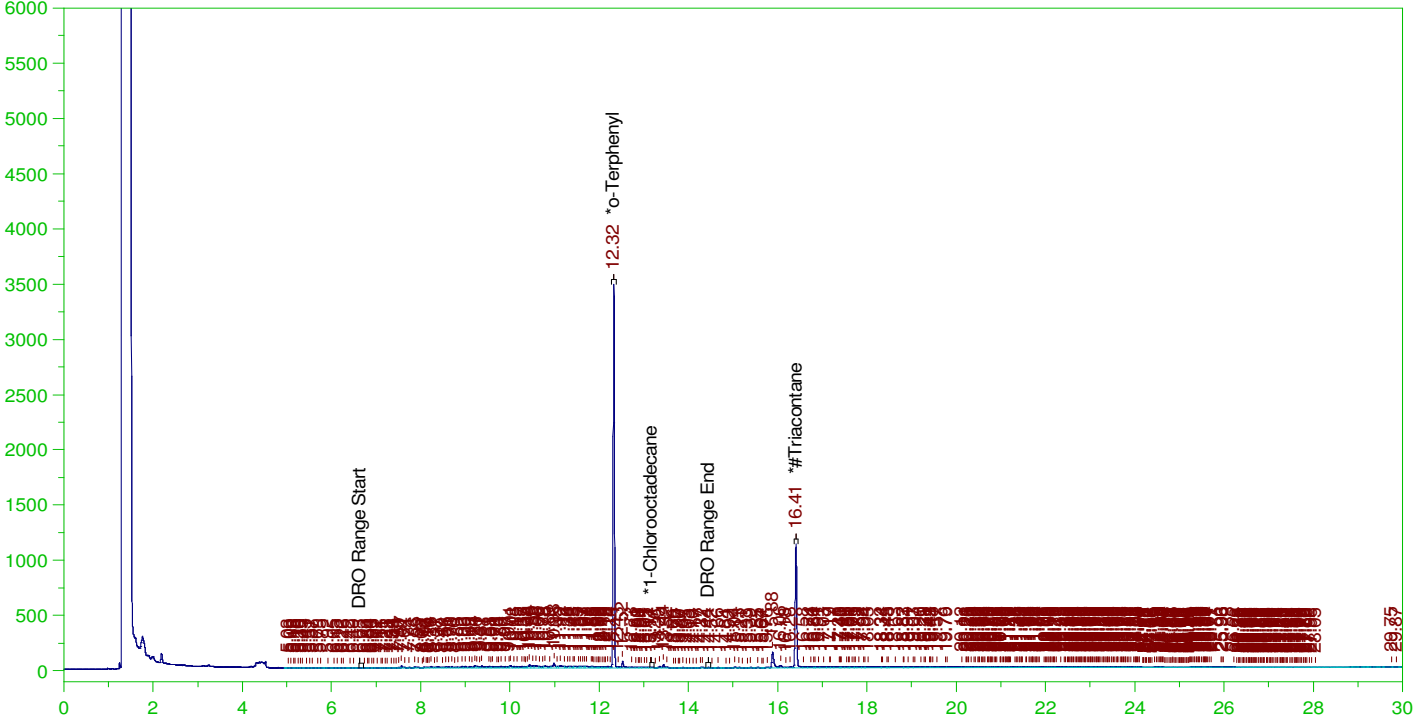
DRO Area:196410.9 DRO Amount: 6.010978
 TEH Area:464764.6 TEH Amount: 14.2237

ERH2376 (RHMW01R)

Batch ID: 162917

G:\org\HP5\DAT\HP5011422_b\0114HP5.0023.RAW

B22010758-001D ;0114HP5 , \$HC-8015-DRO-W,



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B22010758-001D ;0114HP5 , \$HC-8015-DRO-W,
Raw File: G:\org\HP5\DAT\HP5011422_b\0114HP5.0023.RAW
Date & Time Acquired: 1/15/2022 2:40:40 AM
Method File: G:\Org\HP5\Methods\D3_8015-C24T-JB-L%.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO220111JB-C24-T.CAL
Sample Weight: 1000 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36

Rt range for Diesel Range Organics: 6.62 to 14.49

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.324	.2	.183	91.37	-
*1-Chlorooctadecane	13.169	.2	.001	.28	-
*#Triacontane	16.405	.2	.103	51.37	-

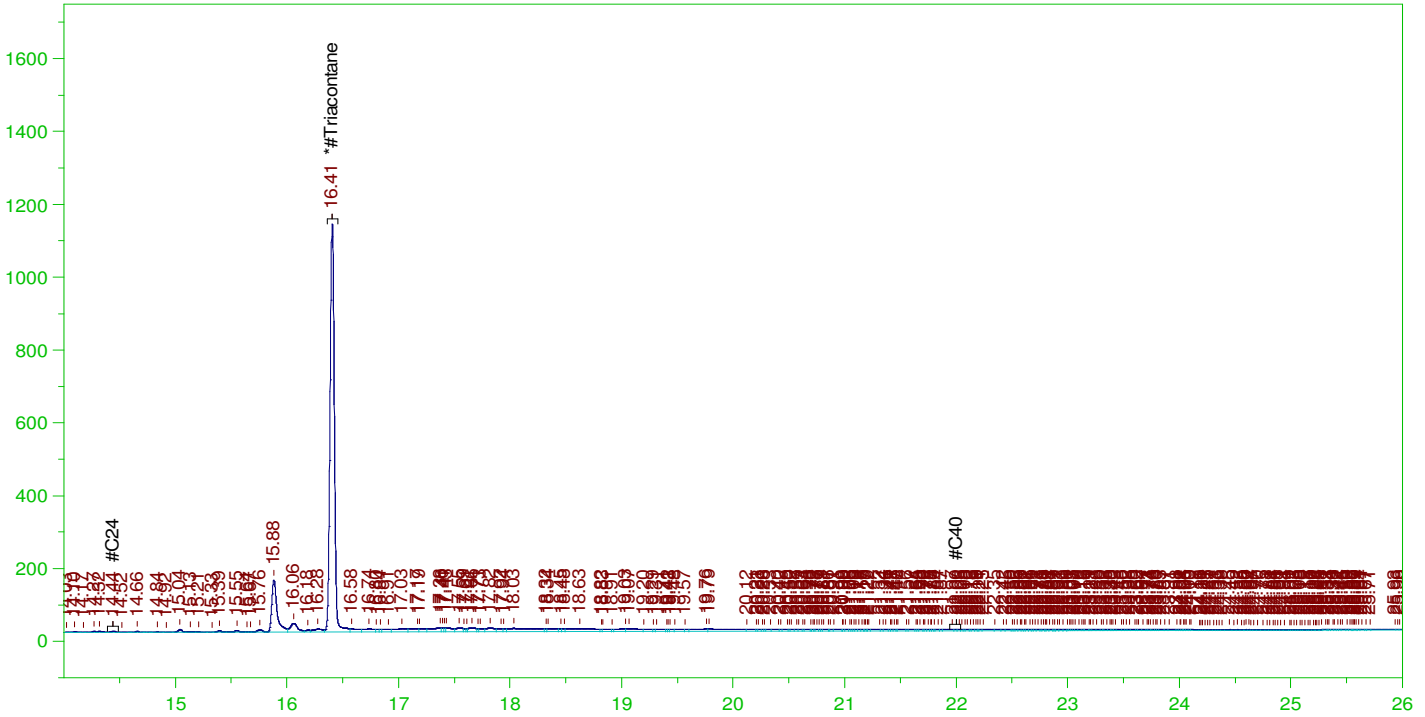
DRO Area:4636651 DRO Amount: 0.1419005
TEH Area:8681820 TEH Amount: 0.2656993

ERH2376 (RHMW01R)

Batch ID: 162917

G:\org\HP5\DAT\HP5011422_b\0114HP5.0023.RAW

B22010758-001D ;0114HP5 , \$HC-8015-DRO-W,



RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: B22010758-001D ;0114HP5 , \$HC-8015-DRO-W,
Raw File: G:\org\HP5\DAT\HP5011422_b\0114HP5.0023.RAW
Date & Time Acquired: 1/15/2022 2:40:40 AM
Method File: G:\Org\HP5\Methods\D3_OROS-BB-L%.MET
Calibration File: G:\Org\HP5\Cals\SW8015C_ORO220111BB_SAMP.CAL
Sample Weight: 1000 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 26424.55
Rt range for Residual Range Organics: 14.39 to 22.04

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*#Triacontane_____	16.405	.5	.103	20.55

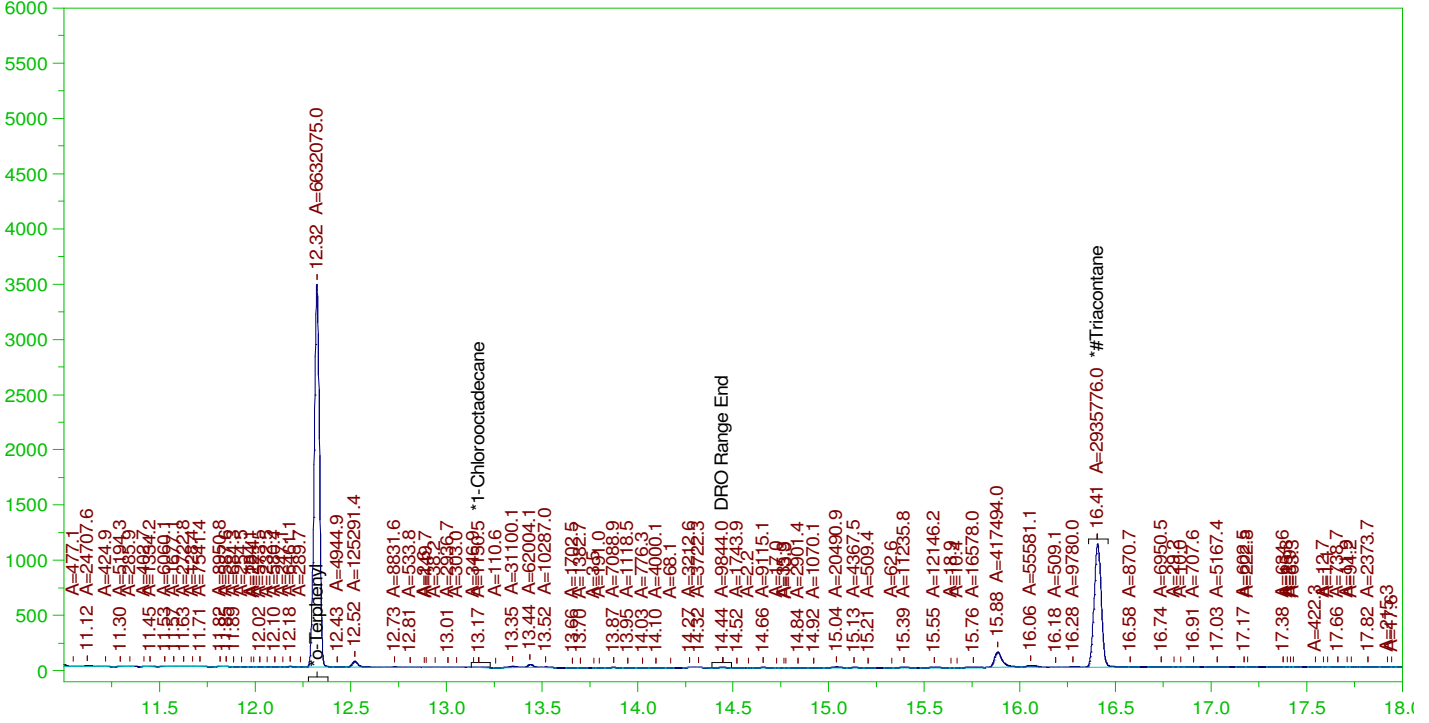
RRO Area:3149656 RRO AMOUNT: 0.1191943

ERH2376 (RHMW01R)

Batch ID: 162917

G:\org\HP5\DAT\HP5011422_b\0114HP5.0023.RAW

B22010758-001D ;0114HP5 , \$HC-8015-DRO-W,



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B22010758-001D ;0114HP5 , \$HC-8015-DRO-W,
 Raw File: G:\org\HP5\DAT\HP5011422_b\0114HP5.0023.RAW
 Date & Time Acquired: 1/15/2022 2:40:40 AM
 Method File: G:\Org\HP5\Methods\DS_8015-C24T-BB-L#.met
 Calibration File: G:\Org\HP5\Cals\SW8015C_DRO220111JB-C24-T.CAL
 Sample Weight: 1000 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36

Rt range for Diesel Range Organics: 6.62 to 14.49

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.324	.2	.18	89.97
*1-Chlorooctadecane	13.169	.2	.02	-
*#Triacontane	16.405	.2	.099	49.53

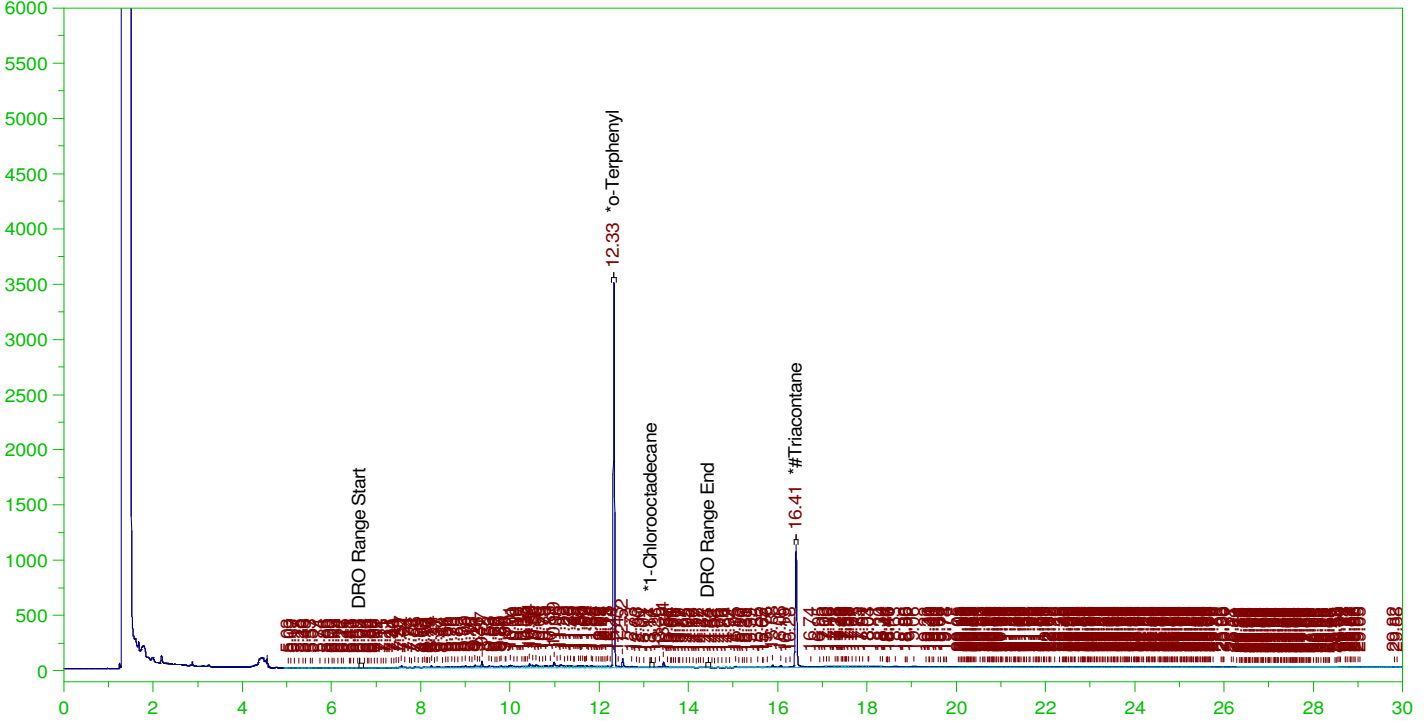
DRO Area:1460174 DRO Amount: 4.468732E-02
 TEH Area:3022474 TEH Amount: 9.250009E-02

ERH2377 (RHMW01R)

G:\org\HP5\DAT\HP5011422_b\0114HP5.0024.RAW

Batch ID: 162917

B22010758-002B ;0114HP5 , \$HC-8015-DRO-W,



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B22010758-002B ;0114HP5 , \$HC-8015-DRO-W,
Raw File: G:\org\HP5\DAT\HP5011422_b\0114HP5.0024.RAW
Date & Time Acquired: 1/15/2022 3:23:23 AM
Method File: G:\Org\HP5\Methods\D3_8015-C24T-JB-L%.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO220111JB-C24-T.CAL
Sample Weight: 1020 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36

Rt range for Diesel Range Organics: 6.62 to 14.49

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.326	.196	.179	91.16	-
*1-Chlorooctadecane	13.172	.196	.001	.37	-
*#Triacontane	16.407	.196	.104	52.96	-

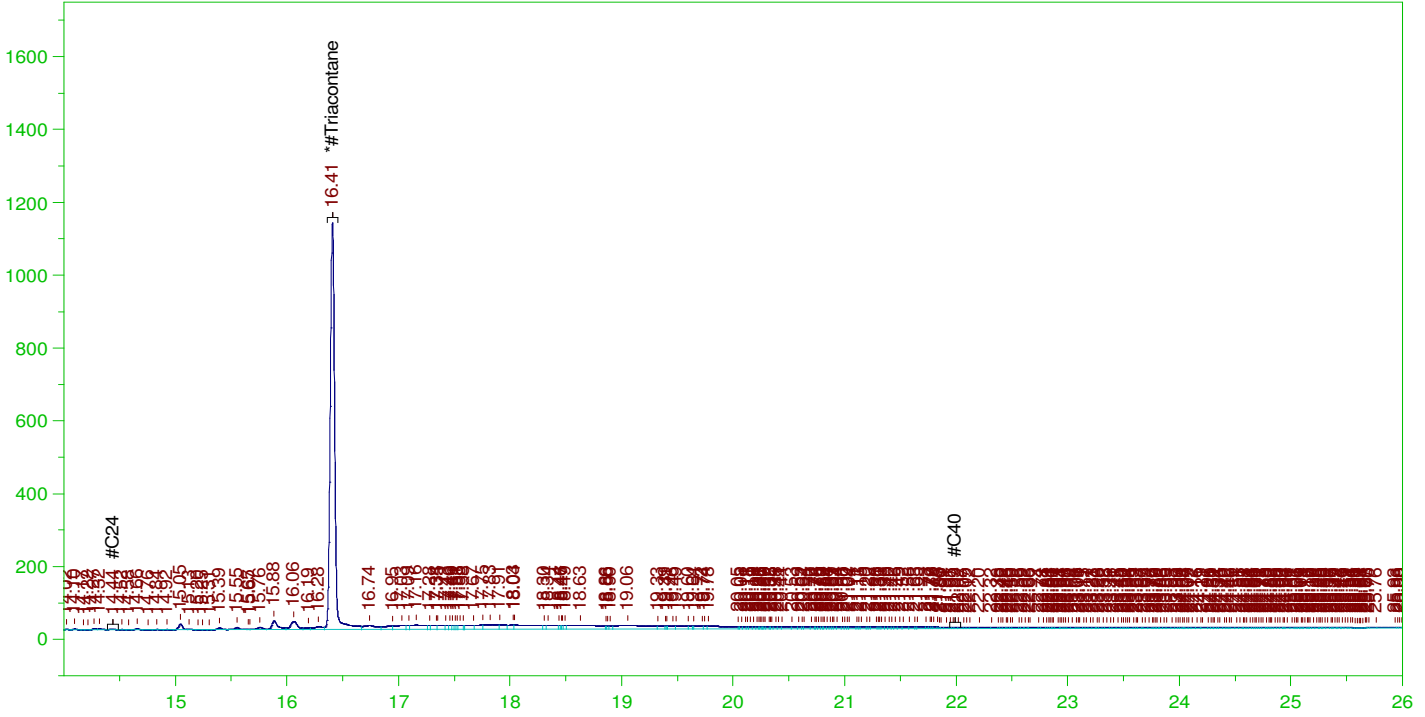
DRO Area:5388431 DRO Amount: 0.1616746
TEH Area:9461137 TEH Amount: 0.2838722

ERH2377 (RHMW01R)

Batch ID: 162917

G:\org\HP5\DAT\HP5011422_b\0114HP5.0024.RAW

B22010758-002B ;0114HP5 , \$HC-8015-DRO-W,

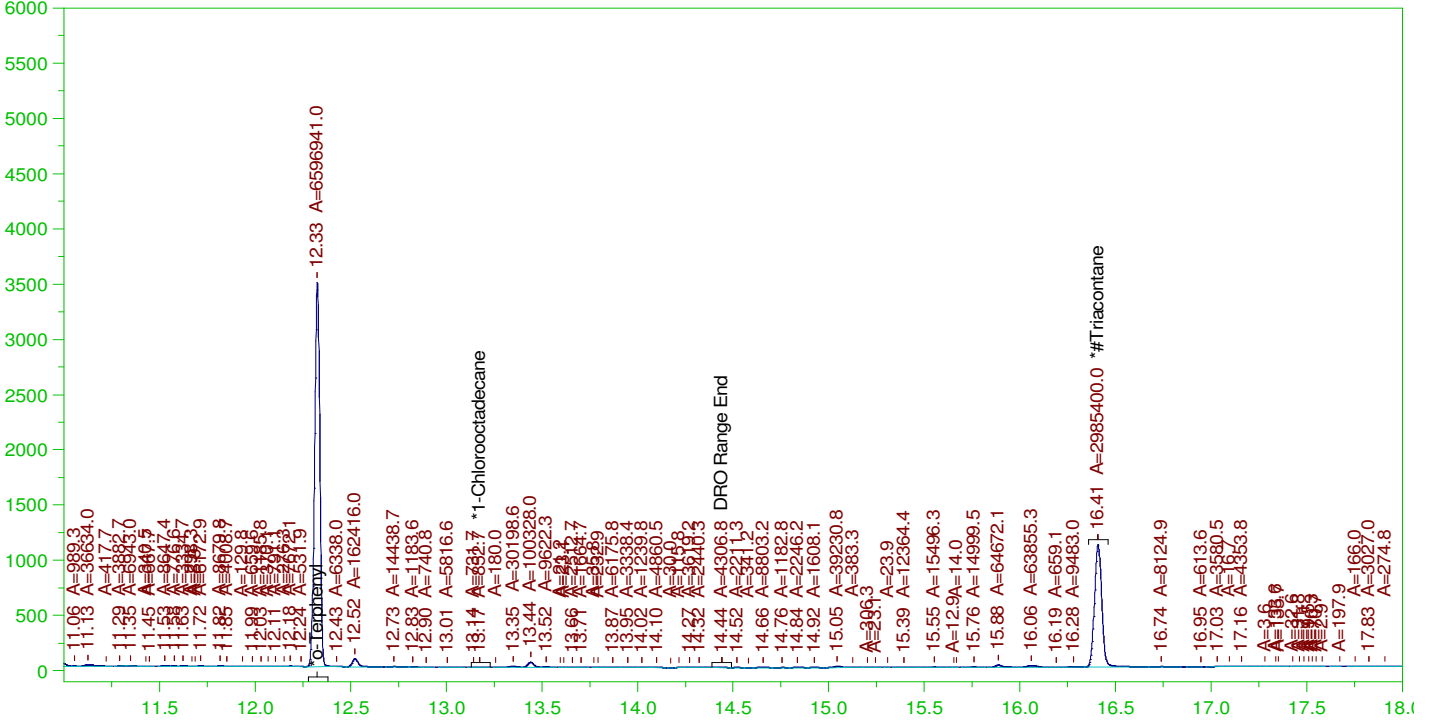


ERH2377 (RHMW01R)

Batch ID: 162917

G:\org\HP5\DAT\HP5011422_b\0114HP5.0024.RAW

B22010758-002B ;0114HP5 , \$HC-8015-DRO-W,



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

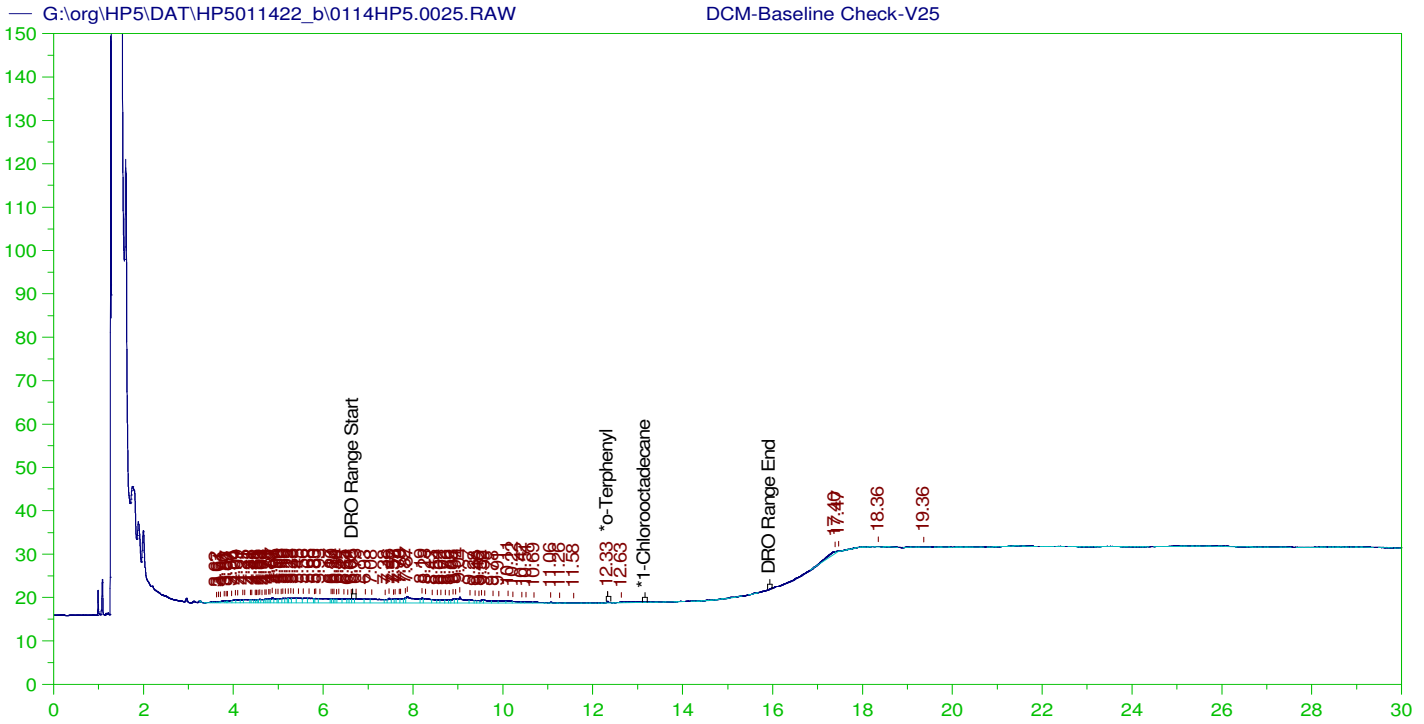
Sample Name: B22010758-002B ;0114HP5 , \$HC-8015-DRO-W,
Raw File: G:\org\HP5\DAT\HP5011422_b\0114HP5.0024.RAW
Date & Time Acquired: 1/15/2022 3:23:23 AM
Method File: G:\Org\HP5\Methods\DS_8015-C24T-BB-L#.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO220111JB-C24-T.CAL
Sample Weight: 1020 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36

Rt range for Diesel Range Organics: 6.62 to 14.49

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.326	.196	.175	89.49
*1-Chlorooctadecane	13.172	.196	.01	-
*#Triacontane	16.407	.196	.099	50.37

DRO Area:1690031 DRO Amount: 5.070771E-02
TEH Area:3427129 TEH Amount: 0.1028276



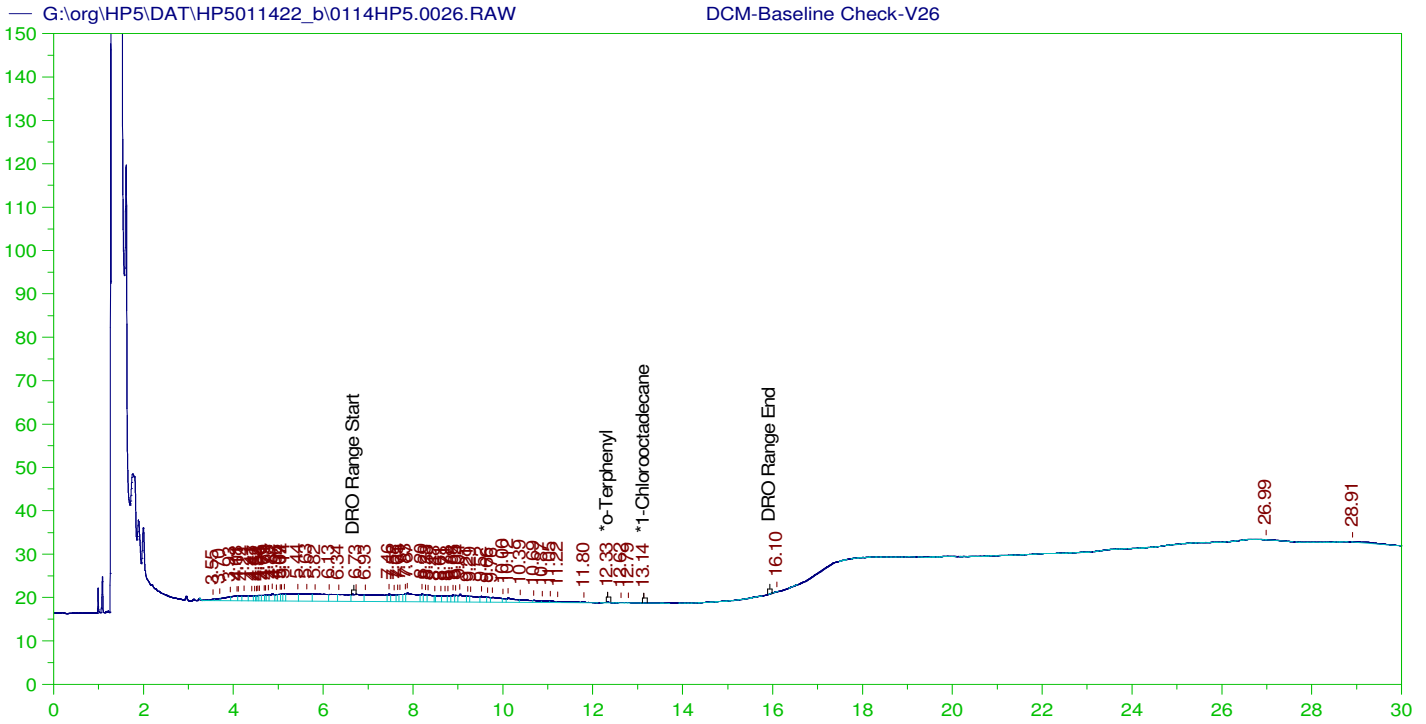
DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: DCM-Baseline Check-V25
 Raw File: G:\org\HP5\DAT\HP5011422_b\0114HP5.0025.RAW
 Date & Time Acquired: 1/15/2022 4:06:09 AM
 Method File: G:\Org\HP5\Methods\DR_8015-JA-LEXP.met
 Calibration File: G:\Org\HP5\Cals\SW8015C_DRO220111JA.CAL
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36
 Rt range for Diesel Range Organics: 6.63 to 15.99

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.33	200.	.031	.02	-
*1-Chlorooctadecane	29.898	200.	.	.	-

DRO Area:187747.4 DRO Amount: 5.745842
 TEH Area:363737.2 TEH Amount: 11.13185



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: DCM-Baseline Check-V26
 Raw File: G:\org\HP5\DAT\HP5011422_b\0114HP5.0026.RAW
 Date & Time Acquired: 1/15/2022 4:48:59 AM
 Method File: G:\Org\HP5\Methods\DR_8015-JA-LEXP.met
 Calibration File: G:\Org\HP5\Cals\SW8015C_DRO220111JA.CAL
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36

Rt range for Diesel Range Organics: 6.63 to 15.99

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.328	200.	.021	.01	-
*1-Chlorooctadecane	13.135	200.	.027	.01	-

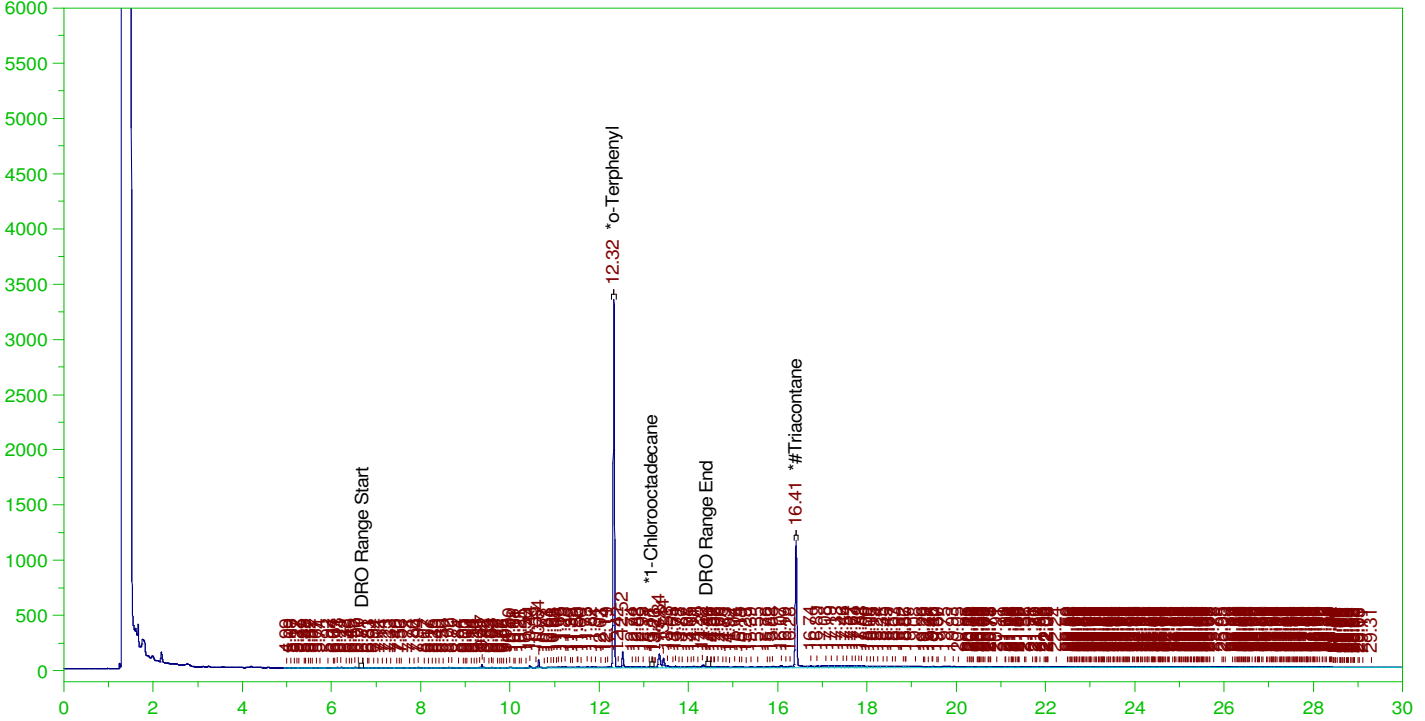
DRO Area:339400.5 DRO Amount: 10.38705
 TEH Area:597674.4 TEH Amount: 18.29129

ERH2414 (RHMW08)

Batch ID: 162917

G:\org\HP5\DAT\HP5011422_b\0114HP5.0027.RAW

B22010753-001D ;0114HP5 , \$HC-8015-DRO-W,



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B22010753-001D ;0114HP5 , \$HC-8015-DRO-W,
Raw File: G:\org\HP5\DAT\HP5011422_b\0114HP5.0027.RAW
Date & Time Acquired: 1/15/2022 5:31:48 AM
Method File: G:\Org\HP5\Methods\D3_8015-C24T-JB-L%.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO220111JB-C24-T.CAL
Sample Weight: 1020 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36

Rt range for Diesel Range Organics: 6.62 to 14.49

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.324	.196	.171	87.41	-
*1-Chlorooctadecane	13.174	.196	.001	.47	-
*#Triacontane	16.407	.196	.109	55.43	-

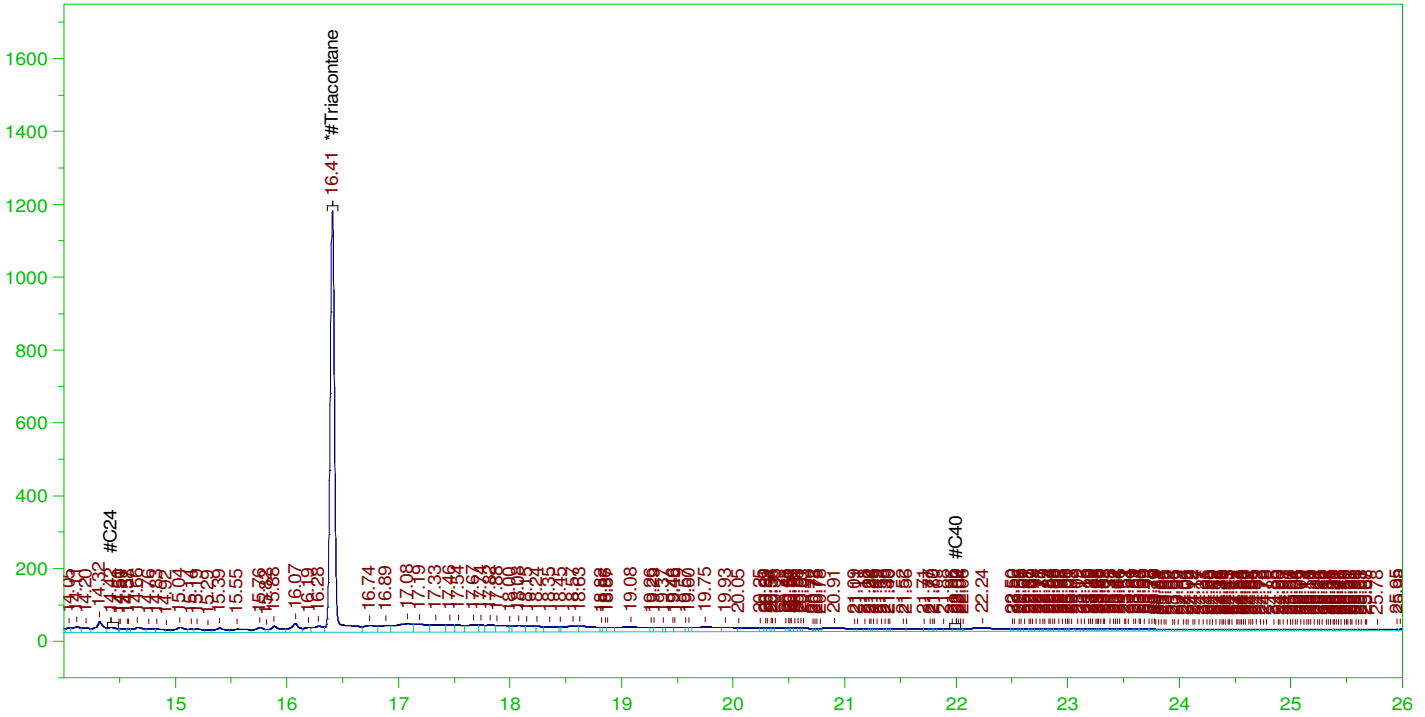
DRO Area:3566556 DRO Amount: 0.107011
TEH Area:1.016228E+07 TEH Amount: 0.3049091

ERH2414 (RHMW08)

Batch ID: 162917

G:\org\HP5\DAT\HP5011422_b\0114HP5.0027.RAW

B22010753-001D ;0114HP5 , \$HC-8015-DRO-W,



RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: B22010753-001D ;0114HP5 , \$HC-8015-DRO-W,
Raw File: G:\org\HP5\DAT\HP5011422_b\0114HP5.0027.RAW
Date & Time Acquired: 1/15/2022 5:31:48 AM
Method File: G:\Org\HP5\Methods\D3_OROS-BB-L%.MET
Calibration File: G:\Org\HP5\Cals\SW8015C_ORO220111BB_SAMP.CAL
Sample Weight: 1020 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 26424.55
Rt range for Residual Range Organics: 14.39 to 22.04

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane_____	16.407	.49	.109	22.17	-

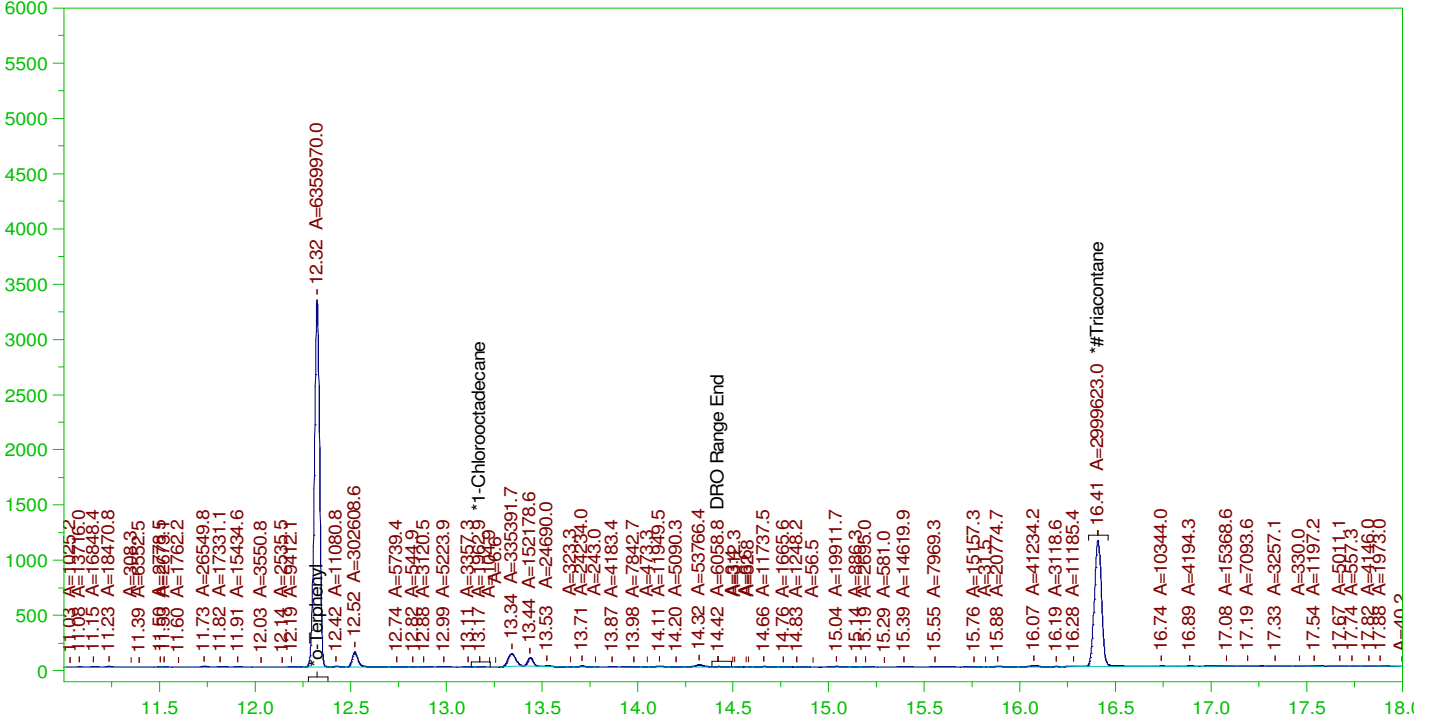
RRO Area:5076992 RRO AMOUNT: 0.1883643

ERH2414 (RHMW08)

Batch ID: 162917

G:\org\HP5\DAT\HP5011422_b\0114HP5.0027.RAW

B22010753-001D ;0114HP5 , \$HC-8015-DRO-W,



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

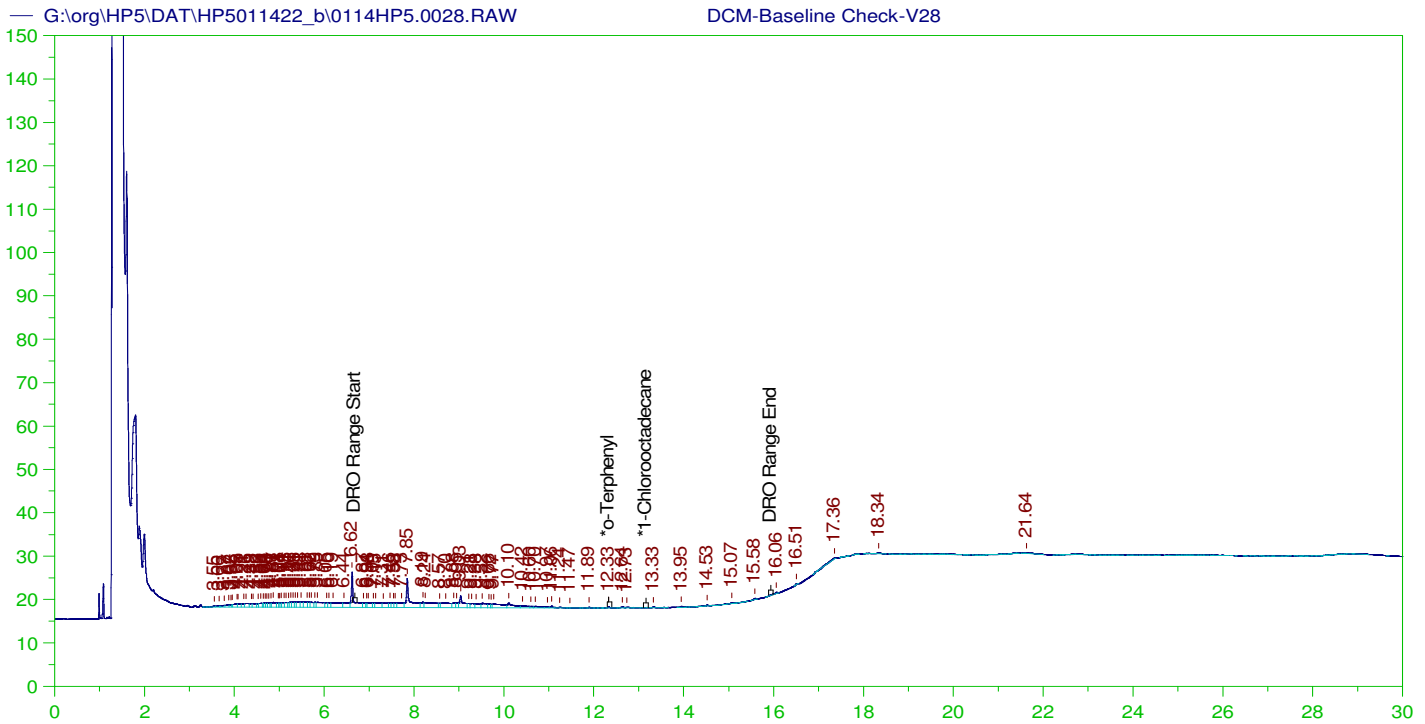
Sample Name: B22010753-001D ;0114HP5 , \$HC-8015-DRO-W,
Raw File: G:\org\HP5\DAT\HP5011422_b\0114HP5.0027.RAW
Date & Time Acquired: 1/15/2022 5:31:48 AM
Method File: G:\Org\HP5\Methods\DS_8015-C24T-BB-L#.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO220111JB-C24-T.CAL
Sample Weight: 1020 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36

Rt range for Diesel Range Organics: 6.62 to 14.49

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.324	.196	.169	86.28	-
*1-Chlorooctadecane	13.174	.196	.	.03	-
*#Triacontane	16.407	.196	.099	50.61	-

DRO Area:1717263 DRO Amount: 5.152479E-02
TEH Area:2392754 TEH Amount: 7.179223E-02



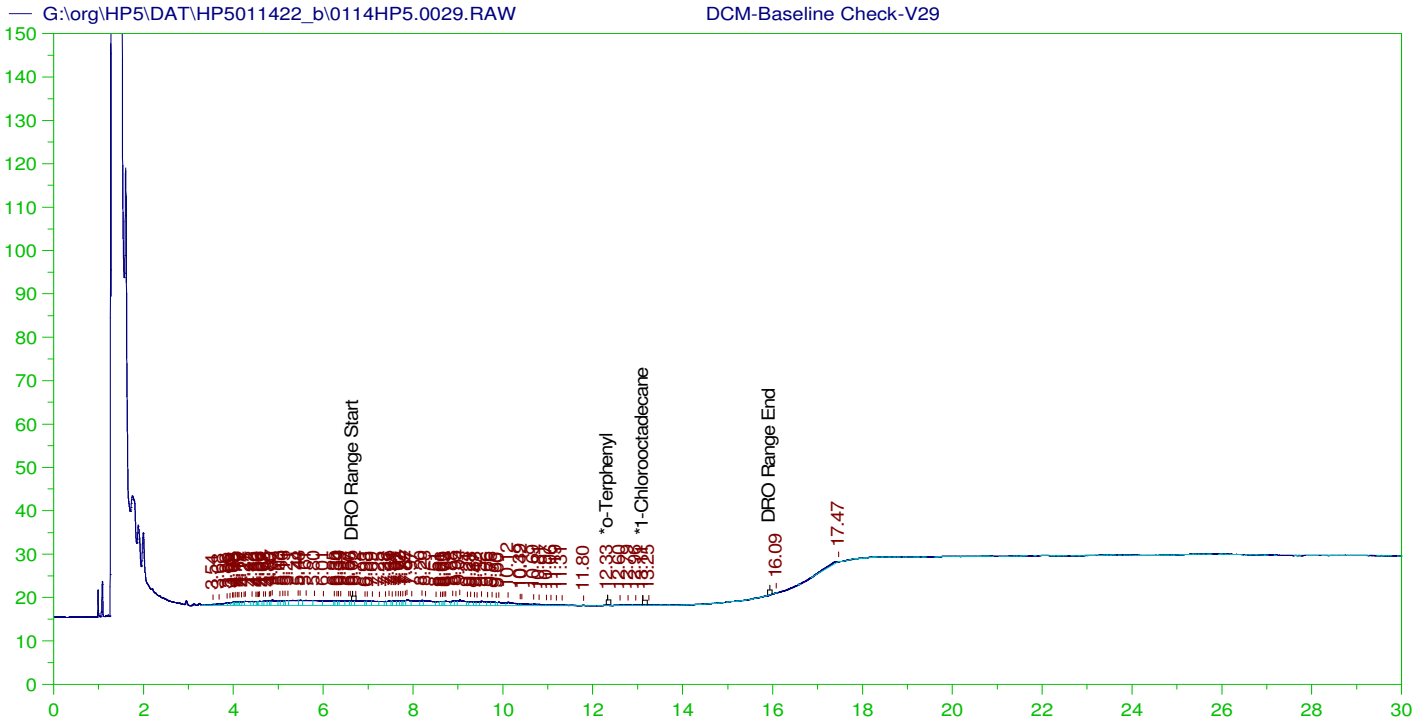
DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: DCM-Baseline Check-V28
 Raw File: G:\org\HP5\DAT\HP5011422_b\0114HP5.0028.RAW
 Date & Time Acquired: 1/15/2022 6:14:28 AM
 Method File: G:\Org\HP5\Methods\DR_8015-JA-LEXP.met
 Calibration File: G:\Org\HP5\Cals\SW8015C_DRO220111JA.CAL
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36
 Rt range for Diesel Range Organics: 6.63 to 15.99

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.326	200.	.032	.02 -
*1-Chlorooctadecane	29.665	200.	.	. -

DRO Area:240958.1 DRO Amount: 7.374305
 TEH Area:455148.3 TEH Amount: 13.92941



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: DCM-Baseline Check-V29
 Raw File: G:\org\HP5\DAT\HP5011422_b\0114HP5.0029.RAW
 Date & Time Acquired: 1/15/2022 6:57:14 AM
 Method File: G:\Org\HP5\Methods\DR_8015-JA-LEXP.met
 Calibration File: G:\Org\HP5\Cals\SW8015C_DRO220111JA.CAL
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36
 Rt range for Diesel Range Organics: 6.63 to 15.99

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.328	200.	.023	.01	-
*1-Chlorooctadecane	13.112	200.	.017	.01	-

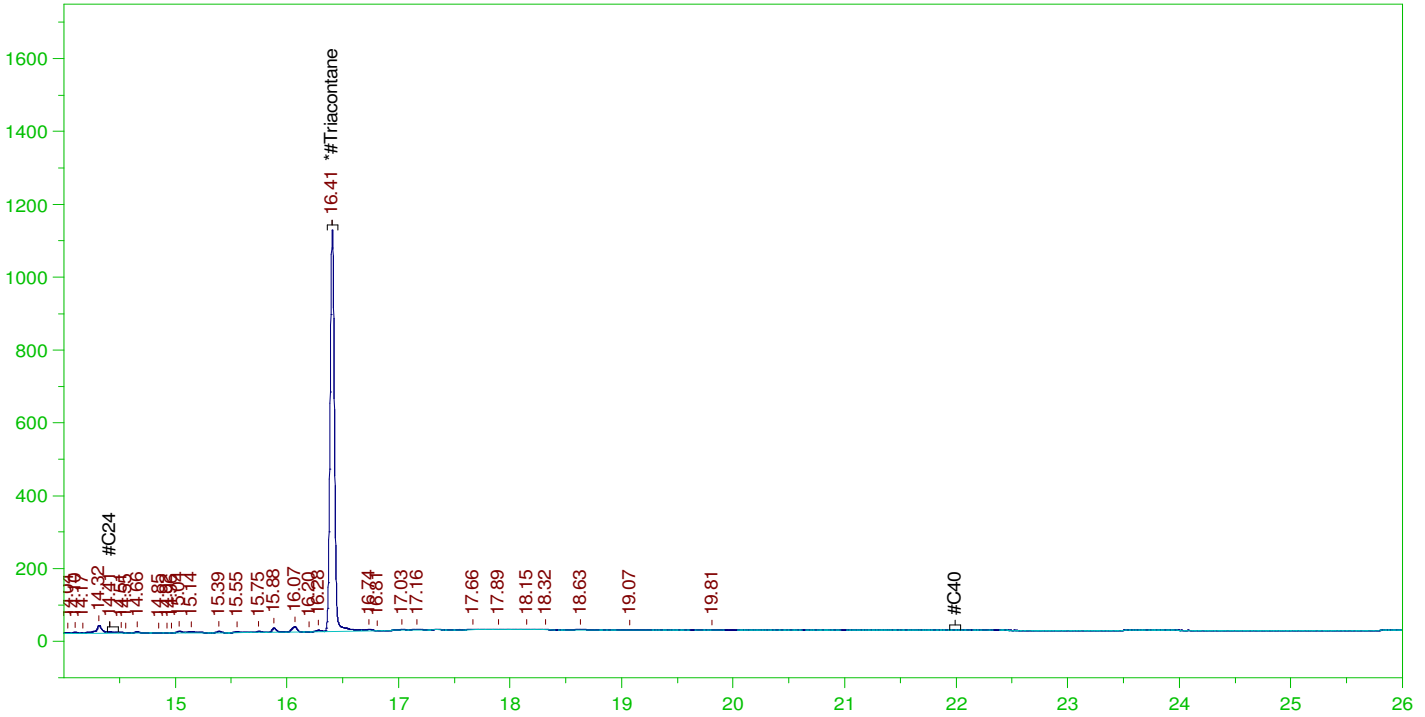
DRO Area:221690.9 DRO Amount: 6.784651
 TEH Area:410806.5 TEH Amount: 12.57236

ERH2418 (RHMW06)

Batch ID: 162917

G:\org\HP5\DAT\HP5011422_b\0114HP5.0030.RAW

B22010754-001D ;0114HP5 , \$HC-8015-DRO-W,



RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: B22010754-001D ;0114HP5 , \$HC-8015-DRO-W,
 Raw File: G:\org\HP5\DAT\HP5011422_b\0114HP5.0030.RAW
 Date & Time Acquired: 1/15/2022 7:39:42 AM
 Method File: G:\Org\HP5\Methods\DR_OROS-BB-L%.MET
 Calibration File: G:\Org\HP5\Cals\SW8015C_ORO220111BB_SAMP.CAL
 Sample Weight: 1050 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 26424.55
 Rt range for Residual Range Organics: 14.39 to 22.04

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*#Triacontane_____	16.406	.476	.096	20.19

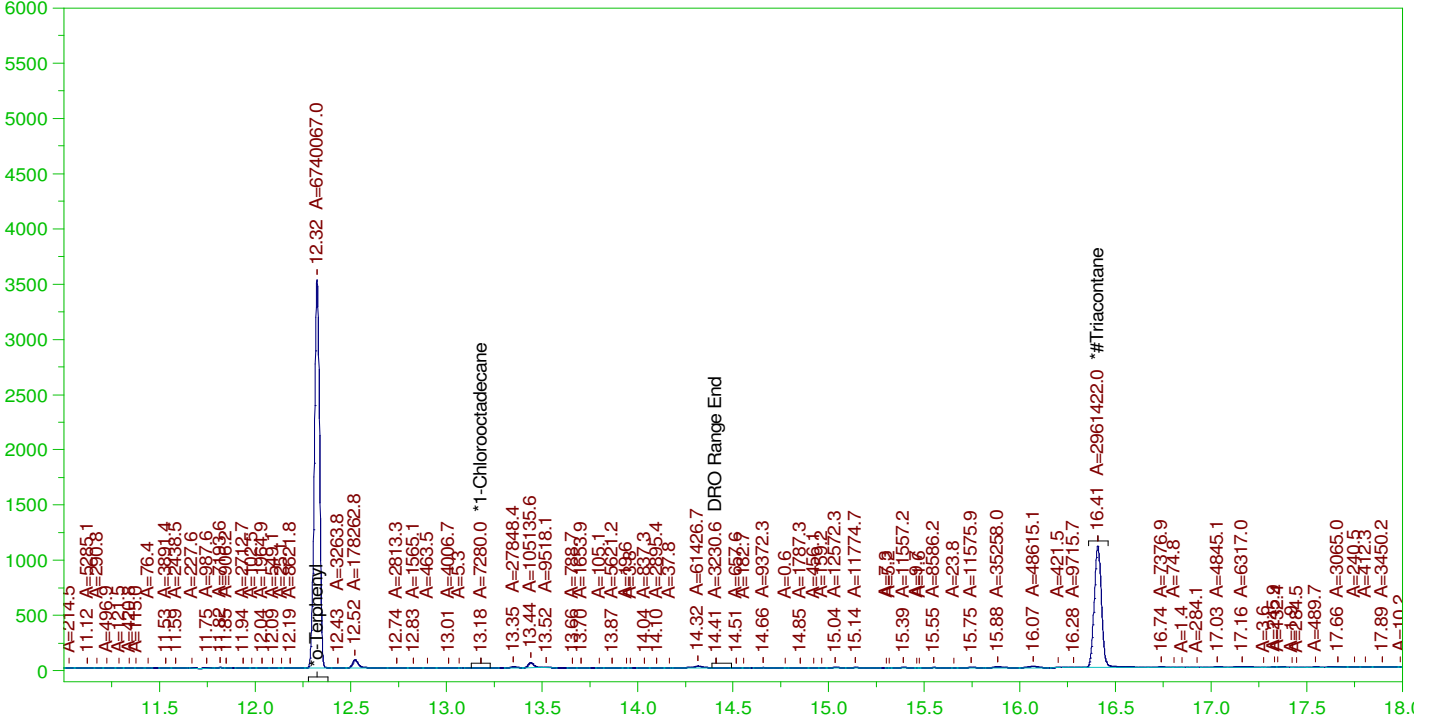
RRO Area:264425.3 RRO AMOUNT: 9.53029E-03

ERH2418 (RHMW06)

Batch ID: 162917

G:\org\HP5\DAT\HP5011422_b\0114HP5.0030.RAW

B22010754-001D ;0114HP5 , \$HC-8015-DRO-W,



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

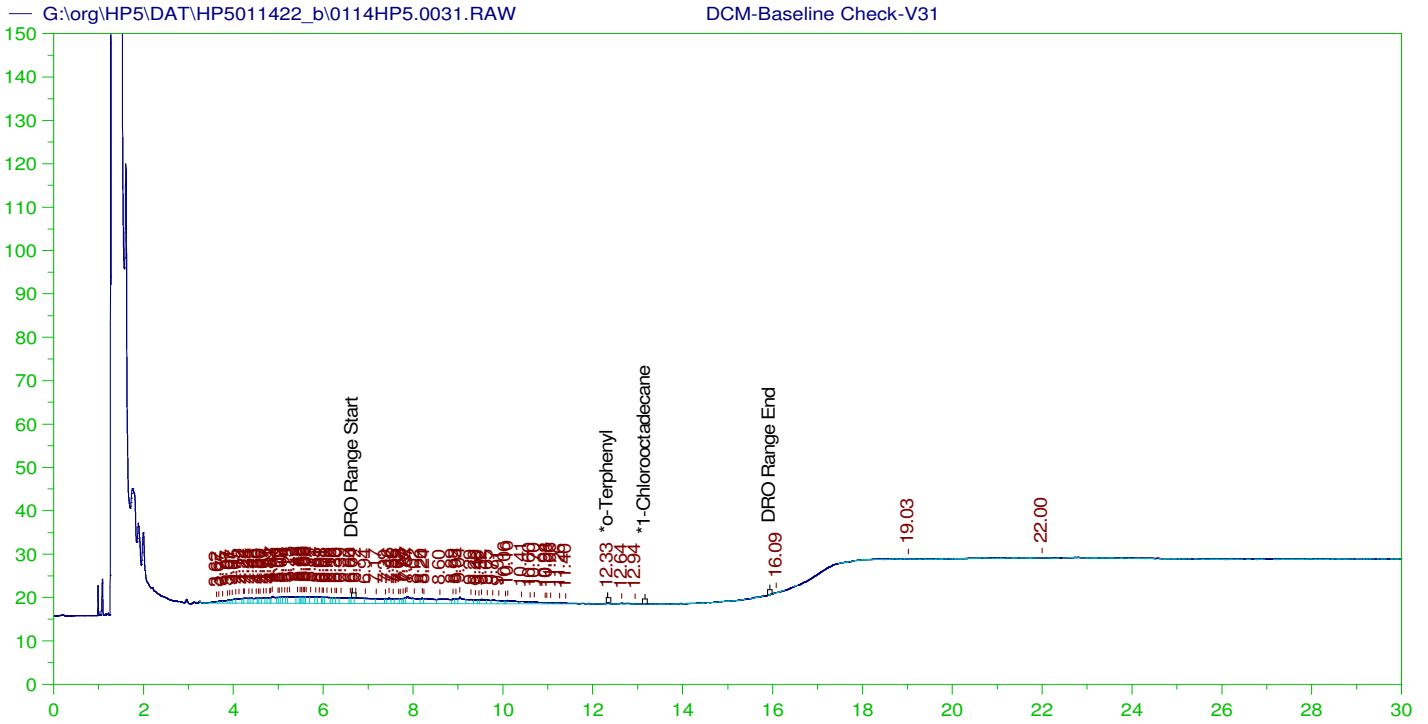
Sample Name: B22010754-001D ;0114HP5 , \$HC-8015-DRO-W,
Raw File: G:\org\HP5\DAT\HP5011422_b\0114HP5.0030.RAW
Date & Time Acquired: 1/15/2022 7:39:42 AM
Method File: G:\Org\HP5\Methods\DS_8015-C24T-BB-L#.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO220111JB-C24-T.CAL
Sample Weight: 1050 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36

Rt range for Diesel Range Organics: 6.62 to 14.49

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.324	.19	.174	91.43	-
*1-Chlorooctadecane	13.179	.19	.	.1	-
*#Triacontane	16.406	.19	.095	49.96	-

DRO Area:771339 DRO Amount: 2.248203E-02
TEH Area:2106545 TEH Amount: 6.139895E-02



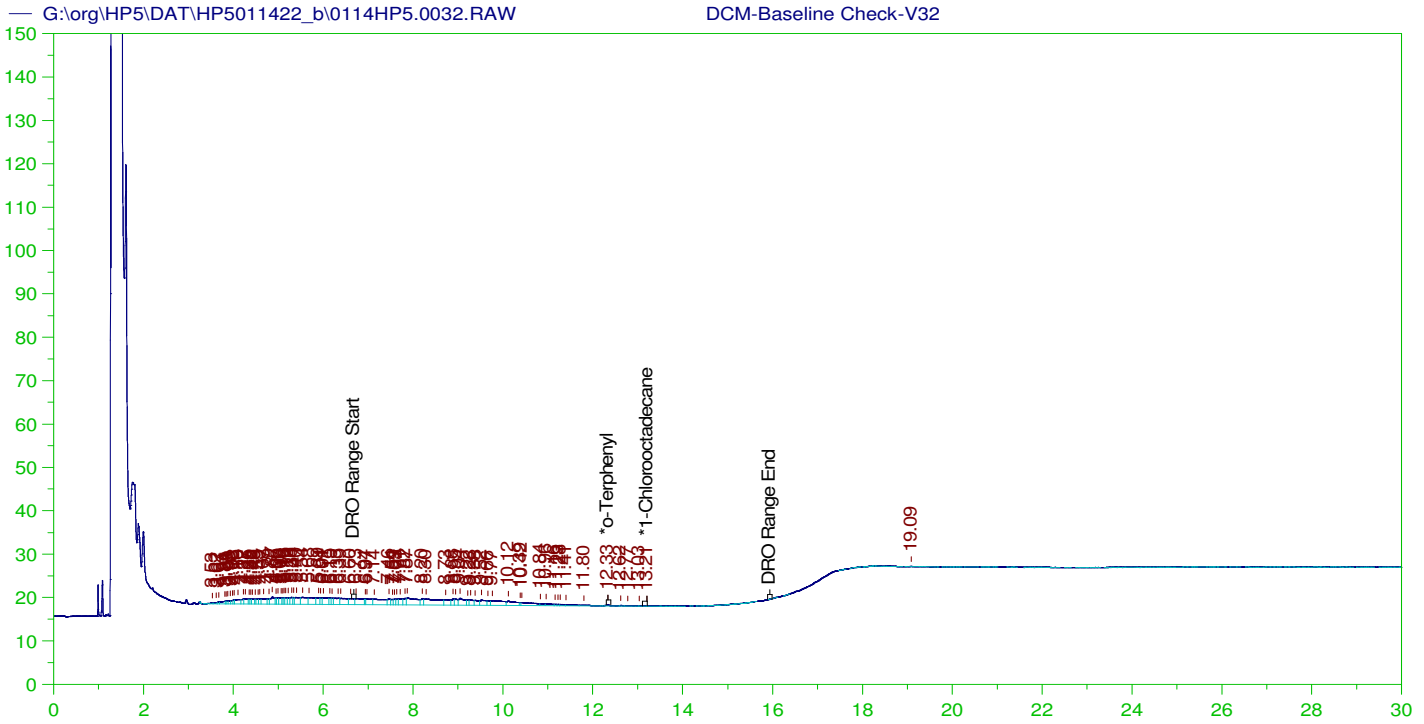
DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: DCM-Baseline Check-V31
 Raw File: G:\org\HP5\DAT\HP5011422_b\0114HP5.0031.RAW
 Date & Time Acquired: 1/15/2022 8:22:15 AM
 Method File: G:\Org\HP5\Methods\DR_8015-JA-LEXP.met
 Calibration File: G:\Org\HP5\Cals\SW8015C_DRO220111JA.CAL
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36
 Rt range for Diesel Range Organics: 6.63 to 15.99

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.326	200.	.037	.02
*1-Chlorooctadecane	29.956	200.	.	-

