

DATA PACKAGE

GC SEMI-VOLATILES

PROJECT NAME : NJ WASTE WATER PT

ALLIANCE TECHNICAL GROUP, LLC - NEWARK

284 Sheffiled Stree

Suite 1

Mountainside, NJ - 07092

Phone No: 908-789-8900

ORDER ID : Q3015

ATTENTION : Mohammad Ahmed



Laboratory Certification ID # 20012



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Cover Page

Order ID : Q3015

Project ID : NJ Waste Water PT

Client : Alliance Technical Group, LLC - Newark

Lab Sample Number

Q3015-01
Q3015-02
Q3015-03
Q3015-04
Q3015-05
Q3015-06
Q3015-07
Q3015-08
Q3015-09
Q3015-10
Q3015-11
Q3015-12
Q3015-13
Q3015-14
Q3015-15
Q3015-16
Q3015-17
Q3015-18
Q3015-19
Q3015-20
Q3015-21
Q3015-22

Client Sample Number

WP0925-PT-VOA-WP
WP0925-PT-VOA-WP
WP0925-PT-BN-WP
WP0925-PT-BN-WP
WP0925-PT-BN-WP
WP0925-PT-ACIDS-WP
WP0925-PT-ACIDS-WP
WP0925-PT-ACIDS-WP
WP0925-PT-PEST-WP
WP0925-PT-PEST-WP
WP0925-PT-CHLR-WP
WP0925-PT-CHLR-WP
WP0925-PT-TXP-WP
WP0925-PT-TXP-WP
WP0925-PT-PCBW-WP
WP0925-PT-PCBW-WP
WP0925-PT-HERB-WP
WP0925-RR-GAS-WP
WP0925-RR-DIES-WP
WP0925-RR-8011-WP
WP0925-RR-PAH-WP
WP0925-RR-TRIAZINE-WP

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: 9/25/2025

NYDOH CERTIFICATION NO - 11376

NJDEP CERTIFICATION NO - 20012

CASE NARRATIVE

Alliance Technical Group, LLC - Newark

Project Name: NJ Waste Water PT

Project # N/A

Order ID # Q3015

Test Name: Diesel Range Organics

A. Number of Samples and Date of Receipt:

1 Water sample was received on 09/04/2025.

B. Parameters

According to the Chain of Custody document, the following analyses were requested: Diesel Range Organics. This data package contains results for Diesel Range Organics.

C. Analytical Techniques:

The analysis were performed on instrument FID_G. The column is RXI-1MS which is 20 meters, 0.18mm ID, 0.18 um df, catalog 13302. The analysis of Diesel Range Organics was based on method 8015D and extraction was done based on method 3510.

D. QA/ QC Samples:

The Holding Times were met for all analysis.

The Surrogate recoveries were met for all analysis.

The Retention Times were met for all analysis.

The RPD were met for all analysis.

The Blank Spike met requirements for all compounds.

The Blank Spike Duplicate met requirements for all compounds.

The Blank analysis did not indicate the presence of lab contamination.

The Initial Calibration met the requirements.

The Continuous Calibration met the requirements.

Samples WP0925-RR-DIES-WP was diluted due to bad matrix The above samples original run is reported as screening data in miscellaneous data.

E. Additional Comments:

F. Manual Integration Comments:

Please refer to the Manual integration Report included with the Run Logs for information on the manual integrations performed.

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



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Phone: 908 789 8900 Fax: 908 789 8922

above. The laboratory manager or his designee, as verified by the following signature has authorized release of the data contained in this hard copy data package.

Signature_____

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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



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GC ANALYSIS CONFORMANCE/NON-CONFORMANCE SUMMARY

ORDER ID: Q3015

MATRIX: Water

METHOD: 8015D/3510

	NA	NO	YES
1. Chromatograms Labeled/Compounds Identified.			✓
2. Standard Summary Submitted.			✓
3. Calibration - Initial Calibration performed within 30 days before sample analysis and continuing calibration performed within 24 hours of sample analysis, 12 HOURS IF 8000 SERIES METHOD. The Initial Calibration met the requirements. The Continuous Calibration met the requirements.			✓
4. Blank Contamination - If yes, list compounds and concentrations in each blank:		✓	
5. Surrogate Recoveries Meet Criteria If not met, list those compounds and their recoveries which fall outside the acceptable ranges.			✓
6. Matrix Spike/Matrix Spike Duplicate Recoveries Meet Criteria If not met, list those compounds and their recoveries which fall outside the acceptable range. The Blank Spike met requirements for all compounds. The Blank Spike Duplicate met requirements for all compounds. The RPD were met for all analysis.			✓
7. Retention Time Shift Meet Criteria (if applicable) Comments:			✓
8. Extraction Holding Time Met If not met, list number of days exceeded for each sample:		✓	
9. Analysis Holding Time Met If not met, list those compounds and their recoveries which fall outside the acceptable range. The Holding Times were met for all analysis.		✓	



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GC ANALYSIS CONFORMANCE/NON-CONFORMANCE SUMMARY (CONTINUED)

NA NO YES

ADDITIONAL COMMENTS:

Samples WP0925-RR-DIES-WP was diluted due to bad matrix The above samples original run is reported as screening data in miscellaneous data.

QA REVIEW

Date

APPENDIX A

QA REVIEW GENERAL DOCUMENTATION

Project #: Q3015

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: SOHIL JODHANI

Date: 09/25/2025

LAB CHRONICLE

OrderID:	Q3015	OrderDate:	9/4/2025 10:14:00 AM
Client:	Alliance Technical Group, LLC - Newark	Project:	NJ Waste Water PT
Contact:	Mohammad Ahmed	Location:	QA Office, VOA Lab

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
Q3015-09	WP0925-PT-PEST-WP	WATER	PESTICIDE Group1	8081B	09/02/25	09/08/25	09/08/25	09/04/25
Q3015-09DL	WP0925-PT-PEST-WP DL	WATER	PESTICIDE Group1	8081B	09/02/25	09/08/25	09/08/25	09/04/25
Q3015-09DL 2	WP0925-PT-PEST-WP DL2	WATER	PESTICIDE Group1	8081B	09/02/25	09/08/25	09/08/25	09/04/25
Q3015-15	WP0925-PT-PCBW-W P	WATER	PCB	8082A	09/02/25	09/08/25	09/09/25	09/04/25
Q3015-18	WP0925-RR-GAS-WP	Water	Gasoline Range Organics	8015D	09/02/25		09/17/25	09/04/25
Q3015-19	WP0925-RR-DIES-WP	Water	Diesel Range Organics	8015D	09/02/25	09/17/25	09/18/25	09/04/25



QC SUMMARY

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WATER DIESEL RANGE ORGANICS SURROGATE RECOVERY

Lab Name: Alliance

Client: Alliance Technical Group, LLC - Newark

Lab Code: ACE

SDG No.: Q3015

CLIENT ID	S1 TETRACOSANE-d50	S2	S3	S4	TOT OUT
PIBLK-FG016613.D	78				0
PIBLK-FG016623.D	77				0
PB169733BL	72				0
PB169733BS	88				0
PB169733BSD	76				0
WP0925-RR-DIES-WP	82				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

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

Lab Name: Alliance **Client:** Alliance Technical Group, LLC - Newark
Lab Code: ACE **SDG No:** Q3015
Client Sample ID : PB169733BS **Datafile:** FG016617.D

COMPOUND	SPIKE ADDED ug/L	CONCENTRATION ug/L	LCS/LCSD CONCENTRATION ug/L	% REC	QC LIMITS (%)
DRO	200	0	185	92	78-117

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

Lab Name: Alliance **Client:** Alliance Technical Group, LLC - Newark
Lab Code: ACE **SDG No:** Q3015
Client Sample ID : PB169733BSD **Datafile:** FG016618.D

COMPOUND	SPIKE ADDED ug/L	CONCENTRATION ug/L	LCS/LCSD CONCENTRATION ug/L	% REC	QC LIMITS (%)
DRO	200	0	157	78	78-117

LCS/LCSD % Recovery RPD : 16.4

4B
METHOD BLANK SUMMARY

CLIENT SAMPLE NO.

PB169733BL

Lab Name: Alliance

Contract: ALLI03

Lab Code: ACE

SDG NO.: Q3015

Lab File ID: FG016616.D

Lab Sample ID: PB169733BL

Instrument ID: FG

Date Extracted: 09/18/2025

Matrix: (soil/water) Water

Date Analyzed: 09/18/25

Level: (low/med) low

Time Analyzed: 9:23

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

CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
PB169733BS	PB169733BS	FG016617.D	09/18/25
PB169733BSD	PB169733BSD	FG016618.D	09/18/25
WP0925-RR-DIES-WP	Q3015-19	FG016620.D	09/18/25

COMMENTS: _____



SAMPLE DATA

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Report of Analysis

Client:	Alliance Technical Group, LLC - Newark		Date Collected:	09/02/25	
Project:	NJ Waste Water PT		Date Received:	09/04/25	
Client Sample ID:	WP0925-RR-DIES-WP		SDG No.:	Q3015	
Lab Sample ID:	Q3015-19		Matrix:	Water	
Analytical Method:	8015D DRO		% Solid:	0	Decanted:
Sample Wt/Vol:	1000	Units: mL	Final Vol:	1	mL
Soil Aliquot Vol:		uL	Test:	Diesel Range Organics	
Extraction Type:			Injection Volume :		
GPC Factor :		PH :			
Prep Method :	SW3510				

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
FG016620.D	5	09/17/25 12:20	09/18/25 12:22	PB169733

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
DRO	DRO	1640		31.0	250	ug/L
SURROGATES						
16416-32-3	Tetracosane-d50	3.29		29 - 130	82%	SPK: 20

Comments:

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

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

Q = indicates LCS control criteria did not meet requirements

M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

* = Values outside of QC limits

D = Dilution

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

() = Laboratory InHouse Limit

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG091825\
Data File : FG016620.D
Signal(s) : FID1A.ch
Acq On : 18 Sep 2025 12:22
Operator : YP\AJ
Sample : Q3015-19 5X
Misc :
ALS Vial : 41 Sample Multiplier: 1

Instrument :
FID_G
ClientSampleId :
WP0925-RR-DIES-WP

Integration File: autoint1.e
Quant Time: Sep 19 01:50:36 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG090525.M
Quant Title :
QLast Update : Sat Sep 06 04:20:52 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...	15.172	359672	3.292 ug/ml
Target Compounds			

(f)=RT Delta > 1/2 Window

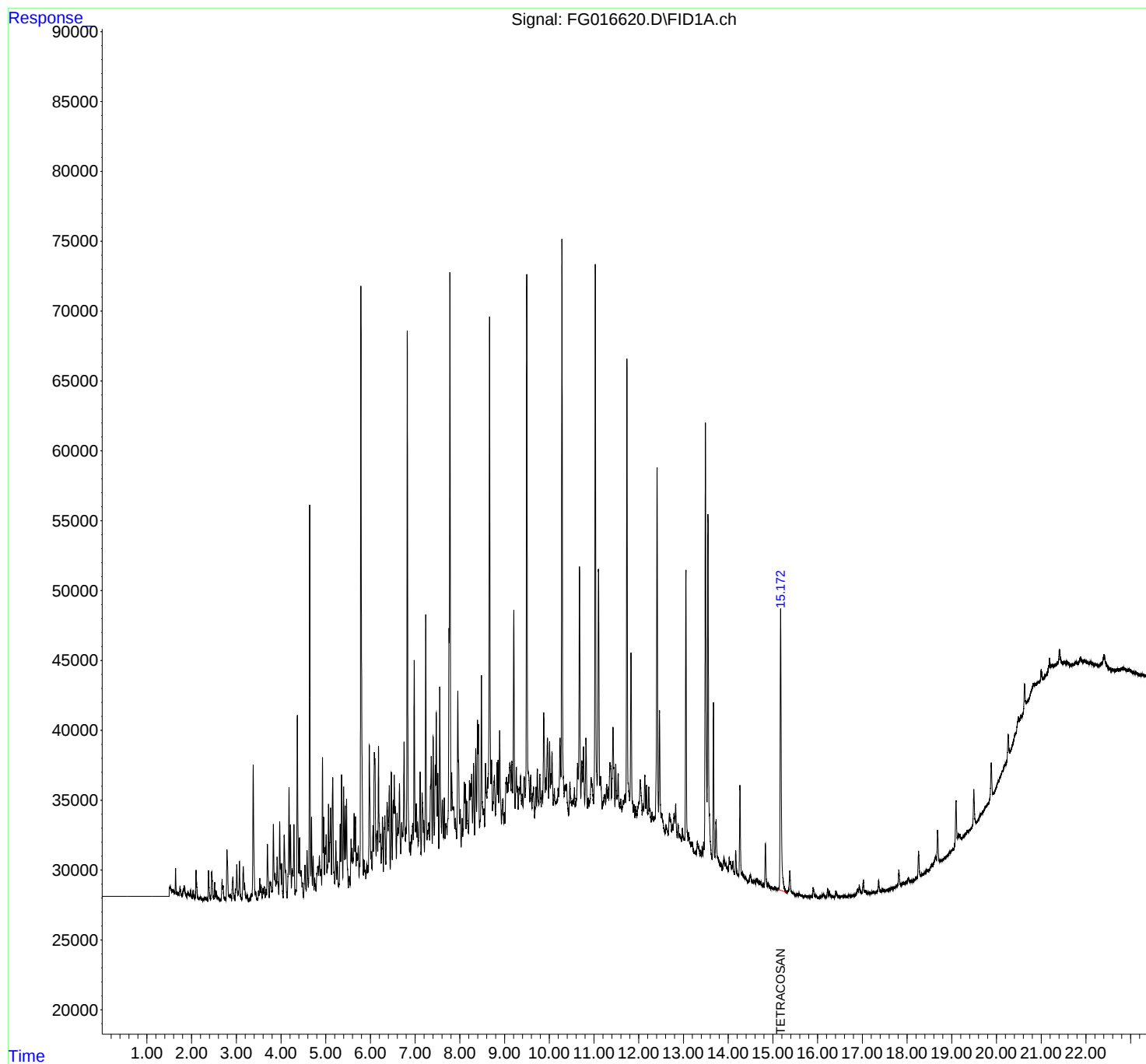
(m)=manual int.

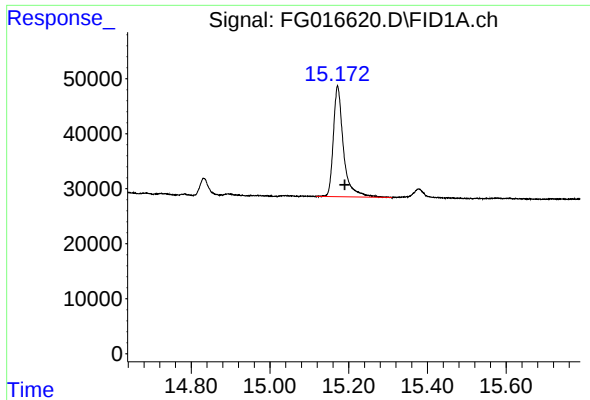
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG091825\
Data File : FG016620.D
Signal(s) : FID1A.ch
Acq On : 18 Sep 2025 12:22
Operator : YP\AJ
Sample : Q3015-19 5X
Misc :
ALS Vial : 41 Sample Multiplier: 1

Instrument :
FID_G
ClientSampleId :
WP0925-RR-DIES-WP

Integration File: autoint1.e
Quant Time: Sep 19 01:50:36 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG090525.M
Quant Title :
QLast Update : Sat Sep 06 04:20:52 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.: 15.172 min
Delta R.T.: -0.018 min
Response: 359672
Conc: 3.29 ug/ml

Instrument :
FID_G
ClientSampleId :
WP0925-RR-DIES-WP

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Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG091825\
Data File : FG016620.D
Signal(s) : FID1A.ch
Acq On : 18 Sep 2025 12:22
Sample : Q3015-19 5X
Misc :
ALS Vial : 41 Sample Multiplier: 1

Integration File: Sample.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG090525.M
Title :

Signal : FID1A.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	4.642	4.612	4.667	VV	28070	319524	38.95%	0.778%
2	4.682	4.667	4.702	VV	5698	64638	7.88%	0.157%
3	4.719	4.702	4.738	VV	2930	37873	4.62%	0.092%
4	4.753	4.738	4.784	VV	1312	23132	2.82%	0.056%
5	4.802	4.784	4.807	VV	1643	15869	1.93%	0.039%
6	4.826	4.807	4.842	VV	2235	41737	5.09%	0.102%
7	4.859	4.842	4.882	VV	2976	52473	6.40%	0.128%
8	4.896	4.882	4.910	VV	2006	27381	3.34%	0.067%
9	4.928	4.910	4.943	VV	9998	107597	13.12%	0.262%
10	4.954	4.943	4.971	VV	5708	65008	7.92%	0.158%
11	4.989	4.971	4.999	VV	3552	47787	5.83%	0.116%
12	5.010	4.999	5.026	VV	4484	53105	6.47%	0.129%
13	5.036	5.026	5.041	VV	2285	19211	2.34%	0.047%
14	5.063	5.041	5.079	VV	6655	91584	11.16%	0.223%
15	5.108	5.079	5.130	VV	6406	124580	15.19%	0.303%
16	5.157	5.130	5.203	VV	8589	171085	20.86%	0.417%
17	5.227	5.203	5.245	VV	4050	60222	7.34%	0.147%
18	5.261	5.245	5.294	VV	2548	45332	5.53%	0.110%
19	5.324	5.294	5.337	VV	5212	71743	8.75%	0.175%
20	5.355	5.337	5.382	VV	8741	140610	17.14%	0.342%
21	5.401	5.382	5.420	VV	7912	106697	13.01%	0.260%
22	5.435	5.420	5.450	VV	6539	79375	9.68%	0.193%
23	5.467	5.450	5.507	VV	7052	113005	13.78%	0.275%
24	5.523	5.507	5.546	VV	1491	28463	3.47%	0.069%
25	5.567	5.546	5.582	VV	4169	58904	7.18%	0.143%
26	5.591	5.582	5.603	VV	3512	38223	4.66%	0.093%
27	5.636	5.603	5.653	VV	6002	118654	14.46%	0.289%
28	5.665	5.653	5.681	VV	5777	70402	8.58%	0.171%
29	5.693	5.681	5.708	VV	3182	45668	5.57%	0.111%
30	5.728	5.708	5.747	VV	3684	64260	7.83%	0.156%
31	5.759	5.747	5.765	VV	2455	23197	2.83%	0.056%
32	5.787	5.765	5.843	VV	43705	663385	80.87%	1.616%
33	5.858	5.843	5.878	VV	2636	45691	5.57%	0.111%
34	5.881	5.878	5.898	VV	1924	19852	2.42%	0.048%
35	5.917	5.898	5.931	VV	2401	39166	4.77%	0.095%
36	5.942	5.931	5.952	VV	2279	25985	3.17%	0.063%

rteres.txt								
37	5.975	5.952	6.007	VV	10846	196301	23.93%	0.478%
38	6.014	6.007	6.037	VV	3291	46948	5.72%	0.114%
39	6.057	6.037	6.068	VV	5144	68131	8.31%	0.166%
40	6.087	6.068	6.095	VV	10351	124665	15.20%	0.304%
41	6.100	6.095	6.126	VV	9946	127154	15.50%	0.310%
42	6.141	6.126	6.148	VV	4560	50560	6.16%	0.123%
43	6.154	6.148	6.165	VV	4725	43119	5.26%	0.105%
44	6.180	6.165	6.213	VV	10792	181714	22.15%	0.443%
45	6.222	6.213	6.240	VV	4538	61589	7.51%	0.150%
46	6.270	6.240	6.289	VV	5758	110479	13.47%	0.269%
47	6.308	6.289	6.312	VV	4986	51264	6.25%	0.125%
48	6.323	6.312	6.344	VV	5821	86156	10.50%	0.210%
49	6.373	6.344	6.394	VV	6799	153483	18.71%	0.374%
50	6.421	6.394	6.442	VV	8013	154270	18.81%	0.376%
51	6.467	6.442	6.488	VV	8940	136361	16.62%	0.332%
52	6.510	6.488	6.520	VV	6940	107776	13.14%	0.262%
53	6.532	6.520	6.544	VV	8767	104950	12.79%	0.256%
54	6.552	6.544	6.579	VV	6539	111599	13.60%	0.272%
55	6.596	6.579	6.611	VV	5974	91085	11.10%	0.222%
56	6.620	6.611	6.629	VV	4934	48845	5.95%	0.119%
57	6.649	6.629	6.677	VV	8142	158331	19.30%	0.386%
58	6.698	6.677	6.712	VV	5366	92736	11.30%	0.226%
59	6.719	6.712	6.726	VV	4595	38743	4.72%	0.094%
60	6.752	6.726	6.785	VV	11012	227908	27.78%	0.555%
61	6.795	6.785	6.803	VV	4980	51488	6.28%	0.125%
62	6.824	6.803	6.875	VV	40545	578016	70.46%	1.408%
63	6.885	6.875	6.898	VV	3957	49242	6.00%	0.120%
64	6.915	6.898	6.926	VV	4471	65376	7.97%	0.159%
65	6.948	6.926	6.961	VV	5276	99133	12.08%	0.241%
66	6.978	6.961	7.009	VV	16974	257949	31.44%	0.628%
67	7.025	7.009	7.042	VV	6657	114518	13.96%	0.279%
68	7.051	7.042	7.068	VV	5378	72429	8.83%	0.176%
69	7.111	7.068	7.132	VV	8992	210538	25.66%	0.513%
70	7.156	7.132	7.184	VV	7480	173895	21.20%	0.423%
71	7.192	7.184	7.206	VV	5525	63618	7.75%	0.155%
72	7.236	7.206	7.265	VV	20249	318571	38.83%	0.776%
73	7.280	7.265	7.290	VV	4821	66253	8.08%	0.161%
74	7.306	7.290	7.322	VV	5366	95187	11.60%	0.232%
75	7.343	7.322	7.347	VV	7942	93039	11.34%	0.227%
76	7.359	7.347	7.382	VV	10104	157873	19.24%	0.384%
77	7.402	7.382	7.430	VV	11499	202526	24.69%	0.493%
78	7.448	7.430	7.458	VV	9475	126470	15.42%	0.308%
79	7.472	7.458	7.494	VV	13208	204058	24.87%	0.497%
80	7.506	7.494	7.529	VV	8891	135395	16.50%	0.330%
81	7.549	7.529	7.589	VV	14978	293017	35.72%	0.714%
82	7.607	7.589	7.634	VV	7004	154001	18.77%	0.375%
83	7.651	7.634	7.669	VV	7121	117023	14.26%	0.285%
84	7.690	7.669	7.714	VV	5304	132645	16.17%	0.323%
85	7.757	7.714	7.761	VV	19233	265137	32.32%	0.646%
86	7.777	7.761	7.804	VV	44672	590753	72.01%	1.439%
87	7.817	7.804	7.840	VV	8921	161002	19.63%	0.392%
88	7.848	7.840	7.858	VV	6483	70078	8.54%	0.171%
89	7.865	7.858	7.884	VV	6444	93054	11.34%	0.227%

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90	7.901	7.884	7.927	VV	5646	129610	15.80%	0.316%
91	7.954	7.927	7.994	VV	14708	347123	42.31%	0.845%
92	8.008	7.994	8.028	VV	6278	108272	13.20%	0.264%
93	8.052	8.028	8.065	VV	5644	102922	12.55%	0.251%
94	8.097	8.065	8.108	VV	8205	160943	19.62%	0.392%
95	8.121	8.108	8.137	VV	8114	118634	14.46%	0.289%
96	8.153	8.137	8.194	VV	6815	193117	23.54%	0.470%
97	8.215	8.194	8.230	VV	8271	149340	18.20%	0.364%
98	8.240	8.230	8.250	VV	8096	92346	11.26%	0.225%
99	8.263	8.250	8.282	VV	8852	140505	17.13%	0.342%
100	8.306	8.282	8.330	VV	9604	197038	24.02%	0.480%
101	8.355	8.330	8.374	VV	10656	198571	24.21%	0.484%
102	8.394	8.374	8.404	VV	12728	178437	21.75%	0.435%
103	8.415	8.404	8.440	VV	12360	188592	22.99%	0.459%
104	8.482	8.440	8.522	VV	15883	395743	48.24%	0.964%
105	8.537	8.522	8.556	VV	6363	120635	14.71%	0.294%
106	8.574	8.556	8.604	VV	9621	217364	26.50%	0.529%
107	8.618	8.604	8.631	VV	8551	129932	15.84%	0.316%
108	8.664	8.631	8.695	VV	41531	698001	85.09%	1.700%
109	8.709	8.695	8.729	VV	9837	170205	20.75%	0.415%
110	8.772	8.729	8.795	VV	8752	290437	35.40%	0.707%
111	8.831	8.795	8.843	VV	9646	218572	26.64%	0.532%
112	8.854	8.843	8.869	VV	9839	130759	15.94%	0.318%
113	8.890	8.869	8.932	VV	11964	311101	37.92%	0.758%
114	8.961	8.932	8.985	VV	7058	198911	24.25%	0.484%
115	8.996	8.985	9.009	VV	6111	80448	9.81%	0.196%
116	9.029	9.009	9.034	VV	8157	106833	13.02%	0.260%
117	9.044	9.034	9.056	VV	8608	107951	13.16%	0.263%
118	9.064	9.056	9.078	VV	8222	103067	12.56%	0.251%
119	9.091	9.078	9.100	VV	8797	112503	13.71%	0.274%
120	9.116	9.100	9.143	VV	9580	227553	27.74%	0.554%
121	9.158	9.143	9.180	VV	9663	192558	23.47%	0.469%
122	9.206	9.180	9.237	VV	20572	400475	48.82%	0.975%
123	9.262	9.237	9.281	VV	9292	210392	25.65%	0.512%
124	9.289	9.281	9.305	VV	7981	107060	13.05%	0.261%
125	9.327	9.305	9.345	VV	7821	178759	21.79%	0.435%
126	9.357	9.345	9.379	VV	8725	160432	19.56%	0.391%
127	9.397	9.379	9.412	VV	7403	137819	16.80%	0.336%
128	9.437	9.412	9.459	VV	8670	217592	26.52%	0.530%
129	9.496	9.459	9.526	VV	44379	731446	89.16%	1.781%
130	9.530	9.526	9.564	VV	9003	187305	22.83%	0.456%
131	9.582	9.564	9.614	VV	8611	229203	27.94%	0.558%
132	9.648	9.614	9.670	VV	7947	236866	28.87%	0.577%
133	9.703	9.670	9.715	VV	7940	183856	22.41%	0.448%
134	9.731	9.715	9.767	VV	9188	236138	28.78%	0.575%
135	9.786	9.767	9.820	VV	8747	241186	29.40%	0.587%
136	9.837	9.820	9.851	VV	7679	134119	16.35%	0.327%
137	9.876	9.851	9.909	VV	13223	342655	41.77%	0.834%
138	9.921	9.909	9.933	VV	8556	118000	14.38%	0.287%
139	9.958	9.933	9.985	VV	11299	290875	35.46%	0.708%
140	10.006	9.985	10.026	VV	11194	225591	27.50%	0.549%
141	10.037	10.026	10.046	VV	8886	102316	12.47%	0.249%

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142	10.060	10.046	10.089	VV	10347	220226	26.85%	0.536%
143	10.113	10.089	10.134	VV	7828	190988	23.28%	0.465%
144	10.171	10.134	10.181	VV	6955	194707	23.73%	0.474%
145	10.196	10.181	10.212	VV	7731	137098	16.71%	0.334%
146	10.239	10.212	10.260	VV	11413	276718	33.73%	0.674%
147	10.283	10.260	10.335	VV	47143	797637	97.23%	1.942%
148	10.349	10.335	10.365	VV	8094	136802	16.68%	0.333%
149	10.366	10.365	10.374	VV	7985	43863	5.35%	0.107%
150	10.386	10.374	10.429	VV	8096	233064	28.41%	0.568%
151	10.461	10.429	10.500	VV	8265	298314	36.36%	0.726%
152	10.504	10.500	10.508	VV	6761	35794	4.36%	0.087%
153	10.531	10.508	10.543	VV	6994	141374	17.23%	0.344%
154	10.561	10.543	10.580	VV	7873	159193	19.41%	0.388%
155	10.631	10.580	10.645	VV	9633	304447	37.11%	0.741%
156	10.674	10.645	10.704	VV	23628	488871	59.59%	1.191%
157	10.728	10.704	10.745	VV	9828	213798	26.06%	0.521%
158	10.763	10.745	10.790	VV	10822	239907	29.24%	0.584%
159	10.820	10.790	10.856	VV	11395	333096	40.60%	0.811%
160	10.875	10.856	10.890	VV	7153	140165	17.09%	0.341%
161	10.901	10.890	10.908	VV	6932	71784	8.75%	0.175%
162	10.935	10.908	10.990	VV	8592	377964	46.07%	0.920%
163	11.027	10.990	11.070	VV	45262	820355	100.00%	1.998%
164	11.100	11.070	11.129	VV	23403	504415	61.49%	1.228%
165	11.148	11.129	11.182	VV	8665	252692	30.80%	0.615%
166	11.195	11.182	11.206	VV	6884	97911	11.94%	0.238%
167	11.240	11.206	11.257	VV	7347	216488	26.39%	0.527%
168	11.282	11.257	11.302	VV	8090	199714	24.34%	0.486%
169	11.315	11.302	11.330	VV	7961	125248	15.27%	0.305%
170	11.357	11.330	11.389	VV	9501	305278	37.21%	0.743%
171	11.424	11.389	11.466	VV	12217	427550	52.12%	1.041%
172	11.485	11.466	11.506	VV	9586	191924	23.40%	0.467%
173	11.511	11.506	11.522	VV	7191	67926	8.28%	0.165%
174	11.538	11.522	11.576	VV	8887	242738	29.59%	0.591%
175	11.596	11.576	11.623	VV	7104	187573	22.86%	0.457%
176	11.648	11.623	11.662	VV	6973	158173	19.28%	0.385%
177	11.693	11.662	11.708	VV	7364	191561	23.35%	0.467%
178	11.736	11.708	11.800	VV	38444	765172	93.27%	1.863%
179	11.827	11.800	11.880	VV	17538	473988	57.78%	1.154%
180	11.896	11.880	11.916	VV	6683	136025	16.58%	0.331%
181	11.933	11.916	11.956	VV	6582	148025	18.04%	0.360%
182	12.033	11.956	12.079	VV	8475	512127	62.43%	1.247%
183	12.094	12.079	12.115	VV	6732	138150	16.84%	0.336%
184	12.134	12.115	12.157	VV	8819	193543	23.59%	0.471%
185	12.174	12.157	12.206	VV	8040	202623	24.70%	0.493%
186	12.224	12.206	12.243	VV	7873	153559	18.72%	0.374%
187	12.248	12.243	12.277	VV	6405	122037	14.88%	0.297%
188	12.297	12.277	12.328	VV	6134	178554	21.77%	0.435%
189	12.341	12.328	12.355	VV	5814	94037	11.46%	0.229%
190	12.410	12.355	12.441	VV	30769	638418	77.82%	1.555%
191	12.464	12.441	12.507	VV	13358	329761	40.20%	0.803%
192	12.516	12.507	12.574	VV	6065	218906	26.68%	0.533%
193	12.576	12.574	12.586	VV	4883	34770	4.24%	0.085%
194	12.615	12.586	12.655	VV	5219	201464	24.56%	0.491%

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195	12.687	12.655	12.707	VV	6112	169512	20.66%	0.413%
196	12.717	12.707	12.739	VV	5646	102681	12.52%	0.250%
197	12.750	12.739	12.767	VV	5225	83875	10.22%	0.204%
198	12.789	12.767	12.810	VV	6042	142877	17.42%	0.348%
199	12.827	12.810	12.863	VV	6733	173671	21.17%	0.423%
200	12.879	12.863	12.897	VV	5342	99753	12.16%	0.243%
201	12.907	12.897	12.955	VV	4603	151026	18.41%	0.368%
202	12.977	12.955	13.025	VV	4983	186255	22.70%	0.454%
203	13.056	13.025	13.100	VV	23500	421938	51.43%	1.028%
204	13.114	13.100	13.140	VV	4736	102236	12.46%	0.249%
205	13.146	13.140	13.160	VV	4001	47049	5.74%	0.115%
206	13.170	13.160	13.193	VV	4008	77428	9.44%	0.189%
207	13.201	13.193	13.261	VV	3979	141507	17.25%	0.345%
208	13.267	13.261	13.291	VV	3375	58547	7.14%	0.143%
209	13.309	13.291	13.329	VV	4012	83853	10.22%	0.204%
210	13.332	13.329	13.336	VV	3689	16370	2.00%	0.040%
211	13.342	13.336	13.365	VV	3701	60511	7.38%	0.147%
212	13.377	13.365	13.406	VV	3462	78649	9.59%	0.192%
213	13.418	13.406	13.437	VV	3692	62359	7.60%	0.152%
214	13.451	13.437	13.465	VV	4006	60863	7.42%	0.148%
215	13.492	13.465	13.527	VV	33990	595473	72.59%	1.450%
216	13.549	13.527	13.644	VV	27356	606056	73.88%	1.476%
217	13.672	13.644	13.705	VV	14002	241608	29.45%	0.588%
218	13.731	13.705	13.764	VV	5552	141076	17.20%	0.344%
219	13.770	13.764	13.816	VV	2917	83815	10.22%	0.204%
220	13.818	13.816	13.826	VV	2476	13660	1.67%	0.033%
221	13.840	13.826	13.870	VV	2511	60039	7.32%	0.146%
222	13.904	13.870	13.929	VV	2977	89728	10.94%	0.219%
223	13.951	13.929	14.003	VV	2540	100152	12.21%	0.244%
224	14.024	14.003	14.040	VV	2929	54588	6.65%	0.133%
225	14.055	14.040	14.080	VV	2605	58285	7.10%	0.142%
226	14.100	14.080	14.142	VV	2560	79732	9.72%	0.194%
227	14.168	14.142	14.205	VV	3393	89004	10.85%	0.217%
228	14.209	14.205	14.215	VV	1733	9498	1.16%	0.023%
229	14.223	14.215	14.238	VV	1707	23305	2.84%	0.057%
230	14.263	14.238	14.309	VV	7984	153566	18.72%	0.374%
231	14.322	14.309	14.339	VV	1850	31274	3.81%	0.076%
232	14.346	14.339	14.368	VV	1681	28571	3.48%	0.070%
233	14.381	14.368	14.442	VV	1544	59806	7.29%	0.146%
234	14.447	14.442	14.455	VV	1195	9037	1.10%	0.022%
235	14.488	14.455	14.547	VV	1657	74929	9.13%	0.182%
236	14.576	14.547	14.591	VV	1320	32738	3.99%	0.080%
237	14.598	14.591	14.616	VV	1298	17359	2.12%	0.042%
238	14.633	14.616	14.666	VV	1390	38054	4.64%	0.093%
239	14.687	14.666	14.705	VV	1259	26723	3.26%	0.065%
240	14.724	14.705	14.761	VV	1212	35508	4.33%	0.086%
241	14.765	14.761	14.769	VV	930	4018	0.49%	0.010%
242	14.783	14.769	14.803	VV	1129	19279	2.35%	0.047%
243	14.832	14.803	14.872	VV	3919	79883	9.74%	0.195%
244	14.875	14.872	14.879	VV	879	3982	0.49%	0.010%
245	14.894	14.879	14.946	VV	1107	36043	4.39%	0.088%
246	14.953	14.946	14.966	VV	821	9251	1.13%	0.023%

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247	14.969	14.966	14.986	VV	877	8987	1.10%	0.022%	
248	14.990	14.986	15.011	VV	780	10456	1.27%	0.025%	
249	15.014	15.011	15.020	VV	672	3599	0.44%	0.009%	
250	15.040	15.020	15.068	VV	833	20644	2.52%	0.050%	
251	15.070	15.068	15.074	VV	696	2268	0.28%	0.006%	
252	15.082	15.074	15.094	VV	719	7973	0.97%	0.019%	
253	15.095	15.094	15.117	VV	718	9372	1.14%	0.023%	
254	15.172	15.117	15.286	VV	20741	414948	50.58%	1.011%	
255	15.300	15.286	15.309	VV	557	6757	0.82%	0.016%	
256	15.377	15.309	15.445	VV	1984	62373	7.60%	0.152%	
257	15.450	15.445	15.459	VV	434	3028	0.37%	0.007%	
258	15.465	15.459	15.471	VV	385	2454	0.30%	0.006%	
259	15.477	15.471	15.517	VV	328	7467	0.91%	0.018%	
260	15.526	15.517	15.531	VV	340	2209	0.27%	0.005%	
261	15.536	15.531	15.546	VV	294	2322	0.28%	0.006%	
262	15.551	15.546	15.560	VV	273	2092	0.26%	0.005%	
263	15.579	15.560	15.632	VV	362	11298	1.38%	0.028%	
264	15.636	15.632	15.641	VV	223	1096	0.13%	0.003%	
265	15.644	15.641	15.672	VV	250	3204	0.39%	0.008%	
266	15.676	15.672	15.689	VV	142	1364	0.17%	0.003%	
267	15.719	15.689	15.734	VV	204	4202	0.51%	0.010%	
268	15.745	15.734	15.755	VV	214	1789	0.22%	0.004%	
269	15.769	15.755	15.785	VV	201	2677	0.33%	0.007%	
270	15.790	15.785	15.809	VV	167	1867	0.23%	0.005%	
271	15.815	15.809	15.837	VV	163	1923	0.23%	0.005%	
272	15.844	15.837	15.848	VV	147	742	0.09%	0.002%	
273	15.853	15.848	15.859	VV	123	659	0.08%	0.002%	
274	15.862	15.859	15.879	VV	105	1272	0.16%	0.003%	
275	15.901	15.879	15.948	VV	772	14935	1.82%	0.036%	
276	15.967	15.948	16.017	VV	272	5339	0.65%	0.013%	
277	16.030	16.017	16.043	PV	127	1133	0.14%	0.003%	
278	16.046	16.043	16.051	VV	129	402	0.05%	0.001%	
279	16.056	16.051	16.066	VV	132	740	0.09%	0.002%	
280	16.074	16.066	16.079	VV	95	610	0.07%	0.001%	
281	16.095	16.079	16.114	VV	246	3373	0.41%	0.008%	
282	16.133	16.114	16.139	VV	286	3094	0.38%	0.008%	
283	16.142	16.139	16.197	VV	263	4230	0.52%	0.010%	
284	16.224	16.197	16.248	VV	659	11287	1.38%	0.027%	
285	16.265	16.248	16.294	VV	502	7563	0.92%	0.018%	
286	16.300	16.294	16.318	VV	167	1507	0.18%	0.004%	
287	16.327	16.318	16.334	VV	200	967	0.12%	0.002%	
288	16.341	16.334	16.359	VV	111	1037	0.13%	0.003%	
289	16.364	16.359	16.372	VV	107	434	0.05%	0.001%	
290	16.407	16.372	16.458	VV	514	11099	1.35%	0.027%	
291	16.482	16.458	16.494	VV	132	1654	0.20%	0.004%	
292	16.501	16.494	16.529	VV	151	1655	0.20%	0.004%	
293	16.532	16.529	16.566	VV	123	1715	0.21%	0.004%	
294	16.573	16.566	16.577	PV	111	546	0.07%	0.001%	
295	16.583	16.577	16.597	VV	129	1107	0.13%	0.003%	
296	16.608	16.597	16.637	VV	144	1969	0.24%	0.005%	
297	16.644	16.637	16.669	VV	109	577	0.07%	0.001%	
298	16.692	16.669	16.700	PV	156	1384	0.17%	0.003%	
299	16.705	16.700	16.726	VV	116	1218	0.15%	0.003%	

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300	16.747	16.726	16.791	VV	95	2222	0.27%	0.005%
301	16.799	16.791	16.806	VV	60	535	0.07%	0.001%
302	16.812	16.806	16.825	VV	94	515	0.06%	0.001%
303	16.832	16.825	16.840	PV	102	612	0.07%	0.001%
304	16.898	16.840	16.911	VV	534	11640	1.42%	0.028%
305	16.932	16.911	16.969	VV	740	15074	1.84%	0.037%
306	16.971	16.969	16.989	VV	258	2209	0.27%	0.005%
307	17.021	16.989	17.048	VV	1035	18431	2.25%	0.045%
308	17.062	17.048	17.094	VV	334	6721	0.82%	0.016%
309	17.098	17.094	17.101	VV	153	660	0.08%	0.002%
310	17.104	17.101	17.111	VV	174	756	0.09%	0.002%
311	17.123	17.111	17.127	VV	145	930	0.11%	0.002%
312	17.132	17.127	17.157	VV	139	1647	0.20%	0.004%
313	17.159	17.157	17.169	VV	147	613	0.07%	0.001%
314	17.174	17.169	17.182	VV	91	657	0.08%	0.002%
315	17.210	17.182	17.216	VV	112	1583	0.19%	0.004%
316	17.220	17.216	17.222	VV	79	253	0.03%	0.001%
317	17.231	17.222	17.236	VV	120	772	0.09%	0.002%
318	17.243	17.236	17.265	VV	138	1870	0.23%	0.005%
319	17.271	17.265	17.282	VV	114	710	0.09%	0.002%
320	17.364	17.282	17.405	PV	894	18089	2.20%	0.044%
321	17.408	17.405	17.419	VV	93	681	0.08%	0.002%
322	17.450	17.419	17.495	VV	248	5270	0.64%	0.013%
Sum of corrected areas:					41062551			

FG090525.M Fri Sep 19 02:43:46 2025



CALIBRATION SUMMARY

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DIESEL RANGE ORGANICS INITIAL CALIBRATION SUMMARY

Lab Name: Alliance

Contract: ALLI03

ProjectID: NJ Waste Water PT

Lab Code: ACE

SDG No.: Q3015

Calibration Sequence : FG090525		Test : Diesel Range Organics	
Concentration (PPM)	Area Count	Reference Factor	File ID
1000	113844337	113844	FG016555.D
500	59456306	118913	FG016556.D
200	25421963	127110	FG016557.D
100	12920061	129201	FG016558.D
50	6583572	131671	FG016559.D
AVG RF : 124148		% RSD : 6.034	AVG RT : 15.1874

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG090525\
 Data File : FG016555.D
 Signal(s) : FID1A.ch
 Acq On : 05 Sep 2025 09:55
 Operator : YP\AJ
 Sample : 100 TRPH STD
 Misc :
 ALS Vial : 61 Sample Multiplier: 1

Instrument :
 FID_G
 ClientSampleId :
 100 TRPH STD

Integration File: autoint1.e
 Quant Time: Sep 06 04:02:47 2025
 Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG090525.M
 Quant Title :
 QLast Update : Sat Sep 06 04:01:58 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...	15.193	9963138	95.492 ug/ml
Target Compounds			
1) N-OCTANE	2.106	10992976	97.232 ug/ml
2) N-DECANE	4.657	11360854	96.692 ug/ml
3) N-DODECANE	6.842	11558602	96.315 ug/ml
4) N-TETRADECANE	8.684	11535429	95.695 ug/ml
5) N-HEXADECANE	10.304	11556060	95.437 ug/ml
6) N-OCTADECANE	11.759	11760698	95.242 ug/ml
7) N-EICOSANE	13.080	11762643	95.242 ug/ml
8) N-DOCOSANE	14.288	11371032	95.376 ug/ml
10) N-TETRACOSANE	15.400	11221648	95.483 ug/ml
11) N-HEXACOSANE	16.428	11009282	95.885 ug/ml
12) N-OCTACOSANE	17.385	10708089	96.089 ug/ml
13) N-TRIACONTANE	18.279	10587907	96.645 ug/ml
14) N-DOTRIACONTANE	19.119	10278733	100.903 ug/ml
15) N-TETRATRIACONTANE	19.907	9881829	115.361 ug/ml
16) N-HEXATRIACONTANE	20.652	9456862	135.503 ug/ml
17) N-OCTATRIACONTANE	21.442	9304107	152.588 ug/ml
18) N-TETRACONTANE	22.447	9464423	160.856 ug/ml

(f)=RT Delta > 1/2 Window

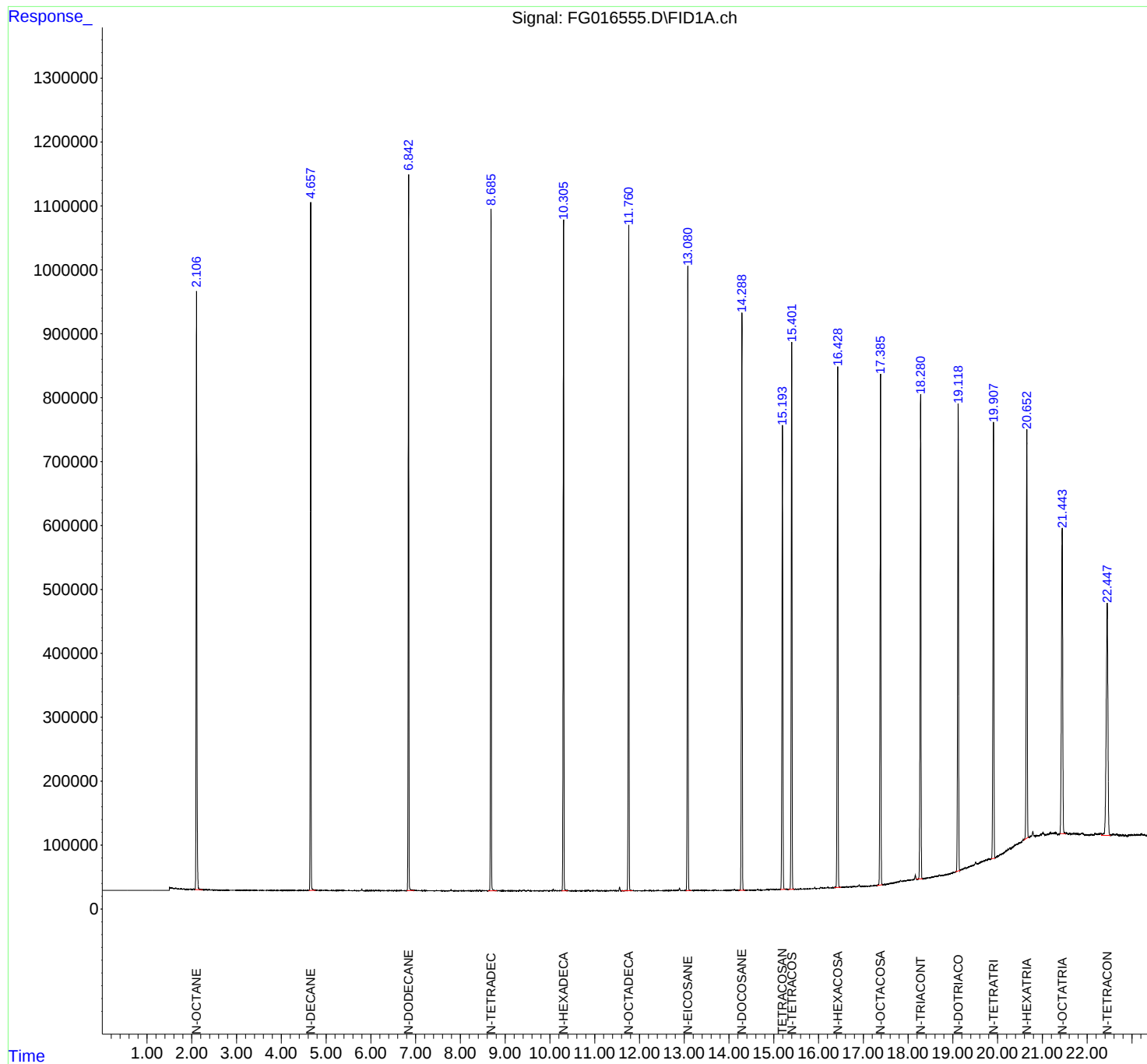
(m)=manual int.

