

Cover Page

Order ID : P4397

Project ID : Amtrak Sawtooth Bridges 2024

Client : Portal Partners Tri-Venture

Lab Sample Number

P4397-01
P4397-02
P4397-04
P4397-05
P4397-06

Client Sample Number

WB-301-TOP
WB-301-BOT
WB-301-SW
TB-10102024
WB-301-BOT

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: 10/19/2024

NYDOH CERTIFICATION NO - 11376

NJDEP CERTIFICATION NO - 20012

DATA REPORTING QUALIFIERS- ORGANIC

For reporting results, the following “ Results Qualifiers” are used:

Value	If the result is a value greater than or equal to the detection limit, report the value
U	Indicates the compound was analyzed for but was not detected. Report the minimum detection limit for the sample with the U, i.e. “10 U”. This is not necessarily the instrument detection limit attainable for this particular sample based on any concentration or dilution that may have been required.
ND	Indicates the analyte was analyzed for, but not detected
J	Indicates an estimated value. This flag is used: (1) When estimating a concentration for a tentatively identified compound (library search hits, where a 1:1 response is assumed.) (2) When the mass spectral data indicated the identification, however the result was less than the specified detection limit greater than zero. If the detection limit was 10ug/L and a concentration of 3 ug/L was calculated report as 3 J. This flag is used when similar situation arise on any organic parameter i.e. Pest, PCB and others.
B	Indicates the analyte was found in the blank as well as the sample report as “12 B”.
E	Indicates the analyte ‘s concentration exceeds the calibrated range of the instrument for that specific analysis.
D	This flag identifies all compounds identified in an analysis at a secondary dilution factor.
P	This flag is used for Pesticide/PCB target analyte when there is >25% difference for detected concentrations between the two GC columns. The lower of the two values is reported on Form 1 and flagged with a “P”.
N	This flag indicates presumptive evidence of a compound. This is only used for tentatively identified compounds (TICs), where the identification is based on a mass spectral library search. It applies to all TIC results. For generic characterization of a TIC, such as chlorinated hydrocarbon, the flag is not used.
A	This flag indicates that a Tentatively Identified Compound is a suspected aldol-condensation product.
Q	Indicates the LCS did not meet the control limits requirements

APPENDIX A

QA REVIEW GENERAL DOCUMENTATION

Project #: P4397

Completed

For thorough review, the report must have the following:

GENERAL:

Are all original paperwork present (chain of custody, record of communication,airbill, sample management lab chronicle, login page)

✓

Check chain-of-custody for proper relinquish/return of samples

✓

Is the chain of custody signed and complete

✓

Check internal chain-of-custody for proper relinquish/return of samples /sample extracts

✓

Collect information for each project id from server. Were all requirements followed

✓

COVER PAGE:

Do numbers of samples correspond to the number of samples in the Chain of Custody on login page

✓

Do lab numbers and client Ids on cover page agree with the Chain of Custody

✓

CHAIN OF CUSTODY:

Do requested analyses on Chain of Custody agree with form I results

✓

Do requested analyses on Chain of Custody agree with the log-in page

✓

Were the correct method log-in for analysis according to the Analytical Request and Chain of Custody

✓

Were the samples received within hold time

✓

Were any problems found with the samples at arrival recorded in the Sample Management Laboratory Chronicle

✓

ANALYTICAL:

Was method requirement followed?

✓

Was client requirement followed?

✓

Does the case narrative summarize all QC failure?

✓

All runlogs and manual integration are reviewed for requirements

✓

All manual calculations and /or hand notations verified

✓

QA Review Signature: PRIYANKA DAVE

Date: 10/19/2024

LAB CHRONICLE

OrderID: P4397	OrderDate: 10/11/2024 3:19:00 PM
Client: Portal Partners Tri-Venture	Project: Amtrak Sawtooth Bridges 2024
Contact: Joseph Krupansky	Location: K32,VOA Ref. #2 Soil,VOA Ref. #3 Water

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
P4397-01	WB-301-TOP	Solid			10/10/24			10/11/24
			EPH	NJEPH		10/14/24	10/14/24	
			EPH	NJEPH		10/14/24	10/15/24	
P4397-02	WB-301-BOT	Solid			10/10/24			10/11/24
			EPH	NJEPH		10/14/24	10/14/24	
			EPH	NJEPH		10/14/24	10/15/24	



QC SUMMARY

SOIL EPH SURROGATE RECOVERY

Lab Name: CHEMTECH Contract: PORT06
Lab Code: CHEM CASE No.: P4397 SAS No.: P4397 SDG No.: P4397
Run Number: FC101424AL

Client SAMPLE NO.	1-chlorooctadecane (SURR)			TOT OUT
WB-301-TOP	60			0
WB-301-BOT	75			0
WB-301-BOTMS	66			0
WB-301-BOTMSD	68			0
PB164109BL	77			0
PB164109BS	69			0
PB164109BSD	72			0

QC LIMITS

1-chlorooctadecane (SURR)

(40-140)

Column to be used to flag recovery values
* Values outside of contract required QC Limits
D Surrogate diluted out

SOIL EPH SURROGATE RECOVERY

Lab Name: CHEMTECH Contract: PORT06
Lab Code: CHEM CASE No.: P4397 SAS No.: P4397 SDG No.: P4397
Run Number: FD101424AR

Client SAMPLE NO.	2-Bromonaphthalene (SURR)	2-Flurobiphenyl (SURR)	ortho-Terphenyl (SURR)	TOT OUT
WB-301-TOP	98	101	47	0
WB-301-BOT	79	85	49	0
WB-301-BOTMS	94	99	60	0
WB-301-BOTMSD	88	92	56	0
PB164109BL	105	101	94	0
PB164109BS	96	101	84	0
PB164109BSD	96	101	84	0

QC LIMITS

2-Bromonaphthalene (SURR) (40-140)
2-Flurobiphenyl (SURR) (40-140)
ortho-Terphenyl (SURR) (40-140)

Column to be used to flag recovery values
* Values outside of contract required QC Limits
D Surrogate diluted out

SOIL EPH SURROGATE RECOVERY

QC LIMITS

2-Bromonaphthalene (SURRE)

(40-140)

2-Fluorobiphenyl (SURRE)

(40-140)

ortho-Terphenyl (SURRE)

(40-140)

Column to be used to flag recovery values

* Values outside of contract required QC Limits

D Surrogate diluted out

SOLID EPH MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Chemtech **Client:** Portal Partners Tri-Venture
Lab Code: CHEM **Cas No:** P4397 **SAS No :** P4397 **SDG No:** P4397
Sample No : P4397-02MS **Datafile:** FC067437.D
Client ID : WB-301-BOTMS

COMPOUND	SPIKE ADDED mg/kg	SAMPLE CONCENTRATION mg/kg	MS/MSD CONCENTRATION mg/kg	% REC	Qual	QC LIMITS
Aliphatic C9-C12	13.1	0	8.40	64		(40-140)
Aliphatic C12-C16	8.8	0	7.59	87		(40-140)
Aliphatic C16-C21	13.1	0	11.5	88		(40-140)
Aliphatic C21-C28	17.5	0	14.5	83		(40-140)
Aliphatic C28-C40	26.3	0	25.9	99		(40-140)

SOLID EPH MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Chemtech **Client:** Portal Partners Tri-Venture
Lab Code: CHEM **Cas No:** P4397 **SAS No :** P4397 **SDG No:** P4397
Sample No : P4397-02MSD **Datafile:** FC067438.D
Client ID : WB-301-BOTMSD

COMPOUND	SPIKE ADDED mg/kg	SAMPLE CONCENTRATION mg/kg	MS/MSD CONCENTRATION mg/kg	% REC	Qual	RPD QC LIMITS QC Limit Of RPD
Aliphatic C9-C12	13.1	0	8.43	64		0.47 (40-140) 25
Aliphatic C12-C16	8.8	0	7.63	87		0.58 (40-140) 25
Aliphatic C16-C21	13.1	0	11.6	88		0.91 (40-140) 25
Aliphatic C21-C28	17.5	0	14.7	84		1.32 (40-140) 25
Aliphatic C28-C40	26.3	0	26.2	100		1.11 (40-140) 25

SOLID EPH MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Chemtech **Client:** Portal Partners Tri-Venture
Lab Code: CHEM **Cas No:** P4397 **SAS No :** P4397 **SDG No:** P4397
Sample No : P4397-02MS **Datafile:** FD048512.D
Client ID : WB-301-BOTMS

COMPOUND	SPIKE ADDED mg/kg	SAMPLE CONCENTRATION mg/kg	MS/MSD CONCENTRATION mg/kg	% REC	Qual	QC LIMITS
Aromatic C10-C12	8.8	0	6.16	70		(40-140)
Aromatic C12-C16	13.1	0.51	10.6	77		(40-140)
Aromatic C16-C21	21.9	1.89	21.3	89		(40-140)
Aromatic C21-C36	35.0	0	31.2	89		(40-140)

SOLID EPH MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Chemtech **Client:** Portal Partners Tri-Venture
Lab Code: CHEM **Cas No:** P4397 **SAS No :** P4397 **SDG No:** P4397
Sample No : P4397-02MSD **Datafile:** FD048513.D
Client ID : WB-301-BOTMSD

COMPOUND	SPIKE ADDED mg/kg	SAMPLE CONCENTRATION mg/kg	MS/MSD CONCENTRATION mg/kg	% REC	Qual	RPD QC LIMITS QC Limit Of RPD
Aromatic C10-C12	8.8	0	5.71	65		7.53 (40-140) 25
Aromatic C12-C16	13.1	0.51	9.79	71		8.27 (40-140) 25
Aromatic C16-C21	21.9	1.89	19.8	82		7.98 (40-140) 25
Aromatic C21-C36	35.0	0	28.9	82		7.58 (40-140) 25

SOLID EPH LABORATORY CONTROL SPIKE/LABORATORY CONTROL SPIKE DUPLICATE RECOVERY

Lab Name: Chemtech **Client:** Portal Partners Tri-Venture
Lab Code: CHEM **Cas No:** P4397 **SAS No :** P4397 **SDG No:** P4397
Sample No : PB164109BS **Datafile:** FC067431.D
Client ID : PB164109BS

COMPOUND	SPIKE ADDED mg/kg	LCS/LCSD CONCENTRATION mg/kg	% REC	Qual	QC LIMITS
Aliphatic C9-C12	10	5.93	59		(40-140)
Aliphatic C12-C16	6.7	5.43	82		(40-140)
Aliphatic C16-C21	10	8.45	85		(40-140)
Aliphatic C21-C28	13.3	11.1	83		(40-140)
Aliphatic C28-C40	20.0	19.5	98		(40-140)

SOLID EPH LABORATORY CONTROL SPIKE/LABORATORY CONTROL SPIKE DUPLICATE RECOVERY

Lab Name: Chemtech **Client:** Portal Partners Tri-Venture
Lab Code: CHEM **Cas No:** P4397 **SAS No :** P4397 **SDG No:** P4397
Sample No : PB164109BSD **Datafile:** FC067432.D
Client ID : PB164109BSD

COMPOUND	SPIKE ADDED mg/kg	LCS/LCSD CONCENTRATION mg/kg	% REC	Qual	RPD QC LIMITS	QC Limit Of RPD
Aliphatic C9-C12	10	5.88	59		0.747 (40-140)	50
Aliphatic C12-C16	6.7	5.36	80		1.3 (40-140)	50
Aliphatic C16-C21	10	8.33	83		1.5 (40-140)	50
Aliphatic C21-C28	13.3	10.9	82		1.8 (40-140)	50
Aliphatic C28-C40	20.0	19.5	98		0.0025 (40-140)	50

SOLID EPH LABORATORY CONTROL SPIKE/LABORATORY CONTROL SPIKE DUPLICATE RECOVERY

Lab Name: Chemtech **Client:** Portal Partners Tri-Venture
Lab Code: CHEM **Cas No:** P4397 **SAS No :** P4397 **SDG No:** P4397
Sample No : PB164109BS **Datafile:** FD048506.D
Client ID : PB164109BS

COMPOUND	SPIKE ADDED mg/kg	LCS/LCSD CONCENTRATION mg/kg	% REC	Qual	QC LIMITS
Aromatic C10-C12	6.7	4.66	70		(40-140)
Aromatic C12-C16	10	7.77	78		(40-140)
Aromatic C16-C21	16.7	15.3	92		(40-140)
Aromatic C21-C36	26.6	23.0	86		(40-140)

SOLID EPH LABORATORY CONTROL SPIKE/LABORATORY CONTROL SPIKE DUPLICATE RECOVERY

Lab Name: Chemtech **Client:** Portal Partners Tri-Venture
Lab Code: CHEM **Cas No:** P4397 **SAS No :** P4397 **SDG No:** P4397
Sample No : PB164109BSD **Datafile:** FD048507.D
Client ID : PB164109BSD

COMPOUND	SPIKE ADDED mg/kg	LCS/LCSD CONCENTRATION mg/kg	% REC	Qual	RPD QC LIMITS	QC Limit Of RPD
Aromatic C10-C12	6.7	4.67	70		0.31 (40-140)	50
Aromatic C12-C16	10	7.77	78		0.0286 (40-140)	50
Aromatic C16-C21	16.7	15.3	92		0.0089 (40-140)	50
Aromatic C21-C36	26.6	23.2	87		0.9 (40-140)	50

4B
METHOD BLANK SUMMARY

EPA SAMPLE NO.

PB164109BL

Lab Name: CHEMTECH

Contract: PORT06

Lab Code: CHEM Case No.: P4397

SAS No.: P4397 SDG NO.: P4397

Instrument ID: FID_C

Lab Sample ID: PB164109BL

Matrix: (soil/water) Solid

Date Extracted: 10/14/2024 8:32:00

Level: (low/med) low

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

EPA SAMPLE NO.	LAB SAMPLE ID
PB164109BS	PB164109BS
WB-301-BOTMS	P4397-02MS
WB-301-BOTMSD	P4397-02MSD
PB164109BSD	PB164109BSD
WB-301-TOP	P4397-01
WB-301-BOT	P4397-02

COMMENTS: _____



SAMPLE DATA

Report of Analysis

Client:	Portal Partners Tri-Venture	Date Collected:	10/10/24
Project:	Amtrak Sawtooth Bridges 2024	Date Received:	10/11/24
Client Sample ID:	WB-301-TOP	SDG No.:	P4397
Lab Sample ID:	P4397-01	Matrix:	Solid
Analytical Method:	NJEPH	% Solid:	63.3
Sample Wt/Vol:	30.07 Units: g	Final Vol:	2000 uL
Soil Aliquot Vol:	uL	Test:	EPH
Prep Method :			

Prep Date :	Date Analyzed :	Prep Batch ID
10/14/24 08:32	10/14/24 19:07	PB164109

Datafile

CAS Number	Parameter	Conc.	Qualifier	Dilution	MDL	LOQ / CRQL	Units(Dry Weight)	
TARGETS								
Aliphatic C9-C12	Aliphatic C9-C12	0.88	J	1	0.60	1.58	mg/kg	FC067434.D
Aliphatic C12-C16	Aliphatic C12-C16	3.76		1	0.38	1.05	mg/kg	FC067434.D
Aliphatic C16-C21	Aliphatic C16-C21	5.84		1	0.47	1.58	mg/kg	FC067434.D
Aliphatic C21-C28	Aliphatic C21-C28	9.56		1	1.26	2.10	mg/kg	FC067434.D
Aliphatic C28-C40	Aliphatic C28-C40	5.43		1	2.84	3.15	mg/kg	FC067434.D
Aromatic C10-C12	Aromatic C10-C12	1.78		1	0.47	1.05	mg/kg	FD048521.D
Aromatic C12-C16	Aromatic C12-C16	10.5		1	0.54	1.58	mg/kg	FD048521.D
Aromatic C16-C21	Aromatic C16-C21	20.8		1	1.51	2.63	mg/kg	FD048521.D
Aromatic C21-C36	Aromatic C21-C36	19.0		1	3.15	4.20	mg/kg	FD048521.D
Total AliphaticEPH	Total AliphaticEPH	25.5			5.55	9.46	mg/kg	
Total AromaticEPH	Total AromaticEPH	52.1			5.67	9.46	mg/kg	
Total EPH	Total EPH	77.5			11.2	18.9	mg/kg	

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control 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

Report of Analysis

Client:	Portal Partners Tri-Venture	Date Collected:	10/10/24
Project:	Amtrak Sawtooth Bridges 2024	Date Received:	10/11/24
Client Sample ID:	WB-301-TOP	SDG No.:	P4397
Lab Sample ID:	P4397-01	Matrix:	Solid
Analytical Method:	NJEPH	% Solid:	63.3
Sample Wt/Vol:	30.07 Units: g	Final Vol:	2000 uL
Soil Aliquot Vol:	uL	Test:	EPH
Prep Method :			

File ID :	Dilution:	Prep Date :	Date Analyzed :	Prep Batch ID
FC067434.D	1	10/14/24	10/14/24	PB164109

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
Aliphatic C9-C12	Aliphatic C9-C12	0.88	J	0.60	1.58	mg/kg
Aliphatic C12-C16	Aliphatic C12-C16	3.76		0.38	1.05	mg/kg
Aliphatic C16-C21	Aliphatic C16-C21	5.84		0.47	1.58	mg/kg
Aliphatic C21-C28	Aliphatic C21-C28	9.56		1.26	2.10	mg/kg
Aliphatic C28-C40	Aliphatic C28-C40	5.43		2.84	3.15	mg/kg
SURROGATES						
3383-33-2	1-chlorooctadecane (SURR)	30.1		40 - 140	60%	SPK: 50
84-15-1	ortho-Terphenyl (SURR)	0.00		40 - 140	0%	SPK: 50

Quantitation Report For Aliphatic EPH Range.

Lab Sample ID:	P4397-01	Acq On:	14 Oct 2024 19:07
Client Sample ID:	WB-301-TOP	Operator:	YP/AJ
Data file:	FC067434.D	Misc:	
Instrument:	FID_C	ALS Vial:	15
Dilution Factor:	1	Sample Multiplier:	1.00

Compound	R.T.		Response	Conc	highest_standard	Units
Aliphatic C9-C12	3.175	6.457	1068467	8.324	300	ug/ml
Aliphatic C12-C16	6.458	9.850	4685890	35.782	200	ug/ml
Aliphatic C16-C21	9.851	13.209	7306537	55.573	300	ug/ml
Aliphatic C21-C28	13.210	16.865	11537622	90.974	400	ug/ml
Aliphatic C28-C40	16.866	21.722	5436641	51.671	600	ug/ml
Aliphatic EPH	3.175	21.722	30035157	242.324		ug/ml
ortho-Terphenyl (SURR)	0.000	0.000	0	0		ug/ml
1-chlorooctadecane (SURR)	12.941	12.941	3402529	30.06		ug/ml
Aliphatic C9-C28	3.175	16.865	24598516	190.653	1200	ug/ml

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_C\Data\FC101424AL\
Data File : FC067434.D
Signal(s) : FID1A.ch
Acq On : 14 Oct 2024 19:07
Operator : YP/AJ
Sample : P4397-01
Misc :
ALS Vial : 15 Sample Multiplier: 1

Instrument :
FID_C
ClientSampleId :
WB-301-TOP

Integration File: autoint1.e
Quant Time: Oct 15 04:32:12 2024
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_C\Method\Aliphatic EPH 100224.M
Quant Title : GC Extractables
QLast Update : Tue Oct 01 09:13:32 2024
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 ul
Signal Phase : Rxi-1ms
Signal Info : 20M x 0.18mm x 0.18um

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
12) S 1-chlorooctadecane (S...	12.941	3402529	30.059 ug/ml
Spiked Amount	50.000	Recovery	= 60.12%

Target Compounds

(f)=RT Delta > 1/2 Window

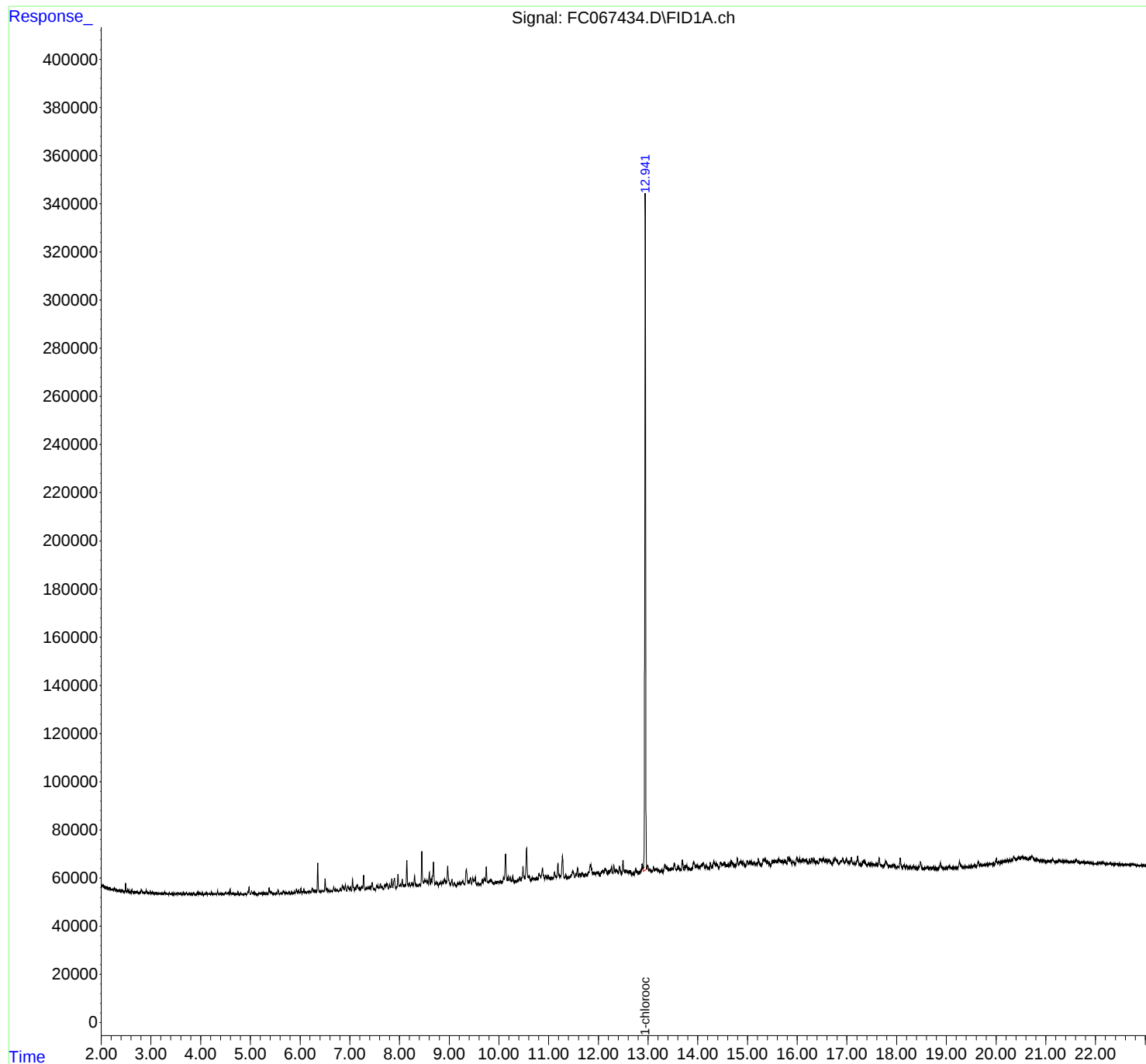
(m)=manual int.

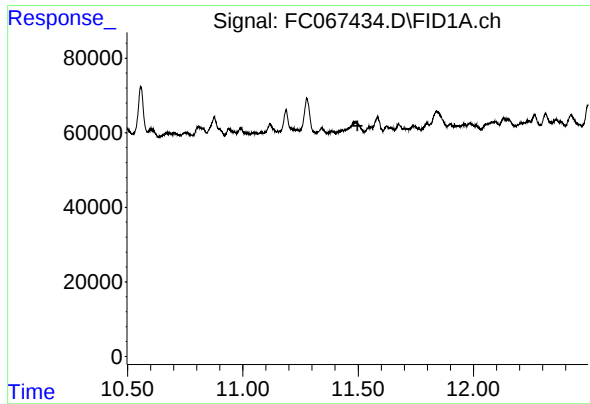
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_C\Data\FC101424AL\
Data File : FC067434.D
Signal(s) : FID1A.ch
Acq On : 14 Oct 2024 19:07
Operator : YP/AJ
Sample : P4397-01
Misc :
ALS Vial : 15 Sample Multiplier: 1

Instrument :
FID_C
ClientSampleId :
WB-301-TOP

Integration File: autoint1.e
Quant Time: Oct 15 04:32:12 2024
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_C\Method\Aliphatic EPH 100224.M
Quant Title : GC Extractables
QLast Update : Tue Oct 01 09:13:32 2024
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 ul
Signal Phase : Rxi-1ms
Signal Info : 20M x 0.18mm x 0.18um

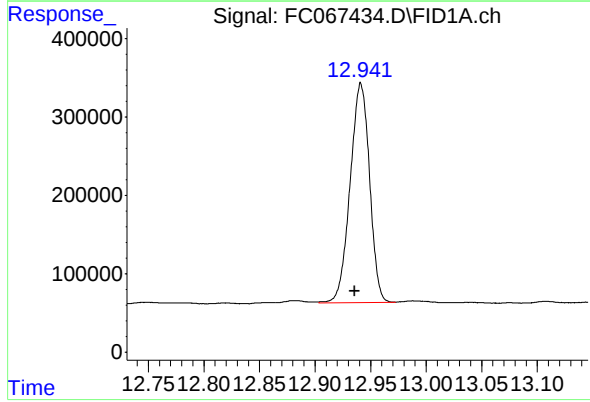




#9 ortho-Terphenyl (SURR)

R.T.: 0.000 min
Exp R.T.: 11.497 min
Response: 0
Conc: N.D.

Instrument :
FID_C
ClientSampleId :
WB-301-TOP



#12 1-chlorooctadecane (SURR)

R.T.: 12.941 min
Delta R.T.: 0.005 min
Response: 3402529
Conc: 30.06 ug/ml

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_C\Data\FC101424AL\
Data File : FC067434.D
Signal(s) : FID1A.ch
Acq On : 14 Oct 2024 19:07
Sample : P4397-01
Misc :
ALS Vial : 15 Sample Multiplier: 1

Integration File: sample.E

Method : Z:\pestpcbsrv\HPCHEM1\FID_C\Method\Aliphatic EPH 100224.M
Title : GC Extractables

Signal : FID1A.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	3.276	3.221	3.355	BV	794	11603	0.32%	0.035%
2	3.373	3.355	3.388	PV	241	3016	0.08%	0.009%
3	3.398	3.388	3.411	VV	192	1902	0.05%	0.006%
4	3.420	3.411	3.438	VV	184	2121	0.06%	0.006%
5	3.478	3.438	3.521	VV	343	7150	0.20%	0.021%
6	3.547	3.521	3.565	PV	459	7520	0.21%	0.022%
7	3.575	3.565	3.584	VV	245	2051	0.06%	0.006%
8	3.601	3.584	3.628	VV	302	5217	0.15%	0.016%
9	3.647	3.628	3.669	VV	832	9633	0.27%	0.029%
10	3.679	3.669	3.689	VV	185	2004	0.06%	0.006%
11	3.718	3.689	3.754	VV	702	11254	0.31%	0.033%
12	3.767	3.754	3.798	VV	326	5744	0.16%	0.017%
13	3.813	3.798	3.832	VV	396	3677	0.10%	0.011%
14	3.858	3.832	3.906	VV	489	9465	0.26%	0.028%
15	3.941	3.906	3.955	PV	921	11063	0.31%	0.033%
16	3.970	3.955	3.994	VV	1115	12421	0.35%	0.037%
17	4.000	3.994	4.021	VV	288	3684	0.10%	0.011%
18	4.035	4.021	4.074	VV	727	8262	0.23%	0.025%
19	4.117	4.074	4.134	VV	867	13815	0.38%	0.041%
20	4.147	4.134	4.200	VV	464	10663	0.30%	0.032%
21	4.217	4.200	4.234	VV	814	8606	0.24%	0.026%
22	4.253	4.234	4.276	VV	369	6970	0.19%	0.021%
23	4.291	4.276	4.320	VV	297	6382	0.18%	0.019%
24	4.341	4.320	4.393	VV	1675	22873	0.64%	0.068%
25	4.408	4.393	4.423	VV	390	4269	0.12%	0.013%
26	4.442	4.423	4.468	VV	334	6672	0.19%	0.020%
27	4.508	4.468	4.524	VV	1051	18253	0.51%	0.054%
28	4.539	4.524	4.550	VV	554	7285	0.20%	0.022%
29	4.565	4.550	4.577	VV	1109	11297	0.31%	0.034%
30	4.594	4.577	4.611	VV	2433	24226	0.67%	0.072%
31	4.621	4.611	4.634	VV	611	6221	0.17%	0.018%
32	4.647	4.634	4.659	VV	495	5713	0.16%	0.017%
33	4.670	4.659	4.681	VV	493	4763	0.13%	0.014%
34	4.689	4.681	4.695	VV	317	2177	0.06%	0.006%
35	4.712	4.695	4.728	VV	535	6819	0.19%	0.020%
36	4.751	4.728	4.773	VV	894	12936	0.36%	0.038%

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37	4.785	4.773	4.798	VV	365	4165	0.12%	0.012%
38	4.811	4.798	4.839	VV	563	7092	0.20%	0.021%
39	4.863	4.839	4.874	VV	357	3830	0.11%	0.011%
40	4.894	4.874	4.921	VV	459	6764	0.19%	0.020%
41	4.973	4.921	5.004	PV	3154	51949	1.44%	0.154%
42	5.028	5.004	5.045	VV	1244	18721	0.52%	0.056%
43	5.055	5.045	5.065	VV	693	6590	0.18%	0.020%
44	5.079	5.065	5.124	VV	1000	14698	0.41%	0.044%
45	5.144	5.124	5.154	VV	267	3474	0.10%	0.010%
46	5.176	5.154	5.187	VV	650	8227	0.23%	0.024%
47	5.199	5.187	5.218	VV	587	8631	0.24%	0.026%
48	5.233	5.218	5.248	VV	605	7336	0.20%	0.022%
49	5.265	5.248	5.280	VV	887	9462	0.26%	0.028%
50	5.292	5.280	5.310	VV	483	6997	0.19%	0.021%
51	5.320	5.310	5.332	VV	370	4126	0.11%	0.012%
52	5.376	5.332	5.407	VV	2747	44412	1.24%	0.132%
53	5.417	5.407	5.484	VV	1156	22501	0.63%	0.067%
54	5.501	5.484	5.513	VV	379	4873	0.14%	0.014%
55	5.558	5.513	5.594	VV	1886	34516	0.96%	0.103%
56	5.623	5.594	5.640	VV	521	10101	0.28%	0.030%
57	5.669	5.640	5.701	VV	1457	29736	0.83%	0.088%
58	5.721	5.701	5.734	VV	923	10199	0.28%	0.030%
59	5.743	5.734	5.755	VV	539	5229	0.15%	0.016%
60	5.784	5.755	5.809	VV	717	13568	0.38%	0.040%
61	5.829	5.809	5.849	PV	899	10648	0.30%	0.032%
62	5.881	5.849	5.903	VV	1057	19275	0.54%	0.057%
63	5.926	5.903	5.954	VV	2029	33385	0.93%	0.099%
64	5.972	5.954	5.993	VV	1622	20520	0.57%	0.061%
65	6.017	5.993	6.040	VV	2302	32058	0.89%	0.095%
66	6.076	6.040	6.092	VV	1532	27605	0.77%	0.082%
67	6.107	6.092	6.121	VV	692	10510	0.29%	0.031%
68	6.162	6.121	6.177	VV	1040	22402	0.62%	0.067%
69	6.192	6.177	6.217	VV	1075	16521	0.46%	0.049%
70	6.245	6.217	6.264	VV	2273	37296	1.04%	0.111%
71	6.283	6.264	6.301	VV	1073	19352	0.54%	0.058%
72	6.310	6.301	6.333	VV	974	15038	0.42%	0.045%
73	6.356	6.333	6.428	VV	12481	154008	4.28%	0.458%
74	6.445	6.428	6.459	VV	1094	14925	0.42%	0.044%
75	6.505	6.459	6.526	VV	5931	82641	2.30%	0.246%
76	6.543	6.526	6.563	VV	1837	27433	0.76%	0.082%
77	6.577	6.563	6.604	VV	1149	16868	0.47%	0.050%
78	6.621	6.604	6.654	VV	894	20904	0.58%	0.062%
79	6.677	6.654	6.701	VV	2182	36086	1.00%	0.107%
80	6.714	6.701	6.727	VV	1169	13135	0.37%	0.039%
81	6.752	6.727	6.771	VV	1030	21512	0.60%	0.064%
82	6.813	6.771	6.832	VV	1556	33466	0.93%	0.100%
83	6.852	6.832	6.865	VV	3028	39576	1.10%	0.118%
84	6.874	6.865	6.892	VV	2331	28163	0.78%	0.084%
85	6.914	6.892	6.940	VV	3178	48421	1.35%	0.144%
86	6.961	6.940	6.993	VV	2452	50682	1.41%	0.151%
87	7.014	6.993	7.034	VV	2192	31271	0.87%	0.093%
88	7.057	7.034	7.096	VV	5161	79543	2.21%	0.237%
89	7.112	7.096	7.124	VV	1634	19282	0.54%	0.057%

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90	7.155	7.124	7.173	VV	2674	59453	1.65%	0.177%
91	7.196	7.173	7.214	VV	1420	31808	0.88%	0.095%
92	7.244	7.214	7.258	VV	2238	41461	1.15%	0.123%
93	7.280	7.258	7.305	VV	6708	88120	2.45%	0.262%
94	7.331	7.305	7.354	VV	1407	34260	0.95%	0.102%
95	7.369	7.354	7.388	VV	1814	27709	0.77%	0.082%
96	7.401	7.388	7.424	VV	1618	31430	0.87%	0.093%
97	7.451	7.424	7.484	VV	3635	68512	1.91%	0.204%
98	7.491	7.484	7.517	VV	911	13659	0.38%	0.041%
99	7.539	7.517	7.552	VV	2086	28973	0.81%	0.086%
100	7.565	7.552	7.590	VV	2236	37027	1.03%	0.110%
101	7.616	7.590	7.633	VV	2888	48730	1.36%	0.145%
102	7.645	7.633	7.678	VV	1708	33633	0.94%	0.100%
103	7.706	7.678	7.720	VV	2571	41461	1.15%	0.123%
104	7.734	7.720	7.745	VV	2627	33598	0.93%	0.100%
105	7.757	7.745	7.778	VV	2750	35361	0.98%	0.105%
106	7.800	7.778	7.821	VV	2475	41032	1.14%	0.122%
107	7.845	7.821	7.866	VV	4764	73309	2.04%	0.218%
108	7.899	7.866	7.927	VV	4961	103503	2.88%	0.308%
109	7.970	7.927	7.997	VV	6596	112011	3.12%	0.333%
110	8.021	7.997	8.038	VV	2277	49291	1.37%	0.147%
111	8.057	8.038	8.084	VV	4408	74081	2.06%	0.220%
112	8.109	8.084	8.121	VV	1945	41080	1.14%	0.122%
113	8.149	8.121	8.178	VV	12101	168281	4.68%	0.500%
114	8.197	8.178	8.218	VV	2716	49648	1.38%	0.148%
115	8.244	8.218	8.278	VV	2397	70780	1.97%	0.210%
116	8.305	8.278	8.331	VV	5761	99866	2.78%	0.297%
117	8.338	8.331	8.371	VV	1865	39032	1.09%	0.116%
118	8.397	8.371	8.420	VV	2189	52228	1.45%	0.155%
119	8.450	8.420	8.487	VV	15622	228830	6.36%	0.680%
120	8.503	8.487	8.516	VV	3895	55621	1.55%	0.165%
121	8.534	8.516	8.556	VV	3513	78429	2.18%	0.233%
122	8.567	8.556	8.582	VV	3179	42570	1.18%	0.127%
123	8.601	8.582	8.623	VV	6810	101158	2.81%	0.301%
124	8.639	8.623	8.651	VV	4132	54394	1.51%	0.162%
125	8.685	8.651	8.714	VV	11063	214946	5.98%	0.639%
126	8.735	8.714	8.751	VV	2981	51479	1.43%	0.153%
127	8.761	8.751	8.783	VV	2366	36759	1.02%	0.109%
128	8.806	8.783	8.816	VV	2099	34773	0.97%	0.103%
129	8.832	8.816	8.851	VV	2662	45472	1.26%	0.135%
130	8.866	8.851	8.880	VV	2895	41614	1.16%	0.124%
131	8.907	8.880	8.929	VV	3843	87008	2.42%	0.259%
132	8.970	8.929	9.022	VV	9040	219417	6.10%	0.652%
133	9.055	9.022	9.081	VV	3553	75570	2.10%	0.225%
134	9.099	9.081	9.137	VV	2036	49409	1.37%	0.147%
135	9.175	9.137	9.187	VV	2026	42228	1.17%	0.126%
136	9.207	9.187	9.241	VV	2128	58673	1.63%	0.174%
137	9.272	9.241	9.308	VV	2806	81216	2.26%	0.241%
138	9.345	9.308	9.377	VV	7499	171930	4.78%	0.511%
139	9.388	9.377	9.400	VV	2506	31821	0.89%	0.095%
140	9.427	9.400	9.451	VV	4016	85049	2.37%	0.253%
141	9.475	9.451	9.492	VV	3869	66125	1.84%	0.197%

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142	9.506	9.492	9.513	VV	3048	34000	0.95%	0.101%
143	9.527	9.513	9.554	VV	4176	63176	1.76%	0.188%
144	9.584	9.554	9.601	VV	1454	34593	0.96%	0.103%
145	9.624	9.601	9.639	VV	1202	24897	0.69%	0.074%
146	9.666	9.639	9.682	VV	3129	51851	1.44%	0.154%
147	9.704	9.682	9.727	VV	3554	75672	2.10%	0.225%
148	9.747	9.727	9.778	VV	8258	125220	3.48%	0.372%
149	9.826	9.778	9.837	VV	2610	80198	2.23%	0.238%
150	9.848	9.837	9.894	VV	2726	63472	1.77%	0.189%
151	9.923	9.894	9.938	VV	1755	38597	1.07%	0.115%
152	9.979	9.938	10.004	VV	2041	68303	1.90%	0.203%
153	10.024	10.004	10.048	VV	2296	45459	1.26%	0.135%
154	10.094	10.048	10.106	VV	3654	80853	2.25%	0.240%
155	10.135	10.106	10.164	VV	13084	235971	6.56%	0.702%
156	10.184	10.164	10.204	VV	3749	70021	1.95%	0.208%
157	10.224	10.204	10.254	VV	3804	81485	2.27%	0.242%
158	10.280	10.254	10.306	VV	4188	81054	2.25%	0.241%
159	10.323	10.306	10.353	VV	1776	46069	1.28%	0.137%
160	10.381	10.353	10.394	VV	2482	50093	1.39%	0.149%
161	10.417	10.394	10.448	VV	3498	84586	2.35%	0.252%
162	10.485	10.448	10.522	VV	7849	186312	5.18%	0.554%
163	10.558	10.522	10.588	VV	15289	292692	8.14%	0.870%
164	10.602	10.588	10.638	VV	3776	89831	2.50%	0.267%
165	10.675	10.638	10.688	VV	2756	72165	2.01%	0.215%
166	10.700	10.688	10.728	VV	2762	59946	1.67%	0.178%
167	10.756	10.728	10.784	VV	2851	83723	2.33%	0.249%
168	10.810	10.784	10.843	VV	4417	125023	3.48%	0.372%
169	10.876	10.843	10.922	VV	6862	195932	5.45%	0.583%
170	10.939	10.922	10.973	VV	3702	91314	2.54%	0.272%
171	10.991	10.973	11.034	VV	3798	104690	2.91%	0.311%
172	11.050	11.034	11.067	VV	2562	48051	1.34%	0.143%
173	11.080	11.067	11.090	VV	2578	33679	0.94%	0.100%
174	11.118	11.090	11.153	VV	4933	130320	3.62%	0.388%
175	11.187	11.153	11.243	VV	8554	230893	6.42%	0.687%
176	11.278	11.243	11.316	VV	11666	253744	7.06%	0.755%
177	11.342	11.316	11.365	VV	3614	83244	2.32%	0.248%
178	11.385	11.365	11.402	VV	2790	54381	1.51%	0.162%
179	11.487	11.402	11.528	VV	5137	260923	7.26%	0.776%
180	11.551	11.528	11.560	VV	3597	64351	1.79%	0.191%
181	11.584	11.560	11.608	VV	6025	128586	3.58%	0.382%
182	11.624	11.608	11.657	VV	3864	99125	2.76%	0.295%
183	11.675	11.657	11.694	VV	4297	79854	2.22%	0.237%
184	11.704	11.694	11.720	VV	3171	47568	1.32%	0.141%
185	11.740	11.720	11.772	VV	3741	104372	2.90%	0.310%
186	11.799	11.772	11.809	VV	4477	83759	2.33%	0.249%
187	11.839	11.809	11.885	VV	7684	262965	7.31%	0.782%
188	11.900	11.885	11.941	VV	4311	127169	3.54%	0.378%
189	11.962	11.941	11.971	VV	4058	68917	1.92%	0.205%
190	11.985	11.971	12.032	VV	4472	135841	3.78%	0.404%
191	12.094	12.032	12.114	VV	4758	199728	5.56%	0.594%
192	12.131	12.114	12.144	VV	5545	90758	2.52%	0.270%
193	12.150	12.144	12.180	VV	5194	96742	2.69%	0.288%
194	12.266	12.180	12.288	VV	6443	291767	8.12%	0.868%

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195	12.312	12.288	12.340	VV	6801	156780	4.36%	0.466%
196	12.359	12.340	12.399	VV	5083	154991	4.31%	0.461%
197	12.423	12.399	12.470	VV	6298	193926	5.39%	0.577%
198	12.496	12.470	12.516	VV	8763	155656	4.33%	0.463%
199	12.525	12.516	12.539	VV	4637	59965	1.67%	0.178%
200	12.558	12.539	12.582	VV	4687	105883	2.95%	0.315%
201	12.612	12.582	12.625	VV	4055	98581	2.74%	0.293%
202	12.641	12.625	12.671	VV	4543	99892	2.78%	0.297%
203	12.680	12.671	12.698	VV	3106	45987	1.28%	0.137%
204	12.748	12.698	12.769	VV	4733	154555	4.30%	0.460%
205	12.783	12.769	12.804	VV	4015	76432	2.13%	0.227%
206	12.819	12.804	12.841	VV	3896	73910	2.06%	0.220%
207	12.882	12.841	12.899	VV	6796	172308	4.79%	0.512%
208	12.941	12.899	12.973	VV	283426	3595217	100.00%	10.690%
209	12.989	12.973	13.024	VV	6317	162203	4.51%	0.482%
210	13.040	13.024	13.064	VV	4556	96573	2.69%	0.287%
211	13.075	13.064	13.087	VV	4048	51669	1.44%	0.154%
212	13.108	13.087	13.130	VV	5710	116927	3.25%	0.348%
213	13.149	13.130	13.168	VV	4656	99274	2.76%	0.295%
214	13.177	13.168	13.194	VV	4887	70169	1.95%	0.209%
215	13.211	13.194	13.231	VV	4285	86162	2.40%	0.256%
216	13.242	13.231	13.252	VV	3729	45355	1.26%	0.135%
217	13.272	13.252	13.297	VV	4410	100319	2.79%	0.298%
218	13.336	13.297	13.364	VV	6390	197167	5.48%	0.586%
219	13.383	13.364	13.401	VV	5129	106091	2.95%	0.315%
220	13.414	13.401	13.436	VV	4554	88963	2.47%	0.265%
221	13.455	13.436	13.470	VV	4783	89948	2.50%	0.267%
222	13.488	13.470	13.503	VV	4914	89157	2.48%	0.265%
223	13.527	13.503	13.571	VV	6516	208004	5.79%	0.618%
224	13.605	13.571	13.668	VV	5235	255979	7.12%	0.761%
225	13.691	13.668	13.724	VV	7906	187723	5.22%	0.558%
226	13.743	13.724	13.762	VV	5611	113167	3.15%	0.337%
227	13.777	13.762	13.857	VV	5891	257693	7.17%	0.766%
228	13.917	13.857	13.954	VV	6760	302252	8.41%	0.899%
229	13.959	13.954	13.973	VV	5236	57877	1.61%	0.172%
230	13.990	13.973	14.048	VV	5848	219415	6.10%	0.652%
231	14.055	14.048	14.063	VV	5137	46367	1.29%	0.138%
232	14.081	14.063	14.091	VV	5931	89313	2.48%	0.266%
233	14.110	14.091	14.145	VV	6562	184414	5.13%	0.548%
234	14.163	14.145	14.231	VV	5342	231986	6.45%	0.690%
235	14.252	14.231	14.287	VV	6433	167061	4.65%	0.497%
236	14.323	14.287	14.361	VV	6839	254416	7.08%	0.757%
237	14.373	14.361	14.423	VV	5869	192251	5.35%	0.572%
238	14.459	14.423	14.491	VV	6338	221986	6.17%	0.660%
239	14.536	14.491	14.558	VV	6387	227200	6.32%	0.676%
240	14.571	14.558	14.588	VV	5421	88449	2.46%	0.263%
241	14.606	14.588	14.626	VV	5354	115177	3.20%	0.342%
242	14.646	14.626	14.658	VV	5941	104057	2.89%	0.309%
243	14.679	14.658	14.734	VV	6731	260814	7.25%	0.776%
244	14.748	14.734	14.767	VV	5192	96238	2.68%	0.286%
245	14.795	14.767	14.824	VV	7922	204818	5.70%	0.609%
246	14.867	14.824	14.889	VV	6473	229589	6.39%	0.683%

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247	14.910	14.889	14.960	VV	6547	221653	6.17%	0.659%
248	14.995	14.960	15.014	VV	6541	182098	5.07%	0.541%
249	15.040	15.014	15.060	VV	6142	156235	4.35%	0.465%
250	15.070	15.060	15.101	VV	6164	139079	3.87%	0.414%
251	15.107	15.101	15.114	VV	5299	41385	1.15%	0.123%
252	15.133	15.114	15.168	VV	5959	170435	4.74%	0.507%
253	15.178	15.168	15.198	VV	5547	92857	2.58%	0.276%
254	15.218	15.198	15.284	VV	7041	277936	7.73%	0.826%
255	15.316	15.284	15.342	VV	6990	210330	5.85%	0.625%
256	15.360	15.342	15.381	VV	7157	154521	4.30%	0.459%
257	15.400	15.381	15.470	VV	6214	276728	7.70%	0.823%
258	15.495	15.470	15.511	VV	6300	133245	3.71%	0.396%
259	15.528	15.511	15.546	VV	6254	123203	3.43%	0.366%
260	15.560	15.546	15.589	VV	6281	152016	4.23%	0.452%
261	15.626	15.589	15.681	VV	6992	330365	9.19%	0.982%
262	15.699	15.681	15.728	VV	6102	156758	4.36%	0.466%
263	15.743	15.728	15.759	VV	6267	108162	3.01%	0.322%
264	15.770	15.759	15.790	VV	5817	101163	2.81%	0.301%
265	15.814	15.790	15.831	VV	7794	155492	4.32%	0.462%
266	15.851	15.831	15.888	VV	6997	206110	5.73%	0.613%
267	15.912	15.888	15.958	VV	5755	212444	5.91%	0.632%
268	15.989	15.958	16.025	VV	7236	237774	6.61%	0.707%
269	16.048	16.025	16.083	VV	6526	203911	5.67%	0.606%
270	16.103	16.083	16.148	VV	6211	226210	6.29%	0.673%
271	16.155	16.148	16.163	VV	5706	52645	1.46%	0.157%
272	16.179	16.163	16.228	VV	6111	206424	5.74%	0.614%
273	16.246	16.228	16.271	VV	6302	140038	3.90%	0.416%
274	16.297	16.271	16.314	VV	6730	146328	4.07%	0.435%
275	16.335	16.314	16.376	VV	6549	196626	5.47%	0.585%
276	16.402	16.376	16.429	VV	5390	154316	4.29%	0.459%
277	16.461	16.429	16.500	VV	6389	237459	6.60%	0.706%
278	16.527	16.500	16.551	VV	6511	174137	4.84%	0.518%
279	16.564	16.551	16.614	VV	5851	199034	5.54%	0.592%
280	16.639	16.614	16.701	VV	5846	251190	6.99%	0.747%
281	16.729	16.701	16.744	VV	5518	124056	3.45%	0.369%
282	16.761	16.744	16.828	VV	6448	265851	7.39%	0.791%
283	16.913	16.828	16.957	VV	6100	371365	10.33%	1.104%
284	16.983	16.957	17.058	VV	5462	280173	7.79%	0.833%
285	17.088	17.058	17.128	VV	6115	196942	5.48%	0.586%
286	17.213	17.128	17.253	VV	6578	315328	8.77%	0.938%
287	17.268	17.253	17.292	VV	3479	73105	2.03%	0.217%
288	17.331	17.292	17.399	VV	4876	246453	6.86%	0.733%
289	17.423	17.399	17.474	VV	3586	141849	3.95%	0.422%
290	17.490	17.474	17.520	VV	3249	86524	2.41%	0.257%
291	17.531	17.520	17.565	VV	3310	80551	2.24%	0.240%
292	17.585	17.565	17.608	VV	3316	75852	2.11%	0.226%
293	17.648	17.608	17.698	VV	5687	183976	5.12%	0.547%
294	17.706	17.698	17.740	VV	2635	60110	1.67%	0.179%
295	17.785	17.740	17.844	VV	4322	178390	4.96%	0.530%
296	17.859	17.844	17.898	VV	2418	66534	1.85%	0.198%
297	17.934	17.898	17.994	VV	2630	123030	3.42%	0.366%
298	18.025	17.994	18.032	VV	1739	35065	0.98%	0.104%
299	18.071	18.032	18.117	VV	5201	125240	3.48%	0.372%

					rteres			
300	18.150	18.117	18.180	VV	2258	64017	1.78%	0.190%
301	18.204	18.180	18.247	VV	1810	54532	1.52%	0.162%
302	18.263	18.247	18.308	VV	1621	43813	1.22%	0.130%
303	18.346	18.308	18.372	VV	1799	51130	1.42%	0.152%
304	18.381	18.372	18.417	VV	1184	20420	0.57%	0.061%
305	18.448	18.417	18.456	VV	1613	23794	0.66%	0.071%
306	18.479	18.456	18.528	VV	3238	72229	2.01%	0.215%
307	18.571	18.528	18.591	VV	963	22960	0.64%	0.068%
308	18.620	18.591	18.646	VV	1088	26183	0.73%	0.078%
309	18.664	18.646	18.698	VV	893	19088	0.53%	0.057%
310	18.738	18.698	18.761	VV	1147	23366	0.65%	0.069%
311	18.777	18.761	18.824	VV	763	14024	0.39%	0.042%
312	18.878	18.824	18.934	VV	2778	58159	1.62%	0.173%
313	18.948	18.934	18.972	VV	394	6329	0.18%	0.019%
314	18.996	18.972	19.021	PV	749	11856	0.33%	0.035%
315	19.063	19.021	19.091	VV	1110	24158	0.67%	0.072%
316	19.132	19.091	19.144	VV	545	11305	0.31%	0.034%
317	19.160	19.144	19.207	VV	666	12577	0.35%	0.037%
318	19.263	19.207	19.336	VV	3032	70929	1.97%	0.211%
319	19.372	19.336	19.472	VV	642	31145	0.87%	0.093%
320	19.504	19.472	19.523	VV	799	17547	0.49%	0.052%
321	19.542	19.523	19.601	VV	1049	32396	0.90%	0.096%
322	19.639	19.601	19.668	VV	2428	56469	1.57%	0.168%
323	19.684	19.668	19.728	VV	1253	32298	0.90%	0.096%
324	19.752	19.728	19.773	VV	993	23676	0.66%	0.070%
325	19.820	19.773	19.838	VV	1201	39551	1.10%	0.118%
326	19.868	19.838	19.881	VV	1518	32997	0.92%	0.098%
327	19.883	19.881	19.902	VV	1378	16100	0.45%	0.048%
328	19.912	19.902	19.961	VV	1257	38108	1.06%	0.113%
329	20.003	19.961	20.034	VV	3132	81456	2.27%	0.242%
330	20.057	20.034	20.078	VV	2015	42919	1.19%	0.128%
331	20.100	20.078	20.117	VV	1839	38605	1.07%	0.115%
332	20.201	20.117	20.211	VV	2302	109787	3.05%	0.326%
333	20.228	20.211	20.251	VV	2392	53228	1.48%	0.158%
334	20.273	20.251	20.296	VV	2556	61166	1.70%	0.182%
335	20.356	20.296	20.414	VV	4175	201566	5.61%	0.599%
336	20.442	20.414	20.467	VV	3336	96794	2.69%	0.288%
337	20.477	20.467	20.495	VV	3430	54115	1.51%	0.161%
338	20.506	20.495	20.511	VV	3199	28407	0.79%	0.084%
339	20.531	20.511	20.548	VV	3554	72097	2.01%	0.214%
340	20.557	20.548	20.641	VV	3230	162410	4.52%	0.483%
341	20.722	20.641	20.791	VV	3653	247551	6.89%	0.736%
342	20.813	20.791	20.871	VV	2296	95135	2.65%	0.283%
343	20.903	20.871	21.014	VV	1703	125142	3.48%	0.372%
344	21.042	21.014	21.088	VV	1490	56458	1.57%	0.168%
345	21.136	21.088	21.227	VV	1792	102084	2.84%	0.304%
346	21.272	21.227	21.284	VV	1384	38310	1.07%	0.114%
347	21.289	21.284	21.318	VV	1240	22103	0.61%	0.066%
348	21.325	21.318	21.332	VV	1064	8005	0.22%	0.024%
349	21.338	21.332	21.348	VV	1068	9358	0.26%	0.028%
350	21.379	21.348	21.429	VV	1033	45486	1.27%	0.135%
351	21.437	21.429	21.452	VV	774	9614	0.27%	0.029%

					rteres				
352	21.461	21.452	21.478	VV	645	8688	0.24%	0.026%	
353	21.491	21.478	21.504	VV	673	8898	0.25%	0.026%	
354	21.531	21.504	21.544	VV	582	13180	0.37%	0.039%	
355	21.609	21.544	21.714	VV	1150	52436	1.46%	0.156%	

Sum of corrected areas: 33630373

Aliphatic EPH 100224.M Tue Oct 15 06:39:50 2024

Report of Analysis

Client:	Portal Partners Tri-Venture	Date Collected:	10/10/24
Project:	Amtrak Sawtooth Bridges 2024	Date Received:	10/11/24
Client Sample ID:	WB-301-TOP	SDG No.:	P4397
Lab Sample ID:	P4397-01	Matrix:	Solid
Analytical Method:	NJEPH	% Solid:	63.3
Sample Wt/Vol:	30.07 Units: g	Final Vol:	2000 uL
Soil Aliquot Vol:	uL	Test:	EPH
Prep Method :			

File ID :	Dilution:	Prep Date :	Date Analyzed :	Prep Batch ID
FD048521.D	1	10/14/24	10/15/24	PB164109

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
Aromatic C10-C12	Aromatic C10-C12	1.78		0.47	1.05	mg/kg
Aromatic C12-C16	Aromatic C12-C16	10.5		0.54	1.58	mg/kg
Aromatic C16-C21	Aromatic C16-C21	20.8		1.51	2.63	mg/kg
Aromatic C21-C36	Aromatic C21-C36	19.0		3.15	4.20	mg/kg
SURROGATES						
580-13-2	2-Bromonaphthalene (SURR)	49.0		40 - 140	98%	SPK: 50
321-60-8	2-Fluorobiphenyl (SURR)	50.5		40 - 140	101%	SPK: 50
84-15-1	ortho-Terphenyl (SURR)	23.4		40 - 140	47%	SPK: 50

Quantitation Report For Aromatic EPH Range.

Lab Sample ID:	P4397-01	Acq On:	15 Oct 2024 11:10
Client Sample ID:	WB-301-TOP	Operator:	YP/AJ
Data file:	FD048521.D	Misc:	
Instrument:	FID_D	ALS Vial:	86
Dilution Factor:	1	Sample Multiplier:	1.00

Compound	R.T.		Response	Conc	highest_standard	Units
Aromatic C10-C12	4.099	5.817	3070502	16.966	200	ug/ml
Aromatic C12-C16	5.818	8.424	18955424	99.768	300	ug/ml
Aromatic C16-C21	8.425	12.687	35415835	198.155	500	ug/ml
Aromatic C21-C36	12.688	18.094	29960397	181.182	800	ug/ml
Aromatic EPH	4.099	18.094	87402158	496.07		ug/ml
2-Bromonaphthalene (SURRE)	7.377	7.377	8119618	49.04		ug/ml
2-Fluorobiphenyl (SURRE)	8.227	8.227	5233558	50.47		ug/ml
ortho-Terphenyl (SURRE)	11.264	11.264	4301929	23.38		ug/ml

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_D\Data\FD101424AR\
 Data File : FD048521.D
 Signal(s) : FID2B.ch
 Acq On : 15 Oct 2024 11:10
 Operator : YP/AJ
 Sample : P4397-01
 Misc :
 ALS Vial : 86 Sample Multiplier: 1

Instrument :
 FID_D
 ClientSampleId :
 WB-301-TOP

Manual Integrations
 APPROVED

Reviewed By :Yogesh Patel 10/16/2024
 Supervised By :Ankita Jodhani 10/16/2024

Integration File: autoint1.e
 Quant Time: Oct 16 01:37:49 2024
 Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_D\methods\Aromatic EPH 093024.M
 Quant Title : GC Extractables
 QLast Update : Mon Sep 30 14:17:34 2024
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1 µl
 Signal Phase : Rxi-1ms
 Signal Info : 20M x 0.18mm x 0.18µm

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
4) S 2-Bromonaphthalene (S...	7.377	8119618	49.041 ug/ml
Spiked Amount 50.000		Recovery =	98.08%
6) S 2-Fluorobiphenyl (SURR)	8.227	5233558	50.466 ug/ml
Spiked Amount 50.000 Range 0 - 131		Recovery =	100.93%
11) S ortho-Terphenyl (SURR)	11.264	4301929	23.381 ug/mlm
Spiked Amount 50.000		Recovery =	46.76%

Target Compounds

(f)=RT Delta > 1/2 Window

(m)=manual int.

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_D\Data\FD101424AR\
Data File : FD048521.D
Signal(s) : FID2B.ch
Acq On : 15 Oct 2024 11:10
Operator : YP/AJ
Sample : P4397-01
Misc :
ALS Vial : 86 Sample Multiplier: 1

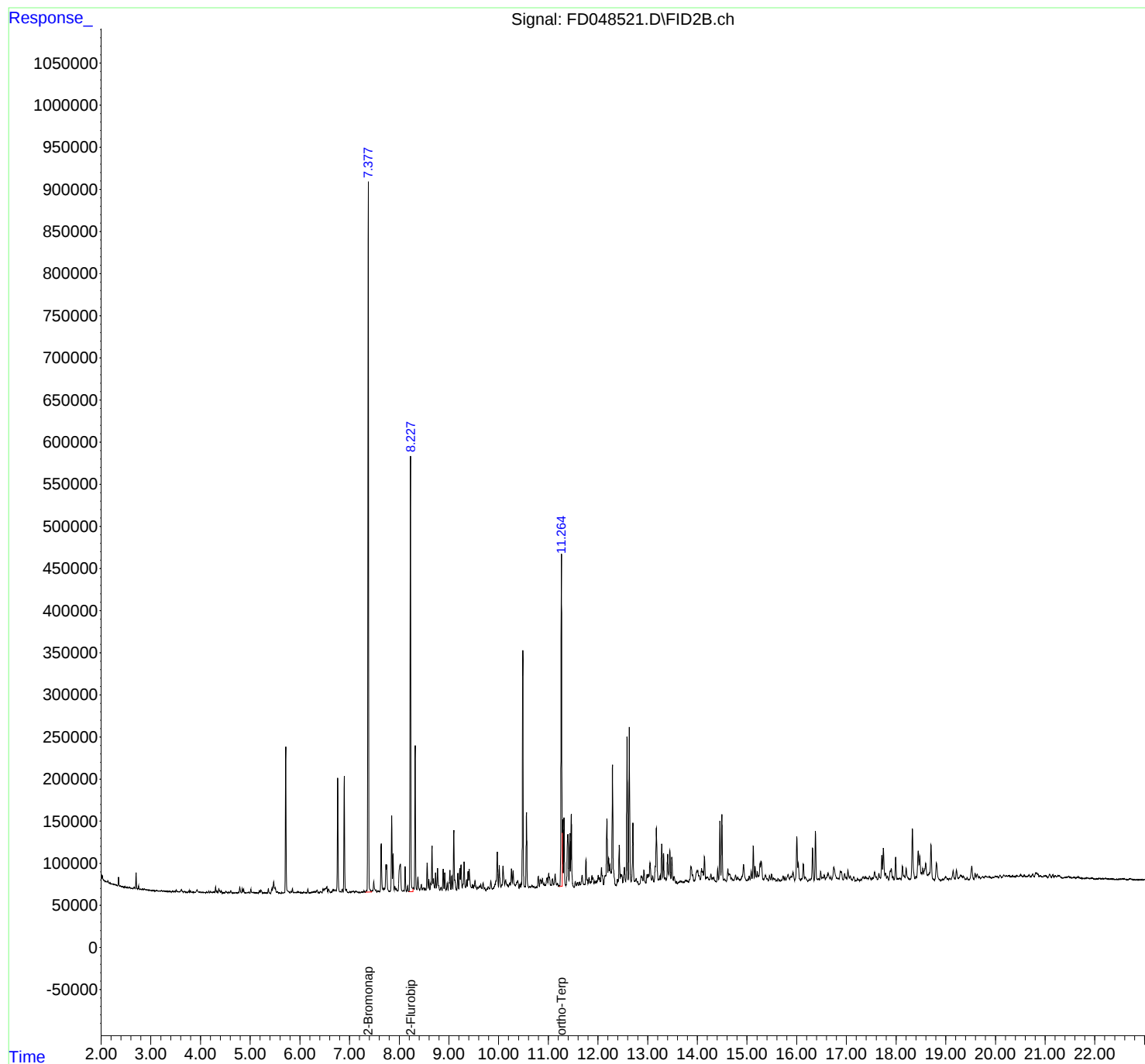
Instrument :
FID_D
ClientSampleId :
WB-301-TOP

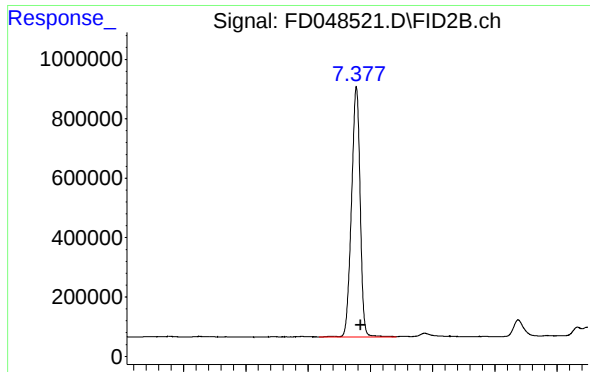
Manual Integrations
APPROVED

Reviewed By :Yogesh Patel 10/16/2024
Supervised By :Ankita Jodhani 10/16/2024

Integration File: autoint1.e
Quant Time: Oct 16 01:37:49 2024
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_D\methods\Aromatic EPH 093024.M
Quant Title : GC Extractables
QLast Update : Mon Sep 30 14:17:34 2024
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 µl
Signal Phase : Rxi-1ms
Signal Info : 20M x 0.18mm x 0.18µm





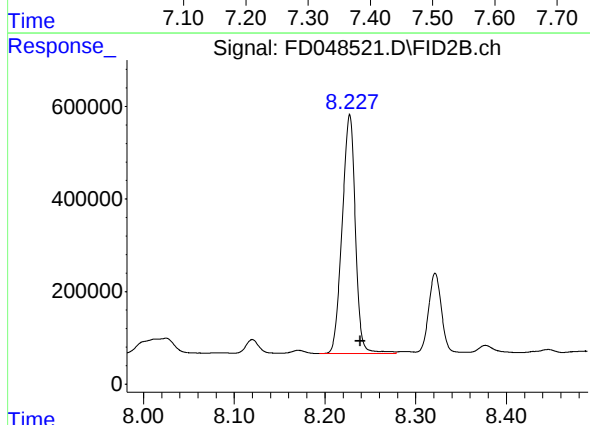
#4 2-Bromonaphthalene (SURR)

R.T.: 7.377 min
Delta R.T.: -0.007 min
Response: 8119618
Conc: 49.04 ug/ml

Instrument :
FID_D
ClientSampleId :
WB-301-TOP

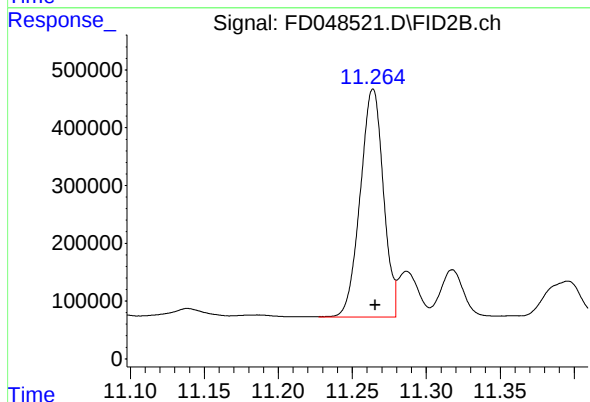
Manual Integrations
APPROVED

Reviewed By :Yogesh Patel 10/16/2024
Supervised By :Ankita Jodhani 10/16/2024



#6 2-Fluorobiphenyl (SURR)

R.T.: 8.227 min
Delta R.T.: -0.012 min
Response: 5233558
Conc: 50.47 ug/ml



#11 ortho-Terphenyl (SURR)

R.T.: 11.264 min
Delta R.T.: -0.002 min
Response: 4301929
Conc: 23.38 ug/ml m

rteres

Instrument :

FID_D

ClientSampleId :

WB-301-TOP

Area Percent Report

Manual IntegrationsAPPROVED

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_D\Data\FD10142

Data File : FD048521.D

Signal(s) : FID2B.ch

Acq On : 15 Oct 2024 11:10

Sample : P4397-01

Misc :

ALS Vial : 86 Sample Multiplier: 1

Reviewed By :Yogesh Patel 10/16/2024

Supervised By :Ankita Jodhani 10/16/2024

Integration File: sample.E

Method : Z:\pestpcbsrv\HPCHEM1\FID_D\methods\Aromatic EPH 093024.M

Title : GC Extractables

Signal : FID2B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	4.167	4.152	4.187	PV	1530	13353	0.16%	0.014%
2	4.202	4.187	4.220	PV	1602	14335	0.18%	0.015%
3	4.237	4.220	4.248	PV	886	8040	0.10%	0.008%
4	4.268	4.248	4.285	VV	1152	14694	0.18%	0.015%
5	4.304	4.285	4.322	VV	7133	65881	0.81%	0.068%
6	4.330	4.322	4.352	VV	2072	19616	0.24%	0.020%
7	4.369	4.352	4.403	VV	5033	71032	0.87%	0.073%
8	4.417	4.403	4.438	VV	3005	29968	0.37%	0.031%
9	4.445	4.438	4.461	VV	410	3271	0.04%	0.003%
10	4.482	4.461	4.492	VV	518	5960	0.07%	0.006%
11	4.511	4.492	4.526	VV	2387	26382	0.32%	0.027%
12	4.535	4.526	4.552	VV	977	10702	0.13%	0.011%
13	4.573	4.552	4.591	VV	1478	18696	0.23%	0.019%
14	4.610	4.591	4.641	VV	2957	38647	0.47%	0.040%
15	4.647	4.641	4.656	VV	431	2170	0.03%	0.002%
16	4.684	4.656	4.695	PV	543	6671	0.08%	0.007%
17	4.711	4.695	4.746	VV	833	12471	0.15%	0.013%
18	4.768	4.746	4.774	VV	1275	13421	0.16%	0.014%
19	4.791	4.774	4.825	VV	7128	92255	1.13%	0.095%
20	4.842	4.825	4.856	VV	5617	56181	0.69%	0.058%
21	4.868	4.856	4.911	VV	5126	59391	0.73%	0.061%
22	4.917	4.911	4.935	VV	578	6627	0.08%	0.007%
23	4.959	4.935	4.972	VV	1362	19055	0.23%	0.020%
24	4.977	4.972	4.994	VV	1026	9536	0.12%	0.010%
25	5.014	4.994	5.043	VV	4750	55585	0.68%	0.057%
26	5.058	5.043	5.069	VV	1326	16034	0.20%	0.016%
27	5.077	5.069	5.098	VV	1027	10270	0.13%	0.011%
28	5.101	5.098	5.107	VV	320	1262	0.02%	0.001%
29	5.116	5.107	5.125	VV	277	2483	0.03%	0.003%
30	5.132	5.125	5.146	VV	591	6231	0.08%	0.006%
31	5.151	5.146	5.172	VV	491	6526	0.08%	0.007%
32	5.187	5.172	5.203	VV	3504	40654	0.50%	0.042%
33	5.217	5.203	5.267	VV	3816	64156	0.79%	0.066%
34	5.271	5.267	5.274	VV	392	1410	0.02%	0.001%
35	5.293	5.274	5.338	VV	711	17037	0.21%	0.018%
36	5.366	5.338	5.390	VV	5509	59959	0.74%	0.062%

					rters			
37	5.396	5.390	5.412	VV	452	4131	0.05%	0.004%
38	5.435	5.412	5.447	VV	4767	61090		
39	5.473	5.447	5.503	VV	13692	275884		
40	5.509	5.503	5.533	VV	5992	60925		
41	5.549	5.533	5.575	VV	2216	31579		
42	5.590	5.575	5.615	VV	593	8653		
43	5.637	5.615	5.655	PV	994	12961	0.16%	0.013%
44	5.689	5.655	5.695	VV	906	14527	0.18%	0.015%
45	5.716	5.695	5.805	VV	173994	1700790	20.89%	1.748%
46	5.822	5.805	5.836	VV	2448	29533	0.36%	0.030%
47	5.851	5.836	5.875	VV	5770	63398	0.78%	0.065%
48	5.877	5.875	5.880	VV	813	2185	0.03%	0.002%
49	5.898	5.880	5.908	VV	1040	14692	0.18%	0.015%
50	5.913	5.908	5.925	VV	950	6971	0.09%	0.007%
51	5.939	5.925	5.947	VV	1468	13934	0.17%	0.014%
52	5.958	5.947	5.971	VV	1727	18534	0.23%	0.019%
53	5.980	5.971	6.003	VV	1380	19521	0.24%	0.020%
54	6.013	6.003	6.034	VV	840	11003	0.14%	0.011%
55	6.041	6.034	6.045	VV	284	1544	0.02%	0.002%
56	6.078	6.045	6.097	VV	1706	22986	0.28%	0.024%
57	6.111	6.097	6.125	VV	724	7242	0.09%	0.007%
58	6.162	6.125	6.190	VV	5046	56069	0.69%	0.058%
59	6.194	6.190	6.208	VV	547	3666	0.05%	0.004%
60	6.245	6.208	6.254	VV	1173	20247	0.25%	0.021%
61	6.269	6.254	6.286	VV	1686	26070	0.32%	0.027%
62	6.308	6.286	6.320	VV	2288	34221	0.42%	0.035%
63	6.348	6.320	6.370	VV	3664	59327	0.73%	0.061%
64	6.381	6.370	6.398	VV	798	8186	0.10%	0.008%
65	6.412	6.398	6.421	VV	1849	17088	0.21%	0.018%
66	6.426	6.421	6.446	VV	1703	14793	0.18%	0.015%
67	6.467	6.446	6.481	VV	5120	60398	0.74%	0.062%
68	6.494	6.481	6.503	VV	5279	57306	0.70%	0.059%
69	6.515	6.503	6.520	VV	5440	51608	0.63%	0.053%
70	6.529	6.520	6.535	VV	5974	50394	0.62%	0.052%
71	6.544	6.535	6.561	VV	7881	80508	0.99%	0.083%
72	6.579	6.561	6.611	VV	4884	83218	1.02%	0.086%
73	6.671	6.611	6.687	VV	4361	94703	1.16%	0.097%
74	6.702	6.687	6.711	VV	3938	47574	0.58%	0.049%
75	6.717	6.711	6.732	VV	3587	38928	0.48%	0.040%
76	6.762	6.732	6.809	VV	136204	1384816	17.01%	1.423%
77	6.814	6.809	6.835	VV	1781	22927	0.28%	0.024%
78	6.853	6.835	6.871	VV	4373	55844	0.69%	0.057%
79	6.894	6.871	6.926	VV	138495	1348670	16.57%	1.386%
80	6.937	6.926	6.985	VV	4321	62274	0.77%	0.064%
81	7.003	6.985	7.023	VV	1355	21143	0.26%	0.022%
82	7.046	7.023	7.058	VV	2099	27426	0.34%	0.028%
83	7.079	7.058	7.106	VV	2362	41166	0.51%	0.042%
84	7.127	7.106	7.162	VV	2226	45981	0.56%	0.047%
85	7.168	7.162	7.183	VV	1132	7766	0.10%	0.008%
86	7.196	7.183	7.213	VV	682	6370	0.08%	0.007%
87	7.244	7.213	7.262	PV	1100	20325	0.25%	0.021%
88	7.265	7.262	7.268	VV	999	3570	0.04%	0.004%
89	7.272	7.268	7.275	VV	999	3751	0.05%	0.004%

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Manual IntegrationsAPPROVED

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90	7.291	7.275	7.320	VV	2218	34387	0.42%	0.035%	
91	7.338	7.320	7.350	VV	2520	32762			
92	7.378	7.350	7.440	VV	841341	8140359	100		
93	7.453	7.440	7.465	VV	2337	29103			
94	7.488	7.465	7.521	VV	12848	193114			
95	7.527	7.521	7.547	VV	2877	33778			
96	7.586	7.547	7.602	VV	1978	47124	0.58%	0.048%	
97	7.638	7.602	7.672	VV	57813	708588	8.70%	0.728%	
98	7.685	7.672	7.697	VV	4739	60321	0.74%	0.062%	
99	7.733	7.697	7.740	VV	32907	366315	4.50%	0.376%	
100	7.748	7.740	7.793	VV	32802	377453	4.64%	0.388%	
101	7.807	7.793	7.817	VV	1267	15388	0.19%	0.016%	
102	7.850	7.817	7.865	VV	90381	961716	11.81%	0.988%	
103	7.877	7.865	7.899	VV	45503	468060	5.75%	0.481%	
104	7.913	7.899	7.932	VV	6636	94871	1.17%	0.098%	
105	7.943	7.932	7.959	VV	4210	47557	0.58%	0.049%	
106	7.965	7.959	7.975	VV	1498	13520	0.17%	0.014%	
107	8.025	7.975	8.068	VV	33446	840876	10.33%	0.864%	
108	8.086	8.068	8.100	VV	1664	25874	0.32%	0.027%	
109	8.120	8.100	8.152	VV	30394	306609	3.77%	0.315%	
110	8.171	8.152	8.193	VV	7135	72783	0.89%	0.075%	
111	8.227	8.193	8.279	VV	517186	5237738	64.34%	5.383%	
112	8.288	8.279	8.299	VV	4349	48191	0.59%	0.050%	
113	8.322	8.299	8.357	VV	173431	1725110	21.19%	1.773%	
114	8.377	8.357	8.415	VV	17489	243689	2.99%	0.250%	
115	8.446	8.415	8.463	VV	8576	132276	1.62%	0.136%	
116	8.487	8.463	8.504	VV	4931	87022	1.07%	0.089%	
117	8.517	8.504	8.535	VV	4120	52914	0.65%	0.054%	
118	8.564	8.535	8.583	VV	34095	394132	4.84%	0.405%	
119	8.598	8.583	8.619	VV	14520	168831	2.07%	0.174%	
120	8.637	8.619	8.644	VV	10219	102893	1.26%	0.106%	
121	8.661	8.644	8.678	VV	54007	560271	6.88%	0.576%	
122	8.688	8.678	8.714	VV	14701	205892	2.53%	0.212%	
123	8.733	8.714	8.749	VV	22039	241645	2.97%	0.248%	
124	8.773	8.749	8.817	VV	27144	405215	4.98%	0.416%	
125	8.842	8.817	8.863	VV	4555	76466	0.94%	0.079%	
126	8.886	8.863	8.903	VV	26305	290465	3.57%	0.299%	
127	8.919	8.903	8.940	VV	21976	227761	2.80%	0.234%	
128	8.968	8.940	8.985	VV	9477	122562	1.51%	0.126%	
129	9.001	8.985	9.007	VV	10273	85006	1.04%	0.087%	
130	9.022	9.007	9.042	VV	24688	285545	3.51%	0.293%	
131	9.059	9.042	9.079	VV	18096	201541	2.48%	0.207%	
132	9.100	9.079	9.158	VV	71887	926832	11.39%	0.953%	
133	9.180	9.158	9.199	VV	21013	237263	2.91%	0.244%	
134	9.220	9.199	9.232	VV	26879	301689	3.71%	0.310%	
135	9.245	9.232	9.269	VV	30690	396198	4.87%	0.407%	
136	9.307	9.269	9.334	VV	34262	511878	6.29%	0.526%	
137	9.358	9.334	9.371	VV	12962	169956	2.09%	0.175%	
138	9.385	9.371	9.397	VV	22879	234860	2.89%	0.241%	
139	9.409	9.397	9.455	VV	25491	427235	5.25%	0.439%	
140	9.478	9.455	9.494	VV	7198	109483	1.34%	0.113%	
141	9.527	9.494	9.545	VV	11495	209934	2.58%	0.216%	

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142	9.550	9.545	9.567	VV	3835	36135	0.44%	0.037%
143	9.582	9.567	9.597	VV	4016	52199	0.08%	0.073%
144	9.614	9.597	9.628	VV	5321	77451	0.07%	0.073%
145	9.642	9.628	9.666	VV	7268	102189	0.07%	0.073%
146	9.689	9.666	9.711	VV	8962	140016	0.07%	0.073%
147	9.721	9.711	9.745	VV	2970	31483	0.07%	0.073%
148	9.765	9.745	9.773	PV	1445	13781	0.17%	0.014%
149	9.791	9.773	9.821	VV	4019	71273	0.88%	0.073%
150	9.845	9.821	9.880	VV	10906	166166	2.04%	0.171%
151	9.975	9.880	9.997	VV	45365	844296	10.37%	0.868%
152	10.015	9.997	10.046	VV	29184	397144	4.88%	0.408%
153	10.065	10.046	10.071	VV	6111	72362	0.89%	0.074%
154	10.090	10.071	10.125	VV	28455	487571	5.99%	0.501%
155	10.142	10.125	10.180	VV	11725	264880	3.25%	0.272%
156	10.185	10.180	10.199	VV	5607	51529	0.63%	0.053%
157	10.228	10.199	10.240	VV	8163	151889	1.87%	0.156%
158	10.261	10.240	10.277	VV	24884	333871	4.10%	0.343%
159	10.294	10.277	10.336	VV	22407	383399	4.71%	0.394%
160	10.367	10.336	10.371	VV	8689	132899	1.63%	0.137%
161	10.385	10.371	10.412	VV	10652	182400	2.24%	0.187%
162	10.430	10.412	10.444	VV	6332	79015	0.97%	0.081%
163	10.488	10.444	10.523	VV	283203	2983281	36.65%	3.066%
164	10.529	10.523	10.539	VV	3237	28113	0.35%	0.029%
165	10.562	10.539	10.609	VV	91354	1089452	13.38%	1.120%
166	10.625	10.609	10.640	VV	3433	49977	0.61%	0.051%
167	10.673	10.640	10.695	VV	4382	104836	1.29%	0.108%
168	10.709	10.695	10.738	VV	3465	61831	0.76%	0.064%
169	10.754	10.738	10.774	VV	2565	43139	0.53%	0.044%
170	10.799	10.774	10.822	VV	14837	232932	2.86%	0.239%
171	10.838	10.822	10.868	VV	11201	231301	2.84%	0.238%
172	10.883	10.868	10.907	VV	12281	193692	2.38%	0.199%
173	10.918	10.907	10.933	VV	6177	76600	0.94%	0.079%
174	10.978	10.933	10.994	VV	13177	300370	3.69%	0.309%
175	11.010	10.994	11.020	VV	18219	212665	2.61%	0.219%
176	11.026	11.020	11.045	VV	14060	146286	1.80%	0.150%
177	11.052	11.045	11.062	VV	4533	44023	0.54%	0.045%
178	11.085	11.062	11.106	VV	11693	192109	2.36%	0.197%
179	11.139	11.106	11.168	VV	17238	343080	4.21%	0.353%
180	11.186	11.168	11.211	VV	5903	116275	1.43%	0.120%
181	11.264	11.211	11.280	VV	396820	4424065	54.35%	4.547%
182	11.287	11.280	11.303	VV	81541	755347	9.28%	0.776%
183	11.318	11.303	11.348	VV	84179	948868	11.66%	0.975%
184	11.359	11.348	11.363	VV	4190	35886	0.44%	0.037%
185	11.396	11.363	11.415	VV	64115	1089474	13.38%	1.120%
186	11.434	11.415	11.448	VV	65346	721232	8.86%	0.741%
187	11.464	11.448	11.519	VV	88035	1077633	13.24%	1.108%
188	11.544	11.519	11.565	VV	7577	112158	1.38%	0.115%
189	11.590	11.565	11.610	VV	6756	131013	1.61%	0.135%
190	11.628	11.610	11.644	VV	6851	99734	1.23%	0.102%
191	11.681	11.644	11.723	VV	14833	357200	4.39%	0.367%
192	11.729	11.723	11.737	VV	4031	31479	0.39%	0.032%
193	11.759	11.737	11.778	VV	33816	424055	5.21%	0.436%
194	11.784	11.778	11.801	VV	9712	105736	1.30%	0.109%

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195	11.820	11.801	11.839	VV	11860	192288	2.36%	0.198%
196	11.850	11.839	11.862	VV	7197	87604		
197	11.878	11.862	11.890	VV	14246	180696		
198	11.901	11.890	11.921	VV	11470	162218		
199	11.935	11.921	11.948	VV	7489	99824		
200	11.961	11.948	11.974	VV	7826	100875		
201	12.005	11.974	12.019	VV	14454	265159	3.26%	0.273%
202	12.030	12.019	12.050	VV	11665	170304	2.09%	0.175%
203	12.072	12.050	12.112	VV	23490	466823	5.73%	0.480%
204	12.150	12.112	12.157	VV	13828	274721	3.37%	0.282%
205	12.180	12.157	12.199	VV	81097	1088186	13.37%	1.118%
206	12.215	12.199	12.231	VV	34632	526364	6.47%	0.541%
207	12.243	12.231	12.257	VV	26961	335347	4.12%	0.345%
208	12.265	12.257	12.271	VV	18101	149287	1.83%	0.153%
209	12.292	12.271	12.356	VV	144487	1947400	23.92%	2.001%
210	12.362	12.356	12.371	VV	2681	20596	0.25%	0.021%
211	12.392	12.371	12.406	VV	9043	128710	1.58%	0.132%
212	12.428	12.406	12.448	VV	49838	618609	7.60%	0.636%
213	12.460	12.448	12.470	VV	14799	175095	2.15%	0.180%
214	12.479	12.470	12.499	VV	14821	184234	2.26%	0.189%
215	12.533	12.499	12.558	VV	23164	455040	5.59%	0.468%
216	12.585	12.558	12.607	VV	177710	2011550	24.71%	2.067%
217	12.631	12.607	12.668	VV	188919	2197415	26.99%	2.258%
218	12.704	12.668	12.743	VV	75579	1130908	13.89%	1.162%
219	12.765	12.743	12.788	VV	9515	196346	2.41%	0.202%
220	12.797	12.788	12.818	VV	5793	77934	0.96%	0.080%
221	12.872	12.818	12.905	VV	12511	366337	4.50%	0.376%
222	12.924	12.905	12.965	VV	19049	346321	4.25%	0.356%
223	12.987	12.965	12.999	VV	14046	190497	2.34%	0.196%
224	13.014	12.999	13.026	VV	13893	203786	2.50%	0.209%
225	13.046	13.026	13.081	VV	28024	542178	6.66%	0.557%
226	13.098	13.081	13.125	VV	12096	223456	2.75%	0.230%
227	13.175	13.125	13.216	VV	68828	1374627	16.89%	1.413%
228	13.227	13.216	13.231	VV	7595	65771	0.81%	0.068%
229	13.250	13.231	13.262	VV	12272	179171	2.20%	0.184%
230	13.283	13.262	13.303	VV	49941	674821	8.29%	0.694%
231	13.319	13.303	13.342	VV	38354	493806	6.07%	0.508%
232	13.353	13.342	13.369	VV	9812	138754	1.70%	0.143%
233	13.401	13.369	13.425	VV	37771	626251	7.69%	0.644%
234	13.447	13.425	13.468	VV	41880	595947	7.32%	0.612%
235	13.486	13.468	13.511	VV	34071	473488	5.82%	0.487%
236	13.530	13.511	13.570	VV	10571	249724	3.07%	0.257%
237	13.576	13.570	13.597	VV	3788	52377	0.64%	0.054%
238	13.634	13.597	13.640	VV	4088	86298	1.06%	0.089%
239	13.655	13.640	13.673	VV	5465	91340	1.12%	0.094%
240	13.684	13.673	13.703	VV	4978	76113	0.94%	0.078%
241	13.719	13.703	13.732	VV	4078	62895	0.77%	0.065%
242	13.758	13.732	13.772	VV	6215	115444	1.42%	0.119%
243	13.790	13.772	13.825	VV	5827	151961	1.87%	0.156%
244	13.844	13.825	13.848	VV	6852	76954	0.95%	0.079%
245	13.872	13.848	13.897	VV	22106	468823	5.76%	0.482%
246	13.905	13.897	13.939	VV	12284	207928	2.55%	0.214%

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247	13.985	13.939	13.997	VV	16078	379328	4.66%	0.390%
248	14.008	13.997	14.026	VV	17257	258806		
249	14.035	14.026	14.057	VV	11157	165636		
250	14.084	14.057	14.098	VV	19385	325399		
251	14.103	14.098	14.122	VV	15599	202859		
252	14.141	14.122	14.166	VV	33404	513084		
253	14.175	14.166	14.185	VV	9043	93559	1.15%	0.096%
254	14.203	14.185	14.244	VV	9437	271734	3.34%	0.279%
255	14.272	14.244	14.290	VV	12517	246882	3.03%	0.254%
256	14.303	14.290	14.315	VV	8048	106877	1.31%	0.110%
257	14.330	14.315	14.384	VV	8715	224923	2.76%	0.231%
258	14.407	14.384	14.426	VV	18765	259401	3.19%	0.267%
259	14.453	14.426	14.473	VV	75706	943478	11.59%	0.970%
260	14.493	14.473	14.528	VV	82469	1067858	13.12%	1.097%
261	14.547	14.528	14.582	VV	6563	164042	2.02%	0.169%
262	14.613	14.582	14.628	VV	18396	297316	3.65%	0.306%
263	14.642	14.628	14.650	VV	11981	152038	1.87%	0.156%
264	14.657	14.650	14.677	VV	11428	148171	1.82%	0.152%
265	14.686	14.677	14.732	VV	7250	185637	2.28%	0.191%
266	14.767	14.732	14.791	VV	10506	253355	3.11%	0.260%
267	14.812	14.791	14.827	VV	8175	142895	1.76%	0.147%
268	14.837	14.827	14.853	VV	5639	79940	0.98%	0.082%
269	14.928	14.853	14.992	VV	23076	764604	9.39%	0.786%
270	15.019	14.992	15.024	VV	5043	85541	1.05%	0.088%
271	15.042	15.024	15.062	VV	8896	147976	1.82%	0.152%
272	15.083	15.062	15.102	VV	14686	229080	2.81%	0.235%
273	15.125	15.102	15.145	VV	44529	571710	7.02%	0.588%
274	15.161	15.145	15.188	VV	20196	325243	4.00%	0.334%
275	15.204	15.188	15.220	VV	14077	203748	2.50%	0.209%
276	15.229	15.220	15.238	VV	9250	92946	1.14%	0.096%
277	15.261	15.238	15.270	VV	23648	326027	4.01%	0.335%
278	15.284	15.270	15.327	VV	26258	535498	6.58%	0.550%
279	15.373	15.327	15.394	VV	9321	271780	3.34%	0.279%
280	15.400	15.394	15.428	VV	5492	89962	1.11%	0.092%
281	15.451	15.428	15.475	VV	8895	160050	1.97%	0.164%
282	15.494	15.475	15.513	VV	10691	165445	2.03%	0.170%
283	15.527	15.513	15.549	VV	5958	110230	1.35%	0.113%
284	15.556	15.549	15.584	VV	4746	82820	1.02%	0.085%
285	15.594	15.584	15.600	VV	3054	26553	0.33%	0.027%
286	15.623	15.600	15.645	VV	4920	98266	1.21%	0.101%
287	15.657	15.645	15.672	VV	3373	45904	0.56%	0.047%
288	15.688	15.672	15.698	VV	3370	44756	0.55%	0.046%
289	15.724	15.698	15.745	VV	8005	155156	1.91%	0.159%
290	15.761	15.745	15.783	VV	6641	107246	1.32%	0.110%
291	15.825	15.783	15.854	VV	9844	275727	3.39%	0.283%
292	15.888	15.854	15.901	VV	7706	181411	2.23%	0.186%
293	15.925	15.901	15.958	VV	12258	265859	3.27%	0.273%
294	16.001	15.958	16.021	VV	54044	832901	10.23%	0.856%
295	16.030	16.021	16.073	VV	22757	337461	4.15%	0.347%
296	16.132	16.073	16.157	VV	21639	421866	5.18%	0.434%
297	16.172	16.157	16.221	VV	6154	147134	1.81%	0.151%
298	16.255	16.221	16.266	VV	2846	58452	0.72%	0.060%
299	16.318	16.266	16.349	VV	40282	602559	7.40%	0.619%

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300	16.376	16.349	16.425	VV	60514	817018	10.04%	0.840%
301	16.441	16.425	16.459	VV	3559	63483		
302	16.481	16.459	16.502	VV	12505	181190		
303	16.512	16.502	16.521	VV	4817	52755		
304	16.556	16.521	16.575	VV	7928	179016		
305	16.592	16.575	16.599	VV	4908	56739		
306	16.633	16.599	16.669	VV	9658	282747	3.47%	0.291%
307	16.685	16.669	16.705	VV	5298	84310	1.04%	0.087%
308	16.744	16.705	16.801	VV	16845	519154	6.38%	0.534%
309	16.810	16.801	16.828	VV	4220	58487	0.72%	0.060%
310	16.840	16.828	16.852	VV	3958	46764	0.57%	0.048%
311	16.878	16.852	16.888	VV	12032	179758	2.21%	0.185%
312	16.899	16.888	16.936	VV	11584	184355	2.26%	0.189%
313	16.964	16.936	16.983	VV	9118	154051	1.89%	0.158%
314	16.993	16.983	17.007	VV	4957	56626	0.70%	0.058%
315	17.030	17.007	17.060	VV	12925	223376	2.74%	0.230%
316	17.076	17.060	17.117	VV	6290	118312	1.45%	0.122%
317	17.150	17.117	17.180	VV	5074	99065	1.22%	0.102%
318	17.190	17.180	17.200	PV	466	3865	0.05%	0.004%
319	17.221	17.200	17.237	VV	2320	29374	0.36%	0.030%
320	17.254	17.237	17.268	VV	1573	19085	0.23%	0.020%
321	17.289	17.268	17.300	VV	1255	16277	0.20%	0.017%
322	17.340	17.300	17.358	VV	4889	113804	1.40%	0.117%
323	17.375	17.358	17.382	VV	4033	47128	0.58%	0.048%
324	17.394	17.382	17.414	VV	4033	64766	0.80%	0.067%
325	17.426	17.414	17.443	VV	2982	44043	0.54%	0.045%
326	17.464	17.443	17.507	VV	5330	113302	1.39%	0.116%
327	17.524	17.507	17.534	VV	3206	40753	0.50%	0.042%
328	17.567	17.534	17.628	VV	10075	252441	3.10%	0.259%
329	17.654	17.628	17.688	VV	8182	145217	1.78%	0.149%
330	17.712	17.688	17.727	VV	29457	386704	4.75%	0.397%
331	17.743	17.727	17.772	VV	37854	584575	7.18%	0.601%
332	17.785	17.772	17.810	VV	8095	129574	1.59%	0.133%
333	17.825	17.810	17.852	VV	4524	63825	0.78%	0.066%
334	17.881	17.852	17.889	PV	10757	132558	1.63%	0.136%
335	17.902	17.889	17.928	VV	13142	205306	2.52%	0.211%
336	17.938	17.928	17.965	VV	3433	43906	0.54%	0.045%
337	17.991	17.965	18.018	VV	26820	334953	4.11%	0.344%
338	18.025	18.018	18.030	VV	878	5133	0.06%	0.005%
339	18.049	18.030	18.061	VV	1272	18396	0.23%	0.019%
340	18.078	18.061	18.099	VV	1475	20821	0.26%	0.021%
341	18.128	18.099	18.151	PV	15062	206696	2.54%	0.212%
342	18.160	18.151	18.179	VV	2701	30774	0.38%	0.032%

Sum of corrected areas: 97301436

Aromatic EPH 093024.M Wed Oct 16 01:50:29 2024

Report of Analysis

Client:	Portal Partners Tri-Venture	Date Collected:	10/10/24
Project:	Amtrak Sawtooth Bridges 2024	Date Received:	10/11/24
Client Sample ID:	WB-301-BOT	SDG No.:	P4397
Lab Sample ID:	P4397-02	Matrix:	Solid
Analytical Method:	NJEPH	% Solid:	76
Sample Wt/Vol:	30.06 Units: g	Final Vol:	2000 uL
Soil Aliquot Vol:	uL	Test:	EPH
Prep Method :			

Prep Date :	Date Analyzed :	Prep Batch ID
10/14/24 08:32	10/14/24 19:44	PB164109

Datafile

CAS Number	Parameter	Conc.	Qualifier	Dilution	MDL	LOQ / CRQL	Units(Dry Weight)	
TARGETS								
Aliphatic C9-C12	Aliphatic C9-C12	0.50	U	1	0.50	1.31	mg/kg	FC067435.D
Aliphatic C12-C16	Aliphatic C12-C16	0.32	U	1	0.32	0.88	mg/kg	FC067435.D
Aliphatic C16-C21	Aliphatic C16-C21	0.39	U	1	0.39	1.31	mg/kg	FC067435.D
Aliphatic C21-C28	Aliphatic C21-C28	1.05	U	1	1.05	1.75	mg/kg	FC067435.D
Aliphatic C28-C40	Aliphatic C28-C40	2.36	U	1	2.36	2.63	mg/kg	FC067435.D
Aromatic C10-C12	Aromatic C10-C12	0.39	U	1	0.39	0.88	mg/kg	FD048510.D
Aromatic C12-C16	Aromatic C12-C16	0.51	J	1	0.45	1.31	mg/kg	FD048510.D
Aromatic C16-C21	Aromatic C16-C21	1.89	J	1	1.26	2.19	mg/kg	FD048510.D
Aromatic C21-C36	Aromatic C21-C36	2.63	U	1	2.63	3.50	mg/kg	FD048510.D
Total AliphaticEPH	Total AliphaticEPH	4.62	U		4.62	7.88	mg/kg	
Total AromaticEPH	Total AromaticEPH	4.73	U		4.73	7.88	mg/kg	
Total EPH	Total EPH	9.35	U		9.35	15.8	mg/kg	

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control 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

Report of Analysis

Client:	Portal Partners Tri-Venture	Date Collected:	10/10/24
Project:	Amtrak Sawtooth Bridges 2024	Date Received:	10/11/24
Client Sample ID:	WB-301-BOT	SDG No.:	P4397
Lab Sample ID:	P4397-02	Matrix:	Solid
Analytical Method:	NJEPH	% Solid:	76
Sample Wt/Vol:	30.06 Units: g	Final Vol:	2000 uL
Soil Aliquot Vol:	uL	Test:	EPH
Prep Method :			

File ID :	Dilution:	Prep Date :	Date Analyzed :	Prep Batch ID
FC067435.D	1	10/14/24	10/14/24	PB164109

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
Aliphatic C9-C12	Aliphatic C9-C12	0.50	U	0.50	1.31	mg/kg
Aliphatic C12-C16	Aliphatic C12-C16	0.32	U	0.32	0.88	mg/kg
Aliphatic C16-C21	Aliphatic C16-C21	0.39	U	0.39	1.31	mg/kg
Aliphatic C21-C28	Aliphatic C21-C28	1.05	U	1.05	1.75	mg/kg
Aliphatic C28-C40	Aliphatic C28-C40	2.36	U	2.36	2.63	mg/kg
SURROGATES						
3383-33-2	1-chlorooctadecane (SURR)	37.5		40 - 140	75%	SPK: 50
84-15-1	ortho-Terphenyl (SURR)	0.00		40 - 140	0%	SPK: 50

Quantitation Report For Aliphatic EPH Range.

Lab Sample ID:	P4397-02	Acq On:	14 Oct 2024 19:44
Client Sample ID:	WB-301-BOT	Operator:	YP/AJ
Data file:	FC067435.D	Misc:	
Instrument:	FID_C	ALS Vial:	16
Dilution Factor:	1	Sample Multiplier:	1.00

Compound	R.T.		Response	Conc	highest_standard	Units
Aliphatic C9-C12	3.175	6.457	89934	0.701	300	ug/ml
Aliphatic C12-C16	6.458	9.850	400036	3.055	200	ug/ml
Aliphatic C16-C21	9.851	13.209	456881	3.475	300	ug/ml
Aliphatic C21-C28	13.210	16.865	43326	0.342	400	ug/ml
Aliphatic C28-C40	16.866	21.722	0	0	600	ug/ml
Aliphatic EPH	3.175	21.722	990177	7.572		ug/ml
ortho-Terphenyl (SURR)	0.000	0.000	0	0		ug/ml
1-chlorooctadecane (SURR)	12.940	12.940	4244377	37.5		ug/ml
Aliphatic C9-C28	3.175	16.865	990177	7.573	1200	ug/ml

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_C\Data\FC101424AL\
Data File : FC067435.D
Signal(s) : FID1A.ch
Acq On : 14 Oct 2024 19:44
Operator : YP/AJ
Sample : P4397-02
Misc :
ALS Vial : 16 Sample Multiplier: 1

Instrument :
FID_C
ClientSampleId :
WB-301-BOT

Manual Integrations
APPROVED

Reviewed By :Yogesh Patel 10/15/2024
Supervised By :Ankita Jodhani 10/15/2024

Integration File: autoint1.e
Quant Time: Oct 15 04:32:20 2024
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_C\Method\Aliphatic EPH 100224.M
Quant Title : GC Extractables
QLast Update : Tue Oct 01 09:13:32 2024
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 ul
Signal Phase : Rxi-1ms
Signal Info : 20M x 0.18mm x 0.18um

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
12) S 1-chlorooctadecane (S...	12.940	4244377	37.497 ug/mlm
Spiked Amount	50.000	Recovery	= 74.99%

Target Compounds

(f)=RT Delta > 1/2 Window

(m)=manual int.

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_C\Data\FC101424AL\
Data File : FC067435.D
Signal(s) : FID1A.ch
Acq On : 14 Oct 2024 19:44
Operator : YP/AJ
Sample : P4397-02
Misc :
ALS Vial : 16 Sample Multiplier: 1

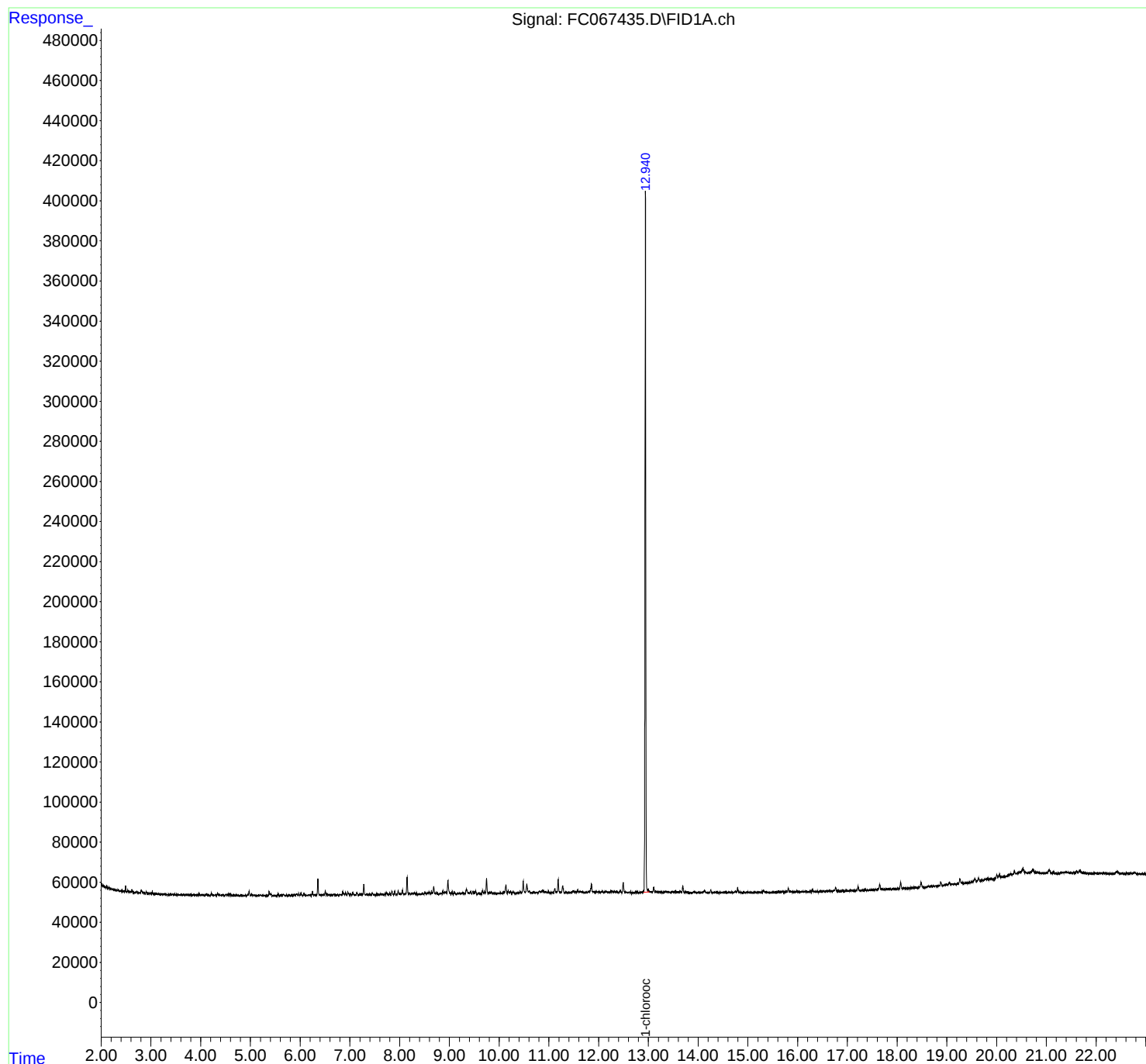
Instrument :
FID_C
ClientSampleId :
WB-301-BOT

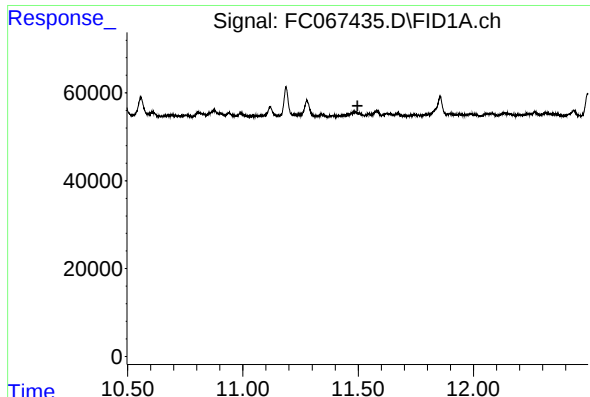
Manual Integrations
APPROVED

Reviewed By :Yogesh Patel 10/15/2024
Supervised By :Ankita Jodhani 10/15/2024

Integration File: autoint1.e
Quant Time: Oct 15 04:32:20 2024
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_C\Method\Aliphatic EPH 100224.M
Quant Title : GC Extractables
QLast Update : Tue Oct 01 09:13:32 2024
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 ul
Signal Phase : Rxi-1ms
Signal Info : 20M x 0.18mm x 0.18um





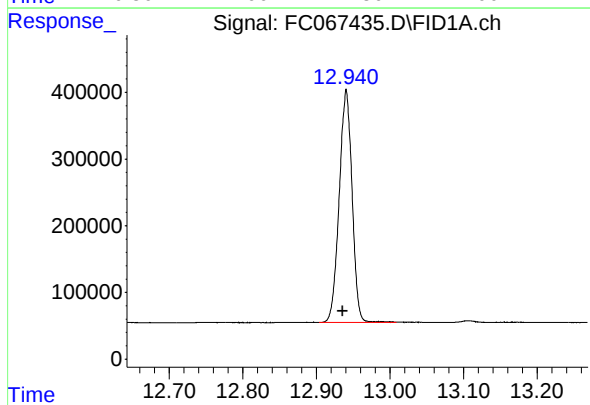
#9 ortho-Terphenyl (SURR)

R.T.: 0.000 min
Exp R.T.: 11.497 min
Response: 0
Conc: N.D.

