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

DATA PACKAGE

GC SEMI-VOLATILES

PROJECT NAME : FT MEADE TIPTON AIRFIELD PARCEL RI - PO 0111169

WESTON SOLUTIONS

1400 Weston Way

PO Box 2653

West Chester, PA - 19380

Phone No: 610-701-7400

ORDER ID : Q1539

ATTENTION : Nathan Fretz

Laboratory Certification ID # 20012

Table Of Contents for Q1539

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Cover Page

Order ID : Q1539

Project ID : Ft Meade Tipton Airfield Parcel RI - PO 0111169

Client : Weston Solutions

Lab Sample Number	Client Sample Number
Q1539-01	TAPIAL3-MW03D-031025-00-T1
Q1539-02	TAPFTA-MW01I-031025-00-T2
Q1539-03	TAP-TB-03-031025
Q1539-04	TAP-TB-04-031025-T2

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: 3/24/2025

NYDOH CERTIFICATION NO - 11376

NJDEP CERTIFICATION NO - 20012

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CASE NARRATIVE

Weston Solutions
Project Name: Ft Meade Tipton Airfield Parcel RI - PO 0111169
Project # N/A
Chemtech Project # Q1539
Test Name: Diesel Range Organics

A. Number of Samples and Date of Receipt:
4 Water samples were received on 03/11/2025.

B. Parameters
According to the Chain of Custody document, the following analyses were requested: Ammonia, Anions Group5, Diesel Range Organics, Gasoline Range Organics, Hardness, Total, Hexavalent Chromium, Mercury, Metals ICP-TAL, METALS-TAL, Oil and Grease, PESTICIDE Group1, SVOC-TCL BNA -20, TOC and VOC-TCLVOA-10. 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 .

E. Additional Comments:

F. Calculation for Concentration in WATER samples :

The sample concentrations (Cs) in ug/L are calculated as follows:

$$Cs = \frac{\{\text{Extract DRO-net (ug/mL)}\}\{\text{Final vol. extract (mL)}\}\{Df\}}{Ws}$$

Where
DRO (net)ug/mL = DRO (total) ug /mL - DRO (solvent) ug /mL
Df = Dilution factor
Ws= Weight of sample in mL

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G. Manual Integration Comments:

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

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

Signature_____

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: Q1539 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:			✓
9.	Analysis Holding Time Met If not met, list those compounds and their recoveries which fall outside the acceptable range.			✓

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GC ANALYSIS CONFORMANCE/NON-CONFORMANCE SUMMARY (CONTINUED)

NA NO YES

ADDITIONAL COMMENTS:

_____ _____

QA REVIEW Date

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APPENDIX A

QA REVIEW GENERAL DOCUMENTATION

Project #: Q1539

	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:** 03/24/2025

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LAB CHRONICLE

OrderID:	Q1539	**OrderDate:**	3/11/2025 10:36:00 AM
Client:	Weston Solutions	**Project:**	Ft Meade Tipton Airfield Parcel RI - PO 0111169
Contact:	Nathan Fretz	**Location:**	I31,VOA Ref. #3 Water

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
Q1539-01	**TAPIAL3-MW03D-031025-00-T1**	**Water**			**03/10/25**			**03/11/25**
			Diesel Range Organics	8015D		03/12/25	03/12/25	
			Gasoline Range Organics	8015D			03/12/25	
Q1539-02	**TAPFTA-MW01I-031025-00-T2**	**Water**			**03/10/25**			**03/11/25**
			Diesel Range Organics	8015D		03/12/25	03/12/25	
			Gasoline Range Organics	8015D			03/12/25	

QC SUMMARY

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WATER DIESEL RANGE ORGANICS SURROGATE RECOVERY

Lab Name: Chemtech Client: Weston Solutions

Lab Code: CHEM Case No.: Q1539 SAS No.: Q1539 SDG No.: Q1539

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
TAPIAL3-MW03D-031025-00-T1	92				0
TAPFTA-MW01I-031025-00-T2	88				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:** Weston Solutions

Lab Code: CHEM **Cas No:** Q1539 **SAS No :** Q1539 **SDG No:** Q1539

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:** Weston Solutions

Lab Code: CHEM **Cas No:** Q1539 **SAS No :** Q1539 **SDG No:** Q1539

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: WEST04

Lab Code: CHEM Case No.: Q1539 SAS No.: Q1539 SDG NO.: Q1539

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
TAPIAL3-MW03D-031025-00-T1	Q1539-01	FG015479.D	03/12/25
TAPFTA-MW01I-031025-00-T2	Q1539-02	FG015480.D	03/12/25

COMMENTS:

Form IV

SAMPLE DATA

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Report of Analysis

Client:	Weston Solutions	Date Collected:	03/10/25
Project:	Ft Meade Tipton Airfield Parcel RI - PO 0111169	Date Received:	03/11/25
Client Sample ID:	TAPIAL3-MW03D-031025-00-T1	SDG No.:	Q1539
Lab Sample ID:	Q1539-01	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
FG015479.D	1	03/12/25 08:55	03/12/25 16:23	PB167101

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
DRO	DRO	505		10.0	25.0	50.0	ug/L
SURROGATES							
16416-32-3	Tetracosane-d50	18.4		29 - 130		92%	SPK: 20

Comments:

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

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

Quantitation Report (QT Reviewed)

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG031225\
Data File : FG015479.D
Signal(s) : FID1A.ch
Acq On : 12 Mar 2025 16:23
Operator : YP\AJ
Sample : Q1539-01
Misc :
ALS Vial : 26 Sample Multiplier: 1

Instrument :
FID_G
ClientSampleId :
TAPIAL3-MW03D-031025-00-T1

Integration File: autoint1.e
Quant Time: Mar 13 03:19:08 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	1998224	18.353 ug/ml
Target Compounds			

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

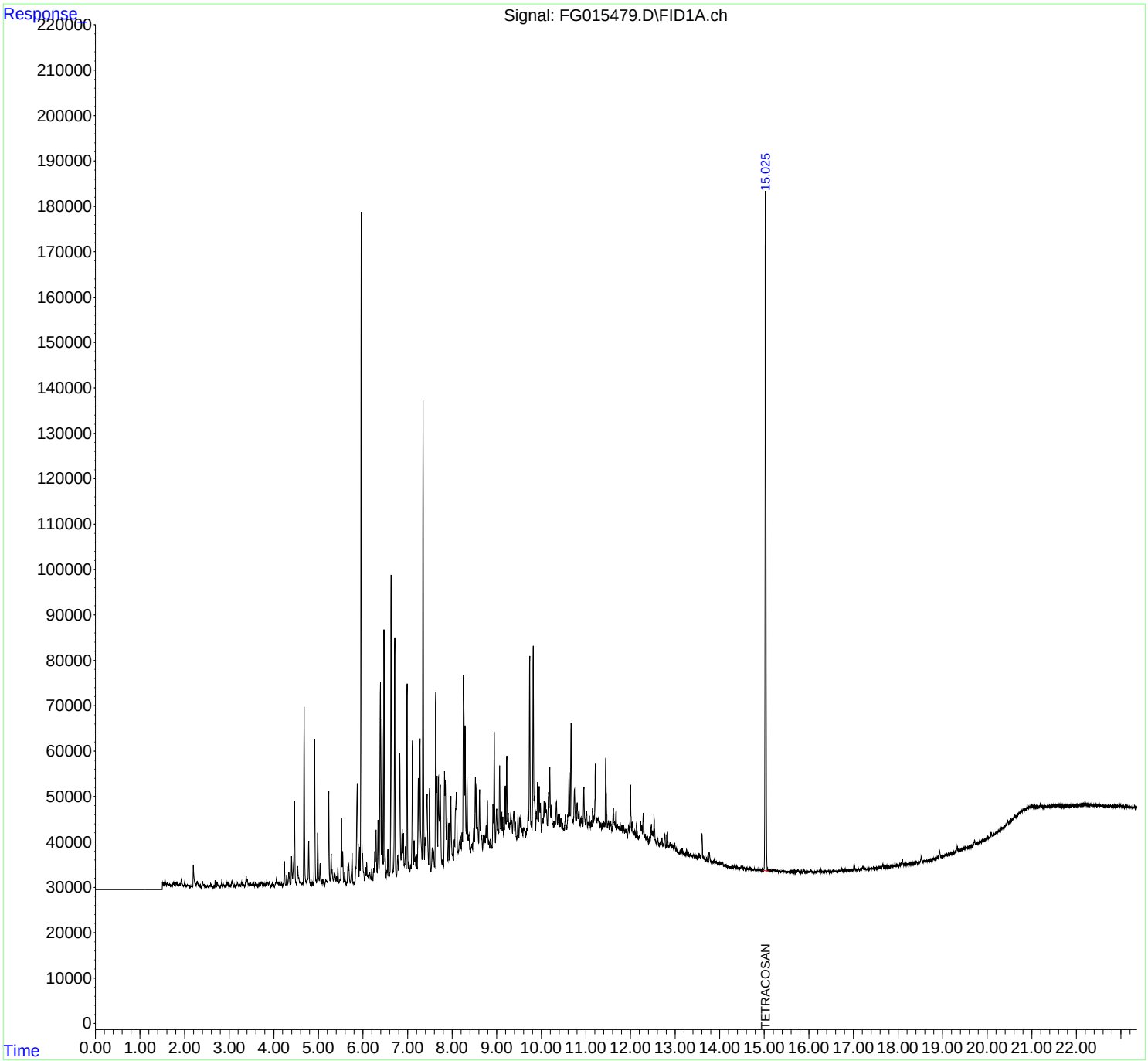
Quantitation Report (QT Reviewed)

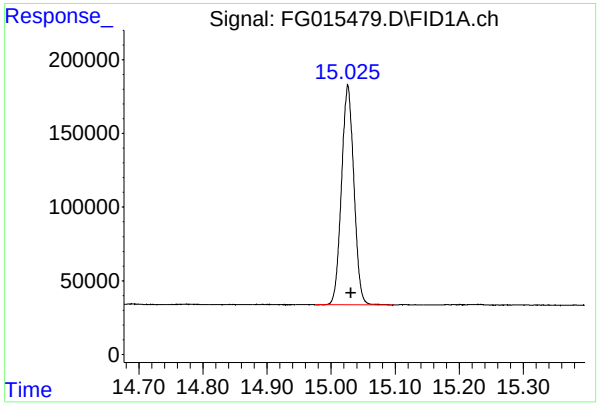
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG031225\
Data File : FG015479.D
Signal(s) : FID1A.ch
Acq On : 12 Mar 2025 16:23
Operator : YP\AJ
Sample : Q1539-01
Misc :
ALS Vial : 26 Sample Multiplier: 1

Instrument :
FID_G
ClientSampleId :
TAPIAL3-MW03D-031025-00-T1

Integration File: autoint1.e
Quant Time: Mar 13 03:19:08 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.: 15.026 min
Delta R.T.: -0.005 mi
Response: 1998224
Conc: 18.35 ug/m

Instrument :
FID_G
ClientSampleId :
TAPIAL3-MW03D-031025-00-T1

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG031225\
Data File : FG015479.D
Signal(s) : FID1A.ch
Acq On : 12 Mar 2025 16:23
Sample : Q1539-01
Misc :
ALS Vial : 26 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	1.807	1.800	1.825	BV	281	2468	0.12%	0.004%
2	1.832	1.825	1.877	VV	294	1971	0.10%	0.003%
3	1.888	1.877	1.904	PV	416	3412	0.17%	0.006%
4	1.928	1.904	1.974	VV	1581	24919	1.22%	0.041%
5	2.002	1.974	2.043	VV	759	12784	0.63%	0.021%
6	2.063	2.043	2.081	PV	373	5413	0.27%	0.009%
7	2.085	2.081	2.127	VV	294	4812	0.24%	0.008%
8	2.156	2.127	2.171	PV	138	2100	0.10%	0.003%
9	2.175	2.171	2.180	VV	130	549	0.03%	0.001%
10	2.195	2.180	2.255	VV	4839	68230	3.35%	0.111%
11	2.285	2.255	2.312	VV	1266	26965	1.32%	0.044%
12	2.315	2.312	2.380	VV	502	9591	0.47%	0.016%
13	2.402	2.380	2.432	VV	1252	19191	0.94%	0.031%
14	2.434	2.432	2.463	VV	525	6157	0.30%	0.010%
15	2.468	2.463	2.476	VV	277	1521	0.07%	0.002%
16	2.482	2.476	2.487	VV	239	1371	0.07%	0.002%
17	2.492	2.487	2.502	VV	182	1401	0.07%	0.002%
18	2.512	2.502	2.532	VV	275	3423	0.17%	0.006%
19	2.586	2.532	2.618	VV	666	15740	0.77%	0.026%
20	2.623	2.618	2.629	VV	173	789	0.04%	0.001%
21	2.634	2.629	2.639	PV	154	788	0.04%	0.001%
22	2.643	2.639	2.670	VV	238	2850	0.14%	0.005%
23	2.684	2.670	2.690	VV	1358	4854	0.24%	0.008%
24	2.693	2.690	2.710	VV	468	4459	0.22%	0.007%
25	2.730	2.710	2.781	VV	1167	22410	1.10%	0.036%
26	2.836	2.781	2.860	VV	1300	24174	1.19%	0.039%
27	2.871	2.860	2.913	VV	529	11424	0.56%	0.019%
28	2.927	2.913	2.933	VV	555	5074	0.25%	0.008%
29	2.954	2.933	2.971	VV	980	16445	0.81%	0.027%
30	2.979	2.971	3.007	VV	671	9816	0.48%	0.016%
31	3.063	3.007	3.096	VV	1296	31185	1.53%	0.051%
32	3.123	3.096	3.140	VV	357	7397	0.36%	0.012%
33	3.145	3.140	3.169	VV	317	4553	0.22%	0.007%
34	3.185	3.169	3.208	VV	1085	15848	0.78%	0.026%
35	3.215	3.208	3.251	VV	535	8783	0.43%	0.014%
36	3.276	3.251	3.293	VV	1096	15935	0.78%	0.026%

rteres

37	3.302	3.293	3.343	VV	793	13841	0.68%	0.023%
38	3.382	3.343	3.395	VV	2448	33209	1.63%	0.054%
39	3.407	3.395	3.428	VV	1619	22355	1.10%	0.036%
40	3.435	3.428	3.453	VV	678	7770	0.38%	0.013%
41	3.486	3.453	3.502	VV	601	13113	0.64%	0.021%
42	3.511	3.502	3.530	VV	569	7358	0.36%	0.012%
43	3.547	3.530	3.566	VV	792	10916	0.54%	0.018%
44	3.585	3.566	3.618	VV	778	15273	0.75%	0.025%
45	3.645	3.618	3.658	VV	409	7604	0.37%	0.012%
46	3.671	3.658	3.691	VV	409	6012	0.30%	0.010%
47	3.715	3.691	3.723	VV	949	11767	0.58%	0.019%
48	3.733	3.723	3.763	VV	1031	16352	0.80%	0.027%
49	3.775	3.763	3.788	VV	443	4894	0.24%	0.008%
50	3.805	3.788	3.813	VV	620	7013	0.34%	0.011%
51	3.817	3.813	3.821	VV	442	2096	0.10%	0.003%
52	3.845	3.821	3.880	VV	1108	26437	1.30%	0.043%
53	3.901	3.880	3.930	VV	1113	17184	0.84%	0.028%
54	3.969	3.930	3.985	VV	608	10590	0.52%	0.017%
55	3.991	3.985	4.017	VV	340	3811	0.19%	0.006%
56	4.039	4.017	4.045	PV	795	7309	0.36%	0.012%
57	4.061	4.045	4.084	VV	1587	23674	1.16%	0.039%
58	4.099	4.084	4.119	VV	918	14226	0.70%	0.023%
59	4.127	4.119	4.151	VV	550	8510	0.42%	0.014%
60	4.173	4.151	4.201	VV	662	11798	0.58%	0.019%
61	4.238	4.201	4.269	VV	5407	67739	3.32%	0.110%
62	4.291	4.269	4.316	VV	2497	34747	1.70%	0.057%
63	4.339	4.316	4.372	VV	2971	51302	2.52%	0.083%
64	4.377	4.372	4.383	VV	502	3031	0.15%	0.005%
65	4.399	4.383	4.422	VV	6590	79320	3.89%	0.129%
66	4.464	4.422	4.511	VV	18811	288784	14.17%	0.470%
67	4.536	4.511	4.592	VV	4372	84750	4.16%	0.138%
68	4.602	4.592	4.618	VV	858	10200	0.50%	0.017%
69	4.652	4.618	4.656	VV	743	12831	0.63%	0.021%
70	4.681	4.656	4.741	VV	39409	447117	21.94%	0.727%
71	4.759	4.741	4.765	VV	1519	16543	0.81%	0.027%
72	4.784	4.765	4.818	VV	9853	116696	5.73%	0.190%
73	4.833	4.818	4.857	VV	629	10288	0.50%	0.017%
74	4.866	4.857	4.887	VV	583	7749	0.38%	0.013%
75	4.916	4.887	4.962	VV	32292	354014	17.37%	0.576%
76	4.985	4.962	5.023	VV	11628	148390	7.28%	0.241%
77	5.039	5.023	5.058	VV	4859	58216	2.86%	0.095%
78	5.068	5.058	5.085	VV	1282	15112	0.74%	0.025%
79	5.101	5.085	5.137	VV	1314	16548	0.81%	0.027%
80	5.164	5.137	5.183	PV	1273	17899	0.88%	0.029%
81	5.191	5.183	5.204	VV	913	10111	0.50%	0.016%
82	5.233	5.204	5.262	VV	20607	230406	11.30%	0.375%
83	5.288	5.262	5.302	VV	6921	87946	4.32%	0.143%
84	5.307	5.302	5.336	VV	3476	41749	2.05%	0.068%
85	5.354	5.336	5.366	VV	2498	32967	1.62%	0.054%
86	5.376	5.366	5.393	VV	2341	29019	1.42%	0.047%
87	5.408	5.393	5.422	VV	2011	24044	1.18%	0.039%
88	5.438	5.422	5.464	VV	3967	48812	2.39%	0.079%
89	5.485	5.464	5.493	VV	1231	15726	0.77%	0.026%

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90	5.518	5.493	5.535	VV	14657	167165	8.20%	0.272%
91	5.547	5.535	5.572	VV	7410	86905	4.26%	0.141%
92	5.591	5.572	5.626	VV	2883	37697	1.85%	0.061%
93	5.663	5.626	5.671	VV	3949	43974	2.16%	0.072%
94	5.682	5.671	5.714	VV	4485	62673	3.08%	0.102%
95	5.757	5.714	5.778	VV	6958	99509	4.88%	0.162%
96	5.785	5.778	5.814	VV	518	7568	0.37%	0.012%
97	5.840	5.814	5.846	VV	3874	36484	1.79%	0.059%
98	5.874	5.846	5.889	VV	22276	363873	17.85%	0.592%
99	5.894	5.889	5.912	VV	8951	81942	4.02%	0.133%
100	5.927	5.912	5.941	VV	8263	88574	4.35%	0.144%
101	5.961	5.941	5.985	VV	148082	1472270	72.24%	2.395%
102	5.990	5.985	6.013	VV	6763	82365	4.04%	0.134%
103	6.017	6.013	6.038	VV	2811	28850	1.42%	0.047%
104	6.061	6.038	6.072	VV	3719	48799	2.39%	0.079%
105	6.085	6.072	6.101	VV	4789	54584	2.68%	0.089%
106	6.109	6.101	6.121	VV	1975	21374	1.05%	0.035%
107	6.127	6.121	6.138	VV	1630	16345	0.80%	0.027%
108	6.152	6.138	6.180	VV	2591	47151	2.31%	0.077%
109	6.199	6.180	6.224	VV	3480	51281	2.52%	0.083%
110	6.241	6.224	6.250	VV	3534	37746	1.85%	0.061%
111	6.267	6.250	6.280	VV	7224	97285	4.77%	0.158%
112	6.294	6.280	6.320	VV	11963	160348	7.87%	0.261%
113	6.340	6.320	6.362	VV	14103	179195	8.79%	0.291%
114	6.392	6.362	6.412	VV	44489	647169	31.75%	1.053%
115	6.429	6.412	6.454	VV	36163	439738	21.58%	0.715%
116	6.473	6.454	6.492	VV	56041	574645	28.20%	0.935%
117	6.499	6.492	6.519	VV	6077	64811	3.18%	0.105%
118	6.536	6.519	6.544	VV	2848	35195	1.73%	0.057%
119	6.559	6.544	6.577	VV	7580	88518	4.34%	0.144%
120	6.583	6.577	6.592	VV	1998	17007	0.83%	0.028%
121	6.631	6.592	6.678	VV	68124	867603	42.57%	1.411%
122	6.713	6.678	6.747	VV	54078	629588	30.89%	1.024%
123	6.779	6.747	6.800	VV	6114	117118	5.75%	0.190%
124	6.828	6.800	6.853	VV	28588	439586	21.57%	0.715%
125	6.881	6.853	6.894	VV	11880	206660	10.14%	0.336%
126	6.906	6.894	6.924	VV	11037	140877	6.91%	0.229%
127	6.931	6.924	6.937	VV	4363	33887	1.66%	0.055%
128	6.957	6.937	6.971	VV	8174	114864	5.64%	0.187%
129	6.990	6.971	7.017	VV	43834	490220	24.05%	0.797%
130	7.031	7.017	7.052	VV	4783	79601	3.91%	0.129%
131	7.068	7.052	7.080	VV	3908	56240	2.76%	0.091%
132	7.112	7.080	7.132	VV	31382	406330	19.94%	0.661%
133	7.149	7.132	7.165	VV	9381	130737	6.41%	0.213%
134	7.173	7.165	7.187	VV	5550	62547	3.07%	0.102%
135	7.200	7.187	7.216	VV	6397	84132	4.13%	0.137%
136	7.243	7.216	7.261	VV	23054	338270	16.60%	0.550%
137	7.280	7.261	7.326	VV	31813	546268	26.80%	0.888%
138	7.349	7.326	7.381	VV	106274	1201197	58.94%	1.954%
139	7.395	7.381	7.404	VV	10020	115156	5.65%	0.187%
140	7.439	7.404	7.473	VV	19429	499739	24.52%	0.813%
141	7.496	7.473	7.526	VV	20640	288339	14.15%	0.469%

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142	7.556	7.526	7.571	VV	7566	135841	6.67%	0.221%
143	7.585	7.571	7.611	VV	6721	120011	5.89%	0.195%
144	7.634	7.611	7.649	VV	41877	524075	25.71%	0.852%
145	7.660	7.649	7.678	VV	23458	305759	15.00%	0.497%
146	7.693	7.678	7.707	VV	23313	294473	14.45%	0.479%
147	7.713	7.707	7.719	VV	14440	96391	4.73%	0.157%
148	7.734	7.719	7.776	VV	21445	405014	19.87%	0.659%
149	7.790	7.776	7.808	VV	5037	82752	4.06%	0.135%
150	7.831	7.808	7.841	VV	24267	293040	14.38%	0.477%
151	7.849	7.841	7.873	VV	22485	318143	15.61%	0.517%
152	7.886	7.873	7.905	VV	14107	187043	9.18%	0.304%
153	7.927	7.905	7.943	VV	13076	185904	9.12%	0.302%
154	7.973	7.943	8.029	VV	18934	450040	22.08%	0.732%
155	8.050	8.029	8.060	VV	9346	135324	6.64%	0.220%
156	8.098	8.060	8.126	VV	19620	554106	27.19%	0.901%
157	8.134	8.126	8.144	VV	6789	73320	3.60%	0.119%
158	8.162	8.144	8.172	VV	8776	131013	6.43%	0.213%
159	8.188	8.172	8.204	VV	9874	168147	8.25%	0.273%
160	8.223	8.204	8.235	VV	10828	171251	8.40%	0.279%
161	8.256	8.235	8.280	VV	45298	800554	39.28%	1.302%
162	8.292	8.280	8.320	VV	34390	494421	24.26%	0.804%
163	8.336	8.320	8.362	VV	23116	377974	18.55%	0.615%
164	8.376	8.362	8.412	VV	10417	255217	12.52%	0.415%
165	8.443	8.412	8.459	VV	8207	209722	10.29%	0.341%
166	8.485	8.459	8.500	VV	11830	233472	11.46%	0.380%
167	8.524	8.500	8.542	VV	23081	397468	19.50%	0.646%
168	8.555	8.542	8.595	VV	21616	437594	21.47%	0.712%
169	8.616	8.595	8.632	VV	20077	306844	15.06%	0.499%
170	8.641	8.632	8.657	VV	11958	169614	8.32%	0.276%
171	8.665	8.657	8.685	VV	10100	144101	7.07%	0.234%
172	8.702	8.685	8.717	VV	10180	171277	8.40%	0.279%
173	8.730	8.717	8.745	VV	9780	153829	7.55%	0.250%
174	8.763	8.745	8.775	VV	12203	191055	9.37%	0.311%
175	8.791	8.775	8.845	VV	17804	443694	21.77%	0.722%
176	8.866	8.845	8.889	VV	9171	215540	10.58%	0.351%
177	8.919	8.889	8.931	VV	16890	287272	14.10%	0.467%
178	8.946	8.931	8.973	VV	32569	477300	23.42%	0.776%
179	8.999	8.973	9.032	VV	15898	434758	21.33%	0.707%
180	9.043	9.032	9.047	VV	10872	97623	4.79%	0.159%
181	9.067	9.047	9.099	VV	25211	482583	23.68%	0.785%
182	9.112	9.099	9.126	VV	14976	210615	10.33%	0.343%
183	9.139	9.126	9.154	VV	14104	208037	10.21%	0.338%
184	9.167	9.154	9.174	VV	11941	132292	6.49%	0.215%
185	9.193	9.174	9.208	VV	20871	329216	16.15%	0.535%
186	9.226	9.208	9.247	VV	27425	437275	21.46%	0.711%
187	9.259	9.247	9.276	VV	14804	237377	11.65%	0.386%
188	9.280	9.276	9.289	VV	12198	92687	4.55%	0.151%
189	9.319	9.289	9.331	VV	15040	331776	16.28%	0.540%
190	9.338	9.331	9.354	VV	13272	167563	8.22%	0.273%
191	9.384	9.354	9.405	VV	15135	403737	19.81%	0.657%
192	9.418	9.405	9.445	VV	12552	261804	12.85%	0.426%
193	9.450	9.445	9.454	VV	9319	50641	2.48%	0.082%
194	9.479	9.454	9.498	VV	14389	304561	14.94%	0.495%

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195	9.519	9.498	9.534	VV	13816	259398	12.73%	0.422%
196	9.546	9.534	9.562	VV	13497	209160	10.26%	0.340%
197	9.572	9.562	9.588	VV	11434	165276	8.11%	0.269%
198	9.604	9.588	9.614	VV	11514	171875	8.43%	0.280%
199	9.621	9.614	9.643	VV	11280	184299	9.04%	0.300%
200	9.655	9.643	9.662	VV	10715	110529	5.42%	0.180%
201	9.679	9.662	9.690	VV	11399	182947	8.98%	0.298%
202	9.709	9.690	9.719	VV	14958	234785	11.52%	0.382%
203	9.740	9.719	9.767	VV	49191	744553	36.53%	1.211%
204	9.773	9.767	9.793	VV	12580	184438	9.05%	0.300%
205	9.820	9.793	9.840	VV	51465	782110	38.37%	1.272%
206	9.845	9.840	9.877	VV	18304	339045	16.64%	0.551%
207	9.891	9.877	9.901	VV	15094	201057	9.86%	0.327%
208	9.921	9.901	9.938	VV	21449	374097	18.36%	0.608%
209	9.954	9.938	9.973	VV	20547	357090	17.52%	0.581%
210	9.983	9.973	10.007	VV	16918	278521	13.67%	0.453%
211	10.026	10.007	10.042	VV	13276	262610	12.89%	0.427%
212	10.065	10.042	10.079	VV	17233	328541	16.12%	0.534%
213	10.094	10.079	10.109	VV	16726	281721	13.82%	0.458%
214	10.117	10.109	10.140	VV	15332	256725	12.60%	0.418%
215	10.164	10.140	10.176	VV	19114	347545	17.05%	0.565%
216	10.192	10.176	10.216	VV	24295	440410	21.61%	0.716%
217	10.229	10.216	10.255	VV	16209	334361	16.41%	0.544%
218	10.259	10.255	10.272	VV	12300	123830	6.08%	0.201%
219	10.285	10.272	10.297	VV	12884	185604	9.11%	0.302%
220	10.305	10.297	10.316	VV	12744	139268	6.83%	0.227%
221	10.340	10.316	10.362	VV	17030	395298	19.40%	0.643%
222	10.380	10.362	10.394	VV	14428	262355	12.87%	0.427%
223	10.408	10.394	10.424	VV	14241	232507	11.41%	0.378%
224	10.439	10.424	10.464	VV	13376	293522	14.40%	0.477%
225	10.479	10.464	10.499	VV	12292	240837	11.82%	0.392%
226	10.505	10.499	10.512	VV	10978	88360	4.34%	0.144%
227	10.542	10.512	10.572	VV	14010	438144	21.50%	0.713%
228	10.626	10.572	10.647	VV	23306	717007	35.18%	1.166%
229	10.668	10.647	10.697	VV	34209	644352	31.62%	1.048%
230	10.707	10.697	10.718	VV	13099	159262	7.81%	0.259%
231	10.744	10.718	10.779	VV	19538	565170	27.73%	0.919%
232	10.806	10.779	10.826	VV	16673	406608	19.95%	0.661%
233	10.847	10.826	10.870	VV	15458	364040	17.86%	0.592%
234	10.885	10.870	10.897	VV	13314	200432	9.83%	0.326%
235	10.911	10.897	10.935	VV	13664	294692	14.46%	0.479%
236	10.956	10.935	10.992	VV	20021	503395	24.70%	0.819%
237	11.011	10.992	11.038	VV	14858	370880	18.20%	0.603%
238	11.052	11.038	11.061	VV	12371	160695	7.88%	0.261%
239	11.079	11.061	11.102	VV	13572	308874	15.16%	0.502%
240	11.121	11.102	11.134	VV	12783	226560	11.12%	0.368%
241	11.151	11.134	11.170	VV	15547	291933	14.32%	0.475%
242	11.182	11.170	11.193	VV	13717	185854	9.12%	0.302%
243	11.213	11.193	11.244	VV	24883	516530	25.34%	0.840%
244	11.253	11.244	11.278	VV	13249	258007	12.66%	0.420%
245	11.287	11.278	11.312	VV	13309	258418	12.68%	0.420%
246	11.328	11.312	11.355	VV	12126	301304	14.78%	0.490%

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247	11.377	11.355	11.387	VV	11962	218012	10.70%	0.355%
248	11.412	11.387	11.423	VV	12118	257667	12.64%	0.419%
249	11.447	11.423	11.486	VV	26422	619016	30.37%	1.007%
250	11.505	11.486	11.523	VV	12481	263842	12.95%	0.429%
251	11.549	11.523	11.583	VV	12565	411112	20.17%	0.669%
252	11.617	11.583	11.661	VV	15323	574754	28.20%	0.935%
253	11.677	11.661	11.696	VV	14685	269331	13.21%	0.438%
254	11.710	11.696	11.725	VV	11767	195478	9.59%	0.318%
255	11.729	11.725	11.734	VV	11193	60623	2.97%	0.099%
256	11.740	11.734	11.752	VV	11294	120529	5.91%	0.196%
257	11.771	11.752	11.798	VV	11893	303496	14.89%	0.494%
258	11.809	11.798	11.825	VV	11483	175323	8.60%	0.285%
259	11.846	11.825	11.868	VV	11377	271540	13.32%	0.442%
260	11.884	11.868	11.891	VV	10503	141047	6.92%	0.229%
261	11.908	11.891	11.932	VV	10520	237421	11.65%	0.386%
262	11.956	11.932	11.975	VV	11278	264671	12.99%	0.430%
263	12.000	11.975	12.024	VV	20261	421343	20.67%	0.685%
264	12.037	12.024	12.066	VV	12059	267301	13.12%	0.435%
265	12.091	12.066	12.117	VV	10254	298022	14.62%	0.485%
266	12.138	12.117	12.182	VV	11782	377541	18.52%	0.614%
267	12.195	12.182	12.200	VV	8987	92639	4.55%	0.151%
268	12.225	12.200	12.240	VV	12309	250932	12.31%	0.408%
269	12.251	12.240	12.268	VV	11387	178203	8.74%	0.290%
270	12.288	12.268	12.317	VV	14089	319884	15.70%	0.520%
271	12.329	12.317	12.356	VV	9347	201426	9.88%	0.328%
272	12.378	12.356	12.404	VV	8919	244081	11.98%	0.397%
273	12.434	12.404	12.448	VV	8827	218994	10.75%	0.356%
274	12.467	12.448	12.486	VV	11554	225765	11.08%	0.367%
275	12.498	12.486	12.511	VV	10125	145958	7.16%	0.237%
276	12.528	12.511	12.585	VV	13658	417191	20.47%	0.679%
277	12.614	12.585	12.631	VV	8249	210210	10.31%	0.342%
278	12.638	12.631	12.643	VV	7082	52189	2.56%	0.085%
279	12.647	12.643	12.658	VV	7087	61463	3.02%	0.100%
280	12.676	12.658	12.686	VV	7371	120085	5.89%	0.195%
281	12.705	12.686	12.723	VV	8438	169913	8.34%	0.276%
282	12.730	12.723	12.740	VV	7019	68990	3.39%	0.112%
283	12.744	12.740	12.748	VV	6834	33703	1.65%	0.055%
284	12.769	12.748	12.791	VV	9228	197237	9.68%	0.321%
285	12.826	12.791	12.847	VV	9761	276396	13.56%	0.450%
286	12.862	12.847	12.877	VV	6900	120668	5.92%	0.196%
287	12.896	12.877	12.912	VV	7360	145091	7.12%	0.236%
288	12.923	12.912	12.937	VV	6929	100055	4.91%	0.163%
289	12.944	12.937	12.960	VV	6606	87359	4.29%	0.142%
290	12.980	12.960	13.018	VV	7357	227975	11.19%	0.371%
291	13.029	13.018	13.057	VV	6232	129670	6.36%	0.211%
292	13.064	13.057	13.071	VV	5308	43996	2.16%	0.072%
293	13.076	13.071	13.082	VV	5257	35794	1.76%	0.058%
294	13.088	13.082	13.104	VV	5173	64616	3.17%	0.105%
295	13.128	13.104	13.145	VV	5853	133717	6.56%	0.217%
296	13.164	13.145	13.189	VV	5988	142933	7.01%	0.232%
297	13.192	13.189	13.211	VV	5022	63807	3.13%	0.104%
298	13.215	13.211	13.234	VV	4904	65828	3.23%	0.107%
299	13.259	13.234	13.285	VV	5692	154805	7.60%	0.252%

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300	13.289	13.285	13.315	VV	4895	84194	4.13%	0.137%
301	13.339	13.315	13.367	VV	4844	140111	6.87%	0.228%
302	13.377	13.367	13.386	VV	4468	51724	2.54%	0.084%
303	13.391	13.386	13.397	VV	4389	28882	1.42%	0.047%
304	13.404	13.397	13.415	VV	4510	45784	2.25%	0.074%
305	13.419	13.415	13.438	VV	4603	61008	2.99%	0.099%
306	13.441	13.438	13.445	VV	4160	16434	0.81%	0.027%
307	13.452	13.445	13.472	VV	4498	67270	3.30%	0.109%
308	13.490	13.472	13.511	VV	4228	92453	4.54%	0.150%
309	13.538	13.511	13.554	VV	4770	109268	5.36%	0.178%
310	13.560	13.554	13.579	VV	4280	58943	2.89%	0.096%
311	13.601	13.579	13.657	VV	9133	244330	11.99%	0.397%
312	13.665	13.657	13.685	VV	3727	58197	2.86%	0.095%
313	13.705	13.685	13.734	VV	3772	99587	4.89%	0.162%
314	13.736	13.734	13.742	VV	3067	15034	0.74%	0.024%
315	13.765	13.742	13.815	VV	4964	156398	7.67%	0.254%
316	13.830	13.815	13.854	VV	2969	66441	3.26%	0.108%
317	13.869	13.854	13.897	VV	3353	77075	3.78%	0.125%
318	13.901	13.897	13.907	VV	2749	14897	0.73%	0.024%
319	13.915	13.907	13.958	VV	2986	83933	4.12%	0.137%
320	13.964	13.958	13.975	VV	2504	23972	1.18%	0.039%
321	13.994	13.975	14.013	VV	2850	58847	2.89%	0.096%
322	14.022	14.013	14.028	VV	2495	20342	1.00%	0.033%
323	14.040	14.028	14.052	VV	2542	34830	1.71%	0.057%
324	14.072	14.052	14.104	VV	2660	71984	3.53%	0.117%
325	14.122	14.104	14.140	VV	2266	44809	2.20%	0.073%
326	14.145	14.140	14.172	VV	1966	34636	1.70%	0.056%
327	14.179	14.172	14.192	VV	1813	21298	1.04%	0.035%
328	14.203	14.192	14.214	VV	1828	23474	1.15%	0.038%
329	14.219	14.214	14.235	VV	1745	21402	1.05%	0.035%
330	14.239	14.235	14.244	VV	1765	8773	0.43%	0.014%
331	14.248	14.244	14.254	VV	1702	9810	0.48%	0.016%
332	14.259	14.254	14.280	VV	1802	25552	1.25%	0.042%
333	14.286	14.280	14.305	VV	1703	23668	1.16%	0.038%
334	14.330	14.305	14.344	VV	1785	39031	1.92%	0.063%
335	14.352	14.344	14.361	VV	1752	16227	0.80%	0.026%
336	14.369	14.361	14.375	VV	1638	13079	0.64%	0.021%
337	14.377	14.375	14.385	VV	1631	8847	0.43%	0.014%
338	14.387	14.385	14.397	VV	1796	10181	0.50%	0.017%
339	14.401	14.397	14.416	VV	1462	16099	0.79%	0.026%
340	14.420	14.416	14.468	VV	1496	42318	2.08%	0.069%
341	14.483	14.468	14.539	VV	1699	61057	3.00%	0.099%
342	14.546	14.539	14.581	VV	1364	30142	1.48%	0.049%
343	14.585	14.581	14.600	VV	1280	13225	0.65%	0.022%
344	14.608	14.600	14.629	VV	1280	20041	0.98%	0.033%
345	14.637	14.629	14.660	VV	1231	19697	0.97%	0.032%
346	14.690	14.660	14.714	VV	1456	36855	1.81%	0.060%
347	14.718	14.714	14.728	VV	1022	7936	0.39%	0.013%
348	14.735	14.728	14.748	VV	989	11006	0.54%	0.018%
349	14.774	14.748	14.778	VV	1248	18701	0.92%	0.030%
350	14.782	14.778	14.800	VV	1139	13391	0.66%	0.022%
351	14.806	14.800	14.812	VV	896	6289	0.31%	0.010%

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352	14.842	14.812	14.868	VV	1096	29863	1.47%	0.049%
353	14.893	14.868	14.936	VV	1011	35078	1.72%	0.057%
354	14.953	14.936	14.966	VV	877	14978	0.73%	0.024%
355	14.970	14.966	14.981	VV	888	6907	0.34%	0.011%
356	14.984	14.981	14.989	VV	778	3654	0.18%	0.006%
357	15.026	14.989	15.096	VV	150040	2038091	100.00%	3.315%
358	15.110	15.096	15.129	VV	832	13421	0.66%	0.022%
359	15.131	15.129	15.143	VV	753	5209	0.26%	0.008%
360	15.181	15.143	15.186	VV	716	15885	0.78%	0.026%
361	15.192	15.186	15.199	VV	812	5319	0.26%	0.009%
362	15.224	15.199	15.228	VV	838	13243	0.65%	0.022%
363	15.232	15.228	15.255	VV	841	10130	0.50%	0.016%
364	15.294	15.255	15.313	VV	548	16859	0.83%	0.027%
365	15.318	15.313	15.327	VV	516	3658	0.18%	0.006%
366	15.331	15.327	15.359	VV	468	7269	0.36%	0.012%
367	15.381	15.359	15.389	VV	447	6290	0.31%	0.010%
368	15.394	15.389	15.399	VV	408	2119	0.10%	0.003%
369	15.426	15.399	15.468	VV	702	17059	0.84%	0.028%
370	15.480	15.468	15.497	VV	376	5454	0.27%	0.009%
371	15.501	15.497	15.516	VV	305	3023	0.15%	0.005%
372	15.523	15.516	15.528	VV	313	1954	0.10%	0.003%
373	15.553	15.528	15.567	VV	362	6925	0.34%	0.011%
374	15.572	15.567	15.580	VV	347	2093	0.10%	0.003%
375	15.587	15.580	15.597	VV	353	2745	0.13%	0.004%
376	15.598	15.597	15.602	VV	316	800	0.04%	0.001%
377	15.616	15.602	15.635	VV	324	4854	0.24%	0.008%
378	15.653	15.635	15.667	VV	296	4528	0.22%	0.007%
379	15.709	15.667	15.730	VV	440	9902	0.49%	0.016%
380	15.747	15.730	15.755	VV	513	5532	0.27%	0.009%
381	15.759	15.755	15.792	VV	522	7404	0.36%	0.012%
382	15.798	15.792	15.804	VV	205	1184	0.06%	0.002%
383	15.809	15.804	15.832	VV	194	2324	0.11%	0.004%
384	15.835	15.832	15.857	VV	195	2051	0.10%	0.003%
385	15.890	15.857	15.924	VV	409	10246	0.50%	0.017%
386	15.925	15.924	15.929	VV	281	673	0.03%	0.001%
387	15.934	15.929	15.950	VV	289	2099	0.10%	0.003%
388	15.963	15.950	15.972	VV	148	1125	0.06%	0.002%
389	15.975	15.972	15.986	VV	161	934	0.05%	0.002%
390	15.992	15.986	15.998	VV	153	948	0.05%	0.002%
391	16.008	15.998	16.015	VV	229	1788	0.09%	0.003%
392	16.045	16.015	16.057	VV	419	6588	0.32%	0.011%
393	16.062	16.057	16.075	VV	281	1997	0.10%	0.003%
394	16.080	16.075	16.086	VV	105	537	0.03%	0.001%
395	16.092	16.086	16.115	VV	165	1124	0.06%	0.002%
396	16.124	16.115	16.129	VV	106	619	0.03%	0.001%
397	16.144	16.129	16.176	VV	200	2122	0.10%	0.003%
398	16.199	16.176	16.205	VV	215	1812	0.09%	0.003%
399	16.212	16.205	16.233	VV	218	2529	0.12%	0.004%
400	16.253	16.233	16.277	VV	452	6780	0.33%	0.011%
401	16.282	16.277	16.304	VV	128	1214	0.06%	0.002%
402	16.312	16.304	16.332	VV	98	1205	0.06%	0.002%
403	16.375	16.332	16.382	VV	128	1962	0.10%	0.003%
404	16.391	16.382	16.400	VV	181	1393	0.07%	0.002%

