

Cover Page

Order ID : Q1956

Project ID : Bergen Point Fueling System

Client : CDM Smith

Lab Sample Number

Q1956-01
Q1956-02
Q1956-03
Q1956-04
Q1956-05
Q1956-06
Q1956-07
Q1956-09

Client Sample Number

SB1-3-4
SB2-4-5
Q1956-02MS
Q1956-02MSD
COMP1
SB91-3-4
FB-05022025
TB

I certify that the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy data package has been authorized by the laboratory manager or his designee, as verified by the following signature.

Signature : _____

Date: 5/14/2025

NYDOH CERTIFICATION NO - 11376

NJDEP CERTIFICATION NO - 20012

DATA REPORTING QUALIFIERS- ORGANIC

For reporting results, the following "Results Qualifiers" are used:

Value	If the result is a value greater than or equal to the detection limit, report the value
U	Indicates the compound was analyzed for but was not detected. Report the minimum detection limit for the sample with the U, i.e. "10 U". This is not necessarily the instrument detection limit attainable for this particular sample based on any concentration or dilution that may have been required.
ND	Indicates the analyte was analyzed for, but not detected
J	Indicates an estimated value. This flag is used: (1) When estimating a concentration for a tentatively identified compound (library search hits, where a 1:1 response is assumed.) (2) When the mass spectral data indicated the identification, however the result was less than the specified detection limit greater than zero. If the detection limit was 10ug/L and a concentration of 3 ug/L was calculated report as 3 J. This flag is used when similar situation arise on any organic parameter i.e. Pest, PCB and others.
B	Indicates the analyte was found in the blank as well as the sample report as "12 B".
E	Indicates the analyte 's concentration exceeds the calibrated range of the instrument for that specific analysis.
D	This flag identifies all compounds identified in an analysis at a secondary dilution factor.
P	This flag is used for Pesticide/PCB target analyte when there is >25% difference for detected concentrations between the two GC columns. The lower of the two values is reported on Form 1 and flagged with a "P".
N	This flag indicates presumptive evidence of a compound. This is only used for tentatively identified compounds (TICs), where the identification is based on a mass spectral library search. It applies to all TIC results. For generic characterization of a TIC, such as chlorinated hydrocarbon, the flag is not used.
A	This flag indicates that a Tentatively Identified Compound is a suspected aldol-condensation product.
Q	Indicates the LCS did not meet the control limits requirements

APPENDIX A

QA REVIEW GENERAL DOCUMENTATION

Project #: Q1956

Completed

For thorough review, the report must have the following:

GENERAL:

Are all original paperwork present (chain of custody, record of communication,airbill, sample management lab chronicle, login page)

✓

Check chain-of-custody for proper relinquish/return of samples

✓

Is the chain of custody signed and complete

✓

Check internal chain-of-custody for proper relinquish/return of samples /sample extracts

✓

Collect information for each project id from server. Were all requirements followed

✓

COVER PAGE:

Do numbers of samples correspond to the number of samples in the Chain of Custody on login page

✓

Do lab numbers and client Ids on cover page agree with the Chain of Custody

✓

CHAIN OF CUSTODY:

Do requested analyses on Chain of Custody agree with form I results

✓

Do requested analyses on Chain of Custody agree with the log-in page

✓

Were the correct method log-in for analysis according to the Analytical Request and Chain of Custody

✓

Were the samples received within hold time

✓

Were any problems found with the samples at arrival recorded in the Sample Management Laboratory Chronicle

✓

ANALYTICAL:

Was method requirement followed?

✓

Was client requirement followed?

✓

Does the case narrative summarize all QC failure?

✓

All runlogs and manual integration are reviewed for requirements

✓

All manual calculations and /or hand notations verified

✓

QA Review Signature: PRADIP PRAJAPATI

Date: 05/14/2025

LAB CHRONICLE

OrderID:	Q1956	OrderDate:	5/2/2025 3:14:35 PM
Client:	CDM Smith	Project:	Bergen Point Fueling System
Contact:	Marcie Ann Encinas	Location:	L31,VOA Ref. #2 Soil,VOA Ref. #3 Water

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
Q1956-01	SB1-3-4	SOIL			05/01/25			05/02/25
			Diesel Range Organics	8015D		05/13/25	05/13/25	
			Gasoline Range Organics	8015D			05/06/25	
			Herbicide	8151A		05/07/25	05/08/25	
			PCB	8082A		05/06/25	05/06/25	
			Pesticide-TCL	8081B		05/06/25	05/06/25	
Q1956-02	SB2-4-5	SOIL			05/02/25			05/02/25
			Diesel Range Organics	8015D		05/13/25	05/13/25	
			Gasoline Range Organics	8015D			05/06/25	
			Herbicide	8151A		05/07/25	05/08/25	
			PCB	8082A		05/06/25	05/06/25	
			Pesticide-TCL	8081B		05/06/25	05/06/25	
Q1956-05	COMP1	TCLP			05/02/25			05/02/25
			TCLP Herbicide	8151A		05/12/25	05/12/25	
Q1956-06	SB91-3-4	SOIL			05/01/25			05/02/25
			Diesel Range Organics	8015D		05/13/25	05/13/25	
			Gasoline Range Organics	8015D			05/06/25	
			Herbicide	8151A		05/07/25	05/08/25	
			PCB	8082A		05/06/25	05/06/25	
			Pesticide-TCL	8081B		05/06/25	05/06/25	
Q1956-07	FB-05022025	Water			05/02/25			05/02/25
			Diesel Range Organics	8015D		05/08/25	05/08/25	
			Gasoline Range Organics	8015D			05/06/25	
			Herbicide	8151A		05/08/25	05/08/25	
			PCB	8082A		05/07/25	05/07/25	
			Pesticide-TCL	8081B		05/08/25	05/08/25	



QC SUMMARY

SOIL DIESEL RANGE ORGANICS SURROGATE RECOVERY

Lab Name: Chemtech Client: CDM Smith
Lab Code: CHEM Case No.: Q1956 SAS No.: Q1956 SDG No.: Q1956

EPA SAMPLE NO.	S1 TETRACOSANE-d50	S2	S3	S4	TOT OUT
PIBLK-FF015807.D	77				0
PIBLK-FF015814.D	78				0
PIBLK-FG015817.D	96				0
PIBLK-FG015824.D	85				0
PIBLK-FG015834.D	96				0
PB167913BL	74				0
PB167913BS	92				0
PB167913BSD	93				0
PB167975BL	87				0
PB167975BS	93				0
SB1-3-4	87				0
SB2-4-5	64				0
SB2-4-5MS	58				0
SB2-4-5MSD	60				0
SB91-3-4	91				0
FB-05022025	84				0

QC LIMITS

TETRACOSANE-d50

For Water : 29-130

For Soil : 37-130

Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogate Diluted Out

SOIL DIESEL RANGE ORGANICS MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Chemtech **Client:** CDM Smith
Lab Code: CHEM **Cas No:** Q1956 **SAS No :** Q1956 **SDG No:** Q1956
Client SampleID : SB2-4-5MS **Datafile:** FG015828.D

COMPOUND	SPIKE ADDED ug/kg	SAMPLE CONCENTRATION ug/kg	MS/MSD CONCENTRATION ug/kg	% REC	Qual	QC LIMITS
DRO	7123	1400	7673	88%		68-131

SOIL DIESEL RANGE ORGANICS MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Chemtech **Client:** CDM Smith
Lab Code: CHEM **Cas No:** Q1956 **SAS No :** Q1956 **SDG No:** Q1956
Client SampleID : SB2-4-5MSD **Datafile:** FG015829.D

COMPOUND	SPIKE ADDED ug/kg	SAMPLE CONCENTRATION ug/kg	MS/MSD CONCENTRATION ug/kg	% REC	Qual	QC LIMITS
DRO	7121	1400	7822	90%		68-131

MS/MSD % Recovery RPD : 2.4

WATER DIESEL RANGE ORGANICS LABORATORY CONTROL SPIKE/LABORATORY CONTROL SPIKE DUPLICATE

Lab Name: Chemtech **Client:** CDM Smith
Lab Code: CHEM **Cas No:** Q1956 **SAS No :** Q1956 **SDG No:** Q1956
Matrix Spike - EPA Sample No : PB167913BS **Datafile:** FF015811.D

COMPOUND	SPIKE ADDED ug/L	CONCENTRATION ug/L	LCS/LCSD CONCENTRATION ug/L	% REC	QC LIMITS
DRO	200	0	189	94	78-117

WATER DIESEL RANGE ORGANICS LABORATORY CONTROL SPIKE/LABORATORY CONTROL SPIKE DUPLICATE

Lab Name: Chemtech **Client:** CDM Smith
Lab Code: CHEM **Cas No:** Q1956 **SAS No :** Q1956 **SDG No:** Q1956
Matrix Spike - EPA Sample No : PB167913BSD **Datafile:** FF015812.D

COMPOUND	SPIKE ADDED ug/L	CONCENTRATION ug/L	LCS/LCSD CONCENTRATION ug/L	% REC	QC LIMITS
DRO	200	0	193	96	78-117

LCS/LCSD % Recovery RPD : 2.1

SOIL DIESEL RANGE ORGANICS LABORATORY CONTROL SPIKE/LABORATORY CONTROL SPIKE DUPLICATE RI

Lab Name: Chemtech **Client:** CDM Smith
Lab Code: CHEM **Cas No:** Q1956 **SAS No :** Q1956 **SDG No:** Q1956
Matrix Spike - EPA Sample No : PB167975BS **Datafile:** FG015821.D

COMPOUND	SPIKE ADDED ug/kg	CONCENTRATION ug/kg	LCS/LCSD CONCENTRATION ug/kg	% REC	QC LIMITS
DRO	6662	0	6321	95	68-131

4B
METHOD BLANK SUMMARY

EPA SAMPLE NO.

PB167913BL

Lab Name: CHEMTECH

Contract: CAMP02

Lab Code: CHEM Case No.: Q1956

SAS No.: Q1956 SDG NO.: Q1956

Lab File ID: FF015810.D

Lab Sample ID: PB167913BL

Instrument ID: FF

Date Extracted: 05/08/2025

Matrix: (soil/water) Water

Date Analyzed: 05/08/25

Level: (low/med) low

Time Analyzed: 12:31

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
PB167913BS	PB167913BS	FF015811.D	05/08/25
PB167913BSD	PB167913BSD	FF015812.D	05/08/25
FB-05022025	Q1956-07	FF015813.D	05/08/25

COMMENTS: _____

4B
METHOD BLANK SUMMARY

EPA SAMPLE NO.

PB167975BL

Lab Name: CHEMTECH

Contract: CAMP02

Lab Code: CHEM Case No.: Q1956

SAS No.: Q1956 SDG NO.: Q1956

Lab File ID: FG015820.D

Lab Sample ID: PB167975BL

Instrument ID: FG

Date Extracted: 05/13/2025

Matrix: (soil/water) Soil

Date Analyzed: 05/13/25

Level: (low/med) low

Time Analyzed: 13:22

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
PB167975BS	PB167975BS	FG015821.D	05/13/25
SB1-3-4	Q1956-01	FG015826.D	05/13/25
SB2-4-5	Q1956-02	FG015827.D	05/13/25
SB2-4-5MS	Q1956-03MS	FG015828.D	05/13/25
SB2-4-5MSD	Q1956-04MSD	FG015829.D	05/13/25
SB91-3-4	Q1956-06	FG015830.D	05/13/25

COMMENTS: _____



SAMPLE DATA

Report of Analysis

Client:	CDM Smith	Date Collected:	05/01/25
Project:	Bergen Point Fueling System	Date Received:	05/02/25
Client Sample ID:	SB1-3-4	SDG No.:	Q1956
Lab Sample ID:	Q1956-01	Matrix:	SOIL
Analytical Method:	8015D DRO	% Solid:	89
Sample Wt/Vol:	30.06	Units:	g
Soil Aliquot Vol:			uL
Extraction Type:		Final Vol:	1
GPC Factor :		PH :	
Prep Method :	SW3541	Decanted:	
		Test:	Diesel Range Organics
		Injection Volume :	

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
FG015826.D	1	05/13/25 10:05	05/13/25 17:22	PB167975

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
DRO	DRO	1510	J	190	1870	ug/kg
SURROGATES						
16416-32-3	Tetracosane-d50	17.4		37 - 130	87%	SPK: 20

Comments:

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

P = Indicates >25% difference for detected concentrations between the two GC columns

Q = indicates LCS control criteria did not meet requirements

M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

* = Values outside of QC limits

D = Dilution

S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.

() = Laboratory InHouse Limit

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG051325\
Data File : FG015826.D
Signal(s) : FID1A.ch
Acq On : 13 May 2025 17:22
Operator : YP\AJ
Sample : Q1956-01
Misc :
ALS Vial : 25 Sample Multiplier: 1

Instrument :
FID_G
ClientSampleId :
SB1-3-4

Integration File: autoint1.e
Quant Time: May 14 03:55:47 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG042425.M
Quant Title :
QLast Update : Thu Apr 24 12:54:09 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal Phase : Rxi-1ms
Signal Info : 20mx0.18mmx0.18um

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
9) S TETRACOSANE-d50 (SURR...	14.994	2042199	17.345 ug/ml

Target Compounds

(f)=RT Delta > 1/2 Window

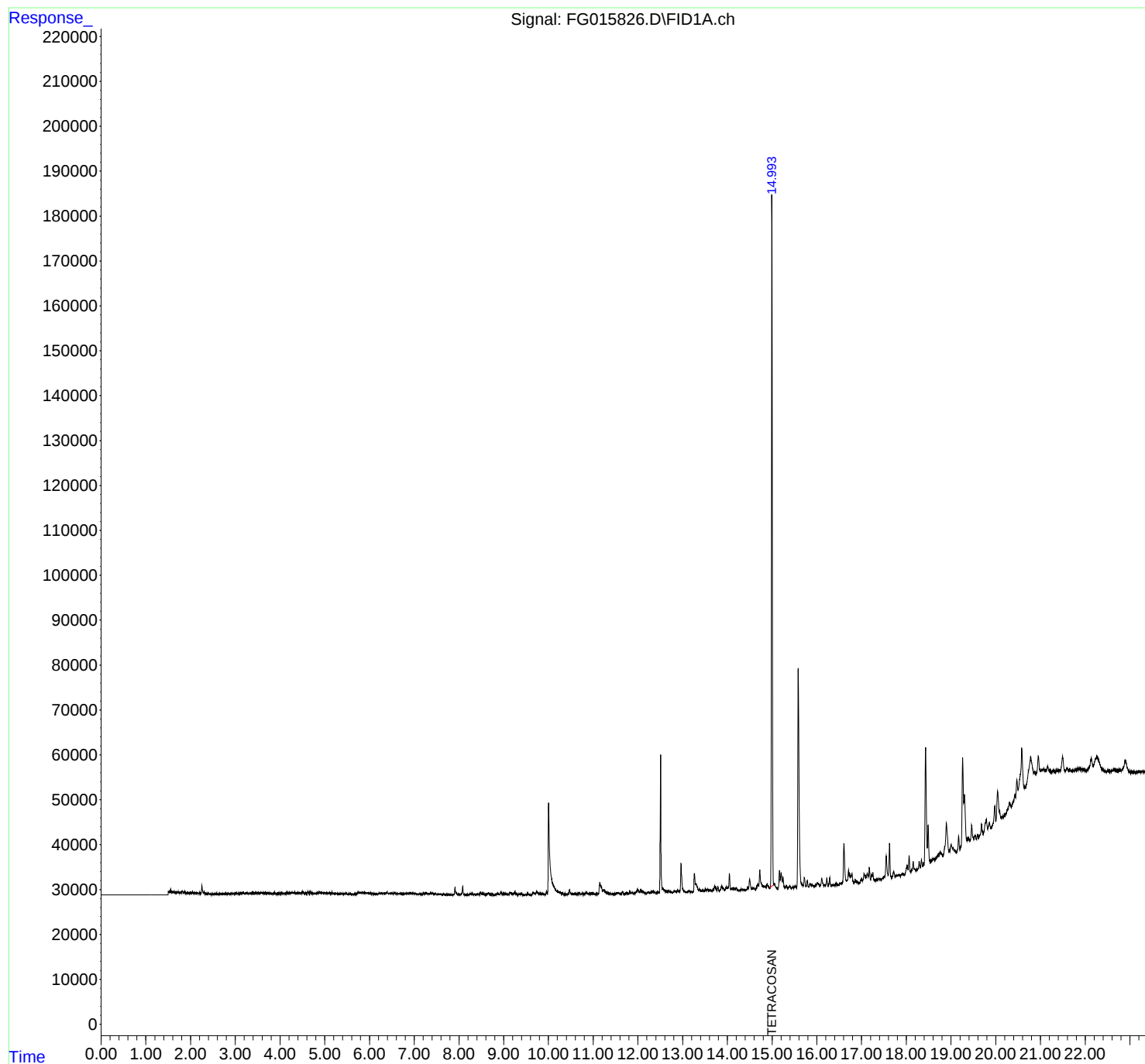
(m)=manual int.

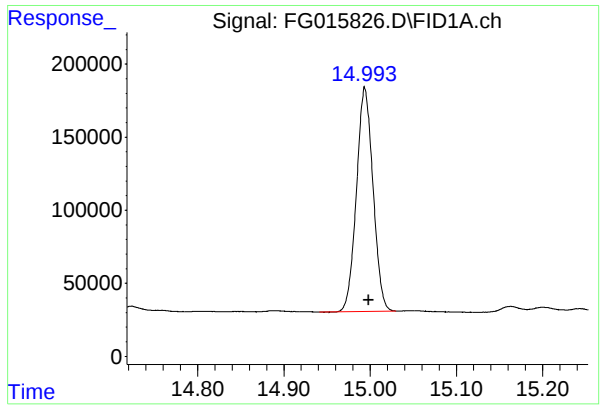
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG051325\
Data File : FG015826.D
Signal(s) : FID1A.ch
Acq On : 13 May 2025 17:22
Operator : YP\AJ
Sample : Q1956-01
Misc :
ALS Vial : 25 Sample Multiplier: 1

Instrument :
FID_G
ClientSampleId :
SB1-3-4

Integration File: autoint1.e
Quant Time: May 14 03:55:47 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG042425.M
Quant Title :
QLast Update : Thu Apr 24 12:54:09 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal Phase : Rxi-1ms
Signal Info : 20mx0.18mmx0.18um





#9 TETRACOSANE-d50 (SURROGATE)

R.T.: 14.994 min
Delta R.T.: -0.005 min
Response: 2042199
Conc: 17.35 ug/ml

Instrument :
FID_G
ClientSampleId :
SB1-3-4

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG051325\
Data File : FG015826.D
Signal(s) : FID1A.ch
Acq On : 13 May 2025 17:22
Sample : Q1956-01
Misc :
ALS Vial : 25 Sample Multiplier: 1

Integration File: Sample.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG042425.M
Title :

Signal : FID1A.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	4.323	4.300	4.375	BV	204	4048	0.20%	0.056%
2	4.378	4.375	4.400	VV	92	967	0.05%	0.013%
3	4.405	4.400	4.412	VV	75	409	0.02%	0.006%
4	4.414	4.412	4.428	VV	108	416	0.02%	0.006%
5	4.440	4.428	4.451	VV	119	852	0.04%	0.012%
6	4.500	4.451	4.541	PV	340	7853	0.38%	0.110%
7	4.547	4.541	4.556	VV	182	869	0.04%	0.012%
8	4.571	4.556	4.604	VV	137	2429	0.12%	0.034%
9	4.624	4.604	4.651	VV	521	6627	0.32%	0.092%
10	4.675	4.651	4.716	PV	405	7461	0.36%	0.104%
11	4.725	4.716	4.729	VV	267	1095	0.05%	0.015%
12	4.733	4.729	4.737	VV	181	744	0.04%	0.010%
13	4.742	4.737	4.748	VV	188	918	0.04%	0.013%
14	4.753	4.748	4.757	VV	141	604	0.03%	0.008%
15	4.762	4.757	4.785	VV	147	1951	0.09%	0.027%
16	4.848	4.785	4.864	VV	331	9456	0.46%	0.132%
17	4.874	4.864	4.888	VV	351	4309	0.21%	0.060%
18	4.897	4.888	4.925	VV	333	5807	0.28%	0.081%
19	4.929	4.925	4.933	VV	256	1016	0.05%	0.014%
20	4.944	4.933	4.952	VV	289	2700	0.13%	0.038%
21	4.959	4.952	4.991	VV	285	5384	0.26%	0.075%
22	4.995	4.991	5.049	VV	266	6694	0.32%	0.093%
23	5.058	5.049	5.081	VV	241	3168	0.15%	0.044%
24	5.085	5.081	5.102	VV	218	1936	0.09%	0.027%
25	5.109	5.102	5.132	VV	175	2680	0.13%	0.037%
26	5.136	5.132	5.141	VV	168	704	0.03%	0.010%
27	5.161	5.141	5.192	VV	358	5882	0.28%	0.082%
28	5.195	5.192	5.214	VV	146	1541	0.07%	0.021%
29	5.220	5.214	5.232	VV	161	1170	0.06%	0.016%
30	5.234	5.232	5.255	VV	141	1263	0.06%	0.018%
31	5.263	5.255	5.287	VV	121	1845	0.09%	0.026%
32	5.290	5.287	5.297	VV	116	533	0.03%	0.007%
33	5.301	5.297	5.340	VV	136	2978	0.14%	0.042%
34	5.344	5.340	5.362	VV	192	1630	0.08%	0.023%
35	5.373	5.362	5.414	VV	153	3285	0.16%	0.046%
36	5.466	5.414	5.480	VV	207	5176	0.25%	0.072%

					rt	er		
37	5.483	5.480	5.503	VV	296	2416	0.12%	0.034%
38	5.509	5.503	5.534	VV	157	1557	0.08%	0.022%
39	5.567	5.534	5.594	PV	132	2646	0.13%	0.037%
40	5.602	5.594	5.617	VV	128	1063	0.05%	0.015%
41	5.621	5.617	5.639	VV	151	1008	0.05%	0.014%
42	5.644	5.639	5.659	VV	108	868	0.04%	0.012%
43	5.665	5.659	5.676	VV	131	861	0.04%	0.012%
44	5.683	5.676	5.702	VV	142	818	0.04%	0.011%
45	5.745	5.702	5.764	VV	463	10555	0.51%	0.147%
46	5.771	5.764	5.779	VV	425	3305	0.16%	0.046%
47	5.789	5.779	5.809	VV	443	7357	0.35%	0.103%
48	5.832	5.809	5.859	VV	452	11090	0.53%	0.155%
49	5.882	5.859	5.891	VV	431	6932	0.33%	0.097%
50	5.903	5.891	5.940	VV	429	10577	0.51%	0.148%
51	5.943	5.940	5.964	VV	338	3991	0.19%	0.056%
52	5.973	5.964	5.992	VV	325	4693	0.23%	0.065%
53	5.996	5.992	6.017	VV	283	3479	0.17%	0.049%
54	6.023	6.017	6.042	VV	321	3467	0.17%	0.048%
55	6.049	6.042	6.078	VV	192	3633	0.18%	0.051%
56	6.085	6.078	6.107	VV	184	2618	0.13%	0.037%
57	6.112	6.107	6.150	VV	184	3479	0.17%	0.049%
58	6.163	6.150	6.189	VV	137	2443	0.12%	0.034%
59	6.216	6.189	6.222	VV	330	4387	0.21%	0.061%
60	6.226	6.222	6.231	VV	275	1222	0.06%	0.017%
61	6.238	6.231	6.261	VV	284	4600	0.22%	0.064%
62	6.266	6.261	6.274	VV	279	1883	0.09%	0.026%
63	6.286	6.274	6.309	VV	327	5448	0.26%	0.076%
64	6.326	6.309	6.343	VV	289	5570	0.27%	0.078%
65	6.351	6.343	6.360	VV	321	2749	0.13%	0.038%
66	6.395	6.360	6.426	VV	603	14705	0.71%	0.205%
67	6.454	6.426	6.472	VV	295	7008	0.34%	0.098%
68	6.476	6.472	6.499	VV	297	3968	0.19%	0.055%
69	6.512	6.499	6.524	VV	281	3250	0.16%	0.045%
70	6.551	6.524	6.557	VV	426	6000	0.29%	0.084%
71	6.561	6.557	6.604	VV	428	7858	0.38%	0.110%
72	6.609	6.604	6.621	VV	243	2172	0.10%	0.030%
73	6.625	6.621	6.642	VV	216	2514	0.12%	0.035%
74	6.673	6.642	6.703	VV	256	7793	0.38%	0.109%
75	6.717	6.703	6.744	VV	232	4407	0.21%	0.061%
76	6.757	6.744	6.773	VV	215	3128	0.15%	0.044%
77	6.784	6.773	6.800	VV	183	2731	0.13%	0.038%
78	6.842	6.800	6.875	VV	304	12441	0.60%	0.174%
79	6.882	6.875	6.895	VV	340	3530	0.17%	0.049%
80	6.949	6.895	7.002	VV	372	18506	0.89%	0.258%
81	7.018	7.002	7.089	VV	261	9508	0.46%	0.133%
82	7.094	7.089	7.137	VV	188	4110	0.20%	0.057%
83	7.144	7.137	7.210	VV	217	7778	0.37%	0.109%
84	7.257	7.210	7.342	VV	365	21197	1.02%	0.296%
85	7.372	7.342	7.455	VV	435	20013	0.96%	0.279%
86	7.462	7.455	7.517	VV	233	6464	0.31%	0.090%
87	7.530	7.517	7.549	VV	172	2452	0.12%	0.034%
88	7.557	7.549	7.611	VV	113	4025	0.19%	0.056%
89	7.650	7.611	7.695	VV	169	4993	0.24%	0.070%

					rteres			
90	7.707	7.695	7.730	VV	85	1231	0.06%	0.017%
91	7.746	7.730	7.769	VV	94	1782	0.09%	0.025%
92	7.782	7.769	7.830	VV	80	1280	0.06%	0.018%
93	7.854	7.830	7.873	PV	59	772	0.04%	0.011%
94	7.912	7.873	7.977	VV	1693	27412	1.32%	0.382%
95	7.989	7.977	8.014	VV	104	2036	0.10%	0.028%
96	8.085	8.014	8.177	VV	1930	32440	1.56%	0.453%
97	8.194	8.177	8.223	VV	109	1861	0.09%	0.026%
98	8.251	8.223	8.313	VV	281	8648	0.42%	0.121%
99	8.339	8.313	8.358	VV	148	2932	0.14%	0.041%
100	8.395	8.358	8.454	VV	223	7983	0.38%	0.111%
101	8.483	8.454	8.500	VV	691	10396	0.50%	0.145%
102	8.513	8.500	8.600	VV	364	12871	0.62%	0.180%
103	8.658	8.600	8.714	VV	460	15528	0.75%	0.217%
104	8.752	8.714	8.817	VV	151	5545	0.27%	0.077%
105	8.846	8.817	8.858	VV	309	4804	0.23%	0.067%
106	8.874	8.858	8.907	VV	381	7456	0.36%	0.104%
107	8.944	8.907	8.978	VV	525	13879	0.67%	0.194%
108	9.015	8.978	9.067	VV	342	13160	0.63%	0.184%
109	9.081	9.067	9.115	VV	220	5036	0.24%	0.070%
110	9.142	9.115	9.220	VV	560	20495	0.99%	0.286%
111	9.247	9.220	9.319	VV	604	18430	0.89%	0.257%
112	9.348	9.319	9.372	VV	300	6631	0.32%	0.093%
113	9.392	9.372	9.443	VV	341	7569	0.36%	0.106%
114	9.449	9.443	9.479	VV	87	1105	0.05%	0.015%
115	9.535	9.479	9.610	PV	327	8446	0.41%	0.118%
116	9.652	9.610	9.695	VV	607	15668	0.75%	0.219%
117	9.736	9.695	9.863	VV	732	34608	1.67%	0.483%
118	9.877	9.863	9.928	VV	273	7150	0.34%	0.100%
119	9.959	9.928	9.980	VV	872	12041	0.58%	0.168%
120	10.006	9.980	10.220	VV	20489	622846	30.01%	8.689%
121	10.238	10.220	10.347	VV	665	31008	1.49%	0.433%
122	10.361	10.347	10.376	VV	230	2726	0.13%	0.038%
123	10.395	10.376	10.423	VV	127	2755	0.13%	0.038%
124	10.473	10.423	10.536	VV	1158	25585	1.23%	0.357%
125	10.547	10.536	10.563	VV	227	2812	0.14%	0.039%
126	10.578	10.563	10.601	VV	218	4147	0.20%	0.058%
127	10.610	10.601	10.635	VV	208	3661	0.18%	0.051%
128	10.650	10.635	10.662	VV	237	3026	0.15%	0.042%
129	10.690	10.662	10.733	VV	420	8499	0.41%	0.119%
130	10.754	10.733	10.809	VV	262	7205	0.35%	0.101%
131	10.843	10.809	10.904	VV	523	17317	0.83%	0.242%
132	10.941	10.904	10.956	VV	245	5845	0.28%	0.082%
133	10.971	10.956	11.033	VV	319	9279	0.45%	0.129%
134	11.057	11.033	11.078	VV	176	3091	0.15%	0.043%
135	11.102	11.078	11.120	VV	267	4596	0.22%	0.064%
136	11.148	11.120	11.215	VV	2594	84896	4.09%	1.184%
137	11.241	11.215	11.372	VV	1021	47842	2.31%	0.667%
138	11.391	11.372	11.468	VV	204	6075	0.29%	0.085%
139	11.517	11.468	11.545	VV	313	8889	0.43%	0.124%
140	11.554	11.545	11.562	VV	315	2741	0.13%	0.038%
141	11.573	11.562	11.603	VV	329	4712	0.23%	0.066%

					rteres			
142	11.655	11.603	11.709	VV	606	11988	0.58%	0.167%
143	11.733	11.709	11.751	PV	401	4995	0.24%	0.070%
144	11.769	11.751	11.794	VV	397	5645	0.27%	0.079%
145	11.819	11.794	11.843	PV	782	9533	0.46%	0.133%
146	11.863	11.843	11.907	VV	400	9928	0.48%	0.139%
147	11.995	11.907	12.038	VV	907	36849	1.78%	0.514%
148	12.060	12.038	12.083	VV	1070	18307	0.88%	0.255%
149	12.099	12.083	12.123	VV	729	11917	0.57%	0.166%
150	12.131	12.123	12.193	VV	416	7822	0.38%	0.109%
151	12.219	12.193	12.229	VV	335	4334	0.21%	0.060%
152	12.240	12.229	12.267	VV	354	5231	0.25%	0.073%
153	12.302	12.267	12.323	VV	568	9841	0.47%	0.137%
154	12.341	12.323	12.383	VV	698	12961	0.62%	0.181%
155	12.390	12.383	12.419	VV	227	3291	0.16%	0.046%
156	12.448	12.419	12.474	VV	355	6189	0.30%	0.086%
157	12.506	12.474	12.549	VV	30788	365314	17.60%	5.097%
158	12.567	12.549	12.587	VV	1090	20336	0.98%	0.284%
159	12.599	12.587	12.622	VV	730	10838	0.52%	0.151%
160	12.636	12.622	12.658	VV	414	7835	0.38%	0.109%
161	12.669	12.658	12.686	VV	310	5237	0.25%	0.073%
162	12.695	12.686	12.777	VV	399	11656	0.56%	0.163%
163	12.811	12.777	12.827	VV	485	7867	0.38%	0.110%
164	12.845	12.827	12.864	VV	433	6608	0.32%	0.092%
165	12.889	12.864	12.933	VV	680	15049	0.73%	0.210%
166	12.965	12.933	13.085	VV	6410	128427	6.19%	1.792%
167	13.148	13.085	13.179	VV	410	10001	0.48%	0.140%
168	13.198	13.179	13.233	VV	204	3265	0.16%	0.046%
169	13.263	13.233	13.289	PV	4118	69875	3.37%	0.975%
170	13.300	13.289	13.351	VV	1869	46989	2.26%	0.656%
171	13.369	13.351	13.426	VV	607	19038	0.92%	0.266%
172	13.457	13.426	13.482	VV	340	8067	0.39%	0.113%
173	13.505	13.482	13.540	VV	653	13198	0.64%	0.184%
174	13.559	13.540	13.588	VV	576	12093	0.58%	0.169%
175	13.599	13.588	13.614	VV	307	4226	0.20%	0.059%
176	13.632	13.614	13.659	VV	361	6415	0.31%	0.089%
177	13.716	13.659	13.765	VV	1178	39707	1.91%	0.554%
178	13.786	13.765	13.818	VV	1108	16438	0.79%	0.229%
179	13.870	13.818	13.940	VV	1204	43113	2.08%	0.601%
180	13.976	13.940	13.996	VV	1012	21664	1.04%	0.302%
181	14.044	13.996	14.080	VV	3927	67387	3.25%	0.940%
182	14.117	14.080	14.163	VV	719	24695	1.19%	0.345%
183	14.201	14.163	14.230	VV	682	15552	0.75%	0.217%
184	14.240	14.230	14.279	VV	116	1905	0.09%	0.027%
185	14.310	14.279	14.324	PV	227	4325	0.21%	0.060%
186	14.334	14.324	14.340	VV	222	2058	0.10%	0.029%
187	14.347	14.340	14.426	VV	273	6009	0.29%	0.084%
188	14.451	14.426	14.469	VV	793	11617	0.56%	0.162%
189	14.497	14.469	14.552	VV	2400	53240	2.57%	0.743%
190	14.575	14.552	14.630	VV	392	11664	0.56%	0.163%
191	14.682	14.630	14.699	VV	1255	31699	1.53%	0.442%
192	14.723	14.699	14.783	VV	4397	98843	4.76%	1.379%
193	14.810	14.783	14.829	VV	825	19676	0.95%	0.275%
194	14.844	14.829	14.868	VV	706	14354	0.69%	0.200%

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195	14.890	14.868	14.946	VV	1222	31209	1.50%	0.435%
196	14.994	14.946	15.034	VV	152705	2075365	100.00%	28.954%
197	15.047	15.034	15.123	VV	1174	29890	1.44%	0.417%
198	15.163	15.123	15.183	VV	4037	64502	3.11%	0.900%
199	15.201	15.183	15.227	VV	3415	66145	3.19%	0.923%
200	15.243	15.227	15.295	VV	2482	44414	2.14%	0.620%
201	15.317	15.295	15.362	VV	584	11598	0.56%	0.162%
202	15.392	15.362	15.427	VV	460	8440	0.41%	0.118%
203	15.464	15.427	15.490	PV	196	3370	0.16%	0.047%
204	15.519	15.490	15.550	VV	353	7906	0.38%	0.110%
205	15.584	15.550	15.692	VV	48481	952815	45.91%	13.293%
206	15.720	15.692	15.758	VV	2243	42099	2.03%	0.587%
207	15.786	15.758	15.814	VV	1469	22019	1.06%	0.307%
208	15.848	15.814	15.872	PV	806	15602	0.75%	0.218%
209	15.887	15.872	15.960	VV	487	13969	0.67%	0.195%
210	16.024	15.960	16.076	VV	766	32393	1.56%	0.452%
211	16.109	16.076	16.158	VV	1774	38771	1.87%	0.541%
212	16.180	16.158	16.196	VV	237	4471	0.22%	0.062%
213	16.221	16.196	16.260	VV	1742	26239	1.26%	0.366%
214	16.286	16.260	16.313	VV	1836	24946	1.20%	0.348%
215	16.323	16.313	16.333	VV	117	861	0.04%	0.012%
216	16.358	16.333	16.384	VV	226	3575	0.17%	0.050%
217	16.437	16.384	16.490	PV	330	9970	0.48%	0.139%
218	16.606	16.490	16.661	PV	9144	205961	9.92%	2.873%
219	16.672	16.661	16.682	VV	935	11412	0.55%	0.159%
220	16.707	16.682	16.723	VV	3173	49239	2.37%	0.687%
221	16.734	16.723	16.756	VV	2394	39204	1.89%	0.547%
222	16.785	16.756	16.827	VV	2355	54091	2.61%	0.755%
223	16.864	16.827	16.890	VV	755	17113	0.82%	0.239%
224	16.902	16.890	16.950	VV	454	6774	0.33%	0.095%
225	16.986	16.950	17.026	PV	659	18361	0.88%	0.256%
226	17.056	17.026	17.103	VV	1917	55740	2.69%	0.778%
227	17.129	17.103	17.153	VV	1767	42656	2.06%	0.595%
228	17.173	17.153	17.199	VV	3083	47655	2.30%	0.665%
229	17.221	17.199	17.235	VV	1424	20026	0.96%	0.279%
230	17.252	17.235	17.279	VV	1732	25872	1.25%	0.361%
231	17.297	17.279	17.322	VV	227	3580	0.17%	0.050%
232	17.388	17.322	17.403	PBA	82	4122	0.20%	0.058%
Sum of corrected areas:					7167897			

FG042425.M Wed May 14 05:35:10 2025

Report of Analysis

Client:	CDM Smith	Date Collected:	05/02/25
Project:	Bergen Point Fueling System	Date Received:	05/02/25
Client Sample ID:	SB2-4-5	SDG No.:	Q1956
Lab Sample ID:	Q1956-02	Matrix:	SOIL
Analytical Method:	8015D DRO	% Solid:	93.5
Sample Wt/Vol:	30.05	Units:	g
Soil Aliquot Vol:			uL
Extraction Type:		Test:	Diesel Range Organics
GPC Factor :		Injection Volume :	
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
FG015827.D	1	05/13/25 10:05	05/13/25 17:51	PB167975

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
DRO	DRO	1400	J	180	1780	ug/kg
SURROGATES						
16416-32-3	Tetracosane-d50	12.8		37 - 130	64%	SPK: 20

Comments:

U = Not Detected
 LOQ = Limit of Quantitation
 MDL = Method Detection Limit
 LOD = Limit of Detection
 E = Value Exceeds Calibration Range
 P = Indicates >25% difference for detected concentrations between the two GC columns
 Q = indicates LCS control criteria did not meet requirements
 M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
 B = Analyte Found in Associated Method Blank
 N = Presumptive Evidence of a Compound
 * = Values outside of QC limits
 D = Dilution
 S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
 () = Laboratory InHouse Limit

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG051325\
Data File : FG015827.D
Signal(s) : FID1A.ch
Acq On : 13 May 2025 17:51
Operator : YP\AJ
Sample : Q1956-02
Misc :
ALS Vial : 26 Sample Multiplier: 1

Instrument :
FID_G
ClientSampleId :
SB2-4-5

Integration File: autoint1.e
Quant Time: May 14 03:55:56 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG042425.M
Quant Title :
QLast Update : Thu Apr 24 12:54:09 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal Phase : Rxi-1ms
Signal Info : 20mx0.18mmx0.18um

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
9) S TETRACOSANE-d50 (SURR...	14.994	1508625	12.814 ug/ml

Target Compounds

(f)=RT Delta > 1/2 Window

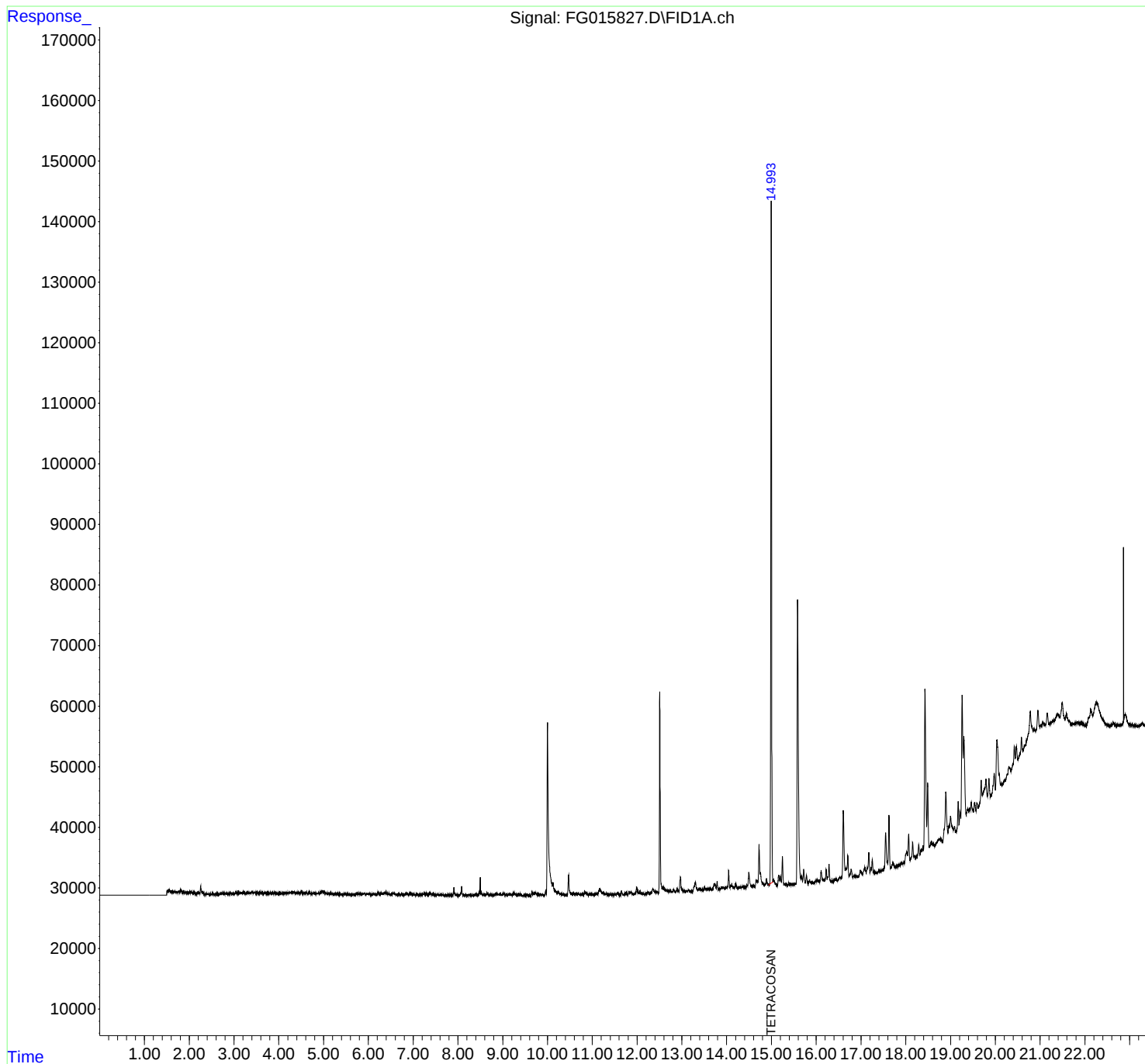
(m)=manual int.

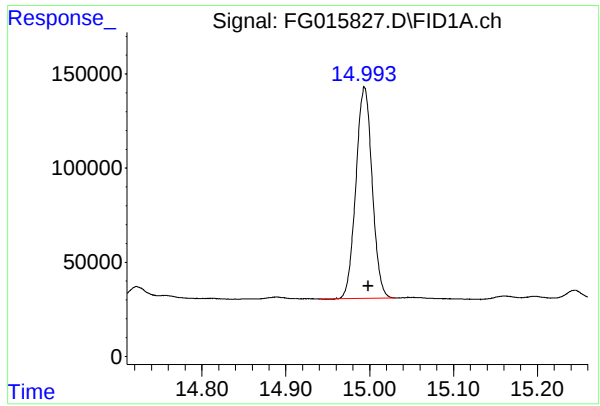
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG051325\
Data File : FG015827.D
Signal(s) : FID1A.ch
Acq On : 13 May 2025 17:51
Operator : YP\AJ
Sample : Q1956-02
Misc :
ALS Vial : 26 Sample Multiplier: 1

Instrument :
FID_G
ClientSampleId :
SB2-4-5

Integration File: autoint1.e
Quant Time: May 14 03:55:56 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG042425.M
Quant Title :
QLast Update : Thu Apr 24 12:54:09 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal Phase : Rxi-1ms
Signal Info : 20mx0.18mmx0.18um





#9 TETRACOSANE-d50 (SURROGATE)

R.T.: 14.994 min
Delta R.T.: -0.004 min
Response: 1508625
Conc: 12.81 ug/ml

Instrument :
FID_G
ClientSampleId :
SB2-4-5

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG051325\
Data File : FG015827.D
Signal(s) : FID1A.ch
Acq On : 13 May 2025 17:51
Sample : Q1956-02
Misc :
ALS Vial : 26 Sample Multiplier: 1

Integration File: Sample.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG042425.M
Title :

Signal : FID1A.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	4.327	4.300	4.357	BV	161	1980	0.13%	0.031%
2	4.361	4.357	4.365	VV	84	177	0.01%	0.003%
3	4.372	4.365	4.379	PV	98	460	0.03%	0.007%
4	4.382	4.379	4.400	VV	53	356	0.02%	0.005%
5	4.409	4.400	4.427	VV	71	538	0.04%	0.008%
6	4.433	4.427	4.441	PV	98	458	0.03%	0.007%
7	4.449	4.441	4.477	VV	96	1037	0.07%	0.016%
8	4.480	4.477	4.487	VV	124	372	0.02%	0.006%
9	4.499	4.487	4.542	VV	308	4010	0.26%	0.062%
10	4.545	4.542	4.558	VV	105	704	0.05%	0.011%
11	4.571	4.558	4.585	VV	119	973	0.06%	0.015%
12	4.595	4.585	4.607	PV	117	1123	0.07%	0.017%
13	4.623	4.607	4.643	VV	277	3103	0.20%	0.048%
14	4.647	4.643	4.655	PV	47	183	0.01%	0.003%
15	4.672	4.655	4.693	VV	294	3775	0.25%	0.058%
16	4.696	4.693	4.708	VV	406	851	0.06%	0.013%
17	4.712	4.708	4.720	VV	96	441	0.03%	0.007%
18	4.730	4.720	4.734	VV	88	588	0.04%	0.009%
19	4.750	4.734	4.763	VV	119	1417	0.09%	0.022%
20	4.768	4.763	4.785	VV	86	1126	0.07%	0.017%
21	4.791	4.785	4.795	VV	106	468	0.03%	0.007%
22	4.802	4.795	4.824	PV	113	1387	0.09%	0.021%
23	4.828	4.824	4.835	VV	113	595	0.04%	0.009%
24	4.837	4.835	4.850	VV	107	961	0.06%	0.015%
25	4.863	4.850	4.910	VV	152	3863	0.25%	0.060%
26	4.930	4.910	4.934	VV	303	3128	0.20%	0.048%
27	4.950	4.934	4.954	VV	435	3833	0.25%	0.059%
28	4.979	4.954	4.994	VV	536	9974	0.65%	0.154%
29	4.999	4.994	5.014	VV	370	3707	0.24%	0.057%
30	5.018	5.014	5.027	VV	339	1938	0.13%	0.030%
31	5.030	5.027	5.039	VV	314	1798	0.12%	0.028%
32	5.046	5.039	5.053	VV	267	1780	0.12%	0.027%
33	5.069	5.053	5.074	VV	283	2615	0.17%	0.040%
34	5.081	5.074	5.095	VV	185	2044	0.13%	0.032%
35	5.096	5.095	5.105	VV	240	1144	0.07%	0.018%
36	5.116	5.105	5.136	VV	186	2590	0.17%	0.040%

					rteres			
37	5.142	5.136	5.147	VV	158	789	0.05%	0.012%
38	5.162	5.147	5.195	VV	270	4837	0.31%	0.075%
39	5.199	5.195	5.202	VV	135	521	0.03%	0.008%
40	5.206	5.202	5.215	VV	159	770	0.05%	0.012%
41	5.225	5.215	5.230	VV	171	1128	0.07%	0.017%
42	5.234	5.230	5.240	VV	139	739	0.05%	0.011%
43	5.243	5.240	5.274	VV	177	1983	0.13%	0.031%
44	5.277	5.274	5.291	VV	126	947	0.06%	0.015%
45	5.303	5.291	5.311	VV	165	1078	0.07%	0.017%
46	5.317	5.311	5.321	VV	159	695	0.05%	0.011%
47	5.325	5.321	5.370	VV	160	3073	0.20%	0.047%
48	5.379	5.370	5.415	VV	166	3130	0.20%	0.048%
49	5.419	5.415	5.425	PV	123	523	0.03%	0.008%
50	5.428	5.425	5.446	VV	147	1346	0.09%	0.021%
51	5.465	5.446	5.469	VV	158	1799	0.12%	0.028%
52	5.478	5.469	5.525	VV	265	4960	0.32%	0.076%
53	5.535	5.525	5.540	VV	172	1019	0.07%	0.016%
54	5.552	5.540	5.559	VV	154	1114	0.07%	0.017%
55	5.562	5.559	5.570	VV	160	598	0.04%	0.009%
56	5.579	5.570	5.590	VV	144	1109	0.07%	0.017%
57	5.596	5.590	5.601	VV	125	456	0.03%	0.007%
58	5.606	5.601	5.612	VV	115	477	0.03%	0.007%
59	5.626	5.612	5.638	VV	136	1404	0.09%	0.022%
60	5.651	5.638	5.669	VV	130	1725	0.11%	0.027%
61	5.686	5.669	5.704	VV	143	1793	0.12%	0.028%
62	5.707	5.704	5.714	VV	114	506	0.03%	0.008%
63	5.747	5.714	5.780	VV	293	8117	0.53%	0.125%
64	5.795	5.780	5.800	VV	278	2693	0.18%	0.042%
65	5.805	5.800	5.811	VV	268	1505	0.10%	0.023%
66	5.822	5.811	5.843	VV	293	4391	0.29%	0.068%
67	5.850	5.843	5.858	VV	247	1898	0.12%	0.029%
68	5.879	5.858	5.886	VV	282	3693	0.24%	0.057%
69	5.887	5.886	5.899	VV	289	1879	0.12%	0.029%
70	5.915	5.899	5.921	VV	311	3353	0.22%	0.052%
71	5.926	5.921	5.956	VV	264	4101	0.27%	0.063%
72	5.969	5.956	5.991	VV	272	4498	0.29%	0.069%
73	5.997	5.991	6.009	VV	281	2030	0.13%	0.031%
74	6.019	6.009	6.037	VV	282	3368	0.22%	0.052%
75	6.043	6.037	6.057	VV	196	1834	0.12%	0.028%
76	6.061	6.057	6.073	VV	153	1207	0.08%	0.019%
77	6.077	6.073	6.082	VV	187	692	0.05%	0.011%
78	6.109	6.082	6.121	VV	215	3710	0.24%	0.057%
79	6.129	6.121	6.165	VV	194	3760	0.24%	0.058%
80	6.170	6.165	6.176	VV	164	864	0.06%	0.013%
81	6.182	6.176	6.190	VV	155	1019	0.07%	0.016%
82	6.212	6.190	6.233	VV	601	8087	0.53%	0.125%
83	6.237	6.233	6.245	VV	304	1835	0.12%	0.028%
84	6.249	6.245	6.256	VV	289	1556	0.10%	0.024%
85	6.261	6.256	6.271	VV	302	2050	0.13%	0.032%
86	6.275	6.271	6.285	VV	287	2019	0.13%	0.031%
87	6.289	6.285	6.300	VV	283	2203	0.14%	0.034%
88	6.323	6.300	6.358	VV	358	9366	0.61%	0.144%
89	6.390	6.358	6.416	VV	499	12138	0.79%	0.187%

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90	6.422	6.416	6.435	VV	330	2680	0.17%	0.041%
91	6.449	6.435	6.470	VV	290	4944	0.32%	0.076%
92	6.473	6.470	6.505	VV	267	4290	0.28%	0.066%
93	6.518	6.505	6.525	VV	224	2185	0.14%	0.034%
94	6.549	6.525	6.612	VV	389	13487	0.88%	0.208%
95	6.614	6.612	6.621	VV	171	856	0.06%	0.013%
96	6.624	6.621	6.631	VV	183	813	0.05%	0.013%
97	6.636	6.631	6.649	VV	177	1348	0.09%	0.021%
98	6.664	6.649	6.669	VV	184	1399	0.09%	0.022%
99	6.674	6.669	6.678	VV	192	689	0.04%	0.011%
100	6.685	6.678	6.702	VV	168	1775	0.12%	0.027%
101	6.705	6.702	6.713	VV	143	770	0.05%	0.012%
102	6.756	6.713	6.768	VV	238	4343	0.28%	0.067%
103	6.772	6.768	6.779	VV	173	899	0.06%	0.014%
104	6.781	6.779	6.807	VV	141	2161	0.14%	0.033%
105	6.810	6.807	6.821	VV	188	1395	0.09%	0.022%
106	6.839	6.821	6.851	VV	316	4191	0.27%	0.065%
107	6.869	6.851	6.912	VV	308	8049	0.52%	0.124%
108	6.917	6.912	6.952	VV	278	5136	0.33%	0.079%
109	6.965	6.952	6.980	VV	284	3898	0.25%	0.060%
110	6.989	6.980	6.998	VV	216	1896	0.12%	0.029%
111	7.001	6.998	7.019	VV	209	2010	0.13%	0.031%
112	7.026	7.019	7.052	VV	169	2296	0.15%	0.035%
113	7.056	7.052	7.086	VV	165	2201	0.14%	0.034%
114	7.093	7.086	7.112	VV	146	1600	0.10%	0.025%
115	7.120	7.112	7.144	VV	145	1978	0.13%	0.030%
116	7.158	7.144	7.163	VV	172	1309	0.09%	0.020%
117	7.168	7.163	7.191	VV	138	1912	0.12%	0.029%
118	7.222	7.191	7.227	VV	244	4478	0.29%	0.069%
119	7.243	7.227	7.263	VV	334	6323	0.41%	0.098%
120	7.271	7.263	7.276	VV	294	1980	0.13%	0.031%
121	7.283	7.276	7.323	VV	358	6537	0.43%	0.101%
122	7.327	7.323	7.336	VV	226	1312	0.09%	0.020%
123	7.367	7.336	7.383	VV	461	8589	0.56%	0.132%
124	7.393	7.383	7.429	VV	349	6841	0.45%	0.105%
125	7.435	7.429	7.449	VV	185	1643	0.11%	0.025%
126	7.453	7.449	7.457	VV	203	885	0.06%	0.014%
127	7.465	7.457	7.504	VV	206	3411	0.22%	0.053%
128	7.505	7.504	7.509	VV	134	315	0.02%	0.005%
129	7.515	7.509	7.519	VV	148	657	0.04%	0.010%
130	7.533	7.519	7.546	VV	176	1850	0.12%	0.029%
131	7.551	7.546	7.557	VV	88	537	0.03%	0.008%
132	7.563	7.557	7.596	VV	110	1824	0.12%	0.028%
133	7.634	7.596	7.646	VV	166	2979	0.19%	0.046%
134	7.653	7.646	7.682	VV	181	1782	0.12%	0.027%
135	7.687	7.682	7.691	PV	103	271	0.02%	0.004%
136	7.704	7.691	7.709	VV	76	624	0.04%	0.010%
137	7.714	7.709	7.725	VV	95	339	0.02%	0.005%
138	7.748	7.725	7.762	VV	105	1133	0.07%	0.017%
139	7.812	7.762	7.856	VV	152	3111	0.20%	0.048%
140	7.865	7.856	7.882	VV	114	1071	0.07%	0.017%
141	7.911	7.882	7.991	VV	1364	21212	1.38%	0.327%

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142	7.994	7.991	8.013	VV	106	1209	0.08%	0.019%
143	8.085	8.013	8.119	VV	1570	24806	1.61%	0.383%
144	8.134	8.119	8.147	VV	118	1346	0.09%	0.021%
145	8.165	8.147	8.186	VV	138	1742	0.11%	0.027%
146	8.205	8.186	8.226	PV	99	1543	0.10%	0.024%
147	8.257	8.226	8.287	VV	142	3424	0.22%	0.053%
148	8.294	8.287	8.327	VV	188	1938	0.13%	0.030%
149	8.344	8.327	8.369	VV	74	1988	0.13%	0.031%
150	8.396	8.369	8.436	VV	285	6251	0.41%	0.096%
151	8.451	8.436	8.460	VV	185	2138	0.14%	0.033%
152	8.482	8.460	8.494	VV	627	7917	0.52%	0.122%
153	8.496	8.494	8.573	VV	1959	17394	1.13%	0.268%
154	8.581	8.573	8.597	VV	187	2104	0.14%	0.032%
155	8.652	8.597	8.699	VV	397	15057	0.98%	0.232%
156	8.714	8.699	8.720	VV	159	1830	0.12%	0.028%
157	8.733	8.720	8.742	VV	195	1923	0.13%	0.030%
158	8.753	8.742	8.806	VV	240	4394	0.29%	0.068%
159	8.845	8.806	8.860	VV	431	9427	0.61%	0.145%
160	8.875	8.860	8.913	VV	454	9420	0.61%	0.145%
161	8.947	8.913	8.982	VV	411	10596	0.69%	0.163%
162	9.009	8.982	9.046	VV	402	11464	0.75%	0.177%
163	9.056	9.046	9.103	VV	294	6854	0.45%	0.106%
164	9.140	9.103	9.192	VV	305	10898	0.71%	0.168%
165	9.204	9.192	9.216	VV	227	2754	0.18%	0.042%
166	9.248	9.216	9.302	VV	452	15201	0.99%	0.234%
167	9.313	9.302	9.324	VV	195	1787	0.12%	0.028%
168	9.345	9.324	9.372	VV	346	6318	0.41%	0.097%
169	9.390	9.372	9.444	VV	309	6946	0.45%	0.107%
170	9.449	9.444	9.479	VV	98	1080	0.07%	0.017%
171	9.482	9.479	9.492	VV	77	397	0.03%	0.006%
172	9.533	9.492	9.570	VV	280	6057	0.39%	0.093%
173	9.580	9.570	9.616	VV	101	2102	0.14%	0.032%
174	9.651	9.616	9.666	PV	540	8850	0.58%	0.136%
175	9.676	9.666	9.690	VV	517	6574	0.43%	0.101%
176	9.731	9.690	9.792	VV	575	22819	1.48%	0.352%
177	9.813	9.792	9.831	VV	253	4720	0.31%	0.073%
178	9.844	9.831	9.868	VV	253	4218	0.27%	0.065%
179	9.880	9.868	9.891	VV	213	2334	0.15%	0.036%
180	9.903	9.891	9.936	VV	224	3481	0.23%	0.054%
181	9.959	9.936	9.976	VV	877	10884	0.71%	0.168%
182	10.002	9.976	10.112	VV	28503	628044	40.86%	9.685%
183	10.126	10.112	10.222	VV	2122	66269	4.31%	1.022%
184	10.240	10.222	10.340	VV	601	24540	1.60%	0.378%
185	10.349	10.340	10.387	VV	246	4056	0.26%	0.063%
186	10.407	10.387	10.422	VV	155	2497	0.16%	0.039%
187	10.471	10.422	10.544	VV	3406	61885	4.03%	0.954%
188	10.555	10.544	10.602	VV	389	10959	0.71%	0.169%
189	10.610	10.602	10.631	VV	306	4368	0.28%	0.067%
190	10.646	10.631	10.668	VV	500	6710	0.44%	0.103%
191	10.688	10.668	10.732	VV	394	8435	0.55%	0.130%
192	10.754	10.732	10.781	VV	295	6212	0.40%	0.096%
193	10.795	10.781	10.809	VV	239	2689	0.17%	0.041%
194	10.830	10.809	10.909	VV	787	20294	1.32%	0.313%

