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Cover Page

Order ID : Q1207

Project ID : NYCDDC SANTWOBR Brooklyn Bridge BBMCR

Client : RU2 Engineering, LLC

Lab Sample Number	Client Sample Number
Q1207-01	JPP-2.1-012725
Q1207-02	JPP-2.1-012725
Q1207-03	JPP-2.1-012725
Q1207-04	JPP-2.1-012725
Q1207-05	JPP-5.1-012725
Q1207-06	JPP-5.1-012725
Q1207-07	JPP-5.1-012725
Q1207-08	JPP-5.1-012725
Q1207-09	JPP-4.5-012725
Q1207-10	JPP-4.5-012725
Q1207-11	JPP-4.5-012725
Q1207-12	JPP-4.5-012725
Q1207-13	JPP-16.2-012725
Q1207-14	JPP-16.2-012725
Q1207-15	JPP-16.2-012725
Q1207-16	JPP-16.2-012725
Q1207-17	JPP-20.2-012725
Q1207-18	JPP-20.2-012725
Q1207-19	JPP-20.2-012725
Q1207-20	JPP-20.2-012725

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: 2/5/2025

NYDOH CERTIFICATION NO - 11376

NJDEP CERTIFICATION NO - 20012

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CASE NARRATIVE

RU2 Engineering, LLC
Project Name: NYCDDC SANTWOBR Brooklyn Bridge BBMCR
Project # N/A
Chemtech Project # Q1207
Test Name: Diesel Range Organics

A. Number of Samples and Date of Receipt:
20 Solid samples were received on 01/28/2025.

B. Parameters
According to the Chain of Custody document, the following analyses were requested: Corrosivity, Diesel Range Organics, Gasoline Range Organics, Ignitability, Mercury, Metals ICP-TAL, METALS-TAL, Paint Filter, PCB, Pesticide-TCL, RCRA CHARACTERISTICS, Reactive Cyanide, Reactive Sulfide, SVOC-TCL BNA -20, TCLP BNA, TCLP Extraction, TCLP Herbicide, TCLP ICP Metals, TCLP Mercury, TCLP Pesticide, TCLP VOA, TCLP ZHE Extraction, TCLP-FULL and VOCMS Group1. This data package contains results for Diesel Range Organics.

C. Analytical Techniques:
The analysis were performed on instrument FID_E. The column is RXI-1MS which is 20 meters, 0.18mm ID, 0.18 um df, catalog 10224.The analysis of Diesel Range Organics was based on method 8015D and extraction was done based on method 3541.

D. QA/ QC Samples:

The Holding Times were met for all analysis
.
The Surrogate recoveries met the acceptable criteria except for JPP-4.5-012725 [Tetracosane-d50 - 22%] but this sample was required dilution as well due to high concentration, therefore no further corrective action taken.

The Retention Times were acceptable for all samples.
The Blank Spike 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 .

Sample JPP-4.5-012725 was diluted due to bad matrix.The above sample original run is reported as screening data in miscellaneous data.

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E. Additional Comments:

No MS-MSD performed as Limited volume.
The soil samples results are based on a dry weight basis.

F. Manual Integration Comments:

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

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

Signature_____

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DATA REPORTING QUALIFIERS- ORGANIC

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

Value	If the result is a value greater than or equal to the detection limit, report the value
U	Indicates the compound was analyzed for but was not detected. Report the minimum detection limit for the sample with the U, i.e. "10 U". This is not necessarily the instrument detection limit attainable for this particular sample based on any concentration or dilution that may have been required.
ND	Indicates the analyte was analyzed for, but not detected
J	Indicates an estimated value**.** This flag is used: (1) When estimating a concentration for a tentatively identified compound (library search hits, where a 1:1 response is assumed.) (2) When the mass spectral data indicated the identification, however the result was less than the specified detection limit greater than zero. If the detection limit was 10ug/L and a concentration of 3 ug/L was calculated report as 3 J. This 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: Q1207 MATRIX: Solid

METHOD: 8015D/3541

		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. The Surrogate recoveries met the acceptable criteria except for JPP-4.5-012725 [Tetracosane-d50 - 22%] but this sample was required dilution as well due to high concentration, therefore no further corrective action taken.		✓	
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 .			✓
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:

Sample JPP-4.5-012725 was diluted due to bad matrix.The above sample original run is reported as screening data in miscellaneous data.

No MS-MSD performed as Limited volume.

The soil samples results are based on a dry weight basis.

_____ _____

QA REVIEW Date

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APPENDIX A

QA REVIEW GENERAL DOCUMENTATION

Project #: **Q1207**

	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: **SOHIL JODHANI** **Date:** **02/05/2025**

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LAB CHRONICLE

OrderID:	Q1207	**OrderDate:**	1/28/2025 11:40:00 AM
Client:	RU2 Engineering, LLC	**Project:**	NYCDDC SANTWOBR Brooklyn Bridge BBMCR
Contact:	Rutu Manani	**Location:**	E11,VOA Ref. #2 Soil

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
Q1207-01	**JPP-2.1-012725**	**SOIL**			**01/27/25**			**01/28/25**
			Diesel Range Organics	8015D		01/29/25	01/30/25	
			Gasoline Range Organics	8015D			01/29/25	
Q1207-03	**JPP-2.1-012725**	**SOIL**			**01/27/25**			**01/28/25**
			PCB	8082A		01/29/25	01/29/25	
			Pesticide-TCL	8081B		01/29/25	01/30/25	
Q1207-04	**JPP-2.1-012725**	**TCLP**			**01/27/25**			**01/28/25**
			TCLP Herbicide	8151A		01/29/25	01/30/25	
			TCLP Pesticide	8081B		01/29/25	01/30/25	
Q1207-05	**JPP-5.1-012725**	**SOIL**			**01/27/25**			**01/28/25**
			Diesel Range Organics	8015D		01/29/25	01/30/25	
			Gasoline Range Organics	8015D			01/29/25	
Q1207-07	**JPP-5.1-012725**	**SOIL**			**01/27/25**			**01/28/25**
			PCB	8082A		01/29/25	01/29/25	
			Pesticide-TCL	8081B		01/29/25	01/30/25	
Q1207-08	**JPP-5.1-012725**	**TCLP**			**01/27/25**			**01/28/25**
			TCLP Herbicide	8151A		01/29/25	01/30/25	
			TCLP Pesticide	8081B		01/29/25	01/30/25	
Q1207-09	**JPP-4.5-012725**	**SOIL**			**01/27/25**			**01/28/25**
			Diesel Range Organics	8015D		01/29/25	01/30/25	
			Gasoline Range Organics	8015D			01/29/25	
Q1207-11	**JPP-4.5-012725**	**SOIL**			**01/27/25**			**01/28/25**
			PCB	8082A		01/29/25	01/29/25	
			Pesticide-TCL	8081B		01/29/25	01/30/25	

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LAB CHRONICLE

Q1207-12	**JPP-4.5-012725**	**TCLP**			**01/27/25**			**01/28/25**
			TCLP Herbicide	8151A		01/29/25	01/30/25	
			TCLP Pesticide	8081B		01/29/25	01/30/25	
Q1207-13	**JPP-16.2-012725**	**SOIL**			**01/27/25**			**01/28/25**
			Diesel Range Organics	8015D		01/29/25	01/30/25	
			Gasoline Range Organics	8015D			01/29/25	
Q1207-15	**JPP-16.2-012725**	**SOIL**			**01/27/25**			**01/28/25**
			PCB	8082A		01/29/25	01/29/25	
			Pesticide-TCL	8081B		01/29/25	01/30/25	
Q1207-16	**JPP-16.2-012725**	**TCLP**			**01/27/25**			**01/28/25**
			TCLP Herbicide	8151A		01/29/25	01/30/25	
			TCLP Pesticide	8081B		01/29/25	01/30/25	
Q1207-17	**JPP-20.2-012725**	**SOIL**			**01/27/25**			**01/28/25**
			Diesel Range Organics	8015D		01/29/25	01/30/25	
			Gasoline Range Organics	8015D			01/29/25	
Q1207-19	**JPP-20.2-012725**	**SOIL**			**01/27/25**			**01/28/25**
			PCB	8082A		01/29/25	01/29/25	
			Pesticide-TCL	8081B		01/29/25	01/30/25	
Q1207-20	**JPP-20.2-012725**	**TCLP**			**01/27/25**			**01/28/25**
			TCLP Herbicide	8151A		01/29/25	01/30/25	
			TCLP Pesticide	8081B		01/29/25	01/30/25	

QC SUMMARY

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SOIL DIESEL RANGE ORGANICS SURROGATE RECOVERY

Lab Name: Chemtech Client: RU2 Engineering, LLC

Lab Code: CHEM Case No.: Q1207 SAS No.: Q1207 SDG No.: Q1207

EPA SAMPLE NO.	S1 TETRACOSANE-d50		S2	S3	S4	TOT OUT
PIBLK-FE052139.D	91					0
PIBLK-FE052151.D	86					0
PIBLK-FE052157.D	87					0
PB166348BL	90					0
PB166348BS	91					0
JPP-2.1-012725	48					0
JPP-5.1-012725	38					0
JPP-4.5-012725	22	*				1
JPP-16.2-012725	37					0
JPP-20.2-012725	40					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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SOIL DIESEL RANGE ORGANICS LABORATORY CONTROL SPIKE/LABORATORY CONTROL SPIKE DUPLICATE RI

Lab Name: Chemtech **Client:** RU2 Engineering, LLC

Lab Code: CHEM **Cas No:** Q1207 **SAS No :** Q1207 **SDG No:** Q1207

Matrix Spike - EPA Sample No : PB166348BS **Datafile:** FE052143.D

COMPOUND	SPIKE ADDED ug/kg	CONCENTRATION ug/kg	LCS/LCSD CONCENTRATION ug/kg	% REC	QC LIMITS
DRO	6662	0	6174	93	68-131

Alliance TECHNICAL GROUP
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4B

METHOD BLANK SUMMARY

EPA SAMPLE NO.

PB166348BL

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM Case No.: Q1207 SAS No.: Q1207 SDG NO.: Q1207

Lab File ID: FE052142.D Lab Sample ID: PB166348BL

Instrument ID: FE Date Extracted: 01/30/2025

Matrix: (soil/water) Soil Date Analyzed: 01/30/25

Level: (low/med) low Time Analyzed: 4:58

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

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
PB166348BS	PB166348BS	FE052143.D	01/30/25
JPP-2.1-012725	Q1207-01	FE052146.D	01/30/25
JPP-5.1-012725	Q1207-05	FE052147.D	01/30/25
JPP-16.2-012725	Q1207-13	FE052148.D	01/30/25
JPP-20.2-012725	Q1207-17	FE052150.D	01/30/25
JPP-4.5-012725	Q1207-09	FE052154.D	01/30/25

COMMENTS:

SAMPLE DATA

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Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/27/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/28/25
Client Sample ID:	JPP-2.1-012725	SDG No.:	Q1207
Lab Sample ID:	Q1207-01	Matrix:	SOIL
Analytical Method:	8015D DRO	% Solid:	86.8 Decanted:
Sample Wt/Vol:	25.33 Units: g	Final Vol:	1 mL
Soil Aliquot Vol:	uL	Test:	Diesel Range Organics
Extraction Type:		Injection Volume :	
GPC Factor :	PH :		
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
FE052146.D	1	01/29/25 08:45	01/30/25 6:59	PB166348

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
DRO	DRO	3840		252	2270	ug/kg
SURROGATES						
16416-32-3	Tetracosane-d50	9.56		37 - 130	48%	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_E\Data\FE012925\
Data File : FE052146.D
Signal(s) : FID1B.ch
Acq On : 30 Jan 2025 06:59
Operator : YP\AJ
Sample : Q1207-01
Misc :
ALS Vial : 30 Sample Multiplier: 1

Instrument :
FID_E
ClientSampleId :
JPP-2.1-012725

Integration File: autoint1.e
Quant Time: Jan 30 07:32:51 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\FE012325.M
Quant Title :
QLast Update : Fri Jan 24 03:06:38 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...	15.261	952152	9.560 ug/ml
	Target Compounds			

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

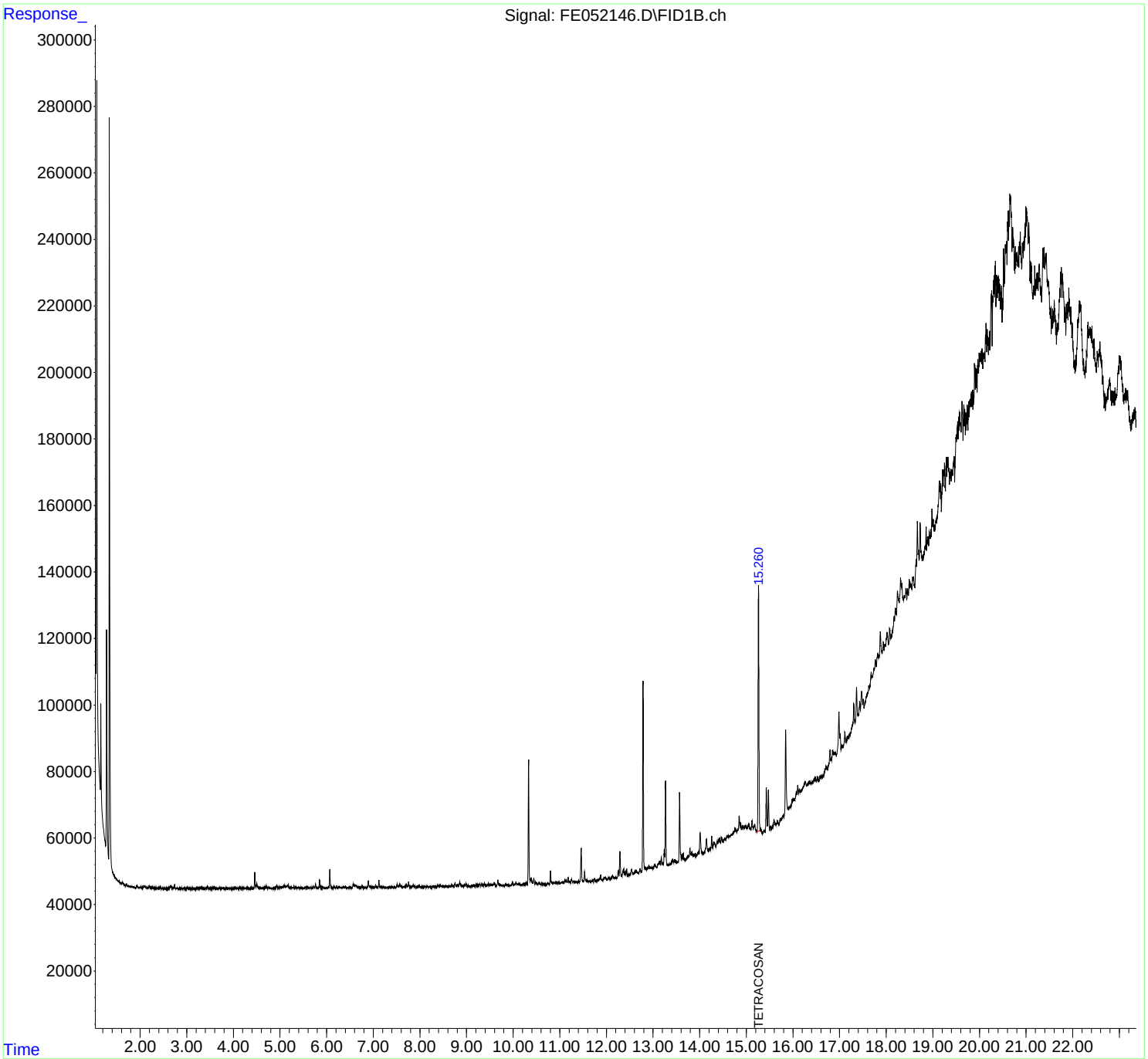
Quantitation Report (QT Reviewed)

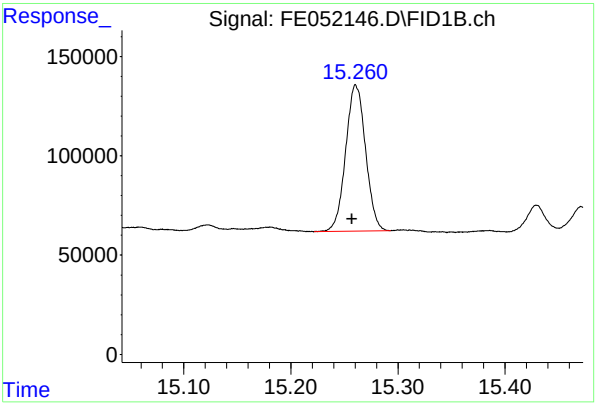
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE012925\
Data File : FE052146.D
Signal(s) : FID1B.ch
Acq On : 30 Jan 2025 06:59
Operator : YP\AJ
Sample : Q1207-01
Misc :
ALS Vial : 30 Sample Multiplier: 1

Instrument :
FID_E
ClientSampleId :
JPP-2.1-012725

Integration File: autoint1.e
Quant Time: Jan 30 07:32:51 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\FE012325.M
Quant Title :
QLast Update : Fri Jan 24 03:06:38 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.:	15.261 min
Delta R.T.:	0.004 mi
Response:	952152
Conc:	9.56 ug/m

Instrument :
FID_E
ClientSampleId :
JPP-2.1-012725

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE012925\
Data File : FE052146.D
Signal(s) : FID1B.ch
Acq On : 30 Jan 2025 06:59
Sample : Q1207-01
Misc :
ALS Vial : 30 Sample Multiplier: 1

Integration File: Sample.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\FE012325.M
Title :

Signal : FID1B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	4.884	4.878	4.895	VV	259	2104	0.21%	0.021%
2	4.905	4.895	4.913	VV	337	2451	0.25%	0.025%
3	4.930	4.913	4.954	VV	1031	13524	1.35%	0.136%
4	4.957	4.954	4.960	VV	240	954	0.10%	0.010%
5	4.975	4.960	4.994	VV	436	5343	0.53%	0.054%
6	5.007	4.994	5.014	VV	305	2853	0.29%	0.029%
7	5.042	5.014	5.058	VV	489	9921	0.99%	0.100%
8	5.086	5.058	5.107	VV	1094	18546	1.86%	0.187%
9	5.118	5.107	5.130	VV	663	8326	0.83%	0.084%
10	5.173	5.130	5.202	VV	1015	28948	2.90%	0.292%
11	5.205	5.202	5.222	VV	393	3166	0.32%	0.032%
12	5.237	5.222	5.257	VV	347	5032	0.50%	0.051%
13	5.264	5.257	5.270	VV	278	1474	0.15%	0.015%
14	5.294	5.270	5.310	VV	496	7263	0.73%	0.073%
15	5.337	5.310	5.344	VV	350	4892	0.49%	0.049%
16	5.348	5.344	5.353	VV	274	1054	0.11%	0.011%
17	5.359	5.353	5.365	VV	218	1157	0.12%	0.012%
18	5.380	5.365	5.391	VV	282	3205	0.32%	0.032%
19	5.393	5.391	5.422	VV	251	3302	0.33%	0.033%
20	5.436	5.422	5.449	VV	264	3124	0.31%	0.032%
21	5.459	5.449	5.487	VV	231	2964	0.30%	0.030%
22	5.497	5.487	5.523	VV	115	1910	0.19%	0.019%
23	5.544	5.523	5.561	VV	295	4099	0.41%	0.041%
24	5.575	5.561	5.581	VV	329	3136	0.31%	0.032%
25	5.589	5.581	5.614	VV	521	6379	0.64%	0.064%
26	5.620	5.614	5.630	VV	268	1643	0.16%	0.017%
27	5.637	5.630	5.651	VV	223	1761	0.18%	0.018%
28	5.658	5.651	5.671	VV	239	1930	0.19%	0.019%
29	5.687	5.671	5.694	VV	175	1694	0.17%	0.017%
30	5.728	5.694	5.747	VV	501	8190	0.82%	0.083%
31	5.761	5.747	5.801	VV	1340	16181	1.62%	0.163%
32	5.806	5.801	5.818	VV	145	954	0.10%	0.010%
33	5.849	5.818	5.875	PV	2587	29039	2.91%	0.293%
34	5.883	5.875	5.910	VV	317	4122	0.41%	0.042%
35	5.919	5.910	5.957	VV	313	4018	0.40%	0.041%
36	5.961	5.957	5.966	VV	105	353	0.04%	0.004%

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37	5.997	5.966	6.010	VV	145	2306	0.23%	0.023%
38	6.040	6.010	6.048	VV	377	2900	0.29%	0.029%
39	6.068	6.048	6.139	VV	5772	62877	6.30%	0.635%
40	6.156	6.139	6.189	VV	442	5794	0.58%	0.058%
41	6.210	6.189	6.229	VV	742	5697	0.57%	0.057%
42	6.252	6.229	6.255	VV	199	2366	0.24%	0.024%
43	6.270	6.255	6.311	VV	329	6579	0.66%	0.066%
44	6.325	6.311	6.335	VV	162	1876	0.19%	0.019%
45	6.353	6.335	6.379	VV	327	5034	0.50%	0.051%
46	6.400	6.379	6.423	VV	379	5583	0.56%	0.056%
47	6.427	6.423	6.431	VV	168	562	0.06%	0.006%
48	6.449	6.431	6.491	VV	194	4351	0.44%	0.044%
49	6.516	6.491	6.535	VV	196	3627	0.36%	0.037%
50	6.541	6.535	6.549	VV	163	1003	0.10%	0.010%
51	6.566	6.549	6.579	VV	1209	13037	1.31%	0.132%
52	6.583	6.579	6.600	VV	897	9739	0.98%	0.098%
53	6.623	6.600	6.665	VV	941	23077	2.31%	0.233%
54	6.675	6.665	6.680	VV	273	1877	0.19%	0.019%
55	6.687	6.680	6.708	VV	361	2179	0.22%	0.022%
56	6.722	6.708	6.729	VV	187	1410	0.14%	0.014%
57	6.732	6.729	6.740	VV	121	511	0.05%	0.005%
58	6.757	6.740	6.798	VV	826	11159	1.12%	0.113%
59	6.808	6.798	6.820	VV	203	2230	0.22%	0.023%
60	6.825	6.820	6.859	VV	236	3217	0.32%	0.032%
61	6.864	6.859	6.874	VV	107	885	0.09%	0.009%
62	6.894	6.874	6.932	VV	2233	28011	2.80%	0.283%
63	6.945	6.932	6.969	VV	478	6226	0.62%	0.063%
64	6.974	6.969	6.999	VV	274	2855	0.29%	0.029%
65	7.051	6.999	7.102	VV	516	12457	1.25%	0.126%
66	7.122	7.102	7.156	VV	2296	25308	2.53%	0.255%
67	7.166	7.156	7.190	VV	247	4032	0.40%	0.041%
68	7.206	7.190	7.220	VV	253	3612	0.36%	0.036%
69	7.224	7.220	7.231	VV	198	959	0.10%	0.010%
70	7.236	7.231	7.254	VV	147	1456	0.15%	0.015%
71	7.261	7.254	7.295	VV	188	3147	0.32%	0.032%
72	7.300	7.295	7.315	VV	97	802	0.08%	0.008%
73	7.336	7.315	7.372	VV	242	3702	0.37%	0.037%
74	7.395	7.372	7.409	VV	272	3307	0.33%	0.033%
75	7.415	7.409	7.432	VV	145	1330	0.13%	0.013%
76	7.435	7.432	7.456	VV	154	1642	0.16%	0.017%
77	7.472	7.456	7.480	VV	136	1123	0.11%	0.011%
78	7.510	7.480	7.532	VV	1069	14449	1.45%	0.146%
79	7.538	7.532	7.551	VV	423	4077	0.41%	0.041%
80	7.569	7.551	7.609	VV	1267	19407	1.94%	0.196%
81	7.613	7.609	7.639	VV	282	3473	0.35%	0.035%
82	7.641	7.639	7.650	VV	232	1153	0.12%	0.012%
83	7.658	7.650	7.664	VV	170	1248	0.12%	0.013%
84	7.713	7.664	7.732	VV	1031	19787	1.98%	0.200%
85	7.759	7.732	7.787	VV	1801	21937	2.20%	0.221%
86	7.791	7.787	7.799	VV	167	697	0.07%	0.007%
87	7.834	7.799	7.844	VV	463	7243	0.73%	0.073%
88	7.857	7.844	7.880	VV	733	10205	1.02%	0.103%
89	7.889	7.880	7.917	VV	281	4254	0.43%	0.043%

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90	7.930	7.917	7.949	VV	221	3420	0.34%	0.035%
91	7.985	7.949	8.003	VV	839	12933	1.29%	0.131%
92	8.007	8.003	8.024	VV	334	2919	0.29%	0.029%
93	8.040	8.024	8.065	VV	230	4254	0.43%	0.043%
94	8.071	8.065	8.085	VV	220	2019	0.20%	0.020%
95	8.097	8.085	8.136	VV	292	5901	0.59%	0.060%
96	8.159	8.136	8.169	VV	323	4219	0.42%	0.043%
97	8.174	8.169	8.193	VV	156	1700	0.17%	0.017%
98	8.206	8.193	8.244	VV	174	4336	0.43%	0.044%
99	8.249	8.244	8.265	VV	113	679	0.07%	0.007%
100	8.280	8.265	8.305	PV	357	4539	0.45%	0.046%
101	8.310	8.305	8.314	VV	193	681	0.07%	0.007%
102	8.324	8.314	8.344	VV	221	2730	0.27%	0.028%
103	8.345	8.344	8.349	VV	170	410	0.04%	0.004%
104	8.357	8.349	8.364	VV	186	1288	0.13%	0.013%
105	8.380	8.364	8.413	VV	692	12444	1.25%	0.126%
106	8.427	8.413	8.436	VV	567	6598	0.66%	0.067%
107	8.443	8.436	8.460	VV	549	6006	0.60%	0.061%
108	8.466	8.460	8.482	VV	346	3678	0.37%	0.037%
109	8.487	8.482	8.492	VV	244	1090	0.11%	0.011%
110	8.518	8.492	8.523	VV	296	4271	0.43%	0.043%
111	8.526	8.523	8.539	VV	223	1707	0.17%	0.017%
112	8.550	8.539	8.575	VV	295	4680	0.47%	0.047%
113	8.583	8.575	8.595	VV	230	2420	0.24%	0.024%
114	8.604	8.595	8.625	VV	284	3893	0.39%	0.039%
115	8.636	8.625	8.650	VV	353	3735	0.37%	0.038%
116	8.679	8.650	8.732	VV	614	16408	1.64%	0.166%
117	8.751	8.732	8.784	VV	1176	18711	1.87%	0.189%
118	8.800	8.784	8.820	VV	661	9802	0.98%	0.099%
119	8.827	8.820	8.835	VV	505	3879	0.39%	0.039%
120	8.855	8.835	8.897	VV	1561	26104	2.61%	0.263%
121	8.900	8.897	8.905	VV	234	967	0.10%	0.010%
122	8.922	8.905	8.948	VV	412	6694	0.67%	0.068%
123	8.988	8.948	9.024	VV	798	21122	2.11%	0.213%
124	9.039	9.024	9.070	VV	342	6194	0.62%	0.063%
125	9.082	9.070	9.115	VV	254	4783	0.48%	0.048%
126	9.138	9.115	9.156	VV	441	6997	0.70%	0.071%
127	9.162	9.156	9.186	VV	342	3789	0.38%	0.038%
128	9.203	9.186	9.217	VV	511	6151	0.62%	0.062%
129	9.228	9.217	9.259	VV	462	8051	0.81%	0.081%
130	9.264	9.259	9.268	VV	295	1275	0.13%	0.013%
131	9.283	9.268	9.303	VV	809	11174	1.12%	0.113%
132	9.320	9.303	9.350	VV	842	13653	1.37%	0.138%
133	9.360	9.350	9.367	VV	406	3631	0.36%	0.037%
134	9.391	9.367	9.412	VV	692	11583	1.16%	0.117%
135	9.422	9.412	9.429	VV	294	2150	0.22%	0.022%
136	9.443	9.429	9.457	VV	411	5084	0.51%	0.051%
137	9.477	9.457	9.535	VV	742	20845	2.09%	0.210%
138	9.554	9.535	9.567	VV	474	7082	0.71%	0.071%
139	9.591	9.567	9.628	VV	1115	19687	1.97%	0.199%
140	9.673	9.628	9.707	VV	1821	31868	3.19%	0.322%
141	9.727	9.707	9.745	VV	450	7030	0.70%	0.071%

142	9.762	9.745	9.774	VV	280	3769	0.38%	0.038%
143	9.780	9.774	9.804	VV	244	2661	0.27%	0.027%
144	9.811	9.804	9.822	VV	155	1412	0.14%	0.014%
145	9.843	9.822	9.859	VV	484	6874	0.69%	0.069%
146	9.872	9.859	9.897	VV	429	6457	0.65%	0.065%
147	9.901	9.897	9.920	VV	191	1663	0.17%	0.017%
148	9.931	9.920	9.940	PV	193	1607	0.16%	0.016%
149	9.950	9.940	9.963	VV	253	2214	0.22%	0.022%
150	9.984	9.963	10.027	VV	1123	19415	1.94%	0.196%
151	10.033	10.027	10.037	VV	339	1902	0.19%	0.019%
152	10.061	10.037	10.076	VV	1161	16595	1.66%	0.167%
153	10.086	10.076	10.106	VV	611	7621	0.76%	0.077%
154	10.126	10.106	10.132	VV	556	6413	0.64%	0.065%
155	10.143	10.132	10.162	VV	514	6265	0.63%	0.063%
156	10.174	10.162	10.194	VV	316	4009	0.40%	0.040%
157	10.211	10.194	10.254	VV	460	11742	1.18%	0.118%
158	10.274	10.254	10.278	VV	541	5915	0.59%	0.060%
159	10.290	10.278	10.309	VV	741	8293	0.83%	0.084%
160	10.332	10.309	10.367	VV	37707	396721	39.72%	4.004%
161	10.384	10.367	10.412	VV	2180	38694	3.87%	0.390%
162	10.415	10.412	10.423	VV	732	4380	0.44%	0.044%
163	10.445	10.423	10.469	VV	2085	30626	3.07%	0.309%
164	10.480	10.469	10.494	VV	833	10036	1.00%	0.101%
165	10.499	10.494	10.527	VV	633	7506	0.75%	0.076%
166	10.554	10.527	10.602	VV	637	12277	1.23%	0.124%
167	10.607	10.602	10.611	PV	143	387	0.04%	0.004%
168	10.646	10.611	10.694	VV	165	3269	0.33%	0.033%
169	10.733	10.694	10.767	PV	373	5464	0.55%	0.055%
170	10.803	10.767	10.825	PV	4100	46516	4.66%	0.469%
171	10.835	10.825	10.854	VV	614	7827	0.78%	0.079%
172	10.880	10.854	10.895	VV	511	8926	0.89%	0.090%
173	10.933	10.895	10.958	VV	618	13528	1.35%	0.137%
174	10.980	10.958	11.010	VV	582	8703	0.87%	0.088%
175	11.054	11.010	11.079	VV	415	12170	1.22%	0.123%
176	11.108	11.079	11.121	VV	959	15283	1.53%	0.154%
177	11.135	11.121	11.155	VV	1197	16249	1.63%	0.164%
178	11.179	11.155	11.210	VV	1757	26096	2.61%	0.263%
179	11.223	11.210	11.234	VV	516	5185	0.52%	0.052%
180	11.254	11.234	11.276	VV	1259	18086	1.81%	0.183%
181	11.290	11.276	11.307	VV	601	7477	0.75%	0.075%
182	11.313	11.307	11.344	VV	370	6122	0.61%	0.062%
183	11.353	11.344	11.370	VV	502	4417	0.44%	0.045%
184	11.397	11.370	11.414	VV	391	5836	0.58%	0.059%
185	11.459	11.414	11.509	VV	10345	129648	12.98%	1.308%
186	11.534	11.509	11.556	VV	3133	38810	3.89%	0.392%
187	11.566	11.556	11.594	VV	594	10834	1.08%	0.109%
188	11.602	11.594	11.615	VV	335	3408	0.34%	0.034%
189	11.633	11.615	11.663	VV	281	5152	0.52%	0.052%
190	11.700	11.663	11.720	VV	355	7303	0.73%	0.074%
191	11.740	11.720	11.784	PV	954	15790	1.58%	0.159%
192	11.809	11.784	11.828	PV	591	8451	0.85%	0.085%
193	11.851	11.828	11.861	VV	1058	11560	1.16%	0.117%
194	11.877	11.861	11.913	VV	1820	23186	2.32%	0.234%

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195	11.977	11.913	12.014	VV	809	27858	2.79%	0.281%
196	12.047	12.014	12.085	PV	651	14505	1.45%	0.146%
197	12.129	12.085	12.170	VV	1054	23973	2.40%	0.242%
198	12.184	12.170	12.219	VV	362	5991	0.60%	0.060%
199	12.255	12.219	12.268	PV	2206	27439	2.75%	0.277%
200	12.289	12.268	12.328	VV	7838	104027	10.42%	1.050%
201	12.372	12.328	12.388	VV	2399	44625	4.47%	0.450%
202	12.404	12.388	12.416	VV	1562	17534	1.76%	0.177%
203	12.433	12.416	12.457	VV	2161	25712	2.57%	0.259%
204	12.483	12.457	12.493	PV	306	4416	0.44%	0.045%
205	12.542	12.493	12.579	VV	1687	34288	3.43%	0.346%
206	12.610	12.579	12.624	VV	782	12235	1.23%	0.123%
207	12.639	12.624	12.685	VV	1202	19301	1.93%	0.195%
208	12.720	12.685	12.740	PV	1347	16532	1.66%	0.167%
209	12.785	12.740	12.839	VV	57204	633758	63.46%	6.396%
210	12.849	12.839	12.865	VV	1030	14056	1.41%	0.142%
211	12.886	12.865	12.900	VV	1001	17206	1.72%	0.174%
212	12.916	12.900	12.941	VV	1141	22855	2.29%	0.231%
213	12.952	12.941	12.977	VV	703	13849	1.39%	0.140%
214	12.985	12.977	13.010	VV	603	10144	1.02%	0.102%
215	13.036	13.010	13.083	VV	1554	32481	3.25%	0.328%
216	13.148	13.083	13.162	VV	1985	56912	5.70%	0.574%
217	13.179	13.162	13.200	VV	2890	40268	4.03%	0.406%
218	13.212	13.200	13.220	VV	1223	12046	1.21%	0.122%
219	13.239	13.220	13.250	VV	4987	54535	5.46%	0.550%
220	13.268	13.250	13.314	VV	25482	289744	29.01%	2.924%
221	13.330	13.314	13.345	VV	232	2517	0.25%	0.025%
222	13.362	13.345	13.378	PV	285	3530	0.35%	0.036%
223	13.416	13.378	13.444	VV	1291	26431	2.65%	0.267%
224	13.457	13.444	13.512	VV	1101	20818	2.08%	0.210%
225	13.566	13.512	13.605	VV	20749	251339	25.17%	2.536%
226	13.619	13.605	13.634	VV	2051	21996	2.20%	0.222%
227	13.649	13.634	13.678	VV	2152	26169	2.62%	0.264%
228	13.694	13.678	13.712	PV	198	2610	0.26%	0.026%
229	13.736	13.712	13.750	VV	965	11972	1.20%	0.121%
230	13.764	13.750	13.771	VV	911	9314	0.93%	0.094%
231	13.791	13.771	13.810	VV	2968	40251	4.03%	0.406%
232	13.828	13.810	13.874	VV	1669	38982	3.90%	0.393%
233	13.887	13.874	13.917	VV	822	12784	1.28%	0.129%
234	13.978	13.917	13.990	PV	1201	23025	2.31%	0.232%
235	14.009	13.990	14.045	VV	6628	90765	9.09%	0.916%
236	14.062	14.045	14.074	VV	461	5390	0.54%	0.054%
237	14.089	14.074	14.096	VV	248	2896	0.29%	0.029%
238	14.148	14.096	14.178	VV	4145	75147	7.52%	0.758%
239	14.213	14.178	14.230	VV	967	20261	2.03%	0.204%
240	14.256	14.230	14.280	VV	4317	60886	6.10%	0.614%
241	14.297	14.280	14.309	VV	2437	31096	3.11%	0.314%
242	14.319	14.309	14.349	VV	2304	37439	3.75%	0.378%
243	14.368	14.349	14.380	VV	2162	32668	3.27%	0.330%
244	14.400	14.380	14.411	VV	2219	37720	3.78%	0.381%
245	14.427	14.411	14.449	VV	3060	51593	5.17%	0.521%
246	14.468	14.449	14.500	VV	3085	65090	6.52%	0.657%

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247	14.539	14.500	14.557	VV	2319	66501	6.66%	0.671%
248	14.620	14.557	14.629	VV	2695	107249	10.74%	1.082%
249	14.758	14.629	14.799	VV	4311	315683	31.61%	3.186%
250	14.846	14.799	14.865	VV	7556	187136	18.74%	1.889%
251	14.880	14.865	14.910	VV	5429	115283	11.54%	1.163%
252	14.929	14.910	14.950	VV	4191	91801	9.19%	0.926%
253	14.982	14.950	15.020	VV	4084	150056	15.02%	1.514%
254	15.058	15.020	15.098	VV	4085	152595	15.28%	1.540%
255	15.122	15.098	15.155	VV	4894	110620	11.08%	1.116%
256	15.179	15.155	15.219	VV	3423	89313	8.94%	0.901%
257	15.261	15.219	15.294	VV	74604	998732	100.00%	10.079%
258	15.304	15.294	15.354	VV	1479	26565	2.66%	0.268%
259	15.384	15.354	15.401	VV	674	9955	1.00%	0.100%
260	15.429	15.401	15.450	PV	13256	159517	15.97%	1.610%
261	15.471	15.450	15.499	VV	12298	148902	14.91%	1.503%
262	15.514	15.499	15.537	PV	1152	12974	1.30%	0.131%
263	15.595	15.537	15.634	PV	2276	51191	5.13%	0.517%
264	15.666	15.634	15.697	VV	1371	28602	2.86%	0.289%
265	15.731	15.697	15.758	PV	1220	27438	2.75%	0.277%
266	15.787	15.758	15.799	VV	1256	24787	2.48%	0.250%
267	15.841	15.799	15.892	VV	25970	419385	41.99%	4.232%
268	15.944	15.892	15.952	VV	1802	61974	6.21%	0.625%
269	15.981	15.952	15.993	VV	3208	58123	5.82%	0.587%
270	16.006	15.993	16.027	VV	3302	56880	5.70%	0.574%
271	16.072	16.027	16.084	VV	4228	105297	10.54%	1.063%
272	16.100	16.084	16.118	VV	5524	88049	8.82%	0.889%
273	16.137	16.118	16.169	VV	4049	101133	10.13%	1.021%
274	16.263	16.169	16.290	VV	4449	250622	25.09%	2.529%
275	16.360	16.290	16.378	VV	3032	143433	14.36%	1.447%
276	16.389	16.378	16.397	VV	2115	23544	2.36%	0.238%
277	16.422	16.397	16.432	VV	2004	38791	3.88%	0.391%
278	16.452	16.432	16.467	VV	2465	40658	4.07%	0.410%
279	16.481	16.467	16.498	VV	2442	35191	3.52%	0.355%
280	16.525	16.498	16.555	VV	1869	37705	3.78%	0.381%
281	16.601	16.555	16.635	VV	927	27363	2.74%	0.276%
282	16.713	16.635	16.726	PV	1602	42158	4.22%	0.425%
283	16.737	16.726	16.745	VV	719	7936	0.79%	0.080%
284	16.793	16.745	16.827	VV	5048	106215	10.63%	1.072%
285	16.853	16.827	16.872	VV	3677	68159	6.82%	0.688%
286	16.906	16.872	16.930	VV	1874	57779	5.79%	0.583%
287	16.984	16.930	17.002	VV	12472	210350	21.06%	2.123%
288	17.010	17.002	17.031	VV	5313	55527	5.56%	0.560%
289	17.051	17.031	17.069	VV	953	14391	1.44%	0.145%
290	17.111	17.069	17.134	PV	3560	47304	4.74%	0.477%
291	17.170	17.134	17.187	VV	926	14906	1.49%	0.150%
292	17.304	17.187	17.335	PV	6594	118550	11.87%	1.196%
293	17.362	17.335	17.404	VV	9648	126455	12.66%	1.276%
294	17.430	17.404	17.445	PV	2837	36616	3.67%	0.370%

Sum of corrected areas: 9909170

FE012325.M Thu Jan 30 07:44:22 2025

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

Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/27/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/28/25
Client Sample ID:	JPP-5.1-012725	SDG No.:	Q1207
Lab Sample ID:	Q1207-05	Matrix:	SOIL
Analytical Method:	8015D DRO	% Solid:	91.2 Decanted:
Sample Wt/Vol:	29.4 Units: g	Final Vol:	1 mL
Soil Aliquot Vol:	uL	Test:	Diesel Range Organics
Extraction Type:		Injection Volume :	
GPC Factor :	PH :		
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
FE052147.D	1	01/29/25 08:45	01/30/25 7:29	PB166348

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
DRO	DRO	13200		207	1870	ug/kg
SURROGATES						
16416-32-3	Tetracosane-d50	7.61		37 - 130	38%	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_E\Data\FE012925\
Data File : FE052147.D
Signal(s) : FID1B.ch
Acq On : 30 Jan 2025 07:29
Operator : YP\AJ
Sample : Q1207-05
Misc :
ALS Vial : 31 Sample Multiplier: 1

Instrument :
FID_E
ClientSampleId :
JPP-5.1-012725

Integration File: autoint1.e
Quant Time: Jan 30 07:59:59 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\FE012325.M
Quant Title :
QLast Update : Fri Jan 24 03:06:38 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...	15.266	758197	7.613 ug/ml
Target Compounds				

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

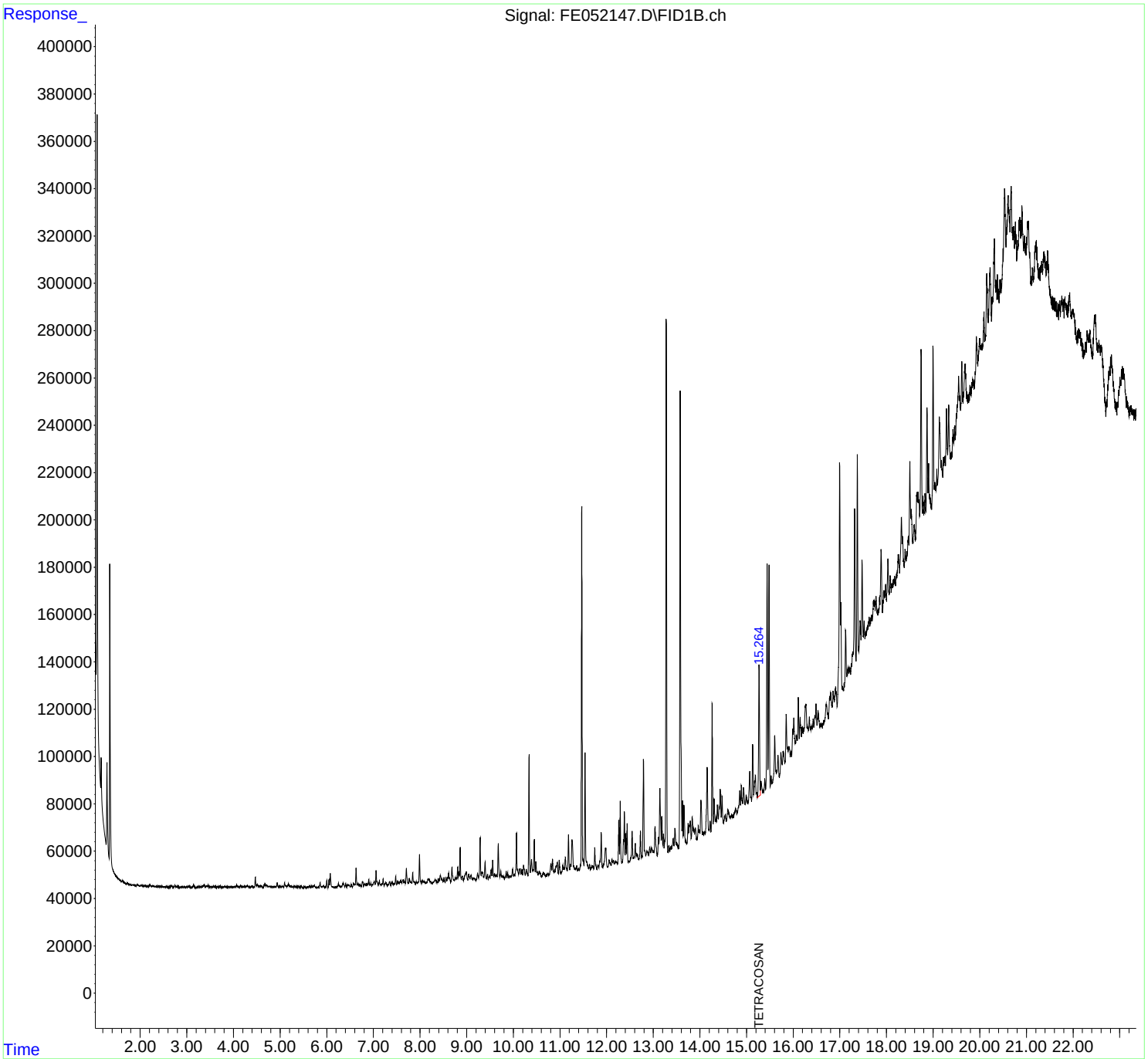
Quantitation Report (QT Reviewed)

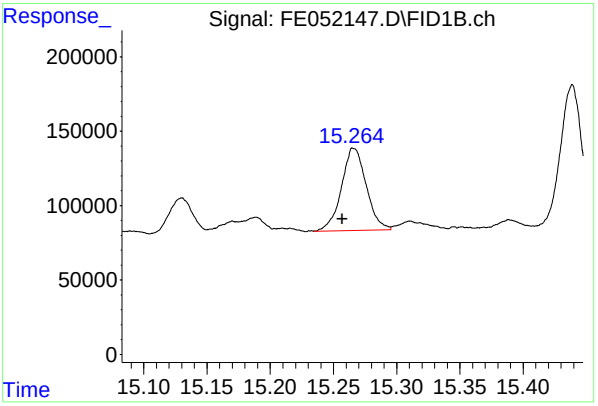
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE012925\
Data File : FE052147.D
Signal(s) : FID1B.ch
Acq On : 30 Jan 2025 07:29
Operator : YP\AJ
Sample : Q1207-05
Misc :
ALS Vial : 31 Sample Multiplier: 1

Instrument :
FID_E
ClientSampleId :
JPP-5.1-012725

Integration File: autoint1.e
Quant Time: Jan 30 07:59:59 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\FE012325.M
Quant Title :
QLast Update : Fri Jan 24 03:06:38 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.: 15.266 min
Delta R.T.: 0.009 mi
Response: 758197
Conc: 7.61 ug/m

Instrument :
FID_E
ClientSampleId :
JPP-5.1-012725

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE012925\
Data File : FE052147.D
Signal(s) : FID1B.ch
Acq On : 30 Jan 2025 07:29
Sample : Q1207-05
Misc :
ALS Vial : 31 Sample Multiplier: 1

Integration File: Sample.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\FE012325.M
Title :

Signal : FID1B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	4.784	4.759	4.821	VV	614	17229	0.69%	0.045%
2	4.839	4.821	4.865	VV	487	9923	0.40%	0.026%
3	4.890	4.865	4.911	VV	620	13386	0.54%	0.035%
4	4.938	4.911	4.968	VV	2269	31388	1.26%	0.082%
5	4.988	4.968	5.006	VV	821	13296	0.53%	0.035%
6	5.017	5.006	5.030	VV	606	7066	0.28%	0.018%
7	5.040	5.030	5.046	VV	559	4725	0.19%	0.012%
8	5.055	5.046	5.063	VV	643	5780	0.23%	0.015%
9	5.068	5.063	5.075	VV	549	3480	0.14%	0.009%
10	5.097	5.075	5.133	VV	2183	36884	1.48%	0.096%
11	5.136	5.133	5.141	VV	625	2771	0.11%	0.007%
12	5.162	5.141	5.166	VV	945	11356	0.46%	0.030%
13	5.180	5.166	5.206	VV	1530	26613	1.07%	0.069%
14	5.215	5.206	5.236	VV	956	10395	0.42%	0.027%
15	5.242	5.236	5.266	VV	797	8582	0.34%	0.022%
16	5.275	5.266	5.280	VV	439	3214	0.13%	0.008%
17	5.303	5.280	5.319	VV	955	13083	0.52%	0.034%
18	5.324	5.319	5.338	VV	531	5605	0.22%	0.015%
19	5.351	5.338	5.371	VV	748	9796	0.39%	0.026%
20	5.395	5.371	5.418	VV	708	12681	0.51%	0.033%
21	5.432	5.418	5.448	VV	636	8340	0.33%	0.022%
22	5.461	5.448	5.481	VV	742	9028	0.36%	0.024%
23	5.515	5.481	5.529	VV	415	8124	0.33%	0.021%
24	5.534	5.529	5.545	VV	492	3202	0.13%	0.008%
25	5.553	5.545	5.564	VV	456	3345	0.13%	0.009%
26	5.597	5.564	5.612	PV	659	10167	0.41%	0.026%
27	5.632	5.612	5.659	VV	831	15151	0.61%	0.039%
28	5.672	5.659	5.684	VV	715	8314	0.33%	0.022%
29	5.691	5.684	5.706	VV	710	6854	0.27%	0.018%
30	5.718	5.706	5.729	VV	1002	9991	0.40%	0.026%
31	5.737	5.729	5.761	VV	1065	12399	0.50%	0.032%
32	5.772	5.761	5.787	VV	411	3956	0.16%	0.010%
33	5.810	5.787	5.821	PV	422	5175	0.21%	0.013%
34	5.858	5.821	5.881	VV	2310	31738	1.27%	0.083%
35	5.894	5.881	5.904	VV	536	5899	0.24%	0.015%
36	5.921	5.904	5.938	VV	722	12047	0.48%	0.031%

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37	5.940	5.938	5.957	VV	651	4294	0.17%	0.011%
38	6.002	5.957	6.028	VV	3144	35694	1.43%	0.093%
39	6.048	6.028	6.061	PV	3386	33563	1.34%	0.087%
40	6.076	6.061	6.115	VV	5982	78296	3.14%	0.204%
41	6.125	6.115	6.144	VV	397	4206	0.17%	0.011%
42	6.148	6.144	6.156	VV	217	1092	0.04%	0.003%
43	6.166	6.156	6.180	VV	331	2439	0.10%	0.006%
44	6.192	6.180	6.216	VV	219	2783	0.11%	0.007%
45	6.251	6.216	6.267	VV	1802	21745	0.87%	0.057%
46	6.273	6.267	6.290	VV	596	5333	0.21%	0.014%
47	6.295	6.290	6.310	VV	197	2026	0.08%	0.005%
48	6.312	6.310	6.320	VV	244	1051	0.04%	0.003%
49	6.352	6.320	6.384	VV	1578	37219	1.49%	0.097%
50	6.406	6.384	6.425	VV	1157	14685	0.59%	0.038%
51	6.446	6.425	6.463	VV	991	14580	0.58%	0.038%
52	6.475	6.463	6.504	VV	798	13090	0.52%	0.034%
53	6.523	6.504	6.551	PV	979	11787	0.47%	0.031%
54	6.573	6.551	6.603	PV	1344	27612	1.11%	0.072%
55	6.630	6.603	6.649	VV	7965	87535	3.51%	0.228%
56	6.670	6.649	6.694	VV	1247	22344	0.90%	0.058%
57	6.712	6.694	6.746	VV	1161	16499	0.66%	0.043%
58	6.768	6.746	6.789	VV	2158	33033	1.32%	0.086%
59	6.811	6.789	6.837	VV	931	19442	0.78%	0.051%
60	6.848	6.837	6.870	VV	1066	13873	0.56%	0.036%
61	6.902	6.870	6.928	VV	2878	44060	1.77%	0.115%
62	6.947	6.928	6.965	VV	1373	17686	0.71%	0.046%
63	7.021	6.965	7.038	VV	2094	47052	1.89%	0.123%
64	7.059	7.038	7.100	VV	6606	91259	3.66%	0.238%
65	7.109	7.100	7.116	VV	742	6230	0.25%	0.016%
66	7.130	7.116	7.163	VV	2299	28474	1.14%	0.074%
67	7.182	7.163	7.191	VV	977	11916	0.48%	0.031%
68	7.210	7.191	7.233	VV	2993	35836	1.44%	0.093%
69	7.267	7.233	7.312	VV	1398	32150	1.29%	0.084%
70	7.323	7.312	7.328	VV	396	2655	0.11%	0.007%
71	7.347	7.328	7.370	VV	1677	24520	0.98%	0.064%
72	7.393	7.370	7.405	PV	1202	14307	0.57%	0.037%
73	7.409	7.405	7.439	VV	1056	12678	0.51%	0.033%
74	7.479	7.439	7.501	VV	3887	46265	1.85%	0.120%
75	7.517	7.501	7.532	VV	1570	17944	0.72%	0.047%
76	7.546	7.532	7.566	VV	1200	19995	0.80%	0.052%
77	7.581	7.566	7.594	VV	1946	25054	1.00%	0.065%
78	7.598	7.594	7.611	VV	1403	12659	0.51%	0.033%
79	7.637	7.611	7.653	VV	2218	39547	1.58%	0.103%
80	7.666	7.653	7.689	VV	1668	24287	0.97%	0.063%
81	7.708	7.689	7.740	VV	7095	98019	3.93%	0.255%
82	7.745	7.740	7.755	VV	903	7138	0.29%	0.019%
83	7.769	7.755	7.788	VV	2715	34526	1.38%	0.090%
84	7.800	7.788	7.816	VV	1325	17070	0.68%	0.044%
85	7.844	7.816	7.871	VV	5059	67029	2.69%	0.175%
86	7.878	7.871	7.907	VV	1123	17164	0.69%	0.045%
87	7.926	7.907	7.948	VV	1091	16525	0.66%	0.043%
88	7.963	7.948	7.967	VV	1071	9104	0.36%	0.024%
89	7.990	7.967	8.032	VV	12693	154494	6.19%	0.402%

rteres

90	8.046	8.032	8.059	VV	1643	18200	0.73%	0.047%
91	8.079	8.059	8.090	VV	1187	19554	0.78%	0.051%
92	8.093	8.090	8.130	VV	1094	16244	0.65%	0.042%
93	8.180	8.130	8.194	VV	2188	49262	1.97%	0.128%
94	8.202	8.194	8.219	VV	1928	20686	0.83%	0.054%
95	8.228	8.219	8.266	VV	1073	13606	0.55%	0.035%
96	8.323	8.266	8.333	PV	1668	37565	1.51%	0.098%
97	8.337	8.333	8.353	VV	1475	12859	0.52%	0.033%
98	8.361	8.353	8.376	VV	925	8969	0.36%	0.023%
99	8.399	8.376	8.411	VV	1791	25048	1.00%	0.065%
100	8.435	8.411	8.459	VV	3302	64356	2.58%	0.168%
101	8.469	8.459	8.497	VV	1900	29311	1.17%	0.076%
102	8.516	8.497	8.538	VV	2346	29423	1.18%	0.077%
103	8.558	8.538	8.578	VV	2244	31083	1.25%	0.081%
104	8.593	8.578	8.601	VV	2268	24176	0.97%	0.063%
105	8.614	8.601	8.630	VV	4114	49400	1.98%	0.129%
106	8.637	8.630	8.658	VV	2004	21504	0.86%	0.056%
107	8.685	8.658	8.719	VV	6429	95587	3.83%	0.249%
108	8.722	8.719	8.735	VV	1191	9455	0.38%	0.025%
109	8.758	8.735	8.771	VV	2051	31643	1.27%	0.082%
110	8.781	8.771	8.792	VV	1804	20291	0.81%	0.053%
111	8.808	8.792	8.823	VV	6376	72619	2.91%	0.189%
112	8.835	8.823	8.845	VV	4384	45276	1.81%	0.118%
113	8.861	8.845	8.884	VV	14623	162070	6.49%	0.422%
114	8.906	8.884	8.933	VV	2446	49158	1.97%	0.128%
115	8.995	8.933	9.022	VV	4180	124832	5.00%	0.325%
116	9.043	9.022	9.073	VV	3034	57294	2.30%	0.149%
117	9.085	9.073	9.091	VV	2321	21803	0.87%	0.057%
118	9.095	9.091	9.128	VV	2290	32848	1.32%	0.086%
119	9.147	9.128	9.158	VV	1243	18566	0.74%	0.048%
120	9.166	9.158	9.183	VV	1250	13859	0.56%	0.036%
121	9.187	9.183	9.199	VV	643	5060	0.20%	0.013%
122	9.235	9.199	9.255	VV	3163	53618	2.15%	0.140%
123	9.289	9.255	9.313	VV	18118	220244	8.83%	0.574%
124	9.326	9.313	9.339	VV	3579	47110	1.89%	0.123%
125	9.343	9.339	9.371	VV	3293	41402	1.66%	0.108%
126	9.396	9.371	9.426	VV	7877	111013	4.45%	0.289%
127	9.446	9.426	9.462	VV	2501	31555	1.26%	0.082%
128	9.485	9.462	9.501	VV	1635	26771	1.07%	0.070%
129	9.524	9.501	9.542	VV	4321	67238	2.69%	0.175%
130	9.559	9.542	9.584	VV	8304	100319	4.02%	0.261%
131	9.597	9.584	9.615	VV	2636	35119	1.41%	0.091%
132	9.639	9.615	9.656	VV	2016	40942	1.64%	0.107%
133	9.679	9.656	9.713	VV	15238	199978	8.01%	0.521%
134	9.733	9.713	9.753	VV	3563	48725	1.95%	0.127%
135	9.764	9.753	9.784	VV	1557	21058	0.84%	0.055%
136	9.794	9.784	9.810	VV	883	10802	0.43%	0.028%
137	9.849	9.810	9.867	VV	3253	45238	1.81%	0.118%
138	9.880	9.867	9.921	VV	2610	40816	1.64%	0.106%
139	9.934	9.921	9.946	VV	1103	13861	0.56%	0.036%
140	9.985	9.946	10.006	VV	4052	70878	2.84%	0.185%
141	10.016	10.006	10.034	VV	1631	21851	0.88%	0.057%

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142	10.068	10.034	10.086	VV	19147	238187	9.54%	0.620%
143	10.094	10.086	10.115	VV	3828	48246	1.93%	0.126%
144	10.146	10.115	10.167	VV	3914	93575	3.75%	0.244%
145	10.182	10.167	10.200	VV	3512	50809	2.04%	0.132%
146	10.219	10.200	10.257	VV	5298	110906	4.44%	0.289%
147	10.280	10.257	10.315	VV	3486	70183	2.81%	0.183%
148	10.338	10.315	10.365	VV	51872	529362	21.21%	1.379%
149	10.391	10.365	10.423	VV	7546	150230	6.02%	0.391%
150	10.451	10.423	10.471	VV	15950	205344	8.23%	0.535%
151	10.487	10.471	10.503	VV	6541	80265	3.22%	0.209%
152	10.509	10.503	10.534	VV	2280	30413	1.22%	0.079%
153	10.556	10.534	10.602	VV	2332	54181	2.17%	0.141%
154	10.648	10.602	10.681	PV	1472	37691	1.51%	0.098%
155	10.685	10.681	10.699	VV	365	2058	0.08%	0.005%
156	10.713	10.699	10.717	PV	416	2932	0.12%	0.008%
157	10.736	10.717	10.761	VV	939	17010	0.68%	0.044%
158	10.807	10.761	10.823	VV	4949	84906	3.40%	0.221%
159	10.840	10.823	10.870	VV	6775	97832	3.92%	0.255%
160	10.886	10.870	10.897	VV	2302	27544	1.10%	0.072%
161	10.915	10.897	10.922	VV	3569	41615	1.67%	0.108%
162	10.943	10.922	10.966	VV	5209	85690	3.43%	0.223%
163	10.984	10.966	11.021	VV	5972	78080	3.13%	0.203%
164	11.062	11.021	11.083	VV	3722	69566	2.79%	0.181%
165	11.116	11.083	11.156	VV	7011	140567	5.63%	0.366%
166	11.185	11.156	11.211	VV	16334	203582	8.16%	0.530%
167	11.229	11.211	11.240	VV	3660	47528	1.90%	0.124%
168	11.259	11.240	11.287	VV	14005	232584	9.32%	0.606%
169	11.296	11.287	11.318	VV	2835	39085	1.57%	0.102%
170	11.338	11.318	11.344	VV	1542	22283	0.89%	0.058%
171	11.358	11.344	11.376	VV	2707	33358	1.34%	0.087%
172	11.398	11.376	11.415	VV	1424	22566	0.90%	0.059%
173	11.467	11.415	11.490	VV	154158	1642274	65.81%	4.277%
174	11.495	11.490	11.515	VV	5111	57670	2.31%	0.150%
175	11.540	11.515	11.621	VV	50037	649854	26.04%	1.692%
176	11.635	11.621	11.656	VV	2531	31218	1.25%	0.081%
177	11.688	11.656	11.700	VV	1900	29036	1.16%	0.076%
178	11.709	11.700	11.724	VV	1685	16256	0.65%	0.042%
179	11.744	11.724	11.791	VV	9414	127935	5.13%	0.333%
180	11.816	11.791	11.835	PV	1847	27285	1.09%	0.071%
181	11.856	11.835	11.866	VV	3394	41322	1.66%	0.108%
182	11.882	11.866	11.914	VV	15176	175687	7.04%	0.458%
183	11.933	11.914	11.937	VV	1587	14404	0.58%	0.038%
184	11.981	11.937	12.018	VV	8131	194633	7.80%	0.507%
185	12.053	12.018	12.094	VV	2951	56233	2.25%	0.146%
186	12.114	12.094	12.129	VV	3106	39392	1.58%	0.103%
187	12.149	12.129	12.163	VV	2291	34326	1.38%	0.089%
188	12.186	12.163	12.203	VV	1457	29326	1.18%	0.076%
189	12.212	12.203	12.236	VV	1515	20254	0.81%	0.053%
190	12.262	12.236	12.276	VV	19035	211486	8.47%	0.551%
191	12.293	12.276	12.326	VV	26765	310377	12.44%	0.808%
192	12.358	12.326	12.364	VV	10389	99200	3.98%	0.258%
193	12.379	12.364	12.395	VV	22032	251293	10.07%	0.654%
194	12.410	12.395	12.424	VV	12547	139903	5.61%	0.364%

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195	12.440	12.424	12.465	VV	16641	194400	7.79%	0.506%
196	12.480	12.465	12.495	PV	974	8863	0.36%	0.023%
197	12.546	12.495	12.572	VV	12909	197888	7.93%	0.515%
198	12.578	12.572	12.585	VV	1579	10684	0.43%	0.028%
199	12.616	12.585	12.633	VV	7429	104160	4.17%	0.271%
200	12.646	12.633	12.695	VV	2937	61891	2.48%	0.161%
201	12.725	12.695	12.747	VV	12375	144454	5.79%	0.376%
202	12.757	12.747	12.765	VV	1592	14008	0.56%	0.036%
203	12.789	12.765	12.839	VV	42147	491567	19.70%	1.280%
204	12.856	12.839	12.861	VV	3024	28725	1.15%	0.075%
205	12.870	12.861	12.889	VV	3031	42680	1.71%	0.111%
206	12.893	12.889	12.905	VV	1858	15430	0.62%	0.040%
207	12.923	12.905	12.942	VV	4356	66839	2.68%	0.174%
208	12.960	12.942	12.991	VV	4113	86012	3.45%	0.224%
209	13.000	12.991	13.016	VV	2569	32367	1.30%	0.084%
210	13.037	13.016	13.083	VV	12524	227406	9.11%	0.592%
211	13.109	13.083	13.121	PV	7736	87398	3.50%	0.228%
212	13.139	13.121	13.169	VV	28293	466248	18.68%	1.214%
213	13.184	13.169	13.205	VV	16021	212356	8.51%	0.553%
214	13.219	13.205	13.234	VV	8294	100183	4.01%	0.261%
215	13.247	13.234	13.251	VV	5384	46595	1.87%	0.121%
216	13.277	13.251	13.316	VV	225624	2483821	99.53%	6.468%
217	13.335	13.316	13.351	PV	2803	28408	1.14%	0.074%
218	13.368	13.351	13.383	VV	2017	24452	0.98%	0.064%
219	13.424	13.383	13.443	VV	5157	100678	4.03%	0.262%
220	13.464	13.443	13.491	VV	9130	149097	5.97%	0.388%
221	13.499	13.491	13.546	VV	2836	53185	2.13%	0.139%
222	13.575	13.546	13.613	PV	193064	2495551	100.00%	6.499%
223	13.627	13.613	13.641	VV	19468	205190	8.22%	0.534%
224	13.656	13.641	13.687	VV	17329	256589	10.28%	0.668%
225	13.696	13.687	13.720	VV	1826	23051	0.92%	0.060%
226	13.745	13.720	13.759	VV	8835	112128	4.49%	0.292%
227	13.774	13.759	13.779	VV	7758	82920	3.32%	0.216%
228	13.791	13.779	13.811	VV	9385	118791	4.76%	0.309%
229	13.835	13.811	13.856	VV	10570	159575	6.39%	0.416%
230	13.869	13.856	13.883	VV	5363	68825	2.76%	0.179%
231	13.903	13.883	13.931	VV	5131	88909	3.56%	0.232%
232	13.964	13.931	13.977	PV	5479	65553	2.63%	0.171%
233	13.988	13.977	13.999	VV	3583	38750	1.55%	0.101%
234	14.020	13.999	14.052	VV	15331	262562	10.52%	0.684%
235	14.066	14.052	14.081	VV	1750	19520	0.78%	0.051%
236	14.098	14.081	14.112	VV	1302	17523	0.70%	0.046%
237	14.155	14.112	14.194	VV	27732	437769	17.54%	1.140%
238	14.216	14.194	14.235	VV	4665	58646	2.35%	0.153%
239	14.262	14.235	14.285	PV	54004	628389	25.18%	1.636%
240	14.304	14.285	14.328	VV	13016	176152	7.06%	0.459%
241	14.345	14.328	14.357	VV	4921	66147	2.65%	0.172%
242	14.373	14.357	14.395	VV	9667	132737	5.32%	0.346%
243	14.409	14.395	14.420	VV	8118	98730	3.96%	0.257%
244	14.434	14.420	14.455	VV	15423	212656	8.52%	0.554%
245	14.473	14.455	14.504	VV	12143	154356	6.19%	0.402%
246	14.545	14.504	14.563	VV	3518	66507	2.67%	0.173%