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405	16.405	16.400	16.417	VV	195	1175	0.06%	0.002%
406	16.421	16.417	16.433	VV	205	834	0.04%	0.001%
407	16.447	16.433	16.462	PV	151	1324	0.06%	0.002%
408	16.468	16.462	16.470	VV	104	344	0.02%	0.001%
409	16.486	16.470	16.492	VV	144	1179	0.06%	0.002%
410	16.498	16.492	16.509	VV	89	506	0.02%	0.001%
411	16.542	16.509	16.548	VV	192	1848	0.09%	0.003%
412	16.557	16.548	16.563	VV	177	897	0.04%	0.001%
413	16.567	16.563	16.581	VV	156	1082	0.05%	0.002%
414	16.589	16.581	16.609	VV	144	1617	0.08%	0.003%
415	16.613	16.609	16.625	VV	144	697	0.03%	0.001%
416	16.645	16.625	16.652	PV	136	1323	0.06%	0.002%
417	16.659	16.652	16.671	VV	165	1269	0.06%	0.002%
418	16.700	16.671	16.712	VV	226	3798	0.19%	0.006%
419	16.734	16.712	16.775	VV	446	8873	0.44%	0.014%
420	16.815	16.775	16.834	VV	346	6535	0.32%	0.011%
421	16.835	16.834	16.842	VV	178	547	0.03%	0.001%
422	16.846	16.842	16.862	VV	103	1045	0.05%	0.002%
423	16.879	16.862	16.887	VV	177	1727	0.08%	0.003%
424	16.893	16.887	16.904	VV	143	1177	0.06%	0.002%
425	16.939	16.904	16.944	PV	147	2148	0.11%	0.003%
426	16.950	16.944	16.957	VV	169	973	0.05%	0.002%
427	16.960	16.957	16.965	VV	102	601	0.03%	0.001%
428	16.970	16.965	16.984	VV	170	904	0.04%	0.001%
429	17.015	16.984	17.049	VV	1463	23905	1.17%	0.039%
430	17.052	17.049	17.065	VV	194	1405	0.07%	0.002%
431	17.070	17.065	17.074	VV	130	591	0.03%	0.001%
432	17.102	17.074	17.133	VV	214	4919	0.24%	0.008%
433	17.138	17.133	17.154	VV	159	1091	0.05%	0.002%
434	17.174	17.154	17.181	VV	289	3346	0.16%	0.005%
435	17.205	17.181	17.239	VV	772	13090	0.64%	0.021%
436	17.252	17.239	17.279	VV	310	4337	0.21%	0.007%
437	17.284	17.279	17.307	VV	116	1015	0.05%	0.002%
438	17.319	17.307	17.329	VV	136	804	0.04%	0.001%
439	17.333	17.329	17.338	PV	105	419	0.02%	0.001%
440	17.345	17.338	17.350	VV	120	700	0.03%	0.001%
441	17.355	17.350	17.362	VV	108	620	0.03%	0.001%
442	17.398	17.362	17.412	PV	123	2163	0.11%	0.004%
443	17.416	17.412	17.422	VV	137	506	0.02%	0.001%
444	17.429	17.422	17.434	VV	147	640	0.03%	0.001%
445	17.440	17.434	17.452	VV	173	777	0.04%	0.001%

Sum of corrected areas: 61485299

FG030325.M Thu Mar 13 03:44:53 2025

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

Report of Analysis

Client:	Weston Solutions	Date Collected:	03/10/25
Project:	Ft Meade Tipton Airfield Parcel RI - PO 0111169	Date Received:	03/11/25
Client Sample ID:	TAPFTA-MW01I-031025-00-T2	SDG No.:	Q1539
Lab Sample ID:	Q1539-02	Matrix:	Water
Analytical Method:	8015D DRO	% Solid:	0 Decanted:
Sample Wt/Vol:	950 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
FG015480.D	1	03/12/25 08:55	03/12/25 16:53	PB167101

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
DRO	DRO	42.0	J	11.0	26.0	53.0	ug/L
SURROGATES							
16416-32-3	Tetracosane-d50	17.5		29 - 130		88%	SPK: 20

Comments:

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

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

Quantitation Report (QT Reviewed)

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG031225\
Data File : FG015480.D
Signal(s) : FID1A.ch
Acq On : 12 Mar 2025 16:53
Operator : YP\AJ
Sample : Q1539-02
Misc :
ALS Vial : 27 Sample Multiplier: 1

Instrument :
FID_G
ClientSampleId :
TAPFTA-MW01I-031025-00-T2

Integration File: autoint1.e
Quant Time: Mar 13 03:19:25 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	1906165	17.507 ug/ml
Target Compounds			

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

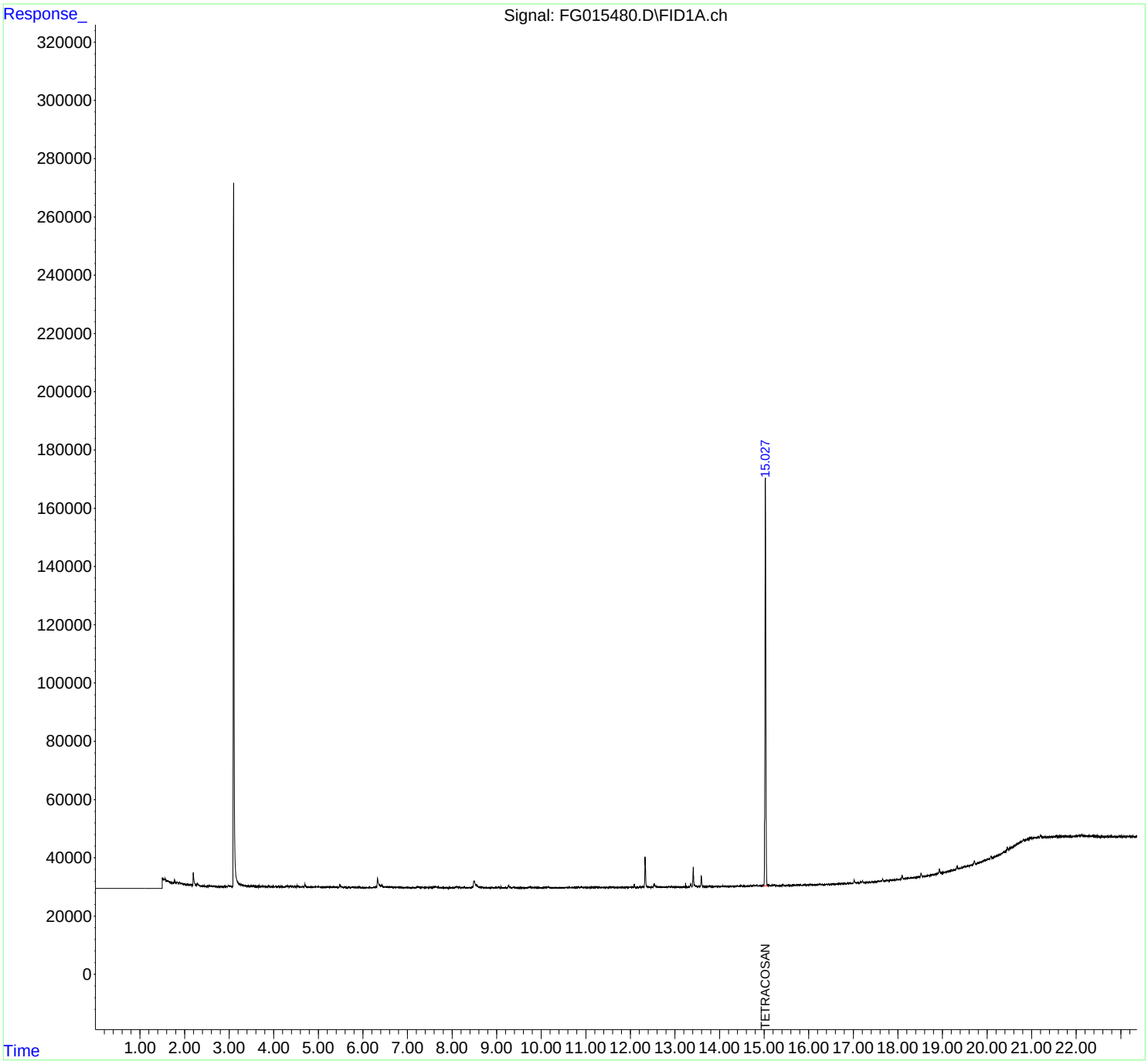
Quantitation Report (QT Reviewed)

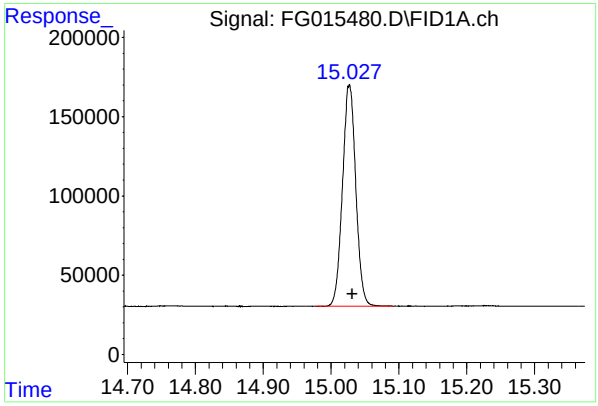
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG031225\
Data File : FG015480.D
Signal(s) : FID1A.ch
Acq On : 12 Mar 2025 16:53
Operator : YP\AJ
Sample : Q1539-02
Misc :
ALS Vial : 27 Sample Multiplier: 1

Instrument :
FID_G
ClientSampleId :
TAPFTA-MW01I-031025-00-T2

Integration File: autoint1.e
Quant Time: Mar 13 03:19:25 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: 1906165
Conc: 17.51 ug/m

Instrument :
FID_G
ClientSampleId :
TAPFTA-MW01I-031025-00-T2

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG031225\
Data File : FG015480.D
Signal(s) : FID1A.ch
Acq On : 12 Mar 2025 16:53
Sample : Q1539-02
Misc :
ALS Vial : 27 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	1.834	1.800	1.867	BV	436	5159	0.19%	0.079%
2	1.885	1.867	1.910	VV	377	5707	0.21%	0.087%
3	1.912	1.910	1.966	VV	204	3867	0.14%	0.059%
4	1.971	1.966	1.977	VV	138	602	0.02%	0.009%
5	1.984	1.977	2.018	VV	180	2925	0.11%	0.045%
6	2.022	2.018	2.038	PV	144	1174	0.04%	0.018%
7	2.041	2.038	2.054	VV	172	1004	0.04%	0.015%
8	2.068	2.054	2.097	VV	252	3890	0.14%	0.059%
9	2.099	2.097	2.127	VV	98	1298	0.05%	0.020%
10	2.130	2.127	2.137	PV	105	503	0.02%	0.008%
11	2.141	2.137	2.150	VV	137	872	0.03%	0.013%
12	2.154	2.150	2.158	VV	107	423	0.02%	0.006%
13	2.162	2.158	2.188	VV	270	1193	0.04%	0.018%
14	2.195	2.188	2.269	VV	4408	61406	2.28%	0.936%
15	2.286	2.269	2.312	VV	907	13375	0.50%	0.204%
16	2.316	2.312	2.367	VV	309	5236	0.19%	0.080%
17	2.371	2.367	2.375	VV	102	230	0.01%	0.004%
18	2.382	2.375	2.387	VV	112	431	0.02%	0.007%
19	2.392	2.387	2.413	VV	76	838	0.03%	0.013%
20	2.429	2.413	2.445	PV	145	1727	0.06%	0.026%
21	2.448	2.445	2.471	VV	162	1387	0.05%	0.021%
22	2.476	2.471	2.489	VV	105	708	0.03%	0.011%
23	2.493	2.489	2.502	PV	76	442	0.02%	0.007%
24	2.506	2.502	2.531	VV	166	1403	0.05%	0.021%
25	2.563	2.531	2.599	VV	263	6949	0.26%	0.106%
26	2.604	2.599	2.614	VV	188	1104	0.04%	0.017%
27	2.617	2.614	2.663	VV	204	3128	0.12%	0.048%
28	2.674	2.663	2.695	VV	212	2693	0.10%	0.041%
29	2.699	2.695	2.708	VV	201	775	0.03%	0.012%
30	2.719	2.708	2.742	PV	133	1449	0.05%	0.022%
31	2.764	2.742	2.772	VV	121	1394	0.05%	0.021%
32	2.811	2.772	2.847	VV	158	4158	0.15%	0.063%
33	2.850	2.847	2.876	VV	125	1148	0.04%	0.017%
34	2.891	2.876	2.908	PV	165	2050	0.08%	0.031%
35	2.911	2.908	2.915	VV	180	519	0.02%	0.008%
36	2.922	2.915	2.939	VV	166	1093	0.04%	0.017%

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37	2.947	2.939	2.953	VV	184	1073	0.04%	0.016%
38	2.982	2.953	2.997	VV	516	7408	0.28%	0.113%
39	3.002	2.997	3.029	VV	295	3641	0.14%	0.055%
40	3.049	3.029	3.060	VV	173	2072	0.08%	0.032%
41	3.063	3.060	3.079	VV	182	1891	0.07%	0.029%
42	3.099	3.079	3.256	VV	241565	2691606	100.00%	41.015%
43	3.260	3.256	3.326	VV	847	24327	0.90%	0.371%
44	3.330	3.326	3.346	VV	523	4959	0.18%	0.076%
45	3.350	3.346	3.365	VV	403	4149	0.15%	0.063%
46	3.367	3.365	3.374	VV	438	1972	0.07%	0.030%
47	3.375	3.374	3.400	VV	412	5134	0.19%	0.078%
48	3.408	3.400	3.419	VV	375	3433	0.13%	0.052%
49	3.422	3.419	3.437	VV	360	3308	0.12%	0.050%
50	3.443	3.437	3.452	VV	267	2436	0.09%	0.037%
51	3.454	3.452	3.458	VV	329	962	0.04%	0.015%
52	3.463	3.458	3.488	VV	348	4622	0.17%	0.070%
53	3.492	3.488	3.521	VV	315	4672	0.17%	0.071%
54	3.535	3.521	3.544	VV	304	3334	0.12%	0.051%
55	3.547	3.544	3.552	VV	250	1187	0.04%	0.018%
56	3.556	3.552	3.568	VV	266	1907	0.07%	0.029%
57	3.583	3.568	3.607	VV	292	5171	0.19%	0.079%
58	3.612	3.607	3.639	VV	235	3494	0.13%	0.053%
59	3.656	3.639	3.667	VV	243	2990	0.11%	0.046%
60	3.670	3.667	3.678	VV	262	1194	0.04%	0.018%
61	3.683	3.678	3.693	VV	180	1477	0.05%	0.023%
62	3.695	3.693	3.713	VV	237	1724	0.06%	0.026%
63	3.716	3.713	3.724	VV	168	989	0.04%	0.015%
64	3.732	3.724	3.764	VV	188	3401	0.13%	0.052%
65	3.767	3.764	3.778	VV	132	919	0.03%	0.014%
66	3.781	3.778	3.790	VV	115	937	0.03%	0.014%
67	3.802	3.790	3.815	VV	156	1702	0.06%	0.026%
68	3.822	3.815	3.835	VV	210	1161	0.04%	0.018%
69	3.839	3.835	3.849	VV	120	817	0.03%	0.012%
70	3.864	3.849	3.876	VV	190	1800	0.07%	0.027%
71	3.879	3.876	3.901	VV	122	1507	0.06%	0.023%
72	3.911	3.901	3.925	VV	127	1287	0.05%	0.020%
73	3.928	3.925	3.934	VV	108	270	0.01%	0.004%
74	3.938	3.934	3.952	PV	92	826	0.03%	0.013%
75	3.956	3.952	3.961	VV	115	419	0.02%	0.006%
76	3.979	3.961	3.984	VV	134	1024	0.04%	0.016%
77	3.987	3.984	3.992	VV	134	255	0.01%	0.004%
78	3.996	3.992	4.039	PB	90	1402	0.05%	0.021%
79	4.046	4.039	4.055	BV	75	543	0.02%	0.008%
80	4.062	4.055	4.087	VV	113	1356	0.05%	0.021%
81	4.091	4.087	4.121	VV	136	1915	0.07%	0.029%
82	4.123	4.121	4.127	VV	123	284	0.01%	0.004%
83	4.130	4.127	4.139	VV	68	484	0.02%	0.007%
84	4.144	4.139	4.147	VV	113	345	0.01%	0.005%
85	4.151	4.147	4.156	VV	129	470	0.02%	0.007%
86	4.174	4.156	4.186	VV	198	2313	0.09%	0.035%
87	4.190	4.186	4.196	VV	112	608	0.02%	0.009%
88	4.207	4.196	4.231	VV	125	1276	0.05%	0.019%
89	4.244	4.231	4.251	VV	157	1206	0.04%	0.018%

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90	4.267	4.251	4.289	VV	234	3121	0.12%	0.048%
91	4.307	4.289	4.326	VV	307	4371	0.16%	0.067%
92	4.333	4.326	4.350	VV	206	2557	0.09%	0.039%
93	4.354	4.350	4.357	VV	213	794	0.03%	0.012%
94	4.365	4.357	4.410	VV	317	6388	0.24%	0.097%
95	4.415	4.410	4.456	VV	186	3044	0.11%	0.046%
96	4.458	4.456	4.472	VV	159	802	0.03%	0.012%
97	4.484	4.472	4.492	VV	125	1272	0.05%	0.019%
98	4.528	4.492	4.586	VV	539	11615	0.43%	0.177%
99	4.592	4.586	4.639	VV	128	3837	0.14%	0.058%
100	4.653	4.639	4.678	VV	230	3610	0.13%	0.055%
101	4.699	4.678	4.749	VV	1069	15598	0.58%	0.238%
102	4.752	4.749	4.770	VV	153	1440	0.05%	0.022%
103	4.778	4.770	4.783	VV	122	853	0.03%	0.013%
104	4.789	4.783	4.800	VV	127	886	0.03%	0.014%
105	4.815	4.800	4.829	VV	127	1612	0.06%	0.025%
106	4.831	4.829	4.839	VV	137	506	0.02%	0.008%
107	4.843	4.839	4.858	VV	164	1112	0.04%	0.017%
108	4.864	4.858	4.893	VV	174	2121	0.08%	0.032%
109	4.899	4.893	4.917	VV	156	1544	0.06%	0.024%
110	4.936	4.917	4.952	VV	232	3070	0.11%	0.047%
111	4.958	4.952	4.970	VV	211	1890	0.07%	0.029%
112	4.974	4.970	4.981	VV	191	1158	0.04%	0.018%
113	4.987	4.981	5.016	VV	227	3298	0.12%	0.050%
114	5.024	5.016	5.046	VV	175	2591	0.10%	0.039%
115	5.059	5.046	5.074	VV	137	1689	0.06%	0.026%
116	5.079	5.074	5.091	VV	160	1107	0.04%	0.017%
117	5.111	5.091	5.148	VV	152	3456	0.13%	0.053%
118	5.168	5.148	5.177	VV	165	1857	0.07%	0.028%
119	5.189	5.177	5.195	VV	221	1815	0.07%	0.028%
120	5.197	5.195	5.205	VV	186	953	0.04%	0.015%
121	5.218	5.205	5.252	VV	160	3445	0.13%	0.052%
122	5.267	5.252	5.277	VV	160	1405	0.05%	0.021%
123	5.289	5.277	5.316	VV	242	4222	0.16%	0.064%
124	5.321	5.316	5.339	VV	159	1737	0.06%	0.026%
125	5.356	5.339	5.360	VV	197	1676	0.06%	0.026%
126	5.365	5.360	5.396	VV	179	2617	0.10%	0.040%
127	5.399	5.396	5.437	VV	180	2396	0.09%	0.037%
128	5.450	5.437	5.456	VV	88	459	0.02%	0.007%
129	5.482	5.456	5.526	VV	1061	20255	0.75%	0.309%
130	5.532	5.526	5.562	VV	279	3370	0.13%	0.051%
131	5.571	5.562	5.588	VV	149	1842	0.07%	0.028%
132	5.602	5.588	5.649	VV	177	3842	0.14%	0.059%
133	5.673	5.649	5.704	VV	216	3805	0.14%	0.058%
134	5.707	5.704	5.726	VV	158	1242	0.05%	0.019%
135	5.755	5.726	5.761	PV	226	2527	0.09%	0.039%
136	5.764	5.761	5.792	VV	159	2544	0.09%	0.039%
137	5.822	5.792	5.837	VV	194	3209	0.12%	0.049%
138	5.843	5.837	5.854	VV	161	1149	0.04%	0.018%
139	5.856	5.854	5.868	VV	132	798	0.03%	0.012%
140	5.872	5.868	5.885	VV	147	1058	0.04%	0.016%
141	5.892	5.885	5.905	VV	154	1087	0.04%	0.017%

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142	5.917	5.905	5.927	VV	346	1299	0.05%	0.020%
143	5.932	5.927	5.954	VV	123	1235	0.05%	0.019%
144	5.961	5.954	5.986	VV	146	1951	0.07%	0.030%
145	5.990	5.986	6.011	VV	169	1418	0.05%	0.022%
146	6.012	6.011	6.042	VV	139	1401	0.05%	0.021%
147	6.061	6.042	6.068	VV	177	1382	0.05%	0.021%
148	6.082	6.068	6.098	PV	147	1518	0.06%	0.023%
149	6.101	6.098	6.105	VV	105	248	0.01%	0.004%
150	6.108	6.105	6.110	VV	46	178	0.01%	0.003%
151	6.119	6.110	6.132	VV	98	902	0.03%	0.014%
152	6.138	6.132	6.170	VV	152	1854	0.07%	0.028%
153	6.175	6.170	6.181	VV	101	426	0.02%	0.006%
154	6.183	6.181	6.204	VV	118	1010	0.04%	0.015%
155	6.208	6.204	6.216	VV	102	455	0.02%	0.007%
156	6.221	6.216	6.230	VV	108	621	0.02%	0.009%
157	6.277	6.230	6.289	VV	323	6340	0.24%	0.097%
158	6.293	6.289	6.301	VV	223	1504	0.06%	0.023%
159	6.329	6.301	6.406	VV	3304	81579	3.03%	1.243%
160	6.422	6.406	6.468	VV	992	22592	0.84%	0.344%
161	6.478	6.468	6.499	VV	412	6870	0.26%	0.105%
162	6.509	6.499	6.525	VV	367	5191	0.19%	0.079%
163	6.553	6.525	6.572	VV	422	9222	0.34%	0.141%
164	6.577	6.572	6.585	VV	268	1782	0.07%	0.027%
165	6.602	6.585	6.626	VV	302	5714	0.21%	0.087%
166	6.634	6.626	6.682	VV	349	7772	0.29%	0.118%
167	6.709	6.682	6.756	VV	359	8699	0.32%	0.133%
168	6.760	6.756	6.772	VV	147	1199	0.04%	0.018%
169	6.776	6.772	6.803	VV	220	2610	0.10%	0.040%
170	6.808	6.803	6.814	VV	228	923	0.03%	0.014%
171	6.819	6.814	6.851	VV	210	2976	0.11%	0.045%
172	6.856	6.851	6.902	VV	217	4647	0.17%	0.071%
173	6.908	6.902	6.917	VV	180	1061	0.04%	0.016%
174	6.921	6.917	6.940	VV	169	1664	0.06%	0.025%
175	6.955	6.940	6.959	VV	157	1396	0.05%	0.021%
176	6.963	6.959	6.975	VV	164	1165	0.04%	0.018%
177	6.981	6.975	6.985	VV	158	572	0.02%	0.009%
178	7.003	6.985	7.022	VV	207	3645	0.14%	0.056%
179	7.026	7.022	7.032	VV	174	819	0.03%	0.012%
180	7.037	7.032	7.056	VV	147	1531	0.06%	0.023%
181	7.059	7.056	7.066	VV	108	330	0.01%	0.005%
182	7.079	7.066	7.087	VV	124	910	0.03%	0.014%
183	7.099	7.087	7.104	VV	163	980	0.04%	0.015%
184	7.108	7.104	7.121	VV	152	1081	0.04%	0.016%
185	7.127	7.121	7.146	VV	132	998	0.04%	0.015%
186	7.164	7.146	7.172	VV	196	1613	0.06%	0.025%
187	7.177	7.172	7.184	VV	128	664	0.02%	0.010%
188	7.188	7.184	7.196	VV	157	752	0.03%	0.011%
189	7.222	7.196	7.269	VV	433	12444	0.46%	0.190%
190	7.301	7.269	7.319	VV	253	6579	0.24%	0.100%
191	7.323	7.319	7.335	VV	216	1546	0.06%	0.024%
192	7.341	7.335	7.364	VV	210	2922	0.11%	0.045%
193	7.369	7.364	7.376	VV	198	1051	0.04%	0.016%
194	7.386	7.376	7.402	VV	253	2254	0.08%	0.034%

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195	7.429	7.402	7.465	VV	290	6830	0.25%	0.104%
196	7.482	7.465	7.506	VV	216	3280	0.12%	0.050%
197	7.513	7.506	7.521	VV	153	908	0.03%	0.014%
198	7.534	7.521	7.553	VV	220	2471	0.09%	0.038%
199	7.601	7.553	7.622	VV	435	12310	0.46%	0.188%
200	7.631	7.622	7.645	VV	407	5207	0.19%	0.079%
201	7.651	7.645	7.696	VV	468	10447	0.39%	0.159%
202	7.699	7.696	7.719	VV	248	2490	0.09%	0.038%
203	7.725	7.719	7.729	VV	149	715	0.03%	0.011%
204	7.750	7.729	7.756	VV	192	2004	0.07%	0.031%
205	7.782	7.756	7.794	VV	123	2044	0.08%	0.031%
206	7.809	7.794	7.826	VV	171	2134	0.08%	0.033%
207	7.834	7.826	7.841	VV	167	1003	0.04%	0.015%
208	7.844	7.841	7.859	VV	111	925	0.03%	0.014%
209	7.864	7.859	7.896	VV	93	1534	0.06%	0.023%
210	7.901	7.896	7.926	VV	96	1062	0.04%	0.016%
211	7.938	7.926	7.958	VV	159	2351	0.09%	0.036%
212	7.976	7.958	7.987	VV	191	2133	0.08%	0.033%
213	7.995	7.987	8.000	VV	164	983	0.04%	0.015%
214	8.005	8.000	8.037	VV	150	2470	0.09%	0.038%
215	8.043	8.037	8.051	VV	147	971	0.04%	0.015%
216	8.058	8.051	8.066	VV	145	1153	0.04%	0.018%
217	8.102	8.066	8.152	VV	497	17099	0.64%	0.261%
218	8.157	8.152	8.199	VV	252	4955	0.18%	0.076%
219	8.243	8.199	8.251	VV	240	5133	0.19%	0.078%
220	8.268	8.251	8.309	VV	449	8261	0.31%	0.126%
221	8.314	8.309	8.347	VV	164	2663	0.10%	0.041%
222	8.367	8.347	8.400	VV	231	4406	0.16%	0.067%
223	8.403	8.400	8.406	VV	126	410	0.02%	0.006%
224	8.444	8.406	8.456	VV	321	6375	0.24%	0.097%
225	8.460	8.456	8.463	VV	296	1240	0.05%	0.019%
226	8.490	8.463	8.602	VV	2421	91462	3.40%	1.394%
227	8.609	8.602	8.628	VV	376	4699	0.17%	0.072%
228	8.633	8.628	8.655	VV	325	4203	0.16%	0.064%
229	8.660	8.655	8.670	VV	301	2203	0.08%	0.034%
230	8.677	8.670	8.684	VV	284	1924	0.07%	0.029%
231	8.690	8.684	8.735	VV	260	5558	0.21%	0.085%
232	8.739	8.735	8.746	VV	174	892	0.03%	0.014%
233	8.750	8.746	8.761	VV	130	1137	0.04%	0.017%
234	8.767	8.761	8.787	VV	169	1905	0.07%	0.029%
235	8.793	8.787	8.816	VV	156	1717	0.06%	0.026%
236	8.824	8.816	8.844	VV	138	1662	0.06%	0.025%
237	8.860	8.844	8.869	VV	164	1763	0.07%	0.027%
238	8.906	8.869	8.936	VV	245	5974	0.22%	0.091%
239	8.939	8.936	8.967	VV	162	2527	0.09%	0.039%
240	8.975	8.967	8.989	VV	275	2682	0.10%	0.041%
241	8.993	8.989	9.000	VV	163	1013	0.04%	0.015%
242	9.031	9.000	9.061	VV	304	7797	0.29%	0.119%
243	9.064	9.061	9.077	VV	228	2029	0.08%	0.031%
244	9.082	9.077	9.089	VV	238	1349	0.05%	0.021%
245	9.097	9.089	9.109	VV	393	2313	0.09%	0.035%
246	9.114	9.109	9.119	VV	154	731	0.03%	0.011%

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247	9.124	9.119	9.136	VV	174	1099	0.04%	0.017%
248	9.140	9.136	9.146	VV	146	668	0.02%	0.010%
249	9.152	9.146	9.159	VV	171	904	0.03%	0.014%
250	9.165	9.159	9.180	VV	140	1391	0.05%	0.021%
251	9.193	9.180	9.216	VV	207	3462	0.13%	0.053%
252	9.223	9.216	9.241	VV	183	2341	0.09%	0.036%
253	9.243	9.241	9.245	VV	169	432	0.02%	0.007%
254	9.270	9.245	9.329	VV	1069	21563	0.80%	0.329%
255	9.335	9.329	9.344	VV	217	1436	0.05%	0.022%
256	9.379	9.344	9.413	VV	423	9613	0.36%	0.146%
257	9.419	9.413	9.480	VV	193	5170	0.19%	0.079%
258	9.486	9.480	9.501	VV	138	1048	0.04%	0.016%
259	9.511	9.501	9.525	VV	341	1401	0.05%	0.021%
260	9.558	9.525	9.578	VV	207	3842	0.14%	0.059%
261	9.588	9.578	9.605	VV	138	1800	0.07%	0.027%
262	9.613	9.605	9.624	VV	101	880	0.03%	0.013%
263	9.635	9.624	9.640	PV	152	1068	0.04%	0.016%
264	9.645	9.640	9.669	VV	181	1909	0.07%	0.029%
265	9.673	9.669	9.697	VV	157	2169	0.08%	0.033%
266	9.705	9.697	9.708	VV	183	927	0.03%	0.014%
267	9.731	9.708	9.745	VV	308	5389	0.20%	0.082%
268	9.754	9.745	9.767	VV	364	3711	0.14%	0.057%
269	9.768	9.767	9.789	VV	280	2739	0.10%	0.042%
270	9.805	9.789	9.816	VV	246	3029	0.11%	0.046%
271	9.841	9.816	9.866	VV	243	5510	0.20%	0.084%
272	9.871	9.866	9.886	VV	192	1674	0.06%	0.026%
273	9.891	9.886	9.897	VV	186	920	0.03%	0.014%
274	9.915	9.897	9.928	VV	203	2838	0.11%	0.043%
275	9.931	9.928	9.936	VV	194	716	0.03%	0.011%
276	9.938	9.936	9.969	VV	192	2330	0.09%	0.036%
277	9.989	9.969	10.013	VV	229	3970	0.15%	0.060%
278	10.030	10.013	10.052	VV	236	3146	0.12%	0.048%
279	10.083	10.052	10.133	VV	322	10560	0.39%	0.161%
280	10.159	10.133	10.188	VV	432	8167	0.30%	0.124%
281	10.193	10.188	10.198	VV	183	850	0.03%	0.013%
282	10.205	10.198	10.227	VV	136	1825	0.07%	0.028%
283	10.234	10.227	10.250	VV	119	1347	0.05%	0.021%
284	10.256	10.250	10.294	VV	213	3141	0.12%	0.048%
285	10.298	10.294	10.303	VV	143	657	0.02%	0.010%
286	10.308	10.303	10.313	VV	181	791	0.03%	0.012%
287	10.321	10.313	10.339	VV	140	1491	0.06%	0.023%
288	10.343	10.339	10.356	VV	160	977	0.04%	0.015%
289	10.363	10.356	10.372	VV	93	669	0.02%	0.010%
290	10.402	10.372	10.416	VV	131	2097	0.08%	0.032%
291	10.424	10.416	10.434	VV	132	1140	0.04%	0.017%
292	10.460	10.434	10.474	VV	126	2124	0.08%	0.032%
293	10.477	10.474	10.499	VV	183	1874	0.07%	0.029%
294	10.506	10.499	10.525	VV	136	1738	0.06%	0.026%
295	10.532	10.525	10.546	VV	174	1754	0.07%	0.027%
296	10.550	10.546	10.557	VV	187	1148	0.04%	0.017%
297	10.562	10.557	10.571	VV	198	1307	0.05%	0.020%
298	10.584	10.571	10.602	VV	222	3347	0.12%	0.051%
299	10.634	10.602	10.667	VV	255	6218	0.23%	0.095%

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300	10.677	10.667	10.682	VV	167	1049	0.04%	0.016%
301	10.691	10.682	10.702	VV	145	1496	0.06%	0.023%
302	10.717	10.702	10.724	VV	199	2309	0.09%	0.035%
303	10.727	10.724	10.761	VV	204	2756	0.10%	0.042%
304	10.827	10.761	10.848	VV	392	10811	0.40%	0.165%
305	10.854	10.848	10.864	VV	194	1412	0.05%	0.022%
306	10.902	10.864	10.925	VV	491	9382	0.35%	0.143%
307	10.931	10.925	10.936	VV	155	957	0.04%	0.015%
308	10.946	10.936	10.951	VV	158	1240	0.05%	0.019%
309	10.958	10.951	10.984	VV	200	2679	0.10%	0.041%
310	10.998	10.984	11.021	VV	221	2987	0.11%	0.046%
311	11.024	11.021	11.040	VV	130	1155	0.04%	0.018%
312	11.047	11.040	11.061	VV	146	1086	0.04%	0.017%
313	11.066	11.061	11.070	VV	103	468	0.02%	0.007%
314	11.089	11.070	11.106	VV	257	3385	0.13%	0.052%
315	11.124	11.106	11.174	VV	280	6492	0.24%	0.099%
316	11.182	11.174	11.185	VV	263	1301	0.05%	0.020%
317	11.199	11.185	11.209	VV	269	3246	0.12%	0.049%
318	11.214	11.209	11.231	VV	254	2216	0.08%	0.034%
319	11.240	11.231	11.249	VV	212	2001	0.07%	0.030%
320	11.255	11.249	11.272	VV	153	1957	0.07%	0.030%
321	11.294	11.272	11.336	VV	224	5705	0.21%	0.087%
322	11.345	11.336	11.352	VV	115	905	0.03%	0.014%
323	11.357	11.352	11.376	VV	130	1287	0.05%	0.020%
324	11.421	11.376	11.446	VV	232	4918	0.18%	0.075%
325	11.451	11.446	11.457	VV	90	285	0.01%	0.004%
326	11.464	11.457	11.484	VV	127	1292	0.05%	0.020%
327	11.486	11.484	11.492	VV	92	403	0.01%	0.006%
328	11.494	11.492	11.508	VV	136	855	0.03%	0.013%
329	11.540	11.508	11.559	VV	418	6593	0.24%	0.100%
330	11.563	11.559	11.567	VV	152	589	0.02%	0.009%
331	11.605	11.567	11.634	VV	377	7930	0.29%	0.121%
332	11.639	11.634	11.664	VV	155	2168	0.08%	0.033%
333	11.688	11.664	11.694	VV	221	2473	0.09%	0.038%
334	11.699	11.694	11.745	VV	188	2725	0.10%	0.042%
335	11.755	11.745	11.761	VV	207	1304	0.05%	0.020%
336	11.765	11.761	11.788	VV	231	2170	0.08%	0.033%
337	11.793	11.788	11.820	VV	157	1897	0.07%	0.029%
338	11.837	11.820	11.864	VV	174	2911	0.11%	0.044%
339	11.882	11.864	11.896	VV	212	2641	0.10%	0.040%
340	11.904	11.896	11.910	VV	192	1208	0.04%	0.018%
341	11.927	11.910	11.933	VV	206	2154	0.08%	0.033%
342	11.957	11.933	11.964	VV	165	2457	0.09%	0.037%
343	11.971	11.964	11.995	VV	200	2743	0.10%	0.042%
344	12.023	11.995	12.039	VV	251	4919	0.18%	0.075%
345	12.042	12.039	12.048	VV	177	708	0.03%	0.011%
346	12.058	12.048	12.062	VV	182	1259	0.05%	0.019%
347	12.087	12.062	12.126	VV	1223	16462	0.61%	0.251%
348	12.131	12.126	12.135	PV	119	410	0.02%	0.006%
349	12.145	12.135	12.152	VV	132	893	0.03%	0.014%
350	12.157	12.152	12.172	VV	141	1152	0.04%	0.018%
351	12.175	12.172	12.197	VV	109	1243	0.05%	0.019%

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352	12.217	12.197	12.235	VV	404	5743	0.21%	0.088%
353	12.245	12.235	12.249	VV	161	1044	0.04%	0.016%
354	12.277	12.249	12.300	VV	381	7116	0.26%	0.108%
355	12.331	12.300	12.391	VV	10619	138517	5.15%	2.111%
356	12.400	12.391	12.448	VV	292	6716	0.25%	0.102%
357	12.453	12.448	12.462	VV	142	837	0.03%	0.013%
358	12.466	12.462	12.477	VV	161	899	0.03%	0.014%
359	12.483	12.477	12.486	VV	114	540	0.02%	0.008%
360	12.492	12.486	12.500	VV	134	991	0.04%	0.015%
361	12.530	12.500	12.566	VV	1284	24515	0.91%	0.374%
362	12.572	12.566	12.579	VV	392	2853	0.11%	0.043%
363	12.584	12.579	12.598	VV	363	3188	0.12%	0.049%
364	12.605	12.598	12.617	VV	267	2640	0.10%	0.040%
365	12.620	12.617	12.632	VV	200	1610	0.06%	0.025%
366	12.641	12.632	12.648	VV	203	1505	0.06%	0.023%
367	12.664	12.648	12.676	VV	208	2695	0.10%	0.041%
368	12.680	12.676	12.707	VV	174	2368	0.09%	0.036%
369	12.727	12.707	12.733	VV	219	2501	0.09%	0.038%
370	12.741	12.733	12.759	VV	198	2636	0.10%	0.040%
371	12.762	12.759	12.769	VV	99	523	0.02%	0.008%
372	12.775	12.769	12.779	VV	113	563	0.02%	0.009%
373	12.782	12.779	12.793	VV	173	866	0.03%	0.013%
374	12.803	12.793	12.831	VV	142	2217	0.08%	0.034%
375	12.833	12.831	12.837	VV	148	422	0.02%	0.006%
376	12.862	12.837	12.886	VV	362	6324	0.23%	0.096%
377	12.890	12.886	12.895	VV	151	655	0.02%	0.010%
378	12.918	12.895	12.962	VV	422	8048	0.30%	0.123%
379	12.975	12.962	13.021	VV	241	4856	0.18%	0.074%
380	13.056	13.021	13.061	VV	152	2492	0.09%	0.038%
381	13.068	13.061	13.129	VV	130	2343	0.09%	0.036%
382	13.134	13.129	13.147	VV	94	575	0.02%	0.009%
383	13.159	13.147	13.163	VV	63	389	0.01%	0.006%
384	13.181	13.163	13.196	PV	158	1478	0.05%	0.023%
385	13.212	13.196	13.230	VV	114	1396	0.05%	0.021%
386	13.240	13.230	13.259	VV	643	2137	0.08%	0.033%
387	13.268	13.259	13.277	PV	77	622	0.02%	0.009%
388	13.284	13.277	13.297	VV	143	1155	0.04%	0.018%
389	13.353	13.297	13.382	VV	1171	19648	0.73%	0.299%
390	13.409	13.382	13.434	VV	6964	88838	3.30%	1.354%
391	13.443	13.434	13.469	VV	780	11265	0.42%	0.172%
392	13.482	13.469	13.511	VV	429	5978	0.22%	0.091%
393	13.534	13.511	13.560	VV	416	6579	0.24%	0.100%
394	13.563	13.560	13.567	VV	176	798	0.03%	0.012%
395	13.589	13.567	13.654	VV	3839	56077	2.08%	0.855%
396	13.659	13.654	13.686	VV	178	2658	0.10%	0.041%
397	13.692	13.686	13.699	VV	74	526	0.02%	0.008%
398	13.722	13.699	13.751	VV	234	4424	0.16%	0.067%
399	13.781	13.751	13.812	VV	372	9089	0.34%	0.138%
400	13.815	13.812	13.834	VV	156	1647	0.06%	0.025%
401	13.838	13.834	13.841	VV	151	492	0.02%	0.007%
402	13.844	13.841	13.872	VV	144	1597	0.06%	0.024%
403	13.890	13.872	13.906	VV	216	3033	0.11%	0.046%
404	13.929	13.906	13.941	VV	207	3214	0.12%	0.049%

