

Cover Page

Order ID : P4663

Project ID : Rt. 10 Whippany

Client : Union Paving & Construction Company

Lab Sample Number

P4663-01
P4663-02
P4663-03
P4663-04
P4663-05
P4663-06
P4663-07
P4663-08

Client Sample Number

TENNANT-PAD-2-3-STOCKPILE
TENNANT-PAD-2-3-STOCKPILE
RES-BUILDING-PAD-NO-11
RES-BUILDING-PAD-NO-11
RES-BUILDING-PAD-NO-3
RES-BUILDING-PAD-NO-3
RES-BUILDING-PAD-NO-2
RES-BUILDING-PAD-NO-2

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: 11/11/2024

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 #: P4663

Completed

For thorough review, the report must have the following:

GENERAL:

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

✓

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

✓

Is the chain of custody signed and complete

✓

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

✓

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

✓

COVER PAGE:

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

✓

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

✓

CHAIN OF CUSTODY:

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

✓

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

✓

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

✓

Were the samples received within hold time

✓

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

✓

ANALYTICAL:

Was method requirement followed?

✓

Was client requirement followed?

✓

Does the case narrative summarize all QC failure?

✓

All runlogs and manual integration are reviewed for requirements

✓

All manual calculations and /or hand notations verified

✓

QA Review Signature: SHREENA PATEL

Date: 11/11/2024

LAB CHRONICLE

OrderID:	P4663	OrderDate:	10/31/2024 3:05:00 PM
Client:	Union Paving & Construction Company	Project:	Rt. 10 Whippany
Contact:	Gregory Butler	Location:	K41,VOA Ref. #2 Soil

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
P4663-02	TENNANT-PAD-2-3-ST OCKPILE	SOIL			10/31/24			10/31/24
			Herbicide	8151A		11/04/24	11/05/24	
			PCB	8082A		11/01/24	11/01/24	
			Pesticide-TCL	8081B		11/01/24	11/01/24	
			TPH GC	8015D		11/01/24	11/01/24	
			EPH_NF	NJEPH		11/01/24	11/02/24	
P4663-04	RES-BUILDING-PAD-N O-11	SOIL			10/31/24			10/31/24
			Herbicide	8151A		11/04/24	11/05/24	
			PCB	8082A		11/01/24	11/01/24	
			Pesticide-TCL	8081B		11/01/24	11/01/24	
			TPH GC	8015D		11/01/24	11/01/24	
			EPH_NF	NJEPH		11/01/24	11/02/24	
P4663-06	RES-BUILDING-PAD-N O-3	SOIL			10/31/24			10/31/24
			Herbicide	8151A		11/04/24	11/05/24	
			PCB	8082A		11/01/24	11/01/24	
			Pesticide-TCL	8081B		11/01/24	11/01/24	
			TPH GC	8015D		11/01/24	11/01/24	
			EPH_NF	NJEPH		11/01/24	11/02/24	
P4663-06DL	RES-BUILDING-PAD-N O-3DL	Solid			10/31/24			10/31/24
			EPH_NF	NJEPH		11/01/24	11/05/24	
P4663-08	RES-BUILDING-PAD-N O-2	SOIL			10/31/24			10/31/24
			Herbicide	8151A		11/04/24	11/05/24	

LAB CHRONICLE

PCB	8082A	11/01/24	11/01/24
Pesticide-TCL	8081B	11/01/24	11/01/24
TPH GC	8015D	11/01/24	11/01/24
EPH_NF	NJEPH	11/01/24	11/02/24



QC SUMMARY

SOIL EPH SURROGATE RECOVERY

Lab Name: CHEMTECH Contract: UNIO02
Lab Code: CHEM CASE No.: P4663 SAS No.: P4663 SDG No.: P4663
Run Number: FE110124AL

Client SAMPLE NO.	1-chlorooctadecane (SURR)	ortho-Terphenyl (SURR)		TOT OUT
BP-F8MS	85	81		0
BP-F8MSD	86	82		0
TENNANT-PAD-2-3-STOCKPIL	60	59		0
RES-BUILDING-PAD-NO-11	77	76		0
RES-BUILDING-PAD-NO-3	90	89		0
RES-BUILDING-PAD-NO-2	53	53		0
PB164589BL	75	73		0
PB164589BS	91	84		0
PB164589BSD	82	77		0

QC LIMITS

1-chlorooctadecane (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

Lab Name: CHEMTECH Contract: UNIO02
Lab Code: CHEM CASE No.: P4663 SAS No.: P4663 SDG No.: P4663
Run Number: FE110524AL

Client SAMPLE NO.	1-chlorooctadecane (SURR)	ortho-Terphenyl (SURR)	TOT OUT
RES-BUILDING-PAD-NO-3DL	68	70	0

QC LIMITS

1-chlorooctadecane (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

1-chlorooctadecane (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

SOLID EPH_NF MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Chemtech **Client:** Union Paving & Construction Company
Lab Code: CHEM **Cas No:** P4663 **SAS No :** P4663 **SDG No:** P4663
Sample No : P4643-05MS **Datafile:** FE050974.D
Client ID : BP-F8MS

COMPOUND	SPIKE ADDED mg/kg	SAMPLE CONCENTRATION mg/kg	MS/MSD CONCENTRATION mg/kg	% REC	Qual	QC LIMITS
Aliphatic C28-C40	36.1	4.76	31.6	74		(40-140)
Aliphatic C9-C28	120.4	0	97.8	81		(40-140)

SOLID EPH_NF MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Chemtech **Client:** Union Paving & Construction Company
Lab Code: CHEM **Cas No:** P4663 **SAS No :** P4663 **SDG No:** P4663
Sample No : P4643-05MSD **Datafile:** FE050975.D
Client ID : BP-F8MSD

COMPOUND	SPIKE ADDED mg/kg	SAMPLE CONCENTRATION mg/kg	MS/MSD CONCENTRATION mg/kg	% REC	Qual	RPD QC LIMITS	QC Limit Of RPD
Aliphatic C28-C40	36.2	4.76	35.0	84		11 (40-140)	25
Aliphatic C9-C28	120.5	0	97.3	81		0.6 (40-140)	25

SOLID EPH_NF LABORATORY CONTROL SPIKE/LABORATORY CONTROL SPIKE DUPLICATE RECOVERY

Lab Name: Chemtech **Client:** Union Paving & Construction Company
Lab Code: CHEM **Cas No:** P4663 **SAS No :** P4663 **SDG No:** P4663
Sample No : PB164589BS **Datafile:** FE050966.D
Client ID : PB164589BS

COMPOUND	SPIKE ADDED mg/kg	LCS/LCSD CONCENTRATION mg/kg	% REC	Qual	QC LIMITS
Aliphatic C28-C40	30.0	21.1	70		(40-140)
Aliphatic C9-C28	99.9	74.0	75		(40-140)

SOLID EPH_NF LABORATORY CONTROL SPIKE/LABORATORY CONTROL SPIKE DUPLICATE RECOVERY

Lab Name: Chemtech **Client:** Union Paving & Construction Company
Lab Code: CHEM **Cas No:** P4663 **SAS No :** P4663 **SDG No:** P4663
Sample No : PB164589BSD **Datafile:** FE050967.D
Client ID : PB164589BSD

COMPOUND	SPIKE ADDED mg/kg	LCS/LCSD CONCENTRATION mg/kg	% REC	Qual	RPD QC LIMITS	QC Limit Of RPD
Aliphatic C28-C40	30.0	20.4	68		3.4 (40-140)	50
Aliphatic C9-C28	100.1	66.7	68		10.6 (40-140)	50

4B
METHOD BLANK SUMMARY

EPA SAMPLE NO.

PB164589BL

Lab Name: CHEMTECH

Contract: UNIO02

Lab Code: CHEM Case No.: P4663

SAS No.: P4663 SDG NO.: P4663

Instrument ID: FID_E

Lab Sample ID: PB164589BL

Matrix: (soil/water) Solid

Date Extracted: 11/1/2024 8:50:00 A

Level: (low/med) low

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

EPA SAMPLE NO.	LAB SAMPLE ID
PB164589BS	PB164589BS
PB164589BSD	PB164589BSD
BP-F8MS	P4643-05MS
BP-F8MSD	P4643-05MSD
TENNANT-PAD-2-3-STOCKPILE	P4663-02
RES-BUILDING-PAD-NO-11	P4663-04
RES-BUILDING-PAD-NO-3	P4663-06
RES-BUILDING-PAD-NO-2	P4663-08

COMMENTS: _____



SAMPLE DATA

Report of Analysis

Client:	Union Paving & Construction Company	Date Collected:	10/31/24
Project:	Rt. 10 Whippany	Date Received:	10/31/24
Client Sample ID:	TENNANT-PAD-2-3-STOCKPILE	SDG No.:	P4663
Lab Sample ID:	P4663-02	Matrix:	Solid
Analytical Method:	NJEPH	% Solid:	90.9
Sample Wt/Vol:	30.01 Units: g	Final Vol:	2000 uL
Soil Aliquot Vol:	uL	Test:	EPH_NF
Prep Method :			

Prep Date :	Date Analyzed :	Prep Batch ID
11/01/24 08:50	11/02/24 2:37	PB164589

Datafile

CAS Number	Parameter	Conc.	Qualifier	Dilution	MDL	LOQ / CRQL	Units(Dry Weight)	
TARGETS								
Aliphatic C28-C40	Aliphatic C28-C40	33.0		1	1.98	2.20	mg/kg	FE050985.D
Aliphatic C9-C28	Aliphatic C9-C28	2.48	J	1	1.89	4.40	mg/kg	FE050985.D
Total AliphaticEPH	Total AliphaticEPH	35.5			3.87	6.60	mg/kg	
Total EPH	Total EPH	35.5			3.87	6.60	mg/kg	

* As samples are not fractionated, all aliphatic and aromatic carbon compounds in the C9-C40 carbon range are calculated against the aliphatic calibration curve, and reported as Aliphatic EPH. Therefore, the aliphatic C9-C40 concentration for the sample is reported as the Total EPH.

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:	Union Paving & Construction Company	Date Collected:	10/31/24
Project:	Rt. 10 Whippany	Date Received:	10/31/24
Client Sample ID:	TENNANT-PAD-2-3-STOCKPILE	SDG No.:	P4663
Lab Sample ID:	P4663-02	Matrix:	Solid
Analytical Method:	NJEPH	% Solid:	90.9
Sample Wt/Vol:	30.01 Units: g	Final Vol:	2000 uL
Soil Aliquot Vol:	uL	Test:	EPH_NF
Prep Method :			

File ID :	Dilution:	Prep Date :	Date Analyzed :	Prep Batch ID
FE050985.D	1	11/01/24	11/02/24	PB164589

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
Aliphatic C9-C28	Aliphatic C9-C28	2.48	J	1.89	4.40	mg/kg
Aliphatic C28-C40	Aliphatic C28-C40	33.0		1.98	2.20	mg/kg
SURROGATES						
3383-33-2	1-chlorooctadecane (SURR)	30.0		40 - 140	60%	SPK: 50
84-15-1	ortho-Terphenyl (SURR)	29.6		40 - 140	59%	SPK: 50

Quantitation Report For Aliphatic EPH Range.

Lab Sample ID:	P4663-02	Acq On:	02 Nov 2024 02:37
Client Sample ID:	TENNANT-PAD-2-3-STOC	Operator:	YP\AJ
Data file:	FE050985.D	Misc:	
Instrument:	FID_E	ALS Vial:	29
Dilution Factor:	1	Sample Multiplier:	1.00

Compound	R.T.		Response	Conc	highest_standard	Units
Aliphatic EPH	3.143	22.051	67407254	486.12		ug/ml
ortho-Terphenyl (SURR)	11.852	11.852	4661640	29.57		ug/ml
1-chlorooctadecane (SURR)	13.285	13.285	3550395	30.01		ug/ml
Aliphatic C9-C12	3.143	6.761	239825	1.678	300	ug/ml
Aliphatic C12-C16	6.762	10.193	731082	5.038	200	ug/ml
Aliphatic C16-C21	10.194	13.552	1443120	9.994	300	ug/ml
Aliphatic C21-C28	13.553	17.208	2666683	18.759	400	ug/ml
Aliphatic C28-C40	17.209	22.051	62326544	450.651	600	ug/ml
Aliphatic C9-C28	3.143	17.208	5080710	35.469	1200	ug/ml

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE110124AL\
 Data File : FE050985.D
 Signal(s) : FID1B.ch
 Acq On : 02 Nov 2024 02:37
 Operator : YP\AJ
 Sample : P4663-02
 Misc :
 ALS Vial : 29 Sample Multiplier: 1

Instrument :
 FID_E
 ClientSampleId :
 TENNANT-PAD-2-3-STOCKPILE

Manual Integrations
 APPROVED

Reviewed By :Yogesh Patel 11/04/2024
 Supervised By :Ankita Jodhani 11/04/2024

Integration File: sample.E
 Quant Time: Nov 04 03:12:42 2024
 Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\Aliphatic EPH 100824.M
 Quant Title : GC Extractables
 QLast Update : Mon Oct 07 16:32:18 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)	11.852	4661640	29.568 ug/mlm
Spiked Amount	50.000	Recovery	= 59.14%
12) S 1-chlorooctadecane (S...	13.285	3550395	30.013 ug/ml
Spiked Amount	50.000	Recovery	= 60.03%

Target Compounds

(f)=RT Delta > 1/2 Window

(m)=manual int.

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE110124AL\
Data File : FE050985.D
Signal(s) : FID1B.ch
Acq On : 02 Nov 2024 02:37
Operator : YP\AJ
Sample : P4663-02
Misc :
ALS Vial : 29 Sample Multiplier: 1

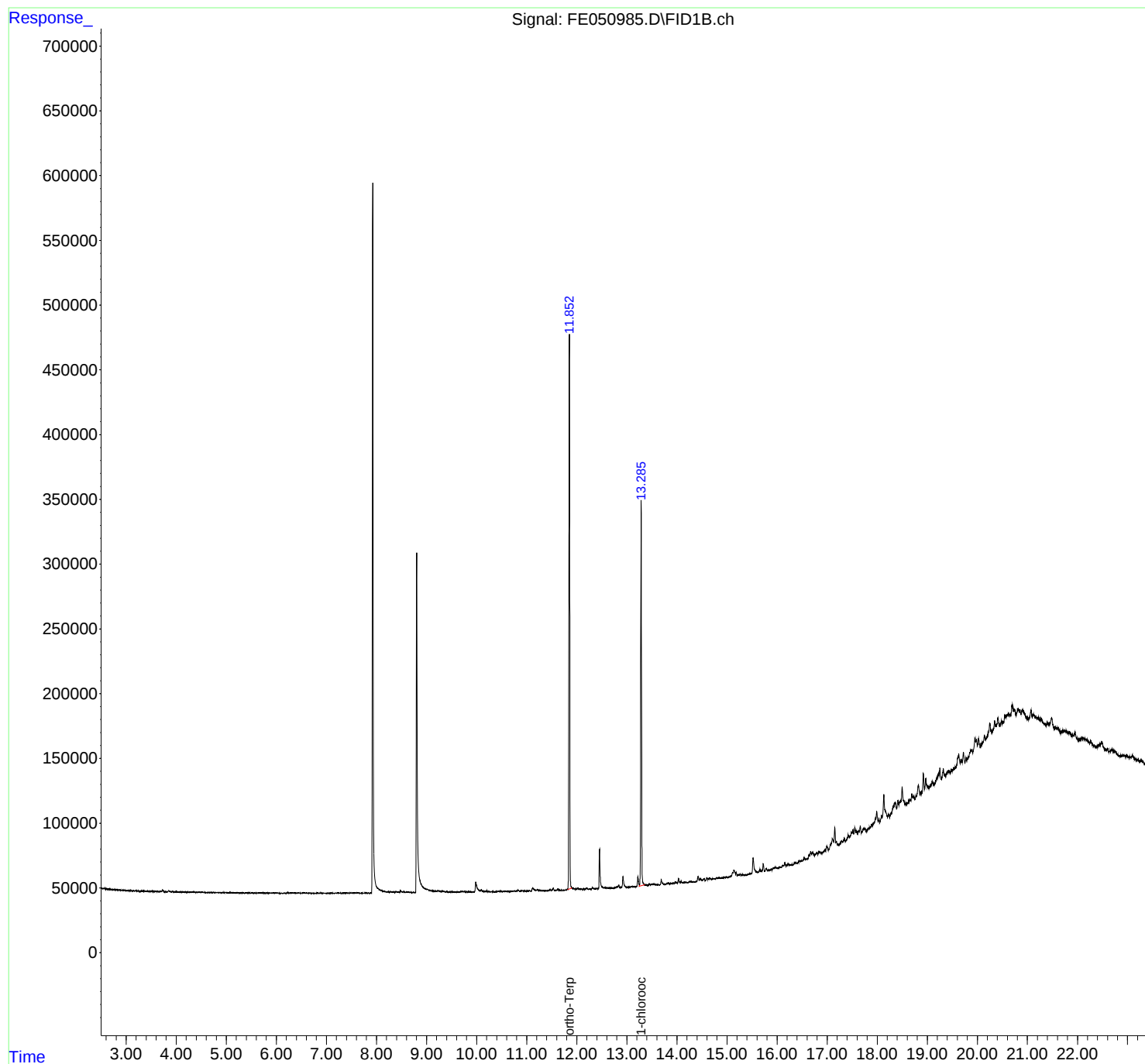
Instrument :
FID_E
ClientSampleId :
TENNANT-PAD-2-3-STOCKPILE

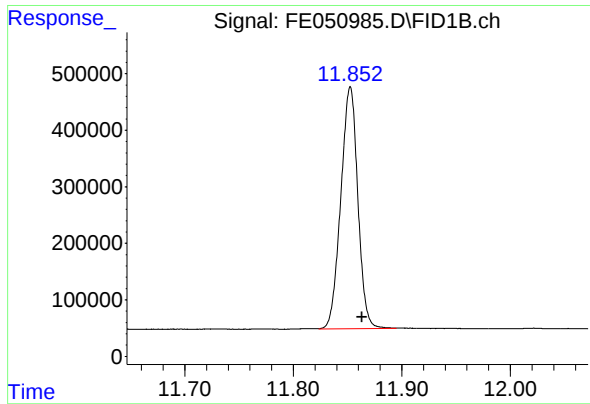
Manual Integrations
APPROVED

Reviewed By :Yogesh Patel 11/04/2024
Supervised By :Ankita Jodhani 11/04/2024

Integration File: sample.E
Quant Time: Nov 04 03:12:42 2024
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\Aliphatic EPH 100824.
Quant Title : GC Extractables
QLast Update : Mon Oct 07 16:32:18 2024
Response via : Initial Calibration
Integrator: ChemStation

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





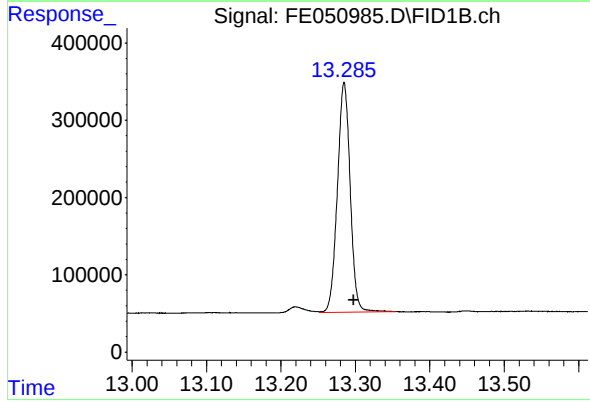
#9 ortho-Terphenyl (SURR)

R.T.: 11.852 min
Delta R.T.: -0.011 min
Response: 4661640
Conc: 29.57 ug/ml

Instrument : FID_E
ClientSampleId :
TENNANT-PAD-2-3-STOCKPILE

Manual Integrations
APPROVED

Reviewed By :Yogesh Patel 11/04/2024
Supervised By :Ankita Jodhani 11/04/2024



#12 1-chlorooctadecane (SURR)

R.T.: 13.285 min
Delta R.T.: -0.013 min
Response: 3550395
Conc: 30.01 ug/ml

Instrument :
FID_E
ClientSampleId :
TENNANT-PAD-2-3-STOCKPILE
Area Percent Report

Manual IntegrationsAPPROVED

Reviewed By :Yogesh Patel 11/04/2024
Supervised By :Ankita Jodhani 11/04/2024

rteres

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE11012
Data File : FE050985.D
Signal(s) : FID1B.ch
Acq On : 02 Nov 2024 02:37
Sample : P4663-02
Misc :
ALS Vial : 29 Sample Multiplier: 1

Integration File: sample.E

Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\Aliphatic EPH 100824.M
Title : GC Extractables

Signal : FID1B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	3.238	3.201	3.341	BV	128	1410	0.03%	0.002%
2	3.363	3.341	3.375	PV	83	1431	0.03%	0.002%
3	3.382	3.375	3.408	VV	109	1278	0.03%	0.002%
4	3.428	3.408	3.465	VV	164	3014	0.06%	0.004%
5	3.472	3.465	3.500	VV	99	923	0.02%	0.001%
6	3.510	3.500	3.541	VV	99	1433	0.03%	0.002%
7	3.549	3.541	3.569	VV	116	1213	0.03%	0.002%
8	3.578	3.569	3.657	VV	105	2974	0.06%	0.004%
9	3.678	3.657	3.706	PV	238	3888	0.08%	0.005%
10	3.727	3.706	3.828	VV	1471	26547	0.56%	0.035%
11	3.848	3.828	3.908	VV	830	16636	0.35%	0.022%
12	3.923	3.908	3.978	VV	403	7315	0.15%	0.010%
13	3.998	3.978	4.042	VV	142	3326	0.07%	0.004%
14	4.055	4.042	4.112	VV	159	3129	0.07%	0.004%
15	4.123	4.112	4.182	PV	92	3541	0.07%	0.005%
16	4.191	4.182	4.226	VV	139	2698	0.06%	0.004%
17	4.231	4.226	4.274	VV	133	2710	0.06%	0.004%
18	4.282	4.274	4.291	VV	160	1256	0.03%	0.002%
19	4.295	4.291	4.308	VV	151	1254	0.03%	0.002%
20	4.315	4.308	4.331	VV	225	2352	0.05%	0.003%
21	4.352	4.331	4.395	VV	232	5553	0.12%	0.007%
22	4.408	4.395	4.465	VV	126	4293	0.09%	0.006%
23	4.491	4.465	4.550	VV	257	6580	0.14%	0.009%
24	4.561	4.550	4.601	VV	102	2543	0.05%	0.003%
25	4.609	4.601	4.639	VV	170	1817	0.04%	0.002%
26	4.661	4.639	4.722	PV	134	3698	0.08%	0.005%
27	4.729	4.722	4.761	VV	131	1991	0.04%	0.003%
28	4.777	4.761	4.791	VV	132	1442	0.03%	0.002%
29	4.796	4.791	4.801	VV	92	422	0.01%	0.001%
30	4.810	4.801	4.871	VV	151	3713	0.08%	0.005%
31	4.916	4.871	5.057	VV	200	12286	0.26%	0.016%
32	5.085	5.057	5.114	VV	177	3514	0.07%	0.005%
33	5.121	5.114	5.139	VV	75	649	0.01%	0.001%
34	5.149	5.139	5.205	PV	85	1939	0.04%	0.003%
35	5.231	5.205	5.278	VV	155	2823	0.06%	0.004%
36	5.287	5.278	5.319	VV	92	1193	0.03%	0.002%

37	5.328	5.319	5.351	VV	53	741	0.02%	0.001%
38	5.357	5.351	5.408	PV	39	1078	0.02%	0.001%
39	5.415	5.408	5.448	VV	95	1374	0.02%	0.001%
40	5.469	5.448	5.497	VV	159	3031	0.02%	0.001%
41	5.509	5.497	5.576	VV	165	3136	0.02%	0.001%
42	5.584	5.576	5.605	PV	45	438	0.02%	0.001%
43	5.630	5.605	5.702	VV	192	5296	0.11%	0.007%
44	5.723	5.702	5.782	VV	377	8877	0.19%	0.012%
45	5.804	5.782	5.851	VV	145	3765	0.08%	0.005%
46	5.855	5.851	5.865	VV	105	537	0.01%	0.001%
47	5.906	5.865	5.968	VV	222	6459	0.14%	0.008%
48	5.981	5.968	6.058	VV	128	3930	0.08%	0.005%
49	6.065	6.058	6.087	VV	78	864	0.02%	0.001%
50	6.107	6.087	6.141	VV	102	1627	0.03%	0.002%
51	6.157	6.141	6.173	PV	65	983	0.02%	0.001%
52	6.227	6.173	6.291	VV	285	11367	0.24%	0.015%
53	6.307	6.291	6.328	VV	253	3571	0.08%	0.005%
54	6.338	6.328	6.351	VV	185	1887	0.04%	0.002%
55	6.370	6.351	6.415	VV	236	5721	0.12%	0.008%
56	6.460	6.415	6.489	VV	173	4992	0.11%	0.007%
57	6.549	6.489	6.641	VV	421	17040	0.36%	0.022%
58	6.677	6.641	6.705	VV	215	5235	0.11%	0.007%
59	6.746	6.705	6.786	VV	173	5092	0.11%	0.007%
60	6.815	6.786	6.919	PV	193	8188	0.17%	0.011%
61	6.929	6.919	6.945	VV	81	1007	0.02%	0.001%
62	6.959	6.945	7.055	VV	179	5165	0.11%	0.007%
63	7.073	7.055	7.098	VV	139	1932	0.04%	0.003%
64	7.103	7.098	7.128	VV	135	1384	0.03%	0.002%
65	7.131	7.128	7.139	VV	149	488	0.01%	0.001%
66	7.165	7.139	7.198	VV	135	3549	0.07%	0.005%
67	7.221	7.198	7.266	VV	213	6325	0.13%	0.008%
68	7.285	7.266	7.301	VV	185	2725	0.06%	0.004%
69	7.309	7.301	7.328	VV	154	2208	0.05%	0.003%
70	7.343	7.328	7.355	VV	239	2880	0.06%	0.004%
71	7.384	7.355	7.425	VV	301	8285	0.17%	0.011%
72	7.454	7.425	7.468	VV	255	3997	0.08%	0.005%
73	7.505	7.468	7.522	VV	303	7765	0.16%	0.010%
74	7.554	7.522	7.588	VV	317	8906	0.19%	0.012%
75	7.607	7.588	7.678	VV	316	10515	0.22%	0.014%
76	7.686	7.678	7.696	VV	112	792	0.02%	0.001%
77	7.724	7.696	7.765	PV	102	2728	0.06%	0.004%
78	7.768	7.765	7.797	VV	93	1211	0.03%	0.002%
79	7.807	7.797	7.848	PV	74	770	0.02%	0.001%
80	8.278	8.255	8.347	VV	919	40878	0.86%	0.054%
81	8.398	8.347	8.445	VV	951	43085	0.91%	0.057%
82	8.482	8.445	8.526	VV	1640	44299	0.93%	0.058%
83	8.544	8.526	8.574	VV	794	15755	0.33%	0.021%
84	8.598	8.574	8.664	VV	651	27284	0.57%	0.036%
85	8.681	8.664	8.708	VV	437	7844	0.17%	0.010%
86	8.726	8.708	8.775	VV	306	5867	0.12%	0.008%
87	9.140	9.127	9.157	VV	1120	19099	0.40%	0.025%
88	9.168	9.157	9.201	VV	1083	25233	0.53%	0.033%
89	9.227	9.201	9.285	VV	1471	50376	1.06%	0.066%

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90	9.313	9.285	9.421	VV	1318	54756	1.15%	0.072%
91	9.433	9.421	9.451	VV	369	5593		
92	9.469	9.451	9.482	VV	442	6426		
93	9.515	9.482	9.537	VV	359	9655		
94	9.554	9.537	9.590	VV	245	5412		
95	9.606	9.590	9.634	VV	265	5072		
96	9.706	9.634	9.753	VV	585	24076	0.51%	0.032%
97	9.768	9.753	9.798	VV	395	7107	0.15%	0.009%
98	9.821	9.798	9.829	VV	318	3862	0.08%	0.005%
99	9.846	9.829	9.860	VV	231	3691	0.08%	0.005%
100	9.870	9.860	9.908	VV	236	3054	0.06%	0.004%
101	9.928	9.908	9.945	PV	312	3326	0.07%	0.004%
102	9.984	9.945	10.071	VV	7739	192615	4.06%	0.253%
103	10.090	10.071	10.177	VV	1664	45897	0.97%	0.060%
104	10.198	10.177	10.359	VV	1050	27288	0.57%	0.036%
105	10.366	10.359	10.383	PV	79	427	0.01%	0.001%
106	10.438	10.383	10.457	PV	418	7028	0.15%	0.009%
107	10.480	10.457	10.506	VV	499	8932	0.19%	0.012%
108	10.565	10.506	10.605	VV	386	13816	0.29%	0.018%
109	10.622	10.605	10.661	VV	315	4648	0.10%	0.006%
110	10.753	10.661	10.773	PV	646	16005	0.34%	0.021%
111	10.829	10.773	10.863	VV	1256	27203	0.57%	0.036%
112	10.899	10.863	10.921	VV	671	12777	0.27%	0.017%
113	10.936	10.921	10.951	VV	306	4951	0.10%	0.007%
114	10.955	10.951	11.020	VV	333	4981	0.10%	0.007%
115	11.052	11.020	11.085	VV	463	7611	0.16%	0.010%
116	11.121	11.085	11.183	VV	2287	67273	1.42%	0.088%
117	11.205	11.183	11.355	VV	933	39964	0.84%	0.052%
118	11.415	11.355	11.434	PV	166	2266	0.05%	0.003%
119	11.463	11.434	11.486	VV	1207	16390	0.35%	0.022%
120	11.532	11.486	11.558	VV	2046	35010	0.74%	0.046%
121	11.572	11.558	11.594	VV	256	4291	0.09%	0.006%
122	11.621	11.594	11.655	VV	1329	22012	0.46%	0.029%
123	11.672	11.655	11.680	VV	157	1833	0.04%	0.002%
124	11.693	11.680	11.711	VV	189	2255	0.05%	0.003%
125	11.730	11.711	11.747	VV	237	3659	0.08%	0.005%
126	11.773	11.747	11.795	VV	279	3588	0.08%	0.005%
127	11.852	11.795	11.931	PV	426707	4747560	100.00%	6.234%
128	11.944	11.931	11.975	VV	1142	24137	0.51%	0.032%
129	11.985	11.975	11.998	VV	658	8306	0.17%	0.011%
130	12.021	11.998	12.038	VV	1368	21650	0.46%	0.028%
131	12.052	12.038	12.070	VV	719	11552	0.24%	0.015%
132	12.090	12.070	12.118	VV	713	13231	0.28%	0.017%
133	12.139	12.118	12.160	VV	513	7543	0.16%	0.010%
134	12.199	12.160	12.225	PV	1424	23658	0.50%	0.031%
135	12.248	12.225	12.278	VV	301	5546	0.12%	0.007%
136	12.310	12.278	12.373	PV	1241	29584	0.62%	0.039%
137	12.404	12.373	12.428	VV	445	9945	0.21%	0.013%
138	12.456	12.428	12.545	VV	30603	423868	8.93%	0.557%
139	12.554	12.545	12.571	VV	768	10744	0.23%	0.014%
140	12.584	12.571	12.630	VV	787	17904	0.38%	0.024%
141	12.657	12.630	12.678	VV	483	9650	0.20%	0.013%

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142	12.693	12.678	12.732	VV	327	6644	0.14%	0.009%
143	12.802	12.732	12.817	VV	1211	26982	0.14%	0.009%
144	12.839	12.817	12.891	VV	2166	39070	0.14%	0.009%
145	12.922	12.891	13.002	VV	8753	154248	0.14%	0.009%
146	13.026	13.002	13.058	VV	398	7232	0.14%	0.009%
147	13.105	13.058	13.127	VV	581	14160	0.14%	0.009%
148	13.139	13.127	13.177	VV	389	6700	0.14%	0.009%
149	13.220	13.177	13.251	PV	7766	121075	2.55%	0.159%
150	13.285	13.251	13.370	VV	297411	3609733	76.03%	4.740%
151	13.393	13.370	13.424	VV	1069	25442	0.54%	0.033%
152	13.449	13.424	13.468	VV	1744	27320	0.58%	0.036%
153	13.532	13.468	13.591	VV	1258	62721	1.32%	0.082%
154	13.606	13.591	13.648	VV	389	8262	0.17%	0.011%
155	13.687	13.648	13.745	VV	4180	76245	1.61%	0.100%
156	13.753	13.745	13.771	VV	209	1811	0.04%	0.002%
157	13.827	13.771	13.871	VV	1054	30978	0.65%	0.041%
158	13.890	13.871	13.907	VV	397	7346	0.15%	0.010%
159	13.928	13.907	13.943	VV	672	9351	0.20%	0.012%
160	13.984	13.943	14.008	VV	1343	31462	0.66%	0.041%
161	14.033	14.008	14.068	VV	3827	58494	1.23%	0.077%
162	14.087	14.068	14.118	VV	1413	20353	0.43%	0.027%
163	14.132	14.118	14.140	VV	504	5212	0.11%	0.007%
164	14.154	14.140	14.199	VV	483	11093	0.23%	0.015%
165	14.254	14.199	14.318	VV	763	26149	0.55%	0.034%
166	14.332	14.318	14.341	VV	222	1888	0.04%	0.002%
167	14.350	14.341	14.369	VV	197	1675	0.04%	0.002%
168	14.421	14.369	14.452	PV	3926	71812	1.51%	0.094%
169	14.469	14.452	14.495	VV	2317	37307	0.79%	0.049%
170	14.540	14.495	14.570	VV	1691	40384	0.85%	0.053%
171	14.596	14.570	14.620	VV	2343	35039	0.74%	0.046%
172	14.656	14.620	14.682	VV	1751	37210	0.78%	0.049%
173	14.708	14.682	14.718	VV	713	10785	0.23%	0.014%
174	14.740	14.718	14.768	VV	842	17033	0.36%	0.022%
175	14.792	14.768	14.821	VV	1359	26702	0.56%	0.035%
176	14.851	14.821	14.875	VV	1001	20227	0.43%	0.027%
177	14.908	14.875	14.919	VV	442	10822	0.23%	0.014%
178	14.993	14.919	15.025	VV	719	25473	0.54%	0.033%
179	15.072	15.025	15.081	VV	962	18667	0.39%	0.025%
180	15.140	15.081	15.169	VV	5240	166613	3.51%	0.219%
181	15.181	15.169	15.218	VV	2850	51582	1.09%	0.068%
182	15.230	15.218	15.245	VV	1307	17056	0.36%	0.022%
183	15.265	15.245	15.291	VV	1409	26029	0.55%	0.034%
184	15.332	15.291	15.361	VV	831	20752	0.44%	0.027%
185	15.379	15.361	15.390	PV	268	2916	0.06%	0.004%
186	15.451	15.390	15.487	VV	703	17764	0.37%	0.023%
187	15.520	15.487	15.589	PV	12218	258133	5.44%	0.339%
188	15.603	15.589	15.623	VV	764	11709	0.25%	0.015%
189	15.655	15.623	15.692	VV	2451	42939	0.90%	0.056%
190	15.723	15.692	15.755	VV	5904	85212	1.79%	0.112%
191	15.782	15.755	15.808	VV	1936	32087	0.68%	0.042%
192	15.823	15.808	15.850	PV	496	6131	0.13%	0.008%
193	15.876	15.850	15.889	PV	712	8521	0.18%	0.011%
194	15.935	15.889	15.951	VV	1078	25860	0.54%	0.034%

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195	15.970	15.951	16.015	VV	1173	25730	0.54%	0.034%
196	16.050	16.015	16.088	VV	780	19122		
197	16.125	16.088	16.134	VV	1303	27321		
198	16.155	16.134	16.185	VV	3537	55749		
199	16.224	16.185	16.255	VV	1742	41290		
200	16.297	16.255	16.311	VV	781	14308		
201	16.345	16.311	16.355	PV	1453	18641	0.39%	0.024%
202	16.371	16.355	16.395	VV	1051	15835	0.33%	0.021%
203	16.457	16.395	16.471	PV	1168	25008	0.53%	0.033%
204	16.488	16.471	16.511	VV	923	12557	0.26%	0.016%
205	16.539	16.511	16.578	VV	2004	43172	0.91%	0.057%
206	16.603	16.578	16.618	VV	520	8093	0.17%	0.011%
207	16.638	16.618	16.651	VV	2848	36905	0.78%	0.048%
208	16.669	16.651	16.687	VV	4944	71896	1.51%	0.094%
209	16.711	16.687	16.741	VV	3807	81899	1.73%	0.108%
210	16.800	16.741	16.814	VV	1729	54085	1.14%	0.071%
211	16.833	16.814	16.884	VV	1957	44539	0.94%	0.058%
212	16.951	16.884	16.961	PV	1086	23184	0.49%	0.030%
213	16.992	16.961	17.034	VV	3986	77344	1.63%	0.102%
214	17.106	17.034	17.130	VV	7618	244915	5.16%	0.322%
215	17.152	17.130	17.175	VV	15488	236635	4.98%	0.311%
216	17.184	17.175	17.229	VV	4476	73371	1.55%	0.096%
217	17.289	17.229	17.304	VV	3066	72021	1.52%	0.095%
218	17.343	17.304	17.366	VV	4034	94612	1.99%	0.124%
219	17.419	17.366	17.453	VV	5392	173754	3.66%	0.228%
220	17.488	17.453	17.501	VV	6290	146538	3.09%	0.192%
221	17.514	17.501	17.531	VV	7947	111439	2.35%	0.146%
222	17.552	17.531	17.571	VV	8777	154877	3.26%	0.203%
223	17.587	17.571	17.607	VV	5285	100731	2.12%	0.132%
224	17.625	17.607	17.637	VV	5120	78679	1.66%	0.103%
225	17.661	17.637	17.691	VV	8499	170024	3.58%	0.223%
226	17.727	17.691	17.796	VV	5662	242588	5.11%	0.319%
227	17.822	17.796	17.833	VV	3993	76444	1.61%	0.100%
228	17.888	17.833	17.914	VV	6115	220827	4.65%	0.290%
229	17.990	17.914	18.015	VV	14029	507482	10.69%	0.666%
230	18.034	18.015	18.050	VV	7933	130983	2.76%	0.172%
231	18.085	18.050	18.098	VV	9563	208239	4.39%	0.273%
232	18.131	18.098	18.206	VV	24801	810593	17.07%	1.064%
233	18.229	18.206	18.245	VV	7874	164019	3.45%	0.215%
234	18.276	18.245	18.288	VV	8072	186125	3.92%	0.244%
235	18.359	18.288	18.388	VV	15096	727528	15.32%	0.955%
236	18.415	18.388	18.431	VV	15342	336894	7.10%	0.442%
237	18.497	18.431	18.551	VV	24569	1092378	23.01%	1.434%
238	18.569	18.551	18.591	VV	11007	248690	5.24%	0.327%
239	18.629	18.591	18.638	VV	12361	306233	6.45%	0.402%
240	18.656	18.638	18.671	VV	12598	236348	4.98%	0.310%
241	18.690	18.671	18.758	VV	16103	687789	14.49%	0.903%
242	18.821	18.758	18.851	VV	20854	864218	18.20%	1.135%
243	18.866	18.851	18.881	VV	14702	249679	5.26%	0.328%
244	18.921	18.881	18.945	VV	28283	727374	15.32%	0.955%
245	18.969	18.945	19.005	VV	23707	681092	14.35%	0.894%
246	19.017	19.005	19.031	VV	16944	255956	5.39%	0.336%

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0.54% 0.034%

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rteres							
247	19.099	19.031	19.148	VV	18917	1173746	24.72% 1.541%
248	19.223	19.148	19.234	VV	23556	1038204	21.18% 0.854%
249	19.251	19.234	19.282	VV	26938	636349	13.70% 0.502%
250	19.319	19.282	19.361	VV	25139	994058	20.01% 0.777%
251	19.382	19.361	19.391	VV	21063	364748	7.71% 0.312%
252	19.433	19.391	19.455	VV	22044	809675	17.02% 0.688%
253	19.478	19.455	19.488	VV	21231	413422	8.71% 0.543%
254	19.529	19.488	19.539	VV	22768	668590	14.08% 0.878%
255	19.628	19.539	19.654	VV	31687	1754581	36.96% 2.304%
256	19.673	19.654	19.693	VV	26580	598166	12.60% 0.785%
257	19.721	19.693	19.750	VV	31572	911552	19.20% 1.197%
258	19.773	19.750	19.781	VV	25951	462307	9.74% 0.607%
259	19.797	19.781	19.807	VV	25385	382041	8.05% 0.502%
260	19.888	19.807	19.908	VV	30769	1720290	36.24% 2.259%
261	19.952	19.908	19.968	VV	37991	1211481	25.52% 1.591%
262	19.983	19.968	19.999	VV	37000	650607	13.70% 0.854%
263	20.022	19.999	20.055	VV	37115	1130805	23.82% 1.485%
264	20.071	20.055	20.082	VV	32542	509346	10.73% 0.669%
265	20.140	20.082	20.160	VV	37791	1576907	33.22% 2.071%
266	20.247	20.160	20.294	VV	44675	3082606	64.93% 4.048%
267	20.345	20.294	20.380	VV	45262	2111403	44.47% 2.772%
268	20.412	20.380	20.452	VV	46573	1853112	39.03% 2.433%
269	20.479	20.452	20.518	VV	43285	1625619	34.24% 2.135%
270	20.550	20.518	20.564	VV	46886	1218705	25.67% 1.600%
271	20.601	20.564	20.611	VV	46047	1283754	27.04% 1.686%
272	20.627	20.611	20.648	VV	46884	1005400	21.18% 1.320%
273	20.701	20.648	20.722	VV	52381	2120377	44.66% 2.784%
274	20.732	20.722	20.777	VV	47959	1503784	31.67% 1.975%
275	20.802	20.777	20.812	VV	47393	949992	20.01% 1.247%
276	20.821	20.812	20.872	VV	46604	1615713	34.03% 2.122%
277	20.889	20.872	20.991	VV	44643	2979085	62.75% 3.912%
278	21.002	20.991	21.011	VV	37267	440098	9.27% 0.578%
279	21.029	21.011	21.041	VV	36532	650760	13.71% 0.854%
280	21.070	21.041	21.098	VV	41737	1317703	27.76% 1.730%
281	21.115	21.098	21.148	VV	37960	1101609	23.20% 1.446%
282	21.160	21.148	21.190	VV	35803	876475	18.46% 1.151%
283	21.209	21.190	21.251	VV	34024	1209967	25.49% 1.589%
284	21.271	21.251	21.338	VV	32578	1545895	32.56% 2.030%
285	21.348	21.338	21.372	VV	27280	539811	11.37% 0.709%
286	21.399	21.372	21.445	VV	27005	1111493	23.41% 1.459%
287	21.484	21.445	21.539	VV	28972	1404308	29.58% 1.844%
288	21.553	21.539	21.604	VV	21329	773393	16.29% 1.016%
289	21.614	21.604	21.668	VV	19304	652070	13.73% 0.856%
290	21.711	21.668	21.733	VV	15910	592106	12.47% 0.777%
291	21.747	21.733	21.771	VV	15072	327891	6.91% 0.431%
292	21.777	21.771	21.814	VV	14320	333246	7.02% 0.438%
293	21.832	21.814	21.918	VV	12915	639665	13.47% 0.840%
294	21.952	21.918	21.985	VV	10471	328380	6.92% 0.431%
295	21.994	21.985	22.009	VV	5541	61095	1.29% 0.080%
296	22.086	22.009	22.108	VV	3524	185204	3.90% 0.243%
297	22.114	22.108	22.159	VV	3035	69338	1.46% 0.091%
298	22.168	22.159	22.201	VBA	1527	138956	2.93% 0.182%

Sum of corrected areas:

76158052

Instrument :

FID_E

ClientSampleId :

TENNANT-PAD-2-3-STOCKPILE

Manual IntegrationsAPPROVED

Reviewed By :Yogesh Patel 11/04/2024

Supervised By :Ankita Jodhani 11/04/2024

rteres

Aliphatic EPH 100824.M Mon Nov 04 04:38:31 2024

Instrument :
FID_E
ClientSampleId :
TENNANT-PAD-2-3-STOCKPILE

Manual IntegrationsAPPROVED

Reviewed By :Yogesh Patel 11/04/2024
Supervised By :Ankita Jodhani 11/04/2024

Report of Analysis

Client:	Union Paving & Construction Company	Date Collected:	10/31/24
Project:	Rt. 10 Whippany	Date Received:	10/31/24
Client Sample ID:	RES-BUILDING-PAD-NO-11	SDG No.:	P4663
Lab Sample ID:	P4663-04	Matrix:	Solid
Analytical Method:	NJEPH	% Solid:	91.7
Sample Wt/Vol:	30.08 Units: g	Final Vol:	2000 uL
Soil Aliquot Vol:	uL	Test:	EPH_NF
Prep Method :			

Prep Date :	Date Analyzed :	Prep Batch ID
11/01/24 08:50	11/02/24 3:07	PB164589

Datafile

CAS Number	Parameter	Conc.	Qualifier	Dilution	MDL	LOQ / CRQL	Units(Dry Weight)	
TARGETS								
Aliphatic C28-C40	Aliphatic C28-C40	21.2		1	1.96	2.18	mg/kg	FE050986.D
Aliphatic C9-C28	Aliphatic C9-C28	2.22	J	1	1.87	4.36	mg/kg	FE050986.D
Total AliphaticEPH	Total AliphaticEPH	23.4			3.83	6.54	mg/kg	
Total EPH	Total EPH	23.4			3.83	6.54	mg/kg	

* As samples are not fractionated, all aliphatic and aromatic carbon compounds in the C9-C40 carbon range are calculated against the aliphatic calibration curve, and reported as Aliphatic EPH. Therefore, the aliphatic C9-C40 concentration for the sample is reported as the Total EPH.

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:	Union Paving & Construction Company	Date Collected:	10/31/24
Project:	Rt. 10 Whippany	Date Received:	10/31/24
Client Sample ID:	RES-BUILDING-PAD-NO-11	SDG No.:	P4663
Lab Sample ID:	P4663-04	Matrix:	Solid
Analytical Method:	NJEPH	% Solid:	91.7
Sample Wt/Vol:	30.08 Units: g	Final Vol:	2000 uL
Soil Aliquot Vol:	uL	Test:	EPH_NF
Prep Method :			

File ID :	Dilution:	Prep Date :	Date Analyzed :	Prep Batch ID
FE050986.D	1	11/01/24	11/02/24	PB164589

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
Aliphatic C9-C28	Aliphatic C9-C28	2.22	J	1.87	4.36	mg/kg
Aliphatic C28-C40	Aliphatic C28-C40	21.2		1.96	2.18	mg/kg
SURROGATES						
3383-33-2	1-chlorooctadecane (SURR)	38.3		40 - 140	77%	SPK: 50
84-15-1	ortho-Terphenyl (SURR)	38.1		40 - 140	76%	SPK: 50

Quantitation Report For Aliphatic EPH Range.

Lab Sample ID:	P4663-04	Acq On:	02 Nov 2024 03:07
Client Sample ID:	RES-BUILDING-PAD-NO.	Operator:	YP\AJ
Data file:	FE050986.D	Misc:	
Instrument:	FID_E	ALS Vial:	30
Dilution Factor:	1	Sample Multiplier:	1.00

Compound	R.T.		Response	Conc	highest_standard	Units
Aliphatic EPH	3.143	22.051	45039307	324.459		ug/ml
ortho-Terphenyl (SURR)	11.853	11.853	6005696	38.09		ug/ml
1-chlorooctadecane (SURR)	13.286	13.286	4532325	38.31		ug/ml
Aliphatic C9-C12	3.143	6.761	272870	1.91	300	ug/ml
Aliphatic C12-C16	6.762	10.193	853141	5.879	200	ug/ml
Aliphatic C16-C21	10.194	13.552	1398902	9.688	300	ug/ml
Aliphatic C21-C28	13.553	17.208	2128238	14.971	400	ug/ml
Aliphatic C28-C40	17.209	22.051	40386156	292.012	600	ug/ml
Aliphatic C9-C28	3.143	17.208	4653151	32.448	1200	ug/ml

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE110124AL\
 Data File : FE050986.D
 Signal(s) : FID1B.ch
 Acq On : 02 Nov 2024 03:07
 Operator : YP\AJ
 Sample : P4663-04
 Misc :
 ALS Vial : 30 Sample Multiplier: 1

Instrument :
 FID_E
 ClientSampleId :
 RES-BUILDING-PAD-NO-11

Manual Integrations
 APPROVED

Reviewed By :Yogesh Patel 11/04/2024
 Supervised By :Ankita Jodhani 11/04/2024

Integration File: sample.E
 Quant Time: Nov 04 03:12:50 2024
 Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\Aliphatic EPH 100824.M
 Quant Title : GC Extractables
 QLast Update : Mon Oct 07 16:32:18 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)	11.853	6005696	38.094 ug/mlm
Spiked Amount	50.000	Recovery	= 76.19%
12) S 1-chlorooctadecane (S...	13.286	4532325	38.314 ug/ml
Spiked Amount	50.000	Recovery	= 76.63%

Target Compounds

(f)=RT Delta > 1/2 Window

(m)=manual int.