Instrument :
FID_C
ClientSampleId :
WB-301-BOT

Manual Integrations
APPROVED

Reviewed By :Yogesh Patel 10/15/2024
Supervised By :Ankita Jodhani 10/15/2024



#12 1-chlorooctadecane (SURR)

R.T.: 12.940 min
Delta R.T.: 0.004 min
Response: 4244377
Conc: 37.50 ug/ml m

Instrument :
FID_C
ClientSampleId :
WB-301-BOT
Area Percent Report

Manual IntegrationsAPPROVED

Reviewed By :Yogesh Patel 10/15/2024
Supervised By :Ankita Jodhani 10/15/2024

rteres

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_C\Data\FC10142
Data File : FC067435.D
Signal(s) : FID1A.ch
Acq On : 14 Oct 2024 19:44
Sample : P4397-02
Misc :
ALS Vial : 16 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_C\Method\Aliphatic EPH 100224.M
Title : GC Extractables

Signal : FID1A.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	6.356	6.305	6.404	BB	8197	89934	2.12%	1.720%
2	7.280	7.235	7.307	BB	5236	55561	1.31%	1.062%
3	8.150	8.100	8.182	BV	8350	94290	2.22%	1.803%
4	8.685	8.655	8.717	VV	3622	47911	1.13%	0.916%
5	8.971	8.887	9.025	VB	6524	115769	2.73%	2.214%
6	9.748	9.722	9.794	VB	7440	86505	2.04%	1.654%
7	10.136	9.992	10.162	BV	3785	60008	1.42%	1.147%
8	10.485	10.444	10.520	BV	5721	74265	1.75%	1.420%
9	10.557	10.520	10.584	PV	4015	58281	1.37%	1.114%
10	11.187	11.157	11.225	BB	6485	77498	1.83%	1.482%
11	11.278	11.234	11.322	BB	3402	50338	1.19%	0.962%
12	11.855	11.750	11.915	BB	4169	72040	1.70%	1.377%
13	12.495	12.465	12.539	BB	4972	64451	1.52%	1.232%
14	12.940	12.700	13.022	BB	349278	4239895	100.00%	81.068%
15	13.691	13.664	13.727	PB	3300	43326	1.02%	0.828%

Sum of corrected areas: 5230072

Aliphatic EPH 100224.M Tue Oct 15 05:44:02 2024

Report of Analysis

Client:	Portal Partners Tri-Venture	Date Collected:	10/10/24
Project:	Amtrak Sawtooth Bridges 2024	Date Received:	10/11/24
Client Sample ID:	WB-301-BOT	SDG No.:	P4397
Lab Sample ID:	P4397-02	Matrix:	Solid
Analytical Method:	NJEPH	% Solid:	76
Sample Wt/Vol:	30.06 Units: g	Final Vol:	2000 uL
Soil Aliquot Vol:	uL	Test:	EPH
Prep Method :			

File ID :	Dilution:	Prep Date :	Date Analyzed :	Prep Batch ID
FD048510.D	1	10/14/24	10/15/24	PB164109

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
Aromatic C10-C12	Aromatic C10-C12	0.39	U	0.39	0.88	mg/kg
Aromatic C12-C16	Aromatic C12-C16	0.51	J	0.45	1.31	mg/kg
Aromatic C16-C21	Aromatic C16-C21	1.89	J	1.26	2.19	mg/kg
Aromatic C21-C36	Aromatic C21-C36	2.63	U	2.63	3.50	mg/kg
SURROGATES						
580-13-2	2-Bromonaphthalene (SURR)	39.5		40 - 140	79%	SPK: 50
321-60-8	2-Fluorobiphenyl (SURR)	42.5		40 - 140	85%	SPK: 50
84-15-1	ortho-Terphenyl (SURR)	24.3		40 - 140	49%	SPK: 50

Quantitation Report For Aromatic EPH Range.

Lab Sample ID:	P4397-02	Acq On:	15 Oct 2024 04:22
Client Sample ID:	WB-301-BOT	Operator:	YP/AJ
Data file:	FD048510.D	Misc:	
Instrument:	FID_D	ALS Vial:	77
Dilution Factor:	1	Sample Multiplier:	1.00

Compound	R.T.		Response	Conc	highest_standard	Units
Aromatic C10-C12	4.099	5.817	260104	1.437	200	ug/ml
Aromatic C12-C16	5.818	8.424	1095525	5.766	300	ug/ml
Aromatic C16-C21	8.425	12.687	3861500	21.605	500	ug/ml
Aromatic C21-C36	12.688	18.094	2496884	15.1	800	ug/ml
Aromatic EPH	4.099	18.094	7714013	43.908		ug/ml
2-Bromonaphthalene (SURRE)	7.374	7.374	6535426	39.47		ug/ml
2-Fluorobiphenyl (SURRE)	8.224	8.224	4406588	42.49		ug/ml
ortho-Terphenyl (SURRE)	11.261	11.261	4470809	24.3		ug/ml

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_D\Data\FD101424AR\
 Data File : FD048510.D
 Signal(s) : FID2B.ch
 Acq On : 15 Oct 2024 04:22
 Operator : YP/AJ
 Sample : P4397-02
 Misc :
 ALS Vial : 77 Sample Multiplier: 1

Instrument :
 FID_D
 ClientSampleId :
 WB-301-BOT

Integration File: autoint1.e
 Quant Time: Oct 15 06:02:46 2024
 Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_D\methods\Aromatic EPH 093024.M
 Quant Title : GC Extractables
 QLast Update : Mon Sep 30 14:17:34 2024
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1 µl
 Signal Phase : Rxi-1ms
 Signal Info : 20M x 0.18mm x 0.18µm

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
4) S 2-Bromonaphthalene (S...	7.374	6535426	39.473 ug/ml
Spiked Amount 50.000		Recovery =	78.95%
6) S 2-Fluorobiphenyl (SURR)	8.224	4406588	42.492 ug/ml
Spiked Amount 50.000 Range 0 - 131		Recovery =	84.98%
11) S ortho-Terphenyl (SURR)	11.261	4470809	24.298 ug/ml
Spiked Amount 50.000		Recovery =	48.60%

Target Compounds

(f)=RT Delta > 1/2 Window

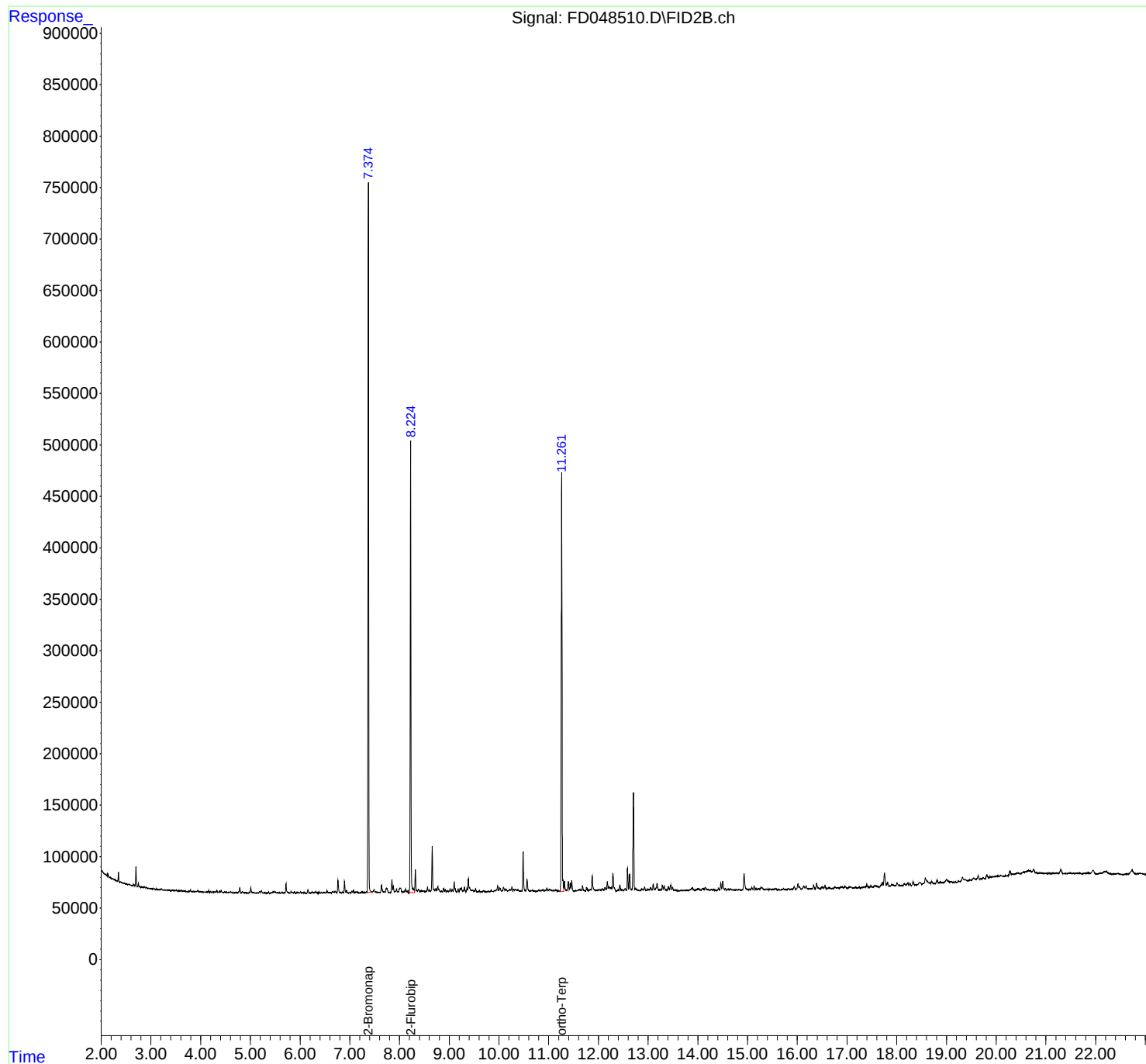
(m)=manual int.

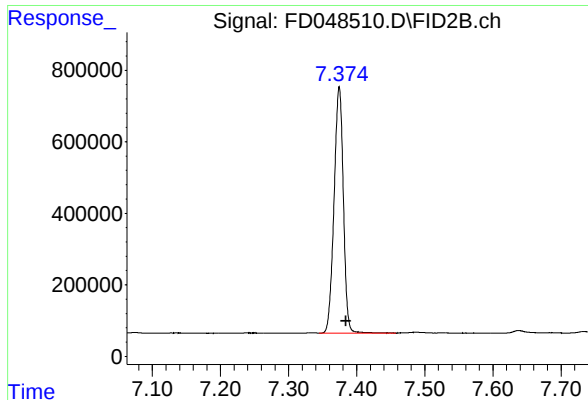
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_D\Data\FD101424AR\
Data File : FD048510.D
Signal(s) : FID2B.ch
Acq On : 15 Oct 2024 04:22
Operator : YP/AJ
Sample : P4397-02
Misc :
ALS Vial : 77 Sample Multiplier: 1

Instrument :
FID_D
ClientSampleId :
WB-301-BOT

Integration File: autoint1.e
Quant Time: Oct 15 06:02:46 2024
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_D\methods\Aromatic EPH 093024.M
Quant Title : GC Extractables
QLast Update : Mon Sep 30 14:17:34 2024
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 µl
Signal Phase : Rxi-1ms
Signal Info : 20M x 0.18mm x 0.18µm

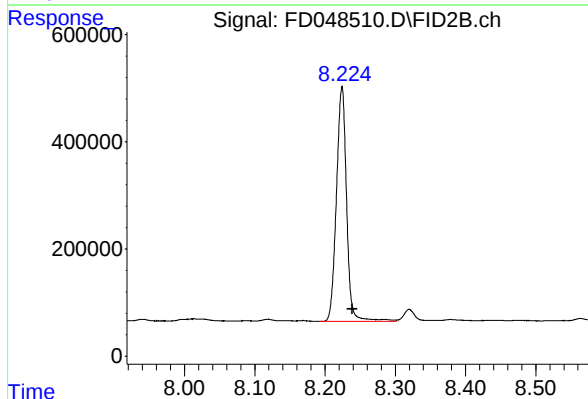




#4 2-Bromonaphthalene (SURR)

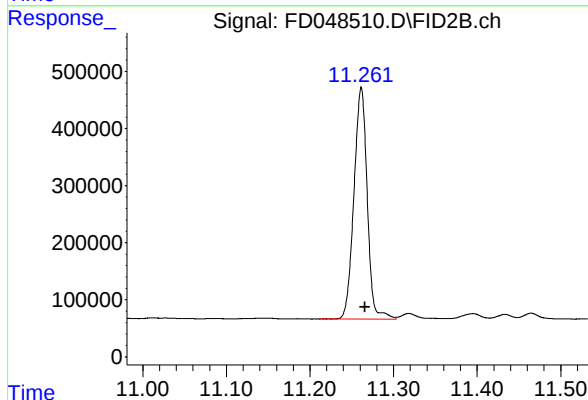
R.T.: 7.374 min
Delta R.T.: -0.010 min
Response: 6535426
Conc: 39.47 ug/ml

Instrument :
FID_D
ClientSampleId :
WB-301-BOT



#6 2-Fluorobiphenyl (SURR)

R.T.: 8.224 min
Delta R.T.: -0.015 min
Response: 4406588
Conc: 42.49 ug/ml



#11 ortho-Terphenyl (SURR)

R.T.: 11.261 min
Delta R.T.: -0.004 min
Response: 4470809
Conc: 24.30 ug/ml

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_D\Data\FD101424AR\
 Data File : FD048510.D
 Signal(s) : FID2B.ch
 Acq On : 15 Oct 2024 04:22
 Sample : P4397-02
 Misc :
 ALS Vial : 77 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_D\methods\Aromatic EPH 093024.M
 Title : GC Extractables

Signal : FID2B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	4.787	4.651	4.819	BV	4958	70894	1.08%	0.307%
2	5.008	4.989	5.094	VB	5426	73511	1.12%	0.318%
3	5.717	5.696	5.794	PV	9026	115699	1.77%	0.500%
4	6.158	6.128	6.208	BV	3546	44122	0.68%	0.191%
5	6.763	6.734	6.801	PV	12095	145443	2.23%	0.629%
6	6.894	6.870	6.921	PV	10889	108426	1.66%	0.469%
7	7.374	7.345	7.458	VV	689277	6535426	100.00%	28.259%
8	7.638	7.614	7.673	BV	7334	98643	1.51%	0.427%
9	7.734	7.708	7.794	VV	4396	99692	1.53%	0.431%
10	7.848	7.794	7.865	VV	12634	143933	2.20%	0.622%
11	7.877	7.865	7.899	VV	6271	69703	1.07%	0.301%
12	8.014	7.978	8.072	VV	4554	139161	2.13%	0.602%
13	8.224	8.191	8.301	PV	438947	4406588	67.43%	19.054%
14	8.320	8.301	8.348	VV	22211	246402	3.77%	1.065%
15	8.564	8.507	8.584	VV	5008	89691	1.37%	0.388%
16	8.659	8.620	8.707	VV	44673	517430	7.92%	2.237%
17	8.772	8.746	8.824	VV	5905	127227	1.95%	0.550%
18	8.886	8.863	8.904	VV	3912	50088	0.77%	0.217%
19	9.101	9.079	9.151	VV	9570	136262	2.08%	0.589%
20	9.219	9.198	9.233	VV	3559	42642	0.65%	0.184%
21	9.307	9.271	9.332	VV	4111	56821	0.87%	0.246%
22	9.385	9.332	9.448	PB	11899	195484	2.99%	0.845%
23	9.975	9.891	9.998	BV	4928	103278	1.58%	0.447%
24	10.016	9.998	10.049	VV	3326	51868	0.79%	0.224%
25	10.092	10.049	10.131	PV	3546	62487	0.96%	0.270%
26	10.261	10.234	10.280	VV	3174	35373	0.54%	0.153%
27	10.488	10.446	10.540	PV	38419	421453	6.45%	1.822%
28	10.565	10.540	10.644	VV	11548	150451	2.30%	0.651%
29	11.261	11.211	11.303	BV	405274	4470809	68.41%	19.332%
30	11.318	11.303	11.363	VV	9717	136103	2.08%	0.589%
31	11.395	11.363	11.415	VV	9599	146264	2.24%	0.632%
32	11.433	11.415	11.448	VV	8159	99094	1.52%	0.428%
33	11.465	11.448	11.518	VV	10341	132303	2.02%	0.572%
34	11.681	11.648	11.741	VV	5362	89716	1.37%	0.388%
35	11.763	11.741	11.804	VV	3615	62303	0.95%	0.269%
36	11.876	11.804	11.948	VV	14615	264329	4.04%	1.143%

					rteres			
37	12.180	12.153	12.198	VV	9073	127614	1.95%	0.552%
38	12.292	12.273	12.374	VB	17294	262226	4.01%	1.134%
39	12.431	12.410	12.455	VV	5695	71483	1.09%	0.309%
40	12.585	12.559	12.607	PV	21500	240273	3.68%	1.039%
41	12.627	12.607	12.668	VV	15761	189237	2.90%	0.818%
42	12.703	12.668	12.731	VV	94338	1119544	17.13%	4.841%
43	12.927	12.906	12.959	VV	3661	50221	0.77%	0.217%
44	13.102	13.079	13.134	VV	6224	85145	1.30%	0.368%
45	13.179	13.134	13.231	VV	6594	134791	2.06%	0.583%
46	13.287	13.264	13.306	VV	4861	63009	0.96%	0.272%
47	13.323	13.306	13.371	VV	4071	56874	0.87%	0.246%
48	13.407	13.371	13.429	PV	3417	45519	0.70%	0.197%
49	13.451	13.429	13.473	VV	4439	53483	0.82%	0.231%
50	14.460	14.436	14.480	PV	6824	78750	1.20%	0.341%
51	14.499	14.480	14.534	VV	8204	111216	1.70%	0.481%
52	14.928	14.881	15.024	BV	15978	284952	4.36%	1.232%
53	15.131	15.107	15.153	VV	3467	40901	0.63%	0.177%
54	16.011	15.971	16.030	BV	4070	45470	0.70%	0.197%
55	16.327	16.221	16.358	VV	3859	55751	0.85%	0.241%
56	16.387	16.358	16.459	VV	5327	96884	1.48%	0.419%
57	17.752	17.701	17.791	BV	10997	174374	2.67%	0.754%
Sum of corrected areas:					23126831			

Aromatic EPH 093024.M Tue Oct 15 07:49:32 2024



CALIBRATION SUMMARY

Initial Calibration Report for SequenceID : FC100224AL

AreaCount

Parameter Range	FC067312.D	FC067313.D	FC067314.D	FC067315.D	FC067316.D	
Aliphatic C9-C12	36157754.000	18468554.000	7796622.000	3912320.000	2066528.000	
Aliphatic C12-C16	24671572.000	12642565.000	5319639.000	2676246.000	1382016.000	
Aliphatic C16-C21	36539622.000	18852548.000	8005327.000	4100822.000	2096729.000	
Aliphatic C21-C28	47235980.000	24590379.000	10215208.000	5219473.000	2697991.000	
Aliphatic C28-C40	57341685.000	29822245.000	12674884.000	6440179.000	3544258.000	
Aliphatic EPH	201946613.000	104376291.000	44011680.000	22349040.000	11787522.000	

AVG Response Factor

Parameter Range	AVG RF	% RSD				
Aliphatic C9-C12	128354.4879996	5.284				
Aliphatic C12-C16	130957.677	4.567				
Aliphatic C16-C21	131476.1019996	5.732				
Aliphatic C21-C28	126823.664	5.15				
Aliphatic C28-C40	105215.848333	8.211				
Aliphatic EPH	121110.9372216	6.036				

Concentration

Parameter Range	FC067312.D	FC067313.D	FC067314.D	FC067315.D	FC067316.D	
Aliphatic C9-C12	300.000	150.000	60.000	30.000	15.000	
Aliphatic C12-C16	200.000	100.000	40.000	20.000	10.000	
Aliphatic C16-C21	300.000	150.000	60.000	30.000	15.000	
Aliphatic C21-C28	400.000	200.000	80.000	40.000	20.000	
Aliphatic C28-C40	600.000	300.000	120.000	60.000	30.000	
Aliphatic EPH	1800.000	900.000	360.000	180.000	90.000	

Response Factor

Parameter Range	FC067312.D	FC067313.D	FC067314.D	FC067315.D	FC067316.D	
Aliphatic C9-C12	120525.846666	123123.693333	129943.700000	130410.666666	137768.533333	
Aliphatic C12-C16	123357.860000	126425.650000	132990.975000	133812.300000	138201.600000	
Aliphatic C16-C21	121798.740000	125683.653333	133422.116666	136694.066666	139781.933333	

Initial Calibration Report for SequenceID : FC100224AL

Aliphatic C21-C28	118089.950000	122951.895000	127690.100000	130486.825000	134899.550000	
Aliphatic C28-C40	95569.475000	99407.483333	105624.033333	107336.316666	118141.933333	
Aliphatic EPH	112192.562777	115973.656666	122254.666666	124161.333333	130972.466666	

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_C\Data\F100224AL\
 Data File : FC067312.D
 Signal(s) : FID1A.ch
 Acq On : 30 Sep 2024 10:32
 Operator : YP/AJ
 Sample : 100 PPM ALIPHATIC HC STD1
 Misc :
 ALS Vial : 11 Sample Multiplier: 1

Instrument :
 FID_C
 ClientSampleId :
 100 PPM ALIPHATIC HC STD1

Integration File: autoint1.e
 Quant Time: Oct 01 09:09:41 2024
 Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_C\Method\Aliphatic EPH 100224.M
 Quant Title : GC Extractables
 QLast Update : Tue Oct 01 09:07:31 2024
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1 ul
 Signal Phase : Rxi-1ms
 Signal Info : 20M x 0.18mm x 0.18um

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
9) S ortho-Terphenyl (SURR)	11.507	14031279	90.846 ug/ml
Spiked Amount 50.000		Recovery =	181.69%
12) S 1-chlorooctadecane (S...	12.944	10549566	91.667 ug/ml
Spiked Amount 50.000		Recovery =	183.33%
Target Compounds			
1) T n-Nonane (C9)	3.274	11861469	92.598 ug/ml
2) T n-Decane (C10)	4.341	12068578	92.595 ug/ml
3) T A~Naphthalene (C11.7)	5.920	13362934	92.860 ug/ml
4) T n-Dodecane (C12)	6.359	12227707	93.059 ug/ml
5) T A~2-methylnaphthalene...	6.977	13024556	93.287 ug/ml
6) T n-Tetradecane (C14)	8.152	12180763	93.109 ug/ml
7) T n-Hexadecane (C16)	9.752	12490809	92.415 ug/ml
8) T n-Octadecane (C18)	11.195	12572452	91.327 ug/ml
10) T n-Eicosane (C20)	12.501	12084501	91.351 ug/ml
11) T n-Heneicosane (C21)	13.112	11882669	91.183 ug/ml
13) T n-Docosane (C22)	13.698	11869877	91.916 ug/ml
14) T n-Tetracosane (C24)	14.799	11932581	92.694 ug/ml
15) T n-Hexacosane (C26)	15.819	11803866	93.014 ug/ml
16) T n-Octacosane (C28)	16.768	11629656	92.309 ug/ml
17) T n-Tricontane (C30)	17.655	11716937	91.007 ug/ml
18) T n-Dotriacontane (C32)	18.486	11186042	89.566 ug/ml
19) T n-Tetratriacontane (C34)	19.267	9833987	89.675 ug/ml
20) T n-Hexatriacontane (C36)	20.005	8551618	89.685 ug/ml
21) T n-Octatriacontane (C38)	20.730	8143888	91.977 ug/ml
22) T n-Tetracontane (C40)	21.618	7909213	91.385 ug/ml

(f)=RT Delta > 1/2 Window

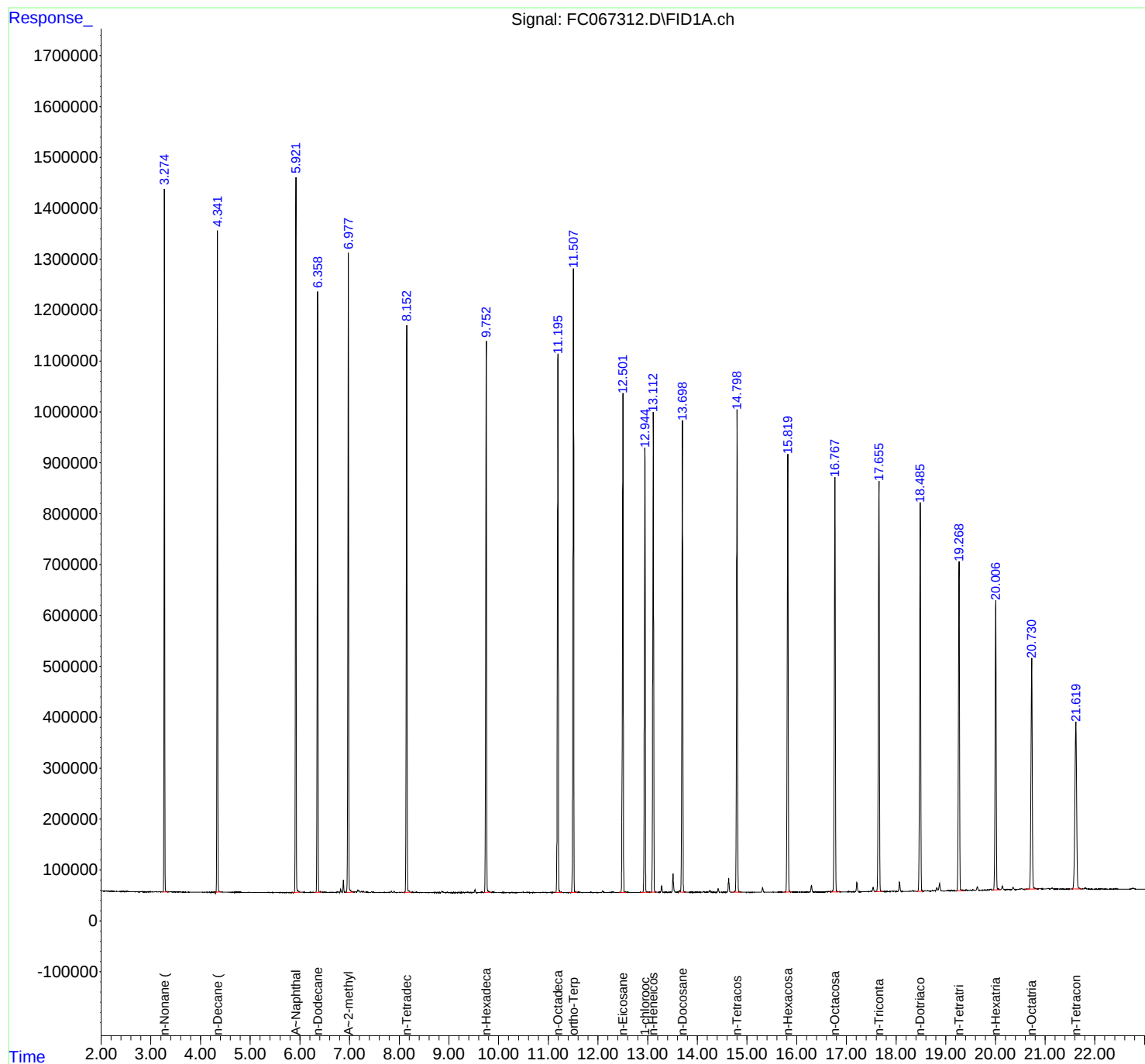
(m)=manual int.

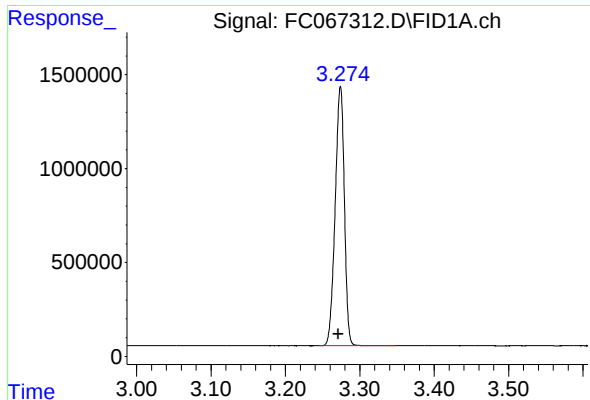
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_C\Data\FC100224AL\
Data File : FC067312.D
Signal(s) : FID1A.ch
Acq On : 30 Sep 2024 10:32
Operator : YP/AJ
Sample : 100 PPM ALIPHATIC HC STD1
Misc :
ALS Vial : 11 Sample Multiplier: 1

Instrument :
FID_C
ClientSampleId :
100 PPM ALIPHATIC HC STD1

Integration File: autoint1.e
Quant Time: Oct 01 09:09:41 2024
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_C\Method\Aliphatic EPH 100224.M
Quant Title : GC Extractables
QLast Update : Tue Oct 01 09:07:31 2024
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 ul
Signal Phase : Rxi-1ms
Signal Info : 20M x 0.18mm x 0.18um

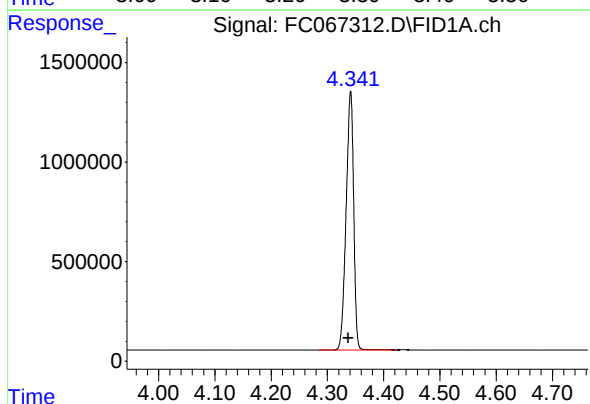




#1 n-Nonane (C9)

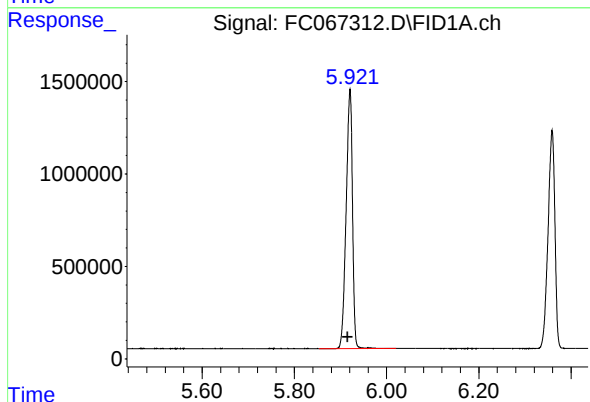
R.T.: 3.274 min
Delta R.T.: 0.003 min
Response: 11861469
Conc: 92.60 ug/ml

Instrument :
FID_C
ClientSampleId :
100 PPM ALIPHATIC HC STD1



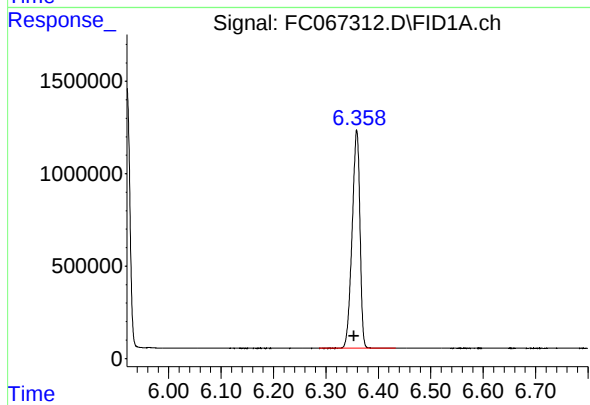
#2 n-Decane (C10)

R.T.: 4.341 min
Delta R.T.: 0.004 min
Response: 12068578
Conc: 92.59 ug/ml



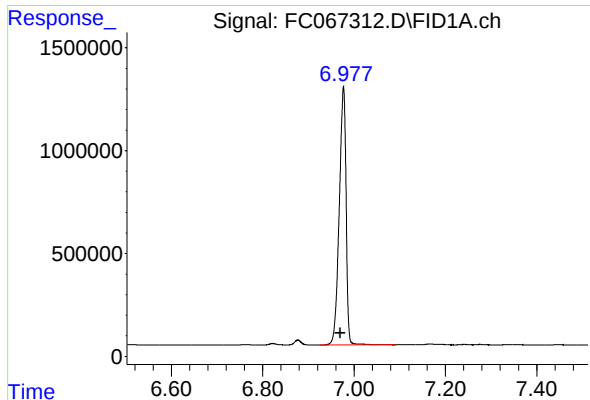
#3 A~Naphthalene (C11.7)

R.T.: 5.920 min
Delta R.T.: 0.005 min
Response: 13362934
Conc: 92.86 ug/ml



#4 n-Dodecane (C12)

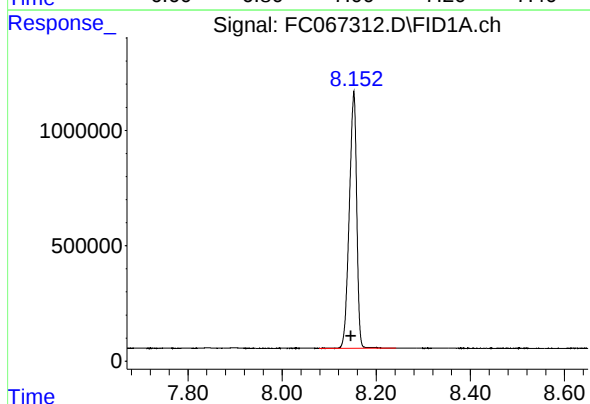
R.T.: 6.359 min
Delta R.T.: 0.005 min
Response: 12227707
Conc: 93.06 ug/ml



#5 A~2-methylnaphthalene (C12.89)

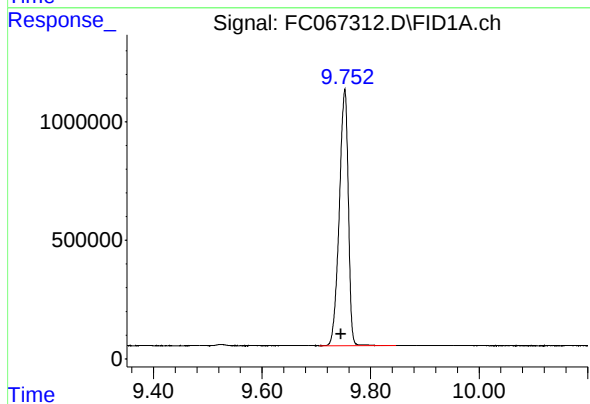
R.T.: 6.977 min
Delta R.T.: 0.007 min
Response: 13024556
Conc: 93.29 ug/ml

Instrument :
FID_C
ClientSampleId :
100 PPM ALIPHATIC HC STD1



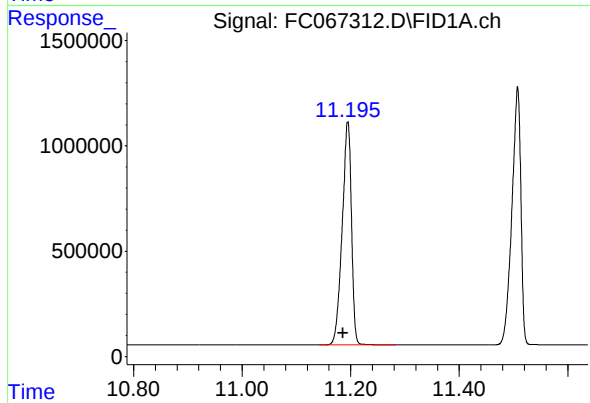
#6 n-Tetradecane (C14)

R.T.: 8.152 min
Delta R.T.: 0.006 min
Response: 12180763
Conc: 93.11 ug/ml



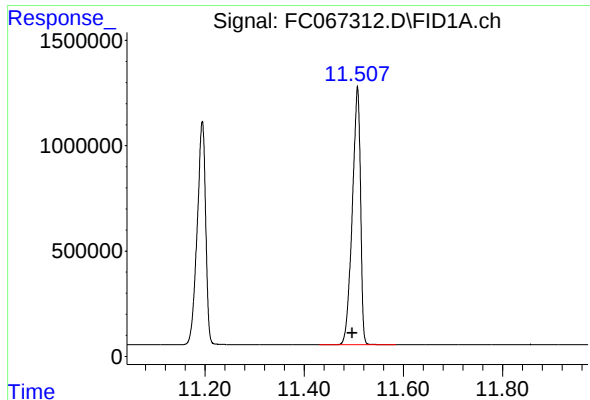
#7 n-Hexadecane (C16)

R.T.: 9.752 min
Delta R.T.: 0.007 min
Response: 12490809
Conc: 92.42 ug/ml



#8 n-Octadecane (C18)

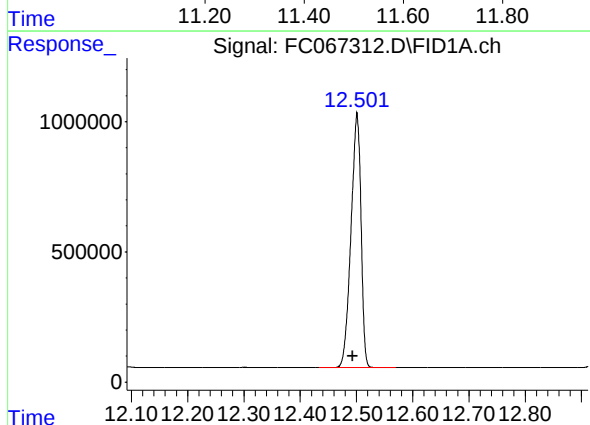
R.T.: 11.195 min
Delta R.T.: 0.008 min
Response: 12572452
Conc: 91.33 ug/ml



#9 ortho-Terphenyl (SURR)

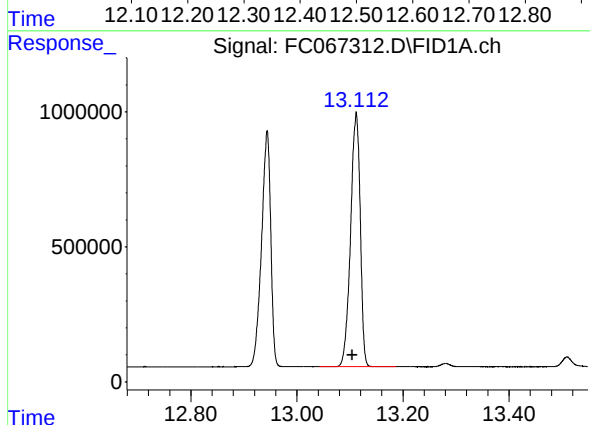
R.T.: 11.507 min
Delta R.T.: 0.010 min
Response: 14031279
Conc: 90.85 ug/ml

Instrument :
FID_C
ClientSampleId :
100 PPM ALIPHATIC HC STD1



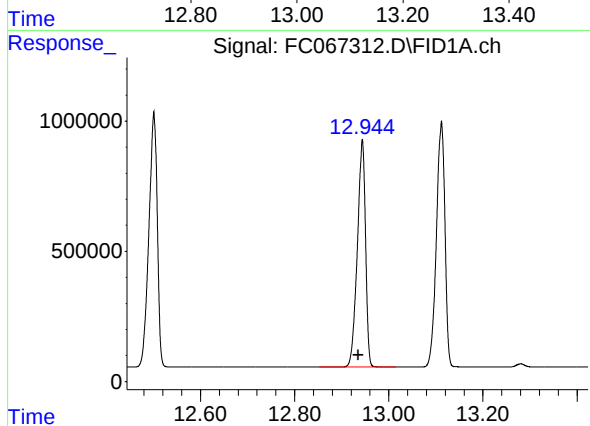
#10 n-Eicosane (C20)

R.T.: 12.501 min
Delta R.T.: 0.007 min
Response: 12084501
Conc: 91.35 ug/ml



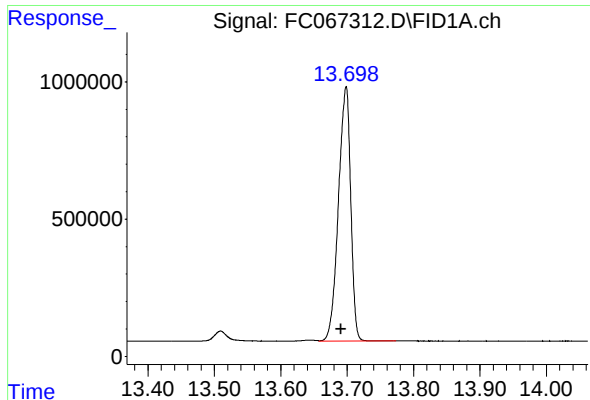
#11 n-Heneicosane (C21)

R.T.: 13.112 min
Delta R.T.: 0.007 min
Response: 11882669
Conc: 91.18 ug/ml



#12 1-chlorooctadecane (SURR)

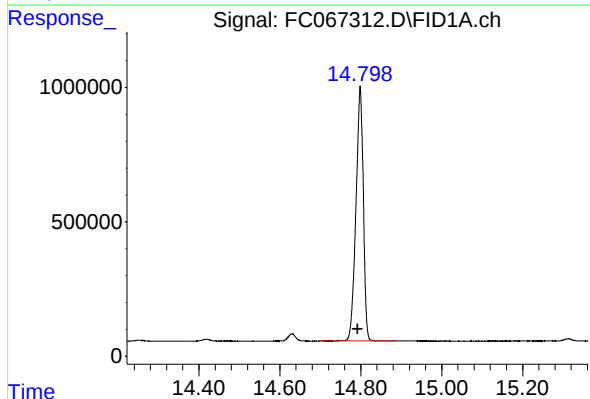
R.T.: 12.944 min
Delta R.T.: 0.008 min
Response: 10549566
Conc: 91.67 ug/ml



#13 n-Docosane (C22)

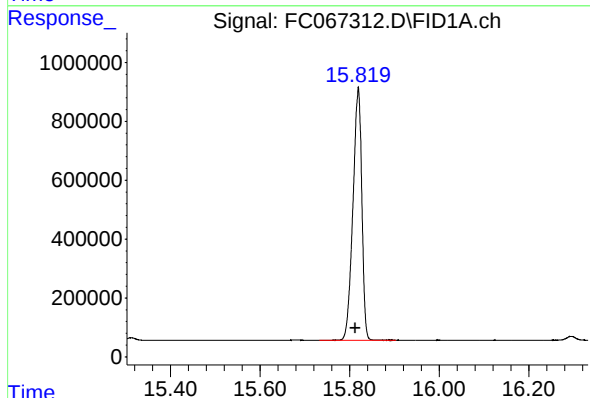
R.T.: 13.698 min
Delta R.T.: 0.007 min
Response: 11869877
Conc: 91.92 ug/ml

Instrument :
FID_C
ClientSampleId :
100 PPM ALIPHATIC HC STD1



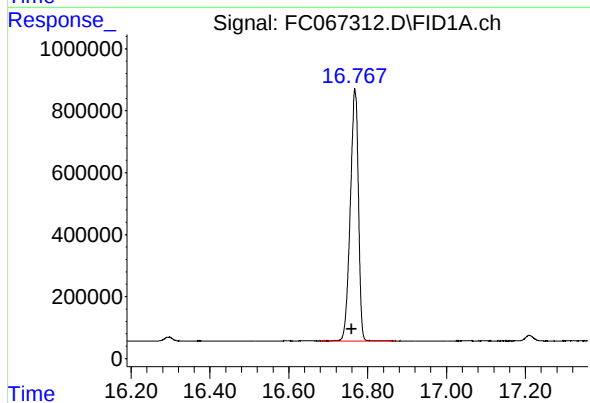
#14 n-Tetracosane (C24)

R.T.: 14.799 min
Delta R.T.: 0.007 min
Response: 11932581
Conc: 92.69 ug/ml



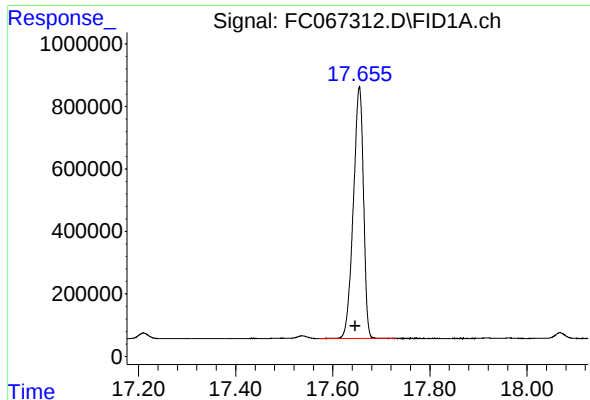
#15 n-Hexacosane (C26)

R.T.: 15.819 min
Delta R.T.: 0.007 min
Response: 11803866
Conc: 93.01 ug/ml



#16 n-Octacosane (C28)

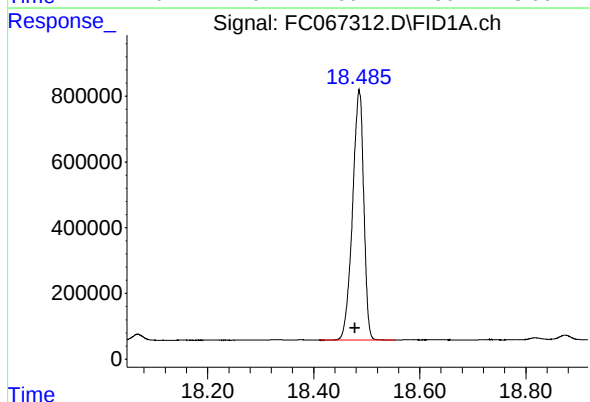
R.T.: 16.768 min
Delta R.T.: 0.008 min
Response: 11629656
Conc: 92.31 ug/ml



#17 n-Tricontane (C30)

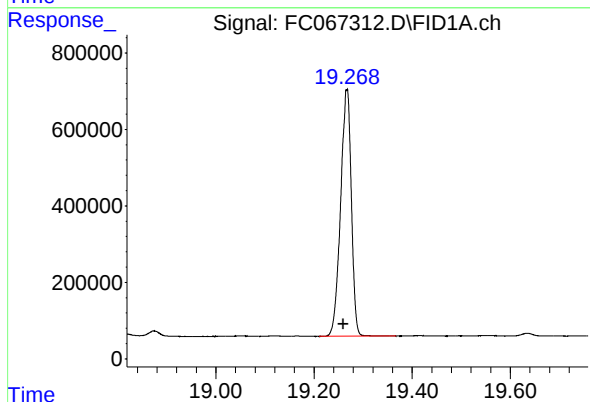
R.T.: 17.655 min
Delta R.T.: 0.009 min
Response: 11716937
Conc: 91.01 ug/ml

Instrument :
FID_C
ClientSampleId :
100 PPM ALIPHATIC HC STD1



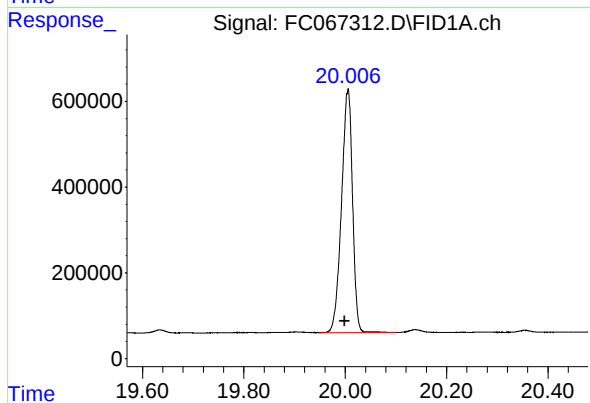
#18 n-Dotriacontane (C32)

R.T.: 18.486 min
Delta R.T.: 0.008 min
Response: 11186042
Conc: 89.57 ug/ml



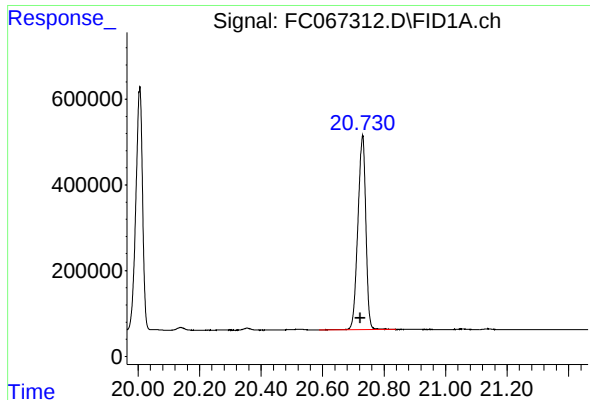
#19 n-Tetratriacontane (C34)

R.T.: 19.267 min
Delta R.T.: 0.007 min
Response: 9833987
Conc: 89.67 ug/ml



#20 n-Hexatriacontane (C36)

R.T.: 20.005 min
Delta R.T.: 0.006 min
Response: 8551618
Conc: 89.68 ug/ml



#21 n-Octatriacontane (C38)

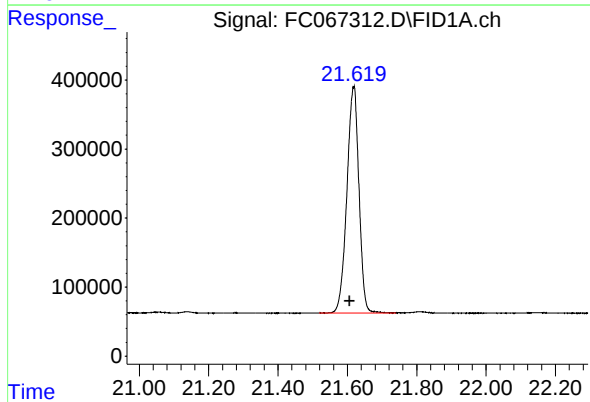
R.T.: 20.730 min
Delta R.T.: 0.007 min
Response: 8143888
Conc: 91.98 ug/ml

Instrument :

FID_C

ClientSampleId :

100 PPM ALIPHATIC HC STD1



#22 n-Tetracontane (C40)

R.T.: 21.618 min
Delta R.T.: 0.011 min
Response: 7909213
Conc: 91.39 ug/ml

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_C\Data\FC100224AL\
Data File : FC067312.D
Signal(s) : FID1A.ch
Acq On : 30 Sep 2024 10:32
Sample : 100 PPM ALIPHATIC HC STD1
Misc :
ALS Vial : 11 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_C\Method\Aliphatic EPH 100224.M
Title : GC Extractables

Signal : FID1A.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	3.274	3.245	3.348	BB	1383198	11861469	84.54%	4.690%
2	4.341	4.285	4.422	BB	1311158	12068578	86.01%	4.772%
3	5.920	5.853	6.020	BB	1395892	13362934	95.24%	5.284%
4	6.359	6.287	6.433	BB	1182095	12227707	87.15%	4.835%
5	6.977	6.923	7.092	BV	1262404	13024556	92.83%	5.150%
6	8.152	8.078	8.242	BB	1106375	12180763	86.81%	4.816%
7	9.752	9.705	9.847	BB	1075584	12490809	89.02%	4.939%
8	11.195	11.142	11.283	BB	1062471	12572452	89.60%	4.971%
9	11.507	11.430	11.585	BB	1222706	14031279	100.00%	5.548%
10	12.501	12.433	12.570	BB	971541	12084501	86.13%	4.778%
11	12.944	12.852	13.015	BB	876626	10549566	75.19%	4.171%
12	13.112	13.042	13.187	BB	943769	11882669	84.69%	4.698%
13	13.698	13.658	13.773	VB	931064	11869877	84.60%	4.693%
14	14.799	14.697	14.887	BB	947814	11932581	85.04%	4.718%
15	15.819	15.732	15.903	BB	851235	11803866	84.13%	4.667%
16	16.768	16.677	16.872	BB	807852	11629656	82.88%	4.598%
17	17.655	17.572	17.730	PB	806791	11716937	83.51%	4.633%
18	18.486	18.410	18.555	BV	761825	11186042	79.72%	4.423%
19	19.267	19.210	19.367	BB	643849	9833987	70.09%	3.888%
20	20.005	19.948	20.100	BB	565289	8551618	60.95%	3.381%
21	20.730	20.588	20.838	BV	454057	8143888	58.04%	3.220%
22	21.618	21.518	21.740	BB	326286	7909213	56.37%	3.127%
Sum of corrected areas:						252914944		

Aliphatic EPH 100224.M Tue Oct 01 09:20:12 2024

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_C\Data\FC100224AL\
 Data File : FC067313.D
 Signal(s) : FID1A.ch
 Acq On : 30 Sep 2024 11:10
 Operator : YP/AJ
 Sample : 50 PPM ALIPHATIC HC STD2
 Misc :
 ALS Vial : 12 Sample Multiplier: 1

Instrument :
 FID_C
 ClientSampleId :
 50 PPM ALIPHATIC HC STD2

Integration File: autoint1.e
 Quant Time: Oct 01 09:10:44 2024
 Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_C\Method\Aliphatic EPH 100224.M
 Quant Title : GC Extractables
 QLast Update : Tue Oct 01 09:07:31 2024
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1 ul
 Signal Phase : Rxi-1ms
 Signal Info : 20M x 0.18mm x 0.18um

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
9) S ortho-Terphenyl (SURR)	11.501	7231579	49.067 ug/ml
Spiked Amount 50.000		Recovery =	98.13%
12) S 1-chlorooctadecane (S...	12.939	5426500	49.202 ug/ml
Spiked Amount 50.000		Recovery =	98.40%
Target Compounds			
1) T n-Nonane (C9)	3.272	6059731	49.124 ug/ml
2) T n-Decane (C10)	4.338	6163543	49.107 ug/ml
3) T A~Naphthalene (C11.7)	5.917	6821781	49.160 ug/ml
4) T n-Dodecane (C12)	6.355	6245280	49.239 ug/ml
5) T A~2-methylnaphthalene...	6.972	6641948	49.224 ug/ml
6) T n-Tetradecane (C14)	8.149	6219770	49.240 ug/ml
7) T n-Hexadecane (C16)	9.748	6422795	49.393 ug/ml
8) T n-Octadecane (C18)	11.188	6493088	49.304 ug/ml
10) T n-Eicosane (C20)	12.497	6235508	49.267 ug/ml
11) T n-Heneicosane (C21)	13.107	6123952	49.160 ug/ml
13) T n-Docosane (C22)	13.693	6132673	49.489 ug/ml
14) T n-Tetracosane (C24)	14.795	6211203	50.079 ug/ml
15) T n-Hexacosane (C26)	15.814	6151165	50.225 ug/ml
16) T n-Octacosane (C28)	16.763	6095338	50.316 ug/ml
17) T n-Tricontane (C30)	17.650	6178045	50.245 ug/ml
18) T n-Dotriacontane (C32)	18.481	5889852	49.755 ug/ml
19) T n-Tetratriacontane (C34)	19.263	5143313	49.454 ug/ml
20) T n-Hexatriacontane (C36)	20.001	4380994	48.444 ug/ml
21) T n-Octatriacontane (C38)	20.724	4146667	48.790 ug/ml
22) T n-Tetracontane (C40)	21.611	4083374	49.304 ug/ml

(f)=RT Delta > 1/2 Window

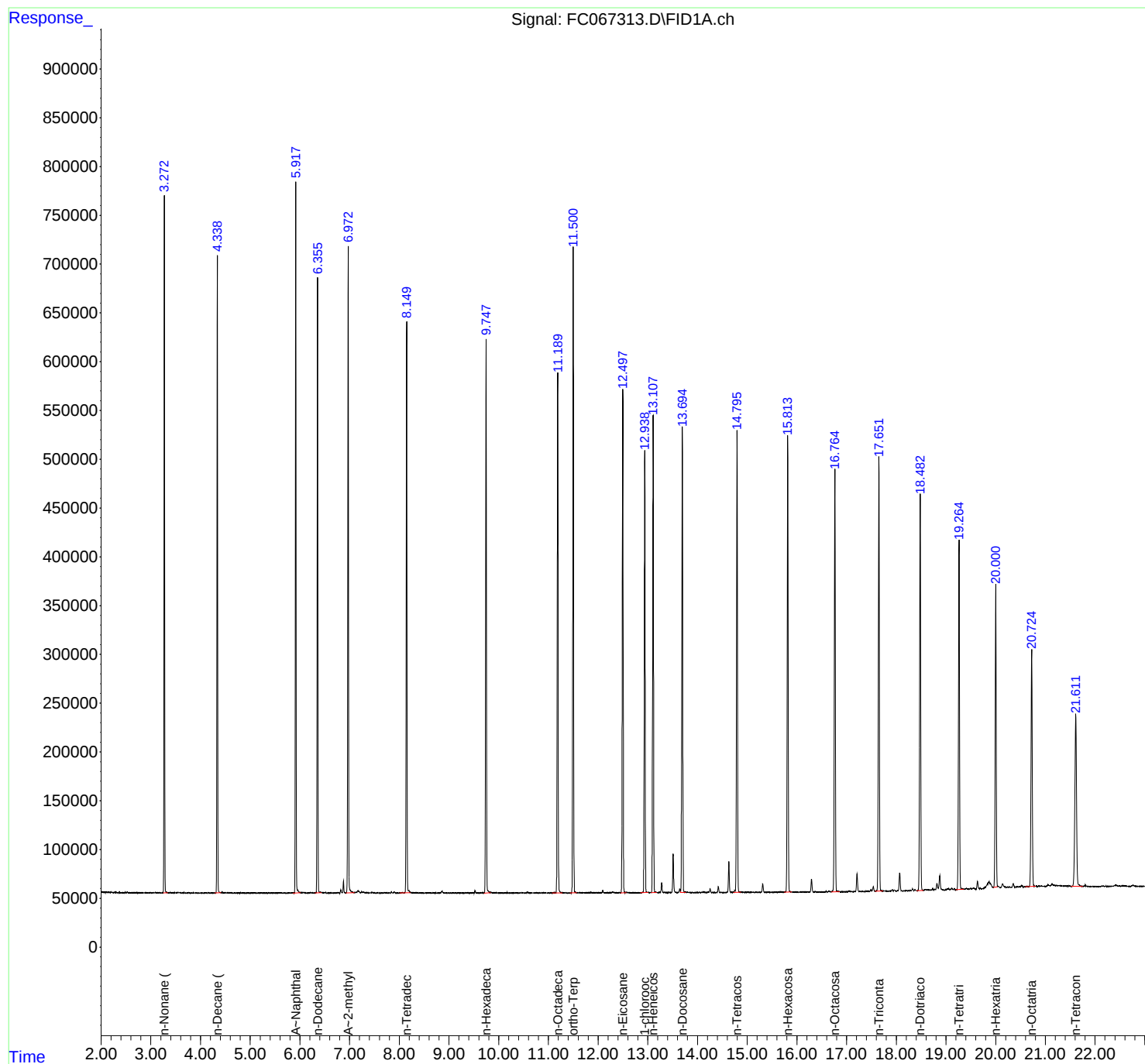
(m)=manual int.

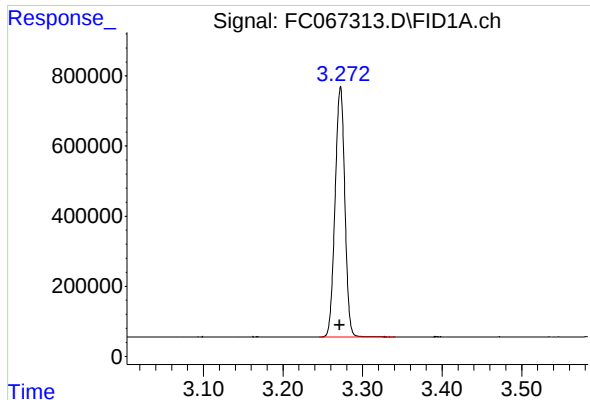
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_C\Data\FC100224AL\
Data File : FC067313.D
Signal(s) : FID1A.ch
Acq On : 30 Sep 2024 11:10
Operator : YP/AJ
Sample : 50 PPM ALIPHATIC HC STD2
Misc :
ALS Vial : 12 Sample Multiplier: 1

Instrument :
FID_C
ClientSampleId :
50 PPM ALIPHATIC HC STD2

Integration File: autoint1.e
Quant Time: Oct 01 09:10:44 2024
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_C\Method\Aliphatic EPH 100224.M
Quant Title : GC Extractables
QLast Update : Tue Oct 01 09:07:31 2024
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 ul
Signal Phase : Rxi-1ms
Signal Info : 20M x 0.18mm x 0.18um

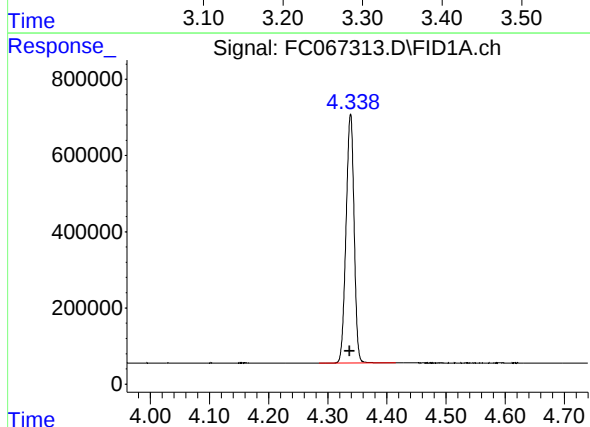




#1 n-Nonane (C9)

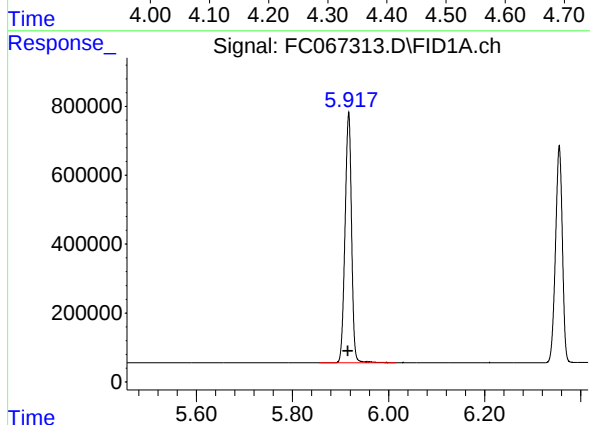
R.T.: 3.272 min
Delta R.T.: 0.001 min
Response: 6059731
Conc: 49.12 ug/ml

Instrument :
FID_C
ClientSampleId :
50 PPM ALIPHATIC HC STD2



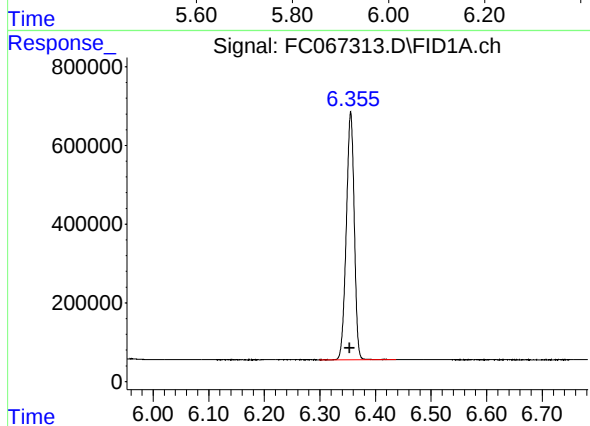
#2 n-Decane (C10)

R.T.: 4.338 min
Delta R.T.: 0.001 min
Response: 6163543
Conc: 49.11 ug/ml



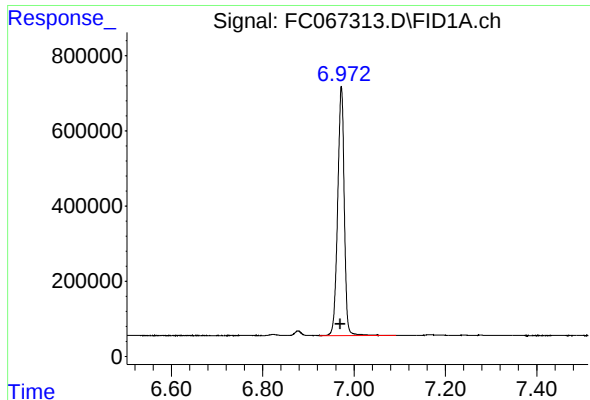
#3 A~Naphthalene (C11.7)

R.T.: 5.917 min
Delta R.T.: 0.002 min
Response: 6821781
Conc: 49.16 ug/ml



#4 n-Dodecane (C12)

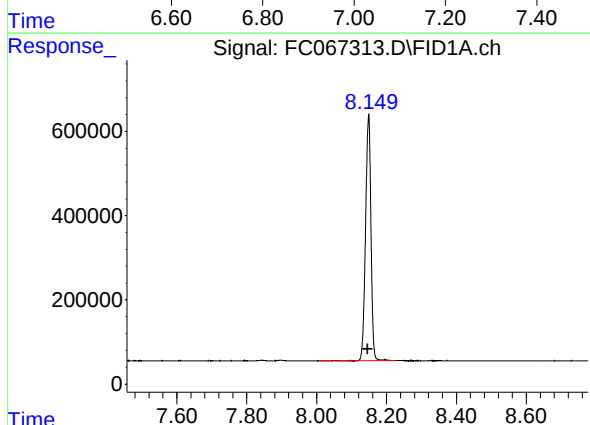
R.T.: 6.355 min
Delta R.T.: 0.002 min
Response: 6245280
Conc: 49.24 ug/ml



#5 A~2-methylnaphthalene (C12.89)

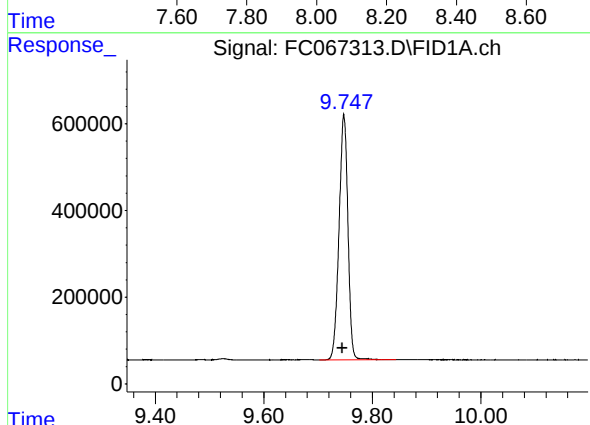
R.T.: 6.972 min
Delta R.T.: 0.002 min
Response: 6641948
Conc: 49.22 ug/ml

Instrument :
FID_C
ClientSampleId :
50 PPM ALIPHATIC HC STD2



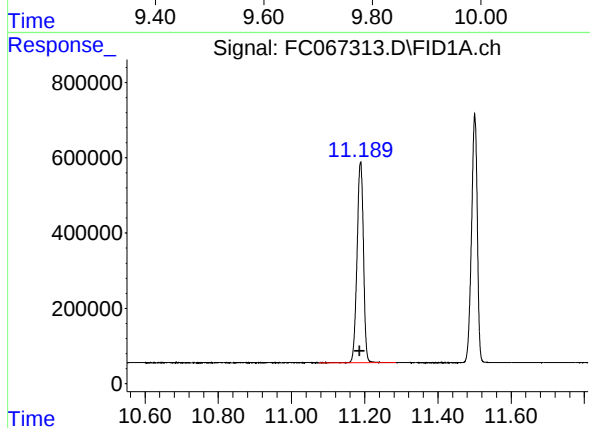
#6 n-Tetradecane (C14)

R.T.: 8.149 min
Delta R.T.: 0.002 min
Response: 6219770
Conc: 49.24 ug/ml



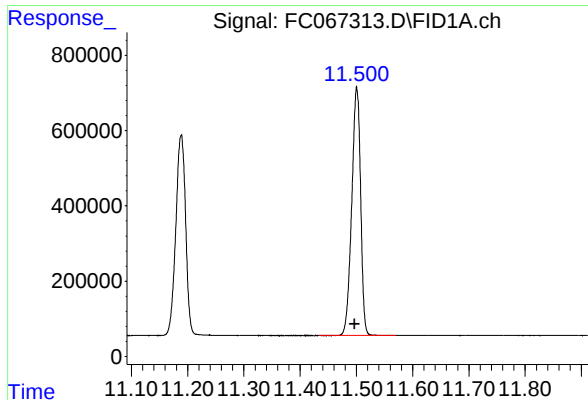
#7 n-Hexadecane (C16)

R.T.: 9.748 min
Delta R.T.: 0.003 min
Response: 6422795
Conc: 49.39 ug/ml



#8 n-Octadecane (C18)

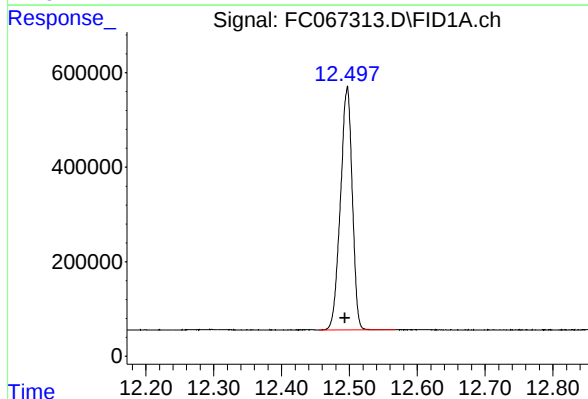
R.T.: 11.188 min
Delta R.T.: 0.002 min
Response: 6493088
Conc: 49.30 ug/ml



#9 ortho-Terphenyl (SURR)

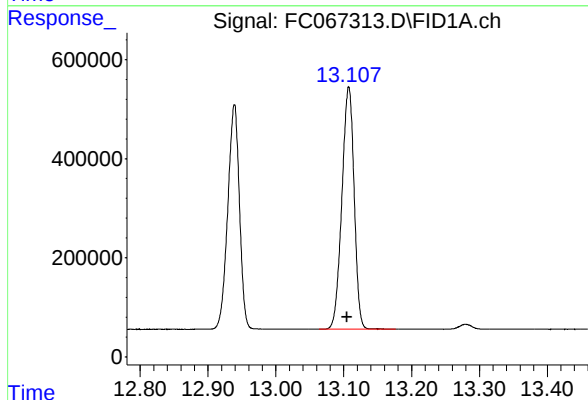
R.T.: 11.501 min
Delta R.T.: 0.004 min
Response: 7231579
Conc: 49.07 ug/ml

Instrument :
FID_C
ClientSampleId :
50 PPM ALIPHATIC HC STD2



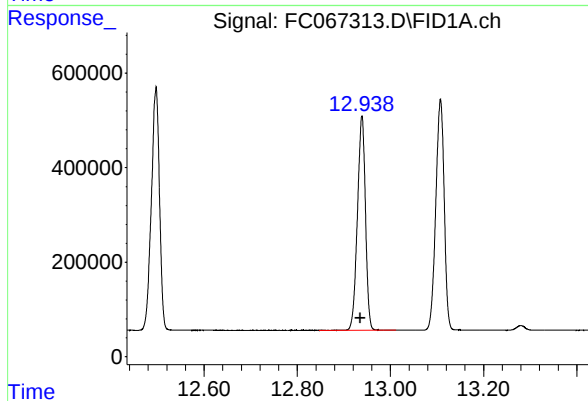
#10 n-Eicosane (C20)

R.T.: 12.497 min
Delta R.T.: 0.003 min
Response: 6235508
Conc: 49.27 ug/ml



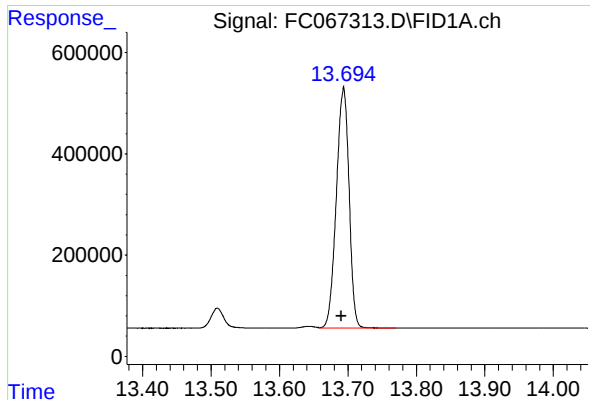
#11 n-Heneicosane (C21)

R.T.: 13.107 min
Delta R.T.: 0.003 min
Response: 6123952
Conc: 49.16 ug/ml



#12 1-chlorooctadecane (SURR)

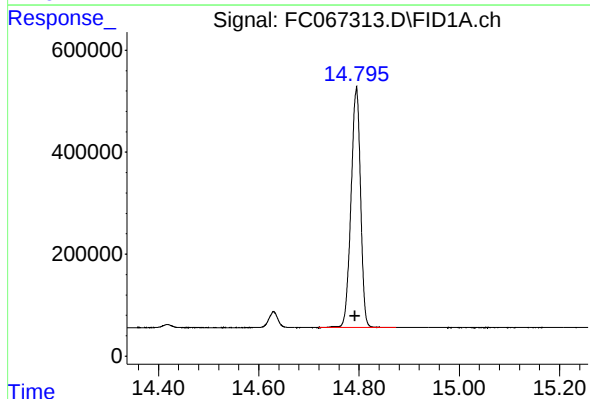
R.T.: 12.939 min
Delta R.T.: 0.003 min
Response: 5426500
Conc: 49.20 ug/ml



#13 n-Docosane (C22)

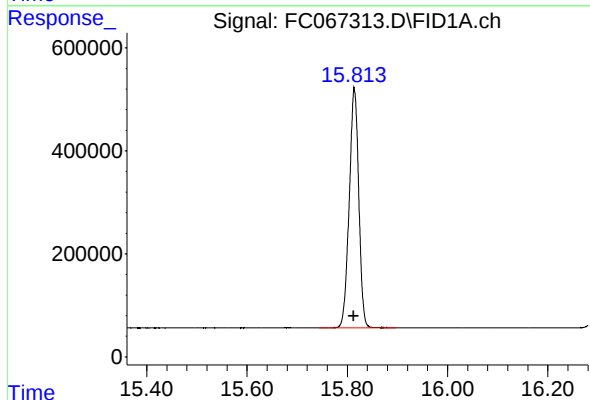
R.T.: 13.693 min
Delta R.T.: 0.003 min
Response: 6132673
Conc: 49.49 ug/ml

Instrument :
FID_C
ClientSampleId :
50 PPM ALIPHATIC HC STD2



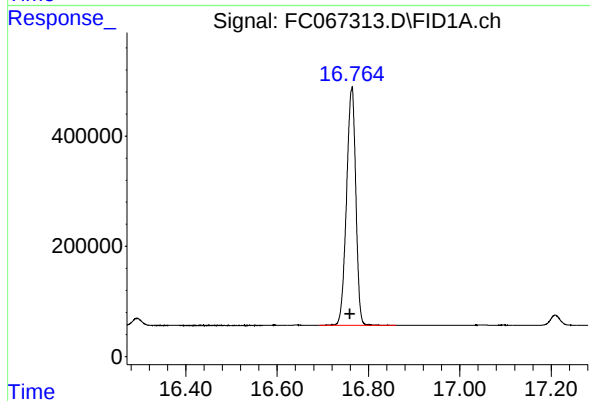
#14 n-Tetracosane (C24)

R.T.: 14.795 min
Delta R.T.: 0.003 min
Response: 6211203
Conc: 50.08 ug/ml



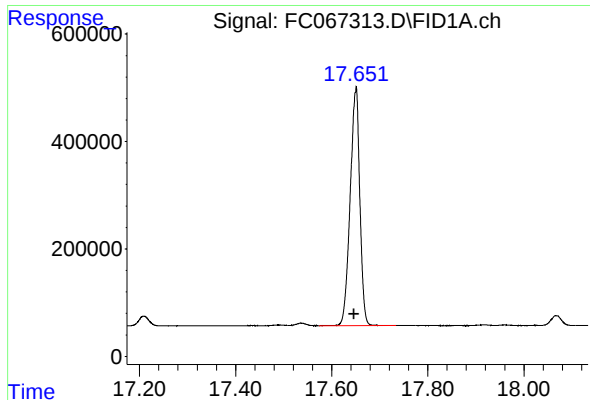
#15 n-Hexacosane (C26)

R.T.: 15.814 min
Delta R.T.: 0.002 min
Response: 6151165
Conc: 50.23 ug/ml



#16 n-Octacosane (C28)

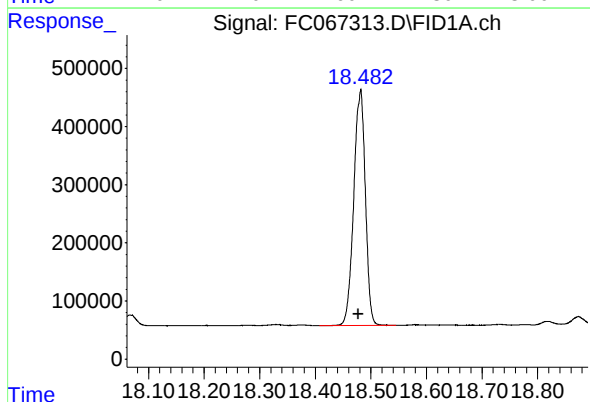
R.T.: 16.763 min
Delta R.T.: 0.004 min
Response: 6095338
Conc: 50.32 ug/ml



#17 n-Tricontane (C30)

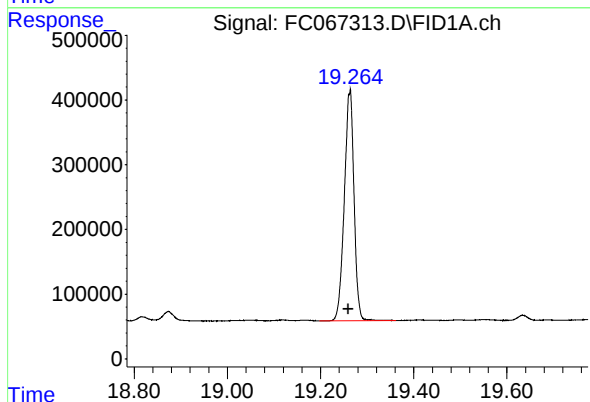
R.T.: 17.650 min
Delta R.T.: 0.004 min
Response: 6178045
Conc: 50.25 ug/ml

Instrument :
FID_C
ClientSampleId :
50 PPM ALIPHATIC HC STD2



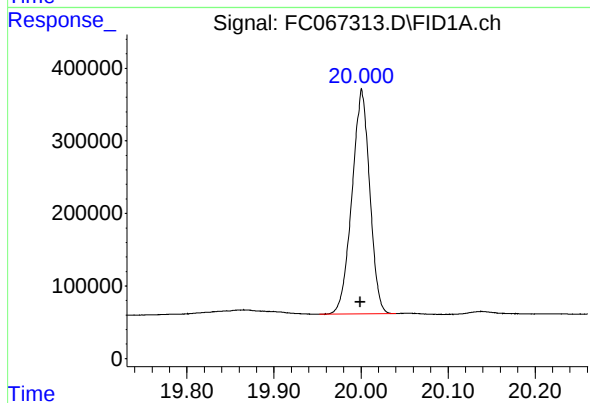
#18 n-Dotriacontane (C32)

R.T.: 18.481 min
Delta R.T.: 0.003 min
Response: 5889852
Conc: 49.76 ug/ml



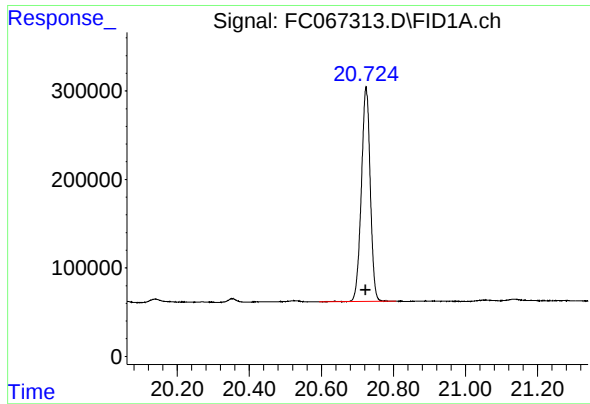
#19 n-Tetratriacontane (C34)

R.T.: 19.263 min
Delta R.T.: 0.003 min
Response: 5143313
Conc: 49.45 ug/ml



#20 n-Hexatriacontane (C36)

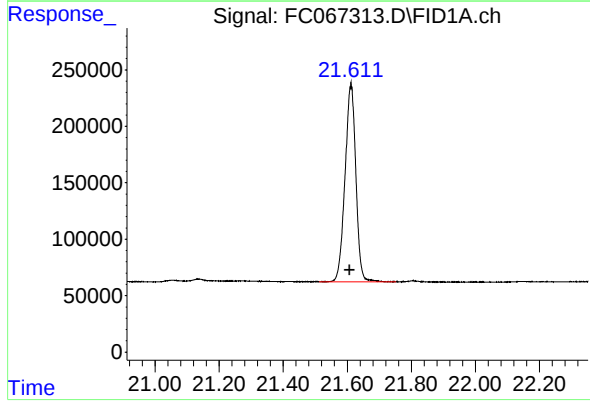
R.T.: 20.001 min
Delta R.T.: 0.002 min
Response: 4380994
Conc: 48.44 ug/ml



#21 n-Octatriacontane (C38)

R.T.: 20.724 min
Delta R.T.: 0.001 min
Response: 4146667
Conc: 48.79 ug/ml

Instrument :
FID_C
ClientSampleId :
50 PPM ALIPHATIC HC STD2



#22 n-Tetracontane (C40)

R.T.: 21.611 min
Delta R.T.: 0.004 min
Response: 4083374
Conc: 49.30 ug/ml

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_C\Data\FC100224AL\
Data File : FC067313.D
Signal(s) : FID1A.ch
Acq On : 30 Sep 2024 11:10
Sample : 50 PPM ALIPHATIC HC STD2
Misc :
ALS Vial : 12 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_C\Method\Aliphatic EPH 100224.M
Title : GC Extractables

Signal : FID1A.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	3.272	3.245	3.342	BB	711248	6059731	83.80%	4.644%
2	4.338	4.285	4.415	BB	654161	6163543	85.23%	4.723%
3	5.917	5.855	6.015	BB	727635	6821781	94.33%	5.227%
4	6.355	6.299	6.437	BB	629757	6245280	86.36%	4.786%
5	6.972	6.924	7.092	BV	663765	6641948	91.85%	5.090%
6	8.149	8.007	8.227	BB	582329	6219770	86.01%	4.766%
7	9.748	9.702	9.844	BB	565794	6422795	88.82%	4.922%
8	11.189	11.075	11.285	BB	532485	6493088	89.79%	4.976%
9	11.501	11.434	11.570	BB	661071	7231579	100.00%	5.542%
10	12.497	12.455	12.569	BB	514506	6235508	86.23%	4.778%
11	12.939	12.847	13.012	BB	454745	5426500	75.04%	4.158%
12	13.107	13.064	13.177	BB	490056	6123952	84.68%	4.693%
13	13.693	13.658	13.770	VB	476110	6132673	84.80%	4.699%
14	14.795	14.720	14.874	BB	473209	6211203	85.89%	4.760%
15	15.814	15.744	15.897	BB	466583	6151165	85.06%	4.714%
16	16.763	16.692	16.860	BB	430820	6095338	84.29%	4.671%
17	17.650	17.574	17.734	PB	438958	6178045	85.43%	4.734%
18	18.481	18.407	18.545	BV	399853	5889852	81.45%	4.513%
19	19.263	19.197	19.362	BB	356265	5143313	71.12%	3.941%
20	20.001	19.952	20.040	PV	308867	4380994	60.58%	3.357%
21	20.724	20.594	20.807	BB	242057	4146667	57.34%	3.178%
22	21.611	21.512	21.752	BB	176788	4083374	56.47%	3.129%
Sum of corrected areas:						130498098		

Aliphatic EPH 100224.M Tue Oct 01 09:20:55 2024

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_C\Data\FC100224AL\
 Data File : FC067314.D
 Signal(s) : FID1A.ch
 Acq On : 30 Sep 2024 11:48
 Operator : YP/AJ
 Sample : 20 PPM ALIPHATIC HC STD3
 Misc :
 ALS Vial : 13 Sample Multiplier: 1

Instrument :
 FID_C
 ClientSampleId :
 20 PPM ALIPHATIC HC STD3

Integration File: autoint1.e
 Quant Time: Oct 01 09:08:18 2024
 Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_C\Method\Aliphatic EPH 100224.M
 Quant Title : GC Extractables
 QLast Update : Tue Oct 01 09:07:31 2024
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1 ul
 Signal Phase : Rxi-1ms
 Signal Info : 20M x 0.18mm x 0.18um

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
9) S ortho-Terphenyl (SURR)	11.497	3089013	20.000 ug/ml
Spiked Amount 50.000		Recovery =	40.00%
12) S 1-chlorooctadecane (S...	12.936	2301706	20.000 ug/ml
Spiked Amount 50.000		Recovery =	40.00%
Target Compounds			
1) T n-Nonane (C9)	3.271	2561935	20.000 ug/ml
2) T n-Decane (C10)	4.337	2606750	20.000 ug/ml
3) T A~Naphthalene (C11.7)	5.915	2878074	20.000 ug/ml
4) T n-Dodecane (C12)	6.353	2627937	20.000 ug/ml
5) T A~2-methylnaphthalene...	6.970	2792361	20.000 ug/ml
6) T n-Tetradecane (C14)	8.146	2616449	20.000 ug/ml
7) T n-Hexadecane (C16)	9.745	2703190	20.000 ug/ml
8) T n-Octadecane (C18)	11.186	2753269	20.000 ug/ml
10) T n-Eicosane (C20)	12.493	2645737	20.000 ug/ml
11) T n-Heneicosane (C21)	13.105	2606321	20.000 ug/ml
13) T n-Docosane (C22)	13.690	2582773	20.000 ug/ml
14) T n-Tetracosane (C24)	14.792	2574621	20.000 ug/ml
15) T n-Hexacosane (C26)	15.813	2538087	20.000 ug/ml
16) T n-Octacosane (C28)	16.760	2519727	20.000 ug/ml
17) T n-Tricontane (C30)	17.646	2574944	20.000 ug/ml
18) T n-Dotriacontane (C32)	18.478	2497831	20.000 ug/ml
19) T n-Tetratriacontane (C34)	19.260	2193263	20.000 ug/ml
20) T n-Hexatriacontane (C36)	19.999	1907034	20.000 ug/ml
21) T n-Octatriacontane (C38)	20.723	1770855	20.000 ug/ml
22) T n-Tetracontane (C40)	21.608	1730957	20.000 ug/ml

(f)=RT Delta > 1/2 Window

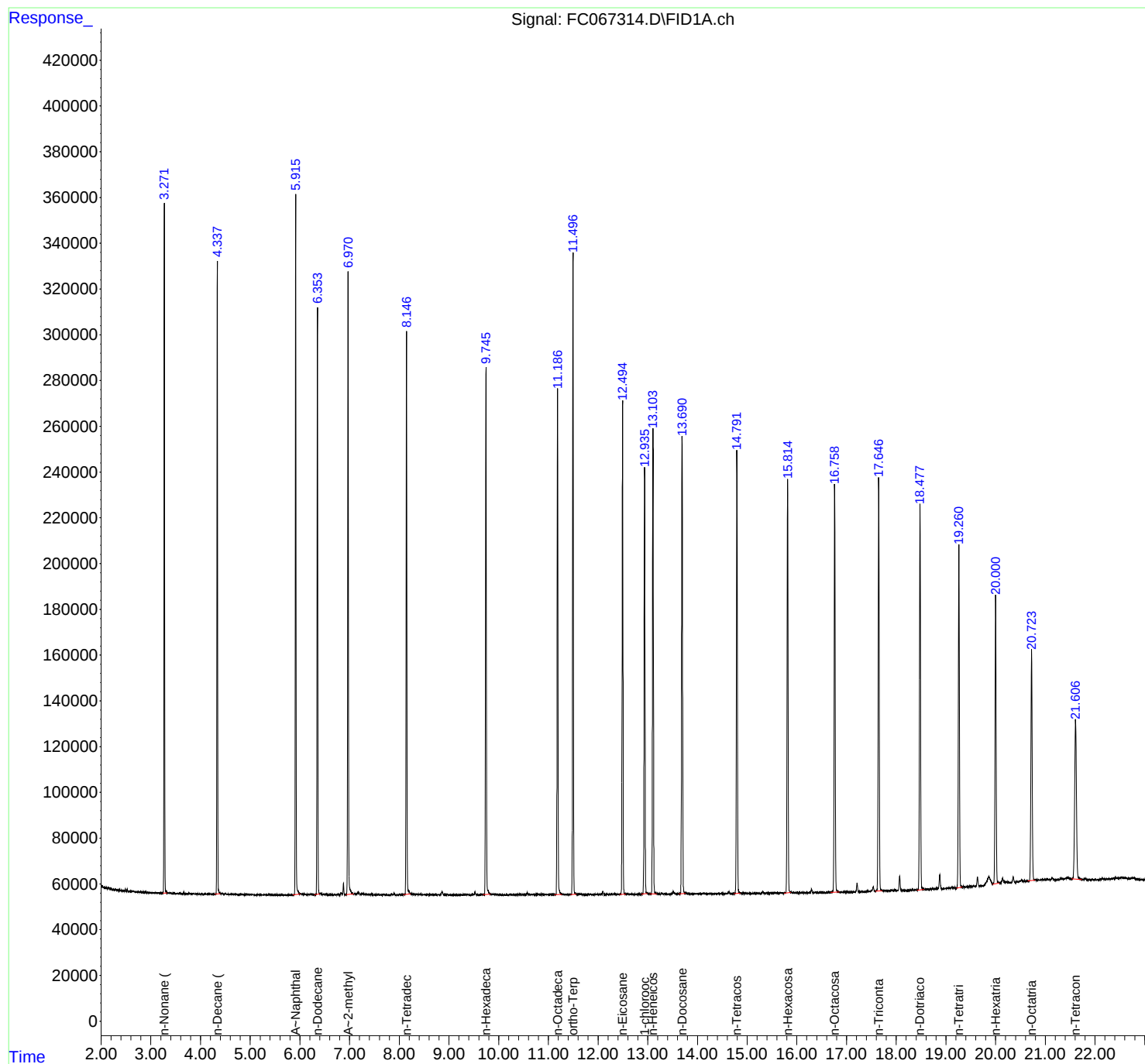
(m)=manual int.