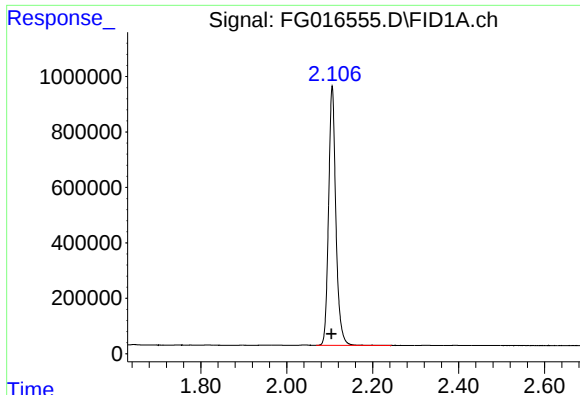
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG090525\
Data File : FG016555.D
Signal(s) : FID1A.ch
Acq On : 05 Sep 2025 09:55
Operator : YP\AJ
Sample : 100 TRPH STD
Misc :
ALS Vial : 61 Sample Multiplier: 1

Instrument :
FID_G
ClientSampleId :
100 TRPH STD

Integration File: autoint1.e
Quant Time: Sep 06 04:02:47 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG090525.M
Quant Title :
QLast Update : Sat Sep 06 04:01:58 2025
Response via : Initial Calibration
Integrator: ChemStation

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

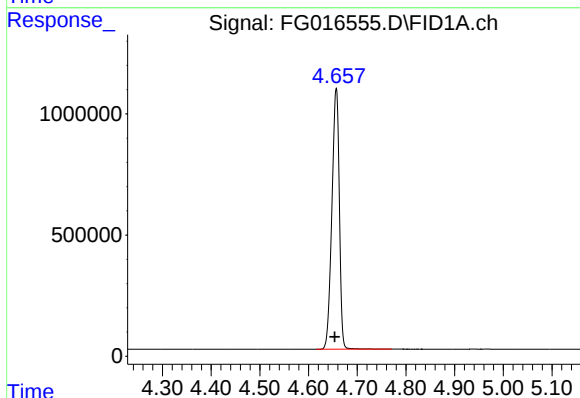




#1 N-OCTANE

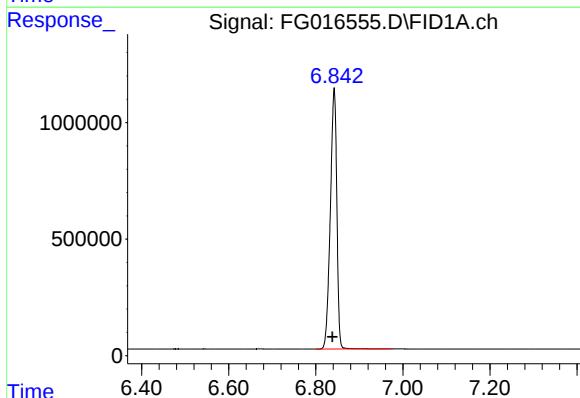
R.T.: 2.106 min
Delta R.T.: 0.002 min
Response: 10992976
Conc: 97.23 ug/ml

Instrument :
FID_G
ClientSampleId :
100 TRPH STD



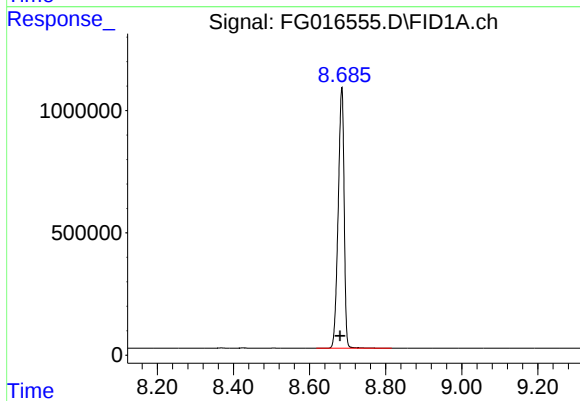
#2 N-DECANE

R.T.: 4.657 min
Delta R.T.: 0.003 min
Response: 11360854
Conc: 96.69 ug/ml



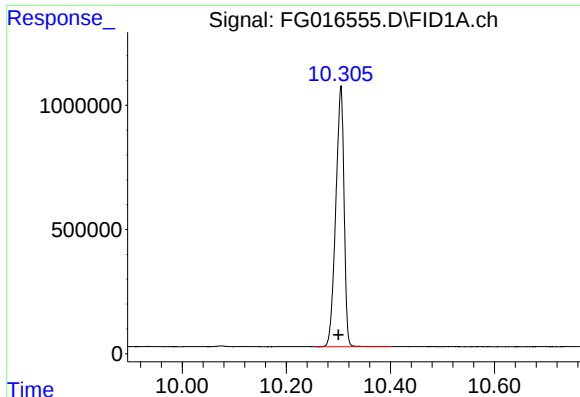
#3 N-DODECANE

R.T.: 6.842 min
Delta R.T.: 0.004 min
Response: 11558602
Conc: 96.31 ug/ml



#4 N-TETRADECANE

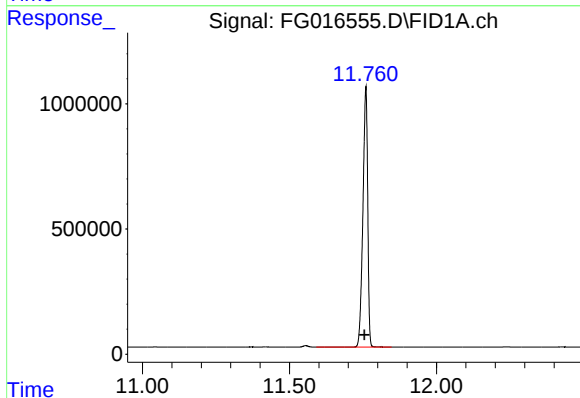
R.T.: 8.684 min
Delta R.T.: 0.004 min
Response: 11535429
Conc: 95.69 ug/ml



#5 N-HEXADECANE

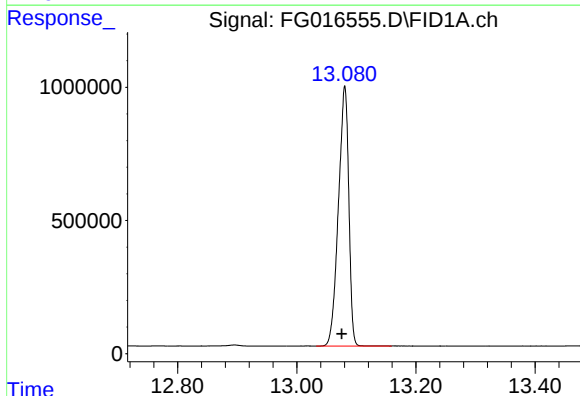
R.T.: 10.304 min
Delta R.T.: 0.004 min
Response: 11556060
Conc: 95.44 ug/ml

Instrument :
FID_G
ClientSampleId :
100 TRPH STD



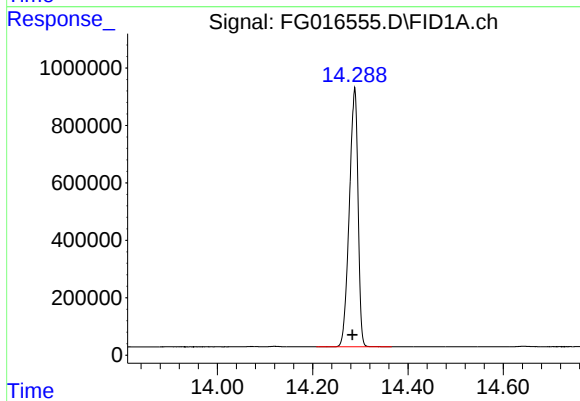
#6 N-OCTADECANE

R.T.: 11.759 min
Delta R.T.: 0.005 min
Response: 11760698
Conc: 95.24 ug/ml



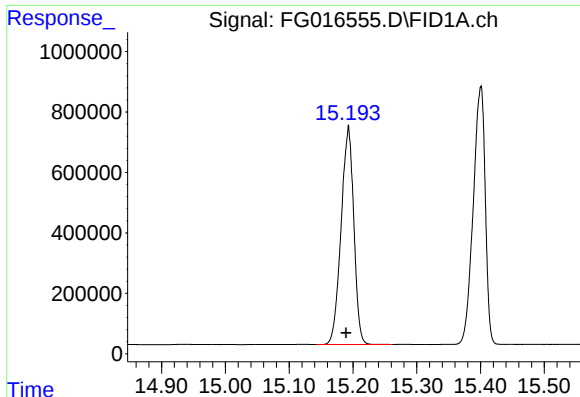
#7 N-EICOSANE

R.T.: 13.080 min
Delta R.T.: 0.005 min
Response: 11762643
Conc: 95.24 ug/ml



#8 N-DOCOSANE

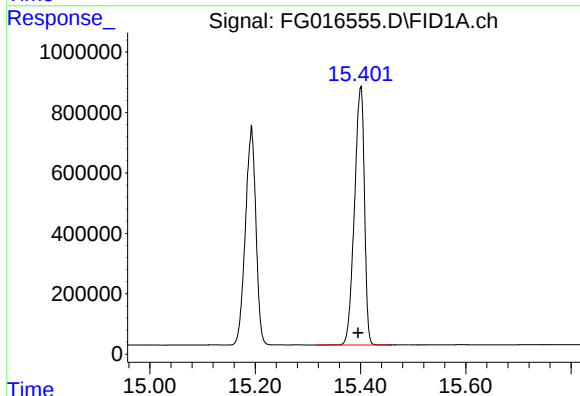
R.T.: 14.288 min
Delta R.T.: 0.005 min
Response: 11371032
Conc: 95.38 ug/ml



#9 TETRACOSANE-d50 (SURROGATE)

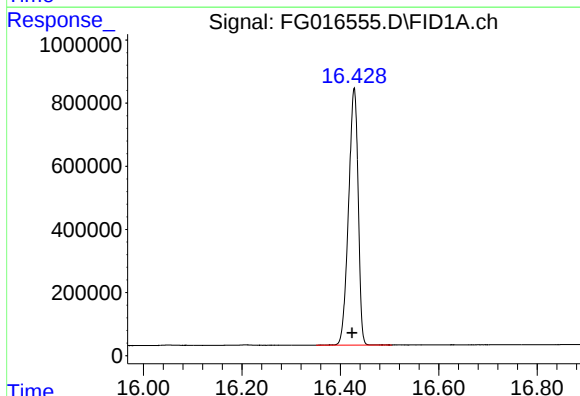
R.T.: 15.193 min
Delta R.T.: 0.003 min
Response: 9963138
Conc: 95.49 ug/ml

Instrument :
FID_G
ClientSampleId :
100 TRPH STD



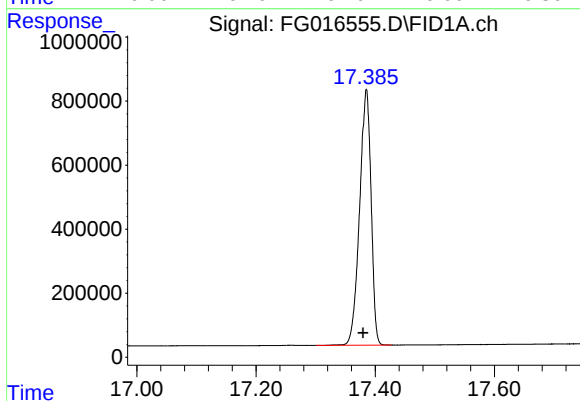
#10 N-TETRACOSANE

R.T.: 15.400 min
Delta R.T.: 0.005 min
Response: 11221648
Conc: 95.48 ug/ml



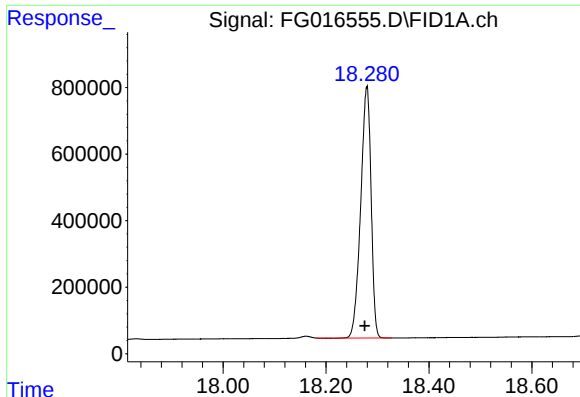
#11 N-HEXACOSANE

R.T.: 16.428 min
Delta R.T.: 0.004 min
Response: 11009282
Conc: 95.88 ug/ml



#12 N-OCTACOSANE

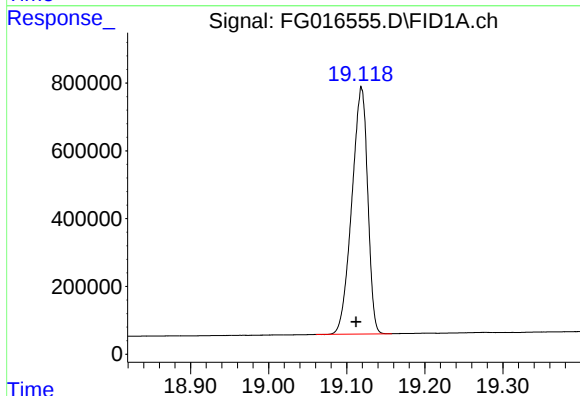
R.T.: 17.385 min
Delta R.T.: 0.006 min
Response: 10708089
Conc: 96.09 ug/ml



#13 N-TRIACONTANE

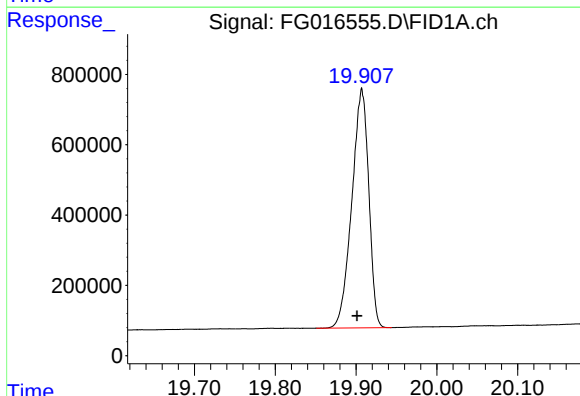
R.T.: 18.279 min
Delta R.T.: 0.004 min
Response: 10587907
Conc: 96.64 ug/ml

Instrument :
FID_G
ClientSampleId :
100 TRPH STD



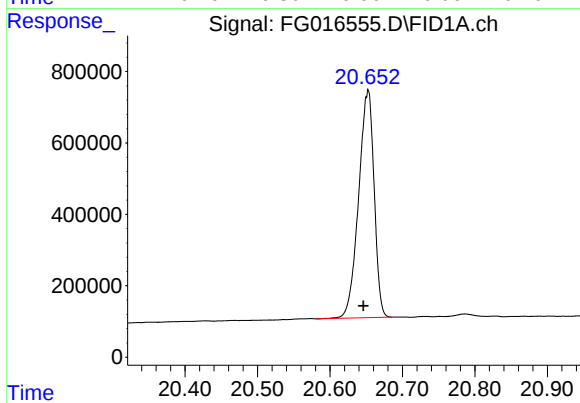
#14 N-DOTRIACONTANE

R.T.: 19.119 min
Delta R.T.: 0.007 min
Response: 10278733
Conc: 100.90 ug/ml



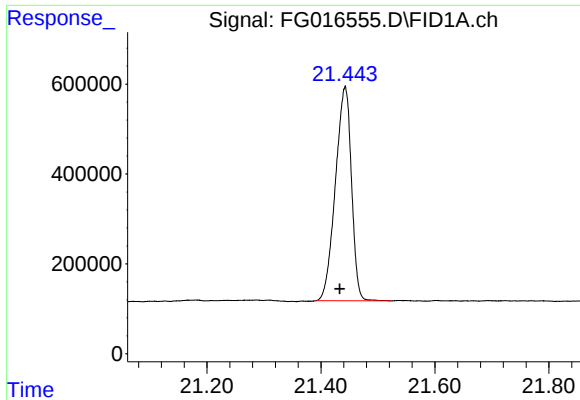
#15 N-TETRATRIACONTANE

R.T.: 19.907 min
Delta R.T.: 0.006 min
Response: 9881829
Conc: 115.36 ug/ml



#16 N-HEXATRIACONTANE

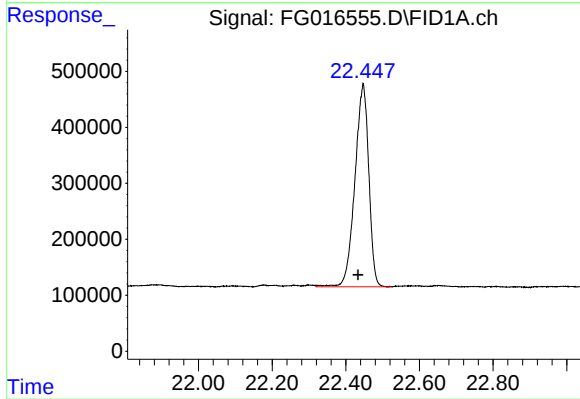
R.T.: 20.652 min
Delta R.T.: 0.006 min
Response: 9456862
Conc: 135.50 ug/ml



#17 N-OCTATRIACONTANE

R.T.: 21.442 min
Delta R.T.: 0.009 min
Response: 9304107
Conc: 152.59 ug/ml

Instrument :
FID_G
ClientSampleId :
100 TRPH STD



#18 N-TETRACONTANE

R.T.: 22.447 min
Delta R.T.: 0.013 min
Response: 9464423
Conc: 160.86 ug/ml

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG090525\
Data File : FG016555.D
Signal(s) : FID1A.ch
Acq On : 05 Sep 2025 09:55
Sample : 100 TRPH STD
Misc :
ALS Vial : 61 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG090525.M
Title :

Signal : FID1A.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	2.106	2.068	2.244	VB	936281	10992976	93.46%	5.673%
2	4.657	4.616	4.771	BB	1082051	11360854	96.58%	5.863%
3	6.842	6.801	6.974	BV	1124316	11558602	98.27%	5.965%
4	8.684	8.617	8.816	BB	1061474	11535429	98.07%	5.953%
5	10.304	10.257	10.402	PB	1039062	11556060	98.24%	5.964%
6	11.759	11.591	11.847	PB	1032437	11760698	99.98%	6.069%
7	13.080	13.032	13.159	BB	978267	11762643	100.00%	6.070%
8	14.288	14.207	14.366	BB	896608	11371032	96.67%	5.868%
9	15.193	15.142	15.261	PV	717004	9963138	84.70%	5.142%
10	15.400	15.316	15.459	BB	856792	11221648	95.40%	5.791%
11	16.428	16.351	16.504	BB	813405	11009282	93.60%	5.681%
12	17.385	17.301	17.427	BV	803355	10708089	91.03%	5.526%
13	18.279	18.181	18.327	BV	755761	10587907	90.01%	5.464%
14	19.119	19.061	19.157	BV	728524	10278733	87.38%	5.304%
15	19.907	19.851	19.944	BV	681346	9881829	84.01%	5.100%
16	20.652	20.581	20.685	BBA	638550	9456862	80.40%	4.880%
17	21.442	21.392	21.524	BV	476007	9304107	79.10%	4.802%
18	22.447	22.320	22.525	VV	363702	9464423	80.46%	4.884%
Sum of corrected areas:						193774311		

FG090525.M Sat Sep 06 04:14:23 2025

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG090525\
 Data File : FG016556.D
 Signal(s) : FID1A.ch
 Acq On : 05 Sep 2025 10:25
 Operator : YP\AJ
 Sample : 50 TRPH STD
 Misc :
 ALS Vial : 62 Sample Multiplier: 1

Instrument :
 FID_G
 ClientSampleId :
 50 TRPH STD

Integration File: autoint1.e
 Quant Time: Sep 06 04:02:57 2025
 Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG090525.M
 Quant Title :
 QLast Update : Sat Sep 06 04:01:58 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...	15.189	5216724	50.000 ug/ml
Target Compounds			
1) N-OCTANE	2.104	5652934	50.000 ug/ml
2) N-DECANE	4.654	5874749	50.000 ug/ml
3) N-DODECANE	6.838	6000442	50.000 ug/ml
4) N-TETRADECANE	8.680	6027209	50.000 ug/ml
5) N-HEXADECANE	10.300	6054304	50.000 ug/ml
6) N-OCTADECANE	11.755	6174136	50.000 ug/ml
7) N-EICOSANE	13.076	6175156	50.000 ug/ml
8) N-DOCOSANE	14.283	5961175	50.000 ug/ml
10) N-TETRACOSANE	15.395	5876263	50.000 ug/ml
11) N-HEXACOSANE	16.424	5740894	50.000 ug/ml
12) N-OCTACOSANE	17.379	5571978	50.000 ug/ml
13) N-TRIACONTANE	18.275	5477739	50.000 ug/ml
14) N-DOTRIACONTANE	19.112	5093375	50.000 ug/ml
15) N-TETRATRIACONTANE	19.901	4283002	50.000 ug/ml
16) N-HEXATRIACONTANE	20.646	3489532	50.000 ug/ml
17) N-OCTATRIACONTANE	21.433	3048771	50.000 ug/ml
18) N-TETRACONTANE	22.434	2941895	50.000 ug/ml

(f)=RT Delta > 1/2 Window

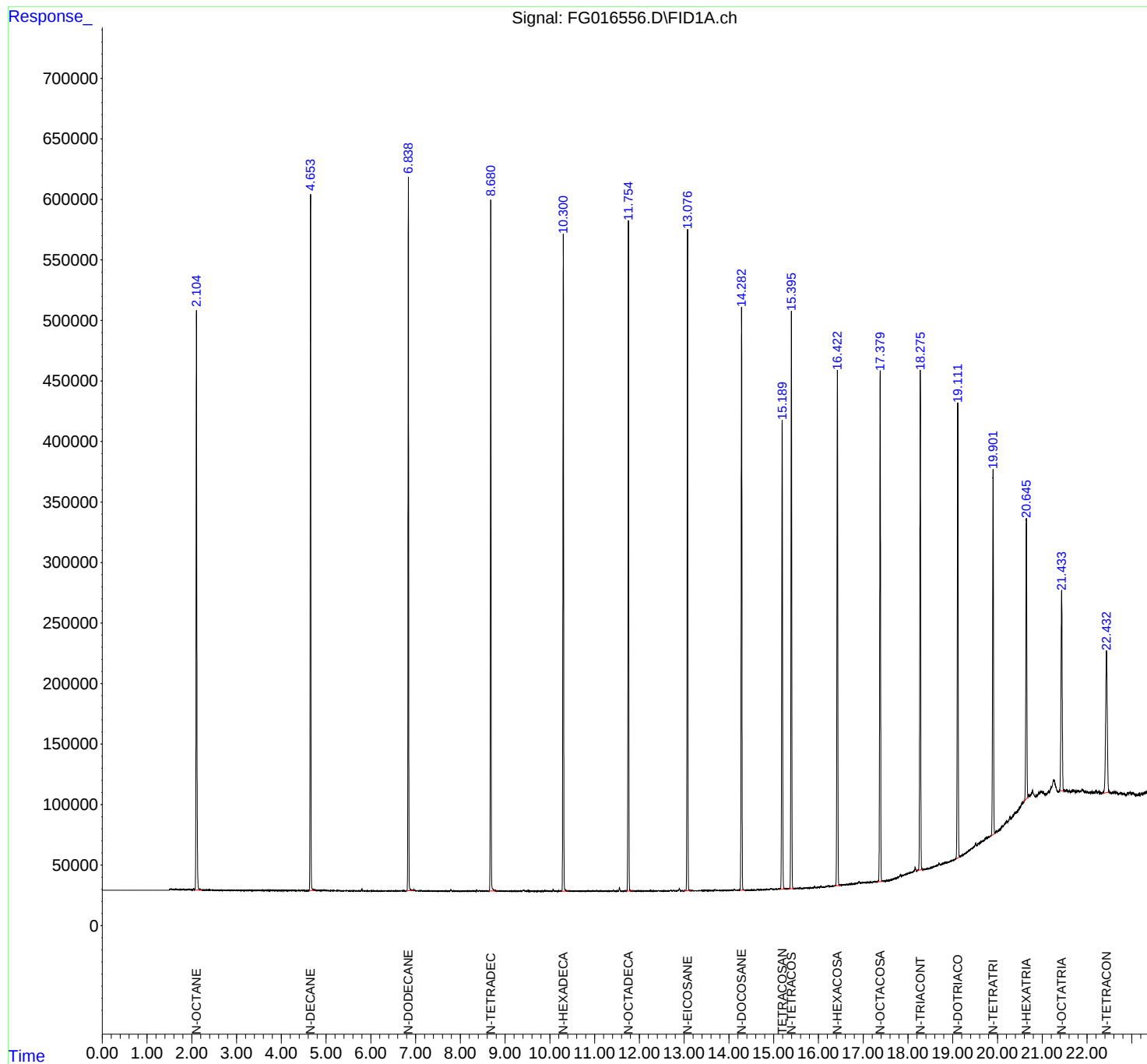
(m)=manual int.

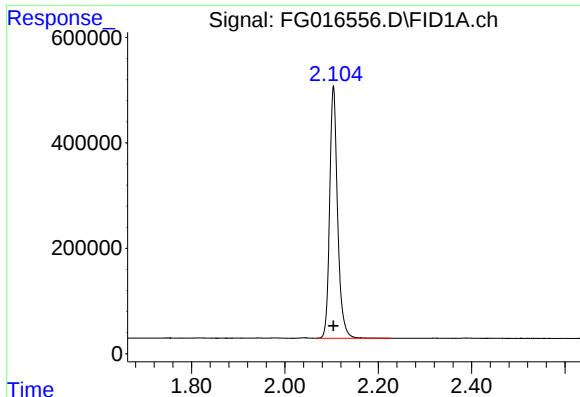
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG090525\
Data File : FG016556.D
Signal(s) : FID1A.ch
Acq On : 05 Sep 2025 10:25
Operator : YP\AJ
Sample : 50 TRPH STD
Misc :
ALS Vial : 62 Sample Multiplier: 1

Instrument :
FID_G
ClientSampleId :
50 TRPH STD

Integration File: autoint1.e
Quant Time: Sep 06 04:02:57 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG090525.M
Quant Title :
QLast Update : Sat Sep 06 04:01:58 2025
Response via : Initial Calibration
Integrator: ChemStation

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

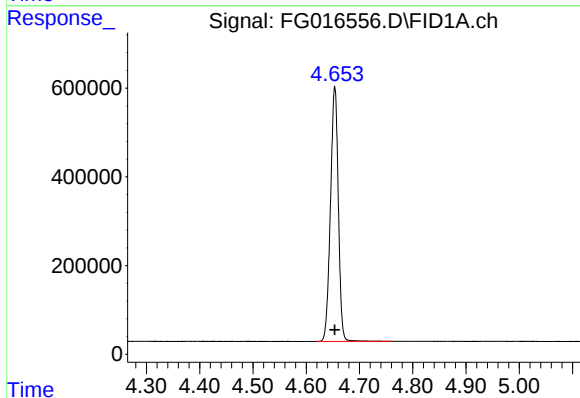




#1 N-OCTANE

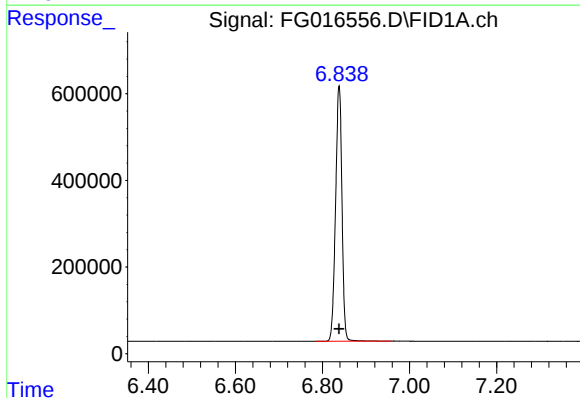
R.T.: 2.104 min
Delta R.T.: 0.000 min
Response: 5652934
Conc: 50.00 ug/ml

Instrument :
FID_G
ClientSampleId :
50 TRPH STD



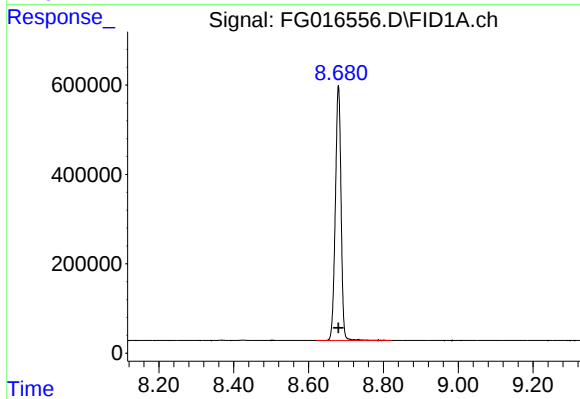
#2 N-DECANE

R.T.: 4.654 min
Delta R.T.: 0.000 min
Response: 5874749
Conc: 50.00 ug/ml



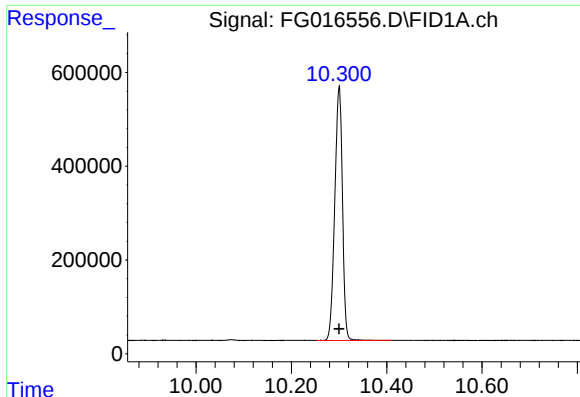
#3 N-DODECANE

R.T.: 6.838 min
Delta R.T.: 0.000 min
Response: 6000442
Conc: 50.00 ug/ml



#4 N-TETRADECANE

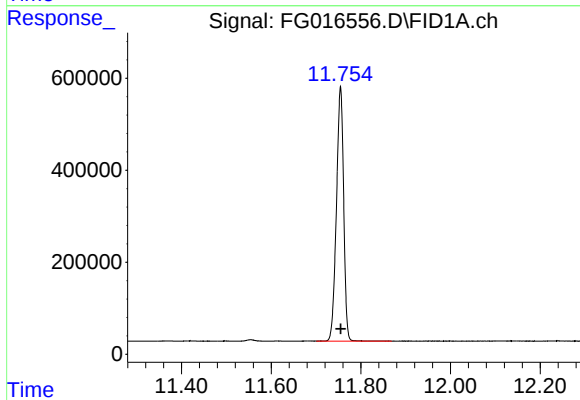
R.T.: 8.680 min
Delta R.T.: 0.000 min
Response: 6027209
Conc: 50.00 ug/ml



#5 N-HEXADECANE

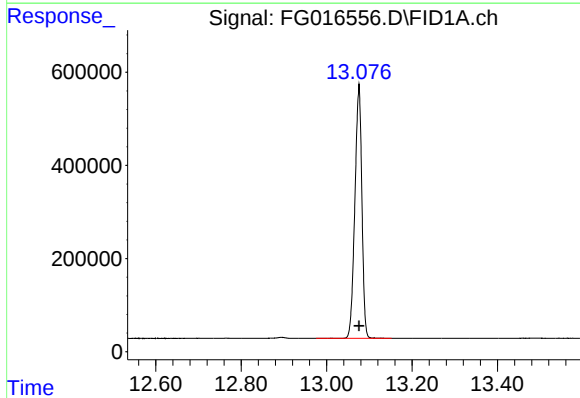
R.T.: 10.300 min
Delta R.T.: 0.000 min
Response: 6054304
Conc: 50.00 ug/ml

Instrument :
FID_G
ClientSampleId :
50 TRPH STD



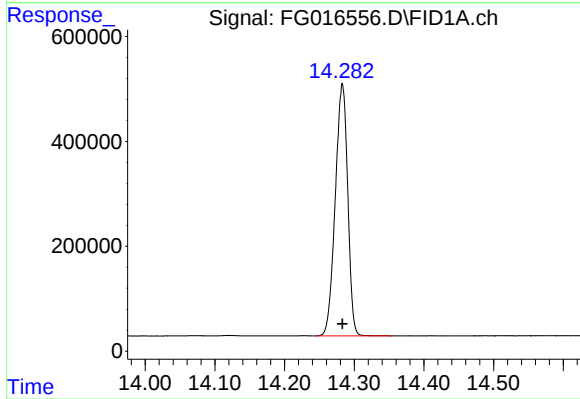
#6 N-OCTADECANE

R.T.: 11.755 min
Delta R.T.: 0.000 min
Response: 6174136
Conc: 50.00 ug/ml



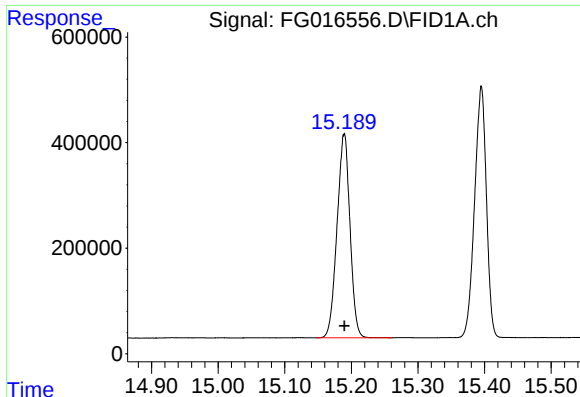
#7 N-EICOSANE

R.T.: 13.076 min
Delta R.T.: 0.000 min
Response: 6175156
Conc: 50.00 ug/ml



#8 N-DOCOSANE

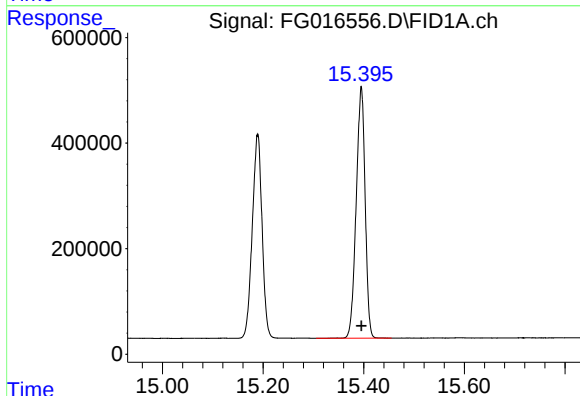
R.T.: 14.283 min
Delta R.T.: 0.000 min
Response: 5961175
Conc: 50.00 ug/ml



#9 TETRACOSANE-d50 (SURROGATE)

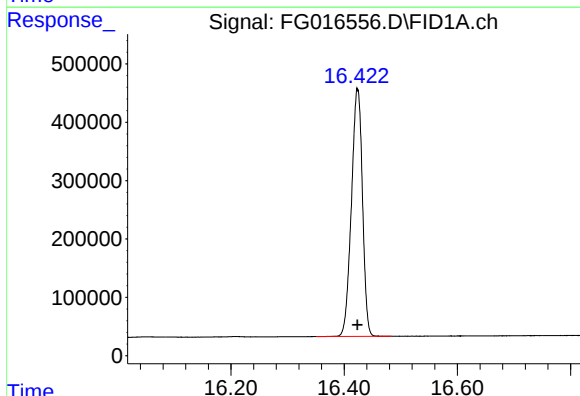
R.T.: 15.189 min
Delta R.T.: 0.000 min
Response: 5216724
Conc: 50.00 ug/ml

Instrument :
FID_G
ClientSampleId :
50 TRPH STD



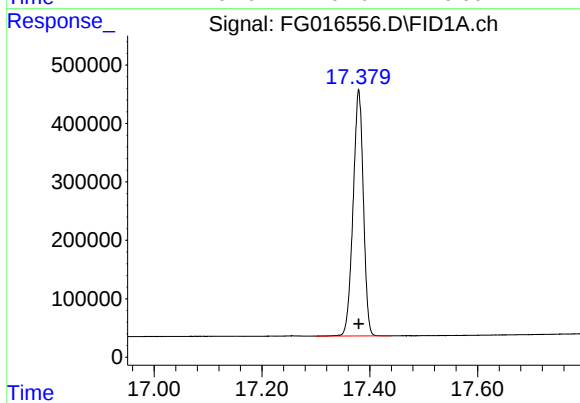
#10 N-TETRACOSANE

R.T.: 15.395 min
Delta R.T.: 0.000 min
Response: 5876263
Conc: 50.00 ug/ml



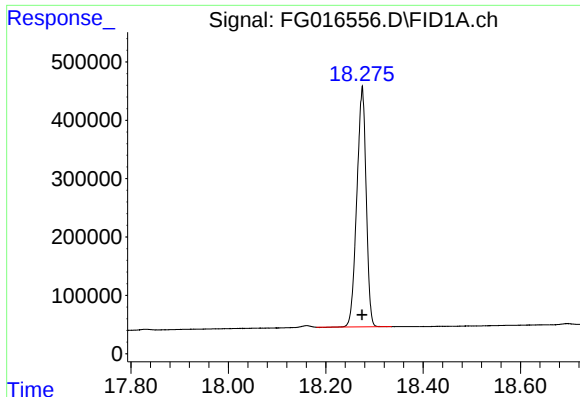
#11 N-HEXACOSANE

R.T.: 16.424 min
Delta R.T.: 0.000 min
Response: 5740894
Conc: 50.00 ug/ml



#12 N-OCTACOSANE

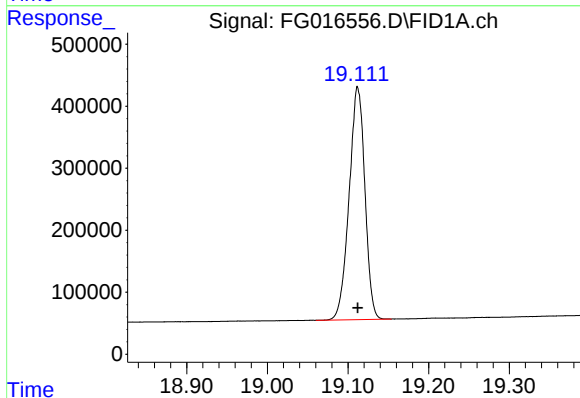
R.T.: 17.379 min
Delta R.T.: 0.000 min
Response: 5571978
Conc: 50.00 ug/ml



#13 N-TRIACONTANE

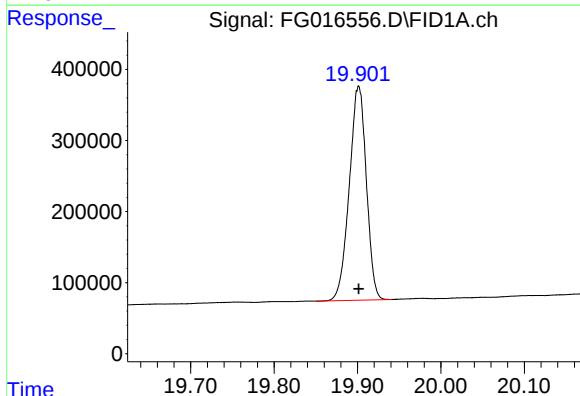
R.T.: 18.275 min
Delta R.T.: 0.000 min
Response: 5477739
Conc: 50.00 ug/ml

Instrument :
FID_G
ClientSampleId :
50 TRPH STD



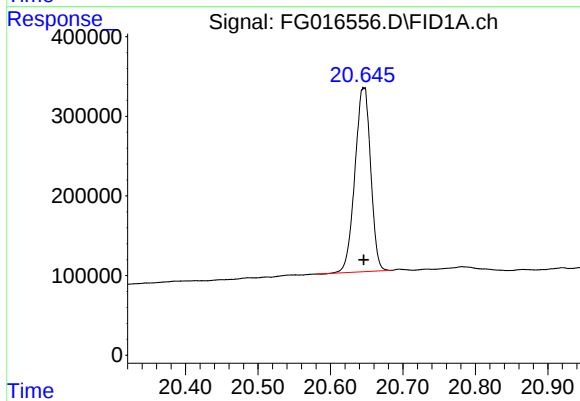
#14 N-DOTRIACONTANE

R.T.: 19.112 min
Delta R.T.: 0.000 min
Response: 5093375
Conc: 50.00 ug/ml



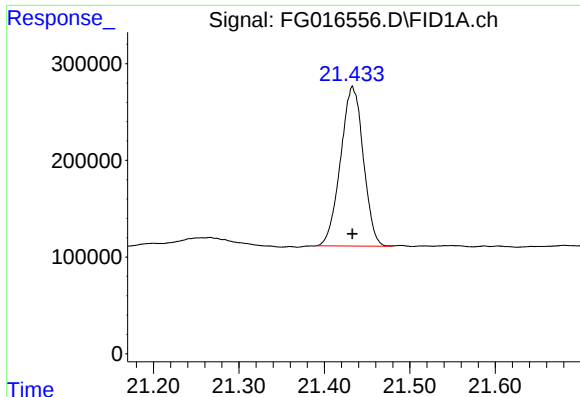
#15 N-TETRATRIACONTANE

R.T.: 19.901 min
Delta R.T.: 0.000 min
Response: 4283002
Conc: 50.00 ug/ml



#16 N-HEXATRIACONTANE

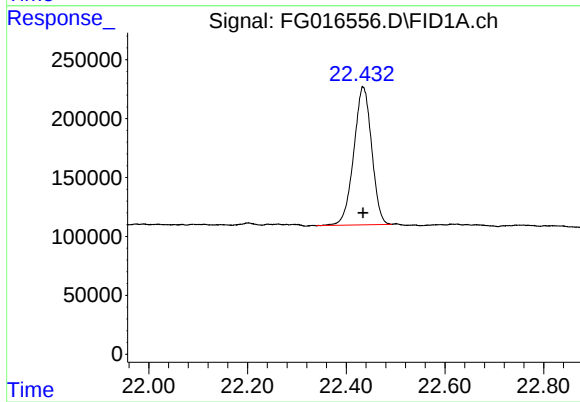
R.T.: 20.646 min
Delta R.T.: 0.000 min
Response: 3489532
Conc: 50.00 ug/ml



#17 N-OCTATRIACONTANE

R.T.: 21.433 min
Delta R.T.: 0.000 min
Response: 3048771
Conc: 50.00 ug/ml

Instrument :
FID_G
ClientSampleId :
50 TRPH STD



#18 N-TETRACONTANE

R.T.: 22.434 min
Delta R.T.: 0.000 min
Response: 2941895
Conc: 50.00 ug/ml

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG090525\
Data File : FG016556.D
Signal(s) : FID1A.ch
Acq On : 05 Sep 2025 10:25
Sample : 50 TRPH STD
Misc :
ALS Vial : 62 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG090525.M
Title :

Signal : FID1A.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	2.104	2.067	2.229	PB	478305	5652934	91.54%	5.972%
2	4.654	4.619	4.760	BB	574736	5874749	95.14%	6.206%
3	6.838	6.785	6.959	BV	589817	6000442	97.17%	6.339%
4	8.680	8.620	8.822	BB	570098	6027209	97.60%	6.367%
5	10.300	10.252	10.410	BB	542727	6054304	98.04%	6.396%
6	11.755	11.700	11.869	BB	552622	6174136	99.98%	6.522%
7	13.076	12.975	13.152	BB	539141	6175156	100.00%	6.523%
8	14.283	14.245	14.354	VB	479655	5961175	96.53%	6.297%
9	15.189	15.147	15.260	VV	386223	5216724	84.48%	5.511%
10	15.395	15.305	15.455	BV	477157	5876263	95.16%	6.208%
11	16.424	16.350	16.484	BB	422282	5740894	92.97%	6.065%
12	17.379	17.300	17.440	BV	421471	5571978	90.23%	5.886%
13	18.275	18.180	18.335	BV	413031	5477739	88.71%	5.787%
14	19.112	19.060	19.154	BV	375129	5093375	82.48%	5.381%
15	19.901	19.850	19.941	BV	301888	4283002	69.36%	4.525%
16	20.646	20.580	20.685	BBA	230965	3489532	56.51%	3.686%
17	21.433	21.390	21.479	BV	165089	3048771	49.37%	3.221%
18	22.434	22.339	22.492	PV	116914	2941895	47.64%	3.108%
Sum of corrected areas:							94660277	

FG090525.M Sat Sep 06 04:15:09 2025

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG090525\
 Data File : FG016557.D
 Signal(s) : FID1A.ch
 Acq On : 05 Sep 2025 10:55
 Operator : YP\AJ
 Sample : 20 TRPH STD
 Misc :
 ALS Vial : 63 Sample Multiplier: 1

Instrument :
 FID_G
 ClientSampleId :
 20 TRPH STD

Integration File: autoint1.e
 Quant Time: Sep 06 04:03:07 2025
 Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG090525.M
 Quant Title :
 QLast Update : Sat Sep 06 04:01:58 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...	15.186	2241126	21.480 ug/ml
Target Compounds			
1) N-OCTANE	2.105	2409136	21.309 ug/ml
2) N-DECANE	4.653	2489830	21.191 ug/ml
3) N-DODECANE	6.837	2538981	21.157 ug/ml
4) N-TETRADECANE	8.678	2557632	21.217 ug/ml
5) N-HEXADECANE	10.298	2579911	21.306 ug/ml
6) N-OCTADECANE	11.752	2640624	21.385 ug/ml
7) N-EICOSANE	13.073	2647345	21.435 ug/ml
8) N-DOCOSANE	14.280	2557172	21.449 ug/ml
10) N-TETRACOSANE	15.392	2528742	21.517 ug/ml
11) N-HEXACOSANE	16.421	2475636	21.561 ug/ml
12) N-OCTACOSANE	17.378	2406090	21.591 ug/ml
13) N-TRIACONTANE	18.271	2379621	21.721 ug/ml
14) N-DOTRIACONTANE	19.109	2203523	21.631 ug/ml
15) N-TETRATRIACONTANE	19.898	1854605	21.651 ug/ml
16) N-HEXATRIACONTANE	20.641	1495316	21.426 ug/ml
17) N-OCTATRIACONTANE	21.429	1275861	20.924 ug/ml
18) N-TETRACONTANE	22.432	1146471	19.485 ug/ml

(f)=RT Delta > 1/2 Window

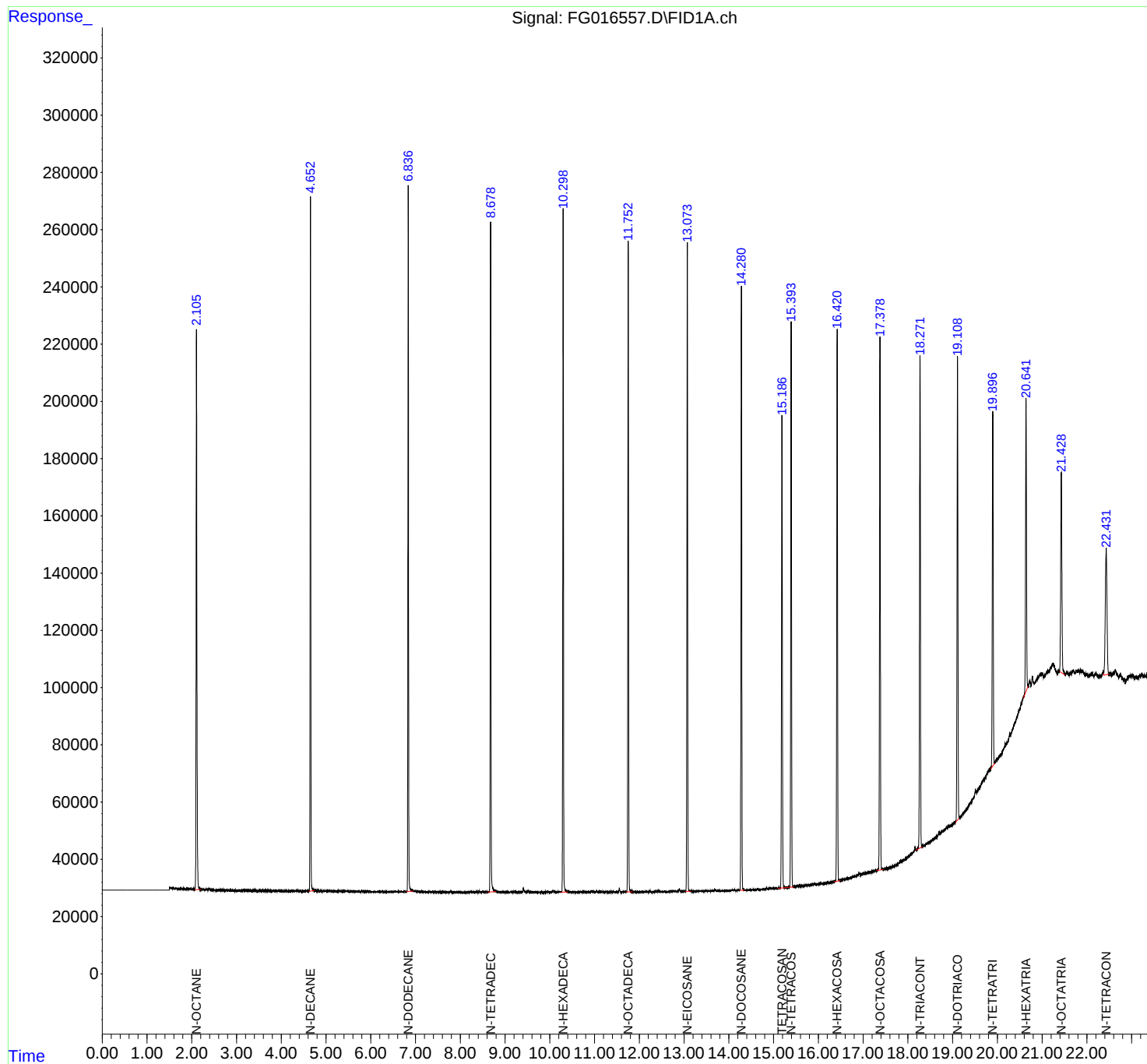
(m)=manual int.