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE110124AL\
Data File : FE050986.D
Signal(s) : FID1B.ch
Acq On : 02 Nov 2024 03:07
Operator : YP\AJ
Sample : P4663-04
Misc :
ALS Vial : 30 Sample Multiplier: 1

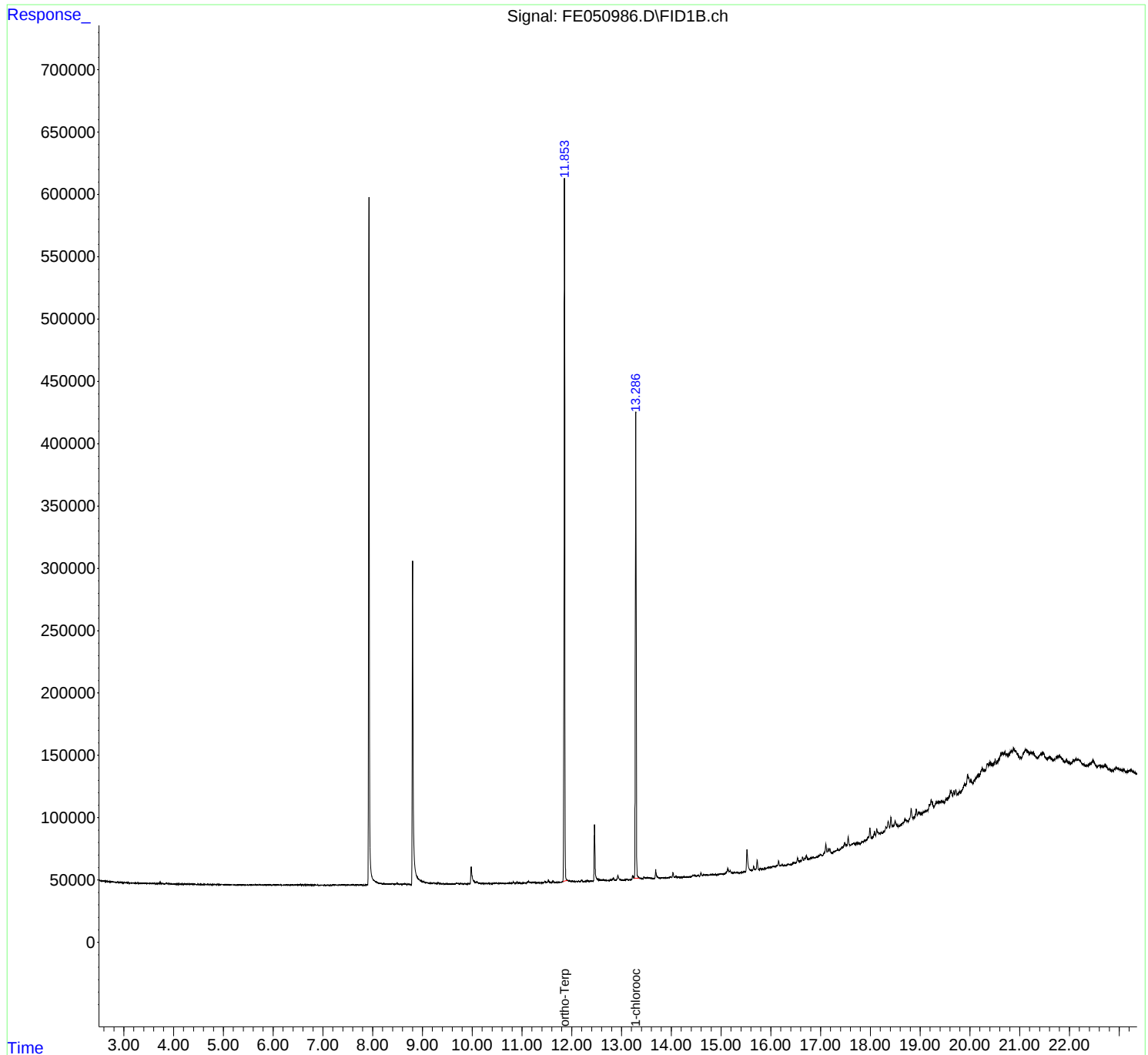
Instrument :
FID_E
ClientSampleId :
RES-BUILDING-PAD-NO-11

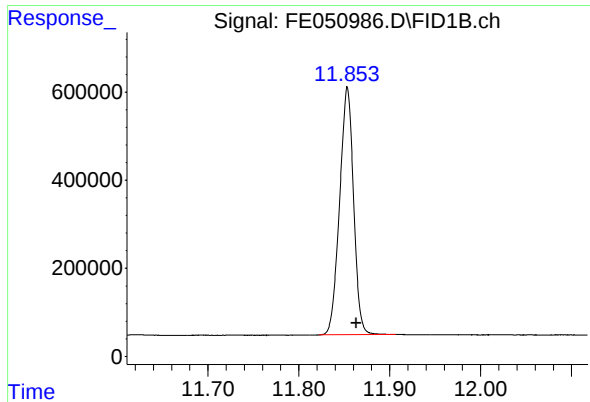
Manual Integrations
APPROVED

Reviewed By :Yogesh Patel 11/04/2024
Supervised By :Ankita Jodhani 11/04/2024

Integration File: sample.E
Quant Time: Nov 04 03:12:50 2024
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\Aliphatic EPH 100824.
Quant Title : GC Extractables
QLast Update : Mon Oct 07 16:32:18 2024
Response via : Initial Calibration
Integrator: ChemStation

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





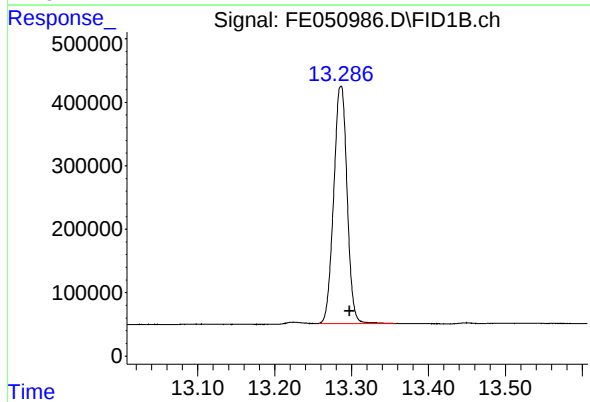
#9 ortho-Terphenyl (SURR)

R.T.: 11.853 min
Delta R.T.: -0.010 min
Response: 6005696
Conc: 38.09 ug/ml

Instrument :
FID_E
ClientSampleId :
RES-BUILDING-PAD-NO-11

Manual Integrations
APPROVED

Reviewed By :Yogesh Patel 11/04/2024
Supervised By :Ankita Jodhani 11/04/2024



#12 1-chlorooctadecane (SURR)

R.T.: 13.286 min
Delta R.T.: -0.012 min
Response: 4532325
Conc: 38.31 ug/ml

Instrument :

FID_E

ClientSampleId :

RES-BUILDING-PAD-NO-11

Area Percent Report

Manual IntegrationsAPPROVED

Reviewed By :Yogesh Patel 11/04/2024

Supervised By :Ankita Jodhani 11/04/2024

rteres

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE11012
Data File : FE050986.D
Signal(s) : FID1B.ch
Acq On : 02 Nov 2024 03:07
Sample : P4663-04
Misc :
ALS Vial : 30 Sample Multiplier: 1

Integration File: sample.E

Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\Aliphatic EPH 100824.M
Title : GC Extractables

Signal : FID1B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	3.234	3.204	3.281	BV	193	3170	0.05%	0.006%
2	3.284	3.281	3.348	VV	84	140	0.00%	0.000%
3	3.363	3.348	3.419	PV	177	2698	0.04%	0.005%
4	3.435	3.419	3.573	VV	162	3085	0.05%	0.005%
5	3.587	3.573	3.661	PV	113	1970	0.03%	0.003%
6	3.698	3.661	3.708	PV	238	4659	0.08%	0.008%
7	3.728	3.708	3.824	VV	1351	23567	0.39%	0.041%
8	3.850	3.824	3.904	VV	687	13934	0.23%	0.025%
9	3.925	3.904	3.954	VV	348	5470	0.09%	0.010%
10	3.965	3.954	3.985	VV	118	1153	0.02%	0.002%
11	3.993	3.985	4.009	PV	61	587	0.01%	0.001%
12	4.034	4.009	4.126	VV	82	3993	0.07%	0.007%
13	4.138	4.126	4.190	PV	68	2329	0.04%	0.004%
14	4.205	4.190	4.211	VV	116	1136	0.02%	0.002%
15	4.221	4.211	4.291	VV	188	5861	0.10%	0.010%
16	4.309	4.291	4.336	VV	221	3770	0.06%	0.007%
17	4.352	4.336	4.418	VV	279	6610	0.11%	0.012%
18	4.427	4.418	4.469	VV	129	1892	0.03%	0.003%
19	4.494	4.469	4.520	VV	267	4027	0.07%	0.007%
20	4.536	4.520	4.561	VV	161	2700	0.04%	0.005%
21	4.565	4.561	4.588	VV	107	1057	0.02%	0.002%
22	4.608	4.588	4.641	VV	167	2578	0.04%	0.005%
23	4.667	4.641	4.707	VV	229	4500	0.07%	0.008%
24	4.714	4.707	4.734	VV	154	989	0.02%	0.002%
25	4.744	4.734	4.767	VV	83	1198	0.02%	0.002%
26	4.778	4.767	4.785	VV	125	851	0.01%	0.001%
27	4.800	4.785	4.928	VV	151	11276	0.18%	0.020%
28	4.962	4.928	5.020	VV	202	7725	0.13%	0.014%
29	5.030	5.020	5.065	VV	133	2572	0.04%	0.005%
30	5.078	5.065	5.107	VV	169	2322	0.04%	0.004%
31	5.117	5.107	5.191	VV	112	3217	0.05%	0.006%
32	5.200	5.191	5.214	VV	83	760	0.01%	0.001%
33	5.225	5.214	5.278	VV	146	2940	0.05%	0.005%
34	5.291	5.278	5.315	PV	120	1209	0.02%	0.002%
35	5.331	5.315	5.372	VV	98	2379	0.04%	0.004%
36	5.380	5.372	5.411	VV	146	1525	0.02%	0.003%

37	5.419	5.411	5.429	PV	128	796	0.01%	0.001%
38	5.475	5.429	5.495	VV	249	5927	0.01%	0.001%
39	5.509	5.495	5.611	VV	191	7779	0.01%	0.001%
40	5.643	5.611	5.679	PV	227	5485	0.01%	0.001%
41	5.724	5.679	5.801	VV	487	16219	0.02%	0.002%
42	5.820	5.801	5.852	VV	240	5367	0.02%	0.003%
43	5.902	5.852	5.978	VV	316	13699	0.02%	0.002%
44	6.005	5.978	6.048	VV	346	8635	0.02%	0.002%
45	6.057	6.048	6.097	VV	197	3617	0.02%	0.002%
46	6.108	6.097	6.145	VV	173	2520	0.02%	0.002%
47	6.153	6.145	6.191	VV	95	1491	0.02%	0.003%
48	6.242	6.191	6.275	VV	321	9758	0.02%	0.002%
49	6.291	6.275	6.351	VV	234	7025	0.02%	0.002%
50	6.373	6.351	6.411	VV	241	5386	0.02%	0.002%
51	6.468	6.411	6.495	VV	200	6692	0.02%	0.002%
52	6.549	6.495	6.614	VV	590	16200	0.02%	0.002%
53	6.638	6.614	6.648	VV	378	4735	0.02%	0.002%
54	6.656	6.648	6.719	VV	328	8051	0.02%	0.002%
55	6.726	6.719	6.768	VV	195	3639	0.02%	0.002%
56	6.779	6.768	6.786	VV	132	904	0.02%	0.002%
57	6.815	6.786	6.831	VV	198	2962	0.02%	0.002%
58	6.848	6.831	6.865	VV	113	1871	0.02%	0.002%
59	6.907	6.865	6.921	VV	141	3207	0.02%	0.002%
60	6.925	6.921	6.940	VV	138	1004	0.02%	0.002%
61	6.967	6.940	6.981	VV	123	2507	0.02%	0.002%
62	6.985	6.981	6.992	VV	130	545	0.02%	0.002%
63	6.998	6.992	7.024	VV	108	1331	0.02%	0.002%
64	7.048	7.024	7.094	VV	117	2736	0.02%	0.002%
65	7.138	7.094	7.192	PV	90	3917	0.02%	0.002%
66	7.217	7.192	7.259	VV	237	6485	0.02%	0.002%
67	7.279	7.259	7.311	VV	155	3626	0.02%	0.002%
68	7.349	7.311	7.361	VV	280	6102	0.02%	0.002%
69	7.379	7.361	7.427	VV	281	7219	0.02%	0.002%
70	7.449	7.427	7.477	VV	178	4195	0.02%	0.002%
71	7.505	7.477	7.529	VV	254	5563	0.02%	0.002%
72	7.554	7.529	7.570	VV	249	4643	0.02%	0.002%
73	7.603	7.570	7.661	VV	408	11593	0.02%	0.002%
74	7.666	7.661	7.680	VV	126	1088	0.02%	0.002%
75	7.691	7.680	7.705	VV	123	1202	0.02%	0.002%
76	7.740	7.705	7.760	VV	135	2531	0.02%	0.002%
77	7.775	7.760	7.796	VV	122	1684	0.02%	0.002%
78	7.805	7.796	7.837	PV	73	680	0.02%	0.002%
79	8.215	8.201	8.265	VV	1058	33809	0.02%	0.002%
80	8.274	8.265	8.288	VV	706	9447	0.02%	0.002%
81	8.304	8.288	8.332	VV	758	18302	0.02%	0.002%
82	8.341	8.332	8.368	VV	701	13899	0.02%	0.002%
83	8.394	8.368	8.415	VV	1069	22196	0.02%	0.002%
84	8.424	8.415	8.446	VV	711	11527	0.02%	0.002%
85	8.487	8.446	8.581	VV	1113	50389	0.02%	0.002%
86	8.637	8.581	8.693	VV	663	26788	0.02%	0.002%
87	8.717	8.693	8.756	VV	411	10490	0.02%	0.002%
88	9.148	9.134	9.164	VV	1099	18413	0.02%	0.002%
89	9.173	9.164	9.193	VV	1083	16850	0.02%	0.002%

Instrument :
FID_E
ClientSampleId :
RES-BUILDING-PAD-NO-11

Manual IntegrationsAPPROVED

Reviewed By :Yogesh Patel 11/04/2024
Supervised By :Ankita Jodhani 11/04/2024

90	9.227	9.193	9.280	VV	1272	46894	0.77%	0.082%
91	9.313	9.280	9.349	VV	1399	36462		
92	9.358	9.349	9.373	VV	529	7157		
93	9.383	9.373	9.431	VV	496	13929		
94	9.445	9.431	9.477	VV	331	7813		
95	9.489	9.477	9.511	VV	296	5882		
96	9.513	9.511	9.538	VV	296	3515	0.06%	0.006%
97	9.544	9.538	9.591	VV	234	4914	0.08%	0.009%
98	9.613	9.591	9.638	VV	246	5103	0.08%	0.009%
99	9.697	9.638	9.741	VV	699	25492	0.42%	0.045%
100	9.768	9.741	9.803	VV	422	11519	0.19%	0.020%
101	9.816	9.803	9.831	VV	219	3168	0.05%	0.006%
102	9.841	9.831	9.851	VV	255	2311	0.04%	0.004%
103	9.863	9.851	9.909	VV	263	4867	0.08%	0.009%
104	9.930	9.909	9.942	VV	388	4464	0.07%	0.008%
105	9.981	9.942	10.068	VV	13678	299146	4.89%	0.526%
106	10.090	10.068	10.200	VV	1923	60800	0.99%	0.107%
107	10.208	10.200	10.241	VV	387	6204	0.10%	0.011%
108	10.246	10.241	10.257	VV	240	1935	0.03%	0.003%
109	10.281	10.257	10.306	VV	310	6466	0.11%	0.011%
110	10.319	10.306	10.394	VV	167	4767	0.08%	0.008%
111	10.443	10.394	10.454	PV	412	7649	0.13%	0.013%
112	10.478	10.454	10.519	VV	635	13173	0.22%	0.023%
113	10.571	10.519	10.604	VV	303	9916	0.16%	0.017%
114	10.620	10.604	10.656	VV	356	4885	0.08%	0.009%
115	10.718	10.656	10.727	PV	239	4154	0.07%	0.007%
116	10.751	10.727	10.780	VV	484	9401	0.15%	0.017%
117	10.828	10.780	10.874	VV	1452	26409	0.43%	0.046%
118	10.900	10.874	10.923	VV	979	15141	0.25%	0.027%
119	10.935	10.923	10.990	VV	265	7121	0.12%	0.013%
120	11.050	10.990	11.089	PV	457	9092	0.15%	0.016%
121	11.128	11.089	11.188	VV	1346	42389	0.69%	0.075%
122	11.211	11.188	11.266	VV	726	23968	0.39%	0.042%
123	11.277	11.266	11.298	VV	317	5221	0.09%	0.009%
124	11.300	11.298	11.353	VV	279	6125	0.10%	0.011%
125	11.367	11.353	11.392	VV	138	2112	0.03%	0.004%
126	11.423	11.392	11.441	PV	207	4060	0.07%	0.007%
127	11.463	11.441	11.491	VV	1324	18915	0.31%	0.033%
128	11.531	11.491	11.583	VV	2323	39366	0.64%	0.069%
129	11.621	11.583	11.666	VV	1226	22273	0.36%	0.039%
130	11.694	11.666	11.714	VV	207	2609	0.04%	0.005%
131	11.730	11.714	11.758	VV	323	3125	0.05%	0.005%
132	11.773	11.758	11.788	PV	238	2283	0.04%	0.004%
133	11.853	11.788	11.981	PV	563142	6112357	100.00%	10.750%
134	11.987	11.981	12.004	VV	694	7927	0.13%	0.014%
135	12.022	12.004	12.045	VV	814	14299	0.23%	0.025%
136	12.054	12.045	12.074	VV	501	6029	0.10%	0.011%
137	12.091	12.074	12.118	VV	418	7616	0.12%	0.013%
138	12.137	12.118	12.158	VV	548	6667	0.11%	0.012%
139	12.200	12.158	12.251	VV	1419	25427	0.42%	0.045%
140	12.264	12.251	12.277	VV	172	2080	0.03%	0.004%
141	12.308	12.277	12.376	PV	627	17588	0.29%	0.031%

Instrument :

FID_E

ClientSampleId :

RES-BUILDING-PAD-NO-11

Manual IntegrationsAPPROVED

Reviewed By :Yogesh Patel 11/04/2024

Supervised By :Ankita Jodhani 11/04/2024

142	12.406	12.376	12.434	PV	380	7164	0.12%	0.013%
143	12.458	12.434	12.620	VV	45384	639379	10.55%	0.005%
144	12.641	12.620	12.679	VV	922	24335	0.004%	0.000%
145	12.699	12.679	12.744	VV	377	10594	0.003%	0.000%
146	12.774	12.744	12.788	VV	583	10744	0.005%	0.000%
147	12.807	12.788	12.817	VV	683	10848	0.006%	0.000%
148	12.838	12.817	12.886	VV	2156	36206	0.59%	0.064%
149	12.927	12.886	13.004	VV	3926	87191	1.43%	0.153%
150	13.027	13.004	13.068	VV	164	3722	0.06%	0.007%
151	13.100	13.068	13.146	VV	548	13983	0.23%	0.025%
152	13.163	13.146	13.174	VV	260	2985	0.05%	0.005%
153	13.225	13.174	13.254	PV	3422	62645	1.02%	0.110%
154	13.286	13.254	13.381	VV	379326	4617742	75.55%	8.122%
155	13.392	13.381	13.424	VV	1014	19357	0.32%	0.034%
156	13.449	13.424	13.469	VV	1993	30438	0.50%	0.054%
157	13.515	13.469	13.555	VV	1163	52919	0.87%	0.093%
158	13.565	13.555	13.594	VV	857	16994	0.28%	0.030%
159	13.608	13.594	13.647	VV	533	10917	0.18%	0.019%
160	13.687	13.647	13.776	VV	7107	133464	2.18%	0.235%
161	13.828	13.776	13.855	VV	729	22589	0.37%	0.040%
162	13.874	13.855	13.907	VV	455	9668	0.16%	0.017%
163	13.987	13.907	14.011	VV	1186	32118	0.53%	0.056%
164	14.034	14.011	14.074	VV	4136	63959	1.05%	0.112%
165	14.091	14.074	14.118	VV	1176	18374	0.30%	0.032%
166	14.151	14.118	14.208	VV	401	13095	0.21%	0.023%
167	14.266	14.208	14.290	PV	491	13324	0.22%	0.023%
168	14.302	14.290	14.344	VV	281	4657	0.08%	0.008%
169	14.362	14.344	14.381	PV	201	2461	0.04%	0.004%
170	14.439	14.381	14.456	PV	1286	25829	0.42%	0.045%
171	14.471	14.456	14.498	VV	1371	20140	0.33%	0.035%
172	14.543	14.498	14.568	VV	841	18746	0.31%	0.033%
173	14.595	14.568	14.623	VV	2690	36362	0.59%	0.064%
174	14.658	14.623	14.684	VV	1253	25599	0.42%	0.045%
175	14.707	14.684	14.732	VV	595	11913	0.19%	0.021%
176	14.760	14.732	14.772	VV	375	7158	0.12%	0.013%
177	14.800	14.772	14.823	VV	686	14525	0.24%	0.026%
178	14.843	14.823	14.864	VV	620	10946	0.18%	0.019%
179	14.878	14.864	14.908	VV	350	6561	0.11%	0.012%
180	14.922	14.908	14.930	VV	137	1477	0.02%	0.003%
181	14.947	14.930	14.957	VV	242	2979	0.05%	0.005%
182	14.990	14.957	15.008	VV	633	11207	0.18%	0.020%
183	15.022	15.008	15.038	VV	209	3068	0.05%	0.005%
184	15.135	15.038	15.168	PV	4603	115072	1.88%	0.202%
185	15.184	15.168	15.250	VV	2519	52129	0.85%	0.092%
186	15.267	15.250	15.303	VV	742	12570	0.21%	0.022%
187	15.331	15.303	15.353	VV	477	7442	0.12%	0.013%
188	15.519	15.353	15.594	PV	17710	341236	5.58%	0.600%
189	15.611	15.594	15.628	VV	610	10678	0.17%	0.019%
190	15.654	15.628	15.693	VV	3501	57941	0.95%	0.102%
191	15.725	15.693	15.763	VV	8086	116473	1.91%	0.205%
192	15.786	15.763	15.811	VV	881	13778	0.23%	0.024%
193	15.838	15.811	15.854	VV	368	4357	0.07%	0.008%
194	15.878	15.854	15.898	PV	383	6467	0.11%	0.011%

Manual IntegrationsAPPROVED

Reviewed By :Yogesh Patel 11/04/2024
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195	15.969	15.898	16.010	VV	802	38304	0.63%	0.067%
196	16.046	16.010	16.095	VV	1014	34957		
197	16.120	16.095	16.130	VV	1220	18172		
198	16.155	16.130	16.184	VV	4747	71855		
199	16.222	16.184	16.263	VV	1160	33303		
200	16.286	16.263	16.311	VV	367	5947		
201	16.357	16.311	16.369	PV	670	16569	0.27%	0.029%
202	16.375	16.369	16.399	VV	368	3861	0.06%	0.007%
203	16.536	16.399	16.574	PV	3504	86594	1.42%	0.152%
204	16.636	16.574	16.658	VV	3427	60915	1.00%	0.107%
205	16.679	16.658	16.689	VV	2016	26619	0.44%	0.047%
206	16.711	16.689	16.748	VV	3825	69071	1.13%	0.121%
207	16.804	16.748	16.815	VV	880	20858	0.34%	0.037%
208	16.845	16.815	16.879	VV	843	21775	0.36%	0.038%
209	16.994	16.879	17.034	PV	1617	45611	0.75%	0.080%
210	17.104	17.034	17.130	VV	8534	166416	2.72%	0.293%
211	17.151	17.130	17.168	VV	4428	67073	1.10%	0.118%
212	17.185	17.168	17.234	VV	4041	64065	1.05%	0.113%
213	17.344	17.234	17.362	PV	1386	44824	0.73%	0.079%
214	17.435	17.362	17.454	VV	2104	63327	1.04%	0.111%
215	17.485	17.454	17.501	VV	4391	95584	1.56%	0.168%
216	17.513	17.501	17.527	VV	3084	43296	0.71%	0.076%
217	17.553	17.527	17.601	VV	8779	171966	2.81%	0.302%
218	17.629	17.601	17.644	VV	2285	46385	0.76%	0.082%
219	17.664	17.644	17.687	VV	2562	50183	0.82%	0.088%
220	17.722	17.687	17.733	VV	1692	35963	0.59%	0.063%
221	17.747	17.733	17.775	VV	1333	26693	0.44%	0.047%
222	17.783	17.775	17.798	VV	801	5651	0.09%	0.010%
223	17.839	17.798	17.851	PV	1137	23815	0.39%	0.042%
224	17.883	17.851	17.898	VV	1803	35179	0.58%	0.062%
225	17.989	17.898	18.023	VV	10275	267189	4.37%	0.470%
226	18.036	18.023	18.044	VV	1869	21649	0.35%	0.038%
227	18.082	18.044	18.103	VV	6050	125394	2.05%	0.221%
228	18.128	18.103	18.188	VV	7521	225088	3.68%	0.396%
229	18.223	18.188	18.238	VV	3433	91087	1.49%	0.160%
230	18.311	18.238	18.327	VV	6812	215313	3.52%	0.379%
231	18.357	18.327	18.387	VV	10407	274181	4.49%	0.482%
232	18.413	18.387	18.448	VV	12865	280721	4.59%	0.494%
233	18.497	18.448	18.554	VV	8902	382691	6.26%	0.673%
234	18.574	18.554	18.591	VV	4195	84369	1.38%	0.148%
235	18.696	18.591	18.761	VV	7545	541439	8.86%	0.952%
236	18.819	18.761	18.852	VV	14358	459621	7.52%	0.808%
237	18.922	18.852	18.944	VV	12482	447316	7.32%	0.787%
238	18.968	18.944	19.007	VV	9492	316833	5.18%	0.557%
239	19.020	19.007	19.034	VV	7777	118951	1.95%	0.209%
240	19.098	19.034	19.108	VV	8671	344410	5.63%	0.606%
241	19.143	19.108	19.153	VV	8388	223090	3.65%	0.392%
242	19.221	19.153	19.276	VV	16022	884892	14.48%	1.556%
243	19.319	19.276	19.337	VV	12734	411111	6.73%	0.723%
244	19.349	19.337	19.358	VV	12056	145719	2.38%	0.256%
245	19.373	19.358	19.411	VV	12458	373661	6.11%	0.657%
246	19.422	19.411	19.432	VV	12314	149545	2.45%	0.263%

Instrument :
FID_E
ClientSampleId :
RES-BUILDING-PAD-NO-11

Manual IntegrationsAPPROVED

Reviewed By :Yogesh Patel 11/04/2024
Supervised By :Ankita Jodhani 11/04/2024

Area under the curve							Instrument : FID_E	
rteres							ClientSampleId :	
RES-BUILDING-PAD-NO-11								
247	19.437	19.432	19.454	VV	11583	149583	2.45%	0.263%
248	19.471	19.454	19.488	VV	11160	219354	3.42%	0.368%
249	19.526	19.488	19.541	VV	12885	366259	5.79%	0.514%
250	19.617	19.541	19.651	VV	17060	946667	15.82%	1.916%
							Manual IntegrationsAPPROVED	
							Reviewed By :Yogesh Patel 11/04/2024	
							Supervised By :Ankita Jodhani 11/04/2024	
251	19.676	19.651	19.694	VV	16781	385424	6.42%	0.368%
252	19.716	19.694	19.742	VV	17009	435739	7.79%	0.514%
253	19.753	19.742	19.769	VV	13226	209028	3.42%	0.368%
254	19.792	19.769	19.804	VV	14659	292510	4.79%	0.514%
255	19.892	19.804	19.915	VV	19178	1089180	17.82%	1.916%
256	19.952	19.915	20.001	VV	26195	1136251	18.59%	1.998%
257	20.015	20.001	20.061	VV	20874	694697	11.37%	1.222%
258	20.163	20.061	20.176	VV	23744	1412825	23.11%	2.485%
259	20.248	20.176	20.269	VV	27327	1376321	22.52%	2.421%
260	20.349	20.269	20.373	VV	29733	1638946	26.81%	2.883%
261	20.407	20.373	20.457	VV	29590	1411402	23.09%	2.482%
262	20.507	20.457	20.524	VV	31179	1122995	18.37%	1.975%
263	20.549	20.524	20.557	VV	28741	561876	9.19%	0.988%
264	20.622	20.557	20.631	VV	33441	1362719	22.29%	2.397%
265	20.646	20.631	20.674	VV	33661	855472	14.00%	1.505%
266	20.702	20.674	20.726	VV	33569	1003027	16.41%	1.764%
267	20.738	20.726	20.763	VV	31918	688285	11.26%	1.211%
268	20.883	20.763	21.008	VV	33673	4505548	73.71%	7.924%
269	21.027	21.008	21.036	VV	25093	413804	6.77%	0.728%
270	21.116	21.036	21.185	VV	30096	2505462	40.99%	4.407%
271	21.194	21.185	21.211	VV	26490	399131	6.53%	0.702%
272	21.229	21.211	21.245	VV	26549	526457	8.61%	0.926%
273	21.272	21.245	21.361	VV	26161	1612500	26.38%	2.836%
274	21.431	21.361	21.446	VV	22699	1096456	17.94%	1.928%
275	21.462	21.446	21.558	VV	22880	1319765	21.59%	2.321%
276	21.605	21.558	21.678	VV	17594	1159425	18.97%	2.039%
277	21.789	21.678	21.920	VV	15915	1969070	32.21%	3.463%
278	21.939	21.920	22.016	VV	10715	492842	8.06%	0.867%
279	22.126	22.016	22.158	VV	8970	650303	10.64%	1.144%
280	22.168	22.158	22.317	VV	8058	425720	6.96%	0.749%
281	22.327	22.317	22.340	VV	1277	10164	0.17%	0.018%
282	22.357	22.340	22.380	VV	321	1662	0.03%	0.003%
Sum of corrected areas:					56857249			

Aliphatic EPH 100824.M Mon Nov 04 04:39:31 2024

Report of Analysis

Client:	Union Paving & Construction Company	Date Collected:	10/31/24
Project:	Rt. 10 Whippany	Date Received:	10/31/24
Client Sample ID:	RES-BUILDING-PAD-NO-3	SDG No.:	P4663
Lab Sample ID:	P4663-06	Matrix:	Solid
Analytical Method:	NJEPH	% Solid:	91.2
Sample Wt/Vol:	30.04 Units: g	Final Vol:	2000 uL
Soil Aliquot Vol:	uL	Test:	EPH_NF
Prep Method :			

Prep Date :	Date Analyzed :	Prep Batch ID
11/01/24 08:50	11/05/24 10:42	PB164589

Datafile

CAS Number	Parameter	Conc.	Qualifier	Dilution	MDL	LOQ / CRQL	Units(Dry Weight)	
TARGETS								
Aliphatic C28-C40	Aliphatic C28-C40	80.2		2	3.94	4.38	mg/kg	FE051024.D
Aliphatic C9-C28	Aliphatic C9-C28	5.86		1	1.88	4.39	mg/kg	FE050987.D
Total AliphaticEPH	Total AliphaticEPH	86.1			5.82	8.77	mg/kg	
Total EPH	Total EPH	86.1			5.82	8.77	mg/kg	

* As samples are not fractionated, all aliphatic and aromatic carbon compounds in the C9-C40 carbon range are calculated against the aliphatic calibration curve, and reported as Aliphatic EPH. Therefore, the aliphatic C9-C40 concentration for the sample is reported as the Total EPH.

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:	Union Paving & Construction Company	Date Collected:	10/31/24
Project:	Rt. 10 Whippany	Date Received:	10/31/24
Client Sample ID:	RES-BUILDING-PAD-NO-3	SDG No.:	P4663
Lab Sample ID:	P4663-06	Matrix:	Solid
Analytical Method:	NJEPH	% Solid:	91.2
Sample Wt/Vol:	30.04 Units: g	Final Vol:	2000 uL
Soil Aliquot Vol:	uL	Test:	EPH_NF
Prep Method :			

File ID :	Dilution:	Prep Date :	Date Analyzed :	Prep Batch ID
FE050987.D	1	11/01/24	11/02/24	PB164589

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
Aliphatic C9-C28	Aliphatic C9-C28	5.86		1.88	4.39	mg/kg
Aliphatic C28-C40	Aliphatic C28-C40	72.8	E	1.97	2.19	mg/kg
SURROGATES						
3383-33-2	1-chlorooctadecane (SURR)	44.8		40 - 140	90%	SPK: 50
84-15-1	ortho-Terphenyl (SURR)	44.5		40 - 140	89%	SPK: 50

Quantitation Report For Aliphatic EPH Range.

Lab Sample ID:	P4663-06	Acq On:	02 Nov 2024 03:37
Client Sample ID:	RES-BUILDING-PAD-NO.	Operator:	YP\AJ
Data file:	FE050987.D	Misc:	
Instrument:	FID_E	ALS Vial:	31
Dilution Factor:	1	Sample Multiplier:	1.00

Compound	R.T.		Response	Conc	highest_standard	Units
Aliphatic EPH	3.143	22.051	149756742	1080		ug/ml
ortho-Terphenyl (SURR)	11.854	11.854	7023173	44.55		ug/ml
1-chlorooctadecane (SURR)	13.286	13.286	5294133	44.75		ug/ml
Aliphatic C9-C12	3.143	6.761	261751	1.832	300	ug/ml
Aliphatic C12-C16	6.762	10.193	937364	6.459	200	ug/ml
Aliphatic C16-C21	10.194	13.552	6679754	46.258	300	ug/ml
Aliphatic C21-C28	13.553	17.208	3913685	27.531	400	ug/ml
Aliphatic C28-C40	17.209	22.051	137964188	997.548	600	ug/ml
Aliphatic C9-C28	3.143	17.208	11792554	82.08	1200	ug/ml

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE110124AL\
 Data File : FE050987.D
 Signal(s) : FID1B.ch
 Acq On : 02 Nov 2024 03:37
 Operator : YP\AJ
 Sample : P4663-06
 Misc :
 ALS Vial : 31 Sample Multiplier: 1

Instrument :
 FID_E
 ClientSampleId :
 RES-BUILDING-PAD-NO-3

Manual Integrations
 APPROVED

Reviewed By :Yogesh Patel 11/04/2024
 Supervised By :Ankita Jodhani 11/04/2024

Integration File: sample.E
 Quant Time: Nov 04 03:12:58 2024
 Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\Aliphatic EPH 100824.M
 Quant Title : GC Extractables
 QLast Update : Mon Oct 07 16:32:18 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)	11.854	7023173	44.548 ug/mlm
Spiked Amount 50.000		Recovery =	89.10%
12) S 1-chlorooctadecane (S...	13.286	5294133	44.754 ug/mlm
Spiked Amount 50.000		Recovery =	89.51%

Target Compounds

(f)=RT Delta > 1/2 Window

(m)=manual int.

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE110124AL\
Data File : FE050987.D
Signal(s) : FID1B.ch
Acq On : 02 Nov 2024 03:37
Operator : YP\AJ
Sample : P4663-06
Misc :
ALS Vial : 31 Sample Multiplier: 1

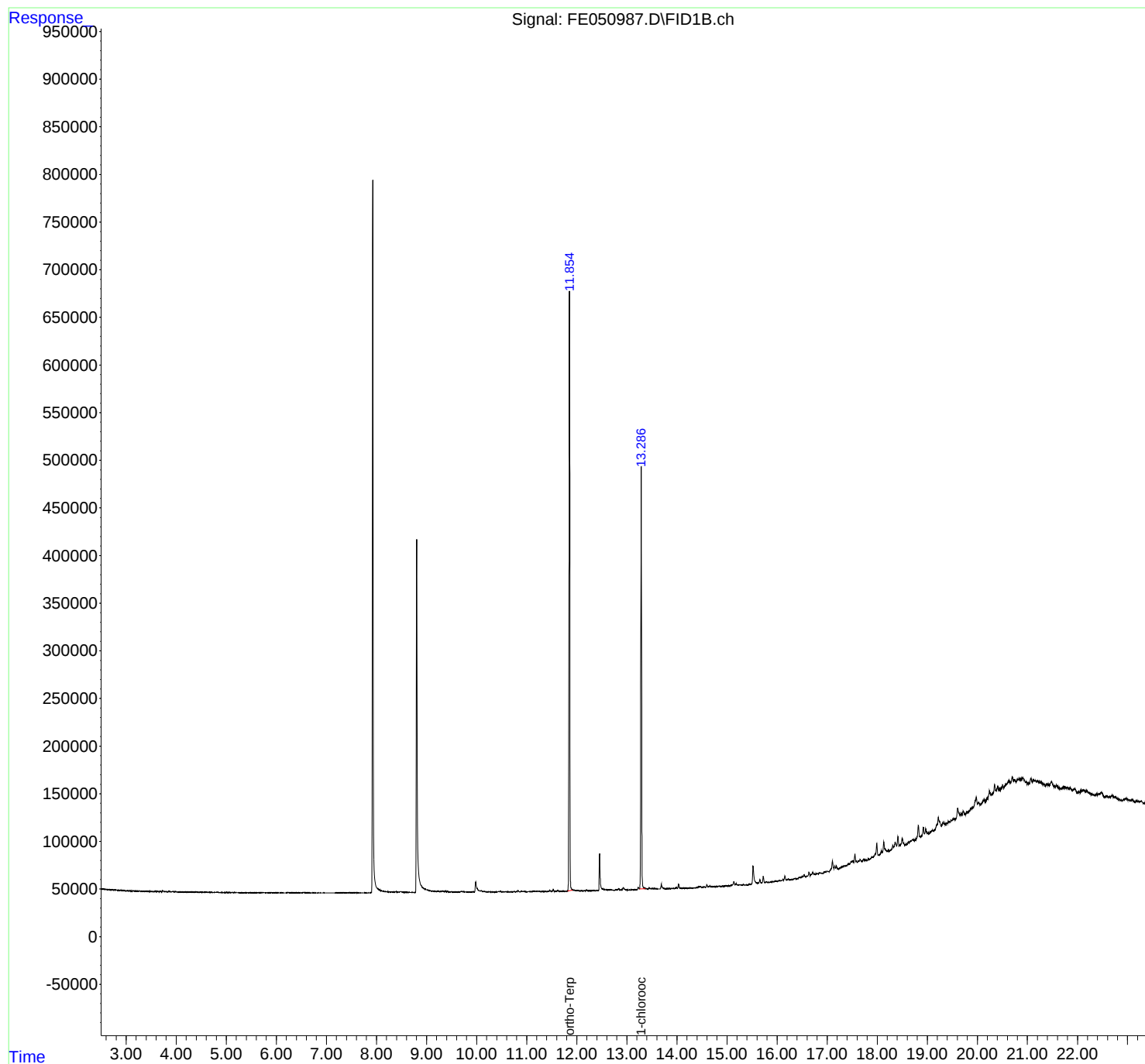
Instrument :
FID_E
ClientSampleId :
RES-BUILDING-PAD-NO-3

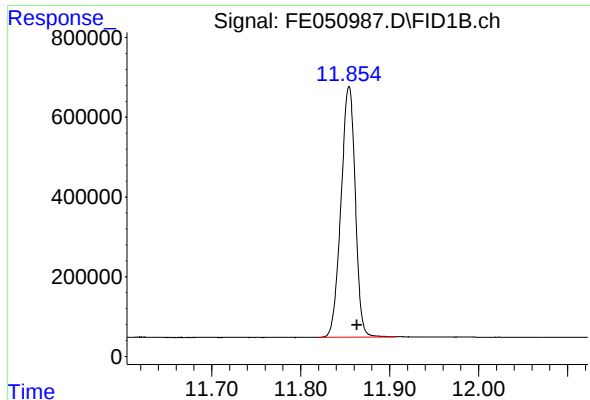
Manual Integrations
APPROVED

Reviewed By :Yogesh Patel 11/04/2024
Supervised By :Ankita Jodhani 11/04/2024

Integration File: sample.E
Quant Time: Nov 04 03:12:58 2024
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\Aliphatic EPH 100824.
Quant Title : GC Extractables
QLast Update : Mon Oct 07 16:32:18 2024
Response via : Initial Calibration
Integrator: ChemStation

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





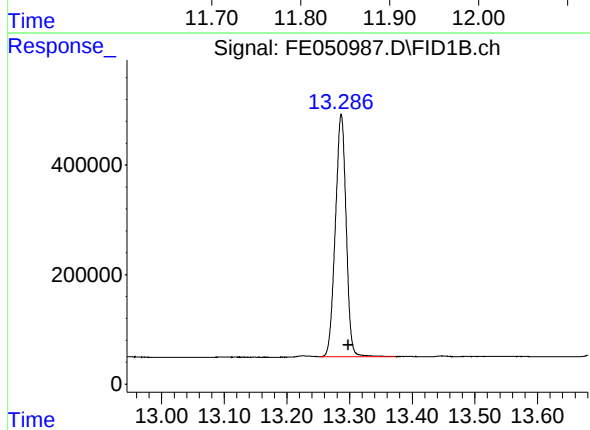
#9 ortho-Terphenyl (SURR)

R.T.: 11.854 min
Delta R.T.: -0.009 min
Response: 7023173
Conc: 44.55 ug/ml

Instrument :
FID_E
ClientSampleId :
RES-BUILDING-PAD-NO-3

Manual Integrations
APPROVED

Reviewed By :Yogesh Patel 11/04/2024
Supervised By :Ankita Jodhani 11/04/2024



#12 1-chlorooctadecane (SURR)

R.T.: 13.286 min
Delta R.T.: -0.012 min
Response: 5294133
Conc: 44.75 ug/ml m

Instrument :

FID_E

ClientSampleId :

RES-BUILDING-PAD-NO-3

Area Percent Report

Manual IntegrationsAPPROVED

Reviewed By :Yogesh Patel 11/04/2024

Supervised By :Ankita Jodhani 11/04/2024

rteres

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE11012
Data File : FE050987.D
Signal(s) : FID1B.ch
Acq On : 02 Nov 2024 03:37
Sample : P4663-06
Misc :
ALS Vial : 31 Sample Multiplier: 1

Integration File: sample.E

Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\Aliphatic EPH 100824.M
Title : GC Extractables

Signal : FID1B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	3.240	3.205	3.289	BV	149	2607	0.04%	0.002%
2	3.301	3.289	3.341	PV	134	1610	0.02%	0.001%
3	3.362	3.341	3.418	VV	214	4997	0.07%	0.003%
4	3.429	3.418	3.485	VV	177	4218	0.06%	0.003%
5	3.492	3.485	3.521	VV	78	1102	0.02%	0.001%
6	3.533	3.521	3.562	VV	92	1894	0.03%	0.001%
7	3.573	3.562	3.619	VV	187	3791	0.05%	0.002%
8	3.631	3.619	3.659	VV	129	2097	0.03%	0.001%
9	3.688	3.659	3.707	PV	233	4136	0.06%	0.003%
10	3.729	3.707	3.822	VV	1275	23310	0.33%	0.014%
11	3.850	3.822	3.907	PV	679	13501	0.19%	0.008%
12	3.926	3.907	3.983	VV	287	6469	0.09%	0.004%
13	3.991	3.983	4.103	VV	127	2089	0.03%	0.001%
14	4.112	4.103	4.128	VV	82	517	0.01%	0.000%
15	4.134	4.128	4.178	PV	57	994	0.01%	0.001%
16	4.195	4.178	4.206	VV	115	1078	0.02%	0.001%
17	4.225	4.206	4.231	VV	85	1127	0.02%	0.001%
18	4.239	4.231	4.255	VV	152	1447	0.02%	0.001%
19	4.259	4.255	4.291	VV	141	2863	0.04%	0.002%
20	4.314	4.291	4.332	VV	204	4068	0.06%	0.002%
21	4.355	4.332	4.375	VV	325	4850	0.07%	0.003%
22	4.383	4.375	4.406	VV	167	2260	0.03%	0.001%
23	4.423	4.406	4.469	VV	238	4228	0.06%	0.003%
24	4.494	4.469	4.518	VV	249	4313	0.06%	0.003%
25	4.525	4.518	4.569	VV	150	3691	0.05%	0.002%
26	4.577	4.569	4.597	VV	145	1724	0.02%	0.001%
27	4.606	4.597	4.629	VV	210	2334	0.03%	0.001%
28	4.669	4.629	4.725	PV	260	7107	0.10%	0.004%
29	4.736	4.725	4.765	VV	119	1898	0.03%	0.001%
30	4.780	4.765	4.831	VV	165	5082	0.07%	0.003%
31	4.844	4.831	4.882	VV	172	3828	0.05%	0.002%
32	4.893	4.882	4.904	VV	125	1490	0.02%	0.001%
33	4.914	4.904	4.923	VV	147	1258	0.02%	0.001%
34	4.938	4.923	4.991	VV	191	5042	0.07%	0.003%
35	5.000	4.991	5.012	VV	155	1296	0.02%	0.001%
36	5.021	5.012	5.061	VV	116	2901	0.04%	0.002%

37	5.072	5.061	5.118	VV	173	3003	0.04%	0.002%
38	5.155	5.118	5.228	VV	177	5883	0.04%	0.002%
39	5.234	5.228	5.242	VV	82	651	0.04%	0.002%
40	5.248	5.242	5.268	VV	86	920	0.04%	0.002%
41	5.284	5.268	5.295	PV	83	909	0.04%	0.002%
42	5.302	5.295	5.307	VV	68	392	0.04%	0.002%
43	5.316	5.307	5.403	VV	138	2908	0.04%	0.002%
44	5.428	5.403	5.455	VV	108	2603	0.04%	0.002%
45	5.470	5.455	5.565	VV	162	6298	0.09%	0.004%
46	5.578	5.565	5.591	VV	96	825	0.01%	0.001%
47	5.595	5.591	5.609	VV	75	490	0.01%	0.000%
48	5.631	5.609	5.707	VV	214	5603	0.08%	0.003%
49	5.726	5.707	5.801	VV	410	11622	0.16%	0.007%
50	5.818	5.801	5.846	VV	225	4316	0.06%	0.003%
51	5.858	5.846	5.877	VV	163	2274	0.03%	0.001%
52	5.904	5.877	5.966	VV	208	8069	0.11%	0.005%
53	5.978	5.966	5.993	VV	158	1839	0.03%	0.001%
54	6.009	5.993	6.046	VV	171	3289	0.05%	0.002%
55	6.055	6.046	6.075	PV	75	717	0.01%	0.000%
56	6.078	6.075	6.088	VV	86	352	0.00%	0.000%
57	6.116	6.088	6.193	VV	114	3632	0.05%	0.002%
58	6.229	6.193	6.253	VV	341	8081	0.11%	0.005%
59	6.261	6.253	6.291	VV	231	4160	0.06%	0.003%
60	6.301	6.291	6.348	VV	227	6033	0.08%	0.004%
61	6.374	6.348	6.441	VV	261	9033	0.13%	0.006%
62	6.478	6.441	6.491	VV	184	3601	0.05%	0.002%
63	6.550	6.491	6.614	VV	539	14850	0.21%	0.009%
64	6.633	6.614	6.648	VV	177	2852	0.04%	0.002%
65	6.658	6.648	6.703	VV	205	4110	0.06%	0.003%
66	6.722	6.703	6.798	VV	161	5219	0.07%	0.003%
67	6.817	6.798	6.835	VV	149	2523	0.04%	0.002%
68	6.849	6.835	6.883	VV	186	3422	0.05%	0.002%
69	6.888	6.883	6.895	VV	118	744	0.01%	0.000%
70	6.902	6.895	6.913	VV	97	881	0.01%	0.001%
71	6.953	6.913	7.041	VV	201	6083	0.09%	0.004%
72	7.077	7.041	7.170	PV	132	6014	0.08%	0.004%
73	7.204	7.170	7.321	VV	327	19809	0.28%	0.012%
74	7.380	7.321	7.460	VV	350	18361	0.26%	0.011%
75	7.473	7.460	7.515	VV	245	7154	0.10%	0.004%
76	7.524	7.515	7.575	VV	263	8207	0.12%	0.005%
77	7.584	7.575	7.591	VV	202	1893	0.03%	0.001%
78	7.606	7.591	7.670	VV	388	10056	0.14%	0.006%
79	7.681	7.670	7.748	VV	175	5084	0.07%	0.003%
80	7.784	7.748	7.819	VV	224	5834	0.08%	0.004%
81	7.835	7.819	7.854	VV	124	1648	0.02%	0.001%
82	8.236	8.231	8.261	VV	1150	19032	0.27%	0.012%
83	8.270	8.261	8.295	VV	990	18264	0.26%	0.011%
84	8.303	8.295	8.342	VV	963	24033	0.34%	0.015%
85	8.356	8.342	8.367	VV	795	11472	0.16%	0.007%
86	8.393	8.367	8.444	VV	1166	39528	0.56%	0.024%
87	8.486	8.444	8.566	VV	1352	56788	0.80%	0.035%
88	8.632	8.566	8.686	VV	534	30923	0.44%	0.019%
89	8.705	8.686	8.720	VV	344	5649	0.08%	0.003%

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0.04% 0.002%

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90	8.730	8.720	8.774	VV	276	6844	0.10%	0.004%
91	9.167	9.159	9.205	VV	1238	31874		
92	9.227	9.205	9.280	VV	1501	53376		
93	9.314	9.280	9.350	VV	1630	51791		
94	9.374	9.350	9.406	VV	1413	35962		
95	9.419	9.406	9.487	VV	970	33152		
96	9.498	9.487	9.575	VV	561	21322	0.30%	0.013%
97	9.600	9.575	9.629	VV	376	10244	0.14%	0.006%
98	9.687	9.629	9.746	VV	796	35720	0.50%	0.022%
99	9.762	9.746	9.833	VV	493	19021	0.27%	0.012%
100	9.865	9.833	9.894	VV	346	9076	0.13%	0.006%
101	9.928	9.894	9.951	VV	387	7742	0.11%	0.005%
102	9.982	9.951	10.070	VV	10950	257885	3.63%	0.158%
103	10.090	10.070	10.133	VV	1828	43776	0.62%	0.027%
104	10.144	10.133	10.188	VV	565	16177	0.23%	0.010%
105	10.205	10.188	10.248	VV	518	13038	0.18%	0.008%
106	10.264	10.248	10.314	VV	324	8772	0.12%	0.005%
107	10.326	10.314	10.341	VV	213	3108	0.04%	0.002%
108	10.349	10.341	10.378	VV	168	3689	0.05%	0.002%
109	10.446	10.378	10.460	VV	691	16364	0.23%	0.010%
110	10.477	10.460	10.507	VV	670	12279	0.17%	0.008%
111	10.533	10.507	10.555	VV	313	7906	0.11%	0.005%
112	10.567	10.555	10.601	VV	366	7458	0.10%	0.005%
113	10.626	10.601	10.670	VV	303	6125	0.09%	0.004%
114	10.753	10.670	10.777	PV	608	15460	0.22%	0.009%
115	10.829	10.777	10.873	VV	1274	26679	0.38%	0.016%
116	10.900	10.873	10.920	VV	737	11606	0.16%	0.007%
117	10.947	10.920	11.008	VV	294	8130	0.11%	0.005%
118	11.049	11.008	11.079	VV	392	7047	0.10%	0.004%
119	11.138	11.079	11.191	PV	781	27097	0.38%	0.017%
120	11.218	11.191	11.268	VV	443	12898	0.18%	0.008%
121	11.280	11.268	11.365	VV	219	6068	0.09%	0.004%
122	11.416	11.365	11.437	PV	120	1979	0.03%	0.001%
123	11.464	11.437	11.488	VV	1470	18113	0.25%	0.011%
124	11.532	11.488	11.581	VV	2253	36549	0.51%	0.022%
125	11.620	11.581	11.662	VV	916	17802	0.25%	0.011%
126	11.697	11.662	11.711	PV	203	3287	0.05%	0.002%
127	11.726	11.711	11.758	VV	265	3598	0.05%	0.002%
128	11.772	11.758	11.794	PV	230	2439	0.03%	0.001%
129	11.854	11.794	11.974	PV	630859	7107733	100.00%	4.357%
130	11.986	11.974	12.009	VV	782	13525	0.19%	0.008%
131	12.022	12.009	12.078	VV	526	14378	0.20%	0.009%
132	12.095	12.078	12.117	VV	311	4923	0.07%	0.003%
133	12.138	12.117	12.158	VV	431	5727	0.08%	0.004%
134	12.199	12.158	12.241	VV	1356	22295	0.31%	0.014%
135	12.254	12.241	12.271	VV	195	2565	0.04%	0.002%
136	12.303	12.271	12.368	PV	501	14292	0.20%	0.009%
137	12.404	12.368	12.429	VV	465	9688	0.14%	0.006%
138	12.457	12.429	12.511	VV	38743	507181	7.14%	0.311%
139	12.524	12.511	12.571	VV	1873	47887	0.67%	0.029%
140	12.580	12.571	12.633	VV	1037	27623	0.39%	0.017%
141	12.657	12.633	12.667	VV	701	12643	0.18%	0.008%