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195	10.935	10.909	10.952	VV	278	5097	0.33%	0.079%
196	10.974	10.952	10.991	VV	302	5406	0.35%	0.083%
197	10.999	10.991	11.027	VV	244	3435	0.22%	0.053%
198	11.058	11.027	11.076	VV	238	4128	0.27%	0.064%
199	11.096	11.076	11.127	VV	383	8156	0.53%	0.126%
200	11.164	11.127	11.222	VV	1114	38088	2.48%	0.587%
201	11.245	11.222	11.285	VV	539	13092	0.85%	0.202%
202	11.306	11.285	11.357	VV	254	7841	0.51%	0.121%
203	11.392	11.357	11.424	VV	263	5037	0.33%	0.078%
204	11.456	11.424	11.493	VV	240	4534	0.29%	0.070%
205	11.506	11.493	11.529	VV	194	2466	0.16%	0.038%
206	11.551	11.529	11.562	VV	341	4235	0.28%	0.065%
207	11.574	11.562	11.602	VV	437	5290	0.34%	0.082%
208	11.617	11.602	11.627	PV	100	1236	0.08%	0.019%
209	11.654	11.627	11.709	VV	688	11191	0.73%	0.173%
210	11.733	11.709	11.751	VV	486	6409	0.42%	0.099%
211	11.769	11.751	11.799	VV	602	7285	0.47%	0.112%
212	11.821	11.799	11.837	VV	604	8088	0.53%	0.125%
213	11.859	11.837	11.908	VV	561	14534	0.95%	0.224%
214	11.992	11.908	12.039	VV	1261	36908	2.40%	0.569%
215	12.058	12.039	12.081	VV	619	10314	0.67%	0.159%
216	12.104	12.081	12.119	VV	331	5876	0.38%	0.091%
217	12.133	12.119	12.171	VV	280	4815	0.31%	0.074%
218	12.193	12.171	12.201	PV	132	1952	0.13%	0.030%
219	12.247	12.201	12.281	VV	435	11707	0.76%	0.181%
220	12.305	12.281	12.322	VV	397	5993	0.39%	0.092%
221	12.349	12.322	12.414	VV	880	30286	1.97%	0.467%
222	12.421	12.414	12.440	VV	382	5193	0.34%	0.080%
223	12.457	12.440	12.479	VV	413	6937	0.45%	0.107%
224	12.506	12.479	12.561	VV	33264	405565	26.39%	6.254%
225	12.573	12.561	12.589	VV	1224	16684	1.09%	0.257%
226	12.602	12.589	12.632	VV	1001	19083	1.24%	0.294%
227	12.639	12.632	12.666	VV	565	10367	0.67%	0.160%
228	12.672	12.666	12.694	VV	533	7500	0.49%	0.116%
229	12.711	12.694	12.732	VV	457	9376	0.61%	0.145%
230	12.750	12.732	12.786	VV	573	10516	0.68%	0.162%
231	12.812	12.786	12.869	VV	665	16728	1.09%	0.258%
232	12.889	12.869	12.933	VV	718	15119	0.98%	0.233%
233	12.968	12.933	13.084	VV	2598	65150	4.24%	1.005%
234	13.098	13.084	13.121	VV	247	4510	0.29%	0.070%
235	13.145	13.121	13.193	VV	376	10229	0.67%	0.158%
236	13.201	13.193	13.237	VV	173	2684	0.17%	0.041%
237	13.302	13.237	13.362	PV	1646	54238	3.53%	0.836%
238	13.381	13.362	13.440	VV	574	16539	1.08%	0.255%
239	13.449	13.440	13.481	VV	301	5263	0.34%	0.081%
240	13.503	13.481	13.539	VV	741	14029	0.91%	0.216%
241	13.558	13.539	13.603	VV	387	11796	0.77%	0.182%
242	13.631	13.603	13.669	VV	447	10716	0.70%	0.165%
243	13.717	13.669	13.729	VV	1107	17724	1.15%	0.273%
244	13.740	13.729	13.766	VV	1105	17930	1.17%	0.276%
245	13.786	13.766	13.842	VV	1544	23940	1.56%	0.369%
246	13.910	13.842	13.961	VV	472	22265	1.45%	0.343%

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247	14.045	13.961	14.073	VV	3167	56325	3.66%	0.869%
248	14.090	14.073	14.102	VV	664	9026	0.59%	0.139%
249	14.117	14.102	14.167	VV	776	17709	1.15%	0.273%
250	14.204	14.167	14.242	VV	937	19536	1.27%	0.301%
251	14.247	14.242	14.261	VV	203	1633	0.11%	0.025%
252	14.267	14.261	14.278	VV	185	1353	0.09%	0.021%
253	14.322	14.278	14.346	VV	275	8690	0.57%	0.134%
254	14.382	14.346	14.417	VV	300	8478	0.55%	0.131%
255	14.455	14.417	14.466	VV	503	8560	0.56%	0.132%
256	14.495	14.466	14.569	VV	2513	60425	3.93%	0.932%
257	14.595	14.569	14.634	VV	391	11236	0.73%	0.173%
258	14.655	14.634	14.669	VV	1197	16602	1.08%	0.256%
259	14.682	14.669	14.697	VV	1200	17735	1.15%	0.273%
260	14.723	14.697	14.799	VV	7051	157817	10.27%	2.434%
261	14.810	14.799	14.837	VV	684	12486	0.81%	0.193%
262	14.889	14.837	14.952	VV	1391	39209	2.55%	0.605%
263	14.994	14.952	15.032	VV	112955	1537046	100.00%	23.703%
264	15.051	15.032	15.132	VV	1137	32875	2.14%	0.507%
265	15.161	15.132	15.180	VV	1831	30199	1.96%	0.466%
266	15.197	15.180	15.221	VV	1558	27178	1.77%	0.419%
267	15.244	15.221	15.367	VV	4852	80064	5.21%	1.235%
268	15.391	15.367	15.412	PV	398	4746	0.31%	0.073%
269	15.429	15.412	15.482	VV	245	2848	0.19%	0.044%
270	15.523	15.482	15.549	VV	194	4045	0.26%	0.062%
271	15.583	15.549	15.657	VV	46727	906081	58.95%	13.973%
272	15.676	15.657	15.696	VV	1351	23080	1.50%	0.356%
273	15.719	15.696	15.755	VV	2362	43195	2.81%	0.666%
274	15.783	15.755	15.812	VV	1368	22548	1.47%	0.348%
275	15.851	15.812	15.876	VV	507	9825	0.64%	0.152%
276	15.885	15.876	15.927	VV	226	4379	0.28%	0.068%
277	15.943	15.927	15.962	PV	143	1325	0.09%	0.020%
278	15.979	15.962	15.992	VV	303	3830	0.25%	0.059%
279	16.017	15.992	16.076	VV	481	17470	1.14%	0.269%
280	16.108	16.076	16.157	VV	2078	42723	2.78%	0.659%
281	16.183	16.157	16.198	VV	423	9419	0.61%	0.145%
282	16.222	16.198	16.242	VV	2187	31056	2.02%	0.479%
283	16.285	16.242	16.341	VV	2896	53580	3.49%	0.826%
284	16.355	16.341	16.379	PV	241	2659	0.17%	0.041%
285	16.432	16.379	16.492	PV	317	10965	0.71%	0.169%
286	16.518	16.492	16.551	VV	494	12760	0.83%	0.197%
287	16.604	16.551	16.646	VV	11402	229339	14.92%	3.537%
288	16.705	16.646	16.732	VV	3897	100560	6.54%	1.551%
289	16.781	16.732	16.821	VV	1505	39352	2.56%	0.607%
290	16.858	16.821	16.891	VV	403	11241	0.73%	0.173%
291	16.906	16.891	16.947	VV	246	4495	0.29%	0.069%
292	16.987	16.947	17.034	PV	927	28364	1.85%	0.437%
293	17.086	17.034	17.119	VV	1412	42362	2.76%	0.653%
294	17.173	17.119	17.202	VV	3713	79940	5.20%	1.233%
295	17.222	17.202	17.234	VV	1055	15490	1.01%	0.239%
296	17.251	17.234	17.279	VV	2426	35985	2.34%	0.555%
297	17.303	17.279	17.329	VV	302	5504	0.36%	0.085%
298	17.332	17.329	17.344	VV	129	650	0.04%	0.010%

Sum of corrected areas: 6484723

rteres

FG042425.M Wed May 14 05:35:48 2025

Report of Analysis

Client:	CDM Smith	Date Collected:	05/01/25
Project:	Bergen Point Fueling System	Date Received:	05/02/25
Client Sample ID:	SB91-3-4	SDG No.:	Q1956
Lab Sample ID:	Q1956-06	Matrix:	SOIL
Analytical Method:	8015D DRO	% Solid:	90.2
Sample Wt/Vol:	30.01	Units:	g
Soil Aliquot Vol:			uL
Extraction Type:		Test:	Diesel Range Organics
GPC Factor :		Injection Volume :	
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
FG015830.D	1	05/13/25 10:05	05/13/25 19:19	PB167975

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
DRO	DRO	1830	J	187	1850	ug/kg
SURROGATES						
16416-32-3	Tetracosane-d50	18.3		37 - 130	91%	SPK: 20

Comments:

U = Not Detected
 LOQ = Limit of Quantitation
 MDL = Method Detection Limit
 LOD = Limit of Detection
 E = Value Exceeds Calibration Range
 P = Indicates >25% difference for detected concentrations between the two GC columns
 Q = indicates LCS control criteria did not meet requirements
 M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
 B = Analyte Found in Associated Method Blank
 N = Presumptive Evidence of a Compound
 * = Values outside of QC limits
 D = Dilution
 S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
 () = Laboratory InHouse Limit

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG051325\
Data File : FG015830.D
Signal(s) : FID1A.ch
Acq On : 13 May 2025 19:19
Operator : YP\AJ
Sample : Q1956-06
Misc :
ALS Vial : 29 Sample Multiplier: 1

Instrument :
FID_G
ClientSampleId :
SB91-3-4

Integration File: autoint1.e
Quant Time: May 14 03:56:28 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG042425.M
Quant Title :
QLast Update : Thu Apr 24 12:54:09 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal Phase : Rxi-1ms
Signal Info : 20mx0.18mmx0.18um

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
9) S TETRACOSANE-d50 (SURR...	14.994	2151458	18.273 ug/ml

Target Compounds

(f)=RT Delta > 1/2 Window

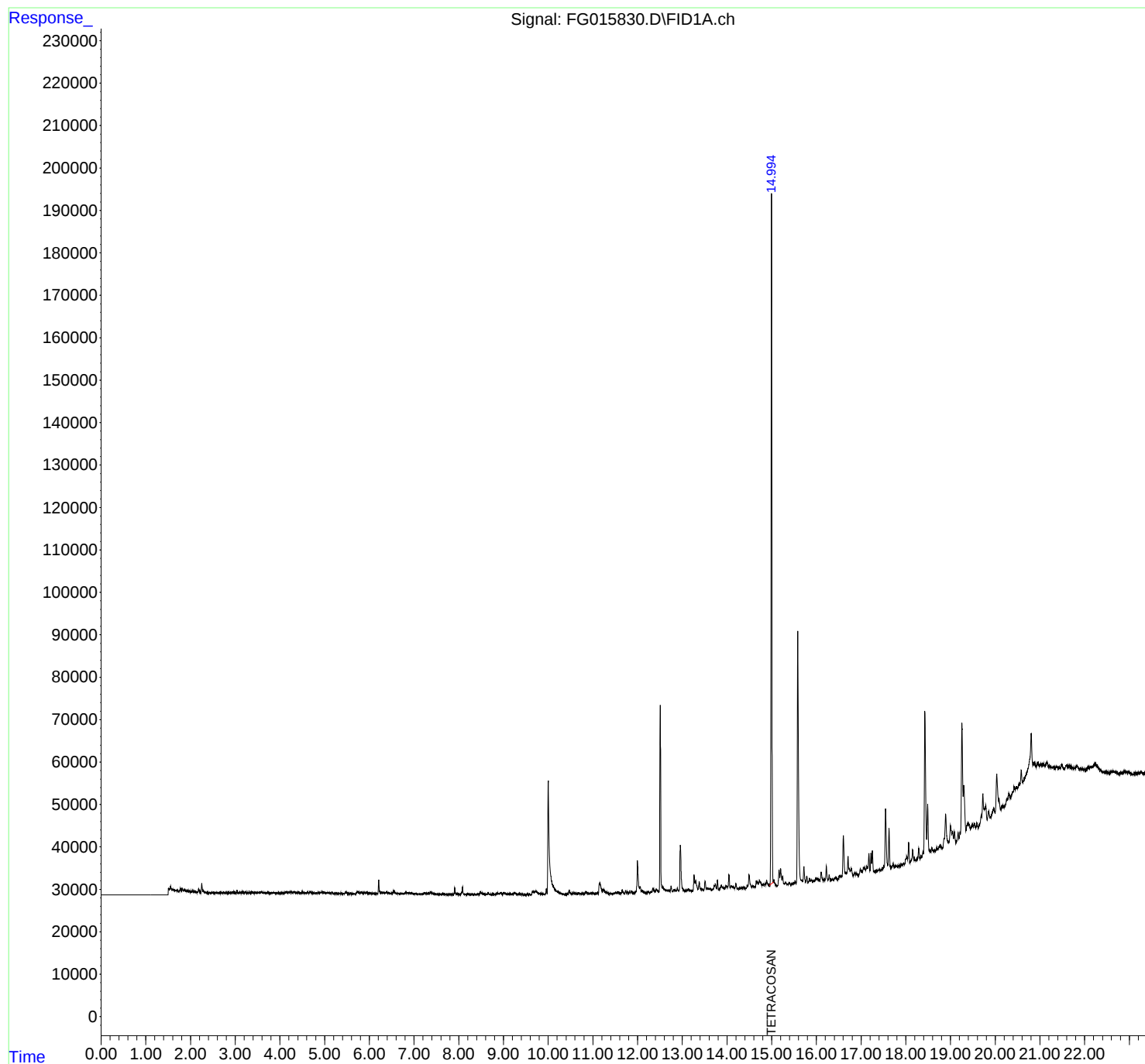
(m)=manual int.

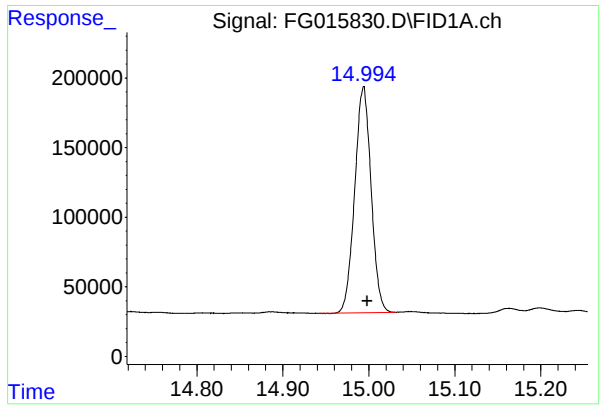
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG051325\
Data File : FG015830.D
Signal(s) : FID1A.ch
Acq On : 13 May 2025 19:19
Operator : YP\AJ
Sample : Q1956-06
Misc :
ALS Vial : 29 Sample Multiplier: 1

Instrument :
FID_G
ClientSampleId :
SB91-3-4

Integration File: autoint1.e
Quant Time: May 14 03:56:28 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG042425.M
Quant Title :
QLast Update : Thu Apr 24 12:54:09 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal Phase : Rxi-1ms
Signal Info : 20mx0.18mmx0.18um





#9 TETRACOSANE-d50 (SURROGATE)

R.T.: 14.994 min
Delta R.T.: -0.005 min
Response: 2151458
Conc: 18.27 ug/ml

Instrument :
FID_G
ClientSampleId :
SB91-3-4

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG051325\
 Data File : FG015830.D
 Signal(s) : FID1A.ch
 Acq On : 13 May 2025 19:19
 Sample : Q1956-06
 Misc :
 ALS Vial : 29 Sample Multiplier: 1

Integration File: Sample.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG042425.M
 Title :

Signal : FID1A.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	4.319	4.300	4.358	BV	185	2969	0.14%	0.035%
2	4.364	4.358	4.384	VV	85	750	0.03%	0.009%
3	4.392	4.384	4.407	VV	116	779	0.04%	0.009%
4	4.410	4.407	4.426	VV	159	954	0.04%	0.011%
5	4.431	4.426	4.458	VV	109	1398	0.06%	0.017%
6	4.465	4.458	4.474	PV	115	764	0.04%	0.009%
7	4.500	4.474	4.519	VV	457	6167	0.28%	0.073%
8	4.521	4.519	4.526	VV	151	491	0.02%	0.006%
9	4.534	4.526	4.542	VV	155	978	0.04%	0.012%
10	4.549	4.542	4.554	VV	132	644	0.03%	0.008%
11	4.569	4.554	4.591	VV	150	2017	0.09%	0.024%
12	4.622	4.591	4.644	VV	367	5231	0.24%	0.062%
13	4.650	4.644	4.655	PV	110	383	0.02%	0.005%
14	4.670	4.655	4.720	VV	530	8416	0.39%	0.100%
15	4.737	4.720	4.745	VV	187	1584	0.07%	0.019%
16	4.752	4.745	4.765	VV	153	1066	0.05%	0.013%
17	4.781	4.765	4.785	VV	133	781	0.04%	0.009%
18	4.792	4.785	4.797	VV	111	487	0.02%	0.006%
19	4.801	4.797	4.825	PV	192	1635	0.07%	0.019%
20	4.829	4.825	4.834	VV	72	402	0.02%	0.005%
21	4.841	4.834	4.846	VV	131	522	0.02%	0.006%
22	4.849	4.846	4.853	VV	69	288	0.01%	0.003%
23	4.857	4.853	4.871	VV	75	675	0.03%	0.008%
24	4.875	4.871	4.883	VV	123	527	0.02%	0.006%
25	4.903	4.883	4.910	VV	246	2651	0.12%	0.031%
26	4.921	4.910	4.936	VV	299	3744	0.17%	0.044%
27	4.943	4.936	4.953	VV	273	2241	0.10%	0.027%
28	4.964	4.953	4.970	VV	214	1666	0.08%	0.020%
29	4.974	4.970	4.994	VV	223	2180	0.10%	0.026%
30	4.997	4.994	5.006	VV	192	913	0.04%	0.011%
31	5.011	5.006	5.026	VV	159	1339	0.06%	0.016%
32	5.033	5.026	5.040	VV	120	752	0.03%	0.009%
33	5.052	5.040	5.060	VV	139	1128	0.05%	0.013%
34	5.066	5.060	5.073	VV	84	632	0.03%	0.007%
35	5.074	5.073	5.102	VB	102	981	0.04%	0.012%
36	5.119	5.102	5.136	BV	120	958	0.04%	0.011%

					rteres			
37	5.160	5.136	5.198	PV	351	5677	0.26%	0.067%
38	5.201	5.198	5.208	VV	108	531	0.02%	0.006%
39	5.213	5.208	5.217	VV	119	441	0.02%	0.005%
40	5.221	5.217	5.226	PV	137	407	0.02%	0.005%
41	5.230	5.226	5.240	VV	112	583	0.03%	0.007%
42	5.252	5.240	5.256	VV	104	697	0.03%	0.008%
43	5.261	5.256	5.265	VV	89	412	0.02%	0.005%
44	5.267	5.265	5.285	VV	119	897	0.04%	0.011%
45	5.290	5.285	5.299	VV	98	713	0.03%	0.008%
46	5.314	5.299	5.340	VV	177	3054	0.14%	0.036%
47	5.347	5.340	5.351	VV	126	716	0.03%	0.008%
48	5.375	5.351	5.408	VV	221	3905	0.18%	0.046%
49	5.414	5.408	5.423	VV	138	914	0.04%	0.011%
50	5.430	5.423	5.437	VV	156	784	0.04%	0.009%
51	5.464	5.437	5.474	VV	463	6424	0.29%	0.076%
52	5.482	5.474	5.532	VV	471	8287	0.38%	0.098%
53	5.535	5.532	5.549	VV	214	1586	0.07%	0.019%
54	5.553	5.549	5.558	VV	160	736	0.03%	0.009%
55	5.572	5.558	5.581	VV	209	1912	0.09%	0.023%
56	5.585	5.581	5.617	VV	205	2824	0.13%	0.033%
57	5.642	5.617	5.687	PV	218	5480	0.25%	0.065%
58	5.730	5.687	5.780	VV	710	24149	1.11%	0.286%
59	5.793	5.780	5.797	VV	531	4717	0.22%	0.056%
60	5.806	5.797	5.822	VV	487	6605	0.30%	0.078%
61	5.826	5.822	5.831	VV	450	2203	0.10%	0.026%
62	5.841	5.831	5.857	VV	435	5562	0.25%	0.066%
63	5.860	5.857	5.869	VV	336	2137	0.10%	0.025%
64	5.876	5.869	5.888	VV	400	3907	0.18%	0.046%
65	5.911	5.888	5.918	VV	472	6608	0.30%	0.078%
66	5.922	5.918	5.955	VV	434	7184	0.33%	0.085%
67	5.970	5.955	6.005	VV	394	8309	0.38%	0.098%
68	6.027	6.005	6.040	VV	429	6713	0.31%	0.080%
69	6.044	6.040	6.049	VV	232	1151	0.05%	0.014%
70	6.054	6.049	6.058	VV	202	1008	0.05%	0.012%
71	6.061	6.058	6.088	VV	263	3250	0.15%	0.039%
72	6.108	6.088	6.157	VV	267	7932	0.36%	0.094%
73	6.166	6.157	6.172	VV	222	1702	0.08%	0.020%
74	6.179	6.172	6.186	VV	257	1639	0.08%	0.019%
75	6.211	6.186	6.268	VV	3461	51306	2.35%	0.608%
76	6.273	6.268	6.299	VV	370	6835	0.31%	0.081%
77	6.302	6.299	6.313	VV	401	3316	0.15%	0.039%
78	6.316	6.313	6.329	VV	446	3700	0.17%	0.044%
79	6.333	6.329	6.341	VV	445	2834	0.13%	0.034%
80	6.345	6.341	6.352	VV	396	2621	0.12%	0.031%
81	6.365	6.352	6.377	VV	470	6102	0.28%	0.072%
82	6.391	6.377	6.465	VV	678	19660	0.90%	0.233%
83	6.471	6.465	6.492	VV	322	4168	0.19%	0.049%
84	6.495	6.492	6.510	VV	342	2986	0.14%	0.035%
85	6.545	6.510	6.597	VV	837	27800	1.27%	0.330%
86	6.603	6.597	6.607	VV	309	1669	0.08%	0.020%
87	6.613	6.607	6.626	VV	298	2903	0.13%	0.034%
88	6.630	6.626	6.649	VV	303	3320	0.15%	0.039%
89	6.658	6.649	6.665	VV	283	2108	0.10%	0.025%

					rteres			
90	6.680	6.665	6.696	VV	319	4598	0.21%	0.055%
91	6.700	6.696	6.730	VV	230	3972	0.18%	0.047%
92	6.750	6.730	6.762	VV	218	3047	0.14%	0.036%
93	6.767	6.762	6.778	VV	206	1747	0.08%	0.021%
94	6.813	6.778	6.863	VV	467	18715	0.86%	0.222%
95	6.870	6.863	6.875	VV	450	2514	0.12%	0.030%
96	6.879	6.875	6.893	VV	404	3993	0.18%	0.047%
97	6.899	6.893	6.934	VV	369	8401	0.39%	0.100%
98	6.962	6.934	6.977	VV	384	7757	0.36%	0.092%
99	6.982	6.977	7.007	VV	330	4455	0.20%	0.053%
100	7.018	7.007	7.079	VV	293	8144	0.37%	0.097%
101	7.084	7.079	7.096	VV	145	1450	0.07%	0.017%
102	7.100	7.096	7.117	VV	176	1647	0.08%	0.020%
103	7.122	7.117	7.148	VV	154	2351	0.11%	0.028%
104	7.158	7.148	7.173	VV	189	2445	0.11%	0.029%
105	7.204	7.173	7.208	VV	263	4048	0.19%	0.048%
106	7.232	7.208	7.238	VV	385	5659	0.26%	0.067%
107	7.243	7.238	7.246	VV	409	1696	0.08%	0.020%
108	7.250	7.246	7.271	VV	420	5127	0.24%	0.061%
109	7.275	7.271	7.310	VV	339	6910	0.32%	0.082%
110	7.318	7.310	7.325	VV	320	2477	0.11%	0.029%
111	7.329	7.325	7.340	VV	299	2463	0.11%	0.029%
112	7.360	7.340	7.387	VV	587	12228	0.56%	0.145%
113	7.396	7.387	7.440	VV	506	9486	0.43%	0.112%
114	7.458	7.440	7.484	VV	310	5437	0.25%	0.064%
115	7.497	7.484	7.504	VV	190	1840	0.08%	0.022%
116	7.510	7.504	7.542	VV	218	3590	0.16%	0.043%
117	7.554	7.542	7.605	VV	175	4218	0.19%	0.050%
118	7.631	7.605	7.647	VV	230	3809	0.17%	0.045%
119	7.654	7.647	7.686	VV	195	2254	0.10%	0.027%
120	7.691	7.686	7.696	VV	75	371	0.02%	0.004%
121	7.705	7.696	7.730	VV	137	1401	0.06%	0.017%
122	7.746	7.730	7.759	VV	118	1317	0.06%	0.016%
123	7.764	7.759	7.771	PV	129	537	0.02%	0.006%
124	7.798	7.771	7.819	VV	213	3408	0.16%	0.040%
125	7.824	7.819	7.864	VV	163	2660	0.12%	0.032%
126	7.869	7.864	7.873	VV	122	506	0.02%	0.006%
127	7.911	7.873	7.952	VV	1697	24544	1.13%	0.291%
128	7.957	7.952	7.969	VV	236	1565	0.07%	0.019%
129	7.974	7.969	7.984	VV	146	1078	0.05%	0.013%
130	7.994	7.984	8.005	VV	171	1354	0.06%	0.016%
131	8.017	8.005	8.029	VV	103	1322	0.06%	0.016%
132	8.057	8.029	8.065	VV	468	6095	0.28%	0.072%
133	8.084	8.065	8.132	VV	1864	25370	1.16%	0.301%
134	8.135	8.132	8.149	VV	139	1055	0.05%	0.013%
135	8.157	8.149	8.185	VV	144	2010	0.09%	0.024%
136	8.191	8.185	8.197	VV	144	667	0.03%	0.008%
137	8.204	8.197	8.210	VV	145	941	0.04%	0.011%
138	8.213	8.210	8.239	VV	145	1616	0.07%	0.019%
139	8.253	8.239	8.258	VV	164	1356	0.06%	0.016%
140	8.261	8.258	8.297	VV	175	2582	0.12%	0.031%
141	8.302	8.297	8.319	VV	132	1254	0.06%	0.015%

					rteres			
142	8.347	8.319	8.355	VV	181	2455	0.11%	0.029%
143	8.358	8.355	8.365	VV	136	401	0.02%	0.005%
144	8.373	8.365	8.380	VV	99	471	0.02%	0.006%
145	8.394	8.380	8.407	VV	203	2793	0.13%	0.033%
146	8.412	8.407	8.428	VV	223	2209	0.10%	0.026%
147	8.434	8.428	8.463	VV	218	4002	0.18%	0.047%
148	8.483	8.463	8.500	VV	784	11495	0.53%	0.136%
149	8.515	8.500	8.545	VV	493	9177	0.42%	0.109%
150	8.550	8.545	8.571	VV	261	2407	0.11%	0.029%
151	8.592	8.571	8.599	VV	168	1656	0.08%	0.020%
152	8.658	8.599	8.717	VV	465	15061	0.69%	0.179%
153	8.726	8.717	8.732	VV	193	1175	0.05%	0.014%
154	8.754	8.732	8.779	VV	326	5426	0.25%	0.064%
155	8.783	8.779	8.803	VV	188	1822	0.08%	0.022%
156	8.815	8.803	8.820	VV	126	1098	0.05%	0.013%
157	8.847	8.820	8.861	VV	396	6899	0.32%	0.082%
158	8.874	8.861	8.912	VV	501	9511	0.44%	0.113%
159	8.944	8.912	8.984	VV	552	15187	0.70%	0.180%
160	9.002	8.984	9.044	VV	566	14731	0.68%	0.175%
161	9.052	9.044	9.097	VV	359	7986	0.37%	0.095%
162	9.137	9.097	9.162	VV	327	8932	0.41%	0.106%
163	9.169	9.162	9.189	VV	295	3756	0.17%	0.045%
164	9.193	9.189	9.197	VV	195	933	0.04%	0.011%
165	9.199	9.197	9.203	VV	228	645	0.03%	0.008%
166	9.205	9.203	9.211	VV	182	855	0.04%	0.010%
167	9.216	9.211	9.223	VV	212	1255	0.06%	0.015%
168	9.243	9.223	9.281	VV	564	13329	0.61%	0.158%
169	9.285	9.281	9.307	VV	364	3849	0.18%	0.046%
170	9.310	9.307	9.323	VV	164	1341	0.06%	0.016%
171	9.347	9.323	9.374	VV	440	7658	0.35%	0.091%
172	9.392	9.374	9.412	VV	341	4935	0.23%	0.059%
173	9.421	9.412	9.427	VV	142	845	0.04%	0.010%
174	9.434	9.427	9.439	VV	145	623	0.03%	0.007%
175	9.455	9.439	9.487	VV	74	1358	0.06%	0.016%
176	9.496	9.487	9.505	VV	128	900	0.04%	0.011%
177	9.528	9.505	9.567	VV	293	5386	0.25%	0.064%
178	9.586	9.567	9.611	VV	153	1761	0.08%	0.021%
179	9.650	9.611	9.662	PV	967	12634	0.58%	0.150%
180	9.677	9.662	9.685	VV	943	11319	0.52%	0.134%
181	9.706	9.685	9.710	VV	857	11012	0.50%	0.131%
182	9.734	9.710	9.817	VV	943	36735	1.68%	0.435%
183	9.822	9.817	9.829	VV	365	2116	0.10%	0.025%
184	9.832	9.829	9.839	VV	333	1390	0.06%	0.016%
185	9.850	9.839	9.870	VV	260	4538	0.21%	0.054%
186	9.879	9.870	9.882	VV	306	1931	0.09%	0.023%
187	9.887	9.882	9.904	VV	308	2977	0.14%	0.035%
188	9.906	9.904	9.921	VV	260	1590	0.07%	0.019%
189	9.925	9.921	9.929	VV	144	545	0.02%	0.006%
190	9.958	9.929	9.977	VV	1418	18959	0.87%	0.225%
191	10.003	9.977	10.189	VV	26864	708522	32.48%	8.399%
192	10.197	10.189	10.229	VV	865	16670	0.76%	0.198%
193	10.240	10.229	10.284	VV	723	16621	0.76%	0.197%
194	10.290	10.284	10.319	VV	319	5944	0.27%	0.070%

					rteres			
195	10.323	10.319	10.341	VV	249	2618	0.12%	0.031%
196	10.350	10.341	10.361	VV	209	1757	0.08%	0.021%
197	10.364	10.361	10.384	VV	127	1305	0.06%	0.015%
198	10.390	10.384	10.415	VV	150	1249	0.06%	0.015%
199	10.473	10.415	10.504	PV	1080	21648	0.99%	0.257%
200	10.509	10.504	10.534	VV	358	4702	0.22%	0.056%
201	10.577	10.534	10.602	VV	421	12845	0.59%	0.152%
202	10.618	10.602	10.633	VV	356	5053	0.23%	0.060%
203	10.647	10.633	10.669	VV	259	3897	0.18%	0.046%
204	10.684	10.669	10.701	VV	372	5097	0.23%	0.060%
205	10.724	10.701	10.734	VV	222	3064	0.14%	0.036%
206	10.738	10.734	10.742	VV	192	784	0.04%	0.009%
207	10.754	10.742	10.785	VV	311	5258	0.24%	0.062%
208	10.797	10.785	10.807	VV	224	1824	0.08%	0.022%
209	10.833	10.807	10.855	VV	513	10854	0.50%	0.129%
210	10.859	10.855	10.864	VV	470	2278	0.10%	0.027%
211	10.870	10.864	10.886	VV	527	4990	0.23%	0.059%
212	10.890	10.886	10.910	VV	229	2182	0.10%	0.026%
213	10.935	10.910	10.955	VV	338	6262	0.29%	0.074%
214	10.972	10.955	11.028	VV	358	11260	0.52%	0.133%
215	11.033	11.028	11.054	VV	211	2787	0.13%	0.033%
216	11.060	11.054	11.078	VV	166	1772	0.08%	0.021%
217	11.095	11.078	11.122	VV	344	6174	0.28%	0.073%
218	11.149	11.122	11.217	VV	2608	88836	4.07%	1.053%
219	11.244	11.217	11.286	VV	1059	32141	1.47%	0.381%
220	11.300	11.286	11.305	VV	474	5012	0.23%	0.059%
221	11.310	11.305	11.315	VV	425	2283	0.10%	0.027%
222	11.320	11.315	11.335	VV	379	3780	0.17%	0.045%
223	11.338	11.335	11.365	VV	313	3107	0.14%	0.037%
224	11.392	11.365	11.416	VV	232	3778	0.17%	0.045%
225	11.432	11.416	11.477	PV	112	2359	0.11%	0.028%
226	11.508	11.477	11.535	VV	419	8512	0.39%	0.101%
227	11.554	11.535	11.565	VV	375	5380	0.25%	0.064%
228	11.574	11.565	11.594	VV	453	5133	0.24%	0.061%
229	11.615	11.594	11.632	VV	324	4275	0.20%	0.051%
230	11.655	11.632	11.708	VV	1075	18460	0.85%	0.219%
231	11.733	11.708	11.751	PV	790	9647	0.44%	0.114%
232	11.770	11.751	11.798	VV	565	7376	0.34%	0.087%
233	11.820	11.798	11.836	VV	695	7972	0.37%	0.095%
234	11.856	11.836	11.905	VV	638	14421	0.66%	0.171%
235	11.911	11.905	11.914	VV	143	651	0.03%	0.008%
236	11.997	11.914	12.045	VV	7815	156800	7.19%	1.859%
237	12.057	12.045	12.084	VV	1652	26661	1.22%	0.316%
238	12.095	12.084	12.115	VV	743	11147	0.51%	0.132%
239	12.129	12.115	12.173	VV	530	10679	0.49%	0.127%
240	12.179	12.173	12.199	VV	149	938	0.04%	0.011%
241	12.221	12.199	12.225	PV	261	2043	0.09%	0.024%
242	12.229	12.225	12.232	VV	311	1110	0.05%	0.013%
243	12.244	12.232	12.267	VV	476	5974	0.27%	0.071%
244	12.301	12.267	12.314	VV	382	6003	0.28%	0.071%
245	12.341	12.314	12.397	VV	1116	30311	1.39%	0.359%
246	12.417	12.397	12.442	VV	954	17620	0.81%	0.209%

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247	12.446	12.442	12.469	VV	661	7523	0.34%	0.089%
248	12.508	12.469	12.554	VV	44226	554988	25.44%	6.579%
249	12.568	12.554	12.586	VV	1489	22588	1.04%	0.268%
250	12.597	12.586	12.623	VV	908	16441	0.75%	0.195%
251	12.630	12.623	12.644	VV	546	6335	0.29%	0.075%
252	12.648	12.644	12.654	VV	470	2682	0.12%	0.032%
253	12.661	12.654	12.683	VV	466	7287	0.33%	0.086%
254	12.695	12.683	12.727	VV	496	10565	0.48%	0.125%
255	12.748	12.727	12.787	VV	1524	24582	1.13%	0.291%
256	12.809	12.787	12.827	VV	650	10822	0.50%	0.128%
257	12.838	12.827	12.868	VV	566	9547	0.44%	0.113%
258	12.890	12.868	12.927	VV	897	17154	0.79%	0.203%
259	12.956	12.927	13.055	VV	11014	212450	9.74%	2.518%
260	13.059	13.055	13.073	VV	300	2192	0.10%	0.026%
261	13.105	13.073	13.121	VV	421	7535	0.35%	0.089%
262	13.148	13.121	13.175	VV	507	11858	0.54%	0.141%
263	13.181	13.175	13.187	VV	179	1111	0.05%	0.013%
264	13.201	13.187	13.226	VV	180	3026	0.14%	0.036%
265	13.230	13.226	13.234	VV	58	256	0.01%	0.003%
266	13.262	13.234	13.284	PV	3915	58585	2.69%	0.694%
267	13.300	13.284	13.355	VV	2343	59825	2.74%	0.709%
268	13.377	13.355	13.407	VV	2156	37151	1.70%	0.440%
269	13.412	13.407	13.449	VV	532	9053	0.42%	0.107%
270	13.455	13.449	13.480	VV	355	4181	0.19%	0.050%
271	13.510	13.480	13.537	VV	2233	36068	1.65%	0.428%
272	13.557	13.537	13.591	VV	612	14698	0.67%	0.174%
273	13.599	13.591	13.609	VV	368	3291	0.15%	0.039%
274	13.628	13.609	13.662	VV	508	8746	0.40%	0.104%
275	13.716	13.662	13.725	VV	1109	18633	0.85%	0.221%
276	13.738	13.725	13.764	VV	1515	23031	1.06%	0.273%
277	13.785	13.764	13.819	VV	2330	30945	1.42%	0.367%
278	13.873	13.819	13.898	VV	1146	27053	1.24%	0.321%
279	13.902	13.898	13.945	VV	596	11790	0.54%	0.140%
280	13.975	13.945	14.001	VV	1003	21433	0.98%	0.254%
281	14.013	14.001	14.018	VV	687	5941	0.27%	0.070%
282	14.044	14.018	14.072	VV	3468	51275	2.35%	0.608%
283	14.088	14.072	14.107	VV	760	12486	0.57%	0.148%
284	14.120	14.107	14.169	VV	688	17878	0.82%	0.212%
285	14.200	14.169	14.269	VV	1271	20467	0.94%	0.243%
286	14.273	14.269	14.285	VV	80	427	0.02%	0.005%
287	14.320	14.285	14.327	VV	175	3326	0.15%	0.039%
288	14.355	14.327	14.427	VV	273	6993	0.32%	0.083%
289	14.453	14.427	14.465	PV	636	9095	0.42%	0.108%
290	14.492	14.465	14.543	VV	3173	66682	3.06%	0.790%
291	14.547	14.543	14.552	VV	324	1553	0.07%	0.018%
292	14.582	14.552	14.594	VV	393	8401	0.39%	0.100%
293	14.600	14.594	14.614	VV	327	3208	0.15%	0.038%
294	14.618	14.614	14.628	VV	195	959	0.04%	0.011%
295	14.655	14.628	14.669	VV	1571	22273	1.02%	0.264%
296	14.685	14.669	14.703	VV	1312	21872	1.00%	0.259%
297	14.725	14.703	14.745	VV	1720	32449	1.49%	0.385%
298	14.757	14.745	14.789	VV	1195	20351	0.93%	0.241%
299	14.807	14.789	14.832	VV	733	13871	0.64%	0.164%

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300	14.854	14.832	14.866	VV	697	11705	0.54%	0.139%
301	14.886	14.866	14.947	VV	1404	35044	1.61%	0.415%
302	14.952	14.947	14.955	VV	249	943	0.04%	0.011%
303	14.994	14.955	15.032	VV	162973	2181226	100.00%	25.856%
304	15.049	15.032	15.122	VV	1474	32849	1.51%	0.389%
305	15.163	15.122	15.181	PV	3678	58884	2.70%	0.698%
306	15.199	15.181	15.229	VV	3941	76537	3.51%	0.907%
307	15.244	15.229	15.288	VV	2132	36685	1.68%	0.435%
308	15.316	15.288	15.351	VV	595	13769	0.63%	0.163%
309	15.358	15.351	15.364	VV	140	794	0.04%	0.009%
310	15.393	15.364	15.442	VV	472	7738	0.35%	0.092%
311	15.469	15.442	15.476	PV	203	2212	0.10%	0.026%
312	15.517	15.476	15.522	VV	454	7129	0.33%	0.085%
313	15.526	15.522	15.547	VV	450	4796	0.22%	0.057%
314	15.580	15.547	15.658	VV	59372	1048377	48.06%	12.428%
315	15.672	15.658	15.693	VV	817	13756	0.63%	0.163%
316	15.719	15.693	15.757	VV	3931	63784	2.92%	0.756%
317	15.786	15.757	15.819	VV	1562	24788	1.14%	0.294%
318	15.848	15.819	15.874	VV	938	18026	0.83%	0.214%
319	15.889	15.874	15.907	VV	517	8380	0.38%	0.099%
320	15.943	15.907	15.949	VV	357	6383	0.29%	0.076%
321	15.980	15.949	15.985	VV	694	9799	0.45%	0.116%
322	16.010	15.985	16.027	VV	825	18090	0.83%	0.214%
323	16.031	16.027	16.074	VV	699	12807	0.59%	0.152%
324	16.106	16.074	16.155	VV	2157	45691	2.09%	0.542%
325	16.184	16.155	16.196	VV	385	6439	0.30%	0.076%
326	16.221	16.196	16.260	VV	3528	50178	2.30%	0.595%
327	16.285	16.260	16.329	VV	1332	20006	0.92%	0.237%
328	16.357	16.329	16.377	VV	260	3839	0.18%	0.046%
329	16.425	16.377	16.472	PV	526	14312	0.66%	0.170%
330	16.522	16.472	16.547	PV	856	21526	0.99%	0.255%
331	16.554	16.547	16.569	VV	613	7454	0.34%	0.088%
332	16.602	16.569	16.644	VV	10153	193441	8.87%	2.293%
333	16.657	16.644	16.680	VV	1248	25016	1.15%	0.297%
334	16.706	16.680	16.724	VV	4947	76949	3.53%	0.912%
335	16.733	16.724	16.755	VV	2120	33316	1.53%	0.395%
336	16.781	16.755	16.824	VV	2052	50223	2.30%	0.595%
337	16.860	16.824	16.882	VV	749	17285	0.79%	0.205%
338	16.899	16.882	16.944	VV	593	10591	0.49%	0.126%
339	16.980	16.944	17.019	PV	1378	36521	1.67%	0.433%
340	17.056	17.019	17.068	VV	1645	34454	1.58%	0.408%
341	17.083	17.068	17.100	VV	1510	24206	1.11%	0.287%
342	17.125	17.100	17.148	VV	1685	38927	1.78%	0.461%
343	17.173	17.148	17.197	VV	4693	72595	3.33%	0.861%
344	17.220	17.197	17.235	VV	4644	61093	2.80%	0.724%
345	17.251	17.235	17.284	VV	5138	70847	3.25%	0.840%
346	17.300	17.284	17.311	VV	197	2275	0.10%	0.027%
347	17.379	17.311	17.385	PV	128	-288	-0.01%	-0.003%
Sum of corrected areas:						8435894		

Report of Analysis

Client:	CDM Smith	Date Collected:	05/02/25
Project:	Bergen Point Fueling System	Date Received:	05/02/25
Client Sample ID:	FB-05022025	SDG No.:	Q1956
Lab Sample ID:	Q1956-07	Matrix:	Water
Analytical Method:	8015D DRO	% Solid:	0
Sample Wt/Vol:	800	Units:	mL
Soil Aliquot Vol:			uL
Extraction Type:		Test:	Diesel Range Organics
GPC Factor :		Injection Volume :	
Prep Method :	SW3510		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
FF015813.D	1	05/08/25 08:41	05/08/25 13:59	PB167913

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
DRO	DRO	22.0	J	8.00	62.0	ug/L
SURROGATES						
16416-32-3	Tetracosane-d50	16.8		29 - 130	84%	SPK: 20

Comments:

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

P = Indicates >25% difference for detected concentrations between the two GC columns

Q = indicates LCS control criteria did not meet requirements

M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

* = Values outside of QC limits

D = Dilution

S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.

() = Laboratory InHouse Limit

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF050825\
Data File : FF015813.D
Signal(s) : FID2B.ch
Acq On : 08 May 2025 13:59
Operator : YP\AJ
Sample : Q1956-07
Misc :
ALS Vial : 74 Sample Multiplier: 1

Instrument :
FID_F
ClientSampleId :
FB-05022025

Integration File: autoint1.e
Quant Time: May 09 01:55:53 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF042225.M
Quant Title :
QLast Update : Tue Apr 22 11:27:50 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal Phase : Rxi-1ms
Signal Info : 20mx0.18mmx0.18um

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
9) S TETRACOSANE-d50 (SURR...	15.020	1897361	16.813 ug/ml
Target Compounds			

(f)=RT Delta > 1/2 Window

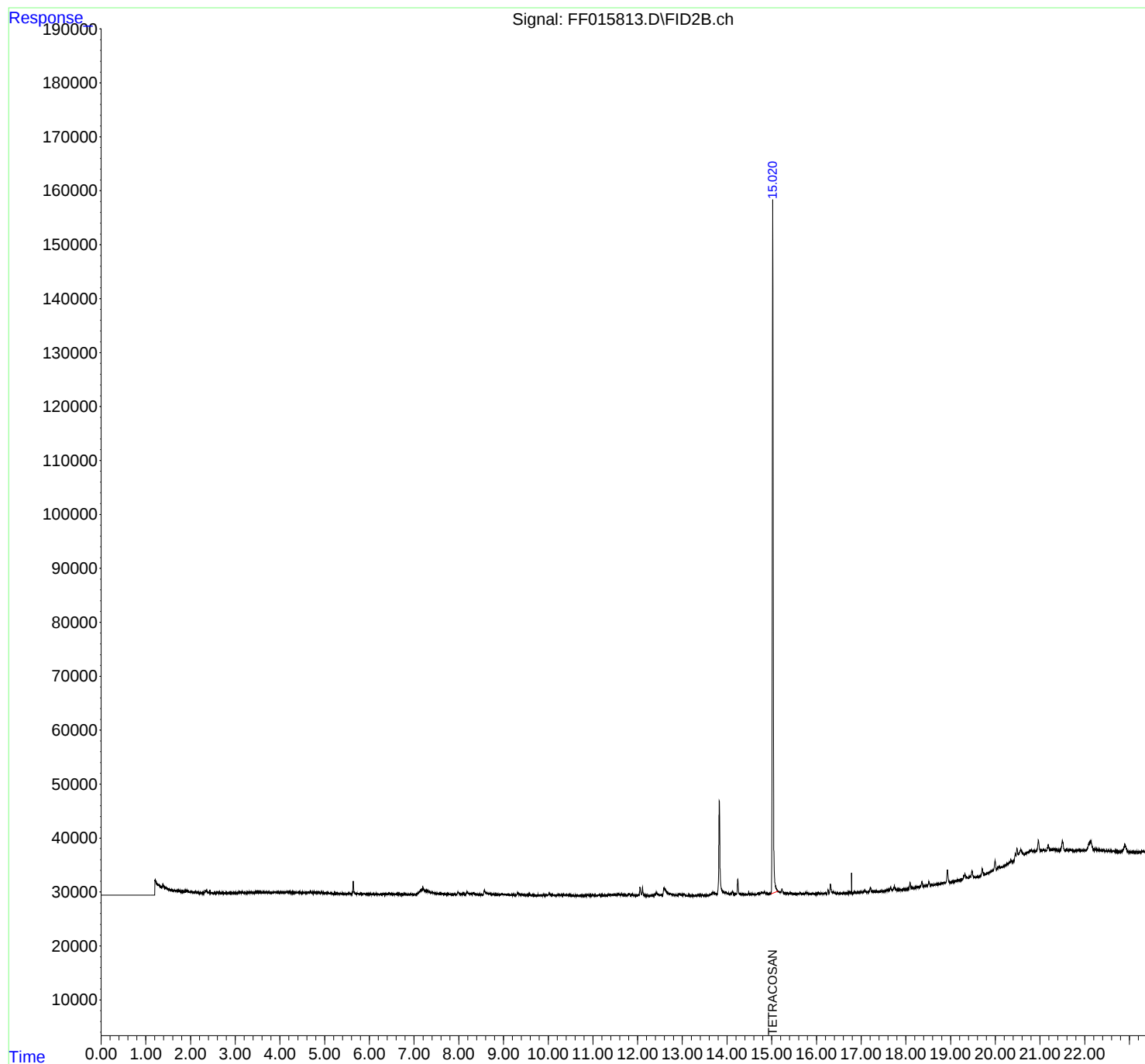
(m)=manual int.

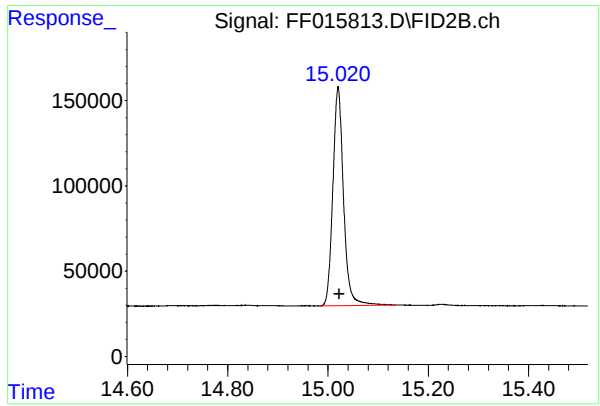
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF050825\
Data File : FF015813.D
Signal(s) : FID2B.ch
Acq On : 08 May 2025 13:59
Operator : YP\AJ
Sample : Q1956-07
Misc :
ALS Vial : 74 Sample Multiplier: 1

Instrument :
FID_F
ClientSampleId :
FB-05022025

Integration File: autoint1.e
Quant Time: May 09 01:55:53 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF042225.M
Quant Title :
QLast Update : Tue Apr 22 11:27:50 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal Phase : Rxi-1ms
Signal Info : 20mx0.18mmx0.18um





#9 TETRACOSANE-d50 (SURROGATE)

R.T.: 15.020 min
Delta R.T.: -0.002 min
Response: 1897361
Conc: 16.81 ug/ml

Instrument :
FID_F
ClientSampleId :
FB-05022025

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF050825\
Data File : FF015813.D
Signal(s) : FID2B.ch
Acq On : 08 May 2025 13:59
Sample : Q1956-07
Misc :
ALS Vial : 74 Sample Multiplier: 1

Integration File: Sample.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF042225.M
Title :

Signal : FID2B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	4.044	4.000	4.055	BV	139	1726	0.09%	0.044%
2	4.066	4.055	4.071	VV	94	507	0.03%	0.013%
3	4.073	4.071	4.088	VV	105	759	0.04%	0.019%
4	4.102	4.088	4.107	VV	138	797	0.04%	0.020%
5	4.153	4.107	4.161	VV	221	4396	0.22%	0.111%
6	4.164	4.161	4.193	VV	168	2493	0.13%	0.063%
7	4.217	4.193	4.250	VV	199	4403	0.22%	0.111%
8	4.255	4.250	4.275	VV	163	1487	0.08%	0.038%
9	4.281	4.275	4.313	VV	164	2277	0.12%	0.057%
10	4.322	4.313	4.329	VV	176	1140	0.06%	0.029%
11	4.340	4.329	4.362	VV	157	2257	0.12%	0.057%
12	4.366	4.362	4.378	VV	193	1198	0.06%	0.030%
13	4.384	4.378	4.391	VV	142	947	0.05%	0.024%
14	4.396	4.391	4.408	VV	169	1434	0.07%	0.036%
15	4.411	4.408	4.438	VV	173	2546	0.13%	0.064%
16	4.442	4.438	4.473	VV	164	2836	0.14%	0.072%
17	4.509	4.473	4.520	VV	221	3142	0.16%	0.079%
18	4.526	4.520	4.532	VV	163	880	0.04%	0.022%
19	4.541	4.532	4.547	VV	174	1235	0.06%	0.031%
20	4.551	4.547	4.570	VV	182	1542	0.08%	0.039%
21	4.573	4.570	4.578	VV	135	582	0.03%	0.015%
22	4.589	4.578	4.595	VV	141	1087	0.06%	0.027%
23	4.614	4.595	4.624	VV	192	2485	0.13%	0.063%
24	4.634	4.624	4.662	VV	212	3006	0.15%	0.076%
25	4.684	4.662	4.707	VV	393	6160	0.31%	0.155%
26	4.711	4.707	4.726	VV	202	1993	0.10%	0.050%
27	4.731	4.726	4.747	VV	173	1813	0.09%	0.046%
28	4.771	4.747	4.776	VV	271	2950	0.15%	0.074%
29	4.779	4.776	4.794	VV	222	2143	0.11%	0.054%
30	4.829	4.794	4.837	VV	279	5306	0.27%	0.134%
31	4.840	4.837	4.848	VV	243	1365	0.07%	0.034%
32	4.855	4.848	4.867	VV	247	2287	0.12%	0.058%
33	4.883	4.867	4.902	VV	303	4903	0.25%	0.124%
34	4.917	4.902	4.920	VV	238	2027	0.10%	0.051%
35	4.924	4.920	4.936	VV	230	1596	0.08%	0.040%
36	4.942	4.936	4.948	VV	184	1097	0.06%	0.028%

					rteres			
37	4.960	4.948	4.964	VV	213	1609	0.08%	0.041%
38	4.970	4.964	4.993	VV	174	2610	0.13%	0.066%
39	4.996	4.993	5.003	VV	147	938	0.05%	0.024%
40	5.014	5.003	5.026	VV	212	2332	0.12%	0.059%
41	5.029	5.026	5.042	VV	195	1377	0.07%	0.035%
42	5.050	5.042	5.058	VV	165	1201	0.06%	0.030%
43	5.062	5.058	5.078	VV	214	1399	0.07%	0.035%
44	5.082	5.078	5.095	VV	170	1062	0.05%	0.027%
45	5.098	5.095	5.104	VV	109	470	0.02%	0.012%
46	5.110	5.104	5.114	VV	117	520	0.03%	0.013%
47	5.125	5.114	5.132	VV	123	962	0.05%	0.024%
48	5.137	5.132	5.174	VV	125	1971	0.10%	0.050%
49	5.182	5.174	5.186	VV	149	674	0.03%	0.017%
50	5.190	5.186	5.199	VV	100	594	0.03%	0.015%
51	5.215	5.199	5.241	VV	174	2470	0.13%	0.062%
52	5.250	5.241	5.257	VV	170	673	0.03%	0.017%
53	5.260	5.257	5.269	VV	104	547	0.03%	0.014%
54	5.273	5.269	5.279	VV	103	509	0.03%	0.013%
55	5.282	5.279	5.287	VV	128	407	0.02%	0.010%
56	5.289	5.287	5.295	VV	151	342	0.02%	0.009%
57	5.300	5.295	5.317	VV	117	962	0.05%	0.024%
58	5.320	5.317	5.324	VV	107	346	0.02%	0.009%
59	5.340	5.324	5.348	VV	161	1384	0.07%	0.035%
60	5.356	5.348	5.373	VV	104	1308	0.07%	0.033%
61	5.378	5.373	5.398	VV	152	1154	0.06%	0.029%
62	5.407	5.398	5.419	VV	118	950	0.05%	0.024%
63	5.427	5.419	5.441	VV	116	763	0.04%	0.019%
64	5.464	5.441	5.478	VV	130	1220	0.06%	0.031%
65	5.483	5.478	5.488	VV	68	411	0.02%	0.010%
66	5.493	5.488	5.504	PV	71	477	0.02%	0.012%
67	5.519	5.504	5.539	VV	211	2901	0.15%	0.073%
68	5.553	5.539	5.583	VV	201	2872	0.15%	0.072%
69	5.587	5.583	5.592	VV	107	605	0.03%	0.015%
70	5.600	5.592	5.615	VV	187	1650	0.08%	0.042%
71	5.640	5.615	5.701	VV	2434	32049	1.64%	0.809%
72	5.722	5.701	5.727	VV	161	1642	0.08%	0.041%
73	5.732	5.727	5.752	VV	174	1995	0.10%	0.050%
74	5.759	5.752	5.775	VV	158	1345	0.07%	0.034%
75	5.788	5.775	5.803	VV	152	1741	0.09%	0.044%
76	5.808	5.803	5.815	VV	219	936	0.05%	0.024%
77	5.818	5.815	5.831	VV	332	884	0.05%	0.022%
78	5.833	5.831	5.845	VV	119	697	0.04%	0.018%
79	5.848	5.845	5.858	VV	146	722	0.04%	0.018%
80	5.860	5.858	5.868	VV	125	380	0.02%	0.010%
81	5.872	5.868	5.879	VV	163	805	0.04%	0.020%
82	5.886	5.879	5.901	VV	161	1306	0.07%	0.033%
83	5.906	5.901	5.913	VV	167	607	0.03%	0.015%
84	5.917	5.913	5.928	VV	124	726	0.04%	0.018%
85	5.930	5.928	5.936	VV	117	322	0.02%	0.008%
86	5.949	5.936	5.965	VV	191	1645	0.08%	0.042%
87	5.970	5.965	5.989	VV	131	1158	0.06%	0.029%
88	6.000	5.989	6.011	VV	187	1091	0.06%	0.028%
89	6.014	6.011	6.017	VV	87	333	0.02%	0.008%

					rteres			
90	6.021	6.017	6.040	VV	154	1111	0.06%	0.028%
91	6.043	6.040	6.053	PV	127	691	0.04%	0.017%
92	6.059	6.053	6.064	VV	145	580	0.03%	0.015%
93	6.073	6.064	6.078	VV	170	776	0.04%	0.020%
94	6.081	6.078	6.096	VV	147	1021	0.05%	0.026%
95	6.099	6.096	6.129	VV	104	1399	0.07%	0.035%
96	6.141	6.129	6.153	VV	184	1191	0.06%	0.030%
97	6.178	6.153	6.224	VV	160	3306	0.17%	0.083%
98	6.235	6.224	6.242	VV	109	639	0.03%	0.016%
99	6.257	6.242	6.295	PV	135	2520	0.13%	0.064%
100	6.301	6.295	6.309	VV	121	703	0.04%	0.018%
101	6.332	6.309	6.345	VV	185	2605	0.13%	0.066%
102	6.356	6.345	6.386	VV	177	3092	0.16%	0.078%
103	6.389	6.386	6.400	VV	142	929	0.05%	0.023%
104	6.407	6.400	6.418	VV	185	1324	0.07%	0.033%
105	6.444	6.418	6.472	VV	448	7579	0.39%	0.191%
106	6.486	6.472	6.494	VV	210	2358	0.12%	0.059%
107	6.499	6.494	6.503	VV	195	952	0.05%	0.024%
108	6.508	6.503	6.571	VV	236	5875	0.30%	0.148%
109	6.622	6.571	6.740	VV	230	13118	0.67%	0.331%
110	6.777	6.740	6.787	VV	167	2625	0.13%	0.066%
111	6.798	6.787	6.840	VV	134	3044	0.16%	0.077%
112	6.852	6.840	6.874	VV	130	2054	0.10%	0.052%
113	6.880	6.874	6.890	VV	140	850	0.04%	0.021%
114	6.916	6.890	6.957	VV	228	5277	0.27%	0.133%
115	6.968	6.957	6.989	VV	185	2201	0.11%	0.056%
116	7.000	6.989	7.056	VV	290	4144	0.21%	0.105%
117	7.203	7.056	7.254	VV	1329	90063	4.60%	2.272%
118	7.262	7.254	7.285	VV	803	14013	0.72%	0.354%
119	7.306	7.285	7.475	VV	759	57164	2.92%	1.442%
120	7.484	7.475	7.514	VV	404	7371	0.38%	0.186%
121	7.517	7.514	7.549	VV	342	5884	0.30%	0.148%
122	7.558	7.549	7.576	VV	297	4261	0.22%	0.108%
123	7.590	7.576	7.642	VV	297	10094	0.52%	0.255%
124	7.658	7.642	7.718	VV	250	9032	0.46%	0.228%
125	7.727	7.718	7.752	VV	191	3489	0.18%	0.088%
126	7.759	7.752	7.797	VV	160	4696	0.24%	0.118%
127	7.806	7.797	7.830	VV	234	3099	0.16%	0.078%
128	7.861	7.830	7.916	VV	196	7844	0.40%	0.198%
129	7.924	7.916	7.935	VV	154	1505	0.08%	0.038%
130	7.985	7.935	8.039	VV	574	18296	0.93%	0.462%
131	8.100	8.039	8.142	VV	422	14221	0.73%	0.359%
132	8.185	8.142	8.291	VV	682	30838	1.58%	0.778%
133	8.321	8.291	8.358	VV	493	14413	0.74%	0.364%
134	8.368	8.358	8.452	VV	321	12018	0.61%	0.303%
135	8.481	8.452	8.537	VV	194	7081	0.36%	0.179%
136	8.572	8.537	8.758	VV	911	50904	2.60%	1.284%
137	8.780	8.758	8.795	VV	217	3983	0.20%	0.100%
138	8.819	8.795	8.856	VV	197	5697	0.29%	0.144%
139	8.876	8.856	8.934	VV	187	7495	0.38%	0.189%
140	8.954	8.934	8.989	VV	306	7791	0.40%	0.197%
141	9.013	8.989	9.049	VV	270	7243	0.37%	0.183%

					rteres			
142	9.086	9.049	9.109	VV	214	6328	0.32%	0.160%
143	9.128	9.109	9.153	VV	215	4605	0.24%	0.116%
144	9.167	9.153	9.224	VV	183	5460	0.28%	0.138%
145	9.250	9.224	9.280	VV	171	4144	0.21%	0.105%
146	9.317	9.280	9.372	VV	531	15402	0.79%	0.389%
147	9.387	9.372	9.415	VV	264	5504	0.28%	0.139%
148	9.424	9.415	9.483	VV	228	5890	0.30%	0.149%
149	9.497	9.483	9.535	VV	108	2933	0.15%	0.074%
150	9.574	9.535	9.645	VV	337	9558	0.49%	0.241%
151	9.680	9.645	9.694	VV	97	2305	0.12%	0.058%
152	9.705	9.694	9.745	VV	112	2406	0.12%	0.061%
153	9.750	9.745	9.780	VV	71	1462	0.07%	0.037%
154	9.813	9.780	9.820	VV	91	1573	0.08%	0.040%
155	9.832	9.820	9.845	VV	93	1112	0.06%	0.028%
156	9.852	9.845	9.885	VV	142	2395	0.12%	0.060%
157	9.891	9.885	9.918	VV	136	2067	0.11%	0.052%
158	9.929	9.918	9.958	VV	185	3554	0.18%	0.090%
159	9.979	9.958	9.990	VV	181	2944	0.15%	0.074%
160	10.021	9.990	10.064	VV	477	12369	0.63%	0.312%
161	10.075	10.064	10.145	VV	214	6405	0.33%	0.162%
162	10.159	10.145	10.201	VV	147	3692	0.19%	0.093%
163	10.232	10.201	10.271	VV	203	6702	0.34%	0.169%
164	10.278	10.271	10.300	VV	189	2574	0.13%	0.065%
165	10.311	10.300	10.318	VV	175	1682	0.09%	0.042%
166	10.326	10.318	10.331	VV	164	1272	0.07%	0.032%
167	10.338	10.331	10.379	VV	167	4720	0.24%	0.119%
168	10.395	10.379	10.451	VV	223	7266	0.37%	0.183%
169	10.456	10.451	10.507	VV	199	4240	0.22%	0.107%
170	10.522	10.507	10.541	VV	122	2047	0.10%	0.052%
171	10.553	10.541	10.661	VV	67	4694	0.24%	0.118%
172	10.682	10.661	10.701	PV	67	1532	0.08%	0.039%
173	10.737	10.701	10.778	VV	175	4016	0.21%	0.101%
174	10.820	10.778	10.840	VV	101	3148	0.16%	0.079%
175	10.883	10.840	10.938	VV	292	8140	0.42%	0.205%
176	10.975	10.938	11.039	VV	170	7208	0.37%	0.182%
177	11.055	11.039	11.090	VV	99	2755	0.14%	0.070%
178	11.139	11.090	11.245	VV	198	11693	0.60%	0.295%
179	11.281	11.245	11.297	VV	149	3849	0.20%	0.097%
180	11.344	11.297	11.385	VV	203	9381	0.48%	0.237%
181	11.397	11.385	11.416	VV	250	4023	0.21%	0.102%
182	11.444	11.416	11.518	VV	274	13040	0.67%	0.329%
183	11.574	11.518	11.612	VV	433	16102	0.82%	0.406%
184	11.640	11.612	11.695	VV	303	11874	0.61%	0.300%
185	11.727	11.695	11.765	VV	183	6502	0.33%	0.164%
186	11.808	11.765	11.855	VV	426	12180	0.62%	0.307%
187	11.881	11.855	11.968	VV	351	10678	0.55%	0.269%
188	12.054	11.968	12.091	VV	1582	32814	1.68%	0.828%
189	12.111	12.091	12.263	VV	1497	25966	1.33%	0.655%
190	12.326	12.263	12.353	VV	103	3091	0.16%	0.078%
191	12.421	12.353	12.550	VV	596	29158	1.49%	0.736%
192	12.590	12.550	12.892	VV	1428	101785	5.20%	2.568%
193	12.931	12.892	12.981	VV	488	13348	0.68%	0.337%
194	13.040	12.981	13.118	VV	377	12005	0.61%	0.303%

					rterres				
195	13.149	13.118	13.205	VV	184	3549	0.18%	0.090%	
196	13.249	13.205	13.318	PV	96	2695	0.14%	0.068%	
197	13.387	13.318	13.425	VV	120	5174	0.26%	0.131%	
198	13.447	13.425	13.501	VV	133	3799	0.19%	0.096%	
199	13.543	13.501	13.575	VV	89	3550	0.18%	0.090%	
200	13.592	13.575	13.605	VV	115	1538	0.08%	0.039%	
201	13.690	13.605	13.781	VV	614	37085	1.90%	0.936%	
202	13.827	13.781	13.951	VV	17549	335862	17.16%	8.474%	
203	13.978	13.951	14.071	VV	662	28924	1.48%	0.730%	
204	14.124	14.071	14.190	VV	752	25762	1.32%	0.650%	
205	14.239	14.190	14.435	VV	2944	66106	3.38%	1.668%	
206	14.439	14.435	14.457	VV	171	1715	0.09%	0.043%	
207	14.487	14.457	14.530	VV	454	9188	0.47%	0.232%	
208	14.561	14.530	14.632	VV	188	8498	0.43%	0.214%	
209	14.690	14.632	14.733	VV	362	13308	0.68%	0.336%	
210	14.773	14.733	14.808	VV	482	16678	0.85%	0.421%	
211	14.838	14.808	14.931	VV	527	24897	1.27%	0.628%	
212	14.959	14.931	14.978	VV	265	5734	0.29%	0.145%	
213	15.020	14.978	15.198	VV	128551	1956869	100.00%	49.374%	
214	15.227	15.198	15.364	VV	1103	42537	2.17%	1.073%	
215	15.427	15.364	15.525	VV	369	18213	0.93%	0.460%	
216	15.541	15.525	15.565	VV	126	2163	0.11%	0.055%	
217	15.634	15.565	15.685	VV	386	11516	0.59%	0.291%	
218	15.788	15.685	15.881	VV	345	14891	0.76%	0.376%	
219	15.911	15.881	15.991	VV	167	6585	0.34%	0.166%	
220	16.049	15.991	16.141	PV	294	9654	0.49%	0.244%	
221	16.181	16.141	16.218	VV	131	3878	0.20%	0.098%	
222	16.257	16.218	16.283	VV	684	13006	0.66%	0.328%	
223	16.313	16.283	16.361	VV	1805	36329	1.86%	0.917%	
224	16.380	16.361	16.503	VV	415	12514	0.64%	0.316%	
225	16.541	16.503	16.570	VV	105	1635	0.08%	0.041%	
226	16.612	16.570	16.672	PV	90	2602	0.13%	0.066%	
227	16.693	16.672	16.711	VV	91	1302	0.07%	0.033%	
228	16.741	16.711	16.815	VV	271	8681	0.44%	0.219%	
229	16.849	16.815	16.885	PV	295	5973	0.31%	0.151%	
230	16.912	16.885	16.958	VV	154	4153	0.21%	0.105%	
231	17.001	16.958	17.028	VV	149	3866	0.20%	0.098%	
232	17.084	17.028	17.141	VV	445	11157	0.57%	0.282%	
233	17.206	17.141	17.279	VV	913	19709	1.01%	0.497%	
234	17.294	17.279	17.325	VV	119	1699	0.09%	0.043%	
235	17.484	17.325	17.503	PV	77	4471	0.23%	0.113%	
236	17.657	17.503	17.705	PV	542	17801	0.91%	0.449%	
237	17.741	17.705	17.791	VV	728	15489	0.79%	0.391%	
238	17.825	17.791	17.901	VV	144	3563	0.18%	0.090%	
239	18.093	17.901	18.145	PV	1124	18107	0.93%	0.457%	
				Sum of corrected areas:		3963339			