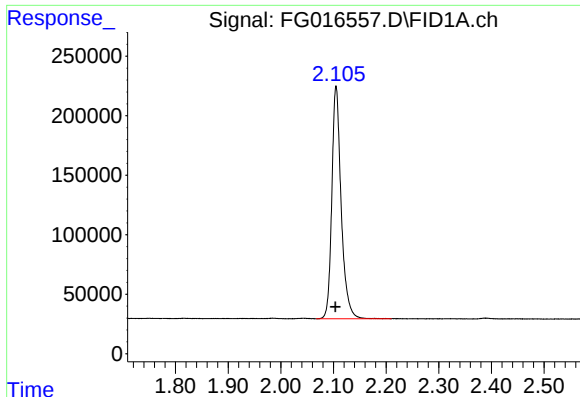
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG090525\
Data File : FG016557.D
Signal(s) : FID1A.ch
Acq On : 05 Sep 2025 10:55
Operator : YP\AJ
Sample : 20 TRPH STD
Misc :
ALS Vial : 63 Sample Multiplier: 1

Instrument :
FID_G
ClientSampleId :
20 TRPH STD

Integration File: autoint1.e
Quant Time: Sep 06 04:03:07 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG090525.M
Quant Title :
QLast Update : Sat Sep 06 04:01:58 2025
Response via : Initial Calibration
Integrator: ChemStation

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

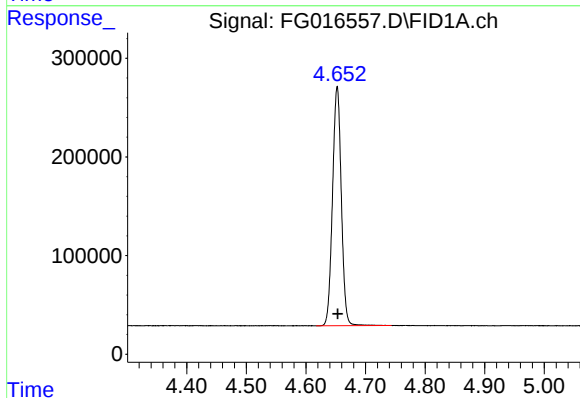




#1 N-OCTANE

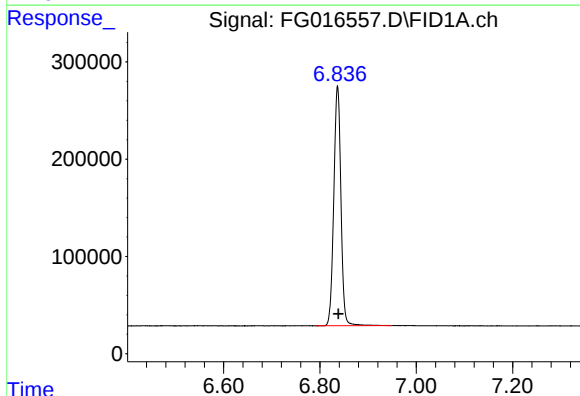
R.T.: 2.105 min
Delta R.T.: 0.001 min
Response: 2409136
Conc: 21.31 ug/ml

Instrument :
FID_G
ClientSampleId :
20 TRPH STD



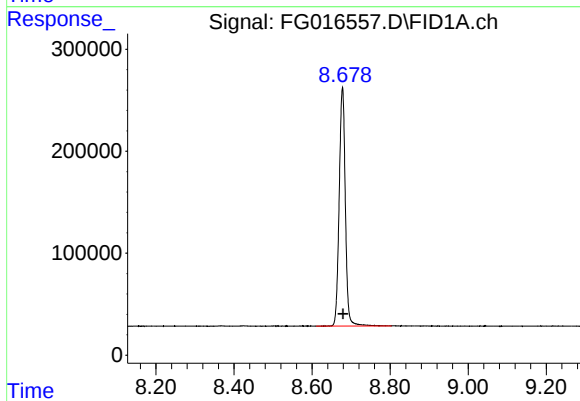
#2 N-DECANE

R.T.: 4.653 min
Delta R.T.: -0.001 min
Response: 2489830
Conc: 21.19 ug/ml



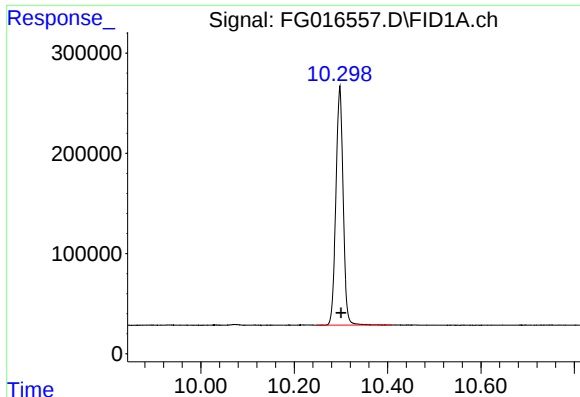
#3 N-DODECANE

R.T.: 6.837 min
Delta R.T.: -0.002 min
Response: 2538981
Conc: 21.16 ug/ml



#4 N-TETRADECANE

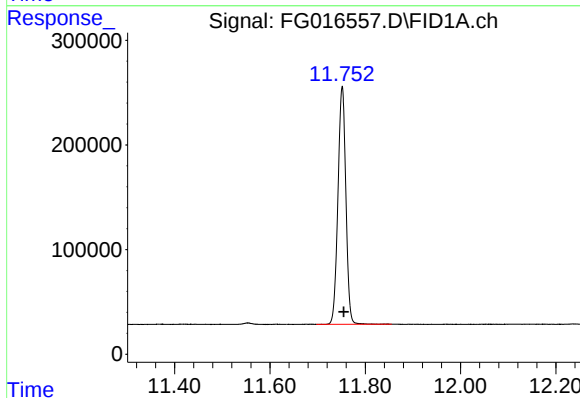
R.T.: 8.678 min
Delta R.T.: -0.002 min
Response: 2557632
Conc: 21.22 ug/ml



#5 N-HEXADECANE

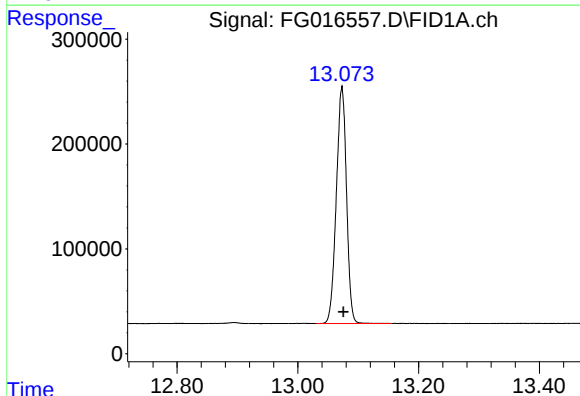
R.T.: 10.298 min
Delta R.T.: -0.002 min
Response: 2579911
Conc: 21.31 ug/ml

Instrument :
FID_G
ClientSampleId :
20 TRPH STD



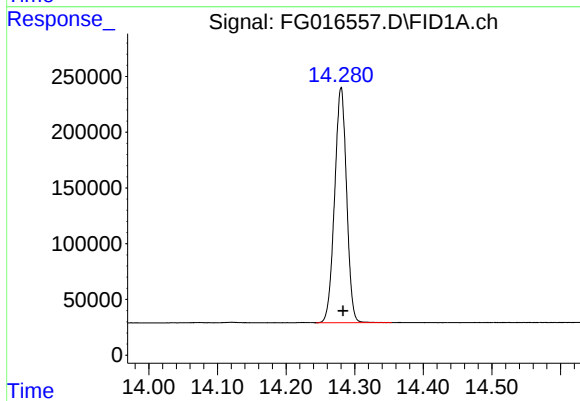
#6 N-OCTADECANE

R.T.: 11.752 min
Delta R.T.: -0.003 min
Response: 2640624
Conc: 21.38 ug/ml



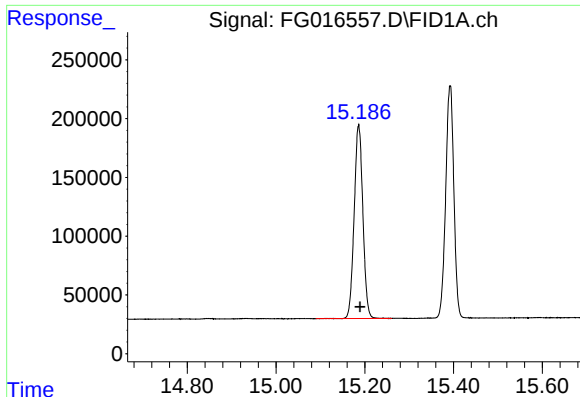
#7 N-EICOSANE

R.T.: 13.073 min
Delta R.T.: -0.003 min
Response: 2647345
Conc: 21.44 ug/ml



#8 N-DOCOSANE

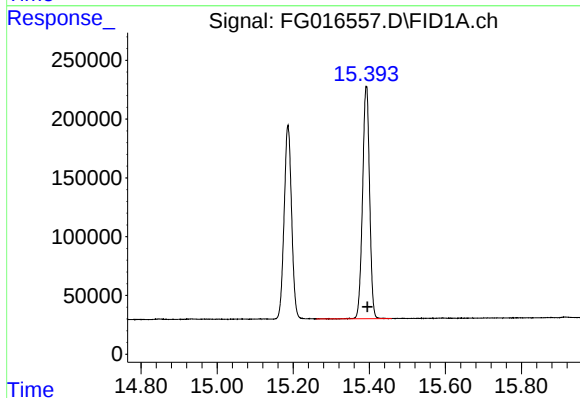
R.T.: 14.280 min
Delta R.T.: -0.003 min
Response: 2557172
Conc: 21.45 ug/ml



#9 TETRACOSANE-d50 (SURROGATE)

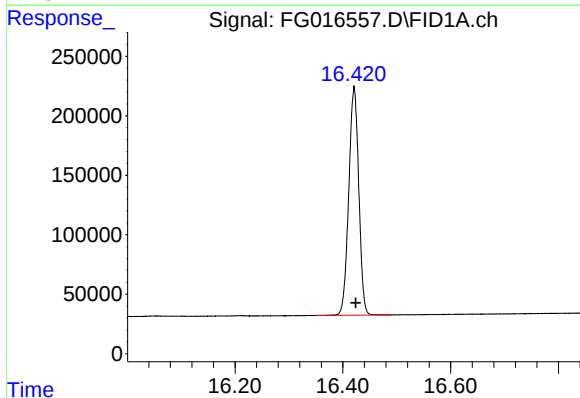
R.T.: 15.186 min
Delta R.T.: -0.003 min
Response: 2241126
Conc: 21.48 ug/ml

Instrument :
FID_G
ClientSampleId :
20 TRPH STD



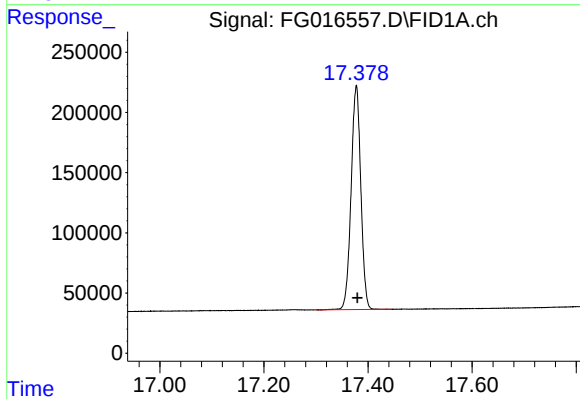
#10 N-TETRACOSANE

R.T.: 15.392 min
Delta R.T.: -0.003 min
Response: 2528742
Conc: 21.52 ug/ml



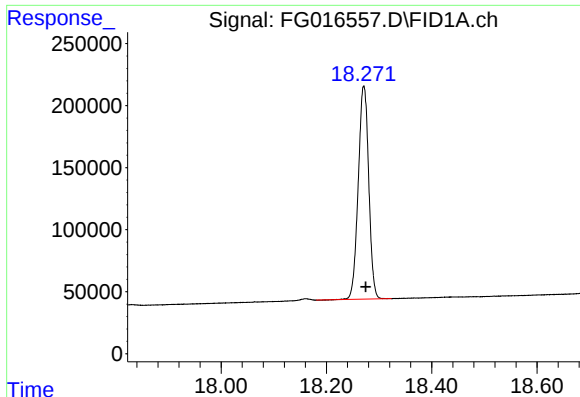
#11 N-HEXACOSANE

R.T.: 16.421 min
Delta R.T.: -0.003 min
Response: 2475636
Conc: 21.56 ug/ml



#12 N-OCTACOSANE

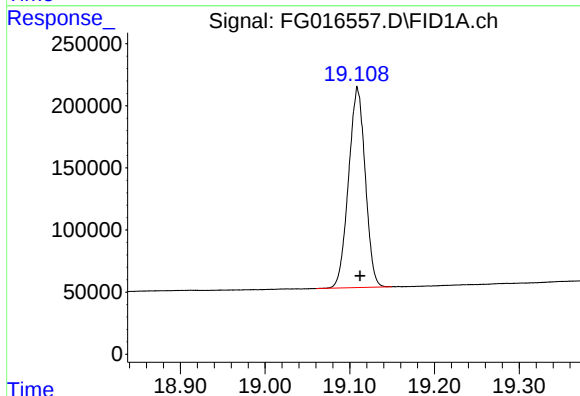
R.T.: 17.378 min
Delta R.T.: -0.002 min
Response: 2406090
Conc: 21.59 ug/ml



#13 N-TRIACONTANE

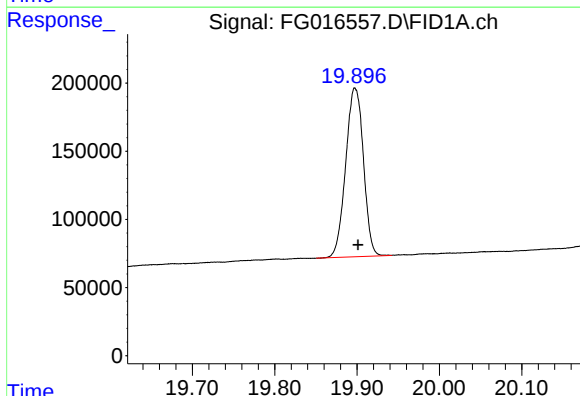
R.T.: 18.271 min
Delta R.T.: -0.004 min
Response: 2379621
Conc: 21.72 ug/ml

Instrument :
FID_G
ClientSampleId :
20 TRPH STD



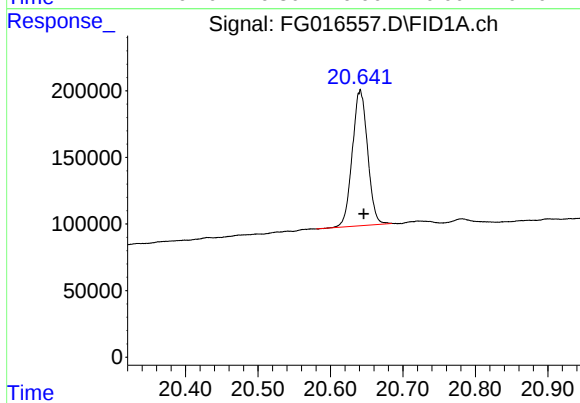
#14 N-DOTRIACONTANE

R.T.: 19.109 min
Delta R.T.: -0.003 min
Response: 2203523
Conc: 21.63 ug/ml



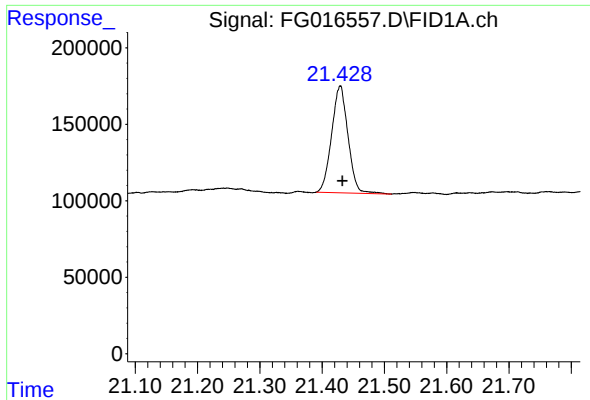
#15 N-TETRATRIACONTANE

R.T.: 19.898 min
Delta R.T.: -0.004 min
Response: 1854605
Conc: 21.65 ug/ml



#16 N-HEXATRIACONTANE

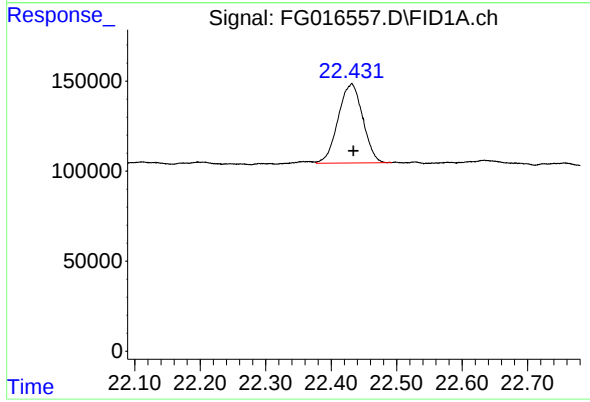
R.T.: 20.641 min
Delta R.T.: -0.005 min
Response: 1495316
Conc: 21.43 ug/ml



#17 N-OCTATRIACONTANE

R.T.: 21.429 min
Delta R.T.: -0.004 min
Response: 1275861
Conc: 20.92 ug/ml

Instrument :
FID_G
ClientSampleId :
20 TRPH STD



#18 N-TETRACONTANE

R.T.: 22.432 min
Delta R.T.: -0.002 min
Response: 1146471
Conc: 19.49 ug/ml

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG090525\
Data File : FG016557.D
Signal(s) : FID1A.ch
Acq On : 05 Sep 2025 10:55
Sample : 20 TRPH STD
Misc :
ALS Vial : 63 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG090525.M
Title :

Signal : FID1A.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	2.105	2.067	2.210	BB	195715	2409136	91.00%	5.959%
2	4.653	4.617	4.744	BB	242377	2489830	94.05%	6.159%
3	6.837	6.792	6.949	BB	246118	2538981	95.91%	6.280%
4	8.678	8.610	8.804	BB	234979	2557632	96.61%	6.326%
5	10.298	10.247	10.409	BB	237139	2579911	97.45%	6.382%
6	11.752	11.697	11.855	BB	227487	2640624	99.75%	6.532%
7	13.073	13.030	13.155	BV	226509	2647345	100.00%	6.548%
8	14.280	14.244	14.354	BB	211053	2557172	96.59%	6.325%
9	15.186	15.090	15.260	BV	164193	2241126	84.66%	5.544%
10	15.392	15.260	15.459	PV	197854	2528742	95.52%	6.255%
11	16.421	16.350	16.490	BB	191806	2475636	93.51%	6.124%
12	17.378	17.300	17.445	BB	185946	2406090	90.89%	5.952%
13	18.271	18.180	18.324	BV	171765	2379621	89.89%	5.886%
14	19.109	19.060	19.150	BV	161460	2203523	83.24%	5.451%
15	19.898	19.850	19.942	BV	123998	1854605	70.06%	4.587%
16	20.641	20.580	20.685	BBA	100968	1495316	56.48%	3.699%
17	21.429	21.390	21.512	BV	70036	1275861	48.19%	3.156%
18	22.432	22.377	22.492	VV	44193	1146471	43.31%	2.836%
Sum of corrected areas:						40427623		

FG090525.M Sat Sep 06 04:15:51 2025

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG090525\
 Data File : FG016558.D
 Signal(s) : FID1A.ch
 Acq On : 05 Sep 2025 11:24
 Operator : YP\AJ
 Sample : 10 TRPH STD
 Misc :
 ALS Vial : 64 Sample Multiplier: 1

Instrument :
 FID_G
 ClientSampleId :
 10 TRPH STD

Integration File: autoint1.e
 Quant Time: Sep 06 04:03:17 2025
 Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG090525.M
 Quant Title :
 QLast Update : Sat Sep 06 04:01:58 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...	15.185	1138925	10.916 ug/ml
Target Compounds			
1) N-OCTANE	2.105	1227497	10.857 ug/ml
2) N-DECANE	4.652	1265194	10.768 ug/ml
3) N-DODECANE	6.835	1278776	10.656 ug/ml
4) N-TETRADECANE	8.678	1294626	10.740 ug/ml
5) N-HEXADECANE	10.296	1301872	10.752 ug/ml
6) N-OCTADECANE	11.751	1337625	10.832 ug/ml
7) N-EICOSANE	13.071	1348967	10.923 ug/ml
8) N-DOCOSANE	14.278	1305358	10.949 ug/ml
10) N-TETRACOSANE	15.391	1292479	10.997 ug/ml
11) N-HEXACOSANE	16.419	1260557	10.979 ug/ml
12) N-OCTACOSANE	17.375	1234607	11.079 ug/ml
13) N-TRIACONTANE	18.269	1215766	11.097 ug/ml
14) N-DOTRIACONTANE	19.108	1148787	11.277 ug/ml
15) N-TETRATRIACONTANE	19.898	982687	11.472 ug/ml
16) N-HEXATRIACONTANE	20.642	829540	11.886 ug/ml
17) N-OCTATRIACONTANE	21.429	711251	11.665 ug/ml
18) N-TETRACONTANE	22.431	699748	11.893 ug/ml

(f)=RT Delta > 1/2 Window

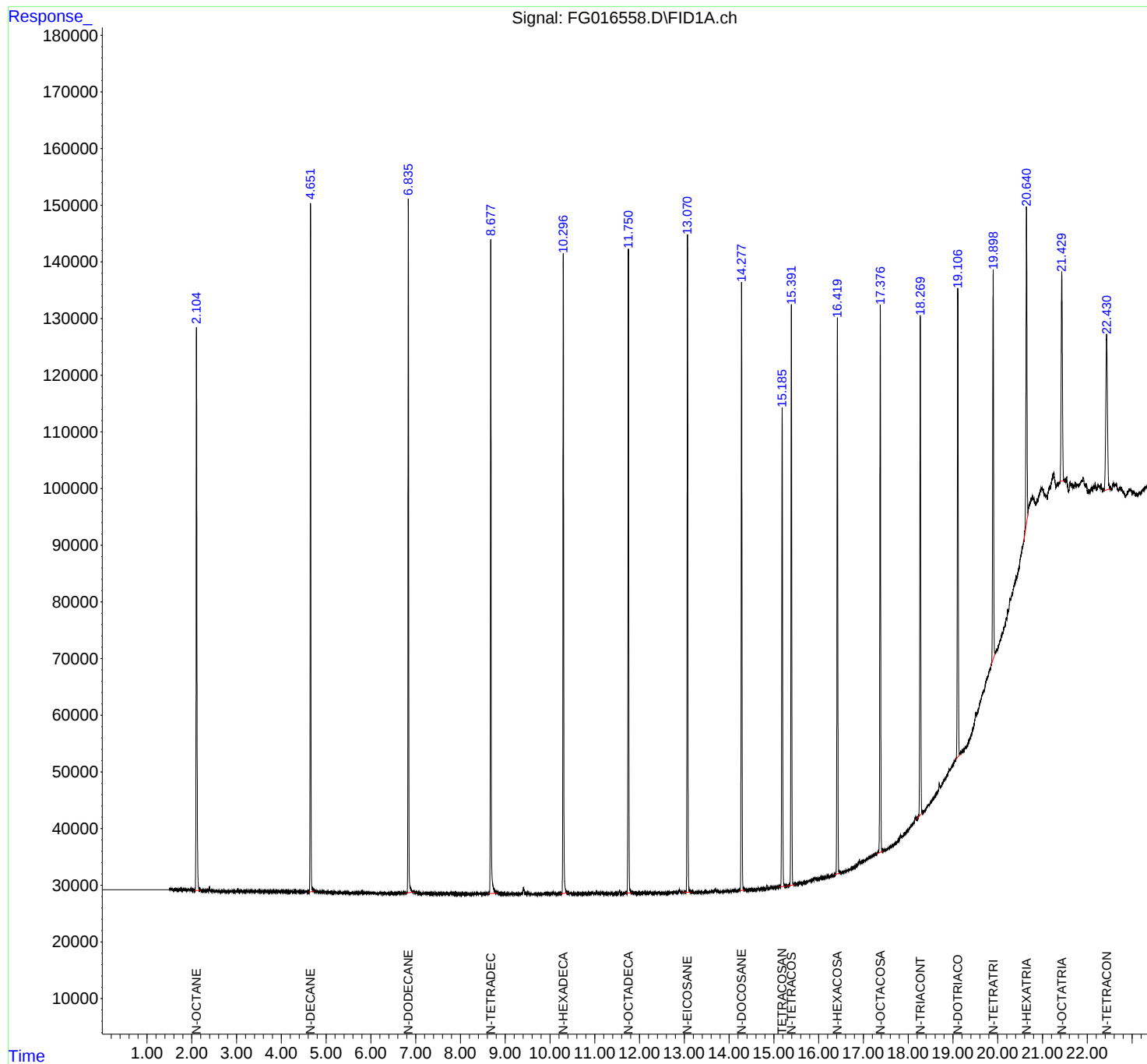
(m)=manual int.

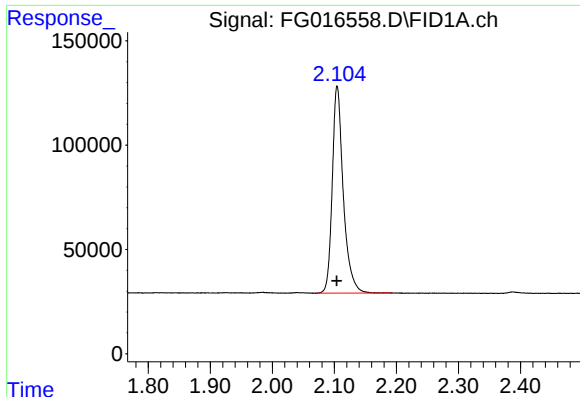
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG090525\
Data File : FG016558.D
Signal(s) : FID1A.ch
Acq On : 05 Sep 2025 11:24
Operator : YP\AJ
Sample : 10 TRPH STD
Misc :
ALS Vial : 64 Sample Multiplier: 1

Instrument :
FID_G
ClientSampleId :
10 TRPH STD

Integration File: autoint1.e
Quant Time: Sep 06 04:03:17 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG090525.M
Quant Title :
QLast Update : Sat Sep 06 04:01:58 2025
Response via : Initial Calibration
Integrator: ChemStation

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

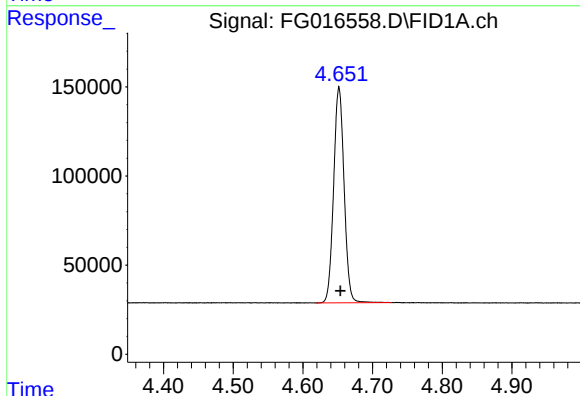




#1 N-OCTANE

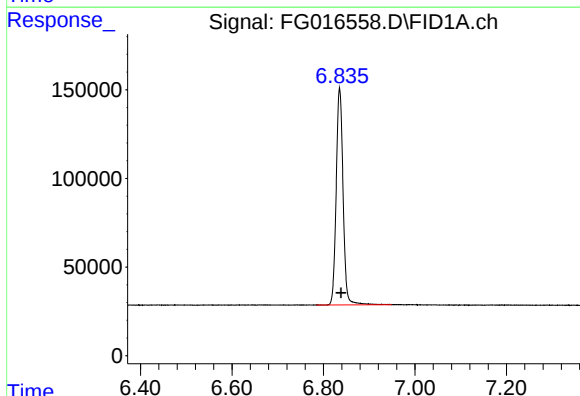
R.T.: 2.105 min
Delta R.T.: 0.000 min
Response: 1227497
Conc: 10.86 ug/ml

Instrument :
FID_G
ClientSampleId :
10 TRPH STD



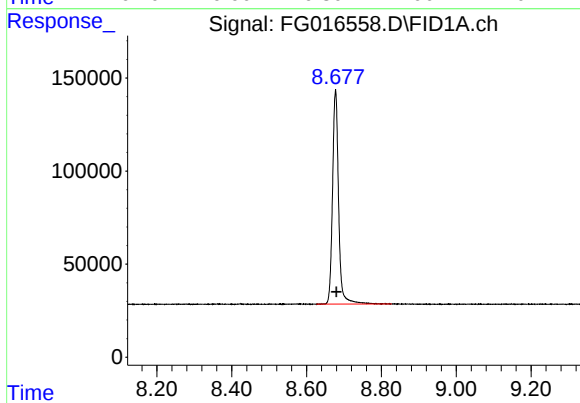
#2 N-DECANE

R.T.: 4.652 min
Delta R.T.: -0.002 min
Response: 1265194
Conc: 10.77 ug/ml



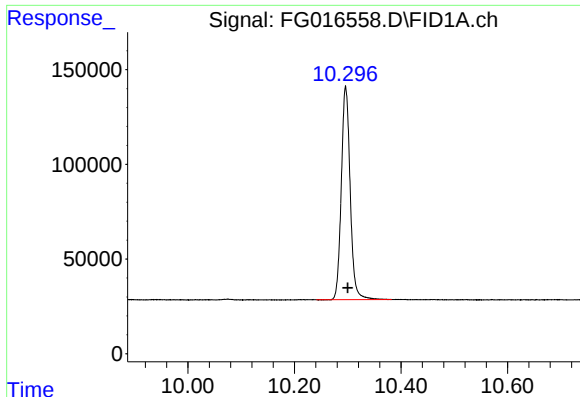
#3 N-DODECANE

R.T.: 6.835 min
Delta R.T.: -0.003 min
Response: 1278776
Conc: 10.66 ug/ml



#4 N-TETRADECANE

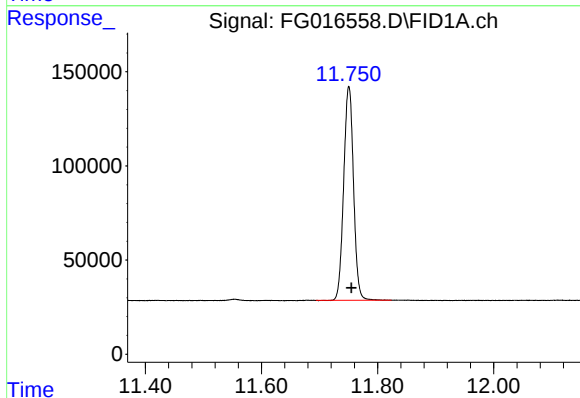
R.T.: 8.678 min
Delta R.T.: -0.002 min
Response: 1294626
Conc: 10.74 ug/ml



#5 N-HEXADECANE

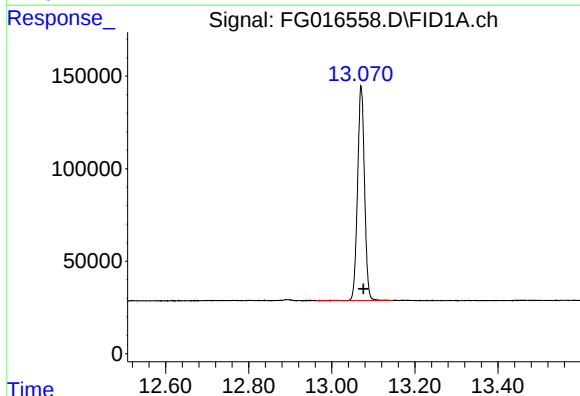
R.T.: 10.296 min
Delta R.T.: -0.004 min
Response: 1301872
Conc: 10.75 ug/ml

Instrument :
FID_G
ClientSampleId :
10 TRPH STD



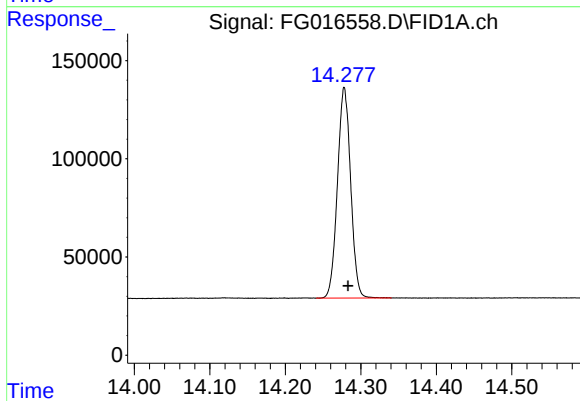
#6 N-OCTADECANE

R.T.: 11.751 min
Delta R.T.: -0.004 min
Response: 1337625
Conc: 10.83 ug/ml



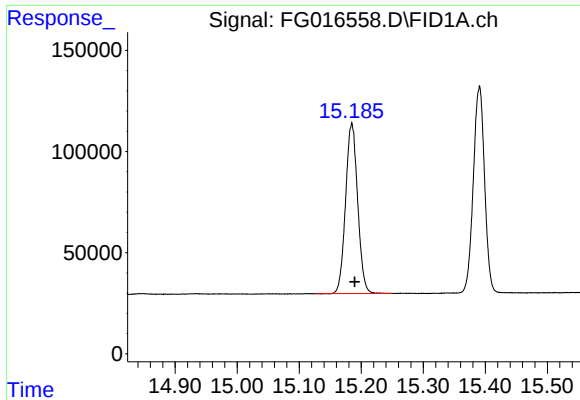
#7 N-EICOSANE

R.T.: 13.071 min
Delta R.T.: -0.005 min
Response: 1348967
Conc: 10.92 ug/ml



#8 N-DOCOSANE

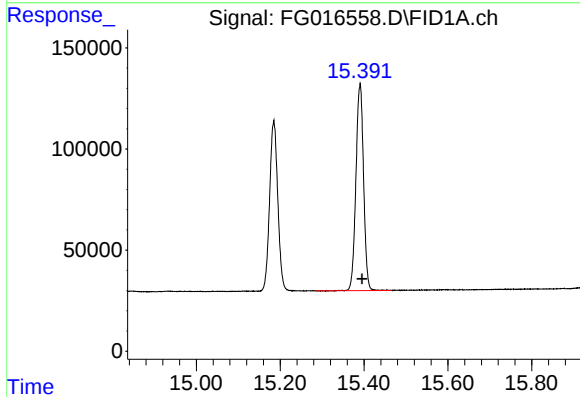
R.T.: 14.278 min
Delta R.T.: -0.005 min
Response: 1305358
Conc: 10.95 ug/ml



#9 TETRACOSANE-d50 (SURROGATE)

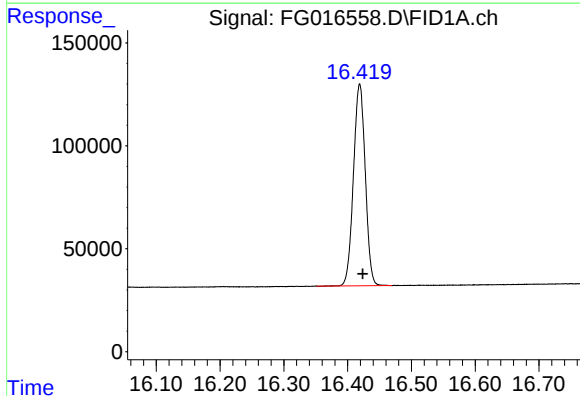
R.T.: 15.185 min
Delta R.T.: -0.005 min
Response: 1138925
Conc: 10.92 ug/ml

Instrument :
FID_G
ClientSampleId :
10 TRPH STD



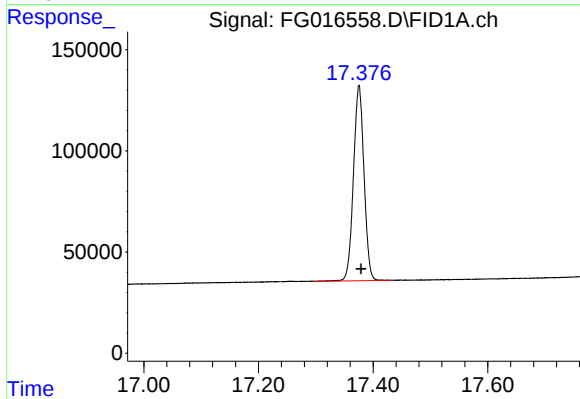
#10 N-TETRACOSANE

R.T.: 15.391 min
Delta R.T.: -0.005 min
Response: 1292479
Conc: 11.00 ug/ml



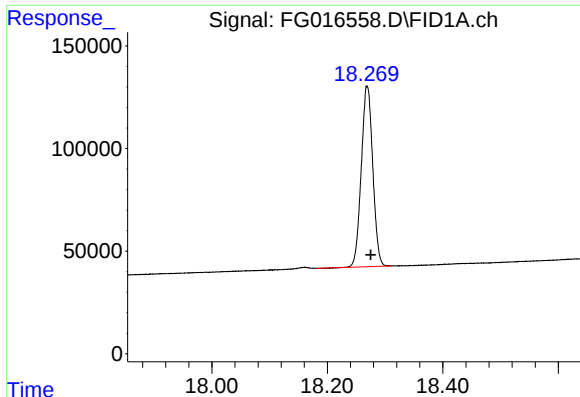
#11 N-HEXACOSANE

R.T.: 16.419 min
Delta R.T.: -0.005 min
Response: 1260557
Conc: 10.98 ug/ml



#12 N-OCTACOSANE

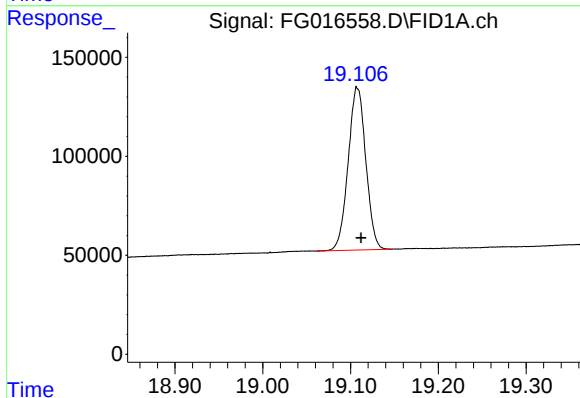
R.T.: 17.375 min
Delta R.T.: -0.004 min
Response: 1234607
Conc: 11.08 ug/ml



#13 N-TRIACONTANE

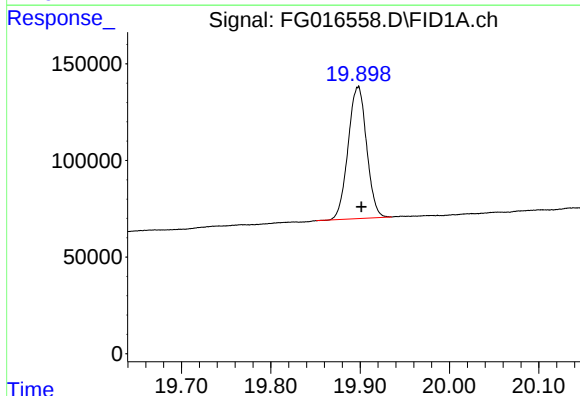
R.T.: 18.269 min
Delta R.T.: -0.006 min
Response: 1215766
Conc: 11.10 ug/ml

Instrument :
FID_G
ClientSampleId :
10 TRPH STD



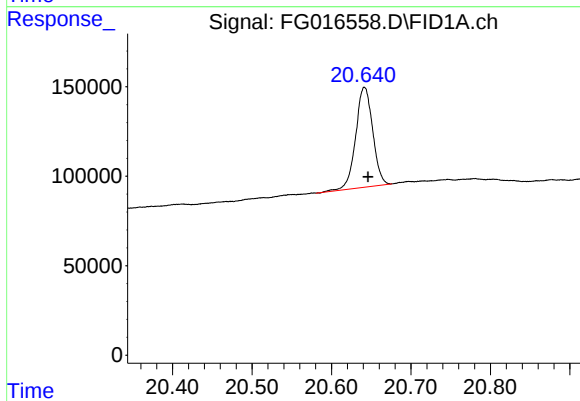
#14 N-DOTRIACONTANE

R.T.: 19.108 min
Delta R.T.: -0.004 min
Response: 1148787
Conc: 11.28 ug/ml



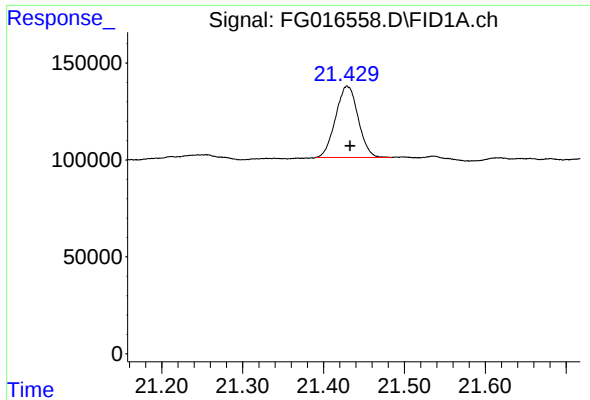
#15 N-TETRATRIACONTANE

R.T.: 19.898 min
Delta R.T.: -0.004 min
Response: 982687
Conc: 11.47 ug/ml



#16 N-HEXATRIACONTANE

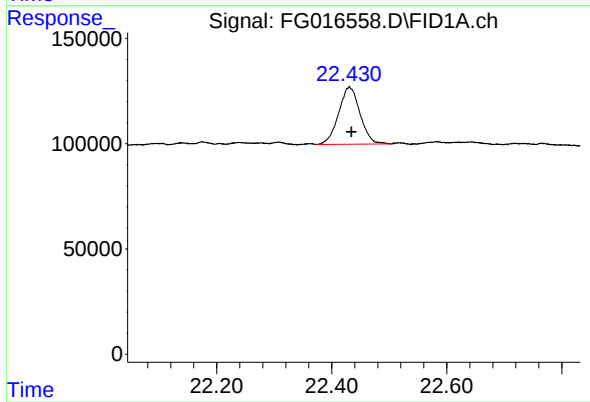
R.T.: 20.642 min
Delta R.T.: -0.005 min
Response: 829540
Conc: 11.89 ug/ml



#17 N-OCTATRIACONTANE

R.T.: 21.429 min
Delta R.T.: -0.004 min
Response: 711251
Conc: 11.66 ug/ml

Instrument :
FID_G
ClientSampleId :
10 TRPH STD



#18 N-TETRACONTANE

R.T.: 22.431 min
Delta R.T.: -0.003 min
Response: 699748
Conc: 11.89 ug/ml

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG090525\
Data File : FG016558.D
Signal(s) : FID1A.ch
Acq On : 05 Sep 2025 11:24
Sample : 10 TRPH STD
Misc :
ALS Vial : 64 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG090525.M
Title :

Signal : FID1A.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	2.105	2.071	2.192	BB	99443	1227497	91.00%	5.880%
2	4.652	4.619	4.727	BB	121052	1265194	93.79%	6.061%
3	6.835	6.784	6.949	BB	122095	1278776	94.80%	6.126%
4	8.678	8.626	8.827	BB	114691	1294626	95.97%	6.202%
5	10.296	10.241	10.382	BB	112466	1301872	96.51%	6.237%
6	11.751	11.694	11.824	BB	113683	1337625	99.16%	6.408%
7	13.071	12.962	13.144	BB	115299	1348967	100.00%	6.462%
8	14.278	14.241	14.341	BB	107545	1305358	96.77%	6.253%
9	15.185	15.127	15.249	BB	83588	1138925	84.43%	5.456%
10	15.391	15.286	15.466	BB	102288	1292479	95.81%	6.192%
11	16.419	16.351	16.469	BB	98151	1260557	93.45%	6.039%
12	17.375	17.301	17.432	BB	96811	1234607	91.52%	5.914%
13	18.269	18.181	18.311	BV	87918	1215766	90.13%	5.824%
14	19.108	19.061	19.147	BV	82036	1148787	85.16%	5.503%
15	19.898	19.851	19.935	BV	68065	982687	72.85%	4.708%
16	20.642	20.581	20.676	BV	55949	829540	61.49%	3.974%
17	21.429	21.391	21.484	BV	36928	711251	52.73%	3.407%
18	22.431	22.373	22.504	PV	27400	699748	51.87%	3.352%
Sum of corrected areas:						20874261		

FG090525.M Sat Sep 06 04:16:27 2025

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG090525\
 Data File : FG016559.D
 Signal(s) : FID1A.ch
 Acq On : 05 Sep 2025 11:54
 Operator : YP\AJ
 Sample : 5 TRPH STD
 Misc :
 ALS Vial : 65 Sample Multiplier: 1

Instrument :
 FID_G
 ClientSampleId :
 5 TRPH STD

Manual Integrations APPROVED

Reviewed By :Yogesh Patel 09/08/2025
 Supervised By :mohammad ahmed 09/09/2025

Integration File: autoint1.e
 Quant Time: Sep 06 04:03:26 2025
 Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG090525.M
 Quant Title :
 QLast Update : Sat Sep 06 04:01:58 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...	15.184	582176	5.580 ug/ml
Target Compounds			
1) N-OCTANE	2.105	631312	5.584 ug/ml
2) N-DECANE	4.652	636369	5.416 ug/ml
3) N-DODECANE	6.835	625889	5.215 ug/ml
4) N-TETRADECANE	8.676	639998	5.309 ug/ml
5) N-HEXADECANE	10.296	656383	5.421 ug/ml
6) N-OCTADECANE	11.750	678720	5.496 ug/ml
7) N-EICOSANE	13.070	683652	5.536 ug/ml
8) N-DOCOSANE	14.278	665765	5.584 ug/ml
10) N-TETRACOSANE	15.389	666938	5.675 ug/ml
11) N-HEXACOSANE	16.418	657520	5.727 ug/ml
12) N-OCTACOSANE	17.375	672338	6.033 ug/ml
13) N-TRIACONTANE	18.270	755290	6.894 ug/ml
14) N-DOTRIACONTANE	19.108	804635	7.899 ug/ml
15) N-TETRATRIACONTANE	19.896	688859	8.042 ug/ml
16) N-HEXATRIACONTANE	20.641	528880	7.578 ug/mlm
17) N-OCTATRIACONTANE	21.428	426351	6.992 ug/ml
18) N-TETRACONTANE	22.430	378311	6.430 ug/ml

(f)=RT Delta > 1/2 Window

(m)=manual int.