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0.10% 0.004%

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142	12.680	12.667	12.747	VV	777	18513	0.26%	0.011%
143	12.777	12.747	12.788	VV	585	10117	0.06%	0.003%
144	12.838	12.788	12.891	VV	1891	41434	0.45%	0.016%
145	12.928	12.891	13.005	VV	2953	70047	0.41%	0.015%
146	13.046	13.005	13.067	VV	196	4678	0.03%	0.001%
147	13.097	13.067	13.184	VV	462	17715	0.03%	0.001%
148	13.226	13.184	13.251	PV	2647	47383	0.67%	0.029%
149	13.287	13.251	13.378	VV	443342	5369400	75.54%	3.292%
150	13.393	13.378	13.426	VV	1228	27565	0.39%	0.017%
151	13.448	13.426	13.469	VV	2034	31928	0.45%	0.020%
152	13.487	13.469	13.508	VV	1044	22149	0.31%	0.014%
153	13.535	13.508	13.652	VV	1209	58607	0.82%	0.036%
154	13.688	13.652	13.781	VV	5349	105110	1.48%	0.064%
155	13.830	13.781	13.845	VV	515	13678	0.19%	0.008%
156	13.851	13.845	13.861	VV	384	3351	0.05%	0.002%
157	13.873	13.861	13.918	VV	387	8656	0.12%	0.005%
158	13.929	13.918	13.940	VV	296	3012	0.04%	0.002%
159	13.990	13.940	14.010	VV	1325	26738	0.38%	0.016%
160	14.034	14.010	14.121	VV	4566	77386	1.09%	0.047%
161	14.155	14.121	14.175	VV	357	7722	0.11%	0.005%
162	14.183	14.175	14.218	VV	245	3495	0.05%	0.002%
163	14.267	14.218	14.288	PV	338	8259	0.12%	0.005%
164	14.301	14.288	14.314	VV	240	2425	0.03%	0.001%
165	14.331	14.314	14.343	VV	165	1680	0.02%	0.001%
166	14.364	14.343	14.378	PV	243	2868	0.04%	0.002%
167	14.440	14.378	14.455	VV	1228	27682	0.39%	0.017%
168	14.470	14.455	14.498	VV	1422	24046	0.34%	0.015%
169	14.541	14.498	14.571	VV	879	19190	0.27%	0.012%
170	14.597	14.571	14.620	VV	2941	39318	0.55%	0.024%
171	14.658	14.620	14.690	VV	1101	27746	0.39%	0.017%
172	14.706	14.690	14.751	VV	554	14172	0.20%	0.009%
173	14.756	14.751	14.773	VV	389	2851	0.04%	0.002%
174	14.799	14.773	14.812	PV	461	6795	0.10%	0.004%
175	14.846	14.812	14.885	VV	477	12907	0.18%	0.008%
176	14.911	14.885	14.925	VV	198	3851	0.05%	0.002%
177	14.949	14.925	14.961	VV	292	3207	0.05%	0.002%
178	14.991	14.961	15.018	VV	509	9948	0.14%	0.006%
179	15.030	15.018	15.045	VV	158	1687	0.02%	0.001%
180	15.135	15.045	15.165	VV	4297	96452	1.36%	0.059%
181	15.184	15.165	15.216	VV	2183	39351	0.55%	0.024%
182	15.233	15.216	15.248	VV	615	10551	0.15%	0.006%
183	15.265	15.248	15.297	VV	540	10342	0.15%	0.006%
184	15.329	15.297	15.364	VV	472	10679	0.15%	0.007%
185	15.409	15.364	15.417	PV	120	2409	0.03%	0.001%
186	15.519	15.417	15.601	PV	19166	376650	5.30%	0.231%
187	15.613	15.601	15.627	VV	936	12384	0.17%	0.008%
188	15.655	15.627	15.694	VV	3860	63667	0.90%	0.039%
189	15.723	15.694	15.760	VV	7235	103980	1.46%	0.064%
190	15.784	15.760	15.816	VV	1147	22406	0.32%	0.014%
191	15.835	15.816	15.848	VV	319	4806	0.07%	0.003%
192	15.878	15.848	15.890	VV	508	7998	0.11%	0.005%
193	15.973	15.890	15.998	VV	775	34427	0.48%	0.021%
194	16.061	15.998	16.086	VV	956	38312	0.54%	0.023%

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195	16.115	16.086	16.130	VV	1322	26615	0.37%	0.016%
196	16.155	16.130	16.183	VV	5233	84881		
197	16.225	16.183	16.249	VV	1562	45935		
198	16.295	16.249	16.315	VV	871	29122		
199	16.359	16.315	16.387	VV	1213	44117		
200	16.450	16.387	16.466	VV	2072	66800		
201	16.500	16.466	16.512	VV	2620	59206	0.83%	0.036%
202	16.539	16.512	16.576	VV	4048	115697	1.63%	0.071%
203	16.637	16.576	16.659	VV	6481	179562	2.53%	0.110%
204	16.679	16.659	16.690	VV	3964	66774	0.94%	0.041%
205	16.712	16.690	16.748	VV	5788	154223	2.17%	0.095%
206	16.802	16.748	16.818	VV	4098	163053	2.29%	0.100%
207	16.844	16.818	16.893	VV	4630	189159	2.66%	0.116%
208	16.912	16.893	16.920	VV	4172	65297	0.92%	0.040%
209	16.958	16.920	16.967	VV	4934	130213	1.83%	0.080%
210	16.997	16.967	17.019	VV	5892	163986	2.31%	0.101%
211	17.104	17.019	17.134	VV	15569	569604	8.01%	0.349%
212	17.152	17.134	17.169	VV	10287	182397	2.57%	0.112%
213	17.183	17.169	17.228	VV	9788	284850	4.01%	0.175%
214	17.288	17.228	17.297	VV	8454	315859	4.44%	0.194%
215	17.341	17.297	17.362	VV	9790	341731	4.81%	0.209%
216	17.422	17.362	17.449	VV	10999	519182	7.30%	0.318%
217	17.488	17.449	17.499	VV	13524	368230	5.18%	0.226%
218	17.514	17.499	17.531	VV	13992	252663	3.55%	0.155%
219	17.554	17.531	17.603	VV	20245	628776	8.85%	0.385%
220	17.626	17.603	17.635	VV	12853	234202	3.30%	0.144%
221	17.657	17.635	17.700	VV	14440	510446	7.18%	0.313%
222	17.731	17.700	17.772	VV	14003	572067	8.05%	0.351%
223	17.782	17.772	17.791	VV	13027	146819	2.07%	0.090%
224	17.819	17.791	17.829	VV	14001	302568	4.26%	0.185%
225	17.894	17.829	17.911	VV	15463	702020	9.88%	0.430%
226	17.990	17.911	18.018	VV	29377	1233955	17.36%	0.756%
227	18.037	18.018	18.047	VV	17290	304663	4.29%	0.187%
228	18.083	18.047	18.102	VV	21062	621116	8.74%	0.381%
229	18.131	18.102	18.191	VV	29985	1236956	17.40%	0.758%
230	18.201	18.191	18.210	VV	20498	231329	3.25%	0.142%
231	18.226	18.210	18.248	VV	20789	460022	6.47%	0.282%
232	18.311	18.248	18.325	VV	25652	1015808	14.29%	0.623%
233	18.357	18.325	18.386	VV	28577	962907	13.55%	0.590%
234	18.413	18.386	18.438	VV	34340	879906	12.38%	0.539%
235	18.498	18.438	18.549	VV	32109	1781468	25.06%	1.092%
236	18.585	18.549	18.595	VV	25595	689407	9.70%	0.423%
237	18.704	18.595	18.751	VV	29484	2598292	36.56%	1.593%
238	18.821	18.751	18.851	VV	43702	2008951	28.26%	1.232%
239	18.920	18.851	18.947	VV	41074	1969723	27.71%	1.207%
240	18.970	18.947	19.011	VV	39417	1404033	19.75%	0.861%
241	19.027	19.011	19.038	VV	34846	542962	7.64%	0.333%
242	19.101	19.038	19.124	VV	36973	1847300	25.99%	1.132%
243	19.219	19.124	19.278	VV	50174	3894851	54.80%	2.388%
244	19.317	19.278	19.346	VV	44763	1718138	24.17%	1.053%
245	19.354	19.346	19.365	VV	42730	475414	6.69%	0.291%
246	19.421	19.365	19.438	VV	44928	1899547	26.73%	1.164%

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0.37% 0.016%

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247	19.448	19.438	19.455	VV	44813	440810	6.20%	0.270%
248	19.477	19.455	19.489	VV	45597	921872	12.20%	0.270%
249	19.526	19.489	19.541	VV	46895	1442652	20.20%	0.270%
250	19.606	19.541	19.655	VV	56988	3437084	48.20%	0.270%
251	19.675	19.655	19.695	VV	52141	1240863	17.20%	0.270%
252	19.719	19.695	19.752	VV	53991	1762915	24.20%	0.270%
253	19.789	19.752	19.805	VV	52125	1604257	22.57%	0.983%
254	19.891	19.805	19.901	VV	56764	3138942	44.16%	1.924%
255	19.912	19.901	19.920	VV	56661	626011	8.81%	0.384%
256	19.978	19.920	20.001	VV	67271	3012864	42.39%	1.847%
257	20.024	20.001	20.065	VV	61274	2283287	32.12%	1.400%
258	20.141	20.065	20.167	VV	63191	3755337	52.83%	2.302%
259	20.242	20.167	20.271	VV	71850	4149888	58.39%	2.544%
260	20.344	20.271	20.375	VV	78317	4428076	62.30%	2.714%
261	20.410	20.375	20.426	VV	75773	2266790	31.89%	1.390%
262	20.441	20.426	20.453	VV	73285	1168382	16.44%	0.716%
263	20.478	20.453	20.488	VV	74500	1547496	21.77%	0.949%
264	20.505	20.488	20.528	VV	76970	1770095	24.90%	1.085%
265	20.625	20.528	20.635	VV	80646	4956146	69.73%	3.038%
266	20.645	20.635	20.666	VV	80290	1517030	21.34%	0.930%
267	20.696	20.666	20.725	VV	83942	2836495	39.91%	1.739%
268	20.735	20.725	20.775	VV	81562	2399819	33.76%	1.471%
269	20.809	20.775	20.818	VV	81394	2104838	29.61%	1.290%
270	20.839	20.818	20.868	VV	81087	2397671	33.73%	1.470%
271	20.912	20.868	20.961	VV	82226	4490668	63.18%	2.753%
272	20.974	20.961	21.012	VV	77506	2337840	32.89%	1.433%
273	21.023	21.012	21.041	VV	76031	1319818	18.57%	0.809%
274	21.070	21.041	21.100	VV	80626	2776184	39.06%	1.702%
275	21.121	21.100	21.144	VV	78639	2060425	28.99%	1.263%
276	21.164	21.144	21.178	VV	77839	1560126	21.95%	0.956%
277	21.204	21.178	21.316	VV	77136	6249495	87.93%	3.831%
278	21.324	21.316	21.356	VV	73323	1732851	24.38%	1.062%
279	21.381	21.356	21.411	VV	73247	2406775	33.86%	1.475%
280	21.422	21.411	21.448	VV	72604	1587134	22.33%	0.973%
281	21.484	21.448	21.555	VV	75093	4593355	64.62%	2.816%
282	21.581	21.555	21.664	VV	70260	4504081	63.37%	2.761%
283	21.711	21.664	21.725	VV	68298	2449109	34.46%	1.501%
284	21.748	21.725	21.774	VV	68096	1978199	27.83%	1.213%
285	21.795	21.774	21.840	VV	67403	2656624	37.38%	1.629%
286	21.857	21.840	21.901	VV	66178	2370142	33.35%	1.453%
287	21.943	21.901	22.011	VV	64989	4154681	58.45%	2.547%
288	22.024	22.011	22.035	VV	61672	855750	12.04%	0.525%
289	22.090	22.035	22.123	VV	62763	3272346	46.04%	2.006%
290	22.134	22.123	22.165	VV	61859	1545165	21.74%	0.947%
291	22.181	22.165	22.201	VBA	61655	1444815	20.33%	0.886%
Sum of corrected areas:							163126802	

Instrument :
FID_E
ClientSampleId :
RES-BUILDING-PAD-NO-3

Manual IntegrationsAPPROVED
Reviewed By :Yogesh Patel 11/04/2024
Supervised By :Ankita Jodhani 11/04/2024

Report of Analysis

Client:	Union Paving & Construction Company	Date Collected:	10/31/24
Project:	Rt. 10 Whippany	Date Received:	10/31/24
Client Sample ID:	RES-BUILDING-PAD-NO-3DL	SDG No.:	P4663
Lab Sample ID:	P4663-06DL	Matrix:	Solid
Analytical Method:	NJEPH	% Solid:	91.2
Sample Wt/Vol:	30.04 Units: g	Final Vol:	2000 uL
Soil Aliquot Vol:	uL	Test:	EPH_NF
Prep Method :			

File ID :	Dilution:	Prep Date :	Date Analyzed :	Prep Batch ID
FE051024.D	2	11/01/24	11/05/24	PB164589

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
Aliphatic C9-C28	Aliphatic C9-C28	0.000	U	3.77	8.76	mg/kg
Aliphatic C28-C40	Aliphatic C28-C40	80.2		3.94	4.38	mg/kg
SURROGATES						
3383-33-2	1-chlorooctadecane (SURR)	17.0		40 - 140	68%	SPK: 50
84-15-1	ortho-Terphenyl (SURR)	17.6		40 - 140	70%	SPK: 50

Quantitation Report For Aliphatic EPH Range.

Lab Sample ID:	P4663-06DL	Acq On:	05 Nov 2024 10:42
Client Sample ID:	RES-BUILDING-PAD-NO-3DL	Operator:	YP\AJ
Data file:	FE051024.D	Misc:	
Instrument:	FID_E	ALS Vial:	3
Dilution Factor:	2	Sample Multiplier:	1.00

Compound	R.T.		Response	Conc	highest_standard	Units
Aliphatic C9-C12	3.140	6.760	179748	1.258	300	ug/ml
Aliphatic C12-C16	6.761	10.191	517008	3.563	200	ug/ml
Aliphatic C16-C21	10.192	13.549	633324	4.386	300	ug/ml
Aliphatic C21-C28	13.550	17.205	1394276	9.808	400	ug/ml
Aliphatic C28-C40	17.206	22.048	75969861	549.299	600	ug/ml
Aliphatic EPH	3.140	22.048	78694217	568.314		ug/ml
ortho-Terphenyl (SURR)	11.851	11.851	2766843	17.55		ug/ml
1-chlorooctadecane (SURR)	13.285	13.285	2006137	16.96		ug/ml
Aliphatic C9-C28	3.140	17.205	2724356	19.015	1200	ug/ml

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE110524AL\
 Data File : FE051024.D
 Signal(s) : FID1B.ch
 Acq On : 05 Nov 2024 10:42
 Operator : YP\AJ
 Sample : P4663-06DL 2X
 Misc :
 ALS Vial : 3 Sample Multiplier: 1

Instrument :
 FID_E
 ClientSampleId :
 RES-BUILDING-PAD-NO-3DL

Manual Integrations
 APPROVED

Reviewed By :Yogesh Patel 11/06/2024
 Supervised By :Ankita Jodhani 11/06/2024

Integration File: autoint1.e
 Quant Time: Nov 05 12:10:31 2024
 Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\Aliphatic EPH 100824.M
 Quant Title : GC Extractables
 QLast Update : Mon Oct 07 16:32:18 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)	11.851	2766843	17.550 ug/mlm
Spiked Amount	50.000	Recovery	= 35.10%
12) S 1-chlorooctadecane (S...	13.285	2006137	16.959 ug/ml
Spiked Amount	50.000	Recovery	= 33.92%

Target Compounds

(f)=RT Delta > 1/2 Window

(m)=manual int.

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE110524AL\
Data File : FE051024.D
Signal(s) : FID1B.ch
Acq On : 05 Nov 2024 10:42
Operator : YP\AJ
Sample : P4663-06DL 2X
Misc :
ALS Vial : 3 Sample Multiplier: 1

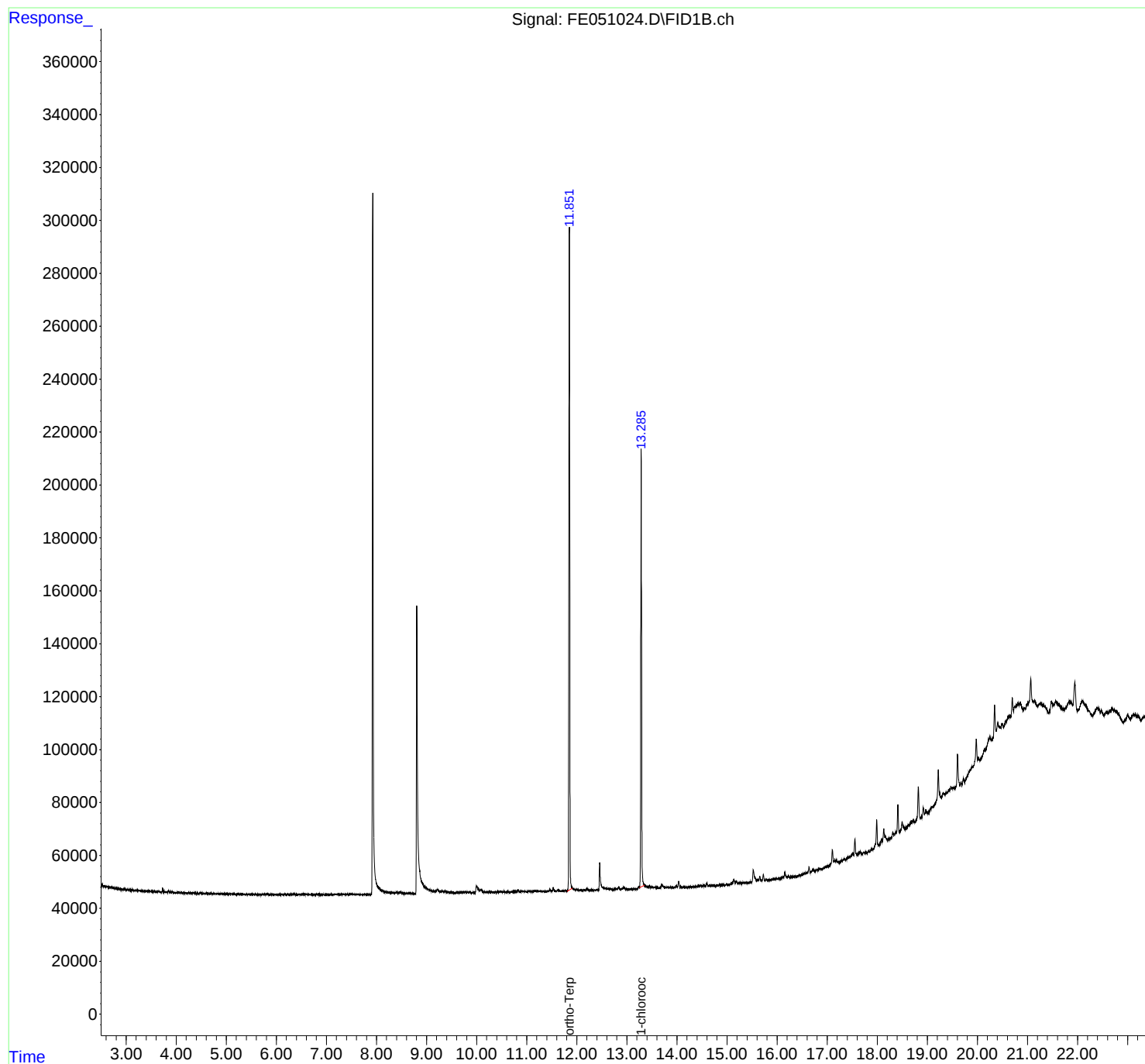
Instrument :
FID_E
ClientSampleId :
RES-BUILDING-PAD-NO-3DL

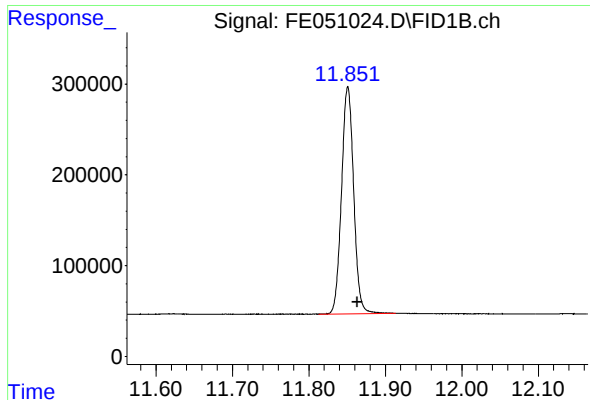
Manual Integrations
APPROVED

Reviewed By :Yogesh Patel 11/06/2024
Supervised By :Ankita Jodhani 11/06/2024

Integration File: autoint1.e
Quant Time: Nov 05 12:10:31 2024
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\Aliphatic EPH 100824.
Quant Title : GC Extractables
QLast Update : Mon Oct 07 16:32:18 2024
Response via : Initial Calibration
Integrator: ChemStation

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





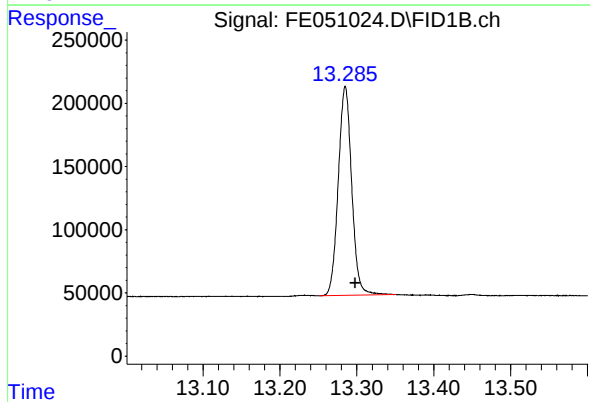
#9 ortho-Terphenyl (SURR)

R.T.: 11.851 min
Delta R.T.: -0.012 min
Response: 2766843
Conc: 17.55 ug/ml

Instrument :
FID_E
ClientSampleId :
RES-BUILDING-PAD-NO-3DL

Manual Integrations
APPROVED

Reviewed By :Yogesh Patel 11/06/2024
Supervised By :Ankita Jodhani 11/06/2024



#12 1-chlorooctadecane (SURR)

R.T.: 13.285 min
Delta R.T.: -0.013 min
Response: 2006137
Conc: 16.96 ug/ml

Instrument :
FID_E
ClientSampleId :
RES-BUILDING-PAD-NO-3DL
Area Percent Report

Manual IntegrationsAPPROVED

Reviewed By :Yogesh Patel 11/06/2024
Supervised By :Ankita Jodhani 11/06/2024

rteres

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE11052
Data File : FE051024.D
Signal(s) : FID1B.ch
Acq On : 05 Nov 2024 10:42
Sample : P4663-06DL 2X
Misc :
ALS Vial : 3 Sample Multiplier: 1

Integration File: sample.E

Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\Aliphatic EPH 100824.M
Title : GC Extractables

Signal : FID1B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	3.227	3.204	3.282	BV	124	2790	0.04%	0.003%
2	3.295	3.282	3.348	PV	92	3036	0.05%	0.003%
3	3.357	3.348	3.541	VV	127	8169	0.13%	0.009%
4	3.554	3.541	3.572	PV	103	1103	0.02%	0.001%
5	3.583	3.572	3.622	VV	93	1833	0.03%	0.002%
6	3.637	3.622	3.658	VV	124	1464	0.02%	0.002%
7	3.675	3.658	3.704	VV	157	2593	0.04%	0.003%
8	3.726	3.704	3.779	VV	1048	15048	0.23%	0.017%
9	3.791	3.779	3.827	VV	136	2051	0.03%	0.002%
10	3.848	3.827	3.896	VV	475	9723	0.15%	0.011%
11	3.922	3.896	3.955	VV	236	4645	0.07%	0.005%
12	3.965	3.955	4.002	VV	93	2085	0.03%	0.002%
13	4.018	4.002	4.043	PV	108	1411	0.02%	0.002%
14	4.065	4.043	4.084	VV	95	1494	0.02%	0.002%
15	4.108	4.084	4.178	VV	101	2420	0.04%	0.003%
16	4.197	4.178	4.208	PV	56	603	0.01%	0.001%
17	4.217	4.208	4.267	VV	75	2379	0.04%	0.003%
18	4.287	4.267	4.326	VV	141	3035	0.05%	0.003%
19	4.360	4.326	4.432	VV	158	4566	0.07%	0.005%
20	4.439	4.432	4.458	VV	102	808	0.01%	0.001%
21	4.475	4.458	4.541	PV	126	4245	0.07%	0.005%
22	4.548	4.541	4.593	VV	109	2694	0.04%	0.003%
23	4.610	4.593	4.657	VV	236	3764	0.06%	0.004%
24	4.665	4.657	4.738	VV	123	2386	0.04%	0.003%
25	4.751	4.738	4.768	VV	111	960	0.01%	0.001%
26	4.773	4.768	4.798	VV	100	1000	0.02%	0.001%
27	4.804	4.798	4.811	VV	94	530	0.01%	0.001%
28	4.818	4.811	4.834	VV	128	888	0.01%	0.001%
29	4.838	4.834	4.847	VV	105	438	0.01%	0.000%
30	4.871	4.847	4.893	VV	122	1959	0.03%	0.002%
31	4.905	4.893	5.044	VV	152	8482	0.13%	0.010%
32	5.059	5.044	5.139	VV	144	5479	0.08%	0.006%
33	5.157	5.139	5.204	VV	121	2708	0.04%	0.003%
34	5.235	5.204	5.312	PV	139	5633	0.09%	0.006%
35	5.367	5.312	5.391	VV	122	2424	0.04%	0.003%
36	5.409	5.391	5.414	PV	84	571	0.01%	0.001%

37	5.422	5.414	5.428	VV	115	538	0.01%	0.001%
38	5.435	5.428	5.457	VV	94	1018	0.01%	0.001%
39	5.505	5.457	5.524	VV	102	1934	0.01%	0.001%
40	5.538	5.524	5.552	VV	74	1086	0.01%	0.001%
41	5.573	5.552	5.620	VV	116	2163	0.01%	0.001%
42	5.638	5.620	5.652	VV	164	1531	0.01%	0.001%
43	5.671	5.652	5.691	PV	107	1167	0.02%	0.001%
44	5.727	5.691	5.791	VV	176	5528	0.09%	0.006%
45	5.799	5.791	5.805	VV	115	743	0.01%	0.001%
46	5.815	5.805	5.942	VV	132	5949	0.09%	0.007%
47	5.955	5.942	5.989	VV	66	1275	0.02%	0.001%
48	6.033	5.989	6.053	VV	113	1933	0.03%	0.002%
49	6.058	6.053	6.094	VV	56	1069	0.02%	0.001%
50	6.100	6.094	6.172	VV	112	2523	0.04%	0.003%
51	6.225	6.172	6.241	PV	144	2497	0.04%	0.003%
52	6.250	6.241	6.290	VV	166	2892	0.04%	0.003%
53	6.329	6.290	6.346	VV	115	2557	0.04%	0.003%
54	6.366	6.346	6.404	VV	203	4586	0.07%	0.005%
55	6.429	6.404	6.447	VV	131	2083	0.03%	0.002%
56	6.460	6.447	6.474	VV	121	1533	0.02%	0.002%
57	6.494	6.474	6.528	VV	153	3050	0.05%	0.003%
58	6.549	6.528	6.618	VV	291	8154	0.13%	0.009%
59	6.627	6.618	6.636	VV	126	1065	0.02%	0.001%
60	6.660	6.636	6.671	VV	161	2394	0.04%	0.003%
61	6.678	6.671	6.695	VV	119	1271	0.02%	0.001%
62	6.719	6.695	6.741	VV	108	2098	0.03%	0.002%
63	6.749	6.741	6.776	VV	102	1694	0.03%	0.002%
64	6.809	6.776	6.833	VV	135	2611	0.04%	0.003%
65	6.841	6.833	6.869	VV	141	1485	0.02%	0.002%
66	6.890	6.869	6.909	VV	72	1209	0.02%	0.001%
67	6.930	6.909	6.962	PV	143	1687	0.03%	0.002%
68	6.998	6.962	7.037	VV	190	3103	0.05%	0.003%
69	7.053	7.037	7.089	VV	106	1755	0.03%	0.002%
70	7.099	7.089	7.114	VV	131	1116	0.02%	0.001%
71	7.121	7.114	7.171	VV	152	3451	0.05%	0.004%
72	7.234	7.171	7.314	VV	217	12085	0.19%	0.014%
73	7.398	7.314	7.451	VV	275	14789	0.23%	0.017%
74	7.461	7.451	7.488	VV	192	4249	0.07%	0.005%
75	7.510	7.488	7.584	VV	201	11743	0.18%	0.013%
76	7.603	7.584	7.699	VV	283	10003	0.15%	0.011%
77	7.722	7.699	7.751	PV	54	1798	0.03%	0.002%
78	7.770	7.751	7.836	VV	136	3865	0.06%	0.004%
79	8.306	8.291	8.363	VV	710	25464	0.39%	0.029%
80	8.394	8.363	8.432	VV	788	25281	0.39%	0.028%
81	8.482	8.432	8.561	VV	856	40958	0.63%	0.046%
82	8.575	8.561	8.594	VV	356	5871	0.09%	0.007%
83	8.637	8.594	8.770	VV	399	21415	0.33%	0.024%
84	9.218	9.188	9.271	VV	1453	51834	0.80%	0.058%
85	9.313	9.271	9.358	VV	1031	39977	0.62%	0.045%
86	9.374	9.358	9.405	VV	833	19093	0.29%	0.021%
87	9.420	9.405	9.478	VV	578	20369	0.31%	0.023%
88	9.494	9.478	9.634	VV	406	23683	0.36%	0.027%
89	9.698	9.634	9.741	VV	445	18986	0.29%	0.021%

Instrument :
FID_E
ClientSampleId :
RES-BUILDING-PAD-NO-3DL

Manual IntegrationsAPPROVED

Reviewed By :Yogesh Patel 11/06/2024
Supervised By :Ankita Jodhani 11/06/2024

90	9.764	9.741	9.833	VV	326	15452	0.24%	0.017%
91	9.862	9.833	9.888	VV	246	6155		
92	9.929	9.888	9.971	VV	247	6225		
93	10.000	9.971	10.071	VV	2441	84187		
94	10.089	10.071	10.174	VV	1292	37109		
95	10.201	10.174	10.235	VV	248	8231		
96	10.266	10.235	10.401	VV	211	13754	0.21%	0.015%
97	10.478	10.401	10.514	VV	480	16773	0.26%	0.019%
98	10.566	10.514	10.601	VV	291	8261	0.13%	0.009%
99	10.621	10.601	10.669	VV	215	4426	0.07%	0.005%
100	10.752	10.669	10.784	VV	477	14062	0.22%	0.016%
101	10.829	10.784	10.860	VV	873	17111	0.26%	0.019%
102	10.900	10.860	11.003	VV	468	17569	0.27%	0.020%
103	11.047	11.003	11.114	PV	388	11412	0.18%	0.013%
104	11.146	11.114	11.188	VV	372	12109	0.19%	0.014%
105	11.214	11.188	11.263	VV	317	9700	0.15%	0.011%
106	11.311	11.263	11.377	VV	207	8146	0.13%	0.009%
107	11.464	11.377	11.494	PV	1035	17412	0.27%	0.020%
108	11.532	11.494	11.588	VV	1495	26103	0.40%	0.029%
109	11.621	11.588	11.674	VV	505	11146	0.17%	0.013%
110	11.729	11.674	11.748	PV	137	3960	0.06%	0.004%
111	11.776	11.748	11.793	VV	153	2915	0.04%	0.003%
112	11.851	11.793	12.077	VV	250178	2841913	43.77%	3.192%
113	12.096	12.077	12.118	VV	233	4225	0.07%	0.005%
114	12.138	12.118	12.163	VV	532	7558	0.12%	0.008%
115	12.200	12.163	12.281	VV	952	19213	0.30%	0.022%
116	12.301	12.281	12.344	VV	203	4380	0.07%	0.005%
117	12.355	12.344	12.372	VV	148	1487	0.02%	0.002%
118	12.420	12.372	12.431	VV	228	5190	0.08%	0.006%
119	12.458	12.431	12.565	VV	10224	192302	2.96%	0.216%
120	12.582	12.565	12.638	VV	726	24268	0.37%	0.027%
121	12.660	12.638	12.751	VV	467	21169	0.33%	0.024%
122	12.780	12.751	12.798	VV	464	8963	0.14%	0.010%
123	12.839	12.798	12.891	VV	1231	25302	0.39%	0.028%
124	12.938	12.891	13.014	VV	887	30209	0.47%	0.034%
125	13.036	13.014	13.068	PV	108	2546	0.04%	0.003%
126	13.111	13.068	13.144	PV	173	6121	0.09%	0.007%
127	13.162	13.144	13.181	VV	181	2993	0.05%	0.003%
128	13.285	13.181	13.424	VV	165878	2126236	32.75%	2.388%
129	13.449	13.424	13.485	VV	1449	29666	0.46%	0.033%
130	13.513	13.485	13.657	VV	633	44642	0.69%	0.050%
131	13.695	13.657	13.784	VV	1403	45835	0.71%	0.051%
132	13.874	13.784	13.924	VV	351	22470	0.35%	0.025%
133	13.986	13.924	14.007	VV	730	18452	0.28%	0.021%
134	14.034	14.007	14.144	VV	2431	48372	0.74%	0.054%
135	14.163	14.144	14.222	VV	240	6674	0.10%	0.007%
136	14.265	14.222	14.314	PV	199	7304	0.11%	0.008%
137	14.473	14.314	14.497	VV	581	22058	0.34%	0.025%
138	14.545	14.497	14.571	VV	500	12095	0.19%	0.014%
139	14.596	14.571	14.628	VV	1374	18561	0.29%	0.021%
140	14.657	14.628	14.681	VV	407	7720	0.12%	0.009%
141	14.704	14.681	14.774	VV	256	9038	0.14%	0.010%

Instrument :

FID_E

ClientSampleId :

RES-BUILDING-PAD-NO-3DL

0.24% 0.017%

Manual IntegrationsAPPROVED

Reviewed By :Yogesh Patel 11/06/2024

Supervised By :Ankita Jodhani 11/06/2024

142	14.853	14.774	14.924	PV	256	10827	0.17%	0.012%
143	15.022	14.924	15.047	PV	171	9003		
144	15.135	15.047	15.164	PV	2054	45793		
145	15.186	15.164	15.228	VV	1177	23209		
146	15.265	15.228	15.304	VV	316	9761		
147	15.332	15.304	15.364	VV	205	4154		
148	15.525	15.364	15.631	PV	4562	130792	2.01%	0.147%
149	15.654	15.631	15.698	VV	1870	33185	0.51%	0.037%
150	15.724	15.698	15.757	VV	2481	37190	0.57%	0.042%
151	15.788	15.757	15.831	VV	413	10074	0.16%	0.011%
152	15.980	15.831	16.001	PV	329	12662	0.20%	0.014%
153	16.154	16.001	16.198	VV	2463	57135	0.88%	0.064%
154	16.225	16.198	16.258	VV	568	11618	0.18%	0.013%
155	16.284	16.258	16.308	VV	267	4329	0.07%	0.005%
156	16.351	16.308	16.401	VV	315	7914	0.12%	0.009%
157	16.637	16.401	16.668	PV	2867	98546	1.52%	0.111%
158	16.715	16.668	16.744	VV	1491	48230	0.74%	0.054%
159	16.848	16.744	16.891	VV	1356	93289	1.44%	0.105%
160	17.104	16.891	17.134	VV	7581	335645	5.17%	0.377%
161	17.152	17.134	17.168	VV	3506	64376	0.99%	0.072%
162	17.186	17.168	17.244	VV	3696	127965	1.97%	0.144%
163	17.343	17.244	17.365	VV	3363	207721	3.20%	0.233%
164	17.553	17.365	17.604	VV	9947	626845	9.65%	0.704%
165	17.658	17.604	17.688	VV	4803	211531	3.26%	0.238%
166	17.735	17.688	17.798	VV	4302	265636	4.09%	0.298%
167	17.889	17.798	17.903	VV	4917	276012	4.25%	0.310%
168	17.989	17.903	18.021	VV	15836	524390	8.08%	0.589%
169	18.084	18.021	18.101	VV	8070	323927	4.99%	0.364%
170	18.130	18.101	18.203	VV	11633	530903	8.18%	0.596%
171	18.310	18.203	18.334	VV	9875	641410	9.88%	0.721%
172	18.412	18.334	18.443	VV	19907	739318	11.39%	0.830%
173	18.497	18.443	18.551	VV	13088	707270	10.89%	0.794%
174	18.717	18.551	18.754	VV	12774	1413740	21.77%	1.588%
175	18.821	18.754	18.868	VV	25131	1063100	16.37%	1.194%
176	18.920	18.868	18.944	VV	16794	672068	10.35%	0.755%
177	18.969	18.944	19.018	VV	16099	659022	10.15%	0.740%
178	19.219	19.018	19.282	VV	30046	2941924	45.31%	3.305%
179	19.317	19.282	19.334	VV	21093	642283	9.89%	0.721%
180	19.473	19.334	19.494	VV	22651	2046885	31.52%	2.299%
181	19.513	19.494	19.554	VV	22311	799671	12.32%	0.898%
182	19.604	19.554	19.658	VV	34498	1584384	24.40%	1.780%
183	19.673	19.658	19.690	VV	23917	459387	7.08%	0.516%
184	19.722	19.690	19.744	VV	25078	776639	11.96%	0.872%
185	19.978	19.744	20.058	VV	39103	5474839	84.32%	6.150%
186	20.249	20.058	20.291	VV	38918	4922454	75.81%	5.529%
187	20.344	20.291	20.374	VV	50477	2109242	32.48%	2.369%
188	20.408	20.374	20.464	VV	43421	2268555	34.94%	2.548%
189	20.497	20.464	20.524	VV	43012	1521741	23.44%	1.709%
190	20.698	20.524	20.723	VV	52081	5377682	82.82%	6.041%
191	20.812	20.723	20.834	VV	49687	3263969	50.27%	3.666%
192	20.856	20.834	20.914	VV	49663	2321379	35.75%	2.608%
193	20.944	20.914	20.968	VV	47308	1505447	23.19%	1.691%
194	21.066	20.968	21.121	VV	57928	4642277	71.50%	5.215%

Instrument :

FID_E

ClientSampleId :

RES-BUILDING-PAD-NO-3DL

Manual IntegrationsAPPROVED

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rteres									
195	21.141	21.121	21.204	VV	49318	2417278	37.23%	2.715%	
196	21.253	21.204	21.424	VV	47950	6138593	94		
197	21.481	21.424	21.508	VV	47804	2291480	35		
198	21.566	21.508	21.744	VV	47512	6492994	100		
199	21.832	21.744	21.904	VV	46715	4366965	67		
200	21.946	21.904	22.001	VV	53434	2740900	42		
201	22.097	22.001	22.201	VBA	45648	5359984	82.55%	6.021%	
Sum of corrected areas:							89022357		

Instrument :
FID_E
ClientSampleId :
RES-BUILDING-PAD-NO-3DL

Manual IntegrationsAPPROVED
Reviewed By :Yogesh Patel 11/06/2024
Supervised By :Ankita Jodhani 11/06/2024

Report of Analysis

Client:	Union Paving & Construction Company	Date Collected:	10/31/24
Project:	Rt. 10 Whippany	Date Received:	10/31/24
Client Sample ID:	RES-BUILDING-PAD-NO-2	SDG No.:	P4663
Lab Sample ID:	P4663-08	Matrix:	Solid
Analytical Method:	NJEPH	% Solid:	91.3
Sample Wt/Vol:	30.09 Units: g	Final Vol:	2000 uL
Soil Aliquot Vol:	uL	Test:	EPH_NF
Prep Method :			

Prep Date :	Date Analyzed :	Prep Batch ID
11/01/24 08:50	11/02/24 4:08	PB164589

Datafile

CAS Number	Parameter	Conc.	Qualifier	Dilution	MDL	LOQ / CRQL	Units(Dry Weight)	
TARGETS								
Aliphatic C28-C40	Aliphatic C28-C40	14.1		1	1.97	2.18	mg/kg	FE050988.D
Aliphatic C9-C28	Aliphatic C9-C28	1.88	U	1	1.88	4.37	mg/kg	FE050988.D
Total AliphaticEPH	Total AliphaticEPH	14.1			3.85	6.55	mg/kg	
Total EPH	Total EPH	14.1			3.85	6.55	mg/kg	

* As samples are not fractionated, all aliphatic and aromatic carbon compounds in the C9-C40 carbon range are calculated against the aliphatic calibration curve, and reported as Aliphatic EPH. Therefore, the aliphatic C9-C40 concentration for the sample is reported as the Total EPH.

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:	Union Paving & Construction Company	Date Collected:	10/31/24
Project:	Rt. 10 Whippany	Date Received:	10/31/24
Client Sample ID:	RES-BUILDING-PAD-NO-2	SDG No.:	P4663
Lab Sample ID:	P4663-08	Matrix:	Solid
Analytical Method:	NJEPH	% Solid:	91.3
Sample Wt/Vol:	30.09 Units: g	Final Vol:	2000 uL
Soil Aliquot Vol:	uL	Test:	EPH_NF
Prep Method :			

File ID :	Dilution:	Prep Date :	Date Analyzed :	Prep Batch ID
FE050988.D	1	11/01/24	11/02/24	PB164589

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
Aliphatic C9-C28	Aliphatic C9-C28	0.000	U	1.88	4.37	mg/kg
Aliphatic C28-C40	Aliphatic C28-C40	14.1		1.97	2.18	mg/kg
SURROGATES						
3383-33-2	1-chlorooctadecane (SURR)	26.6		40 - 140	53%	SPK: 50
84-15-1	ortho-Terphenyl (SURR)	26.4		40 - 140	53%	SPK: 50

Quantitation Report For Aliphatic EPH Range.

Lab Sample ID:	P4663-08	Acq On:	02 Nov 2024 04:08
Client Sample ID:	RES-BUILDING-PAD-NO.	Operator:	YP\AJ
Data file:	FE050988.D	Misc:	
Instrument:	FID_E	ALS Vial:	32
Dilution Factor:	1	Sample Multiplier:	1.00

Compound	R.T.		Response	Conc	highest_standard	Units
Aliphatic EPH	3.143	22.051	30211750	217.573		ug/ml
ortho-Terphenyl (SURR)	11.852	11.852	4154624	26.35		ug/ml
1-chlorooctadecane (SURR)	13.285	13.285	3149331	26.62		ug/ml
Aliphatic C9-C12	3.143	6.761	235582	1.649	300	ug/ml
Aliphatic C12-C16	6.762	10.193	803807	5.539	200	ug/ml
Aliphatic C16-C21	10.194	13.552	867271	6.006	300	ug/ml
Aliphatic C21-C28	13.553	17.208	1428789	10.051	400	ug/ml
Aliphatic C28-C40	17.209	22.051	26876301	194.329	600	ug/ml
Aliphatic C9-C28	3.143	17.208	3335449	23.245	1200	ug/ml

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE110124AL\
 Data File : FE050988.D
 Signal(s) : FID1B.ch
 Acq On : 02 Nov 2024 04:08
 Operator : YP\AJ
 Sample : P4663-08
 Misc :
 ALS Vial : 32 Sample Multiplier: 1

Instrument :
 FID_E
 ClientSampleId :
 RES-BUILDING-PAD-NO-2

Manual Integrations
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Reviewed By :Yogesh Patel 11/04/2024
 Supervised By :Ankita Jodhani 11/04/2024

Integration File: sample.E
 Quant Time: Nov 04 03:13:06 2024
 Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\Aliphatic EPH 100824.M
 Quant Title : GC Extractables
 QLast Update : Mon Oct 07 16:32:18 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)	11.852	4154624	26.353 ug/mlm
Spiked Amount 50.000		Recovery =	52.71%
12) S 1-chlorooctadecane (S...	13.285	3149331	26.623 ug/ml
Spiked Amount 50.000		Recovery =	53.25%

Target Compounds

(f)=RT Delta > 1/2 Window

(m)=manual int.