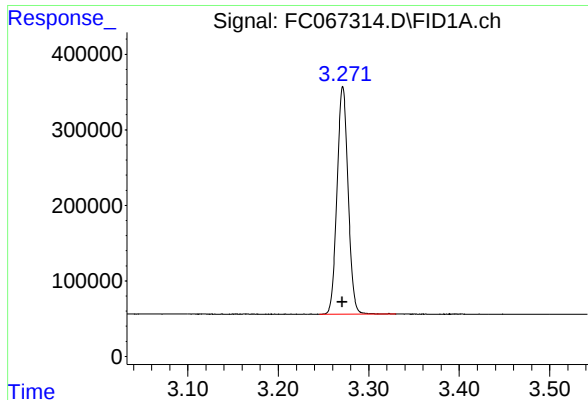
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_C\Data\FC100224AL\
Data File : FC067314.D
Signal(s) : FID1A.ch
Acq On : 30 Sep 2024 11:48
Operator : YP/AJ
Sample : 20 PPM ALIPHATIC HC STD3
Misc :
ALS Vial : 13 Sample Multiplier: 1

Instrument :
FID_C
ClientSampleId :
20 PPM ALIPHATIC HC STD3

Integration File: autoint1.e
Quant Time: Oct 01 09:08:18 2024
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_C\Method\Aliphatic EPH 100224.M
Quant Title : GC Extractables
QLast Update : Tue Oct 01 09:07:31 2024
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 ul
Signal Phase : Rxi-1ms
Signal Info : 20M x 0.18mm x 0.18um

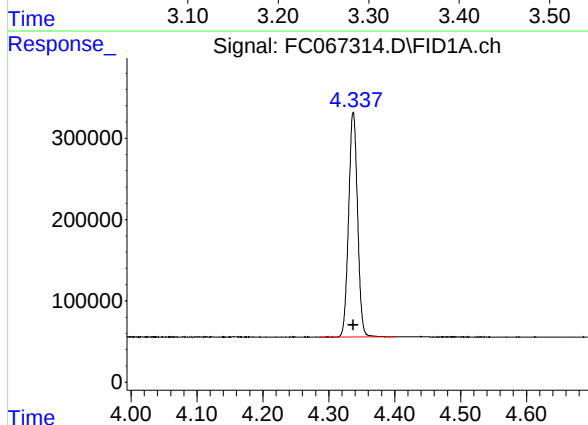




#1 n-Nonane (C9)

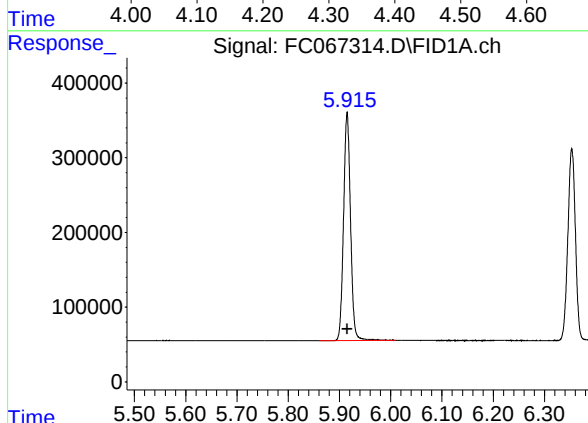
R.T.: 3.271 min
Delta R.T.: 0.000 min
Response: 2561935
Conc: 20.00 ug/ml

Instrument :
FID_C
ClientSampleId :
20 PPM ALIPHATIC HC STD3



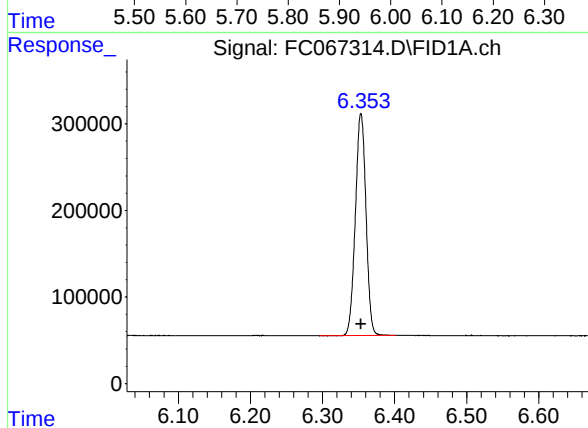
#2 n-Decane (C10)

R.T.: 4.337 min
Delta R.T.: 0.000 min
Response: 2606750
Conc: 20.00 ug/ml



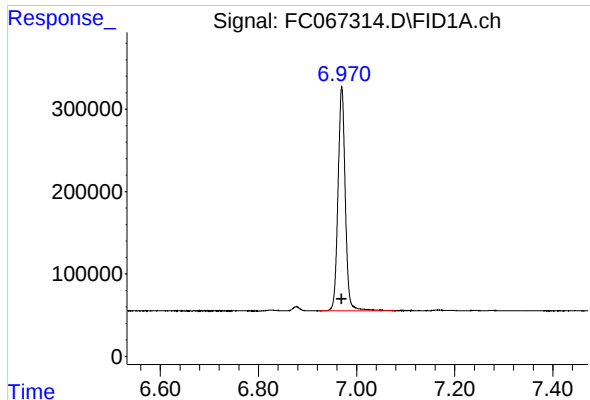
#3 A~Naphthalene (C11.7)

R.T.: 5.915 min
Delta R.T.: 0.000 min
Response: 2878074
Conc: 20.00 ug/ml



#4 n-Dodecane (C12)

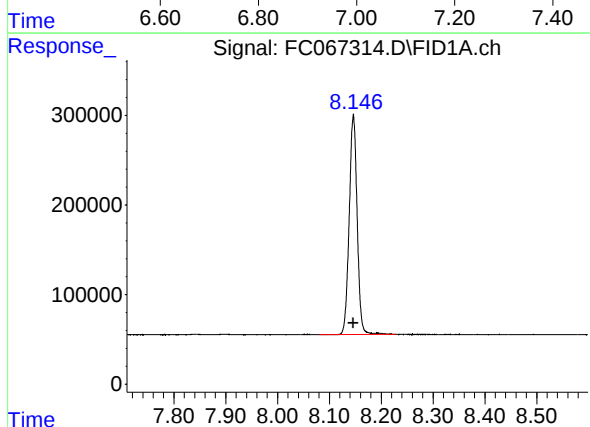
R.T.: 6.353 min
Delta R.T.: 0.000 min
Response: 2627937
Conc: 20.00 ug/ml



#5 A~2-methylnaphthalene (C12.89)

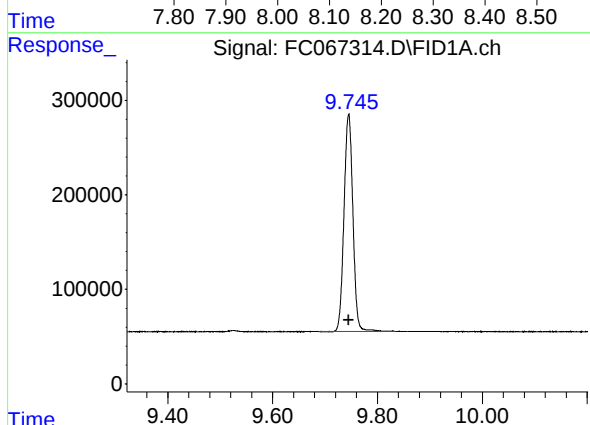
R.T.: 6.970 min
Delta R.T.: 0.000 min
Response: 2792361
Conc: 20.00 ug/ml

Instrument :
FID_C
ClientSampleId :
20 PPM ALIPHATIC HC STD3



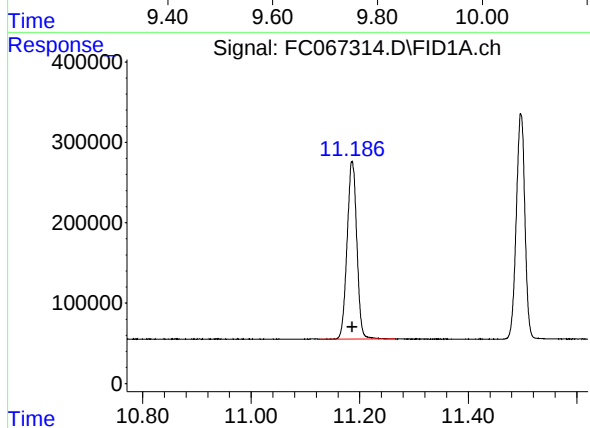
#6 n-Tetradecane (C14)

R.T.: 8.146 min
Delta R.T.: 0.000 min
Response: 2616449
Conc: 20.00 ug/ml



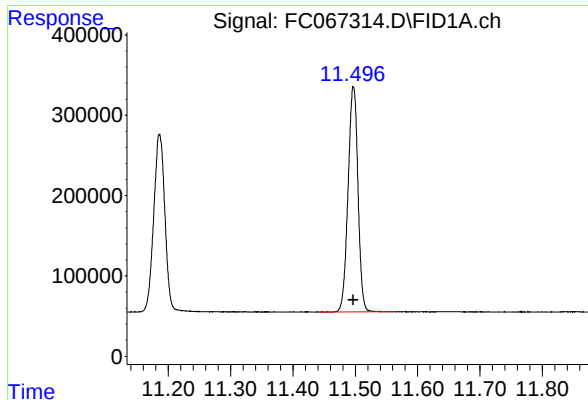
#7 n-Hexadecane (C16)

R.T.: 9.745 min
Delta R.T.: 0.000 min
Response: 2703190
Conc: 20.00 ug/ml



#8 n-Octadecane (C18)

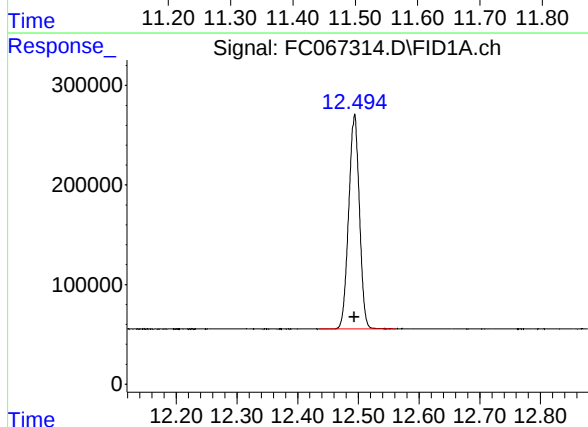
R.T.: 11.186 min
Delta R.T.: 0.000 min
Response: 2753269
Conc: 20.00 ug/ml



#9 ortho-Terphenyl (SURR)

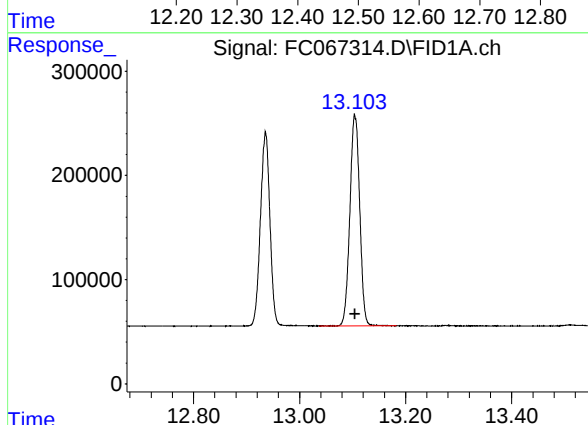
R.T.: 11.497 min
Delta R.T.: 0.000 min
Response: 3089013
Conc: 20.00 ug/ml

Instrument :
FID_C
ClientSampleId :
20 PPM ALIPHATIC HC STD3



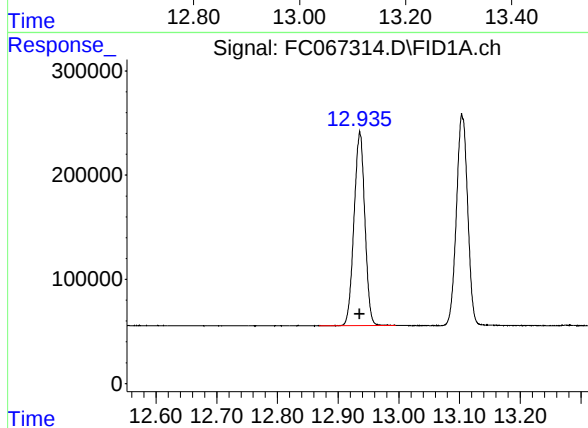
#10 n-Eicosane (C20)

R.T.: 12.493 min
Delta R.T.: 0.000 min
Response: 2645737
Conc: 20.00 ug/ml



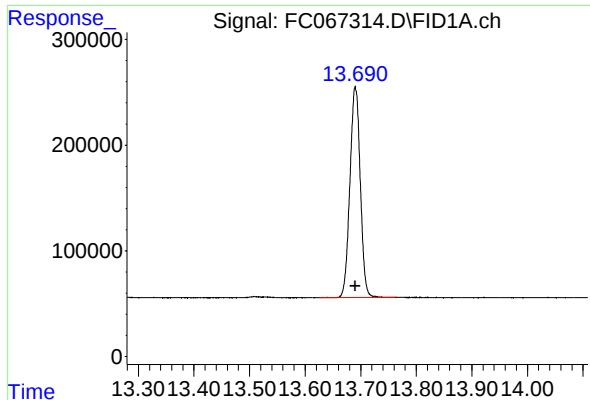
#11 n-Heneicosane (C21)

R.T.: 13.105 min
Delta R.T.: 0.000 min
Response: 2606321
Conc: 20.00 ug/ml



#12 1-chlorooctadecane (SURR)

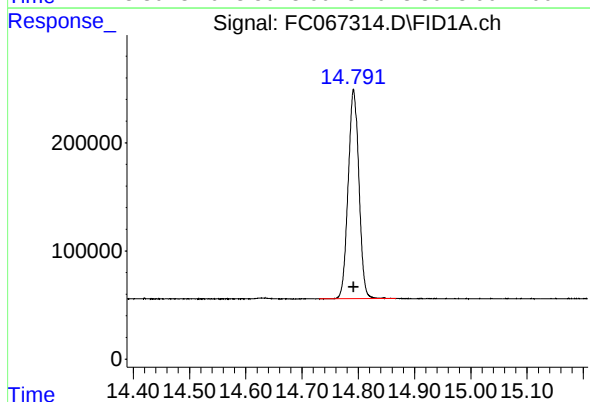
R.T.: 12.936 min
Delta R.T.: 0.000 min
Response: 2301706
Conc: 20.00 ug/ml



#13 n-Docosane (C22)

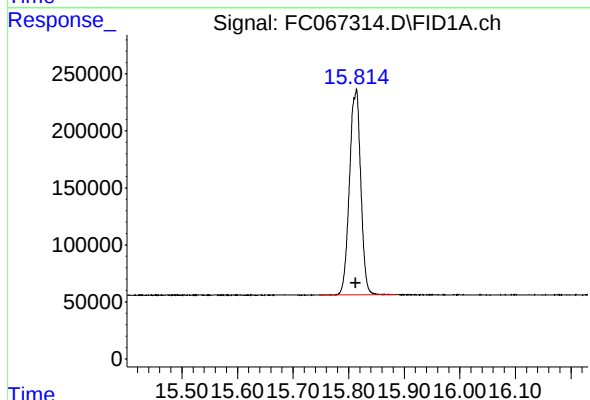
R.T.: 13.690 min
Delta R.T.: 0.000 min
Response: 2582773
Conc: 20.00 ug/ml

Instrument :
FID_C
ClientSampleId :
20 PPM ALIPHATIC HC STD3



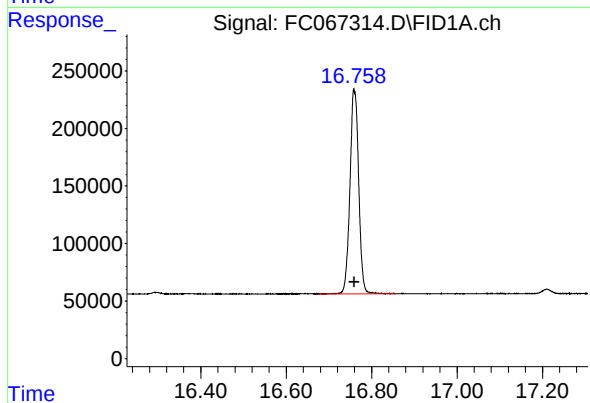
#14 n-Tetracosane (C24)

R.T.: 14.792 min
Delta R.T.: 0.000 min
Response: 2574621
Conc: 20.00 ug/ml



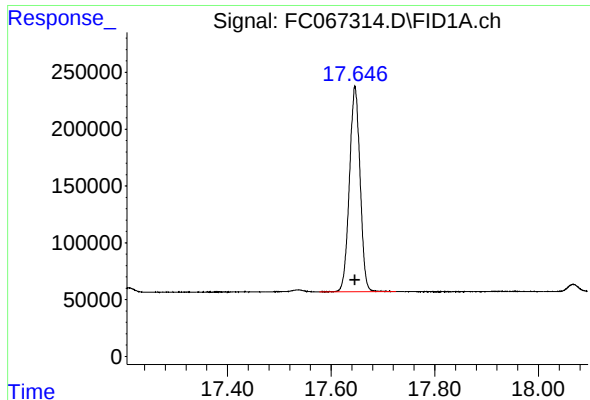
#15 n-Hexacosane (C26)

R.T.: 15.813 min
Delta R.T.: 0.000 min
Response: 2538087
Conc: 20.00 ug/ml



#16 n-Octacosane (C28)

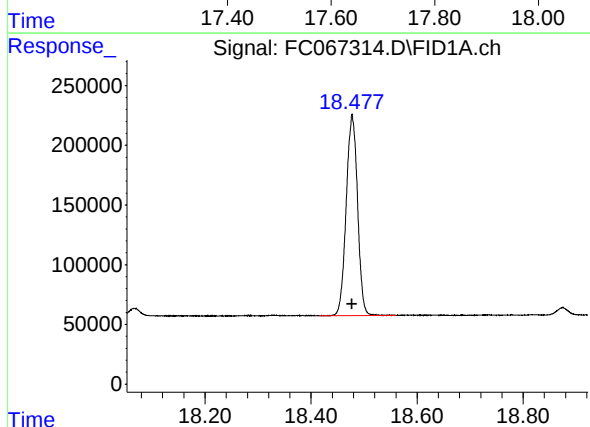
R.T.: 16.760 min
Delta R.T.: 0.000 min
Response: 2519727
Conc: 20.00 ug/ml



#17 n-Tricontane (C30)

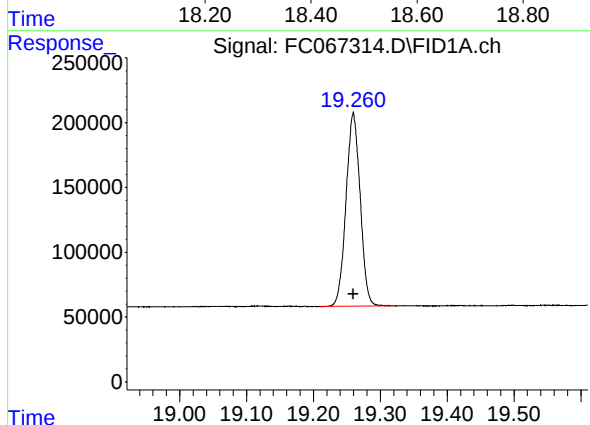
R.T.: 17.646 min
Delta R.T.: 0.000 min
Response: 2574944
Conc: 20.00 ug/ml

Instrument :
FID_C
ClientSampleId :
20 PPM ALIPHATIC HC STD3



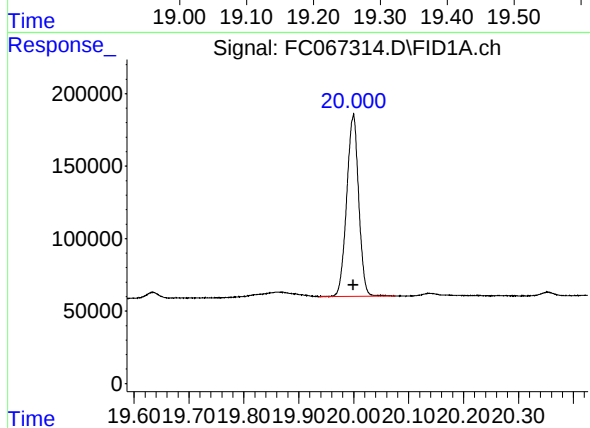
#18 n-Dotriacontane (C32)

R.T.: 18.478 min
Delta R.T.: 0.000 min
Response: 2497831
Conc: 20.00 ug/ml



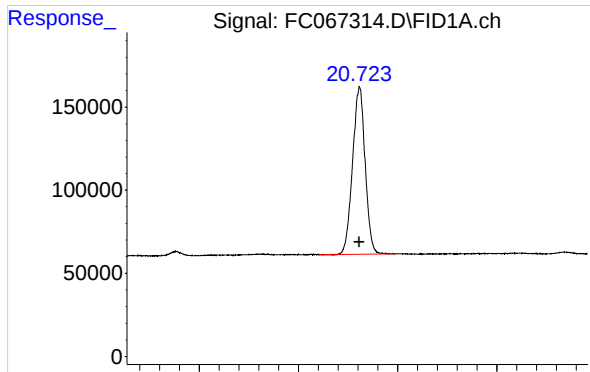
#19 n-Tetatriacontane (C34)

R.T.: 19.260 min
Delta R.T.: 0.000 min
Response: 2193263
Conc: 20.00 ug/ml



#20 n-Hexatriacontane (C36)

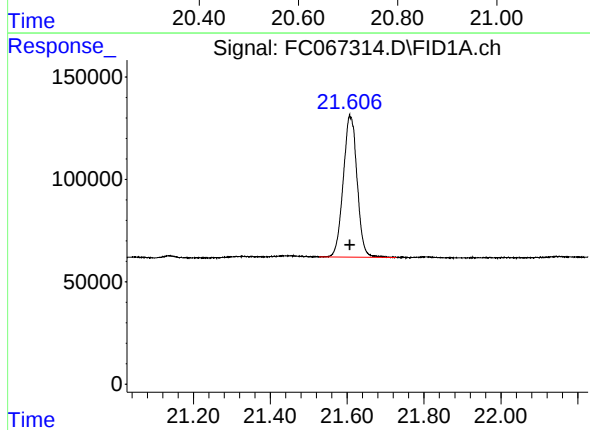
R.T.: 19.999 min
Delta R.T.: 0.000 min
Response: 1907034
Conc: 20.00 ug/ml



#21 n-Octatriacontane (C38)

R.T.: 20.723 min
Delta R.T.: 0.000 min
Response: 1770855
Conc: 20.00 ug/ml

Instrument :
FID_C
ClientSampleId :
20 PPM ALIPHATIC HC STD3



#22 n-Tetracontane (C40)

R.T.: 21.608 min
Delta R.T.: 0.000 min
Response: 1730957
Conc: 20.00 ug/ml

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_C\Data\FC100224AL\
Data File : FC067314.D
Signal(s) : FID1A.ch
Acq On : 30 Sep 2024 11:48
Sample : 20 PPM ALIPHATIC HC STD3
Misc :
ALS Vial : 13 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_C\Method\Aliphatic EPH 100224.M
Title : GC Extractables

Signal : FID1A.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	3.271	3.245	3.330	BB	301355	2561935	82.94%	4.652%
2	4.337	4.285	4.402	BB	276151	2606750	84.39%	4.733%
3	5.915	5.860	6.010	BB	306302	2878074	93.17%	5.226%
4	6.353	6.295	6.402	BB	256127	2627937	85.07%	4.772%
5	6.970	6.923	7.080	BB	272068	2792361	90.40%	5.070%
6	8.146	8.080	8.228	BB	246166	2616449	84.70%	4.751%
7	9.745	9.688	9.835	BB	229678	2703190	87.51%	4.908%
8	11.186	11.125	11.267	BB	220672	2753269	89.13%	4.999%
9	11.497	11.442	11.565	BB	280480	3089013	100.00%	5.609%
10	12.493	12.435	12.562	BB	214435	2645737	85.65%	4.804%
11	12.936	12.868	12.995	BB	185389	2301706	74.51%	4.179%
12	13.105	13.037	13.182	BB	199408	2606321	84.37%	4.732%
13	13.690	13.625	13.763	BB	199133	2582773	83.61%	4.690%
14	14.792	14.730	14.867	BB	192816	2574621	83.35%	4.675%
15	15.813	15.747	15.885	BB	175714	2538087	82.16%	4.609%
16	16.760	16.677	16.857	BB	174965	2519727	81.57%	4.575%
17	17.646	17.577	17.725	BB	180572	2574944	83.36%	4.676%
18	18.478	18.415	18.560	BB	168215	2497831	80.86%	4.536%
19	19.260	19.208	19.323	BB	149736	2193263	71.00%	3.982%
20	19.999	19.937	20.077	VB	124156	1907034	61.74%	3.463%
21	20.723	20.642	20.797	BB	100926	1770855	57.33%	3.215%
22	21.608	21.527	21.727	BB	68950	1730957	56.04%	3.143%
Sum of corrected areas:							55072832	

Aliphatic EPH 100224.M Tue Oct 01 09:21:20 2024

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_C\Data\FC100224AL\
 Data File : FC067315.D
 Signal(s) : FID1A.ch
 Acq On : 30 Sep 2024 12:47
 Operator : YP/AJ
 Sample : 10 PPM ALIPHATIC HC STD4
 Misc :
 ALS Vial : 14 Sample Multiplier: 1

Instrument :
 FID_C
 ClientSampleId :
 10 PPM ALIPHATIC HC STD4

Integration File: autoint1.e
 Quant Time: Oct 01 09:11:43 2024
 Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_C\Method\Aliphatic EPH 100224.M
 Quant Title : GC Extractables
 QLast Update : Tue Oct 01 09:07:31 2024
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1 ul
 Signal Phase : Rxi-1ms
 Signal Info : 20M x 0.18mm x 0.18um

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
9) S ortho-Terphenyl (SURR)	11.496	1571986	10.733 ug/ml
Spiked Amount 50.000		Recovery =	21.47%
12) S 1-chlorooctadecane (S...	12.936	1173605	10.698 ug/ml
Spiked Amount 50.000		Recovery =	21.40%
Target Compounds			
1) T n-Nonane (C9)	3.270	1286606	10.491 ug/ml
2) T n-Decane (C10)	4.336	1306831	10.474 ug/ml
3) T A~Naphthalene (C11.7)	5.915	1437407	10.417 ug/ml
4) T n-Dodecane (C12)	6.353	1318883	10.451 ug/ml
5) T A~2-methylnaphthalene...	6.970	1392618	10.375 ug/ml
6) T n-Tetradecane (C14)	8.146	1308417	10.411 ug/ml
7) T n-Hexadecane (C16)	9.745	1367829	10.562 ug/ml
8) T n-Octadecane (C18)	11.185	1404957	10.718 ug/ml
10) T n-Eicosane (C20)	12.493	1359651	10.795 ug/ml
11) T n-Heneicosane (C21)	13.104	1336214	10.787 ug/ml
13) T n-Docosane (C22)	13.689	1324859	10.728 ug/ml
14) T n-Tetracosane (C24)	14.791	1318090	10.622 ug/ml
15) T n-Hexacosane (C26)	15.811	1292438	10.537 ug/ml
16) T n-Octacosane (C28)	16.761	1284086	10.578 ug/ml
17) T n-Tricontane (C30)	17.647	1321139	10.727 ug/ml
18) T n-Dotriacontane (C32)	18.478	1282377	10.851 ug/ml
19) T n-Tetratriacontane (C34)	19.261	1119659	10.805 ug/ml
20) T n-Hexatriacontane (C36)	20.000	974156	10.885 ug/ml
21) T n-Octatriacontane (C38)	20.724	893961	10.604 ug/ml
22) T n-Tetracontane (C40)	21.611	848887	10.298 ug/ml

(f)=RT Delta > 1/2 Window

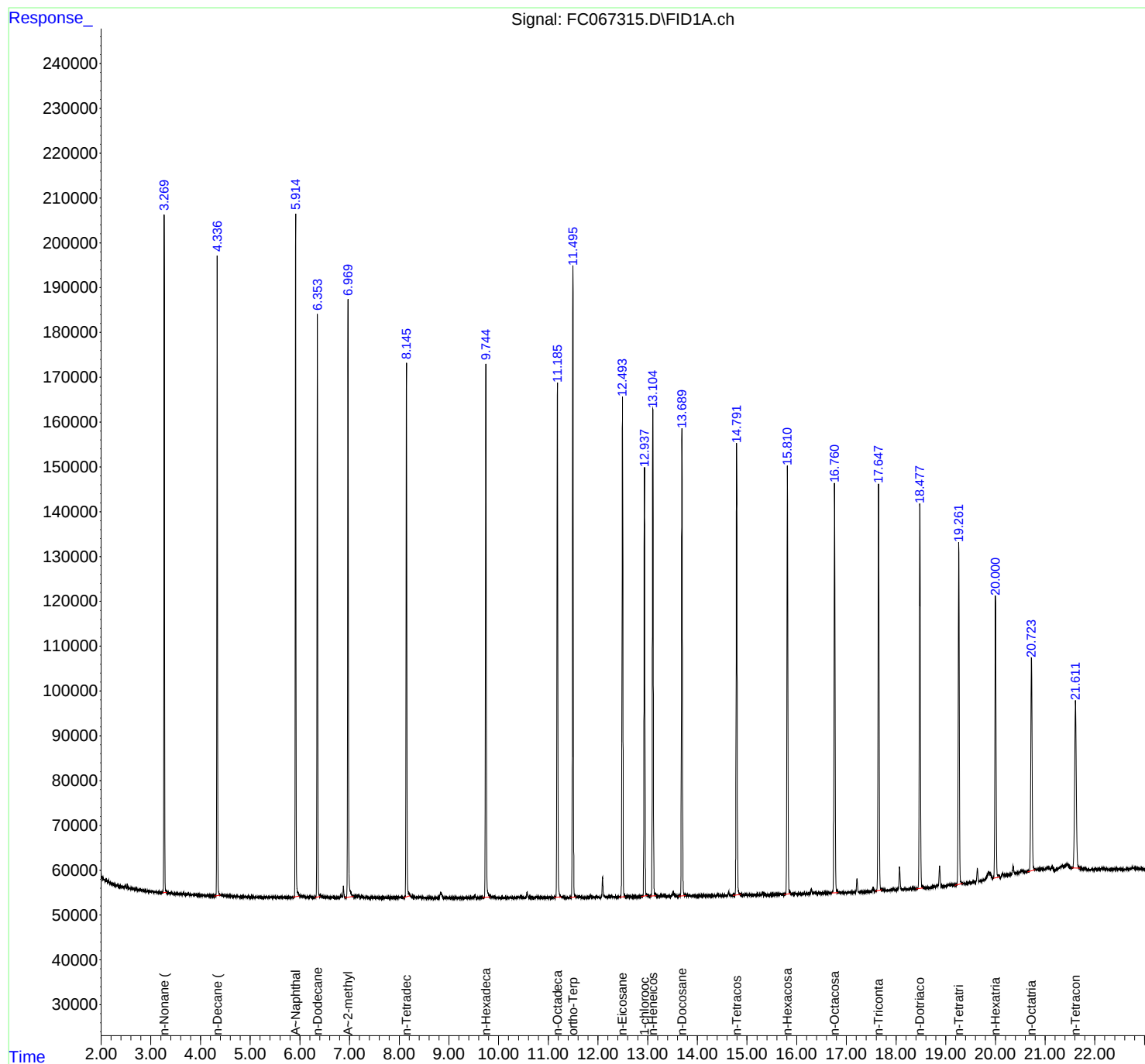
(m)=manual int.

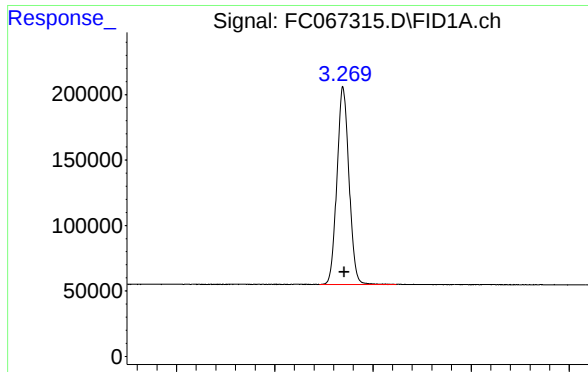
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_C\Data\FC100224AL\
Data File : FC067315.D
Signal(s) : FID1A.ch
Acq On : 30 Sep 2024 12:47
Operator : YP/AJ
Sample : 10 PPM ALIPHATIC HC STD4
Misc :
ALS Vial : 14 Sample Multiplier: 1

Instrument :
FID_C
ClientSampleId :
10 PPM ALIPHATIC HC STD4

Integration File: autoint1.e
Quant Time: Oct 01 09:11:43 2024
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_C\Method\Aliphatic EPH 100224.M
Quant Title : GC Extractables
QLast Update : Tue Oct 01 09:07:31 2024
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 ul
Signal Phase : Rxi-1ms
Signal Info : 20M x 0.18mm x 0.18um

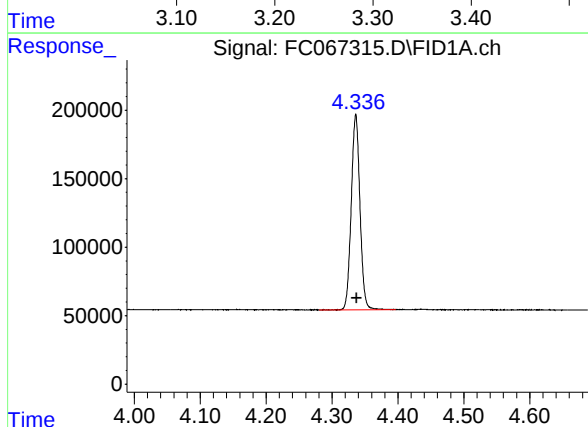




#1 n-Nonane (C9)

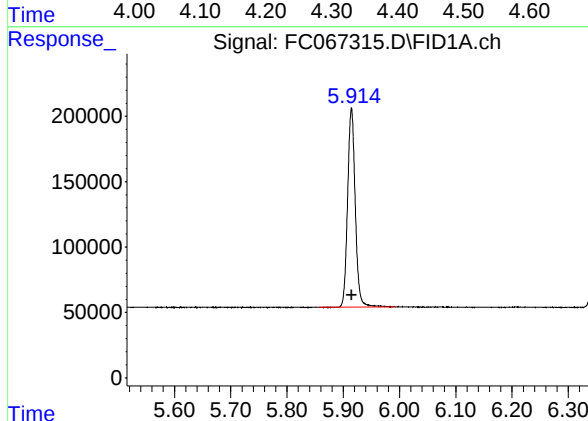
R.T.: 3.270 min
Delta R.T.: -0.001 min
Response: 1286606
Conc: 10.49 ug/ml

Instrument :
FID_C
ClientSampleId :
10 PPM ALIPHATIC HC STD4



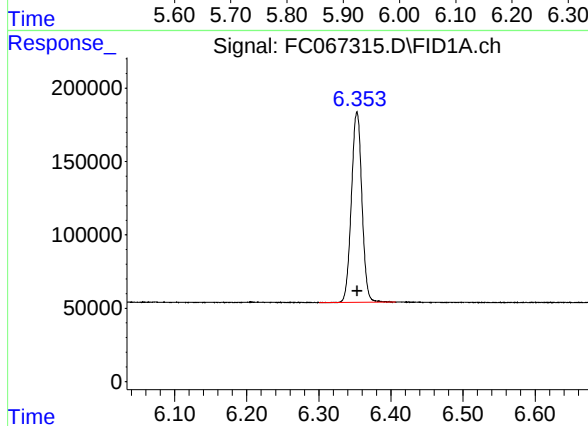
#2 n-Decane (C10)

R.T.: 4.336 min
Delta R.T.: -0.001 min
Response: 1306831
Conc: 10.47 ug/ml



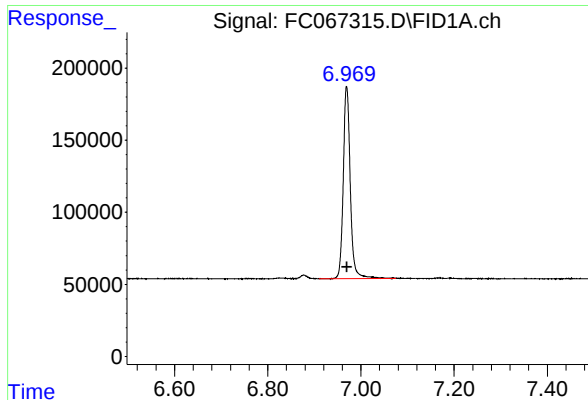
#3 A~Naphthalene (C11.7)

R.T.: 5.915 min
Delta R.T.: 0.000 min
Response: 1437407
Conc: 10.42 ug/ml



#4 n-Dodecane (C12)

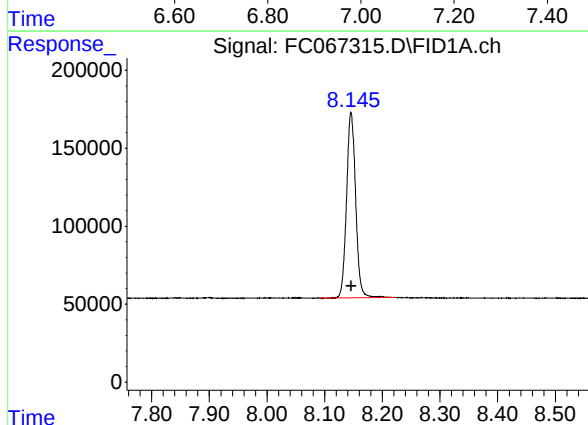
R.T.: 6.353 min
Delta R.T.: 0.000 min
Response: 1318883
Conc: 10.45 ug/ml



#5 A~2-methylnaphthalene (C12.89)

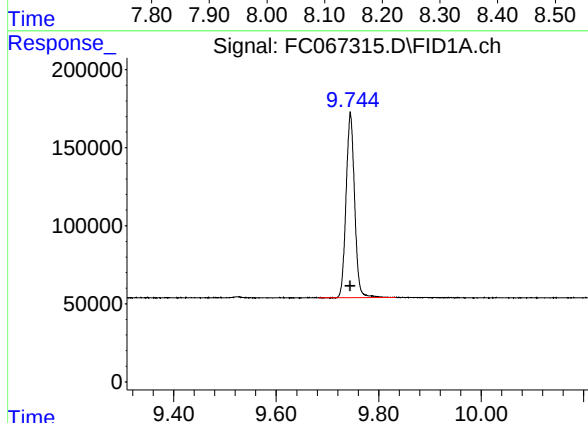
R.T.: 6.970 min
Delta R.T.: 0.000 min
Response: 1392618
Conc: 10.37 ug/ml

Instrument :
FID_C
ClientSampleId :
10 PPM ALIPHATIC HC STD4



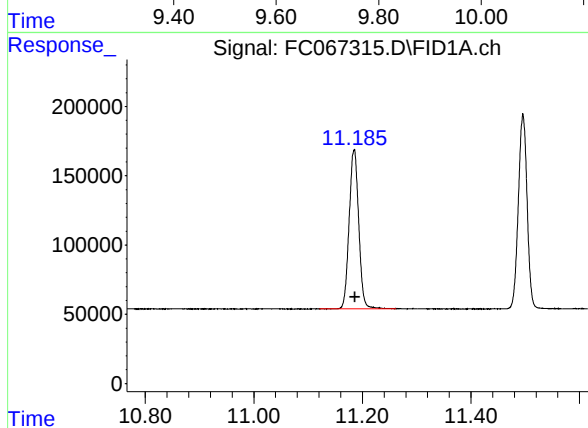
#6 n-Tetradecane (C14)

R.T.: 8.146 min
Delta R.T.: 0.000 min
Response: 1308417
Conc: 10.41 ug/ml



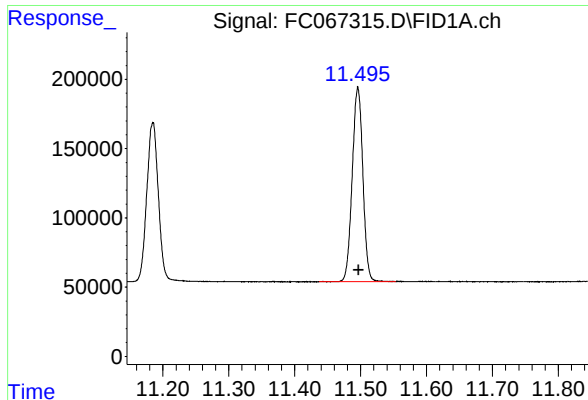
#7 n-Hexadecane (C16)

R.T.: 9.745 min
Delta R.T.: 0.000 min
Response: 1367829
Conc: 10.56 ug/ml



#8 n-Octadecane (C18)

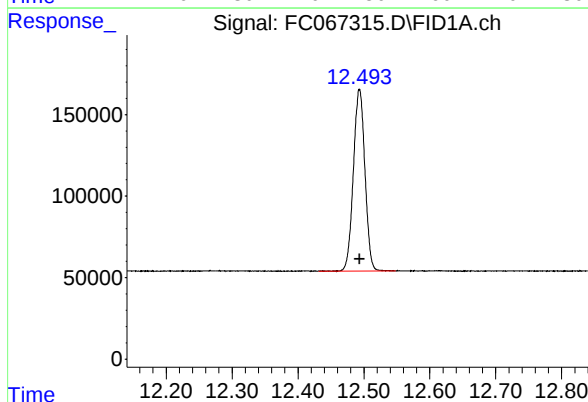
R.T.: 11.185 min
Delta R.T.: -0.001 min
Response: 1404957
Conc: 10.72 ug/ml



#9 ortho-Terphenyl (SURR)

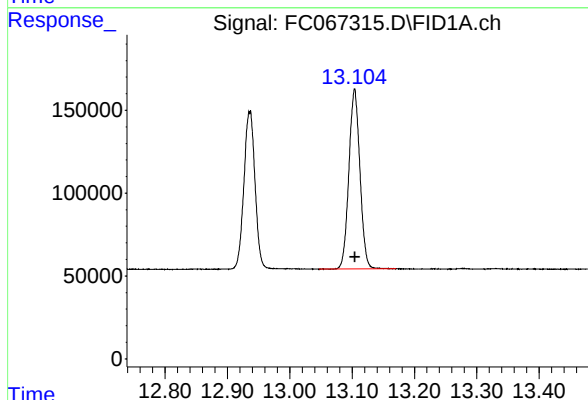
R.T.: 11.496 min
Delta R.T.: -0.001 min
Response: 1571986
Conc: 10.73 ug/ml

Instrument :
FID_C
ClientSampleId :
10 PPM ALIPHATIC HC STD4



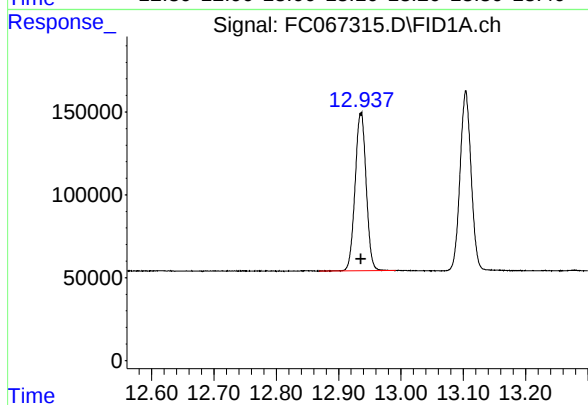
#10 n-Eicosane (C20)

R.T.: 12.493 min
Delta R.T.: 0.000 min
Response: 1359651
Conc: 10.80 ug/ml



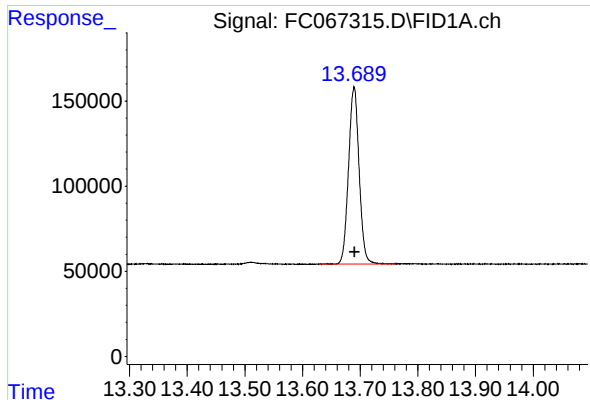
#11 n-Heneicosane (C21)

R.T.: 13.104 min
Delta R.T.: 0.000 min
Response: 1336214
Conc: 10.79 ug/ml



#12 1-chlorooctadecane (SURR)

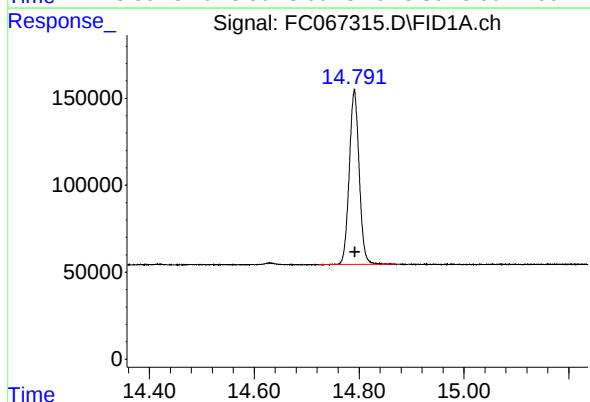
R.T.: 12.936 min
Delta R.T.: 0.000 min
Response: 1173605
Conc: 10.70 ug/ml



#13 n-Docosane (C22)

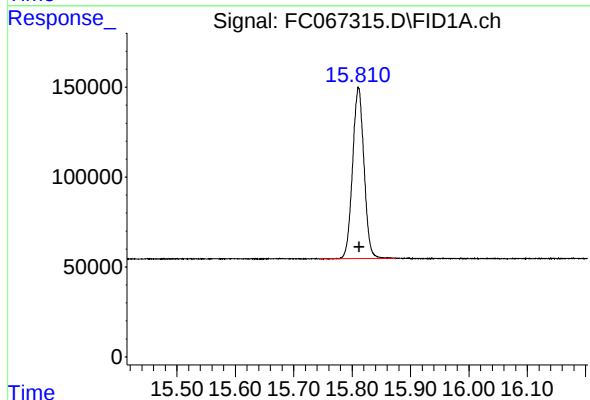
R.T.: 13.689 min
Delta R.T.: -0.001 min
Response: 1324859
Conc: 10.73 ug/ml

Instrument :
FID_C
ClientSampleId :
10 PPM ALIPHATIC HC STD4



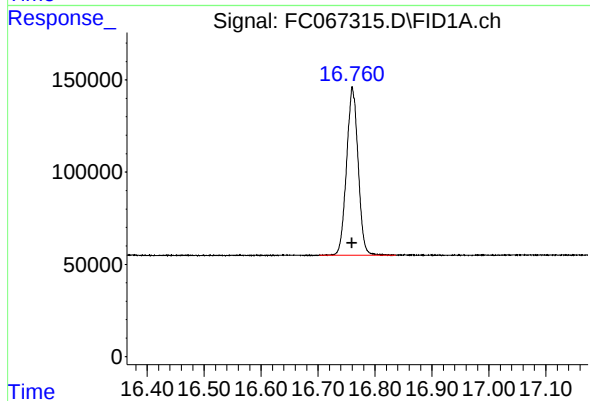
#14 n-Tetracosane (C24)

R.T.: 14.791 min
Delta R.T.: 0.000 min
Response: 1318090
Conc: 10.62 ug/ml



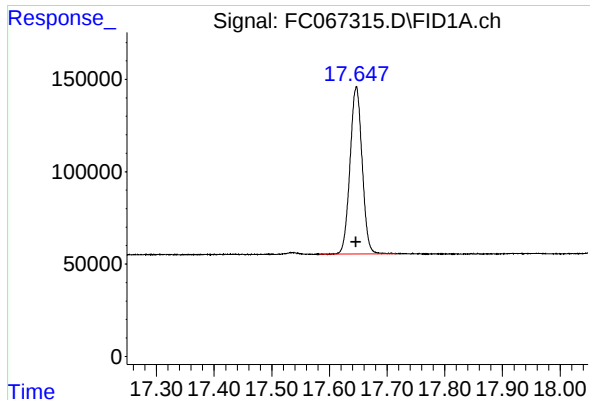
#15 n-Hexacosane (C26)

R.T.: 15.811 min
Delta R.T.: -0.002 min
Response: 1292438
Conc: 10.54 ug/ml



#16 n-Octacosane (C28)

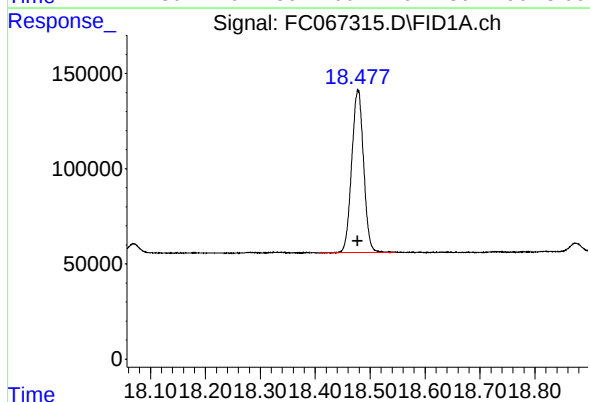
R.T.: 16.761 min
Delta R.T.: 0.000 min
Response: 1284086
Conc: 10.58 ug/ml



#17 n-Tricontane (C30)

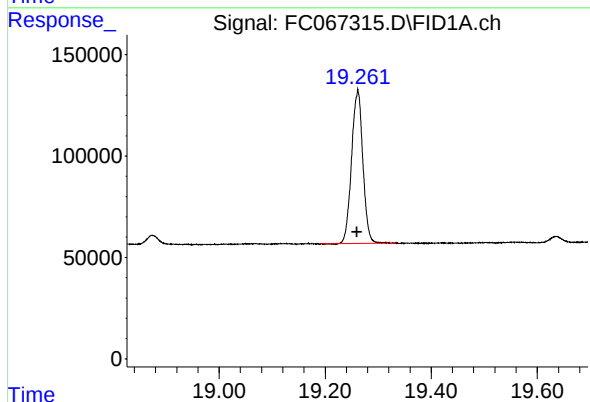
R.T.: 17.647 min
Delta R.T.: 0.000 min
Response: 1321139
Conc: 10.73 ug/ml

Instrument :
FID_C
ClientSampleId :
10 PPM ALIPHATIC HC STD4



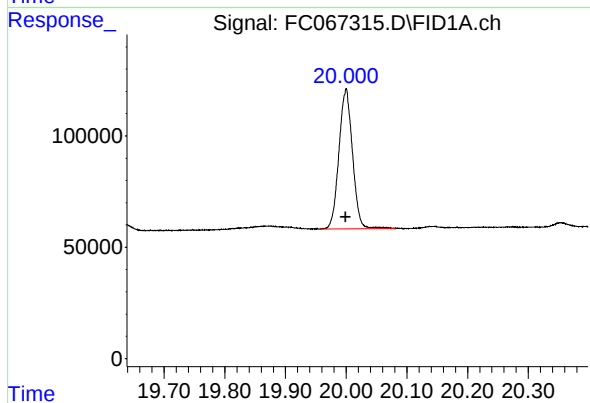
#18 n-Dotriacontane (C32)

R.T.: 18.478 min
Delta R.T.: 0.000 min
Response: 1282377
Conc: 10.85 ug/ml



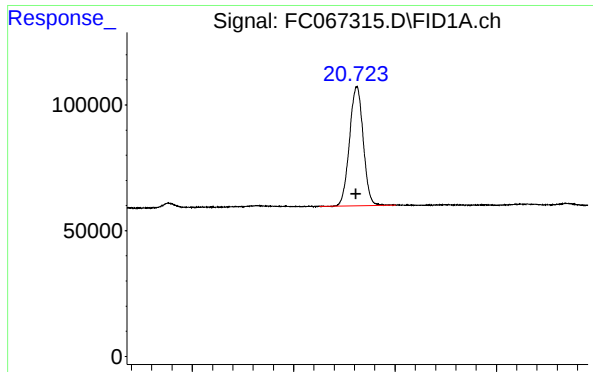
#19 n-Tetatriacontane (C34)

R.T.: 19.261 min
Delta R.T.: 0.002 min
Response: 1119659
Conc: 10.81 ug/ml



#20 n-Hexatriacontane (C36)

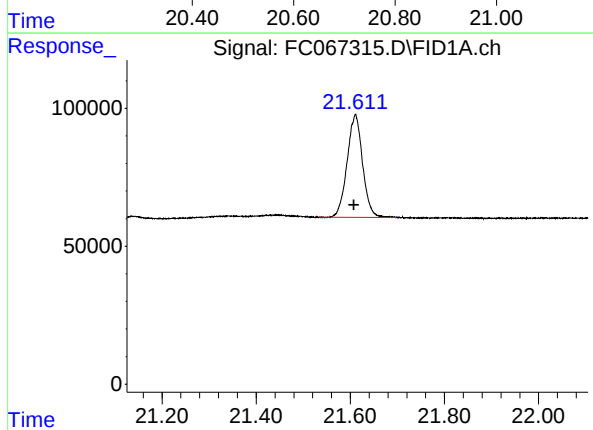
R.T.: 20.000 min
Delta R.T.: 0.000 min
Response: 974156
Conc: 10.88 ug/ml



#21 n-Octatriacontane (C38)

R.T.: 20.724 min
Delta R.T.: 0.001 min
Response: 893961
Conc: 10.60 ug/ml

Instrument :
FID_C
ClientSampleId :
10 PPM ALIPHATIC HC STD4



#22 n-Tetracontane (C40)

R.T.: 21.611 min
Delta R.T.: 0.003 min
Response: 848887
Conc: 10.30 ug/ml

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_C\Data\FC100224AL\
Data File : FC067315.D
Signal(s) : FID1A.ch
Acq On : 30 Sep 2024 12:47
Sample : 10 PPM ALIPHATIC HC STD4
Misc :
ALS Vial : 14 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_C\Method\Aliphatic EPH 100224.M
Title : GC Extractables

Signal : FID1A.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	3.270	3.245	3.324	BB	149654	1286606	81.85%	4.607%
2	4.336	4.280	4.397	BB	143345	1306831	83.13%	4.680%
3	5.915	5.857	5.994	BB	152594	1437407	91.44%	5.147%
4	6.353	6.300	6.407	BB	129992	1318883	83.90%	4.723%
5	6.970	6.910	7.075	BB	132847	1392618	88.59%	4.987%
6	8.146	8.090	8.224	BB	118854	1308417	83.23%	4.686%
7	9.745	9.684	9.834	BB	118309	1367829	87.01%	4.898%
8	11.185	11.120	11.262	BB	115074	1404957	89.37%	5.031%
9	11.496	11.437	11.554	BB	139977	1571986	100.00%	5.629%
10	12.493	12.432	12.549	BB	111570	1359651	86.49%	4.869%
11	12.936	12.869	12.992	BB	94987	1173605	74.66%	4.203%
12	13.104	13.047	13.170	BB	108646	1336214	85.00%	4.785%
13	13.689	13.629	13.762	BB	103488	1324859	84.28%	4.744%
14	14.791	14.724	14.870	BB	99895	1318090	83.85%	4.720%
15	15.811	15.744	15.875	BB	95486	1292438	82.22%	4.628%
16	16.761	16.702	16.837	BB	90915	1284086	81.69%	4.598%
17	17.647	17.582	17.715	BB	90874	1321139	84.04%	4.731%
18	18.478	18.407	18.547	BB	85034	1282377	81.58%	4.592%
19	19.261	19.189	19.334	BB	76227	1119659	71.23%	4.010%
20	20.000	19.955	20.082	BB	63358	974156	61.97%	3.489%
21	20.724	20.650	20.802	BB	47317	893961	56.87%	3.201%
22	21.611	21.534	21.697	BB	37257	848887	54.00%	3.040%
Sum of corrected areas:							27924656	

Aliphatic EPH 100224.M Tue Oct 01 09:21:38 2024

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_C\Data\FC100224AL\
 Data File : FC067316.D
 Signal(s) : FID1A.ch
 Acq On : 30 Sep 2024 13:35
 Operator : YP/AJ
 Sample : 5 PPM ALIPHATIC HC STD5
 Misc :
 ALS Vial : 15 Sample Multiplier: 1

Instrument :
 FID_C
 ClientSampleId :
 5 PPM ALIPHATIC HC STD5

Integration File: autoint1.e
 Quant Time: Oct 01 09:12:40 2024
 Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_C\Method\Aliphatic EPH 100224.M
 Quant Title : GC Extractables
 QLast Update : Tue Oct 01 09:07:31 2024
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1 ul
 Signal Phase : Rxi-1ms
 Signal Info : 20M x 0.18mm x 0.18um

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
9) S ortho-Terphenyl (SURR)	11.496	821094	5.505 ug/ml
Spiked Amount 50.000		Recovery =	11.01%
12) S 1-chlorooctadecane (S...	12.936	597484	5.353 ug/ml
Spiked Amount 50.000		Recovery =	10.71%
Target Compounds			
1) T n-Nonane (C9)	3.271	686146	5.527 ug/ml
2) T n-Decane (C10)	4.336	688670	5.455 ug/ml
3) T A~Naphthalene (C11.7)	5.915	757843	5.435 ug/ml
4) T n-Dodecane (C12)	6.352	691712	5.420 ug/ml
5) T A~2-methylnaphthalene...	6.970	719915	5.313 ug/ml
6) T n-Tetradecane (C14)	8.146	680596	5.360 ug/ml
7) T n-Hexadecane (C16)	9.745	701420	5.341 ug/ml
8) T n-Octadecane (C18)	11.185	721326	5.406 ug/ml
10) T n-Eicosane (C20)	12.493	695208	5.412 ug/ml
11) T n-Heneicosane (C21)	13.105	680195	5.385 ug/ml
13) T n-Docosane (C22)	13.690	677301	5.386 ug/ml
14) T n-Tetracosane (C24)	14.792	676857	5.371 ug/ml
15) T n-Hexacosane (C26)	15.811	666097	5.359 ug/ml
16) T n-Octacosane (C28)	16.759	677736	5.503 ug/ml
17) T n-Tricontane (C30)	17.647	712654	5.683 ug/ml
18) T n-Dotriacontane (C32)	18.478	709265	5.876 ug/ml
19) T n-Tetratriacontane (C34)	19.260	617762	5.844 ug/ml
20) T n-Hexatriacontane (C36)	20.000	533422	5.831 ug/ml
21) T n-Octatriacontane (C38)	20.724	480941	5.620 ug/ml
22) T n-Tetracontane (C40)	21.612	490214	5.903 ug/ml

(f)=RT Delta > 1/2 Window

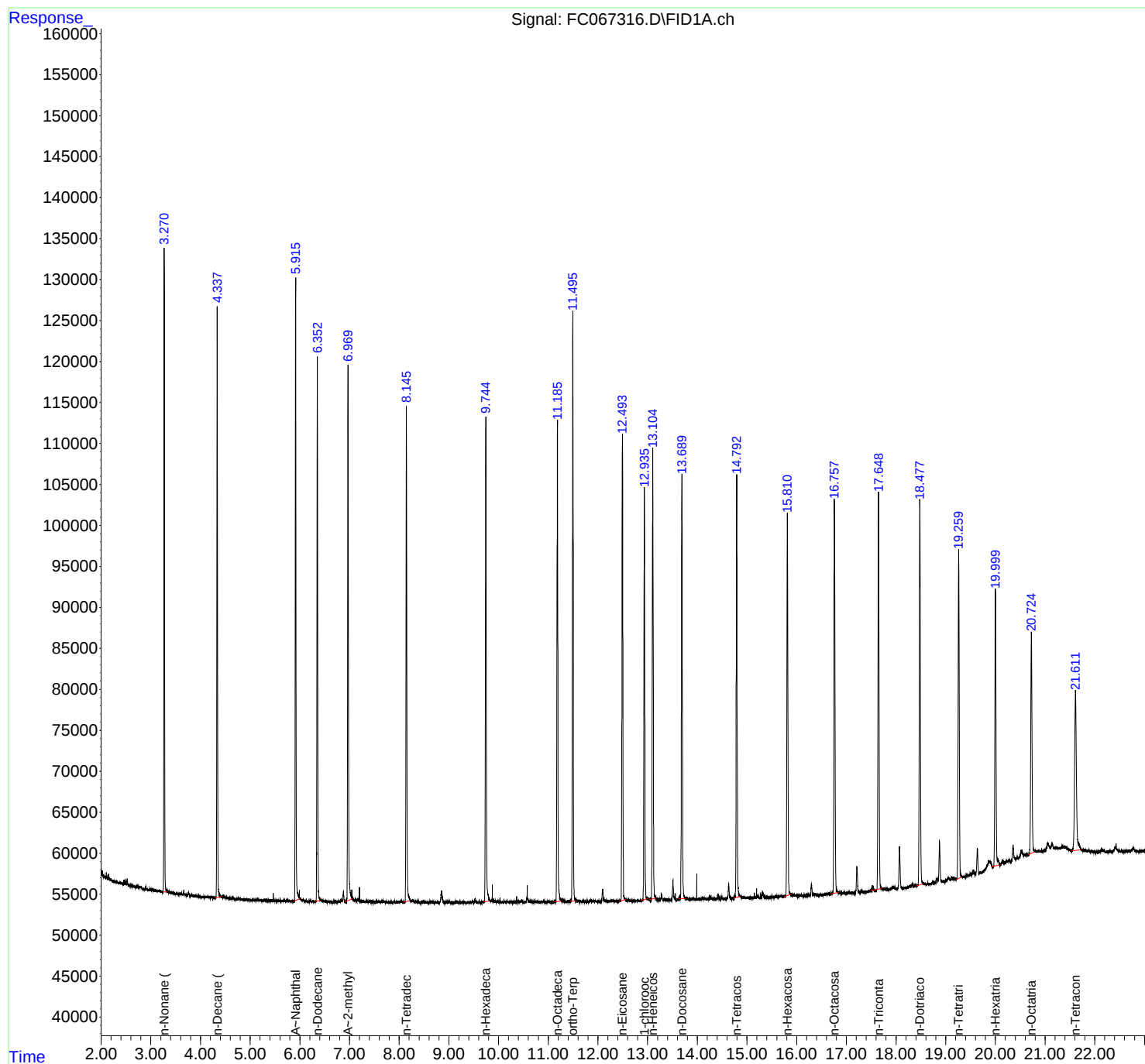
(m)=manual int.

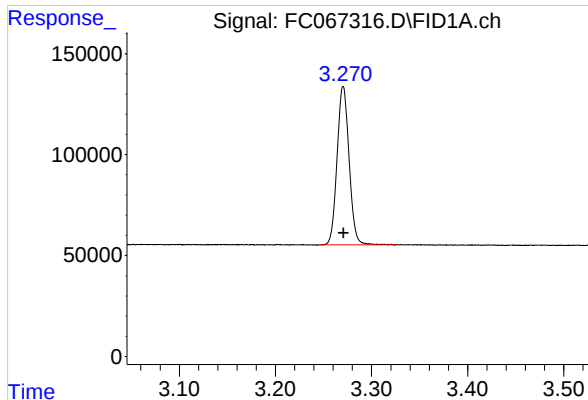
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_C\Data\FC100224AL\
Data File : FC067316.D
Signal(s) : FID1A.ch
Acq On : 30 Sep 2024 13:35
Operator : YP/AJ
Sample : 5 PPM ALIPHATIC HC STD5
Misc :
ALS Vial : 15 Sample Multiplier: 1

Instrument :
FID_C
ClientSampleId :
5 PPM ALIPHATIC HC STD5

Integration File: autoint1.e
Quant Time: Oct 01 09:12:40 2024
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_C\Method\Aliphatic EPH 100224.M
Quant Title : GC Extractables
QLast Update : Tue Oct 01 09:07:31 2024
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 ul
Signal Phase : Rxi-1ms
Signal Info : 20M x 0.18mm x 0.18um

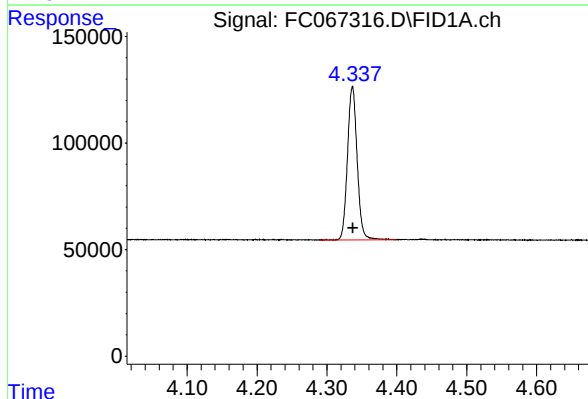




#1 n-Nonane (C9)

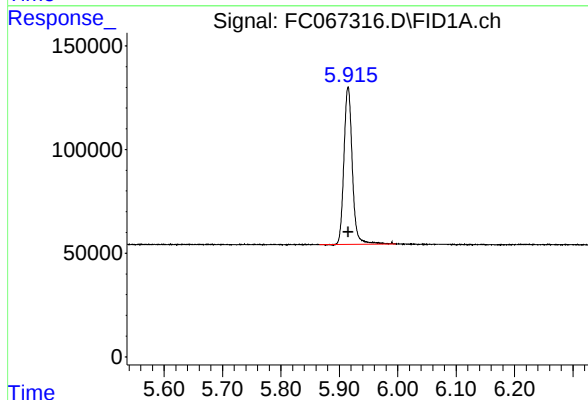
R.T.: 3.271 min
Delta R.T.: 0.000 min
Response: 686146
Conc: 5.53 ug/ml

Instrument :
FID_C
ClientSampleId :
5 PPM ALIPHATIC HC STD5



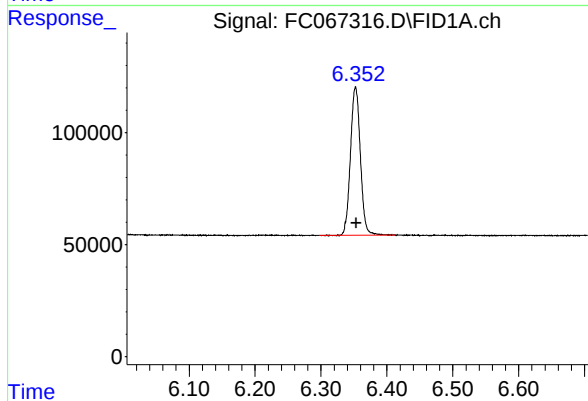
#2 n-Decane (C10)

R.T.: 4.336 min
Delta R.T.: 0.000 min
Response: 688670
Conc: 5.46 ug/ml



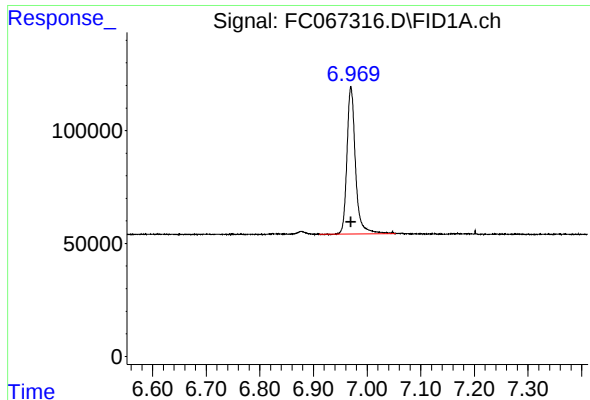
#3 A~Naphthalene (C11.7)

R.T.: 5.915 min
Delta R.T.: 0.000 min
Response: 757843
Conc: 5.44 ug/ml



#4 n-Dodecane (C12)

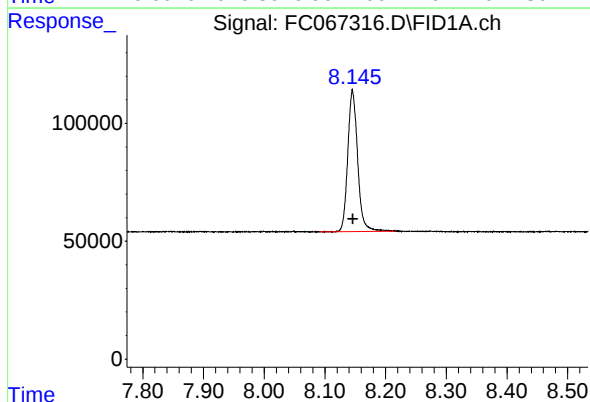
R.T.: 6.352 min
Delta R.T.: 0.000 min
Response: 691712
Conc: 5.42 ug/ml



#5 A~2-methylnaphthalene (C12.89)

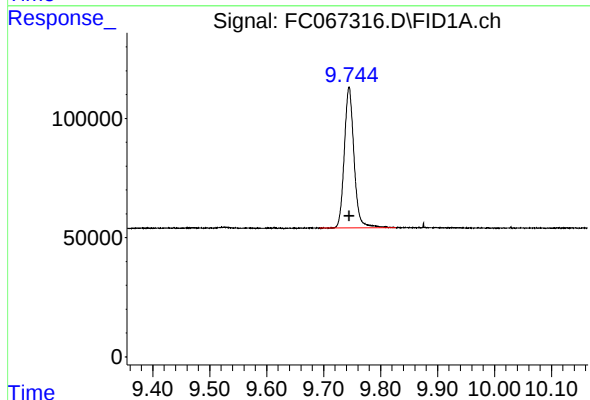
R.T.: 6.970 min
Delta R.T.: 0.000 min
Response: 719915
Conc: 5.31 ug/ml

Instrument :
FID_C
ClientSampleId :
5 PPM ALIPHATIC HC STD5



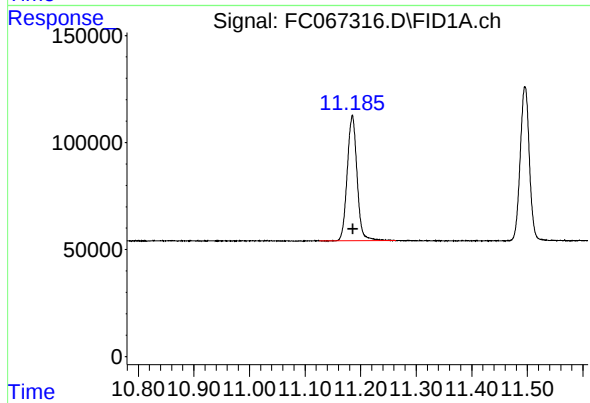
#6 n-Tetradecane (C14)

R.T.: 8.146 min
Delta R.T.: 0.000 min
Response: 680596
Conc: 5.36 ug/ml



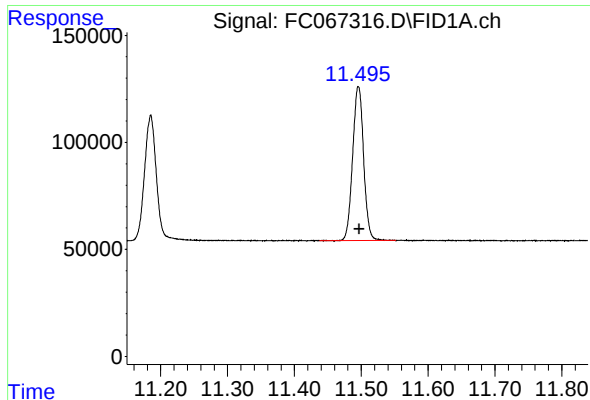
#7 n-Hexadecane (C16)

R.T.: 9.745 min
Delta R.T.: 0.000 min
Response: 701420
Conc: 5.34 ug/ml



#8 n-Octadecane (C18)

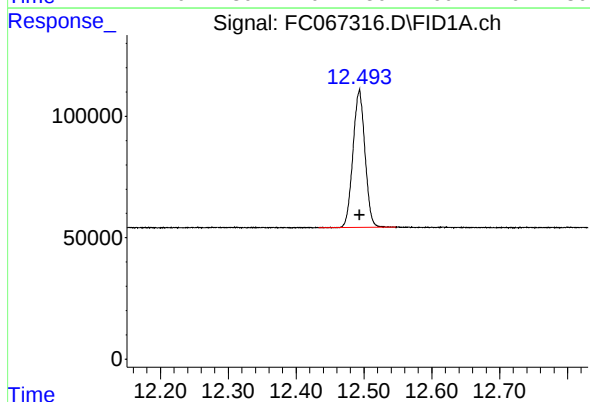
R.T.: 11.185 min
Delta R.T.: -0.001 min
Response: 721326
Conc: 5.41 ug/ml



#9 ortho-Terphenyl (SURR)

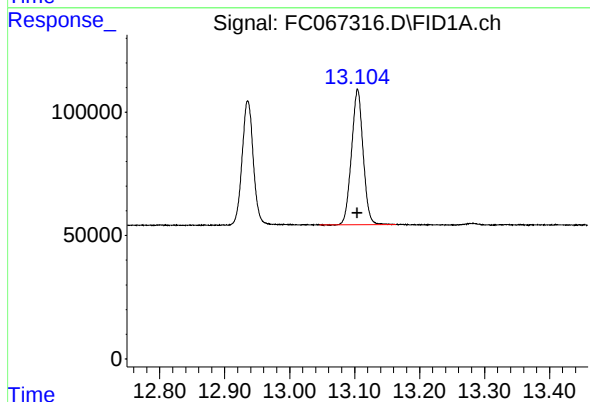
R.T.: 11.496 min
Delta R.T.: -0.001 min
Response: 821094
Conc: 5.51 ug/ml

Instrument :
FID_C
ClientSampleId :
5 PPM ALIPHATIC HC STD5



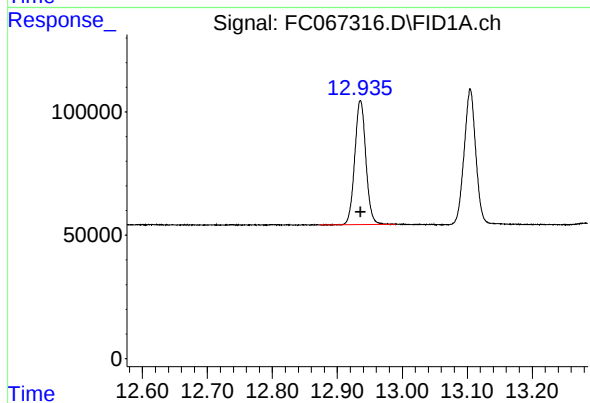
#10 n-Eicosane (C20)

R.T.: 12.493 min
Delta R.T.: 0.000 min
Response: 695208
Conc: 5.41 ug/ml



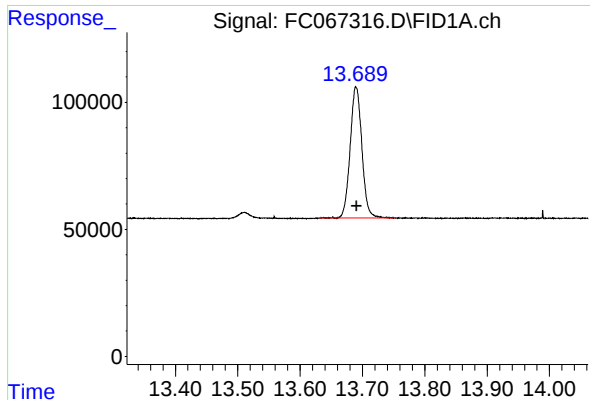
#11 n-Heneicosane (C21)

R.T.: 13.105 min
Delta R.T.: 0.000 min
Response: 680195
Conc: 5.39 ug/ml



#12 1-chlorooctadecane (SURR)

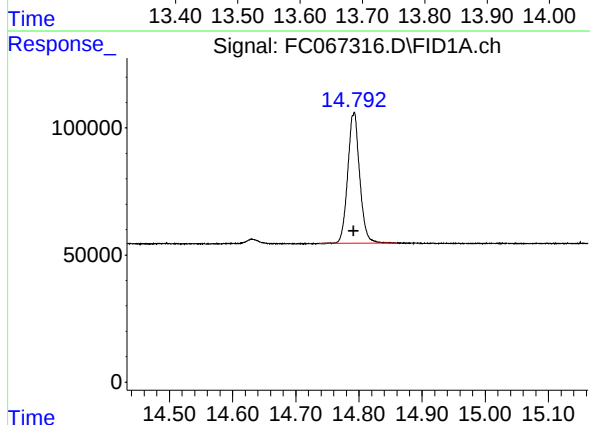
R.T.: 12.936 min
Delta R.T.: 0.000 min
Response: 597484
Conc: 5.35 ug/ml



#13 n-Docosane (C22)

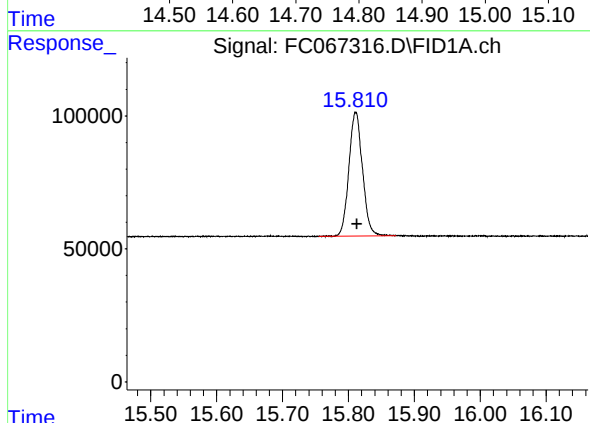
R.T.: 13.690 min
Delta R.T.: 0.000 min
Response: 677301
Conc: 5.39 ug/ml

Instrument :
FID_C
ClientSampleId :
5 PPM ALIPHATIC HC STD5



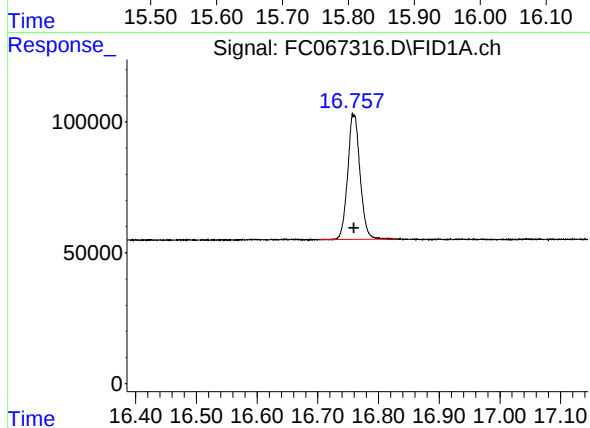
#14 n-Tetracosane (C24)

R.T.: 14.792 min
Delta R.T.: 0.000 min
Response: 676857
Conc: 5.37 ug/ml



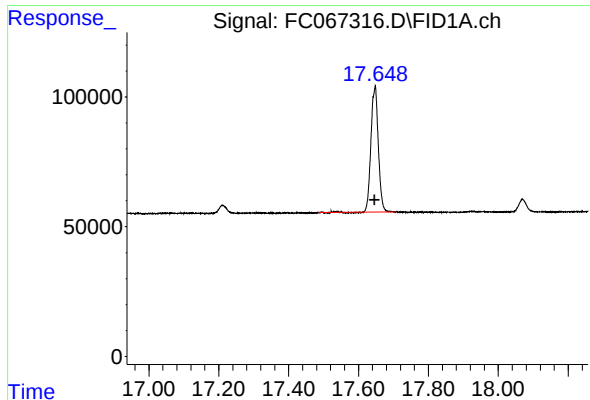
#15 n-Hexacosane (C26)

R.T.: 15.811 min
Delta R.T.: -0.002 min
Response: 666097
Conc: 5.36 ug/ml



#16 n-Octacosane (C28)

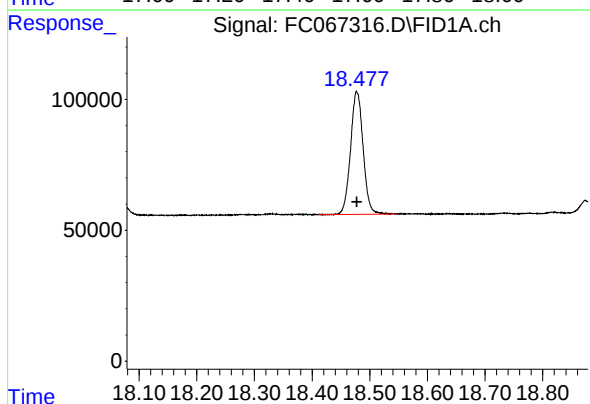
R.T.: 16.759 min
Delta R.T.: 0.000 min
Response: 677736
Conc: 5.50 ug/ml



#17 n-Tricontane (C30)

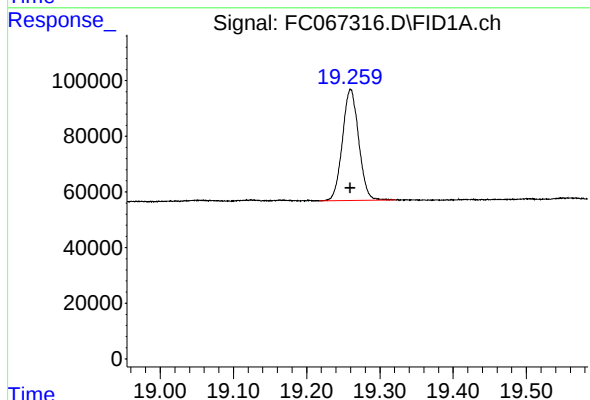
R.T.: 17.647 min
Delta R.T.: 0.000 min
Response: 712654
Conc: 5.68 ug/ml

Instrument :
FID_C
ClientSampleId :
5 PPM ALIPHATIC HC STD5



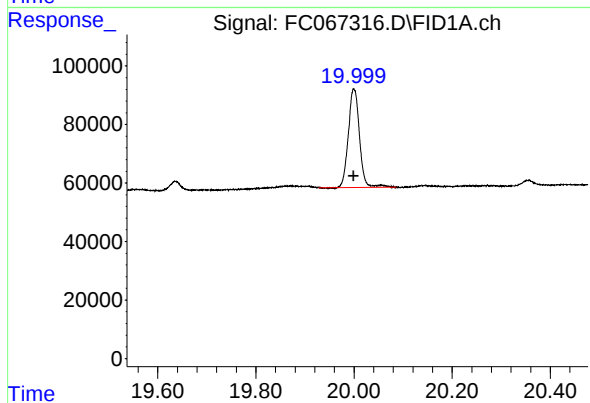
#18 n-Dotriacontane (C32)

R.T.: 18.478 min
Delta R.T.: 0.000 min
Response: 709265
Conc: 5.88 ug/ml



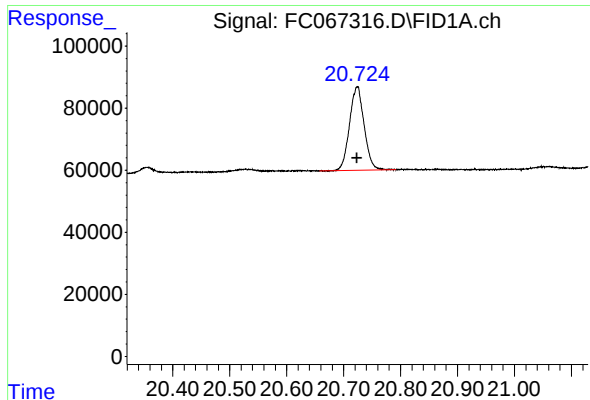
#19 n-Tetratriacontane (C34)

R.T.: 19.260 min
Delta R.T.: 0.000 min
Response: 617762
Conc: 5.84 ug/ml



#20 n-Hexatriacontane (C36)

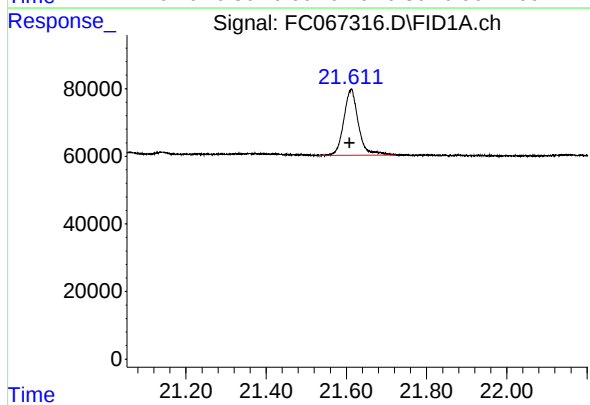
R.T.: 20.000 min
Delta R.T.: 0.000 min
Response: 533422
Conc: 5.83 ug/ml



#21 n-Octatriacontane (C38)

R.T.: 20.724 min
Delta R.T.: 0.000 min
Response: 480941
Conc: 5.62 ug/ml

Instrument :
FID_C
ClientSampleId :
5 PPM ALIPHATIC HC STD5



#22 n-Tetracontane (C40)

R.T.: 21.612 min
Delta R.T.: 0.004 min
Response: 490214
Conc: 5.90 ug/ml

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_C\Data\FC100224AL\
Data File : FC067316.D
Signal(s) : FID1A.ch
Acq On : 30 Sep 2024 13:35
Sample : 5 PPM ALIPHATIC HC STD5
Misc :
ALS Vial : 15 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_C\Method\Aliphatic EPH 100224.M
Title : GC Extractables

Signal : FID1A.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	3.271	3.245	3.325	BB	78681	686146	83.56%	4.673%
2	4.336	4.289	4.399	BB	72152	688670	83.87%	4.690%
3	5.915	5.865	5.997	BB	76027	757843	92.30%	5.161%
4	6.352	6.297	6.414	BB	66053	691712	84.24%	4.711%
5	6.970	6.910	7.054	BB	65101	719915	87.68%	4.903%
6	8.146	8.090	8.217	BB	60011	680596	82.89%	4.635%
7	9.745	9.692	9.827	BB	59283	701420	85.42%	4.777%
8	11.185	11.125	11.264	BB	58904	721326	87.85%	4.912%
9	11.496	11.437	11.552	BB	72136	821094	100.00%	5.592%
10	12.493	12.434	12.547	BB	56965	695208	84.67%	4.735%
11	12.936	12.872	12.990	BB	50290	597484	72.77%	4.069%
12	13.105	13.045	13.164	BB	54789	680195	82.84%	4.632%
13	13.690	13.630	13.754	BB	51352	677301	82.49%	4.613%
14	14.792	14.737	14.859	BB	51124	676857	82.43%	4.610%
15	15.811	15.755	15.872	BB	46744	666097	81.12%	4.536%
16	16.759	16.702	16.829	BB	47167	677736	82.54%	4.616%
17	17.647	17.487	17.707	BB	48207	712654	86.79%	4.853%
18	18.478	18.412	18.545	BB	46869	709265	86.38%	4.830%
19	19.260	19.217	19.322	BB	39937	617762	75.24%	4.207%
20	20.000	19.929	20.085	BB	33595	533422	64.96%	3.633%
21	20.724	20.657	20.792	BB	26905	480941	58.57%	3.275%
22	21.612	21.532	21.724	BB	19525	490214	59.70%	3.338%
Sum of corrected areas:							14683859	

Aliphatic EPH 100224.M Tue Oct 01 09:21:54 2024

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_C\Data\FC100224AL\
 Data File : FC067317.D
 Signal(s) : FID1A.ch
 Acq On : 30 Sep 2024 14:29
 Operator : YP/AJ
 Sample : 20 PPM ALIPHATIC HC STD ICV
 Misc :
 ALS Vial : 16 Sample Multiplier: 1

Instrument :
 FID_C
 ClientSampleId :
 20 PPM ALIPHATIC HC STD ICV

Integration File: autoint1.e
 Quant Time: Oct 01 09:15:12 2024
 Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_C\Method\Aliphatic EPH 100224.M
 Quant Title : GC Extractables
 QLast Update : Tue Oct 01 09:13:32 2024
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1 ul
 Signal Phase : Rxi-1ms
 Signal Info : 20M x 0.18mm x 0.18um

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
9) S ortho-Terphenyl (SURR)	11.498	2856514	18.773 ug/ml
Spiked Amount 50.000		Recovery =	37.55%
12) S 1-chlorooctadecane (S...	12.936	2133568	18.849 ug/ml
Spiked Amount 50.000		Recovery =	37.70%
Target Compounds			
1) T n-Nonane (C9)	3.270	2407553	18.993 ug/ml
2) T n-Decane (C10)	4.336	2442213	18.999 ug/ml
3) T A~Naphthalene (C11.7)	5.915	2689038	18.956 ug/ml
4) T n-Dodecane (C12)	6.353	2456420	18.930 ug/ml
5) T A~2-methylnaphthalene...	6.970	2597570	18.934 ug/ml
6) T n-Tetradecane (C14)	8.146	2450775	19.028 ug/ml
7) T n-Hexadecane (C16)	9.746	2523898	18.960 ug/ml
8) T n-Octadecane (C18)	11.186	2573183	18.976 ug/ml
10) T n-Eicosane (C20)	12.494	2485014	19.032 ug/ml
11) T n-Heneicosane (C21)	13.105	2426455	18.919 ug/ml
13) T n-Docosane (C22)	13.691	2465913	19.312 ug/ml
14) T n-Tetracosane (C24)	14.792	2609769	20.406 ug/ml
15) T n-Hexacosane (C26)	15.813	2600091	20.622 ug/ml
16) T n-Octacosane (C28)	16.762	2654837	21.132 ug/ml
17) T n-Tricontane (C30)	17.647	2708550	21.025 ug/ml
18) T n-Dotriacontane (C32)	18.478	2596492	20.784 ug/ml
19) T n-Tetratriacontane (C34)	19.261	2217081	20.289 ug/ml
20) T n-Hexatriacontane (C36)	20.000	1805047	19.097 ug/ml
21) T n-Octatriacontane (C38)	20.724	1666956	19.008 ug/ml
22) T n-Tetracontane (C40)	21.608	1643254	19.097 ug/ml

(f)=RT Delta > 1/2 Window

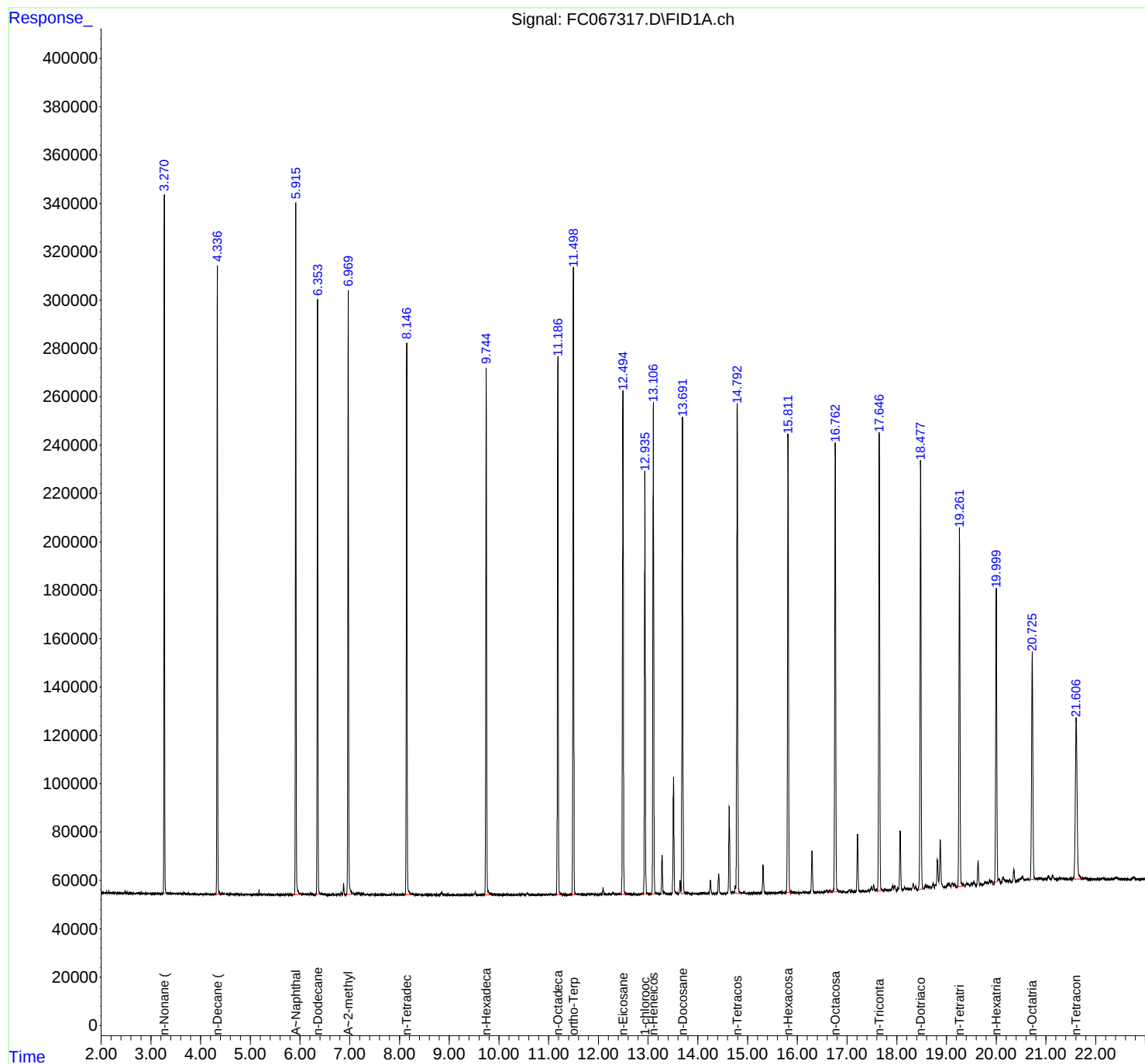
(m)=manual int.

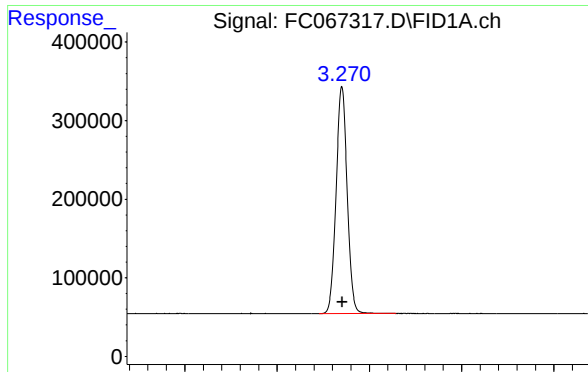
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_C\Data\FC100224AL\
Data File : FC067317.D
Signal(s) : FID1A.ch
Acq On : 30 Sep 2024 14:29
Operator : YP/AJ
Sample : 20 PPM ALIPHATIC HC STD ICV
Misc :
ALS Vial : 16 Sample Multiplier: 1

Instrument :
FID_C
ClientSampleId :
20 PPM ALIPHATIC HC STD ICV

Integration File: autoint1.e
Quant Time: Oct 01 09:15:12 2024
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_C\Method\Aliphatic EPH 100224.M
Quant Title : GC Extractables
QLast Update : Tue Oct 01 09:13:32 2024
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 ul
Signal Phase : Rxi-1ms
Signal Info : 20M x 0.18mm x 0.18um





#1 n-Nonane (C9)

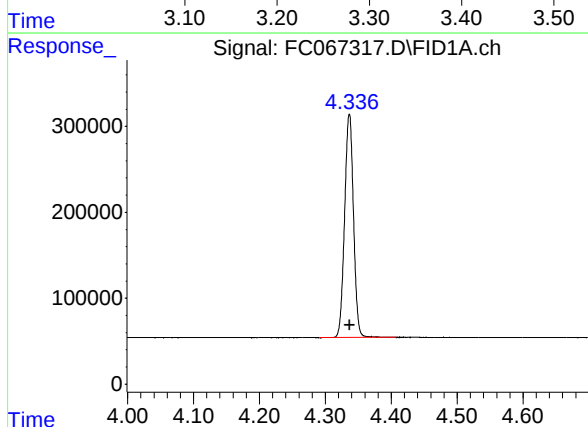
R.T.: 3.270 min
Delta R.T.: 0.000 min
Response: 2407553
Conc: 18.99 ug/ml

Instrument :

FID_C

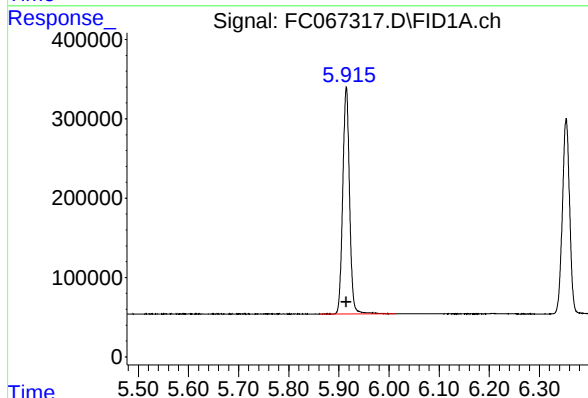
ClientSampleId :

20 PPM ALIPHATIC HC STD ICV



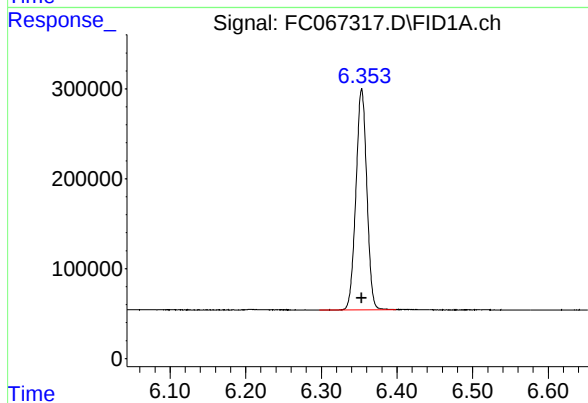
#2 n-Decane (C10)

R.T.: 4.336 min
Delta R.T.: 0.000 min
Response: 2442213
Conc: 19.00 ug/ml



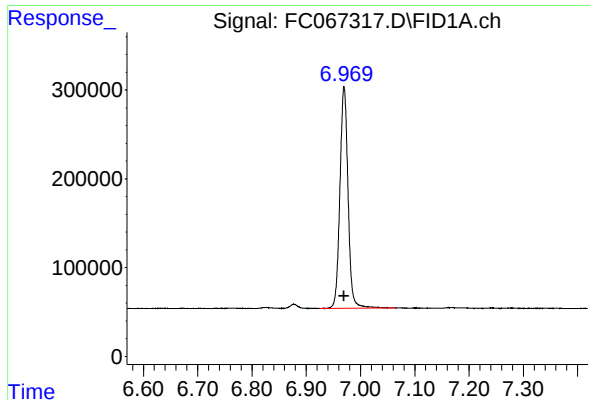
#3 A~Naphthalene (C11.7)

R.T.: 5.915 min
Delta R.T.: 0.000 min
Response: 2689038
Conc: 18.96 ug/ml



#4 n-Dodecane (C12)

R.T.: 6.353 min
Delta R.T.: 0.000 min
Response: 2456420
Conc: 18.93 ug/ml



#5 A~2-methylnaphthalene (C12.89)

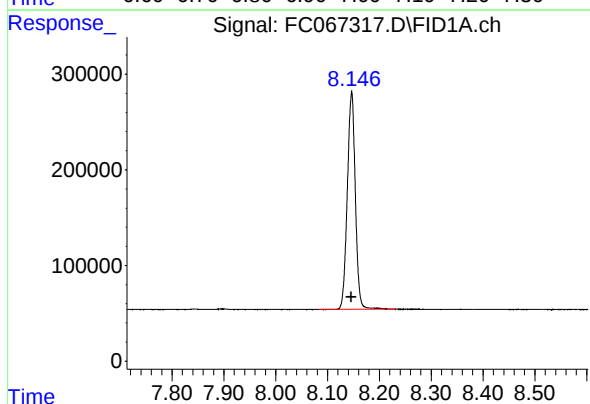
R.T.: 6.970 min
Delta R.T.: 0.000 min
Response: 2597570
Conc: 18.93 ug/ml

Instrument :

FID_C

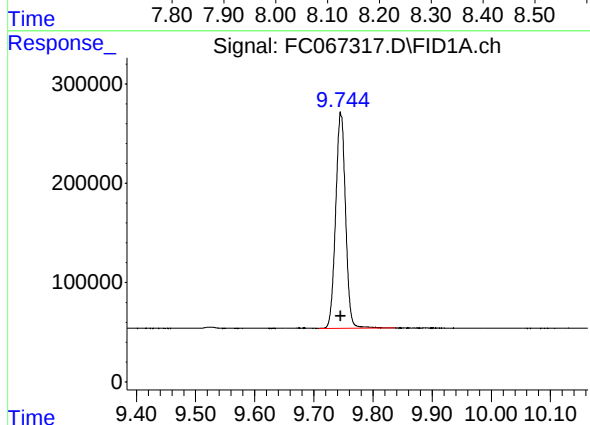
ClientSampleId :

20 PPM ALIPHATIC HC STD ICV



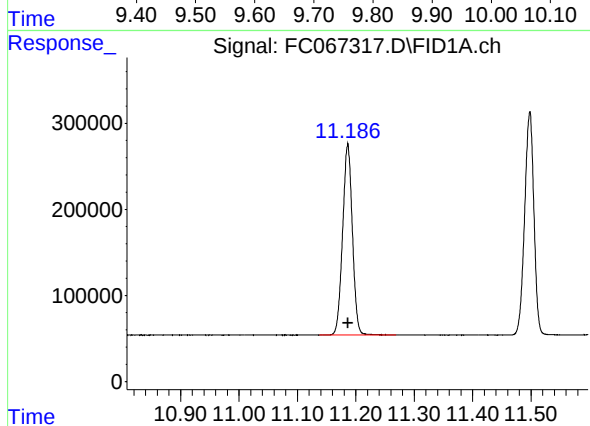
#6 n-Tetradecane (C14)

R.T.: 8.146 min
Delta R.T.: 0.000 min
Response: 2450775
Conc: 19.03 ug/ml



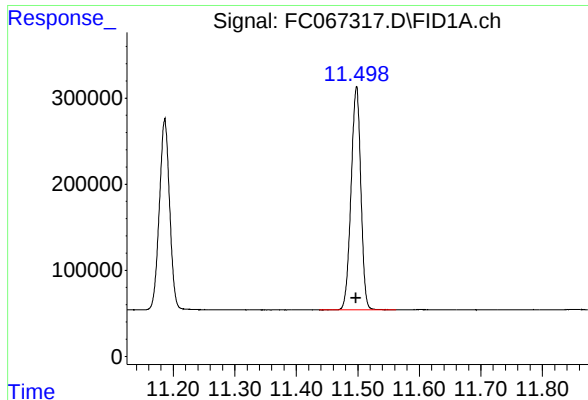
#7 n-Hexadecane (C16)

R.T.: 9.746 min
Delta R.T.: 0.000 min
Response: 2523898
Conc: 18.96 ug/ml



#8 n-Octadecane (C18)

R.T.: 11.186 min
Delta R.T.: 0.000 min
Response: 2573183
Conc: 18.98 ug/ml



#9 ortho-Terphenyl (SURR)

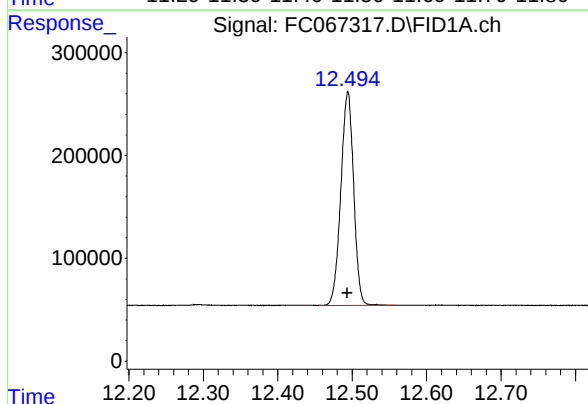
R.T.: 11.498 min
Delta R.T.: 0.000 min
Response: 2856514
Conc: 18.77 ug/ml

Instrument :

FID_C

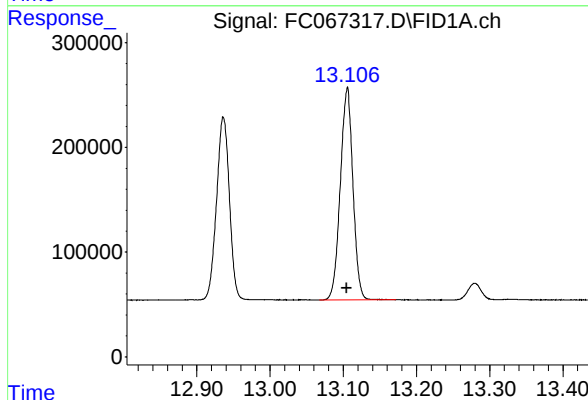
ClientSampleId :

20 PPM ALIPHATIC HC STD ICV



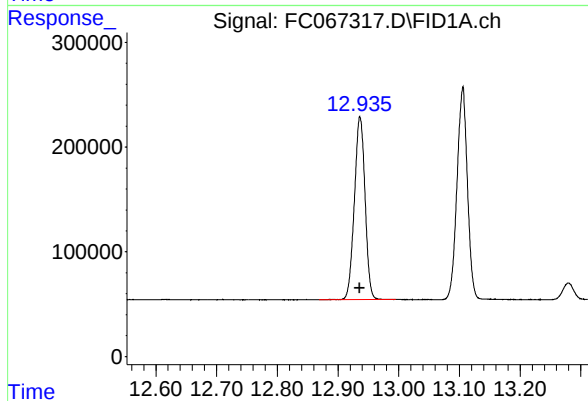
#10 n-Eicosane (C20)

R.T.: 12.494 min
Delta R.T.: 0.000 min
Response: 2485014
Conc: 19.03 ug/ml



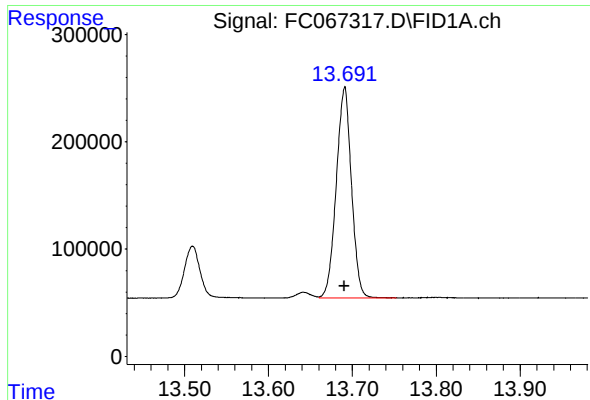
#11 n-Heneicosane (C21)

R.T.: 13.105 min
Delta R.T.: 0.000 min
Response: 2426455
Conc: 18.92 ug/ml



#12 1-chlorooctadecane (SURR)

R.T.: 12.936 min
Delta R.T.: 0.000 min
Response: 2133568
Conc: 18.85 ug/ml



#13 n-Docosane (C22)

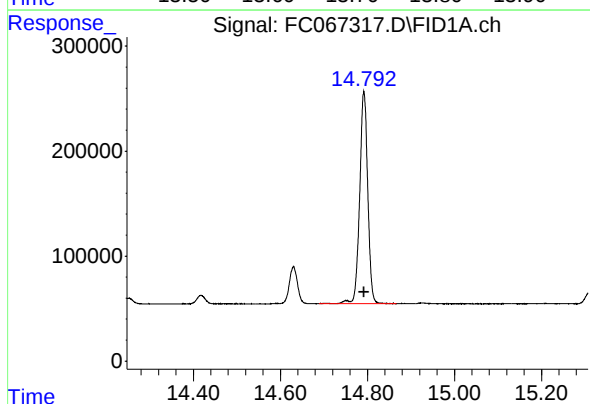
R.T.: 13.691 min
Delta R.T.: 0.000 min
Response: 2465913
Conc: 19.31 ug/ml

Instrument :

FID_C

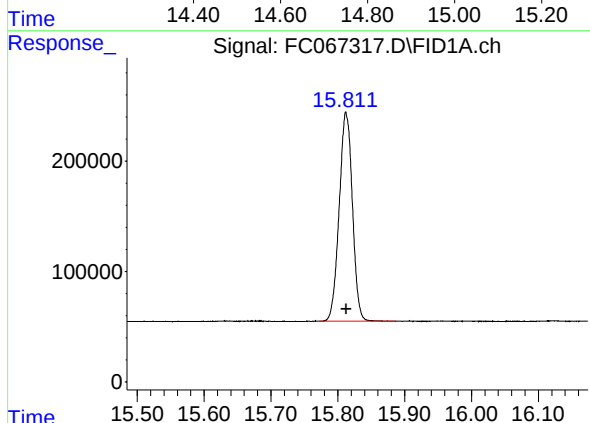
ClientSampleId :

20 PPM ALIPHATIC HC STD ICV



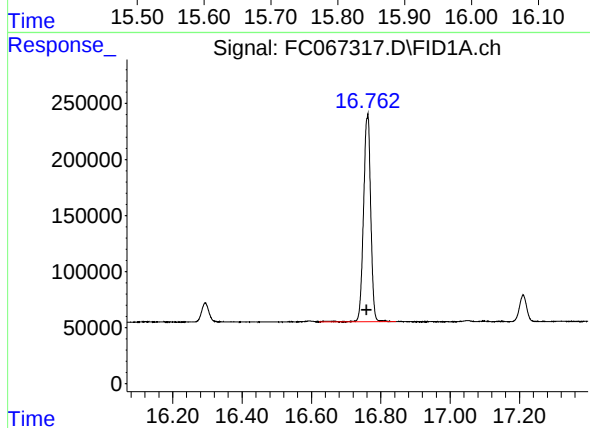
#14 n-Tetracosane (C24)

R.T.: 14.792 min
Delta R.T.: 0.000 min
Response: 2609769
Conc: 20.41 ug/ml



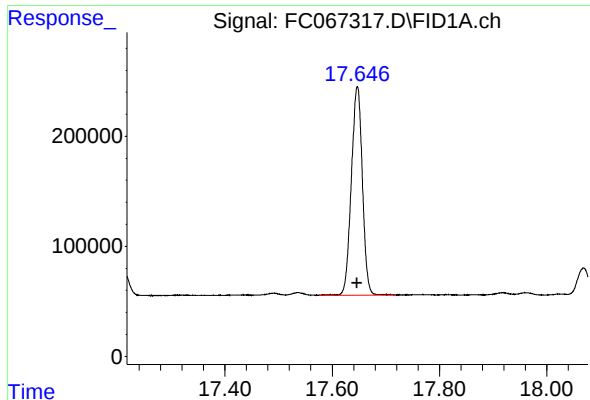
#15 n-Hexacosane (C26)

R.T.: 15.813 min
Delta R.T.: 0.000 min
Response: 2600091
Conc: 20.62 ug/ml



#16 n-Octacosane (C28)

R.T.: 16.762 min
Delta R.T.: 0.002 min
Response: 2654837
Conc: 21.13 ug/ml



#17 n-Tricontane (C30)

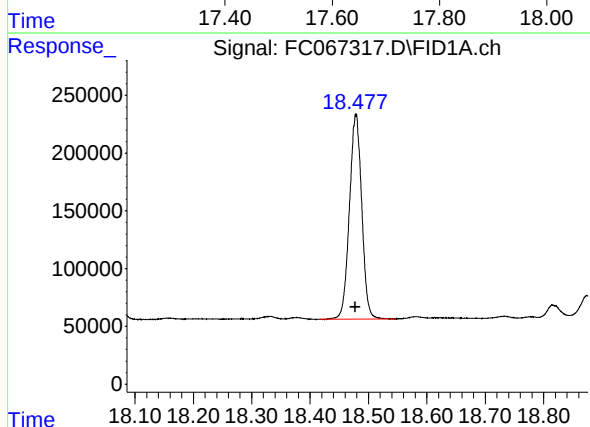
R.T.: 17.647 min
Delta R.T.: 0.000 min
Response: 2708550
Conc: 21.03 ug/ml

Instrument :

FID_C

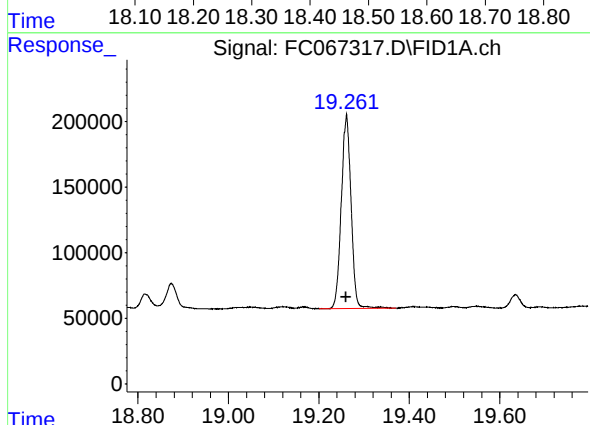
ClientSampleId :

20 PPM ALIPHATIC HC STD ICV



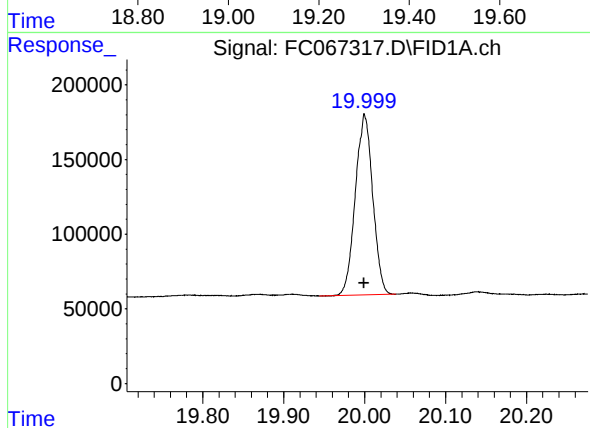
#18 n-Dotriacontane (C32)

R.T.: 18.478 min
Delta R.T.: 0.000 min
Response: 2596492
Conc: 20.78 ug/ml



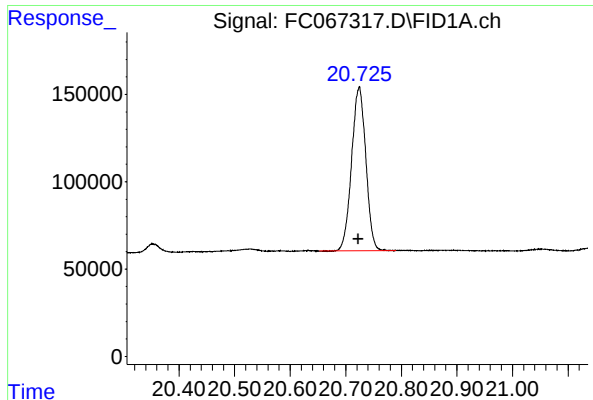
#19 n-Tetratriacontane (C34)

R.T.: 19.261 min
Delta R.T.: 0.001 min
Response: 2217081
Conc: 20.29 ug/ml



#20 n-Hexatriacontane (C36)

R.T.: 20.000 min
Delta R.T.: 0.000 min
Response: 1805047
Conc: 19.10 ug/ml



#21 n-Octatriacontane (C38)

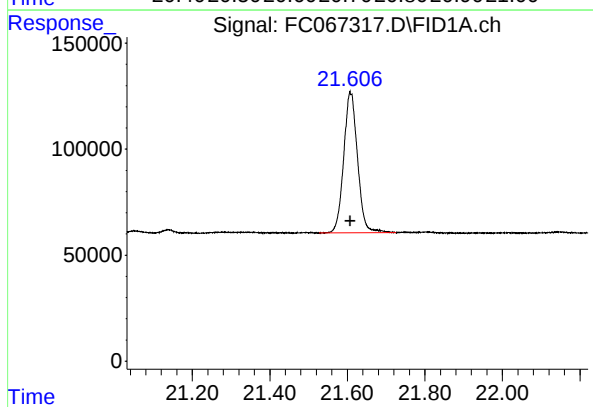
R.T.: 20.724 min
Delta R.T.: 0.000 min
Response: 1666956
Conc: 19.01 ug/ml

Instrument :

FID_C

ClientSampleId :

20 PPM ALIPHATIC HC STD ICV



#22 n-Tetracontane (C40)

R.T.: 21.608 min
Delta R.T.: 0.000 min
Response: 1643254
Conc: 19.10 ug/ml

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_C\Data\FC100224AL\
Data File : FC067317.D
Signal(s) : FID1A.ch
Acq On : 30 Sep 2024 14:29
Sample : 20 PPM ALIPHATIC HC STD ICV
Misc :
ALS Vial : 16 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_C\Method\Aliphatic EPH 100224.M
Title : GC Extractables

Signal : FID1A.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	3.270	3.245	3.329	BB	288931	2407553	84.28%	4.542%
2	4.336	4.290	4.407	BB	261348	2442213	85.50%	4.607%
3	5.915	5.860	6.014	BB	287508	2689038	94.14%	5.073%
4	6.353	6.297	6.399	BB	245767	2456420	85.99%	4.634%
5	6.970	6.924	7.065	BB	249458	2597570	90.93%	4.900%
6	8.146	8.084	8.232	BB	228794	2450775	85.80%	4.623%
7	9.746	9.709	9.839	BB	216843	2523898	88.36%	4.761%
8	11.186	11.137	11.269	BB	220536	2573183	90.08%	4.854%
9	11.498	11.437	11.562	BB	258215	2856514	100.00%	5.389%
10	12.494	12.455	12.559	BB	207733	2485014	86.99%	4.688%
11	12.936	12.869	12.995	BB	173785	2133568	74.69%	4.025%
12	13.105	13.067	13.172	BB	202480	2426455	84.94%	4.577%
13	13.691	13.660	13.752	VB	195897	2465913	86.33%	4.652%
14	14.792	14.689	14.865	BB	201649	2609769	91.36%	4.923%
15	15.813	15.772	15.887	BB	189215	2600091	91.02%	4.905%
16	16.762	16.622	16.844	BB	184812	2654837	92.94%	5.008%
17	17.647	17.575	17.719	BB	189586	2708550	94.82%	5.109%
18	18.478	18.415	18.547	BV	176605	2596492	90.90%	4.898%
19	19.261	19.200	19.370	BB	146116	2217081	77.61%	4.182%
20	20.000	19.944	20.039	BV	119921	1805047	63.19%	3.405%
21	20.724	20.652	20.790	BB	93568	1666956	58.36%	3.145%
22	21.608	21.527	21.725	BB	65123	1643254	57.53%	3.100%
Sum of corrected areas:							53010189	

Aliphatic EPH 100224.M Tue Oct 01 09:22:28 2024

Initial Calibration Report for SequenceID : FD093024AR

AreaCount

Parameter Range	FD048398.D	FD048399.D	FD048400.D	FD048401.D	FD048402.D	
Aromatic C10-C12	34648059.000	18252378.000	7283031.000	3571721.000	1884983.000	
Aromatic C12-C16	52772389.000	27987173.000	11349711.000	5750614.000	3099577.000	
Aromatic C16-C21	67557629.000	35880273.000	14451391.000	7136049.000	3726042.000	
Aromatic C21-C36	141518244.000	74756685.000	30035782.000	14897193.000	7697046.000	
Aromatic EPH	296496321.000	156876509.000	63119915.000	31355577.000	16407648.000	

AVG Response Factor

Parameter Range	AVG RF	% RSD				
Aromatic C10-C12	180984.84	3.098				
Aromatic C12-C16	189995.313333	5.829				
Aromatic C16-C21	178728.23	3.52				
Aromatic C21-C36	165360.7497772	3.04				
Aromatic EPH	174173.0715554	3.596				

Concentration

Parameter Range	FD048398.D	FD048399.D	FD048400.D	FD048401.D	FD048402.D	
Aromatic C10-C12	200.000	100.000	40.000	20.000	10.000	
Aromatic C12-C16	300.000	150.000	60.000	30.000	15.000	
Aromatic C16-C21	400.000	200.000	80.000	40.000	20.000	
Aromatic C21-C36	900.000	450.000	180.000	90.000	45.000	
Aromatic EPH	1800.000	900.000	360.000	180.000	90.000	

Response Factor

Parameter Range	FD048398.D	FD048399.D	FD048400.D	FD048401.D	FD048402.D	
Aromatic C10-C12	173240.295000	182523.780000	182075.775000	178586.050000	188498.300000	
Aromatic C12-C16	175907.963333	186581.153333	189161.850000	191687.133333	206638.466666	
Aromatic C16-C21	168894.072500	179401.365000	180642.387500	178401.225000	186302.100000	
Aromatic C21-C36	157242.493333	166125.966666	166865.455555	165524.366666	171045.466666	
Aromatic EPH	164720.178333	174307.232222	175333.097222	174197.650000	182307.200000	

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_D\Data\FD093024AR\
 Data File : FD048398.D
 Signal(s) : FID2B.ch
 Acq On : 30 Sep 2024 10:32
 Operator : YP/AJ
 Sample : 100 PPM AROMATIC HC STD1
 Misc :
 ALS Vial : 61 Sample Multiplier: 1

Instrument :
 FID_D
 ClientSampleId :
 100 PPM AROMATIC HC STD1

Integration File: autoint1.e
 Quant Time: Sep 30 12:32:39 2024
 Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_D\methods\Aromatic EPH 093024.M
 Quant Title : GC Extractables
 QLast Update : Mon Sep 30 12:29:39 2024
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1 µl
 Signal Phase : Rxi-1ms
 Signal Info : 20M x 0.18mm x 0.18µm

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
4) S 2-Bromonaphthalene (S...	7.387	15133598	96.497 ug/ml
Spiked Amount 50.000		Recovery =	192.99%
6) S 2-Fluorobiphenyl (SURR)	8.238	10225240	98.366 ug/ml
Spiked Amount 50.000 Range 0 - 131		Recovery =	196.73%#
11) S ortho-Terphenyl (SURR)	11.276	17090754	95.957 ug/ml
Spiked Amount 50.000		Recovery =	191.91%
Target Compounds			
1) T 1,2,3-Trimethylbenzen...	4.207	16849228	97.651 ug/ml
2) T Naphthalene (C11.7)	5.727	17798831	97.384 ug/ml
3) T 2-Methylnaphthalene (...)	6.776	17826888	97.043 ug/ml
5) T Acenaphthylene (C15.06)	8.042	17456164	95.975 ug/ml
7) T Acenaphthene (C15.5)	8.339	17489337	96.084 ug/ml
8) T Fluorene (C16.55)	9.117	17164502	96.742 ug/ml
9) T Phenanthrene (C19.36)	10.505	17038003	97.268 ug/ml
10) T Anthracene (C19.43)	10.582	16550190	96.030 ug/ml
12) T Fluoranthene (C21.85)	12.312	16931938	96.606 ug/ml
13) T Pyrene (C20.8)	12.605	16804934	96.504 ug/ml
14) T Benzo[a]anthracene (C...	14.474	16142668	98.545 ug/ml
15) T Chrysene (C27.41)	14.521	16511891	94.840 ug/ml
16) T benzo[b]fluoranthene ...	16.024	16340653	97.826 ug/ml
17) T Bnezo[k]fluoranthene ...	16.062	15204824	95.933 ug/ml
18) T Benzo[a]pyrene (C31.34)	16.403	15774557	97.005 ug/ml
19) T Indeno[1,2,3-cd]pyren...	17.769	14738374	104.652 ug/ml
20) T Dibenz[a,h]anthracene...	17.808	14680138	92.545 ug/ml
21) T Benzo[g,h,i]perylene ...	18.026	15193201	96.345 ug/ml

(f)=RT Delta > 1/2 Window

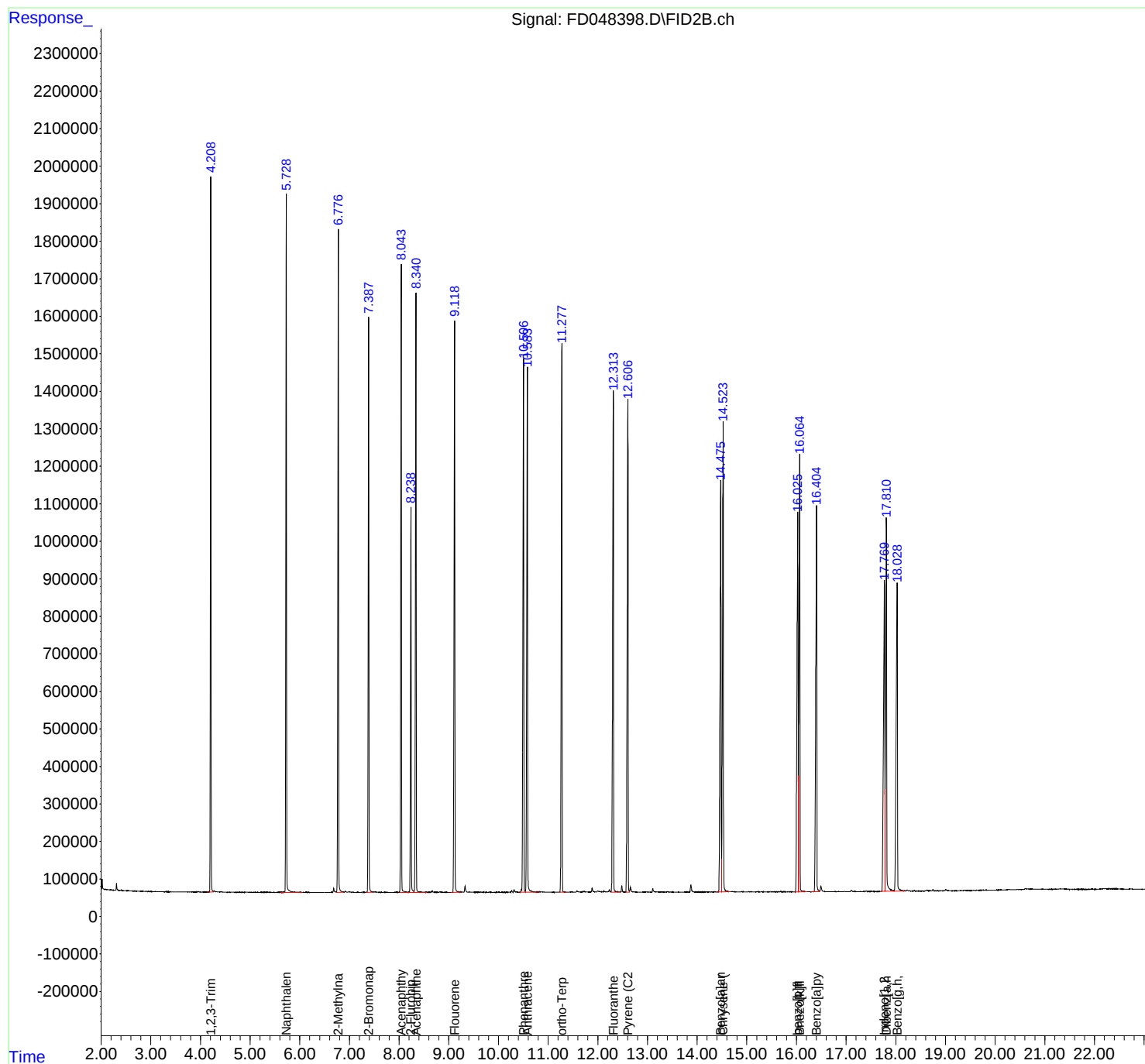
(m)=manual int.

