

Cover Page

Order ID : Q2413

Project ID : South River WM Replacement

Client : CDM Smith

Lab Sample Number

Q2413-01
Q2413-02
Q2413-03
Q2413-04
Q2413-05
Q2413-06

Client Sample Number

TP-35
TP-34
TP-77
TP-74
TP-73
TP-72

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: 7/2/2025

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 #: Q2413

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: 07/02/2025

LAB CHRONICLE

OrderID:	Q2413	OrderDate:	6/24/2025 3:05:00 PM
Client:	CDM Smith	Project:	South River WM Replacement
Contact:	Marcie Ann Encinas	Location:	D41,VOA Ref. #2 Soil

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
Q2413-01	TP-35	SOIL			06/23/25			06/24/25
			Diesel Range Organics	8015D		06/30/25	06/30/25	
			PCB	8082A		06/26/25	06/26/25	
			Pesticide-TCL	8081B		06/26/25	06/27/25	
			Gasoline Range Organics	8015D			06/26/25	
Q2413-02	TP-34	SOIL			06/23/25			06/24/25
			Diesel Range Organics	8015D		06/30/25	06/30/25	
			PCB	8082A		06/26/25	06/26/25	
			Pesticide-TCL	8081B		06/26/25	06/27/25	
			Gasoline Range Organics	8015D			06/26/25	
Q2413-03	TP-77	SOIL			06/23/25			06/24/25
			Diesel Range Organics	8015D		06/30/25	06/30/25	
			PCB	8082A		06/26/25	06/26/25	
			Pesticide-TCL	8081B		06/26/25	06/27/25	
			Gasoline Range Organics	8015D			06/26/25	
Q2413-04	TP-74	SOIL			06/23/25			06/24/25
			Diesel Range Organics	8015D		06/30/25	07/01/25	
			PCB	8082A		06/26/25	06/26/25	
			Pesticide-TCL	8081B		06/26/25	06/27/25	
			Gasoline Range Organics	8015D			06/26/25	
Q2413-05	TP-73	SOIL			06/23/25			06/24/25
			Diesel Range Organics	8015D		06/30/25	07/01/25	
			PCB	8082A		06/26/25	06/26/25	
			Pesticide-TCL	8081B		06/26/25	06/27/25	
			Gasoline Range Organics	8015D			06/26/25	
Q2413-06	TP-72	SOIL			06/24/25			06/24/25
			Diesel Range Organics	8015D		06/30/25	07/01/25	

LAB CHRONICLE

Gasoline Range Organics	8015D		06/26/25
PCB	8082A	06/26/25	06/26/25
Pesticide-TCL	8081B	06/26/25	06/27/25



QC SUMMARY

SOIL DIESEL RANGE ORGANICS SURROGATE RECOVERY

Lab Name: Chemtech Client: CDM Smith
Lab Code: CHEM Case No.: Q2413 SAS No.: Q2413 SDG No.: Q2413

EPA SAMPLE NO.	S1 TETRACOSANE-d50	S2	S3	S4	TOT OUT
PIBLK-FF016042.D	84				0
PIBLK-FF016055.D	79				0
PB168658BL	114				0
PB168658BS	72				0
TP-35	84				0
TP-35MS	74				0
TP-35MSD	74				0
TP-34	46				0
TP-77	76				0
TP-74	62				0
TP-73	56				0
TP-72	52				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:** Q2413 **SAS No :** Q2413 **SDG No:** Q2413
Client SampleID : TP-35MS **Datafile:** FF016048.D

COMPOUND	SPIKE ADDED ug/kg	SAMPLE CONCENTRATION ug/kg	MS/MSD CONCENTRATION ug/kg	% REC	Qual	QC LIMITS
DRO	7493	30100	33011	38%	*	68-131

SOIL DIESEL RANGE ORGANICS MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Chemtech **Client:** CDM Smith
Lab Code: CHEM **Cas No:** Q2413 **SAS No :** Q2413 **SDG No:** Q2413
Client SampleID : TP-35MSD **Datafile:** FF016049.D

COMPOUND	SPIKE ADDED ug/kg	SAMPLE CONCENTRATION ug/kg	MS/MSD CONCENTRATION ug/kg	% REC	Qual	QC LIMITS
DRO	7488	30100	32647	34%	*	68-131

MS/MSD % Recovery RPD : 13.3

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

Lab Name: Chemtech **Client:** CDM Smith
Lab Code: CHEM **Cas No:** Q2413 **SAS No :** Q2413 **SDG No:** Q2413
Matrix Spike - EPA Sample No : PB168658BS **Datafile:** FF016046.D

COMPOUND	SPIKE ADDED ug/kg	CONCENTRATION ug/kg	LCS/LCSD CONCENTRATION ug/kg	% REC	QC LIMITS
DRO	6662	0	4925	74	68-131

4B
METHOD BLANK SUMMARY

EPA SAMPLE NO.

PB168658BL

Lab Name: CHEMTECH

Contract: CAMP02

Lab Code: CHEM Case No.: Q2413

SAS No.: Q2413 SDG NO.: Q2413

Lab File ID: FF016045.D

Lab Sample ID: PB168658BL

Instrument ID: FF

Date Extracted: 06/30/2025

Matrix: (soil/water) Soil

Date Analyzed: 06/30/25

Level: (low/med) low

Time Analyzed: 20:41

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

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
PB168658BS	PB168658BS	FF016046.D	06/30/25
TP-35	Q2413-01	FF016047.D	06/30/25
TP-35MS	Q2413-01MS	FF016048.D	06/30/25
TP-35MSD	Q2413-01MSD	FF016049.D	06/30/25
TP-34	Q2413-02	FF016050.D	06/30/25
TP-77	Q2413-03	FF016051.D	06/30/25
TP-74	Q2413-04	FF016052.D	07/01/25
TP-73	Q2413-05	FF016053.D	07/01/25
TP-72	Q2413-06	FF016054.D	07/01/25

COMMENTS: _____



SAMPLE DATA

Report of Analysis

Client:	CDM Smith	Date Collected:	06/23/25
Project:	South River WM Replacement	Date Received:	06/24/25
Client Sample ID:	TP-35	SDG No.:	Q2413
Lab Sample ID:	Q2413-01	Matrix:	SOIL
Analytical Method:	8015D DRO	% Solid:	88.8
Sample Wt/Vol:	30.05	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
FF016047.D	1	06/30/25 09:50	06/30/25 21:40	PB168658

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
DRO	DRO	30100		190	1870	ug/kg
SURROGATES						
16416-32-3	Tetracosane-d50	16.8		37 - 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\FF063025\
Data File : FF016047.D
Signal(s) : FID2B.ch
Acq On : 30 Jun 2025 21:40
Operator : YP\AJ
Sample : Q2413-01
Misc :
ALS Vial : 83 Sample Multiplier: 1

Instrument :
FID_F
ClientSampleId :
TP-35

Integration File: autoint1.e
Quant Time: Jul 01 03:16:36 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF061325.M
Quant Title :
QLast Update : Fri Jun 13 15:23:30 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...	15.095	2025332	16.774 ug/ml

Target Compounds

(f)=RT Delta > 1/2 Window

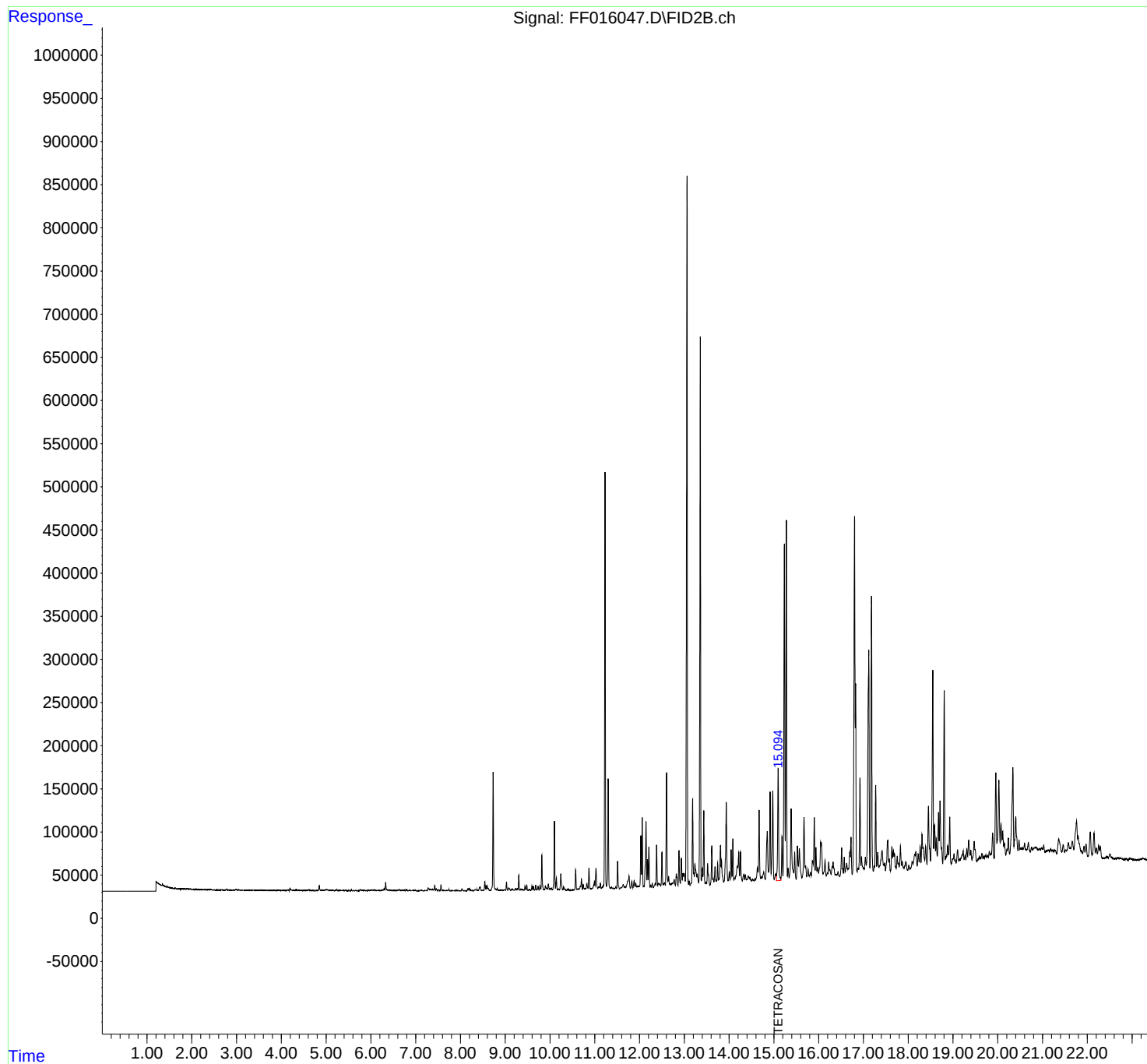
(m)=manual int.

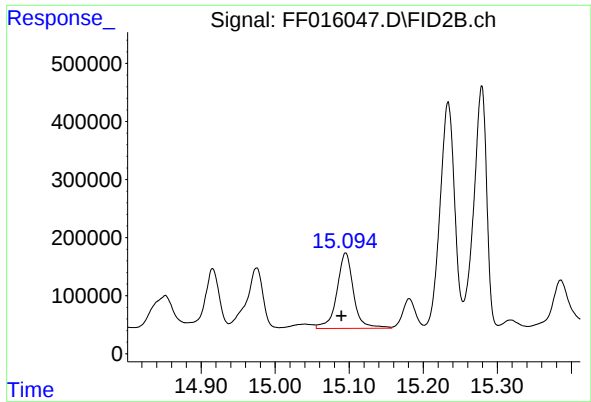
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF063025\
Data File : FF016047.D
Signal(s) : FID2B.ch
Acq On : 30 Jun 2025 21:40
Operator : YP\AJ
Sample : Q2413-01
Misc :
ALS Vial : 83 Sample Multiplier: 1

Instrument :
FID_F
ClientSampleId :
TP-35

Integration File: autoint1.e
Quant Time: Jul 01 03:16:36 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF061325.M
Quant Title :
QLast Update : Fri Jun 13 15:23:30 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.: 15.095 min
Delta R.T.: 0.006 min
Response: 2025332
Conc: 16.77 ug/ml

Instrument :
FID_F
ClientSampleId :
TP-35

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF063025\
Data File : FF016047.D
Signal(s) : FID2B.ch
Acq On : 30 Jun 2025 21:40
Sample : Q2413-01
Misc :
ALS Vial : 83 Sample Multiplier: 1

Integration File: Sample.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF061325.M
Title :

Signal : FID2B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	4.440	4.425	4.474	PV	188	3327	0.03%	0.003%
2	4.488	4.474	4.492	PV	63	571	0.01%	0.001%
3	4.496	4.492	4.499	VV	132	328	0.00%	0.000%
4	4.513	4.499	4.539	VV	280	3937	0.04%	0.004%
5	4.574	4.539	4.604	VV	381	9488	0.09%	0.009%
6	4.619	4.604	4.639	VV	1027	12212	0.12%	0.011%
7	4.655	4.639	4.679	VV	518	5943	0.06%	0.005%
8	4.696	4.679	4.707	VV	342	3375	0.03%	0.003%
9	4.717	4.707	4.736	VV	213	2052	0.02%	0.002%
10	4.746	4.736	4.758	VV	143	1378	0.01%	0.001%
11	4.785	4.758	4.802	VV	356	5626	0.05%	0.005%
12	4.806	4.802	4.822	VV	255	2378	0.02%	0.002%
13	4.847	4.822	4.890	VV	6253	76540	0.73%	0.069%
14	4.905	4.890	4.921	VV	860	11659	0.11%	0.011%
15	4.929	4.921	4.945	VV	657	7571	0.07%	0.007%
16	4.989	4.945	5.013	VV	1267	34026	0.33%	0.031%
17	5.024	5.013	5.028	VV	1116	9718	0.09%	0.009%
18	5.034	5.028	5.055	VV	1208	13953	0.13%	0.013%
19	5.059	5.055	5.075	VV	596	6121	0.06%	0.006%
20	5.083	5.075	5.100	VV	543	7090	0.07%	0.006%
21	5.104	5.100	5.110	VV	364	2098	0.02%	0.002%
22	5.134	5.110	5.163	VV	738	15452	0.15%	0.014%
23	5.171	5.163	5.190	VV	289	3557	0.03%	0.003%
24	5.235	5.190	5.261	VV	1199	23314	0.22%	0.021%
25	5.269	5.261	5.289	VV	383	4858	0.05%	0.004%
26	5.328	5.289	5.355	VV	650	16997	0.16%	0.015%
27	5.375	5.355	5.394	VV	595	9310	0.09%	0.008%
28	5.407	5.394	5.416	VV	444	4370	0.04%	0.004%
29	5.441	5.416	5.481	VV	631	13037	0.12%	0.012%
30	5.504	5.481	5.522	PV	442	6569	0.06%	0.006%
31	5.535	5.522	5.540	VV	308	2874	0.03%	0.003%
32	5.562	5.540	5.592	VV	1126	15139	0.15%	0.014%
33	5.604	5.592	5.620	VV	379	4293	0.04%	0.004%
34	5.633	5.620	5.652	VV	358	4773	0.05%	0.004%
35	5.662	5.652	5.683	VV	370	4752	0.05%	0.004%
36	5.687	5.683	5.694	VV	225	1396	0.01%	0.001%

					rteres			
37	5.699	5.694	5.711	VV	245	1710	0.02%	0.002%
38	5.715	5.711	5.733	VV	149	1199	0.01%	0.001%
39	5.738	5.733	5.742	VV	88	481	0.00%	0.000%
40	5.760	5.742	5.789	PV	1593	24434	0.23%	0.022%
41	5.813	5.789	5.847	VV	1069	19706	0.19%	0.018%
42	5.862	5.847	5.900	VV	714	12715	0.12%	0.012%
43	5.917	5.900	5.926	VV	396	4390	0.04%	0.004%
44	5.945	5.926	5.975	VV	931	16453	0.16%	0.015%
45	6.003	5.975	6.013	VV	953	14390	0.14%	0.013%
46	6.030	6.013	6.047	VV	1338	18229	0.17%	0.016%
47	6.071	6.047	6.117	VV	1423	29915	0.29%	0.027%
48	6.130	6.117	6.144	VV	497	6364	0.06%	0.006%
49	6.148	6.144	6.155	VV	434	2530	0.02%	0.002%
50	6.173	6.155	6.189	VV	603	9228	0.09%	0.008%
51	6.193	6.189	6.207	VV	559	4960	0.05%	0.004%
52	6.220	6.207	6.230	VV	738	8306	0.08%	0.008%
53	6.234	6.230	6.247	VV	608	5407	0.05%	0.005%
54	6.263	6.247	6.278	VV	1472	18605	0.18%	0.017%
55	6.295	6.278	6.311	VV	2650	33313	0.32%	0.030%
56	6.329	6.311	6.394	VV	9752	134042	1.28%	0.121%
57	6.405	6.394	6.425	VV	1393	17415	0.17%	0.016%
58	6.441	6.425	6.467	VV	958	14493	0.14%	0.013%
59	6.484	6.467	6.491	VV	434	5055	0.05%	0.005%
60	6.512	6.491	6.544	VV	719	15306	0.15%	0.014%
61	6.556	6.544	6.569	VV	415	4526	0.04%	0.004%
62	6.593	6.569	6.605	VV	612	10130	0.10%	0.009%
63	6.628	6.605	6.645	VV	1884	29153	0.28%	0.026%
64	6.650	6.645	6.670	VV	777	9186	0.09%	0.008%
65	6.674	6.670	6.697	VV	554	7631	0.07%	0.007%
66	6.716	6.697	6.768	VV	971	26371	0.25%	0.024%
67	6.792	6.768	6.846	VV	1975	32423	0.31%	0.029%
68	6.868	6.846	6.902	VV	1122	16447	0.16%	0.015%
69	6.922	6.902	6.931	VV	521	6123	0.06%	0.006%
70	6.947	6.931	6.969	VV	1230	16282	0.16%	0.015%
71	6.986	6.969	7.009	VV	846	12111	0.12%	0.011%
72	7.020	7.009	7.035	VV	272	2315	0.02%	0.002%
73	7.055	7.035	7.060	PV	377	2832	0.03%	0.003%
74	7.075	7.060	7.091	VV	347	5354	0.05%	0.005%
75	7.120	7.091	7.149	VV	868	17625	0.17%	0.016%
76	7.162	7.149	7.176	VV	332	3230	0.03%	0.003%
77	7.202	7.176	7.215	VV	352	5885	0.06%	0.005%
78	7.229	7.215	7.238	VV	256	3011	0.03%	0.003%
79	7.253	7.238	7.257	VV	515	4783	0.05%	0.004%
80	7.277	7.257	7.315	VV	3615	73034	0.70%	0.066%
81	7.325	7.315	7.353	VV	1836	34021	0.33%	0.031%
82	7.371	7.353	7.402	VV	1691	39893	0.38%	0.036%
83	7.426	7.402	7.444	VV	6740	76150	0.73%	0.069%
84	7.460	7.444	7.497	VV	2745	40617	0.39%	0.037%
85	7.517	7.497	7.544	VV	1478	21085	0.20%	0.019%
86	7.565	7.544	7.594	VV	7059	74455	0.71%	0.067%
87	7.610	7.594	7.627	VV	553	7637	0.07%	0.007%
88	7.641	7.627	7.657	VV	517	5741	0.06%	0.005%
89	7.661	7.657	7.674	VV	262	2145	0.02%	0.002%

					rteres			
90	7.688	7.674	7.716	VV	367	6753	0.06%	0.006%
91	7.743	7.716	7.778	VV	1778	21744	0.21%	0.020%
92	7.797	7.778	7.825	VV	399	7843	0.08%	0.007%
93	7.833	7.825	7.847	VV	310	2662	0.03%	0.002%
94	7.873	7.847	7.882	VV	337	5010	0.05%	0.005%
95	7.895	7.882	7.905	VV	493	5408	0.05%	0.005%
96	7.921	7.905	7.942	VV	759	10324	0.10%	0.009%
97	7.958	7.942	8.008	VV	492	7087	0.07%	0.006%
98	8.032	8.008	8.067	PV	2465	31098	0.30%	0.028%
99	8.088	8.067	8.110	VV	436	5701	0.05%	0.005%
100	8.115	8.110	8.129	VV	190	1576	0.02%	0.001%
101	8.135	8.129	8.142	PV	134	702	0.01%	0.001%
102	8.169	8.142	8.186	VV	2926	38094	0.37%	0.034%
103	8.201	8.186	8.219	VV	3041	36032	0.35%	0.033%
104	8.226	8.219	8.256	VV	931	12533	0.12%	0.011%
105	8.268	8.256	8.289	VV	382	4686	0.04%	0.004%
106	8.327	8.289	8.356	VV	1694	34931	0.33%	0.032%
107	8.359	8.356	8.364	VV	706	3312	0.03%	0.003%
108	8.372	8.364	8.388	VV	961	10210	0.10%	0.009%
109	8.396	8.388	8.401	VV	615	4390	0.04%	0.004%
110	8.425	8.401	8.431	VV	4027	39550	0.38%	0.036%
111	8.441	8.431	8.477	VV	4703	56316	0.54%	0.051%
112	8.502	8.477	8.509	VV	673	8556	0.08%	0.008%
113	8.514	8.509	8.521	VV	615	4196	0.04%	0.004%
114	8.545	8.521	8.561	VV	10958	120858	1.16%	0.109%
115	8.573	8.561	8.585	VV	6021	61813	0.59%	0.056%
116	8.599	8.585	8.616	VV	5607	69957	0.67%	0.063%
117	8.623	8.616	8.650	VV	2752	31488	0.30%	0.028%
118	8.654	8.650	8.668	VV	460	4217	0.04%	0.004%
119	8.731	8.668	8.780	VV	137439	1548080	14.83%	1.401%
120	8.785	8.780	8.805	VV	2019	22738	0.22%	0.021%
121	8.822	8.805	8.842	VV	2575	31741	0.30%	0.029%
122	8.854	8.842	8.860	VV	626	6539	0.06%	0.006%
123	8.869	8.860	8.882	VV	654	7320	0.07%	0.007%
124	8.895	8.882	8.935	VV	924	20499	0.20%	0.019%
125	8.939	8.935	8.944	VV	577	1997	0.02%	0.002%
126	8.954	8.944	8.960	VV	475	3741	0.04%	0.003%
127	8.976	8.960	8.998	VV	1230	19122	0.18%	0.017%
128	9.029	8.998	9.054	VV	10050	110065	1.05%	0.100%
129	9.077	9.054	9.119	VV	3359	66906	0.64%	0.061%
130	9.147	9.119	9.155	VV	1584	21121	0.20%	0.019%
131	9.166	9.155	9.182	VV	1703	20781	0.20%	0.019%
132	9.192	9.182	9.206	VV	903	9340	0.09%	0.008%
133	9.229	9.206	9.255	VV	2703	42983	0.41%	0.039%
134	9.271	9.255	9.285	VV	2629	33557	0.32%	0.030%
135	9.303	9.285	9.328	VV	17836	184335	1.77%	0.167%
136	9.346	9.328	9.382	VV	1893	35438	0.34%	0.032%
137	9.396	9.382	9.415	VV	1486	17720	0.17%	0.016%
138	9.442	9.415	9.464	VV	4960	64264	0.62%	0.058%
139	9.482	9.464	9.521	VV	6511	74248	0.71%	0.067%
140	9.539	9.521	9.573	VV	1514	19121	0.18%	0.017%
141	9.599	9.573	9.615	VV	5364	62223	0.60%	0.056%

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142	9.630	9.615	9.652	VV	5004	53366	0.51%	0.048%
143	9.681	9.652	9.701	VV	6347	76564	0.73%	0.069%
144	9.735	9.701	9.755	VV	5076	70943	0.68%	0.064%
145	9.777	9.755	9.795	VV	5648	66653	0.64%	0.060%
146	9.817	9.795	9.876	VV	40921	490775	4.70%	0.444%
147	9.898	9.876	9.913	VV	5556	69805	0.67%	0.063%
148	9.919	9.913	9.932	VV	2936	27957	0.27%	0.025%
149	9.962	9.932	9.987	VV	7456	119657	1.15%	0.108%
150	9.998	9.987	10.013	VV	2396	28414	0.27%	0.026%
151	10.029	10.013	10.057	VV	2937	45373	0.43%	0.041%
152	10.099	10.057	10.120	VV	80209	876071	8.40%	0.793%
153	10.142	10.120	10.175	VV	14714	188031	1.80%	0.170%
154	10.194	10.175	10.211	VV	1594	25581	0.25%	0.023%
155	10.241	10.211	10.284	VV	19038	292310	2.80%	0.265%
156	10.304	10.284	10.326	VV	3758	53195	0.51%	0.048%
157	10.339	10.326	10.370	VV	1431	20278	0.19%	0.018%
158	10.404	10.370	10.433	VV	1462	25697	0.25%	0.023%
159	10.440	10.433	10.458	VV	465	4473	0.04%	0.004%
160	10.478	10.458	10.498	PV	268	3914	0.04%	0.004%
161	10.510	10.498	10.526	VV	511	6028	0.06%	0.005%
162	10.535	10.526	10.545	VV	451	3703	0.04%	0.003%
163	10.573	10.545	10.605	VV	23657	264952	2.54%	0.240%
164	10.622	10.605	10.641	VV	1706	25352	0.24%	0.023%
165	10.676	10.641	10.684	VV	4360	61887	0.59%	0.056%
166	10.702	10.684	10.725	VV	12585	158299	1.52%	0.143%
167	10.742	10.725	10.775	VV	6467	87623	0.84%	0.079%
168	10.789	10.775	10.801	VV	1714	22768	0.22%	0.021%
169	10.823	10.801	10.849	VV	7498	117297	1.12%	0.106%
170	10.870	10.849	10.912	VV	25514	309586	2.97%	0.280%
171	10.992	10.912	11.005	VV	9954	204123	1.96%	0.185%
172	11.027	11.005	11.066	VV	24654	381040	3.65%	0.345%
173	11.094	11.066	11.108	VV	3110	60757	0.58%	0.055%
174	11.125	11.108	11.144	VV	7425	92213	0.88%	0.083%
175	11.168	11.144	11.178	VV	2876	45679	0.44%	0.041%
176	11.193	11.178	11.200	VV	5303	52382	0.50%	0.047%
177	11.230	11.200	11.263	VV	483058	5365288	51.41%	4.856%
178	11.300	11.263	11.341	VV	128114	1462648	14.02%	1.324%
179	11.353	11.341	11.362	VV	1907	20987	0.20%	0.019%
180	11.376	11.362	11.397	VV	2725	37965	0.36%	0.034%
181	11.402	11.397	11.417	VV	1137	12300	0.12%	0.011%
182	11.432	11.417	11.451	VV	1215	19809	0.19%	0.018%
183	11.468	11.451	11.486	VV	2754	33736	0.32%	0.031%
184	11.510	11.486	11.556	VV	32414	381252	3.65%	0.345%
185	11.586	11.556	11.602	PV	1943	32628	0.31%	0.030%
186	11.634	11.602	11.662	VV	5050	109559	1.05%	0.099%
187	11.677	11.662	11.693	VV	3142	40172	0.38%	0.036%
188	11.734	11.693	11.738	VV	8622	130738	1.25%	0.118%
189	11.765	11.738	11.796	VV	14620	283464	2.72%	0.257%
190	11.827	11.796	11.851	VV	8761	121925	1.17%	0.110%
191	11.878	11.851	11.897	VV	9001	128359	1.23%	0.116%
192	11.915	11.897	11.932	VV	6224	82698	0.79%	0.075%
193	11.946	11.932	11.965	VV	2573	44573	0.43%	0.040%
194	11.978	11.965	11.992	VV	2666	36757	0.35%	0.033%

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195	12.030	11.992	12.044	VV	60929	700351	6.71%	0.634%
196	12.060	12.044	12.084	VV	81847	888202	8.51%	0.804%
197	12.093	12.084	12.103	VV	2339	22760	0.22%	0.021%
198	12.145	12.103	12.163	VV	76942	1107659	10.61%	1.003%
199	12.178	12.163	12.192	VV	33152	363757	3.49%	0.329%
200	12.209	12.192	12.234	VV	47332	539050	5.17%	0.488%
201	12.249	12.234	12.265	VV	2950	31867	0.31%	0.029%
202	12.285	12.265	12.307	VV	5099	59083	0.57%	0.053%
203	12.349	12.307	12.360	VV	5109	78385	0.75%	0.071%
204	12.381	12.360	12.405	VV	49390	560972	5.38%	0.508%
205	12.420	12.405	12.449	VV	4841	98944	0.95%	0.090%
206	12.451	12.449	12.476	VV	3548	46455	0.45%	0.042%
207	12.501	12.476	12.524	VV	40860	478665	4.59%	0.433%
208	12.534	12.524	12.545	VV	4011	47036	0.45%	0.043%
209	12.561	12.545	12.577	VV	5137	77329	0.74%	0.070%
210	12.605	12.577	12.634	VV	132335	1684377	16.14%	1.524%
211	12.650	12.634	12.669	VV	11887	167495	1.61%	0.152%
212	12.679	12.669	12.694	VV	3979	47411	0.45%	0.043%
213	12.708	12.694	12.718	VV	3922	46066	0.44%	0.042%
214	12.731	12.718	12.744	VV	4518	57594	0.55%	0.052%
215	12.775	12.744	12.801	VV	8163	167804	1.61%	0.152%
216	12.822	12.801	12.858	VV	14866	277914	2.66%	0.252%
217	12.881	12.858	12.911	VV	41877	524402	5.03%	0.475%
218	12.934	12.911	12.954	VV	32686	444906	4.26%	0.403%
219	12.970	12.954	12.985	VV	14645	234676	2.25%	0.212%
220	12.999	12.985	13.020	VV	14956	238716	2.29%	0.216%
221	13.061	13.020	13.094	VV	820503	10435425	100.00%	9.445%
222	13.110	13.094	13.129	VV	5750	67092	0.64%	0.061%
223	13.186	13.129	13.206	VV	100718	1223025	11.72%	1.107%
224	13.212	13.206	13.222	VV	15392	134186	1.29%	0.121%
225	13.237	13.222	13.278	VV	25353	576004	5.52%	0.521%
226	13.290	13.278	13.321	VV	13723	234033	2.24%	0.212%
227	13.357	13.321	13.380	VV	636052	7443622	71.33%	6.737%
228	13.404	13.380	13.416	VV	20506	267462	2.56%	0.242%
229	13.436	13.416	13.469	VV	86712	1011673	9.69%	0.916%
230	13.485	13.469	13.498	VV	3953	54377	0.52%	0.049%
231	13.520	13.498	13.571	VV	25328	440962	4.23%	0.399%
232	13.613	13.571	13.635	PV	45540	587940	5.63%	0.532%
233	13.643	13.635	13.660	VV	6984	87752	0.84%	0.079%
234	13.685	13.660	13.705	VV	21162	298228	2.86%	0.270%
235	13.716	13.705	13.724	VV	5704	57562	0.55%	0.052%
236	13.744	13.724	13.764	VV	25869	327258	3.14%	0.296%
237	13.807	13.764	13.822	VV	45080	745594	7.14%	0.675%
238	13.831	13.822	13.878	VV	28093	430791	4.13%	0.390%
239	13.936	13.878	13.977	VV	94875	1667472	15.98%	1.509%
240	14.004	13.977	14.022	VV	14389	223925	2.15%	0.203%
241	14.044	14.022	14.064	VV	39511	551692	5.29%	0.499%
242	14.083	14.064	14.106	VV	52159	626713	6.01%	0.567%
243	14.122	14.106	14.132	VV	6650	87565	0.84%	0.079%
244	14.188	14.132	14.197	VV	19450	513454	4.92%	0.465%
245	14.214	14.197	14.234	VV	36105	525991	5.04%	0.476%
246	14.254	14.234	14.294	VV	36373	536342	5.14%	0.485%

rteres								
247	14.329	14.294	14.345	VV	10326	209234	2.01%	0.189%
248	14.361	14.345	14.384	VV	9086	140205	1.34%	0.127%
249	14.396	14.384	14.403	VV	4306	44274	0.42%	0.040%
250	14.428	14.403	14.453	VV	7613	169270	1.62%	0.153%
251	14.463	14.453	14.482	VV	6357	81157	0.78%	0.073%
252	14.490	14.482	14.507	VV	3378	36712	0.35%	0.033%
253	14.523	14.507	14.535	VV	3957	47029	0.45%	0.043%
254	14.545	14.535	14.562	VV	2679	38753	0.37%	0.035%
255	14.580	14.562	14.592	VV	4476	56221	0.54%	0.051%
256	14.631	14.592	14.647	VV	16611	311426	2.98%	0.282%
257	14.670	14.647	14.706	VV	83352	1092782	10.47%	0.989%
258	14.722	14.706	14.734	VV	5387	76657	0.73%	0.069%
259	14.773	14.734	14.808	VV	11263	292944	2.81%	0.265%
260	14.852	14.808	14.882	VV	57973	1200904	11.51%	1.087%
261	14.916	14.882	14.938	VV	103619	1419996	13.61%	1.285%
262	14.975	14.938	15.006	VV	104547	1630794	15.63%	1.476%
263	15.040	15.006	15.055	VV	7608	155054	1.49%	0.140%
264	15.095	15.055	15.156	VV	129861	2024727	19.40%	1.833%
265	15.181	15.156	15.201	VV	50812	607438	5.82%	0.550%
266	15.234	15.201	15.254	VV	389743	5328661	51.06%	4.823%
267	15.279	15.254	15.302	VV	417419	5042347	48.32%	4.564%
268	15.318	15.302	15.342	VV	13531	193044	1.85%	0.175%
269	15.386	15.342	15.445	VV	82157	1542721	14.78%	1.396%
270	15.465	15.445	15.498	VV	31614	417793	4.00%	0.378%
271	15.526	15.498	15.546	PV	38762	542982	5.20%	0.491%
272	15.569	15.546	15.625	VV	35438	759549	7.28%	0.687%
273	15.674	15.625	15.700	VV	71413	1118154	10.71%	1.012%
274	15.709	15.700	15.735	VV	15002	207672	1.99%	0.188%
275	15.764	15.735	15.785	VV	10609	181777	1.74%	0.165%
276	15.816	15.785	15.836	VV	6988	137178	1.31%	0.124%
277	15.860	15.836	15.880	VV	19819	372496	3.57%	0.337%
278	15.903	15.880	15.923	VV	70298	957437	9.17%	0.867%
279	15.939	15.923	15.965	VV	35458	496741	4.76%	0.450%
280	15.982	15.965	15.999	VV	12142	198718	1.90%	0.180%
281	16.046	15.999	16.053	VV	41470	647379	6.20%	0.586%
282	16.060	16.053	16.101	VV	39603	644079	6.17%	0.583%
283	16.142	16.101	16.170	VV	19452	363369	3.48%	0.329%
284	16.195	16.170	16.205	VV	5246	74482	0.71%	0.067%
285	16.225	16.205	16.278	VV	17234	374640	3.59%	0.339%
286	16.303	16.278	16.310	VV	11820	150868	1.45%	0.137%
287	16.324	16.310	16.373	VV	17312	355760	3.41%	0.322%
288	16.385	16.373	16.399	VV	2696	35309	0.34%	0.032%
289	16.404	16.399	16.410	VV	2030	12398	0.12%	0.011%
290	16.433	16.410	16.473	VV	5667	92241	0.88%	0.083%
291	16.514	16.473	16.553	PV	33000	543507	5.21%	0.492%
292	16.572	16.553	16.592	VV	21647	277222	2.66%	0.251%
293	16.626	16.592	16.644	VV	14457	288756	2.77%	0.261%
294	16.654	16.644	16.665	VV	8366	97069	0.93%	0.088%
295	16.694	16.665	16.706	VV	26524	416131	3.99%	0.377%
296	16.723	16.706	16.751	VV	43883	602441	5.77%	0.545%
297	16.802	16.751	16.817	VV	414957	6479037	62.09%	5.864%
298	16.826	16.817	16.860	VV	220702	2264930	21.70%	2.050%
299	16.876	16.860	16.895	VV	6970	115595	1.11%	0.105%

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300	16.923	16.895	16.944	VV	110949	1419810	13.61%	1.285%
301	16.958	16.944	17.001	VV	19485	377640	3.62%	0.342%
302	17.008	17.001	17.020	VV	6258	61261	0.59%	0.055%
303	17.043	17.020	17.065	VV	18457	320861	3.07%	0.290%
304	17.119	17.065	17.144	VV	257533	4946263	47.40%	4.477%
305	17.180	17.144	17.221	VV	319557	4420996	42.37%	4.001%
306	17.242	17.221	17.249	VV	7047	78322	0.75%	0.071%
307	17.274	17.249	17.296	VV	100483	1245515	11.94%	1.127%
308	17.319	17.296	17.345	VV	22365	382895	3.67%	0.347%
309	17.358	17.345	17.364	VV	6298	63723	0.61%	0.058%
310	17.415	17.364	17.460	VV	22926	740986	7.10%	0.671%
311	17.473	17.460	17.493	VV	8547	107675	1.03%	0.097%
					Sum of corrected areas:	110489476		

FF061325.M Tue Jul 01 04:18:27 2025

Report of Analysis

Client:	CDM Smith	Date Collected:	06/23/25
Project:	South River WM Replacement	Date Received:	06/24/25
Client Sample ID:	TP-34	SDG No.:	Q2413
Lab Sample ID:	Q2413-02	Matrix:	SOIL
Analytical Method:	8015D DRO	% Solid:	92
Sample Wt/Vol:	30.05	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
FF016050.D	1	06/30/25 09:50	06/30/25 23:10	PB168658

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
DRO	DRO	5600		183	1810	ug/kg
SURROGATES						
16416-32-3	Tetracosane-d50	9.11		37 - 130	46%	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\FF063025\
Data File : FF016050.D
Signal(s) : FID2B.ch
Acq On : 30 Jun 2025 23:10
Operator : YP\AJ
Sample : Q2413-02
Misc :
ALS Vial : 86 Sample Multiplier: 1

Instrument :
FID_F
ClientSampleId :
TP-34

Integration File: autoint1.e
Quant Time: Jul 01 03:17:15 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF061325.M
Quant Title :
QLast Update : Fri Jun 13 15:23:30 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...	15.093	1099477	9.106 ug/ml
Target Compounds			

(f)=RT Delta > 1/2 Window

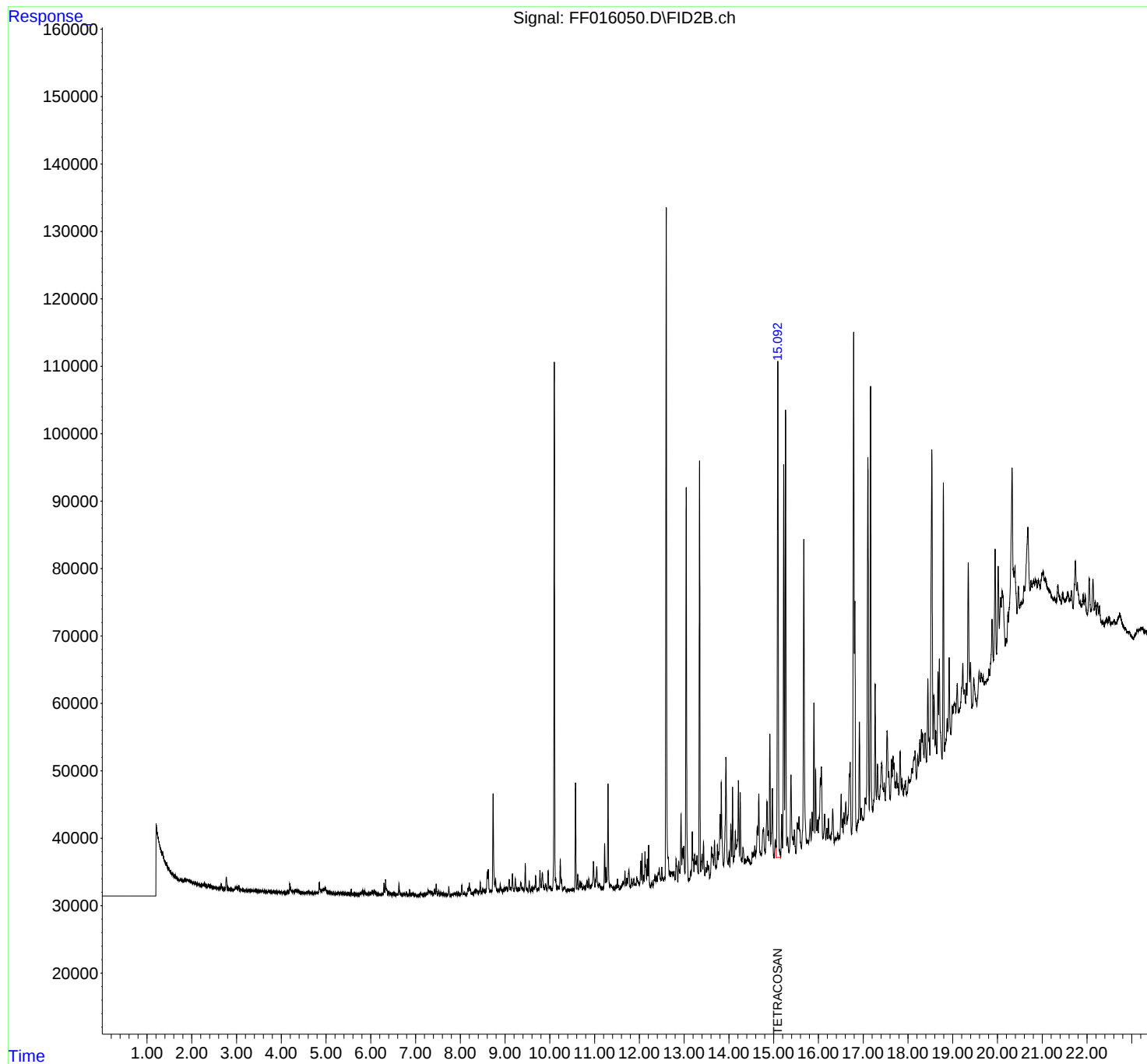
(m)=manual int.