DRO Area:252749.5 DRO Amount: 7.73517
 TEH Area:486524.7 TEH Amount: 14.88965



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: DCM-Baseline Check-V32
 Raw File: G:\org\HP5\DAT\HP5011422_b\0114HP5.0032.RAW
 Date & Time Acquired: 1/15/2022 9:04:53 AM
 Method File: G:\Org\HP5\Methods\DR_8015-JA-LEXP.met
 Calibration File: G:\Org\HP5\Cals\SW8015C_DRO220111JA.CAL
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36

Rt range for Diesel Range Organics: 6.63 to 15.99

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.333	200.	.07	.04	-
*1-Chlorooctadecane	13.207	200.	.033	.02	-

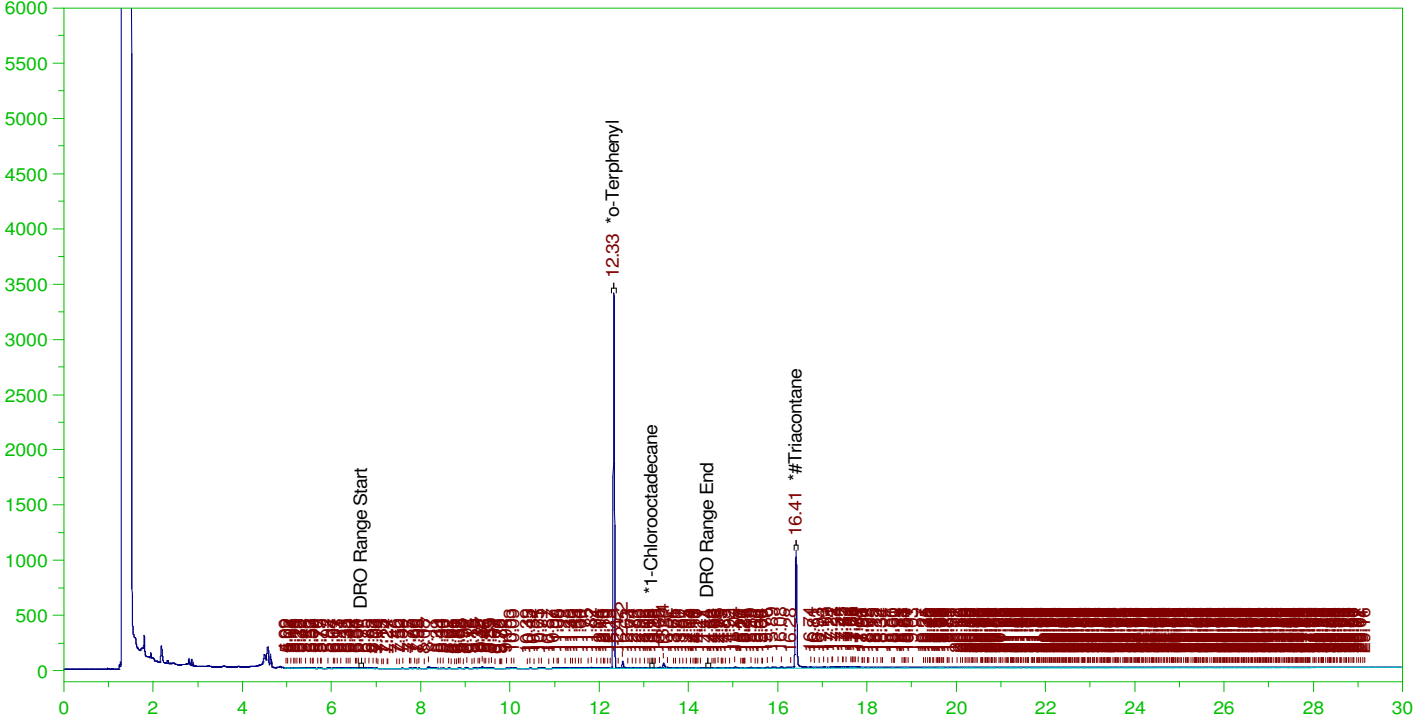
DRO Area:305883.2 DRO Amount: 9.361279
 TEH Area:552563.2 TEH Amount: 16.9107

ERH2396 (RHME15 zone5)

Batch ID: 162917

G:\org\HP5\DAT\HP5011422_b\0114HP5.0033.RAW

B22010755-001D ;0114HP5 , \$HC-8015-DRO-W,



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B22010755-001D ;0114HP5 , \$HC-8015-DRO-W,
Raw File: G:\org\HP5\DAT\HP5011422_b\0114HP5.0033.RAW
Date & Time Acquired: 1/15/2022 9:47:37 AM
Method File: G:\Org\HP5\Methods\D3_8015-C24T-JB-L%.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO220111JB-C24-T.CAL
Sample Weight: 1000 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36

Rt range for Diesel Range Organics: 6.62 to 14.49

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.325	.2	.174	87.03	-
*1-Chlorooctadecane	13.177	.2	.	.1	-
*#Triacontane	16.408	.2	.102	50.93	-

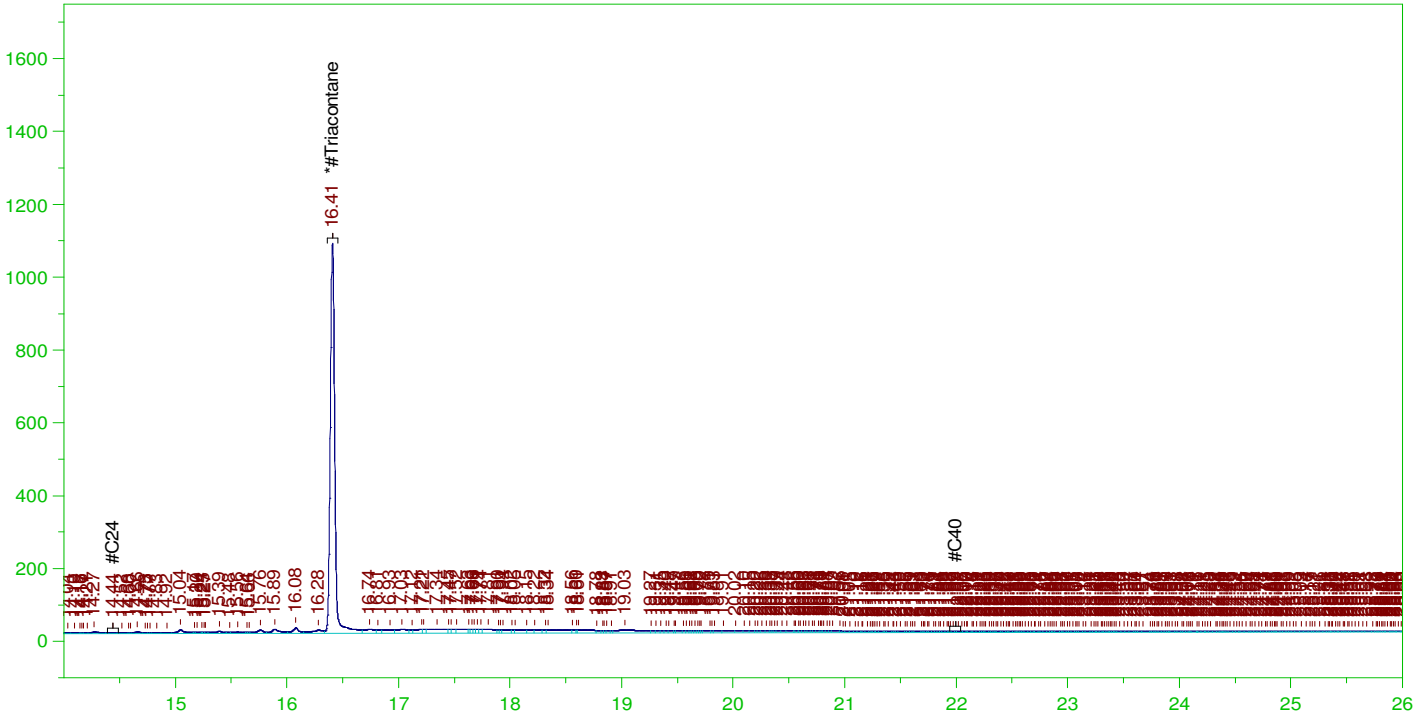
DRO Area:953884 DRO Amount: 2.919276E-02
TEH Area:4511052 TEH Amount: 0.1380567

ERH2396 (RHME15 zone5)

Batch ID: 162917

G:\org\HP5\DAT\HP5011422_b\0114HP5.0033.RAW

B22010755-001D ;0114HP5 , \$HC-8015-DRO-W,



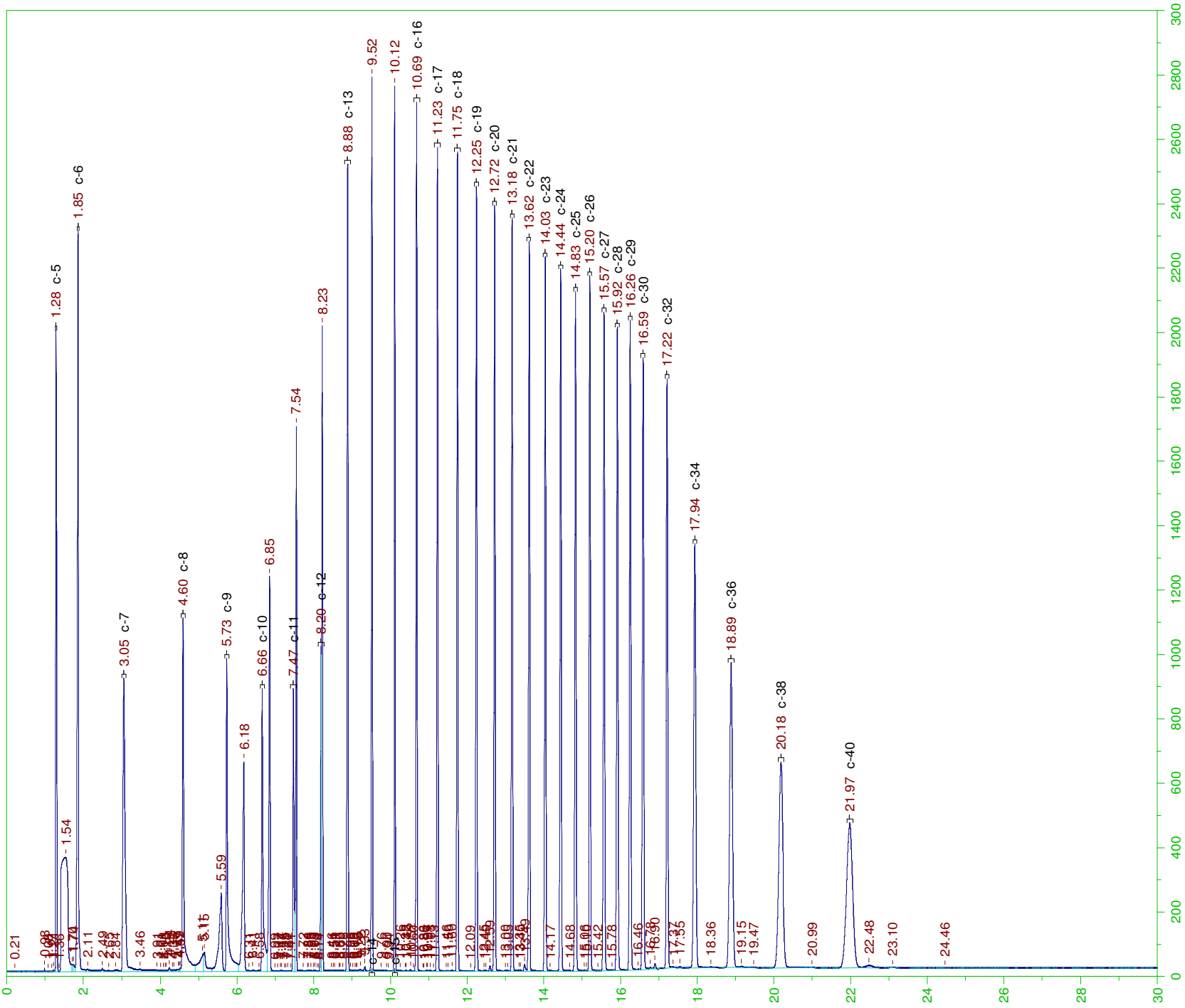
RESIDUAL RANGE ORGANICS CHROMATOGRAM

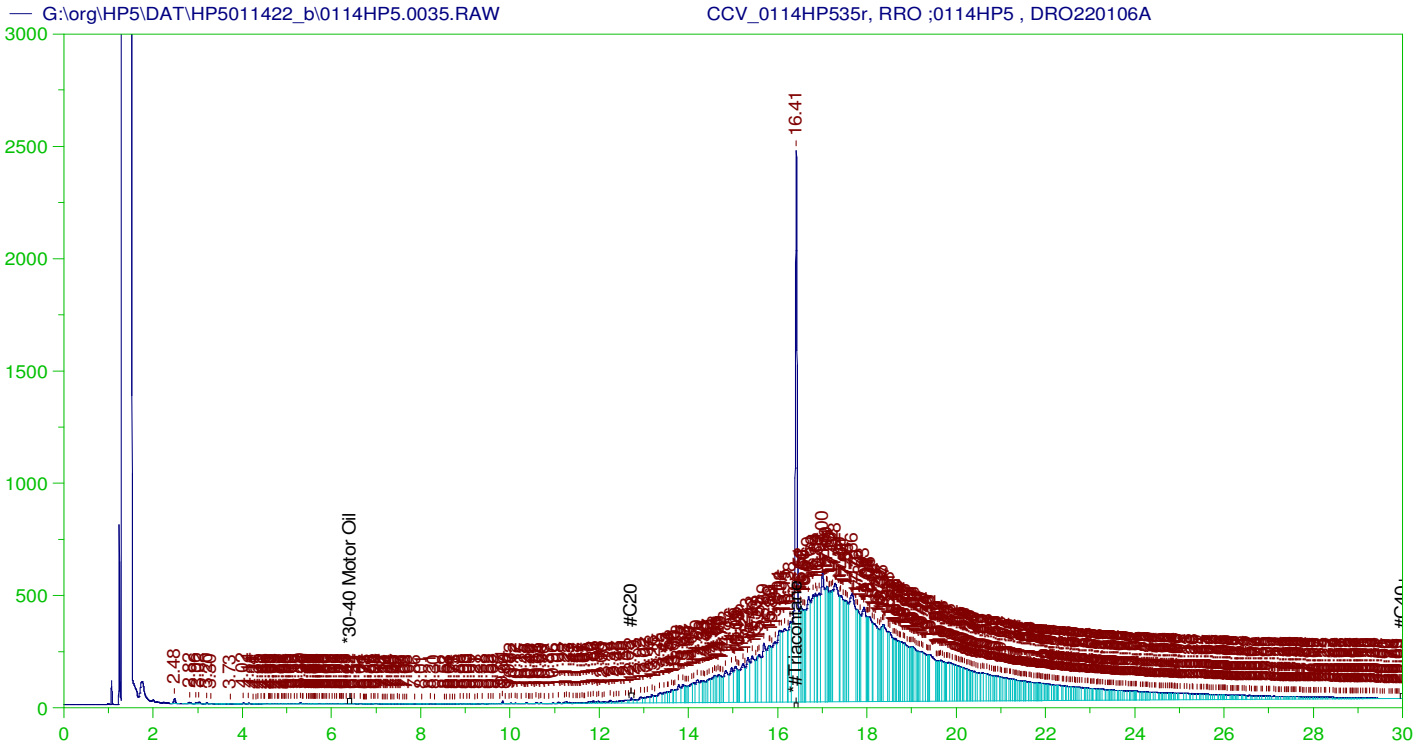
Sample Name: B22010755-001D ;0114HP5 , \$HC-8015-DRO-W,
Raw File: G:\org\HP5\DAT\HP5011422_b\0114HP5.0033.RAW
Date & Time Acquired: 1/15/2022 9:47:37 AM
Method File: G:\Org\HP5\Methods\D3_OROS-BB-L%.MET
Calibration File: G:\Org\HP5\Cals\SW8015C_ORO220111BB_SAMP.CAL
Sample Weight: 1000 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 26424.55
Rt range for Residual Range Organics: 14.39 to 22.04

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*#Triacontane_____	16.408	.5	.102	20.37 -

RRO Area:2587517 RRO AMOUNT: 9.792092E-02





RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: CCV_0114HP535r, RRO ;0114HP5 , DRO220106A
 Raw File: G:\org\HP5\DAT\HP5011422_b\0114HP5.0035.RAW
 Date & Time Acquired: 1/15/2022 11:12:37 AM
 Method File: G:\Org\HP5\Methods\DC_ORO-BB-L%.MET
 Calibration File: G:\Org\HP5\Cals\SW8015C_ORO220111BB.CAL
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for for ~~Residual~~ TEH(Oil Range) Organics Calculations: 26424.55
 Rt range for ~~Residual~~ TEH(Oil Range) Organics: 12.67 to 30.05

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.414	500.	311.339	62.27	-

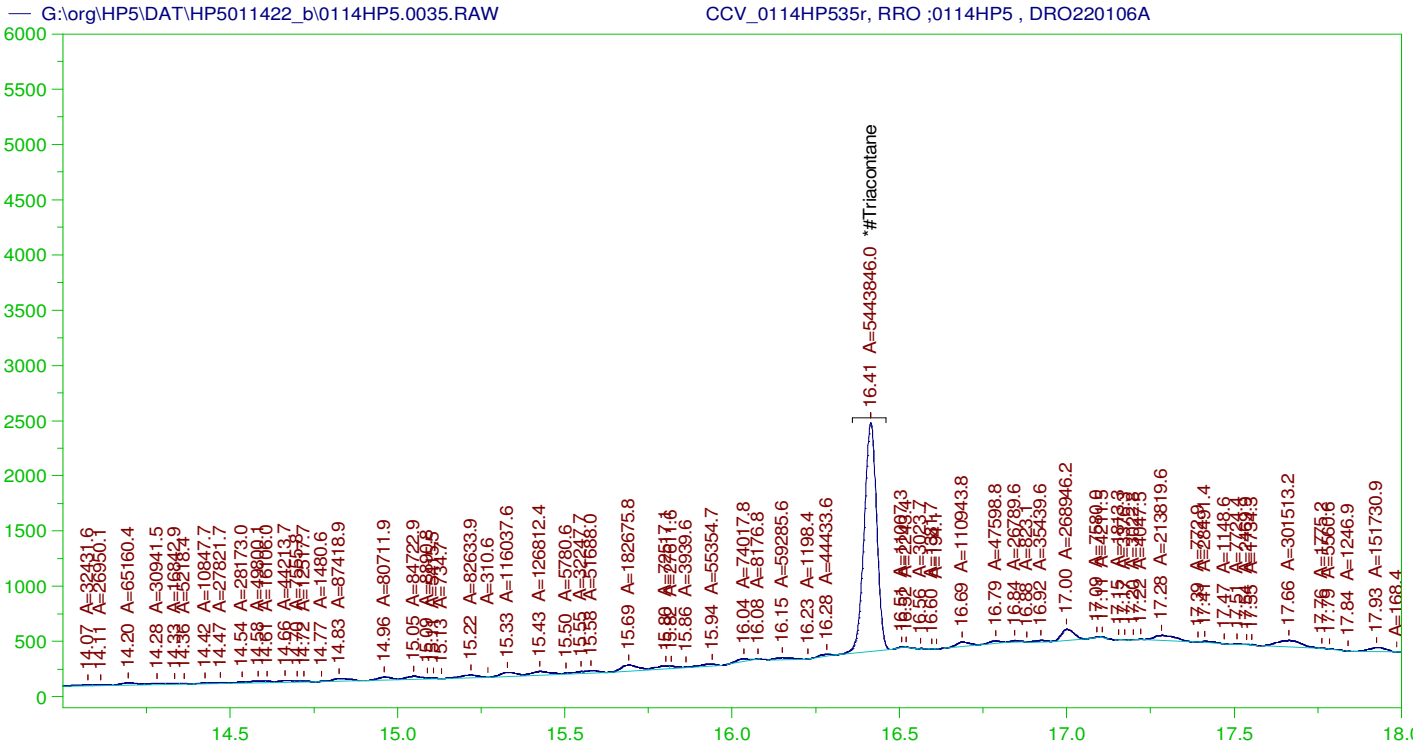
~~RRO~~ TEH(Oil Range) Area:1.247316E+08 ~~RRO~~ TEH(Oil Range) AMOUNT: 4720.292

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5011422_b\0114HP5.0035.RAW

COMPOUND	ACTUAL (NG)	MEASURED (NG)	%RECOVERY	LIMITS
*30-40 Motor Oil	5000.	.057	.	75-125

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*#Triacontane	16.414	200.	311.339	155.67	75-125

AMN 02/14/2022



RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: CCV_0114HP535r, RRO ;0114HP5 , DRO220106A
 Raw File: G:\org\HP5\DAT\HP5011422_b\0114HP5.0035.RAW
 Date & Time Acquired: 1/15/2022 11:12:37 AM
 Method File: G:\Org\HP5\Methods\DS_ORO-BB-L%.MET
 Calibration File: G:\Org\HP5\Cals\SW8015C_ORO220111BB.CAL
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 26424.55
 Rt range for Residual Range Organics: 12.67 to 30.05

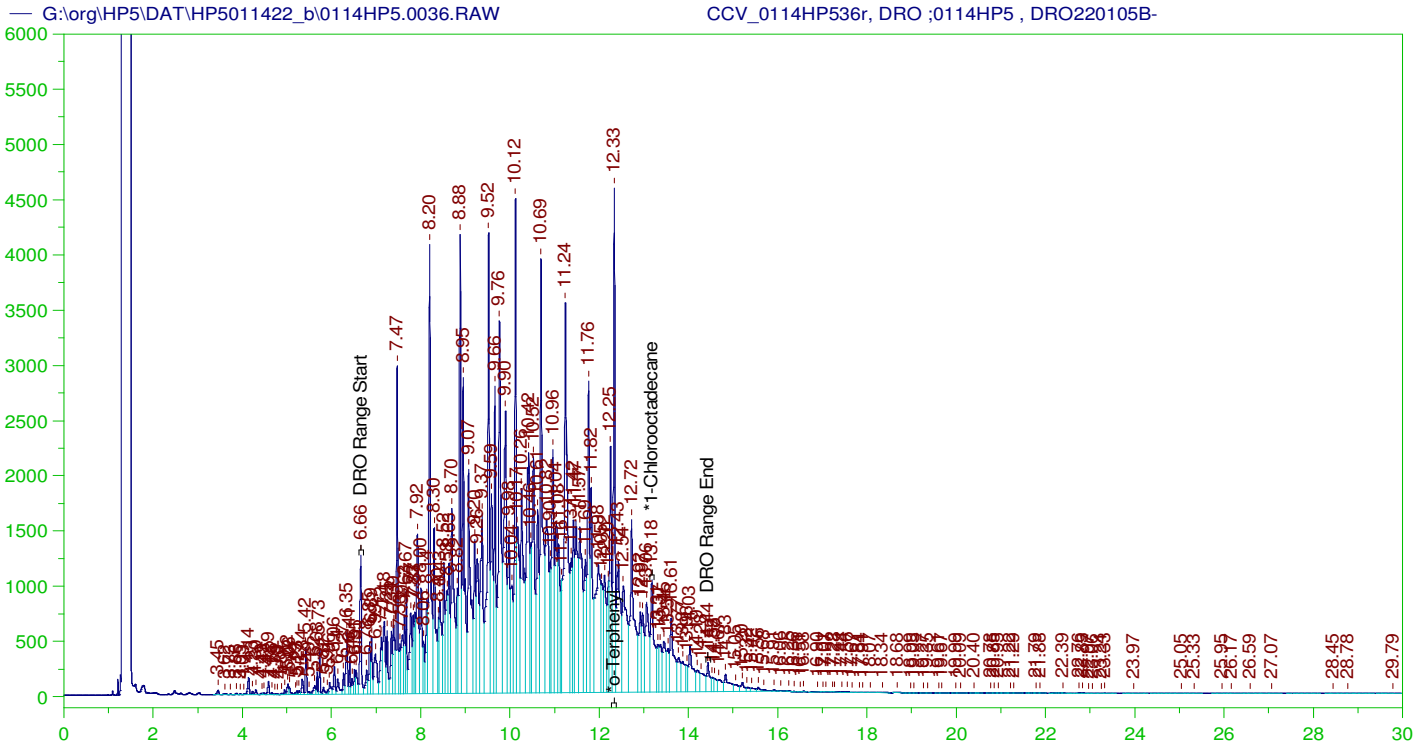
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.414	500.	183.69	36.74	-

RRO Area:3488672 RRO AMOUNT: 132.0239

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5011422_b\0114HP5.0035.RAW

COMPOUND	ACTUAL (NG)	MEASURED (NG)	%RECOVERY	LIMITS
*30-40 Motor Oil	5000.	.057	.	75-125

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*#Triacontane	16.414	200.	183.69	91.84	75-125



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: CCV_0114HP536r, DRO ;0114HP5 , DRO220105B-
 Raw File: G:\org\HP5\DAT\HP5011422_b\0114HP5.0036.RAW
 Date & Time Acquired: 1/15/2022 11:55:20 AM
 Method File: G:\Org\HP5\Methods\DC_8015-C24-JB-L%.met
 Calibration File: G:\Org\HP5\Cals\SW8015C_DRO220111JB-C24.CAL
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36
 Rt range for Diesel Range Organics: 6.62 to 14.49

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.333	200.	306.04	153.02
*1-Chlorooctadecane	13.176	200.	142.062	71.03

DRO Area: 4.313057E+08 DRO Amount: 13199.72
 TEH Area: 4.464194E+08 TEH Amount: 13662.27

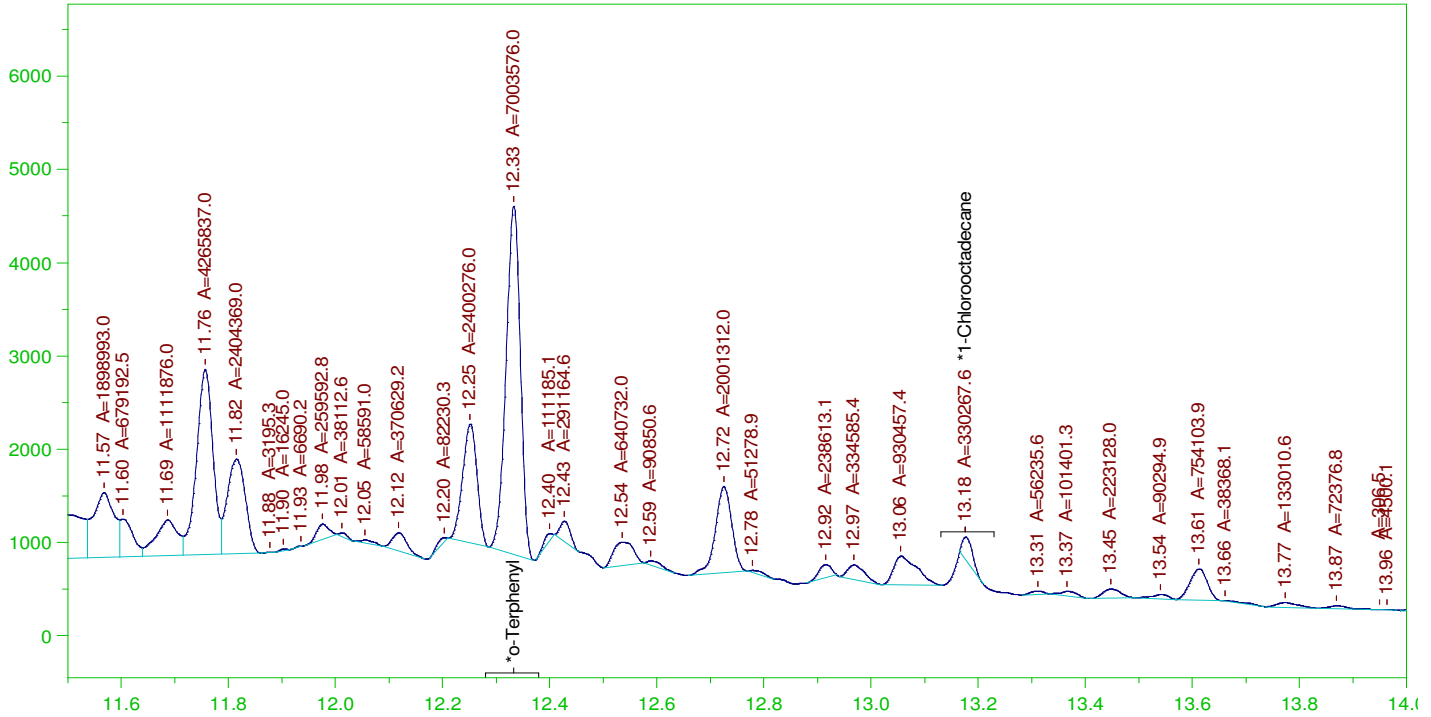
CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5011422_b\0114HP5.0036.RAW

COMPOUND	ACTUAL (NG)	MEASURED (NG)	%RECOVERY	LIMITS
TOTAL DRO	15000.	13662.27	91.08	85-115

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*o-Terphenyl	12.333	200.	306.04	153.02	85-115
*1-Chlorooctadecane	13.176	200.	142.062	71.03	85-115

G:\org\HP5\DAT\HP5011422_b\0114HP5.0036.RAW

CCV_0114HP536r, DRO ;0114HP5 , DRO220105B-



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: CCV_0114HP536r, DRO ;0114HP5 , DRO220105B-
 Raw File: G:\org\HP5\DAT\HP5011422_b\0114HP5.0036.RAW
 Date & Time Acquired: 1/15/2022 11:55:20 AM
 Method File: G:\Org\HP5\Methods\DS_8015-C24-JB-L#.met
 Calibration File: G:\Org\HP5\Cals\SW8015C_DRO220111JB-C24.CAL
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36

Rt range for Diesel Range Organics: 6.62 to 14.49

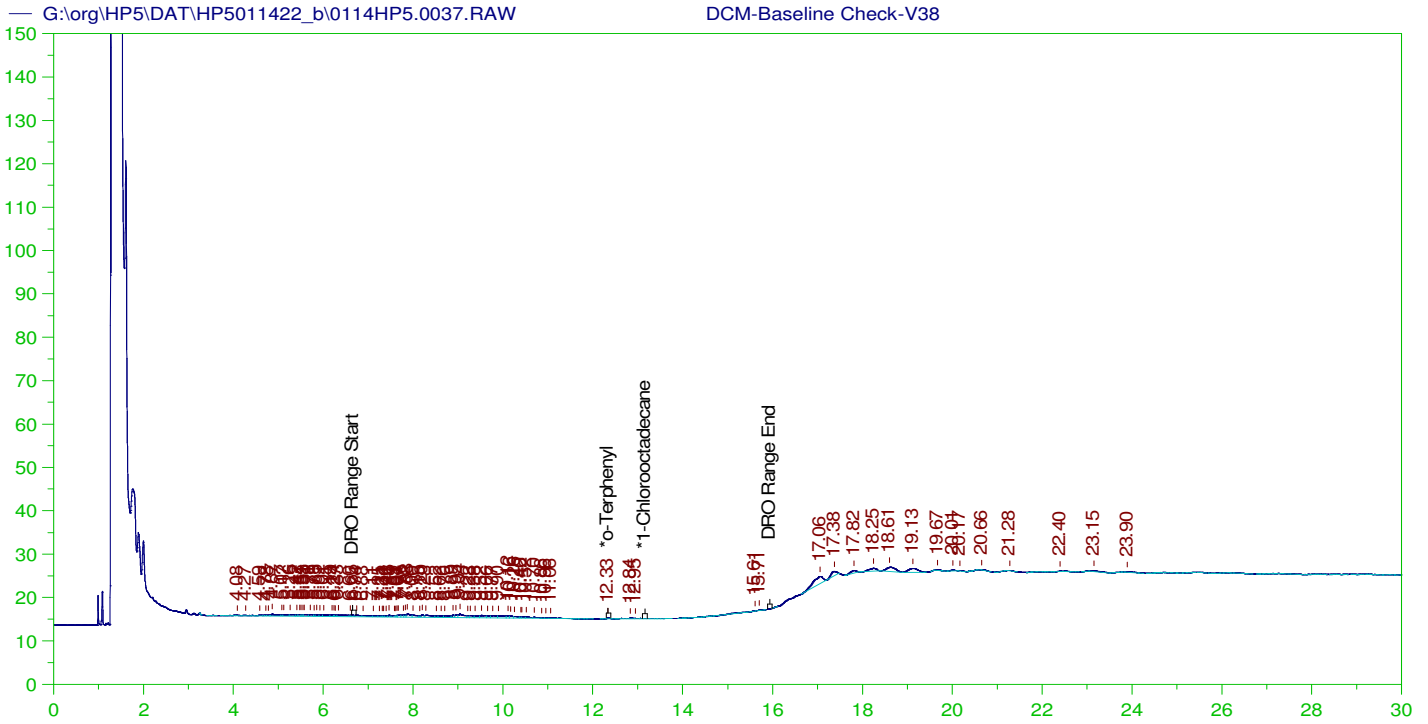
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.333	200.	190.016	95.01
*1-Chlorooctadecane	13.176	200.	8.961	4.48

DRO Area: 2.220307E+08 DRO Amount: 6795.049
 TEH Area: 2.318636E+08 TEH Amount: 7095.979

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5011422_b\0114HP5.0036.RAW

COMPOUND	ACTUAL (NG)	MEASURED (NG)	%RECOVERY	LIMITS
TOTAL DRO	15000.	7095.98	47.31	85-115

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*o-Terphenyl	12.333	200.	190.016	95.01	85-115
*1-Chlorooctadecane	13.176	200.	8.961	4.48	85-115



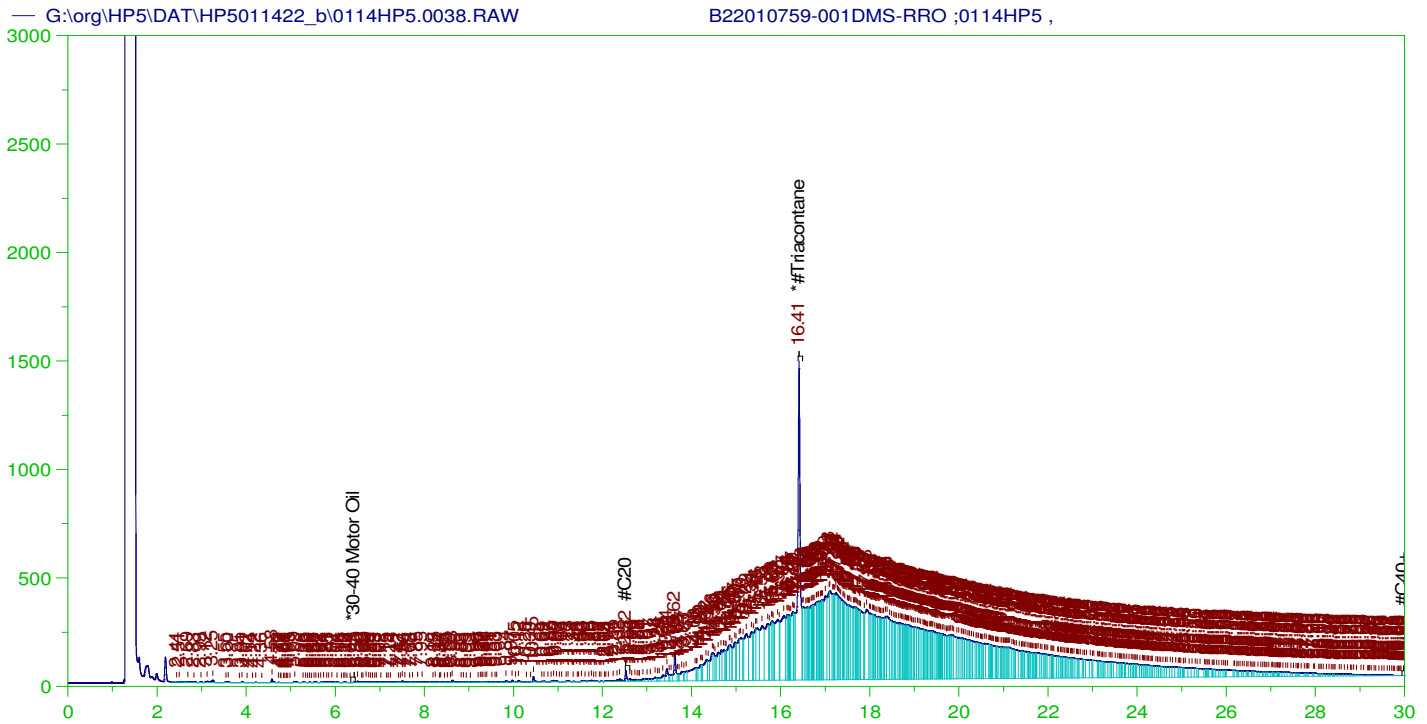
DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: DCM-Baseline Check-V38
 Raw File: G:\org\HP5\DAT\HP5011422_b\0114HP5.0037.RAW
 Date & Time Acquired: 1/15/2022 12:38:04 PM
 Method File: G:\Org\HP5\Methods\DR_8015-JA-LEXP.met
 Calibration File: G:\Org\HP5\Cals\SW8015C_DRO220111JA.CAL
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36
 Rt range for Diesel Range Organics: 6.63 to 15.99

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.331	200.	.027	.01
*1-Chlorooctadecane	29.921	200.	.	.

DRO Area:115629 DRO Amount: 3.53872
 TEH Area:260657.4 TEH Amount: 7.977186



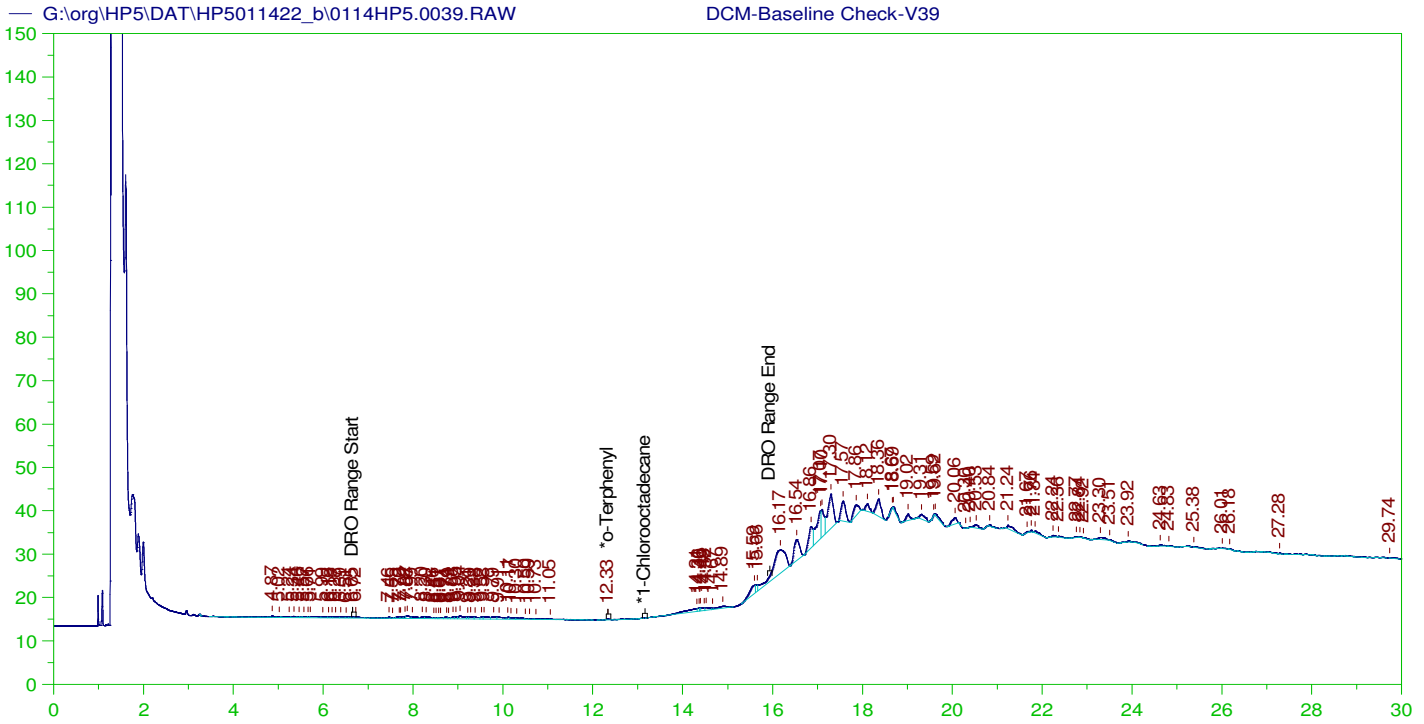
RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: B22010759-001DMS-RRO ;0114HP5 ,
 Raw File: G:\org\HP5\DAT\HP5011422_b\0114HP5.0038.RAW
 Date & Time Acquired: 1/15/2022 1:20:29 PM
 Method File: G:\Org\HP5\Methods\D3_ORO-ba-L0.MET
 Calibration File: G:\Org\HP5\Cals\SW8015C_ORO220111bA.CAL
 Sample Weight: 1020 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 26424.55
 Rt range for Residual Range Organics: 12.51 to 30.05

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.412	.49	.193	39.37	-

RRO Area:1.257891E+08 RRO AMOUNT: 4.666974



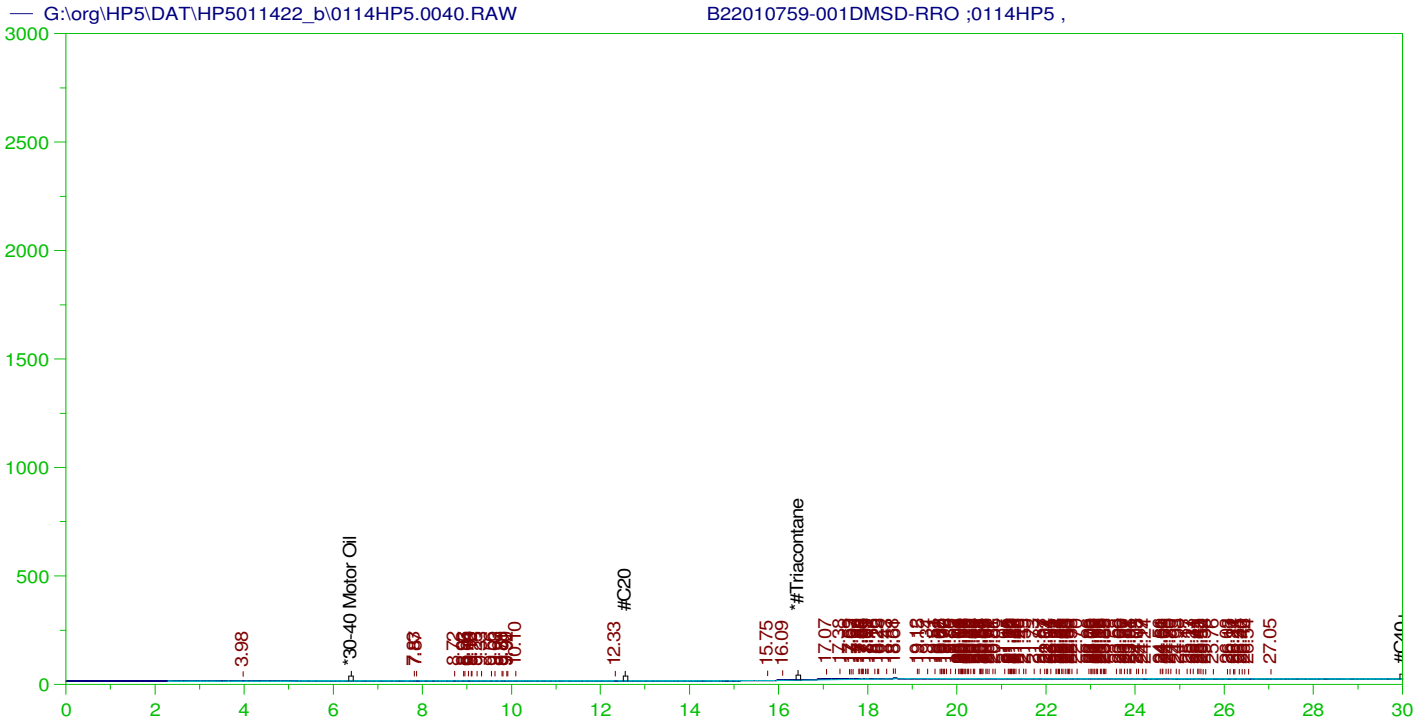
DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: DCM-Baseline Check-V39
 Raw File: G:\org\HP5\DAT\HP5011422_b\0114HP5.0039.RAW
 Date & Time Acquired: 1/15/2022 2:03:04 PM
 Method File: G:\Org\HP5\Methods\DR_8015-JA-LEXP.met
 Calibration File: G:\Org\HP5\Cals\SW8015C_DRO220111JA.CAL
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36
 Rt range for Diesel Range Organics: 6.63 to 15.99

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.331	200.	.02	.01
*1-Chlorooctadecane	29.737	200.	.	.

DRO Area:132789.2 DRO Amount: 4.063895
 TEH Area:676952.4 TEH Amount: 20.71752



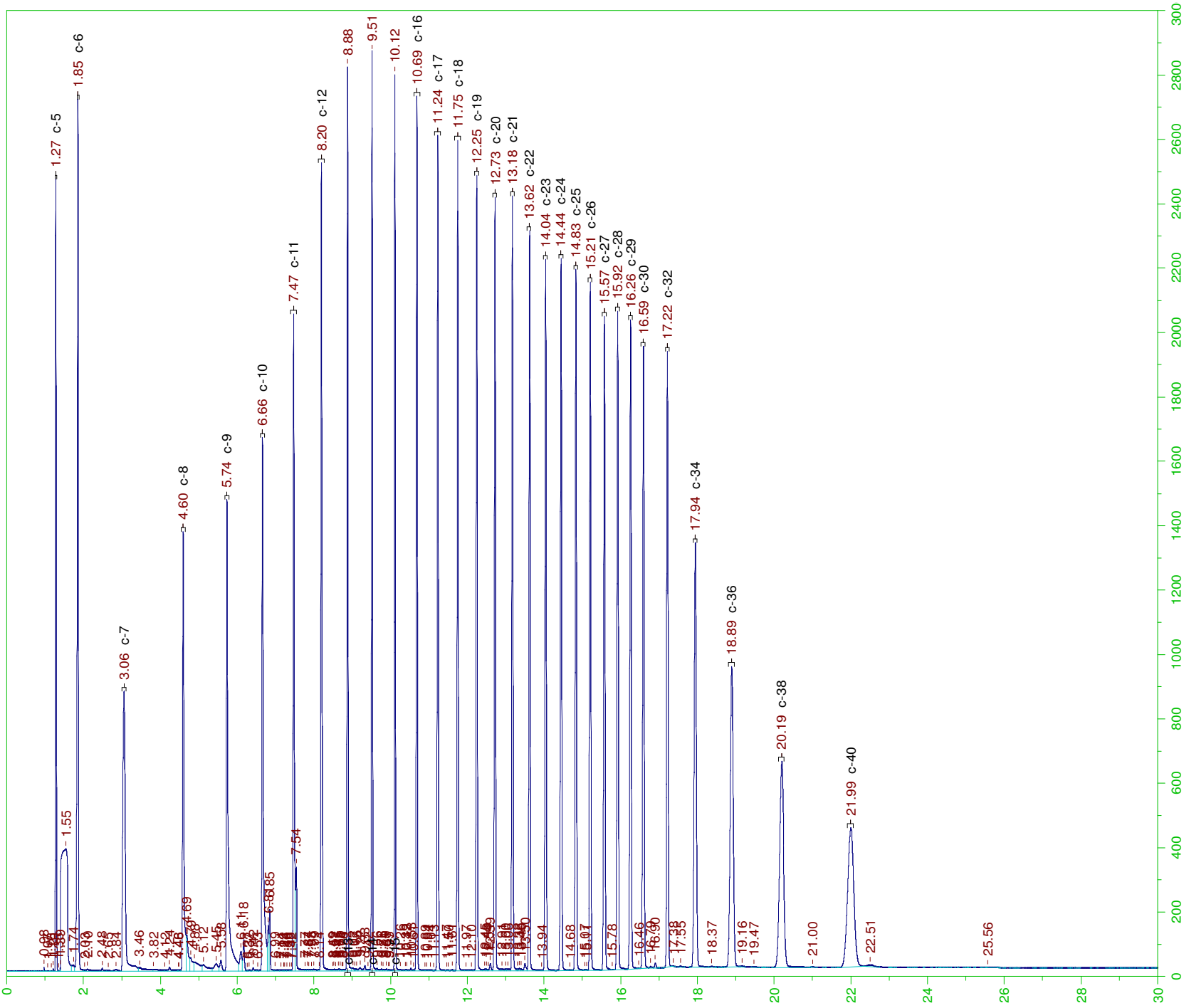
RESIDUAL RANGE ORGANICS CHROMATOGRAM

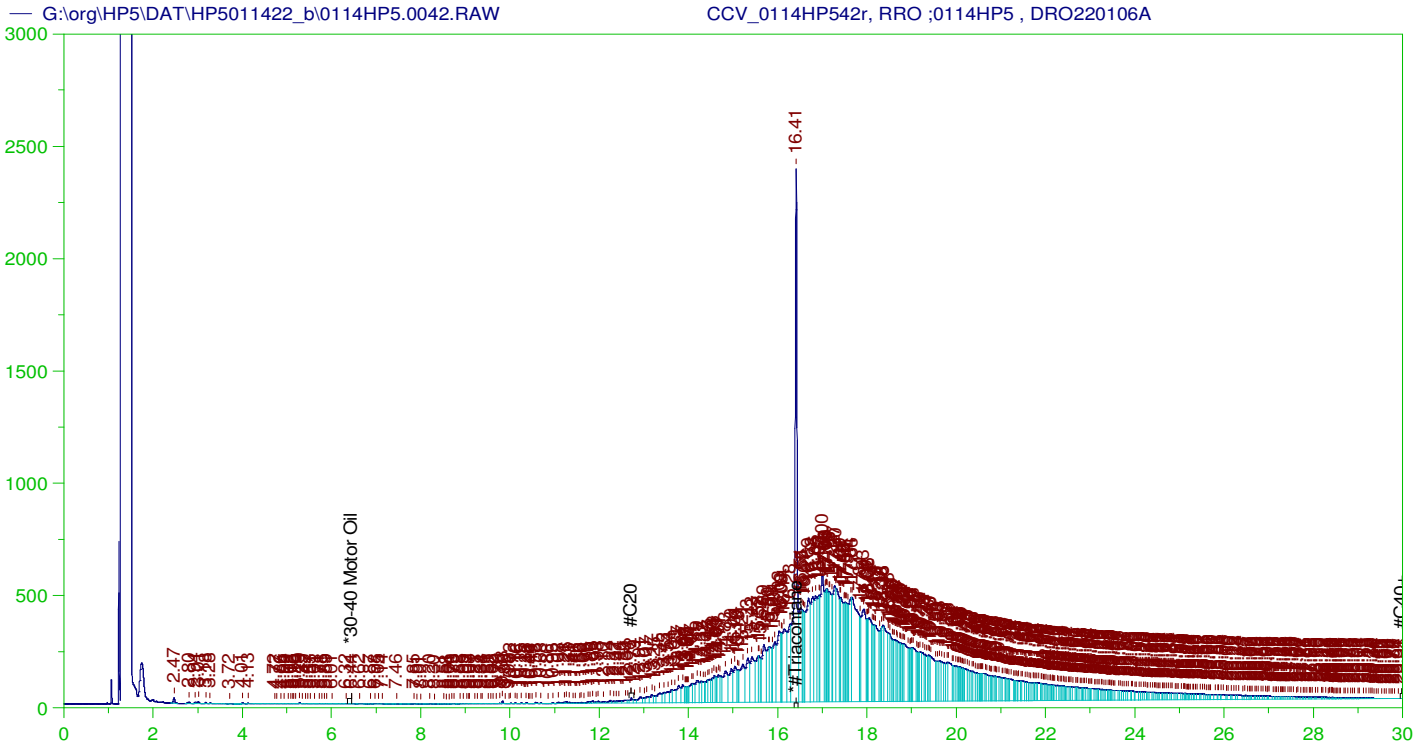
Sample Name: B22010759-001DMSD-RRO ;0114HP5 ,
 Raw File: G:\org\HP5\DAT\HP5011422_b\0114HP5.0040.RAW
 Date & Time Acquired: 1/15/2022 2:45:23 PM
 Method File: G:\Org\HP5\Methods\D3_ORO-ba-L0.MET
 Calibration File: G:\Org\HP5\Cals\SW8015C_ORO220111bA.CAL
 Sample Weight: 1040 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 26424.55
 Rt range for Residual Range Organics: 12.51 to 30.05

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*#Triacontane	29.996	.481	.	-

RRO Area:519069.2 RRO AMOUNT: 1.888793E-02





RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: CCV_0114HP542r, RRO ;0114HP5 , DRO220106A
 Raw File: G:\org\HP5\DAT\HP5011422_b\0114HP5.0042.RAW
 Date & Time Acquired: 1/16/2022 11:44:38 AM
 Method File: G:\Org\HP5\Methods\DC_ORO-BB-L%.MET
 Calibration File: G:\Org\HP5\Cals\SW8015C_ORO220111BB.CAL
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for for ~~Residual~~ TEH(Oil Range) Organics Calculations: 26424.55
 Rt range for ~~Residual~~ TEH(Oil Range) Organics: 12.67 to 30.05

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.41	500.	305.812	61.16	-

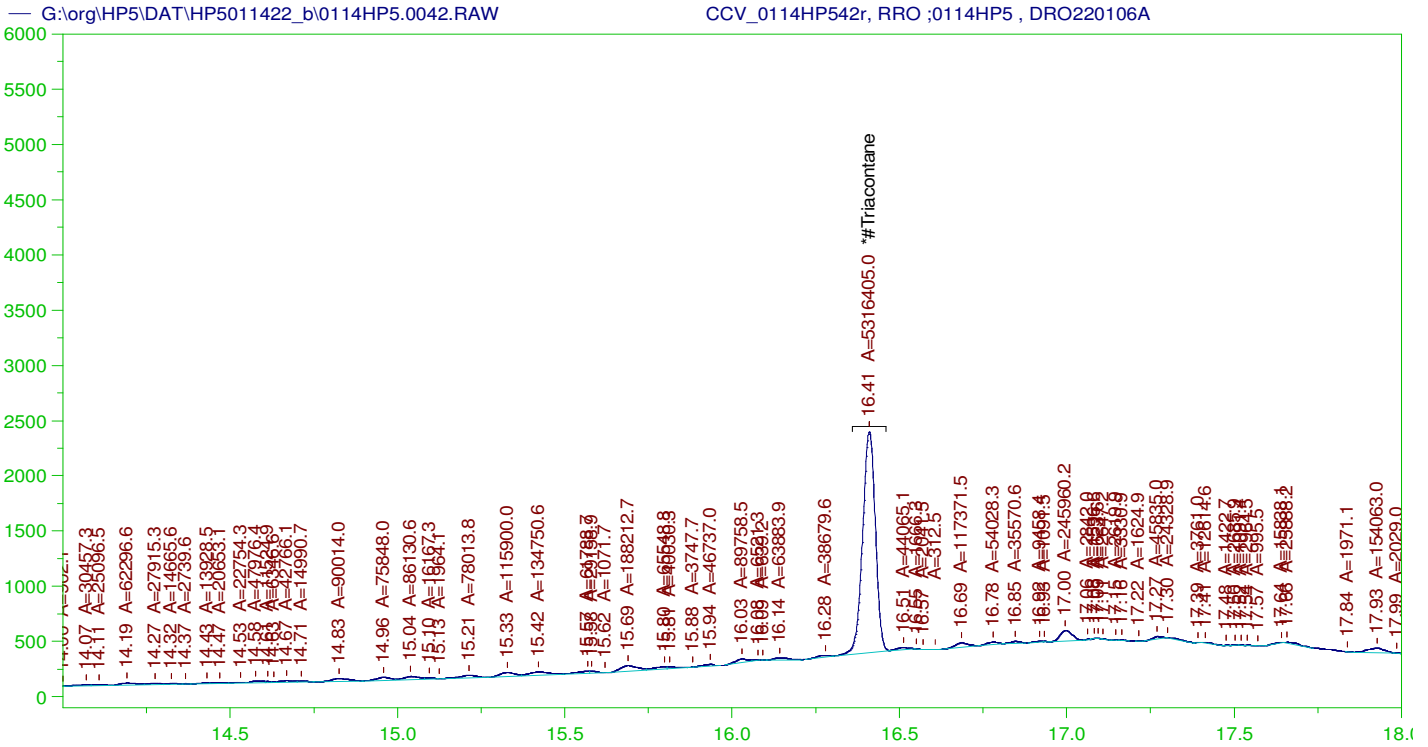
RRO TEH(Oil Range) Area:1.223083E+08 RRO TEH(Oil Range) AMOUNT: 4628.585

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5011422_b\0114HP5.0042.RAW

COMPOUND	ACTUAL (NG)	MEASURED (NG)	%RECOVERY	LIMITS
*30-40 Motor Oil	5000.	.028	.	75-125

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*#Triacontane	16.41	200.	305.812	152.91	75-125

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RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: CCV_0114HP542r, RRO ;0114HP5 , DRO220106A
 Raw File: G:\org\HP5\DAT\HP5011422_b\0114HP5.0042.RAW
 Date & Time Acquired: 1/16/2022 11:44:38 AM
 Method File: G:\Org\HP5\Methods\DS_ORO-BB-L%.MET
 Calibration File: G:\Org\HP5\Cals\SW8015C_ORO220111BB.CAL
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 26424.55
 Rt range for Residual Range Organics: 12.67 to 30.05

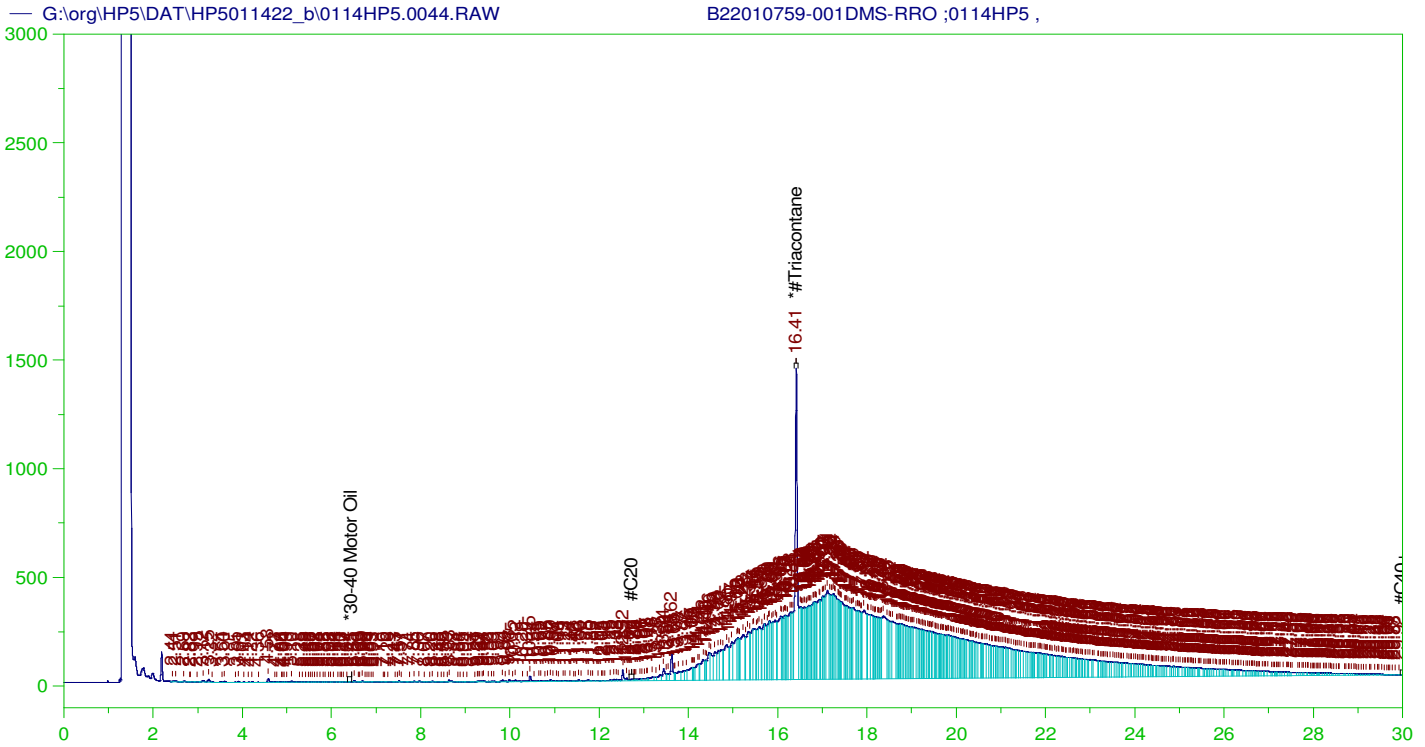
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*#Triacontane	16.41	500.	179.39	35.88

RRO Area:3086807 RRO AMOUNT: 116.8159

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5011422_b\0114HP5.0042.RAW

COMPOUND	ACTUAL (NG)	MEASURED (NG)	%RECOVERY	LIMITS
*30-40 Motor Oil	5000.	.028	.	75-125

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*#Triacontane	16.41	200.	179.39	89.69	75-125



RESIDUAL RANGE ORGANICS CHROMATOGRAM

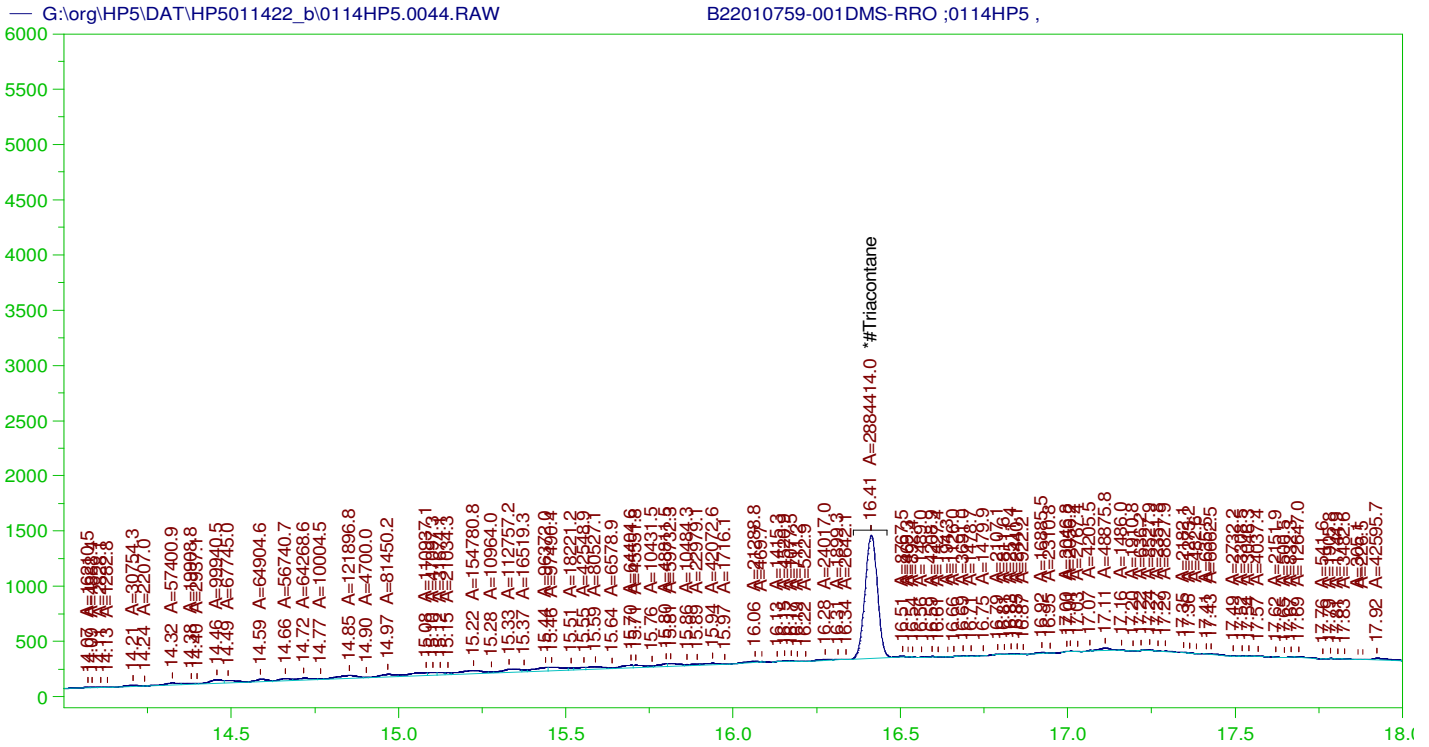
Sample Name: B22010759-001DMS-RRO ;0114HP5 ,
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 Date & Time Acquired: 1/16/2022 1:09:40 PM
 Method File: G:\Org\HP5\Methods\D3_ORO-BB-L%.MET
 Calibration File: G:\Org\HP5\Cals\SW8015C_ORO220111BB.CAL
 Sample Weight: 1020 Dilution: 1 S.A.: 1

Mean RF for for ~~Residual~~ TEH(Oil Range) Organics Calculations: 26424.55
 Rt range for ~~Residual~~ TEH(Oil Range) Organics: 12.67 to 30.05

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.412	.49	.173	35.32	-

~~RRO~~ TEH(Oil Range) Area:1.246431E+08 ~~RRO~~ TEH(Oil Range) AMOUNT: 4.624454

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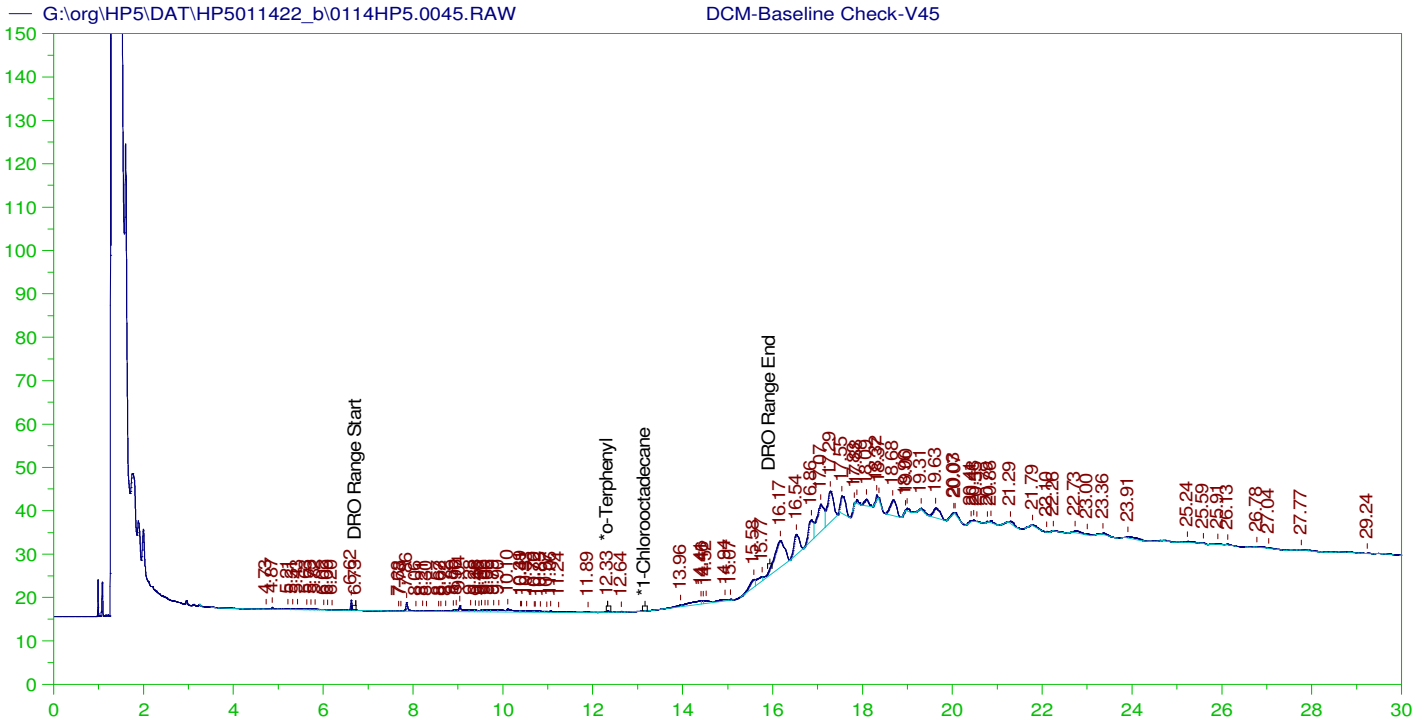
RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: B22010759-001DMS-RRO ;0114HP5 ,
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 Calibration File: G:\Org\HP5\Cals\SW8015C_ORO220111BB.CAL
 Sample Weight: 1020 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 26424.55
 Rt range for Residual Range Organics: 12.67 to 30.05

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*#Triacontane	16.412	.49	.095	19.47

RRO Area:2933817 RRO AMOUNT: 0.1088492



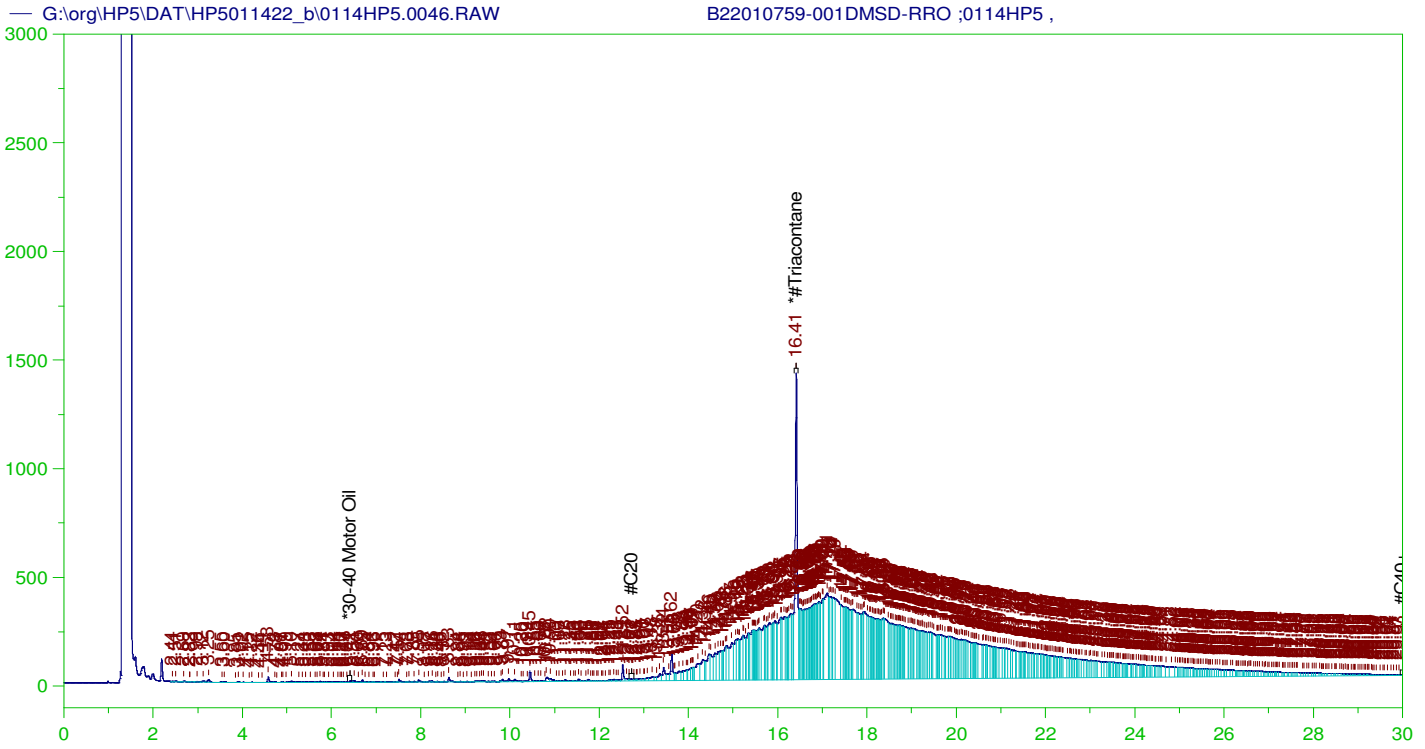
DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: DCM-Baseline Check-V45
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 Date & Time Acquired: 1/16/2022 1:52:04 PM
 Method File: G:\Org\HP5\Methods\DR_8015-JA-LEXP.met
 Calibration File: G:\Org\HP5\Cals\SW8015C_DRO220111JA.CAL
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36
 Rt range for Diesel Range Organics: 6.63 to 15.99

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.329	200.	.037	.02
*1-Chlorooctadecane	29.98	200.	.	.