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405	13.945	13.941	13.960	VV	166	1267	0.05%	0.019%
406	13.979	13.960	14.010	VV	156	2872	0.11%	0.044%
407	14.015	14.010	14.033	VV	125	1000	0.04%	0.015%
408	14.074	14.033	14.102	VV	347	5874	0.22%	0.090%
409	14.126	14.102	14.146	VV	351	4803	0.18%	0.073%
410	14.151	14.146	14.159	VV	126	696	0.03%	0.011%
411	14.175	14.159	14.186	VV	140	1631	0.06%	0.025%
412	14.189	14.186	14.193	VV	122	433	0.02%	0.007%
413	14.196	14.193	14.202	VV	147	418	0.02%	0.006%
414	14.224	14.202	14.233	VV	138	1099	0.04%	0.017%
415	14.249	14.233	14.258	VV	158	1454	0.05%	0.022%
416	14.267	14.258	14.283	VV	104	704	0.03%	0.011%
417	14.303	14.283	14.307	PV	135	972	0.04%	0.015%
418	14.325	14.307	14.344	VV	233	3219	0.12%	0.049%
419	14.346	14.344	14.352	VV	174	603	0.02%	0.009%
420	14.356	14.352	14.381	VV	196	2259	0.08%	0.034%
421	14.399	14.381	14.433	VV	290	5320	0.20%	0.081%
422	14.441	14.433	14.447	VV	189	1133	0.04%	0.017%
423	14.450	14.447	14.463	VV	227	1400	0.05%	0.021%
424	14.481	14.463	14.509	VV	433	6636	0.25%	0.101%
425	14.512	14.509	14.532	VV	190	2020	0.08%	0.031%
426	14.534	14.532	14.547	VV	125	925	0.03%	0.014%
427	14.553	14.547	14.558	VV	193	715	0.03%	0.011%
428	14.563	14.558	14.566	VV	106	368	0.01%	0.006%
429	14.569	14.566	14.594	VV	133	1342	0.05%	0.020%
430	14.601	14.594	14.617	VV	136	1202	0.04%	0.018%
431	14.637	14.617	14.666	VV	223	3482	0.13%	0.053%
432	14.689	14.666	14.726	VV	354	6725	0.25%	0.102%
433	14.770	14.726	14.798	VV	448	13326	0.50%	0.203%
434	14.811	14.798	14.826	VV	236	3605	0.13%	0.055%
435	14.843	14.826	14.876	VV	294	5529	0.21%	0.084%
436	14.888	14.876	14.892	VV	228	1463	0.05%	0.022%
437	14.899	14.892	14.933	VV	257	3855	0.14%	0.059%
438	14.938	14.933	14.944	VV	221	1018	0.04%	0.016%
439	14.961	14.944	14.980	VV	251	3339	0.12%	0.051%
440	15.027	14.980	15.109	VV	140221	1917413	71.24%	29.218%
441	15.117	15.109	15.122	VV	289	1833	0.07%	0.028%
442	15.126	15.122	15.139	VV	261	1641	0.06%	0.025%
443	15.188	15.139	15.207	VV	353	7885	0.29%	0.120%
444	15.230	15.207	15.279	VV	445	10672	0.40%	0.163%
445	15.283	15.279	15.299	VV	105	1043	0.04%	0.016%
446	15.317	15.299	15.324	VV	157	1419	0.05%	0.022%
447	15.344	15.324	15.353	VV	138	1554	0.06%	0.024%
448	15.358	15.353	15.361	VV	97	399	0.01%	0.006%
449	15.364	15.361	15.368	VV	109	357	0.01%	0.005%
450	15.384	15.368	15.407	VV	162	2418	0.09%	0.037%
451	15.426	15.407	15.467	VV	365	6907	0.26%	0.105%
452	15.471	15.467	15.491	VV	143	1151	0.04%	0.018%
453	15.497	15.491	15.512	VV	121	1009	0.04%	0.015%
454	15.517	15.512	15.524	VV	65	421	0.02%	0.006%
455	15.546	15.524	15.566	PV	177	2616	0.10%	0.040%
456	15.570	15.566	15.591	VV	116	1328	0.05%	0.020%

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457	15.612	15.591	15.627	VV	183	2125	0.08%	0.032%
458	15.649	15.627	15.670	VV	247	4500	0.17%	0.069%
459	15.698	15.670	15.707	VV	144	2599	0.10%	0.040%
460	15.711	15.707	15.715	VV	205	923	0.03%	0.014%
461	15.717	15.715	15.727	VV	191	1116	0.04%	0.017%
462	15.759	15.727	15.764	VV	283	4460	0.17%	0.068%
463	15.767	15.764	15.787	VV	284	2455	0.09%	0.037%
464	15.807	15.787	15.827	VV	255	3856	0.14%	0.059%
465	15.832	15.827	15.839	VV	102	433	0.02%	0.007%
466	15.843	15.839	15.847	VV	54	302	0.01%	0.005%
467	15.852	15.847	15.856	VV	96	366	0.01%	0.006%
468	15.876	15.856	15.883	VV	246	2300	0.09%	0.035%
469	15.889	15.883	15.896	VV	295	1848	0.07%	0.028%
470	15.898	15.896	15.916	VV	252	1873	0.07%	0.029%
471	15.926	15.916	15.962	VV	138	2232	0.08%	0.034%
472	15.968	15.962	15.973	VV	101	435	0.02%	0.007%
473	15.979	15.973	15.987	VV	115	443	0.02%	0.007%
474	16.044	15.987	16.106	VV	357	9993	0.37%	0.152%
475	16.116	16.106	16.127	VV	159	1141	0.04%	0.017%
476	16.132	16.127	16.166	VV	146	1789	0.07%	0.027%
477	16.183	16.166	16.209	VV	131	2573	0.10%	0.039%
478	16.214	16.209	16.226	VV	191	1738	0.06%	0.026%
479	16.257	16.226	16.277	VV	358	6257	0.23%	0.095%
480	16.281	16.277	16.302	VV	169	1692	0.06%	0.026%
481	16.314	16.302	16.341	VV	131	1603	0.06%	0.024%
482	16.359	16.341	16.371	VV	126	1179	0.04%	0.018%
483	16.392	16.371	16.409	PV	178	2844	0.11%	0.043%
484	16.426	16.409	16.432	VV	163	1439	0.05%	0.022%
485	16.436	16.432	16.464	VV	169	1707	0.06%	0.026%
486	16.473	16.464	16.482	VV	92	605	0.02%	0.009%
487	16.484	16.482	16.489	VV	99	207	0.01%	0.003%
488	16.495	16.489	16.506	VV	90	621	0.02%	0.009%
489	16.511	16.506	16.522	VV	87	538	0.02%	0.008%
490	16.536	16.522	16.572	VV	162	2200	0.08%	0.034%
491	16.595	16.572	16.601	VV	118	1453	0.05%	0.022%
492	16.614	16.601	16.631	VV	119	1609	0.06%	0.025%
493	16.634	16.631	16.637	VV	89	233	0.01%	0.004%
494	16.642	16.637	16.674	PV	81	1581	0.06%	0.024%
495	16.701	16.674	16.720	PV	190	3042	0.11%	0.046%
496	16.737	16.720	16.762	VV	392	5378	0.20%	0.082%
497	16.778	16.762	16.790	VV	139	1704	0.06%	0.026%
498	16.825	16.790	16.841	VV	174	3383	0.13%	0.052%
499	16.847	16.841	16.856	VV	71	311	0.01%	0.005%
500	16.917	16.856	16.922	PV	123	3628	0.13%	0.055%
501	16.933	16.922	16.961	VV	141	1828	0.07%	0.028%
502	17.019	16.961	17.077	VV	1100	21329	0.79%	0.325%
503	17.096	17.077	17.122	VV	232	4014	0.15%	0.061%
504	17.207	17.122	17.284	VV	655	18323	0.68%	0.279%
505	17.376	17.284	17.384	PV	102	2758	0.10%	0.042%

Sum of corrected areas: 6562512

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: WEST04

ProjectID: Ft Meade Tipton Airfield Parcel RI - PO 0111169

Lab Code: CHEM Case No.: Q1539 SAS No.: Q1539 SDG No.: Q1539

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

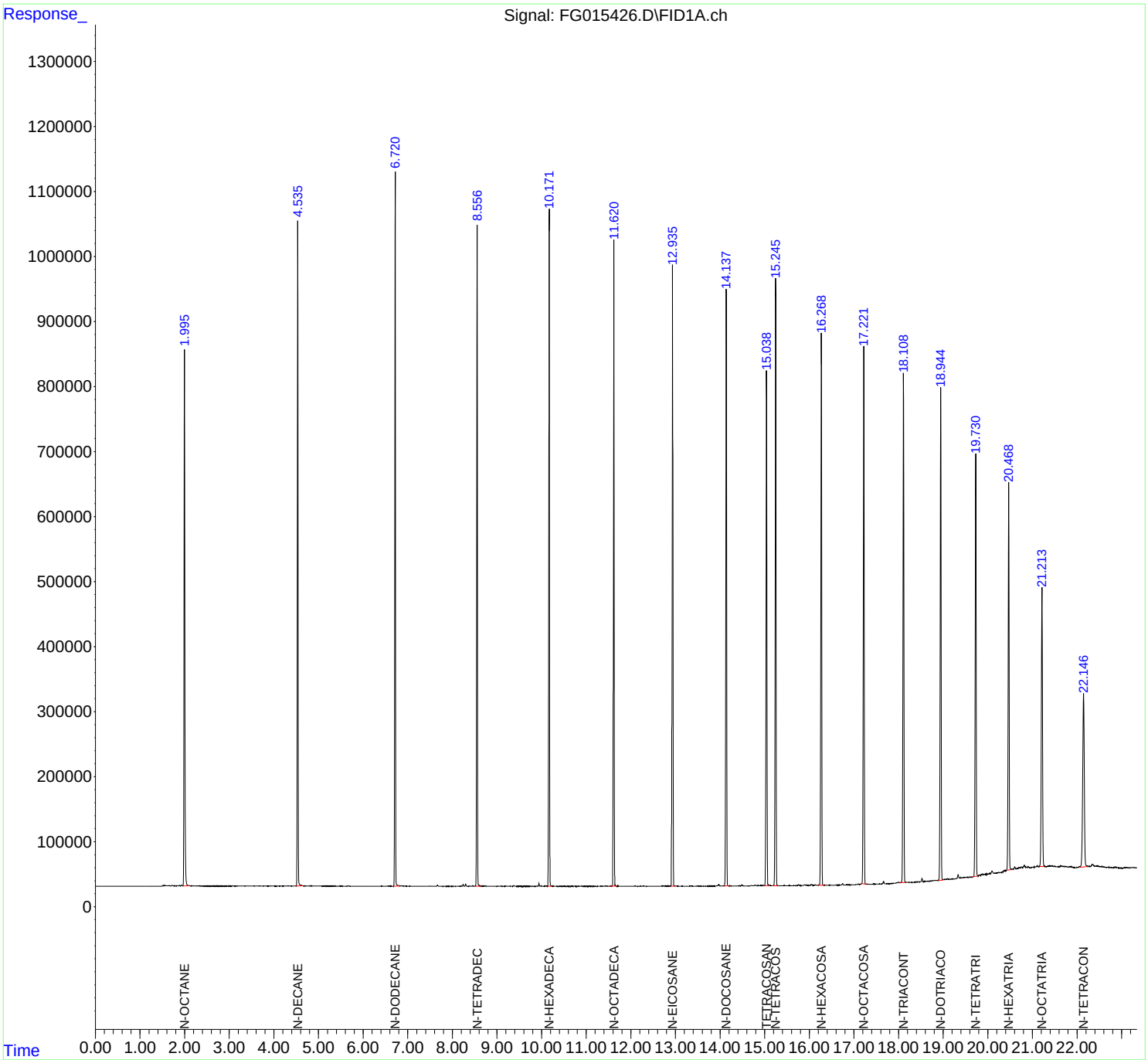
(f)=RT Delta > 1/2 Window (m)=manual int.

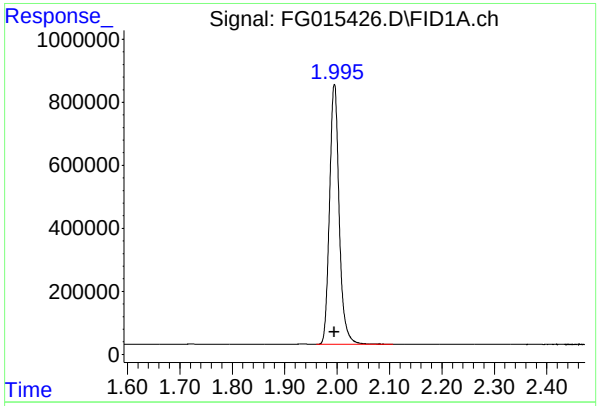
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG030325\
Data File : FG015426.D
Signal(s) : FID1A.ch
Acq On : 03 Mar 2025 11:48
Operator : YP\AJ
Sample : 100 TRPH STD
Misc :
ALS Vial : 21 Sample Multiplier: 1

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

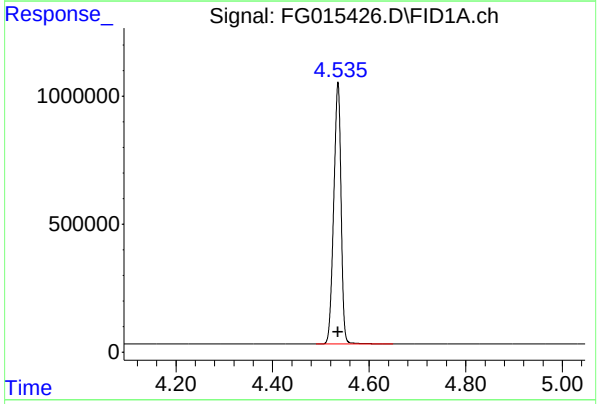




#1 N-OCTANE

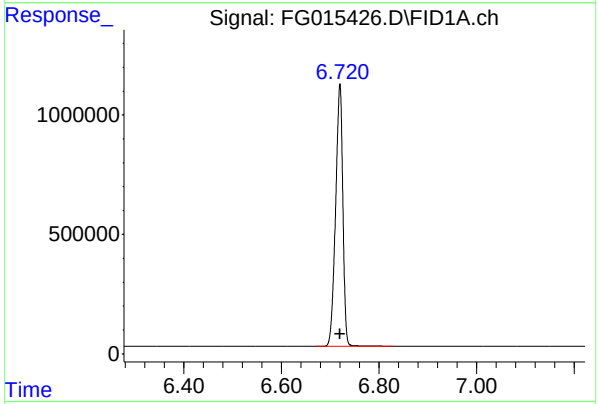
R.T.: 1.995 min
Delta R.T.: 0.000 min
Response: 10570364
Conc: 103.12 ug/ml

Instrument :
FID_G
ClientSampleId :
100 TRPH STD



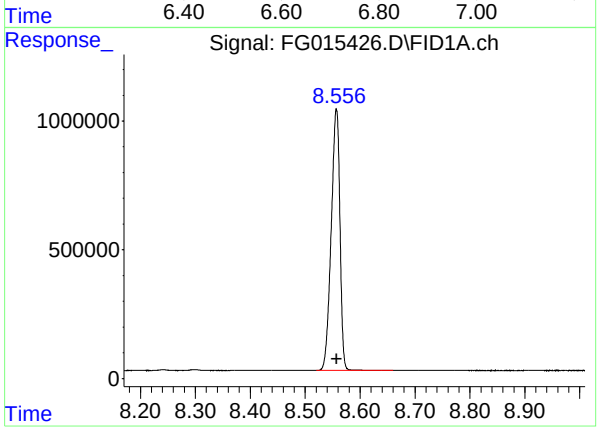
#2 N-DECANE

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



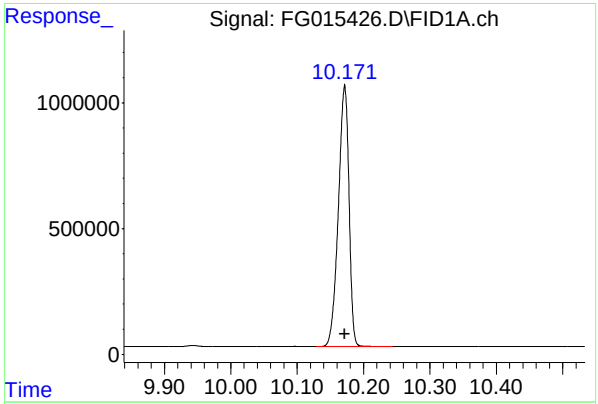
#3 N-DODECANE

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



#4 N-TETRADECANE

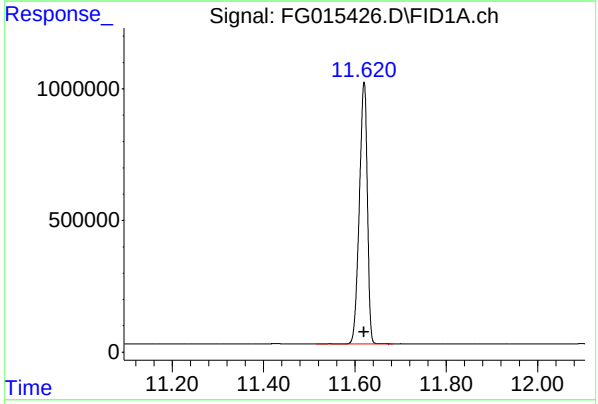
R.T.: 8.557 min
Delta R.T.: 0.000 min
Response: 11220922
Conc: 101.79 ug/ml



#5 N-HEXADECANE

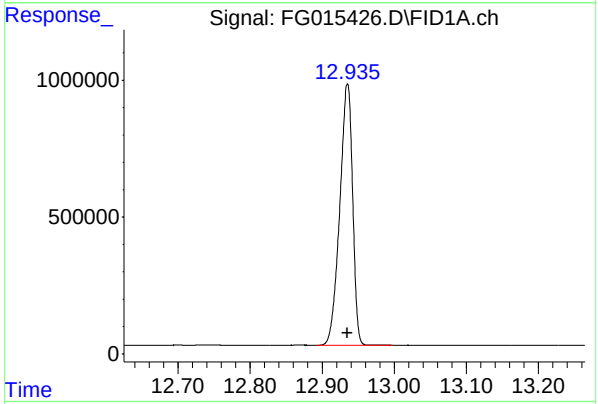
R.T.: 10.172 min
Delta R.T.: 0.000 min
Response: 11555168
Conc: 101.20 ug/ml

Instrument :
FID_G
ClientSampleId :
100 TRPH STD



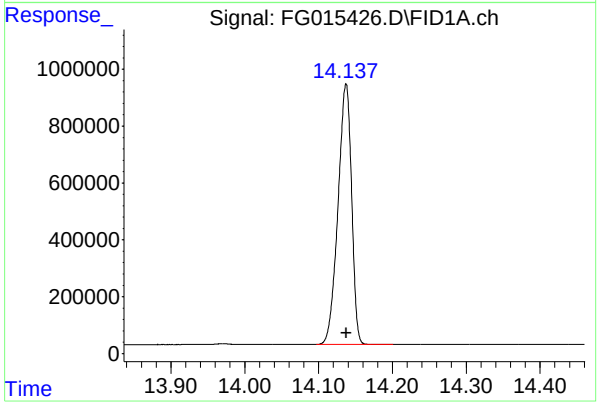
#6 N-OCTADECANE

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



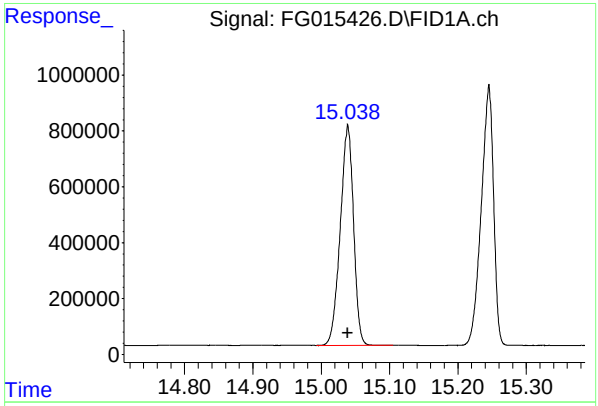
#7 N-EICOSANE

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



#8 N-DOCOSANE

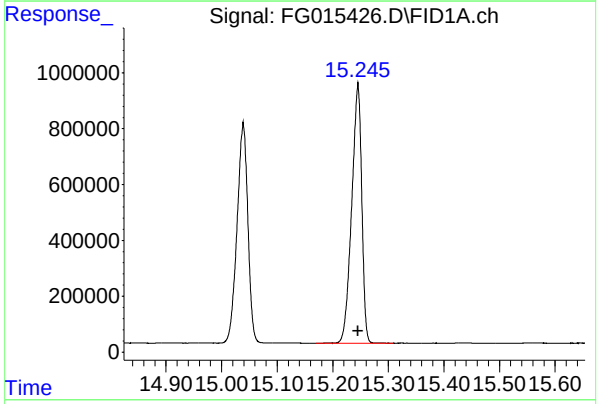
R.T.: 14.137 min
Delta R.T.: 0.000 min
Response: 11716478
Conc: 100.63 ug/ml



#9 TETRACOSANE-d50 (SURROGATE)

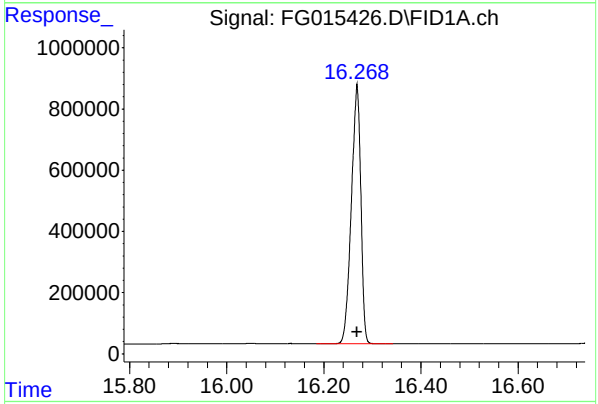
R.T.: 15.039 min
Delta R.T.: 0.000 min
Response: 10644030
Conc: 100.72 ug/ml

Instrument :
FID_G
ClientSampleId :
100 TRPH STD



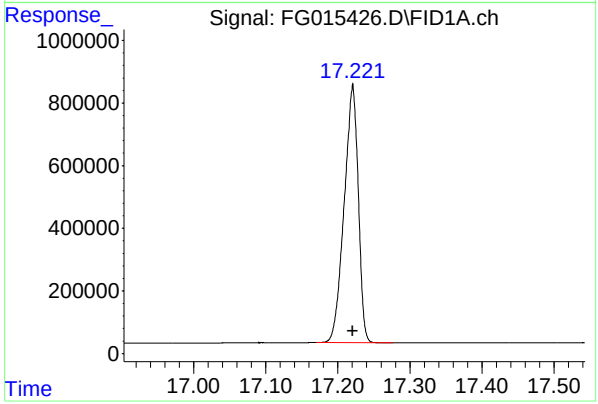
#10 N-TETRACOSANE

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



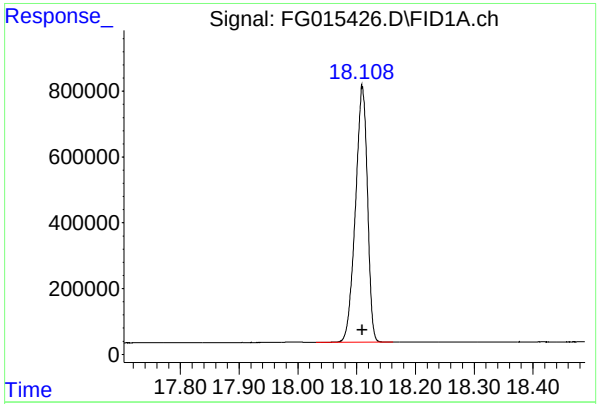
#11 N-HEXACOSANE

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



#12 N-OCTACOSANE

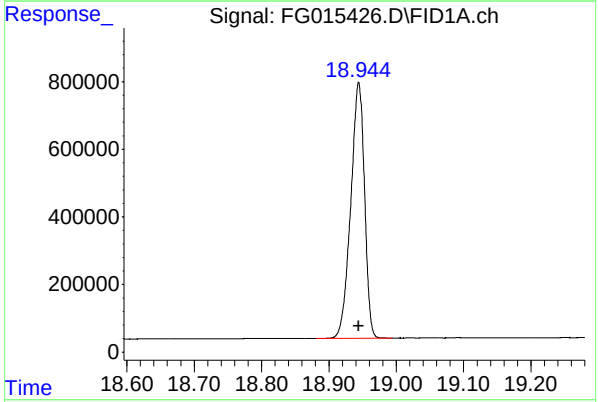
R.T.: 17.221 min
Delta R.T.: 0.000 min
Response: 11190263
Conc: 100.83 ug/ml



#13 N-TRIACONTANE

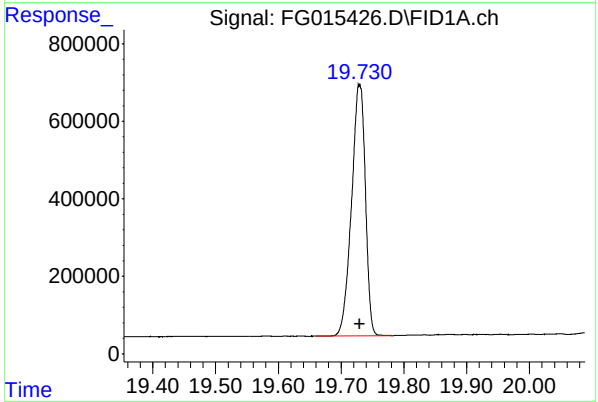
R.T.: 18.110 min
Delta R.T.: 0.000 min
Response: 11049270
Conc: 100.55 ug/ml

Instrument :
FID_G
ClientSampleId :
100 TRPH STD



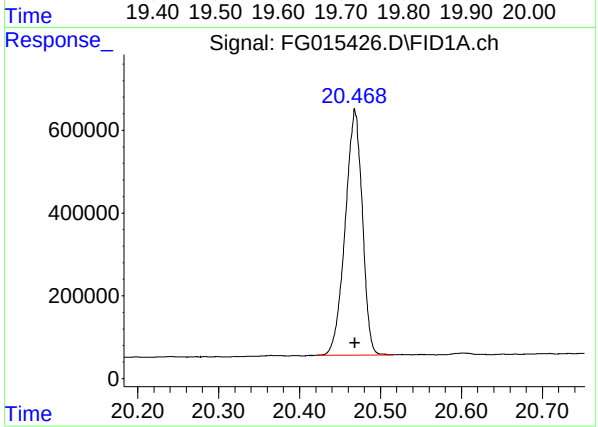
#14 N-DOTRIACONTANE

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



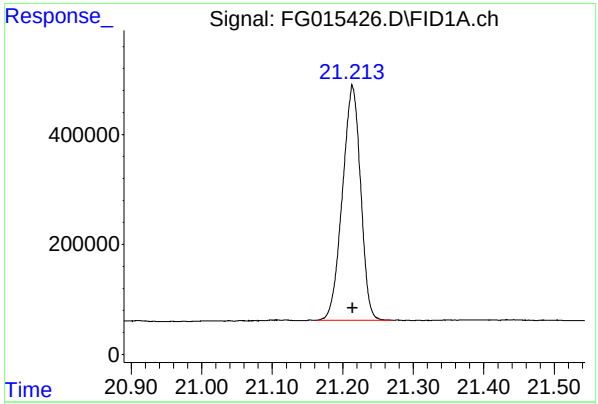
#15 N-TETRATRIACONTANE

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



#16 N-HEXATRIACONTANE

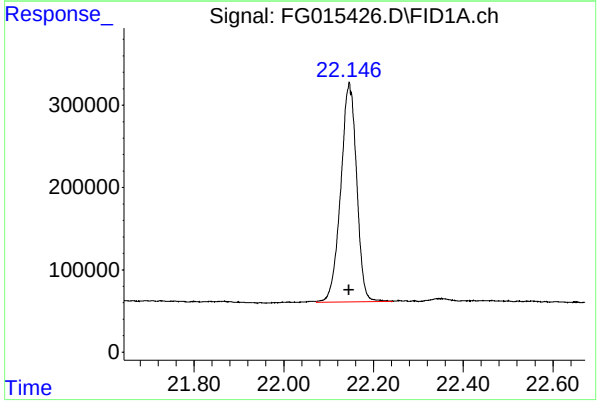
R.T.: 20.469 min
Delta R.T.: 0.000 min
Response: 8727944
Conc: 101.03 ug/ml



#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

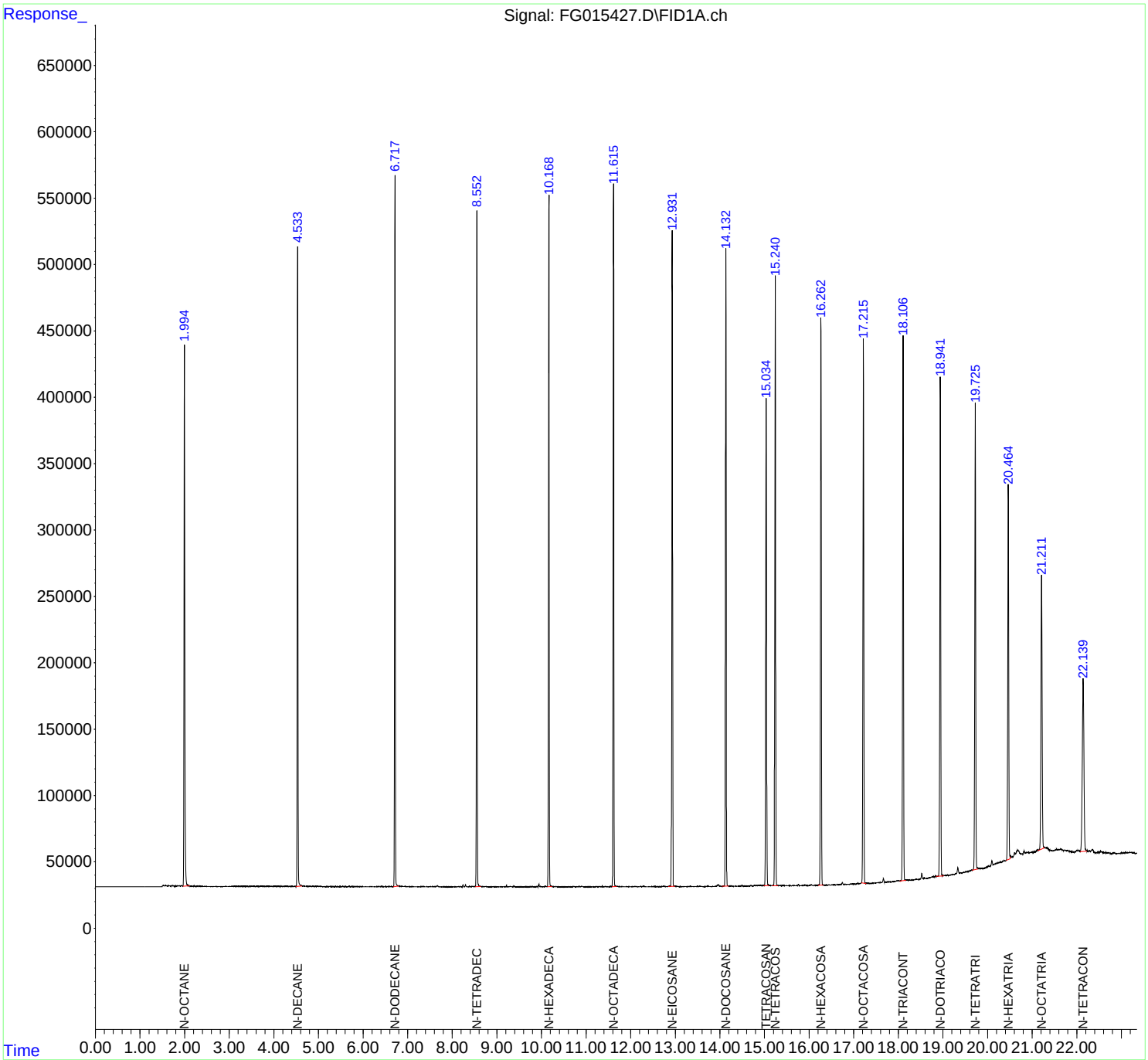
(f)=RT Delta > 1/2 Window (m)=manual int.

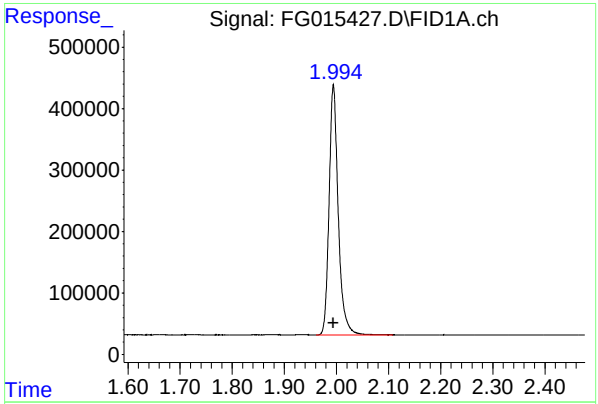
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG030325\
Data File : FG015427.D
Signal(s) : FID1A.ch
Acq On : 03 Mar 2025 12:17
Operator : YP\AJ
Sample : 50 TRPH STD
Misc :
ALS Vial : 22 Sample Multiplier: 1

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

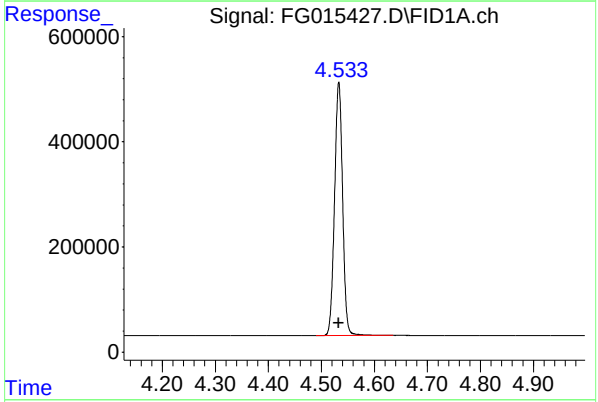




#1 N-OCTANE

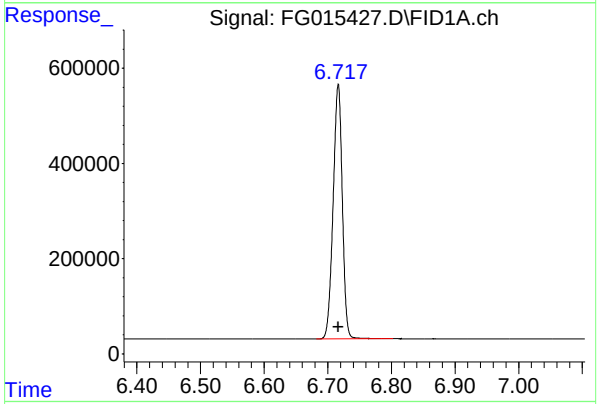
R.T.: 1.994 min
Delta R.T.: 0.000 min
Response: 4965506
Conc: 50.00 ug/ml

Instrument :
FID_G
ClientSampleId :
50 TRPH STD



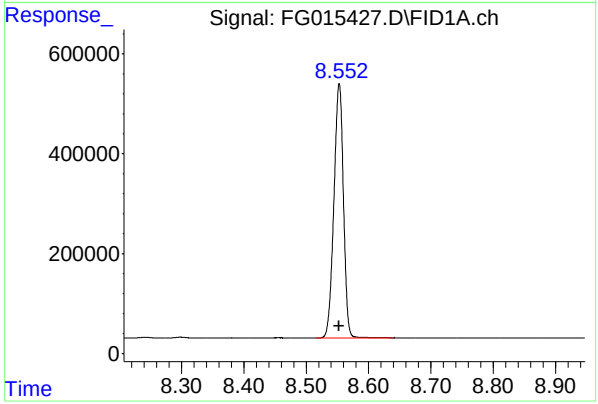
#2 N-DECANE

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



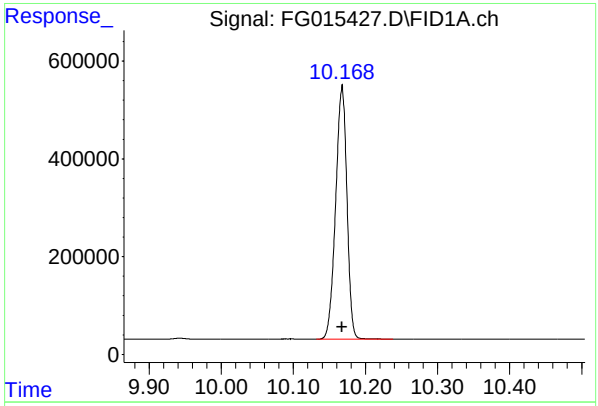
#3 N-DODECANE

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



#4 N-TETRADECANE

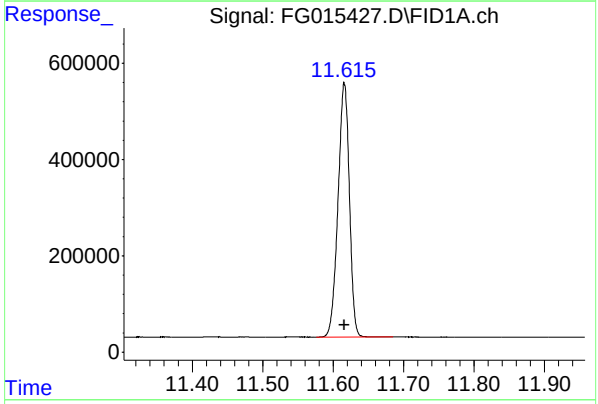
R.T.: 8.553 min
Delta R.T.: 0.000 min
Response: 5413479
Conc: 50.00 ug/ml



#5 N-HEXADECANE

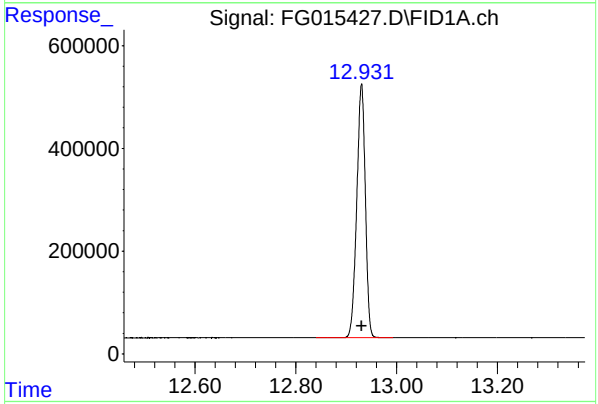
R.T.: 10.168 min
Delta R.T.: 0.000 min
Response: 5640871
Conc: 50.00 ug/ml

Instrument :
FID_G
ClientSampleId :
50 TRPH STD



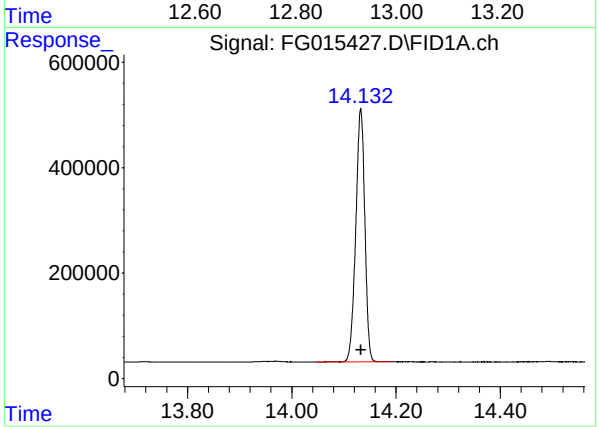
#6 N-OCTADECANE

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



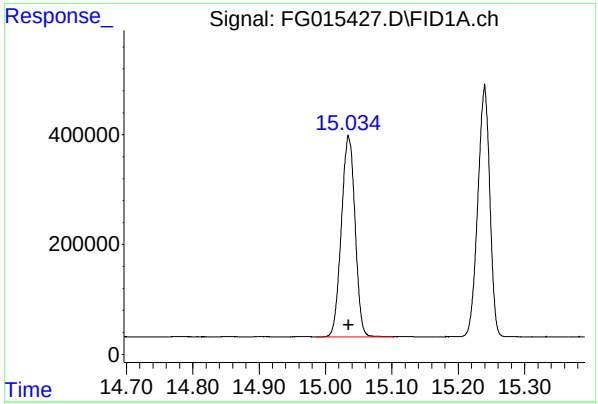
#7 N-EICOSANE

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



#8 N-DOCOSANE

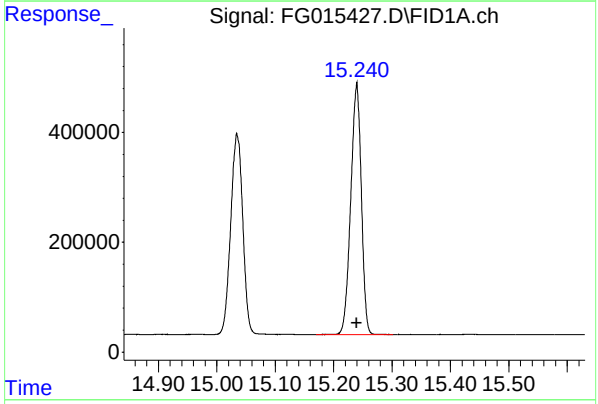
R.T.: 14.132 min
Delta R.T.: 0.000 min
Response: 5785353
Conc: 50.00 ug/ml



#9 TETRACOSANE-d50 (SURROGATE)

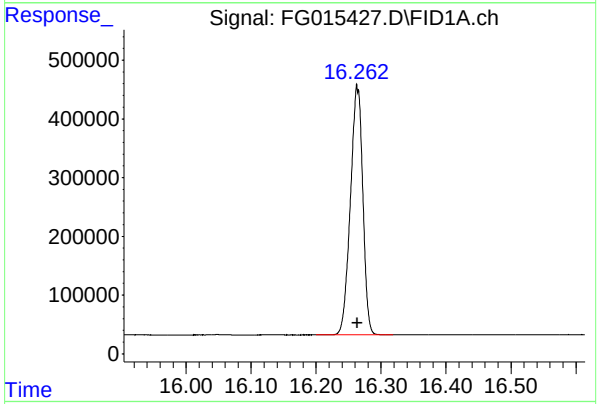
R.T.: 15.035 min
Delta R.T.: 0.000 min
Response: 5246382
Conc: 50.00 ug/ml