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247	14.601	14.563	14.646	VV	4718	127188	5.10%	0.331%
248	14.650	14.646	14.662	VV	1532	10316	0.41%	0.027%
249	14.679	14.662	14.696	VV	2226	23288	0.93%	0.061%
250	14.705	14.696	14.723	VV	1202	10953	0.44%	0.029%
251	14.764	14.723	14.787	PV	3250	73490	2.94%	0.191%
252	14.792	14.787	14.796	VV	1166	5381	0.22%	0.014%
253	14.854	14.796	14.868	VV	9164	166710	6.68%	0.434%
254	14.887	14.868	14.915	VV	10899	165010	6.61%	0.430%
255	14.933	14.915	14.964	VV	9108	152374	6.11%	0.397%
256	14.991	14.964	15.017	VV	5003	98245	3.94%	0.256%
257	15.026	15.017	15.034	VV	1991	14282	0.57%	0.037%
258	15.066	15.034	15.086	VV	13771	213644	8.56%	0.556%
259	15.090	15.086	15.105	VV	2652	22355	0.90%	0.058%
260	15.130	15.105	15.151	VV	24277	317383	12.72%	0.827%
261	15.189	15.151	15.205	VV	10309	205836	8.25%	0.536%
262	15.210	15.205	15.228	VV	2697	24667	0.99%	0.064%
263	15.266	15.228	15.295	PV	54959	760857	30.49%	1.981%
264	15.311	15.295	15.341	VV	5616	85159	3.41%	0.222%
265	15.352	15.341	15.362	VV	1176	9253	0.37%	0.024%
266	15.389	15.362	15.409	VV	5279	62124	2.49%	0.162%
267	15.439	15.409	15.458	VV	95385	1135552	45.50%	2.957%
268	15.480	15.458	15.506	VV	94165	1106865	44.35%	2.883%
269	15.524	15.506	15.546	PV	4099	50870	2.04%	0.132%
270	15.603	15.546	15.637	VV	19258	333589	13.37%	0.869%
271	15.672	15.637	15.697	VV	9721	174828	7.01%	0.455%
272	15.735	15.697	15.765	PV	9371	174899	7.01%	0.455%
273	15.782	15.765	15.824	VV	8868	214206	8.58%	0.558%
274	15.848	15.824	15.870	VV	23125	348134	13.95%	0.907%
275	15.876	15.870	15.891	VV	8442	99336	3.98%	0.259%
276	15.902	15.891	15.906	VV	7855	61134	2.45%	0.159%
277	15.913	15.906	15.936	VV	7961	112944	4.53%	0.294%
278	15.954	15.936	15.966	VV	5128	71572	2.87%	0.186%
279	15.987	15.966	15.997	VV	13744	177631	7.12%	0.463%
280	16.011	15.997	16.053	VV	17967	367948	14.74%	0.958%
281	16.066	16.053	16.087	VV	9092	162393	6.51%	0.423%
282	16.108	16.087	16.128	VV	24431	353662	14.17%	0.921%
283	16.147	16.128	16.176	VV	15162	302542	12.12%	0.788%
284	16.192	16.176	16.210	VV	10216	172228	6.90%	0.449%
285	16.267	16.210	16.314	VV	18042	701301	28.10%	1.826%
286	16.316	16.314	16.326	VV	7188	49119	1.97%	0.128%
287	16.345	16.326	16.385	VV	11020	249429	9.99%	0.650%
288	16.394	16.385	16.405	VV	6043	64334	2.58%	0.168%
289	16.427	16.405	16.440	VV	8140	133326	5.34%	0.347%
290	16.463	16.440	16.472	VV	8846	134902	5.41%	0.351%
291	16.488	16.472	16.508	VV	13107	195706	7.84%	0.510%
292	16.531	16.508	16.565	VV	9683	208308	8.35%	0.542%
293	16.577	16.565	16.603	VV	2667	48148	1.93%	0.125%
294	16.615	16.603	16.627	VV	2211	21513	0.86%	0.056%
295	16.637	16.627	16.644	PV	1570	11882	0.48%	0.031%
296	16.652	16.644	16.666	VV	2648	23841	0.96%	0.062%
297	16.707	16.666	16.755	VV	7908	215258	8.63%	0.561%
298	16.782	16.755	16.787	VV	8772	106729	4.28%	0.278%
299	16.804	16.787	16.836	VV	9843	199158	7.98%	0.519%

rteres

300	16.853	16.836	16.879	VV	9063	154662	6.20%	0.403%
301	16.909	16.879	16.941	VV	9406	217768	8.73%	0.567%
302	16.995	16.941	17.012	PV	100335	1541609	61.77%	4.015%
303	17.021	17.012	17.045	VV	40317	439856	17.63%	1.145%
304	17.050	17.045	17.081	VV	3442	43756	1.75%	0.114%
305	17.089	17.081	17.098	VV	2445	17781	0.71%	0.046%
306	17.123	17.098	17.154	VV	22892	333622	13.37%	0.869%
307	17.162	17.154	17.169	VV	5251	37886	1.52%	0.099%
308	17.179	17.169	17.195	VV	5156	63761	2.55%	0.166%
309	17.216	17.195	17.230	VV	3522	53585	2.15%	0.140%
310	17.249	17.230	17.256	VV	3524	31622	1.27%	0.082%
311	17.273	17.256	17.286	VV	7166	109773	4.40%	0.286%
312	17.316	17.286	17.347	VV	65774	876770	35.13%	2.283%
313	17.374	17.347	17.405	PV	85617	968440	38.81%	2.522%
314	17.433	17.405	17.454	PV	10217	140554	5.63%	0.366%

Sum of corrected areas: 38399104

FE012325.M Thu Jan 30 07:59:28 2025

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

Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/27/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/28/25
Client Sample ID:	JPP-4.5-012725	SDG No.:	Q1207
Lab Sample ID:	Q1207-09	Matrix:	SOIL
Analytical Method:	8015D DRO	% Solid:	83 Decanted:
Sample Wt/Vol:	29.98 Units: g	Final Vol:	1 mL
Soil Aliquot Vol:	uL	Test:	Diesel Range Organics
Extraction Type:		Injection Volume :	
GPC Factor :	PH :		
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
FE052154.D	10	01/29/25 08:45	01/30/25 11:59	PB166348

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
DRO	DRO	88000		2230	20100	ug/kg
SURROGATES						
16416-32-3	Tetracosane-d50	0.43	*	37 - 130	22%	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_E\Data\FE012925\
Data File : FE052154.D
Signal(s) : FID1B.ch
Acq On : 30 Jan 2025 11:59
Operator : YP\AJ
Sample : Q1207-09 10X
Misc :
ALS Vial : 12 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Jan 31 02:01:39 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\FE012325.M
Quant Title :
QLast Update : Fri Jan 24 03:06:38 2025
Response via : Initial Calibration
Integrator: ChemStation

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

Instrument :
FID_E
ClientSampleId :
JPP-4.5-012725

Manual Integrations APPROVED

Reviewed By :Yogesh Patel 01/31/2025
Supervised By :Ankita Jodhani 01/31/2025

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
9) S TETRACOSANE-d50 (SURR...	15.268	43043	0.432 ug/mlm
Target Compounds			

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

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE012925\
Data File : FE052154.D
Signal(s) : FID1B.ch
Acq On : 30 Jan 2025 11:59
Operator : YP\AJ
Sample : Q1207-09 10X
Misc :
ALS Vial : 12 Sample Multiplier: 1

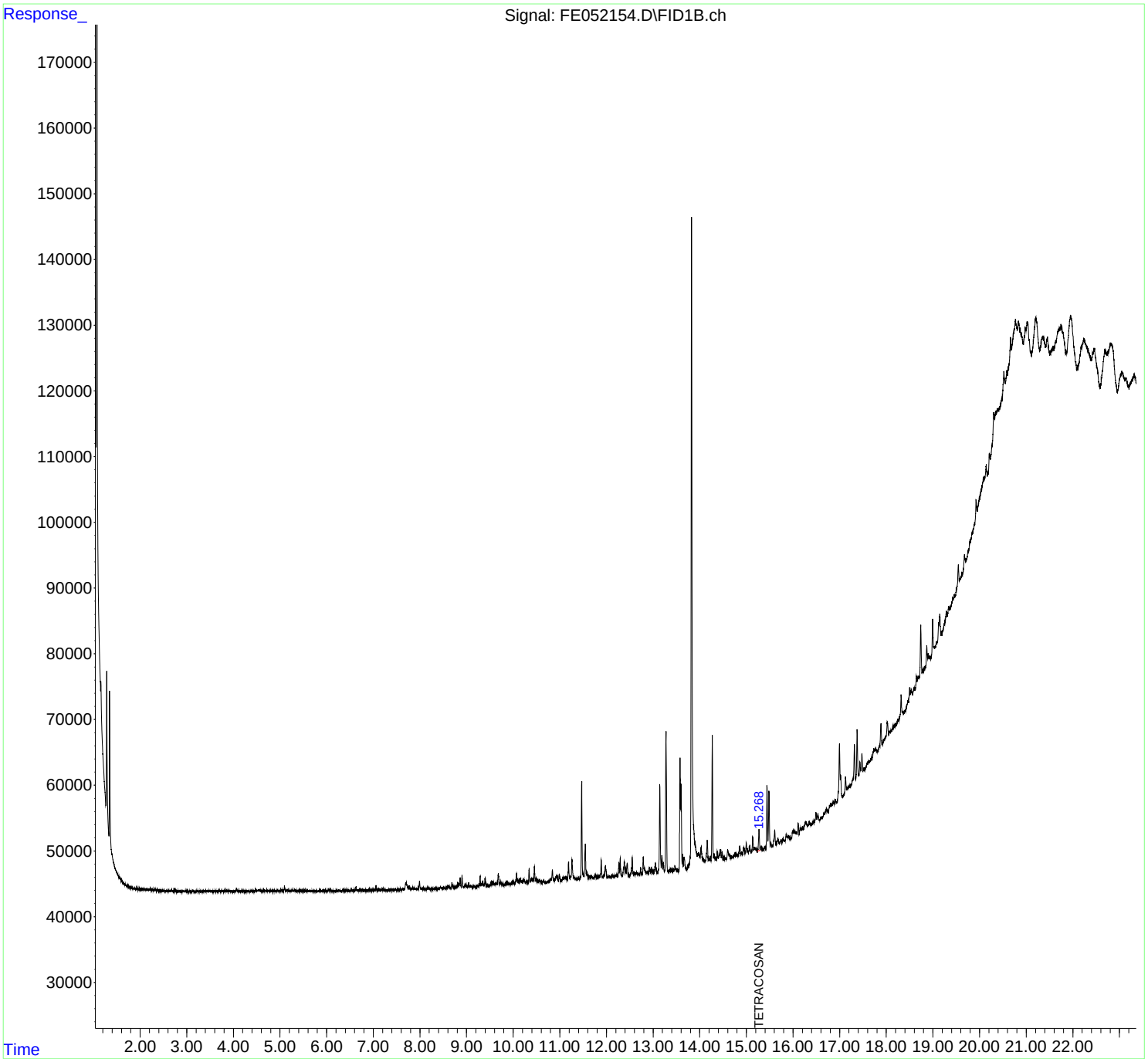
Integration File: autoint1.e
Quant Time: Jan 31 02:01:39 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\FE012325.M
Quant Title :
QLast Update : Fri Jan 24 03:06:38 2025
Response via : Initial Calibration
Integrator: ChemStation

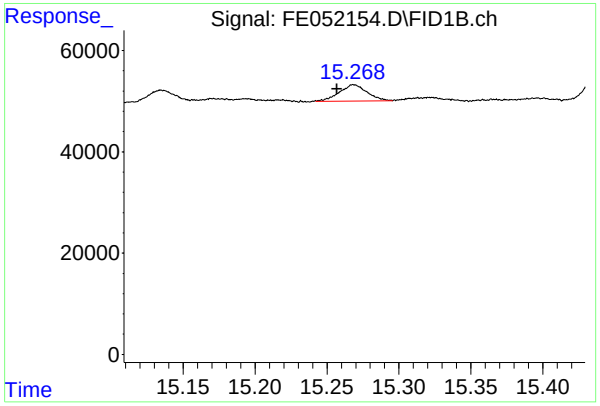
Volume Inj. : 1uL
Signal Phase : Rxi-1ms
Signal Info : 20mx0.18mmx0.18um

Instrument :
FID_E
ClientSampleId :
JPP-4.5-012725

Manual Integrations APPROVED

Reviewed By :Yogesh Patel 01/31/2025
Supervised By :Ankita Jodhani 01/31/2025





#9 TETRACOSANE-d50 (SURROGATE)

R.T.: 15.268 min
Delta R.T.: 0.011 mir
Response: 43043
Conc: 0.43 ug/m

Instrument :
FID_E
ClientSampleId :
JPP-4.5-012725

Manual Integrations
APPROVED

Reviewed By :Yogesh Patel 01/31/2025
Supervised By :Ankita Jodhani 01/31/2025

Instrument :
FID_E
ClientSampleId :
JPP-4.5-012725

rteres

Area Percent Report

Manual IntegrationsAPPROVED

Reviewed By :Yogesh Patel 01/31/2025
Supervised By :Ankita Jodhani 01/31/2025

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE01292
Data File : FE052154.D
Signal(s) : FID1B.ch
Acq On : 30 Jan 2025 11:59
Sample : Q1207-09 10X
Misc :
ALS Vial : 12 Sample Multiplier: 1

Integration File: Sample.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\FE012325.M
Title :

Signal : FID1B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	4.866	4.852	4.875	BH	99	240	0.01%	0.001%
2	4.880	4.875	4.885	PH	108	296	0.02%	0.001%
3	4.889	4.885	4.896	PH	31	135	0.01%	0.001%
4	4.922	4.896	4.927	PH	183	712	0.04%	0.003%
5	4.944	4.927	4.954	PH	125	1244	0.06%	0.005%
6	4.958	4.954	4.964	PH	170	296	0.02%	0.001%
7	4.970	4.964	4.981	PH	143	636	0.03%	0.003%
8	4.987	4.981	4.995	HH	142	676	0.03%	0.003%
9	4.998	4.995	5.003	HH	76	273	0.01%	0.001%
10	5.009	5.003	5.022	PH	137	674	0.03%	0.003%
11	5.026	5.022	5.041	HH	150	730	0.04%	0.003%
12	5.049	5.041	5.067	PH	185	1389	0.07%	0.006%
13	5.096	5.067	5.117	PH	666	7668	0.39%	0.033%
14	5.121	5.117	5.143	PH	105	901	0.05%	0.004%
15	5.161	5.143	5.175	PH	248	1997	0.10%	0.009%
16	5.178	5.175	5.182	PH	109	330	0.02%	0.001%
17	5.186	5.182	5.207	HH	81	748	0.04%	0.003%
18	5.208	5.207	5.227	PH	136	568	0.03%	0.002%
19	5.230	5.227	5.236	PH	62	328	0.02%	0.001%
20	5.239	5.236	5.244	PH	124	291	0.01%	0.001%
21	5.248	5.244	5.258	HH	148	619	0.03%	0.003%
22	5.264	5.258	5.270	PH	136	402	0.02%	0.002%
23	5.273	5.270	5.279	PH	94	372	0.02%	0.002%
24	5.304	5.279	5.323	PH	191	1547	0.08%	0.007%
25	5.329	5.323	5.351	PH	181	1128	0.06%	0.005%
26	5.355	5.351	5.376	HH	131	799	0.04%	0.003%
27	5.381	5.376	5.422	PH	108	1268	0.06%	0.005%
28	5.461	5.422	5.486	PH	146	1096	0.06%	0.005%
29	5.519	5.486	5.544	PH	85	724	0.04%	0.003%
30	5.566	5.544	5.582	PH	102	112	0.01%	0.000%
31	5.592	5.582	5.595	PH	109	228	0.01%	0.001%
32	5.599	5.595	5.602	PH	69	92	0.00%	0.000%
33	5.606	5.602	5.621	PH	65	206	0.01%	0.001%
34	5.624	5.621	5.634	PH	92	166	0.01%	0.001%
35	5.643	5.634	5.649	PH	202	285	0.01%	0.001%
36	5.654	5.649	5.658	PH	49	95	0.00%	0.000%

Instrument :
FID_E
ClientSampleId :
JPP-4.5-012725

Manual IntegrationsAPPROVED

Reviewed By :Yogesh Patel 01/31/2025
Supervised By :Ankita Jodhani 01/31/2025

					rteres			
37	5.676	5.658	5.686	PH	146	427	0.02%	0.002%
38	5.693	5.686	5.708	PH	94	28		
39	5.735	5.708	5.760	PH	177	1619		
40	5.768	5.760	5.776	PH	125	287		
41	5.780	5.776	5.808	PH	80	162		
42	5.859	5.808	5.878	PH	249	1933		
43	5.889	5.878	5.907	PH	114	416	0.02%	0.002%
44	5.928	5.907	5.947	PH	168	1020	0.05%	0.004%
45	5.954	5.947	5.960	PH	55	309	0.02%	0.001%
46	5.965	5.960	5.973	HH	92	273	0.01%	0.001%
47	5.978	5.973	6.012	PH	104	957	0.05%	0.004%
48	6.019	6.012	6.030	PH	20	129	0.01%	0.001%
49	6.047	6.030	6.064	HH	296	2878	0.15%	0.012%
50	6.083	6.064	6.115	PH	351	3899	0.20%	0.017%
51	6.120	6.115	6.141	PH	95	391	0.02%	0.002%
52	6.158	6.141	6.185	PH	102	516	0.03%	0.002%
53	6.191	6.185	6.203	PH	44	237	0.01%	0.001%
54	6.217	6.203	6.225	PH	31	54	0.00%	0.000%
55	6.229	6.225	6.232	PH	60	33	0.00%	0.000%
56	6.253	6.232	6.269	PH	183	2177	0.11%	0.009%
57	6.273	6.269	6.293	HH	131	634	0.03%	0.003%
58	6.303	6.293	6.320	PH	83	231	0.01%	0.001%
59	6.339	6.320	6.355	PH	165	1738	0.09%	0.007%
60	6.364	6.355	6.395	HH	195	1834	0.09%	0.008%
61	6.405	6.395	6.445	PH	210	3213	0.16%	0.014%
62	6.454	6.445	6.472	PH	139	1621	0.08%	0.007%
63	6.473	6.472	6.477	HH	150	318	0.02%	0.001%
64	6.481	6.477	6.508	PH	111	907	0.05%	0.004%
65	6.527	6.508	6.547	PH	146	1711	0.09%	0.007%
66	6.552	6.547	6.557	PH	49	183	0.01%	0.001%
67	6.561	6.557	6.565	HH	118	302	0.02%	0.001%
68	6.571	6.565	6.577	HH	172	740	0.04%	0.003%
69	6.580	6.577	6.591	HH	187	740	0.04%	0.003%
70	6.600	6.591	6.605	PH	123	683	0.04%	0.003%
71	6.633	6.605	6.664	HH	663	8625	0.44%	0.037%
72	6.667	6.664	6.671	HH	199	688	0.04%	0.003%
73	6.676	6.671	6.697	HH	206	1984	0.10%	0.009%
74	6.704	6.697	6.729	HH	175	2757	0.14%	0.012%
75	6.739	6.729	6.744	HH	213	1168	0.06%	0.005%
76	6.759	6.744	6.765	HH	246	1903	0.10%	0.008%
77	6.769	6.765	6.797	HH	248	2425	0.12%	0.010%
78	6.807	6.797	6.840	PH	213	3550	0.18%	0.015%
79	6.863	6.840	6.866	HH	170	2167	0.11%	0.009%
80	6.869	6.866	6.892	HH	210	2055	0.11%	0.009%
81	6.904	6.892	6.919	HH	274	2641	0.14%	0.011%
82	6.952	6.919	6.968	HH	226	3421	0.18%	0.015%
83	7.000	6.968	7.040	HH	251	6858	0.35%	0.029%
84	7.059	7.040	7.080	HH	846	10047	0.51%	0.043%
85	7.085	7.080	7.114	HH	307	3345	0.17%	0.014%
86	7.137	7.114	7.154	HH	249	3952	0.20%	0.017%
87	7.211	7.154	7.308	HH	512	17864	0.91%	0.077%
88	7.318	7.308	7.329	HH	141	1444	0.07%	0.006%
89	7.347	7.329	7.380	HH	262	5187	0.27%	0.022%

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90	7.397	7.380	7.434	HH	332	6556	0.34%	0.028%
91	7.446	7.434	7.462	HH	301	3055		
92	7.479	7.462	7.497	HH	350	5063		
93	7.520	7.497	7.537	HH	318	5227		
94	7.562	7.537	7.570	HH	313	4882		
95	7.583	7.570	7.617	HH	354	7553		
96	7.630	7.617	7.657	HH	361	7419	0.38%	0.032%
97	7.709	7.657	7.752	HH	1300	42334	2.17%	0.182%
98	7.769	7.752	7.787	HH	779	11785	0.60%	0.051%
99	7.796	7.787	7.824	HH	468	8618	0.44%	0.037%
100	7.847	7.824	7.864	HH	679	10382	0.53%	0.045%
101	7.879	7.864	7.905	HH	462	9155	0.47%	0.039%
102	7.920	7.905	7.947	HH	403	7994	0.41%	0.034%
103	7.992	7.947	8.035	HH	1542	31272	1.60%	0.134%
104	8.048	8.035	8.077	HH	466	9267	0.47%	0.040%
105	8.085	8.077	8.105	HH	395	5925	0.30%	0.025%
106	8.114	8.105	8.152	HH	392	8690	0.45%	0.037%
107	8.173	8.152	8.193	HH	464	9568	0.49%	0.041%
108	8.203	8.193	8.260	HH	420	12327	0.63%	0.053%
109	8.311	8.260	8.332	HH	432	14640	0.75%	0.063%
110	8.340	8.332	8.352	HH	409	4811	0.25%	0.021%
111	8.366	8.352	8.378	HH	421	5570	0.29%	0.024%
112	8.396	8.378	8.417	HH	523	8835	0.45%	0.038%
113	8.441	8.417	8.464	HH	677	14146	0.72%	0.061%
114	8.471	8.464	8.494	HH	472	7926	0.41%	0.034%
115	8.517	8.494	8.540	HH	490	12196	0.62%	0.052%
116	8.557	8.540	8.582	HH	525	12034	0.62%	0.052%
117	8.617	8.582	8.637	HH	756	19865	1.02%	0.085%
118	8.643	8.637	8.662	HH	682	7382	0.38%	0.032%
119	8.687	8.662	8.752	HH	1260	37222	1.91%	0.160%
120	8.811	8.752	8.826	HH	1314	33797	1.73%	0.145%
121	8.838	8.826	8.847	HH	1074	12126	0.62%	0.052%
122	8.863	8.847	8.884	HH	1987	29069	1.49%	0.125%
123	8.905	8.884	8.940	HH	2413	38901	1.99%	0.167%
124	8.973	8.940	9.024	HH	956	38578	1.98%	0.166%
125	9.048	9.024	9.077	HH	1149	26641	1.36%	0.114%
126	9.090	9.077	9.129	HH	898	22451	1.15%	0.096%
127	9.149	9.129	9.184	HH	738	21954	1.12%	0.094%
128	9.191	9.184	9.209	HH	640	9060	0.46%	0.039%
129	9.235	9.209	9.262	HH	906	23961	1.23%	0.103%
130	9.292	9.262	9.319	HH	2199	42394	2.17%	0.182%
131	9.344	9.319	9.369	HH	1307	32232	1.65%	0.138%
132	9.399	9.369	9.427	HH	1980	43055	2.21%	0.185%
133	9.446	9.427	9.465	HH	1011	19562	1.00%	0.084%
134	9.491	9.465	9.503	HH	956	19698	1.01%	0.085%
135	9.526	9.503	9.549	HH	1399	30792	1.58%	0.132%
136	9.562	9.549	9.582	HH	1463	24254	1.24%	0.104%
137	9.598	9.582	9.609	HH	1068	16429	0.84%	0.071%
138	9.645	9.609	9.660	HH	1160	33955	1.74%	0.146%
139	9.682	9.660	9.720	HH	2650	59051	3.02%	0.254%
140	9.736	9.720	9.755	HH	1513	25790	1.32%	0.111%
141	9.766	9.755	9.810	HH	1108	33772	1.73%	0.145%

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142	9.853	9.810	9.871	HH	1494	40659	2.08%	0.175%
143	9.884	9.871	9.902	HH	1348	21983		
144	9.930	9.902	9.949	HH	1151	29863		
145	9.989	9.949	10.008	HH	1569	45998		
146	10.019	10.008	10.033	HH	1276	17963		
147	10.072	10.033	10.089	HH	2690	57694		
148	10.097	10.089	10.117	HH	1789	26268	1.35%	0.113%
149	10.152	10.117	10.170	HH	1928	51256	2.63%	0.220%
150	10.185	10.170	10.202	HH	1553	27222	1.39%	0.117%
151	10.223	10.202	10.267	HH	1833	58778	3.01%	0.252%
152	10.286	10.267	10.320	HH	1501	44794	2.29%	0.192%
153	10.343	10.320	10.367	HH	3431	57620	2.95%	0.247%
154	10.393	10.367	10.429	HH	2008	64251	3.29%	0.276%
155	10.454	10.429	10.477	HH	3697	67996	3.48%	0.292%
156	10.490	10.477	10.540	HH	2026	62247	3.19%	0.267%
157	10.557	10.540	10.611	HH	1553	61230	3.14%	0.263%
158	10.649	10.611	10.687	HH	1583	64508	3.30%	0.277%
159	10.712	10.687	10.724	HH	1457	30060	1.54%	0.129%
160	10.753	10.724	10.765	HH	1528	35047	1.79%	0.150%
161	10.809	10.765	10.820	HH	1970	55113	2.82%	0.237%
162	10.842	10.820	10.877	HH	3228	73201	3.75%	0.314%
163	10.917	10.877	10.929	HH	2156	57802	2.96%	0.248%
164	10.947	10.929	10.969	HH	2334	48004	2.46%	0.206%
165	10.989	10.969	11.025	HH	2539	64893	3.32%	0.279%
166	11.070	11.025	11.082	HH	2103	60572	3.10%	0.260%
167	11.122	11.082	11.155	HH	2239	87594	4.49%	0.376%
168	11.188	11.155	11.215	HH	4387	96276	4.93%	0.413%
169	11.261	11.215	11.292	HH	4819	133007	6.81%	0.571%
170	11.301	11.292	11.327	HH	2199	42622	2.18%	0.183%
171	11.365	11.327	11.380	HH	2003	60713	3.11%	0.261%
172	11.402	11.380	11.417	HH	2020	42012	2.15%	0.180%
173	11.470	11.417	11.524	HH	16622	285988	14.65%	1.228%
174	11.545	11.524	11.569	HH	7071	115208	5.90%	0.495%
175	11.580	11.569	11.624	HH	2805	78356	4.01%	0.336%
176	11.640	11.624	11.659	HH	2247	45022	2.31%	0.193%
177	11.688	11.659	11.704	HH	2224	56337	2.89%	0.242%
178	11.716	11.704	11.730	HH	2070	32179	1.65%	0.138%
179	11.752	11.730	11.797	HH	2618	89038	4.56%	0.382%
180	11.821	11.797	11.842	HH	2366	58348	2.99%	0.251%
181	11.885	11.842	11.925	HH	4735	137242	7.03%	0.589%
182	11.978	11.925	12.032	HH	3867	168110	8.61%	0.722%
183	12.054	12.032	12.075	HH	2363	56878	2.91%	0.244%
184	12.119	12.075	12.135	HH	2423	79060	4.05%	0.339%
185	12.146	12.135	12.165	HH	2316	41014	2.10%	0.176%
186	12.189	12.165	12.210	HH	2356	62072	3.18%	0.267%
187	12.224	12.210	12.240	HH	2474	42825	2.19%	0.184%
188	12.267	12.240	12.281	HH	4310	79187	4.06%	0.340%
189	12.296	12.281	12.338	HH	5044	110251	5.65%	0.473%
190	12.383	12.338	12.400	HH	4486	123932	6.35%	0.532%
191	12.414	12.400	12.429	HH	3639	53182	2.72%	0.228%
192	12.446	12.429	12.470	HH	4216	80392	4.12%	0.345%
193	12.483	12.470	12.498	HH	2417	41682	2.13%	0.179%
194	12.550	12.498	12.582	HH	5019	160536	8.22%	0.689%

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195	12.596	12.582	12.609	HH	2711	42889	2.20%	0.184%
196	12.621	12.609	12.642	HH	2769	51888	2	
197	12.656	12.642	12.681	HH	2737	62700	3	
198	12.690	12.681	12.706	HH	2633	36949	1	
199	12.731	12.706	12.766	HH	3578	103018	5	
200	12.789	12.766	12.845	HH	5205	164545	8	
201	12.857	12.845	12.869	HH	2941	40300	2.06%	0.173%
202	12.880	12.869	12.904	HH	2987	59397	3.04%	0.255%
203	12.926	12.904	12.949	HH	3655	84810	4.34%	0.364%
204	12.964	12.949	12.995	HH	3629	87110	4.46%	0.374%
205	13.006	12.995	13.017	HH	2913	37799	1.94%	0.162%
206	13.048	13.017	13.092	HH	4251	150963	7.73%	0.648%
207	13.142	13.092	13.172	HH	16279	306029	15.67%	1.314%
208	13.187	13.172	13.207	HH	5405	92030	4.71%	0.395%
209	13.222	13.207	13.240	HH	4328	73947	3.79%	0.317%
210	13.279	13.240	13.320	HH	24249	378312	19.38%	1.624%
211	13.335	13.320	13.349	HH	3202	53647	2.75%	0.230%
212	13.374	13.349	13.404	HH	3309	104504	5.35%	0.449%
213	13.429	13.404	13.449	HH	3391	85555	4.38%	0.367%
214	13.468	13.449	13.499	HH	3821	102693	5.26%	0.441%
215	13.504	13.499	13.528	HH	3337	56307	2.88%	0.242%
216	13.578	13.528	13.590	HH	20261	307638	15.76%	1.321%
217	13.599	13.590	13.620	HH	16286	190784	9.77%	0.819%
218	13.631	13.620	13.647	HH	5618	77967	3.99%	0.335%
219	13.663	13.647	13.723	HH	5176	183753	9.41%	0.789%
220	13.747	13.723	13.764	HH	4015	89747	4.60%	0.385%
221	13.822	13.764	13.954	HH	102316	1952547	100.00%	8.383%
222	13.969	13.954	14.009	HH	5828	182826	9.36%	0.785%
223	14.031	14.009	14.087	HH	6598	254211	13.02%	1.091%
224	14.099	14.087	14.115	HH	4723	79635	4.08%	0.342%
225	14.160	14.115	14.199	HH	7725	279417	14.31%	1.200%
226	14.222	14.199	14.240	HH	5323	122351	6.27%	0.525%
227	14.267	14.240	14.294	HH	23730	358803	18.38%	1.541%
228	14.309	14.294	14.335	HH	5689	130782	6.70%	0.562%
229	14.348	14.335	14.359	HH	5191	70166	3.59%	0.301%
230	14.377	14.359	14.402	HH	5999	140024	7.17%	0.601%
231	14.440	14.402	14.464	HH	6298	206501	10.58%	0.887%
232	14.480	14.464	14.515	HH	6041	160777	8.23%	0.690%
233	14.532	14.515	14.542	HH	5063	81928	4.20%	0.352%
234	14.550	14.542	14.571	HH	5057	85000	4.35%	0.365%
235	14.597	14.571	14.630	HH	6286	202343	10.36%	0.869%
236	14.636	14.630	14.655	HH	5466	80094	4.10%	0.344%
237	14.669	14.655	14.707	HH	5302	161022	8.25%	0.691%
238	14.762	14.707	14.779	HH	5744	236396	12.11%	1.015%
239	14.803	14.779	14.823	HH	5584	144434	7.40%	0.620%
240	14.856	14.823	14.878	HH	6861	198936	10.19%	0.854%
241	14.894	14.878	14.915	HH	5950	127553	6.53%	0.548%
242	14.942	14.915	14.973	HH	6747	213788	10.95%	0.918%
243	14.996	14.973	15.042	HH	7349	262441	13.44%	1.127%
244	15.071	15.042	15.109	HH	6943	253052	12.96%	1.086%
245	15.135	15.109	15.160	HH	8259	212813	10.90%	0.914%
246	15.172	15.160	15.185	HH	6618	96133	4.92%	0.413%

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247	15.193	15.185	15.239	HH	6561	202754	10.38%	0.871%
248	15.269	15.239	15.295	HH	9374	251883	12	
249	15.321	15.295	15.348	HH	6835	208127	10	
250	15.397	15.348	15.414	HH	6734	252986	12	
251	15.442	15.414	15.462	HH	15994	294868	15	
252	15.483	15.462	15.510	HH	15154	302742	15	
253	15.525	15.510	15.544	HH	7195	142385	7.29%	0.611%
254	15.607	15.544	15.644	HH	9131	451831	23.14%	1.940%
255	15.677	15.644	15.709	HH	8045	292682	14.99%	1.257%
256	15.741	15.709	15.768	HH	7862	271162	13.89%	1.164%
257	15.786	15.768	15.819	HH	7917	233633	11.97%	1.003%
258	15.854	15.819	15.872	HH	8655	258810	13.26%	1.111%
259	15.883	15.872	15.945	HH	8344	359551	18.41%	1.544%
260	15.958	15.945	15.969	HH	8053	112380	5.76%	0.483%
261	15.992	15.969	16.003	HH	9144	179902	9.21%	0.772%
262	16.014	16.003	16.053	HH	9296	270946	13.88%	1.163%
263	16.067	16.053	16.089	HH	9029	189279	9.69%	0.813%
264	16.111	16.089	16.130	HH	10293	235423	12.06%	1.011%
265	16.151	16.130	16.187	HH	9601	316765	16.22%	1.360%
266	16.201	16.187	16.215	HH	9781	162413	8.32%	0.697%
267	16.277	16.215	16.322	HH	10511	643834	32.97%	2.764%
268	16.348	16.322	16.372	HH	10623	307229	15.73%	1.319%
269	16.382	16.372	16.399	HH	10245	162606	8.33%	0.698%
270	16.430	16.399	16.444	HH	10697	280553	14.37%	1.205%
271	16.491	16.444	16.510	HH	11884	441055	22.59%	1.894%
272	16.532	16.510	16.573	HH	11684	419305	21.47%	1.800%
273	16.592	16.573	16.600	HH	11069	175814	9.00%	0.755%
274	16.612	16.600	16.623	HH	11245	153912	7.88%	0.661%
275	16.662	16.623	16.682	HH	11907	412252	21.11%	1.770%
276	16.722	16.682	16.760	HH	12387	571393	29.26%	2.453%
277	16.783	16.760	16.790	HH	12943	227045	11.63%	0.975%
278	16.815	16.790	16.837	HH	13324	368664	18.88%	1.583%

Sum of corrected areas: 23290694

FE012325.M Fri Jan 31 07:15:19 2025

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

Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/27/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/28/25
Client Sample ID:	JPP-16.2-012725	SDG No.:	Q1207
Lab Sample ID:	Q1207-13	Matrix:	SOIL
Analytical Method:	8015D DRO	% Solid:	89.7 Decanted:
Sample Wt/Vol:	29.62 Units: g	Final Vol:	1 mL
Soil Aliquot Vol:	uL	Test:	Diesel Range Organics
Extraction Type:		Injection Volume :	
GPC Factor :	PH :		
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
FE052148.D	1	01/29/25 08:45	01/30/25 8:29	PB166348

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
DRO	DRO	22600		209	1880	ug/kg
SURROGATES						
16416-32-3	Tetracosane-d50	7.42		37 - 130	37%	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_E\Data\FE012925\
Data File : FE052148.D
Signal(s) : FID1B.ch
Acq On : 30 Jan 2025 08:29
Operator : YP\AJ
Sample : Q1207-13
Misc :
ALS Vial : 33 Sample Multiplier: 1

Instrument :
FID_E
ClientSampleId :
JPP-16.2-012725

Integration File: autoint1.e
Quant Time: Jan 31 01:59:22 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\FE012325.M
Quant Title :
QLast Update : Fri Jan 24 03:06:38 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...	15.271	738853	7.418 ug/ml
Target Compounds				

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

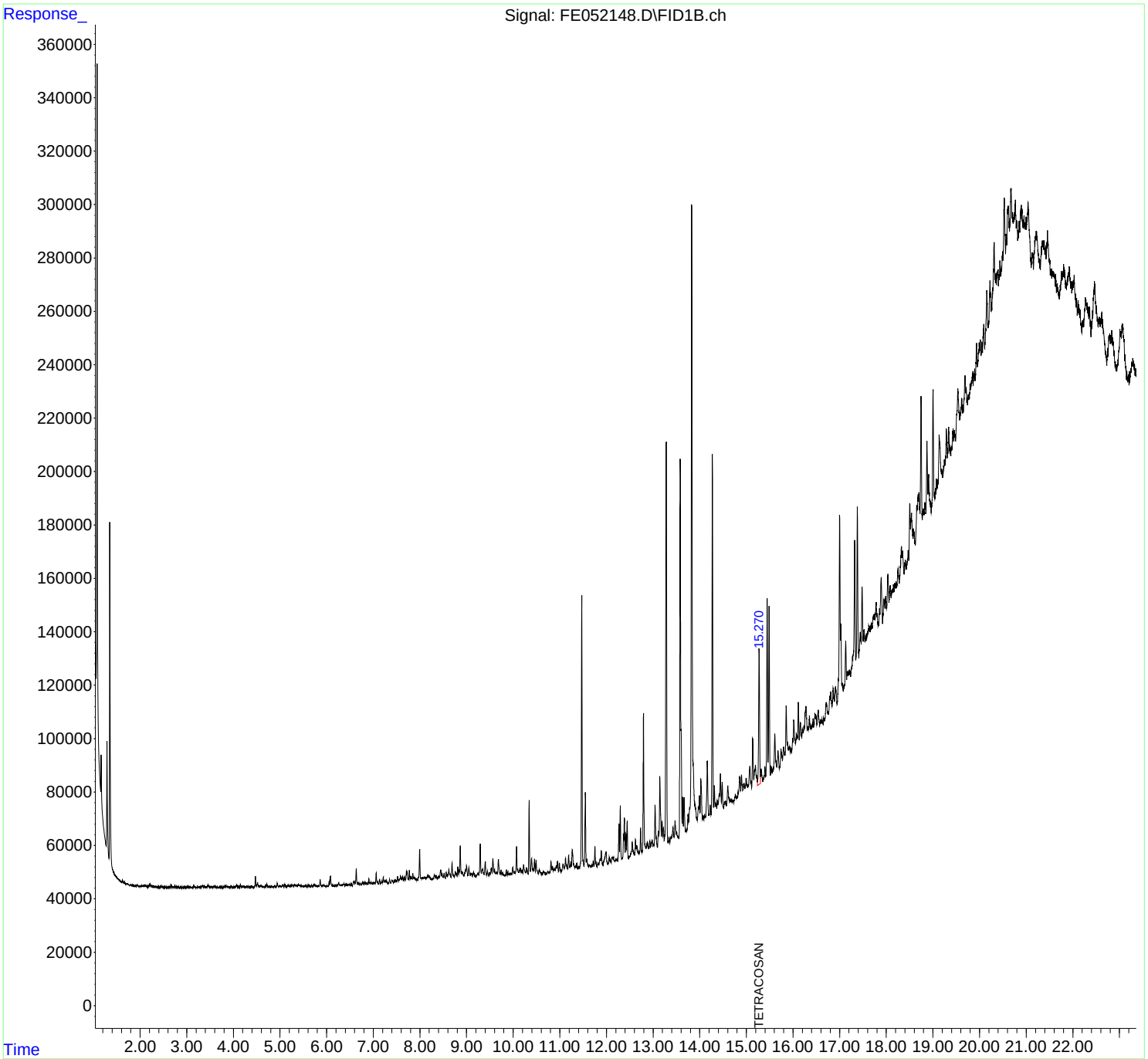
Quantitation Report (QT Reviewed)

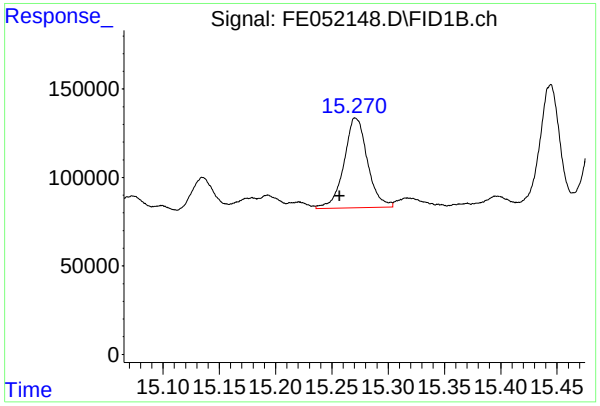
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE012925\
Data File : FE052148.D
Signal(s) : FID1B.ch
Acq On : 30 Jan 2025 08:29
Operator : YP\AJ
Sample : Q1207-13
Misc :
ALS Vial : 33 Sample Multiplier: 1

Instrument :
FID_E
ClientSampleId :
JPP-16.2-012725

Integration File: autoint1.e
Quant Time: Jan 31 01:59:22 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\FE012325.M
Quant Title :
QLast Update : Fri Jan 24 03:06:38 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.: 15.271 min
Delta R.T.: 0.014 mi
Response: 738853
Conc: 7.42 ug/m

Instrument :
FID_E
ClientSampleId :
JPP-16.2-012725

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE012925\
Data File : FE052148.D
Signal(s) : FID1B.ch
Acq On : 30 Jan 2025 08:29
Sample : Q1207-13
Misc :
ALS Vial : 33 Sample Multiplier: 1

Integration File: Sample.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\FE012325.M
Title :

Signal : FID1B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	4.878	4.852	4.885	BV	148	488	0.01%	0.001%
2	4.893	4.885	4.907	VV	222	1606	0.04%	0.002%
3	4.942	4.907	4.972	VV	1358	16693	0.43%	0.026%
4	4.987	4.972	5.007	VV	359	4452	0.11%	0.007%
5	5.019	5.007	5.037	PV	330	3801	0.10%	0.006%
6	5.058	5.037	5.083	VV	797	11377	0.29%	0.018%
7	5.100	5.083	5.145	VV	962	15030	0.39%	0.023%
8	5.166	5.145	5.171	VV	413	4110	0.11%	0.006%
9	5.184	5.171	5.209	VV	530	8550	0.22%	0.013%
10	5.218	5.209	5.237	VV	486	6025	0.16%	0.009%
11	5.250	5.237	5.266	VV	617	8231	0.21%	0.013%
12	5.281	5.266	5.292	VV	580	6857	0.18%	0.011%
13	5.308	5.292	5.331	VV	768	11835	0.30%	0.018%
14	5.349	5.331	5.374	VV	612	12280	0.32%	0.019%
15	5.395	5.374	5.419	VV	743	16017	0.41%	0.025%
16	5.423	5.419	5.452	VV	609	8449	0.22%	0.013%
17	5.465	5.452	5.501	VV	383	5762	0.15%	0.009%
18	5.523	5.501	5.529	VV	330	3021	0.08%	0.005%
19	5.536	5.529	5.547	VV	357	3022	0.08%	0.005%
20	5.556	5.547	5.572	VV	443	3916	0.10%	0.006%
21	5.602	5.572	5.620	VV	600	9159	0.24%	0.014%
22	5.628	5.620	5.662	VV	425	6074	0.16%	0.009%
23	5.675	5.662	5.685	VV	438	3671	0.09%	0.006%
24	5.695	5.685	5.712	VV	409	4022	0.10%	0.006%
25	5.739	5.712	5.767	VV	753	16004	0.41%	0.025%
26	5.775	5.767	5.791	VV	312	3034	0.08%	0.005%
27	5.810	5.791	5.824	VV	199	2474	0.06%	0.004%
28	5.862	5.824	5.894	VV	2645	32294	0.83%	0.050%
29	5.895	5.894	5.913	VV	411	3398	0.09%	0.005%
30	5.922	5.913	5.936	VV	466	5163	0.13%	0.008%
31	5.942	5.936	5.962	VV	505	5277	0.14%	0.008%
32	6.003	5.962	6.024	VV	297	6541	0.17%	0.010%
33	6.028	6.024	6.034	PV	76	261	0.01%	0.000%
34	6.053	6.034	6.066	PV	1732	18134	0.47%	0.028%
35	6.081	6.066	6.114	VV	3879	50459	1.30%	0.078%
36	6.129	6.114	6.145	VV	450	5176	0.13%	0.008%

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37	6.167	6.145	6.187	VV	371	5437	0.14%	0.008%
38	6.257	6.187	6.302	VV	1148	27693	0.71%	0.043%
39	6.306	6.302	6.319	VV	362	3028	0.08%	0.005%
40	6.350	6.319	6.355	VV	560	7569	0.19%	0.012%
41	6.370	6.355	6.395	VV	688	10568	0.27%	0.016%
42	6.412	6.395	6.426	PV	439	4536	0.12%	0.007%
43	6.440	6.426	6.458	VV	259	3993	0.10%	0.006%
44	6.473	6.458	6.509	VV	424	7856	0.20%	0.012%
45	6.526	6.509	6.556	VV	612	7161	0.18%	0.011%
46	6.578	6.556	6.589	VV	1505	16122	0.42%	0.025%
47	6.598	6.589	6.615	VV	1109	15482	0.40%	0.024%
48	6.636	6.615	6.663	VV	6195	70481	1.81%	0.109%
49	6.677	6.663	6.702	VV	787	12094	0.31%	0.019%
50	6.715	6.702	6.728	VV	604	6270	0.16%	0.010%
51	6.741	6.728	6.752	VV	350	3938	0.10%	0.006%
52	6.775	6.752	6.795	VV	1067	17493	0.45%	0.027%
53	6.826	6.795	6.862	VV	839	20668	0.53%	0.032%
54	6.870	6.862	6.876	VV	440	3072	0.08%	0.005%
55	6.907	6.876	6.930	VV	2173	31178	0.80%	0.048%
56	6.952	6.930	6.974	VV	807	11757	0.30%	0.018%
57	7.003	6.974	7.029	VV	712	14797	0.38%	0.023%
58	7.036	7.029	7.040	VV	462	2798	0.07%	0.004%
59	7.063	7.040	7.112	VV	4200	54058	1.39%	0.084%
60	7.135	7.112	7.159	VV	1760	20901	0.54%	0.032%
61	7.181	7.159	7.196	VV	919	13019	0.34%	0.020%
62	7.215	7.196	7.232	VV	2554	28764	0.74%	0.045%
63	7.243	7.232	7.254	VV	827	10248	0.26%	0.016%
64	7.268	7.254	7.315	VV	1148	23797	0.61%	0.037%
65	7.350	7.315	7.375	PV	1401	19569	0.50%	0.030%
66	7.399	7.375	7.435	VV	1286	24453	0.63%	0.038%
67	7.456	7.435	7.472	VV	908	15176	0.39%	0.024%
68	7.485	7.472	7.502	VV	1236	15102	0.39%	0.023%
69	7.522	7.502	7.540	VV	2422	29649	0.76%	0.046%
70	7.586	7.540	7.601	VV	2640	56828	1.46%	0.088%
71	7.630	7.601	7.658	VV	2422	55013	1.42%	0.085%
72	7.672	7.658	7.695	VV	2212	31823	0.82%	0.049%
73	7.713	7.695	7.723	VV	4361	48871	1.26%	0.076%
74	7.728	7.723	7.759	VV	3776	45437	1.17%	0.071%
75	7.774	7.759	7.789	VV	4482	47626	1.23%	0.074%
76	7.804	7.789	7.822	VV	2108	33055	0.85%	0.051%
77	7.826	7.822	7.835	VV	1389	9567	0.25%	0.015%
78	7.849	7.835	7.862	VV	3224	36184	0.93%	0.056%
79	7.869	7.862	7.878	VV	1609	13362	0.34%	0.021%
80	7.886	7.878	7.913	VV	1604	25593	0.66%	0.040%
81	7.929	7.913	7.950	VV	1093	19064	0.49%	0.030%
82	7.995	7.950	8.041	VV	12058	173268	4.46%	0.269%
83	8.055	8.041	8.080	VV	1515	28862	0.74%	0.045%
84	8.099	8.080	8.132	VV	1541	40159	1.03%	0.062%
85	8.172	8.132	8.199	VV	2071	65104	1.68%	0.101%
86	8.207	8.199	8.243	VV	1738	28908	0.74%	0.045%
87	8.253	8.243	8.268	VV	866	9989	0.26%	0.016%
88	8.309	8.268	8.332	VV	2173	49575	1.28%	0.077%
89	8.345	8.332	8.378	VV	1708	33387	0.86%	0.052%

90	8.404	8.378	8.413	VV	1569	25786	0.66%	0.040%
91	8.447	8.413	8.465	VV	3898	77361	1.99%	0.120%
92	8.475	8.465	8.497	VV	2597	34510	0.89%	0.054%
93	8.518	8.497	8.538	VV	2579	40285	1.04%	0.063%
94	8.563	8.538	8.583	VV	3032	48341	1.24%	0.075%
95	8.597	8.583	8.605	VV	2220	25098	0.65%	0.039%
96	8.620	8.605	8.639	VV	3846	55754	1.44%	0.087%
97	8.644	8.639	8.669	VV	2107	28136	0.72%	0.044%
98	8.690	8.669	8.740	VV	6191	108800	2.80%	0.169%
99	8.762	8.740	8.797	VV	2919	66891	1.72%	0.104%
100	8.814	8.797	8.827	VV	4694	57724	1.49%	0.090%
101	8.840	8.827	8.848	VV	3570	36412	0.94%	0.057%
102	8.866	8.848	8.897	VV	12498	166129	4.28%	0.258%
103	8.901	8.897	8.942	VV	2425	52501	1.35%	0.082%
104	9.002	8.942	9.029	VV	4865	140035	3.61%	0.218%
105	9.051	9.029	9.080	VV	4123	75037	1.93%	0.117%
106	9.094	9.080	9.124	VV	2102	43222	1.11%	0.067%
107	9.151	9.124	9.168	VV	2089	41561	1.07%	0.065%
108	9.172	9.168	9.203	VV	1364	20327	0.52%	0.032%
109	9.243	9.203	9.261	VV	1898	46475	1.20%	0.072%
110	9.295	9.261	9.318	VV	12812	169513	4.36%	0.263%
111	9.334	9.318	9.338	VV	3065	31170	0.80%	0.048%
112	9.347	9.338	9.371	VV	3343	48222	1.24%	0.075%
113	9.402	9.371	9.427	VV	5923	97953	2.52%	0.152%
114	9.449	9.427	9.470	VV	2383	38203	0.98%	0.059%
115	9.493	9.470	9.504	VV	1714	27703	0.71%	0.043%
116	9.531	9.504	9.548	VV	3538	62595	1.61%	0.097%
117	9.566	9.548	9.592	VV	7136	106589	2.74%	0.166%
118	9.601	9.592	9.620	VV	2752	34242	0.88%	0.053%
119	9.629	9.620	9.634	VV	1523	11769	0.30%	0.018%
120	9.648	9.634	9.663	VV	1757	25910	0.67%	0.040%
121	9.684	9.663	9.721	VV	6526	108962	2.81%	0.169%
122	9.739	9.721	9.759	VV	2423	36116	0.93%	0.056%
123	9.769	9.759	9.785	VV	1400	16885	0.43%	0.026%
124	9.797	9.785	9.818	VV	775	10832	0.28%	0.017%
125	9.829	9.818	9.833	VV	460	3678	0.09%	0.006%
126	9.855	9.833	9.872	VV	2464	31093	0.80%	0.048%
127	9.886	9.872	9.900	VV	1824	20225	0.52%	0.031%
128	9.910	9.900	9.926	VV	890	11660	0.30%	0.018%
129	9.939	9.926	9.957	VV	1241	16108	0.41%	0.025%
130	9.993	9.957	10.010	VV	3325	55488	1.43%	0.086%
131	10.022	10.010	10.039	VV	1647	24144	0.62%	0.038%
132	10.074	10.039	10.092	VV	10992	136609	3.52%	0.212%
133	10.097	10.092	10.123	VV	2611	35117	0.90%	0.055%
134	10.154	10.123	10.175	VV	2753	61532	1.58%	0.096%
135	10.191	10.175	10.205	VV	2104	28778	0.74%	0.045%
136	10.224	10.205	10.267	VV	3942	78283	2.02%	0.122%
137	10.286	10.267	10.321	VV	2798	50707	1.31%	0.079%
138	10.344	10.321	10.368	VV	27923	284343	7.32%	0.442%
139	10.396	10.368	10.429	VV	6068	115475	2.97%	0.179%
140	10.456	10.429	10.475	VV	5743	83390	2.15%	0.130%
141	10.492	10.475	10.537	VV	5450	81433	2.10%	0.126%

142	10.562	10.537	10.615	VV	1766	37412	0.96%	0.058%
143	10.654	10.615	10.684	VV	962	21594	0.56%	0.034%
144	10.690	10.684	10.704	VV	340	2238	0.06%	0.003%
145	10.742	10.704	10.765	PV	965	14551	0.37%	0.023%
146	10.780	10.765	10.785	VV	549	5649	0.15%	0.009%
147	10.814	10.785	10.831	VV	4454	58921	1.52%	0.092%
148	10.844	10.831	10.865	VV	2680	35560	0.92%	0.055%
149	10.888	10.865	10.903	VV	1482	26351	0.68%	0.041%
150	10.919	10.903	10.930	VV	2412	29269	0.75%	0.045%
151	10.950	10.930	10.970	VV	4200	59232	1.52%	0.092%
152	10.991	10.970	11.025	VV	3242	46452	1.20%	0.072%
153	11.067	11.025	11.102	PV	2889	63451	1.63%	0.099%
154	11.122	11.102	11.139	VV	4849	66500	1.71%	0.103%
155	11.145	11.139	11.164	VV	2275	24720	0.64%	0.038%
156	11.190	11.164	11.215	VV	5758	81129	2.09%	0.126%
157	11.234	11.215	11.246	VV	3170	41098	1.06%	0.064%
158	11.266	11.246	11.293	VV	7718	130062	3.35%	0.202%
159	11.301	11.293	11.327	VV	2354	31085	0.80%	0.048%
160	11.365	11.327	11.385	VV	2506	47472	1.22%	0.074%
161	11.404	11.385	11.422	VV	987	16088	0.41%	0.025%
162	11.472	11.422	11.517	VV	102223	1128986	29.06%	1.754%
163	11.546	11.517	11.566	VV	28187	307414	7.91%	0.478%
164	11.577	11.566	11.613	VV	3391	55206	1.42%	0.086%
165	11.616	11.613	11.627	VV	849	6247	0.16%	0.010%
166	11.640	11.627	11.670	VV	1164	17658	0.45%	0.027%
167	11.698	11.670	11.701	VV	838	11973	0.31%	0.019%
168	11.715	11.701	11.731	VV	2198	23819	0.61%	0.037%
169	11.751	11.731	11.795	VV	7651	102042	2.63%	0.159%
170	11.823	11.795	11.839	PV	1207	19807	0.51%	0.031%
171	11.862	11.839	11.872	VV	2811	34207	0.88%	0.053%
172	11.888	11.872	11.920	VV	5669	72617	1.87%	0.113%
173	11.994	11.920	12.027	VV	4823	139855	3.60%	0.217%
174	12.058	12.027	12.102	PV	2627	47964	1.23%	0.075%
175	12.120	12.102	12.130	VV	2314	26910	0.69%	0.042%
176	12.136	12.130	12.169	VV	2073	35179	0.91%	0.055%
177	12.174	12.169	12.181	VV	588	3722	0.10%	0.006%
178	12.199	12.181	12.207	VV	985	12268	0.32%	0.019%
179	12.221	12.207	12.238	VV	947	12108	0.31%	0.019%
180	12.268	12.238	12.282	VV	13987	157941	4.07%	0.245%
181	12.299	12.282	12.328	VV	20676	230178	5.93%	0.358%
182	12.364	12.328	12.371	VV	9392	96085	2.47%	0.149%
183	12.384	12.371	12.401	VV	15625	172937	4.45%	0.269%
184	12.416	12.401	12.430	VV	9578	110683	2.85%	0.172%
185	12.446	12.430	12.470	VV	14322	166307	4.28%	0.258%
186	12.484	12.470	12.495	PV	1003	9241	0.24%	0.014%
187	12.551	12.495	12.573	VV	5621	115887	2.98%	0.180%
188	12.579	12.573	12.597	VV	1943	21895	0.56%	0.034%
189	12.622	12.597	12.637	VV	6170	76482	1.97%	0.119%
190	12.651	12.637	12.684	VV	3714	66382	1.71%	0.103%
191	12.690	12.684	12.706	VV	895	10587	0.27%	0.016%
192	12.731	12.706	12.757	VV	9627	114114	2.94%	0.177%
193	12.795	12.757	12.852	VV	52305	635703	16.37%	0.987%
194	12.878	12.852	12.908	VV	3521	76284	1.96%	0.118%

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195	12.928	12.908	12.945	VV	3723	50493	1.30%	0.078%
196	12.981	12.945	12.994	VV	3613	75024	1.93%	0.117%
197	13.005	12.994	13.018	VV	2145	24182	0.62%	0.038%
198	13.041	13.018	13.093	VV	16158	262673	6.76%	0.408%
199	13.114	13.093	13.123	VV	5881	60963	1.57%	0.095%
200	13.143	13.123	13.176	VV	26053	419991	10.81%	0.652%
201	13.191	13.176	13.210	VV	9095	130164	3.35%	0.202%
202	13.225	13.210	13.239	VV	6681	80880	2.08%	0.126%
203	13.282	13.239	13.320	VV	150454	1680059	43.25%	2.610%
204	13.340	13.320	13.356	VV	2441	26543	0.68%	0.041%
205	13.374	13.356	13.384	PV	2082	22903	0.59%	0.036%
206	13.426	13.384	13.452	VV	5481	117913	3.04%	0.183%
207	13.470	13.452	13.496	VV	7334	125661	3.23%	0.195%
208	13.504	13.496	13.524	VV	3178	37554	0.97%	0.058%
209	13.531	13.524	13.554	VV	1297	17015	0.44%	0.026%
210	13.581	13.554	13.620	VV	142606	1907713	49.11%	2.963%
211	13.632	13.620	13.647	VV	15325	165190	4.25%	0.257%
212	13.663	13.647	13.694	VV	14958	214956	5.53%	0.334%
213	13.706	13.694	13.718	VV	2466	31831	0.82%	0.049%
214	13.748	13.718	13.762	VV	7946	126762	3.26%	0.197%
215	13.783	13.762	13.788	VV	9938	125966	3.24%	0.196%
216	13.826	13.788	13.947	VV	236186	3884439	100.00%	6.034%
217	13.969	13.947	13.978	VV	9095	136278	3.51%	0.212%
218	13.993	13.978	14.006	VV	13235	175817	4.53%	0.273%
219	14.024	14.006	14.058	VV	19277	382114	9.84%	0.594%
220	14.070	14.058	14.085	VV	4949	70431	1.81%	0.109%
221	14.101	14.085	14.112	VV	4866	72039	1.85%	0.112%
222	14.161	14.112	14.199	VV	24963	534236	13.75%	0.830%
223	14.224	14.199	14.242	VV	7976	148364	3.82%	0.230%
224	14.270	14.242	14.293	VV	138905	1619374	41.69%	2.515%
225	14.310	14.293	14.341	VV	14712	278654	7.17%	0.433%
226	14.351	14.341	14.363	VV	7754	89730	2.31%	0.139%
227	14.377	14.363	14.390	VV	8527	124288	3.20%	0.193%
228	14.417	14.390	14.424	VV	10730	183995	4.74%	0.286%
229	14.442	14.424	14.465	VV	18237	308908	7.95%	0.480%
230	14.480	14.465	14.512	VV	14881	251239	6.47%	0.390%
231	14.532	14.512	14.537	VV	6989	91373	2.35%	0.142%
232	14.553	14.537	14.570	VV	7180	127095	3.27%	0.197%
233	14.600	14.570	14.628	VV	12580	305850	7.87%	0.475%
234	14.635	14.628	14.649	VV	7587	89188	2.30%	0.139%
235	14.687	14.649	14.698	VV	6759	185104	4.77%	0.288%
236	14.714	14.698	14.726	VV	6322	100868	2.60%	0.157%
237	14.765	14.726	14.789	VV	8083	260522	6.71%	0.405%
238	14.795	14.789	14.806	VV	7007	70600	1.82%	0.110%
239	14.858	14.806	14.874	VV	13899	402231	10.35%	0.625%
240	14.894	14.874	14.927	VV	14471	353664	9.10%	0.549%
241	14.942	14.927	14.949	VV	10742	130326	3.36%	0.202%
242	14.951	14.949	14.964	VV	10798	90570	2.33%	0.141%
243	14.994	14.964	15.024	VV	12392	376647	9.70%	0.585%
244	15.034	15.024	15.039	VV	9952	84840	2.18%	0.132%
245	15.073	15.039	15.091	VV	16262	397329	10.23%	0.617%
246	15.099	15.091	15.112	VV	10810	122329	3.15%	0.190%

247	15.135	15.112	15.158	VV	26395	472267	12.16%	0.734%
248	15.179	15.158	15.184	VV	14625	200624	5.16%	0.312%
249	15.193	15.184	15.210	VV	16114	219878	5.66%	0.342%
250	15.220	15.210	15.235	VV	11965	168595	4.34%	0.262%
251	15.271	15.235	15.304	VV	59158	1076561	27.71%	1.672%
252	15.317	15.304	15.353	VV	13476	333820	8.59%	0.519%
253	15.396	15.353	15.415	VV	13909	408804	10.52%	0.635%
254	15.444	15.415	15.464	VV	76240	1093008	28.14%	1.698%
255	15.486	15.464	15.515	VV	73443	1033390	26.60%	1.605%
256	15.532	15.515	15.548	VV	12940	236658	6.09%	0.368%
257	15.554	15.548	15.558	VV	11511	68425	1.76%	0.106%
258	15.609	15.558	15.652	VV	24618	855855	22.03%	1.329%
259	15.676	15.652	15.710	VV	17448	492112	12.67%	0.764%
260	15.741	15.710	15.775	VV	18036	573786	14.77%	0.891%
261	15.798	15.775	15.827	VV	18384	518447	13.35%	0.805%
262	15.852	15.827	15.877	VV	33349	688260	17.72%	1.069%
263	15.883	15.877	15.898	VV	19643	232811	5.99%	0.362%
264	15.912	15.898	15.917	VV	17515	192782	4.96%	0.299%
265	15.922	15.917	15.925	VV	17163	78874	2.03%	0.123%
266	15.930	15.925	15.943	VV	17385	182380	4.70%	0.283%
267	15.959	15.943	15.969	VV	16418	248249	6.39%	0.386%
268	15.991	15.969	15.997	VV	20258	300366	7.73%	0.467%
269	16.016	15.997	16.055	VV	26848	748727	19.28%	1.163%
270	16.072	16.055	16.094	VV	21187	455650	11.73%	0.708%
271	16.114	16.094	16.133	VV	32883	607175	15.63%	0.943%
272	16.155	16.133	16.188	VV	25279	719577	18.52%	1.118%
273	16.202	16.188	16.213	VV	22272	324709	8.36%	0.504%
274	16.278	16.213	16.303	VV	30211	1340101	34.50%	2.082%
275	16.309	16.303	16.317	VV	22181	179404	4.62%	0.279%
276	16.321	16.317	16.330	VV	22174	174099	4.48%	0.270%
277	16.352	16.330	16.367	VV	26160	513206	13.21%	0.797%
278	16.371	16.367	16.405	VV	22992	500403	12.88%	0.777%
279	16.430	16.405	16.443	VV	24436	510129	13.13%	0.792%
280	16.449	16.443	16.453	VV	22980	141915	3.65%	0.220%
281	16.469	16.453	16.480	VV	26110	402430	10.36%	0.625%
282	16.495	16.480	16.511	VV	25077	445685	11.47%	0.692%
283	16.536	16.511	16.572	VV	26457	872001	22.45%	1.355%
284	16.591	16.572	16.605	VV	22930	440233	11.33%	0.684%
285	16.622	16.605	16.645	VV	22870	522948	13.46%	0.812%
286	16.655	16.645	16.660	VV	23248	203022	5.23%	0.315%
287	16.664	16.660	16.679	VV	22576	244691	6.30%	0.380%
288	16.710	16.679	16.715	VV	28529	559974	14.42%	0.870%
289	16.720	16.715	16.745	VV	28091	469240	12.08%	0.729%
290	16.748	16.745	16.762	VV	24492	242518	6.24%	0.377%
291	16.785	16.762	16.791	VV	30307	481396	12.39%	0.748%
292	16.805	16.791	16.837	VV	31654	804443	20.71%	1.250%
293	16.862	16.837	16.890	VV	32698	935754	24.09%	1.454%
294	16.910	16.890	16.946	VV	33113	1019366	26.24%	1.583%
295	17.000	16.946	17.017	VV	96549	2158334	55.56%	3.353%
296	17.026	17.017	17.049	VV	55831	861726	22.18%	1.339%
297	17.060	17.049	17.076	VV	33343	531806	13.69%	0.826%
298	17.090	17.076	17.096	VV	32049	381735	9.83%	0.593%
299	17.102	17.096	17.107	VV	32309	202835	5.22%	0.315%

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300	17.129	17.107	17.150	VV	48434	1026916	26.44%	1.595%
301	17.167	17.150	17.174	VV	36781	519033	13.36%	0.806%
302	17.187	17.174	17.192	VV	36579	400326	10.31%	0.622%
303	17.197	17.192	17.202	VV	36358	214223	5.51%	0.333%
304	17.215	17.202	17.235	VV	36832	708884	18.25%	1.101%
305	17.278	17.235	17.284	VV	41528	1121706	28.88%	1.742%
306	17.321	17.284	17.347	VV	85112	2094233	53.91%	3.253%
307	17.379	17.347	17.410	VV	97065	2211889	56.94%	3.436%
308	17.440	17.410	17.460	VBA	49591	1428930	36.79%	2.220%

Sum of corrected areas: 64375909

FE012325.M Fri Jan 31 02:56:03 2025

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

Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/27/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/28/25
Client Sample ID:	JPP-20.2-012725	SDG No.:	Q1207
Lab Sample ID:	Q1207-17	Matrix:	SOIL
Analytical Method:	8015D DRO	% Solid:	88.1 Decanted:
Sample Wt/Vol:	28.87 Units: g	Final Vol:	1 mL
Soil Aliquot Vol:	uL	Test:	Diesel Range Organics
Extraction Type:		Injection Volume :	
GPC Factor :	PH :		
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
FE052150.D	1	01/29/25 08:45	01/30/25 9:29	PB166348

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
DRO	DRO	27700		218	1970	ug/kg
SURROGATES						
16416-32-3	Tetracosane-d50	8.04		37 - 130	40%	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_E\Data\FE012925\
Data File : FE052150.D
Signal(s) : FID1B.ch
Acq On : 30 Jan 2025 09:29
Operator : YP\AJ
Sample : Q1207-17
Misc :
ALS Vial : 34 Sample Multiplier: 1

Instrument :
FID_E
ClientSampleId :
JPP-20.2-012725

Integration File: autoint1.e
Quant Time: Jan 31 02:00:12 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\FE012325.M
Quant Title :
QLast Update : Fri Jan 24 03:06:38 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...	15.274	800449	8.037 ug/ml
	Target Compounds			

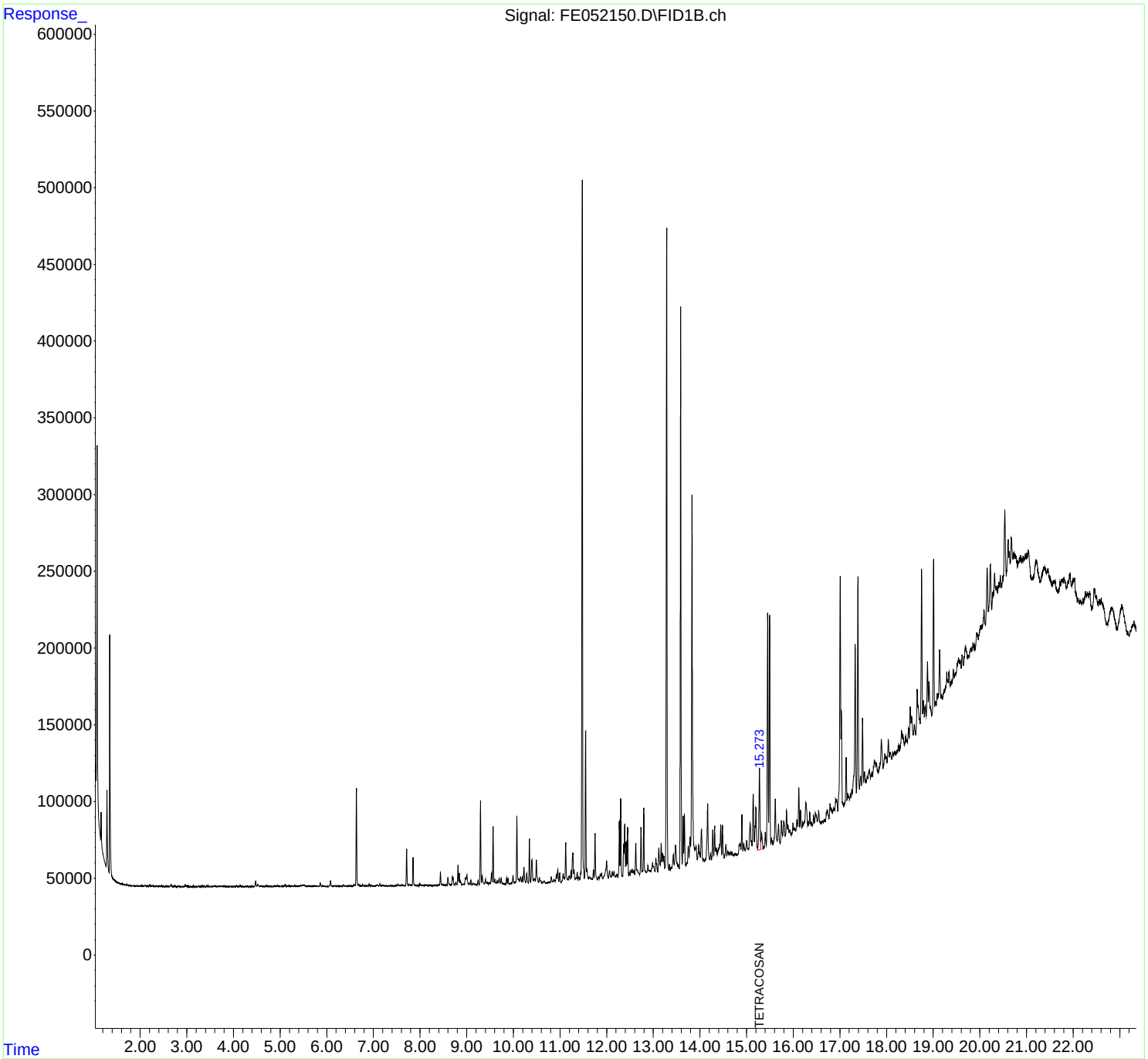
(f)=RT Delta > 1/2 Window (m)=manual int.