DRO Area:134887.8 DRO Amount: 4.12812
 TEH Area:654664.5 TEH Amount: 20.03542



RESIDUAL RANGE ORGANICS CHROMATOGRAM

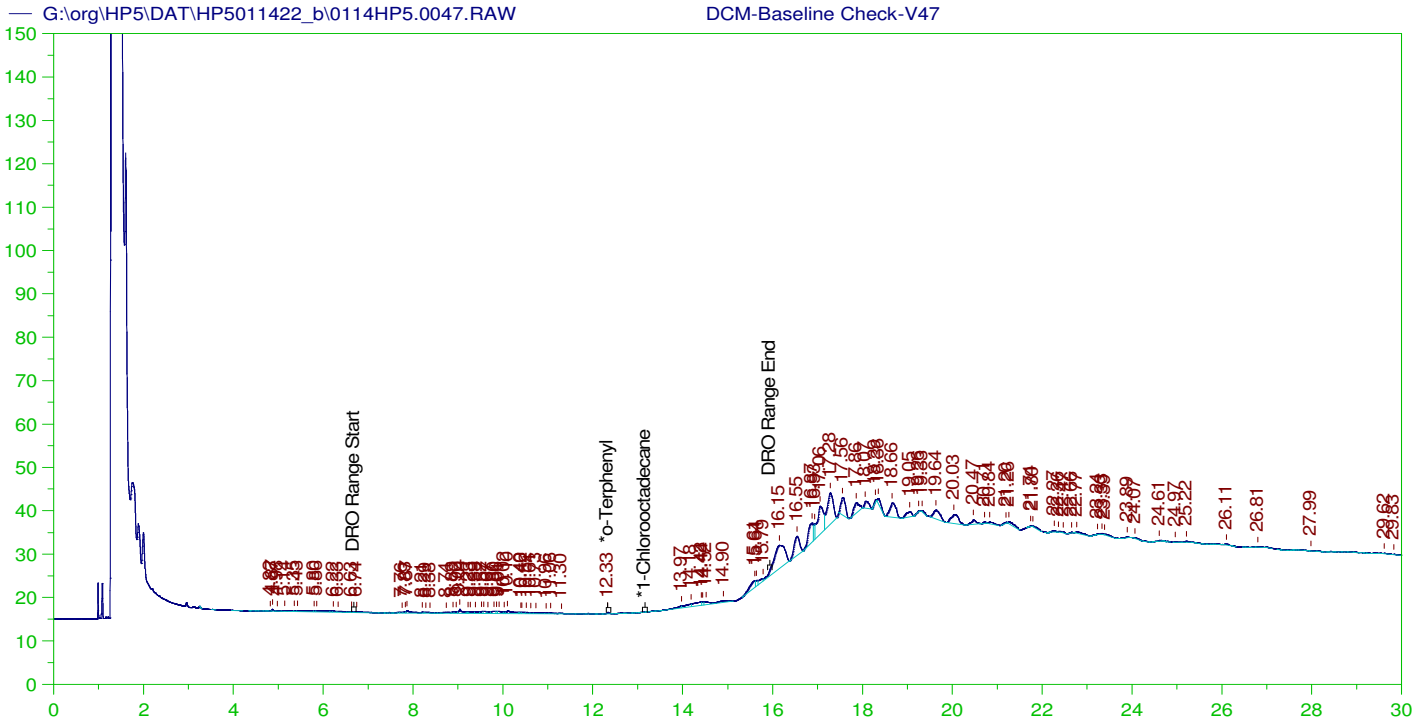
Sample Name: B22010759-001DMSD-RRO ;0114HP5 ,
 Raw File: G:\org\HP5\DAT\HP5011422_b\0114HP5.0046.RAW
 Date & Time Acquired: 1/16/2022 2:34:37 PM
 Method File: G:\Org\HP5\Methods\D3_ORO-BB-L%.MET
 Calibration File: G:\Org\HP5\Cals\SW8015C_ORO220111BB.CAL
 Sample Weight: 1040 Dilution: 1 S.A.: 1

Mean RF for for ~~Residual~~ TEH(Oil Range) Organics Calculations: 26424.55
 Rt range for ~~Residual~~ TEH(Oil Range) Organics: 12.67 to 30.05

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.413	.481	.169	35.1	-

~~RRO~~ TEH(Oil Range) Area:1.214529E+08 ~~RRO~~ TEH(Oil Range) AMOUNT: 4.419437

AMN 02/14/2022



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

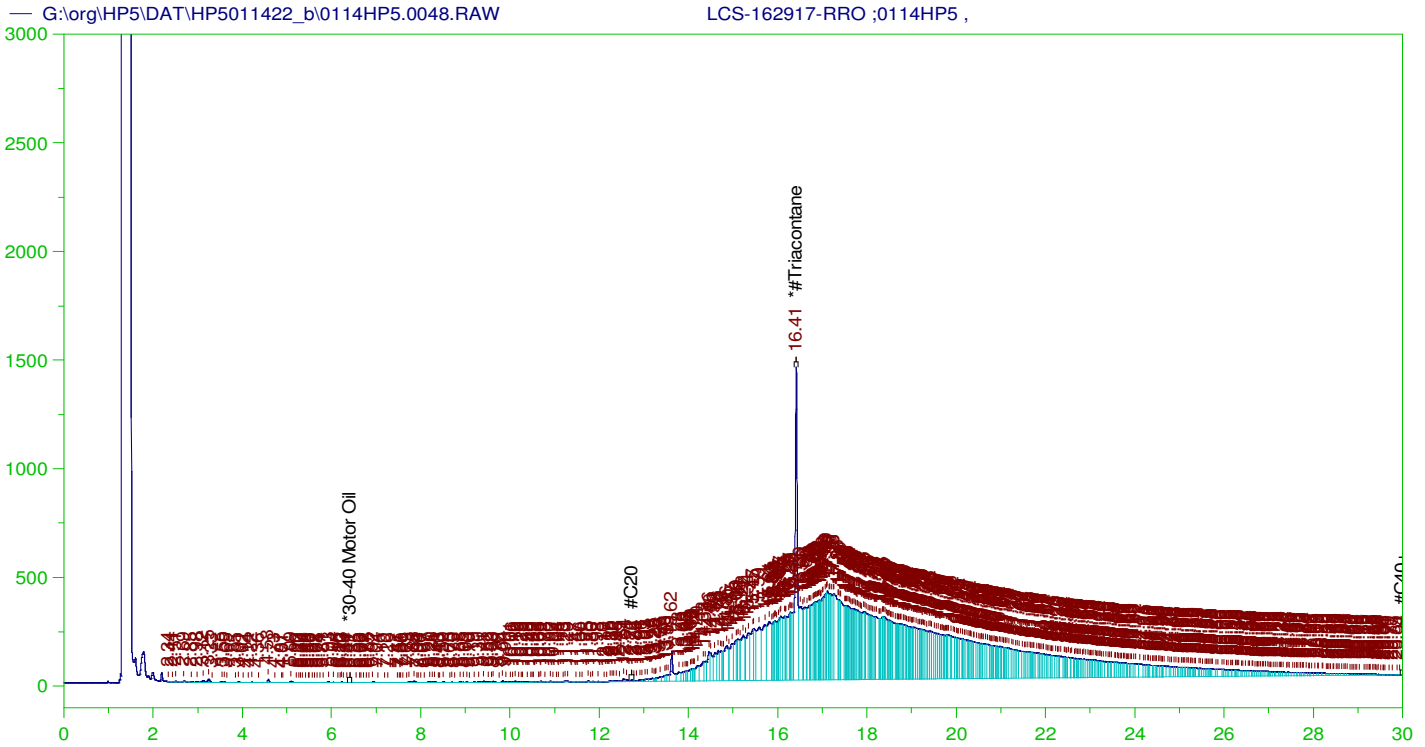
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 Date & Time Acquired: 1/16/2022 3:17:09 PM
 Method File: G:\Org\HP5\Methods\DR_8015-JA-LEXP.met
 Calibration File: G:\Org\HP5\Cals\SW8015C_DRO220111JA.CAL
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36

Rt range for Diesel Range Organics: 6.63 to 15.99

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.33	200.	.033	.02
*1-Chlorooctadecane	29.831	200.	.	.

DRO Area: 117234.1 DRO Amount: 3.587843
 TEH Area: 658951.5 TEH Amount: 20.16662



RESIDUAL RANGE ORGANICS CHROMATOGRAM

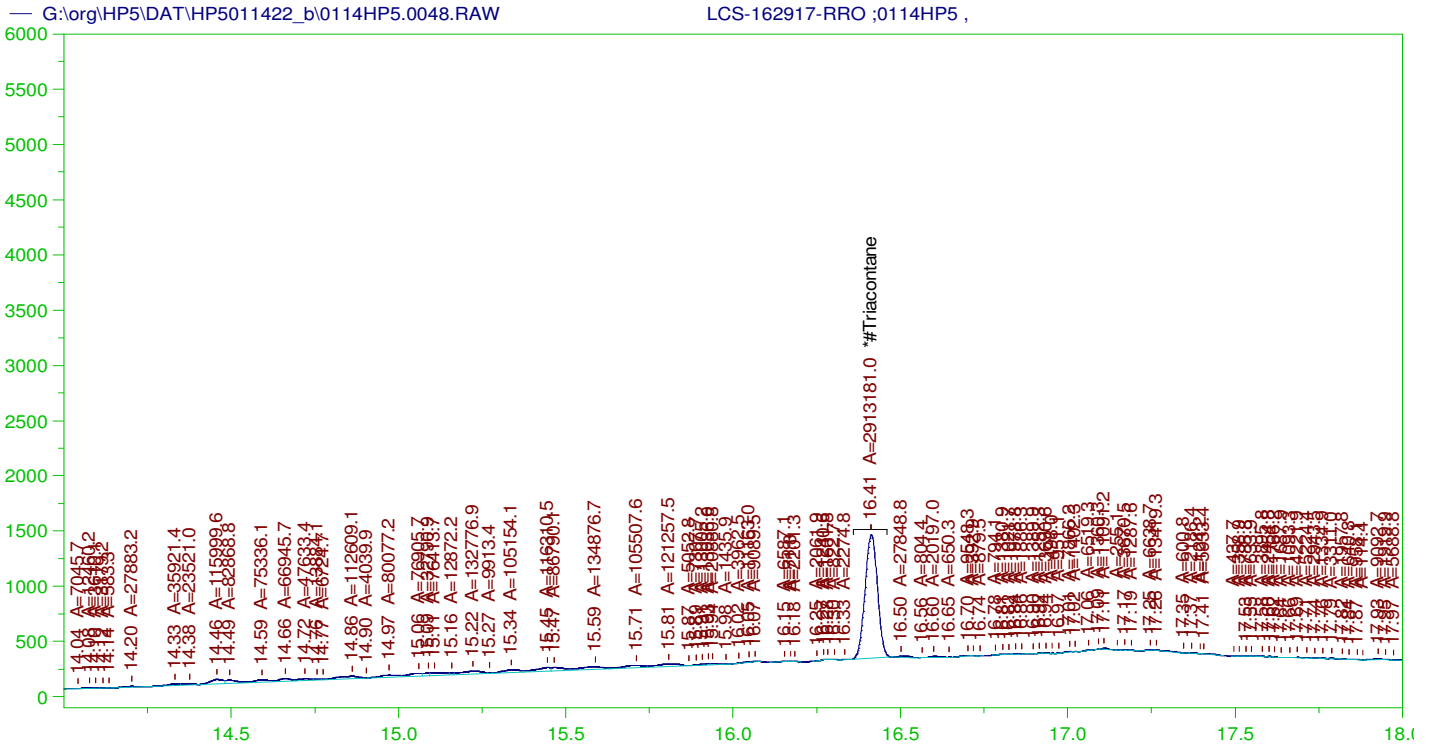
Sample Name: LCS-162917-RRO ;0114HP5 ,
 Raw File: G:\org\HP5\DAT\HP5011422_b\0114HP5.0048.RAW
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 Method File: G:\Org\HP5\Methods\D3_ORO-BB-L%.MET
 Calibration File: G:\Org\HP5\Cals\SW8015C_ORO220111BB.CAL
 Sample Weight: 1000 Dilution: 1 S.A.: 1

Mean RF for for ~~Residual~~ TEH(Oil Range) Organics Calculations: 26424.55
 Rt range for ~~Residual~~ TEH(Oil Range) Organics: 12.67 to 30.05

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.412	.5	.179	35.84	-

RRO TEH(Oil Range) Area:1.251606E+08 RRO TEH(Oil Range) AMOUNT: 4.736527

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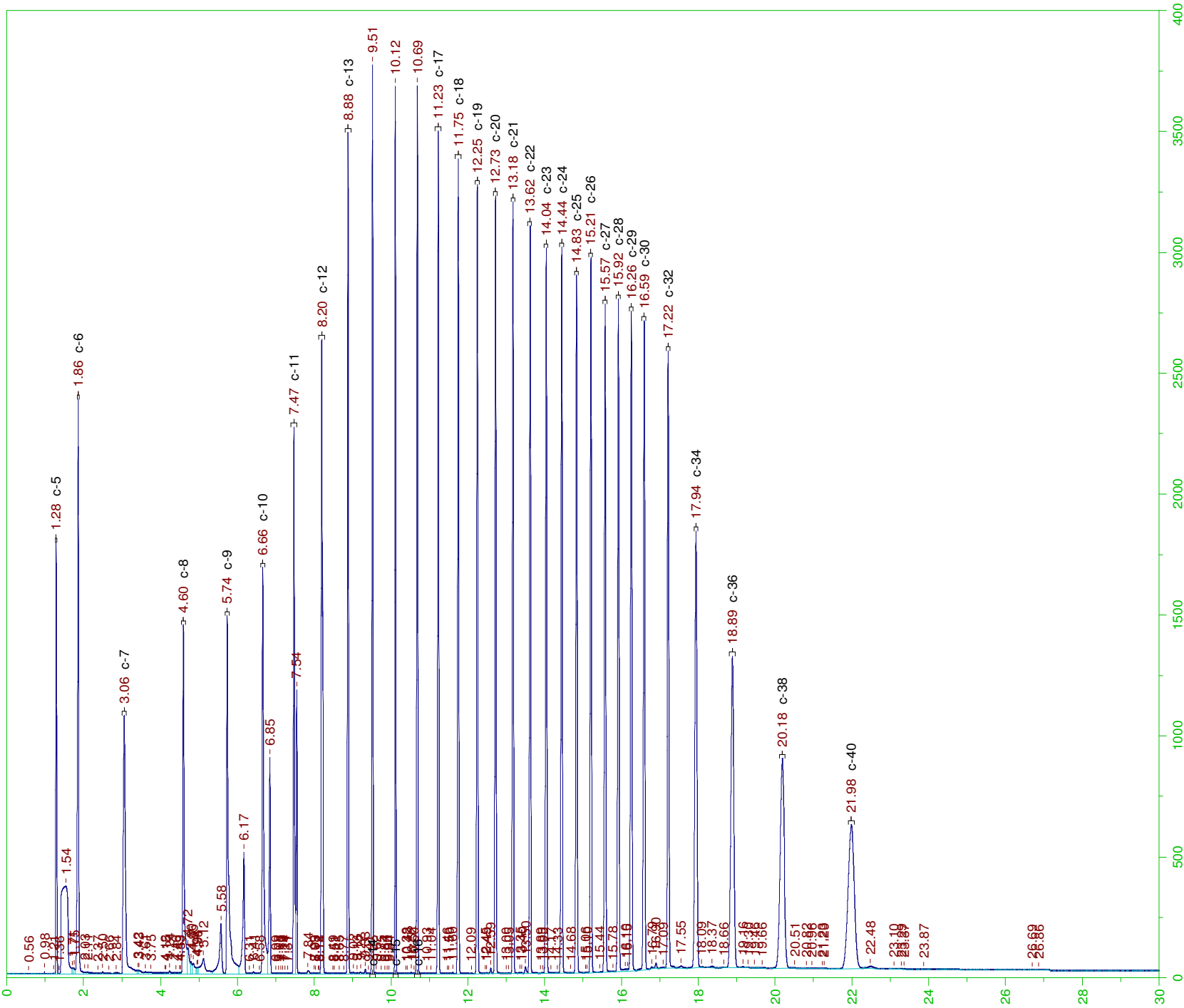
RESIDUAL RANGE ORGANICS CHROMATOGRAM

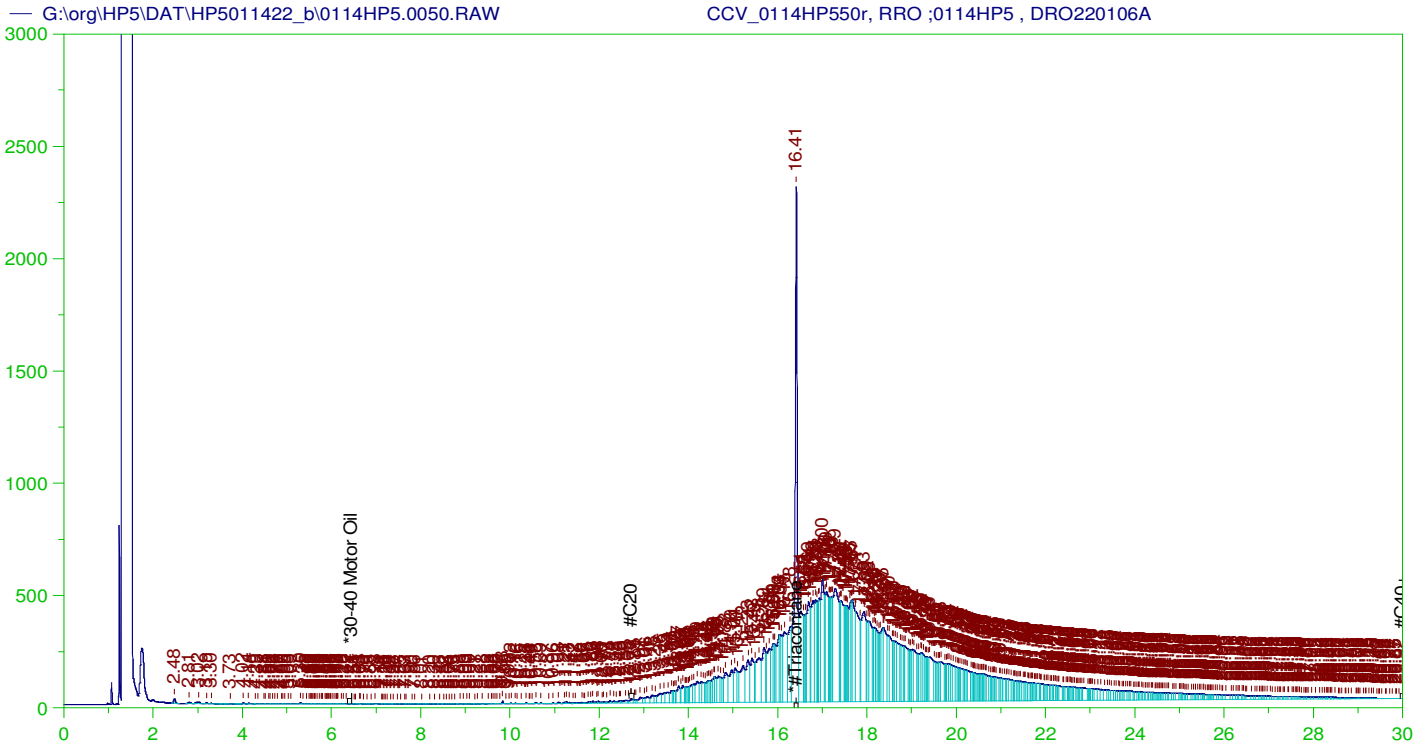
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 Method File: G:\Org\HP5\Methods\DS_ORO-BB-L%.MET
 Calibration File: G:\Org\HP5\Cals\SW8015C_ORO220111BB.CAL
 Sample Weight: 1000 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 26424.55
 Rt range for Residual Range Organics: 12.67 to 30.05

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*#Triacontane	16.412	.5	.098	19.66

RRO Area:2688220 RRO AMOUNT: 0.1017319





RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: CCV_0114HP550r, RRO ;0114HP5 , DRO220106A
 Raw File: G:\org\HP5\DAT\HP5011422_b\0114HP5.0050.RAW
 Date & Time Acquired: 1/16/2022 5:25:10 PM
 Method File: G:\Org\HP5\Methods\DC_ORO-BB-L%.MET
 Calibration File: G:\Org\HP5\Cals\SW8015C_ORO220111BB.CAL
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for for ~~Residual~~ TEH(Oil Range) Organics Calculations: 26424.55
 Rt range for ~~Residual~~ TEH(Oil Range) Organics: 12.67 to 30.05

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.414	500.	297.557	59.51	-

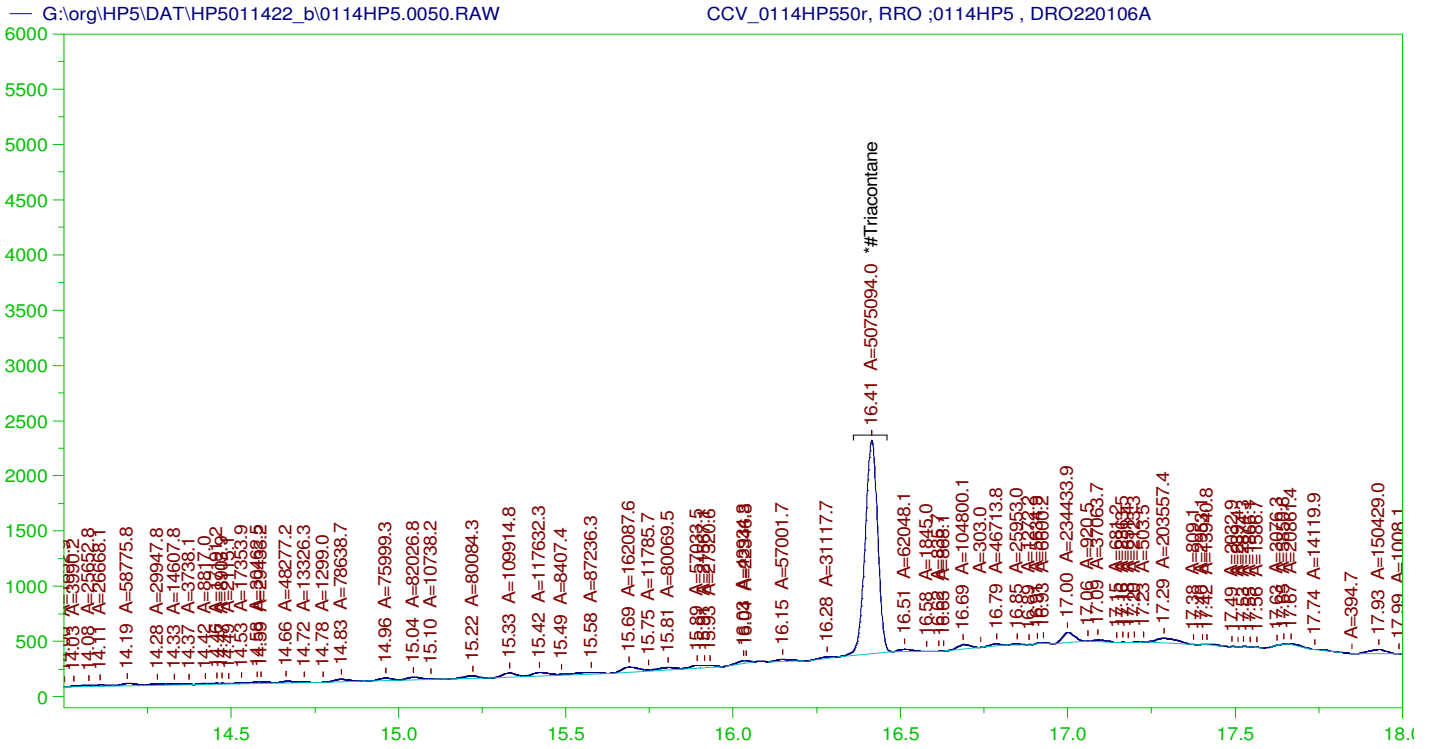
~~RRO~~ TEH(Oil Range) Area: 1.184741E+08 ~~RRO~~ TEH(Oil Range) AMOUNT: 4483.485

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5011422_b\0114HP5.0050.RAW

COMPOUND	ACTUAL (NG)	MEASURED (NG)	%RECOVERY	LIMITS
*30-40 Motor Oil	5000.	.149	.	75-125

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*#Triacontane	16.414	200.	297.557	148.78	75-125

AMN 02/14/2022



RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: CCV_0114HP550r, RRO ;0114HP5 , DRO220106A
 Raw File: G:\org\HP5\DAT\HP5011422_b\0114HP5.0050.RAW
 Date & Time Acquired: 1/16/2022 5:25:10 PM
 Method File: G:\Org\HP5\Methods\DS_ORO-BB-L%.MET
 Calibration File: G:\Org\HP5\Cals\SW8015C_ORO220111BB.CAL
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 26424.55
 Rt range for Residual Range Organics: 12.67 to 30.05

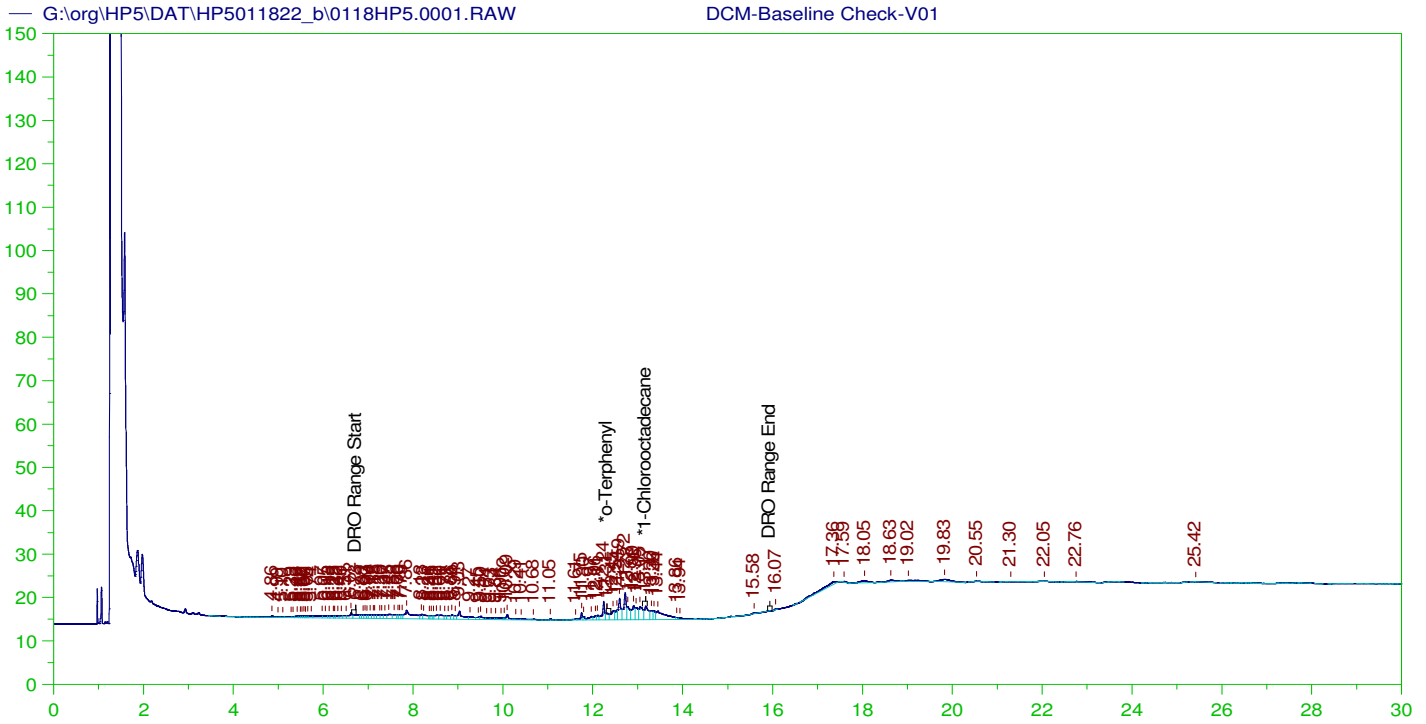
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.414	500.	171.247	34.25	-

RRO Area:3109875 RRO AMOUNT: 117.6888

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5011422_b\0114HP5.0050.RAW

COMPOUND	ACTUAL (NG)	MEASURED (NG)	%RECOVERY	LIMITS
*30-40 Motor Oil	5000.	.149	.	75-125

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*#Triacontane	16.414	200.	171.247	85.62	75-125



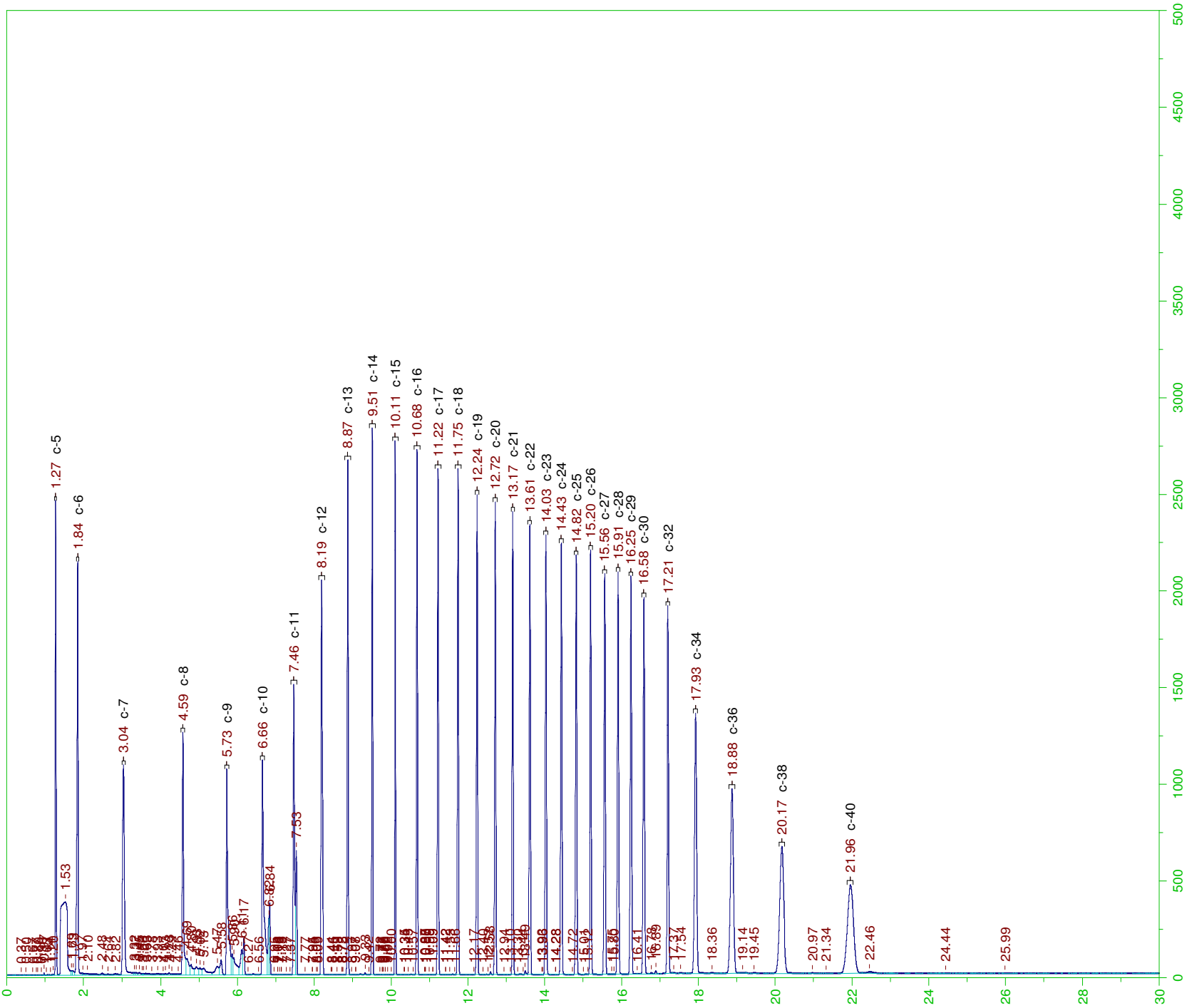
DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

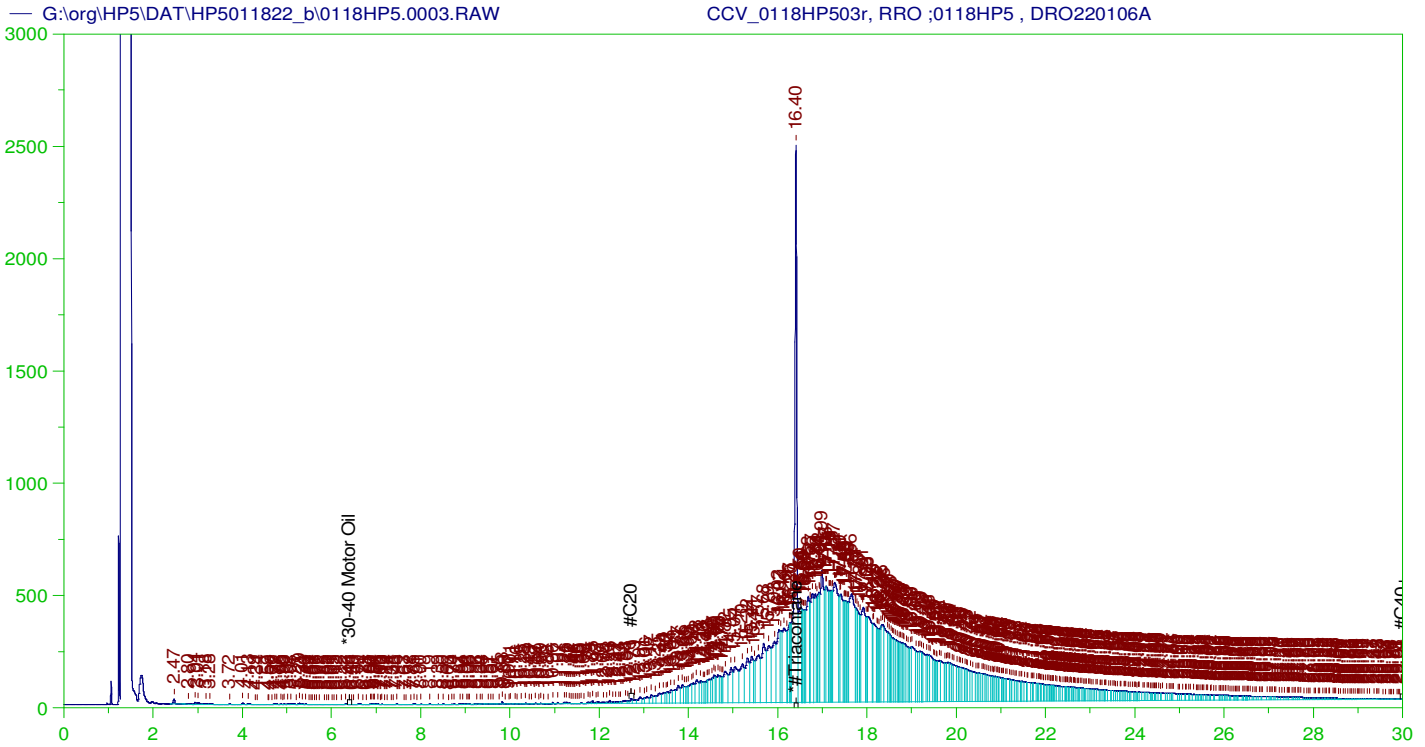
Sample Name: DCM-Baseline Check-V01
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 Method File: G:\Org\HP5\Methods\DR_8015-JA-LEXP.met
 Calibration File: G:\Org\HP5\Cals\SW8015C_DRO220111JA.CAL
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36
 Rt range for Diesel Range Organics: 6.63 to 15.99

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.313	200.	.189	.09	-
*1-Chlorooctadecane	13.173	200.	.536	.27	-

DRO Area:367516.1 DRO Amount: 11.2475
 TEH Area:470874.3 TEH Amount: 14.41069





RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: CCV_0118HP503r, RRO ;0118HP5 , DRO220106A
 Raw File: G:\org\HP5\DAT\HP5011822_b\0118HP5.0003.RAW
 Date & Time Acquired: 1/18/2022 8:54:28 AM
 Method File: G:\Org\HP5\Methods\DC_ORO-BB-L%.MET
 Calibration File: G:\Org\HP5\Cals\SW8015C_ORO220111BB.CAL
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for for ~~Residual~~ TEH(Oil Range) Organics Calculations: 26424.55
 Rt range for ~~Residual~~ TEH(Oil Range) Organics: 12.67 to 30.05

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.405	500.	308.826	61.77	-

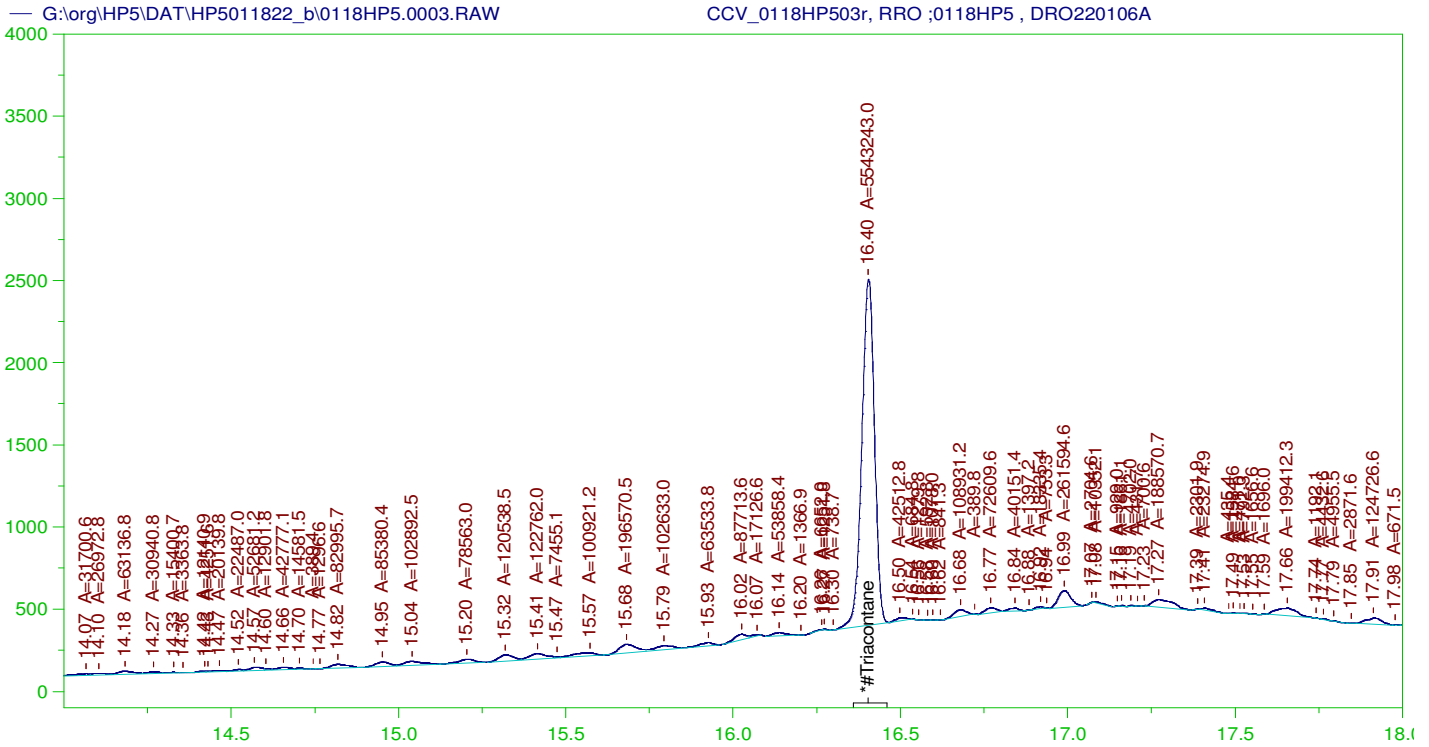
RRO TEH(Oil Range) Area:1.256759E+08 RRO TEH(Oil Range) AMOUNT: 4756.028

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5011822_b\0118HP5.0003.RAW

COMPOUND	ACTUAL (NG)	MEASURED (NG)	%RECOVERY	LIMITS
*30-40 Motor Oil	5000.	.026	.	75-125

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*#Triacontane	16.405	200.	308.826	154.41	75-125

AMN 02/14/2022



RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: CCV_0118HP503r, RRO ;0118HP5 , DRO220106A
 Raw File: G:\org\HP5\DAT\HP5011822_b\0118HP5.0003.RAW
 Date & Time Acquired: 1/18/2022 8:54:28 AM
 Method File: G:\Org\HP5\Methods\DS_ORO-BB-L%.MET
 Calibration File: G:\Org\HP5\Cals\SW8015C_ORO220111BB.CAL
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 26424.55
 Rt range for Residual Range Organics: 12.67 to 30.05

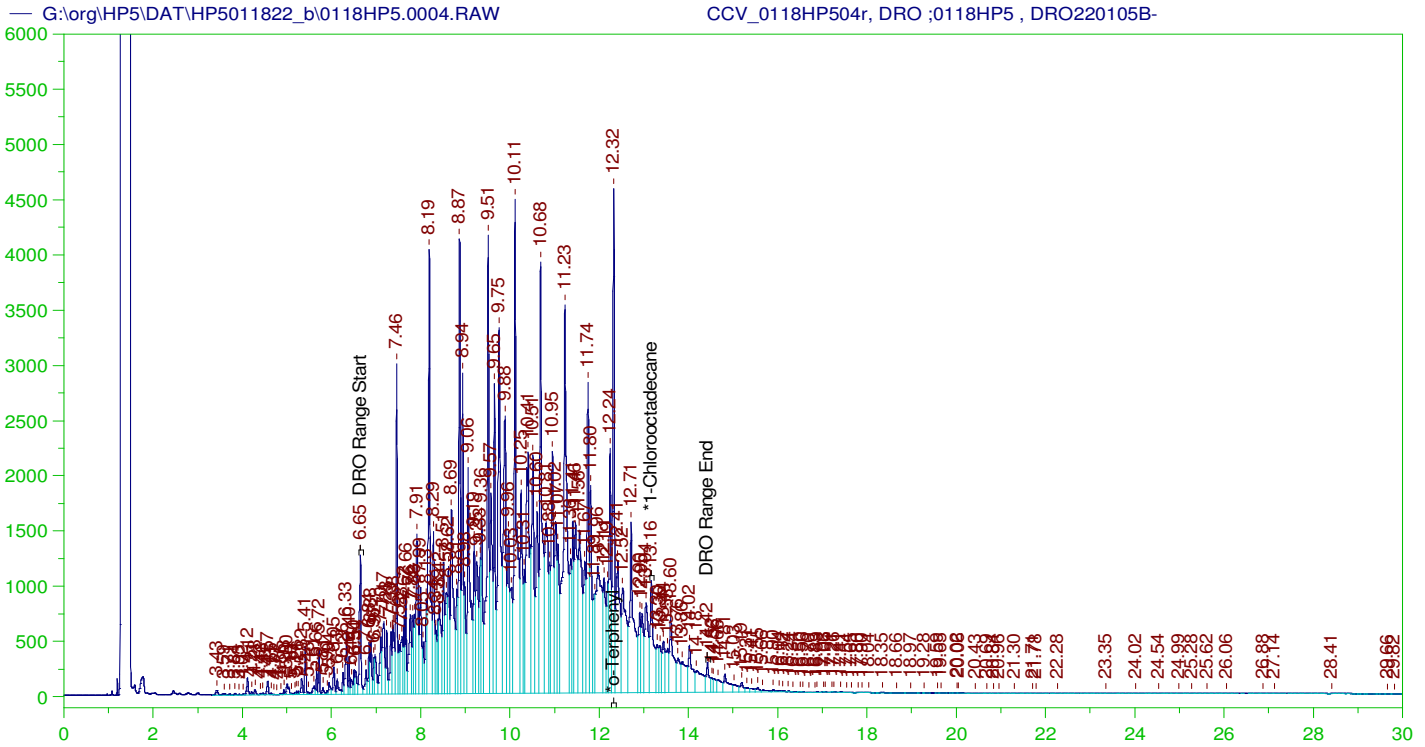
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.405	500.	187.044	37.41	-

RRO Area:3399392 RRO AMOUNT: 128.6452

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5011822_b\0118HP5.0003.RAW

COMPOUND	ACTUAL (NG)	MEASURED (NG)	%RECOVERY	LIMITS
*30-40 Motor Oil	5000.	.026	.	75-125

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*#Triacontane	16.405	200.	187.044	93.52	75-125



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: CCV_0118HP504r, DRO ;0118HP5 , DRO220105B-
 Raw File: G:\org\HP5\DAT\HP5011822_b\0118HP5.0004.RAW
 Date & Time Acquired: 1/18/2022 9:36:59 AM
 Method File: G:\Org\HP5\Methods\DC_8015-C24-JB-L%.met
 Calibration File: G:\Org\HP5\Cals\SW8015C_DRO220111JB-C24.CAL
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36
 Rt range for Diesel Range Organics: 6.62 to 14.49

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.32	200.	302.723	151.36
*1-Chlorooctadecane	13.165	200.	141.669	70.83

DRO Area: 4.283042E+08 DRO Amount: 13107.87
 TEH Area: 4.439806E+08 TEH Amount: 13587.63

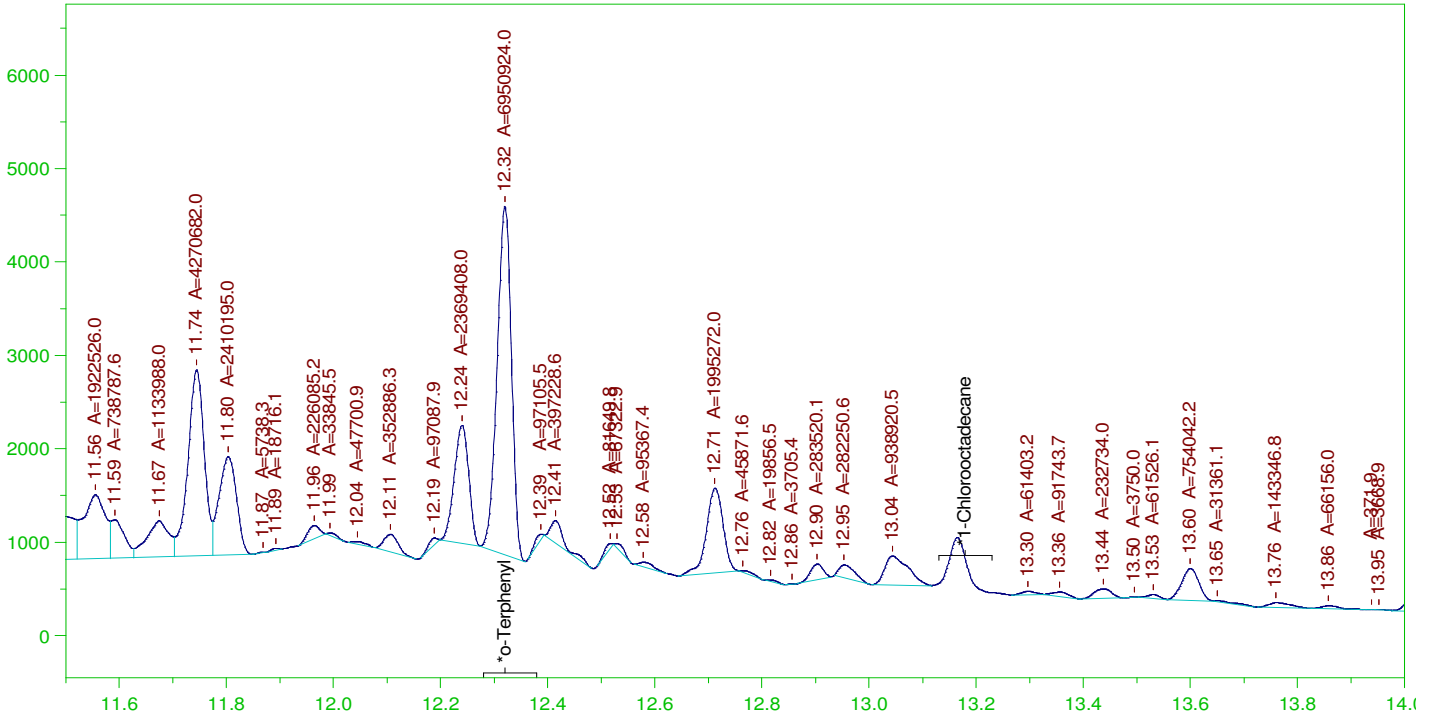
CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5011822_b\0118HP5.0004.RAW

COMPOUND	ACTUAL (NG)	MEASURED (NG)	%RECOVERY	LIMITS
TOTAL DRO	15000.	13587.63	90.58	85-115

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*o-Terphenyl	12.32	200.	302.723	151.36	85-115
*1-Chlorooctadecane	13.165	200.	141.669	70.83	85-115

G:\org\HP5\DAT\HP5011822_b\0118HP5.0004.RAW

CCV_0118HP504r, DRO ;0118HP5 , DRO220105B-



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: CCV_0118HP504r, DRO ;0118HP5 , DRO220105B-
 Raw File: G:\org\HP5\DAT\HP5011822_b\0118HP5.0004.RAW
 Date & Time Acquired: 1/18/2022 9:36:59 AM
 Method File: G:\Org\HP5\Methods\DS_8015-C24-JB-L#.met
 Calibration File: G:\Org\HP5\Cals\SW8015C_DRO220111JB-C24.CAL
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36

Rt range for Diesel Range Organics: 6.62 to 14.49

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.32	200.	188.587	94.29
*1-Chlorooctadecane	15.766	200.	.	-

DRO Area: 2.214194E+08 DRO Amount: 6776.341
 TEH Area: 2.315194E+08 TEH Amount: 7085.443

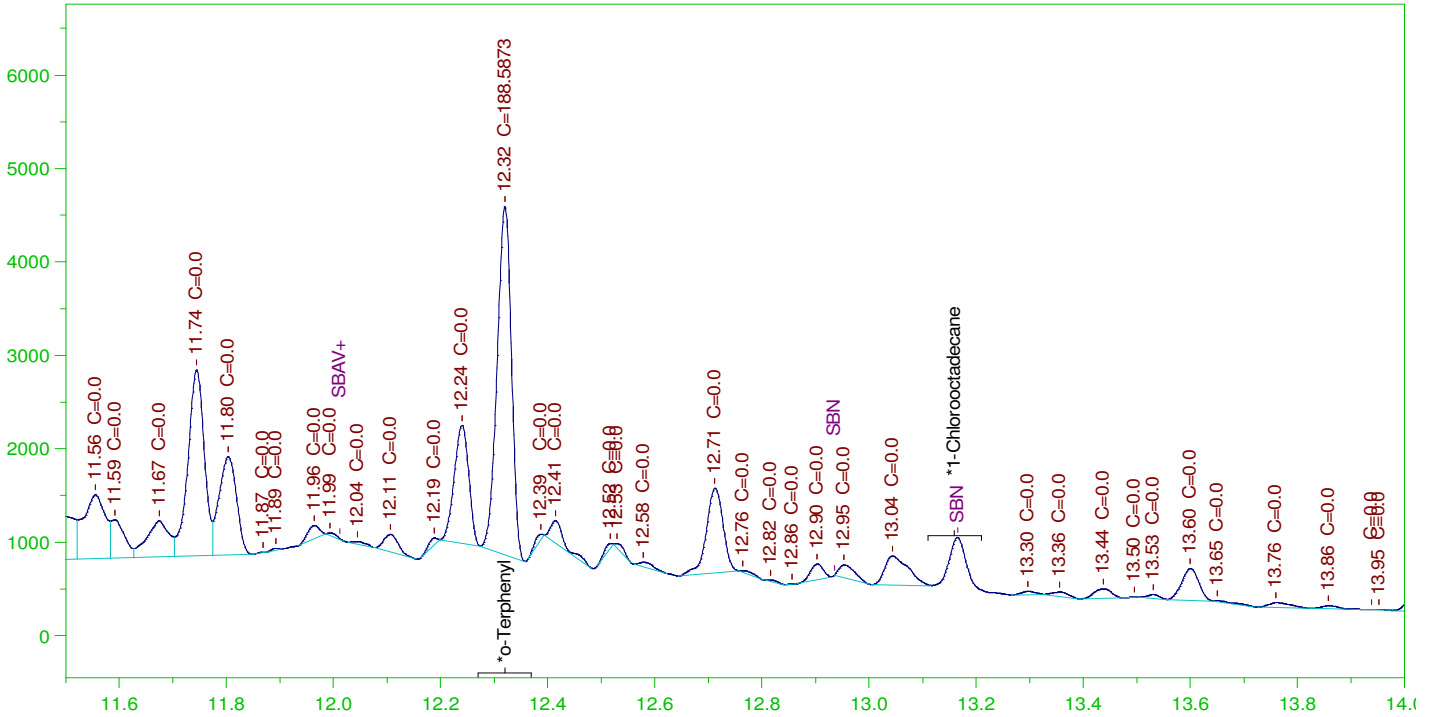
CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5011822_b\0118HP5.0004.RAW

COMPOUND	ACTUAL (NG)	MEASURED (NG)	%RECOVERY	LIMITS
TOTAL DRO	15000.	7085.44	47.24	85-115

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*o-Terphenyl	12.32	200.	188.587	94.29	85-115
*1-Chlorooctadecane	15.766	200.	.	.	85-115

G:\org\HP5\DAT\HP5011822_b\0118HP5.0004.RAW

CCV_0118HP504r, DRO ;0118HP5 , DRO220105B-



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: CCV_0118HP504r, DRO ;0118HP5 , DRO220105B-
Raw File: G:\org\HP5\DAT\HP5011822_b\0118HP5.0004.RAW
Date & Time Acquired: 1/18/2022 9:36:59 AM
Method File: G:\Org\HP5\Methods\DS_8015-JB-L#.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO220111Jb.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36

Rt range for Diesel Range Organics: 6.61 to 15.96

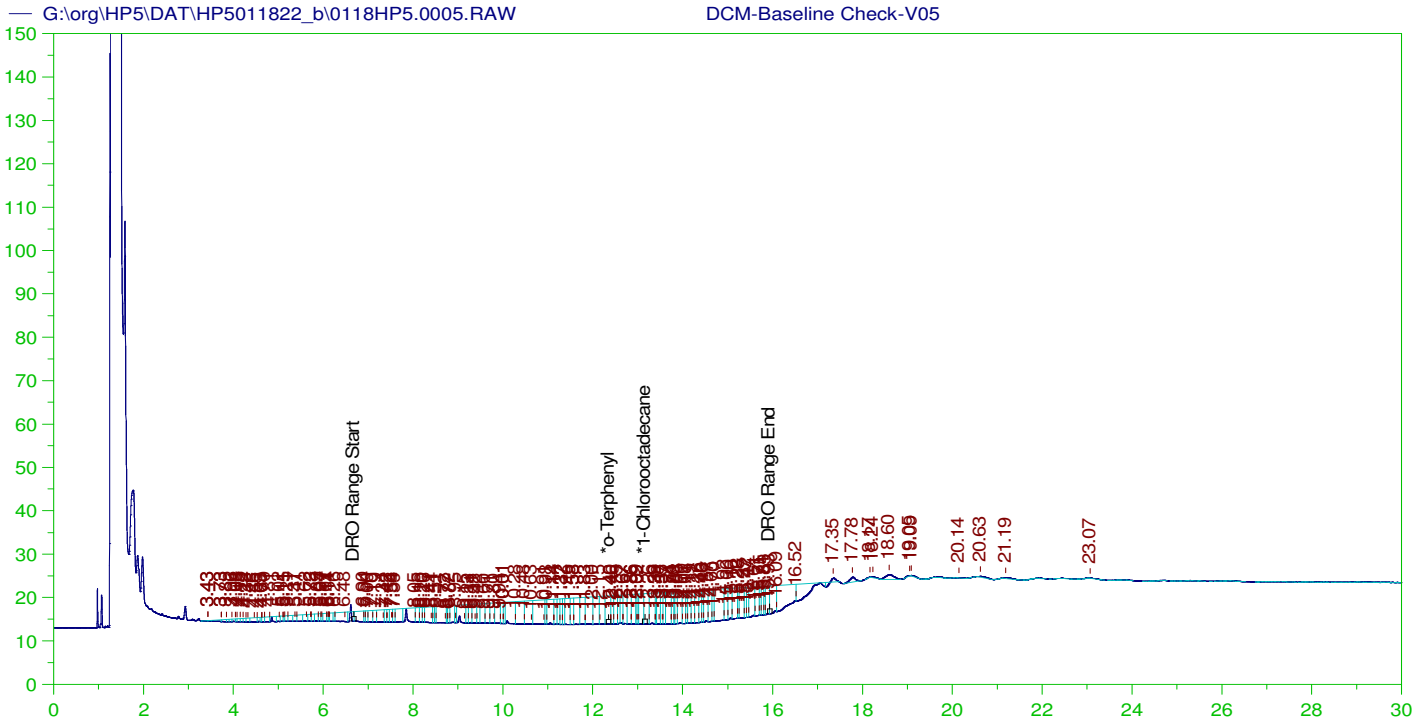
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.32	200.	188.587	94.29
*1-Chlorooctadecane	15.766	200.	.	-

DRO Area: 2.21901E+08 DRO Amount: 6791.08
TEH Area: 2.315194E+08 TEH Amount: 7085.443

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5011822_b\0118HP5.0004.RAW

COMPOUND	ACTUAL (NG)	MEASURED (NG)	%RECOVERY	LIMITS
TOTAL DRO	15000.	7085.44	47.24	85-115

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*o-Terphenyl	12.32	200.	188.587	94.29	85-115
*1-Chlorooctadecane	15.766	200.	.	.	85-115



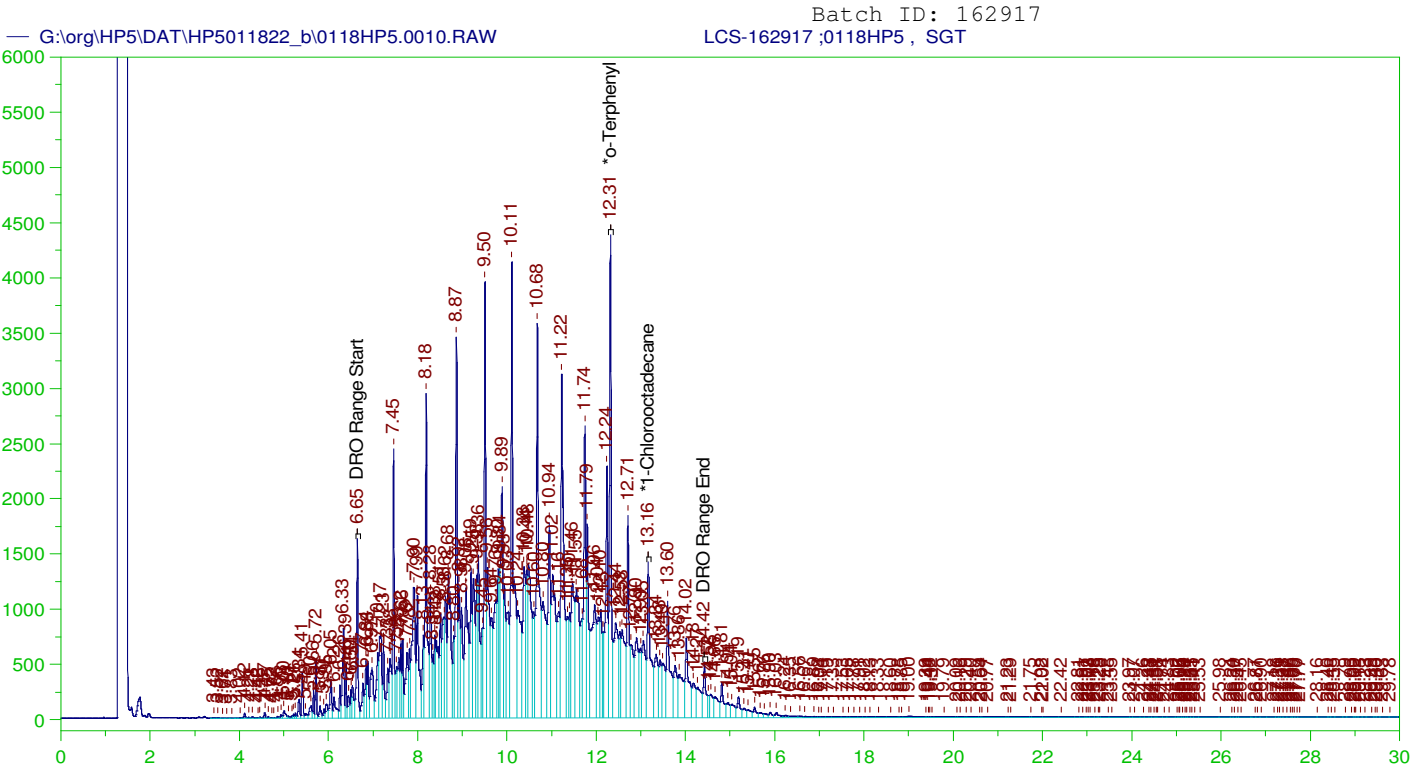
DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: DCM-Baseline Check-V05
 Raw File: G:\org\HP5\DAT\HP5011822_b\0118HP5.0005.RAW
 Date & Time Acquired: 1/18/2022 10:19:32 AM
 Method File: G:\Org\HP5\Methods\DR_8015-JA-LEXP.met
 Calibration File: G:\Org\HP5\Cals\SW8015C_DRO220111JA.CAL
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36
 Rt range for Diesel Range Organics: 6.63 to 15.99

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	29.983	200.	.	-
*1-Chlorooctadecane	29.983	200.	.	-

DRO Area:3069790 DRO Amount: 93.94817
 TEH Area:3529559 TEH Amount: 108.019



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: LCS-162917 ;0118HP5 , SGT
 Raw File: G:\org\HP5\DAT\HP5011822_b\0118HP5.0010.RAW
 Date & Time Acquired: 1/18/2022 1:56:35 PM
 Method File: G:\Org\HP5\Methods\D3_8015-C24-JB-L%.met
 Calibration File: G:\Org\HP5\Cals\SW8015C_DRO220111JB-C24.CAL
 Sample Weight: 1000 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36
 Rt range for Diesel Range Organics: 6.62 to 14.49