Instrument :
FID_G
ClientSampleId :
50 TRPH STD



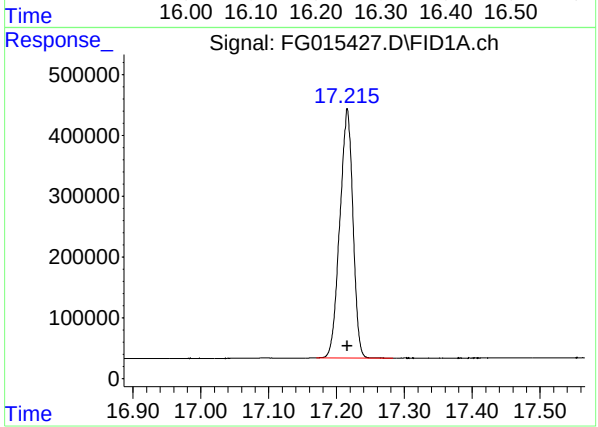
#10 N-TETRACOSANE

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



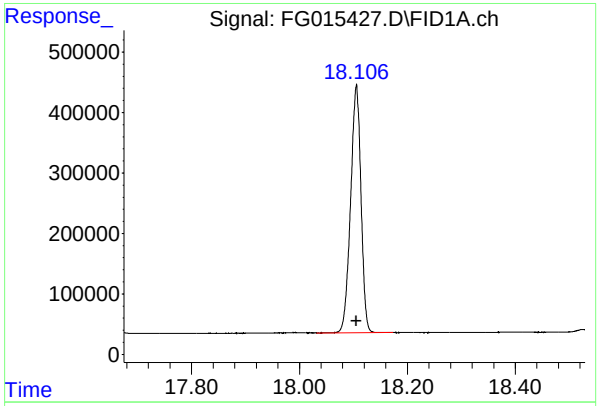
#11 N-HEXACOSANE

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



#12 N-OCTACOSANE

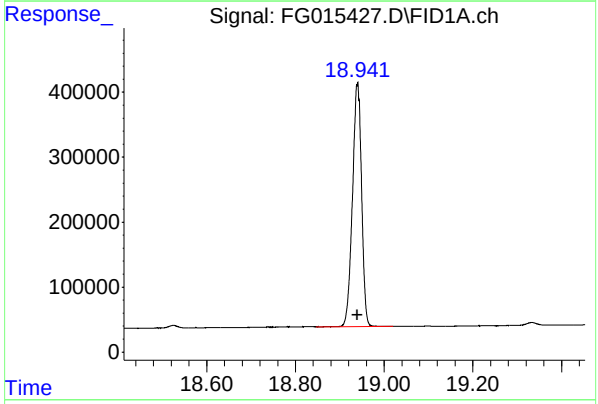
R.T.: 17.216 min
Delta R.T.: 0.000 min
Response: 5503536
Conc: 50.00 ug/ml



#13 N-TRIACONTANE

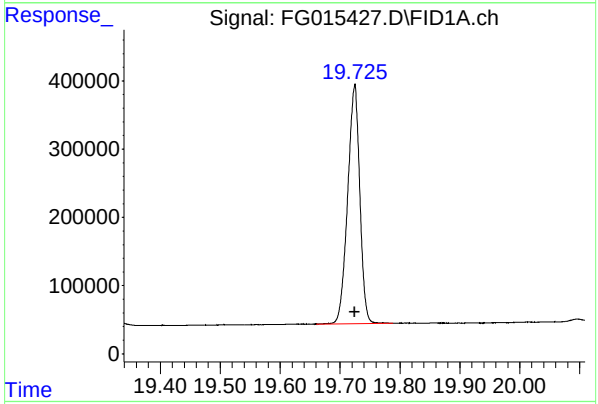
R.T.: 18.106 min
Delta R.T.: 0.000 min
Response: 5464008
Conc: 50.00 ug/ml

Instrument :
FID_G
ClientSampleId :
50 TRPH STD



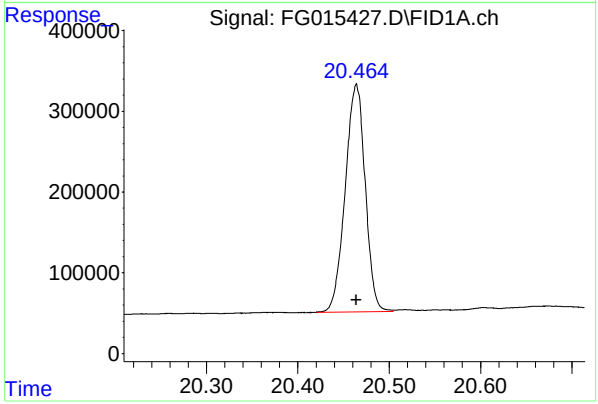
#14 N-DOTRIACONTANE

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



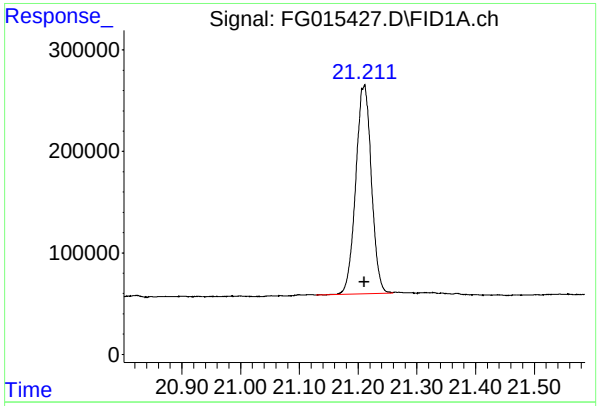
#15 N-TETRATRIACONTANE

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



#16 N-HEXATRIACONTANE

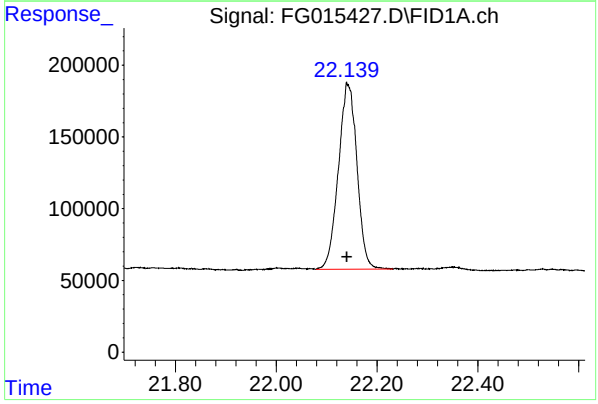
R.T.: 20.464 min
Delta R.T.: 0.000 min
Response: 4275212
Conc: 50.00 ug/ml



#17 N-OCTATRIACONTANE

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

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.

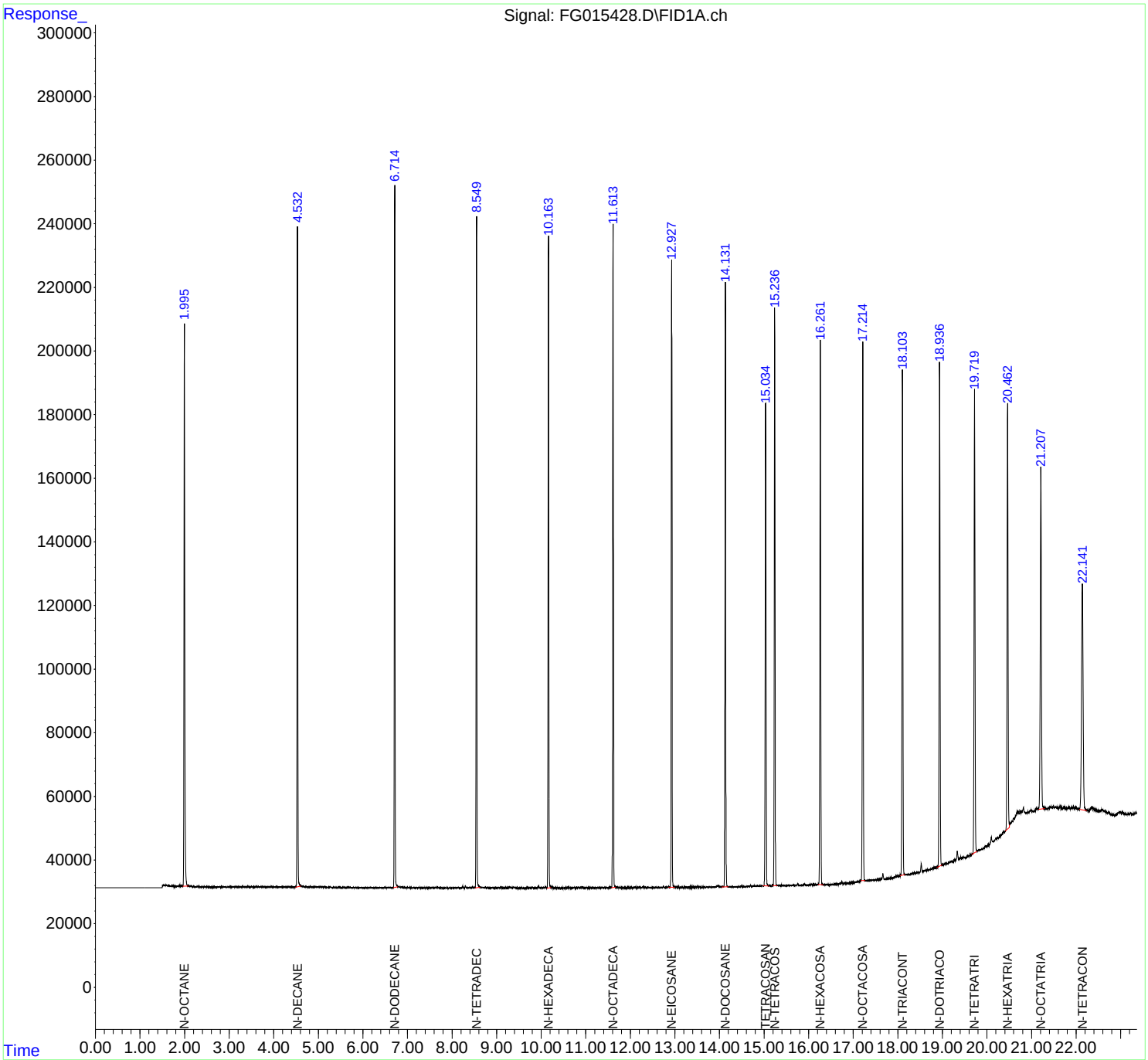
Quantitation Report (QT Reviewed)

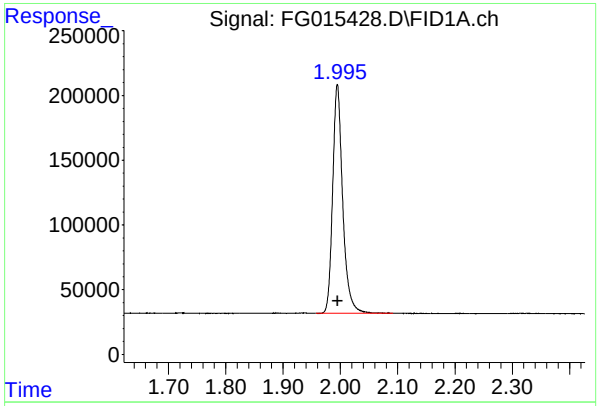
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG030325\
Data File : FG015428.D
Signal(s) : FID1A.ch
Acq On : 03 Mar 2025 12:46
Operator : YP\AJ
Sample : 20 TRPH STD
Misc :
ALS Vial : 23 Sample Multiplier: 1

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

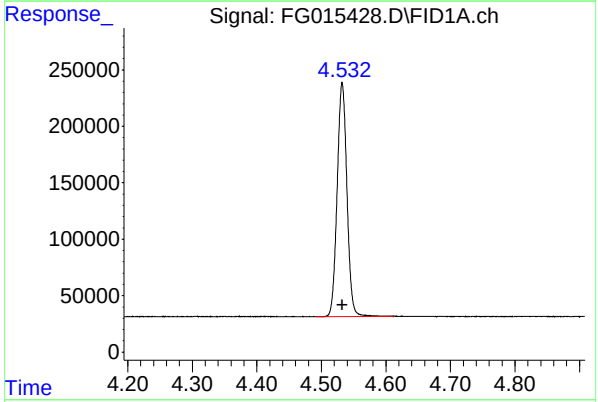




#1 N-OCTANE

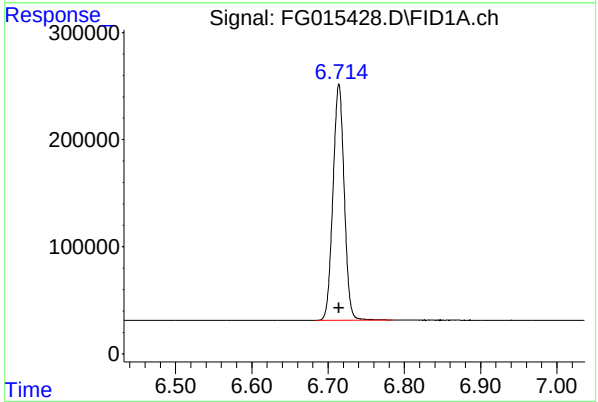
R.T.: 1.995 min
Delta R.T.: 0.000 min
Response: 2148272
Conc: 20.63 ug/ml

Instrument :
FID_G
ClientSampleId :
20 TRPH STD



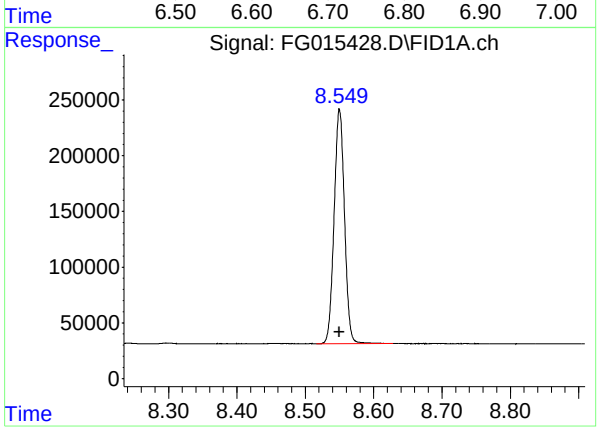
#2 N-DECANE

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



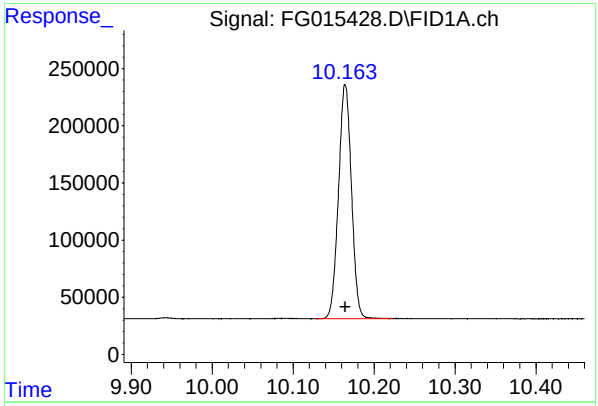
#3 N-DODECANE

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



#4 N-TETRADECANE

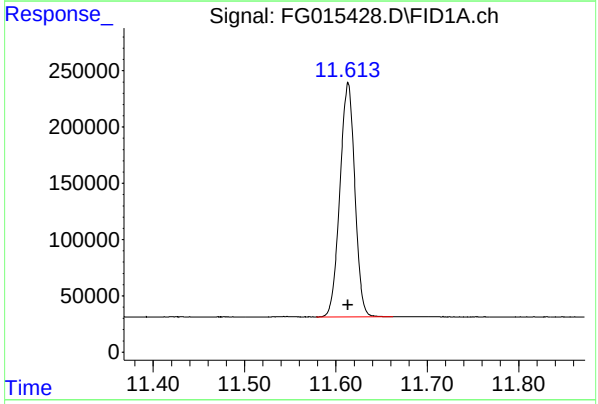
R.T.: 8.550 min
Delta R.T.: 0.000 min
Response: 2229154
Conc: 20.15 ug/ml



#5 N-HEXADECANE

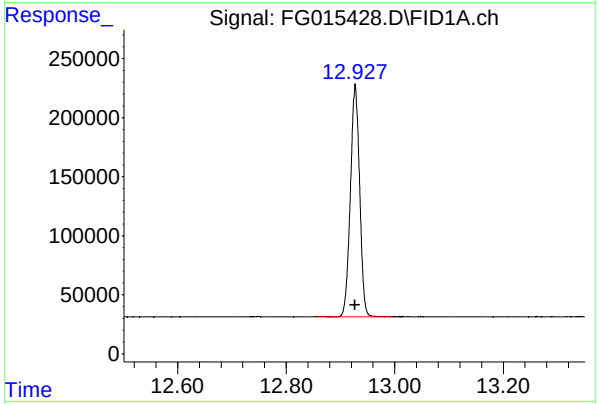
R.T.: 10.164 min
Delta R.T.: 0.000 min
Response: 2282146
Conc: 19.99 ug/ml

Instrument :
FID_G
ClientSampleId :
20 TRPH STD



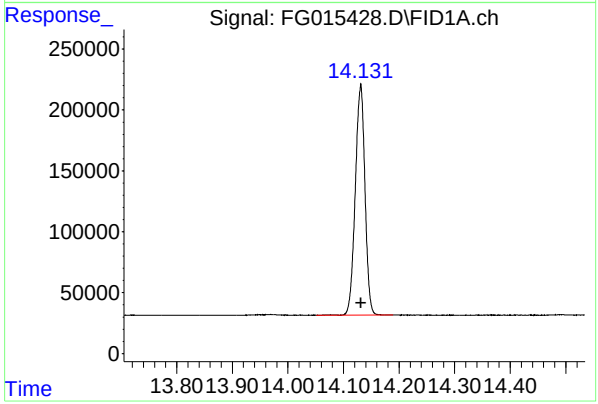
#6 N-OCTADECANE

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



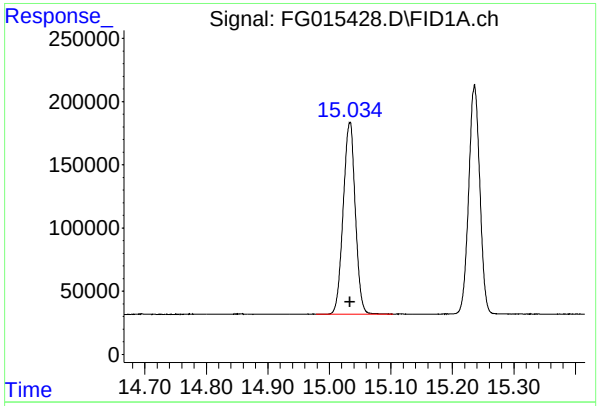
#7 N-EICOSANE

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



#8 N-DOCOSANE

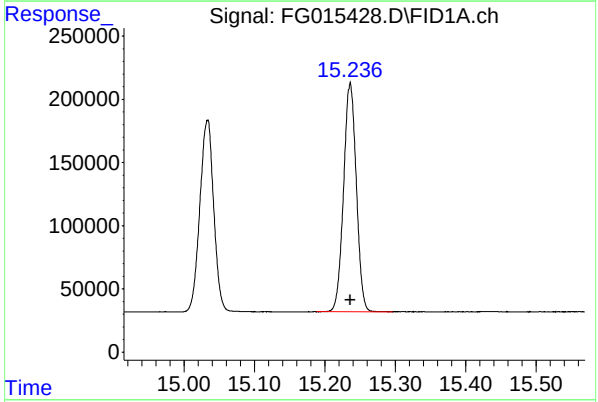
R.T.: 14.131 min
Delta R.T.: 0.000 min
Response: 2288772
Conc: 19.77 ug/ml



#9 TETRACOSANE-d50 (SURROGATE)

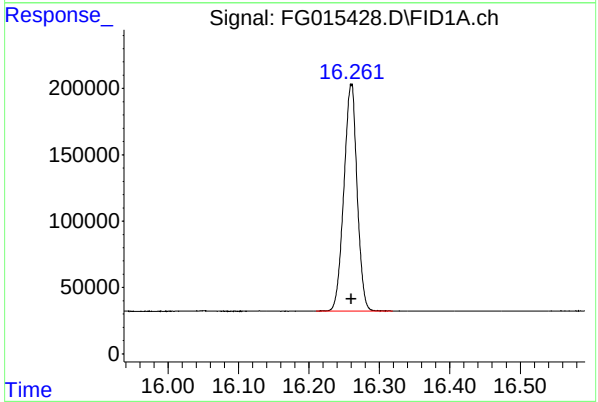
R.T.: 15.033 min
Delta R.T.: 0.000 min
Response: 2074987
Conc: 19.75 ug/ml

Instrument :
FID_G
ClientSampleId :
20 TRPH STD



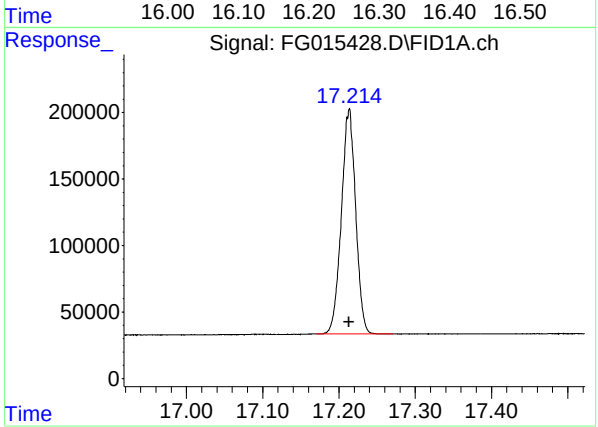
#10 N-TETRACOSANE

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



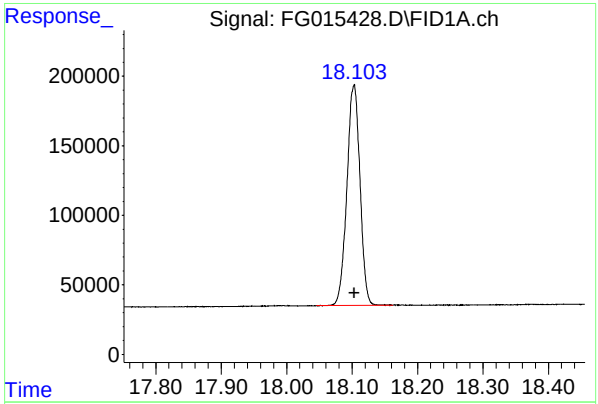
#11 N-HEXACOSANE

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



#12 N-OCTACOSANE

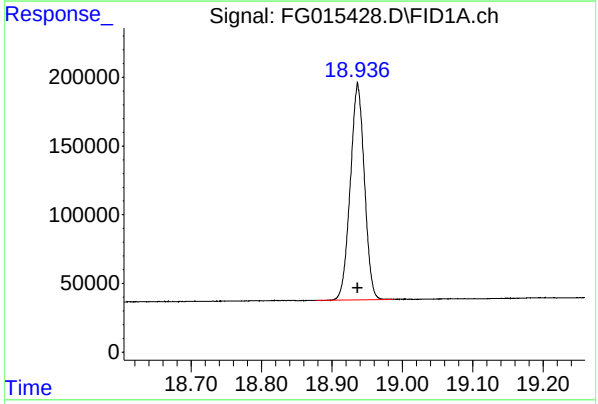
R.T.: 17.213 min
Delta R.T.: 0.000 min
Response: 2200912
Conc: 19.89 ug/ml



#13 N-TRIACONTANE

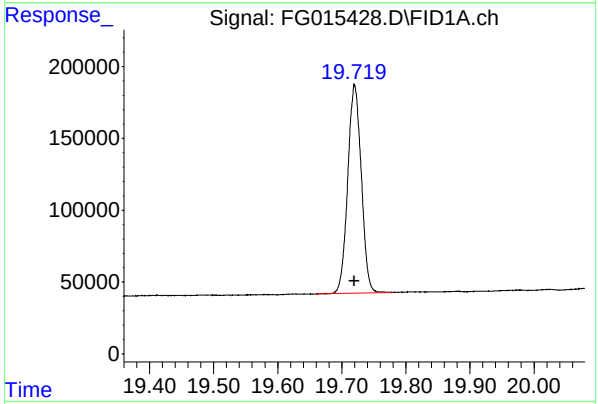
R.T.: 18.103 min
Delta R.T.: 0.000 min
Response: 2201361
Conc: 20.02 ug/ml

Instrument :
FID_G
ClientSampleId :
20 TRPH STD



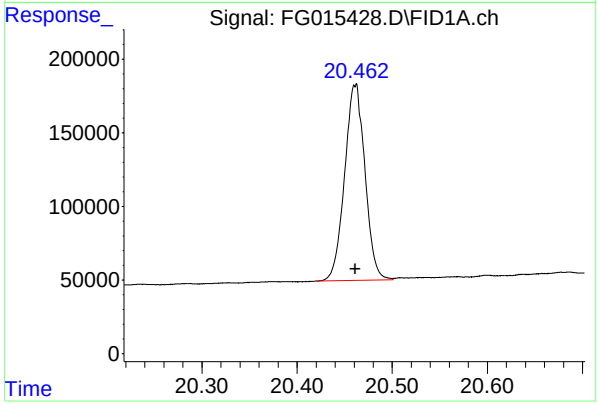
#14 N-DOTRIACONTANE

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



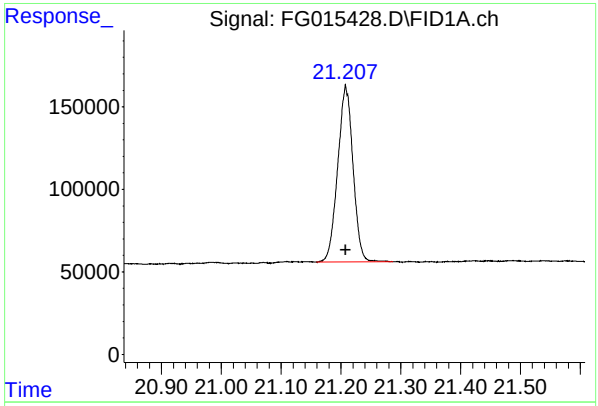
#15 N-TETRATRIACONTANE

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



#16 N-HEXATRIACONTANE

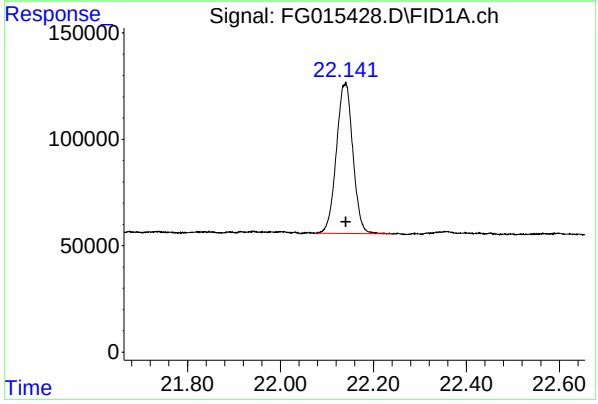
R.T.: 20.461 min
Delta R.T.: 0.000 min
Response: 1988145
Conc: 21.91 ug/ml



#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

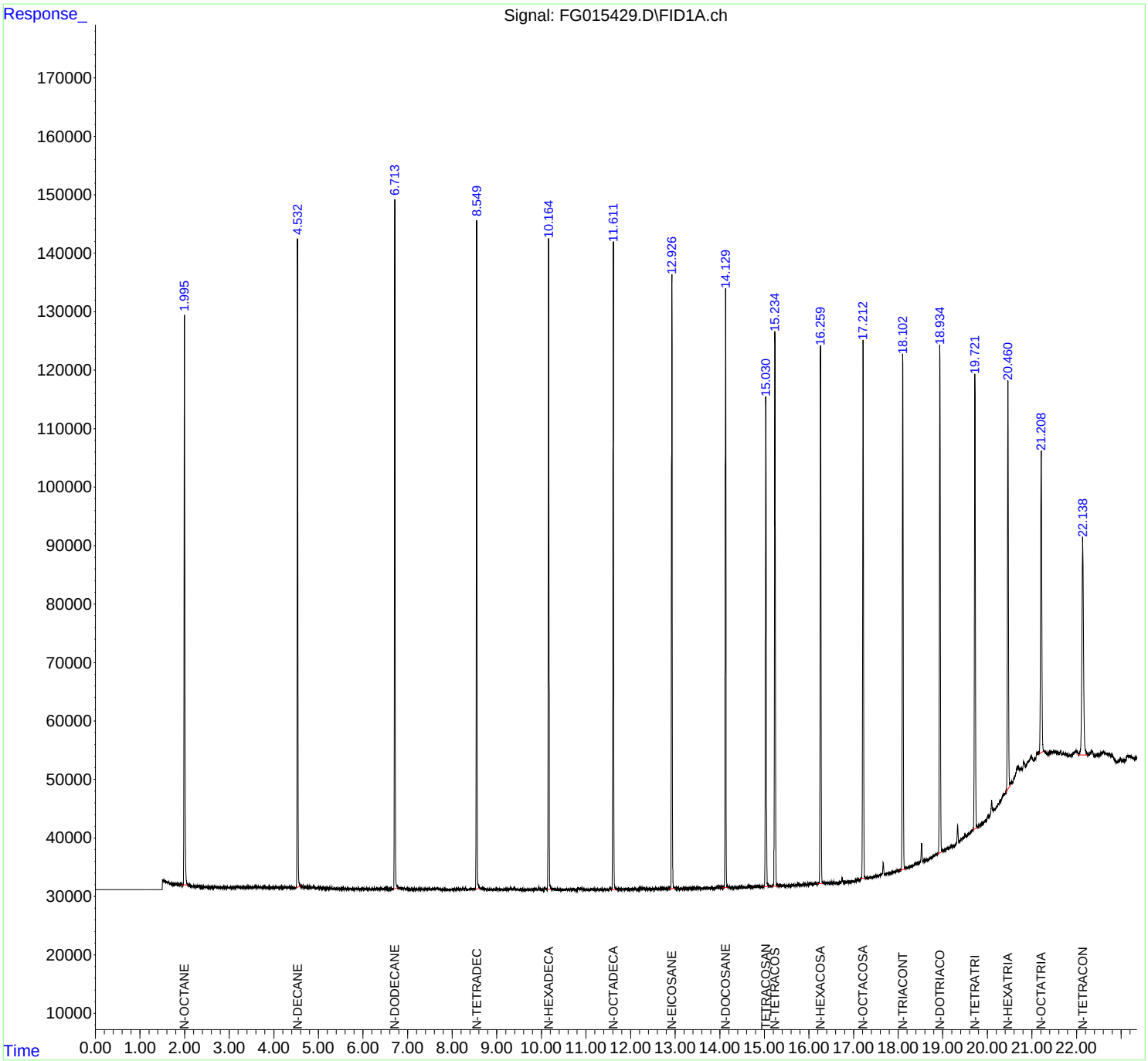
(f)=RT Delta > 1/2 Window (m)=manual int.

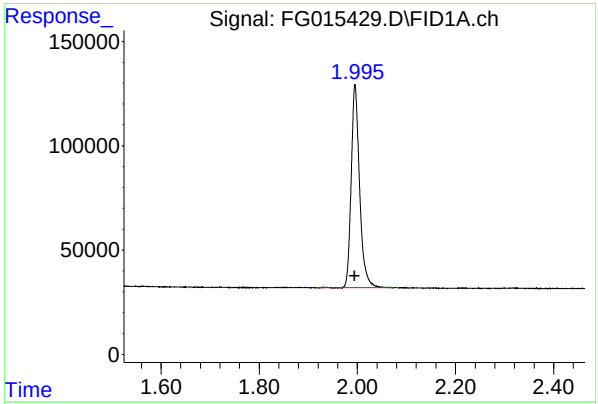
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG030325\
Data File : FG015429.D
Signal(s) : FID1A.ch
Acq On : 03 Mar 2025 13:16
Operator : YP\AJ
Sample : 10 TRPH STD
Misc :
ALS Vial : 24 Sample Multiplier: 1

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

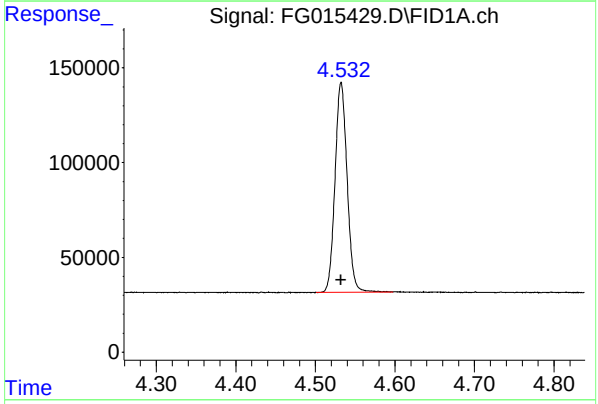




#1 N-OCTANE

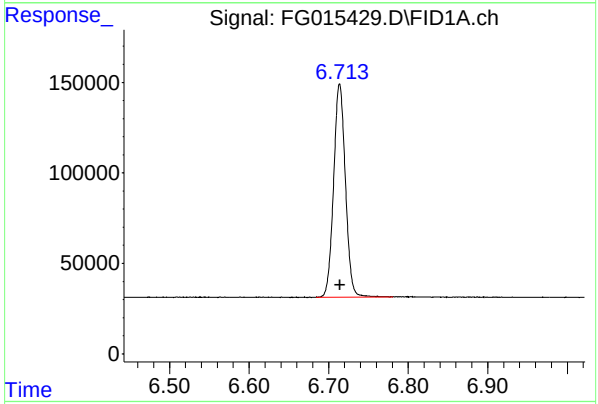
R.T.: 1.995 min
Delta R.T.: 0.000 min
Response: 1157492
Conc: 11.11 ug/ml

Instrument :
FID_G
ClientSampleId :
10 TRPH STD



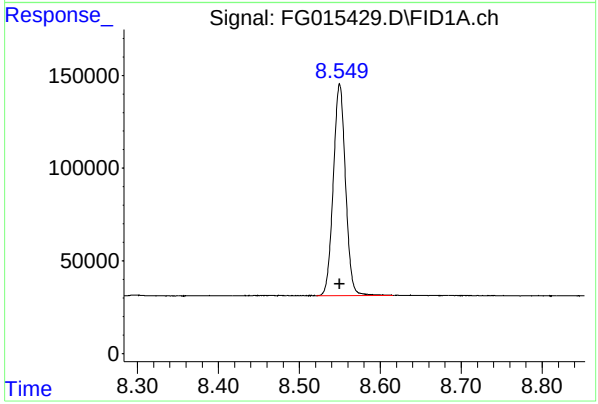
#2 N-DECANE

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



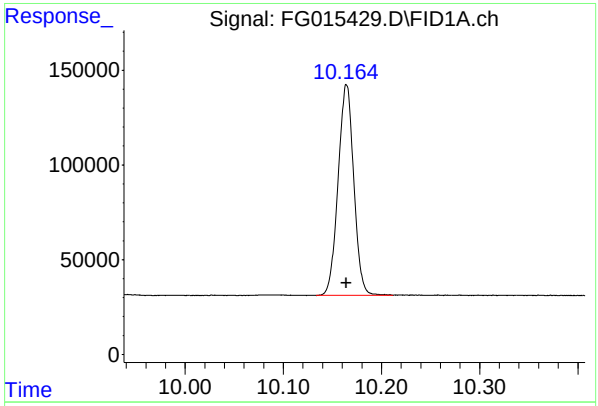
#3 N-DODECANE

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



#4 N-TETRADECANE

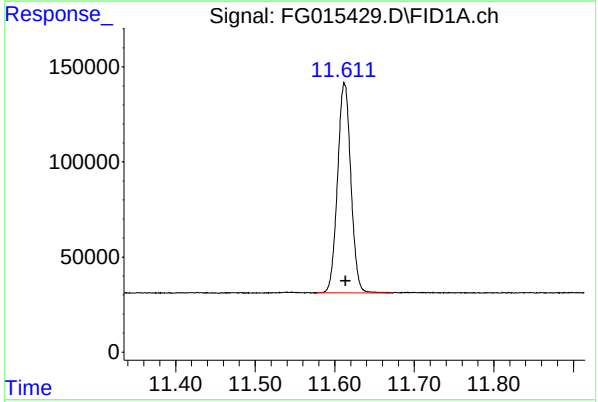
R.T.: 8.550 min
Delta R.T.: 0.000 min
Response: 1198081
Conc: 10.83 ug/ml



#5 N-HEXADECANE

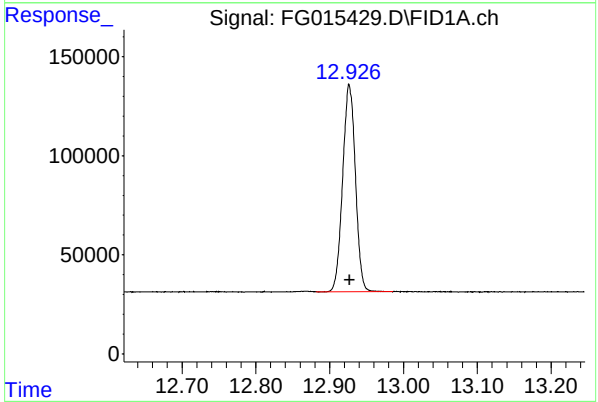
R.T.: 10.165 min
Delta R.T.: 0.000 min
Response: 1231825
Conc: 10.79 ug/ml

Instrument :
FID_G
ClientSampleId :
10 TRPH STD



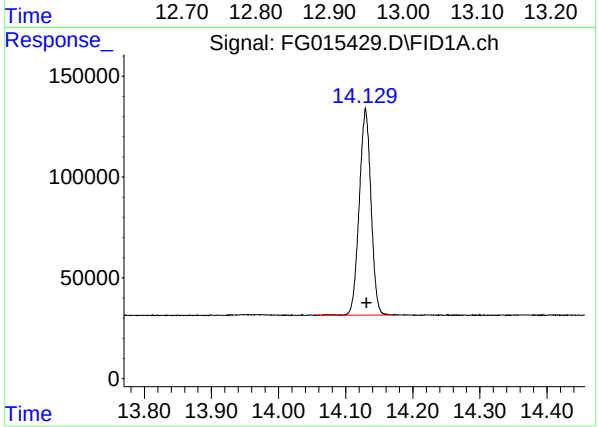
#6 N-OCTADECANE

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



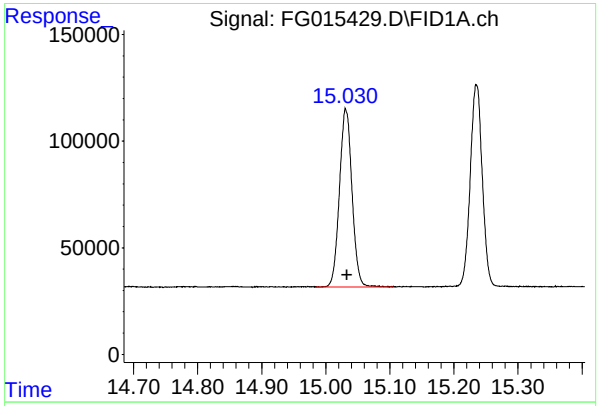
#7 N-EICOSANE

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



#8 N-DOCOSANE

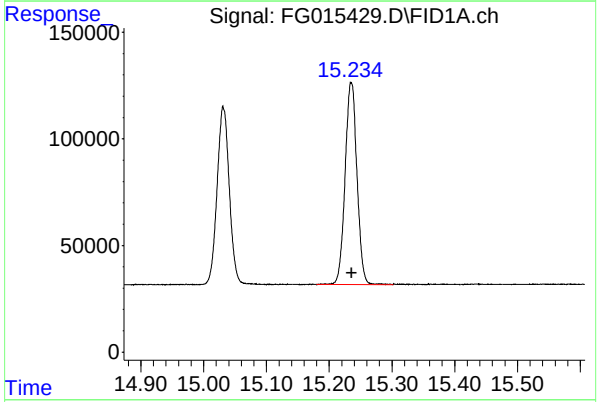
R.T.: 14.130 min
Delta R.T.: -0.001 min
Response: 1241010
Conc: 10.72 ug/ml



#9 TETRACOSANE-d50 (SURROGATE)

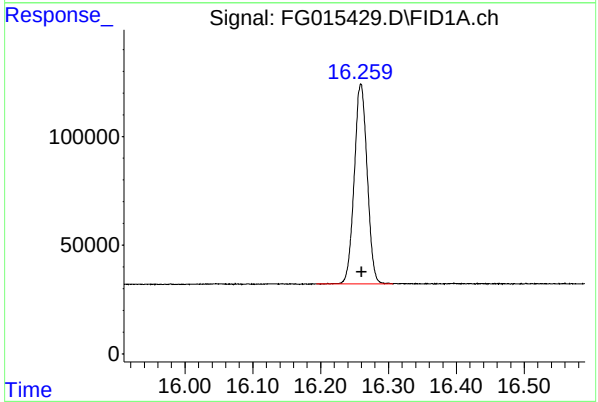
R.T.: 15.031 min
Delta R.T.: -0.002 min
Response: 1127859
Conc: 10.74 ug/ml

Instrument :
FID_G
ClientSampleId :
10 TRPH STD



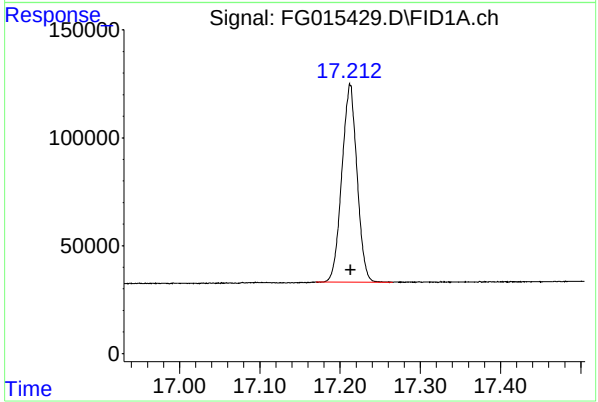
#10 N-TETRACOSANE

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



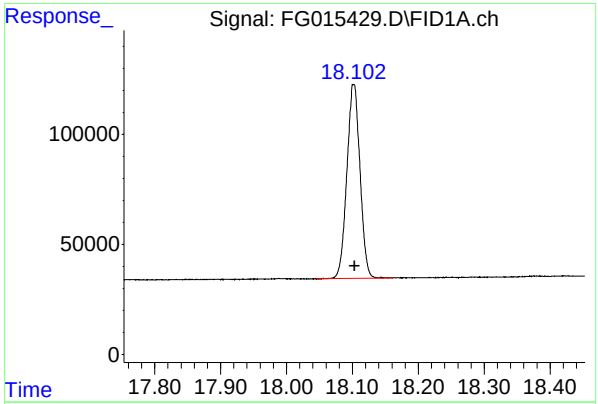
#11 N-HEXACOSANE

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



#12 N-OCTACOSANE

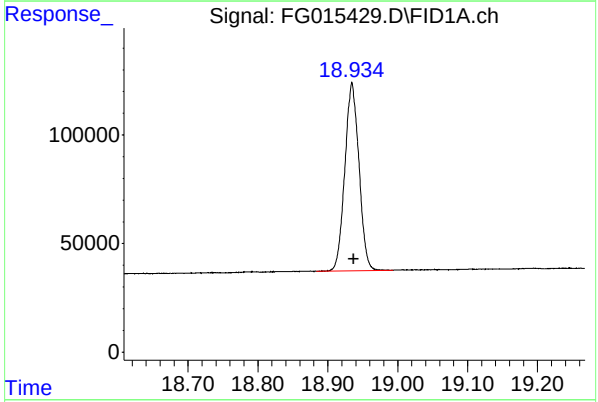
R.T.: 17.213 min
Delta R.T.: 0.000 min
Response: 1204505
Conc: 10.88 ug/ml



#13 N-TRIACONTANE

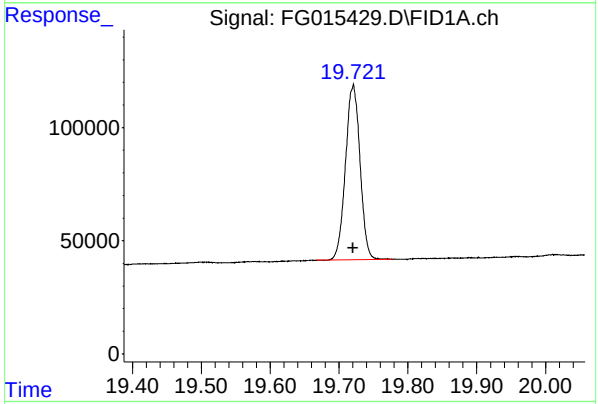
R.T.: 18.102 min
Delta R.T.: 0.000 min
Response: 1221633
Conc: 11.11 ug/ml

Instrument :
FID_G
ClientSampleId :
10 TRPH STD



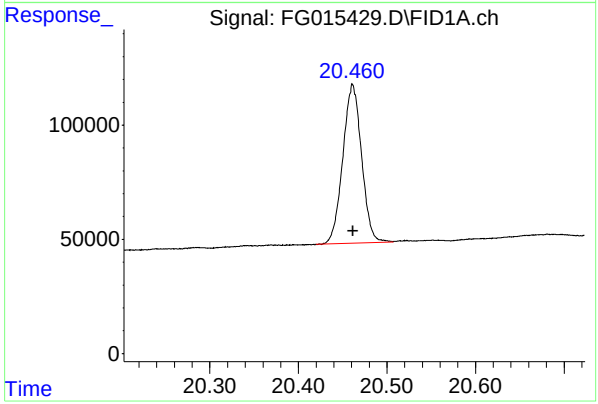
#14 N-DOTRIACONTANE

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



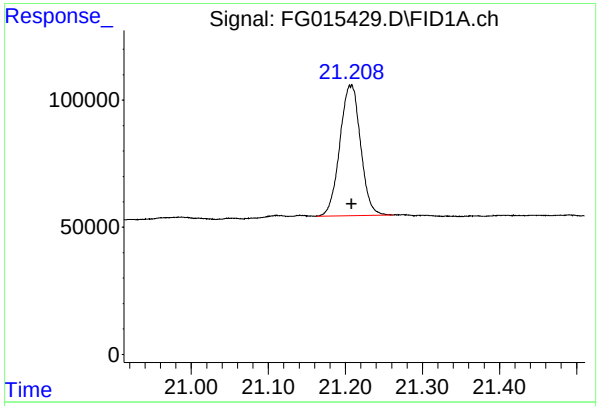
#15 N-TETRATRIACONTANE

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



#16 N-HEXATRIACONTANE

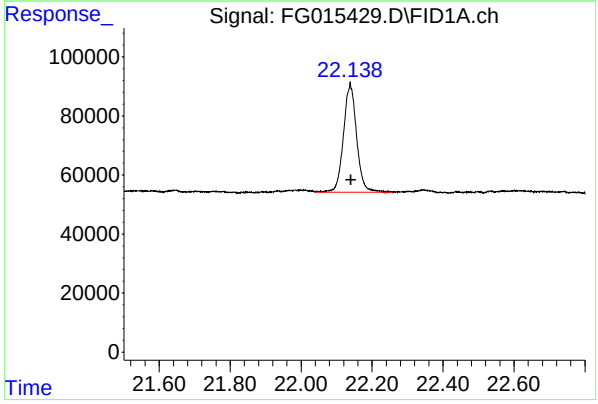
R.T.: 20.461 min
Delta R.T.: 0.000 min
Response: 1021219
Conc: 11.26 ug/ml



#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.