FF042225.M Fri May 09 03:26:34 2025



CALIBRATION SUMMARY

DIESEL RANGE ORGANICS INITIAL CALIBRATION SUMMARY

Lab Name: Chemtech Contract: CAMP02
 ProjectID: Bergen Point Fueling System
 Lab Code: CHEM Case No.: Q1956 SAS No.: Q1956 SDG No.: Q1956

Calibration Sequence : FF042225			Test : Diesel Range Organics	
Concentration	(PPM)	Area Count	Reference Factor	File ID
1000		116059922	116060	FF015786.D
500		58079559	116159	FF015787.D
200		21235975	106180	FF015788.D
100		11342548	113425	FF015789.D
50		7274526	145491	FF015790.D
AVG RF : 119463			% RSD : 12.646	AVG RT : 15.02

DIESEL RANGE ORGANICS INITIAL CALIBRATION SUMMARY

Lab Name: Chemtech Contract: CAMP02
 ProjectID: Bergen Point Fueling System
 Lab Code: CHEM Case No.: Q1956 SAS No.: Q1956 SDG No.: Q1956

Calibration Sequence : FG042425			Test : Diesel Range Organics	
Concentration	(PPM)	Area Count	Reference Factor	File ID
1000		122641169	122641	FG015756.D
500		64139521	128279	FG015757.D
200		25210755	126054	FG015758.D
100		13317775	133178	FG015759.D
50		6223650	124473	FG015760.D
AVG RF : 126925			% RSD : 3.202	AVG RT : 15.0012

DIESEL RANGE ORGANICS CONTINUING CALIBRATION SUMMARY

50 PPM TRPH STD

Lab Name: Chemtech Contract: CAMP02
ProjectID: Bergen Point Fueling System
Lab Code: CHEM Case No.: Q1956 SAS No.: Q1956 SDG No.: Q1956
DataFile: FF015808.D Analyst Name: YP\AJ Analyst Date: 05-08-2025

Conc. (PPM)	Area Count	RF	Average RF	%D
500	59895976	119792	119463	0.275

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF050825\
 Data File : FF015808.D
 Signal(s) : FID2B.ch
 Acq On : 08 May 2025 09:49
 Operator : YP\AJ
 Sample : 50 PPM TRPH STD
 Misc :
 ALS Vial : 53 Sample Multiplier: 1

Instrument :
 FID_F
 ClientSampleId :
 50 PPM TRPH STD

Integration File: autoint1.e
 Quant Time: May 09 01:54:04 2025
 Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF042225.M
 Quant Title :
 QLast Update : Tue Apr 22 11:27:50 2025
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1uL
 Signal Phase : Rxi-1ms
 Signal Info : 20mx0.18mmx0.18um

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
9) S TETRACOSANE-d50 (SURR...	15.021	5550829	49.189 ug/ml
Target Compounds			
2) N-DECANE	4.563	5572464	54.608 ug/ml
3) N-DODECANE	6.732	5843767	53.370 ug/ml
4) N-TETRADECANE	8.559	5878853	50.934 ug/ml
5) N-HEXADECANE	10.166	5968554	50.573 ug/ml
6) N-OCTADECANE	11.610	6188327	49.193 ug/ml
7) N-EICOSANE	12.921	6198494	47.514 ug/ml
8) N-DOCOSANE	14.120	6119628	48.043 ug/ml
10) N-TETRACOSANE	15.224	6111406	48.585 ug/ml
11) N-HEXACOSANE	16.246	6015514	49.349 ug/ml
12) N-OCTACOSANE	17.198	5998969	50.697 ug/ml

(f)=RT Delta > 1/2 Window

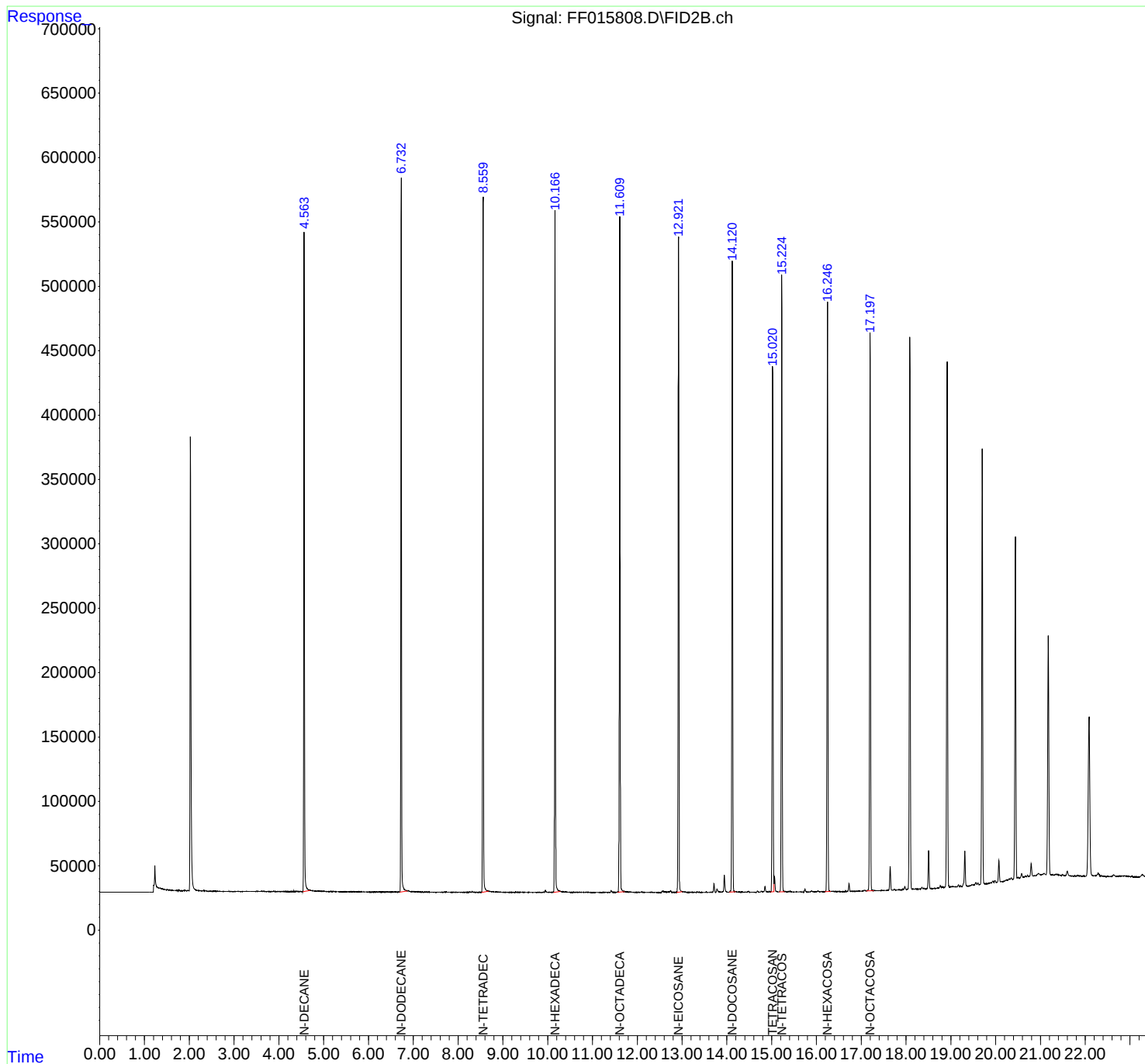
(m)=manual int.

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF050825\
Data File : FF015808.D
Signal(s) : FID2B.ch
Acq On : 08 May 2025 09:49
Operator : YP\AJ
Sample : 50 PPM TRPH STD
Misc :
ALS Vial : 53 Sample Multiplier: 1

Instrument :
FID_F
ClientSampleId :
50 PPM TRPH STD

Integration File: autoint1.e
Quant Time: May 09 01:54:04 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF042225.M
Quant Title :
QLast Update : Tue Apr 22 11:27:50 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal Phase : Rxi-1ms
Signal Info : 20mx0.18mmx0.18um



rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF050825\
Data File : FF015808.D
Signal(s) : FID2B.ch
Acq On : 08 May 2025 09:49
Sample : 50 PPM TRPH STD
Misc :
ALS Vial : 53 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF042225.M
Title :

Signal : FID2B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	4.563	4.532	4.699	BB	511203	5572464	89.90%	8.514%
2	6.732	6.695	6.870	BB	554382	5843767	94.28%	8.929%
3	8.559	8.525	8.684	BB	539552	5878853	94.84%	8.983%
4	10.166	10.132	10.284	BB	528231	5968554	96.29%	9.120%
5	11.610	11.572	11.720	BB	523435	6188327	99.84%	9.456%
6	12.921	12.877	13.009	BB	507914	6198494	100.00%	9.471%
7	14.120	14.052	14.197	BB	489944	6119628	98.73%	9.351%
8	15.021	14.975	15.051	BV	407463	5550829	89.55%	8.481%
9	15.224	15.160	15.287	BB	478500	6111406	98.60%	9.338%
10	16.246	16.189	16.319	BB	457082	6015514	97.05%	9.191%
11	17.198	17.114	17.272	BV	433085	5998969	96.78%	9.166%
Sum of corrected areas:						65446803		

FF042225.M Fri May 09 03:20:37 2025

DIESEL RANGE ORGANICS CONTINUING CALIBRATION SUMMARY

50 PPM TRPH STD

Lab Name: Chemtech Contract: CAMP02
ProjectID: Bergen Point Fueling System
Lab Code: CHEM Case No.: Q1956 SAS No.: Q1956 SDG No.: Q1956
DataFile: FF015815.D Analyst Name: YP\AJ Analyst Date: 05-08-2025

Conc. (PPM)	Area Count	RF	Average RF	%D
500	58802434	117605	119463	1.555

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF050825\
 Data File : FF015815.D
 Signal(s) : FID2B.ch
 Acq On : 08 May 2025 14:58
 Operator : YP\AJ
 Sample : 50 PPM TRPH STD
 Misc :
 ALS Vial : 53 Sample Multiplier: 1

Instrument :
 FID_F
 ClientSampleId :
 50 PPM TRPH STD

Integration File: autoint1.e
 Quant Time: May 09 01:56:25 2025
 Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF042225.M
 Quant Title :
 QLast Update : Tue Apr 22 11:27:50 2025
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1uL
 Signal Phase : Rxi-1ms
 Signal Info : 20mx0.18mmx0.18um

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
9) S TETRACOSANE-d50 (SURR...	15.021	5463312	48.413 ug/ml
Target Compounds			
2) N-DECANE	4.563	5446842	53.377 ug/ml
3) N-DODECANE	6.732	5706679	52.118 ug/ml
4) N-TETRADECANE	8.559	5740082	49.732 ug/ml
5) N-HEXADECANE	10.167	5860899	49.660 ug/ml
6) N-OCTADECANE	11.611	6086282	48.382 ug/ml
7) N-EICOSANE	12.921	6098507	46.747 ug/ml
8) N-DOCOSANE	14.120	6031099	47.348 ug/ml
10) N-TETRACOSANE	15.225	6011621	47.792 ug/ml
11) N-HEXACOSANE	16.247	5911326	48.494 ug/ml
12) N-OCTACOSANE	17.198	5909097	49.937 ug/ml

(f)=RT Delta > 1/2 Window

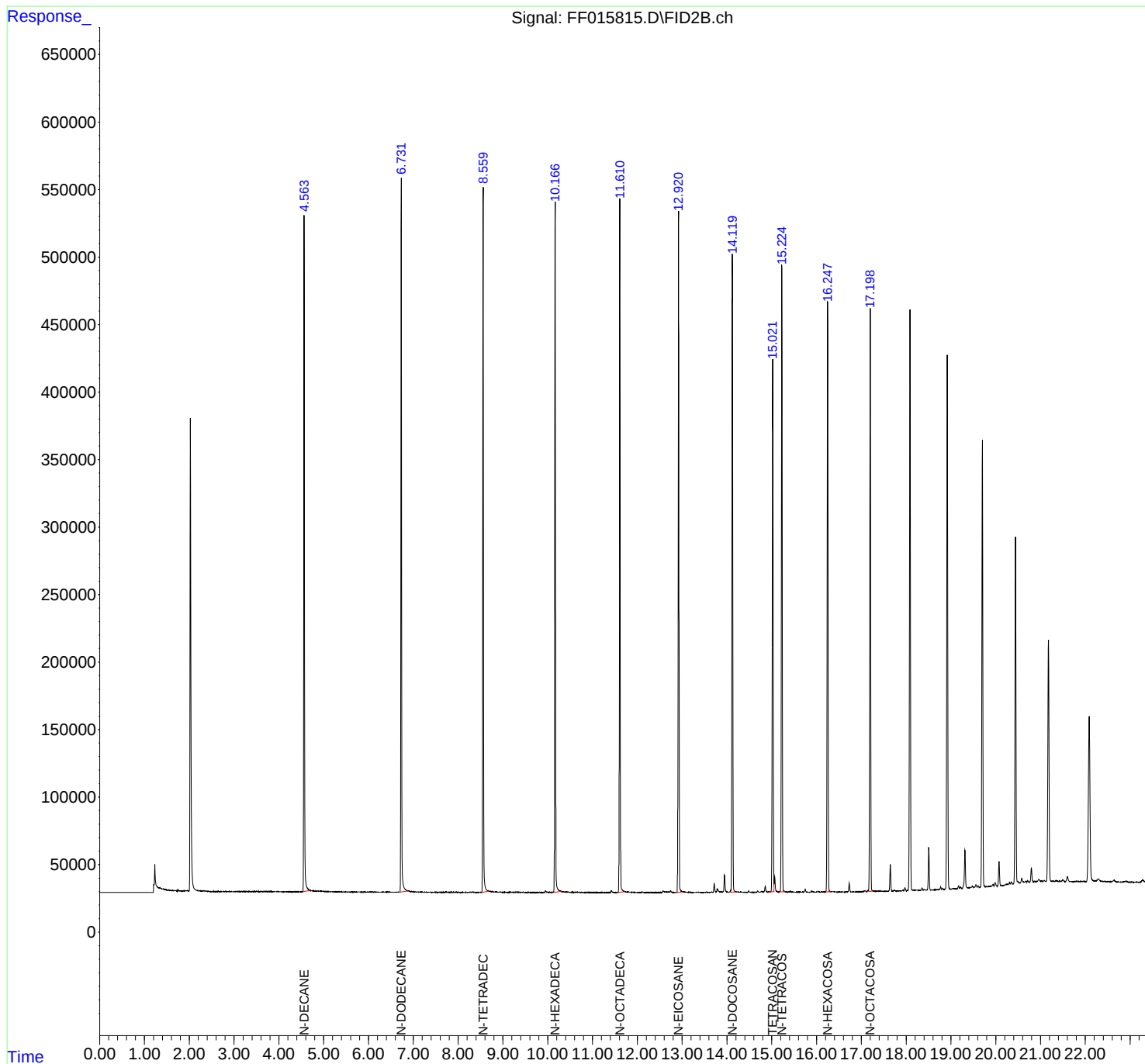
(m)=manual int.

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF050825\
Data File : FF015815.D
Signal(s) : FID2B.ch
Acq On : 08 May 2025 14:58
Operator : YP\AJ
Sample : 50 PPM TRPH STD
Misc :
ALS Vial : 53 Sample Multiplier: 1

Instrument :
FID_F
ClientSampleId :
50 PPM TRPH STD

Integration File: autoint1.e
Quant Time: May 09 01:56:25 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF042225.M
Quant Title :
QLast Update : Tue Apr 22 11:27:50 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal Phase : Rxi-1ms
Signal Info : 20mx0.18mmx0.18um



rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF050825\
Data File : FF015815.D
Signal(s) : FID2B.ch
Acq On : 08 May 2025 14:58
Sample : 50 PPM TRPH STD
Misc :
ALS Vial : 53 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF042225.M
Title :

Signal : FID2B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	4.563	4.529	4.709	BB	499587	5446842	89.31%	8.475%
2	6.732	6.697	6.882	BB	528797	5706679	93.58%	8.880%
3	8.559	8.525	8.682	BB	522640	5740082	94.12%	8.932%
4	10.167	10.132	10.305	BB	510179	5860899	96.10%	9.120%
5	11.611	11.572	11.727	BB	513518	6086282	99.80%	9.470%
6	12.921	12.880	13.024	BB	503267	6098507	100.00%	9.490%
7	14.120	14.052	14.224	BB	473229	6031099	98.89%	9.385%
8	15.021	14.932	15.052	BV	394506	5463312	89.58%	8.501%
9	15.225	15.170	15.307	BB	462598	6011621	98.58%	9.354%
10	16.247	16.195	16.322	BB	437614	5911326	96.93%	9.198%
11	17.198	17.130	17.274	BB	432209	5909097	96.89%	9.195%
Sum of corrected areas:						64265745		

FF042225.M Fri May 09 03:24:17 2025

DIESEL RANGE ORGANICS CONTINUING CALIBRATION SUMMARY

50 PPM TRPH STD

Lab Name: Chemtech Contract: CAMP02
ProjectID: Bergen Point Fueling System
Lab Code: CHEM Case No.: Q1956 SAS No.: Q1956 SDG No.: Q1956
DataFile: FG015818.D Analyst Name: YP\AJ Analyst Date: 05-13-2025

Conc. (PPM)	Area Count	RF	Average RF	%D
500	60476877	120954	126925	4.704

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG051325\
 Data File : FG015818.D
 Signal(s) : FID1A.ch
 Acq On : 13 May 2025 11:40
 Operator : YP\AJ
 Sample : 50 PPM TRPH STD
 Misc :
 ALS Vial : 3 Sample Multiplier: 1

Instrument :
 FID_G
 ClientSampleId :
 50 PPM TRPH STD

Integration File: autoint1.e
 Quant Time: May 14 03:54:24 2025
 Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG042425.M
 Quant Title :
 QLast Update : Thu Apr 24 12:54:09 2025
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1uL
 Signal Phase : Rxi-1ms
 Signal Info : 20mx0.18mmx0.18um

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
9) S TETRACOSANE-d50 (SURR...	14.998	5482459	46.565 ug/ml
Target Compounds			
2) N-DECANE	4.499	5351365	48.066 ug/ml
3) N-DODECANE	6.681	5643937	49.248 ug/ml
4) N-TETRADECANE	8.517	5889484	48.604 ug/ml
5) N-HEXADECANE	10.131	6050592	48.196 ug/ml
6) N-OCTADECANE	11.579	6240717	47.620 ug/ml
7) N-EICOSANE	12.895	6359506	46.907 ug/ml
8) N-DOCOSANE	14.097	6209146	46.816 ug/ml
10) N-TETRACOSANE	15.204	6232751	46.903 ug/ml
11) N-HEXACOSANE	16.228	6221359	46.911 ug/ml
12) N-OCTACOSANE	17.181	6278020	47.621 ug/ml

(f)=RT Delta > 1/2 Window

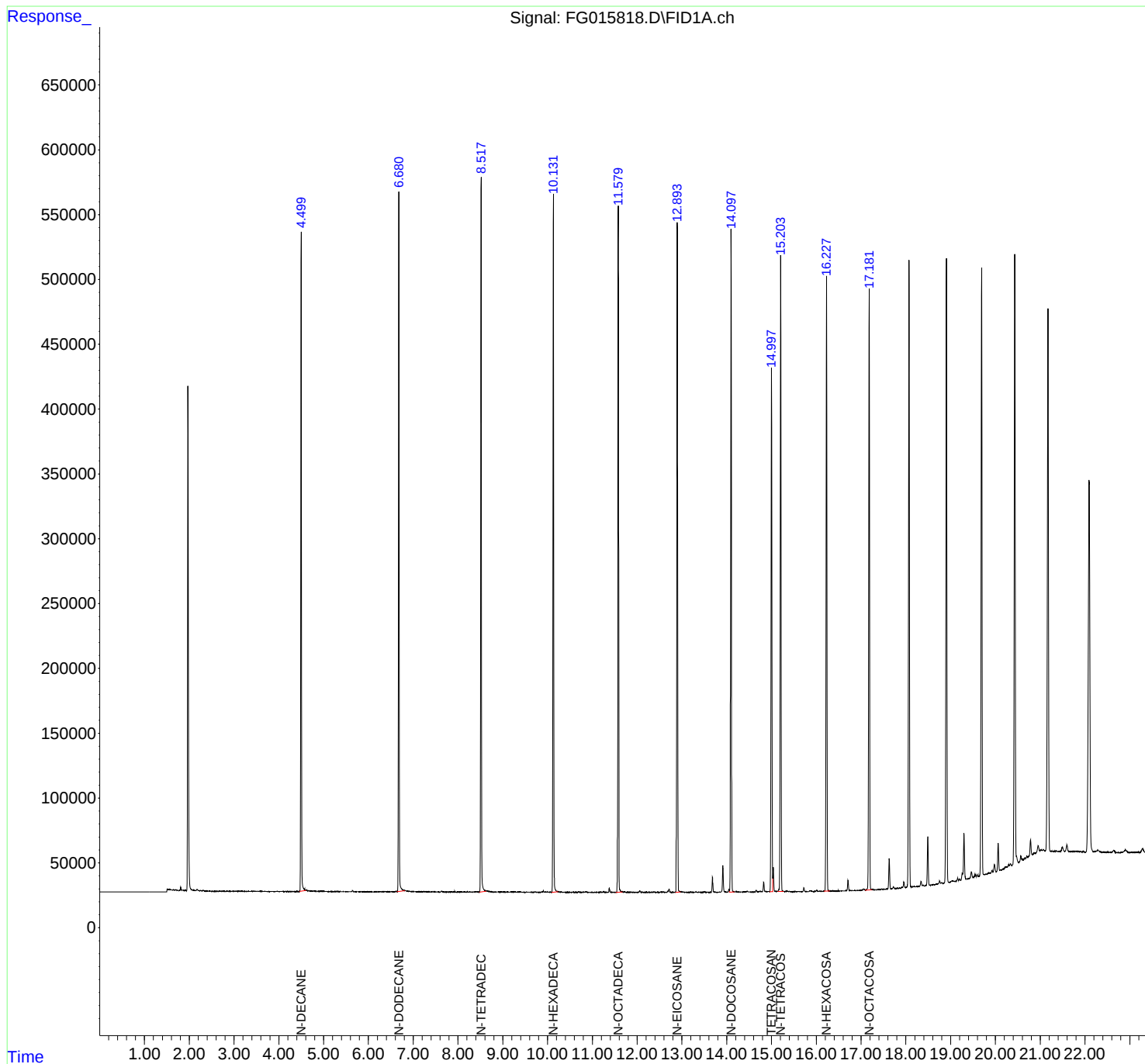
(m)=manual int.

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG051325\
Data File : FG015818.D
Signal(s) : FID1A.ch
Acq On : 13 May 2025 11:40
Operator : YP\AJ
Sample : 50 PPM TRPH STD
Misc :
ALS Vial : 3 Sample Multiplier: 1

Instrument :
FID_G
ClientSampleId :
50 PPM TRPH STD

Integration File: autoint1.e
Quant Time: May 14 03:54:24 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG042425.M
Quant Title :
QLast Update : Thu Apr 24 12:54:09 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal Phase : Rxi-1ms
Signal Info : 20mx0.18mmx0.18um



rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG051325\
Data File : FG015818.D
Signal(s) : FID1A.ch
Acq On : 13 May 2025 11:40
Sample : 50 PPM TRPH STD
Misc :
ALS Vial : 3 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG042425.M
Title :

Signal : FID1A.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	4.499	4.458	4.609	BB	508368	5351365	84.15%	8.113%
2	6.681	6.637	6.817	BB	538048	5643937	88.75%	8.557%
3	8.517	8.476	8.631	BV	550429	5889484	92.61%	8.929%
4	10.131	10.089	10.239	BB	536692	6050592	95.14%	9.173%
5	11.579	11.530	11.671	BB	529210	6240717	98.13%	9.461%
6	12.895	12.854	12.973	BB	514140	6359506	100.00%	9.642%
7	14.097	14.061	14.172	VB	510628	6209146	97.64%	9.414%
8	14.998	14.956	15.026	BV	398999	5482459	86.21%	8.312%
9	15.204	15.135	15.272	BB	489489	6232751	98.01%	9.449%
10	16.228	16.167	16.295	BB	472998	6221359	97.83%	9.432%
11	17.181	17.096	17.250	BB	462352	6278020	98.72%	9.518%
Sum of corrected areas:						65959334		

FG042425.M Wed May 14 05:05:25 2025

DIESEL RANGE ORGANICS CONTINUING CALIBRATION SUMMARY

50 PPM TRPH STD

Lab Name: Chemtech Contract: CAMP02
ProjectID: Bergen Point Fueling System
Lab Code: CHEM Case No.: Q1956 SAS No.: Q1956 SDG No.: Q1956
DataFile: FG015825.D Analyst Name: YP\AJ Analyst Date: 05-13-2025

Conc. (PPM)	Area Count	RF	Average RF	%D
500	62796625	125593	126925	1.049

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG051325\
 Data File : FG015825.D
 Signal(s) : FID1A.ch
 Acq On : 13 May 2025 16:53
 Operator : YP\AJ
 Sample : 50 PPM TRPH STD
 Misc :
 ALS Vial : 3 Sample Multiplier: 1

Instrument :
 FID_G
 ClientSampleId :
 50 PPM TRPH STD

Integration File: autoint1.e
 Quant Time: May 14 03:55:35 2025
 Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG042425.M
 Quant Title :
 QLast Update : Thu Apr 24 12:54:09 2025
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1uL
 Signal Phase : Rxi-1ms
 Signal Info : 20mx0.18mmx0.18um

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
9) S TETRACOSANE-d50 (SURR...	14.998	5659391	48.068 ug/ml
Target Compounds			
2) N-DECANE	4.497	5569282	50.023 ug/ml
3) N-DODECANE	6.680	5878120	51.292 ug/ml
4) N-TETRADECANE	8.517	6151100	50.763 ug/ml
5) N-HEXADECANE	10.131	6321600	50.354 ug/ml
6) N-OCTADECANE	11.579	6510234	49.677 ug/ml
7) N-EICOSANE	12.893	6615705	48.797 ug/ml
8) N-DOCOSANE	14.095	6437736	48.539 ug/ml
10) N-TETRACOSANE	15.202	6444515	48.496 ug/ml
11) N-HEXACOSANE	16.226	6411471	48.345 ug/ml
12) N-OCTACOSANE	17.178	6456862	48.977 ug/ml

(f)=RT Delta > 1/2 Window

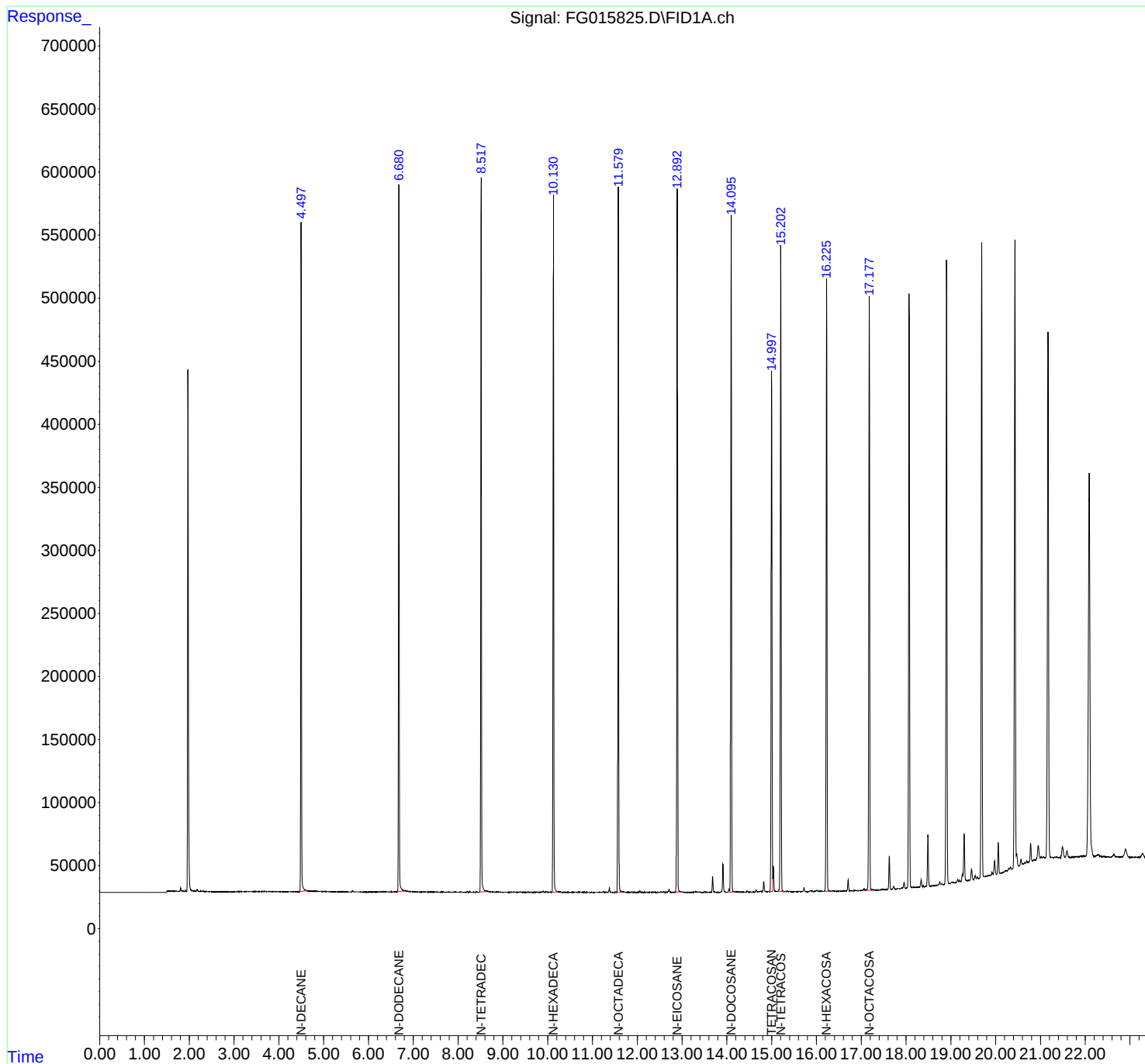
(m)=manual int.

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG051325\
Data File : FG015825.D
Signal(s) : FID1A.ch
Acq On : 13 May 2025 16:53
Operator : YP\AJ
Sample : 50 PPM TRPH STD
Misc :
ALS Vial : 3 Sample Multiplier: 1

Instrument :
FID_G
ClientSampleId :
50 PPM TRPH STD

Integration File: autoint1.e
Quant Time: May 14 03:55:35 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG042425.M
Quant Title :
QLast Update : Thu Apr 24 12:54:09 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal Phase : Rxi-1ms
Signal Info : 20mx0.18mmx0.18um



rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG051325\
Data File : FG015825.D
Signal(s) : FID1A.ch
Acq On : 13 May 2025 16:53
Sample : 50 PPM TRPH STD
Misc :
ALS Vial : 3 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG042425.M
Title :

Signal : FID1A.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	4.497	4.458	4.614	BB	530200	5569282	84.18%	8.136%
2	6.680	6.638	6.817	BB	559379	5878120	88.85%	8.587%
3	8.517	8.480	8.637	BV	566587	6151100	92.98%	8.985%
4	10.131	10.084	10.234	BB	547795	6321600	95.55%	9.235%
5	11.579	11.541	11.669	BB	555154	6510234	98.41%	9.510%
6	12.893	12.842	12.983	BB	557804	6615705	100.00%	9.664%
7	14.095	14.061	14.173	VB	534342	6437736	97.31%	9.404%
8	14.998	14.941	15.025	BV	411404	5659391	85.54%	8.267%
9	15.202	15.135	15.273	BB	512339	6444515	97.41%	9.414%
10	16.226	16.153	16.301	BB	484679	6411471	96.91%	9.366%
11	17.178	17.098	17.249	BB	469809	6456862	97.60%	9.432%
Sum of corrected areas:						68456017		

FG042425.M Wed May 14 05:09:13 2025

DIESEL RANGE ORGANICS CONTINUING CALIBRATION SUMMARY

50 PPM TRPH STD

Lab Name: Chemtech Contract: CAMP02
ProjectID: Bergen Point Fueling System
Lab Code: CHEM Case No.: Q1956 SAS No.: Q1956 SDG No.: Q1956
DataFile: FG015835.D Analyst Name: YP\AJ Analyst Date: 05-13-2025

Conc. (PPM)	Area Count	RF	Average RF	%D
500	63457844	126916	126925	0.007

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG051325\
 Data File : FG015835.D
 Signal(s) : FID1A.ch
 Acq On : 13 May 2025 21:46
 Operator : YP\AJ
 Sample : 50 PPM TRPH STD
 Misc :
 ALS Vial : 3 Sample Multiplier: 1

Instrument :
 FID_G
 ClientSampleId :
 50 PPM TRPH STD

Integration File: autoint1.e
 Quant Time: May 14 03:57:15 2025
 Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG042425.M
 Quant Title :
 QLast Update : Thu Apr 24 12:54:09 2025
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1uL
 Signal Phase : Rxi-1ms
 Signal Info : 20mx0.18mmx0.18um

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
9) S TETRACOSANE-d50 (SURR...	14.996	5710489	48.502 ug/ml
Target Compounds			
2) N-DECANE	4.497	5691010	51.117 ug/ml
3) N-DODECANE	6.679	5974108	52.129 ug/ml
4) N-TETRADECANE	8.516	6207700	51.230 ug/ml
5) N-HEXADECANE	10.129	6361678	50.674 ug/ml
6) N-OCTADECANE	11.578	6549621	49.977 ug/ml
7) N-EICOSANE	12.892	6656888	49.101 ug/ml
8) N-DOCOSANE	14.094	6494017	48.964 ug/ml
10) N-TETRACOSANE	15.201	6515965	49.034 ug/ml
11) N-HEXACOSANE	16.225	6479146	48.855 ug/ml
12) N-OCTACOSANE	17.177	6527711	49.515 ug/ml

(f)=RT Delta > 1/2 Window

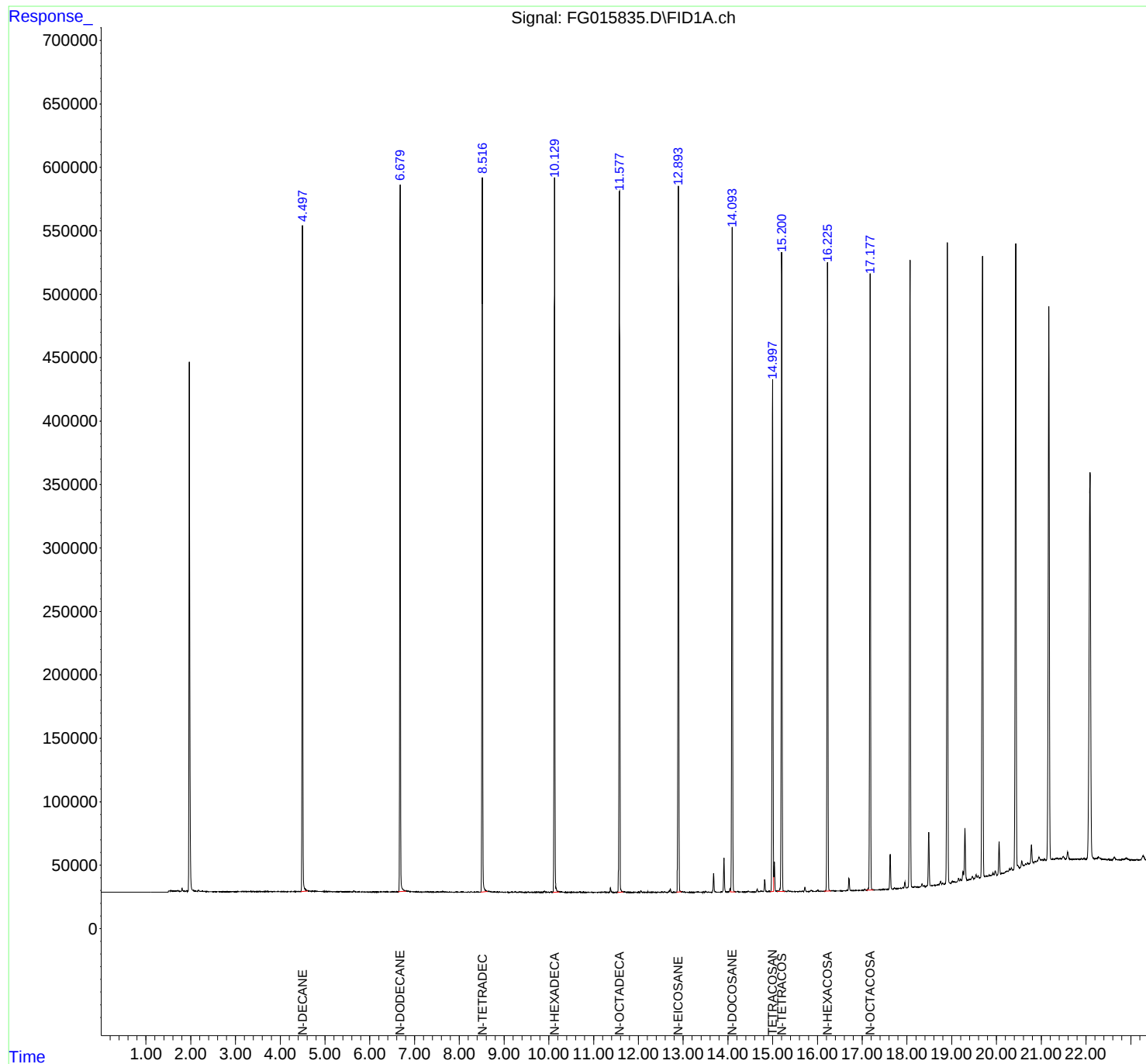
(m)=manual int.

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG051325\
Data File : FG015835.D
Signal(s) : FID1A.ch
Acq On : 13 May 2025 21:46
Operator : YP\AJ
Sample : 50 PPM TRPH STD
Misc :
ALS Vial : 3 Sample Multiplier: 1

Instrument :
FID_G
ClientSampleId :
50 PPM TRPH STD

Integration File: autoint1.e
Quant Time: May 14 03:57:15 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG042425.M
Quant Title :
QLast Update : Thu Apr 24 12:54:09 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal Phase : Rxi-1ms
Signal Info : 20mx0.18mmx0.18um



rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG051325\
Data File : FG015835.D
Signal(s) : FID1A.ch
Acq On : 13 May 2025 21:46
Sample : 50 PPM TRPH STD
Misc :
ALS Vial : 3 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG042425.M
Title :

Signal : FID1A.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	4.497	4.456	4.619	BB	525383	5691010	85.49%	8.228%
2	6.679	6.632	6.814	BB	557151	5974108	89.74%	8.637%
3	8.516	8.476	8.633	BB	562392	6207700	93.25%	8.975%
4	10.129	10.090	10.231	BB	563052	6361678	95.57%	9.197%
5	11.578	11.537	11.660	BB	547511	6549621	98.39%	9.469%
6	12.892	12.853	12.965	BB	551855	6656888	100.00%	9.624%
7	14.094	14.059	14.166	VB	523556	6494017	97.55%	9.389%
8	14.996	14.943	15.024	BV	398233	5710489	85.78%	8.256%
9	15.201	15.094	15.275	BB	502844	6515965	97.88%	9.420%
10	16.225	16.149	16.301	BB	491501	6479146	97.33%	9.367%
11	17.177	17.088	17.241	BB	484690	6527711	98.06%	9.437%
Sum of corrected areas:						69168334		

FG042425.M Wed May 14 05:11:03 2025

Analytical Sequence

Client: CDM Smith

SDG No.: Q1956

Project: Bergen Point Fueling System

Instrument ID: FID_G

GC Column: RXI-1MS **ID:** 0.18 (mm)

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES,
AND STANDARDS IS GIVEN BELOW:

MEAN SUROGATE RT FROM INITIAL CALIBRATION 15.02					
EPA SAMPLE NO.	LAB SAMPLE ID	DATE AND TIME ANALYZED	DATAFILE	RT	#
PIBLK01	LBLK01	08 May 2025 09:20	FF015807.D	15.019	
50 PPM TRPH STD	50 PPM TRPH STD	08 May 2025 09:49	FF015808.D	15.021	
PB167913BL	PB167913BL	08 May 2025 12:31	FF015810.D	15.020	
PB167913BS	PB167913BS	08 May 2025 13:01	FF015811.D	15.018	
PB167913BSD	PB167913BSD	08 May 2025 13:30	FF015812.D	15.017	
FB-05022025	Q1956-07	08 May 2025 13:59	FF015813.D	15.020	
PIBLK02	LBLK02	08 May 2025 14:28	FF015814.D	15.021	
50 PPM TRPH STD	50 PPM TRPH STD	08 May 2025 14:58	FF015815.D	15.021	
PIBLK03	LBLK03	13 May 2025 11:11	FG015817.D	14.996	
50 PPM TRPH STD	50 PPM TRPH STD	13 May 2025 11:40	FG015818.D	14.998	
PB167975BL	PB167975BL	13 May 2025 13:22	FG015820.D	14.998	
PB167975BS	PB167975BS	13 May 2025 13:51	FG015821.D	14.995	
PIBLK04	LBLK04	13 May 2025 15:54	FG015824.D	14.995	
50 PPM TRPH STD	50 PPM TRPH STD	13 May 2025 16:53	FG015825.D	14.998	
SB1-3-4	Q1956-01	13 May 2025 17:22	FG015826.D	14.994	
SB2-4-5	Q1956-02	13 May 2025 17:51	FG015827.D	14.994	
SB2-4-5MS	Q1956-03MS	13 May 2025 18:21	FG015828.D	14.994	
SB2-4-5MSD	Q1956-04MSD	13 May 2025 18:50	FG015829.D	14.993	
SB91-3-4	Q1956-06	13 May 2025 19:19	FG015830.D	14.994	
PIBLK05	LBLK05	13 May 2025 21:16	FG015834.D	14.994	
50 PPM TRPH STD	50 PPM TRPH STD	13 May 2025 21:46	FG015835.D	14.996	



QC SAMPLE DATA

Report of Analysis

Client:	CDM Smith	Date Collected:	
Project:	Bergen Point Fueling System	Date Received:	
Client Sample ID:	PB167913BL	SDG No.:	Q1956
Lab Sample ID:	PB167913BL	Matrix:	Water
Analytical Method:	8015D DRO	% Solid:	0 Decanted:
Sample Wt/Vol:	1000 Units: mL	Final Vol:	1 mL
Soil Aliquot Vol:	uL	Test:	Diesel Range Organics
Extraction Type:		Injection Volume :	
GPC Factor :	PH :		
Prep Method :	SW3510		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
FF015810.D	1	05/08/25 08:41	05/08/25 12:31	PB167913

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
DRO	DRO	50.0	U	6.00	50.0	ug/L
SURROGATES						
16416-32-3	Tetracosane-d50	14.8		29 - 130	74%	SPK: 20

Comments:

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

P = Indicates >25% difference for detected concentrations between the two GC columns

Q = indicates LCS control criteria did not meet requirements

M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

* = Values outside of QC limits

D = Dilution

S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.

() = Laboratory InHouse Limit

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF050825\
Data File : FF015810.D
Signal(s) : FID2B.ch
Acq On : 08 May 2025 12:31
Operator : YP\AJ
Sample : PB167913BL
Misc :
ALS Vial : 71 Sample Multiplier: 1

Instrument :
FID_F
ClientSampleId :
PB167913BL

Integration File: autoint1.e
Quant Time: May 09 01:54:48 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF042225.M
Quant Title :
QLast Update : Tue Apr 22 11:27:50 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal Phase : Rxi-1ms
Signal Info : 20mx0.18mmx0.18um

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
9) S TETRACOSANE-d50 (SURR...	15.020	1669628	14.795 ug/ml
Target Compounds			

(f)=RT Delta > 1/2 Window

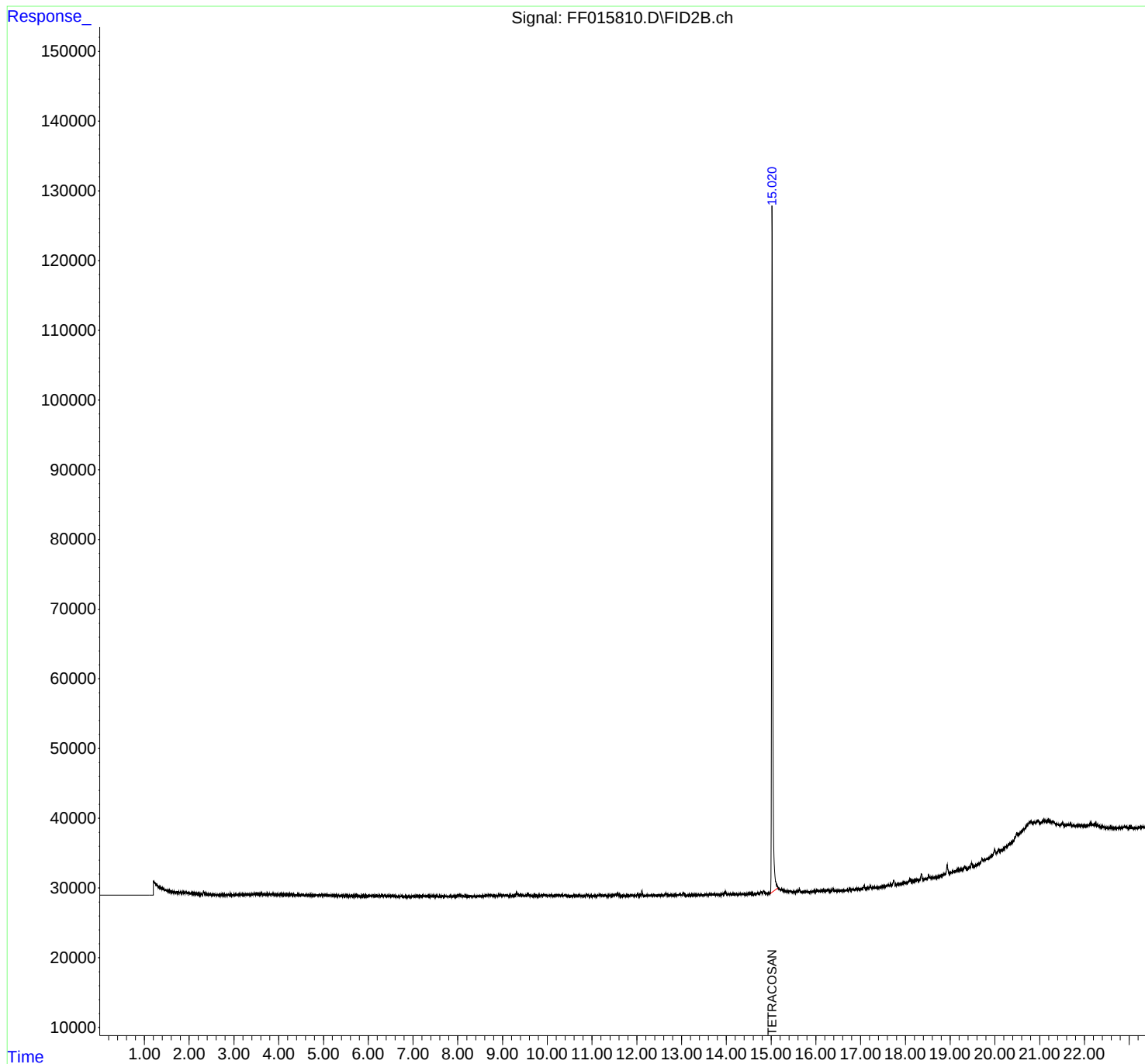
(m)=manual int.

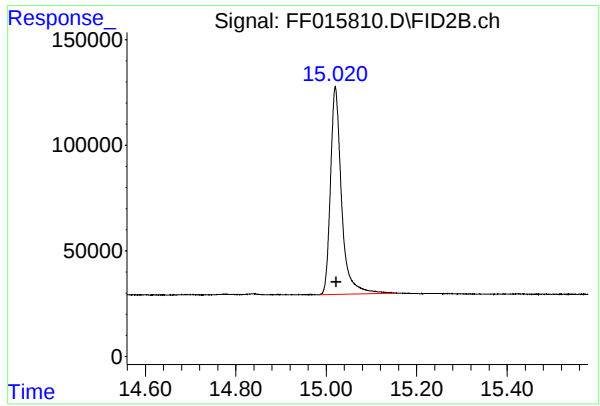
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF050825\
Data File : FF015810.D
Signal(s) : FID2B.ch
Acq On : 08 May 2025 12:31
Operator : YP\AJ
Sample : PB167913BL
Misc :
ALS Vial : 71 Sample Multiplier: 1

Instrument :
FID_F
ClientSampleId :
PB167913BL

Integration File: autoint1.e
Quant Time: May 09 01:54:48 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF042225.M
Quant Title :
QLast Update : Tue Apr 22 11:27:50 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal Phase : Rxi-1ms
Signal Info : 20mx0.18mmx0.18um





#9 TETRACOSANE-d50 (SURROGATE)

R.T.: 15.020 min
Delta R.T.: -0.002 min
Response: 1669628
Conc: 14.80 ug/ml

Instrument :
FID_F
ClientSampleId :
PB167913BL

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF050825\
Data File : FF015810.D
Signal(s) : FID2B.ch
Acq On : 08 May 2025 12:31
Sample : PB167913BL
Misc :
ALS Vial : 71 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF042225.M
Title :

Signal : FID2B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	15.020	14.984	15.154	BB	98340	1669628	100.00%	100.000%
Sum of corrected areas:						1669628		

FF042225.M Fri May 09 03:21:27 2025

Report of Analysis

Client:	CDM Smith	Date Collected:	
Project:	Bergen Point Fueling System	Date Received:	
Client Sample ID:	PB167975BL	SDG No.:	Q1956
Lab Sample ID:	PB167975BL	Matrix:	SOIL
Analytical Method:	8015D DRO	% Solid:	100 Decanted:
Sample Wt/Vol:	30.01 Units: g	Final Vol:	1 mL
Soil Aliquot Vol:	uL	Test:	Diesel Range Organics
Extraction Type:		Injection Volume :	
GPC Factor :	PH :		
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
FG015820.D	1	05/13/25 10:05	05/13/25 13:22	PB167975

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
DRO	DRO	1670	U	169	1670	ug/kg
SURROGATES						
16416-32-3	Tetracosane-d50	17.4		37 - 130	87%	SPK: 20

Comments:

U = Not Detected
 LOQ = Limit of Quantitation
 MDL = Method Detection Limit
 LOD = Limit of Detection
 E = Value Exceeds Calibration Range
 P = Indicates >25% difference for detected concentrations between the two GC columns
 Q = indicates LCS control criteria did not meet requirements
 M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
 B = Analyte Found in Associated Method Blank
 N = Presumptive Evidence of a Compound
 * = Values outside of QC limits
 D = Dilution
 S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
 () = Laboratory InHouse Limit

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG051325\
Data File : FG015820.D
Signal(s) : FID1A.ch
Acq On : 13 May 2025 13:22
Operator : YP\AJ
Sample : PB167975BL
Misc :
ALS Vial : 21 Sample Multiplier: 1

Instrument :
FID_G
ClientSampleId :
PB167975BL

Integration File: autoint1.e
Quant Time: May 14 03:54:45 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG042425.M
Quant Title :
QLast Update : Thu Apr 24 12:54:09 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal Phase : Rxi-1ms
Signal Info : 20mx0.18mmx0.18um

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
9) S TETRACOSANE-d50 (SURR...	14.998	2046304	17.380 ug/ml
Target Compounds			

(f)=RT Delta > 1/2 Window

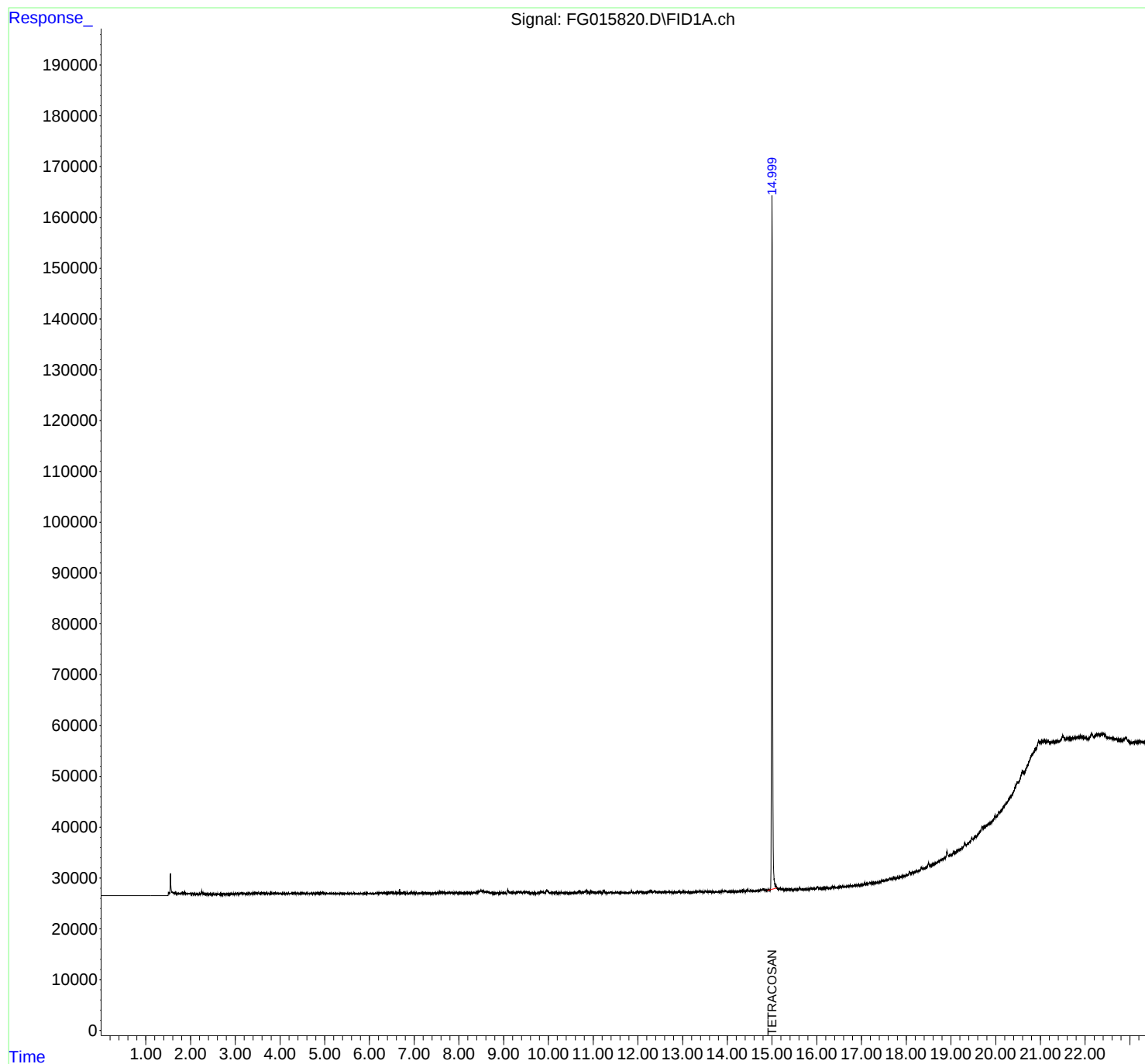
(m)=manual int.