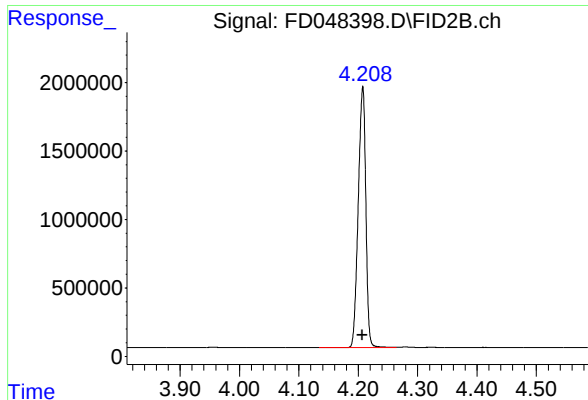
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_D\Data\FD093024AR\
Data File : FD048398.D
Signal(s) : FID2B.ch
Acq On : 30 Sep 2024 10:32
Operator : YP/AJ
Sample : 100 PPM AROMATIC HC STD1
Misc :
ALS Vial : 61 Sample Multiplier: 1

Instrument :
FID_D
ClientSampleId :
100 PPM AROMATIC HC STD1

Integration File: autoint1.e
Quant Time: Sep 30 12:32:39 2024
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_D\methods\Aromatic EPH 093024.M
Quant Title : GC Extractables
QLast Update : Mon Sep 30 12:29:39 2024
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 µl
Signal Phase : Rxi-1ms
Signal Info : 20M x 0.18mm x 0.18µm





#1 1,2,3-Trimethylbenzene (C10.1)

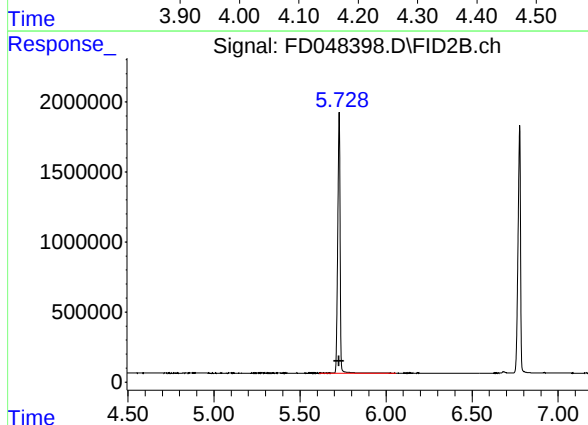
R.T.: 4.207 min
Delta R.T.: 0.000 min
Response: 16849228
Conc: 97.65 ug/ml

Instrument :

FID_D

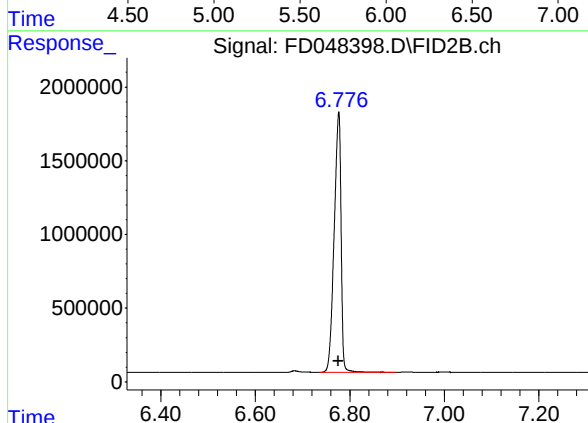
ClientSampleId :

100 PPM AROMATIC HC STD1



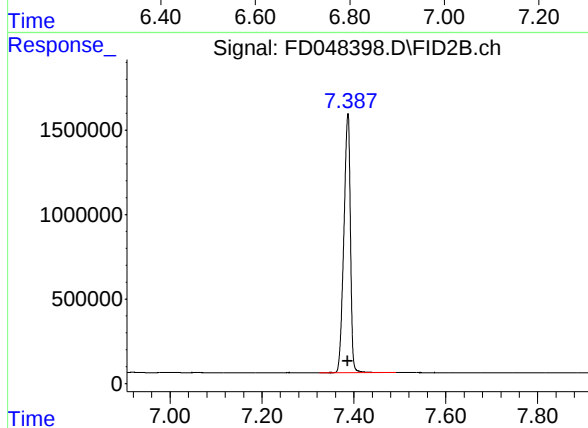
#2 Naphthalene (C11.7)

R.T.: 5.727 min
Delta R.T.: 0.000 min
Response: 17798831
Conc: 97.38 ug/ml



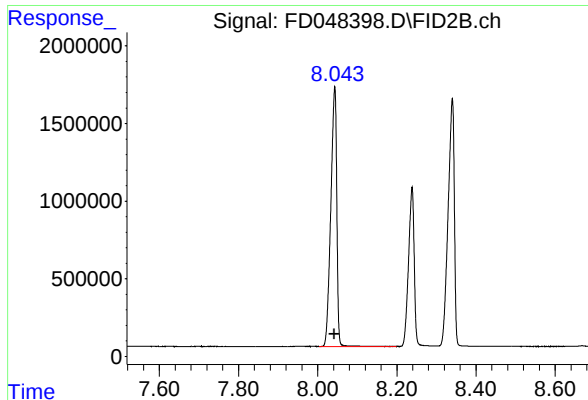
#3 2-Methylnaphthalene (C12.89)

R.T.: 6.776 min
Delta R.T.: 0.000 min
Response: 17826888
Conc: 97.04 ug/ml



#4 2-Bromonaphthalene (SURR)

R.T.: 7.387 min
Delta R.T.: 0.000 min
Response: 15133598
Conc: 96.50 ug/ml



#5 Acenaphthylene (C15.06)

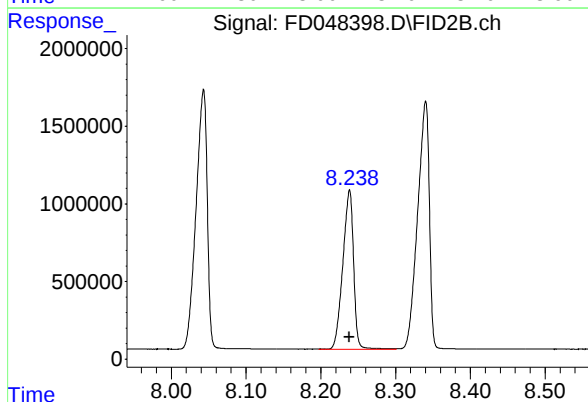
R.T.: 8.042 min
Delta R.T.: 0.000 min
Response: 17456164
Conc: 95.98 ug/ml

Instrument :

FID_D

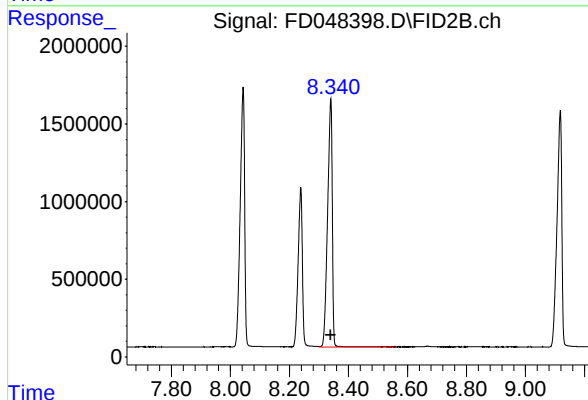
ClientSampleId :

100 PPM AROMATIC HC STD1



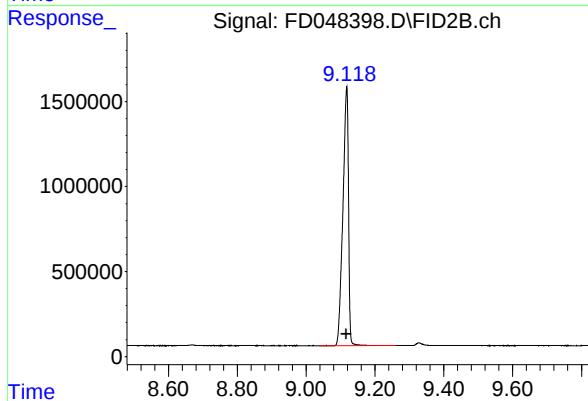
#6 2-Fluorobiphenyl (SURR)

R.T.: 8.238 min
Delta R.T.: 0.000 min
Response: 10225240
Conc: 98.37 ug/ml



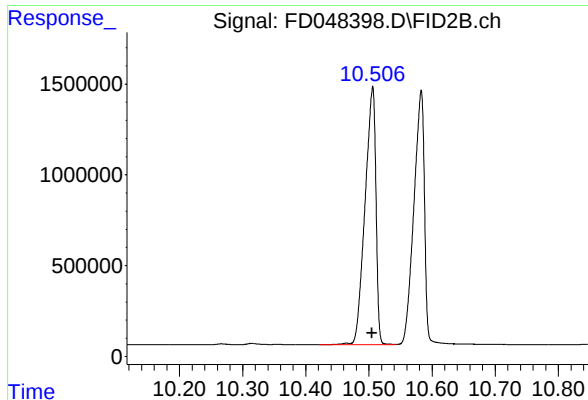
#7 Acenaphthene (C15.5)

R.T.: 8.339 min
Delta R.T.: 0.000 min
Response: 17489337
Conc: 96.08 ug/ml



#8 Flouorene (C16.55)

R.T.: 9.117 min
Delta R.T.: 0.000 min
Response: 17164502
Conc: 96.74 ug/ml



#9 Phenanthrene (C19.36)

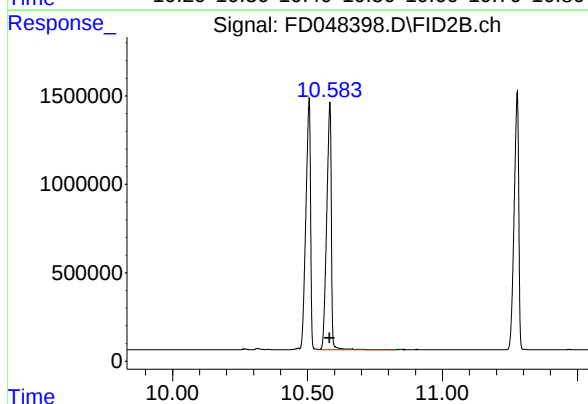
R.T.: 10.505 min
Delta R.T.: 0.000 min
Response: 17038003
Conc: 97.27 ug/ml

Instrument :

FID_D

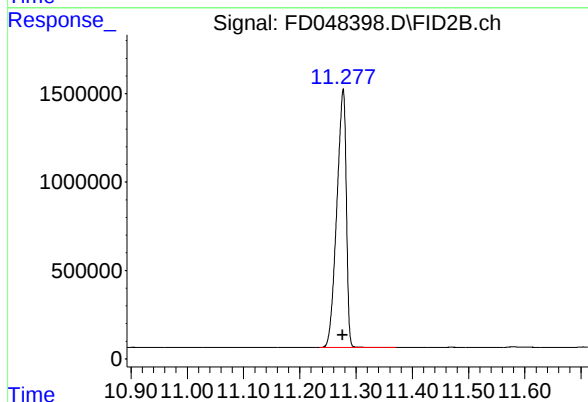
ClientSampleId :

100 PPM AROMATIC HC STD1



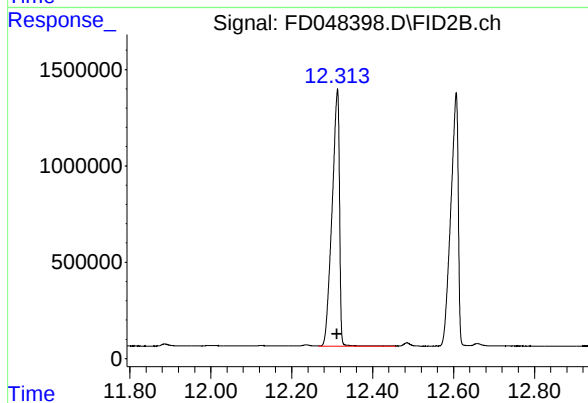
#10 Anthracene (C19.43)

R.T.: 10.582 min
Delta R.T.: 0.000 min
Response: 16550190
Conc: 96.03 ug/ml



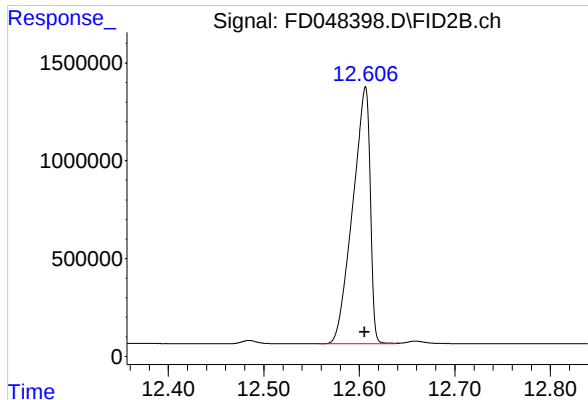
#11 ortho-Terphenyl (SURRE)

R.T.: 11.276 min
Delta R.T.: 0.000 min
Response: 17090754
Conc: 95.96 ug/ml



#12 Fluoranthene (C21.85)

R.T.: 12.312 min
Delta R.T.: 0.000 min
Response: 16931938
Conc: 96.61 ug/ml



#13 Pyrene (C20.8)

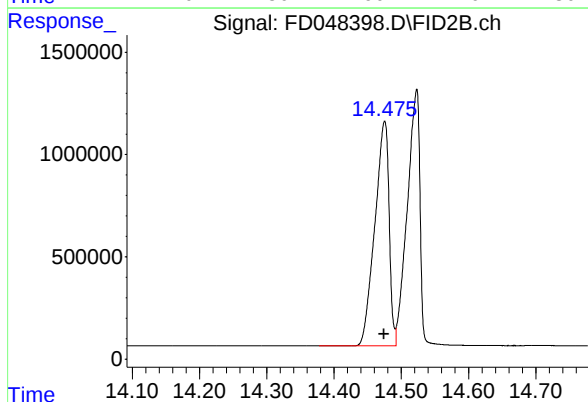
R.T.: 12.605 min
Delta R.T.: 0.000 min
Response: 16804934
Conc: 96.50 ug/ml

Instrument :

FID_D

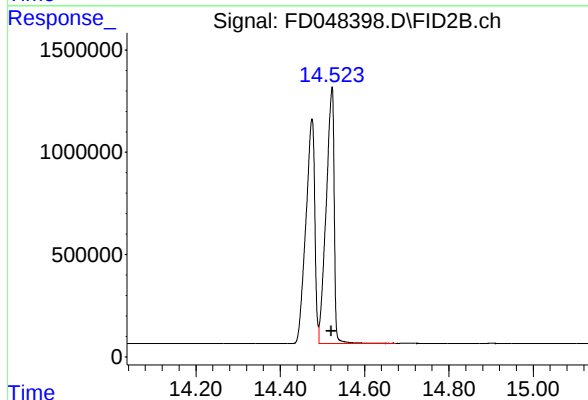
ClientSampleId :

100 PPM AROMATIC HC STD1



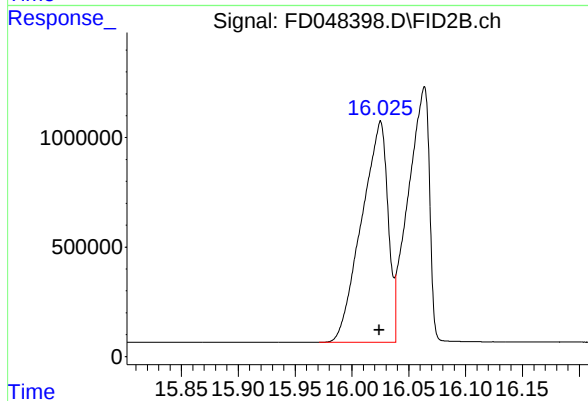
#14 Benzo[a]anthracene (C26.37)

R.T.: 14.474 min
Delta R.T.: 0.000 min
Response: 16142668
Conc: 98.54 ug/ml



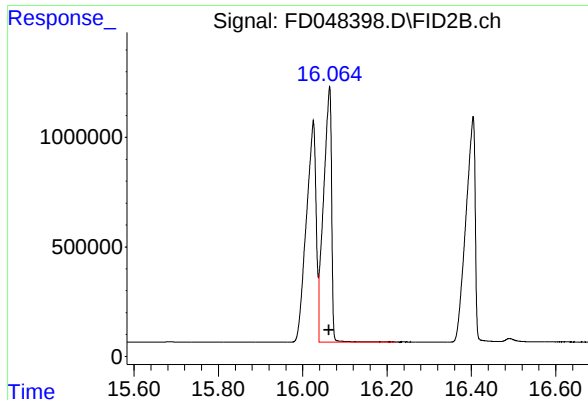
#15 Chrysene (C27.41)

R.T.: 14.521 min
Delta R.T.: 0.000 min
Response: 16511891
Conc: 94.84 ug/ml



#16 benzo[b]fluoranthene (C30.41)

R.T.: 16.024 min
Delta R.T.: 0.000 min
Response: 16340653
Conc: 97.83 ug/ml



#17 Bnezo[k]fluoranthene (C30.14)

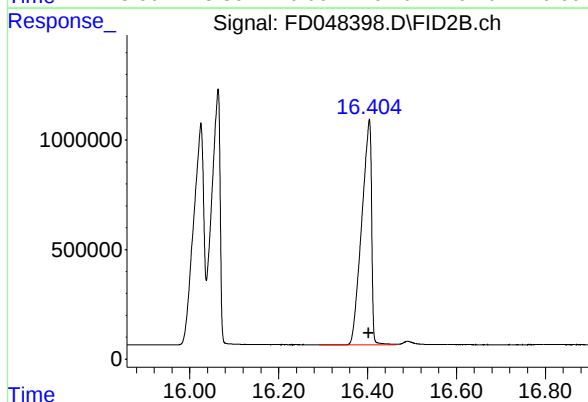
R.T.: 16.062 min
Delta R.T.: 0.000 min
Response: 15204824
Conc: 95.93 ug/ml

Instrument :

FID_D

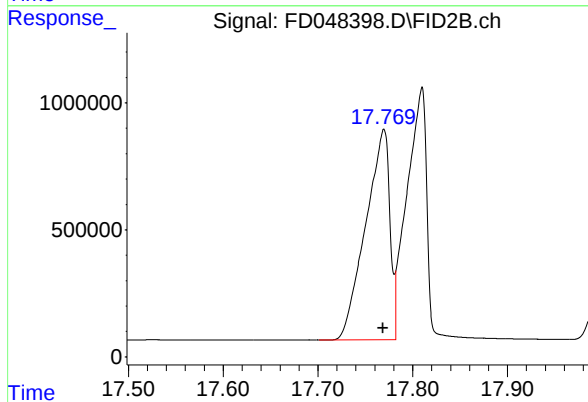
ClientSampleId :

100 PPM AROMATIC HC STD1



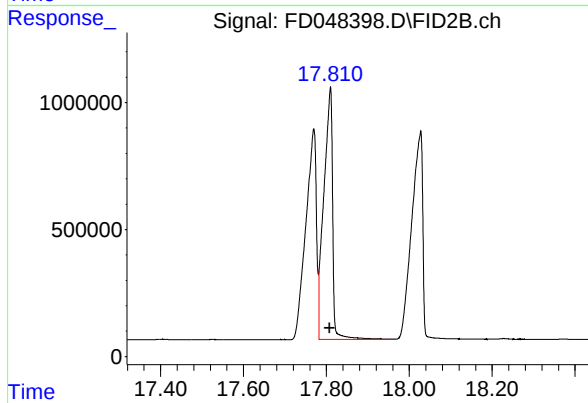
#18 Benzo[a]pyrene (C31.34)

R.T.: 16.403 min
Delta R.T.: 0.000 min
Response: 15774557
Conc: 97.01 ug/ml



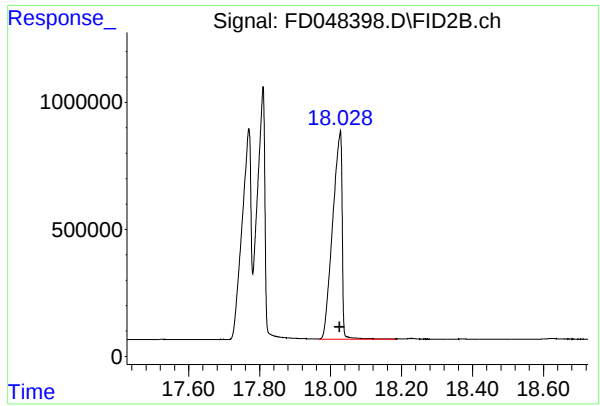
#19 Indeno[1,2,3-cd]pyrene (C35.01)

R.T.: 17.769 min
Delta R.T.: 0.000 min
Response: 14738374
Conc: 104.65 ug/ml



#20 Dibenz[a,h]anthracene (C30.36)

R.T.: 17.808 min
Delta R.T.: 0.000 min
Response: 14680138
Conc: 92.54 ug/ml



#21 Benzo[g,h,i]perylene (C34.01)

R.T.: 18.026 min
Delta R.T.: 0.000 min
Response: 15193201
Conc: 96.34 ug/ml

Instrument :

FID_D

ClientSampleId :

100 PPM AROMATIC HC STD1

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_D\Data\FD093024AR\
Data File : FD048398.D
Signal(s) : FID2B.ch
Acq On : 30 Sep 2024 10:32
Sample : 100 PPM AROMATIC HC STD1
Misc :
ALS Vial : 61 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_D\methods\Aromatic EPH 093024.M
Title : GC Extractables

Signal : FID2B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	4.207	4.164	4.263	BV	1915723	16808820	94.42%	4.964%
2	5.727	5.664	5.941	BB	1872447	17729732	99.59%	5.236%
3	6.776	6.735	6.897	VV	1717584	17802071	100.00%	5.257%
4	7.387	7.288	7.492	BV	1560603	15119127	84.93%	4.465%
5	8.042	8.003	8.198	PB	1635352	17444290	97.99%	5.152%
6	8.238	8.198	8.300	BV	1016626	10212063	57.36%	3.016%
7	8.339	8.300	8.481	VB	1641134	17443576	97.99%	5.152%
8	9.117	8.988	9.261	BV	1531823	17126947	96.21%	5.058%
9	10.505	10.421	10.543	BV	1397756	17035396	95.69%	5.031%
10	10.582	10.543	10.784	VB	1374690	16525531	92.83%	4.880%
11	11.276	11.074	11.371	BB	1486072	17092393	96.01%	5.048%
12	12.312	12.268	12.458	VV	1302464	16901440	94.94%	4.991%
13	12.605	12.558	12.638	BV	1285020	16803834	94.39%	4.963%
14	14.474	14.301	14.492	BV	1097241	16141236	90.67%	4.767%
15	14.521	14.492	14.674	VV	1228449	16510593	92.75%	4.876%
16	16.024	15.971	16.039	BV	1003738	16339021	91.78%	4.825%
17	16.062	16.039	16.184	VB	1128407	15185368	85.30%	4.485%
18	16.403	16.291	16.464	BV	1053085	15772391	88.60%	4.658%
19	17.769	17.701	17.782	BV	822737	14738374	82.79%	4.353%
20	17.808	17.782	17.968	VV	969287	14680138	82.46%	4.335%
21	18.026	17.968	18.184	VV	801967	15193201	85.35%	4.487%
Sum of corrected areas:						338605545		

Aromatic EPH 093024.M Tue Oct 01 01:47:33 2024

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_D\Data\FD093024AR\
 Data File : FD048399.D
 Signal(s) : FID2B.ch
 Acq On : 30 Sep 2024 11:10
 Operator : YP/AJ
 Sample : 50 PPM AROMATIC HC STD2
 Misc :
 ALS Vial : 62 Sample Multiplier: 1

Instrument :
 FID_D
 ClientSampleId :
 50 PPM AROMATIC HC STD2

Integration File: autoint1.e
 Quant Time: Sep 30 12:34:15 2024
 Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_D\methods\Aromatic EPH 093024.M
 Quant Title : GC Extractables
 QLast Update : Mon Sep 30 12:29:39 2024
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1 µl
 Signal Phase : Rxi-1ms
 Signal Info : 20M x 0.18mm x 0.18µm

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
4) S 2-Bromonaphthalene (S...	7.383	8053284	50.892 ug/ml
Spiked Amount 50.000		Recovery =	101.78%
6) S 2-Fluorobiphenyl (SURR)	8.233	5363905	51.056 ug/ml
Spiked Amount 50.000 Range 0 - 131		Recovery =	102.11%
11) S ortho-Terphenyl (SURR)	11.270	9118209	50.790 ug/ml
Spiked Amount 50.000		Recovery =	101.58%
Target Compounds			
1) T 1,2,3-Trimethylbenzen...	4.204	8896963	51.031 ug/ml
2) T Naphthalene (C11.7)	5.723	9355415	50.785 ug/ml
3) T 2-Methylnaphthalene (...)	6.771	9401412	50.779 ug/ml
5) T Acenaphthylene (C15.06)	8.037	9277174	50.667 ug/ml
7) T Acenaphthene (C15.5)	8.333	9308587	50.754 ug/ml
8) T Fluorene (C16.55)	9.111	9110768	50.892 ug/ml
9) T Phenanthrene (C19.36)	10.498	9022332	50.995 ug/ml
10) T Anthracene (C19.43)	10.574	8792165	50.672 ug/ml
12) T Fluoranthene (C21.85)	12.304	9031075	51.008 ug/ml
13) T Pyrene (C20.8)	12.597	8955008	50.941 ug/ml
14) T Benzo[a]anthracene (C...	14.466	8534836	51.382 ug/ml
15) T Chrysene (C27.41)	14.509	8851759	50.558 ug/ml
16) T benzo[b]fluoranthene ...	16.013	8576544	50.889 ug/ml
17) T Bnezo[k]fluoranthene ...	16.048	8089512	50.688 ug/ml
18) T Benzo[a]pyrene (C31.34)	16.390	8357472	50.921 ug/ml
19) T Indeno[1,2,3-cd]pyren...	17.754	7322210	51.311 ug/ml
20) T Dibenz[a,h]anthracene...	17.793	8013212	50.343 ug/ml
21) T Benzo[g,h,i]perylene ...	18.008	7980065	50.401 ug/ml

(f)=RT Delta > 1/2 Window

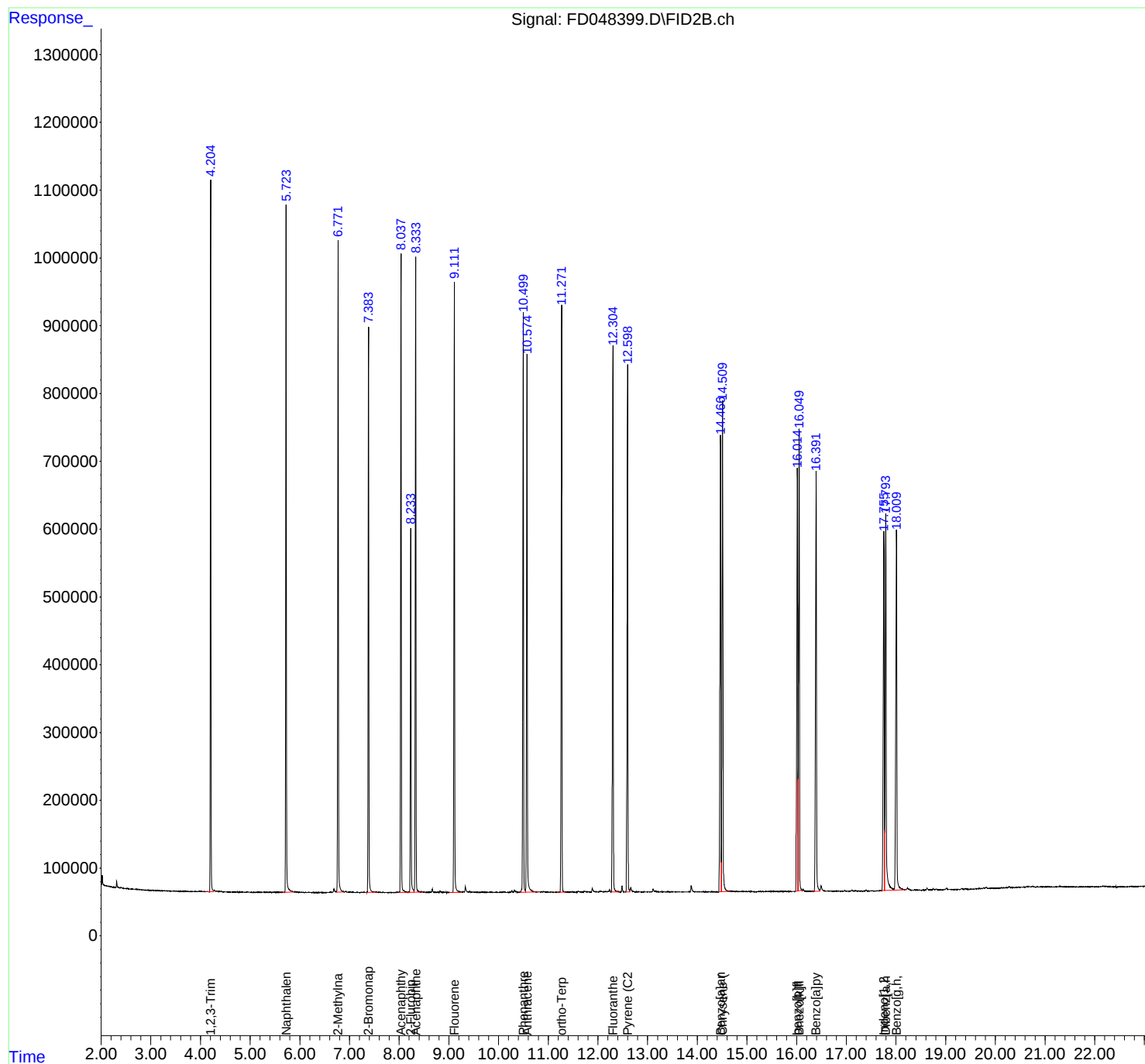
(m)=manual int.

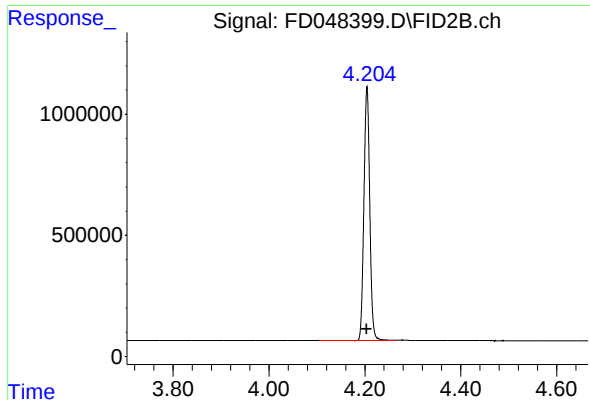
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_D\Data\FD093024AR\
Data File : FD048399.D
Signal(s) : FID2B.ch
Acq On : 30 Sep 2024 11:10
Operator : YP/AJ
Sample : 50 PPM AROMATIC HC STD2
Misc :
ALS Vial : 62 Sample Multiplier: 1

Instrument :
FID_D
ClientSampleId :
50 PPM AROMATIC HC STD2

Integration File: autoint1.e
Quant Time: Sep 30 12:34:15 2024
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_D\methods\Aromatic EPH 093024.M
Quant Title : GC Extractables
QLast Update : Mon Sep 30 12:29:39 2024
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 µl
Signal Phase : Rxi-1ms
Signal Info : 20M x 0.18mm x 0.18µm

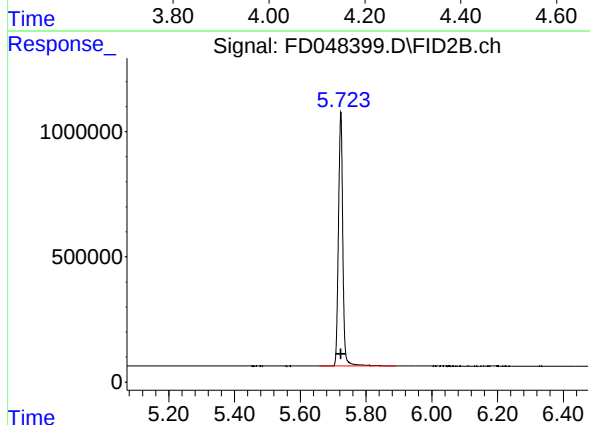




#1 1,2,3-Trimethylbenzene (C10.1)

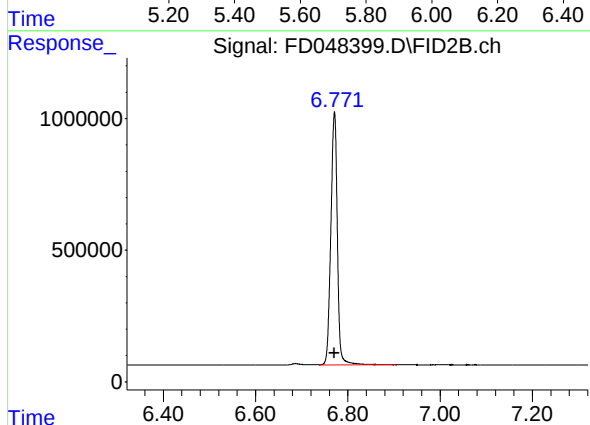
R.T.: 4.204 min
Delta R.T.: 0.000 min
Response: 8896963
Conc: 51.03 ug/ml

Instrument :
FID_D
ClientSampleId :
50 PPM AROMATIC HC STD2



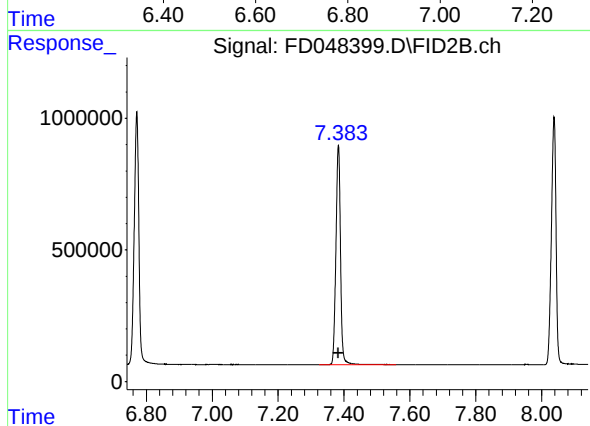
#2 Naphthalene (C11.7)

R.T.: 5.723 min
Delta R.T.: 0.000 min
Response: 9355415
Conc: 50.78 ug/ml



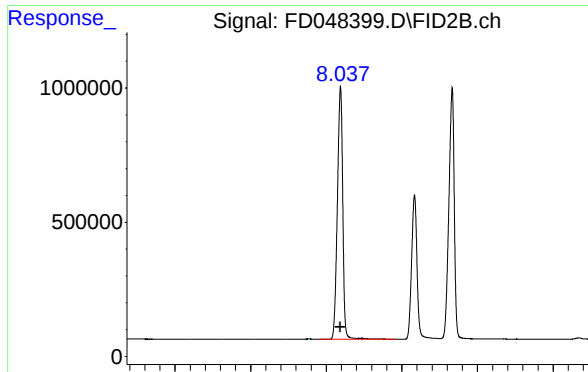
#3 2-Methylnaphthalene (C12.89)

R.T.: 6.771 min
Delta R.T.: 0.000 min
Response: 9401412
Conc: 50.78 ug/ml



#4 2-Bromonaphthalene (SURR)

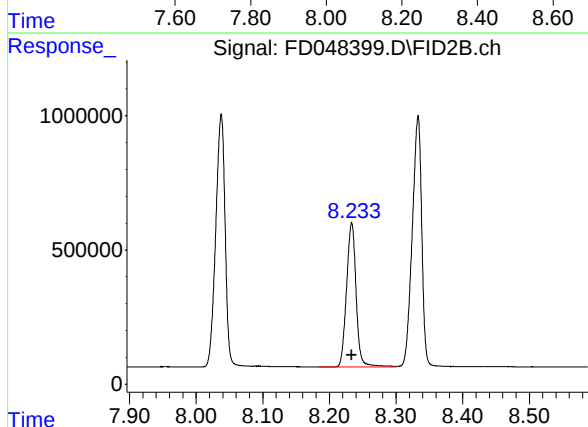
R.T.: 7.383 min
Delta R.T.: 0.000 min
Response: 8053284
Conc: 50.89 ug/ml



#5 Acenaphthylene (C15.06)

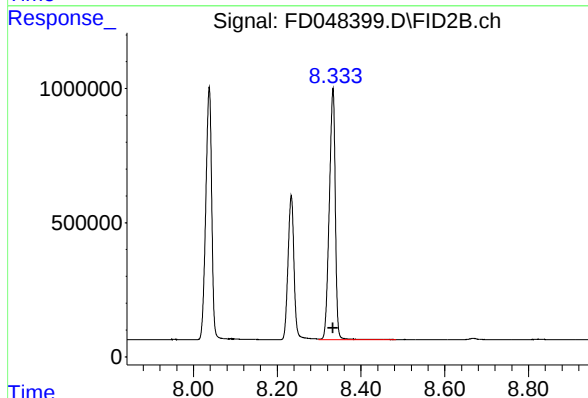
R.T.: 8.037 min
Delta R.T.: 0.000 min
Response: 9277174
Conc: 50.67 ug/ml

Instrument :
FID_D
ClientSampleId :
50 PPM AROMATIC HC STD2



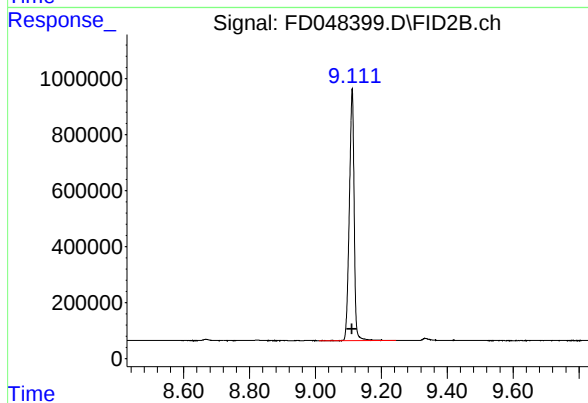
#6 2-Fluorobiphenyl (SURR)

R.T.: 8.233 min
Delta R.T.: 0.000 min
Response: 5363905
Conc: 51.06 ug/ml



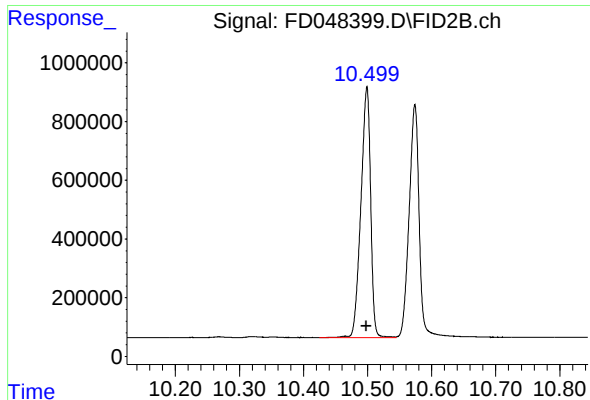
#7 Acenaphthene (C15.5)

R.T.: 8.333 min
Delta R.T.: 0.000 min
Response: 9308587
Conc: 50.75 ug/ml



#8 Flouorene (C16.55)

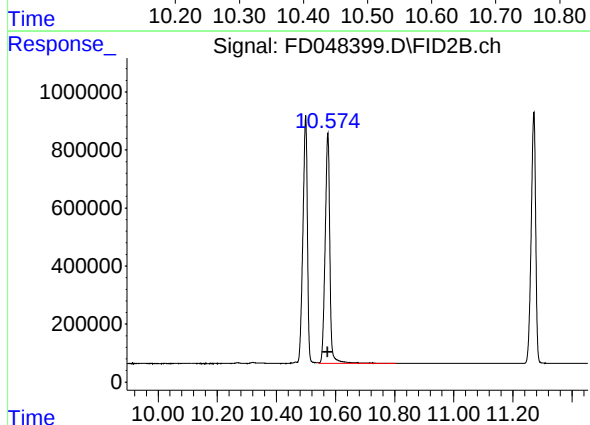
R.T.: 9.111 min
Delta R.T.: 0.000 min
Response: 9110768
Conc: 50.89 ug/ml



#9 Phenanthrene (C19.36)

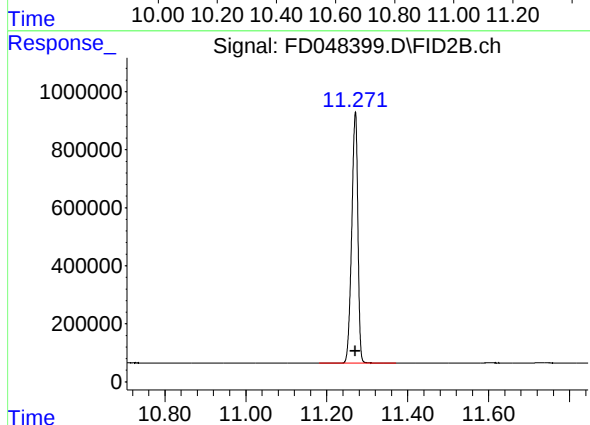
R.T.: 10.498 min
Delta R.T.: 0.000 min
Response: 9022332
Conc: 51.00 ug/ml

Instrument :
FID_D
ClientSampleId :
50 PPM AROMATIC HC STD2



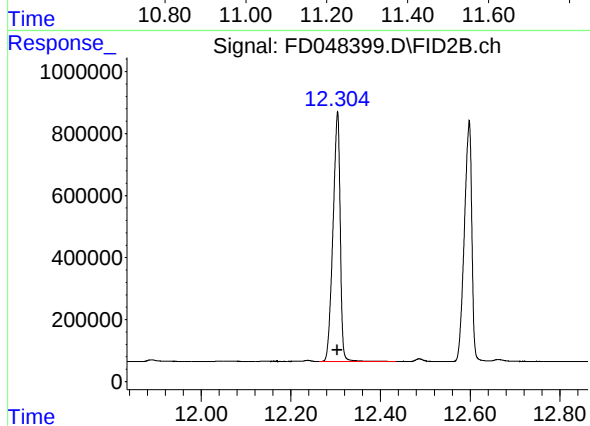
#10 Anthracene (C19.43)

R.T.: 10.574 min
Delta R.T.: 0.000 min
Response: 8792165
Conc: 50.67 ug/ml



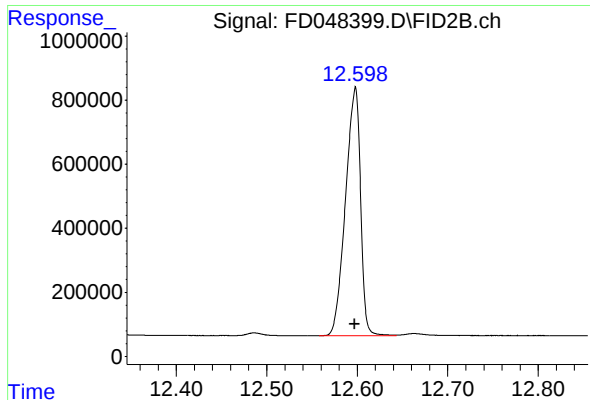
#11 ortho-Terphenyl (SURR)

R.T.: 11.270 min
Delta R.T.: 0.000 min
Response: 9118209
Conc: 50.79 ug/ml



#12 Fluoranthene (C21.85)

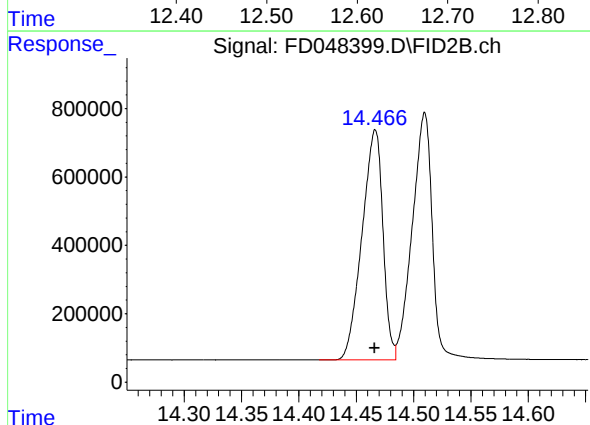
R.T.: 12.304 min
Delta R.T.: 0.000 min
Response: 9031075
Conc: 51.01 ug/ml



#13 Pyrene (C20.8)

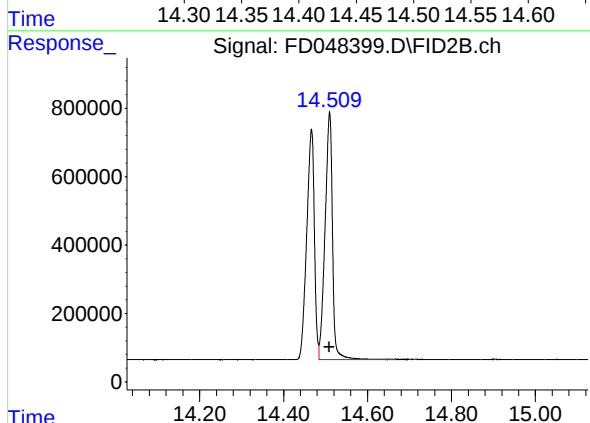
R.T.: 12.597 min
Delta R.T.: 0.000 min
Response: 8955008
Conc: 50.94 ug/ml

Instrument :
FID_D
ClientSampleId :
50 PPM AROMATIC HC STD2



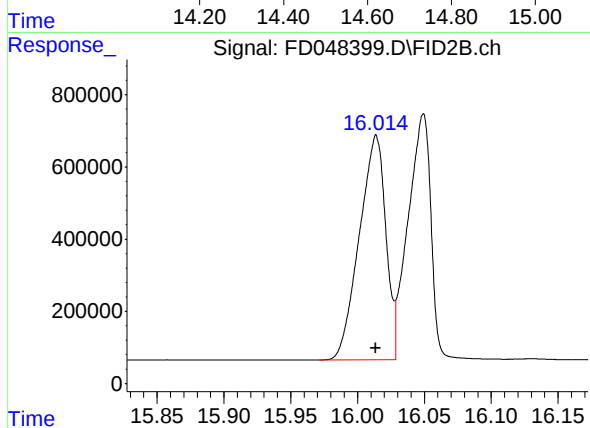
#14 Benzo[a]anthracene (C26.37)

R.T.: 14.466 min
Delta R.T.: 0.000 min
Response: 8534836
Conc: 51.38 ug/ml



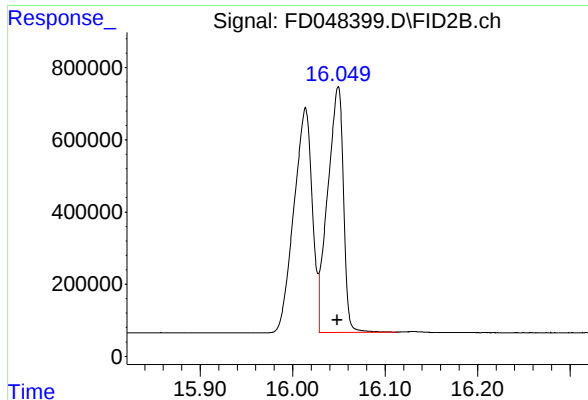
#15 Chrysene (C27.41)

R.T.: 14.509 min
Delta R.T.: 0.000 min
Response: 8851759
Conc: 50.56 ug/ml



#16 benzo[b]fluoranthene (C30.41)

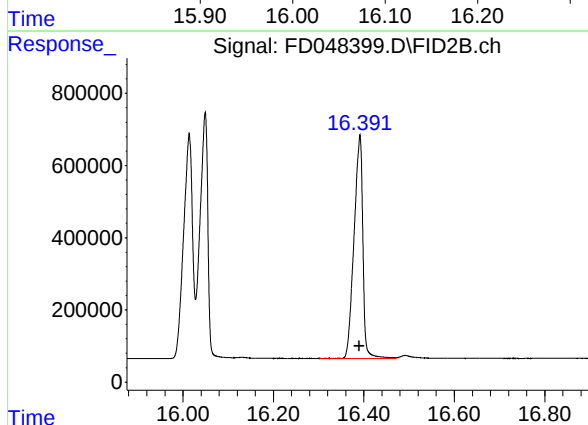
R.T.: 16.013 min
Delta R.T.: 0.000 min
Response: 8576544
Conc: 50.89 ug/ml



#17 Bnezo[k]fluoranthene (C30.14)

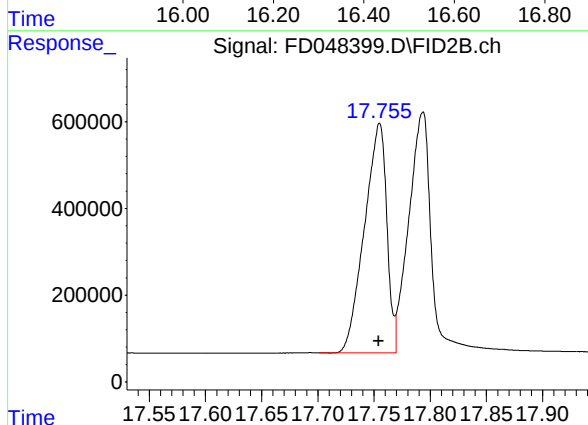
R.T.: 16.048 min
Delta R.T.: 0.000 min
Response: 8089512
Conc: 50.69 ug/ml

Instrument :
FID_D
ClientSampleId :
50 PPM AROMATIC HC STD2



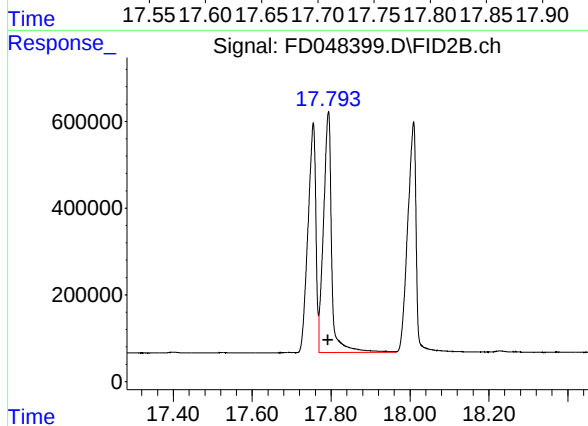
#18 Benzo[a]pyrene (C31.34)

R.T.: 16.390 min
Delta R.T.: 0.000 min
Response: 8357472
Conc: 50.92 ug/ml



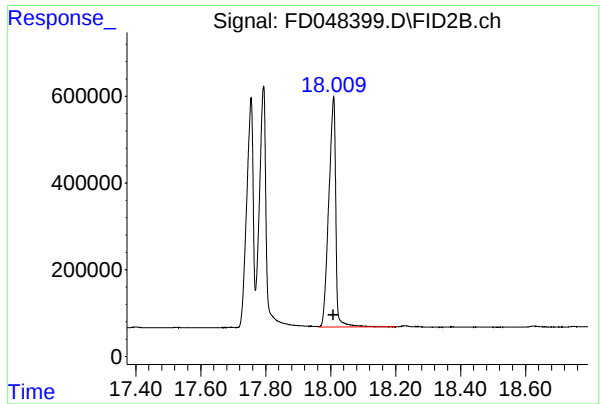
#19 Indeno[1,2,3-cd]pyrene (C35.01)

R.T.: 17.754 min
Delta R.T.: 0.000 min
Response: 7322210
Conc: 51.31 ug/ml



#20 Dibenz[a,h]anthracene (C30.36)

R.T.: 17.793 min
Delta R.T.: 0.000 min
Response: 8013212
Conc: 50.34 ug/ml



#21 Benzo[g,h,i]perylene (C34.01)

R.T.: 18.008 min
Delta R.T.: 0.000 min
Response: 7980065
Conc: 50.40 ug/ml

Instrument :
FID_D
ClientSampleId :
50 PPM AROMATIC HC STD2

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_D\Data\FD093024AR\
Data File : FD048399.D
Signal(s) : FID2B.ch
Acq On : 30 Sep 2024 11:10
Sample : 50 PPM AROMATIC HC STD2
Misc :
ALS Vial : 62 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_D\methods\Aromatic EPH 093024.M
Title : GC Extractables

Signal : FID2B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	4.204	4.138	4.265	BV	1045239	8844267	94.06%	4.936%
2	5.723	5.658	5.891	BV	1020976	9343668	99.37%	5.215%
3	6.771	6.738	6.904	VV	960640	9403190	100.00%	5.248%
4	7.383	7.275	7.528	PB	837974	8028291	85.38%	4.480%
5	8.037	7.981	8.168	VB	944306	9271271	98.60%	5.174%
6	8.233	8.178	8.300	BV	539343	5360312	57.01%	2.991%
7	8.333	8.300	8.481	VB	915788	9306766	98.97%	5.194%
8	9.111	9.021	9.244	BV	895204	9076333	96.52%	5.065%
9	10.498	10.398	10.544	BV	844446	9014676	95.87%	5.031%
10	10.574	10.544	10.781	VB	797965	8775430	93.32%	4.897%
11	11.270	11.184	11.371	BV	872834	9112859	96.91%	5.086%
12	12.304	12.263	12.434	PB	812257	8998589	95.70%	5.022%
13	12.597	12.558	12.643	BV	778213	8954963	95.23%	4.998%
14	14.466	14.318	14.485	BV	683059	8526273	90.67%	4.758%
15	14.509	14.485	14.668	VB	714287	8844035	94.05%	4.936%
16	16.013	15.971	16.029	BV	624297	8576544	91.21%	4.786%
17	16.048	16.029	16.112	VV	674122	8089512	86.03%	4.515%
18	16.390	16.204	16.471	BV	618316	8343619	88.73%	4.656%
19	17.754	17.701	17.769	BV	530824	7322210	77.87%	4.086%
20	17.793	17.769	17.964	VV	549809	8013212	85.22%	4.472%
21	18.008	17.964	18.201	VBA	525536	7980065	84.87%	4.454%
Sum of corrected areas:						179186086		

Aromatic EPH 093024.M Tue Oct 01 01:48:30 2024

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_D\Data\FD093024AR\
 Data File : FD048400.D
 Signal(s) : FID2B.ch
 Acq On : 30 Sep 2024 11:48
 Operator : YP/AJ
 Sample : 20 PPM AROMATIC HC STD3
 Misc :
 ALS Vial : 63 Sample Multiplier: 1

Instrument :
 FID_D
 ClientSampleId :
 20 PPM AROMATIC HC STD3

Integration File: autoint1.e
 Quant Time: Sep 30 12:30:02 2024
 Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_D\methods\Aromatic EPH 093024.M
 Quant Title : GC Extractables
 QLast Update : Mon Sep 30 12:29:39 2024
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1 µl
 Signal Phase : Rxi-1ms
 Signal Info : 20M x 0.18mm x 0.18µm

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
4) S 2-Bromonaphthalene (S...	7.382	3246497	20.000 ug/ml
Spiked Amount 50.000		Recovery =	40.00%
6) S 2-Fluorobiphenyl (SURR)	8.232	2113006	20.000 ug/ml
Spiked Amount 50.000 Range 0 - 131		Recovery =	40.00%
11) S ortho-Terphenyl (SURR)	11.267	3706162	20.000 ug/ml
Spiked Amount 50.000		Recovery =	40.00%
Target Compounds			
1) T 1,2,3-Trimethylbenzen...	4.204	3531993	20.000 ug/ml
2) T Naphthalene (C11.7)	5.722	3751038	20.000 ug/ml
3) T 2-Methylnaphthalene (...)	6.769	3782649	20.000 ug/ml
5) T Acenaphthylene (C15.06)	8.034	3784046	20.000 ug/ml
7) T Acenaphthene (C15.5)	8.328	3783016	20.000 ug/ml
8) T Fluorene (C16.55)	9.107	3664123	20.000 ug/ml
9) T Phenanthrene (C19.36)	10.494	3599000	20.000 ug/ml
10) T Anthracene (C19.43)	10.569	3583756	20.000 ug/ml
12) T Fluoranthene (C21.85)	12.298	3624323	20.000 ug/ml
13) T Pyrene (C20.8)	12.591	3604512	20.000 ug/ml
14) T Benzo[a]anthracene (C...	14.460	3323894	20.000 ug/ml
15) T Chrysene (C27.41)	14.501	3661741	20.000 ug/ml
16) T benzo[b]fluoranthene ...	16.005	3413368	20.000 ug/ml
17) T Bnezo[k]fluoranthene ...	16.037	3298832	20.000 ug/ml
18) T Benzo[a]pyrene (C31.34)	16.380	3349724	20.000 ug/ml
19) T Indeno[1,2,3-cd]pyren...	17.743	2685595	20.000 ug/ml
20) T Dibenz[a,h]anthracene...	17.784	3409082	20.000 ug/ml
21) T Benzo[g,h,i]perylene ...	17.993	3269223	20.000 ug/ml

(f)=RT Delta > 1/2 Window

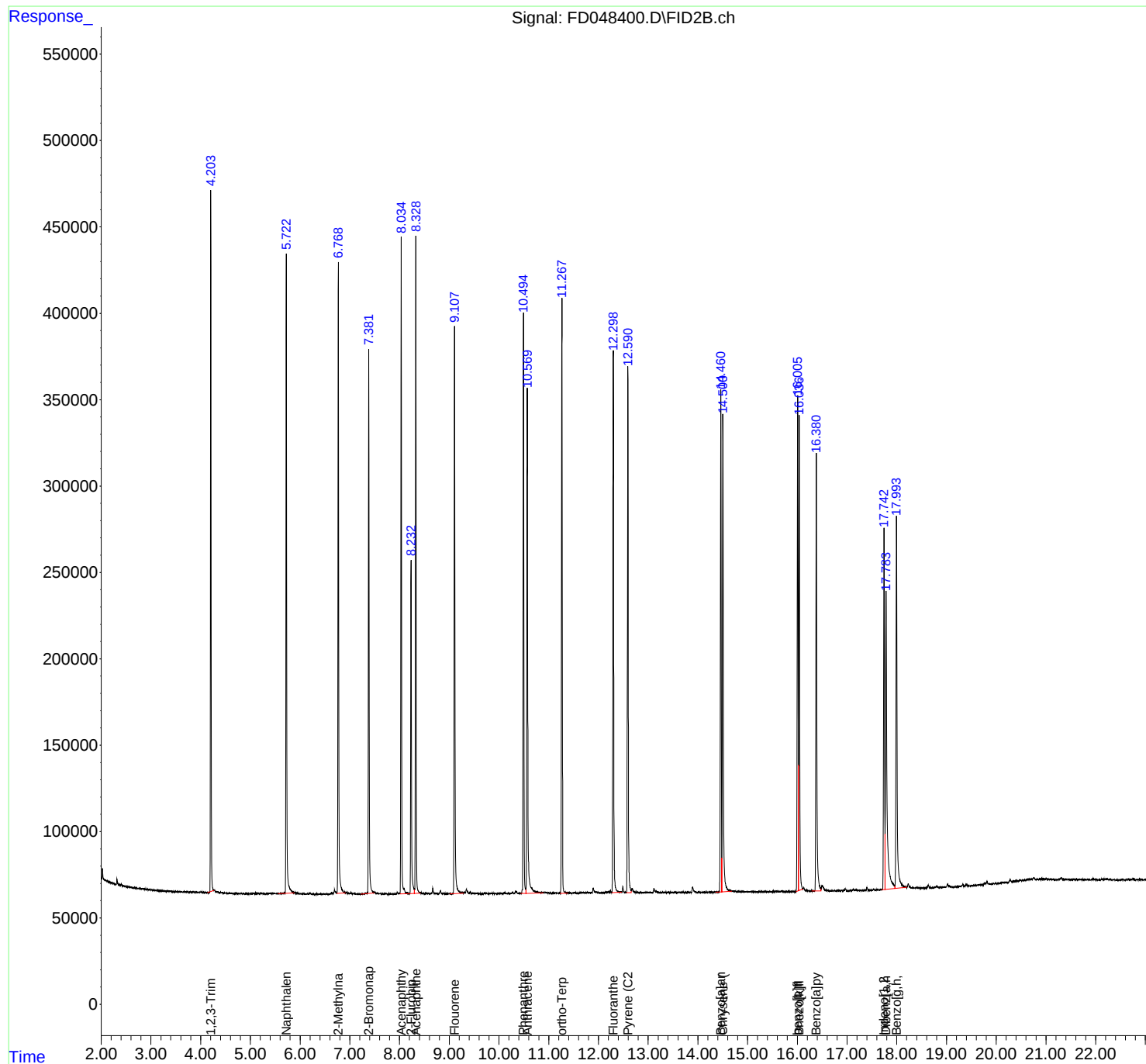
(m)=manual int.

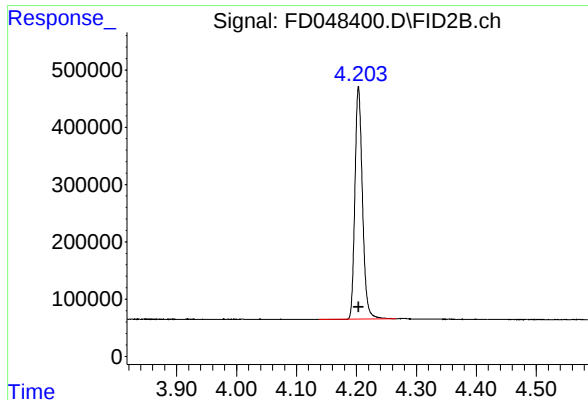
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_D\Data\FD093024AR\
Data File : FD048400.D
Signal(s) : FID2B.ch
Acq On : 30 Sep 2024 11:48
Operator : YP/AJ
Sample : 20 PPM AROMATIC HC STD3
Misc :
ALS Vial : 63 Sample Multiplier: 1

Instrument :
FID_D
ClientSampleId :
20 PPM AROMATIC HC STD3

Integration File: autoint1.e
Quant Time: Sep 30 12:30:02 2024
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_D\methods\Aromatic EPH 093024.M
Quant Title : GC Extractables
QLast Update : Mon Sep 30 12:29:39 2024
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 µl
Signal Phase : Rxi-1ms
Signal Info : 20M x 0.18mm x 0.18µm

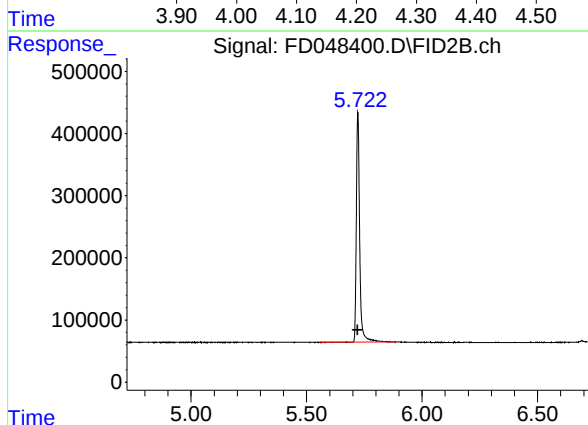




#1 1,2,3-Trimethylbenzene (C10.1)

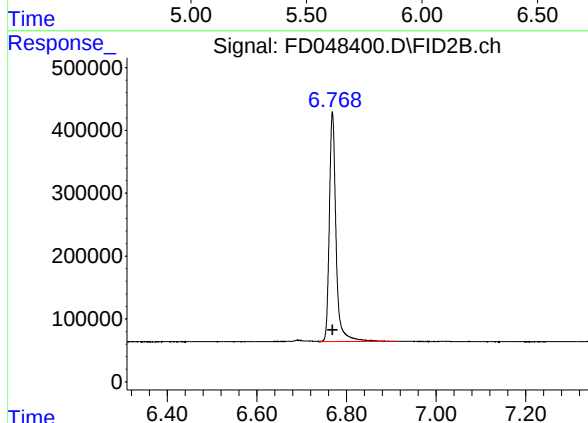
R.T.: 4.204 min
Delta R.T.: 0.000 min
Response: 3531993
Conc: 20.00 ug/ml

Instrument :
FID_D
ClientSampleId :
20 PPM AROMATIC HC STD3



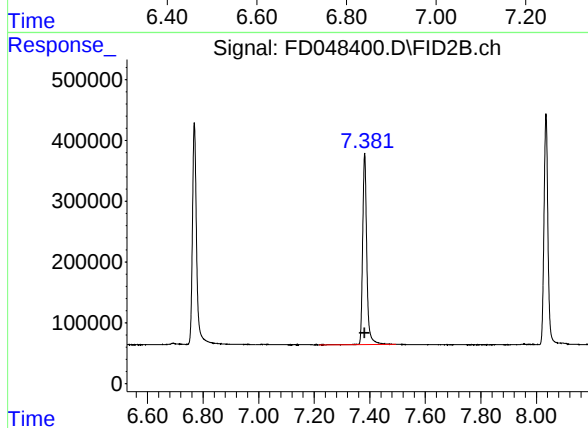
#2 Naphthalene (C11.7)

R.T.: 5.722 min
Delta R.T.: 0.000 min
Response: 3751038
Conc: 20.00 ug/ml



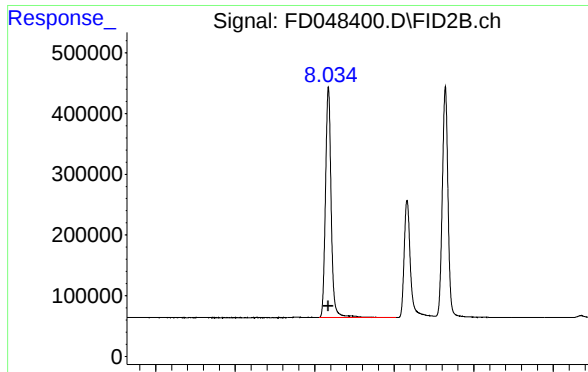
#3 2-Methylnaphthalene (C12.89)

R.T.: 6.769 min
Delta R.T.: 0.000 min
Response: 3782649
Conc: 20.00 ug/ml



#4 2-Bromonaphthalene (SURR)

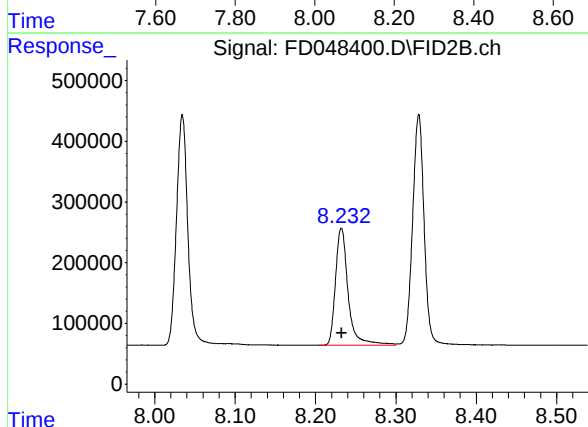
R.T.: 7.382 min
Delta R.T.: 0.000 min
Response: 3246497
Conc: 20.00 ug/ml



#5 Acenaphthylene (C15.06)

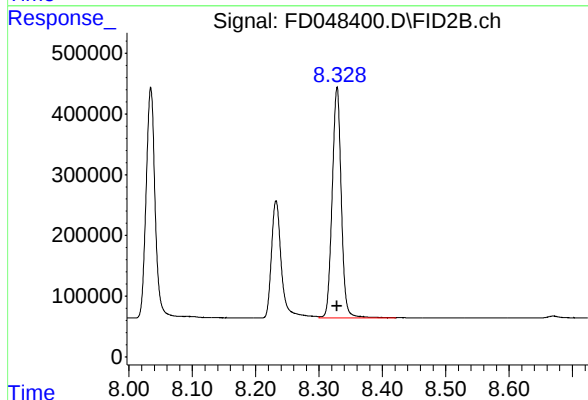
R.T.: 8.034 min
Delta R.T.: 0.000 min
Response: 3784046
Conc: 20.00 ug/ml

Instrument :
FID_D
ClientSampleId :
20 PPM AROMATIC HC STD3



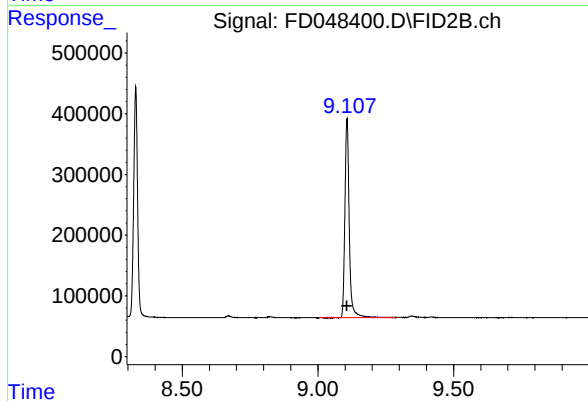
#6 2-Fluorobiphenyl (SURR)

R.T.: 8.232 min
Delta R.T.: 0.000 min
Response: 2113006
Conc: 20.00 ug/ml



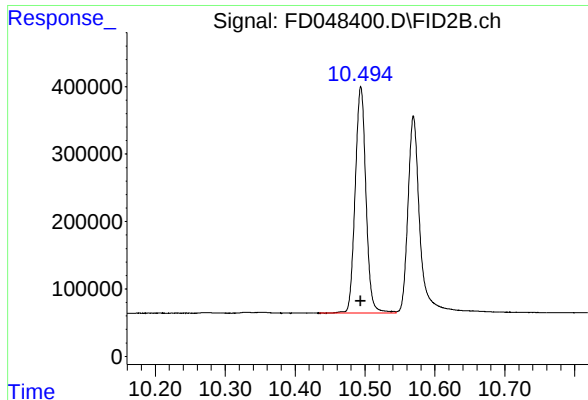
#7 Acenaphthene (C15.5)

R.T.: 8.328 min
Delta R.T.: 0.000 min
Response: 3783016
Conc: 20.00 ug/ml



#8 Fluorene (C16.55)

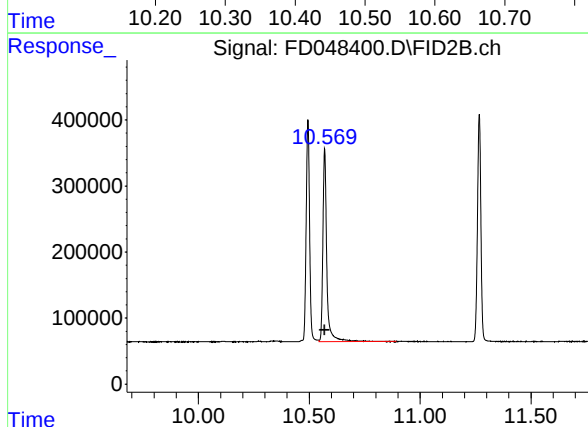
R.T.: 9.107 min
Delta R.T.: 0.000 min
Response: 3664123
Conc: 20.00 ug/ml



#9 Phenanthrene (C19.36)

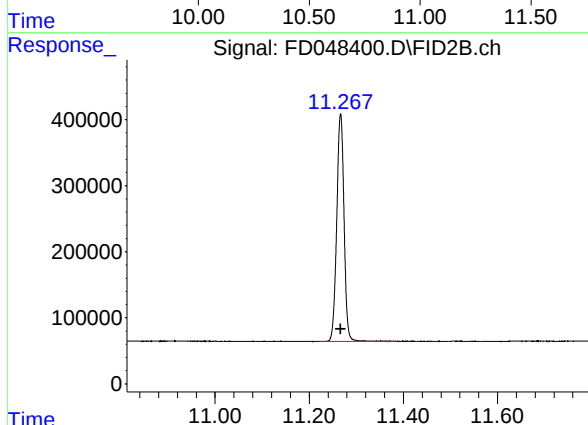
R.T.: 10.494 min
Delta R.T.: 0.000 min
Response: 3599000
Conc: 20.00 ug/ml

Instrument :
FID_D
ClientSampleId :
20 PPM AROMATIC HC STD3



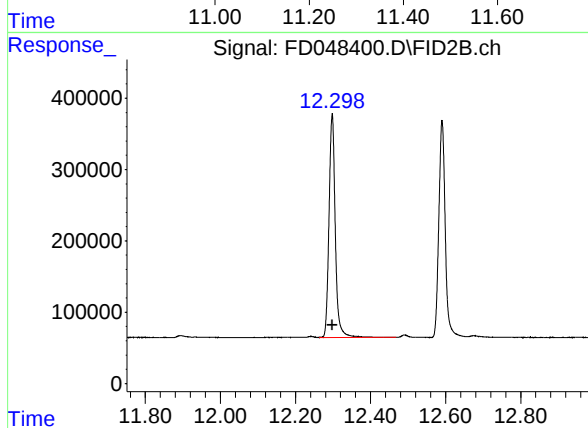
#10 Anthracene (C19.43)

R.T.: 10.569 min
Delta R.T.: 0.000 min
Response: 3583756
Conc: 20.00 ug/ml



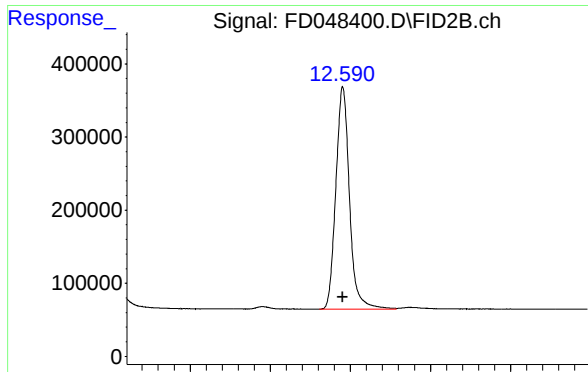
#11 ortho-Terphenyl (SURRE)

R.T.: 11.267 min
Delta R.T.: 0.000 min
Response: 3706162
Conc: 20.00 ug/ml



#12 Fluoranthene (C21.85)

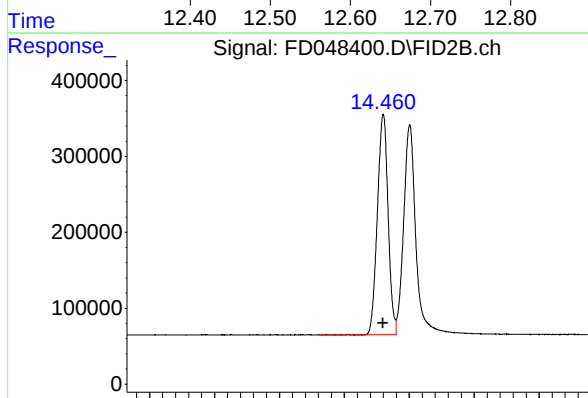
R.T.: 12.298 min
Delta R.T.: 0.000 min
Response: 3624323
Conc: 20.00 ug/ml



#13 Pyrene (C20.8)

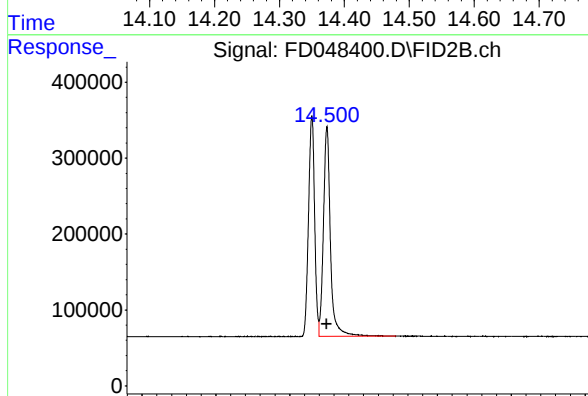
R.T.: 12.591 min
Delta R.T.: 0.000 min
Response: 3604512
Conc: 20.00 ug/ml

Instrument :
FID_D
ClientSampleId :
20 PPM AROMATIC HC STD3



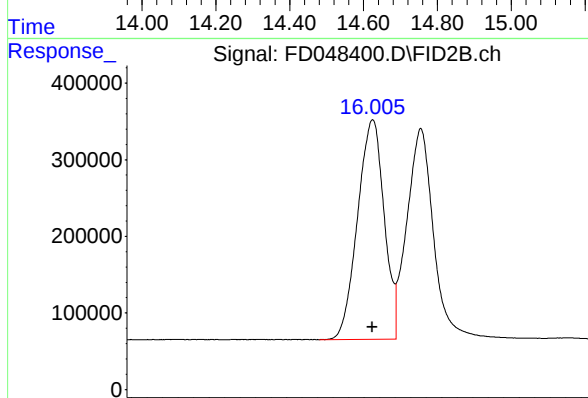
#14 Benzo[a]anthracene (C26.37)

R.T.: 14.460 min
Delta R.T.: 0.000 min
Response: 3323894
Conc: 20.00 ug/ml



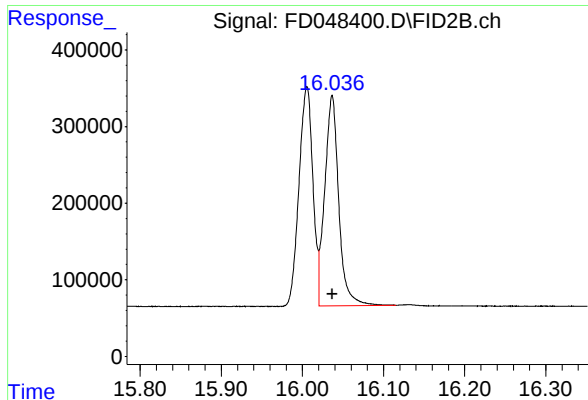
#15 Chrysene (C27.41)

R.T.: 14.501 min
Delta R.T.: 0.000 min
Response: 3661741
Conc: 20.00 ug/ml



#16 benzo[b]fluoranthene (C30.41)

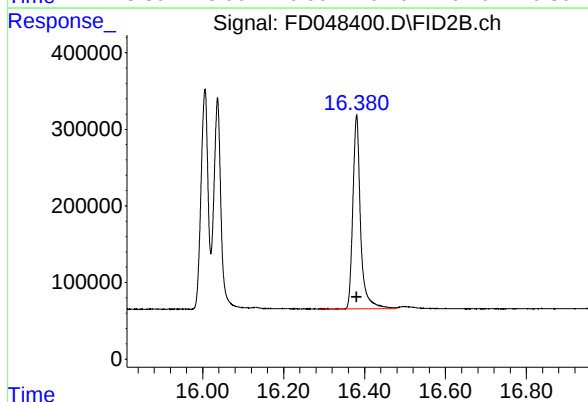
R.T.: 16.005 min
Delta R.T.: 0.000 min
Response: 3413368
Conc: 20.00 ug/ml



#17 Bnezo[k]fluoranthene (C30.14)

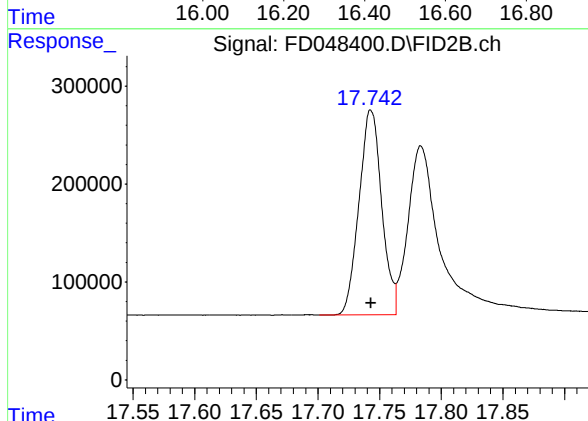
R.T.: 16.037 min
Delta R.T.: 0.000 min
Response: 3298832
Conc: 20.00 ug/ml

Instrument :
FID_D
ClientSampleId :
20 PPM AROMATIC HC STD3



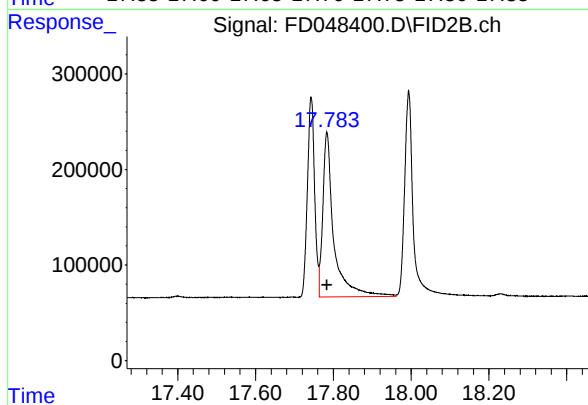
#18 Benzo[a]pyrene (C31.34)

R.T.: 16.380 min
Delta R.T.: 0.000 min
Response: 3349724
Conc: 20.00 ug/ml



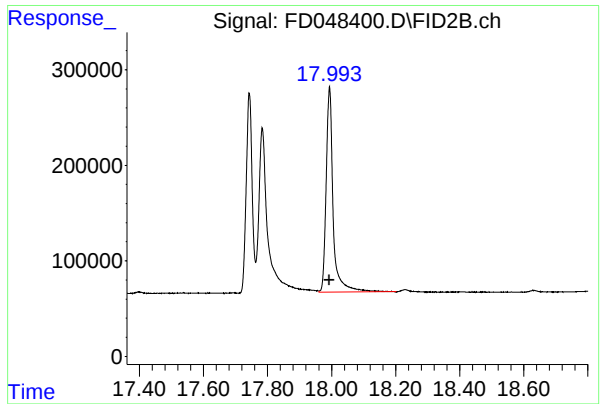
#19 Indeno[1,2,3-cd]pyrene (C35.01)

R.T.: 17.743 min
Delta R.T.: 0.000 min
Response: 2685595
Conc: 20.00 ug/ml



#20 Dibenz[a,h]anthracene (C30.36)

R.T.: 17.784 min
Delta R.T.: 0.000 min
Response: 3409082
Conc: 20.00 ug/ml



#21 Benzo[g,h,i]perylene (C34.01)

R.T.: 17.993 min
Delta R.T.: 0.000 min
Response: 3269223
Conc: 20.00 ug/ml

Instrument :
FID_D
ClientSampleId :
20 PPM AROMATIC HC STD3

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_D\Data\FD093024AR\
Data File : FD048400.D
Signal(s) : FID2B.ch
Acq On : 30 Sep 2024 11:48
Sample : 20 PPM AROMATIC HC STD3
Misc :
ALS Vial : 63 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_D\methods\Aromatic EPH 093024.M
Title : GC Extractables

Signal : FID2B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	4.204	4.151	4.266	BV	400376	3537815	93.04%	4.912%
2	5.722	5.581	5.888	BV	369307	3754770	98.74%	5.213%
3	6.769	6.739	6.911	VB	364360	3783797	99.50%	5.253%
4	7.382	7.114	7.574	BB	313593	3296950	86.70%	4.577%
5	8.034	7.984	8.204	BB	379343	3765462	99.02%	5.228%
6	8.232	8.204	8.300	BV	193436	2116292	55.65%	2.938%
7	8.328	8.300	8.468	VB	378708	3802634	100.00%	5.279%
8	9.107	9.038	9.264	BB	327878	3643058	95.80%	5.058%
9	10.494	10.401	10.544	BV	335819	3590326	94.42%	4.985%
10	10.569	10.544	10.798	VB	289199	3544937	93.22%	4.921%
11	11.267	11.181	11.384	BB	345260	3694652	97.16%	5.129%
12	12.298	12.263	12.444	PB	312362	3617732	95.14%	5.023%
13	12.591	12.531	12.657	BV	303618	3561567	93.66%	4.945%
14	14.460	14.388	14.479	BV	292456	3322945	87.39%	4.613%
15	14.501	14.479	14.684	VB	276578	3655582	96.13%	5.075%
16	16.005	15.971	16.021	BV	284955	3413368	89.76%	4.739%
17	16.037	16.021	16.115	VV	275555	3298832	86.75%	4.580%
18	16.380	16.284	16.478	BV	253350	3265182	85.87%	4.533%
19	17.743	17.701	17.763	BV	209613	2685595	70.62%	3.728%
20	17.784	17.763	17.961	VV	171664	3409082	89.65%	4.733%
21	17.993	17.961	18.201	VBA	216275	3269223	85.97%	4.539%
Sum of corrected areas:							72029803	

Aromatic EPH 093024.M Tue Oct 01 01:49:11 2024

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_D\Data\FD093024AR\
 Data File : FD048401.D
 Signal(s) : FID2B.ch
 Acq On : 30 Sep 2024 12:47
 Operator : YP/AJ
 Sample : 10 PPM AROMATIC HC STD4
 Misc :
 ALS Vial : 64 Sample Multiplier: 1

Instrument :
 FID_D
 ClientSampleId :
 10 PPM AROMATIC HC STD4

Integration File: autoint1.e
 Quant Time: Sep 30 13:23:11 2024
 Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_D\methods\Aromatic EPH 093024.M
 Quant Title : GC Extractables
 QLast Update : Mon Sep 30 13:23:03 2024
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1 µl
 Signal Phase : Rxi-1ms
 Signal Info : 20M x 0.18mm x 0.18µm

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
4) S 2-Bromonaphthalene (S...	7.381	1605451	10.109 ug/ml
Spiked Amount 50.000		Recovery =	20.22%
6) S 2-Fluorobiphenyl (SURR)	8.233	1016463	9.754 ug/ml
Spiked Amount 50.000 Range 0 - 131		Recovery =	19.51%
11) S ortho-Terphenyl (SURR)	11.265	1833921	10.161 ug/ml
Spiked Amount 50.000		Recovery =	20.32%
Target Compounds			
1) T 1,2,3-Trimethylbenzen...	4.202	1731147	9.947 ug/ml
2) T Naphthalene (C11.7)	5.721	1840574	9.994 ug/ml
3) T 2-Methylnaphthalene (...)	6.768	1908614	10.230 ug/ml
5) T Acenaphthylene (C15.06)	8.033	1960832	10.522 ug/ml
7) T Acenaphthene (C15.5)	8.326	1881168	10.191 ug/ml
8) T Fluorene (C16.55)	9.107	1798234	10.034 ug/ml
9) T Phenanthrene (C19.36)	10.493	1754425	9.937 ug/ml
10) T Anthracene (C19.43)	10.570	1840011	10.447 ug/ml
12) T Fluoranthene (C21.85)	12.298	1804434	10.143 ug/ml
13) T Pyrene (C20.8)	12.590	1743379	9.938 ug/ml
14) T Benzo[a]anthracene (C...	14.458	1549123	9.486 ug/ml
15) T Chrysene (C27.41)	14.499	1921102	10.712 ug/ml
16) T benzo[b]fluoranthene ...	16.003	1647278	9.830 ug/ml
17) T Bnezo[k]fluoranthene ...	16.034	1761068	10.756 ug/ml
18) T Benzo[a]pyrene (C31.34)	16.384	1649795	10.039 ug/ml
19) T Indeno[1,2,3-cd]pyren...	17.747	1182778	8.659 ug/ml
20) T Dibenz[a,h]anthracene...	17.791	1747599	10.717 ug/ml
21) T Benzo[g,h,i]perylene ...	17.994	1634016	10.238 ug/ml

(f)=RT Delta > 1/2 Window

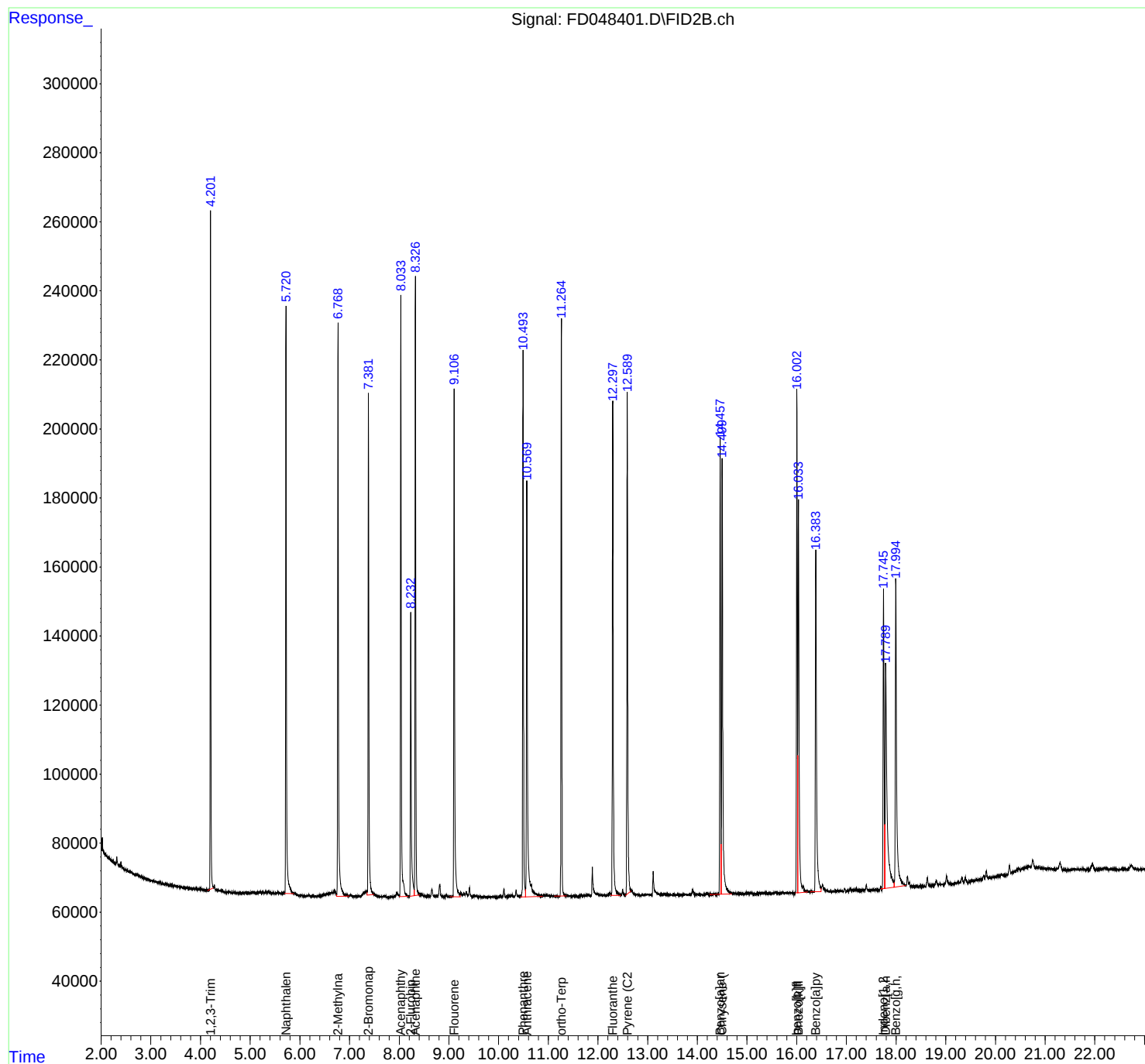
(m)=manual int.

