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

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 : Q1502

ATTENTION : Mohammad Ahmed

Laboratory Certification ID # 20012

Table Of Contents for Q1502

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Cover Page

Order ID : Q1502

Project ID : NJ Waste Water PT

Client : Alliance Technical Group, LLC - Newark

Lab Sample Number	Client Sample Number
Q1502-01	PT-VOA-WP
Q1502-02	PT-VOA-WP
Q1502-03	PT-BN-WP
Q1502-04	PT-BN-WP
Q1502-05	PT-BN-WP
Q1502-06	PT-ACIDS-WP
Q1502-07	PT-ACIDS-WP
Q1502-08	PT-ACIDS-WP
Q1502-09	PT-PEST-WP
Q1502-10	PT-PEST-WP
Q1502-11	PT-CHLR-WP
Q1502-12	PT-CHLR-WP
Q1502-13	PT-TXP-WP
Q1502-14	PT-TXP-WP
Q1502-15	PT-PCBW-WP
Q1502-16	PT-PCBW-WP
Q1502-17	PT-HERB-WP
Q1502-18	RR-GAS-WP
Q1502-19	RR-DIES-WP
Q1502-20	RR-8011-WP
Q1502-21	RR-PAH-WP
Q1502-22	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: 4/18/2025

NYDOH CERTIFICATION NO - 11376

NJDEP CERTIFICATION NO - 20012

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CASE NARRATIVE

Alliance Technical Group, LLC - Newark
Project Name: NJ Waste Water PT
Project # N/A
Chemtech Project # Q1502
Test Name: Diesel Range Organics

A. Number of Samples and Date of Receipt:
21 Water samples were received on 03/05/2025.
1 Water sample was received on 03/11/2025.

B. Parameters
According to the Chain of Custody document, the following analyses were requested: Diesel Range Organics, Gasoline Range Organics, Herbicide group1, PCB, PESTICIDE Group1, PESTICIDE Group2, PESTICIDE Group3, SVOCMS Group1, SVOCMS Group2, SVOCMS Group3, SVOCMS Group4, SVOCMS Group5, SVOCMS Group6, VOCGC Group 1 and VOCMS Group1. 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 met the acceptable criteria.
The Retention Times were acceptable for all samples.
The RPD met criteria .
The Blank Spike met requirements for all samples .
The Blank Spike Duplicate met requirements for all samples .
The Blank analysis did not indicate the presence of lab contamination.
The Initial Calibration met the requirements .
The Continuous Calibration met the requirements .

Samples RR-DIES-WP was diluted due to bad matrix, The above sample 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.

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Signature_____

284 Sheffield Street, Mountainside NJ 07092 Tel.
908-789-8900 Fax: 908-789-8922

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 is 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

CHEMTECH PROJECT NUMBER: Q1502 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 samples . The Blank Spike Duplicate met requirements for all samples . The RPD met criteria .			✓
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:		✓	

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GC ANALYSIS CONFORMANCE/NON-CONFORMANCE SUMMARY (CONTINUED)

		NA	NO	YES
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.

ADDITIONAL COMMENTS:

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

_____ _____

QA REVIEW Date

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
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APPENDIX A

QA REVIEW GENERAL DOCUMENTATION

Project #: Q1502

	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 Castody	✓
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: MOHAMMAD AHMED **Date:** 04/18/2025

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LAB CHRONICLE

OrderID:	Q1502	**OrderDate:**	3/6/2025 10:04:07 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
Q1502-15	**PT-PCBW-WP**	**WATER**			**03/03/25**			**03/05/25**
			PCB	8082A		03/11/25	03/12/25	
Q1502-19	**RR-DIES-WP**	**Water**			**03/03/25**			**03/05/25**
			Diesel Range Organics	8015D		03/12/25	03/12/25	
Q1502-20	**RR-8011-WP**	**WATER**			**03/03/25**			**03/05/25**
			VOCGC Group 1	8011		03/12/25	03/12/25	
Q1502-20DL	**RR-8011-WPDL**	**WATER**			**03/03/25**			**03/05/25**
			VOCGC Group 1	8011		03/12/25	03/12/25	

QC SUMMARY

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WATER DIESEL RANGE ORGANICS SURROGATE RECOVERY

Lab Name: Chemtech Client: Alliance Technical Group, LLC - Newark

Lab Code: CHEM Case No.: Q1502 SAS No.: Q1502 SDG No.: Q1502

EPA SAMPLE NO.	S1 TETRACOSANE-d50	S2	S3	S4	TOT OUT
PIBLK-FG015471.D	108				0
PIBLK-FG015481.D	108				0
PB167101BL	84				0
PB167101BS	97				0
PB167101BSD	96				0
RR-DIES-WP	99				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

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

Lab Name: Chemtech **Client:** Alliance Technical Group, LLC - Newark

Lab Code: CHEM **Cas No:** Q1502 **SAS No :** Q1502 **SDG No:** Q1502

Matrix Spike - EPA Sample No : PB167101BS **Datafile:** FG015475.D

COMPOUND	SPIKE ADDED ug/L	CONCENTRATION ug/L	LCS/LCSD CONCENTRATION ug/L	% REC	QC LIMITS
DRO	200	0	206	103	78-117

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

Lab Name: Chemtech **Client:** Alliance Technical Group, LLC - Newark

Lab Code: CHEM **Cas No:** Q1502 **SAS No :** Q1502 **SDG No:** Q1502

Matrix Spike - EPA Sample No : PB167101BSD **Datafile:** FG015476.D

COMPOUND	SPIKE ADDED ug/L	CONCENTRATION ug/L	LCS/LCSD CONCENTRATION ug/L	% REC	QC LIMITS
DRO	200	0	204	102	78-117

LCS/LCSD % Recovery RPD : 1.0

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4B
METHOD BLANK SUMMARY

EPA SAMPLE NO.
PB167101BL

Lab Name: CHEMTECH Contract: ALLI03

Lab Code: CHEM Case No.: Q1502 SAS No.: Q1502 SDG NO.: Q1502

Lab File ID: FG015474.D Lab Sample ID: PB167101BL

Instrument ID: Fg Date Extracted: 03/12/2025

Matrix: (soil/water) Water Date Analyzed: 03/12/25

Level: (low/med) low Time Analyzed: 13:57

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

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
PB167101BS	PB167101BS	FG015475.D	03/12/25
PB167101BSD	PB167101BSD	FG015476.D	03/12/25
RR-DIES-WP	Q1502-19	FG015478.D	03/12/25

COMMENTS:

Form IV

SAMPLE DATA

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Report of Analysis

Client:	Alliance Technical Group, LLC - Newark	Date Collected:	03/03/25
Project:	NJ Waste Water PT	Date Received:	03/05/25
Client Sample ID:	RR-DIES-WP	SDG No.:	Q1502
Lab Sample ID:	Q1502-19	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
FG015478.D	5	03/12/25 08:55	03/12/25 15:54	PB167101

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
DRO	DRO	2340		50.0	250	ug/L
SURROGATES						
16416-32-3	Tetracosane-d50	3.98		29 - 130	99%	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

Quantitation Report (QT Reviewed)

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG031225\
Data File : FG015478.D
Signal(s) : FID1A.ch
Acq On : 12 Mar 2025 15:54
Operator : YP\AJ
Sample : Q1502-19 5X
Misc :
ALS Vial : 25 Sample Multiplier: 1

Instrument :
FID_G
ClientSampleId :
RR-DIES-WP

Manual Integrations APPROVED

Reviewed By :Yogesh Patel 03/13/2025
Supervised By :Ankita Jodhani 03/13/2025

Integration File: autoint1.e
Quant Time: Mar 13 03:18:48 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG030325.M
Quant Title :
QLast Update : Mon Mar 03 14:06:11 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...	15.025	432991	3.977 ug/mlm
Target Compounds				

(f)=RT Delta > 1/2 Window (m)=manual int.

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG031225\
Data File : FG015478.D
Signal(s) : FID1A.ch
Acq On : 12 Mar 2025 15:54
Operator : YP\AJ
Sample : Q1502-19 5X
Misc :
ALS Vial : 25 Sample Multiplier: 1

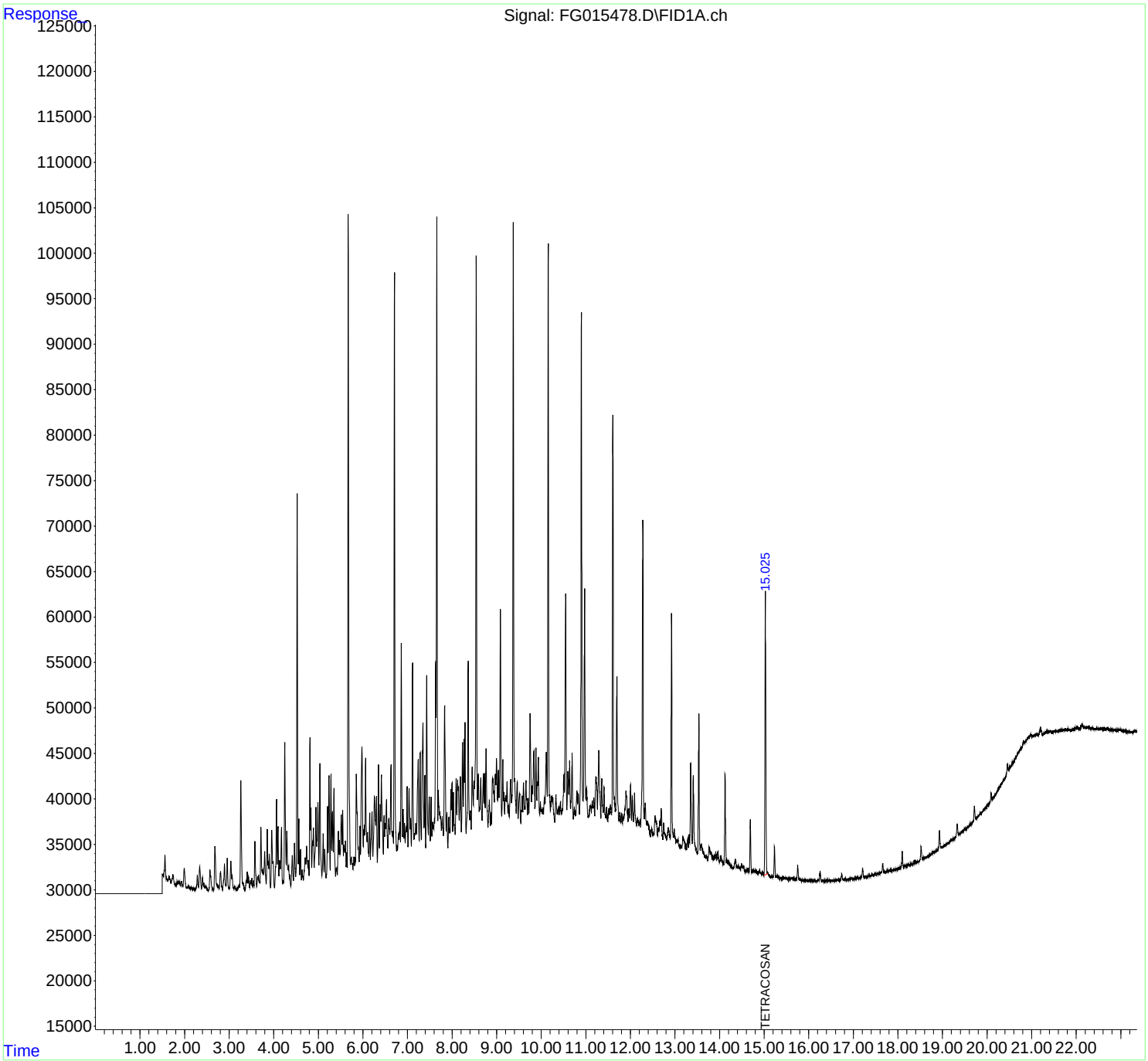
Integration File: autoint1.e
Quant Time: Mar 13 03:18:48 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG030325.M
Quant Title :
QLast Update : Mon Mar 03 14:06:11 2025
Response via : Initial Calibration
Integrator: ChemStation

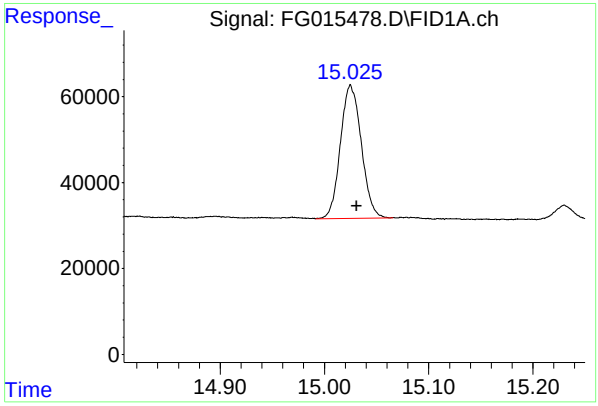
Volume Inj. : 1uL
Signal Phase : Rxi-1ms
Signal Info : 20mx0.18mmx0.18um

Instrument :
FID_G
ClientSampleId :
RR-DIES-WP

Manual Integrations APPROVED

Reviewed By :Yogesh Patel 03/13/2025
Supervised By :Ankita Jodhani 03/13/2025





#9 TETRACOSANE-d50 (SURROGATE)

R.T.:	15.025 min
Delta R.T.:	-0.006 mir
Response:	432991
Conc:	3.98 ug/m

Instrument :
FID_G
ClientSampleId :
RR-DIES-WP

Manual Integrations
APPROVED

Reviewed By :Yogesh Patel 03/13/2025
Supervised By :Ankita Jodhani 03/13/2025

Instrument :
FID_G
ClientSampleId :
RR-DIES-WP

rteres

Area Percent Report

Manual IntegrationsAPPROVED

Reviewed By :Yogesh Patel 03/13/2025
Supervised By :Ankita Jodhani 03/13/2025

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG03122
Data File : FG015478.D
Signal(s) : FID1A.ch
Acq On : 12 Mar 2025 15:54
Sample : Q1502-19 5X
Misc :
ALS Vial : 25 Sample Multiplier: 1

Integration File: Sample.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG030325.M
Title :

Signal : FID1A.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	4.947	4.908	4.962	HH	9142	171442	15.58%	0.308%
2	4.970	4.962	4.977	HH	5597	48585	4.42%	0.087%
3	4.992	4.977	5.015	HH	9662	145955	13.27%	0.262%
4	5.036	5.015	5.081	HH	13987	246825	22.44%	0.443%
5	5.110	5.081	5.129	HH	6194	101052	9.19%	0.181%
6	5.144	5.129	5.173	HH	4501	76416	6.95%	0.137%
7	5.208	5.173	5.222	HH	9219	128862	11.71%	0.231%
8	5.239	5.222	5.265	HH	12606	200435	18.22%	0.360%
9	5.284	5.265	5.300	HH	12818	158379	14.40%	0.284%
10	5.317	5.300	5.335	HH	8661	131640	11.97%	0.236%
11	5.351	5.335	5.387	HH	11237	172904	15.72%	0.310%
12	5.402	5.387	5.429	HH	2448	52819	4.80%	0.095%
13	5.449	5.429	5.462	HH	6537	91030	8.27%	0.163%
14	5.473	5.462	5.487	HH	5522	69345	6.30%	0.124%
15	5.516	5.487	5.535	HH	8285	172115	15.64%	0.309%
16	5.548	5.535	5.563	HH	8784	110203	10.02%	0.198%
17	5.574	5.563	5.599	HH	4951	96544	8.78%	0.173%
18	5.610	5.599	5.625	HH	5455	68836	6.26%	0.124%
19	5.638	5.625	5.649	HH	4089	47784	4.34%	0.086%
20	5.672	5.649	5.724	HH	73974	1020192	92.73%	1.832%
21	5.743	5.724	5.777	HH	3643	97721	8.88%	0.175%
22	5.800	5.777	5.813	HH	3695	66486	6.04%	0.119%
23	5.825	5.813	5.833	HH	3595	38839	3.53%	0.070%
24	5.853	5.833	5.892	HH	12810	285390	25.94%	0.512%
25	5.898	5.892	5.917	HH	4781	60714	5.52%	0.109%
26	5.937	5.917	5.949	HH	7065	96079	8.73%	0.172%
27	5.979	5.949	6.010	HH	15776	368862	33.53%	0.662%
28	6.021	6.010	6.027	HH	6736	64613	5.87%	0.116%
29	6.037	6.027	6.046	HH	7191	74722	6.79%	0.134%
30	6.061	6.046	6.094	HH	14522	247014	22.45%	0.443%
31	6.104	6.094	6.136	HH	6388	126349	11.48%	0.227%
32	6.153	6.136	6.170	HH	8520	119167	10.83%	0.214%
33	6.205	6.170	6.225	HH	8650	196540	17.86%	0.353%
34	6.259	6.225	6.290	HH	10342	294472	26.77%	0.529%
35	6.305	6.290	6.325	HH	10332	152779	13.89%	0.274%
36	6.351	6.325	6.370	HH	13825	211379	19.21%	0.379%

Instrument :
FID_G
ClientSampleId :
RR-DIES-WP

Manual IntegrationsAPPROVED

Reviewed By :Yogesh Patel 03/13/2025
Supervised By :Ankita Jodhani 03/13/2025

rteres

37	6.391	6.370	6.402	HH	9367	146260	13.29%	0.263%
38	6.415	6.402	6.460	HH	12708	291126	26	
39	6.475	6.460	6.490	HH	8248	113244	10	
40	6.500	6.490	6.509	HH	7369	82191	7	
41	6.529	6.509	6.560	HH	9946	224280	20	
42	6.580	6.560	6.606	HH	7897	181583	16	
43	6.630	6.606	6.663	HH	13798	294598	26.78%	0.529%
44	6.673	6.663	6.686	HH	6512	83524	7.59%	0.150%
45	6.708	6.686	6.755	HH	67960	878741	79.87%	1.578%
46	6.766	6.755	6.778	HH	4871	64712	5.88%	0.116%
47	6.797	6.778	6.811	HH	6225	110326	10.03%	0.198%
48	6.829	6.811	6.842	HH	7459	121158	11.01%	0.218%
49	6.862	6.842	6.886	HH	27148	379176	34.47%	0.681%
50	6.903	6.886	6.923	HH	8952	166738	15.16%	0.299%
51	6.935	6.923	6.950	HH	7351	101386	9.22%	0.182%
52	6.969	6.950	6.976	HH	6855	102373	9.31%	0.184%
53	6.991	6.976	7.012	HH	11446	170122	15.46%	0.305%
54	7.036	7.012	7.063	HH	11216	246136	22.37%	0.442%
55	7.073	7.063	7.089	HH	7932	103506	9.41%	0.186%
56	7.114	7.089	7.148	HH	24940	415724	37.79%	0.746%
57	7.163	7.148	7.173	HH	6268	88175	8.01%	0.158%
58	7.187	7.173	7.205	HH	7397	128564	11.69%	0.231%
59	7.240	7.205	7.263	HH	14448	346699	31.51%	0.622%
60	7.284	7.263	7.312	HH	15130	279833	25.44%	0.502%
61	7.347	7.312	7.374	HH	18384	450004	40.90%	0.808%
62	7.390	7.374	7.409	HH	12617	185095	16.82%	0.332%
63	7.432	7.409	7.468	HH	23642	413213	37.56%	0.742%
64	7.490	7.468	7.512	HH	10235	214382	19.49%	0.385%
65	7.532	7.512	7.548	HH	10261	167771	15.25%	0.301%
66	7.562	7.548	7.570	HH	7470	90072	8.19%	0.162%
67	7.578	7.570	7.591	HH	7170	85550	7.78%	0.154%
68	7.604	7.591	7.610	HH	7752	86150	7.83%	0.155%
69	7.634	7.610	7.643	HH	25182	317295	28.84%	0.570%
70	7.659	7.643	7.682	HH	73942	877630	79.77%	1.576%
71	7.694	7.682	7.720	HH	11054	216635	19.69%	0.389%
72	7.726	7.720	7.739	HH	8620	94070	8.55%	0.169%
73	7.745	7.739	7.764	HH	8127	109784	9.98%	0.197%
74	7.781	7.764	7.809	HH	8111	190419	17.31%	0.342%
75	7.834	7.809	7.871	HH	20348	457412	41.58%	0.821%
76	7.885	7.871	7.907	HH	8552	148763	13.52%	0.267%
77	7.928	7.907	7.941	HH	8116	134853	12.26%	0.242%
78	7.950	7.941	7.956	HH	6696	60300	5.48%	0.108%
79	7.975	7.956	7.985	HH	11059	156626	14.24%	0.281%
80	7.999	7.985	8.016	HH	11784	177727	16.15%	0.319%
81	8.031	8.016	8.071	HH	10760	260923	23.72%	0.468%
82	8.092	8.071	8.107	HH	12270	205356	18.67%	0.369%
83	8.125	8.107	8.136	HH	12120	182569	16.59%	0.328%
84	8.143	8.136	8.162	HH	11404	156861	14.26%	0.282%
85	8.188	8.162	8.209	HH	12530	265616	24.14%	0.477%
86	8.235	8.209	8.253	HH	16272	292903	26.62%	0.526%
87	8.269	8.253	8.280	HH	16625	215957	19.63%	0.388%
88	8.292	8.280	8.316	HH	18458	263205	23.92%	0.473%
89	8.362	8.316	8.396	HH	25165	560744	50.97%	1.007%

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90	8.412	8.396	8.431	HH	8737	167618	15.24%	0.301%
91	8.451	8.431	8.478	HH	13547	296417	26	
92	8.493	8.478	8.506	HH	12004	189636	17	
93	8.544	8.506	8.569	HH	69658	1059059	96	
94	8.590	8.569	8.609	HH	12786	261946	23	
95	8.619	8.609	8.624	HH	8991	76732	6	
96	8.644	8.624	8.674	HH	12400	299703	27.24%	0.538%
97	8.702	8.674	8.716	HH	12852	266813	24.25%	0.479%
98	8.729	8.716	8.745	HH	12842	189501	17.22%	0.340%
99	8.764	8.745	8.806	HH	15573	395551	35.95%	0.710%
100	8.837	8.806	8.862	HH	9859	281635	25.60%	0.506%
101	8.874	8.862	8.886	HH	8444	111871	10.17%	0.201%
102	8.906	8.886	8.915	HH	12184	179616	16.33%	0.322%
103	8.920	8.915	8.932	HH	12261	122876	11.17%	0.221%
104	8.937	8.932	8.949	HH	10960	103712	9.43%	0.186%
105	8.971	8.949	8.983	HH	12737	243983	22.18%	0.438%
106	8.999	8.983	9.020	HH	14381	276190	25.10%	0.496%
107	9.040	9.020	9.054	HH	13234	233810	21.25%	0.420%
108	9.086	9.054	9.112	HH	30899	585296	53.20%	1.051%
109	9.140	9.112	9.155	HH	14280	277305	25.21%	0.498%
110	9.164	9.155	9.180	HH	10701	147233	13.38%	0.264%
111	9.210	9.180	9.221	HH	10353	245373	22.30%	0.441%
112	9.235	9.221	9.255	HH	11892	206368	18.76%	0.370%
113	9.266	9.255	9.283	HH	9336	150164	13.65%	0.270%
114	9.315	9.283	9.334	HH	12242	316794	28.80%	0.569%
115	9.374	9.334	9.399	HH	73406	1082447	98.39%	1.943%
116	9.403	9.399	9.439	HH	12352	251651	22.87%	0.452%
117	9.461	9.439	9.485	HH	11937	276326	25.12%	0.496%
118	9.518	9.485	9.544	HH	10572	326689	29.69%	0.587%
119	9.575	9.544	9.588	HH	10306	241573	21.96%	0.434%
120	9.603	9.588	9.630	HH	11808	256464	23.31%	0.460%
121	9.634	9.630	9.640	HH	9048	52514	4.77%	0.094%
122	9.658	9.640	9.692	HH	11978	317245	28.84%	0.570%
123	9.708	9.692	9.723	HH	10075	168711	15.34%	0.303%
124	9.751	9.723	9.782	HH	19460	475237	43.20%	0.853%
125	9.796	9.782	9.808	HH	11441	167437	15.22%	0.301%
126	9.836	9.808	9.859	HH	15350	384771	34.97%	0.691%
127	9.883	9.859	9.905	HH	15646	326954	29.72%	0.587%
128	9.915	9.905	9.923	HH	11888	125424	11.40%	0.225%
129	9.937	9.923	9.963	HH	14641	280748	25.52%	0.504%
130	9.983	9.963	9.997	HH	9668	188525	17.14%	0.338%
131	10.004	9.997	10.022	HH	8856	129239	11.75%	0.232%
132	10.026	10.022	10.031	HH	8719	47930	4.36%	0.086%
133	10.042	10.031	10.055	HH	9066	127266	11.57%	0.228%
134	10.070	10.055	10.085	HH	10104	169834	15.44%	0.305%
135	10.114	10.085	10.137	HH	15076	382607	34.78%	0.687%
136	10.158	10.137	10.205	HH	71094	1058583	96.22%	1.900%
137	10.239	10.205	10.255	HH	10374	295522	26.86%	0.531%
138	10.260	10.255	10.304	HH	10167	258725	23.52%	0.464%
139	10.331	10.304	10.360	HH	10435	307540	27.95%	0.552%
140	10.369	10.360	10.380	HH	8818	102835	9.35%	0.185%
141	10.397	10.380	10.417	HH	9230	194120	17.64%	0.349%

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142	10.434	10.417	10.456	HH	9688	212620	19.33%	0.382%
143	10.475	10.456	10.478	HH	8951	115998	10	
144	10.506	10.478	10.521	HH	12713	277384	25	
145	10.548	10.521	10.576	HH	32597	632187	57	
146	10.600	10.576	10.619	HH	13020	286003	26	
147	10.638	10.619	10.658	HH	14011	277376	25	
148	10.694	10.658	10.721	HH	15103	412256	37.47%	0.740%
149	10.743	10.721	10.759	HH	9184	192959	17.54%	0.346%
150	10.763	10.759	10.776	HH	8654	90660	8.24%	0.163%
151	10.799	10.776	10.815	HH	10927	228616	20.78%	0.410%
152	10.832	10.815	10.859	HH	10646	250476	22.77%	0.450%
153	10.901	10.859	10.939	HH	63455	1100168	100.00%	1.975%
154	10.972	10.939	11.003	HH	32872	683570	62.13%	1.227%
155	11.018	11.003	11.054	HH	11285	297791	27.07%	0.535%
156	11.097	11.054	11.127	HH	9330	385631	35.05%	0.692%
157	11.146	11.127	11.165	HH	9811	213553	19.41%	0.383%
158	11.182	11.165	11.200	HH	10172	195573	17.78%	0.351%
159	11.225	11.200	11.263	HH	12531	407484	37.04%	0.732%
160	11.293	11.263	11.339	HH	15342	519923	47.26%	0.933%
161	11.357	11.339	11.390	HH	12309	304114	27.64%	0.546%
162	11.410	11.390	11.446	HH	11269	315649	28.69%	0.567%
163	11.465	11.446	11.489	HH	9017	217677	19.79%	0.391%
164	11.517	11.489	11.528	HH	9036	193563	17.59%	0.348%
165	11.552	11.528	11.579	HH	9296	270150	24.56%	0.485%
166	11.606	11.579	11.667	HH	52186	962709	87.51%	1.728%
167	11.697	11.667	11.739	HH	23501	571216	51.92%	1.026%
168	11.762	11.739	11.784	HH	8606	215814	19.62%	0.387%
169	11.802	11.784	11.823	HH	8463	183753	16.70%	0.330%
170	11.878	11.823	11.883	HH	9011	294528	26.77%	0.529%
171	11.901	11.883	11.946	HH	10931	364040	33.09%	0.654%
172	11.965	11.946	11.981	HH	9024	174853	15.89%	0.314%
173	12.005	11.981	12.025	HH	11644	258793	23.52%	0.465%
174	12.042	12.025	12.069	HH	10277	230019	20.91%	0.413%
175	12.093	12.069	12.137	HH	10642	350144	31.83%	0.629%
176	12.160	12.137	12.195	HH	7932	258904	23.53%	0.465%
177	12.215	12.195	12.233	HH	7852	169930	15.45%	0.305%
178	12.279	12.233	12.309	HH	40688	788026	71.63%	1.415%
179	12.330	12.309	12.373	HH	9597	311951	28.35%	0.560%
180	12.386	12.373	12.450	HH	7428	318814	28.98%	0.572%
181	12.477	12.450	12.501	HH	6839	194972	17.72%	0.350%
182	12.507	12.501	12.523	HH	6456	81115	7.37%	0.146%
183	12.555	12.523	12.604	HH	8236	346329	31.48%	0.622%
184	12.619	12.604	12.631	HH	6877	108907	9.90%	0.196%
185	12.660	12.631	12.675	HH	7623	185042	16.82%	0.332%
186	12.692	12.675	12.725	HH	8781	217197	19.74%	0.390%
187	12.746	12.725	12.775	HH	7380	199048	18.09%	0.357%
188	12.780	12.775	12.809	HH	6235	119565	10.87%	0.215%
189	12.813	12.809	12.823	HH	5921	50884	4.63%	0.091%
190	12.849	12.823	12.888	HH	6854	245706	22.33%	0.441%
191	12.921	12.888	12.965	HH	30370	567555	51.59%	1.019%
192	12.981	12.965	13.029	HH	6792	226247	20.56%	0.406%
193	13.037	13.029	13.047	HH	5596	61096	5.55%	0.110%
194	13.052	13.047	13.058	HH	5437	33913	3.08%	0.061%

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195	13.064	13.058	13.095	HH	5711	116118	10.55%	0.208%
196	13.097	13.095	13.110	HH	4939	46256		
197	13.115	13.110	13.122	HH	4903	33365		
198	13.136	13.122	13.156	HH	4898	97498		
199	13.176	13.156	13.230	HH	5948	238463		
200	13.244	13.230	13.265	HH	5174	102163		
201	13.284	13.265	13.301	HH	5751	111275	10.11%	0.200%
202	13.316	13.301	13.330	HH	6076	94455	8.59%	0.170%
203	13.352	13.330	13.388	HH	13972	302838	27.53%	0.544%
204	13.411	13.388	13.462	HH	12636	320341	29.12%	0.575%
205	13.469	13.462	13.477	HH	4697	41262	3.75%	0.074%
206	13.480	13.477	13.503	HH	4557	65843	5.98%	0.118%
207	13.535	13.503	13.568	HH	19361	352375	32.03%	0.633%
208	13.589	13.568	13.629	HH	5118	173135	15.74%	0.311%
209	13.634	13.629	13.639	HH	4195	23097	2.10%	0.041%
210	13.643	13.639	13.662	HH	4245	55590	5.05%	0.100%
211	13.673	13.662	13.690	HH	3790	62079	5.64%	0.111%
212	13.702	13.690	13.727	HH	3902	81416	7.40%	0.146%
213	13.763	13.727	13.788	HH	4726	148942	13.54%	0.267%
214	13.794	13.788	13.800	HH	4139	30971	2.82%	0.056%
215	13.814	13.800	13.834	HH	4186	78954	7.18%	0.142%
216	13.847	13.834	13.865	HH	3911	67684	6.15%	0.122%
217	13.887	13.865	13.904	HH	3869	84883	7.72%	0.152%
218	13.919	13.904	13.938	HH	4043	76075	6.91%	0.137%
219	13.959	13.938	14.000	HH	4311	136630	12.42%	0.245%
220	14.029	14.000	14.063	HH	3813	128786	11.71%	0.231%
221	14.069	14.063	14.094	HH	3220	55913	5.08%	0.100%
222	14.122	14.094	14.165	HH	12671	252601	22.96%	0.453%
223	14.181	14.165	14.191	HH	3294	49831	4.53%	0.089%
224	14.198	14.191	14.203	HH	3175	21879	1.99%	0.039%
225	14.208	14.203	14.257	HH	3236	90360	8.21%	0.162%
226	14.269	14.257	14.296	HH	2770	59797	5.44%	0.107%
227	14.303	14.296	14.315	HH	2483	27602	2.51%	0.050%
228	14.354	14.315	14.385	HH	3404	123660	11.24%	0.222%
229	14.393	14.385	14.400	HH	2705	23371	2.12%	0.042%
230	14.405	14.400	14.409	HH	2635	13687	1.24%	0.025%
231	14.423	14.409	14.450	HH	2733	60950	5.54%	0.109%
232	14.452	14.450	14.456	HH	2566	9976	0.91%	0.018%
233	14.461	14.456	14.474	HH	2467	25413	2.31%	0.046%
234	14.489	14.474	14.526	HH	2960	83104	7.55%	0.149%
235	14.543	14.526	14.567	HH	2712	60426	5.49%	0.108%
236	14.577	14.567	14.594	HH	2219	34213	3.11%	0.061%
237	14.599	14.594	14.615	HH	2262	28430	2.58%	0.051%
238	14.631	14.615	14.657	HH	2406	55700	5.06%	0.100%
239	14.688	14.657	14.720	HH	7771	147282	13.39%	0.264%
240	14.747	14.720	14.765	HH	2289	57729	5.25%	0.104%
241	14.767	14.765	14.772	HH	2157	8514	0.77%	0.015%
242	14.781	14.772	14.802	HH	2192	37594	3.42%	0.067%
243	14.821	14.802	14.839	HH	2248	47365	4.31%	0.085%
244	14.844	14.839	14.850	HH	2005	12760	1.16%	0.023%
245	14.854	14.850	14.872	HH	2001	24917	2.26%	0.045%
246	14.895	14.872	14.923	HH	2226	61266	5.57%	0.110%

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247	14.942	14.923	14.951	HH	1899	32350	2.94%	0.058%
248	14.969	14.951	14.992	HH	2013	44431	4	
249	15.025	14.992	15.071	HH	32885	516013	46	
250	15.079	15.071	15.106	HH	2008	38209	3	
251	15.110	15.106	15.115	HH	1673	9047	0	
252	15.121	15.115	15.151	HH	1670	33539	3	
253	15.155	15.151	15.181	HH	1581	26883	2.44%	0.048%
254	15.186	15.181	15.204	HH	1578	20645	1.88%	0.037%
255	15.230	15.204	15.260	HH	4864	90089	8.19%	0.162%
256	15.272	15.260	15.276	HH	1530	14548	1.32%	0.026%
257	15.280	15.276	15.287	HH	1491	9538	0.87%	0.017%
258	15.289	15.287	15.341	HH	1582	46351	4.21%	0.083%
259	15.345	15.341	15.363	HH	1392	17725	1.61%	0.032%
260	15.369	15.363	15.401	HH	1340	30133	2.74%	0.054%
261	15.423	15.401	15.432	HH	1520	25885	2.35%	0.046%
262	15.437	15.432	15.467	HH	1427	28296	2.57%	0.051%
263	15.472	15.467	15.484	HH	1415	13523	1.23%	0.024%
264	15.490	15.484	15.499	HH	1349	11752	1.07%	0.021%
265	15.504	15.499	15.525	HH	1368	19816	1.80%	0.036%
266	15.540	15.525	15.549	HH	1314	18307	1.66%	0.033%
267	15.566	15.549	15.587	HH	1348	28947	2.63%	0.052%
268	15.613	15.587	15.620	HH	1409	25617	2.33%	0.046%
269	15.625	15.620	15.637	HH	1346	13168	1.20%	0.024%
270	15.641	15.637	15.647	HH	1308	7595	0.69%	0.014%
271	15.657	15.647	15.689	HH	1334	31445	2.86%	0.056%
272	15.691	15.689	15.700	HH	1307	8138	0.74%	0.015%
273	15.707	15.700	15.731	HH	1307	22463	2.04%	0.040%
274	15.752	15.731	15.797	HH	2746	68587	6.23%	0.123%
275	15.801	15.797	15.806	HH	1249	6087	0.55%	0.011%
276	15.808	15.806	15.850	HH	1285	30292	2.75%	0.054%
277	15.853	15.850	15.861	HH	1152	7527	0.68%	0.014%
278	15.866	15.861	15.869	HH	1134	5411	0.49%	0.010%
279	15.889	15.869	15.919	HH	1179	32578	2.96%	0.058%
280	15.924	15.919	15.946	HH	1149	17911	1.63%	0.032%
281	15.952	15.946	15.959	HH	1093	8666	0.79%	0.016%
282	15.965	15.959	15.972	HH	1071	8222	0.75%	0.015%
283	15.977	15.972	16.004	HH	1101	20631	1.88%	0.037%
284	16.009	16.004	16.013	HH	1135	5927	0.54%	0.011%
285	16.017	16.013	16.024	HH	1168	7493	0.68%	0.013%
286	16.026	16.024	16.035	HH	1114	6709	0.61%	0.012%
287	16.049	16.035	16.056	HH	1151	13926	1.27%	0.025%
288	16.061	16.056	16.066	HH	1109	6696	0.61%	0.012%
289	16.078	16.066	16.096	HH	1143	19558	1.78%	0.035%
290	16.118	16.096	16.131	HH	1119	22636	2.06%	0.041%
291	16.144	16.131	16.161	HH	1094	18833	1.71%	0.034%
292	16.215	16.161	16.229	HH	1163	44203	4.02%	0.079%
293	16.255	16.229	16.293	HH	2085	54381	4.94%	0.098%
294	16.301	16.293	16.344	HH	1127	32359	2.94%	0.058%
295	16.352	16.344	16.366	HH	1081	13393	1.22%	0.024%
296	16.381	16.366	16.405	HH	1166	24989	2.27%	0.045%
297	16.440	16.405	16.450	HH	1195	29253	2.66%	0.053%
298	16.465	16.450	16.495	HH	1161	29455	2.68%	0.053%
299	16.507	16.495	16.558	HH	1035	40499	3.68%	0.073%

Instrument :
FID_G
ClientSampleId :
RR-DIES-WP

Manual IntegrationsAPPROVED

Reviewed By :Yogesh Patel 03/13/2025
Supervised By :Ankita Jodhani 03/13/2025

rteres

300	16.595	16.558	16.632	HH	1148	49439	4.49%	0.089%
301	16.639	16.632	16.669	HH	1177	24484	2	
302	16.702	16.669	16.716	HH	1261	32935	2	
303	16.740	16.716	16.781	HH	1837	54029	4	
304	16.808	16.781	16.844	HH	1271	46182	4	
305	16.932	16.844	16.950	HH	1297	78574	7	
306	16.960	16.950	16.979	HH	1305	22695	2.06%	0.041%
307	16.987	16.979	17.009	HH	1292	22701	2.06%	0.041%
308	17.025	17.009	17.059	HH	1368	39275	3.57%	0.071%
309	17.095	17.059	17.142	HH	1502	68852	6.26%	0.124%
310	17.207	17.142	17.252	HH	2473	110063	10.00%	0.198%
311	17.264	17.252	17.276	HH	1565	20711	1.88%	0.037%

Sum of corrected areas: 55700555

FG030325.M Thu Mar 13 04:01:37 2025

CALIBRATION SUMMARY

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

DIESEL RANGE ORGANICS INITIAL CALIBRATION SUMMARY

Lab Name: Chemtech Contract: ALLI03

ProjectID: NJ Waste Water PT

Lab Code: CHEM Case No.: Q1502 SAS No.: Q1502 SDG No.: Q1502

Calibration Sequence : FG030325		Test : Diesel Range Organics	
Concentration (PPM)	**Area Count**	**Reference Factor**	**File ID**
1000	114833486	114833	FG015426.D
500	55962401	111925	FG015427.D
200	22632021	113160	FG015428.D
100	12261744	122617	FG015429.D
50	6347567	126951	FG015430.D

AVG RF : 117897 **% RSD : 5.558** **AVG RT : 15.0338**

Quantitation Report (QT Reviewed)

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG030325\
Data File : FG015426.D
Signal(s) : FID1A.ch
Acq On : 03 Mar 2025 11:48
Operator : YP\AJ
Sample : 100 TRPH STD
Misc :
ALS Vial : 21 Sample Multiplier: 1

Instrument :
FID_G
ClientSampleId :
100 TRPH STD

Integration File: autoint1.e
Quant Time: Mar 03 12:50:18 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG030325.M
Quant Title :
QLast Update : Mon Mar 03 12:48:04 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...	15.039	10644030	100.716 ug/ml
Target Compounds				
1)	N-OCTANE	1.995	10570364	103.119 ug/ml
2)	N-DECANE	4.536	10810569	102.952 ug/ml
3)	N-DODECANE	6.720	11332975	102.511 ug/ml
4)	N-TETRADECANE	8.557	11220922	101.787 ug/ml
5)	N-HEXADECANE	10.172	11555168	101.197 ug/ml
6)	N-OCTADECANE	11.620	12045869	100.858 ug/ml
7)	N-EICOSANE	12.935	11845392	100.680 ug/ml
8)	N-DOCOSANE	14.137	11716478	100.626 ug/ml
10)	N-TETRACOSANE	15.245	11661357	100.709 ug/ml
11)	N-HEXACOSANE	16.269	11454493	100.917 ug/ml
12)	N-OCTACOSANE	17.221	11190263	100.825 ug/ml
13)	N-TRIACONTANE	18.110	11049270	100.552 ug/ml
14)	N-DOTRIACONTANE	18.944	10781202	100.377 ug/ml
15)	N-TETRATRIACONTANE	19.729	9934114	100.333 ug/ml
16)	N-HEXATRIACONTANE	20.469	8727944	101.027 ug/ml
17)	N-OCTATRIACONTANE	21.214	7669375	100.324 ug/ml
18)	N-TETRACONTANE	22.146	6527484	99.312 ug/ml

(f)=RT Delta > 1/2 Window (m)=manual int.

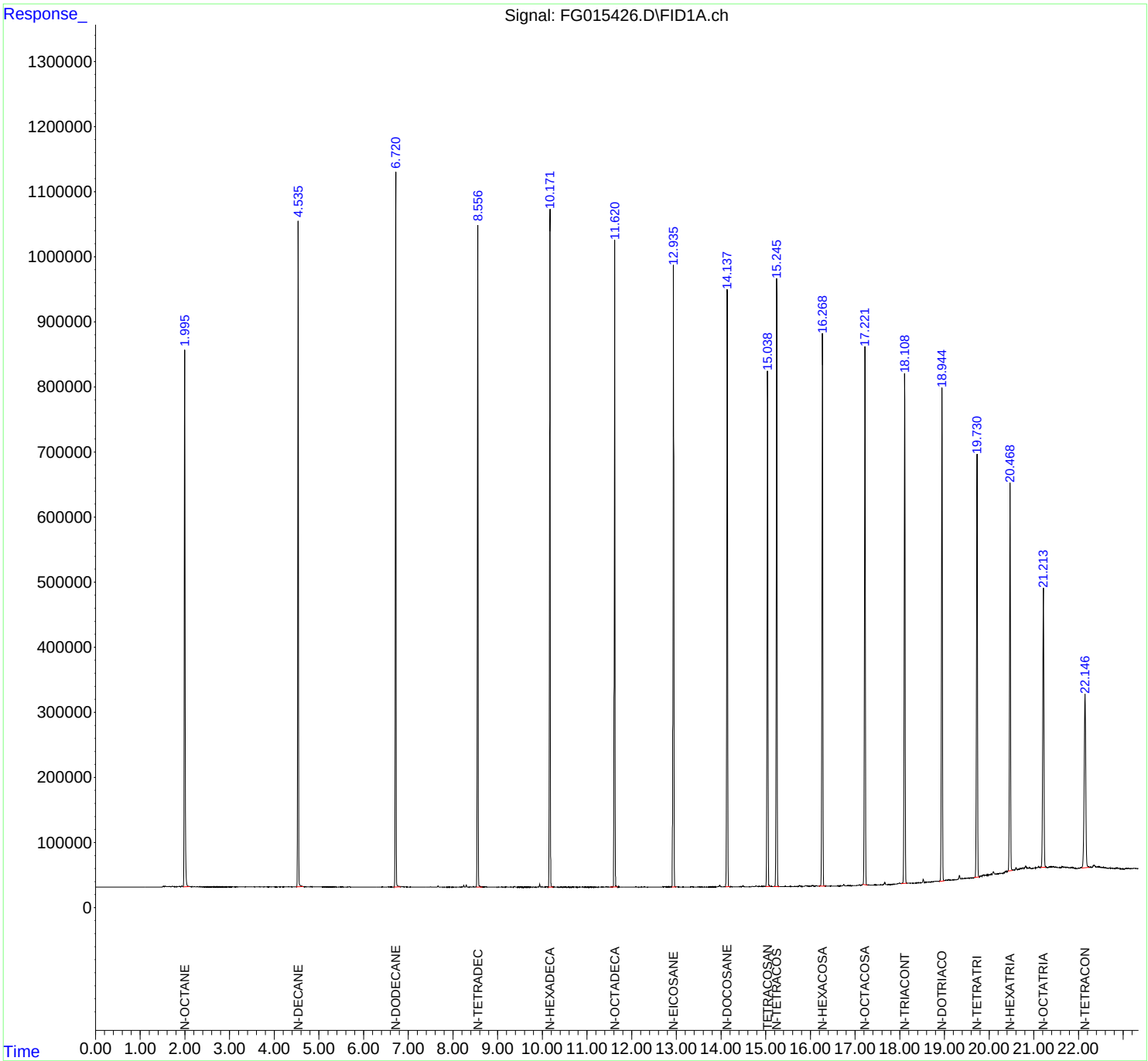
Quantitation Report (QT Reviewed)

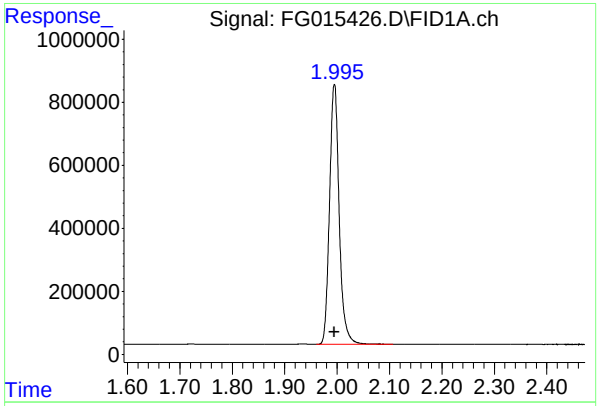
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG030325\
Data File : FG015426.D
Signal(s) : FID1A.ch
Acq On : 03 Mar 2025 11:48
Operator : YP\AJ
Sample : 100 TRPH STD
Misc :
ALS Vial : 21 Sample Multiplier: 1

Instrument :
FID_G
ClientSampleId :
100 TRPH STD

Integration File: autoint1.e
Quant Time: Mar 03 12:50:18 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG030325.M
Quant Title :
QLast Update : Mon Mar 03 12:48:04 2025
Response via : Initial Calibration
Integrator: ChemStation

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

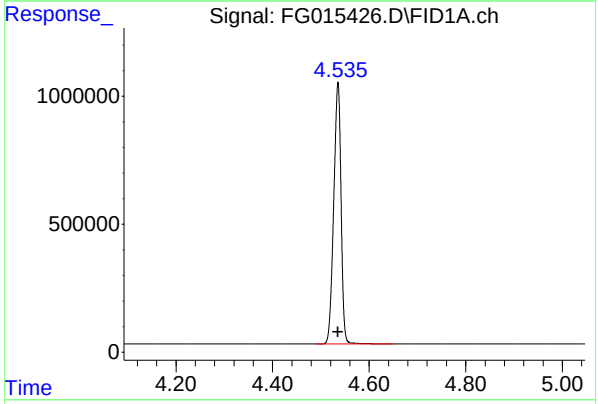




#1 N-OCTANE

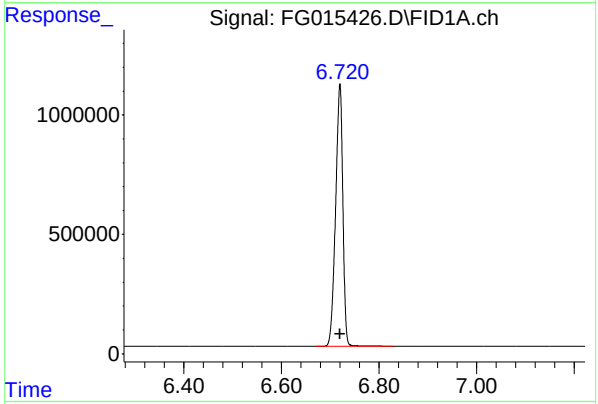
R.T.: 1.995 min
Delta R.T.: 0.000 min
Response: 10570364
Conc: 103.12 ug/ml

Instrument :
FID_G
ClientSampleId :
100 TRPH STD



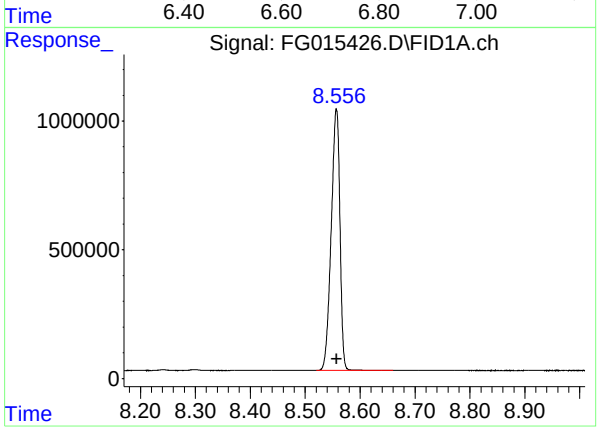
#2 N-DECANE

R.T.: 4.536 min
Delta R.T.: 0.000 min
Response: 10810569
Conc: 102.95 ug/ml



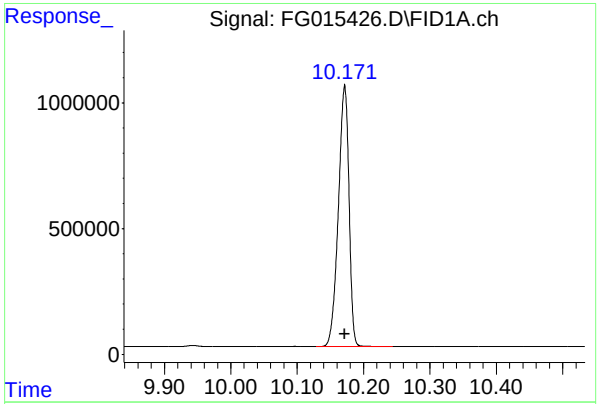
#3 N-DODECANE

R.T.: 6.720 min
Delta R.T.: 0.000 min
Response: 11332975
Conc: 102.51 ug/ml



#4 N-TETRADECANE

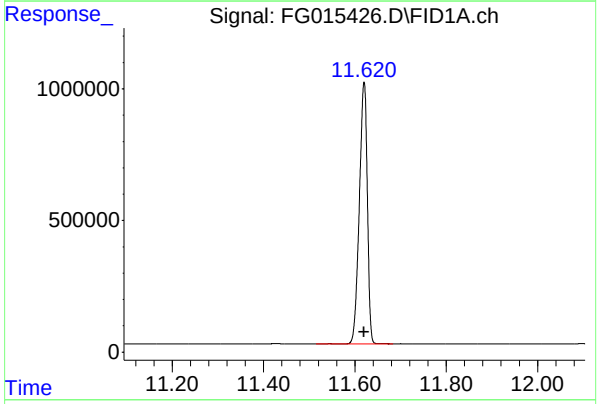
R.T.: 8.557 min
Delta R.T.: 0.000 min
Response: 11220922
Conc: 101.79 ug/ml