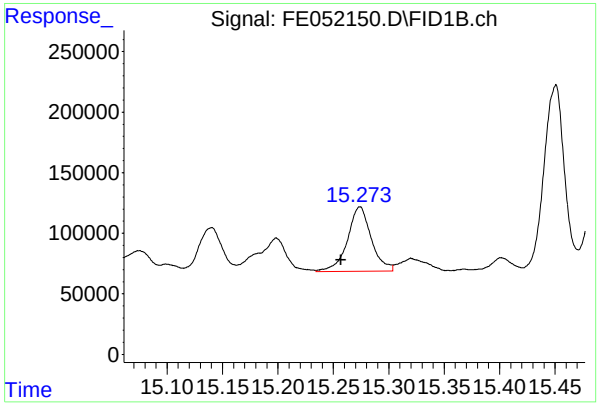
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE012925\
Data File : FE052150.D
Signal(s) : FID1B.ch
Acq On : 30 Jan 2025 09:29
Operator : YP\AJ
Sample : Q1207-17
Misc :
ALS Vial : 34 Sample Multiplier: 1

Instrument :
FID_E
ClientSampleId :
JPP-20.2-012725

Integration File: autoint1.e
Quant Time: Jan 31 02:00:12 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\FE012325.M
Quant Title :
QLast Update : Fri Jan 24 03:06:38 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.:	15.274 min
Delta R.T.:	0.017 mir
Response:	800449
Conc:	8.04 ug/m

Instrument :
FID_E
ClientSampleId :
JPP-20.2-012725

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE012925\
Data File : FE052150.D
Signal(s) : FID1B.ch
Acq On : 30 Jan 2025 09:29
Sample : Q1207-17
Misc :
ALS Vial : 34 Sample Multiplier: 1

Integration File: Sample.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\FE012325.M
Title :

Signal : FID1B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	4.859	4.851	4.866	BV	128	690	0.01%	0.001%
2	4.893	4.866	4.907	PV	323	5267	0.11%	0.007%
3	4.911	4.907	4.927	VV	225	1977	0.04%	0.003%
4	4.944	4.927	4.973	VV	1027	11543	0.24%	0.015%
5	4.987	4.973	5.009	VV	388	4766	0.10%	0.006%
6	5.022	5.009	5.038	VV	301	3580	0.08%	0.005%
7	5.044	5.038	5.061	VV	226	2044	0.04%	0.003%
8	5.072	5.061	5.086	VV	331	3781	0.08%	0.005%
9	5.106	5.086	5.149	VV	956	17090	0.36%	0.023%
10	5.186	5.149	5.205	VV	844	12872	0.27%	0.017%
11	5.219	5.205	5.240	VV	392	5375	0.11%	0.007%
12	5.258	5.240	5.292	VV	357	6985	0.15%	0.009%
13	5.307	5.292	5.333	VV	603	8682	0.18%	0.011%
14	5.352	5.333	5.378	VV	407	8264	0.17%	0.011%
15	5.397	5.378	5.412	VV	424	7656	0.16%	0.010%
16	5.414	5.412	5.423	VV	474	2657	0.06%	0.004%
17	5.440	5.423	5.456	VV	827	12533	0.26%	0.017%
18	5.473	5.456	5.477	VV	842	9473	0.20%	0.013%
19	5.481	5.477	5.484	VV	801	2983	0.06%	0.004%
20	5.514	5.484	5.551	VV	946	27658	0.58%	0.037%
21	5.558	5.551	5.573	VV	426	3923	0.08%	0.005%
22	5.586	5.573	5.595	VV	284	2592	0.05%	0.003%
23	5.608	5.595	5.624	VV	462	5575	0.12%	0.007%
24	5.631	5.624	5.634	VV	292	1559	0.03%	0.002%
25	5.638	5.634	5.664	VV	292	4171	0.09%	0.006%
26	5.677	5.664	5.684	VV	196	2205	0.05%	0.003%
27	5.697	5.684	5.714	VV	458	5119	0.11%	0.007%
28	5.725	5.714	5.729	VV	340	2363	0.05%	0.003%
29	5.741	5.729	5.767	VV	551	7073	0.15%	0.009%
30	5.781	5.767	5.798	VV	265	3253	0.07%	0.004%
31	5.801	5.798	5.811	VV	186	929	0.02%	0.001%
32	5.814	5.811	5.825	VV	105	759	0.02%	0.001%
33	5.863	5.825	5.885	VV	2418	27172	0.57%	0.036%
34	5.903	5.885	5.915	VV	312	4426	0.09%	0.006%
35	5.929	5.915	5.947	VV	344	5051	0.11%	0.007%
36	5.952	5.947	5.964	VV	183	1302	0.03%	0.002%

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37	5.970	5.964	5.985	VV	145	1190	0.02%	0.002%
38	5.989	5.985	5.997	VV	134	580	0.01%	0.001%
39	6.009	5.997	6.022	VV	197	1826	0.04%	0.002%
40	6.025	6.022	6.031	VV	98	317	0.01%	0.000%
41	6.055	6.031	6.064	PV	656	6633	0.14%	0.009%
42	6.081	6.064	6.123	VV	3853	46249	0.97%	0.061%
43	6.125	6.123	6.133	VV	216	864	0.02%	0.001%
44	6.141	6.133	6.147	VV	192	1159	0.02%	0.002%
45	6.170	6.147	6.192	VV	686	8703	0.18%	0.012%
46	6.197	6.192	6.204	VV	197	1262	0.03%	0.002%
47	6.213	6.204	6.227	VV	208	2487	0.05%	0.003%
48	6.232	6.227	6.241	VV	275	1618	0.03%	0.002%
49	6.261	6.241	6.276	VV	485	6185	0.13%	0.008%
50	6.294	6.276	6.303	VV	449	5270	0.11%	0.007%
51	6.305	6.303	6.311	VV	319	970	0.02%	0.001%
52	6.315	6.311	6.325	VV	279	1565	0.03%	0.002%
53	6.360	6.325	6.398	VV	856	18064	0.38%	0.024%
54	6.412	6.398	6.438	VV	476	6751	0.14%	0.009%
55	6.458	6.438	6.467	VV	445	4581	0.10%	0.006%
56	6.472	6.467	6.490	VV	330	3017	0.06%	0.004%
57	6.504	6.490	6.515	VV	509	5207	0.11%	0.007%
58	6.522	6.515	6.544	VV	297	4117	0.09%	0.005%
59	6.581	6.544	6.593	VV	1246	16106	0.34%	0.021%
60	6.600	6.593	6.612	VV	966	9212	0.19%	0.012%
61	6.637	6.612	6.669	VV	63796	615634	12.91%	0.815%
62	6.686	6.669	6.708	VV	1613	19836	0.42%	0.026%
63	6.712	6.708	6.715	VV	296	1227	0.03%	0.002%
64	6.720	6.715	6.737	VV	362	3438	0.07%	0.005%
65	6.740	6.737	6.751	VV	271	1908	0.04%	0.003%
66	6.767	6.751	6.796	VV	853	13879	0.29%	0.018%
67	6.817	6.796	6.842	VV	501	8421	0.18%	0.011%
68	6.856	6.842	6.863	VV	392	3888	0.08%	0.005%
69	6.869	6.863	6.885	VV	385	4262	0.09%	0.006%
70	6.909	6.885	6.951	VV	1657	26125	0.55%	0.035%
71	6.956	6.951	6.981	VV	416	5234	0.11%	0.007%
72	6.997	6.981	7.020	VV	442	5586	0.12%	0.007%
73	7.024	7.020	7.029	VV	275	831	0.02%	0.001%
74	7.033	7.029	7.037	VV	120	602	0.01%	0.001%
75	7.065	7.037	7.079	VV	872	12060	0.25%	0.016%
76	7.084	7.079	7.117	VV	651	8794	0.18%	0.012%
77	7.136	7.117	7.167	VV	1566	17828	0.37%	0.024%
78	7.191	7.167	7.201	VV	506	6668	0.14%	0.009%
79	7.206	7.201	7.237	VV	524	7353	0.15%	0.010%
80	7.252	7.237	7.266	VV	272	2672	0.06%	0.004%
81	7.285	7.266	7.319	VV	418	6149	0.13%	0.008%
82	7.330	7.319	7.331	VV	196	759	0.02%	0.001%
83	7.361	7.331	7.383	VV	465	7387	0.15%	0.010%
84	7.401	7.383	7.428	PV	579	6895	0.14%	0.009%
85	7.436	7.428	7.444	VV	181	1108	0.02%	0.001%
86	7.454	7.444	7.459	VV	233	1516	0.03%	0.002%
87	7.464	7.459	7.475	VV	241	1683	0.04%	0.002%
88	7.486	7.475	7.506	VV	440	5337	0.11%	0.007%
89	7.525	7.506	7.545	VV	1204	13779	0.29%	0.018%

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90	7.554	7.545	7.571	VV	466	5625	0.12%	0.007%
91	7.589	7.571	7.593	VV	579	5738	0.12%	0.008%
92	7.599	7.593	7.609	VV	595	4577	0.10%	0.006%
93	7.617	7.609	7.634	VV	649	7661	0.16%	0.010%
94	7.645	7.634	7.681	VV	486	9343	0.20%	0.012%
95	7.714	7.681	7.744	VV	24239	243502	5.10%	0.322%
96	7.771	7.744	7.796	VV	1030	23712	0.50%	0.031%
97	7.807	7.796	7.827	VV	662	7487	0.16%	0.010%
98	7.851	7.827	7.888	VV	18731	187378	3.93%	0.248%
99	7.897	7.888	7.916	VV	559	7092	0.15%	0.009%
100	7.921	7.916	7.939	VV	347	3694	0.08%	0.005%
101	7.950	7.939	7.955	VV	360	2881	0.06%	0.004%
102	7.961	7.955	7.972	VV	435	3506	0.07%	0.005%
103	7.998	7.972	8.035	VV	1490	22566	0.47%	0.030%
104	8.050	8.035	8.065	VV	405	6226	0.13%	0.008%
105	8.073	8.065	8.081	VV	367	3286	0.07%	0.004%
106	8.082	8.081	8.094	VV	376	2089	0.04%	0.003%
107	8.099	8.094	8.114	VV	339	3463	0.07%	0.005%
108	8.124	8.114	8.140	VV	293	3635	0.08%	0.005%
109	8.151	8.140	8.177	VV	370	6149	0.13%	0.008%
110	8.192	8.177	8.218	VV	356	5535	0.12%	0.007%
111	8.222	8.218	8.235	VV	175	1602	0.03%	0.002%
112	8.241	8.235	8.278	VV	222	2531	0.05%	0.003%
113	8.298	8.278	8.309	PV	439	5092	0.11%	0.007%
114	8.311	8.309	8.333	VV	312	2697	0.06%	0.004%
115	8.350	8.333	8.369	VV	395	5217	0.11%	0.007%
116	8.394	8.369	8.415	VV	695	10013	0.21%	0.013%
117	8.439	8.415	8.479	VV	9146	103780	2.18%	0.137%
118	8.483	8.479	8.506	VV	649	6780	0.14%	0.009%
119	8.517	8.506	8.531	VV	364	4513	0.09%	0.006%
120	8.542	8.531	8.556	VV	425	4901	0.10%	0.006%
121	8.569	8.556	8.575	VV	423	3682	0.08%	0.005%
122	8.598	8.575	8.663	VV	5336	79533	1.67%	0.105%
123	8.695	8.663	8.704	VV	5655	57717	1.21%	0.076%
124	8.710	8.704	8.741	VV	5140	50853	1.07%	0.067%
125	8.766	8.741	8.793	VV	1803	29196	0.61%	0.039%
126	8.815	8.793	8.831	VV	13228	135048	2.83%	0.179%
127	8.843	8.831	8.860	VV	7952	80166	1.68%	0.106%
128	8.869	8.860	8.911	VV	2774	39199	0.82%	0.052%
129	8.933	8.911	8.951	VV	786	13845	0.29%	0.018%
130	8.976	8.951	8.989	VV	4855	69255	1.45%	0.092%
131	9.005	8.989	9.038	VV	6718	105083	2.20%	0.139%
132	9.053	9.038	9.073	VV	1301	19483	0.41%	0.026%
133	9.091	9.073	9.117	VV	3327	36562	0.77%	0.048%
134	9.135	9.117	9.148	VV	1119	13169	0.28%	0.017%
135	9.151	9.148	9.186	VV	766	10910	0.23%	0.014%
136	9.195	9.186	9.204	VV	269	2004	0.04%	0.003%
137	9.216	9.204	9.224	VV	426	3314	0.07%	0.004%
138	9.245	9.224	9.265	VV	2988	33946	0.71%	0.045%
139	9.297	9.265	9.319	VV	54999	538768	11.29%	0.714%
140	9.334	9.319	9.378	VV	6072	90273	1.89%	0.120%
141	9.404	9.378	9.424	VV	3529	50136	1.05%	0.066%

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142	9.439	9.424	9.467	VV	1526	29494	0.62%	0.039%
143	9.483	9.467	9.494	VV	1245	15529	0.33%	0.021%
144	9.502	9.494	9.512	VV	1164	12092	0.25%	0.016%
145	9.535	9.512	9.549	VV	7404	92781	1.95%	0.123%
146	9.568	9.549	9.589	VV	37997	375867	7.88%	0.498%
147	9.603	9.589	9.636	VV	3254	50127	1.05%	0.066%
148	9.653	9.636	9.669	VV	2602	32798	0.69%	0.043%
149	9.700	9.669	9.718	VV	3981	66445	1.39%	0.088%
150	9.741	9.718	9.764	VV	4190	53773	1.13%	0.071%
151	9.770	9.764	9.821	VV	722	11016	0.23%	0.015%
152	9.858	9.821	9.875	PV	4437	49822	1.04%	0.066%
153	9.888	9.875	9.926	VV	3841	40543	0.85%	0.054%
154	9.945	9.926	9.959	VV	860	10411	0.22%	0.014%
155	9.995	9.959	10.015	VV	5398	79761	1.67%	0.106%
156	10.033	10.015	10.041	VV	1370	17818	0.37%	0.024%
157	10.048	10.041	10.056	VV	1186	9773	0.20%	0.013%
158	10.078	10.056	10.111	VV	44501	461865	9.68%	0.612%
159	10.116	10.111	10.132	VV	3418	33203	0.70%	0.044%
160	10.157	10.132	10.180	VV	4676	83757	1.76%	0.111%
161	10.196	10.180	10.210	VV	4481	47361	0.99%	0.063%
162	10.229	10.210	10.265	VV	10888	157287	3.30%	0.208%
163	10.288	10.265	10.325	VV	6790	98922	2.07%	0.131%
164	10.346	10.325	10.371	VV	29024	297313	6.23%	0.394%
165	10.398	10.371	10.430	VV	15471	257281	5.39%	0.341%
166	10.438	10.430	10.447	VV	2534	25481	0.53%	0.034%
167	10.458	10.447	10.474	VV	3253	39816	0.83%	0.053%
168	10.496	10.474	10.541	VV	15450	226005	4.74%	0.299%
169	10.560	10.541	10.582	VV	3726	53297	1.12%	0.071%
170	10.589	10.582	10.612	VV	1685	17605	0.37%	0.023%
171	10.633	10.612	10.637	VV	629	6621	0.14%	0.009%
172	10.662	10.637	10.706	VV	1418	28722	0.60%	0.038%
173	10.724	10.706	10.731	PV	125	1093	0.02%	0.001%
174	10.754	10.731	10.769	PV	663	8623	0.18%	0.011%
175	10.780	10.769	10.791	VV	519	5154	0.11%	0.007%
176	10.816	10.791	10.839	VV	3933	51278	1.08%	0.068%
177	10.849	10.839	10.855	VV	894	7773	0.16%	0.010%
178	10.870	10.855	10.882	VV	2195	24526	0.51%	0.032%
179	10.892	10.882	10.903	VV	1494	15184	0.32%	0.020%
180	10.923	10.903	10.936	VV	5013	61164	1.28%	0.081%
181	10.953	10.936	10.976	VV	8478	113581	2.38%	0.150%
182	10.994	10.976	11.026	VV	6110	70288	1.47%	0.093%
183	11.070	11.026	11.088	PV	5605	88520	1.86%	0.117%
184	11.095	11.088	11.103	VV	2879	22981	0.48%	0.030%
185	11.124	11.103	11.176	VV	25573	319916	6.71%	0.424%
186	11.194	11.176	11.217	VV	3717	64764	1.36%	0.086%
187	11.238	11.217	11.252	VV	7508	92388	1.94%	0.122%
188	11.278	11.252	11.295	VV	18715	305755	6.41%	0.405%
189	11.304	11.295	11.328	VV	7594	84098	1.76%	0.111%
190	11.344	11.328	11.349	VV	1909	22268	0.47%	0.029%
191	11.369	11.349	11.387	VV	5672	69958	1.47%	0.093%
192	11.402	11.387	11.426	VV	2762	41610	0.87%	0.055%
193	11.444	11.426	11.451	VV	5378	51822	1.09%	0.069%
194	11.480	11.451	11.522	VV	456937	4770005	100.00%	6.317%

195	11.550	11.522	11.571	VV	97150	1010851	21.19%	1.339%
196	11.580	11.571	11.610	VV	7914	98073	2.06%	0.130%
197	11.630	11.610	11.666	VV	1974	50117	1.05%	0.066%
198	11.680	11.666	11.693	VV	1099	14103	0.30%	0.019%
199	11.719	11.693	11.734	VV	6650	75080	1.57%	0.099%
200	11.753	11.734	11.800	VV	30296	337395	7.07%	0.447%
201	11.830	11.800	11.846	PV	1826	30234	0.63%	0.040%
202	11.866	11.846	11.878	VV	3558	47099	0.99%	0.062%
203	11.892	11.878	11.920	VV	4036	57900	1.21%	0.077%
204	11.999	11.920	12.039	VV	11423	273571	5.74%	0.362%
205	12.063	12.039	12.097	VV	4961	82017	1.72%	0.109%
206	12.121	12.097	12.139	VV	4184	60483	1.27%	0.080%
207	12.159	12.139	12.187	VV	4301	63973	1.34%	0.085%
208	12.201	12.187	12.207	VV	1326	12779	0.27%	0.017%
209	12.222	12.207	12.239	VV	2284	25473	0.53%	0.034%
210	12.271	12.239	12.286	PV	36324	400605	8.40%	0.531%
211	12.302	12.286	12.333	VV	51059	531822	11.15%	0.704%
212	12.368	12.333	12.376	VV	21454	212858	4.46%	0.282%
213	12.389	12.376	12.405	VV	34275	374310	7.85%	0.496%
214	12.419	12.405	12.433	VV	22587	250954	5.26%	0.332%
215	12.449	12.433	12.473	VV	31738	375050	7.86%	0.497%
216	12.486	12.473	12.502	VV	2280	21574	0.45%	0.029%
217	12.523	12.502	12.537	VV	3891	50532	1.06%	0.067%
218	12.554	12.537	12.571	VV	3962	60268	1.26%	0.080%
219	12.585	12.571	12.606	VV	3034	37911	0.79%	0.050%
220	12.627	12.606	12.650	VV	20822	237311	4.98%	0.314%
221	12.658	12.650	12.707	VV	3473	59088	1.24%	0.078%
222	12.734	12.707	12.758	VV	30825	328136	6.88%	0.435%
223	12.768	12.758	12.775	VV	2351	20713	0.43%	0.027%
224	12.797	12.775	12.856	VV	42978	505054	10.59%	0.669%
225	12.883	12.856	12.901	VV	5439	74889	1.57%	0.099%
226	12.908	12.901	12.924	VV	1725	22188	0.47%	0.029%
227	12.934	12.924	12.951	VV	1861	25012	0.52%	0.033%
228	12.986	12.951	13.000	VV	6249	105121	2.20%	0.139%
229	13.007	13.000	13.035	VV	4192	52271	1.10%	0.069%
230	13.055	13.035	13.095	VV	9229	152958	3.21%	0.203%
231	13.121	13.095	13.148	VV	15768	239365	5.02%	0.317%
232	13.167	13.148	13.181	VV	18617	232998	4.88%	0.309%
233	13.196	13.181	13.215	VV	11922	191939	4.02%	0.254%
234	13.228	13.215	13.248	VV	10125	132627	2.78%	0.176%
235	13.289	13.248	13.331	VV	418907	4618957	96.83%	6.117%
236	13.347	13.331	13.363	VV	4070	39229	0.82%	0.052%
237	13.379	13.363	13.396	PV	2181	26490	0.56%	0.035%
238	13.432	13.396	13.448	VV	10166	162021	3.40%	0.215%
239	13.474	13.448	13.522	VV	16177	347985	7.30%	0.461%
240	13.534	13.522	13.555	VV	2978	38902	0.82%	0.052%
241	13.589	13.555	13.618	VV	365877	4022048	84.32%	5.327%
242	13.637	13.618	13.651	VV	34214	375346	7.87%	0.497%
243	13.665	13.651	13.696	VV	35640	403159	8.45%	0.534%
244	13.721	13.696	13.731	VV	3514	54921	1.15%	0.073%
245	13.751	13.731	13.765	VV	13966	175897	3.69%	0.233%
246	13.785	13.765	13.800	VV	19791	302069	6.33%	0.400%

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247	13.829	13.800	13.891	VV	242323	3651605	76.55%	4.836%
248	13.917	13.891	13.940	VV	13308	294201	6.17%	0.390%
249	13.973	13.940	14.008	VV	13445	332155	6.96%	0.440%
250	14.034	14.008	14.064	VV	23632	441639	9.26%	0.585%
251	14.075	14.064	14.096	VV	3981	62343	1.31%	0.083%
252	14.166	14.096	14.209	VV	39523	798158	16.73%	1.057%
253	14.229	14.209	14.248	VV	6946	104670	2.19%	0.139%
254	14.273	14.248	14.293	VV	21988	304104	6.38%	0.403%
255	14.314	14.293	14.342	VV	24529	368990	7.74%	0.489%
256	14.353	14.342	14.368	VV	9603	120381	2.52%	0.159%
257	14.383	14.368	14.390	VV	8261	97687	2.05%	0.129%
258	14.421	14.390	14.428	VV	11681	219204	4.60%	0.290%
259	14.444	14.428	14.464	VV	24434	322943	6.77%	0.428%
260	14.483	14.464	14.518	VV	23780	339692	7.12%	0.450%
261	14.554	14.518	14.574	VV	10929	200042	4.19%	0.265%
262	14.599	14.574	14.630	VV	6229	161757	3.39%	0.214%
263	14.640	14.630	14.651	VV	4943	57993	1.22%	0.077%
264	14.663	14.651	14.679	VV	5578	75720	1.59%	0.100%
265	14.692	14.679	14.710	VV	5168	75871	1.59%	0.100%
266	14.718	14.710	14.732	VV	3527	39223	0.82%	0.052%
267	14.744	14.732	14.757	VV	3910	50923	1.07%	0.067%
268	14.770	14.757	14.788	VV	3547	60035	1.26%	0.080%
269	14.799	14.788	14.812	VV	3379	41956	0.88%	0.056%
270	14.842	14.812	14.848	VV	8678	127588	2.67%	0.169%
271	14.864	14.848	14.878	VV	9602	151931	3.19%	0.201%
272	14.898	14.878	14.924	VV	28478	398694	8.36%	0.528%
273	14.940	14.924	14.966	VV	9445	176037	3.69%	0.233%
274	14.999	14.966	15.027	VV	11236	260210	5.46%	0.345%
275	15.036	15.027	15.044	VV	5724	55160	1.16%	0.073%
276	15.075	15.044	15.094	VV	21749	435059	9.12%	0.576%
277	15.099	15.094	15.115	VV	10541	116240	2.44%	0.154%
278	15.140	15.115	15.163	VV	40520	648506	13.60%	0.859%
279	15.199	15.163	15.234	VV	31617	670028	14.05%	0.887%
280	15.274	15.234	15.304	VV	57091	951209	19.94%	1.260%
281	15.320	15.304	15.357	VV	14260	294785	6.18%	0.390%
282	15.368	15.357	15.377	VV	5027	53620	1.12%	0.071%
283	15.402	15.377	15.421	VV	14228	230689	4.84%	0.306%
284	15.451	15.421	15.471	VV	156238	2075214	43.51%	2.748%
285	15.493	15.471	15.519	VV	155316	1853644	38.86%	2.455%
286	15.535	15.519	15.566	VV	10146	217010	4.55%	0.287%
287	15.614	15.566	15.654	VV	35148	764027	16.02%	1.012%
288	15.683	15.654	15.718	VV	18259	427974	8.97%	0.567%
289	15.745	15.718	15.773	VV	20008	415686	8.71%	0.551%
290	15.802	15.773	15.828	VV	18773	476510	9.99%	0.631%
291	15.855	15.828	15.875	VV	26177	478512	10.03%	0.634%
292	15.887	15.875	15.907	VV	16518	278242	5.83%	0.369%
293	15.929	15.907	15.952	VV	13182	321502	6.74%	0.426%
294	15.993	15.952	16.008	VV	17129	429157	9.00%	0.568%
295	16.027	16.008	16.050	VV	13538	328224	6.88%	0.435%
296	16.077	16.050	16.095	VV	18873	414441	8.69%	0.549%
297	16.118	16.095	16.138	VV	39795	638553	13.39%	0.846%
298	16.155	16.138	16.188	VV	25021	545676	11.44%	0.723%
299	16.203	16.188	16.216	VV	16482	253498	5.31%	0.336%

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300	16.237	16.216	16.241	VV	16890	244374	5.12%	0.324%
301	16.268	16.241	16.310	VV	29157	914501	19.17%	1.211%
302	16.324	16.310	16.335	VV	15810	224313	4.70%	0.297%
303	16.353	16.335	16.409	VV	22509	734708	15.40%	0.973%
304	16.433	16.409	16.451	VV	19950	413099	8.66%	0.547%
305	16.474	16.451	16.514	VV	21319	682817	14.31%	0.904%
306	16.543	16.514	16.601	VV	22218	878392	18.41%	1.163%
307	16.607	16.601	16.612	VV	14958	93847	1.97%	0.124%
308	16.619	16.612	16.631	VV	15152	171311	3.59%	0.227%
309	16.637	16.631	16.640	VV	14896	78929	1.65%	0.105%
310	16.666	16.640	16.681	VV	16088	375064	7.86%	0.497%
311	16.688	16.681	16.690	VV	15046	74522	1.56%	0.099%
312	16.732	16.690	16.767	VV	22112	872601	18.29%	1.156%
313	16.788	16.767	16.803	VV	25691	472919	9.91%	0.626%
314	16.814	16.803	16.832	VV	22796	376675	7.90%	0.499%
315	16.862	16.832	16.874	VV	22765	537244	11.26%	0.712%
316	16.880	16.874	16.888	VV	21456	169764	3.56%	0.225%
317	16.909	16.888	16.920	VV	28287	491500	10.30%	0.651%
318	16.930	16.920	16.952	VV	27784	477605	10.01%	0.633%
319	17.005	16.952	17.022	VV	172886	3009518	63.09%	3.986%
320	17.031	17.022	17.077	VV	84388	1420506	29.78%	1.881%
321	17.133	17.077	17.153	VV	54103	1443714	30.27%	1.912%
322	17.168	17.153	17.206	VV	30272	884223	18.54%	1.171%
323	17.226	17.206	17.238	VV	29627	551313	11.56%	0.730%
324	17.254	17.238	17.266	VV	31995	500125	10.48%	0.662%
325	17.326	17.266	17.353	VV	126736	2942617	61.69%	3.897%
326	17.385	17.353	17.418	VV	170496	2851963	59.79%	3.777%
327	17.443	17.418	17.460	VBA	40488	958154	20.09%	1.269%

Sum of corrected areas: 75504855

FE012325.M Fri Jan 31 02:59:41 2025

CALIBRATION SUMMARY

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

DIESEL RANGE ORGANICS INITIAL CALIBRATION SUMMARY

Lab Name: Chemtech Contract: RUTW01

ProjectID: NYCDDC SANTWOBR Brooklyn Bridge BBMCR

Lab Code: CHEM Case No.: Q1207 SAS No.: Q1207 SDG No.: Q1207

Calibration Sequence : FE012325		Test : Diesel Range Organics	
Concentration (PPM)	**Area Count**	**Reference Factor**	**File ID**
1000	100840417	100840	FE052027.D
500	49711032	99422	FE052028.D
200	20907011	104535	FE052029.D
100	11272495	112725	FE052030.D
50	5669298	113386	FE052031.D

AVG RF : 106182 **% RSD : 6.169** **AVG RT : 15.2554**

Quantitation Report (QT Reviewed)

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE012325\
Data File : FE052027.D
Signal(s) : FID1B.ch
Acq On : 23 Jan 2025 22:06
Operator : YP\AJ
Sample : 100 TRPH STD
Misc :
ALS Vial : 22 Sample Multiplier: 1

Instrument :
FID_E
ClientSampleId :
100 TRPH STD

Integration File: autoint1.e
Quant Time: Jan 24 03:01:18 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\FE012325.M
Quant Title :
QLast Update : Fri Jan 24 03:00:39 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...	15.260	9326838	100.174 ug/ml
	Target Compounds			
1)	N-OCTANE	2.414	8352750	103.369 ug/ml
2)	N-DECANE	4.910	8964173	103.553 ug/ml
3)	N-DODECANE	7.039	9720116	103.116 ug/ml
4)	N-TETRADECANE	8.845	9800969	102.624 ug/ml
5)	N-HEXADECANE	10.439	10191868	102.144 ug/ml
6)	N-OCTADECANE	11.873	10670149	101.681 ug/ml
7)	N-EICOSANE	13.174	10511987	101.149 ug/ml
8)	N-DOCOSANE	14.367	10414135	100.677 ug/ml
10)	N-TETRACOSANE	15.465	10358861	100.274 ug/ml
11)	N-HEXACOSANE	16.482	10187153	100.078 ug/ml
12)	N-OCTACOSANE	17.429	10021006	99.509 ug/ml
13)	N-TRIACONTANE	18.313	9878203	99.283 ug/ml
14)	N-DOTRIACONTANE	19.143	9582276	99.145 ug/ml
15)	N-TETRATRIACONTANE	19.925	8712926	100.310 ug/ml
16)	N-HEXATRIACONTANE	20.662	7584514	101.793 ug/ml
17)	N-OCTATRIACONTANE	21.449	7106830	103.214 ug/ml
18)	N-TETRACONTANE	22.450	7068311	105.034 ug/ml

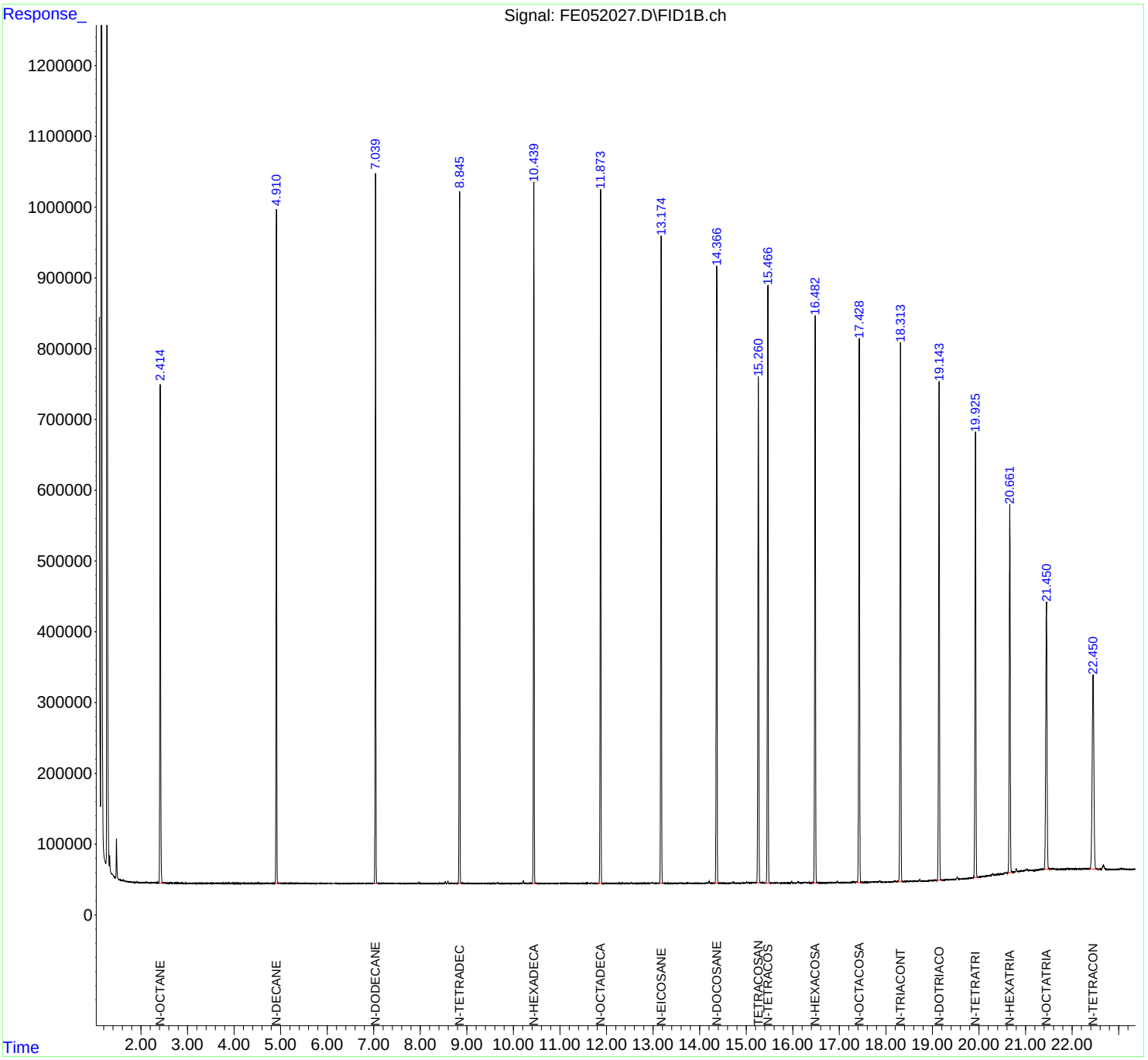
(f)=RT Delta > 1/2 Window (m)=manual int.

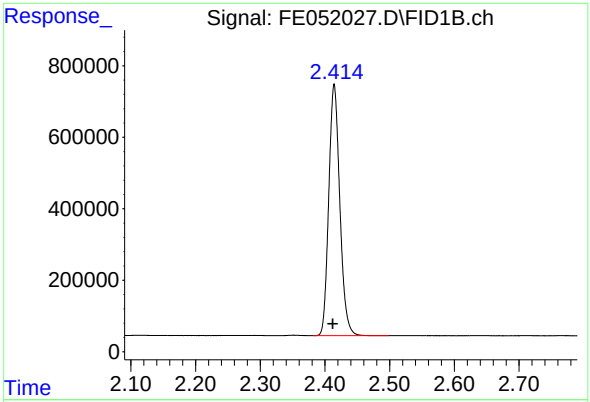
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE012325\
Data File : FE052027.D
Signal(s) : FID1B.ch
Acq On : 23 Jan 2025 22:06
Operator : YP\AJ
Sample : 100 TRPH STD
Misc :
ALS Vial : 22 Sample Multiplier: 1

Instrument :
FID_E
ClientSampleId :
100 TRPH STD

Integration File: autoint1.e
Quant Time: Jan 24 03:01:18 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\FE012325.M
Quant Title :
QLast Update : Fri Jan 24 03:00:39 2025
Response via : Initial Calibration
Integrator: ChemStation

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

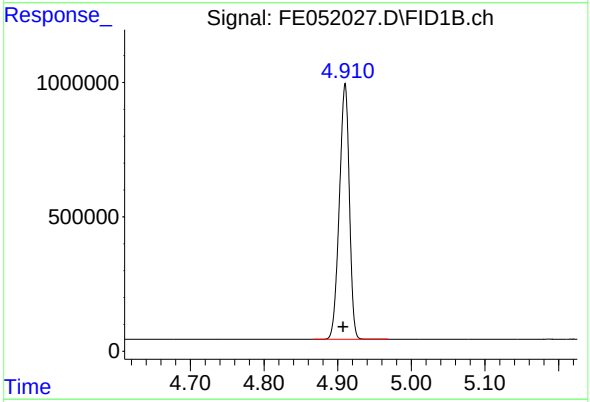




#1 N-OCTANE

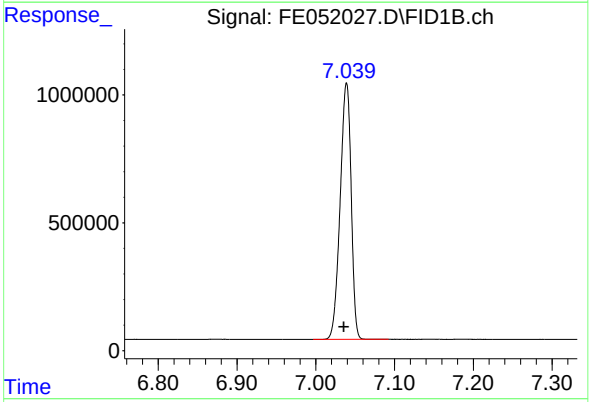
R.T.: 2.414 min
Delta R.T.: 0.002 min
Response: 8352750
Conc: 103.37 ug/ml

Instrument :
FID_E
ClientSampleId :
100 TRPH STD



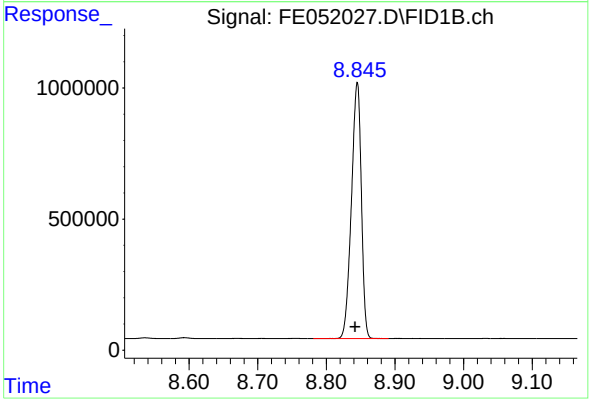
#2 N-DECANE

R.T.: 4.910 min
Delta R.T.: 0.003 min
Response: 8964173
Conc: 103.55 ug/ml



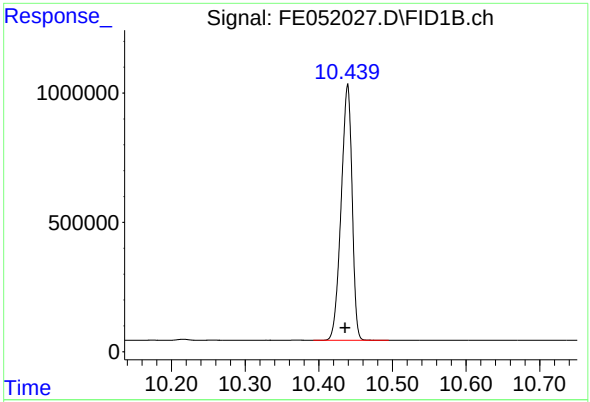
#3 N-DODECANE

R.T.: 7.039 min
Delta R.T.: 0.003 min
Response: 9720116
Conc: 103.12 ug/ml



#4 N-TETRADECANE

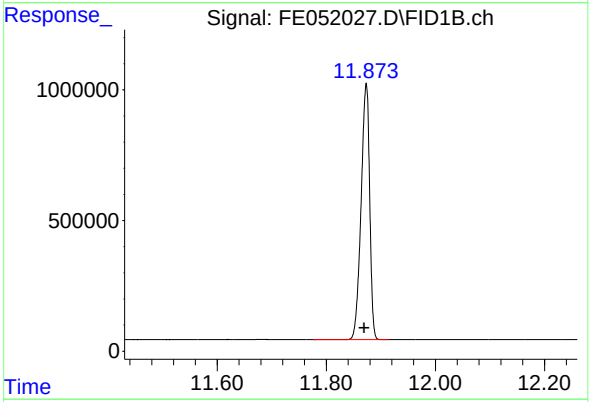
R.T.: 8.845 min
Delta R.T.: 0.003 min
Response: 9800969
Conc: 102.62 ug/ml



#5 N-HEXADECANE

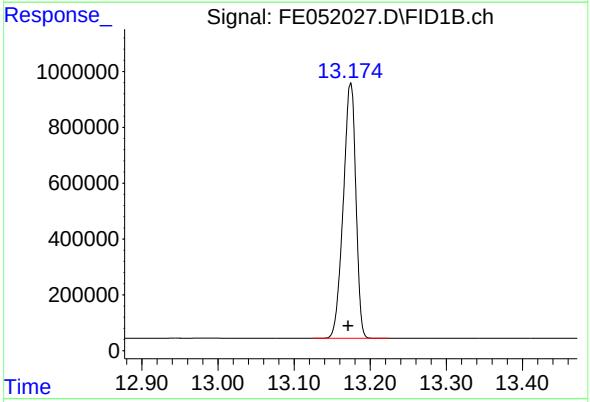
R.T.: 10.439 min
Delta R.T.: 0.004 min
Response: 10191868
Conc: 102.14 ug/ml

Instrument :
FID_E
ClientSampleId :
100 TRPH STD



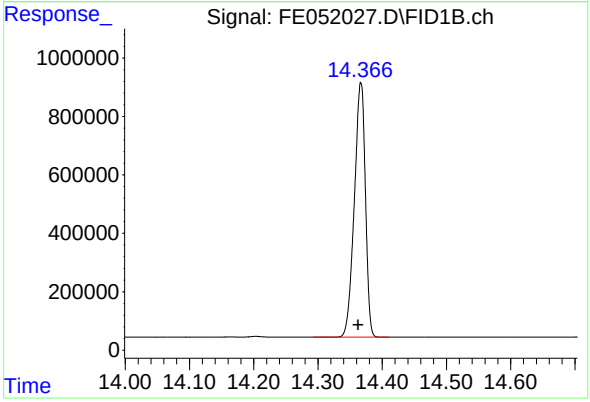
#6 N-OCTADECANE

R.T.: 11.873 min
Delta R.T.: 0.004 min
Response: 10670149
Conc: 101.68 ug/ml



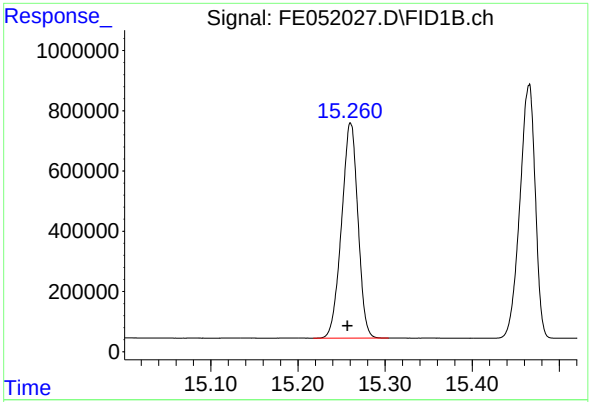
#7 N-EICOSANE

R.T.: 13.174 min
Delta R.T.: 0.003 min
Response: 10511987
Conc: 101.15 ug/ml



#8 N-DOCOSANE

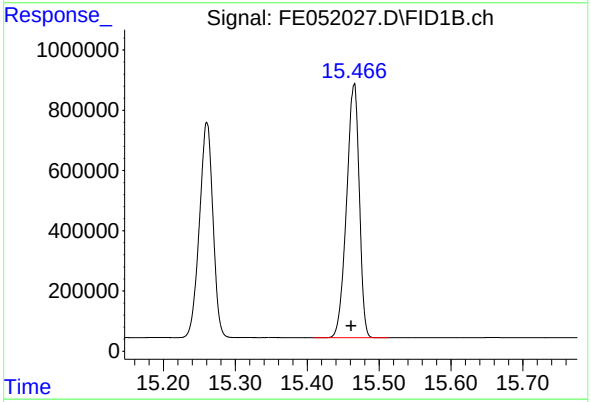
R.T.: 14.367 min
Delta R.T.: 0.004 min
Response: 10414135
Conc: 100.68 ug/ml



#9 TETRACOSANE-d50 (SURROGATE)

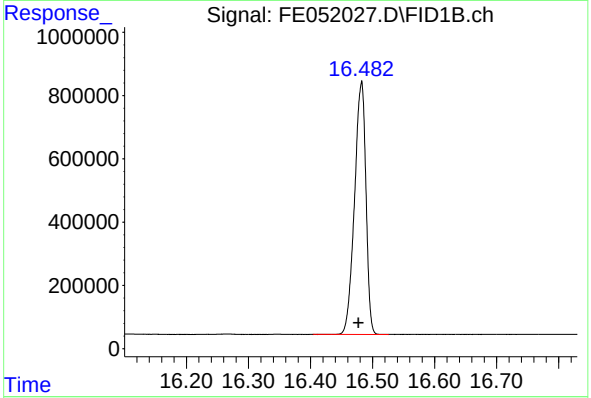
R.T.: 15.260 min
Delta R.T.: 0.003 min
Response: 9326838
Conc: 100.17 ug/ml

Instrument :
FID_E
ClientSampleId :
100 TRPH STD



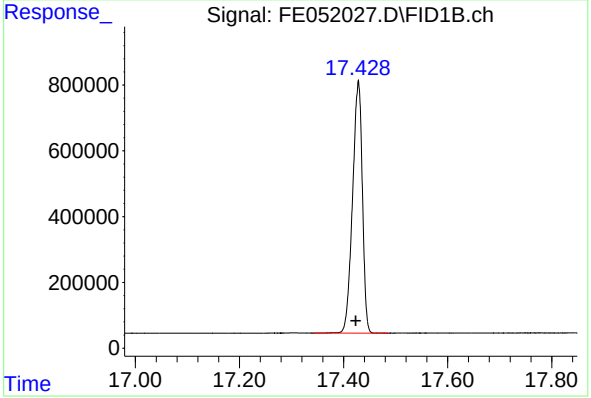
#10 N-TETRACOSANE

R.T.: 15.465 min
Delta R.T.: 0.004 min
Response: 10358861
Conc: 100.27 ug/ml



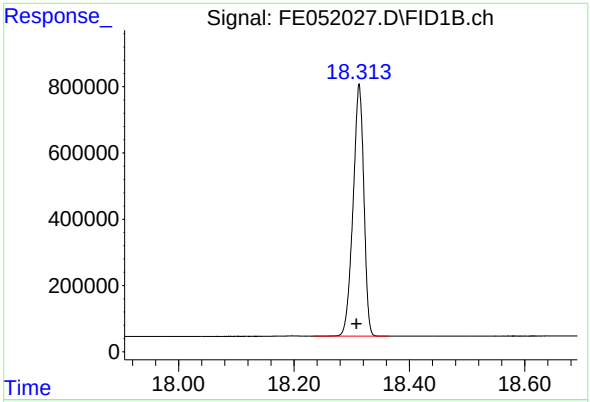
#11 N-HEXACOSANE

R.T.: 16.482 min
Delta R.T.: 0.005 min
Response: 10187153
Conc: 100.08 ug/ml



#12 N-OCTACOSANE

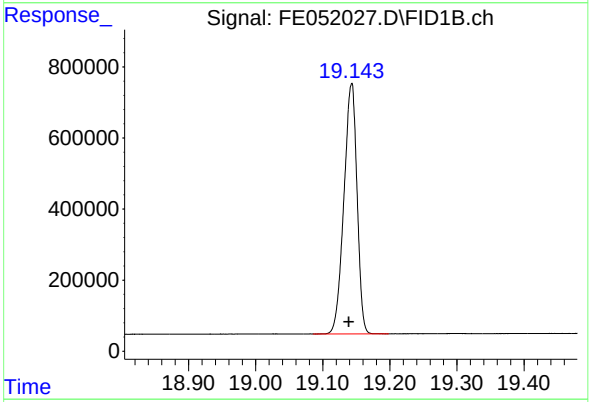
R.T.: 17.429 min
Delta R.T.: 0.005 min
Response: 10021006
Conc: 99.51 ug/ml



#13 N-TRIACONTANE

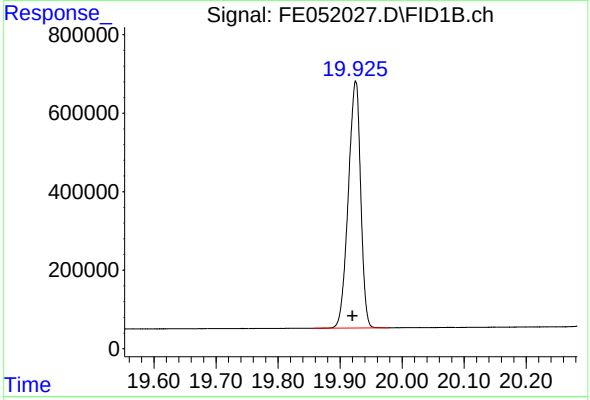
R.T.: 18.313 min
Delta R.T.: 0.005 min
Response: 9878203
Conc: 99.28 ug/ml

Instrument :
FID_E
ClientSampleId :
100 TRPH STD



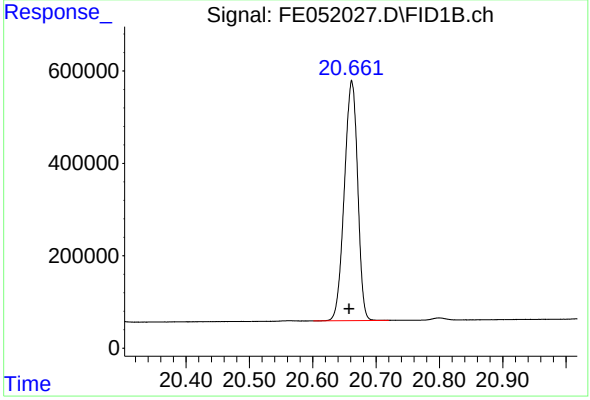
#14 N-DOTRIACONTANE

R.T.: 19.143 min
Delta R.T.: 0.004 min
Response: 9582276
Conc: 99.15 ug/ml



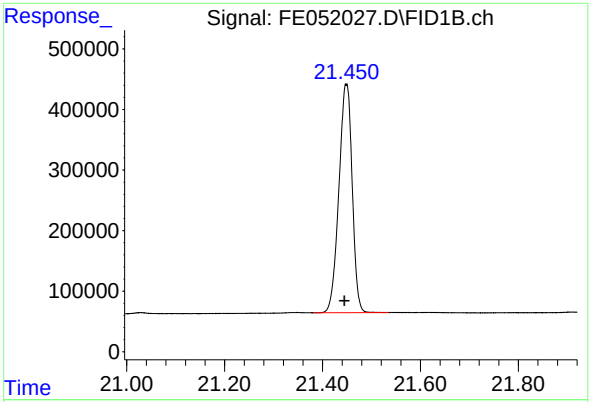
#15 N-TETRATRIACONTANE

R.T.: 19.925 min
Delta R.T.: 0.005 min
Response: 8712926
Conc: 100.31 ug/ml



#16 N-HEXATRIACONTANE

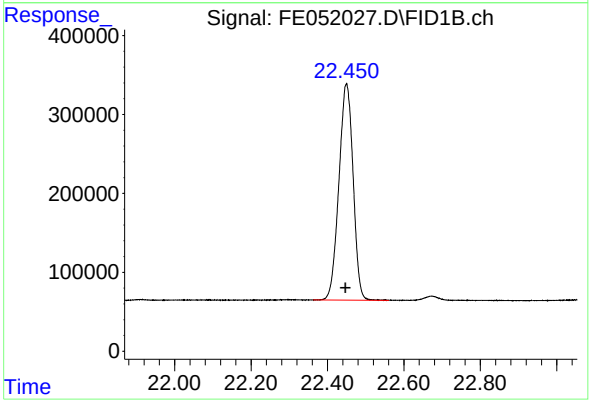
R.T.: 20.662 min
Delta R.T.: 0.004 min
Response: 7584514
Conc: 101.79 ug/ml



#17 N-OCTATRIACONTANE

R.T.: 21.449 min
Delta R.T.: 0.004 min
Response: 7106830
Conc: 103.21 ug/ml

Instrument :
FID_E
ClientSampleId :
100 TRPH STD



#18 N-TETRACONTANE

R.T.: 22.450 min
Delta R.T.: 0.002 min
Response: 7068311
Conc: 105.03 ug/ml

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE012325\
Data File : FE052027.D
Signal(s) : FID1B.ch
Acq On : 23 Jan 2025 22:06
Sample : 100 TRPH STD
Misc :
ALS Vial : 22 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\FE012325.M
Title :

Signal : FID1B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	2.414	2.382	2.498	PB	704049	8352750	78.28%	4.959%
2	4.910	4.867	4.969	BB	951340	8964173	84.01%	5.321%
3	7.039	6.997	7.092	BB	1002810	9720116	91.10%	5.770%
4	8.845	8.781	8.891	BV	977530	9800969	91.85%	5.818%
5	10.439	10.392	10.495	BB	989021	10191868	95.52%	6.050%
6	11.873	11.776	11.914	BB	979790	10670149	100.00%	6.334%
7	13.174	13.125	13.224	BB	912737	10511987	98.52%	6.240%
8	14.367	14.292	14.410	BB	871499	10414135	97.60%	6.182%
9	15.260	15.217	15.304	PV	713126	9326838	87.41%	5.537%
10	15.465	15.408	15.513	BB	842402	10358861	97.08%	6.149%
11	16.482	16.404	16.526	BB	799959	10187153	95.47%	6.047%
12	17.429	17.342	17.487	BB	765387	10021006	93.92%	5.949%
13	18.313	18.233	18.364	BB	762184	9878203	92.58%	5.864%
14	19.143	19.086	19.198	BB	704937	9582276	89.80%	5.688%
15	19.925	19.857	19.978	BV	629323	8712926	81.66%	5.172%
16	20.662	20.601	20.720	BB	519502	7584514	71.08%	4.502%
17	21.449	21.381	21.535	BB	375187	7106830	66.60%	4.219%
18	22.450	22.362	22.560	BB	274238	7068311	66.24%	4.196%

Sum of corrected areas: 168453064

FE012325.M Fri Jan 24 03:17:50 2025

Quantitation Report (QT Reviewed)

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE012325\
Data File : FE052028.D
Signal(s) : FID1B.ch
Acq On : 23 Jan 2025 23:06
Operator : YP\AJ
Sample : 50 TRPH STD
Misc :
ALS Vial : 23 Sample Multiplier: 1

Instrument :
FID_E
ClientSampleId :
50 TRPH STD

Integration File: autoint1.e
Quant Time: Jan 24 03:01:38 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\FE012325.M
Quant Title :
QLast Update : Fri Jan 24 03:00:39 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...	15.257	4655317	50.000 ug/ml
	Target Compounds			
1)	N-OCTANE	2.412	4040248	50.000 ug/ml
2)	N-DECANE	4.907	4328284	50.000 ug/ml
3)	N-DODECANE	7.036	4713212	50.000 ug/ml
4)	N-TETRADECANE	8.842	4775185	50.000 ug/ml
5)	N-HEXADECANE	10.436	4988963	50.000 ug/ml
6)	N-OCTADECANE	11.869	5246868	50.000 ug/ml
7)	N-EICOSANE	13.171	5196311	50.000 ug/ml
8)	N-DOCOSANE	14.362	5172075	50.000 ug/ml
10)	N-TETRACOSANE	15.461	5165286	50.000 ug/ml
11)	N-HEXACOSANE	16.477	5089619	50.000 ug/ml
12)	N-OCTACOSANE	17.424	5035229	50.000 ug/ml
13)	N-TRIACONTANE	18.308	4974786	50.000 ug/ml
14)	N-DOTRIACONTANE	19.139	4832453	50.000 ug/ml
15)	N-TETRATRIACONTANE	19.920	4342985	50.000 ug/ml
16)	N-HEXATRIACONTANE	20.657	3725450	50.000 ug/ml
17)	N-OCTATRIACONTANE	21.445	3442776	50.000 ug/ml
18)	N-TETRACONTANE	22.447	3364772	50.000 ug/ml

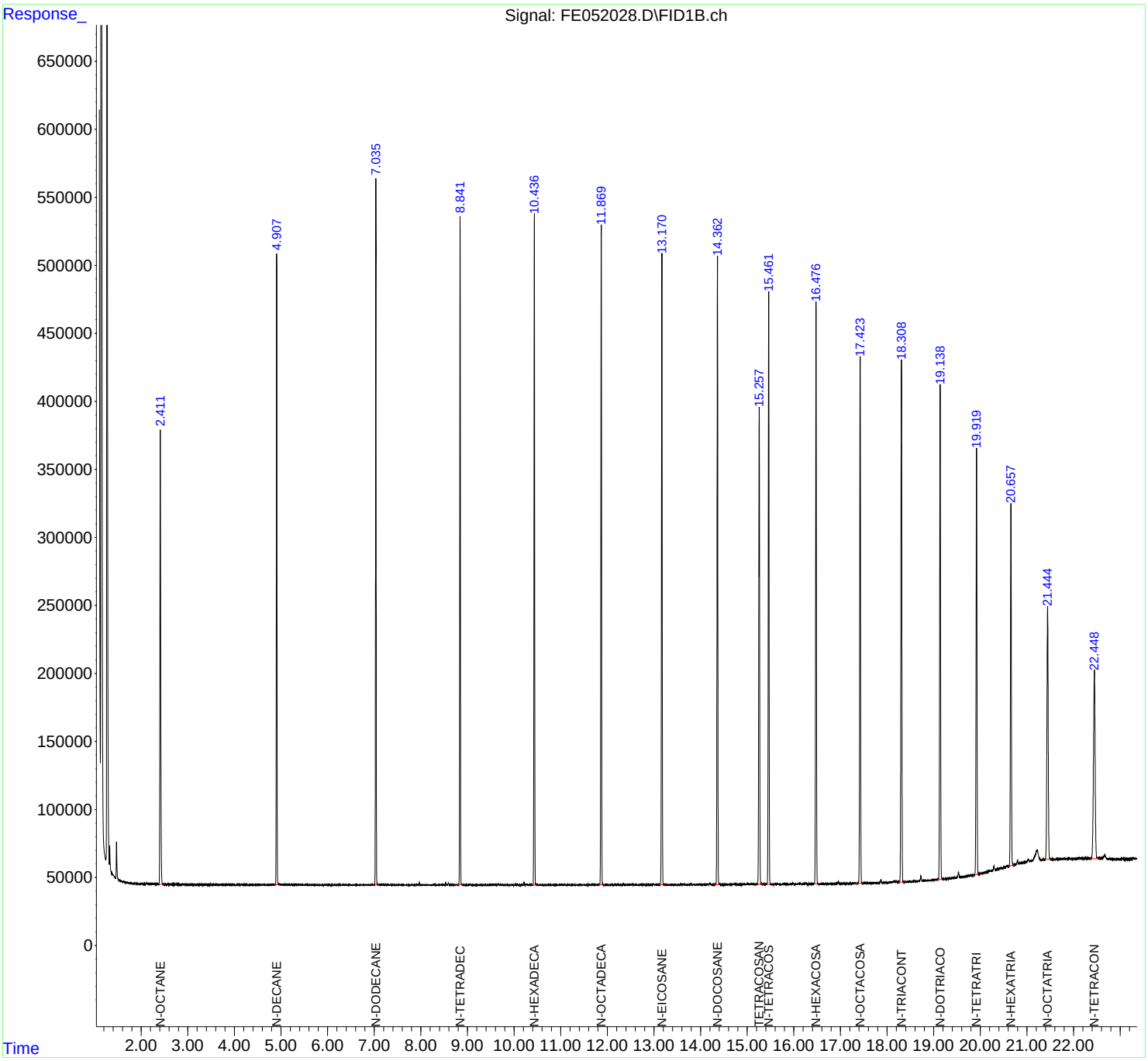
(f)=RT Delta > 1/2 Window (m)=manual int.