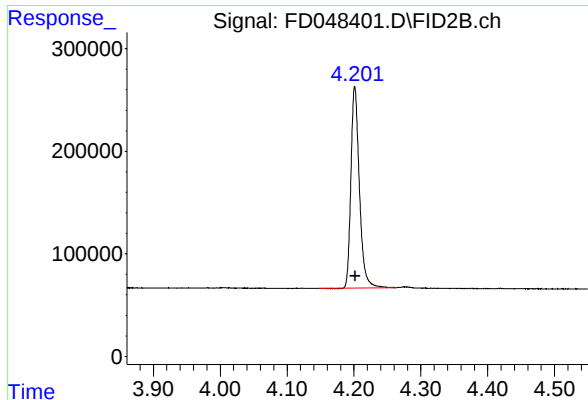
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_D\Data\FD093024AR\
Data File : FD048401.D
Signal(s) : FID2B.ch
Acq On : 30 Sep 2024 12:47
Operator : YP/AJ
Sample : 10 PPM AROMATIC HC STD4
Misc :
ALS Vial : 64 Sample Multiplier: 1

Instrument :
FID_D
ClientSampleId :
10 PPM AROMATIC HC STD4

Integration File: autoint1.e
Quant Time: Sep 30 13:23:11 2024
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_D\methods\Aromatic EPH 093024.M
Quant Title : GC Extractables
QLast Update : Mon Sep 30 13:23:03 2024
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 µl
Signal Phase : Rxi-1ms
Signal Info : 20M x 0.18mm x 0.18µm

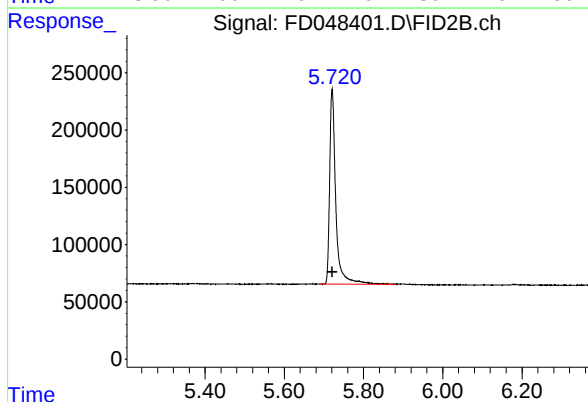




#1 1,2,3-Trimethylbenzene (C10.1)

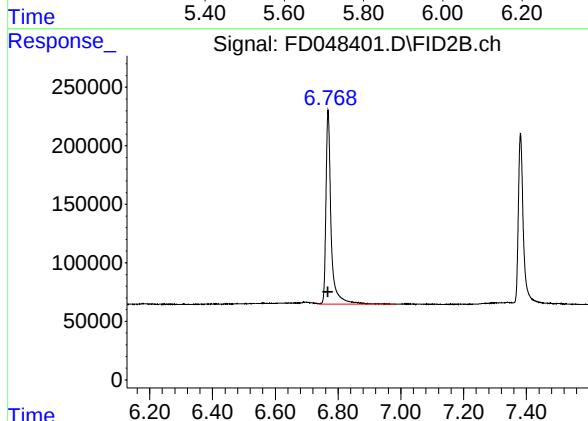
R.T.: 4.202 min
Delta R.T.: 0.000 min
Response: 1731147
Conc: 9.95 ug/ml

Instrument :
FID_D
ClientSampleId :
10 PPM AROMATIC HC STD4



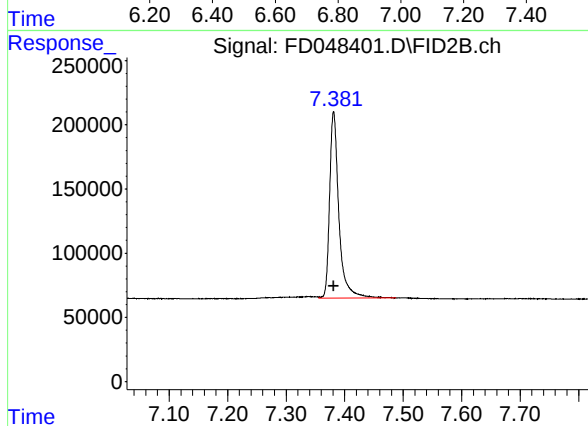
#2 Naphthalene (C11.7)

R.T.: 5.721 min
Delta R.T.: 0.000 min
Response: 1840574
Conc: 9.99 ug/ml



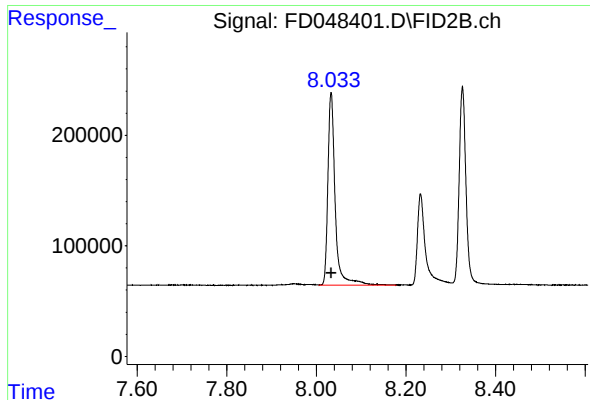
#3 2-Methylnaphthalene (C12.89)

R.T.: 6.768 min
Delta R.T.: 0.000 min
Response: 1908614
Conc: 10.23 ug/ml



#4 2-Bromonaphthalene (SURR)

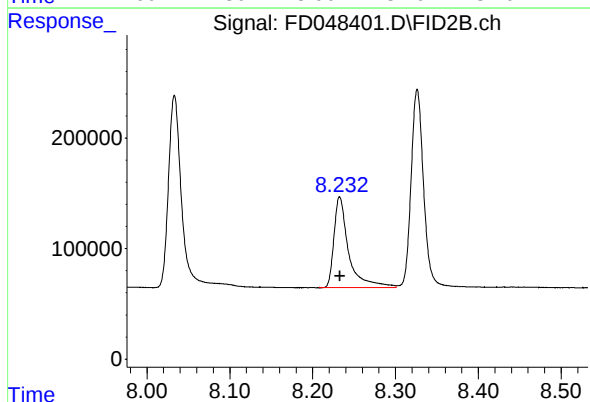
R.T.: 7.381 min
Delta R.T.: 0.000 min
Response: 1605451
Conc: 10.11 ug/ml



#5 Acenaphthylene (C15.06)

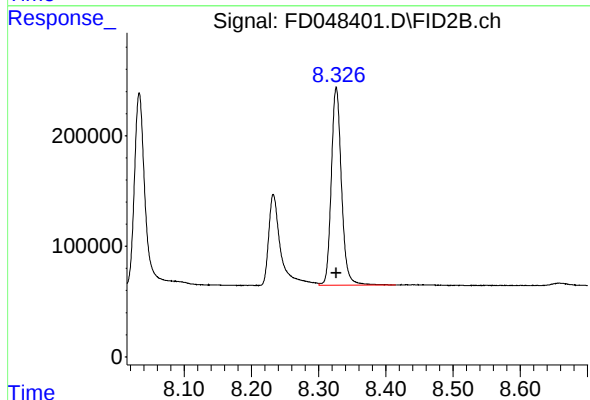
R.T.: 8.033 min
Delta R.T.: 0.000 min
Response: 1960832
Conc: 10.52 ug/ml

Instrument :
FID_D
ClientSampleId :
10 PPM AROMATIC HC STD4



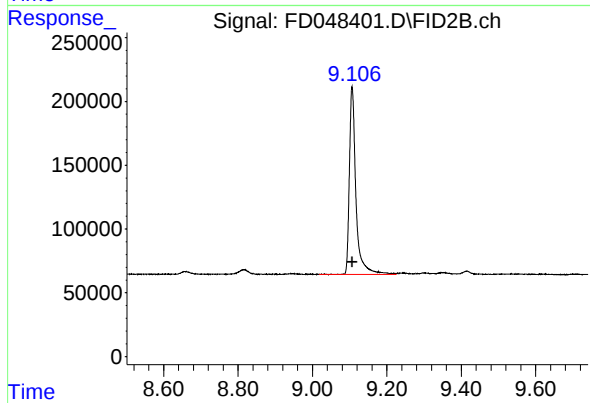
#6 2-Fluorobiphenyl (SURR)

R.T.: 8.233 min
Delta R.T.: 0.000 min
Response: 1016463
Conc: 9.75 ug/ml



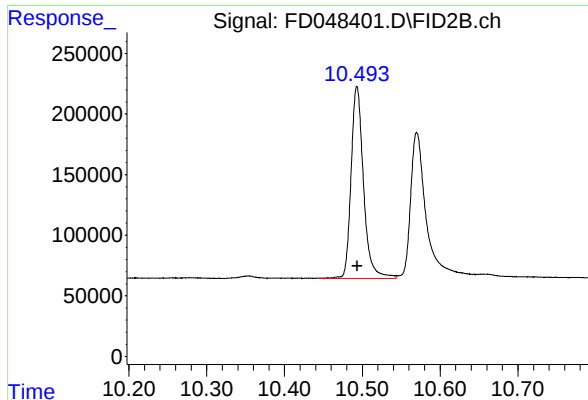
#7 Acenaphthene (C15.5)

R.T.: 8.326 min
Delta R.T.: 0.000 min
Response: 1881168
Conc: 10.19 ug/ml



#8 Flouorene (C16.55)

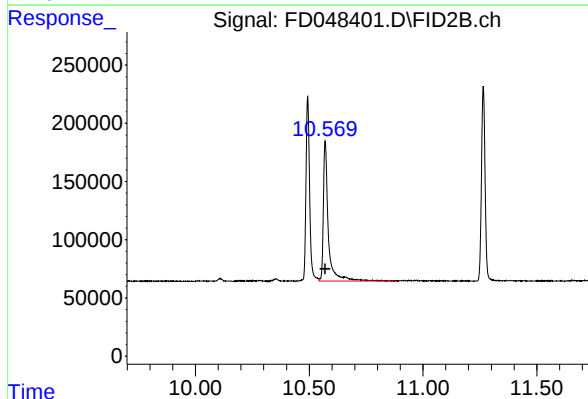
R.T.: 9.107 min
Delta R.T.: 0.000 min
Response: 1798234
Conc: 10.03 ug/ml



#9 Phenanthrene (C19.36)

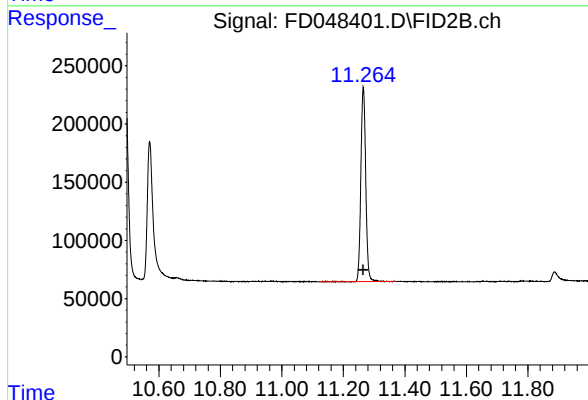
R.T.: 10.493 min
Delta R.T.: 0.000 min
Response: 1754425
Conc: 9.94 ug/ml

Instrument :
FID_D
ClientSampleId :
10 PPM AROMATIC HC STD4



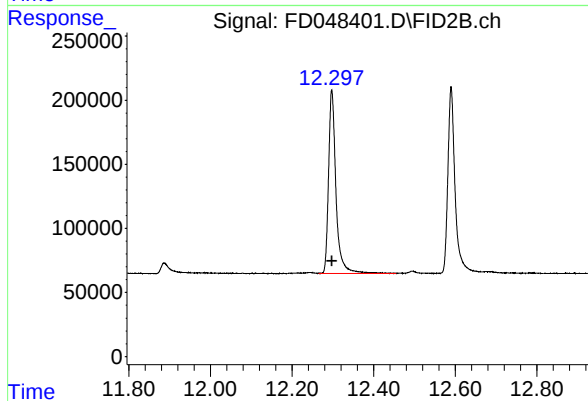
#10 Anthracene (C19.43)

R.T.: 10.570 min
Delta R.T.: 0.000 min
Response: 1840011
Conc: 10.45 ug/ml



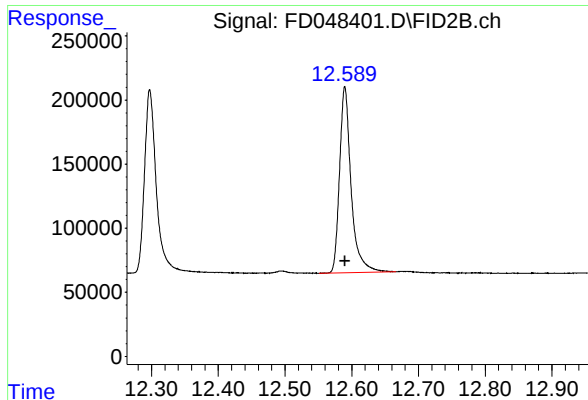
#11 ortho-Terphenyl (SURR)

R.T.: 11.265 min
Delta R.T.: 0.000 min
Response: 1833921
Conc: 10.16 ug/ml



#12 Fluoranthene (C21.85)

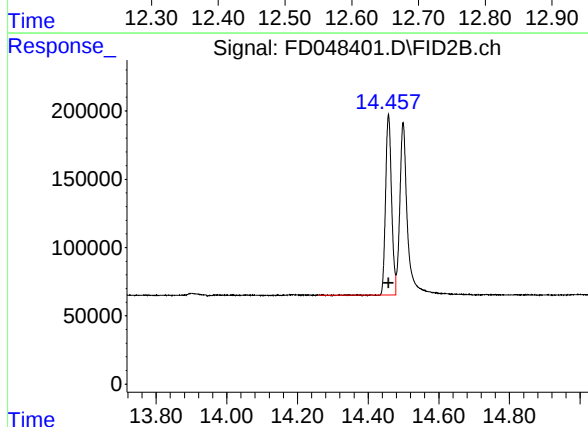
R.T.: 12.298 min
Delta R.T.: 0.000 min
Response: 1804434
Conc: 10.14 ug/ml



#13 Pyrene (C20.8)

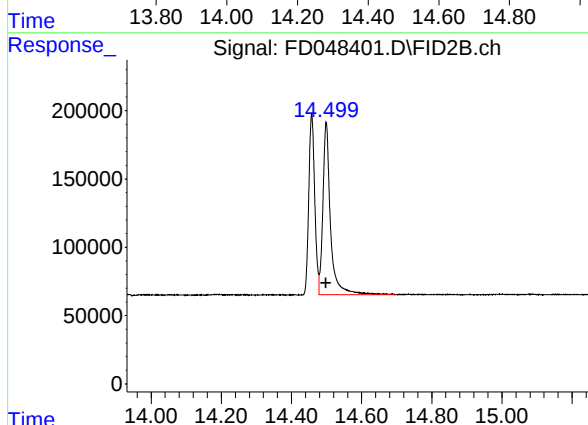
R.T.: 12.590 min
Delta R.T.: 0.000 min
Response: 1743379
Conc: 9.94 ug/ml

Instrument :
FID_D
ClientSampleId :
10 PPM AROMATIC HC STD4



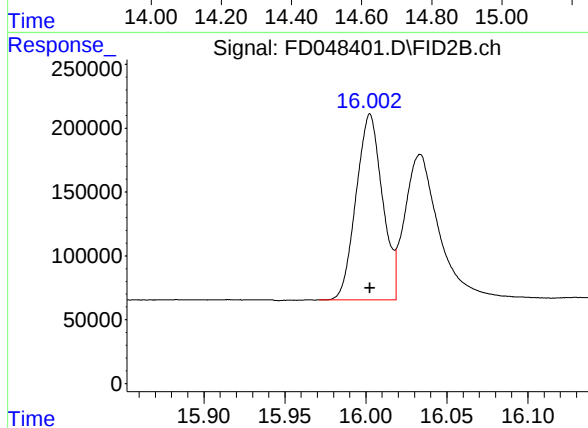
#14 Benzo[a]anthracene (C26.37)

R.T.: 14.458 min
Delta R.T.: 0.000 min
Response: 1549123
Conc: 9.49 ug/ml



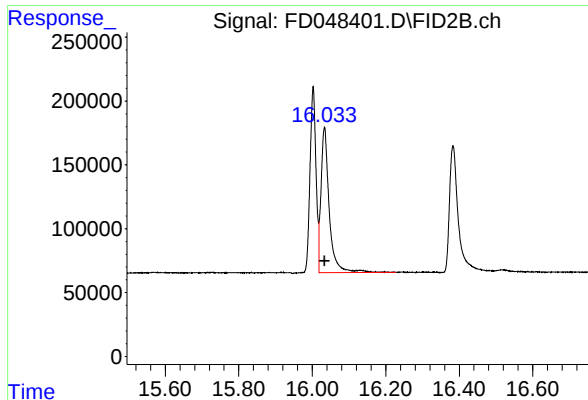
#15 Chrysene (C27.41)

R.T.: 14.499 min
Delta R.T.: 0.000 min
Response: 1921102
Conc: 10.71 ug/ml



#16 benzo[b]fluoranthene (C30.41)

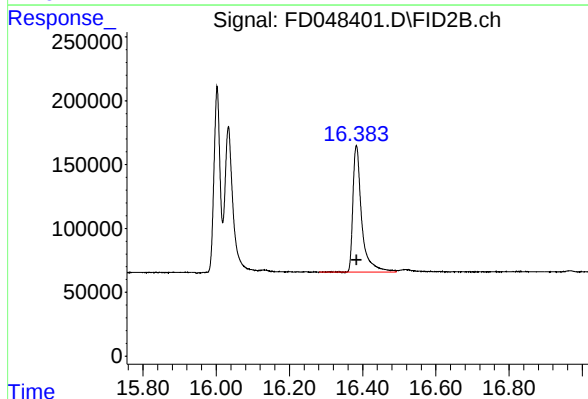
R.T.: 16.003 min
Delta R.T.: 0.000 min
Response: 1647278
Conc: 9.83 ug/ml



#17 Bnezo[k]fluoranthene (C30.14)

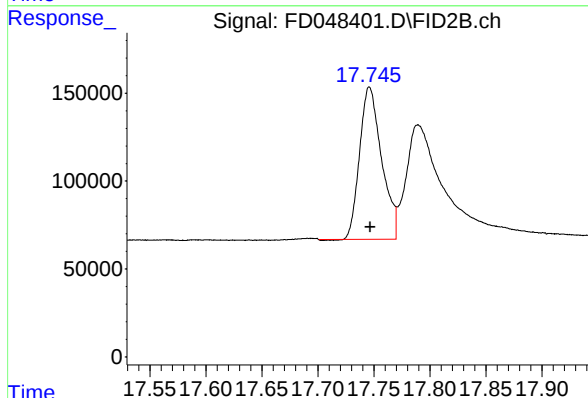
R.T.: 16.034 min
Delta R.T.: 0.000 min
Response: 1761068
Conc: 10.76 ug/ml

Instrument :
FID_D
ClientSampleId :
10 PPM AROMATIC HC STD4



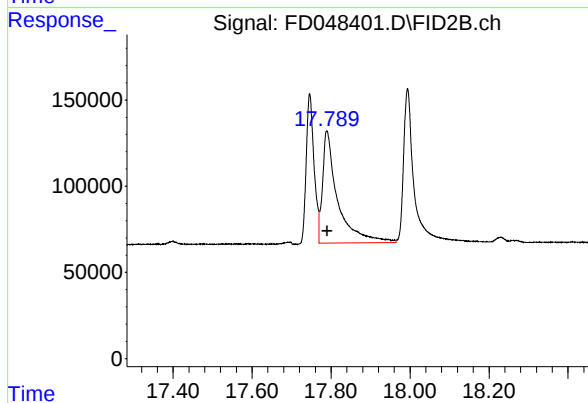
#18 Benzo[a]pyrene (C31.34)

R.T.: 16.384 min
Delta R.T.: 0.000 min
Response: 1649795
Conc: 10.04 ug/ml



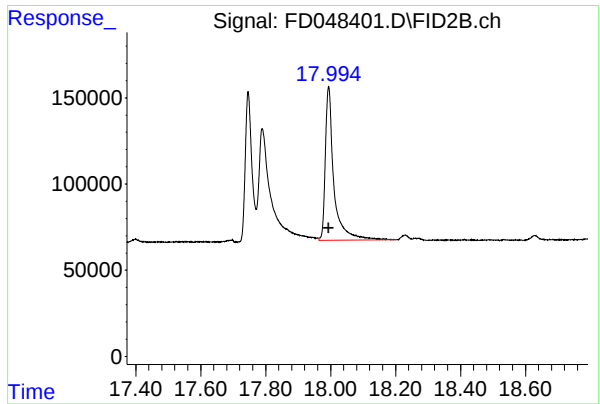
#19 Indeno[1,2,3-cd]pyrene (C35.01)

R.T.: 17.747 min
Delta R.T.: 0.000 min
Response: 1182778
Conc: 8.66 ug/ml



#20 Dibenz[a,h]anthracene (C30.36)

R.T.: 17.791 min
Delta R.T.: 0.000 min
Response: 1747599
Conc: 10.72 ug/ml



#21 Benzo[g,h,i]perylene (C34.01)

R.T.: 17.994 min

Delta R.T.: 0.000 min

Response: 1634016

Conc: 10.24 ug/ml

Instrument :

FID_D

ClientSampleId :

10 PPM AROMATIC HC STD4

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_D\Data\FD093024AR\
Data File : FD048401.D
Signal(s) : FID2B.ch
Acq On : 30 Sep 2024 12:47
Sample : 10 PPM AROMATIC HC STD4
Misc :
ALS Vial : 64 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_D\methods\Aromatic EPH 093024.M
Title : GC Extractables

Signal : FID2B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	4.202	4.138	4.263	BV	195850	1727884	88.39%	4.846%
2	5.721	5.631	5.941	BB	169208	1881784	96.26%	5.278%
3	6.768	6.740	6.918	VB	165020	1866265	95.46%	5.234%
4	7.381	7.356	7.488	VV	144807	1606006	82.15%	4.504%
5	8.033	8.011	8.178	BB	173492	1954924	100.00%	5.483%
6	8.233	8.191	8.301	BV	81005	1014853	51.91%	2.846%
7	8.326	8.301	8.414	VB	178121	1880303	96.18%	5.274%
8	9.107	9.034	9.224	BV	145407	1763617	90.21%	4.947%
9	10.493	10.404	10.543	BV	157368	1740277	89.02%	4.881%
10	10.570	10.543	10.764	VB	119507	1763147	90.19%	4.945%
11	11.265	11.188	11.371	BB	166999	1838895	94.06%	5.158%
12	12.298	12.268	12.454	VB	142765	1797355	91.94%	5.041%
13	12.590	12.531	12.731	BB	144505	1794544	91.80%	5.033%
14	14.458	14.381	14.479	BV	131788	1551742	79.38%	4.352%
15	14.499	14.479	14.698	VB	126126	1922381	98.34%	5.392%
16	16.003	15.971	16.019	BV	143982	1646846	84.24%	4.619%
17	16.034	16.019	16.188	VB	113857	1748508	89.44%	4.904%
18	16.384	16.301	16.491	BV	97799	1590023	81.33%	4.460%
19	17.747	17.701	17.770	BV	85150	1182778	60.50%	3.317%
20	17.791	17.770	17.964	VV	64132	1747599	89.39%	4.902%
21	17.994	17.964	18.201	VBA	88993	1634016	83.58%	4.583%
Sum of corrected areas:							35653748	

Aromatic EPH 093024.M Tue Oct 01 01:49:52 2024

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_D\Data\FD093024AR\
 Data File : FD048402.D
 Signal(s) : FID2B.ch
 Acq On : 30 Sep 2024 13:35
 Operator : YP/AJ
 Sample : 5 PPM AROMATIC HC STD5
 Misc :
 ALS Vial : 65 Sample Multiplier: 1

Instrument :
 FID_D
 ClientSampleId :
 5 PPM AROMATIC HC STD5

Integration File: autoint1.e
 Quant Time: Sep 30 14:16:46 2024
 Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_D\methods\Aromatic EPH 093024.M
 Quant Title : GC Extractables
 QLast Update : Mon Sep 30 14:16:33 2024
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1 µl
 Signal Phase : Rxi-1ms
 Signal Info : 20M x 0.18mm x 0.18µm

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
4) S 2-Bromonaphthalene (S...	7.384	962842	5.815 ug/ml
Spiked Amount 50.000		Recovery =	11.63%
6) S 2-Fluorobiphenyl (SURR)	8.239	508479	4.903 ug/ml
Spiked Amount 50.000 Range 0 - 131		Recovery =	9.81%
11) S ortho-Terphenyl (SURR)	11.266	990050	5.381 ug/ml
Spiked Amount 50.000		Recovery =	10.76%
Target Compounds			
1) T 1,2,3-Trimethylbenzen...	4.204	900690	5.139 ug/ml
2) T Naphthalene (C11.7)	5.725	984293	5.272 ug/ml
3) T 2-Methylnaphthalene (...)	6.772	993261	5.256 ug/ml
5) T Acenaphthylene (C15.06)	8.035	1069085	5.573 ug/ml
7) T Acenaphthene (C15.5)	8.328	1037231	5.483 ug/ml
8) T Fluorene (C16.55)	9.111	932385	5.161 ug/ml
9) T Phenanthrene (C19.36)	10.497	899656	5.076 ug/ml
10) T Anthracene (C19.43)	10.575	925856	5.203 ug/ml
12) T Fluoranthene (C21.85)	12.301	963834	5.329 ug/ml
13) T Pyrene (C20.8)	12.593	968145	5.407 ug/ml
14) T Benzo[a]anthracene (C...	14.464	729221	4.563 ug/ml
15) T Chrysene (C27.41)	14.502	1076419	5.771 ug/ml
16) T benzo[b]fluoranthene ...	16.008	811870	4.875 ug/ml
17) T Bnezo[k]fluoranthene ...	16.040	969266	5.710 ug/ml
18) T Benzo[a]pyrene (C31.34)	16.393	799268	4.890 ug/ml
19) T Indeno[1,2,3-cd]pyren...	17.760	556571	4.231 ug/ml
20) T Dibenz[a,h]anthracene...	17.806	921954	5.510 ug/ml
21) T Benzo[g,h,i]perylene ...	18.001	868643	5.348 ug/ml

(f)=RT Delta > 1/2 Window

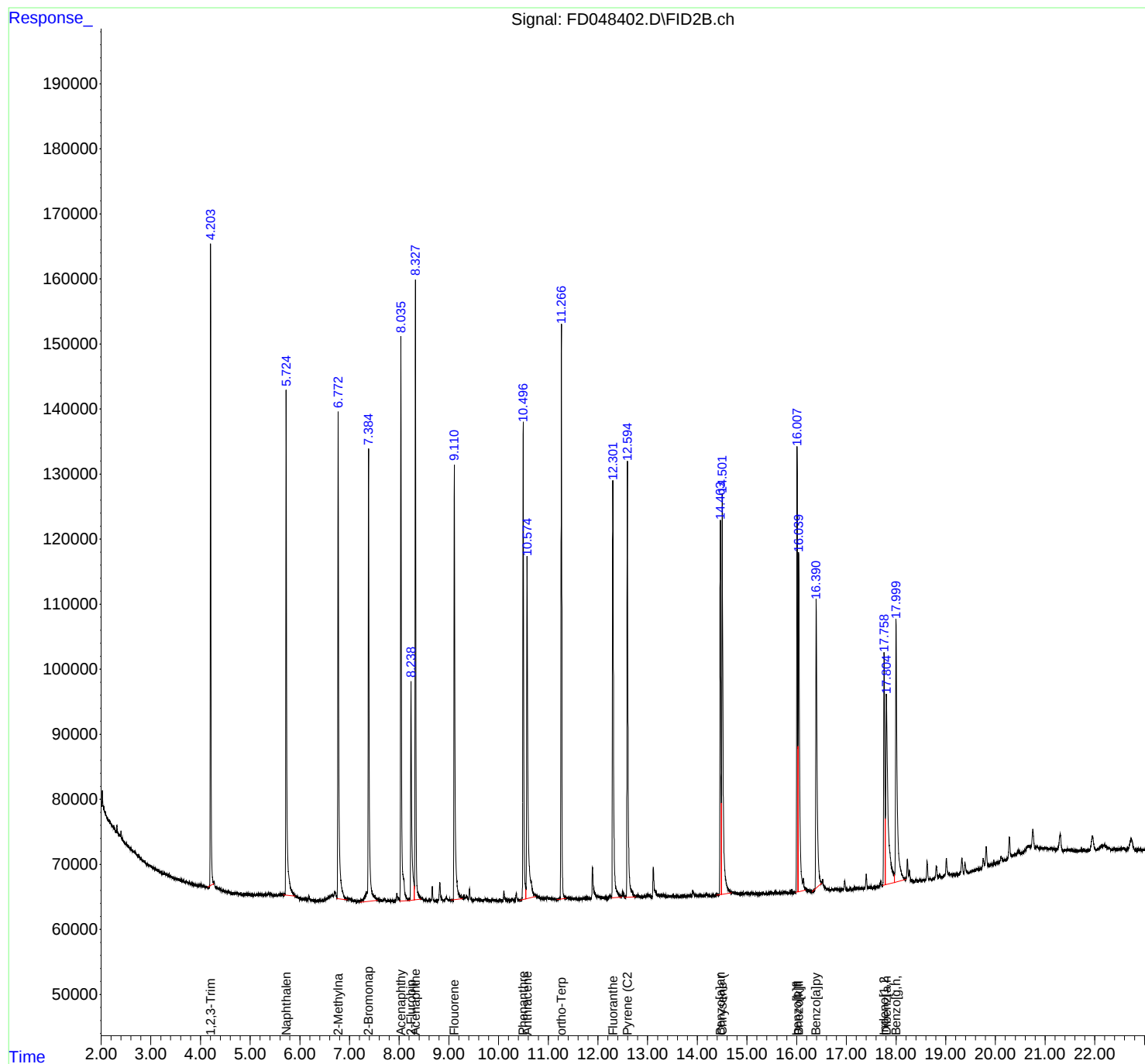
(m)=manual int.

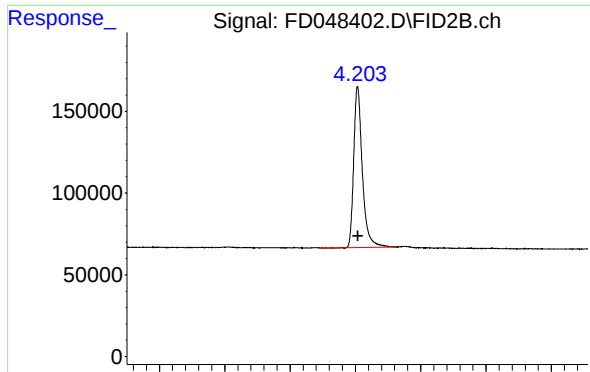
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_D\Data\FD093024AR\
Data File : FD048402.D
Signal(s) : FID2B.ch
Acq On : 30 Sep 2024 13:35
Operator : YP/AJ
Sample : 5 PPM AROMATIC HC STD5
Misc :
ALS Vial : 65 Sample Multiplier: 1

Instrument :
FID_D
ClientSampleId :
5 PPM AROMATIC HC STD5

Integration File: autoint1.e
Quant Time: Sep 30 14:16:46 2024
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_D\methods\Aromatic EPH 093024.M
Quant Title : GC Extractables
QLast Update : Mon Sep 30 14:16:33 2024
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 µl
Signal Phase : Rxi-1ms
Signal Info : 20M x 0.18mm x 0.18µm

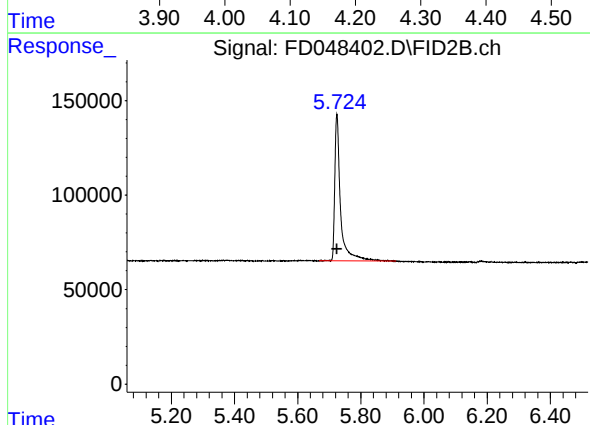




#1 1,2,3-Trimethylbenzene (C10.1)

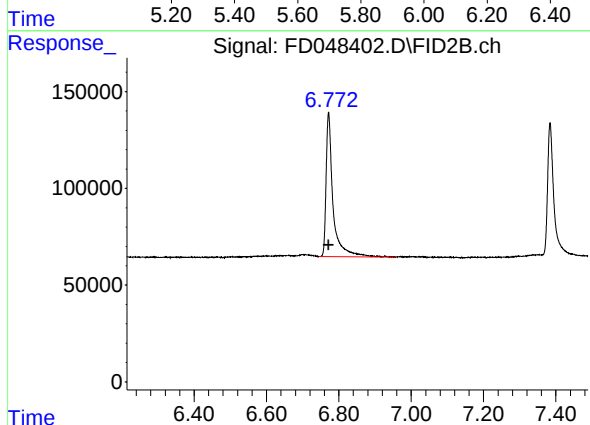
R.T.: 4.204 min
Delta R.T.: 0.000 min
Response: 900690
Conc: 5.14 ug/ml

Instrument :
FID_D
ClientSampleId :
5 PPM AROMATIC HC STD5



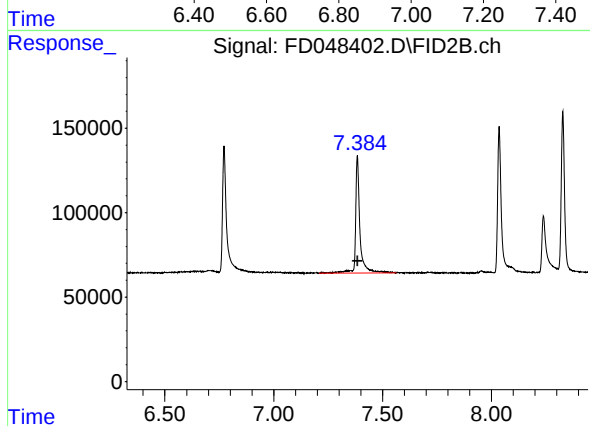
#2 Naphthalene (C11.7)

R.T.: 5.725 min
Delta R.T.: 0.000 min
Response: 984293
Conc: 5.27 ug/ml



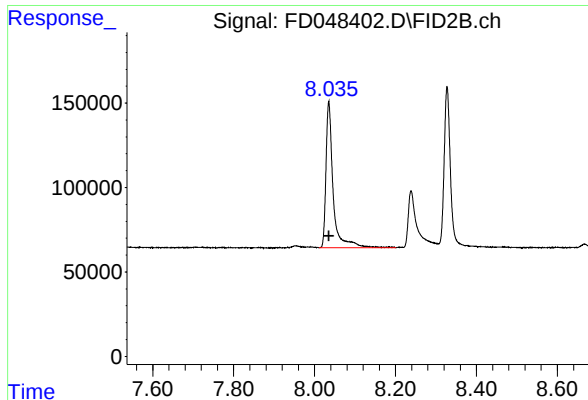
#3 2-Methylnaphthalene (C12.89)

R.T.: 6.772 min
Delta R.T.: 0.000 min
Response: 993261
Conc: 5.26 ug/ml



#4 2-Bromonaphthalene (SURR)

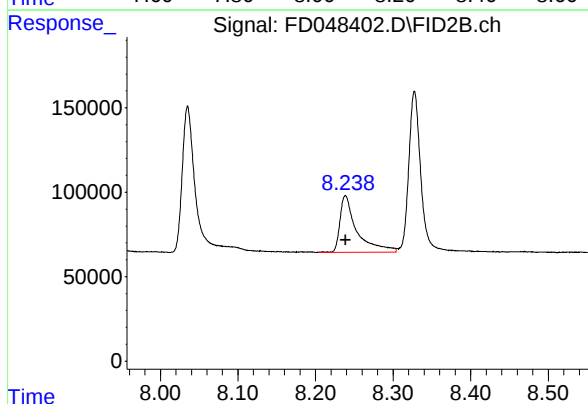
R.T.: 7.384 min
Delta R.T.: 0.000 min
Response: 962842
Conc: 5.82 ug/ml



#5 Acenaphthylene (C15.06)

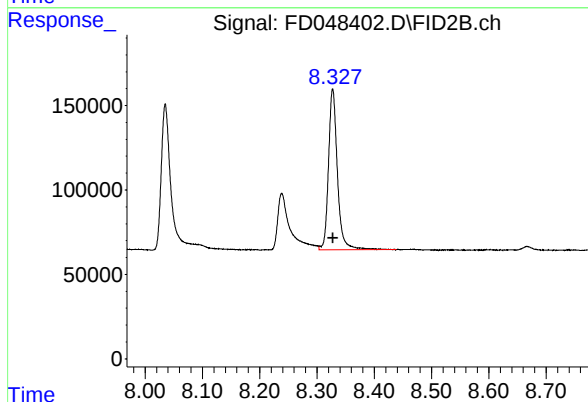
R.T.: 8.035 min
Delta R.T.: 0.000 min
Response: 1069085
Conc: 5.57 ug/ml

Instrument :
FID_D
ClientSampleId :
5 PPM AROMATIC HC STD5



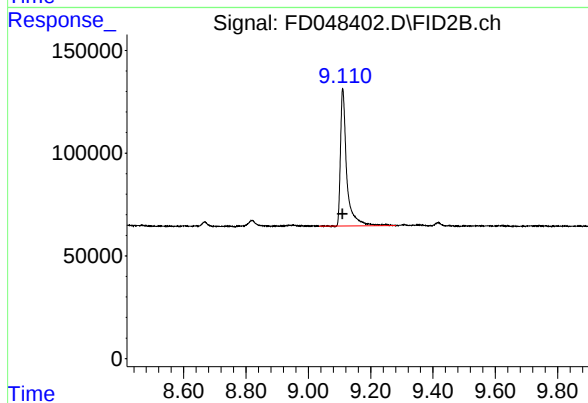
#6 2-Fluorobiphenyl (SURR)

R.T.: 8.239 min
Delta R.T.: 0.000 min
Response: 508479
Conc: 4.90 ug/ml



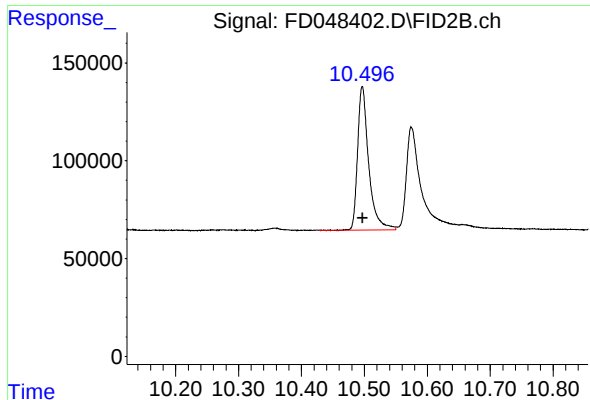
#7 Acenaphthene (C15.5)

R.T.: 8.328 min
Delta R.T.: 0.000 min
Response: 1037231
Conc: 5.48 ug/ml



#8 Flouorene (C16.55)

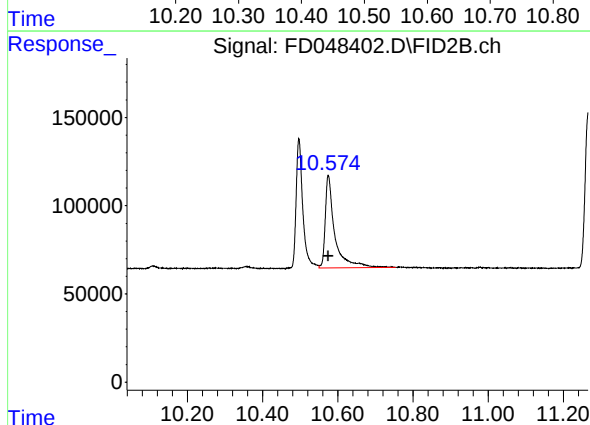
R.T.: 9.111 min
Delta R.T.: 0.000 min
Response: 932385
Conc: 5.16 ug/ml



#9 Phenanthrene (C19.36)

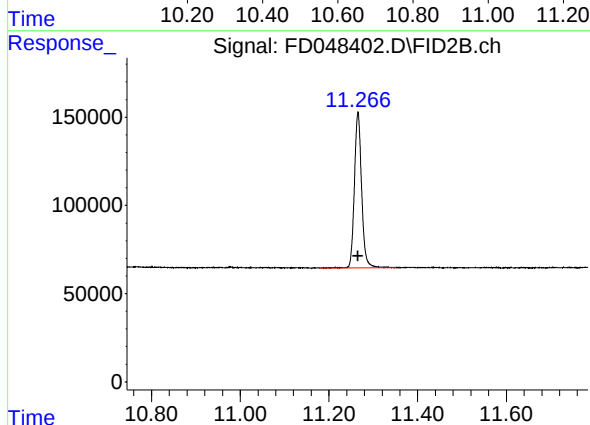
R.T.: 10.497 min
Delta R.T.: 0.000 min
Response: 899656
Conc: 5.08 ug/ml

Instrument :
FID_D
ClientSampleId :
5 PPM AROMATIC HC STD5



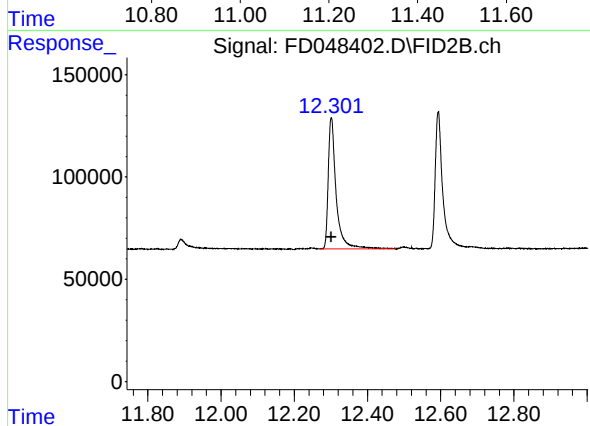
#10 Anthracene (C19.43)

R.T.: 10.575 min
Delta R.T.: 0.000 min
Response: 925856
Conc: 5.20 ug/ml



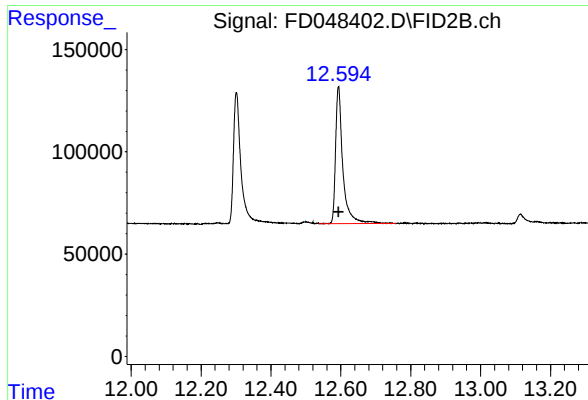
#11 ortho-Terphenyl (SURR)

R.T.: 11.266 min
Delta R.T.: 0.000 min
Response: 990050
Conc: 5.38 ug/ml



#12 Fluoranthene (C21.85)

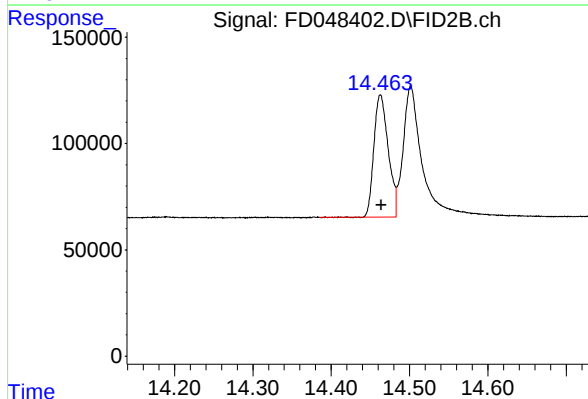
R.T.: 12.301 min
Delta R.T.: 0.000 min
Response: 963834
Conc: 5.33 ug/ml



#13 Pyrene (C20.8)

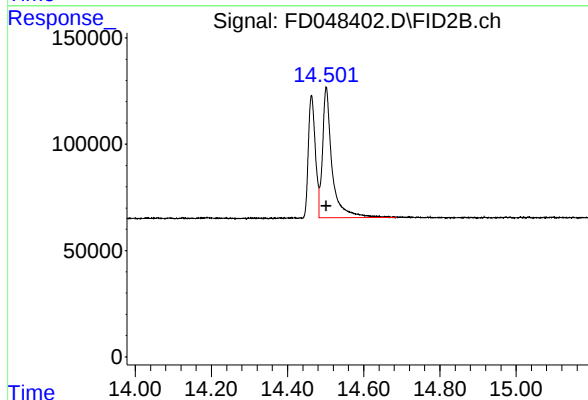
R.T.: 12.593 min
Delta R.T.: 0.000 min
Response: 968145
Conc: 5.41 ug/ml

Instrument :
FID_D
ClientSampleId :
5 PPM AROMATIC HC STD5



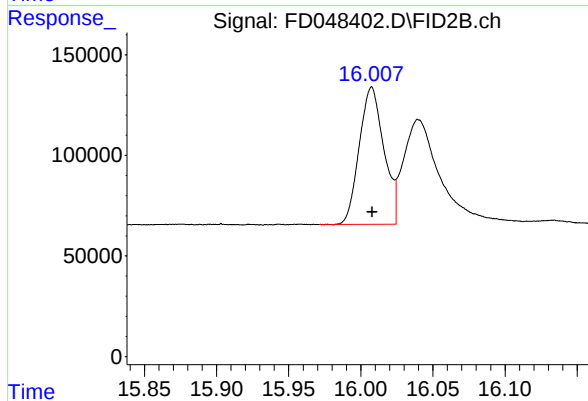
#14 Benzo[a]anthracene (C26.37)

R.T.: 14.464 min
Delta R.T.: 0.000 min
Response: 729221
Conc: 4.56 ug/ml



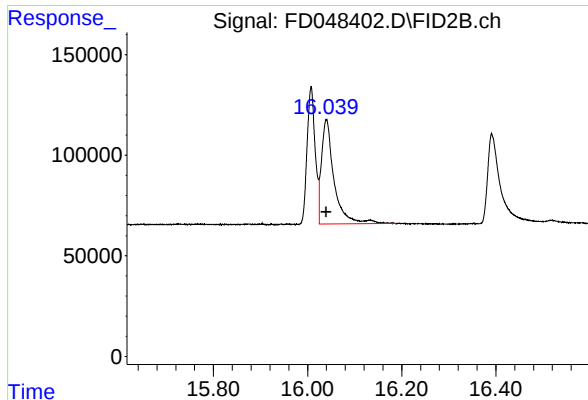
#15 Chrysene (C27.41)

R.T.: 14.502 min
Delta R.T.: 0.000 min
Response: 1076419
Conc: 5.77 ug/ml



#16 benzo[b]fluoranthene (C30.41)

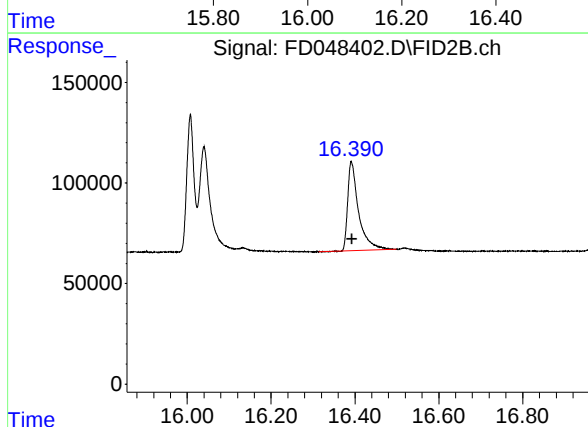
R.T.: 16.008 min
Delta R.T.: 0.000 min
Response: 811870
Conc: 4.87 ug/ml



#17 Bnezo[k]fluoranthene (C30.14)

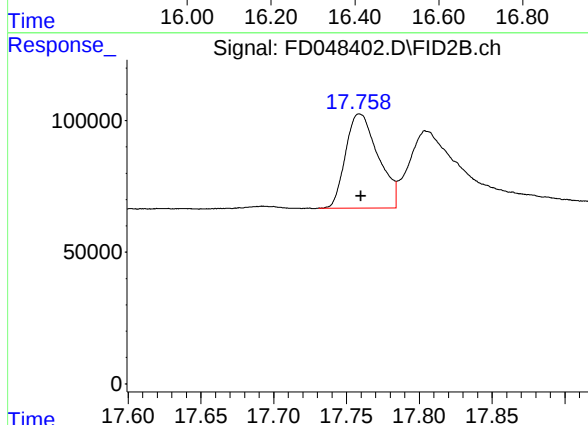
R.T.: 16.040 min
Delta R.T.: 0.000 min
Response: 969266
Conc: 5.71 ug/ml

Instrument :
FID_D
ClientSampleId :
5 PPM AROMATIC HC STD5



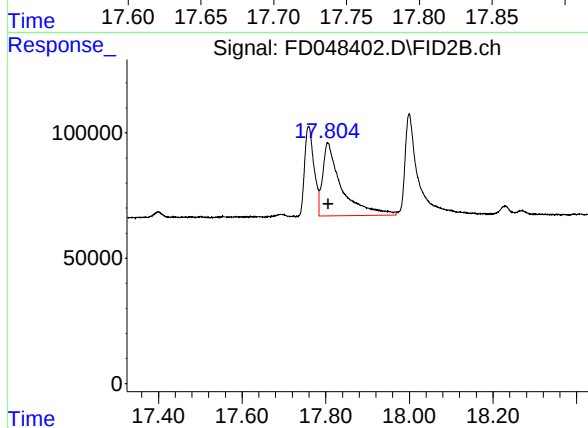
#18 Benzo[a]pyrene (C31.34)

R.T.: 16.393 min
Delta R.T.: 0.000 min
Response: 799268
Conc: 4.89 ug/ml



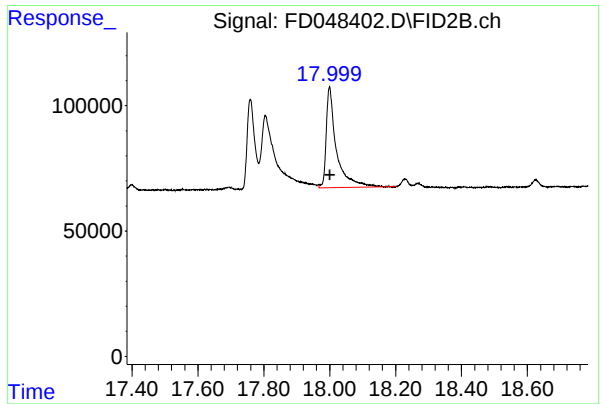
#19 Indeno[1,2,3-cd]pyrene (C35.01)

R.T.: 17.760 min
Delta R.T.: 0.000 min
Response: 556571
Conc: 4.23 ug/ml



#20 Dibenz[a,h]anthracene (C30.36)

R.T.: 17.806 min
Delta R.T.: 0.000 min
Response: 921954
Conc: 5.51 ug/ml



#21 Benzo[g,h,i]perylene (C34.01)

R.T.: 18.001 min
Delta R.T.: 0.000 min
Response: 868643
Conc: 5.35 ug/ml

Instrument :
FID_D
ClientSampleId :
5 PPM AROMATIC HC STD5

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_D\Data\FD093024AR\
Data File : FD048402.D
Signal(s) : FID2B.ch
Acq On : 30 Sep 2024 13:35
Sample : 5 PPM AROMATIC HC STD5
Misc :
ALS Vial : 65 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_D\methods\Aromatic EPH 093024.M
Title : GC Extractables

Signal : FID2B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	4.204	4.144	4.262	BV	97231	900690	83.67%	4.797%
2	5.725	5.668	5.911	BB	77378	984293	91.44%	5.242%
3	6.772	6.745	6.958	PB	74354	993261	92.27%	5.290%
4	7.384	7.208	7.561	PB	69110	962842	89.45%	5.128%
5	8.035	8.011	8.201	VB	86238	1069085	99.32%	5.693%
6	8.239	8.204	8.304	BV	33580	508479	47.24%	2.708%
7	8.328	8.304	8.438	VB	95153	1037231	96.36%	5.524%
8	9.111	9.034	9.281	BB	66500	932385	86.62%	4.965%
9	10.497	10.428	10.550	BV	72885	899656	83.58%	4.791%
10	10.575	10.550	10.754	VB	52531	925856	86.01%	4.931%
11	11.266	11.178	11.351	BB	87312	990050	91.98%	5.273%
12	12.301	12.268	12.478	VV	64148	963834	89.54%	5.133%
13	12.593	12.538	12.758	BB	67056	968145	89.94%	5.156%
14	14.464	14.384	14.483	BV	56526	729221	67.75%	3.884%
15	14.502	14.483	14.684	VB	61254	1076419	100.00%	5.733%
16	16.008	15.971	16.024	BV	67889	811870	75.42%	4.324%
17	16.040	16.024	16.188	VB	51872	969266	90.05%	5.162%
18	16.393	16.314	16.498	BV	42523	799268	74.25%	4.257%
19	17.760	17.701	17.784	BV	34912	529921	49.23%	2.822%
20	17.806	17.784	17.968	VV	28206	877691	81.54%	4.674%
21	18.001	17.968	18.201	VBA	39468	847929	78.77%	4.516%
Sum of corrected areas:						18777392		

Aromatic EPH 093024.M Tue Oct 01 01:50:24 2024

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_D\Data\FD093024AR\
 Data File : FD048403.D
 Signal(s) : FID2B.ch
 Acq On : 30 Sep 2024 14:29
 Operator : YP/AJ
 Sample : 20 PPM AROMATIC HC STD ICV
 Misc :
 ALS Vial : 66 Sample Multiplier: 1

Instrument :
 FID_D
 ClientSampleId :
 20 PPM AROMATIC HC STD ICV

Integration File: autoint1.e
 Quant Time: Sep 30 17:02:16 2024
 Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_D\methods\Aromatic EPH 093024.M
 Quant Title : GC Extractables
 QLast Update : Mon Sep 30 14:17:34 2024
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1 µl
 Signal Phase : Rxi-1ms
 Signal Info : 20M x 0.18mm x 0.18µm

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
4) S 2-Bromonaphthalene (S...	7.381	3368404	20.345 ug/ml
Spiked Amount 50.000		Recovery =	40.69%
6) S 2-Fluorobiphenyl (SURR)	8.232	2141410	20.649 ug/ml
Spiked Amount 50.000 Range 0 - 131		Recovery =	41.30%
11) S ortho-Terphenyl (SURR)	11.266	3698580	20.101 ug/ml
Spiked Amount 50.000		Recovery =	40.20%
Target Compounds			
1) T 1,2,3-Trimethylbenzen...	4.201	3521081	20.091 ug/ml
2) T Naphthalene (C11.7)	5.720	3788301	20.289 ug/ml
3) T 2-Methylnaphthalene (...)	6.767	3802093	20.118 ug/ml
5) T Acenaphthylene (C15.06)	8.033	3842612	20.030 ug/ml
7) T Acenaphthene (C15.5)	8.328	3785313	20.012 ug/ml
8) T Fluorene (C16.55)	9.106	3658929	20.252 ug/ml
9) T Phenanthrene (C19.36)	10.493	3597204	20.297 ug/ml
10) T Anthracene (C19.43)	10.569	3532678	19.853 ug/ml
12) T Fluoranthene (C21.85)	12.298	3625812	20.046 ug/ml
13) T Pyrene (C20.8)	12.590	3567943	19.925 ug/ml
14) T Benzo[a]anthracene (C...	14.459	3346833	20.942 ug/ml
15) T Chrysene (C27.41)	14.500	3657712	19.610 ug/ml
16) T benzo[b]fluoranthene ...	16.006	3457542	20.761 ug/ml
17) T Bnezo[k]fluoranthene ...	16.036	3379645	19.910 ug/ml
18) T Benzo[a]pyrene (C31.34)	16.381	3303676	20.213 ug/ml
19) T Indeno[1,2,3-cd]pyren...	17.744	2730501	20.758 ug/ml
20) T Dibenz[a,h]anthracene...	17.785	3415613	20.412 ug/ml
21) T Benzo[g,h,i]perylene ...	17.994	3278515	20.185 ug/ml

(f)=RT Delta > 1/2 Window

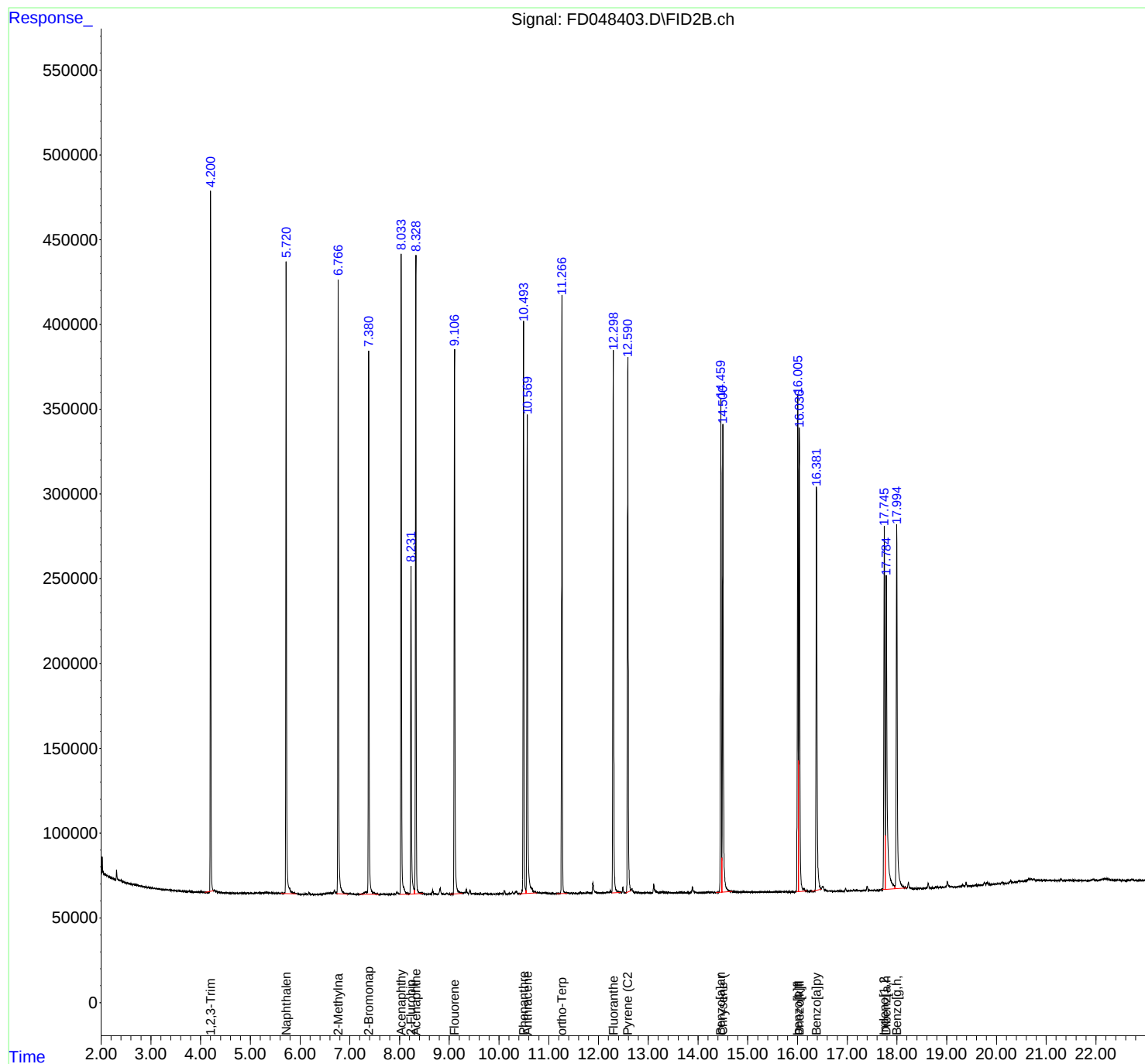
(m)=manual int.

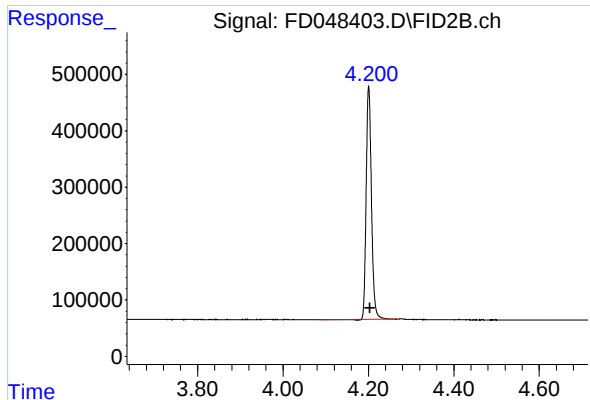
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_D\Data\FD093024AR\
Data File : FD048403.D
Signal(s) : FID2B.ch
Acq On : 30 Sep 2024 14:29
Operator : YP/AJ
Sample : 20 PPM AROMATIC HC STD ICV
Misc :
ALS Vial : 66 Sample Multiplier: 1

Instrument :
FID_D
ClientSampleId :
20 PPM AROMATIC HC STD ICV

Integration File: autoint1.e
Quant Time: Sep 30 17:02:16 2024
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_D\methods\Aromatic EPH 093024.M
Quant Title : GC Extractables
QLast Update : Mon Sep 30 14:17:34 2024
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 µl
Signal Phase : Rxi-1ms
Signal Info : 20M x 0.18mm x 0.18µm





#1 1,2,3-Trimethylbenzene (C10.1)

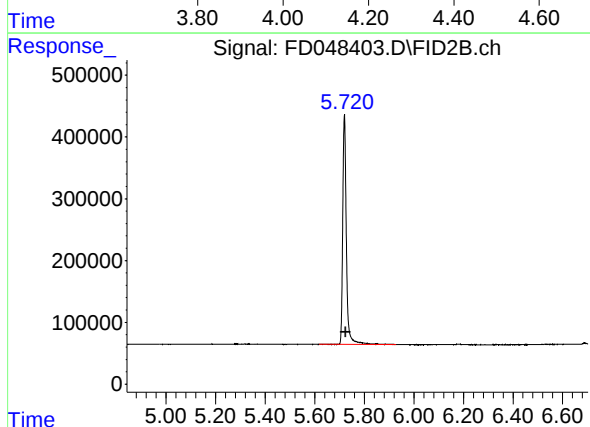
R.T.: 4.201 min
Delta R.T.: -0.003 min
Response: 3521081
Conc: 20.09 ug/ml

Instrument :

FID_D

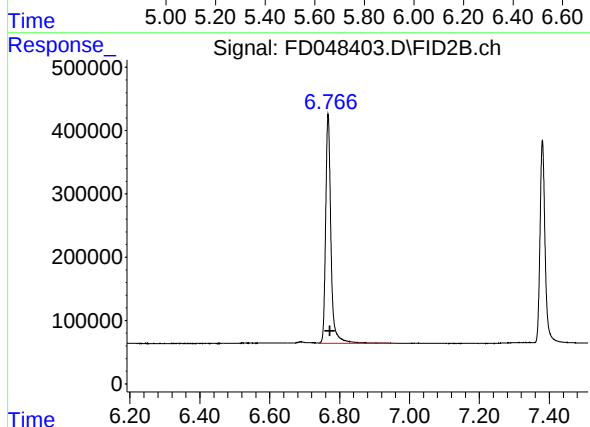
ClientSampleId :

20 PPM AROMATIC HC STD ICV



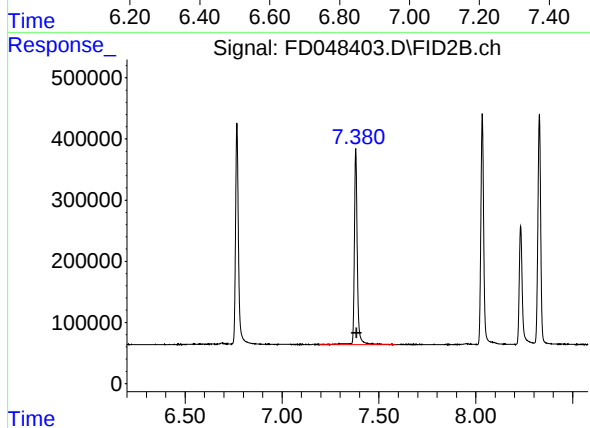
#2 Naphthalene (C11.7)

R.T.: 5.720 min
Delta R.T.: -0.004 min
Response: 3788301
Conc: 20.29 ug/ml



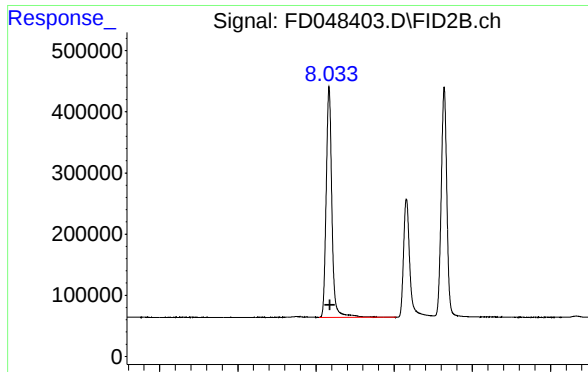
#3 2-Methylnaphthalene (C12.89)

R.T.: 6.767 min
Delta R.T.: -0.005 min
Response: 3802093
Conc: 20.12 ug/ml



#4 2-Bromonaphthalene (SURR)

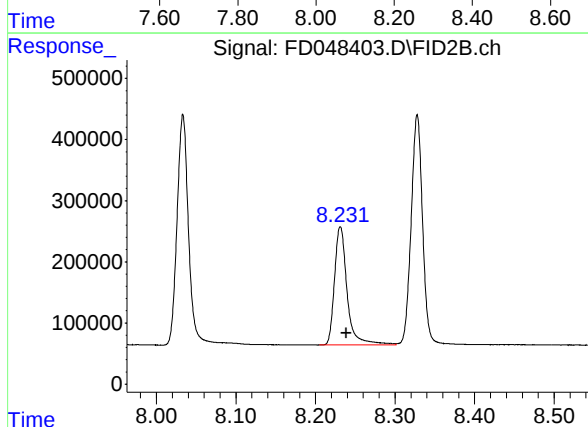
R.T.: 7.381 min
Delta R.T.: -0.004 min
Response: 3368404
Conc: 20.34 ug/ml



#5 Acenaphthylene (C15.06)

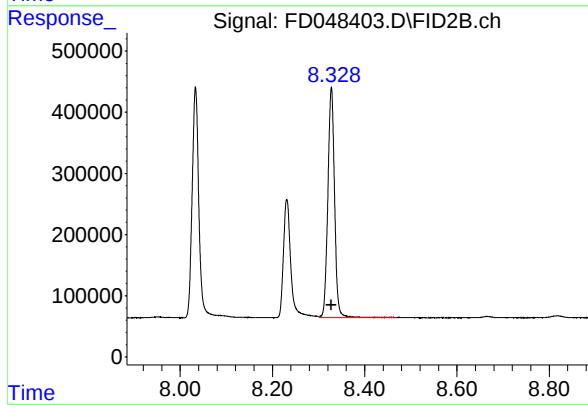
R.T.: 8.033 min
Delta R.T.: -0.002 min
Response: 3842612
Conc: 20.03 ug/ml

Instrument :
FID_D
ClientSampleId :
20 PPM AROMATIC HC STD ICV



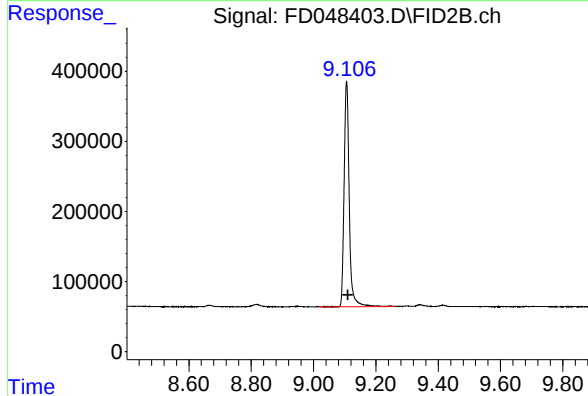
#6 2-Fluorobiphenyl (SURR)

R.T.: 8.232 min
Delta R.T.: -0.007 min
Response: 2141410
Conc: 20.65 ug/ml



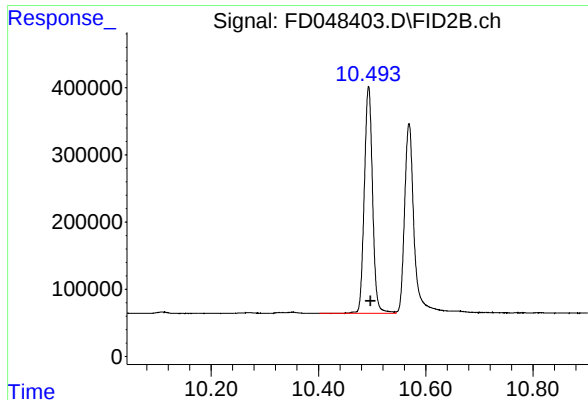
#7 Acenaphthene (C15.5)

R.T.: 8.328 min
Delta R.T.: 0.000 min
Response: 3785313
Conc: 20.01 ug/ml



#8 Flouorene (C16.55)

R.T.: 9.106 min
Delta R.T.: -0.005 min
Response: 3658929
Conc: 20.25 ug/ml



#9 Phenanthrene (C19.36)

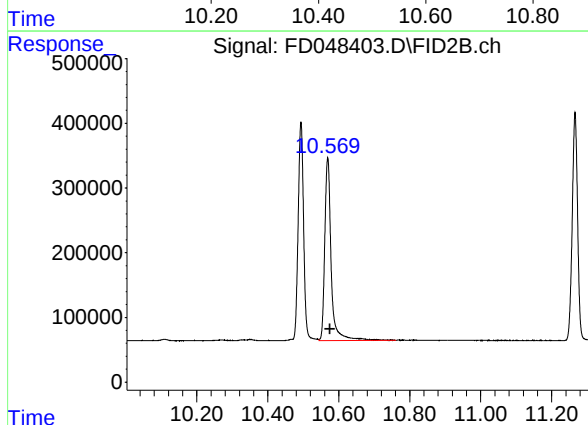
R.T.: 10.493 min
Delta R.T.: -0.004 min
Response: 3597204
Conc: 20.30 ug/ml

Instrument :

FID_D

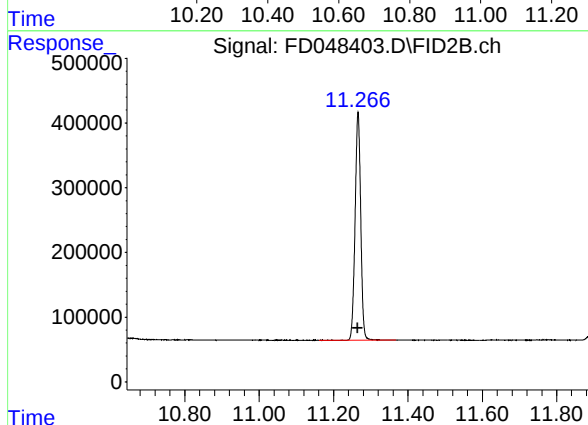
ClientSampleId :

20 PPM AROMATIC HC STD ICV



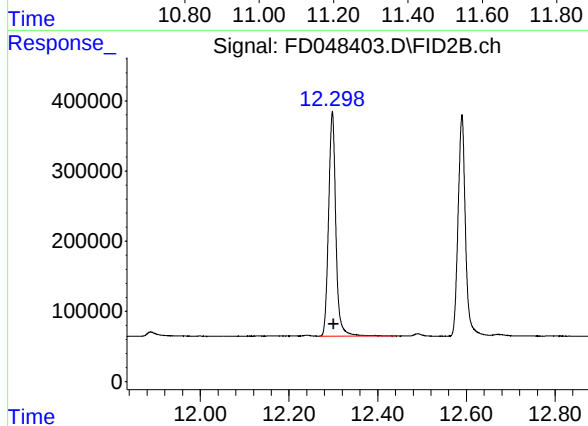
#10 Anthracene (C19.43)

R.T.: 10.569 min
Delta R.T.: -0.006 min
Response: 3532678
Conc: 19.85 ug/ml



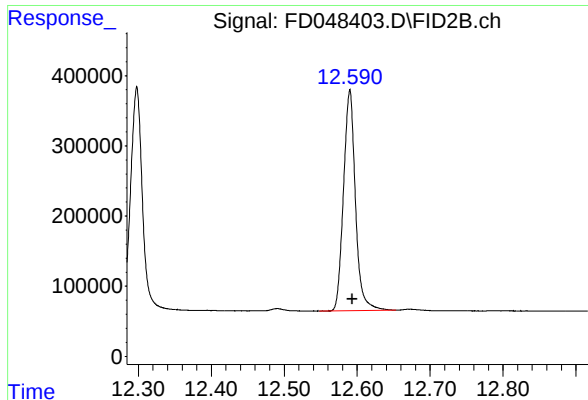
#11 ortho-Terphenyl (SURR)

R.T.: 11.266 min
Delta R.T.: 0.000 min
Response: 3698580
Conc: 20.10 ug/ml



#12 Fluoranthene (C21.85)

R.T.: 12.298 min
Delta R.T.: -0.004 min
Response: 3625812
Conc: 20.05 ug/ml



#13 Pyrene (C20.8)

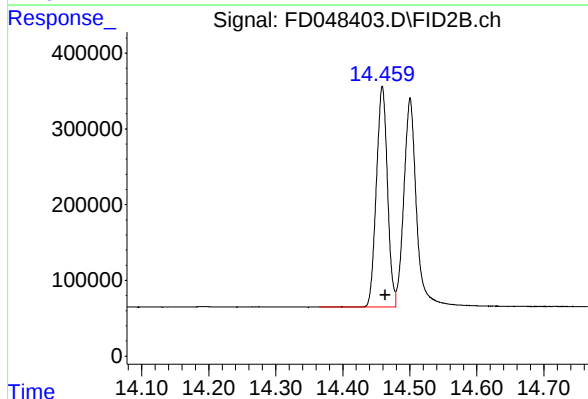
R.T.: 12.590 min
Delta R.T.: -0.004 min
Response: 3567943
Conc: 19.93 ug/ml

Instrument :

FID_D

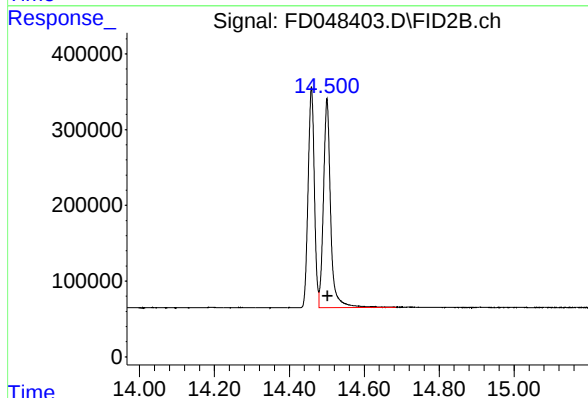
ClientSampleId :

20 PPM AROMATIC HC STD ICV



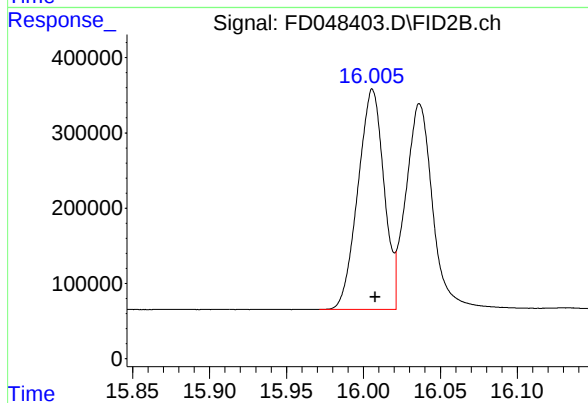
#14 Benzo[a]anthracene (C26.37)

R.T.: 14.459 min
Delta R.T.: -0.005 min
Response: 3346833
Conc: 20.94 ug/ml



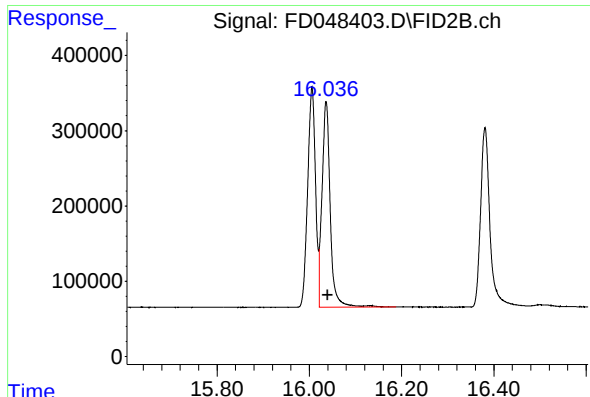
#15 Chrysene (C27.41)

R.T.: 14.500 min
Delta R.T.: -0.002 min
Response: 3657712
Conc: 19.61 ug/ml



#16 benzo[b]fluoranthene (C30.41)

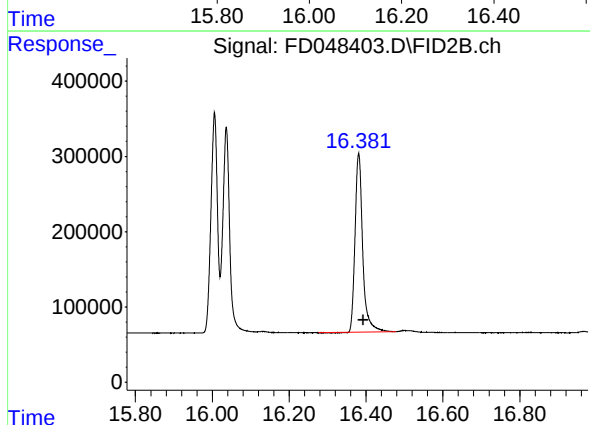
R.T.: 16.006 min
Delta R.T.: -0.002 min
Response: 3457542
Conc: 20.76 ug/ml



#17 Bnezo[k]fluoranthene (C30.14)

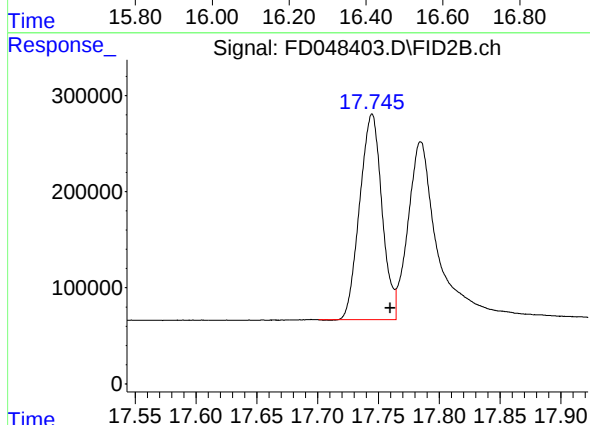
R.T.: 16.036 min
Delta R.T.: -0.004 min
Response: 3379645
Conc: 19.91 ug/ml

Instrument :
FID_D
ClientSampleId :
20 PPM AROMATIC HC STD ICV



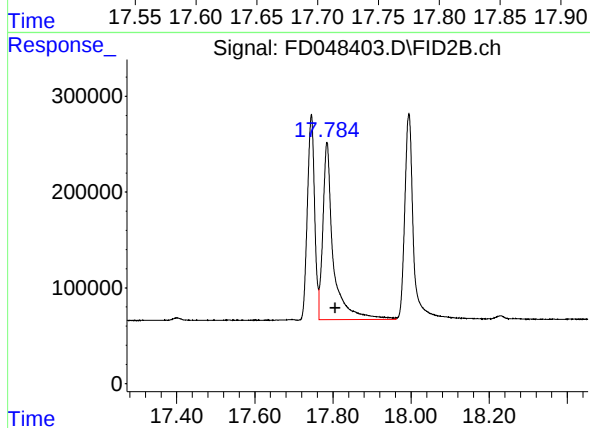
#18 Benzo[a]pyrene (C31.34)

R.T.: 16.381 min
Delta R.T.: -0.012 min
Response: 3303676
Conc: 20.21 ug/ml



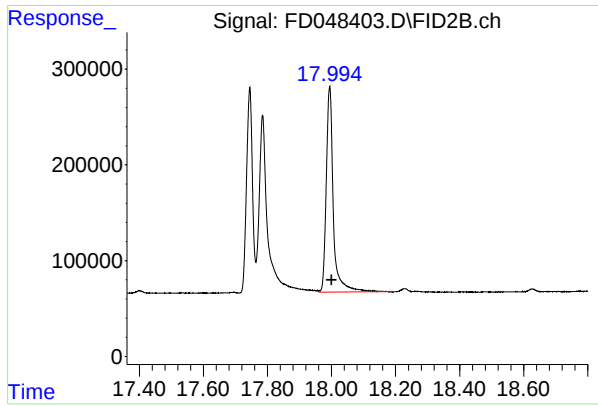
#19 Indeno[1,2,3-cd]pyrene (C35.01)

R.T.: 17.744 min
Delta R.T.: -0.016 min
Response: 2730501
Conc: 20.76 ug/ml



#20 Dibenz[a,h]anthracene (C30.36)

R.T.: 17.785 min
Delta R.T.: -0.022 min
Response: 3415613
Conc: 20.41 ug/ml



#21 Benzo[g,h,i]perylene (C34.01)

R.T.: 17.994 min

Delta R.T.: -0.007 min

Response: 3278515

Conc: 20.18 ug/ml

Instrument :

FID_D

ClientSampleId :

20 PPM AROMATIC HC STD ICV

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Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_D\Data\FD093024AR\
Data File : FD048403.D
Signal(s) : FID2B.ch
Acq On : 30 Sep 2024 14:29
Sample : 20 PPM AROMATIC HC STD ICV
Misc :
ALS Vial : 66 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_D\methods\Aromatic EPH 093024.M
Title : GC Extractables

Signal : FID2B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	4.201	4.085	4.265	BV	411728	3521081	91.63%	4.857%
2	5.720	5.618	5.928	BB	370028	3788301	98.59%	5.225%
3	6.767	6.741	6.961	VB	359837	3802093	98.95%	5.244%
4	7.381	7.191	7.588	BB	318926	3368404	87.66%	4.646%
5	8.033	8.008	8.205	PV	376973	3842612	100.00%	5.300%
6	8.232	8.205	8.301	PV	192929	2141410	55.73%	2.954%
7	8.328	8.301	8.468	VB	377334	3785313	98.51%	5.221%
8	9.106	9.018	9.265	BB	320863	3658929	95.22%	5.047%
9	10.493	10.401	10.545	BV	339349	3597204	93.61%	4.962%
10	10.569	10.545	10.761	VB	281554	3532678	91.93%	4.873%
11	11.266	11.161	11.368	BB	349437	3698580	96.25%	5.101%
12	12.298	12.268	12.441	PB	319741	3625812	94.36%	5.001%
13	12.590	12.548	12.653	PV	318445	3567943	92.85%	4.921%
14	14.459	14.365	14.479	BV	290579	3346833	87.10%	4.616%
15	14.500	14.479	14.685	VB	276082	3657712	95.19%	5.045%
16	16.006	15.971	16.021	BV	290942	3457542	89.98%	4.769%
17	16.036	16.021	16.188	VB	275149	3379645	87.95%	4.662%
18	16.381	16.278	16.478	BV	237513	3303676	85.97%	4.557%
19	17.744	17.701	17.764	BV	214980	2730501	71.06%	3.766%
20	17.785	17.764	17.961	VV	185327	3415613	88.89%	4.711%
21	17.994	17.961	18.201	VBA	215211	3278515	85.32%	4.522%
Sum of corrected areas:							72500396	

Aromatic EPH 093024.M Tue Oct 01 01:51:11 2024

Continuing Calibration Report for SequenceID : FC101424AL

Parameter	AreaCount	Conc.	RT_Min	RT_Max	Response Factor	AVGRF	%DEV
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File ID : FC067429.D

Aliphatic C9-C12	8508762.000	60.000	3.175	6.457	141812.700	128354.488	-10.485
Aliphatic C12-C16	5652181.000	40.000	6.458	9.850	141304.525	130957.677	-7.901
Aliphatic C16-C21	8170666.000	60.000	9.851	13.209	136177.767	131476.102	-3.576
Aliphatic C21-C28	10286818.000	80.000	13.210	16.865	128585.225	126823.664	-1.389
Aliphatic C28-C40	13123649.000	120.000	16.866	21.722	109363.742	105215.848	-3.942
Aliphatic EPH	45742076.000	360.000	3.175	21.722	127061.322	121110.937	-4.913

Lab Sample ID:	20 PPM ALIPHATIC HC 9	Acq On:	14 Oct 2024 13:32
Client Sample ID:		Operator:	YP/AJ
Data file:	FC067429.D	Misc:	
Instrument:	FID_C	ALS Vial:	2
Dilution Factor:	1	Sample Multiplier:	1.00

Compound	R.T.		Response	Conc	Units
Aliphatic C9-C12	3.175	6.457	8508762.000	60.000	ug/ml
Aliphatic C12-C16	6.458	9.850	5652181.000	40.000	ug/ml
Aliphatic C16-C21	9.851	13.209	8170666.000	60.000	ug/ml
Aliphatic C21-C28	13.210	16.865	10286818.000	80.000	ug/ml
Aliphatic C28-C40	16.866	21.722	13123649.000	120.000	ug/ml
Aliphatic EPH	3.175	21.722	45742076.000	360.000	ug/ml

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_C\Data\F101424AL\
 Data File : FC067429.D
 Signal(s) : FID1A.ch
 Acq On : 14 Oct 2024 13:32
 Operator : YP/AJ
 Sample : 20 PPM ALIPHATIC HC STD
 Misc :
 ALS Vial : 2 Sample Multiplier: 1

Instrument :
 FID_C
 ClientSampleId :
 20 PPM ALIPHATIC HC STD

Manual Integrations
 APPROVED

Reviewed By :Yogesh Patel 10/15/2024
 Supervised By :Ankita Jodhani 10/15/2024

Integration File: autoint1.e
 Quant Time: Oct 15 04:31:26 2024
 Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_C\Method\Aliphatic EPH 100224.M
 Quant Title : GC Extractables
 QLast Update : Tue Oct 01 09:13:32 2024
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1 ul
 Signal Phase : Rxi-1ms
 Signal Info : 20M x 0.18mm x 0.18um

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
9) S ortho-Terphenyl (SURR)	11.502	3074455	20.205 ug/ml
Spiked Amount 50.000		Recovery =	40.41%
12) S 1-chlorooctadecane (S...	12.940	2307568	20.386 ug/ml
Spiked Amount 50.000		Recovery =	40.77%
Target Compounds			
1) T n-Nonane (C9)	3.275	2777579	21.912 ug/ml
2) T n-Decane (C10)	4.341	2857702	22.232 ug/ml
3) T A~Naphthalene (C11.7)	5.920	3109641	21.921 ug/ml
4) T n-Dodecane (C12)	6.357	2873481	22.144 ug/ml
5) T A~2-methylnaphthalene...	6.975	2994414	21.827 ug/ml
6) T n-Tetradecane (C14)	8.151	2806640	21.791 ug/ml
7) T n-Hexadecane (C16)	9.750	2845541	21.376 ug/ml
8) T n-Octadecane (C18)	11.190	2834477	20.903 ug/ml
10) T n-Eicosane (C20)	12.498	2697033	20.656 ug/ml
11) T n-Heneicosane (C21)	13.109	2639156	20.577 ug/ml
13) T n-Docosane (C22)	13.695	2616520	20.492 ug/ml
14) T n-Tetracosane (C24)	14.797	2592309	20.269 ug/ml
15) T n-Hexacosane (C26)	15.816	2550074	20.225 ug/ml
16) T n-Octacosane (C28)	16.765	2527915	20.122 ug/ml
17) T n-Tricontane (C30)	17.652	2599650	20.180 ug/ml
18) T n-Dotriacontane (C32)	18.483	2555236	20.454 ug/ml
19) T n-Tetratriacontane (C34)	19.266	2261577	20.696 ug/mlm
20) T n-Hexatriacontane (C36)	20.003	1982570	20.976 ug/mlm
21) T n-Octatriacontane (C38)	20.731	1867093	21.290 ug/ml
22) T n-Tetracontane (C40)	21.622	1857523	21.587 ug/ml

(f)=RT Delta > 1/2 Window

(m)=manual int.

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_C\Data\FC101424AL\
Data File : FC067429.D
Signal(s) : FID1A.ch
Acq On : 14 Oct 2024 13:32
Operator : YP/AJ
Sample : 20 PPM ALIPHATIC HC STD
Misc :
ALS Vial : 2 Sample Multiplier: 1

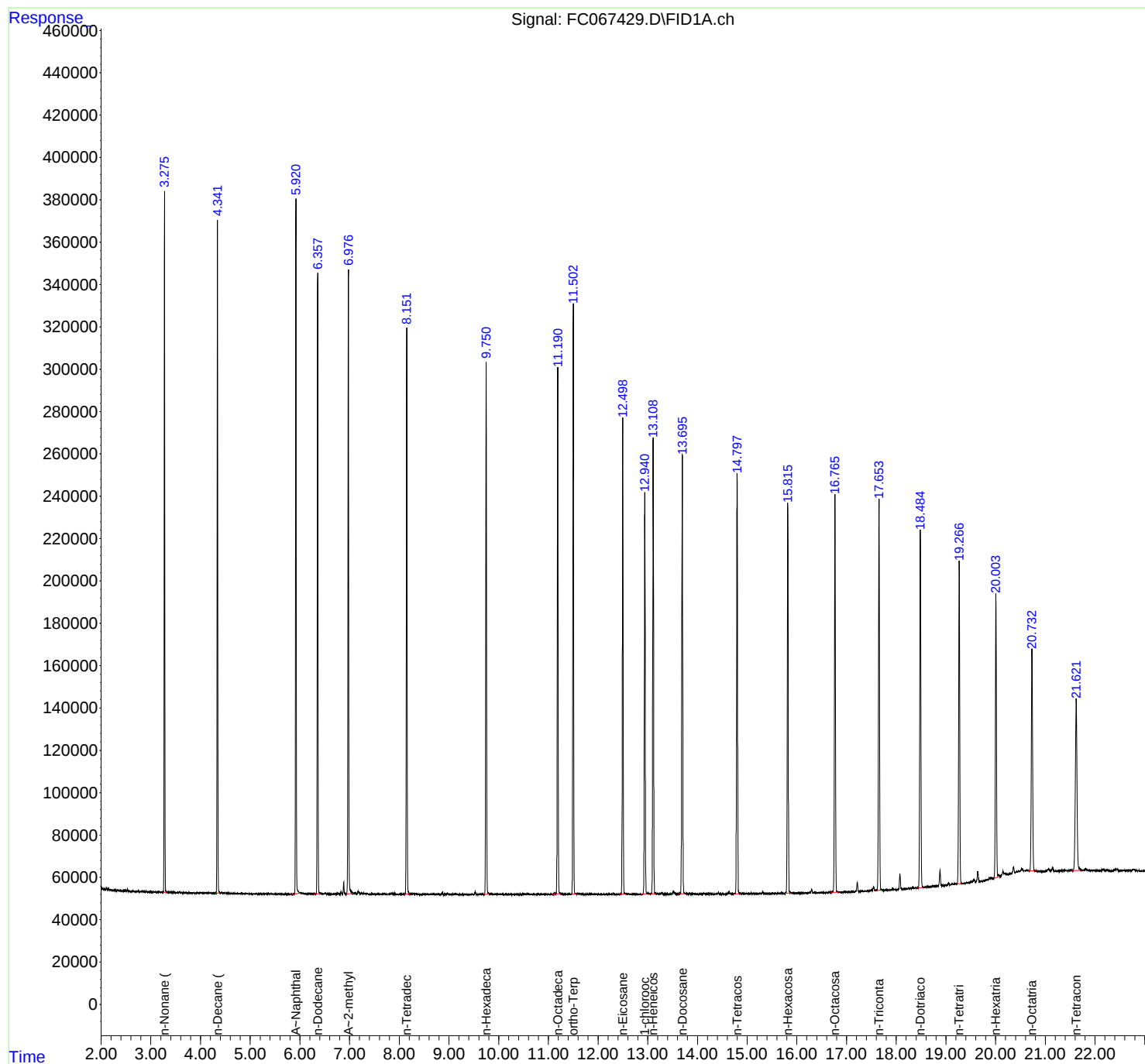
Instrument :
FID_C
ClientSampleId :
20 PPM ALIPHATIC HC STD

Manual Integrations
APPROVED

Reviewed By :Yogesh Patel 10/15/2024
Supervised By :Ankita Jodhani 10/15/2024

Integration File: autoint1.e
Quant Time: Oct 15 04:31:26 2024
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_C\Method\Aliphatic EPH 100224.M
Quant Title : GC Extractables
QLast Update : Tue Oct 01 09:13:32 2024
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 ul
Signal Phase : Rxi-1ms
Signal Info : 20M x 0.18mm x 0.18um



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Instrument :
FID_C
LabSampleId :
20 PPM ALIPHATIC HC STD
Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_C\Data\FC10142
Data File : FC067429.D
Signal(s) : FID1A.ch
Acq On : 14 Oct 2024 13:32
Sample : 20 PPM ALIPHATIC HC STD
Misc :
ALS Vial : 2 Sample Multiplier: 1

Manual IntegrationsAPPROVED

Reviewed By :Yogesh Patel 10/15/2024
Supervised By :Ankita Jodhani 10/15/2024

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_C\Method\Aliphatic EPH 100224.M
Title : GC Extractables

Signal : FID1A.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	3.275	3.245	3.330	BB	330901	2777579	89.32%	4.856%
2	4.341	4.290	4.402	BB	315019	2857702	91.90%	4.996%
3	5.920	5.862	6.002	BB	328595	3109641	100.00%	5.436%
4	6.357	6.295	6.419	BB	292529	2873481	92.41%	5.023%
5	6.975	6.929	7.075	BB	294578	2994414	96.29%	5.235%
6	8.151	8.092	8.214	BB	265016	2806640	90.26%	4.906%
7	9.750	9.692	9.817	BB	251360	2845541	91.51%	4.974%
8	11.190	11.070	11.245	BB	248357	2834477	91.15%	4.955%
9	11.502	11.447	11.564	BB	278365	3074455	98.87%	5.375%
10	12.498	12.430	12.557	BB	224312	2697033	86.73%	4.715%
11	12.940	12.879	12.990	BB	189794	2307568	74.21%	4.034%
12	13.109	13.039	13.169	BB	215276	2639156	84.87%	4.614%
13	13.695	13.630	13.760	BB	208324	2616520	84.14%	4.574%
14	14.797	14.734	14.850	BB	197770	2592309	83.36%	4.532%
15	15.816	15.745	15.880	BB	181331	2550074	82.01%	4.458%
16	16.765	16.682	16.842	BB	187593	2527915	81.29%	4.419%
17	17.652	17.584	17.715	BB	183378	2599650	83.60%	4.545%
18	18.483	18.430	18.552	BB	168089	2555236	82.17%	4.467%
19	19.266	19.082	19.330	BB	152469	2277303	73.23%	3.981%
20	20.005	19.819	20.043	BV	132787	1941950	62.45%	3.395%
21	20.731	20.652	20.800	BB	104282	1867093	60.04%	3.264%
22	21.622	21.537	21.730	BB	80849	1857523	59.73%	3.247%
Sum of corrected areas:						57203256		

Aliphatic EPH 100224.M Tue Oct 15 05:41:53 2024

Continuing Calibration Report for SequenceID : FC101424AL

Parameter	AreaCount	Conc.	RT_Min	RT_Max	Response Factor	AVGRF	%DEV
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File ID : FC067440.D

Aliphatic C9-C12	8663443.000	60.000	3.175	6.457	144390.717	128354.488	-12.494
Aliphatic C12-C16	5701770.000	40.000	6.458	9.850	142544.250	130957.677	-8.848
Aliphatic C16-C21	8254144.000	60.000	9.851	13.209	137569.067	131476.102	-4.634
Aliphatic C21-C28	10417464.000	80.000	13.210	16.865	130218.300	126823.664	-2.677
Aliphatic C28-C40	13488399.000	120.000	16.866	21.722	112403.325	105215.848	-6.831
Aliphatic EPH	46525220.000	360.000	3.175	21.722	129236.722	121110.937	-6.709

Lab Sample ID:	20 PPM ALIPHATIC HC 9	Acq On:	14 Oct 2024 22:48
Client Sample ID:		Operator:	YP/AJ
Data file:	FC067440.D	Misc:	
Instrument:	FID_C	ALS Vial:	2
Dilution Factor:	1	Sample Multiplier:	1.00

Compound	R.T.		Response	Conc	Units
Aliphatic C9-C12	3.175	6.457	8663443.000	60.000	ug/ml
Aliphatic C12-C16	6.458	9.850	5701770.000	40.000	ug/ml
Aliphatic C16-C21	9.851	13.209	8254144.000	60.000	ug/ml
Aliphatic C21-C28	13.210	16.865	10417464.000	80.000	ug/ml
Aliphatic C28-C40	16.866	21.722	13488399.000	120.000	ug/ml
Aliphatic EPH	3.175	21.722	46525220.000	360.000	ug/ml

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_C\Data\F101424AL\
 Data File : FC067440.D
 Signal(s) : FID1A.ch
 Acq On : 14 Oct 2024 22:48
 Operator : YP/AJ
 Sample : 20 PPM ALIPHATIC HC STD
 Misc :
 ALS Vial : 2 Sample Multiplier: 1

Instrument :
 FID_C
 ClientSampleId :
 20 PPM ALIPHATIC HC STD

Manual Integrations
 APPROVED

Reviewed By :Yogesh Patel 10/15/2024
 Supervised By :Ankita Jodhani 10/15/2024

Integration File: autoint1.e
 Quant Time: Oct 15 04:33:06 2024
 Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_C\Method\Aliphatic EPH 100224.M
 Quant Title : GC Extractables
 QLast Update : Tue Oct 01 09:13:32 2024
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1 ul
 Signal Phase : Rxi-1ms
 Signal Info : 20M x 0.18mm x 0.18um

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
9) S ortho-Terphenyl (SURR)	11.500	3122180	20.519 ug/ml
Spiked Amount 50.000		Recovery =	41.04%
12) S 1-chlorooctadecane (S...	12.938	2334661	20.625 ug/ml
Spiked Amount 50.000		Recovery =	41.25%
Target Compounds			
1) T n-Nonane (C9)	3.276	2838383	22.392 ug/ml
2) T n-Decane (C10)	4.341	2906331	22.610 ug/ml
3) T A~Naphthalene (C11.7)	5.919	3171054	22.354 ug/ml
4) T n-Dodecane (C12)	6.357	2918729	22.493 ug/ml
5) T A~2-methylnaphthalene...	6.975	3046287	22.205 ug/ml
6) T n-Tetradecane (C14)	8.149	2838864	22.041 ug/ml
7) T n-Hexadecane (C16)	9.748	2862906	21.507 ug/ml
8) T n-Octadecane (C18)	11.188	2868025	21.150 ug/ml
10) T n-Eicosane (C20)	12.495	2722644	20.852 ug/ml
11) T n-Heneicosane (C21)	13.107	2663475	20.767 ug/ml
13) T n-Docosane (C22)	13.693	2644491	20.711 ug/ml
14) T n-Tetracosane (C24)	14.794	2620666	20.491 ug/ml
15) T n-Hexacosane (C26)	15.812	2579895	20.461 ug/ml
16) T n-Octacosane (C28)	16.761	2572412	20.476 ug/ml
17) T n-Tricontane (C30)	17.648	2670268	20.728 ug/ml
18) T n-Dotriacontane (C32)	18.479	2640757	21.138 ug/mlm
19) T n-Tetratriacontane (C34)	19.263	2344031	21.450 ug/ml
20) T n-Hexatriacontane (C36)	20.002	2046433	21.651 ug/ml
21) T n-Octatriacontane (C38)	20.727	1909033	21.768 ug/ml
22) T n-Tetracontane (C40)	21.614	1877877	21.824 ug/ml

(f)=RT Delta > 1/2 Window

(m)=manual int.

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_C\Data\FC101424AL\
Data File : FC067440.D
Signal(s) : FID1A.ch
Acq On : 14 Oct 2024 22:48
Operator : YP/AJ
Sample : 20 PPM ALIPHATIC HC STD
Misc :
ALS Vial : 2 Sample Multiplier: 1

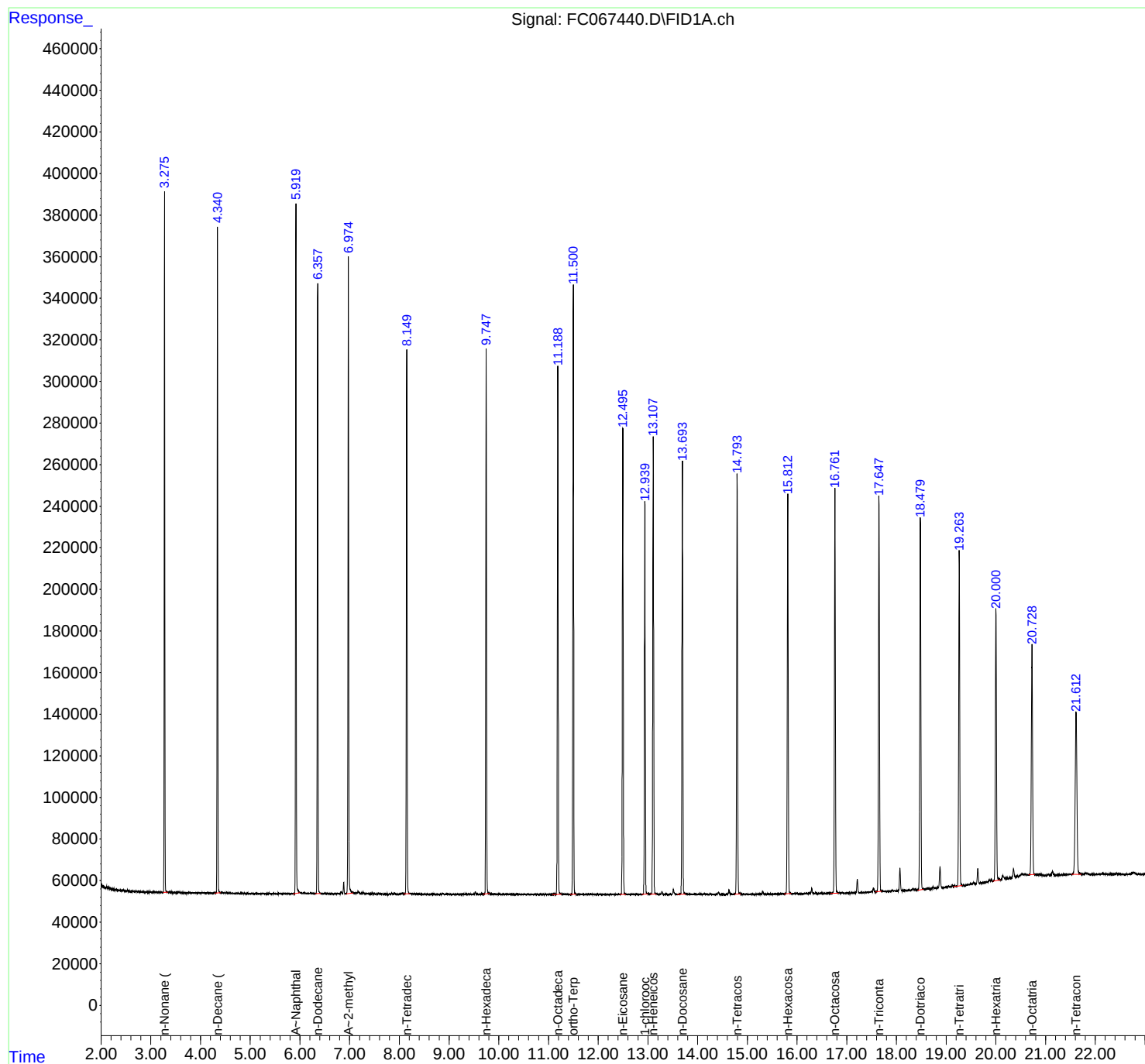
Instrument :
FID_C
ClientSampleId :
20 PPM ALIPHATIC HC STD

Manual Integrations
APPROVED

Reviewed By :Yogesh Patel 10/15/2024
Supervised By :Ankita Jodhani 10/15/2024

Integration File: autoint1.e
Quant Time: Oct 15 04:33:06 2024
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_C\Method\Aliphatic EPH 100224.M
Quant Title : GC Extractables
QLast Update : Tue Oct 01 09:13:32 2024
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 ul
Signal Phase : Rxi-1ms
Signal Info : 20M x 0.18mm x 0.18um



rteres

Instrument :
FID_C
LabSampleId :
20 PPM ALIPHATIC HC STD
Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_C\Data\FC10142
Data File : FC067440.D
Signal(s) : FID1A.ch
Acq On : 14 Oct 2024 22:48
Sample : 20 PPM ALIPHATIC HC STD
Misc :
ALS Vial : 2 Sample Multiplier: 1

Manual IntegrationsAPPROVED

Reviewed By :Yogesh Patel 10/15/2024
Supervised By :Ankita Jodhani 10/15/2024

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_C\Method\Aliphatic EPH 100224.M
Title : GC Extractables

Signal : FID1A.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	3.276	3.245	3.335	BB	336765	2838383	89.51%	4.877%
2	4.341	4.284	4.404	BB	320086	2906331	91.65%	4.994%
3	5.919	5.867	6.000	BB	331755	3171054	100.00%	5.449%
4	6.357	6.302	6.419	BB	294215	2918729	92.04%	5.015%
5	6.975	6.927	7.072	BB	306895	3046287	96.07%	5.234%
6	8.149	8.084	8.215	BB	261585	2838864	89.52%	4.878%
7	9.748	9.690	9.809	BB	259982	2862906	90.28%	4.919%
8	11.188	11.077	11.260	BB	253794	2868025	90.44%	4.928%
9	11.500	11.434	11.554	BB	294097	3122180	98.46%	5.365%
10	12.495	12.439	12.557	BB	224766	2722644	85.86%	4.678%
11	12.938	12.879	13.000	BB	188410	2334661	73.62%	4.012%
12	13.107	13.042	13.170	BB	219478	2663475	83.99%	4.577%
13	13.693	13.595	13.759	BB	209013	2644491	83.39%	4.544%
14	14.794	14.735	14.867	BB	202034	2620666	82.64%	4.503%
15	15.812	15.745	15.880	BB	191290	2579895	81.36%	4.433%
16	16.761	16.679	16.830	BB	195107	2572412	81.12%	4.420%
17	17.648	17.575	17.707	BB	188383	2670268	84.21%	4.588%
18	18.480	18.277	18.550	BB	178221	2639715	83.24%	4.536%
19	19.263	19.152	19.327	BB	161777	2344031	73.92%	4.028%
20	20.002	19.940	20.089	BB	129744	2046433	64.53%	3.516%
21	20.727	20.655	20.787	BB	109964	1909033	60.20%	3.280%
22	21.614	21.530	21.719	BB	77357	1877877	59.22%	3.227%
Sum of corrected areas:						58198358		

Aliphatic EPH 100224.M Tue Oct 15 05:45:00 2024

Continuing Calibration Report for SequenceID : FD101424AR

Parameter	AreaCount	Conc.	RT_Min	RT_Max	Response Factor	AVGRF	%DEV
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File ID : FD048504.D

Aromatic C10-C12	7355966.000	40.000	4.099	5.817	183899.150	180984.840	-1.610
Aromatic C12-C16	11202398.000	60.000	5.818	8.424	186706.633	189995.313	1.731
Aromatic C16-C21	13872207.000	80.000	8.425	12.687	173402.588	178728.230	2.980
Aromatic C21-C36	29243252.000	180.000	12.688	18.094	162462.511	165360.750	1.753
Aromatic EPH	61673823.000	360.000	4.099	18.094	171316.175	174173.072	1.640

Lab Sample ID:	20 PPM AROMATIC HC	Acq On:	14 Oct 2024 22:48
Client Sample ID:		Operator:	YP/AJ
Data file:	FD048504.D	Misc:	
Instrument:	FID_D	ALS Vial:	52
Dilution Factor:	1	Sample Multiplier:	1.00

Compound	R.T.		Response	Conc	Units
Aromatic C10-C12	4.099	5.817	7355966.000	40.000	ug/ml
Aromatic C12-C16	5.818	8.424	11202398.000	60.000	ug/ml
Aromatic C16-C21	8.425	12.687	13872207.000	80.000	ug/ml
Aromatic C21-C36	12.688	18.094	29243252.000	180.000	ug/ml
Aromatic EPH	4.099	18.094	61673823.000	360.000	ug/ml

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_D\Data\FD101424AR\
 Data File : FD048504.D
 Signal(s) : FID2B.ch
 Acq On : 14 Oct 2024 22:48
 Operator : YP/AJ
 Sample : 20 PPM AROMATIC HC STD
 Misc :
 ALS Vial : 52 Sample Multiplier: 1

Instrument :
 FID_D
 ClientSampleId :
 20 PPM AROMATIC HC STD

Integration File: autoint1.e
 Quant Time: Oct 15 06:01:56 2024
 Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_D\methods\Aromatic EPH 093024.M
 Quant Title : GC Extractables
 QLast Update : Mon Sep 30 14:17:34 2024
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1 µl
 Signal Phase : Rxi-1ms
 Signal Info : 20M x 0.18mm x 0.18µm

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
4) S 2-Bromonaphthalene (S...	7.377	3192519	19.282 ug/ml
Spiked Amount 50.000		Recovery =	38.56%
6) S 2-Fluorobiphenyl (SURR)	8.226	2116204	20.406 ug/ml
Spiked Amount 50.000 Range 0 - 131		Recovery =	40.81%
11) S ortho-Terphenyl (SURR)	11.263	3591730	19.521 ug/ml
Spiked Amount 50.000		Recovery =	39.04%
Target Compounds			
1) T 1,2,3-Trimethylbenzen...	4.199	3622961	20.672 ug/ml
2) T Naphthalene (C11.7)	5.717	3733005	19.993 ug/ml
3) T 2-Methylnaphthalene (...)	6.764	3768303	19.939 ug/ml
5) T Acenaphthylene (C15.06)	8.029	3703439	19.305 ug/ml
7) T Acenaphthene (C15.5)	8.324	3730656	19.723 ug/ml
8) T Fluorene (C16.55)	9.103	3589452	19.867 ug/ml
9) T Phenanthrene (C19.36)	10.490	3522547	19.876 ug/ml
10) T Anthracene (C19.43)	10.564	3338112	18.760 ug/ml
12) T Fluoranthene (C21.85)	12.294	3474989	19.212 ug/ml
13) T Pyrene (C20.8)	12.587	3422096	19.111 ug/ml
14) T Benzo[a]anthracene (C...	14.456	3182583	19.914 ug/ml
15) T Chrysene (C27.41)	14.498	3409035	18.276 ug/ml
16) T benzo[b]fluoranthene ...	16.004	3263324	19.595 ug/ml
17) T Bnezo[k]fluoranthene ...	16.035	3148251	18.547 ug/ml
18) T Benzo[a]pyrene (C31.34)	16.379	3248269	19.874 ug/ml
19) T Indeno[1,2,3-cd]pyren...	17.743	2882480	21.913 ug/ml
20) T Dibenz[a,h]anthracene...	17.783	3404404	20.345 ug/ml
21) T Benzo[g,h,i]perylene ...	17.994	3229917	19.886 ug/ml

(f)=RT Delta > 1/2 Window

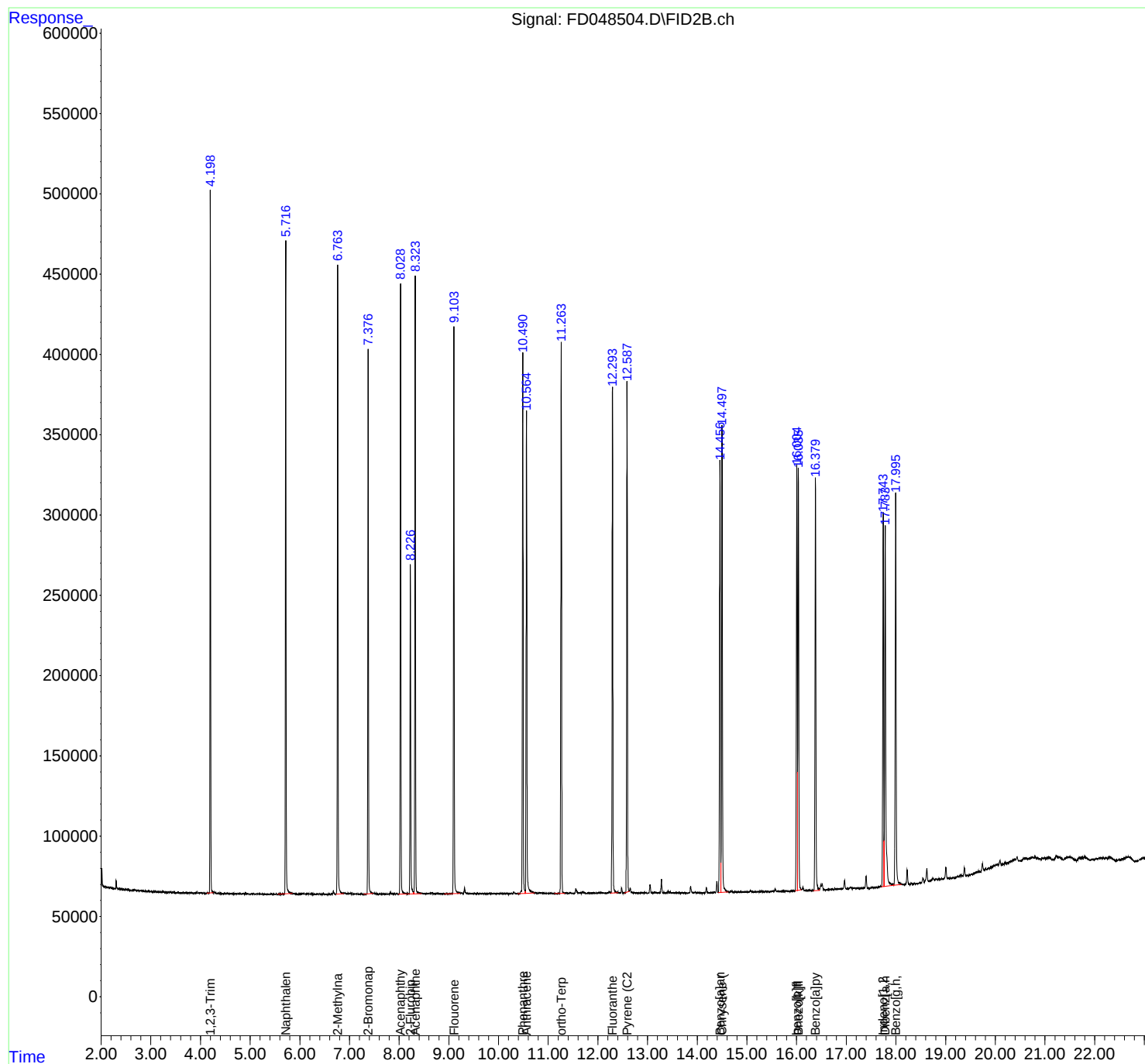
(m)=manual int.