#5 N-HEXADECANE

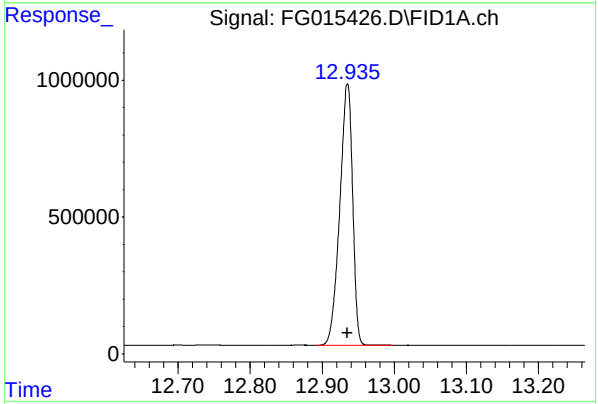
R.T.: 10.172 min
Delta R.T.: 0.000 min
Response: 11555168
Conc: 101.20 ug/ml

Instrument :
FID_G
ClientSampleId :
100 TRPH STD



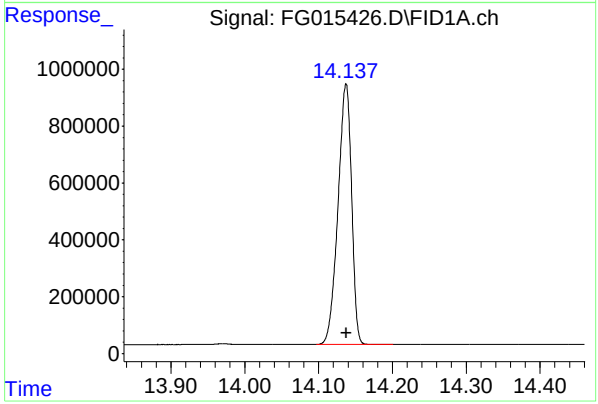
#6 N-OCTADECANE

R.T.: 11.620 min
Delta R.T.: 0.000 min
Response: 12045869
Conc: 100.86 ug/ml



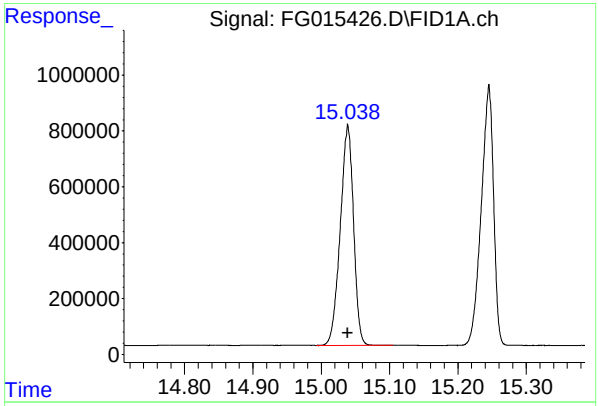
#7 N-EICOSANE

R.T.: 12.935 min
Delta R.T.: 0.000 min
Response: 11845392
Conc: 100.68 ug/ml



#8 N-DOCOSANE

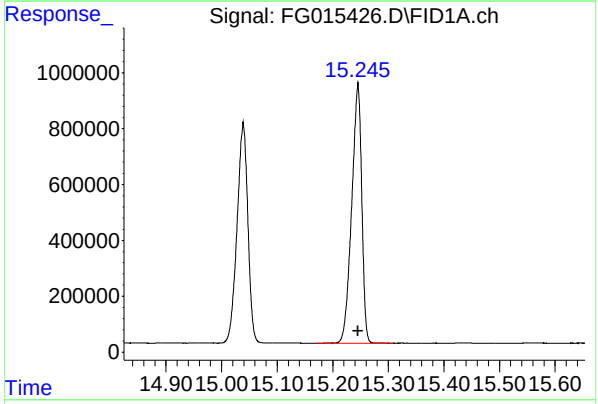
R.T.: 14.137 min
Delta R.T.: 0.000 min
Response: 11716478
Conc: 100.63 ug/ml



#9 TETRACOSANE-d50 (SURROGATE)

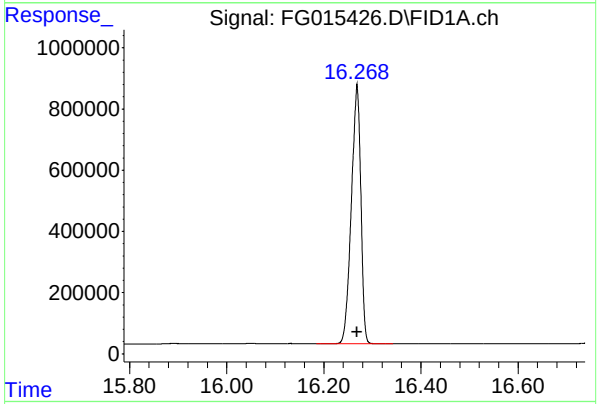
R.T.: 15.039 min
Delta R.T.: 0.000 min
Response: 10644030
Conc: 100.72 ug/ml

Instrument :
FID_G
ClientSampleId :
100 TRPH STD



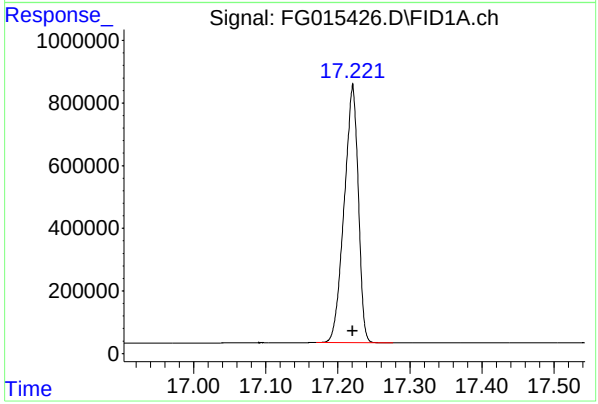
#10 N-TETRACOSANE

R.T.: 15.245 min
Delta R.T.: 0.000 min
Response: 11661357
Conc: 100.71 ug/ml



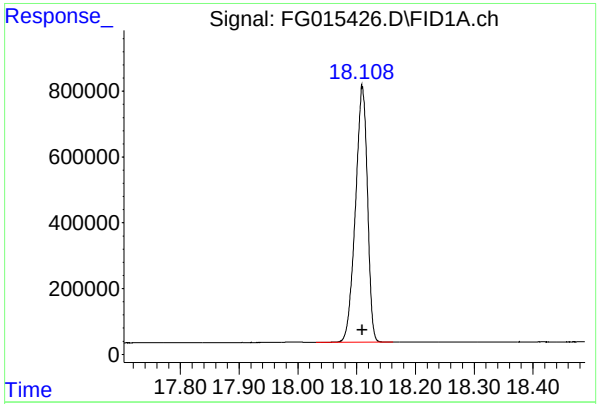
#11 N-HEXACOSANE

R.T.: 16.269 min
Delta R.T.: 0.000 min
Response: 11454493
Conc: 100.92 ug/ml



#12 N-OCTACOSANE

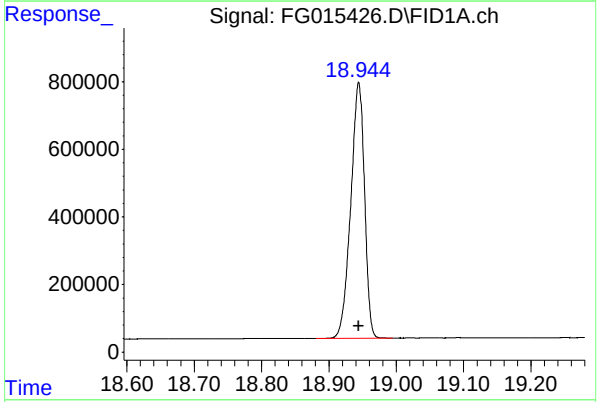
R.T.: 17.221 min
Delta R.T.: 0.000 min
Response: 11190263
Conc: 100.83 ug/ml



#13 N-TRIACONTANE

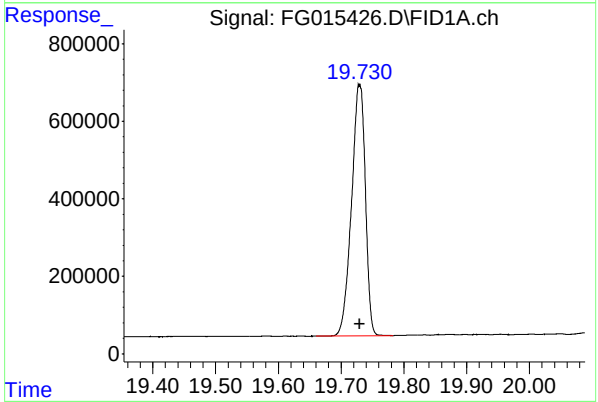
R.T.: 18.110 min
Delta R.T.: 0.000 min
Response: 11049270
Conc: 100.55 ug/ml

Instrument :
FID_G
ClientSampleId :
100 TRPH STD



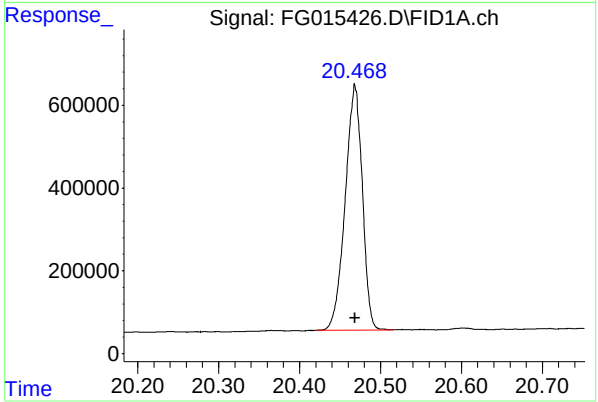
#14 N-DOTRIACONTANE

R.T.: 18.944 min
Delta R.T.: 0.000 min
Response: 10781202
Conc: 100.38 ug/ml



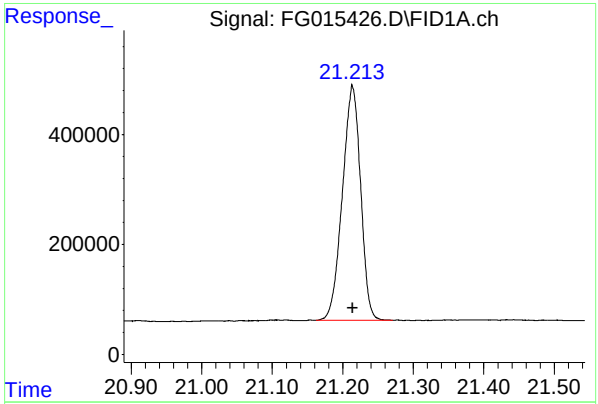
#15 N-TETRATRIACONTANE

R.T.: 19.729 min
Delta R.T.: 0.000 min
Response: 9934114
Conc: 100.33 ug/ml



#16 N-HEXATRIACONTANE

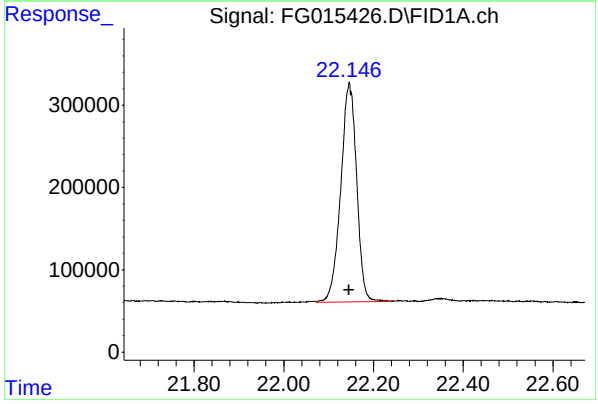
R.T.: 20.469 min
Delta R.T.: 0.000 min
Response: 8727944
Conc: 101.03 ug/ml



#17 N-OCTATRIACONTANE

R.T.: 21.214 min
Delta R.T.: 0.000 min
Response: 7669375
Conc: 100.32 ug/ml

Instrument :
FID_G
ClientSampleId :
100 TRPH STD



#18 N-TETRACONTANE

R.T.: 22.146 min
Delta R.T.: 0.000 min
Response: 6527484
Conc: 99.31 ug/ml

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG030325\
Data File : FG015426.D
Signal(s) : FID1A.ch
Acq On : 03 Mar 2025 11:48
Sample : 100 TRPH STD
Misc :
ALS Vial : 21 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG030325.M
Title :

Signal : FID1A.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	1.995	1.960	2.107	PB	824685	10570364	87.75%	5.542%
2	4.536	4.490	4.649	BB	1023315	10810569	89.75%	5.668%
3	6.720	6.671	6.828	BB	1099122	11332975	94.08%	5.942%
4	8.557	8.520	8.660	PB	1015491	11220922	93.15%	5.883%
5	10.172	10.128	10.244	BB	1041311	11555168	95.93%	6.058%
6	11.620	11.515	11.683	BB	993778	12045869	100.00%	6.315%
7	12.935	12.892	12.998	BB	954452	11845392	98.34%	6.210%
8	14.137	14.097	14.201	BB	916085	11716478	97.27%	6.143%
9	15.039	14.993	15.105	PV	789178	10644030	88.36%	5.580%
10	15.245	15.170	15.308	BB	934895	11661357	96.81%	6.114%
11	16.269	16.184	16.343	BB	847276	11454493	95.09%	6.005%
12	17.221	17.170	17.277	BV	825865	11190263	92.90%	5.867%
13	18.110	18.031	18.162	BB	775654	11049270	91.73%	5.793%
14	18.944	18.881	18.995	BV	758070	10781202	89.50%	5.652%
15	19.729	19.660	19.783	BV	646136	9934114	82.47%	5.208%
16	20.469	20.420	20.515	BV	589815	8727944	72.46%	4.576%
17	21.214	21.162	21.271	PV	427171	7669375	63.67%	4.021%
18	22.146	22.072	22.243	VV	266333	6527484	54.19%	3.422%
			Sum of corrected areas:			190737268		

FG030325.M Tue Mar 04 04:34:40 2025

Quantitation Report (QT Reviewed)

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG030325\
Data File : FG015427.D
Signal(s) : FID1A.ch
Acq On : 03 Mar 2025 12:17
Operator : YP\AJ
Sample : 50 TRPH STD
Misc :
ALS Vial : 22 Sample Multiplier: 1

Instrument :
FID_G
ClientSampleId :
50 TRPH STD

Integration File: autoint1.e
Quant Time: Mar 03 12:48:28 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG030325.M
Quant Title :
QLast Update : Mon Mar 03 12:48:04 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...	15.035	5246382	50.000 ug/ml
	Target Compounds			
1)	N-OCTANE	1.994	4965506	50.000 ug/ml
2)	N-DECANE	4.533	5095283	50.000 ug/ml
3)	N-DODECANE	6.717	5388928	50.000 ug/ml
4)	N-TETRADECANE	8.553	5413479	50.000 ug/ml
5)	N-HEXADECANE	10.168	5640871	50.000 ug/ml
6)	N-OCTADECANE	11.616	5920415	50.000 ug/ml
7)	N-EICOSANE	12.930	5842747	50.000 ug/ml
8)	N-DOCOSANE	14.132	5785353	50.000 ug/ml
10)	N-TETRACOSANE	15.240	5748589	50.000 ug/ml
11)	N-HEXACOSANE	16.263	5623200	50.000 ug/ml
12)	N-OCTACOSANE	17.216	5503536	50.000 ug/ml
13)	N-TRIACONTANE	18.106	5464008	50.000 ug/ml
14)	N-DOTRIACONTANE	18.940	5350108	50.000 ug/ml
15)	N-TETRATRIACONTANE	19.725	4934105	50.000 ug/ml
16)	N-HEXATRIACONTANE	20.464	4275212	50.000 ug/ml
17)	N-OCTATRIACONTANE	21.211	3809914	50.000 ug/ml
18)	N-TETRACONTANE	22.141	3308945	50.000 ug/ml

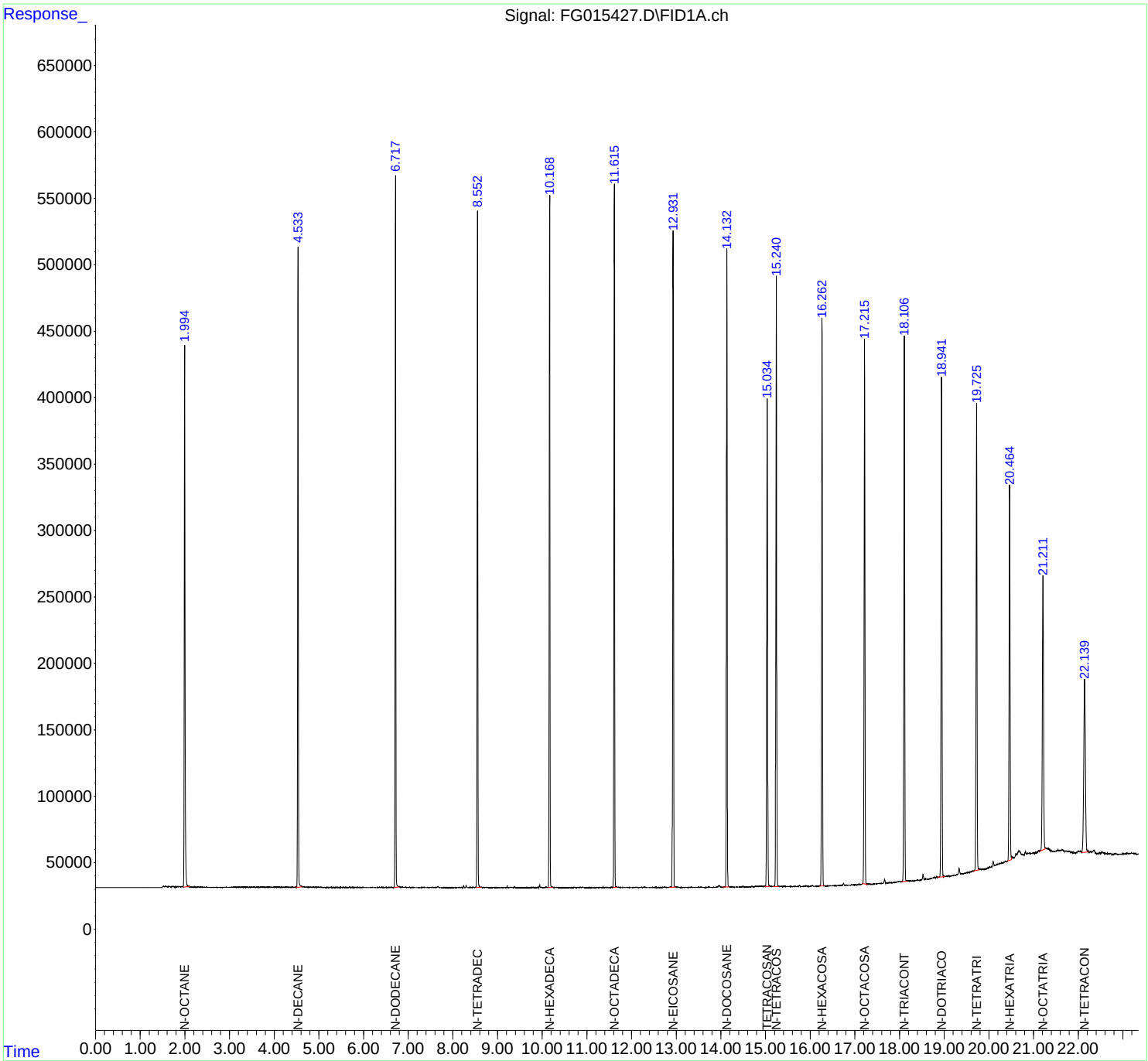
(f)=RT Delta > 1/2 Window (m)=manual int.

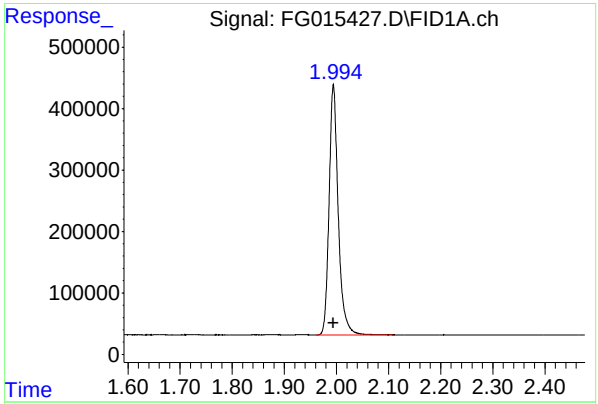
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG030325\
Data File : FG015427.D
Signal(s) : FID1A.ch
Acq On : 03 Mar 2025 12:17
Operator : YP\AJ
Sample : 50 TRPH STD
Misc :
ALS Vial : 22 Sample Multiplier: 1

Instrument :
FID_G
ClientSampleId :
50 TRPH STD

Integration File: autoint1.e
Quant Time: Mar 03 12:48:28 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG030325.M
Quant Title :
QLast Update : Mon Mar 03 12:48:04 2025
Response via : Initial Calibration
Integrator: ChemStation

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

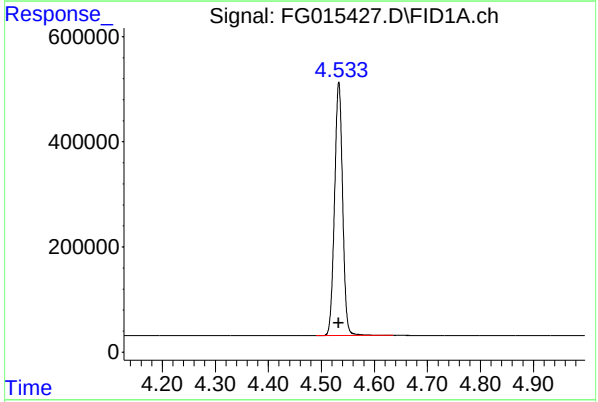




#1 N-OCTANE

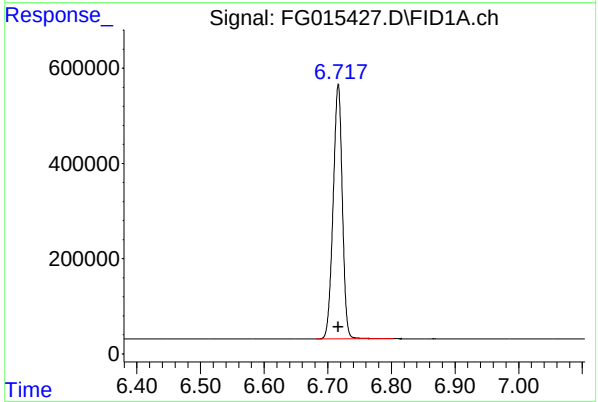
R.T.: 1.994 min
Delta R.T.: 0.000 min
Response: 4965506
Conc: 50.00 ug/ml

Instrument :
FID_G
ClientSampleId :
50 TRPH STD



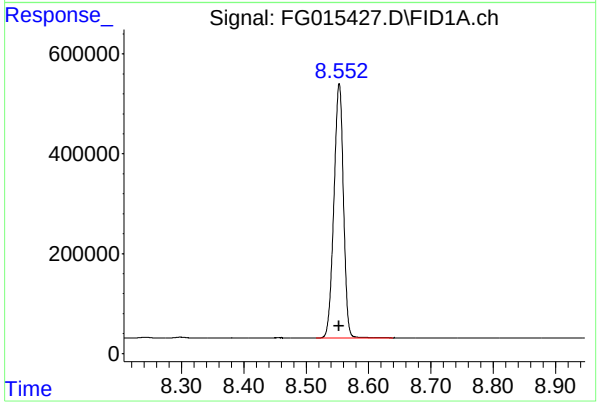
#2 N-DECANE

R.T.: 4.533 min
Delta R.T.: 0.000 min
Response: 5095283
Conc: 50.00 ug/ml



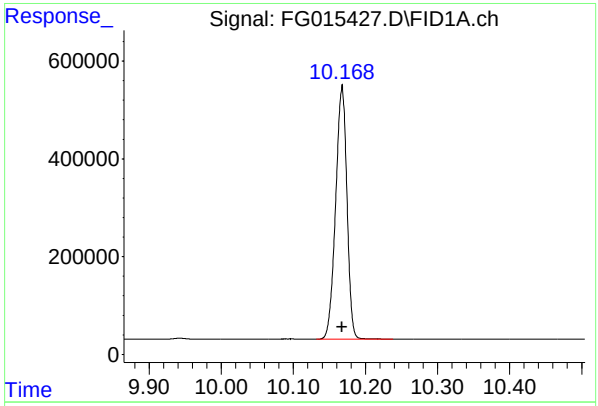
#3 N-DODECANE

R.T.: 6.717 min
Delta R.T.: 0.000 min
Response: 5388928
Conc: 50.00 ug/ml



#4 N-TETRADECANE

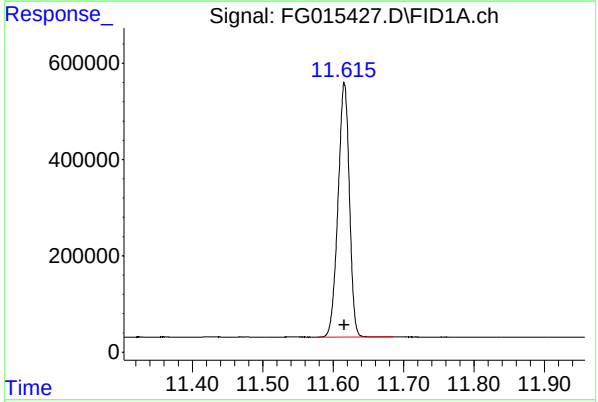
R.T.: 8.553 min
Delta R.T.: 0.000 min
Response: 5413479
Conc: 50.00 ug/ml



#5 N-HEXADECANE

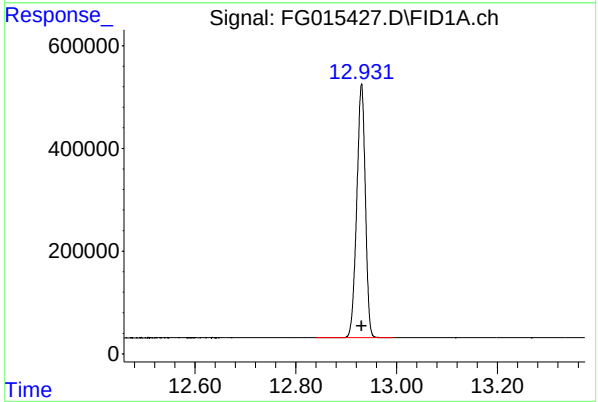
R.T.: 10.168 min
Delta R.T.: 0.000 min
Response: 5640871
Conc: 50.00 ug/ml

Instrument :
FID_G
ClientSampleId :
50 TRPH STD



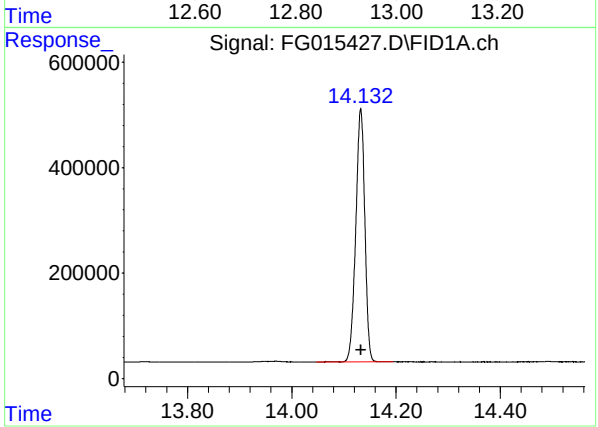
#6 N-OCTADECANE

R.T.: 11.616 min
Delta R.T.: 0.000 min
Response: 5920415
Conc: 50.00 ug/ml



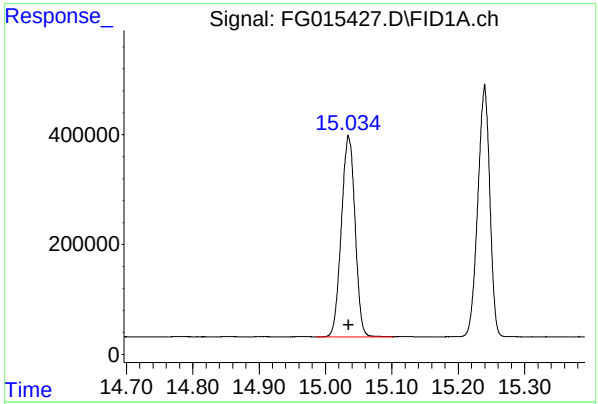
#7 N-EICOSANE

R.T.: 12.930 min
Delta R.T.: 0.000 min
Response: 5842747
Conc: 50.00 ug/ml



#8 N-DOCOSANE

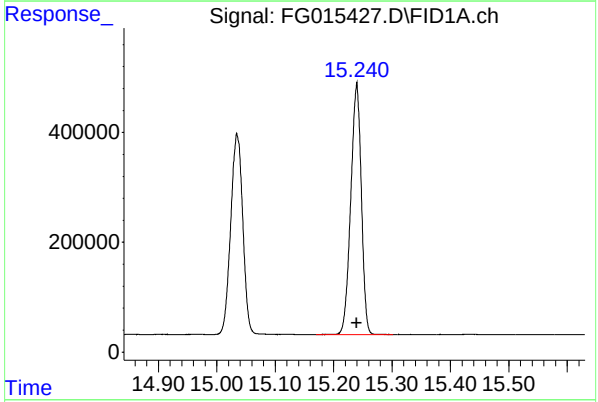
R.T.: 14.132 min
Delta R.T.: 0.000 min
Response: 5785353
Conc: 50.00 ug/ml



#9 TETRACOSANE-d50 (SURROGATE)

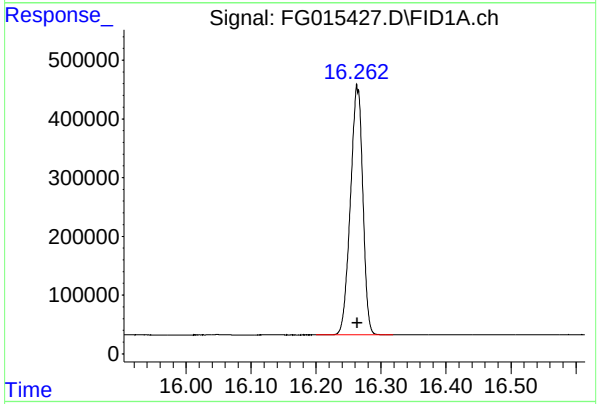
R.T.: 15.035 min
Delta R.T.: 0.000 min
Response: 5246382
Conc: 50.00 ug/ml

Instrument :
FID_G
ClientSampleId :
50 TRPH STD



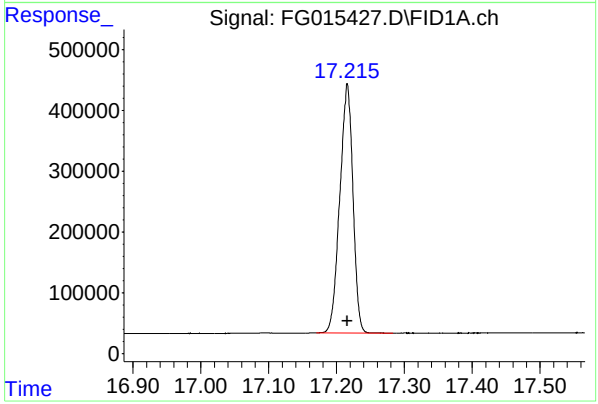
#10 N-TETRACOSANE

R.T.: 15.240 min
Delta R.T.: 0.000 min
Response: 5748589
Conc: 50.00 ug/ml



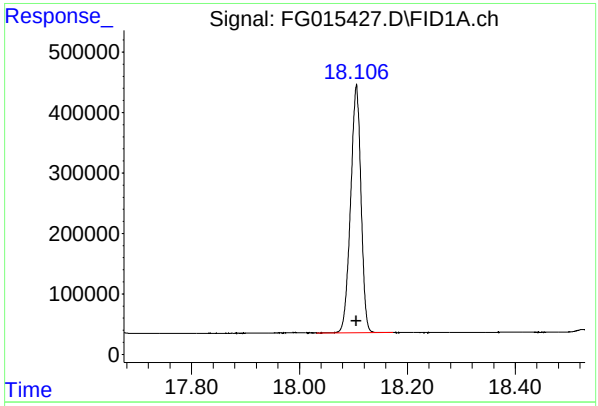
#11 N-HEXACOSANE

R.T.: 16.263 min
Delta R.T.: 0.000 min
Response: 5623200
Conc: 50.00 ug/ml



#12 N-OCTACOSANE

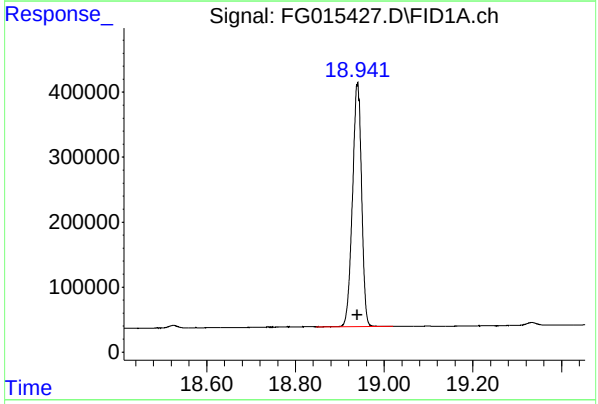
R.T.: 17.216 min
Delta R.T.: 0.000 min
Response: 5503536
Conc: 50.00 ug/ml



#13 N-TRIACONTANE

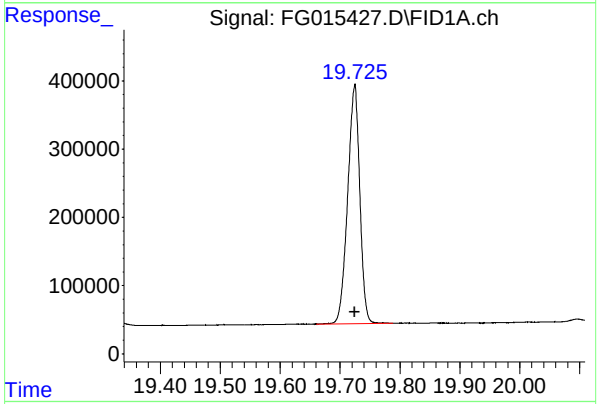
R.T.: 18.106 min
Delta R.T.: 0.000 min
Response: 5464008
Conc: 50.00 ug/ml

Instrument :
FID_G
ClientSampleId :
50 TRPH STD



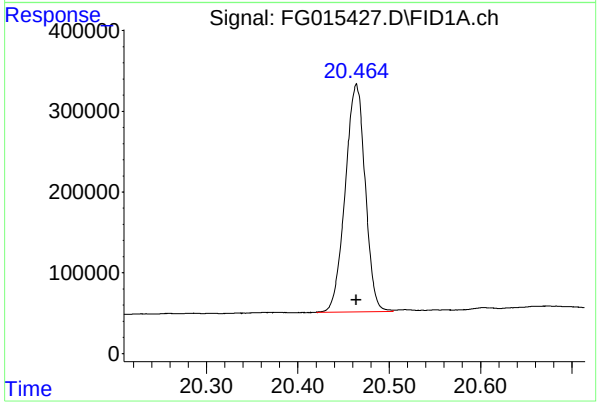
#14 N-DOTRIACONTANE

R.T.: 18.940 min
Delta R.T.: 0.000 min
Response: 5350108
Conc: 50.00 ug/ml



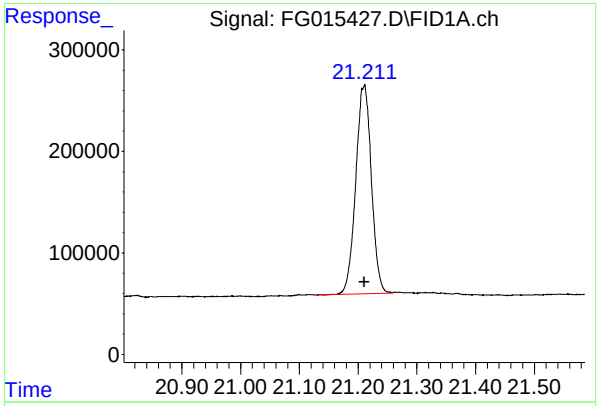
#15 N-TETRATRIACONTANE

R.T.: 19.725 min
Delta R.T.: 0.000 min
Response: 4934105
Conc: 50.00 ug/ml



#16 N-HEXATRIACONTANE

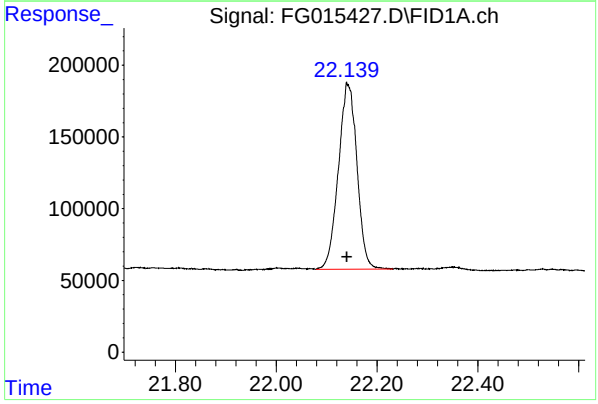
R.T.: 20.464 min
Delta R.T.: 0.000 min
Response: 4275212
Conc: 50.00 ug/ml



#17 N-OCTATRIACONTANE

R.T.: 21.211 min
Delta R.T.: 0.000 mi
Response: 3809914
Conc: 50.00 ug/m

Instrument :
FID_G
ClientSampleId :
50 TRPH STD



#18 N-TETRACONTANE

R.T.: 22.141 min
Delta R.T.: 0.000 min
Response: 3308945
Conc: 50.00 ug/ml

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG030325\
Data File : FG015427.D
Signal(s) : FID1A.ch
Acq On : 03 Mar 2025 12:17
Sample : 50 TRPH STD
Misc :
ALS Vial : 22 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG030325.M
Title :

Signal : FID1A.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	1.994	1.961	2.108	BB	407382	4965506	83.87%	5.321%
2	4.533	4.490	4.635	BB	482505	5095283	86.06%	5.460%
3	6.717	6.682	6.803	BB	535433	5388928	91.02%	5.775%
4	8.553	8.516	8.639	BB	509411	5413479	91.44%	5.801%
5	10.168	10.132	10.238	BB	518172	5640871	95.28%	6.045%
6	11.616	11.576	11.685	BB	526761	5920415	100.00%	6.344%
7	12.930	12.840	12.993	BB	493438	5842747	98.69%	6.261%
8	14.132	14.047	14.194	BB	480182	5785353	97.72%	6.200%
9	15.035	14.986	15.102	BV	363784	5246382	88.62%	5.622%
10	15.240	15.170	15.302	BB	459822	5748589	97.10%	6.160%
11	16.263	16.200	16.318	BB	419401	5623200	94.98%	6.026%
12	17.216	17.170	17.283	BB	410138	5503536	92.96%	5.898%
13	18.106	18.031	18.173	BB	410542	5464008	92.29%	5.855%
14	18.940	18.847	19.020	BV	370922	5350108	90.37%	5.733%
15	19.725	19.660	19.788	BV	351414	4934105	83.34%	5.287%
16	20.464	20.420	20.504	BV	282155	4275212	72.21%	4.581%
17	21.211	21.128	21.259	PV	205065	3809914	64.35%	4.083%
18	22.141	22.079	22.232	BV	128956	3308945	55.89%	3.546%
			Sum of corrected areas:			93316579		

FG030325.M Tue Mar 04 04:35:26 2025

Quantitation Report (QT Reviewed)

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG030325\
Data File : FG015428.D
Signal(s) : FID1A.ch
Acq On : 03 Mar 2025 12:46
Operator : YP\AJ
Sample : 20 TRPH STD
Misc :
ALS Vial : 23 Sample Multiplier: 1

Instrument :
FID_G
ClientSampleId :
20 TRPH STD

Integration File: autoint1.e
Quant Time: Mar 03 12:55:04 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG030325.M
Quant Title :
QLast Update : Mon Mar 03 12:54:55 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...	15.033	2074987	19.754 ug/ml
	Target Compounds			
1)	N-OCTANE	1.995	2148272	20.628 ug/ml
2)	N-DECANE	4.532	2177756	20.487 ug/ml
3)	N-DODECANE	6.714	2260955	20.298 ug/ml
4)	N-TETRADECANE	8.550	2229154	20.147 ug/ml
5)	N-HEXADECANE	10.164	2282146	19.991 ug/ml
6)	N-OCTADECANE	11.613	2364724	19.866 ug/ml
7)	N-EICOSANE	12.927	2320604	19.815 ug/ml
8)	N-DOCOSANE	14.131	2288772	19.770 ug/ml
10)	N-TETRACOSANE	15.236	2273407	19.754 ug/ml
11)	N-HEXACOSANE	16.260	2233591	19.784 ug/ml
12)	N-OCTACOSANE	17.213	2200912	19.887 ug/ml
13)	N-TRIACONTANE	18.103	2201361	20.022 ug/ml
14)	N-DOTRIACONTANE	18.937	2193441	20.279 ug/ml
15)	N-TETRATRIACONTANE	19.720	2127511	20.968 ug/ml
16)	N-HEXATRIACONTANE	20.461	1988145	21.913 ug/ml
17)	N-OCTATRIACONTANE	21.208	1897196	22.973 ug/ml
18)	N-TETRACONTANE	22.140	1736732	23.868 ug/ml

(f)=RT Delta > 1/2 Window (m)=manual int.

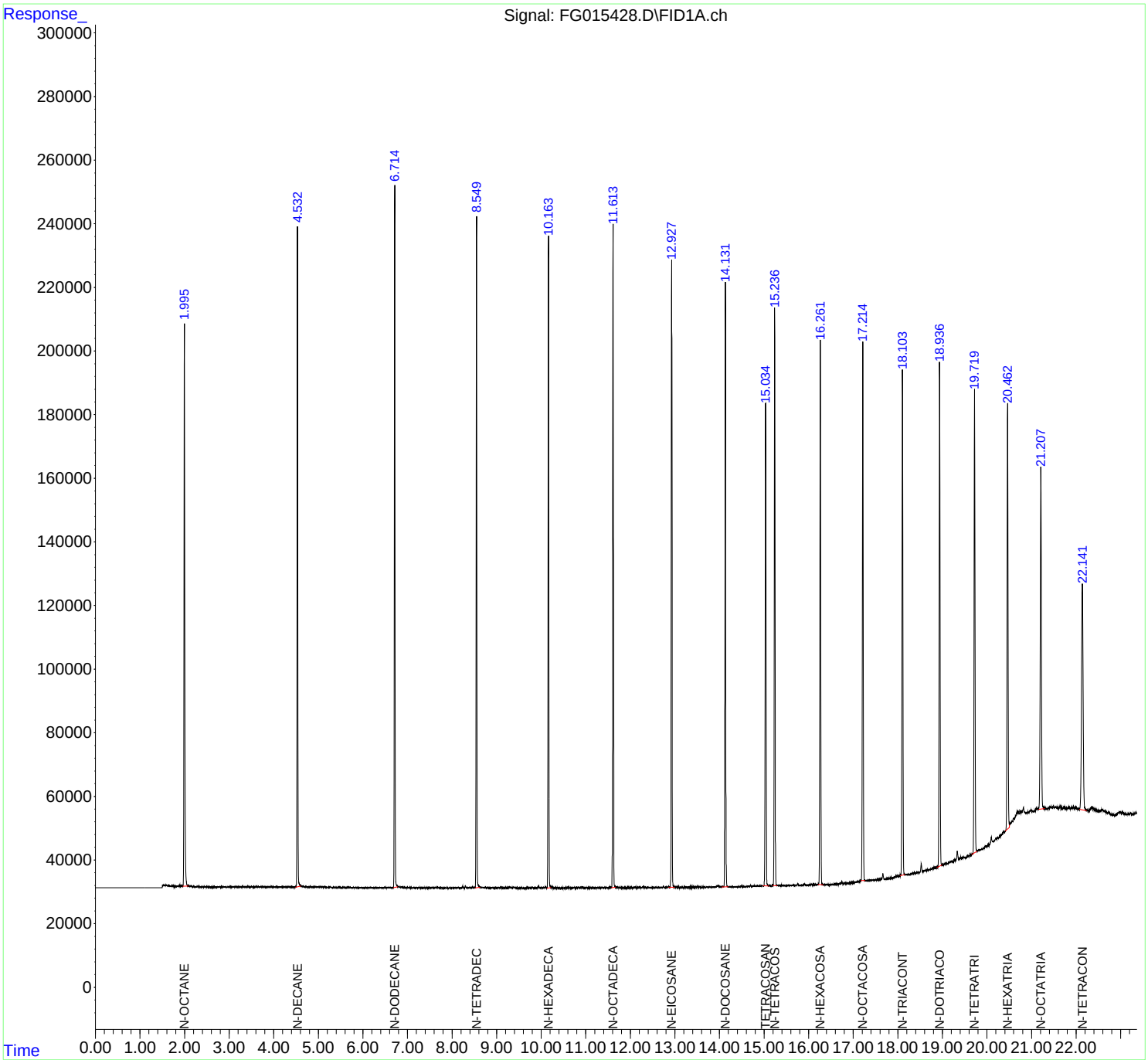
Quantitation Report (QT Reviewed)

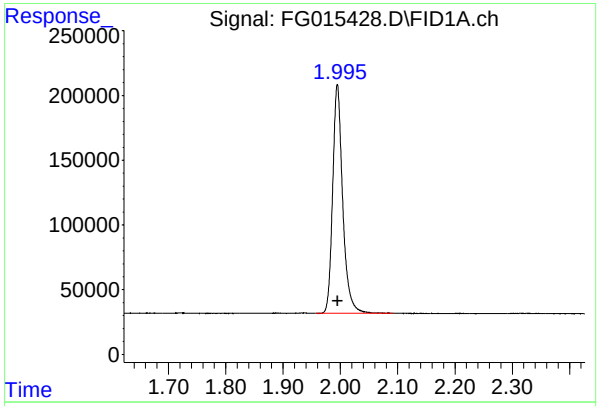
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG030325\
Data File : FG015428.D
Signal(s) : FID1A.ch
Acq On : 03 Mar 2025 12:46
Operator : YP\AJ
Sample : 20 TRPH STD
Misc :
ALS Vial : 23 Sample Multiplier: 1

Instrument :
FID_G
ClientSampleId :
20 TRPH STD

Integration File: autoint1.e
Quant Time: Mar 03 12:55:04 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG030325.M
Quant Title :
QLast Update : Mon Mar 03 12:54:55 2025
Response via : Initial Calibration
Integrator: ChemStation

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

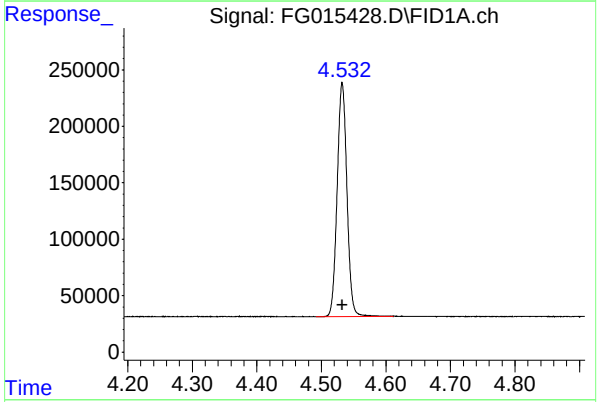




#1 N-OCTANE

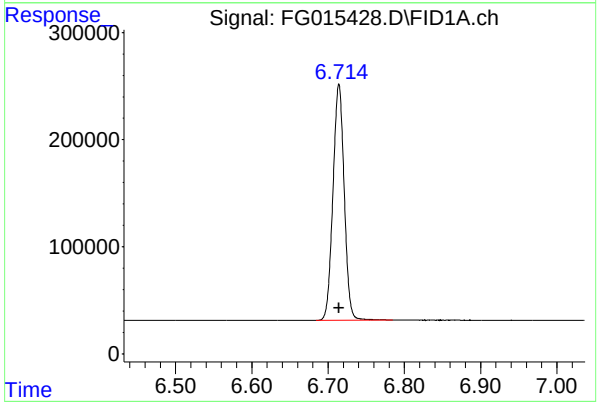
R.T.: 1.995 min
Delta R.T.: 0.000 min
Response: 2148272
Conc: 20.63 ug/ml

Instrument :
FID_G
ClientSampleId :
20 TRPH STD



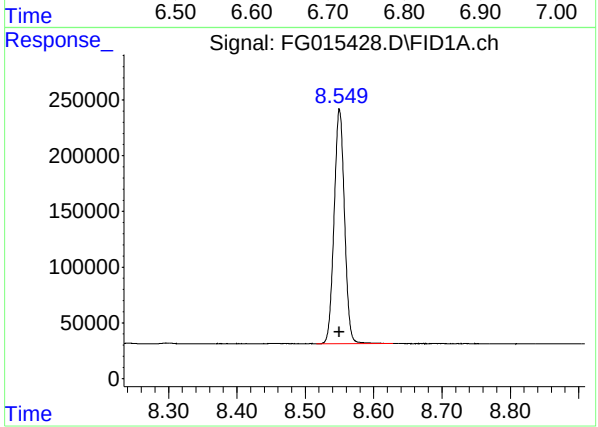
#2 N-DECANE

R.T.: 4.532 min
Delta R.T.: 0.000 min
Response: 2177756
Conc: 20.49 ug/ml



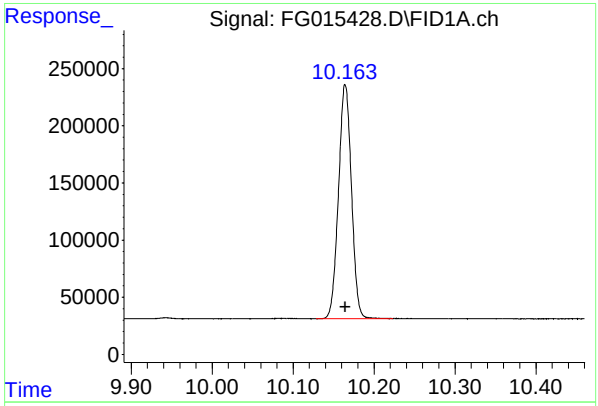
#3 N-DODECANE

R.T.: 6.714 min
Delta R.T.: 0.000 min
Response: 2260955
Conc: 20.30 ug/ml



#4 N-TETRADECANE

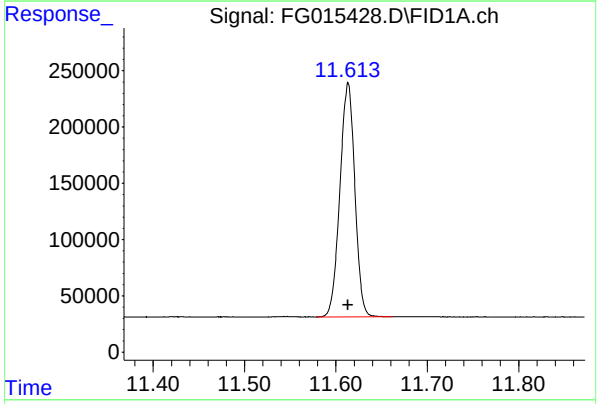
R.T.: 8.550 min
Delta R.T.: 0.000 min
Response: 2229154
Conc: 20.15 ug/ml