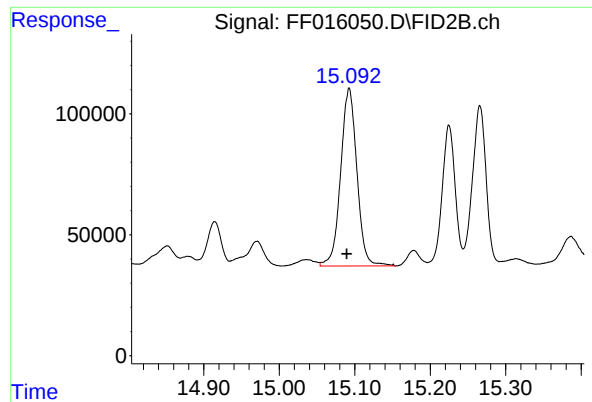
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF063025\
Data File : FF016050.D
Signal(s) : FID2B.ch
Acq On : 30 Jun 2025 23:10
Operator : YP\AJ
Sample : Q2413-02
Misc :
ALS Vial : 86 Sample Multiplier: 1

Instrument :
FID_F
ClientSampleId :
TP-34

Integration File: autoint1.e
Quant Time: Jul 01 03:17:15 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF061325.M
Quant Title :
QLast Update : Fri Jun 13 15:23:30 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.: 15.093 min
Delta R.T.: 0.003 min
Response: 1099477
Conc: 9.11 ug/ml

Instrument :
FID_F
ClientSampleId :
TP-34

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF063025\
Data File : FF016050.D
Signal(s) : FID2B.ch
Acq On : 30 Jun 2025 23:10
Sample : Q2413-02
Misc :
ALS Vial : 86 Sample Multiplier: 1

Integration File: Sample.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF061325.M
Title :

Signal : FID2B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	4.408	4.400	4.421	BV	73	346	0.03%	0.002%
2	4.425	4.421	4.465	PV	77	1391	0.11%	0.006%
3	4.468	4.465	4.486	VV	106	305	0.02%	0.001%
4	4.491	4.486	4.496	PV	68	182	0.01%	0.001%
5	4.505	4.496	4.515	PV	117	625	0.05%	0.003%
6	4.518	4.515	4.535	VV	112	706	0.06%	0.003%
7	4.545	4.535	4.555	VV	102	728	0.06%	0.003%
8	4.575	4.555	4.589	VV	329	2929	0.23%	0.013%
9	4.616	4.589	4.636	VV	298	4767	0.38%	0.022%
10	4.656	4.636	4.681	PV	206	2816	0.22%	0.013%
11	4.688	4.681	4.694	VV	117	571	0.05%	0.003%
12	4.697	4.694	4.725	VV	113	1240	0.10%	0.006%
13	4.732	4.725	4.755	VV	121	1379	0.11%	0.006%
14	4.758	4.755	4.765	PV	129	453	0.04%	0.002%
15	4.783	4.765	4.800	VV	253	3542	0.28%	0.016%
16	4.804	4.800	4.811	VV	165	771	0.06%	0.004%
17	4.815	4.811	4.819	VV	157	601	0.05%	0.003%
18	4.849	4.819	4.887	VV	1666	29567	2.36%	0.134%
19	4.902	4.887	4.910	VV	522	6825	0.54%	0.031%
20	4.917	4.910	4.922	VV	574	3743	0.30%	0.017%
21	4.937	4.922	4.943	VV	638	7172	0.57%	0.033%
22	4.981	4.943	5.035	VV	975	34267	2.73%	0.156%
23	5.036	5.035	5.044	VV	310	1400	0.11%	0.006%
24	5.050	5.044	5.059	VV	319	2516	0.20%	0.011%
25	5.063	5.059	5.122	VV	298	8922	0.71%	0.041%
26	5.126	5.122	5.160	VV	307	4530	0.36%	0.021%
27	5.172	5.160	5.192	VV	240	2970	0.24%	0.014%
28	5.197	5.192	5.201	VV	171	581	0.05%	0.003%
29	5.210	5.201	5.214	VV	232	1158	0.09%	0.005%
30	5.219	5.214	5.248	VV	237	3866	0.31%	0.018%
31	5.256	5.248	5.263	VV	245	1798	0.14%	0.008%
32	5.275	5.263	5.309	VV	252	4600	0.37%	0.021%
33	5.316	5.309	5.322	VV	292	1935	0.15%	0.009%
34	5.325	5.322	5.347	VV	300	3333	0.27%	0.015%
35	5.360	5.347	5.365	VV	206	2031	0.16%	0.009%
36	5.373	5.365	5.387	VV	288	2631	0.21%	0.012%

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37	5.392	5.387	5.396	VV	160	575	0.05%	0.003%
38	5.402	5.396	5.412	VV	153	1291	0.10%	0.006%
39	5.429	5.412	5.438	VV	310	3131	0.25%	0.014%
40	5.441	5.438	5.458	VV	216	1724	0.14%	0.008%
41	5.461	5.458	5.477	VV	119	1025	0.08%	0.005%
42	5.506	5.477	5.519	PV	268	4097	0.33%	0.019%
43	5.523	5.519	5.545	VV	220	1508	0.12%	0.007%
44	5.562	5.545	5.584	VV	846	8968	0.72%	0.041%
45	5.593	5.584	5.612	VV	183	1575	0.13%	0.007%
46	5.625	5.612	5.647	VV	135	2402	0.19%	0.011%
47	5.650	5.647	5.662	VV	136	947	0.08%	0.004%
48	5.672	5.662	5.677	VV	156	853	0.07%	0.004%
49	5.686	5.677	5.713	VV	153	2217	0.18%	0.010%
50	5.727	5.713	5.738	VV	128	1080	0.09%	0.005%
51	5.761	5.738	5.775	PV	333	3651	0.29%	0.017%
52	5.796	5.775	5.805	VV	467	5455	0.44%	0.025%
53	5.815	5.805	5.843	VV	722	9290	0.74%	0.042%
54	5.860	5.843	5.897	VV	707	10441	0.83%	0.047%
55	5.908	5.897	5.912	VV	209	1386	0.11%	0.006%
56	5.918	5.912	5.935	VV	279	2922	0.23%	0.013%
57	5.947	5.935	5.974	VV	290	5244	0.42%	0.024%
58	5.994	5.974	6.000	VV	340	3870	0.31%	0.018%
59	6.004	6.000	6.014	VV	329	2396	0.19%	0.011%
60	6.032	6.014	6.055	VV	745	11321	0.90%	0.051%
61	6.074	6.055	6.112	VV	845	17722	1.41%	0.081%
62	6.127	6.112	6.183	VV	370	9023	0.72%	0.041%
63	6.192	6.183	6.198	VV	189	1434	0.11%	0.007%
64	6.201	6.198	6.207	VV	207	821	0.07%	0.004%
65	6.212	6.207	6.225	VV	212	1470	0.12%	0.007%
66	6.234	6.225	6.247	VV	199	1745	0.14%	0.008%
67	6.263	6.247	6.274	VV	275	3129	0.25%	0.014%
68	6.295	6.274	6.315	VV	1876	23452	1.87%	0.107%
69	6.331	6.315	6.393	VV	2315	42854	3.42%	0.195%
70	6.406	6.393	6.426	VV	655	8014	0.64%	0.036%
71	6.438	6.426	6.469	VV	364	4742	0.38%	0.022%
72	6.476	6.469	6.480	VV	173	804	0.06%	0.004%
73	6.485	6.480	6.496	VV	202	1403	0.11%	0.006%
74	6.512	6.496	6.550	VV	476	7759	0.62%	0.035%
75	6.568	6.550	6.573	VV	171	1831	0.15%	0.008%
76	6.577	6.573	6.599	VV	226	2496	0.20%	0.011%
77	6.629	6.599	6.667	VV	1834	27520	2.20%	0.125%
78	6.679	6.667	6.701	VV	296	3989	0.32%	0.018%
79	6.707	6.701	6.720	VV	195	1888	0.15%	0.009%
80	6.730	6.720	6.745	VV	369	3981	0.32%	0.018%
81	6.747	6.745	6.761	VV	340	2175	0.17%	0.010%
82	6.793	6.761	6.815	VV	604	9392	0.75%	0.043%
83	6.818	6.815	6.826	VV	150	891	0.07%	0.004%
84	6.830	6.826	6.848	VV	145	1198	0.10%	0.005%
85	6.867	6.848	6.892	VV	948	10954	0.87%	0.050%
86	6.920	6.892	6.935	VV	385	4950	0.39%	0.023%
87	6.948	6.935	6.974	VV	502	6088	0.49%	0.028%
88	6.986	6.974	6.991	VV	323	2168	0.17%	0.010%
89	6.996	6.991	7.038	VV	229	2413	0.19%	0.011%

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90	7.065	7.038	7.094	PV	161	2774	0.22%	0.013%
91	7.115	7.094	7.147	PV	414	8146	0.65%	0.037%
92	7.167	7.147	7.188	VV	178	3521	0.28%	0.016%
93	7.200	7.188	7.217	VV	310	3487	0.28%	0.016%
94	7.253	7.217	7.266	VV	429	7357	0.59%	0.033%
95	7.277	7.266	7.314	VV	889	18500	1.48%	0.084%
96	7.328	7.314	7.356	VV	700	13076	1.04%	0.059%
97	7.368	7.356	7.395	VV	538	8887	0.71%	0.040%
98	7.427	7.395	7.444	VV	868	15163	1.21%	0.069%
99	7.460	7.444	7.497	VV	1713	22050	1.76%	0.100%
100	7.519	7.497	7.551	VV	661	10615	0.85%	0.048%
101	7.567	7.551	7.594	VV	499	6286	0.50%	0.029%
102	7.614	7.594	7.634	VV	378	5547	0.44%	0.025%
103	7.643	7.634	7.682	VV	248	4199	0.34%	0.019%
104	7.685	7.682	7.689	VV	155	506	0.04%	0.002%
105	7.707	7.689	7.721	VV	225	3007	0.24%	0.014%
106	7.743	7.721	7.788	VV	1247	15298	1.22%	0.070%
107	7.805	7.788	7.825	VV	305	3036	0.24%	0.014%
108	7.831	7.825	7.847	VV	217	2171	0.17%	0.010%
109	7.855	7.847	7.860	VV	195	1352	0.11%	0.006%
110	7.873	7.860	7.898	VV	343	5110	0.41%	0.023%
111	7.917	7.898	7.942	VV	424	6423	0.51%	0.029%
112	7.959	7.942	7.981	VV	532	6093	0.49%	0.028%
113	7.982	7.981	7.994	VV	187	816	0.07%	0.004%
114	8.000	7.994	8.004	PV	157	519	0.04%	0.002%
115	8.033	8.004	8.069	VV	1558	21360	1.70%	0.097%
116	8.088	8.069	8.110	VV	341	4912	0.39%	0.022%
117	8.119	8.110	8.130	VV	239	1677	0.13%	0.008%
118	8.135	8.130	8.145	VV	161	828	0.07%	0.004%
119	8.171	8.145	8.185	VV	941	14232	1.14%	0.065%
120	8.201	8.185	8.217	VV	1848	22314	1.78%	0.101%
121	8.225	8.217	8.257	VV	873	11553	0.92%	0.053%
122	8.272	8.257	8.288	VV	493	4702	0.38%	0.021%
123	8.319	8.288	8.344	VV	725	15400	1.23%	0.070%
124	8.371	8.344	8.400	VV	760	16296	1.30%	0.074%
125	8.446	8.400	8.480	VV	1827	31235	2.49%	0.142%
126	8.502	8.480	8.529	VV	760	15531	1.24%	0.071%
127	8.547	8.529	8.563	VV	641	10694	0.85%	0.049%
128	8.601	8.563	8.612	VV	3279	46849	3.74%	0.213%
129	8.624	8.612	8.664	VV	3756	53903	4.30%	0.245%
130	8.679	8.664	8.695	VV	659	9592	0.77%	0.044%
131	8.733	8.695	8.774	VV	14901	208270	16.62%	0.947%
132	8.788	8.774	8.839	VV	2309	42031	3.35%	0.191%
133	8.852	8.839	8.871	VV	703	10730	0.86%	0.049%
134	8.874	8.871	8.879	VV	500	2422	0.19%	0.011%
135	8.892	8.879	8.938	VV	1472	28345	2.26%	0.129%
136	8.955	8.938	8.961	VV	497	5903	0.47%	0.027%
137	8.987	8.961	9.007	VV	942	18701	1.49%	0.085%
138	9.028	9.007	9.066	VV	1035	26059	2.08%	0.119%
139	9.091	9.066	9.113	VV	2070	34856	2.78%	0.159%
140	9.121	9.113	9.135	VV	866	9602	0.77%	0.044%
141	9.165	9.135	9.194	VV	2965	47994	3.83%	0.218%

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142	9.197	9.194	9.204	VV	495	2395	0.19%	0.011%
143	9.229	9.204	9.265	VV	2217	40847	3.26%	0.186%
144	9.274	9.265	9.289	VV	673	7502	0.60%	0.034%
145	9.309	9.289	9.325	VV	844	13526	1.08%	0.062%
146	9.350	9.325	9.380	VV	1579	32689	2.61%	0.149%
147	9.396	9.380	9.416	VV	780	13480	1.08%	0.061%
148	9.421	9.416	9.430	VV	487	3851	0.31%	0.018%
149	9.452	9.430	9.475	VV	4431	52553	4.19%	0.239%
150	9.483	9.475	9.513	VV	663	11644	0.93%	0.053%
151	9.539	9.513	9.566	VV	1744	25579	2.04%	0.116%
152	9.593	9.566	9.616	VV	810	14104	1.13%	0.064%
153	9.631	9.616	9.647	VV	793	10919	0.87%	0.050%
154	9.683	9.647	9.722	VV	2521	47466	3.79%	0.216%
155	9.737	9.722	9.750	VV	650	8210	0.66%	0.037%
156	9.779	9.750	9.804	VV	3254	48267	3.85%	0.220%
157	9.833	9.804	9.883	VV	2969	68464	5.46%	0.311%
158	9.905	9.883	9.934	VV	1137	24826	1.98%	0.113%
159	9.962	9.934	9.994	VV	3214	49487	3.95%	0.225%
160	10.012	9.994	10.034	VV	848	15423	1.23%	0.070%
161	10.038	10.034	10.048	VV	492	3439	0.27%	0.016%
162	10.100	10.048	10.122	VV	78573	813738	64.92%	3.701%
163	10.129	10.122	10.165	VV	2137	30317	2.42%	0.138%
164	10.169	10.165	10.184	VV	654	6498	0.52%	0.030%
165	10.195	10.184	10.212	VV	732	10273	0.82%	0.047%
166	10.234	10.212	10.252	VV	4755	59781	4.77%	0.272%
167	10.261	10.252	10.289	VV	1801	21608	1.72%	0.098%
168	10.313	10.289	10.326	VV	635	10655	0.85%	0.048%
169	10.338	10.326	10.370	VV	656	9920	0.79%	0.045%
170	10.380	10.370	10.387	VV	167	1472	0.12%	0.007%
171	10.403	10.387	10.427	VV	417	5932	0.47%	0.027%
172	10.442	10.427	10.460	VV	389	4686	0.37%	0.021%
173	10.464	10.460	10.470	VV	269	1243	0.10%	0.006%
174	10.477	10.470	10.497	VV	277	3027	0.24%	0.014%
175	10.514	10.497	10.529	VV	498	5761	0.46%	0.026%
176	10.535	10.529	10.545	VV	263	2046	0.16%	0.009%
177	10.574	10.545	10.600	VV	16128	176839	14.11%	0.804%
178	10.622	10.600	10.645	VV	2476	36184	2.89%	0.165%
179	10.672	10.645	10.691	VV	1505	24815	1.98%	0.113%
180	10.706	10.691	10.730	VV	1216	17027	1.36%	0.077%
181	10.759	10.730	10.789	VV	747	18113	1.45%	0.082%
182	10.795	10.789	10.804	VV	516	3878	0.31%	0.018%
183	10.831	10.804	10.850	VV	1445	26857	2.14%	0.122%
184	10.871	10.850	10.893	VV	1821	27719	2.21%	0.126%
185	10.904	10.893	10.915	VV	807	8896	0.71%	0.040%
186	10.974	10.915	11.007	VV	4279	91550	7.30%	0.416%
187	11.047	11.007	11.090	VV	3530	80093	6.39%	0.364%
188	11.107	11.090	11.139	VV	1011	21532	1.72%	0.098%
189	11.143	11.139	11.157	VV	357	3727	0.30%	0.017%
190	11.162	11.157	11.179	VV	384	4045	0.32%	0.018%
191	11.224	11.179	11.239	VV	6978	80418	6.42%	0.366%
192	11.248	11.239	11.274	VV	3433	47257	3.77%	0.215%
193	11.299	11.274	11.341	VV	15815	200004	15.96%	0.910%
194	11.369	11.341	11.386	VV	749	16703	1.33%	0.076%

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195	11.396	11.386	11.415	VV	530	6662	0.53%	0.030%
196	11.430	11.415	11.454	VV	336	5780	0.46%	0.026%
197	11.481	11.454	11.492	VV	592	8486	0.68%	0.039%
198	11.510	11.492	11.531	VV	1665	20585	1.64%	0.094%
199	11.539	11.531	11.557	VV	676	4942	0.39%	0.022%
200	11.637	11.557	11.660	PV	1134	36312	2.90%	0.165%
201	11.678	11.660	11.697	VV	2758	33830	2.70%	0.154%
202	11.720	11.697	11.739	VV	1562	27250	2.17%	0.124%
203	11.765	11.739	11.802	VV	2833	57737	4.61%	0.263%
204	11.830	11.802	11.852	VV	1345	22334	1.78%	0.102%
205	11.873	11.852	11.906	VV	1391	26607	2.12%	0.121%
206	11.917	11.906	11.927	VV	682	7403	0.59%	0.034%
207	11.940	11.927	12.002	VV	1644	42983	3.43%	0.195%
208	12.029	12.002	12.045	VV	3925	49055	3.91%	0.223%
209	12.059	12.045	12.079	VV	5094	56079	4.47%	0.255%
210	12.094	12.079	12.105	VV	1803	20308	1.62%	0.092%
211	12.125	12.105	12.140	VV	5267	65251	5.21%	0.297%
212	12.144	12.140	12.160	VV	3180	29478	2.35%	0.134%
213	12.177	12.160	12.191	VV	4154	49736	3.97%	0.226%
214	12.207	12.191	12.248	VV	6189	74538	5.95%	0.339%
215	12.251	12.248	12.258	VV	63	372	0.03%	0.002%
216	12.280	12.258	12.302	PV	590	8080	0.64%	0.037%
217	12.349	12.302	12.365	VV	1665	31152	2.49%	0.142%
218	12.380	12.365	12.401	VV	1289	21141	1.69%	0.096%
219	12.420	12.401	12.430	VV	1876	24091	1.92%	0.110%
220	12.443	12.430	12.482	VV	2638	47935	3.82%	0.218%
221	12.501	12.482	12.522	VV	2645	37029	2.95%	0.168%
222	12.530	12.522	12.546	VV	999	11514	0.92%	0.052%
223	12.562	12.546	12.574	VV	1135	14843	1.18%	0.068%
224	12.601	12.574	12.640	VV	100482	1253366	100.00%	5.700%
225	12.644	12.640	12.667	VV	4020	45611	3.64%	0.207%
226	12.679	12.667	12.695	VV	1841	26417	2.11%	0.120%
227	12.707	12.695	12.719	VV	1670	21208	1.69%	0.096%
228	12.730	12.719	12.744	VV	1739	21960	1.75%	0.100%
229	12.756	12.744	12.762	VV	1448	14624	1.17%	0.067%
230	12.774	12.762	12.802	VV	1777	27790	2.22%	0.126%
231	12.821	12.802	12.860	VV	3537	64569	5.15%	0.294%
232	12.878	12.860	12.890	VV	3048	34509	2.75%	0.157%
233	12.895	12.890	12.907	VV	1813	16660	1.33%	0.076%
234	12.931	12.907	12.950	VV	10092	136279	10.87%	0.620%
235	12.964	12.950	12.980	VV	4986	73980	5.90%	0.336%
236	12.992	12.980	13.015	VV	5269	74115	5.91%	0.337%
237	13.047	13.015	13.099	VV	58424	736120	58.73%	3.348%
238	13.109	13.099	13.120	VV	275	2612	0.21%	0.012%
239	13.144	13.120	13.159	VV	1302	17354	1.38%	0.079%
240	13.183	13.159	13.220	VV	7195	127216	10.15%	0.579%
241	13.236	13.220	13.253	VV	3805	54207	4.32%	0.247%
242	13.262	13.253	13.275	VV	2755	33968	2.71%	0.154%
243	13.287	13.275	13.319	VV	3560	55384	4.42%	0.252%
244	13.345	13.319	13.371	VV	62113	702649	56.06%	3.196%
245	13.400	13.371	13.417	VV	3717	68224	5.44%	0.310%
246	13.434	13.417	13.466	VV	5439	74714	5.96%	0.340%

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247	13.484	13.466	13.500	VV	1645	22782	1.82%	0.104%
248	13.517	13.500	13.535	VV	2497	34978	2.79%	0.159%
249	13.545	13.535	13.579	VV	1799	25312	2.02%	0.115%
250	13.613	13.579	13.631	PV	4468	75226	6.00%	0.342%
251	13.639	13.631	13.660	VV	3401	46727	3.73%	0.213%
252	13.679	13.660	13.720	VV	5367	99362	7.93%	0.452%
253	13.744	13.720	13.759	VV	4513	67382	5.38%	0.306%
254	13.775	13.759	13.784	VV	3455	44500	3.55%	0.202%
255	13.804	13.784	13.818	VV	8994	137090	10.94%	0.623%
256	13.830	13.818	13.880	VV	13696	227395	18.14%	1.034%
257	13.934	13.880	13.975	VV	17192	352975	28.16%	1.605%
258	14.004	13.975	14.021	VV	3108	52550	4.19%	0.239%
259	14.043	14.021	14.063	VV	7007	103432	8.25%	0.470%
260	14.081	14.063	14.103	VV	12435	154699	12.34%	0.704%
261	14.116	14.103	14.120	VV	2147	19245	1.54%	0.088%
262	14.142	14.120	14.159	VV	5889	91735	7.32%	0.417%
263	14.173	14.159	14.178	VV	3812	41393	3.30%	0.188%
264	14.213	14.178	14.234	VV	13271	219920	17.55%	1.000%
265	14.253	14.234	14.290	VV	11389	152878	12.20%	0.695%
266	14.316	14.290	14.348	VV	3083	65702	5.24%	0.299%
267	14.365	14.348	14.384	VV	1414	22212	1.77%	0.101%
268	14.419	14.384	14.439	VV	1639	38951	3.11%	0.177%
269	14.442	14.439	14.448	VV	1109	5729	0.46%	0.026%
270	14.458	14.448	14.478	VV	983	13775	1.10%	0.063%
271	14.491	14.478	14.498	VV	536	5222	0.42%	0.024%
272	14.521	14.498	14.534	VV	1988	26952	2.15%	0.123%
273	14.548	14.534	14.561	VV	1884	26363	2.10%	0.120%
274	14.578	14.561	14.595	VV	2894	43119	3.44%	0.196%
275	14.632	14.595	14.650	VV	5625	117593	9.38%	0.535%
276	14.668	14.650	14.714	VV	10425	170219	13.58%	0.774%
277	14.772	14.714	14.815	VV	5244	178608	14.25%	0.812%
278	14.852	14.815	14.869	VV	8985	174811	13.95%	0.795%
279	14.879	14.869	14.892	VV	4634	55226	4.41%	0.251%
280	14.915	14.892	14.935	VV	18858	252728	20.16%	1.149%
281	14.971	14.935	15.004	VV	10623	193194	15.41%	0.879%
282	15.036	15.004	15.054	VV	2943	53735	4.29%	0.244%
283	15.093	15.054	15.157	VV	73843	1113479	88.84%	5.064%
284	15.178	15.157	15.196	VV	6516	77955	6.22%	0.355%
285	15.225	15.196	15.244	VV	58221	700822	55.92%	3.187%
286	15.266	15.244	15.295	VV	66084	838028	66.86%	3.811%
287	15.314	15.295	15.340	VV	2852	50509	4.03%	0.230%
288	15.386	15.340	15.416	VV	11912	221773	17.69%	1.009%
289	15.428	15.416	15.445	VV	2737	40522	3.23%	0.184%
290	15.463	15.445	15.499	VV	3682	57598	4.60%	0.262%
291	15.526	15.499	15.552	VV	4666	98006	7.82%	0.446%
292	15.566	15.552	15.622	VV	5461	119420	9.53%	0.543%
293	15.674	15.622	15.734	VV	46283	772399	61.63%	3.513%
294	15.741	15.734	15.752	VV	1449	15310	1.22%	0.070%
295	15.763	15.752	15.780	VV	1441	21966	1.75%	0.100%
296	15.817	15.780	15.837	VV	4470	88549	7.06%	0.403%
297	15.857	15.837	15.877	VV	5564	85349	6.81%	0.388%
298	15.900	15.877	15.921	VV	21690	292621	23.35%	1.331%
299	15.938	15.921	15.964	VV	11679	158285	12.63%	0.720%

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300	15.981	15.964	15.996	VV	4244	62297	4.97%	0.283%
301	16.017	15.996	16.023	VV	4535	59819	4.77%	0.272%
302	16.042	16.023	16.051	VV	10331	134178	10.71%	0.610%
303	16.065	16.051	16.100	VV	11867	210810	16.82%	0.959%
304	16.141	16.100	16.165	VV	4752	99199	7.91%	0.451%
305	16.189	16.165	16.207	VV	2596	42011	3.35%	0.191%
306	16.223	16.207	16.246	VV	3905	55819	4.45%	0.254%
307	16.256	16.246	16.280	VV	1284	22632	1.81%	0.103%
308	16.319	16.280	16.354	VV	5233	106010	8.46%	0.482%
309	16.375	16.354	16.393	PV	770	11138	0.89%	0.051%
310	16.405	16.393	16.414	VV	697	7459	0.60%	0.034%
311	16.430	16.414	16.446	VV	1296	16596	1.32%	0.075%
312	16.460	16.446	16.474	VV	845	9891	0.79%	0.045%
313	16.509	16.474	16.527	VV	6842	106147	8.47%	0.483%
314	16.538	16.527	16.554	VV	2965	34181	2.73%	0.155%
315	16.569	16.554	16.585	VV	3898	52098	4.16%	0.237%
316	16.612	16.585	16.637	VV	5245	111826	8.92%	0.509%
317	16.650	16.637	16.655	VV	2864	27525	2.20%	0.125%
318	16.693	16.655	16.699	VV	9243	149994	11.97%	0.682%
319	16.709	16.699	16.739	VV	10876	140601	11.22%	0.639%
320	16.788	16.739	16.805	PV	74093	1076706	85.91%	4.897%
321	16.814	16.805	16.857	VV	34159	387805	30.94%	1.764%
322	16.884	16.857	16.891	PV	1311	17557	1.40%	0.080%
323	16.916	16.891	16.941	VV	15678	206983	16.51%	0.941%
324	16.956	16.941	16.995	VV	2634	47795	3.81%	0.217%
325	17.002	16.995	17.011	VV	854	6760	0.54%	0.031%
326	17.041	17.011	17.060	VV	3465	64279	5.13%	0.292%
327	17.106	17.060	17.135	VV	53508	885138	70.62%	4.026%
328	17.166	17.135	17.215	VV	63725	811020	64.71%	3.688%
329	17.239	17.215	17.245	VV	1852	21806	1.74%	0.099%
330	17.267	17.245	17.297	VV	18793	260652	20.80%	1.185%
331	17.320	17.297	17.348	VV	6614	111991	8.94%	0.509%
332	17.356	17.348	17.364	VV	1520	12892	1.03%	0.059%
333	17.412	17.364	17.457	VV	6114	193229	15.42%	0.879%
334	17.471	17.457	17.494	VV	2744	33977	2.71%	0.155%
					Sum of corrected areas:		21988268	

FF061325.M Tue Jul 01 04:20:04 2025

Report of Analysis

Client:	CDM Smith	Date Collected:	06/23/25
Project:	South River WM Replacement	Date Received:	06/24/25
Client Sample ID:	TP-77	SDG No.:	Q2413
Lab Sample ID:	Q2413-03	Matrix:	SOIL
Analytical Method:	8015D DRO	% Solid:	91.4
Sample Wt/Vol:	30.08	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
FF016051.D	1	06/30/25 09:50	06/30/25 23:40	PB168658

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
DRO	DRO	18800		184	1820	ug/kg
SURROGATES						
16416-32-3	Tetracosane-d50	15.2		37 - 130	76%	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\FF063025\
Data File : FF016051.D
Signal(s) : FID2B.ch
Acq On : 30 Jun 2025 23:40
Operator : YP\AJ
Sample : Q2413-03
Misc :
ALS Vial : 87 Sample Multiplier: 1

Instrument :
FID_F
ClientSampleId :
TP-77

Integration File: autoint1.e
Quant Time: Jul 01 03:17:27 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF061325.M
Quant Title :
QLast Update : Fri Jun 13 15:23:30 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...	15.094	1832271	15.175 ug/ml
Target Compounds			

(f)=RT Delta > 1/2 Window

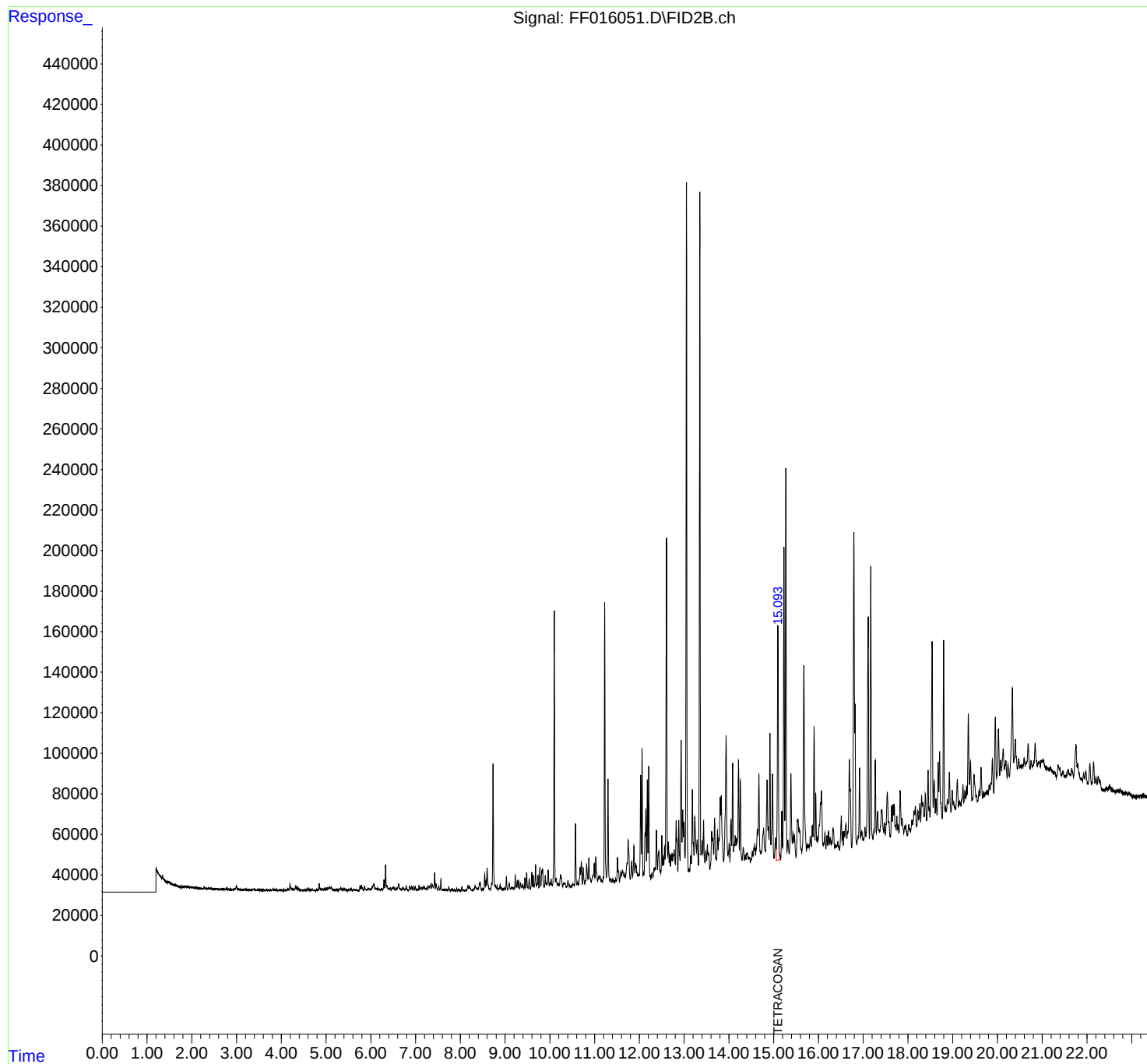
(m)=manual int.

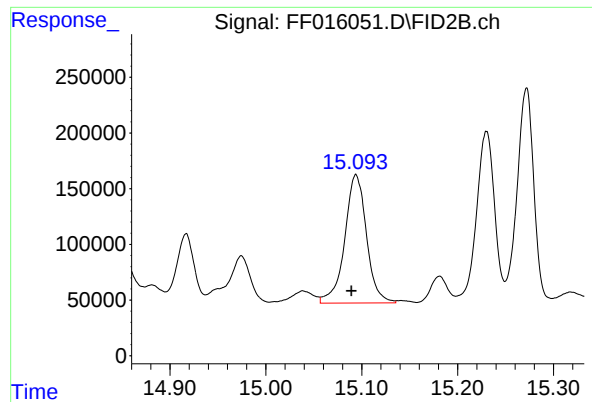
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF063025\
Data File : FF016051.D
Signal(s) : FID2B.ch
Acq On : 30 Jun 2025 23:40
Operator : YP\AJ
Sample : Q2413-03
Misc :
ALS Vial : 87 Sample Multiplier: 1

Instrument :
FID_F
ClientSampleId :
TP-77

Integration File: autoint1.e
Quant Time: Jul 01 03:17:27 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF061325.M
Quant Title :
QLast Update : Fri Jun 13 15:23:30 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.: 15.094 min
Delta R.T.: 0.005 min
Response: 1832271
Conc: 15.17 ug/ml

Instrument :
FID_F
ClientSampleId :
TP-77

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF063025\
Data File : FF016051.D
Signal(s) : FID2B.ch
Acq On : 30 Jun 2025 23:40
Sample : Q2413-03
Misc :
ALS Vial : 87 Sample Multiplier: 1

Integration File: Sample.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF061325.M
Title :

Signal : FID2B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	4.430	4.406	4.472	BV	203	3696	0.09%	0.005%
2	4.484	4.472	4.491	PV	122	813	0.02%	0.001%
3	4.515	4.491	4.535	VV	385	4984	0.12%	0.007%
4	4.575	4.535	4.602	VV	659	14373	0.35%	0.020%
5	4.619	4.602	4.639	VV	1060	12520	0.30%	0.017%
6	4.657	4.639	4.674	VV	617	7044	0.17%	0.010%
7	4.691	4.674	4.723	VV	576	8402	0.20%	0.012%
8	4.742	4.723	4.763	VV	295	4569	0.11%	0.006%
9	4.785	4.763	4.819	VV	501	10286	0.25%	0.014%
10	4.848	4.819	4.888	VV	3653	55223	1.34%	0.077%
11	4.904	4.888	4.919	VV	1260	15379	0.37%	0.021%
12	4.929	4.919	4.945	VV	787	9789	0.24%	0.014%
13	4.983	4.945	4.999	VV	1065	27035	0.66%	0.038%
14	5.039	4.999	5.051	VV	1395	34284	0.83%	0.048%
15	5.082	5.051	5.107	VV	1674	48662	1.18%	0.068%
16	5.121	5.107	5.181	VV	1854	37950	0.92%	0.053%
17	5.201	5.181	5.221	VV	557	10529	0.26%	0.015%
18	5.238	5.221	5.268	VV	669	13289	0.32%	0.019%
19	5.275	5.268	5.285	VV	525	4644	0.11%	0.006%
20	5.326	5.285	5.355	VV	1370	35660	0.87%	0.050%
21	5.376	5.355	5.394	VV	1340	19672	0.48%	0.027%
22	5.407	5.394	5.422	VV	1190	13888	0.34%	0.019%
23	5.440	5.422	5.457	VV	938	14558	0.35%	0.020%
24	5.463	5.457	5.482	VV	564	4747	0.12%	0.007%
25	5.503	5.482	5.527	PV	990	14812	0.36%	0.021%
26	5.532	5.527	5.547	VV	551	6166	0.15%	0.009%
27	5.563	5.547	5.593	VV	1559	21394	0.52%	0.030%
28	5.613	5.593	5.624	VV	778	11079	0.27%	0.015%
29	5.633	5.624	5.651	VV	758	8800	0.21%	0.012%
30	5.663	5.651	5.697	VV	729	11775	0.29%	0.016%
31	5.702	5.697	5.724	VV	328	3580	0.09%	0.005%
32	5.727	5.724	5.736	VV	216	1021	0.02%	0.001%
33	5.758	5.736	5.775	VV	2615	33333	0.81%	0.047%
34	5.789	5.775	5.805	VV	2924	36701	0.89%	0.051%
35	5.812	5.805	5.841	VV	1550	20157	0.49%	0.028%
36	5.859	5.841	5.902	VV	2329	42125	1.02%	0.059%

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37	5.911	5.902	5.928	VV	806	9913	0.24%	0.014%
38	5.947	5.928	5.978	VV	1376	28807	0.70%	0.040%
39	5.987	5.978	5.991	VV	886	6429	0.16%	0.009%
40	5.995	5.991	6.010	VV	881	9528	0.23%	0.013%
41	6.029	6.010	6.039	VV	2225	27287	0.66%	0.038%
42	6.072	6.039	6.097	VV	3782	85678	2.08%	0.120%
43	6.106	6.097	6.122	VV	1335	16722	0.41%	0.023%
44	6.132	6.122	6.138	VV	1156	10873	0.26%	0.015%
45	6.147	6.138	6.163	VV	1283	15297	0.37%	0.021%
46	6.187	6.163	6.213	VV	932	22073	0.54%	0.031%
47	6.239	6.213	6.257	VV	1324	21067	0.51%	0.029%
48	6.294	6.257	6.312	VV	5609	79770	1.94%	0.111%
49	6.330	6.312	6.351	VV	13058	146402	3.56%	0.204%
50	6.359	6.351	6.390	VV	2585	44373	1.08%	0.062%
51	6.401	6.390	6.417	VV	1378	16879	0.41%	0.024%
52	6.435	6.417	6.458	VV	1447	23390	0.57%	0.033%
53	6.475	6.458	6.493	VV	1714	27847	0.68%	0.039%
54	6.510	6.493	6.546	VV	1928	38930	0.95%	0.054%
55	6.562	6.546	6.575	VV	1650	18749	0.46%	0.026%
56	6.625	6.575	6.643	VV	3301	75990	1.85%	0.106%
57	6.649	6.643	6.665	VV	1346	14660	0.36%	0.020%
58	6.670	6.665	6.692	VV	861	12084	0.29%	0.017%
59	6.708	6.692	6.724	VV	1423	21374	0.52%	0.030%
60	6.737	6.724	6.767	VV	1287	23594	0.57%	0.033%
61	6.792	6.767	6.840	VV	2585	45263	1.10%	0.063%
62	6.867	6.840	6.892	VV	2402	35780	0.87%	0.050%
63	6.910	6.892	6.931	VV	1887	30106	0.73%	0.042%
64	6.947	6.931	6.966	VV	2367	29322	0.71%	0.041%
65	6.992	6.966	7.012	VV	1790	31241	0.76%	0.044%
66	7.022	7.012	7.033	VV	874	9314	0.23%	0.013%
67	7.044	7.033	7.057	VV	753	8691	0.21%	0.012%
68	7.076	7.057	7.098	VV	2810	32851	0.80%	0.046%
69	7.117	7.098	7.129	VV	1789	25319	0.62%	0.035%
70	7.135	7.129	7.150	VV	1432	16168	0.39%	0.023%
71	7.163	7.150	7.180	VV	1779	24580	0.60%	0.034%
72	7.199	7.180	7.219	VV	2309	36153	0.88%	0.050%
73	7.234	7.219	7.241	VV	1326	15560	0.38%	0.022%
74	7.245	7.241	7.259	VV	1416	13566	0.33%	0.019%
75	7.275	7.259	7.303	VV	2683	52189	1.27%	0.073%
76	7.328	7.303	7.349	VV	2863	59115	1.44%	0.082%
77	7.368	7.349	7.397	VV	3090	64180	1.56%	0.090%
78	7.426	7.397	7.444	VV	9068	115893	2.82%	0.162%
79	7.459	7.444	7.496	VV	3488	54730	1.33%	0.076%
80	7.517	7.496	7.546	VV	2490	37875	0.92%	0.053%
81	7.565	7.546	7.596	VV	5823	69504	1.69%	0.097%
82	7.614	7.596	7.625	VV	692	9659	0.23%	0.013%
83	7.638	7.625	7.659	VV	787	11712	0.28%	0.016%
84	7.663	7.659	7.668	VV	498	2173	0.05%	0.003%
85	7.687	7.668	7.713	VV	559	13179	0.32%	0.018%
86	7.742	7.713	7.776	VV	2008	30429	0.74%	0.042%
87	7.797	7.776	7.816	VV	637	11362	0.28%	0.016%
88	7.831	7.816	7.855	VV	667	10932	0.27%	0.015%
89	7.871	7.855	7.886	VV	450	6570	0.16%	0.009%

					rteres			
90	7.916	7.886	7.943	VV	829	14710	0.36%	0.021%
91	7.957	7.943	8.005	VV	839	16755	0.41%	0.023%
92	8.033	8.005	8.062	PV	1985	24460	0.59%	0.034%
93	8.079	8.062	8.103	VV	464	6527	0.16%	0.009%
94	8.114	8.103	8.139	VV	376	4617	0.11%	0.006%
95	8.168	8.139	8.185	VV	2625	38885	0.94%	0.054%
96	8.201	8.185	8.216	VV	2451	31960	0.78%	0.045%
97	8.225	8.216	8.254	VV	1480	16939	0.41%	0.024%
98	8.269	8.254	8.286	PV	500	4706	0.11%	0.007%
99	8.329	8.286	8.384	VV	2310	64992	1.58%	0.091%
100	8.399	8.384	8.408	VV	1124	13818	0.34%	0.019%
101	8.424	8.408	8.434	VV	3625	40249	0.98%	0.056%
102	8.444	8.434	8.480	VV	4003	52196	1.27%	0.073%
103	8.499	8.480	8.508	VV	858	10624	0.26%	0.015%
104	8.516	8.508	8.525	VV	745	6961	0.17%	0.010%
105	8.545	8.525	8.561	VV	8232	92192	2.24%	0.129%
106	8.573	8.561	8.584	VV	4751	46980	1.14%	0.066%
107	8.600	8.584	8.654	VV	10998	163446	3.97%	0.228%
108	8.661	8.654	8.676	VV	642	8070	0.20%	0.011%
109	8.700	8.676	8.709	VV	3465	40728	0.99%	0.057%
110	8.731	8.709	8.775	VV	62328	731924	17.78%	1.021%
111	8.787	8.775	8.806	VV	2223	30365	0.74%	0.042%
112	8.822	8.806	8.840	VV	2215	24093	0.59%	0.034%
113	8.853	8.840	8.863	VV	579	6587	0.16%	0.009%
114	8.888	8.863	8.909	VV	2555	33662	0.82%	0.047%
115	8.920	8.909	8.949	VV	826	11091	0.27%	0.015%
116	8.952	8.949	8.962	VV	254	1480	0.04%	0.002%
117	8.983	8.962	9.002	VV	758	11416	0.28%	0.016%
118	9.030	9.002	9.054	VV	6345	68824	1.67%	0.096%
119	9.093	9.054	9.117	VV	2798	50706	1.23%	0.071%
120	9.147	9.117	9.160	VV	1052	18119	0.44%	0.025%
121	9.163	9.160	9.183	VV	894	8787	0.21%	0.012%
122	9.193	9.183	9.207	VV	863	8383	0.20%	0.012%
123	9.228	9.207	9.249	VV	6728	80102	1.95%	0.112%
124	9.272	9.249	9.288	VV	4273	59726	1.45%	0.083%
125	9.304	9.288	9.327	VV	4338	49188	1.20%	0.069%
126	9.346	9.327	9.374	VV	3202	50640	1.23%	0.071%
127	9.396	9.374	9.413	VV	2454	36784	0.89%	0.051%
128	9.443	9.413	9.463	VV	5664	68080	1.65%	0.095%
129	9.482	9.463	9.518	VV	8275	102117	2.48%	0.143%
130	9.539	9.518	9.570	VV	4947	59927	1.46%	0.084%
131	9.599	9.570	9.615	PV	8157	100658	2.45%	0.140%
132	9.630	9.615	9.648	VV	6721	69252	1.68%	0.097%
133	9.682	9.648	9.703	VV	12028	156508	3.80%	0.218%
134	9.715	9.703	9.720	VV	2337	19973	0.49%	0.028%
135	9.736	9.720	9.756	VV	6580	78419	1.91%	0.109%
136	9.777	9.756	9.798	VV	10484	120565	2.93%	0.168%
137	9.818	9.798	9.826	VV	8741	89235	2.17%	0.125%
138	9.836	9.826	9.876	VV	9606	140756	3.42%	0.196%
139	9.898	9.876	9.916	VV	6459	80132	1.95%	0.112%
140	9.920	9.916	9.930	VV	2290	17471	0.42%	0.024%
141	9.963	9.930	9.986	VV	9049	143128	3.48%	0.200%

rteres								
142	10.001	9.986	10.013	VV	2703	33582	0.82%	0.047%
143	10.028	10.013	10.053	VV	4520	64367	1.56%	0.090%
144	10.099	10.053	10.122	VV	136919	1492787	36.27%	2.083%
145	10.142	10.122	10.168	VV	4842	93976	2.28%	0.131%
146	10.194	10.168	10.211	VV	2365	49365	1.20%	0.069%
147	10.241	10.211	10.285	VV	6605	167244	4.06%	0.233%
148	10.310	10.285	10.328	VV	2309	47927	1.16%	0.067%
149	10.339	10.328	10.369	VV	2386	36864	0.90%	0.051%
150	10.404	10.369	10.427	VV	3550	57660	1.40%	0.080%
151	10.442	10.427	10.462	VV	1745	19736	0.48%	0.028%
152	10.484	10.462	10.496	PV	1039	12896	0.31%	0.018%
153	10.513	10.496	10.531	VV	2054	29320	0.71%	0.041%
154	10.534	10.531	10.547	VV	1237	9999	0.24%	0.014%
155	10.573	10.547	10.604	VV	31233	372772	9.06%	0.520%
156	10.619	10.604	10.640	VV	2400	36903	0.90%	0.051%
157	10.675	10.640	10.688	VV	9371	146027	3.55%	0.204%
158	10.702	10.688	10.725	VV	12225	155981	3.79%	0.218%
159	10.743	10.725	10.782	VV	9075	144056	3.50%	0.201%
160	10.796	10.782	10.802	VV	2863	27095	0.66%	0.038%
161	10.821	10.802	10.851	VV	10427	184242	4.48%	0.257%
162	10.870	10.851	10.897	VV	13655	202200	4.91%	0.282%
163	10.902	10.897	10.925	VV	3553	43907	1.07%	0.061%
164	10.991	10.925	11.007	VV	10536	248743	6.04%	0.347%
165	11.027	11.007	11.066	VV	13648	256210	6.23%	0.358%
166	11.097	11.066	11.110	VV	3627	76747	1.86%	0.107%
167	11.124	11.110	11.139	VV	3919	51456	1.25%	0.072%
168	11.152	11.139	11.178	VV	2002	35771	0.87%	0.050%
169	11.194	11.178	11.200	VV	3257	31094	0.76%	0.043%
170	11.225	11.200	11.264	VV	138505	1556353	37.82%	2.172%
171	11.299	11.264	11.339	VV	51444	650316	15.80%	0.908%
172	11.356	11.339	11.387	VV	2034	39045	0.95%	0.054%
173	11.410	11.387	11.435	VV	1403	26664	0.65%	0.037%
174	11.438	11.435	11.454	VV	585	4965	0.12%	0.007%
175	11.469	11.454	11.490	VV	1498	18825	0.46%	0.026%
176	11.511	11.490	11.526	VV	12299	139629	3.39%	0.195%
177	11.534	11.526	11.556	VV	5431	58927	1.43%	0.082%
178	11.587	11.556	11.600	PV	4912	76935	1.87%	0.107%
179	11.619	11.600	11.662	VV	5501	145676	3.54%	0.203%
180	11.676	11.662	11.691	VV	3960	48968	1.19%	0.068%
181	11.751	11.691	11.794	VV	19909	545348	13.25%	0.761%
182	11.827	11.794	11.848	VV	9126	140305	3.41%	0.196%
183	11.879	11.848	11.901	VV	16920	256474	6.23%	0.358%
184	11.917	11.901	11.966	VV	8079	190665	4.63%	0.266%
185	11.977	11.966	11.991	VV	2376	30628	0.74%	0.043%
186	12.029	11.991	12.045	VV	51354	639348	15.53%	0.892%
187	12.060	12.045	12.082	VV	64498	682228	16.58%	0.952%
188	12.095	12.082	12.102	VV	2680	27463	0.67%	0.038%
189	12.128	12.102	12.134	VV	22996	245984	5.98%	0.343%
190	12.145	12.134	12.161	VV	34554	381678	9.27%	0.533%
191	12.179	12.161	12.193	VV	48697	546976	13.29%	0.763%
192	12.210	12.193	12.260	VV	55284	656005	15.94%	0.915%
193	12.284	12.260	12.303	PV	2558	32114	0.78%	0.045%
194	12.328	12.303	12.338	PV	4260	55308	1.34%	0.077%