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_D\Data\FD101424AR\
Data File : FD048504.D
Signal(s) : FID2B.ch
Acq On : 14 Oct 2024 22:48
Operator : YP/AJ
Sample : 20 PPM AROMATIC HC STD
Misc :
ALS Vial : 52 Sample Multiplier: 1

Instrument :
FID_D
ClientSampleId :
20 PPM AROMATIC HC STD

Integration File: autoint1.e
Quant Time: Oct 15 06:01:56 2024
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_D\methods\Aromatic EPH 093024.M
Quant Title : GC Extractables
QLast Update : Mon Sep 30 14:17:34 2024
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 µl
Signal Phase : Rxi-1ms
Signal Info : 20M x 0.18mm x 0.18µm



rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_D\Data\FD101424AR\
Data File : FD048504.D
Signal(s) : FID2B.ch
Acq On : 14 Oct 2024 22:48
Sample : 20 PPM AROMATIC HC STD
Misc :
ALS Vial : 52 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_D\methods\Aromatic EPH 093024.M
Title : GC Extractables

Signal : FID2B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	4.199	4.128	4.261	BV	433664	3622961	96.14%	5.134%
2	5.717	5.551	5.848	BB	404674	3733005	99.06%	5.289%
3	6.764	6.728	6.888	BV	392037	3768303	100.00%	5.339%
4	7.377	7.291	7.478	BV	338211	3192519	84.72%	4.524%
5	8.029	7.981	8.164	BB	378689	3703439	98.28%	5.248%
6	8.226	8.168	8.293	BV	203771	2116204	56.16%	2.999%
7	8.324	8.293	8.454	VB	385985	3730656	99.00%	5.286%
8	9.103	8.908	9.231	BB	348533	3589452	95.25%	5.086%
9	10.490	10.378	10.538	BV	338552	3522547	93.48%	4.991%
10	10.564	10.538	10.728	VB	301079	3338112	88.58%	4.730%
11	11.263	11.124	11.338	BB	345534	3591730	95.31%	5.089%
12	12.294	12.251	12.411	PB	315152	3474989	92.22%	4.924%
13	12.587	12.531	12.634	BV	318981	3422096	90.81%	4.849%
14	14.456	14.421	14.476	PV	271006	3182583	84.46%	4.510%
15	14.498	14.476	14.624	VB	291226	3409035	90.47%	4.830%
16	16.004	15.971	16.019	BV	266499	3263324	86.60%	4.624%
17	16.035	16.019	16.098	VV	262341	3148251	83.55%	4.461%
18	16.379	16.334	16.454	BV	256100	3248269	86.20%	4.603%
19	17.743	17.701	17.761	BV	234526	2882480	76.49%	4.084%
20	17.783	17.761	17.954	VV	223890	3404404	90.34%	4.824%
21	17.994	17.954	18.114	VB	244418	3229917	85.71%	4.577%
Sum of corrected areas:							70574276	

Aromatic EPH 093024.M Tue Oct 15 07:45:14 2024

Continuing Calibration Report for SequenceID : FD101424AR

Parameter	AreaCount	Conc.	RT_Min	RT_Max	Response Factor	AVGRF	%DEV
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File ID : FD048515.D

Aromatic C10-C12	7503437.000	40.000	4.099	5.817	187585.925	180984.840	-3.647
Aromatic C12-C16	11393796.000	60.000	5.818	8.424	189896.600	189995.313	0.052
Aromatic C16-C21	14125711.000	80.000	8.425	12.687	176571.388	178728.230	1.207
Aromatic C21-C36	29284546.000	180.000	12.688	18.094	162691.922	165360.750	1.614
Aromatic EPH	62307490.000	360.000	4.099	18.094	173076.361	174173.072	0.630

Lab Sample ID:	20 PPM AROMATIC HC	Acq On:	15 Oct 2024 07:27
Client Sample ID:		Operator:	YP/AJ
Data file:	FD048515.D	Misc:	
Instrument:	FID_D	ALS Vial:	52
Dilution Factor:	1	Sample Multiplier:	1.00

Compound	R.T.		Response	Conc	Units
Aromatic C10-C12	4.099	5.817	7503437.000	40.000	ug/ml
Aromatic C12-C16	5.818	8.424	11393796.000	60.000	ug/ml
Aromatic C16-C21	8.425	12.687	14125711.000	80.000	ug/ml
Aromatic C21-C36	12.688	18.094	29284546.000	180.000	ug/ml
Aromatic EPH	4.099	18.094	62307490.000	360.000	ug/ml

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_D\Data\FD101424AR\
 Data File : FD048515.D
 Signal(s) : FID2B.ch
 Acq On : 15 Oct 2024 07:27
 Operator : YP/AJ
 Sample : 20 PPM AROMATIC HC STD
 Misc :
 ALS Vial : 52 Sample Multiplier: 1

Instrument :
 FID_D
 ClientSampleId :
 20 PPM AROMATIC HC STD

Integration File: autoint1.e
 Quant Time: Oct 15 08:00:16 2024
 Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_D\methods\Aromatic EPH 093024.M
 Quant Title : GC Extractables
 QLast Update : Mon Sep 30 14:17:34 2024
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1 µl
 Signal Phase : Rxi-1ms
 Signal Info : 20M x 0.18mm x 0.18µm

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
4) S 2-Bromonaphthalene (S...	7.375	3256809	19.671 ug/ml
Spiked Amount 50.000		Recovery =	39.34%
6) S 2-Fluorobiphenyl (SURR)	8.225	2149435	20.727 ug/ml
Spiked Amount 50.000 Range 0 - 131		Recovery =	41.45%
11) S ortho-Terphenyl (SURR)	11.261	3638674	19.776 ug/ml
Spiked Amount 50.000		Recovery =	39.55%
Target Compounds			
1) T 1,2,3-Trimethylbenzen...	4.198	3683961	21.020 ug/ml
2) T Naphthalene (C11.7)	5.716	3819476	20.456 ug/ml
3) T 2-Methylnaphthalene (...)	6.762	3841980	20.329 ug/ml
5) T Acenaphthylene (C15.06)	8.028	3771085	19.657 ug/ml
7) T Acenaphthene (C15.5)	8.323	3780731	19.987 ug/ml
8) T Fluorene (C16.55)	9.101	3664023	20.280 ug/ml
9) T Phenanthrene (C19.36)	10.488	3581026	20.206 ug/ml
10) T Anthracene (C19.43)	10.564	3414263	19.188 ug/ml
12) T Fluoranthene (C21.85)	12.292	3524045	19.483 ug/ml
13) T Pyrene (C20.8)	12.586	3466399	19.358 ug/ml
14) T Benzo[a]anthracene (C...	14.454	3205019	20.055 ug/ml
15) T Chrysene (C27.41)	14.496	3335907	17.884 ug/ml
16) T benzo[b]fluoranthene ...	16.001	3295929	19.790 ug/ml
17) T Bnezo[k]fluoranthene ...	16.033	3179294	18.729 ug/ml
18) T Benzo[a]pyrene (C31.34)	16.376	3251934	19.896 ug/ml
19) T Indeno[1,2,3-cd]pyren...	17.741	2899234	22.041 ug/ml
20) T Dibenz[a,h]anthracene...	17.781	3401002	20.325 ug/ml
21) T Benzo[g,h,i]perylene ...	17.993	3192182	19.653 ug/ml

(f)=RT Delta > 1/2 Window

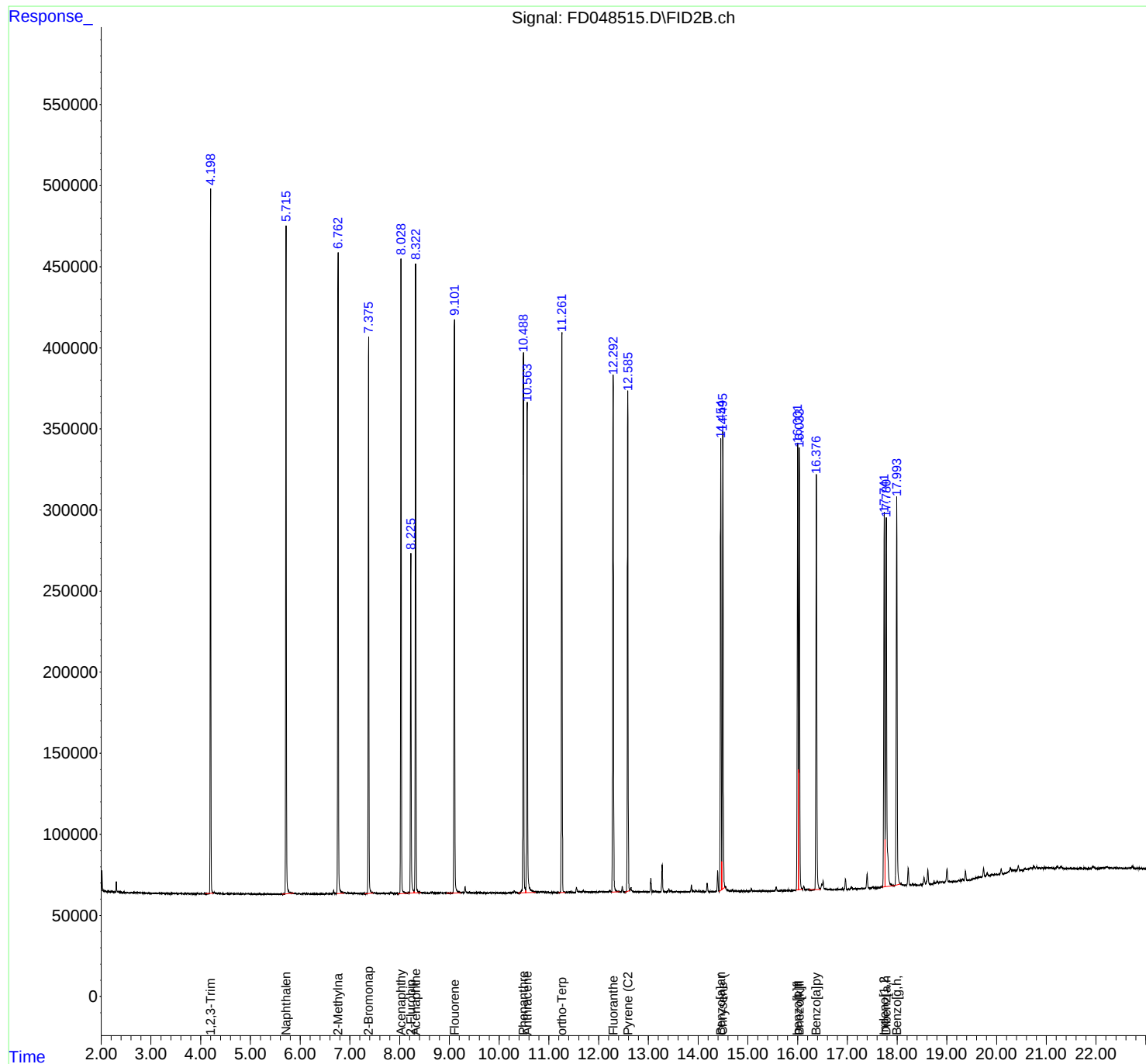
(m)=manual int.

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_D\Data\FD101424AR\
Data File : FD048515.D
Signal(s) : FID2B.ch
Acq On : 15 Oct 2024 07:27
Operator : YP/AJ
Sample : 20 PPM AROMATIC HC STD
Misc :
ALS Vial : 52 Sample Multiplier: 1

Instrument :
FID_D
ClientSampleId :
20 PPM AROMATIC HC STD

Integration File: autoint1.e
Quant Time: Oct 15 08:00:16 2024
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_D\methods\Aromatic EPH 093024.M
Quant Title : GC Extractables
QLast Update : Mon Sep 30 14:17:34 2024
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 µl
Signal Phase : Rxi-1ms
Signal Info : 20M x 0.18mm x 0.18µm



rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_D\Data\FD101424AR\
Data File : FD048515.D
Signal(s) : FID2B.ch
Acq On : 15 Oct 2024 07:27
Sample : 20 PPM AROMATIC HC STD
Misc :
ALS Vial : 52 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_D\methods\Aromatic EPH 093024.M
Title : GC Extractables

Signal : FID2B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	4.198	4.088	4.258	BV	434333	3683961	95.89%	5.163%
2	5.716	5.641	5.864	BB	408360	3819476	99.41%	5.353%
3	6.762	6.728	6.884	PV	391930	3841980	100.00%	5.385%
4	7.375	7.304	7.471	BB	340403	3256809	84.77%	4.564%
5	8.028	7.971	8.154	BB	391488	3771085	98.15%	5.285%
6	8.225	8.164	8.292	BV	209456	2149435	55.95%	3.012%
7	8.323	8.292	8.431	VB	385489	3780731	98.41%	5.299%
8	9.101	8.948	9.231	BB	353061	3664023	95.37%	5.135%
9	10.488	10.381	10.534	BV	331557	3581026	93.21%	5.019%
10	10.564	10.534	10.736	VB	302098	3414263	88.87%	4.785%
11	11.261	11.194	11.334	BB	344509	3638674	94.71%	5.100%
12	12.292	12.254	12.421	PB	317549	3524045	91.72%	4.939%
13	12.586	12.527	12.629	PV	305689	3466399	90.22%	4.858%
14	14.454	14.421	14.474	PV	278056	3205019	83.42%	4.492%
15	14.496	14.474	14.541	VV	282057	3335907	86.83%	4.675%
16	16.001	15.971	16.016	BV	274728	3295929	85.79%	4.619%
17	16.033	16.016	16.099	VV	273343	3179294	82.75%	4.456%
18	16.376	16.224	16.458	BV	255908	3251934	84.64%	4.558%
19	17.741	17.701	17.759	BV	230935	2899234	75.46%	4.063%
20	17.781	17.759	17.931	VV	228116	3401002	88.52%	4.766%
21	17.993	17.931	18.068	PV	240556	3192182	83.09%	4.474%
Sum of corrected areas:							71352410	

Aromatic EPH 093024.M Tue Oct 15 08:02:48 2024



QC SAMPLE DATA

Report of Analysis

Client:	Portal Partners Tri-Venture	Date Collected:	
Project:	Amtrak Sawtooth Bridges 2024	Date Received:	
Client Sample ID:	PB164109BL	SDG No.:	P4397
Lab Sample ID:	PB164109BL	Matrix:	Solid
Analytical Method:	NJEPH	% Solid:	100
Sample Wt/Vol:	30.01 Units: g	Final Vol:	2000 uL
Soil Aliquot Vol:	uL	Test:	EPH
Prep Method :			

Prep Date :	Date Analyzed :	Prep Batch ID
10/14/24 08:32	10/14/24 16:38	PB164109

Datafile

CAS Number	Parameter	Conc.	Qualifier	Dilution	MDL	LOQ / CRQL	Units(Dry Weight)	
TARGETS								
Aliphatic C9-C12	Aliphatic C9-C12	0.38	U	1	0.38	1.00	mg/kg	FC067430.D
Aliphatic C12-C16	Aliphatic C12-C16	0.24	U	1	0.24	0.67	mg/kg	FC067430.D
Aliphatic C16-C21	Aliphatic C16-C21	0.30	U	1	0.30	1.00	mg/kg	FC067430.D
Aliphatic C21-C28	Aliphatic C21-C28	0.80	U	1	0.80	1.33	mg/kg	FC067430.D
Aliphatic C28-C40	Aliphatic C28-C40	1.80	U	1	1.80	2.00	mg/kg	FC067430.D
Aromatic C10-C12	Aromatic C10-C12	0.30	U	1	0.30	0.67	mg/kg	FD048505.D
Aromatic C12-C16	Aromatic C12-C16	0.34	U	1	0.34	1.00	mg/kg	FD048505.D
Aromatic C16-C21	Aromatic C16-C21	0.96	U	1	0.96	1.67	mg/kg	FD048505.D
Aromatic C21-C36	Aromatic C21-C36	2.00	U	1	2.00	2.67	mg/kg	FD048505.D
Total AliphaticEPH	Total AliphaticEPH	3.52	U		3.52	6.00	mg/kg	
Total AromaticEPH	Total AromaticEPH	3.60	U		3.60	6.01	mg/kg	
Total EPH	Total EPH	7.12	U		7.12	12.0	mg/kg	

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control 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

Report of Analysis

Client:	Portal Partners Tri-Venture	Date Collected:	
Project:	Amtrak Sawtooth Bridges 2024	Date Received:	
Client Sample ID:	PB164109BL	SDG No.:	P4397
Lab Sample ID:	PB164109BL	Matrix:	Solid
Analytical Method:	NJEPH	% Solid:	100
Sample Wt/Vol:	30.01 Units: g	Final Vol:	2000 uL
Soil Aliquot Vol:	uL	Test:	EPH
Prep Method :			

File ID :	Dilution:	Prep Date :	Date Analyzed :	Prep Batch ID
FC067430.D	1	10/14/24	10/14/24	PB164109

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
Aliphatic C9-C12	Aliphatic C9-C12	0.38	U	0.38	1.00	mg/kg
Aliphatic C12-C16	Aliphatic C12-C16	0.24	U	0.24	0.67	mg/kg
Aliphatic C16-C21	Aliphatic C16-C21	0.30	U	0.30	1.00	mg/kg
Aliphatic C21-C28	Aliphatic C21-C28	0.80	U	0.80	1.33	mg/kg
Aliphatic C28-C40	Aliphatic C28-C40	1.80	U	1.80	2.00	mg/kg
SURROGATES						
3383-33-2	1-chlorooctadecane (SURR)	38.7		40 - 140	77%	SPK: 50
84-15-1	ortho-Terphenyl (SURR)	0.00		40 - 140	0%	SPK: 50

Quantitation Report For Aliphatic EPH Range.

Lab Sample ID:	PB164109BL	Acq On:	14 Oct 2024 16:38
Client Sample ID:	PB164109BL	Operator:	YP/AJ
Data file:	FC067430.D	Misc:	
Instrument:	FID_C	ALS Vial:	11
Dilution Factor:	1	Sample Multiplier:	1.00

Compound	R.T.		Response	Conc	highest_standard	Units
Aliphatic C9-C12	3.175	6.457	0	0	300	ug/ml
Aliphatic C12-C16	6.458	9.850	0	0	200	ug/ml
Aliphatic C16-C21	9.851	13.209	0	0	300	ug/ml
Aliphatic C21-C28	13.210	16.865	0	0	400	ug/ml
Aliphatic C28-C40	16.866	21.722	0	0	600	ug/ml
Aliphatic EPH	3.175	21.722	0	0		ug/ml
ortho-Terphenyl (SURR)	0.000	0.000	0	0		ug/ml
1-chlorooctadecane (SURR)	12.941	12.941	4378021	38.68		ug/ml
Aliphatic C9-C28	3.175	16.865	0	0	1200	ug/ml

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_C\Data\FC101424AL\
Data File : FC067430.D
Signal(s) : FID1A.ch
Acq On : 14 Oct 2024 16:38
Operator : YP/AJ
Sample : PB164109BL
Misc :
ALS Vial : 11 Sample Multiplier: 1

Instrument :
FID_C
ClientSampleId :
PB164109BL

Integration File: autoint1.e
Quant Time: Oct 15 04:31:36 2024
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_C\Method\Aliphatic EPH 100224.M
Quant Title : GC Extractables
QLast Update : Tue Oct 01 09:13:32 2024
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 ul
Signal Phase : Rxi-1ms
Signal Info : 20M x 0.18mm x 0.18um

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
12) S 1-chlorooctadecane (S...	12.941	4378021	38.677 ug/ml
Spiked Amount	50.000	Recovery	= 77.35%

Target Compounds

(f)=RT Delta > 1/2 Window

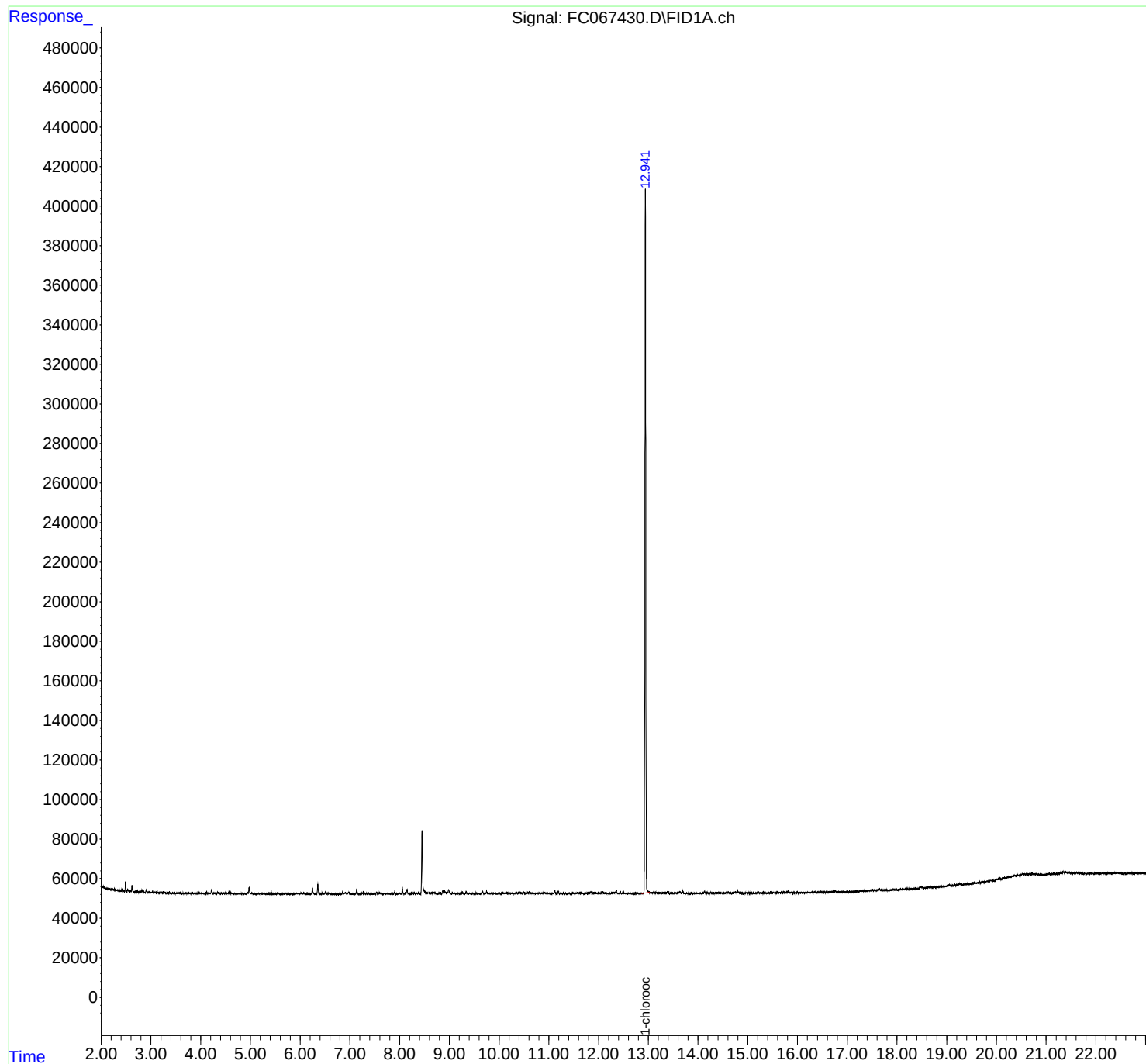
(m)=manual int.

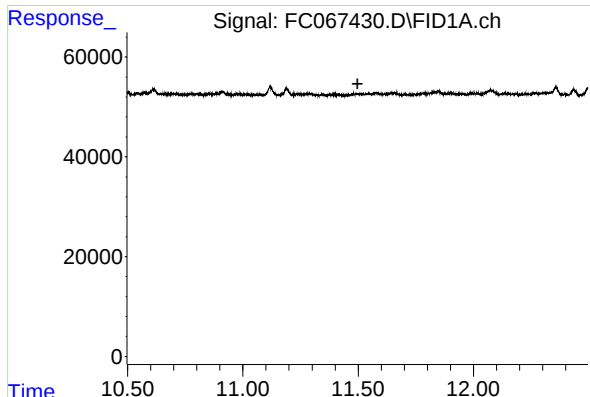
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_C\Data\FC101424AL\
Data File : FC067430.D
Signal(s) : FID1A.ch
Acq On : 14 Oct 2024 16:38
Operator : YP/AJ
Sample : PB164109BL
Misc :
ALS Vial : 11 Sample Multiplier: 1

Instrument :
FID_C
ClientSampleId :
PB164109BL

Integration File: autoint1.e
Quant Time: Oct 15 04:31:36 2024
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_C\Method\Aliphatic EPH 100224.M
Quant Title : GC Extractables
QLast Update : Tue Oct 01 09:13:32 2024
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 ul
Signal Phase : Rxi-1ms
Signal Info : 20M x 0.18mm x 0.18um

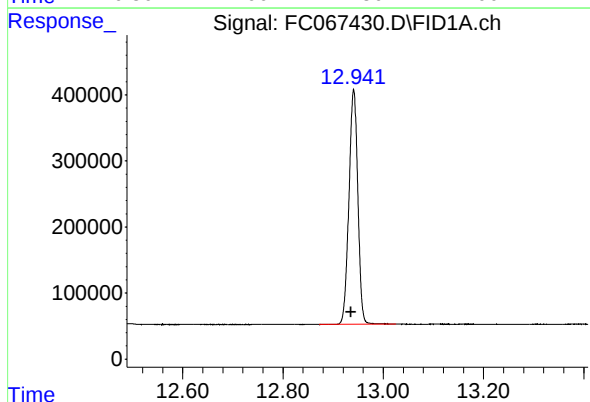




#9 ortho-Terphenyl (SURR)

R.T.: 0.000 min
Exp R.T.: 11.497 min
Response: 0
Conc: N.D.

Instrument :
FID_C
ClientSampleId :
PB164109BL



#12 1-chlorooctadecane (SURR)

R.T.: 12.941 min
Delta R.T.: 0.005 min
Response: 4378021
Conc: 38.68 ug/ml

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_C\Data\FC101424AL\
Data File : FC067430.D
Signal(s) : FID1A.ch
Acq On : 14 Oct 2024 16:38
Sample : PB164109BL
Misc :
ALS Vial : 11 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_C\Method\Aliphatic EPH 100224.M
Title : GC Extractables

Signal : FID1A.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	12.941	12.872	13.025	BB	355006	4378021	100.00%	100.000%
Sum of corrected areas:							4378021	

Aliphatic EPH 100224.M Tue Oct 15 05:42:06 2024

Report of Analysis

Client:	Portal Partners Tri-Venture	Date Collected:	
Project:	Amtrak Sawtooth Bridges 2024	Date Received:	
Client Sample ID:	PB164109BL	SDG No.:	P4397
Lab Sample ID:	PB164109BL	Matrix:	Solid
Analytical Method:	NJEPH	% Solid:	100
Sample Wt/Vol:	30.01 Units: g	Final Vol:	2000 uL
Soil Aliquot Vol:	uL	Test:	EPH
Prep Method :			

File ID :	Dilution:	Prep Date :	Date Analyzed :	Prep Batch ID
FD048505.D	1	10/14/24	10/15/24	PB164109

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
Aromatic C10-C12	Aromatic C10-C12	0.30	U	0.30	0.67	mg/kg
Aromatic C12-C16	Aromatic C12-C16	0.34	U	0.34	1.00	mg/kg
Aromatic C16-C21	Aromatic C16-C21	0.96	U	0.96	1.67	mg/kg
Aromatic C21-C36	Aromatic C21-C36	2.00	U	2.00	2.67	mg/kg
SURROGATES						
580-13-2	2-Bromonaphthalene (SURR)	52.4		40 - 140	105%	SPK: 50
321-60-8	2-Fluorobiphenyl (SURR)	50.6		40 - 140	101%	SPK: 50
84-15-1	ortho-Terphenyl (SURR)	47.0		40 - 140	94%	SPK: 50

Quantitation Report For Aromatic EPH Range.

Lab Sample ID:	PB164109BL	Acq On:	15 Oct 2024 00:02
Client Sample ID:	PB164109BL	Operator:	YP/AJ
Data file:	FD048505.D	Misc:	
Instrument:	FID_D	ALS Vial:	72
Dilution Factor:	1	Sample Multiplier:	1.00

Compound	R.T.		Response	Conc	highest_standard	Units
Aromatic C10-C12	4.099	5.817	0	0	200	ug/ml
Aromatic C12-C16	5.818	8.424	0	0	300	ug/ml
Aromatic C16-C21	8.425	12.687	0	0	500	ug/ml
Aromatic C21-C36	12.688	18.094	0	0	800	ug/ml
Aromatic EPH	4.099	18.094	0	0		ug/ml
ortho-Terphenyl (SURR)	11.267	11.267	8651846	47.02		ug/ml
2-Bromonaphthalene (SURR)	7.379	7.379	8673557	52.39		ug/ml
2-Flurobiphenyl (SURR)	8.228	8.228	5252190	50.65		ug/ml

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_D\Data\FD101424AR\
 Data File : FD048505.D
 Signal(s) : FID2B.ch
 Acq On : 15 Oct 2024 00:02
 Operator : YP/AJ
 Sample : PB164109BL
 Misc :
 ALS Vial : 72 Sample Multiplier: 1

Instrument :
 FID_D
 ClientSampleId :
 PB164109BL

Integration File: autoint1.e
 Quant Time: Oct 15 06:02:05 2024
 Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_D\methods\Aromatic EPH 093024.M
 Quant Title : GC Extractables
 QLast Update : Mon Sep 30 14:17:34 2024
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1 µl
 Signal Phase : Rxi-1ms
 Signal Info : 20M x 0.18mm x 0.18µm

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
4) S 2-Bromonaphthalene (S...	7.379	8673557	52.387 ug/ml
Spiked Amount 50.000		Recovery =	104.77%
6) S 2-Fluorobiphenyl (SURR)	8.228	5252190	50.646 ug/ml
Spiked Amount 50.000 Range 0 - 131		Recovery =	101.29%
11) S ortho-Terphenyl (SURR)	11.267	8651846	47.022 ug/ml
Spiked Amount 50.000		Recovery =	94.04%

Target Compounds

(f)=RT Delta > 1/2 Window

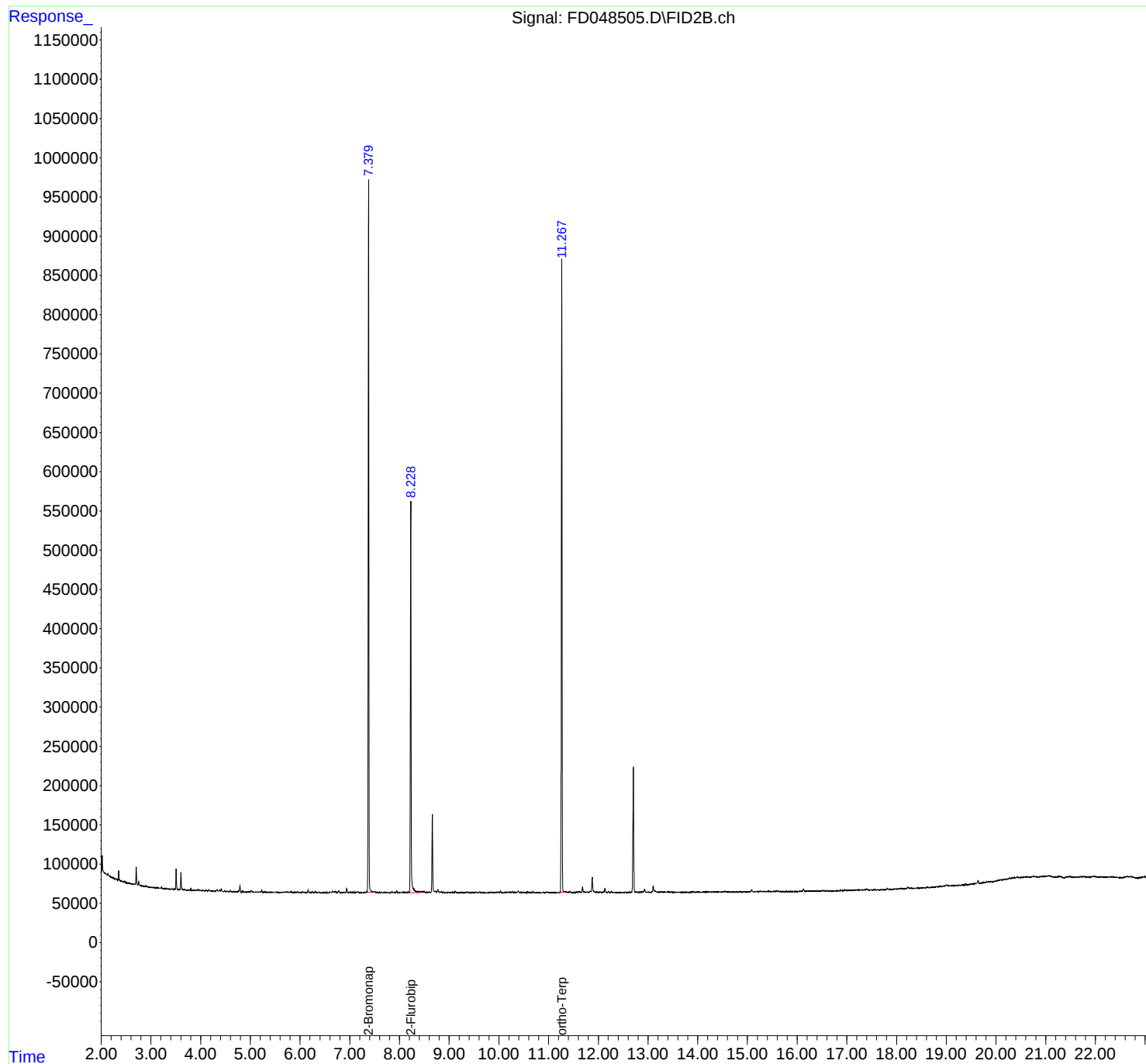
(m)=manual int.

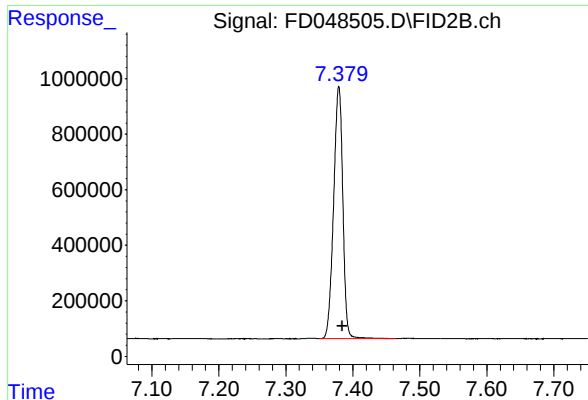
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_D\Data\FD101424AR\
Data File : FD048505.D
Signal(s) : FID2B.ch
Acq On : 15 Oct 2024 00:02
Operator : YP/AJ
Sample : PB164109BL
Misc :
ALS Vial : 72 Sample Multiplier: 1

Instrument :
FID_D
ClientSampleId :
PB164109BL

Integration File: autoint1.e
Quant Time: Oct 15 06:02:05 2024
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_D\methods\Aromatic EPH 093024.M
Quant Title : GC Extractables
QLast Update : Mon Sep 30 14:17:34 2024
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 µl
Signal Phase : Rxi-1ms
Signal Info : 20M x 0.18mm x 0.18µm

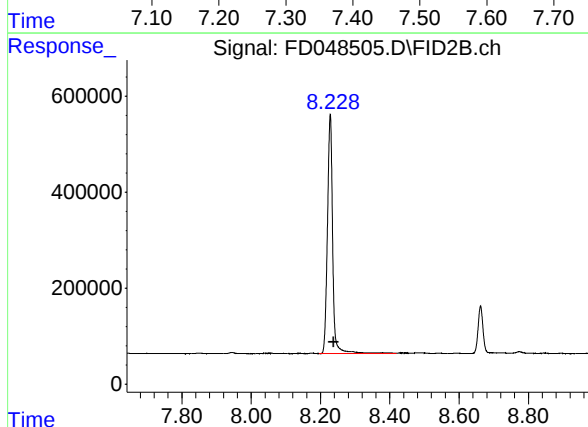




#4 2-Bromonaphthalene (SURR)

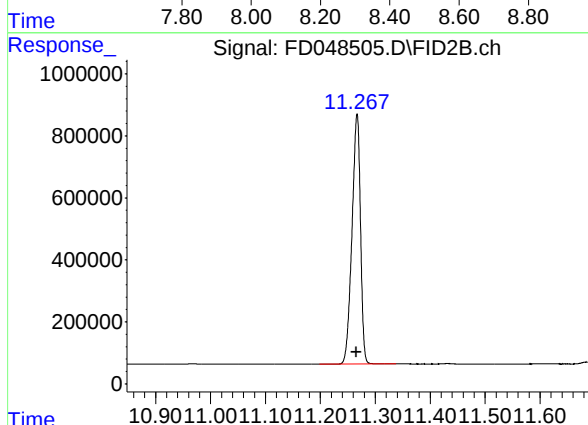
R.T.: 7.379 min
Delta R.T.: -0.005 min
Response: 8673557
Conc: 52.39 ug/ml

Instrument :
FID_D
ClientSampleId :
PB164109BL



#6 2-Fluorobiphenyl (SURR)

R.T.: 8.228 min
Delta R.T.: -0.011 min
Response: 5252190
Conc: 50.65 ug/ml



#11 ortho-Terphenyl (SURR)

R.T.: 11.267 min
Delta R.T.: 0.001 min
Response: 8651846
Conc: 47.02 ug/ml

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_D\Data\FD101424AR\
Data File : FD048505.D
Signal(s) : FID2B.ch
Acq On : 15 Oct 2024 00:02
Sample : PB164109BL
Misc :
ALS Vial : 72 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_D\methods\Aromatic EPH 093024.M
Title : GC Extractables

Signal : FID2B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	7.379	7.350	7.464	VV	900577	8673557	100.00%	38.417%
2	8.228	8.196	8.418	PV	497539	5252190	60.55%	23.263%
3	11.267	11.198	11.338	BV	816168	8651846	99.75%	38.320%
Sum of corrected areas:							22577594	

Aromatic EPH 093024.M Tue Oct 15 07:45:34 2024

Report of Analysis

Client:	Portal Partners Tri-Venture	Date Collected:	
Project:	Amtrak Sawtooth Bridges 2024	Date Received:	
Client Sample ID:	PB164109BS	SDG No.:	P4397
Lab Sample ID:	PB164109BS	Matrix:	Solid
Analytical Method:	NJEPH	% Solid:	100
Sample Wt/Vol:	30.02 Units: g	Final Vol:	2000 uL
Soil Aliquot Vol:	uL	Test:	EPH
Prep Method :			

Prep Date :	Date Analyzed :	Prep Batch ID
10/14/24 08:32	10/14/24 17:15	PB164109

Datafile

CAS Number	Parameter	Conc.	Qualifier	Dilution	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS							
Aliphatic C9-C12	Aliphatic C9-C12	5.93		1	0.38	1.00	mg/kg FC067431.D
Aliphatic C12-C16	Aliphatic C12-C16	5.43		1	0.24	0.67	mg/kg FC067431.D
Aliphatic C16-C21	Aliphatic C16-C21	8.45		1	0.30	1.00	mg/kg FC067431.D
Aliphatic C21-C28	Aliphatic C21-C28	11.1		1	0.80	1.33	mg/kg FC067431.D
Aliphatic C28-C40	Aliphatic C28-C40	19.5		1	1.80	2.00	mg/kg FC067431.D
Aromatic C10-C12	Aromatic C10-C12	4.66		1	0.30	0.67	mg/kg FD048506.D
Aromatic C12-C16	Aromatic C12-C16	7.77		1	0.34	1.00	mg/kg FD048506.D
Aromatic C16-C21	Aromatic C16-C21	15.3		1	0.96	1.67	mg/kg FD048506.D
Aromatic C21-C36	Aromatic C21-C36	23.0		1	2.00	2.66	mg/kg FD048506.D
Total AliphaticEPH	Total AliphaticEPH	50.4			3.52	5.99	mg/kg
Total AromaticEPH	Total AromaticEPH	50.7			3.60	6.00	mg/kg
Total EPH	Total EPH	101			7.12	12.0	mg/kg

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control 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

Report of Analysis

Client:	Portal Partners Tri-Venture	Date Collected:	
Project:	Amtrak Sawtooth Bridges 2024	Date Received:	
Client Sample ID:	PB164109BS	SDG No.:	P4397
Lab Sample ID:	PB164109BS	Matrix:	Solid
Analytical Method:	NJEPH	% Solid:	100
Sample Wt/Vol:	30.02 Units: g	Final Vol:	2000 uL
Soil Aliquot Vol:	uL	Test:	EPH
Prep Method :			

File ID :	Dilution:	Prep Date :	Date Analyzed :	Prep Batch ID
FC067431.D	1	10/14/24	10/14/24	PB164109

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
Aliphatic C9-C12	Aliphatic C9-C12	5.93		0.38	1.00	mg/kg
Aliphatic C12-C16	Aliphatic C12-C16	5.43		0.24	0.67	mg/kg
Aliphatic C16-C21	Aliphatic C16-C21	8.45		0.30	1.00	mg/kg
Aliphatic C21-C28	Aliphatic C21-C28	11.1		0.80	1.33	mg/kg
Aliphatic C28-C40	Aliphatic C28-C40	19.5		1.80	2.00	mg/kg
SURROGATES						
3383-33-2	1-chlorooctadecane (SURR)	34.6		40 - 140	69%	SPK: 50
84-15-1	ortho-Terphenyl (SURR)	0.00		40 - 140	0%	SPK: 50

Quantitation Report For Aliphatic EPH Range.

Lab Sample ID:	PB164109BS	Acq On:	14 Oct 2024 17:15
Client Sample ID:	PB164109BS	Operator:	YP/AJ
Data file:	FC067431.D	Misc:	
Instrument:	FID_C	ALS Vial:	12
Dilution Factor:	1	Sample Multiplier:	1.00

Compound	R.T.		Response	Conc	highest_standard	Units
Aliphatic C9-C12	3.175	6.457	11425952	89.019	300	ug/ml
Aliphatic C12-C16	6.458	9.850	10673371	81.502	200	ug/ml
Aliphatic C16-C21	9.851	13.209	16672534	126.81	300	ug/ml
Aliphatic C21-C28	13.210	16.865	21065352	166.1	400	ug/ml
Aliphatic C28-C40	16.866	21.722	30737201	292.135	600	ug/ml
Aliphatic EPH	3.175	21.722	90574410	755.566		ug/ml
ortho-Terphenyl (SURR)	0.000	0.000	0	0		ug/ml
1-chlorooctadecane (SURR)	12.941	12.941	3920928	34.64		ug/ml
Aliphatic C9-C28	3.175	16.865	59837209	463.431	1200	ug/ml

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_C\Data\F101424AL\
 Data File : FC067431.D
 Signal(s) : FID1A.ch
 Acq On : 14 Oct 2024 17:15
 Operator : YP/AJ
 Sample : PB164109BS
 Misc :
 ALS Vial : 12 Sample Multiplier: 1

Instrument :
 FID_C
 ClientSampleId :
 PB164109BS

Integration File: autoint1.e
 Quant Time: Oct 15 04:31:44 2024
 Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_C\Method\Aliphatic EPH 100224.M
 Quant Title : GC Extractables
 QLast Update : Tue Oct 01 09:13:32 2024
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1 ul
 Signal Phase : Rxi-1ms
 Signal Info : 20M x 0.18mm x 0.18um

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
12) S 1-chlorooctadecane (S...	12.941	3920928	34.639 ug/ml
Spiked Amount 50.000		Recovery =	69.28%
Target Compounds			
1) T n-Nonane (C9)	3.276	2995742	23.633 ug/ml
2) T n-Decane (C10)	4.341	3775912	29.375 ug/ml
4) T n-Dodecane (C12)	6.358	4654298	35.868 ug/ml
6) T n-Tetradecane (C14)	8.151	5214980	40.490 ug/ml
7) T n-Hexadecane (C16)	9.751	5458391	41.004 ug/ml
8) T n-Octadecane (C18)	11.191	5588397	41.212 ug/ml
10) T n-Eicosane (C20)	12.499	5649826	43.271 ug/ml
11) T n-Heneicosane (C21)	13.111	5434311	42.371 ug/ml
13) T n-Docosane (C22)	13.696	5400564	42.295 ug/ml
14) T n-Tetracosane (C24)	14.798	5310949	41.527 ug/ml
15) T n-Hexacosane (C26)	15.817	5214931	41.360 ug/ml
16) T n-Octacosane (C28)	16.766	5138908	40.905 ug/ml
17) T n-Tricontane (C30)	17.653	5162295	40.072 ug/ml
18) T n-Dotriacontane (C32)	18.484	5134298	41.098 ug/ml
19) T n-Tetratriacontane (C34)	19.267	5131530	46.959 ug/ml
20) T n-Hexatriacontane (C36)	20.006	5078849	53.734 ug/ml
21) T n-Octatriacontane (C38)	20.732	5119291	58.373 ug/ml
22) T n-Tetracontane (C40)	21.623	5110938	59.396 ug/ml

(f)=RT Delta > 1/2 Window

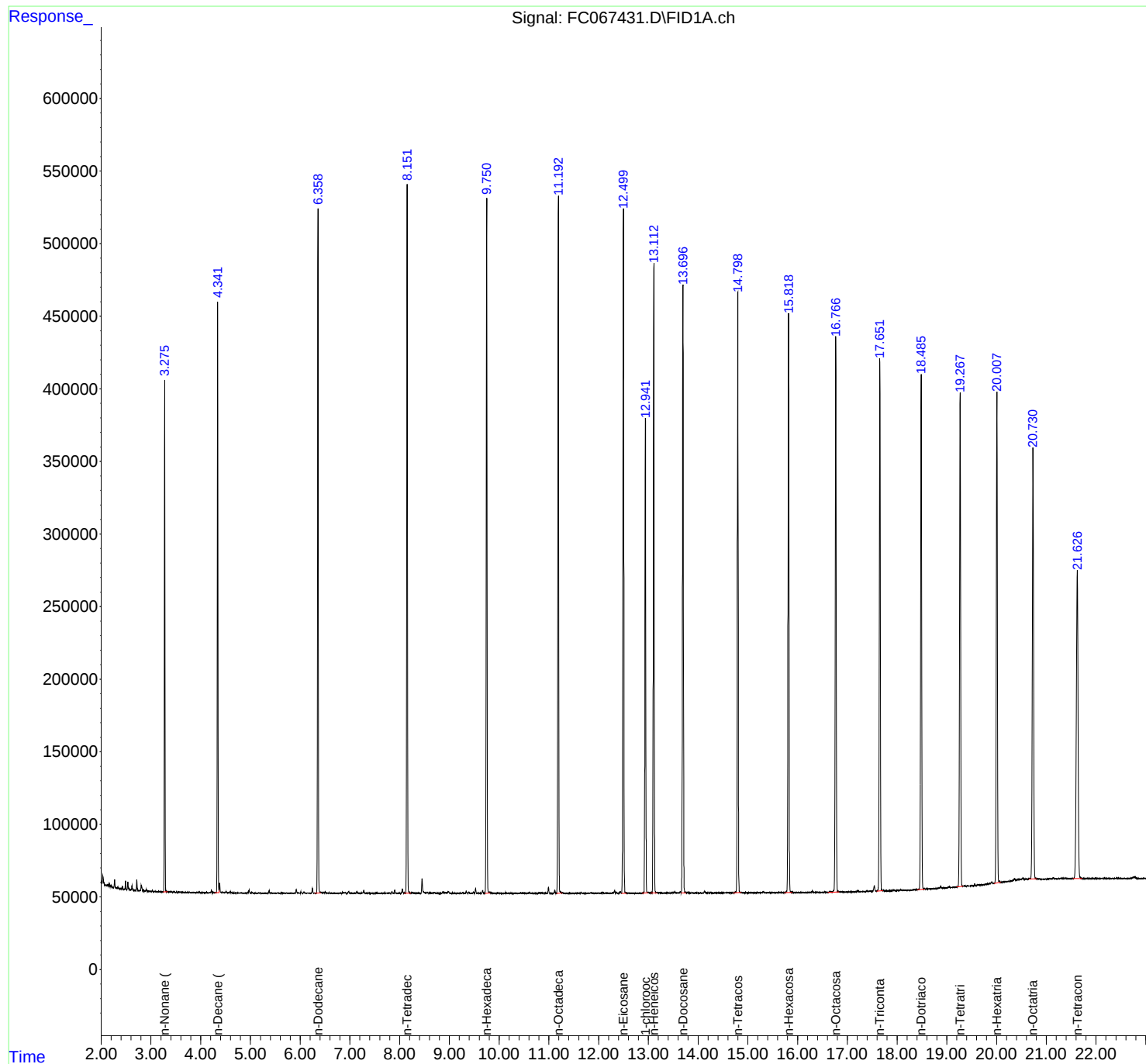
(m)=manual int.

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_C\Data\FC101424AL\
Data File : FC067431.D
Signal(s) : FID1A.ch
Acq On : 14 Oct 2024 17:15
Operator : YP/AJ
Sample : PB164109BS
Misc :
ALS Vial : 12 Sample Multiplier: 1

Instrument :
FID_C
ClientSampleId :
PB164109BS

Integration File: autoint1.e
Quant Time: Oct 15 04:31:44 2024
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_C\Method\Aliphatic EPH 100224.M
Quant Title : GC Extractables
QLast Update : Tue Oct 01 09:13:32 2024
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 ul
Signal Phase : Rxi-1ms
Signal Info : 20M x 0.18mm x 0.18um



rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_C\Data\FC101424AL\
 Data File : FC067431.D
 Signal(s) : FID1A.ch
 Acq On : 14 Oct 2024 17:15
 Sample : PB164109BS
 Misc :
 ALS Vial : 12 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_C\Method\Aliphatic EPH 100224.M
 Title : GC Extractables

Signal : FID1A.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	3.276	3.245	3.335	BB	352188	2995742	53.02%	3.170%
2	4.341	4.287	4.368	BV	408577	3775912	66.83%	3.996%
3	6.358	6.292	6.422	BB	473101	4654298	82.38%	4.925%
4	8.151	8.088	8.223	BB	489170	5214980	92.30%	5.519%
5	9.751	9.712	9.823	BB	475908	5458391	96.61%	5.776%
6	11.191	11.157	11.272	BB	472485	5588397	98.91%	5.914%
7	12.499	12.458	12.567	PB	467370	5649826	100.00%	5.979%
8	12.941	12.873	12.998	BB	328366	3920928	69.40%	4.149%
9	13.111	13.043	13.180	BB	430419	5434311	96.19%	5.751%
10	13.696	13.657	13.763	VB	418202	5400564	95.59%	5.715%
11	14.798	14.707	14.863	BB	407507	5310949	94.00%	5.620%
12	15.817	15.730	15.885	BB	394584	5214931	92.30%	5.519%
13	16.766	16.607	16.833	BB	381794	5138908	90.96%	5.438%
14	17.653	17.587	17.720	BB	363617	5162295	91.37%	5.463%
15	18.484	18.403	18.552	BB	353165	5134298	90.88%	5.433%
16	19.267	19.195	19.328	BB	338398	5131530	90.83%	5.430%
17	20.006	19.950	20.088	BB	336273	5078849	89.89%	5.375%
18	20.732	20.645	20.817	BB	293671	5119291	90.61%	5.418%
19	21.623	21.533	21.722	BB	212277	5110938	90.46%	5.409%
Sum of corrected areas:							94495338	

Aliphatic EPH 100224.M Tue Oct 15 05:42:29 2024

Report of Analysis

Client:	Portal Partners Tri-Venture	Date Collected:	
Project:	Amtrak Sawtooth Bridges 2024	Date Received:	
Client Sample ID:	PB164109BS	SDG No.:	P4397
Lab Sample ID:	PB164109BS	Matrix:	Solid
Analytical Method:	NJEPH	% Solid:	100
Sample Wt/Vol:	30.02 Units: g	Final Vol:	2000 uL
Soil Aliquot Vol:	uL	Test:	EPH
Prep Method :			

File ID :	Dilution:	Prep Date :	Date Analyzed :	Prep Batch ID
FD048506.D	1	10/14/24	10/15/24	PB164109

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
Aromatic C10-C12	Aromatic C10-C12	4.66		0.30	0.67	mg/kg
Aromatic C12-C16	Aromatic C12-C16	7.77		0.34	1.00	mg/kg
Aromatic C16-C21	Aromatic C16-C21	15.3		0.96	1.67	mg/kg
Aromatic C21-C36	Aromatic C21-C36	23.0		2.00	2.66	mg/kg
SURROGATES						
580-13-2	2-Bromonaphthalene (SURR)	47.8		40 - 140	96%	SPK: 50
321-60-8	2-Fluorobiphenyl (SURR)	50.3		40 - 140	101%	SPK: 50
84-15-1	ortho-Terphenyl (SURR)	41.8		40 - 140	84%	SPK: 50

Quantitation Report For Aromatic EPH Range.

Lab Sample ID:	PB164109BS	Acq On:	15 Oct 2024 00:39
Client Sample ID:	PB164109BS	Operator:	YP/AJ
Data file:	FD048506.D	Misc:	
Instrument:	FID_D	ALS Vial:	73
Dilution Factor:	1	Sample Multiplier:	1.00

Compound	R.T.		Response	Conc	highest_standard	Units
Aromatic C10-C12	4.099	5.817	12651542	69.904	200	ug/ml
Aromatic C12-C16	5.818	8.424	22172501	116.7	300	ug/ml
Aromatic C16-C21	8.425	12.687	40972758	229.246	500	ug/ml
Aromatic C21-C36	12.688	18.094	57206908	345.952	800	ug/ml
Aromatic EPH	4.099	18.094	133003709	761.802		ug/ml
ortho-Terphenyl (SURR)	11.267	11.267	7694917	41.82		ug/ml
2-Bromonaphthalene (SURR)	7.378	7.378	7909909	47.77		ug/ml
2-Fluorobiphenyl (SURR)	8.229	8.229	5220465	50.34		ug/ml

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_D\Data\FD101424AR\
 Data File : FD048506.D
 Signal(s) : FID2B.ch
 Acq On : 15 Oct 2024 00:39
 Operator : YP/AJ
 Sample : PB164109BS
 Misc :
 ALS Vial : 73 Sample Multiplier: 1

Instrument :

FID_D

ClientSampleId :

PB164109BS

Manual Integrations**APPROVED**

Reviewed By :Yogesh Patel 10/16/2024

Supervised By :Ankita Jodhani 10/16/2024

Integration File: autoint1.e

Quant Time: Oct 15 06:02:11 2024

Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_D\methods\Aromatic EPH 093024.M

Quant Title : GC Extractables

QLast Update : Mon Sep 30 14:17:34 2024

Response via : Initial Calibration

Integrator: ChemStation

Volume Inj. : 1 µl

Signal Phase : Rxi-1ms

Signal Info : 20M x 0.18mm x 0.18µm

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
4) S 2-Bromonaphthalene (S...	7.378	7909909	47.774 ug/ml
Spiked Amount 50.000		Recovery =	95.55%
6) S 2-Fluorobiphenyl (SURR)	8.229	5220465	50.340 ug/ml
Spiked Amount 50.000 Range 0 - 131		Recovery =	100.68%
11) S ortho-Terphenyl (SURR)	11.267	7694917	41.821 ug/ml
Spiked Amount 50.000		Recovery =	83.64%
Target Compounds			
1) T 1,2,3-Trimethylbenzen...	4.200	5853250	33.398 ug/ml
2) T Naphthalene (C11.7)	5.718	6798292	36.410 ug/ml
3) T 2-Methylnaphthalene (...)	6.765	6874022	36.373 ug/ml
5) T Acenaphthylene (C15.06)	8.032	7454668	38.858 ug/ml
7) T Acenaphthene (C15.5)	8.327	7843811	41.467 ug/ml
8) T Flouorene (C16.55)	9.106	7926725	43.873 ug/ml
9) T Phenanthrene (C19.36)	10.493	7941057	44.806 ug/ml
10) T Anthracene (C19.43)	10.570	8046601	45.221 ug/ml
12) T Fluoranthene (C21.85)	12.299	8028761	44.389 ug/mlm
13) T Pyrene (C20.8)	12.593	8305053	46.379 ug/ml
14) T Benzo[a]anthracene (C...	14.463	7373670	46.139 ug/ml
15) T Chrysene (C27.41)	14.505	7477263	40.087 ug/ml
16) T benzo[b]fluoranthene ...	16.010	7268974	43.647 ug/ml
17) T Bnezo[k]fluoranthene ...	16.045	7200782	42.420 ug/ml
18) T Benzo[a]pyrene (C31.34)	16.386	6948811	42.515 ug/ml
19) T Indeno[1,2,3-cd]pyren...	17.754	7302059	55.512 ug/ml
20) T Dibenz[a,h]anthracene...	17.791	6962617	41.609 ug/ml
21) T Benzo[g,h,i]perylene ...	18.005	6672732	41.082 ug/ml

(f)=RT Delta > 1/2 Window

(m)=manual int.

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_D\Data\FD101424AR\
Data File : FD048506.D
Signal(s) : FID2B.ch
Acq On : 15 Oct 2024 00:39
Operator : YP/AJ
Sample : PB164109BS
Misc :
ALS Vial : 73 Sample Multiplier: 1

Instrument :

FID_D

ClientSampleId :

PB164109BS

Manual Integrations

APPROVED

Reviewed By :Yogesh Patel 10/16/2024

Supervised By :Ankita Jodhani 10/16/2024

Integration File: autoint1.e

Quant Time: Oct 15 06:02:11 2024

Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_D\methods\Aromatic EPH 093024.M

Quant Title : GC Extractables

QLast Update : Mon Sep 30 14:17:34 2024

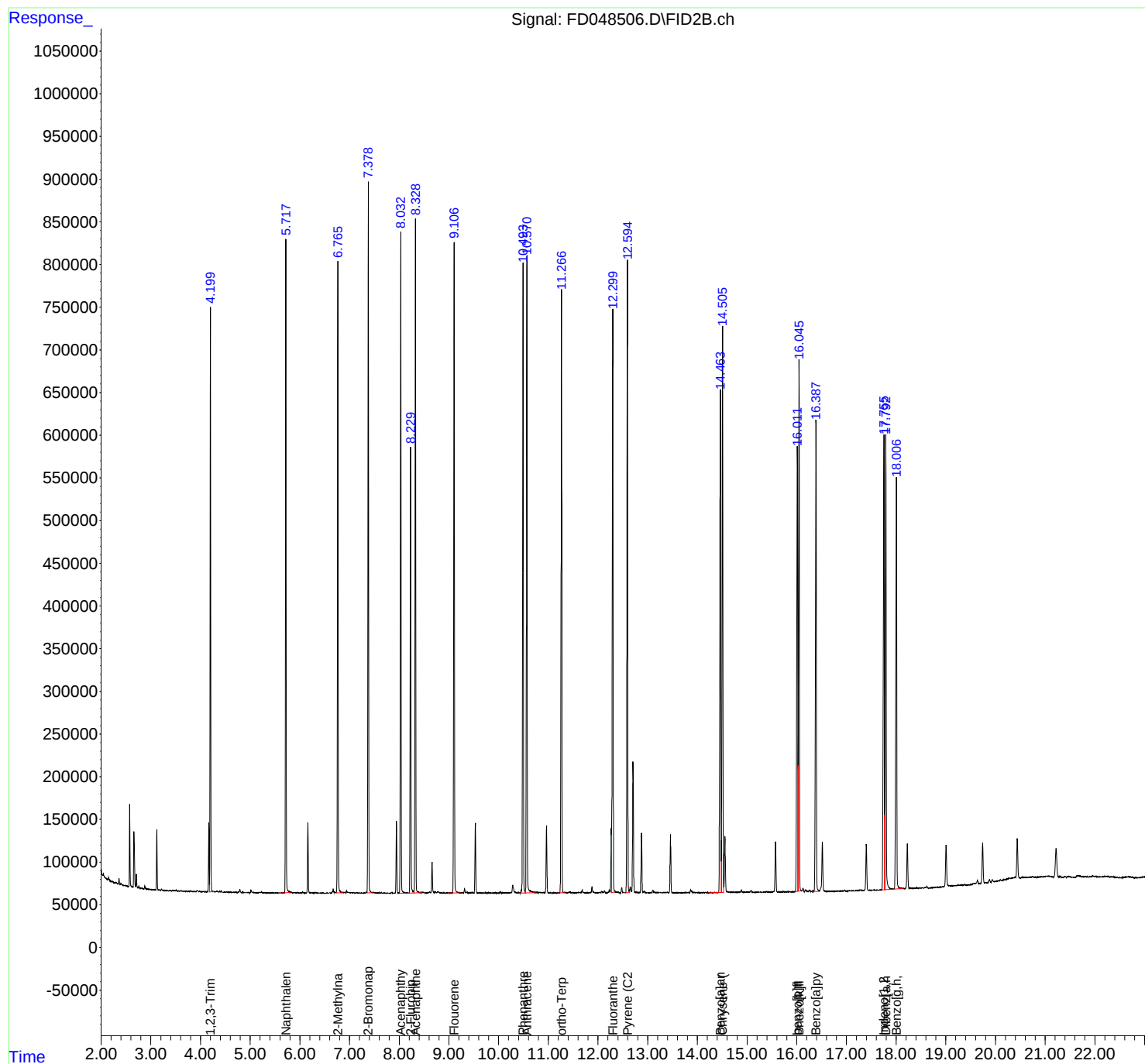
Response via : Initial Calibration

Integrator: ChemStation

Volume Inj. : 1 µl

Signal Phase : Rxi-1ms

Signal Info : 20M x 0.18mm x 0.18µm



Instrument :

FID_D

ClientSampleId :

PB164109BS

rteres

Area Percent Report

Manual IntegrationsAPPROVED

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_D\Data\FD10142

Data File : FD048506.D

Signal(s) : FID2B.ch

Acq On : 15 Oct 2024 00:39

Sample : PB164109BS

Misc :

ALS Vial : 73 Sample Multiplier: 1

Reviewed By :Yogesh Patel 10/16/2024

Supervised By :Ankita Jodhani 10/16/2024

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_D\methods\Aromatic EPH 093024.M

Title : GC Extractables

Signal : FID2B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	4.200	4.181	4.264	VV	677645	5853250	66.87%	3.805%
2	5.718	5.578	5.810	BV	764575	6798292	77.67%	4.419%
3	6.765	6.731	6.871	VV	736354	6874022	78.53%	4.469%
4	7.378	7.351	7.468	VV	826874	7909909	90.36%	5.142%
5	8.032	8.001	8.154	VV	765228	7454668	85.16%	4.846%
6	8.229	8.193	8.298	PV	516783	5220465	59.64%	3.394%
7	8.327	8.298	8.461	VV	791495	7843811	89.61%	5.099%
8	9.106	8.981	9.234	BB	751775	7926725	90.56%	5.153%
9	10.494	10.414	10.538	PV	747661	7941057	90.72%	5.162%
10	10.570	10.538	10.748	VV	751994	8046601	91.93%	5.231%
11	11.267	11.184	11.334	BB	709827	7694917	87.91%	5.002%
12	12.299	12.241	12.424	VV	679976	8753322	100.00%	5.690%
13	12.593	12.558	12.631	BV	747704	8305053	94.88%	5.399%
14	14.463	14.224	14.481	BV	578252	7373670	84.24%	4.793%
15	14.505	14.481	14.531	VV	651700	7477263	85.42%	4.861%
16	16.010	15.971	16.025	BV	524854	7268974	83.04%	4.725%
17	16.045	16.025	16.098	VV	620752	7200782	82.26%	4.681%
18	16.386	16.311	16.458	BV	563444	6948811	79.38%	4.517%
19	17.754	17.701	17.769	BV	535919	7302059	83.42%	4.747%
20	17.791	17.769	17.944	VV	529541	6962617	79.54%	4.526%
21	18.005	17.944	18.141	VB	476134	6672732	76.23%	4.338%
Sum of corrected areas:						153829001		

Aromatic EPH 093024.M Tue Oct 15 07:46:22 2024

Report of Analysis

Client:	Portal Partners Tri-Venture	Date Collected:	
Project:	Amtrak Sawtooth Bridges 2024	Date Received:	
Client Sample ID:	PB164109BSD	SDG No.:	P4397
Lab Sample ID:	PB164109BSD	Matrix:	Solid
Analytical Method:	NJEPH	% Solid:	100
Sample Wt/Vol:	30.03 Units: g	Final Vol:	2000 uL
Soil Aliquot Vol:	uL	Test:	EPH
Prep Method :			

Prep Date :	Date Analyzed :	Prep Batch ID
10/14/24 08:32	10/14/24 17:53	PB164109

Datafile

CAS Number	Parameter	Conc.	Qualifier	Dilution	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS							
Aliphatic C9-C12	Aliphatic C9-C12	5.88		1	0.38	1.00	mg/kg FC067432.D
Aliphatic C12-C16	Aliphatic C12-C16	5.36		1	0.24	0.67	mg/kg FC067432.D
Aliphatic C16-C21	Aliphatic C16-C21	8.33		1	0.30	1.00	mg/kg FC067432.D
Aliphatic C21-C28	Aliphatic C21-C28	10.9		1	0.80	1.33	mg/kg FC067432.D
Aliphatic C28-C40	Aliphatic C28-C40	19.5		1	1.80	2.00	mg/kg FC067432.D
Aromatic C10-C12	Aromatic C10-C12	4.67		1	0.30	0.67	mg/kg FD048507.D
Aromatic C12-C16	Aromatic C12-C16	7.77		1	0.34	1.00	mg/kg FD048507.D
Aromatic C16-C21	Aromatic C16-C21	15.3		1	0.96	1.67	mg/kg FD048507.D
Aromatic C21-C36	Aromatic C21-C36	23.2		1	2.00	2.66	mg/kg FD048507.D
Total AliphaticEPH	Total AliphaticEPH	50.0			3.52	5.99	mg/kg
Total AromaticEPH	Total AromaticEPH	50.9			3.60	6.00	mg/kg
Total EPH	Total EPH	101			7.12	12.0	mg/kg

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control 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

Report of Analysis

Client:	Portal Partners Tri-Venture	Date Collected:	
Project:	Amtrak Sawtooth Bridges 2024	Date Received:	
Client Sample ID:	PB164109BSD	SDG No.:	P4397
Lab Sample ID:	PB164109BSD	Matrix:	Solid
Analytical Method:	NJEPH	% Solid:	100
Sample Wt/Vol:	30.03 Units: g	Final Vol:	2000 uL
Soil Aliquot Vol:	uL	Test:	EPH
Prep Method :			

File ID :	Dilution:	Prep Date :	Date Analyzed :	Prep Batch ID
FC067432.D	1	10/14/24	10/14/24	PB164109

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
Aliphatic C9-C12	Aliphatic C9-C12	5.88		0.38	1.00	mg/kg
Aliphatic C12-C16	Aliphatic C12-C16	5.36		0.24	0.67	mg/kg
Aliphatic C16-C21	Aliphatic C16-C21	8.33		0.30	1.00	mg/kg
Aliphatic C21-C28	Aliphatic C21-C28	10.9		0.80	1.33	mg/kg
Aliphatic C28-C40	Aliphatic C28-C40	19.5		1.80	2.00	mg/kg
SURROGATES						
3383-33-2	1-chlorooctadecane (SURR)	36.1		40 - 140	72%	SPK: 50
84-15-1	ortho-Terphenyl (SURR)	0.00		40 - 140	0%	SPK: 50

Quantitation Report For Aliphatic EPH Range.

Lab Sample ID:	PB164109BSD	Acq On:	14 Oct 2024 17:53
Client Sample ID:	PB164109BSD	Operator:	YP/AJ
Data file:	FC067432.D	Misc:	
Instrument:	FID_C	ALS Vial:	13
Dilution Factor:	1	Sample Multiplier:	1.00

Compound	R.T.		Response	Conc	highest_standard	Units
Aliphatic C9-C12	3.175	6.457	11332325	88.289	300	ug/ml
Aliphatic C12-C16	6.458	9.850	10537887	80.468	200	ug/ml
Aliphatic C16-C21	9.851	13.209	16438137	125.028	300	ug/ml
Aliphatic C21-C28	13.210	16.865	20833073	164.268	400	ug/ml
Aliphatic C28-C40	16.866	21.722	30731207	292.078	600	ug/ml
Aliphatic EPH	3.175	21.722	89872629	750.13		ug/ml
ortho-Terphenyl (SURR)	0.000	0.000	0	0		ug/ml
1-chlorooctadecane (SURR)	12.941	12.941	4085608	36.09		ug/ml
Aliphatic C9-C28	3.175	16.865	59141422	458.053	1200	ug/ml

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_C\Data\F101424AL\
 Data File : FC067432.D
 Signal(s) : FID1A.ch
 Acq On : 14 Oct 2024 17:53
 Operator : YP/AJ
 Sample : PB164109BSD
 Misc :
 ALS Vial : 13 Sample Multiplier: 1

Instrument :
 FID_C
 ClientSampleId :
 PB164109BSD

Integration File: autoint1.e
 Quant Time: Oct 15 04:31:53 2024
 Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_C\Method\Aliphatic EPH 100224.M
 Quant Title : GC Extractables
 QLast Update : Tue Oct 01 09:13:32 2024
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1 ul
 Signal Phase : Rxi-1ms
 Signal Info : 20M x 0.18mm x 0.18um

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
12) S 1-chlorooctadecane (S...	12.941	4085608	36.094 ug/ml
Spiked Amount 50.000		Recovery =	72.19%
Target Compounds			
1) T n-Nonane (C9)	3.276	2973962	23.462 ug/ml
2) T n-Decane (C10)	4.342	3748394	29.161 ug/ml
4) T n-Dodecane (C12)	6.358	4609969	35.526 ug/ml
6) T n-Tetradecane (C14)	8.152	5155285	40.026 ug/ml
7) T n-Hexadecane (C16)	9.751	5382602	40.435 ug/ml
8) T n-Octadecane (C18)	11.191	5510263	40.636 ug/ml
10) T n-Eicosane (C20)	12.499	5569732	42.657 ug/ml
11) T n-Heneicosane (C21)	13.109	5358142	41.777 ug/ml
13) T n-Docosane (C22)	13.696	5327107	41.720 ug/ml
14) T n-Tetracosane (C24)	14.798	5244161	41.005 ug/ml
15) T n-Hexacosane (C26)	15.817	5162572	40.945 ug/ml
16) T n-Octacosane (C28)	16.765	5099233	40.590 ug/ml
17) T n-Tricontane (C30)	17.654	5141668	39.912 ug/ml
18) T n-Dotriacontane (C32)	18.485	5130885	41.071 ug/ml
19) T n-Tetratriacontane (C34)	19.267	5135466	46.995 ug/ml
20) T n-Hexatriacontane (C36)	20.006	5082810	53.776 ug/ml
21) T n-Octatriacontane (C38)	20.731	5123039	58.416 ug/ml
22) T n-Tetracontane (C40)	21.622	5117339	59.471 ug/ml

(f)=RT Delta > 1/2 Window

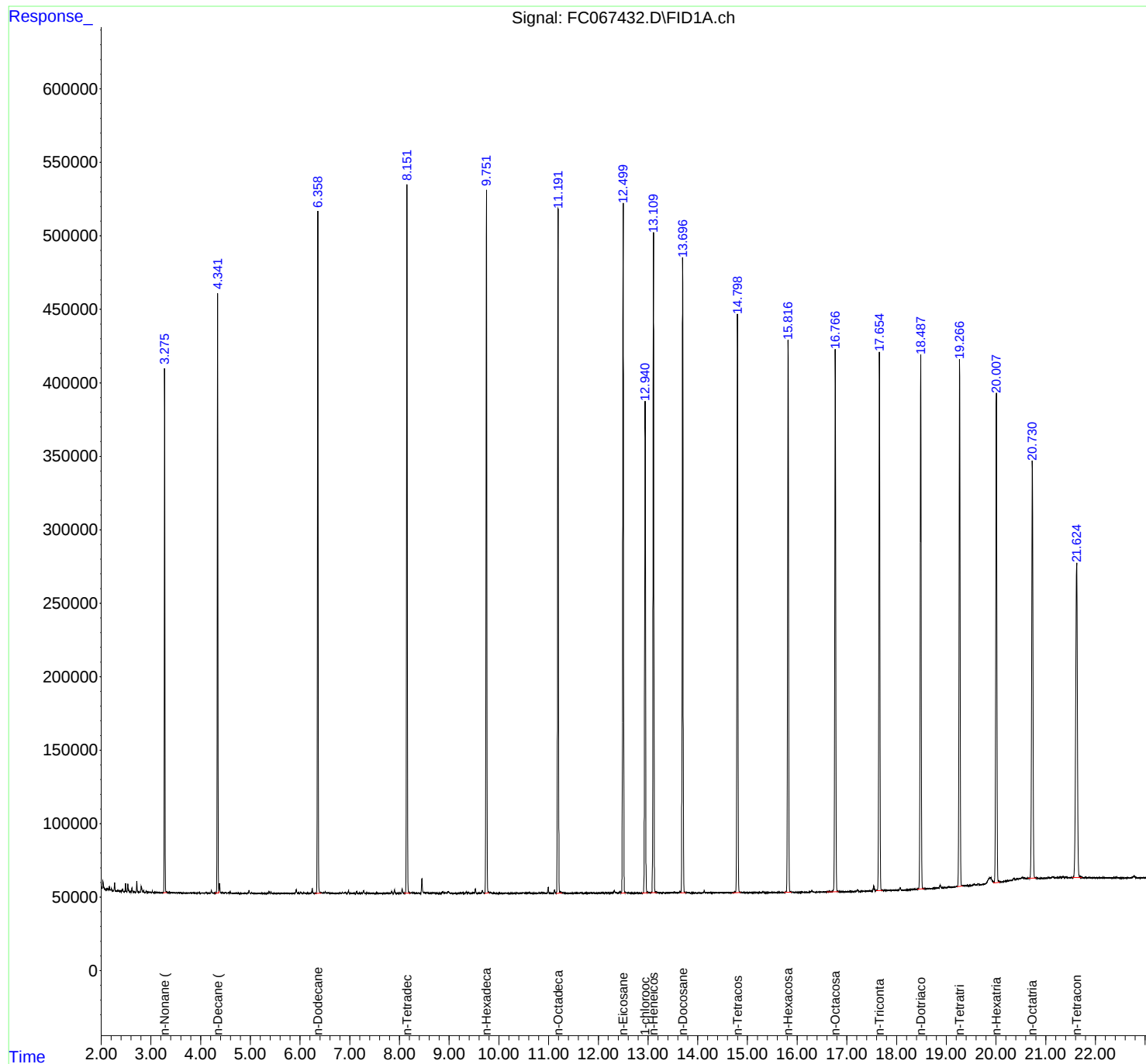
(m)=manual int.

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_C\Data\FC101424AL\
Data File : FC067432.D
Signal(s) : FID1A.ch
Acq On : 14 Oct 2024 17:53
Operator : YP/AJ
Sample : PB164109BSD
Misc :
ALS Vial : 13 Sample Multiplier: 1

Instrument :
FID_C
ClientSampleId :
PB164109BSD

Integration File: autoint1.e
Quant Time: Oct 15 04:31:53 2024
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_C\Method\Aliphatic EPH 100224.M
Quant Title : GC Extractables
QLast Update : Tue Oct 01 09:13:32 2024
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 ul
Signal Phase : Rxi-1ms
Signal Info : 20M x 0.18mm x 0.18um



rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_C\Data\FC101424AL\
Data File : FC067432.D
Signal(s) : FID1A.ch
Acq On : 14 Oct 2024 17:53
Sample : PB164109BSD
Misc :
ALS Vial : 13 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_C\Method\Aliphatic EPH 100224.M
Title : GC Extractables

Signal : FID1A.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	3.276	3.245	3.323	BB	355237	2973962	53.40%	3.165%
2	4.342	4.283	4.368	BV	408644	3748394	67.30%	3.989%
3	6.358	6.292	6.425	BB	464815	4609969	82.77%	4.906%
4	8.152	8.090	8.220	BB	481941	5155285	92.56%	5.487%
5	9.751	9.713	9.808	BB	479041	5382602	96.64%	5.729%
6	11.191	11.153	11.272	BB	465057	5510263	98.93%	5.865%
7	12.499	12.455	12.557	PB	465056	5569732	100.00%	5.928%
8	12.941	12.877	13.005	BB	334134	4085608	73.35%	4.348%
9	13.109	13.045	13.182	BB	440711	5358142	96.20%	5.703%
10	13.696	13.657	13.767	VB	430753	5327107	95.64%	5.670%
11	14.798	14.705	14.865	BB	392183	5244161	94.15%	5.581%
12	15.817	15.732	15.885	BB	374108	5162572	92.69%	5.495%
13	16.765	16.597	16.833	BB	365811	5099233	91.55%	5.427%
14	17.654	17.587	17.722	BB	364284	5141668	92.31%	5.472%
15	18.485	18.415	18.560	BB	359124	5130885	92.12%	5.461%
16	19.267	19.215	19.332	BB	355346	5135466	92.20%	5.466%
17	20.007	19.955	20.083	VB	331249	5082810	91.26%	5.410%
18	20.731	20.645	20.812	BB	278500	5123039	91.98%	5.452%
19	21.622	21.528	21.732	BB	213024	5117339	91.88%	5.446%
Sum of corrected areas:							93958235	

Aliphatic EPH 100224.M Tue Oct 15 05:42:58 2024

Report of Analysis

Client:	Portal Partners Tri-Venture	Date Collected:	
Project:	Amtrak Sawtooth Bridges 2024	Date Received:	
Client Sample ID:	PB164109BSD	SDG No.:	P4397
Lab Sample ID:	PB164109BSD	Matrix:	Solid
Analytical Method:	NJEPH	% Solid:	100
Sample Wt/Vol:	30.03 Units: g	Final Vol:	2000 uL
Soil Aliquot Vol:	uL	Test:	EPH
Prep Method :			

File ID :	Dilution:	Prep Date :	Date Analyzed :	Prep Batch ID
FD048507.D	1	10/14/24	10/15/24	PB164109

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
Aromatic C10-C12	Aromatic C10-C12	4.67		0.30	0.67	mg/kg
Aromatic C12-C16	Aromatic C12-C16	7.77		0.34	1.00	mg/kg
Aromatic C16-C21	Aromatic C16-C21	15.3		0.96	1.67	mg/kg
Aromatic C21-C36	Aromatic C21-C36	23.2		2.00	2.66	mg/kg
SURROGATES						
580-13-2	2-Bromonaphthalene (SURR)	47.9		40 - 140	96%	SPK: 50
321-60-8	2-Fluorobiphenyl (SURR)	50.4		40 - 140	101%	SPK: 50
84-15-1	ortho-Terphenyl (SURR)	42.1		40 - 140	84%	SPK: 50



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

Quantitation Report For Aromatic EPH Range.

Lab Sample ID:	PB164109BSD	Acq On:	15 Oct 2024 01:17
Client Sample ID:	PB164109BSD	Operator:	YP/AJ
Data file:	FD048507.D	Misc:	
Instrument:	FID_D	ALS Vial:	74
Dilution Factor:	1	Sample Multiplier:	1.00

Compound	R.T.		Response	Conc	highest_standard	Units
Aromatic C10-C12	4.099	5.817	12686302	70.096	200	ug/ml
Aromatic C12-C16	5.818	8.424	22161971	116.645	300	ug/ml
Aromatic C16-C21	8.425	12.687	41157785	230.281	500	ug/ml
Aromatic C21-C36	12.688	18.094	57627675	348.497	800	ug/ml
Aromatic EPH	4.099	18.094	133633733	765.519		ug/ml
ortho-Terphenyl (SURR)	11.266	11.266	7750803	42.12		ug/ml
2-Bromonaphthalene (SURR)	7.378	7.378	7923978	47.86		ug/ml
2-Fluorobiphenyl (SURR)	8.229	8.229	5224281	50.38		ug/ml

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_D\Data\FD101424AR\
 Data File : FD048507.D
 Signal(s) : FID2B.ch
 Acq On : 15 Oct 2024 01:17
 Operator : YP/AJ
 Sample : PB164109BSD
 Misc :
 ALS Vial : 74 Sample Multiplier: 1

Instrument :

FID_D

ClientSampleId :

PB164109BSD

Manual Integrations**APPROVED**

Reviewed By :Yogesh Patel 10/16/2024

Supervised By :Ankita Jodhani 10/16/2024

Integration File: autoint1.e

Quant Time: Oct 15 06:02:20 2024

Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_D\methods\Aromatic EPH 093024.M

Quant Title : GC Extractables

QLast Update : Mon Sep 30 14:17:34 2024

Response via : Initial Calibration

Integrator: ChemStation

Volume Inj. : 1 µl

Signal Phase : Rxi-1ms

Signal Info : 20M x 0.18mm x 0.18µm

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
4) S 2-Bromonaphthalene (S...	7.378	7923978	47.859 ug/ml
Spiked Amount 50.000		Recovery =	95.72%
6) S 2-Fluorobiphenyl (SURR)	8.229	5224281	50.377 ug/ml
Spiked Amount 50.000 Range 0 - 131		Recovery =	100.75%
11) S ortho-Terphenyl (SURR)	11.266	7750803	42.125 ug/ml
Spiked Amount 50.000		Recovery =	84.25%
Target Compounds			
1) T 1,2,3-Trimethylbenzen...	4.199	5878933	33.545 ug/ml
2) T Naphthalene (C11.7)	5.717	6807369	36.459 ug/ml
3) T 2-Methylnaphthalene (...)	6.765	6878593	36.397 ug/ml
5) T Acenaphthylene (C15.06)	8.031	7444078	38.803 ug/ml
7) T Acenaphthene (C15.5)	8.327	7839300	41.444 ug/ml
8) T Flouorene (C16.55)	9.106	7969822	44.112 ug/ml
9) T Phenanthrene (C19.36)	10.494	7976313	45.005 ug/ml
10) T Anthracene (C19.43)	10.570	8076141	45.387 ug/ml
12) T Fluoranthene (C21.85)	12.299	8013647	44.305 ug/mlm
13) T Pyrene (C20.8)	12.593	8351742	46.640 ug/ml
14) T Benzo[a]anthracene (C...	14.462	7437285	46.537 ug/ml
15) T Chrysene (C27.41)	14.506	7529202	40.365 ug/ml
16) T benzo[b]fluoranthene ...	16.010	7292285	43.787 ug/ml
17) T Bnezo[k]fluoranthene ...	16.045	7290415	42.948 ug/ml
18) T Benzo[a]pyrene (C31.34)	16.387	7001803	42.839 ug/ml
19) T Indeno[1,2,3-cd]pyren...	17.754	7356701	55.928 ug/ml
20) T Dibenz[a,h]anthracene...	17.792	7025640	41.986 ug/ml
21) T Benzo[g,h,i]perylene ...	18.005	6694344	41.215 ug/ml

(f)=RT Delta > 1/2 Window

(m)=manual int.

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_D\Data\FD101424AR\
Data File : FD048507.D
Signal(s) : FID2B.ch
Acq On : 15 Oct 2024 01:17
Operator : YP/AJ
Sample : PB164109BSD
Misc :
ALS Vial : 74 Sample Multiplier: 1

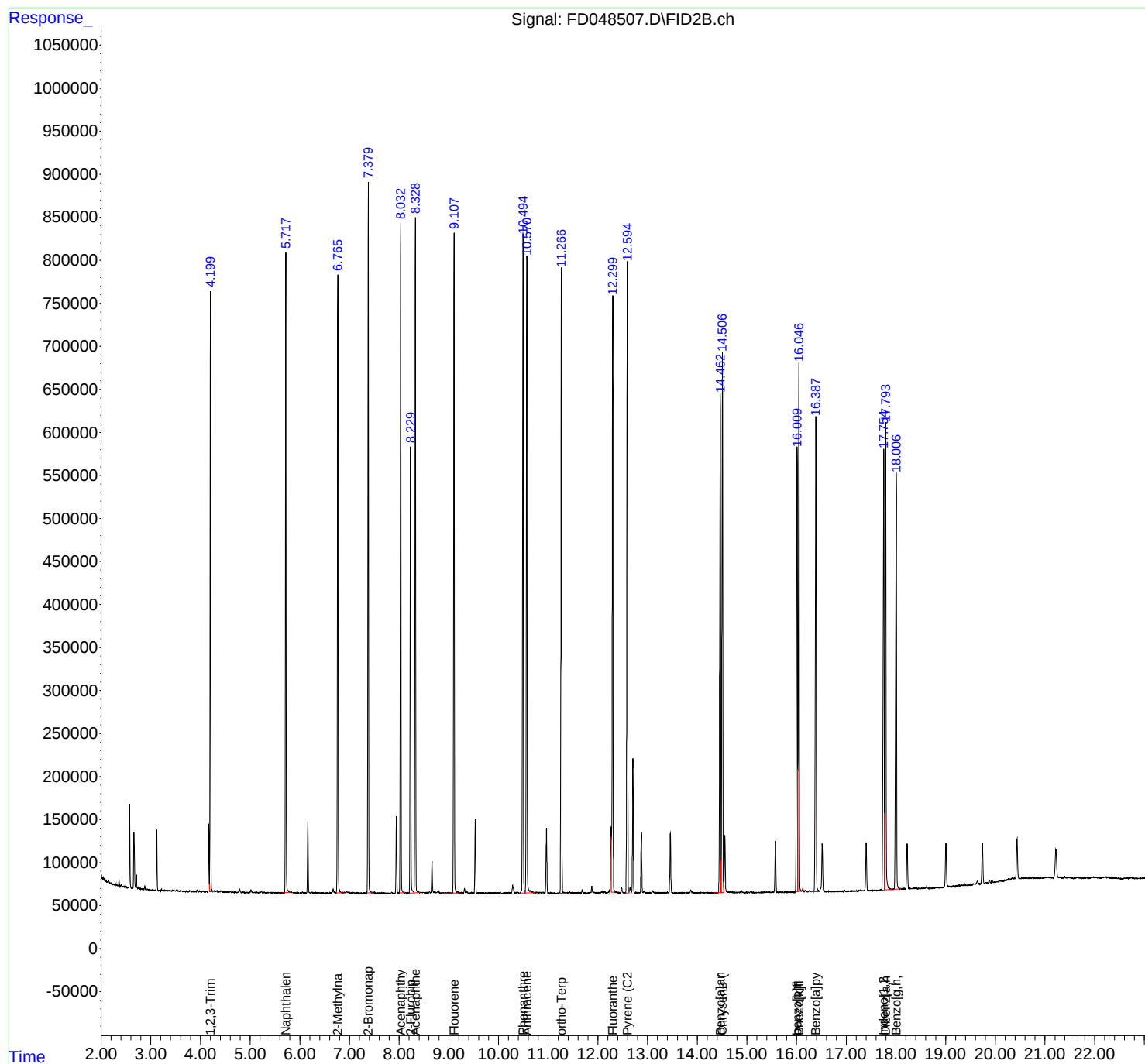
Instrument :
FID_D
ClientSampleId :
PB164109BSD

Manual Integrations
APPROVED

Reviewed By :Yogesh Patel 10/16/2024
Supervised By :Ankita Jodhani 10/16/2024

Integration File: autoint1.e
Quant Time: Oct 15 06:02:20 2024
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_D\methods\Aromatic EPH 093024.M
Quant Title : GC Extractables
QLast Update : Mon Sep 30 14:17:34 2024
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 µl
Signal Phase : Rxi-1ms
Signal Info : 20M x 0.18mm x 0.18µm



rters

Instrument :

FID_D

ClientSampleId :

PB164109BSD

Area Percent Report

Manual IntegrationsAPPROVED

Reviewed By :Yogesh Patel 10/16/2024

Supervised By :Ankita Jodhani 10/16/2024

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_D\Data\FD10142
Data File : FD048507.D
Signal(s) : FID2B.ch
Acq On : 15 Oct 2024 01:17
Sample : PB164109BSD
Misc :
ALS Vial : 74 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_D\methods\Aromatic EPH 093024.M
Title : GC Extractables

Signal : FID2B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	4.199	4.181	4.291	VB	687569	5878933	66.93%	3.804%
2	5.717	5.645	5.808	BV	744785	6807369	77.50%	4.405%
3	6.765	6.730	6.875	PV	717233	6878593	78.31%	4.451%
4	7.378	7.351	7.461	PV	821536	7923978	90.21%	5.128%
5	8.031	8.001	8.115	PV	774931	7444078	84.75%	4.817%
6	8.229	8.195	8.298	BV	517262	5224281	59.48%	3.381%
7	8.327	8.298	8.415	VV	789396	7839300	89.25%	5.073%
8	9.106	8.868	9.238	BB	785487	7969822	90.73%	5.157%
9	10.494	10.419	10.535	PV	772275	7976313	90.81%	5.162%
10	10.570	10.535	10.741	VB	751885	8076141	91.94%	5.226%
11	11.266	11.211	11.371	BV	725723	7750803	88.24%	5.016%
12	12.299	12.241	12.441	VB	683994	8783767	100.00%	5.684%
13	12.593	12.545	12.630	PV	747558	8351742	95.08%	5.405%
14	14.462	14.338	14.481	BV	575662	7437285	84.67%	4.813%
15	14.506	14.481	14.531	VV	626361	7529202	85.72%	4.872%
16	16.010	15.971	16.025	BV	515734	7292285	83.02%	4.719%
17	16.045	16.025	16.100	VV	612637	7290415	83.00%	4.718%
18	16.387	16.295	16.455	BV	560933	7001803	79.71%	4.531%
19	17.754	17.701	17.769	BV	514612	7356701	83.75%	4.761%
20	17.792	17.769	17.928	VB	538765	7025640	79.98%	4.546%
21	18.005	17.951	18.101	BB	477788	6694344	76.21%	4.332%
Sum of corrected areas:						154532796		

Aromatic EPH 093024.M Tue Oct 15 07:47:07 2024

Report of Analysis

Client:	Portal Partners Tri-Venture	Date Collected:	
Project:	Amtrak Sawtooth Bridges 2024	Date Received:	
Client Sample ID:	WB-301-BOTMS	SDG No.:	P4397
Lab Sample ID:	P4397-02MS	Matrix:	Solid
Analytical Method:	NJEPH	% Solid:	76
Sample Wt/Vol:	30.04 Units: g	Final Vol:	2000 uL
Soil Aliquot Vol:	uL	Test:	EPH
Prep Method :			

Prep Date :	Date Analyzed :	Prep Batch ID
10/14/24 08:32	10/14/24 20:58	PB164109

Datafile

CAS Number	Parameter	Conc.	Qualifier	Dilution	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS							
Aliphatic C9-C12	Aliphatic C9-C12	8.40		1	0.50	1.31	mg/kg FC067437.D
Aliphatic C12-C16	Aliphatic C12-C16	7.59		1	0.32	0.88	mg/kg FC067437.D
Aliphatic C16-C21	Aliphatic C16-C21	11.5		1	0.39	1.31	mg/kg FC067437.D
Aliphatic C21-C28	Aliphatic C21-C28	14.5		1	1.05	1.75	mg/kg FC067437.D
Aliphatic C28-C40	Aliphatic C28-C40	25.9		1	2.37	2.63	mg/kg FC067437.D
Aromatic C10-C12	Aromatic C10-C12	6.16		1	0.39	0.88	mg/kg FD048512.D
Aromatic C12-C16	Aromatic C12-C16	10.6		1	0.45	1.31	mg/kg FD048512.D
Aromatic C16-C21	Aromatic C16-C21	21.3		1	1.26	2.19	mg/kg FD048512.D
Aromatic C21-C36	Aromatic C21-C36	31.2		1	2.63	3.50	mg/kg FD048512.D
Total AliphaticEPH	Total AliphaticEPH	67.9			4.63	7.88	mg/kg
Total AromaticEPH	Total AromaticEPH	69.3			4.73	7.88	mg/kg
Total EPH	Total EPH	137			9.36	15.8	mg/kg

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control 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

Report of Analysis

Client:	Portal Partners Tri-Venture	Date Collected:	
Project:	Amtrak Sawtooth Bridges 2024	Date Received:	
Client Sample ID:	WB-301-BOTMS	SDG No.:	P4397
Lab Sample ID:	P4397-02MS	Matrix:	Solid
Analytical Method:	NJEPH	% Solid:	76
Sample Wt/Vol:	30.04 Units: g	Final Vol:	2000 uL
Soil Aliquot Vol:	uL	Test:	EPH
Prep Method :			

File ID :	Dilution:	Prep Date :	Date Analyzed :	Prep Batch ID
FC067437.D	1	10/14/24	10/14/24	PB164109

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
Aliphatic C9-C12	Aliphatic C9-C12	8.40		0.50	1.31	mg/kg
Aliphatic C12-C16	Aliphatic C12-C16	7.59		0.32	0.88	mg/kg
Aliphatic C16-C21	Aliphatic C16-C21	11.5		0.39	1.31	mg/kg
Aliphatic C21-C28	Aliphatic C21-C28	14.5		1.05	1.75	mg/kg
Aliphatic C28-C40	Aliphatic C28-C40	25.9		2.37	2.63	mg/kg
SURROGATES						
3383-33-2	1-chlorooctadecane (SURR)	33.0		40 - 140	66%	SPK: 50
84-15-1	ortho-Terphenyl (SURR)	0.00		40 - 140	0%	SPK: 50

Quantitation Report For Aliphatic EPH Range.

Lab Sample ID:	P4397-02MS	Acq On:	14 Oct 2024 20:58
Client Sample ID:	WB-301-BOTMS	Operator:	YP/AJ
Data file:	FC067437.D	Misc:	
Instrument:	FID_C	ALS Vial:	18
Dilution Factor:	1	Sample Multiplier:	1.00

Compound	R.T.		Response	Conc	highest_standard	Units
Aliphatic C9-C12	3.175	6.457	12313105	95.93	300	ug/ml
Aliphatic C12-C16	6.458	9.850	11348872	86.661	200	ug/ml
Aliphatic C16-C21	9.851	13.209	17233867	131.08	300	ug/ml
Aliphatic C21-C28	13.210	16.865	21046034	165.947	400	ug/ml
Aliphatic C28-C40	16.866	21.722	31111306	295.69	600	ug/ml
Aliphatic EPH	3.175	21.722	93053184	775.308		ug/ml
ortho-Terphenyl (SURR)	0.000	0.000	0	0		ug/ml
1-chlorooctadecane (SURR)	12.940	12.940	3732729	32.98		ug/ml
Aliphatic C9-C28	3.175	16.865	61941878	479.618	1200	ug/ml

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_C\Data\F101424AL\
 Data File : FC067437.D
 Signal(s) : FID1A.ch
 Acq On : 14 Oct 2024 20:58
 Operator : YP/AJ
 Sample : P4397-02MS
 Misc :
 ALS Vial : 18 Sample Multiplier: 1

Instrument :
 FID_C
 ClientSampleId :
 WB-301-BOTMS

Manual Integrations
 APPROVED

Reviewed By :Yogesh Patel 10/15/2024
 Supervised By :Ankita Jodhani 10/15/2024

Integration File: autoint1.e
 Quant Time: Oct 15 04:32:38 2024
 Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_C\Method\Aliphatic EPH 100224.M
 Quant Title : GC Extractables
 QLast Update : Tue Oct 01 09:13:32 2024
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1 ul
 Signal Phase : Rxi-1ms
 Signal Info : 20M x 0.18mm x 0.18um

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
12) S 1-chlorooctadecane (S...	12.940	3732729	32.976 ug/mlm
Spiked Amount 50.000		Recovery =	65.95%
Target Compounds			
1) T n-Nonane (C9)	3.276	3314148	26.145 ug/ml
2) T n-Decane (C10)	4.341	4101308	31.906 ug/ml
4) T n-Dodecane (C12)	6.358	4791271	36.924 ug/ml
6) T n-Tetradecane (C14)	8.151	5327662	41.365 ug/ml
7) T n-Hexadecane (C16)	9.750	5553837	41.721 ug/ml
8) T n-Octadecane (C18)	11.190	5678086	41.873 ug/ml
10) T n-Eicosane (C20)	12.498	5687603	43.560 ug/ml
11) T n-Heneicosane (C21)	13.110	5433216	42.362 ug/ml
13) T n-Docosane (C22)	13.695	5402653	42.312 ug/ml
14) T n-Tetracosane (C24)	14.797	5290906	41.370 ug/ml
15) T n-Hexacosane (C26)	15.816	5214633	41.358 ug/ml
16) T n-Octacosane (C28)	16.764	5137842	40.897 ug/ml
17) T n-Tricontane (C30)	17.652	5174619	40.168 ug/ml
18) T n-Dotriacontane (C32)	18.483	5155375	41.267 ug/ml
19) T n-Tetratriacontane (C34)	19.266	5174893	47.356 ug/ml
20) T n-Hexatriacontane (C36)	20.005	5137568	54.356 ug/ml
21) T n-Octatriacontane (C38)	20.731	5203317	59.331 ug/ml
22) T n-Tetracontane (C40)	21.619	5212805	60.580 ug/ml

(f)=RT Delta > 1/2 Window

(m)=manual int.