#5 N-HEXADECANE

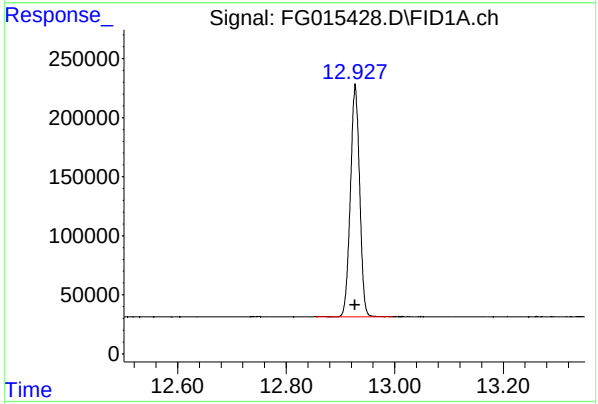
R.T.: 10.164 min
Delta R.T.: 0.000 min
Response: 2282146
Conc: 19.99 ug/ml

Instrument :
FID_G
ClientSampleId :
20 TRPH STD



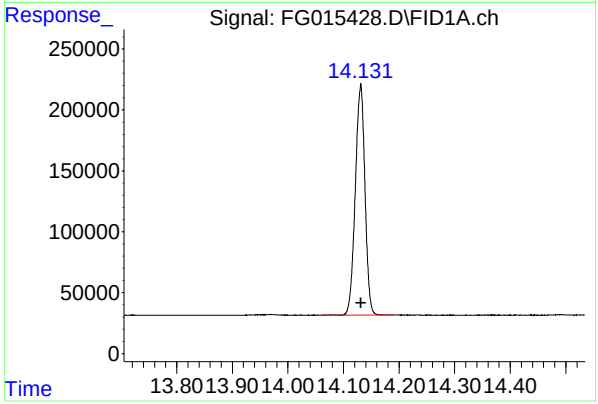
#6 N-OCTADECANE

R.T.: 11.613 min
Delta R.T.: 0.000 min
Response: 2364724
Conc: 19.87 ug/ml



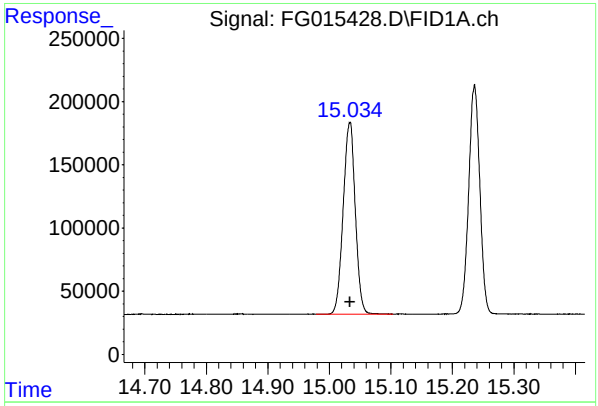
#7 N-EICOSANE

R.T.: 12.927 min
Delta R.T.: 0.000 min
Response: 2320604
Conc: 19.82 ug/ml



#8 N-DOCOSANE

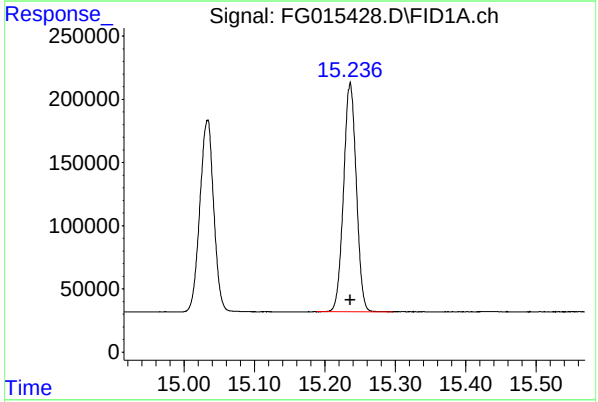
R.T.: 14.131 min
Delta R.T.: 0.000 min
Response: 2288772
Conc: 19.77 ug/ml



#9 TETRACOSANE-d50 (SURROGATE)

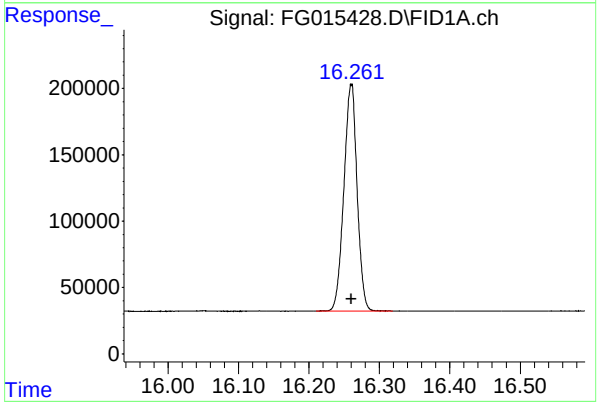
R.T.: 15.033 min
Delta R.T.: 0.000 min
Response: 2074987
Conc: 19.75 ug/ml

Instrument :
FID_G
ClientSampleId :
20 TRPH STD



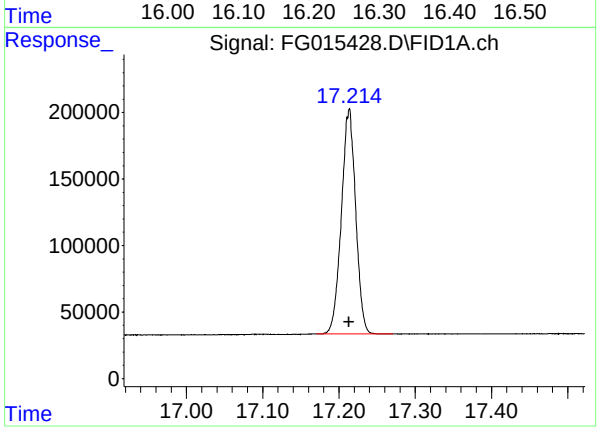
#10 N-TETRACOSANE

R.T.: 15.236 min
Delta R.T.: 0.000 min
Response: 2273407
Conc: 19.75 ug/ml



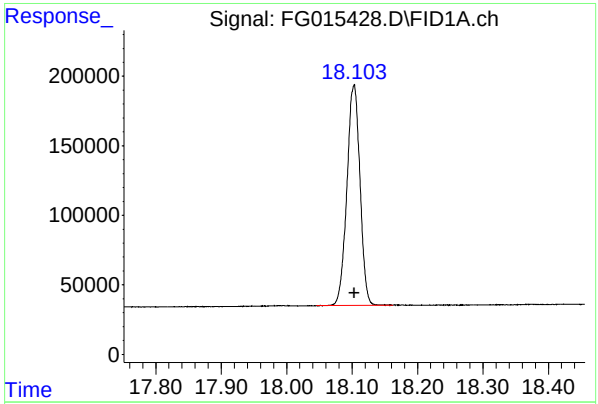
#11 N-HEXACOSANE

R.T.: 16.260 min
Delta R.T.: 0.000 min
Response: 2233591
Conc: 19.78 ug/ml



#12 N-OCTACOSANE

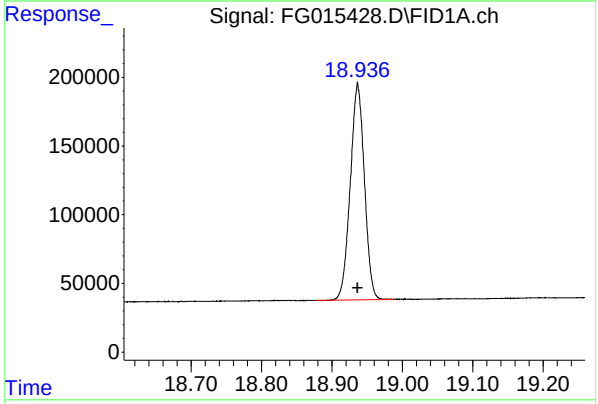
R.T.: 17.213 min
Delta R.T.: 0.000 min
Response: 2200912
Conc: 19.89 ug/ml



#13 N-TRIACONTANE

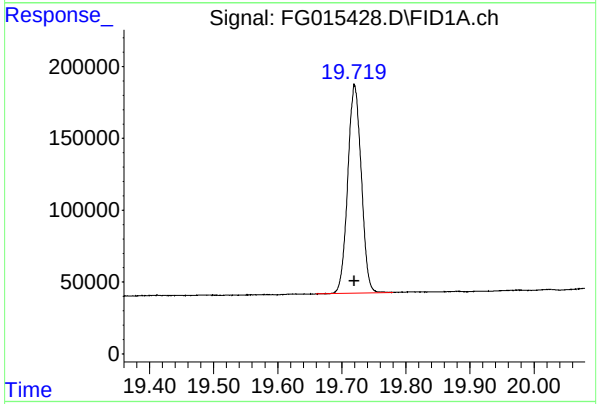
R.T.: 18.103 min
Delta R.T.: 0.000 min
Response: 2201361
Conc: 20.02 ug/ml

Instrument :
FID_G
ClientSampleId :
20 TRPH STD



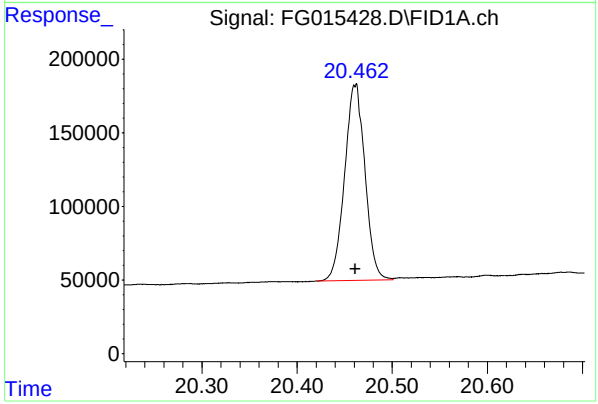
#14 N-DOTRIACONTANE

R.T.: 18.937 min
Delta R.T.: 0.000 min
Response: 2193441
Conc: 20.28 ug/ml



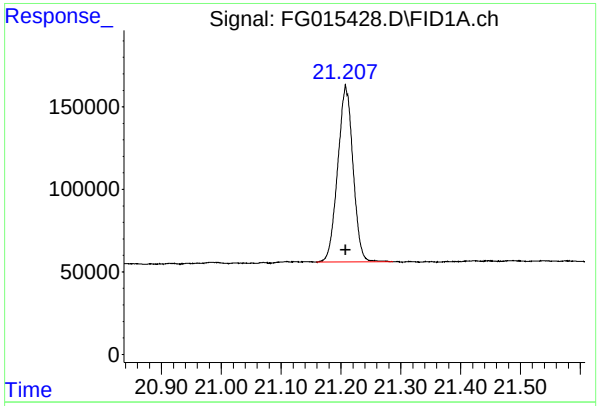
#15 N-TETRATRIACONTANE

R.T.: 19.720 min
Delta R.T.: 0.000 min
Response: 2127511
Conc: 20.97 ug/ml



#16 N-HEXATRIACONTANE

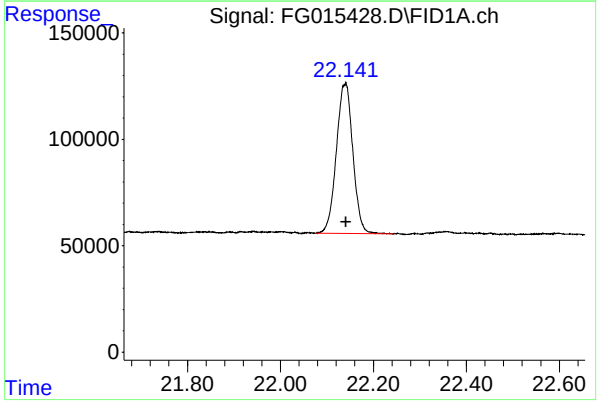
R.T.: 20.461 min
Delta R.T.: 0.000 min
Response: 1988145
Conc: 21.91 ug/ml



#17 N-OCTATRIACONTANE

R.T.: 21.208 min
Delta R.T.: 0.000 min
Response: 1897196
Conc: 22.97 ug/ml

Instrument :
FID_G
ClientSampleId :
20 TRPH STD



#18 N-TETRACONTANE

R.T.: 22.140 min
Delta R.T.: 0.000 min
Response: 1736732
Conc: 23.87 ug/ml

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG030325\
Data File : FG015428.D
Signal(s) : FID1A.ch
Acq On : 03 Mar 2025 12:46
Sample : 20 TRPH STD
Misc :
ALS Vial : 23 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG030325.M
Title :

Signal : FID1A.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	1.995	1.958	2.092	BB	176911	2148272	90.85%	5.508%
2	4.532	4.492	4.611	BB	206925	2177756	92.09%	5.584%
3	6.714	6.684	6.785	BB	220617	2260955	95.61%	5.797%
4	8.550	8.516	8.628	BB	210226	2229154	94.27%	5.716%
5	10.164	10.128	10.223	BB	204739	2282146	96.51%	5.852%
6	11.613	11.578	11.663	BB	208205	2364724	100.00%	6.063%
7	12.927	12.855	12.997	BB	196430	2320604	98.13%	5.950%
8	14.131	14.051	14.189	BB	189095	2288772	96.79%	5.869%
9	15.033	14.978	15.103	BB	151271	2074987	87.75%	5.321%
10	15.236	15.188	15.297	BB	181219	2273407	96.14%	5.829%
11	16.260	16.210	16.319	BB	170302	2233591	94.45%	5.727%
12	17.213	17.170	17.271	BB	169119	2200912	93.07%	5.643%
13	18.103	18.045	18.163	BB	158748	2201361	93.09%	5.645%
14	18.937	18.878	18.987	BB	157872	2193441	92.76%	5.624%
15	19.720	19.660	19.780	BV	144198	2127511	89.97%	5.455%
16	20.461	20.420	20.501	BV	132042	1988145	84.08%	5.098%
17	21.208	21.159	21.287	PV	105790	1897196	80.23%	4.865%
18	22.140	22.077	22.242	PV	70549	1736732	73.44%	4.453%
			Sum of corrected areas:			38999663		

FG030325.M Tue Mar 04 04:35:56 2025

Quantitation Report (QT Reviewed)

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG030325\
Data File : FG015429.D
Signal(s) : FID1A.ch
Acq On : 03 Mar 2025 13:16
Operator : YP\AJ
Sample : 10 TRPH STD
Misc :
ALS Vial : 24 Sample Multiplier: 1

Instrument :
FID_G
ClientSampleId :
10 TRPH STD

Integration File: autoint1.e
Quant Time: Mar 03 13:42:05 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG030325.M
Quant Title :
QLast Update : Mon Mar 03 12:56:04 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...	15.031	1127859	10.738 ug/ml
	Target Compounds			
1)	N-OCTANE	1.995	1157492	11.115 ug/ml
2)	N-DECANE	4.532	1169448	11.001 ug/ml
3)	N-DODECANE	6.714	1215352	10.911 ug/ml
4)	N-TETRADECANE	8.550	1198081	10.828 ug/ml
5)	N-HEXADECANE	10.165	1231825	10.790 ug/ml
6)	N-OCTADECANE	11.612	1286162	10.805 ug/ml
7)	N-EICOSANE	12.927	1256413	10.728 ug/ml
8)	N-DOCOSANE	14.130	1241010	10.720 ug/ml
10)	N-TETRACOSANE	15.235	1241496	10.788 ug/ml
11)	N-HEXACOSANE	16.259	1217452	10.784 ug/ml
12)	N-OCTACOSANE	17.213	1204505	10.883 ug/ml
13)	N-TRIACONTANE	18.102	1221633	11.111 ug/ml
14)	N-DOTRIACONTANE	18.935	1217726	11.258 ug/ml
15)	N-TETRATRIACONTANE	19.721	1136390	11.200 ug/ml
16)	N-HEXATRIACONTANE	20.461	1021219	11.256 ug/ml
17)	N-OCTATRIACONTANE	21.207	959048	11.613 ug/ml
18)	N-TETRACONTANE	22.139	944468	12.980 ug/ml

(f)=RT Delta > 1/2 Window (m)=manual int.

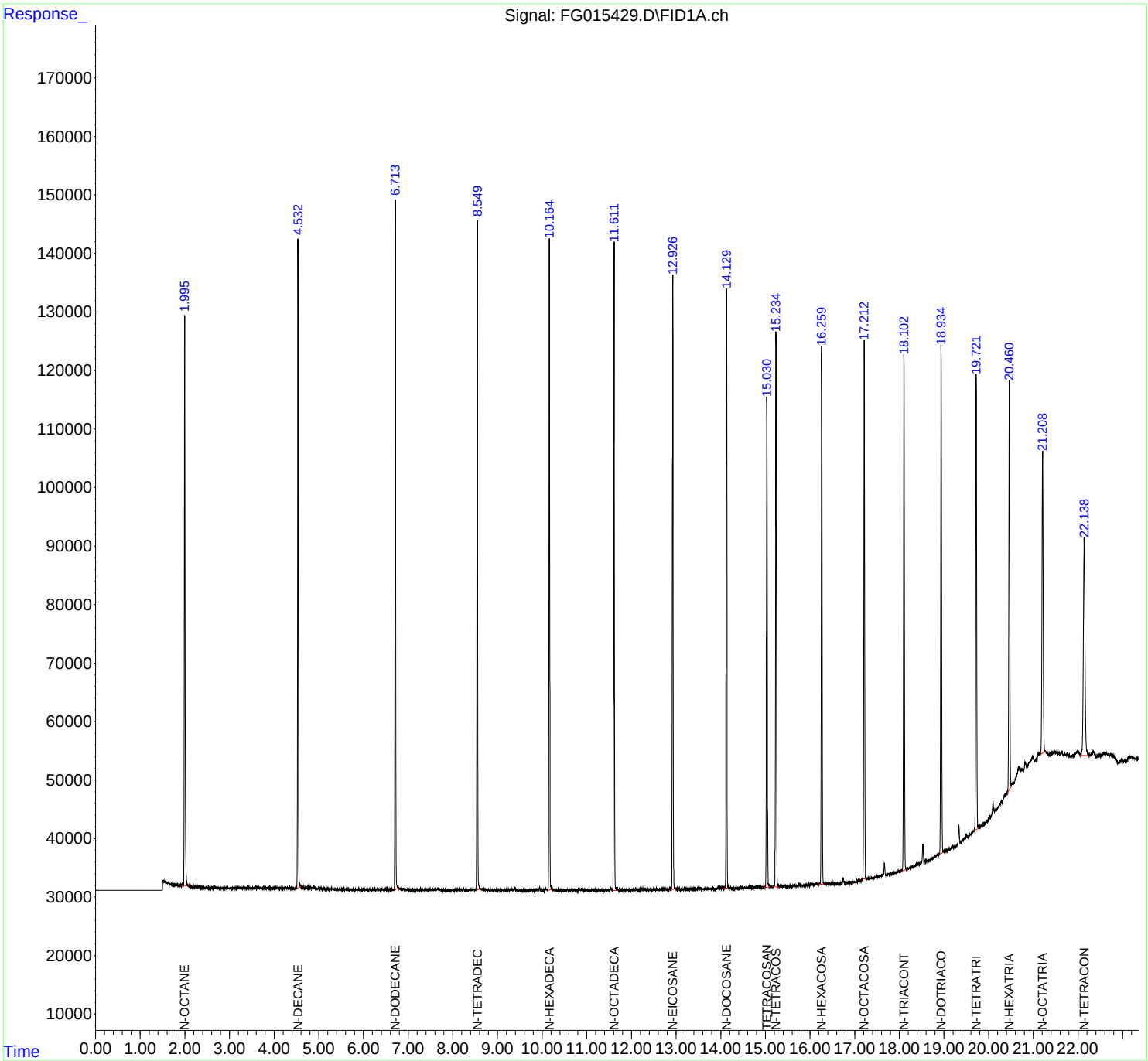
Quantitation Report (QT Reviewed)

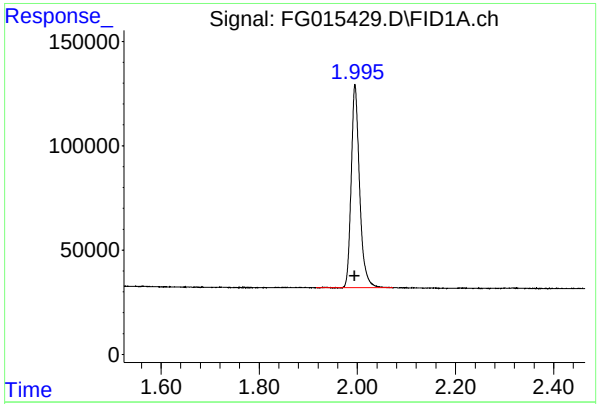
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG030325\
Data File : FG015429.D
Signal(s) : FID1A.ch
Acq On : 03 Mar 2025 13:16
Operator : YP\AJ
Sample : 10 TRPH STD
Misc :
ALS Vial : 24 Sample Multiplier: 1

Instrument :
FID_G
ClientSampleId :
10 TRPH STD

Integration File: autoint1.e
Quant Time: Mar 03 13:42:05 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG030325.M
Quant Title :
QLast Update : Mon Mar 03 12:56:04 2025
Response via : Initial Calibration
Integrator: ChemStation

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

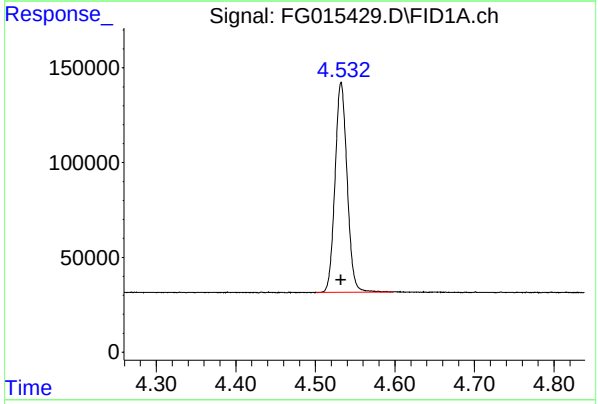




#1 N-OCTANE

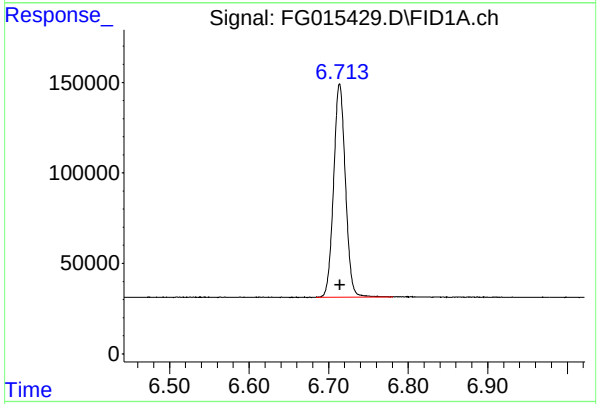
R.T.: 1.995 min
Delta R.T.: 0.000 min
Response: 1157492
Conc: 11.11 ug/ml

Instrument :
FID_G
ClientSampleId :
10 TRPH STD



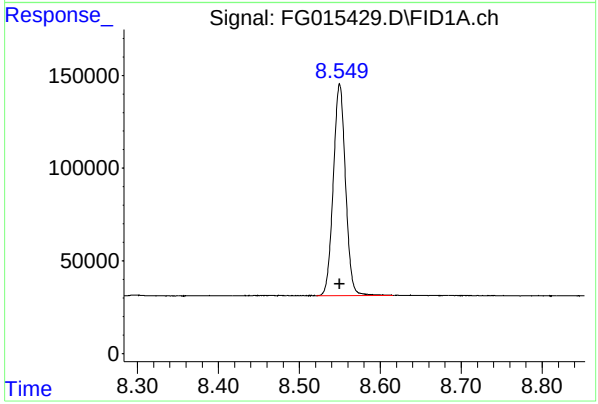
#2 N-DECANE

R.T.: 4.532 min
Delta R.T.: 0.000 min
Response: 1169448
Conc: 11.00 ug/ml



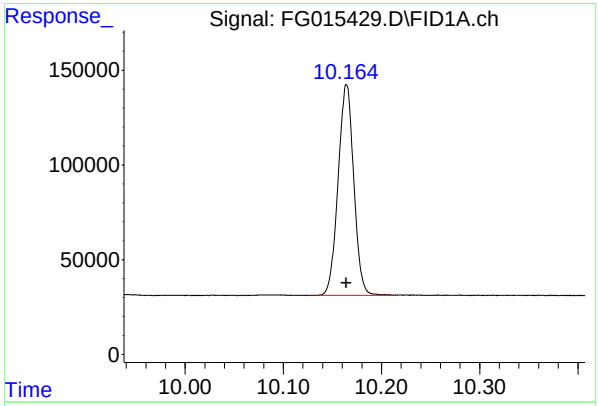
#3 N-DODECANE

R.T.: 6.714 min
Delta R.T.: 0.000 min
Response: 1215352
Conc: 10.91 ug/ml



#4 N-TETRADECANE

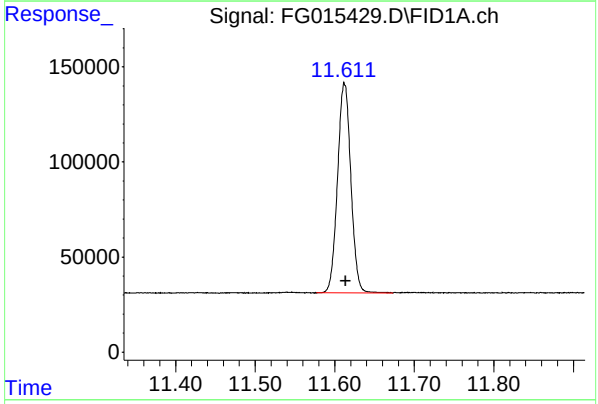
R.T.: 8.550 min
Delta R.T.: 0.000 min
Response: 1198081
Conc: 10.83 ug/ml



#5 N-HEXADECANE

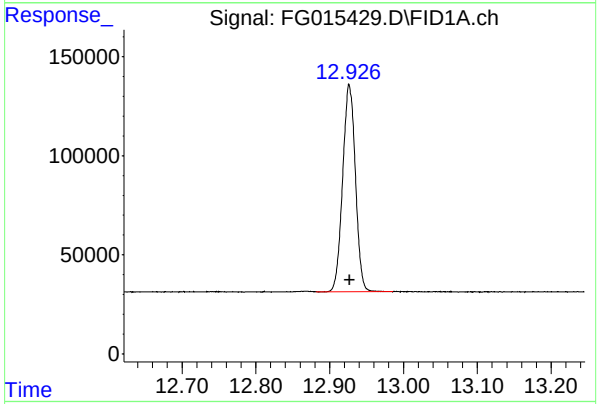
R.T.: 10.165 min
Delta R.T.: 0.000 min
Response: 1231825
Conc: 10.79 ug/ml

Instrument :
FID_G
ClientSampleId :
10 TRPH STD



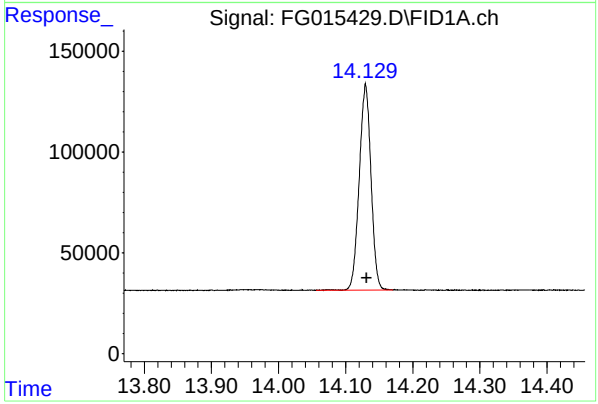
#6 N-OCTADECANE

R.T.: 11.612 min
Delta R.T.: -0.001 min
Response: 1286162
Conc: 10.80 ug/ml



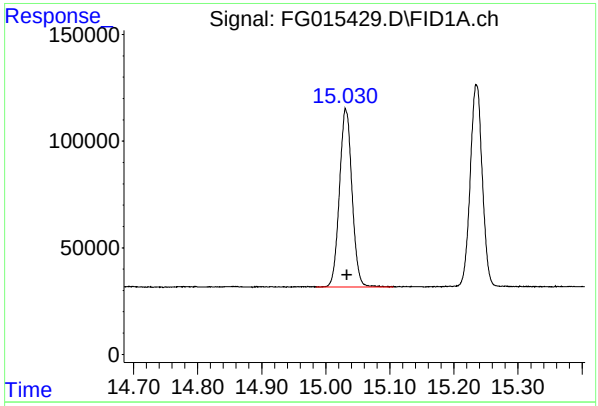
#7 N-EICOSANE

R.T.: 12.927 min
Delta R.T.: 0.000 min
Response: 1256413
Conc: 10.73 ug/ml



#8 N-DOCOSANE

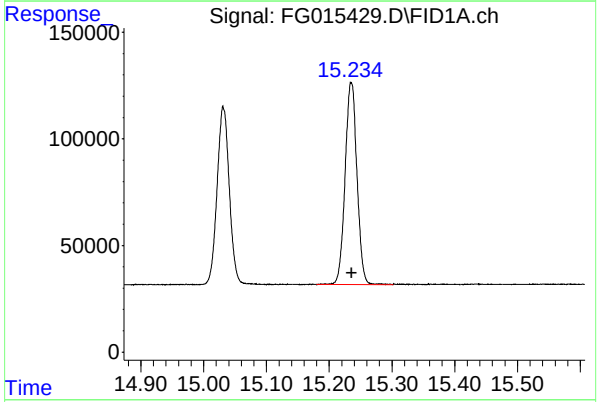
R.T.: 14.130 min
Delta R.T.: -0.001 min
Response: 1241010
Conc: 10.72 ug/ml



#9 TETRACOSANE-d50 (SURROGATE)

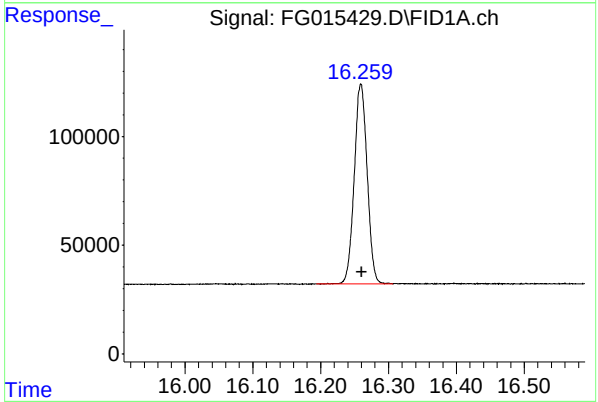
R.T.: 15.031 min
Delta R.T.: -0.002 min
Response: 1127859
Conc: 10.74 ug/ml

Instrument :
FID_G
ClientSampleId :
10 TRPH STD



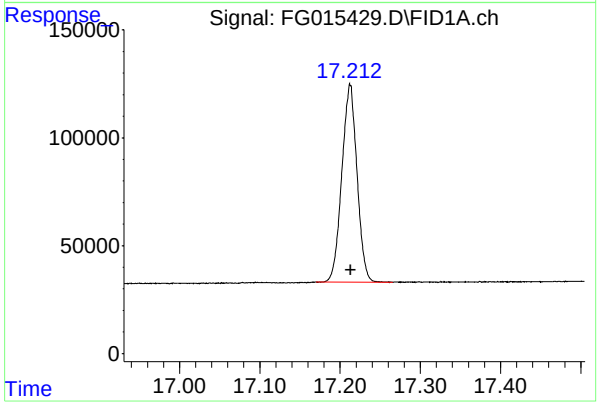
#10 N-TETRACOSANE

R.T.: 15.235 min
Delta R.T.: 0.000 min
Response: 1241496
Conc: 10.79 ug/ml



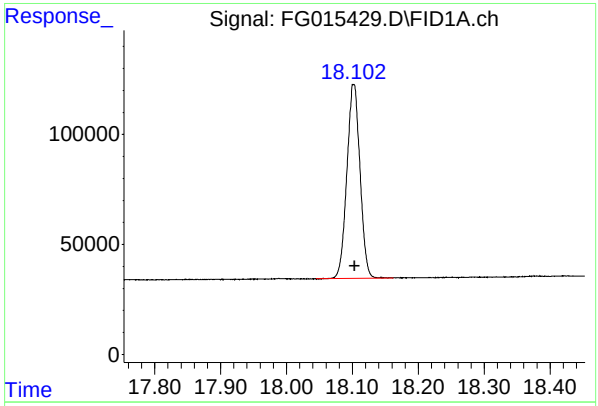
#11 N-HEXACOSANE

R.T.: 16.259 min
Delta R.T.: -0.001 min
Response: 1217452
Conc: 10.78 ug/ml



#12 N-OCTACOSANE

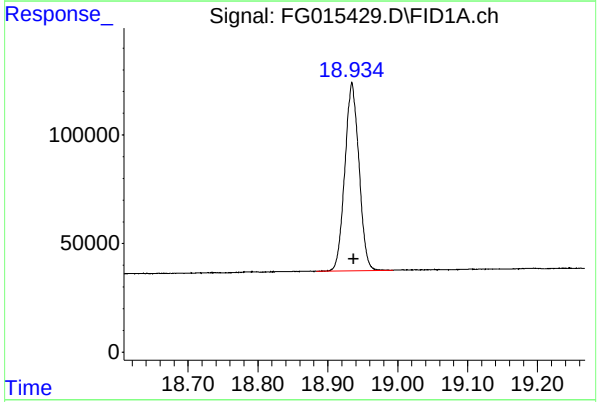
R.T.: 17.213 min
Delta R.T.: 0.000 min
Response: 1204505
Conc: 10.88 ug/ml



#13 N-TRIACONTANE

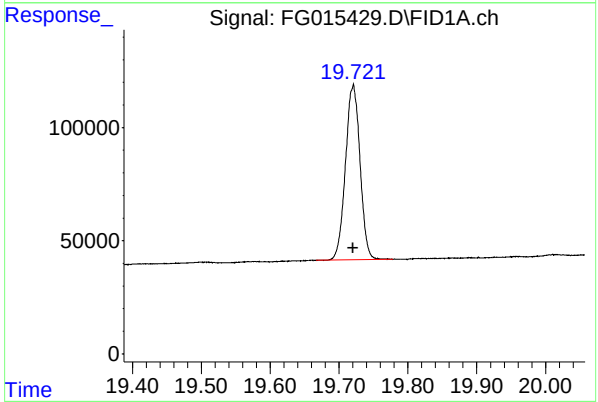
R.T.: 18.102 min
Delta R.T.: 0.000 min
Response: 1221633
Conc: 11.11 ug/ml

Instrument :
FID_G
ClientSampleId :
10 TRPH STD



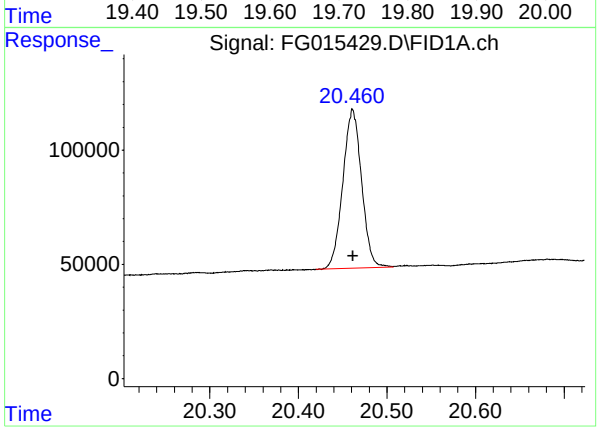
#14 N-DOTRIACONTANE

R.T.: 18.935 min
Delta R.T.: -0.002 min
Response: 1217726
Conc: 11.26 ug/ml



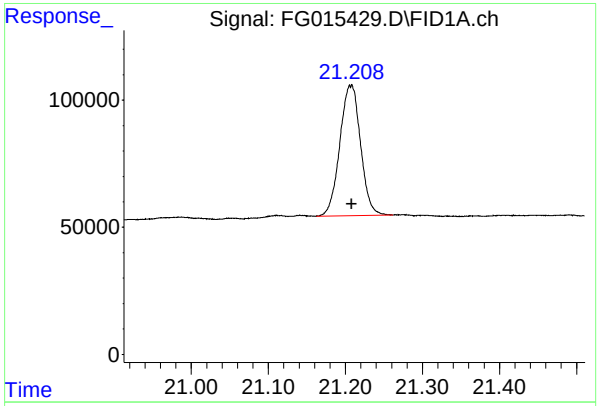
#15 N-TETRATRIACONTANE

R.T.: 19.721 min
Delta R.T.: 0.000 min
Response: 1136390
Conc: 11.20 ug/ml



#16 N-HEXATRIACONTANE

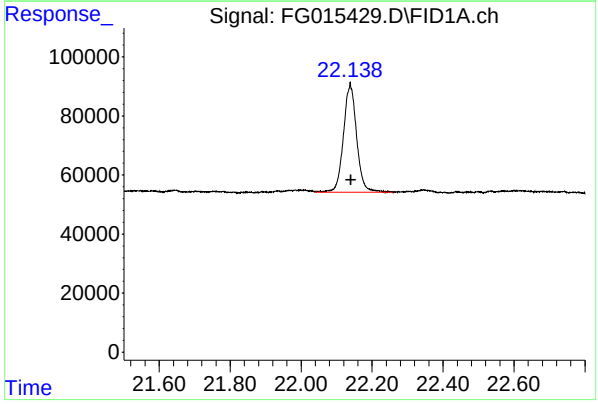
R.T.: 20.461 min
Delta R.T.: 0.000 min
Response: 1021219
Conc: 11.26 ug/ml



#17 N-OCTATRIACONTANE

R.T.: 21.207 min
Delta R.T.: 0.000 mi
Response: 959048
Conc: 11.61 ug/m

Instrument :
FID_G
ClientSampleId :
10 TRPH STD



#18 N-TETRACONTANE

R.T.: 22.139 min
Delta R.T.: -0.002 min
Response: 944468
Conc: 12.98 ug/ml

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG030325\
Data File : FG015429.D
Signal(s) : FID1A.ch
Acq On : 03 Mar 2025 13:16
Sample : 10 TRPH STD
Misc :
ALS Vial : 24 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG030325.M
Title :

Signal : FID1A.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	1.995	1.916	2.073	BB	97394	1157492	90.00%	5.499%
2	4.532	4.501	4.598	BB	110922	1169448	90.93%	5.556%
3	6.714	6.684	6.781	BB	117974	1215352	94.49%	5.774%
4	8.550	8.521	8.616	BB	113981	1198081	93.15%	5.692%
5	10.165	10.133	10.212	BB	111301	1231825	95.78%	5.853%
6	11.612	11.577	11.673	BB	109600	1286162	100.00%	6.111%
7	12.927	12.882	12.986	BB	104438	1256413	97.69%	5.969%
8	14.130	14.056	14.170	BB	101948	1241010	96.49%	5.896%
9	15.031	14.985	15.105	BB	82702	1127859	87.69%	5.359%
10	15.235	15.179	15.302	BB	94460	1241496	96.53%	5.899%
11	16.259	16.193	16.307	BB	92020	1217452	94.66%	5.784%
12	17.213	17.170	17.266	BB	91615	1204505	93.65%	5.723%
13	18.102	18.045	18.162	BB	88189	1221633	94.98%	5.804%
14	18.935	18.883	18.993	BV	86833	1217726	94.68%	5.786%
15	19.721	19.667	19.778	BB	77535	1136390	88.36%	5.399%
16	20.461	20.420	20.507	BV	69773	1021219	79.40%	4.852%
17	21.207	21.162	21.262	PV	50751	959048	74.57%	4.557%
18	22.139	22.042	22.259	VV	37132	944468	73.43%	4.487%
			Sum of corrected areas:			21047577		

FG030325.M Tue Mar 04 04:36:22 2025

Quantitation Report (QT Reviewed)

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG030325\
Data File : FG015430.D
Signal(s) : FID1A.ch
Acq On : 03 Mar 2025 13:45
Operator : YP\AJ
Sample : 5 TRPH STD
Misc :
ALS Vial : 25 Sample Multiplier: 1

Instrument :
FID_G
ClientSampleId :
5 TRPH STD

Integration File: autoint1.e
Quant Time: Mar 03 14:05:24 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG030325.M
Quant Title :
QLast Update : Mon Mar 03 14:05:07 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...	15.031	582412	5.349 ug/ml
Target Compounds				
1)	N-OCTANE	1.996	607303	5.525 ug/ml
2)	N-DECANE	4.532	602630	5.416 ug/ml
3)	N-DODECANE	6.714	627003	5.395 ug/ml
4)	N-TETRADECANE	8.550	621997	5.398 ug/ml
5)	N-HEXADECANE	10.164	638977	5.384 ug/ml
6)	N-OCTADECANE	11.612	667549	5.390 ug/ml
7)	N-EICOSANE	12.926	651839	5.366 ug/ml
8)	N-DOCOSANE	14.129	636203	5.314 ug/ml
10)	N-TETRACOSANE	15.235	638341	5.346 ug/ml
11)	N-HEXACOSANE	16.258	631568	5.382 ug/ml
12)	N-OCTACOSANE	17.211	631460	5.455 ug/ml
13)	N-TRIACONTANE	18.100	644513	5.547 ug/ml
14)	N-DOTRIACONTANE	18.935	653005	5.660 ug/ml
15)	N-TETRATRIACONTANE	19.719	594705	5.538 ug/ml
16)	N-HEXATRIACONTANE	20.459	525108	5.477 ug/ml
17)	N-OCTATRIACONTANE	21.205	512891	5.747 ug/ml
18)	N-TETRACONTANE	22.134	487248	5.994 ug/ml

(f)=RT Delta > 1/2 Window (m)=manual int.

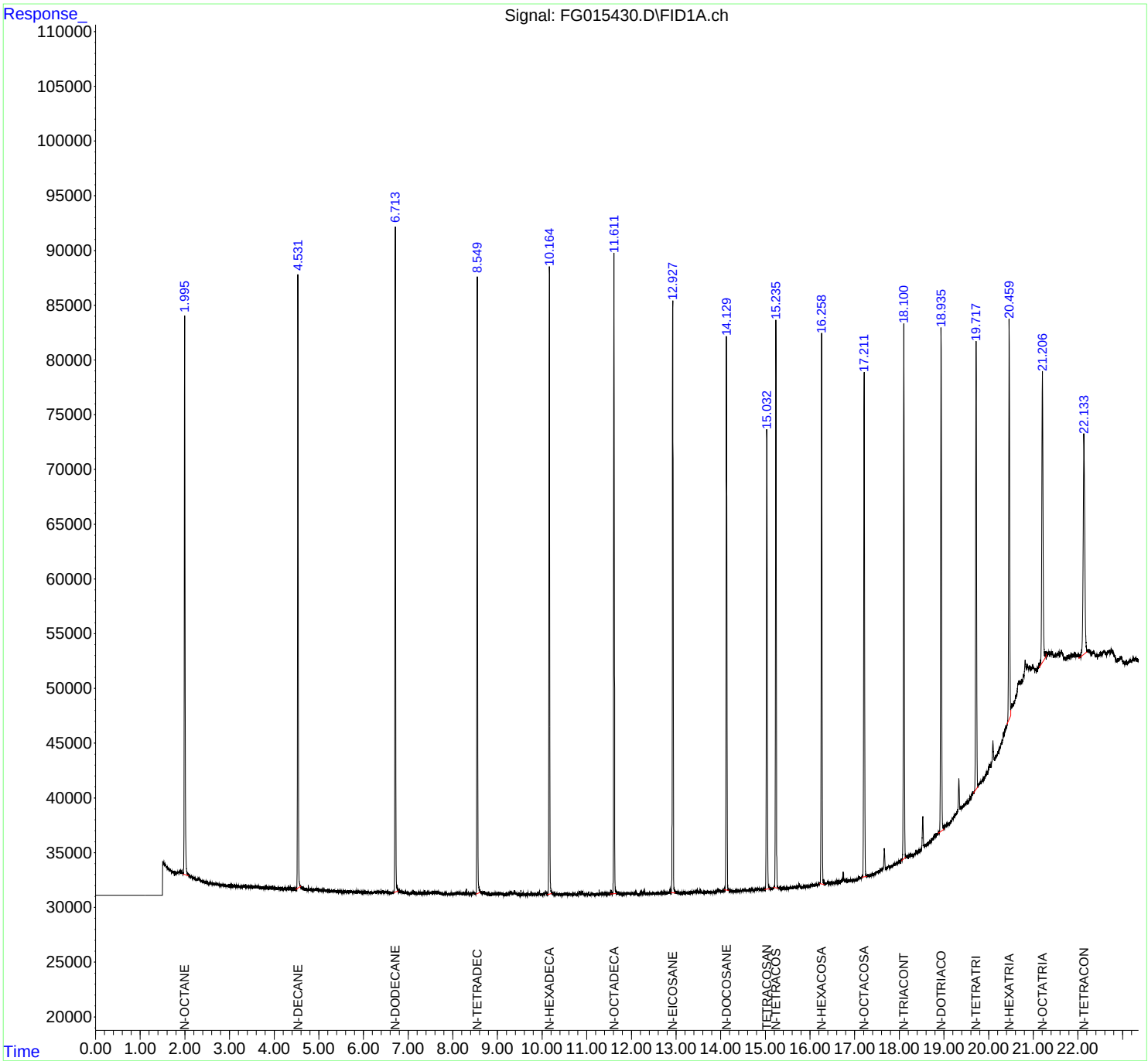
Quantitation Report (QT Reviewed)

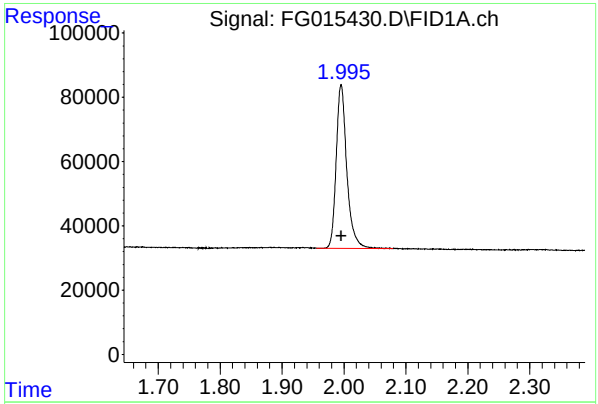
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG030325\
Data File : FG015430.D
Signal(s) : FID1A.ch
Acq On : 03 Mar 2025 13:45
Operator : YP\AJ
Sample : 5 TRPH STD
Misc :
ALS Vial : 25 Sample Multiplier: 1

Instrument :
FID_G
ClientSampleId :
5 TRPH STD

Integration File: autoint1.e
Quant Time: Mar 03 14:05:24 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG030325.M
Quant Title :
QLast Update : Mon Mar 03 14:05:07 2025
Response via : Initial Calibration
Integrator: ChemStation

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

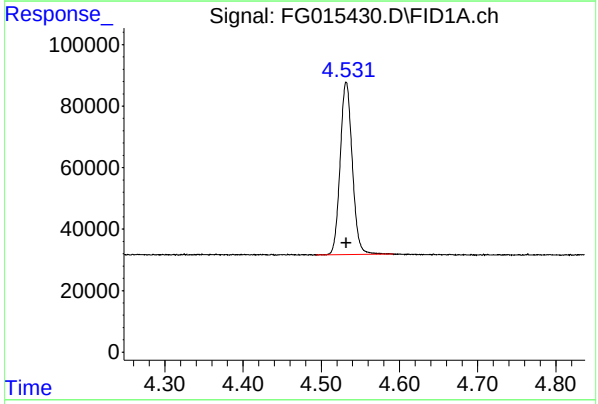




#1 N-OCTANE

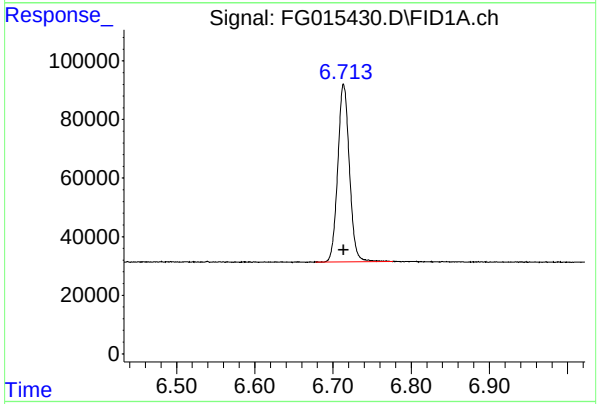
R.T.: 1.996 min
Delta R.T.: 0.000 min
Response: 607303
Conc: 5.52 ug/ml

Instrument :
FID_G
ClientSampleId :
5 TRPH STD



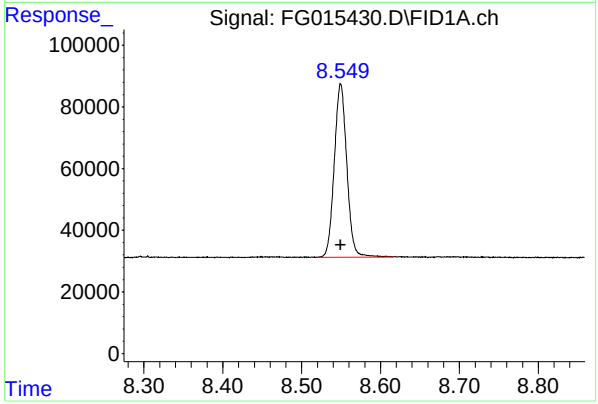
#2 N-DECANE

R.T.: 4.532 min
Delta R.T.: 0.000 min
Response: 602630
Conc: 5.42 ug/ml



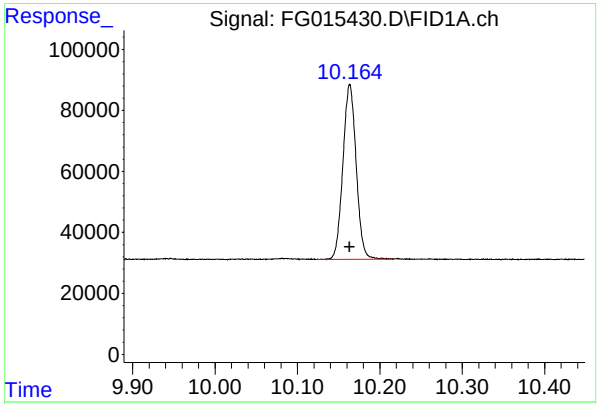
#3 N-DODECANE

R.T.: 6.714 min
Delta R.T.: 0.000 min
Response: 627003
Conc: 5.40 ug/ml



#4 N-TETRADECANE

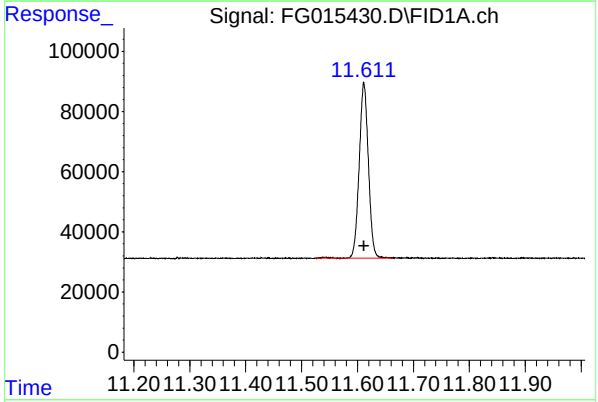
R.T.: 8.550 min
Delta R.T.: 0.000 min
Response: 621997
Conc: 5.40 ug/ml



#5 N-HEXADECANE

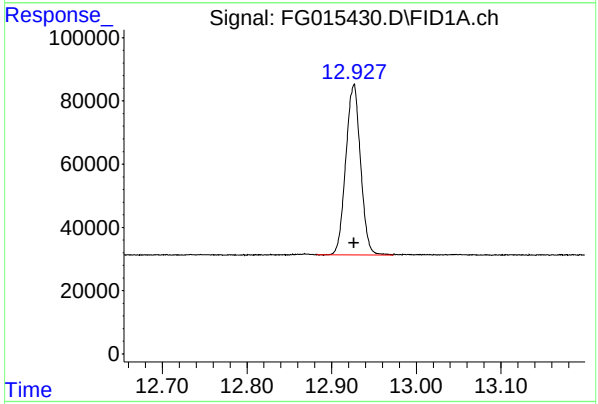
R.T.: 10.164 min
Delta R.T.: 0.000 min
Response: 638977
Conc: 5.38 ug/ml