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG090525\
Data File : FG016559.D
Signal(s) : FID1A.ch
Acq On : 05 Sep 2025 11:54
Operator : YP\AJ
Sample : 5 TRPH STD
Misc :
ALS Vial : 65 Sample Multiplier: 1

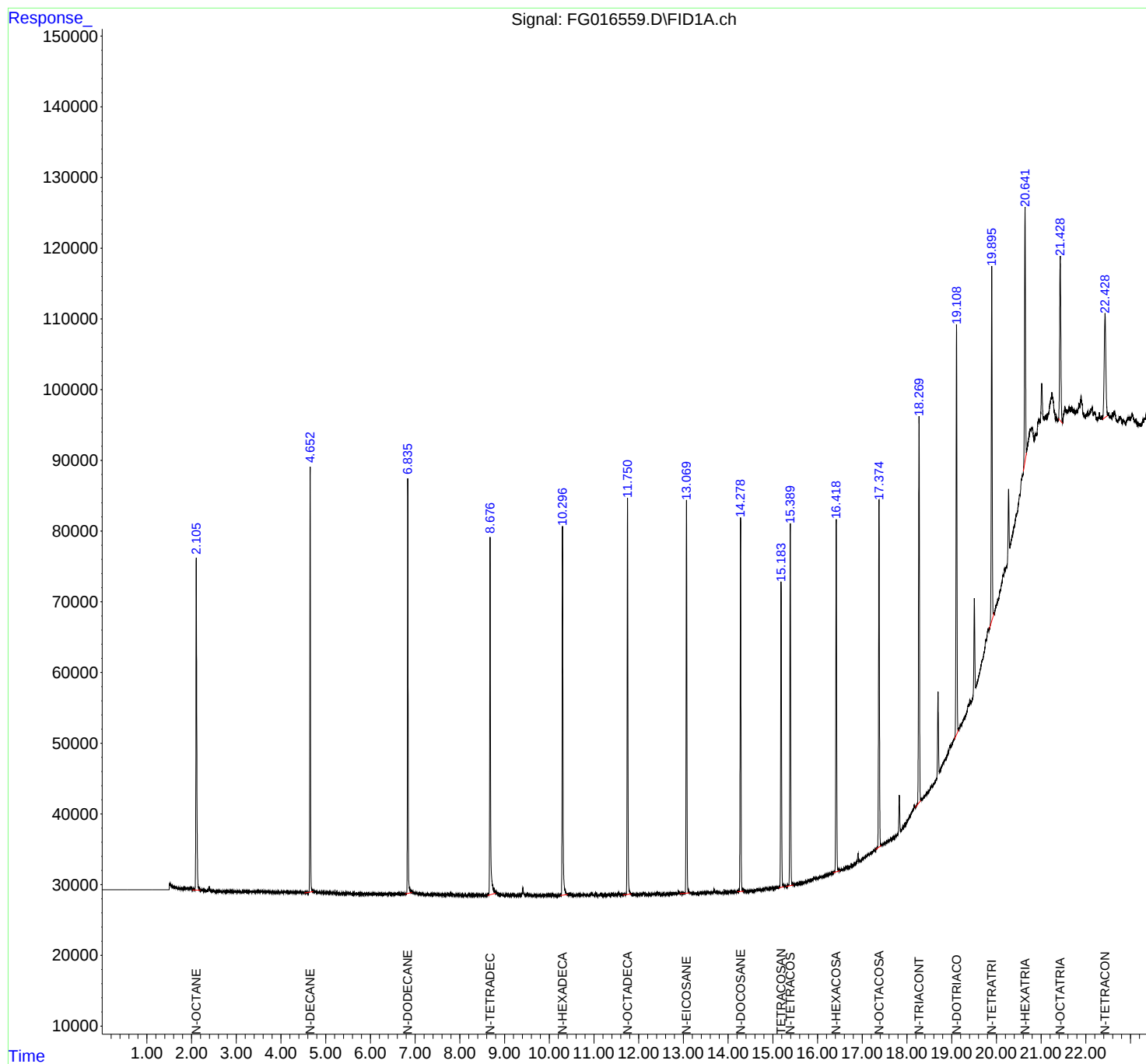
Instrument :
FID_G
ClientSampleId :
5 TRPH STD

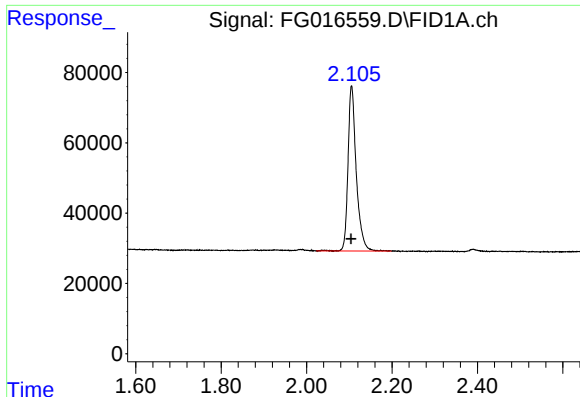
Manual Integrations
APPROVED

Reviewed By :Yogesh Patel 09/08/2025
Supervised By :mohammad ahmed 09/09/2025

Integration File: autoint1.e
Quant Time: Sep 06 04:03:26 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG090525.M
Quant Title :
QLast Update : Sat Sep 06 04:01:58 2025
Response via : Initial Calibration
Integrator: ChemStation

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





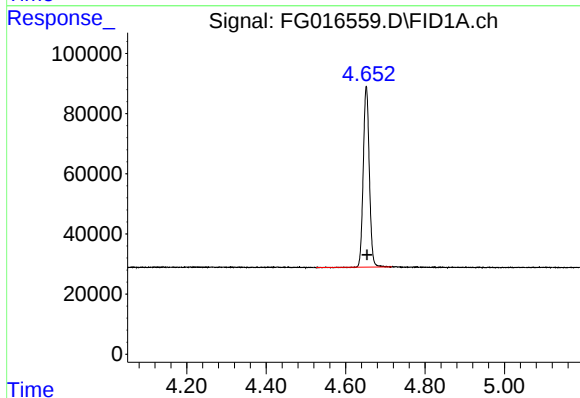
#1 N-OCTANE

R.T.: 2.105 min
Delta R.T.: 0.001 min
Response: 631312
Conc: 5.58 ug/ml

Instrument :
FID_G
ClientSampleId :
5 TRPH STD

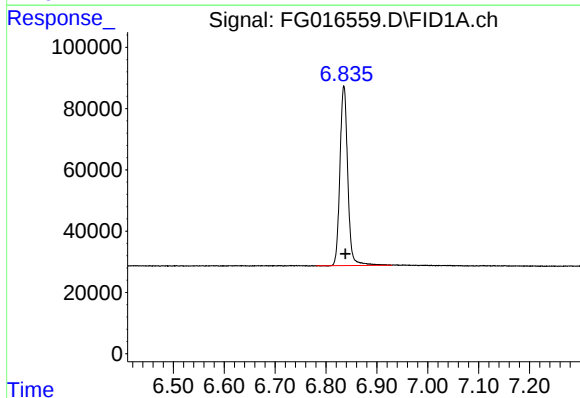
Manual Integrations
APPROVED

Reviewed By :Yogesh Patel 09/08/2025
Supervised By :mohammad ahmed 09/09/2025



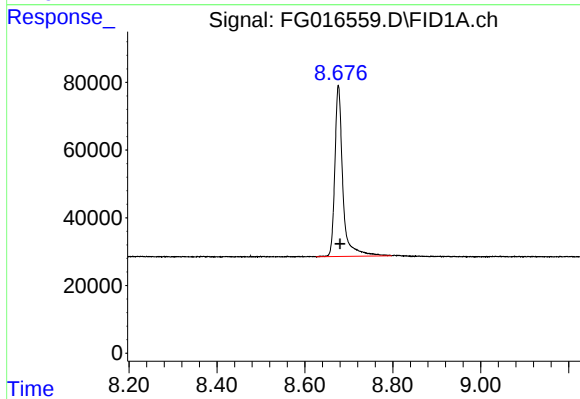
#2 N-DECANE

R.T.: 4.652 min
Delta R.T.: -0.002 min
Response: 636369
Conc: 5.42 ug/ml



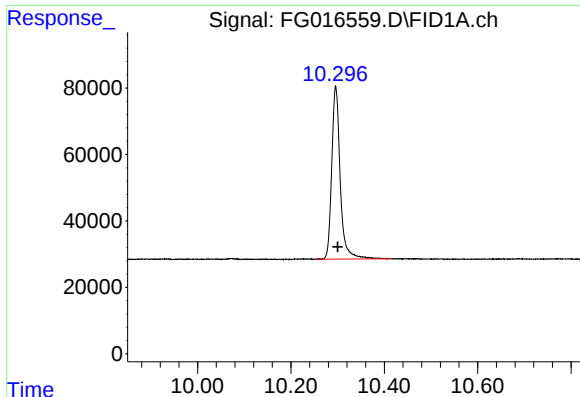
#3 N-DODECANE

R.T.: 6.835 min
Delta R.T.: -0.003 min
Response: 625889
Conc: 5.22 ug/ml



#4 N-TETRADECANE

R.T.: 8.676 min
Delta R.T.: -0.004 min
Response: 639998
Conc: 5.31 ug/ml



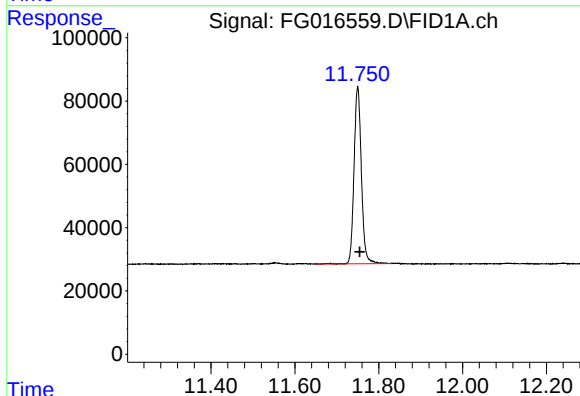
#5 N-HEXADECANE

R.T.: 10.296 min
Delta R.T.: -0.004 min
Response: 656383
Conc: 5.42 ug/ml

Instrument :
FID_G
ClientSampleId :
5 TRPH STD

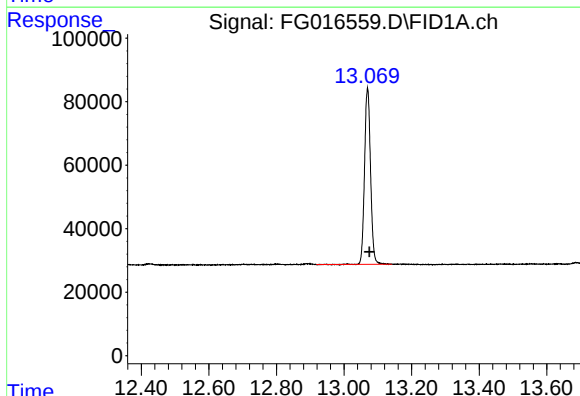
Manual Integrations
APPROVED

Reviewed By :Yogesh Patel 09/08/2025
Supervised By :mohammad ahmed 09/09/2025



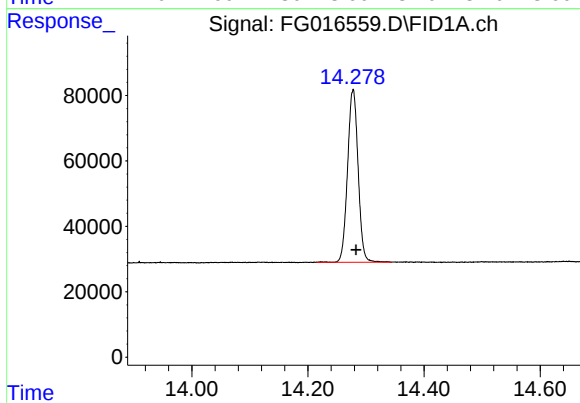
#6 N-OCTADECANE

R.T.: 11.750 min
Delta R.T.: -0.005 min
Response: 678720
Conc: 5.50 ug/ml



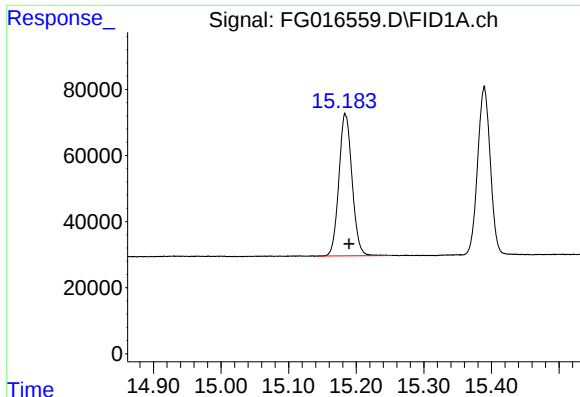
#7 N-EICOSANE

R.T.: 13.070 min
Delta R.T.: -0.006 min
Response: 683652
Conc: 5.54 ug/ml



#8 N-DOCOSANE

R.T.: 14.278 min
Delta R.T.: -0.005 min
Response: 665765
Conc: 5.58 ug/ml



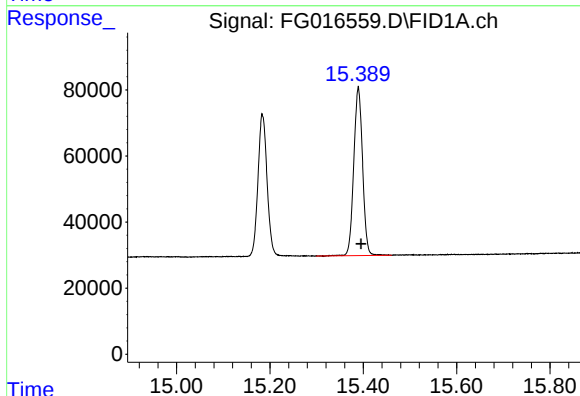
#9 TETRACOSANE-d50 (SURROGATE)

R.T.: 15.184 min
Delta R.T.: -0.006 min
Response: 582176
Conc: 5.58 ug/ml

Instrument :
FID_G
ClientSampleId :
5 TRPH STD

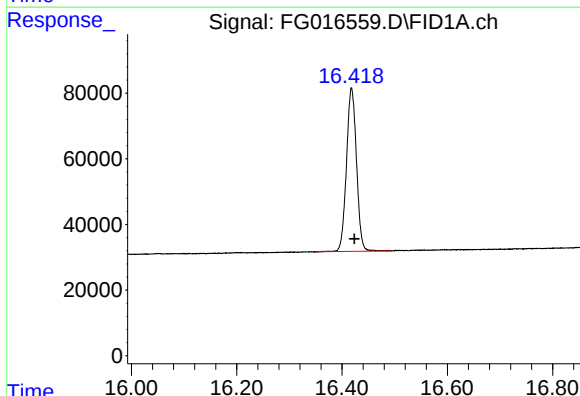
Manual Integrations
APPROVED

Reviewed By :Yogesh Patel 09/08/2025
Supervised By :mohammad ahmed 09/09/2025



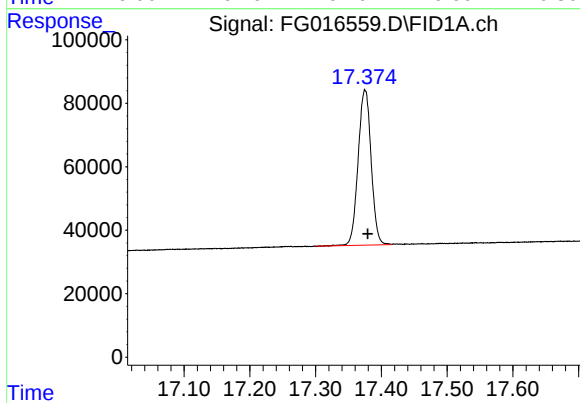
#10 N-TETRACOSANE

R.T.: 15.389 min
Delta R.T.: -0.006 min
Response: 666938
Conc: 5.67 ug/ml



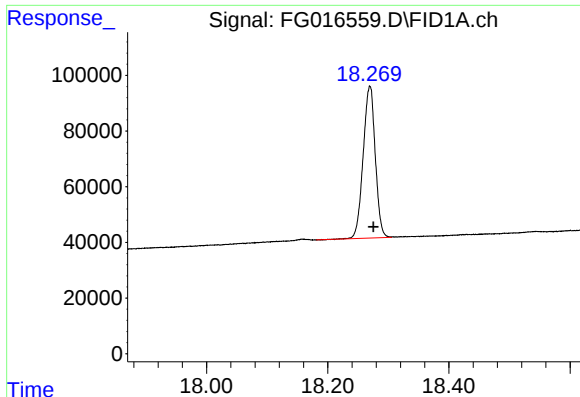
#11 N-HEXACOSANE

R.T.: 16.418 min
Delta R.T.: -0.006 min
Response: 657520
Conc: 5.73 ug/ml



#12 N-OCTACOSANE

R.T.: 17.375 min
Delta R.T.: -0.004 min
Response: 672338
Conc: 6.03 ug/ml



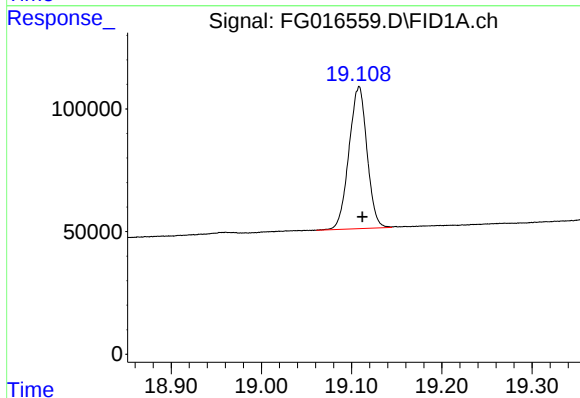
#13 N-TRIACONTANE

R.T.: 18.270 min
Delta R.T.: -0.005 min
Response: 755290
Conc: 6.89 ug/ml

Instrument :
FID_G
ClientSampleId :
5 TRPH STD

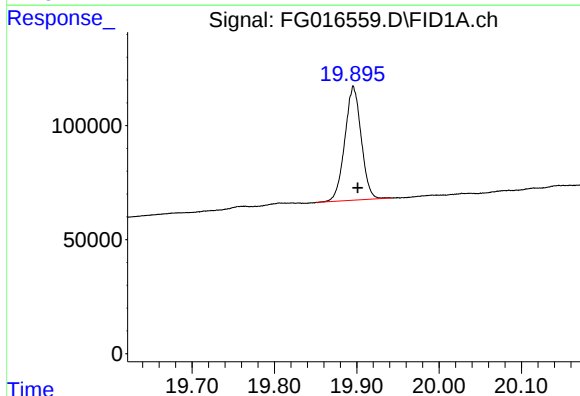
Manual Integrations
APPROVED

Reviewed By :Yogesh Patel 09/08/2025
Supervised By :mohammad ahmed 09/09/2025



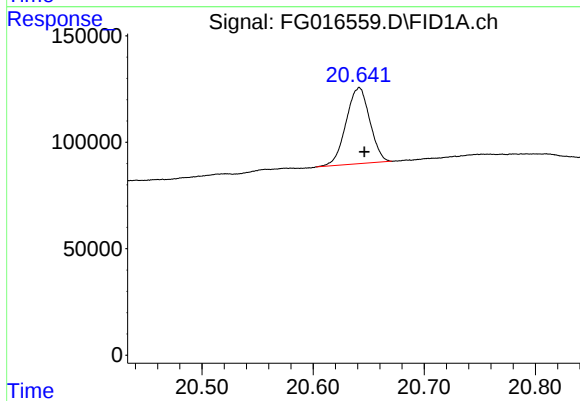
#14 N-DOTRIACONTANE

R.T.: 19.108 min
Delta R.T.: -0.004 min
Response: 804635
Conc: 7.90 ug/ml



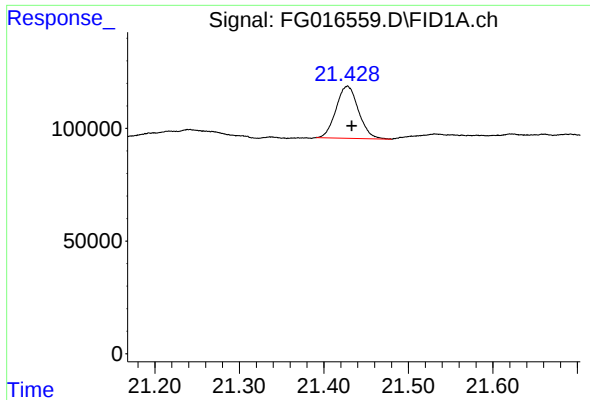
#15 N-TETRATRIACONTANE

R.T.: 19.896 min
Delta R.T.: -0.005 min
Response: 688859
Conc: 8.04 ug/ml



#16 N-HEXATRIACONTANE

R.T.: 20.641 min
Delta R.T.: -0.005 min
Response: 528880
Conc: 7.58 ug/ml m



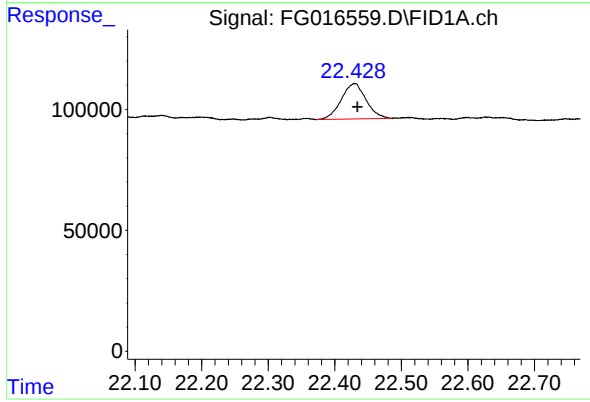
#17 N-OCTATRIACONTANE

R.T.: 21.428 min
Delta R.T.: -0.005 min
Response: 426351
Conc: 6.99 ug/ml

Instrument :
FID_G
ClientSampleId :
5 TRPH STD

Manual Integrations
APPROVED

Reviewed By :Yogesh Patel 09/08/2025
Supervised By :mohammad ahmed 09/09/2025



#18 N-TETRACONTANE

R.T.: 22.430 min
Delta R.T.: -0.004 min
Response: 378311
Conc: 6.43 ug/ml

Instrument :
FID_G
LabSampleId :
5 TRPH STD

Area Percent Report
Manual IntegrationsAPPROVED
Reviewed By :Yogesh Patel 09/08/2025
Supervised By :mohammad ahmed 09/09/2025

rteres

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG090525.D

Data File : FG016559.D

Signal(s) : FID1A.ch

Acq On : 05 Sep 2025 11:54

Sample : 5 TRPH STD

Misc :

ALS Vial : 65 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG090525.M

Title :

Signal : FID1A.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	2.105	2.022	2.199	BB	46975	631312	78.46%	5.552%
2	4.652	4.526	4.716	BB	60133	636369	79.09%	5.596%
3	6.835	6.781	6.929	BB	58641	625889	77.79%	5.504%
4	8.676	8.626	8.797	BV	50593	639998	79.54%	5.628%
5	10.296	10.254	10.416	BB	52062	656383	81.58%	5.772%
6	11.750	11.651	11.831	BB	56141	678720	84.35%	5.968%
7	13.070	12.917	13.141	BB	55418	683652	84.96%	6.012%
8	14.278	14.214	14.344	BB	52602	665765	82.74%	5.855%
9	15.184	15.141	15.252	BB	42793	582176	72.35%	5.120%
10	15.389	15.299	15.461	BB	50887	666938	82.89%	5.865%
11	16.418	16.351	16.494	BB	49925	657520	81.72%	5.782%
12	17.375	17.301	17.416	BV	48720	672338	83.56%	5.912%
13	18.270	18.181	18.305	BV	54676	755290	93.87%	6.642%
14	19.108	19.061	19.144	BV	57586	804635	100.00%	7.076%
15	19.896	19.851	19.942	BV	50090	688859	85.61%	6.058%
16	20.642	20.581	20.672	BV	35580	521204	64.78%	4.583%
17	21.428	21.391	21.480	BV	23099	426351	52.99%	3.749%
18	22.430	22.372	22.486	PV	14553	378311	47.02%	3.327%
Sum of corrected areas:							11371710	

FG090525.M Sat Sep 06 04:17:20 2025

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG090525\
 Data File : FG016560.D
 Signal(s) : FID1A.ch
 Acq On : 05 Sep 2025 12:24
 Operator : YP\AJ
 Sample : FG090525ICV
 Misc :
 ALS Vial : 66 Sample Multiplier: 1

Instrument :

FID_G

ClientSampleId :

FG090525ICV

Manual Integrations

APPROVED

Reviewed By :Yogesh Patel 09/08/2025

Supervised By :mohammad ahmed 09/09/2025

Integration File: autoint1.e
 Quant Time: Sep 05 13:32:22 2025
 Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG090525.M
 Quant Title :
 QLast Update : Fri Sep 05 13:31:52 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...	15.187	5022519	45.964 ug/ml
Target Compounds			
1) N-OCTANE	2.105	5612287	47.364 ug/ml
2) N-DECANE	4.654	5805616	47.635 ug/ml
3) N-DODECANE	6.838	5904735	47.959 ug/ml
4) N-TETRADECANE	8.679	5896765	47.459 ug/ml
5) N-HEXADECANE	10.298	5895438	47.005 ug/ml
6) N-OCTADECANE	11.753	5973228	46.475 ug/ml
7) N-EICOSANE	13.072	5959479	46.189 ug/ml
8) N-DOCOSANE	14.281	5746375	46.009 ug/ml
10) N-TETRACOSANE	15.394	5659504	45.729 ug/ml
11) N-HEXACOSANE	16.422	5543636	45.685 ug/ml
12) N-OCTACOSANE	17.378	5410476	44.877 ug/ml
13) N-TRIACONTANE	18.272	5368662	44.219 ug/ml
14) N-DOTRIACONTANE	19.110	5031698	42.867 ug/ml
15) N-TETRATRIACONTANE	19.897	4386440	42.732 ug/ml
16) N-HEXATRIACONTANE	20.642	3663386	42.965 ug/ml
17) N-OCTATRIACONTANE	21.431	3196434	42.710 ug/mlm
18) N-TETRACONTANE	22.432	2956893	42.212 ug/ml

(f)=RT Delta > 1/2 Window

(m)=manual int.

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG090525\
Data File : FG016560.D
Signal(s) : FID1A.ch
Acq On : 05 Sep 2025 12:24
Operator : YP\AJ
Sample : FG090525ICV
Misc :
ALS Vial : 66 Sample Multiplier: 1

Instrument :

FID_G

Client SampleId :

FG090525ICV

Manual Integrations

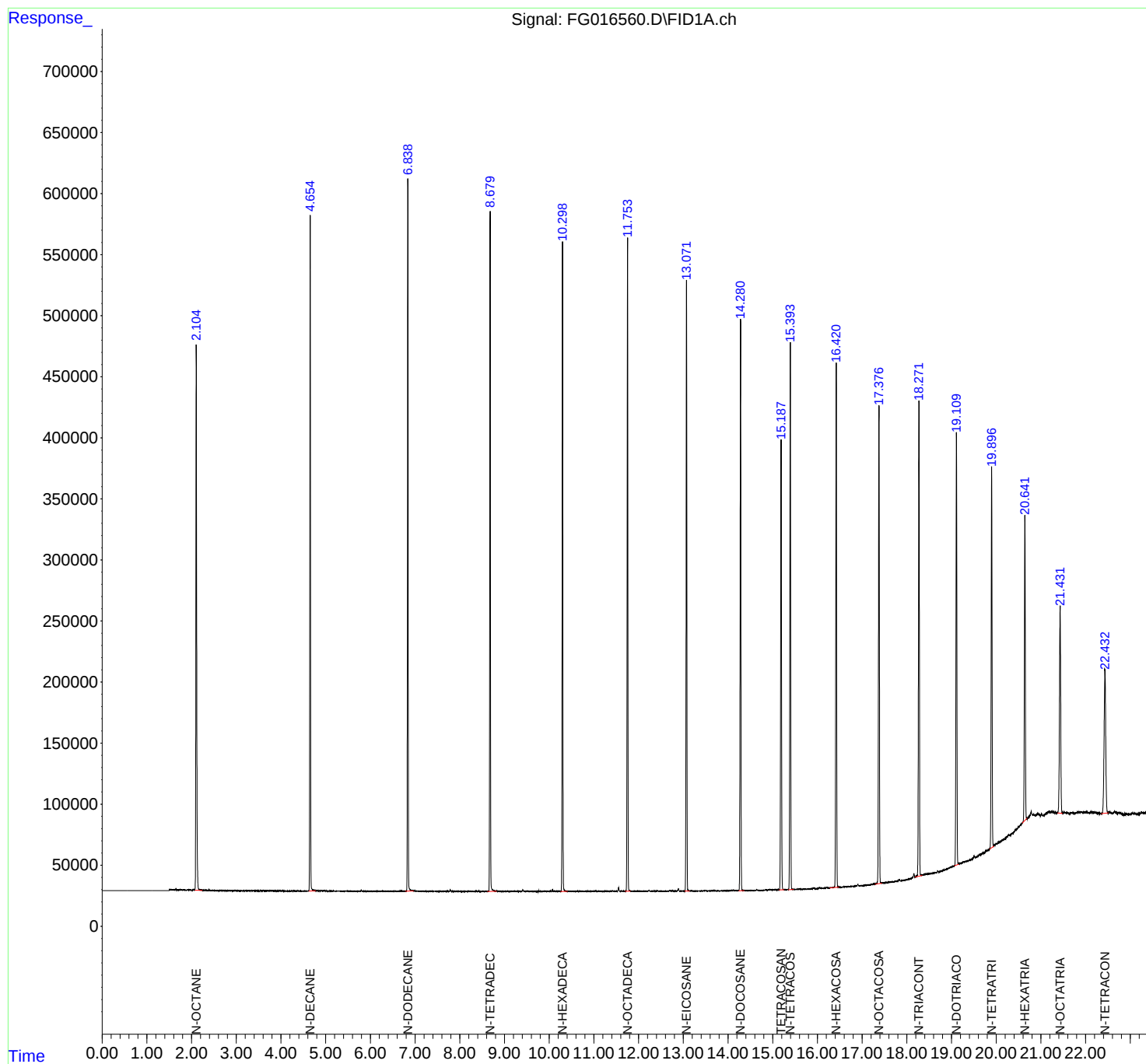
APPROVED

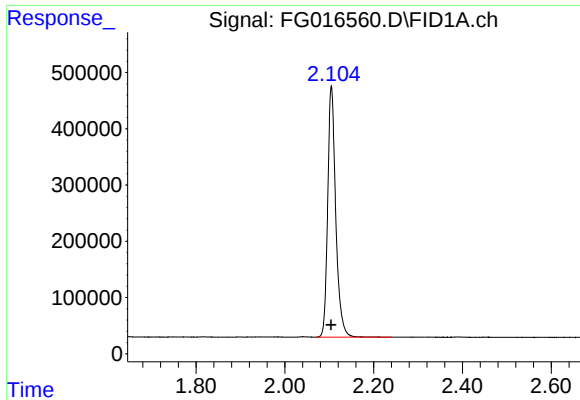
Reviewed By :Yogesh Patel 09/08/2025

Supervised By :mohammad ahmed 09/09/2025

Integration File: autoint1.e
Quant Time: Sep 05 13:32:22 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG090525.M
Quant Title :
QLast Update : Fri Sep 05 13:31:52 2025
Response via : Initial Calibration
Integrator: ChemStation

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





#1 N-OCTANE

R.T.: 2.105 min
Delta R.T.: 0.000 min
Response: 5612287
Conc: 47.36 ug/ml

Instrument :

FID_G

ClientSampleId :

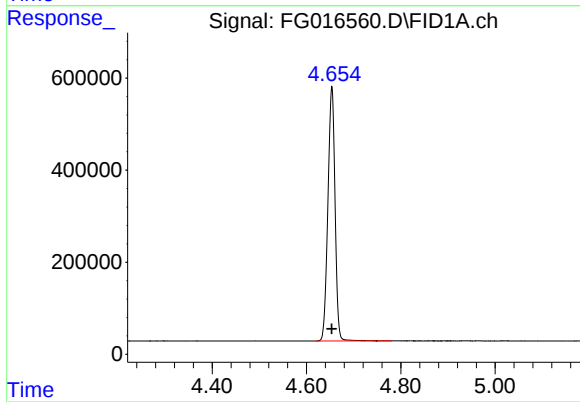
FG090525ICV

Manual Integrations

APPROVED

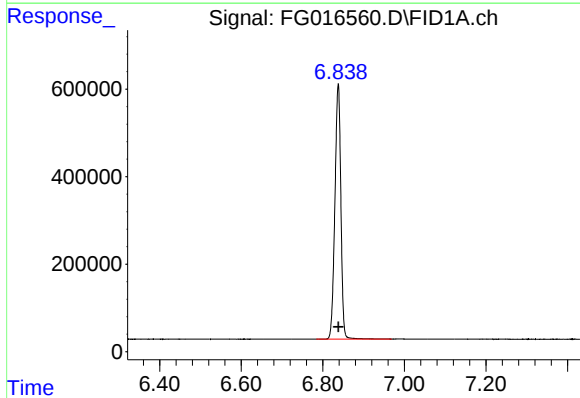
Reviewed By :Yogesh Patel 09/08/2025

Supervised By :mohammad ahmed 09/09/2025



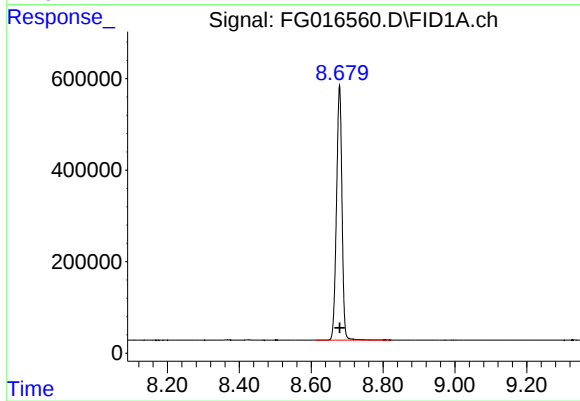
#2 N-DECANE

R.T.: 4.654 min
Delta R.T.: 0.000 min
Response: 5805616
Conc: 47.63 ug/ml



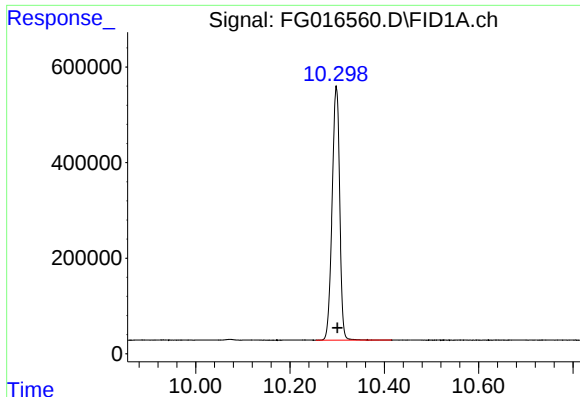
#3 N-DODECANE

R.T.: 6.838 min
Delta R.T.: 0.000 min
Response: 5904735
Conc: 47.96 ug/ml



#4 N-TETRADECANE

R.T.: 8.679 min
Delta R.T.: -0.001 min
Response: 5896765
Conc: 47.46 ug/ml



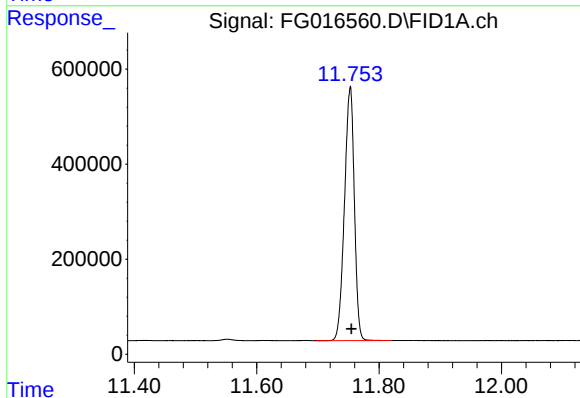
#5 N-HEXADECANE

R.T.: 10.298 min
Delta R.T.: -0.002 min
Response: 5895438
Conc: 47.01 ug/ml

Instrument :
FID_G
ClientSampleId :
FG090525ICV

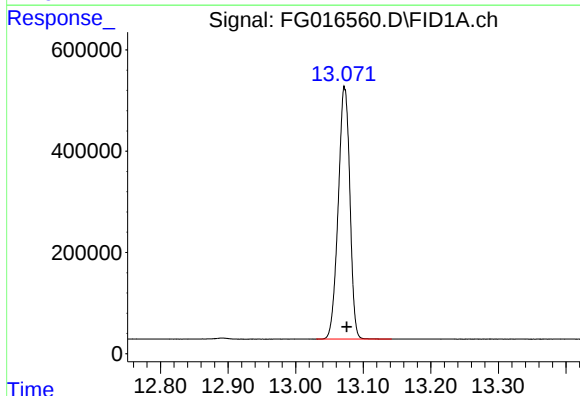
Manual Integrations
APPROVED

Reviewed By :Yogesh Patel 09/08/2025
Supervised By :mohammad ahmed 09/09/2025



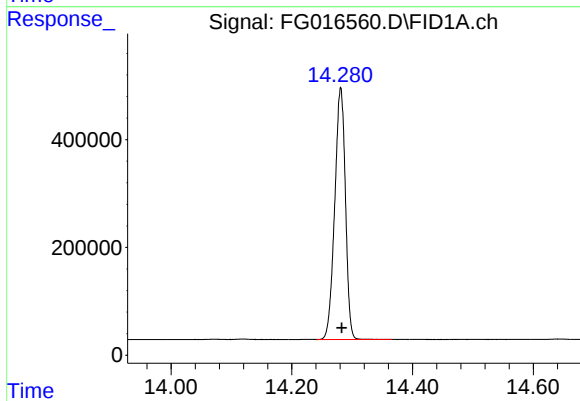
#6 N-OCTADECANE

R.T.: 11.753 min
Delta R.T.: -0.002 min
Response: 5973228
Conc: 46.48 ug/ml



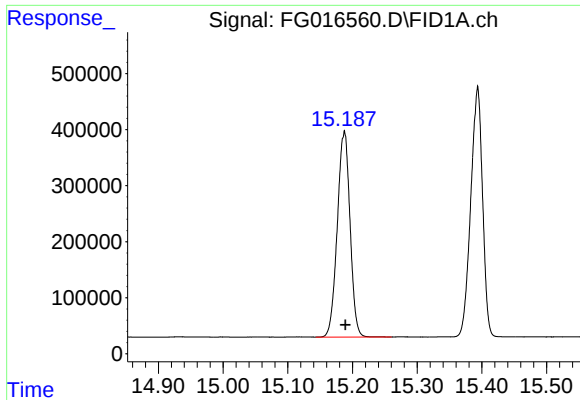
#7 N-EICOSANE

R.T.: 13.072 min
Delta R.T.: -0.003 min
Response: 5959479
Conc: 46.19 ug/ml



#8 N-DOCOSANE

R.T.: 14.281 min
Delta R.T.: -0.002 min
Response: 5746375
Conc: 46.01 ug/ml



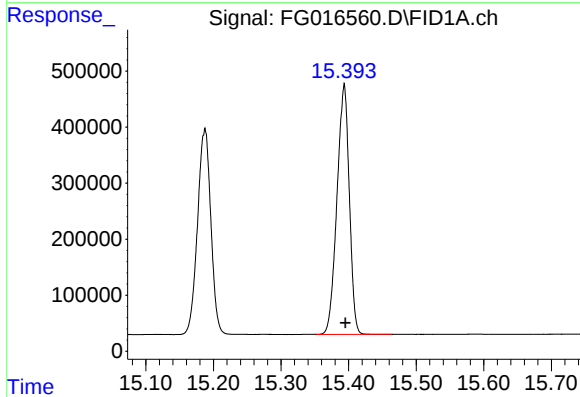
#9 TETRACOSANE-d50 (SURROGATE)

R.T.: 15.187 min
Delta R.T.: -0.002 min
Response: 5022519
Conc: 45.96 ug/ml

Instrument :
FID_G
ClientSampleId :
FG090525ICV

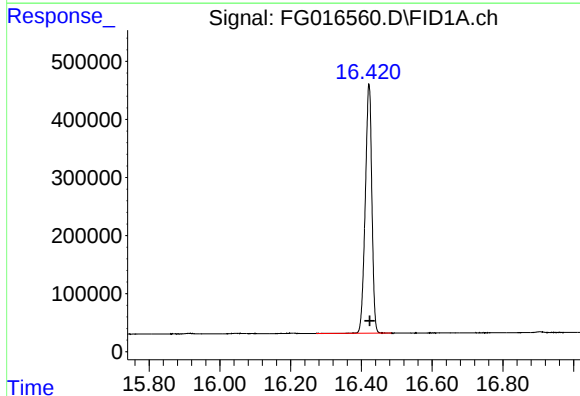
Manual Integrations
APPROVED

Reviewed By :Yogesh Patel 09/08/2025
Supervised By :mohammad ahmed 09/09/2025



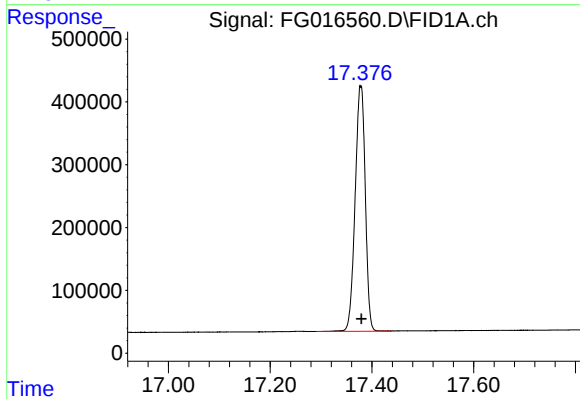
#10 N-TETRACOSANE

R.T.: 15.394 min
Delta R.T.: -0.002 min
Response: 5659504
Conc: 45.73 ug/ml



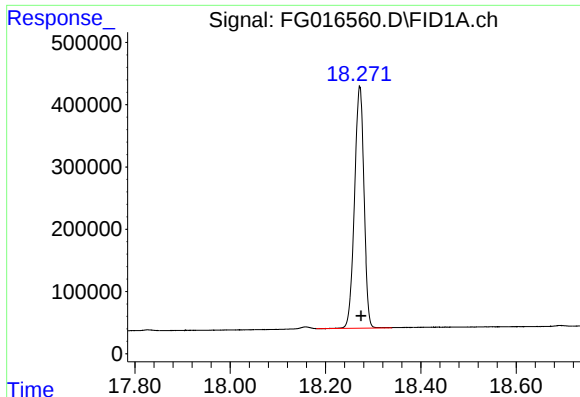
#11 N-HEXACOSANE

R.T.: 16.422 min
Delta R.T.: -0.002 min
Response: 5543636
Conc: 45.68 ug/ml



#12 N-OCTACOSANE

R.T.: 17.378 min
Delta R.T.: -0.002 min
Response: 5410476
Conc: 44.88 ug/ml



#13 N-TRIACONTANE

R.T.: 18.272 min
Delta R.T.: -0.003 min
Response: 5368662
Conc: 44.22 ug/ml

Instrument :

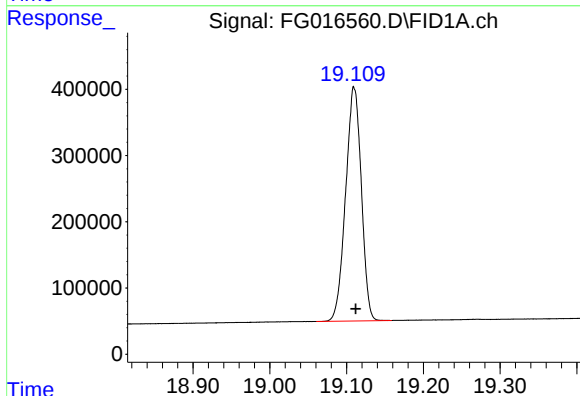
FID_G

ClientSampleId :

FG090525ICV

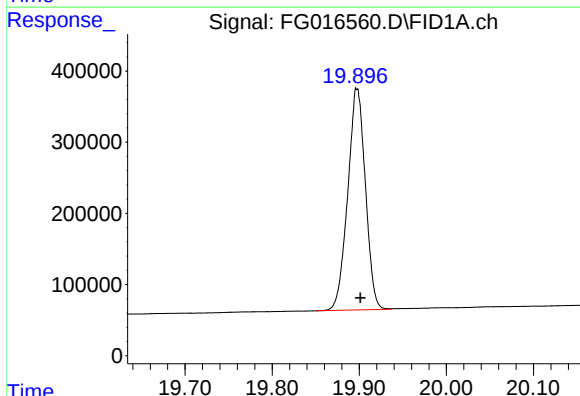
Manual Integrations
APPROVED

Reviewed By :Yogesh Patel 09/08/2025
Supervised By :mohammad ahmed 09/09/2025



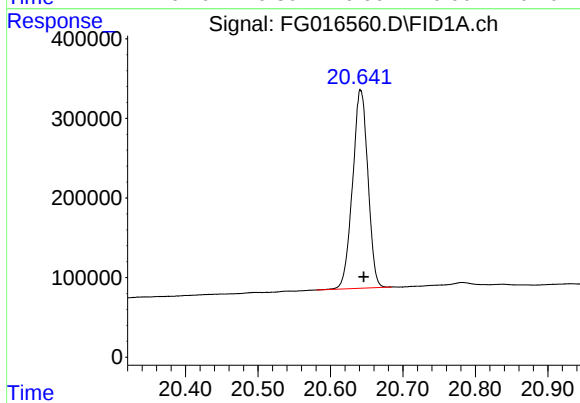
#14 N-DOTRIACONTANE

R.T.: 19.110 min
Delta R.T.: -0.002 min
Response: 5031698
Conc: 42.87 ug/ml



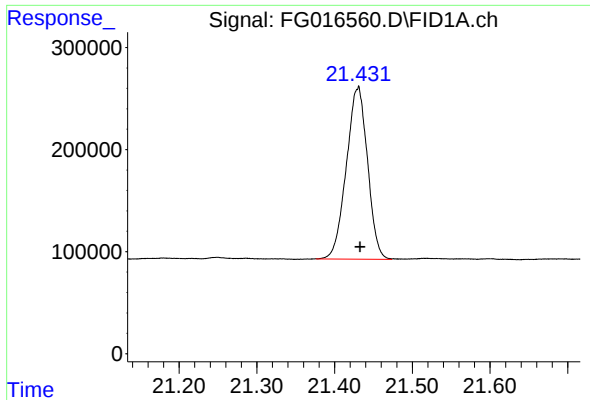
#15 N-TETRATRIACONTANE

R.T.: 19.897 min
Delta R.T.: -0.004 min
Response: 4386440
Conc: 42.73 ug/ml



#16 N-HEXATRIACONTANE

R.T.: 20.642 min
Delta R.T.: -0.004 min
Response: 3663386
Conc: 42.97 ug/ml



#17 N-OCTATRIACONTANE

R.T.: 21.431 min
Delta R.T.: -0.002 min
Response: 3196434
Conc: 42.71 ug/ml

Instrument :

FID_G

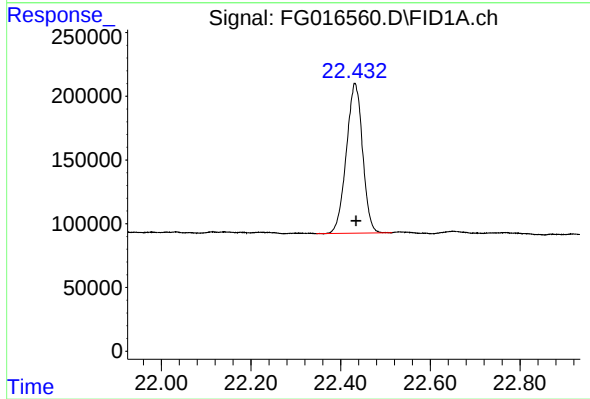
ClientSampleId :

FG090525ICV

Manual Integrations
APPROVED

Reviewed By :Yogesh Patel 09/08/2025

Supervised By :mohammad ahmed 09/09/2025



#18 N-TETRACONTANE

R.T.: 22.432 min
Delta R.T.: -0.002 min
Response: 2956893
Conc: 42.21 ug/ml

Instrument :

FID_G

ClientSampleId :

FG090525ICV

rteres

Area Percent Report

Manual IntegrationsAPPROVED

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG090525.D
Data File : FG016560.D
Signal(s) : FID1A.ch
Acq On : 05 Sep 2025 12:24
Sample : FG090525ICV
Misc :
ALS Vial : 66 Sample Multiplier: 1

Reviewed By :Yogesh Patel 09/08/2025
Supervised By :mohammad ahmed 09/09/2025

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG090525.M
Title :

Signal : FID1A.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	2.105	2.070	2.240	PB	447029	5612287	93.96%	6.039%
2	4.654	4.620	4.780	BB	553451	5805616	97.19%	6.247%
3	6.838	6.784	6.969	BB	581809	5904735	98.85%	6.353%
4	8.679	8.614	8.824	BB	557080	5896765	98.72%	6.345%
5	10.298	10.255	10.415	BB	529094	5895438	98.70%	6.343%
6	11.753	11.697	11.820	BB	537721	5973228	100.00%	6.427%
7	13.072	13.030	13.142	BB	498561	5959479	99.77%	6.412%
8	14.281	14.240	14.365	VB	467024	5746375	96.20%	6.183%
9	15.187	15.144	15.260	BV	365938	5022519	84.08%	5.404%
10	15.394	15.352	15.464	VB	446649	5659504	94.75%	6.089%
11	16.422	16.350	16.485	BB	427641	5543112	92.80%	5.964%
12	17.378	17.300	17.439	BV	389519	5405367	90.49%	5.816%
13	18.272	18.180	18.339	BV	387799	5368662	89.88%	5.776%
14	19.110	19.060	19.159	BV	350987	5031698	84.24%	5.414%
15	19.897	19.850	19.937	BV	310553	4386440	73.44%	4.720%
16	20.642	20.580	20.685	BBA	248485	3663386	61.33%	3.942%
17	21.430	21.390	21.489	BV	166411	3108821	52.05%	3.345%
18	22.432	22.345	22.514	PV	117488	2956893	49.50%	3.181%

Sum of corrected areas: 92940324

FG090525.M Sat Sep 06 04:18:08 2025

DIESEL RANGE ORGANICS CONTINUING CALIBRATION SUMMARY

50 PPM TRPH STD

Lab Name: Alliane Contract: ALLI03
 ProjectID: NJ Waste Water PT
 Lab Code: ACE SDG No.: Q3015
 DataFile: FG016614.D Analyst Name: YP\AJ Analyst Date: 09-18-2025

Conc. (PPM)	Area Count	RF	Average RF	%D
500	60690131	121380	124148	2.23

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG091825\
 Data File : FG016614.D
 Signal(s) : FID1A.ch
 Acq On : 18 Sep 2025 08:24
 Operator : YP\AJ
 Sample : 50 PPM TRPH STD
 Misc :
 ALS Vial : 3 Sample Multiplier: 1

Instrument :
 FID_G
 ClientSampleId :
 50 PPM TRPH STD

Integration File: autoint1.e
 Quant Time: Sep 18 15:05:37 2025
 Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG090525.M
 Quant Title :
 QLast Update : Sat Sep 06 04:20:52 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...	15.172	5307658	48.574 ug/ml
Target Compounds			
2) N-DECANE	4.642	6072704	49.826 ug/ml
3) N-DODECANE	6.826	6158579	50.021 ug/ml
4) N-TETRADECANE	8.667	6170739	49.665 ug/ml
5) N-HEXADECANE	10.286	6182947	49.297 ug/ml
6) N-OCTADECANE	11.739	6275159	48.824 ug/ml
7) N-EICOSANE	13.059	6267382	48.575 ug/ml
8) N-DOCOSANE	14.267	6056094	48.489 ug/ml
10) N-TETRACOSANE	15.378	5977167	48.295 ug/ml
11) N-HEXACOSANE	16.407	5842151	48.180 ug/ml
12) N-OCTACOSANE	17.363	5687209	47.598 ug/ml

(f)=RT Delta > 1/2 Window

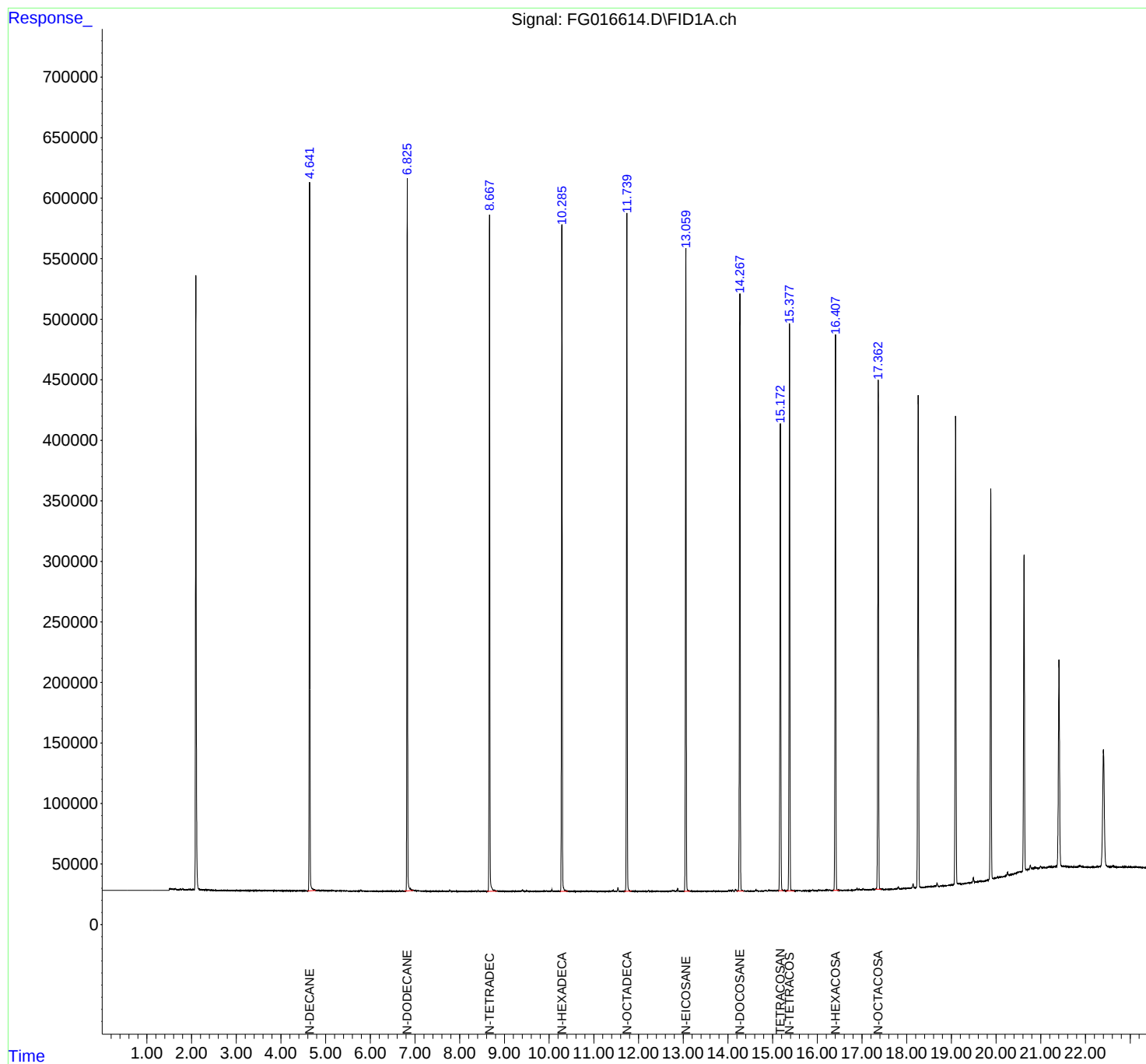
(m)=manual int.