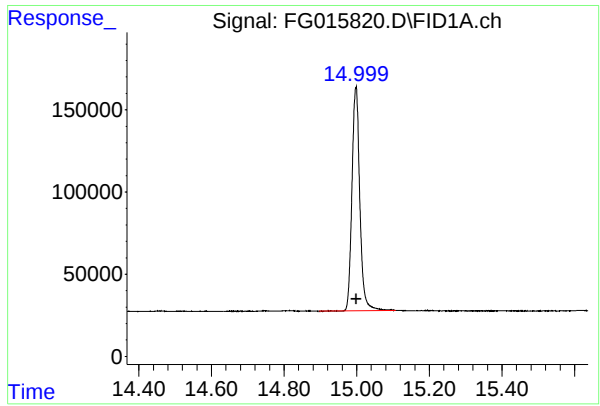
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG051325\
Data File : FG015820.D
Signal(s) : FID1A.ch
Acq On : 13 May 2025 13:22
Operator : YP\AJ
Sample : PB167975BL
Misc :
ALS Vial : 21 Sample Multiplier: 1

Instrument :
FID_G
ClientSampleId :
PB167975BL

Integration File: autoint1.e
Quant Time: May 14 03:54:45 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG042425.M
Quant Title :
QLast Update : Thu Apr 24 12:54:09 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal Phase : Rxi-1ms
Signal Info : 20mx0.18mmx0.18um





#9 TETRACOSANE-d50 (SURROGATE)

R.T.: 14.998 min
Delta R.T.: 0.000 min
Response: 2046304
Conc: 17.38 ug/ml

Instrument :
FID_G
ClientSampleId :
PB167975BL

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG051325\
Data File : FG015820.D
Signal(s) : FID1A.ch
Acq On : 13 May 2025 13:22
Sample : PB167975BL
Misc :
ALS Vial : 21 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG042425.M
Title :

Signal : FID1A.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	14.998	14.896	15.108	BB	135194	2046304	100.00%	100.000%
Sum of corrected areas:						2046304		

FG042425.M Wed May 14 05:06:17 2025

Report of Analysis

Client:	CDM Smith	Date Collected:	05/08/25
Project:	Bergen Point Fueling System	Date Received:	05/08/25
Client Sample ID:	PIBLK-FF015807.D	SDG No.:	Q1956
Lab Sample ID:	I.BLK-FF015807.D	Matrix:	Water
Analytical Method:	8015D DRO	% Solid:	0
Sample Wt/Vol:	1000	Units:	mL
Soil Aliquot Vol:			uL
Extraction Type:		Test:	Diesel Range Organics
GPC Factor :		Injection Volume :	
Prep Method :	SW3510		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
FF015807.D	1		05/08/25	FF050825

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
DRO	DRO	50.0	U	6.00	50.0	ug/L
SURROGATES						
16416-32-3	Tetracosane-d50	15.4		29 - 130	77%	SPK: 20

Comments:

U = Not Detected
 LOQ = Limit of Quantitation
 MDL = Method Detection Limit
 LOD = Limit of Detection
 E = Value Exceeds Calibration Range
 P = Indicates >25% difference for detected concentrations between the two GC columns
 Q = indicates LCS control criteria did not meet requirements
 M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
 B = Analyte Found in Associated Method Blank
 N = Presumptive Evidence of a Compound
 * = Values outside of QC limits
 D = Dilution
 S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
 () = Laboratory InHouse Limit

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF050825\
Data File : FF015807.D
Signal(s) : FID2B.ch
Acq On : 08 May 2025 09:20
Operator : YP\AJ
Sample : I.BLK
Misc :
ALS Vial : 52 Sample Multiplier: 1

Instrument :
FID_F
ClientSampleId :
I.BLK

Integration File: autoint1.e
Quant Time: May 09 01:53:46 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF042225.M
Quant Title :
QLast Update : Tue Apr 22 11:27:50 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal Phase : Rxi-1ms
Signal Info : 20mx0.18mmx0.18um

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
9) S TETRACOSANE-d50 (SURR...	15.019	1741188	15.430 ug/ml

Target Compounds

(f)=RT Delta > 1/2 Window

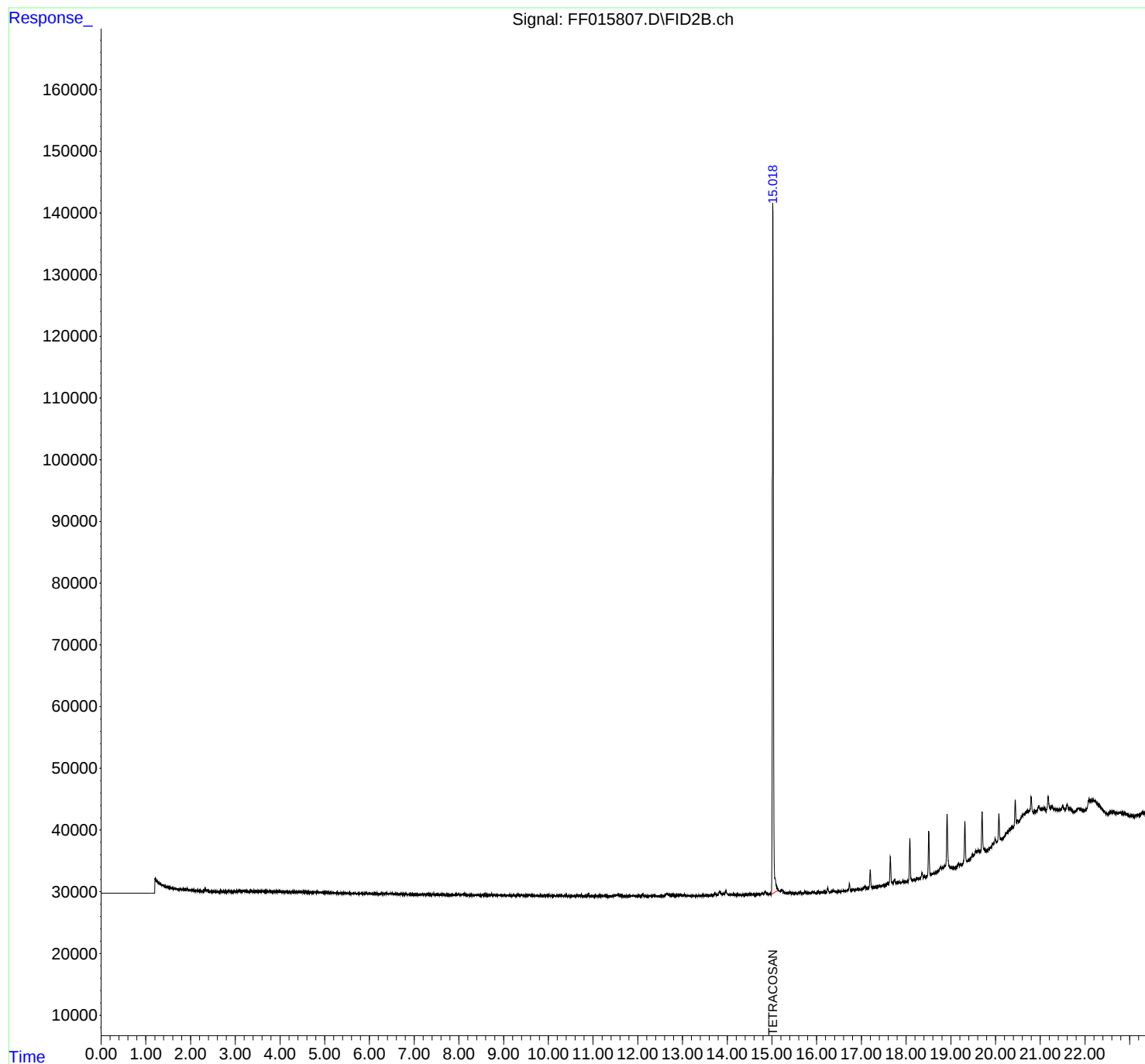
(m)=manual int.

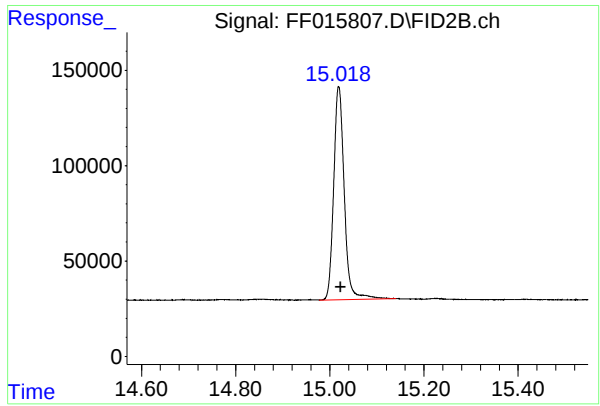
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF050825\
Data File : FF015807.D
Signal(s) : FID2B.ch
Acq On : 08 May 2025 09:20
Operator : YP\AJ
Sample : I.BLK
Misc :
ALS Vial : 52 Sample Multiplier: 1

Instrument :
FID_F
ClientSampleId :
I.BLK

Integration File: autoint1.e
Quant Time: May 09 01:53:46 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF042225.M
Quant Title :
QLast Update : Tue Apr 22 11:27:50 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal Phase : Rxi-1ms
Signal Info : 20mx0.18mmx0.18um





#9 TETRACOSANE-d50 (SURROGATE)

R.T.: 15.019 min
Delta R.T.: -0.004 min
Response: 1741188
Conc: 15.43 ug/ml

Instrument :
FID_F
ClientSampleId :
I.BLK

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF050825\
Data File : FF015807.D
Signal(s) : FID2B.ch
Acq On : 08 May 2025 09:20
Sample : I.BLK
Misc :
ALS Vial : 52 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF042225.M
Title :

Signal : FID2B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	15.019	14.977	15.140	BB	111844	1741188	100.00%	100.000%
Sum of corrected areas:						1741188		

FF042225.M Fri May 09 03:19:39 2025

Report of Analysis

Client:	CDM Smith	Date Collected:	05/08/25
Project:	Bergen Point Fueling System	Date Received:	05/08/25
Client Sample ID:	PIBLK-FF015814.D	SDG No.:	Q1956
Lab Sample ID:	I.BLK-FF015814.D	Matrix:	Water
Analytical Method:	8015D DRO	% Solid:	0
Sample Wt/Vol:	1000	Units:	mL
Soil Aliquot Vol:			uL
Extraction Type:		Test:	Diesel Range Organics
GPC Factor :		Injection Volume :	
Prep Method :	SW3510		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
FF015814.D	1		05/08/25	FF050825

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
DRO	DRO	50.0	U	6.00	50.0	ug/L
SURROGATES						
16416-32-3	Tetracosane-d50	15.7		29 - 130	78%	SPK: 20

Comments:

U = Not Detected
 LOQ = Limit of Quantitation
 MDL = Method Detection Limit
 LOD = Limit of Detection
 E = Value Exceeds Calibration Range
 P = Indicates >25% difference for detected concentrations between the two GC columns
 Q = indicates LCS control criteria did not meet requirements
 M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
 B = Analyte Found in Associated Method Blank
 N = Presumptive Evidence of a Compound
 * = Values outside of QC limits
 D = Dilution
 S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
 () = Laboratory InHouse Limit

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF050825\
Data File : FF015814.D
Signal(s) : FID2B.ch
Acq On : 08 May 2025 14:28
Operator : YP\AJ
Sample : I.BLK
Misc :
ALS Vial : 52 Sample Multiplier: 1

Instrument :
FID_F
ClientSampleId :
I.BLK

Integration File: autoint1.e
Quant Time: May 09 01:56:08 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF042225.M
Quant Title :
QLast Update : Tue Apr 22 11:27:50 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal Phase : Rxi-1ms
Signal Info : 20mx0.18mmx0.18um

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
9) S TETRACOSANE-d50 (SURR...	15.021	1766806	15.657 ug/ml
Target Compounds			

(f)=RT Delta > 1/2 Window

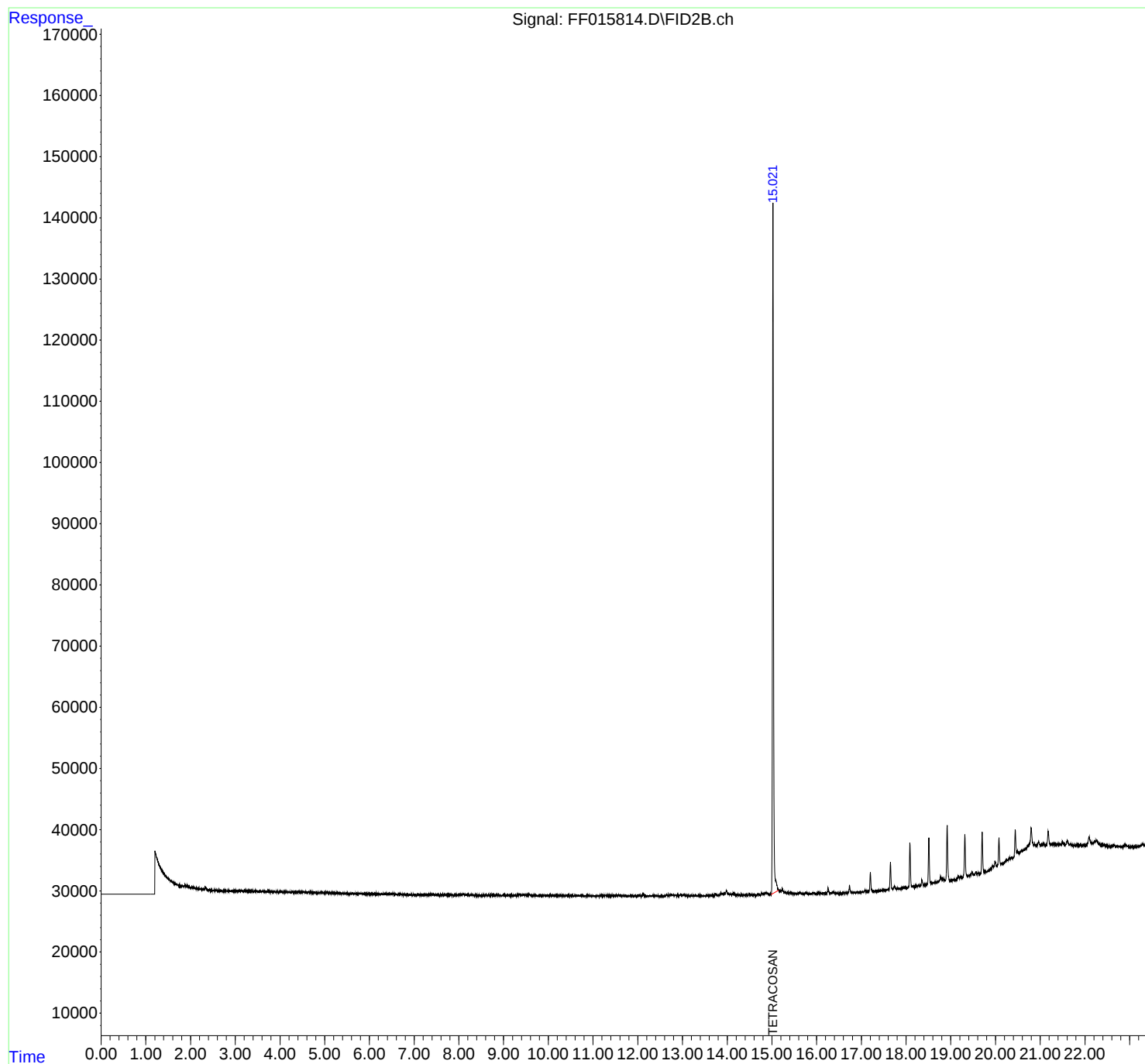
(m)=manual int.

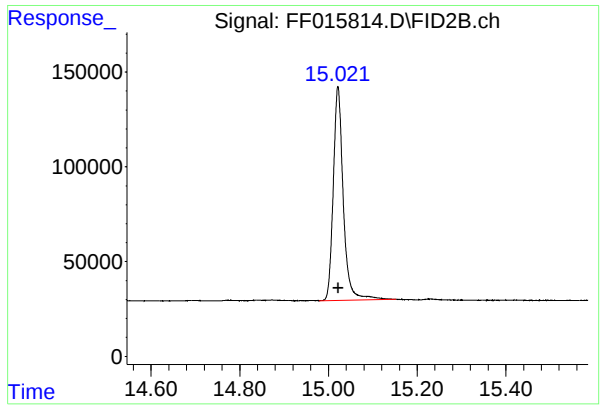
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF050825\
Data File : FF015814.D
Signal(s) : FID2B.ch
Acq On : 08 May 2025 14:28
Operator : YP\AJ
Sample : I.BLK
Misc :
ALS Vial : 52 Sample Multiplier: 1

Instrument :
FID_F
ClientSampleId :
I.BLK

Integration File: autoint1.e
Quant Time: May 09 01:56:08 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF042225.M
Quant Title :
QLast Update : Tue Apr 22 11:27:50 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal Phase : Rxi-1ms
Signal Info : 20mx0.18mmx0.18um





#9 TETRACOSANE-d50 (SURROGATE)

R.T.: 15.021 min
Delta R.T.: -0.001 min
Response: 1766806
Conc: 15.66 ug/ml

Instrument :
FID_F
ClientSampleId :
I.BLK

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF050825\
Data File : FF015814.D
Signal(s) : FID2B.ch
Acq On : 08 May 2025 14:28
Sample : I.BLK
Misc :
ALS Vial : 52 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF042225.M
Title :

Signal : FID2B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	15.021	14.979	15.152	BB	113032	1766806	100.00%	100.000%
Sum of corrected areas:						1766806		

FF042225.M Fri May 09 03:23:02 2025

Report of Analysis

Client:	CDM Smith	Date Collected:	05/13/25
Project:	Bergen Point Fueling System	Date Received:	05/13/25
Client Sample ID:	PIBLK-FG015817.D	SDG No.:	Q1956
Lab Sample ID:	I.BLK-FG015817.D	Matrix:	Water
Analytical Method:	8015D DRO	% Solid:	0
Sample Wt/Vol:	1000 Units: mL	Decanted:	
Soil Aliquot Vol:	uL	Final Vol:	1 mL
Extraction Type:		Test:	Diesel Range Organics
GPC Factor :	PH :	Injection Volume :	
Prep Method :	SW3510		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
FG015817.D	1		05/13/25	FG051325

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
DRO	DRO	50.0	U	6.00	50.0	ug/L
SURROGATES						
16416-32-3	Tetracosane-d50	19.2		29 - 130	96%	SPK: 20

Comments:

U = Not Detected
 LOQ = Limit of Quantitation
 MDL = Method Detection Limit
 LOD = Limit of Detection
 E = Value Exceeds Calibration Range
 P = Indicates >25% difference for detected concentrations between the two GC columns
 Q = indicates LCS control criteria did not meet requirements
 M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
 B = Analyte Found in Associated Method Blank
 N = Presumptive Evidence of a Compound
 * = Values outside of QC limits
 D = Dilution
 S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
 () = Laboratory InHouse Limit

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG051325\
Data File : FG015817.D
Signal(s) : FID1A.ch
Acq On : 13 May 2025 11:11
Operator : YP\AJ
Sample : I.BLK
Misc :
ALS Vial : 2 Sample Multiplier: 1

Instrument :
FID_G
ClientSampleId :
I.BLK

Integration File: autoint1.e
Quant Time: May 14 03:54:15 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG042425.M
Quant Title :
QLast Update : Thu Apr 24 12:54:09 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal Phase : Rxi-1ms
Signal Info : 20mx0.18mmx0.18um

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
9) S TETRACOSANE-d50 (SURR...	14.996	2260251	19.197 ug/ml
Target Compounds			

(f)=RT Delta > 1/2 Window

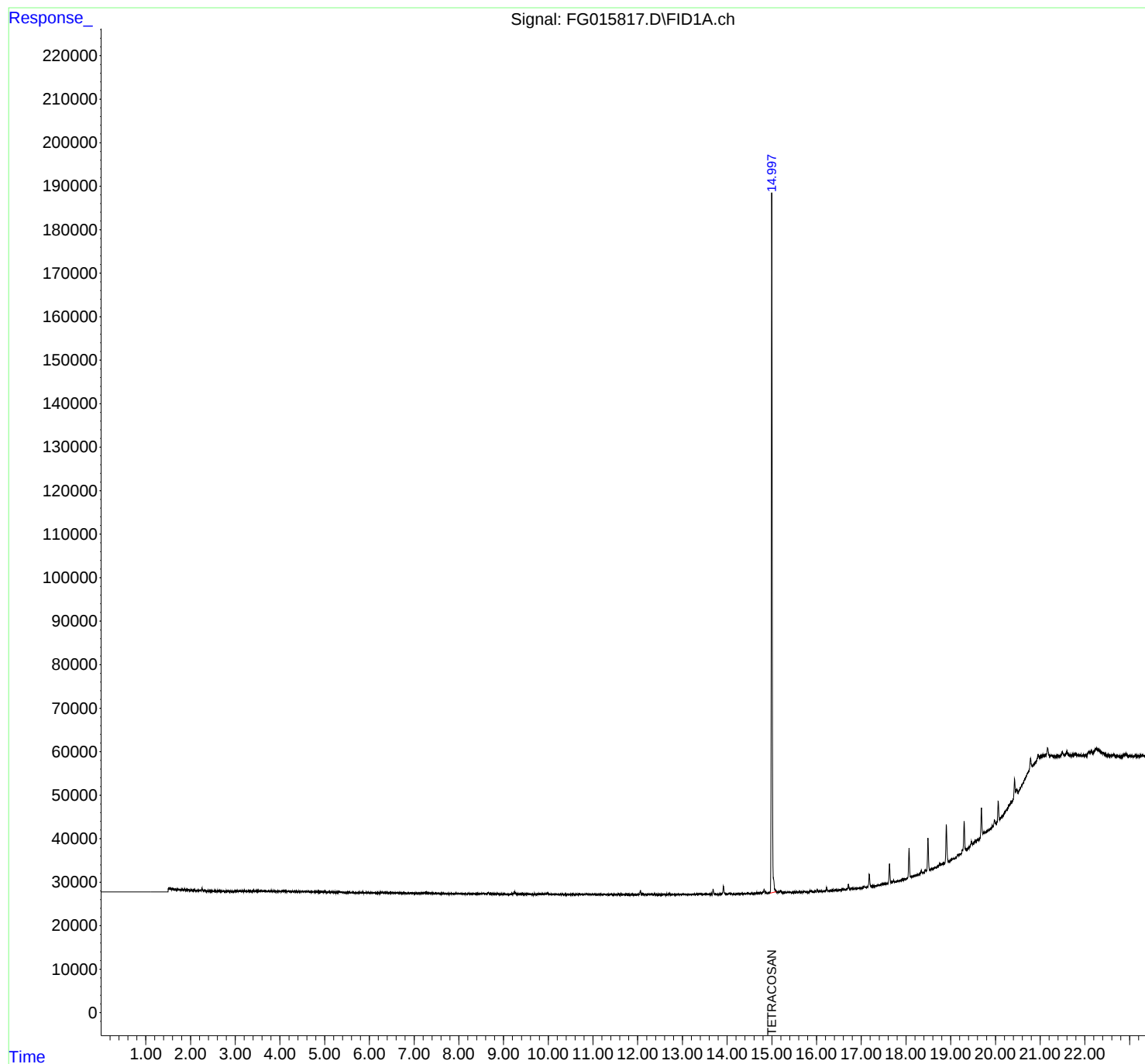
(m)=manual int.

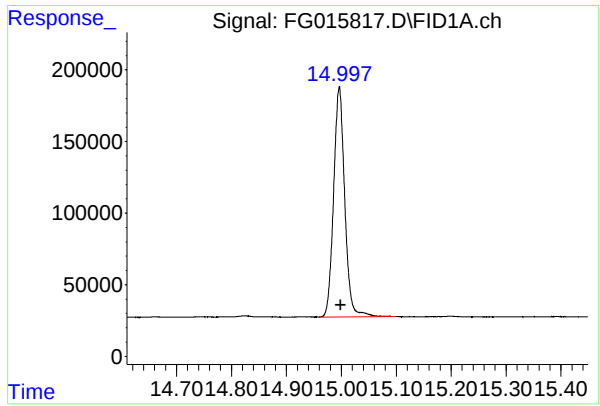
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG051325\
Data File : FG015817.D
Signal(s) : FID1A.ch
Acq On : 13 May 2025 11:11
Operator : YP\AJ
Sample : I.BLK
Misc :
ALS Vial : 2 Sample Multiplier: 1

Instrument :
FID_G
ClientSampleId :
I.BLK

Integration File: autoint1.e
Quant Time: May 14 03:54:15 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG042425.M
Quant Title :
QLast Update : Thu Apr 24 12:54:09 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal Phase : Rxi-1ms
Signal Info : 20mx0.18mmx0.18um





#9 TETRACOSANE-d50 (SURROGATE)

R.T.: 14.996 min
Delta R.T.: -0.002 min
Response: 2260251
Conc: 19.20 ug/ml

Instrument :
FID_G
ClientSampleId :
I.BLK

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG051325\
Data File : FG015817.D
Signal(s) : FID1A.ch
Acq On : 13 May 2025 11:11
Sample : I.BLK
Misc :
ALS Vial : 2 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG042425.M
Title :

Signal : FID1A.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	14.996	14.960	15.100	BB	160540	2260251	100.00%	100.000%
Sum of corrected areas:						2260251		

FG042425.M Wed May 14 05:03:26 2025

Report of Analysis

Client:	CDM Smith	Date Collected:	05/13/25
Project:	Bergen Point Fueling System	Date Received:	05/13/25
Client Sample ID:	PIBLK-FG015824.D	SDG No.:	Q1956
Lab Sample ID:	I.BLK-FG015824.D	Matrix:	Water
Analytical Method:	8015D DRO	% Solid:	0
Sample Wt/Vol:	1000 Units: mL	Decanted:	
Soil Aliquot Vol:	uL	Final Vol:	1 mL
Extraction Type:		Test:	Diesel Range Organics
GPC Factor :	PH :	Injection Volume :	
Prep Method :	SW3510		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
FG015824.D	1		05/13/25	FG051325

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
DRO	DRO	50.0	U	6.00	50.0	ug/L
SURROGATES						
16416-32-3	Tetracosane-d50	16.9		29 - 130	85%	SPK: 20

Comments:

U = Not Detected
 LOQ = Limit of Quantitation
 MDL = Method Detection Limit
 LOD = Limit of Detection
 E = Value Exceeds Calibration Range
 P = Indicates >25% difference for detected concentrations between the two GC columns
 Q = indicates LCS control criteria did not meet requirements
 M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
 B = Analyte Found in Associated Method Blank
 N = Presumptive Evidence of a Compound
 * = Values outside of QC limits
 D = Dilution
 S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
 () = Laboratory InHouse Limit

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG051325\
Data File : FG015824.D
Signal(s) : FID1A.ch
Acq On : 13 May 2025 15:54
Operator : YP\AJ
Sample : I.BLK
Misc :
ALS Vial : 52 Sample Multiplier: 1

Instrument :
FID_G
ClientSampleId :
I.BLK

Integration File: autoint1.e
Quant Time: May 14 03:55:26 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG042425.M
Quant Title :
QLast Update : Thu Apr 24 12:54:09 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal Phase : Rxi-1ms
Signal Info : 20mx0.18mmx0.18um

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
9) S TETRACOSANE-d50 (SURR...	14.995	1994752	16.942 ug/ml

Target Compounds

(f)=RT Delta > 1/2 Window

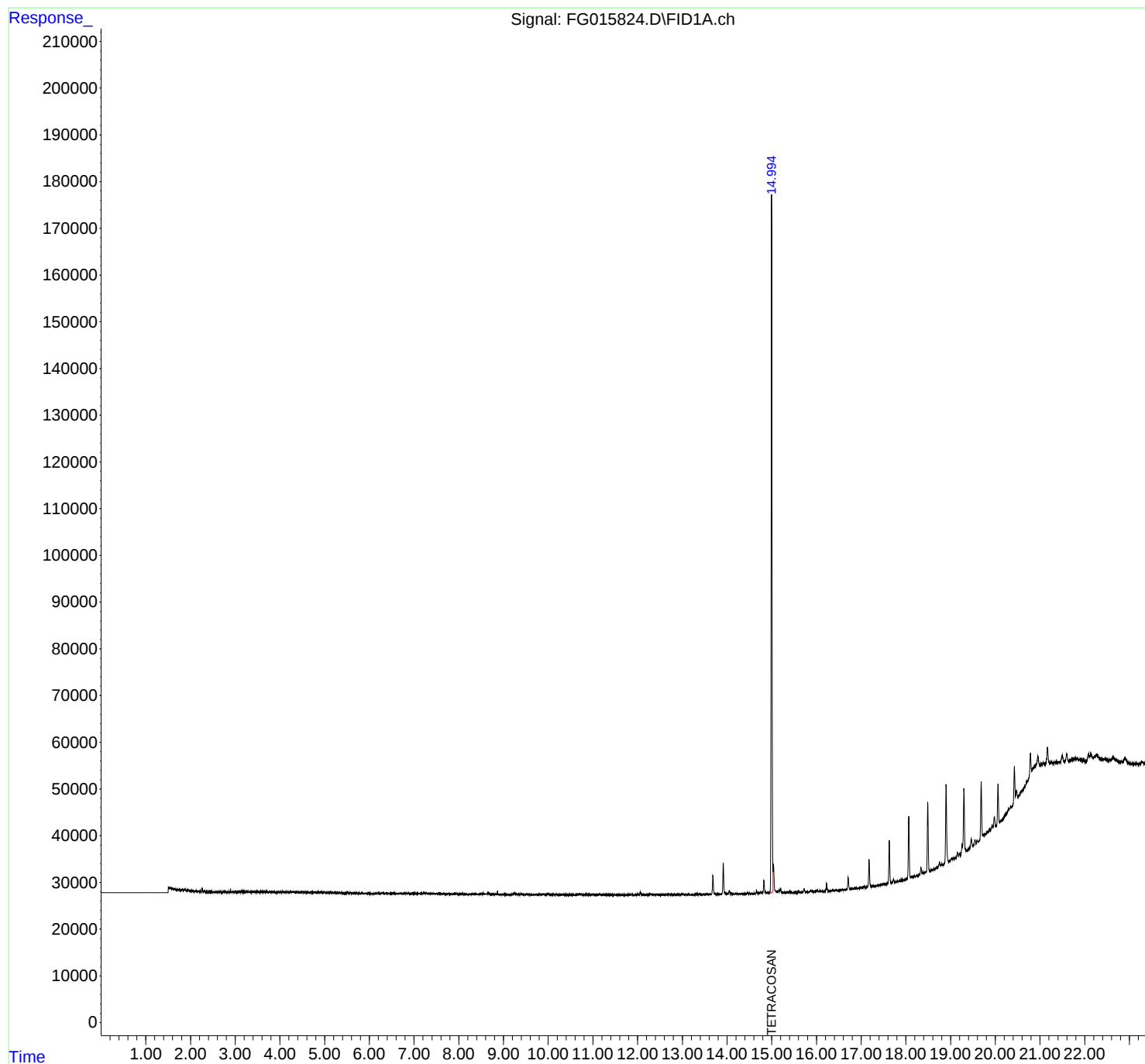
(m)=manual int.

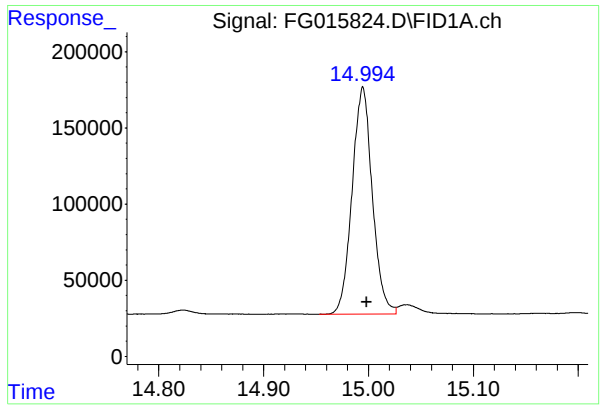
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG051325\
Data File : FG015824.D
Signal(s) : FID1A.ch
Acq On : 13 May 2025 15:54
Operator : YP\AJ
Sample : I.BLK
Misc :
ALS Vial : 52 Sample Multiplier: 1

Instrument :
FID_G
ClientSampleId :
I.BLK

Integration File: autoint1.e
Quant Time: May 14 03:55:26 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG042425.M
Quant Title :
QLast Update : Thu Apr 24 12:54:09 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal Phase : Rxi-1ms
Signal Info : 20mx0.18mmx0.18um





#9 TETRACOSANE-d50 (SURROGATE)

R.T.: 14.995 min
Delta R.T.: -0.004 min
Response: 1994752
Conc: 16.94 ug/ml

Instrument :
FID_G
ClientSampleId :
I.BLK

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG051325\
Data File : FG015824.D
Signal(s) : FID1A.ch
Acq On : 13 May 2025 15:54
Sample : I.BLK
Misc :
ALS Vial : 52 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG042425.M
Title :

Signal : FID1A.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	14.995	14.953	15.026	BV	149231	1994752	100.00%	100.000%
Sum of corrected areas:						1994752		

FG042425.M Wed May 14 05:08:10 2025

Report of Analysis

Client:	CDM Smith	Date Collected:	05/13/25
Project:	Bergen Point Fueling System	Date Received:	05/13/25
Client Sample ID:	PIBLK-FG015834.D	SDG No.:	Q1956
Lab Sample ID:	I.BLK-FG015834.D	Matrix:	Water
Analytical Method:	8015D DRO	% Solid:	0
Sample Wt/Vol:	1000 Units: mL	Decanted:	
Soil Aliquot Vol:	uL	Final Vol:	1 mL
Extraction Type:		Test:	Diesel Range Organics
GPC Factor :	PH :	Injection Volume :	
Prep Method :	SW3510		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
FG015834.D	1		05/13/25	FG051325

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
DRO	DRO	50.0	U	6.00	50.0	ug/L
SURROGATES						
16416-32-3	Tetracosane-d50	19.2		29 - 130	96%	SPK: 20

Comments:

U = Not Detected
 LOQ = Limit of Quantitation
 MDL = Method Detection Limit
 LOD = Limit of Detection
 E = Value Exceeds Calibration Range
 P = Indicates >25% difference for detected concentrations between the two GC columns
 Q = indicates LCS control criteria did not meet requirements
 M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
 B = Analyte Found in Associated Method Blank
 N = Presumptive Evidence of a Compound
 * = Values outside of QC limits
 D = Dilution
 S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
 () = Laboratory InHouse Limit

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG051325\
Data File : FG015834.D
Signal(s) : FID1A.ch
Acq On : 13 May 2025 21:16
Operator : YP\AJ
Sample : I.BLK
Misc :
ALS Vial : 2 Sample Multiplier: 1

Instrument :
FID_G
ClientSampleId :
I.BLK

Integration File: autoint1.e
Quant Time: May 14 03:57:07 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG042425.M
Quant Title :
QLast Update : Thu Apr 24 12:54:09 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal Phase : Rxi-1ms
Signal Info : 20mx0.18mmx0.18um

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
9) S TETRACOSANE-d50 (SURR...	14.993	2264007	19.229 ug/ml

Target Compounds

(f)=RT Delta > 1/2 Window

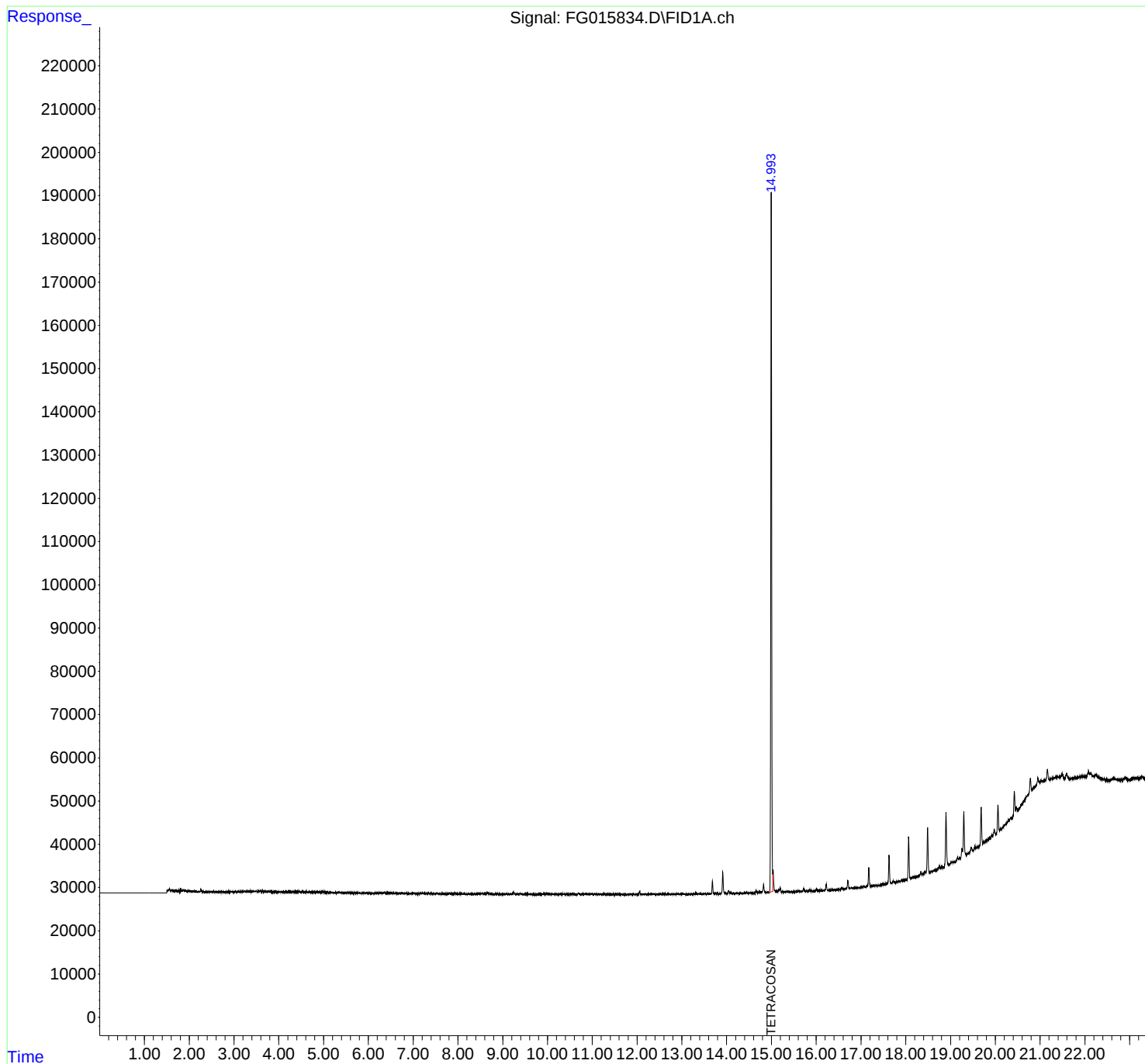
(m)=manual int.

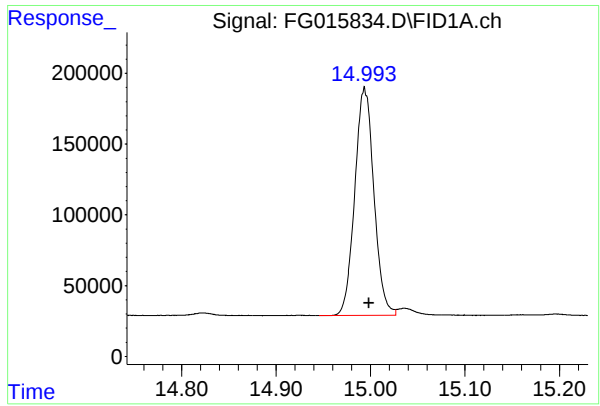
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG051325\
Data File : FG015834.D
Signal(s) : FID1A.ch
Acq On : 13 May 2025 21:16
Operator : YP\AJ
Sample : I.BLK
Misc :
ALS Vial : 2 Sample Multiplier: 1

Instrument :
FID_G
ClientSampleId :
I.BLK

Integration File: autoint1.e
Quant Time: May 14 03:57:07 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG042425.M
Quant Title :
QLast Update : Thu Apr 24 12:54:09 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal Phase : Rxi-1ms
Signal Info : 20mx0.18mmx0.18um





#9 TETRACOSANE-d50 (SURROGATE)

R.T.: 14.993 min
Delta R.T.: -0.005 min
Response: 2264007
Conc: 19.23 ug/ml

Instrument :
FID_G
ClientSampleId :
I.BLK

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG051325\
Data File : FG015834.D
Signal(s) : FID1A.ch
Acq On : 13 May 2025 21:16
Sample : I.BLK
Misc :
ALS Vial : 2 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG042425.M
Title :

Signal : FID1A.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	14.994	14.945	15.027	BV	161443	2264007	100.00%	100.000%
Sum of corrected areas:						2264007		

FG042425.M Wed May 14 05:10:08 2025

Report of Analysis

Client:	CDM Smith	Date Collected:	
Project:	Bergen Point Fueling System	Date Received:	
Client Sample ID:	PB167913BS	SDG No.:	Q1956
Lab Sample ID:	PB167913BS	Matrix:	Water
Analytical Method:	8015D DRO	% Solid:	0 Decanted:
Sample Wt/Vol:	1000 Units: mL	Final Vol:	1 mL
Soil Aliquot Vol:	uL	Test:	Diesel Range Organics
Extraction Type:		Injection Volume :	
GPC Factor :	PH :		
Prep Method :	SW3510		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
FF015811.D	1	05/08/25 08:41	05/08/25 13:01	PB167913

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
DRO	DRO	189		6.00	50.0	ug/L
SURROGATES						
16416-32-3	Tetracosane-d50	18.4		29 - 130	92%	SPK: 20

Comments:

U = Not Detected
 LOQ = Limit of Quantitation
 MDL = Method Detection Limit
 LOD = Limit of Detection
 E = Value Exceeds Calibration Range
 P = Indicates >25% difference for detected concentrations between the two GC columns
 Q = indicates LCS control criteria did not meet requirements
 M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
 B = Analyte Found in Associated Method Blank
 N = Presumptive Evidence of a Compound
 * = Values outside of QC limits
 D = Dilution
 S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
 () = Laboratory InHouse Limit

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF050825\
 Data File : FF015811.D
 Signal(s) : FID2B.ch
 Acq On : 08 May 2025 13:01
 Operator : YP\AJ
 Sample : PB167913BS
 Misc :
 ALS Vial : 72 Sample Multiplier: 1

Instrument :
 FID_F
 ClientSampleId :
 PB167913BS

Integration File: autoint1.e
 Quant Time: May 09 01:55:02 2025
 Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF042225.M
 Quant Title :
 QLast Update : Tue Apr 22 11:27:50 2025
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1uL
 Signal Phase : Rxi-1ms
 Signal Info : 20mx0.18mmx0.18um

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
9) S TETRACOSANE-d50 (SURR...	15.018	2070763	18.350 ug/ml
Target Compounds			
2) N-DECANE	4.563	2096741	20.547 ug/ml
3) N-DODECANE	6.731	2177272	19.884 ug/ml
4) N-TETRADECANE	8.558	2194108	19.010 ug/ml
5) N-HEXADECANE	10.166	2226323	18.864 ug/ml
6) N-OCTADECANE	11.609	2318464	18.430 ug/ml
7) N-EICOSANE	12.919	2373712	18.195 ug/ml
8) N-DOCOSANE	14.118	2321755	18.227 ug/ml
10) N-TETRACOSANE	15.222	2319905	18.443 ug/ml
11) N-HEXACOSANE	16.244	2290089	18.787 ug/ml
12) N-OCTACOSANE	17.194	2258577	19.087 ug/ml

(f)=RT Delta > 1/2 Window

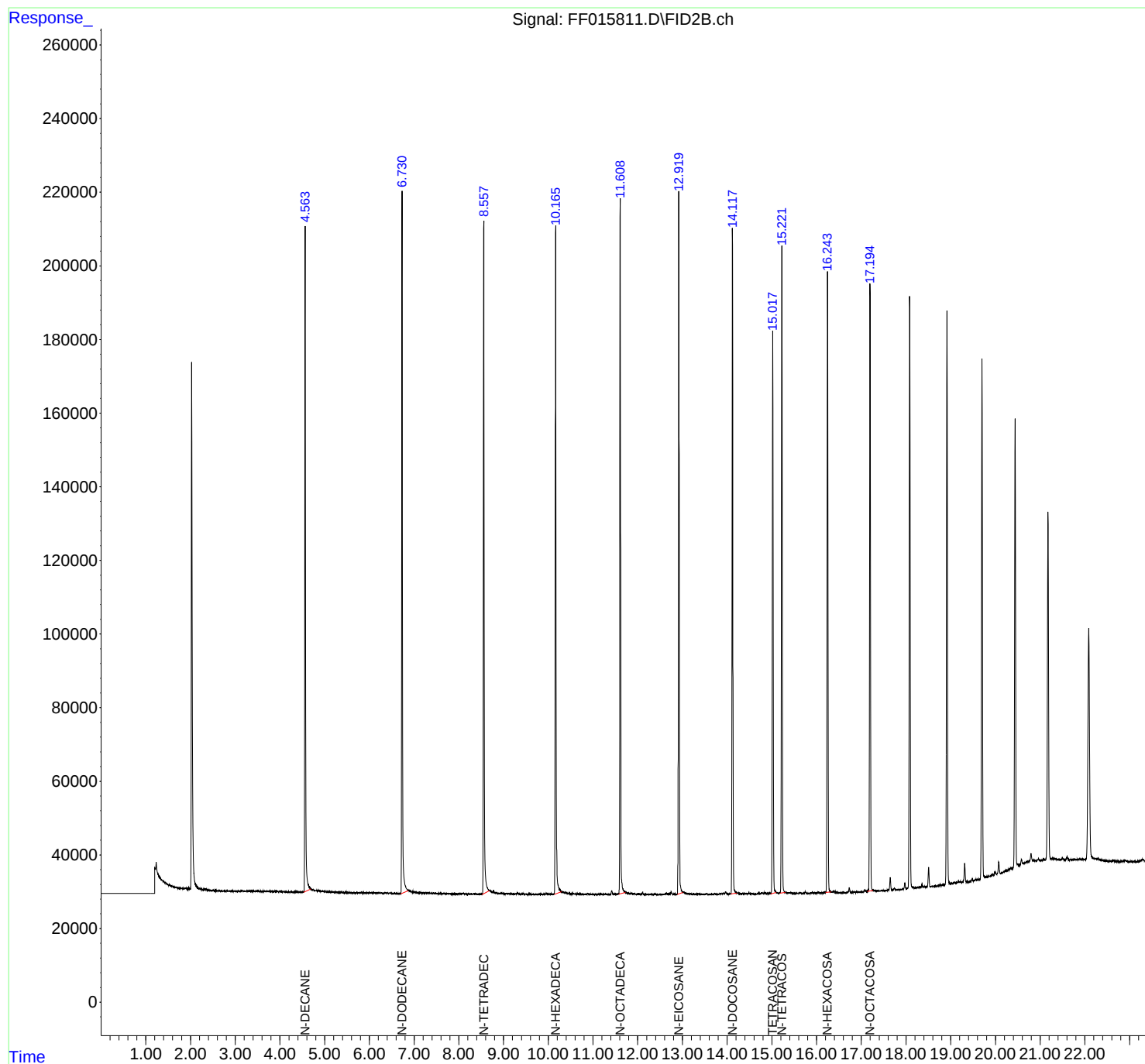
(m)=manual int.

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF050825\
Data File : FF015811.D
Signal(s) : FID2B.ch
Acq On : 08 May 2025 13:01
Operator : YP\AJ
Sample : PB167913BS
Misc :
ALS Vial : 72 Sample Multiplier: 1

Instrument :
FID_F
ClientSampleId :
PB167913BS

Integration File: autoint1.e
Quant Time: May 09 01:55:02 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF042225.M
Quant Title :
QLast Update : Tue Apr 22 11:27:50 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal Phase : Rxi-1ms
Signal Info : 20mx0.18mmx0.18um



rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF050825\
Data File : FF015811.D
Signal(s) : FID2B.ch
Acq On : 08 May 2025 13:01
Sample : PB167913BS
Misc :
ALS Vial : 72 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF042225.M
Title :

Signal : FID2B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	4.563	4.536	4.691	BB	180737	2096741	88.33%	8.507%
2	6.731	6.696	6.871	BB	190558	2177272	91.72%	8.834%
3	8.558	8.526	8.682	BB	182844	2194108	92.43%	8.902%
4	10.166	10.136	10.297	BB	181458	2226323	93.79%	9.033%
5	11.609	11.574	11.727	BB	188447	2318464	97.67%	9.406%
6	12.919	12.882	13.014	BB	190647	2373712	100.00%	9.631%
7	14.118	14.082	14.209	BB	180318	2321755	97.81%	9.420%
8	15.018	14.979	15.097	BB	152142	2070763	87.24%	8.401%
9	15.222	15.181	15.299	BB	175714	2319905	97.73%	9.412%
10	16.244	16.199	16.326	BB	168552	2290089	96.48%	9.291%
11	17.194	17.131	17.266	BB	165079	2258577	95.15%	9.163%
Sum of corrected areas:						24647709		

FF042225.M Fri May 09 03:21:58 2025

Report of Analysis

Client:	CDM Smith	Date Collected:	
Project:	Bergen Point Fueling System	Date Received:	
Client Sample ID:	PB167975BS	SDG No.:	Q1956
Lab Sample ID:	PB167975BS	Matrix:	SOIL
Analytical Method:	8015D DRO	% Solid:	100 Decanted:
Sample Wt/Vol:	30.02 Units: g	Final Vol:	1 mL
Soil Aliquot Vol:	uL	Test:	Diesel Range Organics
Extraction Type:		Injection Volume :	
GPC Factor :	PH :		
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
FG015821.D	1	05/13/25 10:05	05/13/25 13:51	PB167975

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
DRO	DRO	6320		169	1670	ug/kg
SURROGATES						
16416-32-3	Tetracosane-d50	18.6		37 - 130	93%	SPK: 20

Comments:

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

P = Indicates >25% difference for detected concentrations between the two GC columns

Q = indicates LCS control criteria did not meet requirements

M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

* = Values outside of QC limits

D = Dilution

S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.

() = Laboratory InHouse Limit

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG051325\
 Data File : FG015821.D
 Signal(s) : FID1A.ch
 Acq On : 13 May 2025 13:51
 Operator : YP\AJ
 Sample : PB167975BS
 Misc :
 ALS Vial : 22 Sample Multiplier: 1

Instrument :
 FID_G
 ClientSampleId :
 PB167975BS

Integration File: autoint1.e
 Quant Time: May 14 03:54:53 2025
 Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG042425.M
 Quant Title :
 QLast Update : Thu Apr 24 12:54:09 2025
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1uL
 Signal Phase : Rxi-1ms
 Signal Info : 20mx0.18mmx0.18um

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
9) S TETRACOSANE-d50 (SURR...	14.995	2185648	18.564 ug/ml
Target Compounds			
2) N-DECANE	4.496	2017520	18.121 ug/ml
3) N-DODECANE	6.678	2165188	18.893 ug/ml
4) N-TETRADECANE	8.514	2240728	18.492 ug/ml
5) N-HEXADECANE	10.128	2388319	19.024 ug/ml
6) N-OCTADECANE	11.576	2548747	19.448 ug/ml
7) N-EICOSANE	12.891	2541732	18.748 ug/ml
8) N-DOCOSANE	14.093	2547744	19.210 ug/ml
10) N-TETRACOSANE	15.200	2567239	19.319 ug/ml
11) N-HEXACOSANE	16.223	2544712	19.188 ug/ml
12) N-OCTACOSANE	17.176	2522495	19.134 ug/ml

(f)=RT Delta > 1/2 Window

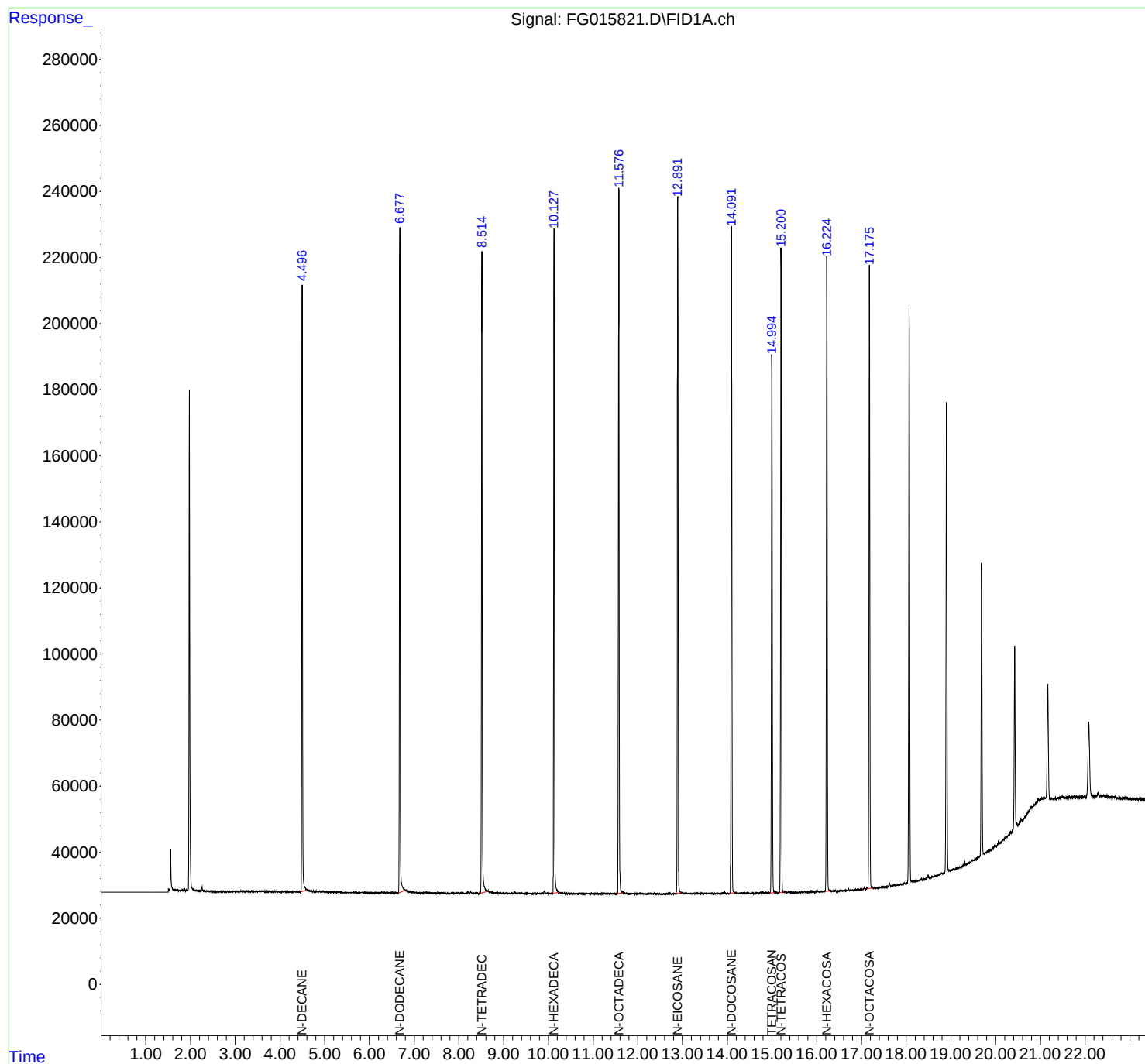
(m)=manual int.

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG051325\
Data File : FG015821.D
Signal(s) : FID1A.ch
Acq On : 13 May 2025 13:51
Operator : YP\AJ
Sample : PB167975BS
Misc :
ALS Vial : 22 Sample Multiplier: 1

Instrument :
FID_G
ClientSampleId :
PB167975BS

Integration File: autoint1.e
Quant Time: May 14 03:54:53 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG042425.M
Quant Title :
QLast Update : Thu Apr 24 12:54:09 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal Phase : Rxi-1ms
Signal Info : 20mx0.18mmx0.18um



rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG051325\
Data File : FG015821.D
Signal(s) : FID1A.ch
Acq On : 13 May 2025 13:51
Sample : PB167975BS
Misc :
ALS Vial : 22 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG042425.M
Title :

Signal : FID1A.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	4.496	4.465	4.603	BB	183477	2017520	78.59%	7.680%
2	6.678	6.645	6.796	BB	201370	2165188	84.34%	8.242%
3	8.514	8.471	8.630	BB	193715	2240728	87.28%	8.530%
4	10.128	10.083	10.230	BB	200023	2388319	93.03%	9.091%
5	11.576	11.530	11.662	BB	213270	2548747	99.28%	9.702%
6	12.891	12.840	12.965	BB	210536	2541732	99.01%	9.675%
7	14.093	14.045	14.160	BB	197124	2547744	99.24%	9.698%
8	14.995	14.954	15.068	BB	162783	2185648	85.14%	8.320%
9	15.200	15.160	15.267	BB	194682	2567239	100.00%	9.772%
10	16.223	16.186	16.296	BB	189926	2544712	99.12%	9.687%
11	17.176	17.110	17.247	BB	186993	2522495	98.26%	9.602%
Sum of corrected areas:						26270071		

FG042425.M Wed May 14 05:06:52 2025

Report of Analysis

Client:	CDM Smith	Date Collected:	
Project:	Bergen Point Fueling System	Date Received:	
Client Sample ID:	PB167913BSD	SDG No.:	Q1956
Lab Sample ID:	PB167913BSD	Matrix:	Water
Analytical Method:	8015D DRO	% Solid:	0 Decanted:
Sample Wt/Vol:	1000 Units: mL	Final Vol:	1 mL
Soil Aliquot Vol:	uL	Test:	Diesel Range Organics
Extraction Type:		Injection Volume :	
GPC Factor :	PH :		
Prep Method :	SW3510		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
FF015812.D	1	05/08/25 08:41	05/08/25 13:30	PB167913

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
DRO	DRO	193		6.00	50.0	ug/L
SURROGATES						
16416-32-3	Tetracosane-d50	18.7		29 - 130	93%	SPK: 20

Comments:

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

P = Indicates >25% difference for detected concentrations between the two GC columns

Q = indicates LCS control criteria did not meet requirements

M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

* = Values outside of QC limits

D = Dilution

S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.