Instrument :
FID_G
ClientSampleId :
5 TRPH STD



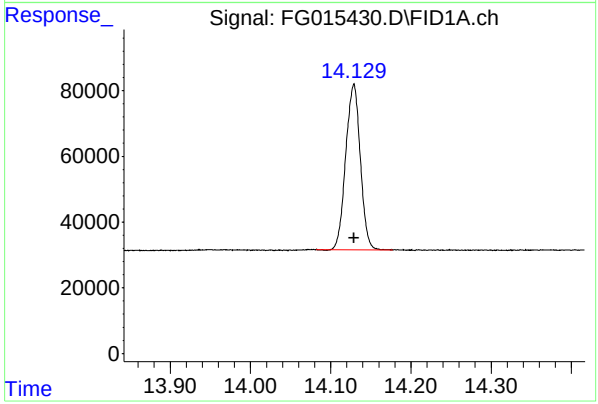
#6 N-OCTADECANE

R.T.: 11.612 min
Delta R.T.: 0.000 min
Response: 667549
Conc: 5.39 ug/ml



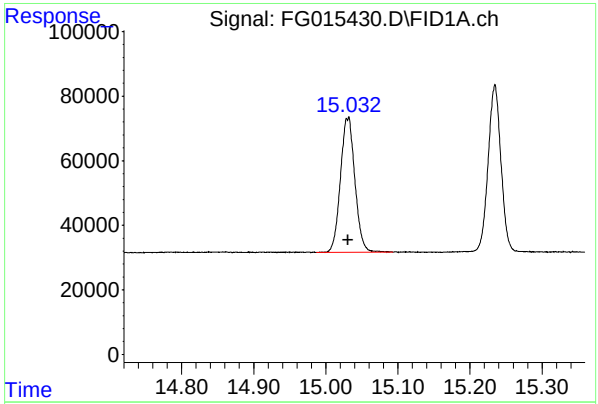
#7 N-EICOSANE

R.T.: 12.926 min
Delta R.T.: 0.000 min
Response: 651839
Conc: 5.37 ug/ml



#8 N-DOCOSANE

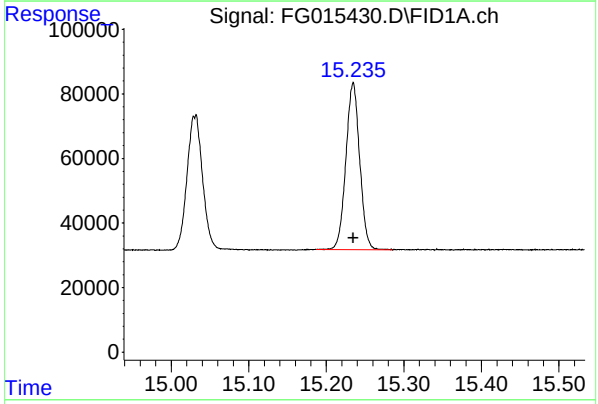
R.T.: 14.129 min
Delta R.T.: 0.000 min
Response: 636203
Conc: 5.31 ug/ml



#9 TETRACOSANE-d50 (SURROGATE)

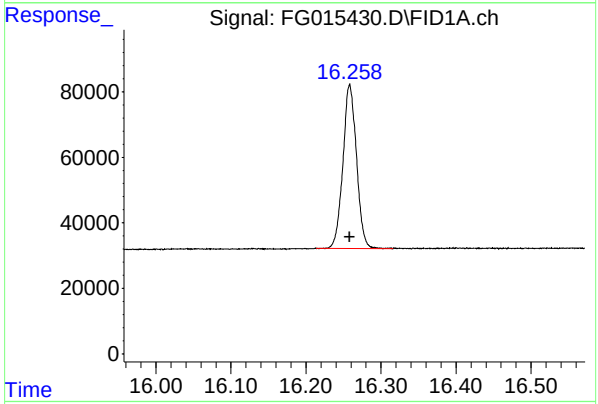
R.T.: 15.031 min
Delta R.T.: 0.000 min
Response: 582412
Conc: 5.35 ug/ml

Instrument :
FID_G
ClientSampleId :
5 TRPH STD



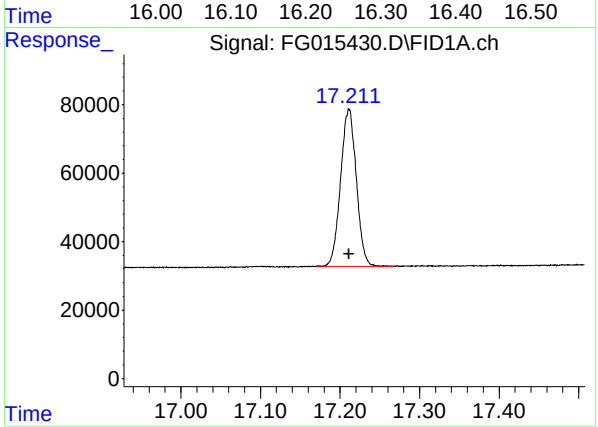
#10 N-TETRACOSANE

R.T.: 15.235 min
Delta R.T.: 0.000 min
Response: 638341
Conc: 5.35 ug/ml



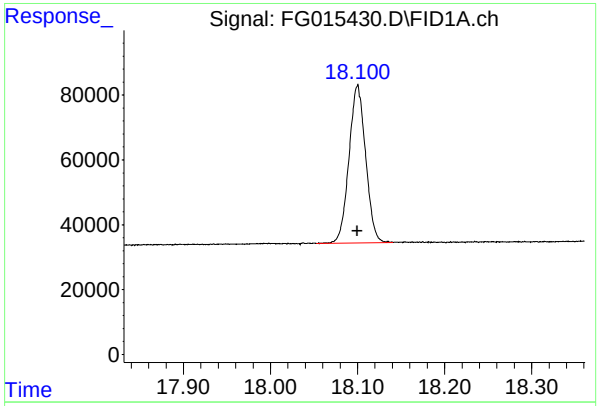
#11 N-HEXACOSANE

R.T.: 16.258 min
Delta R.T.: 0.000 min
Response: 631568
Conc: 5.38 ug/ml



#12 N-OCTACOSANE

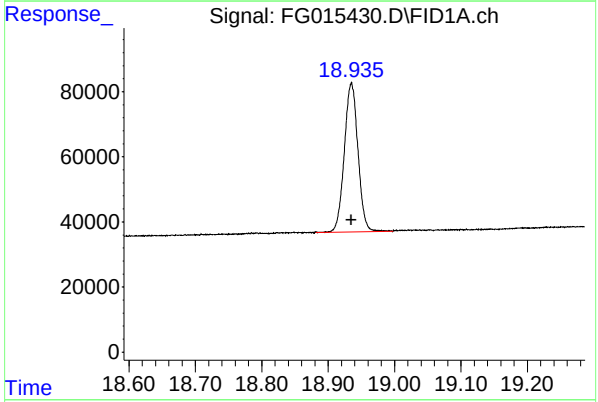
R.T.: 17.211 min
Delta R.T.: 0.000 min
Response: 631460
Conc: 5.46 ug/ml



#13 N-TRIACONTANE

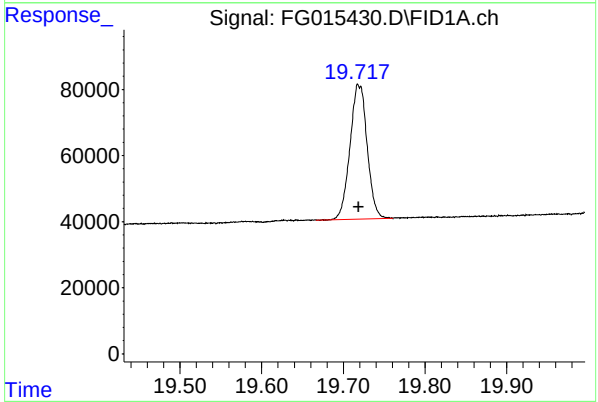
R.T.: 18.100 min
Delta R.T.: 0.000 min
Response: 644513
Conc: 5.55 ug/ml

Instrument :
FID_G
ClientSampleId :
5 TRPH STD



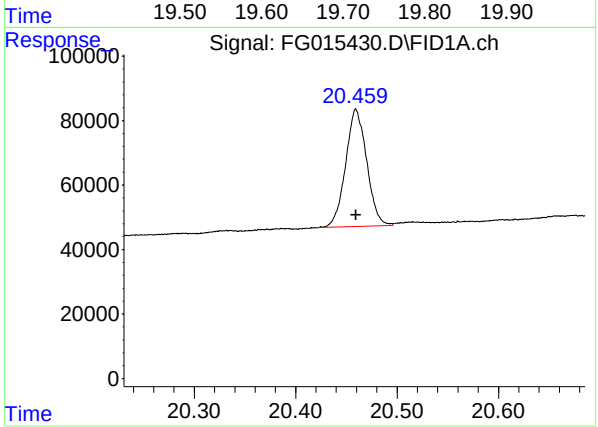
#14 N-DOTRIACONTANE

R.T.: 18.935 min
Delta R.T.: 0.000 min
Response: 653005
Conc: 5.66 ug/ml



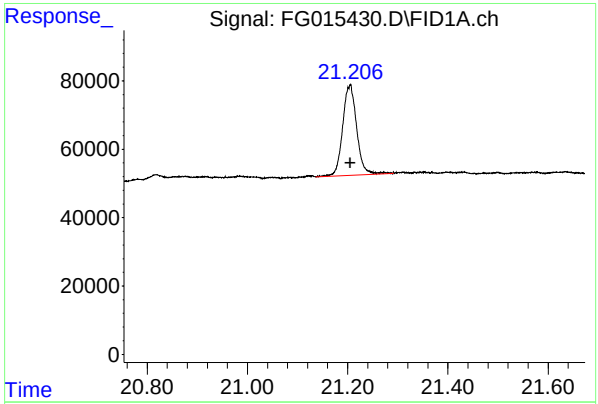
#15 N-TETRATRIACONTANE

R.T.: 19.719 min
Delta R.T.: 0.000 min
Response: 594705
Conc: 5.54 ug/ml



#16 N-HEXATRIACONTANE

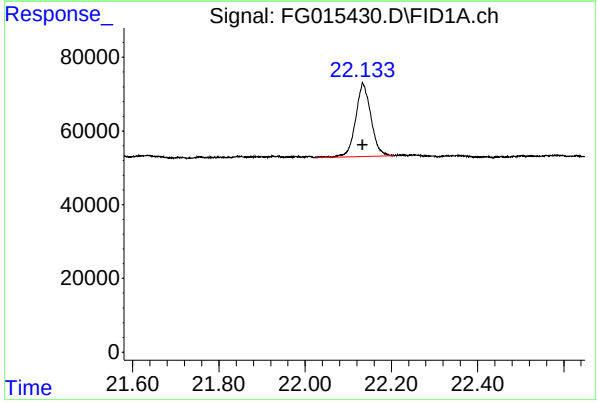
R.T.: 20.459 min
Delta R.T.: 0.000 min
Response: 525108
Conc: 5.48 ug/ml



#17 N-OCTATRIACONTANE

R.T.: 21.205 min
Delta R.T.: 0.000 min
Response: 512891
Conc: 5.75 ug/ml

Instrument :
FID_G
ClientSampleId :
5 TRPH STD



#18 N-TETRACONTANE

R.T.: 22.134 min
Delta R.T.: 0.001 min
Response: 487248
Conc: 5.99 ug/ml

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG030325\
Data File : FG015430.D
Signal(s) : FID1A.ch
Acq On : 03 Mar 2025 13:45
Sample : 5 TRPH STD
Misc :
ALS Vial : 25 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG030325.M
Title :

Signal : FID1A.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	1.996	1.955	2.079	BB	50948	607303	90.98%	5.544%
2	4.532	4.493	4.592	BB	56085	602630	90.28%	5.501%
3	6.714	6.678	6.777	BB	60634	627003	93.93%	5.724%
4	8.550	8.518	8.616	BB	56297	621997	93.18%	5.678%
5	10.164	10.123	10.216	BB	57156	638977	95.72%	5.833%
6	11.612	11.526	11.663	BB	58296	667549	100.00%	6.094%
7	12.926	12.882	12.973	BB	54028	651839	97.65%	5.950%
8	14.129	14.082	14.178	BB	50555	636203	95.30%	5.808%
9	15.031	14.987	15.093	BB	41140	582412	87.25%	5.317%
10	15.235	15.187	15.286	BB	51964	638341	95.62%	5.827%
11	16.258	16.213	16.316	BB	50250	631568	94.61%	5.765%
12	17.211	17.170	17.267	BB	45758	631460	94.59%	5.764%
13	18.100	18.053	18.141	BB	48458	644513	96.55%	5.883%
14	18.935	18.882	18.998	BB	45815	653005	97.82%	5.961%
15	19.719	19.667	19.761	BB	40506	594705	89.09%	5.429%
16	20.459	20.420	20.496	BV	36464	525108	78.66%	4.793%
17	21.205	21.137	21.290	PV	26585	512891	76.83%	4.682%
18	22.134	22.025	22.204	PV	19983	487248	72.99%	4.448%
			Sum of corrected areas:			10954752		

FG030325.M Tue Mar 04 04:36:55 2025

Quantitation Report (Not Reviewed)

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG030325\
Data File : FG015431.D
Signal(s) : FID1A.ch
Acq On : 03 Mar 2025 14:14
Operator : YP\AJ
Sample : FG030325ICV
Misc :
ALS Vial : 26 Sample Multiplier: 1

Instrument :
FID_G
ClientSampleId :
FG030325ICV

Integration File: autoint1.e
Quant Time: Mar 03 14:23:38 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG030325.M
Quant Title :
QLast Update : Mon Mar 03 14:06:11 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...	15.034	5263594	48.344 ug/ml
Target Compounds				
1)	N-OCTANE	1.994	5256960	47.822 ug/ml
2)	N-DECANE	4.533	5337269	47.965 ug/ml
3)	N-DODECANE	6.716	5569532	47.923 ug/ml
4)	N-TETRADECANE	8.552	5518504	47.892 ug/ml
5)	N-HEXADECANE	10.166	5694355	47.976 ug/ml
6)	N-OCTADECANE	11.615	5937044	47.939 ug/ml
7)	N-EICOSANE	12.930	5852161	48.178 ug/ml
8)	N-DOCOSANE	14.133	5795980	48.409 ug/ml
10)	N-TETRACOSANE	15.240	5777408	48.381 ug/ml
11)	N-HEXACOSANE	16.263	5673674	48.349 ug/ml
12)	N-OCTACOSANE	17.215	5564382	48.071 ug/ml
13)	N-TRIACONTANE	18.104	5525262	47.557 ug/ml
14)	N-DOTRIACONTANE	18.939	5396274	46.773 ug/ml
15)	N-TETRATRIACONTANE	19.723	4919040	45.803 ug/ml
16)	N-HEXATRIACONTANE	20.463	4197870	43.789 ug/ml
17)	N-OCTATRIACONTANE	21.207	3585023	40.170 ug/ml
18)	N-TETRACONTANE	22.139	2930060	35.716 ug/ml

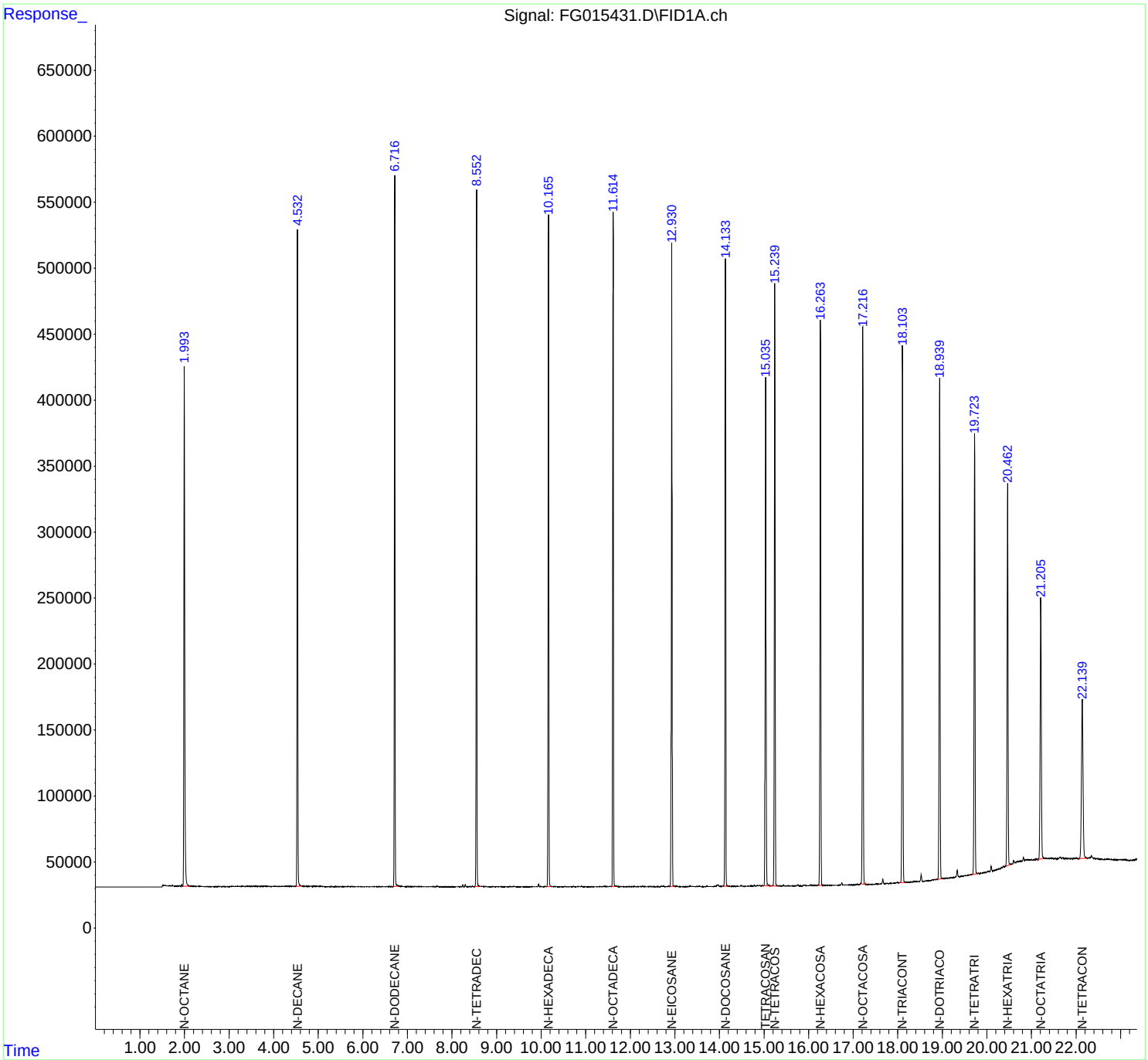
(f)=RT Delta > 1/2 Window (m)=manual int.

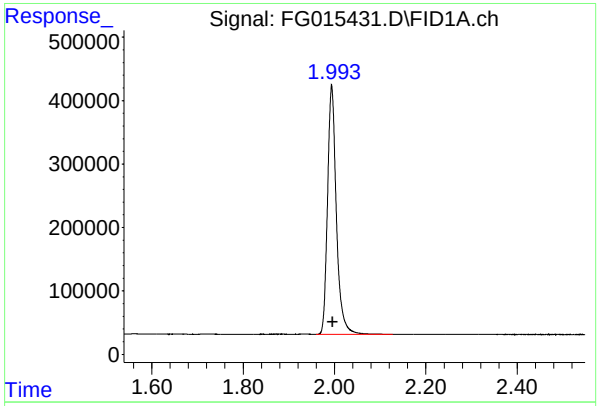
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG030325\
Data File : FG015431.D
Signal(s) : FID1A.ch
Acq On : 03 Mar 2025 14:14
Operator : YP\AJ
Sample : FG030325ICV
Misc :
ALS Vial : 26 Sample Multiplier: 1

Instrument :
FID_G
ClientSampleId :
FG030325ICV

Integration File: autoint1.e
Quant Time: Mar 03 14:23:38 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG030325.M
Quant Title :
QLast Update : Mon Mar 03 14:06:11 2025
Response via : Initial Calibration
Integrator: ChemStation

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

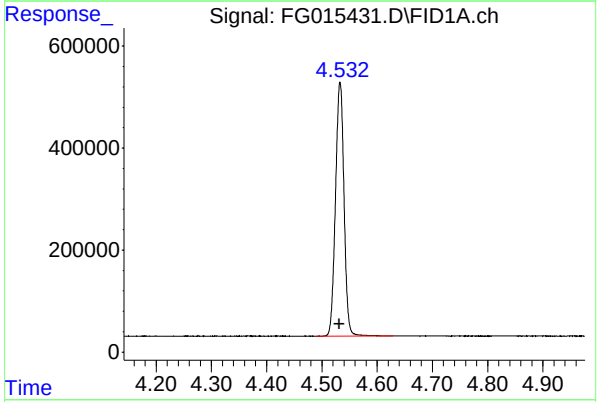




#1 N-OCTANE

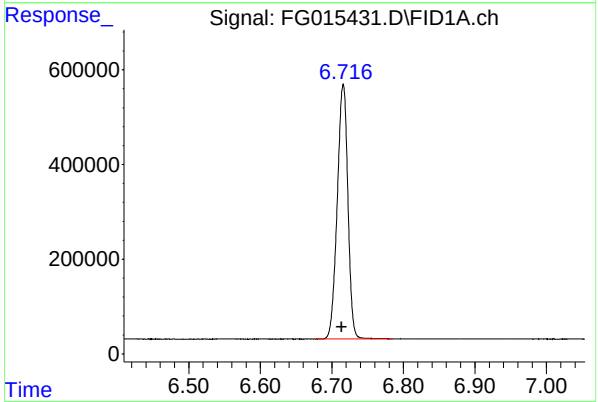
R.T.: 1.994 min
Delta R.T.: -0.002 min
Response: 5256960
Conc: 47.82 ug/ml

Instrument :
FID_G
ClientSampleId :
FG030325ICV



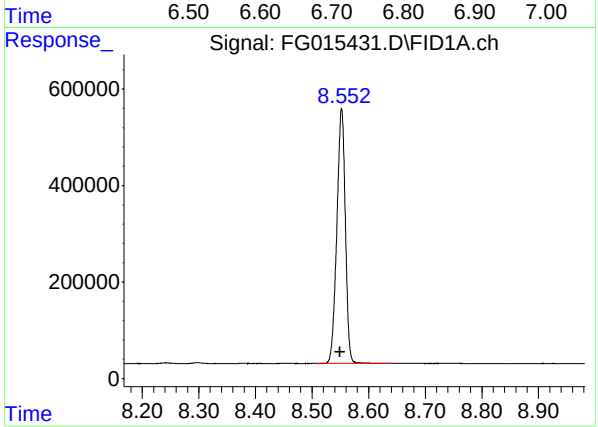
#2 N-DECANE

R.T.: 4.533 min
Delta R.T.: 0.000 min
Response: 5337269
Conc: 47.97 ug/ml



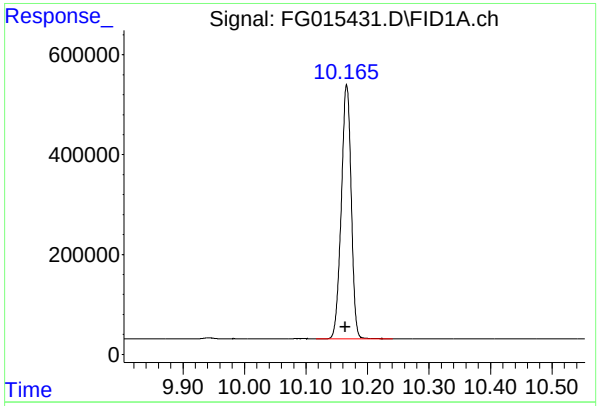
#3 N-DODECANE

R.T.: 6.716 min
Delta R.T.: 0.002 min
Response: 5569532
Conc: 47.92 ug/ml



#4 N-TETRADECANE

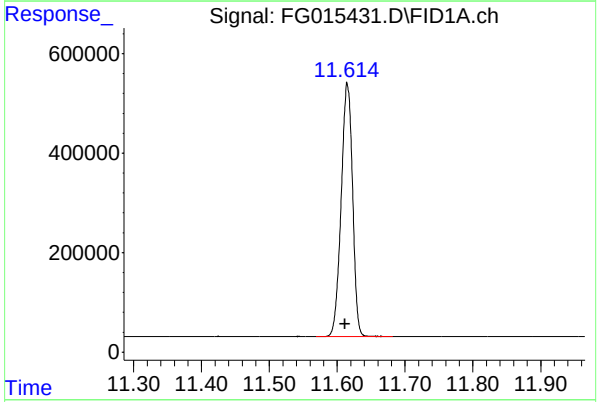
R.T.: 8.552 min
Delta R.T.: 0.003 min
Response: 5518504
Conc: 47.89 ug/ml



#5 N-HEXADECANE

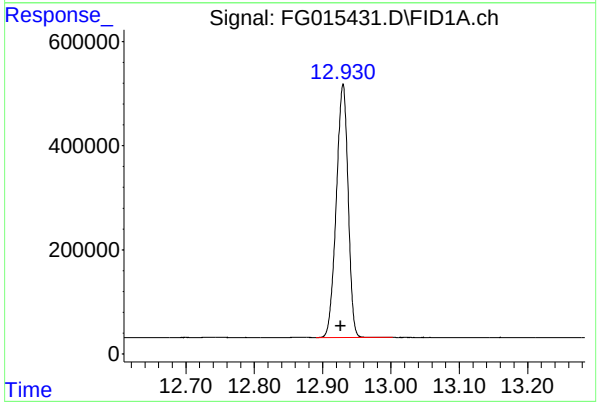
R.T.: 10.166 min
Delta R.T.: 0.003 min
Response: 5694355
Conc: 47.98 ug/ml

Instrument :
FID_G
ClientSampleId :
FG030325ICV



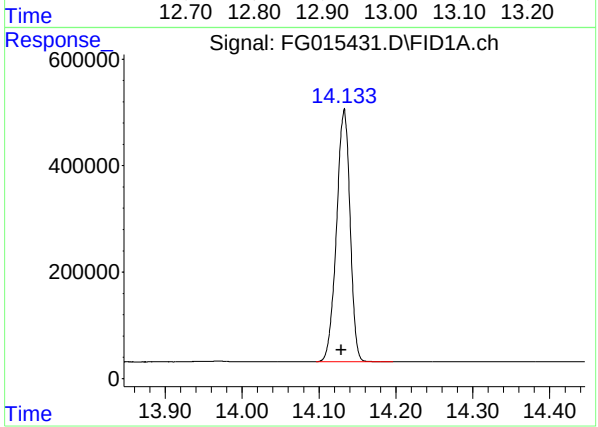
#6 N-OCTADECANE

R.T.: 11.615 min
Delta R.T.: 0.003 min
Response: 5937044
Conc: 47.94 ug/ml



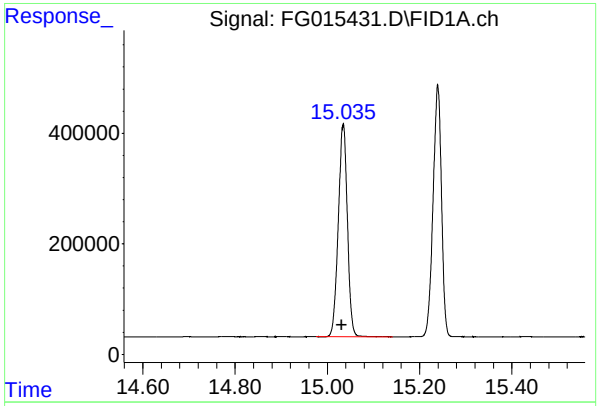
#7 N-EICOSANE

R.T.: 12.930 min
Delta R.T.: 0.004 min
Response: 5852161
Conc: 48.18 ug/ml



#8 N-DOCOSANE

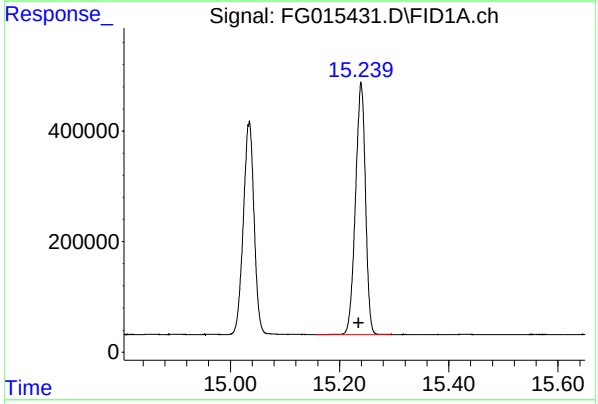
R.T.: 14.133 min
Delta R.T.: 0.004 min
Response: 5795980
Conc: 48.41 ug/ml



#9 TETRACOSANE-d50 (SURROGATE)

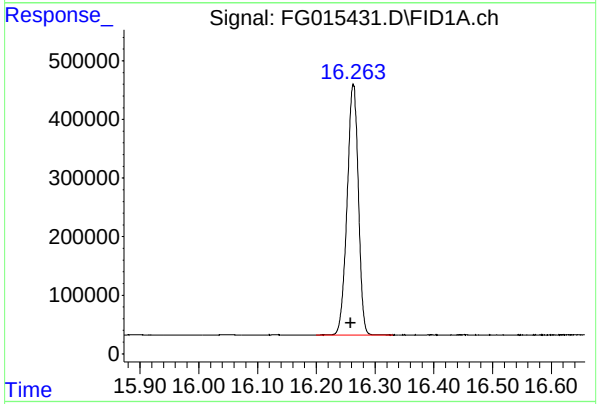
R.T.: 15.034 min
Delta R.T.: 0.003 min
Response: 5263594
Conc: 48.34 ug/ml

Instrument :
FID_G
ClientSampleId :
FG030325ICV



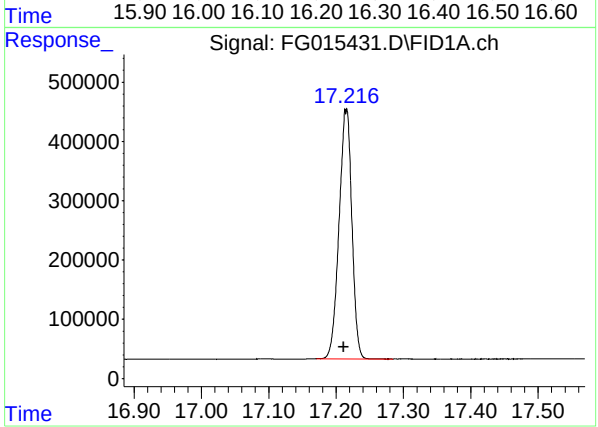
#10 N-TETRACOSANE

R.T.: 15.240 min
Delta R.T.: 0.005 min
Response: 5777408
Conc: 48.38 ug/ml



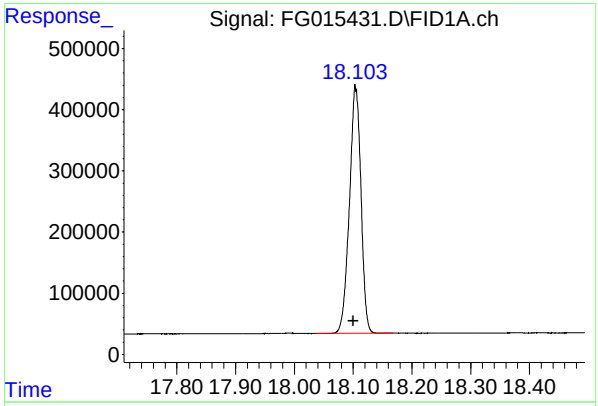
#11 N-HEXACOSANE

R.T.: 16.263 min
Delta R.T.: 0.005 min
Response: 5673674
Conc: 48.35 ug/ml



#12 N-OCTACOSANE

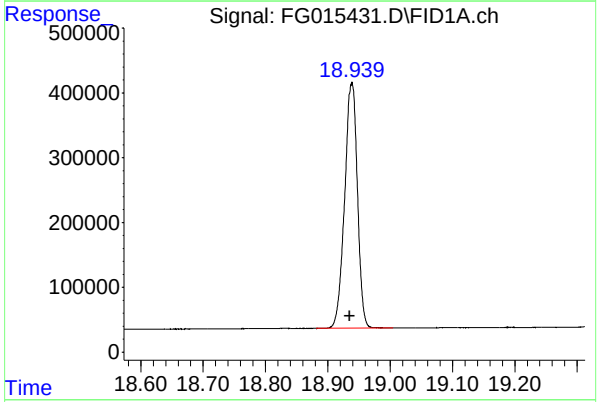
R.T.: 17.215 min
Delta R.T.: 0.004 min
Response: 5564382
Conc: 48.07 ug/ml



#13 N-TRIACONTANE

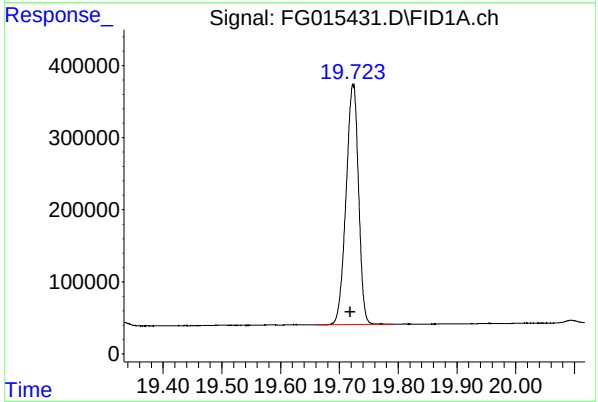
R.T.: 18.104 min
Delta R.T.: 0.004 min
Response: 5525262
Conc: 47.56 ug/ml

Instrument :
FID_G
ClientSampleId :
FG030325ICV



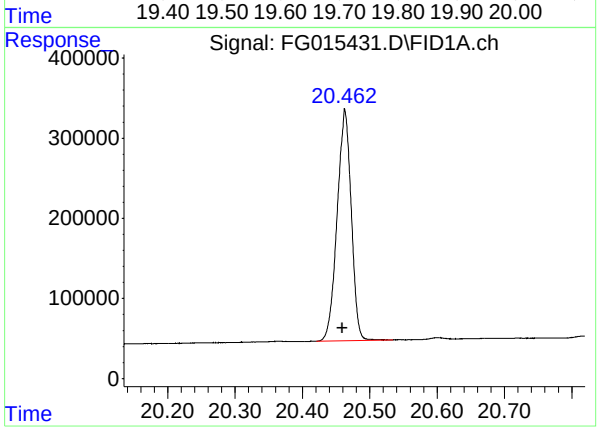
#14 N-DOTRIACONTANE

R.T.: 18.939 min
Delta R.T.: 0.004 min
Response: 5396274
Conc: 46.77 ug/ml



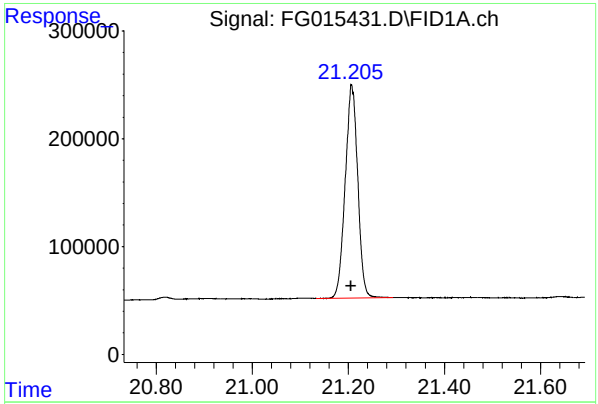
#15 N-TETRATRIACONTANE

R.T.: 19.723 min
Delta R.T.: 0.005 min
Response: 4919040
Conc: 45.80 ug/ml



#16 N-HEXATRIACONTANE

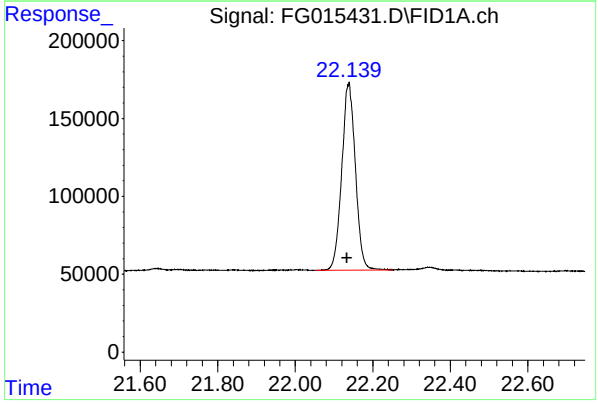
R.T.: 20.463 min
Delta R.T.: 0.004 min
Response: 4197870
Conc: 43.79 ug/ml



#17 N-OCTATRIACONTANE

R.T.: 21.207 min
Delta R.T.: 0.002 mi
Response: 3585023
Conc: 40.17 ug/m

Instrument :
FID_G
ClientSampleId :
FG030325ICV



#18 N-TETRACONTANE

R.T.: 22.139 min
Delta R.T.: 0.005 min
Response: 2930060
Conc: 35.72 ug/ml

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG030325\
Data File : FG015431.D
Signal(s) : FID1A.ch
Acq On : 03 Mar 2025 14:14
Sample : FG030325ICV
Misc :
ALS Vial : 26 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG030325.M
Title :

Signal : FID1A.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	1.994	1.960	2.128	BB	393787	5256960	88.55%	5.605%
2	4.533	4.490	4.629	BB	497238	5337269	89.90%	5.690%
3	6.716	6.678	6.785	BB	538643	5569532	93.81%	5.938%
4	8.552	8.507	8.643	BB	528326	5518504	92.95%	5.884%
5	10.166	10.116	10.241	BB	507834	5694355	95.91%	6.071%
6	11.615	11.569	11.682	BB	505253	5937044	100.00%	6.330%
7	12.930	12.890	13.003	BB	488202	5852161	98.57%	6.239%
8	14.133	14.096	14.196	BB	474618	5795980	97.62%	6.179%
9	15.034	14.975	15.142	BB	384520	5263594	88.66%	5.612%
10	15.240	15.157	15.298	BB	454904	5777408	97.31%	6.160%
11	16.263	16.200	16.330	BB	428199	5673674	95.56%	6.049%
12	17.215	17.170	17.285	BB	417958	5564382	93.72%	5.933%
13	18.104	18.037	18.168	BB	402928	5525262	93.06%	5.891%
14	18.939	18.881	19.005	BB	378532	5396274	90.89%	5.753%
15	19.723	19.660	19.791	BB	332312	4919040	82.85%	5.244%
16	20.463	20.420	20.535	BB	286989	4197870	70.71%	4.476%
17	21.207	21.133	21.293	BB	197532	3585023	60.38%	3.822%
18	22.139	22.054	22.252	BV	120391	2930060	49.35%	3.124%
			Sum of corrected areas:			93794391		

FG030325.M Tue Mar 04 04:37:35 2025

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Fax : 908 789 8922

DIESEL RANGE ORGANICS CONTINUING CALIBRATION SUMMARY

50 PPM TRPH STD

Lab Name: Chemtech Contract: ALLI03

ProjectID: NJ Waste Water PT

Lab Code: CHEM Case No.: Q1502 SAS No.: Q1502 SDG No.: Q1502

DataFile: FG015472.D Analyst Name: YP\AJ Analyst Date: 03-12-2025

Conc. (PPM)	Area Count	RF	Average RF	%D
500	62998977	125998	117897	6.871

Quantitation Report (QT Reviewed)

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG031225\
Data File : FG015472.D
Signal(s) : FID1A.ch
Acq On : 12 Mar 2025 10:59
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: Mar 13 03:16:43 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG030325.M
Quant Title :
QLast Update : Mon Mar 03 14:06:11 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...	15.031	5768882	52.985 ug/ml
	Target Compounds			
2)	N-DECANE	4.528	5630685	50.602 ug/ml
3)	N-DODECANE	6.712	6155285	52.963 ug/ml
4)	N-TETRADECANE	8.548	6311395	54.773 ug/ml
5)	N-HEXADECANE	10.163	6616911	55.749 ug/ml
6)	N-OCTADECANE	11.612	6891877	55.649 ug/ml
7)	N-EICOSANE	12.927	6687024	55.051 ug/ml
8)	N-DOCOSANE	14.129	6473094	54.064 ug/ml
10)	N-TETRACOSANE	15.236	6300823	52.764 ug/ml
11)	N-HEXACOSANE	16.260	6061087	51.650 ug/ml
12)	N-OCTACOSANE	17.212	5870796	50.719 ug/ml

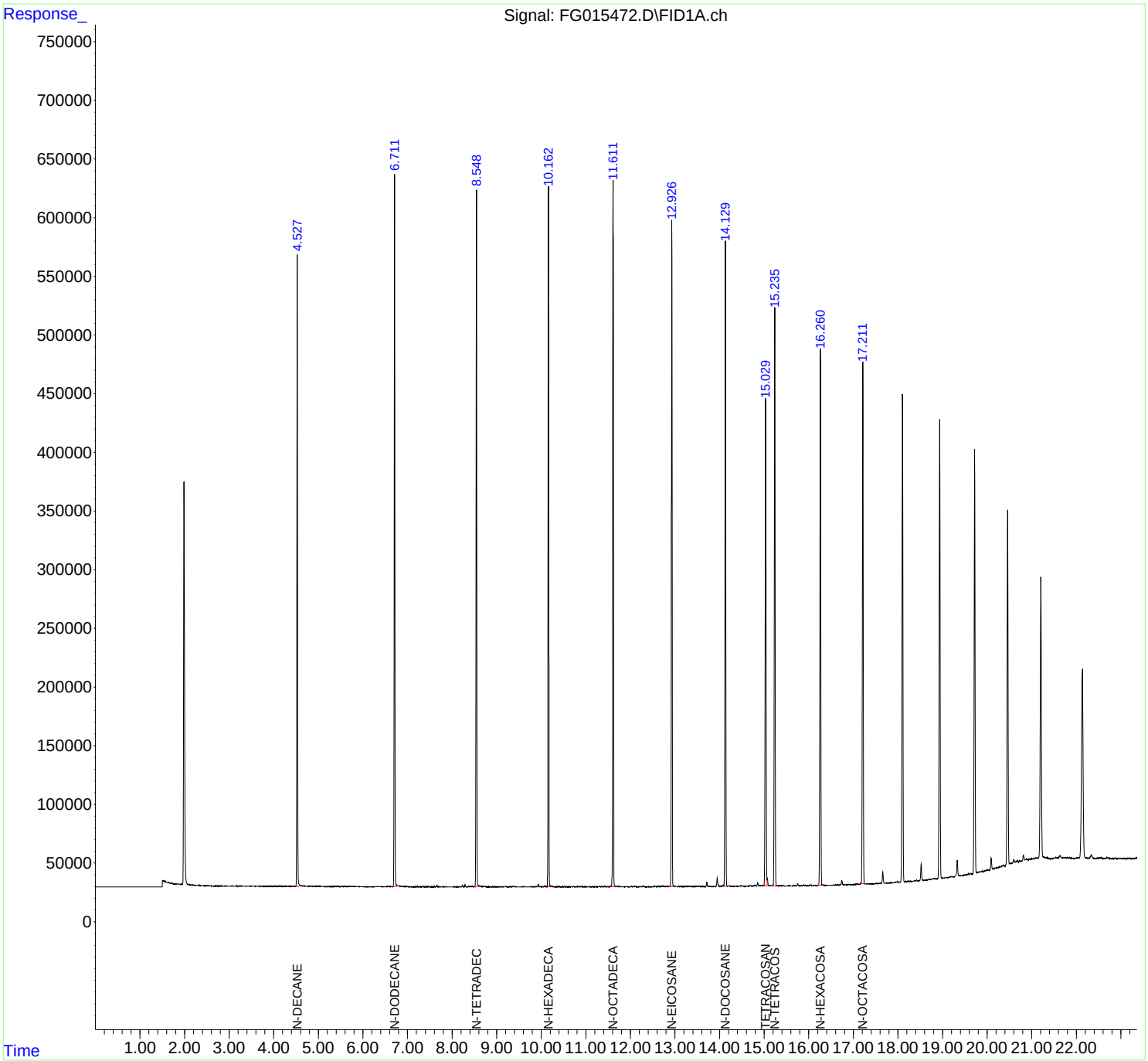
(f)=RT Delta > 1/2 Window (m)=manual int.