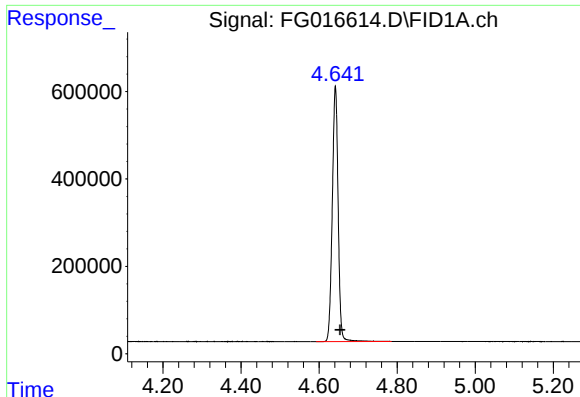
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG091825\
Data File : FG016614.D
Signal(s) : FID1A.ch
Acq On : 18 Sep 2025 08:24
Operator : YP\AJ
Sample : 50 PPM TRPH STD
Misc :
ALS Vial : 3 Sample Multiplier: 1

Instrument :
FID_G
ClientSampleId :
50 PPM TRPH STD

Integration File: autoint1.e
Quant Time: Sep 18 15:05:37 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG090525.M
Quant Title :
QLast Update : Sat Sep 06 04:20:52 2025
Response via : Initial Calibration
Integrator: ChemStation

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

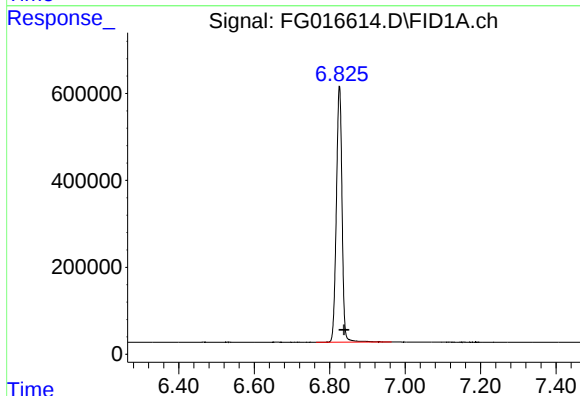




#2 N-DECANE

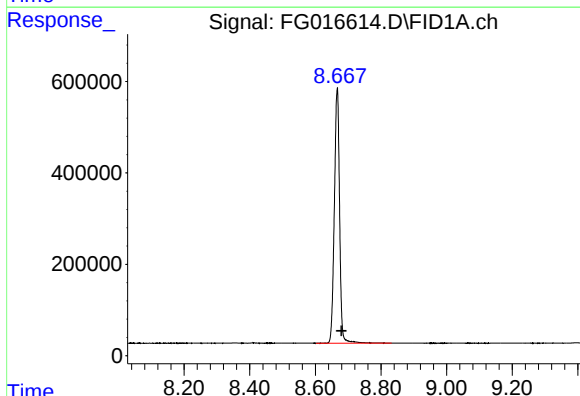
R.T.: 4.642 min
Delta R.T.: -0.012 min
Response: 6072704
Conc: 49.83 ug/ml

Instrument :
FID_G
ClientSampleId :
50 PPM TRPH STD



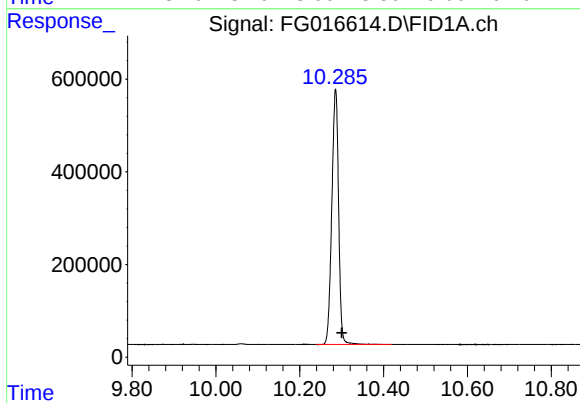
#3 N-DODECANE

R.T.: 6.826 min
Delta R.T.: -0.012 min
Response: 6158579
Conc: 50.02 ug/ml



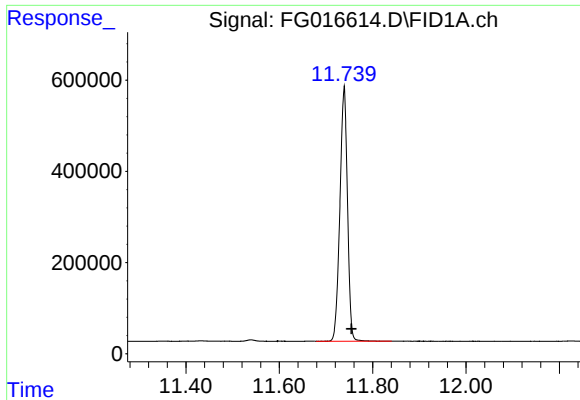
#4 N-TETRADECANE

R.T.: 8.667 min
Delta R.T.: -0.013 min
Response: 6170739
Conc: 49.66 ug/ml



#5 N-HEXADECANE

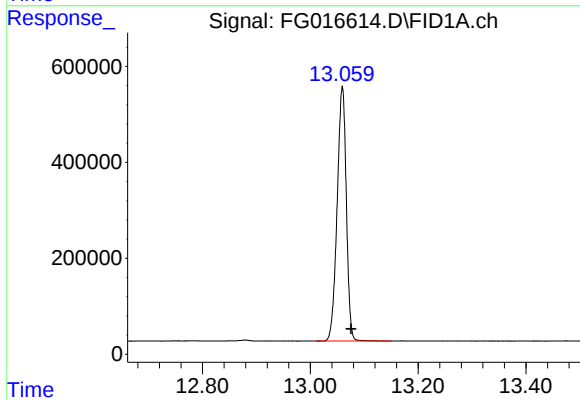
R.T.: 10.286 min
Delta R.T.: -0.015 min
Response: 6182947
Conc: 49.30 ug/ml



#6 N-OCTADECANE

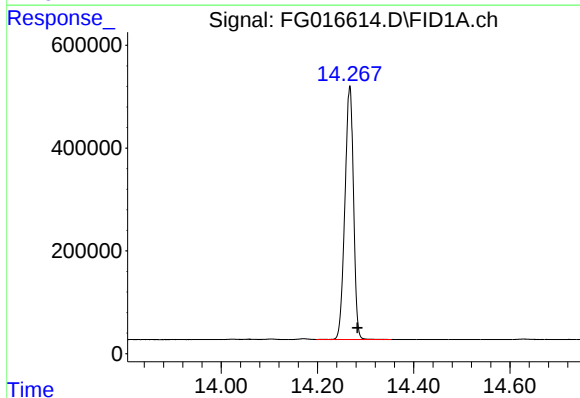
R.T.: 11.739 min
Delta R.T.: -0.016 min
Response: 6275159
Conc: 48.82 ug/ml

Instrument :
FID_G
ClientSampleId :
50 PPM TRPH STD



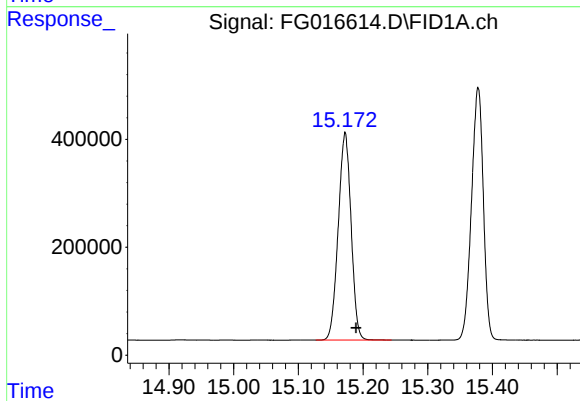
#7 N-EICOSANE

R.T.: 13.059 min
Delta R.T.: -0.016 min
Response: 6267382
Conc: 48.58 ug/ml



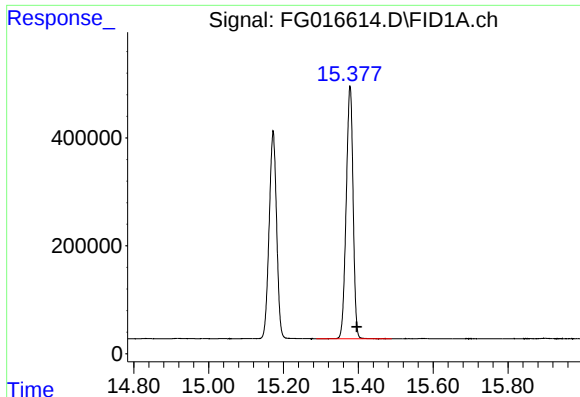
#8 N-DOCOSANE

R.T.: 14.267 min
Delta R.T.: -0.016 min
Response: 6056094
Conc: 48.49 ug/ml



#9 TETRACOSANE-d50 (SURROGATE)

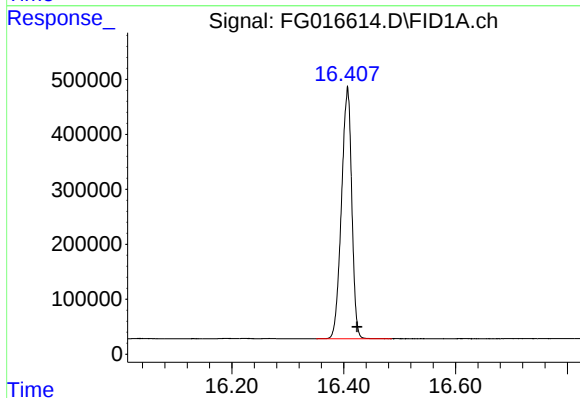
R.T.: 15.172 min
Delta R.T.: -0.017 min
Response: 5307658
Conc: 48.57 ug/ml



#10 N-TETRACOSANE

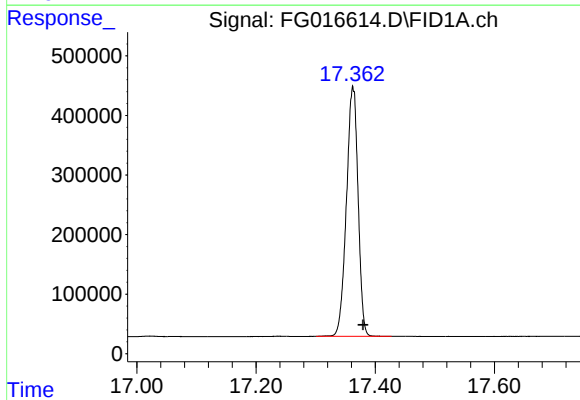
R.T.: 15.378 min
Delta R.T.: -0.017 min
Response: 5977167
Conc: 48.30 ug/ml

Instrument :
FID_G
ClientSampleId :
50 PPM TRPH STD



#11 N-HEXACOSANE

R.T.: 16.407 min
Delta R.T.: -0.017 min
Response: 5842151
Conc: 48.18 ug/ml



#12 N-OCTACOSANE

R.T.: 17.363 min
Delta R.T.: -0.017 min
Response: 5687209
Conc: 47.60 ug/ml

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG091825\
Data File : FG016614.D
Signal(s) : FID1A.ch
Acq On : 18 Sep 2025 08:24
Sample : 50 PPM TRPH STD
Misc :
ALS Vial : 3 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG090525.M
Title :

Signal : FID1A.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	4.642	4.592	4.786	BB	584365	6072704	96.77%	8.478%
2	6.826	6.764	6.964	BV	589643	6158579	98.14%	8.597%
3	8.667	8.602	8.832	BB	560740	6170739	98.34%	8.614%
4	10.286	10.239	10.419	BB	550934	6182947	98.53%	8.631%
5	11.739	11.679	11.841	BB	557519	6275159	100.00%	8.760%
6	13.059	13.011	13.151	BB	529856	6267382	99.88%	8.749%
7	14.267	14.197	14.354	VB	493933	6056094	96.51%	8.454%
8	15.172	15.127	15.244	BV	385581	5307658	84.58%	7.410%
9	15.378	15.287	15.489	BB	468683	5977167	95.25%	8.344%
10	16.407	16.351	16.486	BB	457041	5842151	93.10%	8.156%
11	17.363	17.301	17.427	BV	418953	5687209	90.63%	7.939%
12	18.256	18.181	18.329	BB	405826	5634700	89.79%	7.866%
Sum of corrected areas:							71632489	

FG090525.M Thu Sep 18 15:13:53 2025

DIESEL RANGE ORGANICS CONTINUING CALIBRATION SUMMARY**50 PPM TRPH STD**

Lab Name: Alliane Contract: ALLI03
ProjectID: NJ Waste Water PT
Lab Code: ACE SDG No.: Q3015
DataFile: FG016624.D Analyst Name: YP\AJ Analyst Date: 09-18-2025

Conc. (PPM)	Area Count	RF	Average RF	%D
500	57688481	115377	124148	7.065

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG091825\
 Data File : FG016624.D
 Signal(s) : FID1A.ch
 Acq On : 18 Sep 2025 14:21
 Operator : YP\AJ
 Sample : 50 PPM TRPH STD
 Misc :
 ALS Vial : 53 Sample Multiplier: 1

Instrument :
 FID_G
 ClientSampleId :
 50 PPM TRPH STD

Integration File: autoint1.e
 Quant Time: Sep 19 01:51:17 2025
 Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG090525.M
 Quant Title :
 QLast Update : Sat Sep 06 04:20:52 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...	15.172	5042887	46.151 ug/ml
Target Compounds			
2) N-DECANE	4.642	5767927	47.326 ug/ml
3) N-DODECANE	6.826	5842022	47.450 ug/ml
4) N-TETRADECANE	8.666	5861316	47.174 ug/ml
5) N-HEXADECANE	10.285	5872195	46.820 ug/ml
6) N-OCTADECANE	11.739	5959831	46.371 ug/ml
7) N-EICOSANE	13.059	5948260	46.102 ug/ml
8) N-DOCOSANE	14.267	5749546	46.035 ug/ml
10) N-TETRACOSANE	15.378	5678055	45.879 ug/ml
11) N-HEXACOSANE	16.406	5571035	45.944 ug/ml
12) N-OCTACOSANE	17.362	5438294	45.515 ug/ml

(f)=RT Delta > 1/2 Window

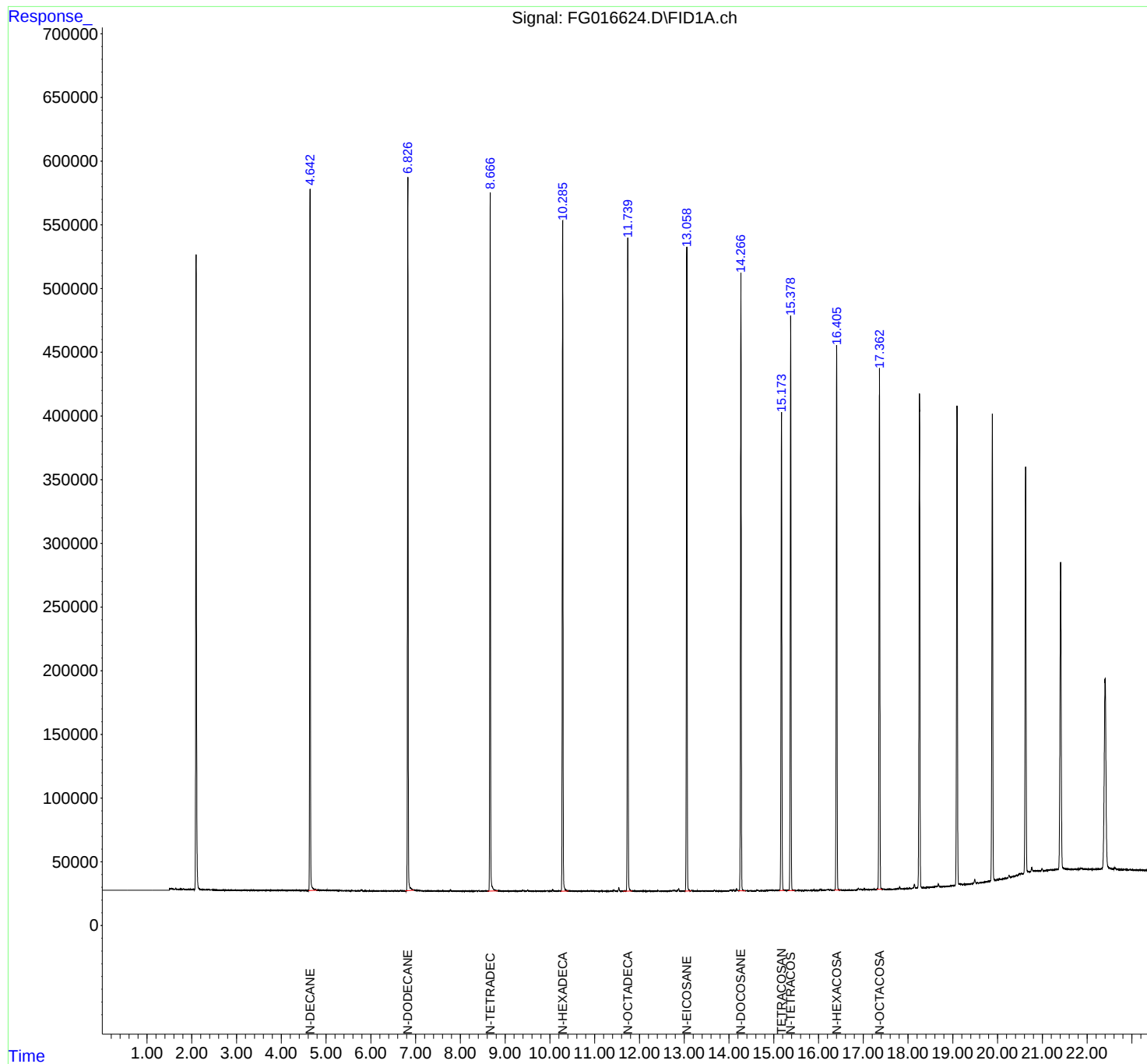
(m)=manual int.

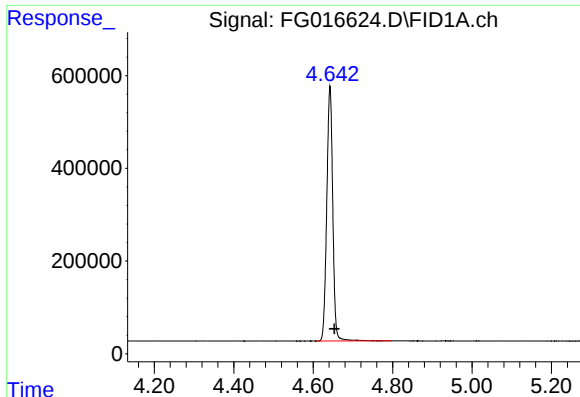
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG091825\
Data File : FG016624.D
Signal(s) : FID1A.ch
Acq On : 18 Sep 2025 14:21
Operator : YP\AJ
Sample : 50 PPM TRPH STD
Misc :
ALS Vial : 53 Sample Multiplier: 1

Instrument :
FID_G
ClientSampleId :
50 PPM TRPH STD

Integration File: autoint1.e
Quant Time: Sep 19 01:51:17 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG090525.M
Quant Title :
QLast Update : Sat Sep 06 04:20:52 2025
Response via : Initial Calibration
Integrator: ChemStation

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

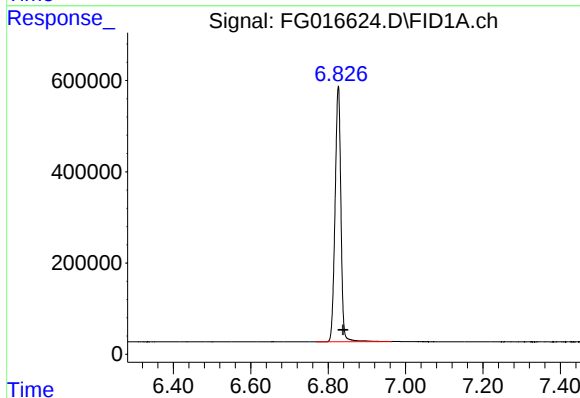




#2 N-DECANE

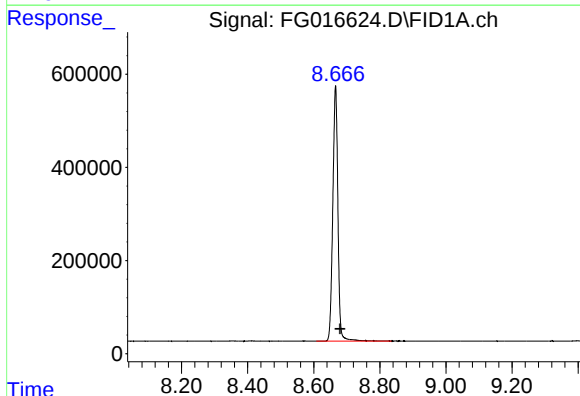
R.T.: 4.642 min
Delta R.T.: -0.011 min
Response: 5767927
Conc: 47.33 ug/ml

Instrument :
FID_G
ClientSampleId :
50 PPM TRPH STD



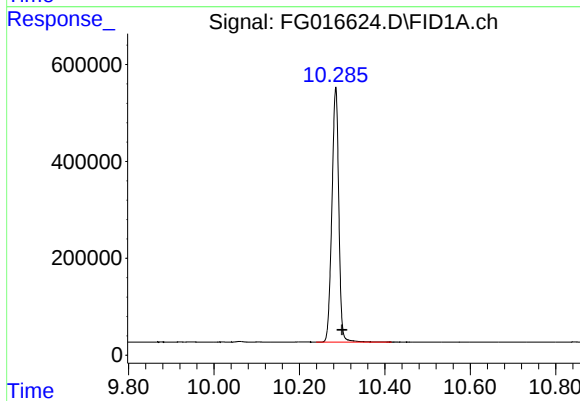
#3 N-DODECANE

R.T.: 6.826 min
Delta R.T.: -0.012 min
Response: 5842022
Conc: 47.45 ug/ml



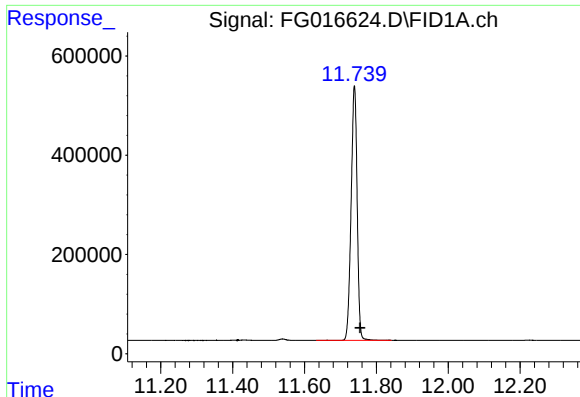
#4 N-TETRADECANE

R.T.: 8.666 min
Delta R.T.: -0.014 min
Response: 5861316
Conc: 47.17 ug/ml



#5 N-HEXADECANE

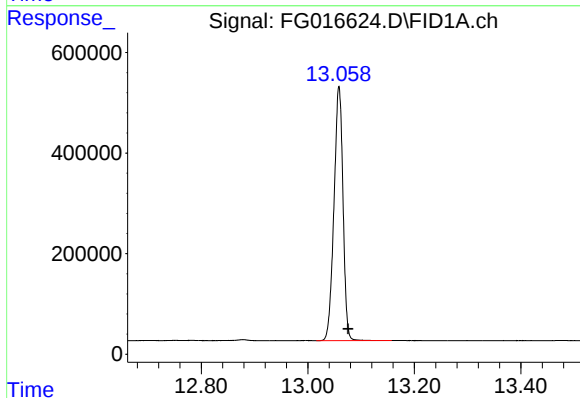
R.T.: 10.285 min
Delta R.T.: -0.015 min
Response: 5872195
Conc: 46.82 ug/ml



#6 N-OCTADECANE

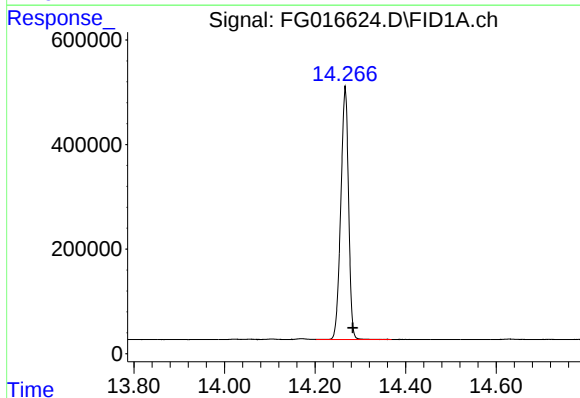
R.T.: 11.739 min
Delta R.T.: -0.016 min
Response: 5959831
Conc: 46.37 ug/ml

Instrument :
FID_G
ClientSampleId :
50 PPM TRPH STD



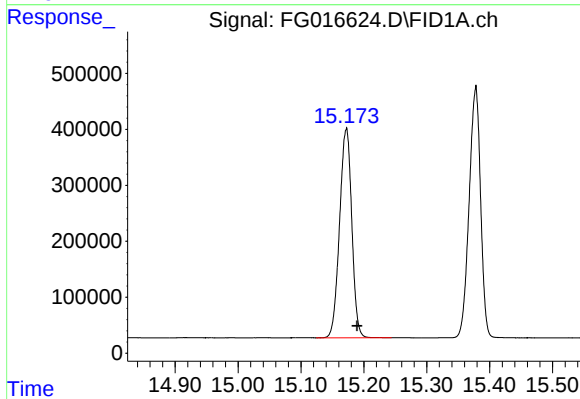
#7 N-EICOSANE

R.T.: 13.059 min
Delta R.T.: -0.017 min
Response: 5948260
Conc: 46.10 ug/ml



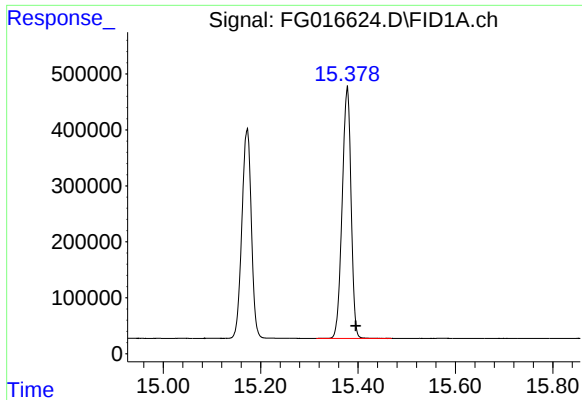
#8 N-DOCOSANE

R.T.: 14.267 min
Delta R.T.: -0.016 min
Response: 5749546
Conc: 46.03 ug/ml



#9 TETRACOSANE-d50 (SURROGATE)

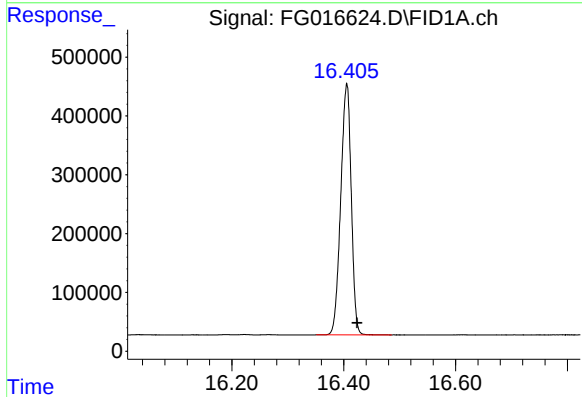
R.T.: 15.172 min
Delta R.T.: -0.017 min
Response: 5042887
Conc: 46.15 ug/ml



#10 N-TETRACOSANE

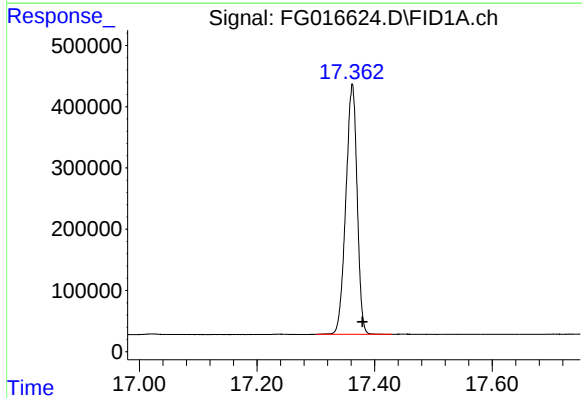
R.T.: 15.378 min
Delta R.T.: -0.017 min
Response: 5678055
Conc: 45.88 ug/ml

Instrument :
FID_G
ClientSampleId :
50 PPM TRPH STD



#11 N-HEXACOSANE

R.T.: 16.406 min
Delta R.T.: -0.018 min
Response: 5571035
Conc: 45.94 ug/ml



#12 N-OCTACOSANE

R.T.: 17.362 min
Delta R.T.: -0.017 min
Response: 5438294
Conc: 45.51 ug/ml

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG091825\
Data File : FG016624.D
Signal(s) : FID1A.ch
Acq On : 18 Sep 2025 14:21
Sample : 50 PPM TRPH STD
Misc :
ALS Vial : 53 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG090525.M
Title :

Signal : FID1A.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	4.642	4.607	4.797	BB	550227	5767927	96.78%	9.195%
2	6.826	6.769	6.964	BV	559086	5842022	98.02%	9.313%
3	8.666	8.607	8.836	BB	547940	5861316	98.35%	9.344%
4	10.285	10.239	10.416	BB	527419	5872195	98.53%	9.361%
5	11.739	11.632	11.842	BB	512728	5959831	100.00%	9.501%
6	13.059	13.016	13.157	BV	506392	5948260	99.81%	9.482%
7	14.267	14.202	14.369	VB	481137	5749546	96.47%	9.165%
8	15.172	15.124	15.244	VV	374044	5042887	84.61%	8.039%
9	15.378	15.314	15.469	BB	446682	5678055	95.27%	9.051%
10	16.406	16.351	16.486	BB	427111	5571035	93.48%	8.881%
11	17.362	17.301	17.429	BV	409280	5438294	91.25%	8.669%
Sum of corrected areas:						62731367		

FG090525.M Fri Sep 19 02:34:29 2025

Analytical Sequence

Client: Alliance Technical Group, LLC - Newark

SDG No.: Q3015

Project: NJ Waste Water PT

Instrument ID: FID_G

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

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

MEAN SUROGATE RT FROM INITIAL CALIBRATION 15.1874					
CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE AND TIME ANALYZED	DATAFILE	RT	#
PIBLK01	LBLK01	18 Sep 2025 07:55	FG016613.D	15.174	
50 PPM TRPH STD	50 PPM TRPH STD	18 Sep 2025 08:24	FG016614.D	15.172	
PB169733BL	PB169733BL	18 Sep 2025 09:23	FG016616.D	15.171	
PB169733BS	PB169733BS	18 Sep 2025 09:52	FG016617.D	15.169	
PB169733BSD	PB169733BSD	18 Sep 2025 10:54	FG016618.D	15.170	
WP0925-RR-DIES-WP	Q3015-19	18 Sep 2025 12:22	FG016620.D	15.172	
PIBLK02	LBLK02	18 Sep 2025 13:51	FG016623.D	15.170	
50 PPM TRPH STD	50 PPM TRPH STD	18 Sep 2025 14:21	FG016624.D	15.172	

Column used to flag RT values with an * values outside of QC limits

QC Limits
(± 0.10 minutes)

Lower Limit
15.0874

Upper Limits
15.2874



QC SAMPLE DATA

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16
- 17

Report of Analysis

Client:	Alliance Technical Group, LLC - Newark		Date Collected:		
Project:	NJ Waste Water PT		Date Received:		
Client Sample ID:	PB169733BL		SDG No.:	Q3015	
Lab Sample ID:	PB169733BL		Matrix:	Water	
Analytical Method:	8015D DRO		% Solid:	0	Decanted:
Sample Wt/Vol:	1000	Units: mL	Final Vol:	1	mL
Soil Aliquot Vol:		uL	Test:	Diesel Range Organics	
Extraction Type:			Injection Volume :		
GPC Factor :		PH :			
Prep Method :	SW3510				

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
FG016616.D	1	09/17/25 12:20	09/18/25 9:23	PB169733

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	14.4		29 - 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_G\Data\FG091825\
Data File : FG016616.D
Signal(s) : FID1A.ch
Acq On : 18 Sep 2025 09:23
Operator : YP\AJ
Sample : PB169733BL
Misc :
ALS Vial : 21 Sample Multiplier: 1

Instrument :
FID_G
ClientSampleId :
PB169733BL

Integration File: autoint1.e
Quant Time: Sep 19 01:48:55 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG090525.M
Quant Title :
QLast Update : Sat Sep 06 04:20:52 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
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System Monitoring Compounds

9) S	TETRACOSANE-d50 (SURR...	15.171	1578233	14.443 ug/ml
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Target Compounds

(f)=RT Delta > 1/2 Window

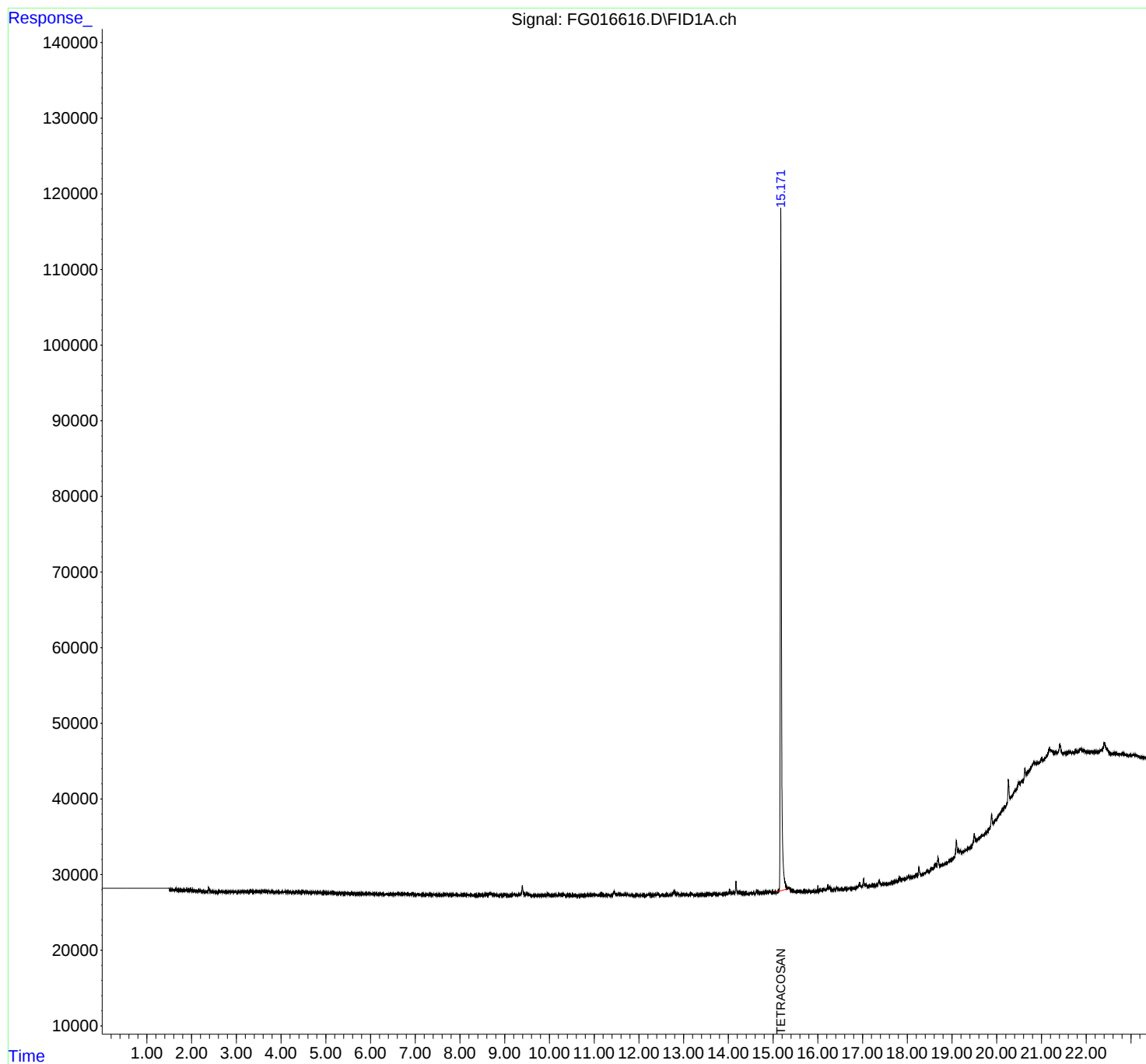
(m)=manual int.

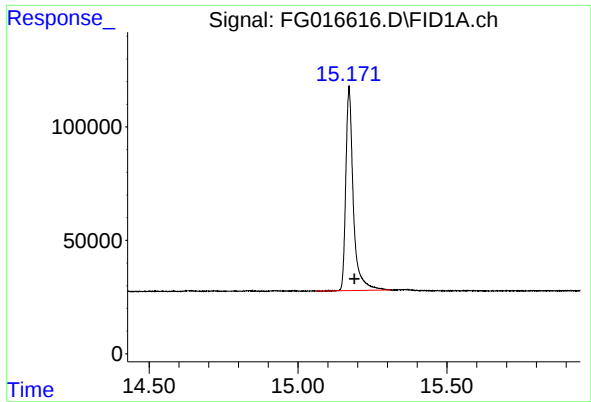
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG091825\
Data File : FG016616.D
Signal(s) : FID1A.ch
Acq On : 18 Sep 2025 09:23
Operator : YP\AJ
Sample : PB169733BL
Misc :
ALS Vial : 21 Sample Multiplier: 1

Instrument :
FID_G
ClientSampleId :
PB169733BL

Integration File: autoint1.e
Quant Time: Sep 19 01:48:55 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG090525.M
Quant Title :
QLast Update : Sat Sep 06 04:20:52 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.: 15.171 min
Delta R.T.: -0.018 min
Response: 1578233
Conc: 14.44 ug/ml

Instrument :
FID_G
ClientSampleId :
PB169733BL

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Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG091825\
Data File : FG016616.D
Signal(s) : FID1A.ch
Acq On : 18 Sep 2025 09:23
Sample : PB169733BL
Misc :
ALS Vial : 21 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG090525.M
Title :

Signal : FID1A.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	15.171	15.061	15.314	BB	89572	1578233	100.00%	100.000%
Sum of corrected areas:						1578233		

FG090525.M Fri Sep 19 02:25:34 2025

Report of Analysis

Client:	Alliance Technical Group, LLC - Newark		Date Collected:	09/18/25	
Project:	NJ Waste Water PT		Date Received:	09/18/25	
Client Sample ID:	PIBLK-FG016613.D		SDG No.:	Q3015	
Lab Sample ID:	I.BLK-FG016613.D		Matrix:	Water	
Analytical Method:	8015D DRO		% Solid:	0	Decanted:
Sample Wt/Vol:	1000	Units: mL	Final Vol:	1	mL
Soil Aliquot Vol:		uL	Test:	Diesel Range Organics	
Extraction Type:			Injection Volume :		
GPC Factor :		PH :			
Prep Method :	SW3510				

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
FG016613.D	1		09/18/25	FG091825

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	15.5		29 - 130	78%	SPK: 20

Comments:

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

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

Q = indicates LCS control criteria did not meet requirements

M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

* = Values outside of QC limits

D = Dilution

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

() = Laboratory InHouse Limit

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG091825\
Data File : FG016613.D
Signal(s) : FID1A.ch
Acq On : 18 Sep 2025 07:55
Operator : YP\AJ
Sample : I.BLK
Misc :
ALS Vial : 2 Sample Multiplier: 1

Instrument :
FID_G
ClientSampleId :
I.BLK

Integration File: autoint1.e
Quant Time: Sep 18 15:05:17 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG090525.M
Quant Title :
QLast Update : Sat Sep 06 04:20:52 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...	15.174	1693359	15.497 ug/ml

Target Compounds

(f)=RT Delta > 1/2 Window

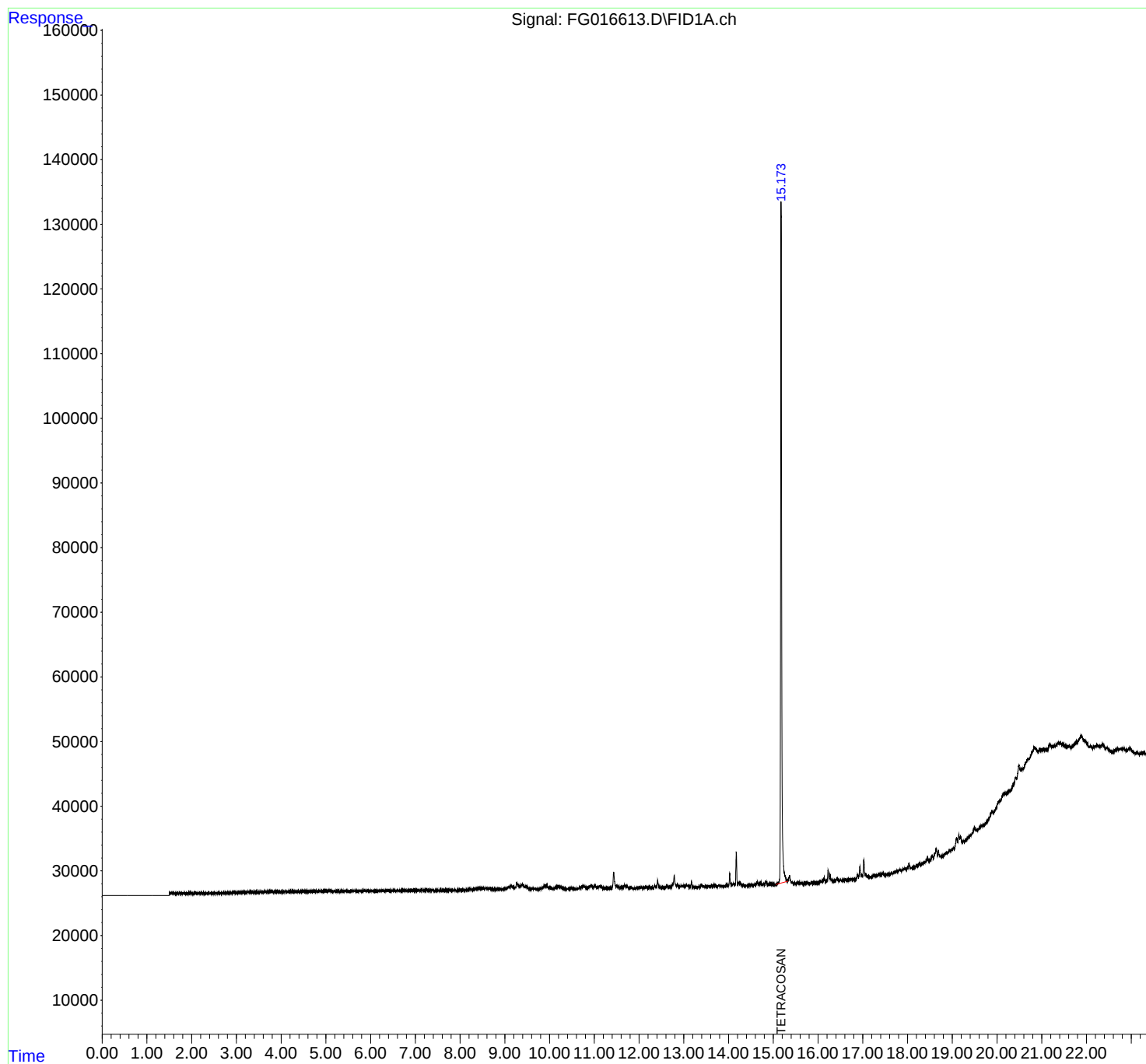
(m)=manual int.