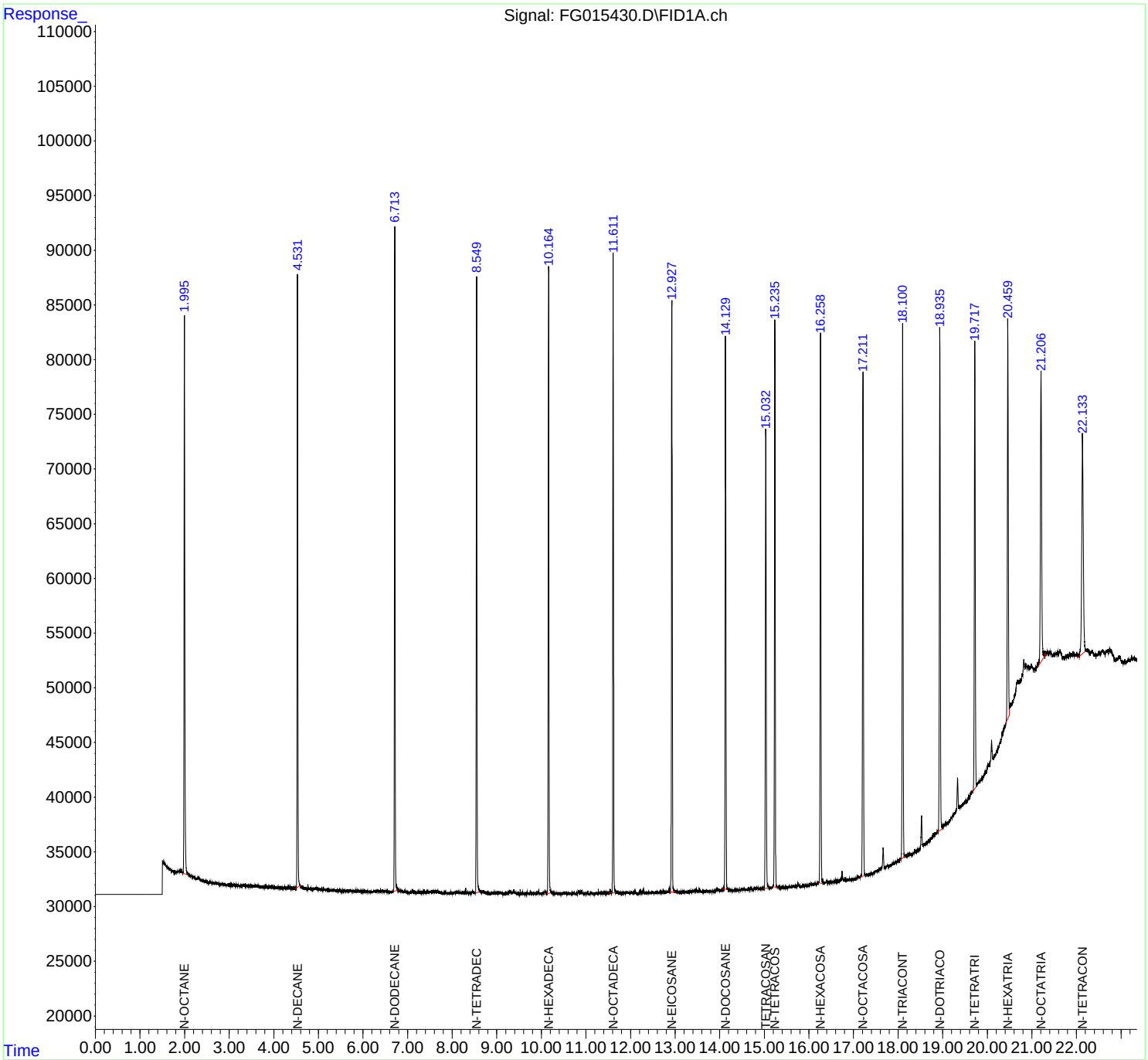
Quantitation Report (QT Reviewed)

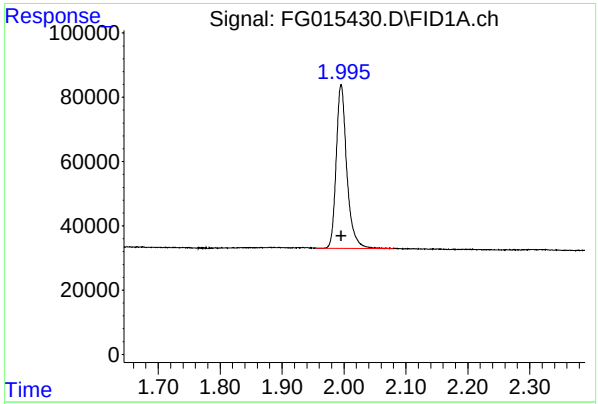
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG030325\
Data File : FG015430.D
Signal(s) : FID1A.ch
Acq On : 03 Mar 2025 13:45
Operator : YP\AJ
Sample : 5 TRPH STD
Misc :
ALS Vial : 25 Sample Multiplier: 1

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

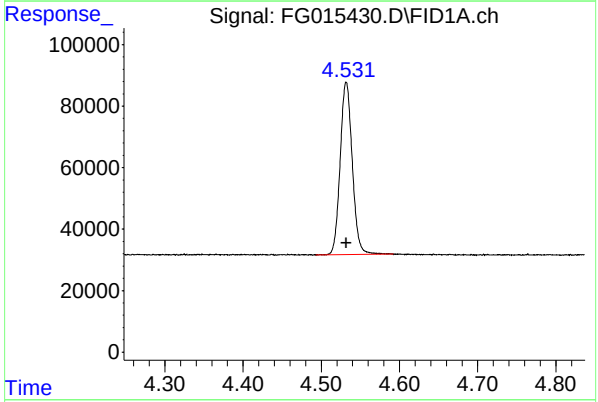




#1 N-OCTANE

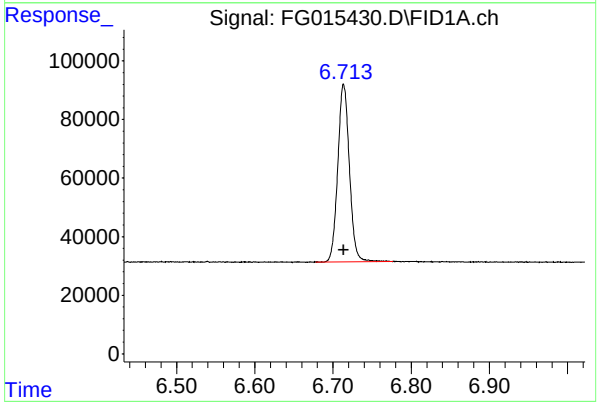
R.T.: 1.996 min
Delta R.T.: 0.000 min
Response: 607303
Conc: 5.52 ug/ml

Instrument :
FID_G
ClientSampleId :
5 TRPH STD



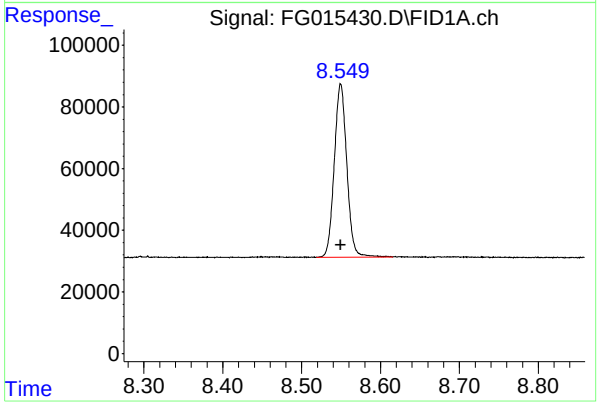
#2 N-DECANE

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



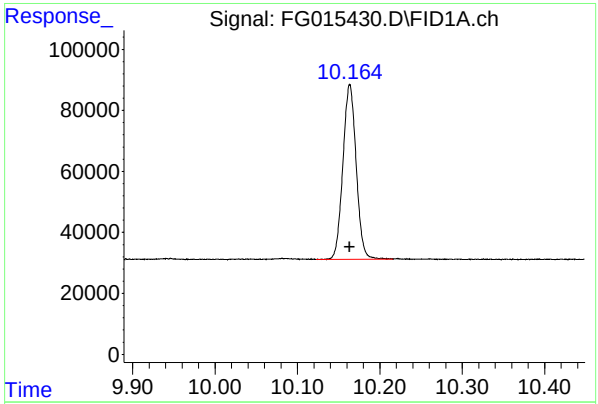
#3 N-DODECANE

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



#4 N-TETRADECANE

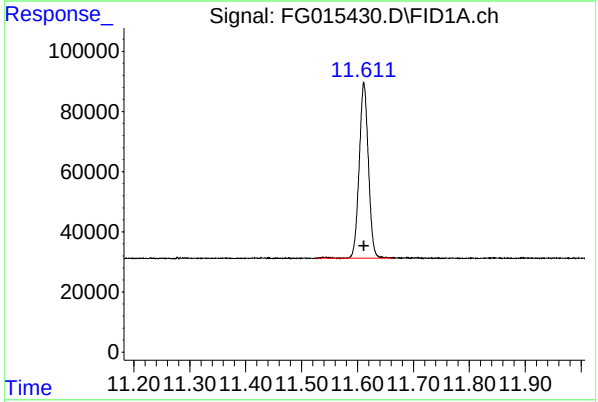
R.T.: 8.550 min
Delta R.T.: 0.000 min
Response: 621997
Conc: 5.40 ug/ml



#5 N-HEXADECANE

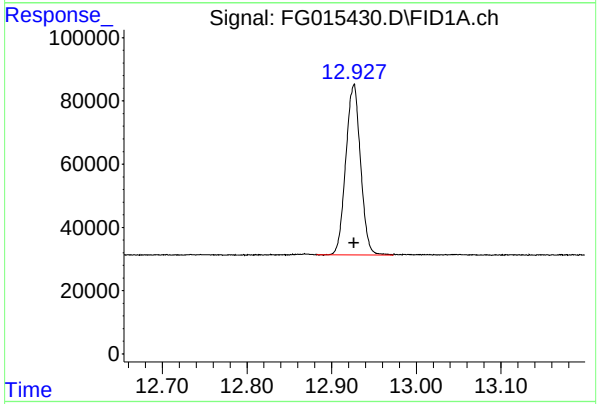
R.T.: 10.164 min
Delta R.T.: 0.000 min
Response: 638977
Conc: 5.38 ug/ml

Instrument :
FID_G
ClientSampleId :
5 TRPH STD



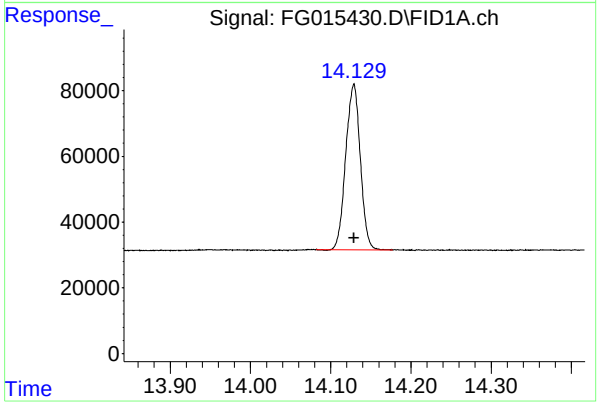
#6 N-OCTADECANE

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



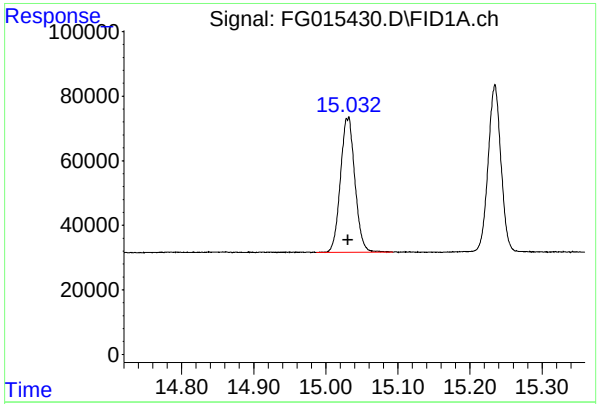
#7 N-EICOSANE

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



#8 N-DOCOSANE

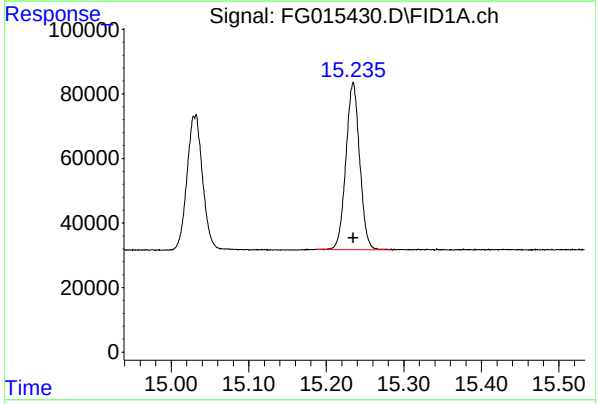
R.T.: 14.129 min
Delta R.T.: 0.000 min
Response: 636203
Conc: 5.31 ug/ml



#9 TETRACOSANE-d50 (SURROGATE)

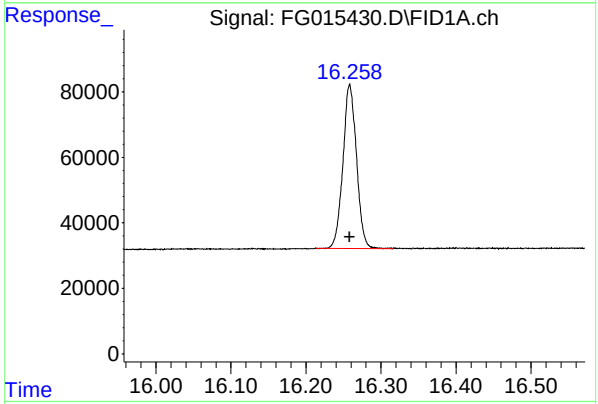
R.T.: 15.031 min
Delta R.T.: 0.000 min
Response: 582412
Conc: 5.35 ug/ml

Instrument :
FID_G
ClientSampleId :
5 TRPH STD



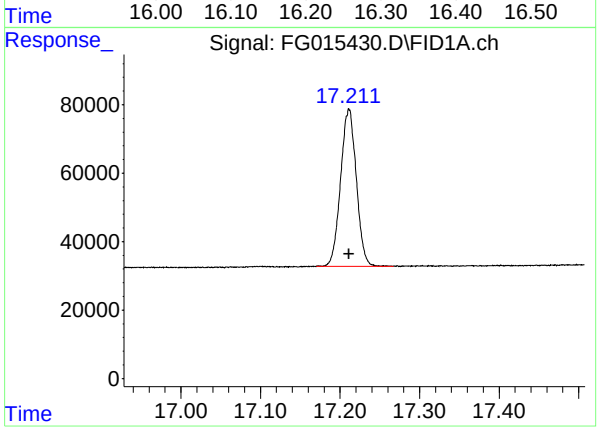
#10 N-TETRACOSANE

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



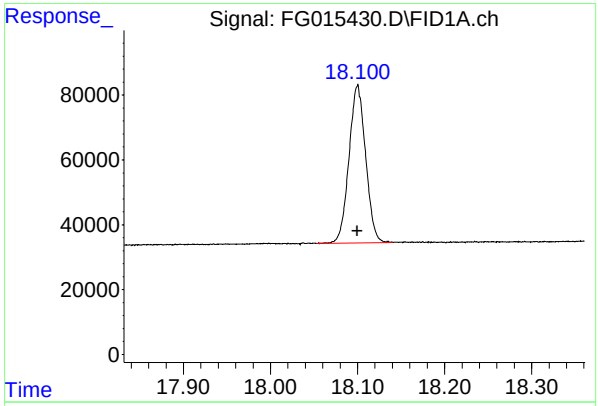
#11 N-HEXACOSANE

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



#12 N-OCTACOSANE

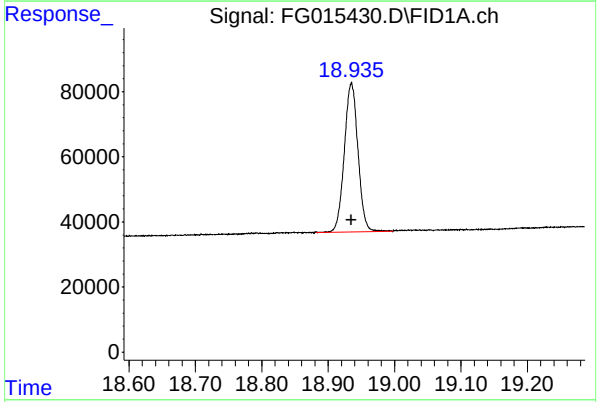
R.T.: 17.211 min
Delta R.T.: 0.000 min
Response: 631460
Conc: 5.46 ug/ml



#13 N-TRIACONTANE

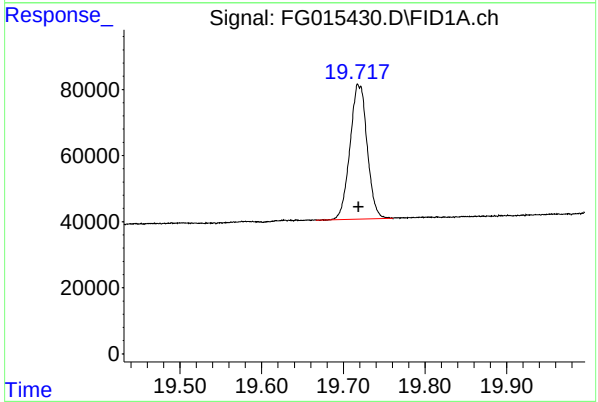
R.T.: 18.100 min
Delta R.T.: 0.000 min
Response: 644513
Conc: 5.55 ug/ml

Instrument :
FID_G
ClientSampleId :
5 TRPH STD



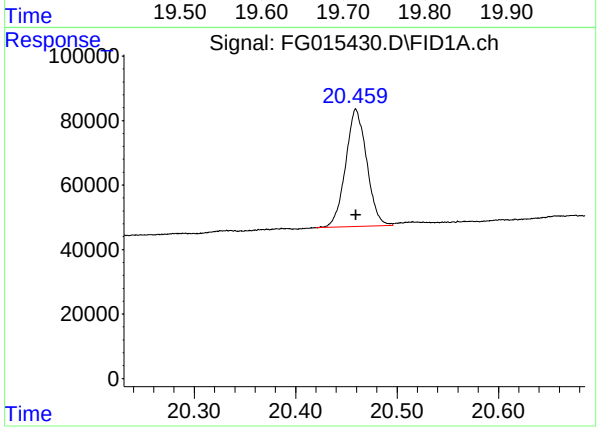
#14 N-DOTRIACONTANE

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



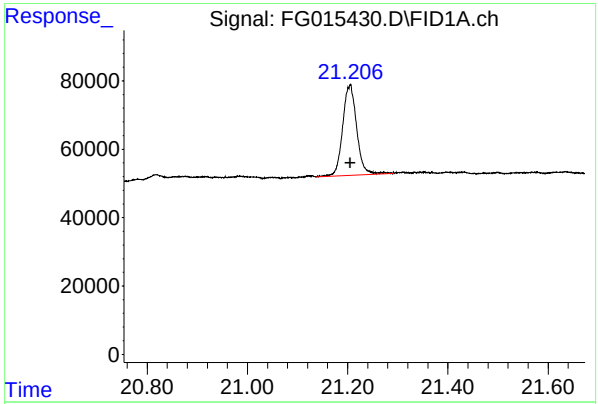
#15 N-TETRATRIACONTANE

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



#16 N-HEXATRIACONTANE

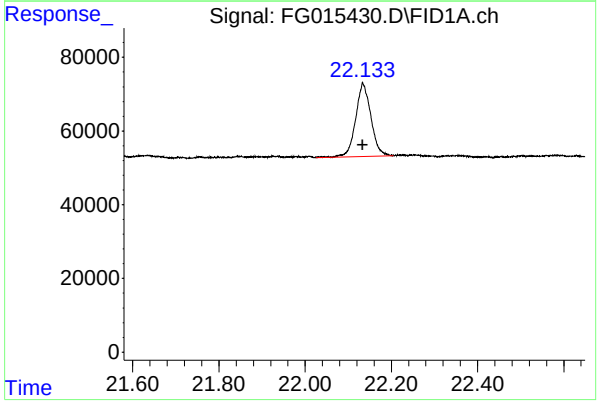
R.T.: 20.459 min
Delta R.T.: 0.000 min
Response: 525108
Conc: 5.48 ug/ml



#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 (QT 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

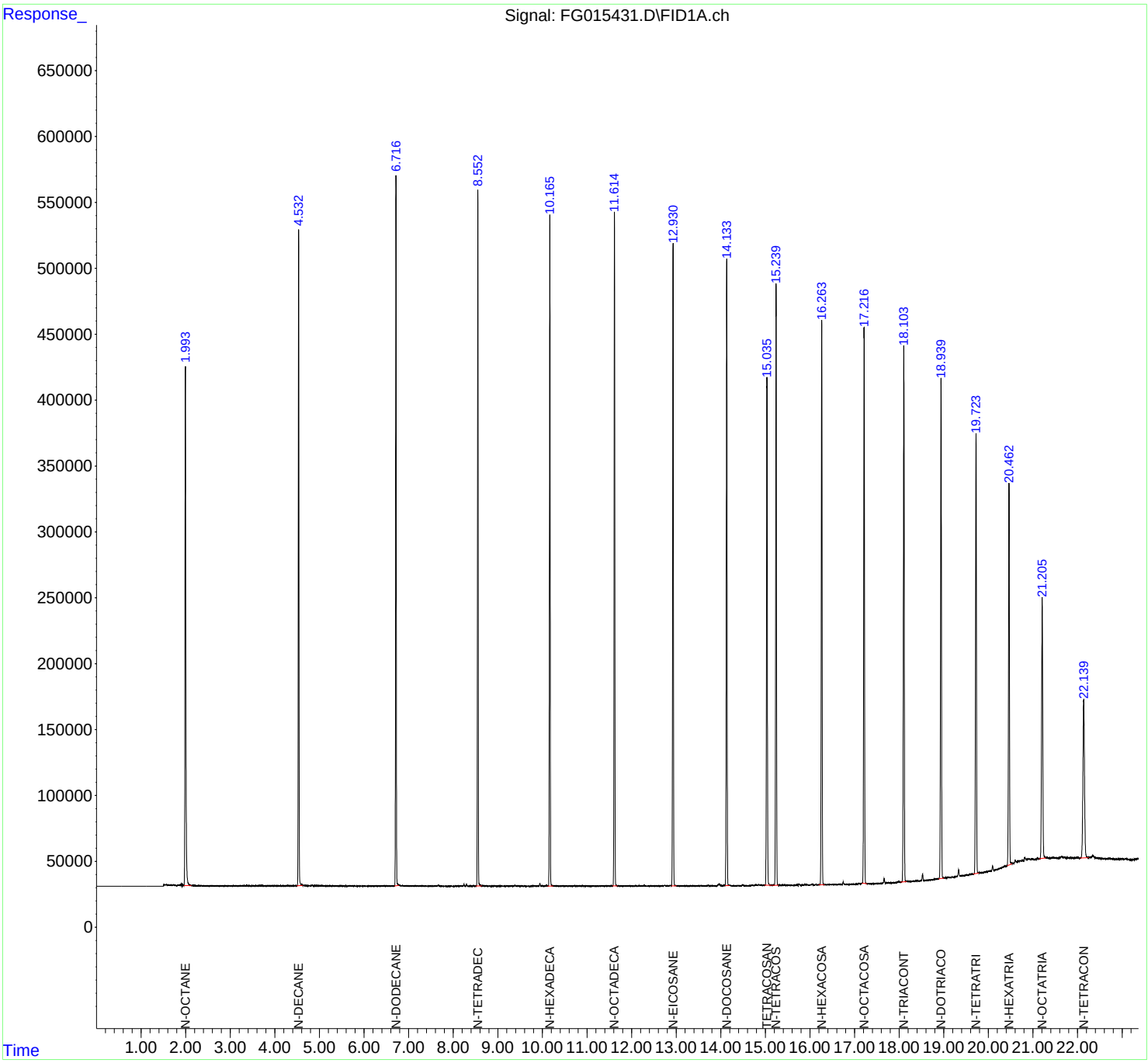
(f)=RT Delta > 1/2 Window (m)=manual int.

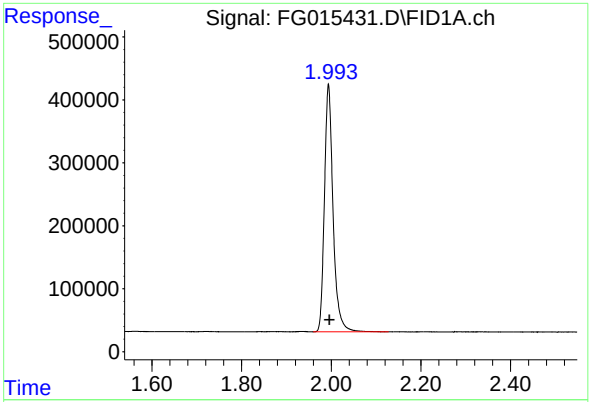
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG030325\
Data File : FG015431.D
Signal(s) : FID1A.ch
Acq On : 03 Mar 2025 14:14
Operator : YP\AJ
Sample : FG030325ICV
Misc :
ALS Vial : 26 Sample Multiplier: 1

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

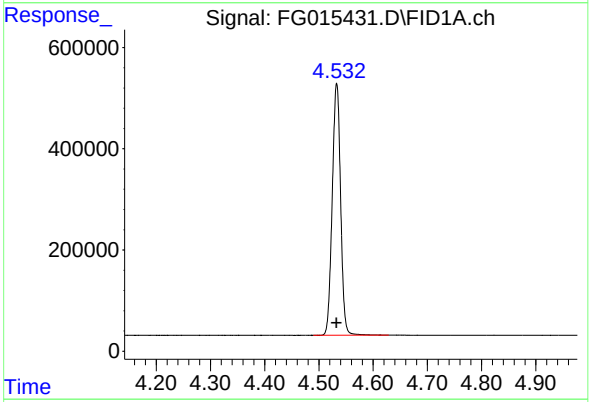




#1 N-OCTANE

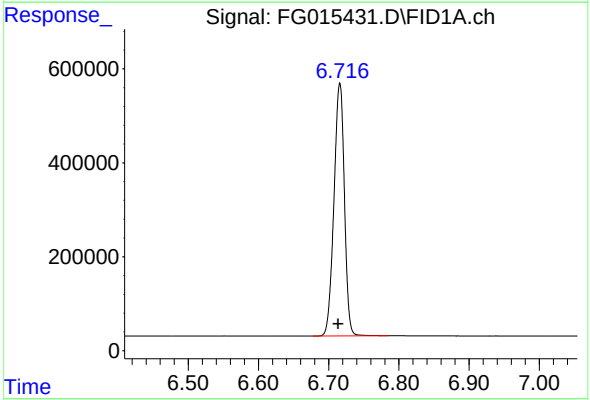
R.T.: 1.994 min
Delta R.T.: -0.002 min
Response: 5256960
Conc: 47.82 ug/ml

Instrument :
FID_G
ClientSampleId :
FG030325ICV



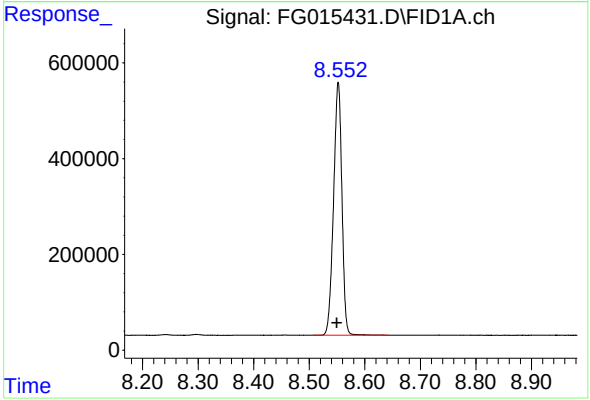
#2 N-DECANE

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



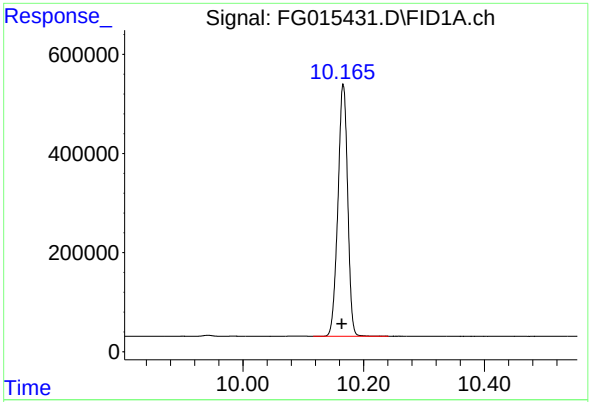
#3 N-DODECANE

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



#4 N-TETRADECANE

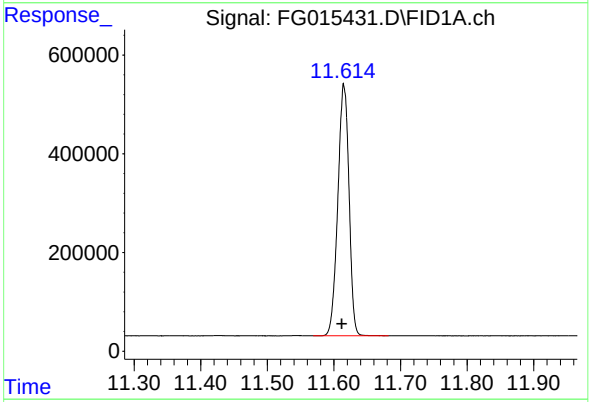
R.T.: 8.552 min
Delta R.T.: 0.003 min
Response: 5518504
Conc: 47.89 ug/ml



#5 N-HEXADECANE

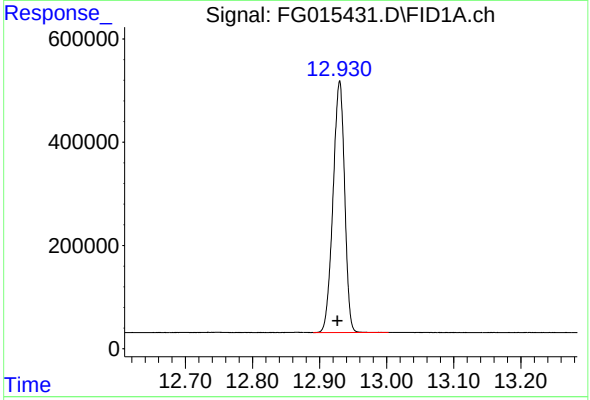
R.T.: 10.166 min
Delta R.T.: 0.003 min
Response: 5694355
Conc: 47.98 ug/ml

Instrument :
FID_G
ClientSampleId :
FG030325ICV



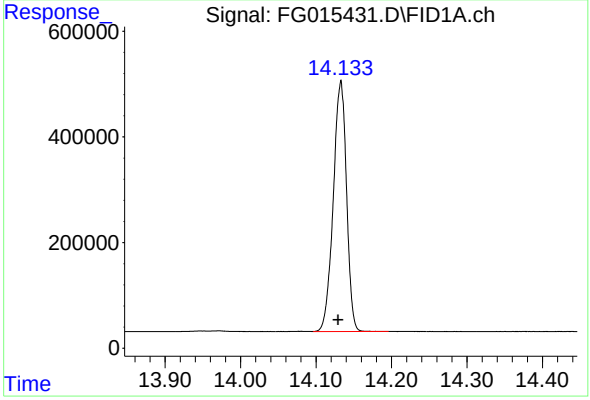
#6 N-OCTADECANE

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



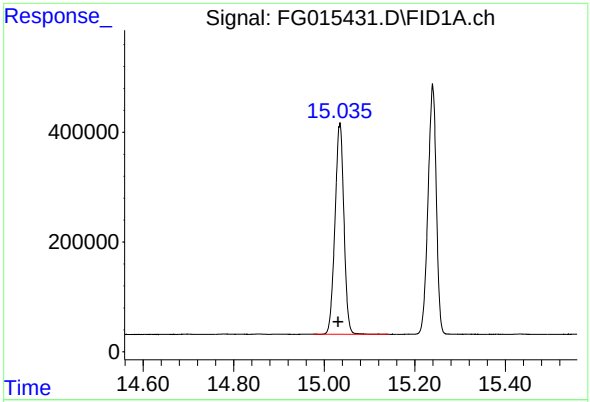
#7 N-EICOSANE

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



#8 N-DOCOSANE

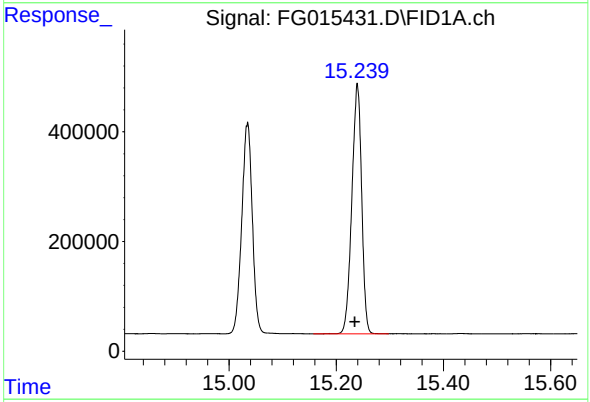
R.T.: 14.133 min
Delta R.T.: 0.004 min
Response: 5795980
Conc: 48.41 ug/ml



#9 TETRACOSANE-d50 (SURROGATE)

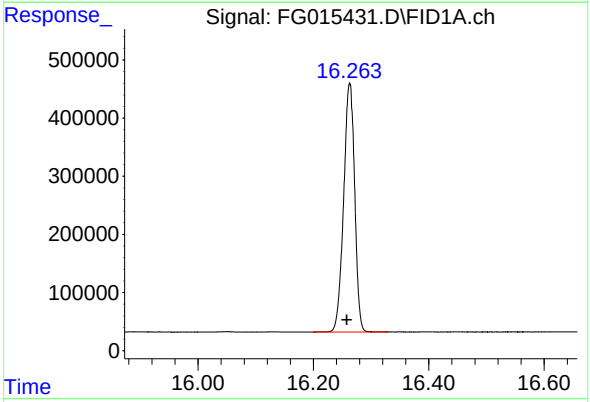
R.T.: 15.034 min
Delta R.T.: 0.003 min
Response: 5263594
Conc: 48.34 ug/ml

Instrument :
FID_G
ClientSampleId :
FG030325ICV



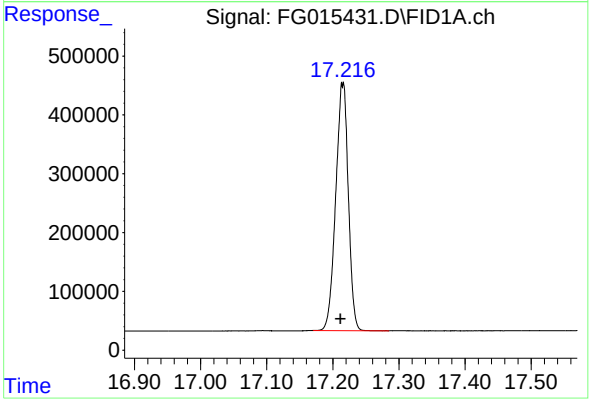
#10 N-TETRACOSANE

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



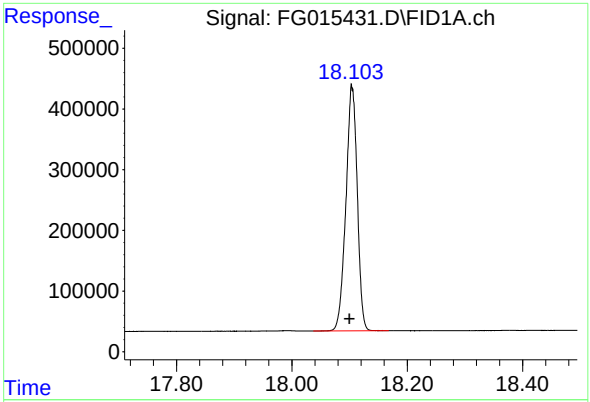
#11 N-HEXACOSANE

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



#12 N-OCTACOSANE

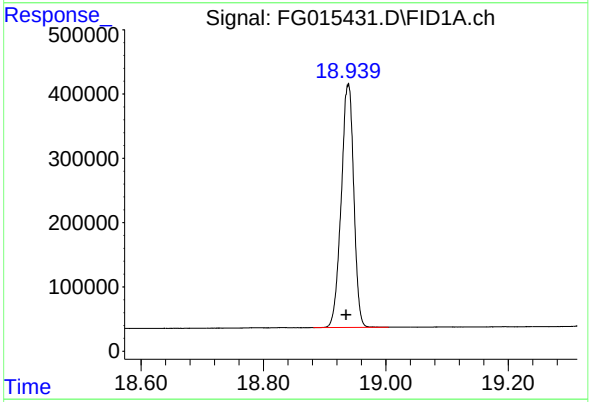
R.T.: 17.215 min
Delta R.T.: 0.004 min
Response: 5564382
Conc: 48.07 ug/ml