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_C\Data\FC101424AL\
Data File : FC067437.D
Signal(s) : FID1A.ch
Acq On : 14 Oct 2024 20:58
Operator : YP/AJ
Sample : P4397-02MS
Misc :
ALS Vial : 18 Sample Multiplier: 1

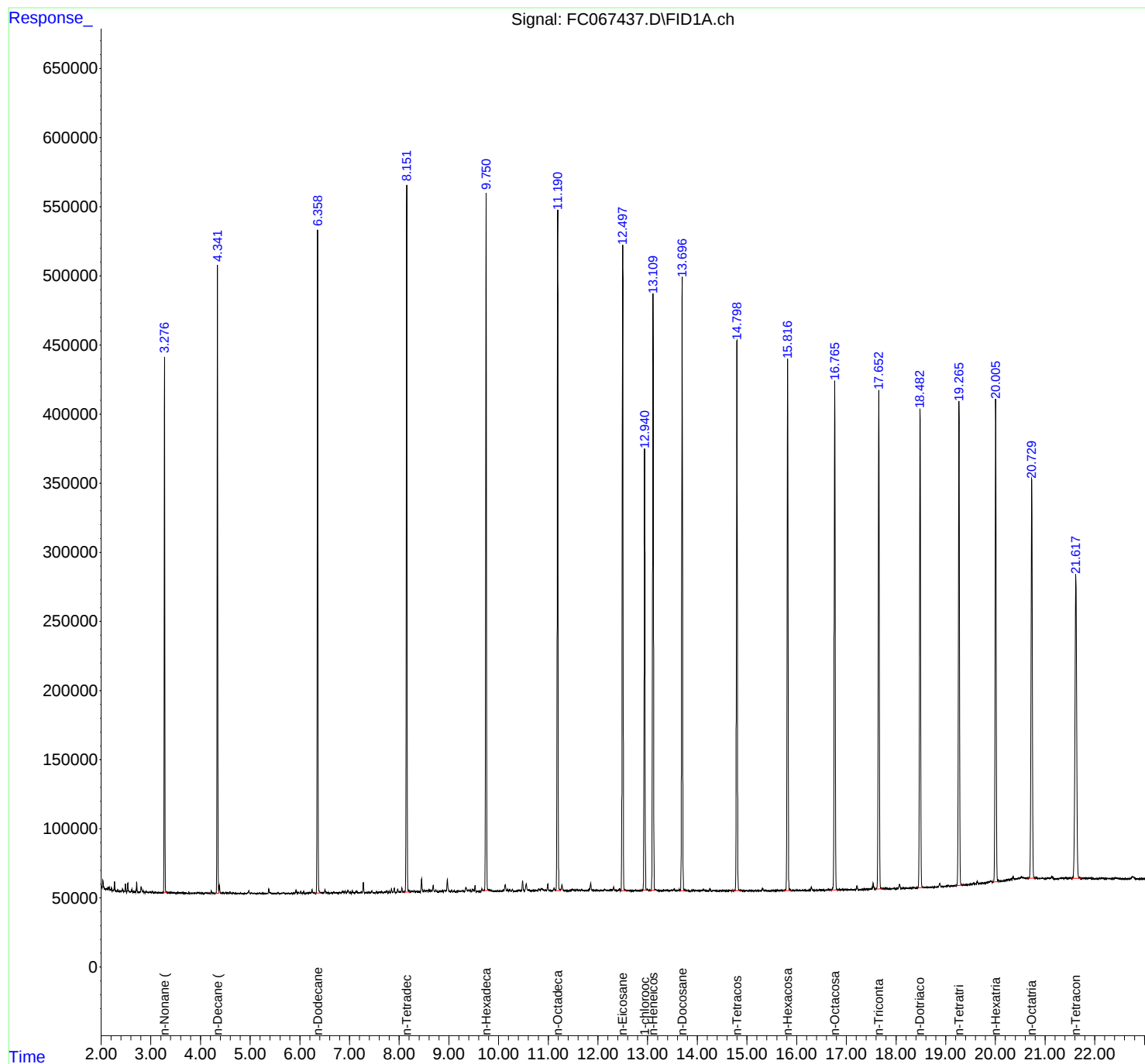
Instrument :
FID_C
ClientSampleId :
WB-301-BOTMS

Manual Integrations
APPROVED

Reviewed By :Yogesh Patel 10/15/2024
Supervised By :Ankita Jodhani 10/15/2024

Integration File: autoint1.e
Quant Time: Oct 15 04:32:38 2024
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_C\Method\Aliphatic EPH 100224.M
Quant Title : GC Extractables
QLast Update : Tue Oct 01 09:13:32 2024
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 ul
Signal Phase : Rxi-1ms
Signal Info : 20M x 0.18mm x 0.18um



Instrument :

FID_C

ClientSampleId :

WB-301-BOTMS

rteres

Area Percent Report

Manual IntegrationsAPPROVED

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_C\Data\FC10142

Data File : FC067437.D

Signal(s) : FID1A.ch

Acq On : 14 Oct 2024 20:58

Sample : P4397-02MS

Misc :

ALS Vial : 18 Sample Multiplier: 1

Reviewed By :Yogesh Patel 10/15/2024

Supervised By :Ankita Jodhani 10/15/2024

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_C\Method\Aliphatic EPH 100224.M

Title : GC Extractables

Signal : FID1A.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	3.276	3.245	3.327	BB	387902	3314148	58.27%	3.424%
2	4.341	4.283	4.368	BV	453665	4101308	72.11%	4.238%
3	4.381	4.368	4.427	VB	5747	58456	1.03%	0.060%
4	5.375	5.322	5.432	BB	3483	47922	0.84%	0.050%
5	6.358	6.293	6.427	BB	481006	4791271	84.24%	4.951%
6	7.279	7.222	7.303	BB	7583	80814	1.42%	0.084%
7	7.901	7.870	7.922	VV	3416	39129	0.69%	0.040%
8	8.151	8.087	8.220	BV	513393	5327662	93.67%	5.505%
9	8.451	8.412	8.487	BV	9329	105268	1.85%	0.109%
10	8.685	8.652	8.713	VV	4620	60841	1.07%	0.063%
11	8.970	8.882	9.020	VB	8862	140783	2.48%	0.145%
12	9.527	9.507	9.555	BB	3972	40538	0.71%	0.042%
13	9.750	9.690	9.800	VB	504338	5553837	97.65%	5.738%
14	10.134	9.975	10.162	BV	4552	68912	1.21%	0.071%
15	10.485	10.442	10.525	BV	7301	89583	1.58%	0.093%
16	10.557	10.525	10.587	PB	4822	72339	1.27%	0.075%
17	10.991	10.970	11.025	BV	4752	55397	0.97%	0.057%
18	11.190	11.153	11.248	BV	492499	5678086	99.83%	5.867%
19	11.277	11.248	11.313	VB	4174	65466	1.15%	0.068%
20	11.855	11.695	11.883	BB	5260	83265	1.46%	0.086%
21	12.498	12.458	12.578	PB	463966	5687603	100.00%	5.877%
22	12.940	12.710	12.980	BV	319031	3729606	65.57%	3.854%
23	13.110	13.048	13.170	BB	428254	5433216	95.53%	5.614%
24	13.695	13.656	13.760	PB	442474	5402653	94.99%	5.582%
25	14.797	14.700	14.867	BB	399023	5290906	93.03%	5.467%
26	15.816	15.735	15.902	BB	384860	5214633	91.68%	5.388%
27	16.764	16.677	16.842	BB	368962	5137842	90.33%	5.309%
28	17.539	17.482	17.577	BB	3784	52729	0.93%	0.054%
29	17.652	17.585	17.722	BB	360551	5174619	90.98%	5.347%
30	18.483	18.430	18.558	BB	346263	5155375	90.64%	5.327%
31	19.266	19.188	19.333	BB	347427	5174893	90.99%	5.347%
32	20.005	19.943	20.090	BB	347104	5137568	90.33%	5.308%
33	20.731	20.650	20.812	BB	287576	5203317	91.49%	5.376%
34	21.619	21.518	21.733	BB	217831	5212805	91.65%	5.386%

Sum of corrected areas: 96782787

Aliphatic EPH 100224.M Tue Oct 15 05:44:22 2024 rteres

Instrument :
FID_C
ClientSampleId :
WB-301-BOTMS

Manual IntegrationsAPPROVED

Reviewed By :Yogesh Patel 10/15/2024
Supervised By :Ankita Jodhani 10/15/2024

Report of Analysis

Client:	Portal Partners Tri-Venture	Date Collected:	
Project:	Amtrak Sawtooth Bridges 2024	Date Received:	
Client Sample ID:	WB-301-BOTMS	SDG No.:	P4397
Lab Sample ID:	P4397-02MS	Matrix:	Solid
Analytical Method:	NJEPH	% Solid:	76
Sample Wt/Vol:	30.04 Units: g	Final Vol:	2000 uL
Soil Aliquot Vol:	uL	Test:	EPH
Prep Method :			

File ID :	Dilution:	Prep Date :	Date Analyzed :	Prep Batch ID
FD048512.D	1	10/14/24	10/15/24	PB164109

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
Aromatic C10-C12	Aromatic C10-C12	6.16		0.39	0.88	mg/kg
Aromatic C12-C16	Aromatic C12-C16	10.6		0.45	1.31	mg/kg
Aromatic C16-C21	Aromatic C16-C21	21.3		1.26	2.19	mg/kg
Aromatic C21-C36	Aromatic C21-C36	31.2		2.63	3.50	mg/kg
SURROGATES						
580-13-2	2-Bromonaphthalene (SURR)	47.0		40 - 140	94%	SPK: 50
321-60-8	2-Fluorobiphenyl (SURR)	49.4		40 - 140	99%	SPK: 50
84-15-1	ortho-Terphenyl (SURR)	30.0		40 - 140	60%	SPK: 50

Quantitation Report For Aromatic EPH Range.

Lab Sample ID:	P4397-02MS	Acq On:	15 Oct 2024 05:35
Client Sample ID:	WB-301-BOTMS	Operator:	YP/AJ
Data file:	FD048512.D	Misc:	
Instrument:	FID_D	ALS Vial:	79
Dilution Factor:	1	Sample Multiplier:	1.00

Compound	R.T.		Response	Conc	highest_standard	Units
Aromatic C10-C12	4.099	5.817	12720619	70.286	200	ug/ml
Aromatic C12-C16	5.818	8.424	22956118	120.825	300	ug/ml
Aromatic C16-C21	8.425	12.687	43396413	242.807	500	ug/ml
Aromatic C21-C36	12.688	18.094	58837933	355.816	800	ug/ml
Aromatic EPH	4.099	18.094	137911083	789.733		ug/ml
ortho-Terphenyl (SURR)	11.264	11.264	5525403	30.03		ug/ml
2-Bromonaphthalene (SURR)	7.378	7.378	7777959	46.98		ug/ml
2-Fluorobiphenyl (SURR)	8.228	8.228	5123618	49.41		ug/ml

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_D\Data\FD101424AR\
 Data File : FD048512.D
 Signal(s) : FID2B.ch
 Acq On : 15 Oct 2024 05:35
 Operator : YP/AJ
 Sample : P4397-02MS
 Misc :
 ALS Vial : 79 Sample Multiplier: 1

Instrument :

FID_D

ClientSampleId :

WB-301-BOTMS

Manual Integrations**APPROVED**

Reviewed By :Yogesh Patel 10/16/2024

Supervised By :Ankita Jodhani 10/16/2024

Integration File: autoint1.e

Quant Time: Oct 15 07:37:28 2024

Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_D\methods\Aromatic EPH 093024.M

Quant Title : GC Extractables

QLast Update : Mon Sep 30 14:17:34 2024

Response via : Initial Calibration

Integrator: ChemStation

Volume Inj. : 1 µl

Signal Phase : Rxi-1ms

Signal Info : 20M x 0.18mm x 0.18µm

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
4) S 2-Bromonaphthalene (S...	7.378	7777959	46.977 ug/ml
Spiked Amount 50.000		Recovery =	93.95%
6) S 2-Fluorobiphenyl (SURR)	8.228	5123618	49.406 ug/ml
Spiked Amount 50.000 Range 0 - 131		Recovery =	98.81%
11) S ortho-Terphenyl (SURR)	11.264	5525403	30.030 ug/ml
Spiked Amount 50.000		Recovery =	60.06%
Target Compounds			
1) T 1,2,3-Trimethylbenzen...	4.199	5595167	31.926 ug/ml
2) T Naphthalene (C11.7)	5.717	6446889	34.528 ug/ml
3) T 2-Methylnaphthalene (...)	6.764	6418715	33.963 ug/ml
5) T Acenaphthylene (C15.06)	8.030	6877882	35.852 ug/ml
7) T Acenaphthene (C15.5)	8.326	7352530	38.870 ug/ml
8) T Flouorene (C16.55)	9.104	7303607	40.424 ug/ml
9) T Phenanthrene (C19.36)	10.493	7715115	43.532 ug/ml
10) T Anthracene (C19.43)	10.568	7384351	41.499 ug/ml
12) T Fluoranthene (C21.85)	12.298	7458759	41.237 ug/mlm
13) T Pyrene (C20.8)	12.592	7738696	43.216 ug/ml
14) T Benzo[a]anthracene (C...	14.461	6732081	42.124 ug/ml
15) T Chrysene (C27.41)	14.504	6808999	36.504 ug/ml
16) T benzo[b]fluoranthene ...	16.009	6592635	39.586 ug/ml
17) T Bnezo[k]fluoranthene ...	16.043	6500637	38.296 ug/ml
18) T Benzo[a]pyrene (C31.34)	16.385	6346760	38.832 ug/ml
19) T Indeno[1,2,3-cd]pyren...	17.753	6928126	52.669 ug/ml
20) T Dibenz[a,h]anthracene...	17.790	6315167	37.740 ug/ml
21) T Benzo[g,h,i]perylene ...	18.003	6100579	37.559 ug/ml

(f)=RT Delta > 1/2 Window

(m)=manual int.

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_D\Data\FD101424AR\
Data File : FD048512.D
Signal(s) : FID2B.ch
Acq On : 15 Oct 2024 05:35
Operator : YP/AJ
Sample : P4397-02MS
Misc :
ALS Vial : 79 Sample Multiplier: 1

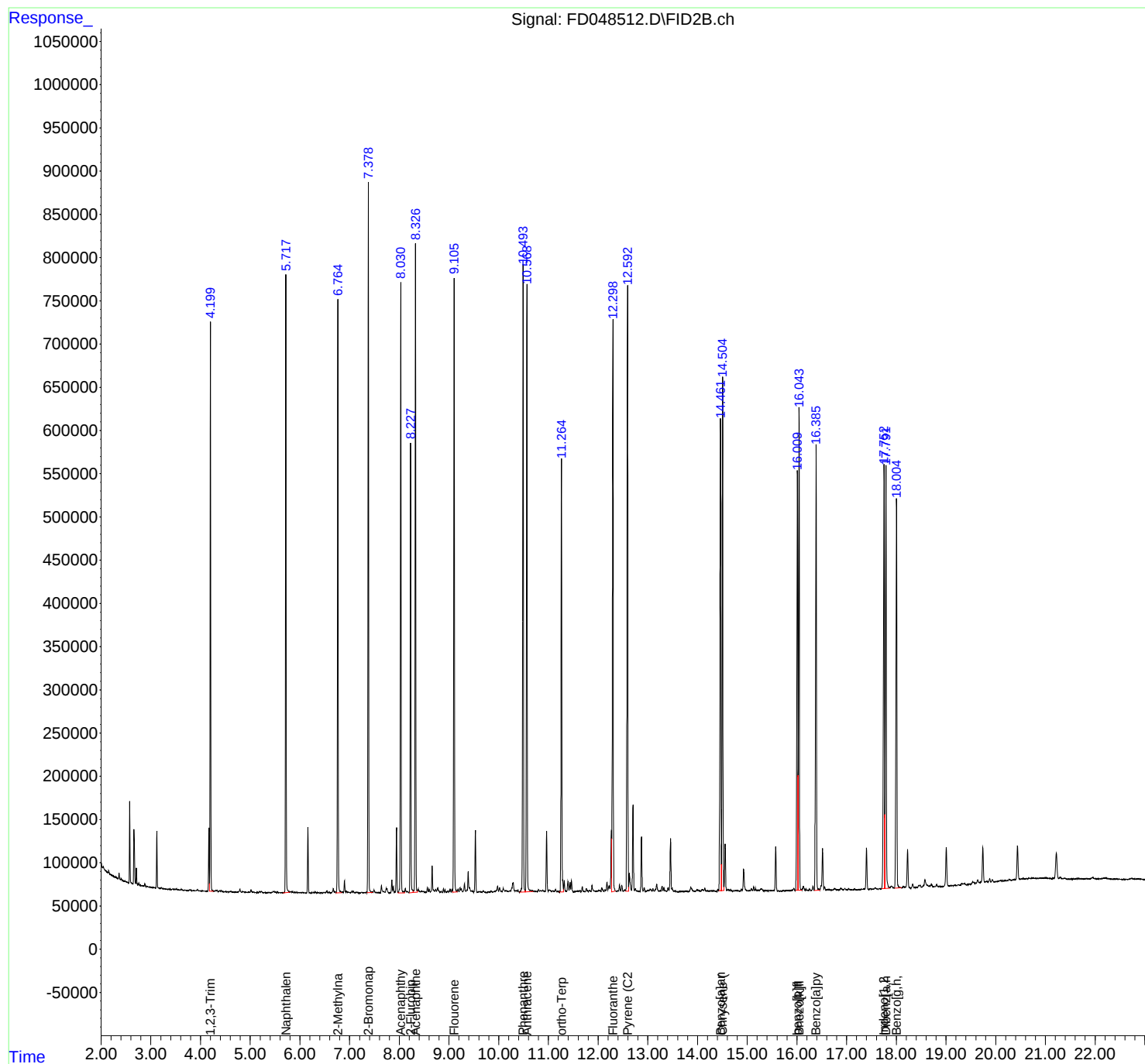
Instrument :
FID_D
ClientSampleId :
WB-301-BOTMS

Manual Integrations
APPROVED

Reviewed By :Yogesh Patel 10/16/2024
Supervised By :Ankita Jodhani 10/16/2024

Integration File: autoint1.e
Quant Time: Oct 15 07:37:28 2024
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_D\methods\Aromatic EPH 093024.M
Quant Title : GC Extractables
QLast Update : Mon Sep 30 14:17:34 2024
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 µl
Signal Phase : Rxi-1ms
Signal Info : 20M x 0.18mm x 0.18µm



Instrument :

FID_D

ClientSampleId :

WB-301-BOTMS

rteres

Area Percent Report

Manual IntegrationsAPPROVED

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_D\Data\FD10142

Data File : FD048512.D

Signal(s) : FID2B.ch

Acq On : 15 Oct 2024 05:35

Sample : P4397-02MS

Misc :

ALS Vial : 79 Sample Multiplier: 1

Reviewed By :Yogesh Patel 10/16/2024

Supervised By :Ankita Jodhani 10/16/2024

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_D\methods\Aromatic EPH 093024.M

Title : GC Extractables

Signal : FID2B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	4.168	4.144	4.180	BV	73203	626487	7.70%	0.401%
2	4.199	4.180	4.264	VV	650883	5595167	68.74%	3.579%
3	4.792	4.731	4.825	BV	3788	52076	0.64%	0.033%
4	5.717	5.661	5.800	PV	715774	6446889	79.21%	4.124%
5	6.162	6.118	6.208	BV	75630	719290	8.84%	0.460%
6	6.672	6.624	6.692	BV	4971	67726	0.83%	0.043%
7	6.764	6.730	6.841	VV	686816	6418715	78.86%	4.106%
8	6.897	6.874	6.924	PV	13283	135932	1.67%	0.087%
9	7.378	7.347	7.464	PV	820076	7777959	95.56%	4.975%
10	7.641	7.614	7.677	BV	8386	114217	1.40%	0.073%
11	7.737	7.713	7.796	VV	5241	115201	1.42%	0.074%
12	7.851	7.796	7.868	PV	14993	165885	2.04%	0.106%
13	7.879	7.868	7.901	VV	7565	81278	1.00%	0.052%
14	7.945	7.901	7.978	VV	75441	782286	9.61%	0.500%
15	8.030	7.978	8.104	VV	708132	6877882	84.50%	4.399%
16	8.121	8.104	8.161	VV	5012	76697	0.94%	0.049%
17	8.228	8.194	8.277	PV	521573	5123618	62.95%	3.277%
18	8.326	8.277	8.368	VV	755203	7352530	90.33%	4.703%
19	8.381	8.368	8.418	VV	3433	48479	0.60%	0.031%
20	8.566	8.548	8.586	BV	5464	60451	0.74%	0.039%
21	8.662	8.624	8.711	VV	30914	366331	4.50%	0.234%
22	8.775	8.750	8.824	VV	5490	105474	1.30%	0.067%
23	8.888	8.864	8.905	PV	4276	45690	0.56%	0.029%
24	8.921	8.905	8.944	VV	3478	33449	0.41%	0.021%
25	9.024	8.987	9.042	VV	3901	55922	0.69%	0.036%
26	9.060	9.042	9.073	VV	3471	35156	0.43%	0.022%
27	9.104	9.073	9.161	VV	707262	7303607	89.73%	4.672%
28	9.182	9.161	9.201	VV	3535	44642	0.55%	0.029%
29	9.222	9.201	9.236	VV	4589	52942	0.65%	0.034%
30	9.312	9.274	9.341	PV	9348	115863	1.42%	0.074%
31	9.387	9.341	9.471	VB	23081	330507	4.06%	0.211%
32	9.532	9.474	9.571	BV	70842	771879	9.48%	0.494%
33	9.978	9.894	10.000	BV	6784	140020	1.72%	0.090%
34	10.018	10.000	10.051	VV	5158	80685	0.99%	0.052%
35	10.093	10.051	10.128	VV	4430	92527	1.14%	0.059%
36	10.287	10.243	10.337	VV	10484	282694	3.47%	0.181%

37	10.493	10.414	10.534	PV	715575	7715115	94.79%	4.935%
38	10.568	10.534	10.701	VV	694679	7384351	90.00%	0.000%
39	10.965	10.935	10.997	PV	69270	770398	90.00%	0.000%
40	11.264	11.214	11.305	BV	502743	5525403	67.00%	0.000%
41	11.320	11.305	11.368	VV	13364	165073	2.00%	0.000%
42	11.395	11.368	11.416	VV	12143	178580	2.00%	0.000%
43	11.434	11.416	11.449	VV	10905	125818	1.55%	0.080%
44	11.465	11.449	11.514	VV	13103	168224	2.07%	0.108%
45	11.683	11.651	11.738	VV	5818	88088	1.08%	0.056%
46	11.763	11.738	11.802	PV	4011	62229	0.76%	0.040%
47	11.878	11.858	11.924	VV	7496	114371	1.41%	0.073%
48	12.074	12.054	12.115	VV	4573	74393	0.91%	0.048%
49	12.180	12.155	12.199	VV	10916	144190	1.77%	0.092%
50	12.223	12.199	12.239	VV	6817	114617	1.41%	0.073%
51	12.297	12.239	12.368	VV	662902	8139182	100.00%	5.206%
52	12.431	12.411	12.453	VV	7719	86595	1.06%	0.055%
53	12.476	12.453	12.504	VV	7256	96087	1.18%	0.061%
54	12.592	12.553	12.614	VV	694089	7738696	95.08%	4.950%
55	12.630	12.614	12.671	VV	20467	312567	3.84%	0.200%
56	12.704	12.671	12.731	VV	99732	1173353	14.42%	0.751%
57	12.874	12.834	12.907	BV	63449	736630	9.05%	0.471%
58	12.928	12.907	12.964	VV	4597	58434	0.72%	0.037%
59	13.179	13.130	13.228	VV	8306	158856	1.95%	0.102%
60	13.287	13.266	13.306	VV	6157	71465	0.88%	0.046%
61	13.323	13.306	13.381	VV	4467	59607	0.73%	0.038%
62	13.408	13.381	13.427	PV	3611	41771	0.51%	0.027%
63	13.457	13.427	13.482	PV	59472	709227	8.71%	0.454%
64	13.864	13.788	13.948	BV	4928	120452	1.48%	0.077%
65	14.146	14.125	14.169	VV	3566	46642	0.57%	0.030%
66	14.461	14.423	14.480	PV	547951	6732081	82.71%	4.306%
67	14.504	14.480	14.530	VV	596759	6808999	83.66%	4.355%
68	14.554	14.530	14.588	VV	53769	694488	8.53%	0.444%
69	14.927	14.900	15.021	VB	24754	391003	4.80%	0.250%
70	15.130	15.107	15.152	PV	4606	53605	0.66%	0.034%
71	15.572	15.515	15.604	VV	51319	656640	8.07%	0.420%
72	16.009	15.971	16.024	BV	481736	6592635	81.00%	4.217%
73	16.043	16.024	16.098	VV	549725	6500637	79.87%	4.158%
74	16.127	16.098	16.161	VV	4918	86717	1.07%	0.055%
75	16.321	16.291	16.343	PV	5005	61617	0.76%	0.039%
76	16.385	16.343	16.459	VV	505786	6346760	77.98%	4.060%
77	16.515	16.459	16.542	VV	48333	700294	8.60%	0.448%
78	16.557	16.542	16.591	VV	3768	49069	0.60%	0.031%
79	17.399	17.308	17.451	VV	47858	643079	7.90%	0.411%
80	17.753	17.701	17.768	BV	487164	6928126	85.12%	4.432%
81	17.790	17.768	17.863	VV	490416	6315167	77.59%	4.039%
82	18.003	17.961	18.104	PV	454206	6100579	74.95%	3.902%
Sum of corrected areas:					156338064			

Instrument :

FID_D

ClientSampleId :

WB-301-BOTMS

Manual IntegrationsAPPROVED

 Reviewed By :Yogesh Patel 10/16/2024
 Supervised By :Ankita Jodhani 10/16/2024

Report of Analysis

Client:	Portal Partners Tri-Venture	Date Collected:	
Project:	Amtrak Sawtooth Bridges 2024	Date Received:	
Client Sample ID:	WB-301-BOTMSD	SDG No.:	P4397
Lab Sample ID:	P4397-02MSD	Matrix:	Solid
Analytical Method:	NJEPH	% Solid:	76
Sample Wt/Vol:	30.05 Units: g	Final Vol:	2000 uL
Soil Aliquot Vol:	uL	Test:	EPH
Prep Method :			

Prep Date :	Date Analyzed :	Prep Batch ID
10/14/24 08:32	10/14/24 21:35	PB164109

Datafile

CAS Number	Parameter	Conc.	Qualifier	Dilution	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS							
Aliphatic C9-C12	Aliphatic C9-C12	8.43		1	0.50	1.31	mg/kg FC067438.D
Aliphatic C12-C16	Aliphatic C12-C16	7.63		1	0.32	0.88	mg/kg FC067438.D
Aliphatic C16-C21	Aliphatic C16-C21	11.6		1	0.39	1.31	mg/kg FC067438.D
Aliphatic C21-C28	Aliphatic C21-C28	14.7		1	1.05	1.75	mg/kg FC067438.D
Aliphatic C28-C40	Aliphatic C28-C40	26.2		1	2.36	2.63	mg/kg FC067438.D
Aromatic C10-C12	Aromatic C10-C12	5.71		1	0.39	0.88	mg/kg FD048513.D
Aromatic C12-C16	Aromatic C12-C16	9.79		1	0.45	1.31	mg/kg FD048513.D
Aromatic C16-C21	Aromatic C16-C21	19.8		1	1.26	2.19	mg/kg FD048513.D
Aromatic C21-C36	Aromatic C21-C36	28.9		1	2.63	3.50	mg/kg FD048513.D
Total AliphaticEPH	Total AliphaticEPH	68.6			4.62	7.88	mg/kg
Total AromaticEPH	Total AromaticEPH	64.2			4.73	7.88	mg/kg
Total EPH	Total EPH	133			9.35	15.8	mg/kg

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control 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

Report of Analysis

Client:	Portal Partners Tri-Venture	Date Collected:	
Project:	Amtrak Sawtooth Bridges 2024	Date Received:	
Client Sample ID:	WB-301-BOTMSD	SDG No.:	P4397
Lab Sample ID:	P4397-02MSD	Matrix:	Solid
Analytical Method:	NJEPH	% Solid:	76
Sample Wt/Vol:	30.05 Units: g	Final Vol:	2000 uL
Soil Aliquot Vol:	uL	Test:	EPH
Prep Method :			

File ID :	Dilution:	Prep Date :	Date Analyzed :	Prep Batch ID
FC067438.D	1	10/14/24	10/14/24	PB164109

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
Aliphatic C9-C12	Aliphatic C9-C12	8.43		0.50	1.31	mg/kg
Aliphatic C12-C16	Aliphatic C12-C16	7.63		0.32	0.88	mg/kg
Aliphatic C16-C21	Aliphatic C16-C21	11.6		0.39	1.31	mg/kg
Aliphatic C21-C28	Aliphatic C21-C28	14.7		1.05	1.75	mg/kg
Aliphatic C28-C40	Aliphatic C28-C40	26.2		2.36	2.63	mg/kg
SURROGATES						
3383-33-2	1-chlorooctadecane (SURR)	34.1		40 - 140	68%	SPK: 50
84-15-1	ortho-Terphenyl (SURR)	0.00		40 - 140	0%	SPK: 50

Quantitation Report For Aliphatic EPH Range.

Lab Sample ID:	P4397-02MSD	Acq On:	14 Oct 2024 21:35
Client Sample ID:	WB-301-BOTMSD	Operator:	YP/AJ
Data file:	FC067438.D	Misc:	
Instrument:	FID_C	ALS Vial:	19
Dilution Factor:	1	Sample Multiplier:	1.00

Compound	R.T.		Response	Conc	highest_standard	Units
Aliphatic C9-C12	3.175	6.457	12354233	96.251	300	ug/ml
Aliphatic C12-C16	6.458	9.850	11406678	87.102	200	ug/ml
Aliphatic C16-C21	9.851	13.209	17382375	132.209	300	ug/ml
Aliphatic C21-C28	13.210	16.865	21224719	167.356	400	ug/ml
Aliphatic C28-C40	16.866	21.722	31527698	299.648	600	ug/ml
Aliphatic EPH	3.175	21.722	93895703	782.566		ug/ml
ortho-Terphenyl (SURR)	0.000	0.000	0	0		ug/ml
1-chlorooctadecane (SURR)	12.940	12.940	3859946	34.1		ug/ml
Aliphatic C9-C28	3.175	16.865	62368005	482.918	1200	ug/ml

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_C\Data\F101424AL\
 Data File : FC067438.D
 Signal(s) : FID1A.ch
 Acq On : 14 Oct 2024 21:35
 Operator : YP/AJ
 Sample : P4397-02MSD
 Misc :
 ALS Vial : 19 Sample Multiplier: 1

Instrument :
 FID_C
 ClientSampleId :
 WB-301-BOTMSD

Manual Integrations
 APPROVED

Reviewed By :Yogesh Patel 10/15/2024
 Supervised By :Ankita Jodhani 10/15/2024

Integration File: autoint1.e
 Quant Time: Oct 15 04:32:48 2024
 Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_C\Method\Aliphatic EPH 100224.M
 Quant Title : GC Extractables
 QLast Update : Tue Oct 01 09:13:32 2024
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1 ul
 Signal Phase : Rxi-1ms
 Signal Info : 20M x 0.18mm x 0.18um

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
12) S 1-chlorooctadecane (S...	12.940	3859946	34.100 ug/mlm
Spiked Amount 50.000		Recovery =	68.20%
Target Compounds			
1) T n-Nonane (C9)	3.276	3331529	26.282 ug/ml
2) T n-Decane (C10)	4.342	4112515	31.993 ug/ml
4) T n-Dodecane (C12)	6.358	4803756	37.020 ug/ml
6) T n-Tetradecane (C14)	8.151	5349492	41.534 ug/ml
7) T n-Hexadecane (C16)	9.750	5588084	41.978 ug/ml
8) T n-Octadecane (C18)	11.191	5727459	42.237 ug/ml
10) T n-Eicosane (C20)	12.499	5740423	43.964 ug/ml
11) T n-Heneicosane (C21)	13.110	5477882	42.710 ug/ml
13) T n-Docosane (C22)	13.695	5452436	42.701 ug/ml
14) T n-Tetracosane (C24)	14.796	5340520	41.758 ug/ml
15) T n-Hexacosane (C26)	15.816	5259717	41.715 ug/ml
16) T n-Octacosane (C28)	16.765	5172046	41.169 ug/ml
17) T n-Tricontane (C30)	17.652	5205404	40.407 ug/ml
18) T n-Dotriacontane (C32)	18.484	5174428	41.419 ug/ml
19) T n-Tetratriacontane (C34)	19.267	5194139	47.532 ug/ml
20) T n-Hexatriacontane (C36)	20.005	5181927	54.825 ug/ml
21) T n-Octatriacontane (C38)	20.731	5226241	59.592 ug/ml
22) T n-Tetracontane (C40)	21.618	5254376	61.063 ug/ml

(f)=RT Delta > 1/2 Window

(m)=manual int.

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_C\Data\FC101424AL\
Data File : FC067438.D
Signal(s) : FID1A.ch
Acq On : 14 Oct 2024 21:35
Operator : YP/AJ
Sample : P4397-02MSD
Misc :
ALS Vial : 19 Sample Multiplier: 1

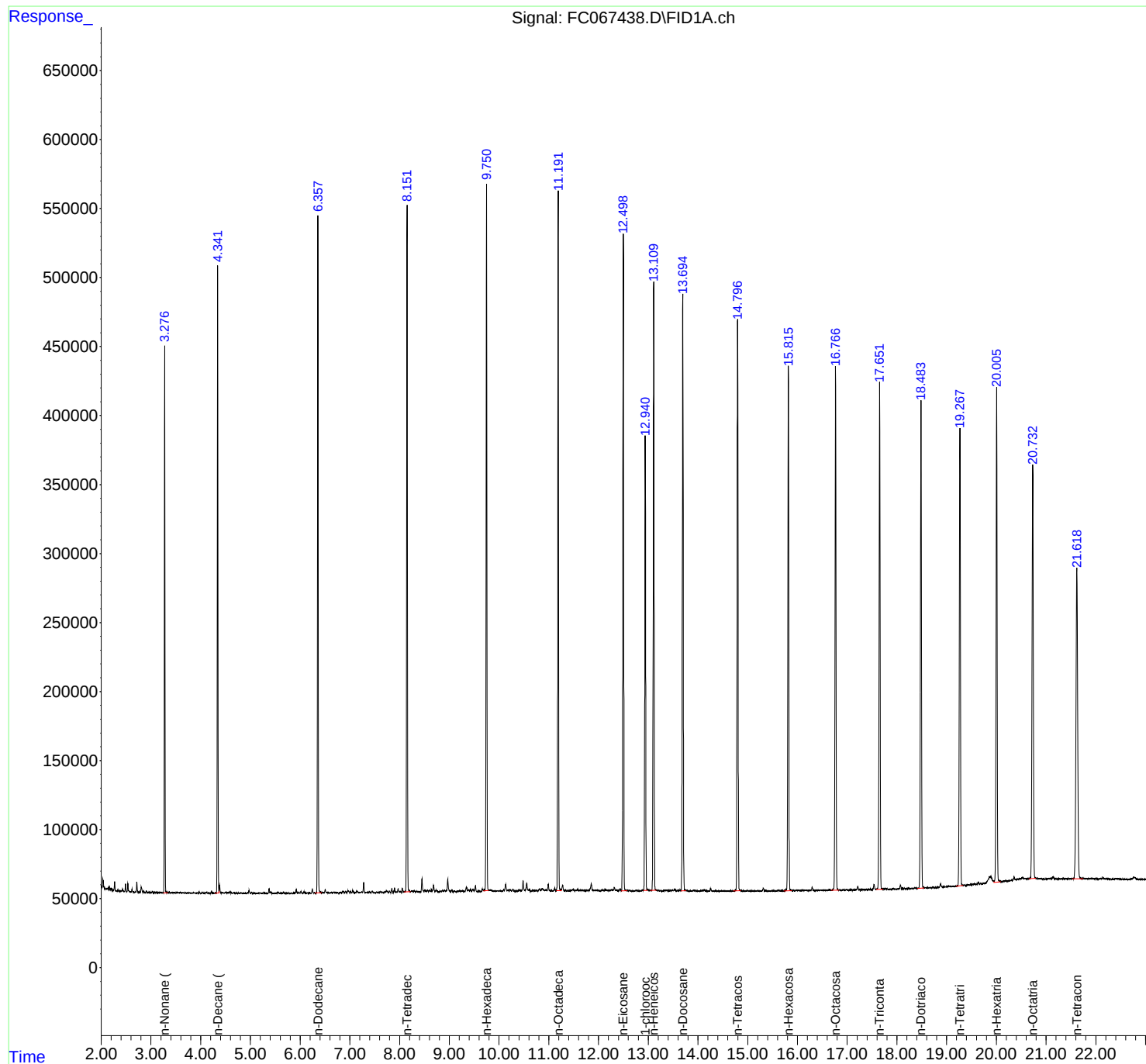
Instrument :
FID_C
ClientSampleId :
WB-301-BOTMSD

Manual Integrations
APPROVED

Reviewed By :Yogesh Patel 10/15/2024
Supervised By :Ankita Jodhani 10/15/2024

Integration File: autoint1.e
Quant Time: Oct 15 04:32:48 2024
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_C\Method\Aliphatic EPH 100224.M
Quant Title : GC Extractables
QLast Update : Tue Oct 01 09:13:32 2024
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 ul
Signal Phase : Rxi-1ms
Signal Info : 20M x 0.18mm x 0.18um



rteres

Instrument :

FID_C

ClientSampleId :

WB-301-BOTMSD

Area Percent Report

Manual IntegrationsAPPROVED

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_C\Data\FC10142

Data File : FC067438.D

Signal(s) : FID1A.ch

Acq On : 14 Oct 2024 21:35

Sample : P4397-02MSD

Misc :

ALS Vial : 19 Sample Multiplier: 1

Reviewed By :Yogesh Patel 10/15/2024

Supervised By :Ankita Jodhani 10/15/2024

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_C\Method\Aliphatic EPH 100224.M

Title : GC Extractables

Signal : FID1A.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	3.276	3.245	3.340	BB	396747	3331529	58.04%	3.409%
2	4.342	4.284	4.368	BV	456183	4112515	71.64%	4.208%
3	4.382	4.368	4.427	VB	5879	59406	1.03%	0.061%
4	5.376	5.334	5.434	BB	3440	47027	0.82%	0.048%
5	6.358	6.304	6.434	BB	488952	4803756	83.68%	4.915%
6	7.279	7.204	7.307	BB	7490	83044	1.45%	0.085%
7	7.900	7.869	7.925	VV	3352	39902	0.70%	0.041%
8	8.151	8.090	8.224	BV	496068	5349492	93.19%	5.474%
9	8.451	8.419	8.485	BV	9381	105815	1.84%	0.108%
10	8.684	8.650	8.710	VV	4697	60284	1.05%	0.062%
11	8.970	8.886	9.024	VB	9038	139069	2.42%	0.142%
12	9.527	9.509	9.552	BB	3940	40988	0.71%	0.042%
13	9.750	9.687	9.794	VB	514691	5588084	97.35%	5.718%
14	10.134	9.977	10.160	BV	4681	68203	1.19%	0.070%
15	10.485	10.447	10.527	BV	7007	92741	1.62%	0.095%
16	10.557	10.527	10.587	PB	5030	73117	1.27%	0.075%
17	10.991	10.965	11.027	BB	4833	56688	0.99%	0.058%
18	11.191	11.152	11.252	VV	501589	5727459	99.77%	5.860%
19	11.280	11.252	11.324	VB	4214	65743	1.15%	0.067%
20	11.856	11.697	11.887	BB	5031	80119	1.40%	0.082%
21	12.499	12.455	12.577	PB	474054	5740423	100.00%	5.874%
22	12.940	12.700	12.975	BV	328741	3838540	66.87%	3.928%
23	13.110	13.037	13.169	BB	439805	5477882	95.43%	5.605%
24	13.695	13.657	13.759	PB	429781	5452436	94.98%	5.579%
25	14.796	14.709	14.864	BB	415737	5340520	93.03%	5.464%
26	15.816	15.732	15.892	BB	377829	5259717	91.63%	5.382%
27	16.765	16.680	16.837	BB	376035	5172046	90.10%	5.292%
28	17.539	17.479	17.570	BB	3466	49740	0.87%	0.051%
29	17.652	17.585	17.720	BB	363864	5205404	90.68%	5.326%
30	18.484	18.409	18.552	BB	351987	5174428	90.14%	5.294%
31	19.267	19.189	19.329	BB	330632	5194139	90.48%	5.315%
32	19.876	19.752	19.950	BV	4522	241443	4.21%	0.247%
33	20.005	19.950	20.094	VB	357862	5181927	90.27%	5.302%
34	20.731	20.650	20.797	BB	296482	5226241	91.04%	5.347%
35	21.618	21.524	21.745	BB	225571	5254376	91.53%	5.376%

Sum of corrected areas: 97734240

Page 1

rteres

Aliphatic EPH 100224.M Tue Oct 15 05:44:31 2024

Instrument :
FID_C
ClientSampleId :
WB-301-BOTMSD

Manual IntegrationsAPPROVED

Reviewed By :Yogesh Patel 10/15/2024
Supervised By :Ankita Jodhani 10/15/2024

Report of Analysis

Client:	Portal Partners Tri-Venture	Date Collected:	
Project:	Amtrak Sawtooth Bridges 2024	Date Received:	
Client Sample ID:	WB-301-BOTMSD	SDG No.:	P4397
Lab Sample ID:	P4397-02MSD	Matrix:	Solid
Analytical Method:	NJEPH	% Solid:	76
Sample Wt/Vol:	30.05 Units: g	Final Vol:	2000 uL
Soil Aliquot Vol:	uL	Test:	EPH
Prep Method :			

File ID :	Dilution:	Prep Date :	Date Analyzed :	Prep Batch ID
FD048513.D	1	10/14/24	10/15/24	PB164109

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
Aromatic C10-C12	Aromatic C10-C12	5.71		0.39	0.88	mg/kg
Aromatic C12-C16	Aromatic C12-C16	9.79		0.45	1.31	mg/kg
Aromatic C16-C21	Aromatic C16-C21	19.8		1.26	2.19	mg/kg
Aromatic C21-C36	Aromatic C21-C36	28.9		2.63	3.50	mg/kg
SURROGATES						
580-13-2	2-Bromonaphthalene (SURR)	43.8		40 - 140	88%	SPK: 50
321-60-8	2-Fluorobiphenyl (SURR)	46.0		40 - 140	92%	SPK: 50
84-15-1	ortho-Terphenyl (SURR)	28.0		40 - 140	56%	SPK: 50

Quantitation Report For Aromatic EPH Range.

Lab Sample ID:	P4397-02MSD	Acq On:	15 Oct 2024 06:12
Client Sample ID:	WB-301-BOTMSD	Operator:	YP/AJ
Data file:	FD048513.D	Misc:	
Instrument:	FID_D	ALS Vial:	80
Dilution Factor:	1	Sample Multiplier:	1.00

Compound	R.T.		Response	Conc	highest_standard	Units
Aromatic C10-C12	4.099	5.817	11806948	65.237	200	ug/ml
Aromatic C12-C16	5.818	8.424	21236976	111.776	300	ug/ml
Aromatic C16-C21	8.425	12.687	40472826	226.449	500	ug/ml
Aromatic C21-C36	12.688	18.094	54588575	330.118	800	ug/ml
Aromatic EPH	4.099	18.094	128105325	733.581		ug/ml
2-Bromonaphthalene (SURR)	7.377	7.377	7244608	43.76		ug/ml
2-Fluorobiphenyl (SURR)	8.228	8.228	4767531	45.97		ug/ml
ortho-Terphenyl (SURR)	11.263	11.263	5147288	27.97		ug/ml

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_D\Data\FD101424AR\
 Data File : FD048513.D
 Signal(s) : FID2B.ch
 Acq On : 15 Oct 2024 06:12
 Operator : YP/AJ
 Sample : P4397-02MSD
 Misc :
 ALS Vial : 80 Sample Multiplier: 1

Instrument :
 FID_D
 ClientSampleId :
 WB-301-BOTMSD

Manual Integrations
 APPROVED

Reviewed By :Yogesh Patel 10/16/2024
 Supervised By :Ankita Jodhani 10/16/2024

Integration File: autoint1.e
 Quant Time: Oct 15 07:37:44 2024
 Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_D\methods\Aromatic EPH 093024.M
 Quant Title : GC Extractables
 QLast Update : Mon Sep 30 14:17:34 2024
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 1 µl
 Signal Phase : Rxi-1ms
 Signal Info : 20M x 0.18mm x 0.18µm

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
4) S 2-Bromonaphthalene (S...	7.377	7244608	43.756 ug/ml
Spiked Amount 50.000		Recovery =	87.51%
6) S 2-Fluorobiphenyl (SURR)	8.228	4767531	45.972 ug/ml
Spiked Amount 50.000 Range 0 - 131		Recovery =	91.94%
11) S ortho-Terphenyl (SURR)	11.263	5147288	27.975 ug/ml
Spiked Amount 50.000		Recovery =	55.95%
Target Compounds			
1) T 1,2,3-Trimethylbenzen...	4.199	5193817	29.635 ug/ml
2) T Naphthalene (C11.7)	5.717	5992871	32.097 ug/ml
3) T 2-Methylnaphthalene (...)	6.764	5954666	31.508 ug/ml
5) T Acenaphthylene (C15.06)	8.030	6376750	33.240 ug/ml
7) T Acenaphthene (C15.5)	8.326	6841151	36.167 ug/ml
8) T Flouorene (C16.55)	9.104	6811952	37.703 ug/ml
9) T Phenanthrene (C19.36)	10.492	7176433	40.492 ug/ml
10) T Anthracene (C19.43)	10.567	6915575	38.864 ug/ml
12) T Fluoranthene (C21.85)	12.297	6861963	37.938 ug/mlm
13) T Pyrene (C20.8)	12.591	7195067	40.181 ug/ml
14) T Benzo[a]anthracene (C...	14.459	6235474	39.017 ug/ml
15) T Chrysene (C27.41)	14.503	6313233	33.846 ug/ml
16) T benzo[b]fluoranthene ...	16.007	6089018	36.562 ug/ml
17) T Bnezo[k]fluoranthene ...	16.041	6029743	35.522 ug/ml
18) T Benzo[a]pyrene (C31.34)	16.384	5876440	35.954 ug/ml
19) T Indeno[1,2,3-cd]pyren...	17.751	6402008	48.670 ug/ml
20) T Dibenz[a,h]anthracene...	17.788	5865413	35.052 ug/ml
21) T Benzo[g,h,i]perylene ...	18.002	5656937	34.828 ug/ml

(f)=RT Delta > 1/2 Window

(m)=manual int.

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_D\Data\FD101424AR\
Data File : FD048513.D
Signal(s) : FID2B.ch
Acq On : 15 Oct 2024 06:12
Operator : YP/AJ
Sample : P4397-02MSD
Misc :
ALS Vial : 80 Sample Multiplier: 1

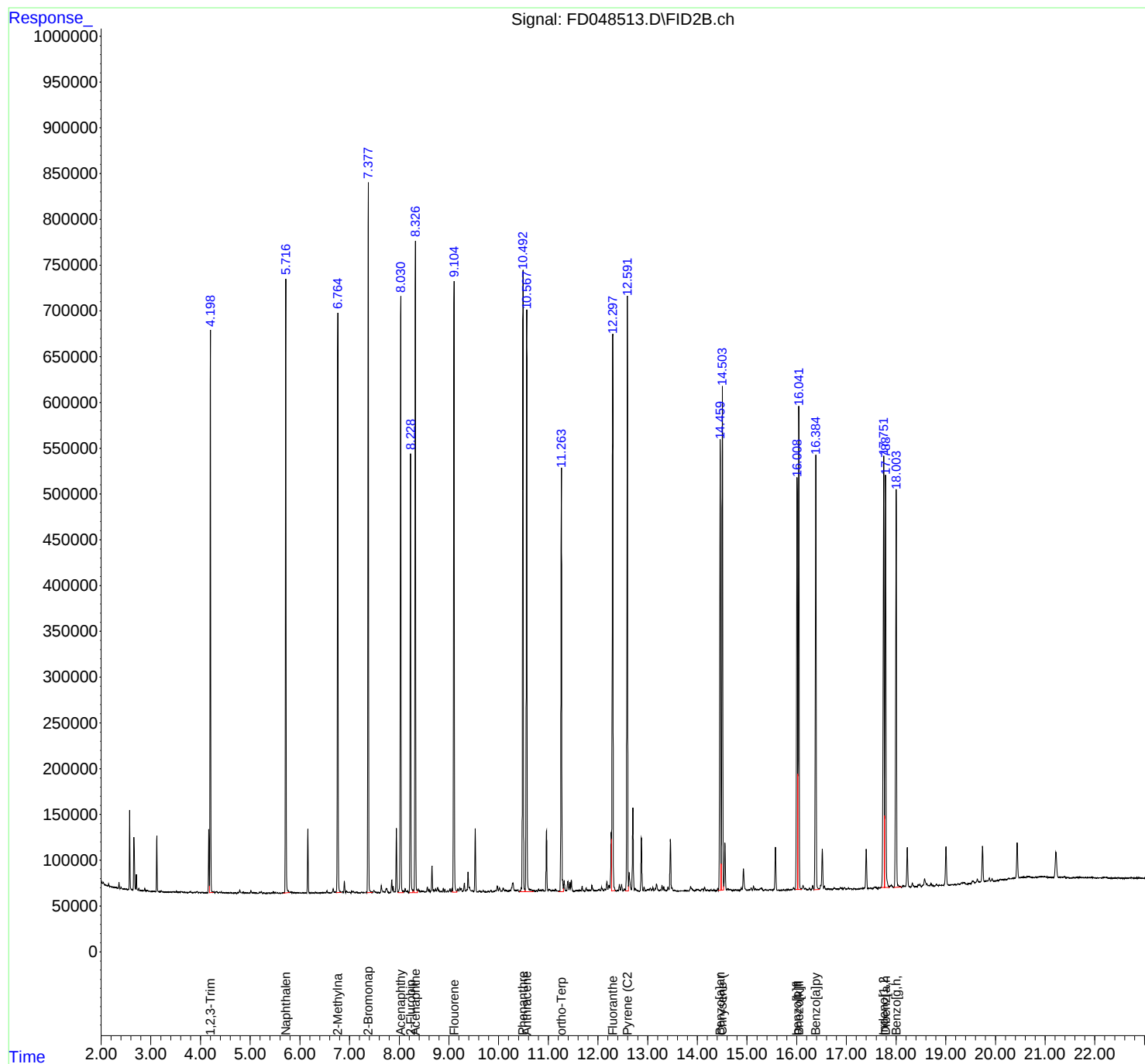
Instrument :
FID_D
ClientSampleId :
WB-301-BOTMSD

Manual Integrations
APPROVED

Reviewed By :Yogesh Patel 10/16/2024
Supervised By :Ankita Jodhani 10/16/2024

Integration File: autoint1.e
Quant Time: Oct 15 07:37:44 2024
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_D\methods\Aromatic EPH 093024.M
Quant Title : GC Extractables
QLast Update : Mon Sep 30 14:17:34 2024
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1 µl
Signal Phase : Rxi-1ms
Signal Info : 20M x 0.18mm x 0.18µm



rteres

Instrument :

FID_D

ClientSampleId :

WB-301-BOTMSD

Area Percent Report

Manual IntegrationsAPPROVED

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_D\Data\FD10142

Data File : FD048513.D

Signal(s) : FID2B.ch

Acq On : 15 Oct 2024 06:12

Sample : P4397-02MSD

Misc :

ALS Vial : 80 Sample Multiplier: 1

Reviewed By :Yogesh Patel 10/16/2024

Supervised By :Ankita Jodhani 10/16/2024

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_D\methods\Aromatic EPH 093024.M

Title : GC Extractables

Signal : FID2B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	4.168	4.137	4.180	PV	69216	581944	7.71%	0.401%
2	4.199	4.180	4.259	VV	610915	5193817	68.80%	3.575%
3	4.792	4.644	4.828	BV	3324	38316	0.51%	0.026%
4	5.717	5.661	5.799	BV	667726	5992871	79.38%	4.125%
5	6.162	6.118	6.215	BV	69840	665370	8.81%	0.458%
6	6.672	6.581	6.692	BV	4401	45528	0.60%	0.031%
7	6.764	6.730	6.833	PV	634993	5954666	78.88%	4.099%
8	6.897	6.875	6.924	PV	12325	122361	1.62%	0.084%
9	7.377	7.351	7.465	PV	779021	7244608	95.97%	4.987%
10	7.641	7.605	7.676	BV	7724	105511	1.40%	0.073%
11	7.737	7.715	7.805	VB	4585	100966	1.34%	0.070%
12	7.851	7.811	7.867	BV	13721	150256	1.99%	0.103%
13	7.879	7.867	7.901	VV	6967	72647	0.96%	0.050%
14	7.944	7.901	7.980	VV	70211	730069	9.67%	0.503%
15	8.030	7.980	8.078	VV	654731	6376750	84.47%	4.390%
16	8.121	8.104	8.161	VV	4705	71701	0.95%	0.049%
17	8.228	8.198	8.276	PV	479510	4767531	63.15%	3.282%
18	8.326	8.298	8.368	VV	702155	6841151	90.62%	4.709%
19	8.566	8.508	8.586	VV	5607	86395	1.14%	0.059%
20	8.661	8.623	8.711	VV	29000	354469	4.70%	0.244%
21	8.774	8.749	8.824	VV	5306	107837	1.43%	0.074%
22	8.888	8.864	8.905	VV	4031	45358	0.60%	0.031%
23	9.023	8.987	9.042	VV	3923	58945	0.78%	0.041%
24	9.061	9.042	9.073	VV	3581	38516	0.51%	0.027%
25	9.104	9.073	9.160	VV	672409	6811952	90.23%	4.689%
26	9.222	9.202	9.235	VV	4815	59044	0.78%	0.041%
27	9.312	9.275	9.339	VV	9444	133184	1.76%	0.092%
28	9.387	9.339	9.498	VV	21773	395977	5.25%	0.273%
29	9.532	9.498	9.570	VV	69083	734983	9.74%	0.506%
30	9.977	9.885	9.999	PV	5971	116368	1.54%	0.080%
31	10.017	9.999	10.050	VV	4217	59168	0.78%	0.041%
32	10.091	10.050	10.127	VV	3270	49439	0.65%	0.034%
33	10.286	10.242	10.331	VV	9102	227039	3.01%	0.156%
34	10.492	10.412	10.533	PV	671004	7176433	95.06%	4.940%
35	10.567	10.533	10.698	VV	640626	6915575	91.61%	4.761%
36	10.965	10.931	10.996	VV	66728	748549	9.92%	0.515%

rteres								
37	11.263	11.212	11.304	VV	465545	5147288	68.18%	3.543%
38	11.320	11.304	11.365	VV	11571	158418		
39	11.396	11.365	11.417	VV	10992	168614		
40	11.434	11.417	11.449	VV	10089	117273		
41	11.465	11.449	11.521	VV	12125	158945		
42	11.683	11.655	11.738	VV	5483	81281		
43	11.764	11.738	11.805	PV	3554	50832	0.67%	0.035%
44	11.878	11.855	11.925	BV	6158	81796	1.08%	0.056%
45	12.075	12.055	12.114	VV	3887	61590	0.82%	0.042%
46	12.179	12.154	12.199	VV	10233	133287	1.77%	0.092%
47	12.222	12.199	12.239	VV	6196	104503	1.38%	0.072%
48	12.297	12.239	12.375	VV	614746	7549212	100.00%	5.197%
49	12.431	12.407	12.452	VV	7155	84864	1.12%	0.058%
50	12.476	12.452	12.504	VV	7144	92540	1.23%	0.064%
51	12.591	12.553	12.615	VV	651228	7195067	95.31%	4.953%
52	12.629	12.615	12.671	VV	20192	315373	4.18%	0.217%
53	12.703	12.671	12.731	VV	91402	1123355	14.88%	0.773%
54	12.874	12.831	12.908	PV	58192	685613	9.08%	0.472%
55	12.927	12.908	12.968	VV	4041	55468	0.73%	0.038%
56	13.179	13.129	13.231	VV	7554	150896	2.00%	0.104%
57	13.287	13.268	13.307	VV	5574	67914	0.90%	0.047%
58	13.323	13.307	13.375	VV	4393	56215	0.74%	0.039%
59	13.408	13.375	13.427	PV	3462	37996	0.50%	0.026%
60	13.457	13.427	13.482	PV	54096	658426	8.72%	0.453%
61	13.864	13.788	13.936	BV	4597	106847	1.42%	0.074%
62	14.146	14.125	14.188	VV	3444	44491	0.59%	0.031%
63	14.459	14.423	14.479	PV	488810	6235474	82.60%	4.292%
64	14.503	14.479	14.530	VV	558028	6313233	83.63%	4.346%
65	14.554	14.530	14.587	VV	51263	647881	8.58%	0.446%
66	14.927	14.900	15.031	VV	23532	364261	4.83%	0.251%
67	15.130	15.106	15.152	PV	4379	50328	0.67%	0.035%
68	15.570	15.515	15.610	VV	47352	613808	8.13%	0.423%
69	16.007	15.971	16.022	BV	449916	6089018	80.66%	4.192%
70	16.041	16.022	16.098	VV	530042	6029743	79.87%	4.151%
71	16.127	16.098	16.161	VV	4428	79138	1.05%	0.054%
72	16.320	16.282	16.343	PV	4663	59932	0.79%	0.041%
73	16.384	16.343	16.455	VV	477148	5876440	77.84%	4.045%
74	16.514	16.455	16.542	VV	44224	655914	8.69%	0.452%
75	16.557	16.542	16.585	VV	3571	46452	0.62%	0.032%
76	17.398	17.310	17.451	VV	43382	615374	8.15%	0.424%
77	17.751	17.701	17.766	BV	471630	6402008	84.80%	4.407%
78	17.788	17.766	17.864	VV	447906	5865413	77.70%	4.038%
79	18.002	17.951	18.108	PV	426159	5656937	74.93%	3.894%

Sum of corrected areas: 145264751

Aromatic EPH 093024.M Tue Oct 15 07:50:02 2024



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

Manual Integration Report

Sequence:

FC100224AL

Instrument

FID_c

Sample ID

File ID

Parameter

Review By

Review On

Supervised
By

Supervised On

Reason

Manual Integration Report

Sequence:	FC101424AL	Instrument	FID_c
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Sample ID	File ID	Parameter	Review By	Review On	Supervised By	Supervised On	Reason
20 PPM ALIPHATIC HC	FC067429.D	n-Hexatriacontane (C36)	yogesh	10/15/2024 8:13:09 AM	Ankita	10/15/2024 9:34:04	Peak Integrated by Software
20 PPM ALIPHATIC HC	FC067429.D	n-Tetratriacontane (C34)	yogesh	10/15/2024 8:13:09 AM	Ankita	10/15/2024 9:34:04	Peak Integrated by Software
P4368-03	FC067433.D	n-Decane (C10)	yogesh	10/15/2024 8:13:07 AM	Ankita	10/15/2024 9:34:05	Peak Integrated by Software
P4397-02	FC067435.D	1-chlorooctadecane (SURR)	yogesh	10/15/2024 8:13:26 AM	Ankita	10/15/2024 9:34:07	Peak Integrated by Software
P4397-02D	FC067436.D	1-chlorooctadecane (SURR)	yogesh	10/15/2024 8:13:27 AM	Ankita	10/15/2024 9:34:09	Peak Integrated by Software
P4397-02MS	FC067437.D	1-chlorooctadecane (SURR)	yogesh	10/15/2024 8:13:29 AM	Ankita	10/15/2024 9:34:10	Peak Integrated by Software
P4397-02MSD	FC067438.D	1-chlorooctadecane (SURR)	yogesh	10/15/2024 8:13:30 AM	Ankita	10/15/2024 9:34:12	Peak Integrated by Software
20 PPM ALIPHATIC HC	FC067440.D	n-Dotriacontane (C32)	yogesh	10/15/2024 8:13:32 AM	Ankita	10/15/2024 9:34:13	Peak Integrated by Software
P4368-09	FC067444.D	n-Hexatriacontane (C36)	yogesh	10/15/2024 8:13:33 AM	Ankita	10/15/2024 9:34:14	Peak Integrated by Software
P4368-09	FC067444.D	n-Tetracontane (C40)	yogesh	10/15/2024 8:13:33 AM	Ankita	10/15/2024 9:34:14	Peak Integrated by Software



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

Manual Integration Report

Sequence:

FD093024AR

Instrument

FID_d

Sample ID

File ID

Parameter

Review By

Review On

Supervised
By

Supervised On

Reason

Manual Integration Report

Sequence:	FD101424AR	Instrument	FID_d
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Sample ID	File ID	Parameter	Review By	Review On	Supervised By	Supervised On	Reason
PB164109BS	FD048506.D	Fluoranthene (C21.85)	yogesh	10/16/2024 3:20:38 PM	Ankita	10/16/2024 4:39:07	Peak Integrated by Software
PB164109BSD	FD048507.D	Fluoranthene (C21.85)	yogesh	10/16/2024 3:20:42 PM	Ankita	10/16/2024 4:39:09	Peak Integrated by Software
P4368-03	FD048508.D	Benzo[a]anthracene (C26.37)	yogesh	10/16/2024 3:20:44 PM	Ankita	10/16/2024 4:39:11	Peak Integrated by Software
P4368-03	FD048508.D	Benzo[a]pyrene (C31.34)	yogesh	10/16/2024 3:20:44 PM	Ankita	10/16/2024 4:39:11	Peak Integrated by Software
P4368-03	FD048508.D	Indeno[1,2,3-cd]pyrene (C35.01)	yogesh	10/16/2024 3:20:44 PM	Ankita	10/16/2024 4:39:11	Peak Integrated by Software
P4368-03	FD048508.D	Naphthalene (C11.7)	yogesh	10/16/2024 3:20:44 PM	Ankita	10/16/2024 4:39:11	Peak Integrated by Software
P4397-01	FD048509.D	ortho-Terphenyl (SURR)	yogesh	10/16/2024 3:20:45 PM	Ankita	10/16/2024 4:39:12	Peak Integrated by Software
P4397-02MS	FD048512.D	Fluoranthene (C21.85)	yogesh	10/16/2024 3:20:47 PM	Ankita	10/16/2024 4:39:14	Peak Integrated by Software
P4397-02MSD	FD048513.D	Fluoranthene (C21.85)	yogesh	10/16/2024 3:20:49 PM	Ankita	10/16/2024 4:39:15	Peak Integrated by Software
PB164112BS	FD048517.D	Fluoranthene (C21.85)	yogesh	10/16/2024 3:20:51 PM	Ankita	10/16/2024 4:39:18	Peak Integrated by Software
PB164112BSD	FD048518.D	Fluoranthene (C21.85)	yogesh	10/16/2024 3:20:52 PM	Ankita	10/16/2024 4:39:20	Peak Integrated by Software
P4368-09	FD048519.D	Benzo[a]anthracene (C26.37)	yogesh	10/16/2024 3:20:54 PM	Ankita	10/16/2024 4:39:21	Peak Integrated by Software
P4368-09	FD048519.D	Benzo[a]pyrene (C31.34)	yogesh	10/16/2024 3:20:54 PM	Ankita	10/16/2024 4:39:21	Peak Integrated by Software

Manual Integration Report

Sequence:	FD101424AR	Instrument	FID_d
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Sample ID	File ID	Parameter	Review By	Review On	Supervised By	Supervised On	Reason
P4368-09	FD048519.D	Chrysene (C27.41)	yogesh	10/16/2024 3:20:54 PM	Ankita	10/16/2024 4:39:21	Peak Integrated by Software
P4368-09	FD048519.D	Indeno[1,2,3-cd]pyrene (C35.01)	yogesh	10/16/2024 3:20:54 PM	Ankita	10/16/2024 4:39:21	Peak Integrated by Software
P4368-09	FD048519.D	Phenanthrene (C19.36)	yogesh	10/16/2024 3:20:54 PM	Ankita	10/16/2024 4:39:21	Peak Integrated by Software
P4397-01	FD048521.D	ortho-Terphenyl (SURR)	yogesh	10/16/2024 3:20:56 PM	Ankita	10/16/2024 4:39:23	Peak Integrated by Software
20 PPM AROMATIC HC	FD048523.D	Indeno[1,2,3-cd]pyrene (C35.01)	yogesh	10/16/2024 3:20:58 PM	Ankita	10/16/2024 4:39:25	Peak Integrated by Software

Instrument ID: FID_C

Daily Analysis Runlog For Sequence/QC Batch ID # FC100224AL

Review By	yogesh	Review On	10/1/2024 9:33:02 AM
Supervise By	Ankita	Supervise On	10/1/2024 10:31:51 AM
SubDirectory	FC100224AL	HP Acquire Method	HP Processing Method FC100224AL
STD. NAME	STD REF.#		
Tune/Reschk Initial Calibration Stds	PP23644,PP23646,PP23647,PP23648,PP23649		
CCC Internal Standard/PEM	PP23647		
ICV/I.BLK Surrogate Standard MS/MSD Standard LCS Standard	PP23645,PP23650		

Sr#	SampleId	Data File Name	Date-Time	Operator	Status
1	MECL2	FC067310.D	30 Sep 2024 09:18	YP/AJ	Ok
2	I.BLK	FC067311.D	30 Sep 2024 09:55	YP/AJ	Ok
3	100 PPM ALIPHATIC HC STD1	FC067312.D	30 Sep 2024 10:32	YP/AJ	Ok
4	50 PPM ALIPHATIC HC STD2	FC067313.D	30 Sep 2024 11:10	YP/AJ	Ok
5	20 PPM ALIPHATIC HC STD3	FC067314.D	30 Sep 2024 11:48	YP/AJ	Ok
6	10 PPM ALIPHATIC HC STD4	FC067315.D	30 Sep 2024 12:47	YP/AJ	Ok
7	5 PPM ALIPHATIC HC STD5	FC067316.D	30 Sep 2024 13:35	YP/AJ	Ok
8	20 PPM ALIPHATIC HC STD ICV	FC067317.D	30 Sep 2024 14:29	YP/AJ	Ok
9	I.BLK	FC067318.D	30 Sep 2024 15:06	YP/AJ	Ok
10	20 PPM ALIPHATIC HC STD	FC067319.D	30 Sep 2024 15:49	YP/AJ	Ok

M : Manual Integration

Instrument ID: FID_C

Daily Analysis Runlog For Sequence/QC Batch ID # FC101424AL

Review By	yogesh	Review On	10/14/2024 1:28:36 PM
Supervise By	Ankita	Supervise On	10/15/2024 9:34:25 AM
SubDirectory	FC101424AL	HP Acquire Method	HP Processing Method FC100224AL
STD. NAME	STD REF.#		
Tune/Reschk Initial Calibration Stds	PP23644,PP23646,PP23647,PP23648,PP23649		
CCC Internal Standard/PEM	PP23647		
ICV/I.BLK Surrogate Standard MS/MSD Standard LCS Standard	PP23645,PP23650		

Sr#	SampleId	Data File Name	Date-Time	Operator	Status
1	MECL2	FC067427.D	14 Oct 2024 07:58	YP/AJ	Ok
2	I.BLK	FC067428.D	14 Oct 2024 12:55	YP/AJ	Ok
3	20 PPM ALIPHATIC HC STD	FC067429.D	14 Oct 2024 13:32	YP/AJ	Ok,M
4	PB164109BL	FC067430.D	14 Oct 2024 16:38	YP/AJ	Ok
5	PB164109BS	FC067431.D	14 Oct 2024 17:15	YP/AJ	Ok
6	PB164109BSD	FC067432.D	14 Oct 2024 17:53	YP/AJ	Ok
7	P4368-03	FC067433.D	14 Oct 2024 18:30	YP/AJ	Ok,M
8	P4397-01	FC067434.D	14 Oct 2024 19:07	YP/AJ	Ok
9	P4397-02	FC067435.D	14 Oct 2024 19:44	YP/AJ	Ok,M
10	P4397-02D	FC067436.D	14 Oct 2024 20:21	YP/AJ	Ok,M
11	P4397-02MS	FC067437.D	14 Oct 2024 20:58	YP/AJ	Ok,M
12	P4397-02MSD	FC067438.D	14 Oct 2024 21:35	YP/AJ	Ok,M
13	I.BLK	FC067439.D	14 Oct 2024 22:11	YP/AJ	Ok
14	20 PPM ALIPHATIC HC STD	FC067440.D	14 Oct 2024 22:48	YP/AJ	Ok,M
15	PB164112BL	FC067441.D	15 Oct 2024 00:02	YP/AJ	Ok
16	PB164112BS	FC067442.D	15 Oct 2024 00:39	YP/AJ	Ok
17	PB164112BSD	FC067443.D	15 Oct 2024 01:17	YP/AJ	Ok
18	P4368-09	FC067444.D	15 Oct 2024 01:53	YP/AJ	Ok,M
19	P4396-01	FC067445.D	15 Oct 2024 02:30	YP/AJ	Ok
20	I.BLK	FC067446.D	15 Oct 2024 04:22	YP/AJ	Ok
21	20 PPM ALIPHATIC HC STD	FC067447.D	15 Oct 2024 04:59	YP/AJ	Ok

M : Manual Integration

Instrument ID: FID_D

Daily Analysis Runlog For Sequence/QC Batch ID # FD093024AR

Review By	yogesh	Review On	9/30/2024 3:32:01 PM
Supervise By	Ankita	Supervise On	10/1/2024 10:34:21 AM
SubDirectory	FD093024AR	HP Acquire Method	HP Processing Method FD093024AR
STD. NAME	STD REF.#		
Tune/Reschk Initial Calibration Stds	PP23429,PP23519,PP23520,PP23521,PP23522		
CCC Internal Standard/PEM	PP23520		
ICV/I.BLK Surrogate Standard MS/MSD Standard LCS Standard	PP23430,PP23523		

Sr#	SampleId	Data File Name	Date-Time	Operator	Status
1	MECL2	FD048396.D	30 Sep 2024 09:18	YP/AJ	Ok
2	I.BLK	FD048397.D	30 Sep 2024 09:55	YP/AJ	Ok
3	100 PPM AROMATIC HC STD1	FD048398.D	30 Sep 2024 10:32	YP/AJ	Ok
4	50 PPM AROMATIC HC STD2	FD048399.D	30 Sep 2024 11:10	YP/AJ	Ok
5	20 PPM AROMATIC HC STD3	FD048400.D	30 Sep 2024 11:48	YP/AJ	Ok
6	10 PPM AROMATIC HC STD4	FD048401.D	30 Sep 2024 12:47	YP/AJ	Ok
7	5 PPM AROMATIC HC STD5	FD048402.D	30 Sep 2024 13:35	YP/AJ	Ok
8	20 PPM AROMATIC HC STD ICV	FD048403.D	30 Sep 2024 14:29	YP/AJ	Ok
9	I.BLK	FD048404.D	30 Sep 2024 15:06	YP/AJ	Ok
10	20 PPM AROMATIC HC STD	FD048405.D	30 Sep 2024 15:49	YP/AJ	Ok

M : Manual Integration

Instrument ID: FID_D

Daily Analysis Runlog For Sequence/QC Batch ID # FD101424AR

Review By	yogesh	Review On	10/14/2024 1:29:39 PM
Supervise By	Ankita	Supervise On	10/16/2024 4:39:36 PM
SubDirectory	FD101424AR	HP Acquire Method	HP Processing Method FD093024AR
STD. NAME	STD REF.#		
Tune/Reschk Initial Calibration Stds	PP23429,PP23519,PP23520,PP23521,PP23522		
CCC Internal Standard/PEM	PP23520		
ICV/I.BLK Surrogate Standard MS/MSD Standard LCS Standard	PP23430,PP23523		

Sr#	SampleId	Data File Name	Date-Time	Operator	Status
1	MECL2	FD048502.D	14 Oct 2024 21:35	YP/AJ	Ok
2	I.BLK	FD048503.D	14 Oct 2024 22:11	YP/AJ	Ok
3	20 PPM AROMATIC HC STD	FD048504.D	14 Oct 2024 22:48	YP/AJ	Ok
4	PB164109BL	FD048505.D	15 Oct 2024 00:02	YP/AJ	Ok
5	PB164109BS	FD048506.D	15 Oct 2024 00:39	YP/AJ	Ok,M
6	PB164109BSD	FD048507.D	15 Oct 2024 01:17	YP/AJ	Ok,M
7	P4368-03	FD048508.D	15 Oct 2024 01:53	YP/AJ	Ok,M
8	P4397-01	FD048509.D	15 Oct 2024 02:30	YP/AJ	ReRun
9	P4397-02	FD048510.D	15 Oct 2024 04:22	YP/AJ	Ok
10	P4397-02D	FD048511.D	15 Oct 2024 04:59	YP/AJ	Ok
11	P4397-02MS	FD048512.D	15 Oct 2024 05:35	YP/AJ	Ok,M
12	P4397-02MSD	FD048513.D	15 Oct 2024 06:12	YP/AJ	Ok,M
13	I.BLK	FD048514.D	15 Oct 2024 06:50	YP/AJ	Ok
14	20 PPM AROMATIC HC STD	FD048515.D	15 Oct 2024 07:27	YP/AJ	Ok
15	PB164112BL	FD048516.D	15 Oct 2024 08:04	YP/AJ	Ok
16	PB164112BS	FD048517.D	15 Oct 2024 08:41	YP/AJ	Ok,M
17	PB164112BSD	FD048518.D	15 Oct 2024 09:18	YP/AJ	Ok,M
18	P4368-09	FD048519.D	15 Oct 2024 09:55	YP/AJ	Ok,M
19	P4396-01	FD048520.D	15 Oct 2024 10:34	YP/AJ	Ok
20	P4397-01	FD048521.D	15 Oct 2024 11:10	YP/AJ	Ok,M
21	I.BLK	FD048522.D	15 Oct 2024 11:48	YP/AJ	Ok

Instrument ID: FID_D

Daily Analysis Runlog For Sequence/QC Batch ID # FD101424AR

Review By	yogesh	Review On	10/14/2024 1:29:39 PM
Supervise By	Ankita	Supervise On	10/16/2024 4:39:36 PM
SubDirectory	FD101424AR	HP Acquire Method	HP Processing Method FD093024AR
STD. NAME	STD REF.#		
Tune/Reschk Initial Calibration Stds	PP23429,PP23519,PP23520,PP23521,PP23522		
CCC Internal Standard/PEM	PP23520		
ICV/I.BLK Surrogate Standard MS/MSD Standard LCS Standard	PP23430,PP23523		

22	20 PPM AROMATIC HC STD	FD048523.D	15 Oct 2024 12:24	YP/AJ	Ok,M
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M : Manual Integration

Instrument ID: FID_C

Daily Analysis Runlog For Sequence/QC Batch ID # FC100224AL

Review By	yogesh	Review On	10/1/2024 9:33:02 AM
Supervise By	Ankita	Supervise On	10/1/2024 10:31:51 AM
SubDirectory	FC100224AL	HP Acquire Method	HP Processing Method FC100224AL

STD. NAME	STD REF.#
Tune/Reschk Initial Calibration Stds	PP23644,PP23646,PP23647,PP23648,PP23649
CCC Internal Standard/PEM	PP23647
ICV/I.BLK Surrogate Standard MS/MSD Standard LCS Standard	PP23645,PP23650

Sr#	SampleID	ClientID	Data File Name	Date-Time	Comment	Operator	Status
1	MECL2	MECL2	FC067310.D	30 Sep 2024 09:18		YP/AJ	Ok
2	I.BLK	I.BLK	FC067311.D	30 Sep 2024 09:55		YP/AJ	Ok
3	100 PPM ALIPHATIC HC	100 PPM ALIPHATIC HC	FC067312.D	30 Sep 2024 10:32		YP/AJ	Ok
4	50 PPM ALIPHATIC HC	50 PPM ALIPHATIC HC	FC067313.D	30 Sep 2024 11:10		YP/AJ	Ok
5	20 PPM ALIPHATIC HC	20 PPM ALIPHATIC HC	FC067314.D	30 Sep 2024 11:48		YP/AJ	Ok
6	10 PPM ALIPHATIC HC	10 PPM ALIPHATIC HC	FC067315.D	30 Sep 2024 12:47		YP/AJ	Ok
7	5 PPM ALIPHATIC HC	5 PPM ALIPHATIC HC	FC067316.D	30 Sep 2024 13:35		YP/AJ	Ok
8	20 PPM ALIPHATIC HC	20 PPM ALIPHATIC HC	FC067317.D	30 Sep 2024 14:29		YP/AJ	Ok
9	I.BLK	I.BLK	FC067318.D	30 Sep 2024 15:06		YP/AJ	Ok
10	20 PPM ALIPHATIC HC	20 PPM ALIPHATIC HC	FC067319.D	30 Sep 2024 15:49		YP/AJ	Ok

M : Manual Integration

Instrument ID: FID_C

Daily Analysis Runlog For Sequence/QC Batch ID # FC101424AL

Review By	yogesh	Review On	10/14/2024 1:28:36 PM
Supervise By	Ankita	Supervise On	10/15/2024 9:34:25 AM
SubDirectory	FC101424AL	HP Acquire Method	HP Processing Method FC100224AL
STD. NAME	STD REF.#		
Tune/Reschk Initial Calibration Stds	PP23644,PP23646,PP23647,PP23648,PP23649		
CCC Internal Standard/PEM	PP23647		
ICV/I.BLK Surrogate Standard MS/MSD Standard LCS Standard	PP23645,PP23650		

Sr#	SampleID	ClientID	Data File Name	Date-Time	Comment	Operator	Status
1	MECL2	MECL2	FC067427.D	14 Oct 2024 07:58		YP/AJ	Ok
2	I.BLK	I.BLK	FC067428.D	14 Oct 2024 12:55		YP/AJ	Ok
3	20 PPM ALIPHATIC HC	20 PPM ALIPHATIC HC	FC067429.D	14 Oct 2024 13:32		YP/AJ	Ok,M
4	PB164109BL	PB164109BL	FC067430.D	14 Oct 2024 16:38		YP/AJ	Ok
5	PB164109BS	PB164109BS	FC067431.D	14 Oct 2024 17:15		YP/AJ	Ok
6	PB164109BSD	PB164109BSD	FC067432.D	14 Oct 2024 17:53		YP/AJ	Ok
7	P4368-03	MDL-SOIL-03-QT4-202	FC067433.D	14 Oct 2024 18:30	2.5 PPM SOIL MDL	YP/AJ	Ok,M
8	P4397-01	WB-301-TOP	FC067434.D	14 Oct 2024 19:07		YP/AJ	Ok
9	P4397-02	WB-301-BOT	FC067435.D	14 Oct 2024 19:44		YP/AJ	Ok,M
10	P4397-02D	P4397-02D	FC067436.D	14 Oct 2024 20:21		YP/AJ	Ok,M
11	P4397-02MS	WB-301-BOTMS	FC067437.D	14 Oct 2024 20:58	FC067435.D	YP/AJ	Ok,M
12	P4397-02MSD	WB-301-BOTMSD	FC067438.D	14 Oct 2024 21:35	FC067435.D!FC067437.D	YP/AJ	Ok,M
13	I.BLK	I.BLK	FC067439.D	14 Oct 2024 22:11		YP/AJ	Ok
14	20 PPM ALIPHATIC HC	20 PPM ALIPHATIC HC	FC067440.D	14 Oct 2024 22:48		YP/AJ	Ok,M
15	PB164112BL	PB164112BL	FC067441.D	15 Oct 2024 00:02		YP/AJ	Ok
16	PB164112BS	PB164112BS	FC067442.D	15 Oct 2024 00:39		YP/AJ	Ok
17	PB164112BSD	PB164112BSD	FC067443.D	15 Oct 2024 01:17		YP/AJ	Ok
18	P4368-09	MDL-WATER-03-QT4-2	FC067444.D	15 Oct 2024 01:53	2.5 PPM WATER MDL	YP/AJ	Ok,M

Instrument ID: FID_C

Daily Analysis Runlog For Sequence/QC Batch ID # FC101424AL

Review By	yogesh	Review On	10/14/2024 1:28:36 PM
Supervise By	Ankita	Supervise On	10/15/2024 9:34:25 AM
SubDirectory	FC101424AL	HP Acquire Method	HP Processing Method FC100224AL

STD. NAME	STD REF.#
Tune/Reschk Initial Calibration Stds	PP23644,PP23646,PP23647,PP23648,PP23649
CCC Internal Standard/PEM	PP23647
ICV/I.BLK Surrogate Standard MS/MSD Standard LCS Standard	PP23645,PP23650

19	P4396-01	WASTE-WATER-FRAC	FC067445.D	15 Oct 2024 02:30		YP/AJ	Ok
20	I.BLK	I.BLK	FC067446.D	15 Oct 2024 04:22		YP/AJ	Ok
21	20 PPM ALIPHATIC HC	20 PPM ALIPHATIC HC	FC067447.D	15 Oct 2024 04:59		YP/AJ	Ok

M : Manual Integration

Instrument ID: FID_D

Daily Analysis Runlog For Sequence/QC Batch ID # FD093024AR

Review By	yogesh	Review On	9/30/2024 3:32:01 PM
Supervise By	Ankita	Supervise On	10/1/2024 10:34:21 AM
SubDirectory	FD093024AR	HP Acquire Method	HP Processing Method FD093024AR

STD. NAME	STD REF.#
Tune/Reschk Initial Calibration Stds	PP23429,PP23519,PP23520,PP23521,PP23522
CCC	PP23520
Internal Standard/PEM	
ICV/I.BLK	PP23430,PP23523
Surrogate Standard	
MS/MSD Standard	
LCS Standard	

Sr#	SampleID	ClientID	Data File Name	Date-Time	Comment	Operator	Status
1	MECL2	MECL2	FD048396.D	30 Sep 2024 09:18		YP/AJ	Ok
2	I.BLK	I.BLK	FD048397.D	30 Sep 2024 09:55		YP/AJ	Ok
3	100 PPM AROMATIC HC	100 PPM AROMATIC HC	FD048398.D	30 Sep 2024 10:32		YP/AJ	Ok
4	50 PPM AROMATIC HC	50 PPM AROMATIC HC	FD048399.D	30 Sep 2024 11:10		YP/AJ	Ok
5	20 PPM AROMATIC HC	20 PPM AROMATIC HC	FD048400.D	30 Sep 2024 11:48		YP/AJ	Ok
6	10 PPM AROMATIC HC	10 PPM AROMATIC HC	FD048401.D	30 Sep 2024 12:47		YP/AJ	Ok
7	5 PPM AROMATIC HC	5 PPM AROMATIC HC	FD048402.D	30 Sep 2024 13:35		YP/AJ	Ok
8	20 PPM AROMATIC HC	20 PPM AROMATIC HC	FD048403.D	30 Sep 2024 14:29		YP/AJ	Ok
9	I.BLK	I.BLK	FD048404.D	30 Sep 2024 15:06		YP/AJ	Ok
10	20 PPM AROMATIC HC	20 PPM AROMATIC HC	FD048405.D	30 Sep 2024 15:49		YP/AJ	Ok

M : Manual Integration

Instrument ID: FID_D

Daily Analysis Runlog For Sequence/QC Batch ID # FD101424AR

Review By	yogesh	Review On	10/14/2024 1:29:39 PM
Supervise By	Ankita	Supervise On	10/16/2024 4:39:36 PM
SubDirectory	FD101424AR	HP Acquire Method	HP Processing Method FD093024AR

STD. NAME	STD REF.#
Tune/Reschk Initial Calibration Stds	PP23429,PP23519,PP23520,PP23521,PP23522
CCC	PP23520
Internal Standard/PEM	
ICV/I.BLK	PP23430,PP23523
Surrogate Standard	
MS/MSD Standard	
LCS Standard	

Sr#	SampleID	ClientID	Data File Name	Date-Time	Comment	Operator	Status
1	MECL2	MECL2	FD048502.D	14 Oct 2024 21:35		YP/AJ	Ok
2	I.BLK	I.BLK	FD048503.D	14 Oct 2024 22:11		YP/AJ	Ok
3	20 PPM AROMATIC HC	20 PPM AROMATIC HC	FD048504.D	14 Oct 2024 22:48		YP/AJ	Ok
4	PB164109BL	PB164109BL	FD048505.D	15 Oct 2024 00:02		YP/AJ	Ok
5	PB164109BS	PB164109BS	FD048506.D	15 Oct 2024 00:39		YP/AJ	Ok,M
6	PB164109BSD	PB164109BSD	FD048507.D	15 Oct 2024 01:17		YP/AJ	Ok,M
7	P4368-03	MDL-SOIL-03-QT4-202	FD048508.D	15 Oct 2024 01:53	2.5 PPM SOIL MDL	YP/AJ	Ok,M
8	P4397-01	WB-301-TOP	FD048509.D	15 Oct 2024 02:30	surrogate fail	YP/AJ	ReRun
9	P4397-02	WB-301-BOT	FD048510.D	15 Oct 2024 04:22		YP/AJ	Ok
10	P4397-02D	P4397-02D	FD048511.D	15 Oct 2024 04:59		YP/AJ	Ok
11	P4397-02MS	WB-301-BOTMS	FD048512.D	15 Oct 2024 05:35	FD048510.D	YP/AJ	Ok,M
12	P4397-02MSD	WB-301-BOTMSD	FD048513.D	15 Oct 2024 06:12	FD048510.D!FD048512.D	YP/AJ	Ok,M
13	I.BLK	I.BLK	FD048514.D	15 Oct 2024 06:50		YP/AJ	Ok
14	20 PPM AROMATIC HC	20 PPM AROMATIC HC	FD048515.D	15 Oct 2024 07:27		YP/AJ	Ok
15	PB164112BL	PB164112BL	FD048516.D	15 Oct 2024 08:04		YP/AJ	Ok
16	PB164112BS	PB164112BS	FD048517.D	15 Oct 2024 08:41		YP/AJ	Ok,M
17	PB164112BSD	PB164112BSD	FD048518.D	15 Oct 2024 09:18		YP/AJ	Ok,M
18	P4368-09	MDL-WATER-03-QT4-2	FD048519.D	15 Oct 2024 09:55	2.5 PPM WATER MDL	YP/AJ	Ok,M

Instrument ID: FID_D

Daily Analysis Runlog For Sequence/QC Batch ID # FD101424AR

Review By	yogesh	Review On	10/14/2024 1:29:39 PM	
Supervise By	Ankita	Supervise On	10/16/2024 4:39:36 PM	
SubDirectory	FD101424AR	HP Acquire Method	HP Processing Method	FD093024AR
STD. NAME	STD REF.#			
Tune/Reschk Initial Calibration Stds	PP23429,PP23519,PP23520,PP23521,PP23522			
CCC	PP23520			
Internal Standard/PEM				
ICV/I.BLK	PP23430,PP23523			
Surrogate Standard				
MS/MSD Standard				
LCS Standard				

19	P4396-01	WASTE-WATER-FRAC	FD048520.D	15 Oct 2024 10:34		YP/AJ	Ok
20	P4397-01	WB-301-TOP	FD048521.D	15 Oct 2024 11:10		YP/AJ	Ok,M
21	I.BLK	I.BLK	FD048522.D	15 Oct 2024 11:48		YP/AJ	Ok
22	20 PPM AROMATIC HC	20 PPM AROMATIC HC	FD048523.D	15 Oct 2024 12:24		YP/AJ	Ok,M

M : Manual Integration

PERCENT SOLID

Supervisor: Iwona
Analyst: jignesh
Date: 10/15/2024

OVENTEMP IN Celsius(°C): 107
Time IN: 16:30
In Date: 10/14/2024
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
OvenID: M OVEN#1

OVENTEMP OUT Celsius(°C): 103
Time OUT: 08:15
Out Date: 10/15/2024
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
BalanceID: M SC-4
Thermometer ID: % SOLID- OVEN

QC:LB132917

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
P4391-01	Q119-1A	1	1.15	8.63	9.78	8.17	81.3	
P4391-04	Q119-2A	2	1.15	8.62	9.77	7.58	74.6	
P4391-07	Q119-3A	3	1.13	8.80	9.93	8.36	82.2	
P4391-10	Q119-4A	4	1.15	8.75	9.9	7.98	78.1	
P4391-13	Q119-5A	5	1.16	8.73	9.89	7.3	70.3	
P4391-16	Q119-6A	6	1.18	8.44	9.62	8.31	84.5	
P4391-17	Q119-6B	7	1.15	8.81	9.96	8.06	78.4	
P4391-19	Q119-7B	8	1.17	8.60	9.77	8.61	86.5	
P4391-21	Q119-8B	9	1.16	8.65	9.81	8.26	82.1	
P4391-23	Q119-9A	10	1.16	8.71	9.87	8.81	87.8	
P4391-24	Q119-9B	11	1.19	8.50	9.69	8.48	85.8	
P4391-26	Q119-10A	12	1.17	8.60	9.77	9.00	91.0	
P4391-27	Q119-10B	13	1.15	8.83	9.98	7.53	72.3	
P4391-29	Q119-11A	14	1.17	8.57	9.74	9.36	95.6	
P4391-30	Q119-11B	15	1.18	8.51	9.69	9.16	93.8	
P4391-32	Q119-12A	16	1.15	8.44	9.59	9.28	96.3	
P4391-33	Q119-12B	17	1.15	8.76	9.91	9.13	91.1	
P4392-01	Q119-12C	18	1.18	8.58	9.76	8.71	87.8	
P4392-02	Q119-13B	19	1.18	8.43	9.61	9.11	94.1	
P4392-03	Q119-13C	20	1.11	8.78	9.89	8.92	89.0	
P4392-04	Q119-14B	21	1.13	8.75	9.88	8.98	89.7	
P4392-05	Q119-14C	22	1.15	8.82	9.97	8.66	85.1	
P4392-06	Q119-15A	23	1.15	8.82	9.97	9.13	90.5	
P4392-07	Q119-15B	24	1.18	8.53	9.71	8.34	83.9	
P4392-08	Q119-15C	25	1.15	8.68	9.83	8.41	83.6	
P4392-09	Q119-16A	26	1.13	8.80	9.93	9.12	90.8	
P4392-10	Q119-16B	27	1.15	8.50	9.65	8.89	91.1	
P4392-11	Q119-16C	28	1.18	8.40	9.58	8.75	90.1	



PERCENT SOLID

Supervisor: Iwona
Analyst: jignesh
Date: 10/15/2024

OVENTEMP IN Celsius(°C): 107
Time IN: 16:30
In Date: 10/14/2024
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
OvenID: M OVEN#1

OVENTEMP OUT Celsius(°C): 103
Time OUT: 08:15
Out Date: 10/15/2024
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
BalanceID: M SC-4
Thermometer ID: % SOLID- OVEN

QC:LB132917

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
P4392-12	Q119-17A	29	1.17	8.60	9.77	9.2	93.4	
P4392-13	Q119-17B	30	1.15	8.53	9.68	8.86	90.4	
P4392-14	Q119-17C	31	1.17	8.46	9.63	8.77	89.8	
P4392-15	Q119-18A	32	1.18	8.66	9.84	9.25	93.2	
P4392-16	Q119-18B	33	1.15	8.38	9.53	8.74	90.6	
P4392-17	Q119-18C	34	1.13	8.73	9.86	9.00	90.1	
P4392-18	Q119-19A	35	1.18	8.50	9.68	8.89	90.7	
P4392-19	Q119-19B	36	1.18	8.63	9.81	9.06	91.3	
P4392-20	Q119-20A	37	1.15	8.80	9.95	9.28	92.4	
P4392-21	Q119-20B	38	1.16	8.40	9.56	8.99	93.2	
P4392-22	Q119-21A	39	1.18	8.71	9.89	9.39	94.3	
P4392-23	Q119-21B	40	1.18	8.42	9.6	9.04	93.3	
P4392-24	Q119-22A	41	1.17	8.55	9.72	9.39	96.1	
P4392-25	Q119-22B	42	1.15	8.82	9.97	9.24	91.7	
P4392-26	Q119-23A	43	1.15	8.50	9.65	9.03	92.7	
P4392-27	Q119-23B	44	1.19	8.67	9.86	9.25	93.0	
P4392-28	Q119-24A	45	1.18	8.50	9.68	8.78	89.4	
P4392-29	Q119-24B	46	1.17	8.75	9.92	8.81	87.3	
P4392-30	Q119-DUP1	47	1.18	8.50	9.68	8.51	86.2	
P4392-31	Q119-DUP2	48	1.18	8.54	9.72	9.35	95.7	
P4392-32	Q119-DUP3	49	1.16	8.80	9.96	9.41	93.7	
P4392-33	Q119-DUP4	50	1.17	8.61	9.78	8.46	84.7	
P4392-34	Q119-DUP5	51	1.18	8.51	9.69	8.92	91.0	
P4392-35	Q119-DUP6	52	1.19	8.52	9.71	7.38	72.7	
P4392-36	Q119-DUP7	53	1.16	8.40	9.56	8.71	89.9	
P4397-01	WB-301-TOP	54	1.15	8.80	9.95	6.72	63.3	
P4397-02	WB-301-BOT	55	1.16	8.63	9.79	7.72	76.0	
P4399-01	1009-A	60	1.00	1.00	2.00	2.00	100.0	debris



PERCENT SOLID

Supervisor: Iwona
Analyst: jignesh
Date: 10/15/2024

OVENTEMP IN Celsius(°C): 107
Time IN: 16:30
In Date: 10/14/2024
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
OvenID: M OVEN#1

OVENTEMP OUT Celsius(°C): 103
Time OUT: 08:15
Out Date: 10/15/2024
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
BalanceID: M SC-4
Thermometer ID: % SOLID- OVEN

QC:LB132917

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
P4400-01	NB-08-101424	61	1.19	8.78	9.97	9.25	91.8	
P4400-02	NB-08-101424-E2	62	1.17	8.57	9.74	9.06	92.1	
P4401-01	SU-03-101424	56	1.15	8.46	9.61	9.35	96.9	
P4401-02	SU-03-101424E2	57	1.18	8.70	9.88	9.52	95.9	
P4403-01	Hawthorne TP Soil	58	1.18	8.58	9.76	8.99	91.0	
P4403-03	Hawthorne TP Soil	59	1.15	8.84	9.99	9.36	92.9	

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

WORKLIST(Hardcopy Internal Chain)

VB 132917

WorkList Name : %1-101424

WorkList ID : 184382

Department : Wet-Chemistry

Date : 10-14-2024 07:40:26

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
P4391-01	Q119-1A	Solid	Percent Solids	Cool 4 deg C	ATCE02	K31	10/10/2024	Chemtech -SO
P4391-04	Q119-2A	Solid	Percent Solids	Cool 4 deg C	ATCE02	K31	10/10/2024	Chemtech -SO
P4391-07	Q119-3A	Solid	Percent Solids	Cool 4 deg C	ATCE02	K31	10/10/2024	Chemtech -SO
P4391-10	Q119-4A	Solid	Percent Solids	Cool 4 deg C	ATCE02	K31	10/10/2024	Chemtech -SO
P4391-13	Q119-5A	Solid	Percent Solids	Cool 4 deg C	ATCE02	K31	10/10/2024	Chemtech -SO
P4391-16	Q119-6A	Solid	Percent Solids	Cool 4 deg C	ATCE02	K31	10/10/2024	Chemtech -SO
P4391-17	Q119-6B	Solid	Percent Solids	Cool 4 deg C	ATCE02	K31	10/10/2024	Chemtech -SO
P4391-19	Q119-7B	Solid	Percent Solids	Cool 4 deg C	ATCE02	K31	10/10/2024	Chemtech -SO
P4391-21	Q119-8B	Solid	Percent Solids	Cool 4 deg C	ATCE02	K31	10/10/2024	Chemtech -SO
P4391-23	Q119-9A	Solid	Percent Solids	Cool 4 deg C	ATCE02	K31	10/10/2024	Chemtech -SO
P4391-24	Q119-9B	Solid	Percent Solids	Cool 4 deg C	ATCE02	K31	10/10/2024	Chemtech -SO
P4391-26	Q119-10A	Solid	Percent Solids	Cool 4 deg C	ATCE02	K31	10/10/2024	Chemtech -SO
P4391-27	Q119-10B	Solid	Percent Solids	Cool 4 deg C	ATCE02	K31	10/10/2024	Chemtech -SO
P4391-29	Q119-11A	Solid	Percent Solids	Cool 4 deg C	ATCE02	K31	10/10/2024	Chemtech -SO
P4391-30	Q119-11B	Solid	Percent Solids	Cool 4 deg C	ATCE02	K31	10/10/2024	Chemtech -SO
P4391-32	Q119-12A	Solid	Percent Solids	Cool 4 deg C	ATCE02	K31	10/10/2024	Chemtech -SO
P4391-33	Q119-12B	Solid	Percent Solids	Cool 4 deg C	ATCE02	K31	10/10/2024	Chemtech -SO
P4392-01	Q119-12C	Solid	Percent Solids	Cool 4 deg C	ATCE02	K31	10/10/2024	Chemtech -SO
P4392-02	Q119-13B	Solid	Percent Solids	Cool 4 deg C	ATCE02	K31	10/10/2024	Chemtech -SO
P4392-03	Q119-13C	Solid	Percent Solids	Cool 4 deg C	ATCE02	K31	10/10/2024	Chemtech -SO
P4392-04	Q119-14B	Solid	Percent Solids	Cool 4 deg C	ATCE02	K31	10/10/2024	Chemtech -SO

Date/Time 10-14-24 15:00

Raw Sample Received by: JH WOC

Raw Sample Relinquished by: JH WOC

Date/Time 10-14-24

Raw Sample Received by: JH WOC

Raw Sample Relinquished by: JH WOC

WORKLIST(Hardcopy Internal Chain)

W3132917

WorkList Name : %1-101424 WorkList ID : 184382 Department : Wet-Chemistry Date : 10-14-2024 07:40:26

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
P4392-05	Q119-14C	Solid	Percent Solids	Cool 4 deg C	ATCE02	K31	10/10/2024	Chemtech -SO
P4392-06	Q119-15A	Solid	Percent Solids	Cool 4 deg C	ATCE02	K31	10/10/2024	Chemtech -SO
P4392-07	Q119-15B	Solid	Percent Solids	Cool 4 deg C	ATCE02	K31	10/10/2024	Chemtech -SO
P4392-08	Q119-15C	Solid	Percent Solids	Cool 4 deg C	ATCE02	K31	10/10/2024	Chemtech -SO
P4392-09	Q119-16A	Solid	Percent Solids	Cool 4 deg C	ATCE02	K31	10/10/2024	Chemtech -SO
P4392-10	Q119-16B	Solid	Percent Solids	Cool 4 deg C	ATCE02	K31	10/10/2024	Chemtech -SO
P4392-11	Q119-16C	Solid	Percent Solids	Cool 4 deg C	ATCE02	K31	10/10/2024	Chemtech -SO
P4392-12	Q119-17A	Solid	Percent Solids	Cool 4 deg C	ATCE02	K31	10/10/2024	Chemtech -SO
P4392-13	Q119-17B	Solid	Percent Solids	Cool 4 deg C	ATCE02	K31	10/10/2024	Chemtech -SO
P4392-14	Q119-17C	Solid	Percent Solids	Cool 4 deg C	ATCE02	K31	10/10/2024	Chemtech -SO
P4392-15	Q119-18A	Solid	Percent Solids	Cool 4 deg C	ATCE02	K31	10/10/2024	Chemtech -SO
P4392-16	Q119-18B	Solid	Percent Solids	Cool 4 deg C	ATCE02	K31	10/10/2024	Chemtech -SO
P4392-17	Q119-18C	Solid	Percent Solids	Cool 4 deg C	ATCE02	K31	10/10/2024	Chemtech -SO
P4392-18	Q119-19A	Solid	Percent Solids	Cool 4 deg C	ATCE02	K31	10/10/2024	Chemtech -SO
P4392-19	Q119-19B	Solid	Percent Solids	Cool 4 deg C	ATCE02	K31	10/10/2024	Chemtech -SO
P4392-20	Q119-20A	Solid	Percent Solids	Cool 4 deg C	ATCE02	K31	10/10/2024	Chemtech -SO
P4392-21	Q119-20B	Solid	Percent Solids	Cool 4 deg C	ATCE02	K31	10/10/2024	Chemtech -SO
P4392-22	Q119-21A	Solid	Percent Solids	Cool 4 deg C	ATCE02	K31	10/10/2024	Chemtech -SO
P4392-23	Q119-21B	Solid	Percent Solids	Cool 4 deg C	ATCE02	K31	10/10/2024	Chemtech -SO
P4392-24	Q119-22A	Solid	Percent Solids	Cool 4 deg C	ATCE02	K31	10/10/2024	Chemtech -SO
P4392-25	Q119-22B	Solid	Percent Solids	Cool 4 deg C	ATCE02	K31	10/10/2024	Chemtech -SO

Date/Time 10-14-24 15:00 Date/Time 10-14-24 17:06
 Raw Sample Received by: SO WOC Raw Sample Received by: SO WOC
 Raw Sample Relinquished by: SO WOC Raw Sample Relinquished by: SO WOC

WORKLIST(Hardcopy Internal Chain)

VB 132917

WorkList Name : %1-101424

WorkList ID : 184382

Department : Wet-Chemistry

Date : 10-14-2024 07:40:26

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
P4392-26	Q119-23A	Solid	Percent Solids	Cool 4 deg C	ATCE02	K31	10/10/2024	Chemtech -SO
P4392-27	Q119-23B	Solid	Percent Solids	Cool 4 deg C	ATCE02	K31	10/10/2024	Chemtech -SO
P4392-28	Q119-24A	Solid	Percent Solids	Cool 4 deg C	ATCE02	K31	10/10/2024	Chemtech -SO
P4392-29	Q119-24B	Solid	Percent Solids	Cool 4 deg C	ATCE02	K31	10/10/2024	Chemtech -SO
P4392-30	Q119-DUP1	Solid	Percent Solids	Cool 4 deg C	ATCE02	K31	10/10/2024	Chemtech -SO
P4392-31	Q119-DUP2	Solid	Percent Solids	Cool 4 deg C	ATCE02	K31	10/10/2024	Chemtech -SO
P4392-32	Q119-DUP3	Solid	Percent Solids	Cool 4 deg C	ATCE02	K31	10/10/2024	Chemtech -SO
P4392-33	Q119-DUP4	Solid	Percent Solids	Cool 4 deg C	ATCE02	K31	10/10/2024	Chemtech -SO
P4392-34	Q119-DUP5	Solid	Percent Solids	Cool 4 deg C	ATCE02	K31	10/10/2024	Chemtech -SO
P4392-35	Q119-DUP6	Solid	Percent Solids	Cool 4 deg C	ATCE02	K31	10/10/2024	Chemtech -SO
P4392-36	Q119-DUP7	Solid	Percent Solids	Cool 4 deg C	ATCE02	K31	10/10/2024	Chemtech -SO
P4397-01	WB-301-TOP	Solid	Percent Solids	Cool 4 deg C	PORT06	K32	10/10/2024	Chemtech -SO
P4397-02	WB-301-BOT	Solid	Percent Solids	Cool 4 deg C	PORT06	K32	10/10/2024	Chemtech -SO
P4399-01	1009-A	Solid	Percent Solids	Cool 4 deg C	PSEG03	K31	10/14/2024	Chemtech -SO
P4400-01	NB-08-101424	Solid	Percent Solids	Cool 4 deg C	PSEG05	K32	10/14/2024	Chemtech -SO
P4400-02	NB-08-101424-E2	Solid	Percent Solids	Cool 4 deg C	PSEG05	K32	10/14/2024	Chemtech -SO
P4401-01	SU-03-101424	Solid	Percent Solids	Cool 4 deg C	PSEG05	K33	10/14/2024	Chemtech -SO
P4401-02	SU-03-101424E2	Solid	Percent Solids	Cool 4 deg C	PSEG05	K33	10/14/2024	Chemtech -SO
P4403-01	Hawthorne TP Soil	Solid	Percent Solids	Cool 4 deg C	PSEG03	K11	10/14/2024	Chemtech -SO
P4403-03	Hawthorne TP Soil	Solid	Percent Solids	Cool 4 deg C	PSEG03	K11	10/14/2024	Chemtech -SO

Date/Time 10-14-24 15:00

Raw Sample Received by: 80 wpc

Raw Sample Relinquished by: [Signature]

Date/Time 10-14-24

Raw Sample Received by: [Signature]

Raw Sample Relinquished by: 80 wpc

17:00

SOP ID: MNJDEP-EPH-7

Clean Up SOP #: N/A

Extraction Start Date : 10/14/2024

Matrix : Solid

Extraction Start Time : 08:32

Welgh By: EH

Extraction By: RS

Extraction End Date : 10/14/2024

Balance check: RJ

Filter By: RJ

Extraction End Time : 16:10

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

Standard Name	MLS USED	Concentration ug/mL	STD REF. # FROM LOG
Surrogate	1.0ML	100 PPM	PP23706
Fractionation Surrogate	1.0ML	100 PPM	PP23704
MDL	0.25ML	20 PPM	PP23539
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	EP2538
Baked Na2SO4	N/A	EP2546
Sand	N/A	E2865
Hexane	N/A	E3816
Methylene Chloride	N/A	E3817
EPH Cartridge	N/A	E3757
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:

1.5ML Vial Lot # 2210673.