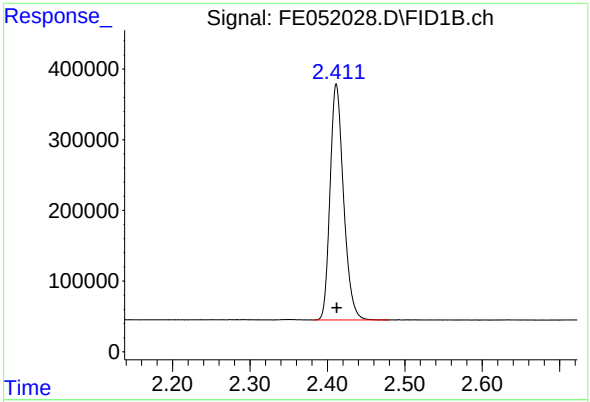
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE012325\
Data File : FE052028.D
Signal(s) : FID1B.ch
Acq On : 23 Jan 2025 23:06
Operator : YP\AJ
Sample : 50 TRPH STD
Misc :
ALS Vial : 23 Sample Multiplier: 1

Instrument :
FID_E
ClientSampleId :
50 TRPH STD

Integration File: autoint1.e
Quant Time: Jan 24 03:01:38 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\FE012325.M
Quant Title :
QLast Update : Fri Jan 24 03:00:39 2025
Response via : Initial Calibration
Integrator: ChemStation

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

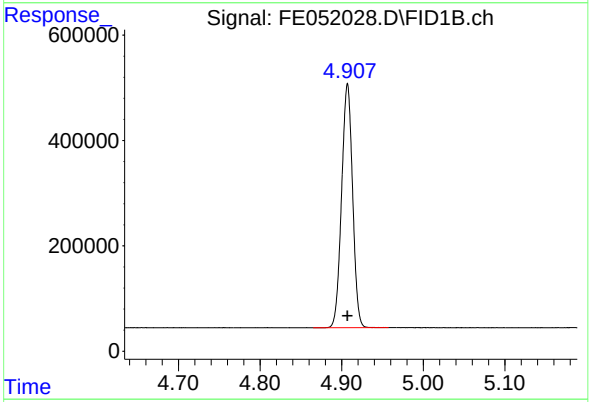




#1 N-OCTANE

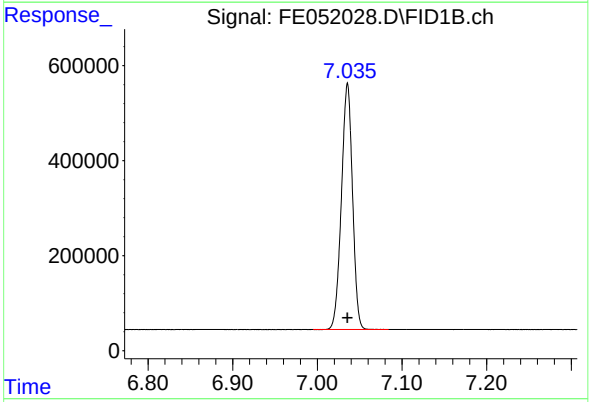
R.T.: 2.412 min
Delta R.T.: 0.000 min
Response: 4040248
Conc: 50.00 ug/ml

Instrument :
FID_E
ClientSampleId :
50 TRPH STD



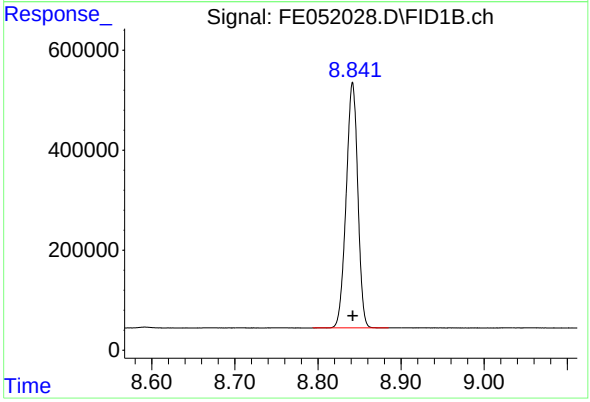
#2 N-DECANE

R.T.: 4.907 min
Delta R.T.: 0.000 min
Response: 4328284
Conc: 50.00 ug/ml



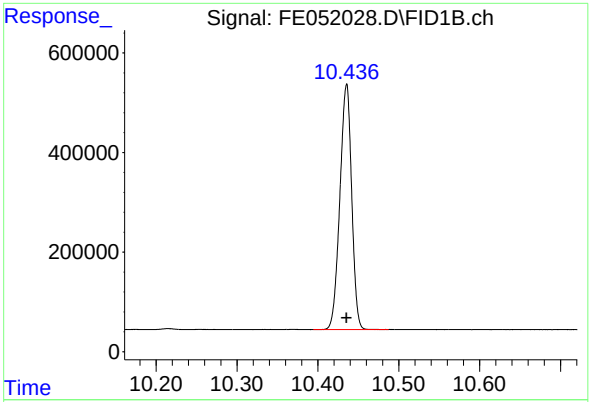
#3 N-DODECANE

R.T.: 7.036 min
Delta R.T.: 0.000 min
Response: 4713212
Conc: 50.00 ug/ml



#4 N-TETRADECANE

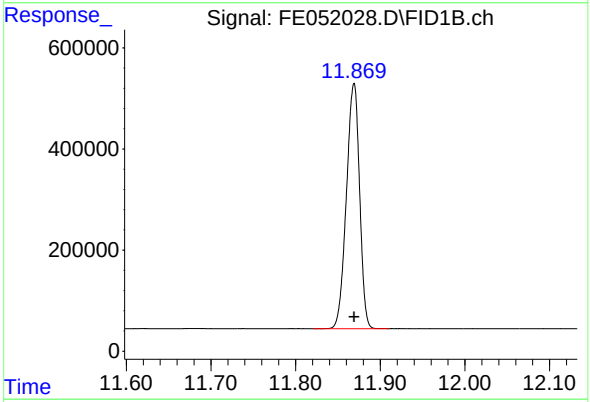
R.T.: 8.842 min
Delta R.T.: 0.000 min
Response: 4775185
Conc: 50.00 ug/ml



#5 N-HEXADECANE

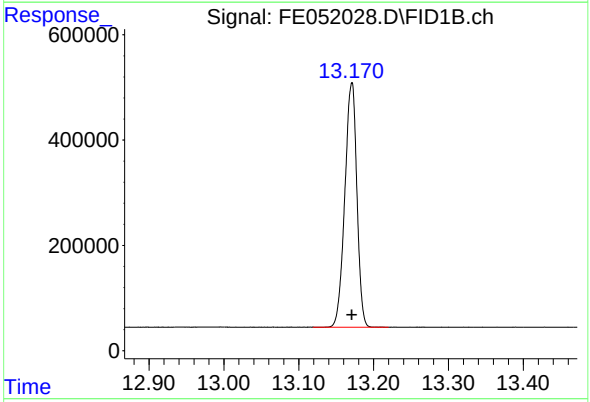
R.T.: 10.436 min
Delta R.T.: 0.000 min
Response: 4988963
Conc: 50.00 ug/ml

Instrument :
FID_E
ClientSampleId :
50 TRPH STD



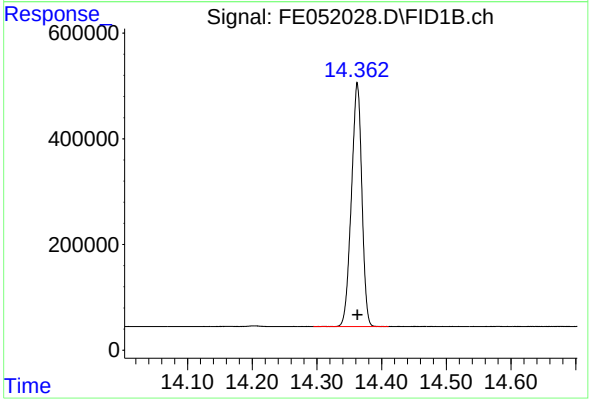
#6 N-OCTADECANE

R.T.: 11.869 min
Delta R.T.: 0.000 min
Response: 5246868
Conc: 50.00 ug/ml



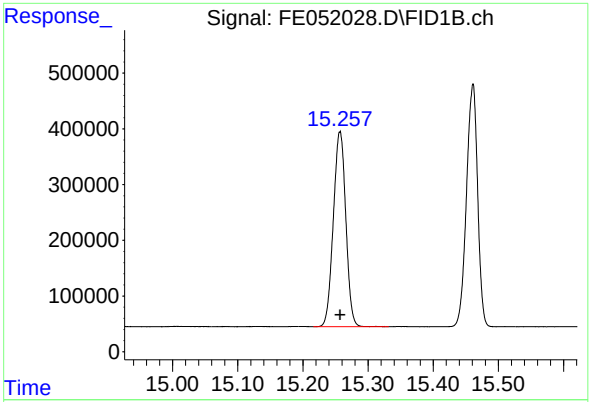
#7 N-EICOSANE

R.T.: 13.171 min
Delta R.T.: 0.000 min
Response: 5196311
Conc: 50.00 ug/ml



#8 N-DOCOSANE

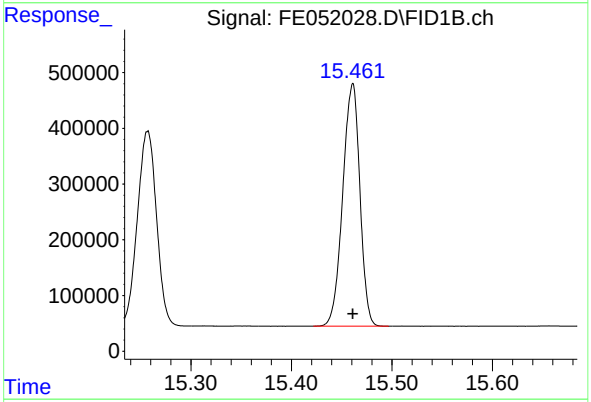
R.T.: 14.362 min
Delta R.T.: 0.000 min
Response: 5172075
Conc: 50.00 ug/ml



#9 TETRACOSANE-d50 (SURROGATE)

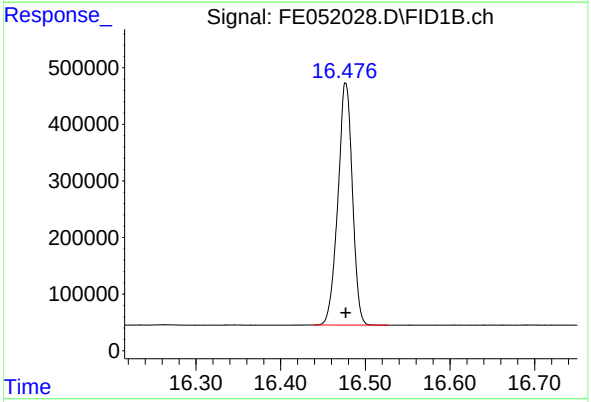
R.T.: 15.257 min
Delta R.T.: 0.000 min
Response: 4655317
Conc: 50.00 ug/ml

Instrument :
FID_E
ClientSampleId :
50 TRPH STD



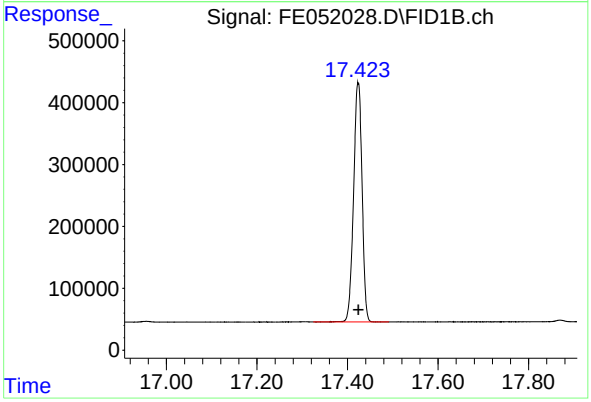
#10 N-TETRACOSANE

R.T.: 15.461 min
Delta R.T.: 0.000 min
Response: 5165286
Conc: 50.00 ug/ml



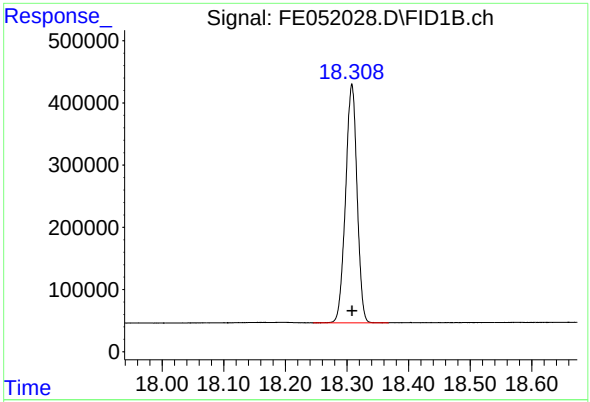
#11 N-HEXACOSANE

R.T.: 16.477 min
Delta R.T.: 0.000 min
Response: 5089619
Conc: 50.00 ug/ml



#12 N-OCTACOSANE

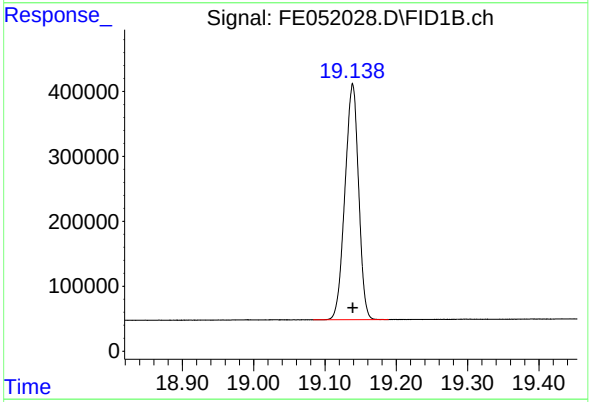
R.T.: 17.424 min
Delta R.T.: 0.000 min
Response: 5035229
Conc: 50.00 ug/ml



#13 N-TRIACONTANE

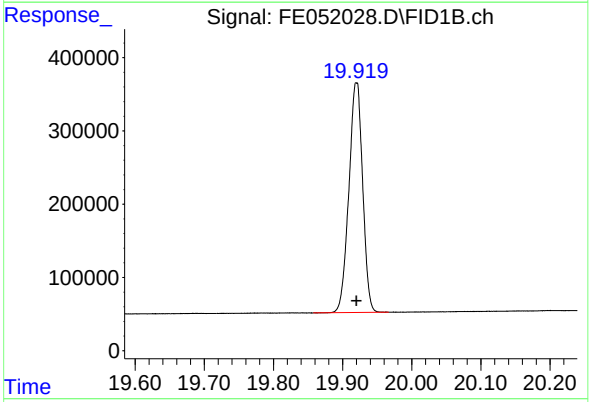
R.T.: 18.308 min
Delta R.T.: 0.000 min
Response: 4974786
Conc: 50.00 ug/ml

Instrument :
FID_E
ClientSampleId :
50 TRPH STD



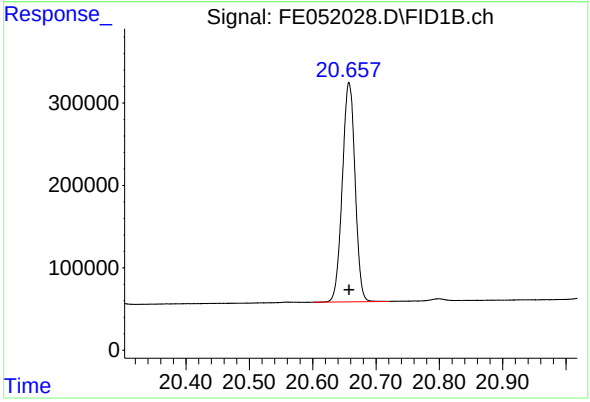
#14 N-DOTRIACONTANE

R.T.: 19.139 min
Delta R.T.: 0.000 min
Response: 4832453
Conc: 50.00 ug/ml



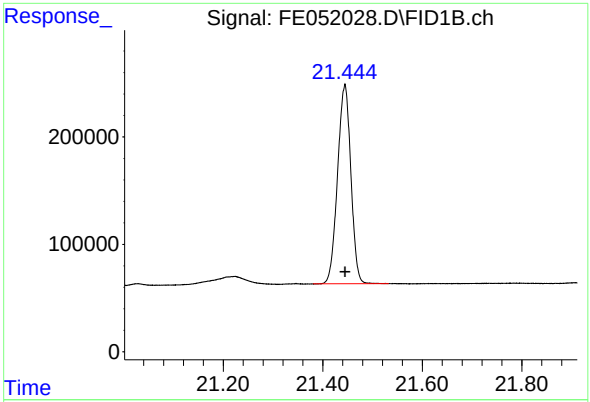
#15 N-TETRATRIACONTANE

R.T.: 19.920 min
Delta R.T.: 0.000 min
Response: 4342985
Conc: 50.00 ug/ml



#16 N-HEXATRIACONTANE

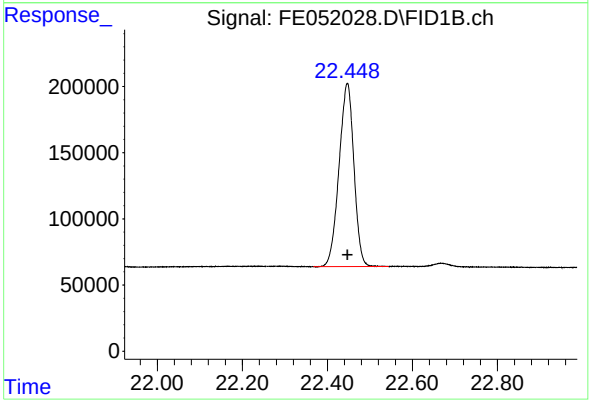
R.T.: 20.657 min
Delta R.T.: 0.000 min
Response: 3725450
Conc: 50.00 ug/ml



#17 N-OCTATRIACONTANE

R.T.: 21.445 min
Delta R.T.: 0.000 min
Response: 3442776
Conc: 50.00 ug/ml

Instrument :
FID_E
ClientSampleId :
50 TRPH STD



#18 N-TETRACONTANE

R.T.: 22.447 min
Delta R.T.: 0.000 min
Response: 3364772
Conc: 50.00 ug/ml

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE012325\
Data File : FE052028.D
Signal(s) : FID1B.ch
Acq On : 23 Jan 2025 23:06
Sample : 50 TRPH STD
Misc :
ALS Vial : 23 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\FE012325.M
Title :

Signal : FID1B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	2.412	2.382	2.479	BB	334007	4040248	77.00%	4.863%
2	4.907	4.865	4.957	BB	463698	4328284	82.49%	5.209%
3	7.036	6.995	7.084	BB	518684	4713212	89.83%	5.672%
4	8.842	8.794	8.885	BB	491118	4775185	91.01%	5.747%
5	10.436	10.394	10.487	BB	493549	4988963	95.08%	6.004%
6	11.869	11.821	11.910	BB	485508	5246868	100.00%	6.315%
7	13.171	13.119	13.220	BB	464348	5196311	99.04%	6.254%
8	14.362	14.294	14.411	BB	460694	5172075	98.57%	6.225%
9	15.257	15.216	15.332	BV	349212	4655317	88.73%	5.603%
10	15.461	15.422	15.497	BB	435610	5165286	98.45%	6.217%
11	16.477	16.438	16.527	BB	427488	5089619	97.00%	6.125%
12	17.424	17.324	17.491	BB	386262	5035229	95.97%	6.060%
13	18.308	18.245	18.367	BB	384042	4974786	94.81%	5.987%
14	19.139	19.083	19.189	BB	362886	4832453	92.10%	5.816%
15	19.920	19.857	19.967	BB	313315	4342985	82.77%	5.227%
16	20.657	20.601	20.720	BV	266273	3725450	71.00%	4.484%
17	21.445	21.381	21.532	BB	186220	3442776	65.62%	4.143%
18	22.447	22.367	22.544	BB	138429	3364772	64.13%	4.050%
			Sum of corrected areas:			83089819		

FE012325.M Fri Jan 24 03:18:33 2025

Quantitation Report (QT Reviewed)

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE012325\
Data File : FE052029.D
Signal(s) : FID1B.ch
Acq On : 23 Jan 2025 23:36
Operator : YP\AJ
Sample : 20 TRPH STD
Misc :
ALS Vial : 24 Sample Multiplier: 1

Instrument :
FID_E
ClientSampleId :
20 TRPH STD

Integration File: autoint1.e
Quant Time: Jan 24 03:01:57 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\FE012325.M
Quant Title :
QLast Update : Fri Jan 24 03:00:39 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...	15.254	1967122	21.128 ug/ml
	Target Compounds			
1)	N-OCTANE	2.412	1671507	20.686 ug/ml
2)	N-DECANE	4.906	1790386	20.682 ug/ml
3)	N-DODECANE	7.034	1959669	20.789 ug/ml
4)	N-TETRADECANE	8.840	1996208	20.902 ug/ml
5)	N-HEXADECANE	10.433	2090226	20.949 ug/ml
6)	N-OCTADECANE	11.866	2202071	20.985 ug/ml
7)	N-EICOSANE	13.168	2188908	21.062 ug/ml
8)	N-DOCOSANE	14.360	2186141	21.134 ug/ml
10)	N-TETRACOSANE	15.457	2185765	21.158 ug/ml
11)	N-HEXACOSANE	16.475	2160412	21.224 ug/ml
12)	N-OCTACOSANE	17.421	2147225	21.322 ug/ml
13)	N-TRIACONTANE	18.305	2136983	21.478 ug/ml
14)	N-DOTRIACONTANE	19.136	2078753	21.508 ug/ml
15)	N-TETRATRIACONTANE	19.918	1833911	21.113 ug/ml
16)	N-HEXATRIACONTANE	20.657	1534108	20.590 ug/ml
17)	N-OCTATRIACONTANE	21.439	1367415	19.859 ug/ml
18)	N-TETRACONTANE	22.440	1309204	19.455 ug/ml

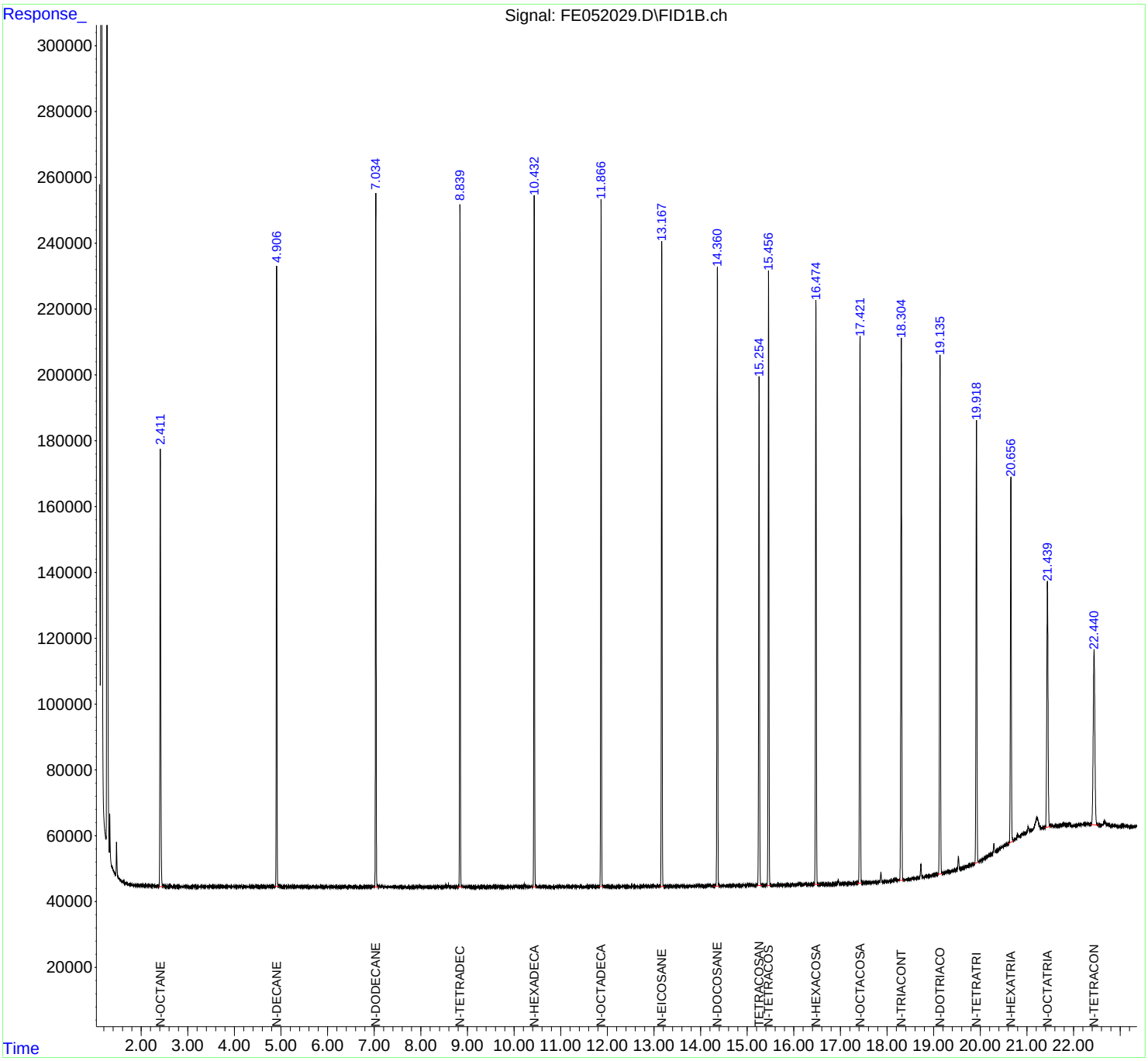
(f)=RT Delta > 1/2 Window (m)=manual int.

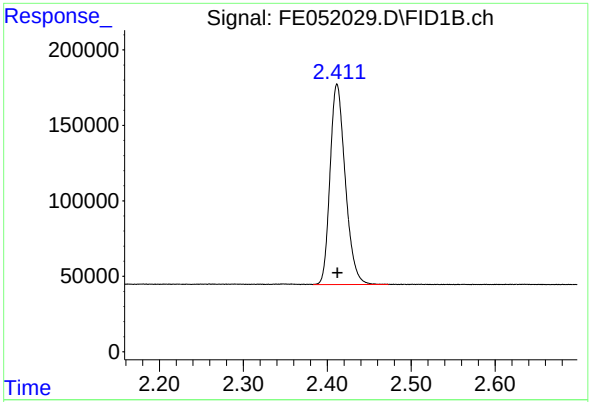
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE012325\
Data File : FE052029.D
Signal(s) : FID1B.ch
Acq On : 23 Jan 2025 23:36
Operator : YP\AJ
Sample : 20 TRPH STD
Misc :
ALS Vial : 24 Sample Multiplier: 1

Instrument :
FID_E
ClientSampleId :
20 TRPH STD

Integration File: autoint1.e
Quant Time: Jan 24 03:01:57 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\FE012325.M
Quant Title :
QLast Update : Fri Jan 24 03:00:39 2025
Response via : Initial Calibration
Integrator: ChemStation

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

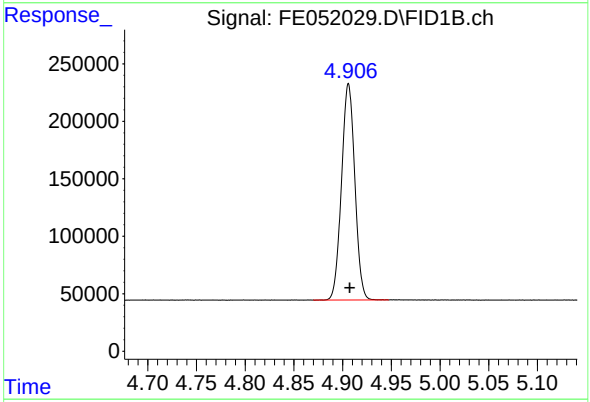




#1 N-OCTANE

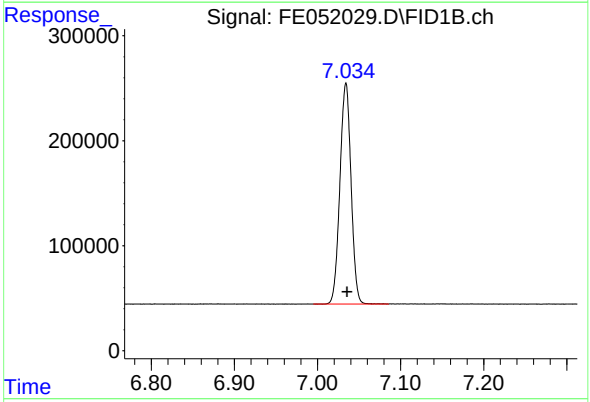
R.T.: 2.412 min
Delta R.T.: 0.000 min
Response: 1671507
Conc: 20.69 ug/ml

Instrument :
FID_E
ClientSampleId :
20 TRPH STD



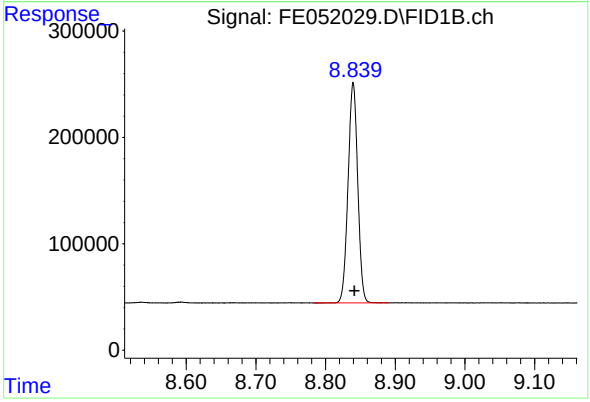
#2 N-DECANE

R.T.: 4.906 min
Delta R.T.: -0.001 min
Response: 1790386
Conc: 20.68 ug/ml



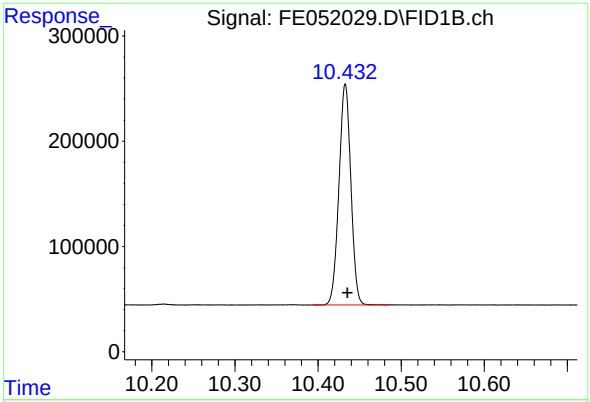
#3 N-DODECANE

R.T.: 7.034 min
Delta R.T.: -0.001 min
Response: 1959669
Conc: 20.79 ug/ml



#4 N-TETRADECANE

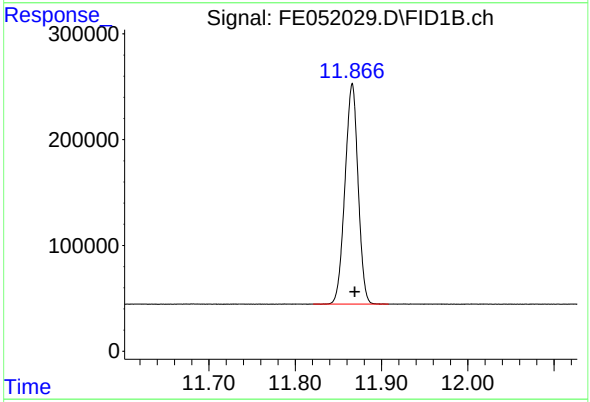
R.T.: 8.840 min
Delta R.T.: -0.002 min
Response: 1996208
Conc: 20.90 ug/ml



#5 N-HEXADECANE

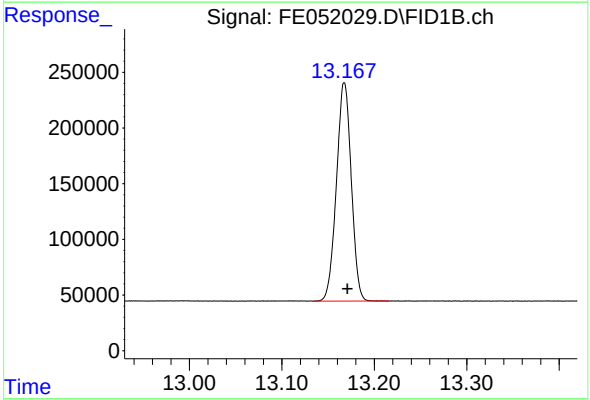
R.T.: 10.433 min
Delta R.T.: -0.003 min
Response: 2090226
Conc: 20.95 ug/ml

Instrument :
FID_E
ClientSampleId :
20 TRPH STD



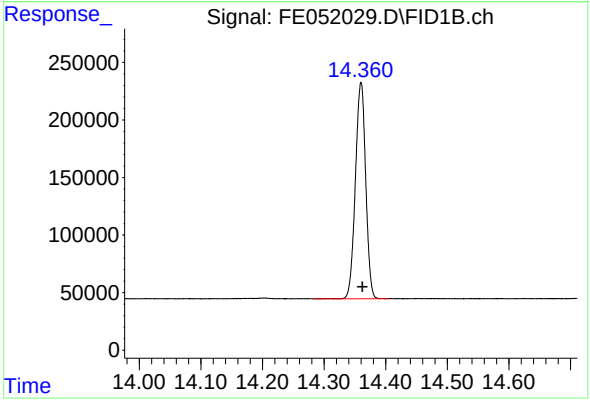
#6 N-OCTADECANE

R.T.: 11.866 min
Delta R.T.: -0.003 min
Response: 2202071
Conc: 20.98 ug/ml



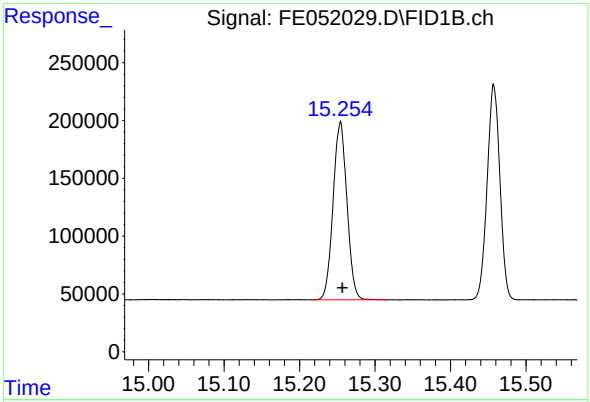
#7 N-EICOSANE

R.T.: 13.168 min
Delta R.T.: -0.003 min
Response: 2188908
Conc: 21.06 ug/ml



#8 N-DOCOSANE

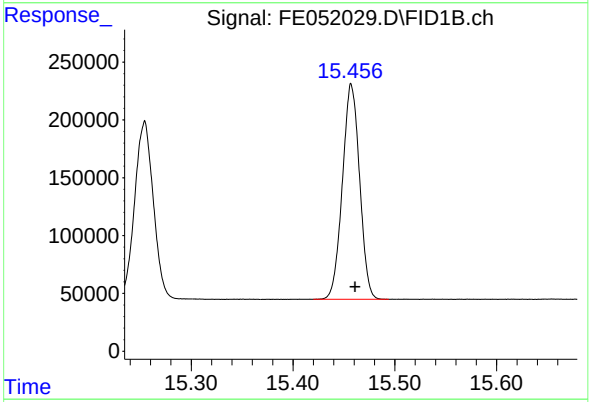
R.T.: 14.360 min
Delta R.T.: -0.002 min
Response: 2186141
Conc: 21.13 ug/ml



#9 TETRACOSANE-d50 (SURROGATE)

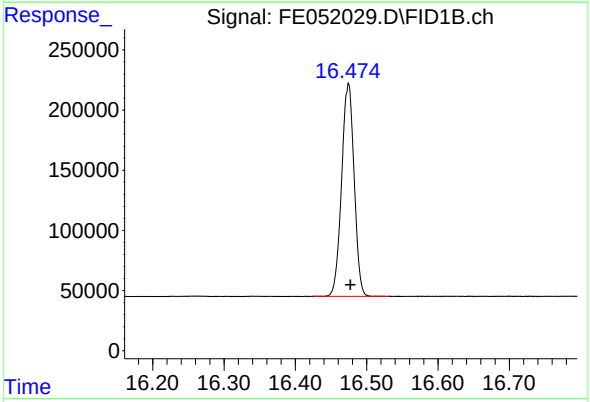
R.T.: 15.254 min
Delta R.T.: -0.003 min
Response: 1967122
Conc: 21.13 ug/ml

Instrument :
FID_E
ClientSampleId :
20 TRPH STD



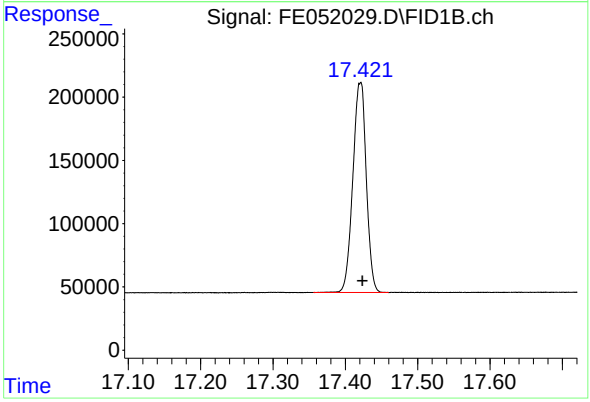
#10 N-TETRACOSANE

R.T.: 15.457 min
Delta R.T.: -0.004 min
Response: 2185765
Conc: 21.16 ug/ml



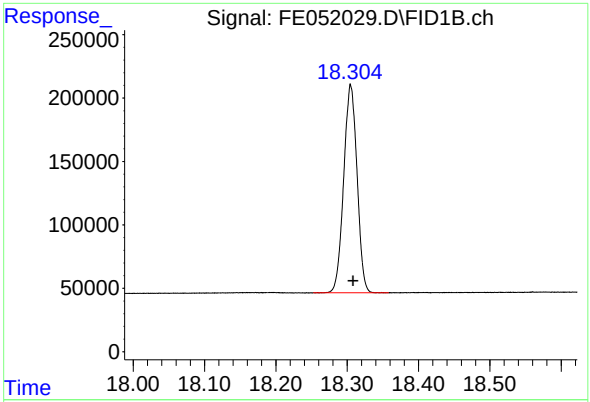
#11 N-HEXACOSANE

R.T.: 16.475 min
Delta R.T.: -0.002 min
Response: 2160412
Conc: 21.22 ug/ml



#12 N-OCTACOSANE

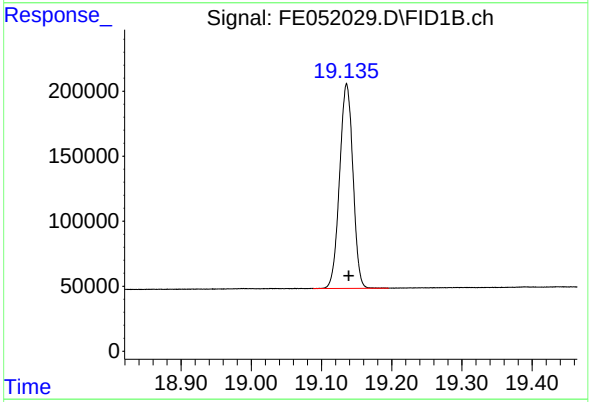
R.T.: 17.421 min
Delta R.T.: -0.003 min
Response: 2147225
Conc: 21.32 ug/ml



#13 N-TRIACONTANE

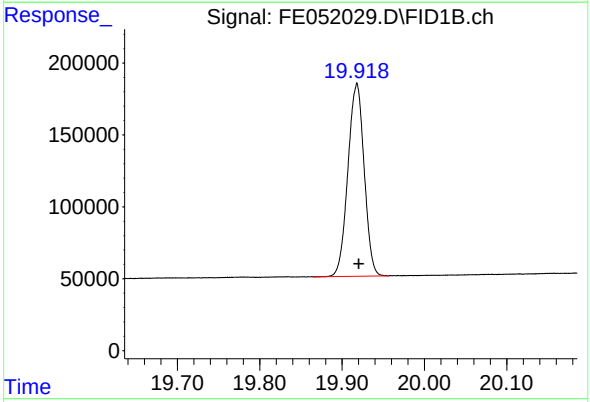
R.T.: 18.305 min
Delta R.T.: -0.003 min
Response: 2136983
Conc: 21.48 ug/ml

Instrument :
FID_E
ClientSampleId :
20 TRPH STD



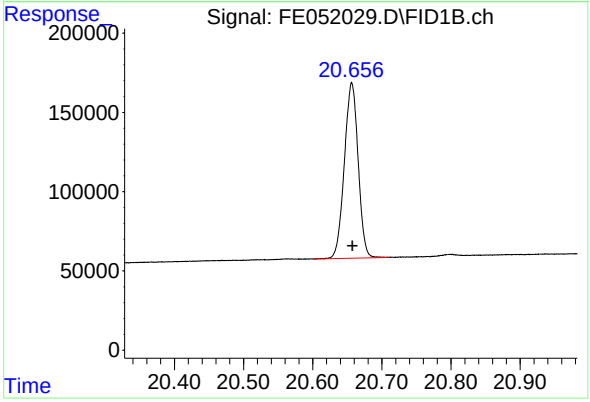
#14 N-DOTRIACONTANE

R.T.: 19.136 min
Delta R.T.: -0.003 min
Response: 2078753
Conc: 21.51 ug/ml



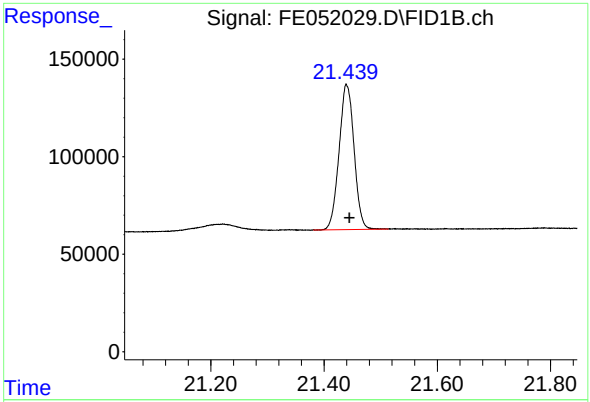
#15 N-TETRATRIACONTANE

R.T.: 19.918 min
Delta R.T.: -0.002 min
Response: 1833911
Conc: 21.11 ug/ml



#16 N-HEXATRIACONTANE

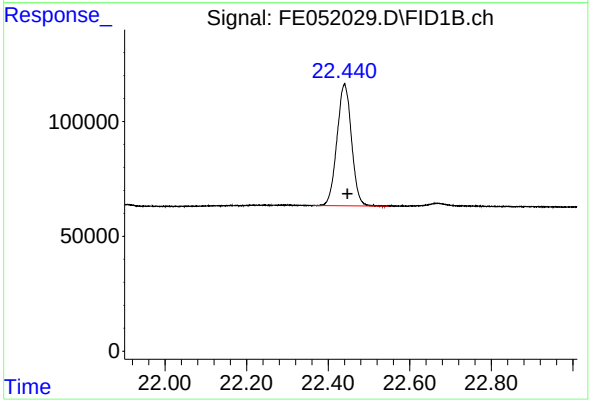
R.T.: 20.657 min
Delta R.T.: 0.000 min
Response: 1534108
Conc: 20.59 ug/ml



#17 N-OCTATRIACONTANE

R.T.: 21.439 min
Delta R.T.: -0.005 min
Response: 1367415
Conc: 19.86 ug/ml

Instrument :
FID_E
ClientSampleId :
20 TRPH STD



#18 N-TETRACONTANE

R.T.: 22.440 min
Delta R.T.: -0.007 min
Response: 1309204
Conc: 19.45 ug/ml

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE012325\
Data File : FE052029.D
Signal(s) : FID1B.ch
Acq On : 23 Jan 2025 23:36
Sample : 20 TRPH STD
Misc :
ALS Vial : 24 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\FE012325.M
Title :

Signal : FID1B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	2.412	2.383	2.473	BB	132906	1671507	75.91%	4.802%
2	4.906	4.870	4.947	BB	188470	1790386	81.30%	5.144%
3	7.034	6.995	7.086	BB	210395	1959669	88.99%	5.630%
4	8.840	8.782	8.891	BB	206958	1996208	90.65%	5.735%
5	10.433	10.394	10.485	BB	210083	2090226	94.92%	6.005%
6	11.866	11.821	11.908	BB	209078	2202071	100.00%	6.327%
7	13.168	13.134	13.216	BB	196057	2188908	99.40%	6.289%
8	14.360	14.282	14.405	BB	188088	2186141	99.28%	6.281%
9	15.254	15.218	15.318	BB	154122	1967122	89.33%	5.652%
10	15.457	15.420	15.494	BB	185791	2185765	99.26%	6.280%
11	16.475	16.425	16.531	BB	177131	2160412	98.11%	6.207%
12	17.421	17.356	17.460	BB	165726	2147225	97.51%	6.169%
13	18.305	18.252	18.358	BB	163835	2136983	97.04%	6.140%
14	19.136	19.088	19.196	BB	157435	2078753	94.40%	5.972%
15	19.918	19.865	19.957	BB	134470	1833911	83.28%	5.269%
16	20.657	20.601	20.710	BB	110823	1534108	69.67%	4.408%
17	21.439	21.381	21.514	BB	74580	1367415	62.10%	3.929%
18	22.440	22.363	22.548	BB	53116	1309204	59.45%	3.761%
			Sum of corrected areas:			34806015		

FE012325.M Fri Jan 24 03:19:04 2025

Quantitation Report (QT Reviewed)

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE012325\
Data File : FE052030.D
Signal(s) : FID1B.ch
Acq On : 24 Jan 2025 00:06
Operator : YP\AJ
Sample : 10 TRPH STD
Misc :
ALS Vial : 25 Sample Multiplier: 1

Instrument :
FID_E
ClientSampleId :
10 TRPH STD

Integration File: autoint1.e
Quant Time: Jan 24 03:02:11 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\FE012325.M
Quant Title :
QLast Update : Fri Jan 24 03:00:39 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...	15.253	1061033	11.396 ug/ml
	Target Compounds			
1)	N-OCTANE	2.412	889828	11.012 ug/ml
2)	N-DECANE	4.906	959030	11.079 ug/ml
3)	N-DODECANE	7.033	1052037	11.161 ug/ml
4)	N-TETRADECANE	8.839	1077547	11.283 ug/ml
5)	N-HEXADECANE	10.432	1131977	11.345 ug/ml
6)	N-OCTADECANE	11.865	1193205	11.371 ug/ml
7)	N-EICOSANE	13.167	1184917	11.402 ug/ml
8)	N-DOCOSANE	14.358	1182709	11.434 ug/ml
10)	N-TETRACOSANE	15.456	1180708	11.429 ug/ml
11)	N-HEXACOSANE	16.473	1163260	11.428 ug/ml
12)	N-OCTACOSANE	17.419	1147105	11.391 ug/ml
13)	N-TRIACONTANE	18.304	1137270	11.430 ug/ml
14)	N-DOTRIACONTANE	19.134	1110748	11.493 ug/ml
15)	N-TETRATRIACONTANE	19.915	1019077	11.732 ug/ml
16)	N-HEXATRIACONTANE	20.653	911856	12.238 ug/ml
17)	N-OCTATRIACONTANE	21.439	859350	12.480 ug/ml
18)	N-TETRACONTANE	22.441	882539	13.114 ug/ml

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

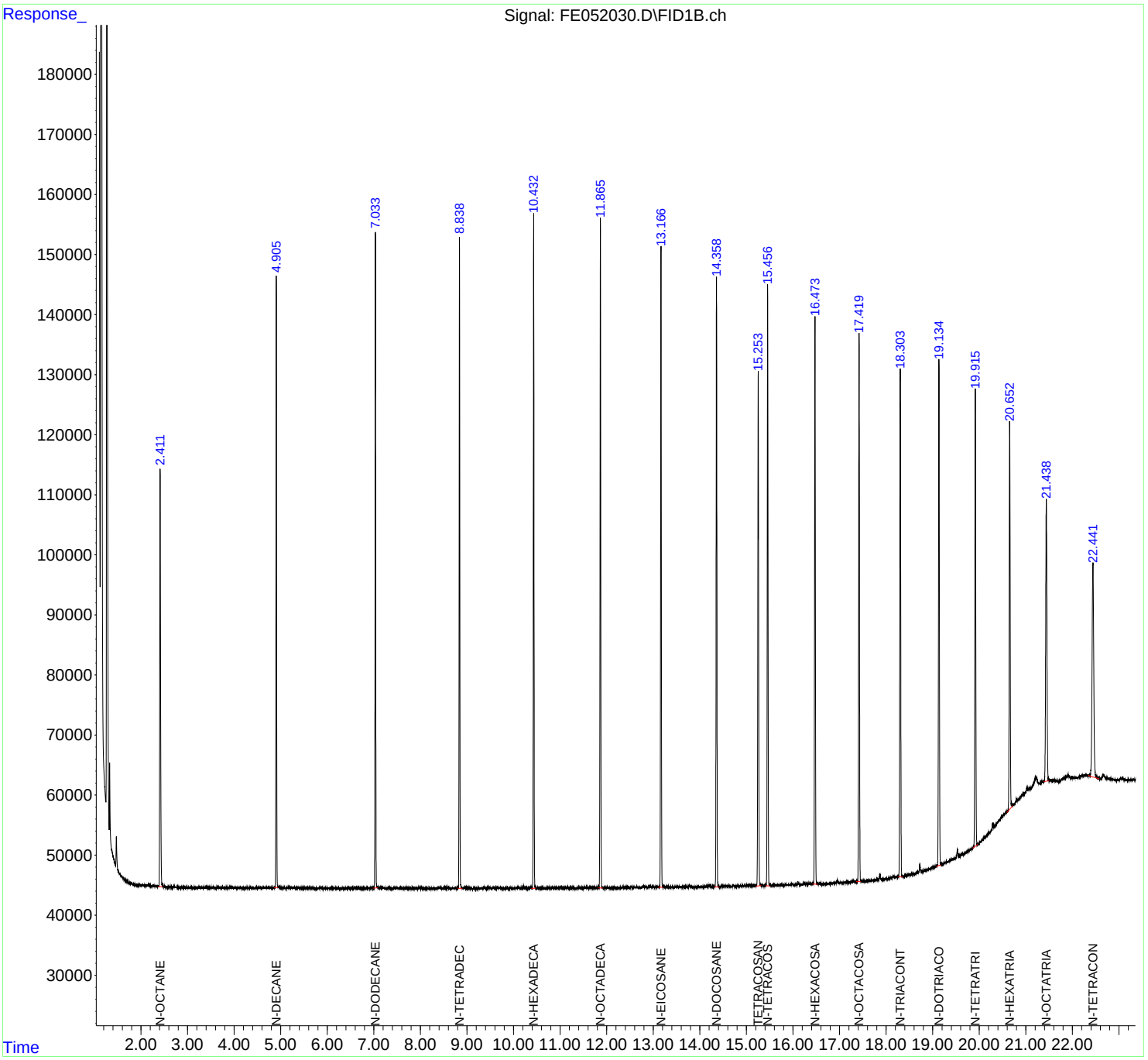
Quantitation Report (QT Reviewed)

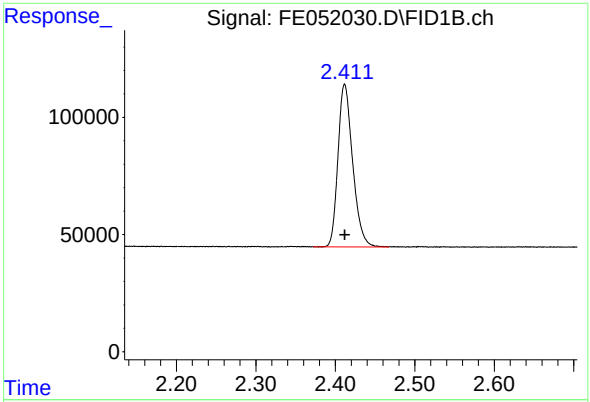
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE012325\
Data File : FE052030.D
Signal(s) : FID1B.ch
Acq On : 24 Jan 2025 00:06
Operator : YP\AJ
Sample : 10 TRPH STD
Misc :
ALS Vial : 25 Sample Multiplier: 1

Instrument :
FID_E
ClientSampleId :
10 TRPH STD

Integration File: autoint1.e
Quant Time: Jan 24 03:02:11 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\FE012325.M
Quant Title :
QLast Update : Fri Jan 24 03:00:39 2025
Response via : Initial Calibration
Integrator: ChemStation

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

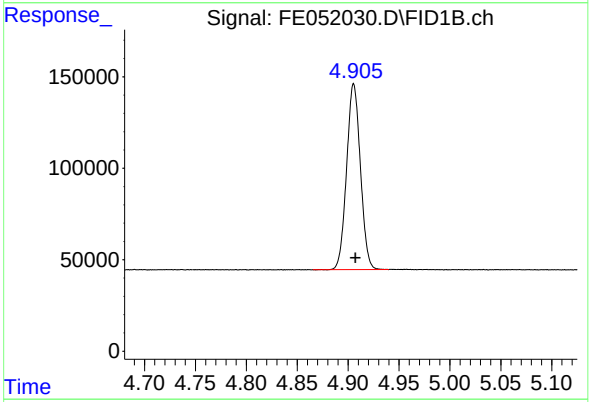




#1 N-OCTANE

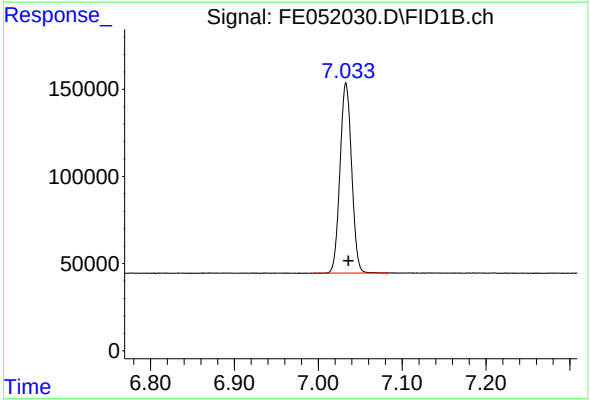
R.T.: 2.412 min
Delta R.T.: 0.000 min
Response: 889828
Conc: 11.01 ug/ml

Instrument :
FID_E
ClientSampleId :
10 TRPH STD



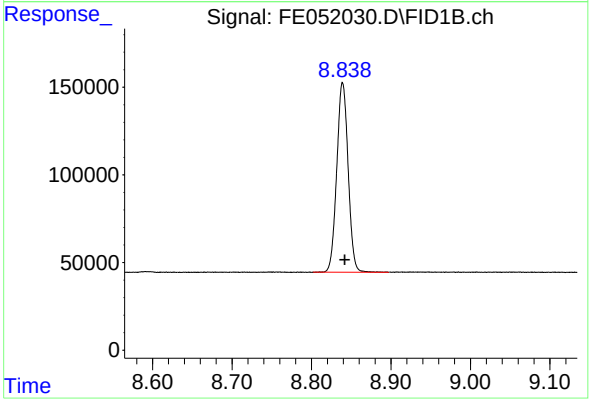
#2 N-DECANE

R.T.: 4.906 min
Delta R.T.: -0.002 min
Response: 959030
Conc: 11.08 ug/ml



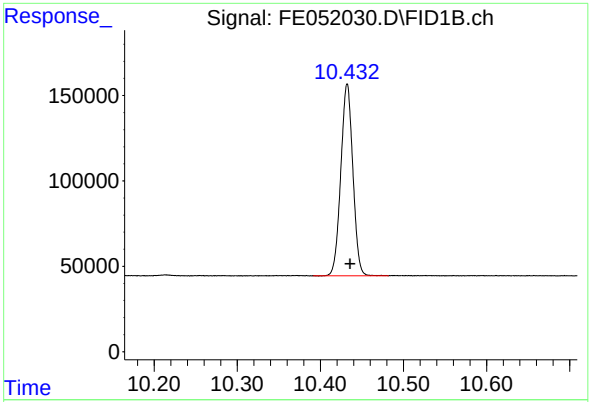
#3 N-DODECANE

R.T.: 7.033 min
Delta R.T.: -0.003 min
Response: 1052037
Conc: 11.16 ug/ml



#4 N-TETRADECANE

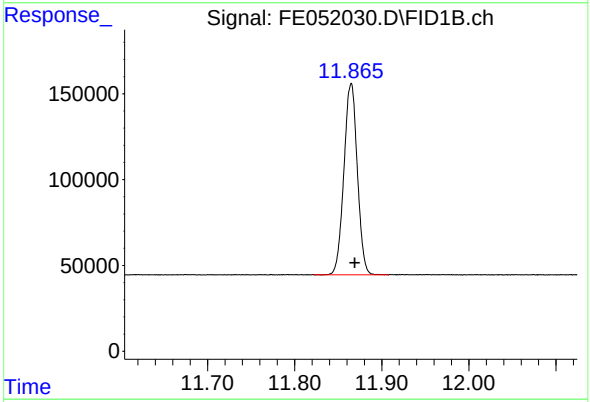
R.T.: 8.839 min
Delta R.T.: -0.003 min
Response: 1077547
Conc: 11.28 ug/ml



#5 N-HEXADECANE

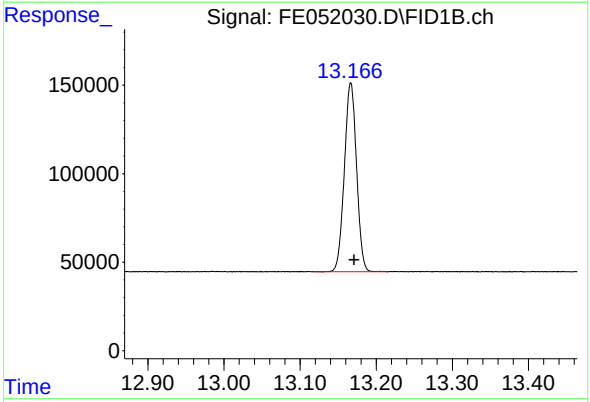
R.T.: 10.432 min
Delta R.T.: -0.003 min
Response: 1131977
Conc: 11.34 ug/ml

Instrument :
FID_E
ClientSampleId :
10 TRPH STD



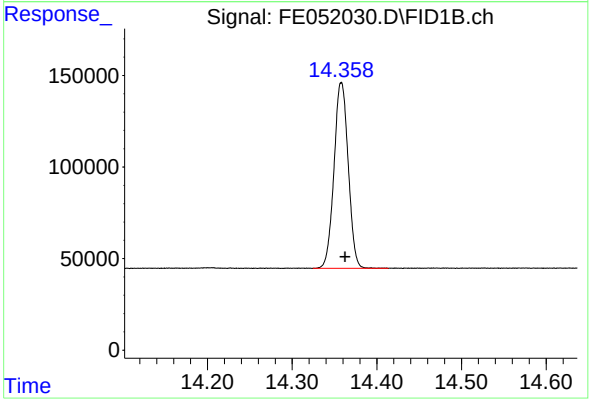
#6 N-OCTADECANE

R.T.: 11.865 min
Delta R.T.: -0.004 min
Response: 1193205
Conc: 11.37 ug/ml



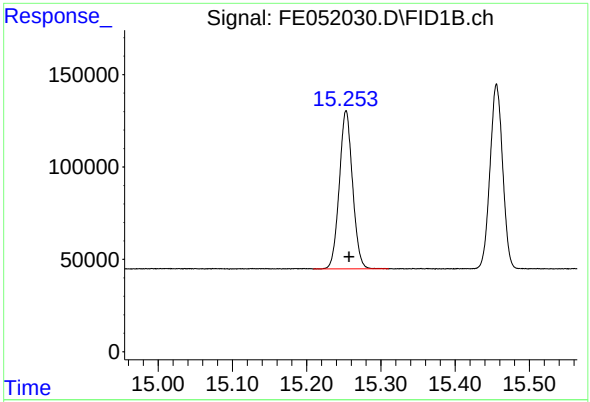
#7 N-EICOSANE

R.T.: 13.167 min
Delta R.T.: -0.004 min
Response: 1184917
Conc: 11.40 ug/ml



#8 N-DOCOSANE

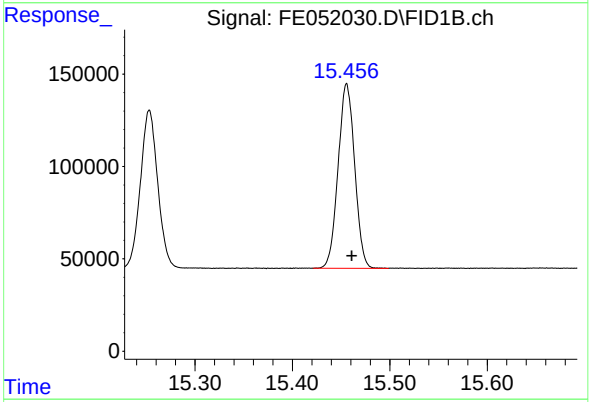
R.T.: 14.358 min
Delta R.T.: -0.004 min
Response: 1182709
Conc: 11.43 ug/ml



#9 TETRACOSANE-d50 (SURROGATE)

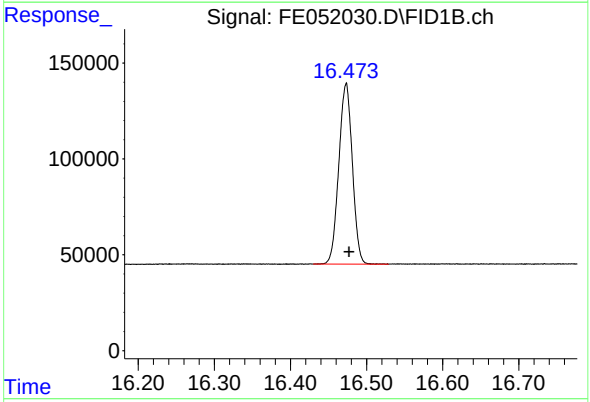
R.T.: 15.253 min
Delta R.T.: -0.004 min
Response: 1061033
Conc: 11.40 ug/ml

Instrument :
FID_E
ClientSampleId :
10 TRPH STD



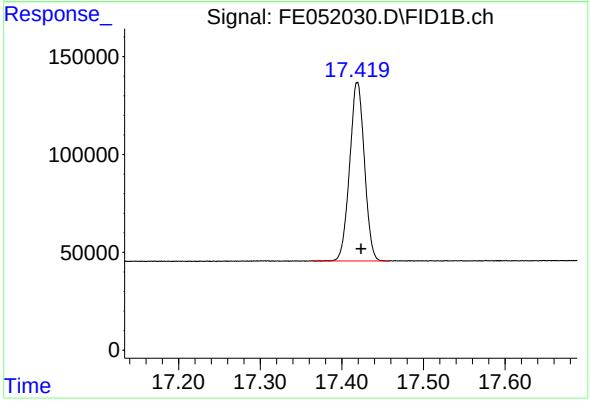
#10 N-TETRACOSANE

R.T.: 15.456 min
Delta R.T.: -0.005 min
Response: 1180708
Conc: 11.43 ug/ml



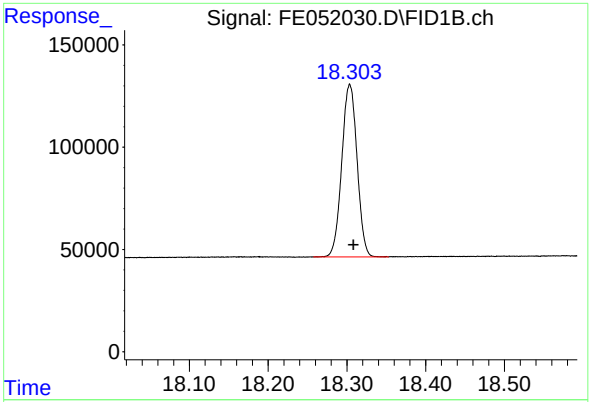
#11 N-HEXACOSANE

R.T.: 16.473 min
Delta R.T.: -0.004 min
Response: 1163260
Conc: 11.43 ug/ml



#12 N-OCTACOSANE

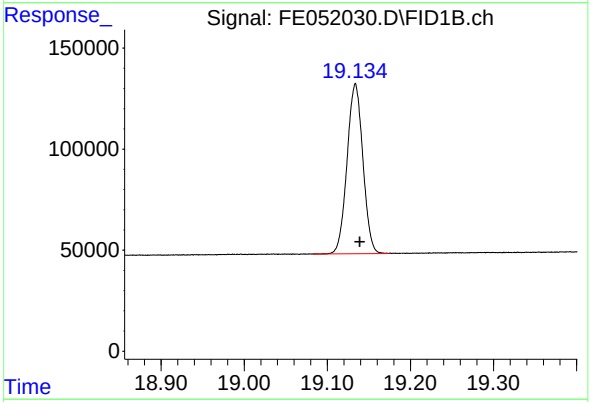
R.T.: 17.419 min
Delta R.T.: -0.005 min
Response: 1147105
Conc: 11.39 ug/ml



#13 N-TRIACONTANE

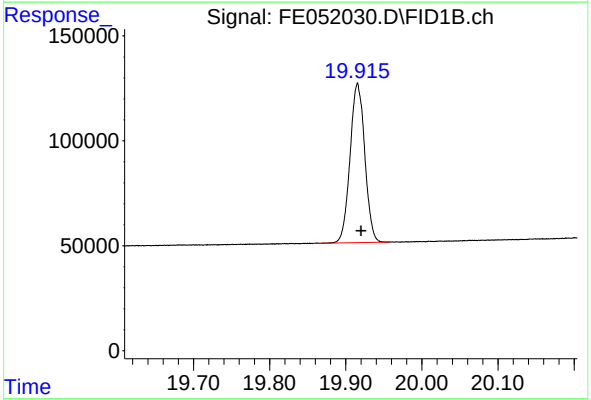
R.T.: 18.304 min
Delta R.T.: -0.004 min
Response: 1137270
Conc: 11.43 ug/ml

Instrument :
FID_E
ClientSampleId :
10 TRPH STD



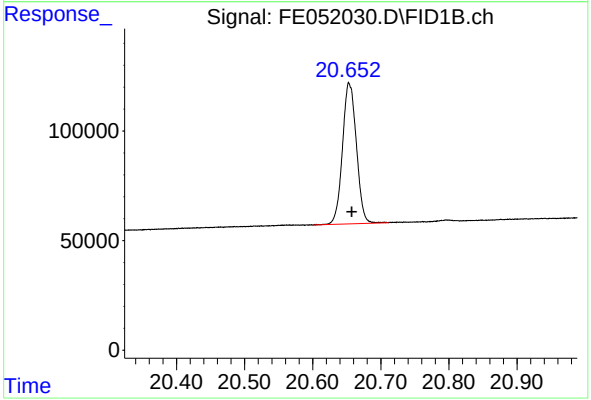
#14 N-DOTRIACONTANE

R.T.: 19.134 min
Delta R.T.: -0.005 min
Response: 1110748
Conc: 11.49 ug/ml



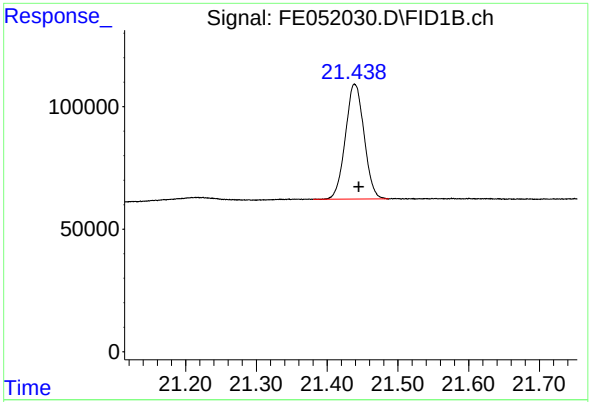
#15 N-TETRATRIACONTANE

R.T.: 19.915 min
Delta R.T.: -0.005 min
Response: 1019077
Conc: 11.73 ug/ml



#16 N-HEXATRIACONTANE

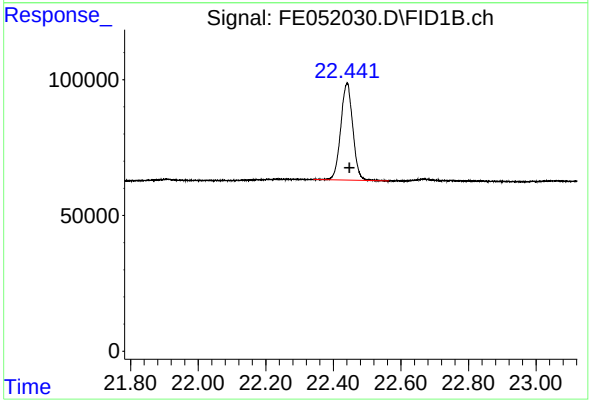
R.T.: 20.653 min
Delta R.T.: -0.004 min
Response: 911856
Conc: 12.24 ug/ml



#17 N-OCTATRIACONTANE

R.T.: 21.439 min
Delta R.T.: -0.006 min
Response: 859350
Conc: 12.48 ug/ml

Instrument :
FID_E
ClientSampleId :
10 TRPH STD



#18 N-TETRACONTANE

R.T.: 22.441 min
Delta R.T.: -0.006 min
Response: 882539
Conc: 13.11 ug/ml

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE012325\
Data File : FE052030.D
Signal(s) : FID1B.ch
Acq On : 24 Jan 2025 00:06
Sample : 10 TRPH STD
Misc :
ALS Vial : 25 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\FE012325.M
Title :

Signal : FID1B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	2.412	2.372	2.467	BB	69493	889828	74.57%	4.648%
2	4.906	4.866	4.940	BB	101609	959030	80.37%	5.010%
3	7.033	6.994	7.084	BB	109120	1052037	88.17%	5.495%
4	8.839	8.802	8.897	BB	108235	1077547	90.31%	5.629%
5	10.432	10.391	10.482	BB	112372	1131977	94.87%	5.913%
6	11.865	11.821	11.908	BB	111538	1193205	100.00%	6.233%
7	13.167	13.117	13.216	BB	106724	1184917	99.31%	6.189%
8	14.358	14.325	14.414	BB	101224	1182709	99.12%	6.178%
9	15.253	15.209	15.311	BB	85655	1061033	88.92%	5.542%
10	15.456	15.421	15.499	BB	100063	1180708	98.95%	6.167%
11	16.473	16.430	16.529	BB	94113	1163260	97.49%	6.076%
12	17.419	17.365	17.457	BB	91106	1147105	96.14%	5.992%
13	18.304	18.257	18.353	BB	84490	1137270	95.31%	5.941%
14	19.134	19.083	19.174	BB	84307	1110748	93.09%	5.802%
15	19.915	19.857	19.956	BB	76197	1019077	85.41%	5.323%
16	20.653	20.601	20.711	BB	64297	911856	76.42%	4.763%
17	21.439	21.380	21.487	BV	46908	859350	72.02%	4.489%
18	22.441	22.340	22.563	BV	35571	882539	73.96%	4.610%
			Sum of corrected areas:			19144194		

FE012325.M Fri Jan 24 03:19:32 2025

Quantitation Report (QT Reviewed)

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE012325\
Data File : FE052031.D
Signal(s) : FID1B.ch
Acq On : 24 Jan 2025 00:36
Operator : YP\AJ
Sample : 5 TRPH STD
Misc :
ALS Vial : 26 Sample Multiplier: 1

Instrument :
FID_E
ClientSampleId :
5 TRPH STD

Integration File: autoint1.e
Quant Time: Jan 24 03:02:23 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\FE012325.M
Quant Title :
QLast Update : Fri Jan 24 03:00:39 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...	15.253	535796	5.755 ug/ml
	Target Compounds			
1)	N-OCTANE	2.412	447517	5.538 ug/ml
2)	N-DECANE	4.906	479458	5.539 ug/ml
3)	N-DODECANE	7.033	524622	5.565 ug/ml
4)	N-TETRADECANE	8.839	538294	5.636 ug/ml
5)	N-HEXADECANE	10.432	566935	5.682 ug/ml
6)	N-OCTADECANE	11.864	597723	5.696 ug/ml
7)	N-EICOSANE	13.166	599565	5.769 ug/ml
8)	N-DOCOSANE	14.358	599958	5.800 ug/ml
10)	N-TETRACOSANE	15.456	594003	5.750 ug/ml
11)	N-HEXACOSANE	16.473	585191	5.749 ug/ml
12)	N-OCTACOSANE	17.418	583549	5.795 ug/ml
13)	N-TRIACONTANE	18.303	588228	5.912 ug/ml
14)	N-DOTRIACONTANE	19.133	573000	5.929 ug/ml
15)	N-TETRATRIACONTANE	19.915	509659	5.868 ug/ml
16)	N-HEXATRIACONTANE	20.654	427588	5.739 ug/ml
17)	N-OCTATRIACONTANE	21.439	394101	5.724 ug/ml
18)	N-TETRACONTANE	22.438	382667	5.686 ug/ml

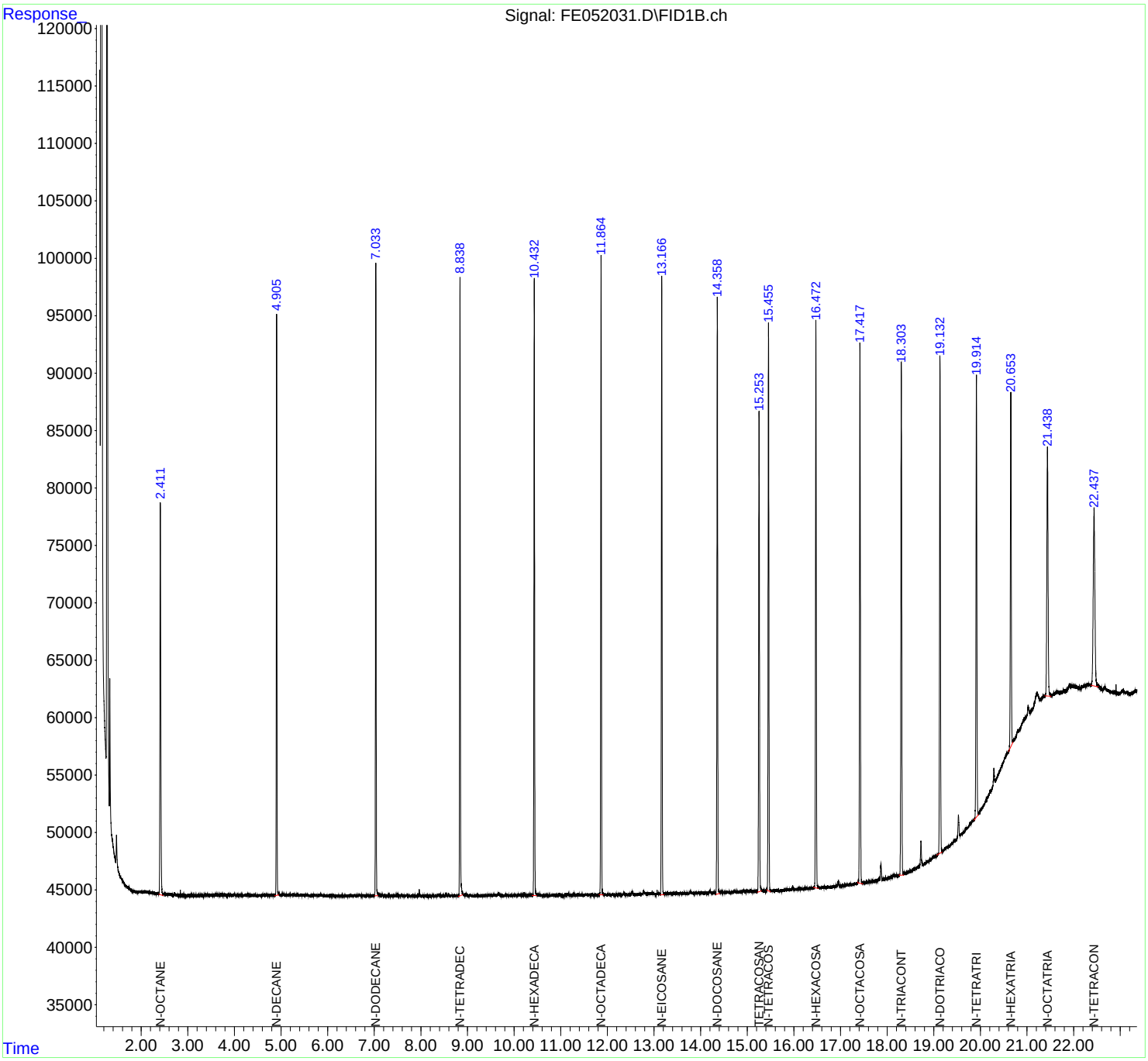
(f)=RT Delta > 1/2 Window (m)=manual int.