#13 N-TRIACONTANE

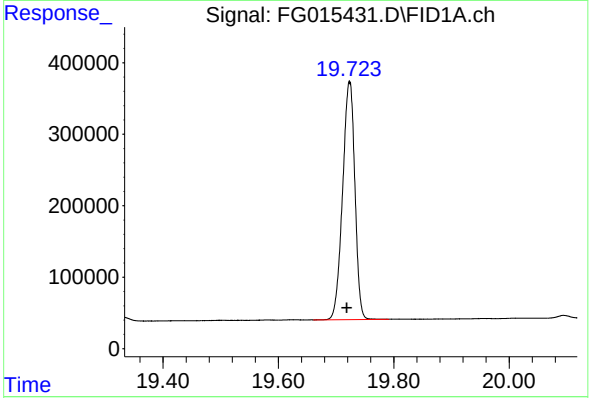
R.T.: 18.104 min
Delta R.T.: 0.004 min
Response: 5525262
Conc: 47.56 ug/ml

Instrument :
FID_G
ClientSampleId :
FG030325ICV



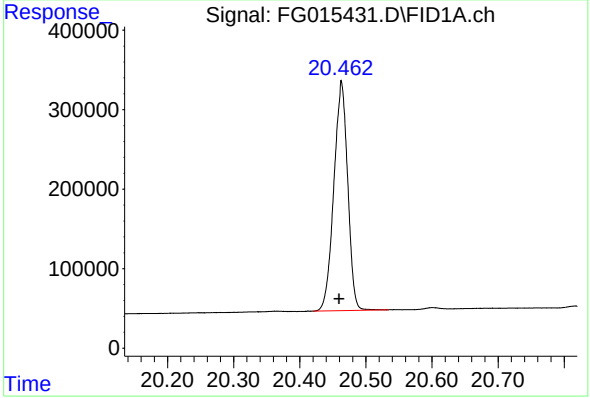
#14 N-DOTRIACONTANE

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



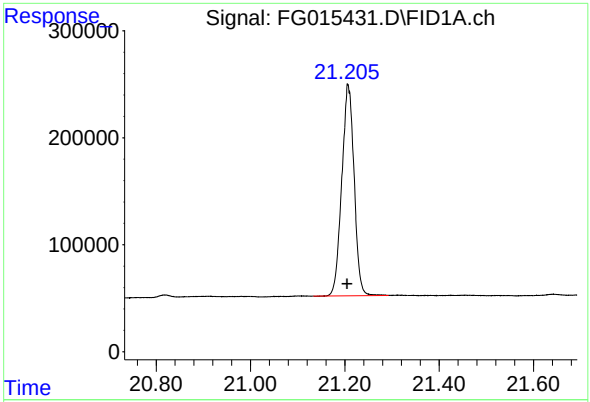
#15 N-TETRATRIACONTANE

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



#16 N-HEXATRIACONTANE

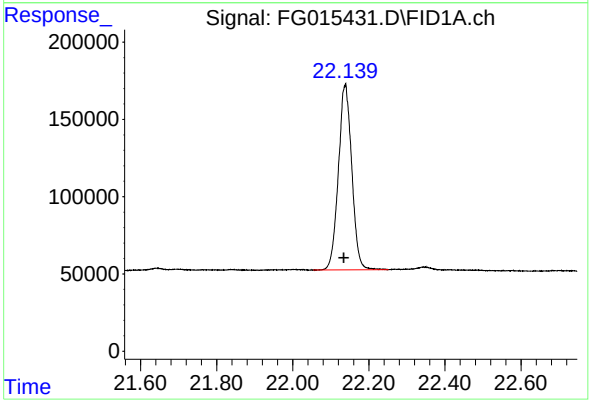
R.T.: 20.463 min
Delta R.T.: 0.004 min
Response: 4197870
Conc: 43.79 ug/ml



#17 N-OCTATRIACONTANE

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

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

P 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 25 06:10:10 2025

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

DIESEL RANGE ORGANICS CONTINUING CALIBRATION SUMMARY

50 PPM TRPH STD

Lab Name: Chemtech Contract: WEST04

ProjectID: Ft Meade Tipton Airfield Parcel RI - PO 0111169

Lab Code: CHEM Case No.: Q1539 SAS No.: Q1539 SDG No.: Q1539

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

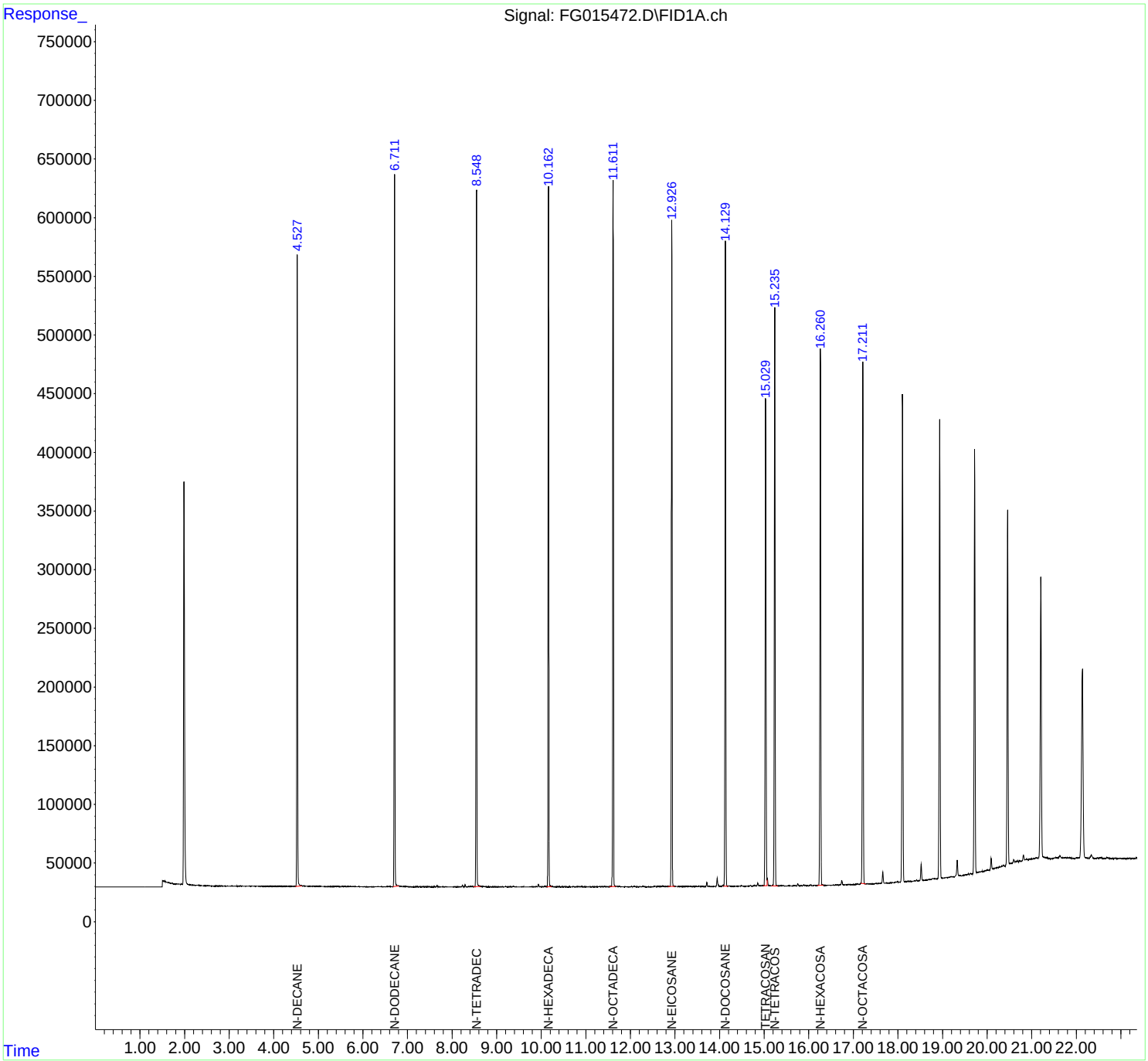
(f)=RT Delta > 1/2 Window (m)=manual int.

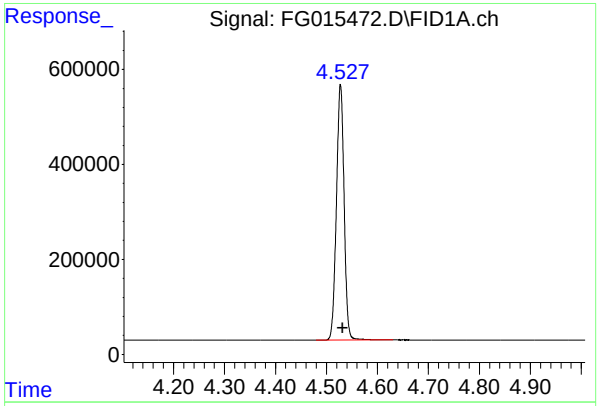
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG031225\
Data File : FG015472.D
Signal(s) : FID1A.ch
Acq On : 12 Mar 2025 10:59
Operator : YP\AJ
Sample : 50 PPM TRPH STD
Misc :
ALS Vial : 3 Sample Multiplier: 1

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

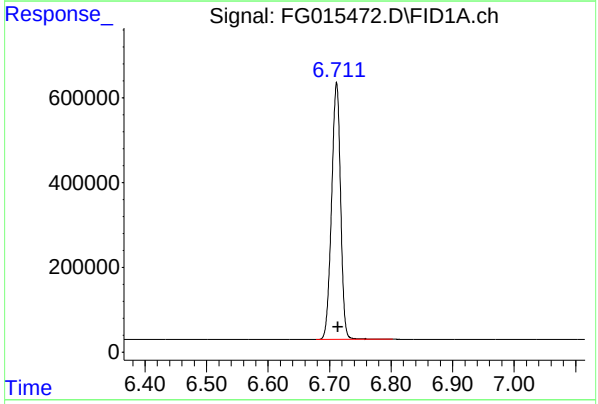




#2 N-DECANE

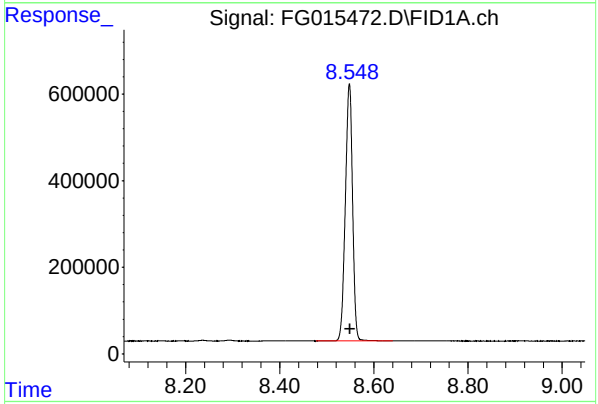
R.T.: 4.528 min
Delta R.T.: -0.004 min
Response: 5630685
Conc: 50.60 ug/ml

Instrument :
FID_G
ClientSampleId :
50 PPM TRPH STD



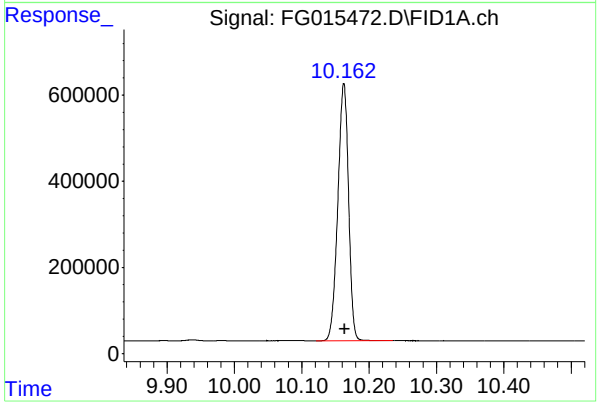
#3 N-DODECANE

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



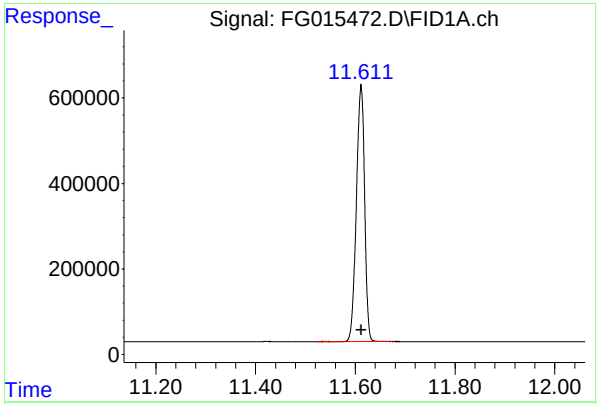
#4 N-TETRADECANE

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



#5 N-HEXADECANE

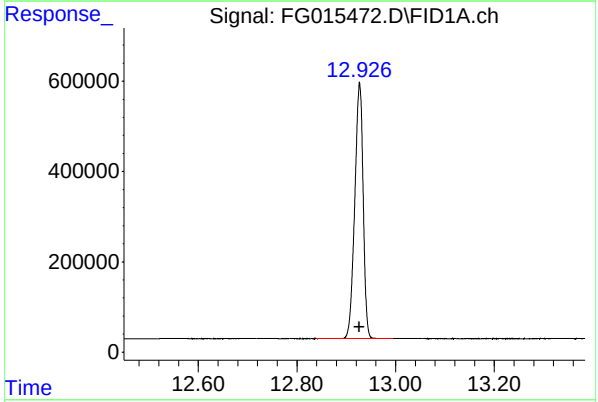
R.T.: 10.163 min
Delta R.T.: 0.000 min
Response: 6616911
Conc: 55.75 ug/ml



#6 N-OCTADECANE

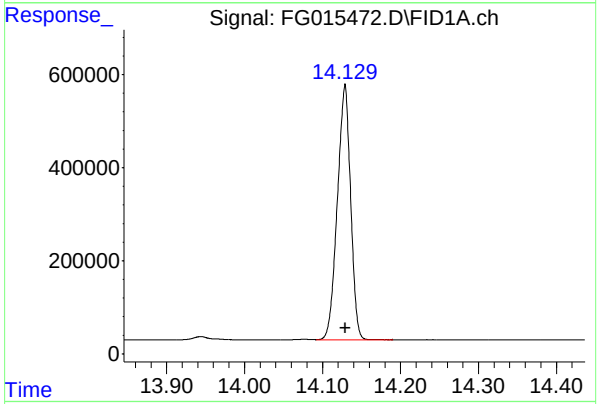
R.T.: 11.612 min
Delta R.T.: 0.000 min
Response: 6891877
Conc: 55.65 ug/ml

Instrument :
FID_G
ClientSampleId :
50 PPM TRPH STD



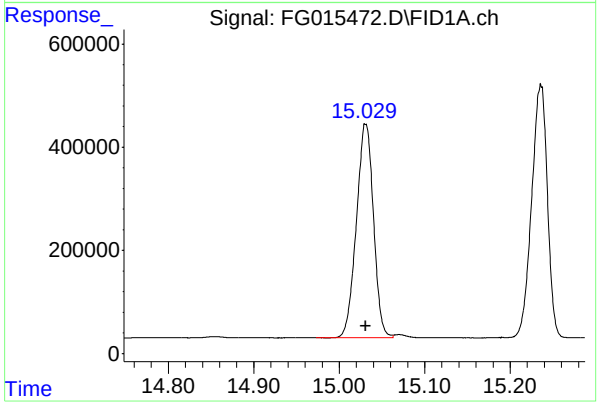
#7 N-EICOSANE

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



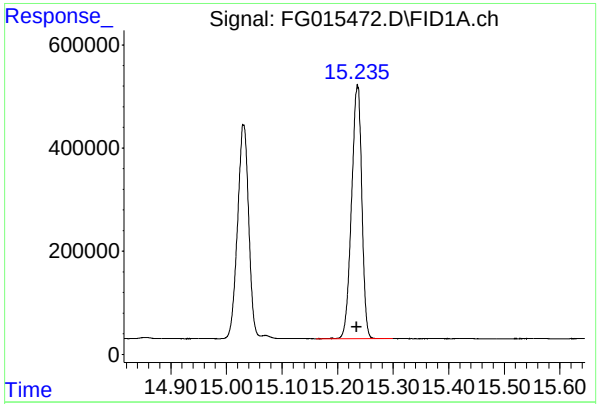
#8 N-DOCOSANE

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



#9 TETRACOSANE-d50 (SURROGATE)

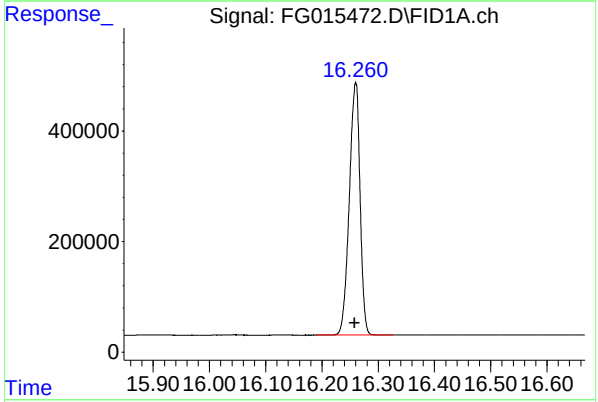
R.T.: 15.031 min
Delta R.T.: 0.000 min
Response: 5768882
Conc: 52.99 ug/ml



#10 N-TETRACOSANE

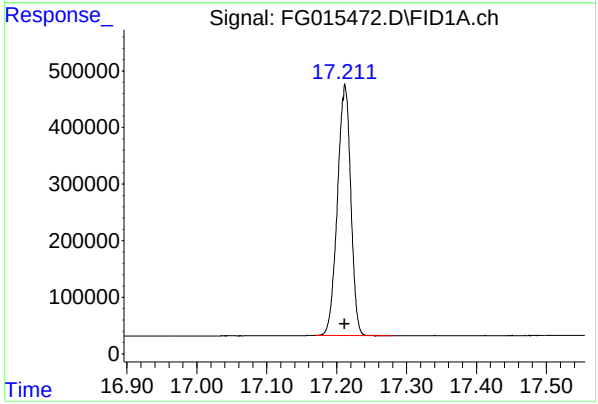
R.T.: 15.236 min
Delta R.T.: 0.001 min
Response: 6300823
Conc: 52.76 ug/ml

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

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

DIESEL RANGE ORGANICS CONTINUING CALIBRATION SUMMARY

50 PPM TRPH STD

Lab Name: Chemtech Contract: WEST04

ProjectID: Ft Meade Tipton Airfield Parcel RI - PO 0111169

Lab Code: CHEM Case No.: Q1539 SAS No.: Q1539 SDG No.: Q1539

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

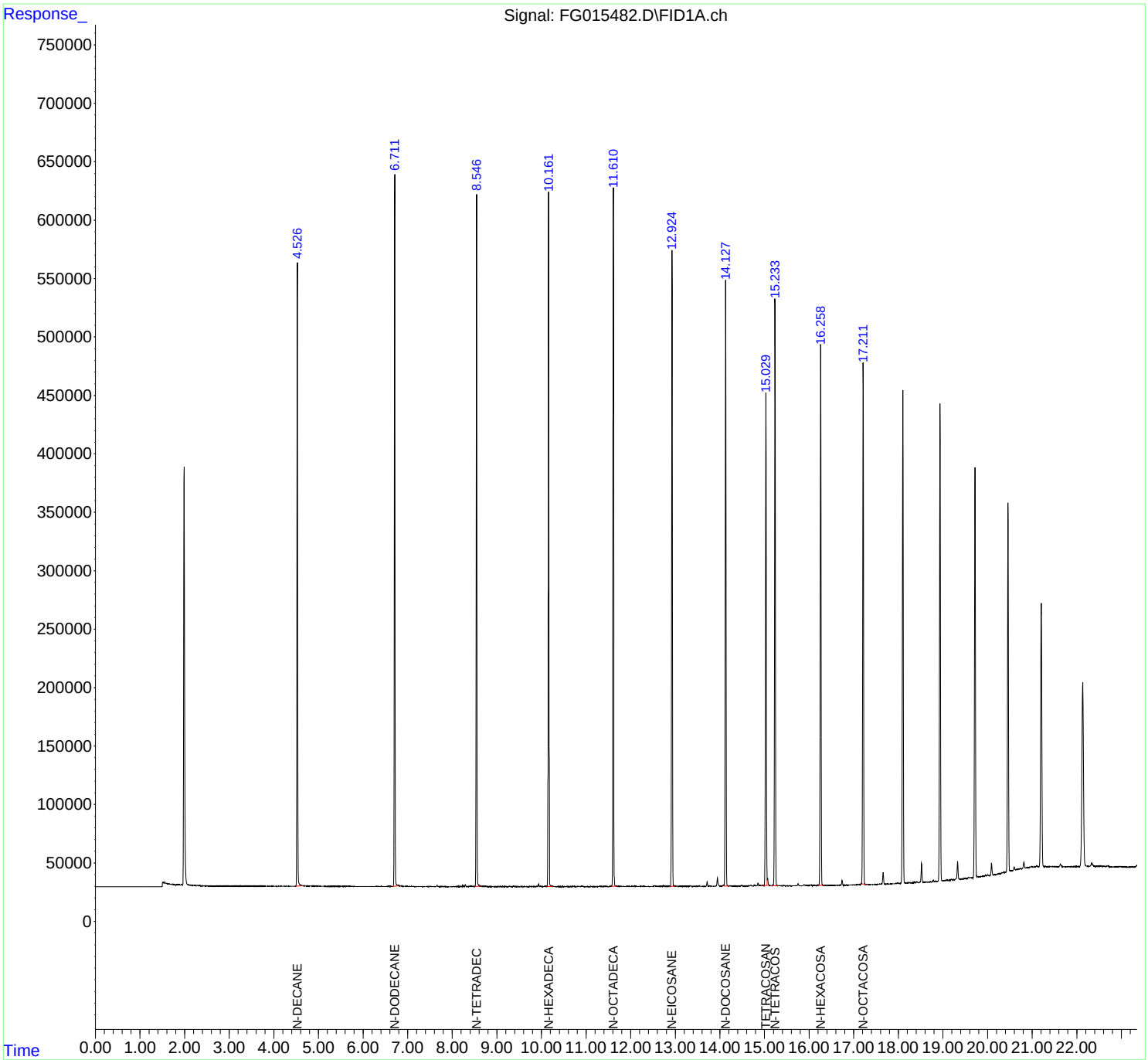
(f)=RT Delta > 1/2 Window (m)=manual int.

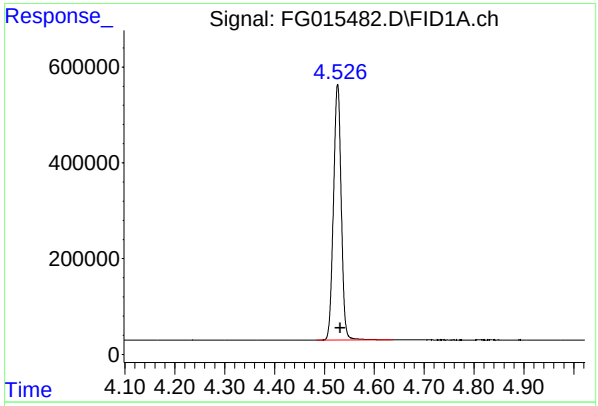
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG031225\
Data File : FG015482.D
Signal(s) : FID1A.ch
Acq On : 12 Mar 2025 18:21
Operator : YP\AJ
Sample : 50 PPM TRPH STD
Misc :
ALS Vial : 3 Sample Multiplier: 1

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

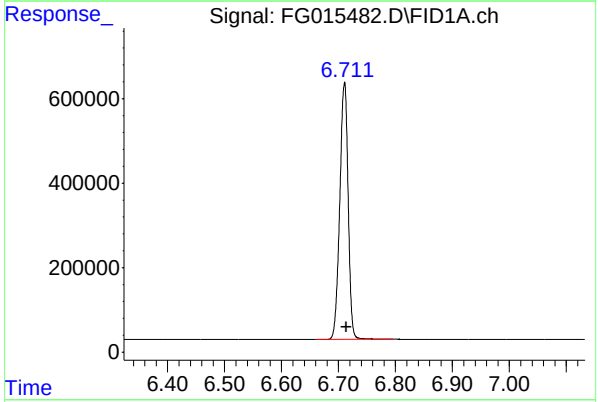




#2 N-DECANE

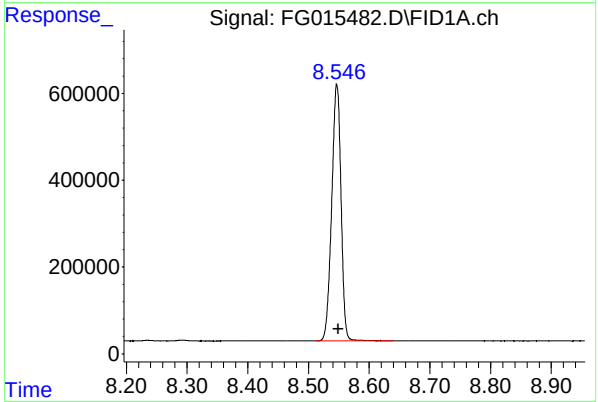
R.T.: 4.527 min
Delta R.T.: -0.005 min
Response: 5766593
Conc: 51.82 ug/ml

Instrument :
FID_G
ClientSampleId :
50 PPM TRPH STD



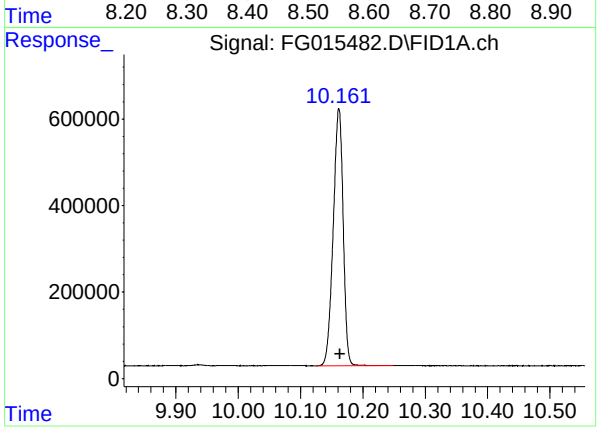
#3 N-DODECANE

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



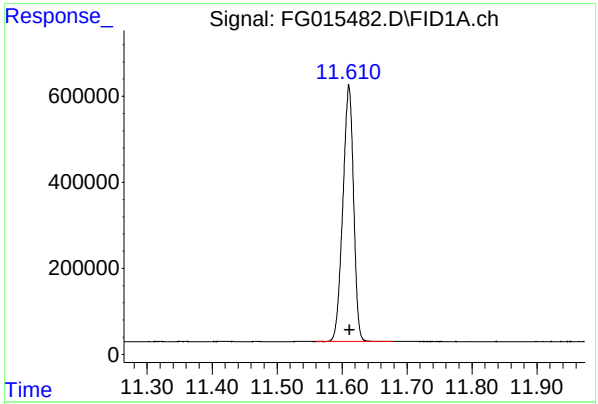
#4 N-TETRADECANE

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



#5 N-HEXADECANE

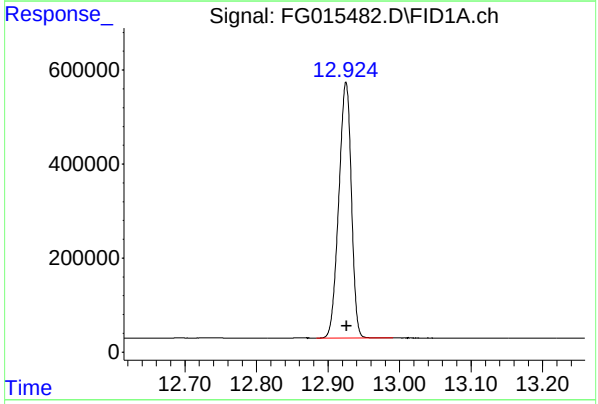
R.T.: 10.162 min
Delta R.T.: -0.002 min
Response: 6590575
Conc: 55.53 ug/ml



#6 N-OCTADECANE

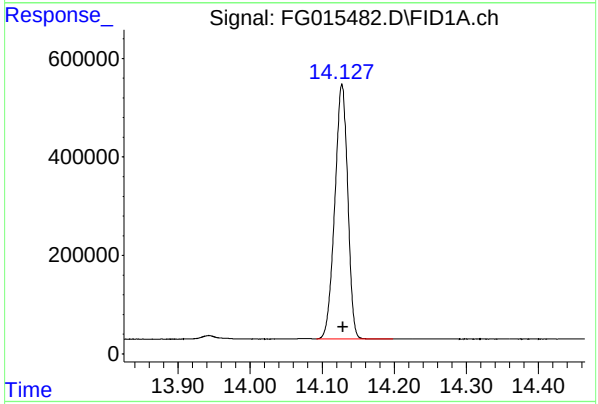
R.T.: 11.611 min
Delta R.T.: 0.000 min
Response: 6843162
Conc: 55.26 ug/ml

Instrument :
FID_G
ClientSampleId :
50 PPM TRPH STD



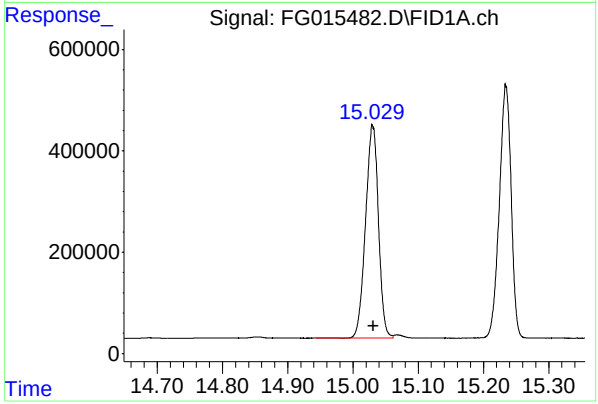
#7 N-EICOSANE

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



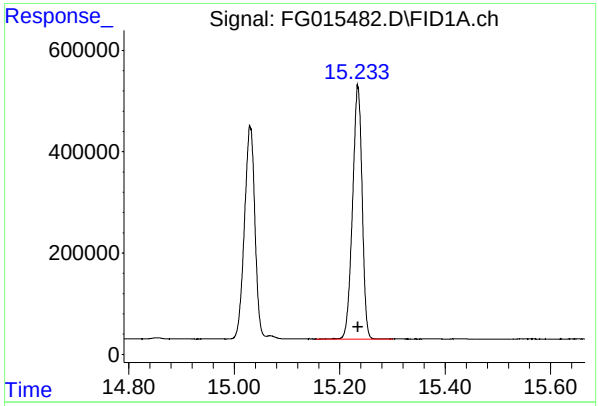
#8 N-DOCOSANE

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



#9 TETRACOSANE-d50 (SURROGATE)

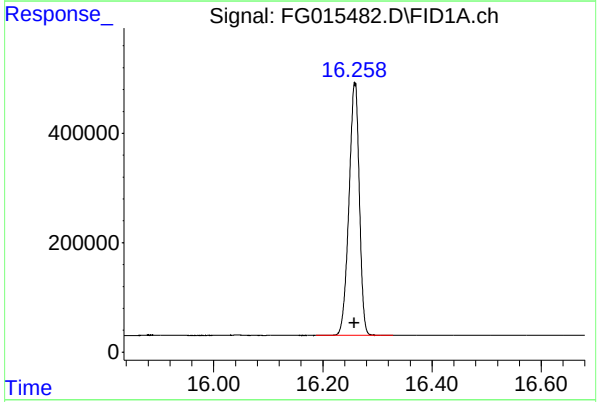
R.T.: 15.030 min
Delta R.T.: 0.000 min
Response: 5772476
Conc: 53.02 ug/ml



#10 N-TETRACOSANE

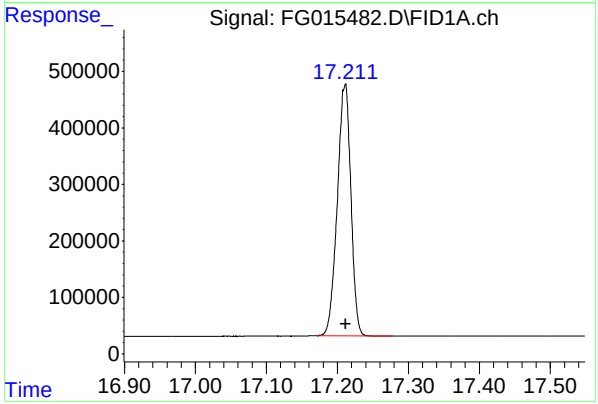
R.T.: 15.234 min
Delta R.T.: 0.000 min
Response: 6308132
Conc: 52.83 ug/ml

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: Weston Solutions **SDG No.:** Q1539

Project: Ft Meade Tipton Airfield Parcel RI - PO 0111169 **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	
TAPIAL3-MW03D-031025-00-T1	Q1539-01	12 Mar 2025 16:23	FG015479.D	14.970	
TAPFTA-MW01I-031025-00-T2	Q1539-02	12 Mar 2025 16:53	FG015480.D	15.027	
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:	Weston Solutions	Date Collected:	
Project:	Ft Meade Tipton Airfield Parcel RI - PO 0111169	Date Received:	
Client Sample ID:	PB167101BL	SDG No.:	Q1539
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	LOD	LOQ / CRQL	Units
TARGETS							
DRO	DRO	25.0	U	10.0	25.0	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			

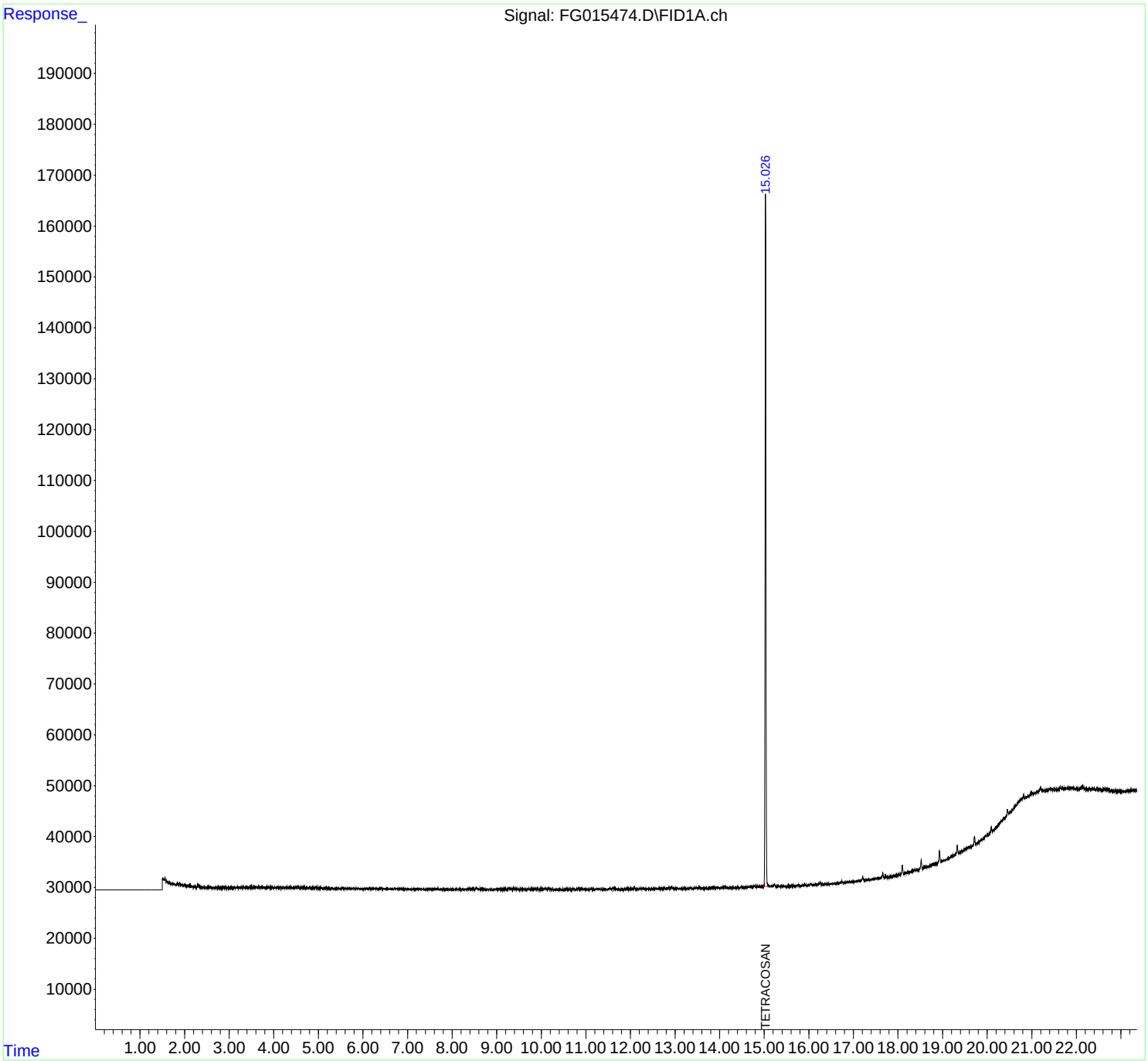
(f)=RT Delta > 1/2 Window (m)=manual int.

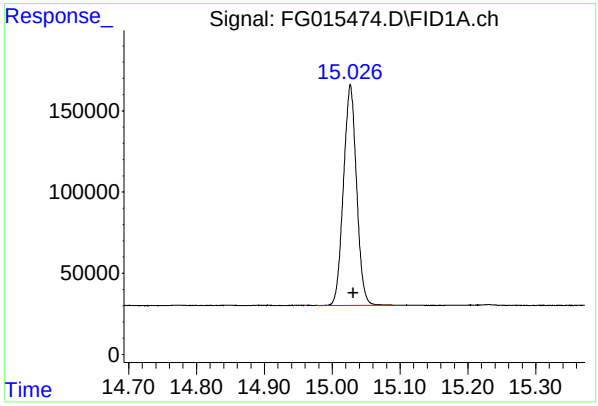
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG031225\
Data File : FG015474.D
Signal(s) : FID1A.ch
Acq On : 12 Mar 2025 13:57
Operator : YP\AJ
Sample : PB167101BL
Misc :
ALS Vial : 21 Sample Multiplier: 1

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:	Weston Solutions	Date Collected:	03/12/25
Project:	Ft Meade Tipton Airfield Parcel RI - PO 0111169	Date Received:	03/12/25
Client Sample ID:	PIBLK-FG015471.D	SDG No.:	Q1539
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	LOD	LOQ / CRQL	Units
TARGETS							
DRO	DRO	25.0	U	10.0	25.0	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.