KD Bath ID: N/A

Envap ID: NE VAP-02

KD Bath Temperature: N/A

Envap Temperature: 40 °C

Date / Time	Prepped Sample Relinquished By/Location	Received By/Location
10/14/24	RP (Ref Lab)	Y.P.PedH1143
16:15	Preparation Group	Analysis Group

Analytical Method: MNJDEP-EPH-7

Concentration Date: 10/14/2024

Sample ID	Client Sample ID	Test	g / mL	PH	Surr/Spike By:		Final Vol. (mL)	JarID	Comments	Prep Pos
					AddedBy	VerifiedBy				
PB164109BL	PB164109BL	EPH	30.01	N/A	ritesh	Evelyn	2			U5-1
PB164109BS	PB164109BS	EPH	30.02	N/A	ritesh	Evelyn	2			2
PB164109BS D	PB164109BSD	EPH	30.03	N/A	ritesh	Evelyn	2			3
P4368-03	MDL-SOIL-03-QT4-2024 0.25 mL	EPH	30.04	N/A	ritesh	Evelyn	2			4
P4397-01	WB-301-TOP	EPH	30.07	N/A	ritesh	Evelyn	2			5
P4397-02	WB-301-BOT	EPH	30.06	N/A	ritesh	Evelyn	2			6
P4397-02DUP	WB-301-BOTDUP	EPH	30.08	N/A	ritesh	Evelyn	2			U6-1
P4397-02MS	WB-301-BOTMS	EPH	30.04	N/A	ritesh	Evelyn	2			2
P4397-02MS D	WB-301-BOTMSD	EPH	30.05	N/A	ritesh	Evelyn	2			3

* Extracts relinquished on the same date as received.

10/14/24

SOP ID:	MNJDEP-EPH-7		
Clean Up SOP #:	N/A	Extraction Start Date :	10/14/2024
Matrix :	Solid	Extraction Start Time :	08:32
Welgh By:	EH	Extraction By:	RS
Balance check:	RJ	Filter By:	RJ
Balance ID:	EX-SC-2	pH Meter ID:	N/A
pH Strip Lot#:	N/A	Hood ID:	3,7
Extraction Method:	☐ Seperatory Funnel ☐ Continious Liquid/Liquid ☐ Sonication ☐ Waste Dilution ☒ Soxhlet		
Extraction End Date :	10/14/2024		
Extraction End Time :	16:10		
Concentration By:	EH		
Supervisor By :	rajesh		

Standarded Name	MLS USED	Concentration ug/mL	STD REF. # FROM LOG
Surrogate	1.0ML	100 PPM	PP23706
Fractionation Surrogate	1.0ML	100 PPM	PP23704
MDL	0.25ML	20 PPM	PP23539
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	EP2538
Baked Na2SO4	N/A	EP2546
Sand	N/A	E2865
Hexane	N/A	E3816
Methylene Chloride	N/A	E3817
EPH Cartridge	N/A	E3757
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:

1.5ML Vial Lot # 2210673.

KD Bath ID:	N/A	Envap ID:	NE VAP-02
KD Bath Temperature:	N/A	Envap Temperature:	40 °C

Date / Time	Prepped Sample Relinquished By/Location	Received By/Location
10/14/24	RP (Ref Lab)	Y.P.PedH1143
16:15	Preparation Group	Analysis Group

Analytical Method: MNJDEP-EPH-7

Concentration Date: 10/14/2024

Sample ID	Client Sample ID	Test	g / mL	PH	Surr/Spike By:		Final Vol. (mL)	JarID	Comments	Prep Pos
					AddedBy	VerifiedBy				
PB164109BL	PB164109BL	EPH	30.01	N/A	ritesh	Evelyn	2			U5-1
PB164109BS	PB164109BS	EPH	30.02	N/A	ritesh	Evelyn	2			2
PB164109BS D	PB164109BSD	EPH	30.03	N/A	ritesh	Evelyn	2			3
P4368-03	MDL-SOIL-03-QT4-2024 0.25 mL	EPH	30.04	N/A	ritesh	Evelyn	2			4
P4397-01	WB-301-TOP	EPH	30.07	N/A	ritesh	Evelyn	2			5
P4397-02	WB-301-BOT	EPH	30.06	N/A	ritesh	Evelyn	2			6
P4397-02DUP	WB-301-BOTDUP	EPH	30.08	N/A	ritesh	Evelyn	2			U6-1
P4397-02MS	WB-301-BOTMS	EPH	30.04	N/A	ritesh	Evelyn	2			2
P4397-02MS D	WB-301-BOTMSD	EPH	30.05	N/A	ritesh	Evelyn	2			3

* Extracts relinquished on the same date as received.



Prep Standard - Chemical Standard Summary

Order ID : P4397

Test : EPH

Prepbatch ID : PB164109,

Sequence ID/Qc Batch ID: FC101424AL,FD101424AR,

Standard ID :

EP2538,EP2546,PP23429,PP23430,PP23519,PP23520,PP23521,PP23522,PP23523,PP23534,PP23538,PP23539,PP23644,PP23645,PP23646,PP23647,PP23648,PP23649,PP23650,PP23704,PP23706,

Chemical ID :

E2865,E3551,E3743,E3768,E3788,E3789,E3793,E3794,E3816,E3817,P10259,P11137,P11263,P12362,P12885,P12972,P13004,P13005,P13017,P13018,P13019,P13020,P13022,P13044,P13045,P13047,P13048,P13142,P13258,P13259,P13278,P9826,V11252,V14143,W3112,

Extractions STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
3868	METHELENE CHLORIDE+ACETONE	EP2538	09/17/2024	03/11/2025	Rajesh Parikh	None	None	RUPESHKUMAR SHAH 09/17/2024

FROM 8000.00000ml of E3793 + 8000.00000ml of E3794 = Final Quantity: 1600.000 ml

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
3923	Baked Sodium Sulfate	EP2546	10/11/2024	01/03/2025	RUPESHKUMAR SHAH	Extraction_SC ALE_2 (EX-SC-2)	None	Rajesh Parikh 10/11/2024

FROM 4000.00000gram of E3551 = Final Quantity: 4000.000 gram

Pest/Pcb STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
782	100 PPM Aromatic HC Working STD	PP23429	05/21/2024	11/16/2024	Yogesh Patel	None	None	Ankita Jodhani
								05/24/2024

FROM 0.25000ml of P13004 + 0.62500ml of P13259 + 1.25000ml of P10259 + 22.87500ml of E3743 = Final Quantity: 25.000 ml

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
2945	100 PPM Aromatic HC Working STD (Absolute)	PP23430	05/21/2024	11/16/2024	Yogesh Patel	None	None	Ankita Jodhani
								05/24/2024

FROM 0.25000ml of P13005 + 0.62500ml of P13258 + 1.25000ml of P11137 + 22.87500ml of E3743 = Final Quantity: 25.000 ml

Pest/Pcb STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
787	50 PPM Aromatic HC STD	PP23519	07/15/2024	11/16/2024	Yogesh Patel	None	None	Ankita Jodhani
07/16/2024								

FROM 0.50000ml of E3768 + 0.50000ml of PP23429 = Final Quantity: 1.000 ml

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
788	20 PPM Aromatic HC STD	PP23520	07/15/2024	11/16/2024	Yogesh Patel	None	None	Ankita Jodhani
07/16/2024								

FROM 0.80000ml of E3768 + 0.20000ml of PP23429 = Final Quantity: 1.000 ml

Pest/Pcb STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
789	10 PPM Aromatic HC STD	PP23521	07/15/2024	11/16/2024	Yogesh Patel	None	None	Ankita Jodhani
								07/16/2024

FROM 0.90000ml of E3768 + 0.10000ml of PP23429 = Final Quantity: 1.000 ml

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
790	5 PPM Aromatic HC STD	PP23522	07/15/2024	11/16/2024	Yogesh Patel	None	None	Ankita Jodhani
								07/16/2024

FROM 0.90000ml of E3768 + 0.10000ml of PP23519 = Final Quantity: 1.000 ml

Pest/Pcb STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
2946	20 PPM Aromatic HC STD ICV (Absolute)	PP23523	07/15/2024	11/16/2024	Yogesh Patel	None	None	Ankita Jodhani
								07/16/2024

FROM 0.80000ml of E3768 + 0.20000ml of PP23430 = Final Quantity: 1.000 ml

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
231	10 PPM GRO STD 1ST SOURCE	PP23534	07/29/2024	01/22/2025	Yogesh Patel	None	None	Ankita Jodhani
								07/30/2024

FROM 0.11100ml of P9826 + 9.89000ml of V14143 = Final Quantity: 10.000 ml

Pest/Pcb STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
3619	25 PPM AAA-TFT Surg	PP23538	07/29/2024	01/22/2025	Yogesh Patel	None	None	Ankita Jodhani
07/30/2024								

FROM 0.10000ml of V11252 + 9.90000ml of V14143 = Final Quantity: 10.000 ml

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
2589	20 PPM NJ EPH SPIKE for LOD-LOQ	PP23539	07/29/2024	11/13/2024	Yogesh Patel	None	None	Ankita Jodhani
07/30/2024								

FROM 1.00000ml of P12885 + 1.00000ml of P13142 + 8.00000ml of P11263 = Final Quantity: 10.000 ml

Pest/Pcb STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
781	100 PPM Aliphatic HC Working STD (Restek)	PP23644	09/09/2024	02/13/2025	Yogesh Patel	None	None	Ankita Jodhani
								09/10/2024

FROM 0.25000ml of P12972 + 0.25000ml of P13017 + 1.25000ml of P12362 + 23.25000ml of E3789 = Final Quantity: 25.000 ml

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
2900	100 PPM Aliphatic HC STD (Absolute)	PP23645	09/09/2024	02/13/2025	Yogesh Patel	None	None	Ankita Jodhani
								09/10/2024

FROM 0.25000ml of P12972 + 0.25000ml of P13017 + 2.50000ml of P13278 + 22.00000ml of E3789 = Final Quantity: 25.000 ml

Pest/Pcb STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
783	50 PPM Aliphatic HC STD	PP23646	09/09/2024	02/13/2025	Yogesh Patel	None	None	Ankita Jodhani
								09/10/2024

FROM 0.50000ml of E3789 + 0.50000ml of PP23644 = Final Quantity: 1.000 ml

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
784	20 PPM Aliphatic HC STD	PP23647	09/09/2024	02/13/2025	Yogesh Patel	None	None	Ankita Jodhani
								09/10/2024

FROM 0.80000ml of E3789 + 0.20000ml of PP23644 = Final Quantity: 1.000 ml

Pest/Pcb STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
785	10 PPM Aliphatic HC STD	PP23648	09/09/2024	02/13/2025	Yogesh Patel	None	None	Ankita Jodhani
09/10/2024								

FROM 0.90000ml of E3789 + 0.10000ml of PP23644 = Final Quantity: 1.000 ml

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
786	5 PPM Aliphatic HC STD	PP23649	09/09/2024	02/13/2025	Yogesh Patel	None	None	Ankita Jodhani
09/10/2024								

FROM 0.90000ml of E3789 + 0.10000ml of PP23646 = Final Quantity: 1.000 ml

Pest/Pcb STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
2901	20 PPM Aliphatic HC STD ICV (Absolute)	PP23650	09/09/2024	02/13/2025	Yogesh Patel	None	None	Ankita Jodhani
								09/10/2024

FROM 0.80000ml of E3789 + 0.20000ml of PP23645 = Final Quantity: 1.000 ml

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
234	100 PPB ICC GRO STD	PP23704	09/24/2024	01/22/2025	Yogesh Patel	None	None	Ankita Jodhani
								10/01/2024

FROM 5.00000ml of W3112 + 0.02000ml of PP23538 + 0.05000ml of PP23534 = Final Quantity: 5.070 ml



<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
1339	100 PPM NJEPH Surrogate Spike	PP23706	09/26/2024	02/13/2025	Yogesh Patel	None	None	Ankita Jodhani 10/01/2024
<u>FROM</u>	1.25000ml of P13018 + 1.25000ml of P13019 + 1.25000ml of P13020 + 1.25000ml of P13022 + 1.25000ml of P13044 + 1.25000ml of P13045 + 1.25000ml of P13047 + 1.25000ml of P13048 + 490.00000ml of E3788 = Final Quantity: 500.000 ml							

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-3382-05 / Sand, Purified (cs/4x2.5kg)	0000243821	12/31/2024	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	01/03/2025	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)	24C0162011	11/16/2024	05/16/2024 / Rajesh	04/26/2024 / Rajesh	E3743

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)	24E2462004	01/08/2025	07/08/2024 / Rajesh	06/21/2024 / Rajesh	E3768

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)	23H1462005	04/01/2025	08/13/2024 / Rajesh	08/13/2024 / Rajesh	E3788

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9262-03 / Hexane, Ultra-Resi (cs/4x4L)	24C1862008	02/13/2025	08/13/2024 / Rajesh	08/13/2024 / Rajesh	E3789

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	9005-05 / Acetone Ultra (cs/4x4L)	24E0761004	03/11/2025	09/12/2024 / Rajesh	09/11/2024 / Rajesh	E3793

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)	24G2362009	03/17/2025	09/17/2024 / Rajesh	09/03/2024 / Rajesh	E3794

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9262-03 / Hexane, Ultra-Resi (cs/4x4L)	24G1962003	04/10/2025	10/10/2024 / Rajesh	10/04/2024 / Rajesh	E3816

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)	24H2762011	04/09/2025	10/09/2024 / Rajesh	10/09/2024 / Rajesh	E3817

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30541 / Custom NJEPH Aromatics Calibration Standard	A0165529	11/21/2024	05/21/2024 / yogesh	01/26/2021 / dhaval	P10259

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	95709 / NJ EPH Aromatic Hydrocarbons, 2000 PPM	060420	07/08/2024	01/08/2024 / yogesh	10/29/2021 / Abdul	P11137

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	HP782 / Pentane, 1L	21080835	11/13/2024	12/16/2021 / Ankita	12/16/2021 / Ankita	P11263

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30540 / Custom NJEPH Aliphatics Calibration Standard	A0190424	03/09/2025	09/09/2024 / yogesh	03/16/2023 / Yogesh	P12362

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30542 / Custom NJEPH Aliphatics Matrix Spike Mix	A0200008	01/29/2025	07/29/2024 / yogesh	10/17/2023 / Yogesh	P12885

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31098 / 1-Chlorooctadecane Standard	A0204989	03/09/2025	09/09/2024 / yogesh	12/20/2023 / Yogesh	P12972

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31097 / o-Terphenyl Standard	A0204177	11/21/2024	05/21/2024 / yogesh	12/21/2023 / Yogesh	P13004

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31097 / o-Terphenyl Standard	A0204177	11/21/2024	05/21/2024 / yogesh	12/21/2023 / Yogesh	P13005

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31097 / o-Terphenyl Standard	A0204177	03/09/2025	09/09/2024 / yogesh	12/21/2023 / Yogesh	P13017

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31097 / o-Terphenyl Standard	A0204177	03/26/2025	09/26/2024 / yogesh	12/21/2023 / Yogesh	P13018

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31097 / o-Terphenyl Standard	A0204177	03/26/2025	09/26/2024 / yogesh	12/21/2023 / Yogesh	P13019

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31097 / o-Terphenyl Standard	A0204177	03/26/2025	09/26/2024 / yogesh	12/21/2023 / Yogesh	P13020

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31097 / o-Terphenyl Standard	A0204177	03/26/2025	09/26/2024 / yogesh	12/21/2023 / Yogesh	P13022

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31098 / 1-Chlorooctadecane Standard	A0200707	03/26/2025	09/26/2024 / yogesh	12/26/2023 / Yogesh	P13044

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31098 / 1-Chlorooctadecane Standard	A0200707	03/26/2025	09/26/2024 / yogesh	12/26/2023 / Yogesh	P13045

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31098 / 1-Chlorooctadecane Standard	A0200707	03/26/2025	09/26/2024 / yogesh	12/26/2023 / Yogesh	P13047

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31098 / 1-Chlorooctadecane Standard	A0200707	03/26/2025	09/26/2024 / yogesh	12/26/2023 / Yogesh	P13048

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30543 / Custom NJEPH Aromatics Matrix Spike Mix	A0204020	01/29/2025	07/29/2024 / yogesh	01/12/2024 / Yogesh	P13142

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31480 / MA Fractionation Surrogate Spike Mix	A0206496	11/21/2024	05/21/2024 / yogesh	02/20/2024 / yogesh	P13258

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31480 / MA Fractionation Surrogate Spike Mix	A0206496	11/21/2024	05/21/2024 / yogesh	02/20/2024 / yogesh	P13259

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	95899 / NJ EPH Aliphatic n-Hydrocarbons-Revised, 1000 PPM	040524	03/09/2025	09/09/2024 / yogesh	04/11/2024 / yogesh	P13278

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30065 / GRO Mix (EPA)	A0155991	01/25/2025	07/25/2024 / yogesh	09/11/2020 / DHAVAL	P9826

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30068 / VOA Mix, a, a, a-trifluorotoluene 2500uq/ml, P&T methanol, 1ml	A0158026	05/31/2028	11/27/2023 / yogesh	09/11/2020 / DHAVAL	V11252

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA9077-02 / Methanol, Purge/Trap (cs=6x1L)	22L0562016	01/22/2025	07/22/2024 / SAM	02/06/2024 / SAM	V14143

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	DIW / DI Water	Daily Lab-Certified	07/03/2029	07/03/2024 / Iwona	07/03/2024 / Iwona	W3112



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

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

DD
06/17/2021

Catalog No. : 30541 **Lot No.:** A0172403

Description : NJEPH Aromatics Calibration Standard

NJEPH Aromatics Calibration Standard 2,000µg/mL, Methylene Chloride, 1mL/ampul

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

Expiration Date : April 30, 2027 **Storage:** 10°C or colder

Handling: Sonication required. Mix is photosensitive. **Ship:** Ambient

P10758
TO
P10762
- (S)

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)
1	1,2,3-Trimethylbenzene CAS # 526-73-8 (Lot 8776.10-36) Purity 98%	2,010.0 µg/mL	+/- 11.7957 µg/mL Gravimetric +/- 90.5449 µg/mL Unstressed +/- 100.4678 µg/mL Stressed
2	Naphthalene CAS # 91-20-3 (Lot MKBZ8680V) Purity 99%	2,006.0 µg/mL	+/- 11.7723 µg/mL Gravimetric +/- 90.3656 µg/mL Unstressed +/- 100.2689 µg/mL Stressed
3	2-Methylnaphthalene CAS # 91-57-6 (Lot STBG8884) Purity 99%	2,008.0 µg/mL	+/- 11.7841 µg/mL Gravimetric +/- 90.4557 µg/mL Unstressed +/- 100.3688 µg/mL Stressed
4	Acenaphthylene CAS # 208-96-8 (Lot N19U) Purity 95%	2,002.6 µg/mL	+/- 11.7524 µg/mL Gravimetric +/- 90.2125 µg/mL Unstressed +/- 100.0989 µg/mL Stressed
5	Acenaphthene CAS # 83-32-9 (Lot MKCN0610) Purity 99%	2,000.0 µg/mL	+/- 11.7371 µg/mL Gravimetric +/- 90.0953 µg/mL Unstressed +/- 99.9689 µg/mL Stressed
6	Fluorene CAS # 86-73-7 (Lot 10217947) Purity 99%	2,016.0 µg/mL	+/- 11.8310 µg/mL Gravimetric +/- 90.8161 µg/mL Unstressed +/- 100.7687 µg/mL Stressed
7	Phenanthrene CAS # 85-01-8 (Lot MKCL7390) Purity 99%	2,012.0 µg/mL	+/- 11.8075 µg/mL Gravimetric +/- 90.6359 µg/mL Unstressed +/- 100.5688 µg/mL Stressed

8	Anthracene			2,002.0	µg/mL	+/-	11.7489	µg/mL	Gravimetric
	CAS #	120-12-7	(Lot MKCM0015)			+/-	90.1854	µg/mL	Unstressed
	Purity	99%				+/-	100.0689	µg/mL	Stressed
9	Fluoranthene			2,003.0	µg/mL	+/-	11.7547	µg/mL	Gravimetric
	CAS #	206-44-0	(Lot MKCF7378)			+/-	90.2305	µg/mL	Unstressed
	Purity	99%				+/-	100.1189	µg/mL	Stressed
10	Pyrene			2,011.0	µg/mL	+/-	11.8017	µg/mL	Gravimetric
	CAS #	129-00-0	(Lot BCCB9880)			+/-	90.5909	µg/mL	Unstressed
	Purity	99%				+/-	100.5188	µg/mL	Stressed
11	Benz(a)anthracene			2,011.0	µg/mL	+/-	11.8014	µg/mL	Gravimetric
	CAS #	56-55-3	(Lot P0022018-0505)			+/-	90.5890	µg/mL	Unstressed
	Purity	98%				+/-	100.5168	µg/mL	Stressed
12	Chrysene			2,000.0	µg/mL	+/-	11.7371	µg/mL	Gravimetric
	CAS #	218-01-9	(Lot STBJ8094)			+/-	90.0953	µg/mL	Unstressed
	Purity	99%				+/-	99.9689	µg/mL	Stressed
13	Benzo(b)fluoranthene			2,006.0	µg/mL	+/-	11.7721	µg/mL	Gravimetric
	CAS #	205-99-2	(Lot 012012B)			+/-	90.3638	µg/mL	Unstressed
	Purity	97%				+/-	100.2669	µg/mL	Stressed
14	Benzo(k)fluoranthene			2,010.0	µg/mL	+/-	11.7958	µg/mL	Gravimetric
	CAS #	207-08-9	(Lot 012019K)			+/-	90.5458	µg/mL	Unstressed
	Purity	99%				+/-	100.4688	µg/mL	Stressed
15	Benzo(a)pyrene			2,004.0	µg/mL	+/-	11.7606	µg/mL	Gravimetric
	CAS #	50-32-8	(Lot RP210113)			+/-	90.2755	µg/mL	Unstressed
	Purity	99%				+/-	100.1689	µg/mL	Stressed
16	Indeno(1,2,3-cd)pyrene			2,010.0	µg/mL	+/-	11.7958	µg/mL	Gravimetric
	CAS #	193-39-5	(Lot 1-RAK-33-4)			+/-	90.5458	µg/mL	Unstressed
	Purity	99%				+/-	100.4688	µg/mL	Stressed
17	Dibenz(a,h)anthracene			2,017.0	µg/mL	+/-	11.8369	µg/mL	Gravimetric
	CAS #	53-70-3	(Lot ER032211-01)			+/-	90.8611	µg/mL	Unstressed
	Purity	99%				+/-	100.8187	µg/mL	Stressed
18	Benzo(g,h,i)perylene			2,003.0	µg/mL	+/-	11.7547	µg/mL	Gravimetric
	CAS #	191-24-2	(Lot 8GFYJ)			+/-	90.2305	µg/mL	Unstressed
	Purity	99%				+/-	100.1189	µg/mL	Stressed
Solvent:	Methylene chloride								
	CAS #	75-09-2							
	Purity	99%							

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

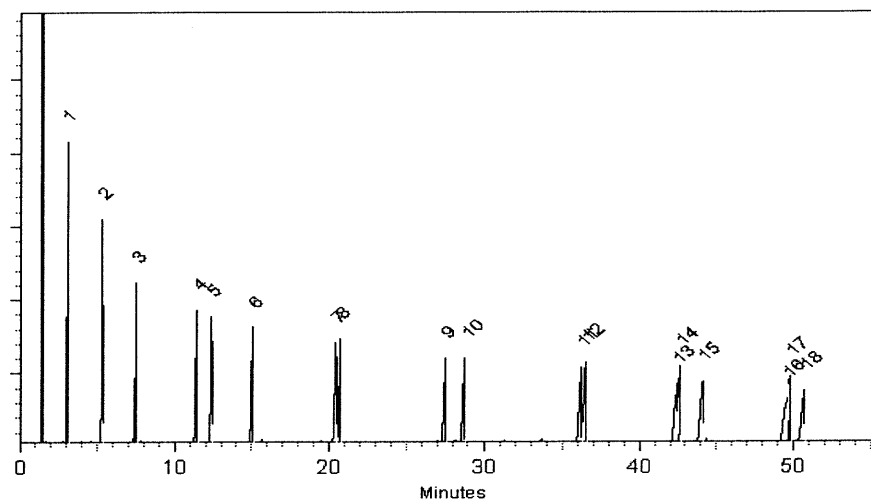
Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
100°C (hold 1 min.) to 330°C
@ 4°C/min. (hold 5 min.)

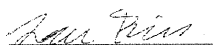
Inj. Temp:
250°C

Det. Temp:
330°C

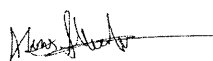
Det. Type:
FID



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.


Lane Kibe - Mix Technician

Date Mixed: 14-May-2021 Balance: B345965662


Alexis Shelow - Operations Tech I

Date Passed: 18-May-2021

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

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

Certified Uncertainty Value Notes:

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

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

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

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

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

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

Manufacturing Notes:

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

Handling Notes:

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

Sand
Purified
Washed and Ignited



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

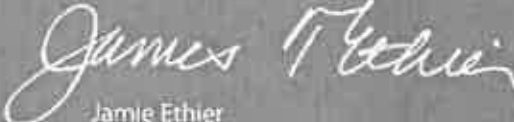
Certificate of Analysis

Test	Specification	Result
Substances Soluble in HCl	$\leq 0.16\%$	0.01

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

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

E 2865


Jamie Ethier
Vice President Global Quality

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

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



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

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

CERTIFICATE OF ANALYSIS

PRODUCT :	SODIUM SULFATE CRYSTALS ANHYDROUS		
QUALITY :	ACS (CODE RMB3375)	FORMULA :	Na ₂ SO ₄
SPECIFICATION NUMBER :	6399	RELEASE DATE:	ABR/21/2023
LOT NUMBER :	313201		

TEST	SPECIFICATIONS	LOT VALUES
Assay (Na ₂ SO ₄)	Min. 99.0%	99.7 %
pH of a 5% solution at 25°C	5.2 - 9.2	6.1
Insoluble matter	Max. 0.01%	0.005 %
Loss on ignition	Max. 0.5%	0.1 %
Chloride (Cl)	Max. 0.001%	<0.001 %
Nitrogen compounds (as N)	Max. 5 ppm	<5 ppm
Phosphate (PO ₄)	Max. 0.001%	<0.001 %
Heavy metals (as Pb)	Max. 5 ppm	<5 ppm
Iron (Fe)	Max. 0.001%	<0.001 %
Calcium (Ca)	Max. 0.01%	0.002 %
Magnesium (Mg)	Max. 0.005%	0.001 %
Potassium (K)	Max. 0.008%	0.003 %
Extraction-concentration suitability	Passes test	Passes test
Appearance	Passes test	Passes test
Identification	Passes test	Passes test
Solubility and foreign matter	Passes test	Passes test
Retained on US Standard No. 10 sieve	Max. 1%	0.1 %
Retained on US Standard No. 60 sieve	Min. 94%	97.3 %
Through US Standard No. 60 sieve	Max. 5%	2.5 %
Through US Standard No. 100 sieve	Max. 10%	0.1 %

COMMENTS

QC: PhC Irma Belmares

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

Recd. by R3 on 7/24/23 E 3551

RC-02-01, Ed. 3

Material No.: 92E
Batch No.: 24C016
Manufactured Date: 2024-C
Expiration Date: 2025-C
Revision I

Certificate of Analysis

Test	Specification	Result
FID-Sensitive Impurities (as 2-Octanol) Single Impurity Peak (ng/mL)	≤ 5	< 1
ECD Sensitive Impurities (as Heptachlor Epoxide) Single Peak (pg/mL)	≤ 10	2
Assay (CH_2Cl_2) (by GC, exclusive of preservative, corrected for water)	$\geq 99.8 \%$	100.0 %
Color (APHA)	≤ 10	10
Residue after Evaporation	$\leq 1.0 \text{ ppm}$	0.2 ppm
Titration Acid ($\mu\text{eq/g}$)	≤ 0.3	< 0.1
Chloride (Cl)	$\leq 10 \text{ ppm}$	< 5 ppm
Water (by KF, coulometric)	$\leq 0.02 \%$	< 0.01 %

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

Country of Origin: USA
Packaging Site: Phillipsburg Mfg Ctr & DC
Manufacturer source batch: MG24A04224

E 3743


Ken Koehnlein
Sr. Manager, Quality Assurance

For questions on this Certificate of Analysis please contact Technical Services at 855.282.6867 or +1.610.386.1700
Avantor Performance Materials, LLC

100 Matsonford Rd, Suite 200, Radnor, PA 19087, U.S.A. Phone 610.386.1700
Page 1 of 1

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



Material No.: 9266-A4
Batch No.: 24E2462004
Manufactured Date: 2024-04-10
Expiration Date: 2025-07-10
Revision No.: 0

Certificate of Analysis

Test	Specification	Result
FID-Sensitive Impurities (as 2-Octanol) Single Impurity Peak (ng/mL)	≤ 5	3
ECD Sensitive Impurities (as Heptachlor Epoxide) Single Peak (pg/mL)	≤ 10	3
Assay (CH_2Cl_2) (by GC, exclusive of preservative, corrected for water)	$\geq 99.8 \%$	100.0 %
Color (APHA)	≤ 10	5
Residue after Evaporation	$\leq 1.0 \text{ ppm}$	0.1 ppm
Titration Acid ($\mu\text{eq/g}$)	≤ 0.3	< 0.1
Chloride (Cl)	$\leq 10 \text{ ppm}$	5 ppm
Water (by KF, coulometric)	$\leq 0.02 \%$	< 0.01 %

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

Country of Origin: USA
Packaging Site: Phillipsburg Mfg Ctr & DC
Manufacturer source batch: MG24D10725

E 3768

Jamie Croak
Director Quality Operations, Bioscience Production

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

Avantor Performance Materials, LLC

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

Acetone

BAKER RESI-ANALYZED® Reagent
For Organic Residue Analysis

Avantor™



Material No.: 9254-03
Batch No.: 23H1462005
Manufactured Date: 2023-07-26
Expiration Date: 2026-07-25
Revision No.: 0

Certificate of Analysis

Test	Specification	Result
Assay ((CH ₃) ₂ CO) (by GC, corrected for water)	≥ 99.4 %	99.7 %
Color (APHA)	≤ 10	5
Residue after Evaporation	≤ 1.0 ppm	0.3 ppm
Substances Reducing Permanganate	Passes Test	Passes Test
Titration Acid (μeq/g)	≤ 0.3	0.1
Titration Base (μeq/g)	≤ 0.6	< 0.1
Water (H ₂ O)	≤ 0.5 %	0.3 %
FID-Sensitive Impurities (as 2-Octanol) Single Impurity Peak (ng/mL)	≤ 5	< 1
ECD Sensitive Impurities (as Heptachlor Epoxide) Single Peak (pg/mL)	≤ 10	1

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

Country of Origin: USA
Packaging Site: Phillipsburg Mfg Ctr & DC

Recd by RP on 8/13/24

E 3788

Ken Koehnlein
Sr. Manager, Quality Assurance

Material No.: 926
Batch No.: 24C186
Manufactured Date: 2024-0
Expiration Date: 2025-0
Revision N

Certificate of Analysis

Test	Specification	Result
FID-Sensitive Impurities (as 2-Octanol) Single Impurity Peak (ng/mL)	≤ 5	< 1
ECD Sensitive Impurities (as Heptachlor Epoxide) Single Peak (pg/mL)	≤ 10	1
ECD-Sensitive Impurities (as Ethylene Dibromide) - Single Impurity Peak (ng/mL)	≤ 5	1
Assay (Total Saturated C ₆ Isomers) (by GC, corrected for water)	≥ 99.5 %	99.7 %
Assay (as n-Hexane) (by GC, corrected for water)	≥ 95 %	98 %
Color (APHA)	≤ 10	5
Residue after Evaporation	≤ 1.0 ppm	0.4 ppm
Substances Darkened by H ₂ SO ₄	Passes Test	Passes Test
Water (by KF, coulometric)	≤ 0.05 %	< 0.01 %

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

Country of Origin: USA
Packaging Site: Phillipsburg Mfg Ctr & DC

Recd. by RP on 8/13/24

E 3789



Jamie Croak
Director Quality Operations, Bioscience Products

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

Avantor Performance Materials, LLC

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

Acetone
CMOS

avantor™



Material No.: 9005-05
Batch No.: 24E0761004
Manufactured Date: 2024-05-02
Retest Date: 2029-05-01
Revision No.: 0

Certificate of Analysis

Test	Specification	Result
Assay ((CH ₃) ₂ CO) (by GC, corrected for water)	≥ 99.5 %	99.8 %
Color (APHA)	≤ 10	< 5
Residue after Evaporation	≤ 5 ppm	< 1 ppm
Titration Acid (μeq/g)	≤ 0.3	0.1
Titration Base (μeq/g)	≤ 0.5	0.1
Water (H ₂ O)	≤ 0.5 %	0.1 %
Solubility in H ₂ O	Passes Test	Passes Test
Chloride (Cl)	≤ 0.2 ppm	< 0.2 ppm
Phosphate (PO ₄)	≤ 0.05 ppm	< 0.05 ppm
Trace Impurities – Aluminum (Al)	≤ 50.0 ppb	< 5.0 ppb
Arsenic and Antimony (as As)	≤ 5.0 ppb	< 5.0 ppb
Trace Impurities – Barium (Ba)	≤ 20.0 ppb	< 1.0 ppb
Trace Impurities – Beryllium (Be)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Bismuth (Bi)	≤ 20.0 ppb	< 10.0 ppb
Trace Impurities – Boron (B)	≤ 10.0 ppb	< 5.0 ppb
Trace Impurities – Cadmium (Cd)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Calcium (Ca)	≤ 25.0 ppb	3.6 ppb
Trace Impurities – Chromium (Cr)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Cobalt (Co)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Copper (Cu)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Gallium (Ga)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Germanium (Ge)	≤ 10.0 ppb	< 10.0 ppb
Trace Impurities – Gold (Au)	≤ 20 ppb	< 5 ppb
Trace Impurities – Iron (Fe)	≤ 20.0 ppb	< 1.0 ppb
Trace Impurities – Lead (Pb)	≤ 10.0 ppb	< 10.0 ppb
Trace Impurities – Lithium (Li)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Magnesium (Mg)	≤ 20 ppb	< 1 ppb
Trace Impurities – Manganese (Mn)	≤ 10.0 ppb	< 1.0 ppb

>>> Continued on page 2 >>>

Recd. by RP on 9/11/24

E3793

Acetone
CMOS



Material No.: 9005-05
Batch No.: 24E0761004

Test	Specification	Result
Trace Impurities – Molybdenum (Mo)	≤ 10.0 ppb	< 5.0 ppb
Trace Impurities – Nickel (Ni)	≤ 10.0 ppb	< 5.0 ppb
Trace Impurities – Niobium (Nb)	≤ 50.0 ppb	< 1.0 ppb
Trace Impurities – Potassium (K)	≤ 10.0 ppb	< 10.0 ppb
Trace Impurities – Silicon (Si)	≤ 50 ppb	< 10 ppb
Trace Impurities – Silver (Ag)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Sodium (Na)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Strontium (Sr)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Tantalum (Ta)	≤ 50.0 ppb	< 5.0 ppb
Trace Impurities – Thallium (Tl)	≤ 10.0 ppb	< 5.0 ppb
Trace Impurities – Tin (Sn)	≤ 20.0 ppb	< 10.0 ppb
Trace Impurities – Titanium (Ti)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Vanadium (V)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Zinc (Zn)	≤ 20.0 ppb	7.9 ppb
Trace Impurities – Zirconium (Zr)	≤ 10.0 ppb	< 1.0 ppb
Particle Count – 0.5 µm and greater (Rion KS42AF)	≤ 100 par/ml	8 par/ml
Particle Count – 1.0 µm and greater (Rion KS42AF)	≤ 8 par/ml	2 par/ml

>>> Continued on page 3 >>>

Acetone
CMOS



Material No.: 9005-05
Batch No.: 24E0761004

Test	Specification	Result
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For Microelectronic Use
Country of Origin: USA
Packaging Site: Paris Mfg Ctr & DC

Michelle Bales
Sr. Manager, Quality Assurance

n-Hexane 95%
ULTRA RESI-ANALYZED
For Organic Residue Analysis



Material No.: 9262-03
Batch No.: 24G1962003
Manufactured Date: 2024-05-23
Expiration Date: 2025-08-22
Revision No.: 0

Certificate of Analysis

Test	Specification	Result
FID-Sensitive Impurities (as 2-Octanol) Single Impurity Peak (ng/mL)	≤ 5	3
ECD Sensitive Impurities (as Heptachlor Epoxide) Single Peak (pg/mL)	≤ 10	1
ECD-Sensitive Impurities (as Ethylene Dibromide) - Single Impurity Peak (ng/mL)	≤ 5	1
Assay (Total Saturated C ₆ Isomers) (by GC, corrected for water)	$\geq 99.5 \%$	99.7 %
Assay (as n-Hexane) (by GC, corrected for water)	$\geq 95 \%$	98 %
Color (APHA)	≤ 10	5
Residue after Evaporation	≤ 1.0 ppm	0.1 ppm
Substances Darkened by H ₂ SO ₄	Passes Test	Passes Test
Water (by KF, coulometric)	$\leq 0.05 \%$	< 0.01 %

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

Country of Origin: USA
Packaging Site: Phillipsburg Mfg Ctr & DC

E3816

Rec'd by RP on 10/4/24

Jamie Croak
Director Quality Operations, Bioscience Production

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

Avantor Performance Materials, LLC

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

Page 1 of 1

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



Material No.: 9266-A4

Batch No.: 24H2762011

Manufactured Date: 2024-06-05

Expiration Date: 2025-09-04

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

For Laboratory, Research, or Manufacturing Use

MEETS SPECIFICATIONS WITHIN THE EXPIRATION PERIOD

Country of Origin: United States

Packaging Site: Phillipsburg Mfg Ctr & DC

E 3817

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

Methanol
ULTRA RESI-ANALYZED
For Purge and Trap Analysis



Material No.: 9077-02
Batch No.: 22L0562016
Manufactured Date: 2022-10-26
Expiration Date: 2025-10-25
Revision No.: 0

Certificate of Analysis

Test	Specification	Result
Assay (CH ₃ OH) (by GC, corrected for water)	≥ 99.9 %	100.0 %
Residue after Evaporation	≤ 1.0 ppm	0.2 ppm
Titration Acid (μeq/g)	≤ 0.3	0.2
Titration Base (μeq/g)	≤ 0.10	0.03
Water (by KF, coulometric)	≤ 0.08 %	< 0.01 %
Volatile Organic Trace Analysis - Below EPA 8260B CRQL	Conforms	Conforms

For Laboratory, Research, or Manufacturing Use
Performance Tested for Use in EPA Methods
500 Series for Drinking Water
600 Series for Wastewater
846 for Solid Waste

Country of Origin: USA
Packaging Site: Phillipsburg Mfg Ctr & DC

Jamie Ethier
Vice President Global Quality



CERTIFIED WEIGHT REPORT

Part Number: 95709
Lot Number: 060420
Description: NJ EPH Aromatic Hydrocarbons
18 components
Expiration Date: 060425
Recommended Storage: Refrigerate (4 °C)
Nominal Concentration (µg/mL): 2000
NIST Test ID#: 23060
Weight(s) shown below were combined and diluted to (mL): 500.0
Balance Uncertainty: 5E-05
Flask Uncertainty: 0.058

Solvent(s): Methylene chloride
Lot# 104923

Formulated By:	Benson Chan	060420
Reviewed By:	Pedro L. Renteria	060420
		DATE

Compound	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty Purity	Target Weight(g)	Actual Weight(g)	Actual Conc (µg/mL)	Expanded Uncertainty (±) (µg/mL)	CAS#	SDS Information (Solvent Safety Info. On Attached pg.)	LD50
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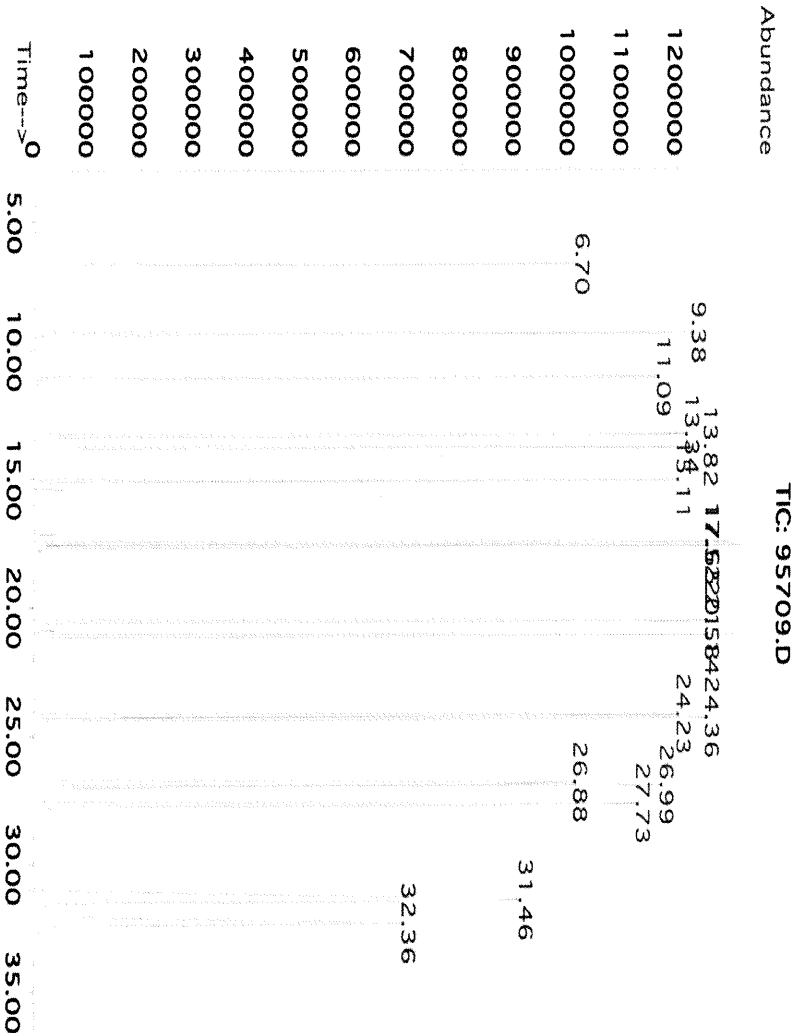
1. Acenaphthene	1	MKB14871V	2000	99	0.2	1.01003	1.01010	2000.1	8.1	83-32-9	N/A	ip-tral 600mg/kg
2. Acenaphthylene	3	012014	2000	98	0.2	1.02033	1.02053	2000.4	8.2	208-96-6	N/A	N/A
3. Anthracene	13	A0210580	2000	99	0.2	1.01003	1.01009	2000.1	8.1	120-12-7	0.2mg/m3 (8h)	ip-trus 430mg/kg
4. Benz(a)anthracene	28	JY2TD-JT	2000	98	0.2	1.02033	1.02051	2000.3	8.2	56-55-3	N/A	N/A
5. Benz(a)pyrene	30	012012	2000	99.5	0.2	1.00495	1.00511	2000.3	8.1	50-32-8	0.2mg/m3 (8h)	scu-tral 50mg/kg
6. Benz(b)fluoranthene	31	012012b	2000	99	0.2	1.01003	1.01012	2000.2	8.1	205-99-2	N/A	N/A
7. Benz(k)fluoranthene	33	012012k	2000	99	0.2	1.01003	1.01018	2000.3	8.1	207-08-9	N/A	N/A
8. Benz(g,h,i)perylene	32	012018	2000	99	0.2	1.01003	1.01019	2000.3	8.1	191-24-2	N/A	N/A
9. Chrysene	91	012015	2000	98	0.2	1.02033	1.02040	2000.1	8.2	218-01-9	0.2mg/m3	N/A
10. Dibenzo(a,h)anthracene	112	012011	2000	98	0.2	1.02033	1.02050	2000.3	8.2	53-70-3	0.2mg/m3	N/A
11. Fluoranthene	183	04221PV	2000	98	0.2	1.02033	1.02050	2000.3	8.2	206-44-0	N/A	of-tral 2000mg/kg
12. Fluorene	184	07211MV	2000	98	0.2	1.02033	1.02047	2000.3	8.2	86-73-7	N/A	ip-trus 2 g/kg
13. Indeno(1,2,3-cd)pyrene	202	012014	2000	99.9	0.2	1.00093	1.00119	2000.5	8.0	193-39-5	N/A	N/A
14. 2-Methylnaphthalene	214	MKB13783V	2000	97	0.2	1.03085	1.03090	2000.1	8.3	91-57-6	N/A	of-tral 1630mg/kg
15. Naphthalene	222	MKB28690V	2000	100	0.2	0.99993	0.99999	2000.1	8.0	91-20-3	10 ppm (50mg/m3/8h)	of-tral 490mg/kg
16. Phenanthrene	248	03410PV	2000	99	0.2	1.01003	1.01030	2000.5	8.1	85-01-8	0.2mg/m3/8h	of-trus 700mg/kg
17. Pyrene	259	010197	2000	98	0.2	1.02033	1.02042	2000.2	8.2	129-00-0	0.2mg/m3/8h	of-tral 2700mg/kg
18. 1,2,3-Trimethylbenzene	944	031097	2000	99	0.2	1.01003	1.01025	2000.4	8.1	526-73-8	N/A	N/A

* 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.F., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).

P11137
P11141
11/10/21



Method GC8MSD-2.M: Column:SPB-5 (30m X 0.25mm ID X 0.25µm film thickness) Temp 1 = 50°C (1min.), Temp 2 = 300°C (14min.), Rate = 10°C/min., Injector B= 250°C, Detector B = 275°C, Split Ratio = 100:1, Scan Rate = 2. Analysis performed by: Melissa Stonier.



Peak No.	Name	MSD RT (min.)
1	1,2,3-Trimethylbenzene	6.70
2	Naphthalene	9.38
3	2-Methylnaphthalene	11.09
4	Acenaphthylene	13.34
5	Acenaphthene	13.82
6	Fluorene	15.11
7	Phenanthrene	17.52
8	Anthracene	17.65
9	Fluoranthene	20.58
10	Pyrene	21.14
11	Chrysene	24.23
12	Benzo(a)anthracene	24.36
13	Benzo(b)fluoranthene/Benzo(k)fluoranthene	26.98
14	Benzo(a)pyrene	27.73
15	Indeno(1,2,3-cd)pyrene/Dibenzo(a,h)anthracene	31.46
16	Benzo(g,h,i)perylene	32.36



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

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 30540 **Lot No.:** A0190424

Description : NJEPH Aliphatics Calibration Standard

Aliphatics Calibration Standard 2000µg/mL, Hexane/Carbon Disulfide (80:20), 1mL/ampul

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

Expiration Date : November 30, 2029 **Storage:** 25°C nominal

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

P12361
↓
P12370 } Y.P.
031/6/23

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	n-Nonane (C9) CAS # 111-84-2 Purity 99% (Lot SHBN5361)	2,014.0 µg/mL	+/- 11.8193 +/- 50.0027 +/- 59.9491	µg/mL Gravimetric Unstressed Stressed
2	n-Decane (C10) CAS # 124-18-5 Purity 99% (Lot SHBN8619)	2,014.7 µg/mL	+/- 11.8232 +/- 50.0193 +/- 59.9689	µg/mL Gravimetric Unstressed Stressed
3	Naphthalene CAS # 91-20-3 Purity 99% (Lot MKCH0219)	2,015.3 µg/mL	+/- 11.8271 +/- 50.0358 +/- 59.9888	µg/mL Gravimetric Unstressed Stressed
4	n-Dodecane (C12) CAS # 112-40-3 Purity 99% (Lot SHBN7174)	2,008.0 µg/mL	+/- 11.7841 +/- 49.8538 +/- 59.7705	µg/mL Gravimetric Unstressed Stressed
5	2-Methylnaphthalene CAS # 91-57-6 Purity 96% (Lot STBK0259)	2,007.0 µg/mL	+/- 11.7784 +/- 49.8299 +/- 59.7419	µg/mL Gravimetric Unstressed Stressed
6	n-Tetradecane (C14) CAS # 629-59-4 Purity 99% (Lot STBK2282)	2,016.7 µg/mL	+/- 11.8349 +/- 50.0689 +/- 60.0284	µg/mL Gravimetric Unstressed Stressed
7	n-Hexadecane (C16) CAS # 544-76-3 Purity 98% (Lot SHBM4146)	2,014.9 µg/mL	+/- 11.8244 +/- 50.0246 +/- 59.9753	µg/mL Gravimetric Unstressed Stressed

8	n-Octadecane (C18) CAS # 593-45-3 Purity 97%	(Lot VZKOJ)	2,004.7 µg/mL	+/-	11.7645	µg/mL	Gravimetric
				+/-	49.7710	µg/mL	Unstressed
				+/-	59.6712	µg/mL	Stressed
9	n-Eicosane (C20) CAS # 112-95-8 Purity 99%	(Lot MKCF7888)	2,018.0 µg/mL	+/-	11.8428	µg/mL	Gravimetric
				+/-	50.1020	µg/mL	Unstressed
				+/-	60.0681	µg/mL	Stressed
10	n-Heneicosane (C21) CAS # 629-94-7 Purity 99%	(Lot MKCL3226)	2,000.7 µg/mL	+/-	11.7410	µg/mL	Gravimetric
				+/-	49.6717	µg/mL	Unstressed
				+/-	59.5522	µg/mL	Stressed
11	n-Docosane (C22) CAS # 629-97-0 Purity 99%	(Lot MKCL8918)	2,005.3 µg/mL	+/-	11.7684	µg/mL	Gravimetric
				+/-	49.7876	µg/mL	Unstressed
				+/-	59.6911	µg/mL	Stressed
12	n-Tetracosane (C24) CAS # 646-31-1 Purity 99%	(Lot MKCN2863)	2,018.0 µg/mL	+/-	11.8428	µg/mL	Gravimetric
				+/-	50.1020	µg/mL	Unstressed
				+/-	60.0681	µg/mL	Stressed
13	n-Hexacosane (C26) CAS # 630-01-3 Purity 99%	(Lot MKCD4540)	2,014.0 µg/mL	+/-	11.8193	µg/mL	Gravimetric
				+/-	50.0027	µg/mL	Unstressed
				+/-	59.9491	µg/mL	Stressed
14	n-Octacosane (C28) CAS # 630-02-4 Purity 99%	(Lot BCCG0084)	2,002.0 µg/mL	+/-	11.7489	µg/mL	Gravimetric
				+/-	49.7048	µg/mL	Unstressed
				+/-	59.5919	µg/mL	Stressed
15	n-Triacontane (C30) CAS # 638-68-6 Purity 97%	(Lot MKCQ9436)	2,011.1 µg/mL	+/-	11.8025	µg/mL	Gravimetric
				+/-	49.9316	µg/mL	Unstressed
				+/-	59.8637	µg/mL	Stressed
16	n-Dotriacontane (C32) CAS # 544-85-4 Purity 99%	(Lot BCBW0661)	2,012.0 µg/mL	+/-	11.8075	µg/mL	Gravimetric
				+/-	49.9531	µg/mL	Unstressed
				+/-	59.8895	µg/mL	Stressed
17	n-Tetratriacontane (C34) CAS # 14167-59-0 Purity 99%	(Lot OML4N)	2,006.7 µg/mL	+/-	11.7762	µg/mL	Gravimetric
				+/-	49.8207	µg/mL	Unstressed
				+/-	59.7308	µg/mL	Stressed
18	n-Hexatriacontane (C36) CAS # 630-06-8 Purity 99%	(Lot Z27H018)	2,017.3 µg/mL	+/-	11.8388	µg/mL	Gravimetric
				+/-	50.0855	µg/mL	Unstressed
				+/-	60.0483	µg/mL	Stressed
19	n-Octatriacontane (C38) CAS # 7194-85-6 Purity 96%	(Lot 0000145137)	2,017.3 µg/mL	+/-	11.8385	µg/mL	Gravimetric
				+/-	50.0842	µg/mL	Unstressed
				+/-	60.0467	µg/mL	Stressed
20	n-Tetracontane (C40) CAS # 4181-95-7 Purity 99%	(Lot BSBME)	2,008.7 µg/mL	+/-	11.7880	µg/mL	Gravimetric
				+/-	49.8703	µg/mL	Unstressed
				+/-	59.7903	µg/mL	Stressed
Solvent: Hexane/Carbon disulfide (80:20)							
	CAS # 110-54-3/75-15-0						
	Purity 99%						

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

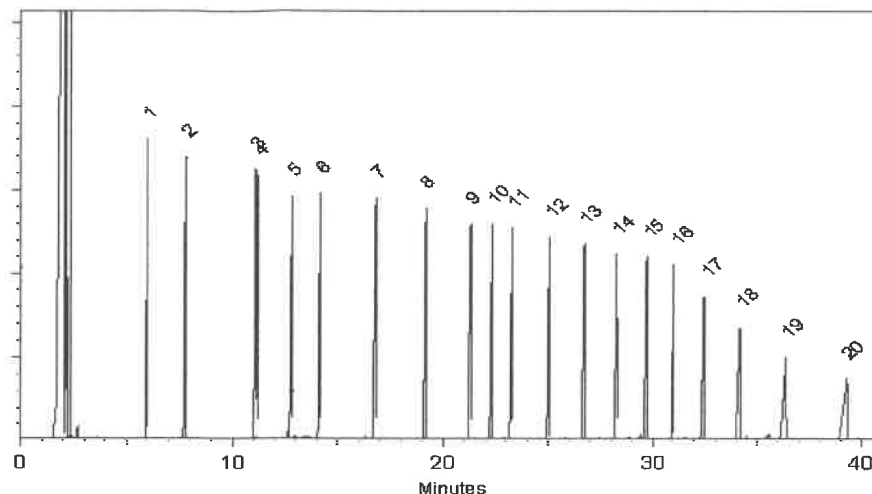
Carrier Gas:
hydrogen-constant pressure 10 psi.

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.


Morgan Craighead - Mix Technician

Date Mixed: 10-Oct-2022

Balance: 1128360905


Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 20-Oct-2022

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

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

Certified Uncertainty Value Notes:

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

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

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

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

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

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

Manufacturing Notes:

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

Handling Notes:

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



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

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 30542 **Lot No.:** A0200008

Description : NJEPH Aliphatics Matrix Spike Mix
NJEPH Aliphatics Matrix Spike Mix 200 µg/mL, n-Pentane, 5mL/ampul

Container Size : 5 mL **Pkg Amt:** > 5 mL

Expiration Date : August 31, 2030 **Storage:** 10°C or colder

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

P12856
↓
P12855 } Y.P.
10/17/23

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	n-Nonane (C9)	111-84-2	SHBP9752	99%	201.7 µg/mL	+/- 5.2098
2	n-Decane (C10)	124-18-5	SHBP4427	99%	201.3 µg/mL	+/- 5.2012
3	n-Dodecane (C12)	112-40-3	SHBN7174	99%	200.7 µg/mL	+/- 5.1839
4	n-Tetradecane (C14)	629-59-4	STBK5437	99%	201.0 µg/mL	+/- 5.1926
5	n-Hexadecane (C16)	544-76-3	SHBP8192	99%	201.7 µg/mL	+/- 5.2098
6	n-Octadecane (C18)	593-45-3	UE5NG	98%	201.2 µg/mL	+/- 5.1984
7	n-Eicosane (C20)	112-95-8	MKCN8767	97%	201.4 µg/mL	+/- 5.2038
8	n-Heneicosane (C21)	629-94-7	MKCL3226	99%	201.3 µg/mL	+/- 5.2012
9	n-Docosane (C22)	629-97-0	MKCQ3882	99%	201.3 µg/mL	+/- 5.2012
10	n-Tetracosane (C24)	646-31-1	MKCQ8345	99%	201.3 µg/mL	+/- 5.2012
11	n-Hexacosane (C26)	630-01-3	MKCQ4814	99%	201.7 µg/mL	+/- 5.2098
12	n-Octacosane (C28)	630-02-4	BCCG0084	99%	201.0 µg/mL	+/- 5.1926
13	n-Triacontane (C30)	638-68-6	MKCQ9436	97%	200.5 µg/mL	+/- 5.1788
14	n-Dotriacontane (C32)	544-85-4	BCBW0661	99%	201.3 µg/mL	+/- 5.2012
15	n-Tetratriacontane (C34)	14167-59-0	D3MZN	99%	200.7 µg/mL	+/- 5.1839
16	n-Hexatriacontane (C36)	630-06-8	Z27H018	99%	201.0 µg/mL	+/- 5.1926
17	n-Octatriacontane (C38)	7194-85-6	0000145137	96%	201.3 µg/mL	+/- 5.1998

18 n-Tetracontane (C₄₀) 4181-95-7 4LJYN 98% 200.6 µg/mL +/- 5.1815

Solvent: n-Pentane
CAS # 109-66-0
Purity 99%

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

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:

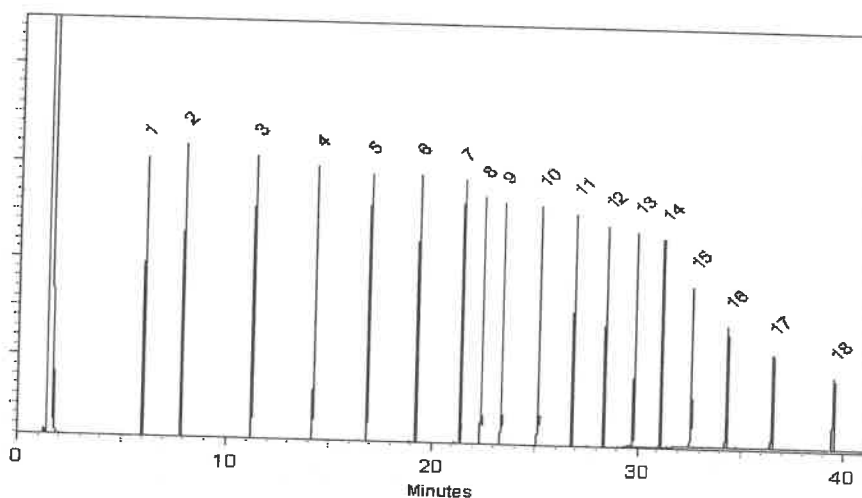
FID

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.

John Friedline
John Friedline - Operations Technician I

Date Mixed: 18-Jul-2023

Balance Serial # 1127510105

Jennifer Pollino
Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 21-Jul-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:

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

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

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

Manufacturing Notes:

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

Handling Notes:

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



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Fax: 1-814-353-1309

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CERTIFIED REFERENCE MATERIAL

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chromatographic plus



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No.: 31098 **Lot No.:** A0204989

Description: 1-Chlorooctadecane Standard

1-Chlorooctadecane Standard 10,000µg/mL, Methylene Chloride, 1mL/ampul

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

Expiration Date: January 31, 2031 **Storage:** 10°C or colder

Ship: Ambient

P12960
↓
P12991 } Y.P.
12/21/2023

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	1-Chlorooctadecane	3386-33-2	14738400	99%	10,097.3 µg/mL	+/- 567.2675

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

Solvent: Methylene chloride
CAS # 75-09-2
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:

75°C (hold 1 min.) to 330°C
@ 20°C/min. (hold 10 min.)

Inj. Temp:

250°C

Det. Temp:

330°C

Det. Type:

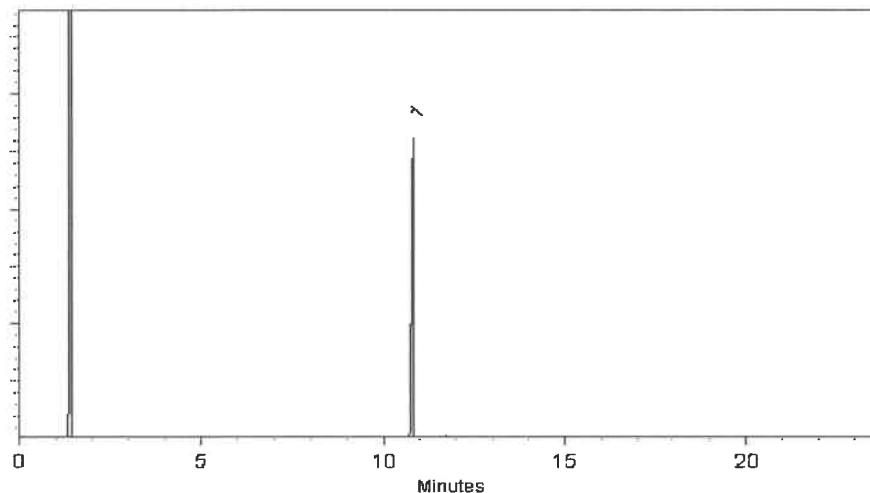
FID

Split Vent:

10 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.

Peter Robbins - Operations Technician I

Date Mixed: 02-Dec-2023

Balance Serial # B345965662

Christie Mills - Operations Lead Tech - ARM QC

Date Passed: 08-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:

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

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

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

Manufacturing Notes:

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

Handling Notes:

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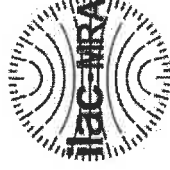
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CERTIFIED REFERENCE MATERIAL

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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.: 31097 **Lot No.:** A0204177

Description: o-Terphenyl Standard

o-Terphenyl Standard 10,000 µg/mL, Methylene Chloride, 1mL/ampul

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

Expiration Date: June 30, 2027 **Storage:** 10°C or colder

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

P12992 } Y.P.
↓
P13031 } 12/21/2023

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	o-Terphenyl	84-15-1	GKSSA	99%	10,000.5 µg/mL	+/- 450.4278

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

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

Quality Confirmation Test

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

Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
75°C (hold 1 min.) to 330°C
@ 20°C/min. (hold 10 min.)

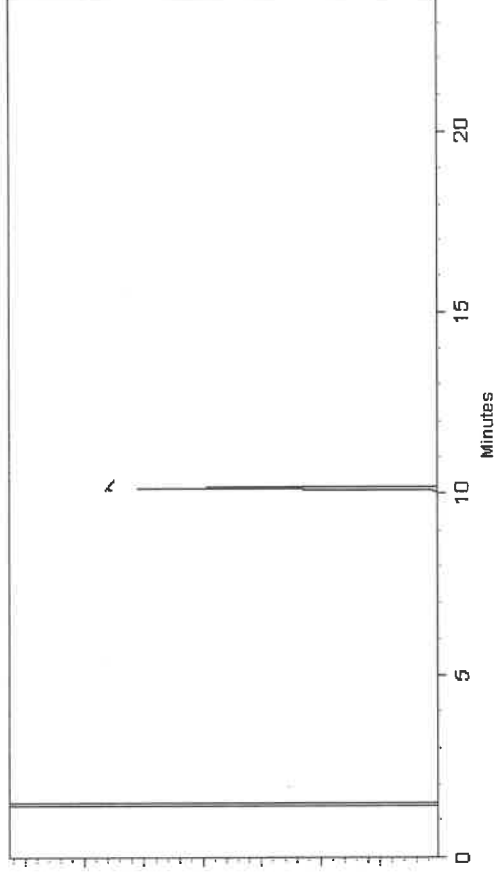
Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID

Split Vent:
10 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.


Laith Clemente - Operations Technician I

Date Mixed: 07-Nov-2023 **Balance Serial #** 1128360905


Dillian Murphy - Operations Technician I

Date Passed: 09-Nov-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:

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

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

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

Manufacturing Notes:

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

Handling Notes:

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



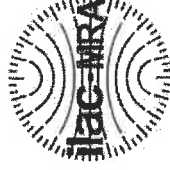
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FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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.: 31097 **Lot No.:** A0204177

Description: o-Terphenyl Standard

o-Terphenyl Standard 10,000 µg/mL, Methylene Chloride, 1mL/ampul

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

Expiration Date: June 30, 2027 **Storage:** 10°C or colder

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

P12992 } Y.P.
↓
P13031 } 12/21/2023

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	o-Terphenyl	84-15-1	GKSSA	99%	10,000.5 µg/mL	+/- 450.4278

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

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

Quality Confirmation Test

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

Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
75°C (hold 1 min.) to 330°C
@ 20°C/min. (hold 10 min.)

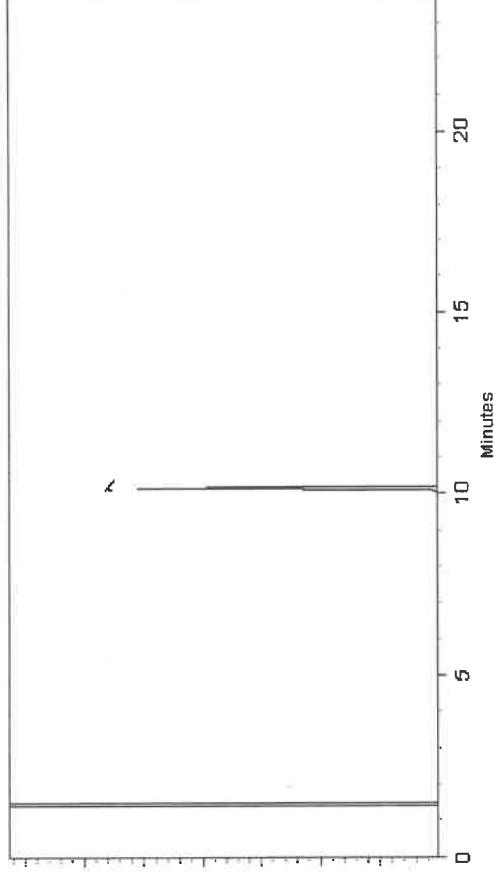
Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID

Split Vent:
10 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.


Laith Clemente - Operations Technician I

Date Mixed: 07-Nov-2023 **Balance Serial #** 1128360905


Dillian Murphy - Operations Technician I

Date Passed: 09-Nov-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:

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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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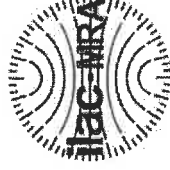
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FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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.: 31097 **Lot No.:** A0204177

Description: o-Terphenyl Standard

o-Terphenyl Standard 10,000 µg/mL, Methylene Chloride, 1mL/ampul

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

Expiration Date: June 30, 2027 **Storage:** 10°C or colder

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

P12992 } Y.P.
↓
P13031 } 12/21/2023

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	o-Terphenyl	84-15-1	GKSSA	99%	10,000.5 µg/mL	+/- 450.4278

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

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

Quality Confirmation Test

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

Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
75°C (hold 1 min.) to 330°C
@ 20°C/min. (hold 10 min.)

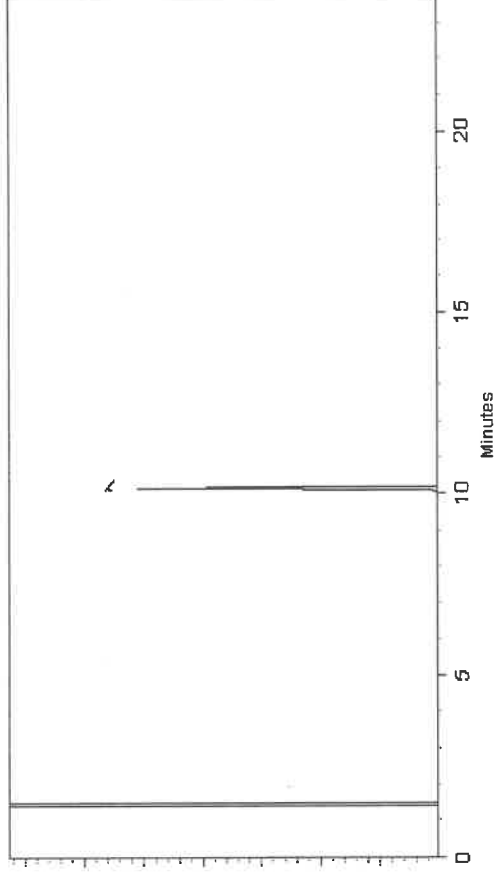
Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID

Split Vent:
10 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.


Laith Clemente - Operations Technician I

Date Mixed: 07-Nov-2023 **Balance Serial #** 1128360905


Dillian Murphy - Operations Technician I

Date Passed: 09-Nov-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:

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

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

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

Manufacturing Notes:

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

Handling Notes:

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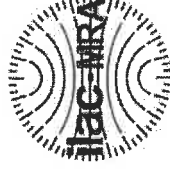
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CERTIFIED REFERENCE MATERIAL

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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.: 31097 Lot No.: A0204177

Description: o-Terphenyl Standard

o-Terphenyl Standard 10,000 µg/mL, Methylene Chloride, 1mL/ampul

Container Size: 2 mL Pkg Amt: > 1 mL

Expiration Date: June 30, 2027 Storage: 10°C or colder

Handling: Sonicate prior to use. Ship: Ambient

P12992 } Y.P.
↓
P13031 } 12/21/2023

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	o-Terphenyl	84-15-1	GKSSA	99%	10,000.5 µg/mL	+/- 450.4278

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

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

Quality Confirmation Test

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

Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
75°C (hold 1 min.) to 330°C
@ 20°C/min. (hold 10 min.)

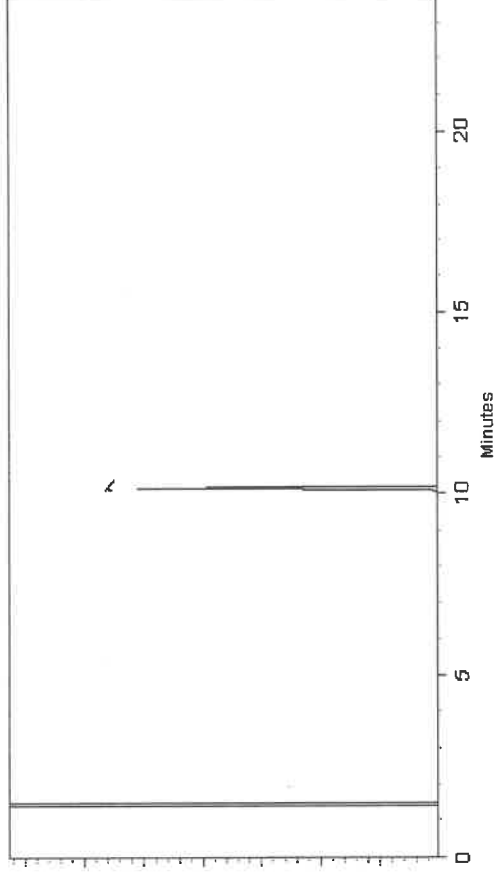
Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID

Split Vent:
10 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.


Laith Clemente - Operations Technician I

Date Mixed: 07-Nov-2023 **Balance Serial #** 1128360905


Dillian Murphy - Operations Technician I

Date Passed: 09-Nov-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.
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Manufacturing Notes:

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Handling Notes:

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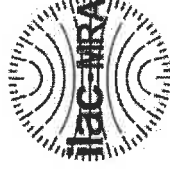
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CERTIFIED REFERENCE MATERIAL

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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.: 31097 **Lot No.:** A0204177

Description: o-Terphenyl Standard

o-Terphenyl Standard 10,000 µg/mL, Methylene Chloride, 1mL/ampul

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

Expiration Date: June 30, 2027 **Storage:** 10°C or colder

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

P12992 } Y.P.
↓
P13031 } 12/21/2023

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	o-Terphenyl	84-15-1	GKSSA	99%	10,000.5 µg/mL	+/- 450.4278

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

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

Quality Confirmation Test

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

Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
75°C (hold 1 min.) to 330°C
@ 20°C/min. (hold 10 min.)

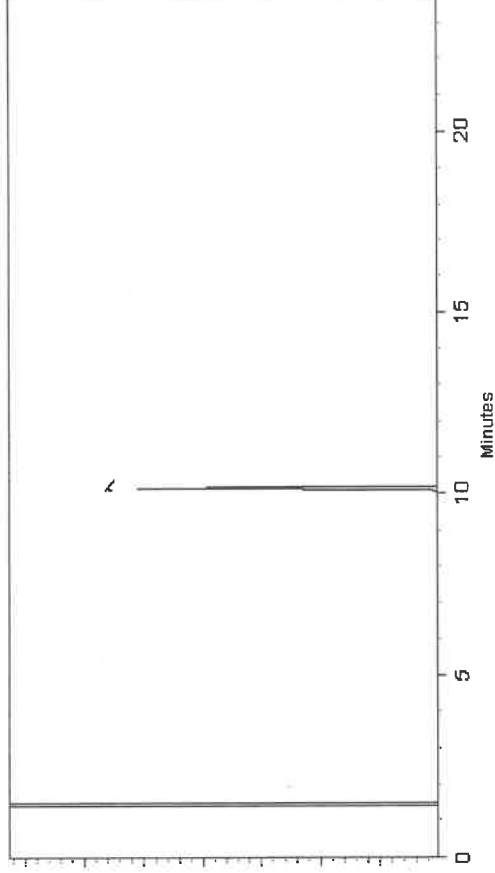
Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID

Split Vent:
10 ml/min.

Inj. Vol
1µl



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Laith Clemente - Operations Technician I

Date Mixed: 07-Nov-2023 **Balance Serial #** 1128360905



Dillian Murphy - Operations Technician I

Date Passed: 09-Nov-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:

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

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

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

Manufacturing Notes:

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

Handling Notes:

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



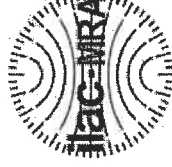
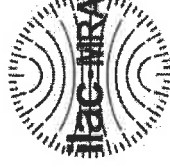
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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No.: 31097 **Lot No.:** A0204177

Description: o-Terphenyl Standard

o-Terphenyl Standard 10,000 µg/mL, Methylene Chloride, 1mL/ampul

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

Expiration Date: June 30, 2027 **Storage:** 10°C or colder

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

P12992 } Y.P.
↓
P13031 } 12/21/2023

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	o-Terphenyl	84-15-1	GKSSA	99%	10,000.5 µg/mL	+/- 450.4278

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

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

Quality Confirmation Test

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

Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
75°C (hold 1 min.) to 330°C
@ 20°C/min. (hold 10 min.)

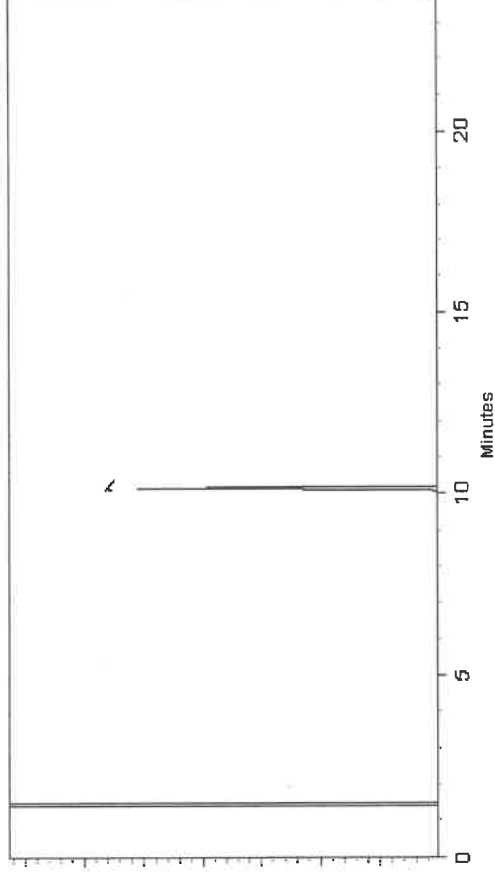
Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID

Split Vent:
10 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.


Laith Clemente - Operations Technician I

Date Mixed: 07-Nov-2023 **Balance Serial #** 1128360905


Dillian Murphy - Operations Technician I

Date Passed: 09-Nov-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:

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

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

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

Manufacturing Notes:

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

Handling Notes:

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



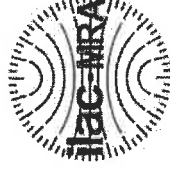
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chromatographic plus



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No.: 31097 **Lot No.:** A0204177

Description: o-Terphenyl Standard

o-Terphenyl Standard 10,000 µg/mL, Methylene Chloride, 1mL/ampul

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

Expiration Date: June 30, 2027 **Storage:** 10°C or colder

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

P12992 } Y.P.
↓
P13031 } 12/21/2023

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	o-Terphenyl	84-15-1	GKSSA	99%	10,000.5 µg/mL	+/- 450.4278

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

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

Quality Confirmation Test

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

Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
75°C (hold 1 min.) to 330°C
@ 20°C/min. (hold 10 min.)

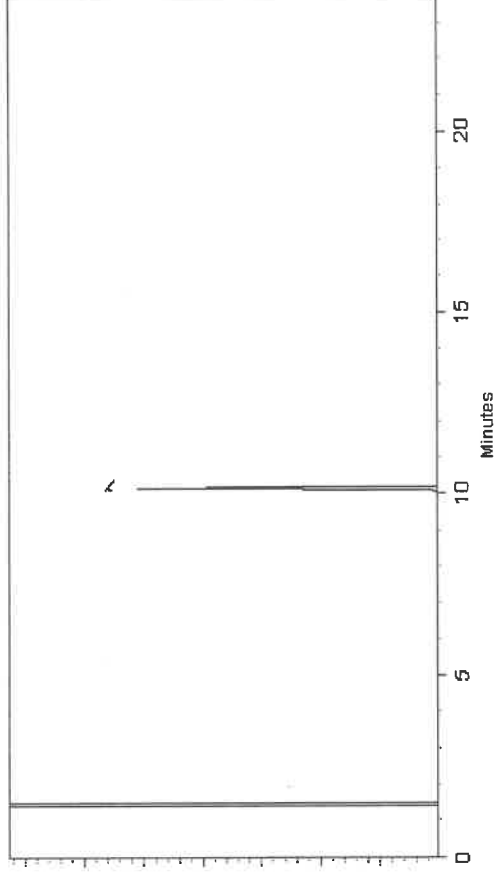
Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID

Split Vent:
10 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.



Laith Clemente - Operations Technician I

Date Mixed: 07-Nov-2023 **Balance Serial #** 1128360905



Dillian Murphy - Operations Technician I

Date Passed: 09-Nov-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:

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

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

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

Manufacturing Notes:

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

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
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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. : 31098 **Lot No.:** A0200707

Description : 1-Chlorooctadecane Standard

1-Chlorooctadecane Standard 10,000µg/mL, Methylene Chloride, 1mL/ampul

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

Expiration Date : September 30, 2030 **Storage:** 10°C or colder

Ship: Ambient

P130hh
2
P13051 } Y.B.
12/26/23

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	1-Chlorooctadecane	3386-33-2	E230426RSRB	99%	10,018.0 µg/mL	+/- 562.8106

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

Solvent: Methylene chloride
CAS # 75-09-2
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:

75°C (hold 1 min.) to 330°C
@ 20°C/min. (hold 10 min.)

Inj. Temp:

250°C

Det. Temp:

330°C

Det. Type:

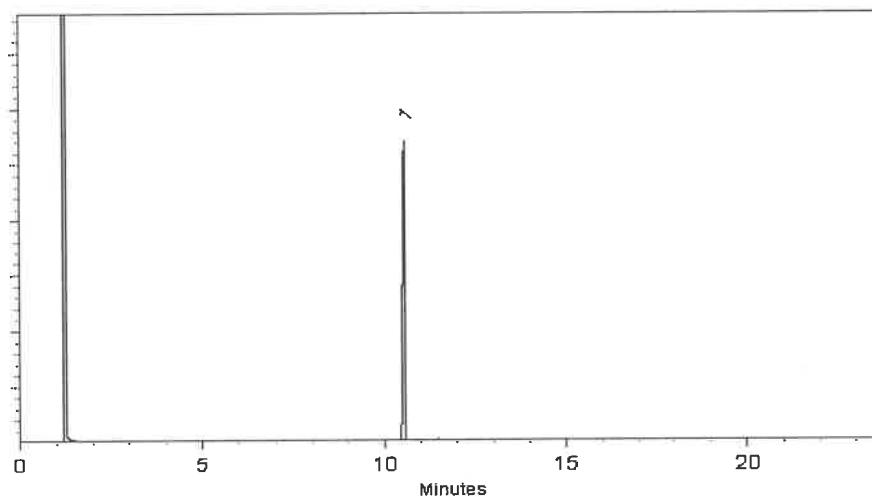
FID

Split Vent:

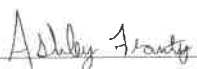
10 ml/min.

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.


Ashley Frantz - Quoting Technician

Date Mixed: 07-Aug-2023

Balance Serial # 1128360905


Dillan Murphy - Operations Technician I

Date Passed: 10-Aug-2023

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



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

Catalog No. : 31098 **Lot No.:** A0200707

Description : 1-Chlorooctadecane Standard

1-Chlorooctadecane Standard 10,000µg/mL, Methylene Chloride, 1mL/ampul

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

Expiration Date : September 30, 2030 **Storage:** 10°C or colder

Ship: Ambient

P130hh
2
P13051 } Y.B.
12/26/23

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	1-Chlorooctadecane	3386-33-2	E230426RSRB	99%	10,018.0 µg/mL	+/- 562.8106

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

Solvent: Methylene chloride
CAS # 75-09-2
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:

75°C (hold 1 min.) to 330°C
@ 20°C/min. (hold 10 min.)

Inj. Temp:

250°C

Det. Temp:

330°C

Det. Type:

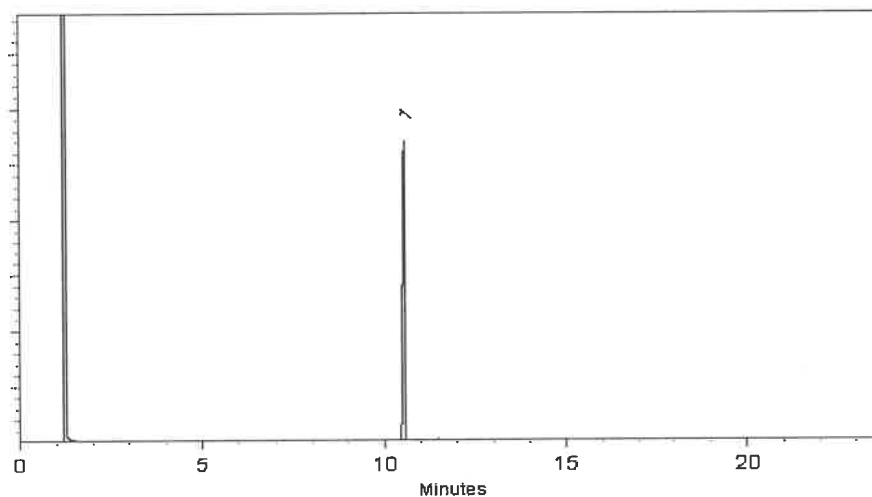
FID

Split Vent:

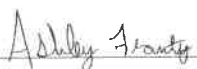
10 ml/min.

Inj. Vol

1µl



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Ashley Frantz - Quoting Technician

Date Mixed: 07-Aug-2023

Balance Serial # 1128360905


Dillan Murphy - Operations Technician I

Date Passed: 10-Aug-2023

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



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Catalog No. : 31098 **Lot No.:** A0200707

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Expiration Date : September 30, 2030 **Storage:** 10°C or colder

Ship: Ambient

P130hh
↓
P13051 } Y.B.
12/26/23

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	1-Chlorooctadecane	3386-33-2	E230426RSRB	99%	10,018.0 µg/mL	+/- 562.8106

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

Solvent: Methylene chloride
CAS # 75-09-2
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:

75°C (hold 1 min.) to 330°C
@ 20°C/min. (hold 10 min.)

Inj. Temp:

250°C

Det. Temp:

330°C

Det. Type:

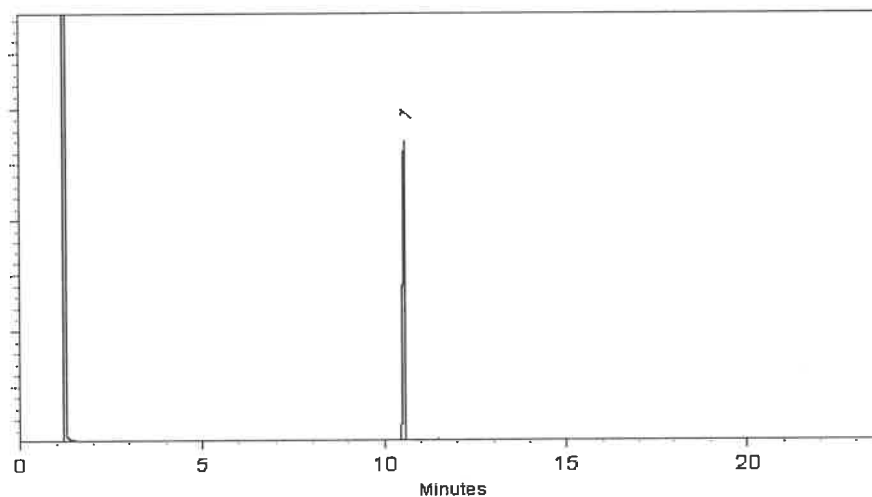
FID

Split Vent:

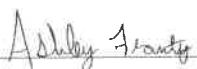
10 ml/min.

Inj. Vol

1µl



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Ashley Frantz - Quoting Technician

Date Mixed: 07-Aug-2023

Balance Serial # 1128360905


Dillan Murphy - Operations Technician I

Date Passed: 10-Aug-2023

Manufactured under Restek's ISO 9001:2015
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Catalog No. : 31098 **Lot No.:** A0200707

Description : 1-Chlorooctadecane Standard

1-Chlorooctadecane Standard 10,000µg/mL, Methylene Chloride, 1mL/ampul

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

Expiration Date : September 30, 2030 **Storage:** 10°C or colder

Ship: Ambient

P130hh
2
P13051 } Y.B.
12/26/23

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	1-Chlorooctadecane	3386-33-2	E230426RSRB	99%	10,018.0 µg/mL	+/- 562.8106

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

Solvent: Methylene chloride
CAS # 75-09-2
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:

75°C (hold 1 min.) to 330°C
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Det. Temp:

330°C

Det. Type:

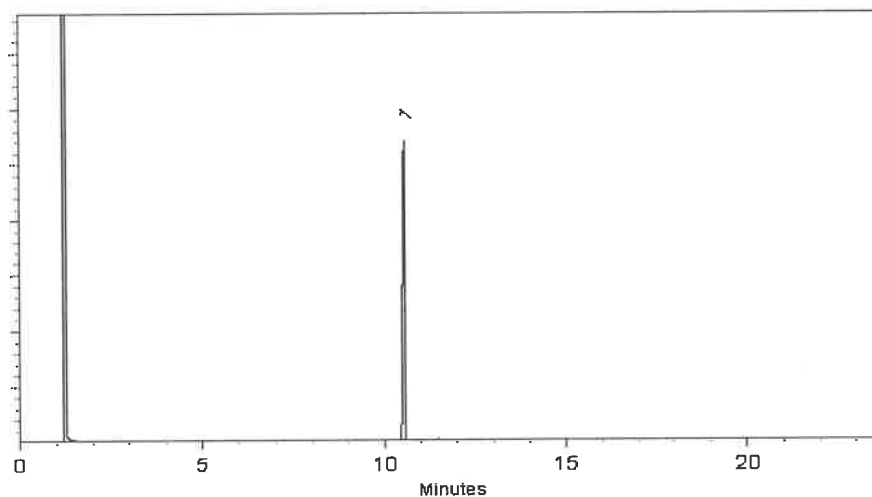
FID

Split Vent:

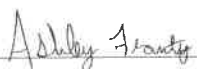
10 ml/min.

Inj. Vol

1µl



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Ashley Frantz - Quoting Technician

Date Mixed: 07-Aug-2023

Balance Serial # 1128360905


Dillan Murphy - Operations Technician I

Date Passed: 10-Aug-2023

Manufactured under Restek's ISO 9001:2015
Registered Quality System
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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. : 30543

Lot No.: A0200091

Description : NJEPH Aromatics Matrix Spike Mix

NJEPH Aromatics Matrix Spike Mix 200µg/mL, Acetone/Toluene (50:50), 5mL/ampul

Container Size : 5 mL

Pkg Amt: > 5 mL

Expiration Date : June 30, 2029

Storage: 10°C or colder

Handling: Sonication required. Mix is photosensitive.

Ship: Ambient

P13113 } Y.P.
↓
P13121 } 01/12/24

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	1,2,3-Trimethylbenzene	526-73-8	8776.10-36	98%	200.7 µg/mL	+/- 9.0431
2	Naphthalene	91-20-3	MKCH0219	99%	200.8 µg/mL	+/- 9.0474
3	2-Methylnaphthalene	91-57-6	STBK0259	96%	200.8 µg/mL	+/- 9.0489
4	Acenaphthylene	208-96-8	L10L	95%	201.0 µg/mL	+/- 9.0574
5	Acenaphthene	83-32-9	MKCR7169	99%	201.0 µg/mL	+/- 9.0565
6	Fluorene	86-73-7	10236068	99%	201.0 µg/mL	+/- 9.0547
7	Phenanthrene	85-01-8	MKCQ2033	99%	200.8 µg/mL	+/- 9.0492
8	Anthracene	120-12-7	MKCR0570	99%	201.1 µg/mL	+/- 9.0601
9	Fluoranthene	206-44-0	MKCF7378	99%	201.0 µg/mL	+/- 9.0583
10	Pyrene	129-00-0	BCCG8479	98%	201.0 µg/mL	+/- 9.0572
11	Benz(a)anthracene	56-55-3	0012022BAA	99%	201.0 µg/mL	+/- 9.0583
12	Chrysene	218-01-9	RP230512B	99%	200.8 µg/mL	+/- 9.0474
13	Benzo(b)fluoranthene	205-99-2	022013B	99%	200.8 µg/mL	+/- 9.0492
14	Benzo(k)fluoranthene	207-08-9	022022K	99%	200.9 µg/mL	+/- 9.0510
15	Benzo(a)pyrene	50-32-8	RP230525	99%	200.8 µg/mL	+/- 9.0474
16	Indeno(1,2,3-cd)pyrene	193-39-5	12-JKL-118-9	97%	200.9 µg/mL	+/- 9.0522

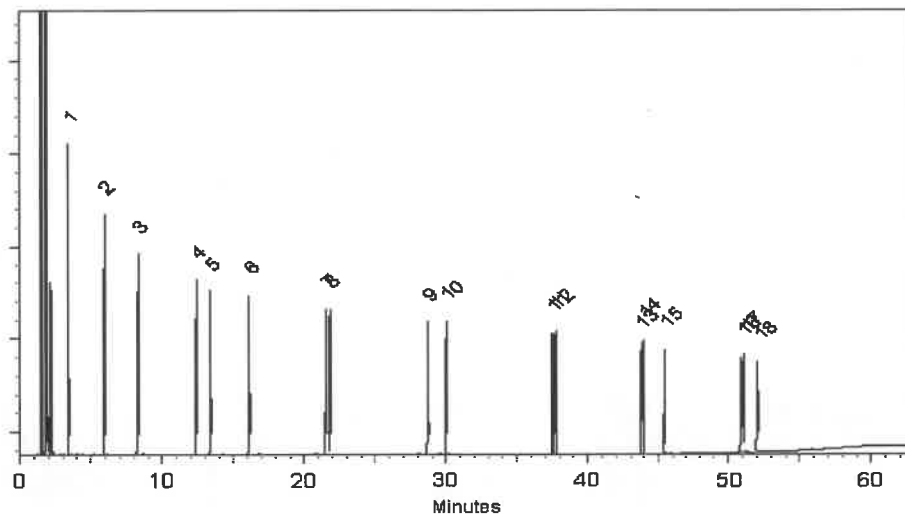
17	Dibenz(a,h)anthracene	53-70-3	ER032211-01	99%	200.8 µg/mL	+/- 9.0474
18	Benzo(g,h,i)perylene	191-24-2	RP230511B	98%	200.9 µg/mL	+/- 9.0519

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

Solvent: Acetone/Toluene (50:50)
CAS # 67-64-1/108-88-3
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:
100°C (hold 1 min.) to 330°C
@ 4°C/min. (hold 5 min.)
Inj. Temp:
250°C
Det. Temp:
330°C
Det. Type:
FID
Split Vent:
20 ml/min.
Inj. Vol
1µl



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Nick Yaw
Nick Yaw - Operations Tech I

Date Mixed: 19-Jul-2023 **Balance Serial #** 1128353505

Christie Mills
Christie Mills - Operations Lead Tech - ARM QC

Date Passed: 25-Jul-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:

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

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

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

Manufacturing Notes:

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

Handling Notes:

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



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

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 31480 **Lot No.:** A0206496

Description : MA Fractionation Surrogate Spike Mix
MA Fractionation Surrogate Spike Mix 4000µg/mL, Hexane, 1mL/ampul

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

Expiration Date : December 31, 2029 **Storage:** 10°C or colder

Handling: Sonication required. Mix is photosensitive. **Ship:** Ambient

P13258 } 7-P.
↓
P13277 } 02/20/24

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	2-Fluorobiphenyl	321-60-8	00021384	99%	4,008.5 µg/mL	+/- 180.5736
2	2-Bromonaphthalene	580-13-2	STBC5362V	99%	4,001.5 µg/mL	+/- 180.2582

* 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:

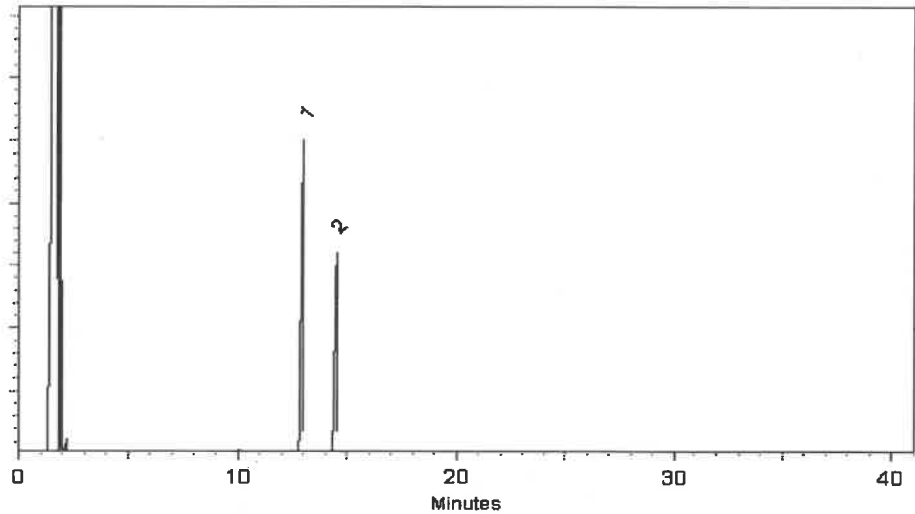
FID

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.

Rebecca Gingerich

Rebecca Gingerich - Operations Tech II

Date Mixed: 11-Jan-2024

Balance Serial # B345965662

Dylan Murphy

Dylan Murphy - Operations Technician I

Date Passed: 15-Jan-2024

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

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
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- 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:

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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.
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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus



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MA Fractionation Surrogate Spike Mix 4000µg/mL, Hexane, 1mL/ampul

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

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Handling: Sonication required. Mix is photosensitive. **Ship:** Ambient

P13258 } 7-P.
↓
P13277 } 02/20/24

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
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* 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:

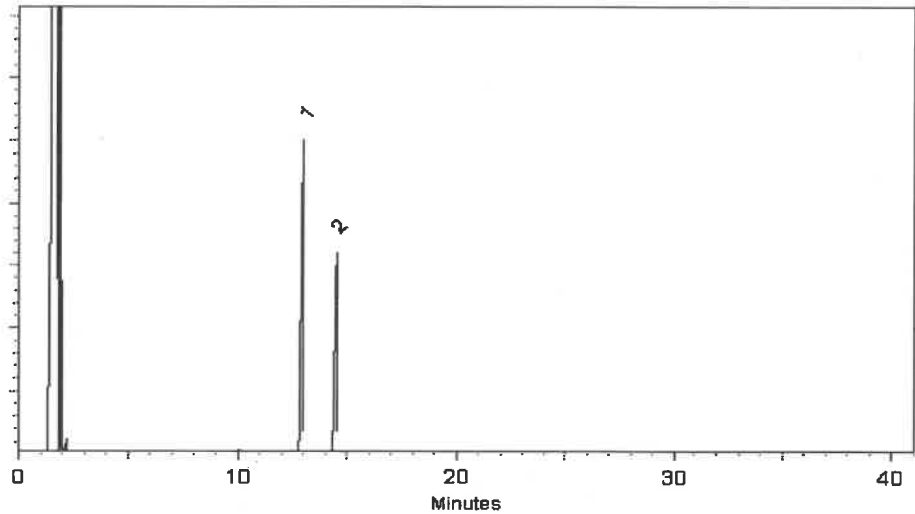
FID

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.

Rebecca Gingerich

Rebecca Gingerich - Operations Tech II

Date Mixed: 11-Jan-2024

Balance Serial # B345965662

Dylan Murphy

Dylan Murphy - Operations Technician I

Date Passed: 15-Jan-2024

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

General Certified Reference Material Notes

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

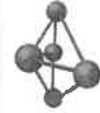
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

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.
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CERTIFIED WEIGHT REPORT

Part Number: 95999

Lot Number: 040524

Description: NJ EPH Aliphatic n-Hydrocarbons - Revised
20 components

Expiration Date: 040534

Recommended Storage: Ambient (20 °C)

Nominal Concentration (µg/mL): 1000

NIST Test ID#: 6UTB

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

CAUTION: Sonicate Before Use

Solvent(s):
Cyclohexane

Lot#
28930

P13278
2
P13287
Y.P.
04/11/24

5E-05 Balance Uncertainty
0.001 Flask Uncertainty

Formulated By:	Anthony Mahoney	040524	DATE
Reviewed By:	Pedro L. Rentas	040524	DATE

Compound		Part Number	(RM#)	Lot Number	DIL Factor	Initial Vol. (mL)	Initial Conc (µg/mL)	Nominal Conc (µg/mL)	Purity (%)	Purity Uncertainty	Pipette	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.	2-Methylnaphthalene	(0214)	MKBF3783V	NA	NA	NA	NA	1000	97	0.2	NA	0.02579	0.02594	1005.7	5.7	91-57-6	N/A	or-rat 1630mg/kg
2.	Naphthalene	(0222)	MKB28680V	NA	NA	NA	NA	1000	100	0.2	NA	0.02502	0.02511	1003.7	5.7	91-20-3	10 ppm (50mg/m ³ /8H)	or-rat 490mg/kg
3.	n-Nonane	95708	120222	1.00	25.00	1000.7	1000.7	1000	NA	0.013	NA	NA	NA	1000.0	4.2	111-84-2	200 ppm (1050mg/m ³ /8H)	ivn-mus 218mg/kg
4.	n-Decane	95708	120222	1.00	25.00	1000.9	1000.9	1000	NA	0.013	NA	NA	NA	1000.2	4.2	124-18-5	N/A	N/A
5.	n-Dodecane	95708	120222	1.00	25.00	1000.7	1000.7	1000	NA	0.013	NA	NA	NA	1000.0	4.2	112-40-3	N/A	ivn-mus 3494mg/kg
6.	n-Tetradecane	95708	120222	1.00	25.00	1002.1	1002.1	1000	NA	0.013	NA	NA	NA	1001.3	4.2	629-59-4	N/A	N/A
7.	n-Hexadecane	95708	120222	1.00	25.00	1000.5	1000.5	1000	NA	0.013	NA	NA	NA	999.7	4.2	544-76-3	N/A	N/A
8.	n-Octadecane	95708	120222	1.00	25.00	1001.0	1001.0	1000	NA	0.013	NA	NA	NA	1000.3	4.1	583-45-3	N/A	N/A
9.	n-Eicosane	95708	120222	1.00	25.00	1001.0	1001.0	1000	NA	0.013	NA	NA	NA	1000.3	4.2	112-95-8	N/A	N/A
10.	n-Henicosane	95708	120222	1.00	25.00	1002.4	1002.4	1000	NA	0.013	NA	NA	NA	1001.6	4.2	629-94-7	N/A	N/A
11.	n-Docosane	95708	120222	1.00	25.00	1001.9	1001.9	1000	NA	0.013	NA	NA	NA	1001.2	4.2	629-97-0	N/A	N/A
12.	n-Tetracosane	95708	120222	1.00	25.00	1000.8	1000.8	1000	NA	0.013	NA	NA	NA	1000.1	4.2	646-31-1	N/A	N/A
13.	n-Hexacosane	95708	120222	1.00	25.00	1001.2	1001.2	1000	NA	0.013	NA	NA	NA	1000.4	4.2	630-01-3	N/A	N/A
14.	n-Octacosane	95708	120222	1.00	25.00	1000.5	1000.5	1000	NA	0.013	NA	NA	NA	999.8	4.2	630-02-4	N/A	N/A
15.	n-Triacontane	95708	120222	1.00	25.00	1000.5	1000.5	1000	NA	0.013	NA	NA	NA	999.8	4.2	638-68-6	N/A	N/A
16.	n-Dotriacontane	95708	120222	1.00	25.00	1000.5	1000.5	1000	NA	0.013	NA	NA	NA	999.8	4.3	544-85-4	N/A	ivn-mus 100mg/kg
17.	n-Tetracontane	95708	120222	1.00	25.00	1000.4	1000.4	1000	NA	0.013	NA	NA	NA	999.7	4.2	14167-59-0	N/A	N/A
18.	n-Hexatriacontane	95708	120222	1.00	25.00	1001.5	1001.5	1000	NA	0.013	NA	NA	NA	1000.8	4.2	630-08-8	N/A	N/A
19.	n-Octatriacontane	95708	120222	1.00	25.00	1000.3	1000.3	1000	NA	0.013	NA	NA	NA	999.6	4.3	7184-86-6	N/A	N/A
20.	n-Tetracontane	95708	120222	1.00	25.00	1000.6	1000.6	1000	NA	0.013	NA	NA	NA	999.9	4.3	4181-95-7	N/A	N/A

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).



SHIPPING DOCUMENTS

CHEMTECH

CHAIN OF CUSTODY RECORD

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

CHEMTECH PROJECT NO. **P4397**
QUOTE NO.
COC Number **2042048**

CLIENT INFORMATION

REPORT TO BE SENT TO:

COMPANY: **Gannet Fleming**
ADDRESS: **1010 Adam Avenue**
CITY **Audobon** STATE: **PA** ZIP: **19423**
ATTENTION: **Joe Krupansky**
PHONE: **610-301-8362** FAX:

CLIENT PROJECT INFORMATION

PROJECT NAME: **Amtrak's replacement of SB**
PROJECT NO.: **950000818** LOCATION: **Kearny, NJ**
PROJECT MANAGER: **Joe Krupansky**
e-mail: **Q7AQC@bomsystems.com**
PHONE: **610-301-8362** FAX:

CLIENT BILLING INFORMATION

BILL TO: **Chemtech** PO#: **284 Sheffield St.**
ADDRESS: **284 Sheffield St.**
CITY **Mountainside** STATE: **NJ** ZIP: **07092**
ATTENTION: **Samantha** PHONE: **908-788-3198**

ANALYSIS

DATA TURNAROUND INFORMATION

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

DATA DELIVERABLE INFORMATION

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

**100 VOC + 10
TCL PAH
PCB
TAX Metals
CADD, CALD
EPH**

CHEMTECH SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE		SAMPLE COLLECTION		# OF BOTTLES	PRESERVATIVES									COMMENTS
			COMP	GRAB	DATE	TIME		A	B	C	D	E	F	G	H	I	
1.	NB-301-70P	S	X		10/10	10:00	10	X	X	X	X	X	X				
2.	NB-301-BOT	S	X		10/10	12:15	10	X	X	X	X	X	X				
3.	NB-301-SW	GW	X		10/10	11:00	7	X	X	X	X	X					
4.	7B-10102024	W			10/10	LAB	2	X									
5.	Temp. Blank																
6.																	
7.																	
8.																	
9.																	
10.																	

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

RELINQUISHED BY SAMPLER: 1. Kita Mursula	DATE/TIME: 3:05 PM 10/11/24	RECEIVED BY: 1. [Signature]	DATE/TIME: 10-11-24	Conditions of bottles or coolers at receipt: ☐ COMPLIANT ☐ NON COMPLIANT ☐ COOLER TEMP 3.5 °C
RELINQUISHED BY SAMPLER: 2. [Signature]	DATE/TIME:	RECEIVED BY: 2. [Signature]	DATE/TIME:	Comments:
RELINQUISHED BY SAMPLER: 3. [Signature]	DATE/TIME: 10/11/24	RECEIVED BY: 3. [Signature]	DATE/TIME:	Page ____ of ____

CLIENT: ☐ Hand Delivered ☐ Other _____
CHEMTECH: ☐ Picked Up ☐ Field Sampling
Shipment Complete ☐ YES ☐ NO



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 (L-A-B)	L2219
Maine	2024021
Maryland	296
New Hampshire	255423
New Jersey	20012
New York	11376
Pennsylvania	68-00548
Soil Permit	525-24-234-08441
Texas	T104704488