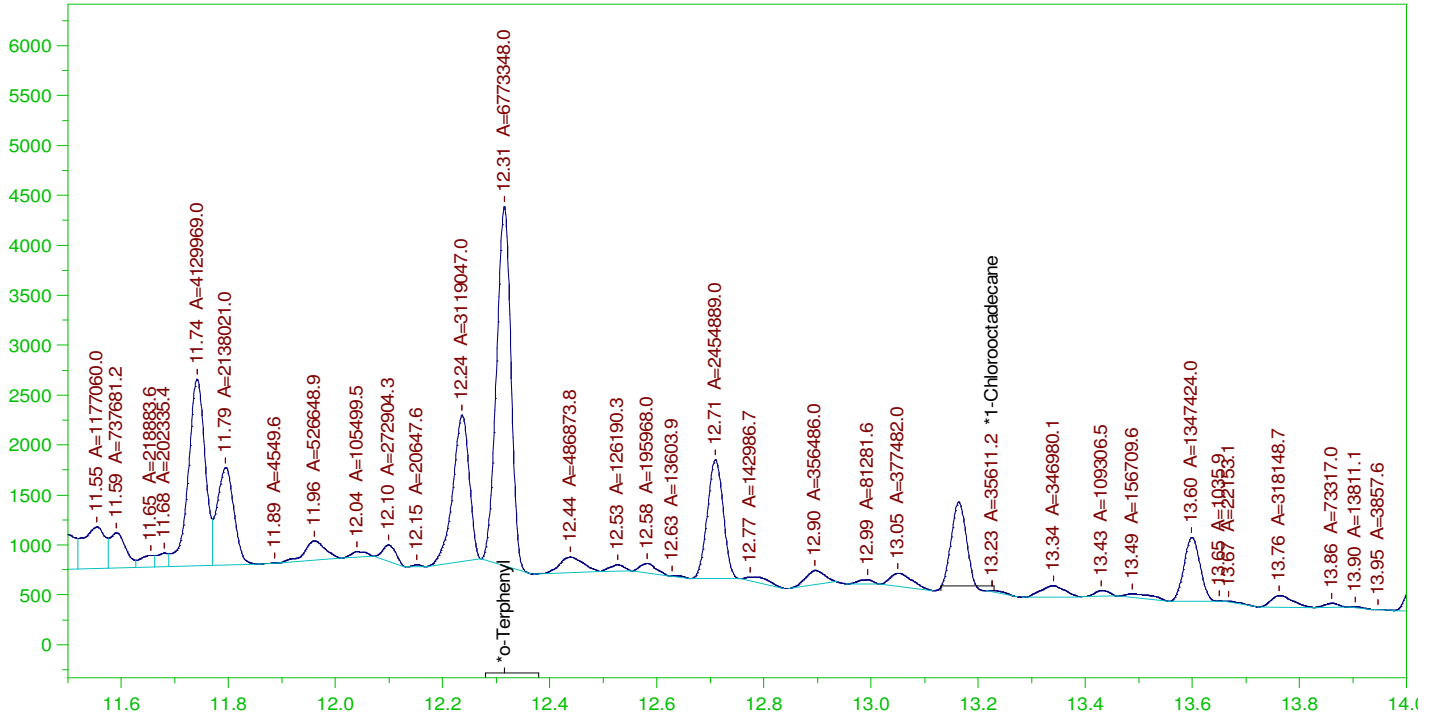
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.315	.2	.306	153.06	-
*1-Chlorooctadecane	13.164	.2	.187	93.68	-

DRO Area: 3.845074E+08 DRO Amount: 11.7675
 TEH Area: 4.092128E+08 TEH Amount: 12.52359

Batch ID: 162917

G:\org\HP5\DAT\HP5011822_b\0118HP5.0010.RAW

LCS-162917 ;0118HP5 , SGT



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

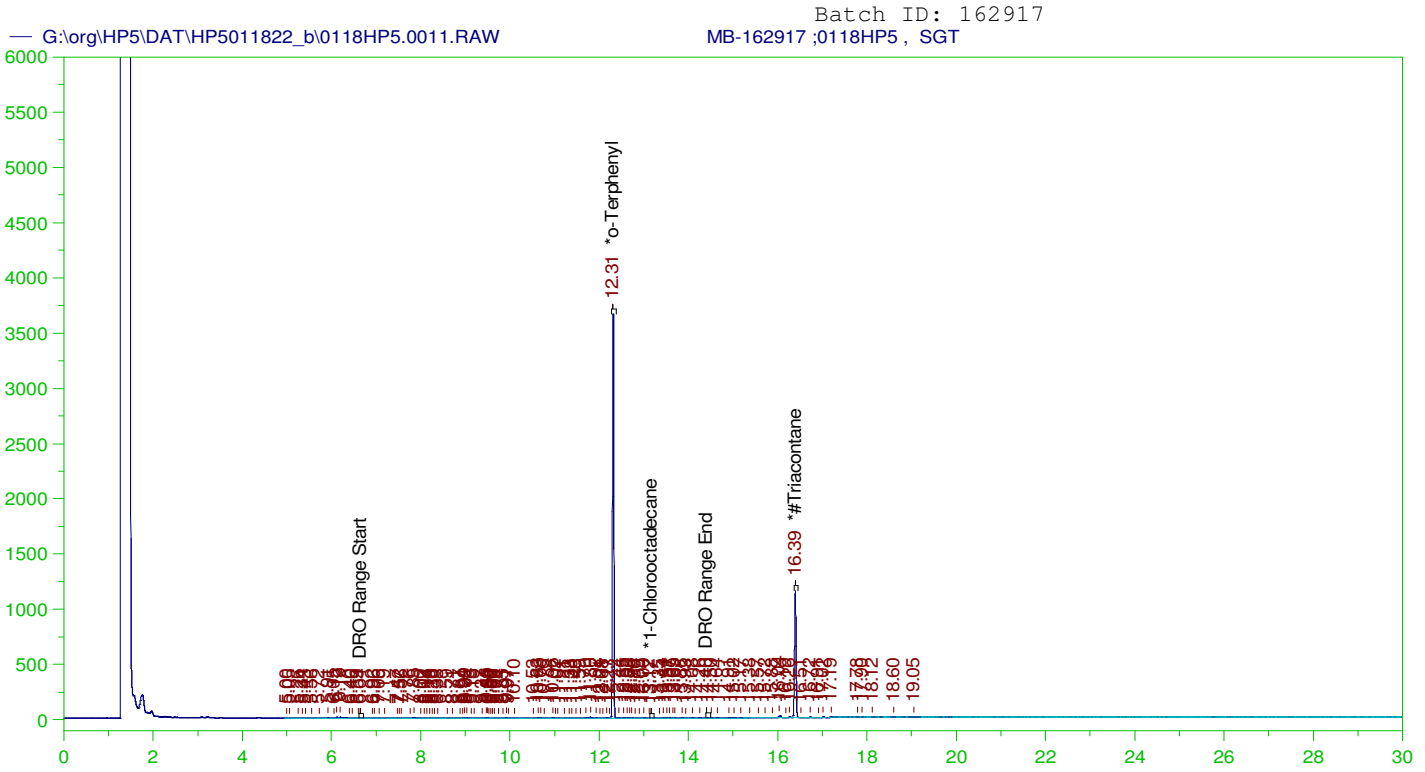
Sample Name: LCS-162917 ;0118HP5 , SGT
 Raw File: G:\org\HP5\DAT\HP5011822_b\0118HP5.0010.RAW
 Date & Time Acquired: 1/18/2022 1:56:35 PM
 Method File: G:\Org\HP5\Methods\DS_8015-C24-JB-L#.met
 Calibration File: G:\Org\HP5\Cals\SW8015C_DRO220111JB-C24.CAL
 Sample Weight: 1000 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36

Rt range for Diesel Range Organics: 6.62 to 14.49

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.315	.2	.184	91.88	-
*1-Chlorooctadecane	13.227	.2	.001	.48	-

DRO Area: 1.802931E+08 DRO Amount: 5.517708
 TEH Area: 1.921566E+08 TEH Amount: 5.880781



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: MB-162917 ;0118HP5 , SGT
 Raw File: G:\org\HP5\DAT\HP5011822_b\0118HP5.0011.RAW
 Date & Time Acquired: 1/18/2022 2:39:17 PM
 Method File: G:\Org\HP5\Methods\DR_8015-C24T-JB-L%.met
 Calibration File: G:\Org\HP5\Cals\SW8015C_DRO220111JB-C24-T.CAL
 Sample Weight: 1000 Dilution: 1 S.A.: 1

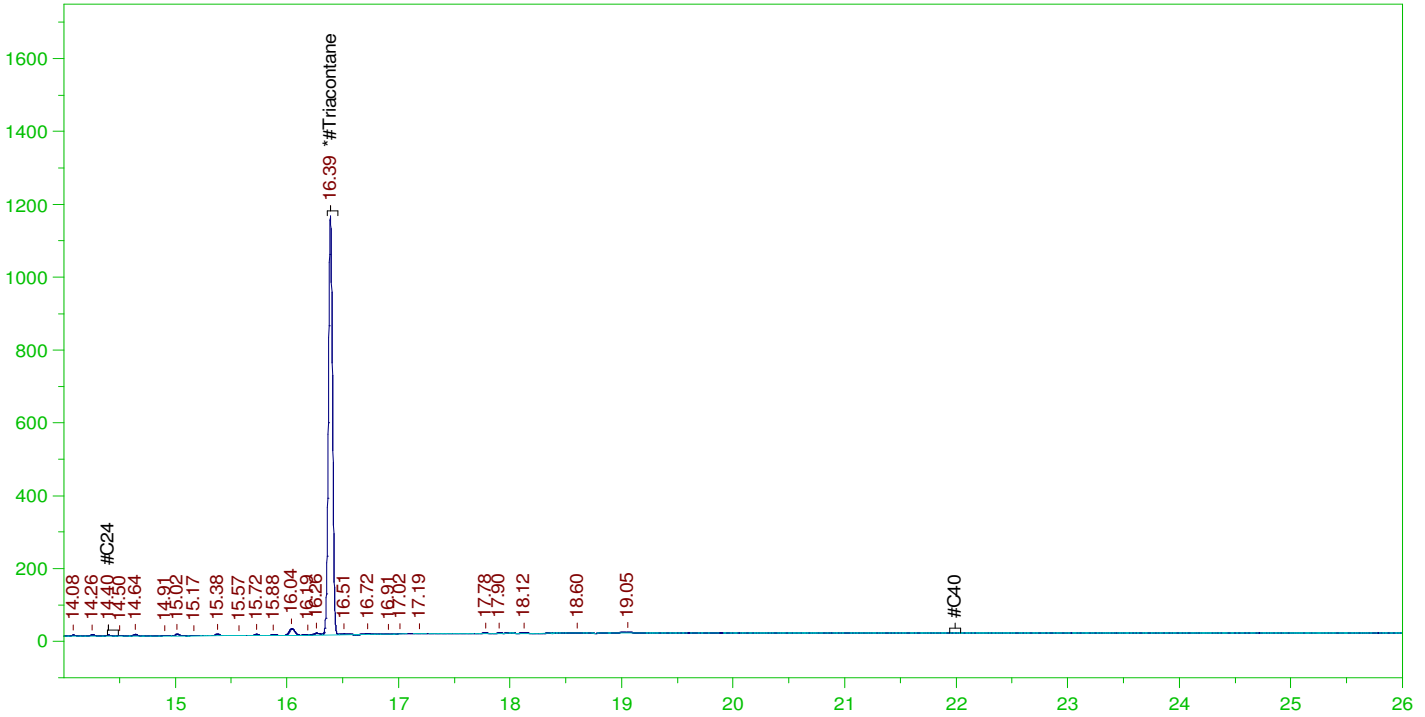
Mean RF for TEH: 32675.36
 Rt range for Diesel Range Organics: 6.62 to 14.49

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.31	.2	.188	93.77 -
*1-Chlorooctadecane	13.169	.2	.01	-
*#Triacontane	16.39	.2	.1	49.89 -

DRO Area: 230478.6 DRO Amount: 7.053592E-03
 TEH Area: 512536 TEH Amount: 0.0156857

G:\org\HP5\DAT\HP5011822_b\0118HP5.0011.RAW

MB-162917 ;0118HP5 , SGT



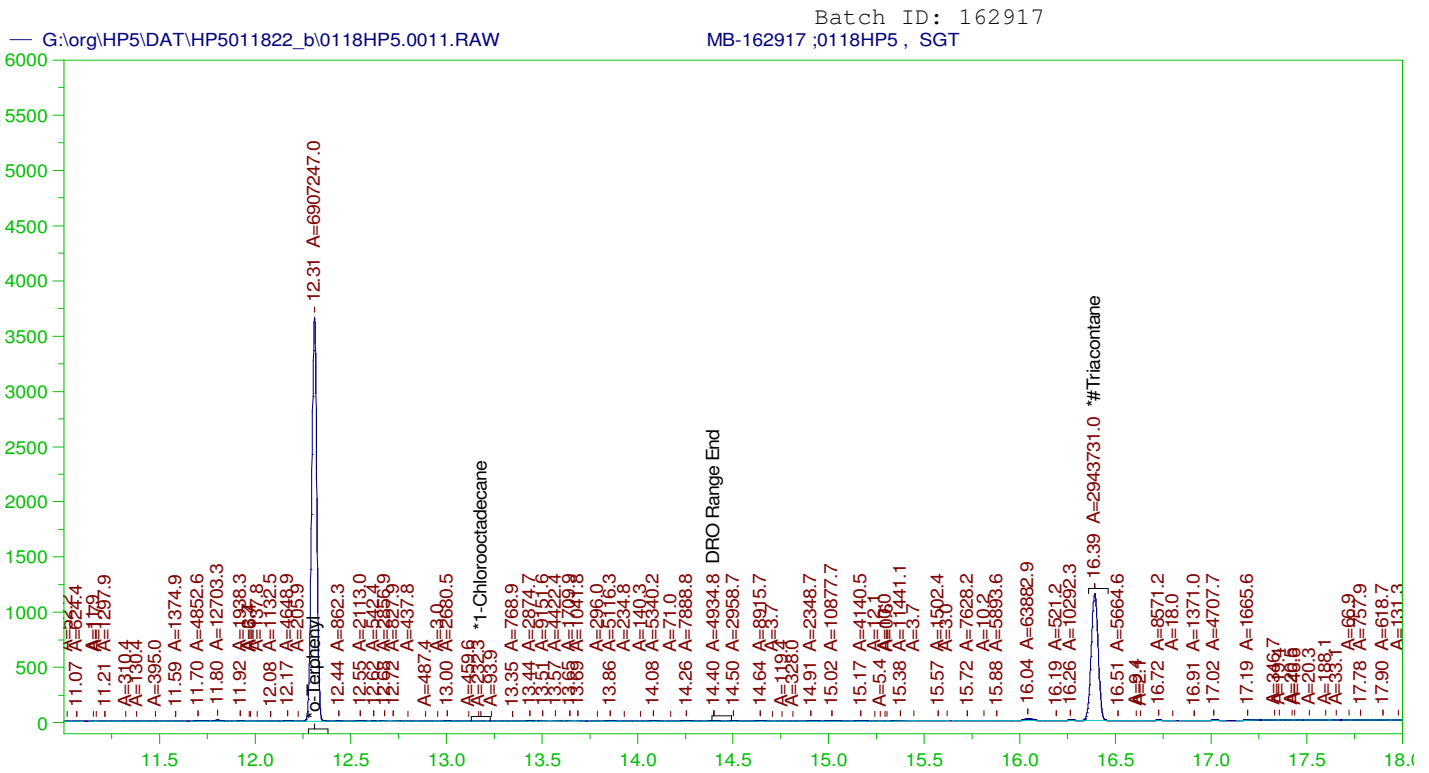
RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: MB-162917 ;0118HP5 , SGT
 Raw File: G:\org\HP5\DAT\HP5011822_b\0118HP5.0011.RAW
 Date & Time Acquired: 1/18/2022 2:39:17 PM
 Method File: G:\Org\HP5\Methods\DR_OROS-BB-L%.MET
 Calibration File: G:\Org\HP5\Cals\SW8015C_ORO220111BB_SAMP.CAL
 Sample Weight: 1000 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 26424.55
 Rt range for Residual Range Organics: 14.39 to 22.04

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*#Triacontane_____	16.39	.5	.1	19.96 -

RRO Area:204939.4 RRO AMOUNT: 7.755644E-03



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: MB-162917 ;0118HP5 , SGT
 Raw File: G:\org\HP5\DAT\HP5011822_b\0118HP5.0011.RAW
 Date & Time Acquired: 1/18/2022 2:39:17 PM
 Method File: G:\Org\HP5\Methods\DS_8015-C24T-BB-L#.met
 Calibration File: G:\Org\HP5\Cals\SW8015C_DRO220111JB-C24-T.CAL
 Sample Weight: 1000 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36

Rt range for Diesel Range Organics: 6.62 to 14.49

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.31	.2	.187	93.7
*1-Chlorooctadecane	29.969	.2	.	-
*#Triacontane	16.39	.2	.099	49.66

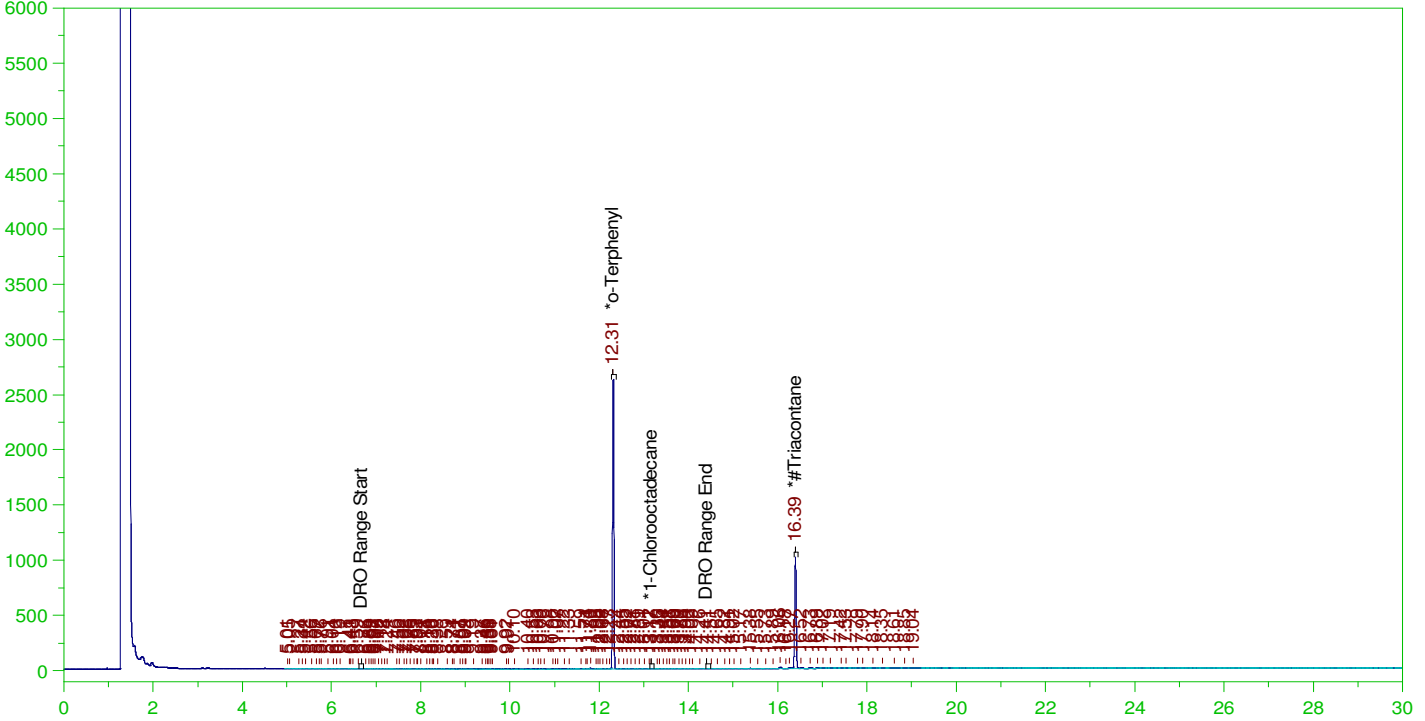
DRO Area:184603.6 DRO Amount: 5.649627E-03
 TEH Area:477006.3 TEH Amount: 1.459835E-02

ERH2383 (RHMW05 w/MS/MSD vols)

Batch ID: 162917

G:\org\HP5\DAT\HP5011822_b\0118HP5.0012.RAW

B22010759-001D ;0118HP5 , \$HC-8015-DRO-W, SGT



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B22010759-001D ;0118HP5 , \$HC-8015-DRO-W, SGT
 Raw File: G:\org\HP5\DAT\HP5011822_b\0118HP5.0012.RAW
 Date & Time Acquired: 1/18/2022 3:22:05 PM
 Method File: G:\Org\HP5\Methods\DR_8015-C24T-JB-L%.met
 Calibration File: G:\Org\HP5\Cals\SW8015C_DRO220111JB-C24-T.CAL
 Sample Weight: 1060 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36

Rt range for Diesel Range Organics: 6.62 to 14.49

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.311	.189	.128	67.69	-
*1-Chlorooctadecane	13.167	.189	.	.05	-
*#Triacontane	16.393	.189	.083	43.76	-

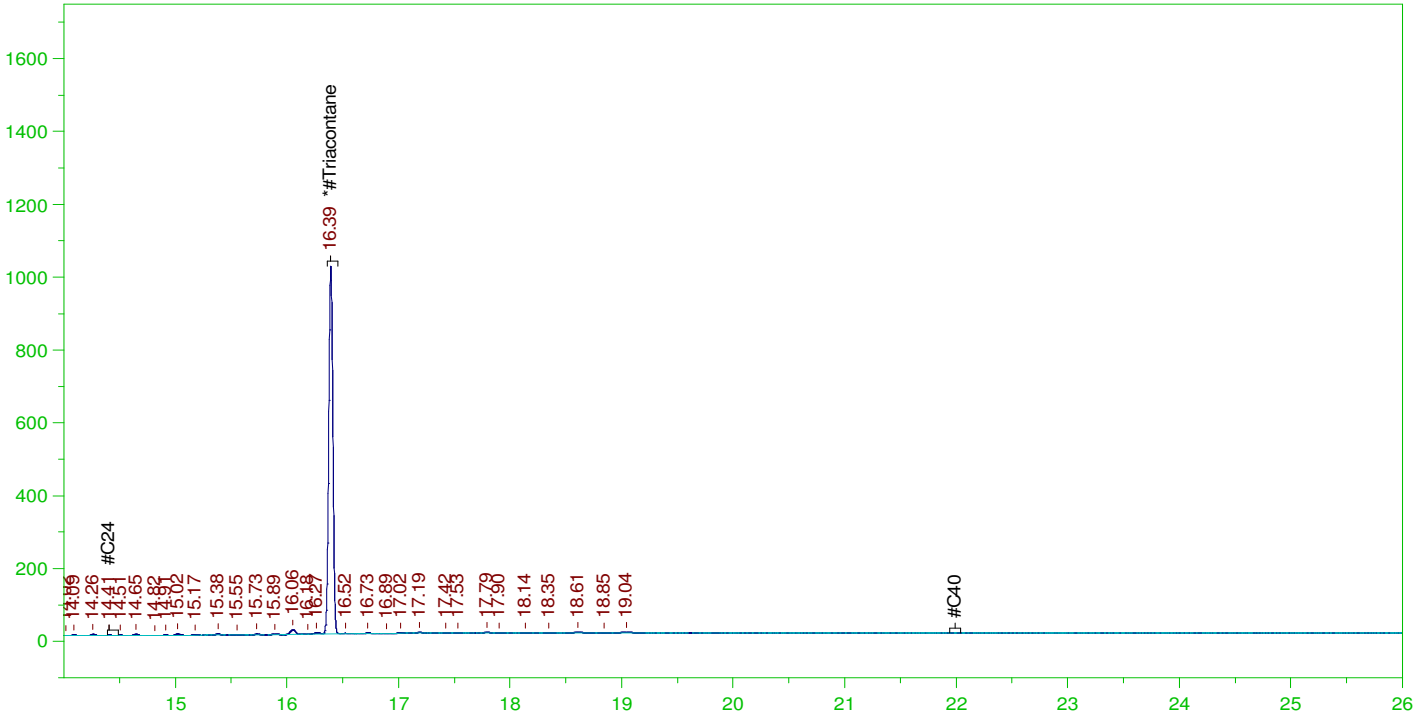
DRO Area:217735.1 DRO Amount: 6.286403E-03
 TEH Area:455816.8 TEH Amount: 1.316025E-02

ERH2383 (RHMW05 w/MS/MSD vols)

Batch ID: 162917

G:\org\HP5\DAT\HP5011822_b\0118HP5.0012.RAW

B22010759-001D ;0118HP5 , \$HC-8015-DRO-W, SGT



RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: B22010759-001D ;0118HP5 , \$HC-8015-DRO-W, SGT
 Raw File: G:\org\HP5\DAT\HP5011822_b\0118HP5.0012.RAW
 Date & Time Acquired: 1/18/2022 3:22:05 PM
 Method File: G:\Org\HP5\Methods\DR_OROS-BB-L%.MET
 Calibration File: G:\Org\HP5\Cals\SW8015C_ORO220111BB_SAMP.CAL
 Sample Weight: 1060 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 26424.55
 Rt range for Residual Range Organics: 14.39 to 22.04

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*#Triacontane	16.393	.472	.083	17.5

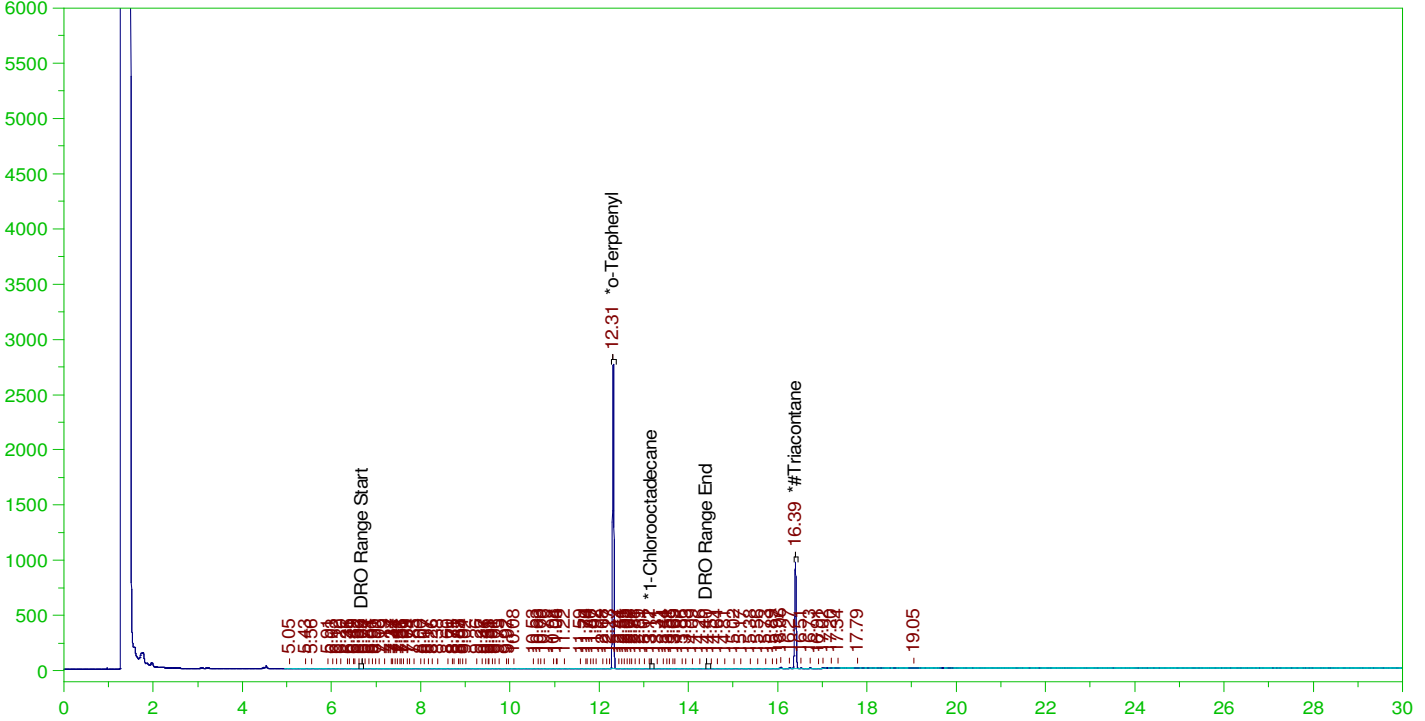
RRO Area:167431.6 RRO AMOUNT: 5.977558E-03

ERH2396 (RHMW15 zone5)

Batch ID: 162917

G:\org\HP5\DAT\HP5011822_b\0118HP5.0013.RAW

B22010755-001D ;0118HP5 , \$HC-8015-DRO-W, SGT



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B22010755-001D ;0118HP5 , \$HC-8015-DRO-W, SGT
 Raw File: G:\org\HP5\DAT\HP5011822_b\0118HP5.0013.RAW
 Date & Time Acquired: 1/18/2022 4:04:31 PM
 Method File: G:\Org\HP5\Methods\DR_8015-C24T-JB-L%.met
 Calibration File: G:\Org\HP5\Cals\SW8015C_DRO220111JB-C24-T.CAL
 Sample Weight: 1000 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36

Rt range for Diesel Range Organics: 6.62 to 14.49

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.311	.2	.142	71.1	-
*1-Chlorooctadecane	13.166	.2	.	.02	-
*#Triacontane	16.393	.2	.083	41.72	-

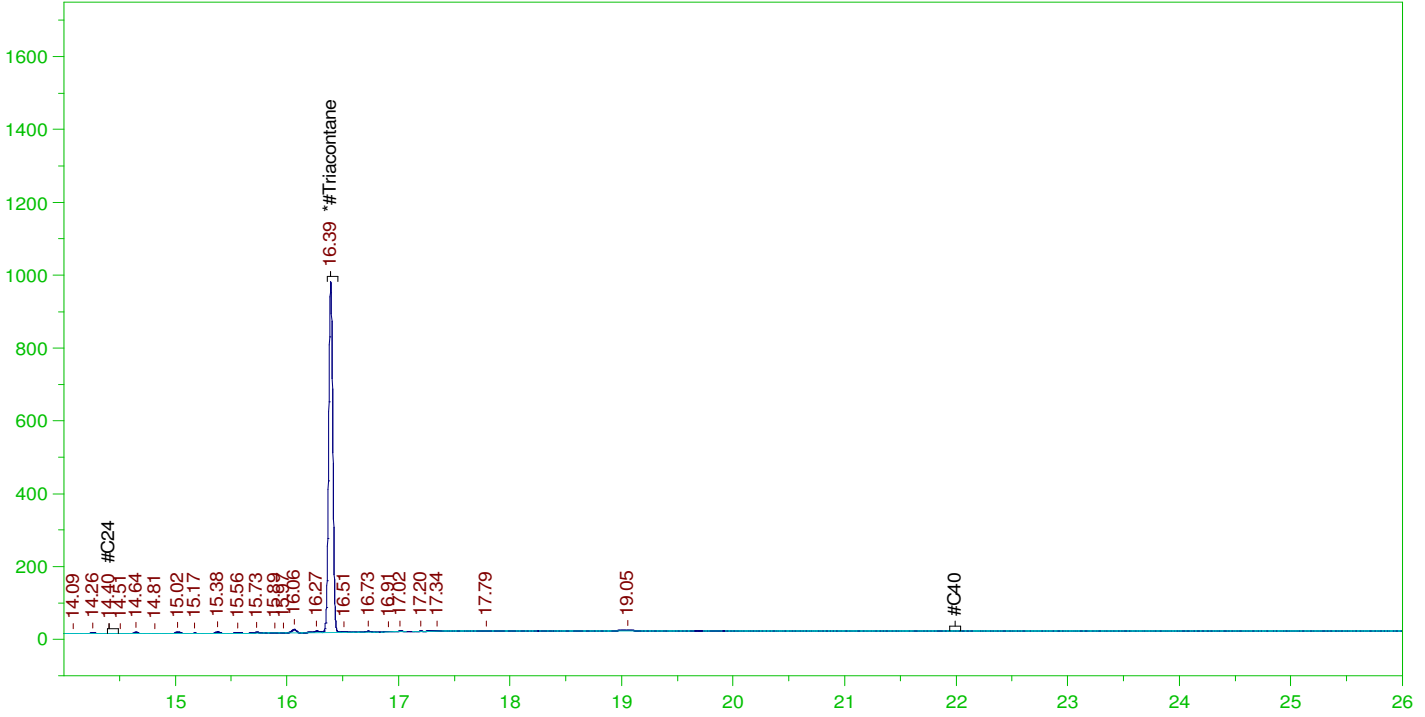
DRO Area:183518.4 DRO Amount: 5.616416E-03
 TEH Area:387568.3 TEH Amount: 1.186118E-02

ERH2396 (RHMW15 zone5)

Batch ID: 162917

G:\org\HP5\DAT\HP5011822_b\0118HP5.0013.RAW

B22010755-001D ;0118HP5 , \$HC-8015-DRO-W, SGT



RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: B22010755-001D ;0118HP5 , \$HC-8015-DRO-W, SGT
 Raw File: G:\org\HP5\DAT\HP5011822_b\0118HP5.0013.RAW
 Date & Time Acquired: 1/18/2022 4:04:31 PM
 Method File: G:\Org\HP5\Methods\DR_OROS-BB-L%.MET
 Calibration File: G:\Org\HP5\Cals\SW8015C_ORO220111BB_SAMP.CAL
 Sample Weight: 1000 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 26424.55
 Rt range for Residual Range Organics: 14.39 to 22.04

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane_____	16.393	.5	.083	16.69	-

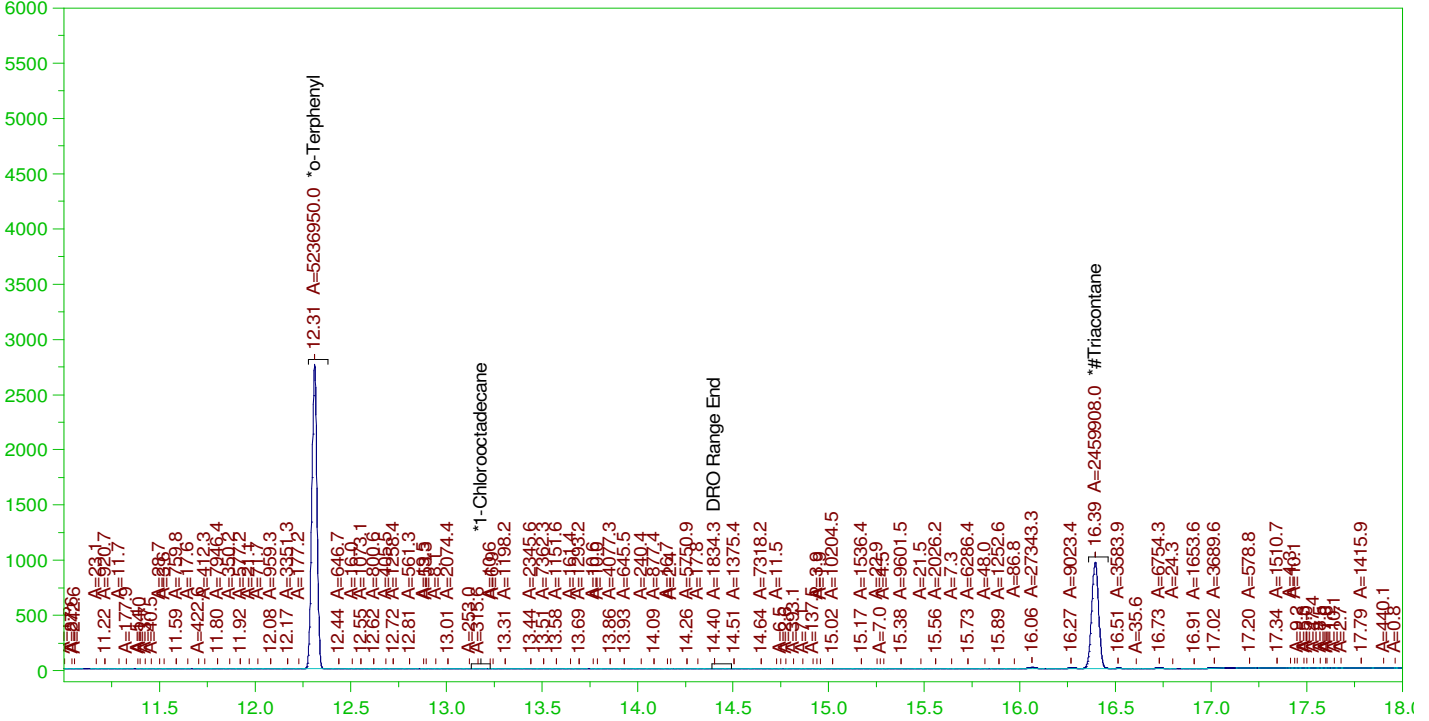
RRO Area:124295.3 RRO AMOUNT: 4.703779E-03

ERH2396 (RHMW15 zone5)

Batch ID: 162917

G:\org\HP5\DAT\HP5011822_b\0118HP5.0013.RAW

B22010755-001D ;0118HP5 , \$HC-8015-DRO-W, SGT



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B22010755-001D ;0118HP5 , \$HC-8015-DRO-W, SGT
 Raw File: G:\org\HP5\DAT\HP5011822_b\0118HP5.0013.RAW
 Date & Time Acquired: 1/18/2022 4:04:31 PM
 Method File: G:\Org\HP5\Methods\DS_8015-C24T-BB-L#.met
 Calibration File: G:\Org\HP5\Cals\SW8015C_DRO220111JB-C24-T.CAL
 Sample Weight: 1000 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36

Rt range for Diesel Range Organics: 6.62 to 14.49

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.311	.2	.142	71.04
*1-Chlorooctadecane	29.985	.2	.	-
*#Triacontane	16.393	.2	.083	41.5

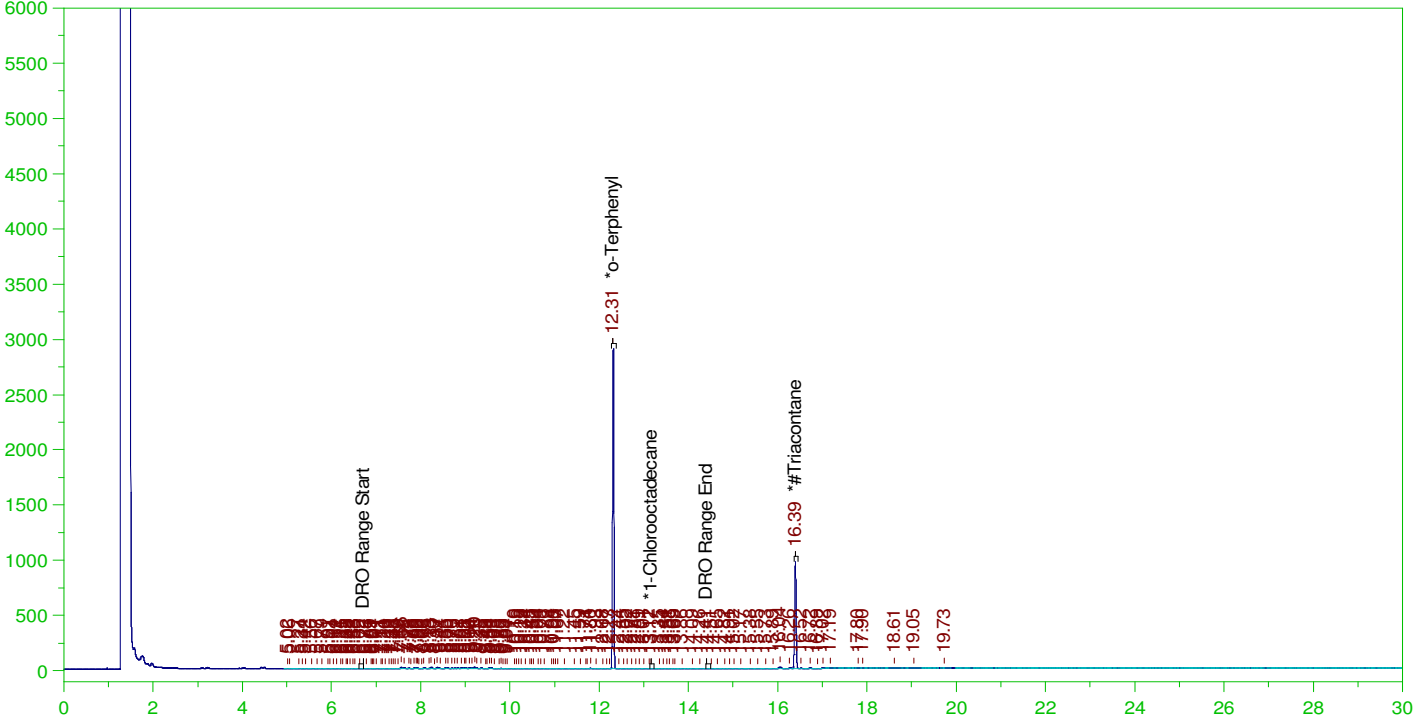
DRO Area:157941.8 DRO Amount: 4.833666E-03
 TEH Area:511701.5 TEH Amount: 1.566016E-02

ERH2376 (RHMW01R)

Batch ID: 162917

G:\org\HP5\DAT\HP5011822_b\0118HP5.0014.RAW

B22010758-001D ;0118HP5 , \$HC-8015-DRO-W, SGT



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B22010758-001D ;0118HP5 , \$HC-8015-DRO-W, SGT
 Raw File: G:\org\HP5\DAT\HP5011822_b\0118HP5.0014.RAW
 Date & Time Acquired: 1/18/2022 4:47:17 PM
 Method File: G:\Org\HP5\Methods\DR_8015-C24T-JB-L%.met
 Calibration File: G:\Org\HP5\Cals\SW8015C_DRO220111JB-C24-T.CAL
 Sample Weight: 1000 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36

Rt range for Diesel Range Organics: 6.62 to 14.49

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.311	.2	.148	74.16	-
*1-Chlorooctadecane	13.166	.2	.	.03	-
*#Triacontane	16.391	.2	.083	41.67	-

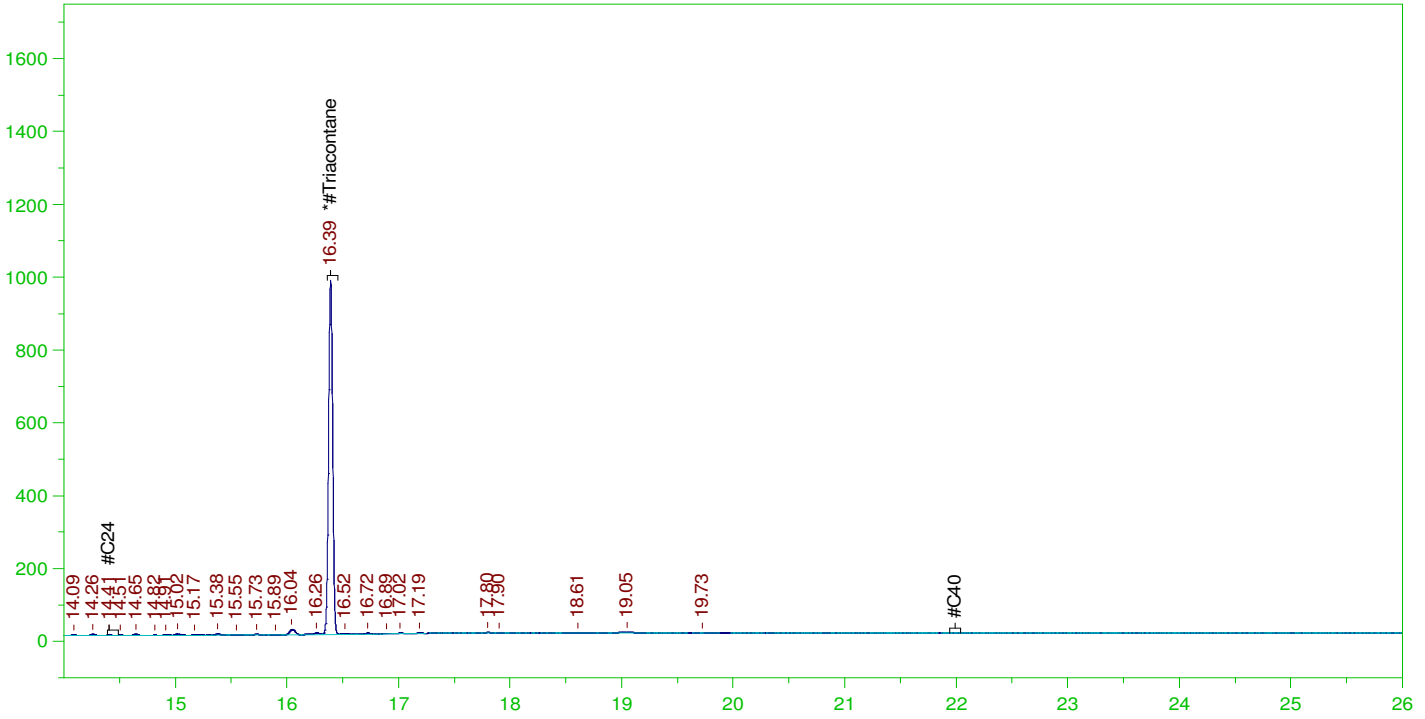
DRO Area:967637.4 DRO Amount: 2.961367E-02
 TEH Area:1188517 TEH Amount: 3.637348E-02

ERH2376 (RHMW01R)

Batch ID: 162917

G:\org\HP5\DAT\HP5011822_b\0118HP5.0014.RAW

B22010758-001D ;0118HP5 , \$HC-8015-DRO-W, SGT



RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: B22010758-001D ;0118HP5 , \$HC-8015-DRO-W, SGT
 Raw File: G:\org\HP5\DAT\HP5011822_b\0118HP5.0014.RAW
 Date & Time Acquired: 1/18/2022 4:47:17 PM
 Method File: G:\Org\HP5\Methods\DR_OROS-BB-L%.MET
 Calibration File: G:\Org\HP5\Cals\SW8015C_ORO220111BB_SAMP.CAL
 Sample Weight: 1000 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 26424.55
 Rt range for Residual Range Organics: 14.39 to 22.04

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*#Triacontane	16.391	.5	.083	16.67

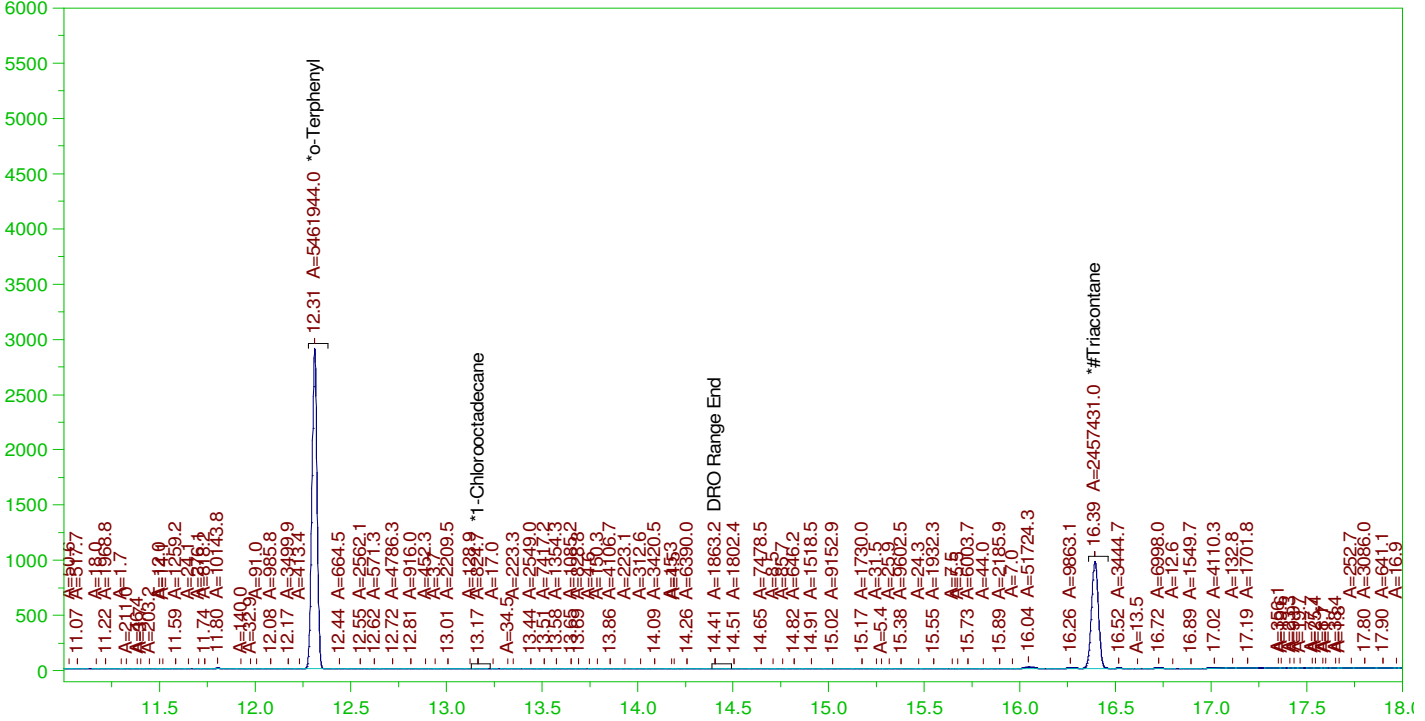
RRO Area:165252.9 RRO AMOUNT: 6.253764E-03

ERH2376 (RHMW01R)

Batch ID: 162917

G:\org\HP5\DAT\HP5011822_b\0118HP5.0014.RAW

B22010758-001D ;0118HP5 , \$HC-8015-DRO-W, SGT



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B22010758-001D ;0118HP5 , \$HC-8015-DRO-W, SGT
 Raw File: G:\org\HP5\DAT\HP5011822_b\0118HP5.0014.RAW
 Date & Time Acquired: 1/18/2022 4:47:17 PM
 Method File: G:\Org\HP5\Methods\DS_8015-C24T-BB-L#.met
 Calibration File: G:\Org\HP5\Cals\SW8015C_DRO220111JB-C24-T.CAL
 Sample Weight: 1000 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36

Rt range for Diesel Range Organics: 6.62 to 14.49

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.311	.2	.148	74.09
*1-Chlorooctadecane	13.166	.2	.01	-
*#Triacontane	16.391	.2	.083	41.46

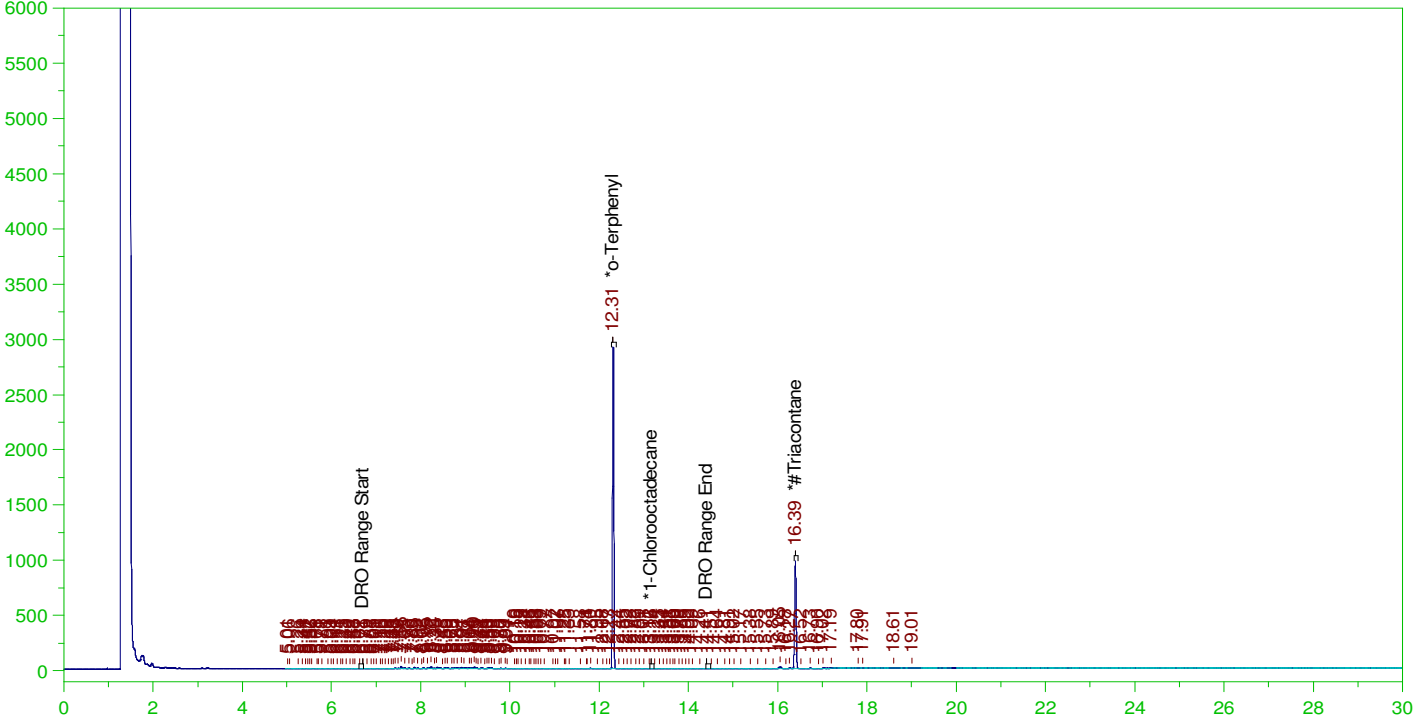
DRO Area:906749.8 DRO Amount: 2.775026E-02
 TEH Area:1265994 TEH Amount: 3.874459E-02

ERH2377 (RHMW01R)

Batch ID: 162917

G:\org\HP5\DAT\HP5011822_b\0118HP5.0015.RAW

B22010758-002B ;0118HP5 , \$HC-8015-DRO-W, SGT



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B22010758-002B ;0118HP5 , \$HC-8015-DRO-W, SGT
 Raw File: G:\org\HP5\DAT\HP5011822_b\0118HP5.0015.RAW
 Date & Time Acquired: 1/18/2022 5:29:57 PM
 Method File: G:\Org\HP5\Methods\DR_8015-C24T-JB-L%.met
 Calibration File: G:\Org\HP5\Cals\SW8015C_DRO220111JB-C24-T.CAL
 Sample Weight: 1020 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36

Rt range for Diesel Range Organics: 6.62 to 14.49

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.31	.196	.148	75.72	-
*1-Chlorooctadecane	13.162	.196	.	.04	-
*#Triacontane	16.391	.196	.083	42.54	-

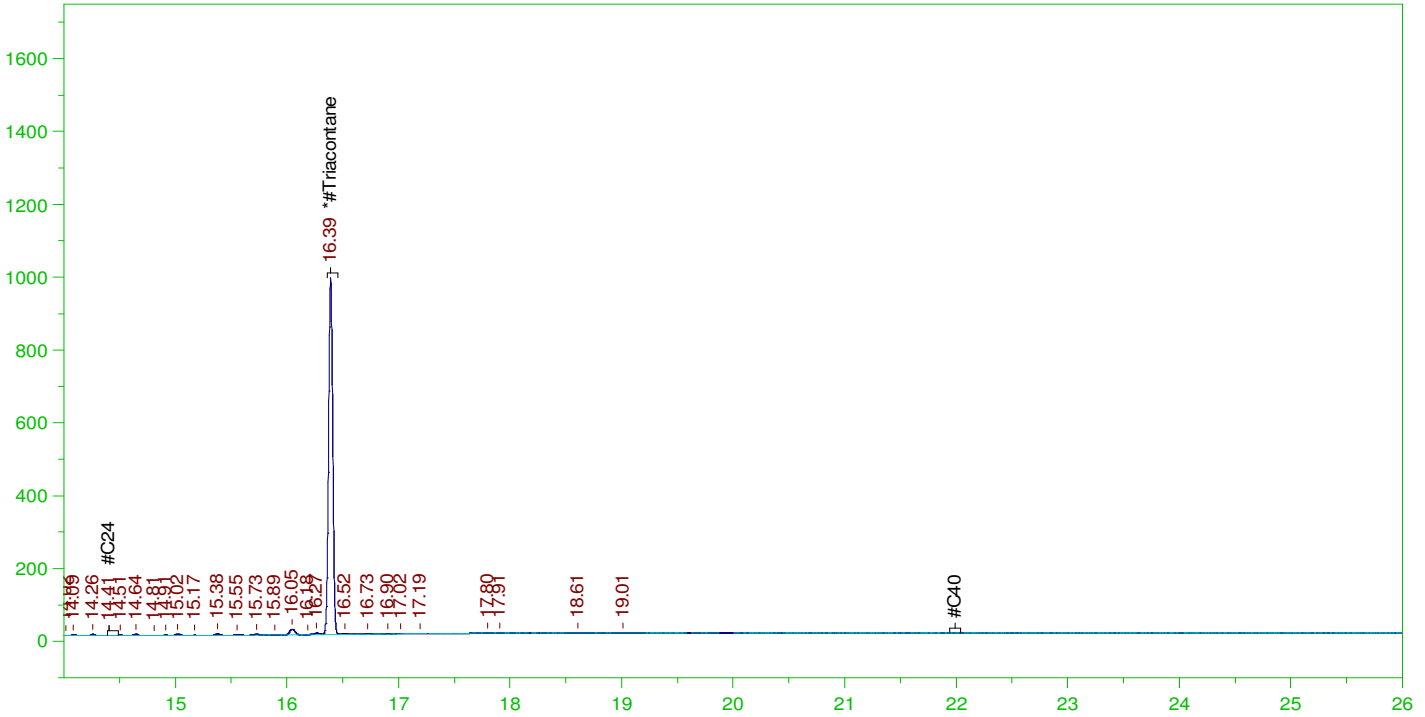
DRO Area:1099265 DRO Amount: 3.298238E-02
 TEH Area:1324394 TEH Amount: 3.973714E-02

ERH2377 (RHMW01R)

Batch ID: 162917

G:\org\HP5\DAT\HP5011822_b\0118HP5.0015.RAW

B22010758-002B ;0118HP5 , \$HC-8015-DRO-W, SGT



RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: B22010758-002B ;0118HP5 , \$HC-8015-DRO-W, SGT
 Raw File: G:\org\HP5\DAT\HP5011822_b\0118HP5.0015.RAW
 Date & Time Acquired: 1/18/2022 5:29:57 PM
 Method File: G:\Org\HP5\Methods\DR_OROS-BB-L%.MET
 Calibration File: G:\Org\HP5\Cals\SW8015C_ORO220111BB_SAMP.CAL
 Sample Weight: 1020 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 26424.55
 Rt range for Residual Range Organics: 14.39 to 22.04

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane_____	16.391	.49	.083	17.02	-

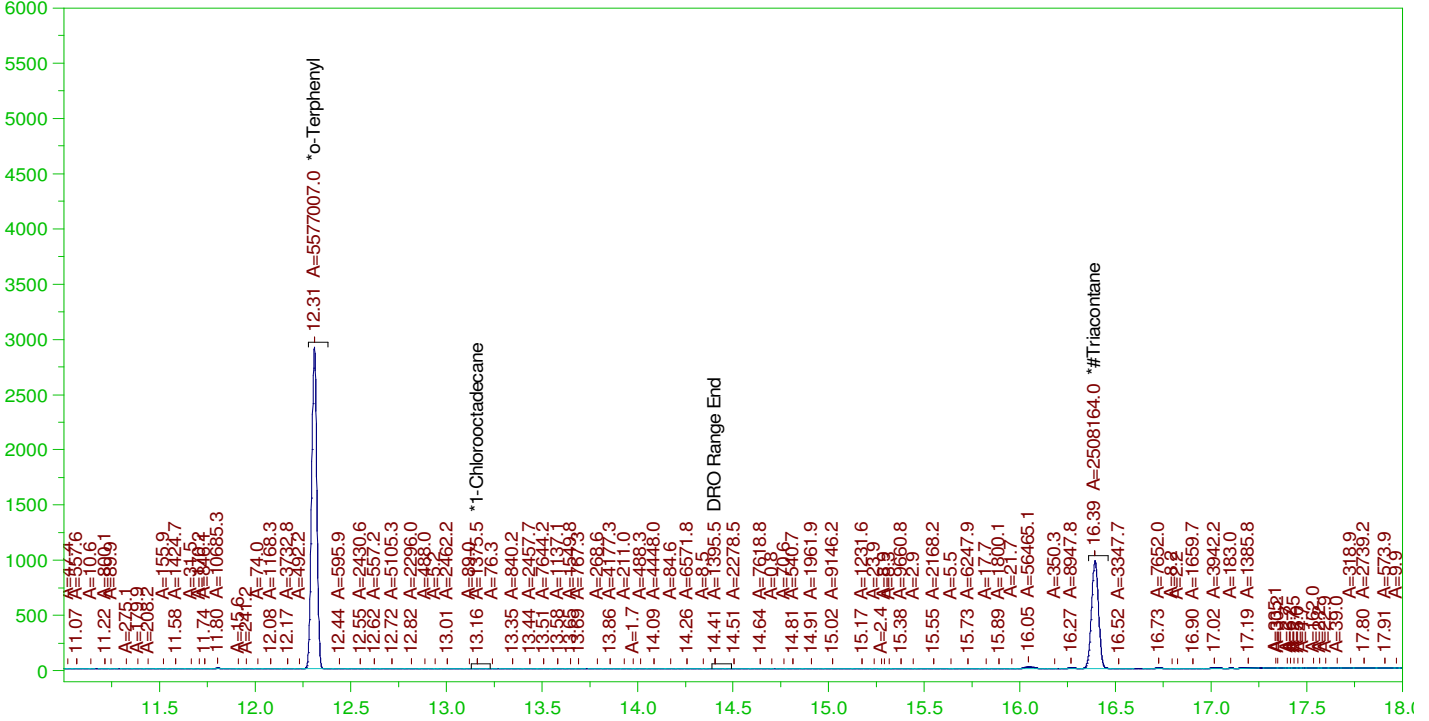
RRO Area:167825.3 RRO AMOUNT: 6.226582E-03

ERH2377 (RHMW01R)

Batch ID: 162917

G:\org\HP5\DAT\HP5011822_b\0118HP5.0015.RAW

B22010758-002B ;0118HP5 , \$HC-8015-DRO-W, SGT



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B22010758-002B ;0118HP5 , \$HC-8015-DRO-W, SGT
 Raw File: G:\org\HP5\DAT\HP5011822_b\0118HP5.0015.RAW
 Date & Time Acquired: 1/18/2022 5:29:57 PM
 Method File: G:\Org\HP5\Methods\DS_8015-C24T-BB-L#.met
 Calibration File: G:\Org\HP5\Cals\SW8015C_DRO220111JB-C24-T.CAL
 Sample Weight: 1020 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36

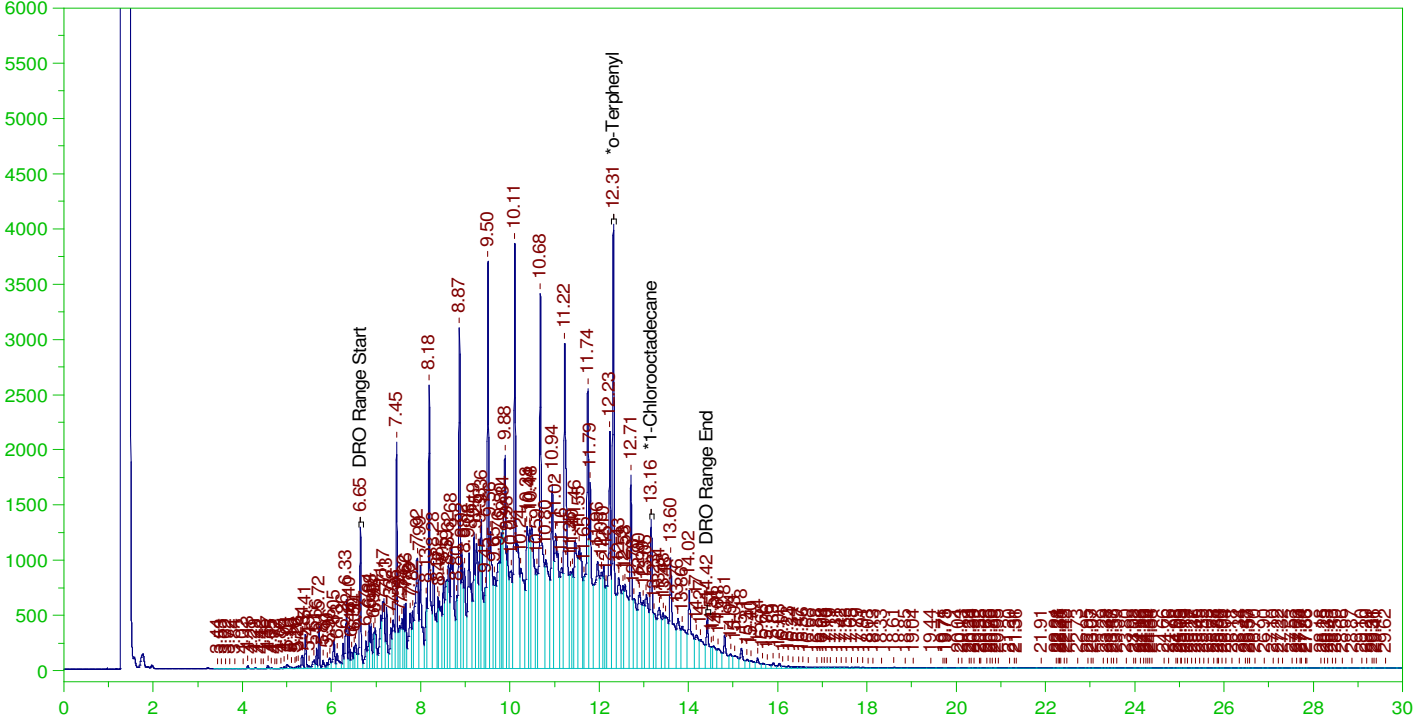
Rt range for Diesel Range Organics: 6.62 to 14.49

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.31	.196	.148	75.66	-
*1-Chlorooctadecane	13.162	.196	.	.02	-
*#Triacontane	16.391	.196	.083	42.32	-

DRO Area:1023475 DRO Amount: 3.070836E-02
 TEH Area:1273969 TEH Amount: 3.822419E-02

Batch ID: 162917
B22010759-001DMS ;0118HP5 , SGT

G:\org\HP5\DAT\HP5011822_b\0118HP5.0016.RAW



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B22010759-001DMS ;0118HP5 , SGT
 Raw File: G:\org\HP5\DAT\HP5011822_b\0118HP5.0016.RAW
 Date & Time Acquired: 1/18/2022 6:12:38 PM
 Method File: G:\Org\HP5\Methods\D3_8015-C24-JB-L%.met
 Calibration File: G:\Org\HP5\Cals\SW8015C_DRO220111JB-C24.CAL
 Sample Weight: 1020 Dilution: 1 S.A.: 1