					rteres			
195	12.348	12.338	12.357	VV	5075	50656	1.23%	0.071%
196	12.382	12.357	12.404	VV	23252	324146	7.88%	0.452%
197	12.435	12.404	12.480	VV	12643	301550	7.33%	0.421%
198	12.502	12.480	12.520	VV	20256	258802	6.29%	0.361%
199	12.532	12.520	12.546	VV	9447	114794	2.79%	0.160%
200	12.564	12.546	12.576	VV	14441	191864	4.66%	0.268%
201	12.608	12.576	12.633	VV	166696	2292926	55.71%	3.200%
202	12.649	12.633	12.667	VV	16611	242337	5.89%	0.338%
203	12.679	12.667	12.694	VV	10167	124655	3.03%	0.174%
204	12.710	12.694	12.721	VV	9701	124166	3.02%	0.173%
205	12.731	12.721	12.744	VV	10641	122174	2.97%	0.170%
206	12.760	12.744	12.766	VV	9811	117531	2.86%	0.164%
207	12.778	12.766	12.804	VV	12214	204769	4.98%	0.286%
208	12.823	12.804	12.860	VV	26508	467157	11.35%	0.652%
209	12.880	12.860	12.910	VV	26599	380903	9.25%	0.532%
210	12.934	12.910	12.953	VV	65894	895165	21.75%	1.249%
211	12.970	12.953	12.985	VV	31403	466893	11.34%	0.652%
212	12.998	12.985	13.021	VV	25422	373489	9.07%	0.521%
213	13.053	13.021	13.100	VV	340943	4115693	100.00%	5.744%
214	13.110	13.100	13.124	VV	1774	16787	0.41%	0.023%
215	13.148	13.124	13.163	VV	8172	108650	2.64%	0.152%
216	13.185	13.163	13.203	VV	40728	539380	13.11%	0.753%
217	13.208	13.203	13.220	VV	14522	126428	3.07%	0.176%
218	13.239	13.220	13.276	VV	27019	576962	14.02%	0.805%
219	13.293	13.276	13.321	VV	15427	289511	7.03%	0.404%
220	13.351	13.321	13.375	VV	334619	3806460	92.49%	5.312%
221	13.404	13.375	13.419	VV	14718	285189	6.93%	0.398%
222	13.436	13.419	13.466	VV	24431	348764	8.47%	0.487%
223	13.486	13.466	13.503	VV	9691	143171	3.48%	0.200%
224	13.521	13.503	13.535	VV	12362	173374	4.21%	0.242%
225	13.545	13.535	13.576	VV	8160	132243	3.21%	0.185%
226	13.616	13.576	13.630	VV	18542	285319	6.93%	0.398%
227	13.640	13.630	13.660	VV	15126	224073	5.44%	0.313%
228	13.681	13.660	13.706	VV	24878	387276	9.41%	0.540%
229	13.714	13.706	13.725	VV	5567	57869	1.41%	0.081%
230	13.746	13.725	13.761	VV	18804	251244	6.10%	0.351%
231	13.777	13.761	13.786	VV	14955	193889	4.71%	0.271%
232	13.806	13.786	13.818	VV	35038	517001	12.56%	0.721%
233	13.830	13.818	13.883	VV	35770	679522	16.51%	0.948%
234	13.937	13.883	13.978	VV	65009	1371755	33.33%	1.914%
235	14.006	13.978	14.023	VV	11523	211580	5.14%	0.295%
236	14.046	14.023	14.064	VV	23288	354829	8.62%	0.495%
237	14.085	14.064	14.106	VV	50981	675825	16.42%	0.943%
238	14.142	14.106	14.157	VV	14861	346496	8.42%	0.484%
239	14.170	14.157	14.181	VV	13376	175100	4.25%	0.244%
240	14.215	14.181	14.235	VV	51597	796567	19.35%	1.112%
241	14.255	14.235	14.295	VV	41757	574985	13.97%	0.802%
242	14.321	14.295	14.350	VV	8490	177903	4.32%	0.248%
243	14.366	14.350	14.380	VV	4509	62380	1.52%	0.087%
244	14.407	14.380	14.443	VV	5613	158773	3.86%	0.222%
245	14.451	14.443	14.478	VV	3311	56317	1.37%	0.079%
246	14.523	14.478	14.540	VV	6205	126962	3.08%	0.177%

rteres								
247	14.558	14.540	14.566	VV	7288	97546	2.37%	0.136%
248	14.579	14.566	14.595	VV	9423	121453	2.95%	0.169%
249	14.609	14.595	14.613	VV	7601	65829	1.60%	0.092%
250	14.636	14.613	14.648	VV	16897	270943	6.58%	0.378%
251	14.671	14.648	14.717	VV	43730	701252	17.04%	0.979%
252	14.774	14.717	14.812	VV	16687	538425	13.08%	0.751%
253	14.853	14.812	14.874	VV	40305	769794	18.70%	1.074%
254	14.881	14.874	14.895	VV	17022	190687	4.63%	0.266%
255	14.917	14.895	14.938	VV	62865	810671	19.70%	1.131%
256	14.975	14.938	15.004	VV	42970	727846	17.68%	1.016%
257	15.039	15.004	15.057	VV	11220	186852	4.54%	0.261%
258	15.094	15.057	15.136	VV	115683	1832546	44.53%	2.557%
259	15.141	15.136	15.157	VV	2208	19927	0.48%	0.028%
260	15.181	15.157	15.198	VV	23870	288827	7.02%	0.403%
261	15.230	15.198	15.250	VV	153764	2016548	49.00%	2.814%
262	15.272	15.250	15.299	VV	192627	2337067	56.78%	3.261%
263	15.318	15.299	15.346	VV	9211	165444	4.02%	0.231%
264	15.385	15.346	15.417	VV	41748	730638	17.75%	1.020%
265	15.436	15.417	15.452	VV	12361	201505	4.90%	0.281%
266	15.465	15.452	15.500	VV	11090	174646	4.24%	0.244%
267	15.543	15.500	15.562	PV	18749	455130	11.06%	0.635%
268	15.568	15.562	15.577	VV	13427	117365	2.85%	0.164%
269	15.584	15.577	15.612	VV	13137	179592	4.36%	0.251%
270	15.614	15.612	15.628	VV	3840	27705	0.67%	0.039%
271	15.675	15.628	15.733	VV	94197	1647539	40.03%	2.299%
272	15.747	15.733	15.759	VV	5049	66679	1.62%	0.093%
273	15.773	15.759	15.791	VV	5372	89264	2.17%	0.125%
274	15.819	15.791	15.842	VV	9439	184491	4.48%	0.257%
275	15.862	15.842	15.880	VV	14314	225742	5.48%	0.315%
276	15.904	15.880	15.923	VV	62891	827201	20.10%	1.154%
277	15.940	15.923	15.974	VV	30129	452481	10.99%	0.631%
278	15.983	15.974	15.995	VV	8040	89424	2.17%	0.125%
279	16.045	15.995	16.053	VV	24837	534447	12.99%	0.746%
280	16.067	16.053	16.108	VV	30681	585157	14.22%	0.817%
281	16.145	16.108	16.169	VV	9735	199419	4.85%	0.278%
282	16.191	16.169	16.209	VV	8087	131446	3.19%	0.183%
283	16.226	16.209	16.246	VV	10072	148205	3.60%	0.207%
284	16.264	16.246	16.282	VV	6488	110404	2.68%	0.154%
285	16.295	16.282	16.305	VV	5186	61070	1.48%	0.085%
286	16.325	16.305	16.361	VV	11477	249792	6.07%	0.349%
287	16.382	16.361	16.400	VV	2464	46246	1.12%	0.065%
288	16.412	16.400	16.416	VV	2535	20415	0.50%	0.028%
289	16.435	16.416	16.471	VV	4179	70556	1.71%	0.098%
290	16.512	16.471	16.529	VV	16807	268640	6.53%	0.375%
291	16.541	16.529	16.556	VV	8796	92430	2.25%	0.129%
292	16.573	16.556	16.589	VV	8790	133770	3.25%	0.187%
293	16.615	16.589	16.639	VV	12391	276120	6.71%	0.385%
294	16.692	16.639	16.708	VV	43461	839768	20.40%	1.172%
295	16.712	16.708	16.744	VV	29195	303192	7.37%	0.423%
296	16.793	16.744	16.811	PV	154477	2321998	56.42%	3.240%
297	16.820	16.811	16.861	VV	70010	776564	18.87%	1.084%
298	16.887	16.861	16.896	VV	4438	65199	1.58%	0.091%
299	16.920	16.896	16.943	VV	37764	515770	12.53%	0.720%

					rteres			
300	16.961	16.943	17.000	VV	5587	136060	3.31%	0.190%
301	17.041	17.000	17.061	VV	7509	144253	3.50%	0.201%
302	17.113	17.061	17.142	VV	110747	1884654	45.79%	2.630%
303	17.171	17.142	17.219	VV	134117	1636137	39.75%	2.283%
304	17.242	17.219	17.248	VV	4283	43255	1.05%	0.060%
305	17.271	17.248	17.295	VV	38543	474403	11.53%	0.662%
306	17.321	17.295	17.364	VV	12830	254330	6.18%	0.355%
307	17.409	17.364	17.413	VV	12401	184184	4.48%	0.257%
308	17.419	17.413	17.460	VV	12821	190702	4.63%	0.266%
309	17.475	17.460	17.495	VV	5565	67447	1.64%	0.094%
					Sum of corrected areas:		71657086	

FF061325.M Tue Jul 01 04:20:40 2025

Report of Analysis

Client:	CDM Smith	Date Collected:	06/23/25
Project:	South River WM Replacement	Date Received:	06/24/25
Client Sample ID:	TP-74	SDG No.:	Q2413
Lab Sample ID:	Q2413-04	Matrix:	SOIL
Analytical Method:	8015D DRO	% Solid:	89.5
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
FF016052.D	1	06/30/25 09:50	07/01/25 0:09	PB168658

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
DRO	DRO	5100		188	1860	ug/kg
SURROGATES						
16416-32-3	Tetracosane-d50	12.3		37 - 130	62%	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\FF063025\
Data File : FF016052.D
Signal(s) : FID2B.ch
Acq On : 01 Jul 2025 00:09
Operator : YP\AJ
Sample : Q2413-04
Misc :
ALS Vial : 88 Sample Multiplier: 1

Instrument :
FID_F
ClientSampleId :
TP-74

Integration File: autoint1.e
Quant Time: Jul 01 03:17:39 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF061325.M
Quant Title :
QLast Update : Fri Jun 13 15:23:30 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...	15.094	1486782	12.313 ug/ml
Target Compounds			

(f)=RT Delta > 1/2 Window

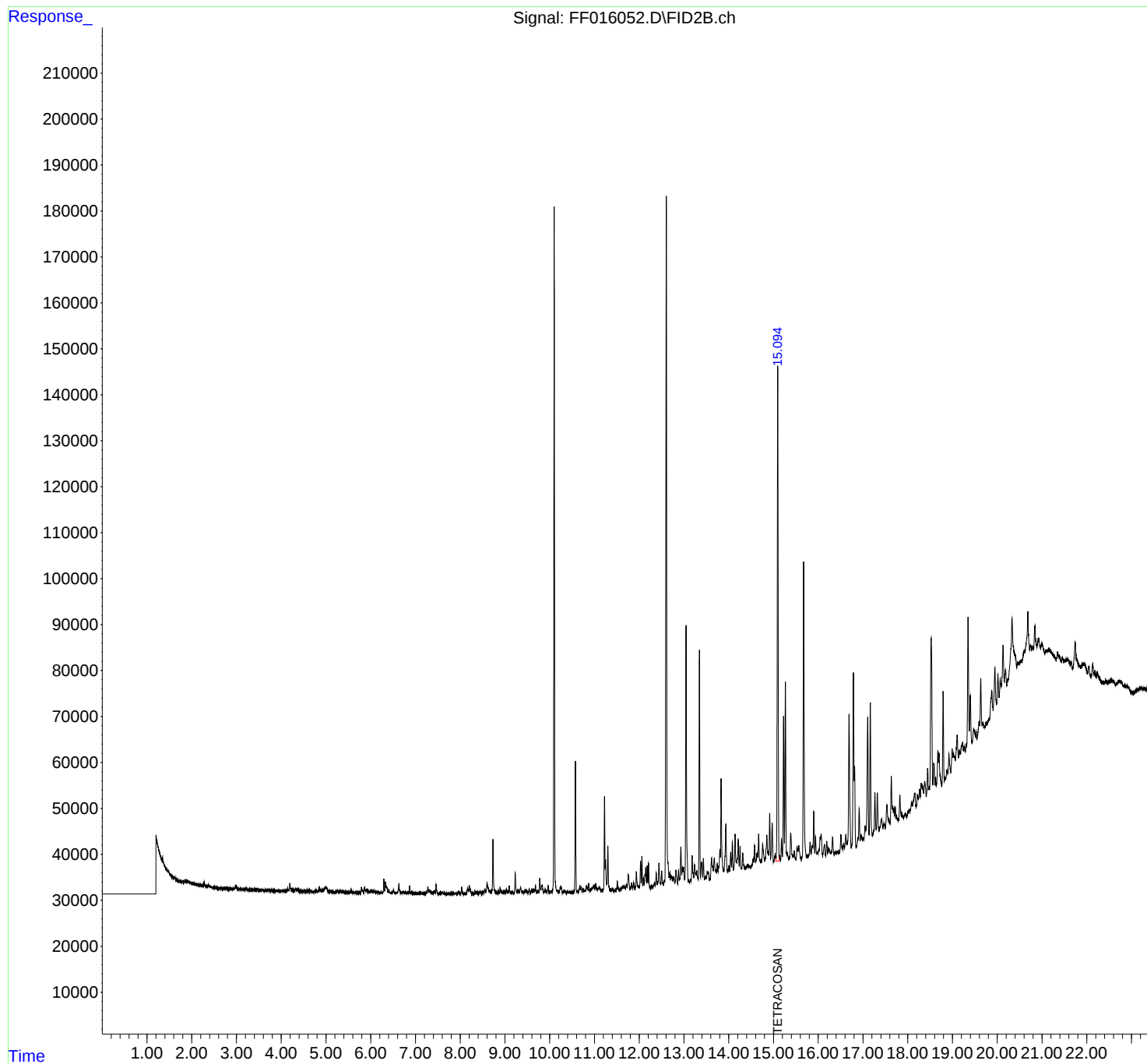
(m)=manual int.

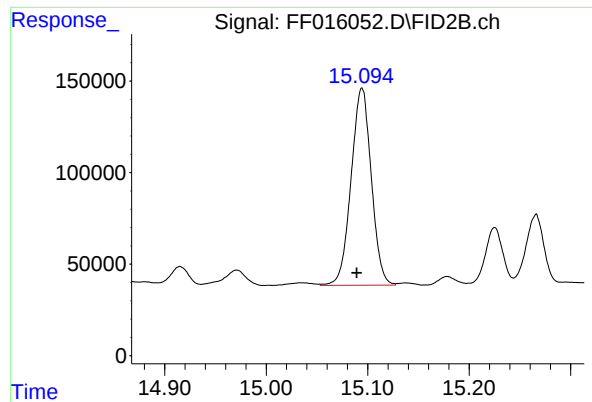
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF063025\
Data File : FF016052.D
Signal(s) : FID2B.ch
Acq On : 01 Jul 2025 00:09
Operator : YP\AJ
Sample : Q2413-04
Misc :
ALS Vial : 88 Sample Multiplier: 1

Instrument :
FID_F
ClientSampleId :
TP-74

Integration File: autoint1.e
Quant Time: Jul 01 03:17:39 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF061325.M
Quant Title :
QLast Update : Fri Jun 13 15:23:30 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.: 15.094 min
Delta R.T.: 0.005 min
Response: 1486782
Conc: 12.31 ug/ml

Instrument :
FID_F
ClientSampleId :
TP-74

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF063025\
Data File : FF016052.D
Signal(s) : FID2B.ch
Acq On : 01 Jul 2025 00:09
Sample : Q2413-04
Misc :
ALS Vial : 88 Sample Multiplier: 1

Integration File: Sample.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF061325.M
Title :

Signal : FID2B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	4.424	4.406	4.429	BV	84	328	0.02%	0.002%
2	4.441	4.429	4.466	VV	177	2285	0.11%	0.011%
3	4.470	4.466	4.490	PV	152	1163	0.06%	0.006%
4	4.520	4.490	4.534	VV	156	2680	0.13%	0.013%
5	4.541	4.534	4.550	VV	170	1135	0.06%	0.006%
6	4.556	4.550	4.561	VV	166	907	0.04%	0.005%
7	4.572	4.561	4.604	VV	499	6667	0.32%	0.033%
8	4.620	4.604	4.638	VV	373	4969	0.24%	0.025%
9	4.655	4.638	4.679	VV	227	3241	0.16%	0.016%
10	4.685	4.679	4.701	VV	158	1091	0.05%	0.005%
11	4.707	4.701	4.719	VV	143	979	0.05%	0.005%
12	4.722	4.719	4.735	PV	189	742	0.04%	0.004%
13	4.751	4.735	4.759	VV	253	2471	0.12%	0.012%
14	4.763	4.759	4.768	VV	205	826	0.04%	0.004%
15	4.785	4.768	4.803	VV	464	6312	0.31%	0.032%
16	4.807	4.803	4.826	VV	243	2930	0.14%	0.015%
17	4.848	4.826	4.874	VV	1301	18455	0.90%	0.092%
18	4.878	4.874	4.885	VV	437	2401	0.12%	0.012%
19	4.908	4.885	4.915	VV	494	7768	0.38%	0.039%
20	4.934	4.915	4.939	VV	586	7689	0.37%	0.038%
21	4.990	4.939	5.004	VV	1079	31501	1.53%	0.158%
22	5.016	5.004	5.056	VV	1101	20953	1.02%	0.105%
23	5.059	5.056	5.066	VV	330	1513	0.07%	0.008%
24	5.072	5.066	5.076	VV	293	1343	0.07%	0.007%
25	5.080	5.076	5.090	VV	265	1791	0.09%	0.009%
26	5.097	5.090	5.112	VV	269	2575	0.13%	0.013%
27	5.140	5.112	5.154	VV	286	5108	0.25%	0.026%
28	5.167	5.154	5.181	VV	269	3131	0.15%	0.016%
29	5.189	5.181	5.198	VV	225	1717	0.08%	0.009%
30	5.203	5.198	5.215	VV	250	1818	0.09%	0.009%
31	5.238	5.215	5.248	VV	312	4842	0.24%	0.024%
32	5.255	5.248	5.266	VV	338	3162	0.15%	0.016%
33	5.275	5.266	5.289	VV	364	3816	0.19%	0.019%
34	5.291	5.289	5.295	VV	227	685	0.03%	0.003%
35	5.300	5.295	5.303	VV	181	786	0.04%	0.004%
36	5.312	5.303	5.343	VV	529	7826	0.38%	0.039%

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37	5.345	5.343	5.355	VV	474	1748	0.09%	0.009%
38	5.365	5.355	5.375	VV	285	2839	0.14%	0.014%
39	5.377	5.375	5.413	VV	237	3365	0.16%	0.017%
40	5.427	5.413	5.434	VV	294	3056	0.15%	0.015%
41	5.437	5.434	5.459	VV	275	2703	0.13%	0.014%
42	5.465	5.459	5.476	VV	163	1261	0.06%	0.006%
43	5.504	5.476	5.520	VV	238	4395	0.21%	0.022%
44	5.525	5.520	5.531	VV	167	1017	0.05%	0.005%
45	5.534	5.531	5.544	VV	149	916	0.04%	0.005%
46	5.562	5.544	5.585	VV	861	10043	0.49%	0.050%
47	5.595	5.585	5.615	VV	190	2405	0.12%	0.012%
48	5.623	5.615	5.639	VV	187	1902	0.09%	0.010%
49	5.643	5.639	5.653	VV	199	1128	0.05%	0.006%
50	5.665	5.653	5.674	VV	192	1760	0.09%	0.009%
51	5.679	5.674	5.684	VV	157	809	0.04%	0.004%
52	5.692	5.684	5.700	VV	217	1341	0.07%	0.007%
53	5.701	5.700	5.720	VV	162	1253	0.06%	0.006%
54	5.726	5.720	5.735	PV	112	822	0.04%	0.004%
55	5.759	5.735	5.768	VV	246	3087	0.15%	0.015%
56	5.793	5.768	5.807	VV	1358	16033	0.78%	0.080%
57	5.815	5.807	5.841	VV	855	10765	0.52%	0.054%
58	5.861	5.841	5.900	VV	1290	25198	1.23%	0.126%
59	5.907	5.900	5.969	VV	854	21659	1.05%	0.108%
60	6.005	5.969	6.015	VV	687	13499	0.66%	0.068%
61	6.029	6.015	6.051	VV	595	9532	0.46%	0.048%
62	6.074	6.051	6.109	VV	690	14675	0.71%	0.073%
63	6.129	6.109	6.149	VV	448	7307	0.36%	0.037%
64	6.155	6.149	6.161	VV	226	1441	0.07%	0.007%
65	6.166	6.161	6.189	VV	264	3656	0.18%	0.018%
66	6.193	6.189	6.210	VV	256	2603	0.13%	0.013%
67	6.226	6.210	6.241	VV	304	4394	0.21%	0.022%
68	6.245	6.241	6.255	VV	243	1678	0.08%	0.008%
69	6.294	6.255	6.316	VV	3269	45816	2.23%	0.229%
70	6.331	6.316	6.353	VV	2624	37851	1.84%	0.189%
71	6.358	6.353	6.388	VV	1451	18275	0.89%	0.091%
72	6.405	6.388	6.426	VV	997	13405	0.65%	0.067%
73	6.431	6.426	6.440	VV	314	2181	0.11%	0.011%
74	6.444	6.440	6.466	VV	254	3241	0.16%	0.016%
75	6.481	6.466	6.494	VV	305	4069	0.20%	0.020%
76	6.510	6.494	6.542	VV	884	13315	0.65%	0.067%
77	6.545	6.542	6.550	VV	243	912	0.04%	0.005%
78	6.554	6.550	6.558	VV	244	997	0.05%	0.005%
79	6.563	6.558	6.569	VV	249	1465	0.07%	0.007%
80	6.576	6.569	6.587	VV	314	2682	0.13%	0.013%
81	6.591	6.587	6.599	VV	248	1614	0.08%	0.008%
82	6.628	6.599	6.643	VV	2171	29160	1.42%	0.146%
83	6.649	6.643	6.670	VV	925	8584	0.42%	0.043%
84	6.685	6.670	6.703	VV	340	4695	0.23%	0.023%
85	6.719	6.703	6.763	VV	558	11406	0.56%	0.057%
86	6.780	6.763	6.787	VV	367	3815	0.19%	0.019%
87	6.796	6.787	6.823	VV	355	5326	0.26%	0.027%
88	6.867	6.823	6.899	VV	1760	21855	1.06%	0.109%
89	6.916	6.899	6.968	VV	682	10864	0.53%	0.054%

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90	6.986	6.968	7.029	VV	293	5506	0.27%	0.028%
91	7.033	7.029	7.039	PV	74	301	0.01%	0.002%
92	7.057	7.039	7.061	VV	181	1308	0.06%	0.007%
93	7.065	7.061	7.070	VV	202	832	0.04%	0.004%
94	7.077	7.070	7.089	VV	173	1211	0.06%	0.006%
95	7.118	7.089	7.152	VV	276	5869	0.29%	0.029%
96	7.162	7.152	7.177	VV	173	1634	0.08%	0.008%
97	7.181	7.177	7.191	VV	143	1028	0.05%	0.005%
98	7.203	7.191	7.218	VV	204	2314	0.11%	0.012%
99	7.221	7.218	7.231	VV	484	1408	0.07%	0.007%
100	7.249	7.231	7.264	VV	670	7995	0.39%	0.040%
101	7.275	7.264	7.311	VV	1579	25327	1.23%	0.127%
102	7.326	7.311	7.352	VV	658	13375	0.65%	0.067%
103	7.365	7.352	7.369	VV	364	3455	0.17%	0.017%
104	7.375	7.369	7.409	VV	400	7652	0.37%	0.038%
105	7.426	7.409	7.442	VV	779	9543	0.46%	0.048%
106	7.460	7.442	7.505	VV	2188	29516	1.44%	0.148%
107	7.516	7.505	7.533	VV	301	3266	0.16%	0.016%
108	7.537	7.533	7.548	VV	158	1165	0.06%	0.006%
109	7.568	7.548	7.588	VV	531	7605	0.37%	0.038%
110	7.610	7.588	7.623	VV	393	5668	0.28%	0.028%
111	7.635	7.623	7.672	VV	314	5522	0.27%	0.028%
112	7.685	7.672	7.711	VV	187	2623	0.13%	0.013%
113	7.736	7.711	7.761	VV	300	5141	0.25%	0.026%
114	7.768	7.761	7.790	VV	174	1672	0.08%	0.008%
115	7.802	7.790	7.840	VV	327	4629	0.23%	0.023%
116	7.873	7.840	7.882	VV	348	4379	0.21%	0.022%
117	7.887	7.882	7.913	VV	222	2918	0.14%	0.015%
118	7.922	7.913	7.936	VV	192	1741	0.08%	0.009%
119	7.958	7.936	7.975	VV	721	8945	0.44%	0.045%
120	7.984	7.975	8.003	VV	395	3507	0.17%	0.018%
121	8.032	8.003	8.075	PV	1596	21882	1.07%	0.110%
122	8.086	8.075	8.096	VV	225	1880	0.09%	0.009%
123	8.120	8.096	8.138	VV	181	3464	0.17%	0.017%
124	8.164	8.138	8.183	VV	1313	20258	0.99%	0.101%
125	8.201	8.183	8.217	VV	1929	24543	1.19%	0.123%
126	8.226	8.217	8.255	VV	1126	13882	0.68%	0.069%
127	8.261	8.255	8.265	VV	159	799	0.04%	0.004%
128	8.273	8.265	8.289	VV	204	1884	0.09%	0.009%
129	8.296	8.289	8.309	VV	185	1397	0.07%	0.007%
130	8.334	8.309	8.363	VV	494	10348	0.50%	0.052%
131	8.370	8.363	8.373	VV	302	1832	0.09%	0.009%
132	8.378	8.373	8.411	VV	322	5220	0.25%	0.026%
133	8.448	8.411	8.478	VV	668	12324	0.60%	0.062%
134	8.516	8.478	8.529	VV	540	9214	0.45%	0.046%
135	8.549	8.529	8.565	VV	980	14023	0.68%	0.070%
136	8.599	8.565	8.667	VV	2594	66667	3.25%	0.334%
137	8.679	8.667	8.690	VV	509	6049	0.29%	0.030%
138	8.732	8.690	8.811	VV	11942	164841	8.02%	0.825%
139	8.822	8.811	8.838	VV	361	4324	0.21%	0.022%
140	8.855	8.838	8.876	VV	699	9107	0.44%	0.046%
141	8.891	8.876	8.909	VV	1300	15129	0.74%	0.076%

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142	8.919	8.909	8.947	VV	587	9630	0.47%	0.048%
143	8.961	8.947	8.971	VV	369	4746	0.23%	0.024%
144	8.989	8.971	9.013	VV	605	10477	0.51%	0.052%
145	9.031	9.013	9.047	VV	995	13073	0.64%	0.065%
146	9.095	9.047	9.116	VV	1789	28212	1.37%	0.141%
147	9.128	9.116	9.142	VV	328	4534	0.22%	0.023%
148	9.148	9.142	9.154	VV	335	2180	0.11%	0.011%
149	9.161	9.154	9.183	VV	402	4996	0.24%	0.025%
150	9.188	9.183	9.205	VV	232	2295	0.11%	0.011%
151	9.229	9.205	9.260	VV	4469	56612	2.76%	0.283%
152	9.277	9.260	9.291	VV	712	9382	0.46%	0.047%
153	9.307	9.291	9.321	VV	662	8842	0.43%	0.044%
154	9.349	9.321	9.390	VV	1313	28320	1.38%	0.142%
155	9.394	9.390	9.423	VV	397	4531	0.22%	0.023%
156	9.448	9.423	9.465	VV	884	12096	0.59%	0.061%
157	9.482	9.465	9.520	VV	827	14074	0.69%	0.070%
158	9.539	9.520	9.570	VV	935	13483	0.66%	0.067%
159	9.598	9.570	9.615	VV	777	12291	0.60%	0.062%
160	9.631	9.615	9.654	VV	1011	15139	0.74%	0.076%
161	9.683	9.654	9.705	VV	1919	27248	1.33%	0.136%
162	9.715	9.705	9.723	VV	360	3381	0.16%	0.017%
163	9.734	9.723	9.760	VV	742	10127	0.49%	0.051%
164	9.777	9.760	9.805	VV	3330	43154	2.10%	0.216%
165	9.832	9.805	9.886	VV	1835	45772	2.23%	0.229%
166	9.900	9.886	9.931	VV	929	13678	0.67%	0.068%
167	9.963	9.931	9.990	VV	1644	25635	1.25%	0.128%
168	10.005	9.990	10.015	VV	422	4706	0.23%	0.024%
169	10.031	10.015	10.047	VV	498	6599	0.32%	0.033%
170	10.100	10.047	10.155	VV	149479	1553692	75.63%	7.775%
171	10.163	10.155	10.187	VV	781	10220	0.50%	0.051%
172	10.193	10.187	10.213	VV	429	4872	0.24%	0.024%
173	10.243	10.213	10.251	VV	1292	20473	1.00%	0.102%
174	10.258	10.251	10.290	VV	1092	13820	0.67%	0.069%
175	10.336	10.290	10.362	VV	628	13313	0.65%	0.067%
176	10.364	10.362	10.370	VV	128	438	0.02%	0.002%
177	10.377	10.370	10.383	PV	143	766	0.04%	0.004%
178	10.403	10.383	10.430	VV	324	4318	0.21%	0.022%
179	10.445	10.430	10.473	VV	247	2726	0.13%	0.014%
180	10.480	10.473	10.496	VV	154	1394	0.07%	0.007%
181	10.515	10.496	10.527	VV	209	2315	0.11%	0.012%
182	10.535	10.527	10.545	VV	269	2114	0.10%	0.011%
183	10.574	10.545	10.602	VV	28635	305373	14.86%	1.528%
184	10.619	10.602	10.640	VV	435	6437	0.31%	0.032%
185	10.674	10.640	10.689	VV	1479	23696	1.15%	0.119%
186	10.703	10.689	10.724	VV	1270	16215	0.79%	0.081%
187	10.744	10.724	10.775	VV	907	15130	0.74%	0.076%
188	10.792	10.775	10.806	VV	487	6996	0.34%	0.035%
189	10.827	10.806	10.852	VV	1320	25481	1.24%	0.128%
190	10.871	10.852	10.893	VV	1965	26050	1.27%	0.130%
191	10.901	10.893	10.906	VV	476	3230	0.16%	0.016%
192	10.925	10.906	10.938	VV	760	10337	0.50%	0.052%
193	10.975	10.938	10.984	VV	1297	27504	1.34%	0.138%
194	10.993	10.984	11.008	VV	1334	15319	0.75%	0.077%

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195	11.026	11.008	11.063	VV	1755	36089	1.76%	0.181%
196	11.076	11.063	11.087	VV	741	9302	0.45%	0.047%
197	11.107	11.087	11.144	VV	989	23306	1.13%	0.117%
198	11.166	11.144	11.178	VV	381	5918	0.29%	0.030%
199	11.224	11.178	11.239	VV	20741	221433	10.78%	1.108%
200	11.246	11.239	11.277	VV	6993	88289	4.30%	0.442%
201	11.298	11.277	11.347	VV	9933	130614	6.36%	0.654%
202	11.351	11.347	11.366	VV	508	4193	0.20%	0.021%
203	11.369	11.366	11.381	VV	295	2185	0.11%	0.011%
204	11.401	11.381	11.441	VV	465	8926	0.43%	0.045%
205	11.472	11.441	11.482	VV	297	4799	0.23%	0.024%
206	11.510	11.482	11.526	VV	2174	27210	1.32%	0.136%
207	11.533	11.526	11.555	VV	710	7010	0.34%	0.035%
208	11.587	11.555	11.597	PV	425	6877	0.33%	0.034%
209	11.620	11.597	11.624	VV	794	9688	0.47%	0.048%
210	11.643	11.624	11.663	VV	1004	18513	0.90%	0.093%
211	11.677	11.663	11.694	VV	1177	15226	0.74%	0.076%
212	11.718	11.694	11.734	VV	1210	22281	1.08%	0.112%
213	11.756	11.734	11.801	VV	3292	67620	3.29%	0.338%
214	11.830	11.801	11.854	VV	1393	24476	1.19%	0.122%
215	11.877	11.854	11.899	VV	1556	24716	1.20%	0.124%
216	11.916	11.899	11.920	VV	745	6465	0.31%	0.032%
217	11.935	11.920	11.969	VV	3933	56678	2.76%	0.284%
218	11.976	11.969	12.003	VV	852	13040	0.63%	0.065%
219	12.030	12.003	12.045	VV	6152	71891	3.50%	0.360%
220	12.060	12.045	12.078	VV	7140	75690	3.68%	0.379%
221	12.095	12.078	12.110	VV	2387	30260	1.47%	0.151%
222	12.126	12.110	12.134	VV	3049	32482	1.58%	0.163%
223	12.145	12.134	12.162	VV	4551	52856	2.57%	0.265%
224	12.177	12.162	12.192	VV	5009	56365	2.74%	0.282%
225	12.208	12.192	12.244	VV	5560	68405	3.33%	0.342%
226	12.251	12.244	12.260	VV	161	1331	0.06%	0.007%
227	12.283	12.260	12.301	VV	516	7441	0.36%	0.037%
228	12.349	12.301	12.359	PV	1050	20453	1.00%	0.102%
229	12.381	12.359	12.402	VV	3246	44945	2.19%	0.225%
230	12.441	12.402	12.482	VV	5305	96236	4.68%	0.482%
231	12.502	12.482	12.524	VV	3543	46583	2.27%	0.233%
232	12.532	12.524	12.544	VV	919	8769	0.43%	0.044%
233	12.564	12.544	12.572	VV	1495	17085	0.83%	0.085%
234	12.606	12.572	12.665	VV	150208	2054434	100.00%	10.281%
235	12.679	12.665	12.694	VV	2705	37014	1.80%	0.185%
236	12.707	12.694	12.723	VV	2298	33793	1.64%	0.169%
237	12.732	12.723	12.745	VV	1963	23310	1.13%	0.117%
238	12.754	12.745	12.762	VV	1609	14489	0.71%	0.073%
239	12.776	12.762	12.800	VV	1972	30176	1.47%	0.151%
240	12.821	12.800	12.859	VV	3289	56501	2.75%	0.283%
241	12.878	12.859	12.900	VV	3115	40401	1.97%	0.202%
242	12.931	12.900	12.950	VV	8196	118531	5.77%	0.593%
243	12.966	12.950	12.979	VV	3708	53550	2.61%	0.268%
244	12.992	12.979	13.015	VV	3686	53130	2.59%	0.266%
245	13.047	13.015	13.098	VV	55908	741895	36.11%	3.713%
246	13.110	13.098	13.127	VV	539	5748	0.28%	0.029%

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247	13.145	13.127	13.158	VV	916	10714	0.52%	0.054%
248	13.182	13.158	13.219	VV	5968	97191	4.73%	0.486%
249	13.236	13.219	13.273	VV	3867	80250	3.91%	0.402%
250	13.287	13.273	13.320	VV	2555	41252	2.01%	0.206%
251	13.346	13.320	13.370	VV	50446	559449	27.23%	2.800%
252	13.395	13.370	13.417	VV	4142	79652	3.88%	0.399%
253	13.434	13.417	13.459	VV	4980	61547	3.00%	0.308%
254	13.485	13.459	13.500	VV	1004	16910	0.82%	0.085%
255	13.520	13.500	13.533	VV	1987	26126	1.27%	0.131%
256	13.544	13.533	13.574	VV	1900	27876	1.36%	0.140%
257	13.617	13.574	13.655	PV	4810	113338	5.52%	0.567%
258	13.678	13.655	13.703	VV	4669	90991	4.43%	0.455%
259	13.710	13.703	13.724	VV	1808	21322	1.04%	0.107%
260	13.743	13.724	13.759	VV	3316	48983	2.38%	0.245%
261	13.778	13.759	13.782	VV	2562	30000	1.46%	0.150%
262	13.805	13.782	13.814	VV	6208	91612	4.46%	0.458%
263	13.830	13.814	13.887	VV	21617	322459	15.70%	1.614%
264	13.935	13.887	13.976	VV	11473	236927	11.53%	1.186%
265	14.007	13.976	14.022	VV	2281	43522	2.12%	0.218%
266	14.044	14.022	14.064	VV	5148	79814	3.88%	0.399%
267	14.083	14.064	14.106	VV	7441	99369	4.84%	0.497%
268	14.143	14.106	14.164	VV	8933	147452	7.18%	0.738%
269	14.169	14.164	14.177	VV	3048	23571	1.15%	0.118%
270	14.212	14.177	14.233	VV	7639	142327	6.93%	0.712%
271	14.253	14.233	14.277	VV	5918	87856	4.28%	0.440%
272	14.282	14.277	14.288	VV	1265	7620	0.37%	0.038%
273	14.313	14.288	14.348	VV	4453	83898	4.08%	0.420%
274	14.363	14.348	14.379	VV	1401	22010	1.07%	0.110%
275	14.399	14.379	14.404	VV	1449	17456	0.85%	0.087%
276	14.420	14.404	14.449	VV	1669	38751	1.89%	0.194%
277	14.462	14.449	14.468	VV	1429	14344	0.70%	0.072%
278	14.471	14.468	14.480	VV	1225	8213	0.40%	0.041%
279	14.486	14.480	14.497	VV	1124	10454	0.51%	0.052%
280	14.547	14.497	14.559	VV	2708	64860	3.16%	0.325%
281	14.578	14.559	14.600	VV	5512	85534	4.16%	0.428%
282	14.630	14.600	14.649	VV	3752	84083	4.09%	0.421%
283	14.668	14.649	14.694	VV	7919	122972	5.99%	0.615%
284	14.699	14.694	14.706	VV	2126	13938	0.68%	0.070%
285	14.712	14.706	14.731	VV	1943	27492	1.34%	0.138%
286	14.760	14.731	14.799	VV	5492	137599	6.70%	0.689%
287	14.851	14.799	14.876	VV	7291	185264	9.02%	0.927%
288	14.880	14.876	14.894	VV	3469	34636	1.69%	0.173%
289	14.915	14.894	14.936	VV	11782	162983	7.93%	0.816%
290	14.971	14.936	14.997	VV	9621	171597	8.35%	0.859%
291	15.003	14.997	15.006	VV	1277	6444	0.31%	0.032%
292	15.037	15.006	15.053	VV	2541	55590	2.71%	0.278%
293	15.094	15.053	15.128	VV	108856	1537002	74.81%	7.692%
294	15.138	15.128	15.154	VV	2332	30411	1.48%	0.152%
295	15.178	15.154	15.198	VV	5783	83195	4.05%	0.416%
296	15.225	15.198	15.244	VV	32454	403775	19.65%	2.021%
297	15.266	15.244	15.313	VV	39535	535635	26.07%	2.681%
298	15.317	15.313	15.344	VV	2164	29592	1.44%	0.148%
299	15.385	15.344	15.420	VV	6734	147524	7.18%	0.738%

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300	15.425	15.420	15.447	VV	1760	26069	1.27%	0.130%
301	15.465	15.447	15.504	VV	2603	50862	2.48%	0.255%
302	15.528	15.504	15.551	VV	3311	64850	3.16%	0.325%
303	15.566	15.551	15.624	VV	3595	79136	3.85%	0.396%
304	15.674	15.624	15.735	VV	65011	949473	46.22%	4.752%
305	15.746	15.735	15.760	VV	987	13167	0.64%	0.066%
306	15.766	15.760	15.786	VV	934	13102	0.64%	0.066%
307	15.817	15.786	15.842	VV	3736	71136	3.46%	0.356%
308	15.873	15.842	15.880	VV	2818	51909	2.53%	0.260%
309	15.901	15.880	15.921	VV	10338	139015	6.77%	0.696%
310	15.938	15.921	15.967	VV	4804	70967	3.45%	0.355%
311	15.982	15.967	15.994	VV	1387	18728	0.91%	0.094%
312	16.015	15.994	16.022	VV	1728	24137	1.17%	0.121%
313	16.041	16.022	16.050	VV	4379	53840	2.62%	0.269%
314	16.063	16.050	16.100	VV	5085	89866	4.37%	0.450%
315	16.140	16.100	16.166	VV	2681	56390	2.74%	0.282%
316	16.191	16.166	16.210	VV	3255	45112	2.20%	0.226%
317	16.228	16.210	16.241	VV	1743	24369	1.19%	0.122%
318	16.245	16.241	16.269	VV	1159	14709	0.72%	0.074%
319	16.274	16.269	16.278	VV	600	2948	0.14%	0.015%
320	16.320	16.278	16.358	VV	3841	66849	3.25%	0.335%
321	16.377	16.358	16.402	VV	637	9013	0.44%	0.045%
322	16.434	16.402	16.453	VV	661	10369	0.50%	0.052%
323	16.460	16.453	16.474	VV	566	4436	0.22%	0.022%
324	16.509	16.474	16.528	PV	3865	60621	2.95%	0.303%
325	16.537	16.528	16.551	VV	1430	14786	0.72%	0.074%
326	16.568	16.551	16.585	VV	1967	26415	1.29%	0.132%
327	16.617	16.585	16.636	VV	3459	66350	3.23%	0.332%
328	16.689	16.636	16.740	VV	29101	518727	25.25%	2.596%
329	16.787	16.740	16.806	VV	38185	570061	27.75%	2.853%
330	16.814	16.806	16.853	VV	17724	190704	9.28%	0.954%
331	16.884	16.853	16.895	PV	1911	24884	1.21%	0.125%
332	16.916	16.895	16.939	VV	7984	108606	5.29%	0.544%
333	16.958	16.939	16.984	VV	1882	35997	1.75%	0.180%
334	16.999	16.984	17.016	VV	1087	15735	0.77%	0.079%
335	17.049	17.016	17.063	VV	3365	56538	2.75%	0.283%
336	17.106	17.063	17.136	VV	26694	446487	21.73%	2.234%
337	17.164	17.136	17.211	VV	29258	391171	19.04%	1.958%
338	17.267	17.211	17.296	VV	9056	135542	6.60%	0.678%
339	17.322	17.296	17.365	VV	8584	136561	6.65%	0.683%
340	17.415	17.365	17.442	VV	2304	61070	2.97%	0.306%
341	17.474	17.442	17.492	VV	1204	18810	0.92%	0.094%
					Sum of corrected areas:	19982515		

FF061325.M Tue Jul 01 04:21:21 2025

Report of Analysis

Client:	CDM Smith	Date Collected:	06/23/25
Project:	South River WM Replacement	Date Received:	06/24/25
Client Sample ID:	TP-73	SDG No.:	Q2413
Lab Sample ID:	Q2413-05	Matrix:	SOIL
Analytical Method:	8015D DRO	% Solid:	77.1
Sample Wt/Vol:	30.03	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
FF016053.D	1	06/30/25 09:50	07/01/25 0:39	PB168658

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
DRO	DRO	7220		219	2160	ug/kg
SURROGATES						
16416-32-3	Tetracosane-d50	11.3		37 - 130	56%	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\FF063025\
Data File : FF016053.D
Signal(s) : FID2B.ch
Acq On : 01 Jul 2025 00:39
Operator : YP\AJ
Sample : Q2413-05
Misc :
ALS Vial : 89 Sample Multiplier: 1

Instrument :
FID_F
ClientSampleId :
TP-73

Integration File: autoint1.e
Quant Time: Jul 01 03:17:51 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF061325.M
Quant Title :
QLast Update : Fri Jun 13 15:23:30 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...	15.094	1361371	11.275 ug/ml

Target Compounds

(f)=RT Delta > 1/2 Window

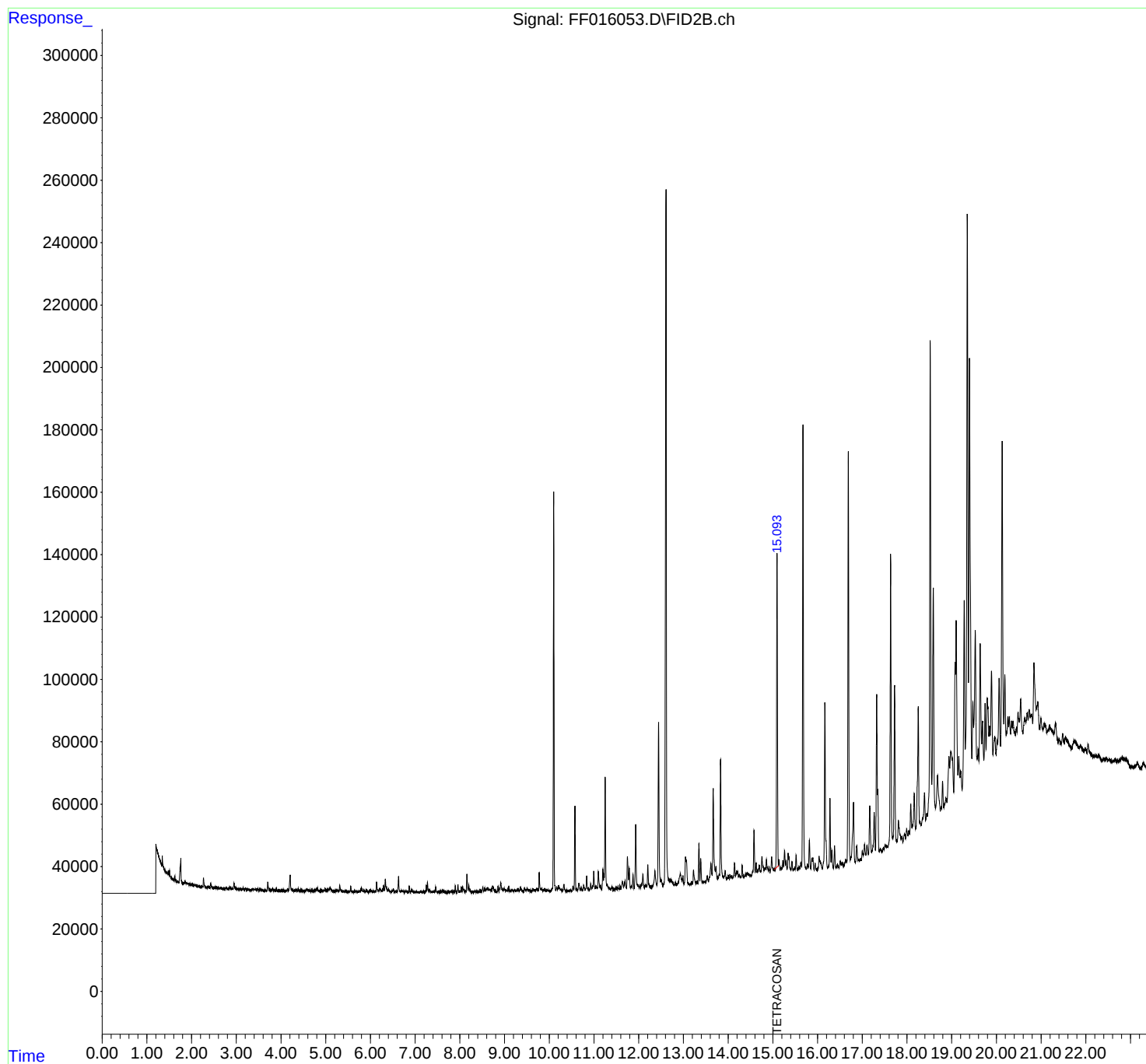
(m)=manual int.