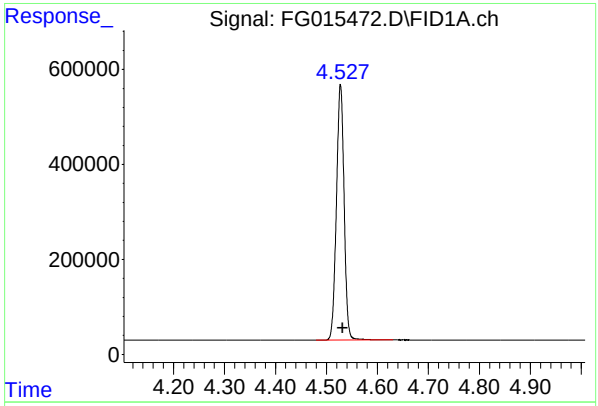
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG031225\
Data File : FG015472.D
Signal(s) : FID1A.ch
Acq On : 12 Mar 2025 10:59
Operator : YP\AJ
Sample : 50 PPM TRPH STD
Misc :
ALS Vial : 3 Sample Multiplier: 1

Instrument :
FID_G
ClientSampleId :
50 PPM TRPH STD

Integration File: autoint1.e
Quant Time: Mar 13 03:16:43 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG030325.M
Quant Title :
QLast Update : Mon Mar 03 14:06:11 2025
Response via : Initial Calibration
Integrator: ChemStation

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

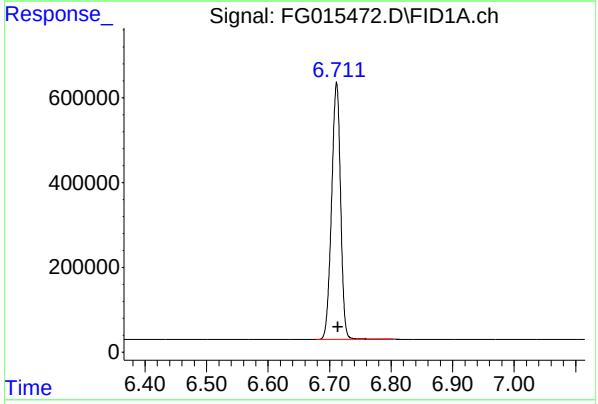




#2 N-DECANE

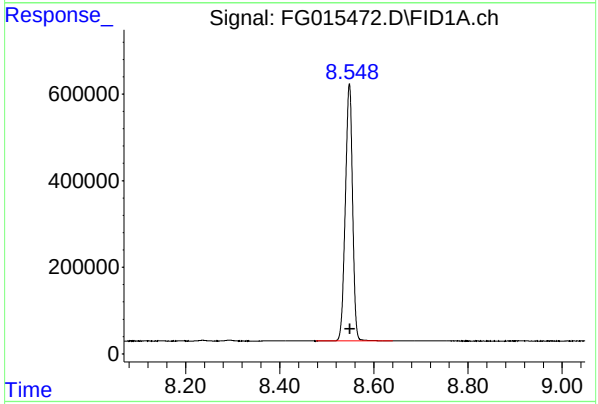
R.T.: 4.528 min
Delta R.T.: -0.004 min
Response: 5630685
Conc: 50.60 ug/ml

Instrument :
FID_G
ClientSampleId :
50 PPM TRPH STD



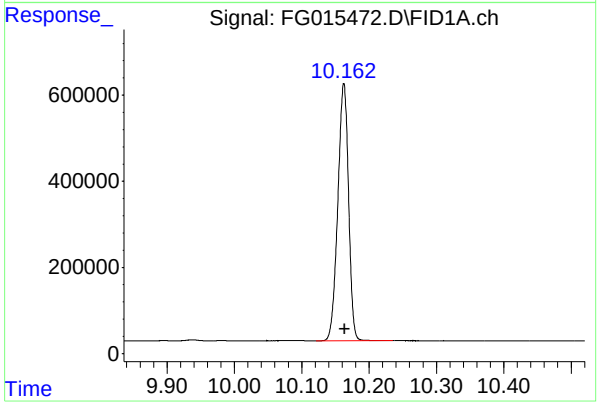
#3 N-DODECANE

R.T.: 6.712 min
Delta R.T.: -0.002 min
Response: 6155285
Conc: 52.96 ug/ml



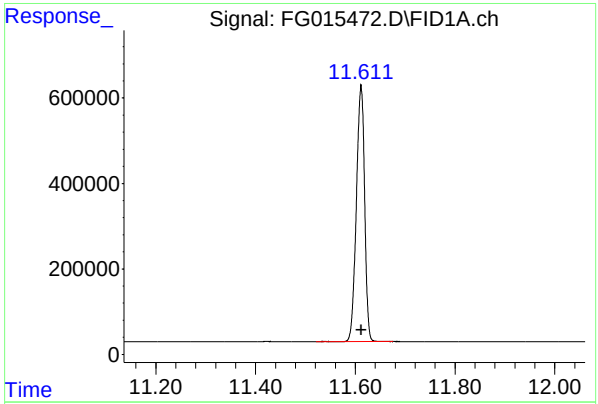
#4 N-TETRADECANE

R.T.: 8.548 min
Delta R.T.: -0.002 min
Response: 6311395
Conc: 54.77 ug/ml



#5 N-HEXADECANE

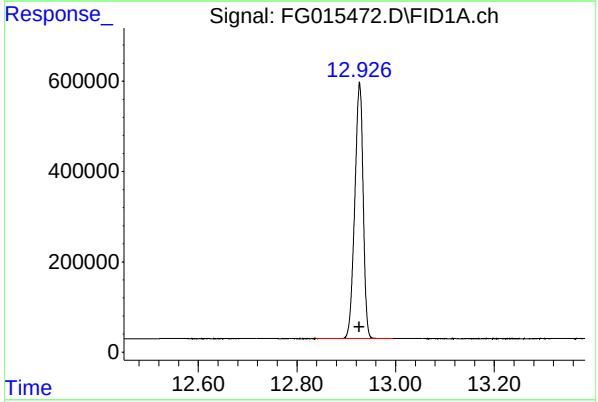
R.T.: 10.163 min
Delta R.T.: 0.000 min
Response: 6616911
Conc: 55.75 ug/ml



#6 N-OCTADECANE

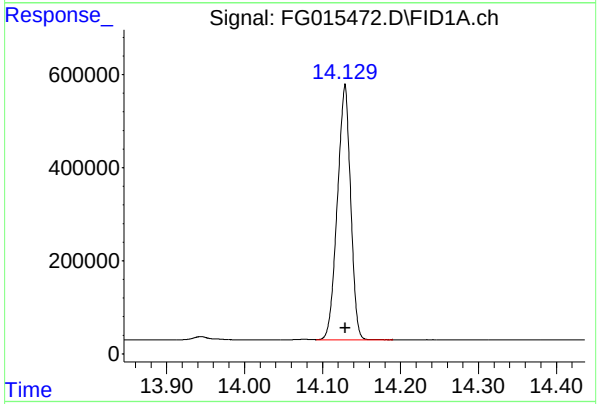
R.T.: 11.612 min
Delta R.T.: 0.000 min
Response: 6891877
Conc: 55.65 ug/ml

Instrument :
FID_G
ClientSampleId :
50 PPM TRPH STD



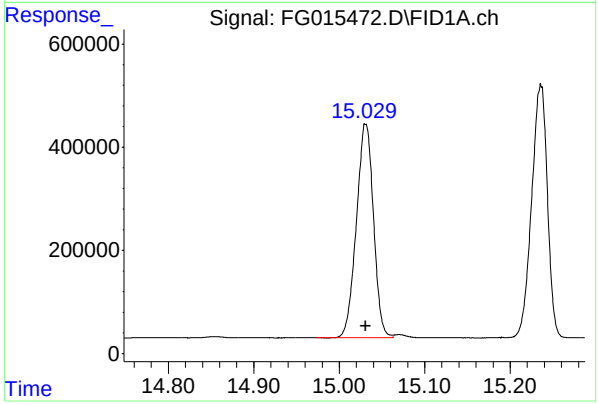
#7 N-EICOSANE

R.T.: 12.927 min
Delta R.T.: 0.000 min
Response: 6687024
Conc: 55.05 ug/ml



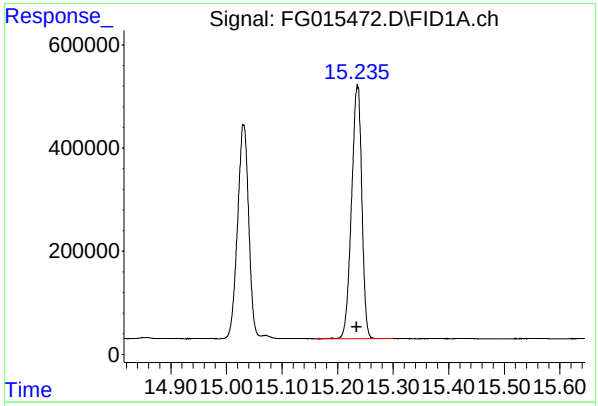
#8 N-DOCOSANE

R.T.: 14.129 min
Delta R.T.: 0.000 min
Response: 6473094
Conc: 54.06 ug/ml



#9 TETRACOSANE-d50 (SURROGATE)

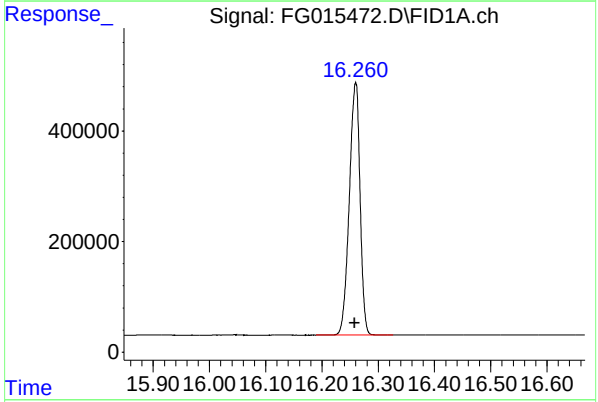
R.T.: 15.031 min
Delta R.T.: 0.000 min
Response: 5768882
Conc: 52.99 ug/ml



#10 N-TETRACOSANE

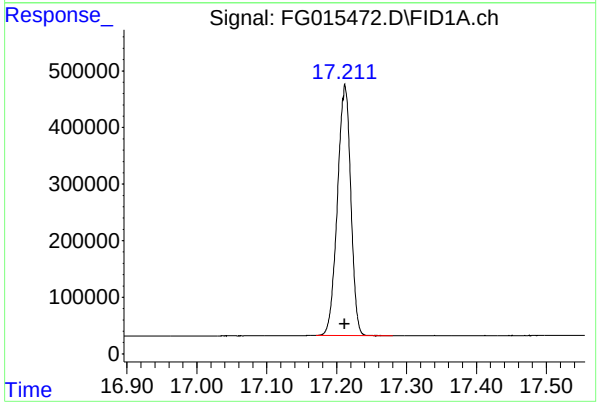
R.T.: 15.236 min
Delta R.T.: 0.001 min
Response: 6300823
Conc: 52.76 ug/ml

Instrument :
FID_G
ClientSampleId :
50 PPM TRPH STD



#11 N-HEXACOSANE

R.T.: 16.260 min
Delta R.T.: 0.002 min
Response: 6061087
Conc: 51.65 ug/ml



#12 N-OCTACOSANE

R.T.: 17.212 min
Delta R.T.: 0.000 min
Response: 5870796
Conc: 50.72 ug/ml

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG031225\
Data File : FG015472.D
Signal(s) : FID1A.ch
Acq On : 12 Mar 2025 10:59
Sample : 50 PPM TRPH STD
Misc :
ALS Vial : 3 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG030325.M
Title :

Signal : FID1A.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	4.528	4.479	4.630	BB	536604	5630685	81.70%	8.188%
2	6.712	6.678	6.803	BB	606732	6155285	89.31%	8.951%
3	8.548	8.477	8.640	BB	593546	6311395	91.58%	9.178%
4	10.163	10.121	10.235	BB	597384	6616911	96.01%	9.622%
5	11.612	11.521	11.675	BB	598231	6891877	100.00%	10.022%
6	12.927	12.839	12.995	BB	567665	6687024	97.03%	9.724%
7	14.129	14.092	14.190	VB	547857	6473094	93.92%	9.413%
8	15.031	14.973	15.063	BV	413255	5768882	83.71%	8.389%
9	15.236	15.161	15.300	BB	490342	6300823	91.42%	9.162%
10	16.260	16.190	16.326	BB	457090	6061087	87.95%	8.814%
11	17.212	17.170	17.280	BB	442858	5870796	85.18%	8.537%
			Sum of corrected areas:			68767859		

FG030325.M Thu Mar 13 03:37:45 2025

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Fax : 908 789 8922

DIESEL RANGE ORGANICS CONTINUING CALIBRATION SUMMARY

50 PPM TRPH STD

Lab Name: Chemtech Contract: ALLI03

ProjectID: NJ Waste Water PT

Lab Code: CHEM Case No.: Q1502 SAS No.: Q1502 SDG No.: Q1502

DataFile: FG015482.D Analyst Name: YP\AJ Analyst Date: 03-12-2025

Conc. (PPM)	Area Count	RF	Average RF	%D
500	63171140	126342	117897	7.163

Quantitation Report (QT Reviewed)

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG031225\
Data File : FG015482.D
Signal(s) : FID1A.ch
Acq On : 12 Mar 2025 18:21
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: Mar 13 03:19:56 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG030325.M
Quant Title :
QLast Update : Mon Mar 03 14:06:11 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...	15.030	5772476	53.018 ug/ml
	Target Compounds			
2)	N-DECANE	4.527	5766593	51.823 ug/ml
3)	N-DODECANE	6.711	6212983	53.460 ug/ml
4)	N-TETRADECANE	8.547	6318451	54.834 ug/ml
5)	N-HEXADECANE	10.162	6590575	55.527 ug/ml
6)	N-OCTADECANE	11.611	6843162	55.255 ug/ml
7)	N-EICOSANE	12.925	6654186	54.781 ug/ml
8)	N-DOCOSANE	14.127	6460852	53.962 ug/ml
10)	N-TETRACOSANE	15.234	6308132	52.825 ug/ml
11)	N-HEXACOSANE	16.259	6091008	51.905 ug/ml
12)	N-OCTACOSANE	17.211	5925198	51.189 ug/ml

(f)=RT Delta > 1/2 Window (m)=manual int.

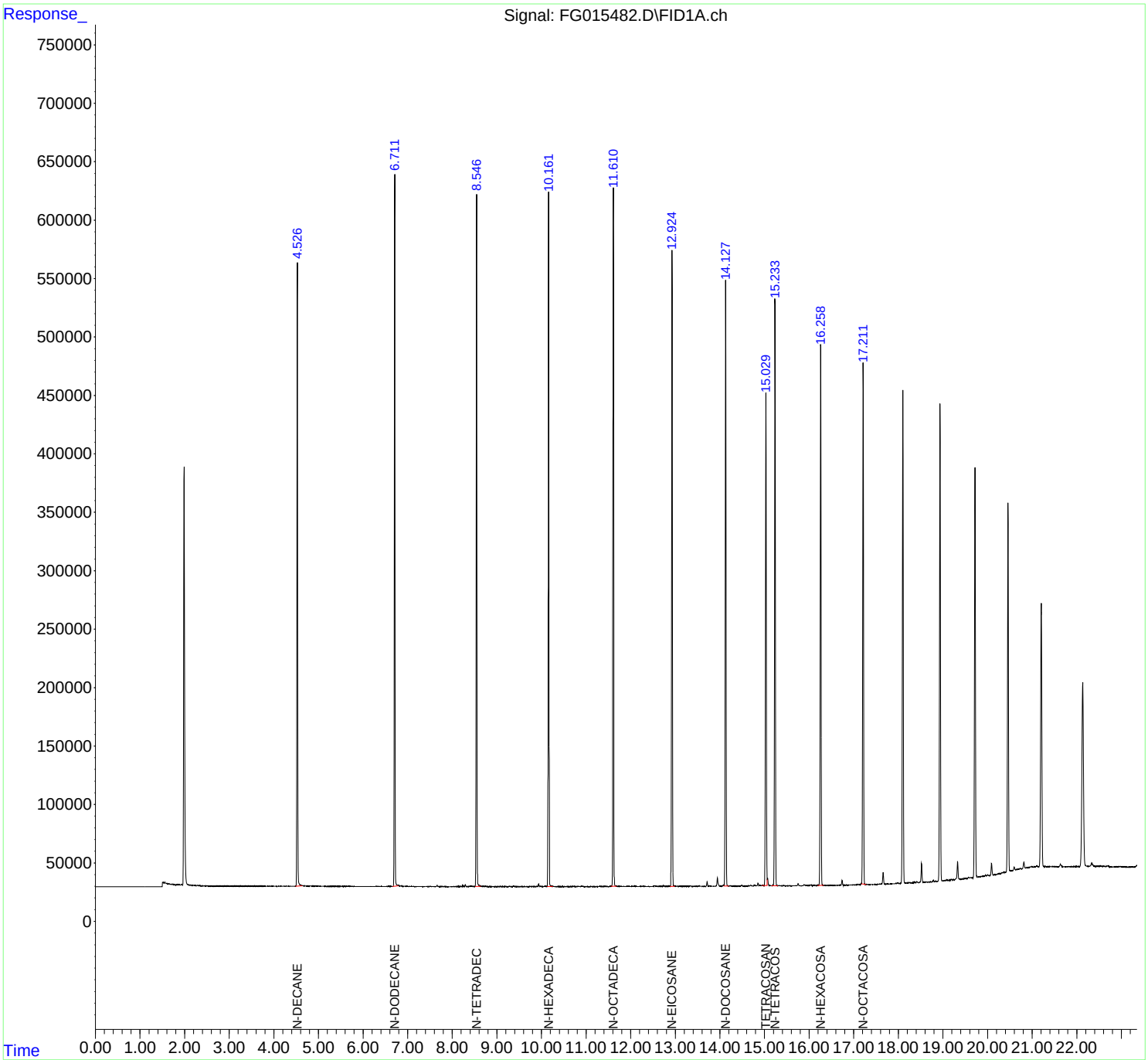
Quantitation Report (QT Reviewed)

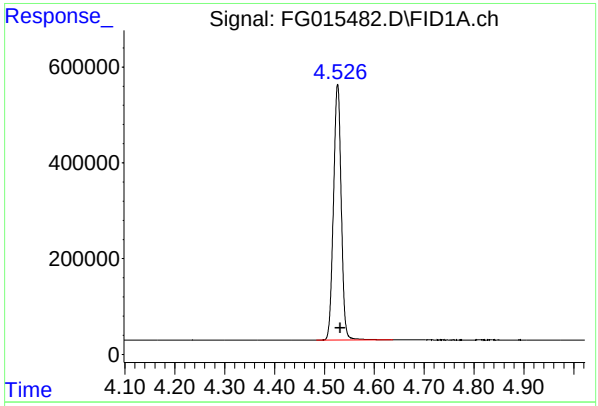
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG031225\
Data File : FG015482.D
Signal(s) : FID1A.ch
Acq On : 12 Mar 2025 18:21
Operator : YP\AJ
Sample : 50 PPM TRPH STD
Misc :
ALS Vial : 3 Sample Multiplier: 1

Instrument :
FID_G
ClientSampleId :
50 PPM TRPH STD

Integration File: autoint1.e
Quant Time: Mar 13 03:19:56 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG030325.M
Quant Title :
QLast Update : Mon Mar 03 14:06:11 2025
Response via : Initial Calibration
Integrator: ChemStation

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

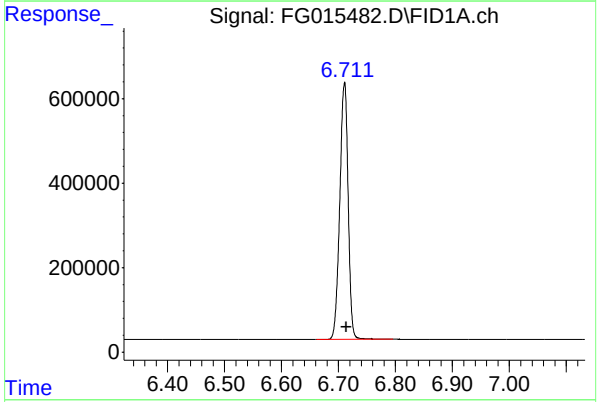




#2 N-DECANE

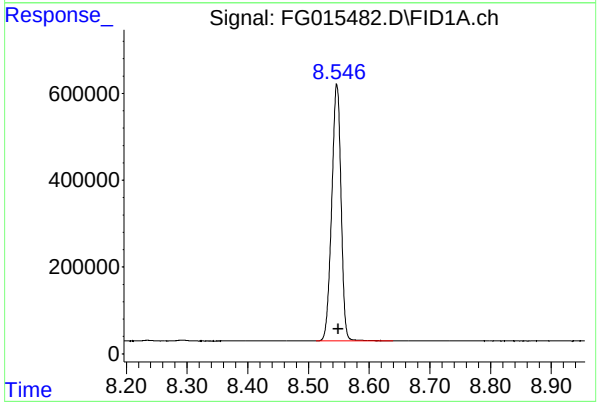
R.T.: 4.527 min
Delta R.T.: -0.005 min
Response: 5766593
Conc: 51.82 ug/ml

Instrument :
FID_G
ClientSampleId :
50 PPM TRPH STD



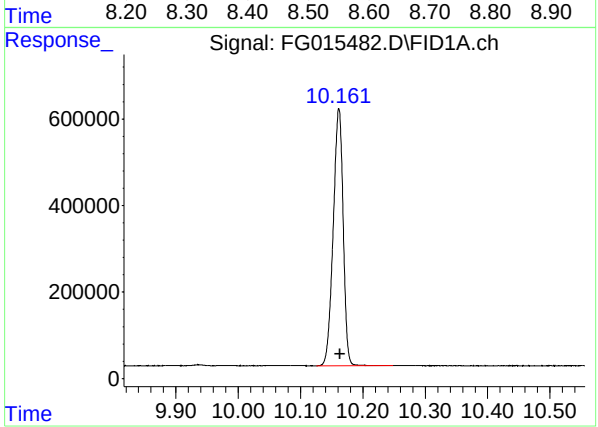
#3 N-DODECANE

R.T.: 6.711 min
Delta R.T.: -0.003 min
Response: 6212983
Conc: 53.46 ug/ml



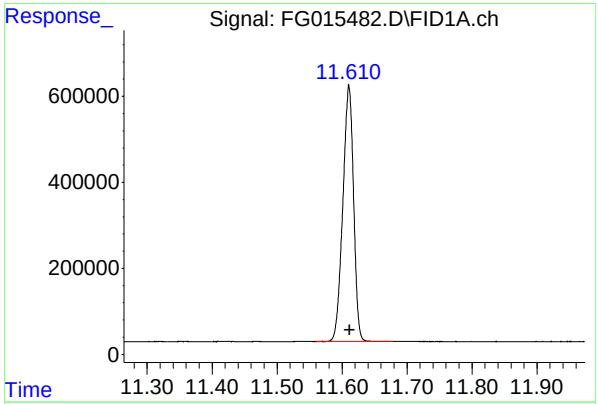
#4 N-TETRADECANE

R.T.: 8.547 min
Delta R.T.: -0.003 min
Response: 6318451
Conc: 54.83 ug/ml



#5 N-HEXADECANE

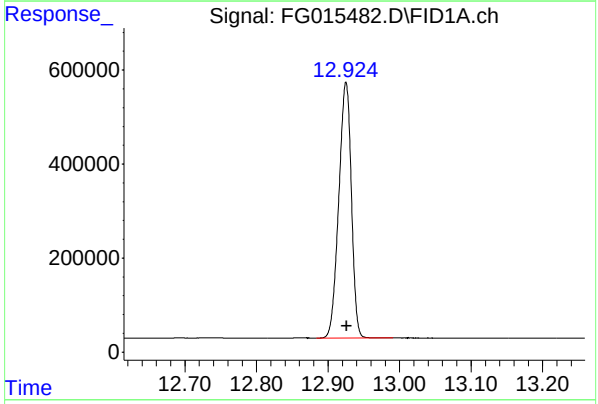
R.T.: 10.162 min
Delta R.T.: -0.002 min
Response: 6590575
Conc: 55.53 ug/ml



#6 N-OCTADECANE

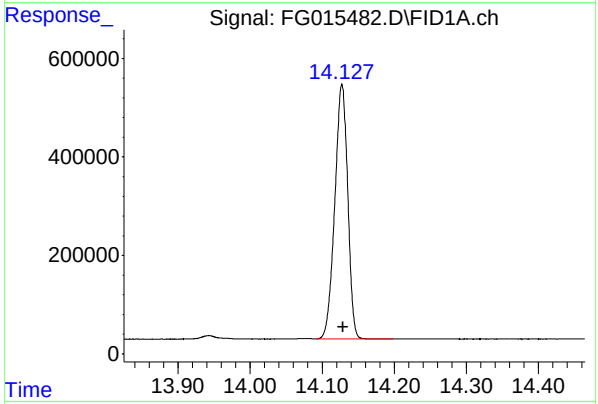
R.T.: 11.611 min
Delta R.T.: 0.000 min
Response: 6843162
Conc: 55.26 ug/ml

Instrument :
FID_G
ClientSampleId :
50 PPM TRPH STD



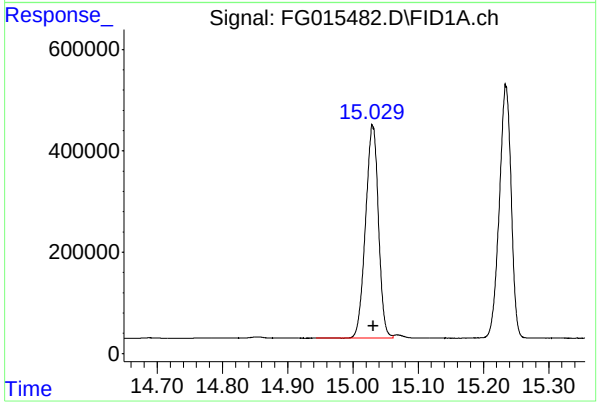
#7 N-EICOSANE

R.T.: 12.925 min
Delta R.T.: -0.001 min
Response: 6654186
Conc: 54.78 ug/ml



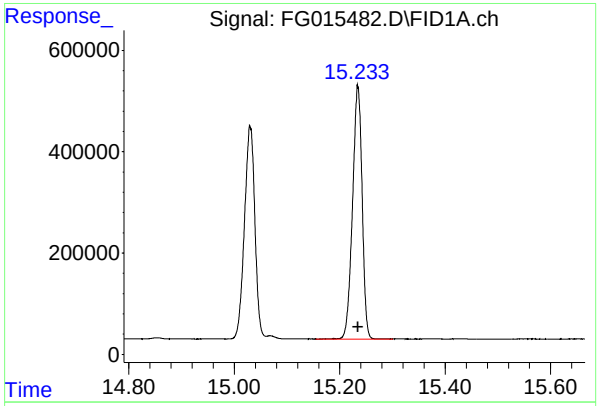
#8 N-DOCOSANE

R.T.: 14.127 min
Delta R.T.: -0.001 min
Response: 6460852
Conc: 53.96 ug/ml



#9 TETRACOSANE-d50 (SURROGATE)

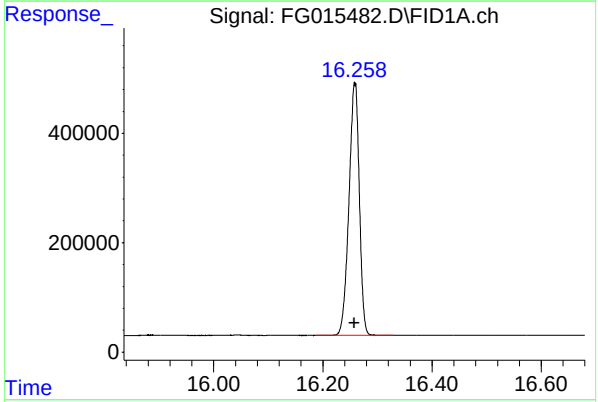
R.T.: 15.030 min
Delta R.T.: 0.000 min
Response: 5772476
Conc: 53.02 ug/ml



#10 N-TETRACOSANE

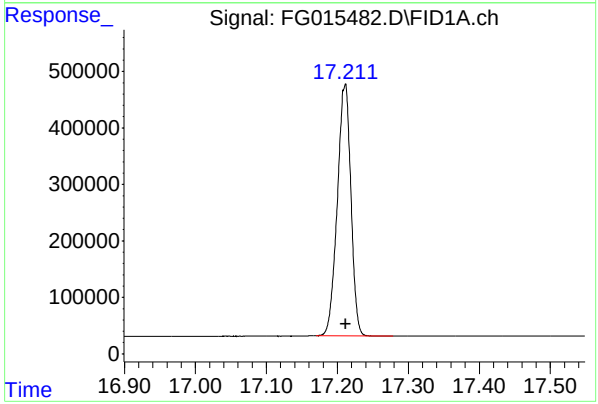
R.T.: 15.234 min
Delta R.T.: 0.000 min
Response: 6308132
Conc: 52.83 ug/ml

Instrument :
FID_G
ClientSampleId :
50 PPM TRPH STD



#11 N-HEXACOSANE

R.T.: 16.259 min
Delta R.T.: 0.000 min
Response: 6091008
Conc: 51.90 ug/ml



#12 N-OCTACOSANE

R.T.: 17.211 min
Delta R.T.: 0.000 min
Response: 5925198
Conc: 51.19 ug/ml

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG031225\
Data File : FG015482.D
Signal(s) : FID1A.ch
Acq On : 12 Mar 2025 18:21
Sample : 50 PPM TRPH STD
Misc :
ALS Vial : 3 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG030325.M
Title :

Signal : FID1A.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	4.527	4.483	4.638	BB	533661	5766593	84.27%	8.364%
2	6.711	6.661	6.796	BB	608757	6212983	90.79%	9.012%
3	8.547	8.513	8.639	BB	590430	6318451	92.33%	9.165%
4	10.162	10.125	10.248	BB	593496	6590575	96.31%	9.559%
5	11.611	11.560	11.678	BB	594156	6843162	100.00%	9.926%
6	12.925	12.883	12.991	BB	544421	6654186	97.24%	9.652%
7	14.127	14.092	14.198	VB	518160	6460852	94.41%	9.371%
8	15.030	14.943	15.061	BV	418730	5772476	84.35%	8.373%
9	15.234	15.155	15.301	BB	496784	6308132	92.18%	9.150%
10	16.259	16.188	16.328	BB	459998	6091008	89.01%	8.835%
11	17.211	17.170	17.278	BB	444339	5925198	86.59%	8.594%
			Sum of corrected areas:			68943617		

FG030325.M Thu Mar 13 03:40:39 2025

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

Analytical Sequence

Client: Alliance Technical Group, LLC - Newark **SDG No.:** Q1502

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 **15.0338**

EPA SAMPLE NO.	LAB SAMPLE ID	DATE AND TIME ANALYZED	DATAFILE	RT	#
PIBLK01	I.BLK01	12 Mar 2025 10:29	FG015471.D	15.029	
50 PPM TRPH STD	50 PPM TRPH STD	12 Mar 2025 10:59	FG015472.D	15.031	
PB167101BL	PB167101BL	12 Mar 2025 13:57	FG015474.D	15.027	
PB167101BS	PB167101BS	12 Mar 2025 14:26	FG015475.D	15.027	
PB167101BSD	PB167101BSD	12 Mar 2025 14:55	FG015476.D	15.026	
RR-DIES-WP	Q1502-19	12 Mar 2025 15:54	FG015478.D	15.025	
PIBLK02	I.BLK02	12 Mar 2025 17:22	FG015481.D	15.027	
50 PPM TRPH STD	50 PPM TRPH STD	12 Mar 2025 18:21	FG015482.D	15.030	

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

QC Limits	Lower Limit	Upper Limits
(± 0.10 minutes)	14.9338	15.1338

QC SAMPLE DATA

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

Report of Analysis

Client:	Alliance Technical Group, LLC - Newark	Date Collected:	
Project:	NJ Waste Water PT	Date Received:	
Client Sample ID:	PB167101BL	SDG No.:	Q1502
Lab Sample ID:	PB167101BL	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
FG015474.D	1	03/12/25 08:55	03/12/25 13:57	PB167101

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
DRO	DRO	10.0	U	10.0	50.0	ug/L
SURROGATES						
16416-32-3	Tetracosane-d50	16.8		29 - 130	84%	SPK: 20

Comments:

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

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

Quantitation Report (QT Reviewed)

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG031225\
Data File : FG015474.D
Signal(s) : FID1A.ch
Acq On : 12 Mar 2025 13:57
Operator : YP\AJ
Sample : PB167101BL
Misc :
ALS Vial : 21 Sample Multiplier: 1

Instrument :
FID_G
ClientSampleId :
PB167101BL

Integration File: autoint1.e
Quant Time: Mar 13 03:17:26 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG030325.M
Quant Title :
QLast Update : Mon Mar 03 14:06:11 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...	15.027	1826014	16.771 ug/ml
Target Compounds			

(f)=RT Delta > 1/2 Window (m)=manual int.

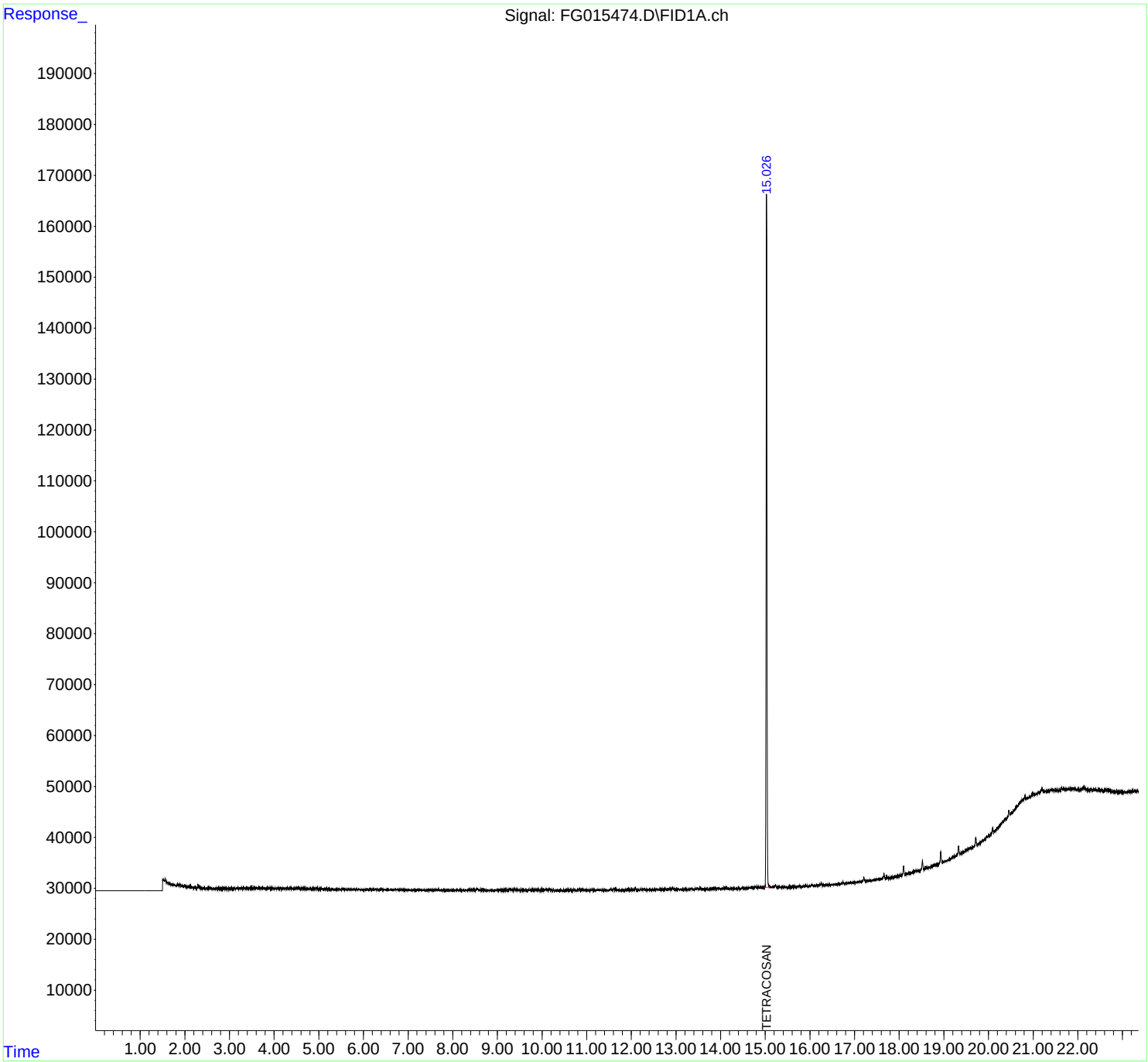
Quantitation Report (QT Reviewed)

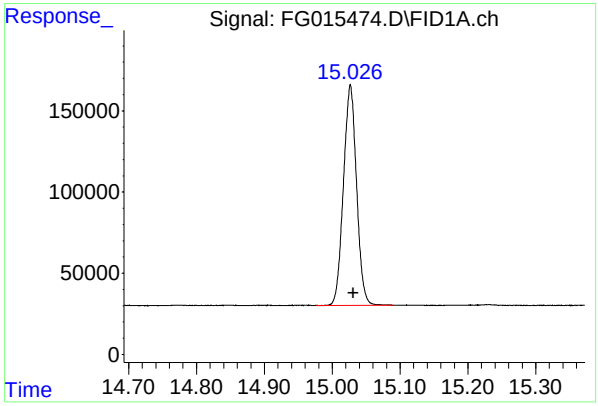
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG031225\
Data File : FG015474.D
Signal(s) : FID1A.ch
Acq On : 12 Mar 2025 13:57
Operator : YP\AJ
Sample : PB167101BL
Misc :
ALS Vial : 21 Sample Multiplier: 1

Instrument :
FID_G
ClientSampleId :
PB167101BL

Integration File: autoint1.e
Quant Time: Mar 13 03:17:26 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG030325.M
Quant Title :
QLast Update : Mon Mar 03 14:06:11 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.: 15.027 min
Delta R.T.: -0.004 mi
Response: 1826014
Conc: 16.77 ug/m

Instrument :
FID_G
ClientSampleId :
PB167101BL

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG031225\
Data File : FG015474.D
Signal(s) : FID1A.ch
Acq On : 12 Mar 2025 13:57
Sample : PB167101BL
Misc :
ALS Vial : 21 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG030325.M
Title :

Signal : FID1A.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	15.027	14.976	15.090	BB	136047	1826014	100.00%	100.000%
			Sum of corrected areas:			1826014		

FG030325.M Thu Mar 13 03:38:25 2025

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

Report of Analysis

Client:	Alliance Technical Group, LLC - Newark	Date Collected:	03/12/25
Project:	NJ Waste Water PT	Date Received:	03/12/25
Client Sample ID:	PIBLK-FG015471.D	SDG No.:	Q1502
Lab Sample ID:	I.BLK-FG015471.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
FG015471.D	1		03/12/25	FG031225

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
DRO	DRO	10.0	U	10.0	50.0	ug/L
SURROGATES						
16416-32-3	Tetracosane-d50	21.5		29 - 130	108%	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

Quantitation Report (QT Reviewed)

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG031225\
Data File : FG015471.D
Signal(s) : FID1A.ch
Acq On : 12 Mar 2025 10:29
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: Mar 13 03:16:24 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG030325.M
Quant Title :
QLast Update : Mon Mar 03 14:06:11 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...	15.029	2341715	21.508 ug/ml
Target Compounds			

(f)=RT Delta > 1/2 Window (m)=manual int.

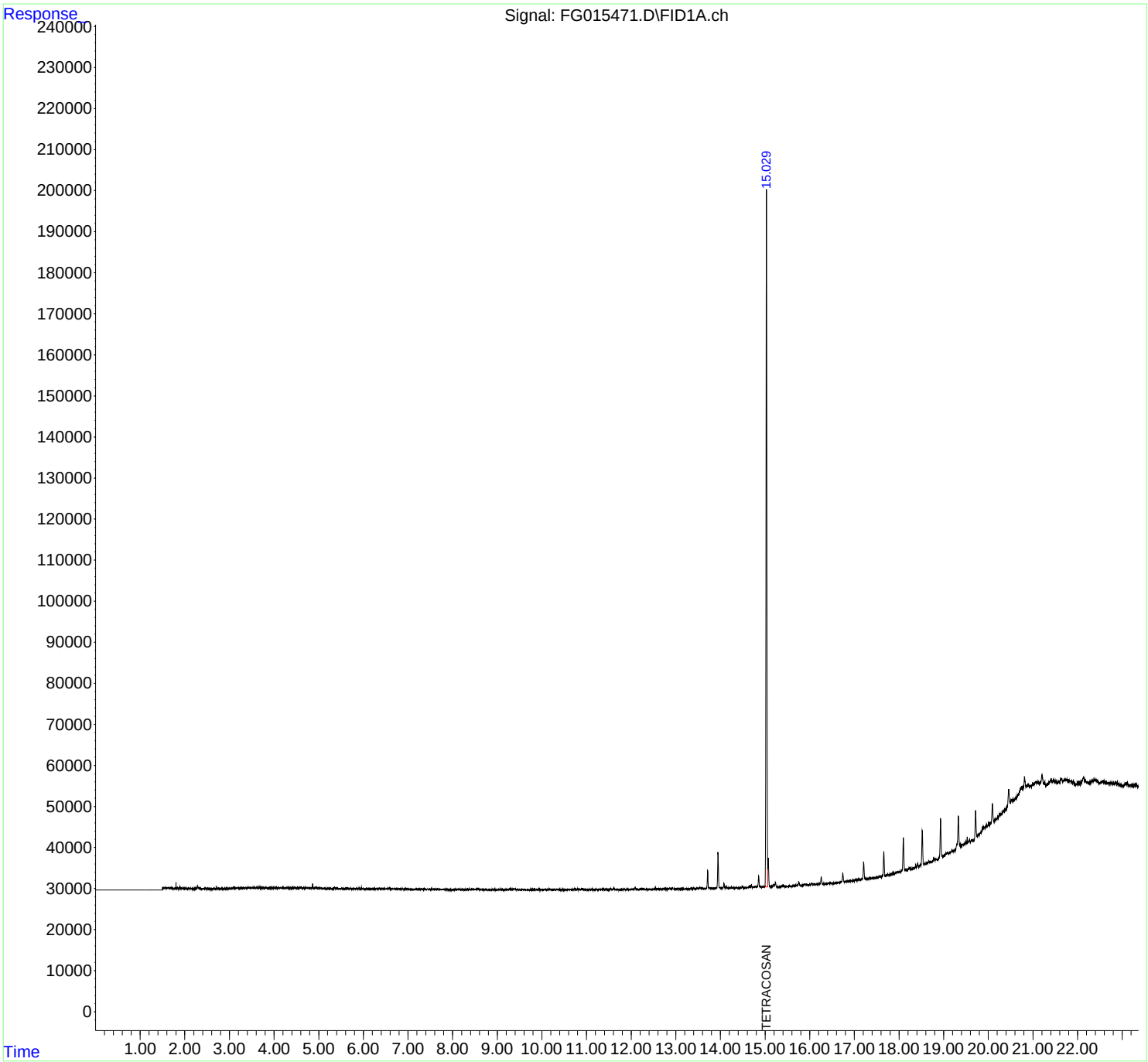
Quantitation Report (QT Reviewed)

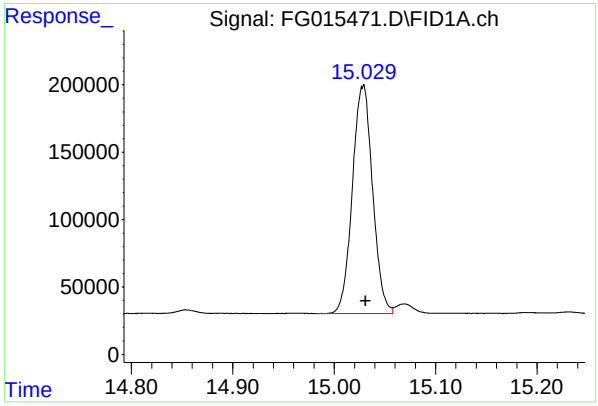
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG031225\
Data File : FG015471.D
Signal(s) : FID1A.ch
Acq On : 12 Mar 2025 10:29
Operator : YP\AJ
Sample : I.BLK
Misc :
ALS Vial : 2 Sample Multiplier: 1

Instrument :
FID_G
ClientSampleId :
I.BLK

Integration File: autoint1.e
Quant Time: Mar 13 03:16:24 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG030325.M
Quant Title :
QLast Update : Mon Mar 03 14:06:11 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.: 15.029 min
Delta R.T.: -0.002 mi
Response: 2341715
Conc: 21.51 ug/m

Instrument :
FID_G
ClientSampleId :
I.BLK

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

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG031225\
Data File : FG015471.D
Signal(s) : FID1A.ch
Acq On : 12 Mar 2025 10:29
Sample : I.BLK
Misc :
ALS Vial : 2 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG030325.M
Title :

Signal : FID1A.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	15.029	14.982	15.058	BV	168737	2341715	100.00%	100.000%
			Sum of corrected areas:			2341715		

FG030325.M Thu Mar 13 03:36:59 2025

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

Report of Analysis

Client:	Alliance Technical Group, LLC - Newark	Date Collected:	03/12/25
Project:	NJ Waste Water PT	Date Received:	03/12/25
Client Sample ID:	PIBLK-FG015481.D	SDG No.:	Q1502
Lab Sample ID:	I.BLK-FG015481.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
FG015481.D	1		03/12/25	FG031225

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
DRO	DRO	10.0	U	10.0	50.0	ug/L
SURROGATES						
16416-32-3	Tetracosane-d50	21.5		29 - 130	108%	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

Quantitation Report (QT Reviewed)

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG031225\
Data File : FG015481.D
Signal(s) : FID1A.ch
Acq On : 12 Mar 2025 17:22
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: Mar 13 03:19:40 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG030325.M
Quant Title :
QLast Update : Mon Mar 03 14:06:11 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...	15.027	2344684	21.535 ug/ml
Target Compounds			

(f)=RT Delta > 1/2 Window (m)=manual int.

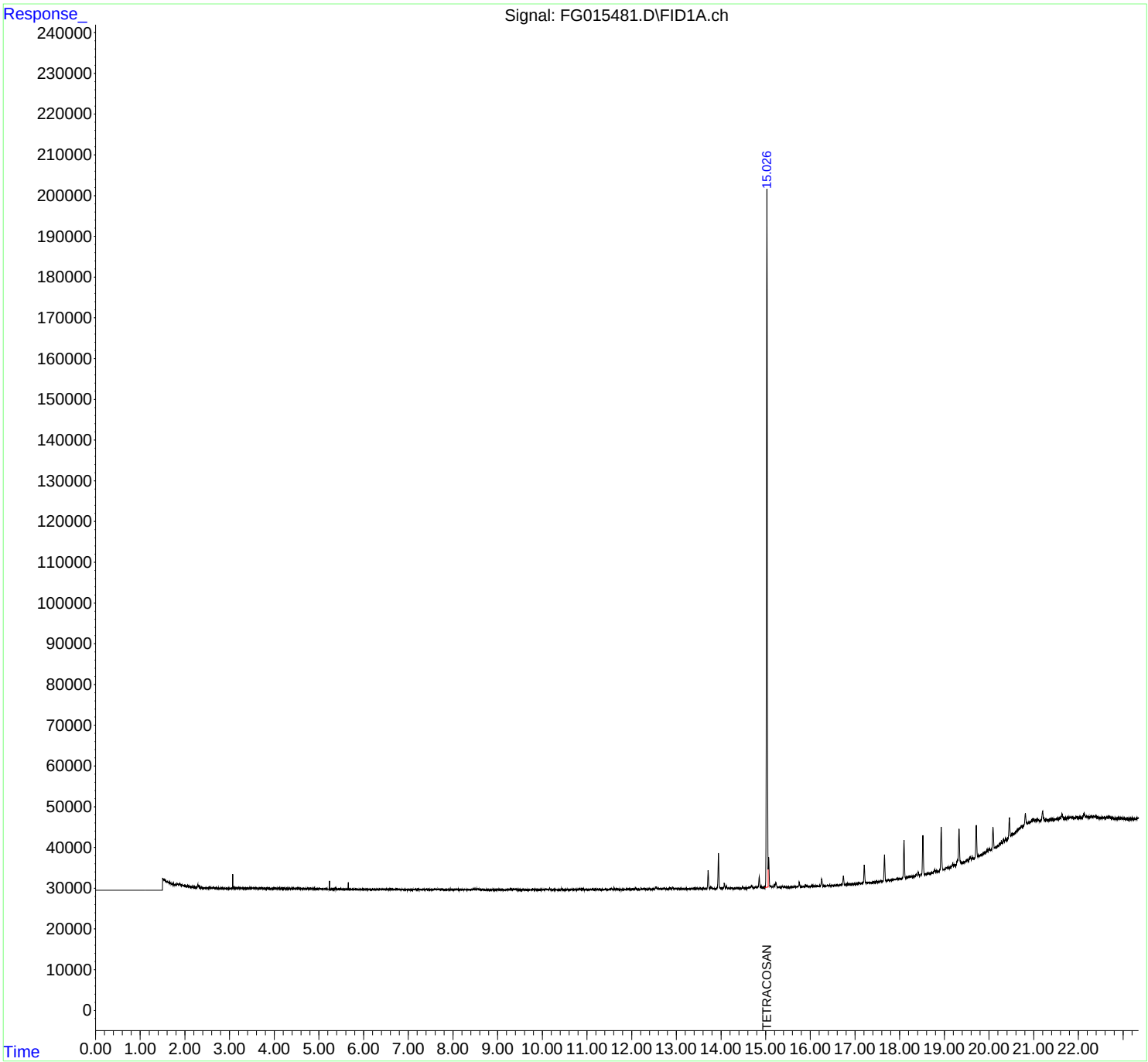
Quantitation Report (QT Reviewed)

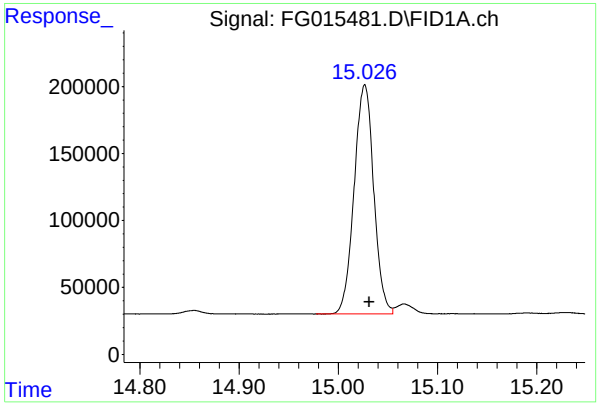
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG031225\
Data File : FG015481.D
Signal(s) : FID1A.ch
Acq On : 12 Mar 2025 17:22
Operator : YP\AJ
Sample : I.BLK
Misc :
ALS Vial : 2 Sample Multiplier: 1

Instrument :
FID_G
ClientSampleId :
I.BLK

Integration File: autoint1.e
Quant Time: Mar 13 03:19:40 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG030325.M
Quant Title :
QLast Update : Mon Mar 03 14:06:11 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.: 15.027 min
Delta R.T.: -0.004 mir
Response: 2344684
Conc: 21.54 ug/m

Instrument :
FID_G
ClientSampleId :
I.BLK

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG031225\
Data File : FG015481.D
Signal(s) : FID1A.ch
Acq On : 12 Mar 2025 17:22
Sample : I.BLK
Misc :
ALS Vial : 2 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG030325.M
Title :

Signal : FID1A.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	15.027	14.978	15.055	BV	171281	2344684	100.00%	100.000%
			Sum of corrected areas:			2344684		

FG030325.M Thu Mar 13 03:39:54 2025

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

Report of Analysis

Client:	Alliance Technical Group, LLC - Newark	Date Collected:	
Project:	NJ Waste Water PT	Date Received:	
Client Sample ID:	PB167101BS	SDG No.:	Q1502
Lab Sample ID:	PB167101BS	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
FG015475.D	1	03/12/25 08:55	03/12/25 14:26	PB167101

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
DRO	DRO	206		10.0	50.0	ug/L
SURROGATES						
16416-32-3	Tetracosane-d50	19.3		29 - 130	97%	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

Quantitation Report (QT Reviewed)

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG031225\
Data File : FG015475.D
Signal(s) : FID1A.ch
Acq On : 12 Mar 2025 14:26
Operator : YP\AJ
Sample : PB167101BS
Misc :
ALS Vial : 22 Sample Multiplier: 1

Instrument :
FID_G
ClientSampleId :
PB167101BS

Integration File: autoint1.e
Quant Time: Mar 13 03:17:41 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG030325.M
Quant Title :
QLast Update : Mon Mar 03 14:06:11 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...	15.027	2105591	19.339 ug/ml
	Target Compounds			
2)	N-DECANE	4.527	2168033	19.484 ug/ml
3)	N-DODECANE	6.709	2367695	20.373 ug/ml
4)	N-TETRADECANE	8.545	2424730	21.043 ug/ml
5)	N-HEXADECANE	10.159	2546331	21.453 ug/ml
6)	N-OCTADECANE	11.607	2645124	21.358 ug/ml
7)	N-EICOSANE	12.922	2570744	21.164 ug/ml
8)	N-DOCOSANE	14.124	2499239	20.874 ug/ml
10)	N-TETRACOSANE	15.231	2429861	20.348 ug/ml
11)	N-HEXACOSANE	16.256	2334348	19.892 ug/ml
12)	N-OCTACOSANE	17.207	2246875	19.411 ug/ml

(f)=RT Delta > 1/2 Window (m)=manual int.