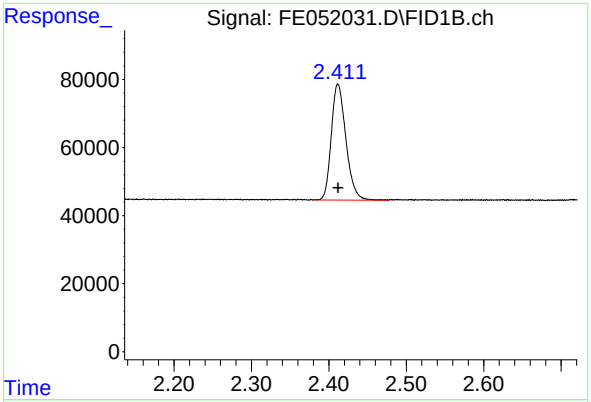
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE012325\
Data File : FE052031.D
Signal(s) : FID1B.ch
Acq On : 24 Jan 2025 00:36
Operator : YP\AJ
Sample : 5 TRPH STD
Misc :
ALS Vial : 26 Sample Multiplier: 1

Instrument :
FID_E
ClientSampleId :
5 TRPH STD

Integration File: autoint1.e
Quant Time: Jan 24 03:02:23 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\FE012325.M
Quant Title :
QLast Update : Fri Jan 24 03:00:39 2025
Response via : Initial Calibration
Integrator: ChemStation

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

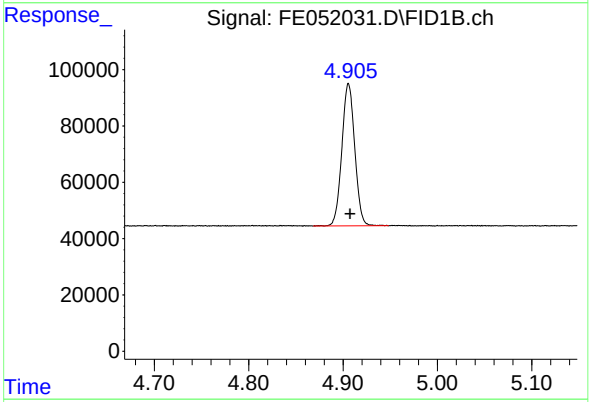




#1 N-OCTANE

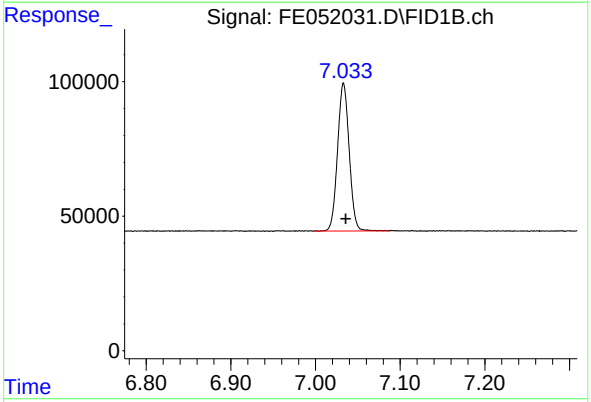
R.T.: 2.412 min
Delta R.T.: 0.000 min
Response: 447517
Conc: 5.54 ug/ml

Instrument :
FID_E
ClientSampleId :
5 TRPH STD



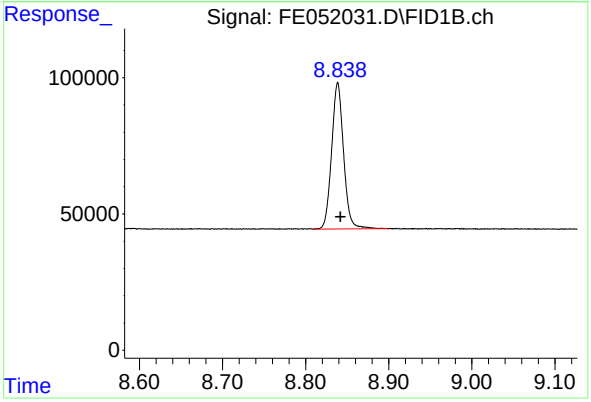
#2 N-DECANE

R.T.: 4.906 min
Delta R.T.: -0.001 min
Response: 479458
Conc: 5.54 ug/ml



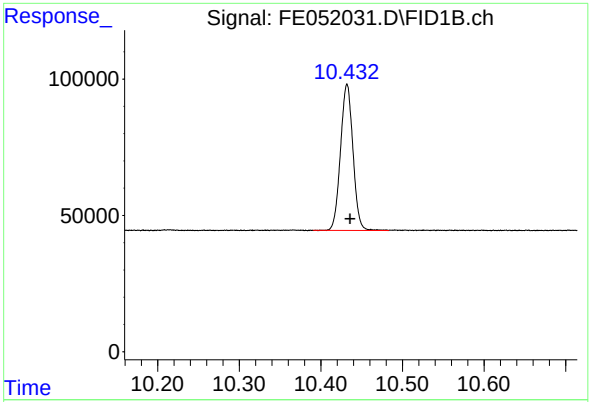
#3 N-DODECANE

R.T.: 7.033 min
Delta R.T.: -0.003 min
Response: 524622
Conc: 5.57 ug/ml



#4 N-TETRADECANE

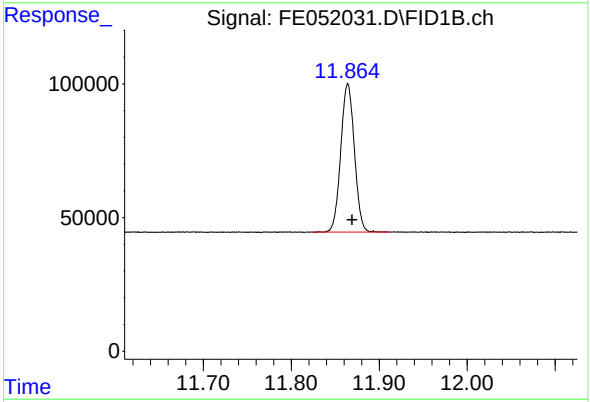
R.T.: 8.839 min
Delta R.T.: -0.003 min
Response: 538294
Conc: 5.64 ug/ml



#5 N-HEXADECANE

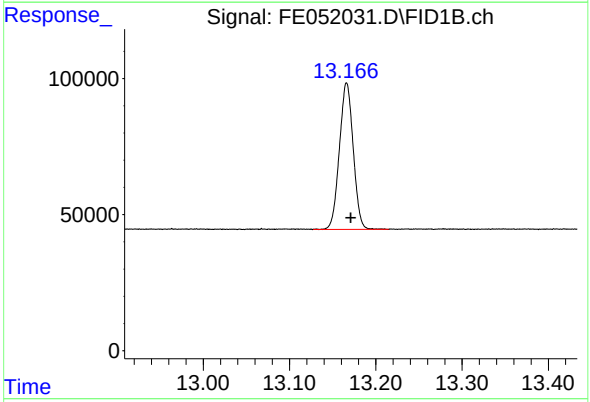
R.T.: 10.432 min
Delta R.T.: -0.003 min
Response: 566935
Conc: 5.68 ug/ml

Instrument :
FID_E
ClientSampleId :
5 TRPH STD



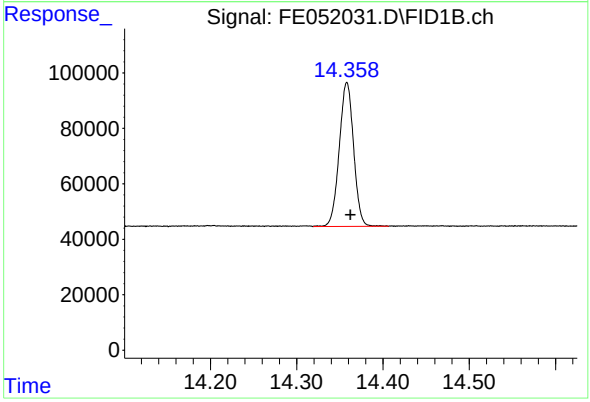
#6 N-OCTADECANE

R.T.: 11.864 min
Delta R.T.: -0.005 min
Response: 597723
Conc: 5.70 ug/ml



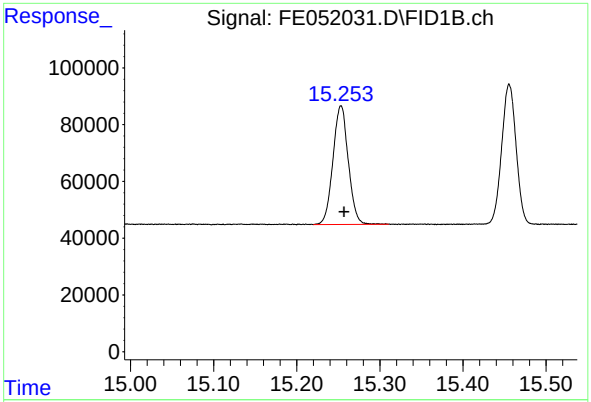
#7 N-EICOSANE

R.T.: 13.166 min
Delta R.T.: -0.005 min
Response: 599565
Conc: 5.77 ug/ml



#8 N-DOCOSANE

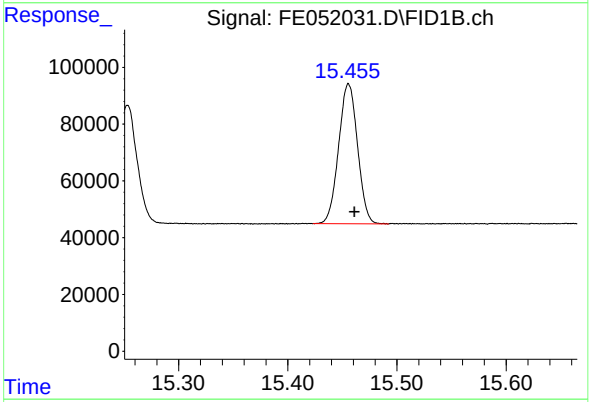
R.T.: 14.358 min
Delta R.T.: -0.004 min
Response: 599958
Conc: 5.80 ug/ml



#9 TETRACOSANE-d50 (SURROGATE)

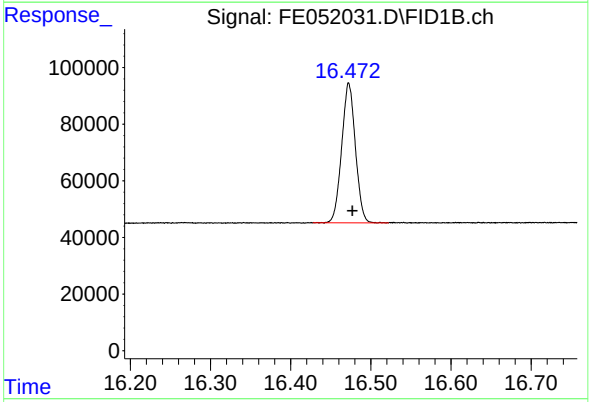
R.T.: 15.253 min
Delta R.T.: -0.004 min
Response: 535796
Conc: 5.75 ug/ml

Instrument :
FID_E
ClientSampleId :
5 TRPH STD



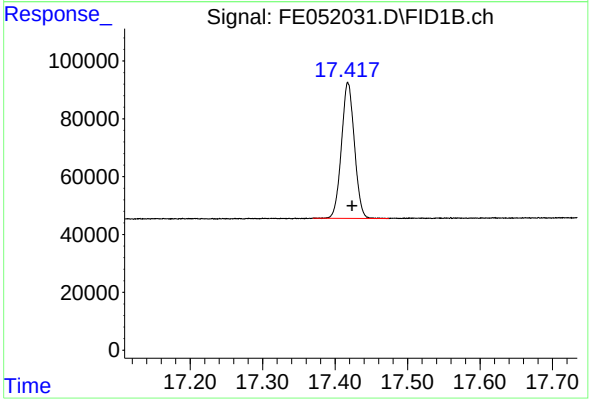
#10 N-TETRACOSANE

R.T.: 15.456 min
Delta R.T.: -0.005 min
Response: 594003
Conc: 5.75 ug/ml



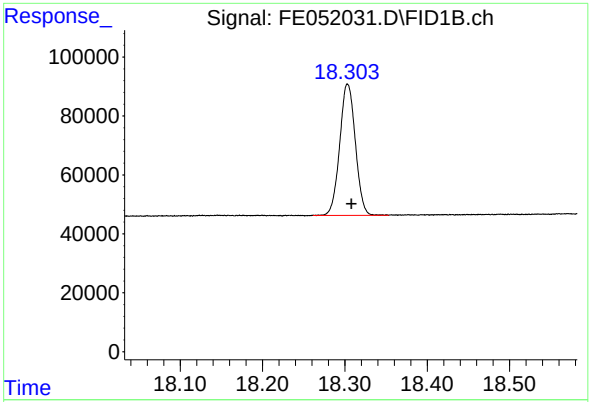
#11 N-HEXACOSANE

R.T.: 16.473 min
Delta R.T.: -0.004 min
Response: 585191
Conc: 5.75 ug/ml



#12 N-OCTACOSANE

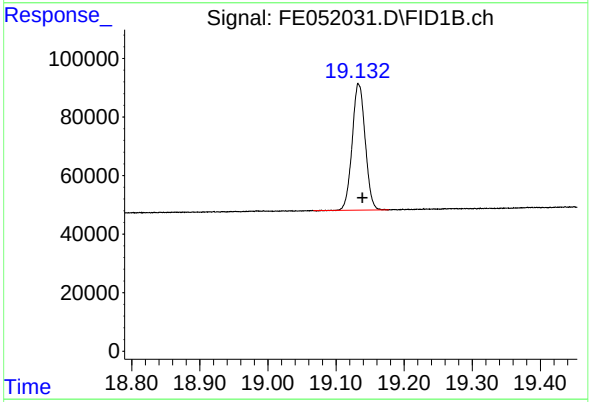
R.T.: 17.418 min
Delta R.T.: -0.006 min
Response: 583549
Conc: 5.79 ug/ml



#13 N-TRIACONTANE

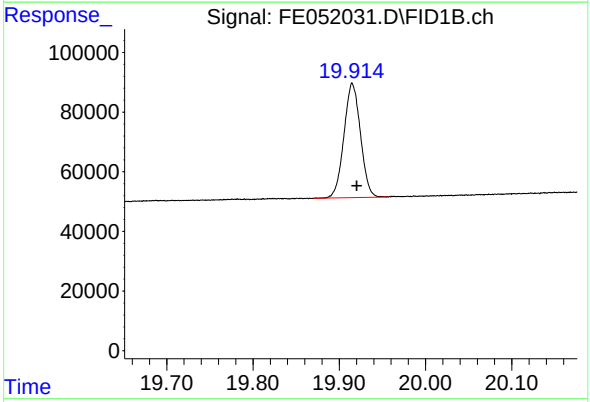
R.T.: 18.303 min
Delta R.T.: -0.005 min
Response: 588228
Conc: 5.91 ug/ml

Instrument :
FID_E
ClientSampleId :
5 TRPH STD



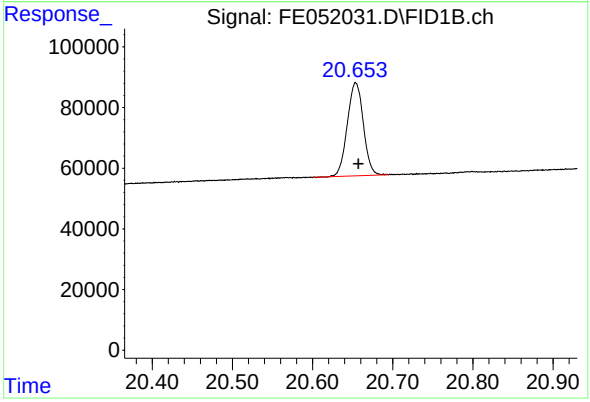
#14 N-DOTRIACONTANE

R.T.: 19.133 min
Delta R.T.: -0.006 min
Response: 573000
Conc: 5.93 ug/ml



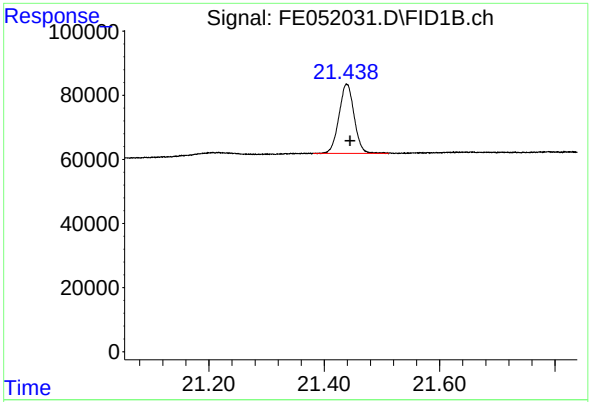
#15 N-TETRATRIACONTANE

R.T.: 19.915 min
Delta R.T.: -0.005 min
Response: 509659
Conc: 5.87 ug/ml



#16 N-HEXATRIACONTANE

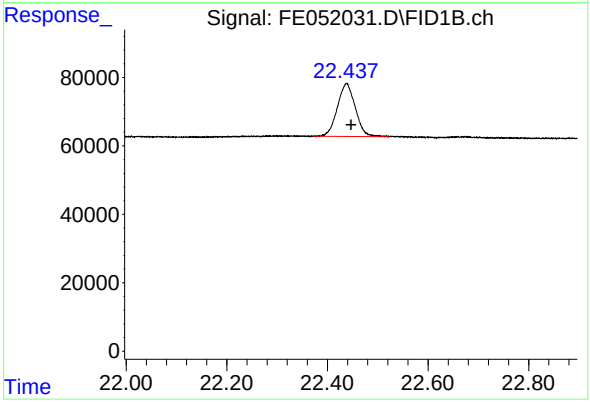
R.T.: 20.654 min
Delta R.T.: -0.004 min
Response: 427588
Conc: 5.74 ug/ml



#17 N-OCTATRIACONTANE

R.T.: 21.439 min
Delta R.T.: -0.006 min
Response: 394101
Conc: 5.72 ug/ml

Instrument :
FID_E
ClientSampleId :
5 TRPH STD



#18 N-TETRACONTANE

R.T.: 22.438 min
Delta R.T.: -0.009 min
Response: 382667
Conc: 5.69 ug/ml

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE012325\
Data File : FE052031.D
Signal(s) : FID1B.ch
Acq On : 24 Jan 2025 00:36
Sample : 5 TRPH STD
Misc :
ALS Vial : 26 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\FE012325.M
Title :

Signal : FID1B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	2.412	2.380	2.477	BB	34060	447517	74.59%	4.697%
2	4.906	4.868	4.948	BB	50588	479458	79.92%	5.032%
3	7.033	6.997	7.086	BB	55038	524622	87.44%	5.506%
4	8.839	8.809	8.900	BB	53958	538294	89.72%	5.650%
5	10.432	10.391	10.483	BB	53629	566935	94.50%	5.950%
6	11.864	11.825	11.911	BB	55566	597723	99.63%	6.273%
7	13.166	13.127	13.215	BB	53796	599565	99.93%	6.293%
8	14.358	14.319	14.406	BB	51982	599958	100.00%	6.297%
9	15.253	15.220	15.311	BB	41765	535796	89.31%	5.623%
10	15.456	15.423	15.492	BB	49424	594003	99.01%	6.234%
11	16.473	16.428	16.522	BB	49428	585191	97.54%	6.142%
12	17.418	17.370	17.474	BB	46813	583549	97.26%	6.125%
13	18.303	18.261	18.353	BB	44585	588228	98.04%	6.174%
14	19.133	19.066	19.177	BB	42966	573000	95.51%	6.014%
15	19.915	19.870	19.957	BB	38416	509659	84.95%	5.349%
16	20.654	20.601	20.695	BB	30739	427588	71.27%	4.488%
17	21.439	21.381	21.511	BB	21574	394101	65.69%	4.136%
18	22.438	22.371	22.521	BB	15521	382667	63.78%	4.016%
			Sum of corrected areas:			9527854		

FE012325.M Fri Jan 24 03:20:00 2025

Quantitation Report (QT Reviewed)

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE012325\
Data File : FE052032.D
Signal(s) : FID1B.ch
Acq On : 24 Jan 2025 01:06
Operator : YP\AJ
Sample : FE012325ICV
Misc :
ALS Vial : 23 Sample Multiplier: 1

Instrument :
FID_E
ClientSampleId :
FE012325ICV

Integration File: autoint1.e
Quant Time: Jan 24 03:09:02 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\FE012325.M
Quant Title :
QLast Update : Fri Jan 24 03:06:38 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...	15.256	4666211	46.850 ug/ml
	Target Compounds			
1)	N-OCTANE	2.412	3991003	46.799 ug/ml
2)	N-DECANE	4.906	4296957	46.959 ug/ml
3)	N-DODECANE	7.035	4687706	46.917 ug/ml
4)	N-TETRADECANE	8.841	4758083	46.764 ug/ml
5)	N-HEXADECANE	10.434	4984676	46.779 ug/ml
6)	N-OCTADECANE	11.868	5255597	46.874 ug/ml
7)	N-EICOSANE	13.169	5213798	46.811 ug/ml
8)	N-DOCOSANE	14.361	5190938	46.752 ug/ml
10)	N-TETRACOSANE	15.459	5183378	46.861 ug/ml
11)	N-HEXACOSANE	16.476	5097911	46.766 ug/ml
12)	N-OCTACOSANE	17.423	5031236	46.612 ug/ml
13)	N-TRIACONTANE	18.307	4962414	46.248 ug/ml
14)	N-DOTRIACONTANE	19.138	4809025	46.056 ug/ml
15)	N-TETRATRIACONTANE	19.918	4322160	46.027 ug/ml
16)	N-HEXATRIACONTANE	20.656	3695277	45.760 ug/ml
17)	N-OCTATRIACONTANE	21.442	3418238	45.815 ug/ml
18)	N-TETRACONTANE	22.445	3353522	45.536 ug/ml

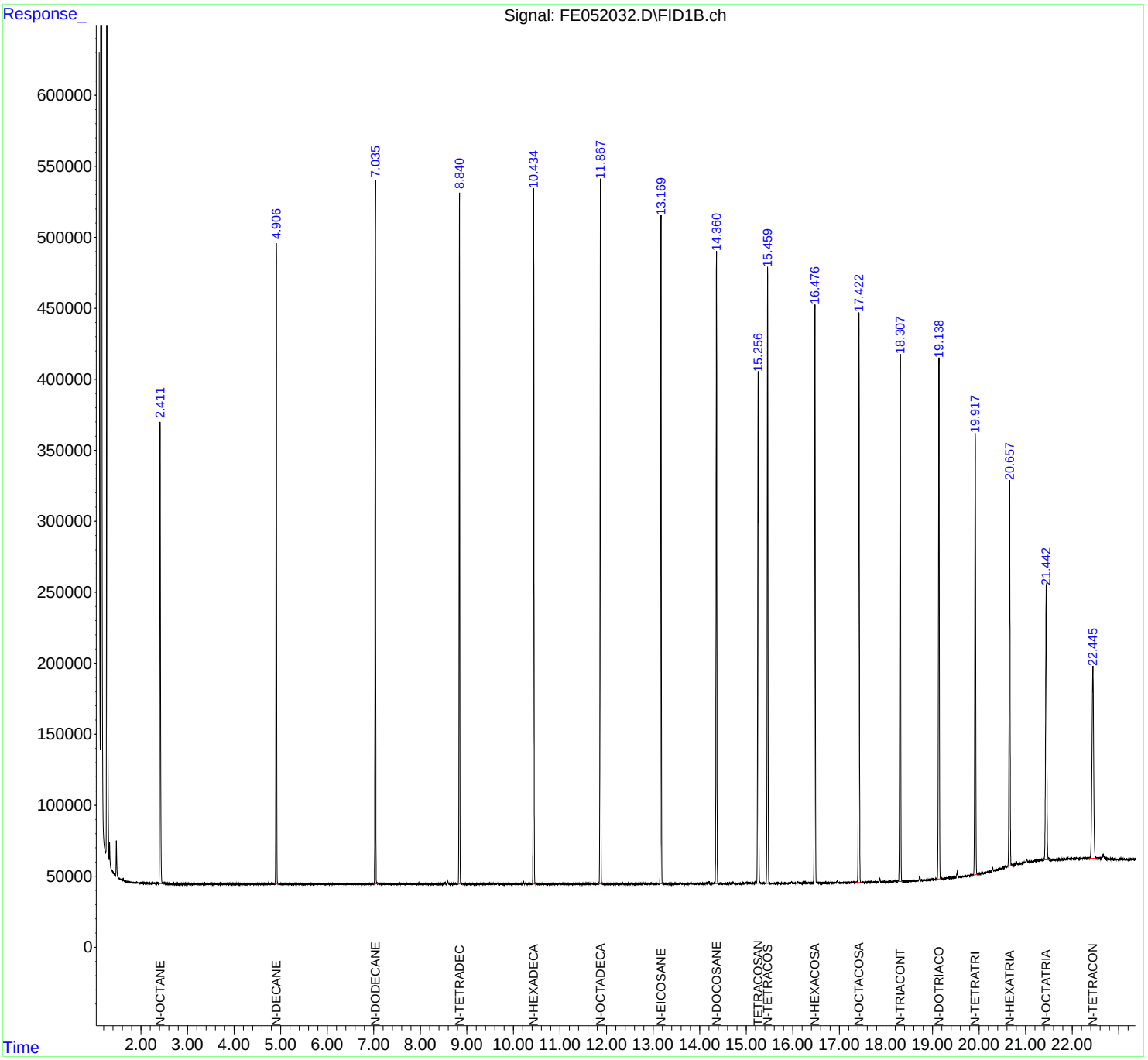
(f)=RT Delta > 1/2 Window (m)=manual int.

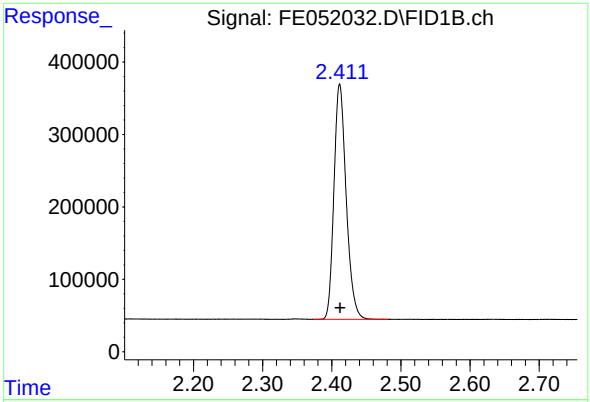
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE012325\
Data File : FE052032.D
Signal(s) : FID1B.ch
Acq On : 24 Jan 2025 01:06
Operator : YP\AJ
Sample : FE012325ICV
Misc :
ALS Vial : 23 Sample Multiplier: 1

Instrument :
FID_E
ClientSampleId :
FE012325ICV

Integration File: autoint1.e
Quant Time: Jan 24 03:09:02 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\FE012325.M
Quant Title :
QLast Update : Fri Jan 24 03:06:38 2025
Response via : Initial Calibration
Integrator: ChemStation

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

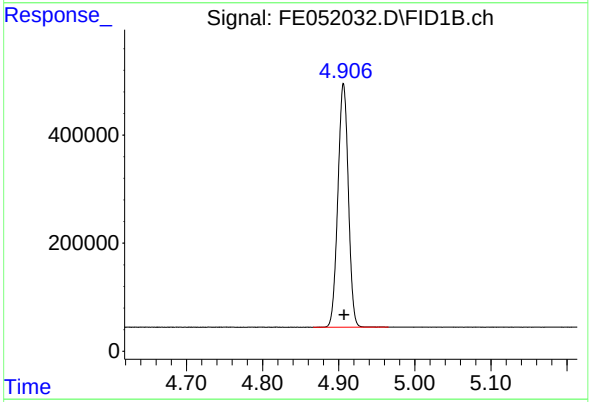




#1 N-OCTANE

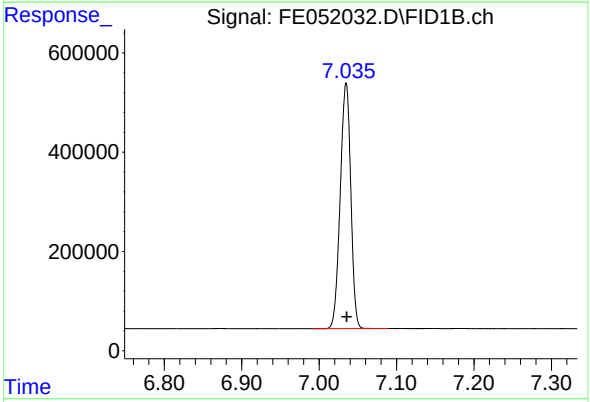
R.T.: 2.412 min
Delta R.T.: 0.000 min
Response: 3991003
Conc: 46.80 ug/ml

Instrument :
FID_E
ClientSampleId :
FE012325ICV



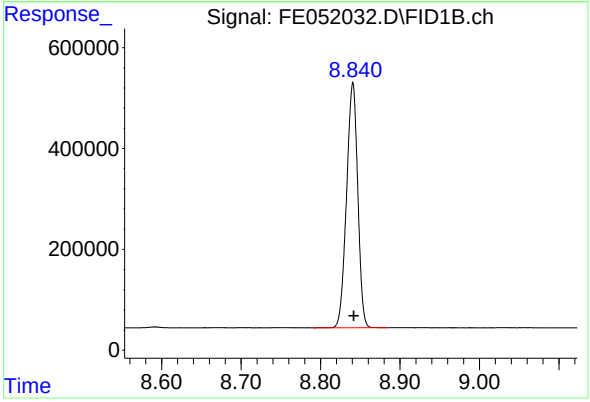
#2 N-DECANE

R.T.: 4.906 min
Delta R.T.: 0.000 min
Response: 4296957
Conc: 46.96 ug/ml



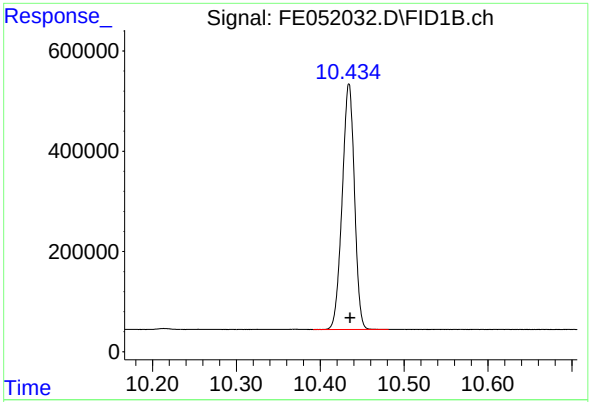
#3 N-DODECANE

R.T.: 7.035 min
Delta R.T.: 0.000 min
Response: 4687706
Conc: 46.92 ug/ml



#4 N-TETRADECANE

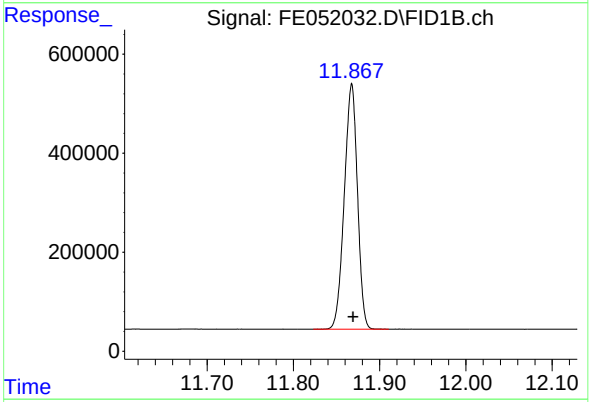
R.T.: 8.841 min
Delta R.T.: -0.001 min
Response: 4758083
Conc: 46.76 ug/ml



#5 N-HEXADECANE

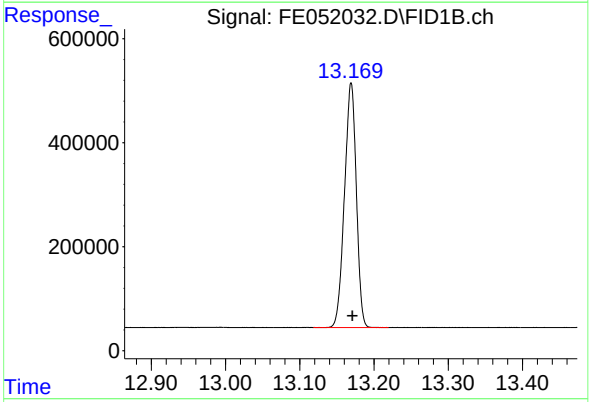
R.T.: 10.434 min
Delta R.T.: -0.001 min
Response: 4984676
Conc: 46.78 ug/ml

Instrument :
FID_E
ClientSampleId :
FE012325ICV



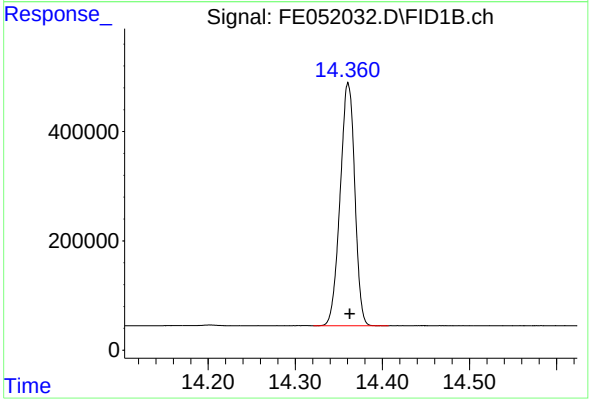
#6 N-OCTADECANE

R.T.: 11.868 min
Delta R.T.: -0.001 min
Response: 5255597
Conc: 46.87 ug/ml



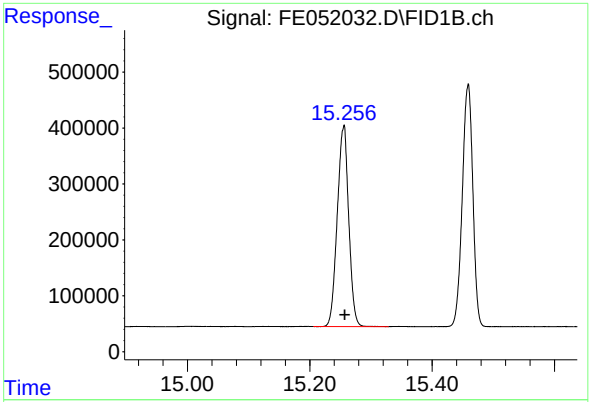
#7 N-EICOSANE

R.T.: 13.169 min
Delta R.T.: -0.002 min
Response: 5213798
Conc: 46.81 ug/ml



#8 N-DOCOSANE

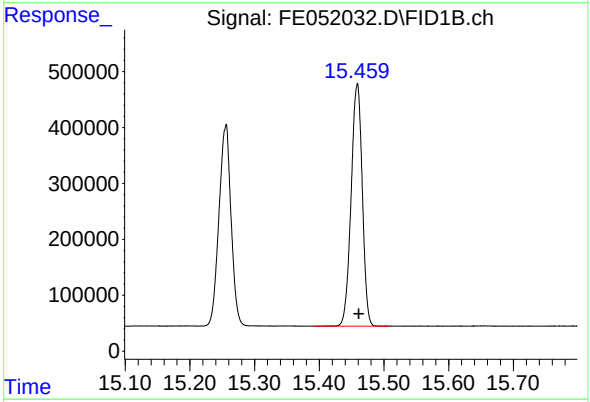
R.T.: 14.361 min
Delta R.T.: -0.002 min
Response: 5190938
Conc: 46.75 ug/ml



#9 TETRACOSANE-d50 (SURROGATE)

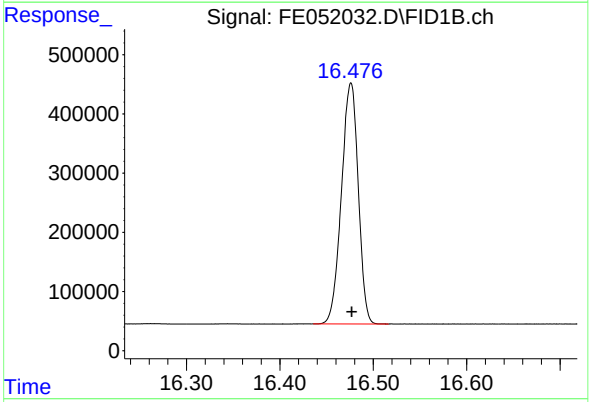
R.T.: 15.256 min
Delta R.T.: -0.001 min
Response: 4666211
Conc: 46.85 ug/ml

Instrument :
FID_E
ClientSampleId :
FE012325ICV



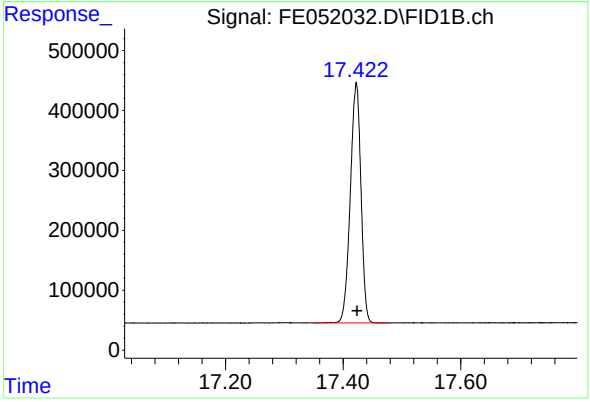
#10 N-TETRACOSANE

R.T.: 15.459 min
Delta R.T.: -0.002 min
Response: 5183378
Conc: 46.86 ug/ml



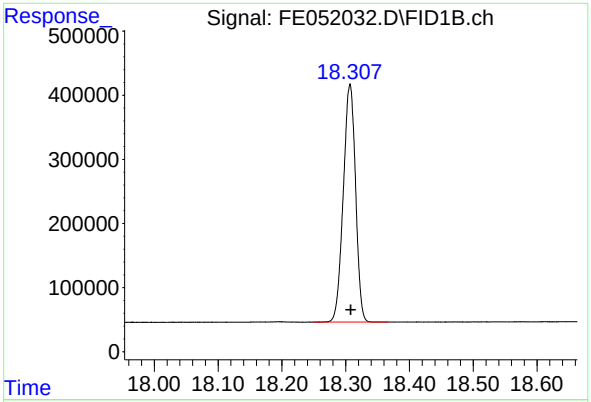
#11 N-HEXACOSANE

R.T.: 16.476 min
Delta R.T.: 0.000 min
Response: 5097911
Conc: 46.77 ug/ml



#12 N-OCTACOSANE

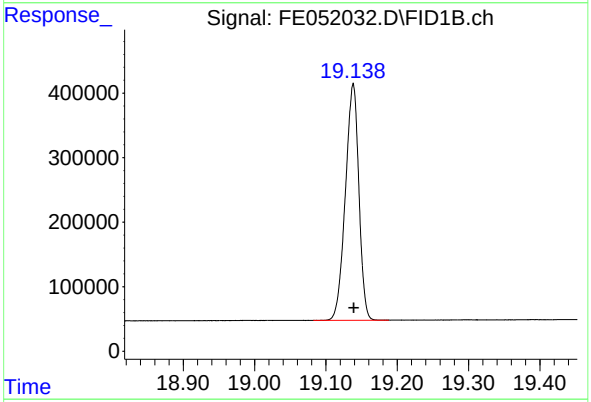
R.T.: 17.423 min
Delta R.T.: -0.001 min
Response: 5031236
Conc: 46.61 ug/ml



#13 N-TRIACONTANE

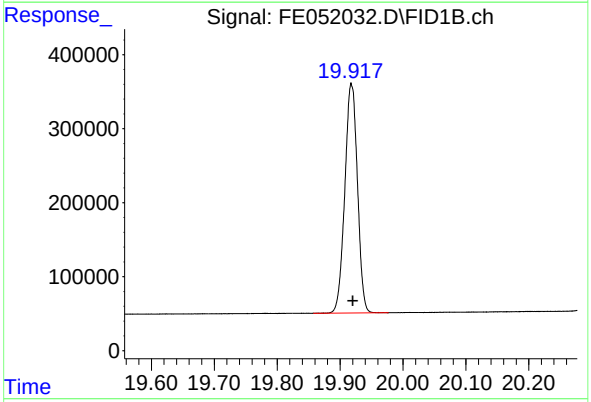
R.T.: 18.307 min
Delta R.T.: -0.001 min
Response: 4962414
Conc: 46.25 ug/ml

Instrument :
FID_E
ClientSampleId :
FE012325ICV



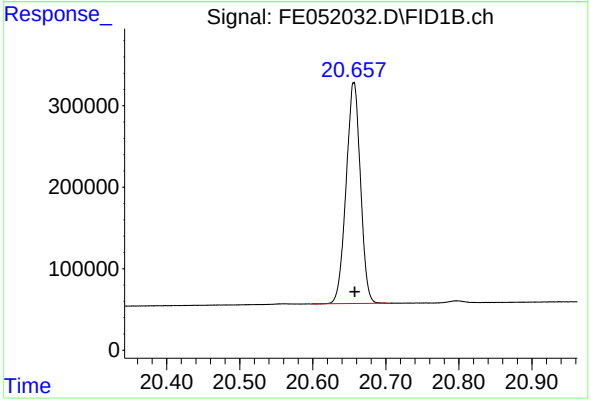
#14 N-DOTRIACONTANE

R.T.: 19.138 min
Delta R.T.: 0.000 min
Response: 4809025
Conc: 46.06 ug/ml



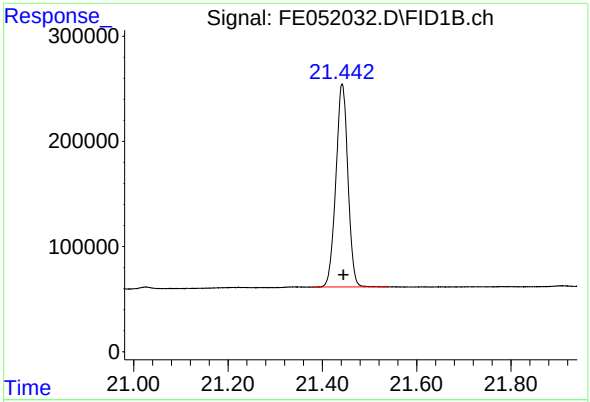
#15 N-TETRATRIACONTANE

R.T.: 19.918 min
Delta R.T.: -0.002 min
Response: 4322160
Conc: 46.03 ug/ml



#16 N-HEXATRIACONTANE

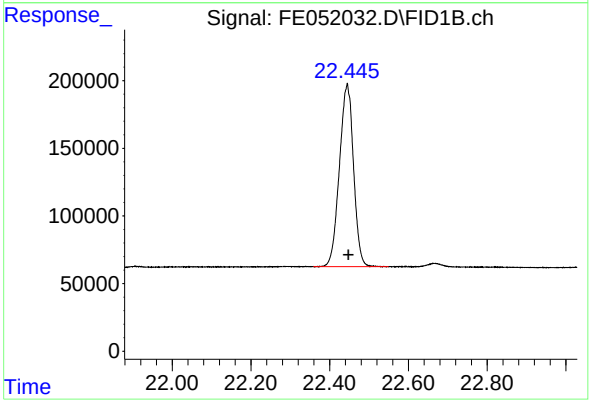
R.T.: 20.656 min
Delta R.T.: -0.001 min
Response: 3695277
Conc: 45.76 ug/ml



#17 N-OCTATRIACONTANE

R.T.: 21.442 min
Delta R.T.: -0.003 min
Response: 3418238
Conc: 45.81 ug/ml

Instrument :
FID_E
ClientSampleId :
FE012325ICV



#18 N-TETRACONTANE

R.T.: 22.445 min
Delta R.T.: -0.003 min
Response: 3353522
Conc: 45.54 ug/ml

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE012325\
Data File : FE052032.D
Signal(s) : FID1B.ch
Acq On : 24 Jan 2025 01:06
Sample : FE012325ICV
Misc :
ALS Vial : 23 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\FE012325.M
Title :

Signal : FID1B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	2.412	2.373	2.482	BB	325149	3991003	75.94%	4.813%
2	4.906	4.866	4.966	BB	450862	4296957	81.76%	5.182%
3	7.035	6.992	7.090	BB	495564	4687706	89.19%	5.653%
4	8.841	8.791	8.886	BB	486321	4758083	90.53%	5.738%
5	10.434	10.391	10.481	BB	490371	4984676	94.85%	6.012%
6	11.868	11.823	11.911	BB	496666	5255597	100.00%	6.338%
7	13.169	13.118	13.220	BB	470899	5213798	99.20%	6.288%
8	14.361	14.321	14.407	BB	444530	5190938	98.77%	6.260%
9	15.256	15.206	15.329	BB	358694	4666211	88.79%	5.627%
10	15.459	15.391	15.507	BB	433536	5183378	98.63%	6.251%
11	16.476	16.436	16.516	BB	407354	5097911	97.00%	6.148%
12	17.423	17.349	17.477	BB	400863	5031236	95.73%	6.068%
13	18.307	18.249	18.367	BB	371955	4962414	94.42%	5.985%
14	19.138	19.082	19.188	BB	366172	4809025	91.50%	5.800%
15	19.918	19.857	19.977	BB	309597	4322160	82.24%	5.213%
16	20.656	20.601	20.704	BB	270798	3695277	70.31%	4.457%
17	21.442	21.381	21.541	BB	193087	3418238	65.04%	4.122%
18	22.445	22.358	22.550	BB	135556	3353522	63.81%	4.044%
			Sum of corrected areas:			82918129		

FE012325.M Fri Jan 24 03:20:42 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: RUTW01

ProjectID: NYCDDC SANTWOBR Brooklyn Bridge BBMCR

Lab Code: CHEM Case No.: Q1207 SAS No.: Q1207 SDG No.: Q1207

DataFile: FE052140.D Analyst Name: YP\AJ Analyst Date: 01-30-2025

Conc. (PPM)	Area Count	RF	Average RF	%D
500	50016905	100034	106182	5.79

Quantitation Report (QT Reviewed)

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE012925\
Data File : FE052140.D
Signal(s) : FID1B.ch
Acq On : 30 Jan 2025 03:58
Operator : YP\AJ
Sample : 50 PPM TRPH STD
Misc :
ALS Vial : 99 Sample Multiplier: 1

Instrument :
FID_E
ClientSampleId :
50 PPM TRPH STD

Manual Integrations APPROVED

Reviewed By :Yogesh Patel 01/30/2025
Supervised By :Ankita Jodhani 01/30/2025

Integration File: autoint1.e
Quant Time: Jan 30 06:58:47 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\FE012325.M
Quant Title :
QLast Update : Fri Jan 24 03:06:38 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...	15.245	4680249	46.991 ug/mlm
	Target Compounds			
2)	N-DECANE	4.901	4328980	47.309 ug/ml
3)	N-DODECANE	7.029	4727051	47.311 ug/ml
4)	N-TETRADECANE	8.835	4812264	47.296 ug/ml
5)	N-HEXADECANE	10.428	5045030	47.345 ug/ml
6)	N-OCTADECANE	11.860	5310251	47.362 ug/ml
7)	N-EICOSANE	13.162	5256437	47.194 ug/ml
8)	N-DOCOSANE	14.353	5215823	46.976 ug/ml
10)	N-TETRACOSANE	15.451	5191439	46.934 ug/ml
11)	N-HEXACOSANE	16.466	5102096	46.804 ug/ml
12)	N-OCTACOSANE	17.412	5027534	46.577 ug/ml

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

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE012925\
Data File : FE052140.D
Signal(s) : FID1B.ch
Acq On : 30 Jan 2025 03:58
Operator : YP\AJ
Sample : 50 PPM TRPH STD
Misc :
ALS Vial : 99 Sample Multiplier: 1

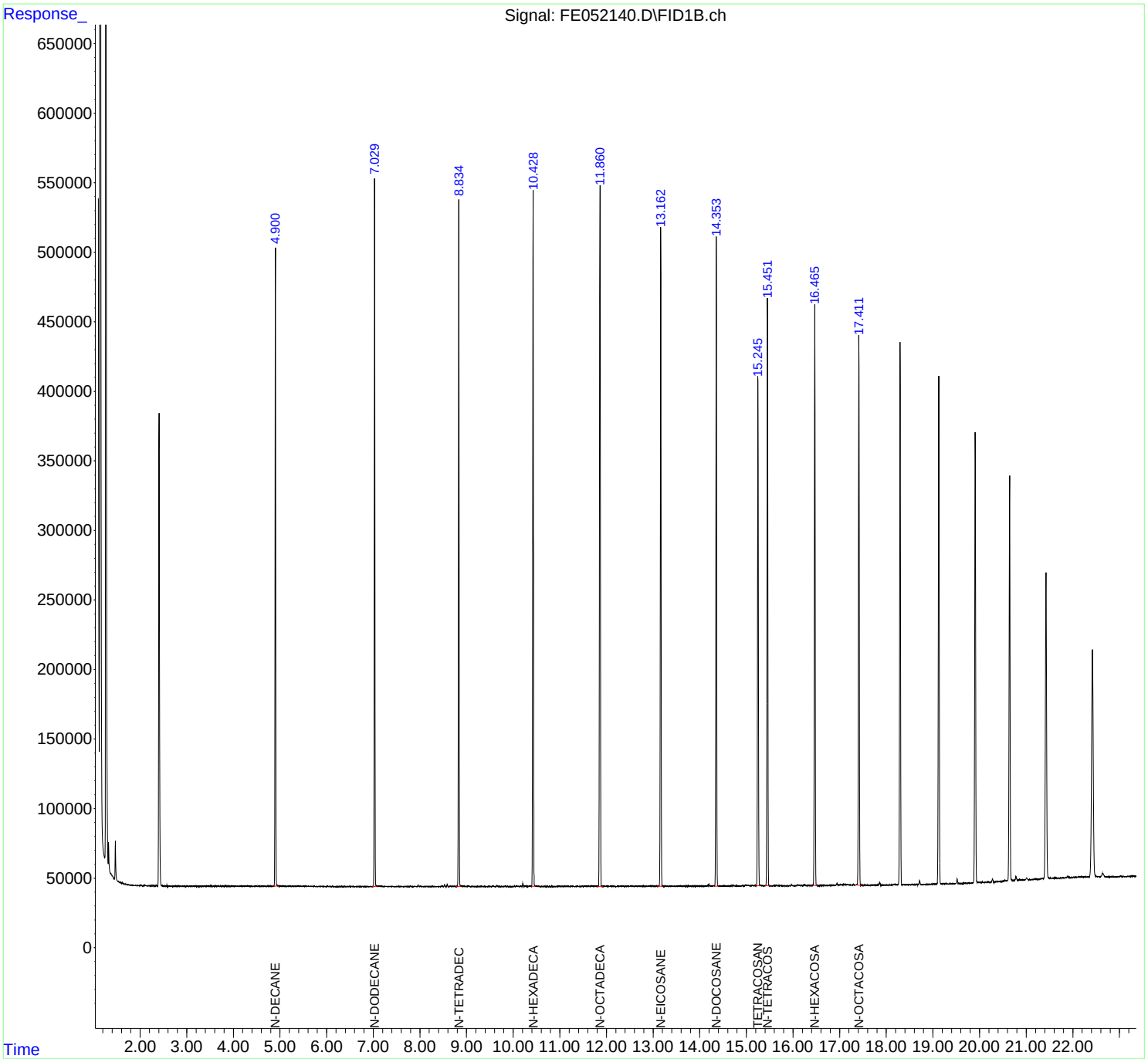
Integration File: autoint1.e
Quant Time: Jan 30 06:58:47 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\FE012325.M
Quant Title :
QLast Update : Fri Jan 24 03:06:38 2025
Response via : Initial Calibration
Integrator: ChemStation

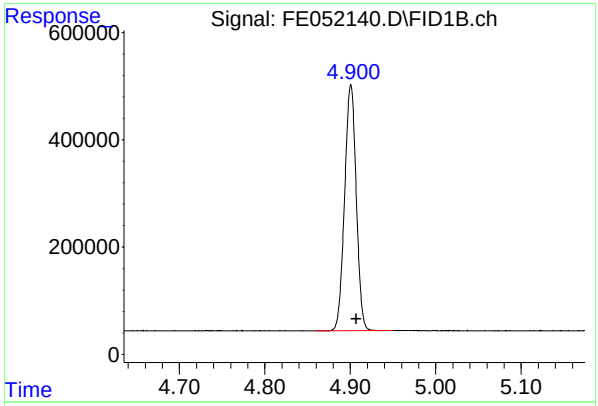
Volume Inj. : 1uL
Signal Phase : Rxi-1ms
Signal Info : 20mx0.18mmx0.18um

Instrument :
FID_E
ClientSampleId :
50 PPM TRPH STD

Manual Integrations APPROVED

Reviewed By :Yogesh Patel 01/30/2025
Supervised By :Ankita Jodhani 01/30/2025





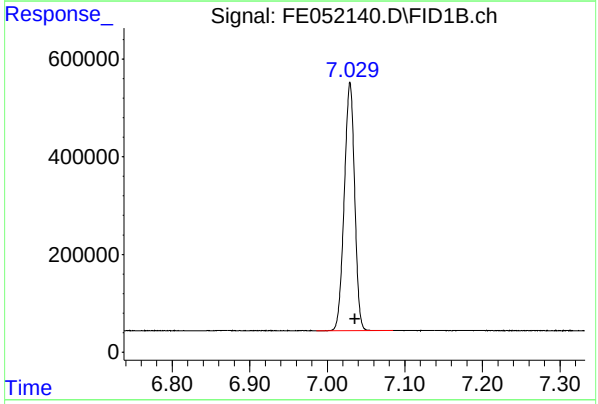
#2 N-DECANE

R.T.: 4.901 min
Delta R.T.: -0.007 min
Response: 4328980
Conc: 47.31 ug/ml

Instrument :
FID_E
ClientSampleId :
50 PPM TRPH STD

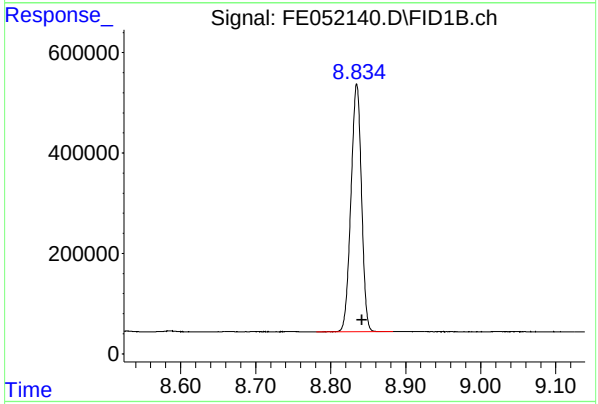
Manual Integrations
APPROVED

Reviewed By :Yogesh Patel 01/30/2025
Supervised By :Ankita Jodhani 01/30/2025



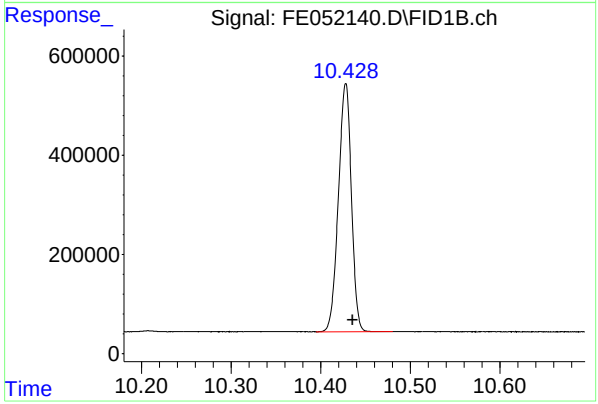
#3 N-DODECANE

R.T.: 7.029 min
Delta R.T.: -0.006 min
Response: 4727051
Conc: 47.31 ug/ml



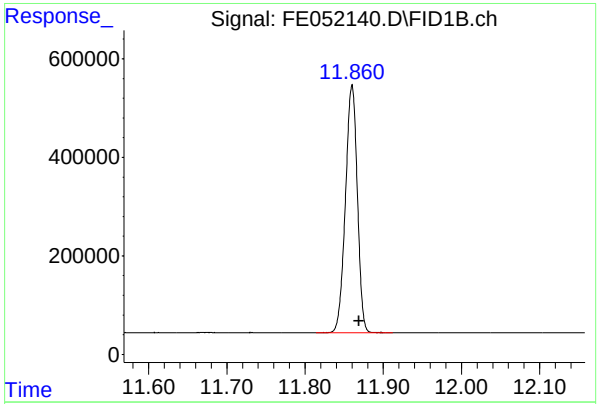
#4 N-TETRADECANE

R.T.: 8.835 min
Delta R.T.: -0.007 min
Response: 4812264
Conc: 47.30 ug/ml



#5 N-HEXADECANE

R.T.: 10.428 min
Delta R.T.: -0.008 min
Response: 5045030
Conc: 47.35 ug/ml



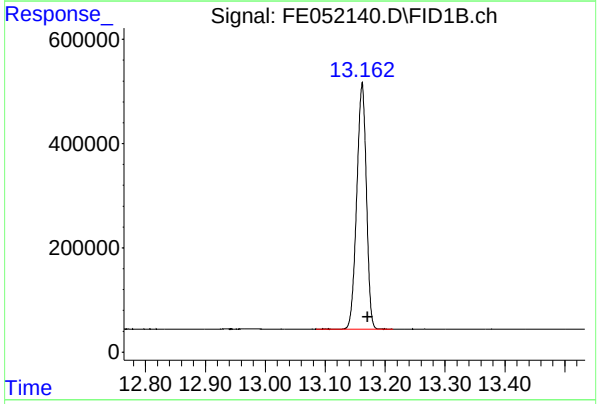
#6 N-OCTADECANE

R.T.: 11.860 min
Delta R.T.: -0.009 min
Response: 5310251
Conc: 47.36 ug/ml

Instrument :
FID_E
ClientSampleId :
50 PPM TRPH STD

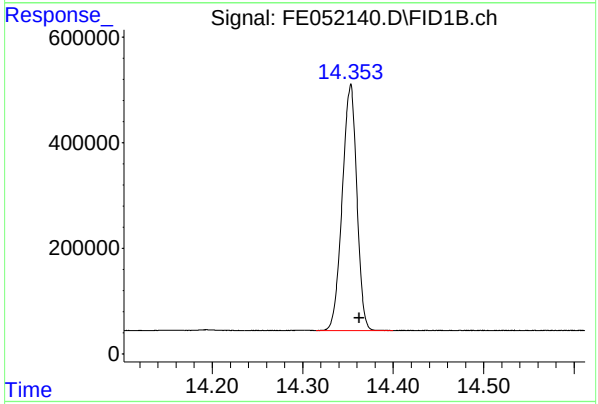
Manual Integrations
APPROVED

Reviewed By :Yogesh Patel 01/30/2025
Supervised By :Ankita Jodhani 01/30/2025



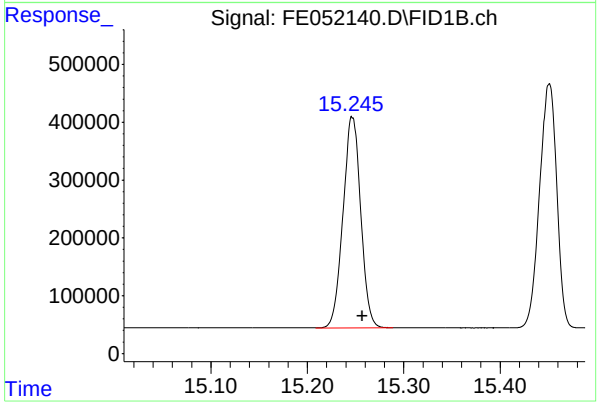
#7 N-EICOSANE

R.T.: 13.162 min
Delta R.T.: -0.009 min
Response: 5256437
Conc: 47.19 ug/ml



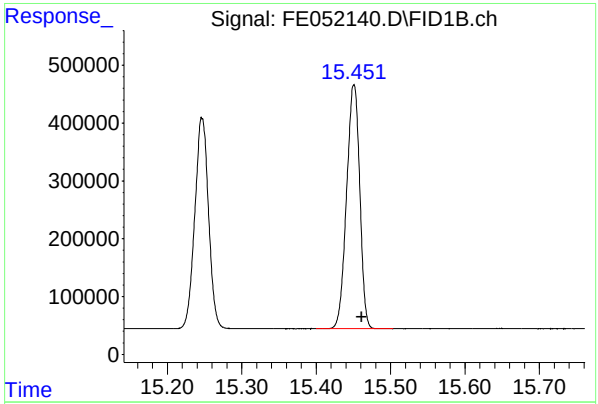
#8 N-DOCOSANE

R.T.: 14.353 min
Delta R.T.: -0.009 min
Response: 5215823
Conc: 46.98 ug/ml



#9 TETRACOSANE-d50 (SURROGATE)

R.T.: 15.245 min
Delta R.T.: -0.012 min
Response: 4680249
Conc: 46.99 ug/ml m



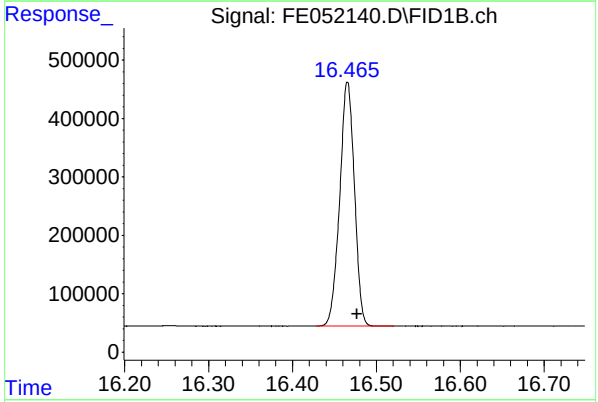
#10 N-TETRACOSANE

R.T.: 15.451 min
Delta R.T.: -0.010 mi
Response: 5191439
Conc: 46.93 ug/m

Instrument :
FID_E
ClientSampleId :
50 PPM TRPH STD

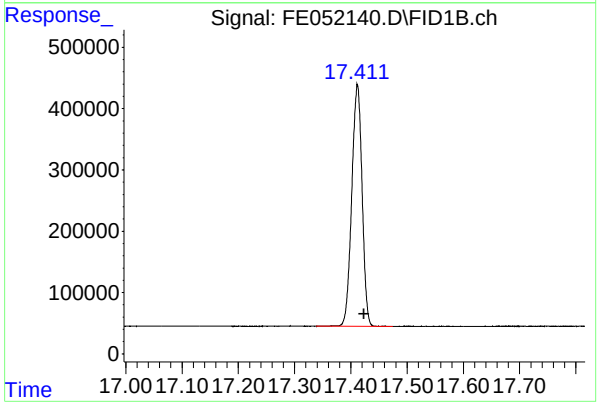
Manual Integrations
APPROVED

Reviewed By :Yogesh Patel 01/30/2025
Supervised By :Ankita Jodhani 01/30/2025



#11 N-HEXACOSANE

R.T.: 16.466 min
Delta R.T.: -0.011 min
Response: 5102096
Conc: 46.80 ug/ml



#12 N-OCTACOSANE

R.T.: 17.412 min
Delta R.T.: -0.012 min
Response: 5027534
Conc: 46.58 ug/ml

Instrument :
FID_E
LabSampleId :
50 PPM TRPH STD

rteres

Area Percent Report

Manual IntegrationsAPPROVED

Reviewed By :Yogesh Patel 01/30/2025
Supervised By :Ankita Jodhani 01/30/2025

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE01292
Data File : FE052140.D
Signal(s) : FID1B.ch
Acq On : 30 Jan 2025 03:58
Sample : 50 PPM TRPH STD
Misc :
ALS Vial : 99 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\FE012325.M
Title :

Signal : FID1B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	4.901	4.860	4.950	BB	458783	4328980	81.52%	7.913%
2	7.029	6.986	7.085	BB	508462	4727051	89.02%	8.641%
3	8.835	8.781	8.883	BV	493393	4812264	90.62%	8.796%
4	10.428	10.395	10.481	BB	500757	5045030	95.01%	9.222%
5	11.860	11.814	11.912	BB	504208	5310251	100.00%	9.707%
6	13.162	13.085	13.213	BB	470908	5256437	98.99%	9.608%
7	14.353	14.315	14.400	BB	466391	5215823	98.22%	9.534%
8	15.247	15.157	15.316	BB	363741	4689733	88.31%	8.573%
9	15.451	15.400	15.503	BB	421750	5191439	97.76%	9.490%
10	16.466	16.428	16.520	BB	417247	5102096	96.08%	9.326%
11	17.412	17.338	17.475	BB	392553	5027534	94.68%	9.190%
			Sum of corrected areas:			54706636		

FE012325.M Thu Jan 30 07:25:52 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: RUTW01

ProjectID: NYCDDC SANTWOBR Brooklyn Bridge BBMCR

Lab Code: CHEM Case No.: Q1207 SAS No.: Q1207 SDG No.: Q1207

DataFile: FE052152.D Analyst Name: YP\AJ Analyst Date: 01-30-2025

Conc. (PPM)	Area Count	RF	Average RF	%D
500	47032768	94066	106182	11.411

Quantitation Report (QT Reviewed)

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE012925\
Data File : FE052152.D
Signal(s) : FID1B.ch
Acq On : 30 Jan 2025 11:00
Operator : YP\AJ
Sample : 50 PPM TRPH STD
Misc :
ALS Vial : 99 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Jan 31 02:00:49 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\FE012325.M
Quant Title :
QLast Update : Fri Jan 24 03:06:38 2025
Response via : Initial Calibration
Integrator: ChemStation