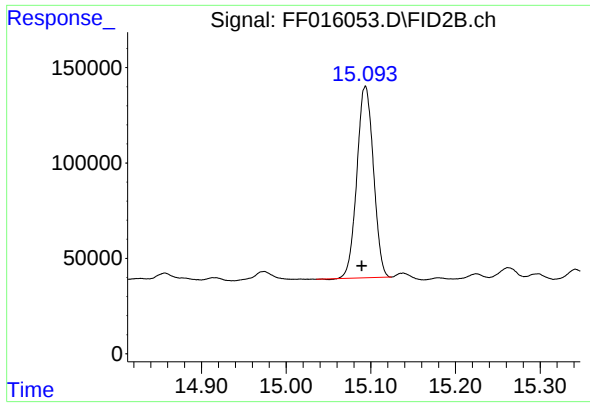
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF063025\
Data File : FF016053.D
Signal(s) : FID2B.ch
Acq On : 01 Jul 2025 00:39
Operator : YP\AJ
Sample : Q2413-05
Misc :
ALS Vial : 89 Sample Multiplier: 1

Instrument :
FID_F
ClientSampleId :
TP-73

Integration File: autoint1.e
Quant Time: Jul 01 03:17:51 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF061325.M
Quant Title :
QLast Update : Fri Jun 13 15:23:30 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.: 15.094 min
Delta R.T.: 0.004 min
Response: 1361371
Conc: 11.27 ug/ml

Instrument :
FID_F
ClientSampleId :
TP-73

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF063025\
Data File : FF016053.D
Signal(s) : FID2B.ch
Acq On : 01 Jul 2025 00:39
Sample : Q2413-05
Misc :
ALS Vial : 89 Sample Multiplier: 1

Integration File: Sample.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF061325.M
Title :

Signal : FID2B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	4.448	4.406	4.490	BV	534	7163	0.22%	0.030%
2	4.497	4.490	4.519	VV	206	1790	0.06%	0.007%
3	4.576	4.519	4.606	PV	700	14880	0.46%	0.062%
4	4.619	4.606	4.637	VV	584	6300	0.20%	0.026%
5	4.653	4.637	4.672	VV	491	5688	0.18%	0.024%
6	4.684	4.672	4.697	VV	418	4458	0.14%	0.019%
7	4.707	4.697	4.726	VV	341	3562	0.11%	0.015%
8	4.744	4.726	4.765	VV	352	5697	0.18%	0.024%
9	4.785	4.765	4.799	VV	763	10643	0.33%	0.045%
10	4.813	4.799	4.844	VV	1041	13482	0.42%	0.056%
11	4.853	4.844	4.862	VV	274	2105	0.07%	0.009%
12	4.872	4.862	4.879	VV	271	1928	0.06%	0.008%
13	4.888	4.879	4.892	VV	291	1661	0.05%	0.007%
14	4.899	4.892	4.922	VV	392	4658	0.14%	0.019%
15	4.930	4.922	4.942	VV	285	2575	0.08%	0.011%
16	4.984	4.942	5.009	VV	721	15886	0.49%	0.066%
17	5.021	5.009	5.048	VV	591	12183	0.38%	0.051%
18	5.101	5.048	5.130	VV	970	34769	1.08%	0.145%
19	5.137	5.130	5.159	VV	415	5143	0.16%	0.022%
20	5.168	5.159	5.186	VV	345	3781	0.12%	0.016%
21	5.220	5.186	5.244	VV	460	8429	0.26%	0.035%
22	5.255	5.244	5.293	VV	527	8879	0.28%	0.037%
23	5.313	5.293	5.355	VV	2184	31285	0.97%	0.131%
24	5.361	5.355	5.390	VV	372	3582	0.11%	0.015%
25	5.406	5.390	5.416	PV	191	1655	0.05%	0.007%
26	5.427	5.416	5.461	VV	306	4699	0.15%	0.020%
27	5.465	5.461	5.474	VV	190	823	0.03%	0.003%
28	5.484	5.474	5.493	VV	214	1505	0.05%	0.006%
29	5.498	5.493	5.509	VV	110	888	0.03%	0.004%
30	5.515	5.509	5.528	VV	140	660	0.02%	0.003%
31	5.561	5.528	5.585	PV	1864	20080	0.62%	0.084%
32	5.589	5.585	5.593	VV	163	525	0.02%	0.002%
33	5.597	5.593	5.610	VV	164	895	0.03%	0.004%
34	5.614	5.610	5.617	VV	123	357	0.01%	0.001%
35	5.621	5.617	5.624	VV	154	409	0.01%	0.002%
36	5.643	5.624	5.656	VV	236	3065	0.10%	0.013%

					rteres			
37	5.667	5.656	5.715	VV	262	5432	0.17%	0.023%
38	5.721	5.715	5.736	VV	143	683	0.02%	0.003%
39	5.758	5.736	5.775	VV	382	4459	0.14%	0.019%
40	5.792	5.775	5.806	VV	1155	12877	0.40%	0.054%
41	5.817	5.806	5.836	VV	880	9395	0.29%	0.039%
42	5.840	5.836	5.844	VV	185	816	0.03%	0.003%
43	5.861	5.844	5.892	VV	611	8169	0.25%	0.034%
44	5.904	5.892	5.941	VV	928	13166	0.41%	0.055%
45	5.945	5.941	5.962	VV	185	1749	0.05%	0.007%
46	6.000	5.962	6.014	VV	685	12662	0.39%	0.053%
47	6.022	6.014	6.057	VV	385	5847	0.18%	0.024%
48	6.077	6.057	6.097	VV	330	4585	0.14%	0.019%
49	6.138	6.097	6.183	VV	3214	48723	1.51%	0.204%
50	6.209	6.183	6.254	VV	1211	29333	0.91%	0.123%
51	6.270	6.254	6.276	VV	770	7593	0.24%	0.032%
52	6.293	6.276	6.313	VV	2201	29098	0.90%	0.122%
53	6.333	6.313	6.388	VV	4150	74544	2.32%	0.312%
54	6.403	6.388	6.429	VV	1256	16703	0.52%	0.070%
55	6.440	6.429	6.457	VV	325	4032	0.13%	0.017%
56	6.510	6.457	6.550	VV	1117	22705	0.71%	0.095%
57	6.560	6.550	6.571	VV	346	3606	0.11%	0.015%
58	6.580	6.571	6.597	VV	322	4290	0.13%	0.018%
59	6.629	6.597	6.673	VV	5110	67602	2.10%	0.283%
60	6.696	6.673	6.712	VV	717	10050	0.31%	0.042%
61	6.726	6.712	6.768	VV	562	10693	0.33%	0.045%
62	6.791	6.768	6.804	VV	385	6294	0.20%	0.026%
63	6.809	6.804	6.827	VV	384	3320	0.10%	0.014%
64	6.833	6.827	6.846	VV	203	1546	0.05%	0.006%
65	6.867	6.846	6.901	VV	2179	25158	0.78%	0.105%
66	6.916	6.901	6.940	VV	923	12421	0.39%	0.052%
67	6.948	6.940	6.972	VV	369	5209	0.16%	0.022%
68	6.975	6.972	6.980	VV	248	1098	0.03%	0.005%
69	6.990	6.980	7.002	VV	345	3148	0.10%	0.013%
70	7.005	7.002	7.015	VV	221	1448	0.04%	0.006%
71	7.029	7.015	7.044	VV	481	5144	0.16%	0.022%
72	7.059	7.044	7.063	VV	239	2213	0.07%	0.009%
73	7.072	7.063	7.086	VV	274	2581	0.08%	0.011%
74	7.090	7.086	7.100	VV	105	634	0.02%	0.003%
75	7.105	7.100	7.109	PV	141	490	0.02%	0.002%
76	7.129	7.109	7.157	VV	361	6233	0.19%	0.026%
77	7.185	7.157	7.212	VV	456	9694	0.30%	0.041%
78	7.226	7.212	7.231	VV	407	3058	0.09%	0.013%
79	7.250	7.231	7.262	VV	2298	22005	0.68%	0.092%
80	7.274	7.262	7.308	VV	3378	43215	1.34%	0.181%
81	7.322	7.308	7.352	VV	817	15792	0.49%	0.066%
82	7.366	7.352	7.370	VV	373	3328	0.10%	0.014%
83	7.375	7.370	7.399	VV	344	4070	0.13%	0.017%
84	7.428	7.399	7.440	VV	653	8246	0.26%	0.034%
85	7.460	7.440	7.485	VV	1841	22241	0.69%	0.093%
86	7.489	7.485	7.505	VV	354	2770	0.09%	0.012%
87	7.523	7.505	7.548	VV	359	5458	0.17%	0.023%
88	7.564	7.548	7.592	VV	505	9139	0.28%	0.038%
89	7.608	7.592	7.622	VV	923	10706	0.33%	0.045%

					rteres			
90	7.637	7.622	7.671	VV	628	9335	0.29%	0.039%
91	7.678	7.671	7.712	VV	331	3117	0.10%	0.013%
92	7.743	7.712	7.767	PV	558	8739	0.27%	0.037%
93	7.799	7.767	7.815	VV	389	7552	0.23%	0.032%
94	7.821	7.815	7.844	VV	468	5274	0.16%	0.022%
95	7.869	7.844	7.881	VV	527	7557	0.23%	0.032%
96	7.897	7.881	7.939	VV	2285	23914	0.74%	0.100%
97	7.958	7.939	7.978	VV	2631	28335	0.88%	0.119%
98	7.983	7.978	8.001	VV	459	3759	0.12%	0.016%
99	8.031	8.001	8.051	VV	1768	22044	0.68%	0.092%
100	8.064	8.051	8.112	VV	2022	33089	1.03%	0.138%
101	8.123	8.112	8.139	VV	438	6063	0.19%	0.025%
102	8.158	8.139	8.186	VV	5932	73771	2.29%	0.309%
103	8.201	8.186	8.224	VV	2435	31374	0.97%	0.131%
104	8.228	8.224	8.257	VV	817	8501	0.26%	0.036%
105	8.283	8.257	8.305	PV	259	3793	0.12%	0.016%
106	8.337	8.305	8.362	VV	458	8285	0.26%	0.035%
107	8.373	8.362	8.390	VV	310	4086	0.13%	0.017%
108	8.394	8.390	8.413	VV	345	3499	0.11%	0.015%
109	8.424	8.413	8.432	VV	377	3229	0.10%	0.014%
110	8.445	8.432	8.489	VV	594	13634	0.42%	0.057%
111	8.514	8.489	8.534	VV	1795	24326	0.76%	0.102%
112	8.558	8.534	8.581	VV	1267	22371	0.69%	0.094%
113	8.595	8.581	8.603	VV	1048	12288	0.38%	0.051%
114	8.621	8.603	8.655	VV	1596	34981	1.09%	0.146%
115	8.675	8.655	8.693	VV	1012	18742	0.58%	0.078%
116	8.733	8.693	8.794	VV	2050	56929	1.77%	0.238%
117	8.798	8.794	8.831	VV	417	5861	0.18%	0.025%
118	8.854	8.831	8.878	VV	1954	24808	0.77%	0.104%
119	8.891	8.878	8.899	VV	1513	13978	0.43%	0.058%
120	8.915	8.899	8.977	VV	2963	67647	2.10%	0.283%
121	8.990	8.977	9.020	VV	1117	20870	0.65%	0.087%
122	9.029	9.020	9.048	VV	592	7961	0.25%	0.033%
123	9.069	9.048	9.080	VV	755	10880	0.34%	0.046%
124	9.095	9.080	9.122	VV	1943	23402	0.73%	0.098%
125	9.128	9.122	9.133	VV	401	2183	0.07%	0.009%
126	9.167	9.133	9.204	VV	837	19565	0.61%	0.082%
127	9.228	9.204	9.245	VV	800	12197	0.38%	0.051%
128	9.249	9.245	9.257	VV	417	2594	0.08%	0.011%
129	9.270	9.257	9.285	VV	622	8163	0.25%	0.034%
130	9.305	9.285	9.329	VV	948	15129	0.47%	0.063%
131	9.352	9.329	9.355	VV	1197	12431	0.39%	0.052%
132	9.363	9.355	9.391	VV	1229	17400	0.54%	0.073%
133	9.396	9.391	9.420	VV	444	4257	0.13%	0.018%
134	9.448	9.420	9.466	VV	1164	19730	0.61%	0.083%
135	9.473	9.466	9.491	VV	718	9686	0.30%	0.041%
136	9.504	9.491	9.530	VV	1324	18345	0.57%	0.077%
137	9.544	9.530	9.576	VV	733	12182	0.38%	0.051%
138	9.597	9.576	9.612	VV	437	6102	0.19%	0.026%
139	9.631	9.612	9.666	VV	858	19155	0.59%	0.080%
140	9.679	9.666	9.692	VV	555	7163	0.22%	0.030%
141	9.710	9.692	9.724	VV	903	13310	0.41%	0.056%

					rteres			
142	9.733	9.724	9.758	VV	883	12780	0.40%	0.053%
143	9.775	9.758	9.808	VV	6205	76617	2.38%	0.320%
144	9.832	9.808	9.858	VV	1055	20863	0.65%	0.087%
145	9.887	9.858	9.922	VV	749	19661	0.61%	0.082%
146	9.967	9.922	9.988	VV	517	13575	0.42%	0.057%
147	9.996	9.988	10.003	VV	253	1942	0.06%	0.008%
148	10.012	10.003	10.035	VV	286	2866	0.09%	0.012%
149	10.099	10.035	10.148	PV	128133	1321717	41.05%	5.528%
150	10.169	10.148	10.188	VV	1456	22635	0.70%	0.095%
151	10.209	10.188	10.224	VV	1860	27017	0.84%	0.113%
152	10.233	10.224	10.252	VV	1101	13902	0.43%	0.058%
153	10.262	10.252	10.288	VV	649	9226	0.29%	0.039%
154	10.293	10.288	10.298	VV	261	1156	0.04%	0.005%
155	10.328	10.298	10.359	VV	2241	35273	1.10%	0.148%
156	10.374	10.359	10.387	VV	234	2804	0.09%	0.012%
157	10.396	10.387	10.420	VV	300	3668	0.11%	0.015%
158	10.479	10.420	10.500	PV	420	8853	0.27%	0.037%
159	10.528	10.500	10.550	PV	1702	20132	0.63%	0.084%
160	10.574	10.550	10.599	VV	27281	283030	8.79%	1.184%
161	10.613	10.599	10.636	VV	769	10234	0.32%	0.043%
162	10.662	10.636	10.691	VV	2444	42809	1.33%	0.179%
163	10.716	10.691	10.740	VV	882	14562	0.45%	0.061%
164	10.769	10.740	10.804	VV	1836	31829	0.99%	0.133%
165	10.836	10.804	10.862	VV	4809	62655	1.95%	0.262%
166	10.869	10.862	10.898	VV	773	11319	0.35%	0.047%
167	10.926	10.898	10.949	VV	2283	33120	1.03%	0.139%
168	10.994	10.949	11.022	VV	6188	96714	3.00%	0.405%
169	11.048	11.022	11.067	VV	1219	25296	0.79%	0.106%
170	11.096	11.067	11.135	VV	6067	103982	3.23%	0.435%
171	11.146	11.135	11.173	VV	1480	21385	0.66%	0.089%
172	11.198	11.173	11.213	VV	6870	88248	2.74%	0.369%
173	11.224	11.213	11.230	VV	4836	42317	1.31%	0.177%
174	11.250	11.230	11.287	VV	36229	440086	13.67%	1.841%
175	11.299	11.287	11.321	VV	1853	26930	0.84%	0.113%
176	11.335	11.321	11.382	VV	827	19105	0.59%	0.080%
177	11.399	11.382	11.439	VV	964	15950	0.50%	0.067%
178	11.452	11.439	11.468	VV	301	2877	0.09%	0.012%
179	11.492	11.468	11.504	PV	600	8691	0.27%	0.036%
180	11.512	11.504	11.525	VV	572	5266	0.16%	0.022%
181	11.539	11.525	11.563	VV	808	9971	0.31%	0.042%
182	11.583	11.563	11.603	VV	1057	14416	0.45%	0.060%
183	11.633	11.603	11.662	VV	2355	52015	1.62%	0.218%
184	11.695	11.662	11.727	VV	2657	54846	1.70%	0.229%
185	11.748	11.727	11.772	VV	10361	153573	4.77%	0.642%
186	11.789	11.772	11.817	VV	6707	94902	2.95%	0.397%
187	11.835	11.817	11.850	VV	833	13021	0.40%	0.054%
188	11.873	11.850	11.895	VV	4604	54588	1.70%	0.228%
189	11.933	11.895	11.979	PV	20588	291329	9.05%	1.218%
190	11.988	11.979	12.012	VV	1055	13976	0.43%	0.058%
191	12.030	12.012	12.044	VV	1181	12073	0.38%	0.050%
192	12.059	12.044	12.070	VV	1240	13055	0.41%	0.055%
193	12.094	12.070	12.119	VV	4477	63819	1.98%	0.267%
194	12.123	12.119	12.129	VV	451	2349	0.07%	0.010%

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195	12.146	12.129	12.162	VV	858	11501	0.36%	0.048%
196	12.173	12.162	12.184	VV	713	7955	0.25%	0.033%
197	12.204	12.184	12.255	VV	7384	101295	3.15%	0.424%
198	12.263	12.255	12.282	VV	208	2473	0.08%	0.010%
199	12.308	12.282	12.316	VV	509	7197	0.22%	0.030%
200	12.363	12.316	12.410	VV	5337	121916	3.79%	0.510%
201	12.445	12.410	12.489	VV	52845	748606	23.25%	3.131%
202	12.504	12.489	12.546	VV	2269	43810	1.36%	0.183%
203	12.612	12.546	12.667	VV	223578	3219402	100.00%	13.465%
204	12.679	12.667	12.695	VV	2380	33985	1.06%	0.142%
205	12.709	12.695	12.720	VV	2023	27381	0.85%	0.115%
206	12.733	12.720	12.795	VV	1826	47084	1.46%	0.197%
207	12.819	12.795	12.864	VV	1084	21515	0.67%	0.090%
208	12.931	12.864	12.972	VV	3818	135191	4.20%	0.565%
209	12.990	12.972	13.012	VV	3140	43506	1.35%	0.182%
210	13.047	13.012	13.063	VV	9097	144548	4.49%	0.605%
211	13.068	13.063	13.115	VV	7932	99197	3.08%	0.415%
212	13.124	13.115	13.153	VV	311	4238	0.13%	0.018%
213	13.183	13.153	13.210	PV	984	16666	0.52%	0.070%
214	13.226	13.210	13.275	VV	4646	80891	2.51%	0.338%
215	13.305	13.275	13.323	VV	995	15542	0.48%	0.065%
216	13.347	13.323	13.369	PV	12931	152914	4.75%	0.640%
217	13.388	13.369	13.422	VV	8008	110921	3.45%	0.464%
218	13.434	13.422	13.450	VV	590	7212	0.22%	0.030%
219	13.477	13.450	13.503	VV	537	11486	0.36%	0.048%
220	13.533	13.503	13.565	VV	2309	40753	1.27%	0.170%
221	13.615	13.565	13.642	VV	6125	142183	4.42%	0.595%
222	13.667	13.642	13.714	VV	30072	489918	15.22%	2.049%
223	13.728	13.714	13.762	VV	4936	85670	2.66%	0.358%
224	13.768	13.762	13.779	VV	1210	11581	0.36%	0.048%
225	13.800	13.779	13.807	VV	2313	29191	0.91%	0.122%
226	13.831	13.807	13.899	VV	39023	559787	17.39%	2.341%
227	13.934	13.899	13.974	VV	3297	70868	2.20%	0.296%
228	14.004	13.974	14.025	VV	1674	29879	0.93%	0.125%
229	14.043	14.025	14.067	VV	1666	29897	0.93%	0.125%
230	14.082	14.067	14.096	VV	1516	18679	0.58%	0.078%
231	14.143	14.096	14.170	VV	5344	97932	3.04%	0.410%
232	14.190	14.170	14.203	VV	2801	40694	1.26%	0.170%
233	14.215	14.203	14.237	VV	2625	36600	1.14%	0.153%
234	14.255	14.237	14.271	VV	1342	21481	0.67%	0.090%
235	14.276	14.271	14.279	VV	603	2634	0.08%	0.011%
236	14.313	14.279	14.355	VV	4457	73409	2.28%	0.307%
237	14.419	14.355	14.429	VV	1665	48378	1.50%	0.202%
238	14.433	14.429	14.452	VV	1670	17985	0.56%	0.075%
239	14.467	14.452	14.493	VV	1280	25026	0.78%	0.105%
240	14.502	14.493	14.519	VV	925	12309	0.38%	0.051%
241	14.548	14.519	14.555	VV	2068	29996	0.93%	0.125%
242	14.579	14.555	14.609	VV	15190	220078	6.84%	0.920%
243	14.627	14.609	14.650	VV	4475	73137	2.27%	0.306%
244	14.666	14.650	14.675	VV	2250	28472	0.88%	0.119%
245	14.697	14.675	14.724	VV	3833	76757	2.38%	0.321%
246	14.756	14.724	14.777	VV	6499	119177	3.70%	0.498%

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247	14.784	14.777	14.804	VV	3166	42894	1.33%	0.179%
248	14.828	14.804	14.835	VV	2581	43780	1.36%	0.183%
249	14.857	14.835	14.900	VV	5406	122057	3.79%	0.511%
250	14.914	14.900	14.939	VV	2841	47640	1.48%	0.199%
251	14.974	14.939	15.009	VV	5989	130148	4.04%	0.544%
252	15.017	15.009	15.023	VV	1969	15887	0.49%	0.066%
253	15.031	15.023	15.037	VV	1890	15820	0.49%	0.066%
254	15.043	15.037	15.052	VV	1921	16030	0.50%	0.067%
255	15.094	15.052	15.125	VV	103041	1469331	45.64%	6.145%
256	15.138	15.125	15.163	VV	4957	73754	2.29%	0.308%
257	15.180	15.163	15.198	VV	2370	39581	1.23%	0.166%
258	15.225	15.198	15.240	VV	4346	73379	2.28%	0.307%
259	15.263	15.240	15.282	VV	7535	125515	3.90%	0.525%
260	15.297	15.282	15.316	VV	4252	63926	1.99%	0.267%
261	15.342	15.316	15.353	VV	6606	90427	2.81%	0.378%
262	15.361	15.353	15.409	VV	5374	91199	2.83%	0.381%
263	15.428	15.409	15.451	VV	3773	55263	1.72%	0.231%
264	15.469	15.451	15.474	VV	1242	15386	0.48%	0.064%
265	15.490	15.474	15.499	VV	1532	20403	0.63%	0.085%
266	15.521	15.499	15.552	VV	5699	86082	2.67%	0.360%
267	15.592	15.552	15.605	VV	1662	41289	1.28%	0.173%
268	15.630	15.605	15.645	VV	3116	52681	1.64%	0.220%
269	15.675	15.645	15.752	VV	143385	1931929	60.01%	8.080%
270	15.773	15.752	15.790	VV	2409	38050	1.18%	0.159%
271	15.817	15.790	15.850	VV	9921	156687	4.87%	0.655%
272	15.873	15.850	15.884	VV	4193	56184	1.75%	0.235%
273	15.896	15.884	15.922	VV	4208	57403	1.78%	0.240%
274	15.946	15.922	15.988	VV	2205	36133	1.12%	0.151%
275	16.035	15.988	16.109	VV	4491	129103	4.01%	0.540%
276	16.165	16.109	16.225	VV	53258	834956	25.94%	3.492%
277	16.278	16.225	16.302	VV	22678	296389	9.21%	1.240%
278	16.320	16.302	16.354	VV	5993	88468	2.75%	0.370%
279	16.381	16.354	16.415	VV	7299	94376	2.93%	0.395%
280	16.452	16.415	16.481	VV	873	17983	0.56%	0.075%
281	16.509	16.481	16.527	PV	1968	28771	0.89%	0.120%
282	16.556	16.527	16.590	VV	1351	29489	0.92%	0.123%
283	16.625	16.590	16.657	VV	1688	43196	1.34%	0.181%
284	16.689	16.657	16.732	VV	132346	1814363	56.36%	7.589%
285	16.805	16.732	16.847	VV	19550	433425	13.46%	1.813%
286	16.878	16.847	16.907	PV	5212	81142	2.52%	0.339%
287	16.916	16.907	16.930	VV	756	6381	0.20%	0.027%
288	16.948	16.930	16.972	VV	422	5692	0.18%	0.024%
289	17.001	16.972	17.024	VV	2911	44241	1.37%	0.185%
290	17.051	17.024	17.078	VV	4688	84646	2.63%	0.354%
291	17.106	17.078	17.139	VV	4052	88269	2.74%	0.369%
292	17.169	17.139	17.210	VV	16369	294833	9.16%	1.233%
293	17.268	17.210	17.295	VV	13672	264109	8.20%	1.105%
294	17.324	17.295	17.343	VV	51275	722862	22.45%	3.023%
295	17.348	17.343	17.377	VV	20648	216301	6.72%	0.905%
296	17.403	17.377	17.449	VV	1275	31158	0.97%	0.130%
297	17.475	17.449	17.489	PV	843	11069	0.34%	0.046%
Sum of corrected areas:					23909155			

rteres

FF061325.M Tue Jul 01 04:21:56 2025

Report of Analysis

Client:	CDM Smith	Date Collected:	06/24/25
Project:	South River WM Replacement	Date Received:	06/24/25
Client Sample ID:	TP-72	SDG No.:	Q2413
Lab Sample ID:	Q2413-06	Matrix:	SOIL
Analytical Method:	8015D DRO	% Solid:	87
Sample Wt/Vol:	30.05	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
FF016054.D	1	06/30/25 09:50	07/01/25 1:09	PB168658

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
DRO	DRO	3710		194	1910	ug/kg
SURROGATES						
16416-32-3	Tetracosane-d50	10.4		37 - 130	52%	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\FF063025\
Data File : FF016054.D
Signal(s) : FID2B.ch
Acq On : 01 Jul 2025 01:09
Operator : YP\AJ
Sample : Q2413-06
Misc :
ALS Vial : 90 Sample Multiplier: 1

Instrument :
FID_F
ClientSampleId :
TP-72

Integration File: autoint1.e
Quant Time: Jul 01 03:18:02 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF061325.M
Quant Title :
QLast Update : Fri Jun 13 15:23:30 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...	15.095	1255834	10.401 ug/ml

Target Compounds

(f)=RT Delta > 1/2 Window

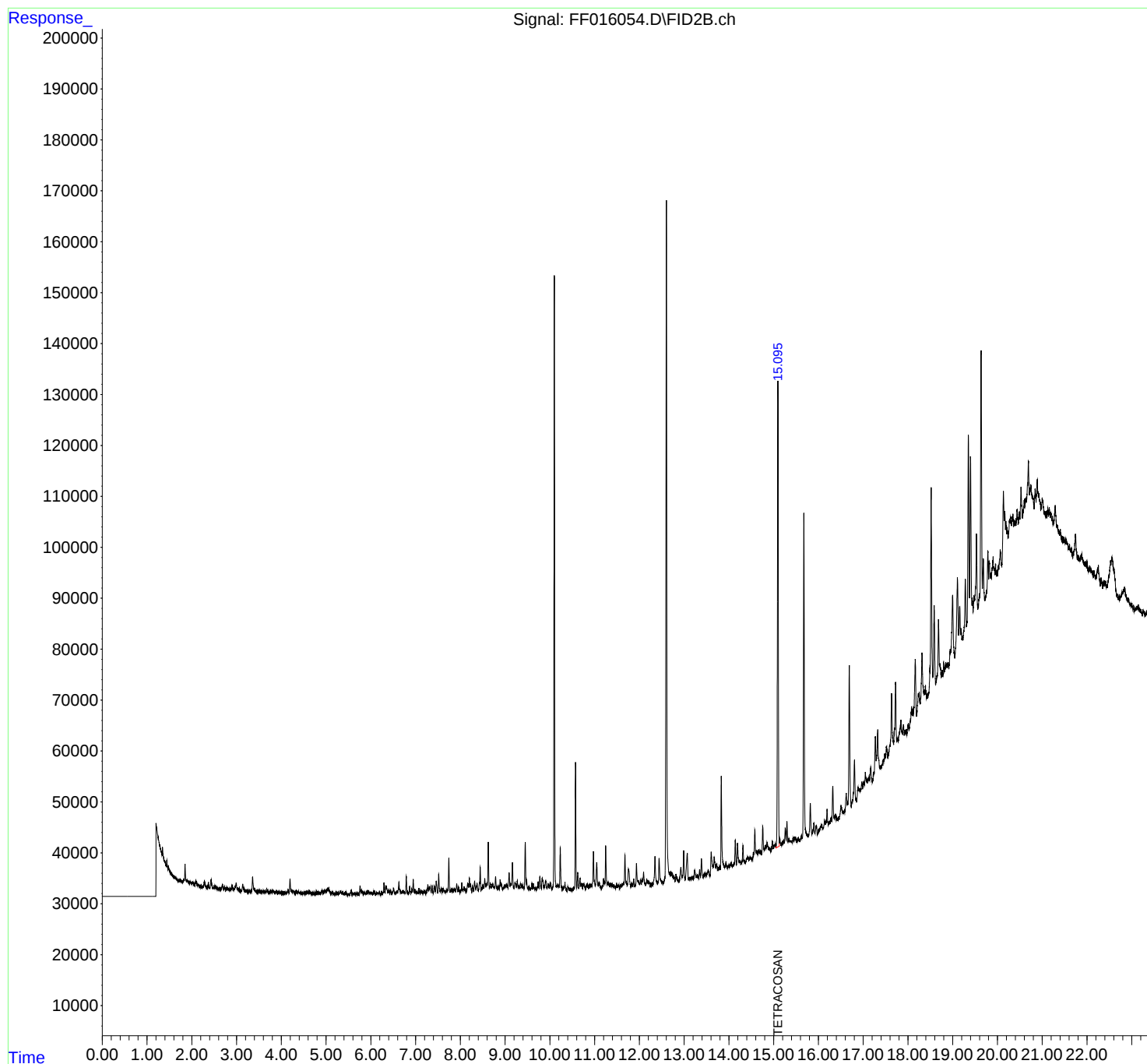
(m)=manual int.

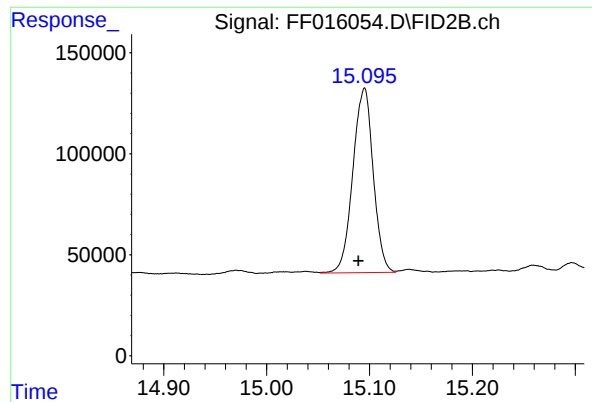
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF063025\
Data File : FF016054.D
Signal(s) : FID2B.ch
Acq On : 01 Jul 2025 01:09
Operator : YP\AJ
Sample : Q2413-06
Misc :
ALS Vial : 90 Sample Multiplier: 1

Instrument :
FID_F
ClientSampleId :
TP-72

Integration File: autoint1.e
Quant Time: Jul 01 03:18:02 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF061325.M
Quant Title :
QLast Update : Fri Jun 13 15:23:30 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.: 15.095 min
Delta R.T.: 0.006 min
Response: 1255834
Conc: 10.40 ug/ml

Instrument :
FID_F
ClientSampleId :
TP-72

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF063025\
 Data File : FF016054.D
 Signal(s) : FID2B.ch
 Acq On : 01 Jul 2025 01:09
 Sample : Q2413-06
 Misc :
 ALS Vial : 90 Sample Multiplier: 1

Integration File: Sample.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF061325.M
 Title :

Signal : FID2B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	4.418	4.400	4.424	BV	119	307	0.02%	0.002%
2	4.428	4.424	4.436	VV	118	750	0.04%	0.005%
3	4.443	4.436	4.449	VV	174	1101	0.06%	0.008%
4	4.454	4.449	4.467	VV	180	1085	0.06%	0.008%
5	4.472	4.467	4.483	PV	157	861	0.05%	0.006%
6	4.503	4.483	4.509	VV	267	2539	0.14%	0.018%
7	4.514	4.509	4.524	VV	248	1754	0.10%	0.012%
8	4.528	4.524	4.537	VV	181	1212	0.07%	0.008%
9	4.540	4.537	4.548	VV	192	1192	0.07%	0.008%
10	4.572	4.548	4.595	VV	511	8728	0.48%	0.061%
11	4.618	4.595	4.644	VV	851	10719	0.59%	0.075%
12	4.653	4.644	4.677	VV	293	3043	0.17%	0.021%
13	4.689	4.677	4.697	VV	258	1848	0.10%	0.013%
14	4.701	4.697	4.729	VV	229	2222	0.12%	0.016%
15	4.749	4.729	4.769	VV	267	4397	0.24%	0.031%
16	4.786	4.769	4.800	VV	468	5664	0.31%	0.040%
17	4.814	4.800	4.834	VV	546	7700	0.42%	0.054%
18	4.839	4.834	4.853	VV	321	2553	0.14%	0.018%
19	4.867	4.853	4.888	VV	284	4443	0.24%	0.031%
20	4.905	4.888	4.919	VV	856	9922	0.54%	0.069%
21	4.927	4.919	4.946	VV	426	6471	0.35%	0.045%
22	4.975	4.946	5.000	VV	728	20015	1.09%	0.140%
23	5.039	5.000	5.048	VV	1115	25851	1.41%	0.180%
24	5.059	5.048	5.112	VV	1131	25205	1.38%	0.176%
25	5.134	5.112	5.155	VV	488	8601	0.47%	0.060%
26	5.161	5.155	5.166	VV	263	1596	0.09%	0.011%
27	5.171	5.166	5.189	VV	243	2756	0.15%	0.019%
28	5.194	5.189	5.226	VV	304	4672	0.26%	0.033%
29	5.235	5.226	5.248	VV	371	3534	0.19%	0.025%
30	5.271	5.248	5.285	VV	384	5585	0.30%	0.039%
31	5.298	5.285	5.302	VV	335	2469	0.13%	0.017%
32	5.313	5.302	5.352	VV	765	13493	0.74%	0.094%
33	5.357	5.352	5.360	VV	219	807	0.04%	0.006%
34	5.373	5.360	5.393	VV	465	5761	0.31%	0.040%
35	5.407	5.393	5.418	VV	300	3709	0.20%	0.026%
36	5.440	5.418	5.482	VV	498	9011	0.49%	0.063%

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37	5.486	5.482	5.492	VV	107	561	0.03%	0.004%
38	5.496	5.492	5.522	VV	208	2276	0.12%	0.016%
39	5.562	5.522	5.578	PV	923	13277	0.72%	0.093%
40	5.583	5.578	5.587	VV	217	945	0.05%	0.007%
41	5.600	5.587	5.616	VV	304	3446	0.19%	0.024%
42	5.634	5.616	5.660	VV	332	5769	0.31%	0.040%
43	5.674	5.660	5.678	VV	273	2386	0.13%	0.017%
44	5.682	5.678	5.695	VV	226	1988	0.11%	0.014%
45	5.702	5.695	5.721	VV	210	2248	0.12%	0.016%
46	5.732	5.721	5.743	VV	188	1389	0.08%	0.010%
47	5.760	5.743	5.781	VV	1858	22559	1.23%	0.157%
48	5.792	5.781	5.805	VV	1068	10516	0.57%	0.073%
49	5.817	5.805	5.847	VV	789	11220	0.61%	0.078%
50	5.861	5.847	5.874	VV	482	5958	0.33%	0.042%
51	5.879	5.874	5.898	VV	336	3619	0.20%	0.025%
52	5.908	5.898	5.930	VV	753	9351	0.51%	0.065%
53	5.946	5.930	5.979	VV	825	16218	0.89%	0.113%
54	6.002	5.979	6.018	VV	562	10263	0.56%	0.072%
55	6.027	6.018	6.038	VV	437	3873	0.21%	0.027%
56	6.065	6.038	6.101	VV	820	16486	0.90%	0.115%
57	6.127	6.101	6.167	PV	484	12670	0.69%	0.088%
58	6.176	6.167	6.181	VV	346	2567	0.14%	0.018%
59	6.196	6.181	6.218	VV	395	5517	0.30%	0.038%
60	6.243	6.218	6.258	VV	533	7180	0.39%	0.050%
61	6.294	6.258	6.314	VV	2409	32207	1.76%	0.225%
62	6.332	6.314	6.383	VV	1816	45464	2.48%	0.317%
63	6.402	6.383	6.423	VV	1099	16088	0.88%	0.112%
64	6.438	6.423	6.461	VV	974	12773	0.70%	0.089%
65	6.484	6.461	6.492	VV	573	7483	0.41%	0.052%
66	6.509	6.492	6.548	VV	1247	21838	1.19%	0.152%
67	6.564	6.548	6.568	VV	379	3784	0.21%	0.026%
68	6.588	6.568	6.600	VV	777	9185	0.50%	0.064%
69	6.628	6.600	6.694	VV	2490	52619	2.87%	0.367%
70	6.717	6.694	6.734	VV	769	12411	0.68%	0.087%
71	6.741	6.734	6.758	VV	575	6472	0.35%	0.045%
72	6.763	6.758	6.772	VV	340	2550	0.14%	0.018%
73	6.793	6.772	6.826	VV	3562	42536	2.32%	0.297%
74	6.830	6.826	6.848	VV	311	2567	0.14%	0.018%
75	6.867	6.848	6.898	VV	1604	20359	1.11%	0.142%
76	6.918	6.898	6.929	VV	881	11028	0.60%	0.077%
77	6.947	6.929	6.970	VV	2921	34115	1.86%	0.238%
78	6.988	6.970	7.008	VV	963	13789	0.75%	0.096%
79	7.019	7.008	7.039	VV	505	5915	0.32%	0.041%
80	7.075	7.039	7.098	VV	1148	13461	0.73%	0.094%
81	7.125	7.098	7.150	VV	680	13332	0.73%	0.093%
82	7.157	7.150	7.173	VV	271	2847	0.16%	0.020%
83	7.196	7.173	7.228	VV	639	10868	0.59%	0.076%
84	7.251	7.228	7.260	VV	878	9471	0.52%	0.066%
85	7.274	7.260	7.293	VV	1765	22914	1.25%	0.160%
86	7.306	7.293	7.317	VV	1163	15669	0.86%	0.109%
87	7.327	7.317	7.349	VV	1349	18258	1.00%	0.127%
88	7.369	7.349	7.395	VV	1601	20600	1.12%	0.144%
89	7.417	7.395	7.440	VV	1462	22923	1.25%	0.160%

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90	7.461	7.440	7.497	VV	2474	38877	2.12%	0.271%
91	7.516	7.497	7.555	VV	3800	51268	2.80%	0.358%
92	7.572	7.555	7.596	VV	1019	15971	0.87%	0.111%
93	7.616	7.596	7.636	VV	1046	16133	0.88%	0.113%
94	7.640	7.636	7.658	VV	536	5943	0.32%	0.041%
95	7.665	7.658	7.673	VV	398	2869	0.16%	0.020%
96	7.707	7.673	7.721	VV	701	14592	0.80%	0.102%
97	7.743	7.721	7.768	VV	6910	77332	4.22%	0.540%
98	7.801	7.768	7.818	VV	728	15604	0.85%	0.109%
99	7.829	7.818	7.848	VV	682	9772	0.53%	0.068%
100	7.870	7.848	7.897	VV	819	18731	1.02%	0.131%
101	7.919	7.897	7.942	VV	1788	27887	1.52%	0.195%
102	7.959	7.942	7.993	VV	1273	20639	1.13%	0.144%
103	8.033	7.993	8.051	VV	2062	30311	1.65%	0.211%
104	8.083	8.051	8.102	VV	1222	25161	1.37%	0.176%
105	8.111	8.102	8.144	VV	662	12664	0.69%	0.088%
106	8.171	8.144	8.187	VV	1835	34968	1.91%	0.244%
107	8.202	8.187	8.218	VV	2942	37076	2.02%	0.259%
108	8.228	8.218	8.250	VV	1625	20579	1.12%	0.144%
109	8.272	8.250	8.291	VV	1358	19792	1.08%	0.138%
110	8.320	8.291	8.344	VV	2240	38218	2.09%	0.267%
111	8.374	8.344	8.403	VV	1877	37906	2.07%	0.264%
112	8.444	8.403	8.478	VV	5015	81374	4.44%	0.568%
113	8.502	8.478	8.524	VV	1321	28287	1.54%	0.197%
114	8.546	8.524	8.563	VV	2784	40282	2.20%	0.281%
115	8.575	8.563	8.587	VV	1783	21691	1.18%	0.151%
116	8.593	8.587	8.603	VV	1546	14277	0.78%	0.100%
117	8.624	8.603	8.650	VV	9924	126594	6.91%	0.883%
118	8.671	8.650	8.689	VV	1602	29031	1.58%	0.203%
119	8.719	8.689	8.755	VV	1601	49058	2.68%	0.342%
120	8.788	8.755	8.812	VV	3085	53679	2.93%	0.375%
121	8.821	8.812	8.833	VV	1043	10755	0.59%	0.075%
122	8.847	8.833	8.866	VV	1118	18002	0.98%	0.126%
123	8.890	8.866	8.906	VV	2362	36615	2.00%	0.255%
124	8.916	8.906	8.940	VV	1552	24529	1.34%	0.171%
125	8.955	8.940	8.967	VV	849	11342	0.62%	0.079%
126	8.986	8.967	9.008	VV	1462	28114	1.53%	0.196%
127	9.021	9.008	9.039	VV	1327	22434	1.22%	0.157%
128	9.043	9.039	9.063	VV	1291	16545	0.90%	0.115%
129	9.091	9.063	9.111	VV	3731	61886	3.38%	0.432%
130	9.123	9.111	9.140	VV	1642	24478	1.34%	0.171%
131	9.165	9.140	9.190	VV	5718	85616	4.67%	0.597%
132	9.223	9.190	9.255	VV	1864	48574	2.65%	0.339%
133	9.273	9.255	9.295	VV	2140	33422	1.82%	0.233%
134	9.309	9.295	9.331	VV	1306	20762	1.13%	0.145%
135	9.349	9.331	9.379	VV	1613	34320	1.87%	0.239%
136	9.394	9.379	9.412	VV	1327	19334	1.06%	0.135%
137	9.451	9.412	9.473	VV	9717	132894	7.26%	0.927%
138	9.482	9.473	9.523	VV	2268	32716	1.79%	0.228%
139	9.539	9.523	9.565	VV	1030	17536	0.96%	0.122%
140	9.600	9.565	9.616	VV	1529	25646	1.40%	0.179%
141	9.631	9.616	9.670	VV	1589	26527	1.45%	0.185%

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142	9.688	9.670	9.697	VV	565	7889	0.43%	0.055%
143	9.736	9.697	9.759	VV	1837	34682	1.89%	0.242%
144	9.777	9.759	9.805	VV	2927	43505	2.38%	0.304%
145	9.829	9.805	9.865	VV	2603	57743	3.15%	0.403%
146	9.874	9.865	9.883	VV	1015	8717	0.48%	0.061%
147	9.904	9.883	9.935	VV	2041	42089	2.30%	0.294%
148	9.959	9.935	9.981	VV	1365	25517	1.39%	0.178%
149	10.019	9.981	10.043	VV	1436	36879	2.01%	0.257%
150	10.100	10.043	10.142	VV	120785	1241173	67.76%	8.660%
151	10.161	10.142	10.181	VV	1088	22078	1.21%	0.154%
152	10.192	10.181	10.211	VV	1090	16288	0.89%	0.114%
153	10.233	10.211	10.284	VV	8495	113225	6.18%	0.790%
154	10.307	10.284	10.311	VV	566	7311	0.40%	0.051%
155	10.315	10.311	10.323	VV	651	4106	0.22%	0.029%
156	10.340	10.323	10.381	VV	1524	19794	1.08%	0.138%
157	10.405	10.381	10.437	PV	747	11281	0.62%	0.079%
158	10.452	10.437	10.457	VV	217	1635	0.09%	0.011%
159	10.469	10.457	10.491	VV	248	2273	0.12%	0.016%
160	10.508	10.491	10.524	PV	309	3245	0.18%	0.023%
161	10.534	10.524	10.545	VV	425	3419	0.19%	0.024%
162	10.574	10.545	10.598	VV	24959	272944	14.90%	1.904%
163	10.622	10.598	10.646	VV	3494	51856	2.83%	0.362%
164	10.672	10.646	10.691	VV	2315	35624	1.94%	0.249%
165	10.710	10.691	10.731	VV	1295	20787	1.13%	0.145%
166	10.746	10.731	10.759	VV	1191	14770	0.81%	0.103%
167	10.768	10.759	10.798	VV	988	13817	0.75%	0.096%
168	10.836	10.798	10.857	VV	1227	24134	1.32%	0.168%
169	10.882	10.857	10.898	VV	743	16134	0.88%	0.113%
170	10.902	10.898	10.906	VV	621	3044	0.17%	0.021%
171	10.922	10.906	10.939	VV	1083	15333	0.84%	0.107%
172	10.974	10.939	11.013	VV	7447	115182	6.29%	0.804%
173	11.047	11.013	11.087	VV	5242	98014	5.35%	0.684%
174	11.105	11.087	11.140	VV	1320	23977	1.31%	0.167%
175	11.144	11.140	11.154	VV	255	1813	0.10%	0.013%
176	11.198	11.154	11.213	VV	2020	33211	1.81%	0.232%
177	11.223	11.213	11.232	VV	1479	13955	0.76%	0.097%
178	11.247	11.232	11.278	VV	8524	105415	5.75%	0.736%
179	11.300	11.278	11.337	VV	1161	31452	1.72%	0.219%
180	11.367	11.337	11.387	VV	1046	20738	1.13%	0.145%
181	11.400	11.387	11.417	VV	769	10129	0.55%	0.071%
182	11.430	11.417	11.463	VV	865	11763	0.64%	0.082%
183	11.487	11.463	11.506	VV	656	10040	0.55%	0.070%
184	11.511	11.506	11.520	VV	471	2814	0.15%	0.020%
185	11.537	11.520	11.560	VV	716	9274	0.51%	0.065%
186	11.587	11.560	11.601	PV	587	9578	0.52%	0.067%
187	11.620	11.601	11.628	VV	660	8882	0.48%	0.062%
188	11.644	11.628	11.658	VV	1012	15216	0.83%	0.106%
189	11.678	11.658	11.731	VV	6424	96977	5.29%	0.677%
190	11.757	11.731	11.808	VV	3658	84925	4.64%	0.593%
191	11.834	11.808	11.852	VV	668	11643	0.64%	0.081%
192	11.874	11.852	11.901	VV	1652	20855	1.14%	0.146%
193	11.935	11.901	11.963	VV	4584	64033	3.50%	0.447%
194	11.968	11.963	12.007	VV	1186	22459	1.23%	0.157%