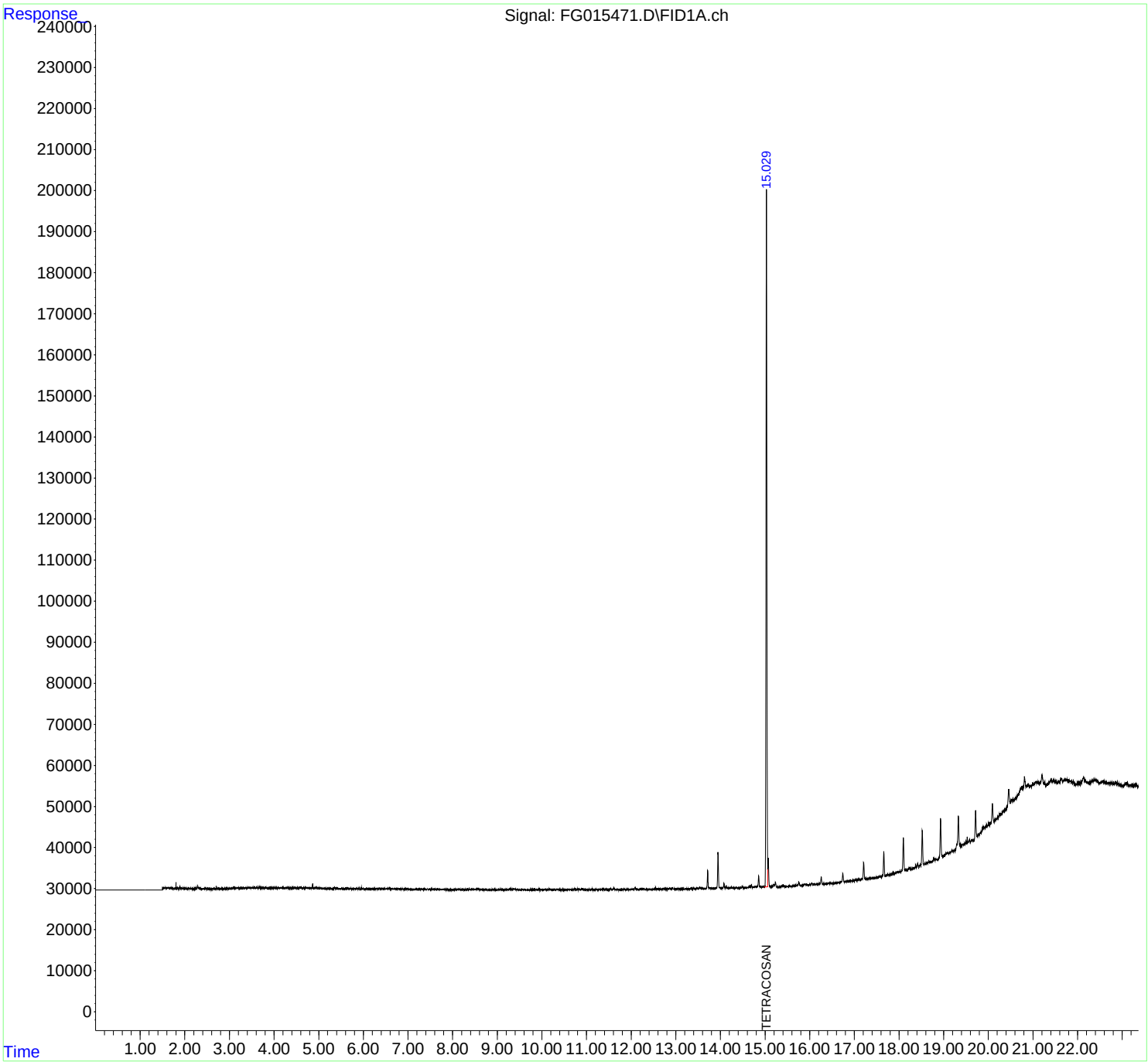
Quantitation Report (QT Reviewed)

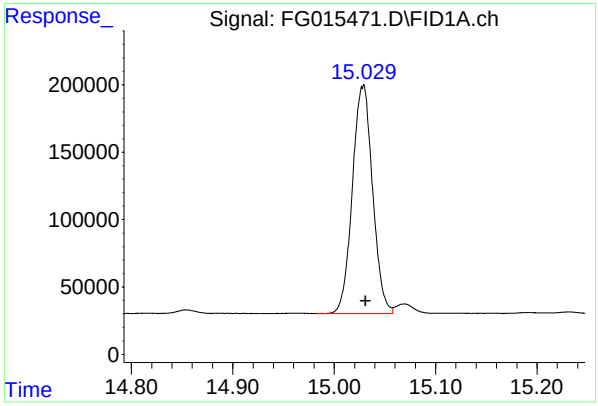
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG031225\
Data File : FG015471.D
Signal(s) : FID1A.ch
Acq On : 12 Mar 2025 10:29
Operator : YP\AJ
Sample : I.BLK
Misc :
ALS Vial : 2 Sample Multiplier: 1

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

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:	Weston Solutions	Date Collected:	03/12/25
Project:	Ft Meade Tipton Airfield Parcel RI - PO 0111169	Date Received:	03/12/25
Client Sample ID:	PIBLK-FG015481.D	SDG No.:	Q1539
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	LOD	LOQ / CRQL	Units
TARGETS							
DRO	DRO	25.0	U	10.0	25.0	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.

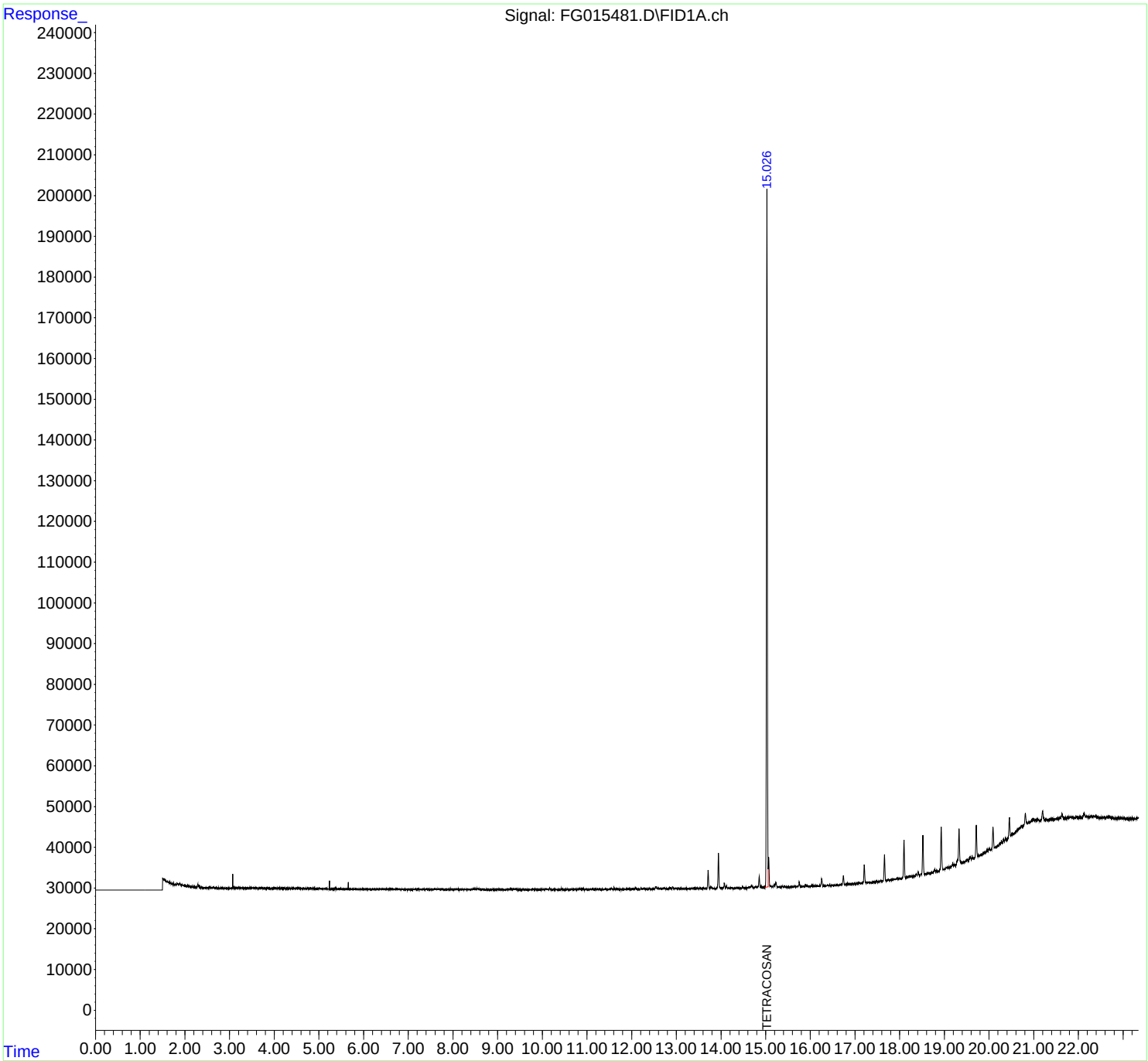
Quantitation Report (QT Reviewed)

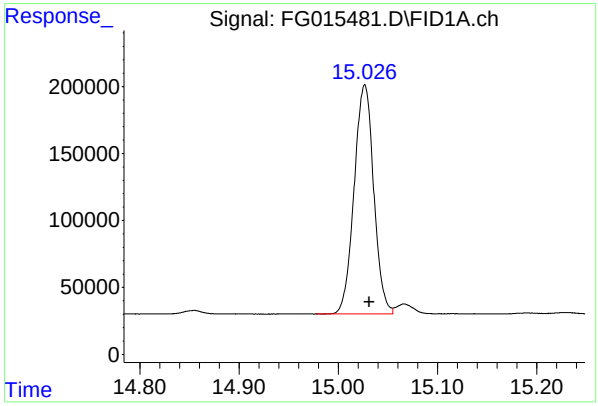
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG031225\
Data File : FG015481.D
Signal(s) : FID1A.ch
Acq On : 12 Mar 2025 17:22
Operator : YP\AJ
Sample : I.BLK
Misc :
ALS Vial : 2 Sample Multiplier: 1

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 mi
Response: 2344684
Conc: 21.54 ug/m

Instrument :
FID_G
ClientSampleId :
I.BLK

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

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:	Weston Solutions	Date Collected:	
Project:	Ft Meade Tipton Airfield Parcel RI - PO 0111169	Date Received:	
Client Sample ID:	PB167101BS	SDG No.:	Q1539
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	LOD	LOQ / CRQL	Units
TARGETS							
DRO	DRO	206		10.0	25.0	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

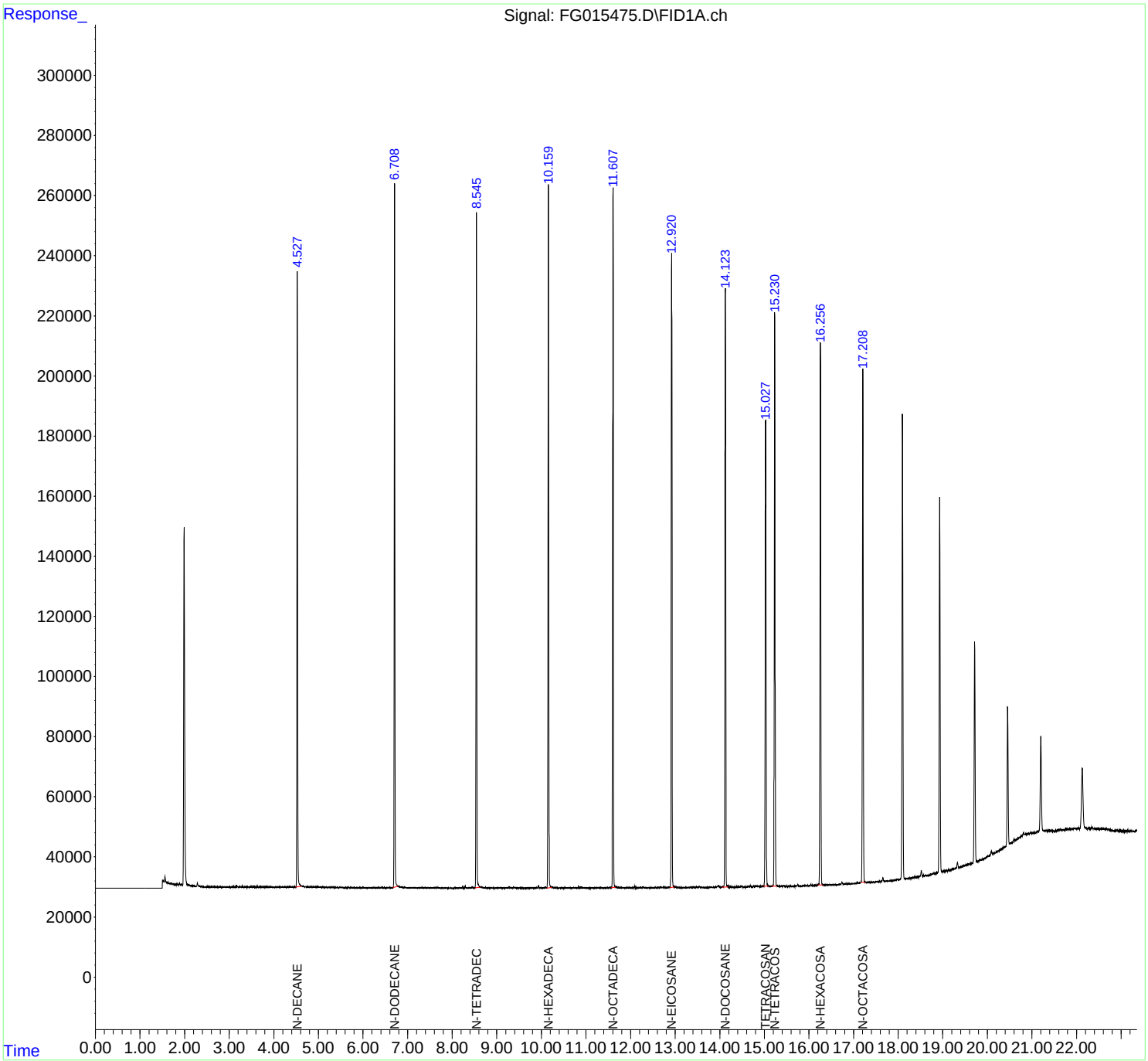
(f)=RT Delta > 1/2 Window (m)=manual int.

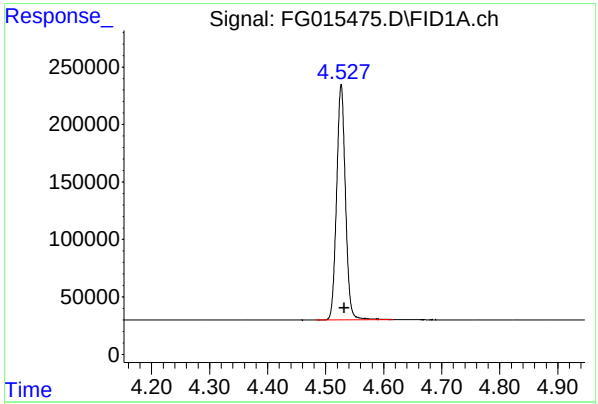
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG031225\
Data File : FG015475.D
Signal(s) : FID1A.ch
Acq On : 12 Mar 2025 14:26
Operator : YP\AJ
Sample : PB167101BS
Misc :
ALS Vial : 22 Sample Multiplier: 1

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

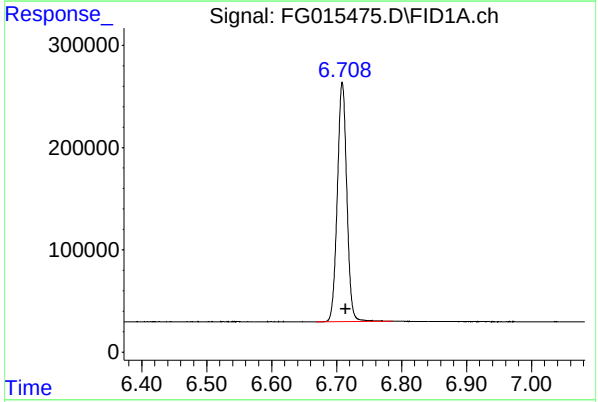




#2 N-DECANE

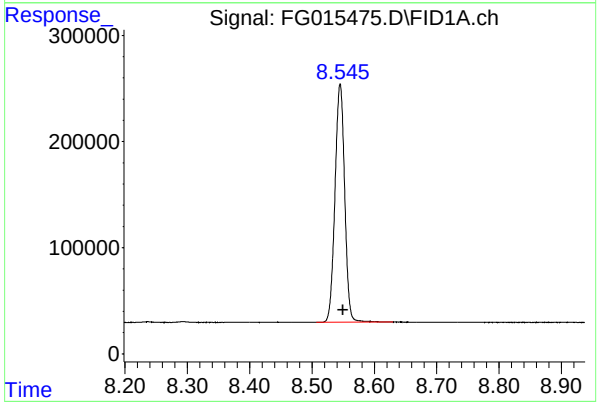
R.T.: 4.527 min
Delta R.T.: -0.005 min
Response: 2168033
Conc: 19.48 ug/ml

Instrument :
FID_G
ClientSampleId :
PB167101BS



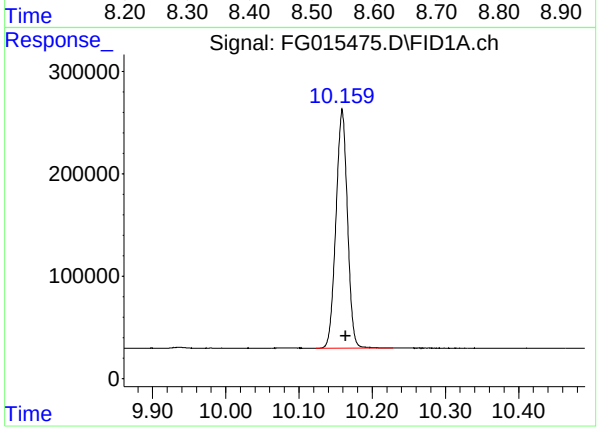
#3 N-DODECANE

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



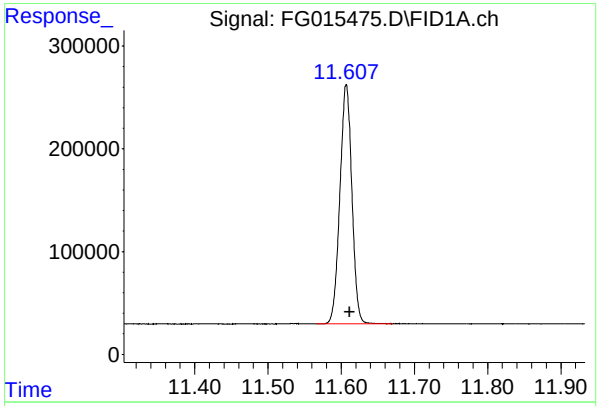
#4 N-TETRADECANE

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



#5 N-HEXADECANE

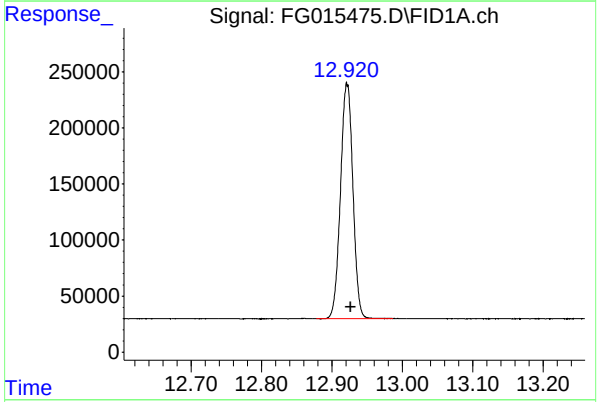
R.T.: 10.159 min
Delta R.T.: -0.004 min
Response: 2546331
Conc: 21.45 ug/ml



#6 N-OCTADECANE

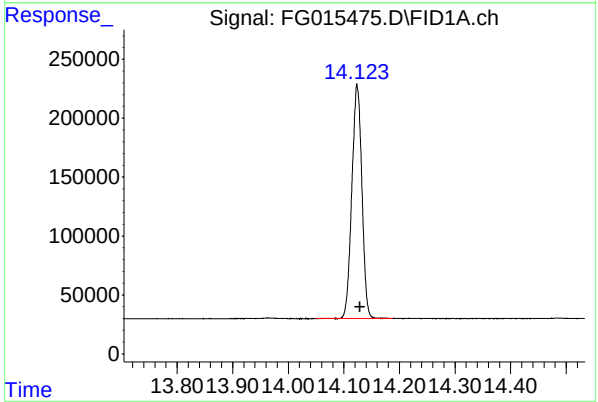
R.T.: 11.607 min
Delta R.T.: -0.005 min
Response: 2645124
Conc: 21.36 ug/ml

Instrument :
FID_G
ClientSampleId :
PB167101BS



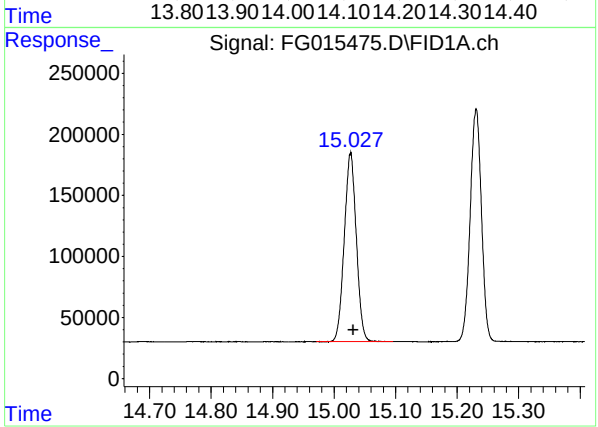
#7 N-EICOSANE

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



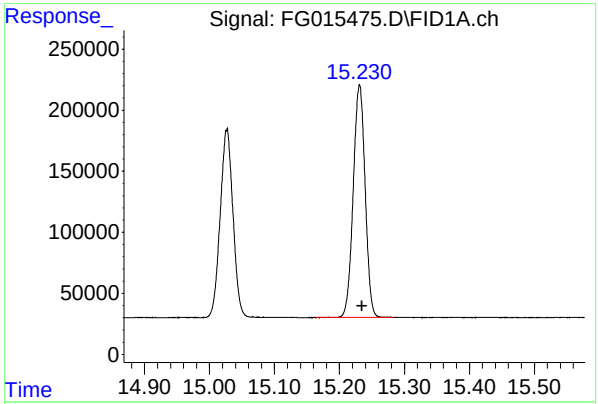
#8 N-DOCOSANE

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



#9 TETRACOSANE-d50 (SURROGATE)

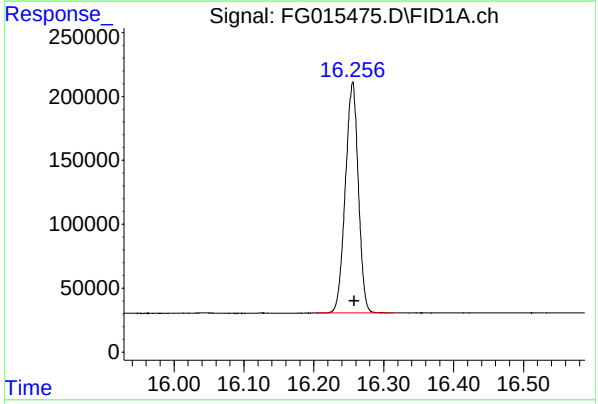
R.T.: 15.027 min
Delta R.T.: -0.004 min
Response: 2105591
Conc: 19.34 ug/ml



#10 N-TETRACOSANE

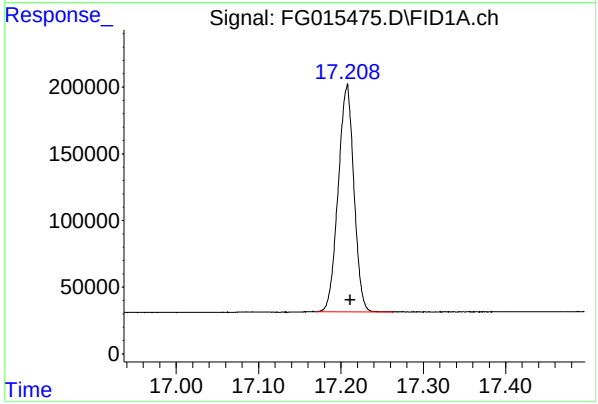
R.T.: 15.231 min
Delta R.T.: -0.004 min
Response: 2429861
Conc: 20.35 ug/ml

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:	Weston Solutions	Date Collected:	
Project:	Ft Meade Tipton Airfield Parcel RI - PO 0111169	Date Received:	
Client Sample ID:	PB167101BSD	SDG No.:	Q1539
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	LOD	LOQ / CRQL	Units
TARGETS							
DRO	DRO	204		10.0	25.0	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.

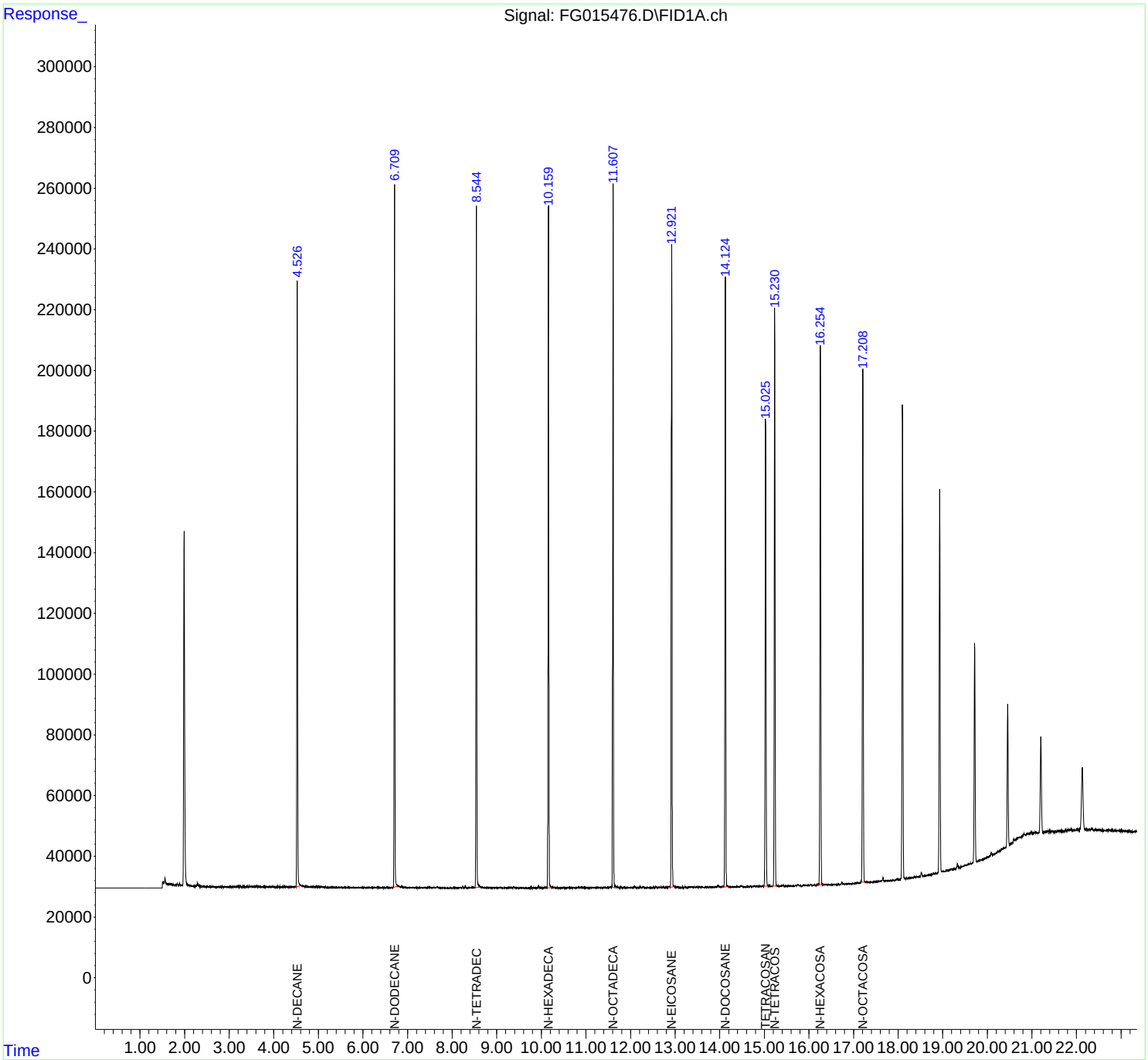
Quantitation Report (QT Reviewed)

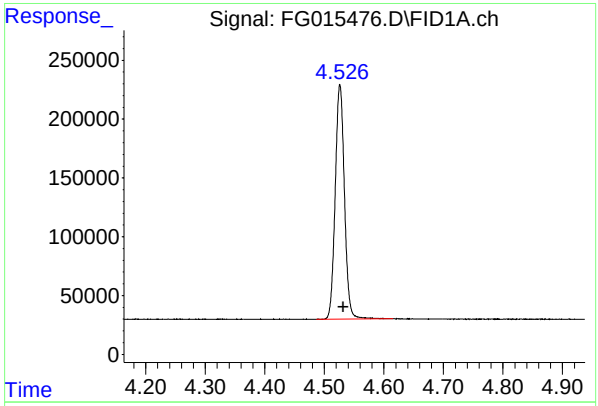
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG031225\
Data File : FG015476.D
Signal(s) : FID1A.ch
Acq On : 12 Mar 2025 14:55
Operator : YP\AJ
Sample : PB167101BSD
Misc :
ALS Vial : 23 Sample Multiplier: 1

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

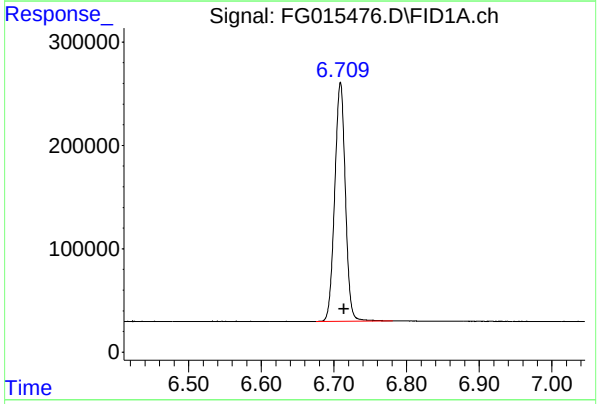




#2 N-DECANE

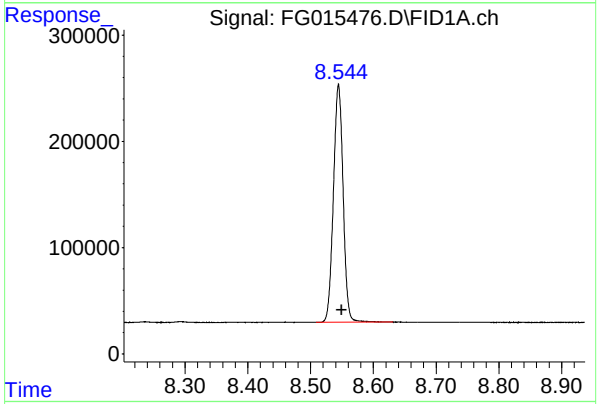
R.T.: 4.526 min
Delta R.T.: -0.006 min
Response: 2149967
Conc: 19.32 ug/ml

Instrument :
FID_G
ClientSampleId :
PB167101BSD



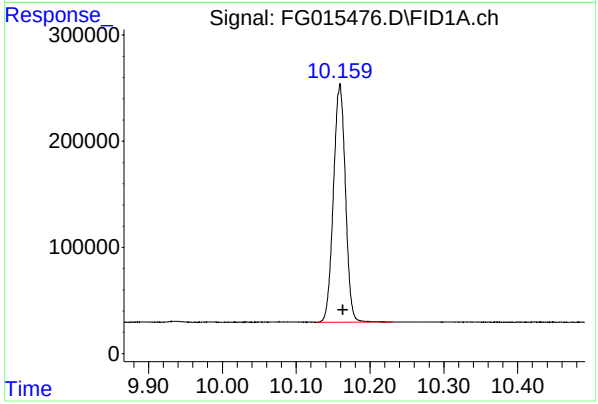
#3 N-DODECANE

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



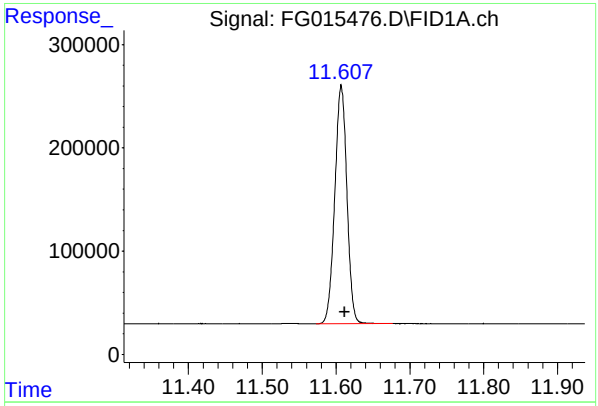
#4 N-TETRADECANE

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



#5 N-HEXADECANE

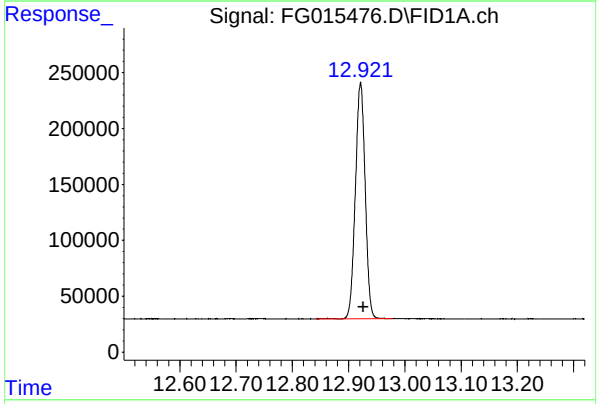
R.T.: 10.159 min
Delta R.T.: -0.004 min
Response: 2525478
Conc: 21.28 ug/ml



#6 N-OCTADECANE

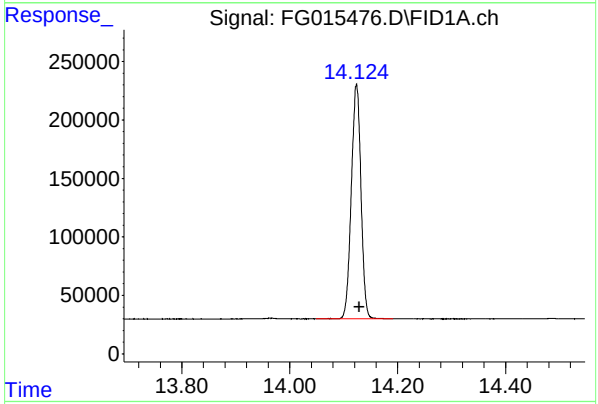
R.T.: 11.607 min
Delta R.T.: -0.005 min
Response: 2626165
Conc: 21.21 ug/ml

Instrument :
FID_G
ClientSampleId :
PB167101BSD



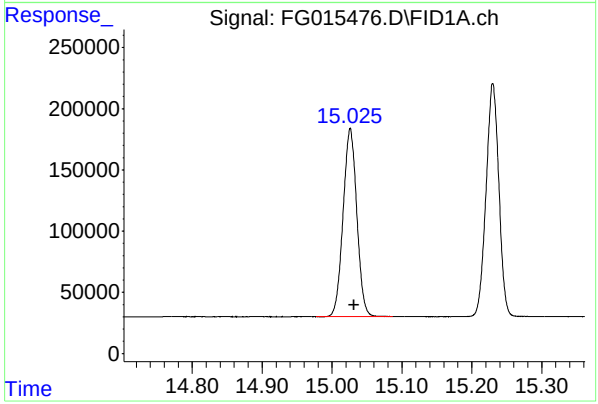
#7 N-EICOSANE

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



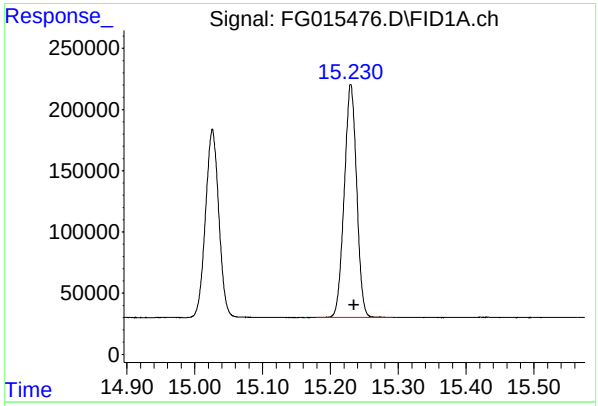
#8 N-DOCOSANE

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



#9 TETRACOSANE-d50 (SURROGATE)

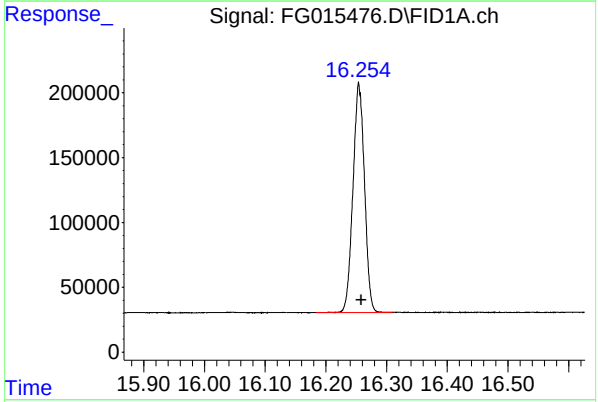
R.T.: 15.026 min
Delta R.T.: -0.005 min
Response: 2095136
Conc: 19.24 ug/ml



#10 N-TETRACOSANE

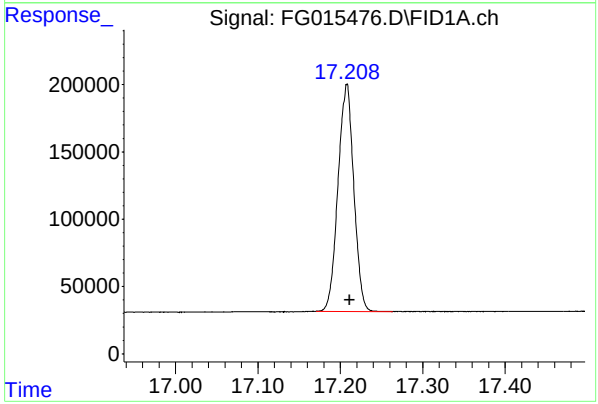
R.T.: 15.230 min
Delta R.T.: -0.005 min
Response: 2418842
Conc: 20.26 ug/ml

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

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	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.**

3/10/1 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 (EXL-Lab)
Raw Sample Relinquished by:

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

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

Prep Standard - Chemical Standard Summary

Order ID : Q1539

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.

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

CERTIFICATE OF ANALYSIS

PRODUCT :	SODIUM SULFATE CRYSTALS ANHYDROUS		
QUALITY :	ACS (CODE RMB3375)	FORMULA :	Na_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 RP 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

Page 1 of 1

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

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)

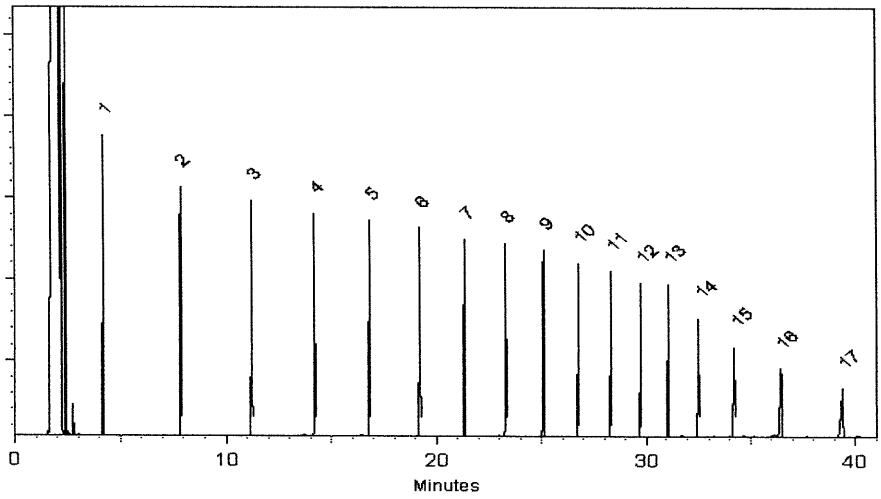
Carrier Gas:
hydrogen-constant pressure 10 psi.

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.

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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

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ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ilac-MRA

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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
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P11962
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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)

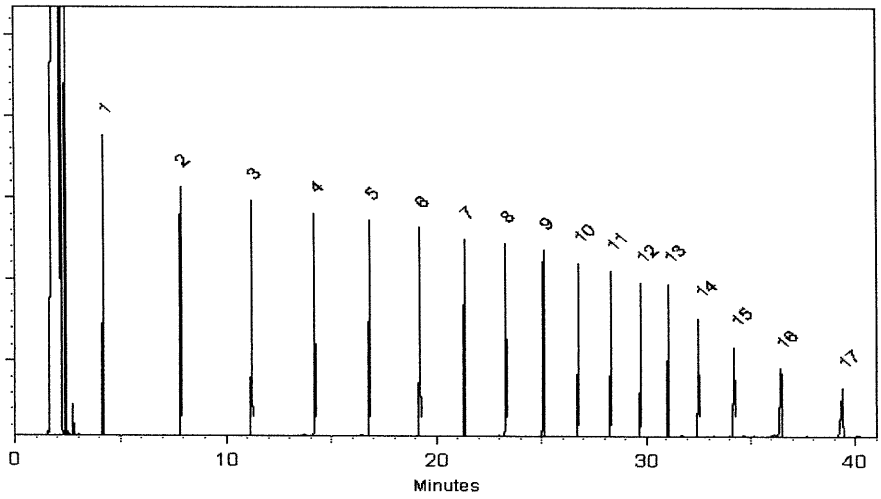
Carrier Gas:
hydrogen-constant pressure 10 psi.

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%.

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- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

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

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

Manufacturing Notes:

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

Handling Notes:

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

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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)

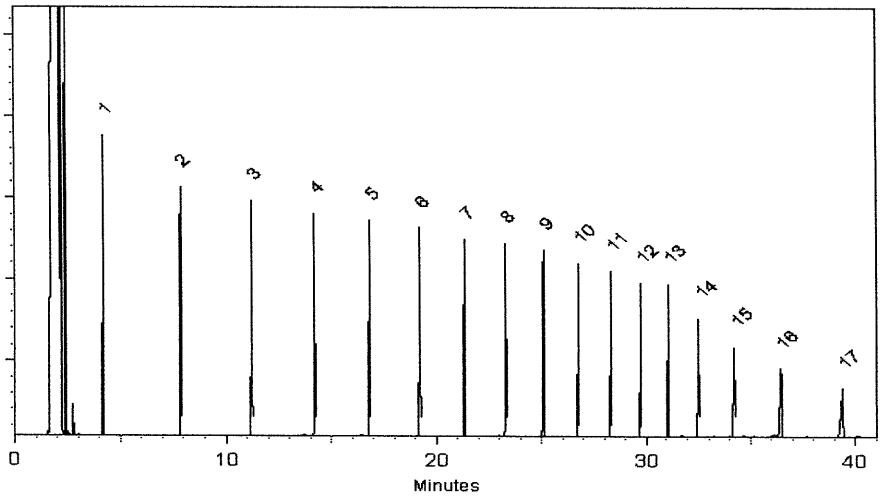
Carrier Gas:
hydrogen-constant pressure 10 psi.