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE110124AL\
Data File : FE050988.D
Signal(s) : FID1B.ch
Acq On : 02 Nov 2024 04:08
Operator : YP\AJ
Sample : P4663-08
Misc :
ALS Vial : 32 Sample Multiplier: 1

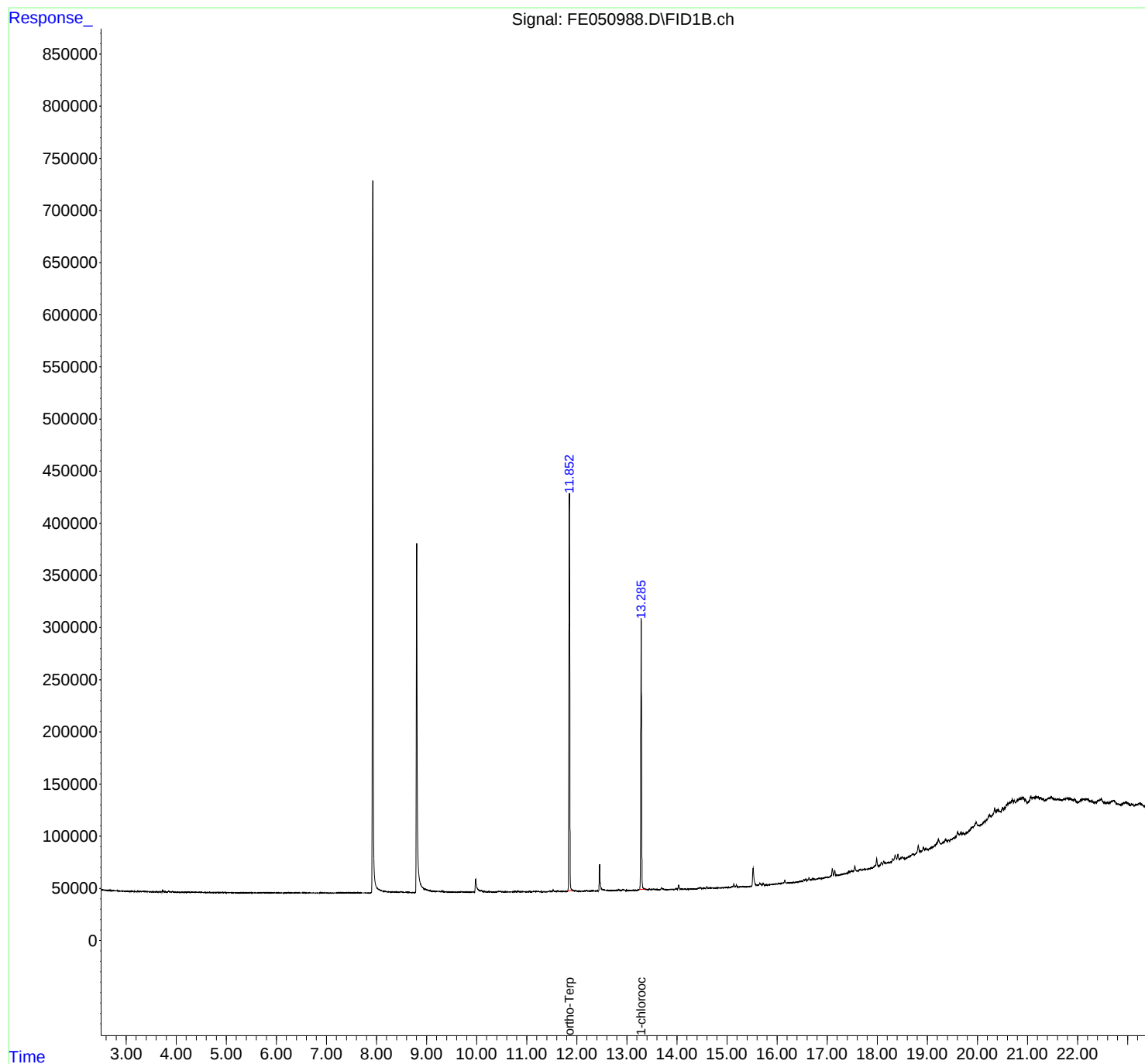
Instrument :
FID_E
ClientSampleId :
RES-BUILDING-PAD-NO-2

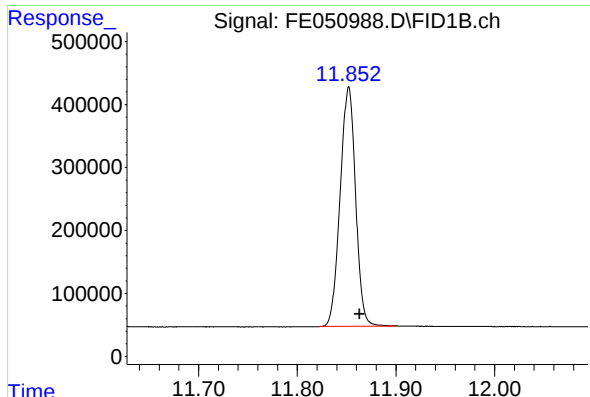
Manual Integrations
APPROVED

Reviewed By :Yogesh Patel 11/04/2024
Supervised By :Ankita Jodhani 11/04/2024

Integration File: sample.E
Quant Time: Nov 04 03:13:06 2024
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\Aliphatic EPH 100824.
Quant Title : GC Extractables
QLast Update : Mon Oct 07 16:32:18 2024
Response via : Initial Calibration
Integrator: ChemStation

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





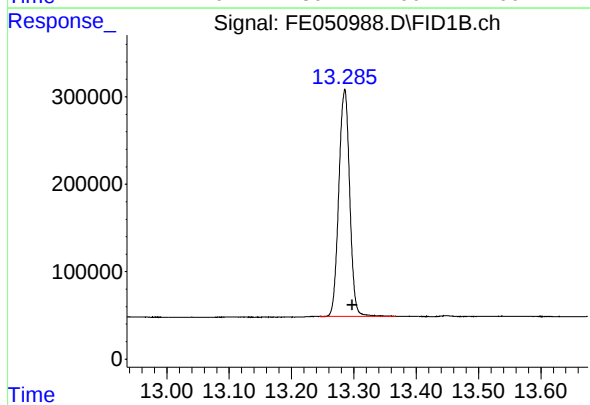
#9 ortho-Terphenyl (SURR)

R.T.: 11.852 min
Delta R.T.: -0.011 min
Response: 4154624
Conc: 26.35 ug/ml

Instrument :
FID_E
ClientSampleId :
RES-BUILDING-PAD-NO-2

Manual Integrations
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Reviewed By :Yogesh Patel 11/04/2024
Supervised By :Ankita Jodhani 11/04/2024



#12 1-chlorooctadecane (SURR)

R.T.: 13.285 min
Delta R.T.: -0.013 min
Response: 3149331
Conc: 26.62 ug/ml

Instrument :

FID_E

ClientSampleId :

RES-BUILDING-PAD-NO-2

Area Percent Report

Manual IntegrationsAPPROVED

Reviewed By :Yogesh Patel 11/04/2024

Supervised By :Ankita Jodhani 11/04/2024

rteres

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE11012
Data File : FE050988.D
Signal(s) : FID1B.ch
Acq On : 02 Nov 2024 04:08
Sample : P4663-08
Misc :
ALS Vial : 32 Sample Multiplier: 1

Integration File: sample.E

Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\Aliphatic EPH 100824.M
Title : GC Extractables

Signal : FID1B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	3.233	3.204	3.344	BV	129	698	0.02%	0.002%
2	3.359	3.344	3.414	VV	127	3405	0.08%	0.009%
3	3.432	3.414	3.508	PV	199	4863	0.11%	0.013%
4	3.520	3.508	3.532	PV	125	1249	0.03%	0.003%
5	3.539	3.532	3.545	VV	104	580	0.01%	0.002%
6	3.553	3.545	3.568	VV	155	1040	0.02%	0.003%
7	3.589	3.568	3.659	VV	145	4211	0.10%	0.011%
8	3.680	3.659	3.707	PV	310	4753	0.11%	0.012%
9	3.729	3.707	3.824	VV	1721	28249	0.67%	0.074%
10	3.849	3.824	3.904	VV	1113	20571	0.49%	0.054%
11	3.925	3.904	4.022	VV	531	10683	0.25%	0.028%
12	4.035	4.022	4.124	PV	82	2518	0.06%	0.007%
13	4.129	4.124	4.147	VV	98	671	0.02%	0.002%
14	4.166	4.147	4.179	VV	68	819	0.02%	0.002%
15	4.194	4.179	4.202	VV	124	853	0.02%	0.002%
16	4.215	4.202	4.273	VV	91	3571	0.08%	0.009%
17	4.286	4.273	4.295	VV	130	1548	0.04%	0.004%
18	4.310	4.295	4.334	VV	167	3142	0.07%	0.008%
19	4.357	4.334	4.374	VV	260	3589	0.08%	0.009%
20	4.380	4.374	4.422	VV	159	2750	0.07%	0.007%
21	4.433	4.422	4.477	VV	121	2481	0.06%	0.006%
22	4.496	4.477	4.520	VV	183	3321	0.08%	0.009%
23	4.542	4.520	4.598	VV	164	3553	0.08%	0.009%
24	4.611	4.598	4.652	VV	98	1590	0.04%	0.004%
25	4.667	4.652	4.824	PV	304	9420	0.22%	0.025%
26	4.827	4.824	4.858	VV	144	1890	0.04%	0.005%
27	4.889	4.858	4.900	VV	138	2597	0.06%	0.007%
28	4.911	4.900	4.969	VV	146	4806	0.11%	0.013%
29	4.980	4.969	4.994	VV	165	1781	0.04%	0.005%
30	5.003	4.994	5.024	VV	114	1791	0.04%	0.005%
31	5.032	5.024	5.088	VV	157	3518	0.08%	0.009%
32	5.158	5.137	5.224	VV	176	4073	0.10%	0.011%
33	5.232	5.224	5.317	PV	87	2179	0.05%	0.006%
34	5.329	5.317	5.395	PV	79	2116	0.05%	0.006%
35	5.406	5.395	5.455	VV	87	1993	0.05%	0.005%
36	5.473	5.455	5.579	VV	190	4606	0.11%	0.012%

37	5.591	5.579	5.599	VV	97	541	0.01%	0.001%
38	5.604	5.599	5.613	VV	59	355	0.01%	0.001%
39	5.640	5.613	5.659	VV	142	1952	0.01%	0.001%
40	5.680	5.659	5.701	PV	70	1390	0.01%	0.001%
41	5.724	5.701	5.782	VV	375	8073	0.01%	0.001%
42	5.809	5.782	5.823	VV	152	3153	0.01%	0.001%
43	5.848	5.823	5.877	VV	198	5002	0.12%	0.013%
44	5.905	5.877	5.961	VV	321	8012	0.19%	0.021%
45	5.967	5.961	6.095	VV	156	7618	0.18%	0.020%
46	6.110	6.095	6.191	VV	77	2522	0.06%	0.007%
47	6.235	6.191	6.292	VV	342	12208	0.29%	0.032%
48	6.300	6.292	6.324	VV	167	2528	0.06%	0.007%
49	6.332	6.324	6.344	VV	131	1238	0.03%	0.003%
50	6.373	6.344	6.411	VV	262	6032	0.14%	0.016%
51	6.430	6.411	6.506	VV	171	4835	0.11%	0.013%
52	6.551	6.506	6.590	VV	453	9778	0.23%	0.025%
53	6.657	6.590	6.721	PV	188	7459	0.18%	0.019%
54	6.737	6.721	6.749	VV	105	1408	0.03%	0.004%
55	6.767	6.749	6.781	VV	104	1205	0.03%	0.003%
56	6.812	6.781	6.822	VV	100	1134	0.03%	0.003%
57	6.844	6.822	6.867	VV	109	1789	0.04%	0.005%
58	6.878	6.867	6.885	VV	112	712	0.02%	0.002%
59	6.908	6.885	6.927	VV	120	2180	0.05%	0.006%
60	6.950	6.927	6.971	VV	165	2750	0.06%	0.007%
61	6.981	6.971	6.991	VV	104	985	0.02%	0.003%
62	6.997	6.991	7.056	VV	101	2447	0.06%	0.006%
63	7.067	7.056	7.085	VV	70	734	0.02%	0.002%
64	7.261	7.085	7.314	VV	214	14582	0.34%	0.038%
65	7.381	7.314	7.400	VV	267	9528	0.23%	0.025%
66	7.410	7.400	7.424	VV	165	2102	0.05%	0.005%
67	7.428	7.424	7.438	VV	183	1238	0.03%	0.003%
68	7.447	7.438	7.473	VV	186	2777	0.07%	0.007%
69	7.549	7.473	7.557	VV	233	9365	0.22%	0.024%
70	7.567	7.557	7.590	VV	288	3971	0.09%	0.010%
71	7.606	7.590	7.624	VV	367	4748	0.11%	0.012%
72	7.628	7.624	7.672	VV	237	3735	0.09%	0.010%
73	7.692	7.672	7.710	VV	139	2303	0.05%	0.006%
74	7.722	7.710	7.754	VV	98	2166	0.05%	0.006%
75	7.773	7.754	7.828	VV	353	4151	0.10%	0.011%
76	7.837	7.828	7.854	PV	72	536	0.01%	0.001%
77	8.292	8.282	8.348	VV	791	28844	0.68%	0.075%
78	8.353	8.348	8.365	VV	651	6693	0.16%	0.017%
79	8.393	8.365	8.442	VV	1005	33118	0.78%	0.086%
80	8.488	8.442	8.558	VV	1038	45559	1.08%	0.119%
81	8.630	8.558	8.711	VV	437	30769	0.73%	0.080%
82	8.724	8.711	8.774	VV	342	8964	0.21%	0.023%
83	9.166	9.154	9.203	VV	1130	30169	0.71%	0.079%
84	9.226	9.203	9.281	VV	1302	47644	1.13%	0.124%
85	9.312	9.281	9.384	VV	1383	50284	1.19%	0.131%
86	9.400	9.384	9.421	VV	635	11313	0.27%	0.029%
87	9.430	9.421	9.477	VV	458	13282	0.31%	0.035%
88	9.497	9.477	9.577	VV	462	19816	0.47%	0.052%
89	9.600	9.577	9.654	VV	300	10818	0.26%	0.028%

Instrument :

FID_E

ClientSampleId :

RES-BUILDING-PAD-NO-2

Manual IntegrationsAPPROVED

Reviewed By :Yogesh Patel 11/04/2024
Supervised By :Ankita Jodhani 11/04/2024

90	9.707	9.654	9.748	VV	517	21403	0.51%	0.056%
91	9.767	9.748	9.834	VV	379	14723		
92	9.858	9.834	9.908	VV	276	8595		
93	9.928	9.908	9.954	VV	369	5447		
94	9.981	9.954	10.071	VV	12613	279099		
95	10.089	10.071	10.198	VV	1677	62129		
96	10.211	10.198	10.238	VV	441	9310	0.22%	0.024%
97	10.248	10.238	10.398	VV	367	19241	0.45%	0.050%
98	10.445	10.398	10.462	VV	733	15138	0.36%	0.039%
99	10.477	10.462	10.500	VV	550	9291	0.22%	0.024%
100	10.511	10.500	10.531	VV	279	4383	0.10%	0.011%
101	10.561	10.531	10.601	VV	280	9229	0.22%	0.024%
102	10.615	10.601	10.674	VV	253	6146	0.15%	0.016%
103	10.751	10.674	10.781	VV	496	14199	0.34%	0.037%
104	10.828	10.781	10.870	VV	925	19267	0.46%	0.050%
105	10.897	10.870	10.928	VV	352	7804	0.18%	0.020%
106	10.935	10.928	11.018	VV	305	7992	0.19%	0.021%
107	11.049	11.018	11.078	VV	310	6066	0.14%	0.016%
108	11.139	11.078	11.189	PV	510	16738	0.40%	0.044%
109	11.213	11.189	11.265	VV	352	10285	0.24%	0.027%
110	11.283	11.265	11.299	VV	139	2670	0.06%	0.007%
111	11.306	11.299	11.327	VV	144	1691	0.04%	0.004%
112	11.336	11.327	11.358	VV	157	1383	0.03%	0.004%
113	11.417	11.358	11.431	VV	124	1693	0.04%	0.004%
114	11.463	11.431	11.501	VV	1073	15850	0.37%	0.041%
115	11.531	11.501	11.593	VV	1663	27637	0.65%	0.072%
116	11.620	11.593	11.658	VV	769	13766	0.33%	0.036%
117	11.694	11.658	11.710	VV	264	3597	0.09%	0.009%
118	11.730	11.710	11.754	VV	299	3099	0.07%	0.008%
119	11.775	11.754	11.794	PV	94	1466	0.03%	0.004%
120	11.852	11.794	11.975	VV	377479	4231234	100.00%	11.017%
121	11.986	11.975	12.003	VV	548	7406	0.18%	0.019%
122	12.015	12.003	12.068	VV	377	8980	0.21%	0.023%
123	12.080	12.068	12.114	VV	167	2990	0.07%	0.008%
124	12.138	12.114	12.162	VV	330	4993	0.12%	0.013%
125	12.200	12.162	12.234	VV	1027	16753	0.40%	0.044%
126	12.240	12.234	12.276	VV	134	2333	0.06%	0.006%
127	12.306	12.276	12.373	VV	357	12409	0.29%	0.032%
128	12.405	12.373	12.428	PV	306	5443	0.13%	0.014%
129	12.456	12.428	12.541	VV	25649	359560	8.50%	0.936%
130	12.552	12.541	12.568	VV	887	12883	0.30%	0.034%
131	12.578	12.568	12.633	VV	745	23063	0.55%	0.060%
132	12.651	12.633	12.698	VV	564	15982	0.38%	0.042%
133	12.717	12.698	12.733	VV	331	5177	0.12%	0.013%
134	12.775	12.733	12.800	VV	509	12475	0.29%	0.032%
135	12.837	12.800	12.881	VV	1276	25449	0.60%	0.066%
136	12.919	12.881	13.008	VV	943	29805	0.70%	0.078%
137	13.015	13.008	13.031	VV	51	391	0.01%	0.001%
138	13.100	13.031	13.142	PV	279	6858	0.16%	0.018%
139	13.159	13.142	13.173	PV	127	1463	0.03%	0.004%
140	13.194	13.173	13.204	VV	176	1842	0.04%	0.005%
141	13.240	13.204	13.250	VV	868	13363	0.32%	0.035%

Instrument :

FID_E

ClientSampleId :

RES-BUILDING-PAD-NO-2

0.51% 0.056%

Manual IntegrationsAPPROVED

Reviewed By :Yogesh Patel 11/04/2024

Supervised By :Ankita Jodhani 11/04/2024

Instrument : FID_E ClientSampleId : RES-BUILDING-PAD-NO-2									
rteres									
142	13.285	13.250	13.377	VV	258064	3210449	75.88%	8.359%	
143	13.391	13.377	13.427	VV	809	18877			
144	13.449	13.427	13.472	VV	1389	22508			
145	13.507	13.472	13.517	VV	639	15187			
146	13.537	13.517	13.551	VV	760	13140			
147	13.569	13.551	13.657	VV	586	21930			
148	13.691	13.657	13.784	VV	2102	50733	1.20%	0.132%	
149	13.828	13.784	13.848	VV	221	6803	0.16%	0.018%	
150	13.868	13.848	13.884	VV	243	4550	0.11%	0.012%	
151	13.894	13.884	13.909	VV	281	2564	0.06%	0.007%	
152	13.915	13.909	13.934	VV	148	1365	0.03%	0.004%	
153	13.988	13.934	14.008	PV	866	16940	0.40%	0.044%	
154	14.034	14.008	14.111	VV	4252	64613	1.53%	0.168%	
155	14.123	14.111	14.214	VV	226	6287	0.15%	0.016%	
156	14.254	14.214	14.277	PV	210	3906	0.09%	0.010%	
157	14.299	14.277	14.334	VV	173	3219	0.08%	0.008%	
158	14.365	14.334	14.376	VV	117	1608	0.04%	0.004%	
159	14.438	14.376	14.455	PV	923	18782	0.44%	0.049%	
160	14.472	14.455	14.498	VV	1138	18000	0.43%	0.047%	
161	14.546	14.498	14.574	VV	480	13195	0.31%	0.034%	
162	14.596	14.574	14.622	VV	1994	25443	0.60%	0.066%	
163	14.656	14.622	14.673	VV	496	10925	0.26%	0.028%	
164	14.702	14.673	14.784	VV	391	14754	0.35%	0.038%	
165	14.845	14.784	14.881	VV	291	8739	0.21%	0.023%	
166	14.889	14.881	14.908	VV	162	1623	0.04%	0.004%	
167	14.991	14.908	15.054	VV	459	13547	0.32%	0.035%	
168	15.135	15.054	15.161	VV	3123	59877	1.42%	0.156%	
169	15.185	15.161	15.234	VV	1980	33942	0.80%	0.088%	
170	15.257	15.234	15.271	VV	256	5408	0.13%	0.014%	
171	15.288	15.271	15.297	VV	193	2745	0.06%	0.007%	
172	15.335	15.297	15.361	VV	368	8585	0.20%	0.022%	
173	15.391	15.361	15.404	VV	145	2545	0.06%	0.007%	
174	15.439	15.404	15.449	PV	180	2167	0.05%	0.006%	
175	15.519	15.449	15.624	VV	17417	374866	8.86%	0.976%	
176	15.654	15.624	15.697	VV	2708	60190	1.42%	0.157%	
177	15.723	15.697	15.764	VV	1959	33227	0.79%	0.087%	
178	15.787	15.764	15.816	VV	310	6375	0.15%	0.017%	
179	15.981	15.816	15.994	VV	347	16910	0.40%	0.044%	
180	16.040	15.994	16.078	VV	685	21867	0.52%	0.057%	
181	16.122	16.078	16.130	VV	737	15727	0.37%	0.041%	
182	16.154	16.130	16.185	VV	3184	47953	1.13%	0.125%	
183	16.222	16.185	16.262	VV	578	17090	0.40%	0.044%	
184	16.294	16.262	16.316	VV	252	5200	0.12%	0.014%	
185	16.352	16.316	16.361	PV	312	6405	0.15%	0.017%	
186	16.408	16.361	16.418	VV	146	5084	0.12%	0.013%	
187	16.536	16.418	16.558	PV	1622	41167	0.97%	0.107%	
188	16.574	16.558	16.610	VV	1895	31939	0.75%	0.083%	
189	16.637	16.610	16.664	VV	2657	37090	0.88%	0.097%	
190	16.719	16.664	16.746	VV	1194	28184	0.67%	0.073%	
191	16.794	16.746	16.806	VV	350	6025	0.14%	0.016%	
192	16.840	16.806	16.881	VV	576	12426	0.29%	0.032%	
193	17.008	16.881	17.031	PV	424	16322	0.39%	0.042%	
194	17.102	17.031	17.128	VV	7529	128201	3.03%	0.334%	

Manual IntegrationsAPPROVED

Reviewed By :Yogesh Patel 11/04/2024
Supervised By :Ankita Jodhani 11/04/2024

195	17.151	17.128	17.173	VV	5414	78590	1.86%	0.205%
196	17.186	17.173	17.214	VV	972	13156		
197	17.298	17.214	17.311	PV	289	8139		
198	17.347	17.311	17.358	VV	483	9950		
199	17.438	17.358	17.456	VV	1413	40397		
200	17.487	17.456	17.498	VV	1585	34130		
201	17.513	17.498	17.526	VV	1469	23127	0.55%	0.060%
202	17.552	17.526	17.594	VV	5664	99063	2.34%	0.258%
203	17.660	17.594	17.685	VV	998	39443	0.93%	0.103%
204	17.729	17.685	17.741	VV	719	14776	0.35%	0.038%
205	17.837	17.741	17.850	VV	339	14429	0.34%	0.038%
206	17.884	17.850	17.896	PV	469	6961	0.16%	0.018%
207	17.953	17.896	17.966	VV	1850	31915	0.75%	0.083%
208	17.988	17.966	18.019	VV	8002	111048	2.62%	0.289%
209	18.081	18.019	18.104	VV	3171	55158	1.30%	0.144%
210	18.130	18.104	18.151	VV	3536	59886	1.42%	0.156%
211	18.164	18.151	18.186	VV	1358	24669	0.58%	0.064%
212	18.219	18.186	18.240	VV	1077	23110	0.55%	0.060%
213	18.309	18.240	18.328	VV	3361	74406	1.76%	0.194%
214	18.355	18.328	18.388	VV	6140	139973	3.31%	0.364%
215	18.412	18.388	18.439	VV	6289	105662	2.50%	0.275%
216	18.496	18.439	18.560	VV	2813	97813	2.31%	0.255%
217	18.700	18.560	18.748	PV	2552	134254	3.17%	0.350%
218	18.818	18.748	18.871	VV	9053	277285	6.55%	0.722%
219	18.922	18.871	18.946	VV	5530	167529	3.96%	0.436%
220	18.968	18.946	19.013	VV	3886	125480	2.97%	0.327%
221	19.220	19.013	19.273	VV	9509	703224	16.62%	1.831%
222	19.312	19.273	19.323	VV	5005	132219	3.12%	0.344%
223	19.368	19.323	19.398	VV	6612	248090	5.86%	0.646%
224	19.421	19.398	19.443	VV	5773	138921	3.28%	0.362%
225	19.605	19.443	19.638	VV	11170	788552	18.64%	2.053%
226	19.674	19.638	19.694	VV	9431	279064	6.60%	0.727%
227	19.713	19.694	19.754	VV	8358	266767	6.30%	0.695%
228	19.787	19.754	19.802	VV	7867	208312	4.92%	0.542%
229	19.898	19.802	19.906	VV	11334	583600	13.79%	1.520%
230	19.975	19.906	20.006	VV	14997	754617	17.83%	1.965%
231	20.021	20.006	20.038	VV	11460	214412	5.07%	0.558%
232	20.141	20.038	20.157	VV	12938	843909	19.94%	2.197%
233	20.243	20.157	20.278	VV	18236	1132064	26.75%	2.948%
234	20.345	20.278	20.365	VV	22408	983070	23.23%	2.560%
235	20.415	20.365	20.458	VV	20479	1093757	25.85%	2.848%
236	20.506	20.458	20.524	VV	21433	775627	18.33%	2.020%
237	20.697	20.524	20.719	VV	26350	2725395	64.41%	7.096%
238	20.737	20.719	20.758	VV	24714	555448	13.13%	1.446%
239	20.802	20.758	20.814	VV	24727	797729	18.85%	2.077%
240	20.848	20.814	20.871	VV	25024	839018	19.83%	2.185%
241	20.908	20.871	20.995	VV	25148	1723195	40.73%	4.487%
242	21.068	20.995	21.092	VV	23543	1231176	29.10%	3.206%
243	21.115	21.092	21.168	VV	22563	998159	23.59%	2.599%
244	21.184	21.168	21.200	VV	21918	422896	9.99%	1.101%
245	21.219	21.200	21.246	VV	21443	567030	13.40%	1.476%
246	21.266	21.246	21.348	VV	20157	1119011	26.45%	2.914%

Instrument :

FID_E

ClientSampleId :

RES-BUILDING-PAD-NO-2

Manual IntegrationsAPPROVED

Reviewed By :Yogesh Patel 11/04/2024

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rteres									
247	21.478	21.348	21.537	VV	17967	1883787	44.52%	4.905%	
248	21.587	21.537	21.654	VV	13956	955384	22.00%	0.000%	
249	21.663	21.654	21.674	VV	12265	145008	3.00%	0.000%	
250	21.723	21.674	21.733	VV	12354	420680	9.00%	0.000%	
251	21.747	21.733	21.758	VV	12230	176416	4.00%	0.000%	
252	21.809	21.758	21.824	VV	11799	465219	10.00%	0.000%	
253	21.835	21.824	21.904	VV	10984	488681	11.55%	1.272%	
254	21.937	21.904	21.998	VV	8950	420482	9.94%	1.095%	
255	22.010	21.998	22.023	VV	5304	76779	1.81%	0.200%	
256	22.126	22.023	22.153	VV	6526	481412	11.38%	1.254%	
257	22.174	22.153	22.246	VV	5891	270007	6.38%	0.703%	
Sum of corrected areas:					38404854				

Instrument :
FID_E
ClientSampleId :
RES-BUILDING-PAD-NO-2

Manual IntegrationsAPPROVED

Reviewed By :Yogesh Patel 11/04/2024
Supervised By :Ankita Jodhani 11/04/2024

Aliphatic EPH 100824.M Mon Nov 04 04:41:56 2024



CALIBRATION SUMMARY

Initial Calibration Report for SequenceID : FE100824AL

AreaCount

Parameter Range	FE050535.D	FE050536.D	FE050537.D	FE050538.D	FE050539.D	
Aliphatic C9-C12	40745791.000	21072572.000	8517410.000	4337343.000	2274924.000	
Aliphatic C12-C16	27735737.000	14244783.000	5792628.000	2930237.000	1531373.000	
Aliphatic C16-C21	40974621.000	21203318.000	8666410.000	4379658.000	2304599.000	
Aliphatic C21-C28	52777882.000	27581000.000	11356069.000	5708818.000	3125067.000	
Aliphatic C28-C40	72232829.000	38094965.000	16699677.000	8422068.000	4938401.000	
Aliphatic EPH	234466860.000	122196638.000	51032194.000	25778124.000	14174364.000	

AVG Response Factor

Parameter Range	AVG RF	% RSD				
Aliphatic C9-C12	142899.9299998	4.087				
Aliphatic C12-C16	145118.273	3.694				
Aliphatic C16-C21	144401.2446664	4.356				
Aliphatic C21-C28	142154.8735	6.306				
Aliphatic C28-C40	138303.281333	12.24				
Aliphatic EPH	141698.847333	7.212				

Concentration

Parameter Range	FE050535.D	FE050536.D	FE050537.D	FE050538.D	FE050539.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	FE050535.D	FE050536.D	FE050537.D	FE050538.D	FE050539.D	
Aliphatic C9-C12	135819.303333	140483.813333	141956.833333	144578.100000	151661.600000	
Aliphatic C12-C16	138678.685000	142447.830000	144815.700000	146511.850000	153137.300000	
Aliphatic C16-C21	136582.070000	141355.453333	144440.166666	145988.600000	153639.933333	

Initial Calibration Report for SequenceID : FE100824AL

Aliphatic C21-C28	131944.705000	137905.000000	141950.862500	142720.450000	156253.350000	
Aliphatic C28-C40	120388.048333	126983.216666	139163.975000	140367.800000	164613.366666	
Aliphatic EPH	130259.366666	135774.042222	141756.094444	143211.800000	157492.933333	

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE100824AL\
 Data File : FE050535.D
 Signal(s) : FID1B.ch
 Acq On : 07 Oct 2024 14:06
 Operator : YP\AJ
 Sample : 100 PPM ALIPHATIC HC STD1
 Misc :
 ALS Vial : 11 Sample Multiplier: 1

Instrument :
 FID_E
 ClientSampleId :
 100 PPM ALIPHATIC HC STD1

Integration File: autoint1.e
 Quant Time: Oct 07 15:50:00 2024
 Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\Aliphatic EPH 100824.M
 Quant Title : GC Extractables
 QLast Update : Mon Oct 07 15:49:51 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)	11.874	14935989	97.121 ug/ml
Spiked Amount 50.000		Recovery =	194.24%
12) S 1-chlorooctadecane (S...	13.307	11405346	97.767 ug/ml
Spiked Amount 50.000		Recovery =	195.53%
Target Compounds			
1) T n-Nonane (C9)	3.256	13375492	97.682 ug/ml
2) T n-Decane (C10)	4.508	13622130	97.695 ug/ml
3) T A~Naphthalene (C11.7)	6.217	14355926	100.128 ug/ml
4) T n-Dodecane (C12)	6.676	13748169	97.991 ug/ml
5) T A~2-methylnaphthalene...	7.315	13570374	100.663 ug/ml
6) T n-Tetradecane (C14)	8.504	13662645	97.909 ug/ml
7) T n-Hexadecane (C16)	10.111	14073092	97.764 ug/ml
8) T n-Octadecane (C18)	11.554	14160630	97.396 ug/ml
10) T n-Eicosane (C20)	12.861	13543211	97.115 ug/ml
11) T n-Heneicosane (C21)	13.472	13270780	97.090 ug/ml
13) T n-Docosane (C22)	14.058	13205478	96.773 ug/ml
14) T n-Tetracosane (C24)	15.160	13226380	96.742 ug/ml
15) T n-Hexacosane (C26)	16.179	13147754	96.576 ug/ml
16) T n-Octacosane (C28)	17.129	13198270	95.311 ug/ml
17) T n-Tricontane (C30)	18.016	13716170	92.688 ug/ml
18) T n-Dotriacontane (C32)	18.847	13640074	91.715 ug/ml
19) T n-Tetratriacontane (C34)	19.629	12565721	92.262 ug/ml
20) T n-Hexatriacontane (C36)	20.368	11275380	94.013 ug/ml
21) T n-Octatriacontane (C38)	21.094	10872225	93.405 ug/ml
22) T n-Tetracontane (C40)	21.983	10163259	92.882 ug/ml

(f)=RT Delta > 1/2 Window

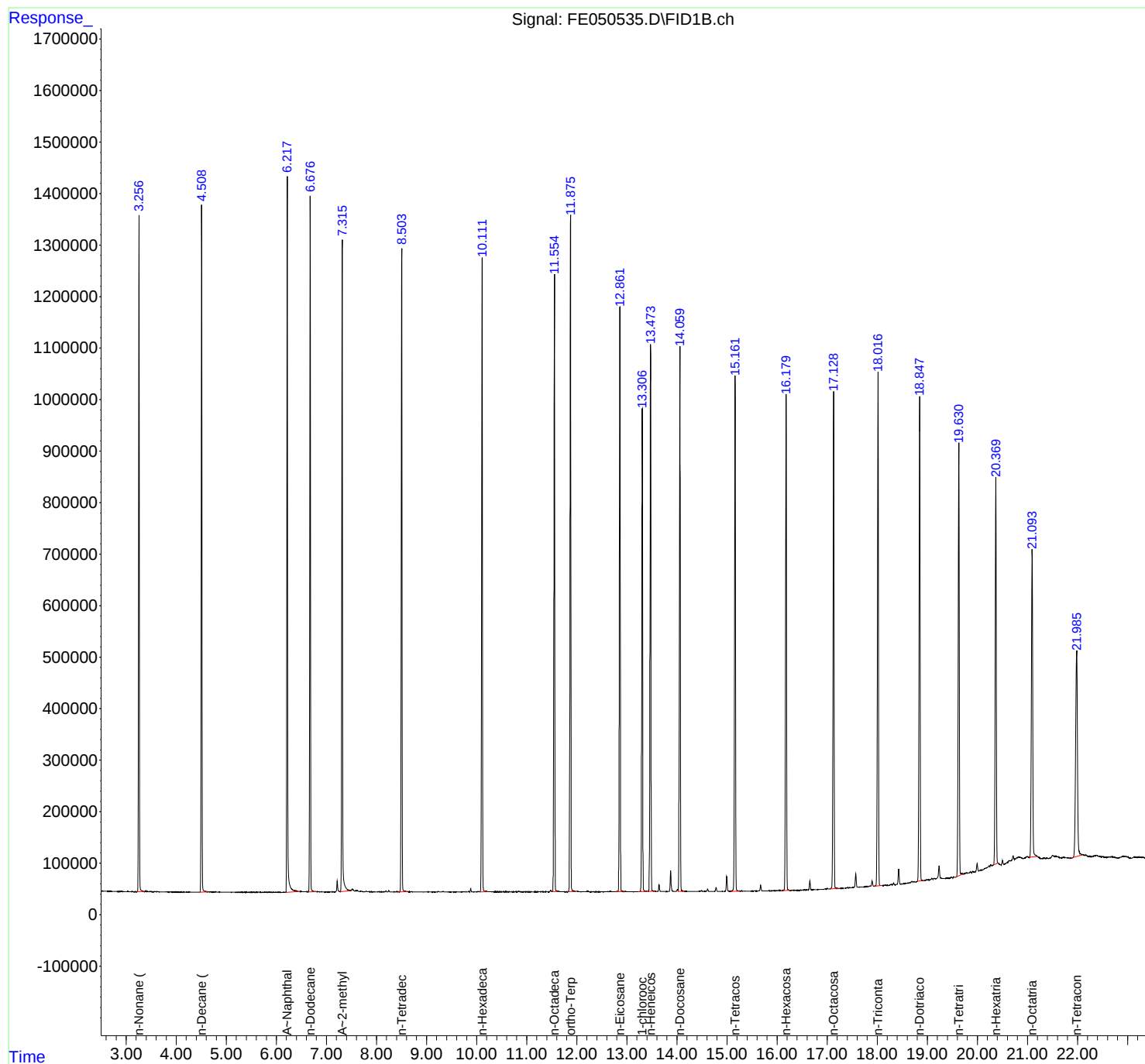
(m)=manual int.

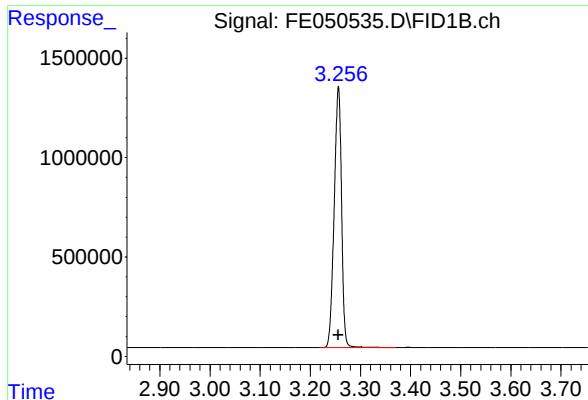
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE100824AL\
Data File : FE050535.D
Signal(s) : FID1B.ch
Acq On : 07 Oct 2024 14:06
Operator : YP\AJ
Sample : 100 PPM ALIPHATIC HC STD1
Misc :
ALS Vial : 11 Sample Multiplier: 1

Instrument :
FID_E
ClientSampleId :
100 PPM ALIPHATIC HC STD1

Integration File: autoint1.e
Quant Time: Oct 07 15:50:00 2024
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\Aliphatic EPH 100824.M
Quant Title : GC Extractables
QLast Update : Mon Oct 07 15:49:51 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)

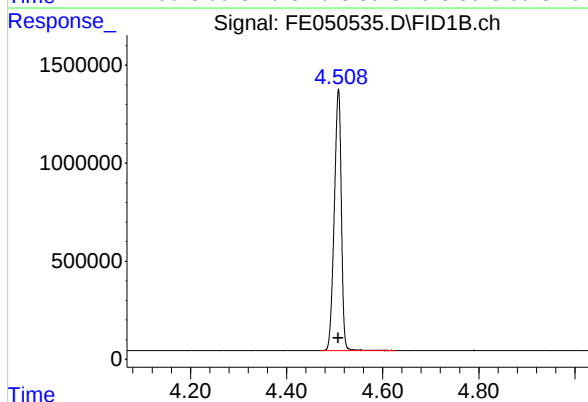
R.T.: 3.256 min
Delta R.T.: 0.000 min
Response: 13375492
Conc: 97.68 ug/ml

Instrument :

FID_E

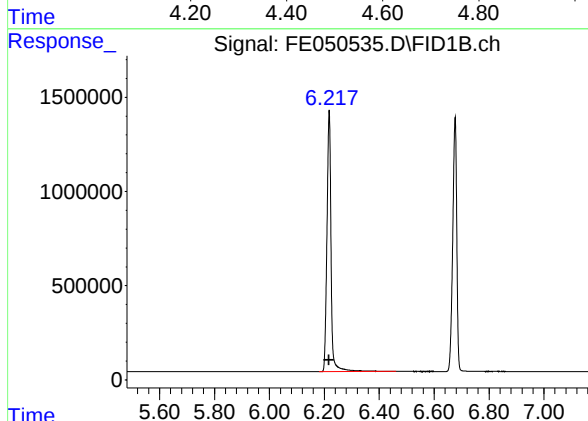
ClientSampleId :

100 PPM ALIPHATIC HC STD1



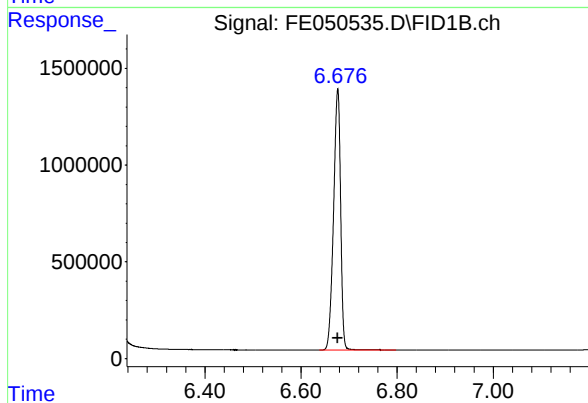
#2 n-Decane (C10)

R.T.: 4.508 min
Delta R.T.: 0.000 min
Response: 13622130
Conc: 97.70 ug/ml



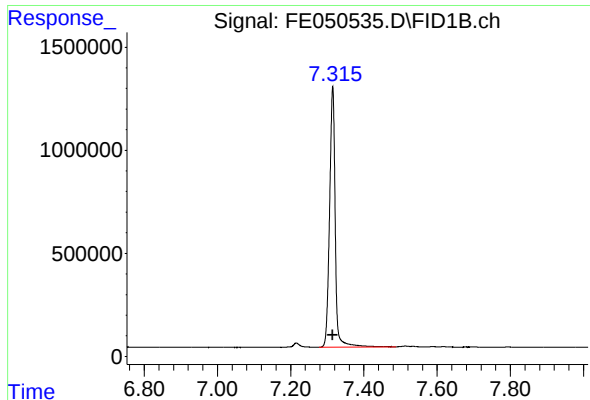
#3 A~Naphthalene (C11.7)

R.T.: 6.217 min
Delta R.T.: 0.000 min
Response: 14355926
Conc: 100.13 ug/ml



#4 n-Dodecane (C12)

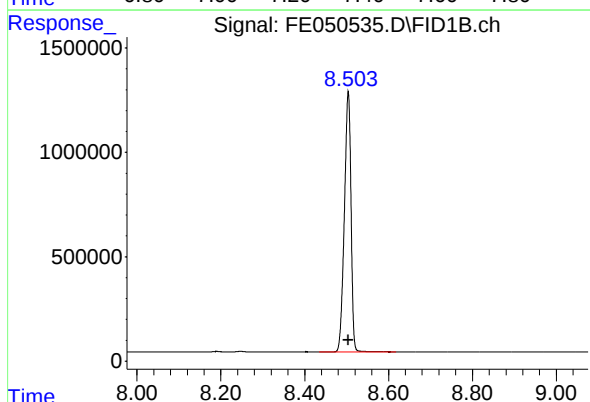
R.T.: 6.676 min
Delta R.T.: 0.000 min
Response: 13748169
Conc: 97.99 ug/ml



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

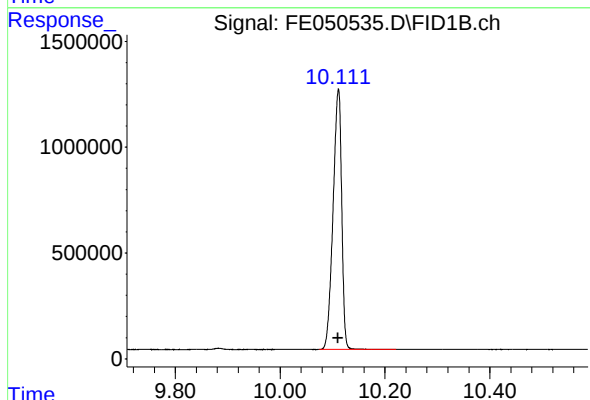
R.T.: 7.315 min
Delta R.T.: 0.000 min
Response: 13570374
Conc: 100.66 ug/ml

Instrument :
FID_E
ClientSampleId :
100 PPM ALIPHATIC HC STD1



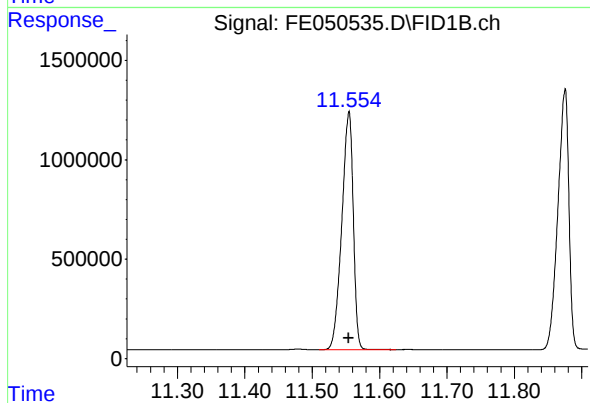
#6 n-Tetradecane (C14)

R.T.: 8.504 min
Delta R.T.: 0.000 min
Response: 13662645
Conc: 97.91 ug/ml



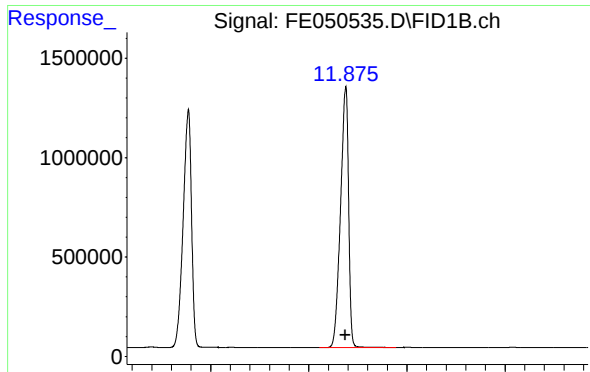
#7 n-Hexadecane (C16)

R.T.: 10.111 min
Delta R.T.: 0.000 min
Response: 14073092
Conc: 97.76 ug/ml



#8 n-Octadecane (C18)

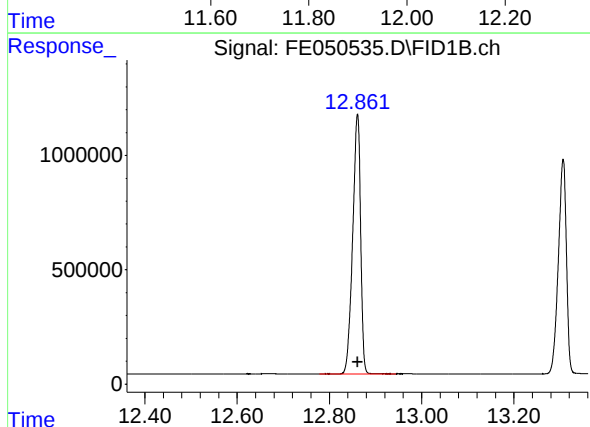
R.T.: 11.554 min
Delta R.T.: 0.000 min
Response: 14160630
Conc: 97.40 ug/ml



#9 ortho-Terphenyl (SURR)

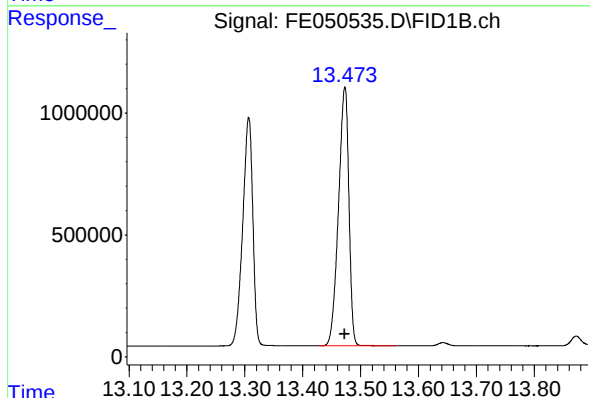
R.T.: 11.874 min
Delta R.T.: 0.000 min
Response: 14935989
Conc: 97.12 ug/ml

Instrument :
FID_E
ClientSampleId :
100 PPM ALIPHATIC HC STD1



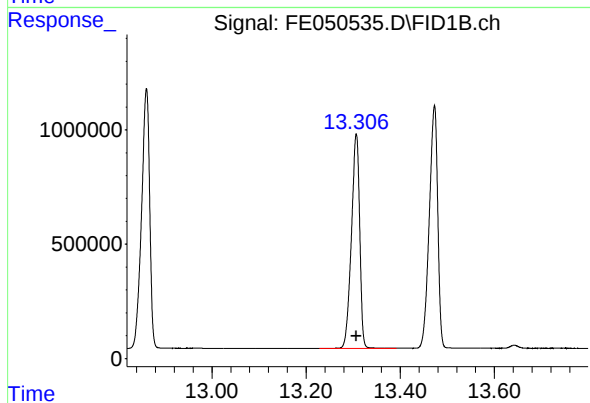
#10 n-Eicosane (C20)

R.T.: 12.861 min
Delta R.T.: 0.000 min
Response: 13543211
Conc: 97.12 ug/ml



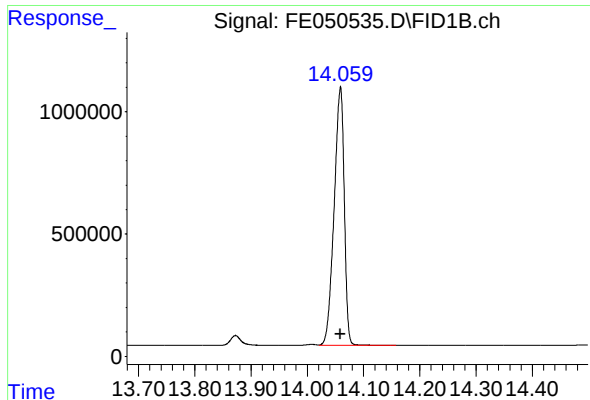
#11 n-Heneicosane (C21)

R.T.: 13.472 min
Delta R.T.: 0.000 min
Response: 13270780
Conc: 97.09 ug/ml



#12 1-chlorooctadecane (SURR)

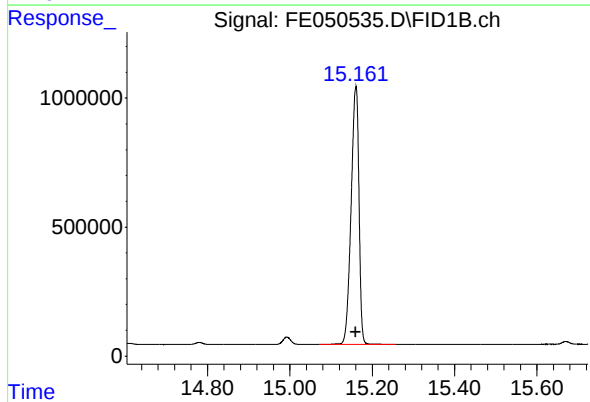
R.T.: 13.307 min
Delta R.T.: 0.000 min
Response: 11405346
Conc: 97.77 ug/ml



#13 n-Docosane (C22)

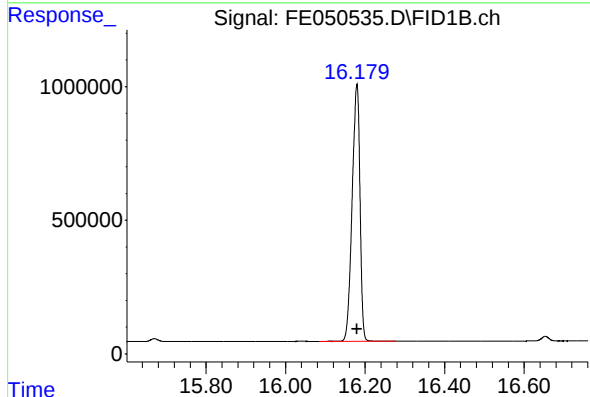
R.T.: 14.058 min
Delta R.T.: 0.000 min
Response: 13205478
Conc: 96.77 ug/ml

Instrument :
FID_E
ClientSampleId :
100 PPM ALIPHATIC HC STD1



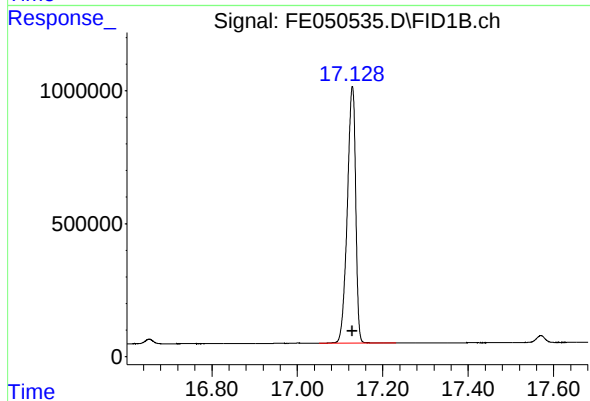
#14 n-Tetracosane (C24)

R.T.: 15.160 min
Delta R.T.: 0.000 min
Response: 13226380
Conc: 96.74 ug/ml



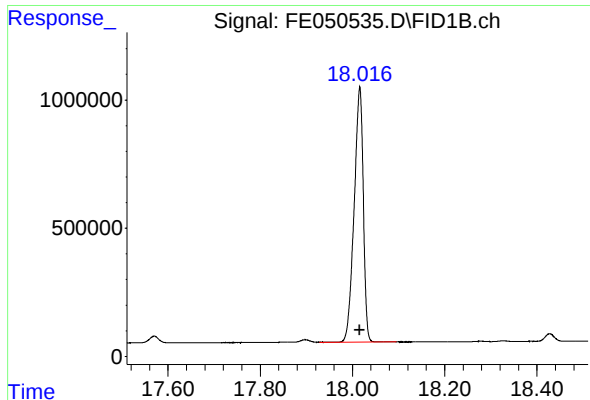
#15 n-Hexacosane (C26)

R.T.: 16.179 min
Delta R.T.: 0.000 min
Response: 13147754
Conc: 96.58 ug/ml



#16 n-Octacosane (C28)

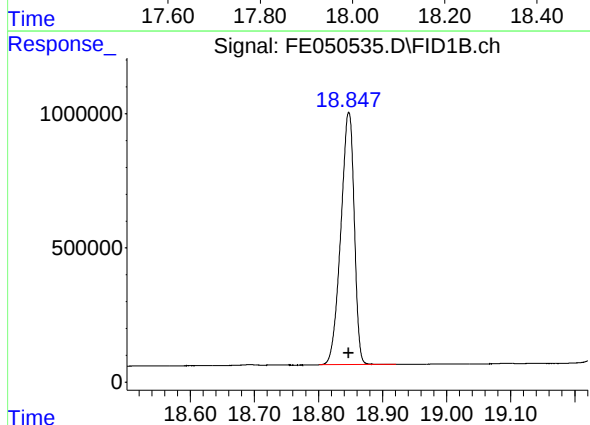
R.T.: 17.129 min
Delta R.T.: 0.000 min
Response: 13198270
Conc: 95.31 ug/ml



#17 n-Tricontane (C30)

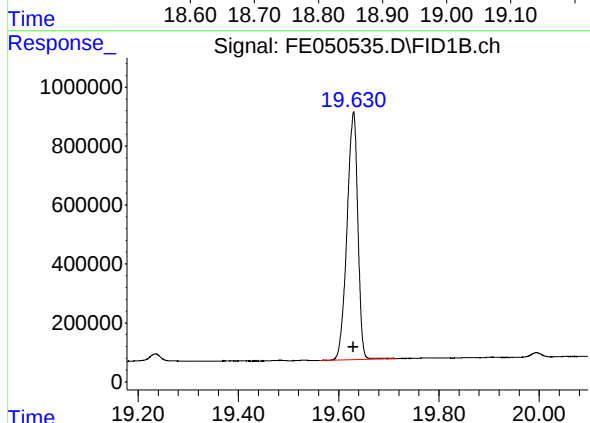
R.T.: 18.016 min
Delta R.T.: 0.000 min
Response: 13716170
Conc: 92.69 ug/ml

Instrument :
FID_E
ClientSampleId :
100 PPM ALIPHATIC HC STD1



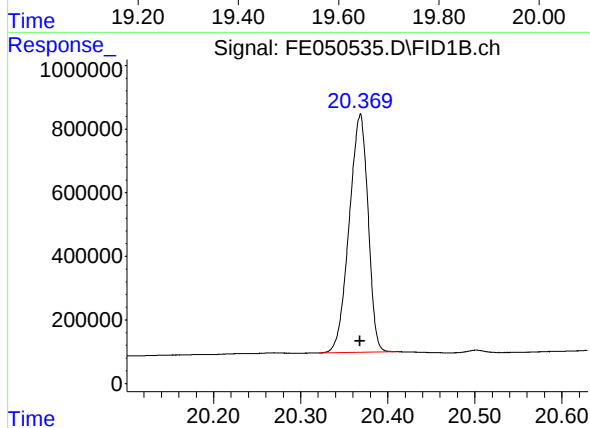
#18 n-Dotriacontane (C32)