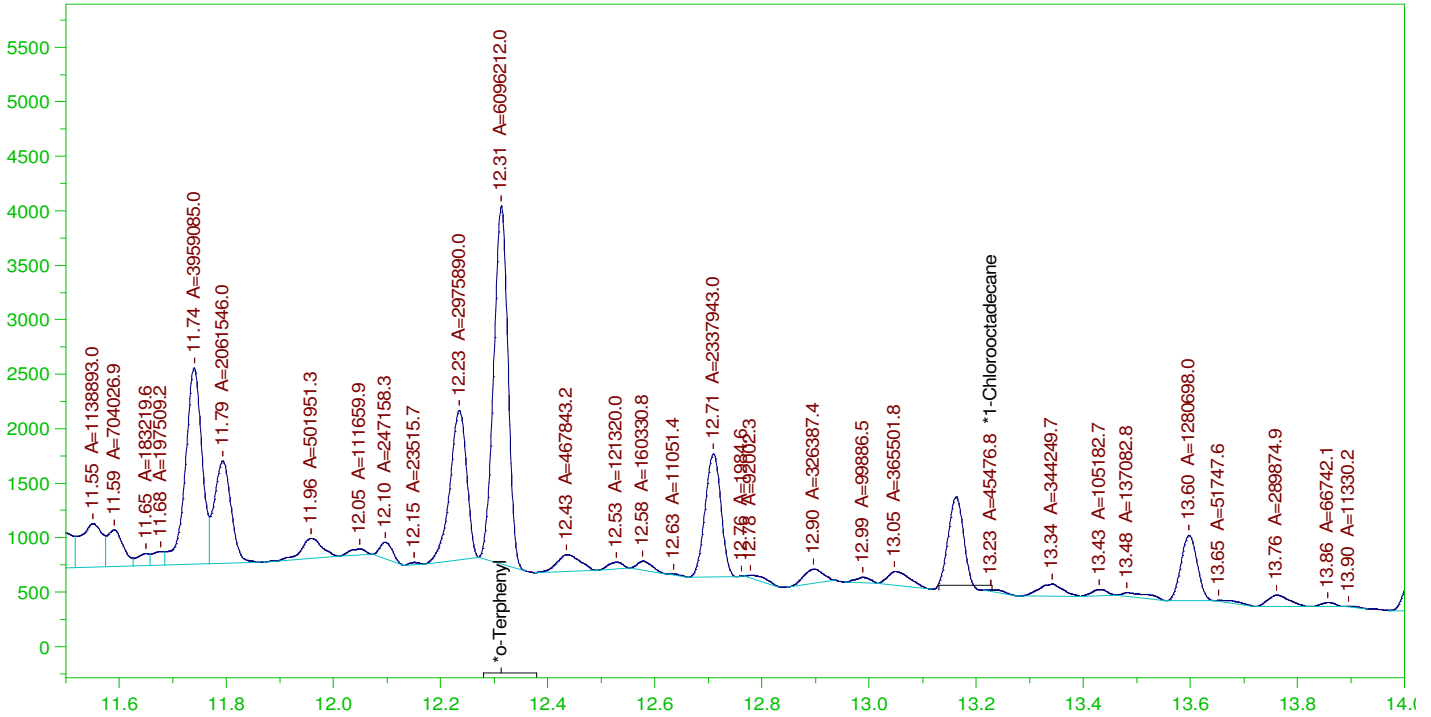
Mean RF for TEH: 32675.36

Rt range for Diesel Range Organics: 6.62 to 14.49

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.313	.196	.283	144.3	-
*1-Chlorooctadecane	13.162	.196	.123	62.68	-

DRO Area: 3.552142E+08 DRO Amount: 10.65786
 TEH Area: 3.7675E+08 TEH Amount: 11.30401

Batch ID: 162917
G:\org\HP5\DAT\HP5011822_b\0118HP5.0016.RAW B22010759-001DMS ;0118HP5 , SGT



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B22010759-001DMS ;0118HP5 , SGT
 Raw File: G:\org\HP5\DAT\HP5011822_b\0118HP5.0016.RAW
 Date & Time Acquired: 1/18/2022 6:12:38 PM
 Method File: G:\Org\HP5\Methods\DS_8015-C24-JB-L#.met
 Calibration File: G:\Org\HP5\Cals\SW8015C_DRO220111JB-C24.CAL
 Sample Weight: 1020 Dilution: 1 S.A.: 1

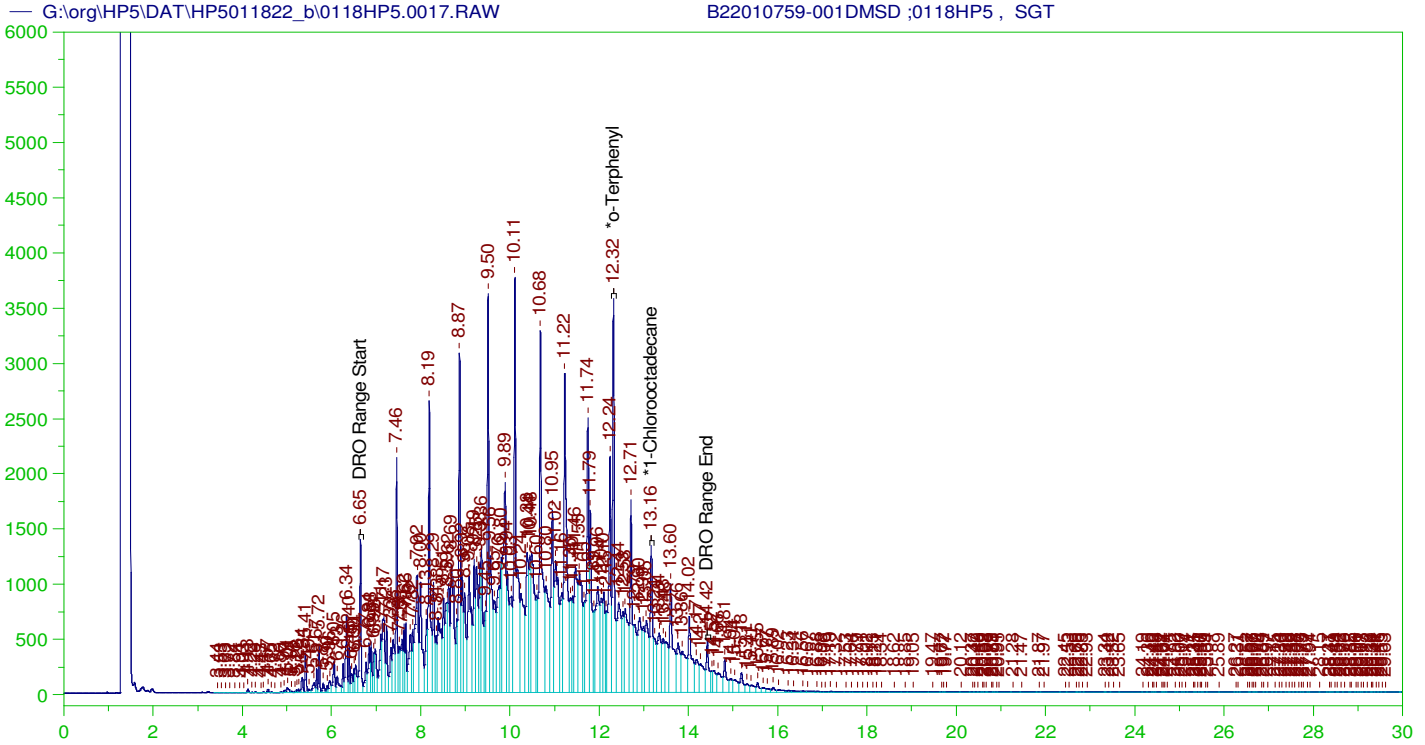
Mean RF for TEH: 32675.36

Rt range for Diesel Range Organics: 6.62 to 14.49

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.313	.196	.162	82.7
*1-Chlorooctadecane	13.228	.196	.001	.62

DRO Area: 1.620728E+08 DRO Amount: 4.862834
 TEH Area: 1.712002E+08 TEH Amount: 5.136695

Batch ID: 162917
B22010759-001DMSD ;0118HP5 , SGT



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B22010759-001DMSD ;0118HP5 , SGT
 Raw File: G:\org\HP5\DAT\HP5011822_b\0118HP5.0017.RAW
 Date & Time Acquired: 1/18/2022 6:55:17 PM
 Method File: G:\Org\HP5\Methods\D3_8015-C24-JB-L%.met
 Calibration File: G:\Org\HP5\Cals\SW8015C_DRO220111JB-C24.CAL
 Sample Weight: 1040 Dilution: 1 S.A.: 1

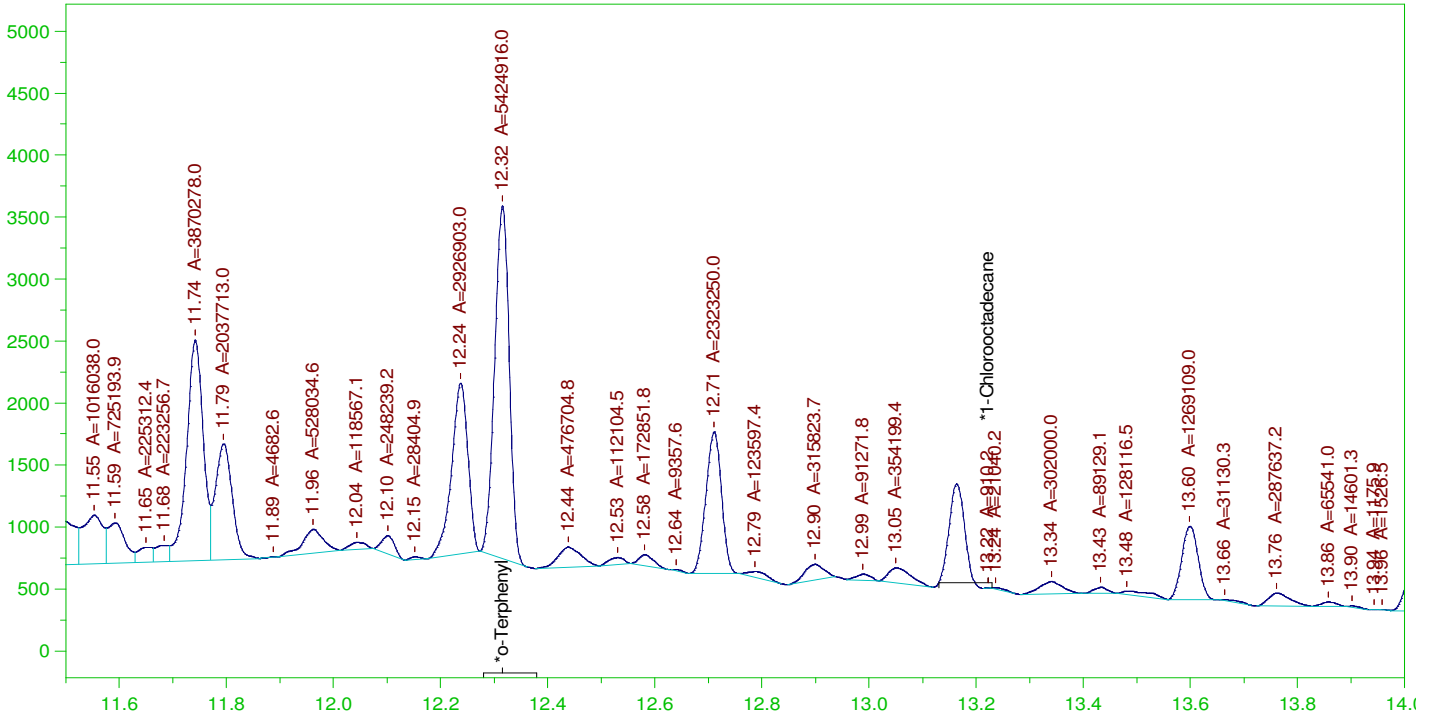
Mean RF for TEH: 32675.36

Rt range for Diesel Range Organics: 6.62 to 14.49

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.315	.192	.257	133.47	-
*1-Chlorooctadecane	13.163	.192	.117	60.66	-

DRO Area: 3.545034E+08 DRO Amount: 10.43198
 TEH Area: 3.765484E+08 TEH Amount: 11.0807

Batch ID: 162917
G:\org\HP5\DAT\HP5011822_b\0118HP5.0017.RAW B22010759-001DMSD ;0118HP5 , SGT



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

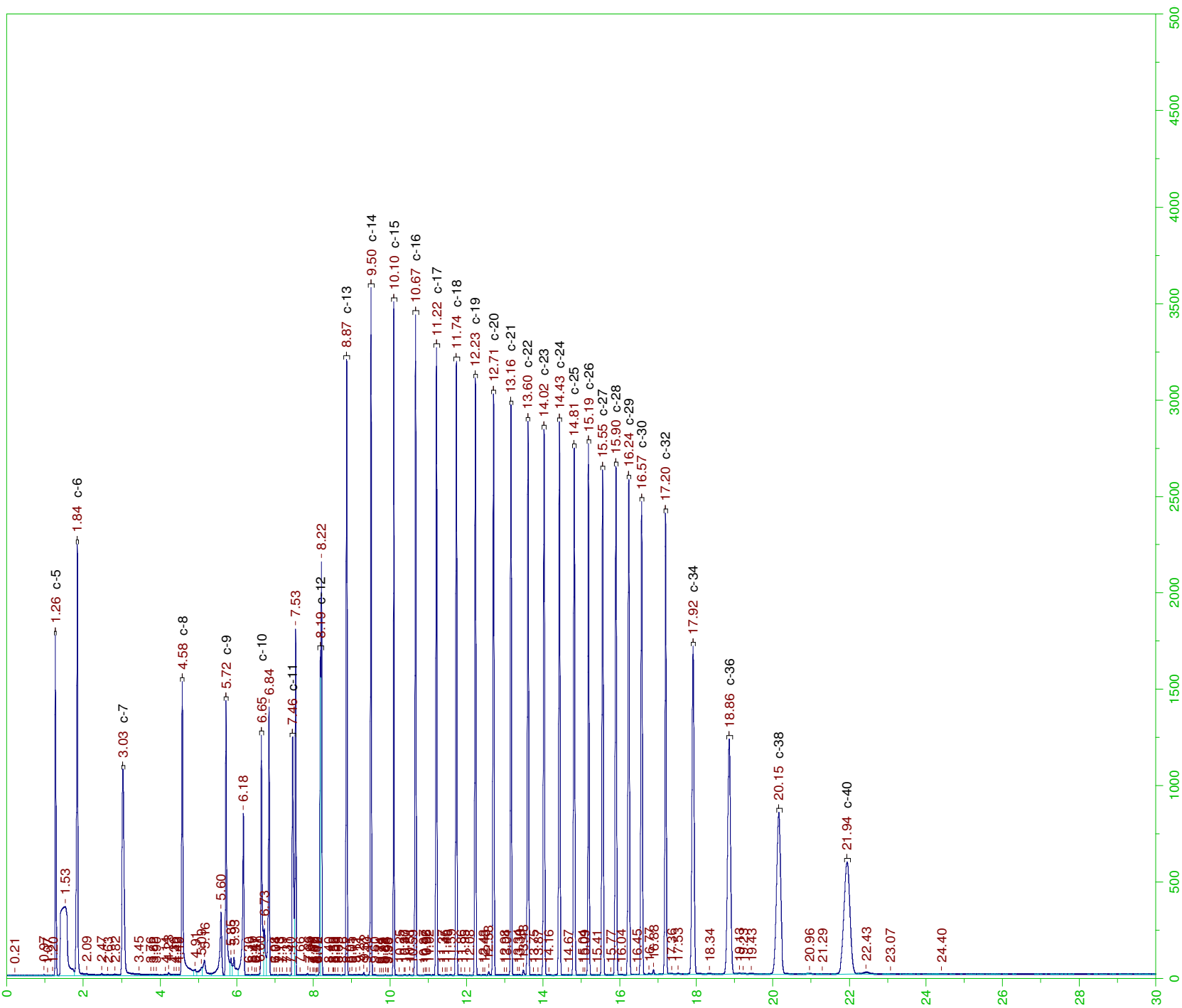
Sample Name: B22010759-001DMSD ;0118HP5 , SGT
 Raw File: G:\org\HP5\DAT\HP5011822_b\0118HP5.0017.RAW
 Date & Time Acquired: 1/18/2022 6:55:17 PM
 Method File: G:\Org\HP5\Methods\DS_8015-C24-JB-L#.met
 Calibration File: G:\Org\HP5\Cals\SW8015C_DRO220111JB-C24.CAL
 Sample Weight: 1040 Dilution: 1 S.A.: 1

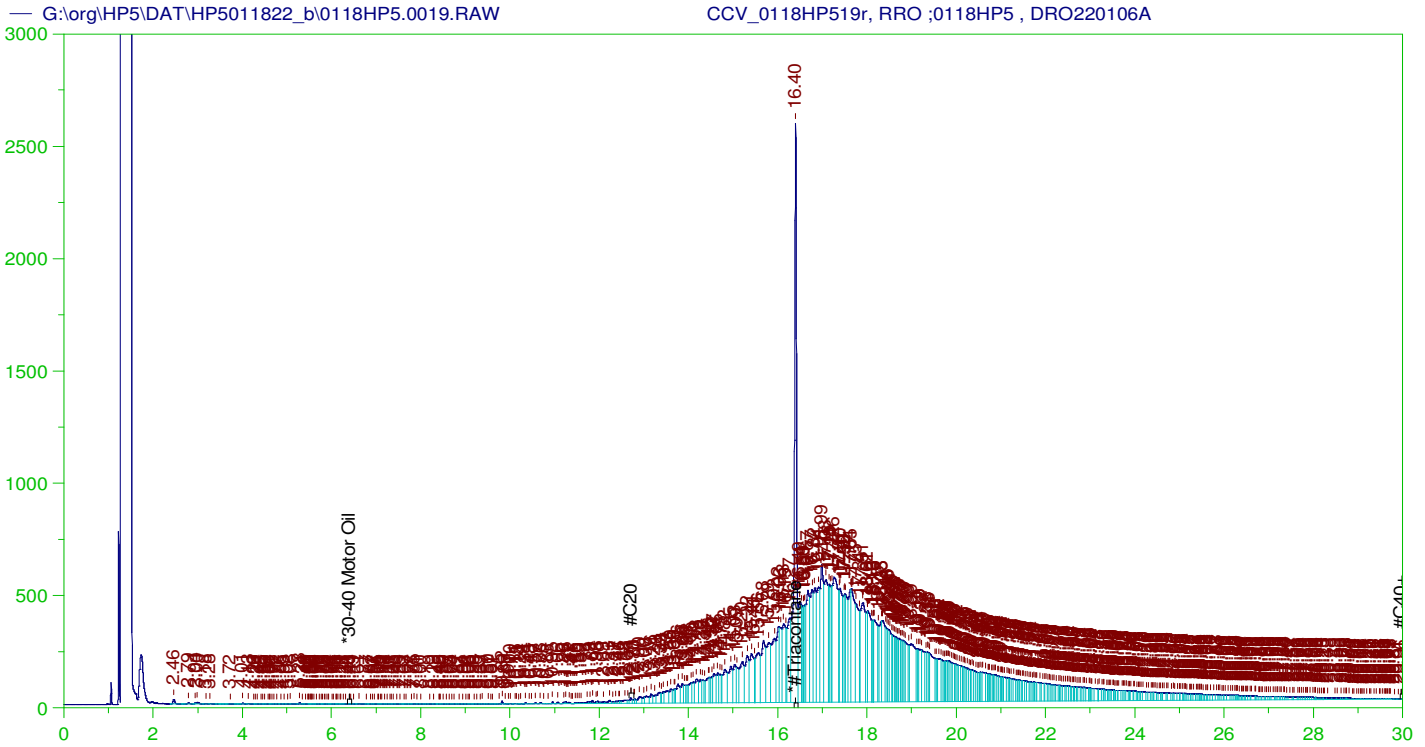
Mean RF for TEH: 32675.36

Rt range for Diesel Range Organics: 6.62 to 14.49

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.315	.192	.142	73.59
*1-Chlorooctadecane	13.222	.192	.	.01

DRO Area: 1.639653E+08 DRO Amount: 4.82501
 TEH Area: 1.740673E+08 TEH Amount: 5.122283





RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: CCV_0118HP519r, RRO ;0118HP5 , DRO220106A
 Raw File: G:\org\HP5\DAT\HP5011822_b\0118HP5.0019.RAW
 Date & Time Acquired: 1/18/2022 8:20:36 PM
 Method File: G:\Org\HP5\Methods\DC_ORO-BB-L%.MET
 Calibration File: G:\Org\HP5\Cals\SW8015C_ORO220111BB.CAL
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for for ~~Residual~~ TEH(Oil Range) Organics Calculations: 26424.55
 Rt range for ~~Residual~~ TEH(Oil Range) Organics: 12.67 to 30.05

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.397	500.	328.592	65.72	-

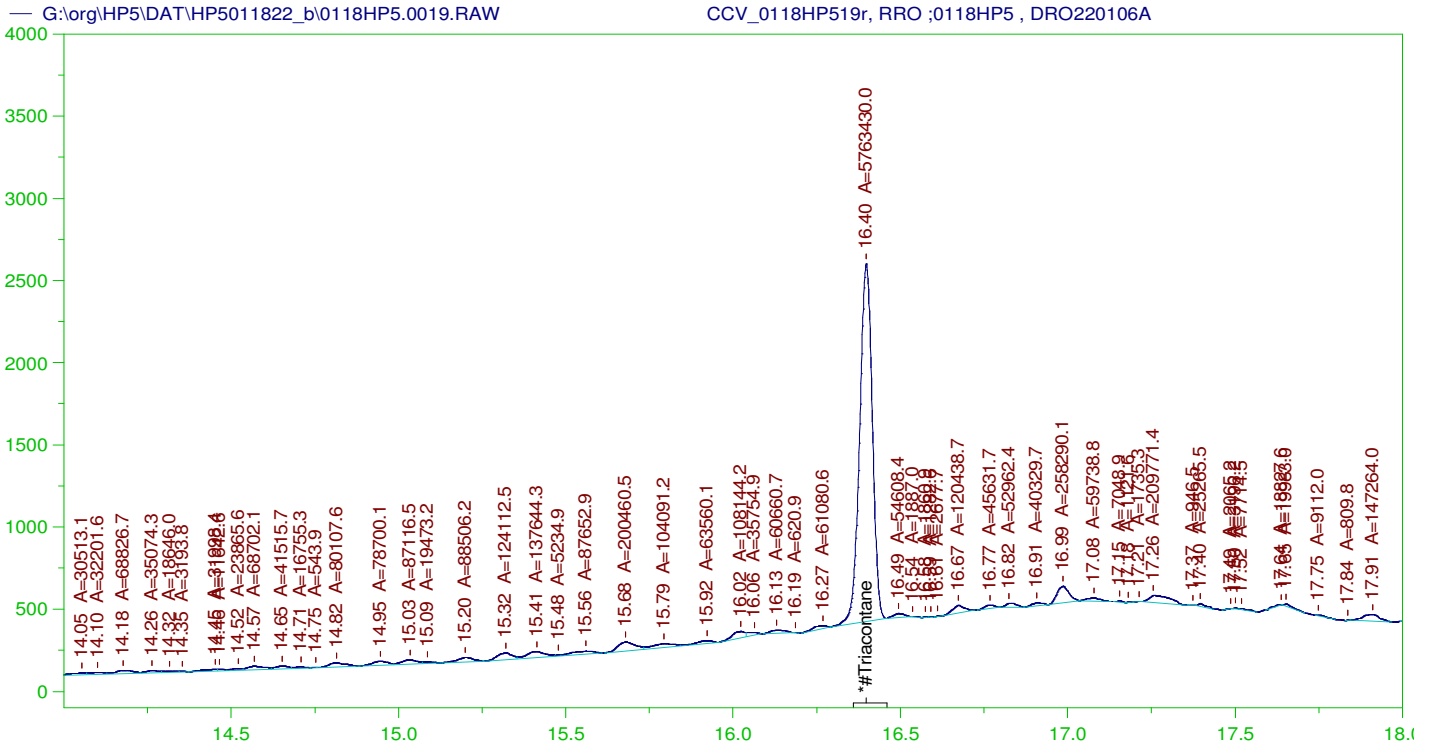
RRO TEH(Oil Range) Area:1.311295E+08 RRO TEH(Oil Range) AMOUNT: 4962.41

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5011822_b\0118HP5.0019.RAW

COMPOUND	ACTUAL (NG)	MEASURED (NG)	%RECOVERY	LIMITS
*30-40 Motor Oil	5000.	.043	.	75-125

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*#Triacontane	16.397	200.	328.592	164.3	75-125

AMN 02/14/2022



RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: CCV_0118HP519r, RRO ;0118HP5 , DRO220106A
 Raw File: G:\org\HP5\DAT\HP5011822_b\0118HP5.0019.RAW
 Date & Time Acquired: 1/18/2022 8:20:36 PM
 Method File: G:\Org\HP5\Methods\DS_ORO-BB-L%.MET
 Calibration File: G:\Org\HP5\Cals\SW8015C_ORO220111BB.CAL
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 26424.55
 Rt range for Residual Range Organics: 12.67 to 30.05

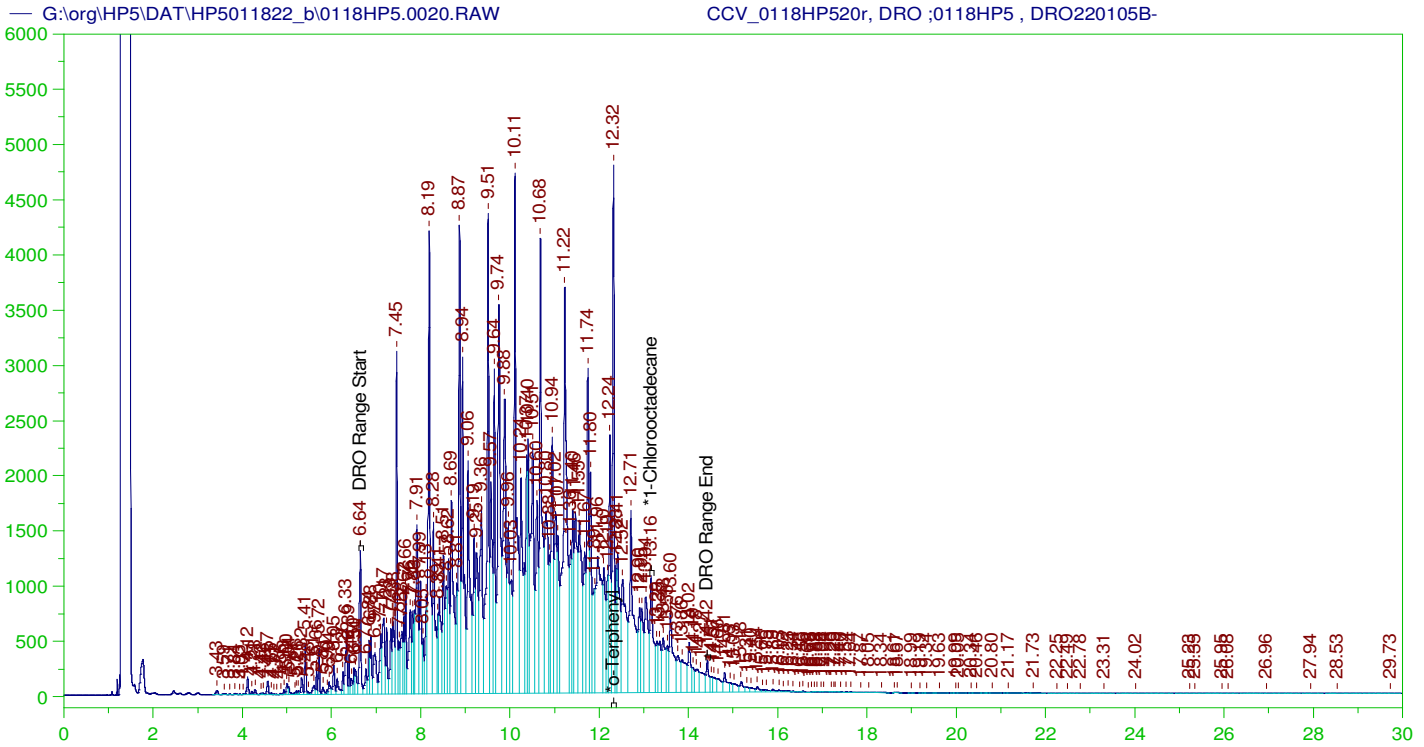
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.397	500.	194.473	38.89	-

RRO Area:3544580 RRO AMOUNT: 134.1396

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5011822_b\0118HP5.0019.RAW

COMPOUND	ACTUAL (NG)	MEASURED (NG)	%RECOVERY	LIMITS
*30-40 Motor Oil	5000.	.043	.	75-125

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*#Triacontane	16.397	200.	194.473	97.24	75-125



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: CCV_0118HP520r, DRO ;0118HP5 , DRO220105B-
 Raw File: G:\org\HP5\DAT\HP5011822_b\0118HP5.0020.RAW
 Date & Time Acquired: 1/18/2022 9:03:13 PM
 Method File: G:\Org\HP5\Methods\DC_8015-C24-JB-L%.met
 Calibration File: G:\Org\HP5\Cals\SW8015C_DRO220111JB-C24.CAL
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36

Rt range for Diesel Range Organics: 6.62 to 14.49

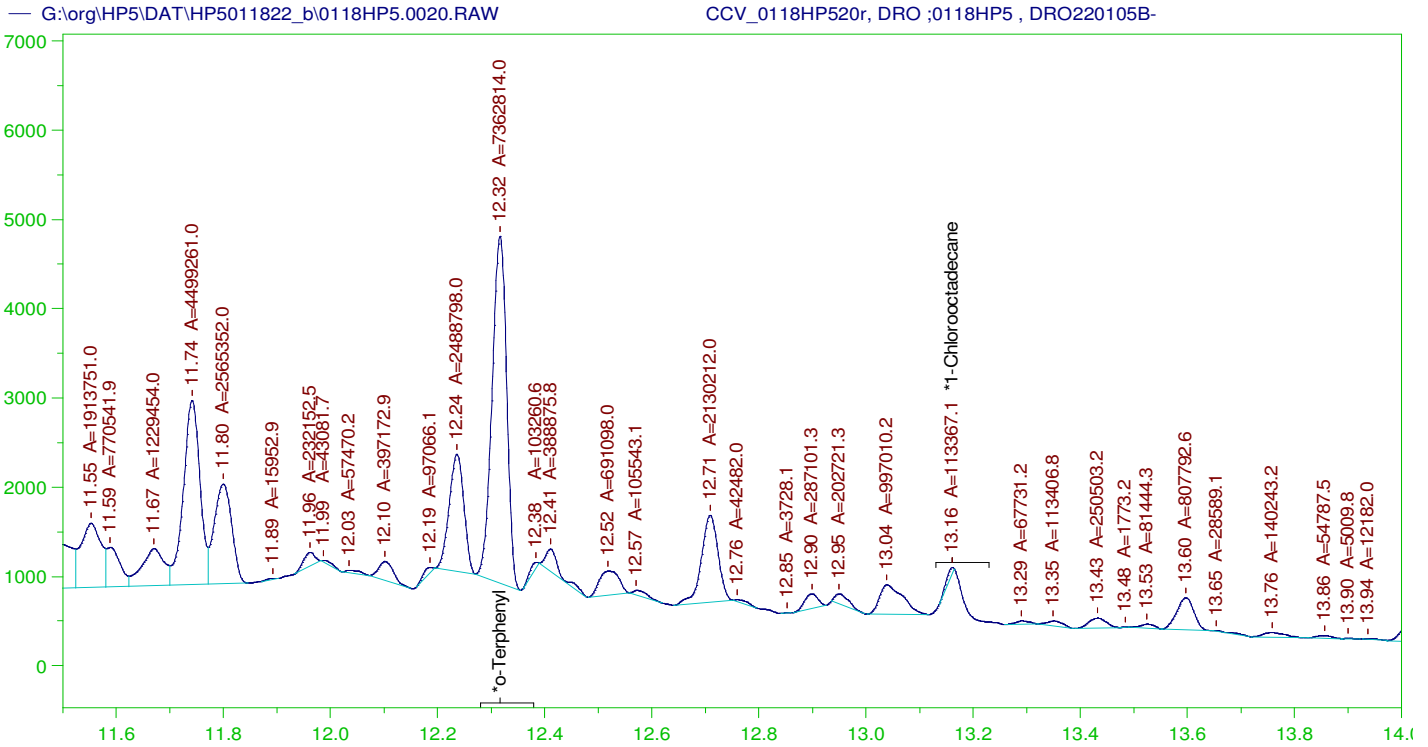
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.316	200.	321.69	160.85
*1-Chlorooctadecane	13.161	200.	144.876	72.44

DRO Area: 4.55363E+08 DRO Amount: 13935.97
 TEH Area: 4.719414E+08 TEH Amount: 14443.34

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5011822_b\0118HP5.0020.RAW

COMPOUND	ACTUAL (NG)	MEASURED (NG)	%RECOVERY	LIMITS
TOTAL DRO	15000.	14443.34	96.29	85-115

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*o-Terphenyl	12.316	200.	321.69	160.85	85-115
*1-Chlorooctadecane	13.161	200.	144.876	72.44	85-115



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: CCV_0118HP520r, DRO ;0118HP5 , DRO220105B-
 Raw File: G:\org\HP5\DAT\HP5011822_b\0118HP5.0020.RAW
 Date & Time Acquired: 1/18/2022 9:03:13 PM
 Method File: G:\Org\HP5\Methods\DS_8015-C24-JB-L#.met
 Calibration File: G:\Org\HP5\Cals\SW8015C_DRO220111JB-C24.CAL
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36

Rt range for Diesel Range Organics: 6.62 to 14.49

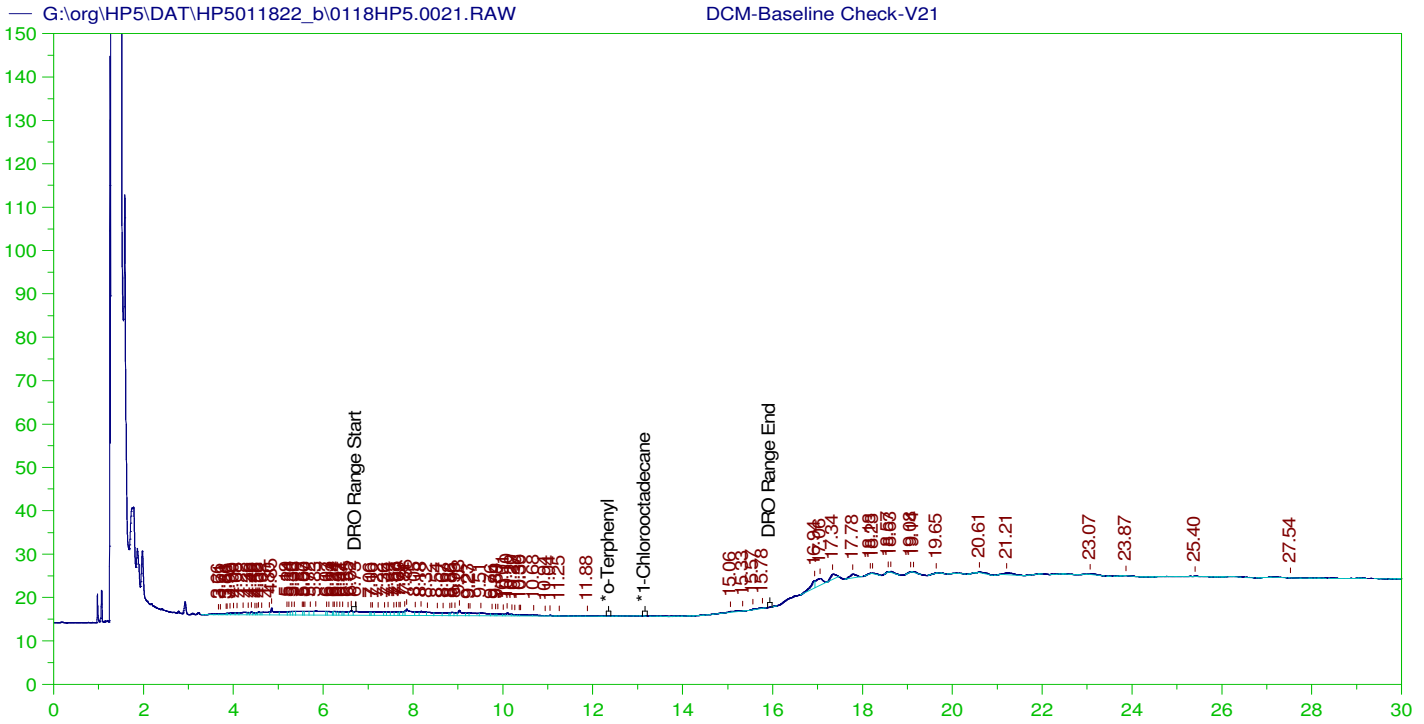
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.316	200.	199.762	99.88
*1-Chlorooctadecane	13.161	200.	3.076	1.54

DRO Area: 2.352859E+08 DRO Amount: 7200.713
 TEH Area: 2.458323E+08 TEH Amount: 7523.478

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5011822_b\0118HP5.0020.RAW

COMPOUND	ACTUAL (NG)	MEASURED (NG)	%RECOVERY	LIMITS
TOTAL DRO	15000.	7523.48	50.16	85-115

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*o-Terphenyl	12.316	200.	199.762	99.88	85-115
*1-Chlorooctadecane	13.161	200.	3.076	1.54	85-115



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: DCM-Baseline Check-V21
 Raw File: G:\org\HP5\DAT\HP5011822_b\0118HP5.0021.RAW
 Date & Time Acquired: 1/18/2022 9:45:50 PM
 Method File: G:\Org\HP5\Methods\DR_8015-JA-LEXP.met
 Calibration File: G:\Org\HP5\Cals\SW8015C_DRO220111JA.CAL
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36
 Rt range for Diesel Range Organics: 6.63 to 15.99

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	29.98	200.	.	-
*1-Chlorooctadecane	29.98	200.	.	-

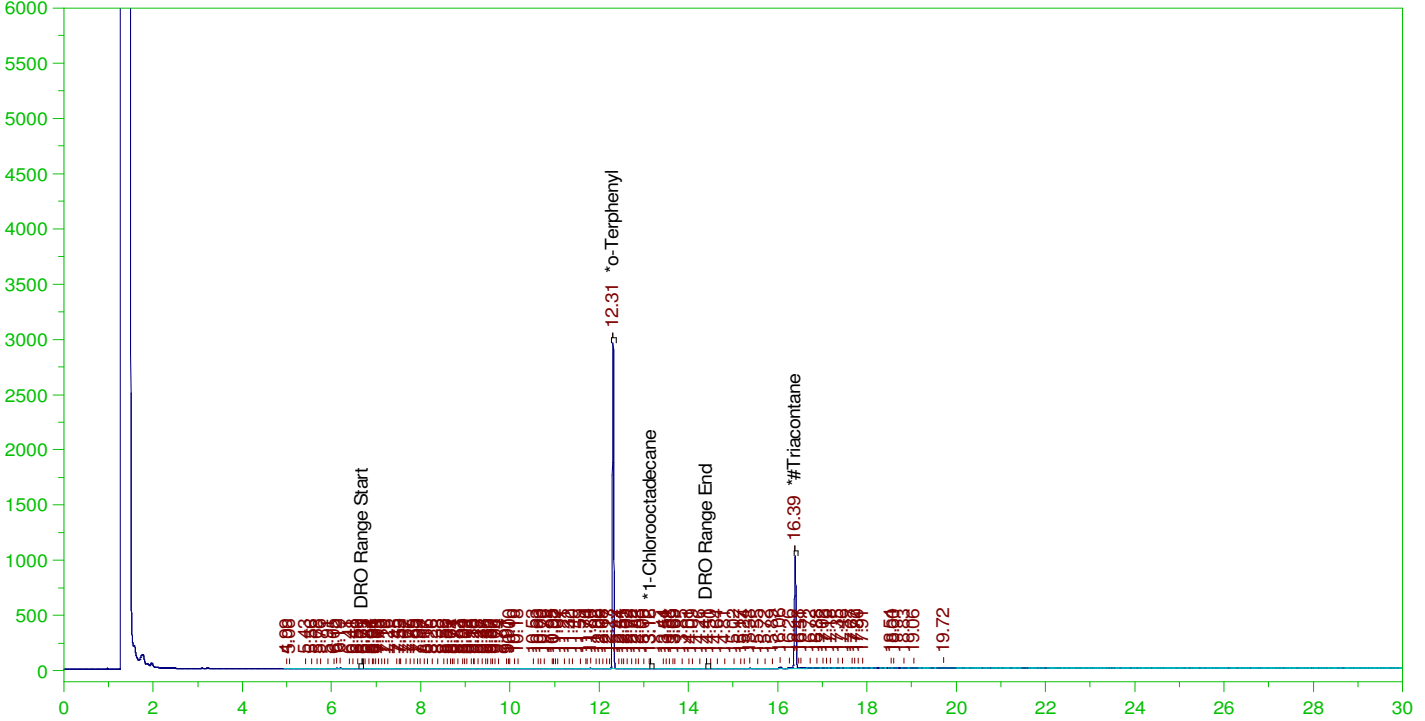
DRO Area:171511.9 DRO Amount: 5.248967
 TEH Area:371152.7 TEH Amount: 11.35879

ERH2414 (RHMW08)

Batch ID: 162917

G:\org\HP5\DAT\HP5011822_b\0118HP5.0022.RAW

B22010753-001D ;0118HP5 , \$HC-8015-DRO-W, SGT



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B22010753-001D ;0118HP5 , \$HC-8015-DRO-W, SGT
 Raw File: G:\org\HP5\DAT\HP5011822_b\0118HP5.0022.RAW
 Date & Time Acquired: 1/18/2022 10:28:25 PM
 Method File: G:\Org\HP5\Methods\DR_8015-C24T-JB-L%.met
 Calibration File: G:\Org\HP5\Cals\SW8015C_DRO220111JB-C24-T.CAL
 Sample Weight: 1020 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36

Rt range for Diesel Range Organics: 6.62 to 14.49

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.308	.196	.148	75.58	-
*1-Chlorooctadecane	13.157	.196	.	.02	-
*#Triacontane	16.389	.196	.088	44.63	-

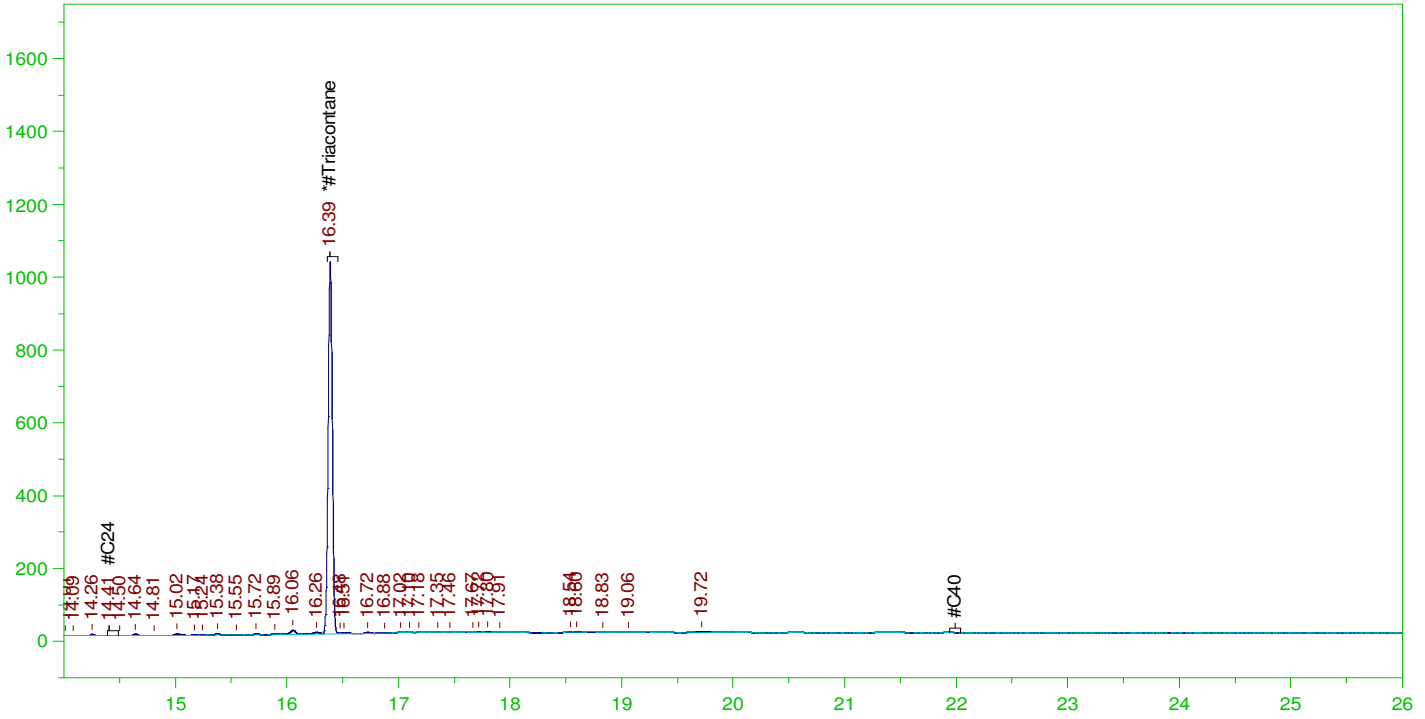
DRO Area:219075.9 DRO Amount: 6.573157E-03
 TEH Area:501316.3 TEH Amount: 0.0150415

ERH2414 (RHMW08)

Batch ID: 162917

G:\org\HP5\DAT\HP5011822_b\0118HP5.0022.RAW

B22010753-001D ;0118HP5 , \$HC-8015-DRO-W, SGT



RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: B22010753-001D ;0118HP5 , \$HC-8015-DRO-W, SGT
 Raw File: G:\org\HP5\DAT\HP5011822_b\0118HP5.0022.RAW
 Date & Time Acquired: 1/18/2022 10:28:25 PM
 Method File: G:\Org\HP5\Methods\DR_OROS-BB-L%.MET
 Calibration File: G:\Org\HP5\Cals\SW8015C_ORO220111BB_SAMP.CAL
 Sample Weight: 1020 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 26424.55
 Rt range for Residual Range Organics: 14.39 to 22.04

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane_____	16.389	.49	.088	17.85	-

RRO Area:196410.1 RRO AMOUNT: 7.287121E-03

ERH2414 (RHMW08)

Batch ID: 162917

G:\org\HP5\DAT\HP5011822_b\0118HP5.0022.RAW

B22010753-001D ;0118HP5 , \$HC-8015-DRO-W, SGT



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B22010753-001D ;0118HP5 , \$HC-8015-DRO-W, SGT
 Raw File: G:\org\HP5\DAT\HP5011822_b\0118HP5.0022.RAW
 Date & Time Acquired: 1/18/2022 10:28:25 PM
 Method File: G:\Org\HP5\Methods\DS_8015-C24T-BB-L#.met
 Calibration File: G:\Org\HP5\Cals\SW8015C_DRO220111JB-C24-T.CAL
 Sample Weight: 1020 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36

Rt range for Diesel Range Organics: 6.62 to 14.49

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.308	.196	.148	75.51	-
*1-Chlorooctadecane	13.157	.196	.	.01	-
*#Triacontane	16.389	.196	.087	44.37	-

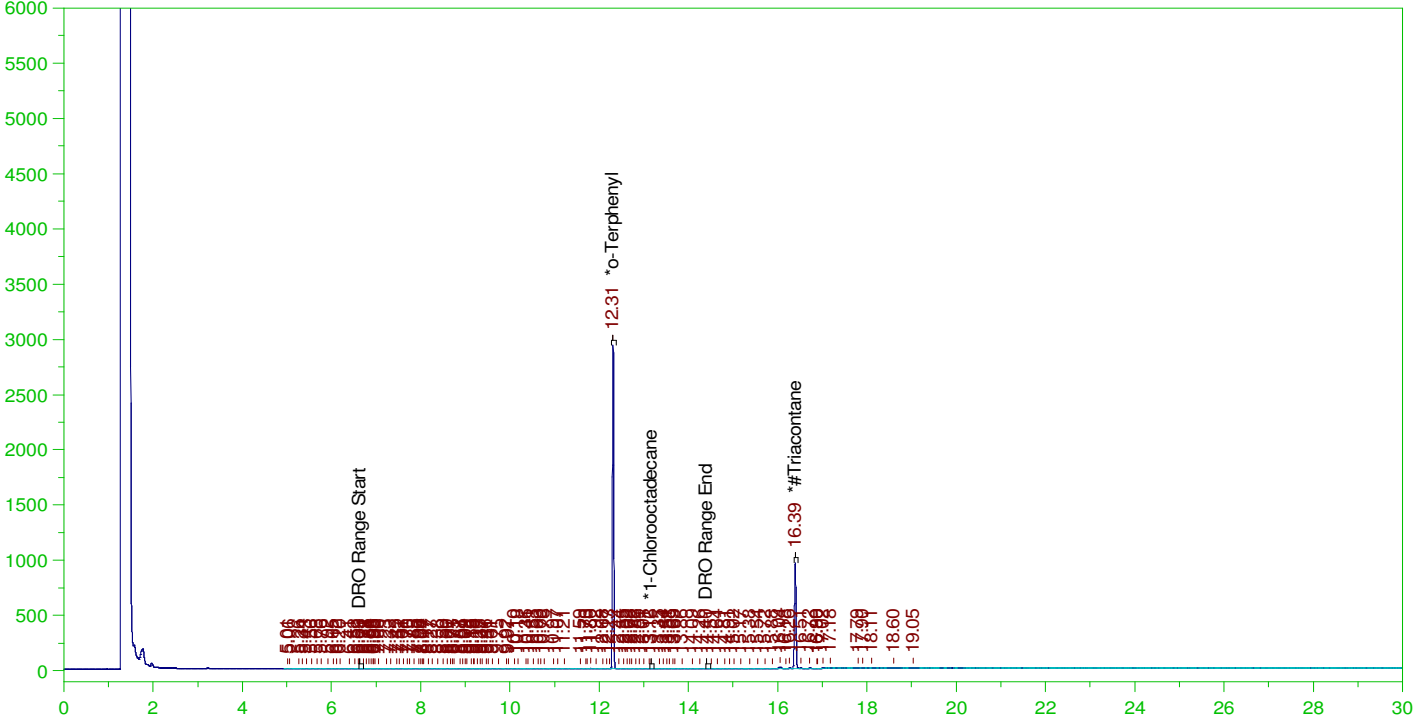
DRO Area:188853.2 DRO Amount: 5.666355E-03
 TEH Area:489346.1 TEH Amount: 1.468235E-02

ERH2381 (RHMW03)

Batch ID: 162917

G:\org\HP5\DAT\HP5011822_b\0118HP5.0023.RAW

B22010756-001D ;0118HP5 , \$HC-8015-DRO-W, SGT



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B22010756-001D ;0118HP5 , \$HC-8015-DRO-W, SGT
 Raw File: G:\org\HP5\DAT\HP5011822_b\0118HP5.0023.RAW
 Date & Time Acquired: 1/18/2022 11:10:56 PM
 Method File: G:\Org\HP5\Methods\DR_8015-C24T-JB-L%.met
 Calibration File: G:\Org\HP5\Cals\SW8015C_DRO220111JB-C24-T.CAL
 Sample Weight: 1030 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36

Rt range for Diesel Range Organics: 6.62 to 14.49

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.308	.194	.146	75.22	-
*1-Chlorooctadecane	13.161	.194	.	.02	-
*#Triacontane	16.389	.194	.082	42.22	-

DRO Area:229512.8
 TEH Area:469022.7

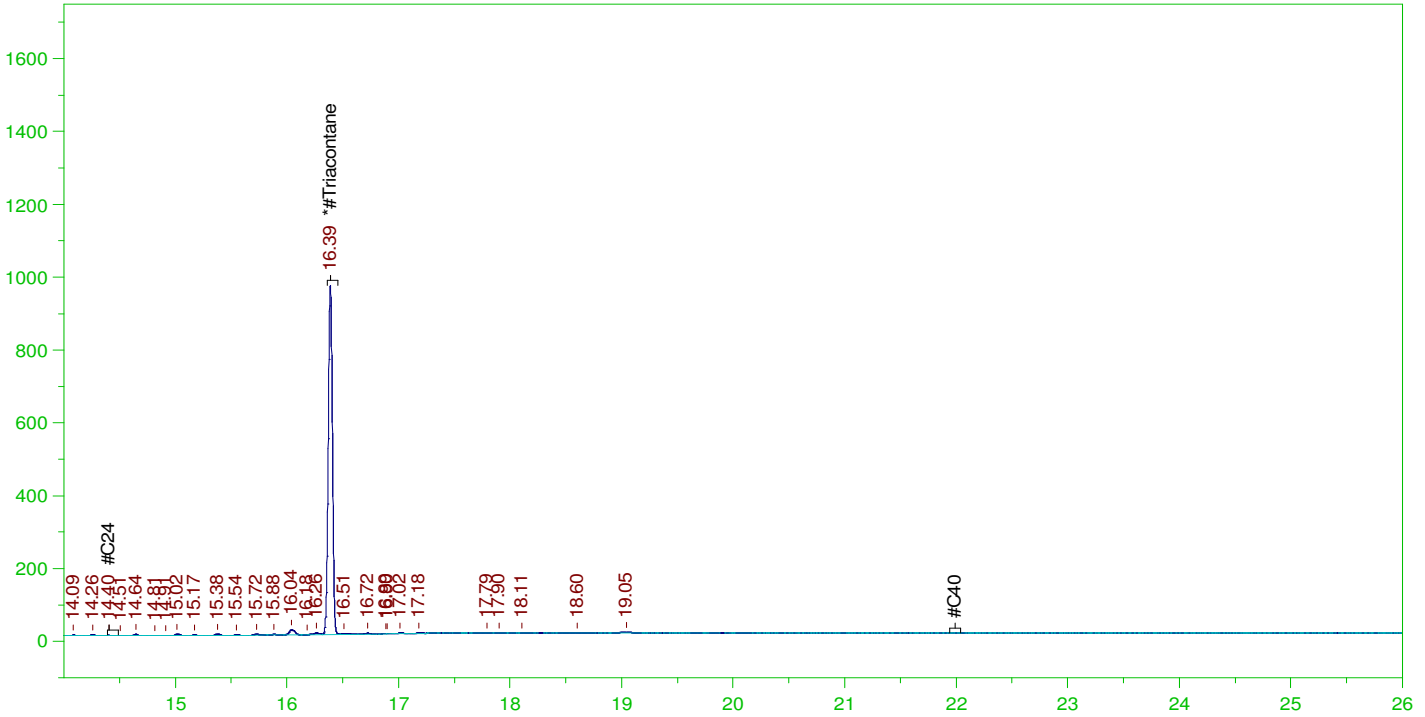
DRO Amount: 6.81945E-03
 TEH Amount: 1.393594E-02

ERH2381 (RHMW03)

Batch ID: 162917

G:\org\HP5\DAT\HP5011822_b\0118HP5.0023.RAW

B22010756-001D ;0118HP5 , \$HC-8015-DRO-W, SGT



RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: B22010756-001D ;0118HP5 , \$HC-8015-DRO-W, SGT
 Raw File: G:\org\HP5\DAT\HP5011822_b\0118HP5.0023.RAW
 Date & Time Acquired: 1/18/2022 11:10:56 PM
 Method File: G:\Org\HP5\Methods\DR_OROS-BB-L%.MET
 Calibration File: G:\Org\HP5\Cals\SW8015C_ORO220111BB_SAMP.CAL
 Sample Weight: 1030 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 26424.55
 Rt range for Residual Range Organics: 14.39 to 22.04

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*#Triacontane_____	16.389	.485	.082	16.89

RRO Area:177207.4 RRO AMOUNT: 6.510841E-03

ERH2381 (RHMW03)

Batch ID: 162917

G:\org\HP5\DAT\HP5011822_b\0118HP5.0023.RAW

B22010756-001D ;0118HP5 , \$HC-8015-DRO-W, SGT



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

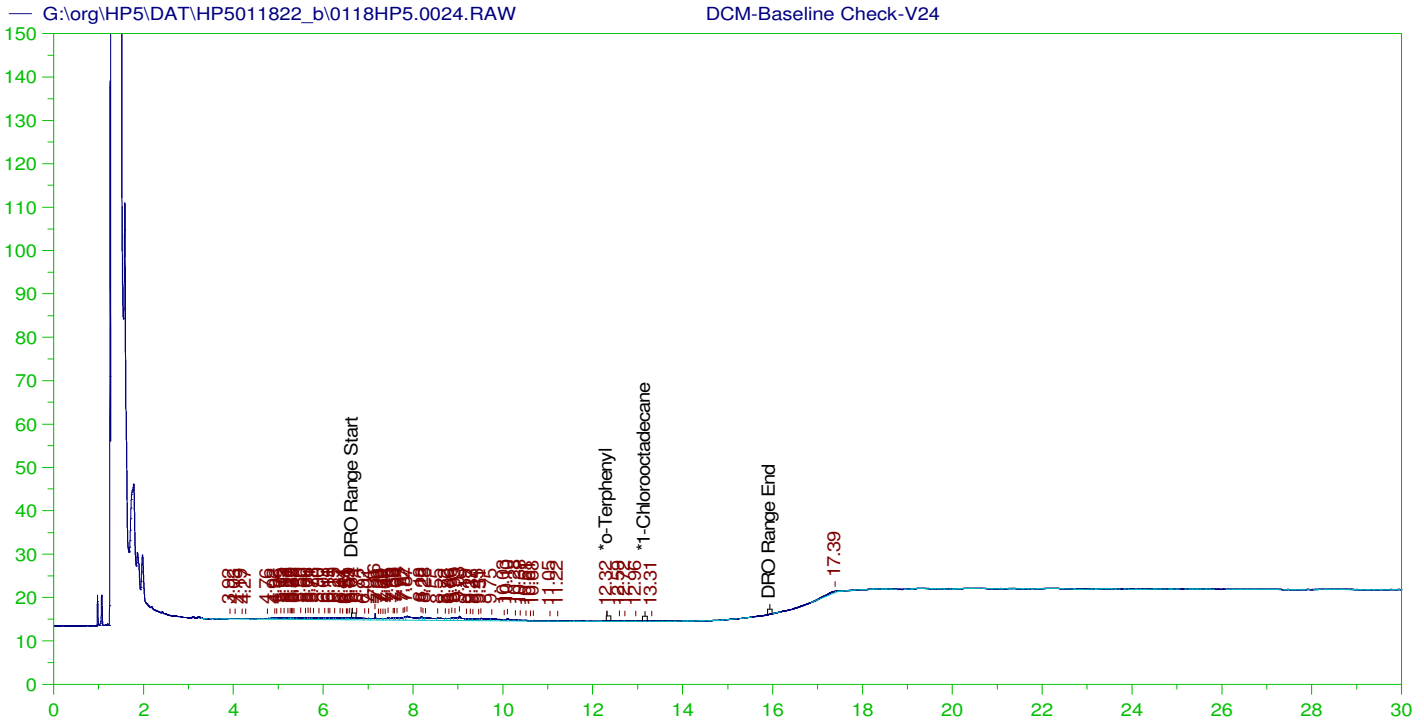
Sample Name: B22010756-001D ;0118HP5 , \$HC-8015-DRO-W, SGT
 Raw File: G:\org\HP5\DAT\HP5011822_b\0118HP5.0023.RAW
 Date & Time Acquired: 1/18/2022 11:10:56 PM
 Method File: G:\Org\HP5\Methods\DS_8015-C24T-BB-L#.met
 Calibration File: G:\Org\HP5\Cals\SW8015C_DRO220111JB-C24-T.CAL
 Sample Weight: 1030 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36

Rt range for Diesel Range Organics: 6.62 to 14.49

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.308	.194	.146	75.15	-
*1-Chlorooctadecane	13.161	.194	.	.01	-
*#Triacontane	16.389	.194	.081	41.95	-

DRO Area:186451.8 DRO Amount: 5.53999E-03
 TEH Area:427514.5 TEH Amount: 1.270262E-02



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: DCM-Baseline Check-V24
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 Date & Time Acquired: 1/18/2022 11:53:29 PM
 Method File: G:\Org\HP5\Methods\DR_8015-JA-LEXP.met
 Calibration File: G:\Org\HP5\Cals\SW8015C_DRO220111JA.CAL
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36

Rt range for Diesel Range Organics: 6.63 to 15.99

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.315	200.	.018	.01 -
*1-Chlorooctadecane	29.944	200.	.	. -

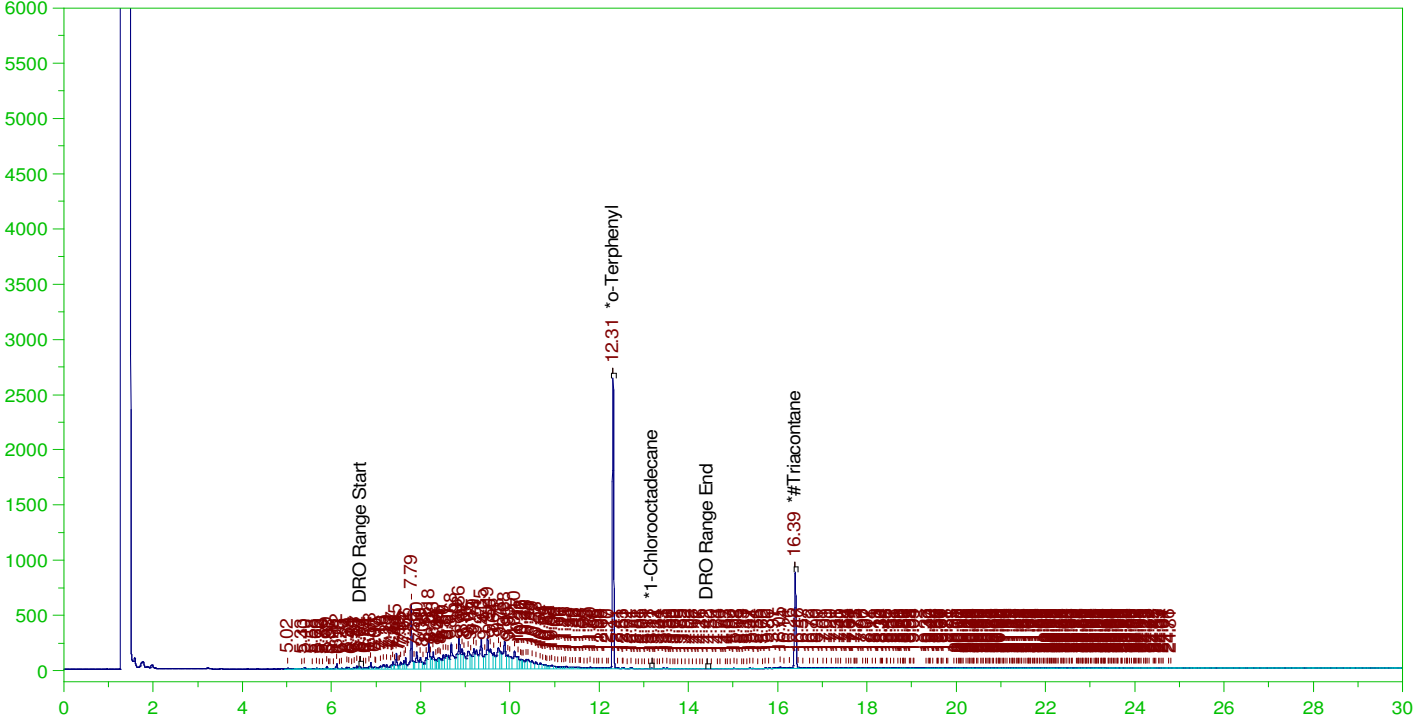
DRO Area:116389.5 DRO Amount: 3.561996
 TEH Area:177769 TEH Amount: 5.440459

ERH2392 (Sump Adit3)

G:\org\HP5\DAT\HP5011822_b\0118HP5.0025.RAW

Batch ID: 162917

B22010751-001D ;0118HP5 , \$HC-8015-DRO-W, SGT



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B22010751-001D ;0118HP5 , \$HC-8015-DRO-W, SGT
 Raw File: G:\org\HP5\DAT\HP5011822_b\0118HP5.0025.RAW
 Date & Time Acquired: 1/19/2022 12:36:00 AM
 Method File: G:\Org\HP5\Methods\DR_8015-011825-JB-L%.met
 Calibration File: G:\Org\HP5\Cals\SW8015C_DRO220111JB-C24-T.CAL
 Sample Weight: 990 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36

Rt range for Diesel Range Organics: 6.62 to 14.49

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.307	.202	.137	68.02	-
*1-Chlorooctadecane	13.173	.202	.	.22	-
*#Triacontane	16.389	.202	.079	39.17	-

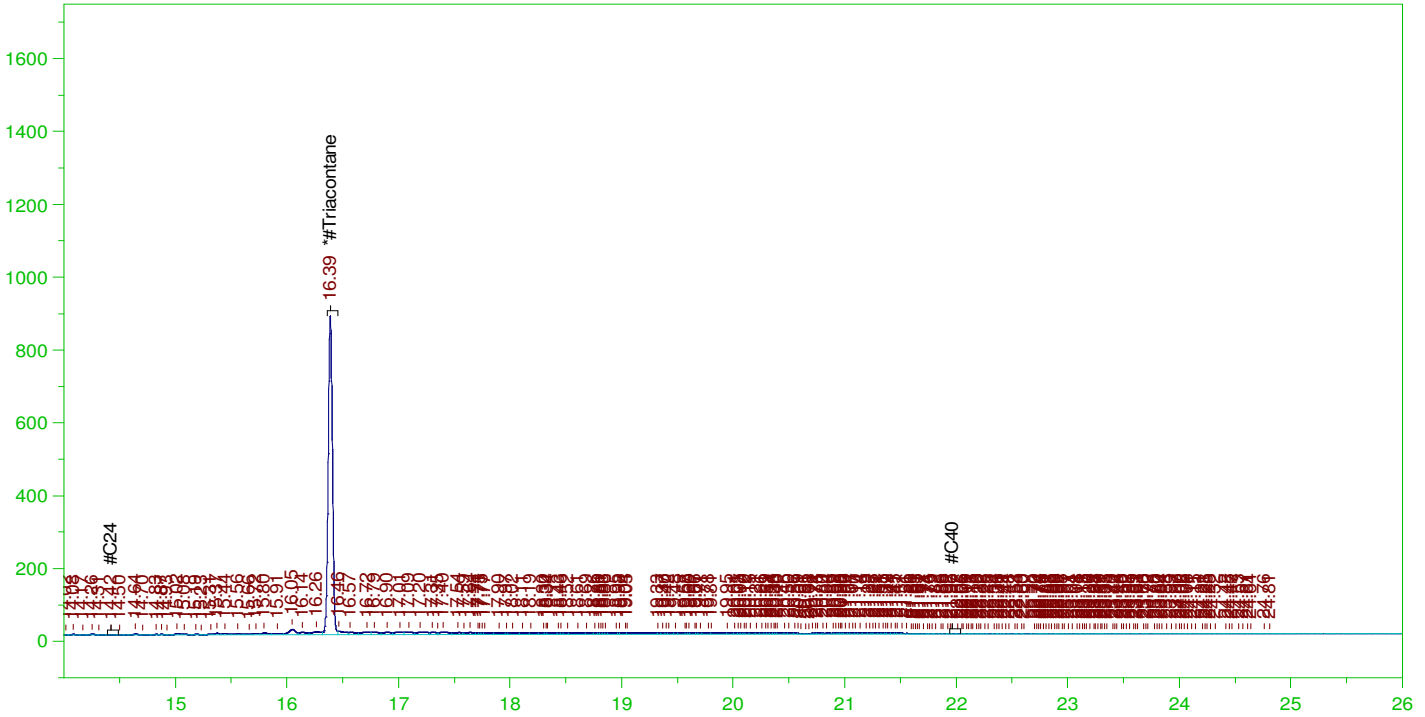
DRO Area: 2.512714E+07 DRO Amount: 0.7767612
 TEH Area: 2.71333E+07 TEH Amount: 0.8387781