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:

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

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

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

Manufacturing Notes:

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

Handling Notes:

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

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Certificate #3222.02

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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
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P11962
7.6
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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)

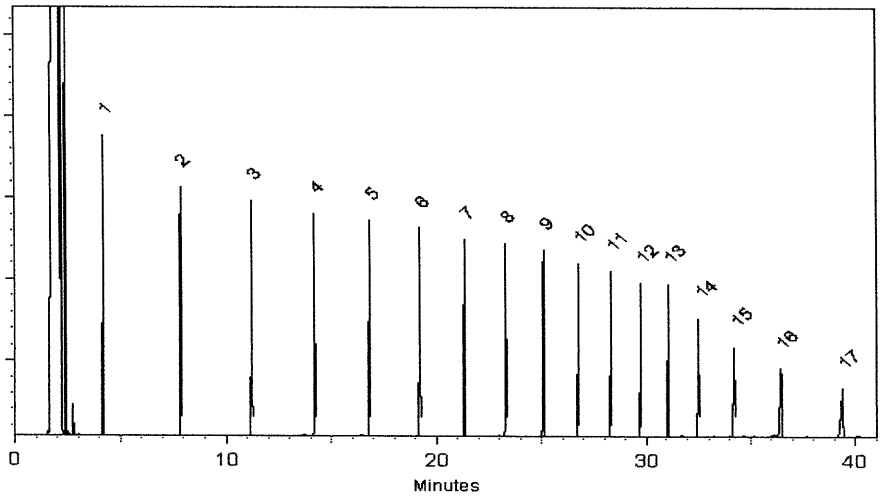
Carrier Gas:
hydrogen-constant pressure 10 psi.

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

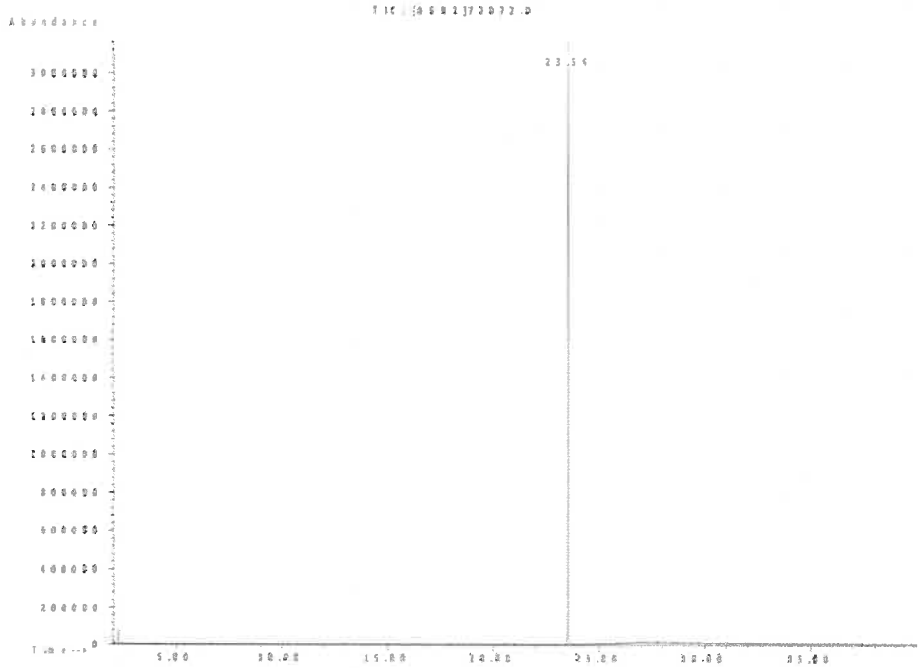
5E-05 Balance Uncertainty
0.058 Flask Uncertainty

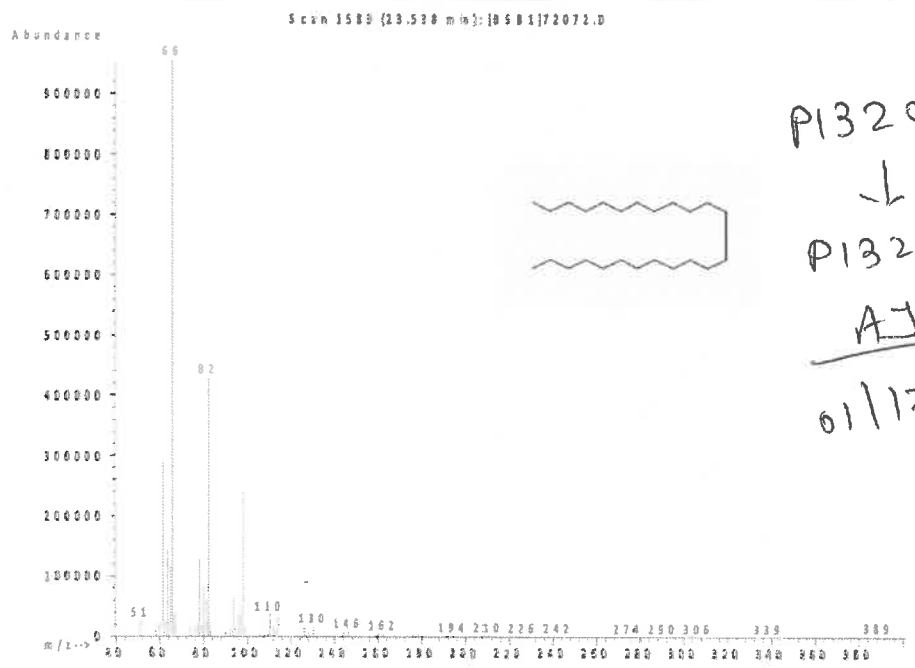
Weight(s) shown below were combined and diluted to (mL): 200.0

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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P13214
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01/17/24

- 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

P13215
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P13224

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.

CPI INTERNATIONAL

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Santa Rosa, CA 95403

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(800)878-7654 Toll Free
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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

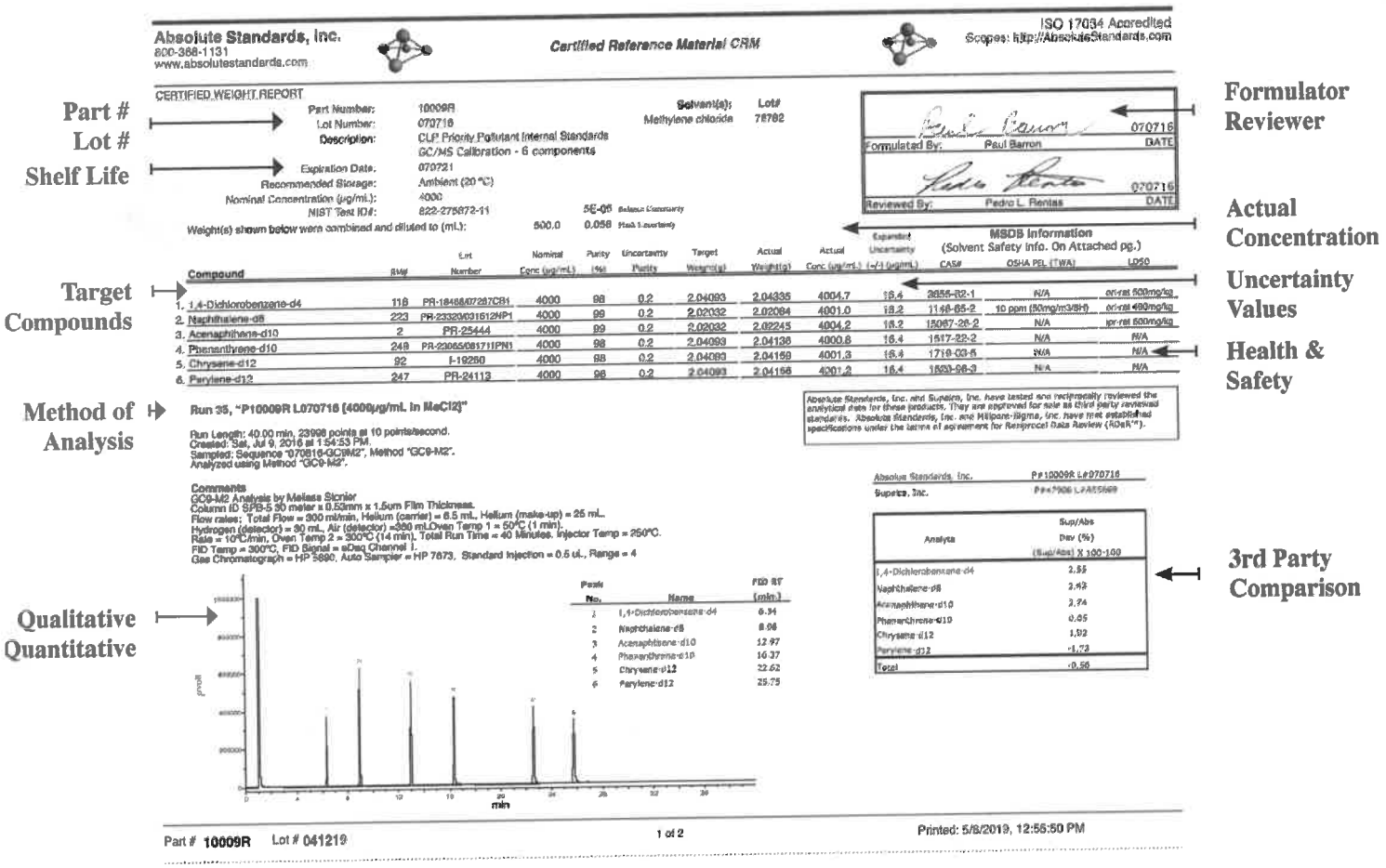
Absolute Standards, Inc. • 44 Rossotto Drive • Hamden, CT 06514
Voice: 800-368-1131 • Fax: 800-410-2577 • eMail: StephenArpie@AbsoluteStandards.com
Document Identification: Certificate of Analysis Rev 14, Date Issued: 05/30/2019

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. Reinas DATE 070716

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

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

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. 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™).

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	1.92
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

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

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

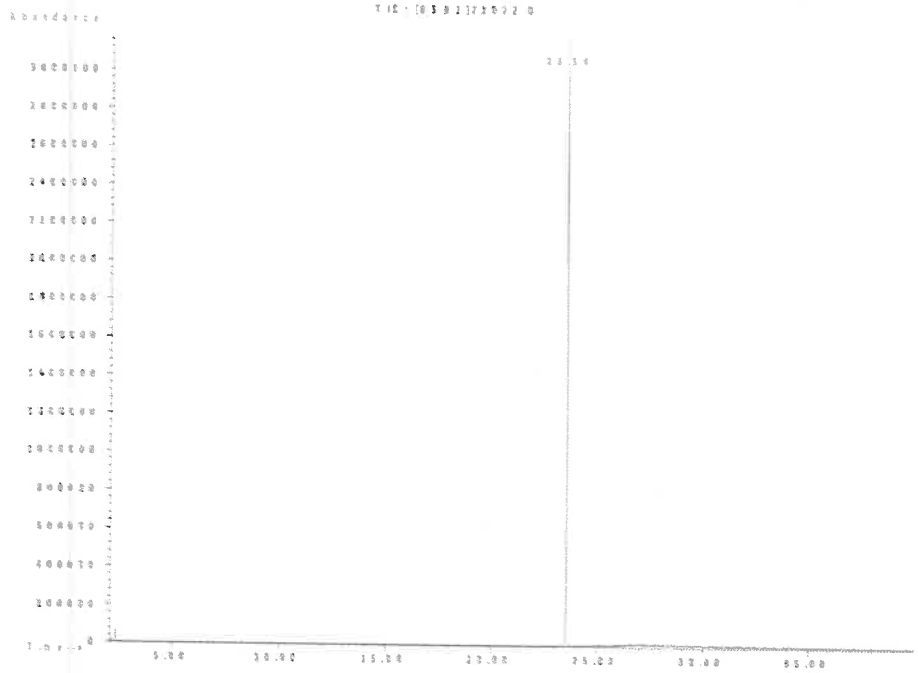
P13477 → P13496 } X.P. 07/24/24

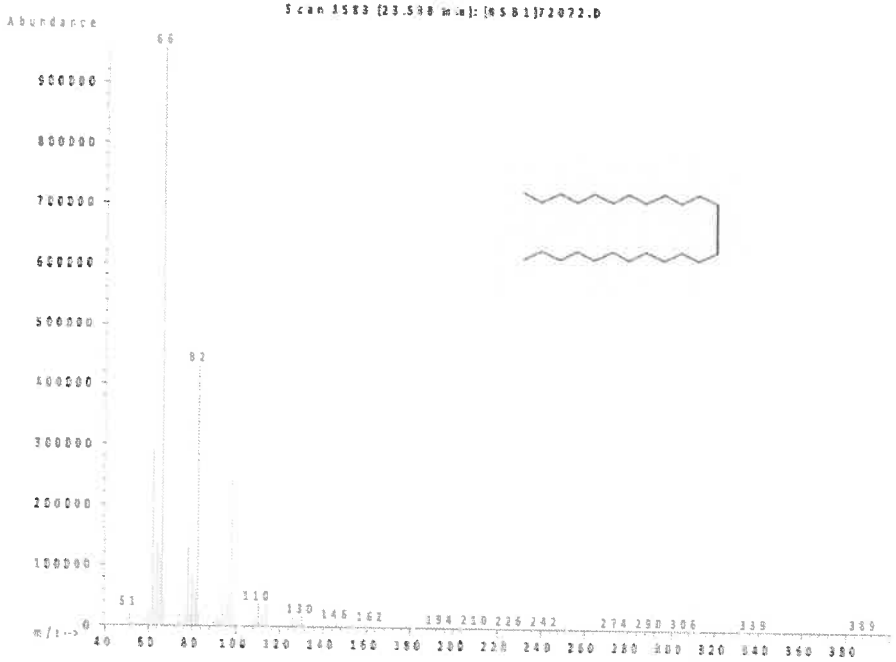
Formulated By:	Prashant Chauhan	101122 DATE
Reviewed By:	Pedro L. Rentas	101122 DATE

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

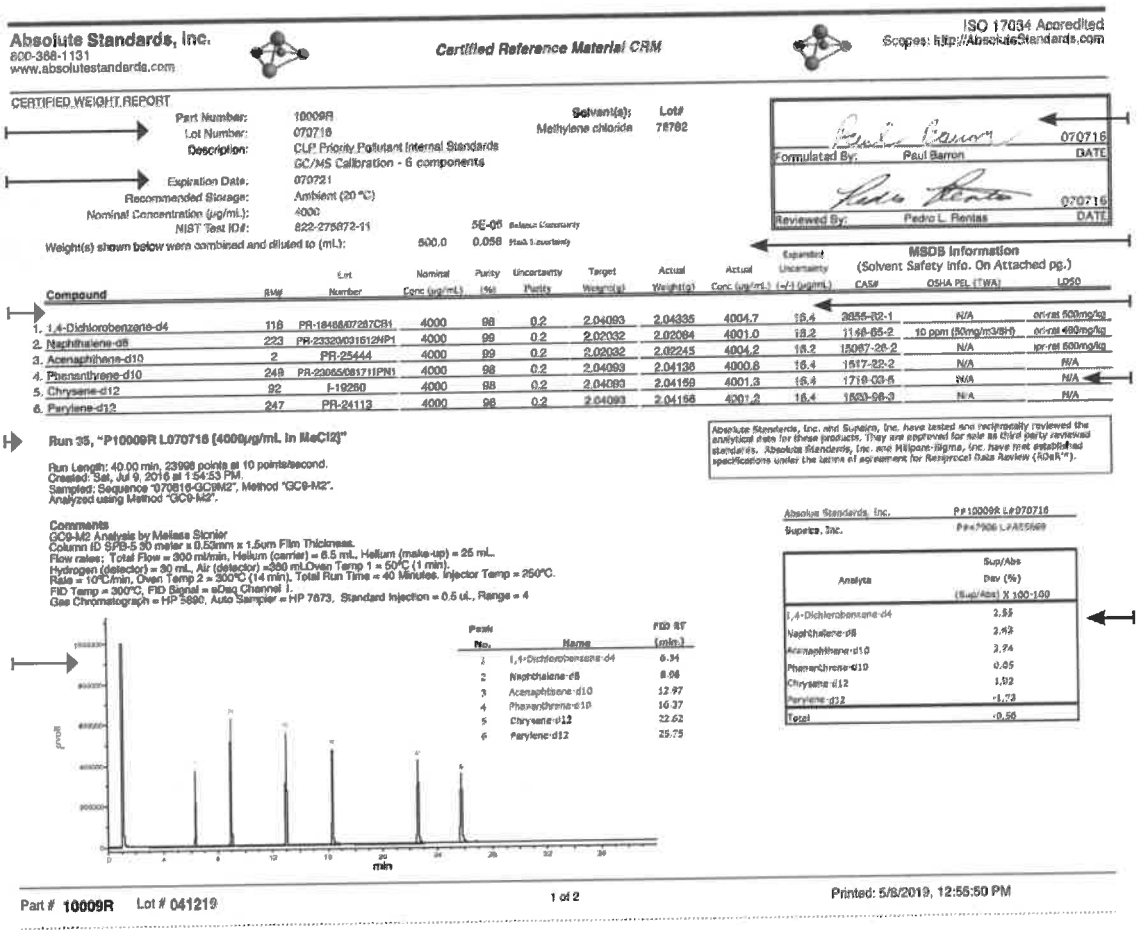
Absolute Standards, Inc. • 44 Rossotto Drive • Hamden, CT 06514
Voice: 800-368-1131 • Fax: 800-410-2577 • eMail: StephenArpie@AbsoluteStandards.com
Document Identification: Certificate of Analysis Rev 14, Date Issued: 05/30/2019

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)	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	or-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)	or-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 MeC12)"

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

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

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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

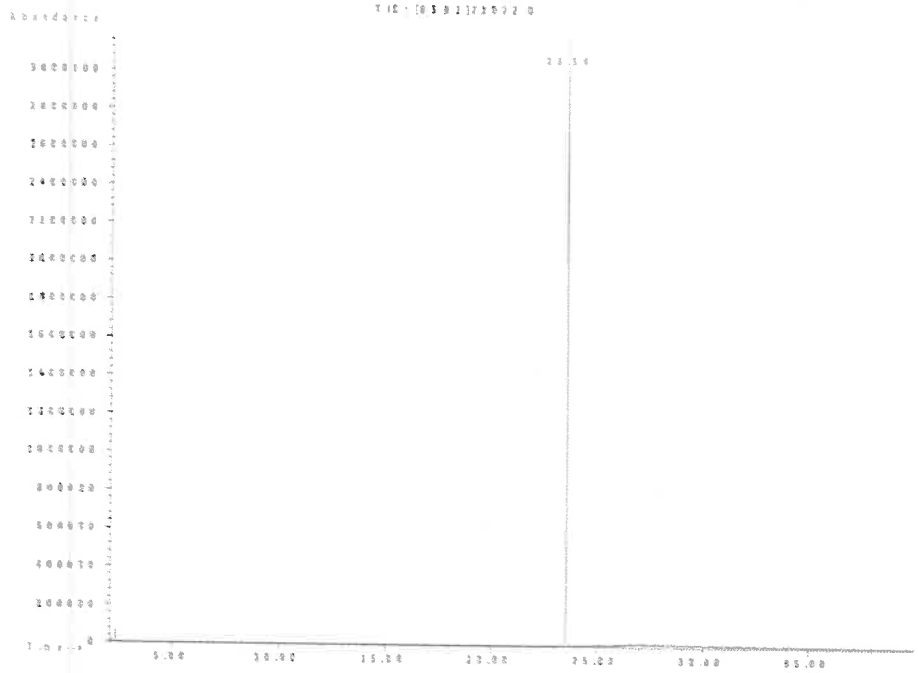
P13477 → P13496 } X.P. 07/24/24

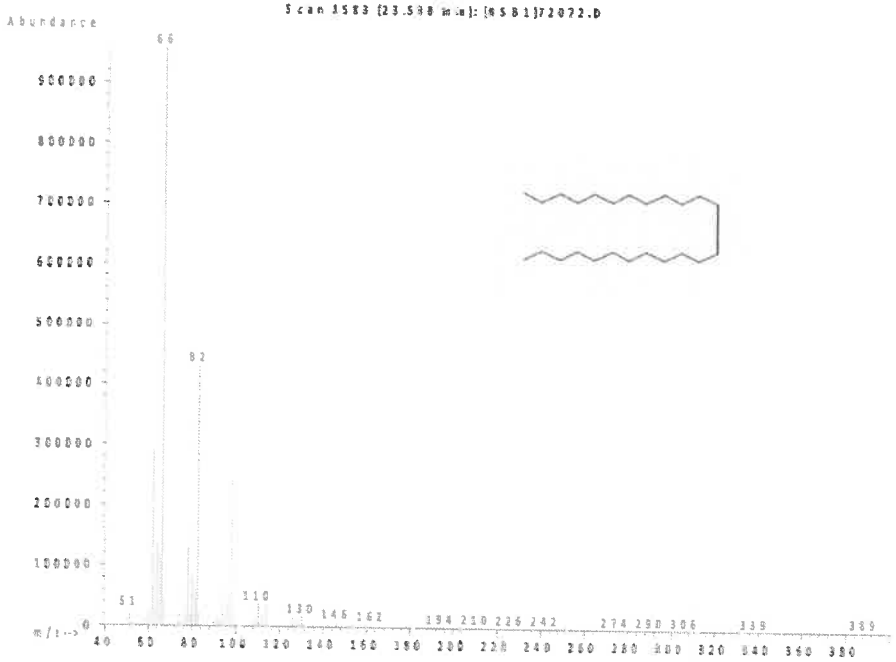
Formulated By:	Prashant Chauhan	101122 DATE
Reviewed By:	Pedro L. Rentas	101122 DATE

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

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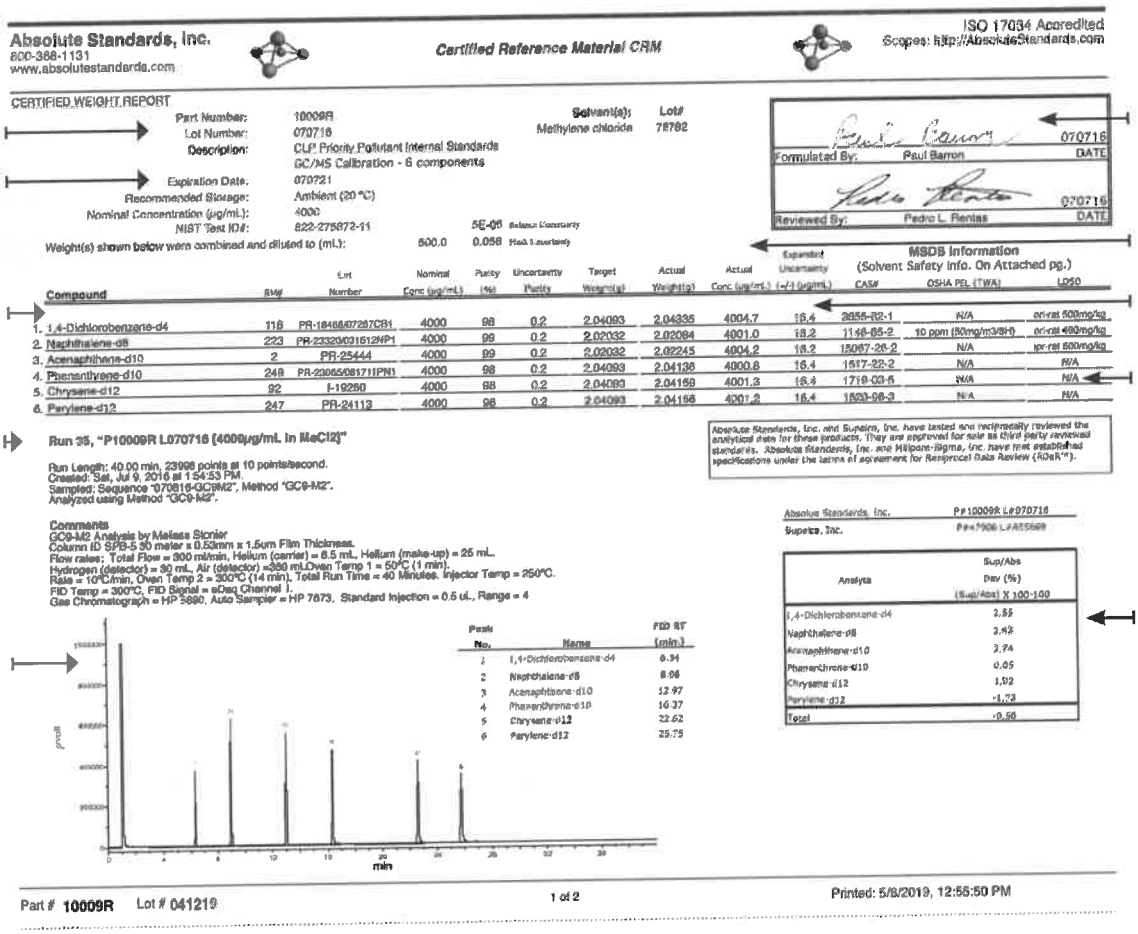
Document Identification: Certificate of Analysis Rev 14, Date Issued: 05/30/2019

ABSOLUTE STANDARDS, INC.

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)	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	or-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)	or-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

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

For More Information, Contact:

StephenArpie@AbsoluteStandards.com

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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

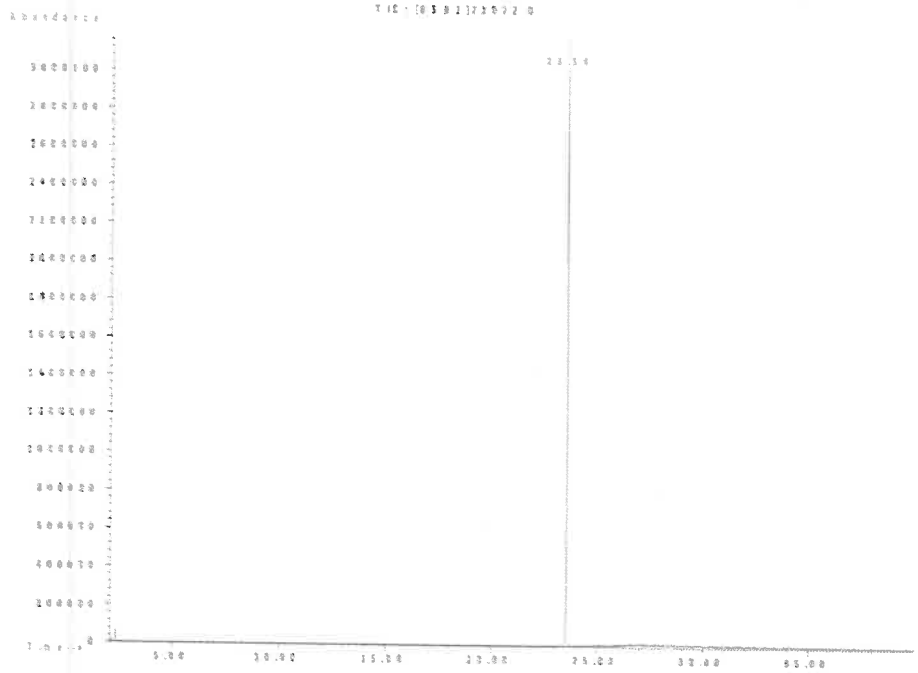
P13477 → P13496 } X.P. 07/24/24

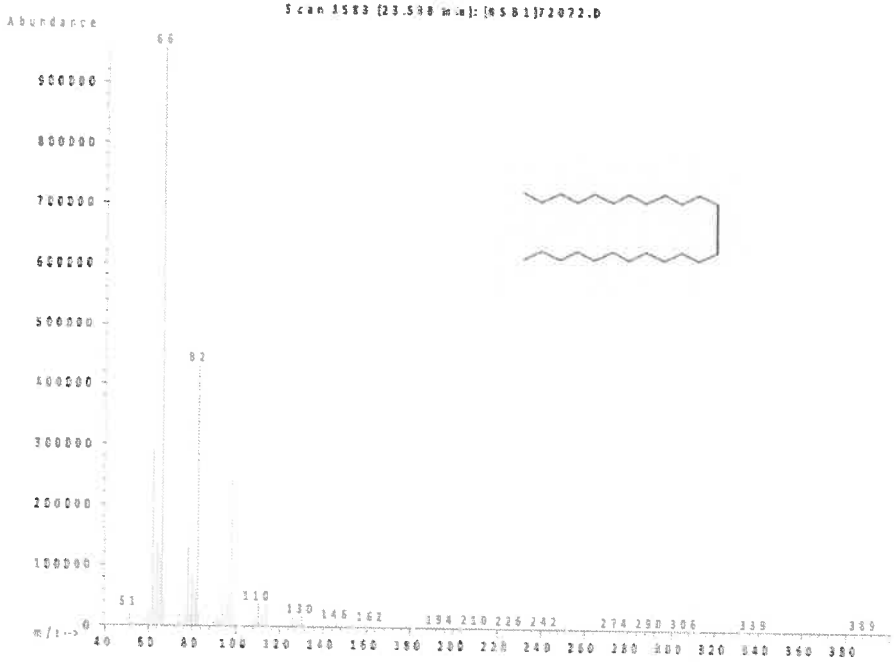
Formulated By:	Prashant Chauhan	101122 DATE
Reviewed By:	Pedro L. Rentas	101122 DATE

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

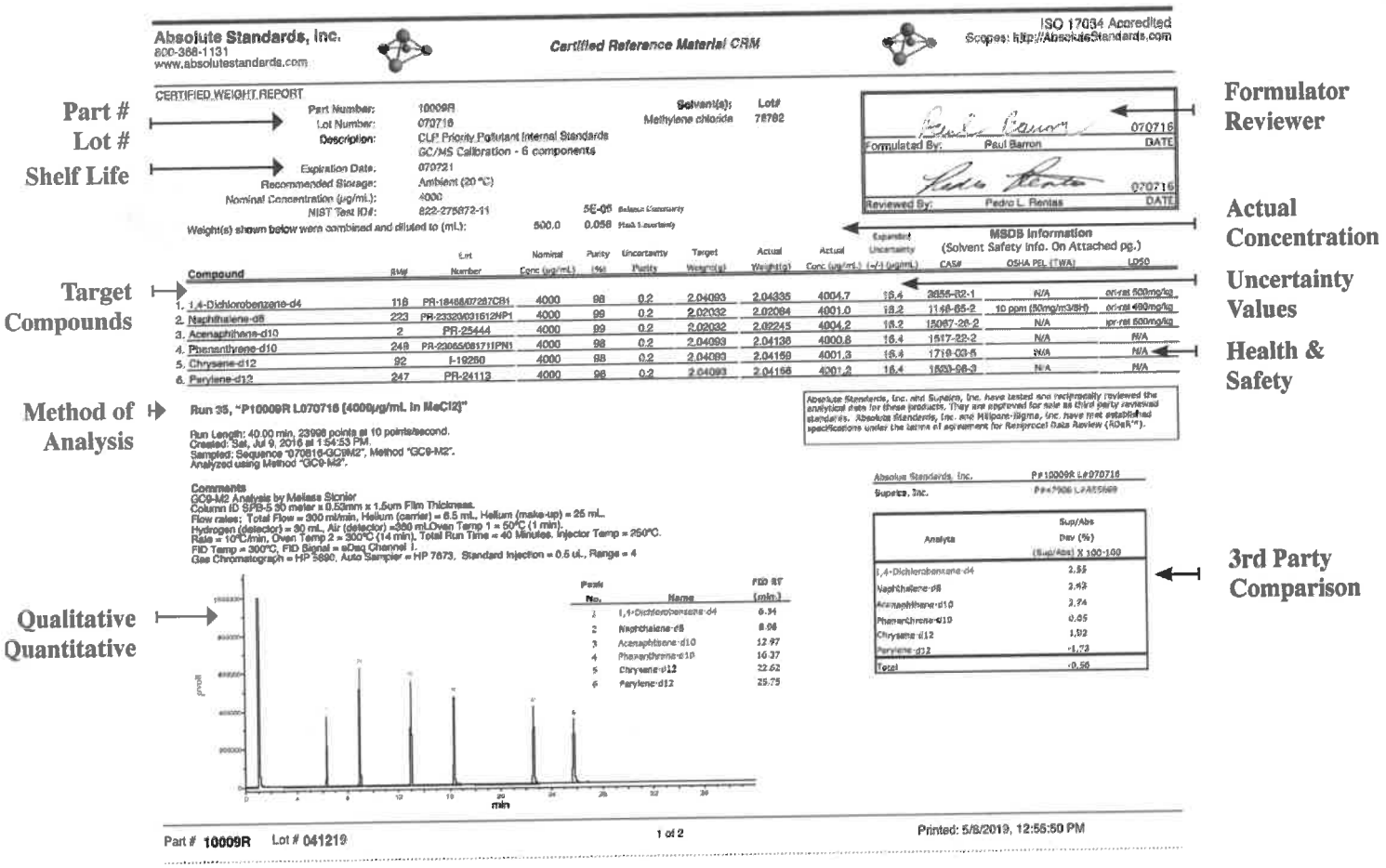
Absolute Standards, Inc. • 44 Rossotto Drive • Hamden, CT 06514
Voice: 800-368-1131 • Fax: 800-410-2577 • eMail: StephenArpie@AbsoluteStandards.com
Document Identification: Certificate of Analysis Rev 14, Date Issued: 05/30/2019

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.



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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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

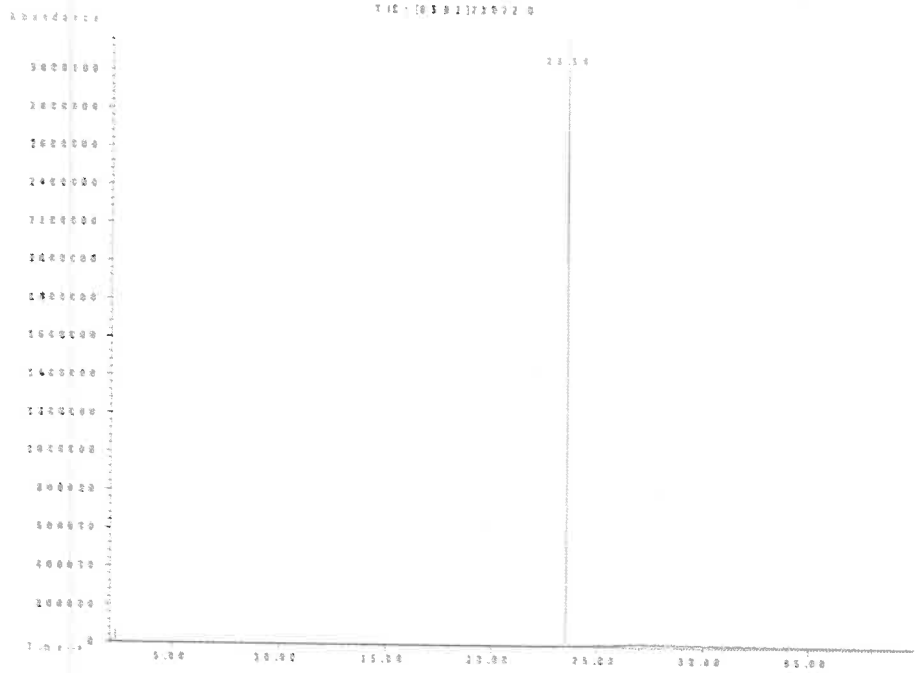
P13477 → P13496 } X.P. 07/24/24

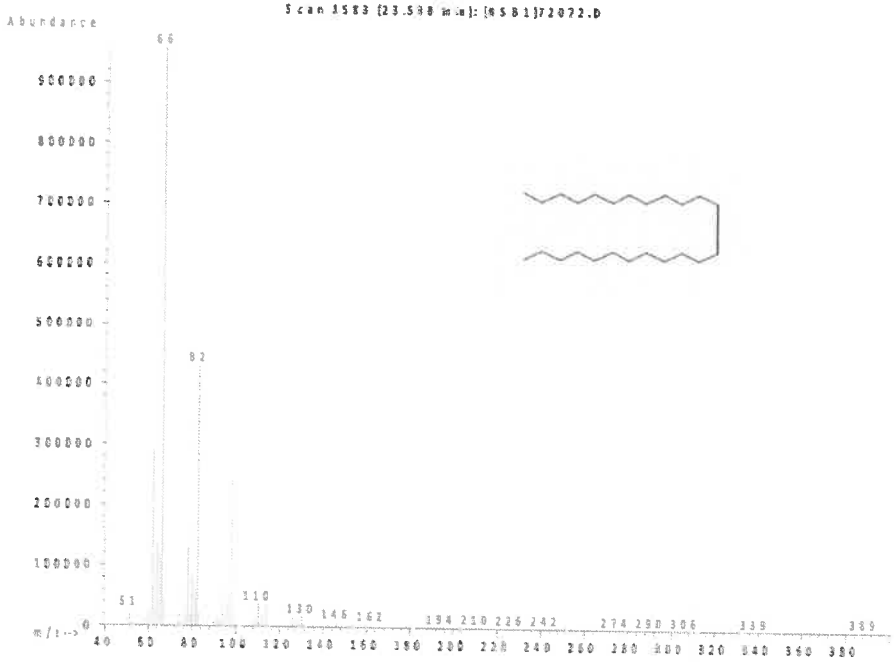
Formulated By:	Prashant Chauhan	101122 DATE
Reviewed By:	Pedro L. Rentas	101122 DATE

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).

SHIPPING DOCUMENTS

Q1539

Weston COC ID
Weston_20250310_1451

Chain of Custody Record/Lab Work Request

Page 1 of 1

Client:	Weston Solutions, Inc.		
Project Manager:	David Sembrot		
Street Address:	1400 Weston Way	City:	West Chester
Phone:	610-314-5456	ST, ZIP:	PA, 19038
e-mail:	david.sembrot@westonsolutions.com		
Sampled By:	Cheyenne Harrington		

Project Name:	Fort Meade RI	**Project POC:**	Nathan Fretz
PO Number	0111169	**Phone:**	484-524-5665
W.O. #:		**POC e-mail:**	nathan.fretz@westonsolutions.com
Lab:	CHEMTECH	**Lab POC:**	Jordan Hedvat
TAT (days):	21	**Lab Phone:**	908-728-3144
Lab Address:	284 Sheffield Street Mountainside, NJ 07092		

Matrix Codes
SS - Soil
SE - Sediment
SO - Solid
SL - Sludge
GW - Groundwater
W - Water
SB - Soil Boring
A - Air
DS - Drum Solids
DL - Drum Liquids
L - EP/TCLP Leachate
WI - Wipe
X - Other
F - Fish

Lab Use Only		
Temperature of cooler when received (°C)		
COC Tape was present and unbroken on outer package?	Y	N
Samples received in good condition?	Y	N
Labels indicate properly preserved?	Y	N
Received within holding times?	Y	N
Discrepancies between sample labels and COC record?	Y	N

#	Sample ID	G/C	Matrix	# Cont	MS/MSD	Date Collected	Time Collected	DRO by EPA 8015D	Pesticides by EPA 8081B	SVOCs by EPA 8270E	O&G by EPA 1664A	Hardness by EPA 200.7 & SM2340B	Anions by EPA 9056A	TOC by EPA 9060A/Lloyd Kahn	GRO by EPA 8015D	VOCs by EPA 8260D	Hex Cr by EPA 7196A	Ammonia by SM4500-NH3 B P	Metals w Hg by EPA 6020B/7470A	Special Instructions/Comments
	Container Type:							Amber	Amber	Amber	Glass	Plastic	Plastic	Vial	Vial	Vial	Plastic	Plastic	Plastic	
	Container Size:							1 L	1 L	1 L	1 L	1 L	1 L	40 mL	40 mL	40 mL	500 mL	500 mL	500 mL	
	Preservative:							Ice to 0-6 deg C	Ice to 0-6 deg C	Ice to 0-6 deg	H2SO4 to < 2	HNO3 to pH	Ice to 0-6	H2SO4 to < 2	HCL to PH < 2	HCL to Ph < 2	Ammonium	H2SO4; Ice to 0-6	HNO3 to pH <	
1	TAPIAL3-MW03D-031025-00-T1	g	GW	19	no	3/10/2025	11:50	X	X	X	X	X	X	X	X	X	X	X	X	pH 1.9
2	TAPFTA-MW01I-031025-00-T2	g	GW	19	no	3/10/2025	15:10	X	X	X	X	X	X	X	X	X	X	X	X	pH 1.9
3	TAP-TB-03-~~031025-T1~~ 031025	g	W	2	no	3/10/2025	11:50									X				
4	TAP-TB-04-031025-T2	g	W	2	no	3/10/25	16:55									X				Air in VOAs
5																				
6																				
7																				
8																				
9																				
10																				
11																				
12																				

Shipping Airbill Number: 7726 1351 3156

Cooler Number: 1 of 2

	Relinquished By	Date	Time	Received By	Date	Time
1.)	[signature]	3/10/25	1700	FedEx		
2.)				[signature]	3-11-25	9:56
3.)						

Additional Comments

QSM 6.0 Compliant

Deliverable Requirements: DoD Level IV report, EnviroData EDD, and ERIS-compatible EDD

3.1°C IR-Gun #1

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

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

LOGIN REPORT/SAMPLE TRANSFER

Order ID : Q1539 WEST04
Client Name : Weston Solutions
Client Contact : Nathan Fretz
Invoice Name : Weston Solutions
Invoice Contact : Nathan Fretz

Order Date : 3/11/2025 10:36:00 AM
Project Name : Ft Meade Tipton Airfield Pa
Receive DateTime : 3/11/2025 9:56:00 AM
Purchase Order :

Project Mgr : YAZMEEN
Report Type : Level 4
EDD Type : SEDD 2A
Hard Copy Date :
Date Signoff : 3/11/2025 11:38:51 AM

LAB ID	CLIENT ID	MATRIX	SAMPLE DATE	SAMPLE TIME	TEST	TEST GROUP	METHOD	FAX DATE	DUE DATES
Q1539-01	TAPIAL3-MW03D-031025-00-T1	Water	03/10/2025	11:50					
					VOC-TCLVOA-10		8260D		10 Bus. Days
Q1539-02	TAPFTA-MW01I-031025-00-T2	Water	03/10/2025	15:10					
					VOC-TCLVOA-10		8260D		10 Bus. Days
Q1539-03	TAP-TB-03-031025	Water	03/10/2025	11:50					
					VOC-TCLVOA-10		8260D		10 Bus. Days
Q1539-04	TAP-TB-04-031025-T2	Water	03/10/2025	16:55					
					VOC-TCLVOA-10		8260D		10 Bus. Days

Relinguished By :
Date / Time : 3/12/25

Received By :
Date / Time : 3/12/25
Storage Area : VOA Refridgerator Room