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195	12.029	12.007	12.046	VV	1336	19223	1.05%	0.134%
196	12.062	12.046	12.075	VV	1367	18128	0.99%	0.126%
197	12.094	12.075	12.144	VV	2833	45298	2.47%	0.316%
198	12.172	12.144	12.192	VV	1081	21394	1.17%	0.149%
199	12.210	12.192	12.255	VV	915	16357	0.89%	0.114%
200	12.286	12.255	12.297	PV	233	3339	0.18%	0.023%
201	12.349	12.297	12.396	VV	5588	100338	5.48%	0.700%
202	12.398	12.396	12.413	VV	544	4495	0.25%	0.031%
203	12.441	12.413	12.502	VV	5126	88023	4.81%	0.614%
204	12.507	12.502	12.523	VV	434	3880	0.21%	0.027%
205	12.533	12.523	12.542	VV	263	1963	0.11%	0.014%
206	12.604	12.542	12.667	VV	134106	1831748	100.00%	12.781%
207	12.680	12.667	12.695	VV	2092	28989	1.58%	0.202%
208	12.708	12.695	12.723	VV	2051	28792	1.57%	0.201%
209	12.731	12.723	12.752	VV	1666	23372	1.28%	0.163%
210	12.765	12.752	12.795	VV	1172	23750	1.30%	0.166%
211	12.817	12.795	12.860	VV	1508	28624	1.56%	0.200%
212	12.869	12.860	12.874	VV	134	882	0.05%	0.006%
213	12.879	12.874	12.888	VV	144	896	0.05%	0.006%
214	12.927	12.888	12.957	PV	2636	52761	2.88%	0.368%
215	12.990	12.957	13.024	VV	5881	85789	4.68%	0.599%
216	13.070	13.024	13.102	VV	5207	104183	5.69%	0.727%
217	13.124	13.102	13.128	VV	294	3160	0.17%	0.022%
218	13.133	13.128	13.147	VV	331	2384	0.13%	0.017%
219	13.150	13.147	13.157	VV	259	1037	0.06%	0.007%
220	13.182	13.157	13.192	VV	407	5127	0.28%	0.036%
221	13.197	13.192	13.212	VV	370	2603	0.14%	0.018%
222	13.235	13.212	13.278	VV	1601	33929	1.85%	0.237%
223	13.286	13.278	13.307	VV	588	6865	0.37%	0.048%
224	13.311	13.307	13.324	VV	325	1944	0.11%	0.014%
225	13.346	13.324	13.366	PV	1646	19087	1.04%	0.133%
226	13.387	13.366	13.428	VV	3765	53153	2.90%	0.371%
227	13.445	13.428	13.465	VV	587	7974	0.44%	0.056%
228	13.482	13.465	13.500	VV	752	10089	0.55%	0.070%
229	13.534	13.500	13.576	VV	1280	30704	1.68%	0.214%
230	13.605	13.576	13.648	PV	4705	99406	5.43%	0.694%
231	13.673	13.648	13.703	VV	3443	76145	4.16%	0.531%
232	13.729	13.703	13.755	VV	1920	43677	2.38%	0.305%
233	13.774	13.755	13.782	VV	1192	13981	0.76%	0.098%
234	13.796	13.782	13.811	VV	1116	15833	0.86%	0.110%
235	13.831	13.811	13.902	VV	18832	273377	14.92%	1.907%
236	13.934	13.902	13.972	VV	1776	38282	2.09%	0.267%
237	13.982	13.972	13.993	VV	700	8065	0.44%	0.056%
238	14.003	13.993	14.021	VV	799	10146	0.55%	0.071%
239	14.043	14.021	14.084	VV	1093	26669	1.46%	0.186%
240	14.143	14.084	14.170	VV	5302	83205	4.54%	0.581%
241	14.192	14.170	14.233	VV	4536	75229	4.11%	0.525%
242	14.254	14.233	14.268	VV	828	12270	0.67%	0.086%
243	14.314	14.268	14.337	VV	3609	51463	2.81%	0.359%
244	14.343	14.337	14.362	VV	536	4886	0.27%	0.034%
245	14.398	14.362	14.406	PV	888	10394	0.57%	0.073%
246	14.420	14.406	14.452	VV	996	19012	1.04%	0.133%

					rteres			
247	14.466	14.452	14.473	VV	597	6507	0.36%	0.045%
248	14.489	14.473	14.517	VV	740	12439	0.68%	0.087%
249	14.579	14.517	14.617	VV	5848	110971	6.06%	0.774%
250	14.625	14.617	14.648	VV	1446	20785	1.13%	0.145%
251	14.665	14.648	14.679	VV	1684	21592	1.18%	0.151%
252	14.695	14.679	14.705	VV	1157	16512	0.90%	0.115%
253	14.710	14.705	14.722	VV	1141	9909	0.54%	0.069%
254	14.727	14.722	14.733	VV	783	3807	0.21%	0.027%
255	14.756	14.733	14.779	VV	5735	84036	4.59%	0.586%
256	14.783	14.779	14.798	VV	1287	14067	0.77%	0.098%
257	14.816	14.798	14.834	VV	1903	32648	1.78%	0.228%
258	14.853	14.834	14.871	VV	2412	41280	2.25%	0.288%
259	14.876	14.871	14.896	VV	1501	17086	0.93%	0.119%
260	14.913	14.896	14.937	VV	1097	19918	1.09%	0.139%
261	14.970	14.937	14.991	VV	2312	38995	2.13%	0.272%
262	15.017	14.991	15.025	VV	1402	22154	1.21%	0.155%
263	15.038	15.025	15.052	VV	1484	19836	1.08%	0.138%
264	15.095	15.052	15.126	VV	92150	1285982	70.21%	8.973%
265	15.138	15.126	15.167	VV	2200	35098	1.92%	0.245%
266	15.188	15.167	15.199	VV	1262	20765	1.13%	0.145%
267	15.226	15.199	15.236	VV	1556	26518	1.45%	0.185%
268	15.259	15.236	15.281	VV	3757	62629	3.42%	0.437%
269	15.297	15.281	15.321	VV	4959	67621	3.69%	0.472%
270	15.344	15.321	15.358	VV	1534	25595	1.40%	0.179%
271	15.366	15.358	15.381	VV	970	11477	0.63%	0.080%
272	15.386	15.381	15.390	VV	810	4179	0.23%	0.029%
273	15.395	15.390	15.417	VV	769	9716	0.53%	0.068%
274	15.430	15.417	15.449	VV	1255	16521	0.90%	0.115%
275	15.463	15.449	15.477	VV	1399	17167	0.94%	0.120%
276	15.492	15.477	15.508	VV	1227	15458	0.84%	0.108%
277	15.548	15.508	15.556	VV	944	16905	0.92%	0.118%
278	15.558	15.556	15.582	VV	725	5710	0.31%	0.040%
279	15.586	15.582	15.593	VV	329	1609	0.09%	0.011%
280	15.615	15.593	15.627	VV	1001	12253	0.67%	0.085%
281	15.631	15.627	15.642	VV	832	5808	0.32%	0.041%
282	15.675	15.642	15.716	VV	64114	848287	46.31%	5.919%
283	15.720	15.716	15.736	VV	1405	14018	0.77%	0.098%
284	15.745	15.736	15.752	VV	1090	8277	0.45%	0.058%
285	15.756	15.752	15.764	VV	613	3719	0.20%	0.026%
286	15.775	15.764	15.780	VV	823	6164	0.34%	0.043%
287	15.819	15.780	15.854	VV	6737	115289	6.29%	0.804%
288	15.877	15.854	15.883	VV	1382	16819	0.92%	0.117%
289	15.900	15.883	15.919	VV	2567	37119	2.03%	0.259%
290	15.955	15.919	15.977	VV	1980	38143	2.08%	0.266%
291	16.007	15.977	16.012	PV	781	10226	0.56%	0.071%
292	16.017	16.012	16.021	VV	728	2891	0.16%	0.020%
293	16.050	16.021	16.054	VV	1172	16643	0.91%	0.116%
294	16.070	16.054	16.091	VV	1409	23343	1.27%	0.163%
295	16.133	16.091	16.151	VV	1588	33827	1.85%	0.236%
296	16.168	16.151	16.173	VV	1477	16847	0.92%	0.118%
297	16.193	16.173	16.219	VV	3700	54351	2.97%	0.379%
298	16.241	16.219	16.268	VV	1070	21417	1.17%	0.149%
299	16.280	16.268	16.297	VV	1497	18745	1.02%	0.131%

					rteres			
300	16.321	16.297	16.347	VV	7460	110998	6.06%	0.774%
301	16.355	16.347	16.362	VV	1180	8853	0.48%	0.062%
302	16.385	16.362	16.402	VV	1598	26163	1.43%	0.183%
303	16.411	16.402	16.422	VV	735	6243	0.34%	0.044%
304	16.429	16.422	16.435	VV	473	2036	0.11%	0.014%
305	16.448	16.435	16.465	VV	671	6334	0.35%	0.044%
306	16.508	16.465	16.542	PV	2392	60445	3.30%	0.422%
307	16.546	16.542	16.552	VV	958	4492	0.25%	0.031%
308	16.576	16.552	16.588	VV	818	12022	0.66%	0.084%
309	16.622	16.588	16.650	VV	3802	78152	4.27%	0.545%
310	16.655	16.650	16.659	VV	1681	8160	0.45%	0.057%
311	16.690	16.659	16.735	VV	28388	430706	23.51%	3.005%
312	16.806	16.735	16.833	PV	8830	175740	9.59%	1.226%
313	16.839	16.833	16.852	VV	661	5202	0.28%	0.036%
314	16.887	16.852	16.906	PV	2618	51469	2.81%	0.359%
315	16.910	16.906	16.927	VV	1998	21977	1.20%	0.153%
316	16.937	16.927	16.947	VV	1702	17476	0.95%	0.122%
317	16.970	16.947	16.988	VV	2718	46719	2.55%	0.326%
318	17.016	16.988	17.032	VV	2248	47647	2.60%	0.332%
319	17.049	17.032	17.080	VV	3762	69220	3.78%	0.483%
320	17.087	17.080	17.095	VV	1940	14054	0.77%	0.098%
321	17.121	17.095	17.126	VV	1924	31378	1.71%	0.219%
322	17.130	17.126	17.140	VV	1830	13584	0.74%	0.095%
323	17.171	17.140	17.208	VV	3385	72534	3.96%	0.506%
324	17.244	17.208	17.247	PV	1632	23996	1.31%	0.167%
325	17.273	17.247	17.291	VV	8023	130682	7.13%	0.912%
326	17.326	17.291	17.369	VV	8733	192700	10.52%	1.345%
327	17.371	17.369	17.376	VV	820	2414	0.13%	0.017%
328	17.388	17.376	17.391	VV	550	4442	0.24%	0.031%
329	17.398	17.391	17.409	VV	574	3682	0.20%	0.026%
330	17.450	17.409	17.460	PV	839	11172	0.61%	0.078%
331	17.482	17.460	17.500	VBA	1211	19443	1.06%	0.136%
				Sum of corrected areas:		14331761		

FF061325.M Tue Jul 01 04:22:25 2025



CALIBRATION SUMMARY

DIESEL RANGE ORGANICS INITIAL CALIBRATION SUMMARY

Lab Name: Chemtech Contract: CAMP02
 ProjectID: South River WM Replacement
 Lab Code: CHEM Case No.: Q2413 SAS No.: Q2413 SDG No.: Q2413

Calibration Sequence : FF061325		Test : Diesel Range Organics	
Concentration (PPM)	Area Count	Reference Factor	File ID
1000	128762116	128762	FF015964.D
500	64295722	128591	FF015965.D
200	27169561	135848	FF015966.D
100	13526499	135265	FF015967.D
50	7306219	146124	FF015968.D
AVG RF : 134918		% RSD : 5.299	AVG RT : 15.0944

DIESEL RANGE ORGANICS CONTINUING CALIBRATION SUMMARY

50 PPM TRPH STD

Lab Name: Chemtech Contract: CAMP02
ProjectID: South River WM Replacement
Lab Code: CHEM Case No.: Q2413 SAS No.: Q2413 SDG No.: Q2413
DataFile: FF016043.D Analyst Name: YP\AJ Analyst Date: 06-30-2025

Conc. (PPM)	Area Count	RF	Average RF	%D
500	65882919	131766	134918	2.336

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF063025\
 Data File : FF016043.D
 Signal(s) : FID2B.ch
 Acq On : 30 Jun 2025 19:11
 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: Jul 01 03:15:48 2025
 Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF061325.M
 Quant Title :
 QLast Update : Fri Jun 13 15:23:30 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...	15.097	5763745	47.735 ug/ml
Target Compounds			
2) N-DECANE	4.621	6418274	48.986 ug/ml
3) N-DODECANE	6.797	6551992	49.204 ug/ml
4) N-TETRADECANE	8.629	6638950	49.536 ug/ml
5) N-HEXADECANE	10.238	6672074	49.403 ug/ml
6) N-OCTADECANE	11.683	6781428	48.916 ug/ml
7) N-EICOSANE	12.996	6826691	48.889 ug/ml
8) N-DOCOSANE	14.196	6588206	48.490 ug/ml
10) N-TETRACOSANE	15.302	6541981	48.270 ug/ml
11) N-HEXACOSANE	16.324	6457774	48.108 ug/ml
12) N-OCTACOSANE	17.276	6405549	48.520 ug/ml

(f)=RT Delta > 1/2 Window

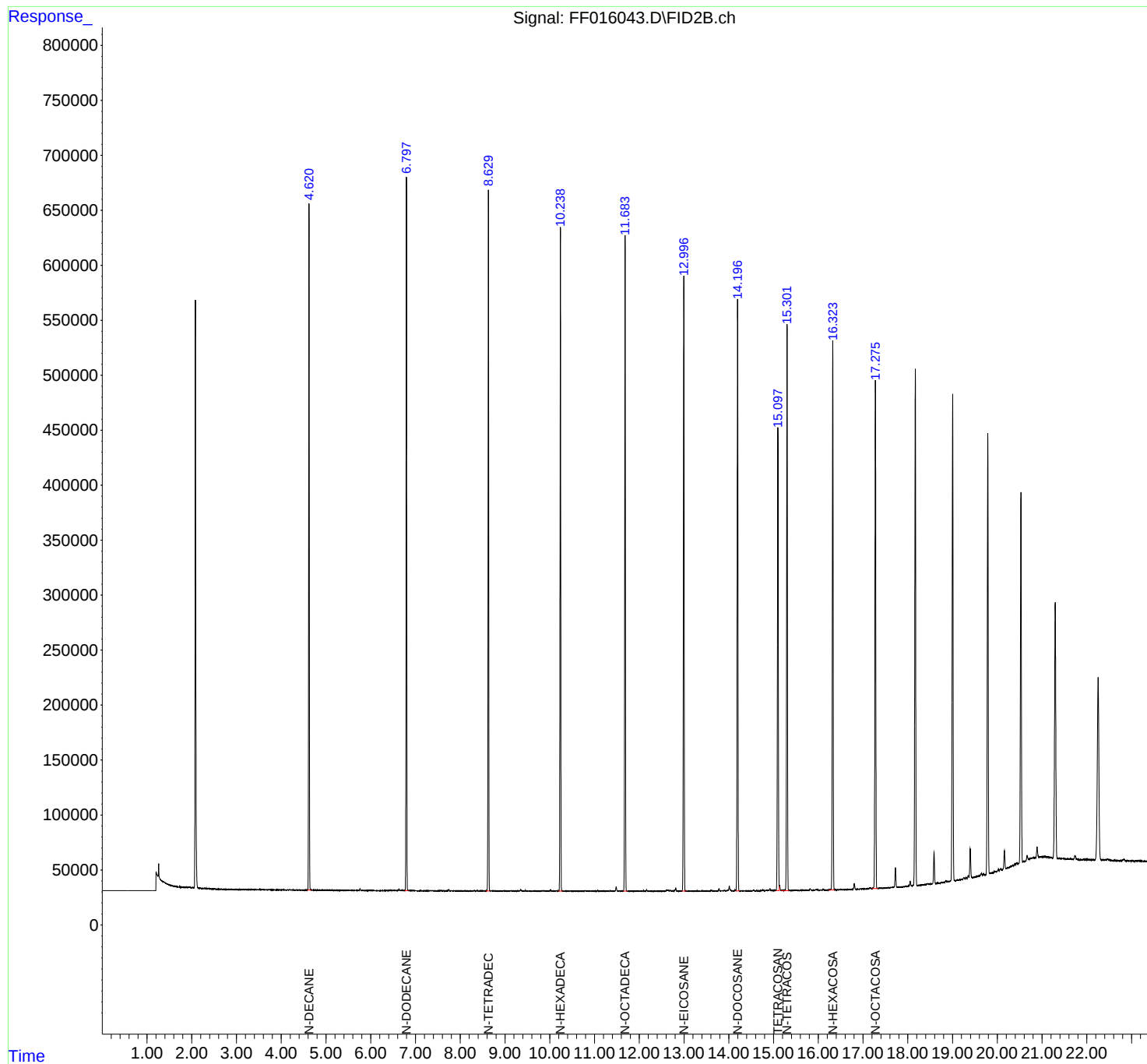
(m)=manual int.

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF063025\
Data File : FF016043.D
Signal(s) : FID2B.ch
Acq On : 30 Jun 2025 19:11
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: Jul 01 03:15:48 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF061325.M
Quant Title :
QLast Update : Fri Jun 13 15:23:30 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\FF063025\
Data File : FF016043.D
Signal(s) : FID2B.ch
Acq On : 30 Jun 2025 19:11
Sample : 50 PPM TRPH STD
Misc :
ALS Vial : 53 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF061325.M
Title :

Signal : FID2B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	4.621	4.581	4.676	BB	624900	6418274	94.02%	8.958%
2	6.797	6.756	6.844	BB	649298	6551992	95.98%	9.145%
3	8.629	8.571	8.663	BB	637462	6638950	97.25%	9.266%
4	10.238	10.187	10.292	BB	603045	6672074	97.74%	9.312%
5	11.683	11.642	11.732	BB	596110	6781428	99.34%	9.465%
6	12.996	12.954	13.052	BB	557288	6826691	100.00%	9.528%
7	14.196	14.158	14.247	VB	536885	6588206	96.51%	9.195%
8	15.097	15.054	15.130	BV	420020	5763745	84.43%	8.045%
9	15.302	15.166	15.352	VB	515567	6541981	95.83%	9.131%
10	16.324	16.229	16.362	BB	498267	6457774	94.60%	9.013%
11	17.276	17.192	17.334	BB	462007	6405549	93.83%	8.940%
Sum of corrected areas:						71646665		

FF061325.M Tue Jul 01 04:09:13 2025

DIESEL RANGE ORGANICS CONTINUING CALIBRATION SUMMARY

50 PPM TRPH STD

Lab Name: Chemtech Contract: CAMP02
ProjectID: South River WM Replacement
Lab Code: CHEM Case No.: Q2413 SAS No.: Q2413 SDG No.: Q2413
DataFile: FF016056.D Analyst Name: YP\AJ Analyst Date: 07-01-2025

Conc. (PPM)	Area Count	RF	Average RF	%D
500	66132155	132264	134918	1.967

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF063025\
 Data File : FF016056.D
 Signal(s) : FID2B.ch
 Acq On : 01 Jul 2025 02:08
 Operator : YP\AJ
 Sample : 50 PPM TRPH STD
 Misc :
 ALS Vial : 3 Sample Multiplier: 1

Instrument :
 FID_F
 ClientSampleId :
 50 PPM TRPH STD

Integration File: autoint1.e
 Quant Time: Jul 01 03:18:25 2025
 Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF061325.M
 Quant Title :
 QLast Update : Fri Jun 13 15:23:30 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...	15.096	5855996	48.499 ug/ml
Target Compounds			
2) N-DECANE	4.621	6563067	50.091 ug/ml
3) N-DODECANE	6.796	6685594	50.208 ug/ml
4) N-TETRADECANE	8.629	6683179	49.866 ug/ml
5) N-HEXADECANE	10.237	6694046	49.565 ug/ml
6) N-OCTADECANE	11.683	6807988	49.108 ug/ml
7) N-EICOSANE	12.995	6807379	48.750 ug/ml
8) N-DOCOSANE	14.196	6599785	48.575 ug/ml
10) N-TETRACOSANE	15.301	6554051	48.359 ug/ml
11) N-HEXACOSANE	16.325	6443992	48.005 ug/ml
12) N-OCTACOSANE	17.277	6293074	47.668 ug/ml

(f)=RT Delta > 1/2 Window

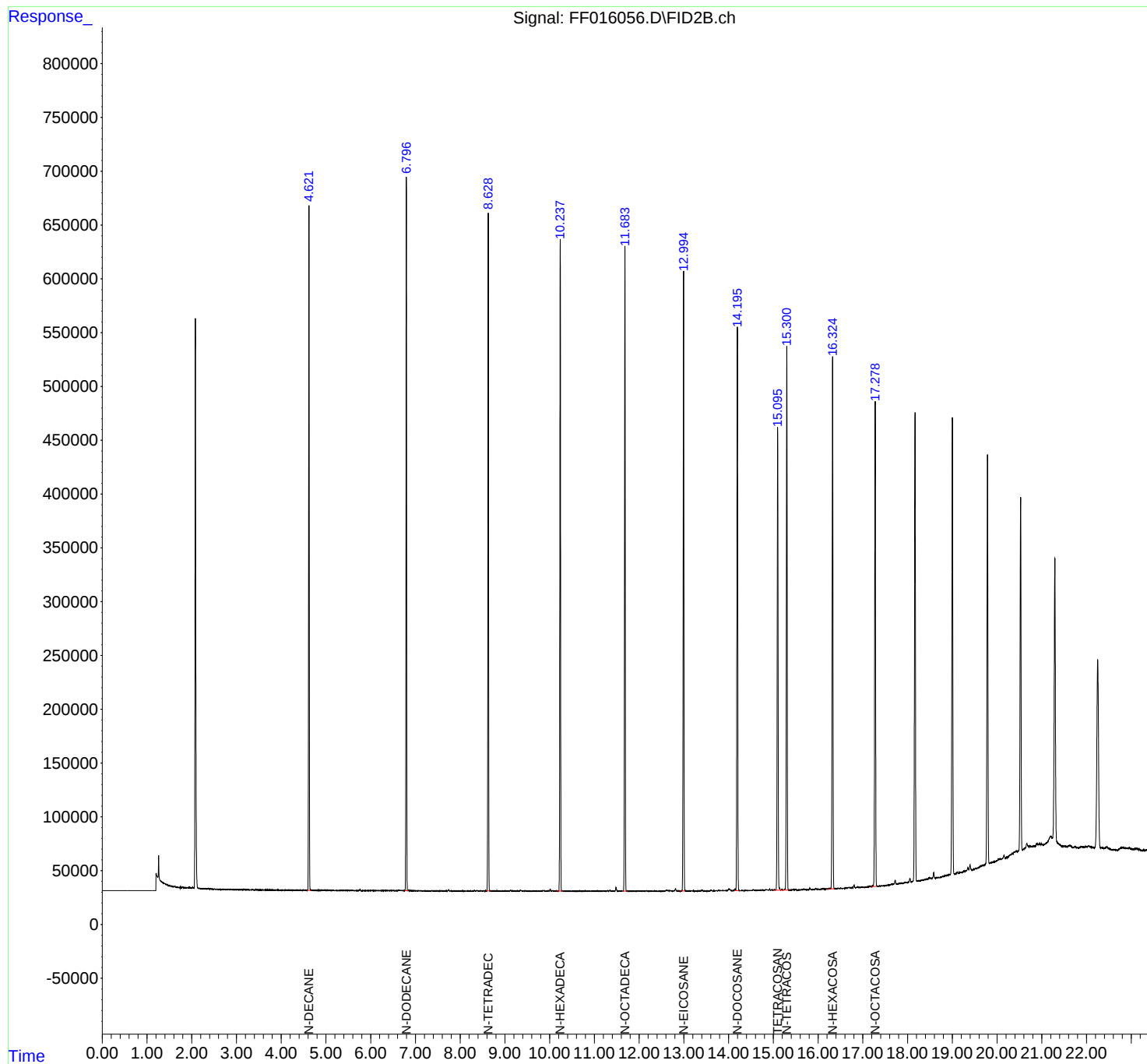
(m)=manual int.

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF063025\
Data File : FF016056.D
Signal(s) : FID2B.ch
Acq On : 01 Jul 2025 02:08
Operator : YP\AJ
Sample : 50 PPM TRPH STD
Misc :
ALS Vial : 3 Sample Multiplier: 1

Instrument :
FID_F
ClientSampleId :
50 PPM TRPH STD

Integration File: autoint1.e
Quant Time: Jul 01 03:18:25 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF061325.M
Quant Title :
QLast Update : Fri Jun 13 15:23:30 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\FF063025\
Data File : FF016056.D
Signal(s) : FID2B.ch
Acq On : 01 Jul 2025 02:08
Sample : 50 PPM TRPH STD
Misc :
ALS Vial : 3 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF061325.M
Title :

Signal : FID2B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	4.621	4.584	4.675	BB	635854	6563067	96.40%	9.117%
2	6.796	6.760	6.842	BB	662275	6685594	98.20%	9.287%
3	8.629	8.585	8.670	BB	631187	6683179	98.17%	9.284%
4	10.237	10.154	10.294	BB	606020	6694046	98.33%	9.299%
5	11.683	11.632	11.724	BB	597353	6807988	100.00%	9.457%
6	12.995	12.917	13.029	BB	577478	6807379	99.99%	9.456%
7	14.196	14.158	14.237	VB	524078	6599785	96.94%	9.168%
8	15.096	15.000	15.165	BV	429416	5855996	86.02%	8.135%
9	15.301	15.165	15.354	VB	503979	6554051	96.27%	9.104%
10	16.325	16.212	16.372	BB	494995	6443992	94.65%	8.951%
11	17.277	17.190	17.314	BB	449901	6293074	92.44%	8.742%
Sum of corrected areas:						71988150		

FF061325.M Tue Jul 01 04:13:32 2025

Analytical Sequence

Client: CDM Smith

SDG No.: Q2413

Project: South River WM Replacement

Instrument ID: FID_F

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 15.0944					
EPA SAMPLE NO.	LAB SAMPLE ID	DATE AND TIME ANALYZED	DATAFILE	RT	#
PIBLK01	LBLK01	30 Jun 2025 18:41	FF016042.D	15.094	
50 PPM TRPH STD	50 PPM TRPH STD	30 Jun 2025 19:11	FF016043.D	15.097	
PB168658BL	PB168658BL	30 Jun 2025 20:41	FF016045.D	15.093	
PB168658BS	PB168658BS	30 Jun 2025 21:11	FF016046.D	15.093	
TP-35	Q2413-01	30 Jun 2025 21:40	FF016047.D	15.095	
TP-35MS	Q2413-01MS	30 Jun 2025 22:10	FF016048.D	15.094	
TP-35MSD	Q2413-01MSD	30 Jun 2025 22:40	FF016049.D	15.094	
TP-34	Q2413-02	30 Jun 2025 23:10	FF016050.D	15.093	
TP-77	Q2413-03	30 Jun 2025 23:40	FF016051.D	15.094	
TP-74	Q2413-04	01 Jul 2025 00:09	FF016052.D	15.094	
TP-73	Q2413-05	01 Jul 2025 00:39	FF016053.D	15.094	
TP-72	Q2413-06	01 Jul 2025 01:09	FF016054.D	15.095	
PIBLK02	LBLK02	01 Jul 2025 01:38	FF016055.D	15.093	
50 PPM TRPH STD	50 PPM TRPH STD	01 Jul 2025 02:08	FF016056.D	15.096	



QC SAMPLE DATA

Report of Analysis

Client:	CDM Smith	Date Collected:	
Project:	South River WM Replacement	Date Received:	
Client Sample ID:	PB168658BL	SDG No.:	Q2413
Lab Sample ID:	PB168658BL	Matrix:	SOIL
Analytical Method:	8015D DRO	% Solid:	100
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
FF016045.D	1	06/30/25 09:50	06/30/25 20:41	PB168658

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
DRO	DRO	169	U	169	1670	ug/kg
SURROGATES						
16416-32-3	Tetracosane-d50	22.8		37 - 130	114%	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\FF063025\
Data File : FF016045.D
Signal(s) : FID2B.ch
Acq On : 30 Jun 2025 20:41
Operator : YP\AJ
Sample : PB168658BL
Misc :
ALS Vial : 81 Sample Multiplier: 1

Instrument :
FID_F
ClientSampleId :
PB168658BL

Integration File: autoint1.e
Quant Time: Jul 01 03:16:13 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF061325.M
Quant Title :
QLast Update : Fri Jun 13 15:23:30 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...	15.093	2754486	22.813 ug/ml

Target Compounds

(f)=RT Delta > 1/2 Window

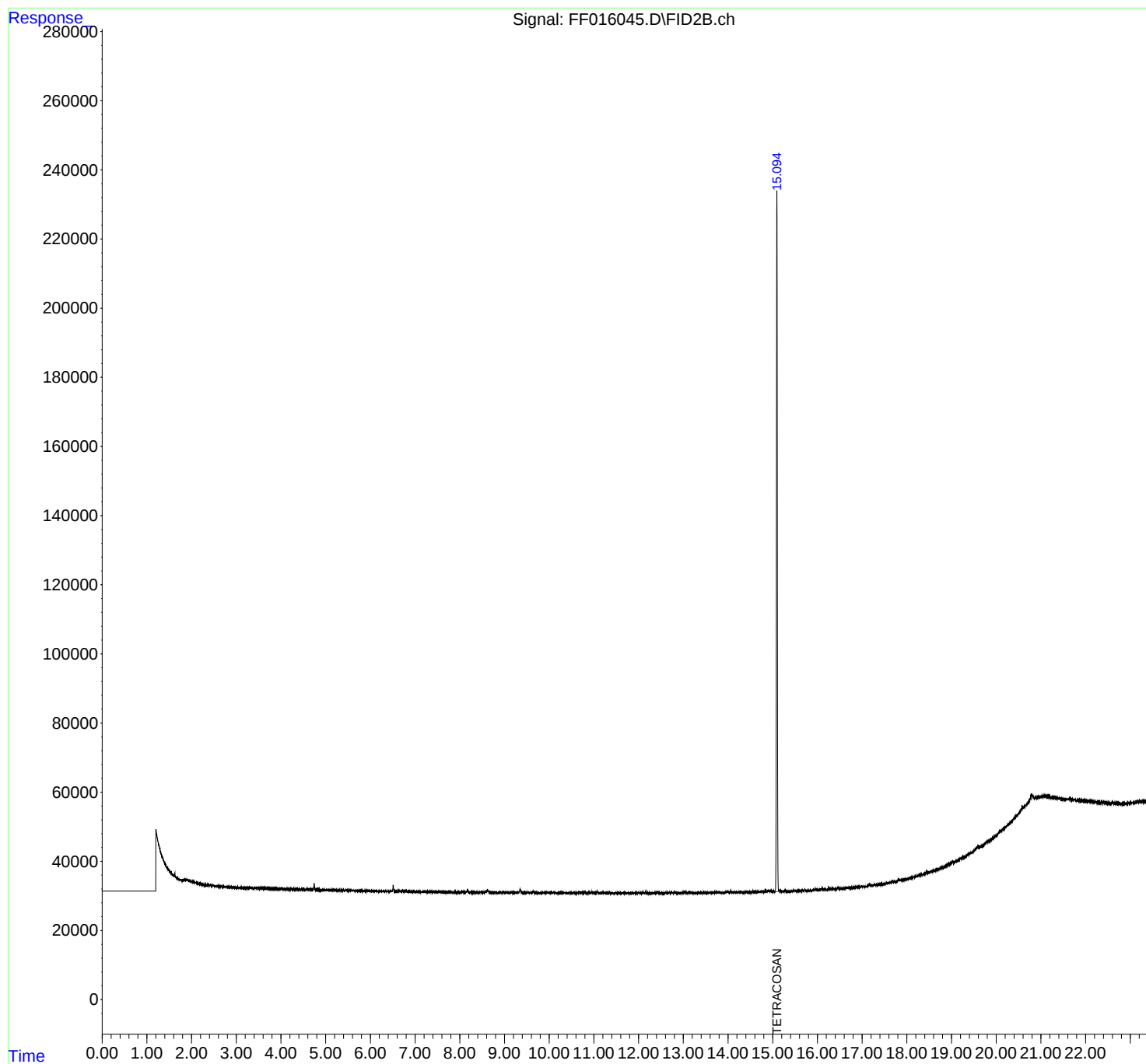
(m)=manual int.

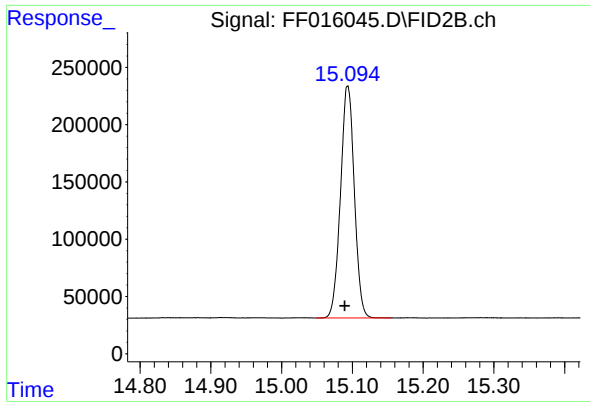
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF063025\
Data File : FF016045.D
Signal(s) : FID2B.ch
Acq On : 30 Jun 2025 20:41
Operator : YP\AJ
Sample : PB168658BL
Misc :
ALS Vial : 81 Sample Multiplier: 1

Instrument :
FID_F
ClientSampleId :
PB168658BL

Integration File: autoint1.e
Quant Time: Jul 01 03:16:13 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF061325.M
Quant Title :
QLast Update : Fri Jun 13 15:23:30 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.: 15.093 min
Delta R.T.: 0.004 min
Response: 2754486
Conc: 22.81 ug/ml

Instrument :
FID_F
ClientSampleId :
PB168658BL

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF063025\
Data File : FF016045.D
Signal(s) : FID2B.ch
Acq On : 30 Jun 2025 20:41
Sample : PB168658BL
Misc :
ALS Vial : 81 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF061325.M
Title :

Signal : FID2B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	15.093	15.049	15.155	BB	202592	2754486	100.00%	100.000%
Sum of corrected areas:						2754486		

FF061325.M Tue Jul 01 04:12:08 2025

Report of Analysis

Client:	CDM Smith	Date Collected:	06/30/25
Project:	South River WM Replacement	Date Received:	06/30/25
Client Sample ID:	PIBLK-FF016042.D	SDG No.:	Q2413
Lab Sample ID:	I.BLK-FF016042.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
FF016042.D	1		06/30/25	FF063025

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
DRO	DRO	6.00	U	6.00	50.0	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\FF063025\
Data File : FF016042.D
Signal(s) : FID2B.ch
Acq On : 30 Jun 2025 18:41
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: Jul 01 03:15:39 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF061325.M
Quant Title :
QLast Update : Fri Jun 13 15:23:30 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...	15.094	2028818	16.803 ug/ml

Target Compounds

(f)=RT Delta > 1/2 Window

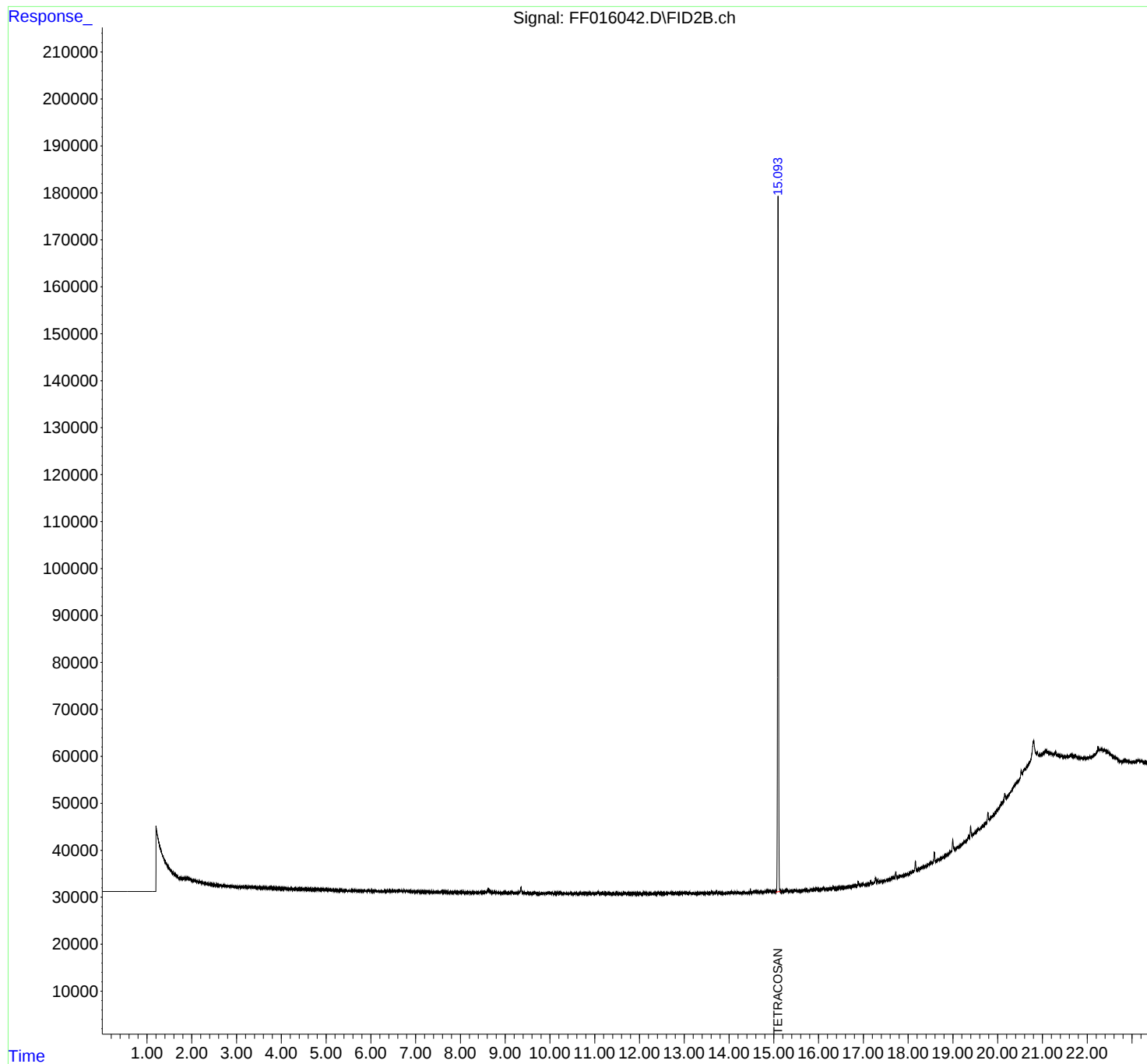
(m)=manual int.

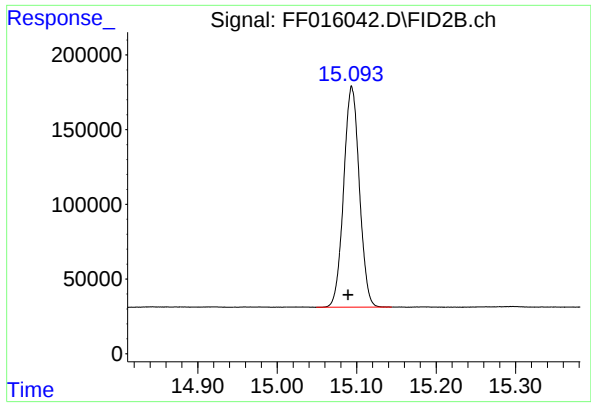
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF063025\
Data File : FF016042.D
Signal(s) : FID2B.ch
Acq On : 30 Jun 2025 18:41
Operator : YP\AJ
Sample : I.BLK
Misc :
ALS Vial : 52 Sample Multiplier: 1

Instrument :
FID_F
ClientSampleId :
I.BLK

Integration File: autoint1.e
Quant Time: Jul 01 03:15:39 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF061325.M
Quant Title :
QLast Update : Fri Jun 13 15:23:30 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.: 15.094 min
Delta R.T.: 0.005 min
Response: 2028818
Conc: 16.80 ug/ml

Instrument :
FID_F
ClientSampleId :
I.BLK

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF063025\
Data File : FF016042.D
Signal(s) : FID2B.ch
Acq On : 30 Jun 2025 18:41
Sample : I.BLK
Misc :
ALS Vial : 52 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF061325.M
Title :

Signal : FID2B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	15.094	15.049	15.144	BB	147686	2028818	100.00%	100.000%
Sum of corrected areas:						2028818		

FF061325.M Tue Jul 01 04:08:39 2025

Report of Analysis

Client:	CDM Smith	Date Collected:	07/01/25
Project:	South River WM Replacement	Date Received:	07/01/25
Client Sample ID:	PIBLK-FF016055.D	SDG No.:	Q2413
Lab Sample ID:	I.BLK-FF016055.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
FF016055.D	1		07/01/25	FF063025

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
DRO	DRO	6.00	U	6.00	50.0	ug/L
SURROGATES						
16416-32-3	Tetracosane-d50	15.8		29 - 130	79%	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\FF063025\
Data File : FF016055.D
Signal(s) : FID2B.ch
Acq On : 01 Jul 2025 01:38
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: Jul 01 03:18:14 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF061325.M
Quant Title :
QLast Update : Fri Jun 13 15:23:30 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...	15.093	1904957	15.777 ug/ml
Target Compounds			

(f)=RT Delta > 1/2 Window

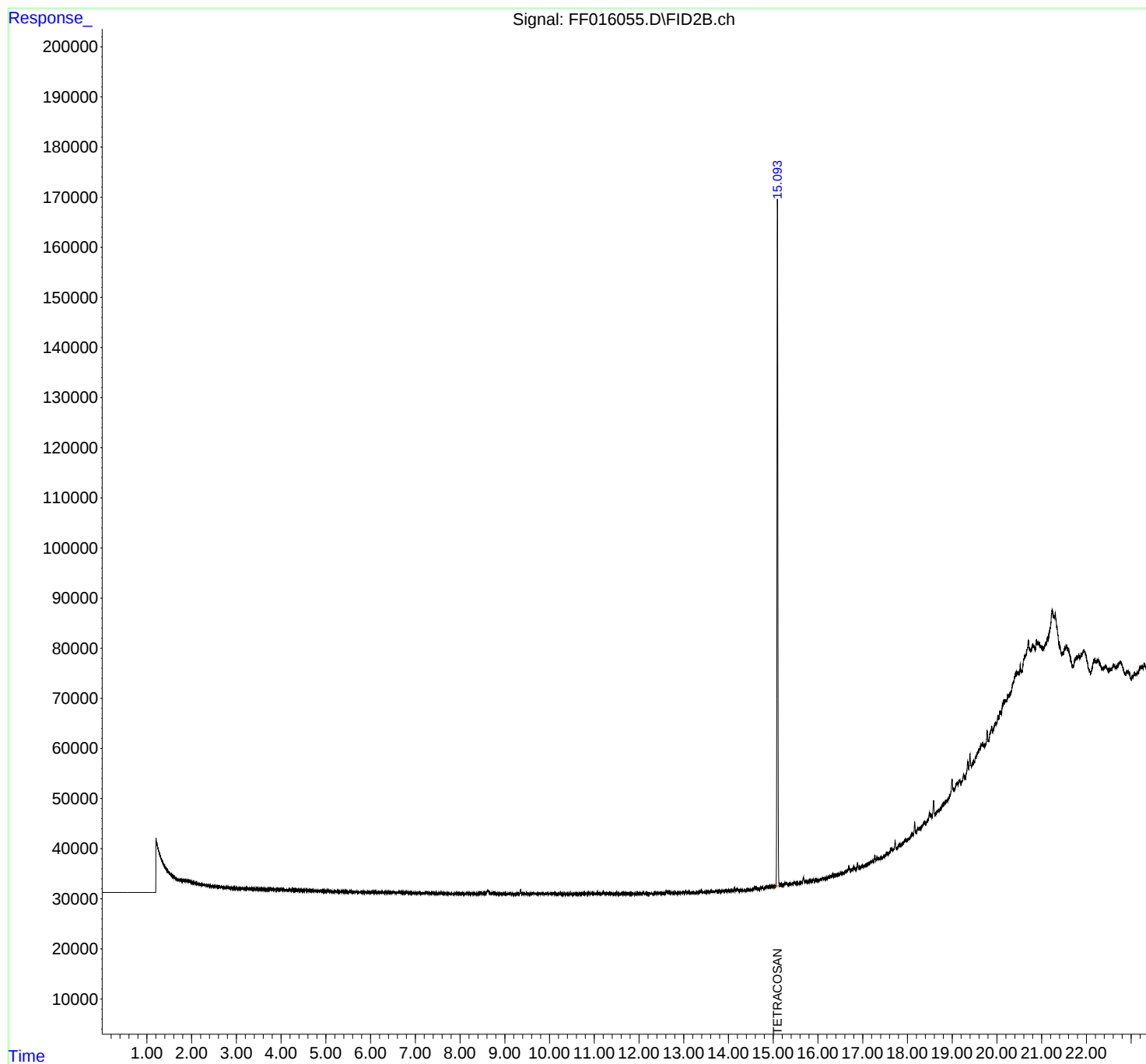
(m)=manual int.