() = Laboratory InHouse Limit

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF050825\
 Data File : FF015812.D
 Signal(s) : FID2B.ch
 Acq On : 08 May 2025 13:30
 Operator : YP\AJ
 Sample : PB167913BSD
 Misc :
 ALS Vial : 73 Sample Multiplier: 1

Instrument :
 FID_F
 ClientSampleId :
 PB167913BSD

Integration File: autoint1.e
 Quant Time: May 09 01:55:29 2025
 Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF042225.M
 Quant Title :
 QLast Update : Tue Apr 22 11:27:50 2025
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1uL
 Signal Phase : Rxi-1ms
 Signal Info : 20mx0.18mmx0.18um

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
9) S TETRACOSANE-d50 (SURR...	15.017	2106098	18.663 ug/ml
Target Compounds			
2) N-DECANE	4.564	2144139	21.012 ug/ml
3) N-DODECANE	6.732	2218973	20.265 ug/ml
4) N-TETRADECANE	8.559	2235282	19.366 ug/ml
5) N-HEXADECANE	10.166	2264219	19.185 ug/ml
6) N-OCTADECANE	11.608	2359172	18.754 ug/ml
7) N-EICOSANE	12.919	2426285	18.598 ug/ml
8) N-DOCOSANE	14.118	2361499	18.539 ug/ml
10) N-TETRACOSANE	15.221	2369764	18.839 ug/ml
11) N-HEXACOSANE	16.243	2338909	19.187 ug/ml
12) N-OCTACOSANE	17.195	2321792	19.621 ug/ml

(f)=RT Delta > 1/2 Window

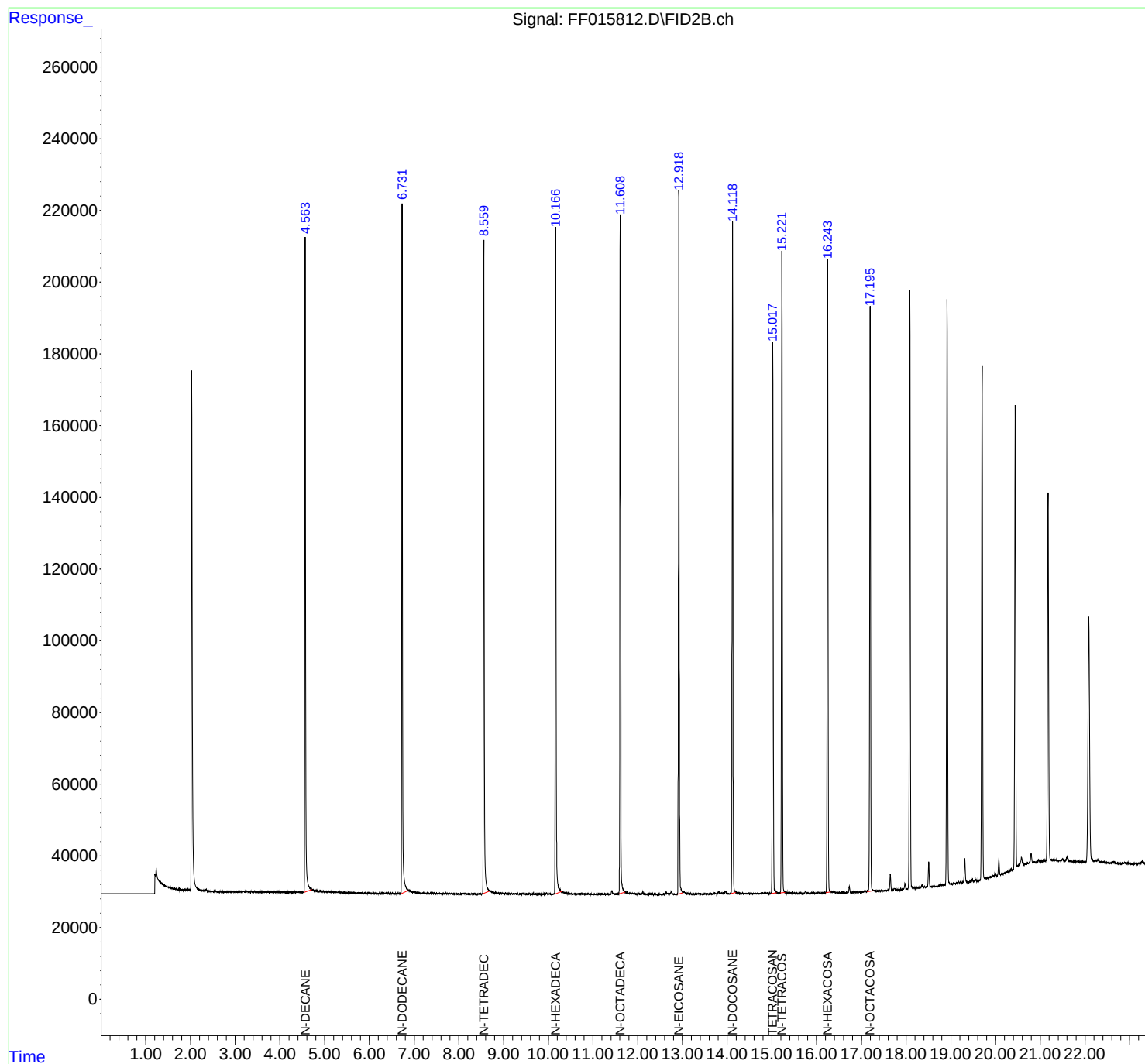
(m)=manual int.

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF050825\
Data File : FF015812.D
Signal(s) : FID2B.ch
Acq On : 08 May 2025 13:30
Operator : YP\AJ
Sample : PB167913BSD
Misc :
ALS Vial : 73 Sample Multiplier: 1

Instrument :
FID_F
ClientSampleId :
PB167913BSD

Integration File: autoint1.e
Quant Time: May 09 01:55:29 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF042225.M
Quant Title :
QLast Update : Tue Apr 22 11:27:50 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal Phase : Rxi-1ms
Signal Info : 20mx0.18mmx0.18um



rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF050825\
Data File : FF015812.D
Signal(s) : FID2B.ch
Acq On : 08 May 2025 13:30
Sample : PB167913BSD
Misc :
ALS Vial : 73 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF042225.M
Title :

Signal : FID2B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	4.564	4.534	4.709	BB	182302	2144139	88.37%	8.527%
2	6.732	6.701	6.871	BB	191958	2218973	91.46%	8.824%
3	8.559	8.529	8.692	BB	182132	2235282	92.13%	8.889%
4	10.166	10.136	10.296	BB	185098	2264219	93.32%	9.004%
5	11.608	11.574	11.721	BB	189409	2359172	97.23%	9.382%
6	12.919	12.884	13.017	BB	196106	2426285	100.00%	9.649%
7	14.118	14.081	14.194	BB	187137	2361499	97.33%	9.391%
8	15.017	14.977	15.104	BB	153426	2106098	86.80%	8.375%
9	15.221	15.184	15.296	BB	179456	2369764	97.67%	9.424%
10	16.243	16.204	16.314	BB	176499	2338909	96.40%	9.301%
11	17.195	17.129	17.274	BB	163144	2321792	95.69%	9.233%
Sum of corrected areas:						25146132		

FF042225.M Fri May 09 03:22:40 2025

Report of Analysis

Client:	CDM Smith	Date Collected:	05/02/25
Project:	Bergen Point Fueling System	Date Received:	05/02/25
Client Sample ID:	SB2-4-5MS	SDG No.:	Q1956
Lab Sample ID:	Q1956-03MS	Matrix:	SOIL
Analytical Method:	8015D DRO	% Solid:	93.5
Sample Wt/Vol:	30.03	Units:	g
Soil Aliquot Vol:			uL
Extraction Type:		Final Vol:	1
GPC Factor :		PH :	
Prep Method :	SW3541	Decanted:	
		Test:	Diesel Range Organics
		Injection Volume :	

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
FG015828.D	1	05/13/25 10:05	05/13/25 18:21	PB167975

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
DRO	DRO	7670		181	1780	ug/kg
SURROGATES						
16416-32-3	Tetracosane-d50	11.6		37 - 130	58%	SPK: 20

Comments:

U = Not Detected
 LOQ = Limit of Quantitation
 MDL = Method Detection Limit
 LOD = Limit of Detection
 E = Value Exceeds Calibration Range
 P = Indicates >25% difference for detected concentrations between the two GC columns
 Q = indicates LCS control criteria did not meet requirements
 M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
 B = Analyte Found in Associated Method Blank
 N = Presumptive Evidence of a Compound
 * = Values outside of QC limits
 D = Dilution
 S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
 () = Laboratory InHouse Limit

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG051325\
 Data File : FG015828.D
 Signal(s) : FID1A.ch
 Acq On : 13 May 2025 18:21
 Operator : YP\AJ
 Sample : Q1956-03MS
 Misc :
 ALS Vial : 27 Sample Multiplier: 1

Instrument :
 FID_G
 ClientSampleId :
 SB2-4-5MS

Integration File: autoint1.e
 Quant Time: May 14 03:56:05 2025
 Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG042425.M
 Quant Title :
 QLast Update : Thu Apr 24 12:54:09 2025
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1uL
 Signal Phase : Rxi-1ms
 Signal Info : 20mx0.18mmx0.18um

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
9) S TETRACOSANE-d50 (SURR...	14.994	1370551	11.641 ug/ml
Target Compounds			
2) N-DECANE	4.496	1904045	17.102 ug/ml
3) N-DODECANE	6.678	2060041	17.976 ug/ml
4) N-TETRADECANE	8.514	2111814	17.428 ug/ml
5) N-HEXADECANE	10.127	2317576	18.460 ug/ml
6) N-OCTADECANE	11.576	2409191	18.383 ug/ml
7) N-EICOSANE	12.890	2381127	17.563 ug/ml
8) N-DOCOSANE	14.092	2362384	17.812 ug/ml
10) N-TETRACOSANE	15.199	2393119	18.009 ug/ml
11) N-HEXACOSANE	16.223	2350398	17.723 ug/ml
12) N-OCTACOSANE	17.175	2353664	17.853 ug/ml

(f)=RT Delta > 1/2 Window

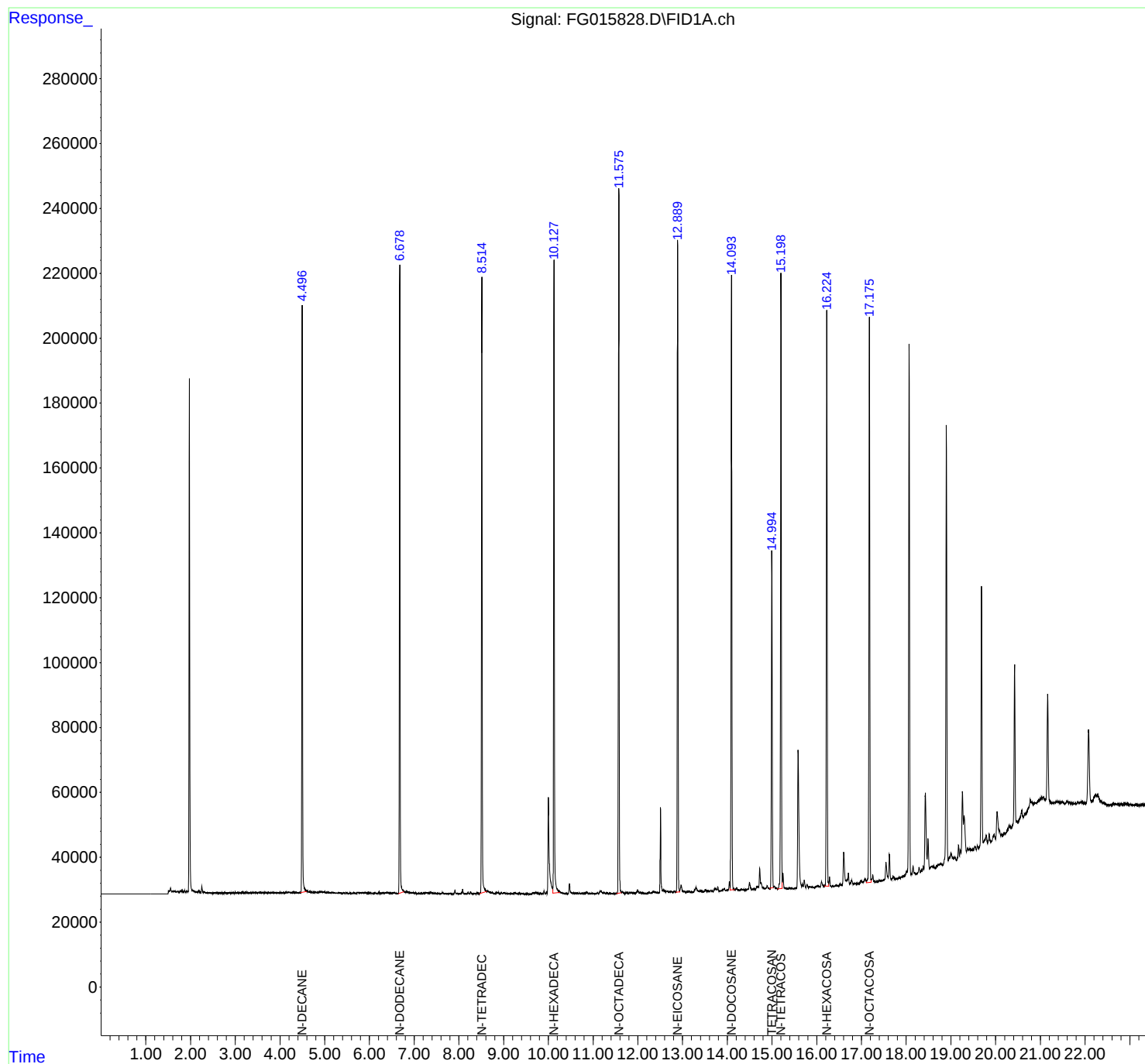
(m)=manual int.

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG051325\
Data File : FG015828.D
Signal(s) : FID1A.ch
Acq On : 13 May 2025 18:21
Operator : YP\AJ
Sample : Q1956-03MS
Misc :
ALS Vial : 27 Sample Multiplier: 1

Instrument :
FID_G
ClientSampleId :
SB2-4-5MS

Integration File: autoint1.e
Quant Time: May 14 03:56:05 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG042425.M
Quant Title :
QLast Update : Thu Apr 24 12:54:09 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal Phase : Rxi-1ms
Signal Info : 20mx0.18mmx0.18um



rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG051325\
 Data File : FG015828.D
 Signal(s) : FID1A.ch
 Acq On : 13 May 2025 18:21
 Sample : Q1956-03
 Misc :
 ALS Vial : 27 Sample Multiplier: 1

Integration File: Sample.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG042425.M
 Title :

Signal : FID1A.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	4.321	4.300	4.358	BV	215	2923	0.12%	0.010%
2	4.383	4.358	4.401	PV	136	1982	0.08%	0.007%
3	4.406	4.401	4.422	VV	96	750	0.03%	0.003%
4	4.427	4.422	4.439	VV	111	716	0.03%	0.002%
5	4.442	4.439	4.463	VV	167	1204	0.05%	0.004%
6	4.496	4.463	4.605	PV	180925	1931642	79.59%	6.727%
7	4.623	4.605	4.653	VV	744	15322	0.63%	0.053%
8	4.672	4.653	4.728	VV	581	16038	0.66%	0.056%
9	4.739	4.728	4.760	VV	319	4982	0.21%	0.017%
10	4.782	4.760	4.792	VV	339	5028	0.21%	0.018%
11	4.797	4.792	4.805	VV	270	1845	0.08%	0.006%
12	4.808	4.805	4.825	VV	318	2929	0.12%	0.010%
13	4.830	4.825	4.843	VV	279	2480	0.10%	0.009%
14	4.847	4.843	4.851	VV	299	1258	0.05%	0.004%
15	4.873	4.851	4.880	VV	386	5281	0.22%	0.018%
16	4.903	4.880	4.907	VV	474	6324	0.26%	0.022%
17	4.918	4.907	4.924	VV	508	4637	0.19%	0.016%
18	4.928	4.924	4.949	VV	514	6596	0.27%	0.023%
19	4.952	4.949	4.966	VV	398	4119	0.17%	0.014%
20	4.973	4.966	4.981	VV	411	3165	0.13%	0.011%
21	4.984	4.981	4.993	VV	370	2393	0.10%	0.008%
22	5.013	4.993	5.035	VV	395	7356	0.30%	0.026%
23	5.049	5.035	5.054	VV	361	2831	0.12%	0.010%
24	5.068	5.054	5.072	VV	296	2617	0.11%	0.009%
25	5.076	5.072	5.110	VV	288	4871	0.20%	0.017%
26	5.113	5.110	5.121	VV	206	1221	0.05%	0.004%
27	5.127	5.121	5.131	VV	211	1039	0.04%	0.004%
28	5.159	5.131	5.173	VV	308	5658	0.23%	0.020%
29	5.177	5.173	5.183	VV	217	1123	0.05%	0.004%
30	5.188	5.183	5.205	VV	228	2185	0.09%	0.008%
31	5.206	5.205	5.224	VV	190	1702	0.07%	0.006%
32	5.227	5.224	5.235	VV	170	841	0.03%	0.003%
33	5.237	5.235	5.243	VV	162	727	0.03%	0.003%
34	5.250	5.243	5.262	VV	151	1618	0.07%	0.006%
35	5.267	5.262	5.275	VV	152	874	0.04%	0.003%
36	5.279	5.275	5.286	VV	190	794	0.03%	0.003%

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37	5.297	5.286	5.311	VV	152	1847	0.08%	0.006%
38	5.327	5.311	5.341	VV	205	2749	0.11%	0.010%
39	5.347	5.341	5.366	VV	147	1684	0.07%	0.006%
40	5.371	5.366	5.375	VV	114	539	0.02%	0.002%
41	5.379	5.375	5.388	VV	117	899	0.04%	0.003%
42	5.395	5.388	5.400	VV	155	857	0.04%	0.003%
43	5.410	5.400	5.421	VV	159	1397	0.06%	0.005%
44	5.442	5.421	5.454	VV	159	1963	0.08%	0.007%
45	5.480	5.454	5.510	VV	240	4982	0.21%	0.017%
46	5.520	5.510	5.529	VV	125	1200	0.05%	0.004%
47	5.534	5.529	5.541	PV	103	642	0.03%	0.002%
48	5.547	5.541	5.565	VV	127	1276	0.05%	0.004%
49	5.568	5.565	5.572	VV	188	475	0.02%	0.002%
50	5.575	5.572	5.586	VV	125	742	0.03%	0.003%
51	5.589	5.586	5.595	VV	97	300	0.01%	0.001%
52	5.605	5.595	5.621	VV	108	1282	0.05%	0.004%
53	5.626	5.621	5.630	VV	92	360	0.01%	0.001%
54	5.645	5.630	5.660	VV	200	2625	0.11%	0.009%
55	5.665	5.660	5.680	VV	136	1075	0.04%	0.004%
56	5.684	5.680	5.692	VV	79	476	0.02%	0.002%
57	5.696	5.692	5.703	VV	101	450	0.02%	0.002%
58	5.735	5.703	5.741	VV	404	4721	0.19%	0.016%
59	5.746	5.741	5.757	VV	386	3162	0.13%	0.011%
60	5.765	5.757	5.797	VV	351	7169	0.30%	0.025%
61	5.804	5.797	5.820	VV	295	3698	0.15%	0.013%
62	5.833	5.820	5.840	VV	279	2933	0.12%	0.010%
63	5.842	5.840	5.863	VV	222	2930	0.12%	0.010%
64	5.875	5.863	5.895	VV	298	4614	0.19%	0.016%
65	5.910	5.895	5.969	VV	305	9645	0.40%	0.034%
66	5.977	5.969	5.996	VV	269	2893	0.12%	0.010%
67	6.000	5.996	6.005	VV	166	726	0.03%	0.003%
68	6.025	6.005	6.042	VV	245	4062	0.17%	0.014%
69	6.048	6.042	6.057	VV	173	1126	0.05%	0.004%
70	6.061	6.057	6.069	VV	96	751	0.03%	0.003%
71	6.078	6.069	6.083	VV	136	947	0.04%	0.003%
72	6.095	6.083	6.108	VV	243	2295	0.09%	0.008%
73	6.116	6.108	6.120	VV	212	1211	0.05%	0.004%
74	6.125	6.120	6.134	VV	192	1164	0.05%	0.004%
75	6.138	6.134	6.152	VV	146	1240	0.05%	0.004%
76	6.155	6.152	6.182	VV	152	1422	0.06%	0.005%
77	6.214	6.182	6.231	VV	579	8264	0.34%	0.029%
78	6.235	6.231	6.241	VV	290	1378	0.06%	0.005%
79	6.248	6.241	6.287	VV	320	5893	0.24%	0.021%
80	6.293	6.287	6.298	VV	272	1544	0.06%	0.005%
81	6.302	6.298	6.307	VV	242	1268	0.05%	0.004%
82	6.315	6.307	6.330	VV	346	3461	0.14%	0.012%
83	6.333	6.330	6.338	VV	328	1329	0.05%	0.005%
84	6.343	6.338	6.353	VV	245	1933	0.08%	0.007%
85	6.392	6.353	6.426	VV	519	12916	0.53%	0.045%
86	6.437	6.426	6.445	VV	246	2036	0.08%	0.007%
87	6.447	6.445	6.460	VV	213	1637	0.07%	0.006%
88	6.465	6.460	6.489	VV	294	3459	0.14%	0.012%
89	6.497	6.489	6.508	VV	213	1998	0.08%	0.007%

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90	6.549	6.508	6.614	VV	485	15163	0.62%	0.053%
91	6.622	6.614	6.637	VV	117	1260	0.05%	0.004%
92	6.640	6.637	6.648	VV	147	589	0.02%	0.002%
93	6.678	6.648	6.806	VV	193763	2098355	86.46%	7.307%
94	6.831	6.806	6.899	VV	748	30239	1.25%	0.105%
95	6.907	6.899	6.946	VV	454	11153	0.46%	0.039%
96	6.951	6.946	6.954	VV	355	1671	0.07%	0.006%
97	6.958	6.954	6.966	VV	398	2210	0.09%	0.008%
98	6.968	6.966	7.017	VV	353	8007	0.33%	0.028%
99	7.022	7.017	7.047	VV	229	3800	0.16%	0.013%
100	7.051	7.047	7.065	VV	224	1929	0.08%	0.007%
101	7.082	7.065	7.116	VV	237	5198	0.21%	0.018%
102	7.121	7.116	7.126	VV	180	1020	0.04%	0.004%
103	7.157	7.126	7.188	VV	233	6669	0.27%	0.023%
104	7.207	7.188	7.216	VV	251	3727	0.15%	0.013%
105	7.251	7.216	7.264	VV	391	9069	0.37%	0.032%
106	7.270	7.264	7.277	VV	349	2495	0.10%	0.009%
107	7.281	7.277	7.290	VV	325	2228	0.09%	0.008%
108	7.300	7.290	7.307	VV	292	2921	0.12%	0.010%
109	7.310	7.307	7.316	VV	277	1250	0.05%	0.004%
110	7.322	7.316	7.329	VV	236	1712	0.07%	0.006%
111	7.332	7.329	7.342	VV	259	1656	0.07%	0.006%
112	7.366	7.342	7.371	VV	448	5728	0.24%	0.020%
113	7.374	7.371	7.394	VV	416	5193	0.21%	0.018%
114	7.398	7.394	7.418	VV	352	4167	0.17%	0.015%
115	7.423	7.418	7.445	VV	266	3091	0.13%	0.011%
116	7.452	7.445	7.466	VV	233	2361	0.10%	0.008%
117	7.472	7.466	7.495	VV	239	2641	0.11%	0.009%
118	7.501	7.495	7.519	VV	195	1922	0.08%	0.007%
119	7.524	7.519	7.583	VV	174	4015	0.17%	0.014%
120	7.596	7.583	7.602	VV	144	1242	0.05%	0.004%
121	7.629	7.602	7.649	VV	483	7470	0.31%	0.026%
122	7.654	7.649	7.682	VV	274	2554	0.11%	0.009%
123	7.690	7.682	7.693	VV	139	534	0.02%	0.002%
124	7.697	7.693	7.704	VV	151	810	0.03%	0.003%
125	7.706	7.704	7.721	VV	160	898	0.04%	0.003%
126	7.725	7.721	7.732	VV	98	516	0.02%	0.002%
127	7.740	7.732	7.775	VV	112	1953	0.08%	0.007%
128	7.785	7.775	7.801	VV	119	1281	0.05%	0.004%
129	7.806	7.801	7.841	VV	116	1971	0.08%	0.007%
130	7.846	7.841	7.869	VV	79	929	0.04%	0.003%
131	7.872	7.869	7.874	PV	80	138	0.01%	0.000%
132	7.912	7.874	7.951	VV	1248	18595	0.77%	0.065%
133	7.954	7.951	7.976	VV	178	2114	0.09%	0.007%
134	7.977	7.976	7.996	VV	187	1331	0.05%	0.005%
135	8.001	7.996	8.017	VV	145	1276	0.05%	0.004%
136	8.033	8.017	8.041	VV	166	1790	0.07%	0.006%
137	8.084	8.041	8.112	VV	1524	24024	0.99%	0.084%
138	8.118	8.112	8.144	VV	167	2216	0.09%	0.008%
139	8.164	8.144	8.181	VV	202	2489	0.10%	0.009%
140	8.205	8.181	8.238	VV	661	9514	0.39%	0.033%
141	8.262	8.238	8.291	VV	768	10706	0.44%	0.037%

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142	8.296	8.291	8.304	VV	175	1073	0.04%	0.004%
143	8.335	8.304	8.342	VV	148	2504	0.10%	0.009%
144	8.345	8.342	8.354	VV	152	803	0.03%	0.003%
145	8.368	8.354	8.381	VV	234	2566	0.11%	0.009%
146	8.396	8.381	8.407	VV	272	3384	0.14%	0.012%
147	8.417	8.407	8.440	VV	320	4418	0.18%	0.015%
148	8.514	8.440	8.633	VV	189564	2170072	89.42%	7.557%
149	8.650	8.633	8.685	VV	943	25160	1.04%	0.088%
150	8.691	8.685	8.729	VV	611	13301	0.55%	0.046%
151	8.744	8.729	8.761	VV	461	7414	0.31%	0.026%
152	8.763	8.761	8.779	VV	354	3331	0.14%	0.012%
153	8.783	8.779	8.814	VV	289	4830	0.20%	0.017%
154	8.842	8.814	8.849	VV	504	7865	0.32%	0.027%
155	8.851	8.849	8.857	VV	498	2126	0.09%	0.007%
156	8.862	8.857	8.866	VV	419	2095	0.09%	0.007%
157	8.870	8.866	8.904	VV	495	8694	0.36%	0.030%
158	8.907	8.904	8.912	VV	318	1230	0.05%	0.004%
159	8.918	8.912	8.922	VV	302	1523	0.06%	0.005%
160	8.928	8.922	8.931	VV	308	1593	0.07%	0.006%
161	8.934	8.931	8.937	VV	312	1153	0.05%	0.004%
162	8.943	8.937	8.976	VV	401	6729	0.28%	0.023%
163	9.002	8.976	9.040	VV	449	12103	0.50%	0.042%
164	9.046	9.040	9.078	VV	309	5221	0.22%	0.018%
165	9.080	9.078	9.095	VV	199	1709	0.07%	0.006%
166	9.108	9.095	9.121	VV	200	2399	0.10%	0.008%
167	9.138	9.121	9.159	VV	278	4658	0.19%	0.016%
168	9.169	9.159	9.192	VV	255	3277	0.14%	0.011%
169	9.247	9.192	9.285	VV	496	13866	0.57%	0.048%
170	9.290	9.285	9.327	VV	224	3423	0.14%	0.012%
171	9.343	9.327	9.369	VV	504	7006	0.29%	0.024%
172	9.393	9.369	9.411	VV	262	4735	0.20%	0.016%
173	9.417	9.411	9.429	VV	154	945	0.04%	0.003%
174	9.431	9.429	9.441	VV	111	500	0.02%	0.002%
175	9.449	9.441	9.462	VV	139	577	0.02%	0.002%
176	9.479	9.462	9.485	VV	112	658	0.03%	0.002%
177	9.489	9.485	9.498	VV	78	339	0.01%	0.001%
178	9.531	9.498	9.574	VV	269	4500	0.19%	0.016%
179	9.586	9.574	9.613	VV	89	1172	0.05%	0.004%
180	9.650	9.613	9.665	PV	528	7857	0.32%	0.027%
181	9.676	9.665	9.689	VV	561	6094	0.25%	0.021%
182	9.729	9.689	9.800	VV	617	24102	0.99%	0.084%
183	9.809	9.800	9.839	VV	232	3773	0.16%	0.013%
184	9.864	9.839	9.872	VV	239	3766	0.16%	0.013%
185	9.879	9.872	9.884	VV	193	1260	0.05%	0.004%
186	9.905	9.884	9.934	VV	946	12633	0.52%	0.044%
187	9.959	9.934	9.975	VV	837	10285	0.42%	0.036%
188	10.002	9.975	10.097	VV	29987	588364	24.24%	2.049%
189	10.127	10.097	10.332	VV	195003	2378616	98.01%	8.283%
190	10.335	10.332	10.340	VV	280	1039	0.04%	0.004%
191	10.343	10.340	10.361	VV	249	2514	0.10%	0.009%
192	10.366	10.361	10.397	VV	204	3407	0.14%	0.012%
193	10.404	10.397	10.426	VV	223	2615	0.11%	0.009%
194	10.428	10.426	10.440	VV	178	1228	0.05%	0.004%

					rteres			
195	10.472	10.440	10.539	VV	3169	55735	2.30%	0.194%
196	10.547	10.539	10.593	VV	346	9461	0.39%	0.033%
197	10.599	10.593	10.603	VV	258	1484	0.06%	0.005%
198	10.612	10.603	10.632	VV	273	3793	0.16%	0.013%
199	10.645	10.632	10.667	VV	508	5822	0.24%	0.020%
200	10.688	10.667	10.712	VV	368	5977	0.25%	0.021%
201	10.723	10.712	10.729	VV	182	1554	0.06%	0.005%
202	10.733	10.729	10.740	VV	177	1013	0.04%	0.004%
203	10.759	10.740	10.776	VV	242	4019	0.17%	0.014%
204	10.794	10.776	10.809	VV	228	3283	0.14%	0.011%
205	10.815	10.809	10.817	VV	231	839	0.03%	0.003%
206	10.831	10.817	10.856	VV	560	9787	0.40%	0.034%
207	10.870	10.856	10.894	VV	533	7317	0.30%	0.025%
208	10.901	10.894	10.906	VV	125	835	0.03%	0.003%
209	10.940	10.906	10.949	VV	235	4108	0.17%	0.014%
210	10.952	10.949	10.962	VV	187	1175	0.05%	0.004%
211	10.975	10.962	11.031	VV	282	6624	0.27%	0.023%
212	11.041	11.031	11.046	VV	103	641	0.03%	0.002%
213	11.059	11.046	11.072	VV	144	1677	0.07%	0.006%
214	11.100	11.072	11.127	VV	351	6886	0.28%	0.024%
215	11.161	11.127	11.226	VV	878	33131	1.37%	0.115%
216	11.249	11.226	11.281	VV	439	10161	0.42%	0.035%
217	11.290	11.281	11.313	VV	305	4647	0.19%	0.016%
218	11.321	11.313	11.335	VV	264	2770	0.11%	0.010%
219	11.343	11.335	11.352	VV	169	1359	0.06%	0.005%
220	11.357	11.352	11.367	VV	112	696	0.03%	0.002%
221	11.393	11.367	11.421	VV	286	4707	0.19%	0.016%
222	11.442	11.421	11.449	VV	174	2252	0.09%	0.008%
223	11.462	11.449	11.485	VV	279	3072	0.13%	0.011%
224	11.507	11.485	11.530	VV	182	3498	0.14%	0.012%
225	11.576	11.530	11.639	VV	217491	2426959	100.00%	8.452%
226	11.655	11.639	11.706	VV	802	15862	0.65%	0.055%
227	11.733	11.706	11.750	VV	490	7324	0.30%	0.026%
228	11.772	11.750	11.793	VV	605	8140	0.34%	0.028%
229	11.819	11.793	11.839	VV	616	8536	0.35%	0.030%
230	11.859	11.839	11.917	VV	466	13489	0.56%	0.047%
231	11.994	11.917	12.040	VV	1206	34176	1.41%	0.119%
232	12.058	12.040	12.079	VV	567	8804	0.36%	0.031%
233	12.105	12.079	12.121	VV	316	5482	0.23%	0.019%
234	12.131	12.121	12.152	VV	247	3030	0.12%	0.011%
235	12.157	12.152	12.167	VV	117	545	0.02%	0.002%
236	12.181	12.167	12.191	PV	121	1140	0.05%	0.004%
237	12.249	12.191	12.272	VV	518	11956	0.49%	0.042%
238	12.305	12.272	12.316	VV	369	5750	0.24%	0.020%
239	12.348	12.316	12.356	VV	699	10773	0.44%	0.038%
240	12.363	12.356	12.402	VV	637	12058	0.50%	0.042%
241	12.411	12.402	12.423	VV	325	3680	0.15%	0.013%
242	12.428	12.423	12.437	VV	283	2202	0.09%	0.008%
243	12.458	12.437	12.476	VV	380	5962	0.25%	0.021%
244	12.507	12.476	12.562	VV	26446	316566	13.04%	1.102%
245	12.573	12.562	12.591	VV	1092	14486	0.60%	0.050%
246	12.600	12.591	12.622	VV	916	13178	0.54%	0.046%

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247	12.631	12.622	12.637	VV	565	4681	0.19%	0.016%
248	12.643	12.637	12.646	VV	537	2686	0.11%	0.009%
249	12.658	12.646	12.686	VV	579	11644	0.48%	0.041%
250	12.711	12.686	12.731	VV	545	11533	0.48%	0.040%
251	12.749	12.731	12.772	VV	580	9158	0.38%	0.032%
252	12.778	12.772	12.786	VV	215	1430	0.06%	0.005%
253	12.816	12.786	12.851	VV	619	14026	0.58%	0.049%
254	12.890	12.851	12.935	VV	201307	2392479	98.58%	8.332%
255	12.967	12.935	13.006	VV	2433	54742	2.26%	0.191%
256	13.009	13.006	13.053	VV	525	9486	0.39%	0.033%
257	13.060	13.053	13.084	VV	217	2784	0.11%	0.010%
258	13.103	13.084	13.127	VV	287	5747	0.24%	0.020%
259	13.148	13.127	13.182	VV	372	7712	0.32%	0.027%
260	13.193	13.182	13.231	VV	219	3960	0.16%	0.014%
261	13.235	13.231	13.244	PV	114	601	0.02%	0.002%
262	13.299	13.244	13.362	VV	1555	50570	2.08%	0.176%
263	13.381	13.362	13.404	VV	482	8839	0.36%	0.031%
264	13.411	13.404	13.417	VV	415	2457	0.10%	0.009%
265	13.421	13.417	13.434	VV	288	2540	0.10%	0.009%
266	13.436	13.434	13.482	VV	261	5656	0.23%	0.020%
267	13.504	13.482	13.540	VV	744	13790	0.57%	0.048%
268	13.561	13.540	13.615	VV	382	10804	0.45%	0.038%
269	13.630	13.615	13.673	VV	406	7642	0.31%	0.027%
270	13.676	13.673	13.681	VV	156	582	0.02%	0.002%
271	13.719	13.681	13.731	VV	995	14651	0.60%	0.051%
272	13.744	13.731	13.767	VV	847	14819	0.61%	0.052%
273	13.787	13.767	13.814	VV	1394	20329	0.84%	0.071%
274	13.820	13.814	13.836	VV	214	1914	0.08%	0.007%
275	13.933	13.836	13.971	VV	853	29986	1.24%	0.104%
276	13.992	13.971	14.004	VV	363	5353	0.22%	0.019%
277	14.007	14.004	14.011	VV	306	1175	0.05%	0.004%
278	14.046	14.011	14.061	VV	2945	40828	1.68%	0.142%
279	14.092	14.061	14.168	VV	189531	2383805	98.22%	8.301%
280	14.205	14.168	14.251	VV	982	23507	0.97%	0.082%
281	14.254	14.251	14.265	VV	218	1548	0.06%	0.005%
282	14.315	14.265	14.347	VV	342	11629	0.48%	0.040%
283	14.378	14.347	14.406	VV	299	7999	0.33%	0.028%
284	14.409	14.406	14.422	VV	308	1634	0.07%	0.006%
285	14.454	14.422	14.466	VV	442	7452	0.31%	0.026%
286	14.495	14.466	14.554	VV	2406	54991	2.27%	0.191%
287	14.600	14.554	14.636	VV	394	14008	0.58%	0.049%
288	14.656	14.636	14.667	VV	1164	14690	0.61%	0.051%
289	14.685	14.667	14.699	VV	1152	18154	0.75%	0.063%
290	14.723	14.699	14.839	VV	6656	157218	6.48%	0.547%
291	14.856	14.839	14.866	VV	411	6024	0.25%	0.021%
292	14.889	14.866	14.956	VV	1273	32117	1.32%	0.112%
293	14.994	14.956	15.032	VV	103866	1396077	57.52%	4.862%
294	15.052	15.032	15.132	VV	1077	30911	1.27%	0.108%
295	15.199	15.132	15.229	VV	188084	2405198	99.10%	8.376%
296	15.243	15.229	15.370	VV	4948	79829	3.29%	0.278%
297	15.394	15.370	15.429	VV	387	6300	0.26%	0.022%
298	15.454	15.429	15.483	VV	133	2807	0.12%	0.010%
299	15.531	15.483	15.546	PV	241	4871	0.20%	0.017%

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300	15.582	15.546	15.664	VV	42321	829993	34.20%	2.890%
301	15.676	15.664	15.696	VV	1367	19118	0.79%	0.067%
302	15.719	15.696	15.756	VV	2607	44446	1.83%	0.155%
303	15.783	15.756	15.821	VV	1188	21910	0.90%	0.076%
304	15.851	15.821	15.875	VV	465	8240	0.34%	0.029%
305	15.898	15.875	15.929	VV	222	4795	0.20%	0.017%
306	15.938	15.929	15.957	VV	142	1403	0.06%	0.005%
307	15.976	15.957	15.984	VV	287	3167	0.13%	0.011%
308	16.020	15.984	16.073	VV	438	16625	0.69%	0.058%
309	16.105	16.073	16.149	VV	1743	39546	1.63%	0.138%
310	16.223	16.149	16.267	VV	175489	2370624	97.68%	8.255%
311	16.285	16.267	16.341	VV	3140	43330	1.79%	0.151%
312	16.356	16.341	16.381	VV	227	2961	0.12%	0.010%
313	16.432	16.381	16.461	PV	320	7515	0.31%	0.026%
314	16.468	16.461	16.484	VV	142	1456	0.06%	0.005%
315	16.521	16.484	16.546	VV	553	11972	0.49%	0.042%
316	16.602	16.546	16.644	VV	10323	208470	8.59%	0.726%
317	16.706	16.644	16.734	VV	3698	94735	3.90%	0.330%
318	16.781	16.734	16.829	VV	1372	35903	1.48%	0.125%
319	16.849	16.829	16.886	VV	306	7779	0.32%	0.027%
320	16.897	16.886	16.927	VV	217	2535	0.10%	0.009%
321	16.984	16.927	17.036	PV	941	28567	1.18%	0.099%
322	17.085	17.036	17.113	VV	1315	37100	1.53%	0.129%
323	17.175	17.113	17.212	VV	174615	2358240	97.17%	8.212%
324	17.222	17.212	17.236	VV	1019	13002	0.54%	0.045%
325	17.252	17.236	17.282	VV	2292	33235	1.37%	0.116%
326	17.298	17.282	17.332	VV	273	4441	0.18%	0.015%
			Sum of corrected areas:			28715910		

FG042425.M Wed May 14 05:36:39 2025

Report of Analysis

Client:	CDM Smith	Date Collected:	05/02/25
Project:	Bergen Point Fueling System	Date Received:	05/02/25
Client Sample ID:	SB2-4-5MSD	SDG No.:	Q1956
Lab Sample ID:	Q1956-04MSD	Matrix:	SOIL
Analytical Method:	8015D DRO	% Solid:	93.5
Sample Wt/Vol:	30.04	Units:	g
Soil Aliquot Vol:			uL
Extraction Type:		Final Vol:	1
GPC Factor :		PH :	
Prep Method :	SW3541	Decanted:	
		Test:	Diesel Range Organics
		Injection Volume :	

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
FG015829.D	1	05/13/25 10:05	05/13/25 18:50	PB167975

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
DRO	DRO	7820		181	1780	ug/kg
SURROGATES						
16416-32-3	Tetracosane-d50	11.9		37 - 130	60%	SPK: 20

Comments:

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

P = Indicates >25% difference for detected concentrations between the two GC columns

Q = indicates LCS control criteria did not meet requirements

M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

* = Values outside of QC limits

D = Dilution

S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.

() = Laboratory InHouse Limit

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG051325\
 Data File : FG015829.D
 Signal(s) : FID1A.ch
 Acq On : 13 May 2025 18:50
 Operator : YP\AJ
 Sample : Q1956-04MSD
 Misc :
 ALS Vial : 28 Sample Multiplier: 1

Instrument :
 FID_G
 ClientSampleId :
 SB2-4-5MSD

Integration File: autoint1.e
 Quant Time: May 14 03:56:16 2025
 Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG042425.M
 Quant Title :
 QLast Update : Thu Apr 24 12:54:09 2025
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1uL
 Signal Phase : Rxi-1ms
 Signal Info : 20mx0.18mmx0.18um

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
9) S TETRACOSANE-d50 (SURR...	14.993	1406410	11.945 ug/ml
Target Compounds			
2) N-DECANE	4.496	1863836	16.741 ug/ml
3) N-DODECANE	6.678	2046373	17.856 ug/ml
4) N-TETRADECANE	8.514	2131192	17.588 ug/ml
5) N-HEXADECANE	10.127	2361126	18.807 ug/ml
6) N-OCTADECANE	11.576	2465513	18.813 ug/ml
7) N-EICOSANE	12.890	2438874	17.989 ug/ml
8) N-DOCOSANE	14.092	2427066	18.300 ug/ml
10) N-TETRACOSANE	15.198	2459726	18.510 ug/ml
11) N-HEXACOSANE	16.222	2413835	18.201 ug/ml
12) N-OCTACOSANE	17.175	2403412	18.231 ug/ml

(f)=RT Delta > 1/2 Window

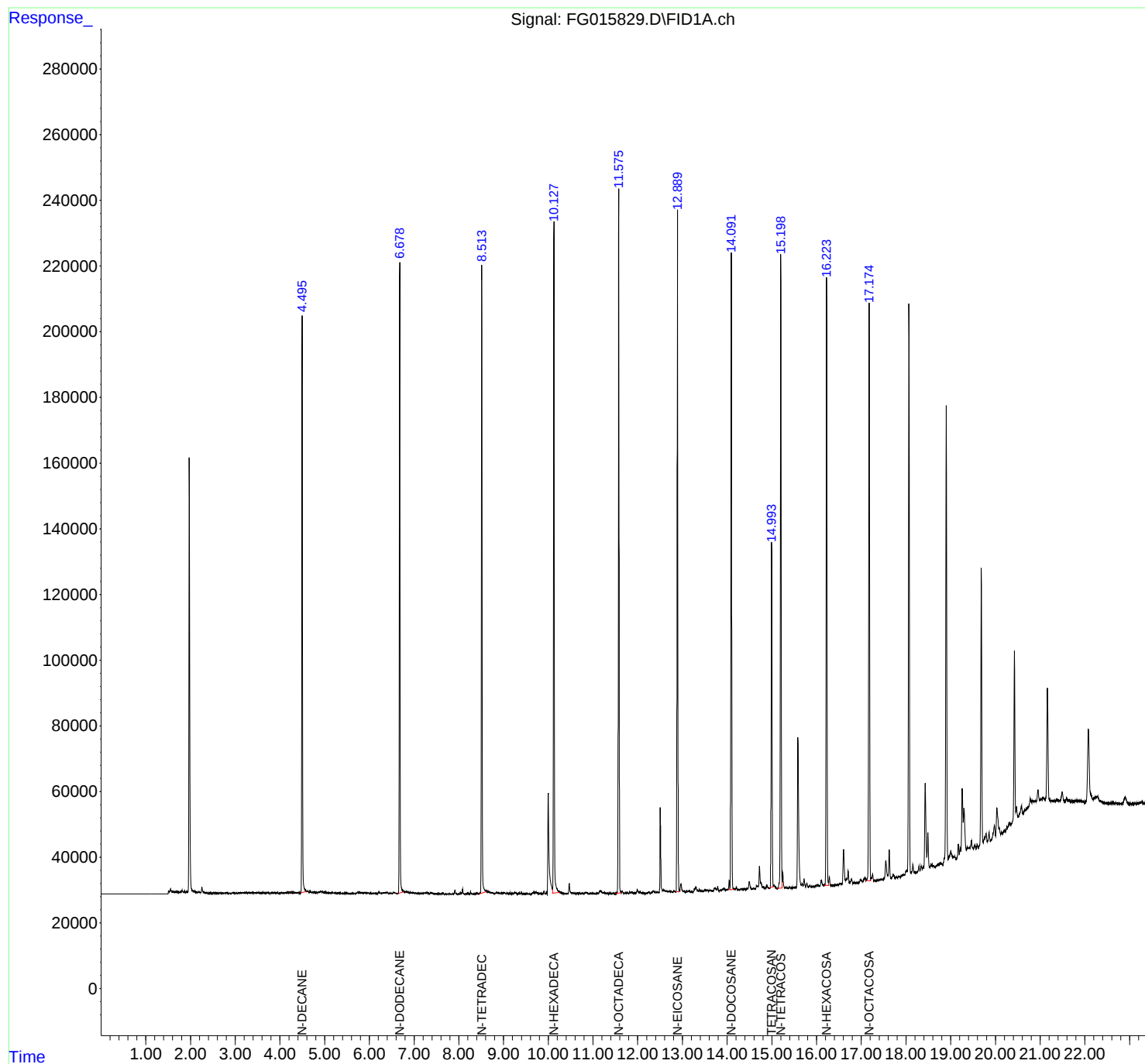
(m)=manual int.

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG051325\
Data File : FG015829.D
Signal(s) : FID1A.ch
Acq On : 13 May 2025 18:50
Operator : YP\AJ
Sample : Q1956-04MSD
Misc :
ALS Vial : 28 Sample Multiplier: 1

Instrument :
FID_G
ClientSampleId :
SB2-4-5MSD

Integration File: autoint1.e
Quant Time: May 14 03:56:16 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG042425.M
Quant Title :
QLast Update : Thu Apr 24 12:54:09 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal Phase : Rxi-1ms
Signal Info : 20mx0.18mmx0.18um



rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG051325\
Data File : FG015829.D
Signal(s) : FID1A.ch
Acq On : 13 May 2025 18:50
Sample : Q1956-04
Misc :
ALS Vial : 28 Sample Multiplier: 1

Integration File: Sample.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG042425.M
Title :

Signal : FID1A.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	4.313	4.300	4.385	BV	100	2262	0.09%	0.008%
2	4.390	4.385	4.406	PV	118	732	0.03%	0.002%
3	4.412	4.406	4.421	VV	145	547	0.02%	0.002%
4	4.428	4.421	4.455	VV	96	1343	0.05%	0.005%
5	4.463	4.455	4.468	PV	144	623	0.03%	0.002%
6	4.496	4.468	4.595	VV	175326	1888750	76.10%	6.448%
7	4.598	4.595	4.604	VV	569	2949	0.12%	0.010%
8	4.621	4.604	4.657	VV	633	15031	0.61%	0.051%
9	4.668	4.657	4.695	VV	603	10032	0.40%	0.034%
10	4.698	4.695	4.705	VV	375	1666	0.07%	0.006%
11	4.707	4.705	4.721	VV	329	2582	0.10%	0.009%
12	4.728	4.721	4.741	VV	361	3569	0.14%	0.012%
13	4.755	4.741	4.794	VV	325	8643	0.35%	0.030%
14	4.805	4.794	4.852	VV	323	8729	0.35%	0.030%
15	4.890	4.852	4.894	VV	456	8422	0.34%	0.029%
16	4.919	4.894	4.981	VV	587	23250	0.94%	0.079%
17	5.012	4.981	5.045	VV	450	12375	0.50%	0.042%
18	5.047	5.045	5.081	VV	297	5166	0.21%	0.018%
19	5.083	5.081	5.089	VV	281	1076	0.04%	0.004%
20	5.090	5.089	5.125	VV	268	4557	0.18%	0.016%
21	5.128	5.125	5.141	VV	228	1762	0.07%	0.006%
22	5.161	5.141	5.190	VV	353	6282	0.25%	0.021%
23	5.196	5.190	5.212	VV	187	1937	0.08%	0.007%
24	5.218	5.212	5.224	VV	145	776	0.03%	0.003%
25	5.231	5.224	5.240	VV	127	1071	0.04%	0.004%
26	5.248	5.240	5.270	VV	165	1877	0.08%	0.006%
27	5.287	5.270	5.302	VV	183	2091	0.08%	0.007%
28	5.309	5.302	5.314	VV	155	854	0.03%	0.003%
29	5.319	5.314	5.322	VV	181	533	0.02%	0.002%
30	5.344	5.322	5.349	VV	189	2186	0.09%	0.007%
31	5.354	5.349	5.363	VV	149	843	0.03%	0.003%
32	5.367	5.363	5.404	VV	138	2288	0.09%	0.008%
33	5.410	5.404	5.415	VV	91	444	0.02%	0.002%
34	5.423	5.415	5.427	VV	143	619	0.02%	0.002%
35	5.440	5.427	5.445	VV	161	1163	0.05%	0.004%
36	5.482	5.445	5.500	VV	267	5087	0.20%	0.017%

					rteres			
37	5.505	5.500	5.519	VV	140	919	0.04%	0.003%
38	5.522	5.519	5.554	VV	140	1714	0.07%	0.006%
39	5.560	5.554	5.568	VV	117	568	0.02%	0.002%
40	5.575	5.568	5.583	VV	161	613	0.02%	0.002%
41	5.588	5.583	5.607	VV	142	1124	0.05%	0.004%
42	5.612	5.607	5.625	VV	66	777	0.03%	0.003%
43	5.641	5.625	5.695	VV	209	4595	0.19%	0.016%
44	5.702	5.695	5.708	VV	97	401	0.02%	0.001%
45	5.741	5.708	5.772	PV	456	11850	0.48%	0.040%
46	5.776	5.772	5.792	VV	367	4059	0.16%	0.014%
47	5.794	5.792	5.805	VV	378	2518	0.10%	0.009%
48	5.807	5.805	5.858	VV	384	8420	0.34%	0.029%
49	5.878	5.858	5.891	VV	341	5105	0.21%	0.017%
50	5.895	5.891	5.901	VV	266	1437	0.06%	0.005%
51	5.908	5.901	5.935	VV	336	5498	0.22%	0.019%
52	5.940	5.935	5.962	VV	254	3293	0.13%	0.011%
53	5.974	5.962	6.000	VV	257	4697	0.19%	0.016%
54	6.027	6.000	6.032	VV	254	3826	0.15%	0.013%
55	6.035	6.032	6.049	VV	236	1851	0.07%	0.006%
56	6.056	6.049	6.068	VV	179	1598	0.06%	0.005%
57	6.073	6.068	6.086	VV	135	1399	0.06%	0.005%
58	6.097	6.086	6.101	VV	224	1584	0.06%	0.005%
59	6.106	6.101	6.117	VV	192	1598	0.06%	0.005%
60	6.125	6.117	6.142	VV	206	2249	0.09%	0.008%
61	6.148	6.142	6.160	VV	194	1189	0.05%	0.004%
62	6.163	6.160	6.175	VV	102	723	0.03%	0.002%
63	6.181	6.175	6.193	VV	149	1168	0.05%	0.004%
64	6.213	6.193	6.231	VV	614	8599	0.35%	0.029%
65	6.234	6.231	6.265	VV	279	4872	0.20%	0.017%
66	6.275	6.265	6.279	VV	267	2040	0.08%	0.007%
67	6.286	6.279	6.291	VV	290	1760	0.07%	0.006%
68	6.301	6.291	6.317	VV	311	4133	0.17%	0.014%
69	6.335	6.317	6.358	VV	369	7404	0.30%	0.025%
70	6.370	6.358	6.376	VV	363	3634	0.15%	0.012%
71	6.388	6.376	6.428	VV	544	11002	0.44%	0.038%
72	6.433	6.428	6.442	VV	275	1799	0.07%	0.006%
73	6.450	6.442	6.469	VV	282	3848	0.16%	0.013%
74	6.473	6.469	6.493	VV	257	3155	0.13%	0.011%
75	6.497	6.493	6.510	VV	252	2017	0.08%	0.007%
76	6.517	6.510	6.523	VV	260	1681	0.07%	0.006%
77	6.546	6.523	6.599	VV	542	15523	0.63%	0.053%
78	6.605	6.599	6.620	VV	250	2365	0.10%	0.008%
79	6.625	6.620	6.632	VV	205	1121	0.05%	0.004%
80	6.635	6.632	6.640	VV	198	732	0.03%	0.003%
81	6.678	6.640	6.800	VV	192602	2089797	84.20%	7.135%
82	6.804	6.800	6.810	VV	703	4133	0.17%	0.014%
83	6.811	6.810	6.824	VV	693	5359	0.22%	0.018%
84	6.833	6.824	6.881	VV	728	19600	0.79%	0.067%
85	6.896	6.881	6.904	VV	495	6137	0.25%	0.021%
86	6.907	6.904	6.919	VV	558	3967	0.16%	0.014%
87	6.920	6.919	6.934	VV	422	3420	0.14%	0.012%
88	6.938	6.934	6.956	VV	396	5076	0.20%	0.017%
89	6.961	6.956	6.983	VV	482	6104	0.25%	0.021%

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90	6.986	6.983	6.993	VV	365	1936	0.08%	0.007%
91	6.999	6.993	7.010	VV	373	3327	0.13%	0.011%
92	7.017	7.010	7.027	VV	356	3158	0.13%	0.011%
93	7.032	7.027	7.059	VV	298	4818	0.19%	0.016%
94	7.073	7.059	7.086	VV	277	3432	0.14%	0.012%
95	7.092	7.086	7.108	VV	298	2796	0.11%	0.010%
96	7.110	7.108	7.122	VV	243	1516	0.06%	0.005%
97	7.132	7.122	7.167	VV	233	4853	0.20%	0.017%
98	7.198	7.167	7.205	VV	276	4314	0.17%	0.015%
99	7.240	7.205	7.271	VV	397	12853	0.52%	0.044%
100	7.276	7.271	7.284	VV	335	2434	0.10%	0.008%
101	7.285	7.284	7.291	VV	344	1333	0.05%	0.005%
102	7.299	7.291	7.340	VV	368	7970	0.32%	0.027%
103	7.365	7.340	7.390	VV	497	10890	0.44%	0.037%
104	7.397	7.390	7.444	VV	399	8116	0.33%	0.028%
105	7.462	7.444	7.497	VV	220	4977	0.20%	0.017%
106	7.502	7.497	7.531	VV	153	2226	0.09%	0.008%
107	7.545	7.531	7.550	VV	160	1292	0.05%	0.004%
108	7.560	7.550	7.599	VV	155	2652	0.11%	0.009%
109	7.610	7.599	7.613	VV	131	714	0.03%	0.002%
110	7.631	7.613	7.686	VV	505	8635	0.35%	0.029%
111	7.697	7.686	7.717	PV	140	1206	0.05%	0.004%
112	7.728	7.717	7.738	VV	118	847	0.03%	0.003%
113	7.743	7.738	7.747	VV	133	497	0.02%	0.002%
114	7.752	7.747	7.779	VV	95	1381	0.06%	0.005%
115	7.784	7.779	7.790	VV	100	473	0.02%	0.002%
116	7.798	7.790	7.809	VV	148	912	0.04%	0.003%
117	7.831	7.809	7.837	VV	122	1541	0.06%	0.005%
118	7.839	7.837	7.843	VV	92	213	0.01%	0.001%
119	7.847	7.843	7.865	VV	98	1002	0.04%	0.003%
120	7.870	7.865	7.886	VV	104	1042	0.04%	0.004%
121	7.912	7.886	8.011	VV	1317	21023	0.85%	0.072%
122	8.084	8.011	8.110	VV	1547	24188	0.97%	0.083%
123	8.115	8.110	8.146	VV	147	2144	0.09%	0.007%
124	8.162	8.146	8.174	VV	202	1676	0.07%	0.006%
125	8.204	8.174	8.234	VV	602	7828	0.32%	0.027%
126	8.262	8.234	8.292	VV	741	10255	0.41%	0.035%
127	8.296	8.292	8.313	VV	151	1254	0.05%	0.004%
128	8.317	8.313	8.327	VV	122	563	0.02%	0.002%
129	8.333	8.327	8.355	VV	100	1225	0.05%	0.004%
130	8.368	8.355	8.384	VV	168	1971	0.08%	0.007%
131	8.420	8.384	8.439	VV	338	6396	0.26%	0.022%
132	8.514	8.439	8.640	VV	190922	2187877	88.15%	7.470%
133	8.652	8.640	8.687	VV	920	20589	0.83%	0.070%
134	8.696	8.687	8.702	VV	636	5328	0.21%	0.018%
135	8.704	8.702	8.708	VV	549	1754	0.07%	0.006%
136	8.711	8.708	8.739	VV	536	8733	0.35%	0.030%
137	8.748	8.739	8.766	VV	453	6214	0.25%	0.021%
138	8.772	8.766	8.787	VV	352	3811	0.15%	0.013%
139	8.793	8.787	8.799	VV	284	1741	0.07%	0.006%
140	8.802	8.799	8.815	VV	265	2257	0.09%	0.008%
141	8.848	8.815	8.864	VV	514	11648	0.47%	0.040%