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

Instrument :
FID_E
ClientSampleId :
50 PPM TRPH STD

Manual Integrations APPROVED

Reviewed By :Yogesh Patel 01/31/2025
Supervised By :Ankita Jodhani 01/31/2025

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
9)	S TETRACOSANE-d50 (SURR...	15.273	4388967	44.067 ug/ml
	Target Compounds			
2)	N-DECANE	4.936	4154331	45.400 ug/ml
3)	N-DODECANE	7.063	4475840	44.796 ug/ml
4)	N-TETRADECANE	8.866	4514219	44.367 ug/ml
5)	N-HEXADECANE	10.458	4719750	44.292 ug/ml
6)	N-OCTADECANE	11.890	4959940	44.237 ug/ml
7)	N-EICOSANE	13.190	4907257	44.059 ug/ml
8)	N-DOCOSANE	14.380	4873758	43.896 ug/ml
10)	N-TETRACOSANE	15.478	4871879	44.045 ug/ml
11)	N-HEXACOSANE	16.493	4804084	44.070 ug/ml
12)	N-OCTACOSANE	17.438	4751710	44.022 ug/mlm

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

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE012925\
Data File : FE052152.D
Signal(s) : FID1B.ch
Acq On : 30 Jan 2025 11:00
Operator : YP\AJ
Sample : 50 PPM TRPH STD
Misc :
ALS Vial : 99 Sample Multiplier: 1

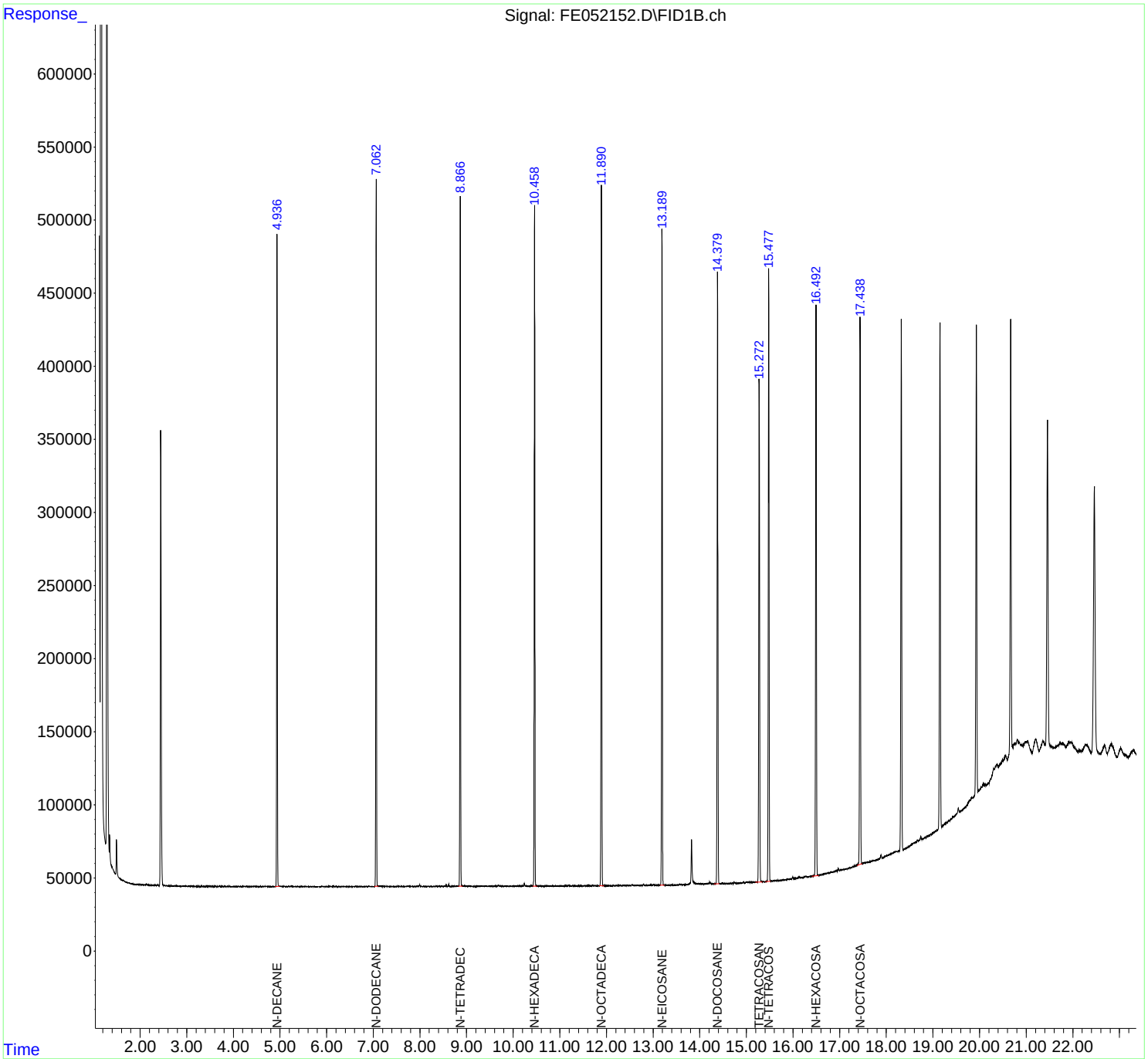
Integration File: autoint1.e
Quant Time: Jan 31 02:00:49 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\FE012325.M
Quant Title :
QLast Update : Fri Jan 24 03:06:38 2025
Response via : Initial Calibration
Integrator: ChemStation

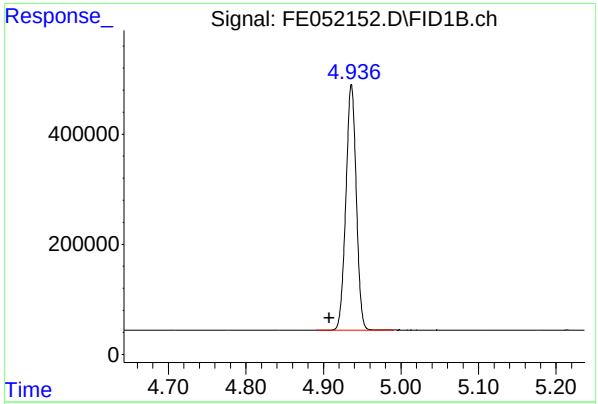
Volume Inj. : 1uL
Signal Phase : Rxi-1ms
Signal Info : 20mx0.18mmx0.18um

Instrument :
FID_E
ClientSampleId :
50 PPM TRPH STD

Manual Integrations APPROVED

Reviewed By :Yogesh Patel 01/31/2025
Supervised By :Ankita Jodhani 01/31/2025





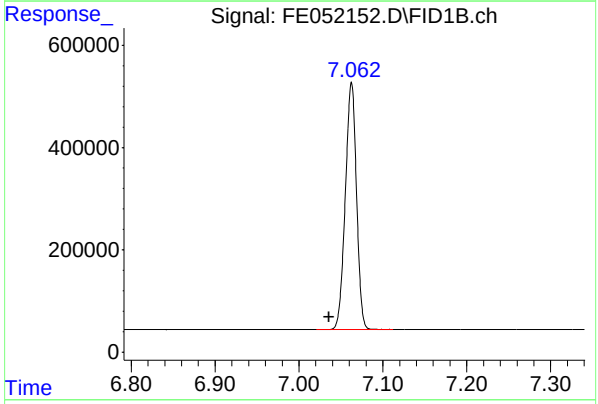
#2 N-DECANE

R.T.: 4.936 min
Delta R.T.: 0.029 min
Response: 4154331
Conc: 45.40 ug/ml

Instrument :
FID_E
ClientSampleId :
50 PPM TRPH STD

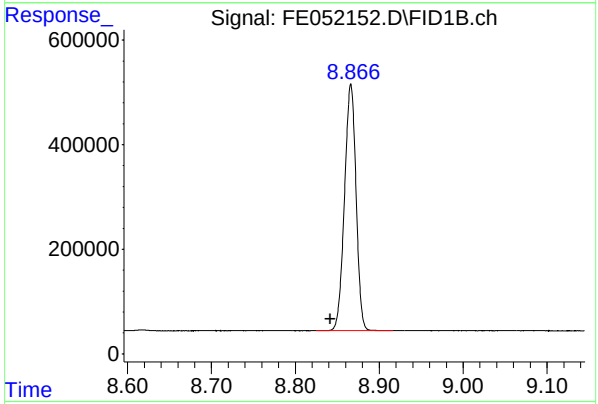
Manual Integrations
APPROVED

Reviewed By :Yogesh Patel 01/31/2025
Supervised By :Ankita Jodhani 01/31/2025



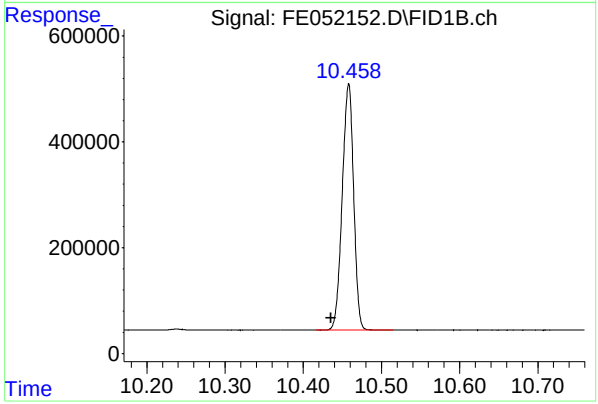
#3 N-DODECANE

R.T.: 7.063 min
Delta R.T.: 0.027 min
Response: 4475840
Conc: 44.80 ug/ml



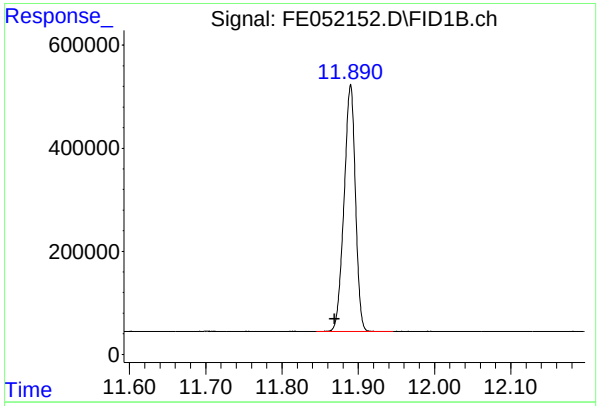
#4 N-TETRADECANE

R.T.: 8.866 min
Delta R.T.: 0.025 min
Response: 4514219
Conc: 44.37 ug/ml



#5 N-HEXADECANE

R.T.: 10.458 min
Delta R.T.: 0.023 min
Response: 4719750
Conc: 44.29 ug/ml



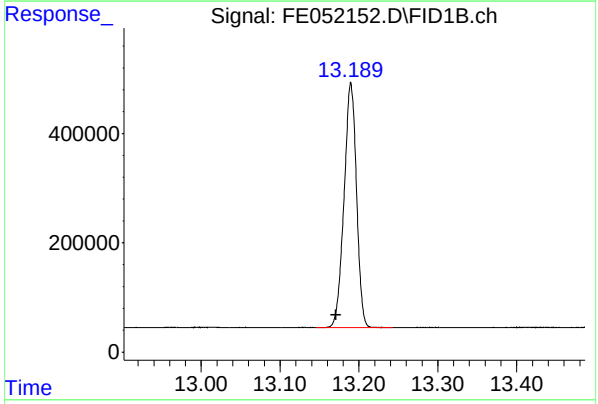
#6 N-OCTADECANE

R.T.: 11.890 min
Delta R.T.: 0.021 min
Response: 4959940
Conc: 44.24 ug/ml

Instrument :
FID_E
ClientSampleId :
50 PPM TRPH STD

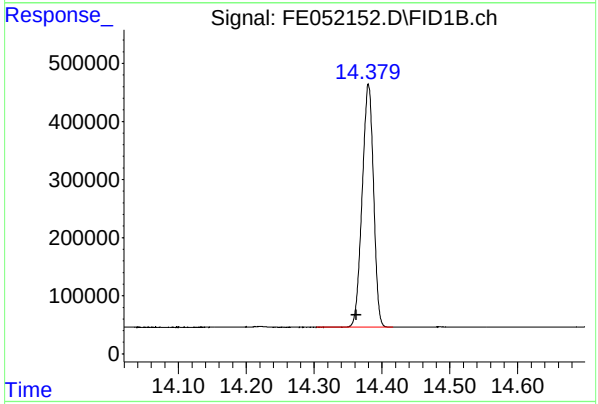
Manual Integrations
APPROVED

Reviewed By :Yogesh Patel 01/31/2025
Supervised By :Ankita Jodhani 01/31/2025



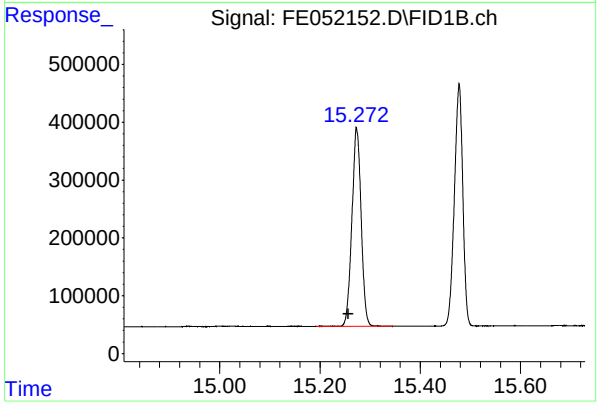
#7 N-EICOSANE

R.T.: 13.190 min
Delta R.T.: 0.019 min
Response: 4907257
Conc: 44.06 ug/ml



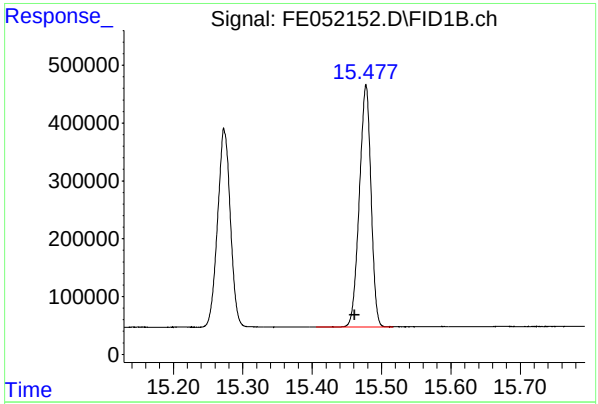
#8 N-DOCOSANE

R.T.: 14.380 min
Delta R.T.: 0.018 min
Response: 4873758
Conc: 43.90 ug/ml



#9 TETRACOSANE-d50 (SURROGATE)

R.T.: 15.273 min
Delta R.T.: 0.016 min
Response: 4388967
Conc: 44.07 ug/ml



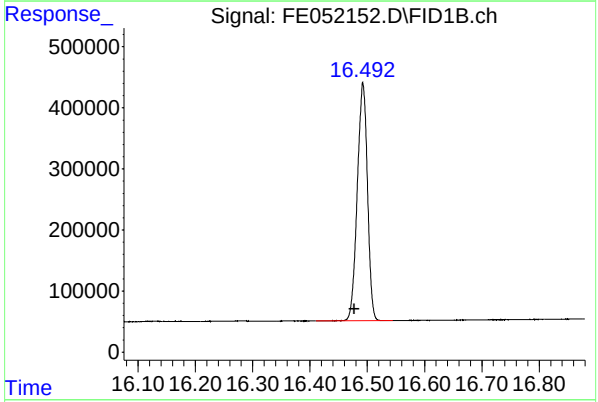
#10 N-TETRACOSANE

R.T.: 15.478 min
Delta R.T.: 0.017 min
Response: 4871879
Conc: 44.05 ug/ml

Instrument :
FID_E
ClientSampleId :
50 PPM TRPH STD

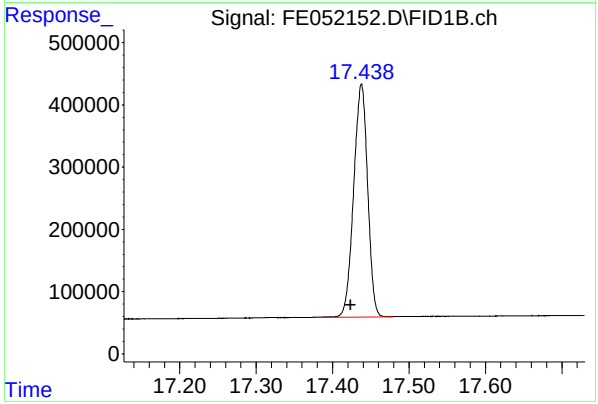
Manual Integrations
APPROVED

Reviewed By :Yogesh Patel 01/31/2025
Supervised By :Ankita Jodhani 01/31/2025



#11 N-HEXACOSANE

R.T.: 16.493 min
Delta R.T.: 0.016 min
Response: 4804084
Conc: 44.07 ug/ml



#12 N-OCTACOSANE

R.T.: 17.438 min
Delta R.T.: 0.014 min
Response: 4751710
Conc: 44.02 ug/ml m

Instrument :
FID_E
LabSampleId :
50 PPM TRPH STD

rteres

Area Percent Report

Manual IntegrationsAPPROVED

Reviewed By :Yogesh Patel 01/30/2025
Supervised By :Ankita Jodhani 01/30/2025

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE01292
Data File : FE052152.D
Signal(s) : FID1B.ch
Acq On : 30 Jan 2025 11:00
Sample : 50 PPM TRPH STD
Misc :
ALS Vial : 99 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\FE012325.M
Title :

Signal : FID1B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	4.936	4.891	4.990	BB	446393	4154331	83.76%	8.089%
2	7.063	7.021	7.112	BB	482909	4475840	90.24%	8.715%
3	8.866	8.825	8.916	BB	471864	4514219	91.01%	8.790%
4	10.458	10.416	10.515	BB	465533	4719750	95.16%	9.190%
5	11.890	11.845	11.946	BB	478551	4959940	100.00%	9.657%
6	13.190	13.146	13.243	BB	448553	4907257	98.94%	9.555%
7	14.380	14.303	14.416	BB	416287	4873758	98.26%	9.490%
8	15.273	15.192	15.346	BB	342145	4388967	88.49%	8.546%
9	15.478	15.406	15.516	BB	418791	4871879	98.22%	9.486%
10	16.493	16.411	16.545	BB	389582	4804084	96.86%	9.354%
11	17.438	17.011	17.478	BB	374331	4688759	94.53%	9.129%
			Sum of corrected areas:			51358783		

FE012325.M Fri Jan 31 02:29:20 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: RUTW01

ProjectID: NYCDDC SANTWOBR Brooklyn Bridge BBMCR

Lab Code: CHEM Case No.: Q1207 SAS No.: Q1207 SDG No.: Q1207

DataFile: FE052158.D Analyst Name: YP\AJ Analyst Date: 01-30-2025

Conc. (PPM)	Area Count	RF	Average RF	%D
500	47611916	95224	106182	10.32

Quantitation Report (QT Reviewed)

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE012925\
Data File : FE052158.D
Signal(s) : FID1B.ch
Acq On : 30 Jan 2025 14:06
Operator : YP\AJ
Sample : 50 PPM TRPH STD
Misc :
ALS Vial : 99 Sample Multiplier: 1

Instrument :
FID_E
ClientSampleId :
50 PPM TRPH STD

Integration File: autoint1.e
Quant Time: Jan 31 02:03:00 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\FE012325.M
Quant Title :
QLast Update : Fri Jan 24 03:06:38 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...	15.273	4444458	44.624 ug/ml
	Target Compounds			
2)	N-DECANE	4.935	4184814	45.734 ug/ml
3)	N-DODECANE	7.061	4518215	45.220 ug/ml
4)	N-TETRADECANE	8.865	4562084	44.837 ug/ml
5)	N-HEXADECANE	10.457	4774409	44.805 ug/ml
6)	N-OCTADECANE	11.888	5025212	44.819 ug/ml
7)	N-EICOSANE	13.189	4974420	44.662 ug/ml
8)	N-DOCOSANE	14.380	4939892	44.491 ug/ml
10)	N-TETRACOSANE	15.478	4940481	44.665 ug/ml
11)	N-HEXACOSANE	16.492	4867856	44.655 ug/ml
12)	N-OCTACOSANE	17.438	4824533	44.697 ug/ml

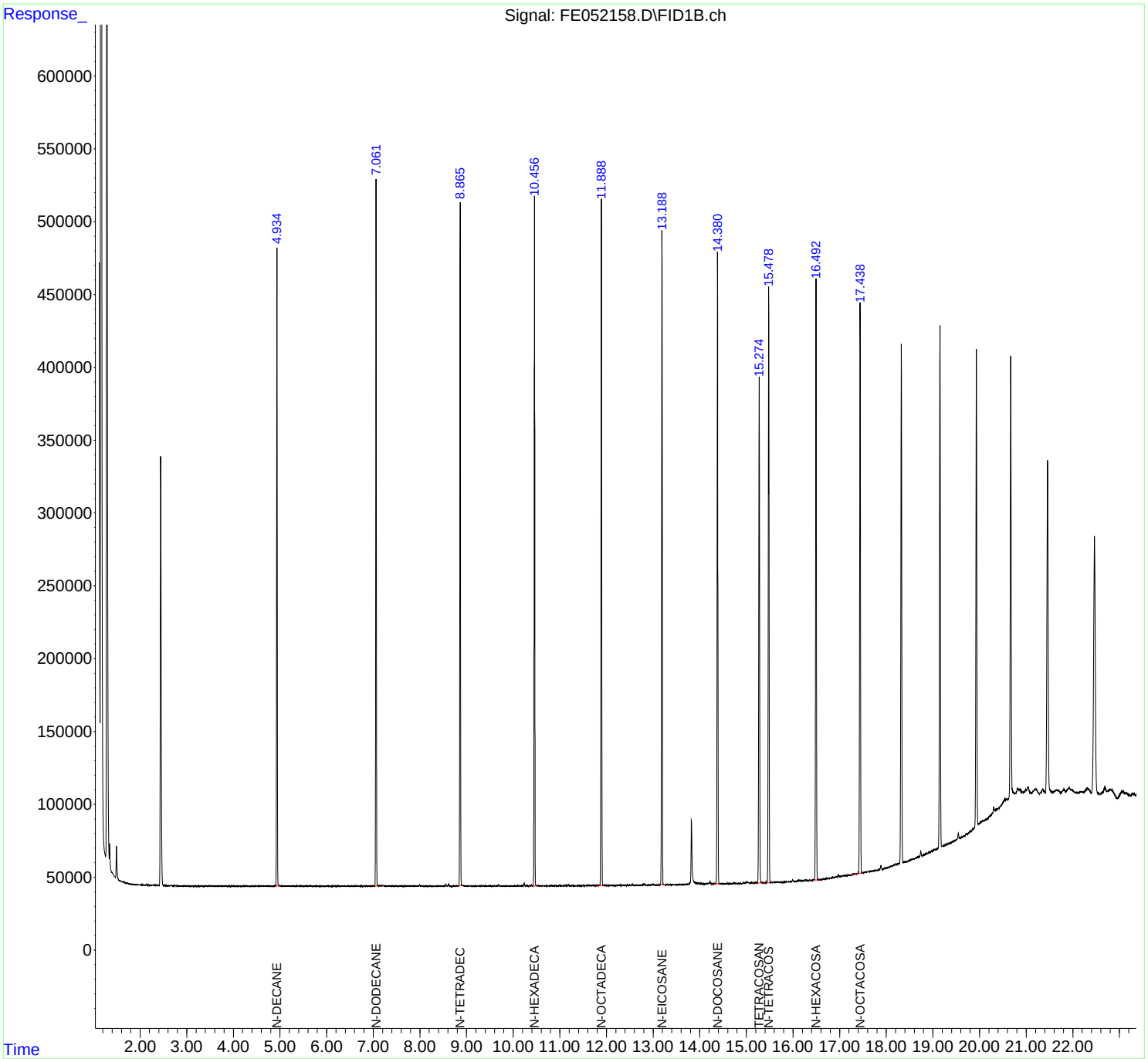
(f)=RT Delta > 1/2 Window (m)=manual int.

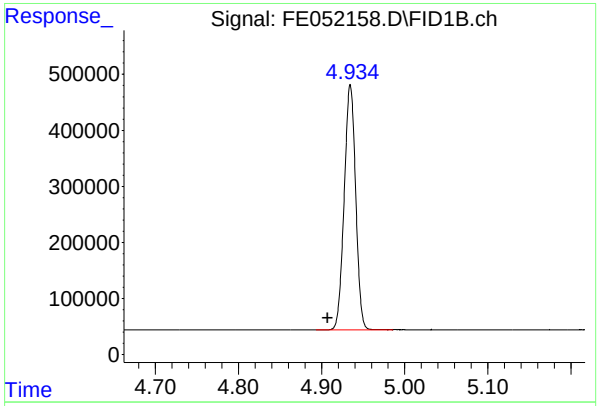
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE012925\
Data File : FE052158.D
Signal(s) : FID1B.ch
Acq On : 30 Jan 2025 14:06
Operator : YP\AJ
Sample : 50 PPM TRPH STD
Misc :
ALS Vial : 99 Sample Multiplier: 1

Instrument :
FID_E
ClientSampleId :
50 PPM TRPH STD

Integration File: autoint1.e
Quant Time: Jan 31 02:03:00 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\FE012325.M
Quant Title :
QLast Update : Fri Jan 24 03:06:38 2025
Response via : Initial Calibration
Integrator: ChemStation

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

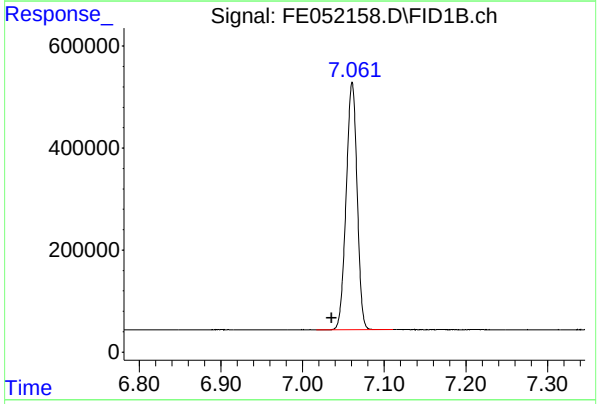




#2 N-DECANE

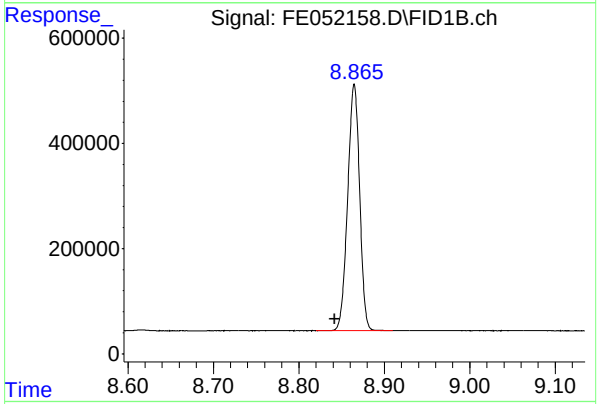
R.T.: 4.935 min
Delta R.T.: 0.027 min
Response: 4184814
Conc: 45.73 ug/ml

Instrument :
FID_E
ClientSampleId :
50 PPM TRPH STD



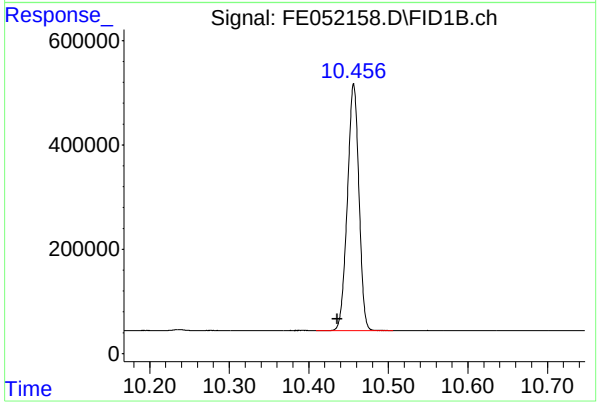
#3 N-DODECANE

R.T.: 7.061 min
Delta R.T.: 0.025 min
Response: 4518215
Conc: 45.22 ug/ml



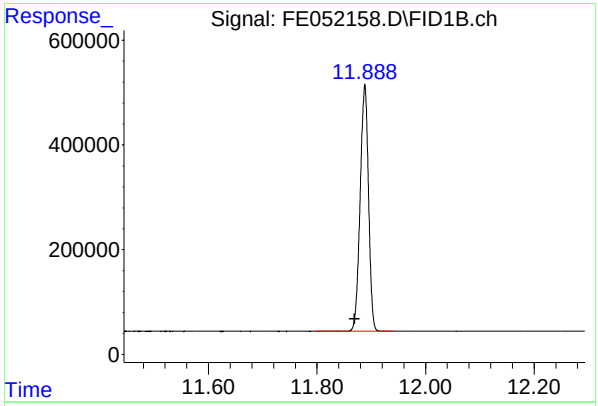
#4 N-TETRADECANE

R.T.: 8.865 min
Delta R.T.: 0.023 min
Response: 4562084
Conc: 44.84 ug/ml



#5 N-HEXADECANE

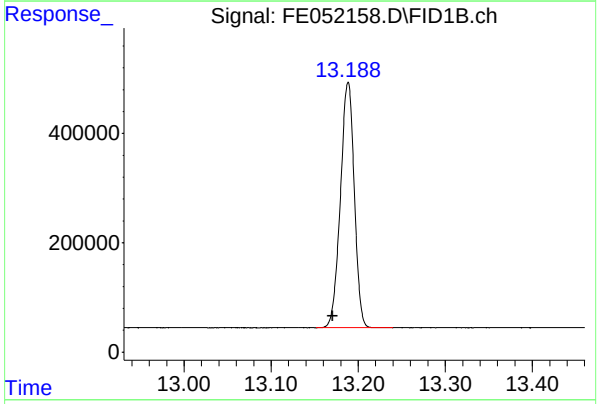
R.T.: 10.457 min
Delta R.T.: 0.021 min
Response: 4774409
Conc: 44.81 ug/ml



#6 N-OCTADECANE

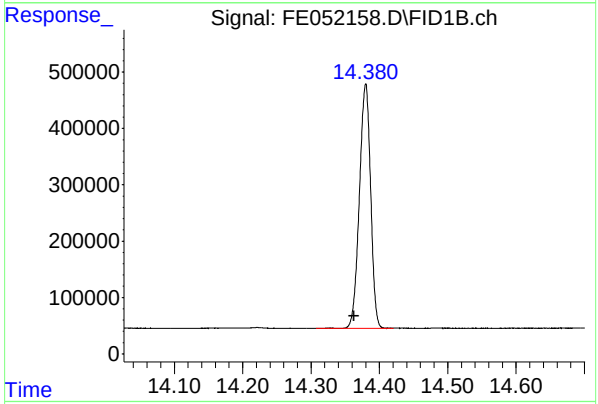
R.T.: 11.888 min
Delta R.T.: 0.019 min
Response: 5025212
Conc: 44.82 ug/ml

Instrument :
FID_E
ClientSampleId :
50 PPM TRPH STD



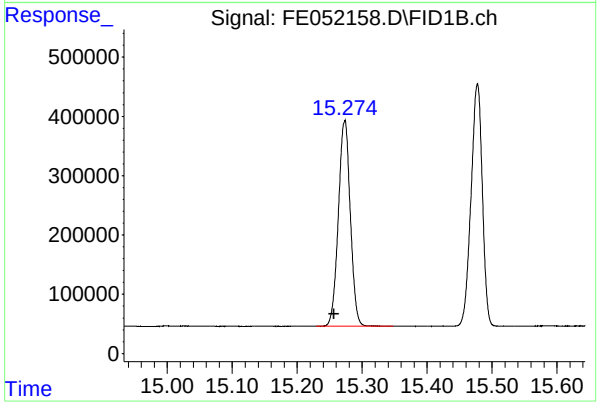
#7 N-EICOSANE

R.T.: 13.189 min
Delta R.T.: 0.018 min
Response: 4974420
Conc: 44.66 ug/ml



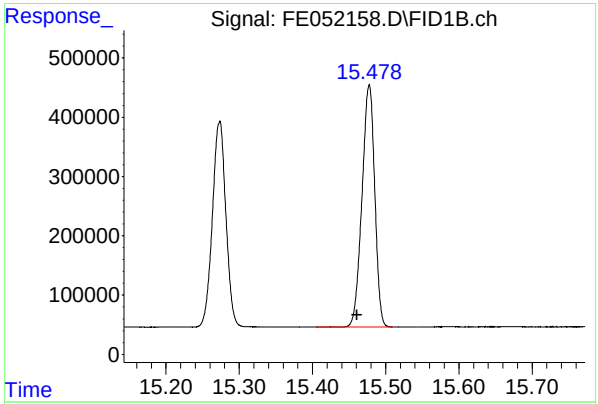
#8 N-DOCOSANE

R.T.: 14.380 min
Delta R.T.: 0.018 min
Response: 4939892
Conc: 44.49 ug/ml



#9 TETRACOSANE-d50 (SURROGATE)

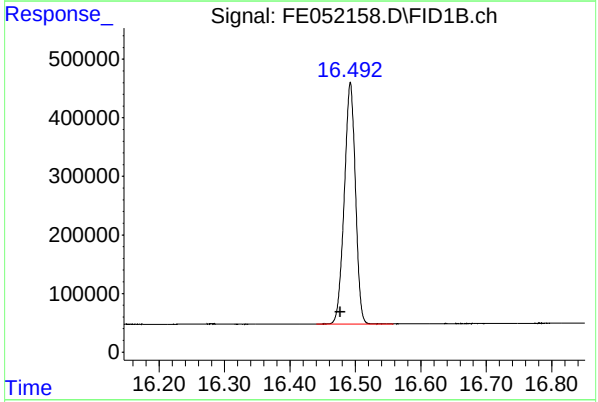
R.T.: 15.273 min
Delta R.T.: 0.016 min
Response: 4444458
Conc: 44.62 ug/ml



#10 N-TETRACOSANE

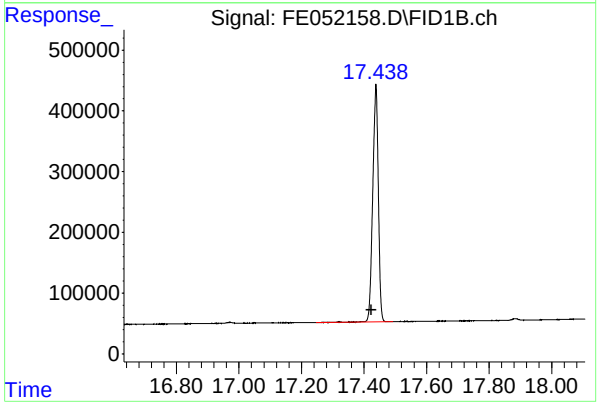
R.T.: 15.478 min
Delta R.T.: 0.017 min
Response: 4940481
Conc: 44.67 ug/ml

Instrument :
FID_E
ClientSampleId :
50 PPM TRPH STD



#11 N-HEXACOSANE

R.T.: 16.492 min
Delta R.T.: 0.015 min
Response: 4867856
Conc: 44.66 ug/ml



#12 N-OCTACOSANE

R.T.: 17.438 min
Delta R.T.: 0.015 min
Response: 4824533
Conc: 44.70 ug/ml

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE012925\
Data File : FE052158.D
Signal(s) : FID1B.ch
Acq On : 30 Jan 2025 14:06
Sample : 50 PPM TRPH STD
Misc :
ALS Vial : 99 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\FE012325.M
Title :

Signal : FID1B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	4.935	4.893	4.986	BB	436879	4184814	83.28%	8.039%
2	7.061	7.017	7.111	BB	484960	4518215	89.91%	8.679%
3	8.865	8.820	8.910	BB	469021	4562084	90.78%	8.764%
4	10.457	10.409	10.506	BB	473367	4774409	95.01%	9.172%
5	11.888	11.798	11.940	BB	471165	5025212	100.00%	9.653%
6	13.189	13.152	13.240	BB	448747	4974420	98.99%	9.556%
7	14.380	14.307	14.420	BB	433685	4939892	98.30%	9.490%
8	15.273	15.229	15.347	BV	346368	4444458	88.44%	8.538%
9	15.478	15.405	15.510	BB	408621	4940481	98.31%	9.491%
10	16.492	16.440	16.557	BB	412501	4867856	96.87%	9.351%
11	17.438	17.247	17.492	BB	390955	4824533	96.01%	9.268%

Sum of corrected areas: 52056373

FE012325.M Fri Jan 31 02:30:59 2025

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

Analytical Sequence

Client: RU2 Engineering, LLC **SDG No.:** Q1207

Project: NYCDDC SANTWOBR Brooklyn Bridge BBMCR **Instrument ID:** FID_E

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 **15.2554**

EPA SAMPLE NO.	LAB SAMPLE ID	DATE AND TIME ANALYZED	DATAFILE	RT	#
PIBLK01	I.BLK01	30 Jan 2025 03:28	FE052139.D	15.244	
50 PPM TRPH STD	50 PPM TRPH STD	30 Jan 2025 03:58	FE052140.D	15.247	
PB166348BL	PB166348BL	30 Jan 2025 04:58	FE052142.D	15.244	
PB166348BS	PB166348BS	30 Jan 2025 05:28	FE052143.D	15.243	
JPP-2.1-012725	Q1207-01	30 Jan 2025 06:59	FE052146.D	15.261	
JPP-5.1-012725	Q1207-05	30 Jan 2025 07:29	FE052147.D	15.210	
JPP-16.2-012725	Q1207-13	30 Jan 2025 08:29	FE052148.D	15.220	
JPP-20.2-012725	Q1207-17	30 Jan 2025 09:29	FE052150.D	15.274	
PIBLK02	I.BLK02	30 Jan 2025 10:30	FE052151.D	15.274	
50 PPM TRPH STD	50 PPM TRPH STD	30 Jan 2025 11:00	FE052152.D	15.273	
JPP-4.5-012725	Q1207-09	30 Jan 2025 11:59	FE052154.D	15.269	
PIBLK03	I.BLK03	30 Jan 2025 13:36	FE052157.D	15.272	
50 PPM TRPH STD	50 PPM TRPH STD	30 Jan 2025 14:06	FE052158.D	15.273	

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

QC Limits	Lower Limit	Upper Limits
(± 0.10 minutes)	15.1554	15.3554

QC SAMPLE DATA

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

Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	
Client Sample ID:	PB166348BL	SDG No.:	Q1207
Lab Sample ID:	PB166348BL	Matrix:	SOIL
Analytical Method:	8015D DRO	% Solid:	100 Decanted:
Sample Wt/Vol:	30.01 Units: g	Final Vol:	1 mL
Soil Aliquot Vol:	uL	Test:	Diesel Range Organics
Extraction Type:		Injection Volume :	
GPC Factor :	PH :		
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
FE052142.D	1	01/29/25 08:45	01/30/25 4:58	PB166348

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
DRO	DRO	1670	U	185	1670	ug/kg
SURROGATES						
16416-32-3	Tetracosane-d50	18.0		37 - 130	90%	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_E\Data\FE012925\
Data File : FE052142.D
Signal(s) : FID1B.ch
Acq On : 30 Jan 2025 04:58
Operator : YP\AJ
Sample : PB166348BL
Misc :
ALS Vial : 26 Sample Multiplier: 1

Instrument :
FID_E
ClientSampleId :
PB166348BL

Integration File: autoint1.e
Quant Time: Jan 30 06:59:05 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\FE012325.M
Quant Title :
QLast Update : Fri Jan 24 03:06:38 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...	15.244	1793825	18.011 ug/ml
Target Compounds			

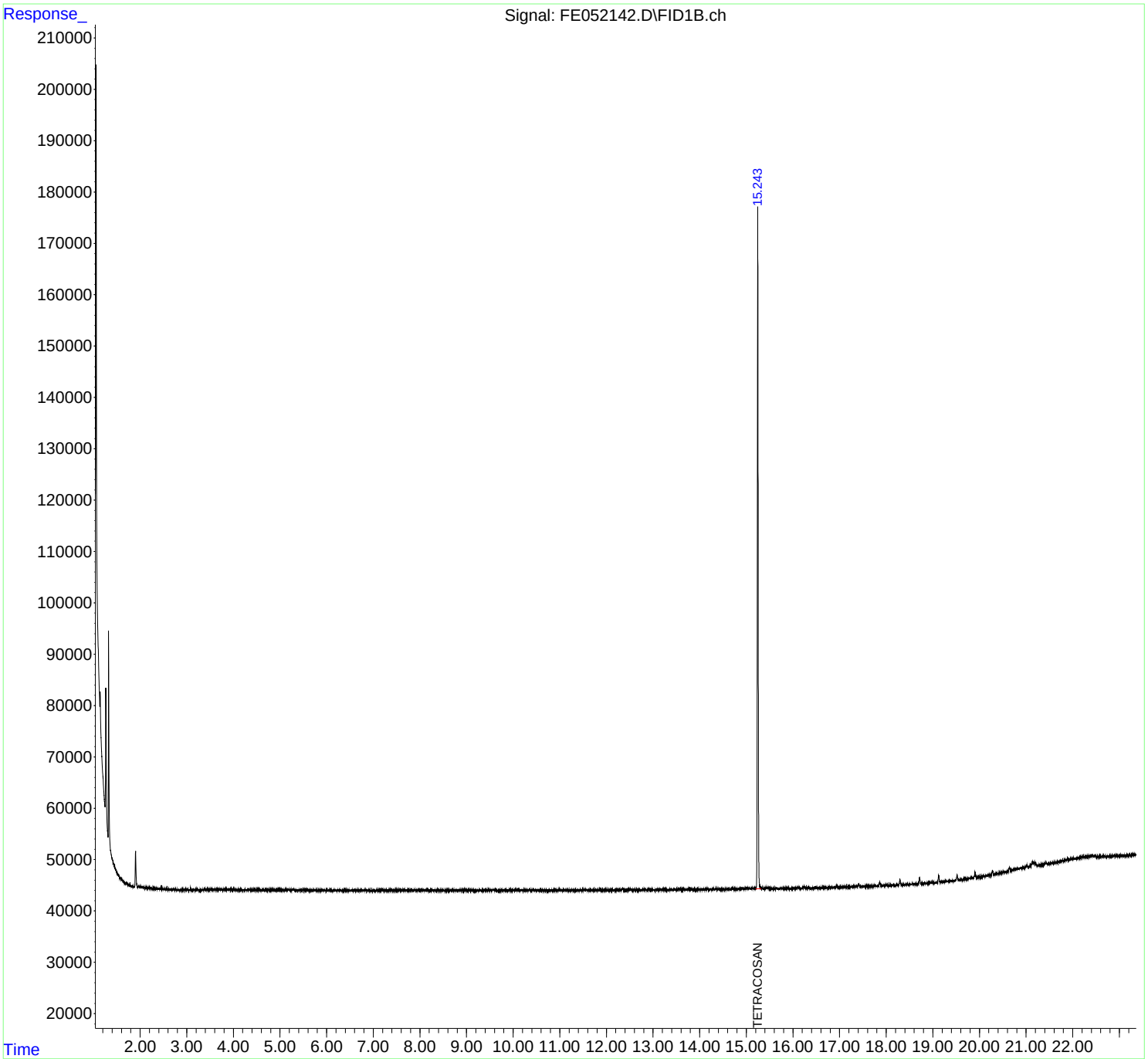
(f)=RT Delta > 1/2 Window (m)=manual int.

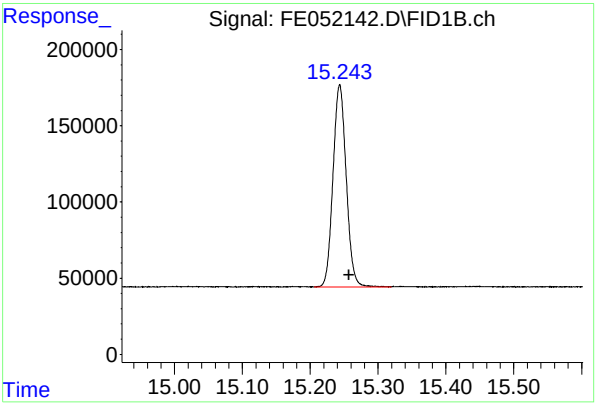
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE012925\
Data File : FE052142.D
Signal(s) : FID1B.ch
Acq On : 30 Jan 2025 04:58
Operator : YP\AJ
Sample : PB166348BL
Misc :
ALS Vial : 26 Sample Multiplier: 1

Instrument :
FID_E
ClientSampleId :
PB166348BL

Integration File: autoint1.e
Quant Time: Jan 30 06:59:05 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\FE012325.M
Quant Title :
QLast Update : Fri Jan 24 03:06:38 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.: 15.244 min
Delta R.T.: -0.013 mi
Response: 1793825
Conc: 18.01 ug/m

Instrument :
FID_E
ClientSampleId :
PB166348BL

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE012925\
Data File : FE052142.D
Signal(s) : FID1B.ch
Acq On : 30 Jan 2025 04:58
Sample : PB166348BL
Misc :
ALS Vial : 26 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\FE012325.M
Title :

Signal : FID1B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	15.244	15.206	15.319	BB	132579	1793825	100.00%	100.000%
			Sum of corrected areas:			1793825		

FE012325.M Thu Jan 30 07:26:21 2025

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

Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/30/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	PIBLK-FE052139.D	SDG No.:	Q1207
Lab Sample ID:	I.BLK-FE052139.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
FE052139.D	1		01/30/25	FE012925

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
DRO	DRO	50.0	U	10.0	50.0	ug/L
SURROGATES						
16416-32-3	Tetracosane-d50	18.3		29 - 130	91%	SPK: 20

Comments:

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

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

Quantitation Report (QT Reviewed)

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE012925\
Data File : FE052139.D
Signal(s) : FID1B.ch
Acq On : 30 Jan 2025 03:28
Operator : YP\AJ
Sample : I.BLK
Misc :
ALS Vial : 98 Sample Multiplier: 1

Instrument :
FID_E
ClientSampleId :
I.BLK

Integration File: autoint1.e
Quant Time: Jan 30 06:58:39 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\FE012325.M
Quant Title :
QLast Update : Fri Jan 24 03:06:38 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...	15.244	1820133	18.275 ug/ml
Target Compounds			

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

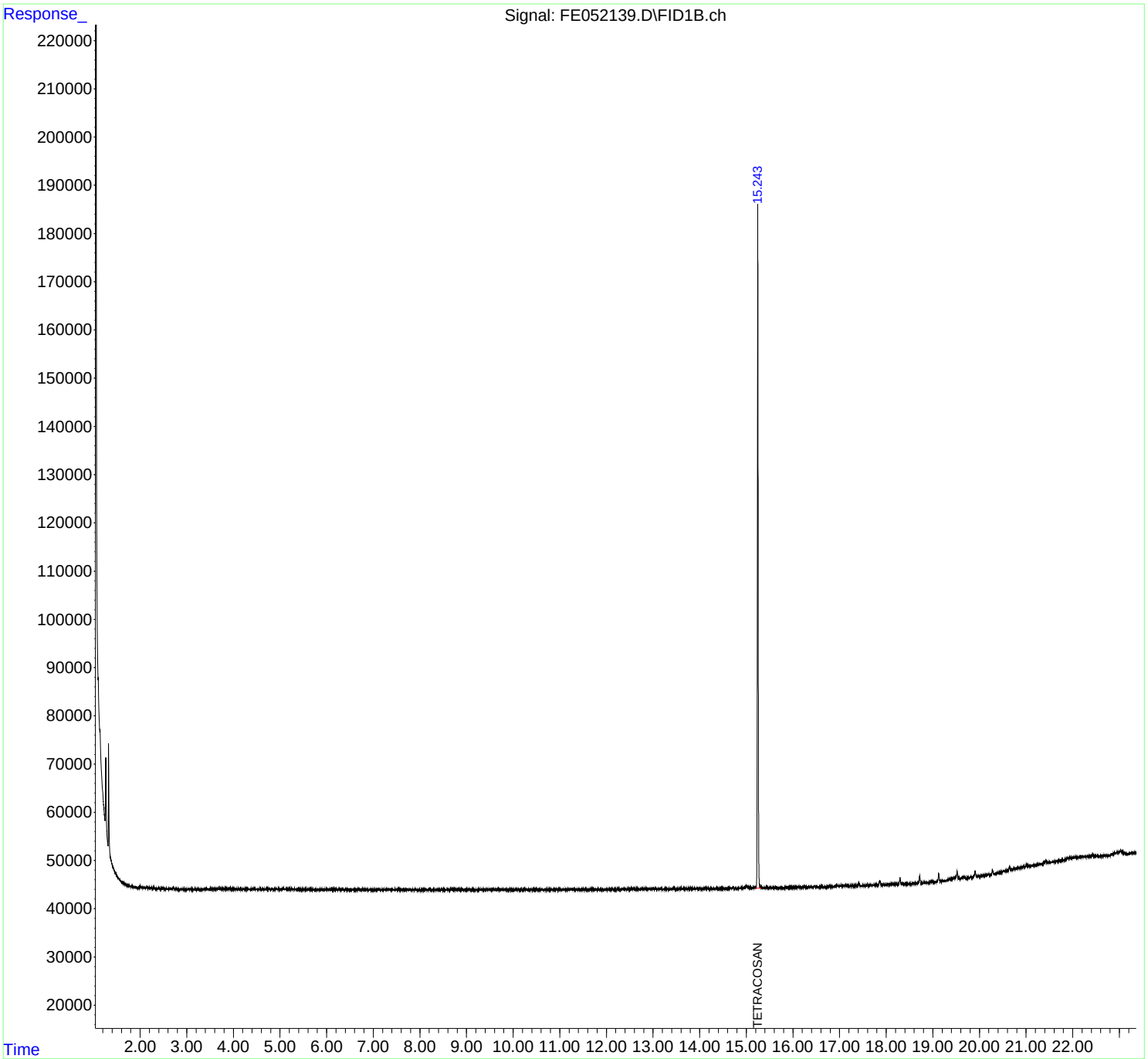
Quantitation Report (QT Reviewed)

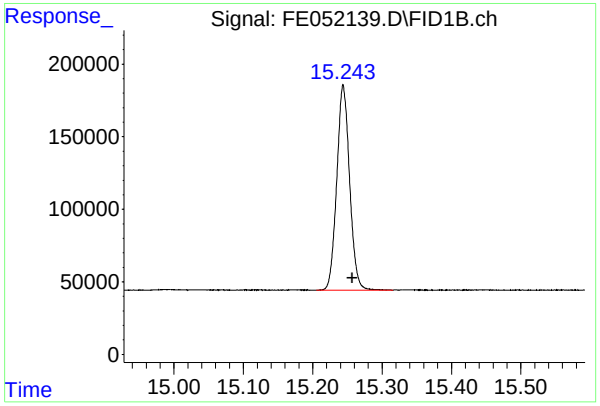
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE012925\
Data File : FE052139.D
Signal(s) : FID1B.ch
Acq On : 30 Jan 2025 03:28
Operator : YP\AJ
Sample : I.BLK
Misc :
ALS Vial : 98 Sample Multiplier: 1

Instrument :
FID_E
ClientSampleId :
I.BLK

Integration File: autoint1.e
Quant Time: Jan 30 06:58:39 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\FE012325.M
Quant Title :
QLast Update : Fri Jan 24 03:06:38 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.: 15.244 min
Delta R.T.: -0.013 mi
Response: 1820133
Conc: 18.27 ug/m

Instrument :
FID_E
ClientSampleId :
I.BLK

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE012925\
Data File : FE052139.D
Signal(s) : FID1B.ch
Acq On : 30 Jan 2025 03:28
Sample : I.BLK
Misc :
ALS Vial : 98 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\FE012325.M
Title :

Signal : FID1B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	15.244	15.205	15.316	BB	141679	1820133	100.00%	100.000%
			Sum of corrected areas:			1820133		

FE012325.M Thu Jan 30 07:24:57 2025

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

Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/30/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	PIBLK-FE052151.D	SDG No.:	Q1207
Lab Sample ID:	I.BLK-FE052151.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
FE052151.D	1		01/30/25	FE012925

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
DRO	DRO	50.0	U	10.0	50.0	ug/L
SURROGATES						
16416-32-3	Tetracosane-d50	17.1		29 - 130	86%	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_E\Data\FE012925\
Data File : FE052151.D
Signal(s) : FID1B.ch
Acq On : 30 Jan 2025 10:30
Operator : YP\AJ
Sample : I.BLK
Misc :
ALS Vial : 98 Sample Multiplier: 1

Instrument :
FID_E
ClientSampleId :
I.BLK

Integration File: autoint1.e
Quant Time: Jan 31 02:00:31 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\FE012325.M
Quant Title :
QLast Update : Fri Jan 24 03:06:38 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...	15.274	1706234	17.131 ug/ml
Target Compounds			

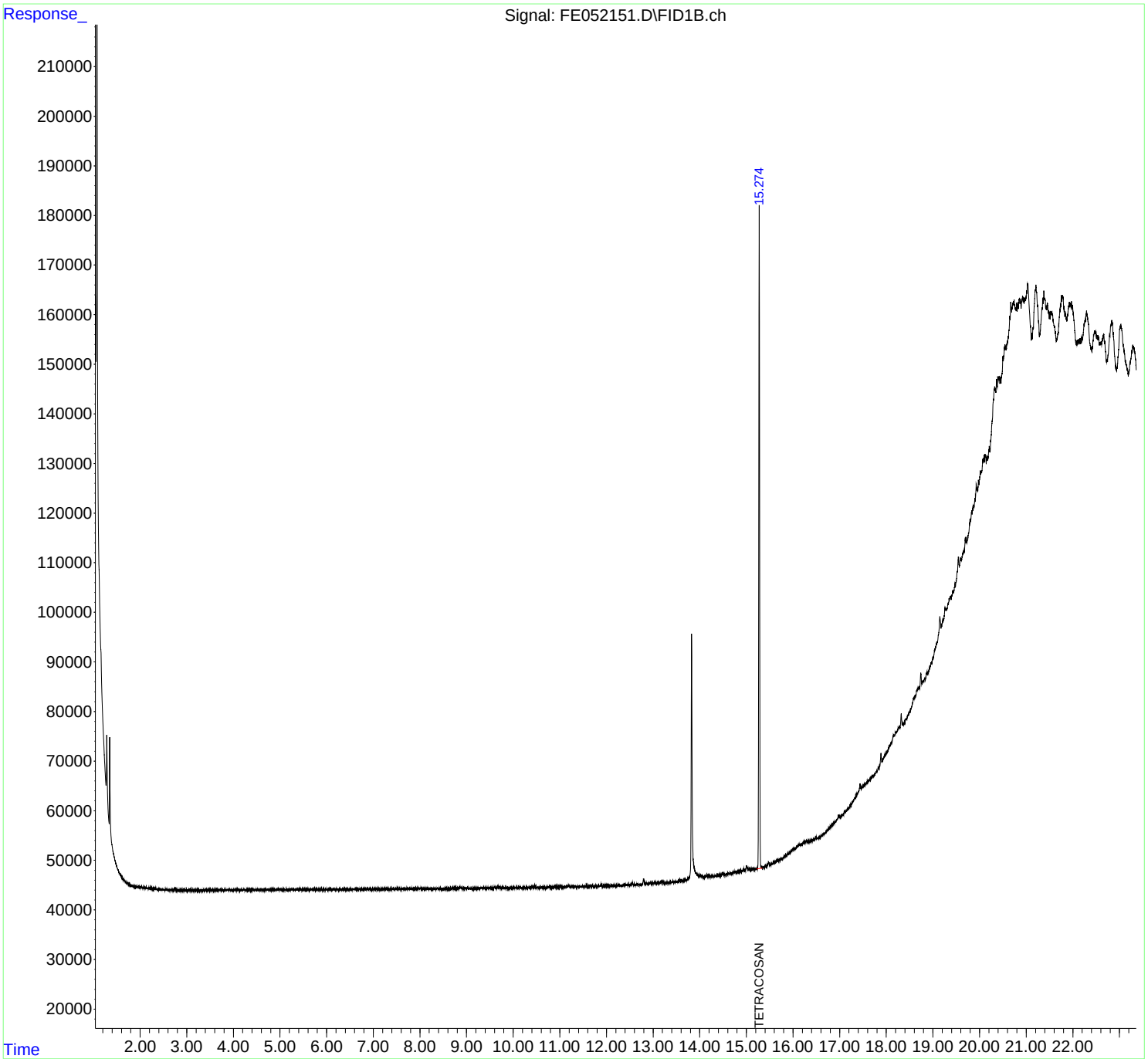
(f)=RT Delta > 1/2 Window (m)=manual int.

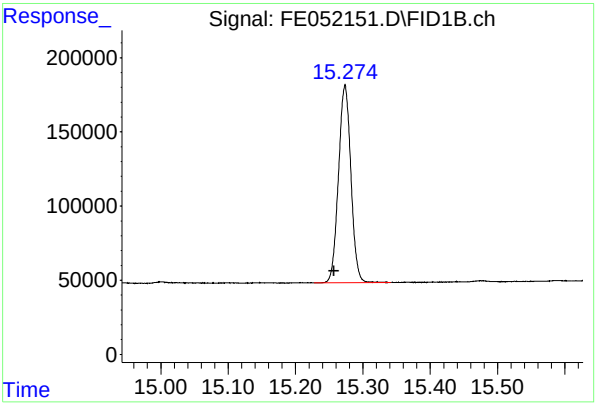
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE012925\
Data File : FE052151.D
Signal(s) : FID1B.ch
Acq On : 30 Jan 2025 10:30
Operator : YP\AJ
Sample : I.BLK
Misc :
ALS Vial : 98 Sample Multiplier: 1

Instrument :
FID_E
ClientSampleId :
I.BLK

Integration File: autoint1.e
Quant Time: Jan 31 02:00:31 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\FE012325.M
Quant Title :
QLast Update : Fri Jan 24 03:06:38 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.: 15.274 min
Delta R.T.: 0.017 mir
Response: 1706234
Conc: 17.13 ug/m

Instrument :
FID_E
ClientSampleId :
I.BLK

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE012925\
Data File : FE052151.D
Signal(s) : FID1B.ch
Acq On : 30 Jan 2025 10:30
Sample : I.BLK
Misc :
ALS Vial : 98 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\FE012325.M
Title :

Signal : FID1B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	15.274	15.227	15.342	BB	133319	1706234	100.00%	100.000%
			Sum of corrected areas:			1706234		

FE012325.M Fri Jan 31 02:28:46 2025

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

Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/30/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	PIBLK-FE052157.D	SDG No.:	Q1207
Lab Sample ID:	I.BLK-FE052157.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
FE052157.D	1		01/30/25	FE012925

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
DRO	DRO	50.0	U	10.0	50.0	ug/L
SURROGATES						
16416-32-3	Tetracosane-d50	17.5		29 - 130	87%	SPK: 20

Comments:

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

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

Quantitation Report (QT Reviewed)

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE012925\
Data File : FE052157.D
Signal(s) : FID1B.ch
Acq On : 30 Jan 2025 13:36
Operator : YP\AJ
Sample : I.BLK
Misc :
ALS Vial : 98 Sample Multiplier: 1

Instrument :
FID_E
ClientSampleId :
I.BLK

Integration File: autoint1.e
Quant Time: Jan 31 02:02:43 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\FE012325.M
Quant Title :
QLast Update : Fri Jan 24 03:06:38 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...	15.272	1738849	17.459 ug/ml
Target Compounds			

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

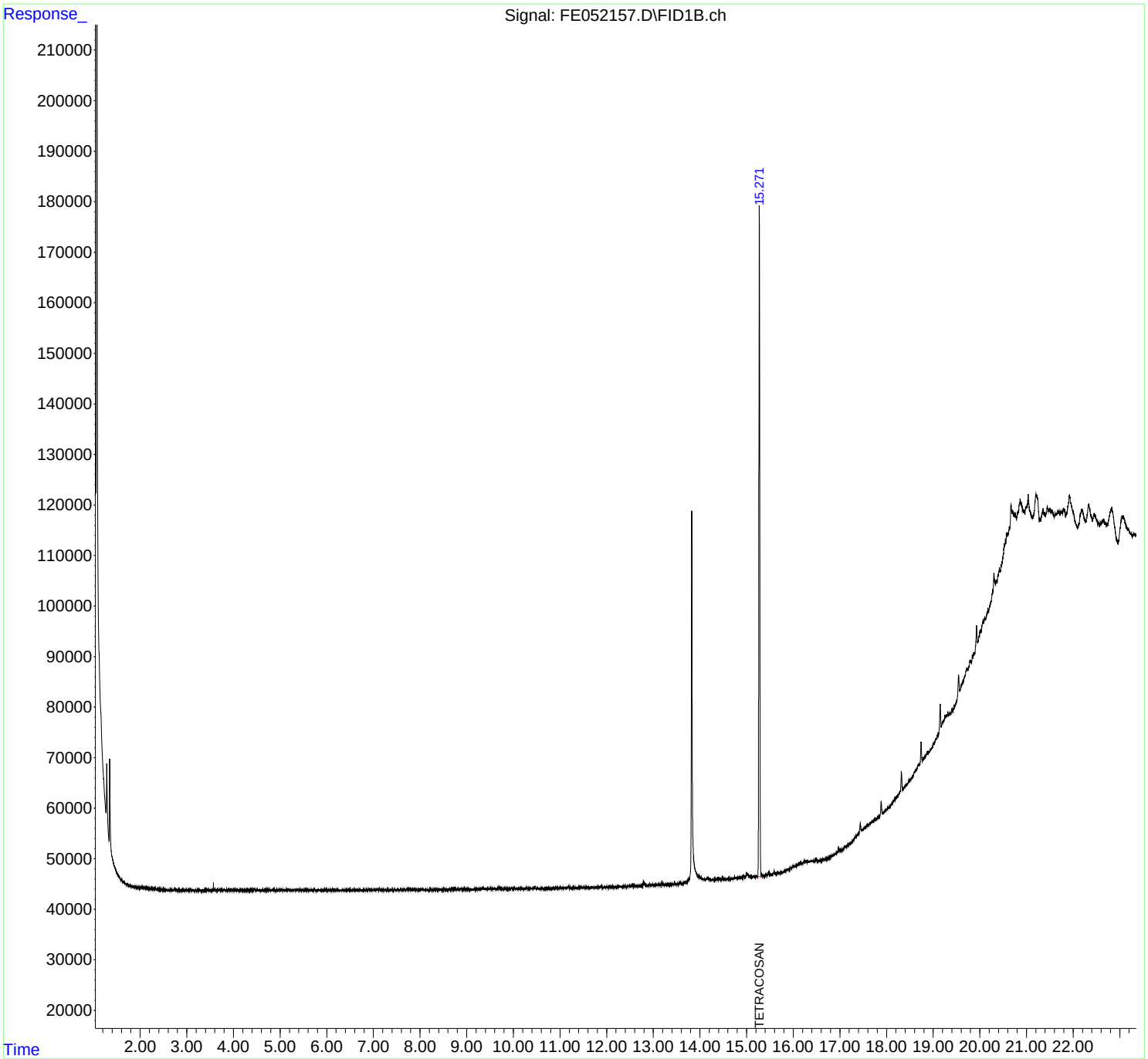
Quantitation Report (QT Reviewed)

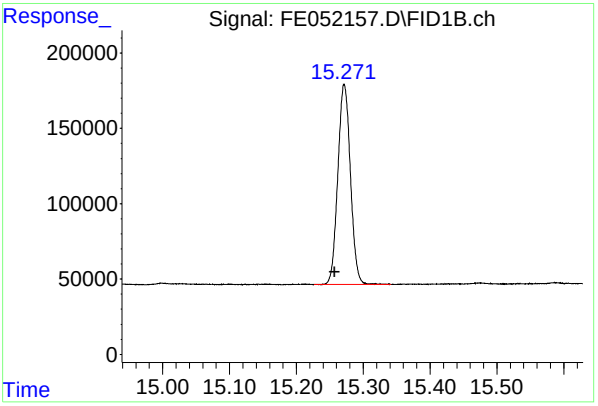
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE012925\
Data File : FE052157.D
Signal(s) : FID1B.ch
Acq On : 30 Jan 2025 13:36
Operator : YP\AJ
Sample : I.BLK
Misc :
ALS Vial : 98 Sample Multiplier: 1

Instrument :
FID_E
ClientSampleId :
I.BLK

Integration File: autoint1.e
Quant Time: Jan 31 02:02:43 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\FE012325.M
Quant Title :
QLast Update : Fri Jan 24 03:06:38 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.: 15.272 min
Delta R.T.: 0.015 mi
Response: 1738849
Conc: 17.46 ug/m

Instrument :
FID_E
ClientSampleId :
I.BLK

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE012925\
Data File : FE052157.D
Signal(s) : FID1B.ch
Acq On : 30 Jan 2025 13:36
Sample : I.BLK
Misc :
ALS Vial : 98 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\FE012325.M
Title :

Signal : FID1B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	15.272	15.226	15.341	BB	132629	1738849	100.00%	100.000%

Sum of corrected areas: 1738849

FE012325.M Fri Jan 31 02:30:26 2025

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

Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	
Client Sample ID:	PB166348BS	SDG No.:	Q1207
Lab Sample ID:	PB166348BS	Matrix:	SOIL
Analytical Method:	8015D DRO	% Solid:	100 Decanted:
Sample Wt/Vol:	30.02 Units: g	Final Vol:	1 mL
Soil Aliquot Vol:	uL	Test:	Diesel Range Organics
Extraction Type:		Injection Volume :	
GPC Factor :	PH :		
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
FE052143.D	1	01/29/25 08:45	01/30/25 5:28	PB166348

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
DRO	DRO	6170		185	1670	ug/kg
SURROGATES						
16416-32-3	Tetracosane-d50	18.2		37 - 130	91%	SPK: 20

Comments:

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

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

Quantitation Report (QT Reviewed)

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE012925\
Data File : FE052143.D
Signal(s) : FID1B.ch
Acq On : 30 Jan 2025 05:28
Operator : YP\AJ
Sample : PB166348BS
Misc :
ALS Vial : 27 Sample Multiplier: 1

Instrument :
FID_E
ClientSampleId :
PB166348BS

Integration File: autoint1.e
Quant Time: Jan 30 06:59:12 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\FE012325.M
Quant Title :
QLast Update : Fri Jan 24 03:06:38 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...	15.243	1815534	18.229 ug/ml
	Target Compounds			
2)	N-DECANE	4.900	1641374	17.938 ug/ml
3)	N-DODECANE	7.027	1818135	18.197 ug/ml
4)	N-TETRADECANE	8.833	1917247	18.843 ug/ml
5)	N-HEXADECANE	10.426	1980727	18.588 ug/ml
6)	N-OCTADECANE	11.857	2058975	18.364 ug/ml
7)	N-EICOSANE	13.159	2109453	18.939 ug/ml
8)	N-DOCOSANE	14.350	2060538	18.558 ug/ml
10)	N-TETRACOSANE	15.446	2059502	18.619 ug/ml
11)	N-HEXACOSANE	16.463	2031706	18.638 ug/ml
12)	N-OCTACOSANE	17.409	2003907	18.565 ug/ml

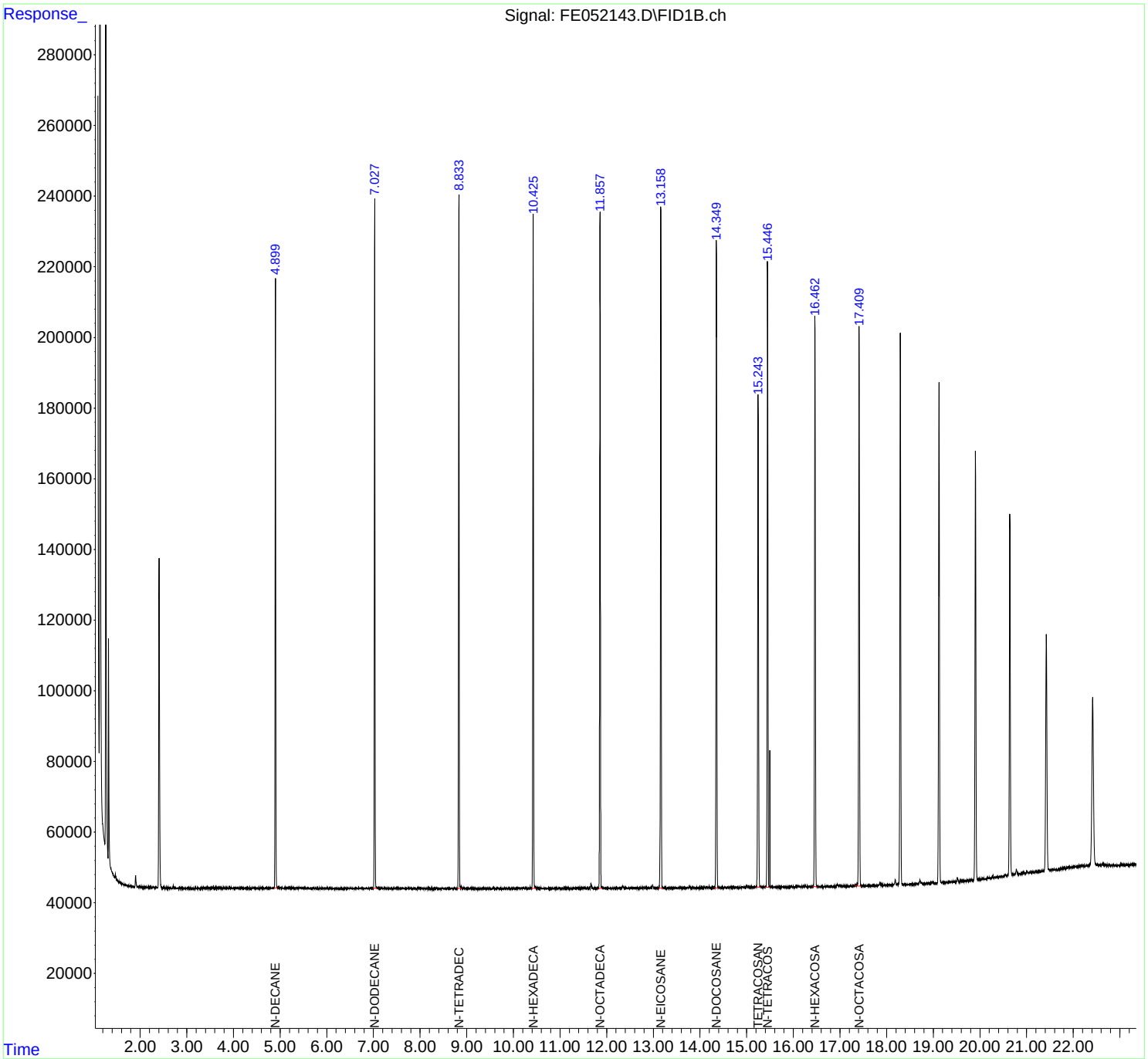
(f)=RT Delta > 1/2 Window (m)=manual int.