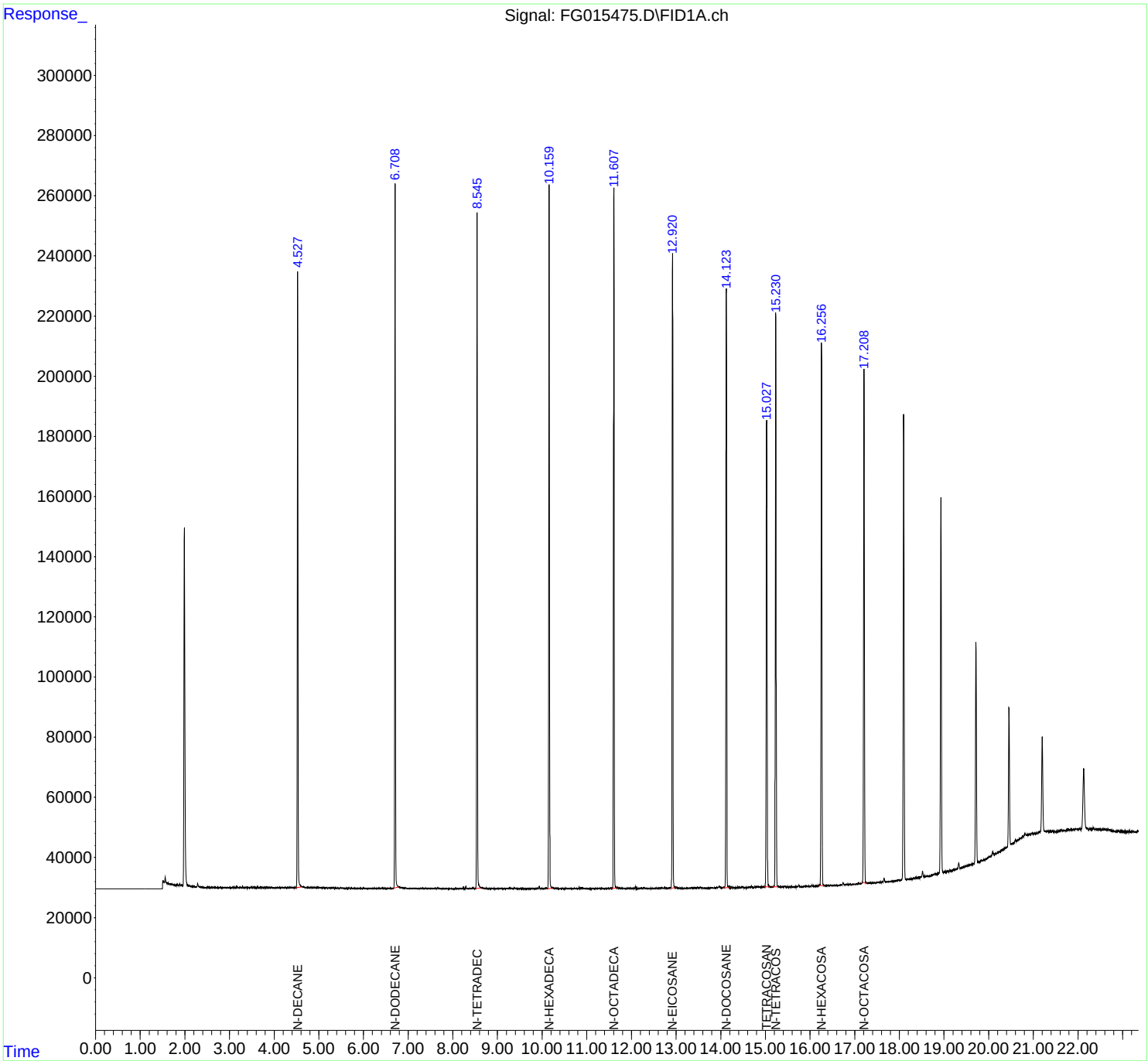
Quantitation Report (QT Reviewed)

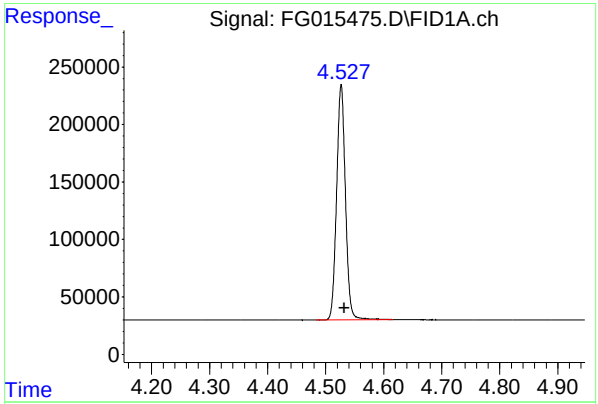
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG031225\
Data File : FG015475.D
Signal(s) : FID1A.ch
Acq On : 12 Mar 2025 14:26
Operator : YP\AJ
Sample : PB167101BS
Misc :
ALS Vial : 22 Sample Multiplier: 1

Instrument :
FID_G
ClientSampleId :
PB167101BS

Integration File: autoint1.e
Quant Time: Mar 13 03:17:41 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG030325.M
Quant Title :
QLast Update : Mon Mar 03 14:06:11 2025
Response via : Initial Calibration
Integrator: ChemStation

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

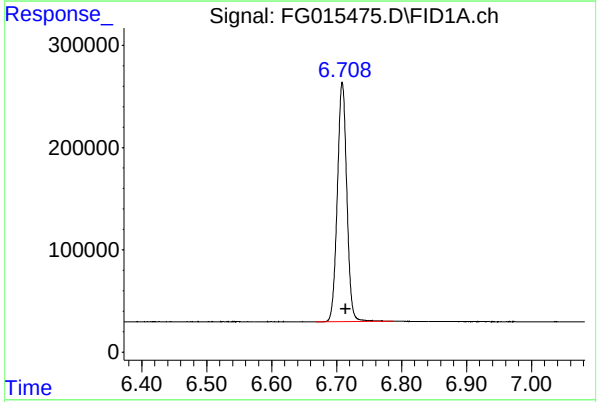




#2 N-DECANE

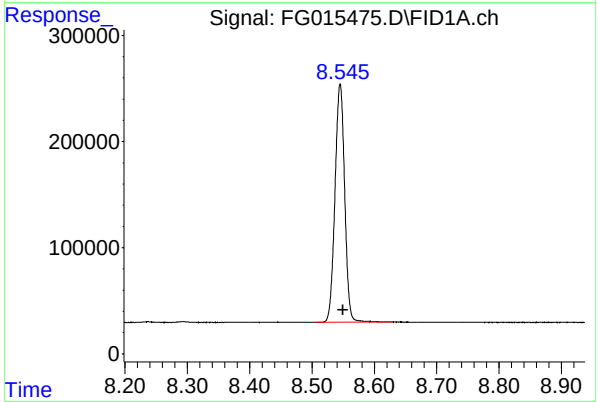
R.T.: 4.527 min
Delta R.T.: -0.005 min
Response: 2168033
Conc: 19.48 ug/ml

Instrument :
FID_G
ClientSampleId :
PB167101BS



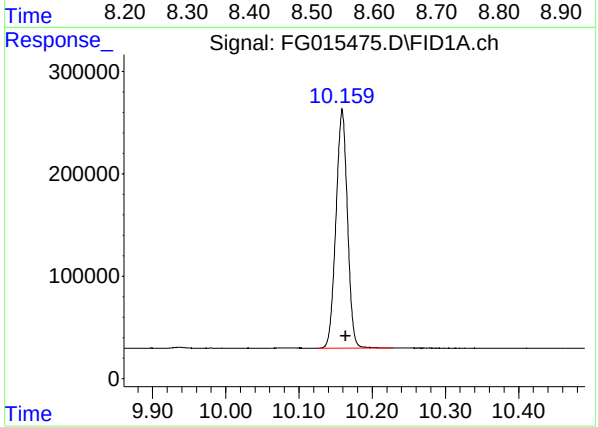
#3 N-DODECANE

R.T.: 6.709 min
Delta R.T.: -0.005 min
Response: 2367695
Conc: 20.37 ug/ml



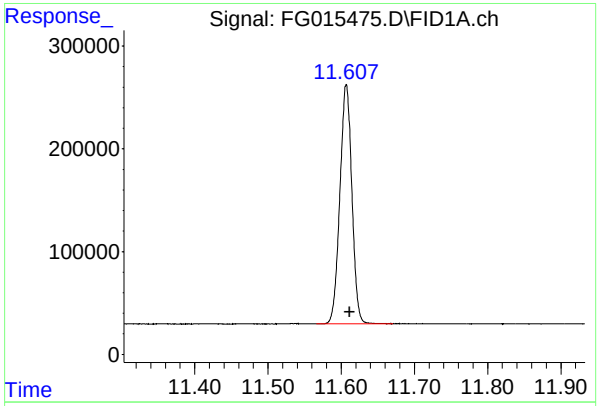
#4 N-TETRADECANE

R.T.: 8.545 min
Delta R.T.: -0.004 min
Response: 2424730
Conc: 21.04 ug/ml



#5 N-HEXADECANE

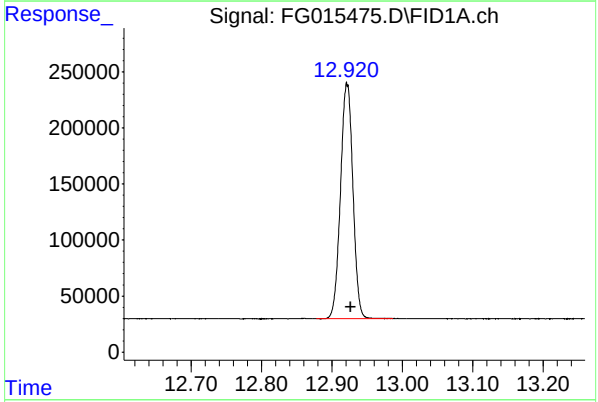
R.T.: 10.159 min
Delta R.T.: -0.004 min
Response: 2546331
Conc: 21.45 ug/ml



#6 N-OCTADECANE

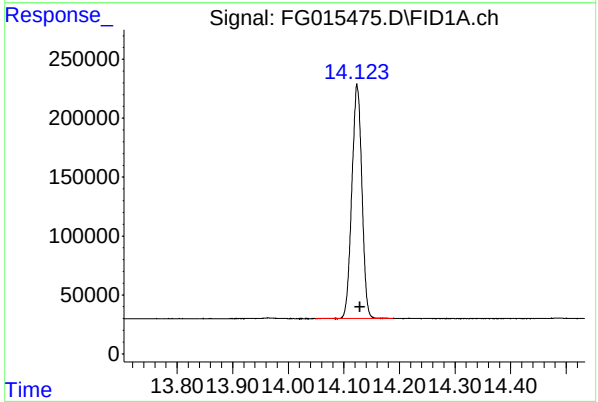
R.T.: 11.607 min
Delta R.T.: -0.005 min
Response: 2645124
Conc: 21.36 ug/ml

Instrument :
FID_G
ClientSampleId :
PB167101BS



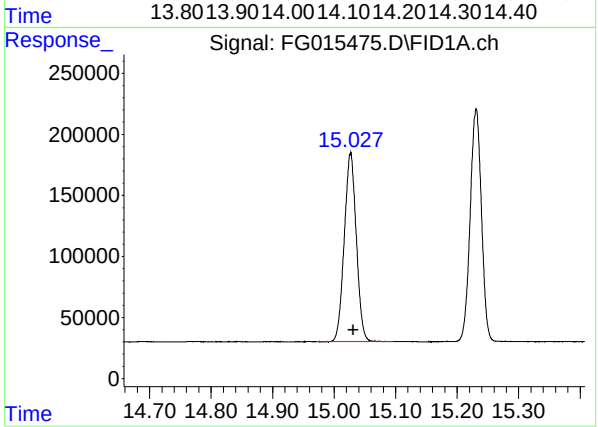
#7 N-EICOSANE

R.T.: 12.922 min
Delta R.T.: -0.005 min
Response: 2570744
Conc: 21.16 ug/ml



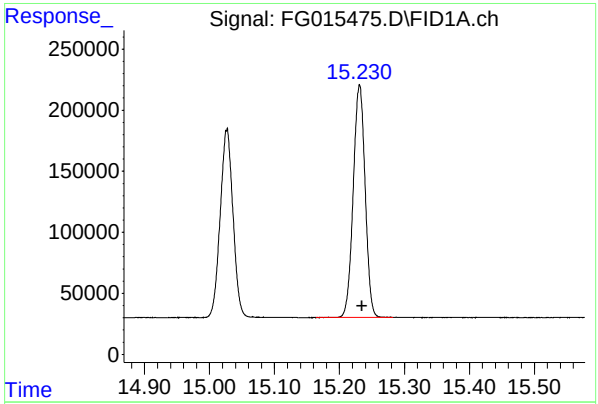
#8 N-DOCOSANE

R.T.: 14.124 min
Delta R.T.: -0.005 min
Response: 2499239
Conc: 20.87 ug/ml



#9 TETRACOSANE-d50 (SURROGATE)

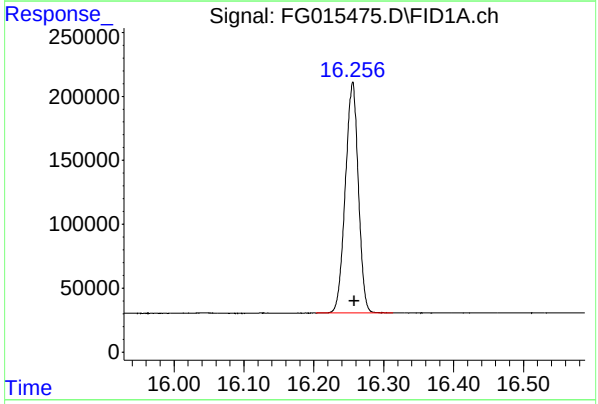
R.T.: 15.027 min
Delta R.T.: -0.004 min
Response: 2105591
Conc: 19.34 ug/ml



#10 N-TETRACOSANE

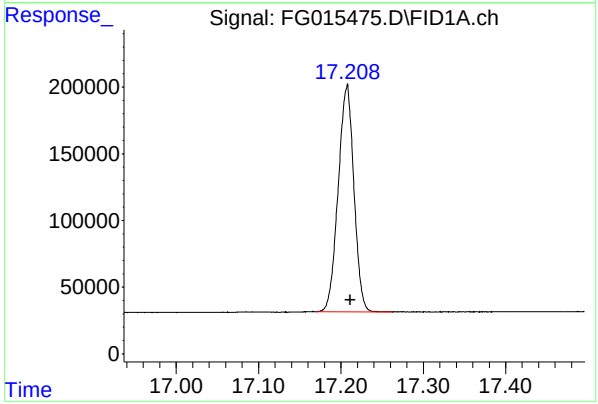
R.T.: 15.231 min
Delta R.T.: -0.004 min
Response: 2429861
Conc: 20.35 ug/ml

Instrument :
FID_G
ClientSampleId :
PB167101BS



#11 N-HEXACOSANE

R.T.: 16.256 min
Delta R.T.: -0.003 min
Response: 2334348
Conc: 19.89 ug/ml



#12 N-OCTACOSANE

R.T.: 17.207 min
Delta R.T.: -0.004 min
Response: 2246875
Conc: 19.41 ug/ml

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG031225\
Data File : FG015475.D
Signal(s) : FID1A.ch
Acq On : 12 Mar 2025 14:26
Sample : PB167101BS
Misc :
ALS Vial : 22 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG030325.M
Title :

Signal : FID1A.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	4.527	4.483	4.616	BB	204720	2168033	81.96%	8.231%
2	6.709	6.668	6.787	BB	233533	2367695	89.51%	8.989%
3	8.545	8.507	8.630	BB	224345	2424730	91.67%	9.206%
4	10.159	10.123	10.228	BB	233292	2546331	96.27%	9.668%
5	11.607	11.566	11.671	BB	232328	2645124	100.00%	10.043%
6	12.922	12.878	12.987	BB	207457	2570744	97.19%	9.760%
7	14.124	14.050	14.188	BB	197394	2499239	94.48%	9.489%
8	15.027	14.971	15.096	BB	153408	2105591	79.60%	7.994%
9	15.231	15.164	15.283	BB	190880	2429861	91.86%	9.225%
10	16.256	16.203	16.313	BB	180579	2334348	88.25%	8.863%
11	17.207	17.170	17.263	BB	169253	2246875	84.94%	8.531%
			Sum of corrected areas:			26338570		

FG030325.M Thu Mar 13 03:38:47 2025

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

Report of Analysis

Client:	Alliance Technical Group, LLC - Newark	Date Collected:	
Project:	NJ Waste Water PT	Date Received:	
Client Sample ID:	PB167101BSD	SDG No.:	Q1502
Lab Sample ID:	PB167101BSD	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
FG015476.D	1	03/12/25 08:55	03/12/25 14:55	PB167101

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
DRO	DRO	204		10.0	50.0	ug/L
SURROGATES						
16416-32-3	Tetracosane-d50	19.2		29 - 130	96%	SPK: 20

Comments:

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

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

Quantitation Report (QT Reviewed)

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG031225\
Data File : FG015476.D
Signal(s) : FID1A.ch
Acq On : 12 Mar 2025 14:55
Operator : YP\AJ
Sample : PB167101BSD
Misc :
ALS Vial : 23 Sample Multiplier: 1

Instrument :
FID_G
ClientSampleId :
PB167101BSD

Integration File: autoint1.e
Quant Time: Mar 13 03:18:04 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG030325.M
Quant Title :
QLast Update : Mon Mar 03 14:06:11 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...	15.026	2095136	19.243 ug/ml
	Target Compounds			
2)	N-DECANE	4.526	2149967	19.321 ug/ml
3)	N-DODECANE	6.709	2350216	20.222 ug/ml
4)	N-TETRADECANE	8.545	2405258	20.874 ug/ml
5)	N-HEXADECANE	10.159	2525478	21.278 ug/ml
6)	N-OCTADECANE	11.607	2626165	21.205 ug/ml
7)	N-EICOSANE	12.921	2556527	21.047 ug/ml
8)	N-DOCOSANE	14.124	2487141	20.773 ug/ml
10)	N-TETRACOSANE	15.230	2418842	20.256 ug/ml
11)	N-HEXACOSANE	16.254	2332906	19.880 ug/ml
12)	N-OCTACOSANE	17.208	2246501	19.408 ug/ml

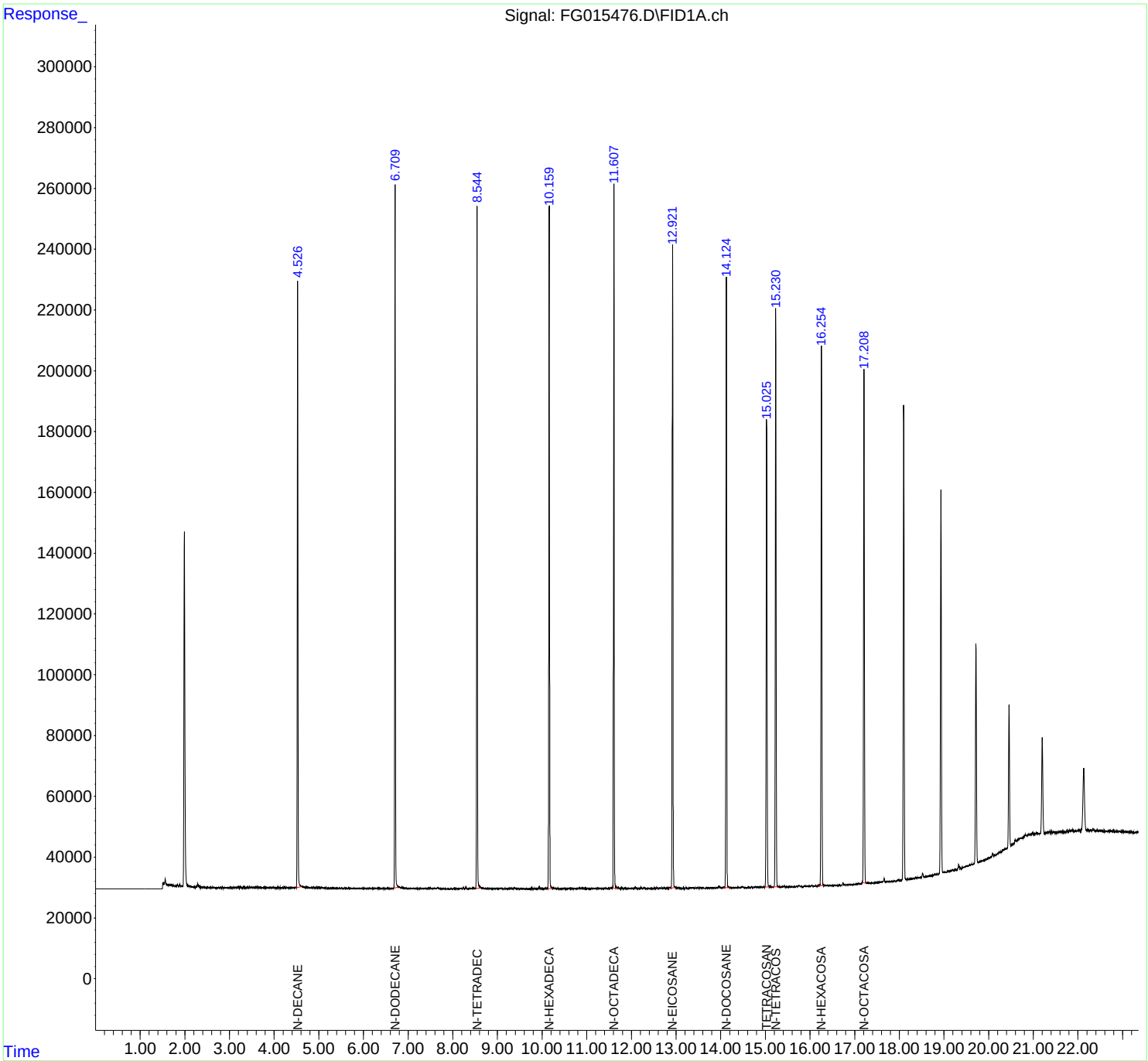
(f)=RT Delta > 1/2 Window (m)=manual int.

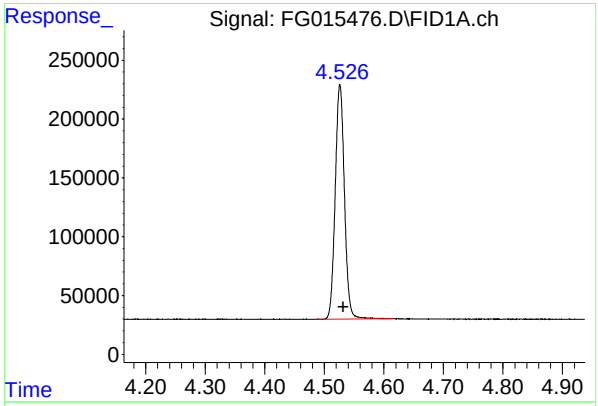
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG031225\
Data File : FG015476.D
Signal(s) : FID1A.ch
Acq On : 12 Mar 2025 14:55
Operator : YP\AJ
Sample : PB167101BSD
Misc :
ALS Vial : 23 Sample Multiplier: 1

Instrument :
FID_G
ClientSampleId :
PB167101BSD

Integration File: autoint1.e
Quant Time: Mar 13 03:18:04 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG030325.M
Quant Title :
QLast Update : Mon Mar 03 14:06:11 2025
Response via : Initial Calibration
Integrator: ChemStation

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

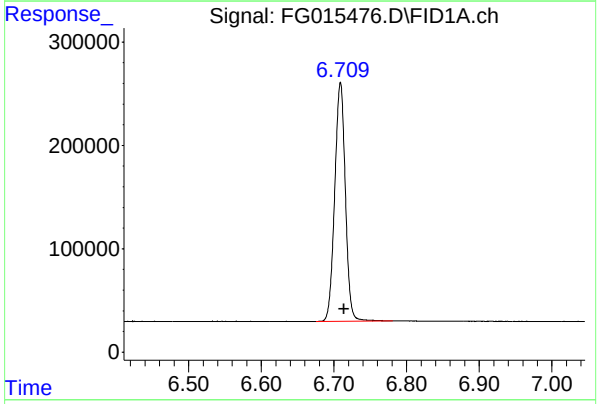




#2 N-DECANE

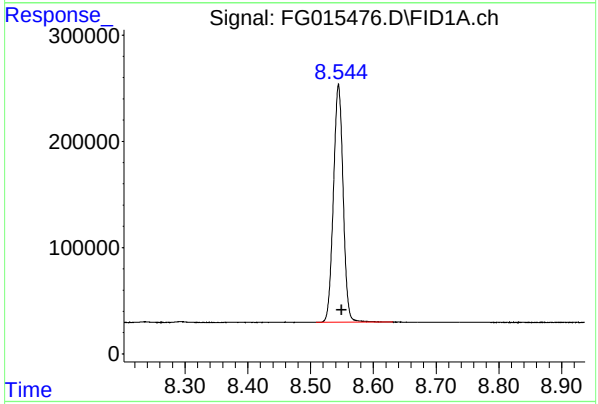
R.T.: 4.526 min
Delta R.T.: -0.006 min
Response: 2149967
Conc: 19.32 ug/ml

Instrument :
FID_G
ClientSampleId :
PB167101BSD



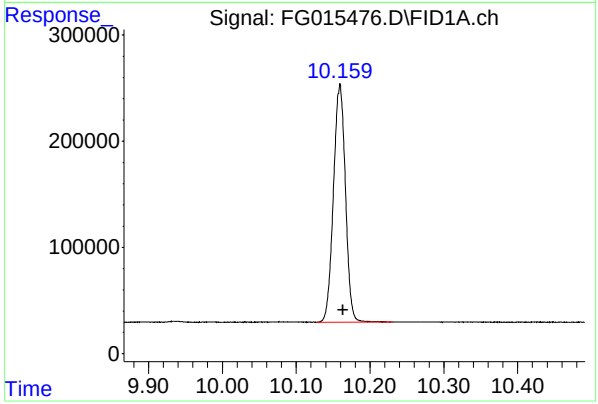
#3 N-DODECANE

R.T.: 6.709 min
Delta R.T.: -0.005 min
Response: 2350216
Conc: 20.22 ug/ml



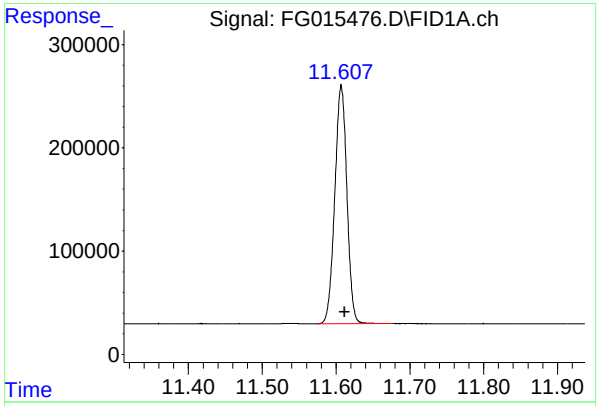
#4 N-TETRADECANE

R.T.: 8.545 min
Delta R.T.: -0.005 min
Response: 2405258
Conc: 20.87 ug/ml



#5 N-HEXADECANE

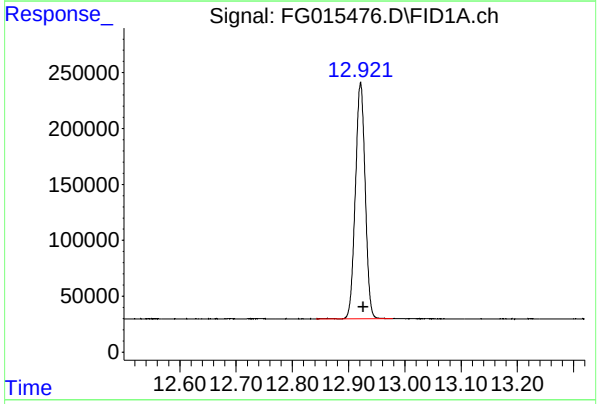
R.T.: 10.159 min
Delta R.T.: -0.004 min
Response: 2525478
Conc: 21.28 ug/ml



#6 N-OCTADECANE

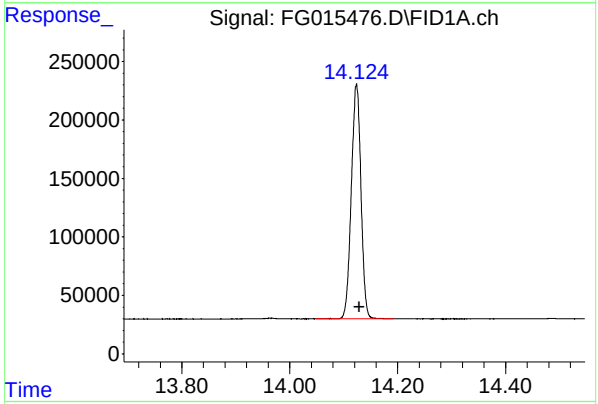
R.T.: 11.607 min
Delta R.T.: -0.005 min
Response: 2626165
Conc: 21.21 ug/ml

Instrument :
FID_G
ClientSampleId :
PB167101BSD



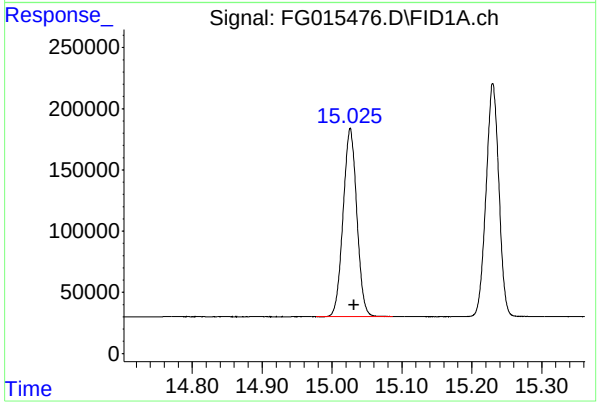
#7 N-EICOSANE

R.T.: 12.921 min
Delta R.T.: -0.005 min
Response: 2556527
Conc: 21.05 ug/ml



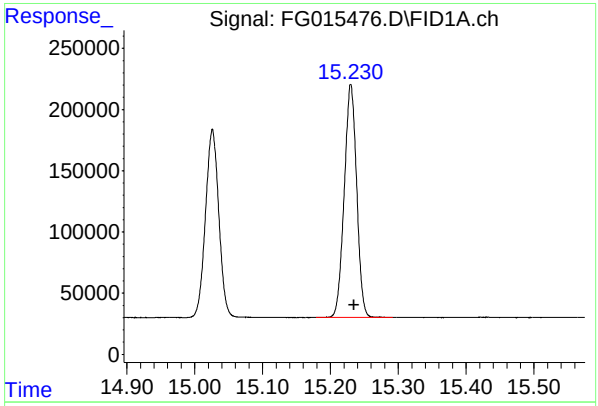
#8 N-DOCOSANE

R.T.: 14.124 min
Delta R.T.: -0.005 min
Response: 2487141
Conc: 20.77 ug/ml



#9 TETRACOSANE-d50 (SURROGATE)

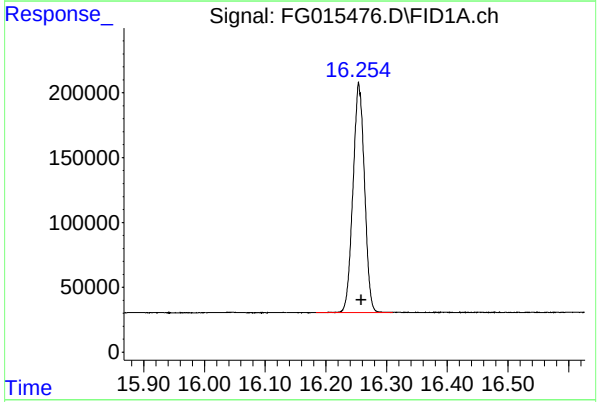
R.T.: 15.026 min
Delta R.T.: -0.005 min
Response: 2095136
Conc: 19.24 ug/ml



#10 N-TETRACOSANE

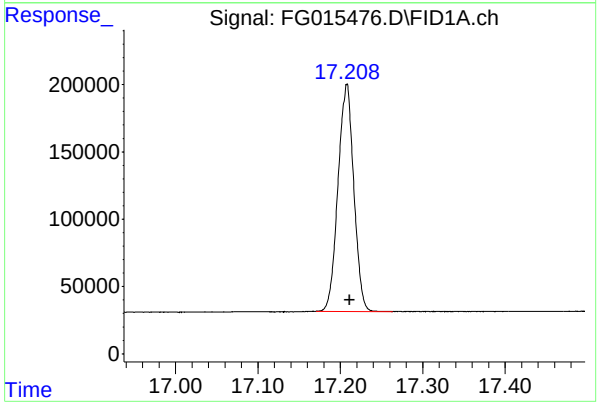
R.T.: 15.230 min
Delta R.T.: -0.005 mi
Response: 2418842
Conc: 20.26 ug/m

Instrument :
FID_G
ClientSampleId :
PB167101BSD



#11 N-HEXACOSANE

R.T.: 16.254 min
Delta R.T.: -0.004 min
Response: 2332906
Conc: 19.88 ug/ml



#12 N-OCTACOSANE

R.T.: 17.208 min
Delta R.T.: -0.003 min
Response: 2246501
Conc: 19.41 ug/ml

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG031225\
Data File : FG015476.D
Signal(s) : FID1A.ch
Acq On : 12 Mar 2025 14:55
Sample : PB167101BSD
Misc :
ALS Vial : 23 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG030325.M
Title :

Signal : FID1A.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	4.526	4.486	4.615	BB	199279	2149967	81.87%	8.208%
2	6.709	6.675	6.781	BB	231234	2350216	89.49%	8.972%
3	8.545	8.509	8.631	BB	224113	2405258	91.59%	9.182%
4	10.159	10.127	10.231	BB	224905	2525478	96.17%	9.641%
5	11.607	11.573	11.677	BB	231197	2626165	100.00%	10.026%
6	12.921	12.842	12.979	BB	211101	2556527	97.35%	9.760%
7	14.124	14.049	14.191	BB	200539	2487141	94.71%	9.495%
8	15.026	14.977	15.087	BB	153788	2095136	79.78%	7.998%
9	15.230	15.179	15.292	BB	190354	2418842	92.11%	9.234%
10	16.254	16.184	16.310	BB	176488	2332906	88.83%	8.906%
11	17.208	17.170	17.264	BB	168691	2246501	85.54%	8.576%

Sum of corrected areas: 26194137

FG030325.M Thu Mar 13 03:39:11 2025

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

Manual Integration Report

Sample ID	ClientId ID	File ID	Sequence ID	Parameter	Supervised By	Supervised On	Reason
Q1502-19		FG015478.D	FG031225	TETRACOSANE-d50 (SURROGA	Ankita	3/13/2025 9:28:15 AM	Peak Integrated by Software incorrectly

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

Instrument ID: FID_G

Daily Analysis Runlog For Sequence/QCBatch ID # FG030325

Review By	yogesh	Review On	3/3/2025 3:23:50 PM		
Supervise By	Ankita	Supervise On	3/4/2025 3:14:29 PM		
SubDirectory	FG030325	HP Acquire Method		HP Processing Method	FG030325

STD. NAME	STD REF.#
Tune/Reschk	
Initial Calibration Stds	PP23961,PP23963,PP23964,PP23965,PP23966
CCC	PP23963
Internal Standard/PEM	
ICV/I.BLK	PP23962,PP23967
Surrogate Standard	
MS/MSD Standard	
LCS Standard	

Sr#	SampleId	Data File Name	Date-Time	Operator	Status
1	MECL2	FG015424.D	03 Mar 2025 10:50	YP\AJ	Ok
2	I.BLK	FG015425.D	03 Mar 2025 11:19	YP\AJ	Ok
3	100 TRPH STD	FG015426.D	03 Mar 2025 11:48	YP\AJ	Ok
4	50 TRPH STD	FG015427.D	03 Mar 2025 12:17	YP\AJ	Ok
5	20 TRPH STD	FG015428.D	03 Mar 2025 12:46	YP\AJ	Ok
6	10 TRPH STD	FG015429.D	03 Mar 2025 13:16	YP\AJ	Ok
7	5 TRPH STD	FG015430.D	03 Mar 2025 13:45	YP\AJ	Ok
8	FG030325ICV	FG015431.D	03 Mar 2025 14:14	YP\AJ	Ok

M : Manual Integration

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

Instrument ID: FID_G

Daily Analysis Runlog For Sequence/QCBatch ID # FG031225

Review By	yogesh	Review On	3/12/2025 12:08:27 PM		
Supervise By	Ankita	Supervise On	3/13/2025 9:28:28 AM		
SubDirectory	FG031225	HP Acquire Method		HP Processing Method	FG030325

STD. NAME	STD REF.#
Tune/Reschk	
Initial Calibration Stds	PP23961,PP23963,PP23964,PP23965,PP23966
CCC	PP23963
Internal Standard/PEM	
ICV/I.BLK	PP23962,PP23967
Surrogate Standard	
MS/MSD Standard	
LCS Standard	

Sr#	SampleId	Data File Name	Date-Time	Operator	Status
1	MECL2	FG015470.D	12 Mar 2025 10:00	YP\AJ	Ok
2	I.BLK	FG015471.D	12 Mar 2025 10:29	YP\AJ	Ok
3	50 PPM TRPH STD	FG015472.D	12 Mar 2025 10:59	YP\AJ	Ok
4	RT MARKER	FG015473.D	12 Mar 2025 11:30	YP\AJ	Ok
5	PB167101BL	FG015474.D	12 Mar 2025 13:57	YP\AJ	Ok
6	PB167101BS	FG015475.D	12 Mar 2025 14:26	YP\AJ	Ok
7	PB167101BSD	FG015476.D	12 Mar 2025 14:55	YP\AJ	Ok
8	Q1502-19	FG015477.D	12 Mar 2025 15:25	YP\AJ	Dilution
9	Q1502-19	FG015478.D	12 Mar 2025 15:54	YP\AJ	Ok,M
10	Q1539-01	FG015479.D	12 Mar 2025 16:23	YP\AJ	Ok
11	Q1539-02	FG015480.D	12 Mar 2025 16:53	YP\AJ	Ok
12	I.BLK	FG015481.D	12 Mar 2025 17:22	YP\AJ	Ok
13	50 PPM TRPH STD	FG015482.D	12 Mar 2025 18:21	YP\AJ	Ok

M : Manual Integration

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

Instrument ID: FID_G

Daily Analysis Runlog For Sequence/QCBatch ID # FG030325

Review By	yogesh	Review On	3/3/2025 3:23:50 PM		
Supervise By	Ankita	Supervise On	3/4/2025 3:14:29 PM		
SubDirectory	FG030325	HP Acquire Method		HP Processing Method	FG030325

STD. NAME	STD REF.#
Tune/Reschk	
Initial Calibration Stds	PP23961,PP23963,PP23964,PP23965,PP23966
CCC	PP23963
Internal Standard/PEM	
ICV/I.BLK	PP23962,PP23967
Surrogate Standard	
MS/MSD Standard	
LCS Standard	

Sr#	SampleId	ClientID	Data File Name	Date-Time	Comment	Operator	Status
1	MECL2		FG015424.D	03 Mar 2025 10:50		YP\AJ	Ok
2	I.BLK		FG015425.D	03 Mar 2025 11:19		YP\AJ	Ok
3	100 TRPH STD		FG015426.D	03 Mar 2025 11:48		YP\AJ	Ok
4	50 TRPH STD		FG015427.D	03 Mar 2025 12:17		YP\AJ	Ok
5	20 TRPH STD		FG015428.D	03 Mar 2025 12:46		YP\AJ	Ok
6	10 TRPH STD		FG015429.D	03 Mar 2025 13:16		YP\AJ	Ok
7	5 TRPH STD		FG015430.D	03 Mar 2025 13:45		YP\AJ	Ok
8	FG030325ICV		FG015431.D	03 Mar 2025 14:14		YP\AJ	Ok

M : Manual Integration

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Instrument ID: FID_G

Daily Analysis Runlog For Sequence/QCBatch ID # FG031225

Review By	yogesh	Review On	3/12/2025 12:08:27 PM		
Supervise By	Ankita	Supervise On	3/13/2025 9:28:28 AM		
SubDirectory	FG031225	HP Acquire Method		HP Processing Method	FG030325

STD. NAME	STD REF.#
Tune/Reschk	
Initial Calibration Stds	PP23961,PP23963,PP23964,PP23965,PP23966
CCC	PP23963
Internal Standard/PEM	
ICV/I.BLK	PP23962,PP23967
Surrogate Standard	
MS/MSD Standard	
LCS Standard	

Sr#	SampleId	ClientID	Data File Name	Date-Time	Comment	Operator	Status
1	MECL2		FG015470.D	12 Mar 2025 10:00		YP\AJ	Ok
2	I.BLK		FG015471.D	12 Mar 2025 10:29		YP\AJ	Ok
3	50 PPM TRPH STD		FG015472.D	12 Mar 2025 10:59		YP\AJ	Ok
4	RT MARKER		FG015473.D	12 Mar 2025 11:30		YP\AJ	Ok
5	PB167101BL		FG015474.D	12 Mar 2025 13:57		YP\AJ	Ok
6	PB167101BS		FG015475.D	12 Mar 2025 14:26		YP\AJ	Ok
7	PB167101BSD		FG015476.D	12 Mar 2025 14:55		YP\AJ	Ok
8	Q1502-19		FG015477.D	12 Mar 2025 15:25	need 5x dilution	YP\AJ	Dilution
9	Q1502-19		FG015478.D	12 Mar 2025 15:54		YP\AJ	Ok,M
10	Q1539-01		FG015479.D	12 Mar 2025 16:23		YP\AJ	Ok
11	Q1539-02		FG015480.D	12 Mar 2025 16:53		YP\AJ	Ok
12	I.BLK		FG015481.D	12 Mar 2025 17:22		YP\AJ	Ok
13	50 PPM TRPH STD		FG015482.D	12 Mar 2025 18:21		YP\AJ	Ok

M : Manual Integration

Alliance TECHNICAL GROUP

EXTRACTION LOGPAGE

PB167101

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

Clean Up SOP #: N/A

Matrix : Water

Weigh By: N/A

Balance check: N/A

Balance ID: N/A

pH Strip Lot#: E3880

Extraction By: RS

Filter By: RS

pH Meter ID: N/A

Hood ID: 4,5,6,7

Extraction Start Date : 03/12/2025

Extraction Start Time : 08:55

Extraction End Date : 03/12/2025

Extraction End Time : 13:35

Concentration By: EH

Supervisor By : RUPESH

Extraction Method: [√] Seperatory Funnel [ ] Continious Liquid/Liquid [ ] Sonication [ ] Waste Dilution [ ] Soxhlet

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

Chemical Used	ML/SAMPLE USED	Lot Number
Methylene Chloride	N/A	E3878
Baked Na2SO4	N/A	EP2593
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# 2210673.

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
3/12/25	RS (Ext lab)	Y.p. pesticide.
13:40	**Preparation Group**	**Analysis Group**

Alliance TECHNICAL GROUP

EXTRACTION LOGPAGE

PrepBatch ID : PB167101

Analytical Method: M3510C,3580A-Extraction DRO-12 **Concentration Date:** 03/12/2025

Sample ID	Client Sample ID	Test	g / mL	PH	Surr/Spike By:		Final Vol. (mL)	JarID	Comments	Prep Pos
					AddedBy	VerifiedBy				
PB167101BL	PB167101BL	Diesel Range Organics	1000	6	RUPESH	ritesh	1			SEP-10
PB167101BS	PB167101BS	Diesel Range Organics	1000	6	RUPESH	ritesh	1			11
PB167101BSD	PB167101BSD	Diesel Range Organics	1000	6	RUPESH	ritesh	1			12
Q1502-19	RR-DIES-WP	Diesel Range Organics	1000	6	RUPESH	ritesh	1			13
Q1539-01	TAPIAL3-MW03D-031025-00-T1	Diesel Range Organics	1000	6	RUPESH	ritesh	1	Q		14
Q1539-02	TAPFTA-MW01I-031025-00-T2	Diesel Range Organics	950	6	RUPESH	ritesh	1	Q		15

RS
3/12

* **Extracts relinquished on the same date as received.**

167101
8:55

WORKLIST(Hardcopy Internal Chain)

WorkList Name : Q1539 **WorkList ID :** 188225 **Department :** Extraction **Date :** 03-12-2025 08:50:32

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q1502-19	RR-DIES-WP	Water	Diesel Range Organics	Cool 4 deg C	ALLI03	QA Of	03/03/2025	8015D
Q1539-01	TAPIAL3-MW03D-031025-00-T	Water	Diesel Range Organics	Cool 4 deg C	WEST04	I31	03/10/2025	8015D
Q1539-02	TAPFTA-MW01I-031025-00-T2	Water	Diesel Range Organics	Cool 4 deg C	WEST04	I31	03/10/2025	8015D

Date/Time 3/12/25 8:50
Raw Sample Received by: RS (EXT-lab)
Raw Sample Relinquished by:

Date/Time 3/12/25 9:20
Raw Sample Received by:
Raw Sample Relinquished by: RS (EXT-lab)

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

Prep Standard - Chemical Standard Summary

Order ID : Q1502

Test : Diesel Range Organics

Prepbatch ID : PB167101,

Sequence ID/Qc Batch ID: Fg031225,

Standard ID :
EP2593,PP23961,PP23962,PP23963,PP23964,PP23965,PP23966,PP23967,PP24162,PP24180,

Chemical ID :
E3551,E3828,E3874,E3878,P11955,P11956,P11958,P11959,P13213,P13218,P13219,P13487,P13488,P13489,P13490
,

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Fax : 908 789 8922

Extractions STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
3923	Baked Sodium Sulfate	EP2593	03/07/2025	07/01/2025	RUPESHKUMAR SHAH	Extraction_SCALE_2 (EX-SC-2)	None	Riteshkumar Patel 03/07/2025

FROM 4000.00000gram of E3551 = Final Quantity: 4000.000 gram

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
433	100/100 PPM DRO (Restek)	PP23961	11/13/2024	05/09/2025	Yogesh Patel	None	None	Ankita Jodhani 11/13/2024

FROM 1.00000ml of P11958 + 1.00000ml of P11959 + 1.00000ml of P13213 + 7.00000ml of E3828 = Final Quantity: 10.000 ml

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Pest/Pcb STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
3796	100/100 PPM DRO STD (CPI)	PP23962	11/13/2024	05/09/2025	Yogesh Patel	None	None	Ankita Jodhani 11/13/2024

FROM 1.00000ml of P13213 + 1.00000ml of P13218 + 1.00000ml of P13219 + 7.00000ml of E3828 = Final Quantity: 10.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
435	50 PPM ICC DRO STD (Restek)	PP23963	11/13/2024	05/09/2025	Yogesh Patel	None	None	Ankita Jodhani 11/13/2024

FROM 0.50000ml of E3828 + 0.50000ml of PP23961 = Final Quantity: 1.000 ml

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Pest/Pcb STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
437	20 PPM ICC DRO STD (Restek)	PP23964	11/13/2024	05/09/2025	Yogesh Patel	None	None	Ankita Jodhani 11/13/2024

FROM 0.80000ml of E3828 + 0.20000ml of PP23961 = Final Quantity: 1.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
438	10 PPM ICC DRO STD (Restek)	PP23965	11/13/2024	05/09/2025	Yogesh Patel	None	None	Ankita Jodhani 11/13/2024

FROM 0.90000ml of E3828 + 0.10000ml of PP23961 = Final Quantity: 1.000 ml

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Pest/Pcb STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
439	5 PPM ICC DRO STD (Restek)	PP23966	11/13/2024	05/09/2025	Yogesh Patel	None	None	Ankita Jodhani 11/13/2024

FROM 0.90000ml of E3828 + 0.10000ml of PP23963 = Final Quantity: 1.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
3797	50 PPM DRO ICV STD (CPI)	PP23967	11/13/2024	05/09/2025	Yogesh Patel	None	None	Ankita Jodhani 11/13/2024

FROM 0.80000ml of E3828 + 0.50000ml of PP23962 = Final Quantity: 1.000 ml

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Pest/Pcb STANDARD PREPARATION LOG

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

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

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
147	20 PPM DRO Surrogate Spike Solution	PP24180	02/03/2025	07/30/2025	Yogesh Patel	None	None	Ankita Jodhani 02/03/2025

FROM 1.00000ml of P13487 + 1.00000ml of P13488 + 1.00000ml of P13489 + 1.00000ml of P13490 + 196.00000ml of E3874 = Final Quantity: 200.000 ml

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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	313201	07/01/2025	01/03/2024 / Rajesh	07/20/2023 / Rajesh	E3551

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9644-A4 / Methylene Chloride,U-Resi, Cycle-Tainer (215L)	24G0862003	05/09/2025	11/09/2024 / Rajesh	11/04/2024 / Rajesh	E3828

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

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9644-A4 / Methylene Chloride,U-Resi, Cycle-Tainer (215L)	24K1762005	08/14/2025	02/14/2025 / Rajesh	12/27/2024 / Rajesh	E3878

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

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

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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	05/13/2025	11/13/2024 / yogesh	07/11/2022 / Yogesh	P11958

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31266 / Florida TRPH Standard	A0186840	05/13/2025	11/13/2024 / yogesh	07/11/2022 / Yogesh	P11959

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	05/13/2025	11/13/2024 / yogesh	01/17/2024 / Ankita	P13213

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
CPI International	Z-110400-05-01 / TRPH Standard (C8-C40), 500 mg/L, 1 ml	514983	02/14/2025	08/14/2024 / yogesh	01/31/2024 / Ankita	P13218

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
CPI International	Z-110400-05-01 / TRPH Standard (C8-C40), 500 mg/L, 1 ml	514983	05/13/2025	11/13/2024 / yogesh	01/31/2024 / Ankita	P13219

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

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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	08/03/2025	02/03/2025 / yogesh	07/24/2024 / yogesh	P13488

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

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

PRODUCTOS QUIMICOS MONTERREY, S.A. DE C.V.

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TEL +52 81 13 52 57 57
www.pqm.com.mx

CERTIFICATE OF ANALYSIS

PRODUCT :	SODIUM SULFATE CRYSTALS ANHYDROUS		
QUALITY :	ACS (CODE RMB3375)	FORMULA :	Na_2SO_4
SPECIFICATION NUMBER :	6399	RELEASE DATE:	ABR/21/2023
LOT NUMBER :	313201		

TEST	SPECIFICATIONS	LOT VALUES
Assay (Na_2SO_4)	Min. 99.0%	99.7 %
pH of a 5% solution at 25°C	5.2 - 9.2	6.1
Insoluble matter	Max. 0.01%	0.005 %
Loss on ignition	Max. 0.5%	0.1 %
Chloride (Cl)	Max. 0.001%	<0.001 %
Nitrogen compounds (as N)	Max. 5 ppm	<5 ppm
Phosphate (PO_4)	Max. 0.001%	<0.001 %
Heavy metals (as Pb)	Max. 5 ppm	<5 ppm
Iron (Fe)	Max. 0.001%	<0.001 %
Calcium (Ca)	Max. 0.01%	0.002 %
Magnesium (Mg)	Max. 0.005%	0.001 %
Potassium (K)	Max. 0.008%	0.003 %
Extraction-concentration suitability	Passes test	Passes test
Appearance	Passes test	Passes test
Identification	Passes test	Passes test
Solubility and foreing matter	Passes test	Passes test
Retained on US Standard No. 10 sieve	Max. 1%	0.1 %
Retained on US Standard No. 60 sieve	Min. 94%	97.3 %
Through US Standard No. 60 sieve	Max. 5%	2.5 %
Through US Standard No. 100 sieve	Max. 10%	0.1 %

COMMENTS

QC: PhC Irma Belmares

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

RG-02-01, Ed. 3

Recd. by RS on 7/24/23 E3551

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

avantor™ | J.T.Baker

Material No.: 9266-A4
Batch No.: 24J0862003
Manufactured Date: 2024-09-12
Expiration Date:2025-12-12
Revision No.: 0

Certificate of Analysis

Test	Specification	Result
FID-Sensitive Impurities (as 2-Octanol)Single Impurity Peak (ng/mL)	<= 5	2
ECD Sensitive Impurities (as HeptachlorEpoxide) Single Peak (pg/mL)	<= 10	1
Assay (CH_2Cl_2) (by GC, exclusive of preservative, corrected for water)	>= 99.8 %	100.0 %
Color (APHA)	<= 10	5
Residue after Evaporation	<= 1.0 ppm	0.2 ppm
Titrable Acid (µeq/g)	<= 0.3	<0.1
Chloride (Cl)	<= 10 ppm	<5 ppm
Water (by KF, coulometric)	<= 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 3828

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

PO: PO2-1178.2 PRODUCT CODE: SHIP DATE: 1/20/2025

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

avantor | J.T.Baker

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)	>= 99.8 %	99.9 %
Color (APHA)	<= 10	10
Residue after Evaporation	<= 1.0 ppm	0.8 ppm
Titrable Acid (µeq/g)	<= 0.3	<0.1
Chloride (Cl)	<= 10 ppm	<5 ppm
Water (by KF, coulometric)	<= 0.02 %	<0.01 %

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

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

E 3874

Jamie Croak
Director Quality Operations, Bioscience Production

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

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

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

avantor | J.T.Baker

Material No.: 9266-A4
Batch No.: 24K1762005
Manufactured Date: 2024-10-08
Expiration Date:2026-01-07
Revision No.: 0

Certificate of Analysis

Test	Specification	Result
FID-Sensitive Impurities (as 2-Octanol)Single Impurity Peak (ng/mL)	<= 5	1
ECD Sensitive Impurities (as HeptachlorEpoxide) Single Peak (pg/mL)	<= 10	2
Assay (CH_2Cl_2) (by GC, exclusive of preservative, corrected for water)	>= 99.8 %	100.0 %
Color (APHA)	<= 10	5
Residue after Evaporation	<= 1.0 ppm	0.5 ppm
Titrable Acid (µeq/g)	<= 0.3	0.0
Chloride (Cl)	<= 10 ppm	<5 ppm
Water (by KF, coulometric)	<= 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 3878

JCroak
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

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www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

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ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

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ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

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.

P11948 & P11962 } 7.0 07/...

Catalog No. : 31266 **Lot No.:** A0186840

Description : Florida TRPH Standard

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

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

Expiration Date : July 31, 2029 **Storage:** 25°C nominal

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

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	n-Octane (C8) **CAS #** 111-65-9 (Lot SHBN3807) **Purity** 99%	505.0 µg/mL	+/- 2.9995 µg/mL +/- 12.5465 µg/mL +/- 15.0390 µg/mL	Gravimetric Unstressed Stressed
2	n-Decane (C10) **CAS #** 124-18-5 (Lot SHBN8619) **Purity** 99%	503.0 µg/mL	+/- 2.9877 µg/mL +/- 12.4968 µg/mL +/- 14.9795 µg/mL	Gravimetric Unstressed Stressed
3	n-Dodecane (C12) **CAS #** 112-40-3 (Lot SHBN7174) **Purity** 99%	503.5 µg/mL	+/- 2.9906 µg/mL +/- 12.5092 µg/mL +/- 14.9944 µg/mL	Gravimetric Unstressed Stressed
4	n-Tetradecane (C14) **CAS #** 629-59-4 (Lot STBK2282) **Purity** 99%	505.0 µg/mL	+/- 2.9995 µg/mL +/- 12.5465 µg/mL +/- 15.0390 µg/mL	Gravimetric Unstressed Stressed
5	n-Hexadecane (C16) **CAS #** 544-76-3 (Lot SHBM4146) **Purity** 98%	504.7 µg/mL	+/- 2.9978 µg/mL +/- 12.5390 µg/mL +/- 15.0301 µg/mL	Gravimetric Unstressed Stressed
6	n-Octadecane (C18) **CAS #** 593-45-3 (Lot VZKOJ) **Purity** 97%	504.4 µg/mL	+/- 2.9960 µg/mL +/- 12.5316 µg/mL +/- 15.0212 µg/mL	Gravimetric Unstressed Stressed
7	n-Eicosane (C20) **CAS #** 112-95-8 (Lot MKCF7888) **Purity** 99%	503.5 µg/mL	+/- 2.9906 µg/mL +/- 12.5092 µg/mL +/- 14.9944 µg/mL	Gravimetric Unstressed 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)

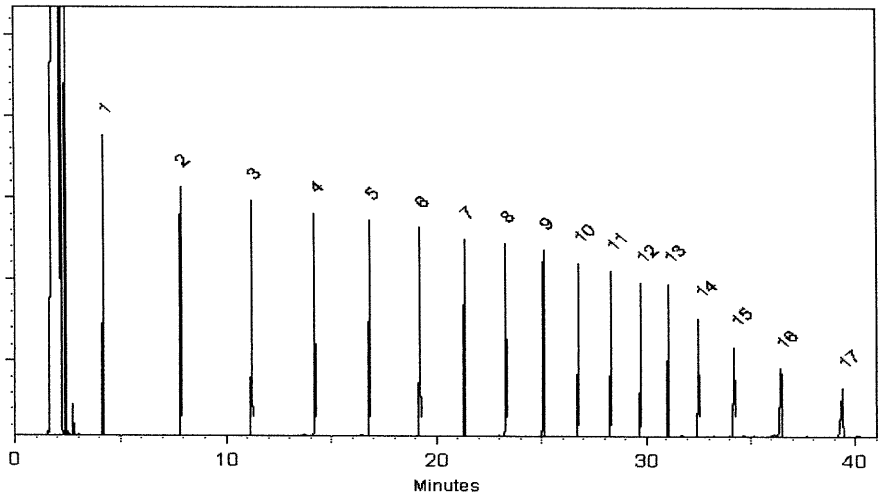
Carrier Gas:
hydrogen-constant pressure 10 psi.