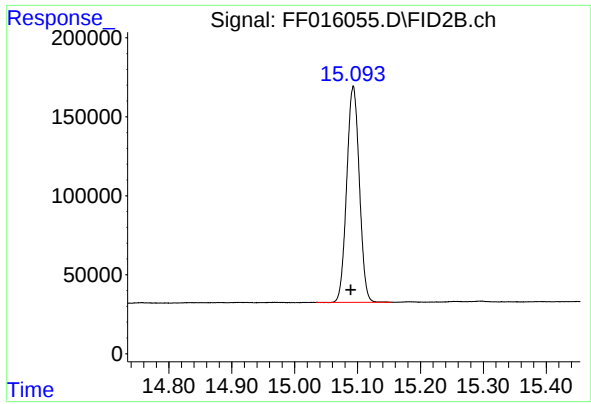
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF063025\
Data File : FF016055.D
Signal(s) : FID2B.ch
Acq On : 01 Jul 2025 01:38
Operator : YP\AJ
Sample : I.BLK
Misc :
ALS Vial : 52 Sample Multiplier: 1

Instrument :
FID_F
ClientSampleId :
I.BLK

Integration File: autoint1.e
Quant Time: Jul 01 03:18:14 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF061325.M
Quant Title :
QLast Update : Fri Jun 13 15:23:30 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.: 15.093 min
Delta R.T.: 0.004 min
Response: 1904957
Conc: 15.78 ug/ml

Instrument :
FID_F
ClientSampleId :
I.BLK

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF063025\
Data File : FF016055.D
Signal(s) : FID2B.ch
Acq On : 01 Jul 2025 01:38
Sample : I.BLK
Misc :
ALS Vial : 52 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF061325.M
Title :

Signal : FID2B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	15.093	15.034	15.154	BB	136495	1904957	100.00%	100.000%
Sum of corrected areas:						1904957		

FF061325.M Tue Jul 01 04:13:06 2025

Report of Analysis

Client:	CDM Smith	Date Collected:	
Project:	South River WM Replacement	Date Received:	
Client Sample ID:	PB168658BS	SDG No.:	Q2413
Lab Sample ID:	PB168658BS	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
FF016046.D	1	06/30/25 09:50	06/30/25 21:11	PB168658

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
DRO	DRO	4930		169	1670	ug/kg
SURROGATES						
16416-32-3	Tetracosane-d50	14.3		37 - 130	72%	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\FF063025\
 Data File : FF016046.D
 Signal(s) : FID2B.ch
 Acq On : 30 Jun 2025 21:11
 Operator : YP\AJ
 Sample : PB168658BS
 Misc :
 ALS Vial : 82 Sample Multiplier: 1

Instrument :
 FID_F
 ClientSampleId :
 PB168658BS

Integration File: autoint1.e
 Quant Time: Jul 01 03:16:23 2025
 Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF061325.M
 Quant Title :
 QLast Update : Fri Jun 13 15:23:30 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...	15.093	1727427	14.307 ug/ml
Target Compounds			
2) N-DECANE	4.618	1850221	14.121 ug/ml
3) N-DODECANE	6.793	1952866	14.666 ug/ml
4) N-TETRADECANE	8.626	1941988	14.490 ug/ml
5) N-HEXADECANE	10.234	2004084	14.839 ug/ml
6) N-OCTADECANE	11.679	2097075	15.127 ug/ml
7) N-EICOSANE	12.991	2060401	14.755 ug/ml
8) N-DOCOSANE	14.192	2043824	15.043 ug/ml
10) N-TETRACOSANE	15.297	2036452	15.026 ug/ml
11) N-HEXACOSANE	16.320	1995613	14.866 ug/ml
12) N-OCTACOSANE	17.272	1965226	14.886 ug/ml

(f)=RT Delta > 1/2 Window

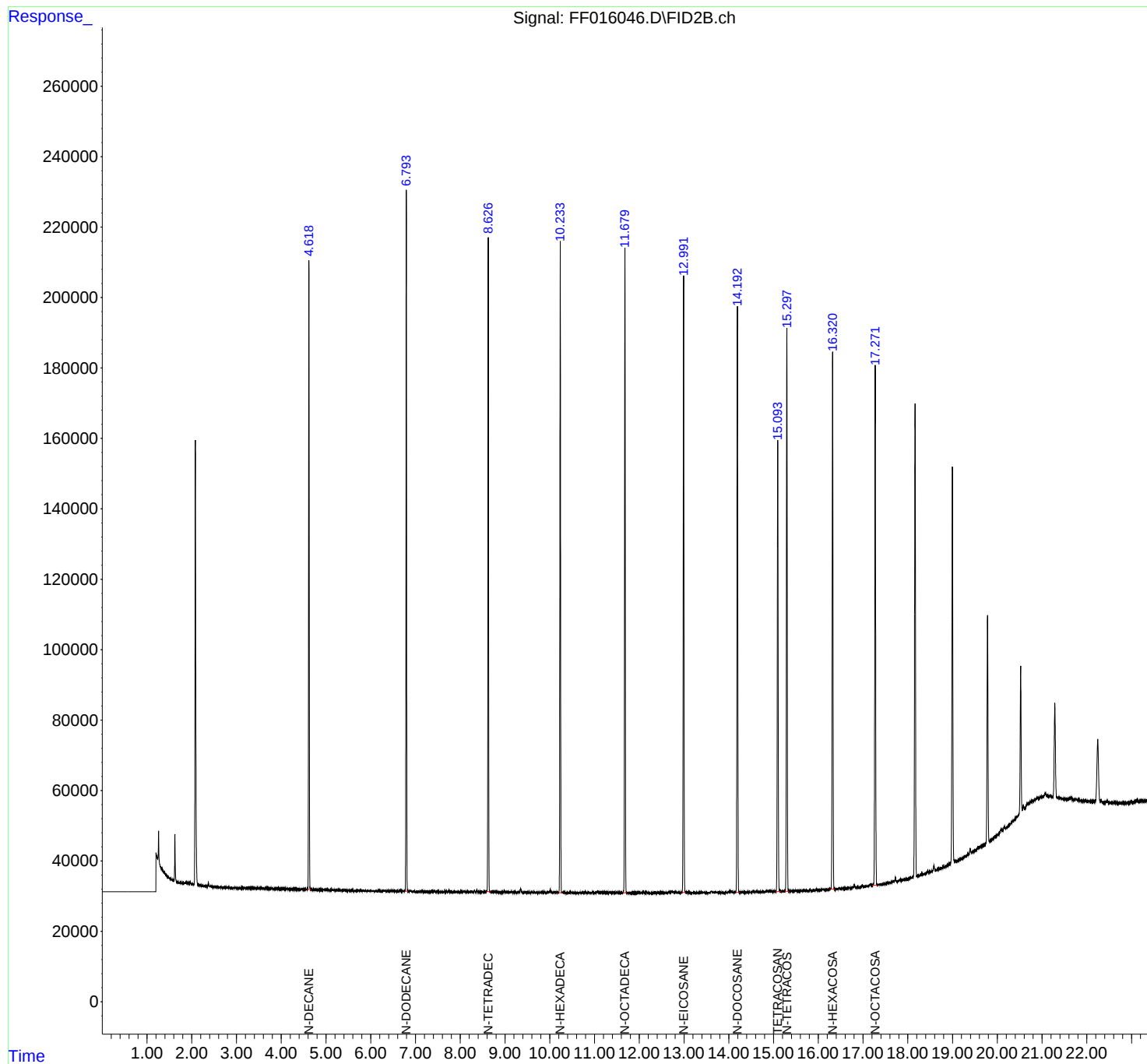
(m)=manual int.

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF063025\
Data File : FF016046.D
Signal(s) : FID2B.ch
Acq On : 30 Jun 2025 21:11
Operator : YP\AJ
Sample : PB168658BS
Misc :
ALS Vial : 82 Sample Multiplier: 1

Instrument :
FID_F
ClientSampleId :
PB168658BS

Integration File: autoint1.e
Quant Time: Jul 01 03:16:23 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF061325.M
Quant Title :
QLast Update : Fri Jun 13 15:23:30 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\FF063025\
Data File : FF016046.D
Signal(s) : FID2B.ch
Acq On : 30 Jun 2025 21:11
Sample : PB168658BS
Misc :
ALS Vial : 82 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF061325.M
Title :

Signal : FID2B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	4.618	4.584	4.671	BB	178655	1850221	88.23%	8.536%
2	6.794	6.764	6.836	BB	199137	1952866	93.12%	9.010%
3	8.626	8.592	8.676	BB	185730	1941988	92.60%	8.960%
4	10.234	10.201	10.276	BB	185213	2004084	95.57%	9.246%
5	11.679	11.626	11.717	BB	183029	2097075	100.00%	9.675%
6	12.991	12.954	13.027	BB	175147	2060401	98.25%	9.506%
7	14.192	14.156	14.234	BB	166689	2043824	97.46%	9.429%
8	15.093	15.054	15.156	BB	128452	1727427	82.37%	7.970%
9	15.297	15.247	15.333	BB	159285	2036452	97.11%	9.395%
10	16.320	16.259	16.372	BB	152710	1995613	95.16%	9.207%
11	17.272	17.207	17.319	BB	147439	1965226	93.71%	9.067%
Sum of corrected areas:						21675177		

FF061325.M Tue Jul 01 04:12:30 2025

Report of Analysis

Client:	CDM Smith	Date Collected:	06/23/25
Project:	South River WM Replacement	Date Received:	06/24/25
Client Sample ID:	TP-35MS	SDG No.:	Q2413
Lab Sample ID:	Q2413-01MS	Matrix:	SOIL
Analytical Method:	8015D DRO	% Solid:	88.8
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
FF016048.D	1	06/30/25 09:50	06/30/25 22:10	PB168658

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
DRO	DRO	33000		190	1870	ug/kg
SURROGATES						
16416-32-3	Tetracosane-d50	14.9		37 - 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\FF063025\
 Data File : FF016048.D
 Signal(s) : FID2B.ch
 Acq On : 30 Jun 2025 22:10
 Operator : YP\AJ
 Sample : Q2413-01MS
 Misc :
 ALS Vial : 84 Sample Multiplier: 1

Instrument :
 FID_F
 ClientSampleId :
 TP-35MS

Manual Integrations
 APPROVED

Reviewed By :Yogesh Patel 07/01/2025
 Supervised By :mohammad ahmed 07/01/2025

Integration File: autoint1.e
 Quant Time: Jul 01 03:16:48 2025
 Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF061325.M
 Quant Title :
 QLast Update : Fri Jun 13 15:23:30 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...	15.094	1795982	14.874 ug/ml
Target Compounds			
2) N-DECANE	4.619	1953746	14.912 ug/ml
3) N-DODECANE	6.794	2100819	15.777 ug/ml
4) N-TETRADECANE	8.626	2275252	16.976 ug/ml
5) N-HEXADECANE	10.235	2476683	18.338 ug/ml
6) N-OCTADECANE	11.680	2334298	16.838 ug/ml
7) N-EICOSANE	12.993	2743931	19.650 ug/ml
8) N-DOCOSANE	14.193	3244619	23.881 ug/ml
10) N-TETRACOSANE	15.297	1808405	13.343 ug/mlm
11) N-HEXACOSANE	16.323	2501418	18.634 ug/ml
12) N-OCTACOSANE	17.274	3417250	25.885 ug/ml

(f)=RT Delta > 1/2 Window

(m)=manual int.

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF063025\
Data File : FF016048.D
Signal(s) : FID2B.ch
Acq On : 30 Jun 2025 22:10
Operator : YP\AJ
Sample : Q2413-01MS
Misc :
ALS Vial : 84 Sample Multiplier: 1

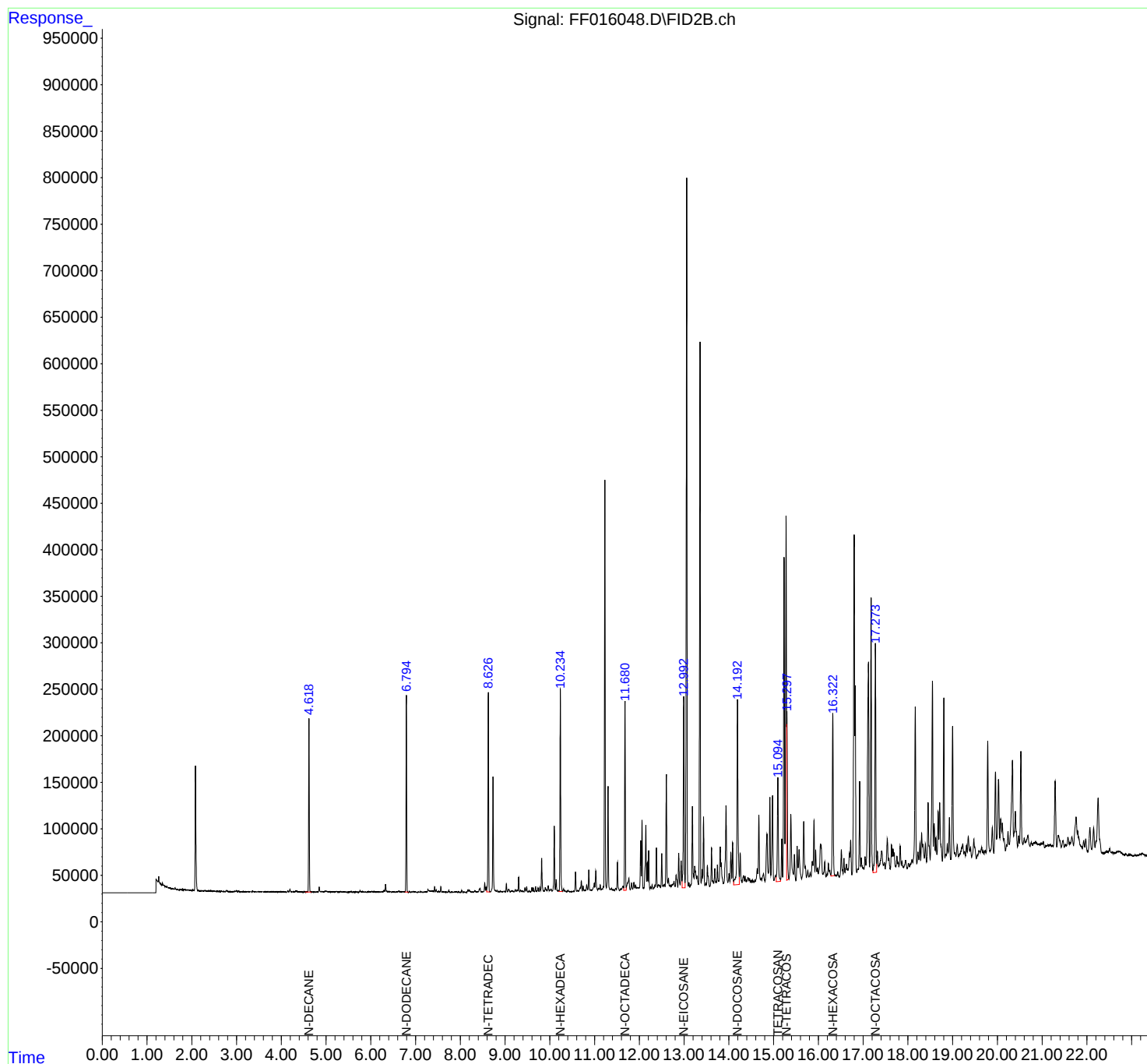
Instrument :
FID_F
ClientSampleId :
TP-35MS

Manual Integrations
APPROVED

Reviewed By :Yogesh Patel 07/01/2025
Supervised By :mohammad ahmed 07/01/2025

Integration File: autoint1.e
Quant Time: Jul 01 03:16:48 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF061325.M
Quant Title :
QLast Update : Fri Jun 13 15:23:30 2025
Response via : Initial Calibration
Integrator: ChemStation

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



Instrument :

FID_F

ClientSampleId :

TP-35MS

Area Percent Report

Manual IntegrationsAPPROVED

Reviewed By :Yogesh Patel 07/01/2025

Supervised By :mohammad ahmed 07/01/2025

rteres

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF06302
Data File : FF016048.D
Signal(s) : FID2B.ch
Acq On : 30 Jun 2025 22:10
Sample : Q2413-01MS
Misc :
ALS Vial : 84 Sample Multiplier: 1

Integration File: Sample.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF061325.M
Title :

Signal : FID2B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	4.433	4.406	4.485	BV	156	2101	0.02%	0.002%
2	4.514	4.485	4.539	PV	324	4954	0.05%	0.004%
3	4.572	4.539	4.591	VV	482	8966	0.10%	0.007%
4	4.619	4.591	4.648	VV	186733	1949279	20.89%	1.615%
5	4.655	4.648	4.674	VV	519	5561	0.06%	0.005%
6	4.696	4.674	4.725	VV	257	5554	0.06%	0.005%
7	4.727	4.725	4.732	VV	143	404	0.00%	0.000%
8	4.735	4.732	4.741	VV	137	508	0.01%	0.000%
9	4.750	4.741	4.757	VV	203	1214	0.01%	0.001%
10	4.787	4.757	4.819	VV	351	8928	0.10%	0.007%
11	4.848	4.819	4.887	VV	5566	71516	0.77%	0.059%
12	4.904	4.887	4.920	VV	904	13086	0.14%	0.011%
13	4.932	4.920	4.947	VV	767	10244	0.11%	0.008%
14	4.987	4.947	5.003	VV	1269	29724	0.32%	0.025%
15	5.016	5.003	5.055	VV	1063	24617	0.26%	0.020%
16	5.081	5.055	5.099	VV	575	11583	0.12%	0.010%
17	5.102	5.099	5.107	VV	424	1931	0.02%	0.002%
18	5.135	5.107	5.160	VV	776	15407	0.17%	0.013%
19	5.163	5.160	5.182	VV	319	3378	0.04%	0.003%
20	5.205	5.182	5.212	VV	368	4724	0.05%	0.004%
21	5.235	5.212	5.266	VV	1117	18833	0.20%	0.016%
22	5.272	5.266	5.291	VV	335	4181	0.04%	0.003%
23	5.317	5.291	5.356	VV	651	16362	0.18%	0.014%
24	5.373	5.356	5.392	VV	582	7906	0.08%	0.007%
25	5.406	5.392	5.417	VV	391	4441	0.05%	0.004%
26	5.440	5.417	5.459	VV	542	9211	0.10%	0.008%
27	5.464	5.459	5.480	VV	241	1731	0.02%	0.001%
28	5.507	5.480	5.521	PV	397	5483	0.06%	0.005%
29	5.528	5.521	5.533	VV	226	1292	0.01%	0.001%
30	5.562	5.533	5.590	VV	1114	15421	0.17%	0.013%
31	5.603	5.590	5.622	VV	387	4574	0.05%	0.004%
32	5.631	5.622	5.655	VV	411	4873	0.05%	0.004%
33	5.664	5.655	5.680	VV	307	3704	0.04%	0.003%
34	5.682	5.680	5.694	VV	260	1752	0.02%	0.001%
35	5.701	5.694	5.721	VV	213	2103	0.02%	0.002%
36	5.761	5.721	5.789	VV	1923	28071	0.30%	0.023%

					retention			
37	5.814	5.789	5.848	VV	952	17758	0.19%	0.015%
38	5.862	5.848	5.910	VV	632	12028		
39	5.915	5.910	5.927	VV	379	3078		
40	5.945	5.927	5.975	VV	859	15088		
41	6.003	5.975	6.014	VV	773	11769		
42	6.028	6.014	6.047	VV	1131	14080		
43	6.072	6.047	6.116	VV	1241	24033	0.26%	0.020%
44	6.129	6.116	6.135	VV	431	3760	0.04%	0.003%
45	6.142	6.135	6.159	VV	436	5247	0.06%	0.004%
46	6.168	6.159	6.189	VV	454	6429	0.07%	0.005%
47	6.193	6.189	6.206	VV	398	3360	0.04%	0.003%
48	6.221	6.206	6.236	VV	546	7735	0.08%	0.006%
49	6.238	6.236	6.245	VV	486	2448	0.03%	0.002%
50	6.261	6.245	6.278	VV	1343	16586	0.18%	0.014%
51	6.295	6.278	6.311	VV	2353	28632	0.31%	0.024%
52	6.330	6.311	6.380	VV	8887	114518	1.23%	0.095%
53	6.387	6.380	6.391	VV	772	4685	0.05%	0.004%
54	6.405	6.391	6.422	VV	1244	15732	0.17%	0.013%
55	6.439	6.422	6.466	VV	923	13677	0.15%	0.011%
56	6.480	6.466	6.490	VV	393	4658	0.05%	0.004%
57	6.508	6.490	6.547	VV	785	16880	0.18%	0.014%
58	6.556	6.547	6.571	VV	358	4146	0.04%	0.003%
59	6.591	6.571	6.601	VV	608	8650	0.09%	0.007%
60	6.628	6.601	6.665	VV	1789	35212	0.38%	0.029%
61	6.678	6.665	6.692	VV	570	8134	0.09%	0.007%
62	6.717	6.692	6.757	VV	933	22659	0.24%	0.019%
63	6.794	6.757	6.847	VV	212069	2115370	22.67%	1.753%
64	6.867	6.847	6.897	VV	930	14090	0.15%	0.012%
65	6.921	6.897	6.931	VV	526	6875	0.07%	0.006%
66	6.948	6.931	6.969	VV	1149	15629	0.17%	0.013%
67	6.984	6.969	7.016	VV	734	11026	0.12%	0.009%
68	7.021	7.016	7.032	VV	181	934	0.01%	0.001%
69	7.073	7.032	7.095	VV	344	7423	0.08%	0.006%
70	7.118	7.095	7.152	VV	828	16545	0.18%	0.014%
71	7.163	7.152	7.182	VV	341	4080	0.04%	0.003%
72	7.197	7.182	7.220	VV	456	6953	0.07%	0.006%
73	7.251	7.220	7.259	VV	486	7980	0.09%	0.007%
74	7.277	7.259	7.313	VV	3285	64110	0.69%	0.053%
75	7.330	7.313	7.350	VV	1689	32358	0.35%	0.027%
76	7.372	7.350	7.402	VV	1531	38138	0.41%	0.032%
77	7.426	7.402	7.446	VV	6125	70584	0.76%	0.058%
78	7.461	7.446	7.500	VV	2564	37597	0.40%	0.031%
79	7.518	7.500	7.543	VV	1384	18647	0.20%	0.015%
80	7.565	7.543	7.597	VV	6435	69265	0.74%	0.057%
81	7.613	7.597	7.634	VV	554	8415	0.09%	0.007%
82	7.639	7.634	7.670	VV	431	6011	0.06%	0.005%
83	7.695	7.670	7.715	VV	366	6903	0.07%	0.006%
84	7.743	7.715	7.774	VV	2058	25155	0.27%	0.021%
85	7.802	7.774	7.808	PV	455	4698	0.05%	0.004%
86	7.814	7.808	7.824	VV	394	3085	0.03%	0.003%
87	7.830	7.824	7.846	VV	280	2872	0.03%	0.002%
88	7.870	7.846	7.884	VV	321	5376	0.06%	0.004%
89	7.900	7.884	7.908	VV	517	5562	0.06%	0.005%

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90	7.919	7.908	7.948	VV	600	9128	0.10%	0.008%
91	7.959	7.948	8.006	VV	452	6423		
92	8.033	8.006	8.060	PV	2319	26954		
93	8.087	8.060	8.105	VV	380	5772		
94	8.116	8.105	8.131	VV	197	2194		
95	8.134	8.131	8.141	VV	184	740		
96	8.170	8.141	8.187	VV	2659	36133	0.39%	0.030%
97	8.201	8.187	8.218	VV	2720	31835	0.34%	0.026%
98	8.225	8.218	8.258	VV	933	12125	0.13%	0.010%
99	8.270	8.258	8.289	VV	422	4186	0.04%	0.003%
100	8.328	8.289	8.357	VV	1751	34635	0.37%	0.029%
101	8.375	8.357	8.392	VV	827	13808	0.15%	0.011%
102	8.396	8.392	8.407	VV	544	4343	0.05%	0.004%
103	8.425	8.407	8.432	VV	3598	34346	0.37%	0.028%
104	8.442	8.432	8.478	VV	4313	51156	0.55%	0.042%
105	8.500	8.478	8.522	VV	629	11900	0.13%	0.010%
106	8.546	8.522	8.562	VV	9989	110222	1.18%	0.091%
107	8.574	8.562	8.587	VV	5508	56957	0.61%	0.047%
108	8.626	8.587	8.660	VV	214778	2288867	24.53%	1.897%
109	8.732	8.660	8.807	VV	124241	1425687	15.28%	1.181%
110	8.822	8.807	8.839	VV	2286	27159	0.29%	0.023%
111	8.855	8.839	8.868	VV	632	9380	0.10%	0.008%
112	8.871	8.868	8.882	VV	540	4029	0.04%	0.003%
113	8.892	8.882	8.946	VV	927	22511	0.24%	0.019%
114	8.978	8.946	9.002	VV	1128	21187	0.23%	0.018%
115	9.030	9.002	9.057	VV	8934	99533	1.07%	0.082%
116	9.077	9.057	9.119	VV	3039	59712	0.64%	0.049%
117	9.148	9.119	9.158	VV	1435	21494	0.23%	0.018%
118	9.166	9.158	9.182	VV	1580	17232	0.18%	0.014%
119	9.193	9.182	9.208	VV	733	9260	0.10%	0.008%
120	9.229	9.208	9.253	VV	2534	40341	0.43%	0.033%
121	9.272	9.253	9.285	VV	2419	31472	0.34%	0.026%
122	9.303	9.285	9.328	VV	16177	168583	1.81%	0.140%
123	9.348	9.328	9.377	VV	1875	33872	0.36%	0.028%
124	9.397	9.377	9.414	VV	1389	18848	0.20%	0.016%
125	9.443	9.414	9.465	VV	4698	63020	0.68%	0.052%
126	9.483	9.465	9.519	VV	5598	67116	0.72%	0.056%
127	9.539	9.519	9.570	VV	1462	18076	0.19%	0.015%
128	9.599	9.570	9.615	PV	4875	55273	0.59%	0.046%
129	9.630	9.615	9.653	VV	4588	49022	0.53%	0.041%
130	9.682	9.653	9.702	VV	5946	69991	0.75%	0.058%
131	9.736	9.702	9.758	VV	4600	65406	0.70%	0.054%
132	9.778	9.758	9.796	VV	5208	59751	0.64%	0.050%
133	9.818	9.796	9.877	VV	36316	447738	4.80%	0.371%
134	9.899	9.877	9.913	VV	5072	62431	0.67%	0.052%
135	9.920	9.913	9.933	VV	2610	25011	0.27%	0.021%
136	9.964	9.933	9.988	VV	6766	110302	1.18%	0.091%
137	10.000	9.988	10.014	VV	2250	30725	0.33%	0.025%
138	10.028	10.014	10.051	VV	2751	41998	0.45%	0.035%
139	10.099	10.051	10.121	VV	70807	791111	8.48%	0.656%
140	10.142	10.121	10.181	VV	13436	174708	1.87%	0.145%
141	10.194	10.181	10.206	VV	1487	17845	0.19%	0.015%

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					rteres				
142	10.235	10.206	10.285	VV	218065	2493755	26.72%	2.066%	
143	10.305	10.285	10.328	VV	3318	47236			
144	10.339	10.328	10.368	VV	1262	16096			
145	10.405	10.368	10.434	VV	1276	22690			
146	10.441	10.434	10.463	VV	335	3246			
147	10.475	10.463	10.495	PV	207	1923			
148	10.510	10.495	10.524	VV	444	4225	0.05%	0.004%	
149	10.537	10.524	10.547	VV	299	3196	0.03%	0.003%	
150	10.574	10.547	10.604	VV	21072	236012	2.53%	0.196%	
151	10.621	10.604	10.640	VV	1509	20912	0.22%	0.017%	
152	10.677	10.640	10.685	VV	3715	55840	0.60%	0.046%	
153	10.704	10.685	10.725	VV	11348	140359	1.50%	0.116%	
154	10.743	10.725	10.778	VV	5715	78298	0.84%	0.065%	
155	10.789	10.778	10.801	VV	1447	17521	0.19%	0.015%	
156	10.823	10.801	10.848	VV	6982	101775	1.09%	0.084%	
157	10.870	10.848	10.916	VV	23121	279883	3.00%	0.232%	
158	10.993	10.916	11.005	VV	8694	179458	1.92%	0.149%	
159	11.027	11.005	11.067	VV	21789	340018	3.64%	0.282%	
160	11.094	11.067	11.108	VV	2790	52324	0.56%	0.043%	
161	11.125	11.108	11.146	VV	6791	82261	0.88%	0.068%	
162	11.168	11.146	11.179	VV	2466	38744	0.42%	0.032%	
163	11.194	11.179	11.201	VV	4768	46264	0.50%	0.038%	
164	11.230	11.201	11.263	VV	442126	4803341	51.48%	3.980%	
165	11.300	11.263	11.342	VV	112591	1315651	14.10%	1.090%	
166	11.351	11.342	11.362	VV	1827	18140	0.19%	0.015%	
167	11.376	11.362	11.394	VV	2409	30962	0.33%	0.026%	
168	11.401	11.394	11.421	VV	941	13608	0.15%	0.011%	
169	11.432	11.421	11.453	VV	1081	15343	0.16%	0.013%	
170	11.469	11.453	11.488	VV	2477	31981	0.34%	0.027%	
171	11.510	11.488	11.556	VV	30441	345837	3.71%	0.287%	
172	11.587	11.556	11.602	PV	1700	28349	0.30%	0.023%	
173	11.634	11.602	11.650	VV	4604	87766	0.94%	0.073%	
174	11.680	11.650	11.706	VV	203337	2333548	25.01%	1.934%	
175	11.766	11.706	11.796	VV	13071	358581	3.84%	0.297%	
176	11.828	11.796	11.851	VV	7498	107621	1.15%	0.089%	
177	11.878	11.851	11.899	VV	8182	117642	1.26%	0.097%	
178	11.916	11.899	11.932	VV	5435	70696	0.76%	0.059%	
179	11.944	11.932	11.964	VV	2369	40938	0.44%	0.034%	
180	11.977	11.964	11.996	VV	2487	38690	0.41%	0.032%	
181	12.030	11.996	12.045	VV	52828	624437	6.69%	0.517%	
182	12.060	12.045	12.084	VV	74759	794845	8.52%	0.659%	
183	12.094	12.084	12.103	VV	2154	21445	0.23%	0.018%	
184	12.146	12.103	12.163	VV	68844	993410	10.65%	0.823%	
185	12.178	12.163	12.192	VV	28804	324254	3.47%	0.269%	
186	12.209	12.192	12.234	VV	41863	484282	5.19%	0.401%	
187	12.251	12.234	12.266	VV	2676	29864	0.32%	0.025%	
188	12.286	12.266	12.307	VV	4814	53291	0.57%	0.044%	
189	12.350	12.307	12.360	PV	4595	70738	0.76%	0.059%	
190	12.382	12.360	12.405	VV	44466	504317	5.40%	0.418%	
191	12.421	12.405	12.475	VV	4357	131269	1.41%	0.109%	
192	12.501	12.475	12.524	VV	37895	431548	4.62%	0.358%	
193	12.535	12.524	12.545	VV	3805	40935	0.44%	0.034%	
194	12.562	12.545	12.577	VV	4604	69822	0.75%	0.058%	

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195	12.604	12.577	12.634	VV	122789	1525348	16.35%	1.264%
196	12.651	12.634	12.669	VV	10748	152536		
197	12.678	12.669	12.695	VV	3533	45200		
198	12.708	12.695	12.719	VV	3466	41403		
199	12.732	12.719	12.743	VV	4040	48597		
200	12.775	12.743	12.801	VV	7364	151807		
201	12.822	12.801	12.858	VV	14140	252620	2.71%	0.209%
202	12.880	12.858	12.911	VV	37432	467739	5.01%	0.388%
203	12.935	12.911	12.954	VV	29273	401135	4.30%	0.332%
204	12.993	12.954	13.021	VV	205077	2744071	29.41%	2.274%
205	13.059	13.021	13.094	VV	761604	9331200	100.00%	7.732%
206	13.110	13.094	13.131	VV	5127	60558	0.65%	0.050%
207	13.148	13.131	13.155	VV	3099	31308	0.34%	0.026%
208	13.186	13.155	13.208	VV	87254	1077930	11.55%	0.893%
209	13.211	13.208	13.222	VV	13860	109604	1.17%	0.091%
210	13.237	13.222	13.277	VV	22998	512577	5.49%	0.425%
211	13.292	13.277	13.321	VV	12573	218166	2.34%	0.181%
212	13.357	13.321	13.379	VV	585714	6658519	71.36%	5.517%
213	13.405	13.379	13.416	VV	18783	241995	2.59%	0.201%
214	13.435	13.416	13.469	VV	75329	907394	9.72%	0.752%
215	13.486	13.469	13.498	VV	3829	49302	0.53%	0.041%
216	13.520	13.498	13.573	VV	23186	396035	4.24%	0.328%
217	13.613	13.573	13.636	PV	41672	532422	5.71%	0.441%
218	13.643	13.636	13.660	VV	6233	74453	0.80%	0.062%
219	13.686	13.660	13.705	VV	19252	270596	2.90%	0.224%
220	13.716	13.705	13.725	VV	5323	54097	0.58%	0.045%
221	13.744	13.725	13.765	VV	22946	293977	3.15%	0.244%
222	13.773	13.765	13.779	VV	6013	48033	0.51%	0.040%
223	13.807	13.779	13.821	VV	42115	603974	6.47%	0.500%
224	13.829	13.821	13.881	VV	24688	405947	4.35%	0.336%
225	13.936	13.881	13.977	VV	85723	1491234	15.98%	1.236%
226	14.005	13.977	14.023	VV	12825	202335	2.17%	0.168%
227	14.045	14.023	14.065	VV	34705	500096	5.36%	0.414%
228	14.084	14.065	14.107	VV	45717	559782	6.00%	0.464%
229	14.127	14.107	14.133	VV	5690	79065	0.85%	0.066%
230	14.193	14.133	14.234	VV	199144	3165923	33.93%	2.623%
231	14.254	14.234	14.294	VV	33151	482034	5.17%	0.399%
232	14.329	14.294	14.346	VV	9258	190094	2.04%	0.158%
233	14.363	14.346	14.385	VV	8192	126305	1.35%	0.105%
234	14.396	14.385	14.404	VV	3952	38511	0.41%	0.032%
235	14.425	14.404	14.452	VV	6565	142252	1.52%	0.118%
236	14.465	14.452	14.482	VV	5313	70871	0.76%	0.059%
237	14.490	14.482	14.506	VV	3015	33091	0.35%	0.027%
238	14.522	14.506	14.539	VV	3659	47187	0.51%	0.039%
239	14.547	14.539	14.563	VV	2194	28253	0.30%	0.023%
240	14.579	14.563	14.593	VV	3771	48605	0.52%	0.040%
241	14.632	14.593	14.647	VV	14557	275210	2.95%	0.228%
242	14.670	14.647	14.708	VV	73135	974720	10.45%	0.808%
243	14.722	14.708	14.739	VV	4681	75934	0.81%	0.063%
244	14.773	14.739	14.807	VV	9871	242499	2.60%	0.201%
245	14.852	14.807	14.883	VV	52209	1078690	11.56%	0.894%
246	14.916	14.883	14.938	VV	91117	1259510	13.50%	1.044%

Manual IntegrationsAPPROVED

Reviewed By :Yogesh Patel 07/01/2025

Supervised By :mohammad ahmed 07/01/2025

							Instrument : FID_F	
							ClientSampleId : TP-35MS	
Parameters								
247	14.976	14.938	15.008	VV	92785	1452562	15.57%	1.204%
248	15.041	15.008	15.057	VV	6280	133229	1.03%	0.002%
249	15.094	15.057	15.156	VV	111949	1797376	19.74%	1.452%
250	15.182	15.156	15.202	VV	45746	546376	5.05%	0.313%
							Reviewed By :Yogesh	
251	15.234	15.202	15.254	VV	348178	4760116	51.74%	3.261%
252	15.279	15.254	15.293	VV	392072	5144452	59.52%	3.744%
253	15.297	15.293	15.341	VV	182145	1752875	18.79%	1.452%
254	15.385	15.341	15.443	VV	71162	1375216	14.74%	1.140%
255	15.465	15.443	15.498	VV	28141	377857	4.05%	0.313%
							Supervised By :m	
256	15.526	15.498	15.547	PV	36723	493591	5.29%	0.409%
257	15.570	15.547	15.625	VV	32765	656297	7.03%	0.544%
258	15.673	15.625	15.700	VV	62545	998727	10.70%	0.828%
259	15.711	15.700	15.734	VV	13820	189698	2.03%	0.157%
260	15.764	15.734	15.794	VV	9441	182570	1.96%	0.151%
261	15.816	15.794	15.837	VV	6598	117061	1.25%	0.097%
262	15.864	15.837	15.881	VV	18895	343015	3.68%	0.284%
263	15.903	15.881	15.922	VV	62986	859730	9.21%	0.712%
264	15.939	15.922	15.962	VV	31143	434568	4.66%	0.360%
265	15.983	15.962	16.000	VV	11316	197862	2.12%	0.164%
266	16.047	16.000	16.057	VV	36163	651612	6.98%	0.540%
267	16.061	16.057	16.098	VV	35445	496464	5.32%	0.411%
268	16.143	16.098	16.169	VV	17601	333503	3.57%	0.276%
269	16.194	16.169	16.205	VV	4090	64738	0.69%	0.054%
270	16.225	16.205	16.241	VV	15411	210977	2.26%	0.175%
271	16.245	16.241	16.278	VV	7591	121084	1.30%	0.100%
272	16.323	16.278	16.371	VV	175695	2597375	27.84%	2.152%
273	16.385	16.371	16.399	VV	2390	34226	0.37%	0.028%
274	16.405	16.399	16.412	VV	1920	13210	0.14%	0.011%
275	16.431	16.412	16.473	VV	5224	82000	0.88%	0.068%
276	16.514	16.473	16.534	PV	28996	425487	4.56%	0.353%
277	16.540	16.534	16.553	VV	7073	62498	0.67%	0.052%
278	16.572	16.553	16.593	VV	19399	252468	2.71%	0.209%
279	16.627	16.593	16.644	VV	12558	255076	2.73%	0.211%
280	16.654	16.644	16.668	VV	7351	97026	1.04%	0.080%
281	16.695	16.668	16.705	VV	23653	353047	3.78%	0.293%
282	16.722	16.705	16.748	VV	37624	531763	5.70%	0.441%
283	16.801	16.748	16.816	PV	365349	5761721	61.75%	4.774%
284	16.826	16.816	16.858	VV	203121	2024267	21.69%	1.677%
285	16.882	16.858	16.896	VV	5319	95481	1.02%	0.079%
286	16.923	16.896	16.944	VV	98937	1256535	13.47%	1.041%
287	16.959	16.944	17.001	VV	16669	321307	3.44%	0.266%
288	17.009	17.001	17.019	VV	5399	53643	0.57%	0.044%
289	17.042	17.019	17.063	VV	17294	282758	3.03%	0.234%
290	17.118	17.063	17.144	VV	224840	4439062	47.57%	3.678%
291	17.179	17.144	17.221	VV	294616	3971510	42.56%	3.291%
292	17.274	17.221	17.300	VV	244451	3331484	35.70%	2.761%
293	17.319	17.300	17.344	VV	20197	319522	3.42%	0.265%
294	17.359	17.344	17.363	VV	5309	52762	0.57%	0.044%
295	17.416	17.363	17.449	VV	19653	604774	6.48%	0.501%
296	17.452	17.449	17.460	VV	5303	32244	0.35%	0.027%
297	17.474	17.460	17.493	VV	7612	89717	0.96%	0.074%

Manual IntegrationsAPPROVED

Reviewed By :Yogesh Patel 07/01/2025
Supervised By :mohammad ahmed 07/01/2025

Sum of corrected areas: 120680281

FF061325.M Tue Jul 01 04:19:06 2025

rteres

Instrument :
FID_F
ClientSampleId :
TP-35MS

Manual IntegrationsAPPROVED

Reviewed By :Yogesh Patel 07/01/2025
Supervised By :mohammad ahmed 07/01/2025

Report of Analysis

Client:	CDM Smith	Date Collected:	06/23/25
Project:	South River WM Replacement	Date Received:	06/24/25
Client Sample ID:	TP-35MSD	SDG No.:	Q2413
Lab Sample ID:	Q2413-01MSD	Matrix:	SOIL
Analytical Method:	8015D DRO	% Solid:	88.8
Sample Wt/Vol:	30.08	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
FF016049.D	1	06/30/25 09:50	06/30/25 22:40	PB168658

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
DRO	DRO	32600		190	1870	ug/kg
SURROGATES						
16416-32-3	Tetracosane-d50	14.8		37 - 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\FF063025\
Data File : FF016049.D
Signal(s) : FID2B.ch
Acq On : 30 Jun 2025 22:40
Operator : YP\AJ
Sample : Q2413-01MSD
Misc :
ALS Vial : 85 Sample Multiplier: 1

Instrument :
FID_F
ClientSampleId :
TP-35MSD

Integration File: autoint1.e
Quant Time: Jul 01 03:17:02 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF061325.M
Quant Title :
QLast Update : Fri Jun 13 15:23:30 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...	15.094	1787601	14.805 ug/ml
Target Compounds				
2)	N-DECANE	4.619	1930978	14.738 ug/ml
3)	N-DODECANE	6.793	2083571	15.647 ug/ml
4)	N-TETRADECANE	8.626	2252788	16.809 ug/ml
5)	N-HEXADECANE	10.235	2439766	18.065 ug/ml
6)	N-OCTADECANE	11.680	2306497	16.637 ug/ml
7)	N-EICOSANE	12.993	2709298	19.402 ug/ml
8)	N-DOCOSANE	14.192	3209824	23.625 ug/ml
10)	N-TETRACOSANE	15.298	1875786	13.841 ug/ml
11)	N-HEXACOSANE	16.324	2604593	19.403 ug/ml
12)	N-OCTACOSANE	17.274	3401464	25.765 ug/ml

(f)=RT Delta > 1/2 Window

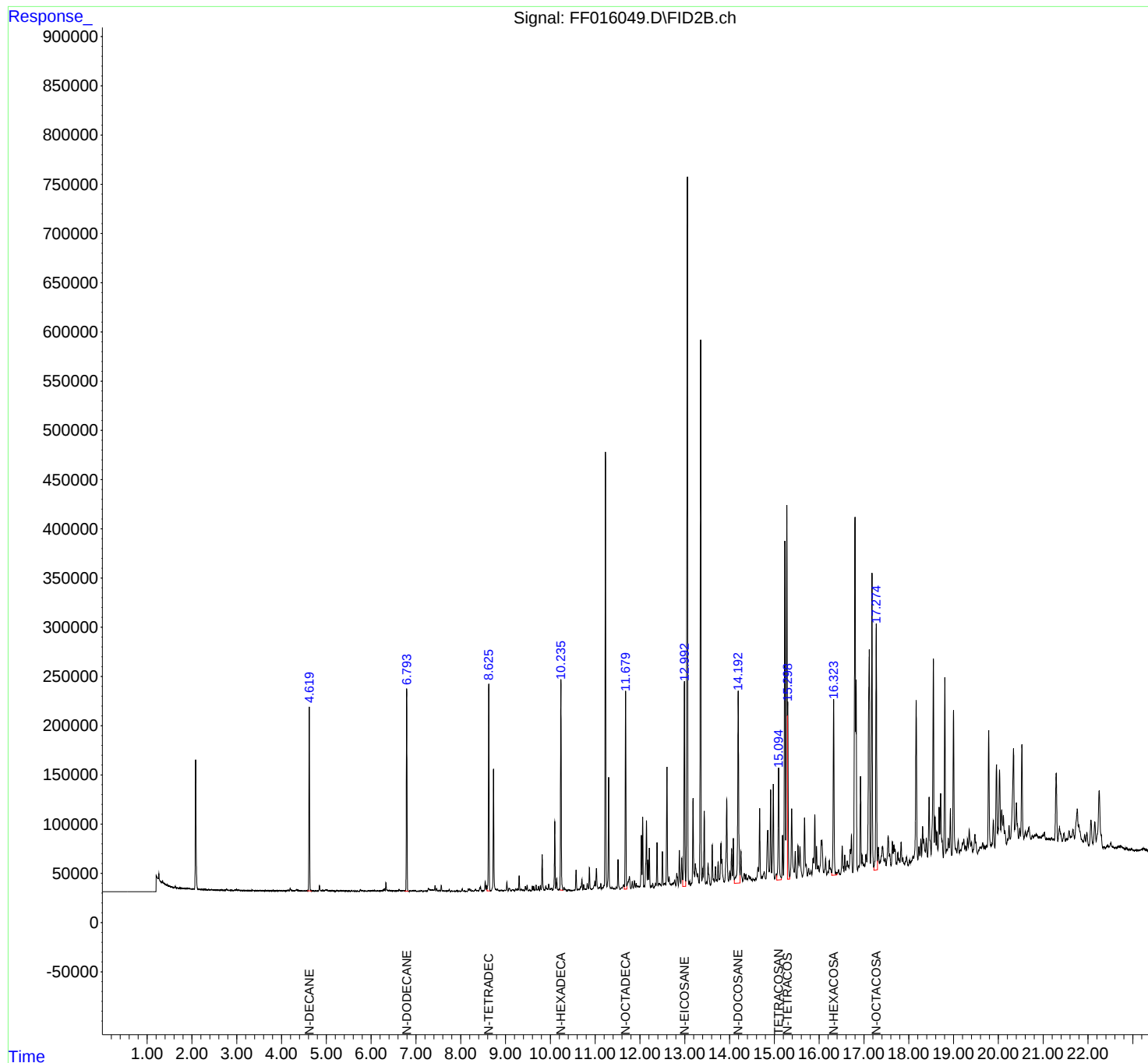
(m)=manual int.