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142	8.874	8.864	8.907	VV	463	9507	0.38%	0.032%
143	8.948	8.907	8.971	VV	494	11631	0.47%	0.040%
144	8.973	8.971	8.978	VV	254	1026	0.04%	0.004%
145	9.002	8.978	9.041	VV	476	12385	0.50%	0.042%
146	9.058	9.041	9.086	VV	335	6555	0.26%	0.022%
147	9.089	9.086	9.097	VV	182	1071	0.04%	0.004%
148	9.113	9.097	9.122	VV	182	2293	0.09%	0.008%
149	9.140	9.122	9.146	VV	234	2842	0.11%	0.010%
150	9.149	9.146	9.153	VV	235	900	0.04%	0.003%
151	9.161	9.153	9.194	VV	313	4480	0.18%	0.015%
152	9.199	9.194	9.206	VV	209	1245	0.05%	0.004%
153	9.211	9.206	9.225	VV	200	2146	0.09%	0.007%
154	9.247	9.225	9.288	VV	595	13421	0.54%	0.046%
155	9.292	9.288	9.306	VV	197	1271	0.05%	0.004%
156	9.314	9.306	9.325	VV	156	1369	0.06%	0.005%
157	9.345	9.325	9.371	VV	541	7975	0.32%	0.027%
158	9.398	9.371	9.423	VV	495	6250	0.25%	0.021%
159	9.428	9.423	9.444	VV	99	753	0.03%	0.003%
160	9.448	9.444	9.487	VB	90	962	0.04%	0.003%
161	9.532	9.497	9.569	BV	262	2937	0.12%	0.010%
162	9.582	9.569	9.591	PV	86	572	0.02%	0.002%
163	9.596	9.591	9.601	VV	89	287	0.01%	0.001%
164	9.607	9.601	9.628	VV	66	713	0.03%	0.002%
165	9.652	9.628	9.662	PV	565	6809	0.27%	0.023%
166	9.674	9.662	9.689	VV	775	8765	0.35%	0.030%
167	9.728	9.689	9.750	VV	612	16941	0.68%	0.058%
168	9.762	9.750	9.804	VV	346	7408	0.30%	0.025%
169	9.808	9.804	9.832	VV	234	2664	0.11%	0.009%
170	9.841	9.832	9.845	VV	190	1050	0.04%	0.004%
171	9.860	9.845	9.872	VV	237	2886	0.12%	0.010%
172	9.878	9.872	9.884	VV	172	1098	0.04%	0.004%
173	9.905	9.884	9.929	VV	939	11492	0.46%	0.039%
174	9.961	9.929	9.975	VV	792	9874	0.40%	0.034%
175	10.000	9.975	10.097	VV	30635	601238	24.22%	2.053%
176	10.127	10.097	10.224	VV	204163	2385129	96.09%	8.143%
177	10.231	10.224	10.286	VV	958	24891	1.00%	0.085%
178	10.294	10.286	10.324	VV	447	7945	0.32%	0.027%
179	10.329	10.324	10.339	VV	263	1837	0.07%	0.006%
180	10.352	10.339	10.373	VV	218	3543	0.14%	0.012%
181	10.378	10.373	10.384	VV	167	979	0.04%	0.003%
182	10.390	10.384	10.402	VV	161	1482	0.06%	0.005%
183	10.407	10.402	10.424	VV	149	1367	0.06%	0.005%
184	10.470	10.424	10.538	VV	3178	55876	2.25%	0.191%
185	10.547	10.538	10.567	VV	330	4967	0.20%	0.017%
186	10.574	10.567	10.589	VV	342	3129	0.13%	0.011%
187	10.594	10.589	10.598	VV	209	1099	0.04%	0.004%
188	10.614	10.598	10.628	VV	249	3454	0.14%	0.012%
189	10.645	10.628	10.666	VV	473	5476	0.22%	0.019%
190	10.687	10.666	10.716	VV	401	6887	0.28%	0.024%
191	10.720	10.716	10.736	VV	175	1375	0.06%	0.005%
192	10.754	10.736	10.779	VV	298	4957	0.20%	0.017%
193	10.795	10.779	10.811	VV	174	2771	0.11%	0.009%
194	10.834	10.811	10.855	VV	535	10398	0.42%	0.035%

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195	10.868	10.855	10.906	VV	511	8095	0.33%	0.028%
196	10.929	10.906	10.934	VV	173	2202	0.09%	0.008%
197	10.942	10.934	10.957	VV	247	2261	0.09%	0.008%
198	10.971	10.957	10.993	VV	300	4520	0.18%	0.015%
199	10.997	10.993	11.031	VV	227	3059	0.12%	0.010%
200	11.053	11.031	11.070	VV	155	2075	0.08%	0.007%
201	11.095	11.070	11.119	VV	410	7080	0.29%	0.024%
202	11.162	11.119	11.178	VV	1067	23596	0.95%	0.081%
203	11.185	11.178	11.232	VV	784	15659	0.63%	0.053%
204	11.246	11.232	11.281	VV	539	10319	0.42%	0.035%
205	11.293	11.281	11.314	VV	279	5119	0.21%	0.017%
206	11.321	11.314	11.356	VV	308	5100	0.21%	0.017%
207	11.360	11.356	11.369	VV	100	684	0.03%	0.002%
208	11.400	11.369	11.417	VV	337	5322	0.21%	0.018%
209	11.423	11.417	11.426	PV	99	415	0.02%	0.001%
210	11.434	11.426	11.440	VV	221	1420	0.06%	0.005%
211	11.446	11.440	11.449	VV	224	1035	0.04%	0.004%
212	11.455	11.449	11.482	VV	297	3509	0.14%	0.012%
213	11.505	11.482	11.527	VV	232	4061	0.16%	0.014%
214	11.531	11.527	11.534	VV	161	597	0.02%	0.002%
215	11.576	11.534	11.634	VV	214676	2482060	100.00%	8.474%
216	11.653	11.634	11.696	VV	871	16616	0.67%	0.057%
217	11.701	11.696	11.704	VV	124	557	0.02%	0.002%
218	11.735	11.704	11.752	VV	514	7890	0.32%	0.027%
219	11.769	11.752	11.796	VV	609	7226	0.29%	0.025%
220	11.821	11.796	11.836	PV	633	8111	0.33%	0.028%
221	11.864	11.836	11.919	VV	522	15860	0.64%	0.054%
222	11.924	11.919	11.946	VV	209	2510	0.10%	0.009%
223	11.990	11.946	12.039	VV	1281	31503	1.27%	0.108%
224	12.057	12.039	12.079	VV	610	9427	0.38%	0.032%
225	12.101	12.079	12.120	VV	310	5089	0.21%	0.017%
226	12.124	12.120	12.128	VV	226	830	0.03%	0.003%
227	12.131	12.128	12.184	VV	189	2446	0.10%	0.008%
228	12.195	12.184	12.207	VV	104	957	0.04%	0.003%
229	12.250	12.207	12.274	PV	511	10156	0.41%	0.035%
230	12.304	12.274	12.324	VV	393	6009	0.24%	0.021%
231	12.350	12.324	12.411	VV	802	23460	0.95%	0.080%
232	12.425	12.411	12.430	VV	338	3056	0.12%	0.010%
233	12.439	12.430	12.444	VV	281	2045	0.08%	0.007%
234	12.459	12.444	12.475	VV	316	4641	0.19%	0.016%
235	12.505	12.475	12.555	VV	26018	315619	12.72%	1.078%
236	12.572	12.555	12.588	VV	1045	16984	0.68%	0.058%
237	12.603	12.588	12.631	VV	865	16792	0.68%	0.057%
238	12.634	12.631	12.645	VV	545	4347	0.18%	0.015%
239	12.659	12.645	12.682	VV	582	11237	0.45%	0.038%
240	12.688	12.682	12.691	VV	393	2055	0.08%	0.007%
241	12.714	12.691	12.731	VV	556	10413	0.42%	0.036%
242	12.748	12.731	12.779	VV	595	9980	0.40%	0.034%
243	12.813	12.779	12.856	VV	618	16210	0.65%	0.055%
244	12.890	12.856	12.936	VV	206145	2452110	98.79%	8.372%
245	12.967	12.936	13.076	VV	2668	69532	2.80%	0.237%
246	13.097	13.076	13.122	VV	329	6449	0.26%	0.022%

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247	13.145	13.122	13.151	VV	395	5451	0.22%	0.019%
248	13.154	13.151	13.184	VV	340	4181	0.17%	0.014%
249	13.195	13.184	13.198	VV	215	1513	0.06%	0.005%
250	13.201	13.198	13.224	VV	199	2153	0.09%	0.007%
251	13.231	13.224	13.234	VV	97	405	0.02%	0.001%
252	13.301	13.234	13.361	PV	1578	55710	2.24%	0.190%
253	13.383	13.361	13.411	VV	641	12190	0.49%	0.042%
254	13.415	13.411	13.482	VV	380	10315	0.42%	0.035%
255	13.502	13.482	13.539	VV	783	14727	0.59%	0.050%
256	13.562	13.539	13.596	VV	432	10282	0.41%	0.035%
257	13.602	13.596	13.609	VV	241	1778	0.07%	0.006%
258	13.630	13.609	13.653	VV	425	7274	0.29%	0.025%
259	13.663	13.653	13.691	VV	205	3679	0.15%	0.013%
260	13.720	13.691	13.730	VV	963	14855	0.60%	0.051%
261	13.743	13.730	13.766	VV	868	14369	0.58%	0.049%
262	13.786	13.766	13.816	VV	1476	20695	0.83%	0.071%
263	13.821	13.816	13.837	VV	162	1660	0.07%	0.006%
264	13.913	13.837	13.919	VV	609	16651	0.67%	0.057%
265	13.931	13.919	13.972	VV	902	16505	0.66%	0.056%
266	13.989	13.972	14.001	VV	365	5305	0.21%	0.018%
267	14.010	14.001	14.014	VV	358	2628	0.11%	0.009%
268	14.044	14.014	14.060	VV	3035	40888	1.65%	0.140%
269	14.092	14.060	14.171	VV	193799	2448890	98.66%	8.361%
270	14.206	14.171	14.237	VV	1017	21311	0.86%	0.073%
271	14.241	14.237	14.270	VV	237	3951	0.16%	0.013%
272	14.275	14.270	14.281	VV	237	1206	0.05%	0.004%
273	14.303	14.281	14.323	VV	380	7221	0.29%	0.025%
274	14.329	14.323	14.339	VV	336	2970	0.12%	0.010%
275	14.343	14.339	14.357	VV	351	3310	0.13%	0.011%
276	14.360	14.357	14.393	VV	360	5916	0.24%	0.020%
277	14.401	14.393	14.434	VV	302	5467	0.22%	0.019%
278	14.456	14.434	14.462	VV	502	6349	0.26%	0.022%
279	14.492	14.462	14.556	VV	2487	58497	2.36%	0.200%
280	14.594	14.556	14.626	VV	468	13295	0.54%	0.045%
281	14.654	14.626	14.667	VV	1246	17320	0.70%	0.059%
282	14.679	14.667	14.697	VV	1181	18365	0.74%	0.063%
283	14.721	14.697	14.749	VV	7067	114107	4.60%	0.390%
284	14.756	14.749	14.796	VV	2229	36550	1.47%	0.125%
285	14.808	14.796	14.836	VV	734	13217	0.53%	0.045%
286	14.852	14.836	14.859	VV	424	5014	0.20%	0.017%
287	14.888	14.859	14.956	VV	1363	33383	1.34%	0.114%
288	14.993	14.956	15.031	VV	105247	1431105	57.66%	4.886%
289	15.051	15.031	15.095	VV	1154	27068	1.09%	0.092%
290	15.098	15.095	15.128	VV	338	3518	0.14%	0.012%
291	15.198	15.128	15.228	VV	191874	2469844	99.51%	8.432%
292	15.243	15.228	15.307	VV	4925	73784	2.97%	0.252%
293	15.311	15.307	15.315	VV	304	1128	0.05%	0.004%
294	15.322	15.315	15.327	VV	235	1593	0.06%	0.005%
295	15.332	15.327	15.337	VV	262	964	0.04%	0.003%
296	15.345	15.337	15.367	VV	186	1904	0.08%	0.007%
297	15.394	15.367	15.420	PV	376	5947	0.24%	0.020%
298	15.428	15.420	15.432	VV	114	622	0.03%	0.002%
299	15.456	15.432	15.474	VV	200	2205	0.09%	0.008%

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300	15.510	15.474	15.516	VV	203	2190	0.09%	0.007%
301	15.529	15.516	15.533	VV	161	1411	0.06%	0.005%
302	15.536	15.533	15.547	VV	199	1059	0.04%	0.004%
303	15.580	15.547	15.656	VV	45695	852467	34.35%	2.910%
304	15.675	15.656	15.696	VV	1366	22108	0.89%	0.075%
305	15.719	15.696	15.756	VV	2732	44895	1.81%	0.153%
306	15.782	15.756	15.812	VV	1152	20620	0.83%	0.070%
307	15.819	15.812	15.824	VV	168	925	0.04%	0.003%
308	15.850	15.824	15.879	VV	460	8640	0.35%	0.029%
309	15.900	15.879	15.921	VV	293	4102	0.17%	0.014%
310	15.941	15.921	15.951	PV	139	1539	0.06%	0.005%
311	16.013	15.951	16.034	VV	568	16966	0.68%	0.058%
312	16.039	16.034	16.071	VV	441	6059	0.24%	0.021%
313	16.105	16.071	16.156	VV	1979	43820	1.77%	0.150%
314	16.222	16.156	16.264	VV	184900	2433053	98.03%	8.307%
315	16.283	16.264	16.322	VV	2876	43081	1.74%	0.147%
316	16.325	16.322	16.343	VV	163	1466	0.06%	0.005%
317	16.359	16.343	16.381	VV	252	3775	0.15%	0.013%
318	16.427	16.381	16.443	PV	345	7329	0.30%	0.025%
319	16.447	16.443	16.459	VV	212	1570	0.06%	0.005%
320	16.463	16.459	16.488	VV	210	2162	0.09%	0.007%
321	16.519	16.488	16.528	VV	584	8749	0.35%	0.030%
322	16.532	16.528	16.554	VV	507	6476	0.26%	0.022%
323	16.560	16.554	16.567	VV	365	2769	0.11%	0.009%
324	16.601	16.567	16.645	VV	10789	212922	8.58%	0.727%
325	16.658	16.645	16.667	VV	1614	20768	0.84%	0.071%
326	16.682	16.667	16.686	VV	1671	17550	0.71%	0.060%
327	16.705	16.686	16.731	VV	4048	59859	2.41%	0.204%
328	16.781	16.731	16.819	VV	1454	38136	1.54%	0.130%
329	16.821	16.819	16.824	VV	184	535	0.02%	0.002%
330	16.844	16.824	16.861	VV	448	6178	0.25%	0.021%
331	16.865	16.861	16.889	VV	368	4171	0.17%	0.014%
332	16.894	16.889	16.898	VV	206	875	0.04%	0.003%
333	16.903	16.898	16.910	VV	200	1112	0.04%	0.004%
334	16.924	16.910	16.931	VV	114	1240	0.05%	0.004%
335	16.979	16.931	17.030	PV	1139	33088	1.33%	0.113%
336	17.082	17.030	17.114	VV	1365	44850	1.81%	0.153%
337	17.175	17.114	17.209	VV	176001	2428896	97.86%	8.292%
338	17.219	17.209	17.231	VV	1096	12580	0.51%	0.043%
339	17.251	17.231	17.284	VV	2328	36395	1.47%	0.124%
340	17.298	17.284	17.314	VV	306	3502	0.14%	0.012%
341	17.322	17.314	17.327	VV	54	554	0.02%	0.002%
342	17.331	17.327	17.335	VV	96	273	0.01%	0.001%
343	17.343	17.335	17.349	VV	122	384	0.02%	0.001%
344	17.356	17.349	17.362	PV	108	522	0.02%	0.002%
345	17.388	17.362	17.401	PBA	125	3016	0.12%	0.010%

Sum of corrected areas: 29290555

FG042425.M Wed May 14 05:37:13 2025

Manual Integration Report

Sample ID	ClientId ID	File ID	Sequence ID	Parameter	Supervised By	Supervised On	Reason
5 TRPH STD		FF015790.D	FF042225	N-TETRACONTANE	mohammad	4/24/2025 6:33:56 AM	Peak Integrated by Software incorrectly

Manual Integration Report

Sample ID	ClientId ID	File ID	Sequence ID	Parameter	Supervised By	Supervised On	Reason
Q1872-14		FG015822.D	FG051325	TETRACOSANE-d50 (SURROGA	 	 	Peak Integrated by Software incorrectly
Q1872-14		FG015823.D	FG051325	TETRACOSANE-d50 (SURROGA	 	 	Peak Integrated by Software incorrectly

Instrument ID: FID_F

Daily Analysis Runlog For Sequence/QC Batch ID # FF042225

Review By	yogesh	Review On	4/22/2025 1:28:06 PM
Supervise By	mohammad	Supervise On	4/24/2025 6:33:56 AM
SubDirectory	FF042225	HP Acquire Method	HP Processing Method FF042225
STD. NAME	STD REF.#		
Tune/Reschk Initial Calibration Stds	PP24467,PP24469,PP24470,PP24471,PP24472		
CCC Internal Standard/PEM ICV/I.BLK Surrogate Standard MS/MSD Standard LCS Standard	PP24468,PP24473		

Sr#	SampleId	Data File Name	Date-Time	Operator	Status
1	MECL2	FF015784.D	22 Apr 2025 08:12	YP\AJ	Ok
2	I.BLK	FF015785.D	22 Apr 2025 08:42	YP\AJ	Ok
3	100 TRPH STD	FF015786.D	22 Apr 2025 09:11	YP\AJ	Ok
4	50 TRPH STD	FF015787.D	22 Apr 2025 09:40	YP\AJ	Ok
5	20 TRPH STD	FF015788.D	22 Apr 2025 10:09	YP\AJ	Ok
6	10 TRPH STD	FF015789.D	22 Apr 2025 10:39	YP\AJ	Ok
7	5 TRPH STD	FF015790.D	22 Apr 2025 11:08	YP\AJ	Ok,M
8	FF042225ICV	FF015791.D	22 Apr 2025 11:39	YP\AJ	Ok

M : Manual Integration

Instrument ID: FID_F

Daily Analysis Runlog For Sequence/QC Batch ID # FF050825

Review By	yogesh	Review On	5/8/2025 12:18:30 PM
Supervise By	mohammad	Supervise On	5/12/2025 1:57:43 AM
SubDirectory	FF050825	HP Acquire Method	HP Processing Method FF042225
STD. NAME	STD REF.#		
Tune/Reschk Initial Calibration Stds	PP24467,PP24469,PP24470,PP24471,PP24472		
CCC Internal Standard/PEM	PP24469		
ICV/I.BLK Surrogate Standard MS/MSD Standard LCS Standard	PP24468,PP24473		

Sr#	SampleId	Data File Name	Date-Time	Operator	Status
1	MECL2	FF015806.D	08 May 2025 08:50	YP\AJ	Ok
2	I.BLK	FF015807.D	08 May 2025 09:20	YP\AJ	Ok
3	50 PPM TRPH STD	FF015808.D	08 May 2025 09:49	YP\AJ	Ok
4	RT MARKER	FF015809.D	08 May 2025 10:18	YP\AJ	Ok
5	PB167913BL	FF015810.D	08 May 2025 12:31	YP\AJ	Ok
6	PB167913BS	FF015811.D	08 May 2025 13:01	YP\AJ	Ok
7	PB167913BSD	FF015812.D	08 May 2025 13:30	YP\AJ	Ok
8	Q1956-07	FF015813.D	08 May 2025 13:59	YP\AJ	Ok
9	I.BLK	FF015814.D	08 May 2025 14:28	YP\AJ	Ok
10	50 PPM TRPH STD	FF015815.D	08 May 2025 14:58	YP\AJ	Ok

M : Manual Integration

Instrument ID: FID_G

Daily Analysis Runlog For Sequence/QC Batch ID # FG042425

Review By	yogesh	Review On	4/24/2025 12:59:08 PM
Supervise By	mohammad	Supervise On	4/26/2025 2:19:49 AM
SubDirectory	FG042425	HP Acquire Method	HP Processing Method FG042425
STD. NAME	STD REF.#		
Tune/Reschk Initial Calibration Stds	PP24467,PP24469,PP24470,PP24471,PP24472		
CCC Internal Standard/PEM ICV/I.BLK Surrogate Standard MS/MSD Standard LCS Standard	PP24468,PP24473		

Sr#	SampleId	Data File Name	Date-Time	Operator	Status
1	MECL2	FG015754.D	24 Apr 2025 09:50	YP\AJ	Ok
2	I.BLK	FG015755.D	24 Apr 2025 10:19	YP\AJ	Ok
3	100 TRPH STD	FG015756.D	24 Apr 2025 10:48	YP\AJ	Ok
4	50 TRPH STD	FG015757.D	24 Apr 2025 11:17	YP\AJ	Ok
5	20 TRPH STD	FG015758.D	24 Apr 2025 11:46	YP\AJ	Ok
6	10 TRPH STD	FG015759.D	24 Apr 2025 12:16	YP\AJ	Ok
7	5 TRPH STD	FG015760.D	24 Apr 2025 12:45	YP\AJ	Ok
8	FG042225ICV	FG015761.D	24 Apr 2025 13:14	YP\AJ	Ok

M : Manual Integration

Instrument ID: FID_G

Daily Analysis Runlog For Sequence/QC Batch ID # FG051325

Review By	yogesh	Review On	5/13/2025 11:25:05 AM
Supervise By		Supervise On	
SubDirectory	FG051325	HP Acquire Method	HP Processing Method FG042425
STD. NAME	STD REF.#		
Tune/Reschk Initial Calibration Stds	PP24467,PP24469,PP24470,PP24471,PP24472		
CCC Internal Standard/PEM ICV/I.BLK Surrogate Standard MS/MSD Standard LCS Standard	PP24469 PP24468,PP24473		

Sr#	SampleId	Data File Name	Date-Time	Operator	Status
1	MECL2	FG015816.D	13 May 2025 10:42	YP\AJ	Ok
2	I.BLK	FG015817.D	13 May 2025 11:11	YP\AJ	Ok
3	50 PPM TRPH STD	FG015818.D	13 May 2025 11:40	YP\AJ	Ok
4	RT MARKER	FG015819.D	13 May 2025 12:13	YP\AJ	Ok
5	PB167975BL	FG015820.D	13 May 2025 13:22	YP\AJ	Ok
6	PB167975BS	FG015821.D	13 May 2025 13:51	YP\AJ	Ok
7	Q1872-14	FG015822.D	13 May 2025 14:38	YP\AJ	Dilution
8	Q1872-14	FG015823.D	13 May 2025 15:25	YP\AJ	Ok,NS
9	I.BLK	FG015824.D	13 May 2025 15:54	YP\AJ	Ok
10	50 PPM TRPH STD	FG015825.D	13 May 2025 16:53	YP\AJ	Ok
11	Q1956-01	FG015826.D	13 May 2025 17:22	YP\AJ	Ok
12	Q1956-02	FG015827.D	13 May 2025 17:51	YP\AJ	Ok
13	Q1956-03MS	FG015828.D	13 May 2025 18:21	YP\AJ	Ok
14	Q1956-04MSD	FG015829.D	13 May 2025 18:50	YP\AJ	Ok
15	Q1956-06	FG015830.D	13 May 2025 19:19	YP\AJ	Ok
16	Q1982-01	FG015831.D	13 May 2025 19:49	YP\AJ	Ok
17	Q1982-02	FG015832.D	13 May 2025 20:18	YP\AJ	Ok
18	Q1982-03	FG015833.D	13 May 2025 20:47	YP\AJ	Ok
19	I.BLK	FG015834.D	13 May 2025 21:16	YP\AJ	Ok
20	50 PPM TRPH STD	FG015835.D	13 May 2025 21:46	YP\AJ	Ok
21	Q2010-01	FG015836.D	13 May 2025 22:44	YP\AJ	Ok

Instrument ID: FID_G

Daily Analysis Runlog For Sequence/QC Batch ID # FG051325

Review By	yogesh	Review On	5/13/2025 11:25:05 AM
Supervise By		Supervise On	
SubDirectory	FG051325	HP Acquire Method	HP Processing Method FG042425
STD. NAME	STD REF.#		
Tune/Reschk Initial Calibration Stds	PP24467,PP24469,PP24470,PP24471,PP24472		
CCC Internal Standard/PEM	PP24469		
ICV/I.BLK Surrogate Standard MS/MSD Standard LCS Standard	PP24468,PP24473		

22	Q2010-02	FG015837.D	13 May 2025 23:14	YP\AJ	Ok
23	Q2010-03	FG015838.D	13 May 2025 23:43	YP\AJ	Ok
24	Q2010-04	FG015839.D	14 May 2025 00:12	YP\AJ	Ok
25	I.BLK	FG015840.D	14 May 2025 00:41	YP\AJ	Ok
26	50 PPM TRPH STD	FG015841.D	14 May 2025 01:10	YP\AJ	Ok

M : Manual Integration

Instrument ID: FID_F

Daily Analysis Runlog For Sequence/QC Batch ID # FF042225

Review By	yogesh	Review On	4/22/2025 1:28:06 PM
Supervise By	mohammad	Supervise On	4/24/2025 6:33:56 AM
SubDirectory	FF042225	HP Acquire Method	HP Processing Method FF042225

STD. NAME	STD REF.#
Tune/Reschk Initial Calibration Stds	PP24467,PP24469,PP24470,PP24471,PP24472
CCC Internal Standard/PEM ICV/I.BLK Surrogate Standard MS/MSD Standard LCS Standard	PP24468,PP24473

Sr#	SampleID	ClientID	Data File Name	Date-Time	Comment	Operator	Status
1	MECL2		FF015784.D	22 Apr 2025 08:12		YP\AJ	Ok
2	I.BLK		FF015785.D	22 Apr 2025 08:42		YP\AJ	Ok
3	100 TRPH STD		FF015786.D	22 Apr 2025 09:11		YP\AJ	Ok
4	50 TRPH STD		FF015787.D	22 Apr 2025 09:40		YP\AJ	Ok
5	20 TRPH STD		FF015788.D	22 Apr 2025 10:09		YP\AJ	Ok
6	10 TRPH STD		FF015789.D	22 Apr 2025 10:39		YP\AJ	Ok
7	5 TRPH STD		FF015790.D	22 Apr 2025 11:08		YP\AJ	Ok,M
8	FF042225ICV		FF015791.D	22 Apr 2025 11:39		YP\AJ	Ok

M : Manual Integration

Instrument ID: FID_F

Daily Analysis Runlog For Sequence/QC Batch ID # FF050825

Review By	yogesh	Review On	5/8/2025 12:18:30 PM
Supervise By	mohammad	Supervise On	5/12/2025 1:57:43 AM
SubDirectory	FF050825	HP Acquire Method	HP Processing Method FF042225
STD. NAME	STD REF.#		
Tune/Reschk Initial Calibration Stds	PP24467,PP24469,PP24470,PP24471,PP24472		
CCC	PP24469		
Internal Standard/PEM	PP24468,PP24473		
ICV/I.BLK			
Surrogate Standard			
MS/MSD Standard			
LCS Standard			

Sr#	SampleId	ClientID	Data File Name	Date-Time	Comment	Operator	Status
1	MECL2		FF015806.D	08 May 2025 08:50		YP\AJ	Ok
2	I.BLK		FF015807.D	08 May 2025 09:20		YP\AJ	Ok
3	50 PPM TRPH STD		FF015808.D	08 May 2025 09:49		YP\AJ	Ok
4	RT MARKER		FF015809.D	08 May 2025 10:18		YP\AJ	Ok
5	PB167913BL		FF015810.D	08 May 2025 12:31		YP\AJ	Ok
6	PB167913BS		FF015811.D	08 May 2025 13:01		YP\AJ	Ok
7	PB167913BSD		FF015812.D	08 May 2025 13:30		YP\AJ	Ok
8	Q1956-07		FF015813.D	08 May 2025 13:59		YP\AJ	Ok
9	I.BLK		FF015814.D	08 May 2025 14:28		YP\AJ	Ok
10	50 PPM TRPH STD		FF015815.D	08 May 2025 14:58		YP\AJ	Ok

M : Manual Integration

Instrument ID: FID_G

Daily Analysis Runlog For Sequence/QC Batch ID # FG042425

Review By	yogesh	Review On	4/24/2025 12:59:08 PM
Supervise By	mohammad	Supervise On	4/26/2025 2:19:49 AM
SubDirectory	FG042425	HP Acquire Method	HP Processing Method FG042425

STD. NAME	STD REF.#
Tune/Reschk Initial Calibration Stds	PP24467,PP24469,PP24470,PP24471,PP24472
CCC Internal Standard/PEM ICV/I.BLK Surrogate Standard MS/MSD Standard LCS Standard	PP24468,PP24473

Sr#	SampleID	ClientID	Data File Name	Date-Time	Comment	Operator	Status
1	MECL2		FG015754.D	24 Apr 2025 09:50		YP\AJ	Ok
2	I.BLK		FG015755.D	24 Apr 2025 10:19		YP\AJ	Ok
3	100 TRPH STD		FG015756.D	24 Apr 2025 10:48		YP\AJ	Ok
4	50 TRPH STD		FG015757.D	24 Apr 2025 11:17		YP\AJ	Ok
5	20 TRPH STD		FG015758.D	24 Apr 2025 11:46		YP\AJ	Ok
6	10 TRPH STD		FG015759.D	24 Apr 2025 12:16		YP\AJ	Ok
7	5 TRPH STD		FG015760.D	24 Apr 2025 12:45		YP\AJ	Ok
8	FG042225ICV		FG015761.D	24 Apr 2025 13:14		YP\AJ	Ok

M : Manual Integration

Instrument ID: FID_G

Daily Analysis Runlog For Sequence/QC Batch ID # FG051325

Review By	yogesh	Review On	5/13/2025 11:25:05 AM
Supervise By		Supervise On	
SubDirectory	FG051325	HP Acquire Method	HP Processing Method FG042425
STD. NAME	STD REF.#		
Tune/Reschk Initial Calibration Stds	PP24467,PP24469,PP24470,PP24471,PP24472		
CCC	PP24469		
Internal Standard/PEM			
ICV/I.BLK	PP24468,PP24473		
Surrogate Standard			
MS/MSD Standard			
LCS Standard			

Sr#	SampleID	ClientID	Data File Name	Date-Time	Comment	Operator	Status
1	MECL2		FG015816.D	13 May 2025 10:42		YPIAJ	Ok
2	I.BLK		FG015817.D	13 May 2025 11:11		YPIAJ	Ok
3	50 PPM TRPH STD		FG015818.D	13 May 2025 11:40		YPIAJ	Ok
4	RT MARKER		FG015819.D	13 May 2025 12:13		YPIAJ	Ok
5	PB167975BL		FG015820.D	13 May 2025 13:22		YPIAJ	Ok
6	PB167975BS		FG015821.D	13 May 2025 13:51		YPIAJ	Ok
7	Q1872-14		FG015822.D	13 May 2025 14:38	need 5x dilution	YPIAJ	Dilution
8	Q1872-14		FG015823.D	13 May 2025 15:25		YPIAJ	Ok,NS
9	I.BLK		FG015824.D	13 May 2025 15:54		YPIAJ	Ok
10	50 PPM TRPH STD		FG015825.D	13 May 2025 16:53		YPIAJ	Ok
11	Q1956-01		FG015826.D	13 May 2025 17:22		YPIAJ	Ok
12	Q1956-02		FG015827.D	13 May 2025 17:51		YPIAJ	Ok
13	Q1956-03MS		FG015828.D	13 May 2025 18:21		YPIAJ	Ok
14	Q1956-04MSD		FG015829.D	13 May 2025 18:50		YPIAJ	Ok
15	Q1956-06		FG015830.D	13 May 2025 19:19		YPIAJ	Ok
16	Q1982-01		FG015831.D	13 May 2025 19:49		YPIAJ	Ok
17	Q1982-02		FG015832.D	13 May 2025 20:18		YPIAJ	Ok
18	Q1982-03		FG015833.D	13 May 2025 20:47		YPIAJ	Ok

Instrument ID: FID_G

Daily Analysis Runlog For Sequence/QC Batch ID # FG051325

Review By	yogesh	Review On	5/13/2025 11:25:05 AM
Supervise By		Supervise On	
SubDirectory	FG051325	HP Acquire Method	HP Processing Method FG042425
STD. NAME	STD REF.#		
Tune/Reschk Initial Calibration Stds	PP24467,PP24469,PP24470,PP24471,PP24472		
CCC	PP24469		
Internal Standard/PEM			
ICV/I.BLK	PP24468,PP24473		
Surrogate Standard			
MS/MSD Standard			
LCS Standard			

19	I.BLK		FG015834.D	13 May 2025 21:16		YP\AJ	Ok
20	50 PPM TRPH STD		FG015835.D	13 May 2025 21:46		YP\AJ	Ok
21	Q2010-01		FG015836.D	13 May 2025 22:44		YP\AJ	Ok
22	Q2010-02		FG015837.D	13 May 2025 23:14		YP\AJ	Ok
23	Q2010-03		FG015838.D	13 May 2025 23:43		YP\AJ	Ok
24	Q2010-04		FG015839.D	14 May 2025 00:12		YP\AJ	Ok
25	I.BLK		FG015840.D	14 May 2025 00:41		YP\AJ	Ok
26	50 PPM TRPH STD		FG015841.D	14 May 2025 01:10		YP\AJ	Ok

M : Manual Integration



PERCENT SOLID

Supervisor: Iwona
Analyst: jignesh
Date: 5/6/2025

OVENTEMP IN Celsius(°C): 107
Time IN: 17:05
In Date: 05/05/2025
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
OvenID: M OVEN#1

OVENTEMP OUT Celsius(°C): 103
Time OUT: 08:30
Out Date: 05/06/2025
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
BalanceID: M SC-4
Thermometer ID: % SOLID- OVEN

QC:LB135668

Lab ID	Client SampleID	Dish #	Dish Wt(g) (A)	Sample Wt(g)	Dish + Sample Wt(g) (B)	Dish+Dry Sample Wt(g) (C)	% Solid	Comments
Q1956-01	SB1-3-4	1	1.17	9.98	11.15	10.05	89.0	
Q1956-02	SB2-4-5	2	1.18	10.62	11.8	11.11	93.5	
Q1956-03	Q1956-02MS	3	1.18	10.62	11.8	11.11	93.5	
Q1956-04	Q1956-02MSD	4	1.18	10.62	11.8	11.11	93.5	
Q1956-06	SB91-3-4	5	1.14	10.65	11.79	10.75	90.2	
Q1957-01	AT090P-SD05-050125-00	6	1.15	10.74	11.89	3.3	20.0	
Q1957-02	AT090P-SD03-050125-00	7	1.18	10.90	12.08	3.97	25.6	
Q1957-03	AT090P-SD04-050125-00	8	1.19	10.36	11.55	2.09	8.7	
Q1958-01	SS050P-SD28-043025-00	9	1.16	10.21	11.37	9.51	81.8	
Q1958-02	SS050P-SD29-043025-00	10	1.17	9.97	11.14	3.2	20.4	
Q1958-03	SS050P-SD30-050225-00	11	1.19	10.62	11.81	9.59	79.1	
Q1958-04	SS050P-SD31-050225-00	12	1.19	10.13	11.32	9.18	78.9	
Q1959-01	SOIL-PILE	13	1.18	10.18	11.36	10.11	87.7	
Q1960-01	344	14	1.00	1.00	2.00	2.00	100.0	stone sample,100% solids
Q1960-02	72-11933	15	1.15	10.38	11.53	10.24	87.6	
Q1961-01	EO-01-050225	16	1.18	10.08	11.26	10.53	92.8	
Q1961-02	EO-01-050225-E2	17	1.14	10.18	11.32	10.88	95.7	
Q1962-01	HD-01-050525	18	1.18	10.10	11.28	9.87	86.0	
Q1962-02	HD-01-050525-E2	19	1.19	10.43	11.62	9.91	83.6	

$$\% \text{ Solid} = \frac{(C-A) * 100}{(B-A)}$$

WORKLIST(Hardcopy Internal Chain)

VB 135668

WorkList Name : %1-050525-1 WorkList ID : 189298 Department : Wet-Chemistry Date : 05-05-2025 08:48:32

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q1956-01	SB1-3-4	Solid	Percent Solids	Cool 4 deg C	CAMP02	L31	05/01/2025	Chemtech -SO
Q1956-02	SB2-4-5	Solid	Percent Solids	Cool 4 deg C	CAMP02	L31	05/02/2025	Chemtech -SO
Q1956-03	Q1956-02MS	Solid	Percent Solids	Cool 4 deg C	CAMP02	L31	05/02/2025	Chemtech -SO
Q1956-04	Q1956-02MSD	Solid	Percent Solids	Cool 4 deg C	CAMP02	L31	05/02/2025	Chemtech -SO
Q1956-06	SB91-3-4	Solid	Percent Solids	Cool 4 deg C	CAMP02	L31	05/01/2025	Chemtech -SO
Q1957-01	AT090P-SD05-050125-00	Solid	Percent Solids	Cool 4 deg C	WEST04	L51	05/01/2025	Chemtech -SO
Q1957-02	AT090P-SD03-050125-00	Solid	Percent Solids	Cool 4 deg C	WEST04	L51	05/01/2025	Chemtech -SO
Q1957-03	AT090P-SD04-050125-00	Solid	Percent Solids	Cool 4 deg C	WEST04	L51	05/01/2025	Chemtech -SO
Q1958-01	SS050P-SD28-043025-00	Solid	Percent Solids	Cool 4 deg C	WEST04	L51	04/30/2025	Chemtech -SO
Q1958-02	SS050P-SD29-043025-00	Solid	Percent Solids	Cool 4 deg C	WEST04	L51	04/30/2025	Chemtech -SO
Q1958-03	SS050P-SD30-050225-00	Solid	Percent Solids	Cool 4 deg C	WEST04	L51	05/02/2025	Chemtech -SO
Q1958-04	SS050P-SD31-050225-00	Solid	Percent Solids	Cool 4 deg C	WEST04	L51	05/02/2025	Chemtech -SO
Q1959-01	SOIL-PILE	Solid	Percent Solids	Cool 4 deg C	PSEG03	L51	05/05/2025	Chemtech -SO
Q1960-01	344	Solid	Percent Solids	Cool 4 deg C	PSEG03	L51	05/05/2025	Chemtech -SO
Q1960-02	72-11933	Solid	Percent Solids	Cool 4 deg C	PSEG03	L51	05/05/2025	Chemtech -SO
Q1961-01	EO-01-050225	Solid	Percent Solids	Cool 4 deg C	PSEG05	L51	05/05/2025	Chemtech -SO
Q1961-02	EO-01-050225-E2	Solid	Percent Solids	Cool 4 deg C	PSEG05	L51	05/05/2025	Chemtech -SO
Q1962-01	HD-01-050525	Solid	Percent Solids	Cool 4 deg C	PSEG05	L51	05/05/2025	Chemtech -SO
Q1962-02	HD-01-050525-E2	Solid	Percent Solids	Cool 4 deg C	PSEG05	L51	05/05/2025	Chemtech -SO

Date/Time 05/05/25 15:20

Raw Sample Received by: [Signature]

Raw Sample Relinquished by: [Signature]

Date/Time 05/05/25

Raw Sample Received by: [Signature]

Raw Sample Relinquished by: [Signature]

SOP ID: M3510C,3580A-Extraction DRO-12

Clean Up SOP #: N/A

Matrix : Water

Weigh By: N/A **Extraction By:** RS

Balance check: N/A **Filter By:** RJ

Balance ID: N/A **pH Meter ID:** N/A

pH Strip Lot#: E3880 **Hood ID:** 4,6,7

Extraction Start Date : 05/08/2025

Extraction Start Time : 08:41

Extraction End Date : 05/08/2025

Extraction End Time : 13:25

Concentration By: EH

Supervisor By : RUPESH

Extraction Method: ☒ Separatory Funnel ☐ Continuous Liquid/Liquid ☐ Sonication ☐ Waste Dilution ☐ Soxhlet

Standard Name	MLS USED	Concentration ug/mL	STD REF. # FROM LOG
Surrogate	1.0ML	20 PPM	PP24162
Spike Sol 1	1.0ML	20 PPM	PP24180
N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A

Chemical Used	ML/SAMPLE USED	Lot Number
Methylene Chloride	N/A	E3930
Baked Na2SO4	N/A	EP2607
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

Extraction Conformance/Non-Conformance Comments:

1.5 ML Vial lot# 2210443.

KD Bath ID: WATER BATH-1

KD Bath Temperature: 60 °C

Envap ID: NEVAP-02

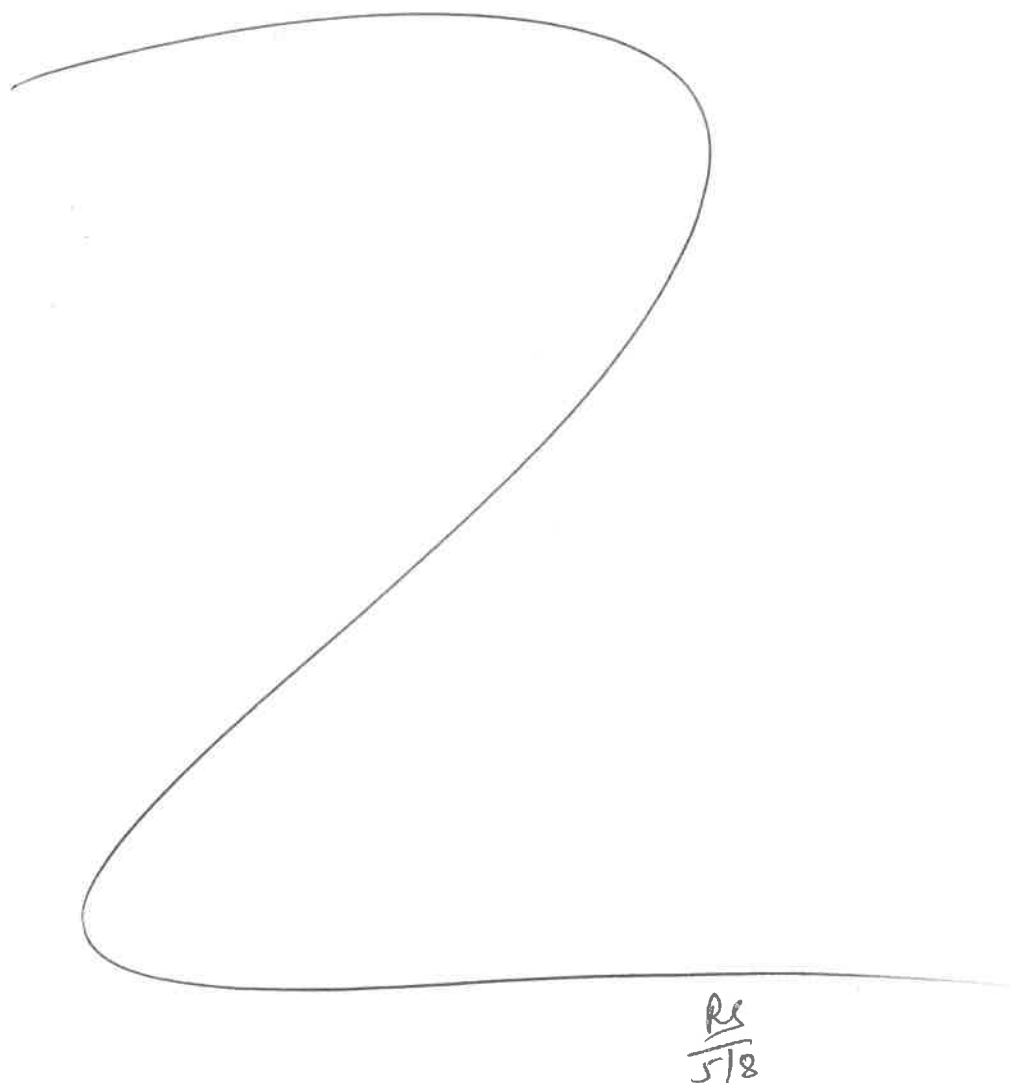
Envap Temperature: 40 °C

Date / Time	Prepped Sample Relinquished By/Location	Received By/Location
5/8/25	RS (Ext Lab)	R. Pest / PB Lab
13:30	Preparation Group	Analysis Group

Analytical Method: M3510C,3580A-Extraction DRO-12

Concentration Date: 05/08/2025

Sample ID	Client Sample ID	Test	g / (mL)	PH	Surr/Spike By:		Final Vol. (mL)	JarID	Comments	Prep Pos
					AddedBy	VerifiedBy				
PB167913BL	PB167913BL	Diesel Range Organics	1000	6	RUPESH	ritesh	1			SEP-5
PB167913BS	PB167913BS	Diesel Range Organics	1000	6	RUPESH	ritesh	1			6
PB167913BS D	PB167913BSD	Diesel Range Organics	1000	6	RUPESH	ritesh	1			7
Q1956-07	FB-05022025	Diesel Range Organics	800	6	RUPESH	ritesh	1	G		8



RS
5/8

167912
8-17-08

WORKLIST(Hardcopy Internal Chain)

WorkList Name : Q1956H WorkList ID : 189389 Department : Extraction Date : 05-08-2025 08:33:45

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q1956-07	FB-05022025	Water	Diesel Range Organics	Cool 4 deg C	CAMP02	L31	05/02/2025	8015D
Q1956-07	FB-05022025	Water	Herbicide	Cool 4 deg C	CAMP02	L31	05/02/2025	8151A
Q1956-07	FB-05022025	Water	Pesticide-TCL	Cool 4 deg C	CAMP02	L31	05/02/2025	8081B

Date/Time 5/8/25 8:35
Raw Sample Received by: PJ (Ext-66)
Raw Sample Relinquished by: CPG

Date/Time 5/8/25 9:00
Raw Sample Received by: CPG
Raw Sample Relinquished by: PJ (Ext-66)

SOP ID: M3541-ASE Extraction-14

Clean Up SOP #: N/A

Matrix : Solid

Weigh By: EH

Balance check: RJ

Balance ID: EX-SC-2

pH Strip Lot#: N/A

Extraction By: RJ

Filter By: RJ

pH Meter ID: N/A

Hood ID: 3,7

Extraction Start Date : 05/13/2025

Extraction Start Time : 10:05

Extraction End Date : 05/13/2025

Extraction End Time : 13:10

Concentration By: EH

Supervisor By : RUPESH

Extraction Method: ☐ Separatory Funnel ☐ Continious Liquid/Liquid ☐ Sonication ☐ Waste Dilution ☒ Soxhlet

Standard Name	MLS USED	Concentration ug/mL	STD REF. # FROM LOG
Spike Sol 1	1.0ML	20 PPM	PP24162
Surrogate	1.0ML	20 PPM	PP24180
N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A

Chemical Used	ML/SAMPLE USED	Lot Number
MeCl2/Acetone/1:1	N/A	EP2612
Baked Na2SO4	N/A	EP2611
Sand	N/A	E2865
Methylene Chloride	N/A	E3930
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

Extraction Conformance/Non-Conformance Comments:

1.5 ML Vial lot# 2210673.

KD Bath ID: N/A

KD Bath Temperature: N/A

Envap ID: NEVAP-02

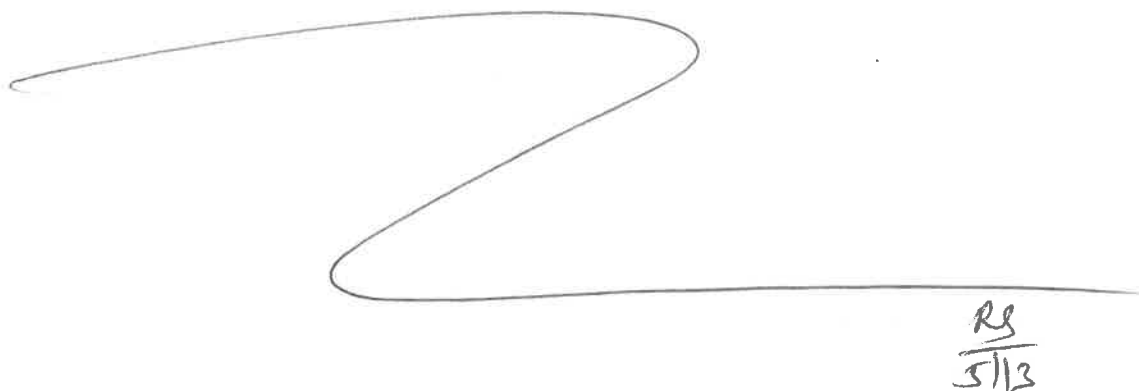
Envap Temperature: 40 °C

Date / Time	Prepped Sample Relinquished By/Location	Received By/Location
5/13/25	RS (Ext 666)	Y.P. Pestipco.
13:15	Preparation Group	Analysis Group

Analytical Method: M3541-ASE Extraction-14

Concentration Date: 05/13/2025

Sample ID	Client Sample ID	Test	g/ mL	PH	Surr/Spike By:		Final Vol. (mL)	JarID	Comments	Prep Pos
					AddedBy	VerifiedBy				
PB167975BL	PB167975BL	Diesel Range Organics	30.01	N/A	ritesh	Evelyn	1			U1-1
PB167975BS	PB167975BS	Diesel Range Organics	30.02	N/A	ritesh	Evelyn	1			2
Q1872-14	HW0425-PT-DIES-SOIL	Diesel Range Organics	20.24	N/A	ritesh	Evelyn	1			3
Q1956-01	SB1-3-4	Diesel Range Organics	30.06	N/A	ritesh	Evelyn	1	M		4
Q1956-02	SB2-4-5	Diesel Range Organics	30.05	N/A	ritesh	Evelyn	1	M		5
Q1956-03	Q1956-02MS	Diesel Range Organics	30.03	N/A	ritesh	Evelyn	1	M		6
Q1956-04	Q1956-02MSD	Diesel Range Organics	30.04	N/A	ritesh	Evelyn	1	M		U2-1
Q1956-06	SB91-3-4	Diesel Range Organics	30.01	N/A	ritesh	Evelyn	1	M		2
Q1982-01	TP-1	Diesel Range Organics	30.07	N/A	ritesh	Evelyn	1	E		3
Q1982-02	TP-2B	Diesel Range Organics	30.03	N/A	ritesh	Evelyn	1	E		4
Q1982-03	TP-3	Diesel Range Organics	30.02	N/A	ritesh	Evelyn	1	E		5
Q1982-04	TP-4	Diesel Range Organics	30.01	N/A	ritesh	Evelyn	1	E		6
Q1982-05	TP-5	Diesel Range Organics	30.04	N/A	ritesh	Evelyn	1	E		U3-1
Q1982-06	TP-6	Diesel Range Organics	30.06	N/A	ritesh	Evelyn	1	E		2
Q1982-07	TP-7	Diesel Range Organics	30.02	N/A	ritesh	Evelyn	1	E		3
Q1982-08	TP-8	Diesel Range Organics	30.03	N/A	ritesh	Evelyn	1	E		4
Q2010-01	TP-10	Diesel Range Organics	30.07	N/A	ritesh	Evelyn	1	E		5
Q2010-02	TP-13	Diesel Range Organics	30.04	N/A	ritesh	Evelyn	1	E		6
Q2010-03	TP-14	Diesel Range Organics	30.06	N/A	ritesh	Evelyn	1	E		U6-1
Q2010-04	TP-17	Diesel Range Organics	30.08	N/A	ritesh	Evelyn	1	E		2



WORKLIST(Hardcopy Internal Chain)

WorkList Name : Q1982D WorkList ID : 189483 Department : Extraction Date : 05-13-2025 08:56:47

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q1872-14	HW0425-PT-DIES-SOIL	Solid	Diesel Range Organics	Cool 4 deg C	ALLI03	QA 01	04/25/2025	8015D
Q1956-01	SB1-3-4	Solid	Diesel Range Organics	Cool 4 deg C	CAMP02	L31	05/01/2025	8015D
Q1956-02	SB2-4-5	Solid	Diesel Range Organics	Cool 4 deg C	CAMP02	L31	05/02/2025	8015D
Q1956-03	Q1956-02MS	Solid	Diesel Range Organics	Cool 4 deg C	CAMP02	L31	05/02/2025	8015D
Q1956-04	Q1956-02MSD	Solid	Diesel Range Organics	Cool 4 deg C	CAMP02	L31	05/02/2025	8015D
Q1956-06	SB91-3-4	Solid	Diesel Range Organics	Cool 4 deg C	CAMP02	L31	05/01/2025	8015D
Q1982-01	TP-1	Solid	Diesel Range Organics	Cool 4 deg C	CAMP02	L41	05/07/2025	8015D
Q1982-02	TP-2B	Solid	Diesel Range Organics	Cool 4 deg C	CAMP02	L41	05/07/2025	8015D
Q1982-03	TP-3	Solid	Diesel Range Organics	Cool 4 deg C	CAMP02	L41	05/07/2025	8015D
Q1982-04	TP-4	Solid	Diesel Range Organics	Cool 4 deg C	CAMP02	L41	05/07/2025	8015D
Q1982-05	TP-5	Solid	Diesel Range Organics	Cool 4 deg C	CAMP02	L41	05/07/2025	8015D
Q1982-06	TP-6	Solid	Diesel Range Organics	Cool 4 deg C	CAMP02	L41	05/07/2025	8015D
Q1982-07	TP-7	Solid	Diesel Range Organics	Cool 4 deg C	CAMP02	L41	05/07/2025	8015D
Q1982-08	TP-8	Solid	Diesel Range Organics	Cool 4 deg C	CAMP02	L41	05/07/2025	8015D
Q2010-01	TP-10	Solid	Diesel Range Organics	Cool 4 deg C	CAMP02	L51	05/08/2025	8015D
Q2010-02	TP-13	Solid	Diesel Range Organics	Cool 4 deg C	CAMP02	L51	05/08/2025	8015D
Q2010-03	TP-14	Solid	Diesel Range Organics	Cool 4 deg C	CAMP02	L51	05/08/2025	8015D
Q2010-04	TP-17	Solid	Diesel Range Organics	Cool 4 deg C	CAMP02	L51	05/08/2025	8015D

Date/Time 05/13/25 10:00
 Raw Sample Received by: RJ (EXT-100)
 Raw Sample Relinquished by: CJ Sm

Date/Time 05/13/25 10:30
 Raw Sample Received by: CJ Sm
 Raw Sample Relinquished by: RJ (EXT-100)

Prep Standard - Chemical Standard Summary

Order ID : Q1956

Test : Diesel Range Organics

Prepbatch ID : PB167913,PB167975,

Sequence ID/Qc Batch ID: FF050825,FG051325,

Standard ID :

EP2607,EP2611,EP2612,PP24162,PP24180,PP24467,PP24468,PP24469,PP24470,PP24471,PP24472,PP24473,

Chemical ID :

E2865,E3551,E3874,E3926,E3930,E3932,P11951,P11952,P11955,P11956,P13106,P13108,P13477,P13479,P13487,P13488,P13489,P13490,



<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
3923	Baked Sodium Sulfate	EP2607	04/25/2025	07/01/2025	RUPESHKUMAR SHAH	Extraction_SCALE_2 (EX-SC-2)	None	Riteshkumar Patel 04/25/2025
<u>FROM</u> 4000.00000gram of E3551 = Final Quantity: 4000.000 gram								

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
3923	Baked Sodium Sulfate	EP2611	05/09/2025	07/01/2025	RUPESHKUMAR SHAH	Extraction_SCALE_2 (EX-SC-2)	None	Riteshkumar Patel 05/09/2025
<u>FROM</u> 4000.00000gram of E3551 = Final Quantity: 4000.000 gram								

Extractions STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
2017	1:1 ACETONE/METHYLENE CHLORIDE	EP2612	05/09/2025	11/05/2025	RUPESHKUMAR SHAH	None	None	Riteshkumar Patel 05/09/2025

FROM 8000.00000ml of E3930 + 8000.00000ml of E3932 = Final Quantity: 16000.000 ml

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
3609	20 PPM DRO SPIKE SOLUTION (RESTEK)	PP24162	01/31/2025	07/30/2025	Yogesh Patel	None	None	Ankita Jodhani 01/31/2025

FROM 1.00000ml of P11955 + 1.00000ml of P11956 + 48.00000ml of E3874 = Final Quantity: 50.000 ml



284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Pest/Pcb STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
3979	100/100 PPM DRO ICV (RESTEK)	PP24468	04/22/2025	10/08/2025	Yogesh Patel	None	None	Abdul Mirza
								05/08/2025

FROM 1.00000ml of P13106 + 1.00000ml of P13108 + 1.00000ml of P13479 + 7.00000ml of E3926 = Final Quantity: 10.000 ml

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
435	50 PPM ICC DRO STD (Restek)	PP24469	04/22/2025	10/08/2025	Yogesh Patel	None	None	Abdul Mirza
								05/08/2025

FROM 0.50000ml of E3926 + 0.50000ml of PP24467 = Final Quantity: 1.000 ml

Pest/Pcb STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
437	20 PPM ICC DRO STD (Restek)	PP24470	04/22/2025	10/08/2025	Yogesh Patel	None	None	Abdul Mirza
								05/08/2025

FROM 0.80000ml of E3926 + 0.20000ml of PP24467 = Final Quantity: 1.000 ml

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
438	10 PPM ICC DRO STD (Restek)	PP24471	04/22/2025	10/08/2025	Yogesh Patel	None	None	Abdul Mirza
								05/08/2025

FROM 0.90000ml of E3926 + 0.10000ml of PP24467 = Final Quantity: 1.000 ml

Pest/Pcb STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
439	5 PPM ICC DRO STD (Restek)	PP24472	04/22/2025	10/08/2025	Yogesh Patel	None	None	Abdul Mirza
								05/08/2025

FROM 0.90000ml of E3926 + 0.10000ml of PP24469 = Final Quantity: 1.000 ml

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
3608	50 PPM ICV DRO STD (RESTEK)	PP24473	04/22/2025	10/08/2025	Yogesh Patel	None	None	Abdul Mirza
								05/08/2025

FROM 0.50000ml of E3926 + 0.50000ml of PP24468 = Final Quantity: 1.000 ml

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-3382-05 / Sand, Purified (cs/4x2.5kg)	0000243821	06/30/2025	04/30/2020 / RAJESH	04/28/2020 / RAJESH	E2865

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	PC19631-100 / SODIUM SULFATE, ANHYDROUS, PEST GRADE, 1	313201	07/01/2025	01/03/2024 / Rajesh	07/20/2023 / Rajesh	E3551

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9644-A4 / Methylene Chloride,U-Resi, Cycle-Tainer (215L)	25A0262002	07/30/2025	01/30/2025 / Rajesh	01/20/2025 / Rajesh	E3874

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9644-A4 / Methylene Chloride,U-Resi, Cycle-Tainer (215L)	25A0262002	10/08/2025	04/08/2025 / Rajesh	02/07/2025 / Rajesh	E3926

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9644-A4 / Methylene Chloride,U-Resi, Cycle-Tainer (215L)	25A0262002	02/20/2026	05/02/2025 / RUPESH	03/09/2025 / RUPESH	E3930

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9254-03 / Acetone, Ultra Resi (cs/4x4L)	24H1462005	11/05/2025	05/05/2025 / RUPESH	04/23/2025 / RUPESH	E3932

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31266 / Florida TRPH Standard	A0186840	10/22/2025	04/22/2025 / yogesh	07/11/2022 / Yogesh	P11951

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31266 / Florida TRPH Standard	A0186840	10/22/2025	04/22/2025 / yogesh	07/11/2022 / Yogesh	P11952

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31266 / Florida TRPH Standard	A0186840	07/31/2025	01/31/2025 / yogesh	07/11/2022 / Yogesh	P11955

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31266 / Florida TRPH Standard	A0186840	07/31/2025	01/31/2025 / yogesh	07/11/2022 / Yogesh	P11956

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31266 / Florida TRPH Standard	A0204859	10/22/2025	04/22/2025 / yogesh	01/12/2024 / Yogesh	P13106

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31266 / Florida TRPH Standard	A0204859	10/22/2025	04/22/2025 / yogesh	01/12/2024 / Yogesh	P13108

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	72072 / n-Tetracosane-d50, 1000 ug/ml	101122	10/22/2025	04/22/2025 / yogesh	07/24/2024 / yogesh	P13477

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	72072 / n-Tetracosane-d50, 1000 ug/ml	101122	10/22/2025	04/22/2025 / yogesh	07/24/2024 / yogesh	P13479

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	72072 / n-Tetracosane-d50, 1000 ug/ml	101122	08/03/2025	02/03/2025 / yogesh	07/24/2024 / yogesh	P13487

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	72072 / n-Tetracosane-d50, 1000 ug/ml	101122	08/03/2025	02/03/2025 / yogesh	07/24/2024 / yogesh	P13488

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	72072 / n-Tetracosane-d50, 1000 ug/ml	101122	08/03/2025	02/03/2025 / yogesh	07/24/2024 / yogesh	P13489

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	72072 / n-Tetracosane-d50, 1000 ug/ml	101122	08/03/2025	02/03/2025 / yogesh	07/24/2024 / yogesh	P13490

Sand
Purified
Washed and Ignited



Material No.: 3382-05
Batch No.: 0000243821
Manufactured Date: 2018/04/09
Retest Date: 2025/04/07
Revision No: 1

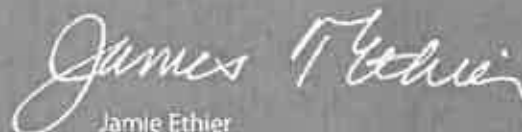
Certificate of Analysis

Test	Specification	Result
Substances Soluble in HCl	$\leq 0.16\%$	0.01

For Laboratory, Research or Manufacturing Use
Meets Reagent Specifications for testing USP/NF monographs

Country of Origin: US
Packaging Site: Paris Mfg Ctr & DC

E 2865


Jamie Ethier
Vice President Global Quality

For questions on this Certificate of Analysis please contact Technical Services at 855.282.6867 or +1.610.386.1700

Avantor Performance Materials, LLC
100 Matsonford Rd, Suite 200, Radnor, PA 19087. U.S.A. Phone: 610.386.1700



**PRODUCTOS
QUÍMICOS
MONTERREY, S.A. DE C.V.**

MIRADOR 201, COL. MIRADOR
MONTERREY, N.L. MEXICO
CP 64070
TEL +52 81 13 52 57 57
www.pqm.com.mx

CERTIFICATE OF ANALYSIS

PRODUCT :	SODIUM SULFATE CRYSTALS ANHYDROUS		
QUALITY :	ACS (CODE RMB3375)	FORMULA :	Na ₂ SO ₄
SPECIFICATION NUMBER :	6399	RELEASE DATE:	ABR/21/2023
LOT NUMBER :	313201		

TEST	SPECIFICATIONS	LOT VALUES
Assay (Na ₂ SO ₄)	Min. 99.0%	99.7 %
pH of a 5% solution at 25°C	5.2 - 9.2	6.1
Insoluble matter	Max. 0.01%	0.005 %
Loss on ignition	Max. 0.5%	0.1 %
Chloride (Cl)	Max. 0.001%	<0.001 %
Nitrogen compounds (as N)	Max. 5 ppm	<5 ppm
Phosphate (PO ₄)	Max. 0.001%	<0.001 %
Heavy metals (as Pb)	Max. 5 ppm	<5 ppm
Iron (Fe)	Max. 0.001%	<0.001 %
Calcium (Ca)	Max. 0.01%	0.002 %
Magnesium (Mg)	Max. 0.005%	0.001 %
Potassium (K)	Max. 0.008%	0.003 %
Extraction-concentration suitability	Passes test	Passes test
Appearance	Passes test	Passes test
Identification	Passes test	Passes test
Solubility and foreign matter	Passes test	Passes test
Retained on US Standard No. 10 sieve	Max. 1%	0.1 %
Retained on US Standard No. 60 sieve	Min. 94%	97.3 %
Through US Standard No. 60 sieve	Max. 5%	2.5 %
Through US Standard No. 100 sieve	Max. 10%	0.1 %

COMMENTS

QC: PhC Irma Belmares

If you need further details, please call our factory or contact our local distributor.