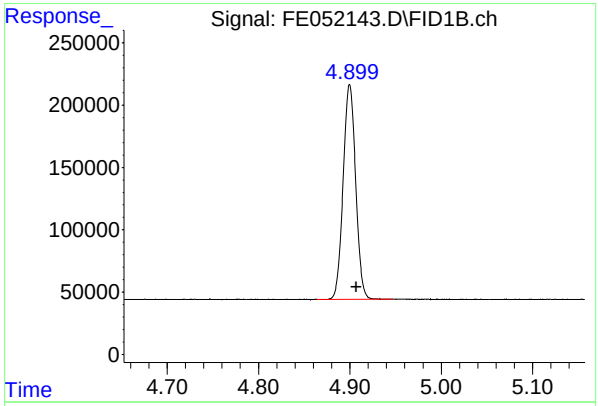
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE012925\
Data File : FE052143.D
Signal(s) : FID1B.ch
Acq On : 30 Jan 2025 05:28
Operator : YP\AJ
Sample : PB166348BS
Misc :
ALS Vial : 27 Sample Multiplier: 1

Instrument :
FID_E
ClientSampleId :
PB166348BS

Integration File: autoint1.e
Quant Time: Jan 30 06:59:12 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\FE012325.M
Quant Title :
QLast Update : Fri Jan 24 03:06:38 2025
Response via : Initial Calibration
Integrator: ChemStation

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

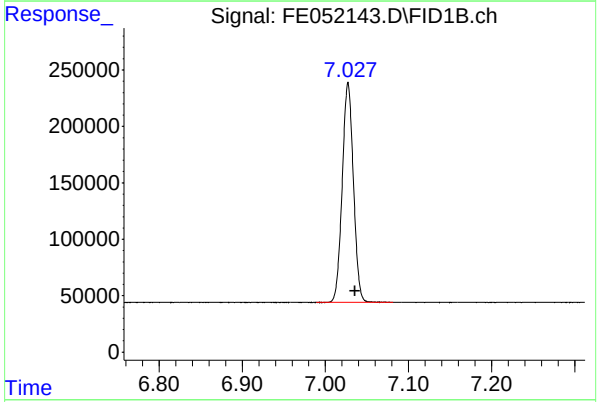




#2 N-DECANE

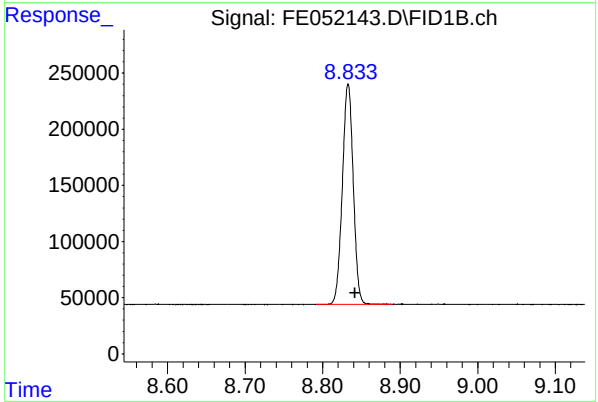
R.T.: 4.900 min
Delta R.T.: -0.007 min
Response: 1641374
Conc: 17.94 ug/ml

Instrument :
FID_E
ClientSampleId :
PB166348BS



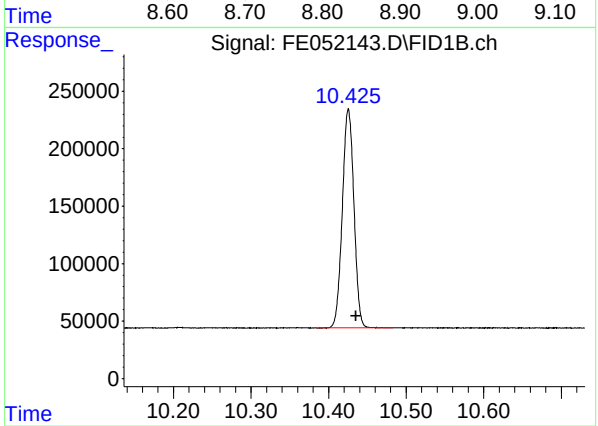
#3 N-DODECANE

R.T.: 7.027 min
Delta R.T.: -0.008 min
Response: 1818135
Conc: 18.20 ug/ml



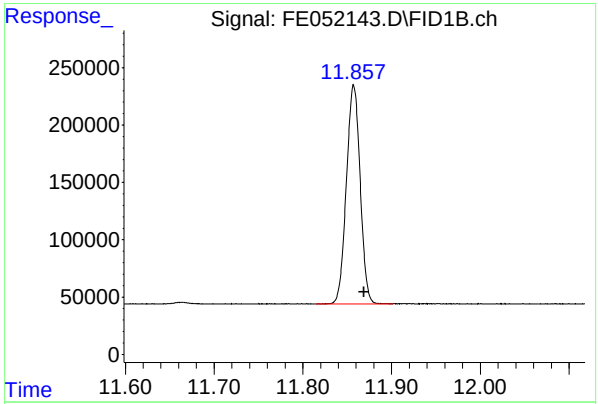
#4 N-TETRADECANE

R.T.: 8.833 min
Delta R.T.: -0.009 min
Response: 1917247
Conc: 18.84 ug/ml



#5 N-HEXADECANE

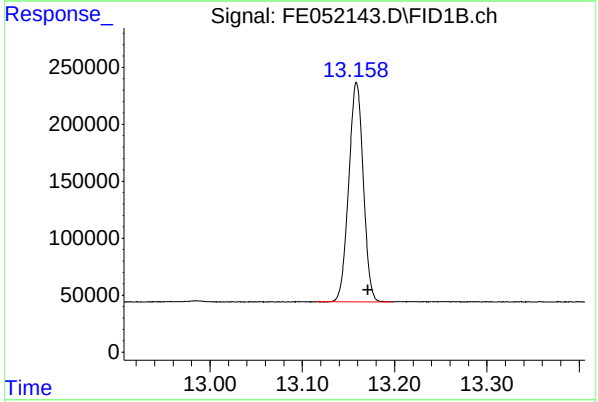
R.T.: 10.426 min
Delta R.T.: -0.010 min
Response: 1980727
Conc: 18.59 ug/ml



#6 N-OCTADECANE

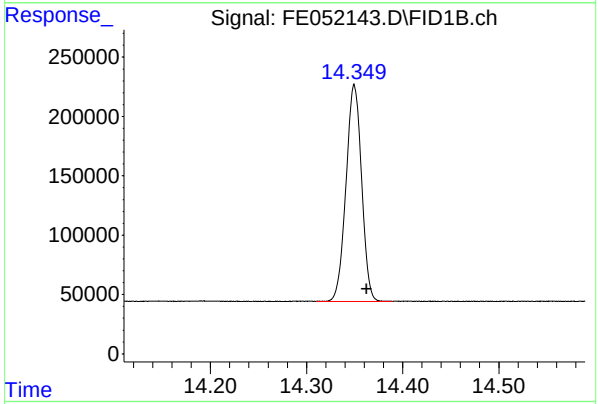
R.T.: 11.857 min
Delta R.T.: -0.012 min
Response: 2058975
Conc: 18.36 ug/ml

Instrument :
FID_E
ClientSampleId :
PB166348BS



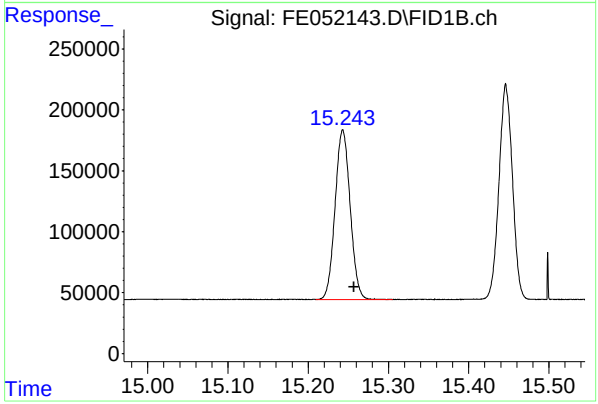
#7 N-EICOSANE

R.T.: 13.159 min
Delta R.T.: -0.012 min
Response: 2109453
Conc: 18.94 ug/ml



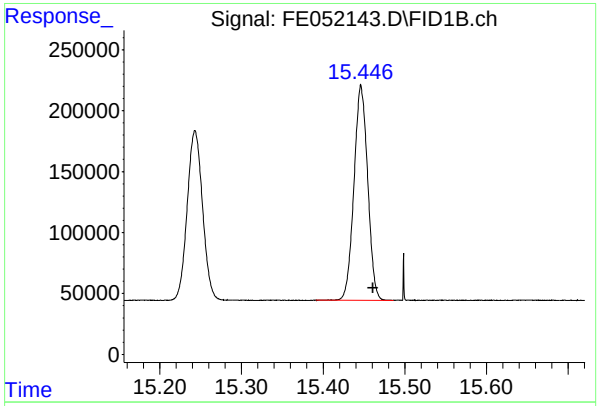
#8 N-DOCOSANE

R.T.: 14.350 min
Delta R.T.: -0.013 min
Response: 2060538
Conc: 18.56 ug/ml



#9 TETRACOSANE-d50 (SURROGATE)

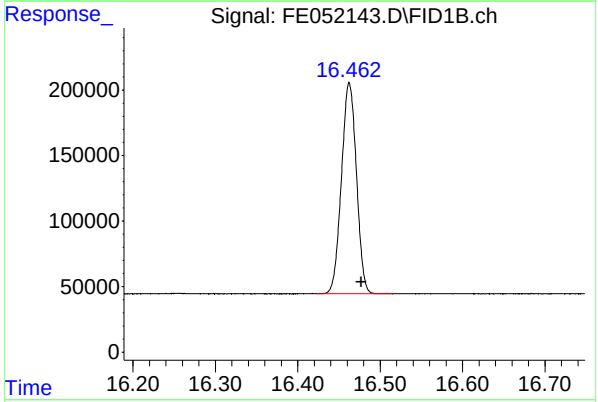
R.T.: 15.243 min
Delta R.T.: -0.014 min
Response: 1815534
Conc: 18.23 ug/ml



#10 N-TETRACOSANE

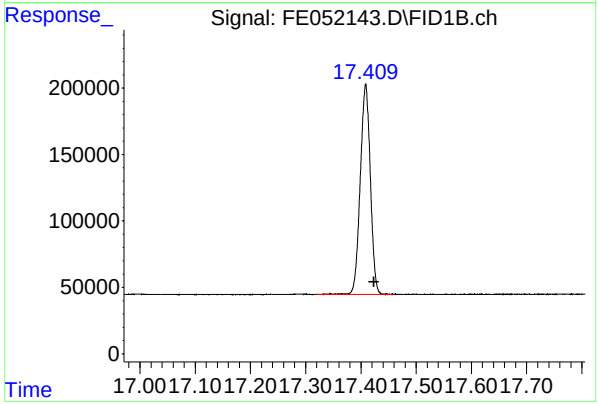
R.T.: 15.446 min
Delta R.T.: -0.015 min
Response: 2059502
Conc: 18.62 ug/ml

Instrument :
FID_E
ClientSampleId :
PB166348BS



#11 N-HEXACOSANE

R.T.: 16.463 min
Delta R.T.: -0.014 min
Response: 2031706
Conc: 18.64 ug/ml



#12 N-OCTACOSANE

R.T.: 17.409 min
Delta R.T.: -0.015 min
Response: 2003907
Conc: 18.57 ug/ml

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE012925\
Data File : FE052143.D
Signal(s) : FID1B.ch
Acq On : 30 Jan 2025 05:28
Sample : PB166348BS
Misc :
ALS Vial : 27 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\FE012325.M
Title :

Signal : FID1B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	4.900	4.863	4.947	BB	172445	1641374	77.81%	7.635%
2	7.027	6.989	7.081	BB	195030	1818135	86.19%	8.458%
3	8.833	8.791	8.891	BB	196348	1917247	90.89%	8.919%
4	10.426	10.384	10.483	BB	190707	1980727	93.90%	9.214%
5	11.857	11.815	11.901	BB	190850	2058975	97.61%	9.578%
6	13.159	13.115	13.198	BB	192231	2109453	100.00%	9.813%
7	14.350	14.310	14.390	BB	182941	2060538	97.68%	9.585%
8	15.243	15.210	15.306	BB	139470	1815534	86.07%	8.445%
9	15.446	15.391	15.486	BV	176804	2059502	97.63%	9.580%
10	16.463	16.422	16.516	BB	161064	2031706	96.31%	9.451%
11	17.409	17.319	17.458	BB	158512	2003907	95.00%	9.322%

Sum of corrected areas: 21497097

FE012325.M Thu Jan 30 07:27:07 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
50 PPM TRPH STD		FE052140.D	FE012925	TETRACOSANE-d50 (SURROGA	Ankita	1/30/2025 9:29:46 AM	Peak Integrated by Software incorrectly
Q1207-09		FE052149.D	FE012925	TETRACOSANE-d50 (SURROGA	Ankita	1/31/2025 1:17:52 PM	Peak Integrated by Software incorrectly
50 PPM TRPH STD		FE052152.D	FE012925	N-OCTACOSANE	Ankita	1/31/2025 1:17:53 PM	Peak Integrated by Software incorrectly
Q1207-13		FE052153.D	FE012925	TETRACOSANE-d50 (SURROGA	Ankita	1/31/2025 1:17:54 PM	Peak Integrated by Software incorrectly
Q1207-09		FE052154.D	FE012925	TETRACOSANE-d50 (SURROGA	Ankita	1/31/2025 1:17:56 PM	Peak Integrated by Software incorrectly
PB166364BSD		FE052161.D	FE012925	N-OCTACOSANE	Ankita	1/31/2025 1:17:57 PM	Peak Integrated by Software incorrectly

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

Instrument ID: FID_E

Daily Analysis Runlog For Sequence/QCBatch ID # FE012325

Review By	yogesh	Review On	1/23/2025 3:09:47 PM		
Supervise By	sohil	Supervise On	1/24/2025 2:02:13 PM		
SubDirectory	FE012325	HP Acquire Method		HP Processing Method	FE012325

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	FE052025.D	23 Jan 2025 21:06	YP\AJ	Ok
2	I.BLK	FE052026.D	23 Jan 2025 21:35	YP\AJ	Ok
3	100 TRPH STD	FE052027.D	23 Jan 2025 22:06	YP\AJ	Ok
4	50 TRPH STD	FE052028.D	23 Jan 2025 23:06	YP\AJ	Ok
5	20 TRPH STD	FE052029.D	23 Jan 2025 23:36	YP\AJ	Ok
6	10 TRPH STD	FE052030.D	24 Jan 2025 00:06	YP\AJ	Ok
7	5 TRPH STD	FE052031.D	24 Jan 2025 00:36	YP\AJ	Ok
8	FE012325ICV	FE052032.D	24 Jan 2025 01:06	YP\AJ	Ok

M : Manual Integration

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

Instrument ID: FID_E

Daily Analysis Runlog For Sequence/QCBatch ID # FE012925

Review By	yogesh	Review On	1/29/2025 3:46:27 PM		
Supervise By	Ankita	Supervise On	1/30/2025 9:29:51 AM		
SubDirectory	FE012925	HP Acquire Method		HP Processing Method	FE012325

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	FE052138.D	30 Jan 2025 02:58	YP\AJ	Ok
2	I.BLK	FE052139.D	30 Jan 2025 03:28	YP\AJ	Ok
3	50 PPM TRPH STD	FE052140.D	30 Jan 2025 03:58	YP\AJ	Ok,M
4	RT MARKER	FE052141.D	30 Jan 2025 04:28	YP\AJ	Ok
5	PB166348BL	FE052142.D	30 Jan 2025 04:58	YP\AJ	Ok
6	PB166348BS	FE052143.D	30 Jan 2025 05:28	YP\AJ	Ok
7	Q1206-01	FE052144.D	30 Jan 2025 05:58	YP\AJ	Ok
8	Q1206-05	FE052145.D	30 Jan 2025 06:28	YP\AJ	Ok
9	Q1207-01	FE052146.D	30 Jan 2025 06:59	YP\AJ	Ok
10	Q1207-05	FE052147.D	30 Jan 2025 07:29	YP\AJ	Ok
11	Q1207-13	FE052148.D	30 Jan 2025 08:29	YP\AJ	Ok
12	Q1207-09	FE052149.D	30 Jan 2025 09:00	YP\AJ	Dilution
13	Q1207-17	FE052150.D	30 Jan 2025 09:29	YP\AJ	Ok
14	I.BLK	FE052151.D	30 Jan 2025 10:30	YP\AJ	Ok
15	50 PPM TRPH STD	FE052152.D	30 Jan 2025 11:00	YP\AJ	Ok,M
16	Q1207-13	FE052153.D	30 Jan 2025 11:30	YP\AJ	Not Ok
17	Q1207-09	FE052154.D	30 Jan 2025 11:59	YP\AJ	Ok,M
18	Q1207-09RE	FE052155.D	30 Jan 2025 12:30	YP\AJ	Not Ok
19	Q1207-17	FE052156.D	30 Jan 2025 13:06	YP\AJ	Not Ok
20	I.BLK	FE052157.D	30 Jan 2025 13:36	YP\AJ	Ok
21	50 PPM TRPH STD	FE052158.D	30 Jan 2025 14:06	YP\AJ	Ok

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

Instrument ID: FID_E

Daily Analysis Runlog For Sequence/QCBatch ID # FE012925

Review By	yogesh	Review On	1/29/2025 3:46:27 PM		
Supervise By	Ankita	Supervise On	1/30/2025 9:29:51 AM		
SubDirectory	FE012925	HP Acquire Method		HP Processing Method	FE012325

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	

22	PB166364BL	FE052159.D	30 Jan 2025 14:37	YP\AJ	Ok
23	PB166364BS	FE052160.D	30 Jan 2025 15:07	YP\AJ	Ok
24	PB166364BSD	FE052161.D	30 Jan 2025 15:37	YP\AJ	Ok,M
25	Q1211-01	FE052162.D	30 Jan 2025 16:07	YP\AJ	Ok
26	Q1211-02	FE052163.D	30 Jan 2025 16:37	YP\AJ	Ok
27	I.BLK	FE052164.D	30 Jan 2025 17:08	YP\AJ	Ok
28	50 PPM TRPH STD	FE052165.D	30 Jan 2025 17:37	YP\AJ	Ok

M : Manual Integration

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

Instrument ID: FID_E

Daily Analysis Runlog For Sequence/QCBatch ID # FE012325

Review By	yogesh	Review On	1/23/2025 3:09:47 PM		
Supervise By	sohil	Supervise On	1/24/2025 2:02:13 PM		
SubDirectory	FE012325	HP Acquire Method		HP Processing Method	FE012325

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		FE052025.D	23 Jan 2025 21:06		YP\AJ	Ok
2	I.BLK		FE052026.D	23 Jan 2025 21:35		YP\AJ	Ok
3	100 TRPH STD		FE052027.D	23 Jan 2025 22:06		YP\AJ	Ok
4	50 TRPH STD		FE052028.D	23 Jan 2025 23:06		YP\AJ	Ok
5	20 TRPH STD		FE052029.D	23 Jan 2025 23:36		YP\AJ	Ok
6	10 TRPH STD		FE052030.D	24 Jan 2025 00:06		YP\AJ	Ok
7	5 TRPH STD		FE052031.D	24 Jan 2025 00:36		YP\AJ	Ok
8	FE012325ICV		FE052032.D	24 Jan 2025 01:06		YP\AJ	Ok

M : Manual Integration

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

Instrument ID: FID_E

Daily Analysis Runlog For Sequence/QCBatch ID # FE012925

Review By	yogesh	Review On	1/29/2025 3:46:27 PM		
Supervise By	Ankita	Supervise On	1/30/2025 9:29:51 AM		
SubDirectory	FE012925	HP Acquire Method		HP Processing Method	FE012325

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		FE052138.D	30 Jan 2025 02:58		YP\AJ	Ok
2	I.BLK		FE052139.D	30 Jan 2025 03:28		YP\AJ	Ok
3	50 PPM TRPH STD		FE052140.D	30 Jan 2025 03:58		YP\AJ	Ok,M
4	RT MARKER		FE052141.D	30 Jan 2025 04:28		YP\AJ	Ok
5	PB166348BL		FE052142.D	30 Jan 2025 04:58		YP\AJ	Ok
6	PB166348BS		FE052143.D	30 Jan 2025 05:28		YP\AJ	Ok
7	Q1206-01		FE052144.D	30 Jan 2025 05:58		YP\AJ	Ok
8	Q1206-05		FE052145.D	30 Jan 2025 06:28		YP\AJ	Ok
9	Q1207-01		FE052146.D	30 Jan 2025 06:59		YP\AJ	Ok
10	Q1207-05		FE052147.D	30 Jan 2025 07:29		YP\AJ	Ok
11	Q1207-13		FE052148.D	30 Jan 2025 08:29		YP\AJ	Ok
12	Q1207-09		FE052149.D	30 Jan 2025 09:00	need 10x dilution	YP\AJ	Dilution
13	Q1207-17		FE052150.D	30 Jan 2025 09:29		YP\AJ	Ok
14	I.BLK		FE052151.D	30 Jan 2025 10:30		YP\AJ	Ok
15	50 PPM TRPH STD		FE052152.D	30 Jan 2025 11:00		YP\AJ	Ok,M
16	Q1207-13		FE052153.D	30 Jan 2025 11:30	Not required	YP\AJ	Not Ok
17	Q1207-09		FE052154.D	30 Jan 2025 11:59		YP\AJ	Ok,M
18	Q1207-09RE		FE052155.D	30 Jan 2025 12:30	Not required	YP\AJ	Not Ok

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

Instrument ID: FID_E

Daily Analysis Runlog For Sequence/QCBatch ID # FE012925

Review By	yogesh	Review On	1/29/2025 3:46:27 PM		
Supervise By	Ankita	Supervise On	1/30/2025 9:29:51 AM		
SubDirectory	FE012925	HP Acquire Method		HP Processing Method	FE012325

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	

19	Q1207-17		FE052156.D	30 Jan 2025 13:06	Not required	YP\AJ	Not Ok
20	I.BLK		FE052157.D	30 Jan 2025 13:36		YP\AJ	Ok
21	50 PPM TRPH STD		FE052158.D	30 Jan 2025 14:06		YP\AJ	Ok
22	PB166364BL		FE052159.D	30 Jan 2025 14:37		YP\AJ	Ok
23	PB166364BS		FE052160.D	30 Jan 2025 15:07		YP\AJ	Ok
24	PB166364BSD		FE052161.D	30 Jan 2025 15:37		YP\AJ	Ok,M
25	Q1211-01		FE052162.D	30 Jan 2025 16:07		YP\AJ	Ok
26	Q1211-02		FE052163.D	30 Jan 2025 16:37		YP\AJ	Ok
27	I.BLK		FE052164.D	30 Jan 2025 17:08		YP\AJ	Ok
28	50 PPM TRPH STD		FE052165.D	30 Jan 2025 17:37		YP\AJ	Ok

M : Manual Integration

PERCENT SOLID

Supervisor: Iwona
Analyst: jignesh
Date: 1/29/2025

OVENTEMP IN Celsius(°C): 107
Time IN: 16:40
In Date: 01/28/2025
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
OvenID: M OVEN#1

OVENTEMP OUT Celsius(°C): 103
Time OUT: 08:10
Out Date: 01/29/2025
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
BalanceID: M SC-4
Thermometer ID: % SOLID- OVEN

QC: LB134456

Lab ID	Client SampleID	Dish #	Dish Wt(g) (A)	Sample Wt(g)	Dish + Sample Wt(g) (B)	Dish+Dry Sample Wt(g) (C)	% Solid	Comments
Q1191-03	A44Y0	1	1.00	1.00	2.00	2.00	100.0	FB solids
Q1191-04	A44Y1	2	1.00	1.00	2.00	2.00	100.0	FB solids
Q1191-09	VHBLK002	3	1.00	1.00	2.00	2.00	100.0	vhblk
Q1205-01	VNJ-236	4	1.15	8.64	9.79	8.68	87.2	
Q1206-01	JPP-20.1-012725	5	1.18	8.42	9.6	8.38	85.5	
Q1206-03	JPP-20.1-012725	6	1.19	8.50	9.69	8.46	85.5	
Q1206-05	JPP-16.3-012725	7	1.16	8.80	9.96	8.72	85.9	
Q1206-07	JPP-16.3-012725	8	1.19	8.51	9.7	8.38	84.5	
Q1207-01	JPP-2.1-012725	9	1.15	8.51	9.66	8.54	86.8	
Q1207-04	JPP-2.1-012725	10	1.16	8.61	9.77	8.7	87.6	
Q1207-05	JPP-5.1-012725	11	1.15	8.59	9.74	8.98	91.2	
Q1207-07	JPP-5.1-012725	12	1.18	8.60	9.78	9.00	90.9	
Q1207-08	JPP-5.1-012725	13	1.18	8.60	9.78	9.00	90.9	
Q1207-09	JPP-4.5-012725	14	1.17	8.82	9.99	8.49	83.0	
Q1207-11	JPP-4.5-012725	15	1.19	8.80	9.99	8.37	81.6	
Q1207-12	JPP-4.5-012725	16	1.19	8.80	9.99	8.37	81.6	
Q1207-13	JPP-16.2-012725	17	1.13	8.80	9.93	9.02	89.7	
Q1207-15	JPP-16.2-012725	18	1.15	8.67	9.82	8.85	88.8	
Q1207-16	JPP-16.2-012725	19	1.15	8.67	9.82	8.85	88.8	
Q1207-17	JPP-20.2-012725	20	1.12	8.77	9.89	8.85	88.1	
Q1207-19	JPP-20.2-012725	21	1.17	8.53	9.7	8.66	87.8	
Q1207-20	JPP-20.2-012725	22	1.17	8.53	9.7	8.66	87.8	
Q1208-01	60304	23	1.00	1.00	2.00	2.00	100.0	oil sample
Q1209-01	WC-4	24	1.17	8.80	9.97	8.5	83.3	
Q1209-02	WC-4-EPH	25	1.15	8.64	9.79	8.39	83.8	
Q1209-03	WC-4-VOC	26	1.14	8.82	9.96	8.56	84.1	
Q1209-05	WC-5	27	1.15	8.82	9.97	8.95	88.4	
Q1209-06	WC-5-EPH	28	1.13	8.85	9.98	8.55	83.8	

PERCENT SOLID

Supervisor: Iwona
Analyst: jignesh
Date: 1/29/2025

OVENTEMP IN Celsius(°C): 107
Time IN: 16:40
In Date: 01/28/2025
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
OvenID: M OVEN#1

OVENTEMP OUT Celsius(°C): 103
Time OUT: 08:10
Out Date: 01/29/2025
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
BalanceID: M SC-4
Thermometer ID: % SOLID- OVEN

QC: LB134456

Lab ID	Client SampleID	Dish #	Dish Wt(g) (A)	Sample Wt(g)	Dish + Sample Wt(g) (B)	Dish+Dry Sample Wt(g) (C)	% Solid	Comments
Q1209-07	WC-5-VOC	29	1.15	8.74	9.89	8.27	81.5	

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

WORKLIST(Hardcopy Internal Chain)

VB 134456

WorkList Name : %1-012825 **WorkList ID :** 187196 **Department :** Wet-Chemistry **Date :** 01-28-2025 07:59:28

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q1206-01	JPP-20.1-012725	Solid	Percent Solids	Cool 4 deg C	RUTW01	E11	01/27/2025	Chemtech -SO
Q1206-03	JPP-20.1-012725	Solid	Percent Solids	Cool 4 deg C	RUTW01	E11	01/27/2025	Chemtech -SO
Q1206-05	JPP-16.3-012725	Solid	Percent Solids	Cool 4 deg C	RUTW01	E11	01/27/2025	Chemtech -SO
Q1206-07	JPP-16.3-012725	Solid	Percent Solids	Cool 4 deg C	RUTW01	E11	01/27/2025	Chemtech -SO
Q1207-01	JPP-2.1-012725	Solid	Percent Solids	Cool 4 deg C	RUTW01	E11	01/27/2025	Chemtech -SO
Q1207-04	JPP-2.1-012725	Solid	Percent Solids	Cool 4 deg C	RUTW01	E11	01/27/2025	Chemtech -SO
Q1207-13	JPP-16.2-012725	Solid	Percent Solids	Cool 4 deg C	RUTW01	E11	01/27/2025	Chemtech -SO
Q1207-15	JPP-16.2-012725	Solid	Percent Solids	Cool 4 deg C	RUTW01	E11	01/27/2025	Chemtech -SO
Q1207-16	JPP-16.2-012725	Solid	Percent Solids	Cool 4 deg C	RUTW01	E11	01/27/2025	Chemtech -SO
Q1207-17	JPP-20.2-012725	Solid	Percent Solids	Cool 4 deg C	RUTW01	E11	01/27/2025	Chemtech -SO
Q1207-19	JPP-20.2-012725	Solid	Percent Solids	Cool 4 deg C	RUTW01	E11	01/27/2025	Chemtech -SO
Q1207-20	JPP-20.2-012725	Solid	Percent Solids	Cool 4 deg C	RUTW01	E11	01/27/2025	Chemtech -SO
Q1207-05	JPP-5.1-012725	Solid	Percent Solids	Cool 4 deg C	RUTW01	E11	01/27/2025	Chemtech -SO
Q1207-07	JPP-5.1-012725	Solid	Percent Solids	Cool 4 deg C	RUTW01	E11	01/27/2025	Chemtech -SO
Q1207-08	JPP-5.1-012725	Solid	Percent Solids	Cool 4 deg C	RUTW01	E11	01/27/2025	Chemtech -SO
Q1207-09	JPP-4.5-012725	Solid	Percent Solids	Cool 4 deg C	RUTW01	E11	01/27/2025	Chemtech -SO
Q1207-11	JPP-4.5-012725	Solid	Percent Solids	Cool 4 deg C	RUTW01	E11	01/27/2025	Chemtech -SO
Q1207-12	JPP-4.5-012725	Solid	Percent Solids	Cool 4 deg C	RUTW01	E11	01/27/2025	Chemtech -SO
Q1205-01	VNJ-236	Solid	Percent Solids	Cool 4 deg C	RUTW01	E11	01/27/2025	Chemtech -SO
Q1208-01	60304	Solid	Percent Solids	Cool 4 deg C	PSEG03	N31	01/28/2025	Chemtech -SO
Q1209-01	WC-4	Solid	Percent Solids	Cool 4 deg C	PSEG03	N41	01/28/2025	Chemtech -SO

Date/Time 01/28/25 15:30

Raw Sample Received by: TB WC)

Raw Sample Relinquished by: CB SM

Date/Time 01/28/25 17:10

Raw Sample Received by: SM

Raw Sample Relinquished by: TB WC)

WORKLIST(Hardcopy Internal Chain)

JB 134456

WorkList Name : %1-012825 **WorkList ID :** 187196 **Department :** Wet-Chemistry **Date :** 01-28-2025 07:59:28

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q1209-02	WC-4-EPH	Solid	Percent Solids	Cool 4 deg C	PSEG03	N41	01/28/2025	Chemtech -SO
Q1209-03	WC-4-VOC	Solid	Percent Solids	Cool 4 deg C	PSEG03	N41	01/28/2025	Chemtech -SO
Q1209-05	WC-5	Solid	Percent Solids	Cool 4 deg C	PSEG03	N41	01/28/2025	Chemtech -SO
Q1209-06	WC-5-EPH	Solid	Percent Solids	Cool 4 deg C	PSEG03	N41	01/28/2025	Chemtech -SO
Q1209-07	WC-5-VOC	Solid	Percent Solids	Cool 4 deg C	PSEG03	N41	01/28/2025	Chemtech -SO
Q1191-03	A44Y0	Solid	Percent Solids	Cool 4 deg C	PSEG03	N41	01/28/2025	Chemtech -SO
Q1191-04	A44Y1	Solid	Percent Solids	Cool 4 deg C	USEP04	B21	01/24/2025	Chemtech -SO
Q1191-09	VHBLK002	Solid	Percent Solids	Cool 4 deg C	USEP04	B21	01/25/2025	Chemtech -SO

Date/Time 01/28/25 15:30

Raw Sample Received by: [illegible]

Raw Sample Relinquished by: CP SM

Date/Time 01/28/25 17:10

Raw Sample Received by: CP SM

Raw Sample Relinquished by: [illegible]

PERCENT SOLID

Supervisor: Iwona
Analyst: jignesh
Date: 1/30/2025

OVENTEMP IN Celsius(°C): 108
Time IN: 16:40
In Date: 01/29/2025
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
OvenID: M OVEN#1

OVENTEMP OUT Celsius(°C): 103
Time OUT: 08:00
Out Date: 01/30/2025
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
BalanceID: M SC-4
Thermometer ID: % SOLID- OVEN

QC: LB134472

Lab ID	Client SampleID	Dish #	Dish Wt(g) (A)	Sample Wt(g)	Dish + Sample Wt(g) (B)	Dish+Dry Sample Wt(g) (C)	% Solid	Comments
Q1207-03	JPP-2.1-012725	1	1.16	8.61	9.77	8.7	87.6	
Q1218-01	BELL-25-002	2	1.00	1.00	2.00	2.00	100.0	oily-debris
Q1219-01	LAW-25-0015	3	1.00	1.00	2.00	2.00	100.0	oily-debris
Q1220-01	TR-06-01292025	4	1.15	8.40	9.55	8.98	93.2	
Q1220-02	TR-06-01292025-E2	5	1.17	8.58	9.75	8.87	89.7	
Q1221-01	CHESTNUT-CONCRETE	6	1.00	1.00	2.00	2.00	100.0	stone sample, 100 % solids

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

WORKLIST(Hardcopy Internal Chain)

VB 134472

WorkList Name : %1-012925 **WorkList ID :** 187236 **Department :** Wet-Chemistry **Date :** 01-29-2025 07:55:09

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q1207-03	JPP-2.1-012725	Solid	Percent Solids	Cool 4 deg C	RUTW01	E11	01/27/2025	Chemtech -SO
Q1218-01	BELL-25-002	Solid	Percent Solids	Cool 4 deg C	PSEG03	N41	01/29/2025	Chemtech -SO
Q1219-01	LAW-25-0015	Solid	Percent Solids	Cool 4 deg C	PSEG03	N41	01/29/2025	Chemtech -SO
Q1221-01	CHESTNUT-CONCRETE	Solid	Percent Solids	Cool 4 deg C	PSEG03	N41	01/29/2025	Chemtech -SO
Q1220-01	TR-06-01292025	Solid	Percent Solids	Cool 4 deg C	PSEG05	N41	01/29/2025	Chemtech -SO
Q1220-02	TR-06-01292025-E2	Solid	Percent Solids	Cool 4 deg C	PSEG05	N41	01/29/2025	Chemtech -SO

Date/Time 01/29/25 15:40 15:40

Raw Sample Received by: [illegible]

Raw Sample Relinquished by: [illegible]

Date/Time 01/29/25 17:10

Raw Sample Received by: [illegible]

Raw Sample Relinquished by: [illegible]

Alliance TECHNICAL GROUP

EXTRACTION LOGPAGE

PB166348

SOP ID:	M3541-ASE Extraction-14				
Clean Up SOP #:	N/A			**Extraction Start Date :**	01/29/2025
Matrix :	Solid			**Extraction Start Time :**	08:45
Weigh By:	EH	**Extraction By:**	RS	**Extraction End Date :**	01/29/2025
Balance check:	EH	**Filter By:**	RS	**Extraction End Time :**	13:15
Balance ID:	EX-SC-2	**pH Meter ID:**	N/A	**Concentration By:**	EH
pH Strip Lot#:	N/A	**Hood ID:**	3,7	**Supervisor By :**	rajesh

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	PP23935
Spike Sol 1	1.0ML	20 PPM	PP23913
N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A

Chemical Used	ML/SAMPLE USED	Lot Number
MeCl2/Acetone/1:1	N/A	EP2578
Baked Na2SO4	N/A	EP2580
Sand	N/A	E2865
Methylene Chloride	N/A	E3871
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. No MS/MSD Performed as Limited volume recd for all samples.

KD Bath ID:	N/A	**Envap ID:**	NEVAP-02
KD Bath Temperature:	N/A	**Envap Temperature:**	40 °C

Date / Time	Prepped Sample Relinquished By/Location	Received By/Location
01/29/25	RP (Extn Lab)	R. Patel/PCB Lab
13:20	**Preparation Group**	**Analysis Group**

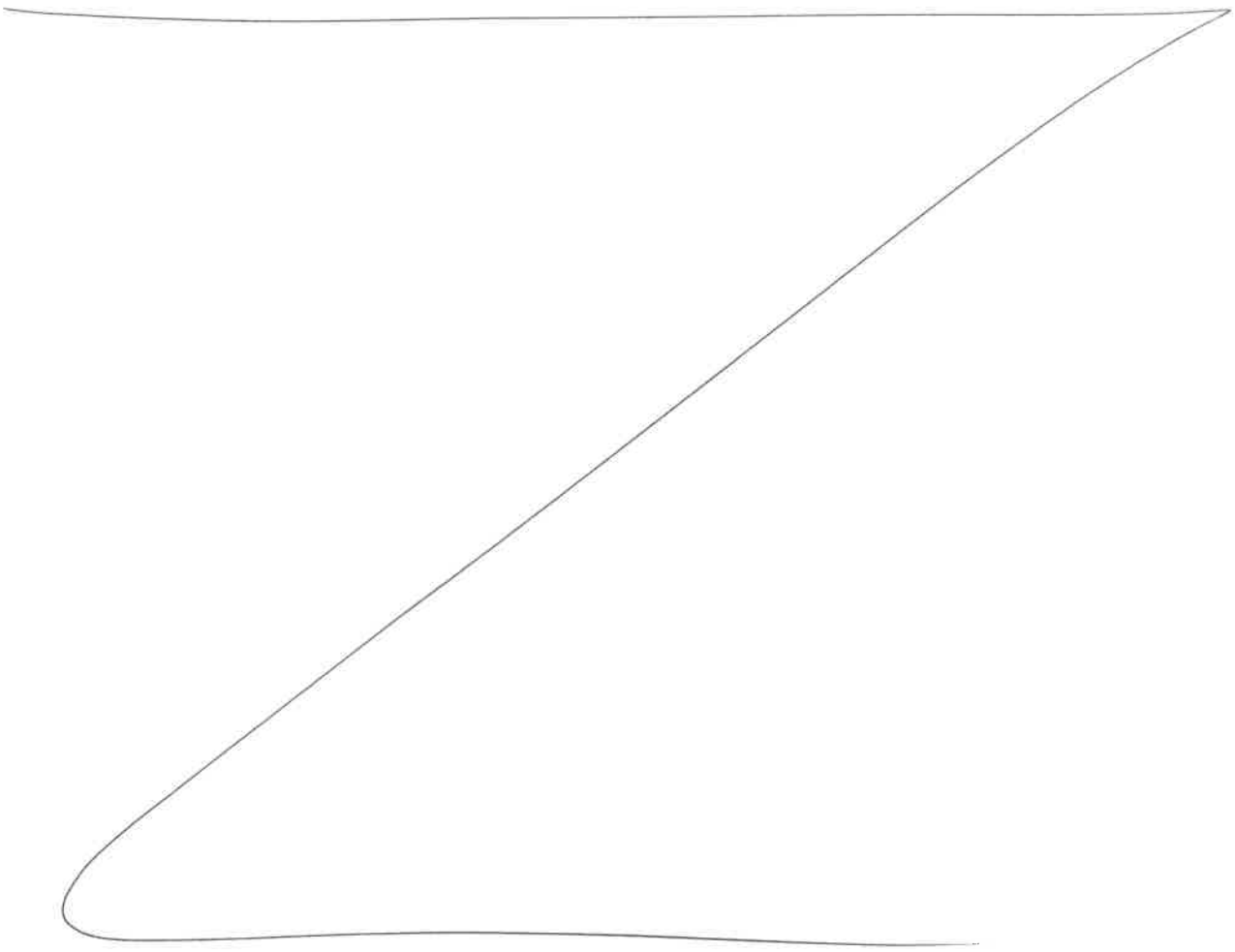
Alliance TECHNICAL GROUP

EXTRACTION LOGPAGE

PrepBatch ID : PB166348

Analytical Method: M3541-ASE Extraction-14 **Concentration Date:** 01/29/2025

Sample ID	Client Sample ID	Test	g/mL	PH	Surr/Spike By:		Final Vol. (mL)	JarID	Comments	Prep Pos
					AddedBy	VerifiedBy				
PB166348BL	PB166348BL	Diesel Range Organics	30.01	N/A	RUPESH	Evelyn	1			U4-1
PB166348BS	PB166348BS	Diesel Range Organics	30.02	N/A	RUPESH	Evelyn	1			2
Q1206-01	JPP-20.1-012725	Diesel Range Organics	18.22	N/A	RUPESH	Evelyn	1	D		3
Q1206-05	JPP-16.3-012725	Diesel Range Organics	23.10	N/A	RUPESH	Evelyn	1	D		4
Q1207-01	JPP-2.1-012725	Diesel Range Organics	25.33	N/A	RUPESH	Evelyn	1	D		5
Q1207-05	JPP-5.1-012725	Diesel Range Organics	29.40	N/A	RUPESH	Evelyn	1	D		6
Q1207-09	JPP-4.5-012725	Diesel Range Organics	29.98	N/A	RUPESH	Evelyn	1	D		U2-1
Q1207-13	JPP-16.2-012725	Diesel Range Organics	29.62	N/A	RUPESH	Evelyn	1	D		2
Q1207-17	JPP-20.2-012725	Diesel Range Organics	28.87	N/A	RUPESH	Evelyn	1	D		3



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

1/29/25

166345
8:45

WORKLIST(Hardcopy Internal Chain)

WorkList Name : Q1206D **WorkList ID :** 187263 **Department :** Extraction **Date :** 01-29-2025 08:41:05

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q1206-01	JPP-20.1-012725	Solid	Diesel Range Organics	Cool 4 deg C	RUTW01	E11	01/27/2025	8015D
Q1206-05	JPP-16.3-012725	Solid	Diesel Range Organics	Cool 4 deg C	RUTW01	E11	01/27/2025	8015D
Q1207-01	JPP-2.1-012725	Solid	Diesel Range Organics	Cool 4 deg C	RUTW01	E11	01/27/2025	8015D
Q1207-05	JPP-5.1-012725	Solid	Diesel Range Organics	Cool 4 deg C	RUTW01	E11	01/27/2025	8015D
Q1207-09	JPP-4.5-012725	Solid	Diesel Range Organics	Cool 4 deg C	RUTW01	E11	01/27/2025	8015D
Q1207-13	JPP-16.2-012725	Solid	Diesel Range Organics	Cool 4 deg C	RUTW01	E11	01/27/2025	8015D
Q1207-17	JPP-20.2-012725	Solid	Diesel Range Organics	Cool 4 deg C	RUTW01	E11	01/27/2025	8015D

Date/Time 01/29/25 8:40
Raw Sample Received by: RS (Eat Lab)
Raw Sample Relinquished by: SM

Date/Time 01/29/25 9:05
Raw Sample Received by: SM
Raw Sample Relinquished by: RS (Eat Lab)

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

Prep Standard - Chemical Standard Summary

Order ID : Q1207

Test : Diesel Range Organics

Prepbatch ID : PB166348,

Sequence ID/Qc Batch ID: FE012925,

Standard ID :
EP2578,EP2580,PP23913,PP23935,PP23961,PP23962,PP23963,PP23964,PP23965,PP23966,PP23967,

Chemical ID :
E2865,E3551,E3822,E3828,E3846,E3848,E3871,P11958,P11959,P13104,P13109,P13213,P13218,P13219,P13492,P13493,P13494,P13495,

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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
2017	1:1 ACETONE/METHYLENE CHLORIDE	EP2578	01/06/2025	06/18/2025	Rajesh Parikh	None	None	RUPESHKUMAR SHAH 01/06/2025

FROM 8000.00000ml of E3846 + 8000.00000ml of E3848 = Final Quantity: 16000.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
3923	Baked Sodium Sulfate	EP2580	01/17/2025	07/01/2025	Rajesh Parikh	Extraction_SCALE_2 (EX-SC-2)	None	RUPESHKUMAR SHAH 01/17/2025

FROM 4000.00000gram of E3551 = Final Quantity: 4000.000 gram

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Fax : 908 789 8922

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)	PP23913	10/25/2024	04/23/2025	Yogesh Patel	None	None	Ankita Jodhani 10/25/2024

FROM 1.00000ml of P13104 + 1.00000ml of P13109 + 48.00000ml of E3822 = 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	PP23935	11/01/2024	04/23/2025	Yogesh Patel	None	None	Ankita Jodhani 11/04/2024

FROM 1.00000ml of P13492 + 1.00000ml of P13493 + 1.00000ml of P13494 + 1.00000ml of P13495 + 196.00000ml of E3822 = Final Quantity: 200.000 ml

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Fax : 908 789 8922

Pest/Pcb STANDARD PREPARATION LOG

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

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	02/14/2025	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

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Fax : 908 789 8922

Pest/Pcb STANDARD PREPARATION LOG

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

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

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Pest/Pcb STANDARD PREPARATION LOG

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

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

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Pest/Pcb STANDARD PREPARATION LOG

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	02/14/2025	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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CHEMICAL RECEIPT LOG BOOK

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

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

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9644-A4 / Methylene Chloride,U-Resi, Cycle-Tainer (215L)	24I2662006	04/23/2025	10/24/2024 / Rajesh	10/24/2024 / Rajesh	E3822

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-9254-03 / Acetone, Ultra Resi (cs/4x4L)	24H2762008	06/26/2025	12/26/2024 / Rajesh	12/13/2024 / Rajesh	E3846

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	06/18/2025	12/18/2024 / Rajesh	12/09/2024 / Rajesh	E3848

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CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9644-A4 / Methylene Chloride,U-Resi, Cycle-Tainer (215L)	24K1762005	07/14/2025	01/14/2025 / Rajesh	12/27/2024 / Rajesh	E3871

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 #
Restek	31266 / Florida TRPH Standard	A0204859	04/25/2025	10/25/2024 / yogesh	01/12/2024 / Yogesh	P13104

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31266 / Florida TRPH Standard	A0204859	04/25/2025	10/25/2024 / yogesh	01/12/2024 / Yogesh	P13109

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

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Fax : 908 789 8922

CHEMICAL RECEIPT LOG BOOK

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	05/01/2025	11/01/2024 / yogesh	07/24/2024 / yogesh	P13492

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	05/01/2025	11/01/2024 / yogesh	07/24/2024 / yogesh	P13493

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	05/01/2025	11/01/2024 / yogesh	07/24/2024 / yogesh	P13494

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	05/01/2025	11/01/2024 / yogesh	07/24/2024 / yogesh	P13495

Sand
Purified
Washed and Ignited

avantor™ | J.T.Baker®

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

Certificate of Analysis

Test	Specification	Result
Substances Soluble in HCl	<= 0.16 %	0.01

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

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

E 2865

James T Ethier

Jamie Ethier
Vice President Global Quality

For questions on this Certificate of Analysis please contact Technical Services at 855.282.6867 or +1.610.386.1700
Avantor Performance Materials, LLC
100 Matsonford Rd, Suite 200, Radnor, PA 19087. U.S.A. Phone: 610.386.1700

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

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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 RB 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.: 2412662006
Manufactured Date: 2024-08-29
Expiration Date:2025-11-28
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	3
Assay (CH_2Cl_2) (by GC, exclusive of preservative, corrected for water)	>= 99.8 %	99.9 %
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 3822

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

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

JCroak

Jamie Croak
Director Quality Operations, Bioscience Production

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Avantor Performance Materials LLC

Acetone
BAKER RESI-ANALYZED® Reagent
For Organic Residue Analysis

avantor™ | J.T.Baker

Material No.: 9254-03
Batch No.: 24H2762008
Manufactured Date: 2024-04-18
Expiration Date:2027-04-18
Revision No.: 0

Certificate of Analysis

Test	Specification	Result
Assay ($(CH_3)_2CO$) (by GC, corrected forwater)	>= 99.4 %	100.0 %
Color (APHA)	<= 10	5
Residue after Evaporation	<= 1.0 ppm	0.0 ppm
Substances Reducing Permanganate	Passes Test	Passes Test
Titrable Acid (µeq/g)	<= 0.3	0.2
Titrable Base (µeq/g)	<= 0.6	<0.1
Water (H_2O)	<= 0.5 %	<0.1 %
FID-Sensitive Impurities (as 2-Octanol)Single Impurity Peak (ng/mL)	<= 5	1
ECD Sensitive Impurities (as HeptachlorEpoxide) Single Peak (pg/mL)	<= 10	1

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

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

Recd by RP on 12/13/24

E 3846

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

PO: PO2-798 PRODUCT CODE: SHIP DATE: 12/9/2024

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 3848

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

12/9-1/24

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 3871

Jamie Croak
Director Quality Operations, Bioscience Production

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Certificate #3222.01

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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
7.8
07/11/2

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)

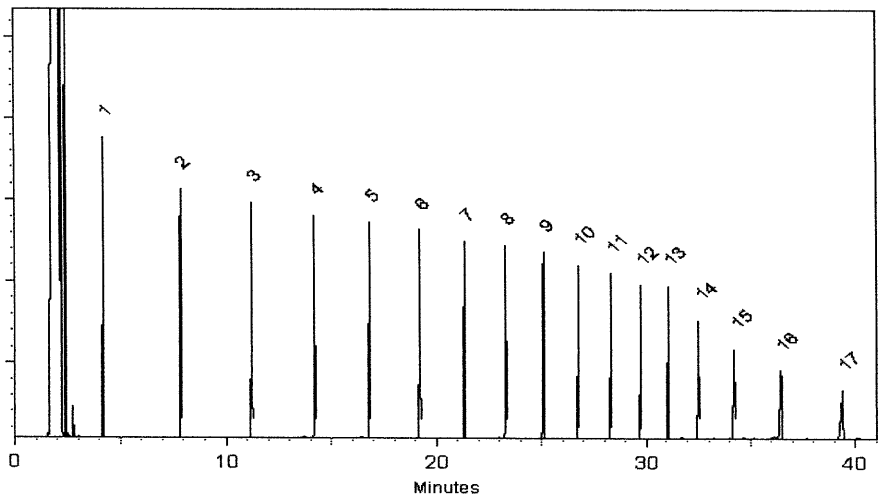
Carrier Gas:
hydrogen-constant pressure 10 psi.

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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Fax: (814)353-1309

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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

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P11948
&
P11962
7.8
07/11/2

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)

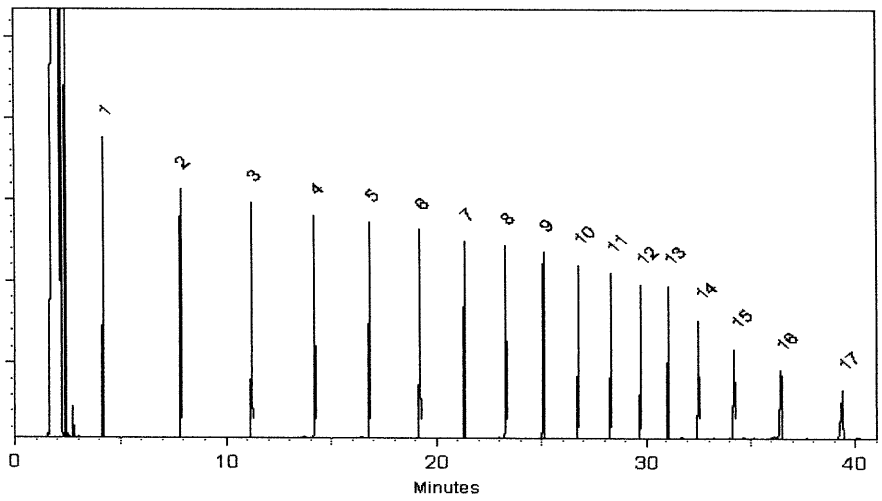
Carrier Gas:
hydrogen-constant pressure 10 psi.

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

chromatographic plus

ilac-MRA A2LA ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ilac-MRA A2LA 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.

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

Description : Florida TRPH Standard

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

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

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

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

P13103 → P13112 Y.P. 01/12/2024

CERTIFIED VALUES

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

* Expanded Uncertainty displayed in same units as Grav. Conc.

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

Quality Confirmation Test

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

Carrier Gas:
hydrogen-constant pressure 10 psi.

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

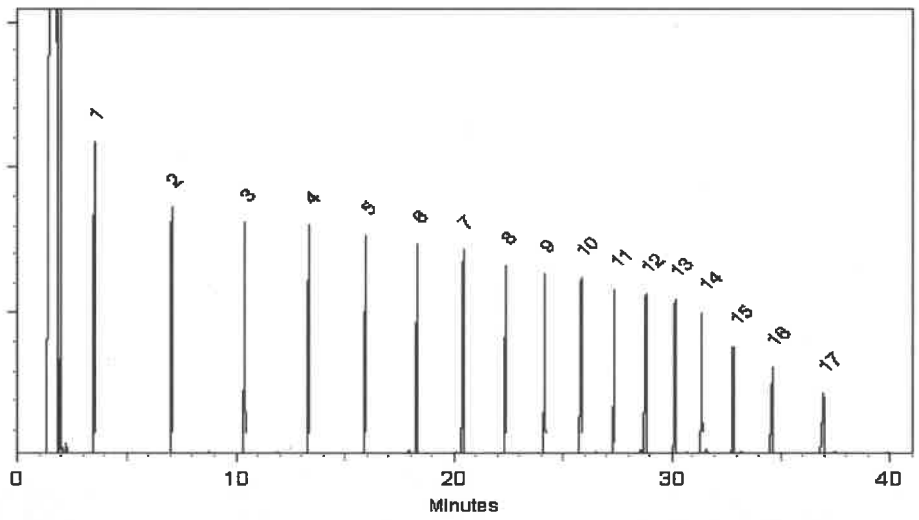
Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID

Split Vent:
2 ml/min.

Inj. Vol
1µl



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

Dakota Parson - Operations Technician I

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

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 01-Dec-2023

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

General Certified Reference Material Notes

Expiration Notes:

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

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

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

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

Handling Notes:

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

RESTEK

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

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ilac-MRA A2LA ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ilac-MRA A2LA ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

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

Description : Florida TRPH Standard

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

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

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

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

P13103 → P13112 Y.P. 01/12/2024

CERTIFIED VALUES

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

* Expanded Uncertainty displayed in same units as Grav. Conc.

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

Quality Confirmation Test

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

Carrier Gas:
hydrogen-constant pressure 10 psi.

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

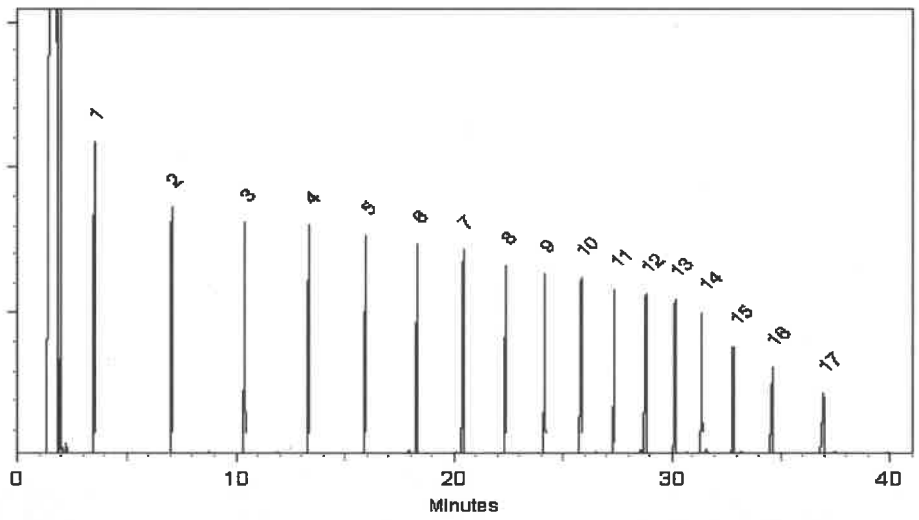
Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID

Split Vent:
2 ml/min.

Inj. Vol
1µl



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

Dakota Parson - Operations Technician I

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

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 01-Dec-2023

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/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 expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

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

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

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

Handling Notes:

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

Absolute Standards, Inc.
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

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

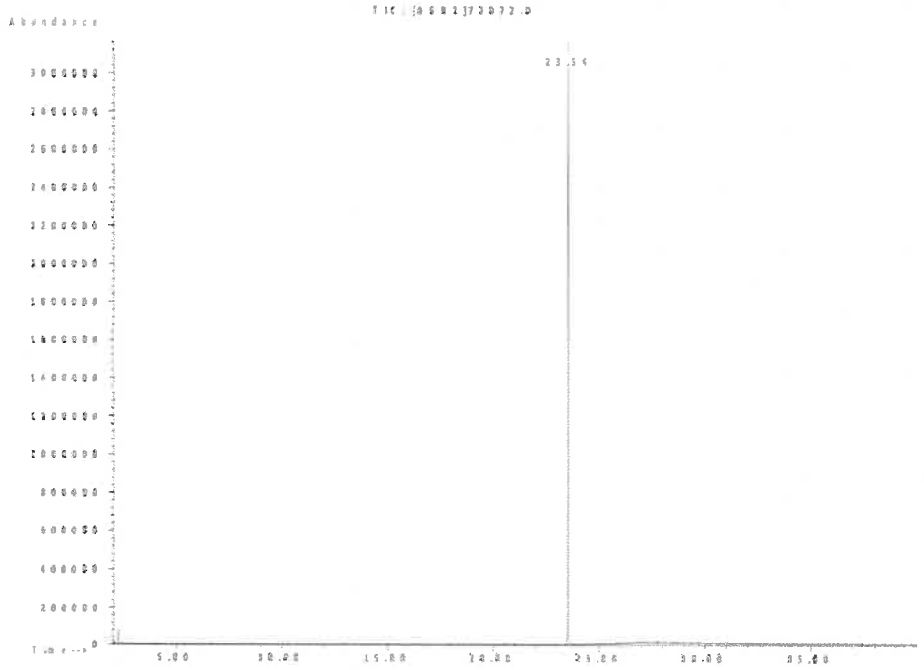
Expiration Date: 101132
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test ID#: 6UTB

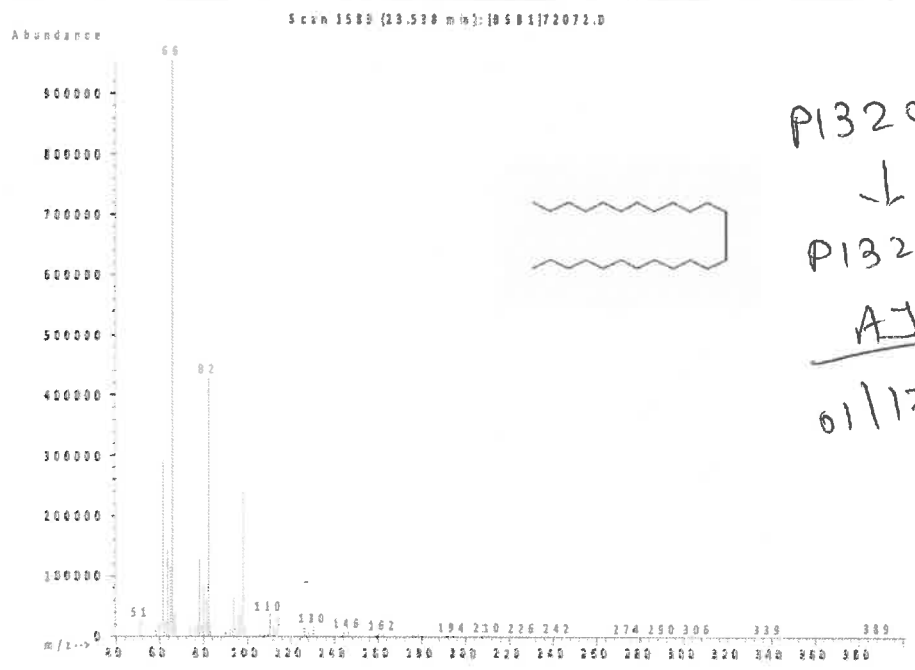
Weight(s) shown below were combined and diluted to (mL): 200.0 ± 0.058 Flask Uncertainty; 5E-05 Balance Uncertainty

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

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

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





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P13214
AJ
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 certifed (+/-) 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 **Page 1 of 1**

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

5580 Skylane Blvd
Santa Rosa, CA 95403

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

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

Date Received:_____

Certificate of Analysis

Rev 0 **Page 1 of 1**

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
↓
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.

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

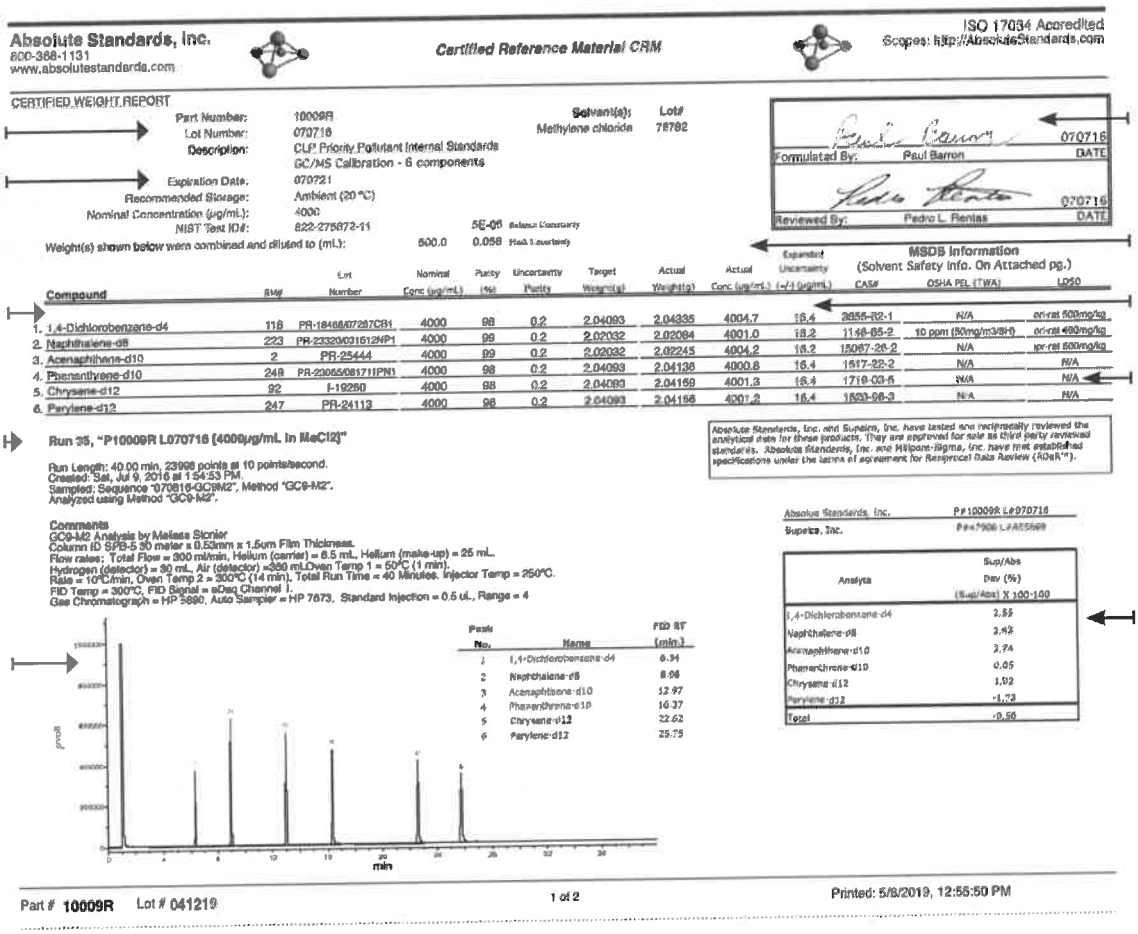
Absolute Standards, Inc. • 44 Rossotto Drive • Hamden, CT 06514
Voice: 800-368-1131 • Fax: 800-410-2577 • eMail: StephenArpie@AbsoluteStandards.com
Document Identification: Certificate of Analysis Rev 14, Date Issued: 05/30/2019

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.
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Certified Reference Material CRM

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

CERTIFIED WEIGHT REPORT

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

Solvent(s): Methylene chloride
Lot#: 78782

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 0.050 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	or-rat 500mg/kg
2. Naphthalene-d8	223	PR-233203031612NP1	4000	99	0.2	2.02032	2.02064	4001.0	16.2	1146-65-2	10 ppm (50mg/m3/8H)	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-23065/051711PN1	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 "070816-GC9M2", Method "GC9-M2".
Analyzed using Method "GC9-M2".