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF063025\
Data File : FF016049.D
Signal(s) : FID2B.ch
Acq On : 30 Jun 2025 22:40
Operator : YP\AJ
Sample : Q2413-01MSD
Misc :
ALS Vial : 85 Sample Multiplier: 1

Instrument :
FID_F
ClientSampleId :
TP-35MSD

Integration File: autoint1.e
Quant Time: Jul 01 03:17:02 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF061325.M
Quant Title :
QLast Update : Fri Jun 13 15:23:30 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\FF063025\
Data File : FF016049.D
Signal(s) : FID2B.ch
Acq On : 30 Jun 2025 22:40
Sample : Q2413-01MSD
Misc :
ALS Vial : 85 Sample Multiplier: 1

Integration File: Sample.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF061325.M
Title :

Signal : FID2B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	4.446	4.406	4.455	BV	181	1795	0.02%	0.002%
2	4.460	4.455	4.486	VV	141	835	0.01%	0.001%
3	4.516	4.486	4.532	PV	209	3719	0.04%	0.003%
4	4.537	4.532	4.544	VV	223	1002	0.01%	0.001%
5	4.573	4.544	4.588	VV	528	8182	0.09%	0.007%
6	4.619	4.588	4.649	VV	187088	1934855	20.95%	1.620%
7	4.657	4.649	4.674	VV	532	5076	0.05%	0.004%
8	4.694	4.674	4.732	VV	271	4966	0.05%	0.004%
9	4.735	4.732	4.739	VV	114	289	0.00%	0.000%
10	4.749	4.739	4.760	VV	189	1567	0.02%	0.001%
11	4.765	4.760	4.771	VV	180	842	0.01%	0.001%
12	4.788	4.771	4.815	VV	308	6277	0.07%	0.005%
13	4.847	4.815	4.890	VV	5585	71658	0.78%	0.060%
14	4.905	4.890	4.921	VV	969	13249	0.14%	0.011%
15	4.930	4.921	4.948	VV	781	10132	0.11%	0.008%
16	4.990	4.948	5.009	VV	1303	34298	0.37%	0.029%
17	5.018	5.009	5.053	VV	1178	21100	0.23%	0.018%
18	5.071	5.053	5.079	VV	521	6407	0.07%	0.005%
19	5.086	5.079	5.107	VV	582	6887	0.07%	0.006%
20	5.133	5.107	5.170	VV	729	16657	0.18%	0.014%
21	5.173	5.170	5.182	VV	237	1469	0.02%	0.001%
22	5.204	5.182	5.210	VV	336	3909	0.04%	0.003%
23	5.236	5.210	5.288	VV	1134	22900	0.25%	0.019%
24	5.298	5.288	5.303	VV	364	2398	0.03%	0.002%
25	5.323	5.303	5.356	VV	699	15268	0.17%	0.013%
26	5.372	5.356	5.392	VV	585	8292	0.09%	0.007%
27	5.405	5.392	5.416	VV	394	4243	0.05%	0.004%
28	5.432	5.416	5.436	VV	519	4895	0.05%	0.004%
29	5.441	5.436	5.457	VV	542	4877	0.05%	0.004%
30	5.461	5.457	5.484	VV	331	2547	0.03%	0.002%
31	5.503	5.484	5.527	PV	422	6199	0.07%	0.005%
32	5.563	5.527	5.593	VV	1101	15779	0.17%	0.013%
33	5.602	5.593	5.611	VV	344	2726	0.03%	0.002%
34	5.615	5.611	5.621	VV	261	1119	0.01%	0.001%
35	5.637	5.621	5.652	VV	348	4311	0.05%	0.004%
36	5.663	5.652	5.679	VV	341	3749	0.04%	0.003%

					rteres			
37	5.682	5.679	5.698	VV	287	2261	0.02%	0.002%
38	5.700	5.698	5.719	VV	219	1501	0.02%	0.001%
39	5.723	5.719	5.728	VV	68	287	0.00%	0.000%
40	5.732	5.728	5.737	PV	50	174	0.00%	0.000%
41	5.761	5.737	5.794	PV	1886	28472	0.31%	0.024%
42	5.814	5.794	5.847	VV	1015	16587	0.18%	0.014%
43	5.858	5.847	5.886	VV	689	8692	0.09%	0.007%
44	5.891	5.886	5.900	VV	330	1818	0.02%	0.002%
45	5.914	5.900	5.929	VV	428	4976	0.05%	0.004%
46	5.945	5.929	5.975	VV	878	15135	0.16%	0.013%
47	5.989	5.975	5.995	VV	441	4545	0.05%	0.004%
48	6.004	5.995	6.015	VV	718	7289	0.08%	0.006%
49	6.028	6.015	6.045	VV	1085	12970	0.14%	0.011%
50	6.071	6.045	6.120	VV	1221	25143	0.27%	0.021%
51	6.144	6.120	6.164	VV	496	10812	0.12%	0.009%
52	6.168	6.164	6.185	VV	471	4929	0.05%	0.004%
53	6.194	6.185	6.207	VV	376	4502	0.05%	0.004%
54	6.222	6.207	6.229	VV	628	5919	0.06%	0.005%
55	6.237	6.229	6.249	VV	519	5095	0.06%	0.004%
56	6.262	6.249	6.278	VV	1349	15602	0.17%	0.013%
57	6.295	6.278	6.312	VV	2355	30165	0.33%	0.025%
58	6.329	6.312	6.378	VV	8882	114744	1.24%	0.096%
59	6.382	6.378	6.392	VV	735	5814	0.06%	0.005%
60	6.404	6.392	6.423	VV	1275	14864	0.16%	0.012%
61	6.440	6.423	6.458	VV	858	11954	0.13%	0.010%
62	6.463	6.458	6.470	VV	219	1546	0.02%	0.001%
63	6.483	6.470	6.488	VV	418	3602	0.04%	0.003%
64	6.511	6.488	6.544	VV	799	16664	0.18%	0.014%
65	6.557	6.544	6.571	VV	382	4919	0.05%	0.004%
66	6.586	6.571	6.600	VV	574	8496	0.09%	0.007%
67	6.627	6.600	6.648	VV	1749	28501	0.31%	0.024%
68	6.651	6.648	6.660	VV	565	3616	0.04%	0.003%
69	6.665	6.660	6.671	VV	479	3154	0.03%	0.003%
70	6.678	6.671	6.696	VV	510	6662	0.07%	0.006%
71	6.714	6.696	6.764	VV	930	23371	0.25%	0.020%
72	6.793	6.764	6.843	VV	205825	2096856	22.71%	1.756%
73	6.868	6.843	6.898	VV	958	13887	0.15%	0.012%
74	6.919	6.898	6.935	VV	554	7660	0.08%	0.006%
75	6.948	6.935	6.965	VV	1157	14013	0.15%	0.012%
76	6.986	6.965	7.012	VV	693	11639	0.13%	0.010%
77	7.016	7.012	7.040	VV	167	1522	0.02%	0.001%
78	7.074	7.040	7.094	VV	379	7482	0.08%	0.006%
79	7.120	7.094	7.148	VV	780	16216	0.18%	0.014%
80	7.165	7.148	7.177	VV	288	3703	0.04%	0.003%
81	7.201	7.177	7.216	VV	449	7017	0.08%	0.006%
82	7.230	7.216	7.239	VV	309	3544	0.04%	0.003%
83	7.248	7.239	7.260	VV	467	4800	0.05%	0.004%
84	7.277	7.260	7.313	VV	3237	63485	0.69%	0.053%
85	7.327	7.313	7.349	VV	1724	32756	0.35%	0.027%
86	7.371	7.349	7.395	VV	1538	35040	0.38%	0.029%
87	7.399	7.395	7.404	VV	1174	5603	0.06%	0.005%
88	7.426	7.404	7.445	VV	6098	68691	0.74%	0.058%
89	7.460	7.445	7.496	VV	2509	37865	0.41%	0.032%

					rteres			
90	7.517	7.496	7.546	VV	1354	21155	0.23%	0.018%
91	7.565	7.546	7.594	VV	6318	68137	0.74%	0.057%
92	7.612	7.594	7.628	VV	552	8068	0.09%	0.007%
93	7.642	7.628	7.671	VV	444	8700	0.09%	0.007%
94	7.689	7.671	7.713	VV	382	7646	0.08%	0.006%
95	7.742	7.713	7.778	VV	2160	26015	0.28%	0.022%
96	7.802	7.778	7.830	PV	390	7965	0.09%	0.007%
97	7.834	7.830	7.847	VV	310	2011	0.02%	0.002%
98	7.873	7.847	7.885	VV	335	6045	0.07%	0.005%
99	7.898	7.885	7.908	VV	534	5644	0.06%	0.005%
100	7.921	7.908	7.946	VV	691	10199	0.11%	0.009%
101	7.958	7.946	7.993	VV	481	7466	0.08%	0.006%
102	7.996	7.993	8.000	PV	128	311	0.00%	0.000%
103	8.007	8.000	8.012	VV	147	685	0.01%	0.001%
104	8.033	8.012	8.062	VV	2286	27307	0.30%	0.023%
105	8.087	8.062	8.109	VV	365	6461	0.07%	0.005%
106	8.114	8.109	8.131	VV	190	1864	0.02%	0.002%
107	8.137	8.131	8.141	VV	160	658	0.01%	0.001%
108	8.169	8.141	8.186	VV	2700	35624	0.39%	0.030%
109	8.201	8.186	8.220	VV	2609	32678	0.35%	0.027%
110	8.227	8.220	8.258	VV	927	11024	0.12%	0.009%
111	8.271	8.258	8.290	VV	433	4544	0.05%	0.004%
112	8.327	8.290	8.361	VV	1739	37337	0.40%	0.031%
113	8.375	8.361	8.389	VV	855	11818	0.13%	0.010%
114	8.399	8.389	8.405	VV	564	5098	0.06%	0.004%
115	8.425	8.405	8.432	VV	3676	35870	0.39%	0.030%
116	8.442	8.432	8.481	VV	4248	50788	0.55%	0.043%
117	8.503	8.481	8.522	VV	727	12247	0.13%	0.010%
118	8.546	8.522	8.562	VV	9856	108938	1.18%	0.091%
119	8.574	8.562	8.586	VV	5619	56747	0.61%	0.048%
120	8.626	8.586	8.662	VV	210206	2268155	24.56%	1.899%
121	8.732	8.662	8.782	VV	124115	1404493	15.21%	1.176%
122	8.786	8.782	8.807	VV	1826	20391	0.22%	0.017%
123	8.822	8.807	8.840	VV	2362	27857	0.30%	0.023%
124	8.854	8.840	8.870	VV	688	10144	0.11%	0.008%
125	8.873	8.870	8.881	VV	538	2938	0.03%	0.002%
126	8.892	8.881	8.946	VV	1038	23886	0.26%	0.020%
127	8.978	8.946	8.998	VV	1168	20350	0.22%	0.017%
128	9.030	8.998	9.058	VV	9083	102015	1.10%	0.085%
129	9.078	9.058	9.121	VV	2916	59507	0.64%	0.050%
130	9.149	9.121	9.156	VV	1434	18717	0.20%	0.016%
131	9.166	9.156	9.183	VV	1537	18598	0.20%	0.016%
132	9.194	9.183	9.206	VV	801	8390	0.09%	0.007%
133	9.229	9.206	9.254	VV	2552	39712	0.43%	0.033%
134	9.271	9.254	9.285	VV	2423	30385	0.33%	0.025%
135	9.304	9.285	9.329	VV	15640	166293	1.80%	0.139%
136	9.347	9.329	9.375	VV	2036	33300	0.36%	0.028%
137	9.398	9.375	9.416	VV	1299	19230	0.21%	0.016%
138	9.420	9.416	9.424	VV	390	1630	0.02%	0.001%
139	9.444	9.424	9.465	VV	4685	59239	0.64%	0.050%
140	9.482	9.465	9.521	VV	5891	66604	0.72%	0.056%
141	9.539	9.521	9.568	VV	1454	17197	0.19%	0.014%

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142	9.600	9.568	9.616	PV	4933	55908	0.61%	0.047%
143	9.631	9.616	9.655	VV	4653	49787	0.54%	0.042%
144	9.682	9.655	9.703	VV	5836	70032	0.76%	0.059%
145	9.736	9.703	9.759	VV	4512	65800	0.71%	0.055%
146	9.778	9.759	9.795	VV	5274	58618	0.63%	0.049%
147	9.818	9.795	9.876	VV	36846	442941	4.80%	0.371%
148	9.898	9.876	9.914	VV	4866	62854	0.68%	0.053%
149	9.920	9.914	9.933	VV	2568	23566	0.26%	0.020%
150	9.963	9.933	9.988	VV	6816	109694	1.19%	0.092%
151	10.000	9.988	10.014	VV	2224	28935	0.31%	0.024%
152	10.029	10.014	10.056	VV	2701	42946	0.47%	0.036%
153	10.099	10.056	10.121	VV	70315	780294	8.45%	0.653%
154	10.142	10.121	10.182	VV	12765	171332	1.86%	0.143%
155	10.195	10.182	10.205	VV	1376	16583	0.18%	0.014%
156	10.235	10.205	10.285	VV	214683	2468762	26.74%	2.067%
157	10.305	10.285	10.327	VV	3280	46258	0.50%	0.039%
158	10.337	10.327	10.367	VV	1222	16601	0.18%	0.014%
159	10.405	10.367	10.436	VV	1245	22346	0.24%	0.019%
160	10.443	10.436	10.461	VV	428	3312	0.04%	0.003%
161	10.482	10.461	10.495	PV	128	1607	0.02%	0.001%
162	10.510	10.495	10.524	VV	348	4271	0.05%	0.004%
163	10.532	10.524	10.546	VV	341	3332	0.04%	0.003%
164	10.573	10.546	10.605	VV	20969	233411	2.53%	0.195%
165	10.621	10.605	10.640	VV	1476	20287	0.22%	0.017%
166	10.677	10.640	10.685	VV	3731	54719	0.59%	0.046%
167	10.704	10.685	10.725	VV	11183	138227	1.50%	0.116%
168	10.744	10.725	10.775	VV	5823	76617	0.83%	0.064%
169	10.790	10.775	10.803	VV	1506	20106	0.22%	0.017%
170	10.823	10.803	10.848	VV	6783	101433	1.10%	0.085%
171	10.871	10.848	10.918	VV	23069	279513	3.03%	0.234%
172	10.993	10.918	11.005	VV	8833	177697	1.92%	0.149%
173	11.028	11.005	11.067	VV	22009	337520	3.66%	0.283%
174	11.096	11.067	11.108	VV	2850	51969	0.56%	0.044%
175	11.126	11.108	11.144	VV	6405	80197	0.87%	0.067%
176	11.169	11.144	11.179	VV	2468	39315	0.43%	0.033%
177	11.194	11.179	11.201	VV	4591	45361	0.49%	0.038%
178	11.230	11.201	11.263	VV	444558	4754874	51.49%	3.981%
179	11.301	11.263	11.341	VV	114053	1311127	14.20%	1.098%
180	11.352	11.341	11.364	VV	1758	20003	0.22%	0.017%
181	11.376	11.364	11.398	VV	2433	31807	0.34%	0.027%
182	11.403	11.398	11.415	VV	958	8658	0.09%	0.007%
183	11.430	11.415	11.451	VV	972	16570	0.18%	0.014%
184	11.468	11.451	11.490	VV	2354	33638	0.36%	0.028%
185	11.511	11.490	11.557	VV	30415	343482	3.72%	0.288%
186	11.588	11.557	11.599	PV	1712	26297	0.28%	0.022%
187	11.635	11.599	11.650	VV	4493	88697	0.96%	0.074%
188	11.680	11.650	11.707	VV	201297	2309103	25.01%	1.933%
189	11.765	11.707	11.796	VV	12683	354157	3.84%	0.297%
190	11.828	11.796	11.850	VV	7662	104812	1.14%	0.088%
191	11.878	11.850	11.899	VV	8107	115574	1.25%	0.097%
192	11.916	11.899	11.931	VV	5332	69067	0.75%	0.058%
193	11.939	11.931	11.964	VV	2350	41073	0.44%	0.034%
194	11.977	11.964	11.993	VV	2368	33827	0.37%	0.028%

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195	12.030	11.993	12.045	VV	53964	622725	6.74%	0.521%
196	12.061	12.045	12.084	VV	72518	781470	8.46%	0.654%
197	12.093	12.084	12.104	VV	2175	22322	0.24%	0.019%
198	12.146	12.104	12.163	VV	68646	984164	10.66%	0.824%
199	12.178	12.163	12.192	VV	28751	321825	3.49%	0.269%
200	12.209	12.192	12.235	VV	40818	476856	5.16%	0.399%
201	12.251	12.235	12.265	VV	2668	27528	0.30%	0.023%
202	12.285	12.265	12.307	VV	4463	52713	0.57%	0.044%
203	12.349	12.307	12.360	VV	4615	68414	0.74%	0.057%
204	12.382	12.360	12.405	VV	45989	495656	5.37%	0.415%
205	12.421	12.405	12.477	VV	4253	131192	1.42%	0.110%
206	12.501	12.477	12.524	VV	36582	421826	4.57%	0.353%
207	12.536	12.524	12.544	VV	3527	38824	0.42%	0.033%
208	12.561	12.544	12.577	VV	4427	69255	0.75%	0.058%
209	12.604	12.577	12.634	VV	122340	1513358	16.39%	1.267%
210	12.651	12.634	12.670	VV	10612	148655	1.61%	0.124%
211	12.678	12.670	12.694	VV	3456	40129	0.43%	0.034%
212	12.708	12.694	12.719	VV	3356	40132	0.43%	0.034%
213	12.733	12.719	12.744	VV	3942	48878	0.53%	0.041%
214	12.776	12.744	12.802	VV	7211	146982	1.59%	0.123%
215	12.822	12.802	12.858	VV	13630	247379	2.68%	0.207%
216	12.880	12.858	12.912	VV	37095	464052	5.03%	0.389%
217	12.934	12.912	12.954	VV	29086	393928	4.27%	0.330%
218	12.993	12.954	13.021	VV	207488	2710298	29.35%	2.269%
219	13.059	13.021	13.096	VV	720583	9233712	100.00%	7.731%
220	13.110	13.096	13.128	VV	5040	56491	0.61%	0.047%
221	13.186	13.128	13.206	VV	89017	1092791	11.83%	0.915%
222	13.211	13.206	13.222	VV	13936	114215	1.24%	0.096%
223	13.237	13.222	13.278	VV	22644	512348	5.55%	0.429%
224	13.290	13.278	13.321	VV	12326	208987	2.26%	0.175%
225	13.356	13.321	13.380	VV	554055	6589592	71.36%	5.517%
226	13.404	13.380	13.416	VV	17696	237242	2.57%	0.199%
227	13.436	13.416	13.468	VV	75582	894954	9.69%	0.749%
228	13.486	13.468	13.499	VV	3577	50249	0.54%	0.042%
229	13.520	13.499	13.572	VV	22065	387018	4.19%	0.324%
230	13.613	13.572	13.636	PV	40795	527474	5.71%	0.442%
231	13.644	13.636	13.661	VV	6204	74785	0.81%	0.063%
232	13.686	13.661	13.705	VV	18602	263700	2.86%	0.221%
233	13.715	13.705	13.725	VV	4997	52837	0.57%	0.044%
234	13.745	13.725	13.765	VV	23131	289198	3.13%	0.242%
235	13.776	13.765	13.781	VV	5888	50212	0.54%	0.042%
236	13.808	13.781	13.822	VV	41550	604231	6.54%	0.506%
237	13.829	13.822	13.882	VV	25431	389198	4.21%	0.326%
238	13.937	13.882	13.975	VV	85993	1465501	15.87%	1.227%
239	14.004	13.975	14.022	VV	12583	198845	2.15%	0.166%
240	14.045	14.022	14.065	VV	35419	496028	5.37%	0.415%
241	14.083	14.065	14.106	VV	46001	552528	5.98%	0.463%
242	14.125	14.106	14.130	VV	5784	69891	0.76%	0.059%
243	14.192	14.130	14.234	VV	195116	3140363	34.01%	2.629%
244	14.255	14.234	14.295	VV	32074	477041	5.17%	0.399%
245	14.329	14.295	14.346	VV	9393	187092	2.03%	0.157%
246	14.364	14.346	14.387	VV	7624	128699	1.39%	0.108%

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247	14.397	14.387	14.405	VV	3882	37382	0.40%	0.031%
248	14.430	14.405	14.453	VV	6743	143165	1.55%	0.120%
249	14.464	14.453	14.482	VV	5335	67557	0.73%	0.057%
250	14.490	14.482	14.506	VV	2877	32176	0.35%	0.027%
251	14.523	14.506	14.539	VV	3494	49085	0.53%	0.041%
252	14.544	14.539	14.565	VV	2124	28195	0.31%	0.024%
253	14.580	14.565	14.595	VV	3893	49972	0.54%	0.042%
254	14.632	14.595	14.648	VV	14439	273994	2.97%	0.229%
255	14.671	14.648	14.709	VV	74213	965772	10.46%	0.809%
256	14.721	14.709	14.734	VV	4657	60662	0.66%	0.051%
257	14.773	14.734	14.806	VV	9384	252507	2.73%	0.211%
258	14.852	14.806	14.885	VV	51410	1079660	11.69%	0.904%
259	14.917	14.885	14.938	VV	91656	1237391	13.40%	1.036%
260	14.976	14.938	15.009	VV	97743	1442835	15.63%	1.208%
261	15.039	15.009	15.054	VV	6407	122479	1.33%	0.103%
262	15.094	15.054	15.156	VV	113583	1788885	19.37%	1.498%
263	15.182	15.156	15.202	VV	45235	545484	5.91%	0.457%
264	15.234	15.202	15.254	VV	340753	4718220	51.10%	3.950%
265	15.279	15.254	15.293	VV	379966	4967523	53.80%	4.159%
266	15.298	15.293	15.342	VV	180302	1864356	20.19%	1.561%
267	15.386	15.342	15.444	VV	71445	1365360	14.79%	1.143%
268	15.465	15.444	15.499	VV	27693	375893	4.07%	0.315%
269	15.527	15.499	15.552	PV	33247	520829	5.64%	0.436%
270	15.571	15.552	15.625	VV	32187	621900	6.74%	0.521%
271	15.673	15.625	15.700	VV	61206	980571	10.62%	0.821%
272	15.709	15.700	15.734	VV	13405	191061	2.07%	0.160%
273	15.765	15.734	15.788	VV	9087	170641	1.85%	0.143%
274	15.818	15.788	15.837	VV	6650	126389	1.37%	0.106%
275	15.862	15.837	15.880	VV	18891	325959	3.53%	0.273%
276	15.903	15.880	15.923	VV	63079	864432	9.36%	0.724%
277	15.941	15.923	15.964	VV	30963	434488	4.71%	0.364%
278	15.983	15.964	16.001	VV	11098	192301	2.08%	0.161%
279	16.047	16.001	16.055	VV	36628	591160	6.40%	0.495%
280	16.063	16.055	16.106	VV	35399	564567	6.11%	0.473%
281	16.144	16.106	16.170	VV	17853	312924	3.39%	0.262%
282	16.196	16.170	16.207	VV	4691	68048	0.74%	0.057%
283	16.226	16.207	16.242	VV	15229	206106	2.23%	0.173%
284	16.249	16.242	16.279	VV	7499	121284	1.31%	0.102%
285	16.324	16.279	16.398	VV	178914	2605847	28.22%	2.182%
286	16.405	16.398	16.410	VV	1967	13237	0.14%	0.011%
287	16.432	16.410	16.457	VV	5060	77437	0.84%	0.065%
288	16.462	16.457	16.471	VV	595	3261	0.04%	0.003%
289	16.516	16.471	16.535	PV	28782	425663	4.61%	0.356%
290	16.539	16.535	16.553	VV	7024	60112	0.65%	0.050%
291	16.571	16.553	16.593	VV	19030	248046	2.69%	0.208%
292	16.626	16.593	16.645	VV	12849	258947	2.80%	0.217%
293	16.656	16.645	16.668	VV	6960	92646	1.00%	0.078%
294	16.695	16.668	16.705	VV	24081	343630	3.72%	0.288%
295	16.722	16.705	16.750	VV	38502	537044	5.82%	0.450%
296	16.801	16.750	16.816	PV	360435	5654355	61.24%	4.734%
297	16.826	16.816	16.860	VV	194966	2049452	22.20%	1.716%
298	16.879	16.860	16.895	VV	5164	85683	0.93%	0.072%
299	16.924	16.895	16.944	VV	96136	1239893	13.43%	1.038%

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300	16.958	16.944	17.002	VV	16028	306984	3.32%	0.257%
301	17.007	17.002	17.020	VV	5009	45783	0.50%	0.038%
302	17.044	17.020	17.063	VV	15483	268628	2.91%	0.225%
303	17.119	17.063	17.145	VV	221471	4385033	47.49%	3.671%
304	17.179	17.145	17.220	VV	300063	3921995	42.47%	3.284%
305	17.274	17.220	17.302	VV	246714	3296747	35.70%	2.760%
306	17.321	17.302	17.347	VV	20264	313548	3.40%	0.263%
307	17.360	17.347	17.367	VV	5599	56973	0.62%	0.048%
308	17.415	17.367	17.447	VV	20238	592222	6.41%	0.496%
309	17.454	17.447	17.461	VV	5686	45560	0.49%	0.038%
310	17.473	17.461	17.494	VV	7512	91420	0.99%	0.077%

Sum of corrected areas: 119439168

FF061325.M Tue Jul 01 04:19:33 2025

Manual Integration Report

Sample ID	ClientID ID	File ID	Sequence ID	Parameter	Supervised By	Supervised On	Reason
Q2409-02MS		FF016038.D	FF063025	N-TETRACONTANE	mohammad	7/1/2025 8:55:01 AM	Peak Integrated by Software incorrectly
Q2409-02MSD		FF016039.D	FF063025	N-TETRACONTANE	mohammad	7/1/2025 8:55:01 AM	Peak Integrated by Software incorrectly
Q2413-01MS		FF016048.D	FF063025	N-TETRACOSANE	mohammad	7/1/2025 8:55:01 AM	Peak Integrated by Software incorrectly

Instrument ID: FID_F

Daily Analysis Runlog For Sequence/QC Batch ID # FF061325

Review By	yogesh	Review On	6/13/2025 11:34:17 AM
Supervise By	mohammad	Supervise On	6/17/2025 3:40:22 AM
SubDirectory	FF061325	HP Acquire Method	HP Processing Method FF061325
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	FF015962.D	13 Jun 2025 08:42	YP\AJ	Ok
2	I.BLK	FF015963.D	13 Jun 2025 12:37	YP\AJ	Ok
3	100 TRPH STD	FF015964.D	13 Jun 2025 13:06	YP\AJ	Ok
4	50 TRPH STD	FF015965.D	13 Jun 2025 13:35	YP\AJ	Ok
5	20 TRPH STD	FF015966.D	13 Jun 2025 14:05	YP\AJ	Ok
6	10 TRPH STD	FF015967.D	13 Jun 2025 14:34	YP\AJ	Ok
7	5 TRPH STD	FF015968.D	13 Jun 2025 15:03	YP\AJ	Ok
8	FF061325ICV	FF015969.D	13 Jun 2025 15:33	YP\AJ	Ok

M : Manual Integration

Instrument ID: FID_F

Daily Analysis Runlog For Sequence/QC Batch ID # FF063025

Review By	yogesh	Review On	6/30/2025 11:39:29 AM
Supervise By	mohammad	Supervise On	7/1/2025 8:55:01 AM
SubDirectory	FF063025	HP Acquire Method	HP Processing Method FF061325
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	FF016031.D	30 Jun 2025 09:11	YP\AJ	Ok
2	I.BLK	FF016032.D	30 Jun 2025 09:42	YP\AJ	Ok
3	50 PPM TRPH STD	FF016033.D	30 Jun 2025 10:11	YP\AJ	Ok
4	RT MARKER	FF016034.D	30 Jun 2025 10:41	YP\AJ	Ok
5	PB168659BL	FF016035.D	30 Jun 2025 13:39	YP\AJ	Ok
6	PB168659BS	FF016036.D	30 Jun 2025 14:09	YP\AJ	Ok
7	Q2409-02	FF016037.D	30 Jun 2025 14:39	YP\AJ	Ok
8	Q2409-02MS	FF016038.D	30 Jun 2025 15:09	YP\AJ	Ok,M
9	Q2409-02MSD	FF016039.D	30 Jun 2025 15:39	YP\AJ	Ok,M
10	I.BLK	FF016040.D	30 Jun 2025 16:09	YP\AJ	Ok
11	50 PPM TRPH STD	FF016041.D	30 Jun 2025 17:41	YP\AJ	Ok
12	I.BLK	FF016042.D	30 Jun 2025 18:41	YP\AJ	Ok
13	50 PPM TRPH STD	FF016043.D	30 Jun 2025 19:11	YP\AJ	Ok
14	RT MARKER	FF016044.D	30 Jun 2025 20:11	YP\AJ	Ok
15	PB168658BL	FF016045.D	30 Jun 2025 20:41	YP\AJ	Ok
16	PB168658BS	FF016046.D	30 Jun 2025 21:11	YP\AJ	Ok
17	Q2413-01	FF016047.D	30 Jun 2025 21:40	YP\AJ	Ok
18	Q2413-01MS	FF016048.D	30 Jun 2025 22:10	YP\AJ	Ok,M
19	Q2413-01MSD	FF016049.D	30 Jun 2025 22:40	YP\AJ	Ok
20	Q2413-02	FF016050.D	30 Jun 2025 23:10	YP\AJ	Ok
21	Q2413-03	FF016051.D	30 Jun 2025 23:40	YP\AJ	Ok

Instrument ID: FID_F

Daily Analysis Runlog For Sequence/QC Batch ID # FF063025

Review By	yogesh	Review On	6/30/2025 11:39:29 AM
Supervise By	mohammad	Supervise On	7/1/2025 8:55:01 AM
SubDirectory	FF063025	HP Acquire Method	HP Processing Method FF061325
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	Q2413-04	FF016052.D	01 Jul 2025 00:09	YP\AJ	Ok
23	Q2413-05	FF016053.D	01 Jul 2025 00:39	YP\AJ	Ok
24	Q2413-06	FF016054.D	01 Jul 2025 01:09	YP\AJ	Ok
25	I.BLK	FF016055.D	01 Jul 2025 01:38	YP\AJ	Ok
26	50 PPM TRPH STD	FF016056.D	01 Jul 2025 02:08	YP\AJ	Ok

M : Manual Integration

Instrument ID: FID_F

Daily Analysis Runlog For Sequence/QC Batch ID # FF061325

Review By	yogesh	Review On	6/13/2025 11:34:17 AM
Supervise By	mohammad	Supervise On	6/17/2025 3:40:22 AM
SubDirectory	FF061325	HP Acquire Method	HP Processing Method FF061325

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		FF015962.D	13 Jun 2025 08:42		YP\AJ	Ok
2	I.BLK		FF015963.D	13 Jun 2025 12:37		YP\AJ	Ok
3	100 TRPH STD		FF015964.D	13 Jun 2025 13:06		YP\AJ	Ok
4	50 TRPH STD		FF015965.D	13 Jun 2025 13:35		YP\AJ	Ok
5	20 TRPH STD		FF015966.D	13 Jun 2025 14:05		YP\AJ	Ok
6	10 TRPH STD		FF015967.D	13 Jun 2025 14:34		YP\AJ	Ok
7	5 TRPH STD		FF015968.D	13 Jun 2025 15:03		YP\AJ	Ok
8	FF061325ICV		FF015969.D	13 Jun 2025 15:33		YP\AJ	Ok

M : Manual Integration

Instrument ID: FID_F

Daily Analysis Runlog For Sequence/QC Batch ID # FF063025

Review By	yogesh	Review On	6/30/2025 11:39:29 AM
Supervise By	mohammad	Supervise On	7/1/2025 8:55:01 AM
SubDirectory	FF063025	HP Acquire Method	HP Processing Method FF061325

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	ClientID	Data File Name	Date-Time	Comment	Operator	Status
1	MECL2		FF016031.D	30 Jun 2025 09:11		YPIAJ	Ok
2	I.BLK		FF016032.D	30 Jun 2025 09:42		YPIAJ	Ok
3	50 PPM TRPH STD		FF016033.D	30 Jun 2025 10:11		YPIAJ	Ok
4	RT MARKER		FF016034.D	30 Jun 2025 10:41		YPIAJ	Ok
5	PB168659BL		FF016035.D	30 Jun 2025 13:39		YPIAJ	Ok
6	PB168659BS		FF016036.D	30 Jun 2025 14:09		YPIAJ	Ok
7	Q2409-02		FF016037.D	30 Jun 2025 14:39		YPIAJ	Ok
8	Q2409-02MS		FF016038.D	30 Jun 2025 15:09		YPIAJ	Ok,M
9	Q2409-02MSD		FF016039.D	30 Jun 2025 15:39		YPIAJ	Ok,M
10	I.BLK		FF016040.D	30 Jun 2025 16:09		YPIAJ	Ok
11	50 PPM TRPH STD		FF016041.D	30 Jun 2025 17:41		YPIAJ	Ok
12	I.BLK		FF016042.D	30 Jun 2025 18:41		YPIAJ	Ok
13	50 PPM TRPH STD		FF016043.D	30 Jun 2025 19:11		YPIAJ	Ok
14	RT MARKER		FF016044.D	30 Jun 2025 20:11		YPIAJ	Ok
15	PB168658BL		FF016045.D	30 Jun 2025 20:41		YPIAJ	Ok
16	PB168658BS		FF016046.D	30 Jun 2025 21:11		YPIAJ	Ok
17	Q2413-01		FF016047.D	30 Jun 2025 21:40		YPIAJ	Ok
18	Q2413-01MS		FF016048.D	30 Jun 2025 22:10		YPIAJ	Ok,M

Instrument ID: FID_F

Daily Analysis Runlog For Sequence/QC Batch ID # FF063025

Review By	yogesh	Review On	6/30/2025 11:39:29 AM
Supervise By	mohammad	Supervise On	7/1/2025 8:55:01 AM
SubDirectory	FF063025	HP Acquire Method	HP Processing Method FF061325
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			

19	Q2413-01MSD		FF016049.D	30 Jun 2025 22:40		YPIAJ	Ok
20	Q2413-02		FF016050.D	30 Jun 2025 23:10		YPIAJ	Ok
21	Q2413-03		FF016051.D	30 Jun 2025 23:40		YPIAJ	Ok
22	Q2413-04		FF016052.D	01 Jul 2025 00:09		YPIAJ	Ok
23	Q2413-05		FF016053.D	01 Jul 2025 00:39		YPIAJ	Ok
24	Q2413-06		FF016054.D	01 Jul 2025 01:09		YPIAJ	Ok
25	I.BLK		FF016055.D	01 Jul 2025 01:38		YPIAJ	Ok
26	50 PPM TRPH STD		FF016056.D	01 Jul 2025 02:08		YPIAJ	Ok

M : Manual Integration



PERCENT SOLID

Supervisor: Iwona
Analyst: jignesh
Date: 6/26/2025

OVENTEMP IN Celsius(°C): 108
Time IN: 17:10
In Date: 06/25/2025
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
OvenID: M OVEN#1

OVENTEMP OUT Celsius(°C): 103
Time OUT: 08:14
Out Date: 06/26/2025
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
BalanceID: M SC-4
Thermometer ID: % SOLID- OVEN

QC:LB136262

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
Q2413-01	TP-35	1	1.18	10.41	11.59	10.42	88.8	
Q2413-02	TP-34	2	1.13	10.60	11.73	10.88	92.0	
Q2413-03	TP-77	3	1.15	10.65	11.8	10.88	91.4	
Q2413-04	TP-74	4	1.15	10.83	11.98	10.84	89.5	
Q2413-05	TP-73	5	1.13	10.86	11.99	9.5	77.1	
Q2413-06	TP-72	6	1.16	10.74	11.9	10.5	87.0	
Q2414-01	WC-1	7	1.19	10.50	11.69	10.58	89.4	
Q2414-02	WC-1-EPH	8	1.17	10.08	11.25	10.22	89.8	
Q2414-03	WC-1-VOC	9	1.15	10.83	11.98	10.97	90.7	
Q2414-04	WC-1	10	1.19	10.50	11.69	10.58	89.4	
Q2415-01	WC-1	11	1.19	10.63	11.82	10.72	89.7	
Q2415-02	WC-1-EPH	12	1.15	10.00	11.15	10.12	89.7	
Q2415-03	WC-1-VOC	13	1.19	10.27	11.46	10.4	89.7	
Q2416-01	MH-G/H	14	1.15	10.86	12.01	10.89	89.7	
Q2416-02	MH-G/H-EPH	15	1.14	10.41	11.55	10.52	90.1	
Q2416-03	MH-G/H-VOC	16	1.12	10.57	11.69	10.8	91.6	
Q2416-04	MH-G/H	17	1.15	10.86	12.01	10.89	89.7	
Q2419-01	EO-03-06252025	26	1.17	10.53	11.7	10.97	93.1	
Q2419-02	EO-03-06252025-E2	27	1.13	10.23	11.36	10.36	90.2	
Q2420-01	72-11933	18	1.18	10.49	11.67	11.03	93.9	
Q2421-01	62325	19	1.00	1.00	2.00	2.00	100.0	wipe sample
Q2421-02	624-A	20	1.00	1.00	2.00	2.00	100.0	wipe sample
Q2421-03	624-B	21	1.00	1.00	2.00	2.00	100.0	wipe sample
Q2421-04	624-C	22	1.00	1.00	2.00	2.00	100.0	wipe sample
Q2421-05	624-D	23	1.00	1.00	2.00	2.00	100.0	wipe sample
Q2421-06	62325-A	24	1.00	1.00	2.00	2.00	100.0	wipe sample
Q2422-01	60263	25	1.00	1.00	2.00	2.00	100.0	oil sample
Q2423-01	RT915	28	1.19	10.63	11.82	10.88	91.2	



PERCENT SOLID

Supervisor: Iwona
Analyst: jignesh
Date: 6/26/2025

OVENTEMP IN Celsius(°C): 108
Time IN: 17:10
In Date: 06/25/2025
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
OvenID: M OVEN#1

OVENTEMP OUT Celsius(°C): 103
Time OUT: 08:14
Out Date: 06/26/2025
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
BalanceID: M SC-4
Thermometer ID: % SOLID- OVEN

QC:LB136262

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
Q2423-02	RT915	29	1.14	10.45	11.59	10.84	92.8	
Q2425-01	COMP-1	30	1.19	10.38	11.57	9.17	76.9	
Q2425-02	COMP-2	31	1.15	10.37	11.52	9.41	79.7	
Q2425-03	COMP-3	32	1.12	10.71	11.83	9.97	82.6	

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

WORKLIST(Hardcopy Internal Chain)

136262

WorkList Name : %1-062525

WorkList ID : 190366

Department : Wet-Chemistry

Date : 06-25-2025 08:11:19

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q2413-01	TP-35	Solid	Percent Solids	Cool 4 deg C	CAMP02	D41	06/24/2025	Chemtech -SO
Q2413-02	TP-34	Solid	Percent Solids	Cool 4 deg C	CAMP02	D41	06/24/2025	Chemtech -SO
Q2413-03	TP-77	Solid	Percent Solids	Cool 4 deg C	CAMP02	D41	06/24/2025	Chemtech -SO
Q2413-04	TP-74	Solid	Percent Solids	Cool 4 deg C	CAMP02	D41	06/24/2025	Chemtech -SO
Q2413-05	TP-73	Solid	Percent Solids	Cool 4 deg C	CAMP02	D41	06/24/2025	Chemtech -SO
Q2413-06	TP-72	Solid	Percent Solids	Cool 4 deg C	CAMP02	D41	06/24/2025	Chemtech -SO
Q2414-01	WC-1	Solid	Percent Solids	Cool 4 deg C	CAMP02	D41	06/24/2025	Chemtech -SO
Q2414-02	WC-1-EPH	Solid	Percent Solids	Cool 4 deg C	PSEG01		06/25/2025	Chemtech -SO
Q2414-03	WC-1-VOC	Solid	Percent Solids	Cool 4 deg C	PSEG01	A33	06/25/2025	Chemtech -SO
Q2414-04	WC-1	Solid	Percent Solids	Cool 4 deg C	PSEG01	A33	06/25/2025	Chemtech -SO
Q2415-01	WC-1	Solid	Percent Solids	Cool 4 deg C	PSEG01		06/25/2025	Chemtech -SO
Q2415-02	WC-1-EPH	Solid	Percent Solids	Cool 4 deg C	PSEG03	A11	06/24/2025	Chemtech -SO
Q2415-03	WC-1-VOC	Solid	Percent Solids	Cool 4 deg C	PSEG03	A11	06/24/2025	Chemtech -SO
Q2416-01	MH-G/H	Solid	Percent Solids	Cool 4 deg C	PSEG03	A11	06/24/2025	Chemtech -SO
Q2416-02	MH-G/H-EPH	Solid	Percent Solids	Cool 4 deg C	PSEG03		06/25/2025	Chemtech -SO
Q2416-03	MH-G/H-VOC	Solid	Percent Solids	Cool 4 deg C	PSEG03	A42	06/25/2025	Chemtech -SO
Q2416-04	MH-G/H	Solid	Percent Solids	Cool 4 deg C	PSEG03	A42	06/25/2025	Chemtech -SO
Q2419-01	EO-03-06252025	Solid	Percent Solids	Cool 4 deg C	PSEG03		06/25/2025	Chemtech -SO
Q2419-02	EO-03-06252025-E2	Solid	Percent Solids	Cool 4 deg C	PSEG05	D51	06/25/2025	Chemtech -SO
Q2420-01	72-11933	Solid	Percent Solids	Cool 4 deg C	PSEG05	D51	06/25/2025	Chemtech -SO
Q2421-01	62325	Solid	Percent Solids	Cool 4 deg C	PSEG03	D41	06/25/2025	Chemtech -SO
Q2421-01	62325	Solid	Percent Solids	Cool 4 deg C	PSEG03	D51	06/25/2025	Chemtech -SO

Date/Time 06/25/25 15:10 Date/Time 06/25/25
 Raw Sample Received by: spwc Raw Sample Received by: CP SM
 Raw Sample Relinquished by: CP SM Raw Sample Relinquished by: spwc

WORKLIST(Hardcopy Internal Chain)

136262

WorkList Name : %1-062525

WorkList ID : 190366

Department : Wet-Chemistry

Date : 06-25-2025 08:11:19

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q2421-02	624-A	Solid	Percent Solids	Cool 4 deg C	PSEG03	D51	06/25/2025	Chemtech -SO
Q2421-03	624-B	Solid	Percent Solids	Cool 4 deg C	PSEG03	D51	06/25/2025	Chemtech -SO
Q2421-04	624-C	Solid	Percent Solids	Cool 4 deg C	PSEG03	D51	06/25/2025	Chemtech -SO
Q2421-05	624-D	Solid	Percent Solids	Cool 4 deg C	PSEG03	D51	06/25/2025	Chemtech -SO
Q2421-06	62325-A	Solid	Percent Solids	Cool 4 deg C	PSEG03	D51	06/25/2025	Chemtech -SO
Q2422-01	60263	Solid	Percent Solids	Cool 4 deg C	PSEG03	D51	06/25/2025	Chemtech -SO
Q2423-01	RT915	Solid	Percent Solids	Cool 4 deg C	PSEG03	D51	06/25/2025	Chemtech -SO
Q2423-02	RT915	Solid	Percent Solids	Cool 4 deg C	PSEG03	D51	06/25/2025	Chemtech -SO
Q2425-01	COMP-1	Solid	Percent Solids	Cool 4 deg C	POWE02	D51	06/25/2025	Chemtech -SO
Q2425-02	COMP-2	Solid	Percent Solids	Cool 4 deg C	POWE02	D51	06/24/2025	Chemtech -SO
Q2425-03	COMP-3	Solid	Percent Solids	Cool 4 deg C	POWE02	D51	06/24/2025	Chemtech -SO

06/25/25 15:10

Date/Time

Raw Sample Received by: sf wocj

Raw Sample Relinquished by: cp sm

Date/Time

Raw Sample Received by: cp sm

Raw Sample Relinquished by: sf wocj

SOP ID: M3541-ASE Extraction-14

Clean Up SOP #: N/A

Extraction Start Date : 06/30/2025

Matrix : Solid

Extraction Start Time : 09:50

Weigh By: EH

Extraction By: RJ

Extraction End Date : 06/30/2025

Balance check: RJ

Filter By: RJ

Extraction End Time : 13:00

Balance ID: EX-SC-2

pH Meter ID: N/A

Concentration By: EH

pH Strip Lot#: N/A

Hood ID: 3,7

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
Spike Sol 1	1.0ML	20 PPM	PP24583
Surrogate	1.0ML	20 PPM	PP24596
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	EP2624
Sand	N/A	E2865
Methylene Chloride	N/A	E3943
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

Envap ID: NEVAP-02

KD Bath Temperature: N/A

Envap Temperature: 40 °C

Date / Time	Prepped Sample Relinquished By/Location	Received By/Location
6/30/25 13:05	RS (Ext Lab)	Y-P per HUB
	Preparation Group	Analysis Group

Analytical Method: M3541-ASE Extraction-14

Concentration Date: 06/23/2025

Sample ID	Client Sample ID	Test	g / mL	PH	Surr/Spike By:		Final Vol. (mL)	JarID	Comments	Prep Pos
					AddedBy	VerifiedBy				
PB168658BL	PB168658BL	Diesel Range Organics	30.01	N/A	ritesh	Evelyn	1			U3-1
PB168658BS	PB168658BS	Diesel Range Organics	30.02	N/A	ritesh	Evelyn	1			2
Q2413-01	TP-35	Diesel Range Organics	30.05	N/A	ritesh	Evelyn	1	E		3
Q2413-01MS	TP-35MS	Diesel Range Organics	30.06	N/A	ritesh	Evelyn	1	E		4
Q2413-01MS D	TP-35MSD	Diesel Range Organics	30.08	N/A	ritesh	Evelyn	1	E		5
Q2413-02	TP-34	Diesel Range Organics	30.05	N/A	ritesh	Evelyn	1	E		6
Q2413-03	TP-77	Diesel Range Organics	30.08	N/A	ritesh	Evelyn	1	E		U6-1
Q2413-04	TP-74	Diesel Range Organics	30.06	N/A	ritesh	Evelyn	1	E		2
Q2413-05	TP-73	Diesel Range Organics	30.03	N/A	ritesh	Evelyn	1	E		3
Q2413-06	TP-72	Diesel Range Organics	30.05	N/A	ritesh	Evelyn	1	E		4
Q2436-01	TP-70	Diesel Range Organics	30.01	N/A	ritesh	Evelyn	1	E		5
Q2436-02	TP-69	Diesel Range Organics	30.06	N/A	ritesh	Evelyn	1	E		6
Q2436-03	TP-85	Diesel Range Organics	30.08	N/A	ritesh	Evelyn	1	E		U1-1
Q2436-04	TP-86	Diesel Range Organics	30.01	N/A	ritesh	Evelyn	1	E		2
Q2436-05	TP-84	Diesel Range Organics	30.02	N/A	ritesh	Evelyn	1	E		3
Q2436-06	TP-83	Diesel Range Organics	30.06	N/A	ritesh	Evelyn	1	E		4
Q2436-07	TP-87	Diesel Range Organics	30.07	N/A	ritesh	Evelyn	1	E		5
Q2436-08	TP-100	Diesel Range Organics	30.04	N/A	ritesh	Evelyn	1	E		6
Q2436-09	TP-99	Diesel Range Organics	30.05	N/A	ritesh	Evelyn	1	E		U2-1
Q2436-10	TP-82	Diesel Range Organics	30.09	N/A	ritesh	Evelyn	1	E		2

* Extracts relinquished on the same date as received.