R.T.: 18.847 min
Delta R.T.: 0.000 min
Response: 13640074
Conc: 91.72 ug/ml



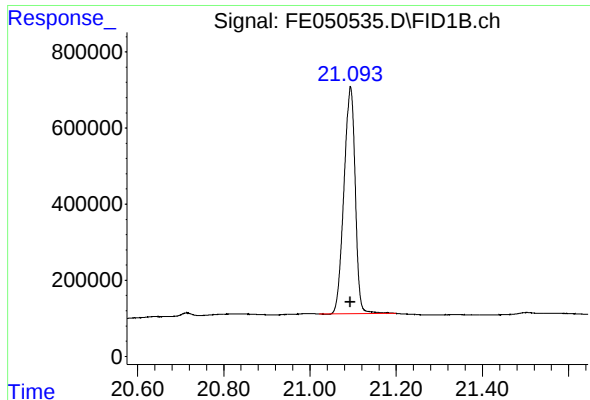
#19 n-Tetratriacontane (C34)

R.T.: 19.629 min
Delta R.T.: 0.000 min
Response: 12565721
Conc: 92.26 ug/ml



#20 n-Hexatriacontane (C36)

R.T.: 20.368 min
Delta R.T.: 0.000 min
Response: 11275380
Conc: 94.01 ug/ml



#21 n-Octatriacontane (C38)

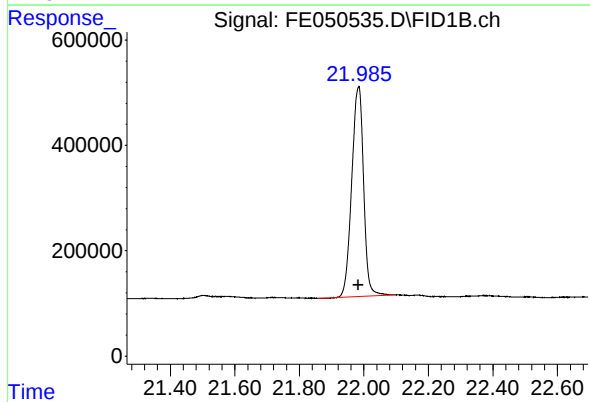
R.T.: 21.094 min
Delta R.T.: 0.000 min
Response: 10872225
Conc: 93.40 ug/ml

Instrument :

FID_E

ClientSampleId :

100 PPM ALIPHATIC HC STD1



#22 n-Tetracontane (C40)

R.T.: 21.983 min
Delta R.T.: 0.000 min
Response: 10163259
Conc: 92.88 ug/ml

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE100824AL\
Data File : FE050535.D
Signal(s) : FID1B.ch
Acq On : 07 Oct 2024 14:06
Sample : 100 PPM ALIPHATIC HC STD1
Misc :
ALS Vial : 11 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\Aliphatic EPH 100824.M
Title : GC Extractables

Signal : FID1B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	3.256	3.218	3.371	BB	1324173	13375492	89.55%	4.632%
2	4.508	4.468	4.628	BB	1334655	13622130	91.20%	4.718%
3	6.217	6.181	6.461	BB	1389687	14355926	96.12%	4.972%
4	6.676	6.638	6.798	BB	1369652	13748169	92.05%	4.762%
5	7.315	7.278	7.488	PV	1264853	13570374	90.86%	4.700%
6	8.504	8.434	8.618	BB	1252011	13662645	91.47%	4.732%
7	10.111	10.074	10.221	BB	1234885	14073092	94.22%	4.874%
8	11.554	11.510	11.624	PV	1196443	14160630	94.81%	4.904%
9	11.874	11.821	11.978	BV	1305138	14935989	100.00%	5.173%
10	12.861	12.778	12.944	BB	1141004	13543211	90.68%	4.691%
11	13.307	13.228	13.391	BV	945279	11405346	76.36%	3.950%
12	13.472	13.428	13.561	PB	1054961	13270780	88.85%	4.596%
13	14.058	14.021	14.158	VB	1044935	13205478	88.41%	4.574%
14	15.160	15.071	15.258	BB	1007834	13226380	88.55%	4.581%
15	16.179	16.084	16.278	BB	960164	13147754	88.03%	4.554%
16	17.129	17.051	17.231	BB	966376	13198270	88.37%	4.571%
17	18.016	17.928	18.094	PB	987186	13716170	91.83%	4.750%
18	18.847	18.801	18.921	BB	942433	13640074	91.32%	4.724%
19	19.629	19.561	19.714	BB	849738	12565721	84.13%	4.352%
20	20.368	20.321	20.409	BBA	745438	11275380	75.49%	3.905%
21	21.094	21.021	21.199	BBA	598100	10872225	72.79%	3.765%
22	21.983	21.861	22.099	BBA	399118	10163259	68.05%	3.520%
Sum of corrected areas:						288734494		

Aliphatic EPH 100824.M Mon Oct 07 16:35:00 2024

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE100824AL\
 Data File : FE050536.D
 Signal(s) : FID1B.ch
 Acq On : 07 Oct 2024 14:36
 Operator : YP\AJ
 Sample : 50 PPM ALIPHATIC HC STD2
 Misc :
 ALS Vial : 12 Sample Multiplier: 1

Instrument :
 FID_E
 ClientSampleId :
 50 PPM ALIPHATIC HC STD2

Integration File: autoint1.e
 Quant Time: Oct 07 15:51:39 2024
 Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\Aliphatic EPH 100824.M
 Quant Title : GC Extractables
 QLast Update : Mon Oct 07 15:51:32 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

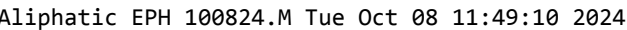
System Monitoring Compounds			
9) S ortho-Terphenyl (SURR)	11.869	7668467	49.909 ug/ml
Spiked Amount 50.000		Recovery =	99.82%
12) S 1-chlorooctadecane (S...	13.302	5839164	50.036 ug/ml
Spiked Amount 50.000		Recovery =	100.07%
Target Compounds			
1) T n-Nonane (C9)	3.254	6949960	50.501 ug/ml
2) T n-Decane (C10)	4.505	7054723	50.395 ug/ml
3) T A~Naphthalene (C11.7)	6.215	7328645	50.738 ug/ml
4) T n-Dodecane (C12)	6.673	7067889	50.251 ug/ml
5) T A~2-methylnaphthalene...	7.311	6885410	50.712 ug/ml
6) T n-Tetradecane (C14)	8.500	6999728	50.107 ug/ml
7) T n-Hexadecane (C16)	10.106	7245055	50.220 ug/ml
8) T n-Octadecane (C18)	11.549	7346700	50.352 ug/ml
10) T n-Eicosane (C20)	12.857	7008593	50.171 ug/ml
11) T n-Heneicosane (C21)	13.467	6848025	50.067 ug/ml
13) T n-Docosane (C22)	14.053	6831662	50.043 ug/ml
14) T n-Tetracosane (C24)	15.155	6893925	50.282 ug/ml
15) T n-Hexacosane (C26)	16.174	6879086	50.352 ug/ml
16) T n-Octacosane (C28)	17.123	6976327	50.252 ug/ml
17) T n-Tricontane (C30)	18.011	7324087	49.661 ug/ml
18) T n-Dotriacontane (C32)	18.842	7246744	49.144 ug/ml
19) T n-Tetratriacontane (C34)	19.624	6582481	48.875 ug/ml
20) T n-Hexatriacontane (C36)	20.364	5833635	49.085 ug/ml
21) T n-Octatriacontane (C38)	21.090	5653192	49.036 ug/ml
22) T n-Tetracontane (C40)	21.980	5454826	49.901 ug/ml

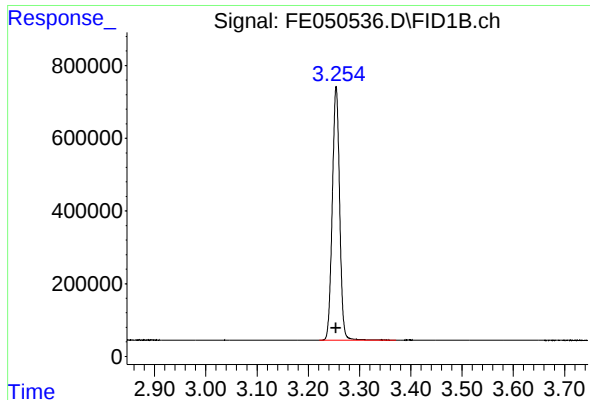
(f)=RT Delta > 1/2 Window

(m)=manual int.

Instrument :
FID_E
ClientSampleId :
50 PPM ALIPHATIC HC STD2

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

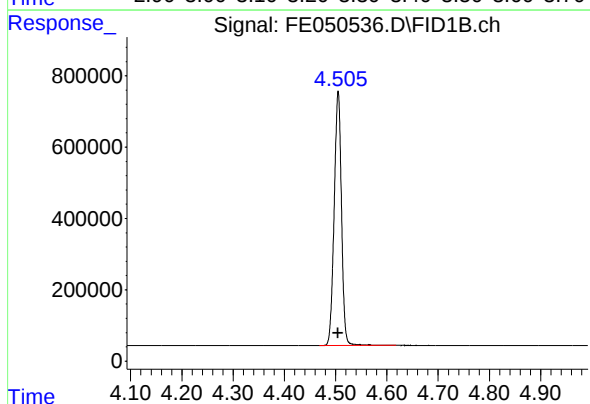




#1 n-Nonane (C9)

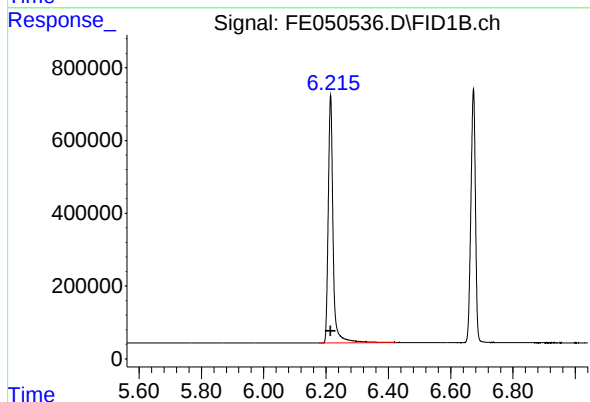
R.T.: 3.254 min
Delta R.T.: 0.000 min
Response: 6949960
Conc: 50.50 ug/ml

Instrument :
FID_E
ClientSampleId :
50 PPM ALIPHATIC HC STD2



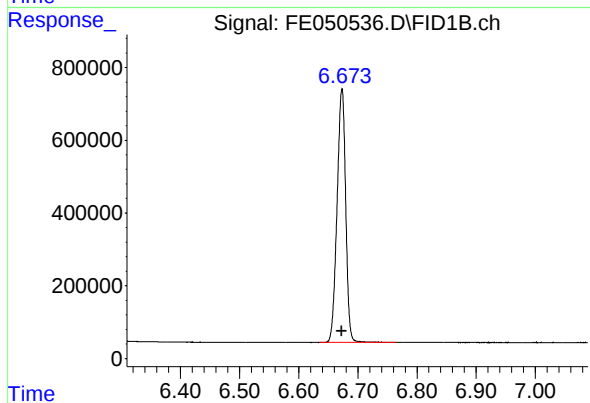
#2 n-Decane (C10)

R.T.: 4.505 min
Delta R.T.: 0.000 min
Response: 7054723
Conc: 50.40 ug/ml



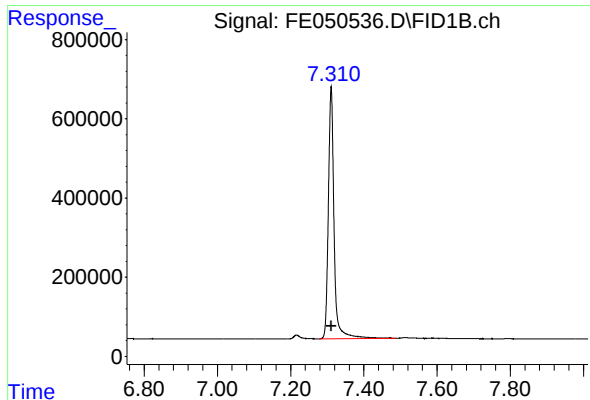
#3 A~Naphthalene (C11.7)

R.T.: 6.215 min
Delta R.T.: 0.000 min
Response: 7328645
Conc: 50.74 ug/ml



#4 n-Dodecane (C12)

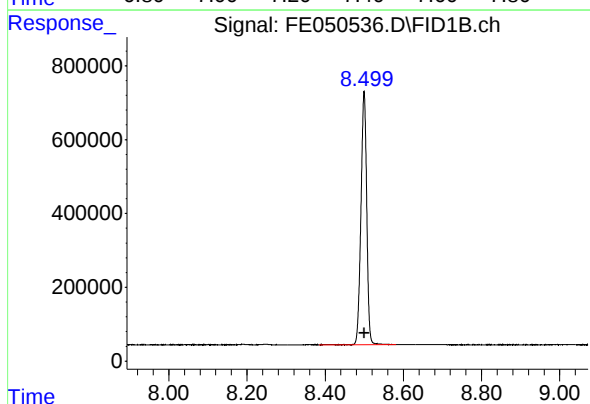
R.T.: 6.673 min
Delta R.T.: 0.000 min
Response: 7067889
Conc: 50.25 ug/ml



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

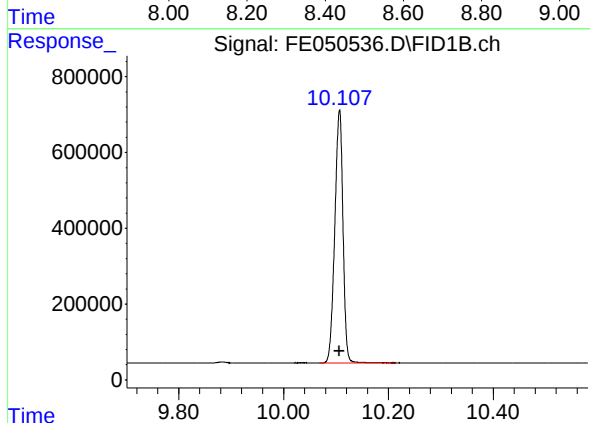
R.T.: 7.311 min
Delta R.T.: 0.000 min
Response: 6885410
Conc: 50.71 ug/ml

Instrument :
FID_E
ClientSampleId :
50 PPM ALIPHATIC HC STD2



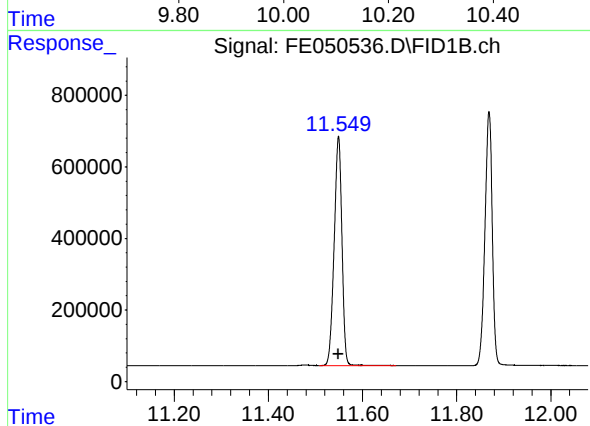
#6 n-Tetradecane (C14)

R.T.: 8.500 min
Delta R.T.: 0.000 min
Response: 6999728
Conc: 50.11 ug/ml



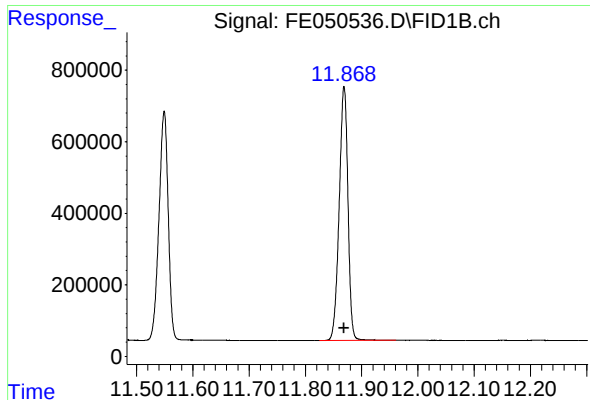
#7 n-Hexadecane (C16)

R.T.: 10.106 min
Delta R.T.: 0.000 min
Response: 7245055
Conc: 50.22 ug/ml



#8 n-Octadecane (C18)

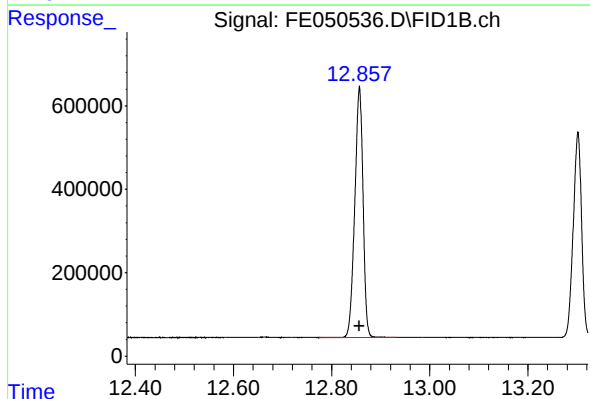
R.T.: 11.549 min
Delta R.T.: 0.000 min
Response: 7346700
Conc: 50.35 ug/ml



#9 ortho-Terphenyl (SURR)

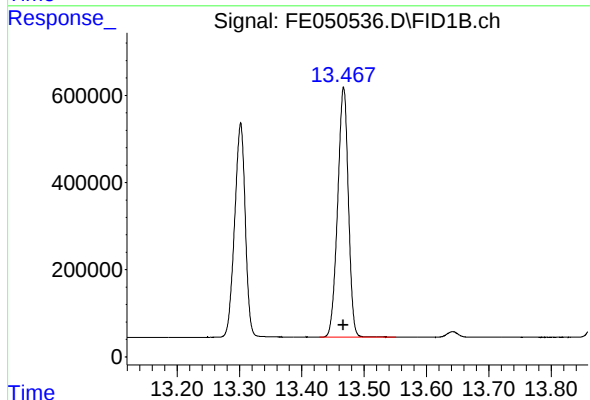
R.T.: 11.869 min
Delta R.T.: 0.000 min
Response: 7668467
Conc: 49.91 ug/ml

Instrument :
FID_E
ClientSampleId :
50 PPM ALIPHATIC HC STD2



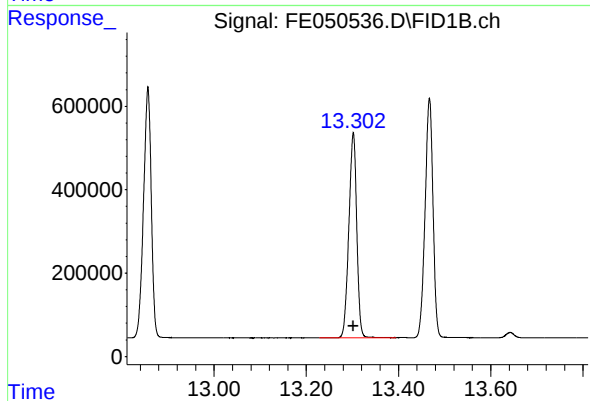
#10 n-Eicosane (C20)

R.T.: 12.857 min
Delta R.T.: 0.000 min
Response: 7008593
Conc: 50.17 ug/ml



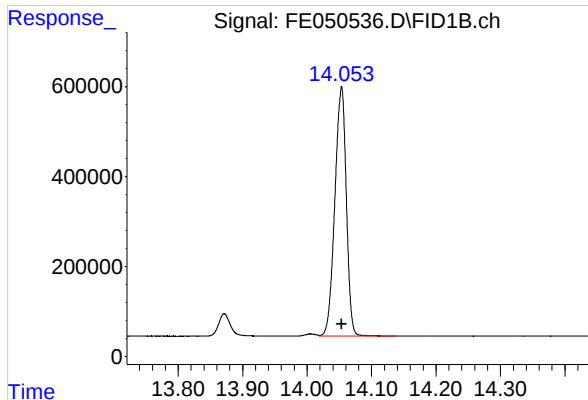
#11 n-Heneicosane (C21)

R.T.: 13.467 min
Delta R.T.: 0.000 min
Response: 6848025
Conc: 50.07 ug/ml



#12 1-chlorooctadecane (SURR)

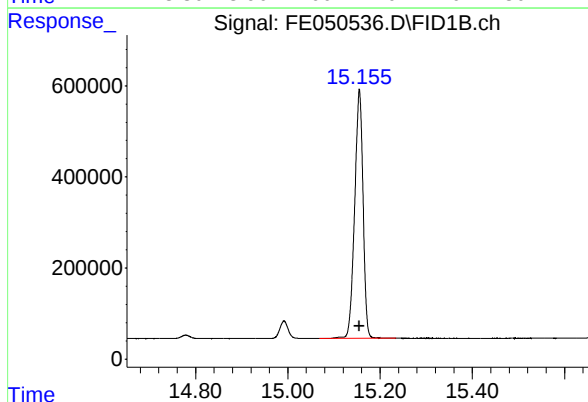
R.T.: 13.302 min
Delta R.T.: 0.000 min
Response: 5839164
Conc: 50.04 ug/ml



#13 n-Docosane (C22)

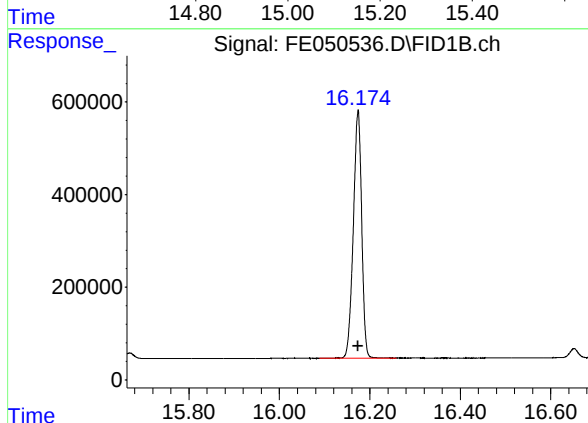
R.T.: 14.053 min
Delta R.T.: 0.000 min
Response: 6831662
Conc: 50.04 ug/ml

Instrument :
FID_E
ClientSampleId :
50 PPM ALIPHATIC HC STD2



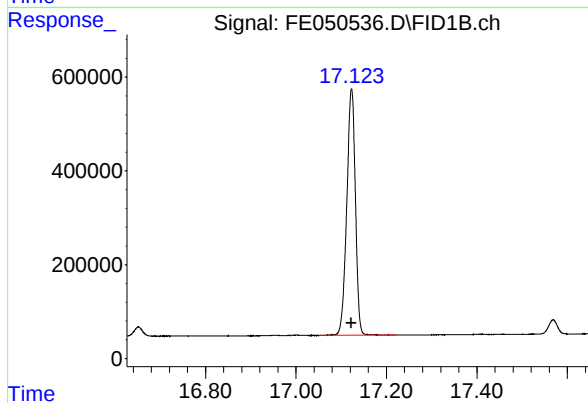
#14 n-Tetracosane (C24)

R.T.: 15.155 min
Delta R.T.: 0.000 min
Response: 6893925
Conc: 50.28 ug/ml



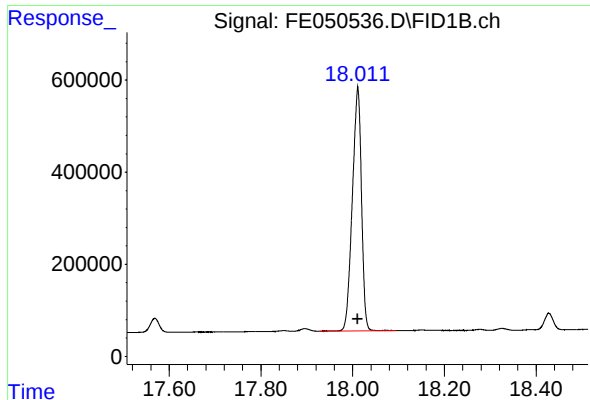
#15 n-Hexacosane (C26)

R.T.: 16.174 min
Delta R.T.: 0.000 min
Response: 6879086
Conc: 50.35 ug/ml



#16 n-Octacosane (C28)

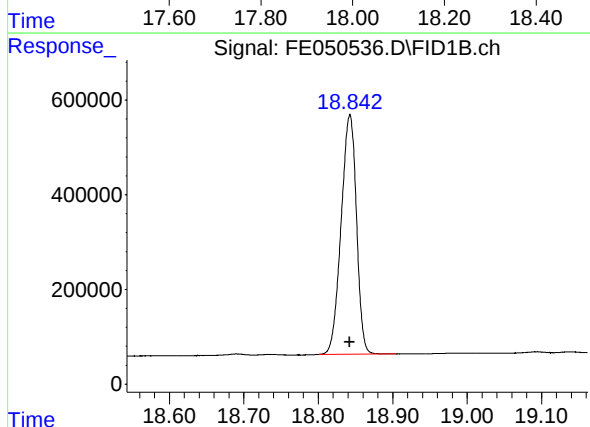
R.T.: 17.123 min
Delta R.T.: 0.000 min
Response: 6976327
Conc: 50.25 ug/ml



#17 n-Tricontane (C30)

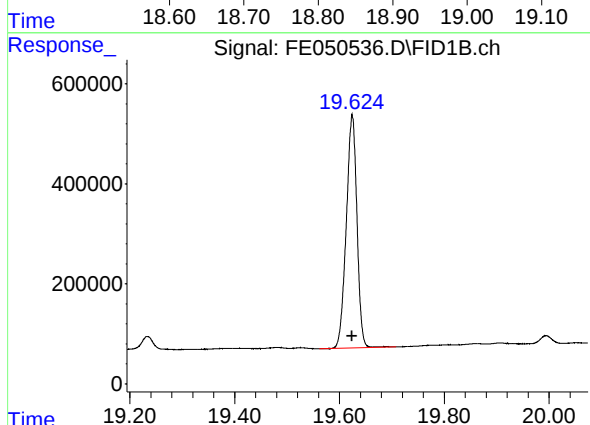
R.T.: 18.011 min
Delta R.T.: 0.000 min
Response: 7324087
Conc: 49.66 ug/ml

Instrument :
FID_E
ClientSampleId :
50 PPM ALIPHATIC HC STD2



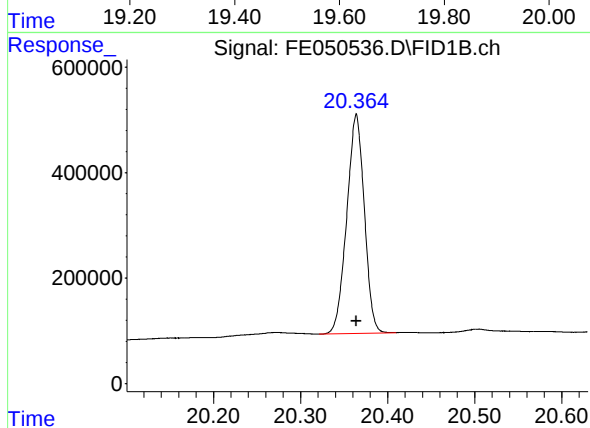
#18 n-Dotriacontane (C32)

R.T.: 18.842 min
Delta R.T.: 0.000 min
Response: 7246744
Conc: 49.14 ug/ml



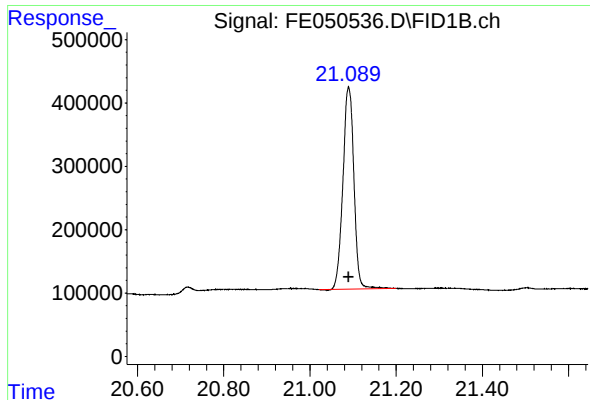
#19 n-Tetratriacontane (C34)

R.T.: 19.624 min
Delta R.T.: 0.000 min
Response: 6582481
Conc: 48.87 ug/ml



#20 n-Hexatriacontane (C36)

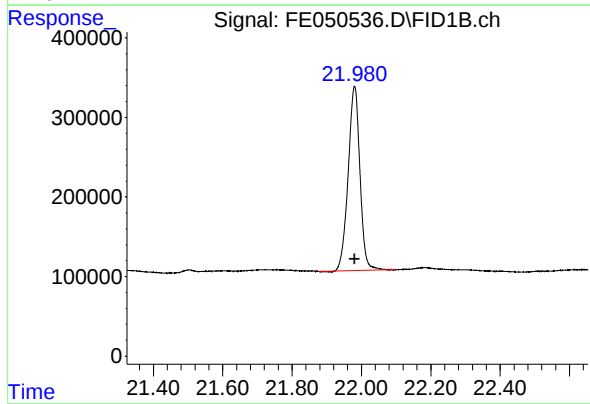
R.T.: 20.364 min
Delta R.T.: 0.000 min
Response: 5833635
Conc: 49.09 ug/ml



#21 n-Octatriacontane (C38)

R.T.: 21.090 min
Delta R.T.: 0.000 min
Response: 5653192
Conc: 49.04 ug/ml

Instrument :
FID_E
ClientSampleId :
50 PPM ALIPHATIC HC STD2



#22 n-Tetracontane (C40)

R.T.: 21.980 min
Delta R.T.: 0.000 min
Response: 5454826
Conc: 49.90 ug/ml

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE100824AL\
Data File : FE050536.D
Signal(s) : FID1B.ch
Acq On : 07 Oct 2024 14:36
Sample : 50 PPM ALIPHATIC HC STD2
Misc :
ALS Vial : 12 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\Aliphatic EPH 100824.M
Title : GC Extractables

Signal : FID1B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	3.254	3.221	3.371	BB	696678	6949960	90.63%	4.636%
2	4.505	4.468	4.618	BB	709894	7054723	92.00%	4.706%
3	6.215	6.178	6.424	BB	680238	7328645	95.57%	4.888%
4	6.673	6.634	6.764	BB	704403	7067889	92.17%	4.714%
5	7.311	7.278	7.488	PV	637269	6885410	89.79%	4.593%
6	8.500	8.384	8.581	BB	683389	6999728	91.28%	4.669%
7	10.106	10.068	10.214	BB	676338	7245055	94.48%	4.833%
8	11.549	11.508	11.671	VB	636950	7346700	95.80%	4.900%
9	11.869	11.824	11.961	BB	709474	7668467	100.00%	5.115%
10	12.857	12.774	12.931	BB	601442	7008593	91.39%	4.675%
11	13.302	13.228	13.394	BB	488293	5839164	76.15%	3.895%
12	13.467	13.428	13.551	BB	574970	6848025	89.30%	4.568%
13	14.053	14.018	14.138	VB	559199	6831662	89.09%	4.557%
14	15.155	15.068	15.234	BB	545336	6893925	89.90%	4.598%
15	16.174	16.088	16.258	BB	536276	6879086	89.71%	4.589%
16	17.123	17.051	17.221	BB	528256	6976327	90.97%	4.653%
17	18.011	17.927	18.094	PB	529796	7324087	95.51%	4.885%
18	18.842	18.801	18.904	BB	503954	7246744	94.50%	4.834%
19	19.624	19.561	19.708	BB	466127	6582481	85.84%	4.391%
20	20.364	20.321	20.409	BBA	415446	5833635	76.07%	3.891%
21	21.090	21.021	21.199	BBA	318153	5653192	73.72%	3.771%
22	21.980	21.878	22.099	BBA	231697	5454826	71.13%	3.639%
Sum of corrected areas:						149918324		

Aliphatic EPH 100824.M Mon Oct 07 16:35:43 2024

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE100824AL\
 Data File : FE050537.D
 Signal(s) : FID1B.ch
 Acq On : 07 Oct 2024 15:06
 Operator : YP\AJ
 Sample : 20 PPM ALIPHATIC HC STD3
 Misc :
 ALS Vial : 13 Sample Multiplier: 1

Instrument :
 FID_E
 ClientSampleId :
 20 PPM ALIPHATIC HC STD3

Integration File: autoint1.e
 Quant Time: Oct 07 15:48:35 2024
 Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\Aliphatic EPH 100824.M
 Quant Title : GC Extractables
 QLast Update : Mon Oct 07 15:48:28 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)	11.865	3164300	20.000 ug/ml
Spiked Amount 50.000		Recovery =	40.00%
12) S 1-chlorooctadecane (S...	13.300	2385261	20.000 ug/ml
Spiked Amount 50.000		Recovery =	40.00%
Target Compounds			
1) T n-Nonane (C9)	3.252	2802051	20.000 ug/ml
2) T n-Decane (C10)	4.503	2852963	20.000 ug/ml
3) T A~Naphthalene (C11.7)	6.214	2863853	20.000 ug/ml
4) T n-Dodecane (C12)	6.671	2862396	20.000 ug/ml
5) T A~2-methylnaphthalene...	7.310	2678310	20.000 ug/ml
6) T n-Tetradecane (C14)	8.498	2849272	20.000 ug/ml
7) T n-Hexadecane (C16)	10.103	2943356	20.000 ug/ml
8) T n-Octadecane (C18)	11.546	2983567	20.000 ug/ml
10) T n-Eicosane (C20)	12.853	2869562	20.000 ug/ml
11) T n-Heneicosane (C21)	13.465	2813281	20.000 ug/ml
13) T n-Docosane (C22)	14.050	2817220	20.000 ug/ml
14) T n-Tetracosane (C24)	15.151	2823423	20.000 ug/ml
15) T n-Hexacosane (C26)	16.171	2816031	20.000 ug/ml
16) T n-Octacosane (C28)	17.120	2899395	20.000 ug/ml
17) T n-Tricontane (C30)	18.007	3176058	20.000 ug/ml
18) T n-Dotriacontane (C32)	18.840	3220879	20.000 ug/ml
19) T n-Tetratriacontane (C34)	19.621	2934710	20.000 ug/ml
20) T n-Hexatriacontane (C36)	20.361	2542299	20.000 ug/ml
21) T n-Octatriacontane (C38)	21.086	2481528	20.000 ug/ml
22) T n-Tetracontane (C40)	21.974	2344203	20.000 ug/ml

(f)=RT Delta > 1/2 Window

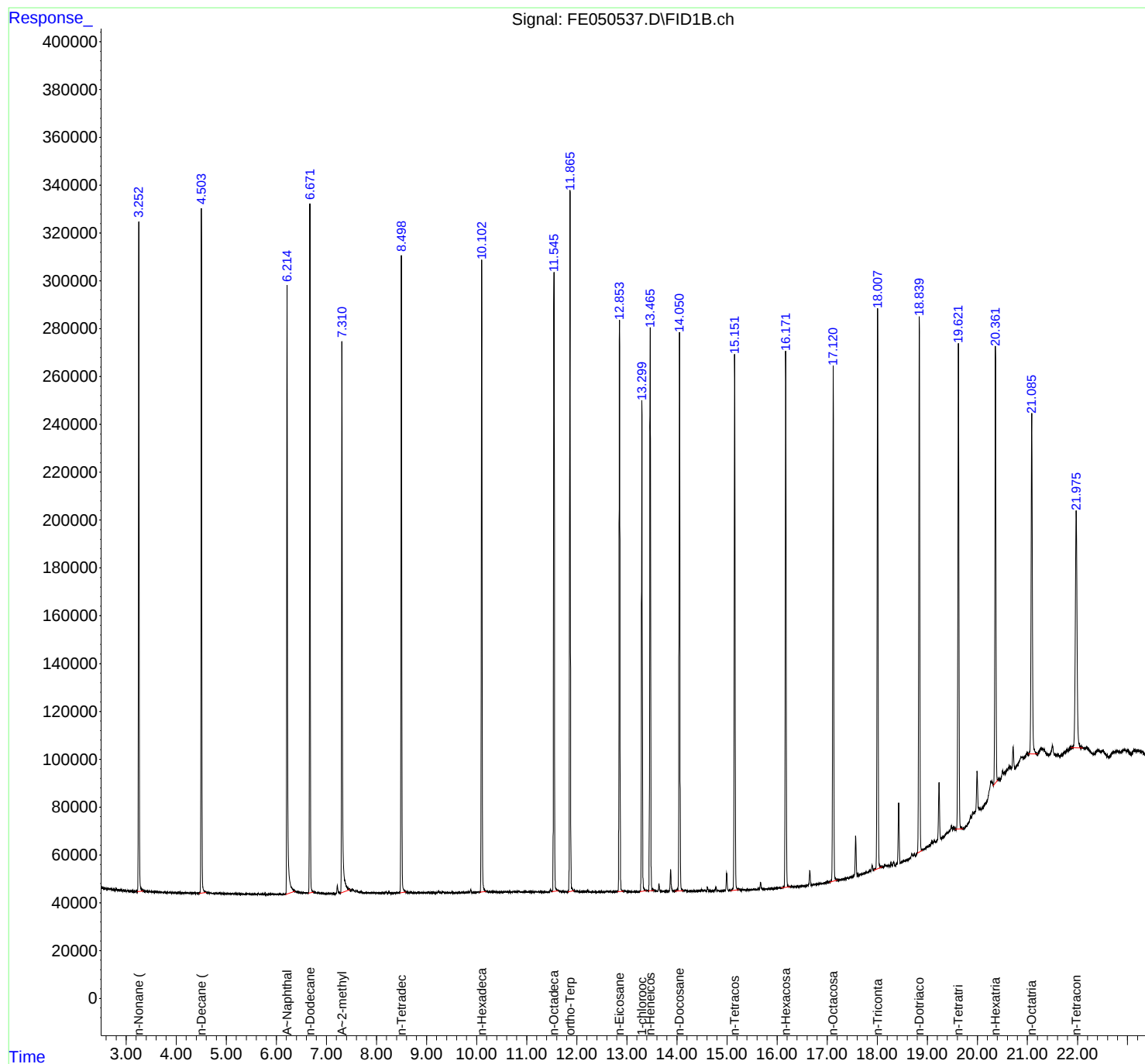
(m)=manual int.

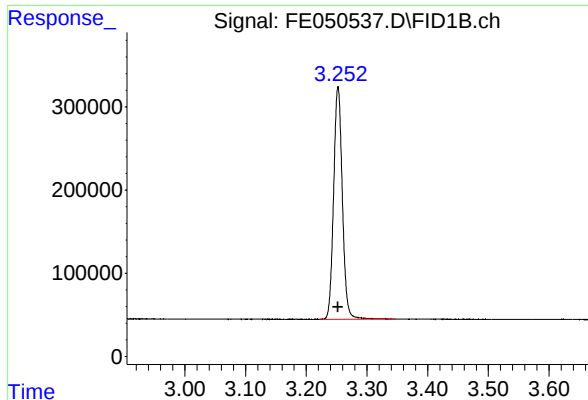
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE100824AL\
Data File : FE050537.D
Signal(s) : FID1B.ch
Acq On : 07 Oct 2024 15:06
Operator : YP\AJ
Sample : 20 PPM ALIPHATIC HC STD3
Misc :
ALS Vial : 13 Sample Multiplier: 1

Instrument :
FID_E
ClientSampleId :
20 PPM ALIPHATIC HC STD3

Integration File: autoint1.e
Quant Time: Oct 07 15:48:35 2024
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\Aliphatic EPH 100824.M
Quant Title : GC Extractables
QLast Update : Mon Oct 07 15:48:28 2024
Response via : Initial Calibration
Integrator: ChemStation

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

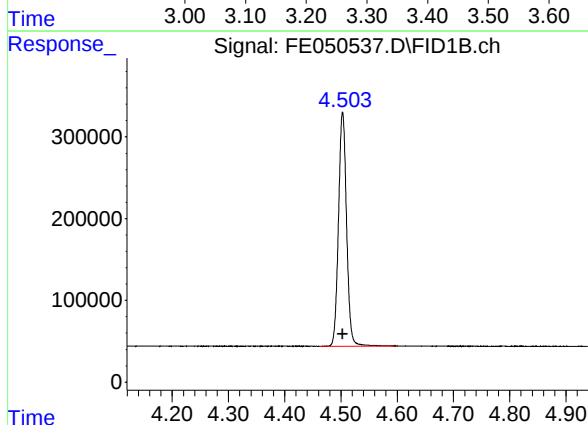




#1 n-Nonane (C9)

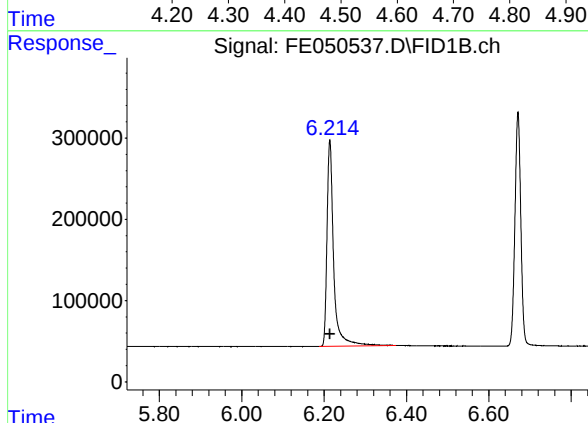
R.T.: 3.252 min
Delta R.T.: 0.000 min
Response: 2802051
Conc: 20.00 ug/ml

Instrument :
FID_E
ClientSampleId :
20 PPM ALIPHATIC HC STD3



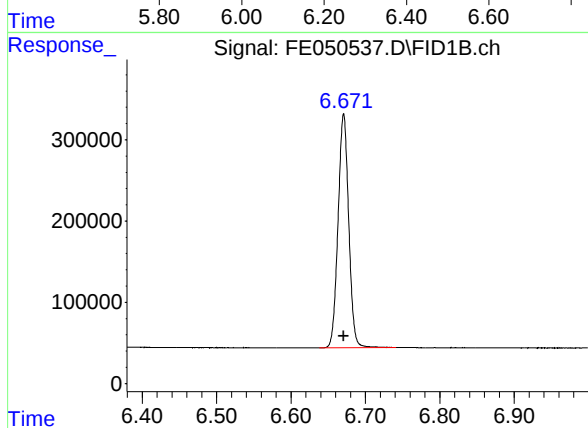
#2 n-Decane (C10)

R.T.: 4.503 min
Delta R.T.: 0.000 min
Response: 2852963
Conc: 20.00 ug/ml



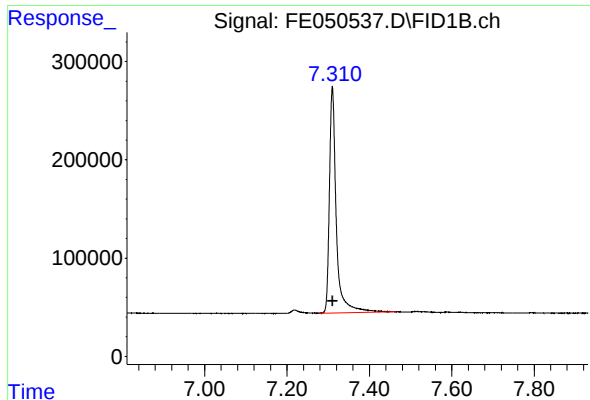
#3 A~Naphthalene (C11.7)

R.T.: 6.214 min
Delta R.T.: 0.000 min
Response: 2863853
Conc: 20.00 ug/ml



#4 n-Dodecane (C12)

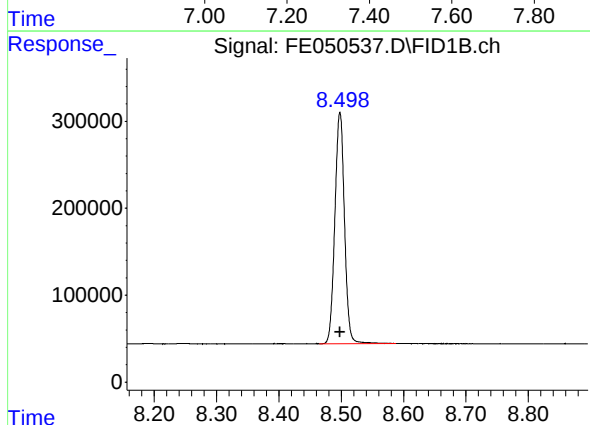
R.T.: 6.671 min
Delta R.T.: 0.000 min
Response: 2862396
Conc: 20.00 ug/ml



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

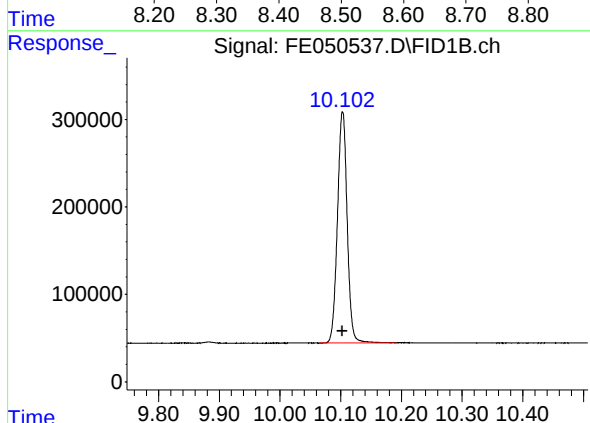
R.T.: 7.310 min
Delta R.T.: 0.000 min
Response: 2678310
Conc: 20.00 ug/ml

Instrument :
FID_E
ClientSampleId :
20 PPM ALIPHATIC HC STD3



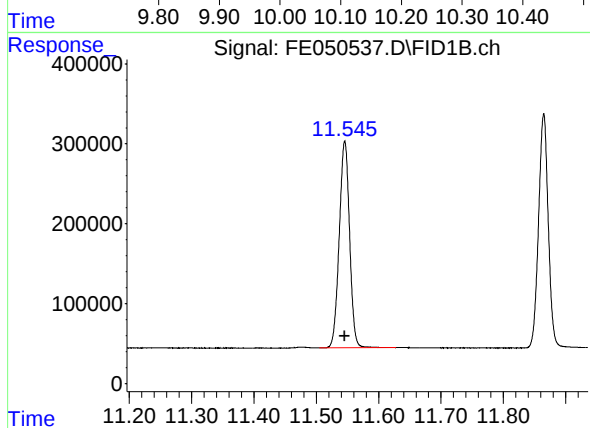
#6 n-Tetradecane (C14)

R.T.: 8.498 min
Delta R.T.: 0.000 min
Response: 2849272
Conc: 20.00 ug/ml



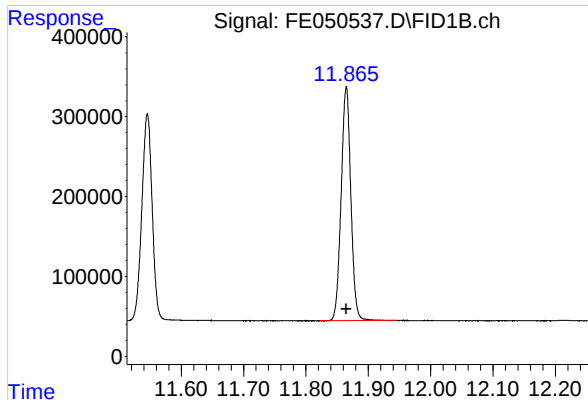
#7 n-Hexadecane (C16)

R.T.: 10.103 min
Delta R.T.: 0.000 min
Response: 2943356
Conc: 20.00 ug/ml



#8 n-Octadecane (C18)

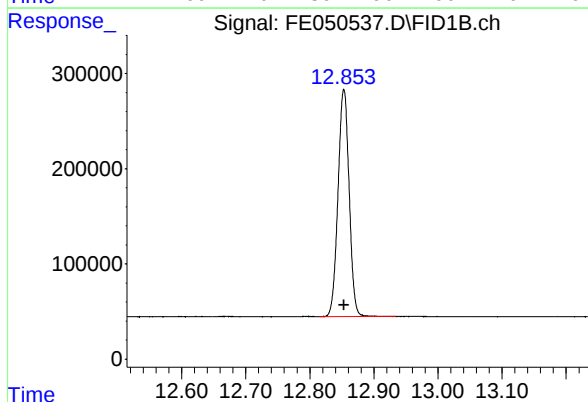
R.T.: 11.546 min
Delta R.T.: 0.000 min
Response: 2983567
Conc: 20.00 ug/ml



#9 ortho-Terphenyl (SURR)

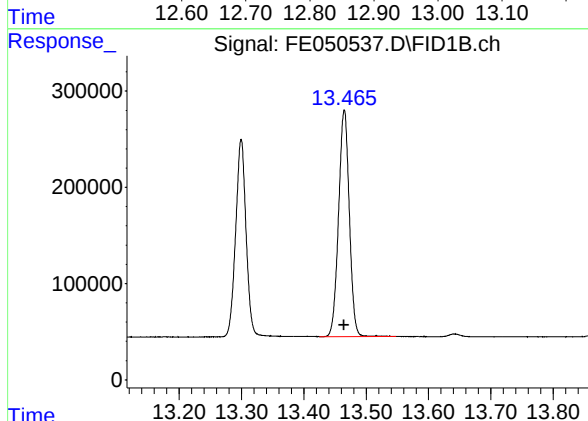
R.T.: 11.865 min
Delta R.T.: 0.000 min
Response: 3164300
Conc: 20.00 ug/ml

Instrument :
FID_E
ClientSampleId :
20 PPM ALIPHATIC HC STD3



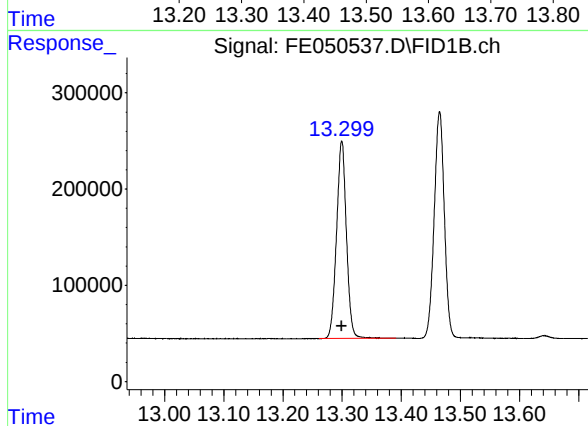
#10 n-Eicosane (C20)

R.T.: 12.853 min
Delta R.T.: 0.000 min
Response: 2869562
Conc: 20.00 ug/ml



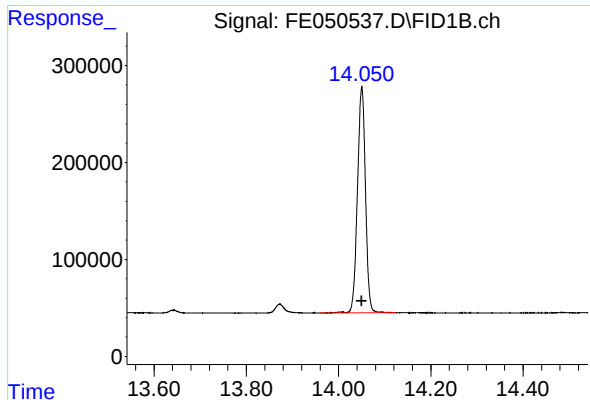
#11 n-Heneicosane (C21)