Recd. by R3 on 7/24/23 E 3551

RC-02-01, Ed. 3

Methylene Chloride
ULTRA RESI-ANALYZED
For Organic Residue Analysis
(dichloromethane)



Material No.: 9266-A4
Batch No.: 25A0262002
Manufactured Date: 2024-11-21
Expiration Date: 2026-02-20
Revision No.: 0

Certificate of Analysis

Test	Specification	Result
FID-Sensitive Impurities (as 2-Octanol) Single Impurity Peak (ng/mL)	≤ 5	1
ECD Sensitive Impurities (as HeptachlorEpoxide) Single Peak (pg/mL)	≤ 10	4
Assay (CH_2Cl_2) (by GC, exclusive of preservative, corrected for water)	$\geq 99.8\%$	99.9%
Color (APHA)	≤ 10	10
Residue after Evaporation	≤ 1.0 ppm	0.8 ppm
Titration Acid ($\mu\text{eq/g}$)	≤ 0.3	< 0.1
Chloride (Cl)	≤ 10 ppm	< 5 ppm
Water (by KF, coulometric)	$\leq 0.02\%$	$< 0.01\%$

For Laboratory, Research, or Manufacturing Use
MEETS SPECIFICATIONS WITHIN THE EXPIRATION PERIOD

Country of Origin: United States
Packaging Site: Phillipsburg Mfg Ctr & DC

E 3874

Jamie Croak
Director Quality Operations, Bioscience Production

For questions on this Certificate of Analysis please contact Technical Services at 855.282.6867 or +1.610.386.1700

Avantor Performance Materials, LLC

100 Matsonford Rd, Suite 200, Radnor, PA, 19087, U.S.A. Phone 610.386.1700

Methylene Chloride
ULTRA RESI-ANALYZED
For Organic Residue Analysis
(dichloromethane)

avantor



Material No.: 9266-A4
Batch No.: 25A0262002
Manufactured Date: 2024-11-21
Expiration Date: 2026-02-20
Revision No.: 0

Certificate of Analysis

Test	Specification	Result
FID-Sensitive Impurities (as 2-Octanol) Single Impurity Peak (ng/mL)	≤ 5	1
ECD Sensitive Impurities (as HeptachlorEpoxide) Single Peak (pg/mL)	≤ 10	4
Assay (CH ₂ Cl ₂) (by GC, exclusive of preservative, corrected for water)	$\geq 99.8 \%$	99.9 %
Color (APHA)	≤ 10	10
Residue after Evaporation	≤ 1.0 ppm	0.8 ppm
Titration Acid (μ eq/g)	≤ 0.3	<0.1
Chloride (Cl)	≤ 10 ppm	<5 ppm
Water (by KF, coulometric)	$\leq 0.02 \%$	<0.01 %

For Laboratory, Research, or Manufacturing Use
MEETS SPECIFICATIONS WITHIN THE EXPIRATION PERIOD

Country of Origin: United States
Packaging Site: Phillipsburg Mfg Ctr & DC

E 3926

J. Croak

Jamie Croak
Director Quality Operations, Bioscience Production

For questions on this Certificate of Analysis please contact Technical Services at 855.282.6867 or +1.610.386.1700

Avantor Performance Materials, LLC

100 Matsonford Rd, Suite 200, Radnor, PA, 19087, U.S.A. Phone 610.386.1700

Methylene Chloride
ULTRA RESI-ANALYZED
For Organic Residue Analysis
(dichloromethane)

avantor



Material No.: 9266-A4
Batch No.: 25A0262002
Manufactured Date: 2024-11-21
Expiration Date: 2026-02-20
Revision No.: 0

Certificate of Analysis

Test	Specification	Result
FID-Sensitive Impurities (as 2-Octanol) Single Impurity Peak (ng/mL)	≤ 5	1
ECD Sensitive Impurities (as HeptachlorEpoxide) Single Peak (pg/mL)	≤ 10	4
Assay (CH ₂ Cl ₂) (by GC, exclusive of preservative, corrected for water)	$\geq 99.8 \%$	99.9 %
Color (APHA)	≤ 10	10
Residue after Evaporation	$\leq 1.0 \text{ ppm}$	0.8 ppm
Titration Acid ($\mu\text{eq/g}$)	≤ 0.3	< 0.1
Chloride (Cl)	$\leq 10 \text{ ppm}$	$< 5 \text{ ppm}$
Water (by KF, coulometric)	$\leq 0.02 \%$	$< 0.01 \%$

For Laboratory, Research, or Manufacturing Use
MEETS SPECIFICATIONS WITHIN THE EXPIRATION PERIOD

Country of Origin: United States
Packaging Site: Phillipsburg Mfg Ctr & DC

E3930

J. Croak

Jamie Croak
Director Quality Operations, Bioscience Production

For questions on this Certificate of Analysis please contact Technical Services at 855.282.6867 or +1.610.386.1700

Avantor Performance Materials, LLC

100 Matsonford Rd, Suite 200, Radnor, PA, 19087, U.S.A. Phone 610.386.1700

Acetone
BAKER RESI-ANALYZED® Reagent
For Organic Residue Analysis

avantor™



Material No.: 9254-03

Batch No.: 24H1462005

Manufactured Date: 2024-05-24

Expiration Date: 2027-05-24

Revision No.: 0

Certificate of Analysis

Test	Specification	Result
Assay ((CH ₃) ₂ CO) (by GC, corrected for water)	>= 99.4 %	99.8 %
Color (APHA)	<= 10	5
Residue after Evaporation	<= 1.0 ppm	0.2 ppm
Substances Reducing Permanganate	Passes Test	Passes Test
Titration Acid (µeq/g)	<= 0.3	0.2
Titration Base (µeq/g)	<= 0.6	<0.1
Water (H ₂ O)	<= 0.5 %	0.2 %
FID-Sensitive Impurities (as 2-Octanol) Single Impurity Peak (ng/mL)	<= 5	<1
ECD Sensitive Impurities (as Heptachlor Epoxide) Single Peak (pg/mL)	<= 10	1

For Laboratory, Research, or Manufacturing Use

MEETS SPECIFICATIONS WITHIN THE EXPIRATION PERIOD

RS

Country of Origin: United States

Packaging Site: Phillipsburg Mfg Ctr & DC

E 3932

Jamie Croak
Director Quality Operations, Bioscience Production

For questions on this Certificate of Analysis please contact Technical Services at 855.282.6867 or +1.610.386.1700

Avantor Performance Materials LLC



CERTIFIED REFERENCE MATERIAL

110 Benner Circle

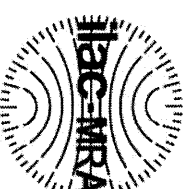
Bellefonte, PA 16823-8812

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. : 31266

Lot No.: A0186840

Description : Florida TRPH Standard

Florida TRPH Standard 500µg/mL, Hexane, 1mL/ampul

Container Size : 2 mL

Pkg Amt: > 1 mL

Expiration Date : July 31, 2029

Storage: 25°C nominal

Handling: Sonicate prior to use.

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	n-Octane (C8) CAS # 111-65-9 Purity 99%	505.0 µg/mL	+/- 2.9995 µg/mL +/- 12.5465 µg/mL +/- 15.0390 µg/mL	Gravimetric Unstressed Unstressed Stressed
2	n-Decane (C10) CAS # 124-18-5 Purity 99%	503.0 µg/mL	+/- 2.9877 µg/mL +/- 12.4968 µg/mL +/- 14.9795 µg/mL	Gravimetric Unstressed Unstressed Stressed
3	n-Dodecane (C12) CAS # 112-40-3 Purity 99%	503.5 µg/mL	+/- 2.9906 µg/mL +/- 12.5092 µg/mL +/- 14.9944 µg/mL	Gravimetric Unstressed Unstressed Stressed
4	n-Tetradecane (C14) CAS # 629-59-4 Purity 99%	505.0 µg/mL	+/- 2.9995 µg/mL +/- 12.5465 µg/mL +/- 15.0390 µg/mL	Gravimetric Unstressed Unstressed Stressed
5	n-Hexadecane (C16) CAS # 544-76-3 Purity 98%	504.7 µg/mL	+/- 2.9978 µg/mL +/- 12.5390 µg/mL +/- 15.0301 µg/mL	Gravimetric Unstressed Unstressed Stressed
6	n-Octadecane (C18) CAS # 593-45-3 Purity 97%	504.4 µg/mL	+/- 2.9960 µg/mL +/- 12.5316 µg/mL +/- 15.0212 µg/mL	Gravimetric Unstressed Unstressed Stressed
7	n-Eicosane (C20) CAS # 112-95-8 Purity 99%	503.5 µg/mL	+/- 2.9906 µg/mL +/- 12.5092 µg/mL +/- 14.9944 µg/mL	Gravimetric Unstressed Unstressed Stressed

P11948 } 7.8
P11962 } 07/11/16

8	n-Docosane (C22) CAS # 629-97-0 Purity 99%	(Lot MKCL8918)	504.5 µg/mL	+/- 2.9966 +/- 12.5340 +/- 15.0241	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
9	n-Tetracosane (C24) CAS # 646-31-1 Purity 99%	(Lot MKCN2863)	503.5 µg/mL	+/- 2.9906 +/- 12.5092 +/- 14.9944	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
10	n-Hexacosane (C26) CAS # 630-01-3 Purity 99%	(Lot MKCD4540)	504.0 µg/mL	+/- 2.9936 +/- 12.5216 +/- 15.0093	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
11	n-Octacosane (C28) CAS # 630-02-4 Purity 99%	(Lot BCCG0084)	504.5 µg/mL	+/- 2.9966 +/- 12.5340 +/- 15.0241	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
12	n-Triacontane (C30) CAS # 638-68-6 Purity 99%	(Lot MKCN9321)	505.0 µg/mL	+/- 2.9995 +/- 12.5465 +/- 15.0390	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
13	n-Dotriacontane (C32) CAS # 544-85-4 Purity 99%	(Lot BCBW0661)	505.0 µg/mL	+/- 2.9995 +/- 12.5465 +/- 15.0390	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
14	n-Tetratriacontane (C34) CAS # 14167-59-0 Purity 99%	(Lot OML4N)	504.5 µg/mL	+/- 2.9966 +/- 12.5340 +/- 15.0241	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
15	n-Hexatriacontane (C36) CAS # 630-06-8 Purity 99%	(Lot U25B014)	504.0 µg/mL	+/- 2.9936 +/- 12.5216 +/- 15.0093	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
16	n-Octatriacontane (C38) CAS # 7194-85-6 Purity 97%	(Lot 0000127235)	504.4 µg/mL	+/- 2.9960 +/- 12.5316 +/- 15.0212	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
17	n-Tetracontane (C40) CAS # 4181-95-7 Purity 98%	(Lot PADGI)	504.7 µg/mL	+/- 2.9978 +/- 12.5390 +/- 15.0301	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

Solvent: Hexane
CAS # 110-54-3
Purity 99%

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:

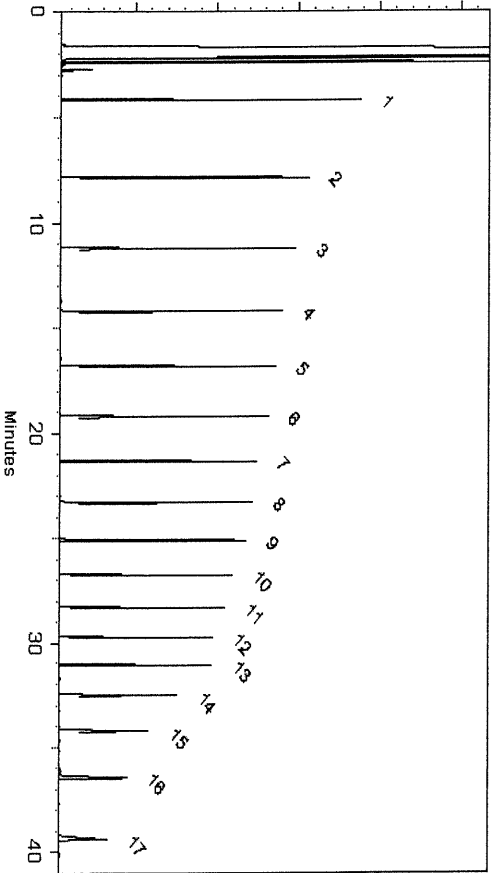
250°C

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.

Brittany Federinko

Brittany Federinko - Operations Tech I

Date Mixed: 29-Jun-2022

Balance: 1128360905

Christie Mills

Christie Mills - Operations Tech II - ARM QC

Date Passed: 01-Jul-2022

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.



CERTIFIED REFERENCE MATERIAL

110 Benner Circle

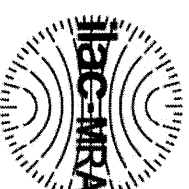
Bellefonte, PA 16823-8812

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. : 31266

Lot No.: A0186840

Description : Florida TRPH Standard

Florida TRPH Standard 500µg/mL, Hexane, 1mL/ampul

Container Size : 2 mL

Pkg Amt: > 1 mL

Expiration Date : July 31, 2029

Storage: 25°C nominal

Handling: Sonicate prior to use.

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	n-Octane (C8) CAS # 111-65-9 Purity 99%	505.0 µg/mL	+/- 2.9995 µg/mL +/- 12.5465 µg/mL +/- 15.0390 µg/mL	Gravimetric Unstressed Stressed
2	n-Decane (C10) CAS # 124-18-5 Purity 99%	503.0 µg/mL	+/- 2.9877 µg/mL +/- 12.4968 µg/mL +/- 14.9795 µg/mL	Gravimetric Unstressed Stressed
3	n-Dodecane (C12) CAS # 112-40-3 Purity 99%	503.5 µg/mL	+/- 2.9906 µg/mL +/- 12.5092 µg/mL +/- 14.9944 µg/mL	Gravimetric Unstressed Stressed
4	n-Tetradecane (C14) CAS # 629-59-4 Purity 99%	505.0 µg/mL	+/- 2.9995 µg/mL +/- 12.5465 µg/mL +/- 15.0390 µg/mL	Gravimetric Unstressed Stressed
5	n-Hexadecane (C16) CAS # 544-76-3 Purity 98%	504.7 µg/mL	+/- 2.9978 µg/mL +/- 12.5390 µg/mL +/- 15.0301 µg/mL	Gravimetric Unstressed Stressed
6	n-Octadecane (C18) CAS # 593-45-3 Purity 97%	504.4 µg/mL	+/- 2.9960 µg/mL +/- 12.5316 µg/mL +/- 15.0212 µg/mL	Gravimetric Unstressed Stressed
7	n-Eicosane (C20) CAS # 112-95-8 Purity 99%	503.5 µg/mL	+/- 2.9906 µg/mL +/- 12.5092 µg/mL +/- 14.9944 µg/mL	Gravimetric Unstressed Stressed

P11948 } 7.8
P11962 } 07/11/16

8	n-Docosane (C22) CAS # 629-97-0 Purity 99%	(Lot MKCL8918)	504.5 µg/mL	+/- 2.9966 +/- 12.5340 +/- 15.0241	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
9	n-Tetracosane (C24) CAS # 646-31-1 Purity 99%	(Lot MKCN2863)	503.5 µg/mL	+/- 2.9906 +/- 12.5092 +/- 14.9944	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
10	n-Hexacosane (C26) CAS # 630-01-3 Purity 99%	(Lot MKCD4540)	504.0 µg/mL	+/- 2.9936 +/- 12.5216 +/- 15.0093	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
11	n-Octacosane (C28) CAS # 630-02-4 Purity 99%	(Lot BCCG0084)	504.5 µg/mL	+/- 2.9966 +/- 12.5340 +/- 15.0241	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
12	n-Triacontane (C30) CAS # 638-68-6 Purity 99%	(Lot MKCN9321)	505.0 µg/mL	+/- 2.9995 +/- 12.5465 +/- 15.0390	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
13	n-Dotriacontane (C32) CAS # 544-85-4 Purity 99%	(Lot BCBW0661)	505.0 µg/mL	+/- 2.9995 +/- 12.5465 +/- 15.0390	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
14	n-Tetratriacontane (C34) CAS # 14167-59-0 Purity 99%	(Lot OML4N)	504.5 µg/mL	+/- 2.9966 +/- 12.5340 +/- 15.0241	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
15	n-Hexatriacontane (C36) CAS # 630-06-8 Purity 99%	(Lot U25B014)	504.0 µg/mL	+/- 2.9936 +/- 12.5216 +/- 15.0093	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
16	n-Octatriacontane (C38) CAS # 7194-85-6 Purity 97%	(Lot 0000127235)	504.4 µg/mL	+/- 2.9960 +/- 12.5316 +/- 15.0212	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
17	n-Tetracontane (C40) CAS # 4181-95-7 Purity 98%	(Lot PADGI)	504.7 µg/mL	+/- 2.9978 +/- 12.5390 +/- 15.0301	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

Solvent: Hexane
CAS # 110-54-3
Purity 99%

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:

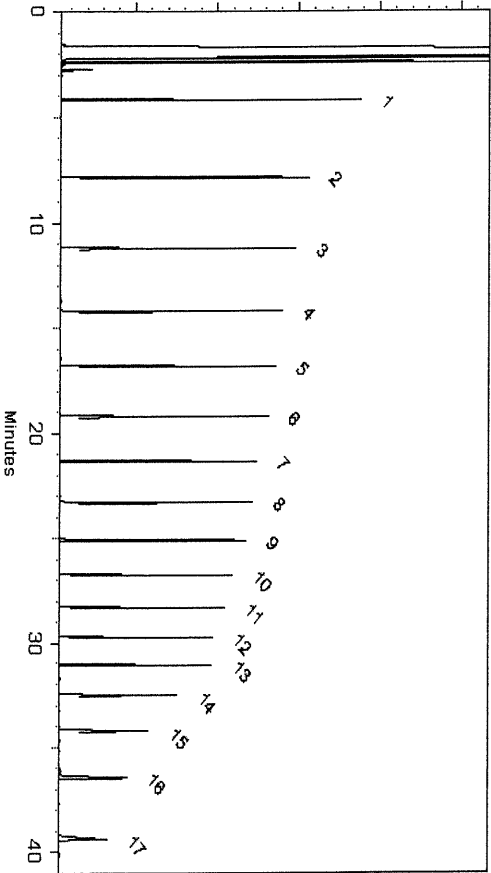
250°C

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.

Brittany Federinko
Brittany Federinko - Operations Tech I

Date Mixed: 29-Jun-2022

Balance: 1128360905

Christie Mills
Christie Mills - Operations Tech II - ARM QC

Date Passed: 01-Jul-2022

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.



CERTIFIED REFERENCE MATERIAL

110 Benner Circle

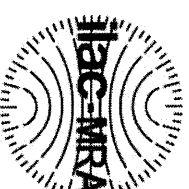
Bellefonte, PA 16823-8812

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. : 31266

Lot No.: A0186840

Description : Florida TRPH Standard

Florida TRPH Standard 500µg/mL, Hexane, 1mL/ampul

Container Size : 2 mL

Pkg Amt: > 1 mL

Expiration Date : July 31, 2029

Storage: 25°C nominal

Handling: Sonicate prior to use.

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	n-Octane (C8) CAS # 111-65-9 Purity 99%	505.0 µg/mL	+/- 2.9995 µg/mL +/- 12.5465 µg/mL +/- 15.0390 µg/mL	Gravimetric Unstressed Unstressed Stressed
2	n-Decane (C10) CAS # 124-18-5 Purity 99%	503.0 µg/mL	+/- 2.9877 µg/mL +/- 12.4968 µg/mL +/- 14.9795 µg/mL	Gravimetric Unstressed Unstressed Stressed
3	n-Dodecane (C12) CAS # 112-40-3 Purity 99%	503.5 µg/mL	+/- 2.9906 µg/mL +/- 12.5092 µg/mL +/- 14.9944 µg/mL	Gravimetric Unstressed Unstressed Stressed
4	n-Tetradecane (C14) CAS # 629-59-4 Purity 99%	505.0 µg/mL	+/- 2.9995 µg/mL +/- 12.5465 µg/mL +/- 15.0390 µg/mL	Gravimetric Unstressed Unstressed Stressed
5	n-Hexadecane (C16) CAS # 544-76-3 Purity 98%	504.7 µg/mL	+/- 2.9978 µg/mL +/- 12.5390 µg/mL +/- 15.0301 µg/mL	Gravimetric Unstressed Unstressed Stressed
6	n-Octadecane (C18) CAS # 593-45-3 Purity 97%	504.4 µg/mL	+/- 2.9960 µg/mL +/- 12.5316 µg/mL +/- 15.0212 µg/mL	Gravimetric Unstressed Unstressed Stressed
7	n-Eicosane (C20) CAS # 112-95-8 Purity 99%	503.5 µg/mL	+/- 2.9906 µg/mL +/- 12.5092 µg/mL +/- 14.9944 µg/mL	Gravimetric Unstressed Unstressed Stressed

P11948 } 7.8
P11962 } 07/11/16

8	n-Docosane (C22) CAS # 629-97-0 Purity 99%	(Lot MKCL8918)	504.5 µg/mL	+/- 2.9966 +/- 12.5340 +/- 15.0241	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
9	n-Tetracosane (C24) CAS # 646-31-1 Purity 99%	(Lot MKCN2863)	503.5 µg/mL	+/- 2.9906 +/- 12.5092 +/- 14.9944	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
10	n-Hexacosane (C26) CAS # 630-01-3 Purity 99%	(Lot MKCD4540)	504.0 µg/mL	+/- 2.9936 +/- 12.5216 +/- 15.0093	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
11	n-Octacosane (C28) CAS # 630-02-4 Purity 99%	(Lot BCCG0084)	504.5 µg/mL	+/- 2.9966 +/- 12.5340 +/- 15.0241	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
12	n-Triacontane (C30) CAS # 638-68-6 Purity 99%	(Lot MKCN9321)	505.0 µg/mL	+/- 2.9995 +/- 12.5465 +/- 15.0390	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
13	n-Dotriacontane (C32) CAS # 544-85-4 Purity 99%	(Lot BCBW0661)	505.0 µg/mL	+/- 2.9995 +/- 12.5465 +/- 15.0390	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
14	n-Tetratriacontane (C34) CAS # 14167-59-0 Purity 99%	(Lot OML4N)	504.5 µg/mL	+/- 2.9966 +/- 12.5340 +/- 15.0241	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
15	n-Hexatriacontane (C36) CAS # 630-06-8 Purity 99%	(Lot U25B014)	504.0 µg/mL	+/- 2.9936 +/- 12.5216 +/- 15.0093	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
16	n-Octatriacontane (C38) CAS # 7194-85-6 Purity 97%	(Lot 0000127235)	504.4 µg/mL	+/- 2.9960 +/- 12.5316 +/- 15.0212	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
17	n-Tetracontane (C40) CAS # 4181-95-7 Purity 98%	(Lot PADGI)	504.7 µg/mL	+/- 2.9978 +/- 12.5390 +/- 15.0301	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

Solvent: Hexane
CAS # 110-54-3
Purity 99%

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:

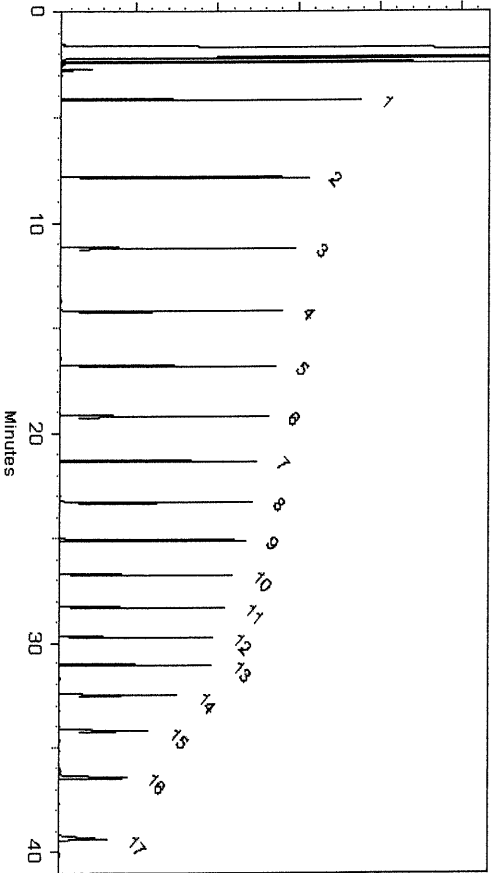
250°C

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.

Brittany Federinko

Brittany Federinko - Operations Tech I

Date Mixed: 29-Jun-2022

Balance: 1128360905

Christie Mills

Christie Mills - Operations Tech II - ARM QC

Date Passed: 01-Jul-2022

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:

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CERTIFIED REFERENCE MATERIAL

110 Benner Circle

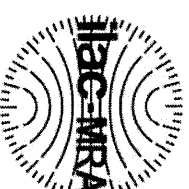
Bellefonte, PA 16823-8812

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. : 31266

Lot No.: A0186840

Description : Florida TRPH Standard

Florida TRPH Standard 500µg/mL, Hexane, 1mL/ampul

Container Size : 2 mL

Pkg Amt: > 1 mL

Expiration Date : July 31, 2029

Storage: 25°C nominal

Handling: Sonicate prior to use.

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	n-Octane (C8) CAS # 111-65-9 Purity 99%	505.0 µg/mL	+/- 2.9995 µg/mL +/- 12.5465 µg/mL +/- 15.0390 µg/mL	Gravimetric Unstressed Stressed
2	n-Decane (C10) CAS # 124-18-5 Purity 99%	503.0 µg/mL	+/- 2.9877 µg/mL +/- 12.4968 µg/mL +/- 14.9795 µg/mL	Gravimetric Unstressed Stressed
3	n-Dodecane (C12) CAS # 112-40-3 Purity 99%	503.5 µg/mL	+/- 2.9906 µg/mL +/- 12.5092 µg/mL +/- 14.9944 µg/mL	Gravimetric Unstressed Stressed
4	n-Tetradecane (C14) CAS # 629-59-4 Purity 99%	505.0 µg/mL	+/- 2.9995 µg/mL +/- 12.5465 µg/mL +/- 15.0390 µg/mL	Gravimetric Unstressed Stressed
5	n-Hexadecane (C16) CAS # 544-76-3 Purity 98%	504.7 µg/mL	+/- 2.9978 µg/mL +/- 12.5390 µg/mL +/- 15.0301 µg/mL	Gravimetric Unstressed Stressed
6	n-Octadecane (C18) CAS # 593-45-3 Purity 97%	504.4 µg/mL	+/- 2.9960 µg/mL +/- 12.5316 µg/mL +/- 15.0212 µg/mL	Gravimetric Unstressed Stressed
7	n-Eicosane (C20) CAS # 112-95-8 Purity 99%	503.5 µg/mL	+/- 2.9906 µg/mL +/- 12.5092 µg/mL +/- 14.9944 µg/mL	Gravimetric Unstressed Stressed

P11948 } 7.8
P11962 } 07/11/16

8	n-Docosane (C22) CAS # 629-97-0 Purity 99%	(Lot MKCL8918)	504.5 µg/mL	+/- 2.9966 +/- 12.5340 +/- 15.0241	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
9	n-Tetracosane (C24) CAS # 646-31-1 Purity 99%	(Lot MKCN2863)	503.5 µg/mL	+/- 2.9906 +/- 12.5092 +/- 14.9944	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
10	n-Hexacosane (C26) CAS # 630-01-3 Purity 99%	(Lot MKCD4540)	504.0 µg/mL	+/- 2.9936 +/- 12.5216 +/- 15.0093	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
11	n-Octacosane (C28) CAS # 630-02-4 Purity 99%	(Lot BCCG0084)	504.5 µg/mL	+/- 2.9966 +/- 12.5340 +/- 15.0241	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
12	n-Triacontane (C30) CAS # 638-68-6 Purity 99%	(Lot MKCN9321)	505.0 µg/mL	+/- 2.9995 +/- 12.5465 +/- 15.0390	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
13	n-Dotriacontane (C32) CAS # 544-85-4 Purity 99%	(Lot BCBW0661)	505.0 µg/mL	+/- 2.9995 +/- 12.5465 +/- 15.0390	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
14	n-Tetratriacontane (C34) CAS # 14167-59-0 Purity 99%	(Lot OML4N)	504.5 µg/mL	+/- 2.9966 +/- 12.5340 +/- 15.0241	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
15	n-Hexatriacontane (C36) CAS # 630-06-8 Purity 99%	(Lot U25B014)	504.0 µg/mL	+/- 2.9936 +/- 12.5216 +/- 15.0093	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
16	n-Octatriacontane (C38) CAS # 7194-85-6 Purity 97%	(Lot 0000127235)	504.4 µg/mL	+/- 2.9960 +/- 12.5316 +/- 15.0212	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
17	n-Tetracontane (C40) CAS # 4181-95-7 Purity 98%	(Lot PADGI)	504.7 µg/mL	+/- 2.9978 +/- 12.5390 +/- 15.0301	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

Solvent: Hexane
CAS # 110-54-3
Purity 99%

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:

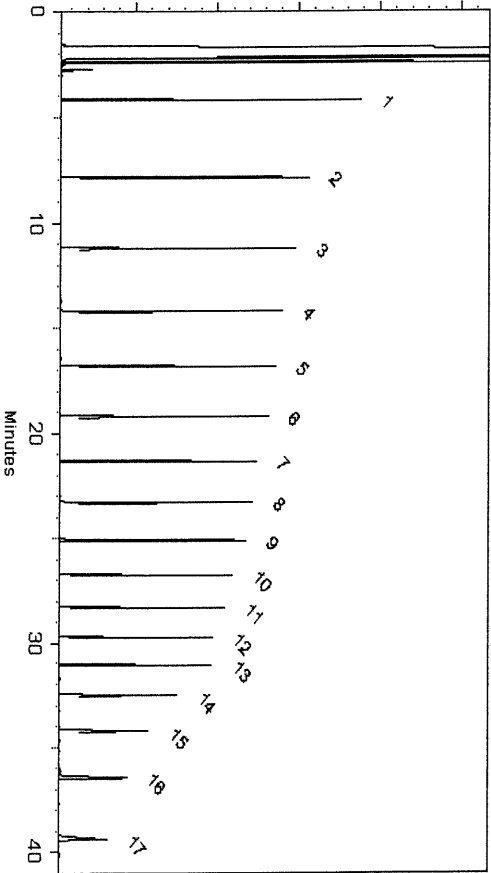
250°C

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.

Brittany Federinko

Brittany Federinko - Operations Tech I

Date Mixed: 29-Jun-2022

Balance: 1128360905

Christie Mills

Christie Mills - Operations Tech II - ARM QC

Date Passed: 01-Jul-2022

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.

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$$U_{combined\ stressed} = k \sqrt{U_{gravimetric}^2 + U_{homogeneity}^2 + U_{storage\ stability}^2 + U_{shipping\ stability}^2}$$

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
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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.



110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus



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. : 31266 **Lot No.:** A0204859

Description : Florida TRPH Standard

Florida TRPH Standard 500µg/mL, Hexane, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : December 31, 2030 **Storage:** 25°C nominal

Handling: Sonicate prior to use. **Ship:** Ambient

P13103 } Y.P.
↓
P13112 } 01/12/2024

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	n-Octane (C8)	111-65-9	SHBP9758	99%	504.4 µg/mL	+/- 13.0305
2	n-Decane (C10)	124-18-5	SHBQ1342	99%	503.6 µg/mL	+/- 13.0098
3	n-Dodecane (C12)	112-40-3	SHBP7054	99%	503.6 µg/mL	+/- 13.0098
4	n-Tetradecane (C14)	629-59-4	STBK5437	99%	504.0 µg/mL	+/- 13.0201
5	n-Hexadecane (C16)	544-76-3	SHBP8192	99%	504.0 µg/mL	+/- 13.0201
6	n-Octadecane (C18)	593-45-3	UE5NG	98%	504.1 µg/mL	+/- 13.0230
7	n-Eicosane (C20)	112-95-8	MKCN8767	97%	504.0 µg/mL	+/- 13.0204
8	n-Docosane (C22)	629-97-0	MKCQ3882	99%	503.6 µg/mL	+/- 13.0098
9	n-Tetracosane (C24)	646-31-1	MKCQ8345	99%	504.0 µg/mL	+/- 13.0201
10	n-Hexacosane (C26)	630-01-3	MKCQ4814	99%	504.0 µg/mL	+/- 13.0201
11	n-Octacosane (C28)	630-02-4	BCCG0084	99%	504.0 µg/mL	+/- 13.0201
12	n-Triacontane (C30)	638-68-6	MKCQ9436	97%	504.0 µg/mL	+/- 13.0204
13	n-Dotriacontane (C32)	544-85-4	BCBW0661	99%	504.0 µg/mL	+/- 13.0201
14	n-Tetratriacontane (C34)	14167-59-0	OML4N	99%	504.4 µg/mL	+/- 13.0305
15	n-Hexatriacontane (C36)	630-06-8	Z27H018	99%	504.0 µg/mL	+/- 13.0201
16	n-Octatriacontane (C38)	7194-85-6	0000145137	96%	503.8 µg/mL	+/- 13.0152
17	n-Tetracontane (C40)	4181-95-7	OKEGA	99%	503.6 µg/mL	+/- 13.0098

Solvent: Hexane
CAS # 110-54-3
Purity 99%

Quality Confirmation Test

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.)

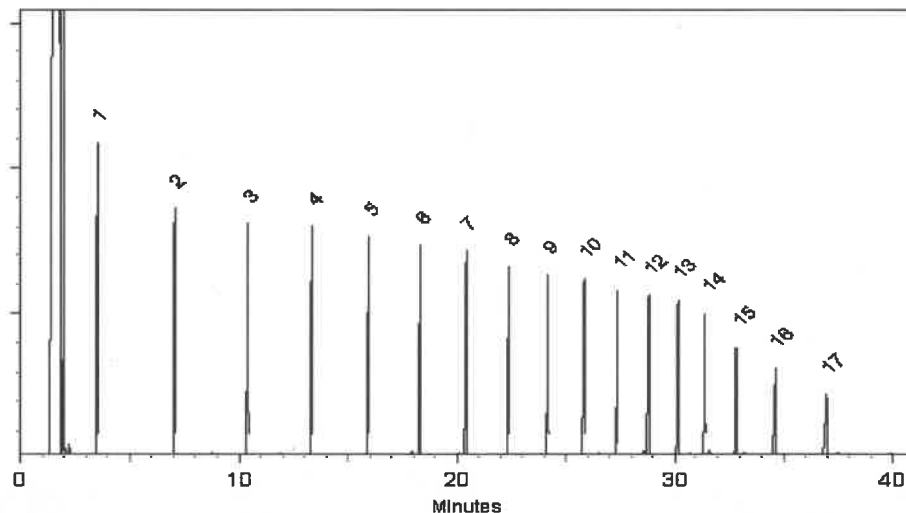
Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID

Split Vent:
2 ml/min.

Inj. Vol
1µl

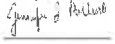


This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.


Dakota Parson - Operations Technician I

Date Mixed: 29-Nov-2023

Balance Serial # B442140311


Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 01-Dec-2023

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 expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k \sqrt{u_{gravimetric}^2 + u_{homogeneity}^2 + u_{storage\ stability}^2 + u_{shipping\ stability}^2}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls 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 ampuls. 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.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.



110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus



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. : 31266 **Lot No.:** A0204859

Description : Florida TRPH Standard

Florida TRPH Standard 500µg/mL, Hexane, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : December 31, 2030 **Storage:** 25°C nominal

Handling: Sonicate prior to use. **Ship:** Ambient

P13103 } Y.P.
↓
P13112 } 01/12/2024

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	n-Octane (C8)	111-65-9	SHBP9758	99%	504.4 µg/mL	+/- 13.0305
2	n-Decane (C10)	124-18-5	SHBQ1342	99%	503.6 µg/mL	+/- 13.0098
3	n-Dodecane (C12)	112-40-3	SHBP7054	99%	503.6 µg/mL	+/- 13.0098
4	n-Tetradecane (C14)	629-59-4	STBK5437	99%	504.0 µg/mL	+/- 13.0201
5	n-Hexadecane (C16)	544-76-3	SHBP8192	99%	504.0 µg/mL	+/- 13.0201
6	n-Octadecane (C18)	593-45-3	UE5NG	98%	504.1 µg/mL	+/- 13.0230
7	n-Eicosane (C20)	112-95-8	MKCN8767	97%	504.0 µg/mL	+/- 13.0204
8	n-Docosane (C22)	629-97-0	MKCQ3882	99%	503.6 µg/mL	+/- 13.0098
9	n-Tetracosane (C24)	646-31-1	MKCQ8345	99%	504.0 µg/mL	+/- 13.0201
10	n-Hexacosane (C26)	630-01-3	MKCQ4814	99%	504.0 µg/mL	+/- 13.0201
11	n-Octacosane (C28)	630-02-4	BCCG0084	99%	504.0 µg/mL	+/- 13.0201
12	n-Triacontane (C30)	638-68-6	MKCQ9436	97%	504.0 µg/mL	+/- 13.0204
13	n-Dotriacontane (C32)	544-85-4	BCBW0661	99%	504.0 µg/mL	+/- 13.0201
14	n-Tetratriacontane (C34)	14167-59-0	OML4N	99%	504.4 µg/mL	+/- 13.0305
15	n-Hexatriacontane (C36)	630-06-8	Z27H018	99%	504.0 µg/mL	+/- 13.0201
16	n-Octatriacontane (C38)	7194-85-6	0000145137	96%	503.8 µg/mL	+/- 13.0152
17	n-Tetracontane (C40)	4181-95-7	OKEGA	99%	503.6 µg/mL	+/- 13.0098

Solvent: Hexane
CAS # 110-54-3
Purity 99%

Quality Confirmation Test

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.)

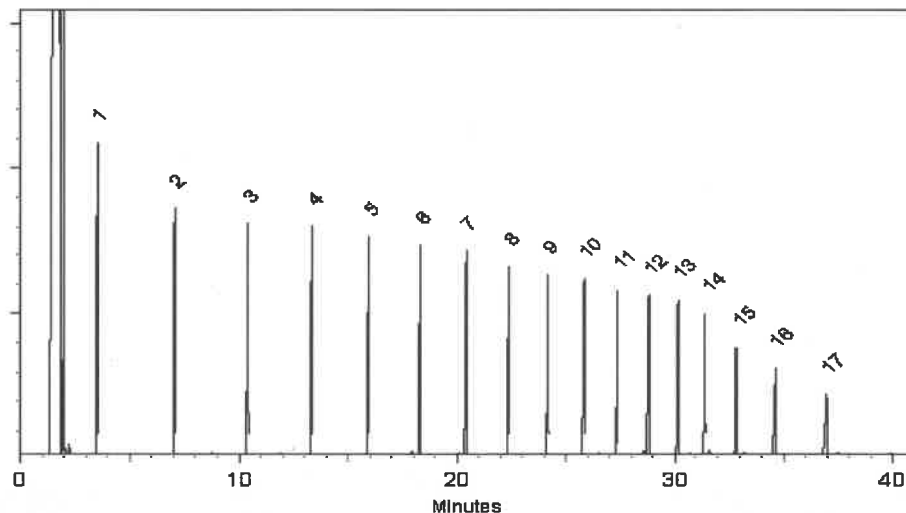
Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID

Split Vent:
2 ml/min.

Inj. Vol
1µl

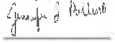


This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.


Dakota Parson - Operations Technician I

Date Mixed: 29-Nov-2023

Balance Serial # B442140311


Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 01-Dec-2023

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 expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k \sqrt{u_{gravimetric}^2 + u_{homogeneity}^2 + u_{storage\ stability}^2 + u_{shipping\ stability}^2}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls 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 ampuls. 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.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

ABSOLUTE STANDARDS, INC.

ISO - 17034



Certificate of Analysis



Certified Reference Material (CRM)

Conformance: The "Certificate of Analysis" is applicable for CRM's, fulfilling the requirements in the current version of: ISO 17034.

Health & Safety: See the attached SDS & Certified Weight Report before use.

Intended Use: This Certified Reference Material (CRM) is intended primarily for use in the characterization of unknowns and the establishment of analyzer or instrument response factors by qualified personnel. Typical instrumental organic assays include: GC & LC, and inorganic assays include: ICP & AA. This product is for laboratory use only.

Characterization Values: In production, gravimetric/volumetric readings are certified to be within $\pm 0.5\%$ of the stated value & are valid between 18 °C & 30 °C. The measured characterization of uncertainty can be found on the Certified Weight Report. All product weighings are performed on an analytical balance that is calibrated to NIST Traceable standard weights & certified by the manufacturer. The volumetric glassware used is Class "A" type & conforms to ASTM E-288 unless otherwise stated. The solvents & compounds used are of the highest practical purity & typically meet or exceed ACS Reagent Grade & ACS Standards Grade specifications. The expanded uncertainty field on Certified Wt. Report represents CRM uncertainty as described in ISO 17034.

Homogeneity: Uncertainties that are due to the analytical procedure(s) are within $\pm 5\%$ unless specifically stated on the Certified Wt. Report.

Verification: Uncertainties that are due to the analytical procedure(s) are within $\pm 5\%$ unless specifically stated on the Certified Wt. Report.

Stability: Uncertainties for short-term stability are determined in accordance with ISO 17034. Long-term stability is determined in accordance with ISO 17034. The shelf life is limited by the stated expiration for each product. Expiration dates and additional technical information can be found on the Certified Weight Report and on the product label.

Uncertainty: UCRM is the expanded uncertainty which utilizes a $K = 2$ (coverage factor of 2), in accordance with ISO 17034 as listed above (Characterization, Homogeneity, Verification, and Stability).

Purity & Identity: Organic solutions are typically formulated from neat materials whose purity & identity have been characterized by GC-MSD & LC-PDA techniques with comparison to a NIST Traceable library of mass spectra when available. Additional characterization techniques may include but are not limited to: refractive index measurements of liquids, melting point measurements of solids, & GC-FID, ECD, PID, ELCD, LC-PDA measurements for purity. Inorganic solutions & neats are typically formulated from materials whose purity & identity have been characterized by ICPMS with comparison to a NIST SRM® when available. Additional characterization techniques may include but are not limited to: titrimetry, and densitometry.

Storage: Sealed ampules and other containers should be stored in the dark and at temperatures indicated on the Certified Weight Report or product label. Certification by Absolute Standards, Inc. is typically valid for 3 years from the date of manufacture. Each product will show its own expiration date as the limit of certification. Certified values are not applicable to opened ampules or for any materials stored in re-sealable containers. Please see the "Certified Weight Report" for specific values and any exceptions.

Usage: Ampules & bottles should be brought to room temperature (18 to 30 °C) before opening. Sonication may be required for high concentration solutions or solutions that may precipitate during storage. After opening, care should be exercised to avoid concentration changes owing to evaporation of the solvent or essential components. We recommend that a suitable re-sealable container be available before opening an ampule to decant the standard for short-term storage and use.

Minimum Sample Size: 0.5 uL for analytical applications.

Legal Notice: Warranty of products are as described when shipped. No warranty as to fitness for any particular application is expressed or implied. Errant shipments and/or quality claims must be made within 10 days of receipt. Liability is limited solely to the replacement of the product or refund of purchase price.

Certifying Officer: Stephen J. Arpie, M.S., Director General

Page 1 of 2



Absolute Standards, Inc. • 44 Rossotto Drive • Hamden, CT 06514
Voice: 800-368-1131 • Fax: 800-410-2577 • eMail: StephenArpie@AbsoluteStandards.com
Document Identification: Certificate of Analysis Rev 14, Date Issued: 05/30/2019



ABSOLUTE STANDARDS, INC.

ISO - 17034

Understanding the Certified Weight Report

Each Certified Reference Material (CRM) is supported by a Certified Weight Report. Assigned values for concentrations and associated uncertainties are based upon NIST traceable masses & volumes used in production.

Absolute Standards, Inc.
800-368-1131
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Certified Reference Material CRM

ISO 17034 Accredited
Scope: http://AbsoluteStandards.com

CERTIFIED WEIGHT REPORT

Part # 10009R
Lot # 070716
Shelf Life 070716

Part Number: 10009R
Lot Number: 070716
Description: CLP Priority Pollutant Internal Standards
GC/MS Calibration - 6 components
070716
Expiration Date:
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 4000
NIST Test ID#: 822-275872-11
Weight(s) shown below were combined and diluted to (mL): 500.0

Solvent(s): Methylene chloride
Lot# 78782

5E-05 Balance Uncertainty
0.058 Peak Uncertainty

Formulated By: Paul Barron
Reviewed By: Pedro L. Rentes

070716
070716

MSDS Information
(Solvent Safety Info. On Attached pg.)

Compound	SMW	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty (%)	Target Weight (µg)	Actual Weight (µg)	Actual Conc (µg/mL)	Expanded Uncertainty (µg/mL)	CAS#	OSHA PEL (TWA)	LD50
1. 1,4-Dichlorobenzene-d4	118	PR-1845M07287CB1	4000	98	0.2	2.04093	2.04335	4004.7	15.4	2055-02-1	N/A	or-rat 500mg/kg
2. Naphthalene-d8	223	PR-2339M031612HP1	4000	99	0.2	2.02032	2.02084	4001.0	15.2	1146-85-2	10 ppm (50mg/m3/8h)	or-rat 400mg/kg
3. Acenaphthene-d10	2	PR-25444	4000	99	0.2	2.02032	2.02245	4004.2	15.2	15067-28-2	N/A	or-rat 500mg/kg
4. Phenanthrene-d10	248	PR-2305M081711PM1	4000	98	0.2	2.04093	2.04135	4000.8	15.4	1517-25-2	N/A	N/A
5. Chrysene-d12	92	I-19290	4000	98	0.2	2.04093	2.04159	4001.3	15.4	1719-03-5	N/A	N/A
6. Perylene-d12	247	PR-24113	4000	98	0.2	2.04093	2.04158	4001.2	15.4	1503-58-3	N/A	N/A

Run 35, "P10009R L070716 [4000µg/mL in MeCl2]"
Run Length: 40.00 min, 23900 points at 10 points/second.
Created: Sat, Jul 9, 2016 at 1:54:53 PM.
Sampled: Sequence "070716-GC/MS", Method "GC-MS".
Analyzed using Method "GC-MS".

Comments
GC-MS Analysis by Melissa Siciric
Column ID SPB-5 30 meter x 0.53mm x 1.5um Film Thickness.
Flow rates: Total Flow = 300 mL/min, Helium (carrier) = 0.5 mL, Helium (make-up) = 25 mL.
Hydrogen (detector) = 30 mL, Air (detector) = 300 mL, Oven Temp 1 = 50°C (1 min).
Rise = 10°C/min, Oven Temp 2 = 300°C (14 min). Total Run Time = 40 Minutes. Injector Temp = 250°C.
FID Temp = 300°C, FID Signal = aDaq Channel 1.
Gas Chromatograph = HP 5890, Auto Sampler = HP 7673, Standard Injection = 0.5 µL, Range = 4

Peak Data

Peak No.	Name	FID RT (min)
1	1,4-Dichlorobenzene-d4	6.34
2	Naphthalene-d8	8.98
3	Acenaphthene-d10	12.97
4	Phenanthrene-d10	16.37
5	Chrysene-d12	22.62
6	Perylene-d12	25.75

Qualitative Quantitative

3rd Party Comparison

Analyte	Sup/Abs Dev (%)
1,4-Dichlorobenzene-d4	2.55
Naphthalene-d8	2.43
Acenaphthene-d10	2.74
Phenanthrene-d10	0.65
Chrysene-d12	1.93
Perylene-d12	-1.72
Total	-0.55

Printed: 5/8/2019, 12:55:50 PM

For More Information, Contact:

StephenArpie@AbsoluteStandards.com

Page 2 of 2



CERTIFIED WEIGHT REPORT

Part Number: **72072**
Lot Number: **101122**
Description: **n-Tetracosane-d50**

Solvent(s):
Methylene chloride
Lot# **105345**

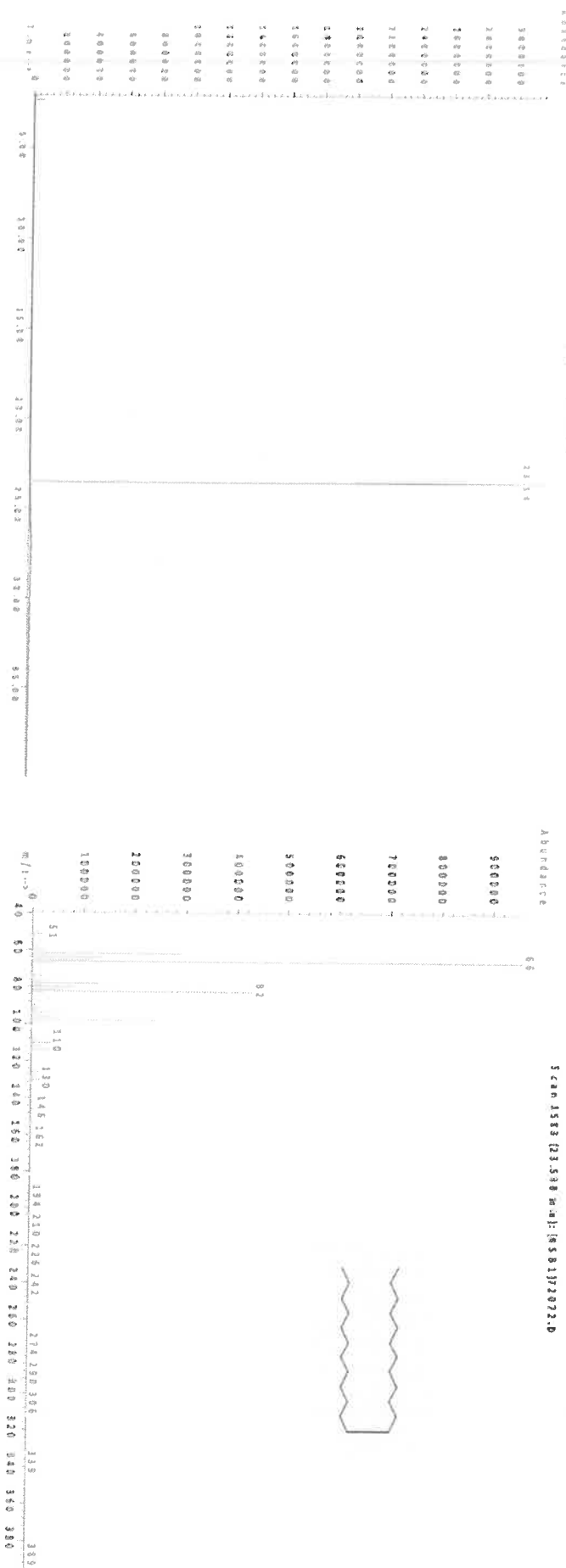
Expiration Date: **101132**
Recommended Storage: **Ambient (20 °C)**
Nominal Concentration (µg/mL): **1000**
NIST Test ID#: **6UB3**
Weight(s) shown below were combined and diluted to (mL): **200.0**
5E-05 Balance Uncertainty
0.058 Flask Uncertainty

P13437
13436
07/24/24
X.F.

Formulated By:	<i>Prashant Chauhan</i>	101122
Reviewed By:	<i>Pedro L. Rentas</i>	101122
DATE		DATE

Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%D)	Target Weight(g)	Actual Weight(g)	Actual Conc (µg/mL)	Expanded Uncertainty (+/-) (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.)	LD50
1. n-Tetracosane-d50	2072	PR-26606	1000	98.7	0.2	99.0	0.20471	0.20482	1000.6	4.1	16416-32-3	N/A

Method GC8MSD-3.M: Column:SPB-5 (30m X 0.25mm ID X 0.25µm film thickness) Temp 1 = 50°C (1min.), Temp 2 = 300°C (9min.), Rate = 10°C/min., Injector B = 250°C, Detector B = 275°C, Split Ratio = 100:1, Scan Rate = 2. Analysis performed by: Candice Warren.



- The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
- All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.
- Uncertainty Reference: Taylor, B.N., and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Results," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).

ABSOLUTE STANDARDS, INC.

ISO - 17034



Certificate of Analysis



Certified Reference Material (CRM)

Conformance: The "Certificate of Analysis" is applicable for CRM's, fulfilling the requirements in the current version of: ISO 17034.

Health & Safety: See the attached SDS & Certified Weight Report before use.

Intended Use: This Certified Reference Material (CRM) is intended primarily for use in the characterization of unknowns and the establishment of analyzer or instrument response factors by qualified personnel. Typical instrumental organic assays include: GC & LC, and inorganic assays include: ICP & AA. This product is for laboratory use only.

Characterization Values: In production, gravimetric/volumetric readings are certified to be within $\pm 0.5\%$ of the stated value & are valid between 18 °C & 30 °C. The measured characterization of uncertainty can be found on the Certified Weight Report. All product weighings are performed on an analytical balance that is calibrated to NIST Traceable standard weights & certified by the manufacturer. The volumetric glassware used is Class "A" type & conforms to ASTM E-288 unless otherwise stated. The solvents & compounds used are of the highest practical purity & typically meet or exceed ACS Reagent Grade & ACS Standards Grade specifications. The expanded uncertainty field on Certified Wt. Report represents CRM uncertainty as described in ISO 17034.

Homogeneity: Uncertainties that are due to the analytical procedure(s) are within $\pm 5\%$ unless specifically stated on the Certified Wt. Report.

Verification: Uncertainties that are due to the analytical procedure(s) are within $\pm 5\%$ unless specifically stated on the Certified Wt. Report.

Stability: Uncertainties for short-term stability are determined in accordance with ISO 17034. Long-term stability is determined in accordance with ISO 17034. The shelf life is limited by the stated expiration for each product. Expiration dates and additional technical information can be found on the Certified Weight Report and on the product label.

Uncertainty: UCRM is the expanded uncertainty which utilizes a $K = 2$ (coverage factor of 2), in accordance with ISO 17034 as listed above (Characterization, Homogeneity, Verification, and Stability).

Purity & Identity: Organic solutions are typically formulated from neat materials whose purity & identity have been characterized by GC-MSD & LC-PDA techniques with comparison to a NIST Traceable library of mass spectra when available. Additional characterization techniques may include but are not limited to: refractive index measurements of liquids, melting point measurements of solids, & GC-FID, ECD, PID, ELCD, LC-PDA measurements for purity. Inorganic solutions & neats are typically formulated from materials whose purity & identity have been characterized by ICPMS with comparison to a NIST SRM® when available. Additional characterization techniques may include but are not limited to: titrimetry, and densitometry.

Storage: Sealed ampules and other containers should be stored in the dark and at temperatures indicated on the Certified Weight Report or product label. Certification by Absolute Standards, Inc. is typically valid for 3 years from the date of manufacture. Each product will show its own expiration date as the limit of certification. Certified values are not applicable to opened ampules or for any materials stored in re-sealable containers. Please see the "Certified Weight Report" for specific values and any exceptions.

Usage: Ampules & bottles should be brought to room temperature (18 to 30 °C) before opening. Sonication may be required for high concentration solutions or solutions that may precipitate during storage. After opening, care should be exercised to avoid concentration changes owing to evaporation of the solvent or essential components. We recommend that a suitable re-sealable container be available before opening an ampule to decant the standard for short-term storage and use.

Minimum Sample Size: 0.5 uL for analytical applications.

Legal Notice: Warranty of products are as described when shipped. No warranty as to fitness for any particular application is expressed or implied. Errant shipments and/or quality claims must be made within 10 days of receipt. Liability is limited solely to the replacement of the product or refund of purchase price.

Certifying Officer: Stephen J. Arpie, M.S., Director General

Page 1 of 2



Absolute Standards, Inc. • 44 Rossotto Drive • Hamden, CT 06514
Voice: 800-368-1131 • Fax: 800-410-2577 • eMail: StephenArpie@AbsoluteStandards.com
Document Identification: Certificate of Analysis Rev 14, Date Issued: 05/30/2019



ABSOLUTE STANDARDS, INC.

ISO - 17034

Understanding the Certified Weight Report

Each Certified Reference Material (CRM) is supported by a Certified Weight Report. Assigned values for concentrations and associated uncertainties are based upon NIST traceable masses & volumes used in production.

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Certified Reference Material CRM

ISO 17034 Accredited
Scope: http://AbsoluteStandards.com

CERTIFIED WEIGHT REPORT

Part # 10009R
Lot # 070716
Shelf Life Description: CLP Priority Pollutant Internal Standards
GC/MS Calibration - 6 components
070721
Expiration Date: Ambient (20 °C)
Recommended Storage: 4000
Nominal Concentration (µg/mL): 822-275872-11
NIST Test ID#: 5E-05 Balance Uncertainty
0.058 Mass Uncertainty

Solvent(s): Methylene chloride
Lot# 78782

Formulated By: Paul Barron
Reviewed By: Pedro L. Rentes

070716
070716

Weight(s) shown below were combined and diluted to (mL): 500.0

Compound	SMW	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty Purity	Target Weight (µg)	Actual Weight (µg)	Actual Conc (µg/mL)	Expanded Uncertainty (µg/mL)	CAS#	MSDS Information (Solvent Safety Info. On Attached pg.)	OSHA PEL (TWA)	LD50
1. 1,4-Dichlorobenzene-d4	118	PR-1845M07287CB1	4000	98	0.2	2.04093	2.04335	4004.7	15.4	2055-02-1	N/A	N/A	or-rat 500mg/kg
2. Naphthalene-d8	223	PR-2339M031612HP1	4000	99	0.2	2.02032	2.02084	4001.0	15.2	1146-85-2	10 ppm (50mg/m3/8h)	N/A	or-rat 400mg/kg
3. Acenaphthene-d10	2	PR-25444	4000	99	0.2	2.02032	2.02245	4004.2	15.2	15067-28-2	N/A	N/A	or-rat 500mg/kg
4. Phenanthrene-d10	248	PR-2305M081711PM1	4000	98	0.2	2.04093	2.04135	4000.8	15.4	1517-25-2	N/A	N/A	N/A
5. Chrysene-d12	92	I-19290	4000	98	0.2	2.04093	2.04150	4001.3	15.4	1719-03-5	N/A	N/A	N/A
6. Perylene-d12	247	PR-24113	4000	98	0.2	2.04093	2.04155	4001.2	15.4	1503-58-3	N/A	N/A	N/A

Run 35, "P10009R L070716 [4000µg/mL in MeCl2]"
Run Length: 40.00 min, 23900 points at 10 points/second.
Created: Sat, Jul 9, 2016 at 1:54:53 PM.
Sampled: Sequence "070716-GC/MS", Method "GC-MS".
Analyzed using Method "GC-MS".