ERH2392 (Sump Adit3)

Batch ID: 162917

G:\org\HP5\DAT\HP5011822_b\0118HP5.0025.RAW

B22010751-001D ;0118HP5 , \$HC-8015-DRO-W, SGT



RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: B22010751-001D ;0118HP5 , \$HC-8015-DRO-W, SGT
 Raw File: G:\org\HP5\DAT\HP5011822_b\0118HP5.0025.RAW
 Date & Time Acquired: 1/19/2022 12:36:00 AM
 Method File: G:\Org\HP5\Methods\DR_OROS-011825-BB-L%.MET
 Calibration File: G:\Org\HP5\Cals\SW8015C_ORO220111BB_SAMP.CAL
 Sample Weight: 990 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 26424.55
 Rt range for Residual Range Organics: 14.39 to 22.04

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*#Triacontane_____	16.389	.505	.079	15.67

RRO Area:1447561 RRO AMOUNT: 5.533426E-02

ERH2392 (Sump Adit3)

Batch ID: 162917

G:\org\HP5\DAT\HP5011822_b\0118HP5.0025.RAW

B22010751-001D ;0118HP5 , \$HC-8015-DRO-W, SGT



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B22010751-001D ;0118HP5 , \$HC-8015-DRO-W, SGT
 Raw File: G:\org\HP5\DAT\HP5011822_b\0118HP5.0025.RAW
 Date & Time Acquired: 1/19/2022 12:36:00 AM
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 Calibration File: G:\Org\HP5\Cals\SW8015C_DRO220111JB-C24-T.CAL
 Sample Weight: 990 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36

Rt range for Diesel Range Organics: 6.62 to 14.49

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.307	.202	.136	67.54	-
*1-Chlorooctadecane	13.173	.202	.	.08	-
*#Triacontane	16.389	.202	.077	38.07	-

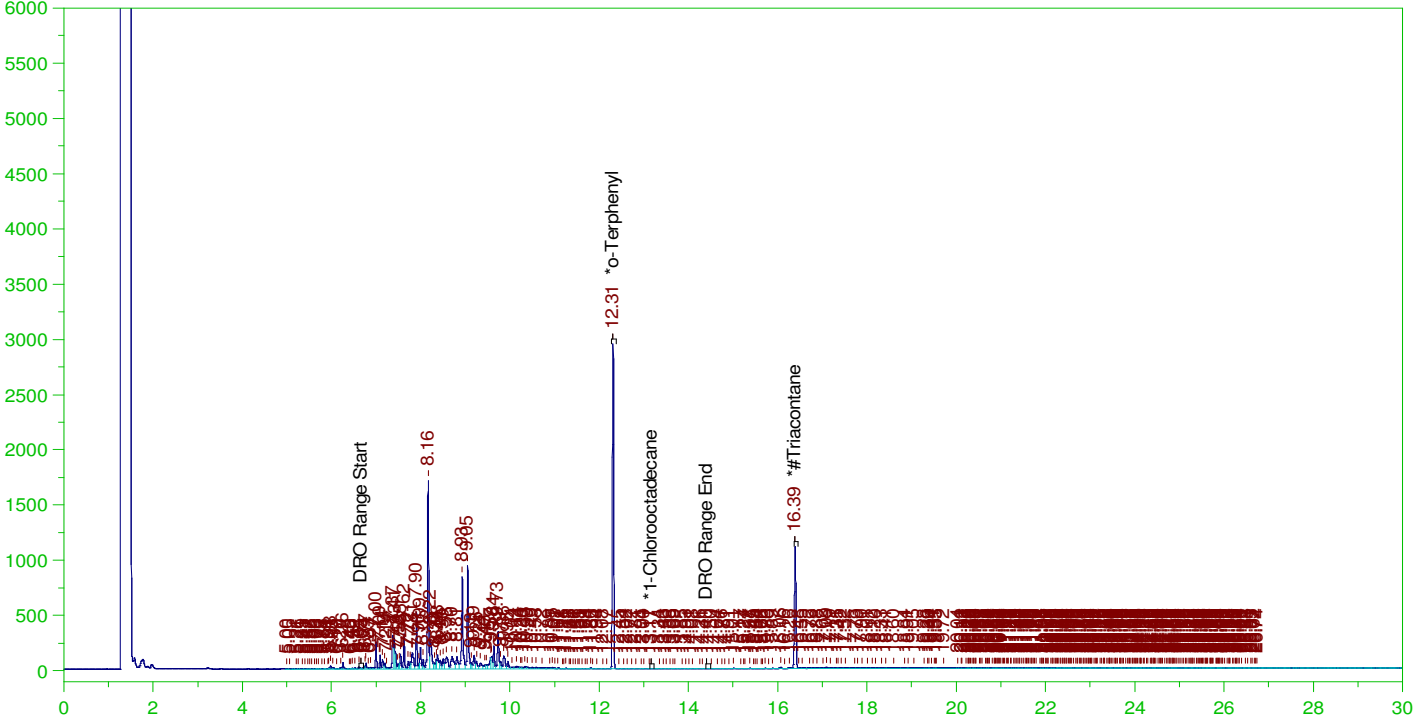
DRO Area:1.843527E+07 DRO Amount: 0.5698939
 TEH Area:1.893846E+07 TEH Amount: 0.5854492

ERH2379 (RHMW02)

Batch ID: 162917

G:\org\HP5\DAT\HP5011822_b\0118HP5.0026.RAW

B22010757-001D ;0118HP5 , \$HC-8015-DRO-W, SGT



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B22010757-001D ;0118HP5 , \$HC-8015-DRO-W, SGT
 Raw File: G:\org\HP5\DAT\HP5011822_b\0118HP5.0026.RAW
 Date & Time Acquired: 1/19/2022 1:18:36 AM
 Method File: G:\Org\HP5\Methods\DR_8015-011826-JB-L%.met
 Calibration File: G:\Org\HP5\Cals\SW8015C_DRO220111JB-C24-T.CAL
 Sample Weight: 1030 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36

Rt range for Diesel Range Organics: 6.62 to 14.49

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.307	.194	.147	75.7	-
*1-Chlorooctadecane	13.171	.194	.	.03	-
*#Triacontane	16.388	.194	.093	47.69	-

DRO Area:1.987618E+07 DRO Amount: 0.5905755

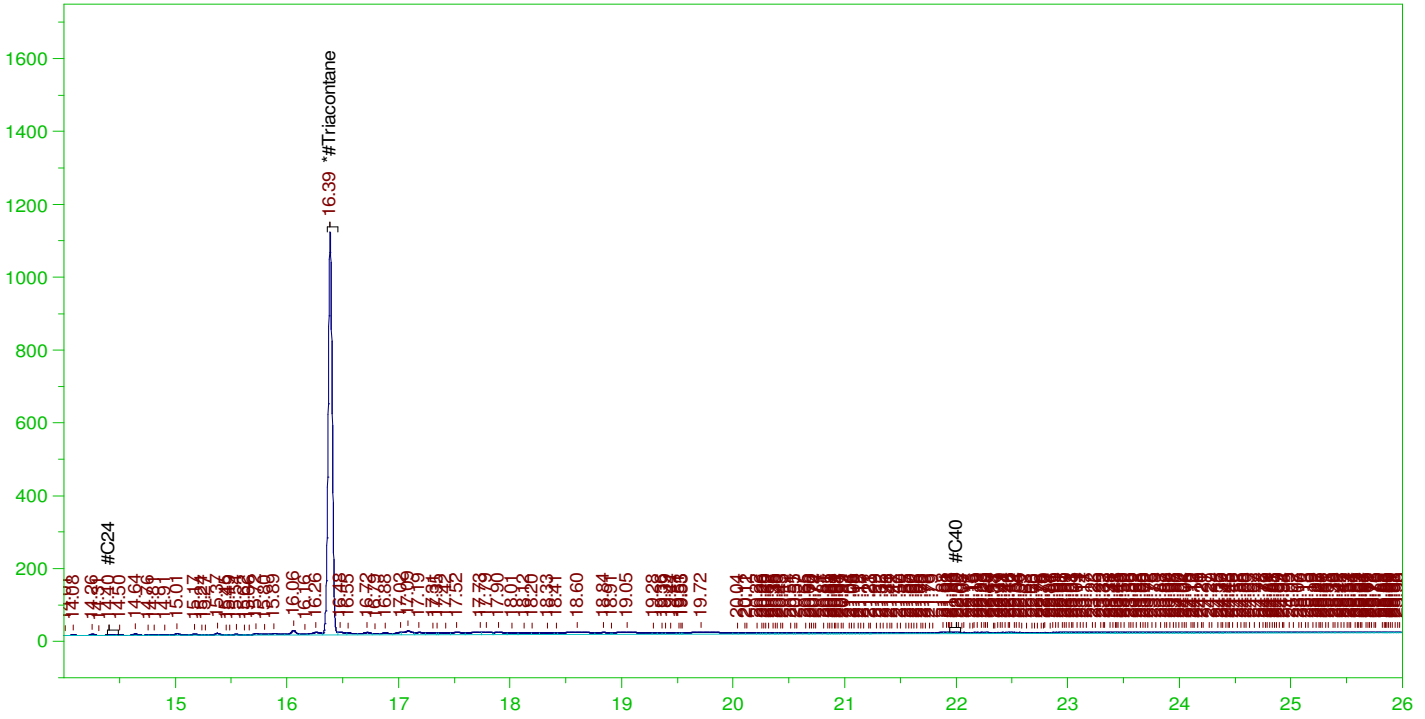
TEH Area:2.238869E+07 TEH Amount: 0.6652289

ERH2379 (RHMW02)

Batch ID: 162917

G:\org\HP5\DAT\HP5011822_b\0118HP5.0026.RAW

B22010757-001D ;0118HP5 , \$HC-8015-DRO-W, SGT



RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: B22010757-001D ;0118HP5 , \$HC-8015-DRO-W, SGT
 Raw File: G:\org\HP5\DAT\HP5011822_b\0118HP5.0026.RAW
 Date & Time Acquired: 1/19/2022 1:18:36 AM
 Method File: G:\Org\HP5\Methods\DR_OROS-011826-BB-L%.MET
 Calibration File: G:\Org\HP5\Cals\SW8015C_ORO220111BB_SAMP.CAL
 Sample Weight: 1030 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 26424.55
 Rt range for Residual Range Organics: 14.39 to 22.04

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*#Triacontane_____	16.388	.485	.093	19.08

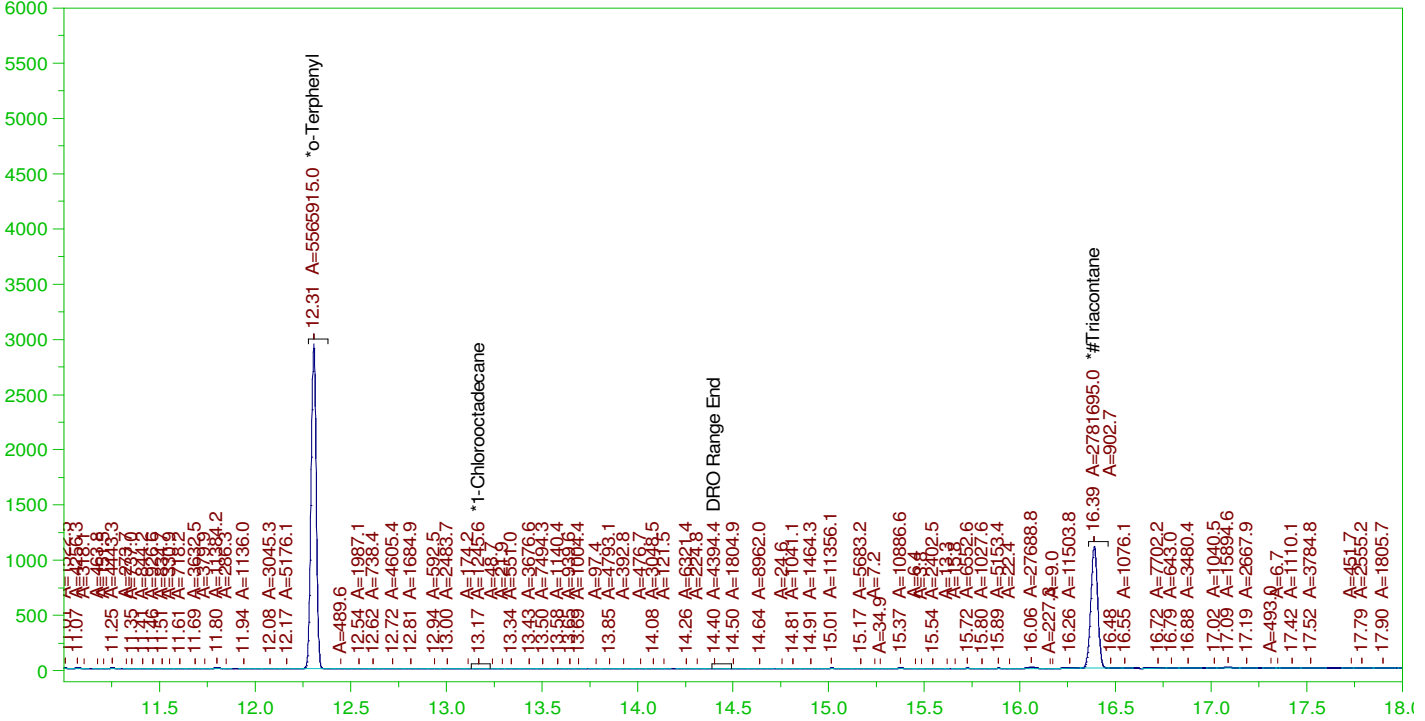
RRO Area:1690229 RRO AMOUNT: 6.210128E-02

ERH2379 (RHMW02)

Batch ID: 162917

G:\org\HP5\DAT\HP5011822_b\0118HP5.0026.RAW

B22010757-001D ;0118HP5 , \$HC-8015-DRO-W, SGT



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

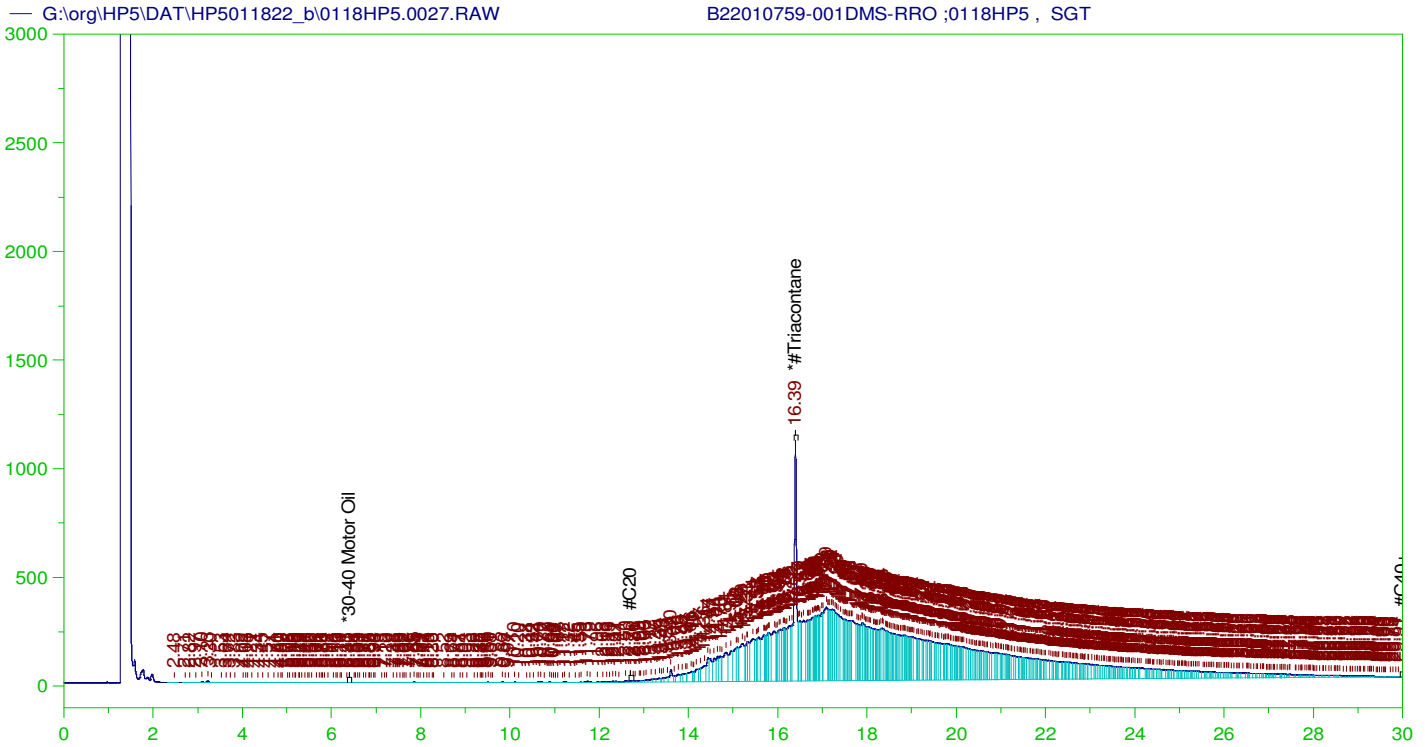
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 Method File: G:\Org\HP5\Methods\DS_8015-C24T-BB-L#.met
 Calibration File: G:\Org\HP5\Cals\SW8015C_DRO220111JB-C24-T.CAL
 Sample Weight: 1030 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36

Rt range for Diesel Range Organics: 6.62 to 14.49

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.307	.194	.147	75.51	-
*1-Chlorooctadecane	13.171	.194	.	.02	-
*#Triacontane	16.388	.194	.091	46.93	-

DRO Area:1.875083E+07 DRO Amount: 0.5571381
 TEH Area:1.933027E+07 TEH Amount: 0.5743548



RESIDUAL RANGE ORGANICS CHROMATOGRAM

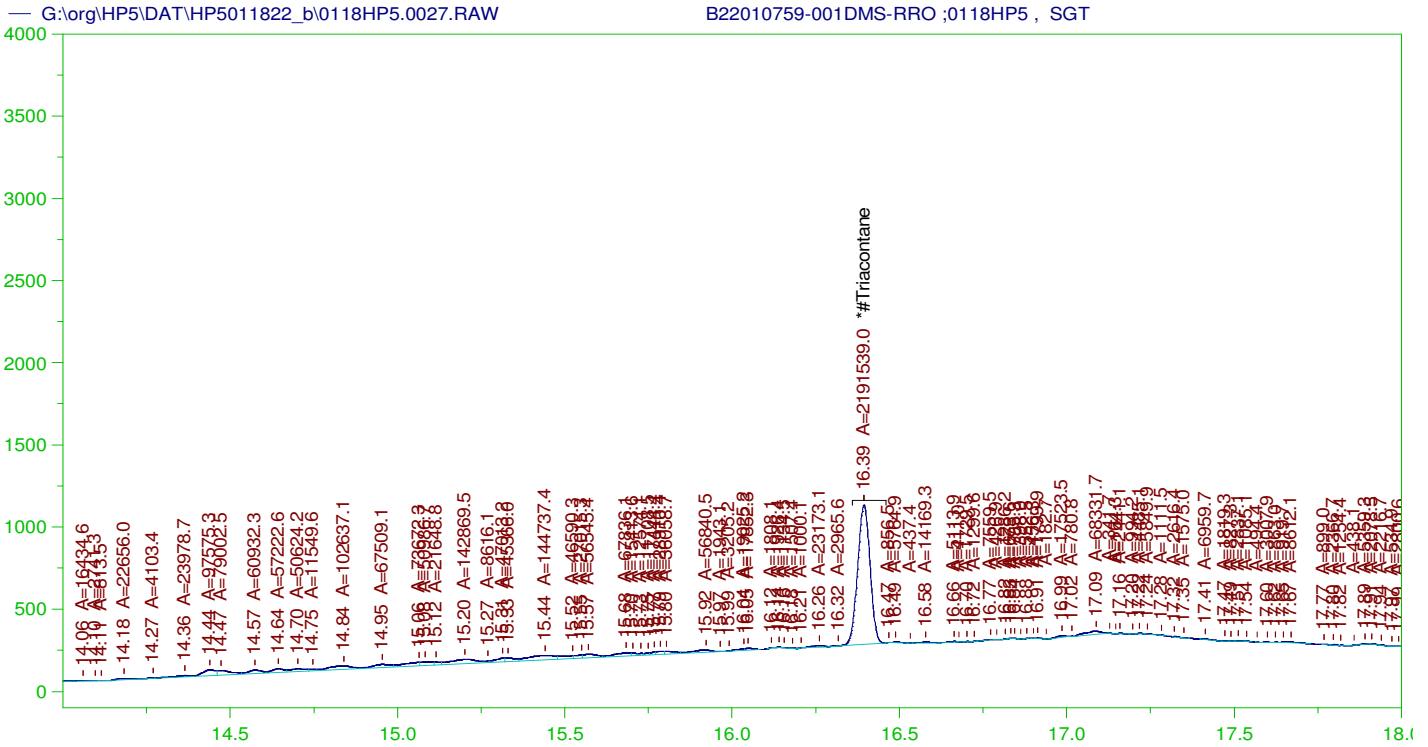
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 Calibration File: G:\Org\HP5\Cals\SW8015C_ORO220111BB.CAL
 Sample Weight: 1020 Dilution: 1 S.A.: 1

Mean RF for for ~~Residual~~ TEH(Oil Range) Organics Calculations: 26424.55
 Rt range for ~~Residual~~ TEH(Oil Range) Organics: 12.67 to 30.05

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.394	.49	.141	28.86	-

~~RRO~~ TEH(Oil Range) Area:1.024804E+08 ~~RRO~~ TEH(Oil Range) AMOUNT: 3.802182

AMN 02/14/2022



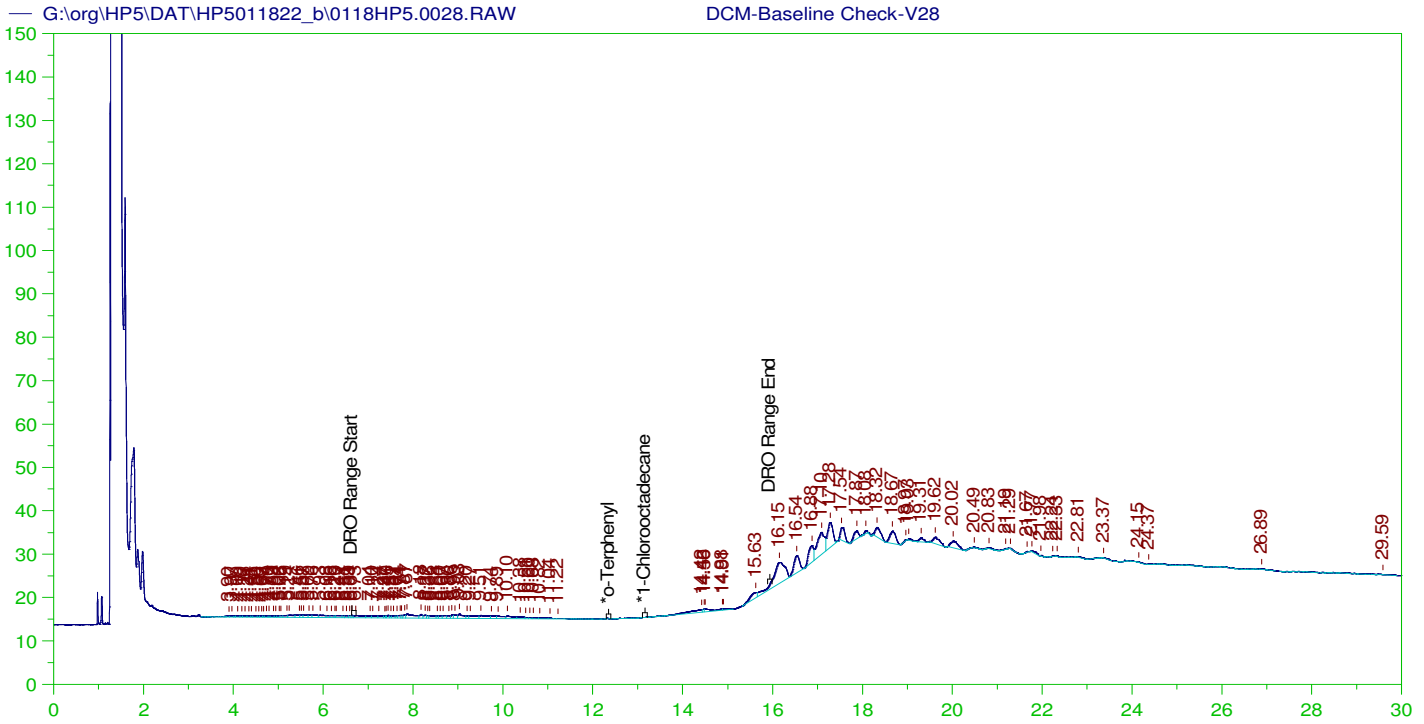
RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: B22010759-001DMS-RRO ;0118HP5 , SGT
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 Calibration File: G:\Org\HP5\Cals\SW8015C_ORO220111BB.CAL
 Sample Weight: 1020 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 26424.55
 Rt range for Residual Range Organics: 12.67 to 30.05

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*#Triacontane	16.394	.49	.072	14.79

RRO Area:2228008 RRO AMOUNT: 8.266256E-02



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

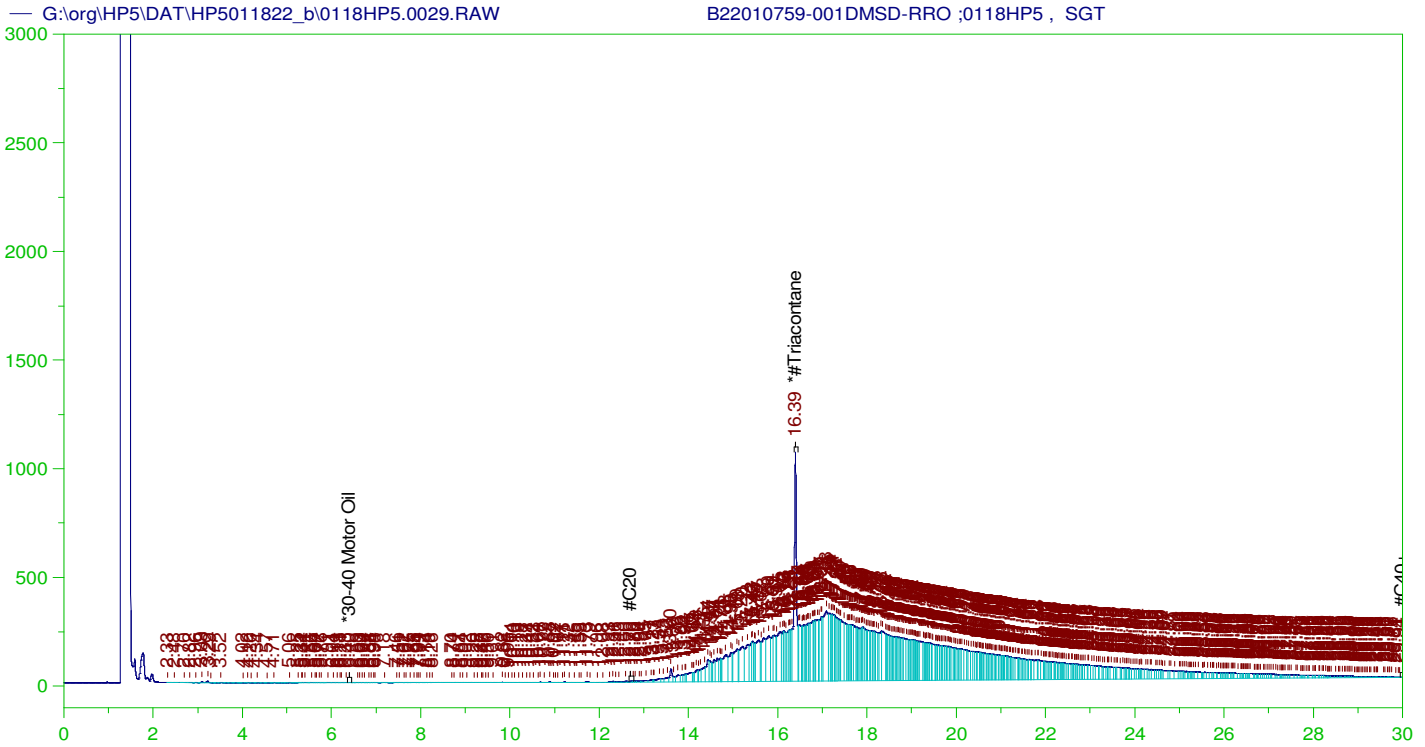
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 Calibration File: G:\Org\HP5\Cals\SW8015C_DRO220111JA.CAL
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36

Rt range for Diesel Range Organics: 6.63 to 15.99

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	29.587	200.	.	-
*1-Chlorooctadecane	29.587	200.	.	-

DRO Area:182039.3 DRO Amount: 5.571148
 TEH Area:678562.5 TEH Amount: 20.7668



RESIDUAL RANGE ORGANICS CHROMATOGRAM

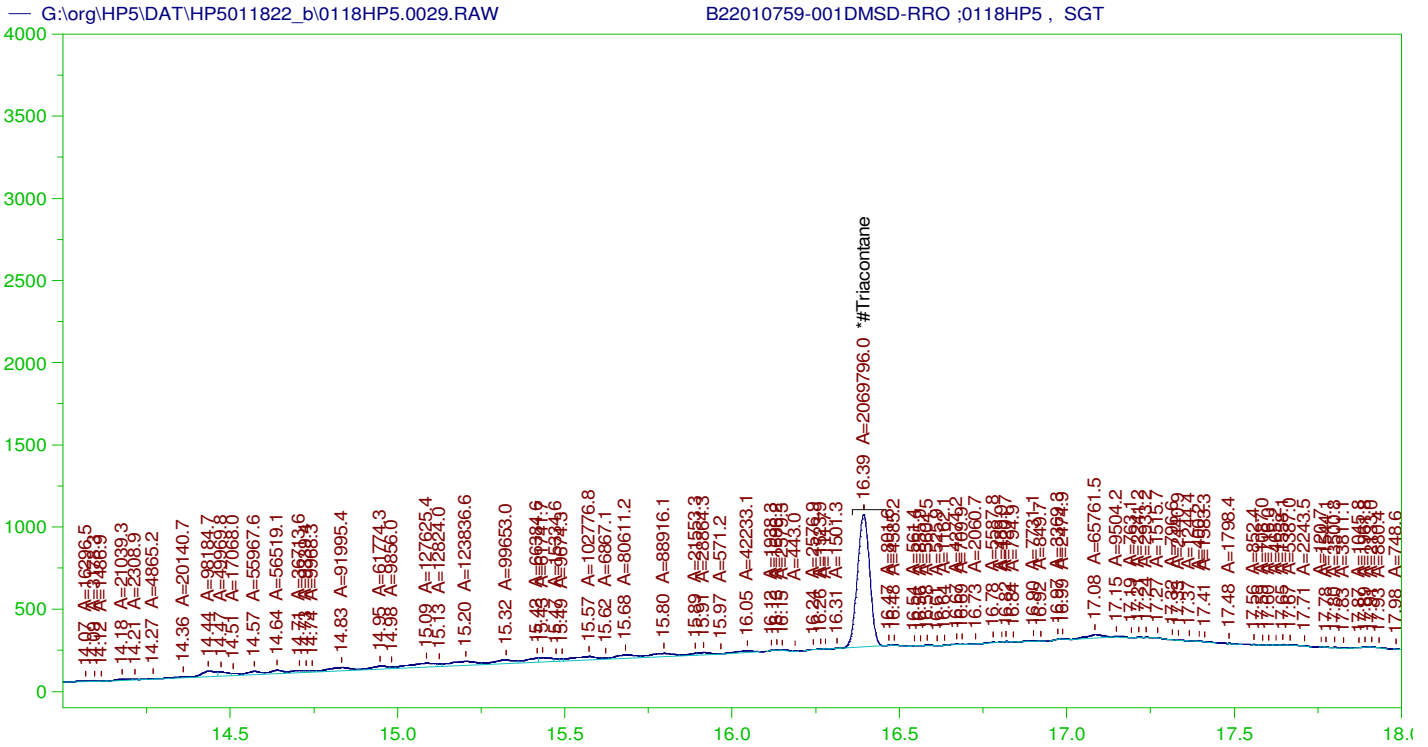
Sample Name: B22010759-001DMSD-RRO ;0118HP5 , SGT
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 Date & Time Acquired: 1/19/2022 3:26:10 AM
 Method File: G:\Org\HP5\Methods\D3_ORO-BB-L%.MET
 Calibration File: G:\Org\HP5\Cals\SW8015C_ORO220111BB.CAL
 Sample Weight: 1040 Dilution: 1 S.A.: 1

Mean RF for for ~~Residual~~ TEH(Oil Range) Organics Calculations: 26424.55
 Rt range for ~~Residual~~ TEH(Oil Range) Organics: 12.67 to 30.05

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.393	.481	.129	26.86	-

~~RRO~~ TEH(Oil Range) Area:9.689926E+07 ~~RRO~~ TEH(Oil Range) AMOUNT: 3.525977

AMN 02/14/2022



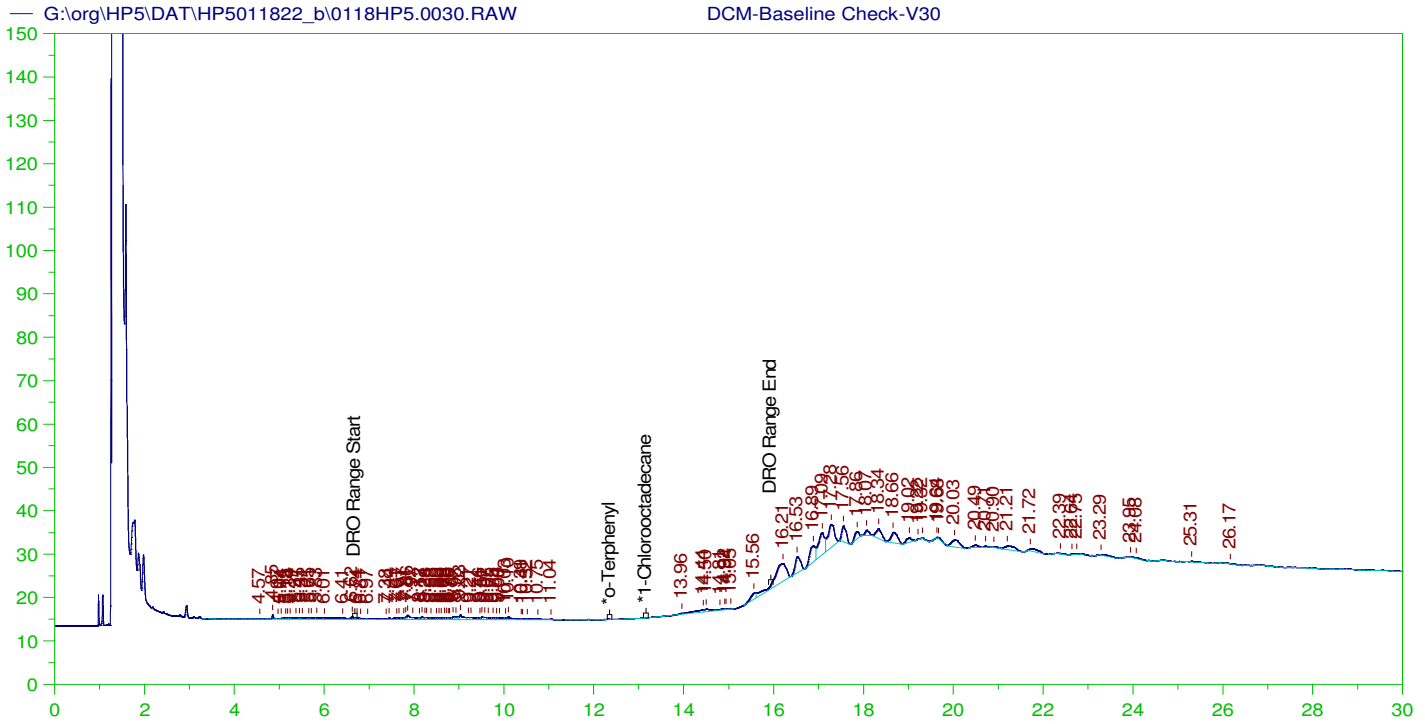
RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: B22010759-001DMSD-RRO ;0118HP5 , SGT
 Raw File: G:\org\HP5\DAT\HP5011822_b\0118HP5.0029.RAW
 Date & Time Acquired: 1/19/2022 3:26:10 AM
 Method File: G:\Org\HP5\Methods\DS_ORO-BB-L%.MET
 Calibration File: G:\Org\HP5\Cals\SW8015C_ORO220111BB.CAL
 Sample Weight: 1040 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 26424.55
 Rt range for Residual Range Organics: 12.67 to 30.05

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*#Triacontane	16.393	.481	.067	13.97

RRO Area:2044472 RRO AMOUNT: 7.439439E-02



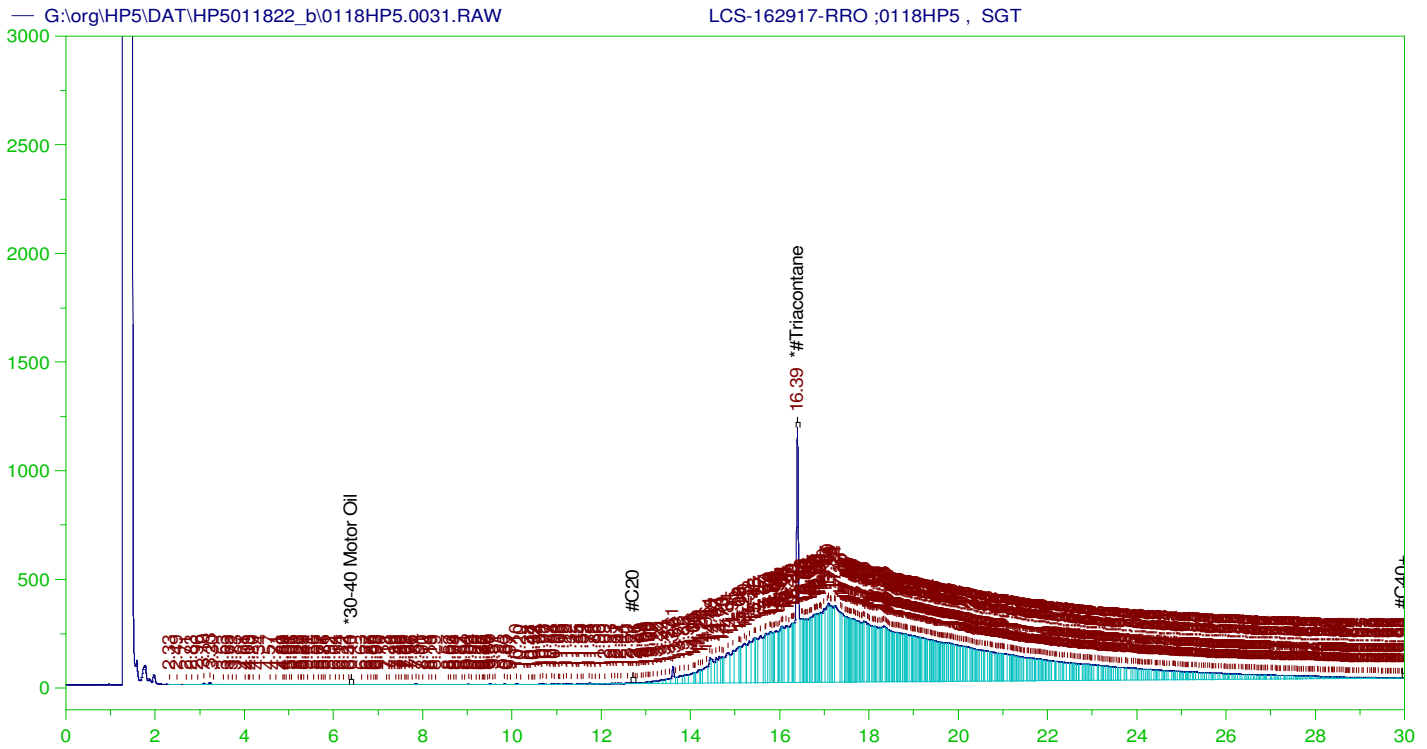
DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: DCM-Baseline Check-V30
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 Calibration File: G:\Org\HP5\Cals\SW8015C_DRO220111JA.CAL
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36
 Rt range for Diesel Range Organics: 6.63 to 15.99

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	29.907	200.	.	-
*1-Chlorooctadecane	29.907	200.	.	-

DRO Area:122983.8 DRO Amount: 3.763809
 TEH Area:584523.3 TEH Amount: 17.88881



RESIDUAL RANGE ORGANICS CHROMATOGRAM

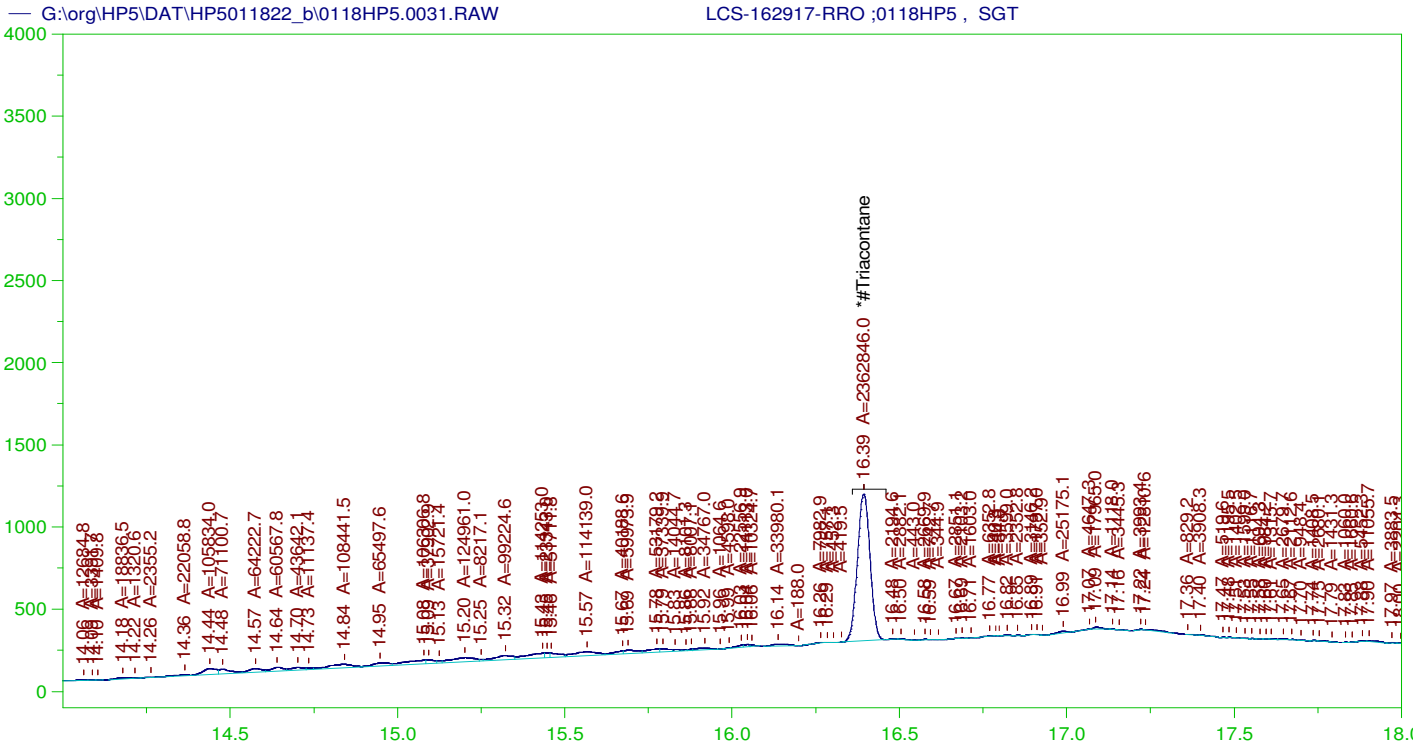
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 Calibration File: G:\Org\HP5\Cals\SW8015C_ORO220111BB.CAL
 Sample Weight: 1000 Dilution: 1 S.A.: 1

Mean RF for for ~~Residual~~ TEH(Oil Range) Organics Calculations: 26424.55
 Rt range for ~~Residual~~ TEH(Oil Range) Organics: 12.67 to 30.05

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.393	.5	.15	30.05	-

RRO TEH(Oil Range) Area:1.099797E+08 RRO TEH(Oil Range) AMOUNT: 4.162028

AMN 02/14/2022



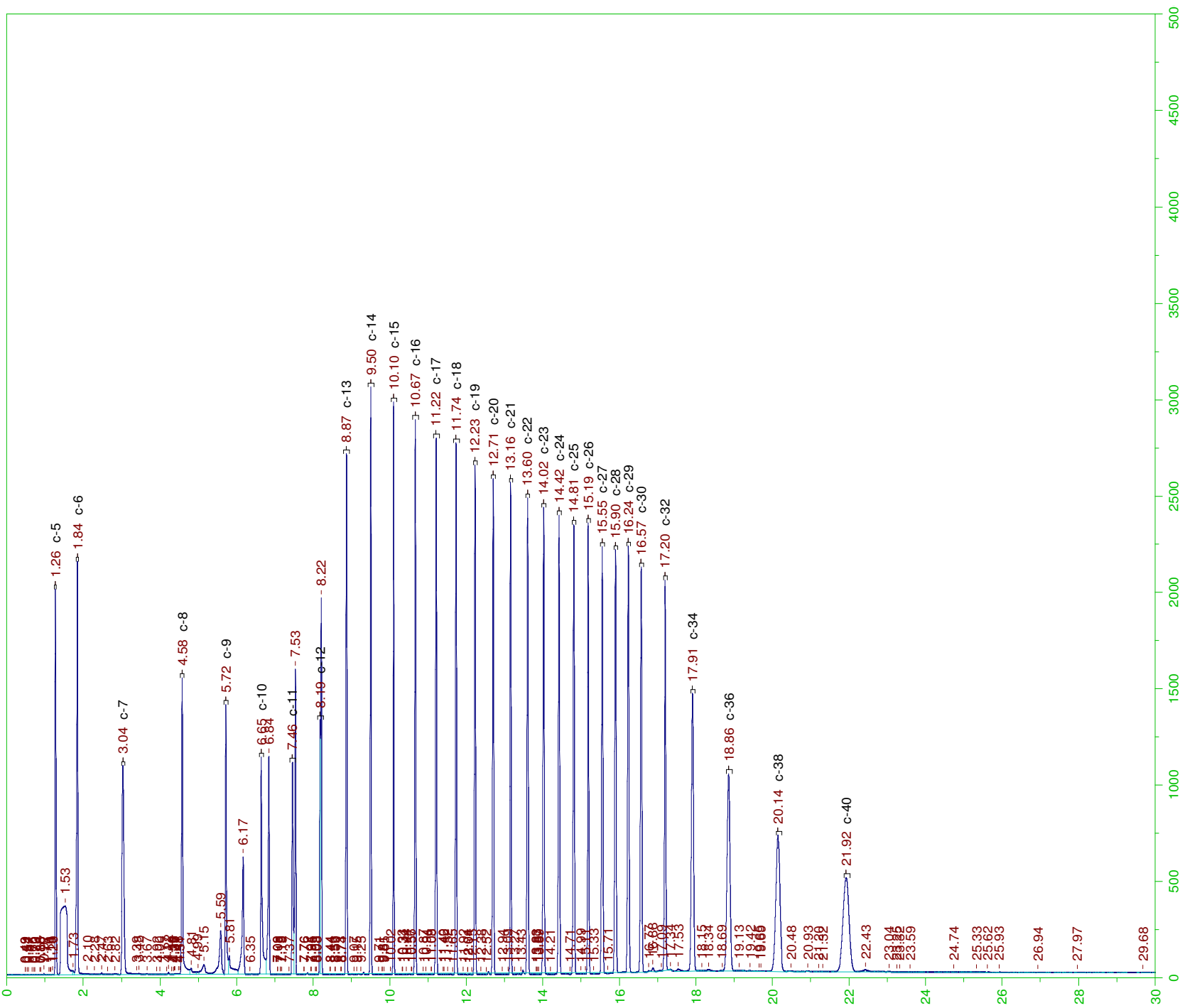
RESIDUAL RANGE ORGANICS CHROMATOGRAM

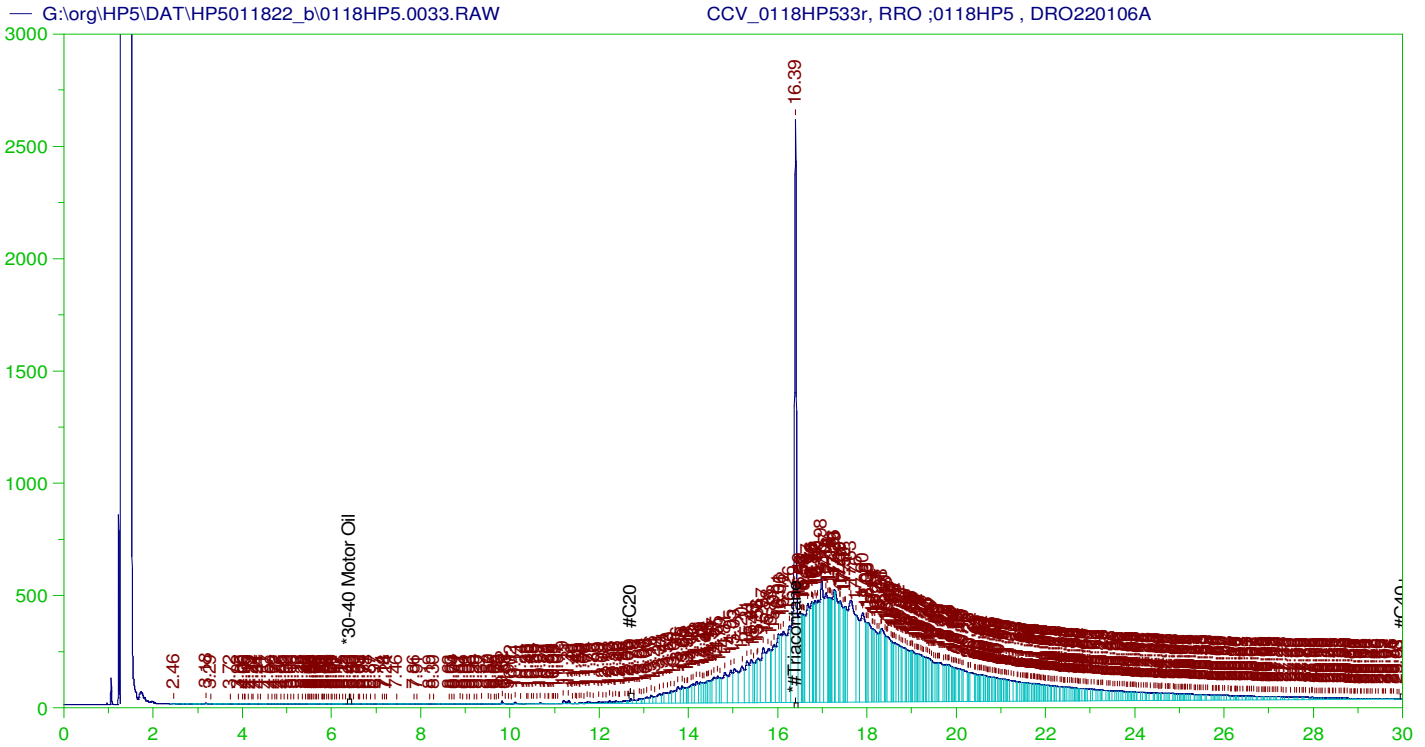
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 Calibration File: G:\Org\HP5\Cals\SW8015C_ORO220111BB.CAL
 Sample Weight: 1000 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 26424.55
 Rt range for Residual Range Organics: 12.67 to 30.05

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*#Triacontane	16.393	.5	.08	15.95

RRO Area:2266849 RRO AMOUNT: 8.578569E-02





RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: CCV_0118HP533r, RRO ;0118HP5 , DRO220106A
 Raw File: G:\org\HP5\DAT\HP5011822_b\0118HP5.0033.RAW
 Date & Time Acquired: 1/19/2022 6:16:20 AM
 Method File: G:\Org\HP5\Methods\DC_ORO-BB-L%.MET
 Calibration File: G:\Org\HP5\Cals\SW8015C_ORO220111BB.CAL
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for for ~~Residual~~ TEH(Oil Range) Organics Calculations: 26424.55
 Rt range for ~~Residual~~ TEH(Oil Range) Organics: 12.67 to 30.05

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.395	500.	319.162	63.83	-

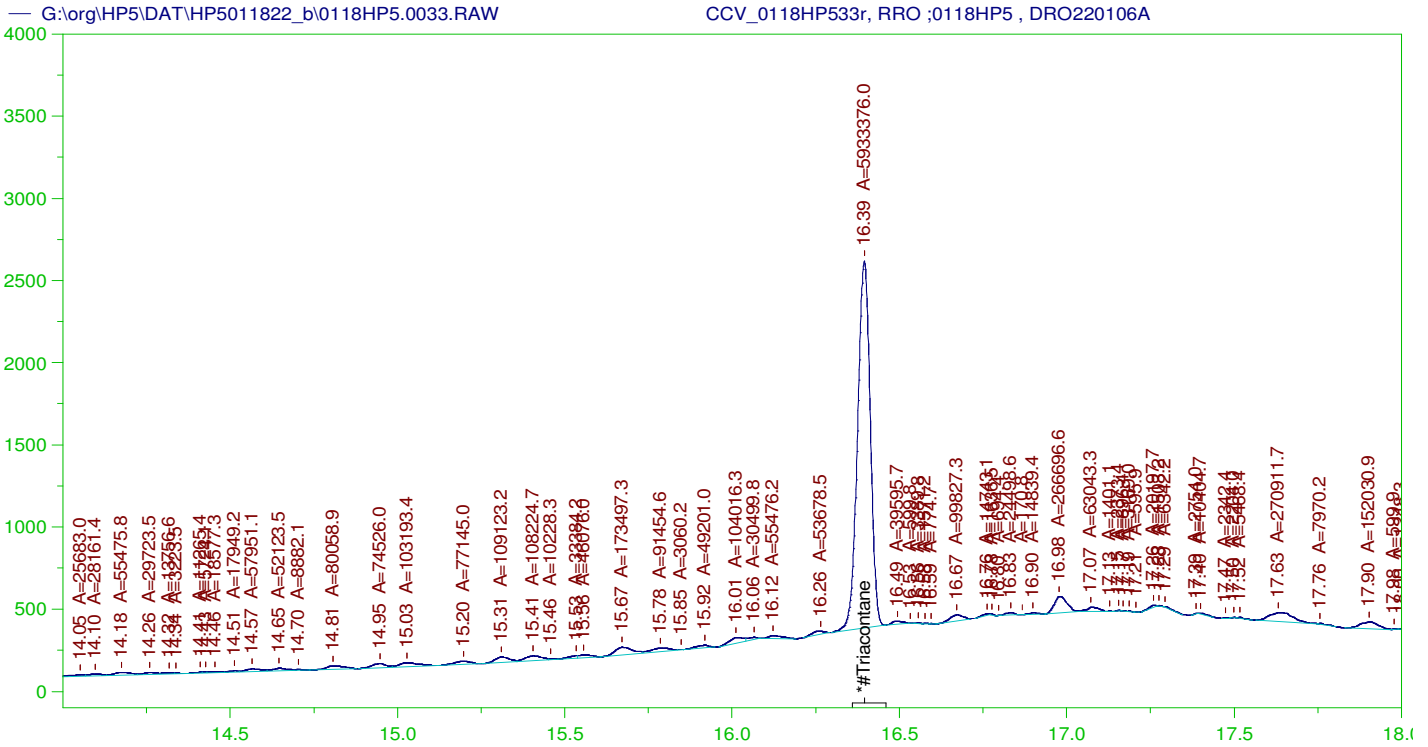
RRO TEH(Oil Range) Area:1.175293E+08 RRO TEH(Oil Range) AMOUNT: 4447.732

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5011822_b\0118HP5.0033.RAW

COMPOUND	ACTUAL (NG)	MEASURED (NG)	%RECOVERY	LIMITS
*30-40 Motor Oil	5000.	.03	.	75-125

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*#Triacontane	16.395	200.	319.162	159.58	75-125

AMN 02/14/2022



RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: CCV_0118HP533r, RRO ;0118HP5 , DRO220106A
 Raw File: G:\org\HP5\DAT\HP5011822_b\0118HP5.0033.RAW
 Date & Time Acquired: 1/19/2022 6:16:20 AM
 Method File: G:\Org\HP5\Methods\DS_ORO-BB-L%.MET
 Calibration File: G:\Org\HP5\Cals\SW8015C_ORO220111BB.CAL
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 26424.55
 Rt range for Residual Range Organics: 12.67 to 30.05

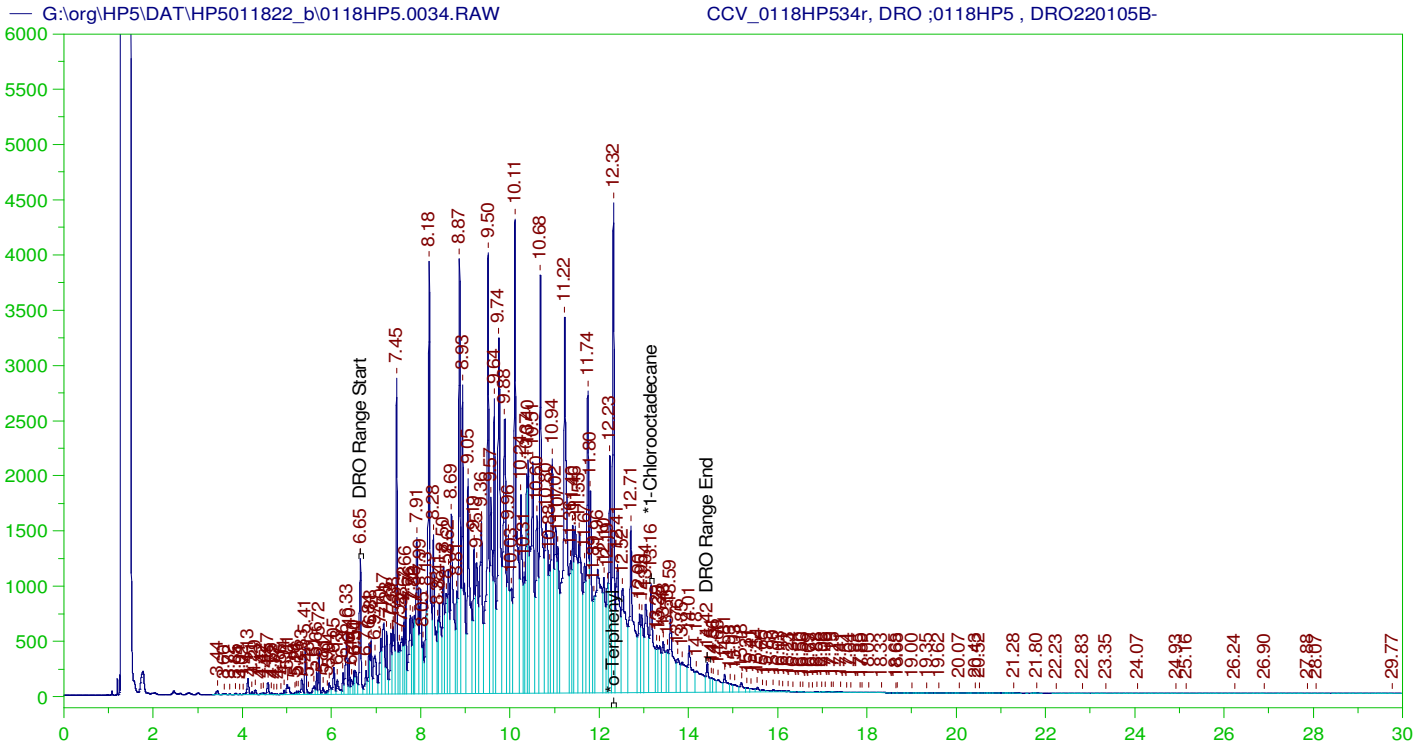
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*#Triacontane	16.395	500.	200.208	40.04

RRO Area:3147450 RRO AMOUNT: 119.1108

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5011822_b\0118HP5.0033.RAW

COMPOUND	ACTUAL (NG)	MEASURED (NG)	%RECOVERY	LIMITS
*30-40 Motor Oil	5000.	.03	.	75-125

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*#Triacontane	16.395	200.	200.208	100.1	75-125



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: CCV_0118HP534r, DRO ;0118HP5 , DRO220105B-
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 Date & Time Acquired: 1/19/2022 6:58:47 AM
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 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36

Rt range for Diesel Range Organics: 6.62 to 14.49

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.315	200.	298.894	149.45
*1-Chlorooctadecane	13.16	200.	138.905	69.45

DRO Area: 4.221421E+08 DRO Amount: 12919.28
 TEH Area: 4.375706E+08 TEH Amount: 13391.46

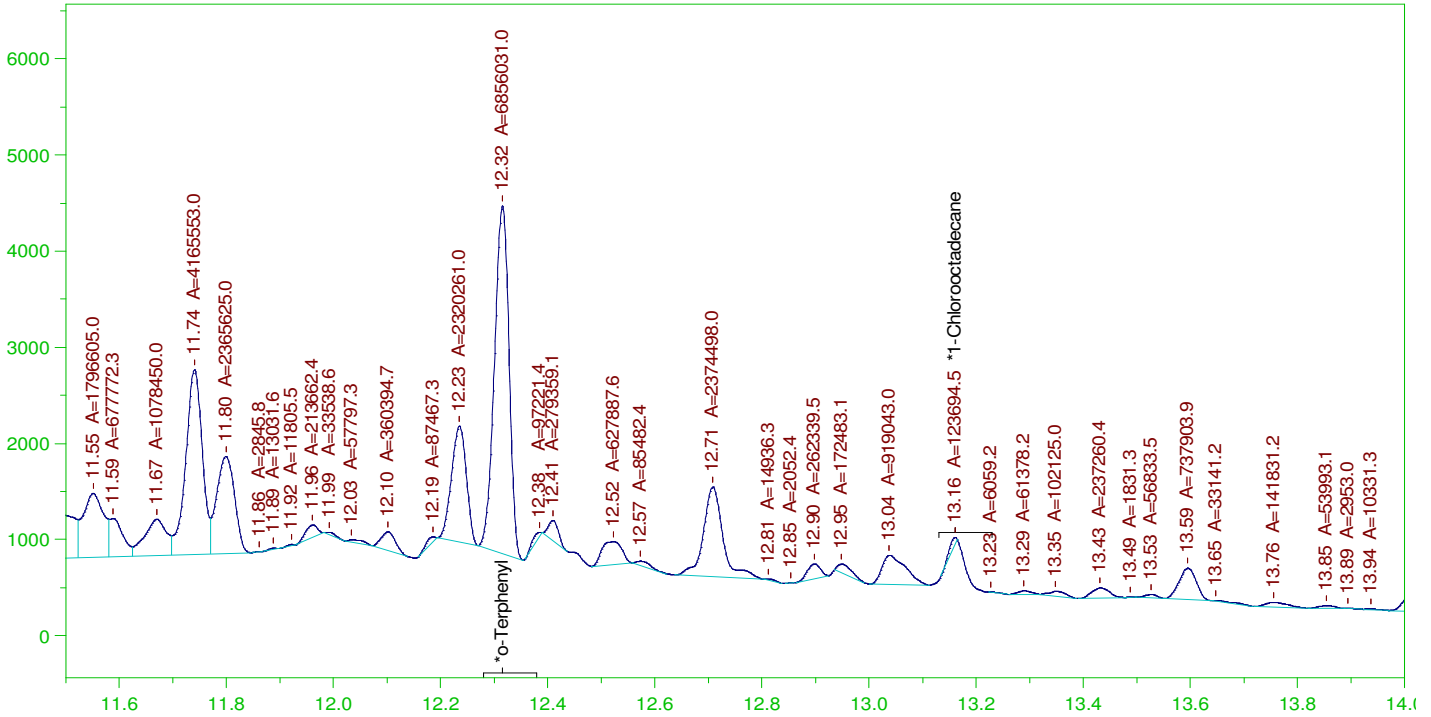
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COMPOUND	ACTUAL (NG)	MEASURED (NG)	%RECOVERY	LIMITS
TOTAL DRO	15000.	13391.46	89.28	85-115

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*o-Terphenyl	12.315	200.	298.894	149.45	85-115
*1-Chlorooctadecane	13.16	200.	138.905	69.45	85-115

G:\org\HP5\DAT\HP5011822_b\0118HP5.0034.RAW

CCV_0118HP534r, DRO ;0118HP5 , DRO220105B-



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: CCV_0118HP534r, DRO ;0118HP5 , DRO220105B-
 Raw File: G:\org\HP5\DAT\HP5011822_b\0118HP5.0034.RAW
 Date & Time Acquired: 1/19/2022 6:58:47 AM
 Method File: G:\Org\HP5\Methods\DS_8015-C24-JB-L#.met
 Calibration File: G:\Org\HP5\Cals\SW8015C_DRO220111JB-C24.CAL
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36

Rt range for Diesel Range Organics: 6.62 to 14.49

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.315	200.	186.013	93.01
*1-Chlorooctadecane	13.16	200.	3.356	1.68

DRO Area: 2.177173E+08 DRO Amount: 6663.043
 TEH Area: 2.275844E+08 TEH Amount: 6965.016

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5011822_b\0118HP5.0034.RAW

COMPOUND	ACTUAL (NG)	MEASURED (NG)	%RECOVERY	LIMITS
TOTAL DRO	15000.	6965.02	46.43	85-115

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*o-Terphenyl	12.315	200.	186.013	93.01	85-115
*1-Chlorooctadecane	13.16	200.	3.356	1.68	85-115

G:\org\HP5\DAT\HP5011422_b0114HP5.27	B22010753-001D_0114HP5 , \$HC-8015-DRO-W.	G:\Org\HP5\Methods\D3_8015-C24T-JB-L%.met G:\Org\HP5\Methods\D3_OROS-BB-L%.MET G:\Org\HP5\Methods\DS_8015-C24T-BB-L#.met	1020	1	1	1	0	The integration of Diesel Range Organics (C10-C24), C24-C40, and Total Extractable Hydrocarbons (TEH) is the hydrocarbon response with reference to the baseline. Surrogates are integrated using a valley to valley integration using Set Baseline All Valleys on at 10.78 minutes and X-axis scaling showing surrogate peak from 11-18 minutes.
G:\org\HP5\DAT\HP5011422_b0114HP5.28	DCM-Baseline Check-V28	G:\Org\HP5\Methods\DR_8015-JA-LEXP.met	1	1	1	1	0	No integrations.
G:\org\HP5\DAT\HP5011422_b0114HP5.29	DCM-Baseline Check-V29	G:\Org\HP5\Methods\DR_8015-JA-LEXP.met	1	1	1	1	0	No integrations.
G:\org\HP5\DAT\HP5011422_b0114HP5.30	B22010754-001D_0114HP5 , \$HC-8015-DRO-W.	G:\Org\HP5\Methods\DR_8015-C24T-JB-L%.met G:\Org\HP5\Methods\DR_OROS-BB-L%.MET G:\Org\HP5\Methods\DS_8015-C24T-BB-L#.met	1050	1	1	1	0	The integration of Diesel Range Organics (C10-C24), C24-C40, and Total Extractable Hydrocarbons (TEH) is the hydrocarbon response with reference to the baseline. Assigned Set Baseline All Valley on at 17.12 minutes. Surrogates are integrated using a valley to valley integration using Set Baseline All Valleys on at 10.78 minutes and X-axis scaling showing surrogate peak from 11-18 minutes.
G:\org\HP5\DAT\HP5011422_b0114HP5.31	DCM-Baseline Check-V31	G:\Org\HP5\Methods\DR_8015-JA-LEXP.met	1	1	1	1	0	No integrations.
G:\org\HP5\DAT\HP5011422_b0114HP5.32	DCM-Baseline Check-V32	G:\Org\HP5\Methods\DR_8015-JA-LEXP.met	1	1	1	1	0	No integrations.
G:\org\HP5\DAT\HP5011422_b0114HP5.33	B22010755-001D_0114HP5 , \$HC-8015-DRO-W.	G:\Org\HP5\Methods\D3_8015-C24T-JB-L%.met G:\Org\HP5\Methods\D3_OROS-BB-L%.MET G:\Org\HP5\Methods\DS_8015-C24T-BB-L#.met	1000	1	1	1	0	The integration of Diesel Range Organics (C10-C24), C24-C40, and Total Extractable Hydrocarbons (TEH) is the hydrocarbon response with reference to the baseline. Surrogates are integrated using a valley to valley integration using Set Baseline All Valleys on at 10.78 minutes and X-axis scaling showing surrogate peak from 11-18 minutes.
G:\org\HP5\DAT\HP5011422_b0114HP5.34	MARKER_0114HP534r, DRO_0114HP5 , DRO220111A	g:\org\HP5\Methods\CS220114.met	1	1	1	1	0	No integrations.
G:\org\HP5\DAT\HP5011422_b0114HP5.35	CCV_0114HP535r, RRO_0114HP5 , DRO220106A	G:\Org\HP5\Methods\D3_ORO-BB-L%.MET G:\Org\HP5\Methods\DS_ORO-BB-L%.MET	1	1	1	1	0	The integration of Oil Range hydrocarbon is the hydrocarbon response with reference to the baseline. Surrogates are integrated using a valley to valley integration using Set Baseline All Valleys on placed at 15.14 minutes and X-axis scaling showing surrogate peak from 14-18 minutes.
G:\org\HP5\DAT\HP5011422_b0114HP5.36	CCV_0114HP536r, DRO_0114HP5 , DRO220105B	G:\Org\HP5\Methods\DC_8015-C24-JB-L%.met G:\Org\HP5\Methods\DS_8015-C24-JB-L#.met	1	1	1	1	0	The integration of Diesel Range Organics (C10-C24) and Total Extractable Hydrocarbons is the hydrocarbon response with reference to the baseline. Assigned Set Baseline All Valley on at 16.35 minutes. Surrogates are integrated using a valley to valley integration using Set Baseline All Valleys on placed at 12.01 minutes and X-axis scaling showing surrogate peak from 11.5-14 minutes.
G:\org\HP5\DAT\HP5011422_b0114HP5.37	DCM-Baseline Check-V38	G:\Org\HP5\Methods\DR_8015-JA-LEXP.met	1	1	1	1	0	No integrations.
G:\org\HP5\DAT\HP5011422_b0114HP5.38	B22010759-001DMS-RRO_0114HP5 , Needs rerun due to turret error	G:\Org\HP5\Methods\D3_ORO-BB-L%.MET	1020	1	1	1	0	No integrations.
G:\org\HP5\DAT\HP5011422_b0114HP5.39	DCM-Baseline Check-V39	G:\Org\HP5\Methods\DR_8015-JA-LEXP.met	1	1	1	1	0	No integrations.
G:\org\HP5\DAT\HP5011422_b0114HP5.40	B22010759-001DMSD-RRO_0114HP5 , Turret error on tower nothing injected	G:\Org\HP5\Methods\D3_ORO-BB-L%.MET	1040	1	1	1	0	No integrations.
G:\org\HP5\DAT\HP5011422_b0114HP5.41	MARKER_0114HP541r, DRO_0114HP5 , DRO220111A	g:\org\HP5\Methods\CS220114.met	1000	1	1	1	0	No integrations.
G:\org\HP5\DAT\HP5011422_b0114HP5.42	CCV_0114HP542r, RRO_0114HP5 , DRO220106A	G:\Org\HP5\Methods\DC_ORO-BB-L%.MET G:\Org\HP5\Methods\DS_ORO-BB-L%.MET	1	1	1	1	0	The integration of Oil Range hydrocarbon is the hydrocarbon response with reference to the baseline. Surrogates are integrated using a valley to valley integration using Set Baseline All Valleys on placed at 16.14 minutes and X-axis scaling showing surrogate peak from 14-18 minutes.
G:\org\HP5\DAT\HP5011422_b0114HP5.43	DCM-Baseline Check-V43	G:\Org\HP5\Methods\DR_8015-JA-LEXP.met	1	1	1	1	0	No integrations.
G:\org\HP5\DAT\HP5011422_b0114HP5.44	B22010759-001DMS-RRO_0114HP5 ,	G:\Org\HP5\Methods\D3_ORO-BB-L%.MET G:\Org\HP5\Methods\DS_ORO-BB-L%.MET	1020	1	1	1	0	The integration of Oil Range hydrocarbon is the hydrocarbon response with reference to the baseline. Surrogates are integrated using a valley to valley integration using Set Baseline All Valleys on placed at 16.14 minutes and X-axis scaling showing surrogate peak from 14-18 minutes.
G:\org\HP5\DAT\HP5011422_b0114HP5.45	DCM-Baseline Check-V45	G:\Org\HP5\Methods\DR_8015-JA-LEXP.met	1	1	1	1	0	No integrations.
G:\org\HP5\DAT\HP5011422_b0114HP5.46	B22010759-001DMSD-RRO_0114HP5 ,	G:\Org\HP5\Methods\D3_ORO-BB-L%.MET G:\Org\HP5\Methods\DS_ORO-BB-L%.MET	1040	1	1	1	0	The integration of Oil Range hydrocarbon is the hydrocarbon response with reference to the baseline. Surrogates are integrated using a valley to valley integration using Set Baseline All Valleys on placed at 16.14 minutes and X-axis scaling showing surrogate peak from 14-18 minutes.
G:\org\HP5\DAT\HP5011422_b0114HP5.47	DCM-Baseline Check-V47	G:\Org\HP5\Methods\DR_8015-JA-LEXP.met	1	1	1	1	0	No integrations.
G:\org\HP5\DAT\HP5011422_b0114HP5.48	LCS-162917-RRO_0114HP5 ,	G:\Org\HP5\Methods\D3_ORO-BB-L%.MET G:\Org\HP5\Methods\DS_ORO-BB-L%.MET	1000	1	1	1	0	The integration of Oil Range hydrocarbon is the hydrocarbon response with reference to the baseline. Surrogates are integrated using a valley to valley integration using Set Baseline All Valleys on placed at 16.14 minutes and X-axis scaling showing surrogate peak from 14-18 minutes.
G:\org\HP5\DAT\HP5011422_b0114HP5.49	MARKER_0114HP549r, DRO_0114HP5 , DRO220111A	g:\org\HP5\Methods\CS220114.met	1	1	1	1	0	No integrations.
G:\org\HP5\DAT\HP5011422_b0114HP5.50	CCV_0114HP550r, RRO_0114HP5 , DRO220106A	G:\Org\HP5\Methods\DC_ORO-BB-L%.MET G:\Org\HP5\Methods\DS_ORO-BB-L%.MET	1	1	1	1	0	The integration of Oil Range hydrocarbon is the hydrocarbon response with reference to the baseline. Surrogates are integrated using a valley to valley integration using Set Baseline All Valleys on placed at 16.14 minutes and X-axis scaling showing surrogate peak from 14-18 minutes.