R.T.: 13.465 min
Delta R.T.: 0.000 min
Response: 2813281
Conc: 20.00 ug/ml



#12 1-chlorooctadecane (SURR)

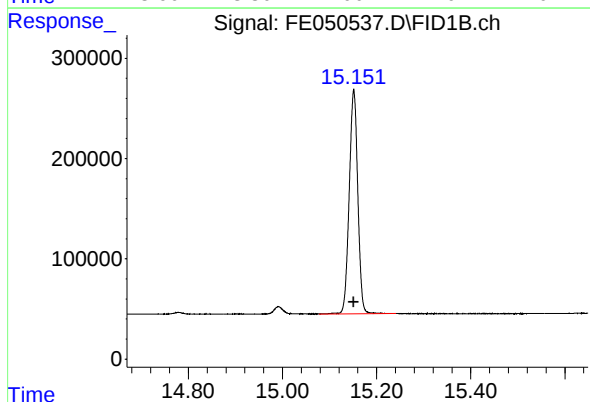
R.T.: 13.300 min
Delta R.T.: 0.000 min
Response: 2385261
Conc: 20.00 ug/ml



#13 n-Docosane (C22)

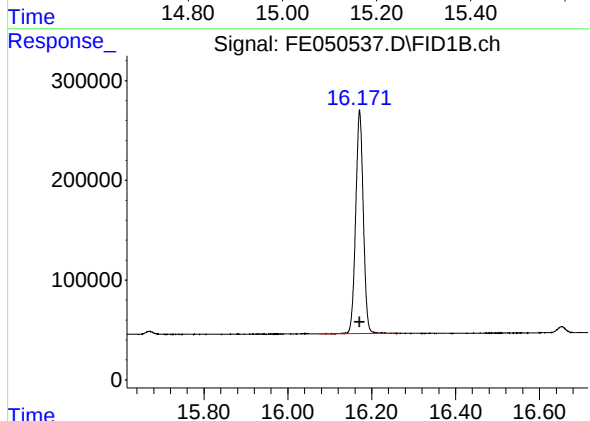
R.T.: 14.050 min
Delta R.T.: 0.000 min
Response: 2817220
Conc: 20.00 ug/ml

Instrument :
FID_E
ClientSampleId :
20 PPM ALIPHATIC HC STD3



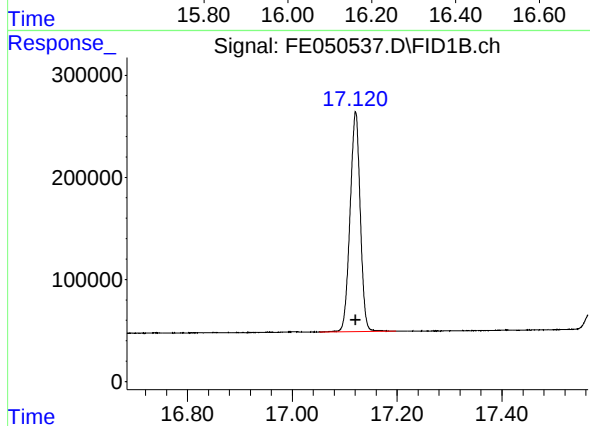
#14 n-Tetracosane (C24)

R.T.: 15.151 min
Delta R.T.: 0.000 min
Response: 2823423
Conc: 20.00 ug/ml



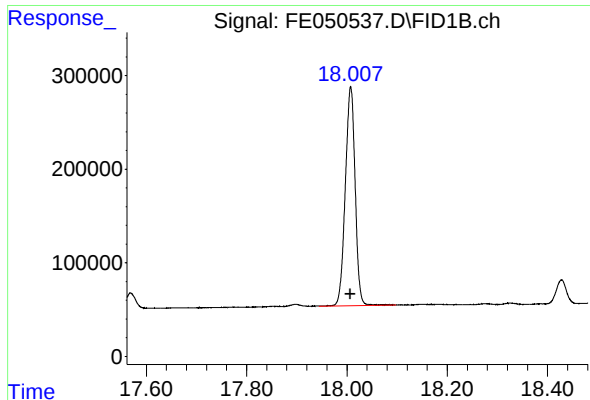
#15 n-Hexacosane (C26)

R.T.: 16.171 min
Delta R.T.: 0.000 min
Response: 2816031
Conc: 20.00 ug/ml



#16 n-Octacosane (C28)

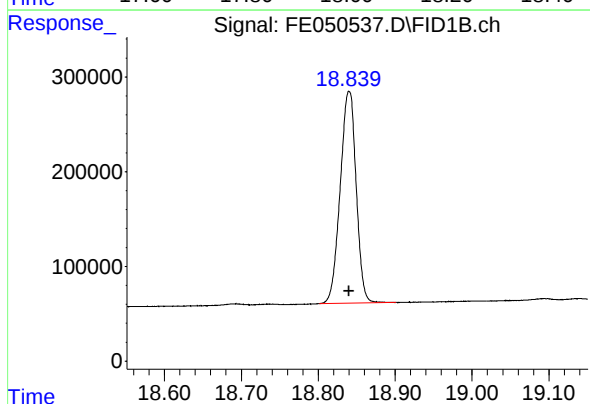
R.T.: 17.120 min
Delta R.T.: 0.000 min
Response: 2899395
Conc: 20.00 ug/ml



#17 n-Tricontane (C30)

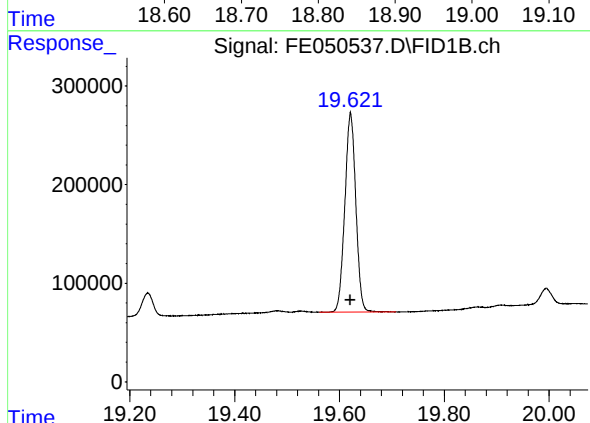
R.T.: 18.007 min
Delta R.T.: 0.000 min
Response: 3176058
Conc: 20.00 ug/ml

Instrument :
FID_E
ClientSampleId :
20 PPM ALIPHATIC HC STD3



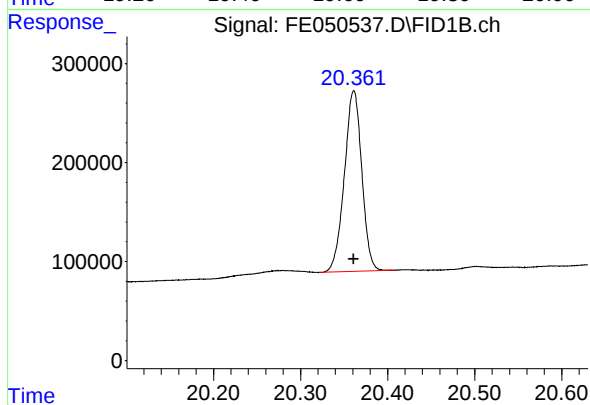
#18 n-Dotriacontane (C32)

R.T.: 18.840 min
Delta R.T.: 0.000 min
Response: 3220879
Conc: 20.00 ug/ml



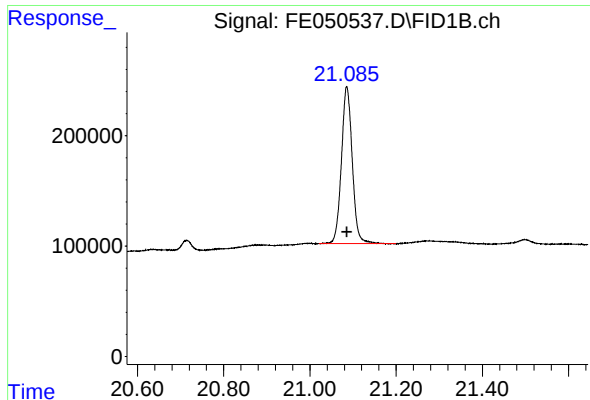
#19 n-Tetatriacontane (C34)

R.T.: 19.621 min
Delta R.T.: 0.000 min
Response: 2934710
Conc: 20.00 ug/ml



#20 n-Hexatriacontane (C36)

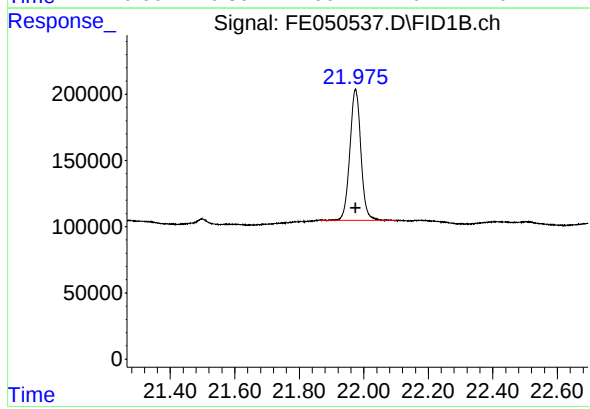
R.T.: 20.361 min
Delta R.T.: 0.000 min
Response: 2542299
Conc: 20.00 ug/ml



#21 n-Octatriacontane (C38)

R.T.: 21.086 min
Delta R.T.: 0.000 min
Response: 2481528
Conc: 20.00 ug/ml

Instrument :
FID_E
ClientSampleId :
20 PPM ALIPHATIC HC STD3



#22 n-Tetracontane (C40)

R.T.: 21.974 min
Delta R.T.: 0.000 min
Response: 2344203
Conc: 20.00 ug/ml

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE100824AL\
Data File : FE050537.D
Signal(s) : FID1B.ch
Acq On : 07 Oct 2024 15:06
Sample : 20 PPM ALIPHATIC HC STD3
Misc :
ALS Vial : 13 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\Aliphatic EPH 100824.M
Title : GC Extractables

Signal : FID1B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	3.252	3.221	3.348	BB	278890	2802051	87.00%	4.510%
2	4.503	4.461	4.598	BB	285202	2852963	88.58%	4.592%
3	6.214	6.188	6.374	BB	253669	2863853	88.92%	4.610%
4	6.671	6.638	6.741	BB	287721	2862396	88.87%	4.608%
5	7.310	7.278	7.464	BB	228423	2678310	83.15%	4.311%
6	8.498	8.464	8.588	BB	266356	2849272	88.46%	4.586%
7	10.103	10.064	10.191	BB	266110	2943356	91.38%	4.738%
8	11.546	11.504	11.628	BB	258038	2983567	92.63%	4.803%
9	11.865	11.821	11.944	BB	292339	3164300	98.24%	5.094%
10	12.853	12.814	12.934	BB	239829	2869562	89.09%	4.619%
11	13.300	13.261	13.391	BB	206276	2385261	74.06%	3.840%
12	13.465	13.424	13.548	BB	235274	2813281	87.35%	4.528%
13	14.050	13.958	14.124	BB	234213	2817220	87.47%	4.535%
14	15.151	15.078	15.241	BB	223761	2823423	87.66%	4.545%
15	16.171	16.074	16.258	BB	223622	2816031	87.43%	4.533%
16	17.120	17.051	17.198	BB	216983	2899395	90.02%	4.667%
17	18.007	17.944	18.098	BB	235301	3176058	98.61%	5.112%
18	18.840	18.801	18.901	BB	226230	3220879	100.00%	5.185%
19	19.621	19.561	19.708	BB	201438	2934710	91.12%	4.724%
20	20.361	20.321	20.409	BBA	182901	2542299	78.93%	4.092%
21	21.086	21.021	21.199	BBA	142625	2481528	77.05%	3.994%
22	21.974	21.861	22.099	BBA	99090	2344203	72.78%	3.773%
Sum of corrected areas:							62123918	

Aliphatic EPH 100824.M Mon Oct 07 16:36:17 2024

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE100824AL\
 Data File : FE050538.D
 Signal(s) : FID1B.ch
 Acq On : 07 Oct 2024 15:37
 Operator : YP\AJ
 Sample : 10 PPM ALIPHATIC HC STD4
 Misc :
 ALS Vial : 14 Sample Multiplier: 1

Instrument :
 FID_E
 ClientSampleId :
 10 PPM ALIPHATIC HC STD4

Manual Integrations
 APPROVED

Reviewed By :Yogesh Patel 10/08/2024
 Supervised By :Ankita Jodhani 10/08/2024

Integration File: autoint1.e
 Quant Time: Oct 07 16:03:16 2024
 Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\Aliphatic EPH 100824.M
 Quant Title : GC Extractables
 QLast Update : Mon Oct 07 16:03:08 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)	11.864	1598249	10.299 ug/ml
Spiked Amount 50.000		Recovery =	20.60%
12) S 1-chlorooctadecane (S...	13.298	1184740	10.114 ug/ml
Spiked Amount 50.000		Recovery =	20.23%
Target Compounds			
1) T n-Nonane (C9)	3.253	1429353	10.287 ug/ml
2) T n-Decane (C10)	4.503	1451977	10.277 ug/ml
3) T A~Naphthalene (C11.7)	6.215	1409508	9.818 ug/ml
4) T n-Dodecane (C12)	6.670	1456013	10.262 ug/ml
5) T A~2-methylnaphthalene...	7.311	1303112	9.695 ug/ml
6) T n-Tetradecane (C14)	8.497	1444120	10.251 ug/ml
7) T n-Hexadecane (C16)	10.103	1486117	10.224 ug/ml
8) T n-Octadecane (C18)	11.544	1509351	10.256 ug/ml
10) T n-Eicosane (C20)	12.852	1447741	10.270 ug/ml
11) T n-Heneicosane (C21)	13.463	1422566	10.297 ug/ml
13) T n-Docosane (C22)	14.049	1407717	10.232 ug/ml
14) T n-Tetracosane (C24)	15.149	1417214	10.250 ug/ml
15) T n-Hexacosane (C26)	16.170	1413994	10.260 ug/ml
16) T n-Octacosane (C28)	17.118	1469893	10.435 ug/ml
17) T n-Tricontane (C30)	18.006	1614246	10.693 ug/ml
18) T n-Dotriacontane (C32)	18.837	1666044	10.943 ug/ml
19) T n-Tetratriacontane (C34)	19.621	1525013	10.961 ug/ml
20) T n-Hexatriacontane (C36)	20.359	1301715	10.698 ug/ml
21) T n-Octatriacontane (C38)	21.086	1173667	10.191 ug/mlm
22) T n-Tetracontane (C40)	21.971	1141383	10.327 ug/ml

(f)=RT Delta > 1/2 Window

(m)=manual int.

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE100824AL\
Data File : FE050538.D
Signal(s) : FID1B.ch
Acq On : 07 Oct 2024 15:37
Operator : YP\AJ
Sample : 10 PPM ALIPHATIC HC STD4
Misc :
ALS Vial : 14 Sample Multiplier: 1

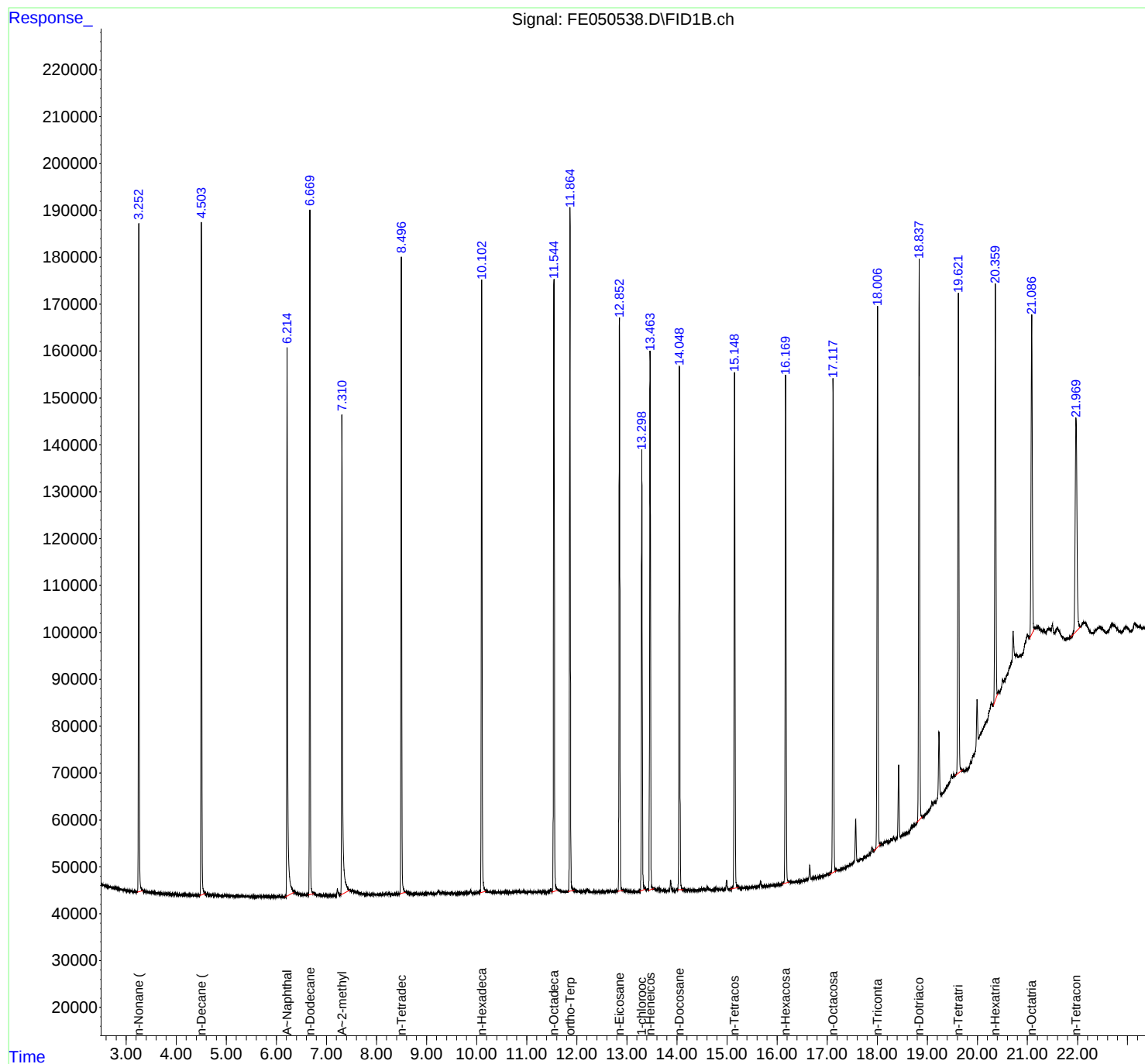
Instrument :
FID_E
ClientSampleId :
10 PPM ALIPHATIC HC STD4

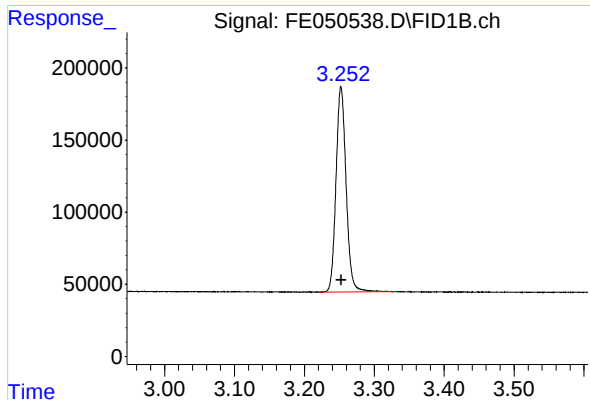
Manual Integrations
APPROVED

Reviewed By :Yogesh Patel 10/08/2024
Supervised By :Ankita Jodhani 10/08/2024

Integration File: autoint1.e
Quant Time: Oct 07 16:03:16 2024
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\Aliphatic EPH 100824.
Quant Title : GC Extractables
QLast Update : Mon Oct 07 16:03:08 2024
Response via : Initial Calibration
Integrator: ChemStation

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





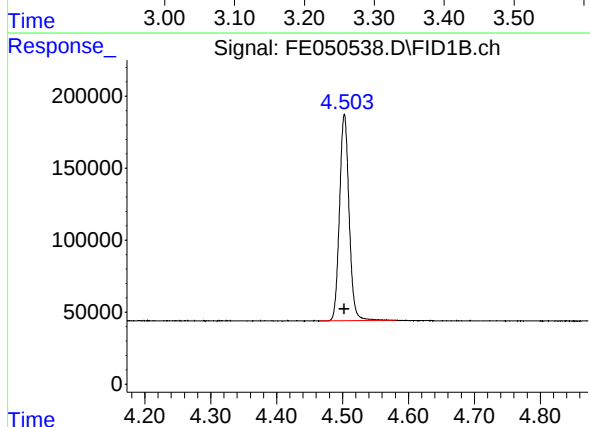
#1 n-Nonane (C9)

R.T.: 3.253 min
Delta R.T.: 0.000 min
Response: 1429353
Conc: 10.29 ug/ml

Instrument :
FID_E
ClientSampleId :
10 PPM ALIPHATIC HC STD4

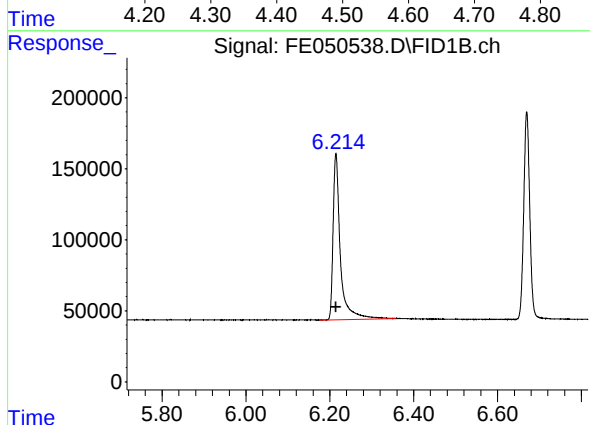
Manual Integrations
APPROVED

Reviewed By :Yogesh Patel 10/08/2024
Supervised By :Ankita Jodhani 10/08/2024



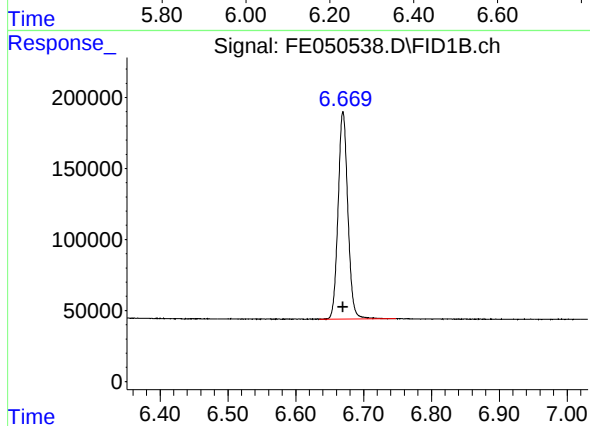
#2 n-Decane (C10)

R.T.: 4.503 min
Delta R.T.: 0.000 min
Response: 1451977
Conc: 10.28 ug/ml



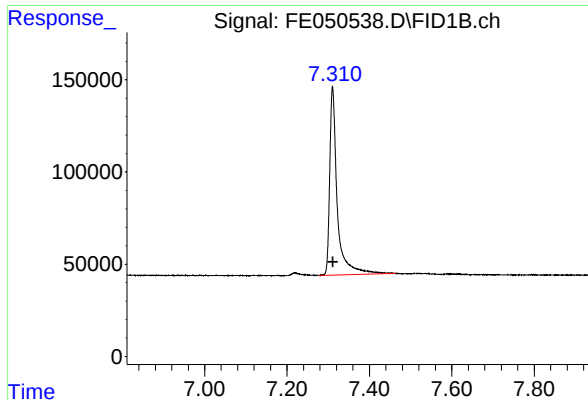
#3 A~Naphthalene (C11.7)

R.T.: 6.215 min
Delta R.T.: 0.000 min
Response: 1409508
Conc: 9.82 ug/ml



#4 n-Dodecane (C12)

R.T.: 6.670 min
Delta R.T.: 0.000 min
Response: 1456013
Conc: 10.26 ug/ml



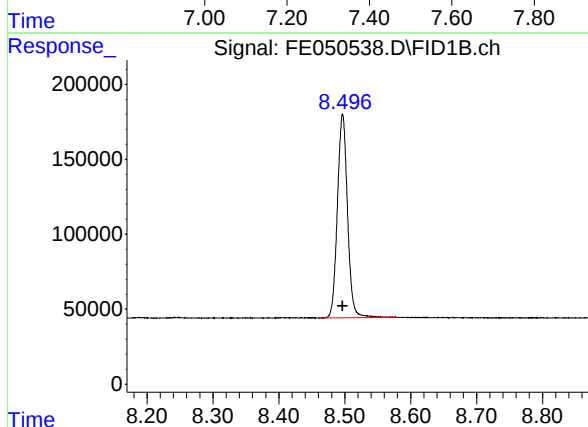
#5 A~2-methylnaphthalene (C12.89)

R.T.: 7.311 min
Delta R.T.: 0.000 min
Response: 1303112
Conc: 9.70 ug/ml

Instrument :
FID_E
ClientSampleId :
10 PPM ALIPHATIC HC STD4

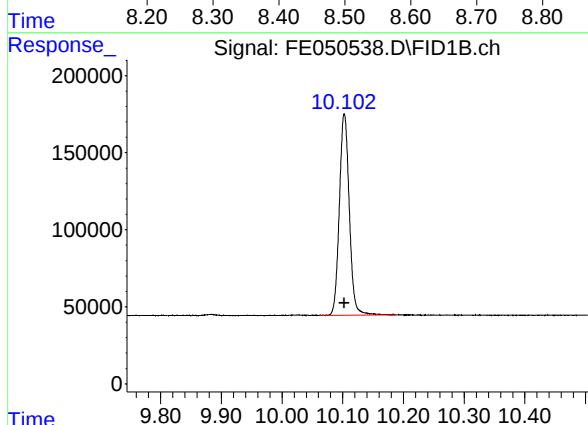
Manual Integrations
APPROVED

Reviewed By :Yogesh Patel 10/08/2024
Supervised By :Ankita Jodhani 10/08/2024



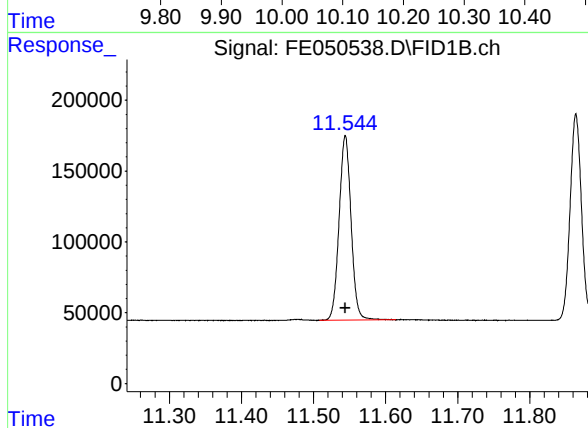
#6 n-Tetradecane (C14)

R.T.: 8.497 min
Delta R.T.: 0.000 min
Response: 1444120
Conc: 10.25 ug/ml



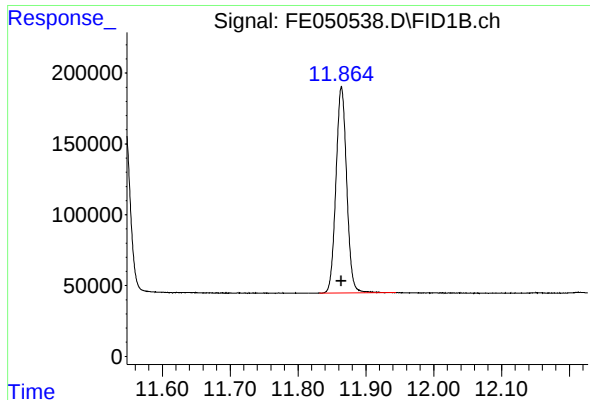
#7 n-Hexadecane (C16)

R.T.: 10.103 min
Delta R.T.: 0.000 min
Response: 1486117
Conc: 10.22 ug/ml



#8 n-Octadecane (C18)

R.T.: 11.544 min
Delta R.T.: 0.000 min
Response: 1509351
Conc: 10.26 ug/ml



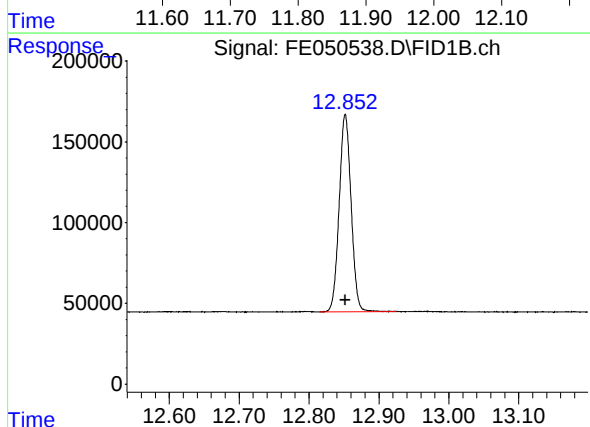
#9 ortho-Terphenyl (SURR)

R.T.: 11.864 min
Delta R.T.: 0.000 min
Response: 1598249
Conc: 10.30 ug/ml

Instrument :
FID_E
ClientSampleId :
10 PPM ALIPHATIC HC STD4

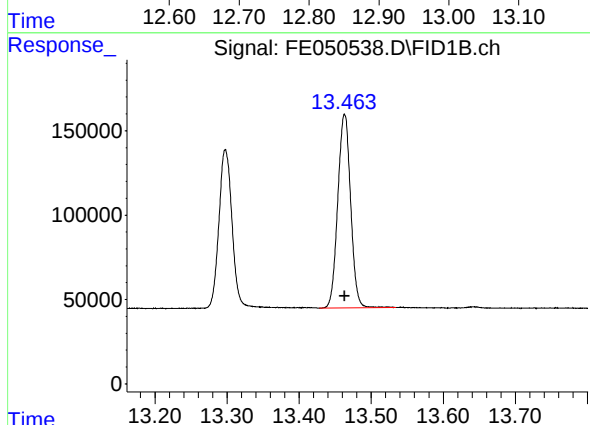
Manual Integrations
APPROVED

Reviewed By :Yogesh Patel 10/08/2024
Supervised By :Ankita Jodhani 10/08/2024



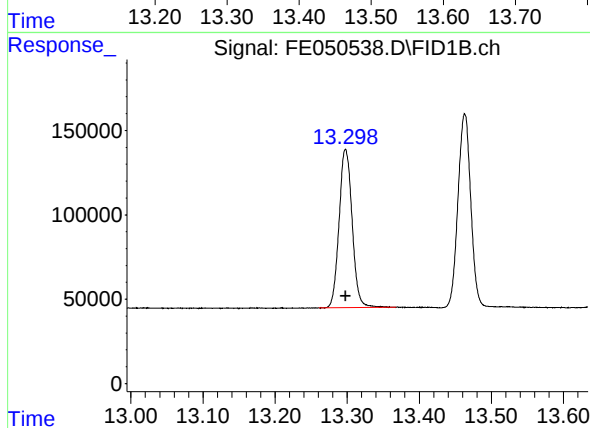
#10 n-Eicosane (C20)

R.T.: 12.852 min
Delta R.T.: 0.000 min
Response: 1447741
Conc: 10.27 ug/ml



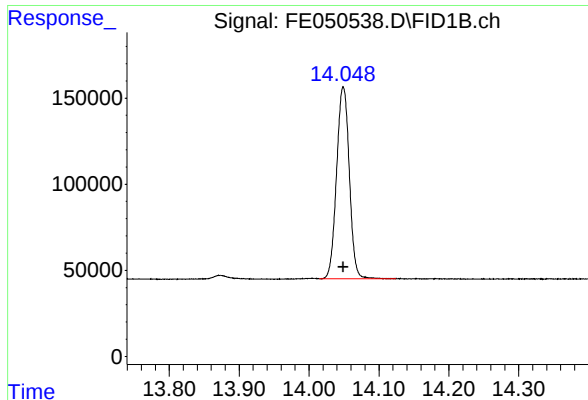
#11 n-Heneicosane (C21)

R.T.: 13.463 min
Delta R.T.: 0.000 min
Response: 1422566
Conc: 10.30 ug/ml



#12 1-chlorooctadecane (SURR)

R.T.: 13.298 min
Delta R.T.: 0.000 min
Response: 1184740
Conc: 10.11 ug/ml



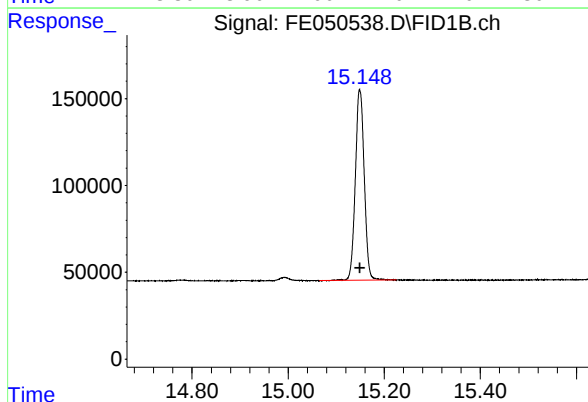
#13 n-Docosane (C22)

R.T.: 14.049 min
Delta R.T.: 0.000 min
Response: 1407717
Conc: 10.23 ug/ml

Instrument :
FID_E
ClientSampleId :
10 PPM ALIPHATIC HC STD4

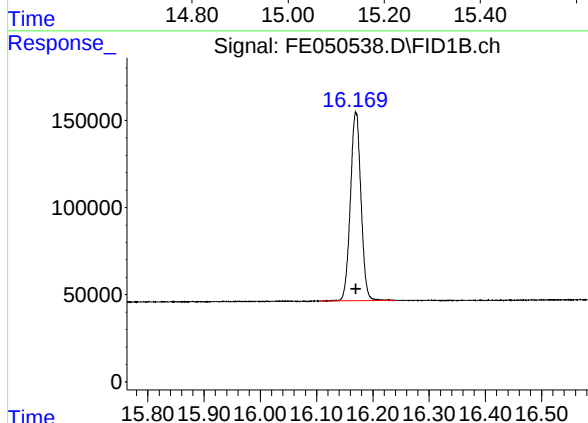
Manual Integrations
APPROVED

Reviewed By :Yogesh Patel 10/08/2024
Supervised By :Ankita Jodhani 10/08/2024



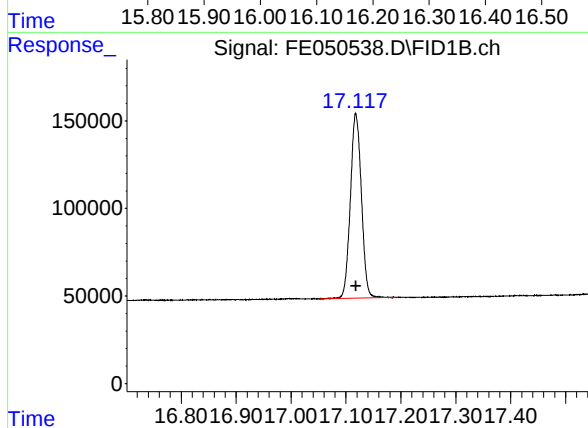
#14 n-Tetracosane (C24)

R.T.: 15.149 min
Delta R.T.: 0.000 min
Response: 1417214
Conc: 10.25 ug/ml



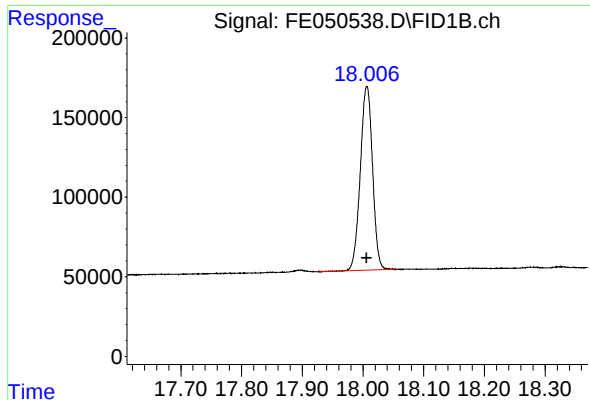
#15 n-Hexacosane (C26)

R.T.: 16.170 min
Delta R.T.: 0.000 min
Response: 1413994
Conc: 10.26 ug/ml



#16 n-Octacosane (C28)

R.T.: 17.118 min
Delta R.T.: 0.000 min
Response: 1469893
Conc: 10.43 ug/ml



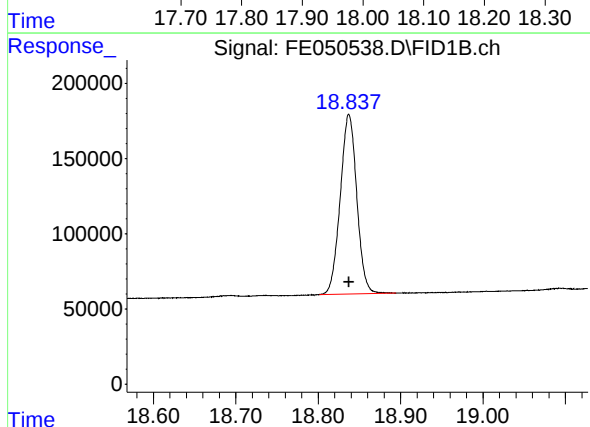
#17 n-Tricontane (C30)

R.T.: 18.006 min
Delta R.T.: 0.000 min
Response: 1614246
Conc: 10.69 ug/ml

Instrument :
FID_E
ClientSampleId :
10 PPM ALIPHATIC HC STD4

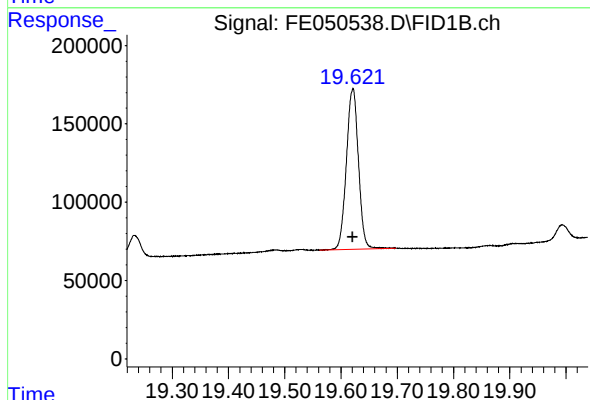
Manual Integrations
APPROVED

Reviewed By :Yogesh Patel 10/08/2024
Supervised By :Ankita Jodhani 10/08/2024



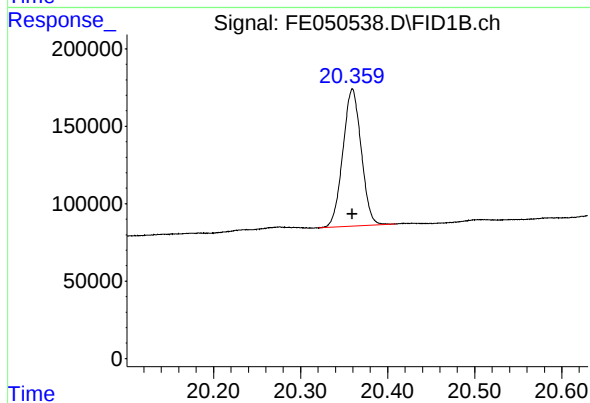
#18 n-Dotriacontane (C32)

R.T.: 18.837 min
Delta R.T.: 0.000 min
Response: 1666044
Conc: 10.94 ug/ml



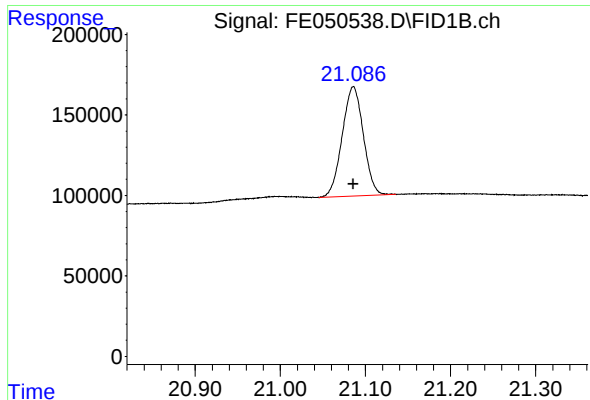
#19 n-Tetratriacontane (C34)

R.T.: 19.621 min
Delta R.T.: 0.000 min
Response: 1525013
Conc: 10.96 ug/ml



#20 n-Hexatriacontane (C36)

R.T.: 20.359 min
Delta R.T.: 0.000 min
Response: 1301715
Conc: 10.70 ug/ml



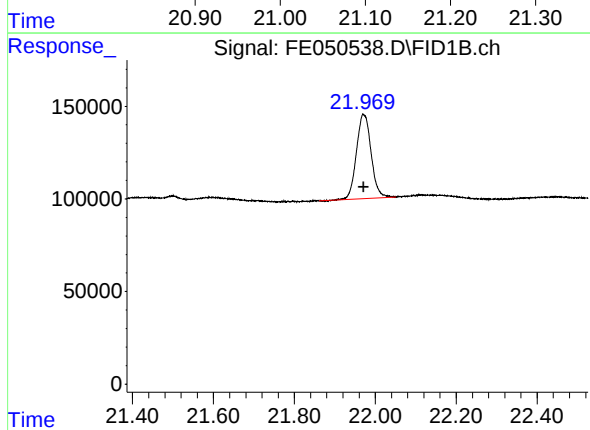
#21 n-Octatriacontane (C38)

R.T.: 21.086 min
Delta R.T.: 0.000 min
Response: 1173667
Conc: 10.19 ug/ml

Instrument :
FID_E
ClientSampleId :
10 PPM ALIPHATIC HC STD4

Manual Integrations
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Reviewed By :Yogesh Patel 10/08/2024
Supervised By :Ankita Jodhani 10/08/2024



#22 n-Tetracontane (C40)

R.T.: 21.971 min
Delta R.T.: 0.000 min
Response: 1141383
Conc: 10.33 ug/ml

rters

Instrument :
FID_E
LabSampleId :
10 PPM ALIPHATIC HC STD4
Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE100824
Data File : FE050538.D
Signal(s) : FID1B.ch
Acq On : 07 Oct 2024 15:37
Sample : 10 PPM ALIPHATIC HC STD4
Misc :
ALS Vial : 14 Sample Multiplier: 1

Manual IntegrationsAPPROVED

Reviewed By :Yogesh Patel 10/08/2024
Supervised By :Ankita Jodhani 10/08/2024

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\Aliphatic EPH 100824.M
Title : GC Extractables

Signal : FID1B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	3.253	3.221	3.331	BB	141842	1429353	85.79%	4.574%
2	4.503	4.464	4.581	BB	143204	1451977	87.15%	4.647%
3	6.215	6.174	6.358	BB	116535	1409508	84.60%	4.511%
4	6.670	6.634	6.748	BB	145347	1456013	87.39%	4.660%
5	7.311	7.278	7.464	BB	101321	1303112	78.22%	4.170%
6	8.497	8.461	8.578	BB	135582	1444120	86.68%	4.621%
7	10.103	10.061	10.188	BB	130078	1486117	89.20%	4.756%
8	11.544	11.508	11.614	BB	130433	1509351	90.59%	4.830%
9	11.864	11.831	11.944	BB	145215	1598249	95.93%	5.115%
10	12.852	12.814	12.924	BB	122059	1447741	86.90%	4.633%
11	13.298	13.261	13.368	BB	93873	1184740	71.11%	3.791%
12	13.463	13.428	13.534	BB	115675	1422566	85.39%	4.553%
13	14.049	14.014	14.124	BB	111578	1407717	84.49%	4.505%
14	15.149	15.064	15.224	BB	110566	1417214	85.06%	4.535%
15	16.170	16.104	16.241	BB	108964	1413994	84.87%	4.525%
16	17.118	17.051	17.191	BB	105302	1469893	88.23%	4.704%
17	18.006	17.928	18.054	BB	116031	1614246	96.89%	5.166%
18	18.837	18.801	18.894	BB	119499	1666044	100.00%	5.332%
19	19.621	19.561	19.698	BB	102286	1525013	91.53%	4.880%
20	20.359	20.321	20.409	BBA	88720	1301715	78.13%	4.166%
21	21.086	21.021	21.138	BB	67480	1147945	68.90%	3.674%
22	21.971	21.861	22.051	BV	45313	1141383	68.51%	3.653%
Sum of corrected areas:							31248008	

Aliphatic EPH 100824.M Mon Oct 07 16:36:37 2024

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE100824AL\
 Data File : FE050539.D
 Signal(s) : FID1B.ch
 Acq On : 07 Oct 2024 16:07
 Operator : YP\AJ
 Sample : 5 PPM ALIPHATIC HC STD5
 Misc :
 ALS Vial : 15 Sample Multiplier: 1

Instrument :
 FID_E
 ClientSampleId :
 5 PPM ALIPHATIC HC STD5

Manual Integrations
 APPROVED

Reviewed By :Yogesh Patel 10/08/2024
 Supervised By :Ankita Jodhani 10/08/2024

Integration File: autoint1.e
 Quant Time: Oct 07 16:31:29 2024
 Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\Aliphatic EPH 100824.M
 Quant Title : GC Extractables
 QLast Update : Mon Oct 07 16:31:21 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)	11.863	837545	5.312 ug/ml
Spiked Amount 50.000		Recovery =	10.62%
12) S 1-chlorooctadecane (S...	13.298	614466	5.194 ug/ml
Spiked Amount 50.000		Recovery =	10.39%
Target Compounds			
1) T n-Nonane (C9)	3.254	753304	5.332 ug/ml
2) T n-Decane (C10)	4.503	761079	5.305 ug/ml
3) T A~Naphthalene (C11.7)	6.217	703385	4.919 ug/ml
4) T n-Dodecane (C12)	6.670	760541	5.284 ug/ml
5) T A~2-methylnaphthalene...	7.313	623807	4.709 ug/ml
6) T n-Tetradecane (C14)	8.496	759193	5.307 ug/ml
7) T n-Hexadecane (C16)	10.102	772180	5.247 ug/ml
8) T n-Octadecane (C18)	11.544	790974	5.295 ug/ml
10) T n-Eicosane (C20)	12.852	765738	5.340 ug/ml
11) T n-Heneicosane (C21)	13.463	747887	5.326 ug/ml
13) T n-Docosane (C22)	14.048	755779	5.387 ug/ml
14) T n-Tetracosane (C24)	15.150	766754	5.427 ug/ml
15) T n-Hexacosane (C26)	16.169	761614	5.412 ug/ml
16) T n-Octacosane (C28)	17.117	840920	5.747 ug/ml
17) T n-Tricontane (C30)	18.004	955708	6.011 ug/ml
18) T n-Dotriacontane (C32)	18.837	1007931	6.217 ug/ml
19) T n-Tetratriacontane (C34)	19.619	889564	6.056 ug/ml
20) T n-Hexatriacontane (C36)	20.358	736787	5.810 ug/ml
21) T n-Octatriacontane (C38)	21.084	775038	6.268 ug/ml
22) T n-Tetracontane (C40)	21.969	573373	5.145 ug/mlm

(f)=RT Delta > 1/2 Window

(m)=manual int.