Comments:
GC-MS Analysis by Melissa Siciric
Column ID SPB-5 30 meter x 0.53mm x 1.5um Film Thickness.
Flow rates: Total Flow = 300 mL/min, Helium (carrier) = 0.5 mL, Helium (make-up) = 25 mL.
Hydrogen (detector) = 30 mL, Air (detector) = 300 mL, Oven Temp 1 = 50°C (1 min).
Rise = 10°C/min, Oven Temp 2 = 300°C (14 min), Total Run Time = 40 Minutes, Injector Temp = 250°C.
FID Temp = 300°C, FID Signal = sData Channel 1.
Gas Chromatograph = HP 5890, Auto Sampler = HP 7673, Standard Injection = 0.5 µL, Range = 4

Peak No. Name FID RT (min)

1	1,4-Dichlorobenzene-d4	6.34
2	Naphthalene-d8	8.98
3	Acenaphthene-d10	12.97
4	Phenanthrene-d10	16.37
5	Chrysene-d12	22.62
6	Perylene-d12	25.75

Printed: 5/8/2019, 12:55:50 PM

Part # 10009R Lot # 041219 1 of 2

Formulator
Reviewer

Actual
Concentration
Uncertainty
Values

Health &
Safety

3rd Party
Comparison

For More Information, Contact:

StephenArpie@AbsoluteStandards.com

Page 2 of 2



CERTIFIED WEIGHT REPORT

Part Number: **72072**
Lot Number: **101122**
Description: **n-Tetracosane-d50**

Solvent(s):
Methylene chloride
Lot#
105345

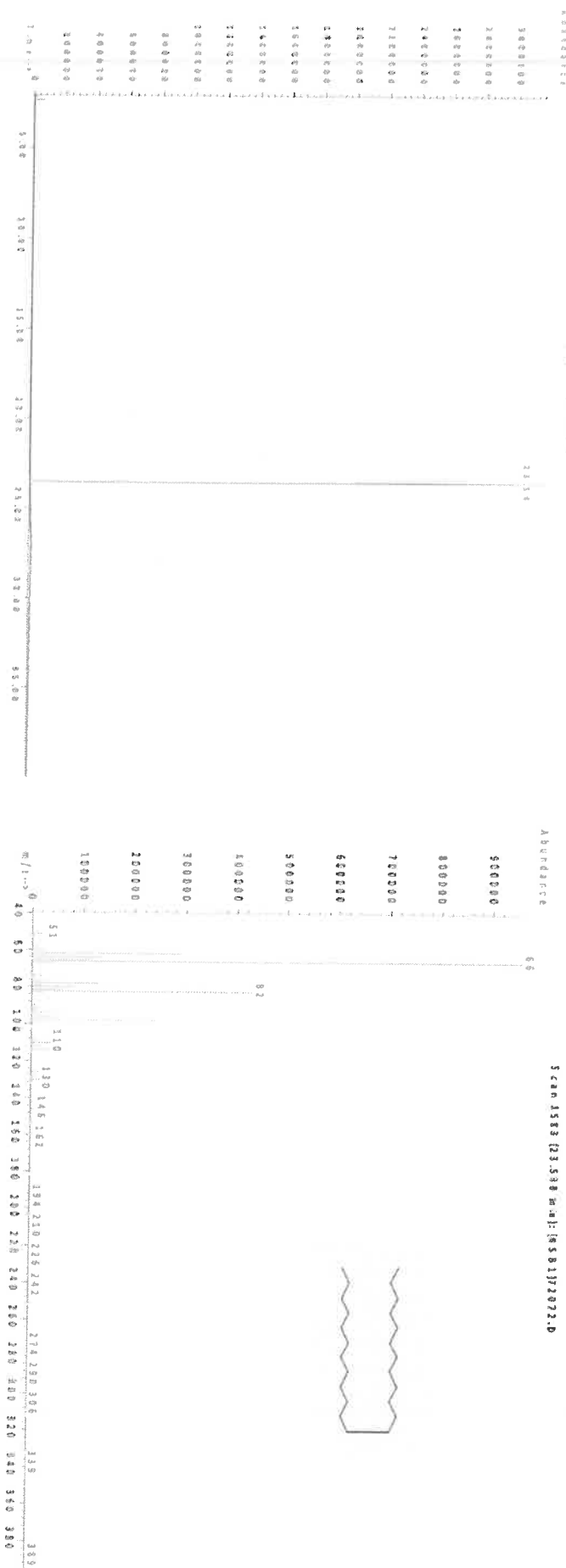
Expiration Date: **101132**
Recommended Storage: **Ambient (20 °C)**
Nominal Concentration (µg/mL): **1000**
NIST Test ID#: **6UB3**
Weight(s) shown below were combined and diluted to (mL): **200.0**
5E-05 Balance Uncertainty
0.058 Flask Uncertainty

P13437
13436
07/24/24
X.F.

Formulated By:	<i>Prashant Chauhan</i>	101122
Reviewed By:	<i>Pedro L. Rentas</i>	101122
DATE		DATE

Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight(g)	Actual Weight(g)	Actual Conc (µg/mL)	Expanded Uncertainty (+/-) (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.)	LD50
1. n-Tetracosane-d50	2072	PR-26606	1000	98.7	0.2	99.0	0.20471	0.20482	1000.6	4.1	16416-32-3	N/A

Method GC8MSD-3.M: Column:SPB-5 (30m X 0.25mm ID X 0.25µm film thickness) Temp 1 = 50°C (1min.), Temp 2 = 300°C (9min.), Rate = 10°C/min., Injector B = 250°C, Detector B = 275°C, Split Ratio = 100:1, Scan Rate = 2. Analysis performed by: Candice Warren.



- The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
- All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.
- Uncertainty Reference: Taylor, B.N., and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Results," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).

ABSOLUTE STANDARDS, INC.

ISO - 17034



Certificate of Analysis



Certified Reference Material (CRM)

Conformance: The "Certificate of Analysis" is applicable for CRM's, fulfilling the requirements in the current version of: ISO 17034.

Health & Safety: See the attached SDS & Certified Weight Report before use.

Intended Use: This Certified Reference Material (CRM) is intended primarily for use in the characterization of unknowns and the establishment of analyzer or instrument response factors by qualified personnel. Typical instrumental organic assays include: GC & LC, and inorganic assays include: ICP & AA. This product is for laboratory use only.

Characterization Values: In production, gravimetric/volumetric readings are certified to be within $\pm 0.5\%$ of the stated value & are valid between 18 °C & 30 °C. The measured characterization of uncertainty can be found on the Certified Weight Report. All product weighings are performed on an analytical balance that is calibrated to NIST Traceable standard weights & certified by the manufacturer. The volumetric glassware used is Class "A" type & conforms to ASTM E-288 unless otherwise stated. The solvents & compounds used are of the highest practical purity & typically meet or exceed ACS Reagent Grade & ACS Standards Grade specifications. The expanded uncertainty field on Certified Wt. Report represents CRM uncertainty as described in ISO 17034.

Homogeneity: Uncertainties that are due to the analytical procedure(s) are within $\pm 5\%$ unless specifically stated on the Certified Wt. Report.

Verification: Uncertainties that are due to the analytical procedure(s) are within $\pm 5\%$ unless specifically stated on the Certified Wt. Report.

Stability: Uncertainties for short-term stability are determined in accordance with ISO 17034. Long-term stability is determined in accordance with ISO 17034. The shelf life is limited by the stated expiration for each product. Expiration dates and additional technical information can be found on the Certified Weight Report and on the product label.

Uncertainty: UCRM is the expanded uncertainty which utilizes a $K = 2$ (coverage factor of 2), in accordance with ISO 17034 as listed above (Characterization, Homogeneity, Verification, and Stability).

Purity & Identity: Organic solutions are typically formulated from neat materials whose purity & identity have been characterized by GC-MSD & LC-PDA techniques with comparison to a NIST Traceable library of mass spectra when available. Additional characterization techniques may include but are not limited to: refractive index measurements of liquids, melting point measurements of solids, & GC-FID, ECD, PID, ELCD, LC-PDA measurements for purity. Inorganic solutions & neats are typically formulated from materials whose purity & identity have been characterized by ICPMS with comparison to a NIST SRM® when available. Additional characterization techniques may include but are not limited to: titrimetry, and densitometry.

Storage: Sealed ampules and other containers should be stored in the dark and at temperatures indicated on the Certified Weight Report or product label. Certification by Absolute Standards, Inc. is typically valid for 3 years from the date of manufacture. Each product will show its own expiration date as the limit of certification. Certified values are not applicable to opened ampules or for any materials stored in re-sealable containers. Please see the "Certified Weight Report" for specific values and any exceptions.

Usage: Ampules & bottles should be brought to room temperature (18 to 30 °C) before opening. Sonication may be required for high concentration solutions or solutions that may precipitate during storage. After opening, care should be exercised to avoid concentration changes owing to evaporation of the solvent or essential components. We recommend that a suitable re-sealable container be available before opening an ampule to decant the standard for short-term storage and use.

Minimum Sample Size: 0.5 uL for analytical applications.

Legal Notice: Warranty of products are as described when shipped. No warranty as to fitness for any particular application is expressed or implied. Errant shipments and/or quality claims must be made within 10 days of receipt. Liability is limited solely to the replacement of the product or refund of purchase price.

Certifying Officer: Stephen J. Arpie, M.S., Director General

Page 1 of 2



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Voice: 800-368-1131 • Fax: 800-410-2577 • eMail: StephenArpie@AbsoluteStandards.com
Document Identification: Certificate of Analysis Rev 14, Date Issued: 05/30/2019



ABSOLUTE STANDARDS, INC.

ISO - 17034

Understanding the Certified Weight Report

Each Certified Reference Material (CRM) is supported by a Certified Weight Report. Assigned values for concentrations and associated uncertainties are based upon NIST traceable masses & volumes used in production.

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ISO 17034 Accredited
Scope: http://AbsoluteStandards.com

CERTIFIED WEIGHT REPORT

Part # 10009R
Lot # 070716
Shelf Life 070716

Part Number: 10009R
Lot Number: 070716
Description: CLP Priority Pollutant Internal Standards
GC/MS Calibration - 6 components
Expiration Date: 070721
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 4000
NIST Test ID#: 822-275872-11
Weight(s) shown below were combined and diluted to (mL): 500.0

Solvent(s): Methylene chloride
Lot# 78782

Formulated By: Paul Barron
Reviewed By: Pedro L. Rentes

MSDS Information
(Solvent Safety Info. On Attached pg.)

Compound	SMW	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty (%)	Target Weight (µg)	Actual Weight (µg)	Actual Conc (µg/mL)	Expanded Uncertainty (µg/mL)	CAS#	OSHA PEL (TWA)	LD50
1. 1,4-Dichlorobenzene-d4	118	PR-1845M07287CB1	4000	98	0.2	2.04093	2.04335	4004.7	15.4	2055-02-1	N/A	or-rat 500mg/kg
2. Naphthalene-d8	223	PR-2339M031612HP1	4000	99	0.2	2.02032	2.02084	4001.0	15.2	1146-85-2	10 ppm (50mg/m3/8h)	or-rat 400mg/kg
3. Acenaphthene-d10	2	PR-25444	4000	99	0.2	2.02032	2.02245	4004.2	15.2	15067-28-2	N/A	or-rat 500mg/kg
4. Phenanthrene-d10	248	PR-2305M081711PM1	4000	98	0.2	2.04093	2.04135	4000.8	15.4	1517-25-2	N/A	N/A
5. Chrysene-d12	92	I-19290	4000	98	0.2	2.04093	2.04150	4001.3	15.4	1719-03-5	N/A	N/A
6. Perylene-d12	247	PR-24113	4000	98	0.2	2.04093	2.04155	4001.2	15.4	1503-58-3	N/A	N/A

Run 35, "P10009R L070716 [4000µg/mL in MeCl2]"
Run Length: 40.00 min, 23900 points at 10 points/second.
Created: Sat, Jul 9, 2016 at 1:54:53 PM.
Sampled: Sequence "070716-GC/MS", Method "GC-MS".
Analyzed using Method "GC-MS".

Comments:
GC-MS Analysis by Melissa Siciric
Column ID SPB-5 30 meter x 0.53mm x 1.5um Film Thickness.
Flow rates: Total Flow = 300 mL/min, Helium (carrier) = 0.5 mL, Helium (make-up) = 25 mL.
Hydrogen (detector) = 30 mL, Air (detector) = 300 mL, Oven Temp 1 = 50°C (1 min).
Rise = 10°C/min, Oven Temp 2 = 300°C (14 min), Total Run Time = 40 Minutes, Injector Temp = 250°C.
FID Temp = 300°C, FID Signal = sData Channel 1.
Gas Chromatograph = HP 5890, Auto Sampler = HP 7673, Standard Injection = 0.5 µL, Range = 4

Peak No. Name FID RT (min)

1	1,4-Dichlorobenzene-d4	6.34
2	Naphthalene-d8	8.98
3	Acenaphthene-d10	12.97
4	Phenanthrene-d10	16.37
5	Chrysene-d12	22.62
6	Perylene-d12	25.75

Qualitative Quantitative

Printed: 5/8/2019, 12:55:50 PM

Formulator
Reviewer

Actual
Concentration
Uncertainty
Values

Health &
Safety

3rd Party
Comparison

For More Information, Contact:

StephenArpie@AbsoluteStandards.com

Page 2 of 2



CERTIFIED WEIGHT REPORT

Part Number: **72072**
Lot Number: **101122**
Description: **n-Tetracosane-d50**

Solvent(s):
Methylene chloride
Lot#
105345

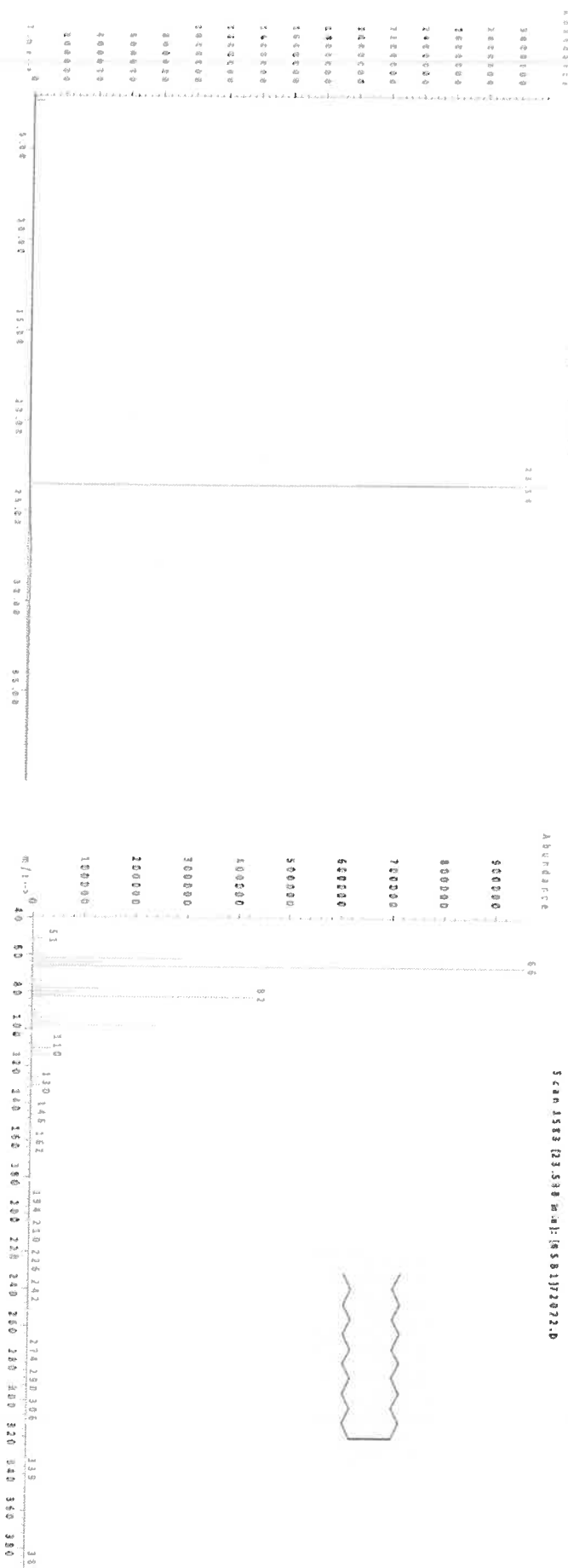
Expiration Date: **101132**
Recommended Storage: **Ambient (20 °C)**
Nominal Concentration (µg/mL): **1000**
NIST Test ID#: **6UB3**
Weight(s) shown below were combined and diluted to (mL): **200.0**
5E-05 Balance Uncertainty
0.058 Flask Uncertainty

P13437
13436
07/24/24
X.F.

Formulated By:	<i>Prashant Chauhan</i>	101122
Reviewed By:	<i>Pedro L. Rentas</i>	101122
	Pedro L. Rentas	DATE

Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight(g)	Actual Weight(g)	Actual Conc (µg/mL)	Expanded Uncertainty (+/-) (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.)	LD50
1. n-Tetracosane-d50	2072	PR-26606	1000	98.7	0.2	99.0	0.20471	0.20482	1000.6	4.1	16416-32-3	N/A

Method GC8MSD-3.M: Column:SPB-5 (30m X 0.25mm ID X 0.25µm film thickness) Temp 1 = 50°C (1min.), Temp 2 = 300°C (9min.), Rate = 10°C/min., Injector B = 250°C, Detector B = 275°C, Split Ratio = 100:1, Scan Rate = 2. Analysis performed by: Candice Warren.



- The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
- All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.
- Uncertainty Reference: Taylor, B.N., and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Results," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).

ABSOLUTE STANDARDS, INC.

ISO - 17034



Certificate of Analysis



Certified Reference Material (CRM)

Conformance: The "Certificate of Analysis" is applicable for CRM's, fulfilling the requirements in the current version of: ISO 17034.

Health & Safety: See the attached SDS & Certified Weight Report before use.

Intended Use: This Certified Reference Material (CRM) is intended primarily for use in the characterization of unknowns and the establishment of analyzer or instrument response factors by qualified personnel. Typical instrumental organic assays include: GC & LC, and inorganic assays include: ICP & AA. This product is for laboratory use only.

Characterization Values: In production, gravimetric/volumetric readings are certified to be within $\pm 0.5\%$ of the stated value & are valid between 18 °C & 30 °C. The measured characterization of uncertainty can be found on the Certified Weight Report. All product weighings are performed on an analytical balance that is calibrated to NIST Traceable standard weights & certified by the manufacturer. The volumetric glassware used is Class "A" type & conforms to ASTM E-288 unless otherwise stated. The solvents & compounds used are of the highest practical purity & typically meet or exceed ACS Reagent Grade & ACS Standards Grade specifications. The expanded uncertainty field on Certified Wt. Report represents CRM uncertainty as described in ISO 17034.

Homogeneity: Uncertainties that are due to the analytical procedure(s) are within $\pm 5\%$ unless specifically stated on the Certified Wt. Report.

Verification: Uncertainties that are due to the analytical procedure(s) are within $\pm 5\%$ unless specifically stated on the Certified Wt. Report.

Stability: Uncertainties for short-term stability are determined in accordance with ISO 17034. Long-term stability is determined in accordance with ISO 17034. The shelf life is limited by the stated expiration for each product. Expiration dates and additional technical information can be found on the Certified Weight Report and on the product label.

Uncertainty: UCRM is the expanded uncertainty which utilizes a $K = 2$ (coverage factor of 2), in accordance with ISO 17034 as listed above (Characterization, Homogeneity, Verification, and Stability).

Purity & Identity: Organic solutions are typically formulated from neat materials whose purity & identity have been characterized by GC-MSD & LC-PDA techniques with comparison to a NIST Traceable library of mass spectra when available. Additional characterization techniques may include but are not limited to: refractive index measurements of liquids, melting point measurements of solids, & GC-FID, ECD, PID, ELCD, LC-PDA measurements for purity. Inorganic solutions & neats are typically formulated from materials whose purity & identity have been characterized by ICPMS with comparison to a NIST SRM® when available. Additional characterization techniques may include but are not limited to: titrimetry, and densitometry.

Storage: Sealed ampules and other containers should be stored in the dark and at temperatures indicated on the Certified Weight Report or product label. Certification by Absolute Standards, Inc. is typically valid for 3 years from the date of manufacture. Each product will show its own expiration date as the limit of certification. Certified values are not applicable to opened ampules or for any materials stored in re-sealable containers. Please see the "Certified Weight Report" for specific values and any exceptions.

Usage: Ampules & bottles should be brought to room temperature (18 to 30 °C) before opening. Sonication may be required for high concentration solutions or solutions that may precipitate during storage. After opening, care should be exercised to avoid concentration changes owing to evaporation of the solvent or essential components. We recommend that a suitable re-sealable container be available before opening an ampule to decant the standard for short-term storage and use.

Minimum Sample Size: 0.5 uL for analytical applications.

Legal Notice: Warranty of products are as described when shipped. No warranty as to fitness for any particular application is expressed or implied. Errant shipments and/or quality claims must be made within 10 days of receipt. Liability is limited solely to the replacement of the product or refund of purchase price.

Certifying Officer: Stephen J. Arpie, M.S., Director General

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Document Identification: Certificate of Analysis Rev 14, Date Issued: 05/30/2019



ABSOLUTE STANDARDS, INC.

ISO - 17034



Understanding the Certified Weight Report



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Certified Reference Material CRM

ISO 17034 Accredited
Scope: http://AbsoluteStandards.com

CERTIFIED WEIGHT REPORT

Part # 10009R
Lot # 070716
Shelf Life 070716

Part Number: 10009R
Lot Number: 070716
Description: CLP Priority Pollutant Internal Standards
GC/MS Calibration - 6 components
Expiration Date: 070721
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 4000
NIST Test ID#: 822-275872-11
Weight(s) shown below were combined and diluted to (mL): 500.0

Solvent(s): Methylene chloride
Lot# 78782

5E-05 Balance Uncertainty
0.058 Peak Uncertainty

Formulated By: Paul Barron
Reviewed By: Pedro L. Rentes

070716
070716

MSDS Information
(Solvent Safety Info. On Attached pg.)

Compound	SMW	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty (%)	Target Weight (µg)	Actual Weight (µg)	Actual Conc (µg/mL)	Expanded Uncertainty (µg/mL)	CAS#	OSHA PEL (TWA)	LD50
1. 1,4-Dichlorobenzene-d4	118	PR-1845M07287CB1	4000	98	0.2	2.04093	2.04335	4004.7	15.4	2055-02-1	N/A	or-nr 500mg/kg
2. Naphthalene-d8	222	PR-2339M031612HP1	4000	99	0.2	2.02032	2.02084	4001.0	15.2	1146-85-2	10 ppm (50mg/m3/8h)	or-nr 400mg/kg
3. Acenaphthene-d10	2	PR-25444	4000	99	0.2	2.02032	2.02245	4004.2	15.2	15067-28-2	N/A	or-nr 500mg/kg
4. Phenanthrene-d10	248	PR-2305M081711PM1	4000	98	0.2	2.04093	2.04136	4000.8	15.4	1517-25-2	N/A	N/A
5. Chrysene-d12	92	I-19290	4000	98	0.2	2.04093	2.04159	4001.3	15.4	1719-03-5	N/A	N/A
6. Perylene-d12	247	PR-24113	4000	98	0.2	2.04093	2.04156	4001.2	15.4	1503-58-3	N/A	N/A

Run 35, "P10009R L070716 [4000µg/mL in MeCl2]"
Run Length: 40.00 min, 23900 points at 10 points/second.
Created: Sat, Jul 9, 2016 at 1:54:53 PM.
Sampled: Sequence "070716-GC/MS", Method "GC-MS".
Analyzed using Method "GC-MS".

Comments
GC-MS Analysis by Melissa Siciric
Column ID SPB-5 30 meter x 0.53mm x 1.5um Film Thickness.
Flow rates: Total Flow = 300 mL/min, Helium (carrier) = 0.5 mL, Helium (make-up) = 25 mL.
Hydrogen (detector) = 30 mL, Air (detector) = 300 mL, Oven Temp 1 = 50°C (1 min).
Rise = 10°C/min, Oven Temp 2 = 300°C (14 min). Total Run Time = 40 Minutes. Injector Temp = 250°C.
FID Temp = 300°C, FID Signal = aDaq Channel 1.
Gas Chromatograph = HP 5890, Auto Sampler = HP 7673, Standard Injection = 0.5 µL, Range = 4

Qualitative Quantitative

Peak No. Name FID RT (min)

1	1,4-Dichlorobenzene-d4	6.34
2	Naphthalene-d8	8.98
3	Acenaphthene-d10	12.97
4	Phenanthrene-d10	16.37
5	Chrysene-d12	22.62
6	Perylene-d12	25.75

3rd Party Comparison

Analyte	Sup/Abs Dev (%)
1,4-Dichlorobenzene-d4	2.55
Naphthalene-d8	2.43
Acenaphthene-d10	2.74
Phenanthrene-d10	0.65
Chrysene-d12	1.93
Perylene-d12	-1.72
Total	-0.56

Printed: 5/8/2019, 12:55:50 PM

For More Information, Contact:

StephenArpie@AbsoluteStandards.com

Page 2 of 2



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Document Identification: Certificate of Analysis Rev 14, Date Issued: 05/30/2019





CERTIFIED WEIGHT REPORT

Part Number: **72072**
Lot Number: **101122**
Description: **n-Tetracosane-d50**

Solvent(s):
Methylene chloride

Lot#
105345

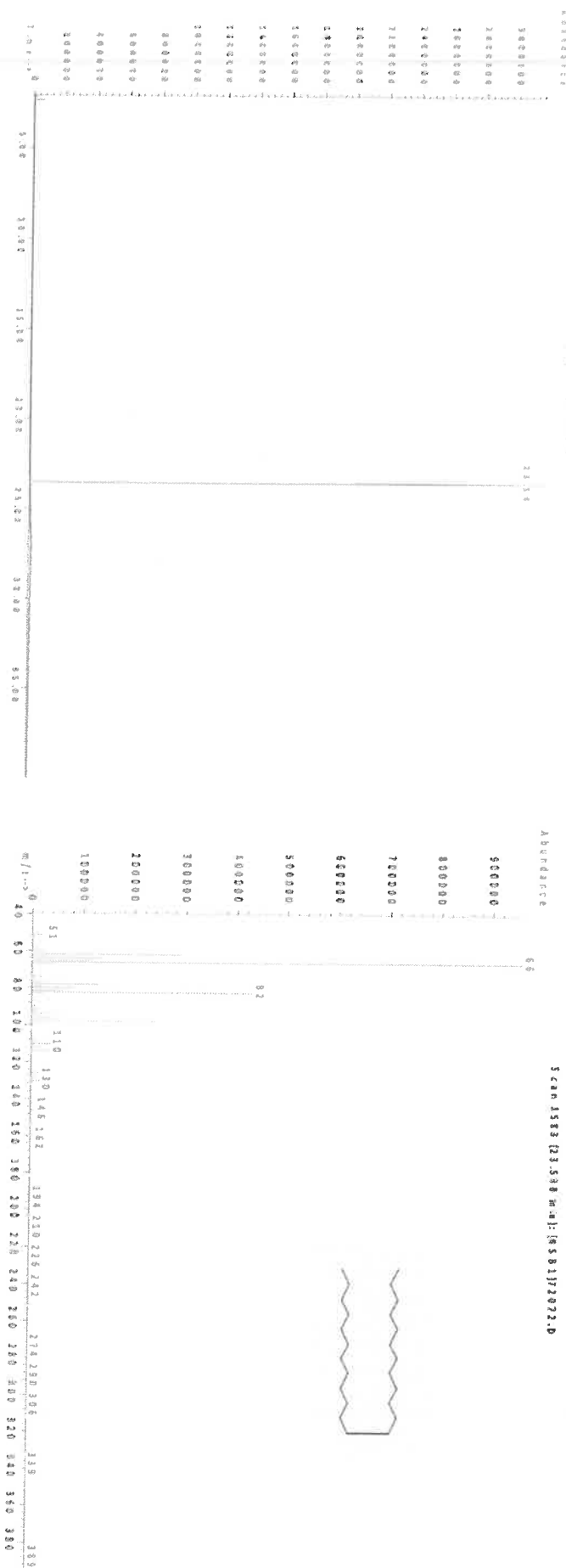
Expiration Date: **101132**
Recommended Storage: **Ambient (20 °C)**
Nominal Concentration (µg/mL): **1000**
NIST Test ID#: **6UB3**
Weight(s) shown below were combined and diluted to (mL): **200.0**
5E-05 Balance Uncertainty
0.058 Flask Uncertainty

P13437
13436
07/24/24
X.F.

Formulated By:	<i>Prashant Chauhan</i>	101122
Reviewed By:	<i>Pedro L. Rentas</i>	101122
	Pedro L. Rentas	DATE

Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight(g)	Actual Weight(g)	Actual Conc (µg/mL)	Expanded Uncertainty (+/-) (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.)	LD50
1. n-Tetracosane-d50	2072	PR-26606	1000	98.7	0.2	99.0	0.20471	0.20482	1000.6	4.1	16416-32-3	N/A

Method GC8MSD-3.M: Column:SPB-5 (30m X 0.25mm ID X 0.25µm film thickness) Temp 1 = 50°C (1min.), Temp 2 = 300°C (9min.), Rate = 10°C/min., Injector B = 250°C, Detector B = 275°C, Split Ratio = 100:1, Scan Rate = 2. Analysis performed by: Candice Warren.



- The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
- All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.
- Uncertainty Reference: Taylor, B.N., and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Results," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1996).

ABSOLUTE STANDARDS, INC.

ISO - 17034



Certificate of Analysis



Certified Reference Material (CRM)

Conformance: The "Certificate of Analysis" is applicable for CRM's, fulfilling the requirements in the current version of: ISO 17034.

Health & Safety: See the attached SDS & Certified Weight Report before use.

Intended Use: This Certified Reference Material (CRM) is intended primarily for use in the characterization of unknowns and the establishment of analyzer or instrument response factors by qualified personnel. Typical instrumental organic assays include: GC & LC, and inorganic assays include: ICP & AA. This product is for laboratory use only.

Characterization Values: In production, gravimetric/volumetric readings are certified to be within $\pm 0.5\%$ of the stated value & are valid between 18 °C & 30 °C. The measured characterization of uncertainty can be found on the Certified Weight Report. All product weighings are performed on an analytical balance that is calibrated to NIST Traceable standard weights & certified by the manufacturer. The volumetric glassware used is Class "A" type & conforms to ASTM E-288 unless otherwise stated. The solvents & compounds used are of the highest practical purity & typically meet or exceed ACS Reagent Grade & ACS Standards Grade specifications. The expanded uncertainty field on Certified Wt. Report represents CRM uncertainty as described in ISO 17034.

Homogeneity: Uncertainties that are due to the analytical procedure(s) are within $\pm 5\%$ unless specifically stated on the Certified Wt. Report.

Verification: Uncertainties that are due to the analytical procedure(s) are within $\pm 5\%$ unless specifically stated on the Certified Wt. Report.

Stability: Uncertainties for short-term stability are determined in accordance with ISO 17034. Long-term stability is determined in accordance with ISO 17034. The shelf life is limited by the stated expiration for each product. Expiration dates and additional technical information can be found on the Certified Weight Report and on the product label.

Uncertainty: UCRM is the expanded uncertainty which utilizes a $K = 2$ (coverage factor of 2), in accordance with ISO 17034 as listed above (Characterization, Homogeneity, Verification, and Stability).

Purity & Identity: Organic solutions are typically formulated from neat materials whose purity & identity have been characterized by GC-MSD & LC-PDA techniques with comparison to a NIST Traceable library of mass spectra when available. Additional characterization techniques may include but are not limited to: refractive index measurements of liquids, melting point measurements of solids, & GC-FID, ECD, PID, ELCD, LC-PDA measurements for purity. Inorganic solutions & neats are typically formulated from materials whose purity & identity have been characterized by ICPMS with comparison to a NIST SRM® when available. Additional characterization techniques may include but are not limited to: titrimetry, and densitometry.

Storage: Sealed ampules and other containers should be stored in the dark and at temperatures indicated on the Certified Weight Report or product label. Certification by Absolute Standards, Inc. is typically valid for 3 years from the date of manufacture. Each product will show its own expiration date as the limit of certification. Certified values are not applicable to opened ampules or for any materials stored in re-sealable containers. Please see the "Certified Weight Report" for specific values and any exceptions.

Usage: Ampules & bottles should be brought to room temperature (18 to 30 °C) before opening. Sonication may be required for high concentration solutions or solutions that may precipitate during storage. After opening, care should be exercised to avoid concentration changes owing to evaporation of the solvent or essential components. We recommend that a suitable re-sealable container be available before opening an ampule to decant the standard for short-term storage and use.

Minimum Sample Size: 0.5 uL for analytical applications.

Legal Notice: Warranty of products are as described when shipped. No warranty as to fitness for any particular application is expressed or implied. Errant shipments and/or quality claims must be made within 10 days of receipt. Liability is limited solely to the replacement of the product or refund of purchase price.

Certifying Officer: Stephen J. Arpie, M.S., Director General

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Document Identification: Certificate of Analysis Rev 14, Date Issued: 05/30/2019



ABSOLUTE STANDARDS, INC.

ISO - 17034

Understanding the Certified Weight Report

Each Certified Reference Material (CRM) is supported by a Certified Weight Report. Assigned values for concentrations and associated uncertainties are based upon NIST traceable masses & volumes used in production.

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ISO 17034 Accredited
Scope: http://AbsoluteStandards.com

CERTIFIED WEIGHT REPORT

Part # 10009R
Lot # 070716
Shelf Life Description: CLP Priority Pollutant Internal Standards
GC/MS Calibration - 6 components
070721
Expiration Date: Ambient (20 °C)
Recommended Storage: 4000
Nominal Concentration (µg/mL): 822-275872-11
NIST Test ID#: 5E-05 Balance Uncertainty
0.058 Mass Uncertainty

Solvent(s): Methylene chloride
Lot# 78782

Formulated By: Paul Barron
Reviewed By: Pedro L. Rentes

070716
070716

Weight(s) shown below were combined and diluted to (mL): 500.0

Compound	SMW	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty Purity	Target Weight (µg)	Actual Weight (µg)	Actual Conc (µg/mL)	Expanded Uncertainty (µg/mL)	MSDS Information (Solvent Safety Info. On Attached pg.)	CAS#	OSHA PEL (TWA)	LD50
1. 1,4-Dichlorobenzene-d4	118	PR-1845M07287CB1	4000	98	0.2	2.04093	2.04335	4004.7	15.4	2055-02-1	N/A	N/A	or-nr 500mg/kg
2. Naphthalene-d8	223	PR-2339M031612HP1	4000	99	0.2	2.02032	2.02084	4001.0	15.2	1148-05-2	10 ppm (50mg/m3)(H)	N/A	or-nr 400mg/kg
3. Acenaphthene-d10	2	PR-25444	4000	99	0.2	2.02032	2.02245	4004.2	15.2	15067-28-2	N/A	N/A	or-nr 500mg/kg
4. Phenanthrene-d10	248	PR-2305M081711PM1	4000	98	0.2	2.04093	2.04135	4000.8	15.4	1517-25-2	N/A	N/A	N/A
5. Chrysene-d12	92	I-19290	4000	98	0.2	2.04093	2.04150	4001.3	15.4	1719-03-5	N/A	N/A	N/A
6. Perylene-d12	247	PR-24113	4000	98	0.2	2.04093	2.04155	4001.2	15.4	1503-58-3	N/A	N/A	N/A

Run 35, "P10009R L070716 [4000µg/mL in MeCl2]"

Run Length: 40.00 min, 23900 points at 10 points/second.
Created: Sat, Jul 9, 2016 at 1:54:53 PM.
Sampled: Sequence "070716-GC/MS", Method "GC-MS".
Analyzed using Method "GC-MS".

Comments:
GC-MS Analysis by Melissa Siciric
Column ID SPB-5 30 meter x 0.53mm x 1.5um Film Thickness.
Flow rates: Total Flow = 300 mL/min, Helium (carrier) = 0.5 mL, Helium (make-up) = 25 mL.
Hydrogen (detector) = 30 mL, Air (detector) = 300 mL, Oven Temp 1 = 50°C (1 min).
Rise = 10°C/min, Oven Temp 2 = 300°C (14 min), Total Run Time = 40 Minutes, Injector Temp = 250°C.
FID Temp = 300°C, FID Signal = sData Channel 1.
Gas Chromatograph = HP 5890, Auto Sampler = HP 7673, Standard Injection = 0.5 µL, Range = 4

Peak No. Name FID RT (min)

1	1,4-Dichlorobenzene-d4	6.34
2	Naphthalene-d8	8.98
3	Acenaphthene-d10	12.97
4	Phenanthrene-d10	16.37
5	Chrysene-d12	22.62
6	Perylene-d12	25.75

Printed: 5/8/2019, 12:55:50 PM

Part # 10009R Lot # 041219

Formulator
Reviewer

Actual
Concentration

Uncertainty
Values

Health &
Safety

3rd Party
Comparison

For More Information, Contact:

StephenArpie@AbsoluteStandards.com

Page 2 of 2



CERTIFIED WEIGHT REPORT

Part Number: **72072**
Lot Number: **101122**
Description: **n-Tetracosane-d50**

Solvent(s):
Methylene chloride
Lot#
105345

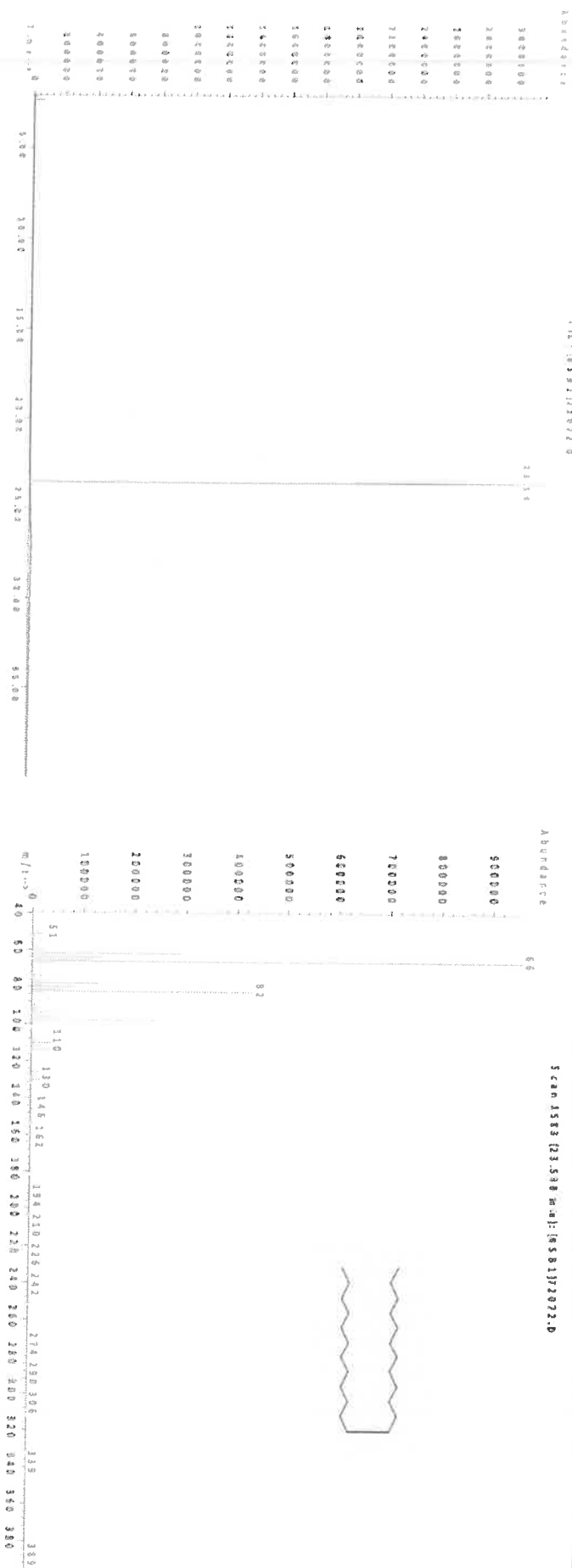
Expiration Date: **101132**
Recommended Storage: **Ambient (20 °C)**
Nominal Concentration (µg/mL): **1000**
NIST Test ID#: **6UB3**
Weight(s) shown below were combined and diluted to (mL): **200.0**
5E-05 Balance Uncertainty
0.058 Flask Uncertainty

P13437
13436
07/24/24
X.F.

Formulated By:	<i>Prashant Chauhan</i>	101122
Reviewed By:	<i>Pedro L. Rentas</i>	101122
DATE		DATE

Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight(g)	Actual Weight(g)	Actual Conc (µg/mL)	Expanded Uncertainty (+/-) (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.)	LD50
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1. n-Tetracosane-d50 2072 PR-26606 1000 98.7 0.2 99.0 0.20471 0.20482 1000.6 4.1 16416-32-3 N/A
Method GC8MSD-3.M: Column:SPB-5 (30m X 0.25mm ID X 0.25µm film thickness) Temp 1 = 50°C (1min.), Temp 2 = 300°C (9min.), Rate = 10°C/min., Injector B = 250°C, Detector B = 275°C, Split Ratio = 100:1, Scan Rate = 2. Analysis performed by: Candice Warren.



- The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
- All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.
- Uncertainty Reference: Taylor, B.N., and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Results," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).

ABSOLUTE STANDARDS, INC.

ISO - 17034



Certificate of Analysis



Certified Reference Material (CRM)

Conformance: The "Certificate of Analysis" is applicable for CRM's, fulfilling the requirements in the current version of: ISO 17034.

Health & Safety: See the attached SDS & Certified Weight Report before use.

Intended Use: This Certified Reference Material (CRM) is intended primarily for use in the characterization of unknowns and the establishment of analyzer or instrument response factors by qualified personnel. Typical instrumental organic assays include: GC & LC, and inorganic assays include: ICP & AA. This product is for laboratory use only.

Characterization Values: In production, gravimetric/volumetric readings are certified to be within $\pm 0.5\%$ of the stated value & are valid between 18 °C & 30 °C. The measured characterization of uncertainty can be found on the Certified Weight Report. All product weighings are performed on an analytical balance that is calibrated to NIST Traceable standard weights & certified by the manufacturer. The volumetric glassware used is Class "A" type & conforms to ASTM E-288 unless otherwise stated. The solvents & compounds used are of the highest practical purity & typically meet or exceed ACS Reagent Grade & ACS Standards Grade specifications. The expanded uncertainty field on Certified Wt. Report represents CRM uncertainty as described in ISO 17034.

Homogeneity: Uncertainties that are due to the analytical procedure(s) are within $\pm 5\%$ unless specifically stated on the Certified Wt. Report.

Verification: Uncertainties that are due to the analytical procedure(s) are within $\pm 5\%$ unless specifically stated on the Certified Wt. Report.

Stability: Uncertainties for short-term stability are determined in accordance with ISO 17034. Long-term stability is determined in accordance with ISO 17034. The shelf life is limited by the stated expiration for each product. Expiration dates and additional technical information can be found on the Certified Weight Report and on the product label.

Uncertainty: UCRM is the expanded uncertainty which utilizes a $K = 2$ (coverage factor of 2), in accordance with ISO 17034 as listed above (Characterization, Homogeneity, Verification, and Stability).

Purity & Identity: Organic solutions are typically formulated from neat materials whose purity & identity have been characterized by GC-MSD & LC-PDA techniques with comparison to a NIST Traceable library of mass spectra when available. Additional characterization techniques may include but are not limited to: refractive index measurements of liquids, melting point measurements of solids, & GC-FID, ECD, PID, ELCD, LC-PDA measurements for purity. Inorganic solutions & neats are typically formulated from materials whose purity & identity have been characterized by ICPMS with comparison to a NIST SRM® when available. Additional characterization techniques may include but are not limited to: titrimetry, and densitometry.

Storage: Sealed ampules and other containers should be stored in the dark and at temperatures indicated on the Certified Weight Report or product label. Certification by Absolute Standards, Inc. is typically valid for 3 years from the date of manufacture. Each product will show its own expiration date as the limit of certification. Certified values are not applicable to opened ampules or for any materials stored in re-sealable containers. Please see the "Certified Weight Report" for specific values and any exceptions.

Usage: Ampules & bottles should be brought to room temperature (18 to 30 °C) before opening. Sonication may be required for high concentration solutions or solutions that may precipitate during storage. After opening, care should be exercised to avoid concentration changes owing to evaporation of the solvent or essential components. We recommend that a suitable re-sealable container be available before opening an ampule to decant the standard for short-term storage and use.

Minimum Sample Size: 0.5 uL for analytical applications.

Legal Notice: Warranty of products are as described when shipped. No warranty as to fitness for any particular application is expressed or implied. Errant shipments and/or quality claims must be made within 10 days of receipt. Liability is limited solely to the replacement of the product or refund of purchase price.

Certifying Officer: Stephen J. Arpie, M.S., Director General

Page 1 of 2



Absolute Standards, Inc. • 44 Rossotto Drive • Hamden, CT 06514
Voice: 800-368-1131 • Fax: 800-410-2577 • eMail: StephenArpie@AbsoluteStandards.com
Document Identification: Certificate of Analysis Rev 14, Date Issued: 05/30/2019



ABSOLUTE STANDARDS, INC.

ISO - 17034

Understanding the Certified Weight Report

Each Certified Reference Material (CRM) is supported by a Certified Weight Report. Assigned values for concentrations and associated uncertainties are based upon NIST traceable masses & volumes used in production.

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ISO 17034 Accredited
Scope: http://AbsoluteStandards.com

CERTIFIED WEIGHT REPORT

Part # 10009R
Lot # 070716
Shelf Life Description: CLP Priority Pollutant Internal Standards
GC/MS Calibration - 6 components
070721
Expiration Date: Ambient (20 °C)
Recommended Storage: 4000
Nominal Concentration (µg/mL): 822-275872-11
NIST Test ID#: 5E-05 Balance Uncertainty
0.058 Mass Uncertainty

Solvent(s): Methylene chloride
Lot# 78782

Formulated By: Paul Barron
Reviewed By: Pedro L. Rentes

070716
070716

Weight(s) shown below were combined and diluted to (mL): 500.0

Compound	SMW	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty Purity	Target Weight (µg)	Actual Weight (µg)	Actual Conc (µg/mL)	Expanded Uncertainty (µg/mL)	MSDS Information (Solvent Safety Info. On Attached pg.)	CAS#	OSHA PEL (TWA)	LD50
1. 1,4-Dichlorobenzene-d4	118	PR-1845M07287CB1	4000	98	0.2	2.04093	2.04335	4004.7	15.4	2055-02-1	N/A	N/A	or-nr 500mg/kg
2. Naphthalene-d8	223	PR-2339M031612HP1	4000	99	0.2	2.02032	2.02084	4001.0	15.2	1148-05-2	10 ppm (50mg/m3)(H)	N/A	or-nr 400mg/kg
3. Acenaphthene-d10	2	PR-25444	4000	99	0.2	2.02032	2.02245	4004.2	15.2	15067-28-2	N/A	N/A	or-nr 500mg/kg
4. Phenanthrene-d10	248	PR-2305M081711PM1	4000	98	0.2	2.04093	2.04135	4000.8	15.4	1517-25-2	N/A	N/A	N/A
5. Chrysene-d12	92	I-19290	4000	98	0.2	2.04093	2.04150	4001.3	15.4	1719-03-5	N/A	N/A	N/A
6. Perylene-d12	247	PR-24113	4000	98	0.2	2.04093	2.04155	4001.2	15.4	1503-58-3	N/A	N/A	N/A

Run 35, "P10009R L070716 [4000µg/mL in MeCl2]"

Run Length: 40.00 min, 23900 points at 10 points/second.
Created: Sat, Jul 9, 2016 at 1:54:53 PM.
Sampled: Sequence "070716-GC/MS", Method "GC-MS".
Analyzed using Method "GC-MS".

Comments:
GC-MS Analysis by Melissa Siciric
Column ID SPB-5 30 meter x 0.53mm x 1.5um Film Thickness.
Flow rates: Total Flow = 300 mL/min, Helium (carrier) = 0.5 mL, Helium (make-up) = 25 mL.
Hydrogen (detector) = 30 mL, Air (detector) = 300 mL, Oven Temp 1 = 50°C (1 min).
Rise = 10°C/min, Oven Temp 2 = 300°C (14 min). Total Run Time = 40 Minutes. Injector Temp = 250°C.
FID Temp = 300°C, FID Signal = sData Channel 1.
Gas Chromatograph = HP 5890, Auto Sampler = HP 7673, Standard Injection = 0.5 µL, Range = 4

Peak No. Name FID RT (min)

1	1,4-Dichlorobenzene-d4	8.34
2	Naphthalene-d8	8.98
3	Acenaphthene-d10	12.97
4	Phenanthrene-d10	16.37
5	Chrysene-d12	22.62
6	Perylene-d12	25.75

Printed: 5/8/2019, 12:55:50 PM

Formulator
Reviewer

Actual
Concentration

Uncertainty
Values

Health &
Safety

3rd Party
Comparison

For More Information, Contact:

StephenArpie@AbsoluteStandards.com

Page 2 of 2



CERTIFIED WEIGHT REPORT

Part Number: **72072**
Lot Number: **101122**
Description: **n-Tetracosane-d50**

Solvent(s):
Methylene chloride
Lot#
105345

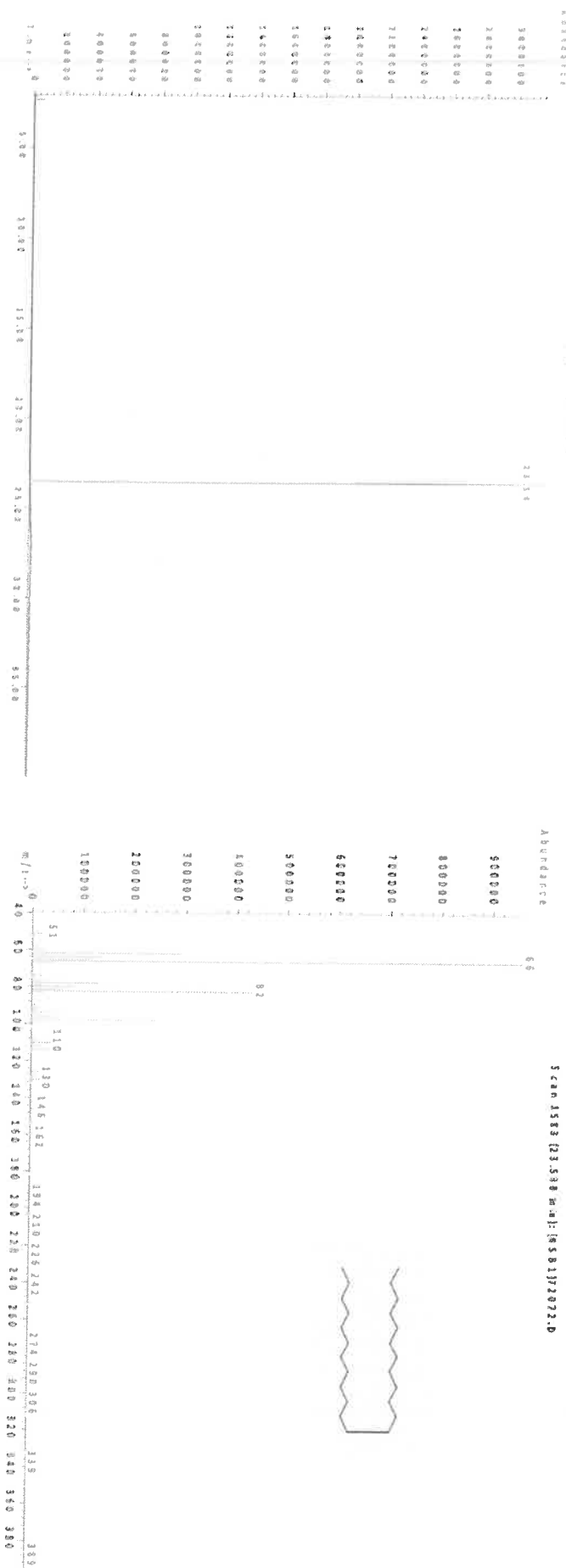
Expiration Date: **101132**
Recommended Storage: **Ambient (20 °C)**
Nominal Concentration (µg/mL): **1000**
NIST Test ID#: **6UB3**
Weight(s) shown below were combined and diluted to (mL): **200.0**
5E-05 Balance Uncertainty
0.058 Flask Uncertainty

P13437
13436
07/24/24
X.F.

Formulated By:	<i>Prashant Chauhan</i>	101122
Reviewed By:	<i>Pedro L. Rentas</i>	101122
	Pedro L. Rentas	DATE

Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%D)	Target Weight(g)	Actual Weight(g)	Actual Conc (µg/mL)	Expanded Uncertainty (+/-) (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.)	LD50
1. n-Tetracosane-d50	2072	PR-26606	1000	98.7	0.2	99.0	0.20471	0.20482	1000.6	4.1	16416-32-3	N/A

Method GC8MSD-3.M: Column:SPB-5 (30m X 0.25mm ID X 0.25µm film thickness) Temp 1 = 50°C (1min.), Temp 2 = 300°C (9min.), Rate = 10°C/min., Injector B = 250°C, Detector B = 275°C, Split Ratio = 100:1, Scan Rate = 2. Analysis performed by: Candice Warren.



- The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
- All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.
- Uncertainty Reference: Taylor, B.N., and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Results," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).



SHIPPING DOCUMENTS

CLIENT INFORMATION

REPORT TO BE SENT TO:

COMPANY: CDM Smith
ADDRESS: 110 Fieldcrest Avenue #8 6th Floor
CITY Edison STATE: NJ ZIP: 08837
ATTENTION: Marcie Encinas
PHONE: 732-590-4679 FAX: 732-225-7851

CLIENT PROJECT INFORMATION

PROJECT NAME: Bergen Point Project
PROJECT NO.: 99939 LOCATION: W. Babylon, NY
PROJECT MANAGER: Marcie Encinas
e-mail: ENcinasMA@CDMSmith.com
PHONE: 732-590-4679 FAX: 732-225-7851

CLIENT BILLING INFORMATION

BILL TO: CDM Smith PO#:
ADDRESS: 110 Fieldcrest Avenue, #8 Floor 6th
CITY Edison STATE: NJ ZIP: 08837
ATTENTION: Marcie Encinas PHONE: 732-590-4690

ANALYSIS

DATA TURNAROUND INFORMATION

FAX (RUSH) _____ DAYS*
HARDCOPY (DATA PACKAGE): _____ DAYS*
EDD: _____ DAYS*

*TO BE APPROVED BY CHEMTECH

STANDARD HARDCOPY TURNAROUND TIME IS 10 BUSINESS

DATA DELIVERABLE INFORMATION

☐ Level 1 (Results Only) ☐ Level 4 (QC + Full Raw Data)
☒ Level 2 (Results + QC) ☐ NJ Reduced ☐ US EPA CLP
☐ Level 3 (Results + QC) ☒ NYS ASP A ☐ NYS ASP B
+ Raw Data ☐ Other _____
☐ EDD FORMAT _____

1. TCL VOC
2. TCL SVOC
3. TAL METALS
4. PCBs
5. PESTICIDES
6. HERBICIDES
7. PRO/GRO
8. FULL TCLP
9. RCRA CHARAC

PRESERVATIVES

COMMENTS

← Specify Preservatives
A-HCl D-NaOH
B-HNO3 E-ICE
C-H2SO4 F-OTHER

ALLIANCE SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE		SAMPLE COLLECTION		# OF BOTTLES										
			COMP	GRAB	DATE	TIME		1	2	3	4	5	6	7	8	9	
1.	SB1-3-4'	Soil		X	5/1/25	9:00AM	13	X	X	X	X	X	X	X			E
2.	SB2-4-5'	Soil		X	5/2/25	12:00PM	13	X	X	X	X	X	X	X			E
3.	COMP1	Soil	X		5/2/25	1:30PM	3								X	X	E
4.	SB91-3-4'	Soil		X	5/1/25	9:30AM	13	X	X	X	X	X	X	X	X		E
5.	SB2-MS	Soil		X	5/2/25	12:30PM	13	X	X	X	X	X	X	X			E
6.	SB2-MSD	Soil		X	5/2/25	12:40PM	13	X	X	X	X	X	X	X			E
7.	FB-05022025	Aqueous		X	5/2/25	11:00AM	9	X	X	X	X	X	X	X			E, A, B
8.																	
9.																	
10.																	

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION INCLUDING COURIER DELIVERY

RELINQUISHED BY SAMPLER: 1. <i>[Signature]</i>	DATE/TIME: 1404 5.2.2025	RECEIVED BY: <i>[Signature]</i>	Conditions of bottles or coolers at receipt: ☒ COMPLIANT ☐ NON COMPLIANT COOLER TEMP: 23 °C
RELINQUISHED BY SAMPLER: 2. <i>[Signature]</i>	DATE/TIME:	RECEIVED BY:	Comments: IR Can #1 (Adjusted Factor + 1)
RELINQUISHED BY SAMPLER: 3. <i>[Signature]</i>	DATE/TIME: 1820 5.2.2025	RECEIVED BY:	Page ____ of

CLIENT: ☐ Hand Delivered ☐ Other

Shipment Complete
☐ YES ☐ NO

Laboratory Certification

Certified By	License No.
CAS EPA CLP Contract	68HERH20D0011
Connecticut	PH-0830
DOD ELAP (ANAB)	L2219
Maine	2024021
Maryland	296
New Hampshire	255424 Rev 1
New Jersey	20012
New York	11376
Pennsylvania	68-00548
Soil Permit	525-24-234-08441
Texas	T104704488

LOGIN REPORT/SAMPLE TRANSFER

Order ID : Q1956	CAMP02	Order Date : 5/2/2025 3:14:35 PM	Project Mgr :
Client Name : CDM Smith		Project Name : Bergen Point Fueling System	Report Type : NYS ASP A
Client Contact : Marcie Ann Encinas		Receive DateTime : 5/2/2025 12:00:00 AM	EDD Type : EQUIS
Invoice Name : CDM Smith		Purchase Order : 18:26	Hard Copy Date :
Invoice Contact : Marcie Ann Encinas			Date Signoff :

LAB ID	CLIENT ID	MATRIX	SAMPLE DATE	SAMPLE TIME	TEST	TEST GROUP	METHOD	FAX DATE	DUE DATES
Q1956-01	SB1-3-4	Solid	05/01/2025	09:00					
					VOC-TCLVOA-10		8260D	10 Bus. Days	
Q1956-02	SB2-4-5	Solid	05/02/2025	12:00					
					VOC-TCLVOA-10		8260D	10 Bus. Days	
Q1956-03	Q1956-02MS	Solid	05/02/2025	12:30					
					VOC-TCLVOA-10		8260D	10 Bus. Days	
Q1956-04	Q1956-02MSD	Solid	05/02/2025	12:40					
					VOC-TCLVOA-10		8260D	10 Bus. Days	
Q1956-06	SB19-3-4 SB91	Solid	05/01/2025	09:30					
					VOC-TCLVOA-10		8260D	10 Bus. Days	
Q1956-07	FB-05022025	Water	05/02/2025	11:00					
					VOC-TCLVOA-10		8260-Low	10 Bus. Days	

LOGIN REPORT/SAMPLE TRANSFER

Order ID : Q1956	CAMP02	Order Date : 5/2/2025 3:14:35 PM	Project Mgr :
Client Name : CDM Smith		Project Name : Bergen Point Fueling System	Report Type : NYS ASP A
Client Contact : Marcie Ann Encinas		Receive DateTime : 5/2/2025 12:00:00 AM	EDD Type : EQUIS
Invoice Name : CDM Smith		Purchase Order : 18-26	Hard Copy Date :
Invoice Contact : Marcie Ann Encinas			Date Signoff :

LAB ID	CLIENT ID	MATRIX	SAMPLE DATE	SAMPLE TIME	TEST	TEST GROUP	METHOD	FAX DATE	DUE DATES
Q1956-09 TB		water	5/2/25	12:00	VOC-TCLVOA-10		8260-LOW		10 Bus Days.

Relinquished By : 
Date / Time : 5/5/25 0835

Received By : 
Date / Time : 5/5/25 08:35

Storage Area : VOA Refridgerator Room

Rep # 6
FZ-2