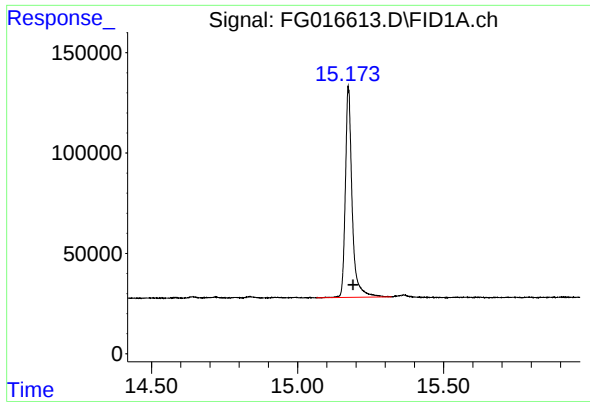
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG091825\
Data File : FG016613.D
Signal(s) : FID1A.ch
Acq On : 18 Sep 2025 07:55
Operator : YP\AJ
Sample : I.BLK
Misc :
ALS Vial : 2 Sample Multiplier: 1

Instrument :
FID_G
ClientSampleId :
I.BLK

Integration File: autoint1.e
Quant Time: Sep 18 15:05:17 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG090525.M
Quant Title :
QLast Update : Sat Sep 06 04:20:52 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.: 15.174 min
Delta R.T.: -0.016 min
Response: 1693359
Conc: 15.50 ug/ml

Instrument :
FID_G
ClientSampleId :
I.BLK

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Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG091825\
Data File : FG016613.D
Signal(s) : FID1A.ch
Acq On : 18 Sep 2025 07:55
Sample : I.BLK
Misc :
ALS Vial : 2 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG090525.M
Title :

Signal : FID1A.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	15.174	15.064	15.322	BV	104426	1693359	100.00%	100.000%
Sum of corrected areas:						1693359		

FG090525.M Thu Sep 18 15:12:37 2025

Report of Analysis

Client:	Alliance Technical Group, LLC - Newark		Date Collected:	09/18/25	
Project:	NJ Waste Water PT		Date Received:	09/18/25	
Client Sample ID:	PIBLK-FG016623.D		SDG No.:	Q3015	
Lab Sample ID:	I.BLK-FG016623.D		Matrix:	Water	
Analytical Method:	8015D DRO		% Solid:	0	Decanted:
Sample Wt/Vol:	1000	Units: mL	Final Vol:	1	mL
Soil Aliquot Vol:		uL	Test:	Diesel Range Organics	
Extraction Type:			Injection Volume :		
GPC Factor :		PH :			
Prep Method :	SW3510				

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
FG016623.D	1		09/18/25	FG091825

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	15.4		29 - 130	77%	SPK: 20

Comments:

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

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

Q = indicates LCS control criteria did not meet requirements

M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

* = Values outside of QC limits

D = Dilution

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

() = Laboratory InHouse Limit

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG091825\
Data File : FG016623.D
Signal(s) : FID1A.ch
Acq On : 18 Sep 2025 13:51
Operator : YP\AJ
Sample : I.BLK
Misc :
ALS Vial : 2 Sample Multiplier: 1

Instrument :
FID_G
ClientSampleId :
I.BLK

Integration File: autoint1.e
Quant Time: Sep 19 01:50:58 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG090525.M
Quant Title :
QLast Update : Sat Sep 06 04:20:52 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...	15.170	1680873	15.383 ug/ml
Target Compounds			

(f)=RT Delta > 1/2 Window

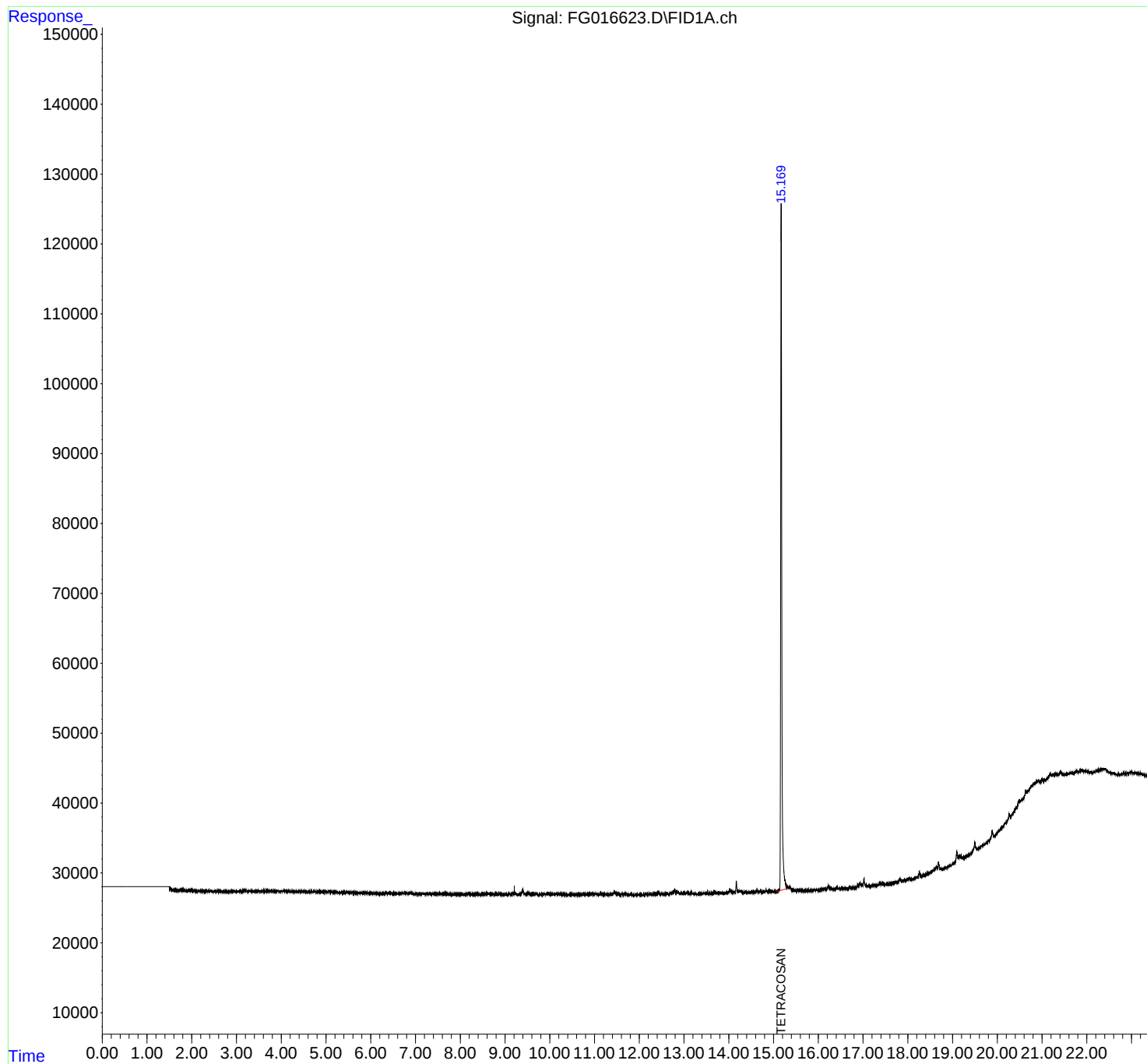
(m)=manual int.

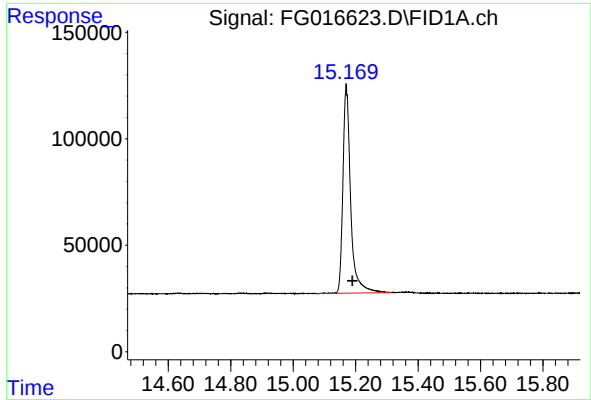
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG091825\
Data File : FG016623.D
Signal(s) : FID1A.ch
Acq On : 18 Sep 2025 13:51
Operator : YP\AJ
Sample : I.BLK
Misc :
ALS Vial : 2 Sample Multiplier: 1

Instrument :
FID_G
ClientSampleId :
I.BLK

Integration File: autoint1.e
Quant Time: Sep 19 01:50:58 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG090525.M
Quant Title :
QLast Update : Sat Sep 06 04:20:52 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.: 15.170 min
Delta R.T.: -0.020 min
Response: 1680873
Conc: 15.38 ug/ml

Instrument :
FID_G
ClientSampleId :
I.BLK

1
2
3
4
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15
16
17

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG091825\
Data File : FG016623.D
Signal(s) : FID1A.ch
Acq On : 18 Sep 2025 13:51
Sample : I.BLK
Misc :
ALS Vial : 2 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG090525.M
Title :

Signal : FID1A.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	15.170	15.074	15.315	BV	97876	1680873	100.00%	100.000%
Sum of corrected areas:						1680873		

FG090525.M Fri Sep 19 02:33:51 2025

Report of Analysis

Client:	Alliance Technical Group, LLC - Newark		Date Collected:		
Project:	NJ Waste Water PT		Date Received:		
Client Sample ID:	PB169733BS		SDG No.:	Q3015	
Lab Sample ID:	PB169733BS		Matrix:	Water	
Analytical Method:	8015D DRO		% Solid:	0	Decanted:
Sample Wt/Vol:	1000	Units: mL	Final Vol:	1	mL
Soil Aliquot Vol:		uL	Test:	Diesel Range Organics	
Extraction Type:			Injection Volume :		
GPC Factor :		PH :			
Prep Method :	SW3510				

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
FG016617.D	1	09/17/25 12:20	09/18/25 9:52	PB169733

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
DRO	DRO	185		6.00	50.0	ug/L
SURROGATES						
16416-32-3	Tetracosane-d50	17.6		29 - 130	88%	SPK: 20

Comments:

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

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

Q = indicates LCS control criteria did not meet requirements

M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

* = Values outside of QC limits

D = Dilution

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

() = Laboratory InHouse Limit

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG091825\
 Data File : FG016617.D
 Signal(s) : FID1A.ch
 Acq On : 18 Sep 2025 09:52
 Operator : YP\AJ
 Sample : PB169733BS
 Misc :
 ALS Vial : 22 Sample Multiplier: 1

Instrument :
 FID_G
 ClientSampleId :
 PB169733BS

Integration File: autoint1.e
 Quant Time: Sep 19 01:49:15 2025
 Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG090525.M
 Quant Title :
 QLast Update : Sat Sep 06 04:20:52 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...	15.169	1926332	17.629 ug/ml
Target Compounds			
2) N-DECANE	4.644	2187266	17.946 ug/ml
3) N-DODECANE	6.825	2244339	18.229 ug/ml
4) N-TETRADECANE	8.665	2311489	18.604 ug/ml
5) N-HEXADECANE	10.284	2319377	18.493 ug/ml
6) N-OCTADECANE	11.737	2370678	18.445 ug/ml
7) N-EICOSANE	13.056	2411496	18.690 ug/ml
8) N-DOCOSANE	14.264	2321176	18.585 ug/ml
10) N-TETRACOSANE	15.375	2316853	18.720 ug/ml
11) N-HEXACOSANE	16.402	2225363	18.352 ug/ml
12) N-OCTACOSANE	17.360	2279249	19.076 ug/ml

(f)=RT Delta > 1/2 Window

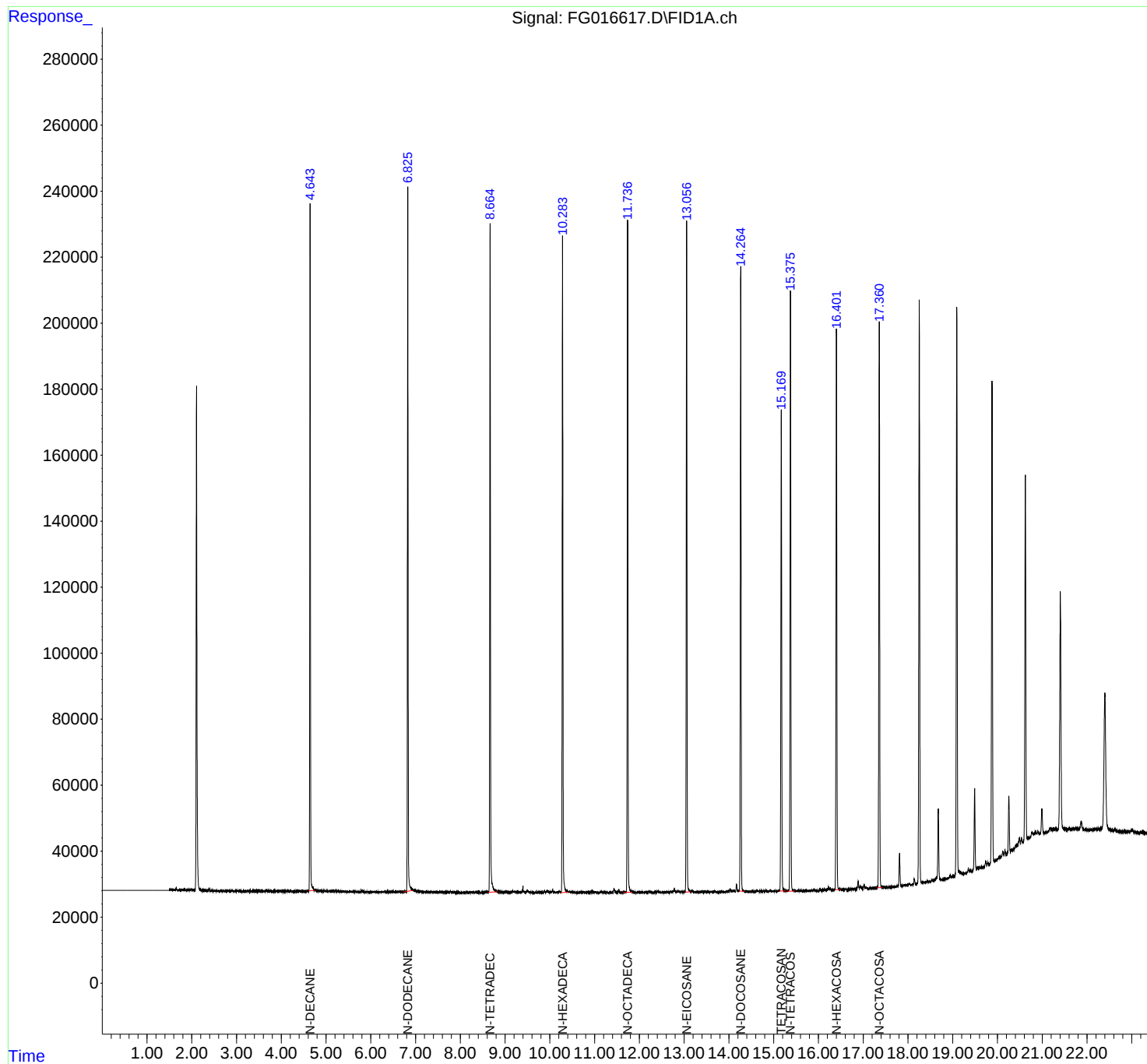
(m)=manual int.

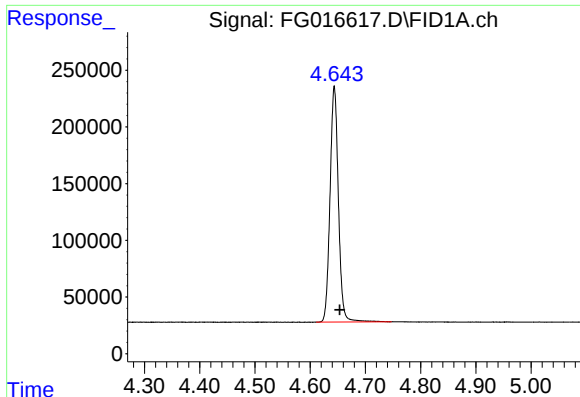
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG091825\
Data File : FG016617.D
Signal(s) : FID1A.ch
Acq On : 18 Sep 2025 09:52
Operator : YP\AJ
Sample : PB169733BS
Misc :
ALS Vial : 22 Sample Multiplier: 1

Instrument :
FID_G
ClientSampleId :
PB169733BS

Integration File: autoint1.e
Quant Time: Sep 19 01:49:15 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG090525.M
Quant Title :
QLast Update : Sat Sep 06 04:20:52 2025
Response via : Initial Calibration
Integrator: ChemStation

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

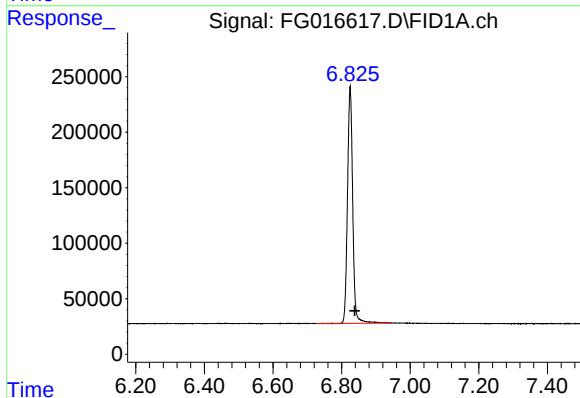




#2 N-DECANE

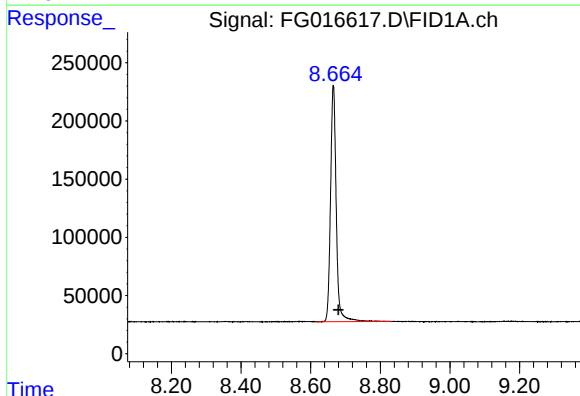
R.T.: 4.644 min
Delta R.T.: -0.010 min
Response: 2187266
Conc: 17.95 ug/ml

Instrument :
FID_G
ClientSampleId :
PB169733BS



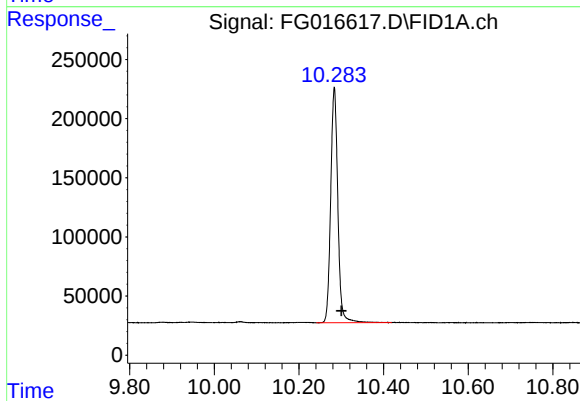
#3 N-DODECANE

R.T.: 6.825 min
Delta R.T.: -0.013 min
Response: 2244339
Conc: 18.23 ug/ml



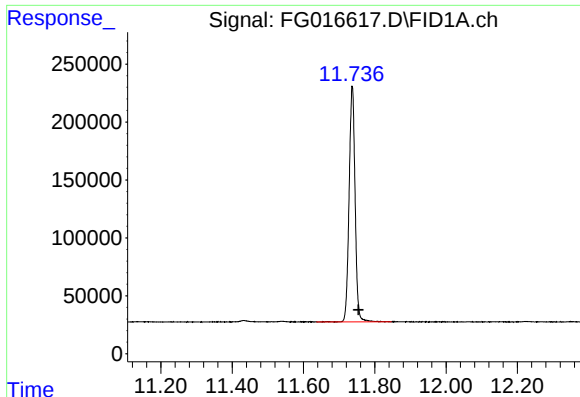
#4 N-TETRADECANE

R.T.: 8.665 min
Delta R.T.: -0.015 min
Response: 2311489
Conc: 18.60 ug/ml



#5 N-HEXADECANE

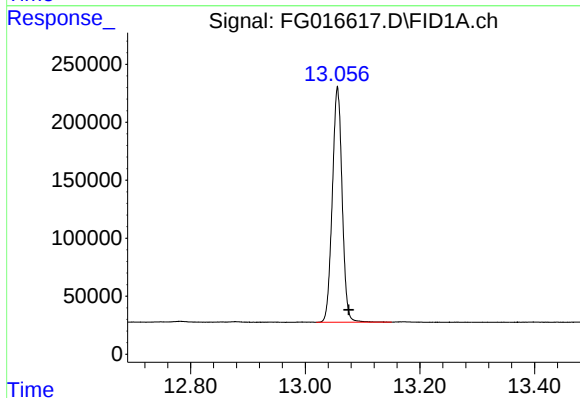
R.T.: 10.284 min
Delta R.T.: -0.016 min
Response: 2319377
Conc: 18.49 ug/ml



#6 N-OCTADECANE

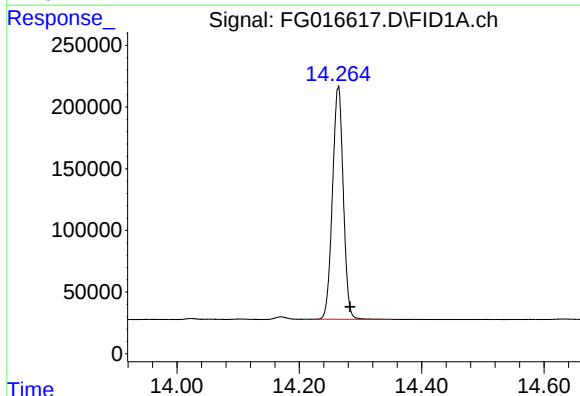
R.T.: 11.737 min
Delta R.T.: -0.018 min
Response: 2370678
Conc: 18.45 ug/ml

Instrument :
FID_G
ClientSampleId :
PB169733BS



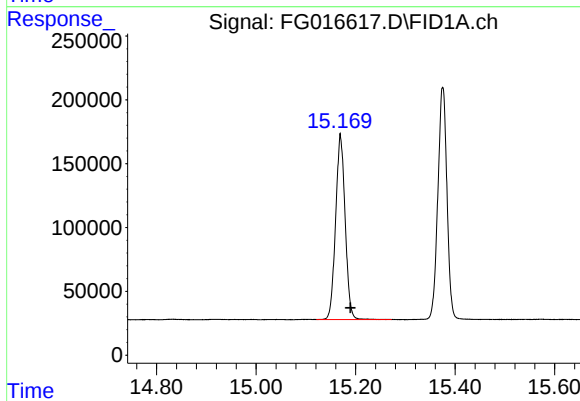
#7 N-EICOSANE

R.T.: 13.056 min
Delta R.T.: -0.019 min
Response: 2411496
Conc: 18.69 ug/ml



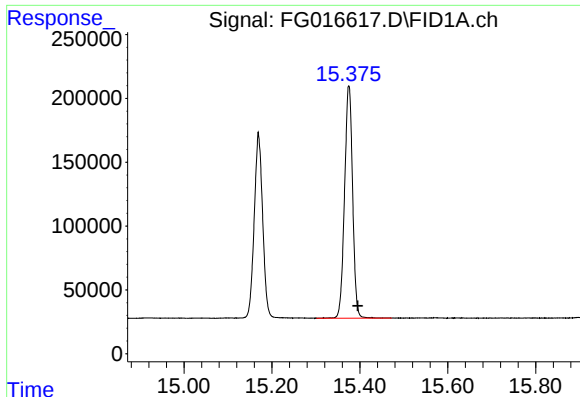
#8 N-DOCOSANE

R.T.: 14.264 min
Delta R.T.: -0.019 min
Response: 2321176
Conc: 18.58 ug/ml



#9 TETRACOSANE-d50 (SURROGATE)

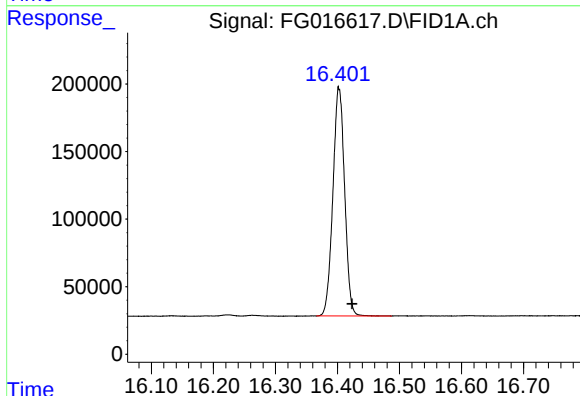
R.T.: 15.169 min
Delta R.T.: -0.020 min
Response: 1926332
Conc: 17.63 ug/ml



#10 N-TETRACOSANE

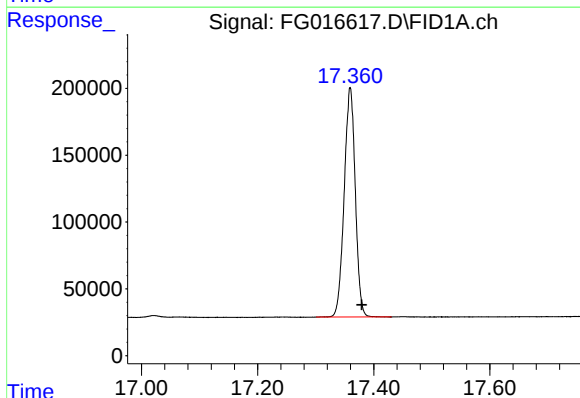
R.T.: 15.375 min
Delta R.T.: -0.020 min
Response: 2316853
Conc: 18.72 ug/ml

Instrument :
FID_G
ClientSampleId :
PB169733BS



#11 N-HEXACOSANE

R.T.: 16.402 min
Delta R.T.: -0.021 min
Response: 2225363
Conc: 18.35 ug/ml



#12 N-OCTACOSANE

R.T.: 17.360 min
Delta R.T.: -0.020 min
Response: 2279249
Conc: 19.08 ug/ml

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG091825\
Data File : FG016617.D
Signal(s) : FID1A.ch
Acq On : 18 Sep 2025 09:52
Sample : PB169733BS
Misc :
ALS Vial : 22 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG090525.M
Title :

Signal : FID1A.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	4.644	4.611	4.747	BB	207782	2187266	90.70%	8.779%
2	6.825	6.726	6.946	BB	212689	2244339	93.07%	9.008%
3	8.665	8.616	8.832	BB	202819	2311489	95.85%	9.278%
4	10.284	10.241	10.419	BB	199530	2319377	96.18%	9.310%
5	11.737	11.636	11.847	BB	202953	2370678	98.31%	9.516%
6	13.056	13.019	13.151	BV	202467	2411496	100.00%	9.679%
7	14.264	14.227	14.351	BB	188780	2321176	96.25%	9.317%
8	15.169	15.121	15.272	BB	145090	1926332	79.88%	7.732%
9	15.375	15.301	15.472	BB	182078	2316853	96.08%	9.300%
10	16.402	16.366	16.487	BB	168207	2225363	92.28%	8.932%
11	17.360	17.301	17.431	BV	171913	2279249	94.52%	9.149%
Sum of corrected areas:						24913618		

FG090525.M Fri Sep 19 02:32:24 2025

Report of Analysis

Client:	Alliance Technical Group, LLC - Newark		Date Collected:		
Project:	NJ Waste Water PT		Date Received:		
Client Sample ID:	PB169733BSD		SDG No.:	Q3015	
Lab Sample ID:	PB169733BSD		Matrix:	Water	
Analytical Method:	8015D DRO		% Solid:	0	Decanted:
Sample Wt/Vol:	1000	Units: mL	Final Vol:	1	mL
Soil Aliquot Vol:		uL	Test:	Diesel Range Organics	
Extraction Type:			Injection Volume :		
GPC Factor :		PH :			
Prep Method :	SW3510				

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
FG016618.D	1	09/17/25 12:20	09/18/25 10:54	PB169733

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
DRO	DRO	157		6.00	50.0	ug/L
SURROGATES						
16416-32-3	Tetracosane-d50	15.1		29 - 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_G\Data\FG091825\
 Data File : FG016618.D
 Signal(s) : FID1A.ch
 Acq On : 18 Sep 2025 10:54
 Operator : YP\AJ
 Sample : PB169733BSD
 Misc :
 ALS Vial : 23 Sample Multiplier: 1

Instrument :
 FID_G
 ClientSampleId :
 PB169733BSD

Integration File: autoint1.e
 Quant Time: Sep 19 01:49:46 2025
 Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG090525.M
 Quant Title :
 QLast Update : Sat Sep 06 04:20:52 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...	15.170	1654484	15.141 ug/ml
Target Compounds			
2) N-DECANE	4.642	1788485	14.674 ug/ml
3) N-DODECANE	6.825	1865403	15.151 ug/ml
4) N-TETRADECANE	8.665	1933542	15.562 ug/ml
5) N-HEXADECANE	10.284	1955037	15.588 ug/ml
6) N-OCTADECANE	11.737	2012743	15.660 ug/ml
7) N-EICOSANE	13.058	2068223	16.030 ug/ml
8) N-DOCOSANE	14.264	2008798	16.084 ug/ml
10) N-TETRACOSANE	15.375	1993531	16.108 ug/ml
11) N-HEXACOSANE	16.404	1915607	15.798 ug/ml
12) N-OCTACOSANE	17.359	1913311	16.013 ug/ml

(f)=RT Delta > 1/2 Window

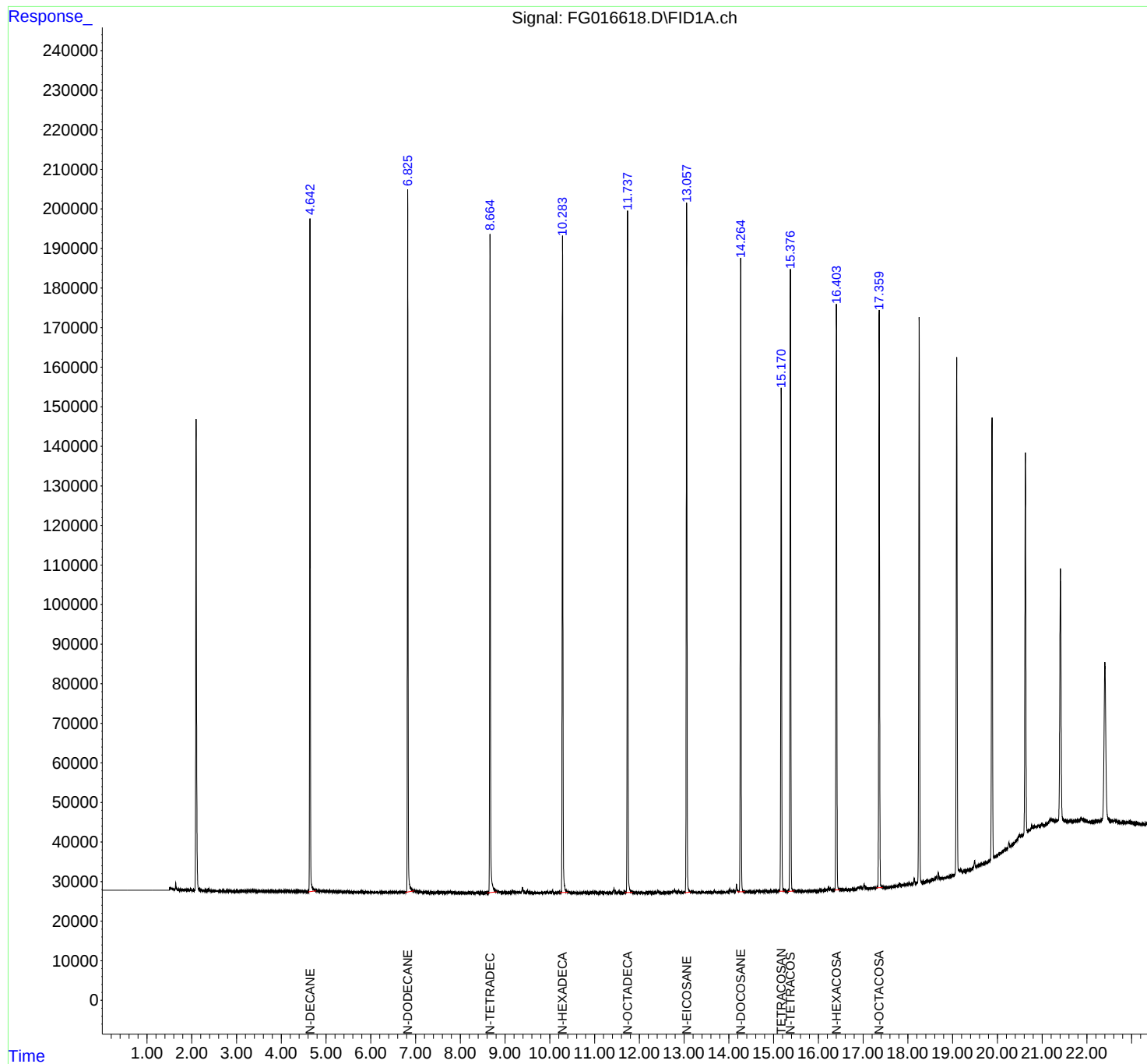
(m)=manual int.

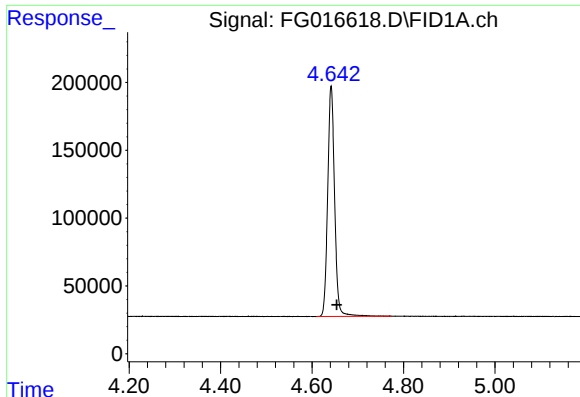
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG091825\
Data File : FG016618.D
Signal(s) : FID1A.ch
Acq On : 18 Sep 2025 10:54
Operator : YP\AJ
Sample : PB169733BSD
Misc :
ALS Vial : 23 Sample Multiplier: 1

Instrument :
FID_G
ClientSampleId :
PB169733BSD

Integration File: autoint1.e
Quant Time: Sep 19 01:49:46 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG090525.M
Quant Title :
QLast Update : Sat Sep 06 04:20:52 2025
Response via : Initial Calibration
Integrator: ChemStation

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

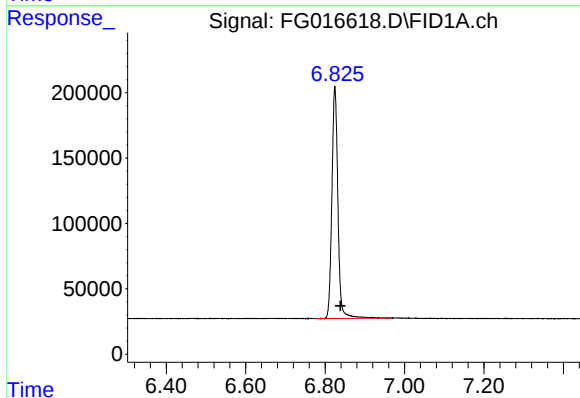




#2 N-DECANE

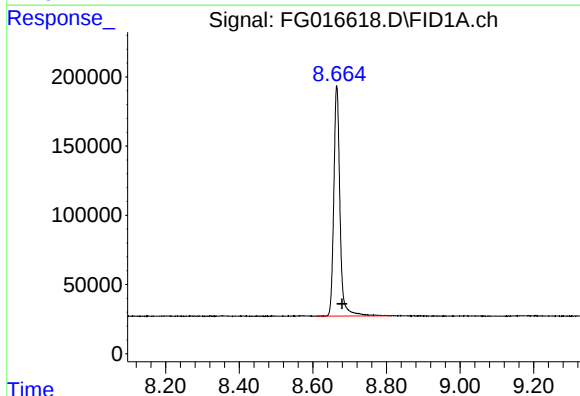
R.T.: 4.642 min
Delta R.T.: -0.012 min
Response: 1788485
Conc: 14.67 ug/ml

Instrument :
FID_G
ClientSampleId :
PB169733BSD



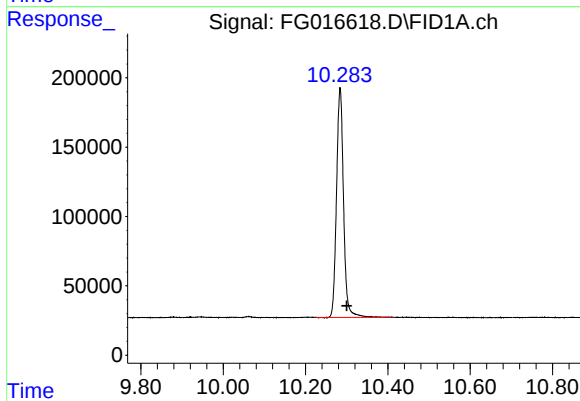
#3 N-DODECANE

R.T.: 6.825 min
Delta R.T.: -0.014 min
Response: 1865403
Conc: 15.15 ug/ml



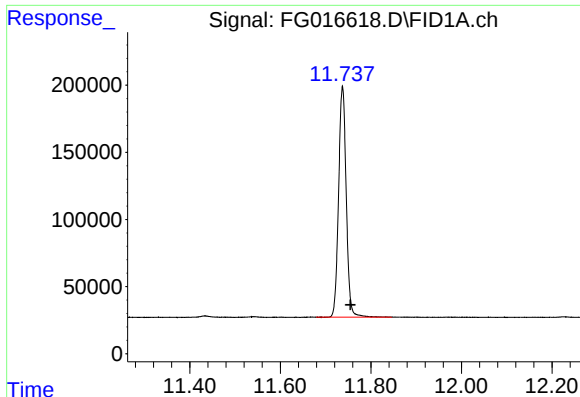
#4 N-TETRADECANE

R.T.: 8.665 min
Delta R.T.: -0.015 min
Response: 1933542
Conc: 15.56 ug/ml



#5 N-HEXADECANE

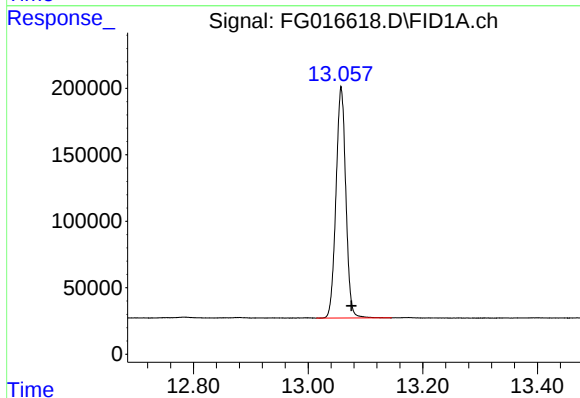
R.T.: 10.284 min
Delta R.T.: -0.016 min
Response: 1955037
Conc: 15.59 ug/ml



#6 N-OCTADECANE

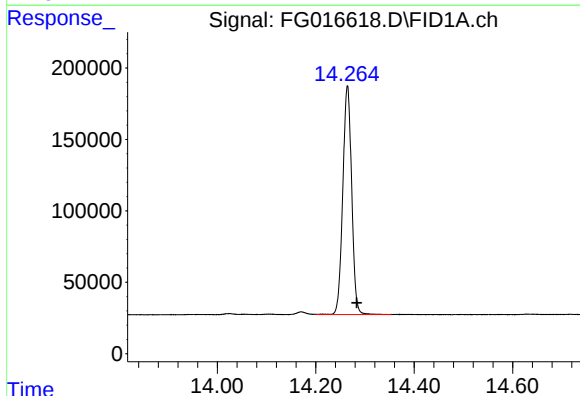
R.T.: 11.737 min
Delta R.T.: -0.017 min
Response: 2012743
Conc: 15.66 ug/ml

Instrument :
FID_G
ClientSampleId :
PB169733BSD



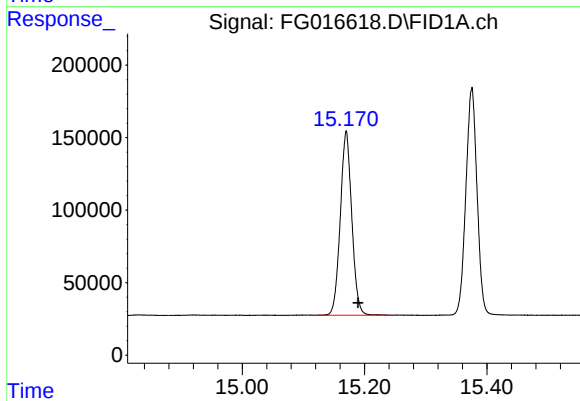
#7 N-EICOSANE

R.T.: 13.058 min
Delta R.T.: -0.018 min
Response: 2068223
Conc: 16.03 ug/ml



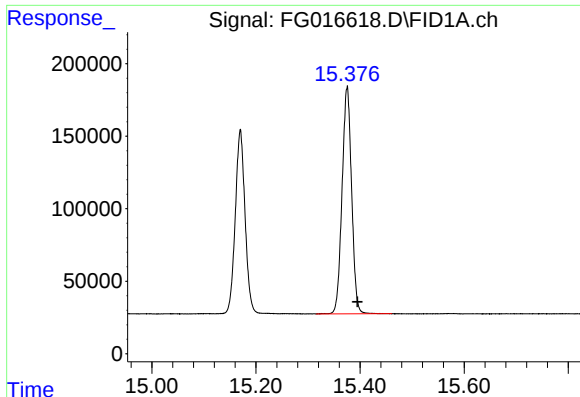
#8 N-DOCOSANE

R.T.: 14.264 min
Delta R.T.: -0.019 min
Response: 2008798
Conc: 16.08 ug/ml



#9 TETRACOSANE-d50 (SURROGATE)

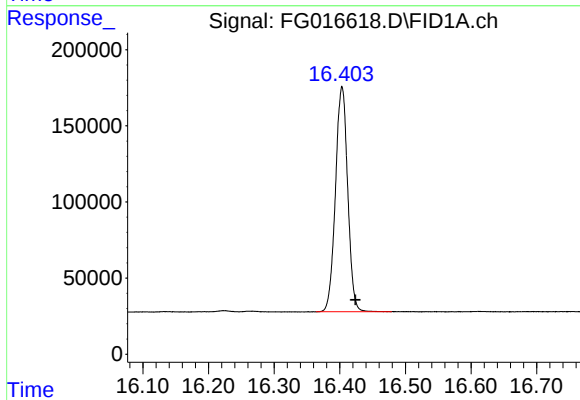
R.T.: 15.170 min
Delta R.T.: -0.019 min
Response: 1654484
Conc: 15.14 ug/ml



#10 N-TETRACOSANE

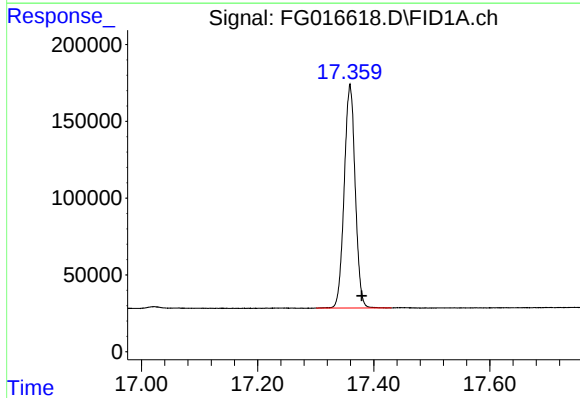
R.T.: 15.375 min
Delta R.T.: -0.020 min
Response: 1993531
Conc: 16.11 ug/ml

Instrument :
FID_G
ClientSampleId :
PB169733BSD



#11 N-HEXACOSANE

R.T.: 16.404 min
Delta R.T.: -0.020 min
Response: 1915607
Conc: 15.80 ug/ml



#12 N-OCTACOSANE

R.T.: 17.359 min
Delta R.T.: -0.020 min
Response: 1913311
Conc: 16.01 ug/ml

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG091825\
Data File : FG016618.D
Signal(s) : FID1A.ch
Acq On : 18 Sep 2025 10:54
Sample : PB169733BSD
Misc :
ALS Vial : 23 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG090525.M
Title :

Signal : FID1A.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	4.642	4.609	4.774	BB	170175	1788485	86.47%	8.473%
2	6.825	6.777	6.967	BB	176953	1865403	90.19%	8.837%
3	8.665	8.609	8.814	BB	166127	1933542	93.49%	9.160%
4	10.284	10.226	10.409	BB	165793	1955037	94.53%	9.262%
5	11.737	11.679	11.846	BB	172053	2012743	97.32%	9.535%
6	13.058	13.014	13.146	BB	173696	2068223	100.00%	9.798%
7	14.264	14.201	14.354	VB	160239	2008798	97.13%	9.516%
8	15.170	15.121	15.244	BB	127426	1654484	80.00%	7.838%
9	15.375	15.316	15.461	BB	157123	1993531	96.39%	9.444%
10	16.404	16.364	16.479	BB	147779	1915607	92.62%	9.075%
11	17.359	17.301	17.431	BV	145762	1913311	92.51%	9.064%
Sum of corrected areas:						21109164		

FG090525.M Fri Sep 19 02:33:21 2025

Manual Integration Report

Sample ID	ClientID ID	File ID	Sequence ID	Parameter	Supervised By	Supervised On	Reason
5 TRPH STD		FG016559.D	FG090525	N-HEXATRIACONTANE	mohammad	9/9/2025 12:27:44 AM	Peak Integrated by Software incorrectly
FG090525ICV		FG016560.D	FG090525	N-OCTATRIACONTANE	mohammad	9/9/2025 12:27:44 AM	Peak Integrated by Software incorrectly

Manual Integration Report

Sample ID	ClientID ID	File ID	Sequence ID	Parameter	Supervised By	Supervised On	Reason
Q3124-02		FG016621.D	FG091825	TETRACOSANE-d50 (SURROGA	mohammad	9/19/2025 1:53:18 AM	Peak Integrated by Software incorrectly

Instrument ID: FID_G

Daily Analysis Runlog For Sequence/QC Batch ID # FG090525

Review By	yogesh	Review On	9/5/2025 11:12:03 AM
Supervise By	mohammad	Supervise On	9/9/2025 12:27:44 AM
SubDirectory	FG090525	HP Acquire Method	HP Processing Method FG090525
STD. NAME	STD REF.#		
Tune/Reschk Initial Calibration Stds	PP24467,PP24469,PP24470,PP24471,PP24472		
CCC Internal Standard/PEM ICV/I.BLK Surrogate Standard MS/MSD Standard LCS Standard	PP24468,PP24473		

Sr#	SampleId	Data File Name	Date-Time	Operator	Status
1	MECL2	FG016553.D	05 Sep 2025 08:56	YP\AJ	Ok
2	I.BLK	FG016554.D	05 Sep 2025 09:26	YP\AJ	Ok
3	100 TRPH STD	FG016555.D	05 Sep 2025 09:55	YP\AJ	Ok
4	50 TRPH STD	FG016556.D	05 Sep 2025 10:25	YP\AJ	Ok
5	20 TRPH STD	FG016557.D	05 Sep 2025 10:55	YP\AJ	Ok
6	10 TRPH STD	FG016558.D	05 Sep 2025 11:24	YP\AJ	Ok
7	5 TRPH STD	FG016559.D	05 Sep 2025 11:54	YP\AJ	Ok,M
8	FG090525ICV	FG016560.D	05 Sep 2025 12:24	YP\AJ	Ok,M

M : Manual Integration

Instrument ID: FID_G

Daily Analysis Runlog For Sequence/QC Batch ID # FG091825

Review By	yogesh	Review On	9/18/2025 9:20:20 AM
Supervise By	mohammad	Supervise On	9/19/2025 1:53:18 AM
SubDirectory	FG091825	HP Acquire Method	HP Processing Method FG090525
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	FG016612.D	18 Sep 2025 06:19	YP\AJ	Ok
2	I.BLK	FG016613.D	18 Sep 2025 07:55	YP\AJ	Ok
3	50 PPM TRPH STD	FG016614.D	18 Sep 2025 08:24	YP\AJ	Ok
4	RT MARKER	FG016615.D	18 Sep 2025 08:53	YP\AJ	Ok
5	PB169733BL	FG016616.D	18 Sep 2025 09:23	YP\AJ	Ok
6	PB169733BS	FG016617.D	18 Sep 2025 09:52	YP\AJ	Ok
7	PB169733BSD	FG016618.D	18 Sep 2025 10:54	YP\AJ	Ok
8	Q3015-19	FG016619.D	18 Sep 2025 11:23	YP\AJ	Dilution
9	Q3015-19	FG016620.D	18 Sep 2025 12:22	YP\AJ	Ok
10	Q3124-02	FG016621.D	18 Sep 2025 12:52	YP\AJ	Ok,M
11	Q3124-04	FG016622.D	18 Sep 2025 13:22	YP\AJ	Ok
12	I.BLK	FG016623.D	18 Sep 2025 13:51	YP\AJ	Ok
13	50 PPM TRPH STD	FG016624.D	18 Sep 2025 14:21	YP\AJ	Ok

M : Manual Integration

Instrument ID: FID_G

Daily Analysis Runlog For Sequence/QC Batch ID # FG090525

Review By	yogesh	Review On	9/5/2025 11:12:03 AM
Supervise By	mohammad	Supervise On	9/9/2025 12:27:44 AM
SubDirectory	FG090525	HP Acquire Method	HP Processing Method FG090525

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

Sr#	SampleID	ClientID	Data File Name	Date-Time	Comment	Operator	Status
1	MECL2		FG016553.D	05 Sep 2025 08:56		YP\AJ	Ok
2	I.BLK		FG016554.D	05 Sep 2025 09:26		YP\AJ	Ok
3	100 TRPH STD		FG016555.D	05 Sep 2025 09:55		YP\AJ	Ok
4	50 TRPH STD		FG016556.D	05 Sep 2025 10:25		YP\AJ	Ok
5	20 TRPH STD		FG016557.D	05 Sep 2025 10:55		YP\AJ	Ok
6	10 TRPH STD		FG016558.D	05 Sep 2025 11:24		YP\AJ	Ok
7	5 TRPH STD		FG016559.D	05 Sep 2025 11:54		YP\AJ	Ok,M
8	FG090525ICV		FG016560.D	05 Sep 2025 12:24		YP\AJ	Ok,M

M : Manual Integration

Instrument ID: FID_G

Daily Analysis Runlog For Sequence/QC Batch ID # FG091825

Review By	yogesh	Review On	9/18/2025 9:20:20 AM
Supervise By	mohammad	Supervise On	9/19/2025 1:53:18 AM
SubDirectory	FG091825	HP Acquire Method	HP Processing Method FG090525
STD. NAME	STD REF.#		
Tune/Reschk Initial Calibration Stds	PP24467,PP24469,PP24470,PP24471,PP24472		
CCC	PP24469		
Internal Standard/PEM	PP24468,PP24473		
ICV/I.BLK			
Surrogate Standard			
MS/MSD Standard			
LCS Standard			

Sr#	SampleID	ClientID	Data File Name	Date-Time	Comment	Operator	Status
1	MECL2		FG016612.D	18 Sep 2025 06:19		YPIAJ	Ok
2	I.BLK		FG016613.D	18 Sep 2025 07:55		YPIAJ	Ok
3	50 PPM TRPH STD		FG016614.D	18 Sep 2025 08:24		YPIAJ	Ok
4	RT MARKER		FG016615.D	18 Sep 2025 08:53		YPIAJ	Ok
5	PB169733BL		FG016616.D	18 Sep 2025 09:23		YPIAJ	Ok
6	PB169733BS		FG016617.D	18 Sep 2025 09:52		YPIAJ	Ok
7	PB169733BSD		FG016618.D	18 Sep 2025 10:54		YPIAJ	Ok
8	Q3015-19		FG016619.D	18 Sep 2025 11:23	Need 5X	YPIAJ	Dilution
9	Q3015-19		FG016620.D	18 Sep 2025 12:22		YPIAJ	Ok
10	Q3124-02		FG016621.D	18 Sep 2025 12:52		YPIAJ	Ok,M
11	Q3124-04		FG016622.D	18 Sep 2025 13:22		YPIAJ	Ok
12	I.BLK		FG016623.D	18 Sep 2025 13:51		YPIAJ	Ok
13	50 PPM TRPH STD		FG016624.D	18 Sep 2025 14:21		YPIAJ	Ok

M : Manual Integration

SOP ID: M3510C,3580A-Extraction DRO-13

Clean Up SOP #: N/A

Matrix : Water

Weigh By: N/A

Balance check: N/A

Balance ID: N/A

pH Strip Lot#: E3953

Extraction By: RJ

Filter By: RJ

pH Meter ID: N/A

Hood ID: 4,6,7

Extraction Start Date : 09/17/2025

Extraction Start Time : 12:20

Extraction End Date : 09/17/2025

Extraction End Time : 16:35

Concentration By: EH

Supervisor By : ritesh

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

Standard Name	MLS USED	Concentration ug/mL	STD REF. # FROM LOG
Surrogate	1.0ML	20 PPM	PP24596
Spike Sol 1	1.0ML	20 PPM	PP24583
N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A

Chemical Used	ML/SAMPLE USED	Lot Number
Methylene Chloride	N/A	E3973
Baked Na2SO4	N/A	EP2639
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

Extraction Conformance/Non-Conformance Comments:

1.5 ML Vial lot# 2210443.

KD Bath ID: WATER BATH-1,2

KD Bath Temperature: 60 °C

Envap ID: NEVAP-02

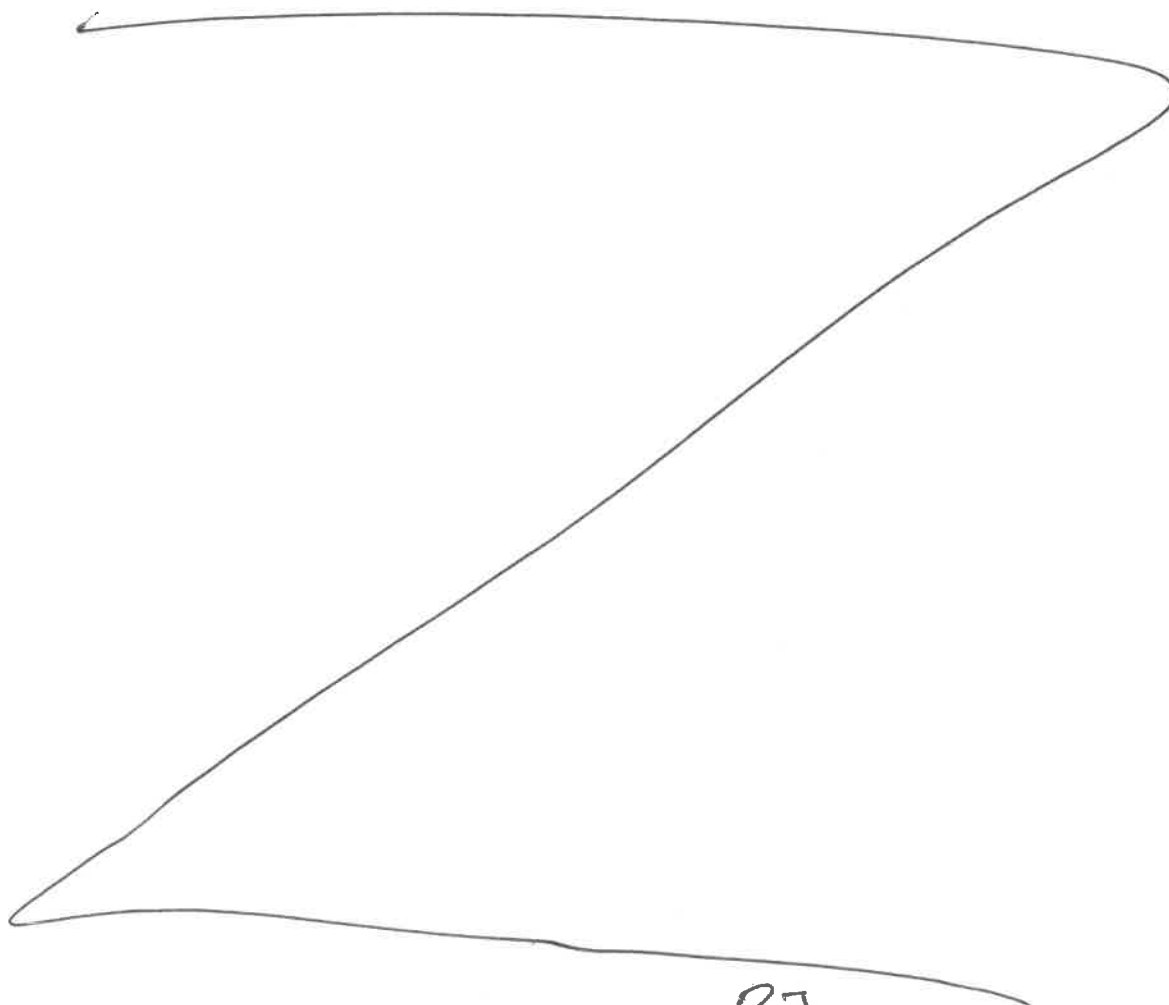
Envap Temperature: 40 °C

Date / Time	Prepped Sample Relinquished By/Location	Received By/Location
9/17/25 16:40	RJ (E-1 Lab) Preparation Group	R. Pest-PCB Lab Analysis Group

Analytical Method: M3510C,3580A-Extraction DRO-13

Concentration Date: 09/17/2025

Sample ID	Client Sample ID	Test	g / mL	PH	Surr/Spike By:		Final Vol. (mL)	JarID	Comments	Prep Pos
					AddedBy	VerifiedBy				
PB169733BL	PB169733BL	Diesel Range Organics	1000	6	ritesh	Evelyn	1			SEP-1
PB169733BS	PB169733BS	Diesel Range Organics	1000	6	ritesh	Evelyn	1			2
PB169733BSD	PB169733BSD	Diesel Range Organics	1000	6	ritesh	Evelyn	1			3
Q3015-19	WP0925-RR-DIES-WP	Diesel Range Organics	1000	6	ritesh	Evelyn	1			4
Q3124-02	WEST-SIDE	Diesel Range Organics	840	6	ritesh	Evelyn	1			5
Q3124-04	NORTH-SIDE	Diesel Range Organics	850	6	ritesh	Evelyn	1			6



RJ
9/17

* Extracts relinquished on the same date as received.