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE100824AL\
Data File : FE050539.D
Signal(s) : FID1B.ch
Acq On : 07 Oct 2024 16:07
Operator : YP\AJ
Sample : 5 PPM ALIPHATIC HC STD5
Misc :
ALS Vial : 15 Sample Multiplier: 1

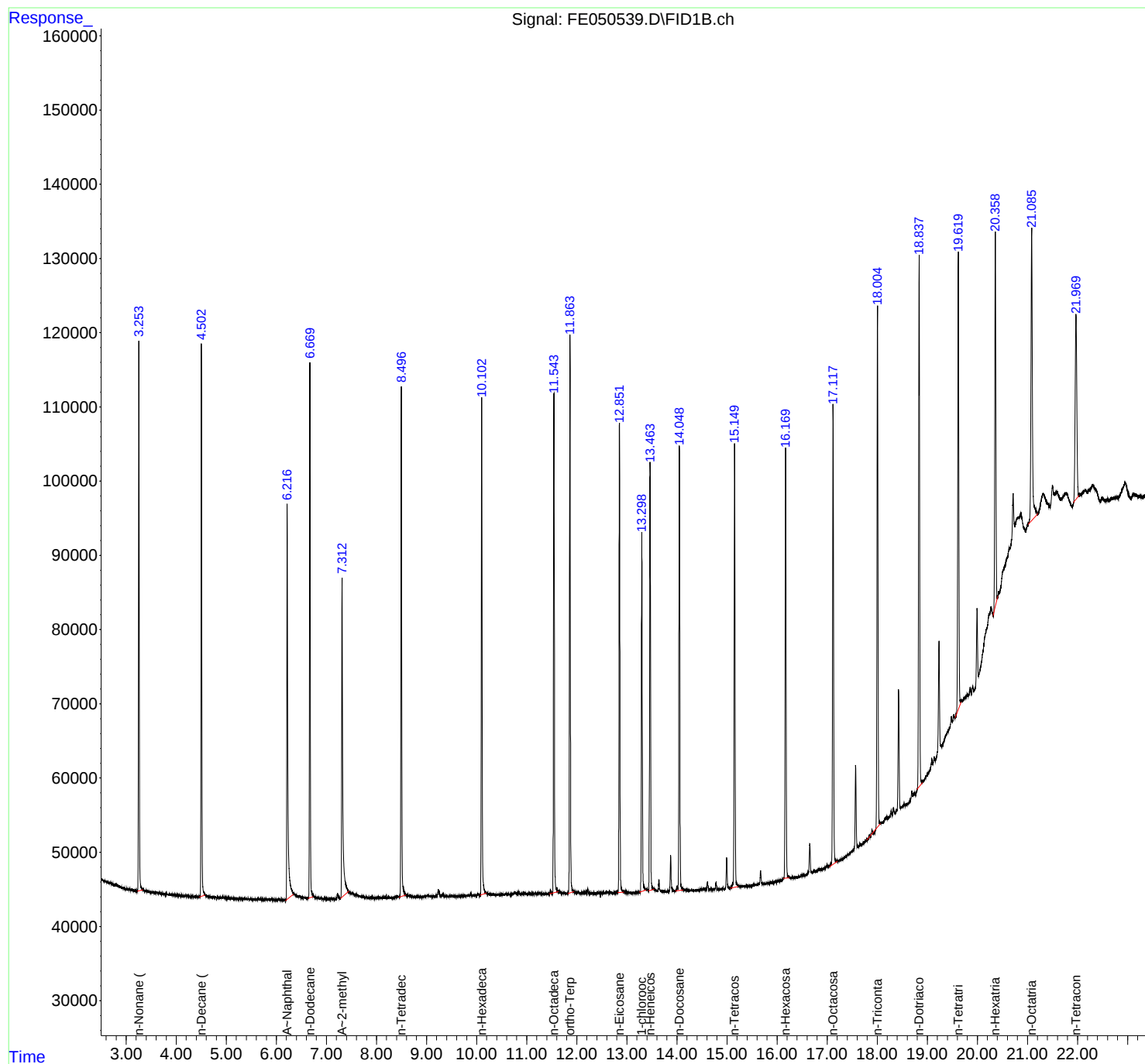
Instrument :
FID_E
ClientSampleId :
5 PPM ALIPHATIC HC STD5

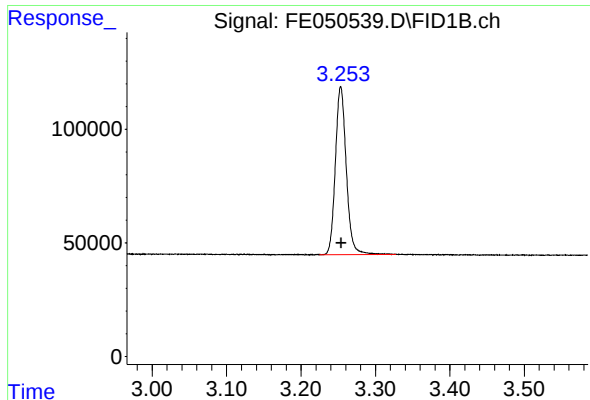
Manual Integrations
APPROVED

Reviewed By :Yogesh Patel 10/08/2024
Supervised By :Ankita Jodhani 10/08/2024

Integration File: autoint1.e
Quant Time: Oct 07 16:31:29 2024
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\Aliphatic EPH 100824.
Quant Title : GC Extractables
QLast Update : Mon Oct 07 16:31:21 2024
Response via : Initial Calibration
Integrator: ChemStation

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





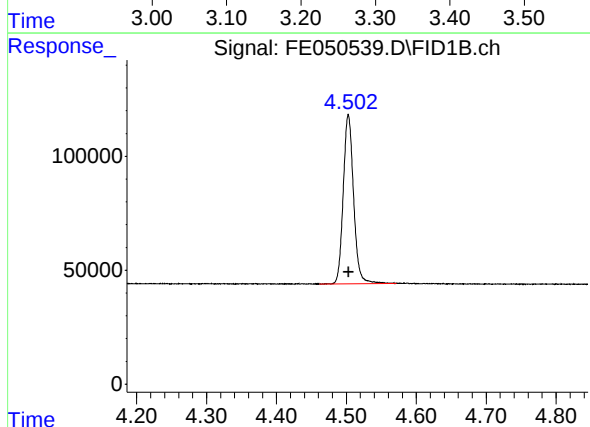
#1 n-Nonane (C9)

R.T.: 3.254 min
Delta R.T.: 0.000 min
Response: 753304
Conc: 5.33 ug/ml

Instrument :
FID_E
ClientSampleId :
5 PPM ALIPHATIC HC STD5

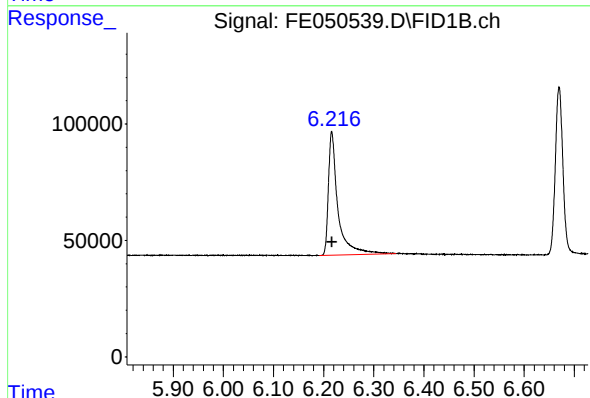
Manual Integrations
APPROVED

Reviewed By :Yogesh Patel 10/08/2024
Supervised By :Ankita Jodhani 10/08/2024



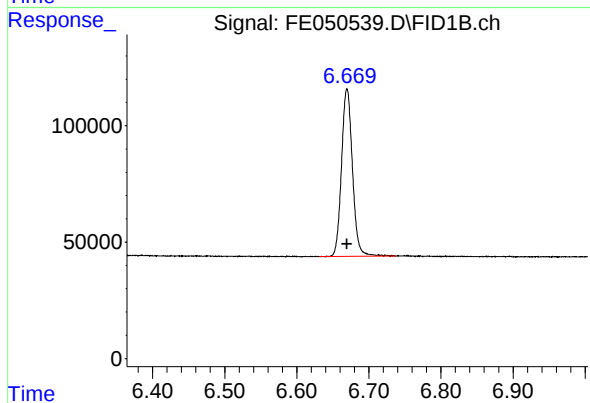
#2 n-Decane (C10)

R.T.: 4.503 min
Delta R.T.: 0.000 min
Response: 761079
Conc: 5.30 ug/ml



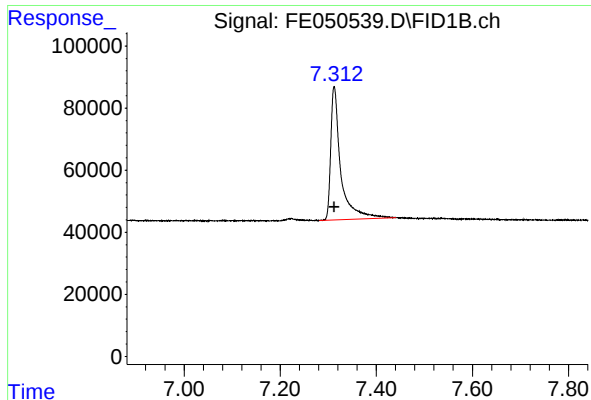
#3 A~Naphthalene (C11.7)

R.T.: 6.217 min
Delta R.T.: 0.000 min
Response: 703385
Conc: 4.92 ug/ml



#4 n-Dodecane (C12)

R.T.: 6.670 min
Delta R.T.: 0.000 min
Response: 760541
Conc: 5.28 ug/ml



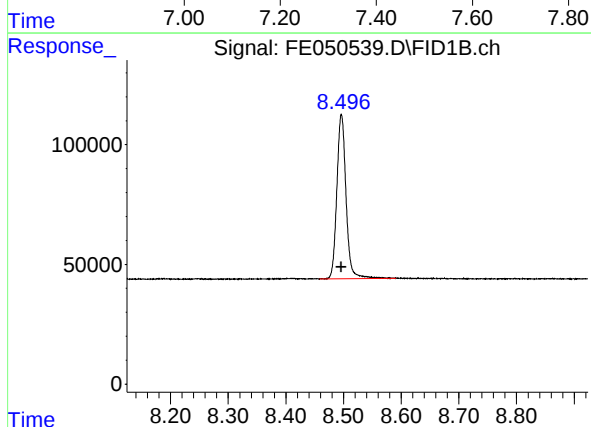
#5 A~2-methylnaphthalene (C12.89)

R.T.: 7.313 min
Delta R.T.: 0.000 min
Response: 623807
Conc: 4.71 ug/ml

Instrument :
FID_E
ClientSampleId :
5 PPM ALIPHATIC HC STD5

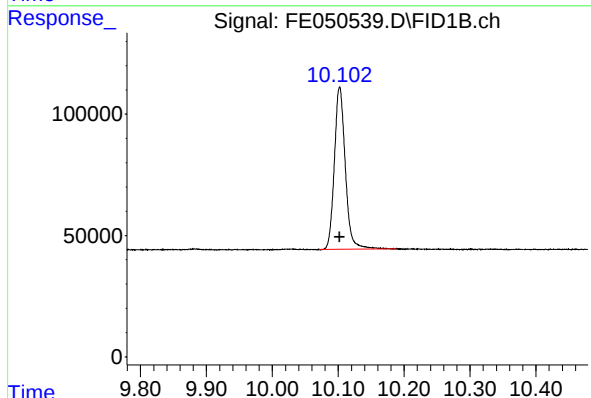
Manual Integrations
APPROVED

Reviewed By :Yogesh Patel 10/08/2024
Supervised By :Ankita Jodhani 10/08/2024



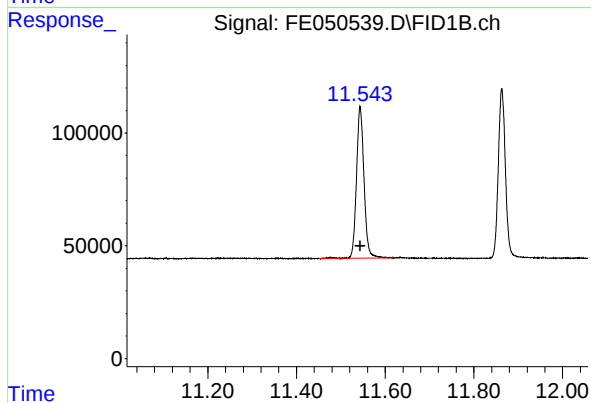
#6 n-Tetradecane (C14)

R.T.: 8.496 min
Delta R.T.: 0.000 min
Response: 759193
Conc: 5.31 ug/ml



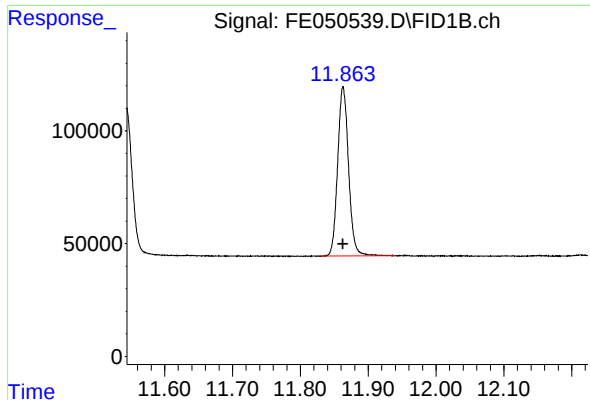
#7 n-Hexadecane (C16)

R.T.: 10.102 min
Delta R.T.: 0.000 min
Response: 772180
Conc: 5.25 ug/ml



#8 n-Octadecane (C18)

R.T.: 11.544 min
Delta R.T.: 0.000 min
Response: 790974
Conc: 5.30 ug/ml



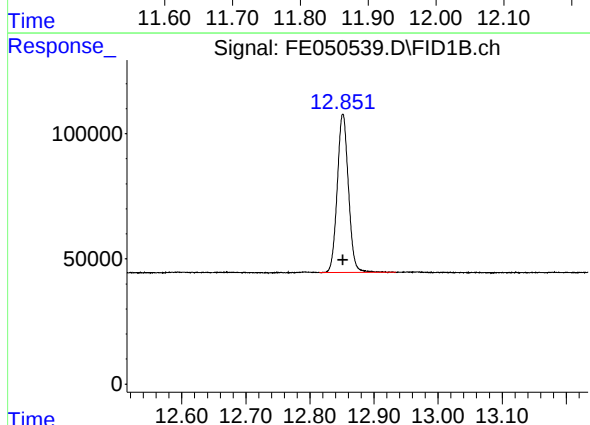
#9 ortho-Terphenyl (SURR)

R.T.: 11.863 min
Delta R.T.: 0.000 min
Response: 837545
Conc: 5.31 ug/ml

Instrument :
FID_E
ClientSampleId :
5 PPM ALIPHATIC HC STD5

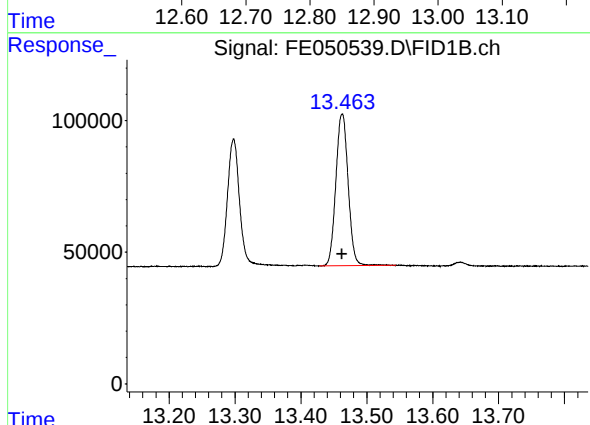
Manual Integrations
APPROVED

Reviewed By :Yogesh Patel 10/08/2024
Supervised By :Ankita Jodhani 10/08/2024



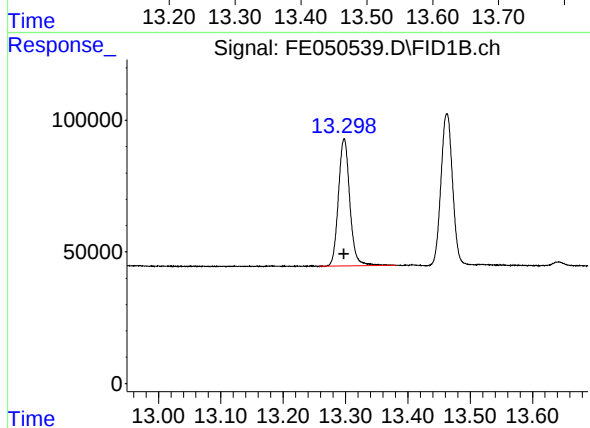
#10 n-Eicosane (C20)

R.T.: 12.852 min
Delta R.T.: 0.000 min
Response: 765738
Conc: 5.34 ug/ml



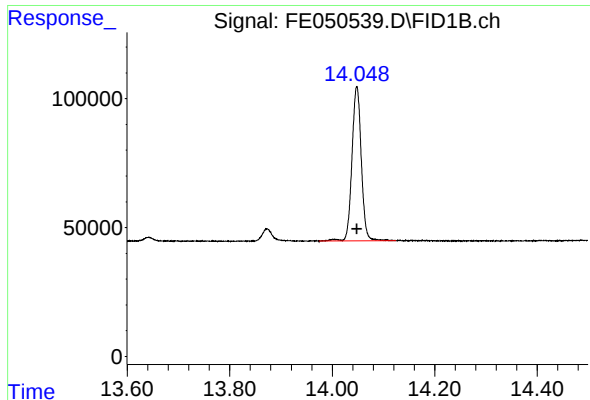
#11 n-Heneicosane (C21)

R.T.: 13.463 min
Delta R.T.: 0.000 min
Response: 747887
Conc: 5.33 ug/ml



#12 1-chlorooctadecane (SURR)

R.T.: 13.298 min
Delta R.T.: 0.000 min
Response: 614466
Conc: 5.19 ug/ml



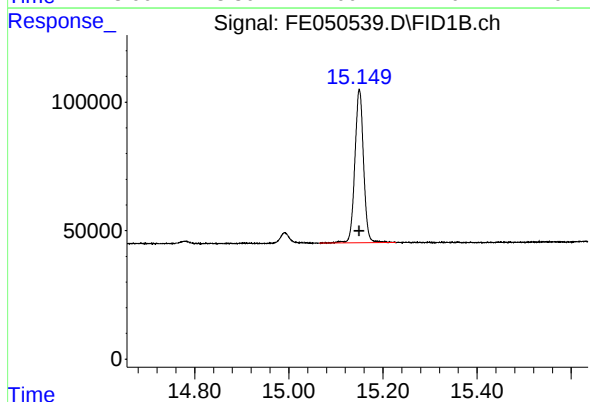
#13 n-Docosane (C22)

R.T.: 14.048 min
Delta R.T.: 0.000 min
Response: 755779
Conc: 5.39 ug/ml

Instrument :
FID_E
ClientSampleId :
5 PPM ALIPHATIC HC STD5

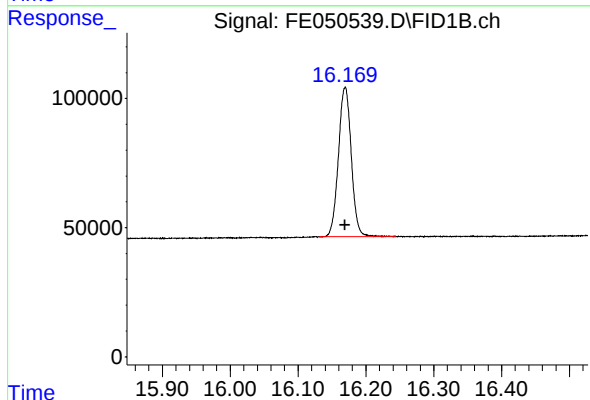
Manual Integrations
APPROVED

Reviewed By :Yogesh Patel 10/08/2024
Supervised By :Ankita Jodhani 10/08/2024



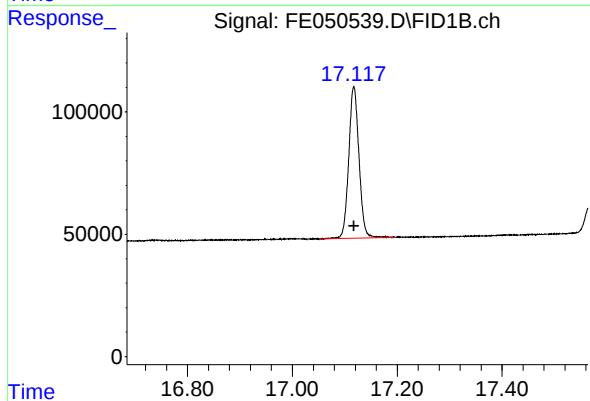
#14 n-Tetracosane (C24)

R.T.: 15.150 min
Delta R.T.: 0.000 min
Response: 766754
Conc: 5.43 ug/ml



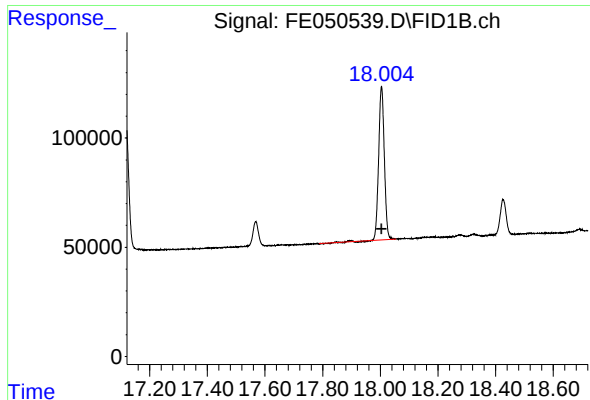
#15 n-Hexacosane (C26)

R.T.: 16.169 min
Delta R.T.: 0.000 min
Response: 761614
Conc: 5.41 ug/ml



#16 n-Octacosane (C28)

R.T.: 17.117 min
Delta R.T.: 0.000 min
Response: 840920
Conc: 5.75 ug/ml



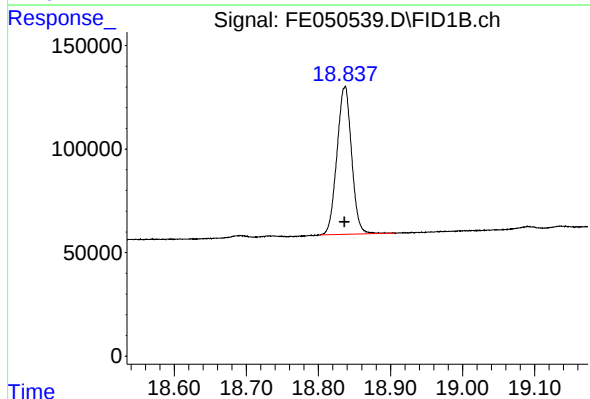
#17 n-Tricontane (C30)

R.T.: 18.004 min
Delta R.T.: 0.000 min
Response: 955708
Conc: 6.01 ug/ml

Instrument :
FID_E
ClientSampleId :
5 PPM ALIPHATIC HC STD5

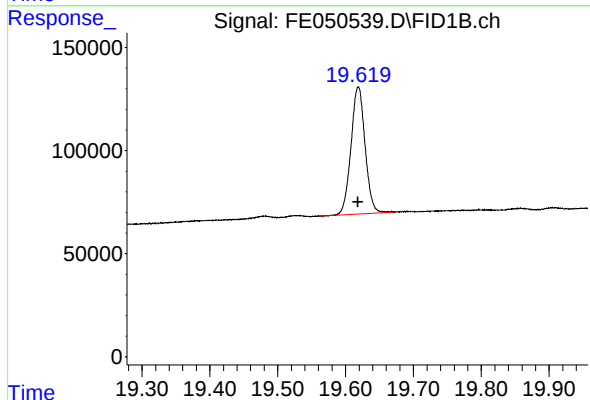
Manual Integrations
APPROVED

Reviewed By :Yogesh Patel 10/08/2024
Supervised By :Ankita Jodhani 10/08/2024



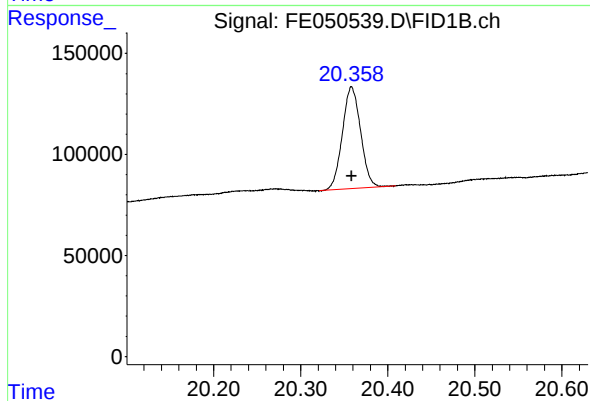
#18 n-Dotriacontane (C32)

R.T.: 18.837 min
Delta R.T.: 0.000 min
Response: 1007931
Conc: 6.22 ug/ml



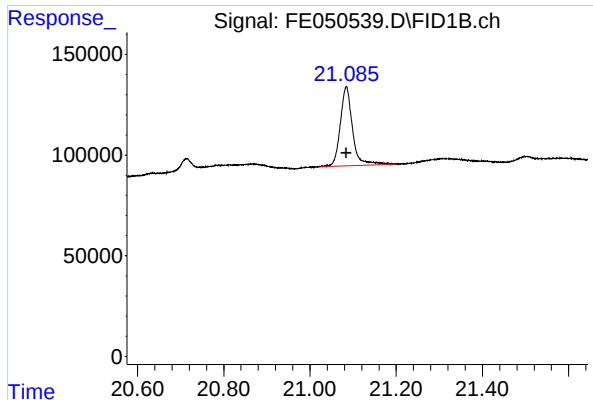
#19 n-Tetratriacontane (C34)

R.T.: 19.619 min
Delta R.T.: 0.000 min
Response: 889564
Conc: 6.06 ug/ml



#20 n-Hexatriacontane (C36)

R.T.: 20.358 min
Delta R.T.: 0.000 min
Response: 736787
Conc: 5.81 ug/ml



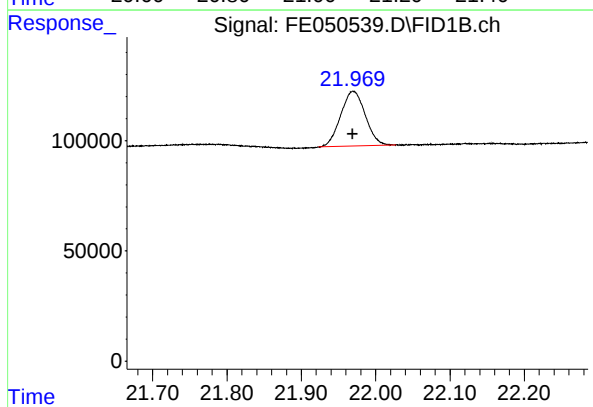
#21 n-Octatriacontane (C38)

R.T.: 21.084 min
Delta R.T.: 0.000 min
Response: 775038
Conc: 6.27 ug/ml

Instrument :
FID_E
ClientSampleId :
5 PPM ALIPHATIC HC STD5

Manual Integrations
APPROVED

Reviewed By :Yogesh Patel 10/08/2024
Supervised By :Ankita Jodhani 10/08/2024



#22 n-Tetracontane (C40)

R.T.: 21.969 min
Delta R.T.: 0.000 min
Response: 573373
Conc: 5.14 ug/ml m

rtres

Instrument :
FID_E
LabSampleId :
5 PPM ALIPHATIC HC STD5
Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE100824
Data File : FE050539.D
Signal(s) : FID1B.ch
Acq On : 07 Oct 2024 16:07
Sample : 5 PPM ALIPHATIC HC STD5
Misc :
ALS Vial : 15 Sample Multiplier: 1

Manual IntegrationsAPPROVED

Reviewed By :Yogesh Patel 10/08/2024
Supervised By :Ankita Jodhani 10/08/2024

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\Aliphatic EPH 100824.M
Title : GC Extractables

Signal : FID1B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	3.254	3.224	3.328	BB	73662	753304	74.74%	4.447%
2	4.503	4.461	4.571	BB	73626	761079	75.51%	4.493%
3	6.217	6.191	6.344	BB	52188	703385	69.78%	4.152%
4	6.670	6.631	6.738	BB	72076	760541	75.46%	4.490%
5	7.313	7.281	7.441	BB	42388	623807	61.89%	3.683%
6	8.496	8.458	8.591	BB	68361	759193	75.32%	4.482%
7	10.102	10.071	10.188	BB	66932	772180	76.61%	4.559%
8	11.544	11.451	11.624	BB	66625	790974	78.47%	4.670%
9	11.863	11.828	11.941	BB	74273	837545	83.10%	4.945%
10	12.852	12.814	12.934	BB	63313	765738	75.97%	4.521%
11	13.298	13.258	13.381	BB	48212	614466	60.96%	3.628%
12	13.463	13.428	13.544	BB	58070	747887	74.20%	4.415%
13	14.048	13.974	14.124	BB	59898	755779	74.98%	4.462%
14	15.150	15.064	15.228	BB	59559	766754	76.07%	4.527%
15	16.169	16.131	16.244	BB	57691	761614	75.56%	4.496%
16	17.117	17.051	17.198	BB	61897	840920	83.43%	4.964%
17	18.004	17.788	18.054	BB	70215	955708	94.82%	5.642%
18	18.837	18.801	18.908	BB	71875	1007931	100.00%	5.950%
19	19.619	19.561	19.674	BB	61617	889564	88.26%	5.252%
20	20.358	20.321	20.409	BBA	50235	736787	73.10%	4.350%
21	21.084	21.021	21.199	BBA	39404	775038	76.89%	4.575%
22	21.970	21.861	22.031	BB	24838	558694	55.43%	3.298%
Sum of corrected areas:						16938887		

Aliphatic EPH 100824.M Mon Oct 07 16:37:05 2024

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE100824AL\
 Data File : FE050540.D
 Signal(s) : FID1B.ch
 Acq On : 07 Oct 2024 16:37
 Operator : YP\AJ
 Sample : 20 PPM ALIPHATIC HC STD ICV
 Misc :
 ALS Vial : 16 Sample Multiplier: 1

Instrument :
 FID_E
 ClientSampleId :
 20 PPM ALIPHATIC HC STD ICV

Integration File: autoint1.e
 Quant Time: Oct 07 17:01:08 2024
 Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\Aliphatic EPH 100824.M
 Quant Title : GC Extractables
 QLast Update : Mon Oct 07 16:32:18 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)	11.865	2942962	18.667 ug/ml
Spiked Amount 50.000		Recovery =	37.33%
12) S 1-chlorooctadecane (S...	13.299	2228627	18.840 ug/ml
Spiked Amount 50.000		Recovery =	37.68%
Target Compounds			
1) T n-Nonane (C9)	3.253	2689462	19.035 ug/ml
2) T n-Decane (C10)	4.503	2733520	19.052 ug/ml
3) T A~Naphthalene (C11.7)	6.214	2714676	18.985 ug/ml
4) T n-Dodecane (C12)	6.670	2741257	19.045 ug/ml
5) T A~2-methylnaphthalene...	7.310	2535659	19.140 ug/ml
6) T n-Tetradecane (C14)	8.497	2716479	18.987 ug/ml
7) T n-Hexadecane (C16)	10.103	2790671	18.962 ug/ml
8) T n-Octadecane (C18)	11.544	2821757	18.891 ug/ml
10) T n-Eicosane (C20)	12.852	2729389	19.033 ug/ml
11) T n-Heneicosane (C21)	13.464	2653621	18.896 ug/ml
13) T n-Docosane (C22)	14.049	2698315	19.233 ug/ml
14) T n-Tetracosane (C24)	15.151	2823967	19.989 ug/ml
15) T n-Hexacosane (C26)	16.170	2863872	20.352 ug/ml
16) T n-Octacosane (C28)	17.118	2984657	20.397 ug/ml
17) T n-Tricontane (C30)	18.005	3160183	19.875 ug/ml
18) T n-Dotriacontane (C32)	18.837	3132221	19.321 ug/ml
19) T n-Tetratriacontane (C34)	19.619	2741344	18.662 ug/ml
20) T n-Hexatriacontane (C36)	20.359	2393312	18.873 ug/ml
21) T n-Octatriacontane (C38)	21.084	2140081	17.308 ug/ml
22) T n-Tetracontane (C40)	21.972	2032080	18.249 ug/ml

(f)=RT Delta > 1/2 Window

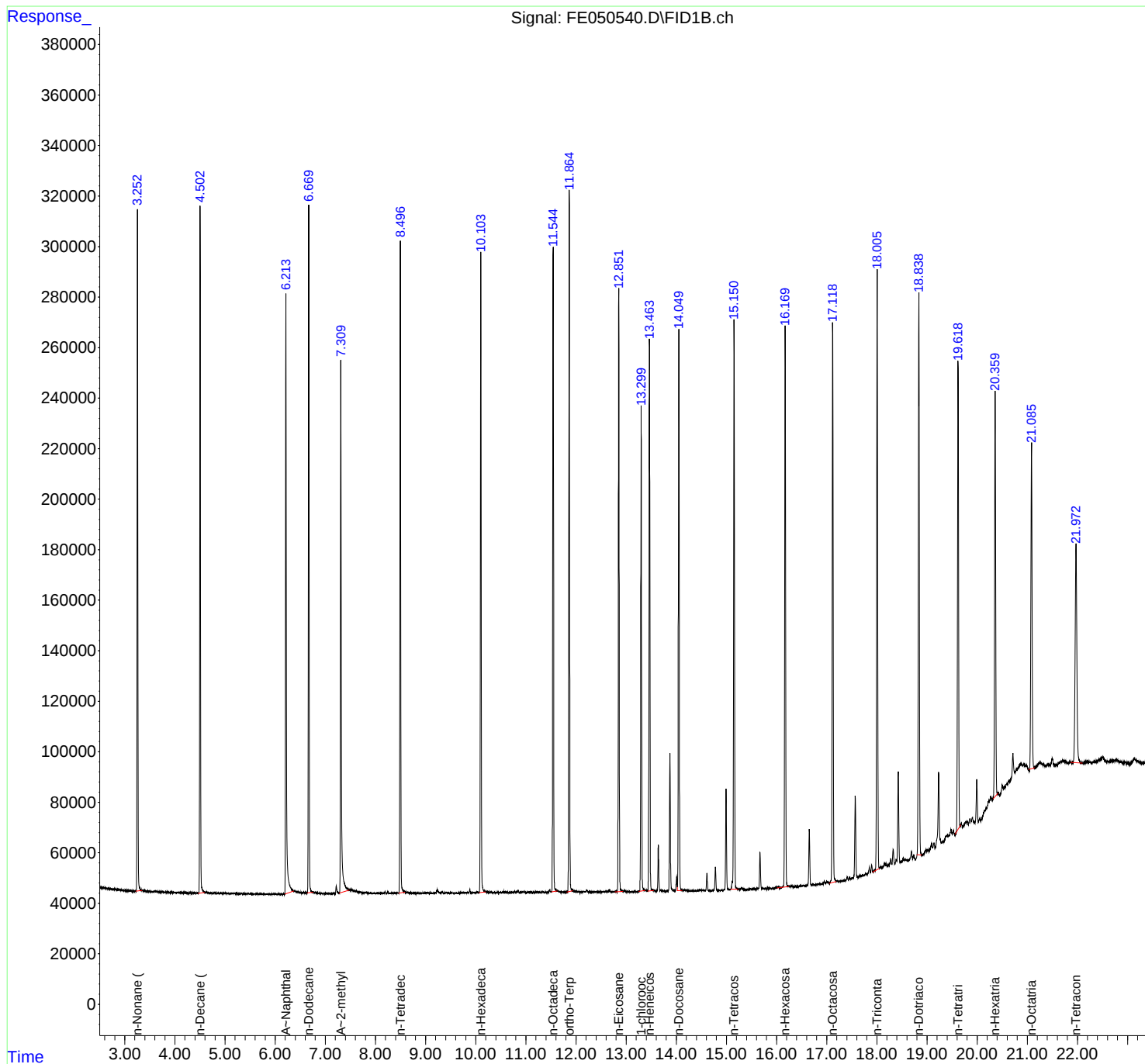
(m)=manual int.

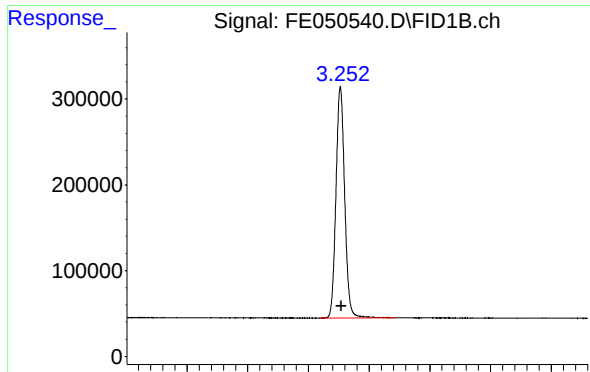
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE100824AL\
Data File : FE050540.D
Signal(s) : FID1B.ch
Acq On : 07 Oct 2024 16:37
Operator : YP\AJ
Sample : 20 PPM ALIPHATIC HC STD ICV
Misc :
ALS Vial : 16 Sample Multiplier: 1

Instrument :
FID_E
ClientSampleId :
20 PPM ALIPHATIC HC STD ICV

Integration File: autoint1.e
Quant Time: Oct 07 17:01:08 2024
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\Aliphatic EPH 100824.M
Quant Title : GC Extractables
QLast Update : Mon Oct 07 16:32:18 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)

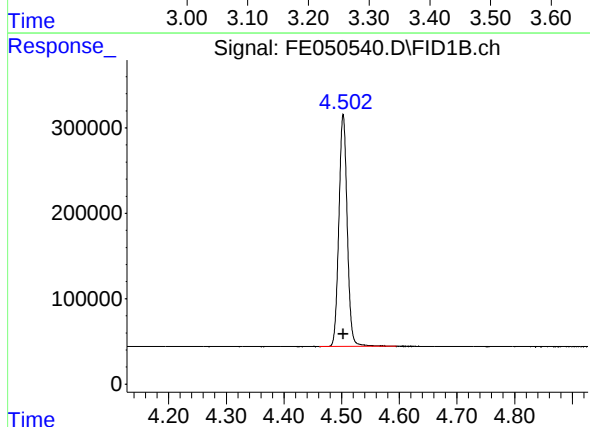
R.T.: 3.253 min
Delta R.T.: -0.001 min
Response: 2689462
Conc: 19.03 ug/ml

Instrument :

FID_E

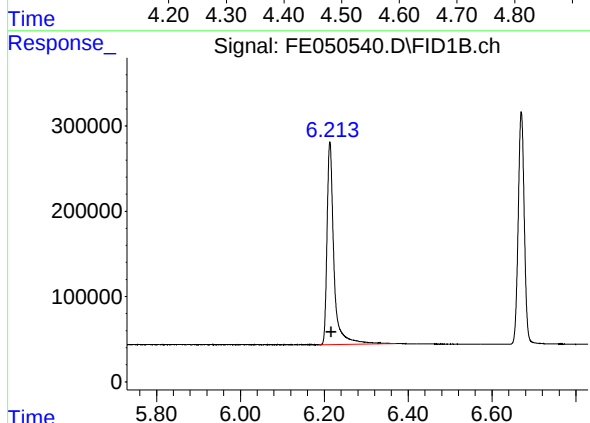
ClientSampleId :

20 PPM ALIPHATIC HC STD ICV



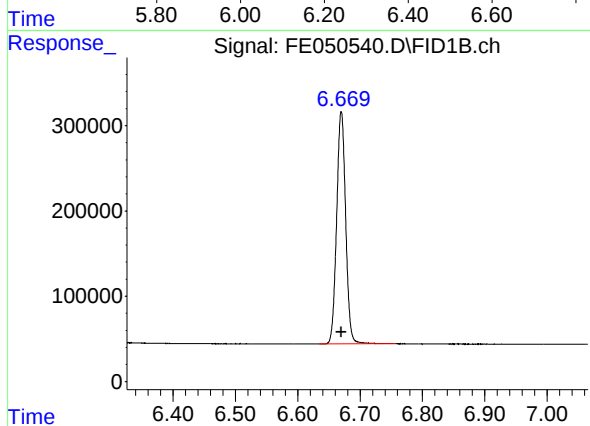
#2 n-Decane (C10)

R.T.: 4.503 min
Delta R.T.: 0.000 min
Response: 2733520
Conc: 19.05 ug/ml



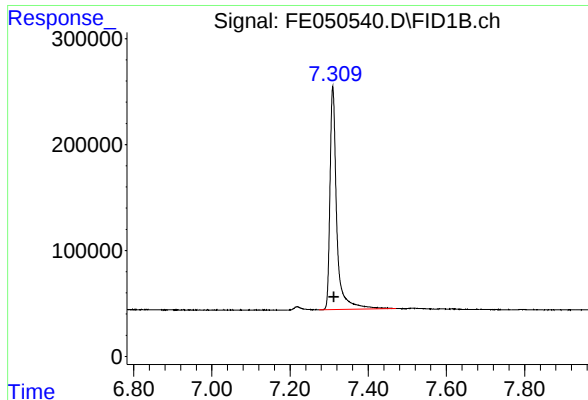
#3 A~Naphthalene (C11.7)

R.T.: 6.214 min
Delta R.T.: -0.003 min
Response: 2714676
Conc: 18.99 ug/ml



#4 n-Dodecane (C12)

R.T.: 6.670 min
Delta R.T.: 0.000 min
Response: 2741257
Conc: 19.05 ug/ml



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

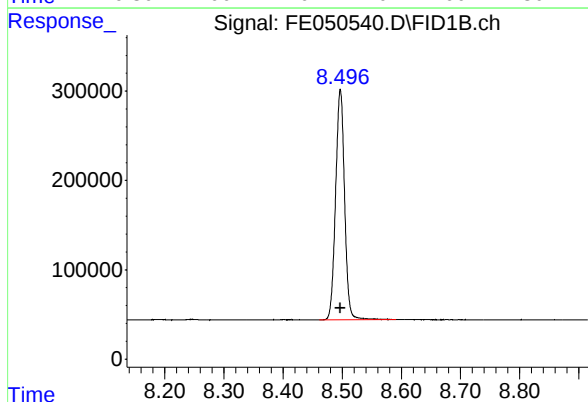
R.T.: 7.310 min
Delta R.T.: -0.003 min
Response: 2535659
Conc: 19.14 ug/ml

Instrument :

FID_E

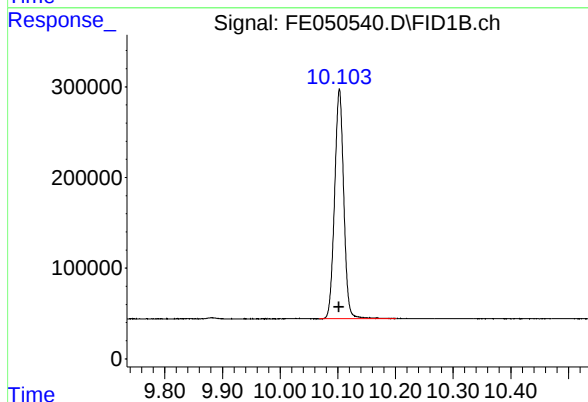
ClientSampleId :

20 PPM ALIPHATIC HC STD ICV



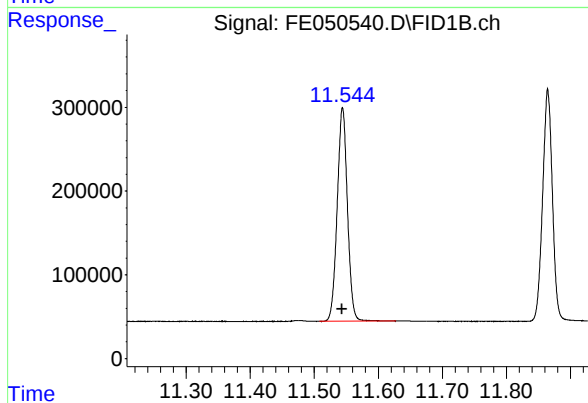
#6 n-Tetradecane (C14)

R.T.: 8.497 min
Delta R.T.: 0.000 min
Response: 2716479
Conc: 18.99 ug/ml



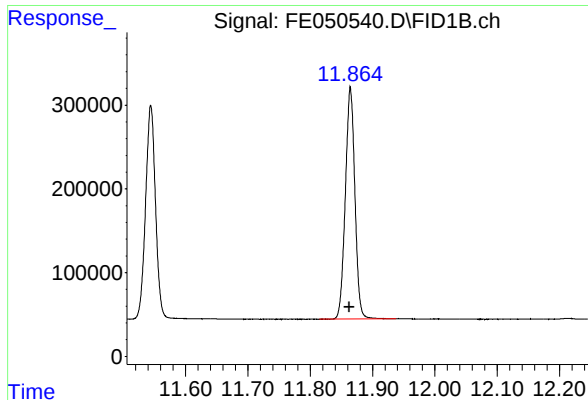
#7 n-Hexadecane (C16)

R.T.: 10.103 min
Delta R.T.: 0.000 min
Response: 2790671
Conc: 18.96 ug/ml



#8 n-Octadecane (C18)

R.T.: 11.544 min
Delta R.T.: 0.000 min
Response: 2821757
Conc: 18.89 ug/ml



#9 ortho-Terphenyl (SURR)

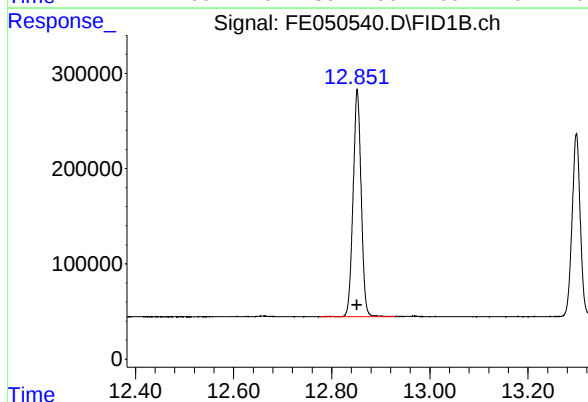
R.T.: 11.865 min
Delta R.T.: 0.001 min
Response: 2942962
Conc: 18.67 ug/ml

Instrument :

FID_E

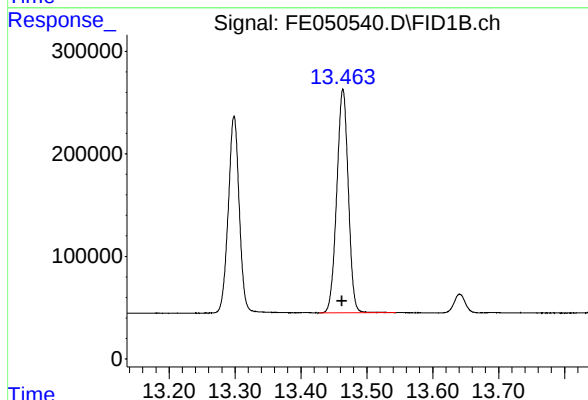
ClientSampleId :

20 PPM ALIPHATIC HC STD ICV



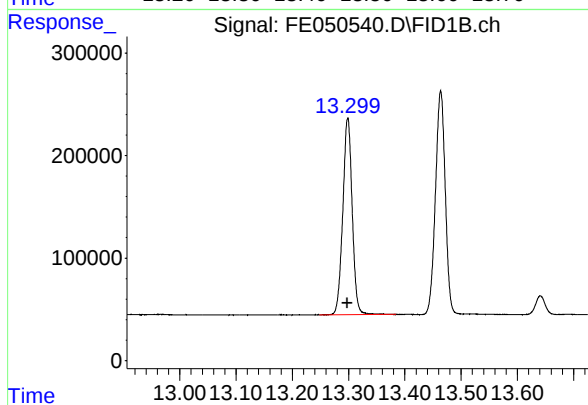
#10 n-Eicosane (C20)

R.T.: 12.852 min
Delta R.T.: 0.000 min
Response: 2729389
Conc: 19.03 ug/ml



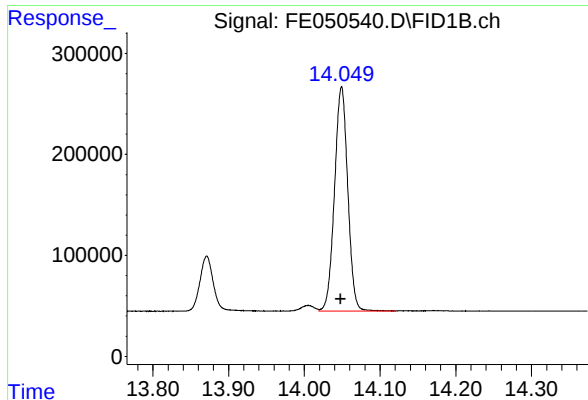
#11 n-Heneicosane (C21)

R.T.: 13.464 min
Delta R.T.: 0.001 min
Response: 2653621
Conc: 18.90 ug/ml



#12 1-chlorooctadecane (SURR)

R.T.: 13.299 min
Delta R.T.: 0.000 min
Response: 2228627
Conc: 18.84 ug/ml



#13 n-Docosane (C22)

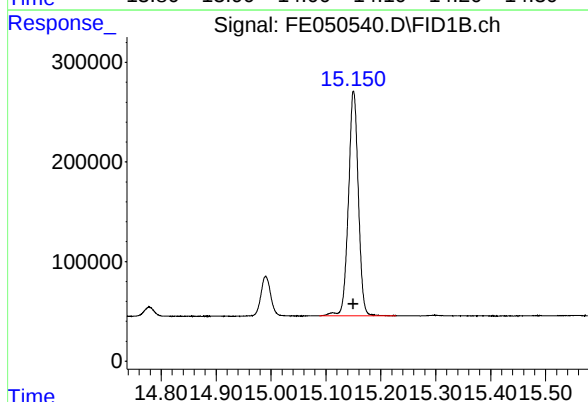
R.T.: 14.049 min
Delta R.T.: 0.001 min
Response: 2698315
Conc: 19.23 ug/ml

Instrument :

FID_E

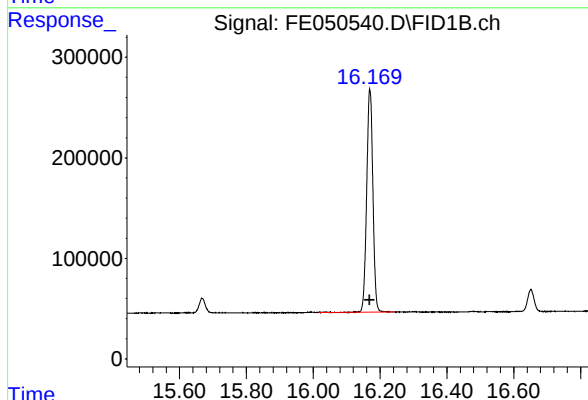
ClientSampleId :

20 PPM ALIPHATIC HC STD ICV



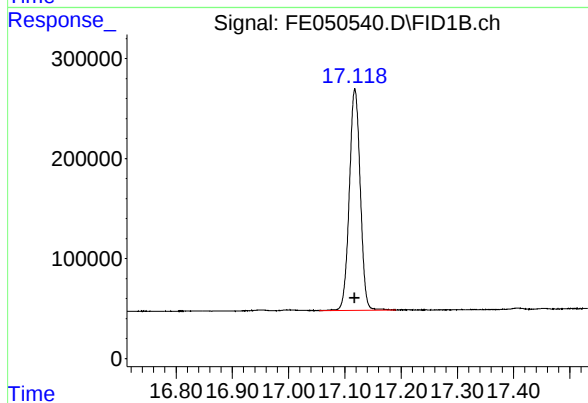
#14 n-Tetracosane (C24)

R.T.: 15.151 min
Delta R.T.: 0.000 min
Response: 2823967
Conc: 19.99 ug/ml



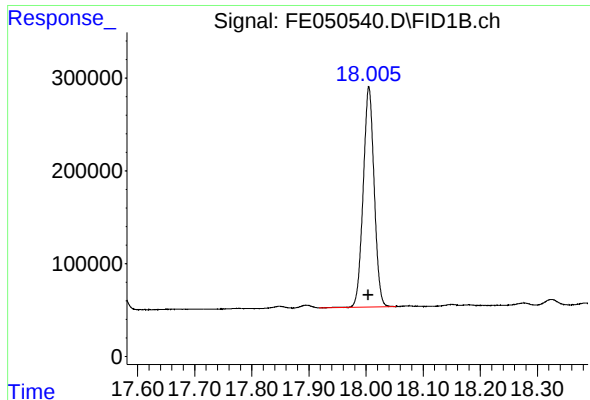
#15 n-Hexacosane (C26)

R.T.: 16.170 min
Delta R.T.: 0.000 min
Response: 2863872
Conc: 20.35 ug/ml



#16 n-Octacosane (C28)

R.T.: 17.118 min
Delta R.T.: 0.000 min
Response: 2984657
Conc: 20.40 ug/ml



#17 n-Tricontane (C30)

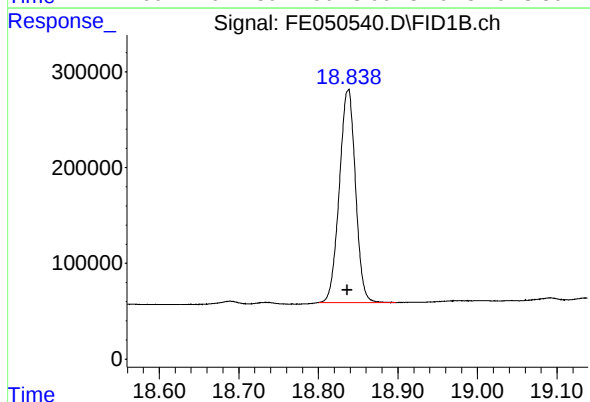
R.T.: 18.005 min
Delta R.T.: 0.000 min
Response: 3160183
Conc: 19.88 ug/ml

Instrument :

FID_E

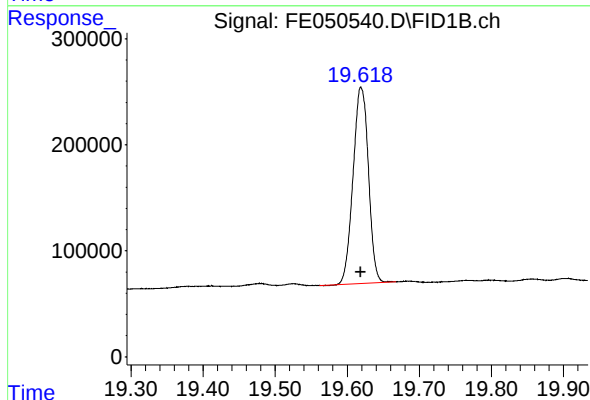
ClientSampleId :