RS
6/30

1686502-950149150

WORKLIST(Hardcopy Internal Chain)

WorkList Name : Q2436D WorkList ID : 190459 Department : Extraction Date : 06-30-2025 08:51:50

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q2413-01	TP-35	Solid	Diesel Range Organics	Cool 4 deg C	CAMP02	D41	06/23/2025	8015D
Q2413-02	TP-34	Solid	Diesel Range Organics	Cool 4 deg C	CAMP02	D41	06/23/2025	8015D
Q2413-03	TP-77	Solid	Diesel Range Organics	Cool 4 deg C	CAMP02	D41	06/23/2025	8015D
Q2413-04	TP-74	Solid	Diesel Range Organics	Cool 4 deg C	CAMP02	D41	06/23/2025	8015D
Q2413-05	TP-73	Solid	Diesel Range Organics	Cool 4 deg C	CAMP02	D41	06/23/2025	8015D
Q2413-06	TP-72	Solid	Diesel Range Organics	Cool 4 deg C	CAMP02	D41	06/23/2025	8015D
Q2436-01	TP-70	Solid	Diesel Range Organics	Cool 4 deg C	CAMP02	D51	06/24/2025	8015D
Q2436-02	TP-69	Solid	Diesel Range Organics	Cool 4 deg C	CAMP02	D51	06/25/2025	8015D
Q2436-03	TP-85	Solid	Diesel Range Organics	Cool 4 deg C	CAMP02	D51	06/25/2025	8015D
Q2436-04	TP-86	Solid	Diesel Range Organics	Cool 4 deg C	CAMP02	D51	06/25/2025	8015D
Q2436-05	TP-84	Solid	Diesel Range Organics	Cool 4 deg C	CAMP02	D51	06/25/2025	8015D
Q2436-06	TP-83	Solid	Diesel Range Organics	Cool 4 deg C	CAMP02	D51	06/25/2025	8015D
Q2436-07	TP-87	Solid	Diesel Range Organics	Cool 4 deg C	CAMP02	D51	06/25/2025	8015D
Q2436-08	TP-100	Solid	Diesel Range Organics	Cool 4 deg C	CAMP02	D51	06/26/2025	8015D
Q2436-09	TP-99	Solid	Diesel Range Organics	Cool 4 deg C	CAMP02	D51	06/26/2025	8015D
Q2436-10	TP-82	Solid	Diesel Range Organics	Cool 4 deg C	CAMP02	D51	06/26/2025	8015D

Date/Time 06/30/25 9:45
Raw Sample Received by: RJ (LFA-146)
Raw Sample Relinquished by: CP SM

Date/Time 06/30/25 10:15
Raw Sample Received by: CP SM
Raw Sample Relinquished by: RJ (LFA-146)

Prep Standard - Chemical Standard Summary

Order ID : Q2413
Test : Diesel Range Organics
Prepbatch ID : PB168658,
Sequence ID/Qc Batch ID: FF063025,

Standard ID :
EP2612,EP2624,PP24467,PP24468,PP24469,PP24470,PP24471,PP24472,PP24473,PP24583,PP24596,

Chemical ID :
E2865,E3551,E3926,E3930,E3931,E3932,E3943,P11951,P11952,P13106,P13108,P13477,P13479,P13483,P13484,P13485,P13486,P13938,P13945,

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>
3923	Baked Sodium Sulfate	EP2624	06/26/2025	12/04/2025	RUPESHKUMAR SHAH	Extraction_SC ALE_2	None	Riteshkumar Patel
						(EX-SC-2)		06/26/2025

FROM 4000.00000gram of E3551 = Final Quantity: 4000.000 gram

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>
433	100/100 PPM DRO (Restek)	PP24467	04/22/2025	10/08/2025	Yogesh Patel	None	None	Abdul Mirza
								05/08/2025

FROM 1.00000ml of P11951 + 1.00000ml of P11952 + 1.00000ml of P13477 + 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>
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

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>
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

<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

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>
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

<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

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>
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

<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)	PP24583	05/16/2025	11/16/2025	Rahul Chavli	None	None	Yogesh Patel
								05/22/2025

FROM 0.70000ml of P13945 + 1.30000ml of P13938 + 48.00000ml of E3930 = Final Quantity: 50.000 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>
147	20 PPM DRO Surrogate Spike Solution	PP24596	05/20/2025	11/20/2025	Abdul Mirza	None	None	Yogesh Patel 05/22/2025
<u>FROM</u> 1.00000ml of P13483 + 1.00000ml of P13484 + 1.00000ml of P13485 + 1.00000ml of P13486 + 196.00000ml of E3931 = Final Quantity: 200.000 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	06/30/2026	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	12/04/2025	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	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-9644-A4 / Methylene Chloride,U-Resi, Cycle-Tainer (215L)	25A0262002	02/20/2026	05/02/2025 / RUPESH	03/09/2025 / RUPESH	E3931

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 #
Seidler Chemical	BA-9644-A4 / Methylene Chloride,U-Resi, Cycle-Tainer (215L)	25A2862010	12/13/2025	06/13/2025 / Rajesh	02/28/2025 / Rajesh	E3943

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	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

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

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	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	11/20/2025	05/20/2025 / Abdul	07/24/2024 / yogesh	P13483

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	11/20/2025	05/20/2025 / Abdul	07/24/2024 / yogesh	P13484

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	11/20/2025	05/20/2025 / Abdul	07/24/2024 / yogesh	P13485

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	11/20/2025	05/20/2025 / Abdul	07/24/2024 / yogesh	P13486

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31266 / Florida TRPH Standard	A0217113	11/16/2025	05/16/2025 / Rahul	03/07/2025 / yogesh	P13938

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	A0217113	11/16/2025	05/16/2025 / Rahul	03/07/2025 / yogesh	P13945

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

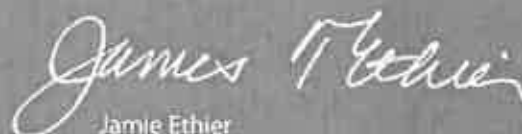
Certificate of Analysis

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)

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 (μeq/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)



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

E3930

Jamie Croak
Director Quality Operations, Bioscience Production

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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)



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

E3930

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

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

avantor™



Material No.: 9266-A4

Batch No.: 25A2862010

Manufactured Date: 2024-12-18

Expiration Date: 2026-03-19

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	2
Assay (CH_2Cl_2) (by GC, exclusive of preservative, corrected for water)	$\geq 99.8 \%$	99.9 %
Color (APHA)	≤ 10	5
Residue after Evaporation	$\leq 1.0 \text{ ppm}$	0.3 ppm
Titration Acid ($\mu\text{eq/g}$)	≤ 0.3	<0.1
Chloride (Cl)	$\leq 10 \text{ ppm}$	<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

E3942

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

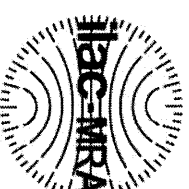
Bellefonte, PA 16823-8812

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 +/- 12.5465 +/- 15.0390	Gravimetric Unstressed Stressed
2	n-Decane (C10) CAS # 124-18-5 Purity 99%	503.0 µg/mL	+/- 2.9877 +/- 12.4968 +/- 14.9795	Gravimetric Unstressed Stressed
3	n-Dodecane (C12) CAS # 112-40-3 Purity 99%	503.5 µg/mL	+/- 2.9906 +/- 12.5092 +/- 14.9944	Gravimetric Unstressed Stressed
4	n-Tetradecane (C14) CAS # 629-59-4 Purity 99%	505.0 µg/mL	+/- 2.9995 +/- 12.5465 +/- 15.0390	Gravimetric Unstressed Stressed
5	n-Hexadecane (C16) CAS # 544-76-3 Purity 98%	504.7 µg/mL	+/- 2.9978 +/- 12.5390 +/- 15.0301	Gravimetric Unstressed Stressed
6	n-Octadecane (C18) CAS # 593-45-3 Purity 97%	504.4 µg/mL	+/- 2.9960 +/- 12.5316 +/- 15.0212	Gravimetric Unstressed Stressed
7	n-Eicosane (C20) CAS # 112-95-8 Purity 99%	503.5 µg/mL	+/- 2.9906 +/- 12.5092 +/- 14.9944	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:

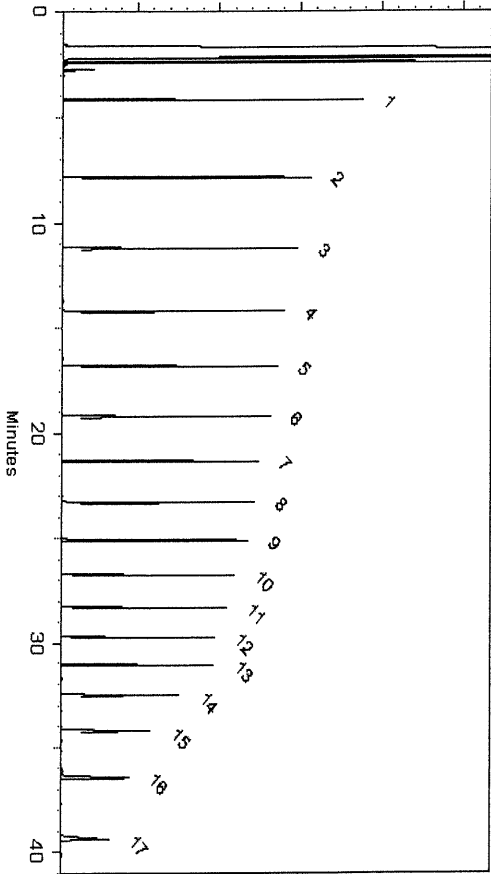
250°C

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

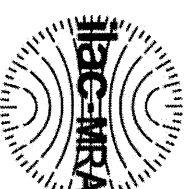
Bellefonte, PA 16823-8812

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:

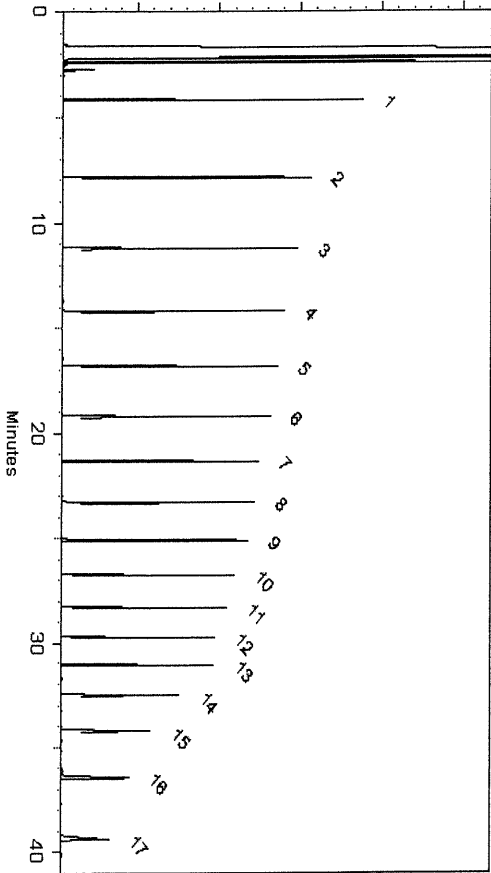
250°C

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%.

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- 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.

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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.



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

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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	MKQC3882	99%	503.6 µg/mL	+/- 13.0098
9	n-Tetracosane (C24)	646-31-1	MKQC8345	99%	504.0 µg/mL	+/- 13.0201
10	n-Hexacosane (C26)	630-01-3	MKQC4814	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	MKQC9436	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.)

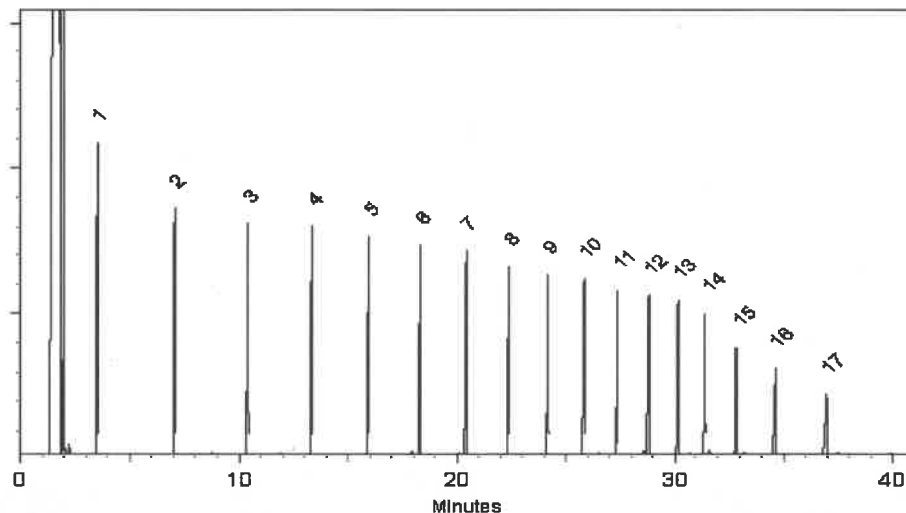
Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID

Split Vent:
2 ml/min.

Inj. Vol
1µl

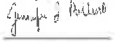


This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.


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.



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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	MKQC3882	99%	503.6 µg/mL	+/- 13.0098
9	n-Tetracosane (C24)	646-31-1	MKQC8345	99%	504.0 µg/mL	+/- 13.0201
10	n-Hexacosane (C26)	630-01-3	MKQC4814	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	MKQC9436	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.)

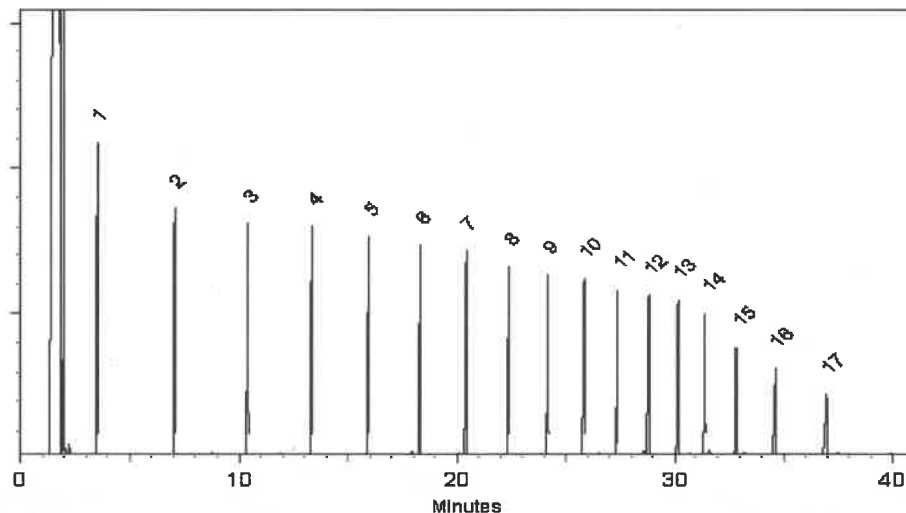
Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID

Split Vent:
2 ml/min.

Inj. Vol
1µl

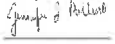


This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.


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.

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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

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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
070716
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 (%)	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-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	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 Reference Material CRM



CERTIFIED WEIGHT REPORT

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

Solvent(s):
Methylene chloride
Lot#
105345

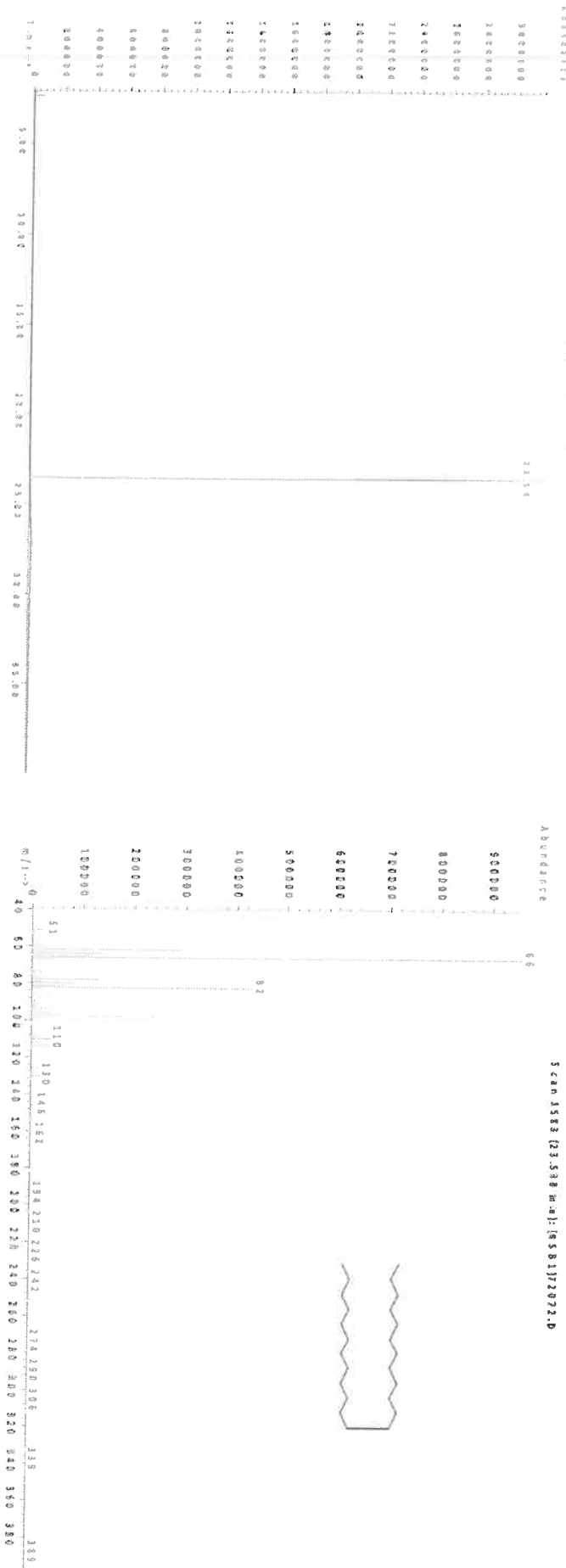
Expiration Date: **101132**
Recommended Storage: **Ambient (20 °C)**
Nominal Concentration (µg/mL): **1000**
NIST Test ID#: **6UB3**
Weight(s) shown below were combined and diluted to (mL): **200.0**
5E-05 Balance Uncertainty
0.058 Flask Uncertainty

P13437
13496
07/24/24
X.F.

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

Compound	Lot	Nominal Conc (µg/mL)	Purity (%)	Uncertainty Purity (%D)	Assay	Target Weight(g)	Actual Weight(g)	Expanded Uncertainty (Solvent Safety Info. On Attached pg.)	
								Conc (µg/mL)	(±) (µg/mL)
RM#	Number								

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

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Absolute Standards, Inc.
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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	en-ra 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)	en-ra 400mg/kg	
3. Acenaphthene-d10	2	PR-25444	4000	99	0.2	2.02032	2.02245	4004.2	15.2	15067-26-2	N/A	en-ra 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 = aDaq 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

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

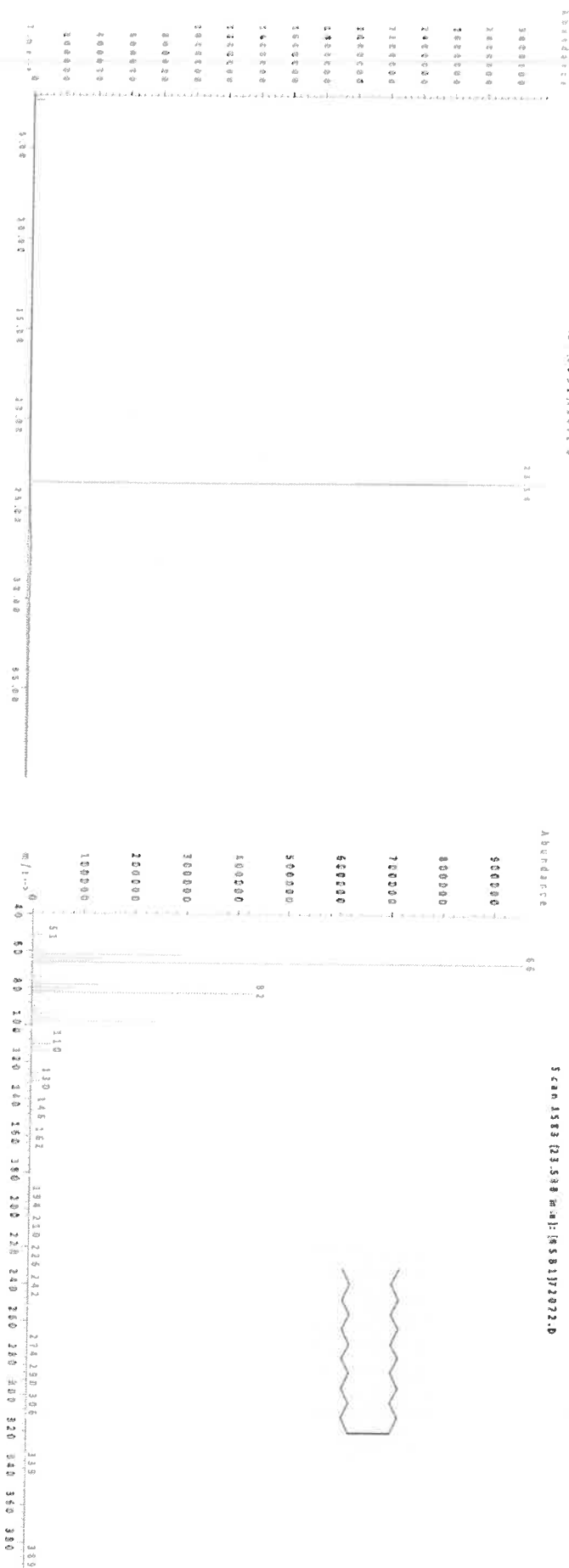
Expiration Date: **101132**
Recommended Storage: **Ambient (20 °C)**
Nominal Concentration (µg/mL): **1000**
NIST Test ID#: **6UB3**
Weight(s) shown below were combined and diluted to (mL): **200.0**
5E-05 Balance Uncertainty
0.058 Flask Uncertainty

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, (1996).

ABSOLUTE STANDARDS, INC.

ISO - 17034



Certificate of Analysis



Certified Reference Material (CRM)

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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.

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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



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ISO - 17034

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Certified Reference Material CRM

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

CERTIFIED WEIGHT REPORT

Part # 10009R
Lot # 070716
Description: CLP Priority Pollutant Internal Standards
GC/MS Calibration - 6 components
070721
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
Balance Uncertainty: 0.058
Peak Uncertainty: 0.058

Solvent(s): Methylene chloride
Lot# 78782

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

DATE: 070716
DATE: 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-19280	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 = 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

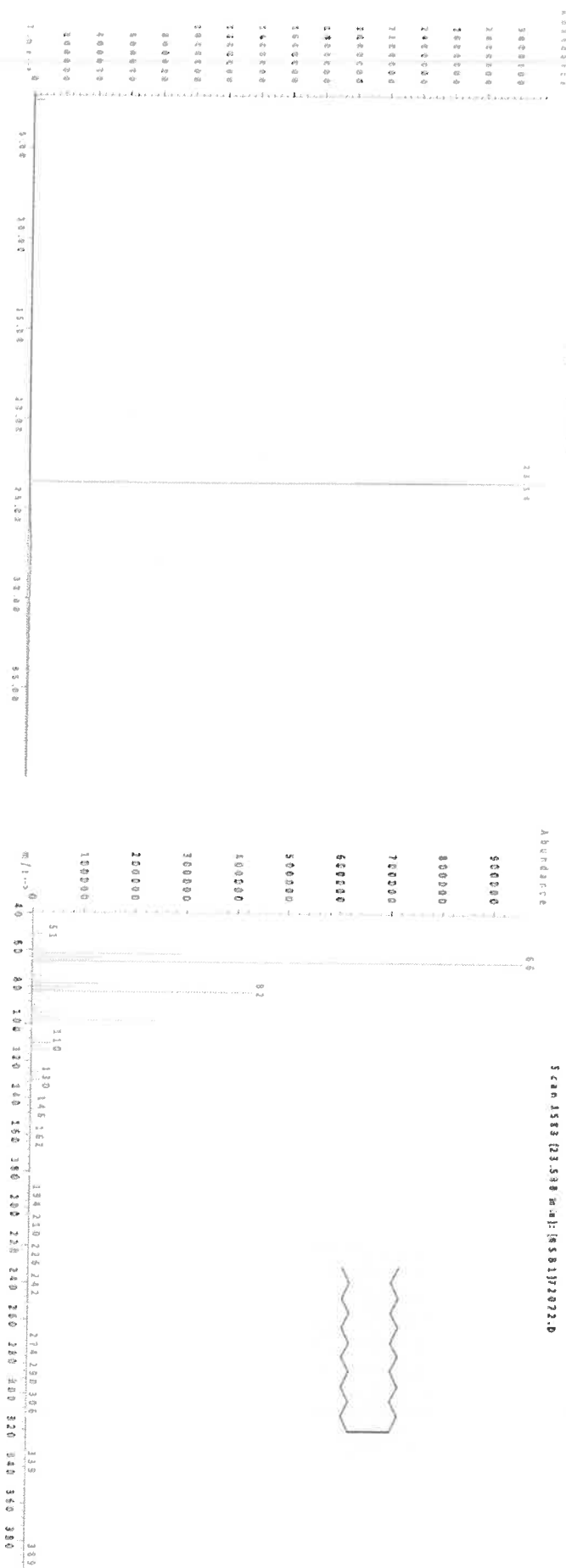
Expiration Date: **101132**
Recommended Storage: **Ambient (20 °C)**
Nominal Concentration (µg/mL): **1000**
NIST Test ID#: **6UB3**
Weight(s) shown below were combined and diluted to (mL): **200.0**
5E-05 Balance Uncertainty
0.058 Flask Uncertainty

P13437
13436
07/24/24
X.F.

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

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



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)	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-nr 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-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	2.04136	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	2.04159	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	2.04156	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

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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

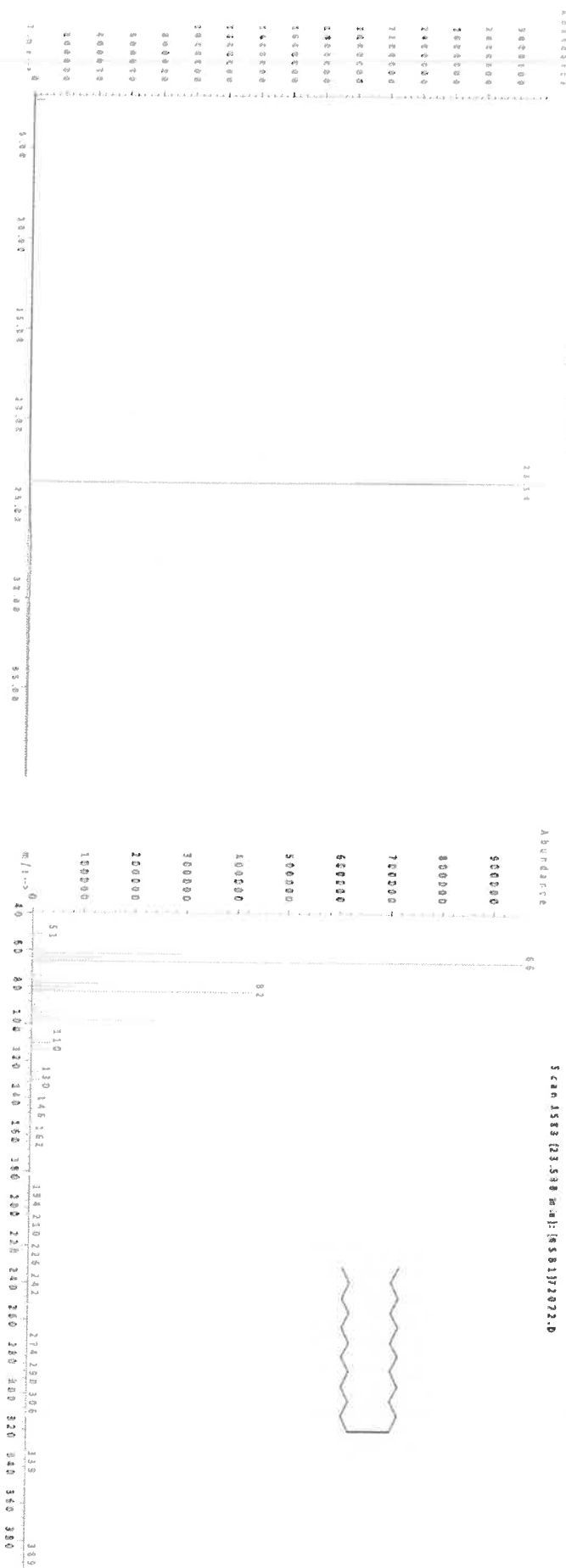
Expiration Date: **101132**
Recommended Storage: **Ambient (20 °C)**
Nominal Concentration (µg/mL): **1000**
NIST Test ID#: **6UB3**
Weight(s) shown below were combined and diluted to (mL): **200.0**
5E-05 Balance Uncertainty
0.058 Flask Uncertainty

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

Page 1 of 2



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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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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)	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-nr 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-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	2.04136	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	2.04159	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	2.04156	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

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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

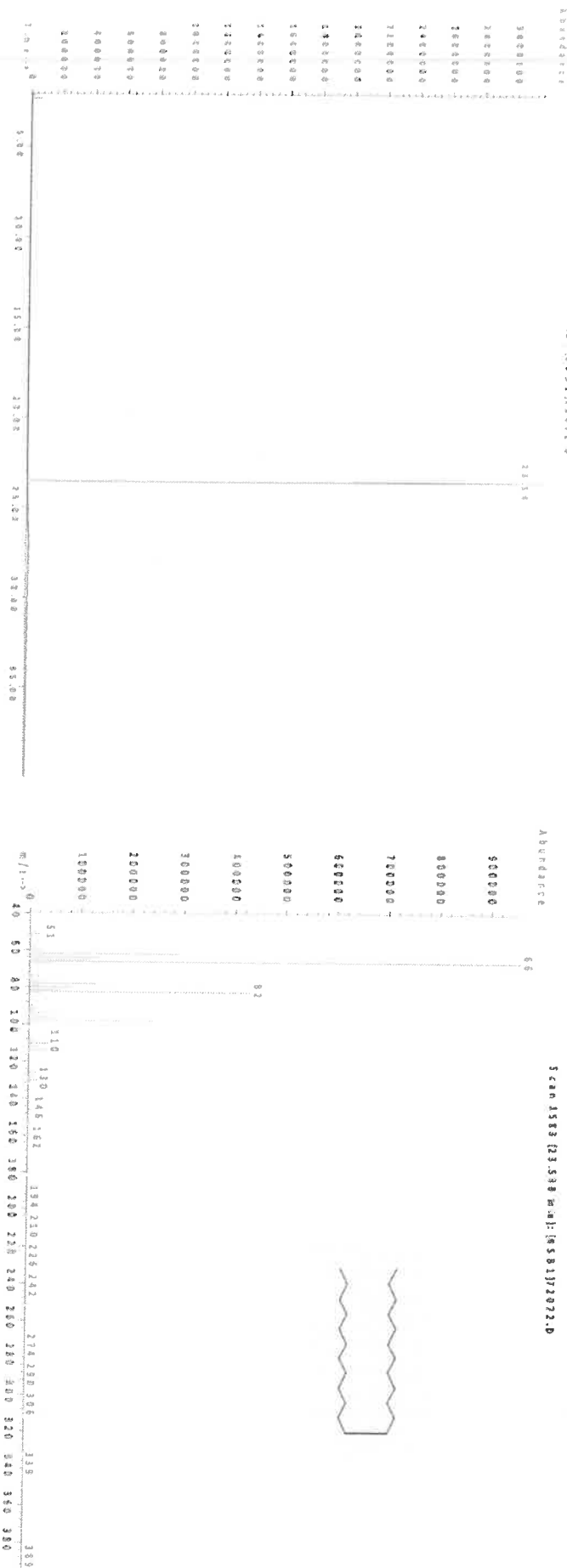
Expiration Date: **101132**
Recommended Storage: **Ambient (20 °C)**
Nominal Concentration (µg/mL): **1000**
NIST Test ID#: **6UB3**
Weight(s) shown below were combined and diluted to (mL): **200.0**
5E-05 Balance Uncertainty
0.058 Flask Uncertainty

P13437
13496
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.

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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 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-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/MS2", Method "GC-MS2".
Analyzed using Method "GC-MS2".

Comments
GC-MS2 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 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



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





CERTIFIED WEIGHT REPORT

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

Solvent(s):
Methylene chloride
Lot#
105345

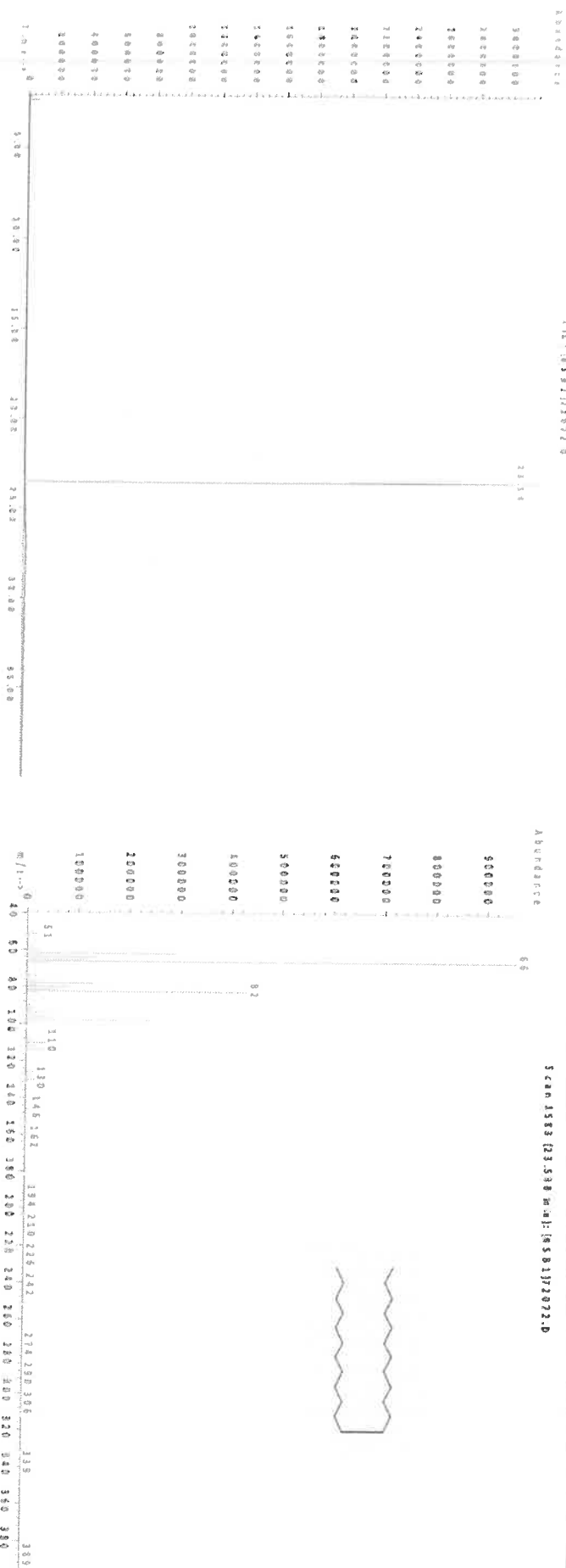
Expiration Date: **101132**
Recommended Storage: **Ambient (20 °C)**
Nominal Concentration (µg/mL): **1000**
NIST Test ID#: **6UB3**
Weight(s) shown below were combined and diluted to (mL): **200.0**
5E-05 Balance Uncertainty
0.058 Flask Uncertainty

P13437
13496
07/24/24
X.F.

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



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.: A0217113

Description : Florida TRPH Standard

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

Container Size : 2 mL

Pkg Amt: > 1 mL

Expiration Date : October 31, 2031

Storage: 25°C nominal

Handling: Sonicate prior to use.

Ship: Ambient

P031937
*
P031946
Y.P.
03/07/25

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	SHBR0789	99%	502.0 µg/mL	+/- 12.9685
2	n-Decane (C10)	124-18-5	SHBQ1342	99%	501.5 µg/mL	+/- 12.9555
3	n-Dodecane (C12)	112-40-3	SHBP7054	99%	502.5 µg/mL	+/- 12.9814
4	n-Tetradecane (C14)	629-59-4	STBL0465	99%	500.5 µg/mL	+/- 12.9297
5	n-Hexadecane (C16)	544-76-3	SHBR0669	99%	500.0 µg/mL	+/- 12.9168
6	n-Octadecane (C18)	593-45-3	UB5NG	99%	500.5 µg/mL	+/- 12.9297
7	n-Eicosane (C20)	112-95-8	MKCN8767	97%	500.0 µg/mL	+/- 12.9177
8	n-Docosane (C22)	629-97-0	MKCQ3882	99%	500.5 µg/mL	+/- 12.9297
9	n-Tetracosane (C24)	646-31-1	MKCS9978	99%	500.5 µg/mL	+/- 12.9297
10	n-Hexacosane (C26)	630-01-3	MKCQ4814	99%	502.0 µg/mL	+/- 12.9685
11	n-Octacosane (C28)	630-02-4	BCCJ4566	99%	501.0 µg/mL	+/- 12.9426
12	n-Triacontane (C30)	638-68-6	MKCV7007	98%	499.8 µg/mL	+/- 12.9116
13	n-Dotriacontane (C32)	544-85-4	BCBW0661	99%	500.0 µg/mL	+/- 12.9168
14	n-Tetratriacontane (C34)	14167-59-0	D3MZN	99%	501.5 µg/mL	+/- 12.9555
15	n-Hexatriacontane (C36)	630-06-8	Z27H018	99%	500.5 µg/mL	+/- 12.9297
16	n-Octatriacontane (C38)	7194-85-6	0000145137	96%	500.2 µg/mL	+/- 12.9209
17	n-Tetracontane (C40)	4181-95-7	OKEGA	99%	503.5 µg/mL	+/- 13.0072

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.)

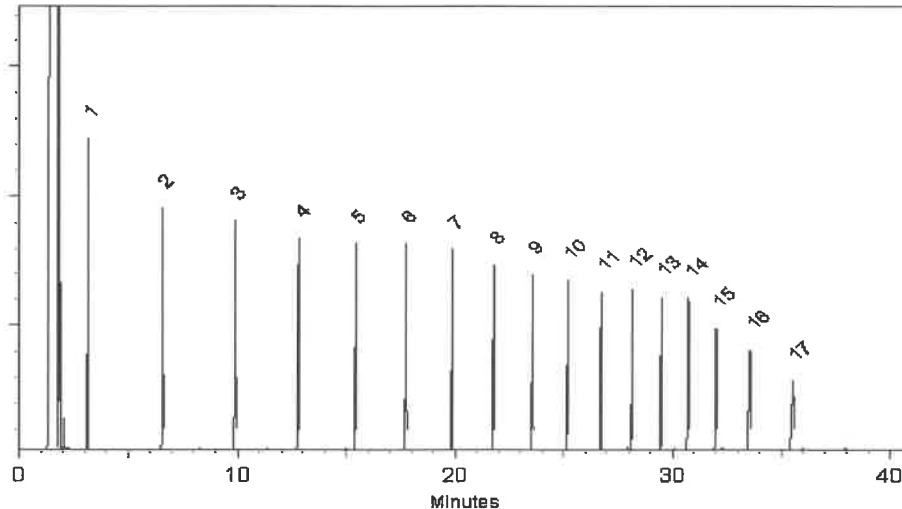
Inj. Temp:
250°C

Det. Temp:
330°C

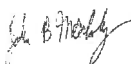
Det. Type:
FID

Split Vent:
2 ml/min.

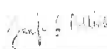
Inj. Vol
1µl



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.


Josh McCloskey - Operations Technician I

Date Mixed: 26-Sep-2024 **Balance Serial #** 1128353505


Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 10-Oct-2024

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.



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Certificate of Analysis

chromatographic plus



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Lot No.: A0217113

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Pkg Amt: > 1 mL

Expiration Date : October 31, 2031

Storage: 25°C nominal

Handling: Sonicate prior to use.

Ship: Ambient

P031937
*
P031946
Y.P.
03/07/25

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

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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.)

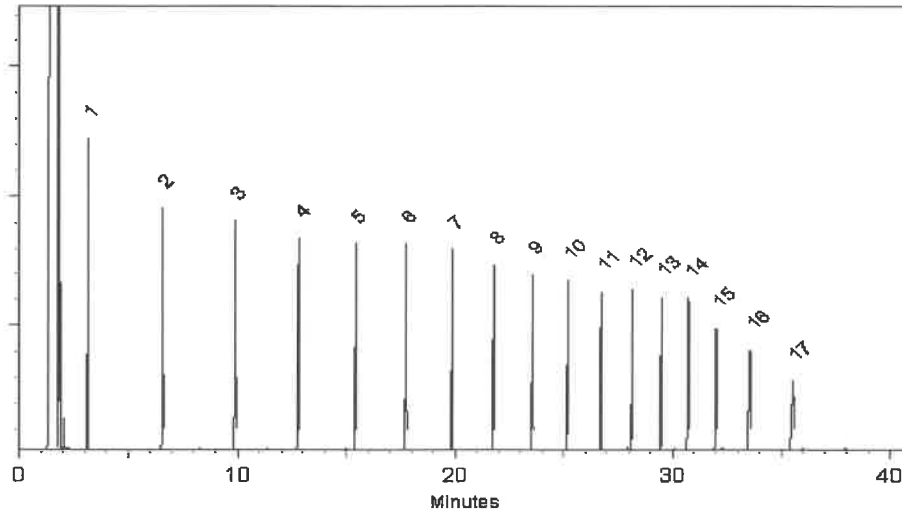
Inj. Temp:
250°C

Det. Temp:
330°C

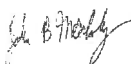
Det. Type:
FID

Split Vent:
2 ml/min.

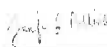
Inj. Vol
1µl



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.


Josh McCloskey - Operations Technician I

Date Mixed: 26-Sep-2024 **Balance Serial #** 1128353505


Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 10-Oct-2024

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

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- 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:

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

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- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.



SHIPPING DOCUMENTS

CLIENT INFORMATION

REPORT TO BE SENT TO:
COMPANY: CDM SMITH
ADDRESS: 110 FIELDCREST AVE #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: SOUTH RIVER WM REPLACEMENT
PROJECT NO.: 302781 LOCATION: SOUTH RIVER NJ
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 AVE #8 6TH FLOOR
CITY: EDISON STATE: NJ ZIP: 08837
ATTENTION: MARCIE ENCINAS PHONE: 732 590 4679

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 VOL 2. TCL VOL 3. TAL METALS 4. PCB 5. PESTICIDES 6. HERBICIDES 7. DRUGS 8. 9.

PRESERVATIVES

COMMENTS

ALLIANCE SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE		SAMPLE COLLECTION		# OF BOTTLES										← Specify Preservatives A-HCl D-NaOH B-HNO3 E-ICE C-H2SO4 F-OTHER
			COMP	GRAB	DATE	TIME		1	2	3	4	5	6	7	8	9	
1.	TP-35	S		X	6/23/25	0820	6	X	X	X	X	X	X	X			E
2.	TP-34	S		X	6/23/25	0905	6	X	X	X	X	X	X	X			E
3.	TP-77	S		X	6/23/25	1015	6	X	X	X	X	X	X	X			F
4.	TP-74	S		X	6/23/25	1115	6	X	X	X	X	X	X	X			E
5.	TP-73	S		X	6/23/25	1250	6	X	X	X	X	X	X	X			E
6.	TP-72	S		X	6/24/25	0805	6	X	X	X	X	X	X	X			E
7.																	E
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: 6/24/25 1500	RECEIVED BY: <i>[Signature]</i> 6-24-25 1500	Conditions of bottles or coolers at receipt: ☐ COMPLIANT ☐ NON COMPLIANT ☐ COOLER TEMP 31 °C
RELINQUISHED BY SAMPLER: 2. <i>[Signature]</i>	DATE/TIME:	RECEIVED BY:	Comments:
RELINQUISHED BY SAMPLER: 3. <i>[Signature]</i>	DATE/TIME: 6-24-25	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



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

LOGIN REPORT/SAMPLE TRANSFER

Order ID : Q2413	CAMP02	Order Date : 6/24/2025 3:05:00 PM	Project Mgr : Yazmeen
Client Name : CDM Smith		Project Name : South River WM Replacem	Report Type : Level 2
Client Contact : Marcie Ann Encinas		Receive DateTime : 6/24/2025 4:25:00 PM	EDD Type : EXCEL NOCLEANUP
Invoice Name : CDM Smith		Purchase Order :	Hard Copy Date :
Invoice Contact : Marcie Ann Encinas			Date Signoff : 6/25/2025 11:39:51 AM

LAB ID	CLIENT ID	MATRIX	SAMPLE DATE	SAMPLE TIME	TEST	TEST GROUP	METHOD	FAX DATE	DUE DATES
Q2413-01	TP-35	Solid	06/23/2025	08:20	VOC-TCLVOA-10		8260D		10 Bus. Days
Q2413-02	TP-34	Solid	06/23/2025	09:05	VOC-TCLVOA-10		8260D		10 Bus. Days
Q2413-03	TP-77	Solid	06/23/2025	10:15	VOC-TCLVOA-10		8260D		10 Bus. Days
Q2413-04	TP-74	Solid	06/23/2025	11:15	VOC-TCLVOA-10		8260D		10 Bus. Days
Q2413-05	TP-73	Solid	06/23/2025	12:50	VOC-TCLVOA-10		8260D		10 Bus. Days
Q2413-06	TP-72	Solid	06/24/2025	08:05	VOC-TCLVOA-10		8260D		10 Bus. Days



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

LOGIN REPORT/SAMPLE TRANSFER

Order ID : Q2413	CAMP02	Order Date : 6/24/2025 3:05:00 PM	Project Mgr : Yazmeen
Client Name : CDM Smith		Project Name : South River WM Replacem	Report Type : Level 2
Client Contact : Marcie Ann Encinas		Receive DateTime : 6/24/2025 4:25:00 PM	EDD Type : EXCEL NOCLEANUP
Invoice Name : CDM Smith		Purchase Order :	Hard Copy Date :
Invoice Contact : Marcie Ann Encinas			Date Signoff : 6/25/2025 11:39:51 AM

LAB ID	CLIENT ID	MATRIX	SAMPLE DATE	SAMPLE TIME	TEST	TEST GROUP	METHOD	FAX DATE	DUE DATES
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Relinquished By : cl
Date / Time : 6/25/25 0935

Received By : Sam
Date / Time : 6/25/25 9:35 By H/L

Storage Area : VOA Refridgerator Room