164733
12:20

WORKLIST(Hardcopy Internal Chain)

WorkList Name : Q3124

WorkList ID : 191925

Department : Extraction

Date : 09-17-2025 12:15:37

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q3015-19	WP0925-RR-DIES-WP	Water	Diesel Range Organics	Cool 4 deg C	ALLI03	QA Of	09/02/2025	8015D
Q3124-02	WEST-SIDE	Water	Diesel Range Organics	Cool 4 deg C	ATGG02	D31	09/16/2025	8015D
Q3124-04	NORTH-SIDE	Water	Diesel Range Organics	Cool 4 deg C	ATGG02	D31	09/16/2025	8015D

Date/Time 09/17/25 12:15
Raw Sample Received by: RJ LER (clb)
Raw Sample Relinquished by: JDCSM

Date/Time 09/17/25 12:40
Raw Sample Received by: JDCSM
Raw Sample Relinquished by: RJ LER (clb)

Prep Standard - Chemical Standard Summary

Order ID : Q3015
Test : Diesel Range Organics
Prepbatch ID : PB169733,
Sequence ID/Qc Batch ID: FG091825,

Standard ID :
EP2639,PP24467,PP24468,PP24469,PP24470,PP24471,PP24472,PP24473,PP24583,PP24596,

Chemical ID :
E3875,E3926,E3930,E3931,E3973,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>
3923	Baked Sodium Sulfate	EP2639	09/12/2025	01/28/2026	Riteshkumar Patel	Extraction_SC ALE_2 (EX-SC-2)	None	Evelyn Huang 09/12/2025

FROM 4000.00000gram of E3875 = Final Quantity: 4000.000 gram

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
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

Pest/Pcb STANDARD PREPARATION LOG

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

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

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

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

Pest/Pcb STANDARD PREPARATION LOG

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

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

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

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

Pest/Pcb STANDARD PREPARATION LOG

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

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

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

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

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>
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

FROM 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 #
PCI Scientific Supply, Inc.	PC19631-100 / SODIUM SULFATE, ANHYDROUS, PEST GRADE, 1	417203	01/28/2026	07/28/2025 / RUPESH	01/29/2025 / Rajesh	E3875

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-9644-A4 / Methylene Chloride,U-Resi, Cycle-Tainer (215L)	25C1262005	04/16/2026	09/15/2025 / Riteshkumar	09/15/2025 / Riteshkumar	E3973

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

CHEMICAL RECEIPT LOG BOOK

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

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

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	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

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



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

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MONTERREY, N.L. MÉXICO
CP 64070
TEL +52 81 13 52 67 67
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:	MAY/23/2024
LOT NUMBER :	417203		

TEST	SPECIFICATIONS	LOT VALUES
Assay (Na ₂ SO ₄)	Min. 99.0%	99.8 %
pH of a 5% solution at 25°C	5.2 - 9.2	6.2
Insoluble matter	Max. 0.01%	0.001 %
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%	0.001 %
Magnesium (Mg)	Max. 0.005%	0.001 %
Potassium (K)	Max. 0.008%	0.001 %
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%	0.2 %
Retained on US Standard No. 60 sieve	Min. 94%	96.2 %
Through US Standard No. 60 sieve	Max. 5%	3.5 %
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.

RE-02-01, Ed. 3

E 3875

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_2Cl_2) (by GC, exclusive of preservative, corrected for water)	$\geq 99.8 \%$	99.9 %
Color (APHA)	≤ 10	10
Residue after Evaporation	$\leq 1.0 \text{ ppm}$	0.8 ppm
Titration Acid ($\mu\text{eq/g}$)	≤ 0.3	< 0.1
Chloride (Cl)	$\leq 10 \text{ ppm}$	$< 5 \text{ ppm}$
Water (by KF, coulometric)	$\leq 0.02 \%$	$< 0.01 \%$

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

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

E 3926



Jamie Croak
Director Quality Operations, Bioscience Production

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

Avantor Performance Materials, LLC

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

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

avantor



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

Certificate of Analysis

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

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

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

E3930

J. Croak

Jamie Croak
Director Quality Operations, Bioscience Production

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

Avantor Performance Materials, LLC

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

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_2Cl_2) (by GC, exclusive of preservative, corrected for water)	$\geq 99.8\%$	99.9%
Color (APHA)	≤ 10	10
Residue after Evaporation	≤ 1.0 ppm	0.8 ppm
Titration Acid ($\mu\text{eq/g}$)	≤ 0.3	< 0.1
Chloride (Cl)	≤ 10 ppm	< 5 ppm
Water (by KF, coulometric)	$\leq 0.02\%$	$< 0.01\%$

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

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

E3930

J. Croak

Jamie Croak
Director Quality Operations, Bioscience Production

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

Avantor Performance Materials, LLC

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

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

avantor™



Material No.: 9266-A4

Batch No.: 25C1262005

Manufactured Date: 2025-01-15

Expiration Date: 2026-04-16

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	1
Assay (CH_2Cl_2) (by GC, exclusive of preservative, corrected for water)	$\geq 99.8\%$	100.0 %
Color (APHA)	≤ 10	5
Residue after Evaporation	≤ 1.0 ppm	0.1 ppm
Titration Acid ($\mu\text{eq/g}$)	≤ 0.3	< 0.1
Chloride (Cl)	≤ 10 ppm	< 5 ppm
Water (by KF, coulometric)	$\leq 0.02\%$	$< 0.01\%$

For Laboratory, Research, or Manufacturing Use

MEETS SPECIFICATIONS WITHIN THE EXPIRATION PERIOD

Country of Origin: United States

Packaging Site: Phillipsburg Mfg Ctr & DC

E 3973

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



110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

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CERTIFIED REFERENCE MATERIAL

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

P11948
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07/11

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% (Lot SHBN3807)	505.0 µg/mL	+/- 2.9995 µg/mL Gravimetric +/- 12.5465 µg/mL Unstressed +/- 15.0390 µg/mL Stressed
2	n-Decane (C10) CAS # 124-18-5 Purity 99% (Lot SHBN8619)	503.0 µg/mL	+/- 2.9877 µg/mL Gravimetric +/- 12.4968 µg/mL Unstressed +/- 14.9795 µg/mL Stressed
3	n-Dodecane (C12) CAS # 112-40-3 Purity 99% (Lot SHBN7174)	503.5 µg/mL	+/- 2.9906 µg/mL Gravimetric +/- 12.5092 µg/mL Unstressed +/- 14.9944 µg/mL Stressed
4	n-Tetradecane (C14) CAS # 629-59-4 Purity 99% (Lot STBK2282)	505.0 µg/mL	+/- 2.9995 µg/mL Gravimetric +/- 12.5465 µg/mL Unstressed +/- 15.0390 µg/mL Stressed
5	n-Hexadecane (C16) CAS # 544-76-3 Purity 98% (Lot SHBM4146)	504.7 µg/mL	+/- 2.9978 µg/mL Gravimetric +/- 12.5390 µg/mL Unstressed +/- 15.0301 µg/mL Stressed
6	n-Octadecane (C18) CAS # 593-45-3 Purity 97% (Lot VZKOJ)	504.4 µg/mL	+/- 2.9960 µg/mL Gravimetric +/- 12.5316 µg/mL Unstressed +/- 15.0212 µg/mL Stressed
7	n-Eicosane (C20) CAS # 112-95-8 Purity 99% (Lot MKCF7888)	503.5 µg/mL	+/- 2.9906 µg/mL Gravimetric +/- 12.5092 µg/mL Unstressed +/- 14.9944 µg/mL Stressed

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)

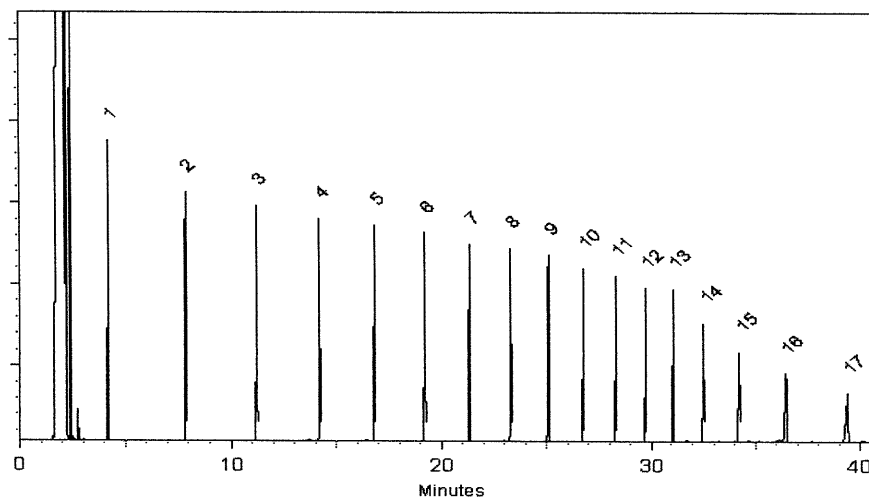
Carrier Gas:
hydrogen-constant pressure 10 psi.

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/ μ ECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

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

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

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.



110 Benner Circle
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Tel: (800)356-1688
Fax: (814)353-1309

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CERTIFIED REFERENCE MATERIAL

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

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07/11

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% (Lot SHBN3807)	505.0 µg/mL	+/- 2.9995 µg/mL Gravimetric +/- 12.5465 µg/mL Unstressed +/- 15.0390 µg/mL Stressed
2	n-Decane (C10) CAS # 124-18-5 Purity 99% (Lot SHBN8619)	503.0 µg/mL	+/- 2.9877 µg/mL Gravimetric +/- 12.4968 µg/mL Unstressed +/- 14.9795 µg/mL Stressed
3	n-Dodecane (C12) CAS # 112-40-3 Purity 99% (Lot SHBN7174)	503.5 µg/mL	+/- 2.9906 µg/mL Gravimetric +/- 12.5092 µg/mL Unstressed +/- 14.9944 µg/mL Stressed
4	n-Tetradecane (C14) CAS # 629-59-4 Purity 99% (Lot STBK2282)	505.0 µg/mL	+/- 2.9995 µg/mL Gravimetric +/- 12.5465 µg/mL Unstressed +/- 15.0390 µg/mL Stressed
5	n-Hexadecane (C16) CAS # 544-76-3 Purity 98% (Lot SHBM4146)	504.7 µg/mL	+/- 2.9978 µg/mL Gravimetric +/- 12.5390 µg/mL Unstressed +/- 15.0301 µg/mL Stressed
6	n-Octadecane (C18) CAS # 593-45-3 Purity 97% (Lot VZKOJ)	504.4 µg/mL	+/- 2.9960 µg/mL Gravimetric +/- 12.5316 µg/mL Unstressed +/- 15.0212 µg/mL Stressed
7	n-Eicosane (C20) CAS # 112-95-8 Purity 99% (Lot MKCF7888)	503.5 µg/mL	+/- 2.9906 µg/mL Gravimetric +/- 12.5092 µg/mL Unstressed +/- 14.9944 µg/mL Stressed

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)

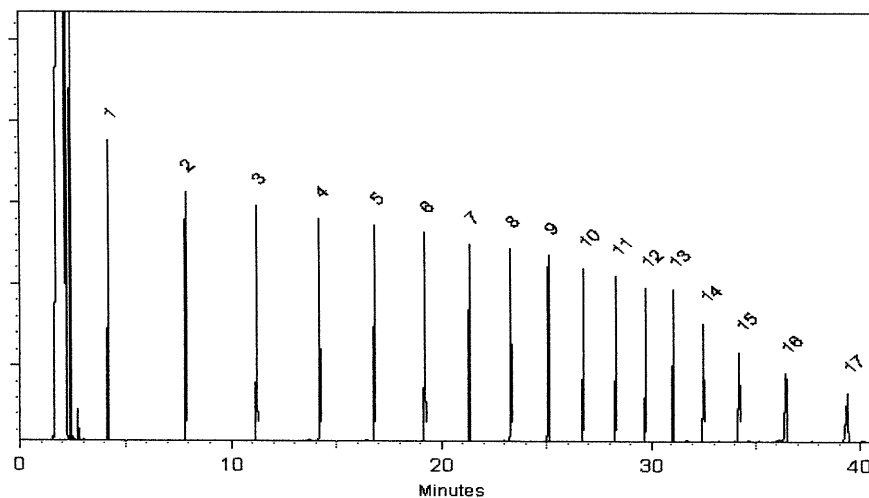
Carrier Gas:
hydrogen-constant pressure 10 psi.

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/ μ ECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

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

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

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.



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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

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P13112 } 01/12/2024

CERTIFIED VALUES

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

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

Quality Confirmation Test

Column:
 30m x 0.25mm x 0.25µm
 Rtx-5 (cat.#10223)

Carrier Gas:
 hydrogen-constant pressure 10 psi.

Temp. Program:
 40°C (hold 2 min.) to 330°C
 @ 10°C/min. (hold 10 min.)

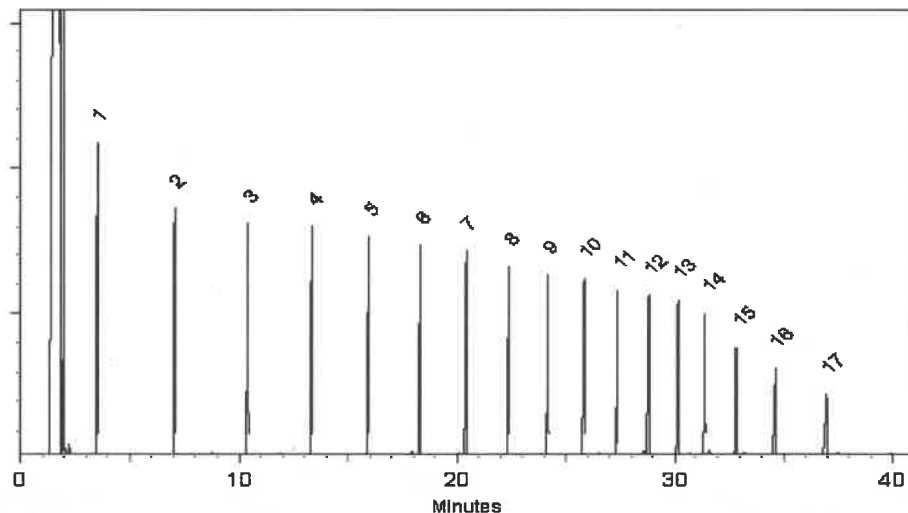
Inj. Temp:
 250°C

Det. Temp:
 330°C

Det. Type:
 FID

Split Vent:
 2 ml/min.

Inj. Vol
 1µl



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

[Signature]
 Dakota Parson - Operations Technician I

Date Mixed: 29-Nov-2023 **Balance Serial #** B442140311

[Signature]
 Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 01-Dec-2023

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

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/ μ ECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

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

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

- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.



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

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

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

Description : Florida TRPH Standard

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

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

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

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

P13103 } Y.P.
↓
P13112 } 01/12/2024

CERTIFIED VALUES

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

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

Quality Confirmation Test

Column:
 30m x 0.25mm x 0.25µm
 Rtx-5 (cat.#10223)

Carrier Gas:
 hydrogen-constant pressure 10 psi.

Temp. Program:
 40°C (hold 2 min.) to 330°C
 @ 10°C/min. (hold 10 min.)

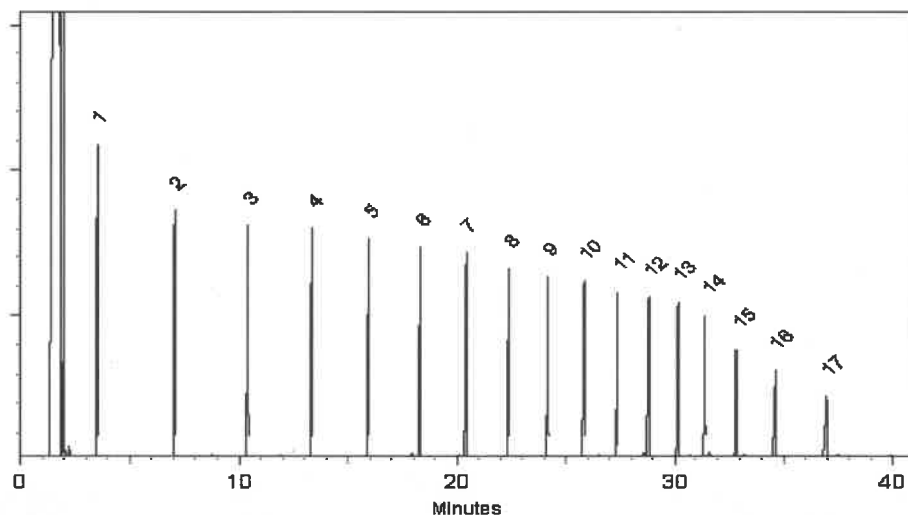
Inj. Temp:
 250°C

Det. Temp:
 330°C

Det. Type:
 FID

Split Vent:
 2 ml/min.

Inj. Vol
 1µl



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

[Signature]
 Dakota Parson - Operations Technician I

Date Mixed: 29-Nov-2023 **Balance Serial #** B442140311

[Signature]
 Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 01-Dec-2023

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

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/ μ ECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

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

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

- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

ABSOLUTE STANDARDS, INC.

ISO - 17034



Certificate of Analysis



Certified Reference Material (CRM)

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

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

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

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

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

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

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

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

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

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

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

Minimum Sample Size: 0.5 uL for analytical applications.

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

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

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



ABSOLUTE STANDARDS, INC.

ISO - 17034



Understanding the Certified Weight Report



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

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

Certified Reference Material CRM

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

CERTIFIED WEIGHT REPORT

Part # 10009R
Lot # 070716
Shelf Life

Part Number: 10009R
Lot Number: 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

Solvent(s): Methylene chloride
Lot# 78782

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-1848M07287CB1	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	15067-26-2	N/A	or-rat 500mg/kg
4. Phenanthrene-d10	248	PR-2305M081711PM1	4000	98	0.2	2.04093	2.04135	4000.8	15.4	1517-25-2	N/A	N/A
5. Chrysene-d12	92	I-19290	4000	98	0.2	2.04093	2.04150	4001.3	15.4	1719-03-5	N/A	N/A
6. Perylene-d12	247	PR-24113	4000	98	0.2	2.04093	2.04155	4001.2	15.4	1503-58-3	N/A	N/A

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

Comments:
GC-MS Analysis by Melissa Siciric
Column ID SPB-5 30 meter x 0.53mm x 1.5µm 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 = sDet Channel 1.
Gas Chromatograph = HP 5890, Auto Sampler = HP 7673, Standard Injection = 0.5 µL, Range = 4

Peak No. Name FID RT (min)

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

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

Formulator
Reviewer

Actual
Concentration

Uncertainty
Values

Health &
Safety

3rd Party
Comparison

For More Information, Contact:

StephenArpie@AbsoluteStandards.com

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



CERTIFIED WEIGHT REPORT

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

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

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

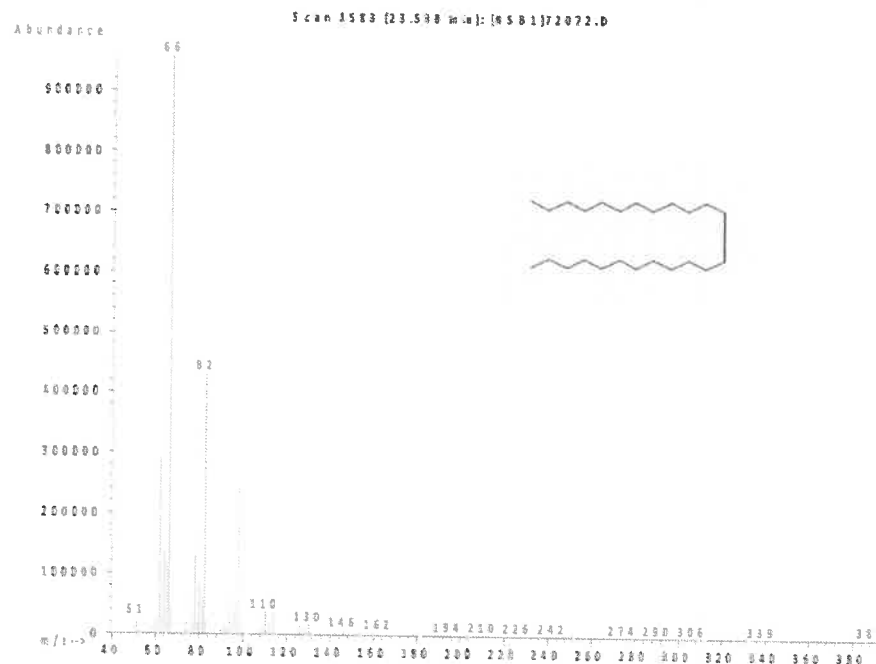
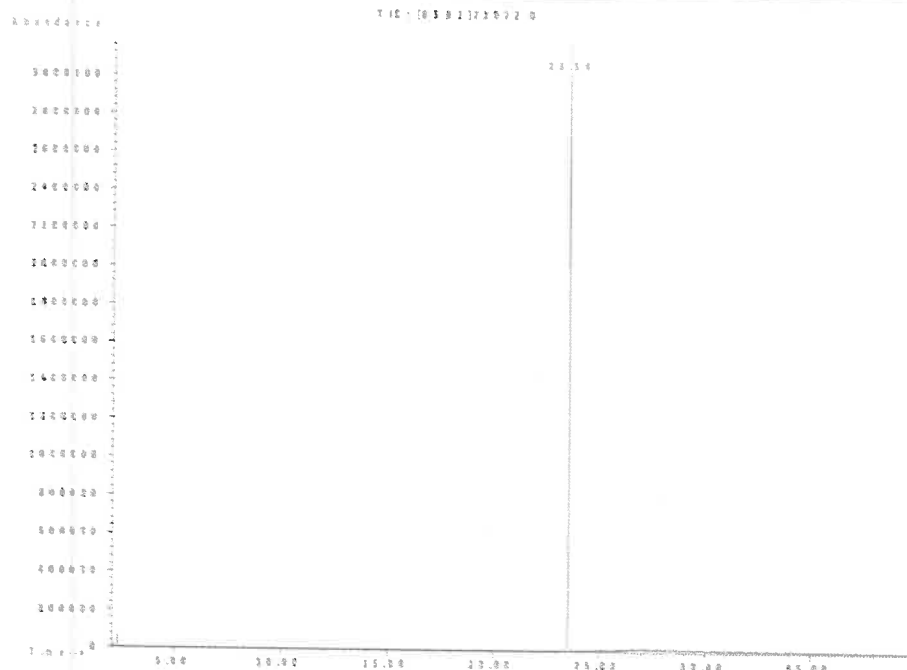
*P13477 } x.p.
↓
P13496 } 07/24/24*

Expiration Date: **101132**
Recommended Storage: **Ambient (20 °C)**
Nominal Concentration (µg/mL): **1000**
NIST Test ID#: **6UTB**

Weight(s) shown below were combined and diluted to (mL): **200.0**
5E-05 Balance Uncertainty
0.058 Flask Uncertainty

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.)		
											CAS#	OSHA PEL (TWA)	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	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 Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).

ABSOLUTE STANDARDS, INC.

ISO - 17034



Certificate of Analysis



Certified Reference Material (CRM)

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

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

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

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

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

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

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

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

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

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

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

Minimum Sample Size: 0.5 uL for analytical applications.

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

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

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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
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

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-1848M07287CB1	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	1148-65-2	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-19280	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 = sDet Channel 1.
Gas Chromatograph = HP 5890, Auto Sampler = HP 7673, Standard Injection = 0.5 µL, Range = 4

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

Qualitative Quantitative

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

Formulator
Reviewer

Actual
Concentration
Uncertainty
Values

Health &
Safety

3rd Party
Comparison

For More Information, Contact:

StephenArpie@AbsoluteStandards.com

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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**

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

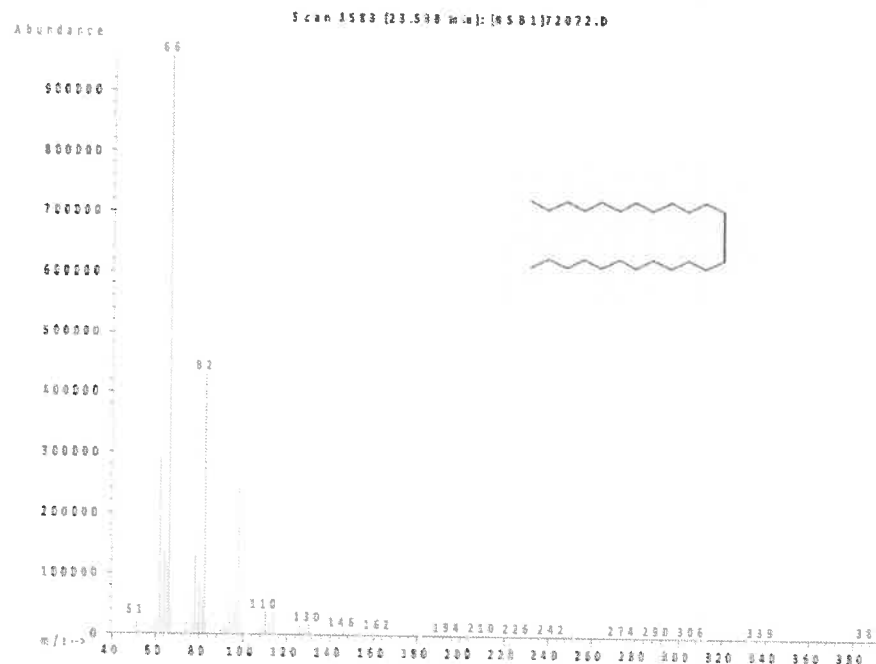
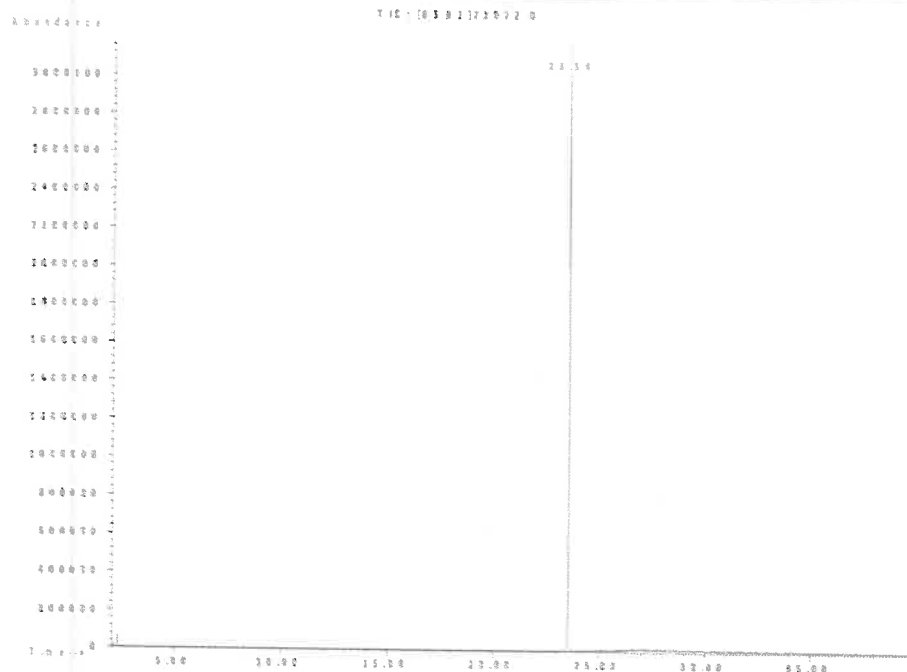
*P13477 } x.p.
↓
P13496 } 07/24/24*

Expiration Date: **101132**
Recommended Storage: **Ambient (20 °C)**
Nominal Concentration (µg/mL): **1000**
NIST Test ID#: **6UTB**

Weight(s) shown below were combined and diluted to (mL): **200.0**
5E-05 Balance Uncertainty
0.058 Flask Uncertainty

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.)		
											CAS#	OSHA PEL (TWA)	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	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 Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).

ABSOLUTE STANDARDS, INC.

ISO - 17034



Certificate of Analysis



Certified Reference Material (CRM)

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

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

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

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

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

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

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

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

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

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

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

Minimum Sample Size: 0.5 uL for analytical applications.

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

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

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



ABSOLUTE STANDARDS, INC.

ISO - 17034



Understanding the Certified Weight Report



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

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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 Purity	Target Weight (µg)	Actual Weight (µg)	Actual Conc (µg/mL)	Expanded Uncertainty (µg/mL)	MSDS Information (Solvent Safety info. On Attached pg.)	CAS#	OSHA PEL (TWA)	LD50
1. 1,4-Dichlorobenzene-d4	118	PR-1848M07287CB1	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	1148-65-2	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-19280	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	4001.3	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 1.5µm 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 = sDet Channel 1.
Gas Chromatograph = HP 5890, Auto Sampler = HP 7673, Standard Injection = 0.5 µL, Range = 4

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

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

Formulator
Reviewer

Actual
Concentration
Uncertainty
Values

Health &
Safety

3rd Party
Comparison

For More Information, Contact:

StephenArpie@AbsoluteStandards.com

Page 2 of 2



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





CERTIFIED WEIGHT REPORT

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

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

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

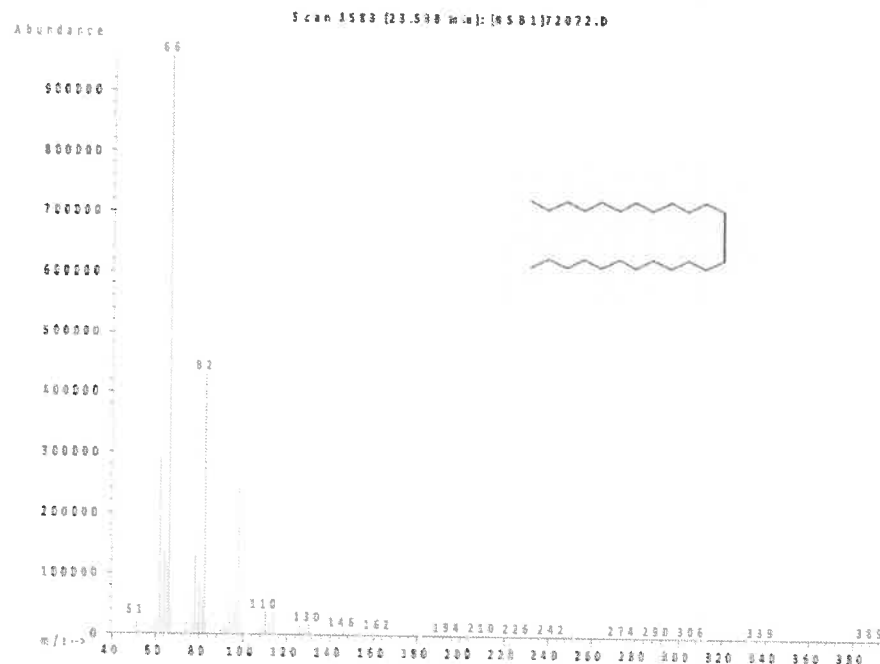
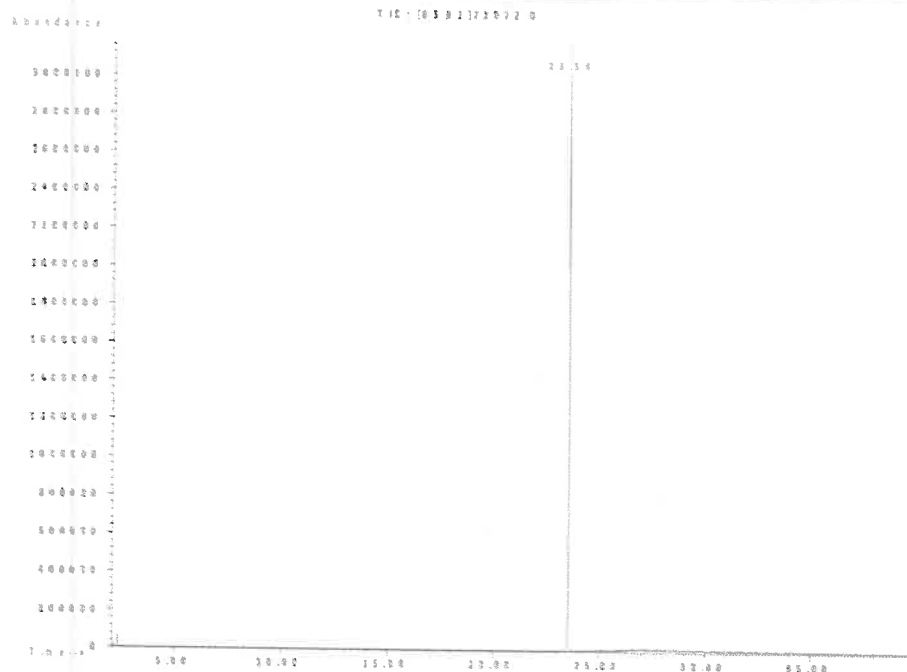
*P13477 } x.p.
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P13496 } 07/24/24*

Expiration Date: **101132**
Recommended Storage: **Ambient (20 °C)**
Nominal Concentration (µg/mL): **1000**
NIST Test ID#: **6UTB**

Weight(s) shown below were combined and diluted to (mL): **200.0**
5E-05 Balance Uncertainty
0.058 Flask Uncertainty

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.)		
											CAS#	OSHA PEL (TWA)	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	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 Result," 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



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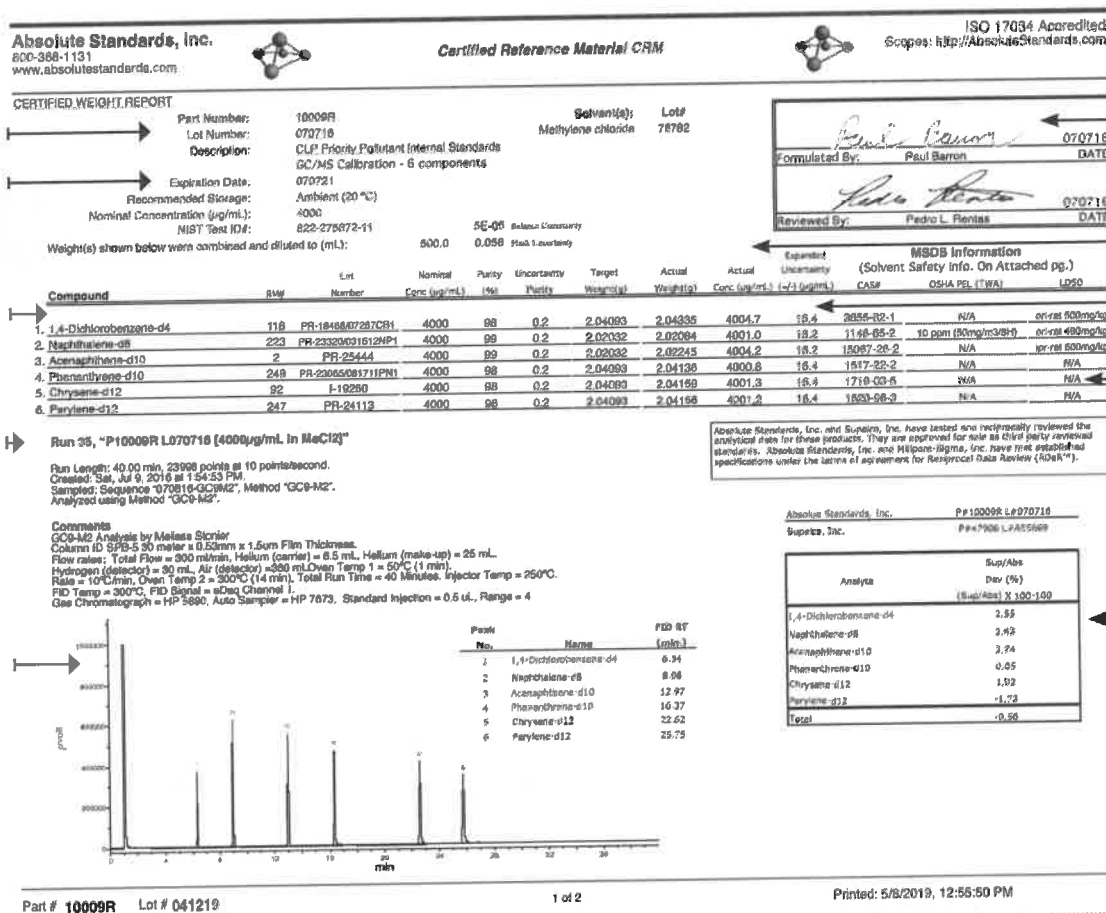
ISO - 17034



Understanding the Certified Weight Report



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Formulator
Reviewer

Actual
Concentration

Uncertainty
Values

Health &
Safety

3rd Party
Comparison

For More Information, Contact:

StephenArpie@AbsoluteStandards.com

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CERTIFIED WEIGHT REPORT

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

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

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

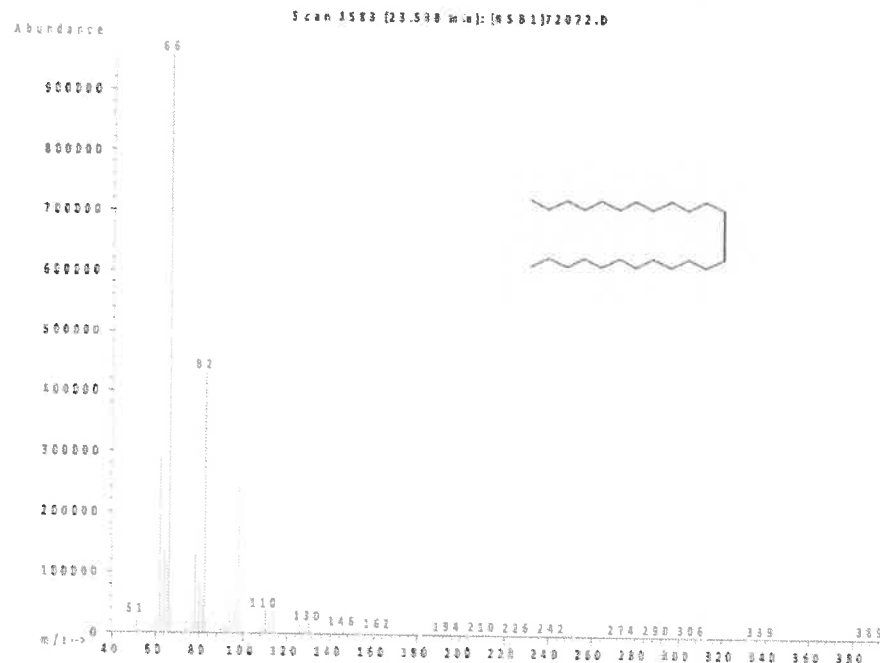
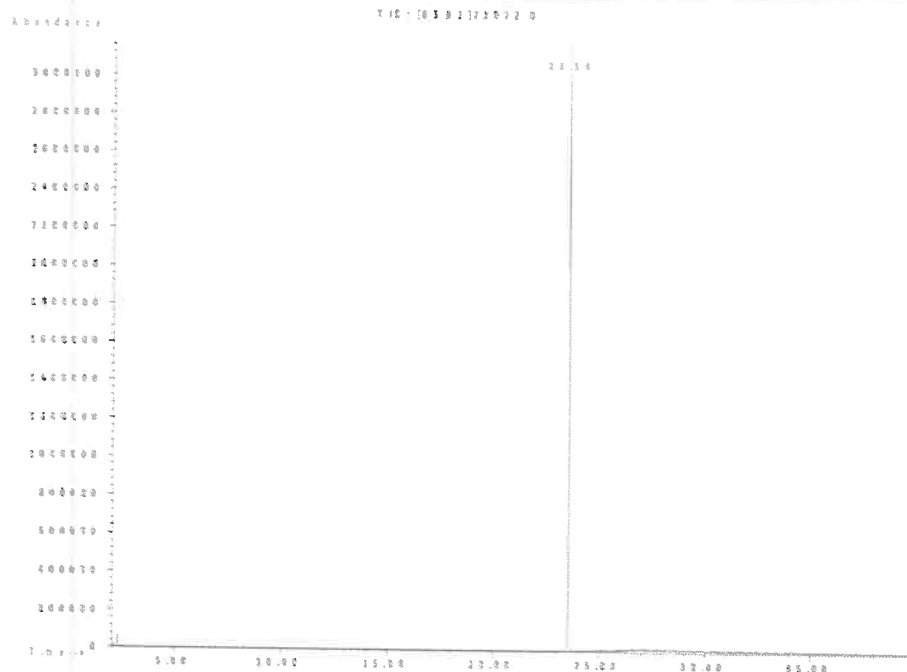
*P13477 } x.p.
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P13496 } 07/24/24*

Expiration Date: **101132**
Recommended Storage: **Ambient (20 °C)**
Nominal Concentration (µg/mL): **1000**
NIST Test ID#: **6UTB**

Weight(s) shown below were combined and diluted to (mL): **200.0**
5E-05 Balance Uncertainty
0.058 Flask Uncertainty

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.)		
											CAS#	OSHA PEL (TWA)	LD50
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ABSOLUTE STANDARDS, INC.