Ann Nebel

Digitally signed by
Ann Nebel
Date: 2022.02.14 11:46:09 -07:00

G:\org\HP5\DAT\HP5011822_b\0118HP5.25r	B22010751-001D_0118HP5 , \$HC-8015-DRO-W, SGT	G:\Org\HP5\Methods\DR_8015-011825-JB-L%.met G:\Org\HP5\Methods\DR_OROS-011825-BB-L%.MET G:\Org\HP5\Methods\DS_8015-C24T-BB-L#.met	990	1	1	1	1	0	The integration of Diesel Range Organics (C10-C24), C24-C40, and Total Extractable Hydrocarbons (TEH) is the hydrocarbon response with reference to the baseline with peak width adjusted. Surrogates are integrated using a valley to valley integration using Set Baseline All Valleys on at 10.78 minutes and X-axis scaling showing surrogate peak from 11-18 minutes.
G:\org\HP5\DAT\HP5011822_b\0118HP5.26r	B22010757-001D_0118HP5 , \$HC-8015-DRO-W, SGT	G:\Org\HP5\Methods\DR_8015-011826-JB-L%.met G:\Org\HP5\Methods\DR_OROS-011826-BB-L%.MET G:\Org\HP5\Methods\DS_8015-C24T-BB-L#.met	1030	1	1	1	1	0	The integration of Diesel Range Organics (C10-C24), C24-C40, and Total Extractable Hydrocarbons (TEH) is the hydrocarbon response with reference to the baseline with Set Baseline Now placed at 27.63 minutes. Surrogates are integrated using a valley to valley integration using Set Baseline All Valleys on at 10.78 minutes and X-axis scaling showing surrogate peak from 11-18 minutes.
G:\org\HP5\DAT\HP5011822_b\0118HP5.27r	B22010759-001DMS-RRO_0118HP5 , SGT	G:\Org\HP5\Methods\D3_ORO-BB-L%.MET G:\Org\HP5\Methods\DS_ORO-BB-L%.MET	1020	1	1	1	1	0	The integration of Oil Range hydrocarbon is the hydrocarbon response with reference to the baseline. Surrogates are integrated using a valley to valley integration using Set Baseline All Valleys on placed at 16.14 minutes and X-axis scaling showing surrogate peak from 14-18 minutes.
G:\org\HP5\DAT\HP5011822_b\0118HP5.28r	DCM-Baseline Check-V28	G:\Org\HP5\Methods\DR_8015-JA-LEXP.met	1	1	1	1	1	0	No Integrations
G:\org\HP5\DAT\HP5011822_b\0118HP5.29r	B22010759-001DMSD-RRO_0118HP5 , SGT	G:\Org\HP5\Methods\D3_ORO-BB-L%.MET G:\Org\HP5\Methods\DS_ORO-BB-L%.MET	1040	1	1	1	1	0	The integration of Oil Range hydrocarbon is the hydrocarbon response with reference to the baseline. Surrogates are integrated using a valley to valley integration using Set Baseline All Valleys on placed at 16.14 minutes and X-axis scaling showing surrogate peak from 14-18 minutes.
G:\org\HP5\DAT\HP5011822_b\0118HP5.30r	DCM-Baseline Check-V30	G:\Org\HP5\Methods\DR_8015-JA-LEXP.met	1	1	1	1	1	0	No Integrations
G:\org\HP5\DAT\HP5011822_b\0118HP5.31r	LCS-162917-RRO_0118HP5 , SGT	G:\Org\HP5\Methods\D3_ORO-BB-L%.MET G:\Org\HP5\Methods\DS_ORO-BB-L%.MET	1000	1	1	1	1	0	The integration of Oil Range hydrocarbon is the hydrocarbon response with reference to the baseline. Surrogates are integrated using a valley to valley integration using Set Baseline All Valleys on placed at 16.14 minutes and X-axis scaling showing surrogate peak from 14-18 minutes.
G:\org\HP5\DAT\HP5011822_b\0118HP5.32r	MARKER_0118HP532r, DRO_0118HP5 , DRO220111A	G:\org\HP5\Methods\GSC220118.met	1	1	1	1	1	0	No Integrations
G:\org\HP5\DAT\HP5011822_b\0118HP5.33r	CCV_0118HP533r, RRO_0118HP5 , DRO220106A	G:\Org\HP5\Methods\DC_ORO-BB-L%.MET G:\Org\HP5\Methods\DS_ORO-BB-L%.MET	1	1	1	1	1	0	The integration of Oil Range hydrocarbon is the hydrocarbon response with reference to the baseline. Surrogates are integrated using a valley to valley integration using Set Baseline All Valleys on placed at 16.14 minutes and X-axis scaling showing surrogate peak from 14-18 minutes.
G:\org\HP5\DAT\HP5011822_b\0118HP5.34r	CCV_0118HP534r, DRO_0118HP5 , DRO220105B-	G:\Org\HP5\Methods\DC_8015-C24-JB-L%.met G:\Org\HP5\Methods\DS_8015-C24-JB-L#.met	1	1	1	1	1	0	The integration of Diesel Range Organics (C10-C24) and Total Extractable Hydrocarbons is the hydrocarbon response with reference to the baseline. Assigned Set Baseline All Valley on at 16.35 minutes. Surrogates are integrated using a valley to valley integration using Set Baseline All Valleys on placed at 12.01 minutes and X-axis scaling showing surrogate peak from 11.5-14 minutes.

Ann Nebel

Digitally signed by
Ann Nebel
Date: 2022.02.14 11:46:33 -07:00



Analytical RunID GCFID-HP5-B_220111A Standards Traceability Report

Standard ID: DRO180126C

Standard Name: 2-Fluorobiphenyl

Prep Date: 1/26/2018

Exp Date: 10/31/2024

Department: dropr

Vendor: Chemservice

Lot Number: 5599700

Balance ID:

Comments:

Type: Neat

Prep By: Todd C Cooper

Status: New

Final Volume: mL

Chemical/Solvent Used	Bottle No	Amt	Units	Expires
2-Fluorobiphenyl	10069		mL	10/31/2024
Stock Source	Base Units	Amount Added		



Analytical RunID GCFID-HP5-B_220111A Standards Traceability Report

Standard ID: DRO180823A

Standard Name: 2-Bromonaphthalene

Prep Date: 8/22/2016

Exp Date: 5/31/2022

Department: dropr

Vendor: Chemservice

Lot Number: 3150700

Balance ID:

Comments:

Type: Neat

Prep By: Ann Nebel

Status: New

Final Volume: mL

Chemical/Solvent Used	Bottle No	Amt	Units	Expires
2-Bromonaphthalene	10701		mL	5/31/2022
Stock Source	Base Units	Amount Added		



Analytical RunID GCFID-HP5-B_220111A Standards Traceability Report

Standard ID: DRO181105A

Standard Name: #2 Diesel (NEAT)

Prep Date: 11/5/2018

Exp Date: 11/5/2023

Department: dropr

Vendor: conoco

Lot Number:

Balance ID:

Comments: -18 Cloud peak. (Conoco Gas Sation 1240 S. 27th Billings, MT) 2nd Source

Type: Neat

Prep By: Ann Nebel

Status: New

Final Volume: 250 mL

Chemical/Solvent Used	Bottle No	Amt	Units	Expires
				11/5/2023
Stock Source	Base Units	Amount Added		



Analytical RunID GCFID-HP5-B_220111A Standards Traceability Report

Standard ID: DRO200430B

Standard Name: O-Terphenyl

Prep Date: 4/30/2020

Exp Date: 9/30/2024

Department: dropr

Vendor: Chemservice

Lot Number: 9972100

Balance ID:

Comments: ID#: 6271

Type: Neat

Prep By: Ann Nebel

Status: New

Final Volume: mL

Chemical/Solvent Used	Bottle No	Amt	Units	Expires
o-Terphenyl	12650	500	mg	9/30/2024
Stock Source	Base Units	Amount Added		



Analytical RunID GCFID-HP5-B_220111A Standards Traceability Report

Standard ID: DRO201014C

Standard Name: 1-Chlorooctadecane

Prep Date: 10/14/2019

Exp Date: 12/31/2024

Department: dropr

Vendor: CSI1

Lot Number: 10809500

Balance ID:

Comments: Date Certified: 12/9/16 ; N-10042-1G; 99.5% purity

Type: Neat

Prep By: Ann Nebel

Status: Open

Final Volume: mL

Chemical/Solvent Used	Bottle No	Amt	Units	Expires
1-Chlorooctadecane	13192	1	g	12/31/2024
Stock Source	Base Units	Amount Added		



Analytical RunID GCFID-HP5-B_220111A Standards Traceability Report

Standard ID: DRO201014D

Standard Name: n-Pentacosane

Prep Date: 10/14/2020

Exp Date: 2/28/2025

Department: dropr

Vendor: Chem Service

Lot Number: 9642200

Balance ID:

Comments: C-25; Used in AKDRO Marker

Type: Neat

Prep By: Ann Nebel

Status: New

Final Volume: mL

Chemical/Solvent Used	Bottle No	Amt	Units	Expires
n-Pentacosane	13193	100	mg	2/28/2025
Stock Source	Base Units	Amount Added		



Analytical RunID GCFID-HP5-B_220111A Standards Traceability Report

Standard ID: DRO211012B

Standard Name: #2 Diesel in Acetone 150,000 ug/mL

Prep Date: 10/12/2021

Exp Date: 11/5/2023

Department: dropr

Vendor:

Lot Number:

Balance ID: BAL-DRO

Comments: #2 Diesel in Acetone 150,000 ug/mL.

Type: Secondary

Prep By: Ann Nebel

Status: New

Final Volume: 25 mL

Chemical/Solvent Used	Bottle No	Amt	Units	Expires
Acetone EA662	14050	25	mL	11/5/2023

Stock Source	Base Units	Amount Added
DRO181105A	ug/mL	3.7507 g



Analytical RunID GCFID-HP5-B_220111A Standards Traceability Report

Standard ID: DRO211025B

Standard Name: Ali Hydro Std 1000ug/mL

Prep Date: 10/25/2021

Exp Date: 11/30/2024

Department: dropr

Vendor: Agilent

Lot Number: 0006643302

Balance ID:

Comments: Ali Hydro Std 1000ug/mL For CCVs.

Type: Primary

Prep By: Ann Nebel

Status: New

Final Volume: mL

Chemical/Solvent Used	Bottle No	Amt	Units	Expires
Aliphatic Hydrocarbon Standard	14434	1	mL	11/30/2024
Stock Source	Base Units	Amount Added		



Analytical RunID GCFID-HP5-B_220111A Standards Traceability Report

Spike ID: DRO211101A

Spike Name: OTP-4000 ug/mL DCM

Prep Date: 11/1/2021

Exp Date: 9/30/2024

Department: dropr

Vendor:

Lot Number:

Balance ID: BAL-DRO

Comments: Used to Prep DRO-8015 ICAL and CCV Solutions

Type: Secondary

Prep By: Ann Nebel

Status: Open

Final Volume: 25 mL

Chemical/Solvent Used	Bottle No	Amt	Units	Expires
Dichloromethane EC328	14408	25	mL	9/30/2024

Stock Source	Base Units	Amount Added
DRO200430B	ug/mL	0.1012 g



Analytical RunID GCFID-HP5-B_220111A Standards Traceability Report

Standard ID: DRO211214C

Standard Name: Diesel Fuel #2 50,000 ug/mL in DCM

Prep Date: 12/14/2021

Exp Date: 4/30/2023

Department: dropr

Vendor: Sigma-Aldrich

Lot Number: LRAC6316

Balance ID:

Comments: Diesel Fuel #2 For CCVs.

Type: Primary

Prep By: Ann Nebel

Status: New

Final Volume: mL

Chemical/Solvent Used	Bottle No	Amt	Units	Expires
Diesel Fuel No. 2	14623	1	mL	4/30/2023

Stock Source	Base Units	Amount Added
DRO211214C	ug/mL	



Analytical RunID GCFID-HP5-B_220111A Standards Traceability Report

Standard ID: DRO211222B

Standard Name: EPH (4) SURR-1000 ug/mL ea. in Hexane

Prep Date: 12/22/2021

Exp Date: 5/31/2022

Department: dropr

Vendor:

Lot Number:

Balance ID: BAL-DRO

Comments: EPH (4) SURR-1000 ug/mL ea. in Hexane

Type: Secondary

Prep By: Jillian L Bostwick

Status: Open

Final Volume: 50 mL

Chemical/Solvent Used	Bottle No	Amt	Units	Expires
Hexane EB754	14543	50	mL	5/31/2022

Stock Source	Base Units	Amount Added
DRO180823A	ug/mL	0.0507 g
DRO200430B	ug/mL	0.0504 g
DRO180126C	ug/mL	0.0496 g
DRO201014C	ug/mL	0.0504 g



Analytical RunID GCFID-HP5-B_220111A Standards Traceability Report

Standard ID: DRO220102D

Standard Name: ALASKA MARKER-200ug/mL

Prep Date: 1/2/2022

Exp Date: 5/31/2022

Department: dropr

Vendor:

Lot Number:

Balance ID:

Comments: ALASKA MARKER w/ C-10, C-25, and OTP/COD. Optimal C-25 is 0.0012g.

Type: Secondary

Prep By: Ann Nebel

Status: New

Final Volume: 5.5 mL

Chemical/Solvent Used	Bottle No	Amt	Units	Expires
Hexane EB754	14543	3.3	mL	5/31/2022

Stock Source	Base Units	Amount Added
DRO201014D	ug/mL	0.0016 g
DRO211222B	ug/mL	1.1 mL
DRO211025B	ug/mL	1.1 mL

Certificate of Analysis

Diesel Fuel No. 2

*Certified
Reference
Material*

Description

Product ID UST148
Lot LRAC6316
Expiration Date April 2023
Manufacturing Date April 2020
Storage Conditions Room Temperature
Solvent/Matrix DICHLOROMETHANE

ID #: 14623

Opened: _____

Diesel Fuel No. 2

Expires: 4/30/2023

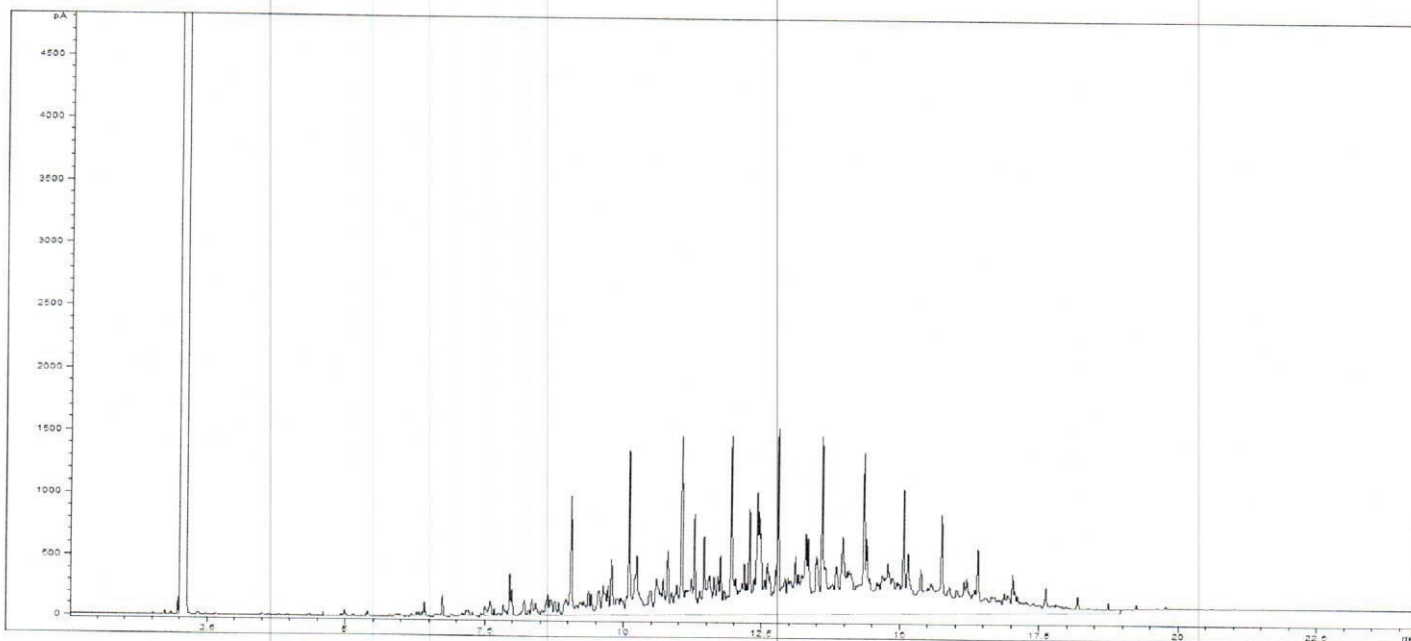
Rec'd: 12/14/2021

Energy Laboratories Inc 1120 So. 27th Street
Billings MT 59107

Certified Values

Analyte	Certified Value ^{1,4}	Units	Raw Material Purity,%	Raw Material Lot	CAS
NO.2 FUEL OIL	50001 ± 2770	µg/mL	100.0	LA80505	68476-34-6

Informational Values



Additional Information:

Analytical Method Parameters:

Column: SPB-5, 30 m × 0.53 mm I.D., 1.5 µm film thickness (Column #214)

Carrier Gas: H₂, Flow: 4.0 mL/min

Inlet Temperature: 250 °C, Injection Volume: 1.0 µL

Injection Mode: Split, Split Ratio: 10: 1

Temperature Program: 40 °C (Hold 2 min) @ 15 °C/min to 300 °C (Hold 5 min)

Detector: FID

Detector Temperature: 300 °C



SIGMA-ALDRICH®

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800-325-5832
TechService@milliporesigma.com www.sigma-aldrich.com

Description

Lot **LRAC6316**
Expiration Date April 2023
Manufacturing Date April 2020
Storage Conditions Room Temperature
Solvent/Matrix DICHLOROMETHANE

1 Metrological traceability: Traceable to the SI and higher order standards from NIST through an unbroken chain of comparisons. The balance used to weigh raw materials is accurate to +/-0.0001 g and calibrated regularly using mass standards traceable to NIST. All dilutions were performed gravimetrically. Additionally, individual analytes are traceable to NIST SRMs where available and specified above.
4 Ucrm - Uncertainty values in this document are expressed as Expanded Uncertainty (Ucrm) corresponding to the 95% confidence interval. Ucrm is derived from the combined standard uncertainty multiplied by the coverage factor k, which is obtained from a t-distribution and degrees of freedom. The components of combined standard uncertainty include the uncertainties due to characterization, homogeneity, long term stability, and short term stability (transport). The components due to stability are generally considered to be negligible unless otherwise indicated by stability studies. The mathematical representation of the Ucrm calculation is as follows:

$$U_{CRM} = \sqrt{u_{char}^2 + u_{homogeneity}^2 + u_{stability}^2}$$

k: Coverage factor derived from a t-distribution table, based on the degrees of freedom of the data set. Assume 2.0 for a **Confidence interval = 95%**

6 Analytical Value- For QC verification of the certified value only- not to be used in calculations. Represents the analytical data obtained by comparison to a standard as analyzed by the method described in the CoA or another acceptable method. The result may differ from the certified value and UCRM based on method uncertainty as well as the uncertainty associated with the standard used for comparison.

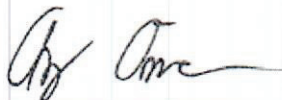
Traceability: The standard was manufactured under an ISO/IEC 17025:2017 certified quality system. The balance used to weigh raw materials is accurate to +/- 0.0001g and calibrated regularly using mass standards traceable to NIST. All dilutions were performed gravimetrically. Additionally, individual analytes are traceable to NIST SRMs where available and specified above.

Homogeneity: Homogeneity was assessed in accordance with ISO 17034:2016. Completed units were sampled using a random stratified sampling protocol. The results of chemical analysis were then compared using a one-way analysis of variance approach as described by TNI EL-V3-2009 Appendix A.2. See Instructions for minimum sub-sample size.

Expiration is at end of month given on certificate and label.

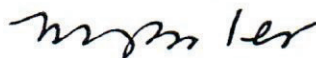
MSDS reports for components comprising greater than 1.0% of the solution or 0.1% for components known to be carcinogens are available upon request.

THIS PRODUCT WAS DESIGNED, PRODUCED AND VERIFIED FOR ACCURACY AND STABILITY IN ACCORDANCE WITH ISO/IEC 17025:2017 (ANAB Cert AT-1467) and ISO 17034:2016 (ANAB Cert AR-1470).



Andy Ommen - QC Manager

Certification Date April 30, 2020
Version 0-4302020



Mark Pooler - QA Supervisor



Anna

660 Tower Lane • P.O. Box 599 • West Chester, PA 19381-0599
1-800-452-9994 • 1-610-692-3026 • Fax 1-610-692-8729
info@chemservice.com • www.chemservice.com

CERTIFICATE OF ANALYSIS

o-Terphenyl

CATALOG NUMBER N-12693-500MG
LOT NUMBER 9972100
DATE CERTIFIED 09/23/19
EXPIRATION DATE 09/30/24
CAS NUMBER 84-15-1
MOLECULAR FORMULA C18H14
MOLECULAR WEIGHT 230.32
STORAGE Store in a cool dry place.
HANDLING See Safety Data Sheet
INTENDED USE For laboratory use only.

Analytical Test	Value
FT-IR SPECTROSCOPY	CONFORMS TO STRUCTURE
GC/MS SPECTRA ID	MATCHES NIST DATABASE
MELTING POINT (°C)	57.1
% PURITY (GC/FID)	99.5

Chem Service, Inc. guarantees the purity to be +/- 0.5% deviation prior to the expiration date shown on the label and exclusive of any customer contamination.

Certified By:

Mary Beth O'Donnell

Mary Beth O'Donnell
CSM/TC

ID #: 12650

Opened: _____

o-Terphenyl

Expires: 9/30/2024

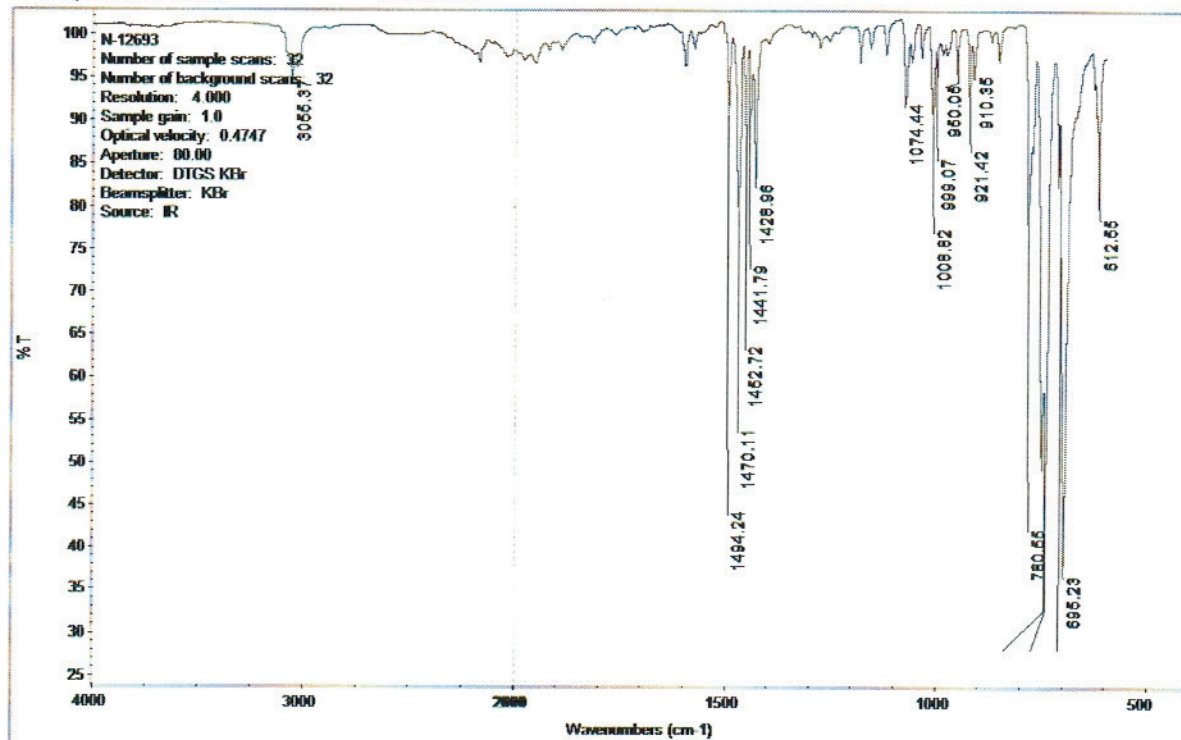
Rec'd: 4/30/2020

Energyl Laboratories Inc 1120 So. 27th Street
Billings MT 59107

CERTIFICATE OF ANALYSIS

Analysis Method:

Catalog Number: N-12693-500MG
Description: o-Terphenyl
Lot Number: 9972100
Expiration Date: 09/30/24



Chem Service is accredited to ISO 17034:2016, ISO/IEC 17025:2017 and certified to ISO 9001:2015



CERTIFICATE OF ANALYSIS

Analysis Method:

Catalog Number: N-12693-500MG
Description: o-Terphenyl
Lot Number: 9972100
Expiration Date: 09/30/24

Chem Service Inc Area Percent Report

Data File: D:\msdchem\2019 DATA\0919\0923-01.D
Acq On : 23 Sep 2019 10:40
Operator :
Sample : n-12693
Misc :
ALS Vial : 95

Integration Parameters: autoint1.e
Integrator: ChemStation

DataAcq Meth: SCREEN.M
Method : D:\msdchem\2019 DATA\0919\0903-09.D\ERIN.M

Signal : TIC: 0923-01.D\data.ms

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	11.844	1597	1606	1613	BB	32038221	432253484	100.00%	100.000%

Sum of corrected areas: 432253484

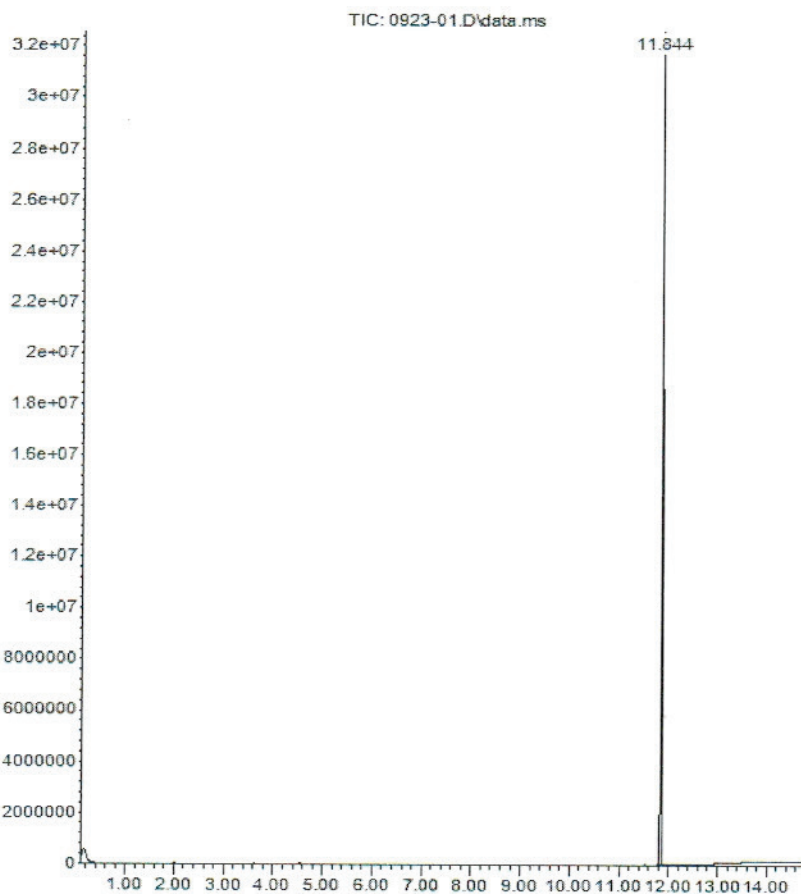
ERIN.M Mon Sep 23 10:55:51 2019

CERTIFICATE OF ANALYSIS

Analysis Method:

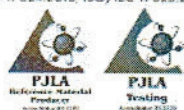
Catalog Number: N-12693-500MG
Description: o-Terphenyl
Lot Number: 9972100
Expiration Date: 09/30/24

Abundance



Time-->

Chem Service is accredited to ISO 17034:2016, ISO/IEC 17025:2017 and certified to ISO 9001:2015



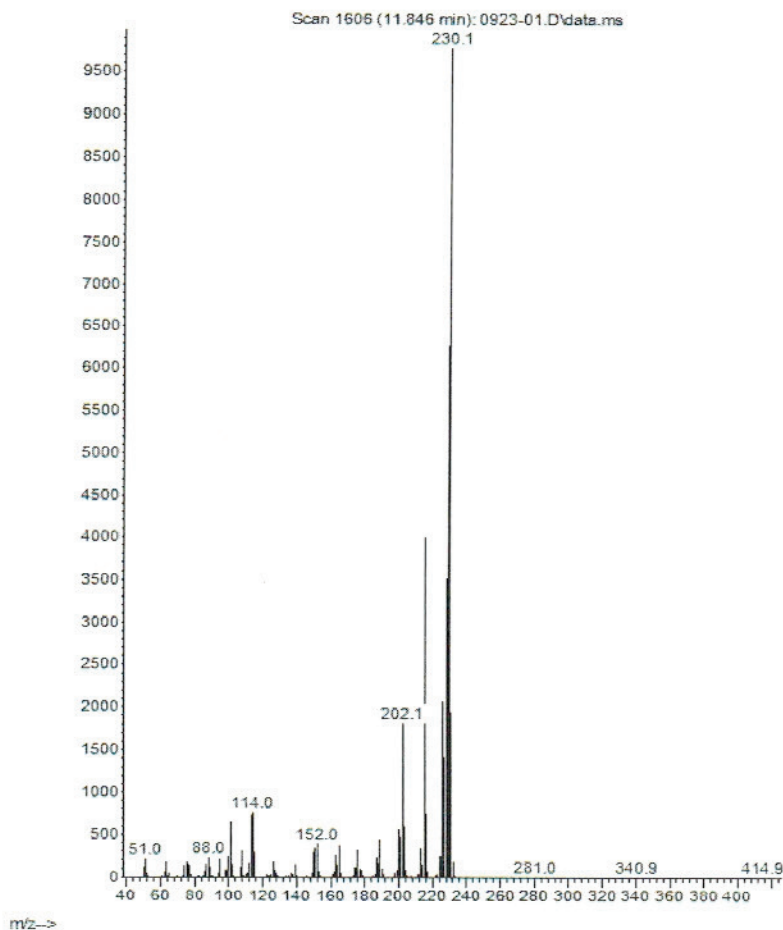
660 Tower Lane • P. O. Box 599 • West Chester, PA 19381-0599
1-800-452-9994 • 1-610-692-3026 • Fax 1-610-692-8729
info@chemservice.com • www.chemservice.com

CERTIFICATE OF ANALYSIS

Analysis Method:

Catalog Number: N-12693-500MG
Description: o-Terphenyl
Lot Number: 9972100
Expiration Date: 09/30/24

Abundance



Chem Service is accredited to ISO 17034:2016, ISO/IEC 17025:2017 and certified to ISO 9001:2015.



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1-800-452-9994 • 1-610-692-3026 • Fax 1-610-692-8729
info@chemservice.com • www.chemservice.com

CERTIFICATE OF ANALYSIS

Analysis Method:

Catalog Number:	N-12693-500MG
Description:	o-Terphenyl
Lot Number:	9972100
Expiration Date:	09/30/24

Chem Service is accredited to ISO 17034:2016, ISO/IEC 17025:2017 and certified to ISO 9001:2015



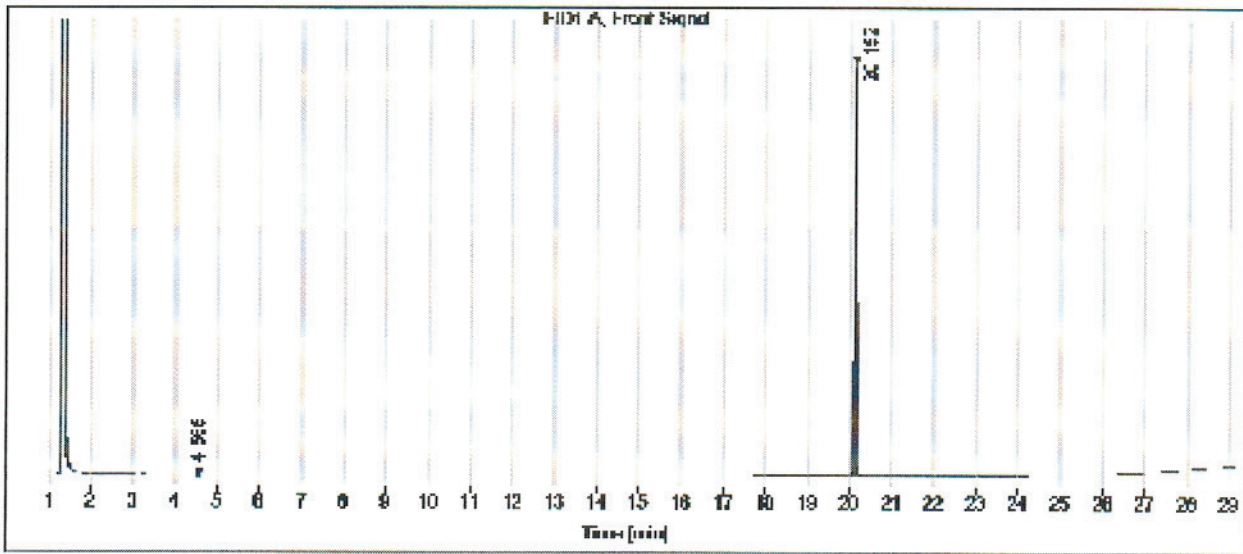
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 1-800-452-9994 • 1-610-692-3026 • Fax 1-610-692-8729
info@chemservice.com • www.chemservice.com

Gas

Data file: C:\CHEM3\
 Sample name: N-12893
 Instrument: GC 2
 Injection date: 8/23/2019 9:58:34 AM
 Acq. method: SCREEN.M
 Column name: HP-5

CERTIFICATE OF ANALYSIS

Location: Vial 141
 Injection volume: 1.0uL



Signal: FID1 A, Front Signal

RT [min]	Type	Width [min]	Area	Height	Area%
4.565	BB	0.0305	1.2408	0.5122	0.11
20.152	BB	0.0391	1171.9556	439.4599	99.89
		Sum	1173.1963		

Chem Service is accredited to ISO 17034:2016, ISO/IEC 17025:2017 and certified to ISO 9001:2015





Analytical RunID GCFID-HP5-B_220111c Standards Traceability Report

Standard ID: DRO210406A

Standard Name: Triacontane-d62 Surr For AK103 RRO

Prep Date: 4/6/2021

Exp Date: 4/6/2026

Department: dropr

Vendor: Sigma-Aldrich

Lot Number: MBBC4347

Balance ID:

Comments: Alaska surr [for AK103 RRO]

Type: Neat

Prep By: Ann Nebel

Status: New

Final Volume: mL

Chemical/Solvent Used	Bottle No	Amt	Units	Expires
Triacontane-d62-98 atom % D	13736		mL	4/6/2026
Stock Source	Base Units	Amount Added		



Analytical RunID GCFID-HP5-B_220111c Standards Traceability Report

Standard ID: DRO210901A

Standard Name: 30W Motor Oil-Valvoline

Prep Date: 9/1/2021

Exp Date: 9/1/2026

Department: dropr

Vendor:

Lot Number: F1620C1

Balance ID:

Comments: Used to make 2nd Source Standard for AK103 method.

Type: Primary

Prep By: Jillian L Bostwick

Status: New

Final Volume: mL

Chemical/Solvent Used	Bottle No	Amt	Units	Expires
Valvoline SAE 30 Motor Oil	14232		mL	9/1/2026
Stock Source	Base Units	Amount Added		



Analytical RunID GCFID-HP5-B_220111c Standards Traceability Report

Standard ID: DRO210901B

Standard Name: 40W Motor Oil-Valvoline

Prep Date: 9/1/2021

Exp Date: 9/1/2026

Department: dropr

Vendor:

Lot Number: L0717H2

Balance ID:

Comments: Used to Make 2nd Source Standards For Alaska AK103 RRO Method and Oil

Type: Primary

Prep By: Jillian L Bostwick

Status: New

Final Volume: mL

Chemical/Solvent Used	Bottle No	Amt	Units	Expires
Valvoline SAE 40 Motor Oil	14231		mL	9/1/2026
Stock Source	Base Units	Amount Added		



Analytical RunID GCFID-HP5-B_220111c Standards Traceability Report

Standard ID: DRO210902A

Standard Name: 50,000 ug/mL Oil Std for RRO-In DCM

Prep Date: 9/2/2021

Exp Date: 9/1/2026

Department: dropr

Vendor:

Lot Number:

Balance ID: BAL-DRO

Comments: .625 g of 30W and 40 W each LCS for Oil range

Type: Secondary

Prep By: Jillian L Bostwick

Status: New

Final Volume: 25 mL

Chemical/Solvent Used	Bottle No	Amt	Units	Expires
Dichloromethane EB867	14196	25	mL	9/1/2026

Stock Source	Base Units	Amount Added
DRO210901A	ug/mL	0.6254 g
DRO210901B	ug/mL	0.6261 g



Analytical RunID GCFID-HP5-B_220111c Standards Traceability Report

Standard ID: DRO211006A

Standard Name: Triacontane SURR 2000 ug/mL

Prep Date: 10/6/2021

Exp Date: 4/6/2026

Department: dropr

Vendor:

Lot Number:

Balance ID: BAL-DRO

Comments: Triacontane SURR 2000 ug/mL

Type: Secondary

Prep By: Jillian L Bostwick

Status: New

Final Volume: 50 mL

Chemical/Solvent Used	Bottle No	Amt	Units	Expires
Acetone DZ509	13553	50	mL	4/6/2026

Stock Source	Base Units	Amount Added
DRO210406A	ug/mL	0.1001 g



Analytical RunID GCFID-HP5-B_220111c Standards Traceability Report

Standard ID: DRO211118A

Standard Name: 50,000 ug/mL Oil Std For AK103 RRO-In DCM

Prep Date: 11/18/2021

Exp Date: 10/31/2028

Department: dropr

Vendor: Restek

Lot Number: A0176667

Balance ID: Sartorius 4 place balance

Comments:

Type: Primary

Prep By: Ann Nebel

Status: Open

Final Volume: 1 mL

Chemical/Solvent Used	Bottle No	Amt	Units	Expires
Residual Range Calibration Standard	14531	1	mL	10/31/2028

Stock Source	Base Units	Amount Added
DRO211118A	ug/mL	



CERTIFIED REFERENCE MATERIAL

110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

Certificate of Analysis



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31817 **Lot No.:** A0176667

Description : Residual Range Calibration Standard (RCS)

Residual Range Calib Std (RCS) 50,000µg/mL, Methylene Chloride, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : October 31, 2028 **Storage:** 25°C nominal

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Motor Oil SAE30 & SAE40 Blend (Pennzoil) CAS # 64742-65-0.F Purity ----%	50,102.0 µg/mL	+/- 293.3582	µg/mL	Gravimetric
	(Lot A0126386)		+/- 1,492.1008	µg/mL	Unstressed
			+/- 1,591.3244	µg/mL	Stressed

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

ID #: 14531

Opened: _____
Residual Range Calibration Standard
Expires: 10/31/2028
Rec'd: 11/18/2021
Energy Laboratories Inc 1120 So. 27th Street
Billings MT 59107

Column:

30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

Carrier Gas:

hydrogen-constant pressure 10 psi.

Temp. Program:

40°C (hold 2 min.) to 330°C
@ 10°C/min. (hold 10 min.)

Inj. Temp:

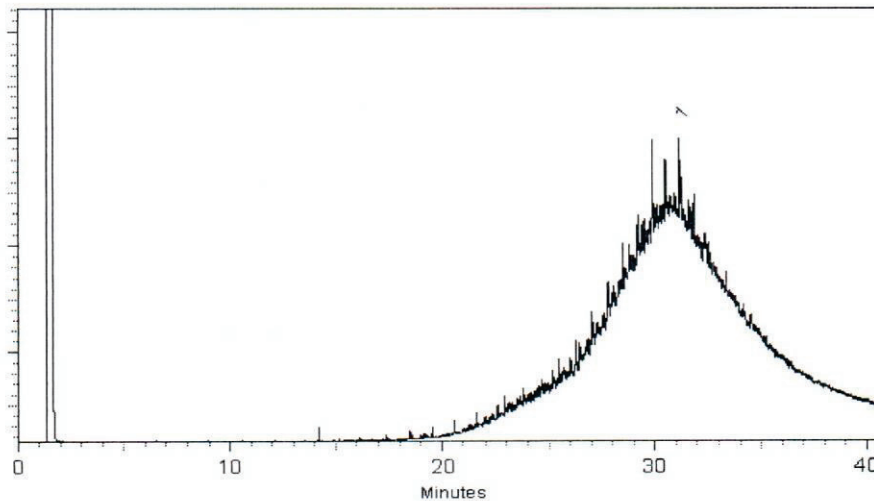
250°C

Det. Temp:

330°C

Det. Type:

FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Sam Moodler

Sam Moodler - Operations Tech I

Date Mixed: 22-Sep-2021

Balance: 1128360905

Alexis Shelow

Alexis Shelow - Operations Tech I

Date Passed: 23-Sep-2021

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/ μ ECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k \sqrt{U_{gravimetric}^2 + U_{homogeneity}^2 + U_{storage\ stability}^2 + U_{shipping\ stability}^2}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.

3050 Spruce Street, Saint Louis, MO 63103, USA

Website: www.sigmaaldrich.com

Email USA: techserv@sial.com

Outside USA: eurtechserv@sial.com

Certificate of Analysis

Product Name:
Triacontane-d62 - 98 atom % D

Product Number: 451789
 Batch Number: MBBC4347
 Brand: ALDRICH
 CAS Number: 93952-07-9
 MDL Number: MFCD00209794
 Formula: C30D62
 Formula Weight: 485.20 g/mol
 Quality Release Date: 27 APR 2018



ID #: 13736

Opened: _____

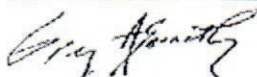
Triacontane-d62-98 atom % D

Expires: 4/6/2026

Rec'd: 4/6/2021

Energx Laboratories Inc 1120 So. 27th Street
 Billings MT 59107

Test	Specification	Result
Purity (HPLC)	≥ 99.0 %	99.0 %
Proton NMR Spectrum	Conforms to Structure	Conforms
D Enrichment	≥ 98.0 %	99.0 %
Initial Melting Point		60.0 °C
Final Melting Point		62.0 °C



Greg Abernathy, Supervisor
 Quality Control
 Miamisburg, Ohio US

Sigma-Aldrich warrants, that at the time of the quality release or subsequent retest date this product conformed to the information contained in this publication. The current Specification sheet may be available at Sigma-Aldrich.com. For further inquiries, please contact Technical Service. Purchaser must determine the suitability of the product for its particular use. See reverse side of invoice or packing slip for additional terms and conditions of sale.



Analytical RunID GCFID-HP5-B_220114A Standards Traceability Report

Standard ID: DRO200430B
Standard Name: O-Terphenyl
Prep Date: 4/30/2020
Exp Date: 9/30/2024
Department: dropr
Vendor: Chemservice
Lot Number: 9972100
Balance ID:
Comments: ID#: 6271

Type: Neat
Prep By: Ann Nebel
Status: New

Final Volume: mL

Chemical/Solvent Used	Bottle No	Amt	Units	Expires
o-Terphenyl	12650	500	mg	9/30/2024
Stock Source	Base Units	Amount Added		



Analytical RunID GCFID-HP5-B_220114A Standards Traceability Report

Standard ID: DRO210401B

Standard Name: 50,000 ug/mL Oil Std For AK103 RRO-In DCM

Prep Date: 4/1/2021

Exp Date: 1/31/2028

Department: dropr

Vendor: Restek

Lot Number: A0166827

Balance ID: Sartorius 4 place balance

Comments:

Type: Primary

Prep By: Ann Nebel

Status: Open

Final Volume: 1 mL

Chemical/Solvent Used	Bottle No	Amt	Units	Expires
Residual Range Calibration Standard (RCS)	13714	1	mL	1/31/2028
Stock Source	Base Units	Amount Added		



Analytical RunID GCFID-HP5-B_220114A Standards Traceability Report

Standard ID: DRO210406A

Standard Name: Triacontane-d62 Surr For AK103 RRO

Prep Date: 4/6/2021

Exp Date: 4/6/2026

Department: dropr

Vendor: Sigma-Aldrich

Lot Number: MBBC4347

Balance ID:

Comments: Alaska surr [for AK103 RRO]

Type: Neat

Prep By: Ann Nebel

Status: New

Final Volume: mL

Chemical/Solvent Used	Bottle No	Amt	Units	Expires
Triacontane-d62-98 atom % D	13736	500	mg	4/6/2026
Stock Source	Base Units	Amount Added		



Analytical RunID GCFID-HP5-B_220114A Standards Traceability Report

Standard ID: DRO211006A

Standard Name: Triacontane SURR 2000 ug/mL

Prep Date: 10/6/2021

Exp Date: 4/6/2026

Department: dropr

Vendor:

Lot Number:

Balance ID: BAL-DRO

Comments: Triacontane SURR 2000 ug/mL

Type: Primary

Prep By: Jillian L Bostwick

Status: New

Final Volume: 50 mL

Chemical/Solvent Used	Bottle No	Amt	Units	Expires
Acetone DZ509	13553	50	mL	4/6/2026

Stock Source	Base Units	Amount Added
DRO210406A	ug/mL	0.1001 g



Analytical RunID GCFID-HP5-B_220114A Standards Traceability Report

Spike ID: DRO211101A

Spike Name: OTP-4000 ug/mL DCM

Prep Date: 11/1/2021

Exp Date: 9/30/2024

Department: dropr

Vendor:

Lot Number:

Balance ID: BAL-DRO

Comments: Used to Prep DRO-8015 ICAL and CCV Solutions

Type: Secondary

Prep By: Ann Nebel

Status: Open

Final Volume: 25 mL

Chemical/Solvent Used	Bottle No	Amt	Units	Expires
Dichloromethane EC328	14408	25	mL	9/30/2024

Stock Source	Base Units	Amount Added
DRO200430B	ug/mL	0.1012 g



Analytical RunID GCFID-HP5-B_220114A Standards Traceability Report

Standard ID: DRO211214C

Standard Name: Diesel Fuel #2 50,000 ug/mL in DCM

Prep Date: 12/14/2021

Exp Date: 4/30/2023

Department: dropr

Vendor: Sigma-Aldrich

Lot Number: LRAC6316

Balance ID:

Comments: Diesel Fuel #2 For CCVs.

Type: Primary

Prep By: Ann Nebel

Status: New

Final Volume: mL

Chemical/Solvent Used	Bottle No	Amt	Units	Expires
Diesel Fuel No. 2	14623	1	mL	4/30/2023

Stock Source	Base Units	Amount Added
DRO211214C	ug/mL	



Analytical RunID GCFID-HP5-B_220114A Standards Traceability Report

Standard ID: DRO220105A

Standard Name: Triacontane SURR 1000 ug/mL

Prep Date: 1/5/2022

Exp Date: 4/6/2026

Department: dropr

Vendor:

Lot Number:

Balance ID: BAL-DRO

Comments: 2X dilution of Triacontane SURR 2000 ug/mL

Type: Secondary

Prep By: Jillian L Bostwick

Status: New

Final Volume: 10 mL

Chemical/Solvent Used	Bottle No	Amt	Units	Expires
Dichloromethane EC832	14647	5	mL	4/6/2026

Stock Source	Base Units	Amount Added
DRO211006A	ug/mL	5 mL



Analytical RunID GCFID-HP5-B_220114A Standards Traceability Report

Standard ID: DRO220105B

Standard Name: 8015 CCV-15,000ug/mL + 200 OTP

Prep Date: 1/5/2022

Exp Date: 4/30/2023

Department: dropr

Vendor:

Lot Number:

Balance ID:

Comments: 8015DRO CCV MIX-15,000ug/mL +200 OTP #2 Diesel

Type: Secondary

Prep By: Ann Nebel

Status: New

Final Volume: 4 mL

Chemical/Solvent Used	Bottle No	Amt	Units	Expires
Dichloromethane EC832	14647	2.6	mL	4/30/2023

Stock Source	Base Units	Amount Added
DRO211214C	ug/mL	1.2 mL
DRO211101A	ug/mL	0.2 mL



Analytical RunID GCFID-HP5-B_220114A Standards Traceability Report

Standard ID: DRO220106A

Standard Name: 5,000 ug/mL RRO CCV 200 ug/mL Triacontane

Prep Date: 1/6/2022

Exp Date: 4/6/2026

Department: dropr

Vendor:

Lot Number:

Balance ID:

Comments: CCV for AK102 and 8015C RRO.

Type: Secondary

Prep By: Ann Nebel

Status: New

Final Volume: 4 mL

Chemical/Solvent Used	Bottle No	Amt	Units	Expires
Dichloromethane EC832	14647	2.8	mL	4/6/2026

Stock Source	Base Units	Amount Added
DRO220105A	ug/mL	800 µL
DRO210401B	ug/mL	400 µL

660 Tower Lane • P.O. Box 599 • West Chester, PA 19381-0599
1-800-452-9994 • 1-610-692-3026 • Fax 1-610-692-8729
info@chemservice.com • www.chemservice.com

CERTIFICATE OF ANALYSIS

o-Terphenyl

CATALOG NUMBER N-12693-500MG
LOT NUMBER 9972100
DATE CERTIFIED 09/23/19
EXPIRATION DATE 09/30/24
CAS NUMBER 84-15-1
MOLECULAR FORMULA C18H14
MOLECULAR WEIGHT 230.32
STORAGE Store in a cool dry place.
HANDLING See Safety Data Sheet
INTENDED USE For laboratory use only.

Analytical Test	Value
FT-IR SPECTROSCOPY	CONFORMS TO STRUCTURE
GC/MS SPECTRA ID	MATCHES NIST DATABASE
MELTING POINT (°C)	57.1
% PURITY (GC/FID)	99.5

Chem Service, Inc. guarantees the purity to be +/- 0.5% deviation prior to the expiration date shown on the label and exclusive of any customer contamination.

Certified By:

Mary Beth O'Donnell

Mary Beth O'Donnell
CSM/TC

ID #: 12650

Opened: _____

o-Terphenyl

Expires: 9/30/2024

Rec'd: 4/30/2020

Energyl Laboratories Inc 1120 So. 27th Street

Billings MT 59107

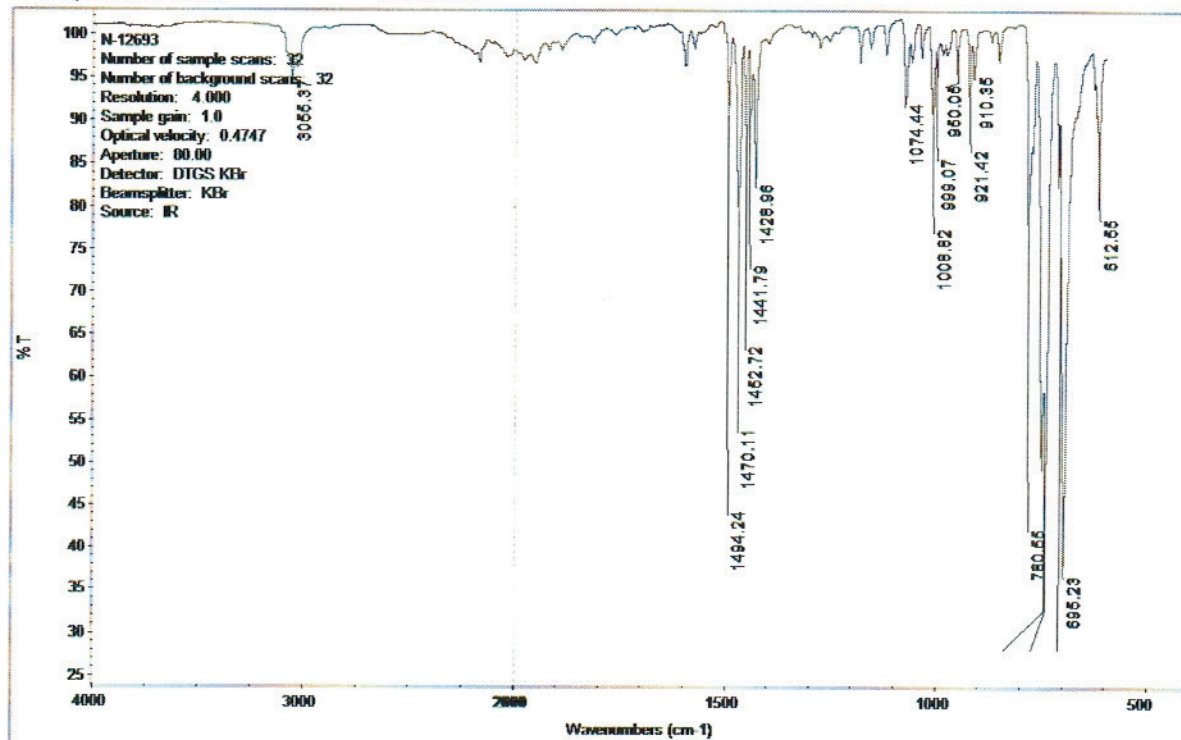
Chem Service is accredited to ISO 17034:2016, ISO/IEC 17025:2017 and certified to ISO 9001:2015



CERTIFICATE OF ANALYSIS

Analysis Method:

Catalog Number: N-12693-500MG
Description: o-Terphenyl
Lot Number: 9972100
Expiration Date: 09/30/24



Chem Service is accredited to ISO 17034:2016, ISO/IEC 17025:2017 and certified to ISO 9001:2015



CERTIFICATE OF ANALYSIS

Analysis Method:

Catalog Number: N-12693-500MG
Description: o-Terphenyl
Lot Number: 9972100
Expiration Date: 09/30/24

Chem Service Inc Area Percent Report

Data File: D:\msdchem\2019 DATA\0919\0923-01.D
Acq On : 23 Sep 2019 10:40
Operator :
Sample : n-12693
Misc :
ALS Vial : 95

Integration Parameters: autoint1.e
Integrator: ChemStation

DataAcq Meth: SCREEN.M
Method : D:\msdchem\2019 DATA\0919\0903-09.D\ERIN.M

Signal : TIC: 0923-01.D\data.ms

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	11.844	1597	1606	1613	BB	32038221	432253484	100.00%	100.000%

Sum of corrected areas: 432253484

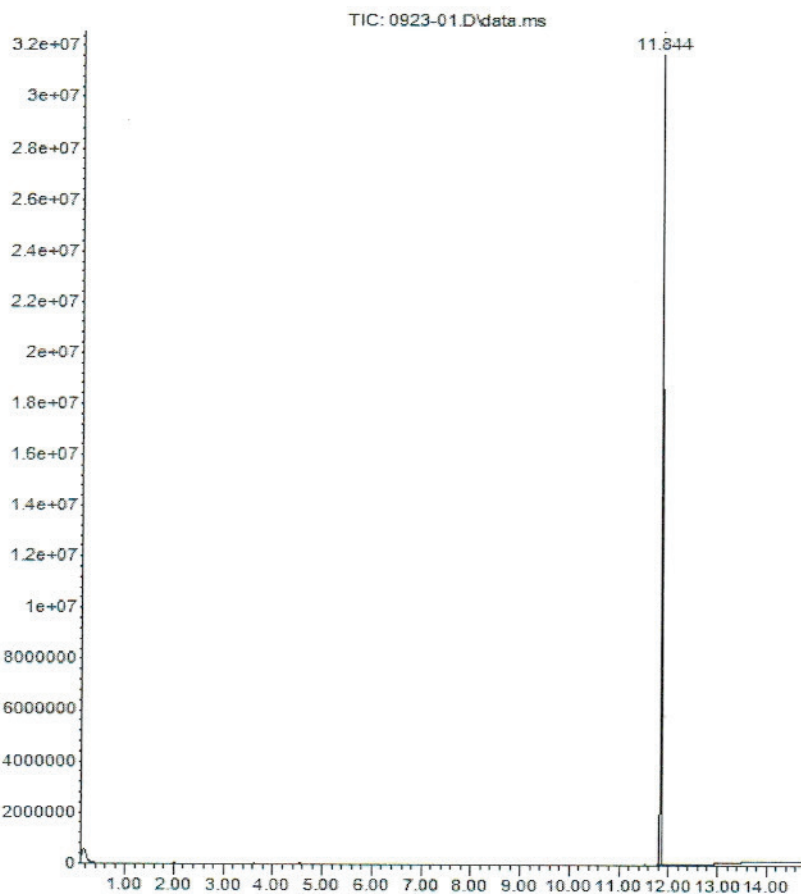
ERIN.M Mon Sep 23 10:55:51 2019

CERTIFICATE OF ANALYSIS

Analysis Method:

Catalog Number: N-12693-500MG
Description: o-Terphenyl
Lot Number: 9972100
Expiration Date: 09/30/24

Abundance



Time-->

Chem Service is accredited to ISO 17034:2016, ISO/IEC 17025:2017 and certified to ISO 9001:2015



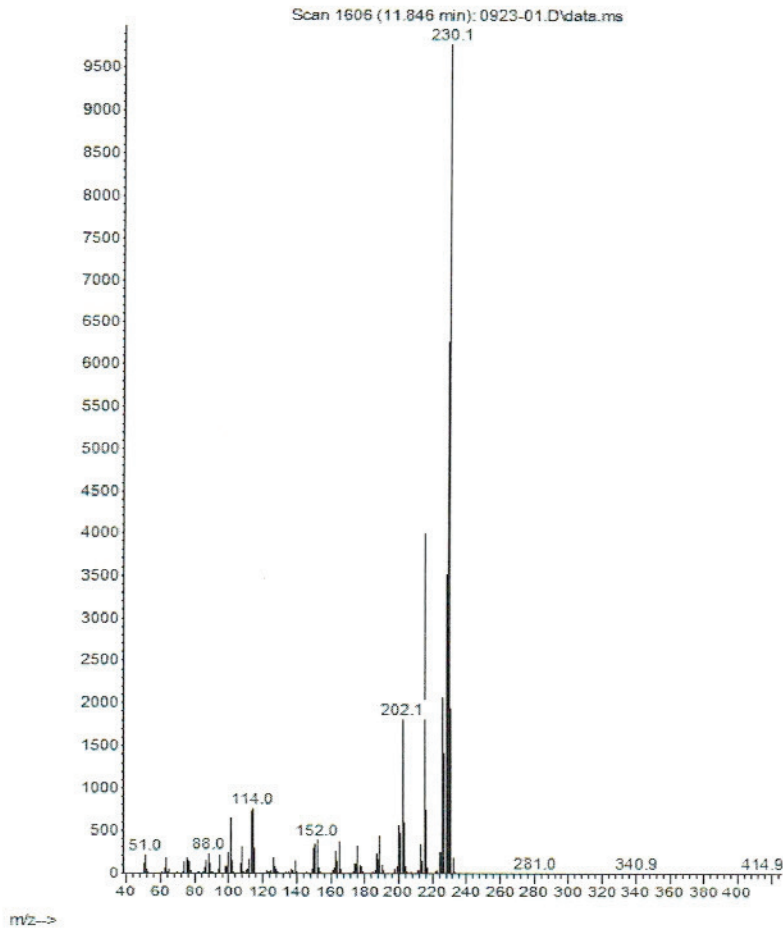
660 Tower Lane • P. O. Box 599 • West Chester, PA 19381-0599
1-800-452-9994 • 1-610-692-3026 • Fax 1-610-692-8729
info@chemservice.com • www.chemservice.com

CERTIFICATE OF ANALYSIS

Analysis Method:

Catalog Number: N-12693-500MG
Description: o-Terphenyl
Lot Number: 9972100
Expiration Date: 09/30/24

Abundance



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info@chemservice.com • www.chemservice.com

CERTIFICATE OF ANALYSIS

Analysis Method:

Catalog Number:	N-12693-500MG
Description:	o-Terphenyl
Lot Number:	9972100
Expiration Date:	09/30/24

Chem Service is accredited to ISO 17034:2016, ISO/IEC 17025:2017 and certified to ISO 9001:2015



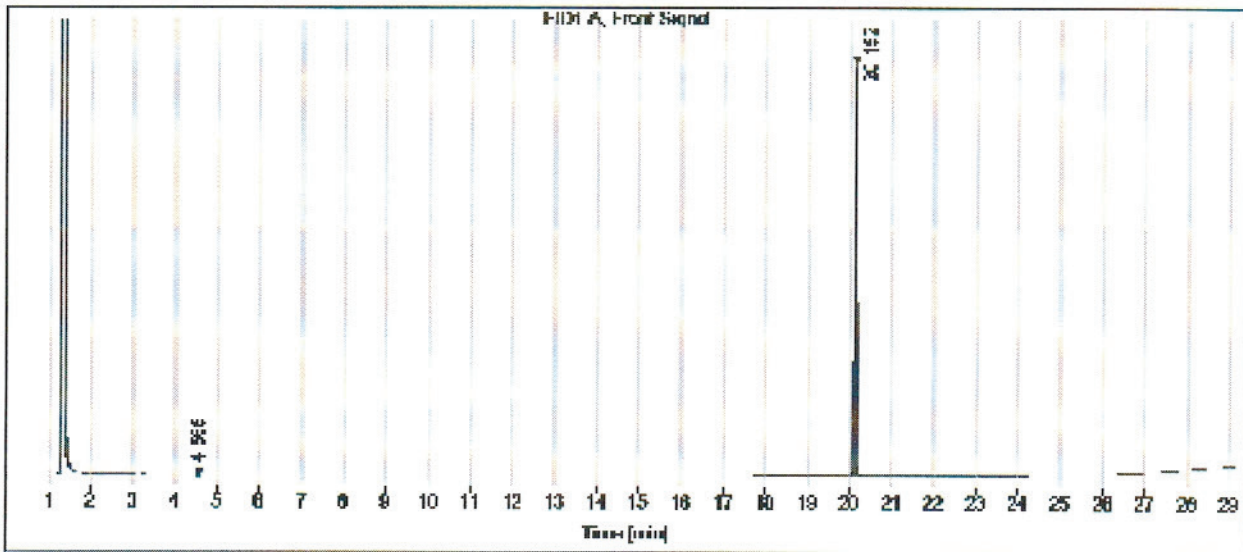
660 Tower Lane • P.O. Box 599 • West Chester, PA 19381-0599
 1-800-452-9994 • 1-610-692-3026 • Fax 1-610-692-8729
info@chemservice.com • www.chemservice.com

Gas

Data file: C:\CHEM3\
 Sample name: N-12893
 Instrument: GC 2
 Injection date: 8/23/2019 9:58:34 AM
 Acq. method: SCREEN.M
 Column name: HP-5

CERTIFICATE OF ANALYSIS

Location: Vial 141
 Injection volume: 1.0uL



Signal: FID1 A, Front Signal

RT [min]	Type	Width [min]	Area	Height	Area%
4.565	BB	0.0305	1.2408	0.5122	0.11
20.152	BB	0.0391	1171.9556	439.4599	99.89
		Sum	1173.1963		

Chem Service is accredited to ISO 17034:2016, ISO/IEC 17025:2017 and certified to ISO 9001:2015



3050 Spruce Street, Saint Louis, MO 63103, USA
 Website: www.sigmaaldrich.com
 Email USA: techserv@sial.com
 Outside USA: eurtechserv@sial.com

Certificate of Analysis

Product Name:
 Triacontane-d62 - 98 atom % D

Product Number: 451789
 Batch Number: MBBC4347
 Brand: ALDRICH
 CAS Number: 93952-07-9
 MDL Number: MFCD00209794
 Formula: C30D62
 Formula Weight: 485.20 g/mol
 Quality Release Date: 27 APR 2018



ID #: 13736

Opened: _____

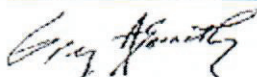
Triacontane-d62-98 atom % D

Expires: 4/6/2026

Rec'd: 4/6/2021

Energx Laboratories Inc 1120 So. 27th Street
 Billings MT 59107

Test	Specification	Result
Purity (HPLC)	≥ 99.0 %	99.0 %
Proton NMR Spectrum	Conforms to Structure	Conforms
D Enrichment	≥ 98.0 %	99.0 %
Initial Melting Point		60.0 °C
Final Melting Point		62.0 °C



Greg Abernathy, Supervisor
 Quality Control
 Miamisburg, Ohio US

Sigma-Aldrich warrants, that at the time of the quality release or subsequent retest date this product conformed to the information contained in this publication. The current Specification sheet may be available at Sigma-Aldrich.com. For further inquiries, please contact Technical Service. Purchaser must determine the suitability of the product for its particular use. See reverse side of invoice or packing slip for additional terms and conditions of sale.