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

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

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

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

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

Part #
Lot #
Shelf Life

Formulator
Reviewer

Actual Concentration

Target Compounds

Uncertainty Values

Health & Safety

Method of Analysis

Qualitative
Quantitative

3rd Party Comparison

For More Information, Contact:

StephenArpie@AbsoluteStandards.com

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

Absolute Standards, Inc.
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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

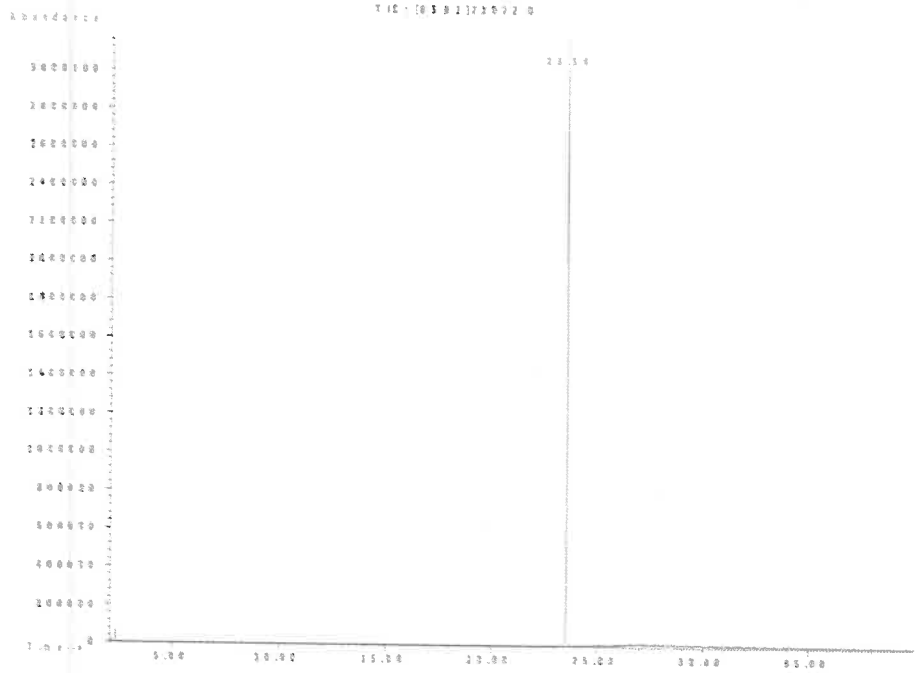
P13477 → P13496 } X.P. 07/24/24

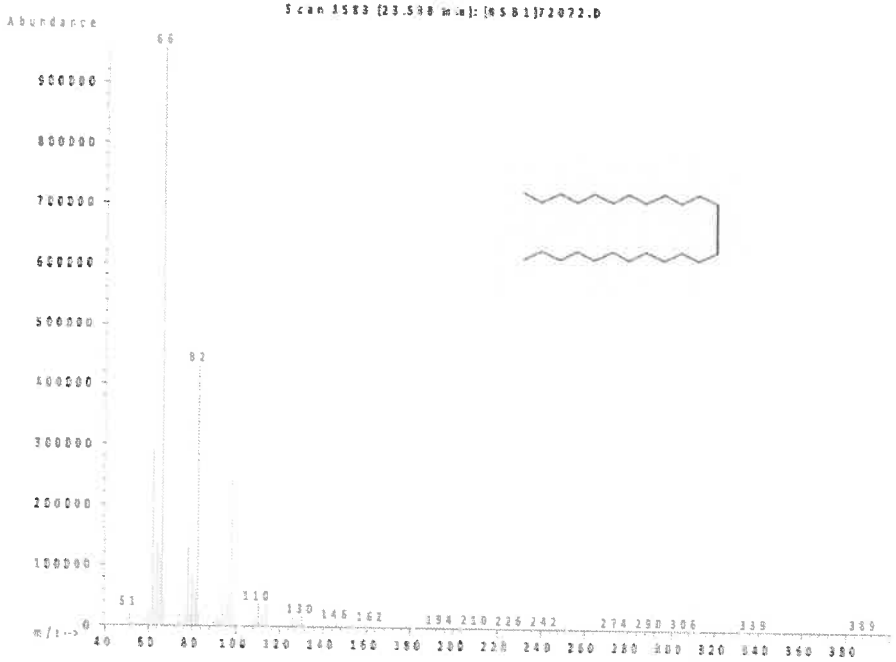
Formulated By:	Prashant Chauhan	101122 DATE
Reviewed By:	Pedro L. Rentas	101122 DATE

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

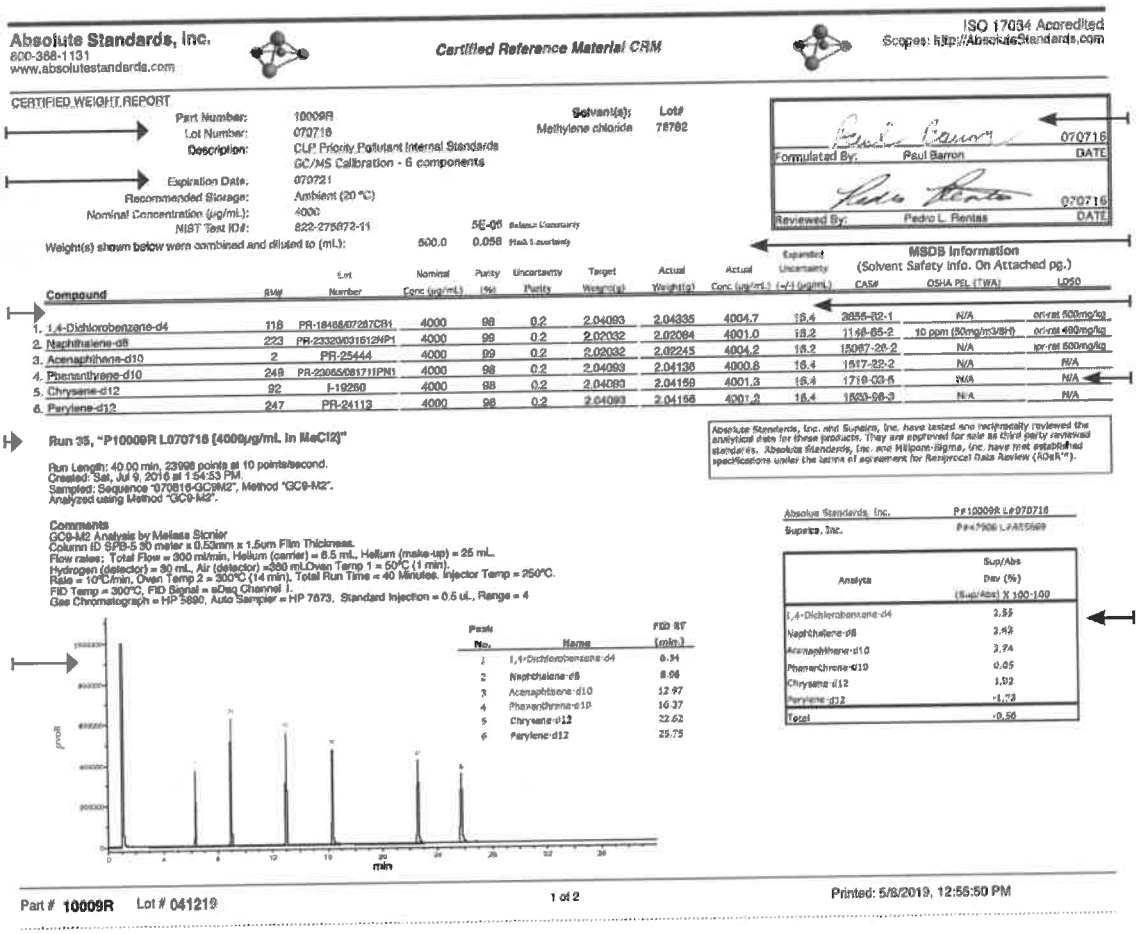
Absolute Standards, Inc. • 44 Rossotto Drive • Hamden, CT 06514
Voice: 800-368-1131 • Fax: 800-410-2577 • eMail: StephenArpie@AbsoluteStandards.com
Document Identification: Certificate of Analysis Rev 14, Date Issued: 05/30/2019

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

Solvent(s): Methylene chloride
Lot#: 78782

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 0.050 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	or-rat 500mg/kg
2. Naphthalene-d8	223	PR-233203031612NP1	4000	99	0.2	2.02032	2.02064	4001.0	16.2	1146-65-2	10 ppm (50mg/m3/8H)	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-23065/051711PN1	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 "070816-GC9M2", Method "GC9-M2".
Analyzed using Method "GC9-M2".

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

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

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

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

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

Part #
Lot #
Shelf Life

Formulator
Reviewer

Actual Concentration

Target Compounds

Uncertainty Values

Health & Safety

Method of Analysis

Qualitative
Quantitative

3rd Party Comparison

For More Information, Contact:

StephenArpie@AbsoluteStandards.com

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

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

Certified Reference Material CRM

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

CERTIFIED WEIGHT REPORT

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

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

Solvent(s):	Lot#
Methylene chloride	105345

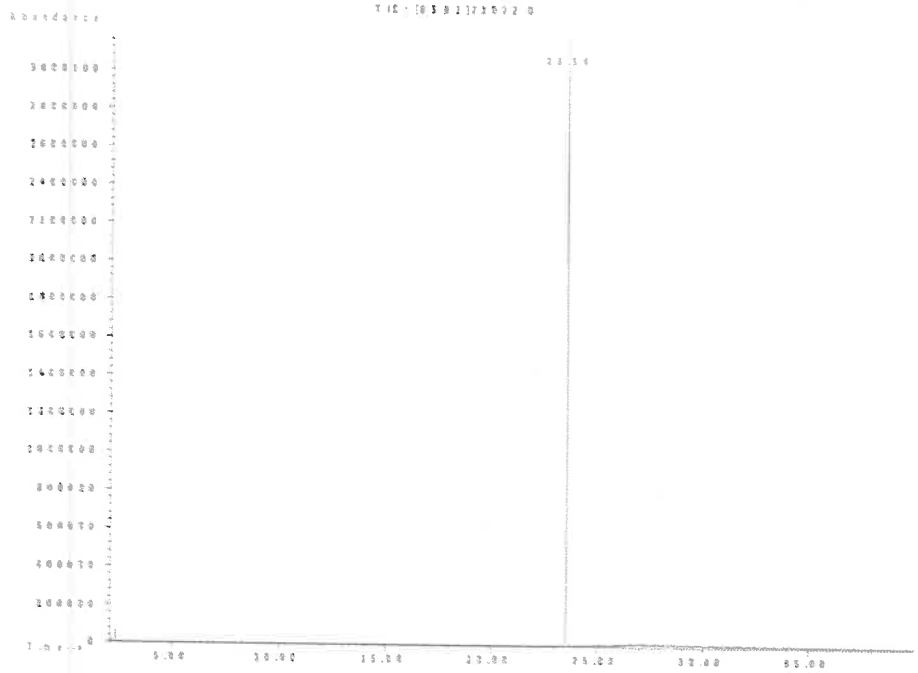
P13477 → P13496 } X.P. 07/24/24

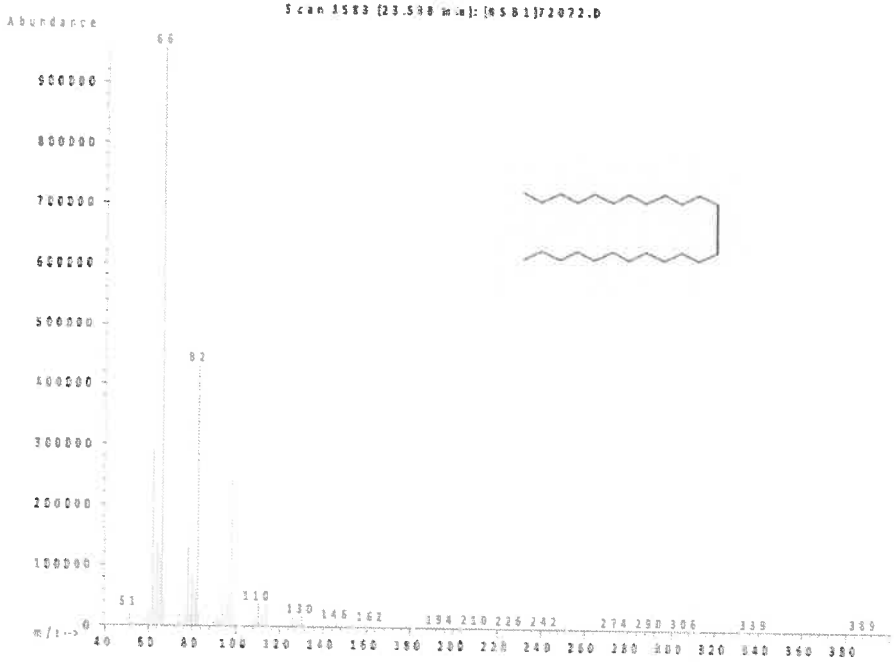
Formulated By:	Prashant Chauhan	101122 DATE
Reviewed By:	Pedro L. Rentas	101122 DATE

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

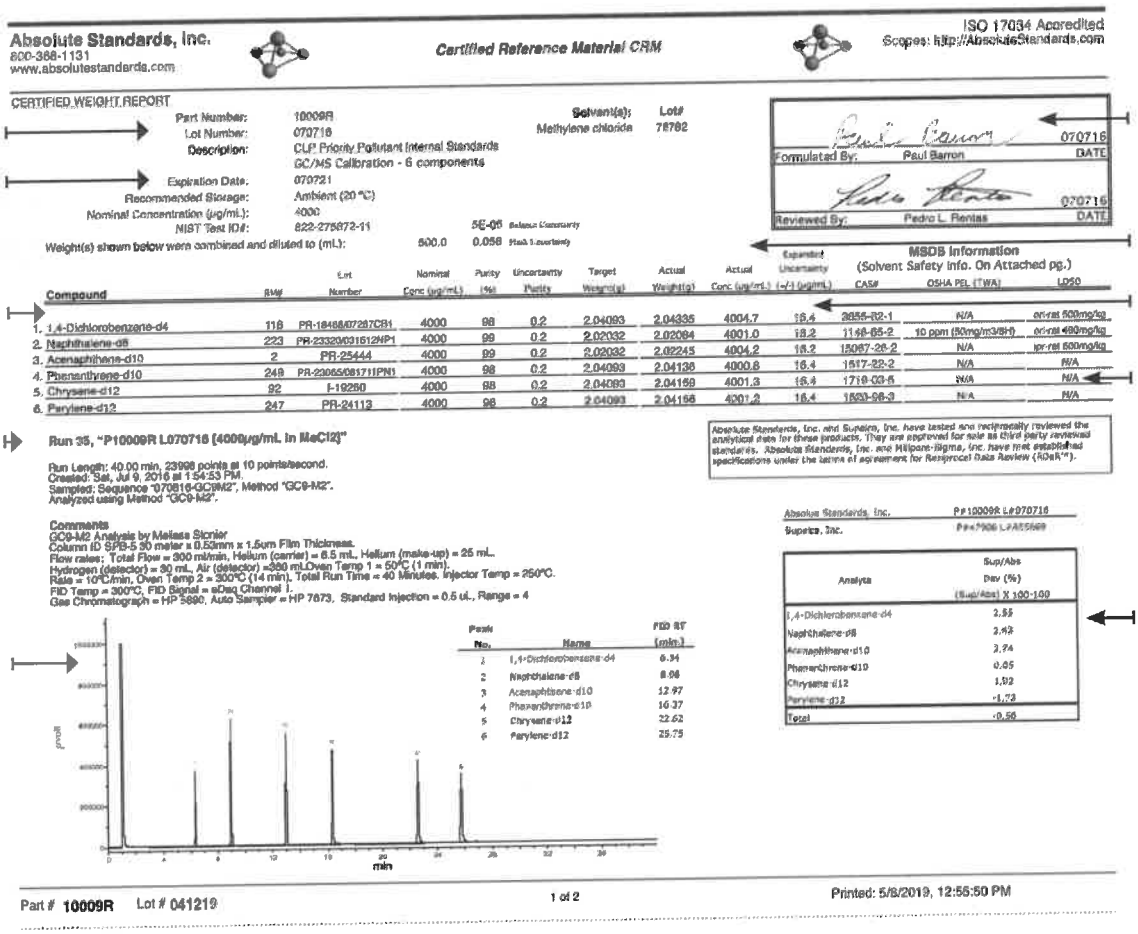
Absolute Standards, Inc. • 44 Rossotto Drive • Hamden, CT 06514
Voice: 800-368-1131 • Fax: 800-410-2577 • eMail: StephenArpie@AbsoluteStandards.com
Document Identification: Certificate of Analysis Rev 14, Date Issued: 05/30/2019

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

Solvent(s): Methylene chloride
Lot#: 78782

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 0.050 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	or-rat 500mg/kg
2. Naphthalene-d8	223	PR-233203031612NP1	4000	99	0.2	2.02032	2.02064	4001.0	16.2	1146-65-2	10 ppm (50mg/m3/8H)	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-23065/051711PN1	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 "070816-GC9M2", Method "GC9-M2".
Analyzed using Method "GC9-M2".

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

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

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

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

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

Part #
Lot #
Shelf Life

Formulator
Reviewer

Actual Concentration

Target Compounds

Uncertainty Values

Health & Safety

Method of Analysis

Qualitative
Quantitative

3rd Party Comparison

For More Information, Contact:

StephenArpie@AbsoluteStandards.com

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

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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

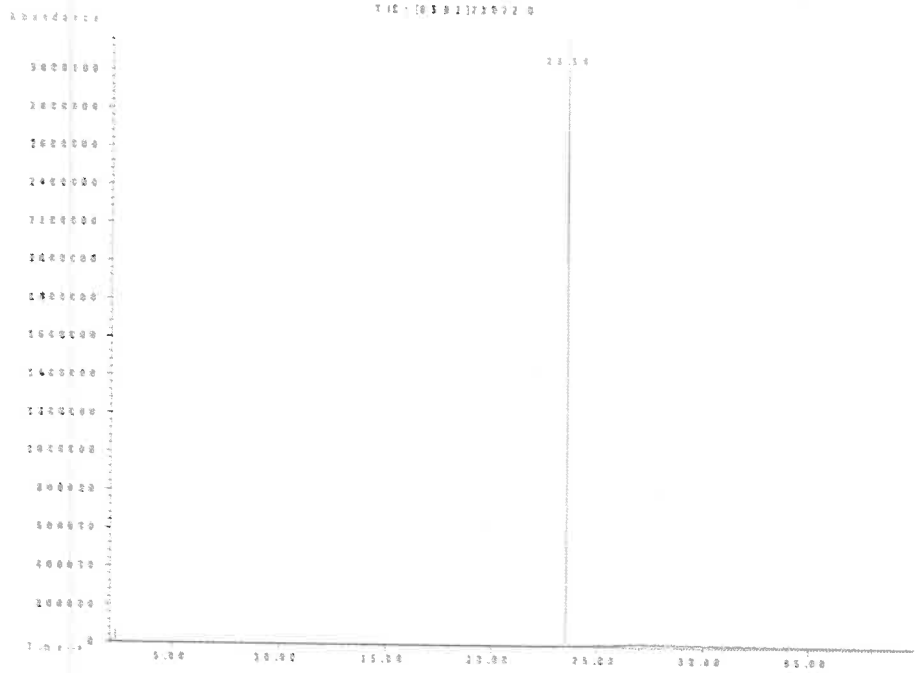
P13477 → P13496 } X.P. 07/24/24

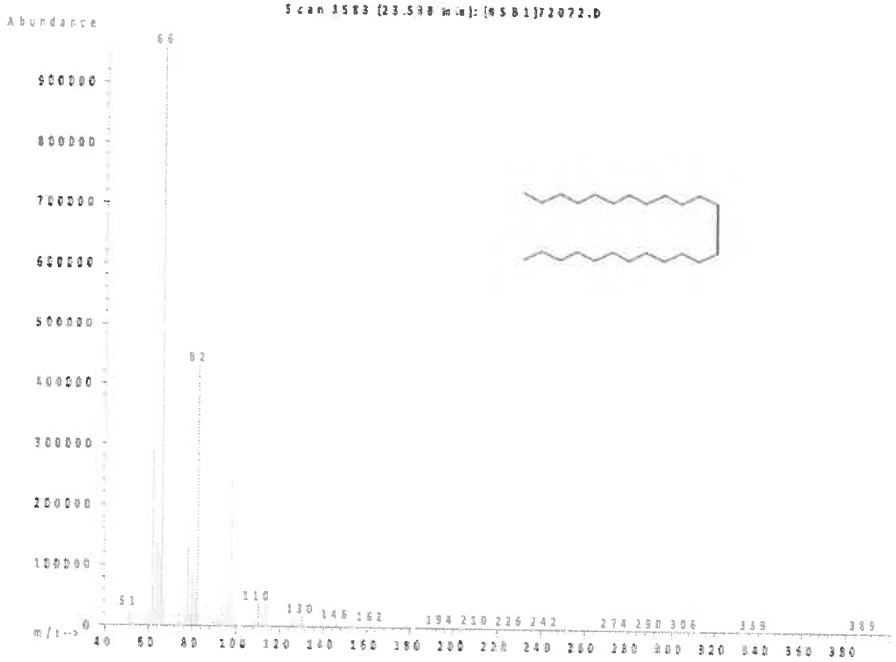
Formulated By:	Prashant Chauhan	101122 DATE
Reviewed By:	Pedro L. Rentas	101122 DATE

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.

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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

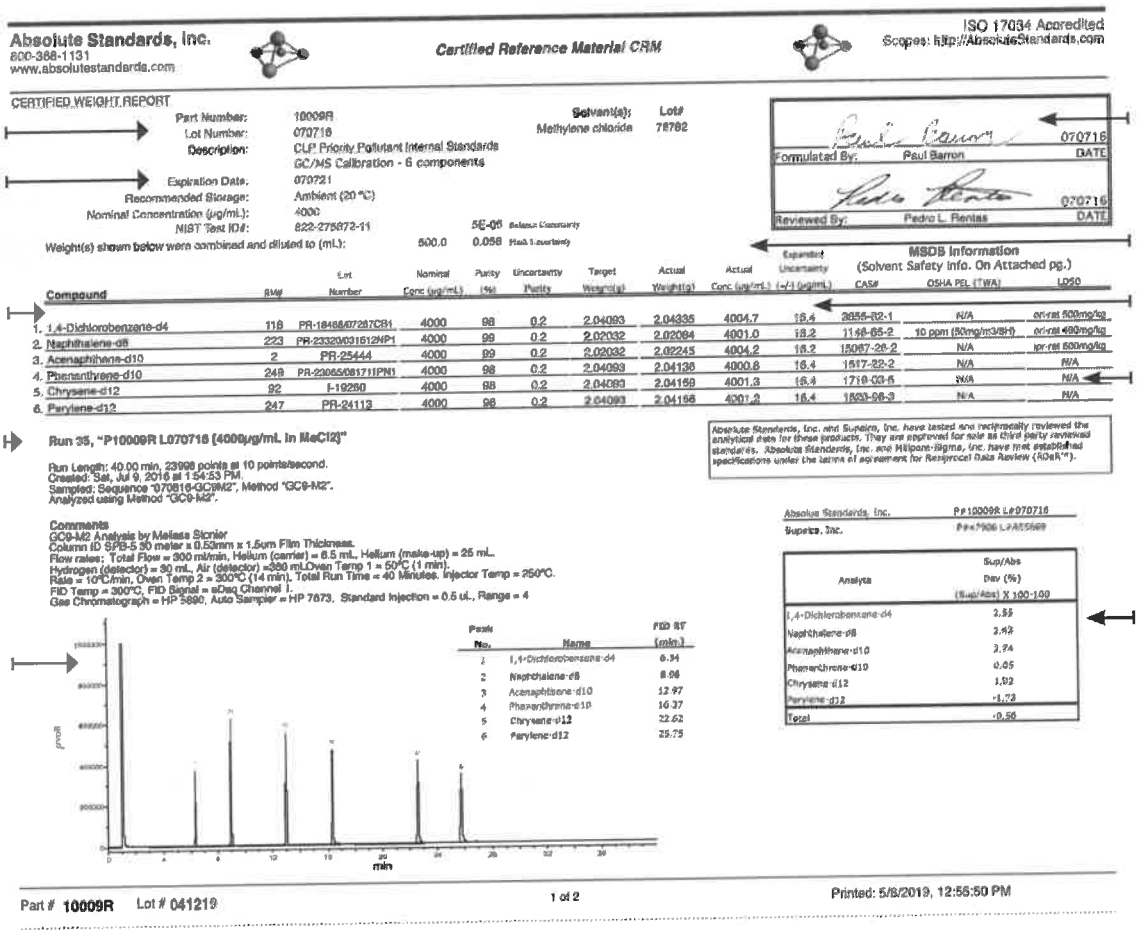
Absolute Standards, Inc. • 44 Rossotto Drive • Hamden, CT 06514
Voice: 800-368-1131 • Fax: 800-410-2577 • eMail: StephenArpie@AbsoluteStandards.com
Document Identification: Certificate of Analysis Rev 14, Date Issued: 05/30/2019

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

Solvent(s): Methylene chloride
Lot#: 78782

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 0.050 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	or-rat 500mg/kg
2. Naphthalene-d8	223	PR-233203031612NP1	4000	99	0.2	2.02032	2.02064	4001.0	16.2	1146-65-2	10 ppm (50mg/m3/8H)	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-23065/051711PN1	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 "070816-GC9M2", Method "GC9-M2".
Analyzed using Method "GC9-M2".

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

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

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

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

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

Part #
Lot #
Shelf Life

Formulator
Reviewer

Actual Concentration

Target Compounds

Uncertainty Values

Health & Safety

Method of Analysis

Qualitative
Quantitative

3rd Party Comparison

For More Information, Contact:

StephenArpie@AbsoluteStandards.com

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

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

Certified Reference Material CRM

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

CERTIFIED WEIGHT REPORT

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

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

Solvent(s):	Lot#
Methylene chloride	105345

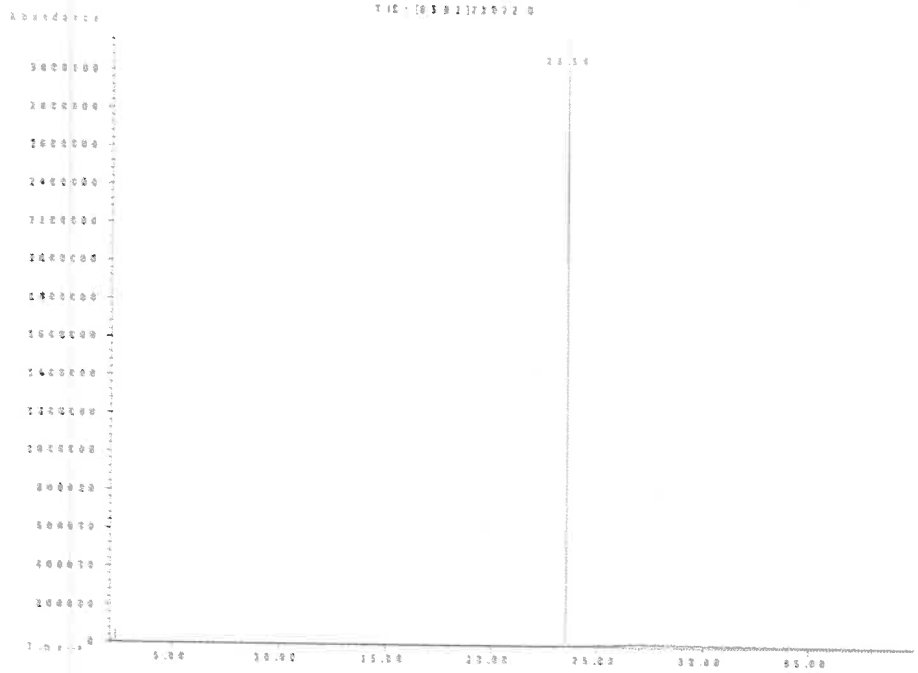
P13477 → P13496 } X.P. 07/24/24

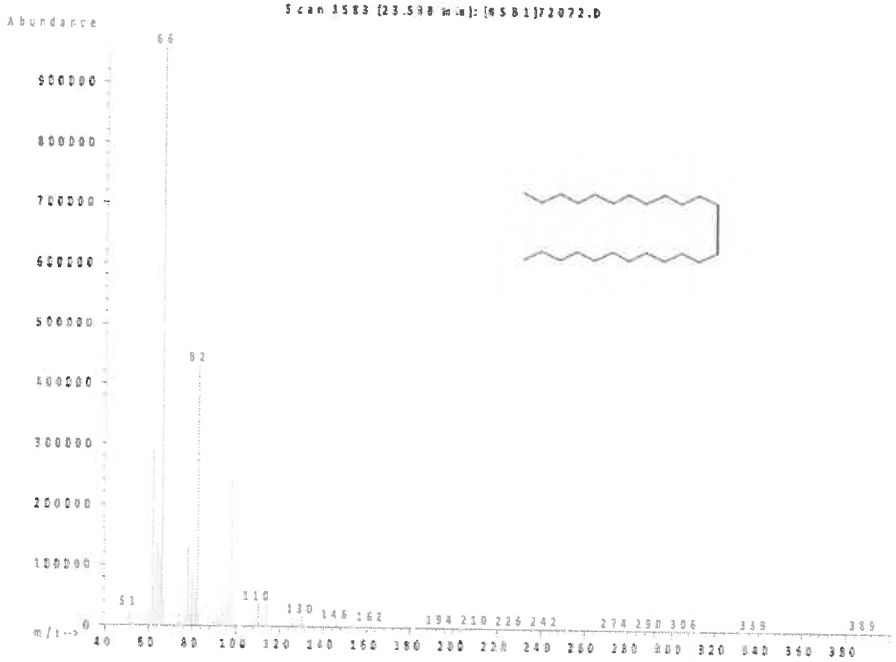
Formulated By:	Prashant Chauhan	101122 DATE
Reviewed By:	Pedro L. Rentas	101122 DATE

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).

Quantitation Report (QT Reviewed)

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE012925\
Data File : FE052149.D
Signal(s) : FID1B.ch
Acq On : 30 Jan 2025 09:00
Operator : YP\AJ
Sample : Q1207-09
Misc :
ALS Vial : 32 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Jan 31 01:59:49 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\FE012325.M
Quant Title :
QLast Update : Fri Jan 24 03:06:38 2025
Response via : Initial Calibration
Integrator: ChemStation

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

Instrument :
FID_E
ClientSampleId :
JPP-4.5-012725

Manual Integrations APPROVED

Reviewed By :Yogesh Patel 01/31/2025
Supervised By :Ankita Jodhani 01/31/2025

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
9) S TETRACOSANE-d50 (SURR...	15.275	460666	4.625 ug/mlm
Target Compounds			

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

Quantitation Report (QT Reviewed)

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE012925\
Data File : FE052149.D
Signal(s) : FID1B.ch
Acq On : 30 Jan 2025 09:00
Operator : YP\AJ
Sample : Q1207-09
Misc :
ALS Vial : 32 Sample Multiplier: 1

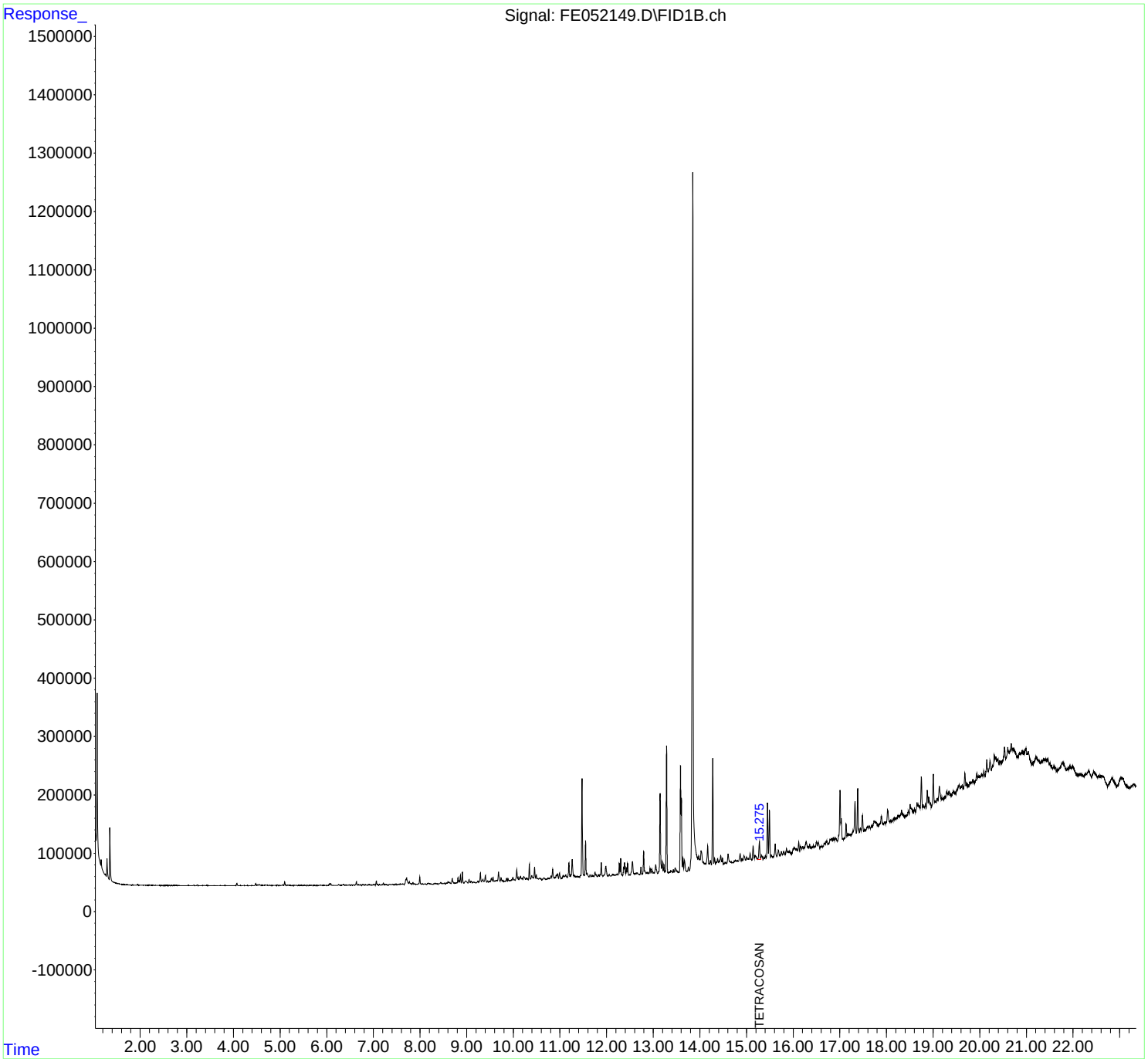
Integration File: autoint1.e
Quant Time: Jan 31 01:59:49 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\FE012325.M
Quant Title :
QLast Update : Fri Jan 24 03:06:38 2025
Response via : Initial Calibration
Integrator: ChemStation

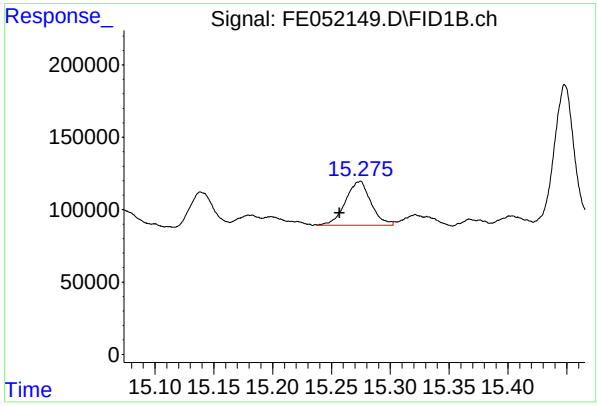
Volume Inj. : 1uL
Signal Phase : Rxi-1ms
Signal Info : 20mx0.18mmx0.18um

Instrument :
FID_E
ClientSampleId :
JPP-4.5-012725

Manual Integrations APPROVED

Reviewed By :Yogesh Patel 01/31/2025
Supervised By :Ankita Jodhani 01/31/2025





#9 TETRACOSANE-d50 (SURROGATE)

R.T.:	15.275 min
Delta R.T.:	0.018 mi
Response:	460666
Conc:	4.63 ug/m

Instrument :
FID_E
ClientSampleId :
JPP-4.5-012725

Manual Integrations
APPROVED

Reviewed By :Yogesh Patel 01/31/2025
Supervised By :Ankita Jodhani 01/31/2025

Instrument :
FID_E
ClientSampleId :
JPP-4.5-012725

rteres

Area Percent Report

Manual IntegrationsAPPROVED

Reviewed By :Yogesh Patel 01/31/2025
Supervised By :Ankita Jodhani 01/31/2025

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE01292
Data File : FE052149.D
Signal(s) : FID1B.ch
Acq On : 30 Jan 2025 09:00
Sample : Q1207-09
Misc :
ALS Vial : 32 Sample Multiplier: 1

Integration File: Sample.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\FE012325.M
Title :

Signal : FID1B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	4.884	4.852	4.920	BH	152	-67	-0.00%	-0.000%
2	4.943	4.920	4.972	PH	911	7476	0.03%	0.003%
3	4.991	4.972	5.009	PH	213	448	0.00%	0.000%
4	5.024	5.009	5.035	PH	152	-65	-0.00%	-0.000%
5	5.059	5.035	5.079	PH	1180	12788	0.06%	0.006%
6	5.100	5.079	5.148	HH	6491	69431	0.31%	0.032%
7	5.166	5.148	5.204	PH	902	10308	0.05%	0.005%
8	5.219	5.204	5.240	PH	262	121	0.00%	0.000%
9	5.256	5.240	5.266	PH	136	-263	-0.00%	-0.000%
10	5.272	5.266	5.278	PH	-42	-504	-0.00%	-0.000%
11	5.282	5.278	5.288	PH	6	-306	-0.00%	-0.000%
12	5.291	5.288	5.294	PH	-28	-199	-0.00%	-0.000%
13	5.307	5.294	5.342	PH	561	4674	0.02%	0.002%
14	5.358	5.342	5.377	PH	266	1178	0.01%	0.001%
15	5.394	5.377	5.421	PH	250	1380	0.01%	0.001%
16	5.438	5.421	5.451	PH	289	2087	0.01%	0.001%
17	5.464	5.451	5.499	HH	461	1753	0.01%	0.001%
18	5.527	5.499	5.551	PH	402	1546	0.01%	0.001%
19	5.556	5.551	5.574	PH	107	-1067	-0.00%	-0.000%
20	5.599	5.574	5.617	PH	170	-553	-0.00%	-0.000%
21	5.638	5.617	5.664	PH	295	2257	0.01%	0.001%
22	5.677	5.664	5.692	PH	413	3176	0.01%	0.001%
23	5.694	5.692	5.712	HH	196	468	0.00%	0.000%
24	5.724	5.712	5.731	PH	396	2228	0.01%	0.001%
25	5.744	5.731	5.767	HH	494	4424	0.02%	0.002%
26	5.779	5.767	5.792	PH	157	-530	-0.00%	-0.000%
27	5.796	5.792	5.800	PH	-149	-872	-0.00%	-0.000%
28	5.811	5.800	5.828	PH	-38	-1856	-0.01%	-0.001%
29	5.863	5.828	5.884	PH	1050	10893	0.05%	0.005%
30	5.900	5.884	5.907	PH	175	1158	0.01%	0.001%
31	5.929	5.907	5.935	HH	455	3636	0.02%	0.002%
32	5.945	5.935	5.964	HH	277	2649	0.01%	0.001%
33	5.978	5.964	5.990	PH	209	1199	0.01%	0.001%
34	6.007	5.990	6.034	PH	456	2445	0.01%	0.001%
35	6.053	6.034	6.070	PH	2780	27784	0.12%	0.013%
36	6.084	6.070	6.117	HH	3316	45290	0.20%	0.021%

Instrument :
FID_E
ClientSampleId :
JPP-4.5-012725

Manual IntegrationsAPPROVED

Reviewed By :Yogesh Patel 01/31/2025
Supervised By :Ankita Jodhani 01/31/2025

rteres

37	6.130	6.117	6.148	PH	349	2265	0.01%	0.001%
38	6.152	6.148	6.159	PH	113	259		
39	6.162	6.159	6.186	HH	104	242		
40	6.200	6.186	6.212	PH	208	872		
41	6.219	6.212	6.233	HH	202	1843		
42	6.256	6.233	6.274	HH	1839	21693		
43	6.279	6.274	6.297	HH	465	4096	0.02%	0.002%
44	6.314	6.297	6.322	HH	283	3126	0.01%	0.001%
45	6.357	6.322	6.362	HH	1202	20199	0.09%	0.009%
46	6.368	6.362	6.395	HH	1276	13431	0.06%	0.006%
47	6.412	6.395	6.431	HH	1166	13394	0.06%	0.006%
48	6.477	6.431	6.509	HH	997	26555	0.12%	0.012%
49	6.530	6.509	6.557	HH	1143	15482	0.07%	0.007%
50	6.579	6.557	6.599	HH	1273	19884	0.09%	0.009%
51	6.637	6.599	6.659	HH	6727	82666	0.37%	0.038%
52	6.676	6.659	6.697	HH	1342	22984	0.10%	0.011%
53	6.715	6.697	6.752	HH	1445	28884	0.13%	0.013%
54	6.776	6.752	6.795	HH	2221	34096	0.15%	0.016%
55	6.815	6.795	6.822	HH	1318	15623	0.07%	0.007%
56	6.829	6.822	6.843	HH	1317	14186	0.06%	0.006%
57	6.853	6.843	6.882	HH	1056	19852	0.09%	0.009%
58	6.908	6.882	6.931	HH	2095	38052	0.17%	0.017%
59	6.950	6.931	6.970	HH	1390	23174	0.10%	0.011%
60	7.008	6.970	7.043	HH	1655	48583	0.22%	0.022%
61	7.064	7.043	7.084	HH	7842	88381	0.39%	0.040%
62	7.091	7.084	7.117	HH	1729	23315	0.10%	0.011%
63	7.135	7.117	7.166	HH	1923	34635	0.15%	0.016%
64	7.184	7.166	7.198	HH	1555	23586	0.10%	0.011%
65	7.216	7.198	7.238	HH	4309	55375	0.25%	0.025%
66	7.272	7.238	7.323	HH	1785	65058	0.29%	0.030%
67	7.352	7.323	7.378	HH	2264	49445	0.22%	0.023%
68	7.400	7.378	7.443	HH	2333	64257	0.29%	0.029%
69	7.464	7.443	7.470	HH	1610	23235	0.10%	0.011%
70	7.485	7.470	7.506	HH	2970	41241	0.18%	0.019%
71	7.524	7.506	7.541	HH	2205	35408	0.16%	0.016%
72	7.569	7.541	7.574	HH	2130	39171	0.17%	0.018%
73	7.587	7.574	7.617	HH	2990	58886	0.26%	0.027%
74	7.632	7.617	7.660	HH	2847	60772	0.27%	0.028%
75	7.713	7.660	7.758	HH	13058	401978	1.79%	0.184%
76	7.774	7.758	7.793	HH	6701	97228	0.43%	0.045%
77	7.805	7.793	7.825	HH	3254	54607	0.24%	0.025%
78	7.850	7.825	7.869	HH	5277	89495	0.40%	0.041%
79	7.886	7.869	7.910	HH	3040	61341	0.27%	0.028%
80	7.929	7.910	7.947	HH	2420	48433	0.22%	0.022%
81	7.969	7.947	7.979	HH	3160	48607	0.22%	0.022%
82	7.996	7.979	8.039	HH	14981	205890	0.92%	0.094%
83	8.053	8.039	8.067	HH	2861	42462	0.19%	0.019%
84	8.088	8.067	8.097	HH	2696	43792	0.19%	0.020%
85	8.101	8.097	8.111	HH	2723	21921	0.10%	0.010%
86	8.116	8.111	8.133	HH	2435	30167	0.13%	0.014%
87	8.187	8.133	8.200	HH	3857	120502	0.54%	0.055%
88	8.208	8.200	8.223	HH	3415	42454	0.19%	0.019%
89	8.234	8.223	8.272	HH	2565	66705	0.30%	0.031%

Instrument :
FID_E
ClientSampleId :
JPP-4.5-012725

rteres

Manual IntegrationsAPPROVED

Reviewed By :Yogesh Patel 01/31/2025
Supervised By :Ankita Jodhani 01/31/2025

90	8.312	8.272	8.333	HH	3556	104444	0.46%	0.048%
91	8.346	8.333	8.361	HH	3548	52664		
92	8.368	8.361	8.385	HH	2834	37649		
93	8.403	8.385	8.413	HH	3098	48381		
94	8.448	8.413	8.466	HH	5211	125460		
95	8.475	8.466	8.492	HH	4069	54193		
96	8.521	8.492	8.542	HH	4305	100370	0.45%	0.046%
97	8.564	8.542	8.583	HH	4865	93893	0.42%	0.043%
98	8.598	8.583	8.607	HH	5392	66679	0.30%	0.031%
99	8.621	8.607	8.642	HH	6504	107791	0.48%	0.049%
100	8.645	8.642	8.668	HH	4534	59265	0.26%	0.027%
101	8.692	8.668	8.747	HH	11710	276766	1.23%	0.127%
102	8.763	8.747	8.775	HH	4316	65549	0.29%	0.030%
103	8.789	8.775	8.799	HH	4651	64577	0.29%	0.030%
104	8.815	8.799	8.831	HH	13445	167752	0.75%	0.077%
105	8.842	8.831	8.852	HH	8406	93346	0.42%	0.043%
106	8.867	8.852	8.890	HH	17732	230203	1.02%	0.105%
107	8.909	8.890	8.943	HH	22723	326510	1.45%	0.149%
108	8.978	8.943	9.029	HH	7756	307149	1.37%	0.141%
109	9.052	9.029	9.079	HH	10077	203220	0.90%	0.093%
110	9.093	9.079	9.122	HH	6945	155923	0.69%	0.071%
111	9.153	9.122	9.167	HH	5871	144768	0.64%	0.066%
112	9.170	9.167	9.213	HH	5497	133296	0.59%	0.061%
113	9.240	9.213	9.261	HH	7590	175628	0.78%	0.080%
114	9.296	9.261	9.320	HH	21751	378416	1.68%	0.173%
115	9.349	9.320	9.370	HH	10500	250040	1.11%	0.114%
116	9.403	9.370	9.432	HH	17420	370050	1.65%	0.169%
117	9.451	9.432	9.467	HH	8226	142858	0.64%	0.065%
118	9.491	9.467	9.507	HH	7263	156583	0.70%	0.072%
119	9.529	9.507	9.550	HH	12182	236600	1.05%	0.108%
120	9.567	9.550	9.590	HH	14092	243074	1.08%	0.111%
121	9.604	9.590	9.614	HH	7625	103333	0.46%	0.047%
122	9.648	9.614	9.663	HH	8942	244247	1.09%	0.112%
123	9.685	9.663	9.718	HH	23106	451841	2.01%	0.207%
124	9.741	9.718	9.759	HH	13225	242139	1.08%	0.111%
125	9.771	9.759	9.793	HH	8981	166349	0.74%	0.076%
126	9.801	9.793	9.817	HH	7584	107087	0.48%	0.049%
127	9.831	9.817	9.838	HH	7442	89845	0.40%	0.041%
128	9.857	9.838	9.874	HH	12365	210290	0.94%	0.096%
129	9.888	9.874	9.902	HH	11762	162785	0.72%	0.075%
130	9.916	9.902	9.935	HH	8576	162769	0.72%	0.075%
131	9.942	9.935	9.953	HH	8464	87778	0.39%	0.040%
132	9.971	9.953	9.977	HH	10036	133394	0.59%	0.061%
133	9.993	9.977	10.011	HH	14179	242516	1.08%	0.111%
134	10.021	10.011	10.039	HH	10178	162127	0.72%	0.074%
135	10.077	10.039	10.092	HH	27263	501971	2.23%	0.230%
136	10.101	10.092	10.119	HH	14452	199984	0.89%	0.092%
137	10.156	10.119	10.177	HH	14931	439282	1.95%	0.201%
138	10.191	10.177	10.207	HH	12847	214340	0.95%	0.098%
139	10.227	10.207	10.263	HH	15243	435089	1.94%	0.199%
140	10.289	10.263	10.323	HH	13212	409915	1.82%	0.188%
141	10.346	10.323	10.370	HH	36538	540818	2.41%	0.248%

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rteres

142	10.397	10.370	10.430	HH	16978	498656	2.22%	0.228%
143	10.458	10.430	10.479	HH	31682	566922	2	
144	10.494	10.479	10.514	HH	18453	309459	1	
145	10.524	10.514	10.541	HH	11890	184931	0	
146	10.560	10.541	10.574	HH	12735	238871	1	
147	10.581	10.574	10.585	HH	11821	78473	0	
148	10.588	10.585	10.613	HH	11808	178907	0.80%	0.082%
149	10.657	10.613	10.686	HH	13104	495766	2.21%	0.227%
150	10.691	10.686	10.703	HH	10820	110287	0.49%	0.050%
151	10.756	10.703	10.769	HH	12679	456570	2.03%	0.209%
152	10.813	10.769	10.826	HH	16364	462504	2.06%	0.212%
153	10.846	10.826	10.879	HH	28076	592325	2.64%	0.271%
154	10.893	10.879	10.905	HH	14285	208695	0.93%	0.096%
155	10.922	10.905	10.934	HH	17561	284095	1.26%	0.130%
156	10.951	10.934	10.972	HH	19783	383547	1.71%	0.176%
157	10.992	10.972	11.030	HH	21425	537477	2.39%	0.246%
158	11.072	11.030	11.087	HH	17515	501792	2.23%	0.230%
159	11.126	11.087	11.160	HH	18219	684142	3.04%	0.313%
160	11.192	11.160	11.217	HH	38749	763116	3.40%	0.349%
161	11.236	11.217	11.244	HH	19090	286283	1.27%	0.131%
162	11.265	11.244	11.296	HH	44861	888441	3.95%	0.407%
163	11.305	11.296	11.332	HH	17494	352305	1.57%	0.161%
164	11.345	11.332	11.353	HH	15294	187636	0.83%	0.086%
165	11.367	11.353	11.387	HH	16276	305047	1.36%	0.140%
166	11.404	11.387	11.424	HH	15051	326521	1.45%	0.149%
167	11.446	11.424	11.452	HH	17226	264450	1.18%	0.121%
168	11.476	11.452	11.499	HH	183172	2085110	9.28%	0.955%
169	11.503	11.499	11.519	HH	18327	210123	0.93%	0.096%
170	11.549	11.519	11.569	HH	77064	1101157	4.90%	0.504%
171	11.583	11.569	11.622	HH	21011	574755	2.56%	0.263%
172	11.643	11.622	11.663	HH	18281	401424	1.79%	0.184%
173	11.693	11.663	11.707	HH	17783	434363	1.93%	0.199%
174	11.717	11.707	11.732	HH	16553	235943	1.05%	0.108%
175	11.753	11.732	11.799	HH	22848	728141	3.24%	0.333%
176	11.827	11.799	11.843	HH	17978	446713	1.99%	0.205%
177	11.865	11.843	11.869	HH	19116	273033	1.21%	0.125%
178	11.889	11.869	11.923	HH	39206	782824	3.48%	0.358%
179	11.943	11.923	11.947	HH	17751	238827	1.06%	0.109%
180	11.982	11.947	12.033	HH	32598	1150578	5.12%	0.527%
181	12.058	12.033	12.081	HH	19045	489494	2.18%	0.224%
182	12.091	12.081	12.100	HH	16550	184937	0.82%	0.085%
183	12.124	12.100	12.137	HH	19648	403040	1.79%	0.185%
184	12.155	12.137	12.168	HH	18581	335395	1.49%	0.154%
185	12.180	12.168	12.185	HH	18283	184170	0.82%	0.084%
186	12.200	12.185	12.211	HH	18327	276045	1.23%	0.126%
187	12.228	12.211	12.247	HH	19328	399457	1.78%	0.183%
188	12.270	12.247	12.285	HH	38013	628656	2.80%	0.288%
189	12.301	12.285	12.333	HH	46602	819961	3.65%	0.375%
190	12.337	12.333	12.342	HH	17649	97593	0.43%	0.045%
191	12.367	12.342	12.376	HH	31744	491094	2.18%	0.225%
192	12.387	12.376	12.404	HH	39275	527705	2.35%	0.242%
193	12.418	12.404	12.432	HH	30684	443001	1.97%	0.203%
194	12.449	12.432	12.473	HH	37946	671339	2.99%	0.307%

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195	12.485	12.473	12.502	HH	18388	304336	1.35%	0.139%
196	12.554	12.502	12.592	HH	40409	1341805	5	
197	12.603	12.592	12.612	HH	20761	242353	1	
198	12.625	12.612	12.638	HH	20922	327220	1	
199	12.660	12.638	12.682	HH	21814	536200	2	
200	12.694	12.682	12.710	HH	19280	322630	1	
201	12.733	12.710	12.756	HH	31496	646097	2.87%	0.296%
202	12.795	12.756	12.816	HH	58223	1138403	5.06%	0.521%
203	12.822	12.816	12.848	HH	24907	441986	1.97%	0.202%
204	12.861	12.848	12.871	HH	22316	298910	1.33%	0.137%
205	12.883	12.871	12.908	HH	22729	480883	2.14%	0.220%
206	12.930	12.908	12.950	HH	29430	614195	2.73%	0.281%
207	12.968	12.950	12.999	HH	28231	710781	3.16%	0.325%
208	13.012	12.999	13.025	HH	22570	335241	1.49%	0.153%
209	13.051	13.025	13.097	HH	35868	1153826	5.13%	0.528%
210	13.148	13.097	13.176	HH	157586	2660381	11.84%	1.218%
211	13.190	13.176	13.211	HH	41435	703655	3.13%	0.322%
212	13.228	13.211	13.246	HH	35966	601007	2.67%	0.275%
213	13.254	13.246	13.260	HH	23989	200802	0.89%	0.092%
214	13.286	13.260	13.321	HH	239840	3155691	14.04%	1.445%
215	13.341	13.321	13.357	HH	23520	490357	2.18%	0.225%
216	13.382	13.357	13.414	HH	25283	804978	3.58%	0.369%
217	13.432	13.414	13.452	HH	27135	559406	2.49%	0.256%
218	13.472	13.452	13.499	HH	30107	734641	3.27%	0.336%
219	13.508	13.499	13.530	HH	25338	439870	1.96%	0.201%
220	13.545	13.530	13.555	HH	23092	338447	1.51%	0.155%
221	13.585	13.555	13.597	HH	205282	2553549	11.36%	1.169%
222	13.605	13.597	13.624	HH	149232	1625127	7.23%	0.744%
223	13.636	13.624	13.651	HH	47553	617078	2.75%	0.283%
224	13.667	13.651	13.722	HH	43729	1339758	5.96%	0.613%
225	13.752	13.722	13.770	HH	31321	781808	3.48%	0.358%
226	13.847	13.770	13.957	HH	1222079	22477102	100.00%	10.291%
227	13.974	13.957	14.006	HH	50761	1371448	6.10%	0.628%
228	14.026	14.006	14.064	HH	59213	1760450	7.83%	0.806%
229	14.069	14.064	14.090	HH	40297	606266	2.70%	0.278%
230	14.102	14.090	14.126	HH	38115	797808	3.55%	0.365%
231	14.166	14.126	14.192	HH	68530	1901687	8.46%	0.871%
232	14.201	14.192	14.206	HH	37362	321176	1.43%	0.147%
233	14.226	14.206	14.248	HH	42742	987902	4.40%	0.452%
234	14.275	14.248	14.299	HH	218397	3166584	14.09%	1.450%
235	14.315	14.299	14.340	HH	46818	1020464	4.54%	0.467%
236	14.355	14.340	14.365	HH	41003	584389	2.60%	0.268%
237	14.381	14.365	14.396	HH	45938	788111	3.51%	0.361%
238	14.419	14.396	14.425	HH	42427	717933	3.19%	0.329%
239	14.445	14.425	14.466	HH	51337	1133395	5.04%	0.519%
240	14.484	14.466	14.505	HH	47147	986006	4.39%	0.451%
241	14.509	14.505	14.517	HH	37085	267966	1.19%	0.123%
242	14.538	14.517	14.546	HH	39222	650875	2.90%	0.298%
243	14.553	14.546	14.575	HH	39113	671831	2.99%	0.308%
244	14.602	14.575	14.633	HH	54044	1567635	6.97%	0.718%
245	14.639	14.633	14.658	HH	41939	627144	2.79%	0.287%
246	14.669	14.658	14.674	HH	39941	369134	1.64%	0.169%

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247	14.678	14.674	14.704	HH	40195	719696	3.20%	0.330%
248	14.715	14.704	14.722	HH	39934	414667	1	
249	14.738	14.722	14.748	HH	42589	661611	2	
250	14.766	14.748	14.782	HH	43285	867394	3	
251	14.786	14.782	14.797	HH	42034	353955	1	
252	14.811	14.797	14.822	HH	42510	648556	2	
253	14.860	14.822	14.883	HH	54237	1705275	7.59%	0.781%
254	14.898	14.883	14.920	HH	44900	966913	4.30%	0.443%
255	14.943	14.920	14.979	HH	51224	1657022	7.37%	0.759%
256	15.001	14.979	15.022	HH	48836	1185028	5.27%	0.543%
257	15.032	15.022	15.048	HH	46238	728270	3.24%	0.333%
258	15.074	15.048	15.117	HH	54947	1977246	8.80%	0.905%
259	15.139	15.117	15.164	HH	67407	1535933	6.83%	0.703%
260	15.181	15.164	15.191	HH	51303	805345	3.58%	0.369%
261	15.199	15.191	15.235	HH	50501	1266035	5.63%	0.580%
262	15.274	15.235	15.305	HH	74657	2337358	10.40%	1.070%
263	15.321	15.305	15.353	HH	51941	1392916	6.20%	0.638%
264	15.368	15.353	15.387	HH	48802	946867	4.21%	0.434%
265	15.403	15.387	15.422	HH	50880	1025508	4.56%	0.470%
266	15.449	15.422	15.467	HH	141629	2365457	10.52%	1.083%
267	15.490	15.467	15.515	HH	129609	2363173	10.51%	1.082%
268	15.534	15.515	15.572	HH	51949	1708381	7.60%	0.782%
269	15.613	15.572	15.647	HH	71774	2535813	11.28%	1.161%
270	15.683	15.647	15.710	HH	61009	2047018	9.11%	0.937%
271	15.746	15.710	15.770	HH	58060	1936063	8.61%	0.886%
272	15.797	15.770	15.827	HH	57632	1877941	8.35%	0.860%
273	15.832	15.827	15.837	HH	54662	324343	1.44%	0.149%
274	15.854	15.837	15.880	HH	63345	1525187	6.79%	0.698%
275	15.887	15.880	15.900	HH	58080	695561	3.09%	0.318%
276	15.912	15.900	15.953	HH	58252	1818923	8.09%	0.833%
277	15.964	15.953	15.971	HH	55851	571230	2.54%	0.262%
278	15.996	15.971	16.007	HH	62403	1283702	5.71%	0.588%
279	16.019	16.007	16.036	HH	66249	1124377	5.00%	0.515%
280	16.038	16.036	16.062	HH	63203	989483	4.40%	0.453%
281	16.074	16.062	16.096	HH	62559	1226847	5.46%	0.562%
282	16.117	16.096	16.138	HH	74804	1679432	7.47%	0.769%
283	16.157	16.138	16.188	HH	67351	1929055	8.58%	0.883%
284	16.204	16.188	16.220	HH	67107	1238461	5.51%	0.567%
285	16.234	16.220	16.240	HH	64979	768492	3.42%	0.352%
286	16.283	16.240	16.315	HH	73809	3107477	13.83%	1.423%
287	16.318	16.315	16.323	HH	66137	327332	1.46%	0.150%
288	16.331	16.323	16.337	HH	66191	557296	2.48%	0.255%
289	16.353	16.337	16.368	HH	70848	1254661	5.58%	0.574%
290	16.375	16.368	16.384	HH	65558	620850	2.76%	0.284%
291	16.388	16.384	16.401	HH	65471	646532	2.88%	0.296%
292	16.437	16.401	16.452	HH	68064	2045354	9.10%	0.936%
293	16.463	16.452	16.468	HH	66808	628044	2.79%	0.288%
294	16.500	16.468	16.516	HH	75616	2041655	9.08%	0.935%
295	16.535	16.516	16.574	HH	74191	2422201	10.78%	1.109%
296	16.595	16.574	16.599	HH	66968	983921	4.38%	0.450%
297	16.603	16.599	16.618	HH	66602	753514	3.35%	0.345%
298	16.622	16.618	16.633	HH	67161	597202	2.66%	0.273%
299	16.669	16.633	16.688	HH	72749	2300711	10.24%	1.053%

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300	16.707	16.688	16.711	HH	75210	985678	4.39%	0.451%
301	16.722	16.711	16.741	HH	76155	1339475	5	
302	16.746	16.741	16.762	HH	71837	896502	3	
303	16.788	16.762	16.802	HH	79390	1817194	8	
304	16.812	16.802	16.817	HH	80291	751314	3	
305	16.820	16.817	16.840	HH	80554	1056950	4	
306	16.856	16.840	16.860	HH	80635	943057	4.20%	0.432%
307	16.868	16.860	16.882	HH	80288	1029923	4.58%	0.472%
308	16.884	16.882	16.892	HH	78512	508862	2.26%	0.233%
309	16.908	16.892	16.913	HH	82349	976632	4.35%	0.447%
310	16.916	16.913	16.922	HH	81404	465796	2.07%	0.213%
311	16.928	16.922	16.951	HH	79791	1335684	5.94%	0.612%
312	17.004	16.951	17.021	HH	163435	4498494	20.01%	2.060%
313	17.031	17.021	17.053	HH	114992	1939537	8.63%	0.888%
314	17.060	17.053	17.076	HH	80504	1076872	4.79%	0.493%
315	17.096	17.076	17.108	HH	81213	1538125	6.84%	0.704%
316	17.133	17.108	17.153	HH	105927	2488025	11.07%	1.139%
317	17.164	17.153	17.181	HH	88098	1484668	6.61%	0.680%
318	17.190	17.181	17.208	HH	88269	1406953	6.26%	0.644%
319	17.218	17.208	17.238	HH	87916	1532660	6.82%	0.702%
320	17.257	17.238	17.262	HH	88388	1245028	5.54%	0.570%
321	17.286	17.262	17.291	HH	93176	1624053	7.23%	0.744%
322	17.324	17.291	17.352	HH	144176	3999063	17.79%	1.831%
323	17.382	17.352	17.419	HH	166504	4529157	20.15%	2.074%
324	17.439	17.419	17.461	HHA	97973	2403935	10.70%	1.101%
			Sum of corrected areas:			218409027		

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SHIPPING DOCUMENTS

CHEMTECH
CHAIN OF CUSTODY RECORD

284 Sheffield Street, Mountainside, NJ 07092
(908) 789-8900 • Fax (908) 789-8922
www.chemtech.net

CHEMTECH PROJECT NO. Q1207
QUOTE NO.
COC Number 2038583

CLIENT INFORMATION

REPORT TO BE SENT TO:
COMPANY: RU2 Engineering LLC
ADDRESS: 2 Melinda Drive, Monroe Twp, NJ 08831
CITY STATE: ZIP:
ATTENTION: Ruta Manani
PHONE: 609-409-4564 FAX:

CLIENT PROJECT INFORMATION

PROJECT NAME: SANDTWOBR BMLR Project
PROJECT NO.: LOCATION: Brooklyn, NYC
PROJECT MANAGER: Ruta Manani
e-mail: Rmanani@RU2eng.com
PHONE: FAX:

CLIENT BILLING INFORMATION

BILL TO: Same as company address PO#:
ADDRESS:
CITY STATE: ZIP:
ATTENTION: PHONE:

DATA TURNAROUND INFORMATION

FAX (RUSH) Standard 10 days DAYS*
HARDCOPY (DATA PACKAGE): Standard 10 days DAYS*
EDD: Standard 10 days DAYS*
*TO BE APPROVED BY CHEMTECH
STANDARD HARDCOPY TURNAROUND TIME IS 10 BUSINESS DAYS

DATA DELIVERABLE INFORMATION

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

ANALYSIS

1 TCL VOCs + MTBE + TBA
2 TCLP VOCs
3 TPH GRO-DRO
4 TCL SVOCs + TICs
5 TAL Metals
6 Pesticides, PCBs
7 RCRA characteristics
8 Paint filter
9 full TCLP

CHEMTECH SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE COMP	SAMPLE TYPE GRAB	SAMPLE COLLECTION DATE	SAMPLE COLLECTION TIME	# OF BOTTLES	PRESERVATIVES 1	2	3	4	5	6	7	8	9	COMMENTS
1.	JPP-2.1-012725	Soil		G	1/27/25	9:05	3	X	X	X							
2.	JPP-2.1-012725	Soil	C		1/27/25	9:08	7			X	X	X	X	X	X	X	
3.	JPP-5.1-012725	Soil		G	1/27/25	10:10	3	X	X	X							
4.	JPP-5.1-012725	Soil	C		1/27/25	10:16	7			X	X	X	X	X	X	X	
5.	JPP-4.5-012725	Soil		G	1/27/25	10:50	3	X	X	X							
6.	JPP-4.5-012725	Soil	C		1/27/25	10:50	7			X	X	X	X	X	X	X	
7.	JPP-16.2-012725	Soil		G	1/27/25	12:07	3	X	X	X							
8.	JPP-16.2-012725	Soil	C		1/27/25	12:09	7			X	X	X	X	X	X	X	
9.	JPP-20.2-012725	Soil		G	1/27/25	13:40	3	X	X	X							
10.	JPP-20.2-012725	Soil	C		1/27/25	13:40	7			X	X	X	X	X	X	X	

PRESERVATIVES: A-HCl B-HN03 C-H2SO4 D-NaOH E-ICE F-OTHER

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

RELINQUISHED BY SAMPLER:	DATE/TIME:	RECEIVED BY:
1.	1/28/2025	1. 1053 1-28-25
2.		2.
3.	1254 1-28-25	3.

Conditions of bottles or coolers at receipt: ☐ COMPLIANT ☐ NON COMPLIANT ☐ COOLER TEMP 3-7 °C
Comments: Preserve extra sample jar if additional analysis is required.

Page ____ of ____
CLIENT: ☐ Hand Delivered ☐ Other
CHEMTECH: ☐ Picked Up ☐ Field Sampling
Shipment Complete ☐ YES ☐ NO

2/6/20 WHITE - CHEMTECH COPY FOR RETURN TO CLIENT YELLOW - CHEMTECH COPY PINK - SAMPLER COPY

CHEMTECH 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 : Q1207 RUTW01
Client Name : RU2 Engineering, LLC
Client Contact : Rutu Manani
Invoice Name : RU2 Engineering, LLC
Invoice Contact : Rutu Manani

Order Date : 1/28/2025 11:40:00 AM YG 02/03/25
Project Name : ~~SANDTWOBR BMCR Bro~~ NYCDDC SANTWOBR Brooklyn Bridge BBMCR
Receive DateTime : 1/28/2025 12:59:00 PM
Purchase Order :

Project Mgr :
Report Type : NYS ASP B
EDD Type : Excel NY
Hard Copy Date :
Date Signoff :

LAB ID	CLIENT ID	MATRIX	SAMPLE DATE	SAMPLE TIME	TEST	TEST GROUP	METHOD	FAX DATE	DUE DATES
Q1207-01	JPP-2.1-012725	Solid	01/27/2025	09:05					
					VOCMS Group1		8260D		10 Bus. Days
Q1207-05	JPP-5.1-012725	Solid	01/27/2025	10:10					
					VOCMS Group1		8260D		10 Bus. Days
Q1207-09	JPP-4.5-012725	Solid	01/27/2025	10:50					
					VOCMS Group1		8260D		10 Bus. Days
Q1207-13	JPP-16.2-012725	Solid	01/27/2025	12:07					
					VOCMS Group1		8260D		10 Bus. Days
Q1207-17	JPP-20.2-012725	Solid	01/27/2025	13:40					
					VOCMS Group1		8260D		10 Bus. Days

Relinguished By :
Date / Time : 1-28-25 1447

Received By :
Date / Time : 1/28/25 1447
Storage Area : **VOA Refridgerator Room**

NgHb
E2-2