ISO - 17034



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

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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
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-1848M07287CB1	4000	98	0.2	2.04093	2.04335	4004.7	15.4	2055-02-1	N/A	N/A	or-nr 500mg/kg
2. Naphthalene-d8	223	PR-2339M031612HP1	4000	99	0.2	2.02032	2.02084	4001.0	15.2	1148-65-2	10 ppm (50mg/m3)(H)	N/A	or-nr 400mg/kg
3. Acenaphthene-d10	2	PR-25444	4000	99	0.2	2.02032	2.02245	4004.2	15.2	15067-28-2	N/A	N/A	or-nr 500mg/kg
4. Phenanthrene-d10	248	PR-2305M081711PM1	4000	98	0.2	2.04093	2.04135	4000.8	15.4	1517-25-2	N/A	N/A	N/A
5. Chrysene-d12	92	I-19280	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 1.5µm 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 = sDet Channel 1.
Gas Chromatograph = HP 5890, Auto Sampler = HP 7673, Standard Injection = 0.5 µL, Range = 4

Peak No. Name FID RT (min)

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

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

Formulator
Reviewer

Actual
Concentration

Uncertainty
Values

Health &
Safety

3rd Party
Comparison

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**

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

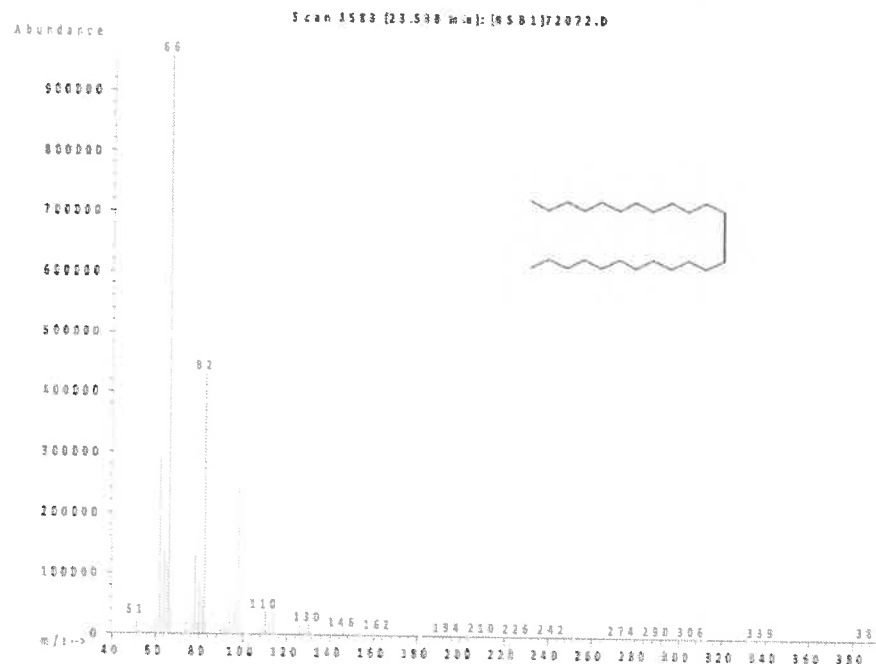
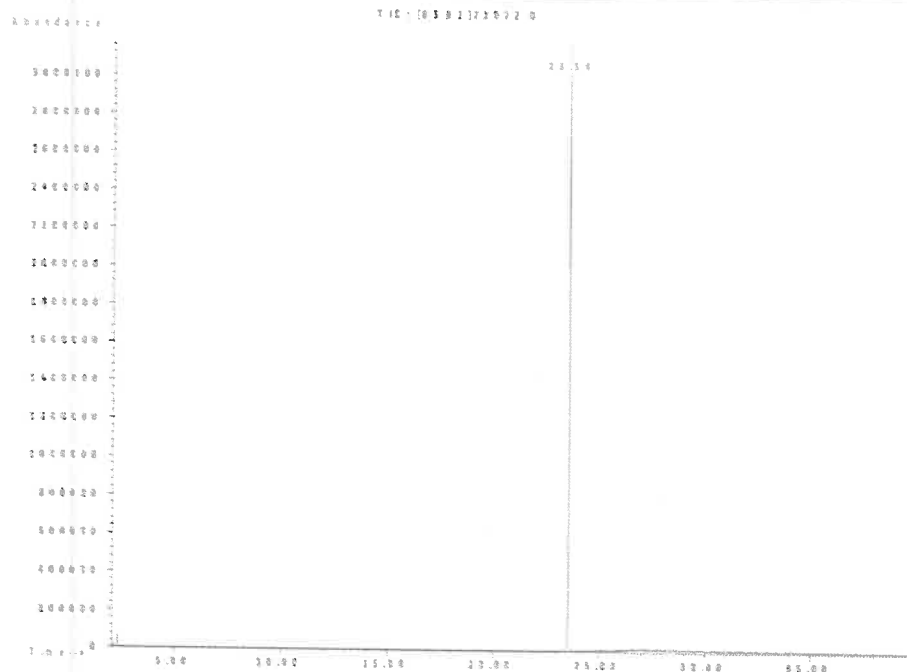
*P13477 } x.p.
↓
P13496 } 07/24/24*

Expiration Date: **101132**
Recommended Storage: **Ambient (20 °C)**
Nominal Concentration (µg/mL): **1000**
NIST Test ID#: **6UTB**

Weight(s) shown below were combined and diluted to (mL): **200.0**
5E-05 Balance Uncertainty
0.058 Flask Uncertainty

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.)		
											CAS#	OSHA PEL (TWA)	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	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 Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).

ABSOLUTE STANDARDS, INC.

ISO - 17034



Certificate of Analysis



Certified Reference Material (CRM)

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

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

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

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

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

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

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

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

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

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

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

Minimum Sample Size: 0.5 uL for analytical applications.

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

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

Page 1 of 2



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



ABSOLUTE STANDARDS, INC.

ISO - 17034



Understanding the Certified Weight Report



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

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

Certified Reference Material CRM

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

CERTIFIED WEIGHT REPORT

Part # 10009R
Lot # 070716
Shelf Life 070716

Part Number: 10009R
Lot Number: 070716
Description: CLP Priority Pollutant Internal Standards
GC/MS Calibration - 6 components
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

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-1848M07287CB1	4000	98	0.2	2.04093	2.04335	4004.7	15.4	2055-02-1	N/A	or-nr 500mg/kg	
2. Naphthalene-d8	223	PR-2339M031612HP1	4000	99	0.2	2.02032	2.02084	4001.0	15.2	1148-65-2	10 ppm (50mg/m3/8h)	or-nr 400mg/kg	
3. Acenaphthene-d10	2	PR-25444	4000	99	0.2	2.02032	2.02245	4004.2	15.2	15067-28-2	N/A	or-nr 500mg/kg	
4. Phenanthrene-d10	248	PR-2305M081711PM1	4000	98	0.2	2.04093	2.04135	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 = sDet Channel 1.
Gas Chromatograph = HP 5890, Auto Sampler = HP 7673, Standard Injection = 0.5 µL, Range = 4

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

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

Formulator
Reviewer

Actual
Concentration
Uncertainty
Values

Health &
Safety

3rd Party
Comparison

For More Information, Contact:

StephenArpie@AbsoluteStandards.com

Page 2 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



CERTIFIED WEIGHT REPORT

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

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

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

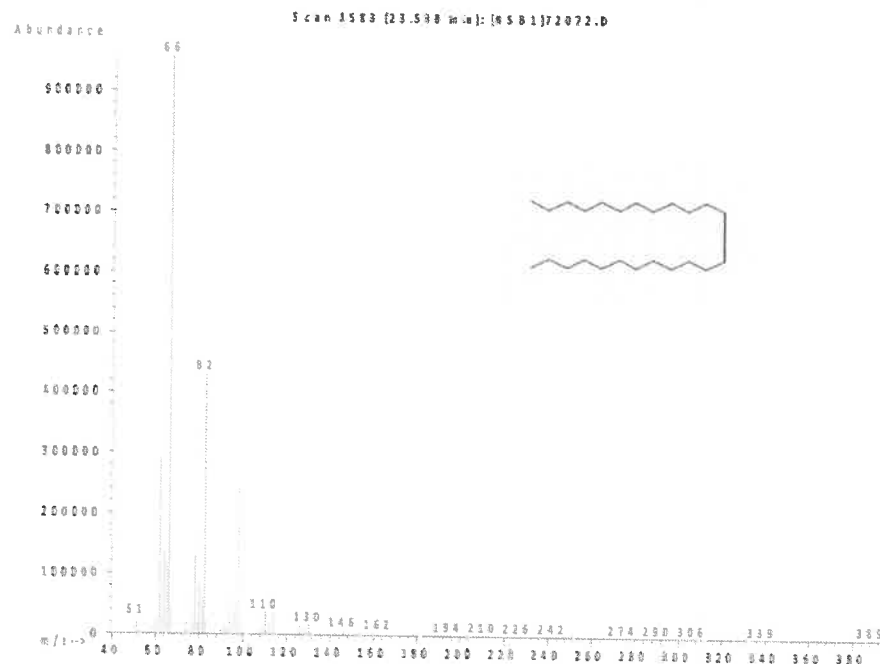
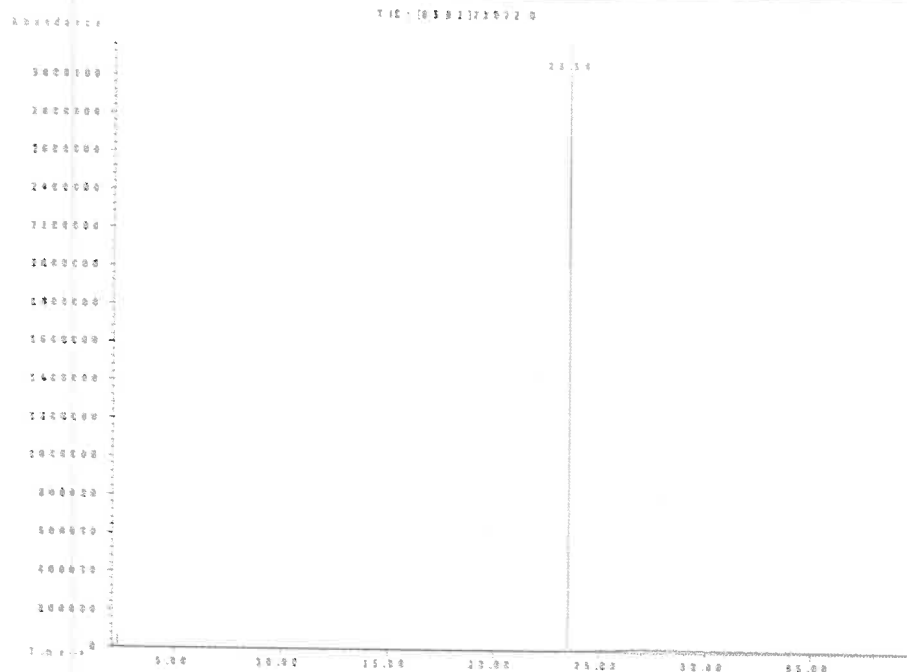
*P13477 } x.p.
↓
P13496 } 07/24/24*

Expiration Date: **101132**
Recommended Storage: **Ambient (20 °C)**
Nominal Concentration (µg/mL): **1000**
NIST Test ID#: **6UTB**

Weight(s) shown below were combined and diluted to (mL): **200.0**
5E-05 Balance Uncertainty
0.058 Flask Uncertainty

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.)		
											CAS#	OSHA PEL (TWA)	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	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 Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).



110 Benner Circle
Bellefonte, PA 16823-8812
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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.: 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

P031837
*
P031846
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.)

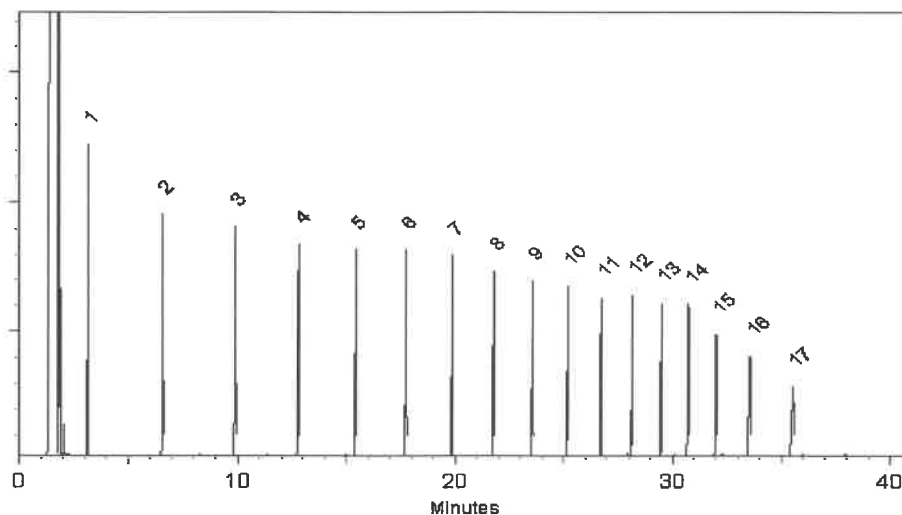
Inj. Temp:
 250°C

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
 Josh McCloskey - Operations Technician I

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

Jennifer Pollino
 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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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.: 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

P031837
*
P031846
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.)

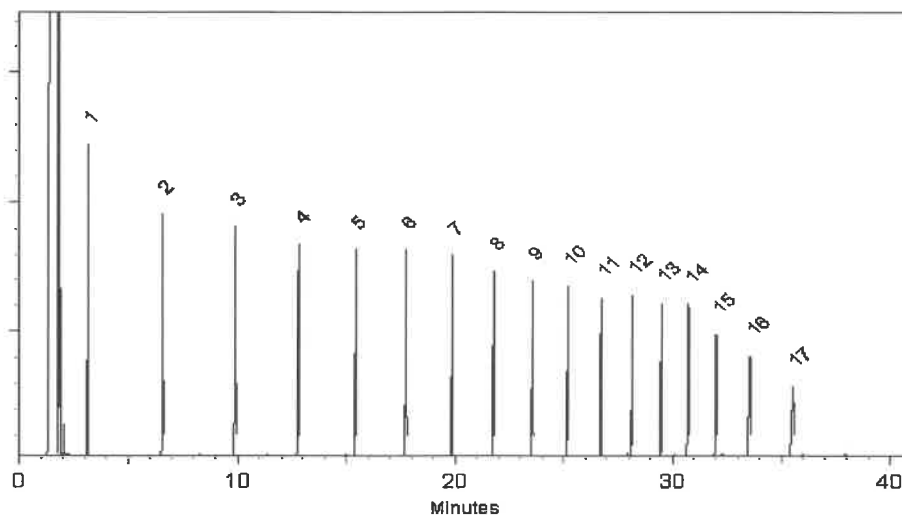
Inj. Temp:
 250°C

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
 Josh McCloskey - Operations Technician I

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

Jennifer Pollino
 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.

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG091825\
Data File : FG016619.D
Signal(s) : FID1A.ch
Acq On : 18 Sep 2025 11:23
Operator : YP\AJ
Sample : Q3015-19
Misc :
ALS Vial : 24 Sample Multiplier: 1

Instrument :
FID_G
ClientSampleId :
WP0925-RR-DIES-WP

Integration File: autoint1.e
Quant Time: Sep 19 01:50:13 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG090525.M
Quant Title :
QLast Update : Sat Sep 06 04:20:52 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...	15.169	1879385	17.199 ug/ml
Target Compounds			

(f)=RT Delta > 1/2 Window

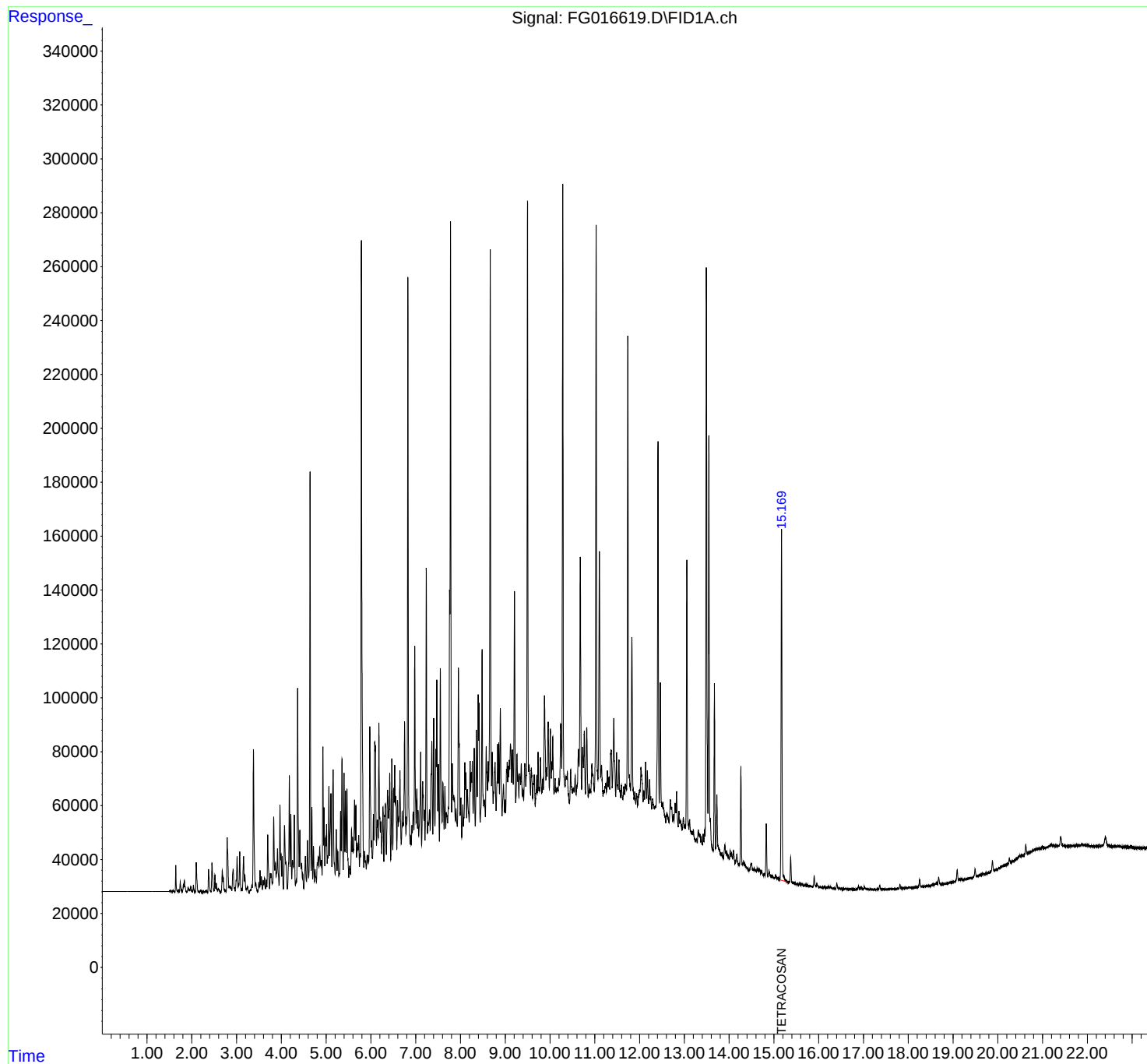
(m)=manual int.

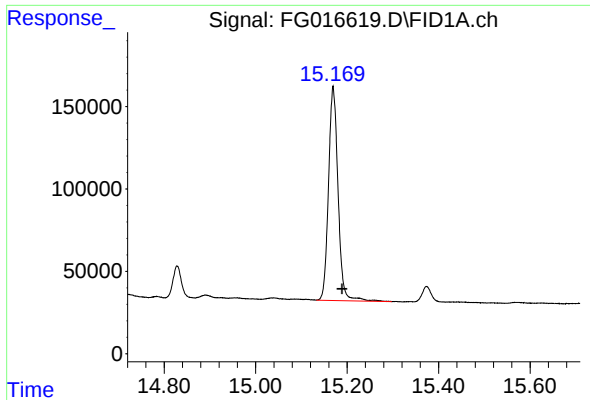
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG091825\
Data File : FG016619.D
Signal(s) : FID1A.ch
Acq On : 18 Sep 2025 11:23
Operator : YP\AJ
Sample : Q3015-19
Misc :
ALS Vial : 24 Sample Multiplier: 1

Instrument :
FID_G
ClientSampleId :
WP0925-RR-DIES-WP

Integration File: autoint1.e
Quant Time: Sep 19 01:50:13 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG090525.M
Quant Title :
QLast Update : Sat Sep 06 04:20:52 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.: 15.169 min
Delta R.T.: -0.020 min
Response: 1879385
Conc: 17.20 ug/ml

Instrument :
FID_G
ClientSampleId :
WP0925-RR-DIES-WP

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17

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG091825\
Data File : FG016619.D
Signal(s) : FID1A.ch
Acq On : 18 Sep 2025 11:23
Sample : Q3015-19
Misc :
ALS Vial : 24 Sample Multiplier: 1

Integration File: Sample.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG090525.M
Title :

Signal : FID1A.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	4.642	4.610	4.666	VV	154344	1708811	40.55%	0.781%
2	4.682	4.666	4.700	VV	30138	329967	7.83%	0.151%
3	4.718	4.700	4.738	VV	15574	196379	4.66%	0.090%
4	4.754	4.738	4.784	VV	7027	121005	2.87%	0.055%
5	4.801	4.784	4.809	VV	9462	103263	2.45%	0.047%
6	4.825	4.809	4.841	VV	11505	195530	4.64%	0.089%
7	4.857	4.841	4.881	VV	15320	272333	6.46%	0.124%
8	4.896	4.881	4.910	VV	10449	147390	3.50%	0.067%
9	4.928	4.910	4.943	VV	52506	567341	13.46%	0.259%
10	4.954	4.943	4.971	VV	29976	331640	7.87%	0.152%
11	4.989	4.971	4.998	VV	18768	241584	5.73%	0.110%
12	5.009	4.998	5.025	VV	23730	279053	6.62%	0.128%
13	5.035	5.025	5.043	VV	12094	122341	2.90%	0.056%
14	5.062	5.043	5.078	VV	37761	478317	11.35%	0.219%
15	5.107	5.078	5.129	VV	35182	660890	15.68%	0.302%
16	5.157	5.129	5.200	VV	43922	882655	20.94%	0.403%
17	5.227	5.200	5.246	VV	21915	330697	7.85%	0.151%
18	5.262	5.246	5.285	VV	13664	217212	5.15%	0.099%
19	5.323	5.285	5.337	VV	28538	416925	9.89%	0.191%
20	5.355	5.337	5.382	VV	47917	751482	17.83%	0.343%
21	5.400	5.382	5.419	VV	42762	549854	13.05%	0.251%
22	5.434	5.419	5.450	VV	36060	442125	10.49%	0.202%
23	5.466	5.450	5.506	VV	36884	585987	13.90%	0.268%
24	5.522	5.506	5.546	VV	8317	159612	3.79%	0.073%
25	5.568	5.546	5.580	VV	22057	300614	7.13%	0.137%
26	5.591	5.580	5.605	VV	19004	240174	5.70%	0.110%
27	5.636	5.605	5.652	VV	32770	607555	14.42%	0.278%
28	5.665	5.652	5.680	VV	30713	380344	9.02%	0.174%
29	5.693	5.680	5.715	VV	16817	306741	7.28%	0.140%
30	5.728	5.715	5.745	VV	19731	275647	6.54%	0.126%
31	5.759	5.745	5.765	VV	13095	136199	3.23%	0.062%
32	5.787	5.765	5.841	VV	240257	3507829	83.24%	1.603%
33	5.859	5.841	5.875	VV	13693	231334	5.49%	0.106%
34	5.880	5.875	5.897	VV	9998	120188	2.85%	0.055%
35	5.917	5.897	5.931	VV	12399	209930	4.98%	0.096%
36	5.942	5.931	5.953	VV	12223	149068	3.54%	0.068%

rteres.txt								
37	5.976	5.953	6.007	VV	59948	1046501	24.83%	0.478%
38	6.014	6.007	6.032	VV	17823	225999	5.36%	0.103%
39	6.057	6.032	6.068	VV	27476	394284	9.36%	0.180%
40	6.086	6.068	6.094	VV	54300	674474	16.00%	0.308%
41	6.101	6.094	6.126	VV	52886	665353	15.79%	0.304%
42	6.139	6.126	6.147	VV	25404	271231	6.44%	0.124%
43	6.155	6.147	6.164	VV	24894	231818	5.50%	0.106%
44	6.179	6.164	6.212	VV	61407	971044	23.04%	0.444%
45	6.223	6.212	6.241	VV	24723	359290	8.53%	0.164%
46	6.270	6.241	6.289	VV	30231	575676	13.66%	0.263%
47	6.322	6.289	6.344	VV	31396	734461	17.43%	0.336%
48	6.372	6.344	6.394	VV	36352	826426	19.61%	0.378%
49	6.421	6.394	6.442	VV	42698	826419	19.61%	0.378%
50	6.467	6.442	6.487	VV	48114	723076	17.16%	0.330%
51	6.509	6.487	6.520	VV	37214	571599	13.56%	0.261%
52	6.532	6.520	6.544	VV	45653	549721	13.04%	0.251%
53	6.551	6.544	6.579	VV	34007	605545	14.37%	0.277%
54	6.596	6.579	6.611	VV	32759	470422	11.16%	0.215%
55	6.621	6.611	6.629	VV	26001	267583	6.35%	0.122%
56	6.649	6.629	6.677	VV	43801	844971	20.05%	0.386%
57	6.699	6.677	6.711	VV	28806	476273	11.30%	0.218%
58	6.719	6.711	6.726	VV	24341	218541	5.19%	0.100%
59	6.752	6.726	6.783	VV	61831	1193825	28.33%	0.546%
60	6.796	6.783	6.803	VV	26674	297965	7.07%	0.136%
61	6.825	6.803	6.874	VV	226518	3063072	72.68%	1.400%
62	6.885	6.874	6.899	VV	19621	272989	6.48%	0.125%
63	6.917	6.899	6.926	VV	23450	327068	7.76%	0.149%
64	6.946	6.926	6.960	VV	28339	528120	12.53%	0.241%
65	6.979	6.960	7.008	VV	89897	1358883	32.24%	0.621%
66	7.025	7.008	7.042	VV	36735	617659	14.66%	0.282%
67	7.052	7.042	7.068	VV	28854	385160	9.14%	0.176%
68	7.111	7.068	7.131	VV	50754	1136089	26.96%	0.519%
69	7.156	7.131	7.184	VV	39610	954745	22.65%	0.436%
70	7.193	7.184	7.208	VV	29148	342305	8.12%	0.156%
71	7.236	7.208	7.264	VV	118863	1725983	40.95%	0.789%
72	7.280	7.264	7.290	VV	24273	354116	8.40%	0.162%
73	7.308	7.290	7.323	VV	29259	524987	12.46%	0.240%
74	7.360	7.323	7.382	VV	54650	1317480	31.26%	0.602%
75	7.402	7.382	7.429	VV	62889	1081882	25.67%	0.494%
76	7.449	7.429	7.457	VV	51608	660126	15.66%	0.302%
77	7.472	7.457	7.494	VV	77437	1153801	27.38%	0.527%
78	7.507	7.494	7.529	VV	46095	714632	16.96%	0.327%
79	7.550	7.529	7.590	VV	81748	1549234	36.76%	0.708%
80	7.607	7.590	7.634	VV	39313	826410	19.61%	0.378%
81	7.652	7.634	7.670	VV	38061	634427	15.05%	0.290%
82	7.685	7.670	7.713	VV	28116	675456	16.03%	0.309%
83	7.728	7.713	7.732	VV	29992	311284	7.39%	0.142%
84	7.758	7.732	7.763	VV	110191	1257540	29.84%	0.575%
85	7.778	7.763	7.804	VV	247494	3096585	73.48%	1.415%
86	7.817	7.804	7.841	VV	46416	840097	19.93%	0.384%
87	7.850	7.841	7.860	VV	34671	389780	9.25%	0.178%
88	7.866	7.860	7.886	VV	33232	465151	11.04%	0.213%
89	7.900	7.886	7.929	VV	29556	663203	15.74%	0.303%

rteres.txt								
90	7.955	7.929	7.995	VV	81808	1867758	44.32%	0.854%
91	8.009	7.995	8.028	VV	33568	564603	13.40%	0.258%
92	8.053	8.028	8.066	VV	30982	572318	13.58%	0.262%
93	8.097	8.066	8.109	VV	46822	858450	20.37%	0.392%
94	8.121	8.109	8.139	VV	42887	659088	15.64%	0.301%
95	8.153	8.139	8.195	VV	36810	1036454	24.59%	0.474%
96	8.216	8.195	8.229	VV	47328	779199	18.49%	0.356%
97	8.243	8.229	8.253	VV	43118	560431	13.30%	0.256%
98	8.265	8.253	8.284	VV	47173	726832	17.25%	0.332%
99	8.307	8.284	8.330	VV	52123	1046475	24.83%	0.478%
100	8.356	8.330	8.375	VV	58882	1087932	25.81%	0.497%
101	8.396	8.375	8.406	VV	71958	1003473	23.81%	0.459%
102	8.416	8.406	8.441	VV	68908	990653	23.51%	0.453%
103	8.483	8.441	8.521	VV	88018	2066715	49.04%	0.945%
104	8.538	8.521	8.556	VV	32584	635543	15.08%	0.290%
105	8.575	8.556	8.604	VV	52916	1200630	28.49%	0.549%
106	8.618	8.604	8.632	VV	46952	707642	16.79%	0.323%
107	8.665	8.632	8.695	VV	236560	3717610	88.21%	1.699%
108	8.711	8.695	8.730	VV	50695	870748	20.66%	0.398%
109	8.773	8.730	8.796	VV	46815	1533468	36.39%	0.701%
110	8.831	8.796	8.844	VV	53510	1151234	27.32%	0.526%
111	8.856	8.844	8.871	VV	54211	744797	17.67%	0.340%
112	8.891	8.871	8.930	VV	66841	1568674	37.22%	0.717%
113	8.962	8.930	8.985	VV	38729	1093956	25.96%	0.500%
114	8.997	8.985	9.010	VV	32994	473760	11.24%	0.217%
115	9.029	9.010	9.034	VV	44109	540333	12.82%	0.247%
116	9.044	9.034	9.055	VV	47065	557584	13.23%	0.255%
117	9.067	9.055	9.080	VV	45553	620204	14.72%	0.283%
118	9.093	9.080	9.102	VV	47591	600069	14.24%	0.274%
119	9.118	9.102	9.144	VV	53627	1226756	29.11%	0.561%
120	9.161	9.144	9.181	VV	51364	1008304	23.93%	0.461%
121	9.207	9.181	9.234	VV	110403	2018301	47.89%	0.922%
122	9.263	9.234	9.283	VV	49792	1216167	28.86%	0.556%
123	9.289	9.283	9.306	VV	41723	544471	12.92%	0.249%
124	9.322	9.306	9.344	VV	42641	924984	21.95%	0.423%
125	9.359	9.344	9.383	VV	46453	934183	22.17%	0.427%
126	9.396	9.383	9.411	VV	36636	590719	14.02%	0.270%
127	9.440	9.411	9.459	VV	46504	1178966	27.98%	0.539%
128	9.498	9.459	9.522	VV	255003	3816430	90.56%	1.744%
129	9.535	9.522	9.566	VV	45825	1107977	26.29%	0.506%
130	9.584	9.566	9.612	VV	44748	1098851	26.07%	0.502%
131	9.648	9.612	9.670	VV	42172	1304046	30.94%	0.596%
132	9.704	9.670	9.717	VV	42168	1024195	24.30%	0.468%
133	9.733	9.717	9.754	VV	50369	942751	22.37%	0.431%
134	9.758	9.754	9.768	VV	37341	311133	7.38%	0.142%
135	9.787	9.768	9.820	VV	48689	1288740	30.58%	0.589%
136	9.837	9.820	9.851	VV	40691	712721	16.91%	0.326%
137	9.876	9.851	9.909	VV	71544	1837894	43.61%	0.840%
138	9.921	9.909	9.934	VV	45003	631210	14.98%	0.288%
139	9.959	9.934	9.987	VV	62019	1576695	37.41%	0.721%
140	10.008	9.987	10.027	VV	59408	1162503	27.58%	0.531%
141	10.039	10.027	10.046	VV	47157	513565	12.19%	0.235%

rteres.txt								
142	10.062	10.046	10.088	VV	56170	1158587	27.49%	0.529%
143	10.113	10.088	10.136	VV	40931	1094847	25.98%	0.500%
144	10.150	10.136	10.156	VV	36661	438804	10.41%	0.201%
145	10.169	10.156	10.184	VV	37436	608133	14.43%	0.278%
146	10.197	10.184	10.211	VV	40923	636601	15.11%	0.291%
147	10.239	10.211	10.264	VV	61114	1593032	37.80%	0.728%
148	10.284	10.264	10.334	VV	261434	4103955	97.38%	1.876%
149	10.363	10.334	10.376	VV	41883	1012428	24.02%	0.463%
150	10.387	10.376	10.433	VV	43377	1263135	29.97%	0.577%
151	10.461	10.433	10.505	VV	44233	1627185	38.61%	0.744%
152	10.515	10.505	10.523	VV	36640	391231	9.28%	0.179%
153	10.529	10.523	10.545	VV	37258	476286	11.30%	0.218%
154	10.562	10.545	10.580	VV	41761	812425	19.28%	0.371%
155	10.633	10.580	10.648	VV	51757	1724217	40.91%	0.788%
156	10.675	10.648	10.705	VV	122348	2506367	59.47%	1.145%
157	10.727	10.705	10.750	VV	52525	1241193	29.45%	0.567%
158	10.765	10.750	10.790	VV	58582	1169102	27.74%	0.534%
159	10.820	10.790	10.856	VV	59822	1766809	41.92%	0.807%
160	10.872	10.856	10.887	VV	38753	683611	16.22%	0.312%
161	10.902	10.887	10.910	VV	37094	502367	11.92%	0.230%
162	10.935	10.910	10.952	VV	46536	1038550	24.64%	0.475%
163	10.955	10.952	10.992	VV	42025	956846	22.70%	0.437%
164	11.029	10.992	11.068	VV	244990	4214348	100.00%	1.926%
165	11.102	11.068	11.133	VV	125231	2761410	65.52%	1.262%
166	11.149	11.133	11.185	VV	45953	1284836	30.49%	0.587%
167	11.200	11.185	11.208	VV	36500	484367	11.49%	0.221%
168	11.240	11.208	11.260	VV	39138	1180038	28.00%	0.539%
169	11.280	11.260	11.299	VV	43860	922517	21.89%	0.422%
170	11.318	11.299	11.334	VV	41645	833027	19.77%	0.381%
171	11.362	11.334	11.392	VV	51181	1598378	37.93%	0.730%
172	11.424	11.392	11.467	VV	63025	2141706	50.82%	0.979%
173	11.486	11.467	11.521	VV	50693	1334082	31.66%	0.610%
174	11.539	11.521	11.575	VV	47625	1276780	30.30%	0.583%
175	11.596	11.575	11.627	VV	38439	1117813	26.52%	0.511%
176	11.648	11.627	11.667	VV	37663	857055	20.34%	0.392%
177	11.684	11.667	11.711	VV	39010	1000930	23.75%	0.457%
178	11.737	11.711	11.760	VV	204953	3001712	71.23%	1.372%
179	11.767	11.760	11.800	VV	42419	928447	22.03%	0.424%
180	11.828	11.800	11.858	VV	93315	2025945	48.07%	0.926%
181	11.860	11.858	11.880	VV	36861	456345	10.83%	0.209%
182	11.893	11.880	11.918	VV	36018	778569	18.47%	0.356%
183	11.930	11.918	11.957	VV	35377	785543	18.64%	0.359%
184	11.979	11.957	11.984	VV	35436	536100	12.72%	0.245%
185	12.002	11.984	12.010	VV	36596	554384	13.15%	0.253%
186	12.031	12.010	12.079	VV	45315	1641207	38.94%	0.750%
187	12.093	12.079	12.113	VV	36405	710668	16.86%	0.325%
188	12.136	12.113	12.159	VV	46927	1104581	26.21%	0.505%
189	12.174	12.159	12.202	VV	43952	973397	23.10%	0.445%
190	12.224	12.202	12.240	VV	40621	808273	19.18%	0.369%
191	12.249	12.240	12.274	VV	34179	663502	15.74%	0.303%
192	12.293	12.274	12.327	VV	33294	1007329	23.90%	0.460%
193	12.349	12.327	12.362	VV	30893	637869	15.14%	0.292%
194	12.411	12.362	12.440	VV	165001	3197370	75.87%	1.461%

rteres.txt								
195	12.463	12.440	12.502	VV	76238	1683975	39.96%	0.770%
196	12.519	12.502	12.586	VV	32244	1450770	34.42%	0.663%
197	12.611	12.586	12.657	VV	28260	1122883	26.64%	0.513%
198	12.688	12.657	12.712	VV	33230	971561	23.05%	0.444%
199	12.719	12.712	12.739	VV	30541	453726	10.77%	0.207%
200	12.753	12.739	12.768	VV	27721	476779	11.31%	0.218%
201	12.793	12.768	12.812	VV	31843	767329	18.21%	0.351%
202	12.827	12.812	12.860	VV	36207	841126	19.96%	0.384%
203	12.878	12.860	12.894	VV	28853	532955	12.65%	0.244%
204	12.904	12.894	12.955	VV	25374	877663	20.83%	0.401%
205	12.976	12.955	13.014	VV	26553	855229	20.29%	0.391%
206	13.019	13.014	13.026	VV	23288	162076	3.85%	0.074%
207	13.056	13.026	13.102	VV	121742	2230567	52.93%	1.019%
208	13.118	13.102	13.140	VV	25632	543709	12.90%	0.248%
209	13.143	13.140	13.167	VV	21773	349017	8.28%	0.160%
210	13.179	13.167	13.186	VV	21193	238121	5.65%	0.109%
211	13.201	13.186	13.249	VV	22145	737722	17.51%	0.337%
212	13.270	13.249	13.290	VV	18684	454273	10.78%	0.208%
213	13.312	13.290	13.330	VV	22096	480173	11.39%	0.219%
214	13.347	13.330	13.368	VV	20444	442647	10.50%	0.202%
215	13.380	13.368	13.404	VV	19210	391176	9.28%	0.179%
216	13.420	13.404	13.437	VV	20478	366710	8.70%	0.168%
217	13.453	13.437	13.464	VV	22023	330704	7.85%	0.151%
218	13.491	13.464	13.526	VV	230058	3474067	82.43%	1.588%
219	13.548	13.526	13.573	VV	168014	2337376	55.46%	1.068%
220	13.580	13.573	13.642	VV	26385	765440	18.16%	0.350%
221	13.672	13.642	13.700	VV	76357	1230127	29.19%	0.562%
222	13.726	13.700	13.823	VV	34807	1310600	31.10%	0.599%
223	13.839	13.823	13.866	VV	13434	325229	7.72%	0.149%
224	13.904	13.866	13.933	VV	16459	559540	13.28%	0.256%
225	13.950	13.933	13.971	VV	13752	301018	7.14%	0.138%
226	13.982	13.971	14.004	VV	12455	236475	5.61%	0.108%
227	14.025	14.004	14.040	VV	14272	278925	6.62%	0.127%
228	14.055	14.040	14.079	VV	13582	292600	6.94%	0.134%
229	14.099	14.079	14.137	VV	14375	415187	9.85%	0.190%
230	14.173	14.137	14.209	VV	12739	462725	10.98%	0.211%
231	14.222	14.209	14.232	VV	9368	126714	3.01%	0.058%
232	14.262	14.232	14.294	VV	45572	784222	18.61%	0.358%
233	14.319	14.294	14.337	VV	10251	246466	5.85%	0.113%
234	14.350	14.337	14.407	VV	9702	358404	8.50%	0.164%
235	14.410	14.407	14.443	VV	7847	158383	3.76%	0.072%
236	14.453	14.443	14.459	VV	7275	67697	1.61%	0.031%
237	14.496	14.459	14.525	VV	9580	336666	7.99%	0.154%
238	14.532	14.525	14.549	VV	7548	103593	2.46%	0.047%
239	14.559	14.549	14.586	VV	7768	163220	3.87%	0.075%
240	14.595	14.586	14.611	VV	7326	100880	2.39%	0.046%
241	14.630	14.611	14.650	VV	7882	170352	4.04%	0.078%
242	14.656	14.650	14.667	VV	7216	73285	1.74%	0.033%
243	14.681	14.667	14.706	VV	7351	160023	3.80%	0.073%
244	14.722	14.706	14.766	VV	7068	218371	5.18%	0.100%
245	14.783	14.766	14.802	VV	5847	116267	2.76%	0.053%
246	14.828	14.802	14.869	VV	24178	444027	10.54%	0.203%

rteres.txt								
247	14.891	14.869	14.940	VV	6632	236102	5.60%	0.108%
248	14.954	14.940	15.011	VV	5053	194889	4.62%	0.089%
249	15.036	15.011	15.073	VV	4961	167476	3.97%	0.077%
250	15.079	15.073	15.105	VV	4238	77870	1.85%	0.036%
251	15.111	15.105	15.132	VV	4133	64516	1.53%	0.029%
252	15.169	15.132	15.252	VV	133640	2106457	49.98%	0.963%
253	15.258	15.252	15.304	VV	3549	97431	2.31%	0.045%
254	15.307	15.304	15.322	VV	2827	29484	0.70%	0.013%
255	15.339	15.322	15.347	VV	2721	39786	0.94%	0.018%
256	15.374	15.347	15.415	VV	11944	228971	5.43%	0.105%
257	15.423	15.415	15.437	VV	2495	32406	0.77%	0.015%
258	15.441	15.437	15.475	VV	2486	52062	1.24%	0.024%
259	15.482	15.475	15.506	VV	2194	39167	0.93%	0.018%
260	15.515	15.506	15.549	VV	2010	47413	1.13%	0.022%
261	15.572	15.549	15.600	VV	2249	61826	1.47%	0.028%
262	15.625	15.600	15.674	VV	1907	75265	1.79%	0.034%
263	15.716	15.674	15.747	VV	1696	66438	1.58%	0.030%
264	15.761	15.747	15.784	VV	1628	31383	0.74%	0.014%
265	15.794	15.784	15.806	VV	1356	17112	0.41%	0.008%
266	15.810	15.806	15.838	VV	1273	22643	0.54%	0.010%
267	15.844	15.838	15.866	VV	1112	18063	0.43%	0.008%
268	15.899	15.866	15.938	VV	4951	98434	2.34%	0.045%
269	15.963	15.938	16.026	VV	2077	65103	1.54%	0.030%
270	16.034	16.026	16.065	VV	953	19233	0.46%	0.009%
271	16.079	16.065	16.117	VV	926	25782	0.61%	0.012%
272	16.131	16.117	16.153	VV	837	16303	0.39%	0.007%
273	16.161	16.153	16.180	VV	756	10840	0.26%	0.005%
274	16.196	16.180	16.202	VV	804	9822	0.23%	0.004%
275	16.225	16.202	16.250	VV	1248	26060	0.62%	0.012%
276	16.267	16.250	16.323	VV	929	26287	0.62%	0.012%
277	16.331	16.323	16.357	VV	455	7957	0.19%	0.004%
278	16.405	16.357	16.454	VV	2374	48628	1.15%	0.022%
279	16.469	16.454	16.502	VV	469	9218	0.22%	0.004%
280	16.506	16.502	16.529	VV	301	2916	0.07%	0.001%
281	16.535	16.529	16.539	VV	208	1084	0.03%	0.000%
282	16.543	16.539	16.555	VV	200	1299	0.03%	0.001%
283	16.577	16.555	16.588	VV	254	3428	0.08%	0.002%
284	16.594	16.588	16.602	VV	196	1331	0.03%	0.001%
285	16.614	16.602	16.637	VV	235	3332	0.08%	0.002%
286	16.651	16.637	16.666	VV	129	1451	0.03%	0.001%
287	16.673	16.666	16.678	VV	104	487	0.01%	0.000%
288	16.687	16.678	16.696	VV	127	1218	0.03%	0.001%
289	16.706	16.696	16.729	VV	227	3175	0.08%	0.001%
290	16.732	16.729	16.740	VV	158	776	0.02%	0.000%
291	16.743	16.740	16.749	VV	124	497	0.01%	0.000%
292	16.757	16.749	16.762	VV	114	555	0.01%	0.000%
293	16.773	16.762	16.792	VV	162	1698	0.04%	0.001%
294	16.796	16.792	16.816	VV	63	516	0.01%	0.000%
295	16.832	16.816	16.846	PV	177	1886	0.04%	0.001%
296	16.892	16.846	16.916	VV	1174	20317	0.48%	0.009%
297	16.932	16.916	16.949	VV	708	11504	0.27%	0.005%
298	16.954	16.949	16.998	VV	672	9768	0.23%	0.004%
299	17.021	16.998	17.046	VV	1037	16608	0.39%	0.008%

					rteres.txt				
300	17.050	17.046	17.054	VV	238	1106	0.03%	0.001%	
301	17.063	17.054	17.116	VV	314	7059	0.17%	0.003%	
302	17.119	17.116	17.128	VV	123	625	0.01%	0.000%	
303	17.137	17.128	17.148	VV	105	1016	0.02%	0.000%	
304	17.151	17.148	17.156	VV	111	305	0.01%	0.000%	
305	17.164	17.156	17.190	VV	125	1114	0.03%	0.001%	
306	17.202	17.190	17.208	VV	58	404	0.01%	0.000%	
307	17.215	17.208	17.219	PV	82	290	0.01%	0.000%	
308	17.228	17.219	17.242	VV	133	1085	0.03%	0.000%	
309	17.247	17.242	17.266	VV	92	841	0.02%	0.000%	
310	17.281	17.266	17.287	PV	56	384	0.01%	0.000%	
311	17.320	17.287	17.325	VV	125	1142	0.03%	0.001%	
312	17.362	17.325	17.391	VV	1547	23469	0.56%	0.011%	
313	17.394	17.391	17.398	VV	182	571	0.01%	0.000%	
314	17.401	17.398	17.405	VV	145	441	0.01%	0.000%	
315	17.416	17.405	17.434	VV	168	2174	0.05%	0.001%	
316	17.446	17.434	17.483	VV	226	3919	0.09%	0.002%	
317	17.492	17.483	17.501	PBA	106	-4486	-0.11%	-0.002%	
					Sum of corrected areas:		218815715		

FG090525.M Fri Sep 19 02:42:33 2025



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Golden, CO 80403

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Fax: +1-303-940-0043
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www.phenova.com

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Date	Order #
09/02/2025	333290



Ship To

Alliance Tech Group - Newark
ATTN: Sohil Jodhani
284 Sheffield St., #1
Mountainside, NJ 07092
USA

Received by: *ST* 9/4/2025
9:25

Customer PO #	Terms	PT Acct #	Customer #	Ship Via	F.O.B.
PO2-3159	Net 30	ZCM-100	1500470	FedEx 2nd Day	Golden, CO

Qty Ordered	Qty Shipped	Qty Backorder	Part Number	Part Description	Study Number	Lot Number
			PT-TMSET-WP	WP Trace Metals Set : (TM1, HG and SNTI)		
1	1	0	PT-TM1-WP	WP Trace Metals 1	WP0925	8270-04
1	1	0	PT-HG-WP	WP Mercury	WP0925	8270-05
1	1	0	PT-SNTI-WP	WP Tin & Titanium	WP0925	8270-38
1	1	0	PT-CR6-WP	WP Hexavalent Chromium	WP0925	8270-06
1	1	0	PT-DEM-WP	WP Demand	WP0925	8270-07
			PT-MINSET-WP	WP Minerals Set : (MIN1, MIN2 and COND)		
1	1	0	PT-MIN1-WP	WP Minerals 1 Only	WP0925	8270-08
1	1	0	PT-MIN2-WP	WP Minerals 2 Only	WP0925	8270-102
1	1	0	PT-COND-WP	WP Conductivity Only	WP0925	8270-72
1	1	0	PT-COND-WP	WP Conductivity Only	WP0925	8270-72
1	1	0	PT-SOL-WP	WP Solids	WP0925	8270-09
			PT-NUTSET-WP	WP Nutrients Set : (NUT1, NUT2 and NUT3)		
1	1	0	PT-NUT1-WP	WP NUT1 Simple Nutrients Only	WP0925	8270-10
1	1	0	PT-NUT2-WP	WP NUT2 - Complex Nutrients	WP0925	8270-11
1	1	0	PT-NUT3-WP	WP NUT3 - Nitrite Only	WP0925	8270-69
1	1	0	PT-OGR1L-WP	WP Oil and Grease 1L	WP0925	8270-103
1	1	0	PT-CL-WP	WP Residual Chlorine	WP0925	8270-13
1	1	0	PT-PH-WP	WP pH	WP0925	8270-15
1	1	0	PT-CN-WP	WP Cyanide	WP0925	8270-14

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Golden, CO 80403

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Date	Order #
09/02/2025	333290



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Alliance Tech Group - Newark
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284 Sheffield St., #1
Mountainside, NJ 07092
USA

Received by: SJ
9/4/2025
9:25

Customer PO #	Terms	PT Acct #	Customer #	Ship Via	F.O.B.
PO2-3159	Net 30	ZCM-100	1500470	FedEx 2nd Day	Golden, CO

Qty Ordered	Qty Shipped	Qty Backorder	Part Number	Part Description	Study Number	Lot Number
1	1	0	PT-PHEN-WP	WP Phenolics	WP0925	8270-16
1	1	0	PT-S2-WP	WP Sulfide	WP0925	8270-22
1	1	0	PT-SSOL-WP	WP Settleable Solids	WP0925	8270-17
1	1	0	PT-VSOL-WP	WP Volatile Solids	WP0925	8270-18
1	1	0	PT-TURB-WP	WP Turbidity	WP0925	8270-20
1	1	0	PT-SIO2-WP	WP Silica	WP0925	8270-21
1	1	0	PT-COL-WP	WP Color	WP0925	8270-51
1	1	0	PT-VOA-WP	WP Volatiles	WP0925	8270-26
1	1	0	PT-BN-WP	WP Base Neutrals	WP0925	8270-27
1	1	0	PT-ACIDS-WP	WP Acids	WP0925	8270-28
1	1	0	PT-PEST-WP	WP Pesticides	WP0925	8270-29
1	1	0	PT-CHLR-WP	WP Chlordane	WP0925	8270-30
1	1	0	PT-TXP-WP	WP Toxaphene	WP0925	8270-31
1	1	0	PT-PCBW-WP	WP PCBs in Water	WP0925	8270-32
1	1	0	PT-HERB-WP	WP Herbicides	WP0925	8270-36
1	1	0	RR-TPH1L-WP	WP TPH 1L	R41815	R41815-104
1	1	0	RR-PAH-WP	WP PAH-Low Level	R41815	R41815-37
1	1	0	RR-GAS-WP	WP Gasoline Range Organics	R41815	R41815-62
1	1	0	RR-DIES-WP	WP Diesel Range Organics	R41815	R41815-63
1	1	0	RR-8011-WP	WP EDB/DBCP/TCP	R41815	R41815-98



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Date	Order #
09/05/2025	340092



Ship To

Alliance Tech Group - Newark
ATTN: Sohil Jodhani
284 Sheffield St., #1
Mountainside, NJ 07092
USA

Received by: SJ

9/9/2025 12:20

Customer PO #	Terms	PT Acct #	Customer #	Ship Via	F.O.B.
PO2-3159	Net 30	ZCM-100	1500470	FedEx 2nd Day	Golden, CO

Qty Ordered	Qty Shipped	Qty Backorder	Part Number	Part Description	Study Number	Lot Number
1	1	0	RR-TRIAZINE-WP	WP Triazine Pesticides	R41854	R41854-108

Laboratory Certification

Certified By	License No.
Connecticut	PH-0830
DOD ELAP (ANAB)	L2219
Maine	2024021
Maryland	296
New Hampshire	255425
New Jersey	20012
New York	11376
Pennsylvania	68-00548
Soil Permit	525-24-234-08441
Texas	TX-C25-00189
Virginia	460312