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 - Operations Tech I

Date Mixed: 29-Jun-2022 **Balance:** 1128360905

Christie Mills - Operations Tech II - ARM QC

Date Passed: 01-Jul-2022

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

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

Certified Uncertainty Value Notes:

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

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

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.

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

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

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P11948 & P11962 } 7.6 07/...

Catalog No. : 31266 **Lot No.:** A0186840

Description : Florida TRPH Standard

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

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

Expiration Date : July 31, 2029 **Storage:** 25°C nominal

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

CERTIFIED VALUES

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2	n-Decane (C10) **CAS #** 124-18-5 (Lot SHBN8619) **Purity** 99%	503.0 µg/mL	+/- 2.9877 µg/mL +/- 12.4968 µg/mL +/- 14.9795 µg/mL	Gravimetric Unstressed Stressed
3	n-Dodecane (C12) **CAS #** 112-40-3 (Lot SHBN7174) **Purity** 99%	503.5 µg/mL	+/- 2.9906 µg/mL +/- 12.5092 µg/mL +/- 14.9944 µg/mL	Gravimetric Unstressed Stressed
4	n-Tetradecane (C14) **CAS #** 629-59-4 (Lot STBK2282) **Purity** 99%	505.0 µg/mL	+/- 2.9995 µg/mL +/- 12.5465 µg/mL +/- 15.0390 µg/mL	Gravimetric Unstressed Stressed
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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:
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@ 10°C/min. (hold 10 min.)

Inj. Temp:
250°C

Det. Temp:
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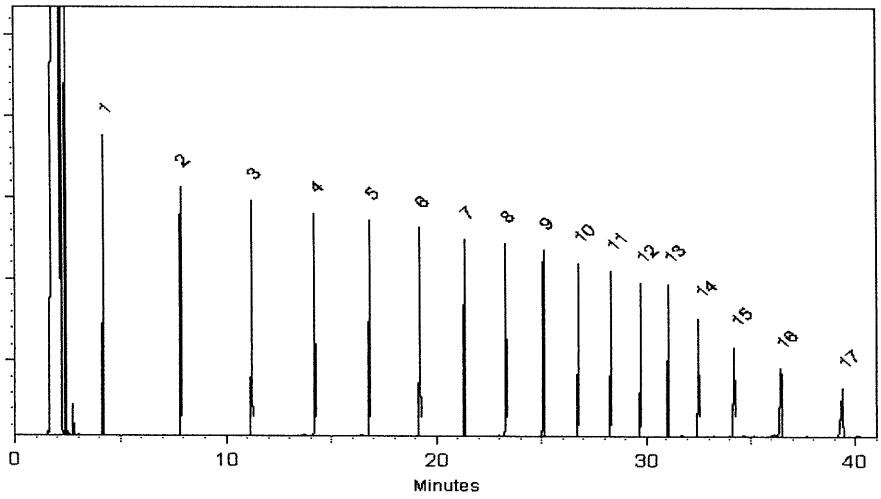
Det. Type:
FID



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Brittany Federinko - Operations Tech I

Date Mixed: 29-Jun-2022 **Balance:** 1128360905

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:

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Det. Type:
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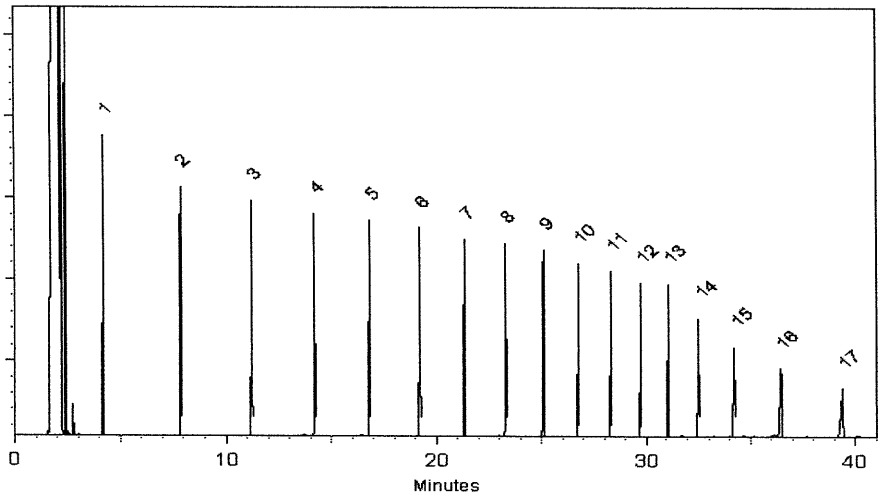

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Brittany Federinko - Operations Tech I

Date Mixed: 29-Jun-2022 **Balance:** 1128360905

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

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

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.

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

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

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.

P11948 & P11962 } 7.6 07/...

Catalog No. : 31266 **Lot No.:** A0186840

Description : Florida TRPH Standard

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

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

Expiration Date : July 31, 2029 **Storage:** 25°C nominal

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

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	n-Octane (C8) **CAS #** 111-65-9 (Lot SHBN3807) **Purity** 99%	505.0 µg/mL	+/- 2.9995 µg/mL +/- 12.5465 µg/mL +/- 15.0390 µg/mL	Gravimetric Unstressed Stressed
2	n-Decane (C10) **CAS #** 124-18-5 (Lot SHBN8619) **Purity** 99%	503.0 µg/mL	+/- 2.9877 µg/mL +/- 12.4968 µg/mL +/- 14.9795 µg/mL	Gravimetric Unstressed Stressed
3	n-Dodecane (C12) **CAS #** 112-40-3 (Lot SHBN7174) **Purity** 99%	503.5 µg/mL	+/- 2.9906 µg/mL +/- 12.5092 µg/mL +/- 14.9944 µg/mL	Gravimetric Unstressed Stressed
4	n-Tetradecane (C14) **CAS #** 629-59-4 (Lot STBK2282) **Purity** 99%	505.0 µg/mL	+/- 2.9995 µg/mL +/- 12.5465 µg/mL +/- 15.0390 µg/mL	Gravimetric Unstressed Stressed
5	n-Hexadecane (C16) **CAS #** 544-76-3 (Lot SHBM4146) **Purity** 98%	504.7 µg/mL	+/- 2.9978 µg/mL +/- 12.5390 µg/mL +/- 15.0301 µg/mL	Gravimetric Unstressed Stressed
6	n-Octadecane (C18) **CAS #** 593-45-3 (Lot VZKOJ) **Purity** 97%	504.4 µg/mL	+/- 2.9960 µg/mL +/- 12.5316 µg/mL +/- 15.0212 µg/mL	Gravimetric Unstressed Stressed
7	n-Eicosane (C20) **CAS #** 112-95-8 (Lot MKCF7888) **Purity** 99%	503.5 µg/mL	+/- 2.9906 µg/mL +/- 12.5092 µg/mL +/- 14.9944 µg/mL	Gravimetric Unstressed 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)

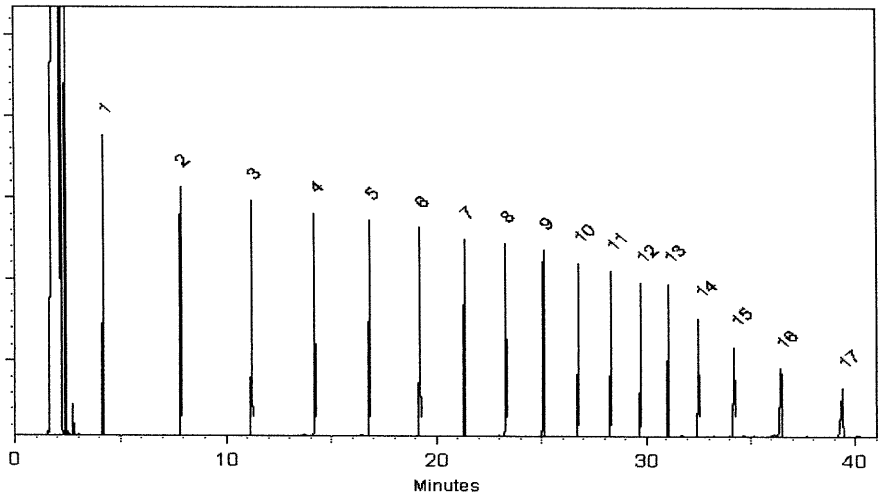
Carrier Gas:
hydrogen-constant pressure 10 psi.

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 - Operations Tech I

Date Mixed: 29-Jun-2022 **Balance:** 1128360905

Christie Mills - Operations Tech II - ARM QC

Date Passed: 01-Jul-2022

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

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

Certified Uncertainty Value Notes:

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

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

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

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

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

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

Manufacturing Notes:

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

Handling Notes:

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

CERTIFIED WEIGHT REPORT

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

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

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

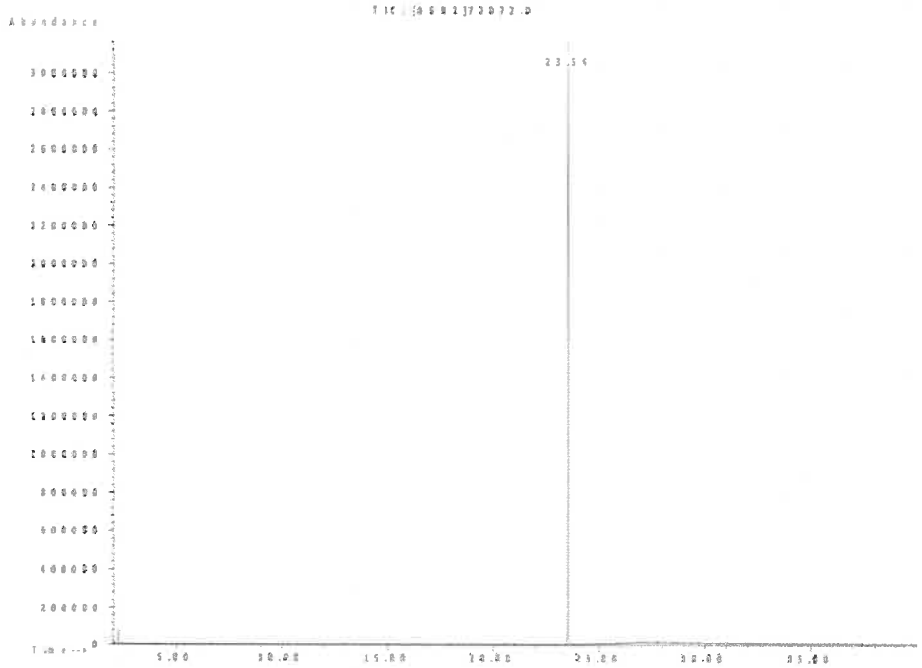
5E-05 Balance Uncertainty
0.058 Flask Uncertainty

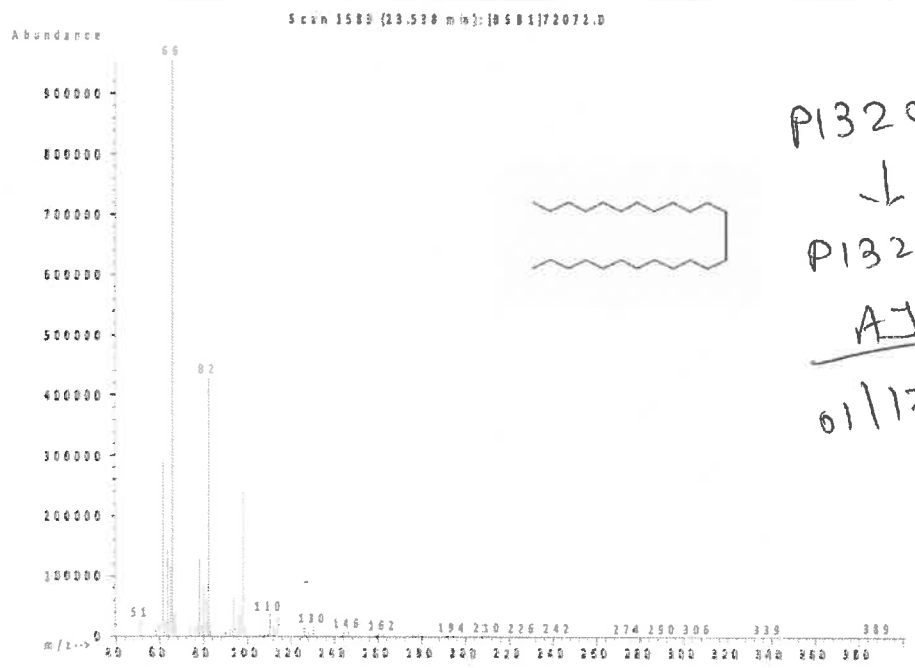
Weight(s) shown below were combined and diluted to (mL): 200.0

Formulated By:	Prashant Chauhan	101122 DATE
Reviewed By:	Pedro L. Rentas	101122 DATE

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





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- 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).

CPI INTERNATIONAL

5580 Skylane Blvd
Santa Rosa, CA 95403

(707)525-5788
(800)878-7654 Toll Free
(707)545-7901 Fax

Manufacturer's Quality System
Audited & Registered
by TUV USA to ISO 9001:2015

Date Received:_____

Certificate of Analysis

Rev 0

Catalog No.:	Lot No.:	Storage:	Solvent:	Exp. Date:	Description:
Z-110400-05 -01	514983	≤ -10 Degrees C	Hexane	11/20/2028	TRPH Standard (C8-C40), 500 mg/L, 1 ml

Compound	CAS No.	Purity (%)	Compound Lot No.	Concentration, mg/L
decane (C10)	124-18-5	99.7	415.7.2P	498.5 ± 6.92
docosane (C22)	629-97-0	98.8	420.9.1P	499.4 ± 6.93
dodecane (C12)	112-40-3	99.7	416.9.3P	502 ± 6.97
dotriacontane (C32)	544-85-4	97	425.9.2.2P	499.6 ± 8.53
eicosane (C20)	112-95-8	99.8	419.7.1P	501 ± 6.95
hexacosane (C26)	630-01-3	99.3	422.7.2.1P	501 ± 6.95
hexatriacontane (C36)	630-06-8	98	427.29.1.1P	499.3 ± 8.53
n-hexadecane (C16)	544-76-3	99.45	368.271.1P	498.7 ± 6.91
octacosane (C28)	630-02-4	99.1	423.24.1P	500.5 ± 6.95
n-octadecane (C18)	593-45-3	99.5	418.29.1P	499.5 ± 6.92
octane (C8)	111-65-9	99.4	385.7.2.1P	498.5 ± 6.92
octatriacontane (C38)	7194-85-6	95	428.1.2P	500.2 ± 6.94
tetracontane (C40)	4181-95-7	97	429.7.2P	499.6 ± 6.93
n-tetracosane (C24)	646-31-1	99.5	421.7.1P	499.5 ± 6.93
n-tetradecane (C14)	629-59-4	99.3	417.9.1P	500 ± 6.94
tetratriacontane (C34)	14167-59-0	96.1	426.7.2.2P	499.7 ± 8.53
triacontane (C30)	638-68-6	99.5	424.7.1.1P	500 ± 6.94

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01/31/24

*Not a certified value

Let the standard warm to room temperature and sonicate before opening.

Certified By: Andrea Schaible

Andrea Schaible
Chemist

All weights are traceable through N. I. S. T. Test No. 822/264157-00.
Concentration (correct for purity) and uncertainty (95% confidence) values listed are determined gravimetricly.

CPI INTERNATIONAL

5580 Skylane Blvd
Santa Rosa, CA 95403

(707)525-5788
(800)878-7654 Toll Free
(707)545-7901 Fax

Manufacturer's Quality System
Audited & Registered
by TUV USA to ISO 9001:2015

Date Received:_____

Certificate of Analysis

Rev 0

Catalog No.:	Lot No.:	Storage:	Solvent:	Exp. Date:	Description:
Z-110400-05 -01	514983	≤ -10 Degrees C	Hexane	11/20/2028	TRPH Standard (C8-C40), 500 mg/L, 1 ml

Compound	CAS No.	Purity (%)	Compound Lot No.	Concentration, mg/L
decane (C10)	124-18-5	99.7	415.7.2P	498.5 ± 6.92
docosane (C22)	629-97-0	98.8	420.9.1P	499.4 ± 6.93
dodecane (C12)	112-40-3	99.7	416.9.3P	502 ± 6.97
dotriacontane (C32)	544-85-4	97	425.9.2.2P	499.6 ± 8.53
eicosane (C20)	112-95-8	99.8	419.7.1P	501 ± 6.95
hexacosane (C26)	630-01-3	99.3	422.7.2.1P	501 ± 6.95
hexatriacontane (C36)	630-06-8	98	427.29.1.1P	499.3 ± 8.53
n-hexadecane (C16)	544-76-3	99.45	368.271.1P	498.7 ± 6.91
octacosane (C28)	630-02-4	99.1	423.24.1P	500.5 ± 6.95
n-octadecane (C18)	593-45-3	99.5	418.29.1P	499.5 ± 6.92
octane (C8)	111-65-9	99.4	385.7.2.1P	498.5 ± 6.92
octatriacontane (C38)	7194-85-6	95	428.1.2P	500.2 ± 6.94
tetracontane (C40)	4181-95-7	97	429.7.2P	499.6 ± 6.93
n-tetracosane (C24)	646-31-1	99.5	421.7.1P	499.5 ± 6.93
n-tetradecane (C14)	629-59-4	99.3	417.9.1P	500 ± 6.94
tetratriacontane (C34)	14167-59-0	96.1	426.7.2.2P	499.7 ± 8.53
triacontane (C30)	638-68-6	99.5	424.7.1.1P	500 ± 6.94

P 13215
↓
P 13224

AJ
01/31/24

*Not a certified value

Let the standard warm to room temperature and sonicate before opening.

Certified By: Andrea Schaible

Andrea Schaible
Chemist

All weights are traceable through N. I. S. T. Test No. 822/264157-00.
Concentration (correct for purity) and uncertainty (95% confidence) values listed are determined gravimetricly.

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 +/- 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 +/-5% unless specifically stated on the Certified Wt. Report.

Verification: Uncertainties that are due to the analytical procedure(s) are within +/-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: U_{CRM} 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

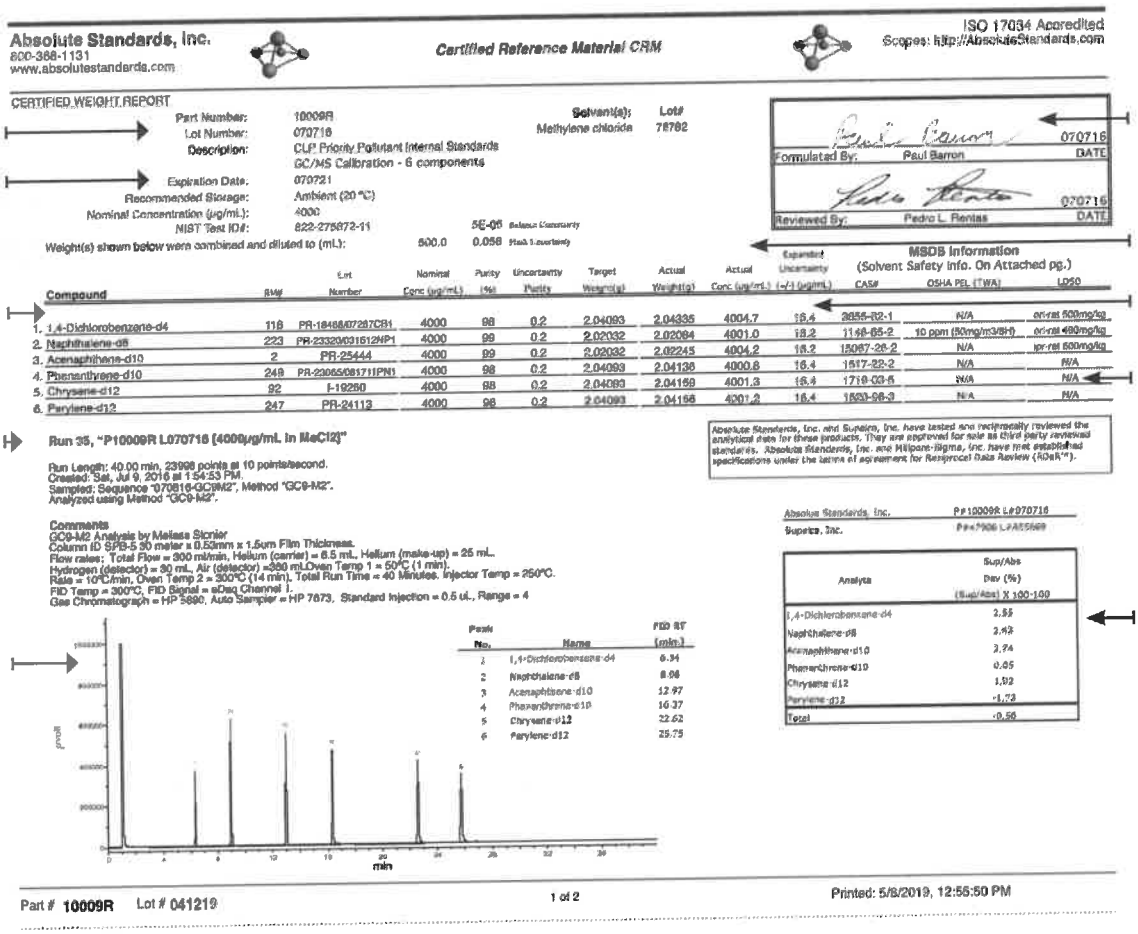
Absolute Standards, Inc. • 44 Rossotto Drive • Hamden, CT 06514
Voice: 800-368-1131 • Fax: 800-410-2577 • eMail: StephenArpie@AbsoluteStandards.com
Document Identification: Certificate of Analysis Rev 14, Date Issued: 05/30/2019

ABSOLUTE STANDARDS, INC.

ISO - 17034

Understanding the Certified Weight Report

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



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

Certified Reference Material CRM

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

CERTIFIED WEIGHT REPORT

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

Solvent(s): Methylene chloride
Lot#: 78782

Expiration Date: 070721
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 4000
NIST Test ID#: 822-275872-11

Formulated By: Paul Barron DATE 070716
Reviewed By: Pedro L. Reinlas DATE 070716

Weight(s) shown below were combined and diluted to (mL): 500.0 | 5E-05 Balance Uncertainty | 0.056 Flask Uncertainty

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

Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty Purity	Target Weight(g)	Actual Weight(g)	Actual Conc (µg/mL)	Expanded Uncertainty (+/-) (µg/mL)	CAS#	OSHA PEL (TWA)	LD50
1. 1,4-Dichlorobenzene-d4	118	PR-18488/07267CB1	4000	98	0.2	2.04093	2.04335	4004.7	16.4	3855-82-1	N/A	orl-rat 500mg/kg
2. Naphthalene-d8	223	PR-233230/31612NP1	4000	99	0.2	2.02032	2.02064	4001.0	16.2	1146-65-2	10 ppm (50mg/m3/8H)	orl-rat 490mg/kg
3. Acenaphthene-d10	2	PR-25444	4000	99	0.2	2.02032	2.02245	4004.2	16.2	15067-26-2	N/A	ipr-rat 500mg/kg
4. Phenanthrene-d10	248	PR-230650/31711PN1	4000	98	0.2	2.04093	2.04136	4000.8	16.4	1517-22-2	N/A	N/A
5. Chrysene-d12	92	I-19250	4000	98	0.2	2.04093	2.04159	4001.3	16.4	1719-03-5	N/A	N/A
6. Perylene-d12	247	PR-24113	4000	96	0.2	2.04093	2.04156	4001.2	16.4	1520-96-3	N/A	N/A

Absolute Standards, Inc. and Supelco, Inc. have tested and reciprocally reviewed the analytical data for these products. They are approved for sale as third party reviewed standards. Absolute Standards, Inc. and Millipore-Sigma, Inc. have met established specifications under the terms of agreement for Reciprocal Data Review (RDaR™).

Run 35, "P10009R L070716 (4000µg/mL in MeCl2)"

Run Length: 40.00 min, 23998 points at 10 points/second.
Created: Sat, Jul 9, 2016 at 1:54:53 PM.
Sampled: Sequence "070816-GC9M2", Method "GC9-M2".
Analyzed using Method "GC9-M2".

Comments
GC9-M2 Analysis by Melissa Sicnier
Column ID SPB-5 30 meter x 0.53mm x 1.5um Film Thickness.
Flow rates: Total Flow = 300 ml/min, Helium (carrier) = 6.5 mL, Helium (make-up) = 25 mL.
Hydrogen (detector) = 30 mL, Air (detector) =300 mL.Oven Temp 1 = 50°C (1 min).
Rate = 10°C/min, Oven Temp 2 = 300°C (14 min). Total Run Time = 40 Minutes. Injector Temp = 250°C.
FID Temp = 300°C, FID Signal = aDaq Channel 1.
Gas Chromatograph = HP 5890, Auto Sampler = HP 7673, Standard Injection = 0.5 uL, Range = 4

Peak No.	Name	FID RT (min.)
1	1,4-Dichlorobenzene-d4	6.34
2	Naphthalene-d8	8.06
3	Acenaphthene-d10	12.97
4	Phenanthrene-d10	16.37
5	Chrysene-d12	22.62
6	Perylene-d12	25.75

Absolute Standards, Inc. P# 10009R L# 070716
Supelco, Inc. P# [illegible] L# [illegible]

Analyte	Sup/Abs Dev (%) (Sup/Abs) X 100-100
1,4-Dichlorobenzene-d4	2.55
Naphthalene-d8	2.43
Acenaphthene-d10	3.74
Phenanthrene-d10	0.05
Chrysene-d12	1.02
Perylene-d12	-1.73
Total	-0.56

min

Part # 10009R Lot # 041219 1 of 2 Printed: 5/8/2019, 12:55:50 PM

Part # / Lot # / Shelf Life

Formulator / Reviewer

Actual Concentration

Target Compounds

Uncertainty Values

Health & Safety

Method of Analysis

3rd Party Comparison

Qualitative / Quantitative

For More Information, Contact:

StephenArpie@AbsoluteStandards.com

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

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

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT

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

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

Solvent(s):	Lot#
Methylene chloride	105345

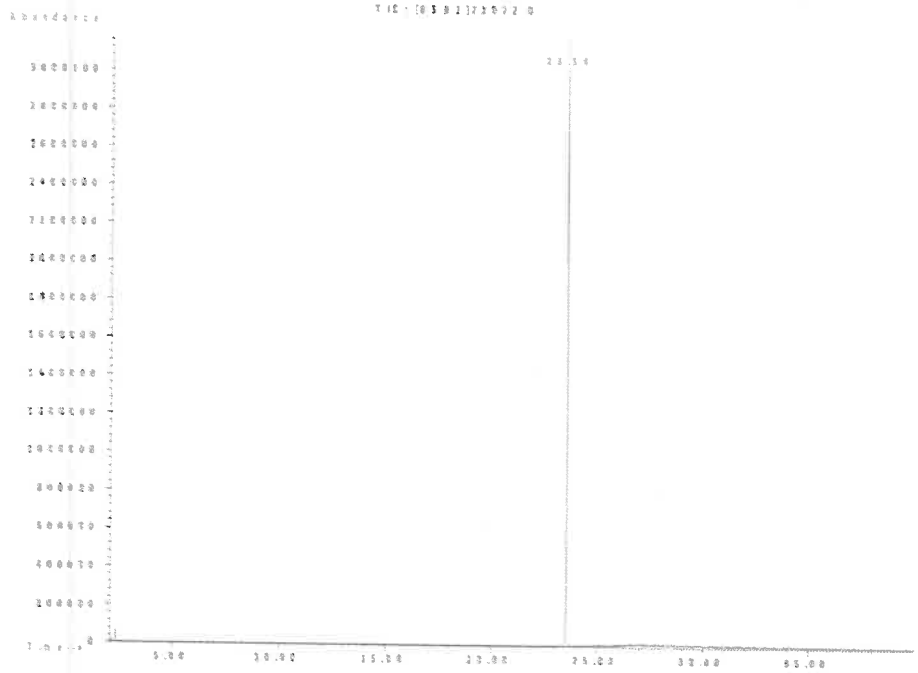
P13477 → P13496 } X.P. 07/24/24

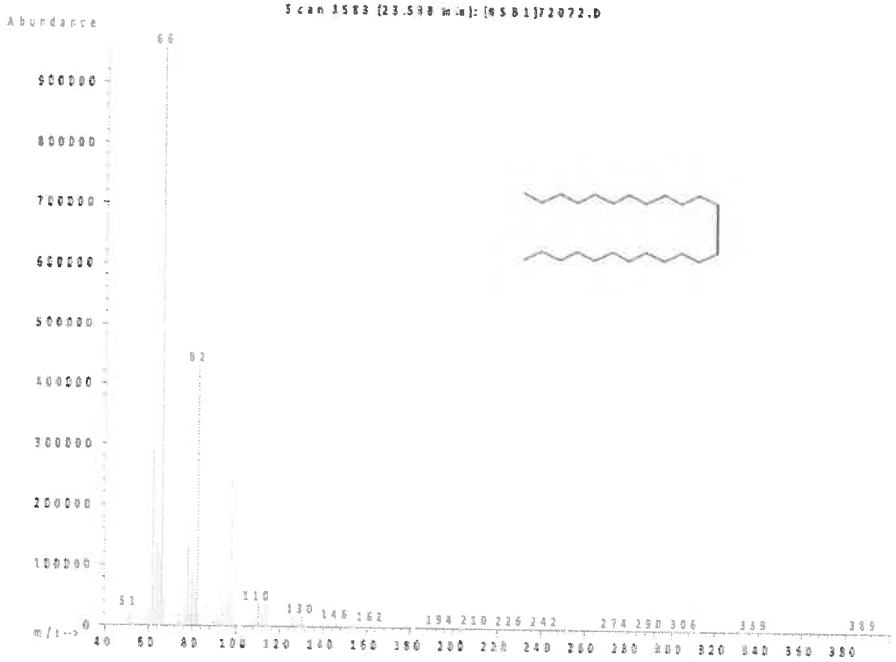
5E-05 Balance Uncertainty
Weight(s) shown below were combined and diluted to (mL): 200.0 0.058 Flask Uncertainty

Formulated By:	Prashant Chauhan	101122 DATE
Reviewed By:	Pedro L. Rentas	101122 DATE

Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty Purity	Assay (%D)	Target Weight(g)	Actual Weight(g)	Actual Conc (µg/mL)	Expanded Uncertainty (+/-) (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) 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 +/- 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 +/-5% unless specifically stated on the Certified Wt. Report.

Verification: Uncertainties that are due to the analytical procedure(s) are within +/-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: U_{CRM} 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

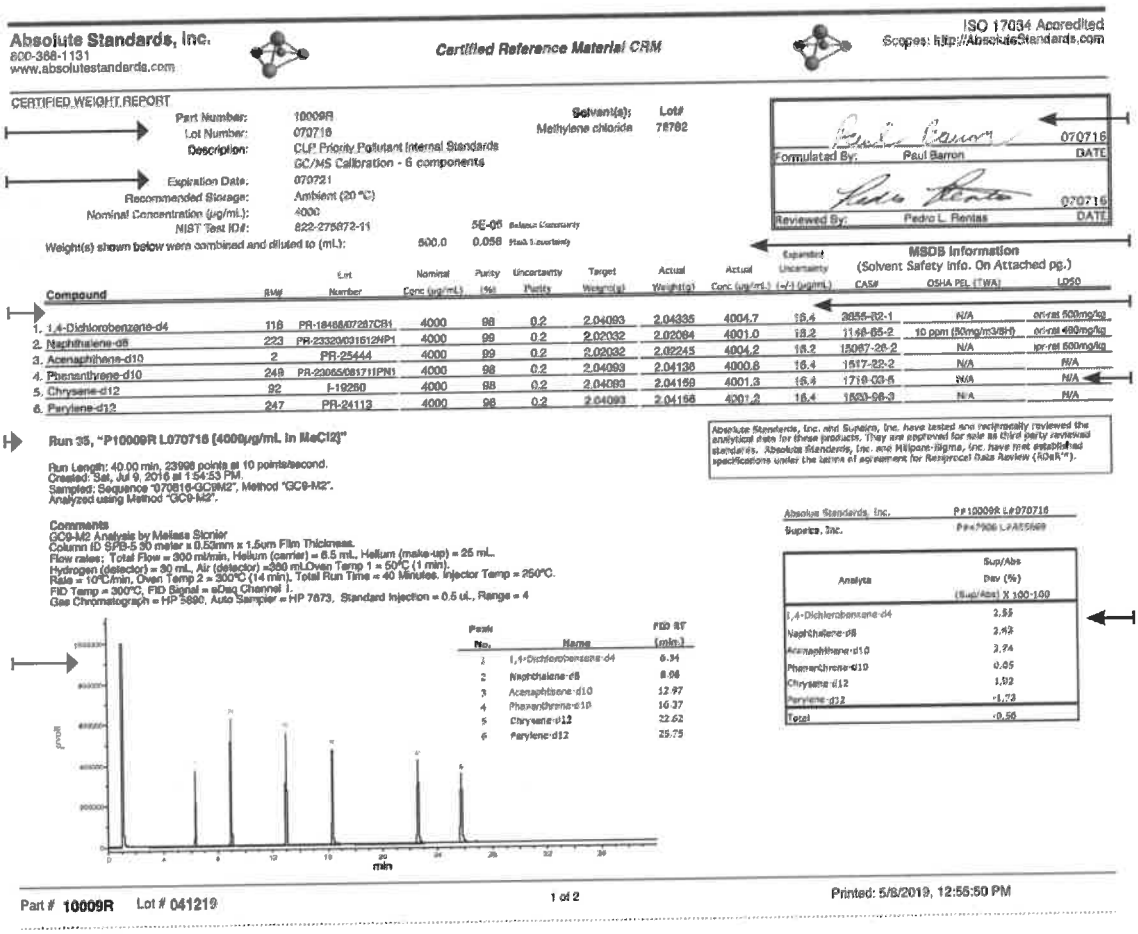
Absolute Standards, Inc. • 44 Rossotto Drive • Hamden, CT 06514
Voice: 800-368-1131 • Fax: 800-410-2577 • eMail: StephenArpie@AbsoluteStandards.com
Document Identification: Certificate of Analysis Rev 14, Date Issued: 05/30/2019

ABSOLUTE STANDARDS, INC.

ISO - 17034

Understanding the Certified Weight Report

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



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

Certified Reference Material CRM

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

CERTIFIED WEIGHT REPORT

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

Solvent(s): Methylene chloride
Lot# 78782

Expiration Date: 070721
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 4000
NIST Test ID#: 822-275872-11

Formulated By: Paul Barron DATE 070716
Reviewed By: Pedro L. Reinas DATE 070716

Weight(s) shown below were combined and diluted to (mL): 500.0 0.058

Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty Purity	Target Weight(g)	Actual Weight(g)	Actual Conc (µg/mL)	Expanded Uncertainty (+/-) (µg/mL)	CAS#	OSHA PEL (TWA)	LD50
1. 1,4-Dichlorobenzene-d4	118	PR-18488/07267CB1	4000	98	0.2	2.04093	2.04335	4004.7	16.4	3855-82-1	N/A	orl-rat 500mg/kg
2. Naphthalene-d8	223	PR-233203031612NP1	4000	99	0.2	2.02032	2.02064	4001.0	16.2	1146-65-2	10 ppm (50mg/m3/8H)	orl-rat 490mg/kg
3. Acenaphthene-d10	2	PR-25444	4000	99	0.2	2.02032	2.02245	4004.2	16.2	15067-26-2	N/A	ipr-rat 500mg/kg
4. Phenanthrene-d10	248	PR-230605081711PN1	4000	98	0.2	2.04093	2.04136	4000.8	16.4	1517-22-2	N/A	N/A
5. Chrysene-d12	92	I-19250	4000	98	0.2	2.04093	2.04159	4001.3	16.4	1719-03-5	N/A	N/A
6. Perylene-d12	247	PR-24113	4000	96	0.2	2.04093	2.04156	4001.2	16.4	1520-96-3	N/A	N/A

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

Run 35, "P10009R L070716 (4000µg/mL in MeCl2)"

Run Length: 40.00 min, 23998 points at 10 points/second.
Created: Sat, Jul 9, 2016 at 1:54:53 PM.
Sampled: Sequence "070816-GC9M2", Method "GC9-M2".
Analyzed using Method "GC9-M2".

Comments
GC9-M2 Analysis by Melissa Sicnier
Column ID SPB-5 30 meter x 0.53mm x 1.5um Film Thickness.
Flow rates: Total Flow = 300 ml/min, Helium (carrier) = 6.5 mL, Helium (make-up) = 25 mL.
Hydrogen (detector) = 30 mL, Air (detector) =300 mL.Oven Temp 1 = 50°C (1 min).
Rate = 10°C/min, Oven Temp 2 = 300°C (14 min). Total Run Time = 40 Minutes. Injector Temp = 250°C.
FID Temp = 300°C, FID Signal = aDaq Channel 1.
Gas Chromatograph = HP 5890, Auto Sampler = HP 7673, Standard Injection = 0.5 uL, Range = 4

Peak No.	Name	FID RT (min.)
1	1,4-Dichlorobenzene-d4	6.34
2	Naphthalene-d8	8.06
3	Acenaphthene-d10	12.97
4	Phenanthrene-d10	16.37
5	Chrysene-d12	22.62
6	Perylene-d12	25.75

Absolute Standards, Inc. P# 10009R L# 070716
Supelco, Inc. P# [illegible] L# [illegible]

Analyte	Sup/Abs Dev (%) (Sup/Abs) X 100-100
1,4-Dichlorobenzene-d4	2.55
Naphthalene-d8	2.43
Acenaphthene-d10	3.74
Phenanthrene-d10	0.05
Chrysene-d12	1.02
Perylene-d12	-1.73
Total	-0.56

Absolute Standards, Inc. and Supelco, Inc. have tested and reciprocally reviewed the analytical data for these products. They are approved for sale as third party reviewed standards. Absolute Standards, Inc. and Millipore-Sigma, Inc. have met established specifications under the terms of agreement for Reciprocal Data Review (RDaR™).

Part # 10009R Lot # 041219 1 of 2 Printed: 5/8/2019, 12:55:50 PM

Part # / Lot # / Shelf Life

Target Compounds

Method of Analysis

Qualitative Quantitative

Formulator Reviewer

Actual Concentration

Uncertainty Values

Health & Safety

3rd Party Comparison

For More Information, Contact:

StephenArpie@AbsoluteStandards.com

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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

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800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT

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

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

Solvent(s):	Lot#
Methylene chloride	105345

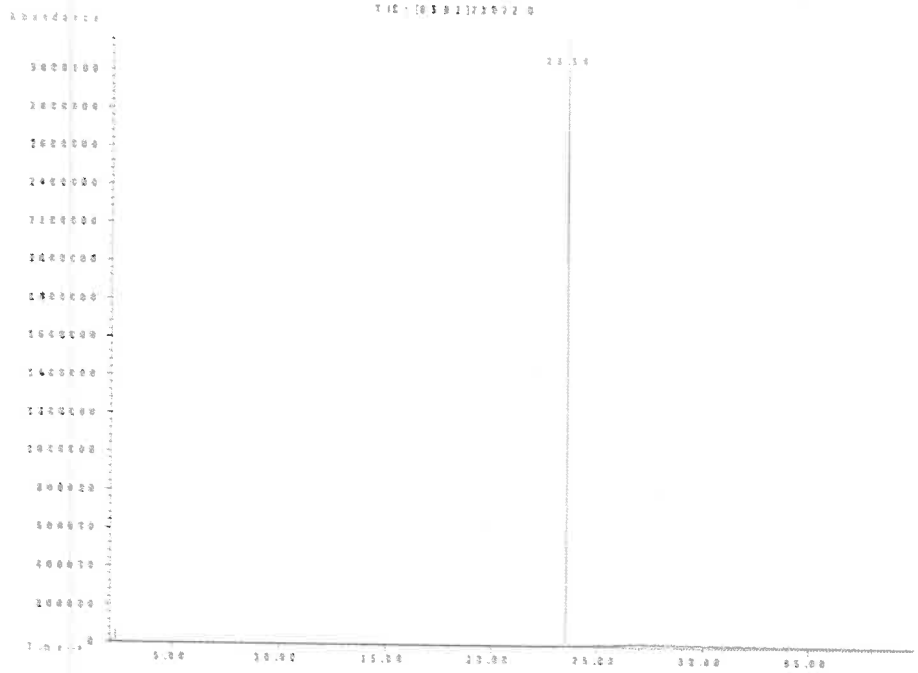
P13477 → P13496 } X.P. 07/24/24

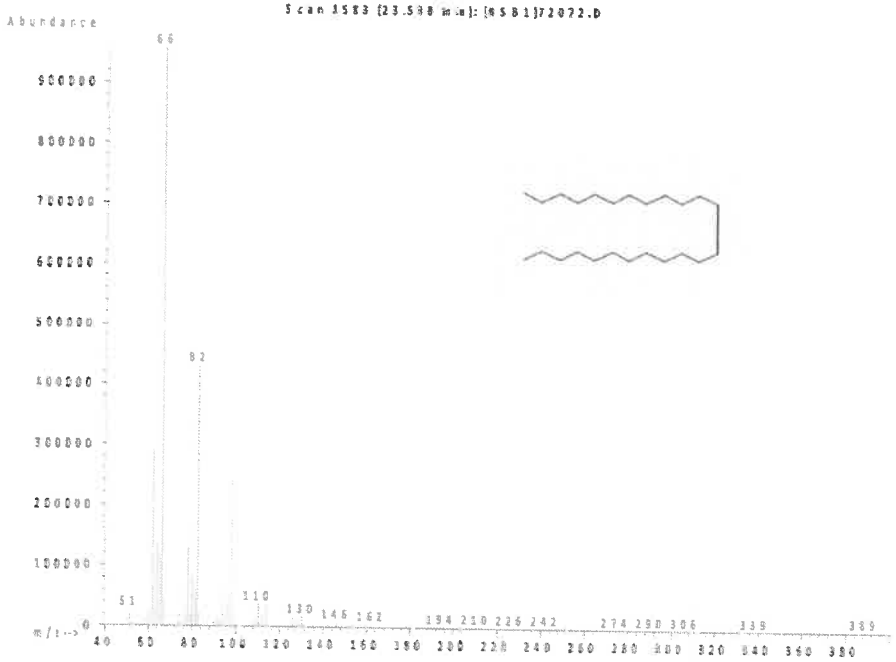
Formulated By:	Prashant Chauhan	101122 DATE
Reviewed By:	Pedro L. Rentas	101122 DATE

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

Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty Purity	Assay (%D)	Target Weight(g)	Actual Weight(g)	Actual Conc (µg/mL)	Expanded Uncertainty (+/-) (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) 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 +/- 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 +/-5% unless specifically stated on the Certified Wt. Report.

Verification: Uncertainties that are due to the analytical procedure(s) are within +/-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: U_{CRM} 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

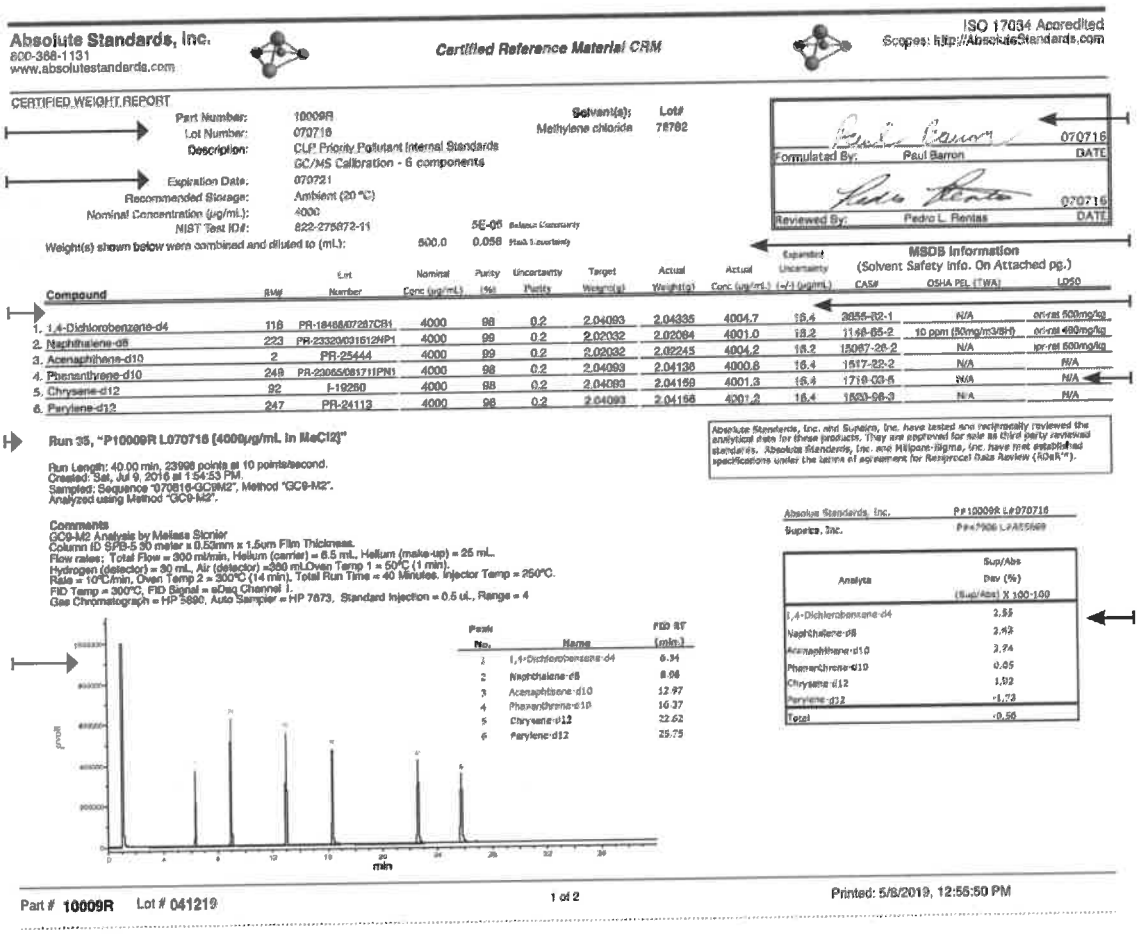
Absolute Standards, Inc. • 44 Rossotto Drive • Hamden, CT 06514
Voice: 800-368-1131 • Fax: 800-410-2577 • eMail: StephenArpie@AbsoluteStandards.com
Document Identification: Certificate of Analysis Rev 14, Date Issued: 05/30/2019

ABSOLUTE STANDARDS, INC.

ISO - 17034

Understanding the Certified Weight Report

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



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

Certified Reference Material CRM

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

CERTIFIED WEIGHT REPORT

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

Solvent(s): Methylene chloride
Lot#: 78782

Expiration Date: 070721
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 4000
NIST Test ID#: 822-275872-11

Formulated By: Paul Barron DATE 070716
Reviewed By: Pedro L. Reinlas DATE 070716

Weight(s) shown below were combined and diluted to (mL): 500.0 0.058

Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty Purity	Target Weight(g)	Actual Weight(g)	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-18488/07267CB1	4000	98	0.2	2.04093	2.04335	4004.7	16.4	3855-82-1	N/A	orl-rat 500mg/kg
2. Naphthalene-d8	223	PR-233230/31612NP1	4000	99	0.2	2.02032	2.02064	4001.0	16.2	1146-65-2	10 ppm (50mg/m3/8H)	orl-rat 480mg/kg
3. Acenaphthene-d10	2	PR-25444	4000	99	0.2	2.02032	2.02245	4004.2	16.2	15067-26-2	N/A	ipr-rat 500mg/kg
4. Phenanthrene-d10	248	PR-230650/31711PN1	4000	98	0.2	2.04093	2.04136	4000.8	16.4	1517-22-2	N/A	N/A
5. Chrysene-d12	92	I-19250	4000	98	0.2	2.04093	2.04159	4001.3	16.4	1719-03-5	N/A	N/A
6. Perylene-d12	247	PR-24113	4000	96	0.2	2.04093	2.04156	4001.2	16.4	1520-96-3	N/A	N/A

Absolute Standards, Inc. and Supelco, Inc. have tested and reciprocally reviewed the analytical data for these products. They are approved for sale as third party reviewed standards. Absolute Standards, Inc. and Millipore-Sigma, Inc. have met established specifications under the terms of agreement for Reciprocal Data Review (RDaR™).

Run 35, "P10009R L070716 (4000µg/mL in MeCl2)"

Run Length: 40.00 min, 23998 points at 10 points/second.
Created: Sat, Jul 9, 2016 at 1:54:53 PM.
Sampled: Sequence "070816-GC9M2", Method "GC9-M2".
Analyzed using Method "GC9-M2".