CERTIFIED REFERENCE MATERIAL

110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

Certificate of Analysis



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31817 **Lot No.:** A0166827

Description : Residual Range Calibration Standard (RCS)
Residual Range Calib Std (RCS) 50,000µg/mL, Methylene Chloride, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : January 31, 2028 **Storage:** 25°C nominal

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Motor Oil SAE30 & SAE40 Blend (Pennzoil) CAS # 64742-65-0.F (Lot A0126386) Purity ----%	50,056.0 µg/mL	+/- 293.0889	µg/mL	Gravimetric
			+/- 1,490.7309	µg/mL	Unstressed
			+/- 1,589.8634	µg/mL	Stressed

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

ID #: 13714
Opened: _____
Residual Range Calibration Standard (RCS)
Expires: 1/31/2028
Rec'd: 4/1/2021
Energy Laboratories Inc 1120 So. 27th Street
Billings MT 59107

Column:

30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

Carrier Gas:

hydrogen-constant pressure 10 psi.

Temp. Program:

40°C (hold 2 min.) to 330°C
@ 10°C/min. (hold 10 min.)

Inj. Temp:

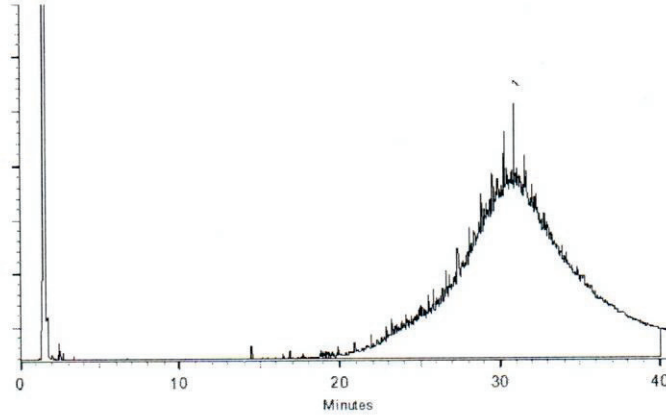
250°C

Det. Temp:

330°C

Det. Type:

FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Kylie Struble
Kylie Struble - Operations Technician I

Date Mixed: 02-Dec-2020

Balance: 1128353505

Justin Albertson
Justin Albertson - Operations Tech-ARM QC

Date Passed: 07-Dec-2020

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k \sqrt{U_{gravimetric}^2 + U_{homogeneity}^2 + U_{storage\ stability}^2 + U_{shipping\ stability}^2}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.

Certificate of Analysis

Diesel Fuel No. 2

*Certified
Reference
Material*

Description

Product ID UST148
Lot LRAC6316
Expiration Date April 2023
Manufacturing Date April 2020
Storage Conditions Room Temperature
Solvent/Matrix DICHLOROMETHANE

ID #: 14623

Opened: _____

Diesel Fuel No. 2

Expires: 4/30/2023

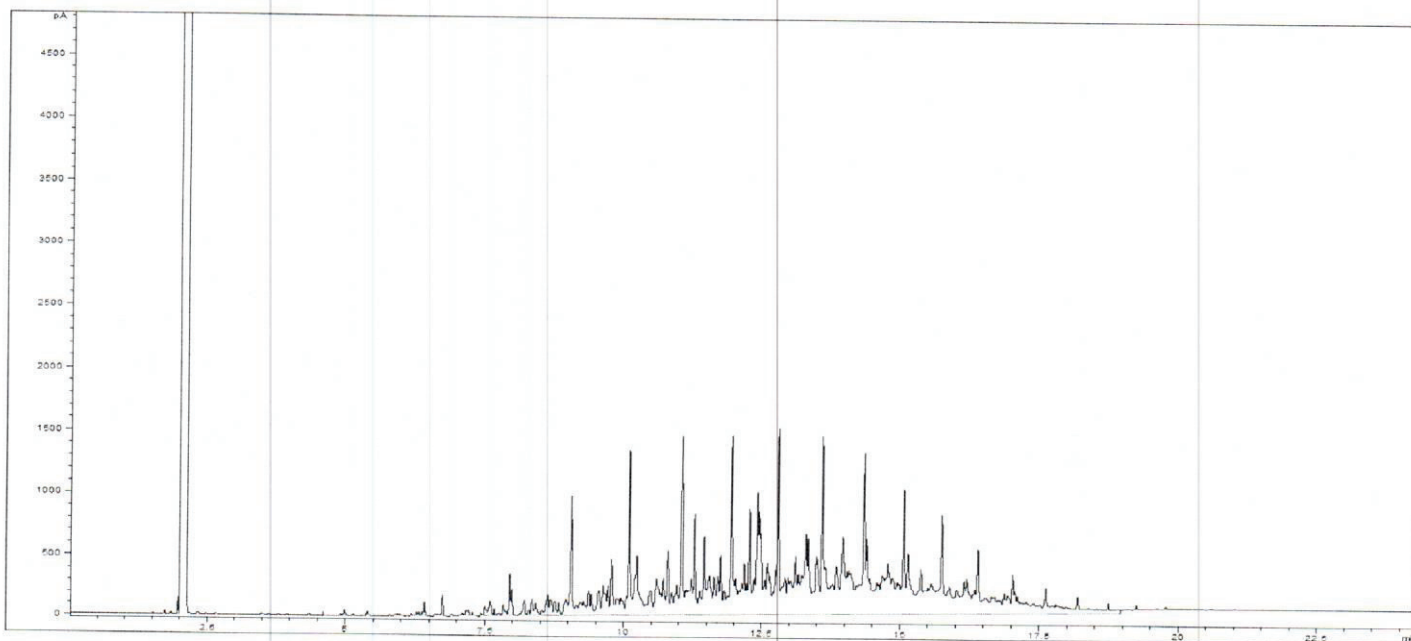
Rec'd: 12/14/2021

Energy Laboratories Inc 1120 So. 27th Street
Billings MT 59107

Certified Values

Analyte	Certified Value ^{1,4}	Units	Raw Material Purity,%	Raw Material Lot	CAS
NO.2 FUEL OIL	50001 ± 2770	µg/mL	100.0	LA80505	68476-34-6

Informational Values



Additional Information:

Analytical Method Parameters:

Column: SPB-5, 30 m × 0.53 mm I.D., 1.5 µm film thickness (Column #214)

Carrier Gas: H₂, Flow: 4.0 mL/min

Inlet Temperature: 250 °C, Injection Volume: 1.0 µL

Injection Mode: Split, Split Ratio: 10: 1

Temperature Program: 40 °C (Hold 2 min) @ 15 °C/min to 300 °C (Hold 5 min)

Detector: FID

Detector Temperature: 300 °C



SIGMA-ALDRICH

2931 Soldier Springs Rd. Laramie, Wyoming 82070 USA
800-325-5832
TechService@milliporesigma.com www.sigma-aldrich.com

Description

Lot **LRAC6316**
Expiration Date April 2023
Manufacturing Date April 2020
Storage Conditions Room Temperature
Solvent/Matrix DICHLOROMETHANE

1 Metrological traceability: Traceable to the SI and higher order standards from NIST through an unbroken chain of comparisons. The balance used to weigh raw materials is accurate to +/-0.0001 g and calibrated regularly using mass standards traceable to NIST. All dilutions were performed gravimetrically. Additionally, individual analytes are traceable to NIST SRMs where available and specified above.
4 Ucrm - Uncertainty values in this document are expressed as Expanded Uncertainty (Ucrm) corresponding to the 95% confidence interval. Ucrm is derived from the combined standard uncertainty multiplied by the coverage factor k, which is obtained from a t-distribution and degrees of freedom. The components of combined standard uncertainty include the uncertainties due to characterization, homogeneity, long term stability, and short term stability (transport). The components due to stability are generally considered to be negligible unless otherwise indicated by stability studies. The mathematical representation of the Ucrm calculation is as follows:

$$U_{CRM} = \sqrt{u_{char}^2 + u_{homogeneity}^2 + u_{stability}^2}$$

k: Coverage factor derived from a t-distribution table, based on the degrees of freedom of the data set. Assume 2.0 for a **Confidence interval = 95%**

6 Analytical Value- For QC verification of the certified value only- not to be used in calculations. Represents the analytical data obtained by comparison to a standard as analyzed by the method described in the CoA or another acceptable method. The result may differ from the certified value and UCRM based on method uncertainty as well as the uncertainty associated with the standard used for comparison.

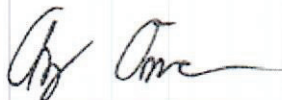
Traceability: The standard was manufactured under an ISO/IEC 17025:2017 certified quality system. The balance used to weigh raw materials is accurate to +/- 0.0001g and calibrated regularly using mass standards traceable to NIST. All dilutions were performed gravimetrically. Additionally, individual analytes are traceable to NIST SRMs where available and specified above.

Homogeneity: Homogeneity was assessed in accordance with ISO 17034:2016. Completed units were sampled using a random stratified sampling protocol. The results of chemical analysis were then compared using a one-way analysis of variance approach as described by TNI EL-V3-2009 Appendix A.2. See Instructions for minimum sub-sample size.

Expiration is at end of month given on certificate and label.

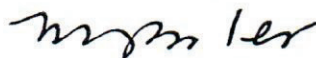
MSDS reports for components comprising greater than 1.0% of the solution or 0.1% for components known to be carcinogens are available upon request.

THIS PRODUCT WAS DESIGNED, PRODUCED AND VERIFIED FOR ACCURACY AND STABILITY IN ACCORDANCE WITH ISO/IEC 17025:2017 (ANAB Cert AT-1467) and ISO 17034:2016 (ANAB Cert AR-1470).



Andy Ommen - QC Manager

Certification Date April 30, 2020
Version 0-4302020



Mark Pooler - QA Supervisor





Analytical RunID GCFID-HP5-B_220118A Standards Traceability Report

Standard ID: DRO200430B
Standard Name: O-Terphenyl
Prep Date: 4/30/2020
Exp Date: 9/30/2024
Department: dropr
Vendor: Chemservice
Lot Number: 9972100
Balance ID:
Comments: ID#: 6271

Type: Neat
Prep By: Ann Nebel
Status: New

Final Volume: mL

Chemical/Solvent Used	Bottle No	Amt	Units	Expires
o-Terphenyl	12650	500	mg	9/30/2024
Stock Source	Base Units	Amount Added		



Analytical RunID GCFID-HP5-B_220118A Standards Traceability Report

Standard ID: DRO210401B

Standard Name: 50,000 ug/mL Oil Std For AK103 RRO-In DCM

Prep Date: 4/1/2021

Exp Date: 1/31/2028

Department: dropr

Vendor: Restek

Lot Number: A0166827

Balance ID: Sartorius 4 place balance

Comments:

Type: Primary

Prep By: Ann Nebel

Status: Open

Final Volume: 1 mL

Chemical/Solvent Used	Bottle No	Amt	Units	Expires
Residual Range Calibration Standard (RCS)	13714	1	mL	1/31/2028
Stock Source	Base Units	Amount Added		



Analytical RunID GCFID-HP5-B_220118A Standards Traceability Report

Standard ID: DRO210406A

Standard Name: Triacontane-d62 Surr For AK103 RRO

Prep Date: 4/6/2021

Exp Date: 4/6/2026

Department: dropr

Vendor: Sigma-Aldrich

Lot Number: MBBC4347

Balance ID:

Comments: Alaska surr [for AK103 RRO]

Type: Neat

Prep By: Ann Nebel

Status: New

Final Volume: mL

Chemical/Solvent Used	Bottle No	Amt	Units	Expires
Triacontane-d62-98 atom % D	13736	500	mg	4/6/2026
Stock Source	Base Units	Amount Added		



Analytical RunID GCFID-HP5-B_220118A Standards Traceability Report

Standard ID: DRO211006A

Standard Name: Triacontane SURR 2000 ug/mL

Prep Date: 10/6/2021

Exp Date: 4/6/2026

Department: dropr

Vendor:

Lot Number:

Balance ID: BAL-DRO

Comments: Triacontane SURR 2000 ug/mL

Type: Primary

Prep By: Jillian L Bostwick

Status: New

Final Volume: 50 mL

Chemical/Solvent Used	Bottle No	Amt	Units	Expires
Acetone DZ509	13553	50	mL	4/6/2026

Stock Source	Base Units	Amount Added
DRO210406A	ug/mL	0.1001 g



Analytical RunID GCFID-HP5-B_220118A Standards Traceability Report

Spike ID: DRO211101A
Spike Name: OTP-4000 ug/mL DCM
Prep Date: 11/1/2021
Exp Date: 9/30/2024
Department: dropr
Vendor:
Lot Number:
Balance ID: BAL-DRO
Comments: Used to Prep DRO-8015 ICAL and CCV Solutions

Type: Secondary
Prep By: Ann Nebel
Status: Open

Final Volume: 25 mL

Chemical/Solvent Used	Bottle No	Amt	Units	Expires
Dichloromethane EC328	14408	25	mL	9/30/2024

Stock Source	Base Units	Amount Added
DRO200430B	ug/mL	0.1012 g



Analytical RunID GCFID-HP5-B_220118A Standards Traceability Report

Standard ID: DRO211214C

Standard Name: Diesel Fuel #2 50,000 ug/mL in DCM

Prep Date: 12/14/2021

Exp Date: 4/30/2023

Department: dropr

Vendor: Sigma-Aldrich

Lot Number: LRAC6316

Balance ID:

Comments: Diesel Fuel #2 For CCVs.

Type: Primary

Prep By: Ann Nebel

Status: New

Final Volume: mL

Chemical/Solvent Used	Bottle No	Amt	Units	Expires
Diesel Fuel No. 2	14623	1	mL	4/30/2023

Stock Source	Base Units	Amount Added
DRO211214C	ug/mL	



Analytical RunID GCFID-HP5-B_220118A Standards Traceability Report

Standard ID: DRO220105A

Standard Name: Triacontane SURR 1000 ug/mL

Prep Date: 1/5/2022

Exp Date: 4/6/2026

Department: dropr

Vendor:

Lot Number:

Balance ID: BAL-DRO

Comments: 2X dilution of Triacontane SURR 2000 ug/mL

Type: Secondary

Prep By: Jillian L Bostwick

Status: New

Final Volume: 10 mL

Chemical/Solvent Used	Bottle No	Amt	Units	Expires
Dichloromethane EC832	14647	5	mL	4/6/2026
Stock Source	Base Units	Amount Added		
DRO211006A	ug/mL	5 mL		



Analytical RunID GCFID-HP5-B_220118A Standards Traceability Report

Standard ID: DRO220105B

Standard Name: 8015 CCV-15,000ug/mL + 200 OTP

Prep Date: 1/5/2022

Exp Date: 4/30/2023

Department: dropr

Vendor:

Lot Number:

Balance ID:

Comments: 8015DRO CCV MIX-15,000ug/mL +200 OTP #2 Diesel

Type: Secondary

Prep By: Ann Nebel

Status: New

Final Volume: 4 mL

Chemical/Solvent Used	Bottle No	Amt	Units	Expires
Dichloromethane EC832	14647	2.6	mL	4/30/2023

Stock Source	Base Units	Amount Added
DRO211214C	ug/mL	1.2 mL
DRO211101A	ug/mL	0.2 mL



Analytical RunID GCFID-HP5-B_220118A Standards Traceability Report

Standard ID: DRO220106A

Standard Name: 5,000 ug/mL RRO CCV 200 ug/mL Triacontane

Type: Secondary

Prep Date: 1/6/2022

Prep By: Ann Nebel

Exp Date: 4/6/2026

Status: New

Department: dropr

Vendor:

Final Volume: 4 mL

Lot Number:

Balance ID:

Comments: CCV for AK102 and 8015C RRO.

Chemical/Solvent Used	Bottle No	Amt	Units	Expires
Dichloromethane EC832	14647	2.8	mL	4/6/2026

Stock Source	Base Units	Amount Added
DRO220105A	ug/mL	800 µL
DRO210401B	ug/mL	400 µL

Anna

660 Tower Lane • P.O. Box 599 • West Chester, PA 19381-0599
1-800-452-9994 • 1-610-692-3026 • Fax 1-610-692-8729
info@chemservice.com • www.chemservice.com

CERTIFICATE OF ANALYSIS

o-Terphenyl

CATALOG NUMBER N-12693-500MG
LOT NUMBER 9972100
DATE CERTIFIED 09/23/19
EXPIRATION DATE 09/30/24
CAS NUMBER 84-15-1
MOLECULAR FORMULA C18H14
MOLECULAR WEIGHT 230.32
STORAGE Store in a cool dry place.
HANDLING See Safety Data Sheet
INTENDED USE For laboratory use only.

Analytical Test	Value
FT-IR SPECTROSCOPY	CONFORMS TO STRUCTURE
GC/MS SPECTRA ID	MATCHES NIST DATABASE
MELTING POINT (°C)	57.1
% PURITY (GC/FID)	99.5

Chem Service, Inc. guarantees the purity to be +/- 0.5% deviation prior to the expiration date shown on the label and exclusive of any customer contamination.

Certified By:

Mary Beth O'Donnell

Mary Beth O'Donnell
CSM/TC

ID #: 12650

Opened: _____

o-Terphenyl

Expires: 9/30/2024

Rec'd: 4/30/2020

Energyl Laboratories Inc 1120 So. 27th Street

Billings MT 59107

COA Form
Revision 3 (3/2015)

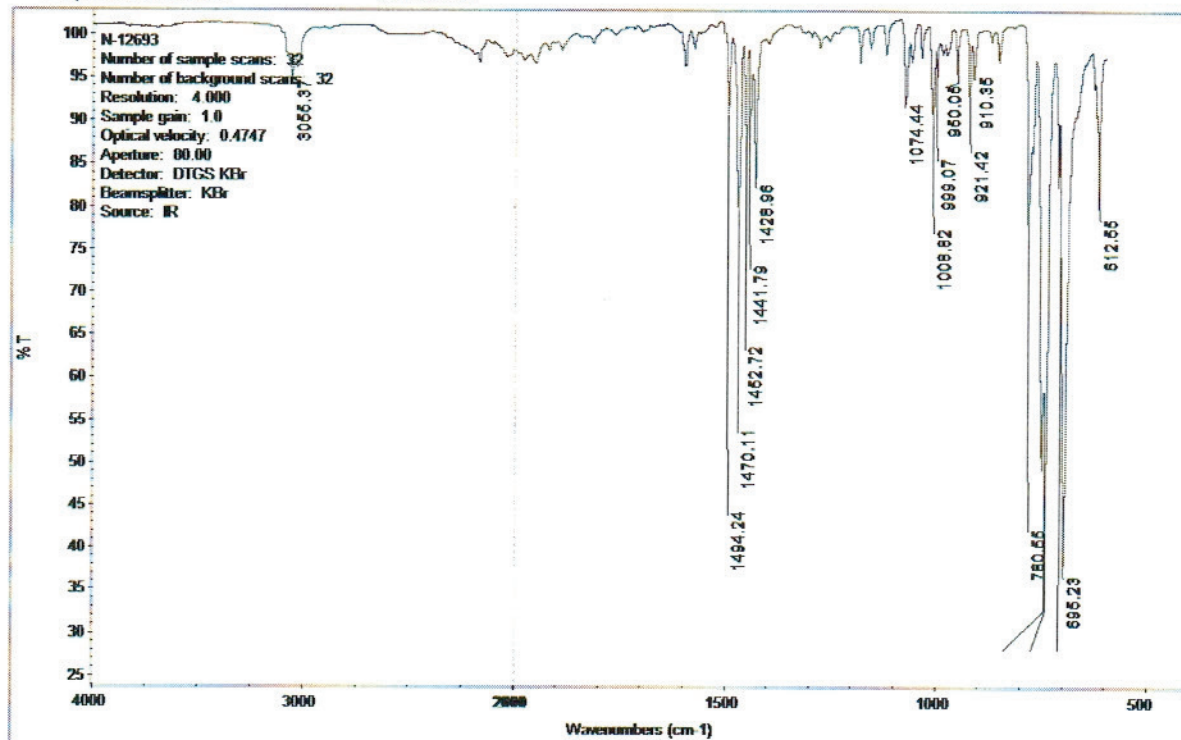
Chem Service is accredited to ISO 17034:2016, ISO/IEC 17025:2017 and certified to ISO 9001:2015



CERTIFICATE OF ANALYSIS

Analysis Method:

Catalog Number: N-12693-500MG
Description: o-Terphenyl
Lot Number: 9972100
Expiration Date: 09/30/24



Chem Service is accredited to ISO 17034:2016, ISO/IEC 17025:2017 and certified to ISO 9001:2015



CERTIFICATE OF ANALYSIS

Analysis Method:

Catalog Number: N-12693-500MG
Description: o-Terphenyl
Lot Number: 9972100
Expiration Date: 09/30/24

Chem Service Inc Area Percent Report

Data File: D:\msdchem\2019 DATA\0919\0923-01.D
Acq On : 23 Sep 2019 10:40
Operator :
Sample : n-12693
Misc :
ALS Vial : 95

Integration Parameters: autoint1.e
Integrator: ChemStation

DataAcq Meth: SCREEN.M
Method : D:\msdchem\2019 DATA\0919\0903-09.D\ERIN.M

Signal : TIC: 0923-01.D\data.ms

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	11.844	1597	1606	1613	BB	32038221	432253484	100.00%	100.000%

Sum of corrected areas: 432253484

ERIN.M Mon Sep 23 10:55:51 2019

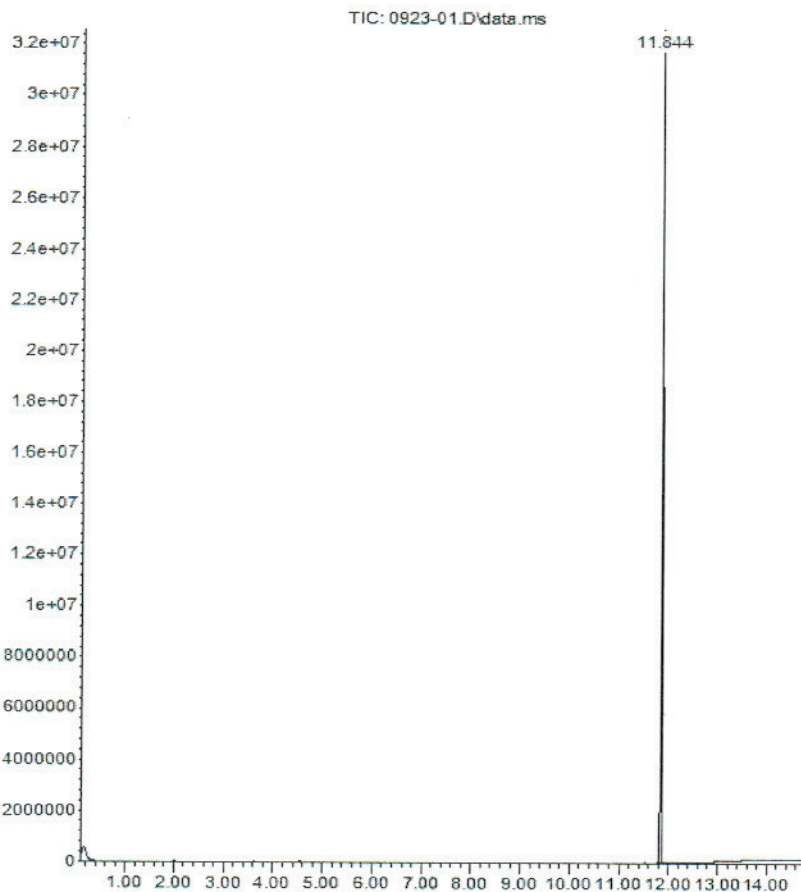
660 Tower Lane • P.O. Box 599 • West Chester, PA 19381-0599
1-800-452-9994 • 1-610-692-3026 • Fax 1-610-692-8729
info@chemservice.com • www.chemservice.com

CERTIFICATE OF ANALYSIS

Analysis Method:

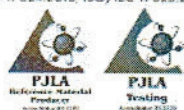
Catalog Number: N-12693-500MG
Description: o-Terphenyl
Lot Number: 9972100
Expiration Date: 09/30/24

Abundance



Time-->

Chem Service is accredited to ISO 17034:2016, ISO/IEC 17025:2017 and certified to ISO 9001:2015

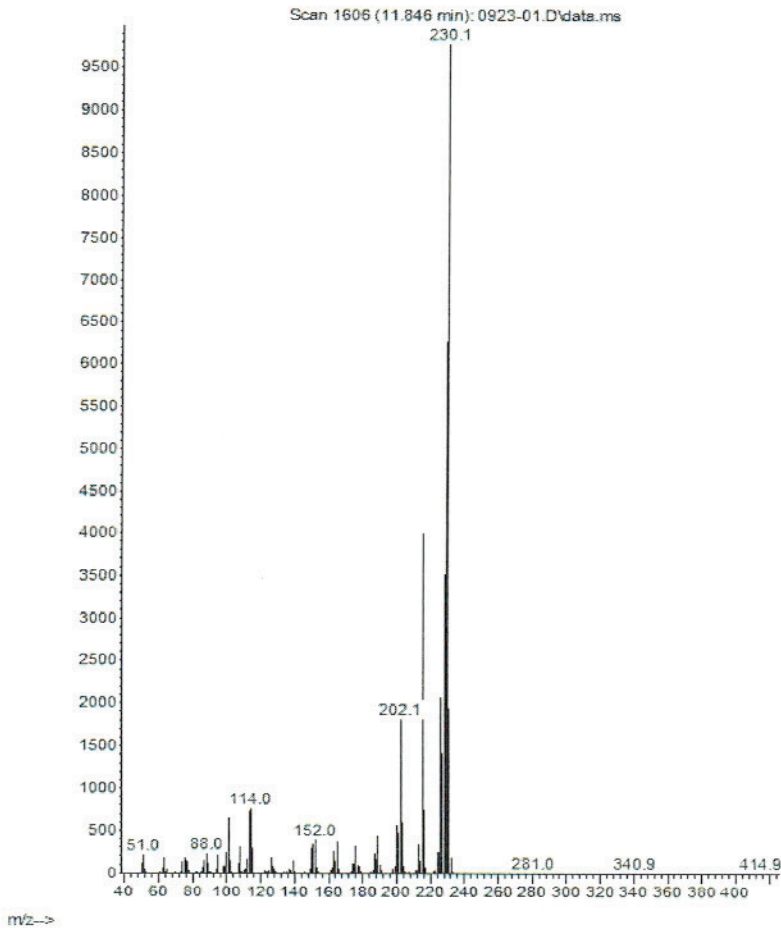


CERTIFICATE OF ANALYSIS

Analysis Method:

Catalog Number: N-12693-500MG
Description: o-Terphenyl
Lot Number: 9972100
Expiration Date: 09/30/24

Abundance



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660 Tower Lane • P.O. Box 599 • West Chester, PA 19381-0599
1-800-452-9994 • 1-610-692-3026 • Fax 1-610-692-8729
info@chemservice.com • www.chemservice.com

CERTIFICATE OF ANALYSIS

Analysis Method:

Catalog Number:	N-12693-500MG
Description:	o-Terphenyl
Lot Number:	9972100
Expiration Date:	09/30/24

Chem Service is accredited to ISO 17034:2016, ISO/IEC 17025:2017 and certified to ISO 9001:2015



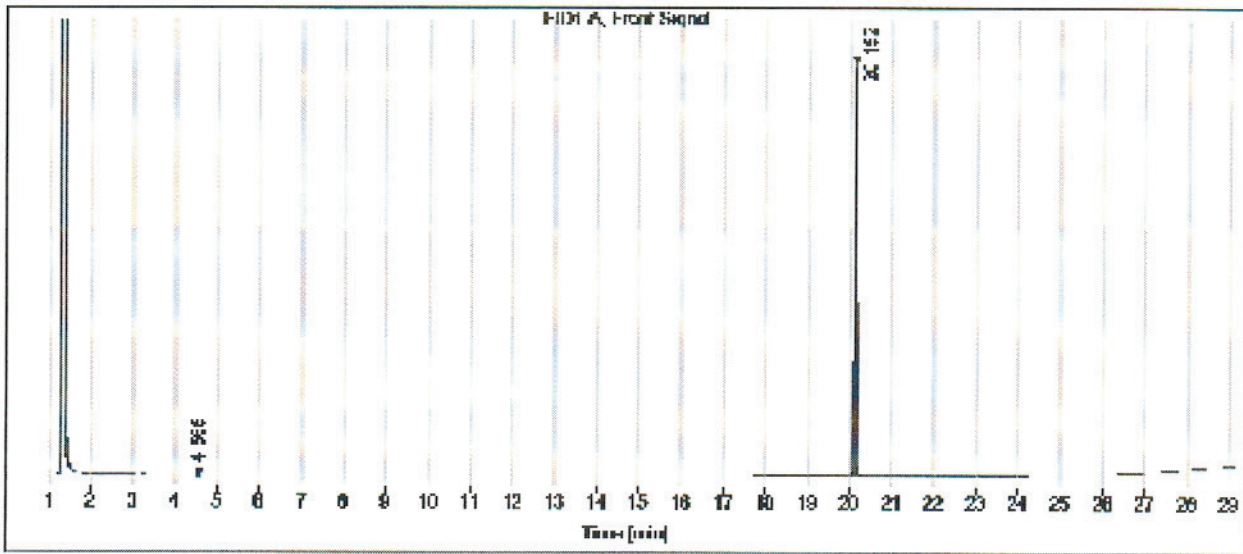
660 Tower Lane • P.O. Box 599 • West Chester, PA 19381-0599
 1-800-452-9994 • 1-610-692-3026 • Fax 1-610-692-8729
info@chemservice.com • www.chemservice.com

Gas

Data file: C:\CHEM3\
 Sample name: N-12893
 Instrument: GC 2
 Injection date: 8/23/2019 9:58:34 AM
 Acq. method: SCREEN.M
 Column name: HP-5

CERTIFICATE OF ANALYSIS

Location: Vial 141
 Injection volume: 1.0uL



Signal: FID1 A, Front Signal

RT [min]	Type	Width [min]	Area	Height	Area%
4.565	BB	0.0305	1.2408	0.5122	0.11
20.152	BB	0.0391	1171.9556	439.4599	99.89
		Sum	1173.1963		

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3050 Spruce Street, Saint Louis, MO 63103, USA
 Website: www.sigmaaldrich.com
 Email USA: techserv@sial.com
 Outside USA: eurtechserv@sial.com

Certificate of Analysis

Product Name:
 Triacontane-d62 - 98 atom % D

Product Number: 451789
 Batch Number: MBBC4347
 Brand: ALDRICH
 CAS Number: 93952-07-9
 MDL Number: MFCD00209794
 Formula: C30D62
 Formula Weight: 485.20 g/mol
 Quality Release Date: 27 APR 2018



ID #: 13736

Opened: _____

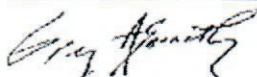
Triacontane-d62-98 atom % D

Expires: 4/6/2026

Rec'd: 4/6/2021

Energx Laboratories Inc 1120 So. 27th Street
 Billings MT 59107

Test	Specification	Result
Purity (HPLC)	≥ 99.0 %	99.0 %
Proton NMR Spectrum	Conforms to Structure	Conforms
D Enrichment	≥ 98.0 %	99.0 %
Initial Melting Point		60.0 °C
Final Melting Point		62.0 °C



Greg Abernathy, Supervisor
 Quality Control
 Miamisburg, Ohio US

Sigma-Aldrich warrants, that at the time of the quality release or subsequent retest date this product conformed to the information contained in this publication. The current Specification sheet may be available at Sigma-Aldrich.com. For further inquiries, please contact Technical Service. Purchaser must determine the suitability of the product for its particular use. See reverse side of invoice or packing slip for additional terms and conditions of sale.

RESTEK® CERTIFIED REFERENCE MATERIAL

110 Benner Circle
 Bellefonte, PA 16823-8812
 Tel: (800)356-1688
 Fax: (814)353-1309

www.restek.com

Certificate of Analysis



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31817 **Lot No.:** A0166827
Description : Residual Range Calibration Standard (RCS)
Residual Range Calib Std (RCS) 50,000µg/mL, Methylene Chloride, 1mL/ampul
Container Size : 2 mL **Pkg Amt:** > 1 mL
Expiration Date : January 31, 2028 **Storage:** 25°C nominal
Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Motor Oil SAE30 & SAE40 Blend (Pennzoil) CAS # 64742-65-0.F (Lot A0126386) Purity ----%	50,056.0 µg/mL	+/- 293.0889	µg/mL	Gravimetric
			+/- 1,490.7309	µg/mL	Unstressed
			+/- 1,589.8634	µg/mL	Stressed

Solvent: Methylene chloride
 CAS # 75-09-2
 Purity 99%

ID #: 13714
 Opened: _____
 Residual Range Calibration Standard (RCS)
Expires: 1/31/2028
 Rec'd: 4/1/2021
 Energy Laboratories Inc 1120 So. 27th Street
 Billings MT 59107

Column:

30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

Carrier Gas:

hydrogen-constant pressure 10 psi.

Temp. Program:

40°C (hold 2 min.) to 330°C
@ 10°C/min. (hold 10 min.)

Inj. Temp:

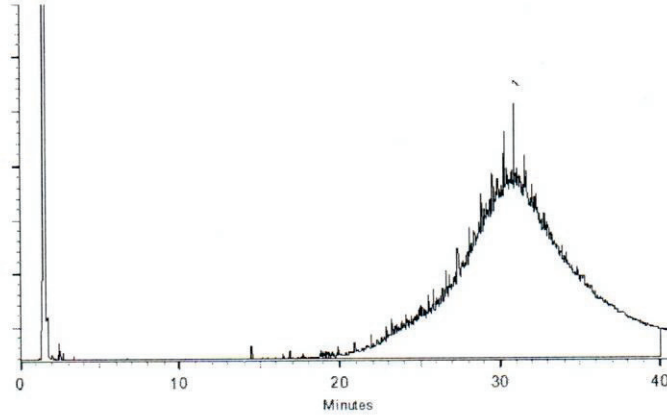
250°C

Det. Temp:

330°C

Det. Type:

FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Kylie Struble
Kylie Struble - Operations Technician I

Date Mixed: 02-Dec-2020

Balance: 1128353505

Justin Albertson
Justin Albertson - Operations Tech-ARM QC

Date Passed: 07-Dec-2020

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/ μ ECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k \sqrt{U_{gravimetric}^2 + U_{homogeneity}^2 + U_{storage\ stability}^2 + U_{shipping\ stability}^2}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.

Certificate of Analysis

Diesel Fuel No. 2

*Certified
Reference
Material*

Description

Product ID UST148
Lot LRAC6316
Expiration Date April 2023
Manufacturing Date April 2020
Storage Conditions Room Temperature
Solvent/Matrix DICHLOROMETHANE

ID #: 14623

Opened: _____

Diesel Fuel No. 2

Expires: 4/30/2023

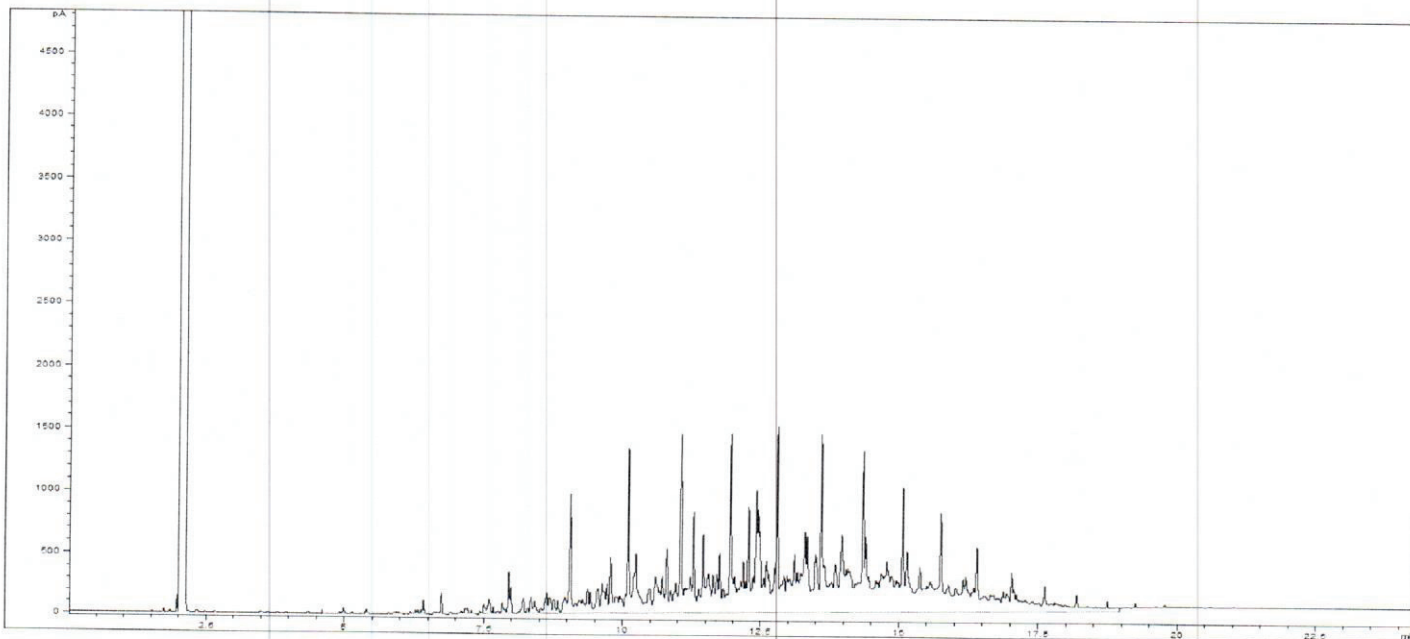
Rec'd: 12/14/2021

Energy Laboratories Inc 1120 So. 27th Street
Billings MT 59107

Certified Values

Analyte	Certified Value ^{1,4}	Units	Raw Material Purity, %	Raw Material Lot	CAS
NO.2 FUEL OIL	50001 ± 2770	µg/mL	100.0	LA80505	68476-34-6

Informational Values



Additional Information:

Analytical Method Parameters:

Column: SPB-5, 30 m × 0.53 mm I.D., 1.5 µm film thickness (Column #214)

Carrier Gas: H₂, Flow: 4.0 mL/min

Inlet Temperature: 250 °C, Injection Volume: 1.0 µL

Injection Mode: Split, Split Ratio: 10: 1

Temperature Program: 40 °C (Hold 2 min) @ 15 °C/min to 300 °C (Hold 5 min)

Detector: FID

Detector Temperature: 300 °C



SIGMA-ALDRICH®

2931 Soldier Springs Rd. Laramie, Wyoming 82070 USA
800-325-5832
TechService@milliporesigma.com www.sigma-aldrich.com

Description

Lot **LRAC6316**
Expiration Date April 2023
Manufacturing Date April 2020
Storage Conditions Room Temperature
Solvent/Matrix DICHLOROMETHANE

1 Metrological traceability: Traceable to the SI and higher order standards from NIST through an unbroken chain of comparisons. The balance used to weigh raw materials is accurate to +/-0.0001 g and calibrated regularly using mass standards traceable to NIST. All dilutions were performed gravimetrically. Additionally, individual analytes are traceable to NIST SRMs where available and specified above.
4 Ucrm - Uncertainty values in this document are expressed as Expanded Uncertainty (Ucrm) corresponding to the 95% confidence interval. Ucrm is derived from the combined standard uncertainty multiplied by the coverage factor k, which is obtained from a t-distribution and degrees of freedom. The components of combined standard uncertainty include the uncertainties due to characterization, homogeneity, long term stability, and short term stability (transport). The components due to stability are generally considered to be negligible unless otherwise indicated by stability studies. The mathematical representation of the Ucrm calculation is as follows:

$$U_{CRM} = \sqrt{u_{char}^2 + u_{homogeneity}^2 + u_{stability}^2}$$

k: Coverage factor derived from a t-distribution table, based on the degrees of freedom of the data set. Assume 2.0 for a **Confidence interval = 95%**

6 Analytical Value- For QC verification of the certified value only- not to be used in calculations. Represents the analytical data obtained by comparison to a standard as analyzed by the method described in the CoA or another acceptable method. The result may differ from the certified value and UCRM based on method uncertainty as well as the uncertainty associated with the standard used for comparison.

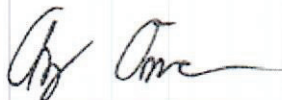
Traceability: The standard was manufactured under an ISO/IEC 17025:2017 certified quality system. The balance used to weigh raw materials is accurate to +/- 0.0001g and calibrated regularly using mass standards traceable to NIST. All dilutions were performed gravimetrically. Additionally, individual analytes are traceable to NIST SRMs where available and specified above.

Homogeneity: Homogeneity was assessed in accordance with ISO 17034:2016. Completed units were sampled using a random stratified sampling protocol. The results of chemical analysis were then compared using a one-way analysis of variance approach as described by TNI EL-V3-2009 Appendix A.2. See Instructions for minimum sub-sample size.

Expiration is at end of month given on certificate and label.

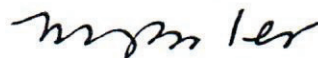
MSDS reports for components comprising greater than 1.0% of the solution or 0.1% for components known to be carcinogens are available upon request.

THIS PRODUCT WAS DESIGNED, PRODUCED AND VERIFIED FOR ACCURACY AND STABILITY IN ACCORDANCE WITH ISO/IEC 17025:2017 (ANAB Cert AT-1467) and ISO 17034:2016 (ANAB Cert AR-1470).



Andy Ommen - QC Manager

Certification Date April 30, 2020
Version 0-4302020



Mark Pooler - QA Supervisor





Prep Batch 162917 Standards Traceability Report

Spike ID: DRO181105A

Spike Name: #2 Diesel (NEAT)

Prep Date: 11/5/2018

Exp Date: 11/5/2023

Department: dropr

Vendor: conoco

Lot Number:

Balance ID:

Comments: -18 Cloud peak. (Conoco Gas Sation 1240 S. 27th Billings, MT) 2nd Source

Type: Neat

Prep By: Ann Nebel

Status: New

Final Volume: 250 mL

Chemical/Solvent Used	Bottle No	Amt	Units	Expires
				11/5/2023
Stock Source	Base Units	Amount Added		



Prep Batch 162917 Standards Traceability Report

Spike ID: DRO200430B

Spike Name: O-Terphenyl

Prep Date: 4/30/2020

Exp Date: 9/30/2024

Department: dropr

Vendor: Chemservice

Lot Number: 9972100

Balance ID:

Comments: ID#: 6271

Type: Neat

Prep By: Ann Nebel

Status: New

Final Volume: mL

Chemical/Solvent Used	Bottle No	Amt	Units	Expires
o-Terphenyl	12650	500	mg	9/30/2024
Stock Source	Base Units	Amount Added		



Prep Batch 162917 Standards Traceability Report

Spike ID: DRO210406A

Spike Name: Triacontane-d62 Surr For AK103 RRO

Prep Date: 4/6/2021

Exp Date: 4/6/2026

Department: dropr

Vendor: Sigma-Aldrich

Lot Number: MBBC4347

Balance ID:

Comments: Alaska surr [for AK103 RRO]

Type: Neat

Prep By: Ann Nebel

Status: New

Final Volume: mL

Chemical/Solvent Used	Bottle No	Amt	Units	Expires
Triacontane-d62-98 atom % D	13736	500	mg	4/6/2026
Stock Source	Base Units	Amount Added		



Prep Batch 162917 Standards Traceability Report

Spike ID: DRO210901A

Spike Name: 30W Motor Oil-Valvoline

Prep Date: 9/1/2021

Exp Date: 9/1/2026

Department: dropr

Vendor:

Lot Number: F1620C1

Balance ID:

Comments: Used to make 2nd Source Standard for AK103 method.

Type: Primary

Prep By: Jillian L Bostwick

Status: New

Final Volume: mL

Chemical/Solvent Used	Bottle No	Amt	Units	Expires
Valvoline SAE 30 Motor Oil	14232		mL	9/1/2026
Stock Source	Base Units	Amount Added		



Prep Batch 162917 Standards Traceability Report

Spike ID: DRO210901B

Spike Name: 40W Motor Oil-Valvoline

Prep Date: 9/1/2021

Exp Date: 9/1/2026

Department: dropr

Vendor:

Lot Number: L0717H2

Balance ID:

Comments: Used to Make 2nd Source Standards For Alaska AK103 RRO Method and Oil

Type: Primary

Prep By: Jillian L Bostwick

Status: New

Final Volume: mL

Chemical/Solvent Used	Bottle No	Amt	Units	Expires
Valvoline SAE 40 Motor Oil	14231		mL	9/1/2026
Stock Source	Base Units	Amount Added		



Prep Batch 162917 Standards Traceability Report

Spike ID: DRO211006A

Spike Name: Triacontane SURR 2000 ug/mL

Prep Date: 10/6/2021

Exp Date: 4/6/2026

Department: dropr

Vendor:

Lot Number:

Balance ID: BAL-DRO

Comments: Triacontane SURR 2000 ug/mL

Type: Primary

Prep By: Jillian L Bostwick

Status: New

Final Volume: 50 mL

Chemical/Solvent Used	Bottle No	Amt	Units	Expires
Acetone DZ509	13553	50	mL	4/6/2026
Stock Source	Base Units	Amount Added		
DRO210406A	ug/mL	0.1001 g		



Prep Batch 162917 Standards Traceability Report

Spike ID: DRO211213A

Spike Name: OTP only SURR 2000 ug/mL

Prep Date: 12/13/2021

Exp Date: 9/30/2024

Department: dropr

Vendor:

Lot Number:

Balance ID: BAL-DRO

Comments: OTP SURR 2000 ug/mL

Type: Primary

Prep By: Jillian L Bostwick

Status: New

Final Volume: 100 mL

Chemical/Solvent Used	Bottle No	Amt	Units	Expires
Acetone DZ509	13553	100	mL	9/30/2024

Stock Source	Base Units	Amount Added
DRO200430B	ug/mL	0.2015 g



Prep Batch 162917 Standards Traceability Report

Spike ID: DRO220106B

Spike Name: Triacontane SURR 1000 ug/mL

Prep Date: 1/6/2022

Exp Date: 4/6/2026

Department: dropr

Vendor:

Lot Number:

Balance ID: BAL-DRO

Comments: 2X dilution of Triacontane SURR 2000 ug/mL

Type: Secondary

Prep By: Jillian L Bostwick

Status: New

Final Volume: 10 mL

Chemical/Solvent Used	Bottle No	Amt	Units	Expires
Dichloromethane EC832	14647	5	mL	4/6/2026

Stock Source	Base Units	Amount Added
DRO211006A	ug/mL	5 mL



Prep Batch 162917 Standards Traceability Report

Spike ID: DRO220106C

Spike Name: #2 Diesel in Acetone 150,000 ug/mL

Prep Date: 1/6/2022

Exp Date: 11/5/2023

Department: dropr

Vendor:

Lot Number:

Balance ID: BAL-DRO

Comments:

Type: Secondary

Prep By: Ann Nebel

Status: New

Final Volume: 25 mL

Chemical/Solvent Used	Bottle No	Amt	Units	Expires
Acetone DZ509	13553	25	mL	11/5/2023
Stock Source	Base Units	Amount Added		
DRO181105A	ug/mL	3.7506 g		



Prep Batch 162917 Standards Traceability Report

Spike ID: DRO220112A

Spike Name: 50,000 ug/mL Oil Std for RRO-In DCM

Prep Date: 1/12/2022

Exp Date: 9/1/2026

Department: dropr

Vendor:

Lot Number:

Balance ID: BAL-DRO

Comments: .625 g of 30W and 40 W each LCS for Oil range

Type: Secondary

Prep By: Jillian L Bostwick

Status: New

Final Volume: 25 mL

Chemical/Solvent Used	Bottle No	Amt	Units	Expires
Dichloromethane EC832	14647	25	mL	9/1/2026

Stock Source	Base Units	Amount Added
DRO210901A	ug/mL	0.6225 g
DRO210901B	ug/mL	0.6273 g

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info@chemservice.com • www.chemservice.com

CERTIFICATE OF ANALYSIS

o-Terphenyl

CATALOG NUMBER N-12693-500MG
LOT NUMBER 9972100
DATE CERTIFIED 09/23/19
EXPIRATION DATE 09/30/24
CAS NUMBER 84-15-1
MOLECULAR FORMULA C18H14
MOLECULAR WEIGHT 230.32
STORAGE Store in a cool dry place.
HANDLING See Safety Data Sheet
INTENDED USE For laboratory use only.

Analytical Test	Value
FT-IR SPECTROSCOPY	CONFORMS TO STRUCTURE
GC/MS SPECTRA ID	MATCHES NIST DATABASE
MELTING POINT (°C)	57.1
% PURITY (GC/FID)	99.5

Chem Service, Inc. guarantees the purity to be +/- 0.5% deviation prior to the expiration date shown on the label and exclusive of any customer contamination.

Certified By:

Mary Beth O'Donnell

Mary Beth O'Donnell
CSM/TC

ID #: 12650

Opened: _____

o-Terphenyl

Expires: 9/30/2024

Rec'd: 4/30/2020

Energyl Laboratories Inc 1120 So. 27th Street
Billings MT 59107

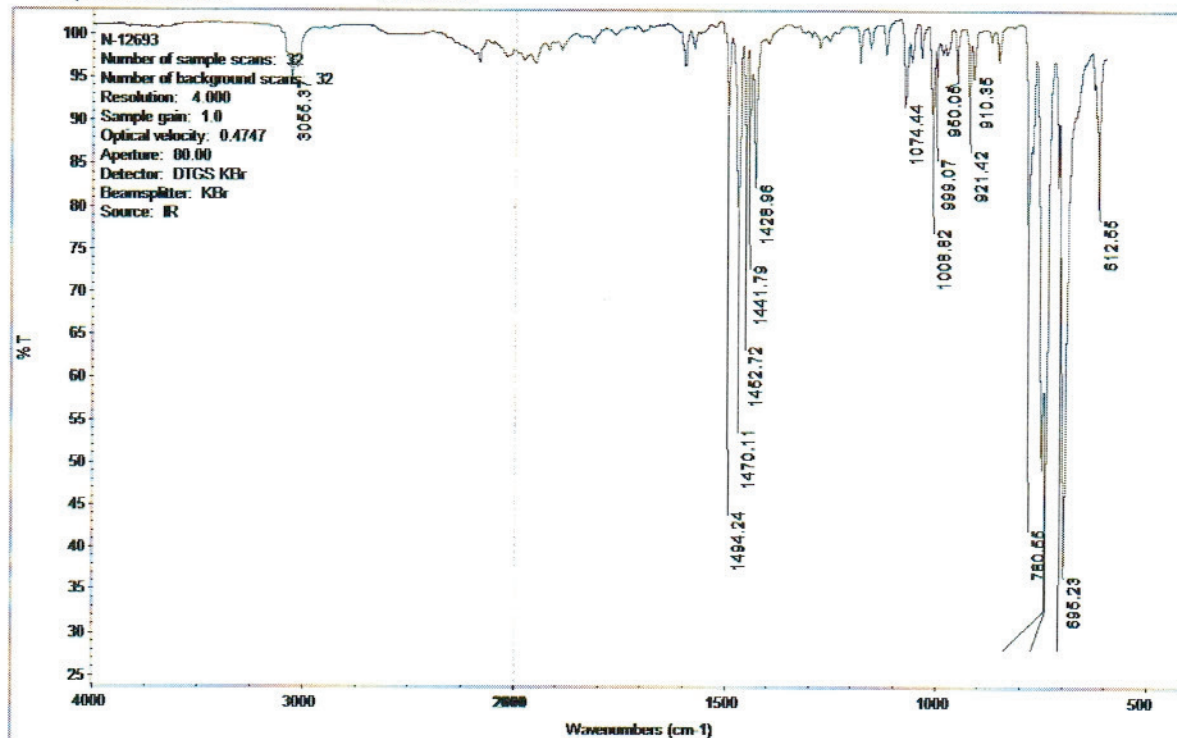
Chem Service is accredited to ISO 17034:2016, ISO/IEC 17025:2017 and certified to ISO 9001:2015



CERTIFICATE OF ANALYSIS

Analysis Method:

Catalog Number: N-12693-500MG
Description: o-Terphenyl
Lot Number: 9972100
Expiration Date: 09/30/24



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CERTIFICATE OF ANALYSIS

Analysis Method:

Catalog Number: N-12693-500MG
Description: o-Terphenyl
Lot Number: 9972100
Expiration Date: 09/30/24

Chem Service Inc Area Percent Report

Data File: D:\msdchem\2019 DATA\0919\0923-01.D
Acq On : 23 Sep 2019 10:40
Operator :
Sample : n-12693
Misc :
ALS Vial : 95

Integration Parameters: autoint1.e
Integrator: ChemStation

DataAcq Meth: SCREEN.M
Method : D:\msdchem\2019 DATA\0919\0903-09.D\ERIN.M

Signal : TIC: 0923-01.D\data.ms

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	11.844	1597	1606	1613	BB	32038221	432253484	100.00%	100.000%

Sum of corrected areas: 432253484

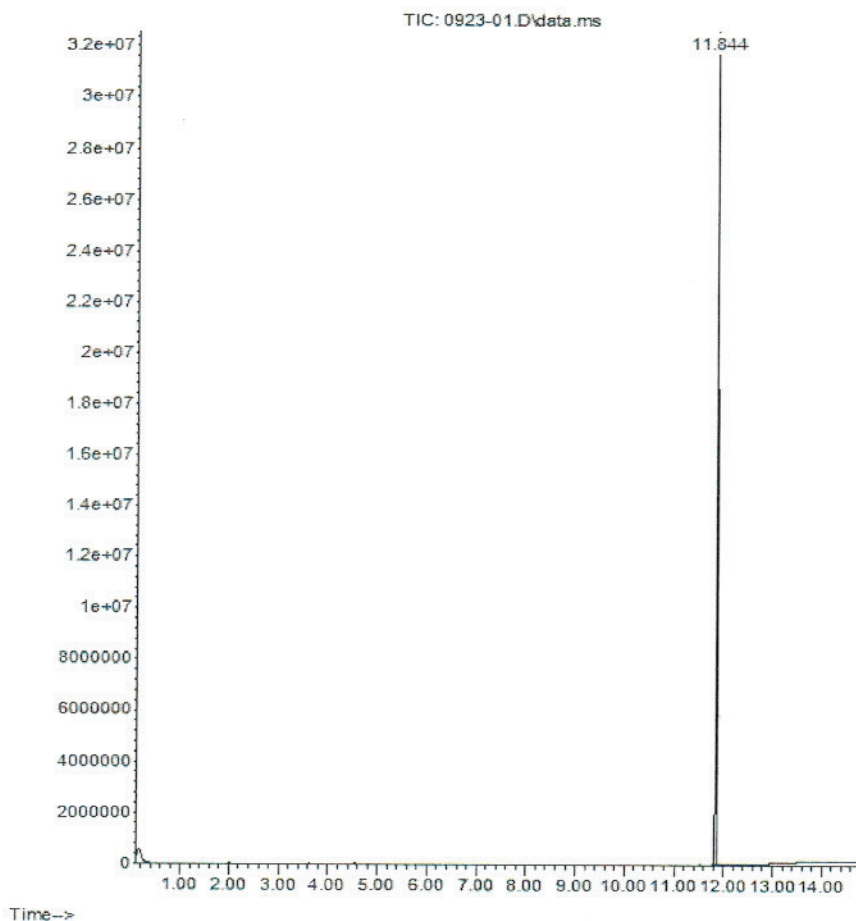
ERIN.M Mon Sep 23 10:55:51 2019

CERTIFICATE OF ANALYSIS

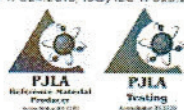
Analysis Method:

Catalog Number: N-12693-500MG
Description: o-Terphenyl
Lot Number: 9972100
Expiration Date: 09/30/24

Abundance



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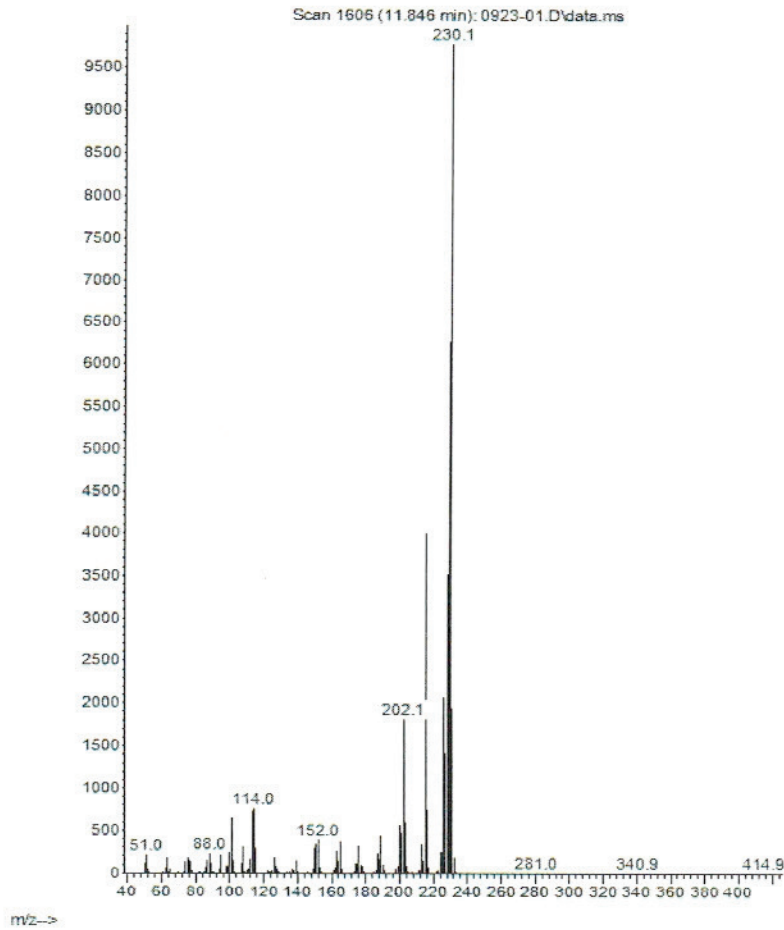
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1-800-452-9994 • 1-610-692-3026 • Fax 1-610-692-8729
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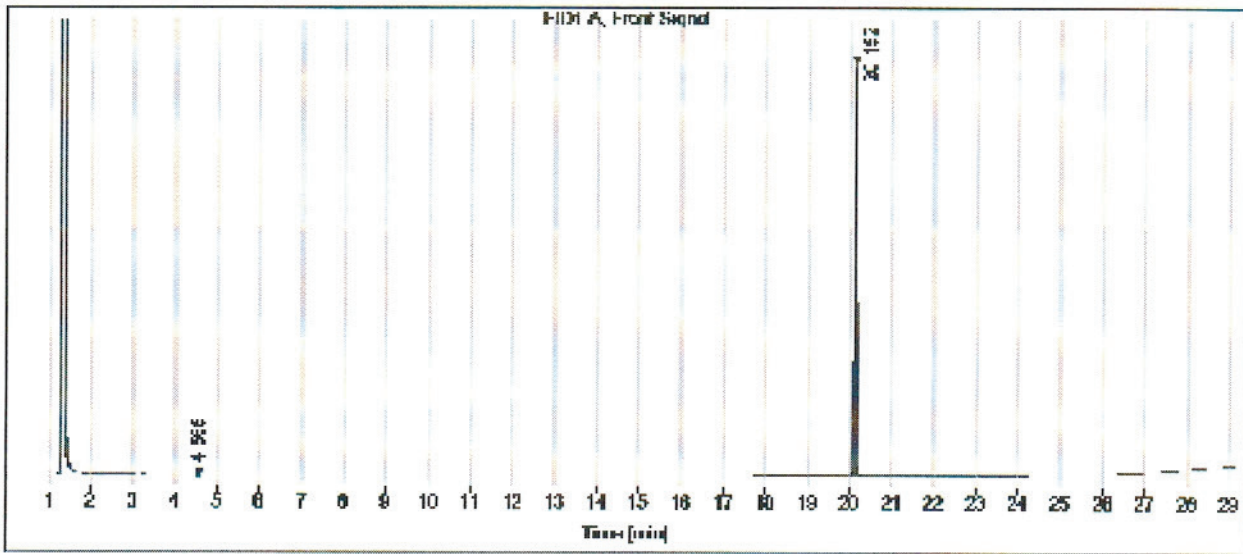
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 1-800-452-9994 • 1-610-692-3026 • Fax 1-610-692-8729
info@chemservice.com • www.chemservice.com

Gas

Data file: C:\CHEM3\
 Sample name: N-12893
 Instrument: GC 2
 Injection date: 8/23/2019 9:58:34 AM
 Acq. method: SCREEN.M
 Column name: HP-5

CERTIFICATE OF ANALYSIS

Location: Vial 141
 Injection volume: 1.0uL



Signal: FID1 A, Front Signal

RT [min]	Type	Width [min]	Area	Height	Area%
4.565	BB	0.0305	1.2408	0.5122	0.11
20.152	BB	0.0391	1171.9556	439.4599	99.89
		Sum	1173.1963		

Chem Service is accredited to ISO 17034:2016, ISO/IEC 17025:2017 and certified to ISO 9001:2015



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 Email USA: techserv@sial.com
 Outside USA: eurtechserv@sial.com

Certificate of Analysis

Product Name:
 Triacontane-d62 - 98 atom % D

Product Number: 451789
 Batch Number: MBBC4347
 Brand: ALDRICH
 CAS Number: 93952-07-9
 MDL Number: MFCD00209794
 Formula: C30D62
 Formula Weight: 485.20 g/mol
 Quality Release Date: 27 APR 2018



ID #: 13736

Opened: _____

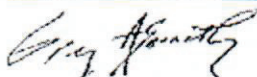
Triacontane-d62-98 atom % D

Expires: 4/6/2026

Rec'd: 4/6/2021

Energx Laboratories Inc 1120 So. 27th Street
 Billings MT 59107

Test	Specification	Result
Purity (HPLC)	≥ 99.0 %	99.0 %
Proton NMR Spectrum	Conforms to Structure	Conforms
D Enrichment	≥ 98.0 %	99.0 %
Initial Melting Point		60.0 °C
Final Melting Point		62.0 °C



Greg Abernathy, Supervisor
 Quality Control
 Miamisburg, Ohio US

Sigma-Aldrich warrants, that at the time of the quality release or subsequent retest date this product conformed to the information contained in this publication. The current Specification sheet may be available at Sigma-Aldrich.com. For further inquiries, please contact Technical Service. Purchaser must determine the suitability of the product for its particular use. See reverse side of invoice or packing slip for additional terms and conditions of sale.