Comments
GC9-M2 Analysis by Melissa Sicnier
Column ID SPB-5 30 meter x 0.53mm x 1.5um Film Thickness.
Flow rates: Total Flow = 300 ml/min, Helium (carrier) = 6.5 mL, Helium (make-up) = 25 mL.
Hydrogen (detector) = 30 mL, Air (detector) =300 mL.Oven Temp 1 = 50°C (1 min).
Rate = 10°C/min, Oven Temp 2 = 300°C (14 min). Total Run Time = 40 Minutes. Injector Temp = 250°C.
FID Temp = 300°C, FID Signal = aDaq Channel 1.
Gas Chromatograph = HP 5890, Auto Sampler = HP 7673, Standard Injection = 0.5 uL, Range = 4

Peak No.	Name	FID RT (min.)
1	1,4-Dichlorobenzene-d4	6.34
2	Naphthalene-d8	8.06
3	Acenaphthene-d10	12.97
4	Phenanthrene-d10	16.37
5	Chrysene-d12	22.62
6	Perylene-d12	25.75

Absolute Standards, Inc. P# 10009R L# 070716
Supelco, Inc. P# [illegible] L# [illegible]

Analyte	Sup/Abs Dev (%) (Sup/Abs) X 100-100
1,4-Dichlorobenzene-d4	2.55
Naphthalene-d8	2.43
Acenaphthene-d10	3.74
Phenanthrene-d10	0.05
Chrysene-d12	1.02
Perylene-d12	-1.73
Total	-0.56

Part # 10009R Lot # 041219 1 of 2 Printed: 5/8/2019, 12:55:50 PM

Part # / Lot # / Shelf Life

Formulator / Reviewer

Actual Concentration

Target Compounds

Uncertainty Values

Health & Safety

Method of Analysis

3rd Party Comparison

Qualitative / Quantitative

For More Information, Contact:

StephenArpie@AbsoluteStandards.com

Absolute Standards, Inc. • 44 Rossotto Drive • Hamden, CT 06514
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Document Identification: Certificate of Analysis Rev 14, Date Issued: 05/30/2019

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

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT

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

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

Solvent(s):	Lot#
Methylene chloride	105345

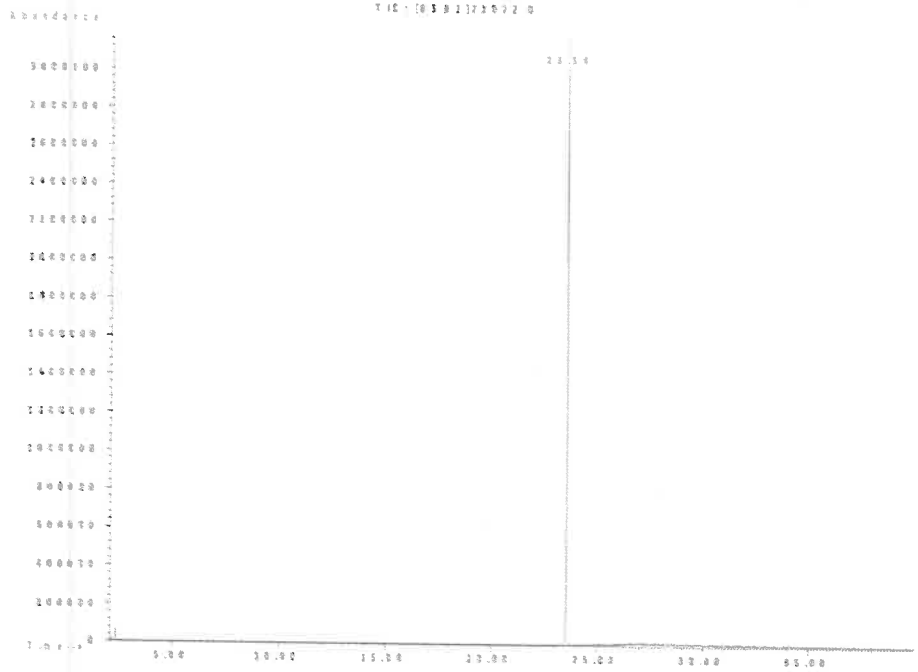
P13477 → P13496 } X.P. 07/24/24

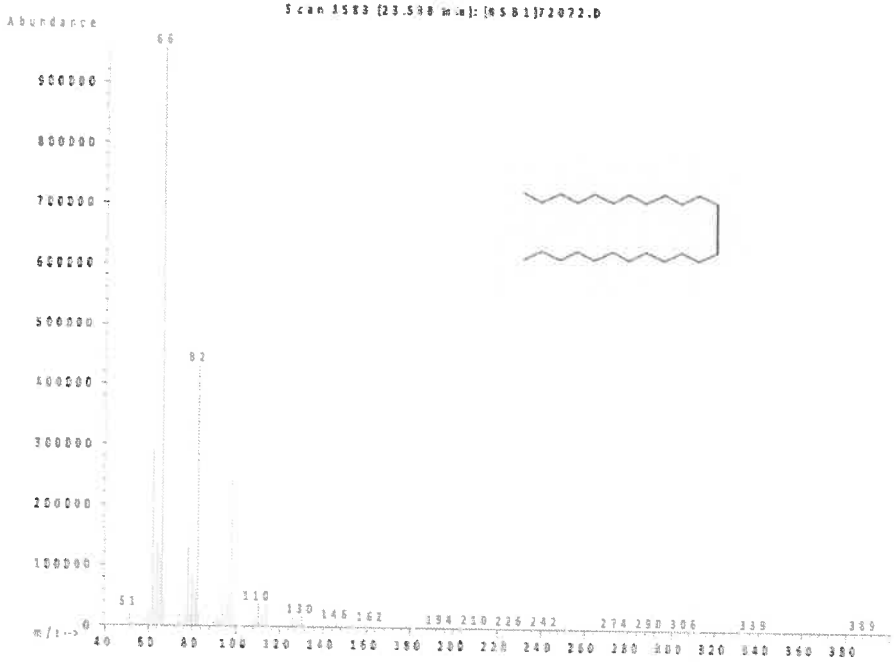
Formulated By:	Prashant Chauhan	101122 DATE
Reviewed By:	Pedro L. Rentas	101122 DATE

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

Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty Purity	Assay (%D)	Target Weight(g)	Actual Weight(g)	Actual Conc (µg/mL)	Expanded Uncertainty (+/-) (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) 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 +/- 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 +/-5% unless specifically stated on the Certified Wt. Report.

Verification: Uncertainties that are due to the analytical procedure(s) are within +/-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: U_{CRM} 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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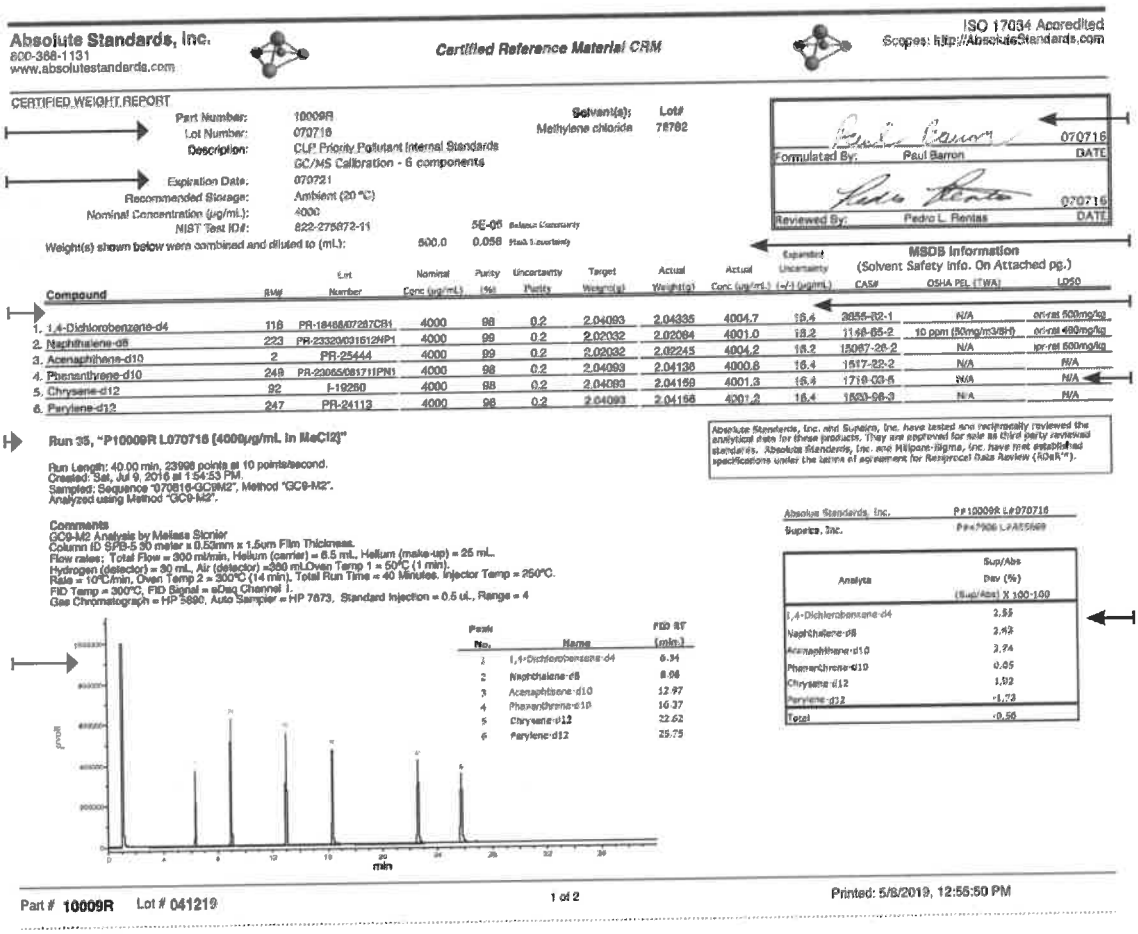
Document Identification: Certificate of Analysis Rev 14, Date Issued: 05/30/2019

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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Certified Reference Material CRM

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

CERTIFIED WEIGHT REPORT

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

Solvent(s): Methylene chloride
Lot#: 78782

Expiration Date: 070721
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 4000
NIST Test ID#: 822-275872-11

Formulated By: Paul Barron DATE 070716
Reviewed By: Pedro L. Reinlas DATE 070716

Weight(s) shown below were combined and diluted to (mL): 500.0 0.058

Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty Purity	Target Weight(g)	Actual Weight(g)	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-18488/07267CB1	4000	98	0.2	2.04093	2.04335	4004.7	16.4	3855-82-1	N/A	orl-rat 500mg/kg
2. Naphthalene-d8	223	PR-233230/31612NP1	4000	99	0.2	2.02032	2.02064	4001.0	16.2	1146-65-2	10 ppm (50mg/m3/8H)	orl-rat 480mg/kg
3. Acenaphthene-d10	2	PR-25444	4000	99	0.2	2.02032	2.02245	4004.2	16.2	15067-26-2	N/A	ipr-rat 500mg/kg
4. Phenanthrene-d10	248	PR-230650/51711PN1	4000	98	0.2	2.04093	2.04136	4000.8	16.4	1517-22-2	N/A	N/A
5. Chrysene-d12	92	I-19250	4000	98	0.2	2.04093	2.04159	4001.3	16.4	1719-03-5	N/A	N/A
6. Perylene-d12	247	PR-24113	4000	96	0.2	2.04093	2.04156	4001.2	16.4	1520-96-3	N/A	N/A

Run 35, "P10009R L070716 (4000µg/mL in MeCl2)"

Run Length: 40.00 min, 23998 points at 10 points/second.
Created: Sat, Jul 9, 2016 at 1:54:53 PM.
Sampled: Sequence "070819-GC9M2", Method "GC9-M2".
Analyzed using Method "GC9-M2".

Comments
GC9-M2 Analysis by Melissa Sicnier
Column ID SPB-5 30 meter x 0.53mm x 1.5um Film Thickness.
Flow rates: Total Flow = 300 ml/min, Helium (carrier) = 6.5 mL, Helium (make-up) = 25 mL.
Hydrogen (detector) = 30 mL, Air (detector) =300 mL.Oven Temp 1 = 50°C (1 min).
Rate = 10°C/min, Oven Temp 2 = 300°C (14 min). Total Run Time = 40 Minutes. Injector Temp = 250°C.
FID Temp = 300°C, FID Signal = aDaq Channel 1.
Gas Chromatograph = HP 5890, Auto Sampler = HP 7673, Standard Injection = 0.5 uL, Range = 4

Peak No.	Name	FID RT (min.)
1	1,4-Dichlorobenzene-d4	6.34
2	Naphthalene-d8	8.06
3	Acenaphthene-d10	12.97
4	Phenanthrene-d10	16.37
5	Chrysene-d12	22.62
6	Perylene-d12	25.75

Absolute Standards, Inc. P# 10009R L# 070716
Supelco, Inc. P# [illegible] L# [illegible]

Analyte	Sup/Abs Dev (%) (Sup/Abs) X 100-100
1,4-Dichlorobenzene-d4	2.55
Naphthalene-d8	2.43
Acenaphthene-d10	3.74
Phenanthrene-d10	0.05
Chrysene-d12	1.02
Perylene-d12	-1.73
Total	-0.56

Absolute Standards, Inc. and Supelco, Inc. have tested and reciprocally reviewed the analytical data for these products. They are approved for sale as third party reviewed standards. Absolute Standards, Inc. and Millipore-Sigma, Inc. have met established specifications under the terms of agreement for Reciprocal Data Review (RDaR™).

Part # 10009R Lot # 041219 1 of 2 Printed: 5/8/2019, 12:55:50 PM

Part # / Lot # / Shelf Life

Target Compounds

Method of Analysis

Qualitative Quantitative

Formulator Reviewer

Actual Concentration

Uncertainty Values

Health & Safety

3rd Party Comparison

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CERTIFIED WEIGHT REPORT

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

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

Solvent(s):	Lot#
Methylene chloride	105345

P13477 → P13496 } X.P. 07/24/24

Formulated By:	Prashant Chauhan	101122 DATE
Reviewed By:	Pedro L. Rentas	101122 DATE

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

Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty Purity	Assay (%D)	Target Weight(g)	Actual Weight(g)	Actual Conc (µg/mL)	Expanded Uncertainty (+/-) (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50
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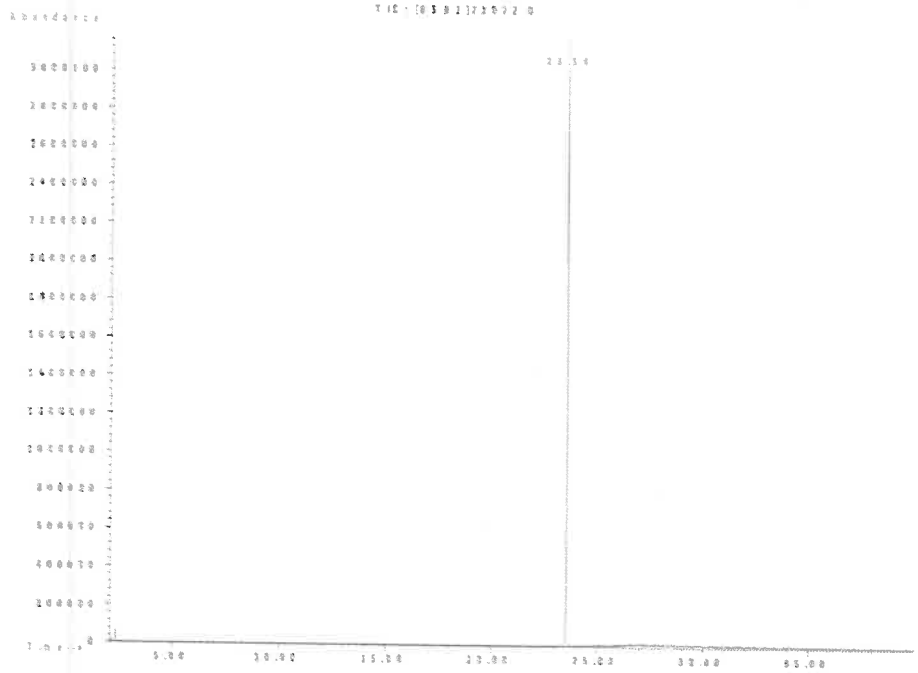
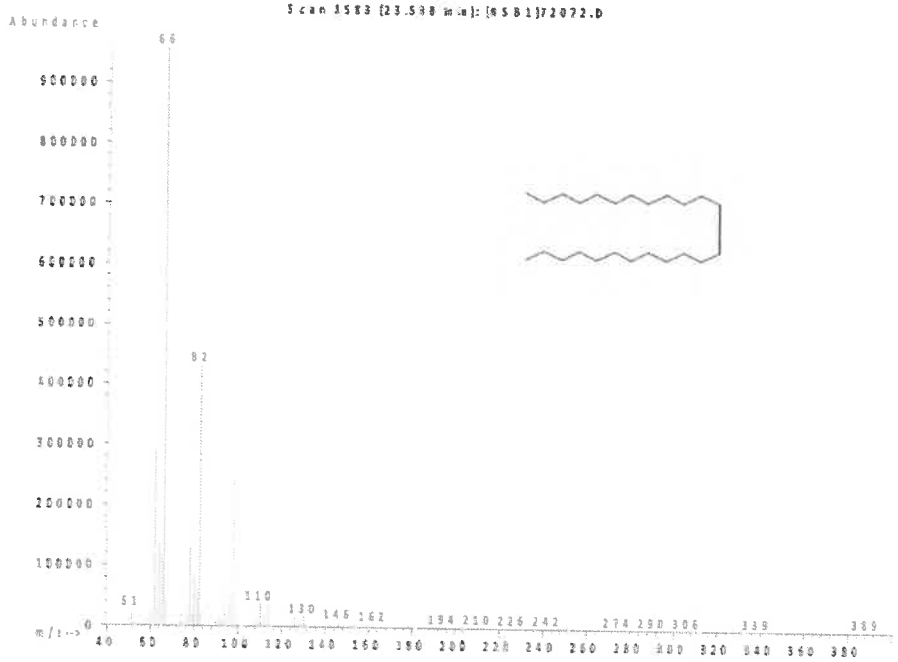
Method GC8MSD-3.M: Column:SPB-5 (30m X 0.25mm ID X 0.25µm film thickness) Temp 1 = 50°C (1min.), Temp 2 = 300°C (9min.), Rate = 10°C/min., Injector B= 250°C, Detector B = 275°C, Split Ratio = 100:1, Scan Rate = 2. Analysis performed by: Candice Warren.





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Quantitation Report (QT Reviewed)

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG031225\
Data File : FG015477.D
Signal(s) : FID1A.ch
Acq On : 12 Mar 2025 15:25
Operator : YP\AJ
Sample : Q1502-19
Misc :
ALS Vial : 24 Sample Multiplier: 1

Instrument :
FID_G
ClientSampleId :
RR-DIES-WP

Integration File: autoint1.e
Quant Time: Mar 13 03:18:27 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG030325.M
Quant Title :
QLast Update : Mon Mar 03 14:06:11 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...	15.027	2328408	21.386 ug/ml
Target Compounds			

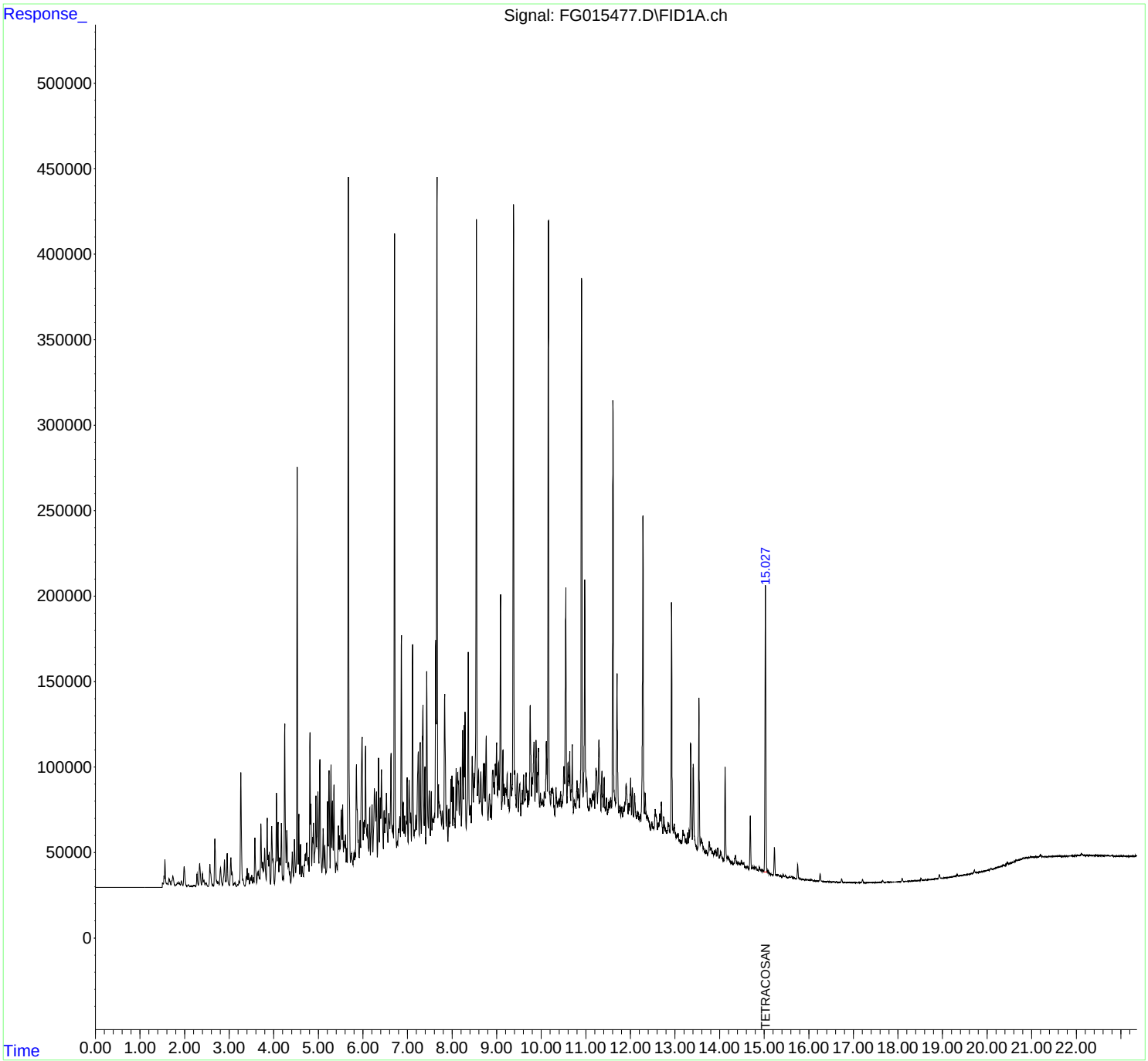
(f)=RT Delta > 1/2 Window (m)=manual int.

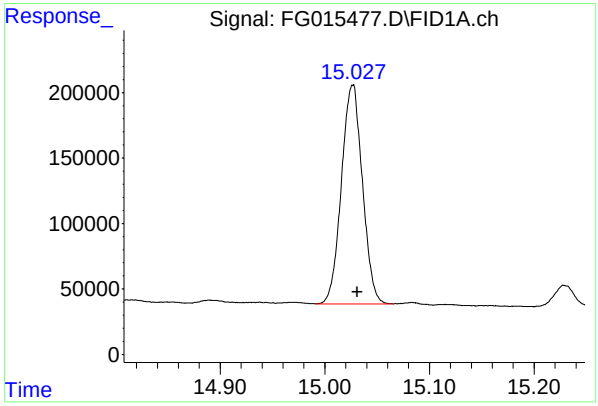
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG031225\
Data File : FG015477.D
Signal(s) : FID1A.ch
Acq On : 12 Mar 2025 15:25
Operator : YP\AJ
Sample : Q1502-19
Misc :
ALS Vial : 24 Sample Multiplier: 1

Instrument :
FID_G
ClientSampleId :
RR-DIES-WP

Integration File: autoint1.e
Quant Time: Mar 13 03:18:27 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG030325.M
Quant Title :
QLast Update : Mon Mar 03 14:06:11 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.: 15.027 min
Delta R.T.: -0.004 mi
Response: 2328408
Conc: 21.39 ug/m

Instrument :
FID_G
ClientSampleId :
RR-DIES-WP

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG031225\
Data File : FG015477.D
Signal(s) : FID1A.ch
Acq On : 12 Mar 2025 15:25
Sample : Q1502-19
Misc :
ALS Vial : 24 Sample Multiplier: 1

Integration File: Sample.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG030325.M
Title :

Signal : FID1A.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	4.992	4.961	5.013	HH	53457	988795	13.81%	0.346%
2	5.035	5.013	5.080	HH	72398	1226078	17.13%	0.429%
3	5.110	5.080	5.128	HH	32009	492644	6.88%	0.172%
4	5.145	5.128	5.172	HH	22206	352706	4.93%	0.123%
5	5.208	5.172	5.222	HH	47798	642832	8.98%	0.225%
6	5.240	5.222	5.265	HH	65522	1044477	14.59%	0.366%
7	5.284	5.265	5.300	HH	69210	804162	11.23%	0.282%
8	5.316	5.300	5.334	HH	48251	682638	9.54%	0.239%
9	5.351	5.334	5.388	HH	57448	855938	11.96%	0.300%
10	5.403	5.388	5.427	HH	11656	229132	3.20%	0.080%
11	5.449	5.427	5.463	HH	33661	465845	6.51%	0.163%
12	5.473	5.463	5.487	HH	27723	342728	4.79%	0.120%
13	5.516	5.487	5.534	HH	42773	882862	12.33%	0.309%
14	5.547	5.534	5.563	HH	45879	567697	7.93%	0.199%
15	5.575	5.563	5.599	HH	24776	484981	6.77%	0.170%
16	5.611	5.599	5.626	HH	28392	347454	4.85%	0.122%
17	5.638	5.626	5.649	HH	20441	232408	3.25%	0.081%
18	5.674	5.649	5.723	HH	412594	5425935	75.79%	1.900%
19	5.744	5.723	5.778	HH	17531	476118	6.65%	0.167%
20	5.801	5.778	5.813	HH	17837	314123	4.39%	0.110%
21	5.825	5.813	5.833	HH	18031	189503	2.65%	0.066%
22	5.854	5.833	5.891	HH	69468	1473175	20.58%	0.516%
23	5.897	5.891	5.916	HH	25225	302727	4.23%	0.106%
24	5.937	5.916	5.949	HH	36885	497035	6.94%	0.174%
25	5.981	5.949	6.008	HH	85460	1910474	26.69%	0.669%
26	6.019	6.008	6.028	HH	35586	384087	5.36%	0.134%
27	6.038	6.028	6.045	HH	36729	335736	4.69%	0.118%
28	6.060	6.045	6.093	HH	80313	1319194	18.43%	0.462%
29	6.105	6.093	6.135	HH	34535	660984	9.23%	0.231%
30	6.153	6.135	6.170	HH	44062	625870	8.74%	0.219%
31	6.205	6.170	6.225	HH	45999	1014627	14.17%	0.355%
32	6.259	6.225	6.291	HH	55441	1577365	22.03%	0.552%
33	6.306	6.291	6.325	HH	53373	753385	10.52%	0.264%
34	6.352	6.325	6.370	HH	73288	1102279	15.40%	0.386%
35	6.391	6.370	6.402	HH	50022	774038	10.81%	0.271%
36	6.416	6.402	6.459	HH	66534	1489141	20.80%	0.521%

rteres

37	6.475	6.459	6.488	HH	42376	563723	7.87%	0.197%
38	6.502	6.488	6.510	HH	38195	453240	6.33%	0.159%
39	6.529	6.510	6.562	HH	52501	1185688	16.56%	0.415%
40	6.581	6.562	6.605	HH	40923	897821	12.54%	0.314%
41	6.631	6.605	6.663	HH	75595	1569265	21.92%	0.549%
42	6.675	6.663	6.688	HH	33669	446362	6.23%	0.156%
43	6.710	6.688	6.757	HH	377617	4721974	65.96%	1.653%
44	6.770	6.757	6.781	HH	24168	331905	4.64%	0.116%
45	6.799	6.781	6.809	HH	31829	484750	6.77%	0.170%
46	6.829	6.809	6.843	HH	38786	687925	9.61%	0.241%
47	6.864	6.843	6.887	HH	144890	2000037	27.94%	0.700%
48	6.904	6.887	6.924	HH	47073	884310	12.35%	0.310%
49	6.936	6.924	6.950	HH	39407	505315	7.06%	0.177%
50	6.970	6.950	6.977	HH	35985	534603	7.47%	0.187%
51	6.992	6.977	7.013	HH	61900	925854	12.93%	0.324%
52	7.037	7.013	7.065	HH	60228	1325277	18.51%	0.464%
53	7.073	7.065	7.088	HH	41172	486107	6.79%	0.170%
54	7.115	7.088	7.148	HH	139494	2246646	31.38%	0.787%
55	7.166	7.148	7.172	HH	31086	418080	5.84%	0.146%
56	7.188	7.172	7.204	HH	39860	680725	9.51%	0.238%
57	7.241	7.204	7.262	HH	76949	1840425	25.71%	0.644%
58	7.284	7.262	7.313	HH	82327	1487271	20.77%	0.521%
59	7.347	7.313	7.374	HH	104115	2425027	33.87%	0.849%
60	7.391	7.374	7.410	HH	68273	970213	13.55%	0.340%
61	7.433	7.410	7.469	HH	123738	2185731	30.53%	0.765%
62	7.490	7.469	7.514	HH	54012	1146388	16.01%	0.401%
63	7.534	7.514	7.550	HH	53681	864697	12.08%	0.303%
64	7.564	7.550	7.572	HH	37503	467492	6.53%	0.164%
65	7.583	7.572	7.592	HH	37250	428180	5.98%	0.150%
66	7.605	7.592	7.611	HH	39365	444464	6.21%	0.156%
67	7.634	7.611	7.645	HH	142295	1796008	25.09%	0.629%
68	7.662	7.645	7.683	HH	412951	4691790	65.53%	1.643%
69	7.695	7.683	7.723	HH	57664	1137814	15.89%	0.398%
70	7.728	7.723	7.740	HH	45444	465123	6.50%	0.163%
71	7.747	7.740	7.765	HH	42019	570170	7.96%	0.200%
72	7.782	7.765	7.809	HH	42345	971784	13.57%	0.340%
73	7.835	7.809	7.869	HH	110354	2399465	33.52%	0.840%
74	7.886	7.869	7.908	HH	45587	860535	12.02%	0.301%
75	7.929	7.908	7.942	HH	43516	707977	9.89%	0.248%
76	7.952	7.942	7.958	HH	35581	335389	4.68%	0.117%
77	7.975	7.958	7.987	HH	60824	841928	11.76%	0.295%
78	8.000	7.987	8.017	HH	62859	931078	13.01%	0.326%
79	8.032	8.017	8.071	HH	56237	1367047	19.09%	0.479%
80	8.093	8.071	8.109	HH	67068	1137905	15.89%	0.398%
81	8.127	8.109	8.139	HH	64614	1009036	14.09%	0.353%
82	8.143	8.139	8.162	HH	59255	734670	10.26%	0.257%
83	8.189	8.162	8.209	HH	67815	1429016	19.96%	0.500%
84	8.237	8.209	8.255	HH	89404	1604277	22.41%	0.562%
85	8.270	8.255	8.281	HH	92093	1153318	16.11%	0.404%
86	8.294	8.281	8.318	HH	99378	1413497	19.74%	0.495%
87	8.365	8.318	8.395	HH	135239	2925189	40.86%	1.024%
88	8.415	8.395	8.432	HH	45265	915521	12.79%	0.321%
89	8.453	8.432	8.478	HH	74209	1583218	22.11%	0.554%

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90	8.493	8.478	8.505	HH	64342	936760	13.08%	0.328%
91	8.548	8.505	8.571	HH	387478	5772199	80.63%	2.021%
92	8.593	8.571	8.611	HH	65943	1376838	19.23%	0.482%
93	8.620	8.611	8.625	HH	48054	408709	5.71%	0.143%
94	8.646	8.625	8.677	HH	65094	1628875	22.75%	0.570%
95	8.705	8.677	8.718	HH	69234	1381121	19.29%	0.484%
96	8.731	8.718	8.746	HH	69949	983940	13.74%	0.345%
97	8.766	8.746	8.808	HH	85896	2146400	29.98%	0.752%
98	8.839	8.808	8.862	HH	51905	1461524	20.41%	0.512%
99	8.875	8.862	8.888	HH	44684	642296	8.97%	0.225%
100	8.909	8.888	8.933	HH	65570	1572828	21.97%	0.551%
101	8.940	8.933	8.951	HH	58879	601963	8.41%	0.211%
102	8.971	8.951	8.985	HH	69798	1275565	17.82%	0.447%
103	8.999	8.985	9.022	HH	82163	1512246	21.12%	0.530%
104	9.042	9.022	9.056	HH	70336	1251770	17.48%	0.438%
105	9.089	9.056	9.114	HH	168623	3113553	43.49%	1.090%
106	9.141	9.114	9.157	HH	78031	1504835	21.02%	0.527%
107	9.167	9.157	9.179	HH	57879	686974	9.60%	0.241%
108	9.195	9.179	9.205	HH	55759	814168	11.37%	0.285%
109	9.210	9.205	9.222	HH	54576	557672	7.79%	0.195%
110	9.237	9.222	9.255	HH	64220	1091678	15.25%	0.382%
111	9.269	9.255	9.284	HH	49004	791489	11.06%	0.277%
112	9.314	9.284	9.335	HH	64216	1689681	23.60%	0.592%
113	9.378	9.335	9.440	HH	396161	7159281	100.00%	2.507%
114	9.462	9.440	9.486	HH	63838	1466000	20.48%	0.513%
115	9.520	9.486	9.541	HH	58060	1667014	23.28%	0.584%
116	9.560	9.541	9.563	HH	46763	578480	8.08%	0.203%
117	9.577	9.563	9.590	HH	54394	795495	11.11%	0.279%
118	9.607	9.590	9.629	HH	63331	1282372	17.91%	0.449%
119	9.635	9.629	9.640	HH	49042	343324	4.80%	0.120%
120	9.660	9.640	9.694	HH	64621	1746375	24.39%	0.611%
121	9.708	9.694	9.724	HH	54051	874506	12.21%	0.306%
122	9.753	9.724	9.784	HH	104135	2592567	36.21%	0.908%
123	9.799	9.784	9.808	HH	61863	818653	11.43%	0.287%
124	9.837	9.808	9.860	HH	82272	2119847	29.61%	0.742%
125	9.885	9.860	9.905	HH	83668	1730340	24.17%	0.606%
126	9.918	9.905	9.921	HH	64896	578263	8.08%	0.202%
127	9.937	9.921	9.963	HH	79057	1584064	22.13%	0.555%
128	9.983	9.963	10.019	HH	52390	1594574	22.27%	0.558%
129	10.039	10.019	10.054	HH	48302	980238	13.69%	0.343%
130	10.070	10.054	10.085	HH	53207	957771	13.38%	0.335%
131	10.114	10.085	10.137	HH	81826	2031370	28.37%	0.711%
132	10.162	10.137	10.209	HH	387737	5814239	81.21%	2.036%
133	10.231	10.209	10.240	HH	55277	991277	13.85%	0.347%
134	10.245	10.240	10.250	HH	54823	321812	4.50%	0.113%
135	10.260	10.250	10.282	HH	54918	974401	13.61%	0.341%
136	10.286	10.282	10.307	HH	45549	633941	8.85%	0.222%
137	10.331	10.307	10.362	HH	55614	1594758	22.28%	0.558%
138	10.373	10.362	10.382	HH	47234	547225	7.64%	0.192%
139	10.394	10.382	10.420	HH	48610	1098359	15.34%	0.385%
140	10.434	10.420	10.452	HH	53348	931881	13.02%	0.326%
141	10.457	10.452	10.462	HH	45853	275912	3.85%	0.097%

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142	10.471	10.462	10.475	HH	47702	360657	5.04%	0.126%
143	10.509	10.475	10.523	HH	67784	1650771	23.06%	0.578%
144	10.550	10.523	10.577	HH	172457	3362969	46.97%	1.178%
145	10.601	10.577	10.623	HH	70104	1642411	22.94%	0.575%
146	10.640	10.623	10.660	HH	77038	1413661	19.75%	0.495%
147	10.672	10.660	10.677	HH	54491	509456	7.12%	0.178%
148	10.696	10.677	10.725	HH	80117	1742615	24.34%	0.610%
149	10.744	10.725	10.758	HH	48533	900849	12.58%	0.315%
150	10.770	10.758	10.780	HH	46364	598760	8.36%	0.210%
151	10.802	10.780	10.820	HH	59315	1278694	17.86%	0.448%
152	10.831	10.820	10.860	HH	54812	1192506	16.66%	0.418%
153	10.904	10.860	10.939	HH	350354	5851838	81.74%	2.049%
154	10.976	10.939	11.003	HH	177977	3682742	51.44%	1.289%
155	11.018	11.003	11.066	HH	60679	1892154	26.43%	0.663%
156	11.098	11.066	11.110	HH	49548	1240644	17.33%	0.434%
157	11.114	11.110	11.130	HH	48518	545010	7.61%	0.191%
158	11.147	11.130	11.164	HH	51811	1035939	14.47%	0.363%
159	11.183	11.164	11.202	HH	53745	1105624	15.44%	0.387%
160	11.228	11.202	11.263	HH	67021	2136472	29.84%	0.748%
161	11.294	11.263	11.339	HH	83564	2785205	38.90%	0.975%
162	11.359	11.339	11.392	HH	64853	1656581	23.14%	0.580%
163	11.411	11.392	11.444	HH	61336	1557141	21.75%	0.545%
164	11.463	11.444	11.485	HH	49488	1116042	15.59%	0.391%
165	11.518	11.485	11.537	HH	46998	1374363	19.20%	0.481%
166	11.558	11.537	11.577	HH	49915	1138065	15.90%	0.398%
167	11.608	11.577	11.664	HH	280614	5094089	71.15%	1.784%
168	11.699	11.664	11.741	HH	121522	3160103	44.14%	1.106%
169	11.762	11.741	11.782	HH	45050	1052541	14.70%	0.369%
170	11.803	11.782	11.825	HH	44605	1095152	15.30%	0.383%
171	11.849	11.825	11.857	HH	43995	794445	11.10%	0.278%
172	11.902	11.857	11.950	HH	57359	2719290	37.98%	0.952%
173	11.965	11.950	11.978	HH	46660	728236	10.17%	0.255%
174	12.004	11.978	12.026	HH	60833	1465649	20.47%	0.513%
175	12.043	12.026	12.073	HH	55599	1305444	18.23%	0.457%
176	12.095	12.073	12.141	HH	52534	1746833	24.40%	0.612%
177	12.165	12.141	12.198	HH	41514	1362614	19.03%	0.477%
178	12.216	12.198	12.235	HH	40232	852182	11.90%	0.298%
179	12.281	12.235	12.312	HH	212625	4184360	58.45%	1.465%
180	12.330	12.312	12.370	HH	52514	1531042	21.39%	0.536%
181	12.384	12.370	12.453	HH	39531	1775681	24.80%	0.622%
182	12.480	12.453	12.504	HH	35816	1012497	14.14%	0.355%
183	12.508	12.504	12.520	HH	33190	325836	4.55%	0.114%
184	12.554	12.520	12.604	HH	42918	1847671	25.81%	0.647%
185	12.620	12.604	12.630	HH	35386	539742	7.54%	0.189%
186	12.662	12.630	12.674	HH	40544	965149	13.48%	0.338%
187	12.692	12.674	12.725	HH	46978	1158462	16.18%	0.406%
188	12.747	12.725	12.822	HH	38594	1877273	26.22%	0.657%
189	12.846	12.822	12.887	HH	35369	1259080	17.59%	0.441%
190	12.922	12.887	12.962	HH	163569	2929165	40.91%	1.026%
191	12.982	12.962	13.027	HH	34590	1185233	16.56%	0.415%
192	13.033	13.027	13.054	HH	28055	448324	6.26%	0.157%
193	13.067	13.054	13.089	HH	29127	574406	8.02%	0.201%
194	13.093	13.089	13.107	HH	25484	272493	3.81%	0.095%

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195	13.112	13.107	13.117	HH	24972	147631	2.06%	0.052%
196	13.139	13.117	13.153	HH	24923	518440	7.24%	0.182%
197	13.177	13.153	13.232	HH	30920	1291633	18.04%	0.452%
198	13.243	13.232	13.262	HH	25977	449814	6.28%	0.158%
199	13.283	13.262	13.300	HH	29355	584804	8.17%	0.205%
200	13.315	13.300	13.328	HH	31065	466094	6.51%	0.163%
201	13.351	13.328	13.387	HH	81149	1690715	23.62%	0.592%
202	13.410	13.387	13.499	HH	69435	2137343	29.85%	0.748%
203	13.536	13.499	13.563	HH	108374	1814908	25.35%	0.635%
204	13.583	13.563	13.587	HH	25672	344760	4.82%	0.121%
205	13.590	13.587	13.599	HH	25518	174625	2.44%	0.061%
206	13.605	13.599	13.632	HH	24116	445570	6.22%	0.156%
207	13.642	13.632	13.662	HH	20587	351170	4.91%	0.123%
208	13.673	13.662	13.690	HH	18798	308349	4.31%	0.108%
209	13.705	13.690	13.730	HH	19079	424229	5.93%	0.149%
210	13.767	13.730	13.801	HH	24261	876886	12.25%	0.307%
211	13.815	13.801	13.833	HH	20577	371914	5.19%	0.130%
212	13.845	13.833	13.863	HH	18488	311498	4.35%	0.109%
213	13.882	13.863	13.898	HH	18932	380391	5.31%	0.133%
214	13.918	13.898	13.939	HH	19750	442858	6.19%	0.155%
215	13.960	13.939	13.999	HH	20649	624112	8.72%	0.219%
216	14.024	13.999	14.081	HH	18233	770359	10.76%	0.270%
217	14.122	14.081	14.169	HH	67799	1405546	19.63%	0.492%
218	14.184	14.169	14.199	HH	15635	267750	3.74%	0.094%
219	14.207	14.199	14.237	HH	14688	313225	4.38%	0.110%
220	14.240	14.237	14.261	HH	12578	172298	2.41%	0.060%
221	14.270	14.261	14.295	HH	12271	242782	3.39%	0.085%
222	14.355	14.295	14.404	HH	16412	828083	11.57%	0.290%
223	14.420	14.404	14.444	HH	12365	278138	3.88%	0.097%
224	14.458	14.444	14.470	HH	11656	174597	2.44%	0.061%
225	14.488	14.470	14.525	HH	13310	392206	5.48%	0.137%
226	14.543	14.525	14.570	HH	11950	292246	4.08%	0.102%
227	14.582	14.570	14.611	HH	9602	226984	3.17%	0.079%
228	14.632	14.611	14.660	HH	9693	269423	3.76%	0.094%
229	14.687	14.660	14.725	HH	39215	706158	9.86%	0.247%
230	14.753	14.725	14.763	HH	9344	206650	2.89%	0.072%
231	14.777	14.763	14.799	HH	9211	188721	2.64%	0.066%
232	14.811	14.799	14.840	HH	9542	214121	2.99%	0.075%
233	14.849	14.840	14.867	HH	7996	127695	1.78%	0.045%
234	14.890	14.867	14.923	HH	9354	273706	3.82%	0.096%
235	14.938	14.923	14.954	HH	7784	138021	1.93%	0.048%
236	14.971	14.954	14.991	HH	7765	164495	2.30%	0.058%
237	15.027	14.991	15.065	HH	173900	2617275	36.56%	0.916%
238	15.083	15.065	15.104	HH	7652	156684	2.19%	0.055%
239	15.114	15.104	15.177	HH	6068	235558	3.29%	0.082%
240	15.184	15.177	15.200	HH	4741	62473	0.87%	0.022%
241	15.229	15.200	15.260	HH	20652	373563	5.22%	0.131%
242	15.277	15.260	15.296	HH	4820	104276	1.46%	0.037%
243	15.308	15.296	15.332	HH	4897	100260	1.40%	0.035%
244	15.336	15.332	15.350	HH	4421	46403	0.65%	0.016%
245	15.366	15.350	15.400	HH	4345	118151	1.65%	0.041%
246	15.429	15.400	15.451	HH	4776	128360	1.79%	0.045%

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247	15.475	15.451	15.522	HH	4341	160949	2.25%	0.056%
248	15.568	15.522	15.588	HH	3949	134285	1.88%	0.047%
249	15.614	15.588	15.645	HH	3888	117470	1.64%	0.041%
250	15.654	15.645	15.659	HH	3296	25803	0.36%	0.009%
251	15.663	15.659	15.673	HH	3199	25360	0.35%	0.009%
252	15.678	15.673	15.724	HH	2877	79902	1.12%	0.028%
253	15.750	15.724	15.787	HH	10816	201052	2.81%	0.070%
254	15.805	15.787	15.830	HH	2951	68200	0.95%	0.024%
255	15.838	15.830	15.849	HH	2340	24954	0.35%	0.009%
256	15.854	15.849	15.866	HH	2139	20749	0.29%	0.007%
257	15.887	15.866	15.910	HH	2250	53625	0.75%	0.019%
258	15.933	15.910	15.969	HH	2258	68522	0.96%	0.024%
259	15.975	15.969	15.984	HH	1956	17544	0.25%	0.006%
260	15.989	15.984	15.999	HH	1908	16461	0.23%	0.006%
261	16.005	15.999	16.032	HH	1900	35608	0.50%	0.012%
262	16.050	16.032	16.055	HH	1980	25658	0.36%	0.009%
263	16.060	16.055	16.065	HH	1929	11072	0.15%	0.004%
264	16.074	16.065	16.094	HH	1937	28981	0.40%	0.010%
265	16.101	16.094	16.107	HH	1475	11617	0.16%	0.004%
266	16.116	16.107	16.157	HH	1490	40637	0.57%	0.014%
267	16.182	16.157	16.196	HH	1347	27962	0.39%	0.010%
268	16.205	16.196	16.224	HH	1267	19952	0.28%	0.007%
269	16.253	16.224	16.309	HH	5402	111490	1.56%	0.039%
270	16.315	16.309	16.333	HH	1081	12926	0.18%	0.005%
271	16.346	16.333	16.369	HH	1029	19074	0.27%	0.007%
272	16.372	16.369	16.379	HH	817	4676	0.07%	0.002%
273	16.390	16.379	16.406	HH	793	11862	0.17%	0.004%
274	16.425	16.406	16.473	HH	1007	33269	0.46%	0.012%
275	16.484	16.473	16.526	HH	775	21519	0.30%	0.008%
276	16.551	16.526	16.599	HH	779	28684	0.40%	0.010%
277	16.611	16.599	16.635	HH	740	13849	0.19%	0.005%
278	16.640	16.635	16.657	HH	575	6396	0.09%	0.002%
279	16.673	16.657	16.682	HH	510	6510	0.09%	0.002%
280	16.693	16.682	16.709	HH	484	7250	0.10%	0.003%
281	16.736	16.709	16.779	HH	2501	45385	0.63%	0.016%
282	16.801	16.779	16.835	HH	547	14669	0.20%	0.005%
283	16.840	16.835	16.857	HH	331	3674	0.05%	0.001%
284	16.862	16.857	16.866	HH	339	1515	0.02%	0.001%
285	16.906	16.866	16.930	HH	507	13397	0.19%	0.005%
286	16.934	16.930	16.938	HH	362	1669	0.02%	0.001%
287	16.943	16.938	16.963	HH	358	4739	0.07%	0.002%
288	16.970	16.963	16.996	HH	436	6042	0.08%	0.002%
289	17.030	16.996	17.054	HH	386	9462	0.13%	0.003%
290	17.092	17.054	17.119	HH	409	11513	0.16%	0.004%
291	17.124	17.119	17.135	HH	280	2037	0.03%	0.001%
292	17.142	17.135	17.147	HH	280	1286	0.02%	0.000%
293	17.167	17.147	17.174	HH	357	4237	0.06%	0.001%
294	17.207	17.174	17.280	HH	2266	44581	0.62%	0.016%
295	17.287	17.280	17.292	HH	277	1585	0.02%	0.001%

Sum of corrected areas: 285595619

SHIPPING DOCUMENTS

phenova® Certified Reference Materials | A Phenomenex® Company

Packing List

Date	Order #
03/03/2025	333289

6390 Joyce Dr., #100
Golden, CO 80403

Tel: +1-303-940-0033
Fax: +1-303-940-0043
info@phenova.com
www.phenova.com

For terms and conditions of your order, please visit:
www.phenova.com/home/termsofsale

Ship To

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

Received by: SJ
3/5/2025 14:30

Customer PO #	Terms	PT Acct #	Customer #	Ship Via	F.O.B.
PO2-1517	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	WP0325	8264-04
1	1	0	PT-HG-WP	WP Mercury	WP0325	8264-05
1	1	0	PT-SNTI-WP	WP Tin & Titanium	WP0325	8264-38
1	1	0	PT-CR6-WP	WP Hexavalent Chromium	WP0325	8264-06
1	1	0	PT-DEM-WP	WP Demand	WP0325	8264-07
			PT-MINSET-WP	WP Minerals Set : (MIN1, MIN2 and COND)		
1	1	0	PT-MIN1-WP	WP Minerals 1 Only	WP0325	8264-08
1	1	0	PT-MIN2-WP	WP Minerals 2 Only	WP0325	8264-102
1	1	0	PT-COND-WP	WP Conductivity Only	WP0325	8264-72
1	1	0	PT-SOL-WP	WP Solids	WP0325	8264-09
			PT-NUTSET-WP	WP Nutrients Set : (NUT1, NUT2 and NUT3)		
1	1	0	PT-NUT1-WP	WP NUT1 Simple Nutrients Only	WP0325	8264-10
1	1	0	PT-NUT2-WP	WP NUT2 - Complex Nutrients	WP0325	8264-11
1	1	0	PT-NUT3-WP	WP NUT3 - Nitrite Only	WP0325	8264-69
1	1	0	PT-OGR1L-WP	WP Oil and Grease 1L	WP0325	8264-103
1	1	0	PT-CL-WP	WP Residual Chlorine	WP0325	8264-13
1	1	0	PT-PH-WP	WP pH	WP0325	8264-15
1	1	0	PT-CN-WP	WP Cyanide	WP0325	8264-14
1	1	0	PT-PHEN-WP	WP Phenolics	WP0325	8264-16

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Packing List

Date	Order #
03/03/2025	333289

6390 Joyce Dr., #100
Golden, CO 80403

Tel: +1-303-940-0033
Fax: +1-303-940-0043
info@phenova.com
www.phenova.com

For terms and conditions of your order, please visit:
www.phenova.com/home/termsofsale

Ship To

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

Received by: SJ
3/5/2025 14:30

Customer PO #	Terms	PT Acct #	Customer #	Ship Via	F.O.B.
PO2-1517	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-S2-WP	WP Sulfide	WP0325	8264-22
1	1	0	PT-SSOL-WP	WP Settleable Solids	WP0325	8264-17
1	1	0	PT-TURB-WP	WP Turbidity	WP0325	8264-20
1	1	0	PT-VOA-WP	WP Volatiles	WP0325	8264-26
1	1	0	PT-BN-WP	WP Base Neutrals	WP0325	8264-27
1	1	0	PT-ACIDS-WP	WP Acids	WP0325	8264-28
1	1	0	PT-PEST-WP	WP Pesticides	WP0325	8264-29
1	1	0	PT-CHLR-WP	WP Chlordane	WP0325	8264-30
1	1	0	PT-TXP-WP	WP Toxaphene	WP0325	8264-31
1	1	0	PT-PCBW-WP	WP PCBs in Water	WP0325	8264-32
1	1	0	PT-HERB-WP	WP Herbicides	WP0325	8264-36
1	1	0	RR-TPH1L-WP	WP TPH 1L	R40367	R40367-104
1	1	0	RR-VSOL-WP	WP Volatile Solids	R40367	R40367-18
1	1	0	RR-SIO2-WP	WP Silica	R40367	R40367-21
1	1	0	RR-COL-WP	WP Color	R40367	R40367-51
1	1	0	RR-GAS-WP	WP Gasoline Range Organics	R40367	R40367-62
1	1	0	RR-DIES-WP	WP Diesel Range Organics	R40367	R40367-63
1	1	0	RR-8011-WP	WP EDB/DBCP/TCP	R40367	R40367-98
1	1	0	RR-PAH-WP	WP PAH-Low Level	R40433	R40433-37

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Packing List

Date	Order #
03/07/2025	335989

6390 Joyce Dr., #100
Golden, CO 80403

Tel: +1-303-940-0033
Fax: +1-303-940-0043
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www.phenova.com

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Ship To

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

Received by: SJ
3/11/2025 9:55

Customer PO #	Terms	PT Acct #	Customer #	Ship Via	F.O.B.
Email: Sohil Jodhani	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	R40480	R40480-108

284 Sheffield Street, Mountainside NJ 07092 (908)-789-8900 Fax : 908 789 8922

Laboratory Certification

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