20 PPM ALIPHATIC HC STD ICV



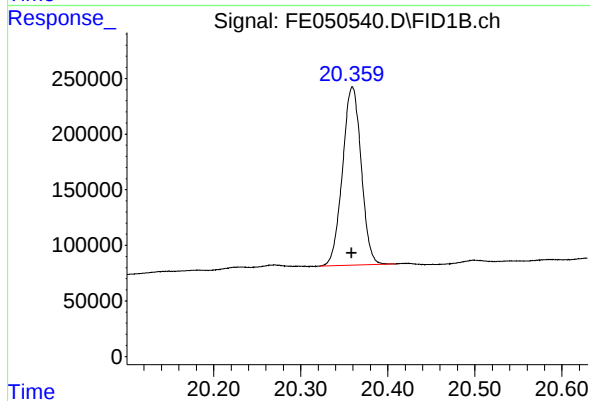
#18 n-Dotriacontane (C32)

R.T.: 18.837 min
Delta R.T.: 0.000 min
Response: 3132221
Conc: 19.32 ug/ml



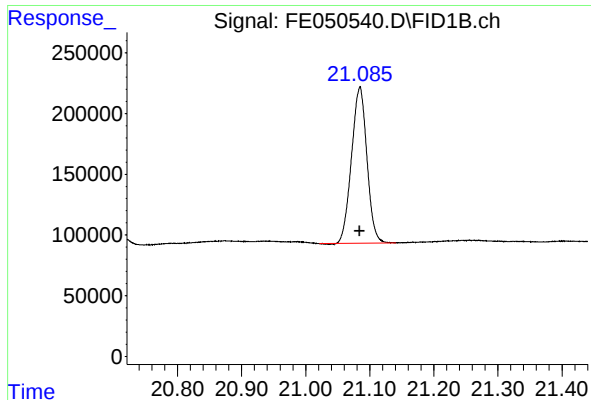
#19 n-Tetatriacontane (C34)

R.T.: 19.619 min
Delta R.T.: 0.000 min
Response: 2741344
Conc: 18.66 ug/ml



#20 n-Hexatriacontane (C36)

R.T.: 20.359 min
Delta R.T.: 0.000 min
Response: 2393312
Conc: 18.87 ug/ml



#21 n-Octatriacontane (C38)

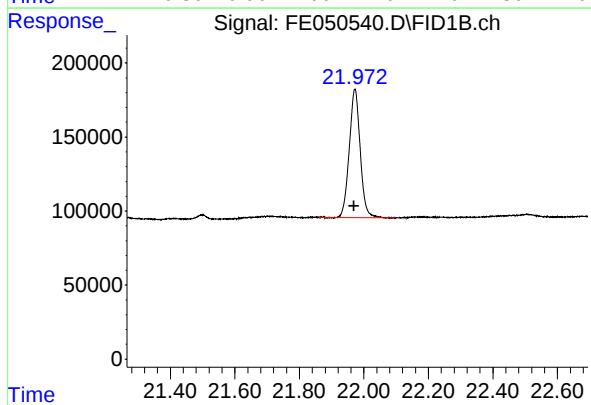
R.T.: 21.084 min
Delta R.T.: 0.000 min
Response: 2140081
Conc: 17.31 ug/ml

Instrument :

FID_E

ClientSampleId :

20 PPM ALIPHATIC HC STD ICV



#22 n-Tetracontane (C40)

R.T.: 21.972 min
Delta R.T.: 0.003 min
Response: 2032080
Conc: 18.25 ug/ml

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE100824AL\
Data File : FE050540.D
Signal(s) : FID1B.ch
Acq On : 07 Oct 2024 16:37
Sample : 20 PPM ALIPHATIC HC STD ICV
Misc :
ALS Vial : 16 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\Aliphatic EPH 100824.M
Title : GC Extractables

Signal : FID1B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	3.253	3.218	3.344	BB	267501	2689462	85.10%	4.538%
2	4.503	4.461	4.594	BB	270567	2733520	86.50%	4.612%
3	6.214	6.188	6.371	BB	236720	2714676	85.90%	4.580%
4	6.670	6.634	6.758	BB	272468	2741257	86.74%	4.625%
5	7.310	7.274	7.471	BB	208837	2535659	80.24%	4.278%
6	8.497	8.461	8.591	BB	258171	2716479	85.96%	4.583%
7	10.103	10.068	10.201	BB	252751	2790671	88.31%	4.709%
8	11.544	11.508	11.628	BB	255454	2821757	89.29%	4.761%
9	11.865	11.814	11.938	BB	276376	2942962	93.13%	4.966%
10	12.852	12.774	12.931	BB	237336	2729389	86.37%	4.605%
11	13.299	13.248	13.384	BB	192003	2228627	70.52%	3.760%
12	13.464	13.428	13.544	BB	218379	2653621	83.97%	4.477%
13	14.049	14.019	14.121	VB	220938	2698315	85.38%	4.553%
14	15.151	15.088	15.228	BB	225510	2823967	89.36%	4.765%
15	16.170	16.018	16.248	BB	220922	2863872	90.62%	4.832%
16	17.118	17.054	17.191	BB	221073	2984657	94.45%	5.036%
17	18.005	17.918	18.052	PV	237213	3160183	100.00%	5.332%
18	18.837	18.801	18.898	BB	222662	3132221	99.12%	5.285%
19	19.619	19.561	19.668	BV	184014	2741344	86.75%	4.625%
20	20.359	20.321	20.409	BBA	159661	2393312	75.73%	4.038%
21	21.084	21.021	21.141	BV	128474	2140081	67.72%	3.611%
22	21.972	21.861	22.099	BBA	86878	2032080	64.30%	3.429%
Sum of corrected areas:							59268111	

Aliphatic EPH 100824.M Mon Oct 07 17:02:35 2024

Continuing Calibration Report for SequenceID : FE110124AL

Parameter	AreaCount	Conc.	RT_Min	RT_Max	Response Factor	AVGRF	%DEV
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File ID : FE050964.D

Aliphatic C9-C12	7605648.000	60.000	3.143	6.761	126760.800	142899.930	11.294
Aliphatic C12-C16	5284424.000	40.000	6.762	10.193	132110.600	145118.273	8.963
Aliphatic C16-C21	8023053.000	60.000	10.194	13.552	133717.550	144401.245	7.399
Aliphatic C21-C28	10728459.000	80.000	13.553	17.208	134105.738	142154.874	5.662
Aliphatic C28-C40	16555120.000	120.000	17.209	22.051	137959.333	138303.281	0.249
Aliphatic EPH	48196704.000	360.000	3.143	22.051	133879.733	141698.847	5.518

Lab Sample ID:	20 PPM ALIPHATIC HC 9	Acq On:	01 Nov 2024 12:24
Client Sample ID:		Operator:	YP\AJ
Data file:	FE050964.D	Misc:	
Instrument:	FID_E	ALS Vial:	2
Dilution Factor:	1	Sample Multiplier:	1.00

Compound	R.T.		Response	Conc	Units
Aliphatic C9-C12	3.143	6.761	7605648.000	60.000	ug/ml
Aliphatic C12-C16	6.762	10.193	5284424.000	40.000	ug/ml
Aliphatic C16-C21	10.194	13.552	8023053.000	60.000	ug/ml
Aliphatic C21-C28	13.553	17.208	10728459.000	80.000	ug/ml
Aliphatic C28-C40	17.209	22.051	16555120.000	120.000	ug/ml
Aliphatic EPH	3.143	22.051	48196704.000	360.000	ug/ml

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE110124AL\
 Data File : FE050964.D
 Signal(s) : FID1B.ch
 Acq On : 01 Nov 2024 12:24
 Operator : YP\AJ
 Sample : 20 PPM ALIPHATIC HC STD
 Misc :
 ALS Vial : 2 Sample Multiplier: 1

Instrument :
 FID_E
 ClientSampleId :
 20 PPM ALIPHATIC HC STD

Manual Integrations
 APPROVED

Reviewed By :Yogesh Patel 11/04/2024
 Supervised By :Ankita Jodhani 11/04/2024

Integration File: sample.E
 Quant Time: Nov 04 03:09:41 2024
 Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\Aliphatic EPH 100824.M
 Quant Title : GC Extractables
 QLast Update : Mon Oct 07 16:32:18 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)	11.853	2885923	18.305 ug/mlm
Spiked Amount 50.000		Recovery =	36.61%
12) S 1-chlorooctadecane (S...	13.287	2202363	18.618 ug/ml
Spiked Amount 50.000		Recovery =	37.24%
Target Compounds			
1) T n-Nonane (C9)	3.244	2464238	17.441 ug/ml
2) T n-Decane (C10)	4.493	2556320	17.817 ug/ml
3) T A~Naphthalene (C11.7)	6.206	2458120	17.191 ug/ml
4) T n-Dodecane (C12)	6.660	2585090	17.960 ug/ml
5) T A~2-methylnaphthalene...	7.301	2290998	17.293 ug/ml
6) T n-Tetradecane (C14)	8.487	2593453	18.128 ug/ml
7) T n-Hexadecane (C16)	10.092	2690971	18.285 ug/ml
8) T n-Octadecane (C18)	11.533	2754607	18.442 ug/ml
10) T n-Eicosane (C20)	12.841	2659877	18.549 ug/ml
11) T n-Heneicosane (C21)	13.451	2608569	18.575 ug/ml
13) T n-Docosane (C22)	14.037	2596710	18.509 ug/mlm
14) T n-Tetracosane (C24)	15.139	2605454	18.442 ug/ml
15) T n-Hexacosane (C26)	16.158	2644025	18.790 ug/ml
16) T n-Octacosane (C28)	17.108	2882270	19.697 ug/ml
17) T n-Tricontane (C30)	17.994	3315309	20.851 ug/ml
18) T n-Dotriacontane (C32)	18.826	3481146	21.473 ug/ml
19) T n-Tetratriacontane (C34)	19.608	3074989	20.934 ug/ml
20) T n-Hexatriacontane (C36)	20.346	2551536	20.120 ug/ml
21) T n-Octatriacontane (C38)	21.071	2243400	18.144 ug/ml
22) T n-Tetracontane (C40)	21.952	1888740	16.962 ug/ml

(f)=RT Delta > 1/2 Window

(m)=manual int.

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE110124AL\
Data File : FE050964.D
Signal(s) : FID1B.ch
Acq On : 01 Nov 2024 12:24
Operator : YP\AJ
Sample : 20 PPM ALIPHATIC HC STD
Misc :
ALS Vial : 2 Sample Multiplier: 1

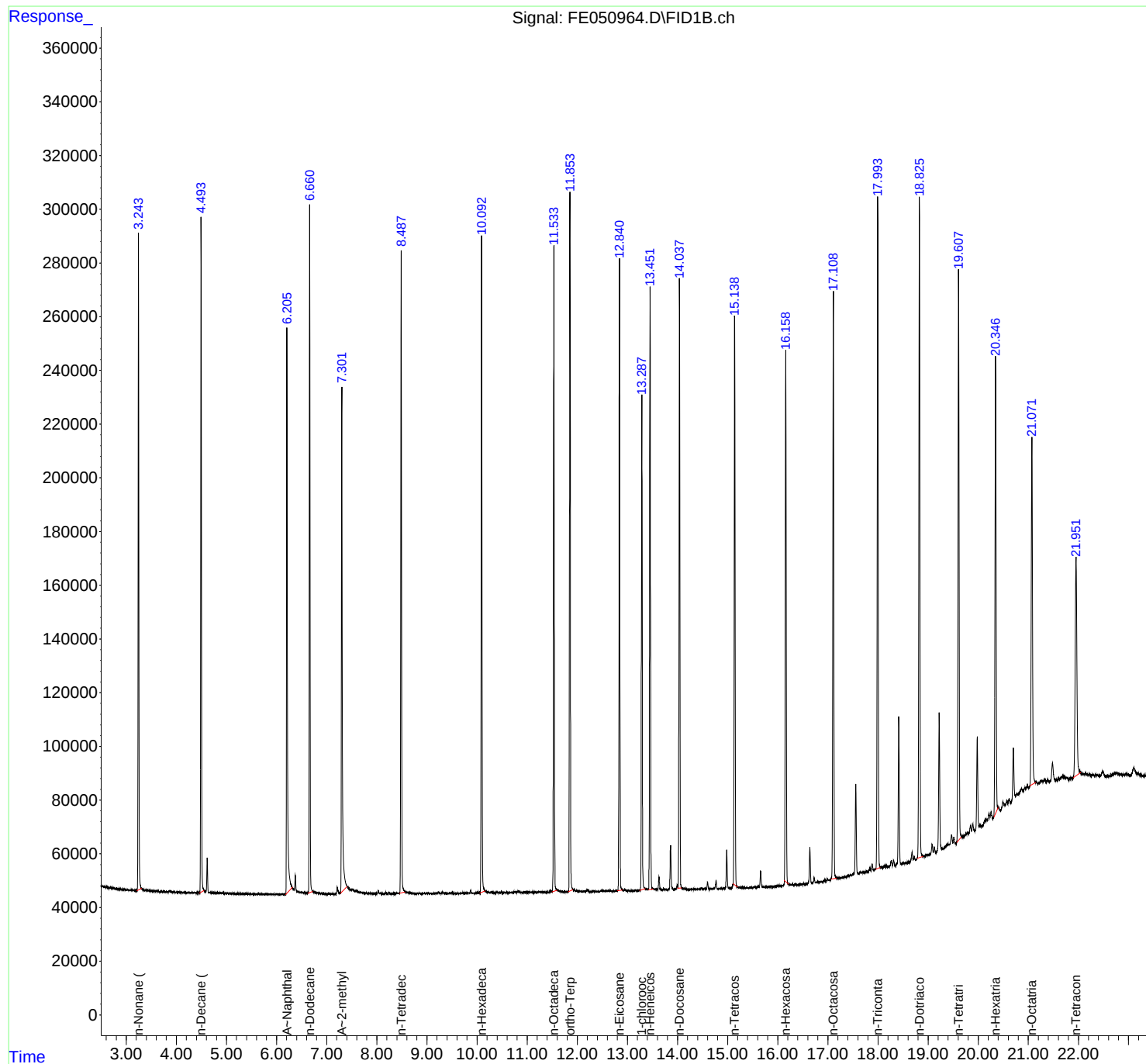
Instrument :
FID_E
ClientSampleId :
20 PPM ALIPHATIC HC STD

Manual Integrations
APPROVED

Reviewed By :Yogesh Patel 11/04/2024
Supervised By :Ankita Jodhani 11/04/2024

Integration File: sample.E
Quant Time: Nov 04 03:09:41 2024
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\Aliphatic EPH 100824.
Quant Title : GC Extractables
QLast Update : Mon Oct 07 16:32:18 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_E
LabSampleId :
20 PPM ALIPHATIC HC STD
Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE11012
Data File : FE050964.D
Signal(s) : FID1B.ch
Acq On : 01 Nov 2024 12:24
Sample : 20 PPM ALIPHATIC HC STD
Misc :
ALS Vial : 2 Sample Multiplier: 1

Manual IntegrationsAPPROVED

Reviewed By :Yogesh Patel 11/04/2024
Supervised By :Ankita Jodhani 11/04/2024

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\Aliphatic EPH 100824.M
Title : GC Extractables

Signal : FID1B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	3.244	3.211	3.304	BB	242971	2464238	70.79%	4.248%
2	4.493	4.458	4.554	BB	250066	2556320	73.43%	4.406%
3	6.206	6.178	6.311	BB	209929	2458120	70.61%	4.237%
4	6.660	6.631	6.721	BB	256314	2585090	74.26%	4.456%
5	7.301	7.271	7.408	BB	187003	2290998	65.81%	3.949%
6	8.487	8.444	8.568	BB	240047	2593453	74.50%	4.470%
7	10.092	10.051	10.158	BB	243255	2690971	77.30%	4.638%
8	11.533	11.494	11.601	BB	240836	2754607	79.13%	4.748%
9	11.854	11.831	11.921	BB	257838	2827386	81.22%	4.874%
10	12.841	12.804	12.908	BB	233479	2659877	76.41%	4.585%
11	13.287	13.244	13.351	BB	185311	2202363	63.27%	3.796%
12	13.451	13.414	13.518	BB	224659	2608569	74.93%	4.496%
13	14.037	13.964	14.104	BB	227225	2635431	75.71%	4.543%
14	15.139	15.111	15.199	BBA	212576	2605454	74.84%	4.491%
15	16.158	16.131	16.221	BB	197709	2644025	75.95%	4.558%
16	17.108	17.061	17.174	BB	217933	2882270	82.80%	4.968%
17	17.994	17.951	18.048	BB	250740	3315309	95.24%	5.715%
18	18.826	18.781	18.891	BB	246168	3481146	100.00%	6.000%
19	19.608	19.571	19.668	BB	212057	3074989	88.33%	5.300%
20	20.346	20.311	20.394	BB	167945	2551536	73.30%	4.398%
21	21.071	21.031	21.144	BB	129572	2243400	64.44%	3.867%
22	21.952	21.901	22.041	BB	81112	1888740	54.26%	3.256%
Sum of corrected areas:						58014289		

Aliphatic EPH 100824.M Mon Nov 04 04:32:17 2024

Continuing Calibration Report for SequenceID : FE110124AL

Parameter	AreaCount	Conc.	RT_Min	RT_Max	Response Factor	AVGRF	%DEV
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File ID : FE050980.D

Aliphatic C9-C12	7763670.000	60.000	3.143	6.761	129394.500	142899.930	9.451
Aliphatic C12-C16	5370431.000	40.000	6.762	10.193	134260.775	145118.273	7.482
Aliphatic C16-C21	8127271.000	60.000	10.194	13.552	135454.517	144401.245	6.196
Aliphatic C21-C28	10989147.000	80.000	13.553	17.208	137364.338	142154.874	3.370
Aliphatic C28-C40	16828263.000	120.000	17.209	22.051	140235.525	138303.281	-1.397
Aliphatic EPH	49078782.000	360.000	3.143	22.051	136329.950	141698.847	3.789

Lab Sample ID:	20 PPM ALIPHATIC HC 9	Acq On:	01 Nov 2024 23:36
Client Sample ID:		Operator:	YP\AJ
Data file:	FE050980.D	Misc:	
Instrument:	FID_E	ALS Vial:	2
Dilution Factor:	1	Sample Multiplier:	1.00

Compound	R.T.		Response	Conc	Units
Aliphatic C9-C12	3.143	6.761	7763670.000	60.000	ug/ml
Aliphatic C12-C16	6.762	10.193	5370431.000	40.000	ug/ml
Aliphatic C16-C21	10.194	13.552	8127271.000	60.000	ug/ml
Aliphatic C21-C28	13.553	17.208	10989147.000	80.000	ug/ml
Aliphatic C28-C40	17.209	22.051	16828263.000	120.000	ug/ml
Aliphatic EPH	3.143	22.051	49078782.000	360.000	ug/ml

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE110124AL\
 Data File : FE050980.D
 Signal(s) : FID1B.ch
 Acq On : 01 Nov 2024 23:36
 Operator : YP\AJ
 Sample : 20 PPM ALIPHATIC HC STD
 Misc :
 ALS Vial : 2 Sample Multiplier: 1

Instrument :
 FID_E
 ClientSampleId :
 20 PPM ALIPHATIC HC STD

Manual Integrations
 APPROVED

Reviewed By :Yogesh Patel 11/04/2024
 Supervised By :Ankita Jodhani 11/04/2024

Integration File: sample.E
 Quant Time: Nov 04 03:11:59 2024
 Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\Aliphatic EPH 100824.M
 Quant Title : GC Extractables
 QLast Update : Mon Oct 07 16:32:18 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)	11.851	2919914	18.521 ug/mlm
Spiked Amount 50.000		Recovery =	37.04%
12) S 1-chlorooctadecane (S...	13.285	2234841	18.892 ug/ml
Spiked Amount 50.000		Recovery =	37.78%
Target Compounds			
1) T n-Nonane (C9)	3.241	2509623	17.762 ug/ml
2) T n-Decane (C10)	4.491	2612207	18.207 ug/ml
3) T A~Naphthalene (C11.7)	6.204	2510430	17.557 ug/ml
4) T n-Dodecane (C12)	6.659	2641840	18.355 ug/ml
5) T A~2-methylnaphthalene...	7.299	2437373	18.398 ug/mlm
6) T n-Tetradecane (C14)	8.485	2632468	18.400 ug/ml
7) T n-Hexadecane (C16)	10.090	2737963	18.604 ug/ml
8) T n-Octadecane (C18)	11.531	2791724	18.690 ug/ml
10) T n-Eicosane (C20)	12.839	2695060	18.794 ug/ml
11) T n-Heneicosane (C21)	13.450	2640487	18.802 ug/ml
13) T n-Docosane (C22)	14.034	2655686	18.929 ug/mlm
14) T n-Tetracosane (C24)	15.135	2679446	18.966 ug/mlm
15) T n-Hexacosane (C26)	16.155	2724199	19.359 ug/mlm
16) T n-Octacosane (C28)	17.105	2929816	20.022 ug/ml
17) T n-Tricontane (C30)	17.991	3383585	21.280 ug/ml
18) T n-Dotriacontane (C32)	18.822	3566139	21.998 ug/ml
19) T n-Tetratriacontane (C34)	19.605	3137668	21.360 ug/ml
20) T n-Hexatriacontane (C36)	20.344	2629499	20.735 ug/ml
21) T n-Octatriacontane (C38)	21.066	2240921	18.123 ug/ml
22) T n-Tetracontane (C40)	21.948	1870451	16.798 ug/ml

(f)=RT Delta > 1/2 Window

(m)=manual int.

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE110124AL\
Data File : FE050980.D
Signal(s) : FID1B.ch
Acq On : 01 Nov 2024 23:36
Operator : YP\AJ
Sample : 20 PPM ALIPHATIC HC STD
Misc :
ALS Vial : 2 Sample Multiplier: 1

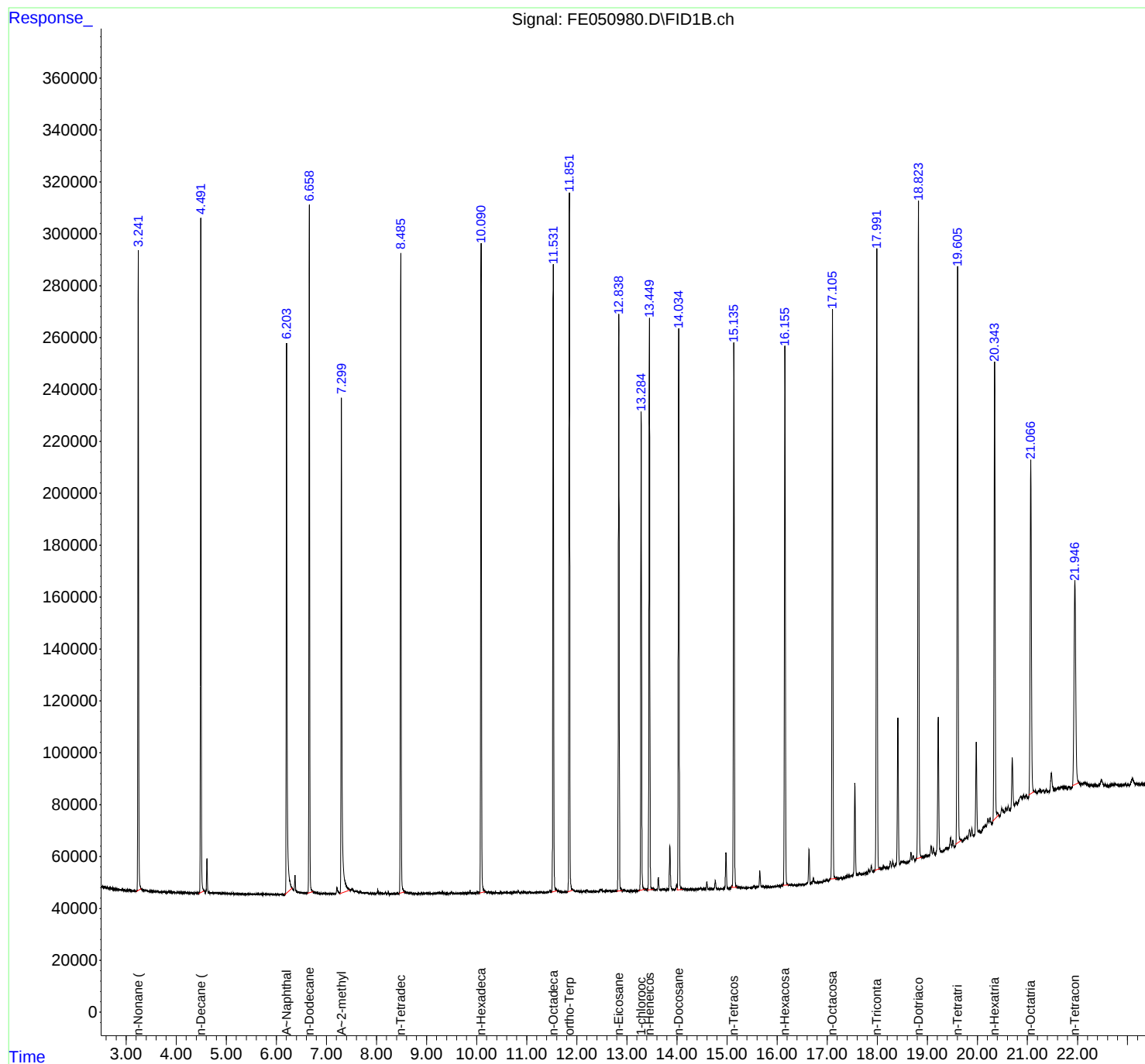
Instrument :
FID_E
ClientSampleId :
20 PPM ALIPHATIC HC STD

Manual Integrations
APPROVED

Reviewed By :Yogesh Patel 11/04/2024
Supervised By :Ankita Jodhani 11/04/2024

Integration File: sample.E
Quant Time: Nov 04 03:11:59 2024
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\Aliphatic EPH 100824.
Quant Title : GC Extractables
QLast Update : Mon Oct 07 16:32:18 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_E
LabSampleId :
20 PPM ALIPHATIC HC STD
Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE11012
Data File : FE050980.D
Signal(s) : FID1B.ch
Acq On : 01 Nov 2024 23:36
Sample : 20 PPM ALIPHATIC HC STD
Misc :
ALS Vial : 2 Sample Multiplier: 1

Manual IntegrationsAPPROVED

Reviewed By :Yogesh Patel 11/04/2024
Supervised By :Ankita Jodhani 11/04/2024

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\Aliphatic EPH 100824.M
Title : GC Extractables

Signal : FID1B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	3.241	3.211	3.301	BB	246292	2509623	70.37%	4.279%
2	4.491	4.458	4.554	BB	259935	2612207	73.25%	4.453%
3	6.204	6.171	6.314	BB	210122	2510430	70.40%	4.280%
4	6.659	6.631	6.728	BB	264000	2641840	74.08%	4.504%
5	7.300	7.184	7.398	BB	187985	2294743	64.35%	3.912%
6	8.485	8.451	8.561	BB	245357	2632468	73.82%	4.488%
7	10.090	10.051	10.168	BB	250036	2737963	76.78%	4.668%
8	11.531	11.494	11.604	BB	241630	2791724	78.28%	4.760%
9	11.852	11.831	11.924	BB	265051	2778904	77.92%	4.738%
10	12.839	12.801	12.911	BB	222133	2695060	75.57%	4.595%
11	13.285	13.234	13.361	BB	183948	2234841	62.67%	3.810%
12	13.450	13.414	13.528	BB	221261	2640487	74.04%	4.502%
13	14.035	13.961	14.111	BB	216423	2673389	74.97%	4.558%
14	15.136	15.111	15.199	BBA	207625	2579450	72.33%	4.398%
15	16.155	16.131	16.228	BB	203232	2563978	71.90%	4.371%
16	17.105	17.061	17.181	BB	219284	2929816	82.16%	4.995%
17	17.991	17.951	18.044	BB	239371	3383585	94.88%	5.769%
18	18.822	18.781	18.894	BB	250903	3566139	100.00%	6.080%
19	19.605	19.571	19.681	BB	220943	3137668	87.99%	5.349%
20	20.344	20.311	20.421	BB	175554	2629499	73.74%	4.483%
21	21.066	21.031	21.138	BB	128672	2240921	62.84%	3.820%
22	21.948	21.901	22.028	BB	78287	1870451	52.45%	3.189%
Sum of corrected areas:						58655183		

Aliphatic EPH 100824.M Mon Nov 04 04:36:00 2024

Continuing Calibration Report for SequenceID : FE110124AL

Parameter	AreaCount	Conc.	RT_Min	RT_Max	Response Factor	AVGRF	%DEV
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File ID : FE050990.D

Aliphatic C9-C12	7907796.000	60.000	3.143	6.761	131796.600	142899.930	7.770
Aliphatic C12-C16	5406989.000	40.000	6.762	10.193	135174.725	145118.273	6.852
Aliphatic C16-C21	8107839.000	60.000	10.194	13.552	135130.650	144401.245	6.420
Aliphatic C21-C28	10983169.000	80.000	13.553	17.208	137289.613	142154.874	3.423
Aliphatic C28-C40	16792590.000	120.000	17.209	22.051	139938.250	138303.281	-1.182
Aliphatic EPH	49198383.000	360.000	3.143	22.051	136662.175	141698.847	3.554

Lab Sample ID:	20 PPM ALIPHATIC HC 9	Acq On:	02 Nov 2024 05:38
Client Sample ID:		Operator:	YP\AJ
Data file:	FE050990.D	Misc:	
Instrument:	FID_E	ALS Vial:	2
Dilution Factor:	1	Sample Multiplier:	1.00

Compound	R.T.		Response	Conc	Units
Aliphatic C9-C12	3.143	6.761	7907796.000	60.000	ug/ml
Aliphatic C12-C16	6.762	10.193	5406989.000	40.000	ug/ml
Aliphatic C16-C21	10.194	13.552	8107839.000	60.000	ug/ml
Aliphatic C21-C28	13.553	17.208	10983169.000	80.000	ug/ml
Aliphatic C28-C40	17.209	22.051	16792590.000	120.000	ug/ml
Aliphatic EPH	3.143	22.051	49198383.000	360.000	ug/ml

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE110124AL\
 Data File : FE050990.D
 Signal(s) : FID1B.ch
 Acq On : 02 Nov 2024 05:38
 Operator : YP\AJ
 Sample : 20 PPM ALIPHATIC HC STD
 Misc :
 ALS Vial : 2 Sample Multiplier: 1

Instrument :
 FID_E
 ClientSampleId :
 20 PPM ALIPHATIC HC STD

Manual Integrations
 APPROVED

Reviewed By :Yogesh Patel 11/04/2024
 Supervised By :Ankita Jodhani 11/04/2024

Integration File: sample.E
 Quant Time: Nov 04 03:13:22 2024
 Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\Aliphatic EPH 100824.M
 Quant Title : GC Extractables
 QLast Update : Mon Oct 07 16:32:18 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)	11.851	2912827	18.476 ug/mlm
Spiked Amount 50.000		Recovery =	36.95%
12) S 1-chlorooctadecane (S...	13.285	2236534	18.907 ug/ml
Spiked Amount 50.000		Recovery =	37.81%
Target Compounds			
1) T n-Nonane (C9)	3.240	2568590	18.179 ug/ml
2) T n-Decane (C10)	4.491	2660288	18.542 ug/ml
3) T A~Naphthalene (C11.7)	6.203	2540674	17.768 ug/ml
4) T n-Dodecane (C12)	6.659	2678918	18.612 ug/ml
5) T A~2-methylnaphthalene...	7.299	2362963	17.836 ug/ml
6) T n-Tetradecane (C14)	8.485	2654718	18.556 ug/ml
7) T n-Hexadecane (C16)	10.090	2752271	18.701 ug/ml
8) T n-Octadecane (C18)	11.531	2788047	18.665 ug/ml
10) T n-Eicosane (C20)	12.838	2688429	18.748 ug/ml
11) T n-Heneicosane (C21)	13.449	2631363	18.737 ug/ml
13) T n-Docosane (C22)	14.033	2646698	18.865 ug/mlm
14) T n-Tetracosane (C24)	15.136	2678738	18.961 ug/mlm
15) T n-Hexacosane (C26)	16.155	2720326	19.332 ug/mlm
16) T n-Octacosane (C28)	17.102	2937407	20.074 ug/ml
17) T n-Tricontane (C30)	17.989	3391008	21.327 ug/ml
18) T n-Dotriacontane (C32)	18.822	3566698	22.001 ug/ml
19) T n-Tetratriacontane (C34)	19.604	3124892	21.273 ug/ml
20) T n-Hexatriacontane (C36)	20.343	2647132	20.874 ug/mlm
21) T n-Octatriacontane (C38)	21.067	2241160	18.125 ug/ml
22) T n-Tetracontane (C40)	21.948	1821700	16.360 ug/ml

(f)=RT Delta > 1/2 Window

(m)=manual int.

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE110124AL\
Data File : FE050990.D
Signal(s) : FID1B.ch
Acq On : 02 Nov 2024 05:38
Operator : YP\AJ
Sample : 20 PPM ALIPHATIC HC STD
Misc :
ALS Vial : 2 Sample Multiplier: 1

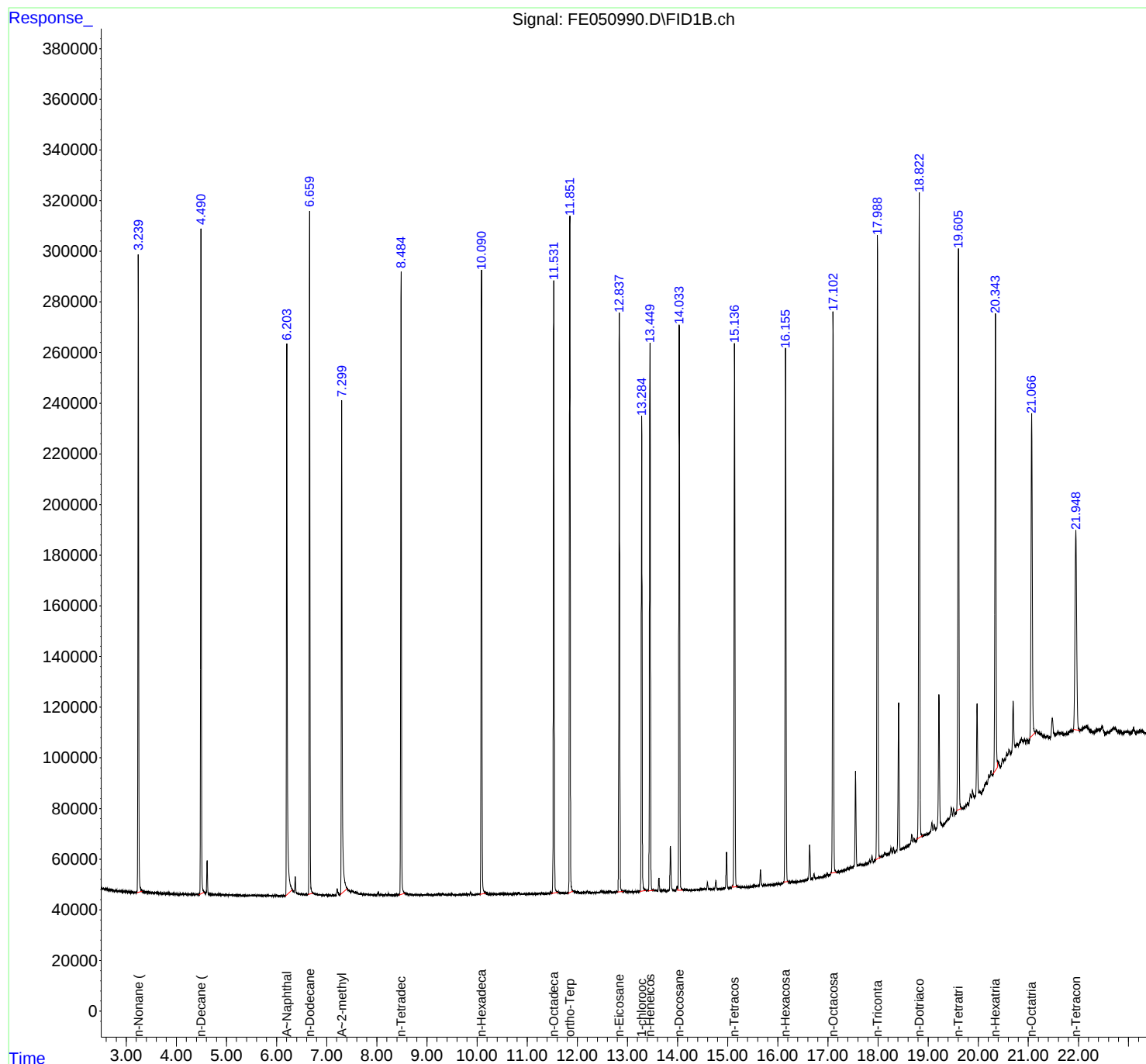
Instrument :
FID_E
ClientSampleId :
20 PPM ALIPHATIC HC STD

Manual Integrations
APPROVED

Reviewed By :Yogesh Patel 11/04/2024
Supervised By :Ankita Jodhani 11/04/2024

Integration File: sample.E
Quant Time: Nov 04 03:13:22 2024
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\Aliphatic EPH 100824.
Quant Title : GC Extractables
QLast Update : Mon Oct 07 16:32:18 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_E
LabSampleId :
20 PPM ALIPHATIC HC STD
Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE11012
Data File : FE050990.D
Signal(s) : FID1B.ch
Acq On : 02 Nov 2024 05:38
Sample : 20 PPM ALIPHATIC HC STD
Misc :
ALS Vial : 2 Sample Multiplier: 1

Manual IntegrationsAPPROVED

Reviewed By :Yogesh Patel 11/04/2024
Supervised By :Ankita Jodhani 11/04/2024

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\Aliphatic EPH 100824.M
Title : GC Extractables

Signal : FID1B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	3.240	3.211	3.314	BB	249832	2568590	72.02%	4.367%
2	4.491	4.454	4.554	BB	261899	2660288	74.59%	4.523%
3	6.203	6.178	6.311	BB	214733	2540674	71.23%	4.320%
4	6.659	6.631	6.724	BB	267993	2678918	75.11%	4.555%
5	7.299	7.268	7.408	BB	193541	2362963	66.25%	4.017%
6	8.485	8.451	8.561	BB	246146	2654718	74.43%	4.514%
7	10.090	10.051	10.174	BB	247360	2752271	77.17%	4.679%
8	11.531	11.488	11.611	BB	241194	2788047	78.17%	4.740%
9	11.851	11.831	11.931	BB	261791	2727585	76.47%	4.637%
10	12.838	12.801	12.918	BB	227793	2688429	75.38%	4.571%
11	13.285	13.244	13.364	BB	187540	2236534	62.71%	3.803%
12	13.449	13.414	13.524	BB	216534	2631363	73.78%	4.474%
13	14.034	13.964	14.111	BB	222828	2665866	74.74%	4.532%
14	15.136	15.111	15.199	BBA	209882	2577809	72.27%	4.383%
15	16.155	16.131	16.234	BB	207195	2553402	71.59%	4.341%
16	17.102	17.061	17.174	BB	221610	2937407	82.36%	4.994%
17	17.989	17.951	18.044	BB	244979	3391008	95.07%	5.765%
18	18.822	18.781	18.888	BB	250442	3566698	100.00%	6.064%
19	19.604	19.571	19.661	BB	221447	3124892	87.61%	5.313%
20	20.344	20.311	20.421	BB	179075	2646799	74.21%	4.500%
21	21.067	21.031	21.138	BB	127904	2241160	62.84%	3.810%
22	21.948	21.901	22.024	BB	78633	1821700	51.08%	3.097%
Sum of corrected areas:						58817120		

Aliphatic EPH 100824.M Mon Nov 04 04:36:33 2024

Continuing Calibration Report for SequenceID : FE110524AL

Parameter	AreaCount	Conc.	RT_Min	RT_Max	Response Factor	AVGRF	%DEV
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File ID : FE051023.D

Aliphatic C9-C12	7665518.000	60.000	3.140	6.760	127758.633	142899.930	10.596
Aliphatic C12-C16	5082769.000	40.000	6.761	10.191	127069.225	145118.273	12.437
Aliphatic C16-C21	7446348.000	60.000	10.192	13.549	124105.800	144401.245	14.055
Aliphatic C21-C28	9517574.000	80.000	13.550	17.205	118969.675	142154.874	16.310
Aliphatic C28-C40	13061518.000	120.000	17.206	22.048	108845.983	138303.281	21.299
Aliphatic EPH	42773727.000	360.000	3.140	22.048	118815.908	141698.847	16.149

Lab Sample ID:	20 PPM ALIPHATIC HC 9	Acq On:	05 Nov 2024 10:07
Client Sample ID:		Operator:	YP\AJ
Data file:	FE051023.D	Misc:	
Instrument:	FID_E	ALS Vial:	2
Dilution Factor:	1	Sample Multiplier:	1.00

Compound	R.T.		Response	Conc	Units
Aliphatic C9-C12	3.140	6.760	7665518.000	60.000	ug/ml
Aliphatic C12-C16	6.761	10.191	5082769.000	40.000	ug/ml
Aliphatic C16-C21	10.192	13.549	7446348.000	60.000	ug/ml
Aliphatic C21-C28	13.550	17.205	9517574.000	80.000	ug/ml
Aliphatic C28-C40	17.206	22.048	13061518.000	120.000	ug/ml
Aliphatic EPH	3.140	22.048	42773727.000	360.000	ug/ml

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE110524AL\
 Data File : FE051023.D
 Signal(s) : FID1B.ch
 Acq On : 05 Nov 2024 10:07
 Operator : YP\AJ
 Sample : 20 PPM ALIPHATIC HC STD
 Misc :
 ALS Vial : 2 Sample Multiplier: 1

Instrument :
 FID_E
 ClientSampleId :
 20 PPM ALIPHATIC HC STD

Manual Integrations
 APPROVED

Reviewed By :Yogesh Patel 11/06/2024
 Supervised By :Ankita Jodhani 11/06/2024

Integration File: autoint1.e
 Quant Time: Nov 05 12:10:16 2024
 Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\Aliphatic EPH 100824.M
 Quant Title : GC Extractables
 QLast Update : Mon Oct 07 16:32:18 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)	11.852	2697442	17.110 ug/mlm
Spiked Amount 50.000		Recovery =	34.22%
12) S 1-chlorooctadecane (S...	13.285	2033656	17.192 ug/ml
Spiked Amount 50.000		Recovery =	34.38%
Target Compounds			
1) T n-Nonane (C9)	3.240	2535374	17.944 ug/ml
2) T n-Decane (C10)	4.491	2557731	17.827 ug/ml
3) T A~Naphthalene (C11.7)	6.205	2423816	16.951 ug/ml
4) T n-Dodecane (C12)	6.660	2572413	17.872 ug/ml
5) T A~2-methylnaphthalene...	7.300	2232685	16.853 ug/ml
6) T n-Tetradecane (C14)	8.485	2520337	17.616 ug/ml
7) T n-Hexadecane (C16)	10.091	2562432	17.411 ug/ml
8) T n-Octadecane (C18)	11.532	2577950	17.259 ug/ml
10) T n-Eicosane (C20)	12.839	2461266	17.164 ug/ml
11) T n-Heneicosane (C21)	13.449	2407132	17.141 ug/ml
13) T n-Docosane (C22)	14.034	2386011	17.007 ug/ml
14) T n-Tetracosane (C24)	15.136	2378062	16.833 ug/mlm
15) T n-Hexacosane (C26)	16.157	2377700	16.897 ug/mlm
16) T n-Octacosane (C28)	17.105	2375801	16.236 ug/ml
17) T n-Tricontane (C30)	17.991	2459221	15.467 ug/ml
18) T n-Dotriacontane (C32)	18.822	2481058	15.304 ug/ml
19) T n-Tetratriacontane (C34)	19.606	2257677	15.370 ug/ml
20) T n-Hexatriacontane (C36)	20.344	2183769	17.220 ug/mlm
21) T n-Octatriacontane (C38)	21.067	1916243	15.498 ug/ml
22) T n-Tetracontane (C40)	21.948	1763550	15.838 ug/ml

(f)=RT Delta > 1/2 Window

(m)=manual int.

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE110524AL\
Data File : FE051023.D
Signal(s) : FID1B.ch
Acq On : 05 Nov 2024 10:07
Operator : YP\AJ
Sample : 20 PPM ALIPHATIC HC STD
Misc :
ALS Vial : 2 Sample Multiplier: 1

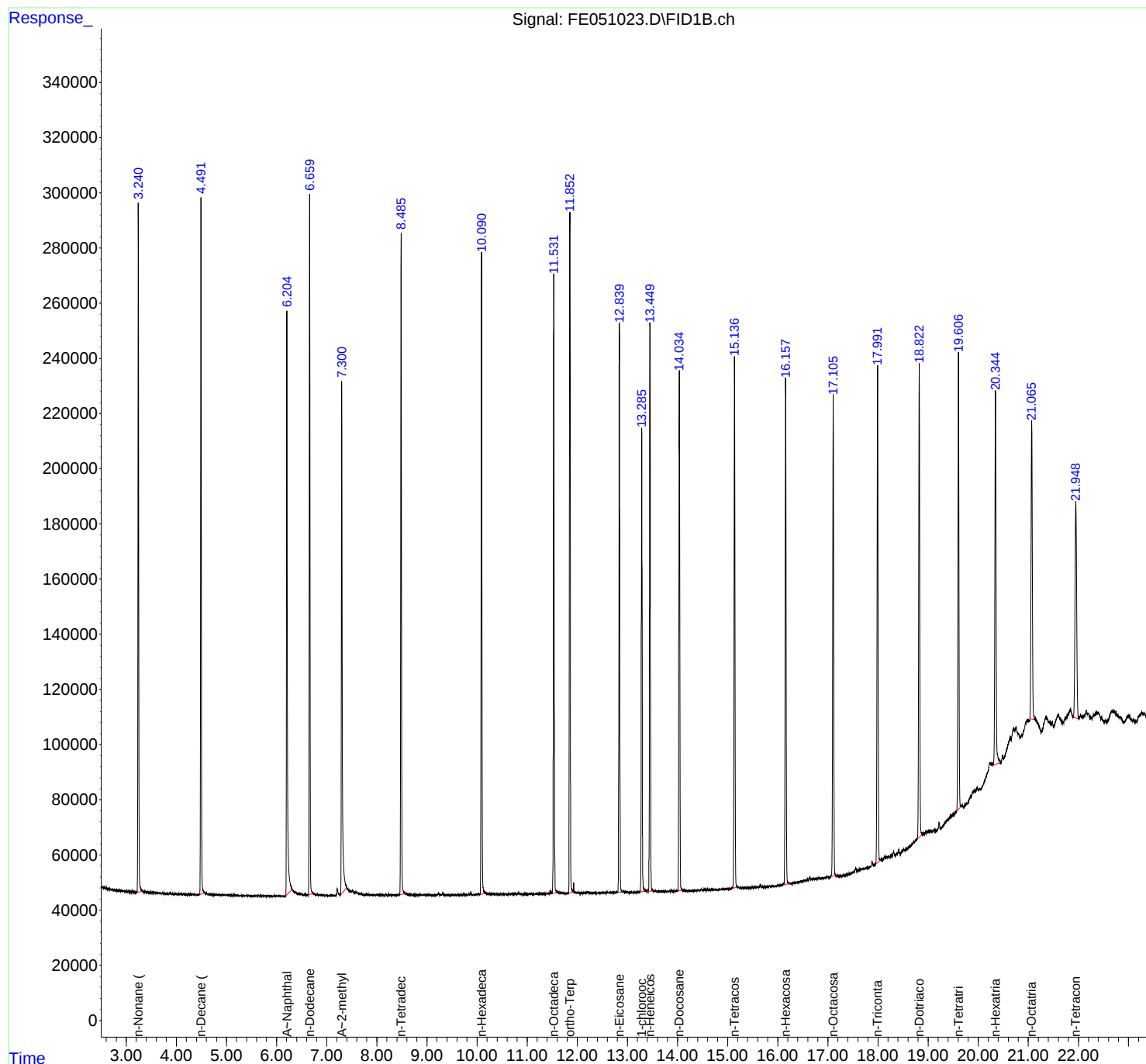
Instrument :
FID_E
ClientSampleId :
20 PPM ALIPHATIC HC STD

Manual Integrations
APPROVED

Reviewed By :Yogesh Patel 11/06/2024
Supervised By :Ankita Jodhani 11/06/2024

Integration File: autoint1.e
Quant Time: Nov 05 12:10:16 2024
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\Aliphatic EPH 100824.
Quant Title : GC Extractables
QLast Update : Mon Oct 07 16:32:18 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_E
LabSampleId :
20 PPM ALIPHATIC HC STD
Area Percent Report

Manual IntegrationsAPPROVED

Reviewed By :Yogesh Patel 11/06/2024
Supervised By :Ankita Jodhani 11/06/2024

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE11052
Data File : FE051023.D
Signal(s) : FID1B.ch
Acq On : 05 Nov 2024 10:07
Sample : 20 PPM ALIPHATIC HC STD
Misc :
ALS Vial : 2 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\Aliphatic EPH 100824.M
Title : GC Extractables

Signal : FID1B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	3.240	3.211	3.324	BB	249043	2535374	93.82%	4.860%
2	4.491	4.458	4.558	BB	252961	2557731	94.64%	4.903%
3	6.205	6.174	6.311	BB	210406	2423816	89.69%	4.647%
4	6.660	6.631	6.731	BB	253916	2572413	95.19%	4.931%
5	7.300	7.271	7.401	BB	183841	2232685	82.62%	4.280%
6	8.485	8.448	8.561	BB	238570	2520337	93.26%	4.832%
7	10.091	10.054	10.164	BB	232396	2562432	94.82%	4.912%
8	11.532	11.498	11.608	BB	223712	2577950	95.39%	4.942%
9	11.852	11.813	11.920	M	246908	2702465	100.00%	5.181%
10	12.839	12.801	12.914	BB	204667	2461266	91.07%	4.718%
11	13.285	13.244	13.361	BB	167560	2033656	75.25%	3.899%
12	13.449	13.414	13.521	BB	204821	2407132	89.07%	4.615%
13	14.034	13.998	14.104	BB	188142	2386011	88.29%	4.574%
14	15.136	15.098	15.192	M	192602	2374488	87.86%	4.552%
15	16.157	16.117	16.215	M	183620	2372027	87.77%	4.547%
16	17.105	17.061	17.174	BB	173031	2375801	87.91%	4.555%
17	17.991	17.951	18.048	BB	180348	2459221	91.00%	4.714%
18	18.822	18.781	18.888	BB	170816	2481058	91.81%	4.756%
19	19.606	19.571	19.661	BB	164467	2257677	83.54%	4.328%
20	20.344	20.285	20.438	M	135575	2190318	81.05%	4.199%
21	21.067	21.031	21.124	BB	107811	1916243	70.91%	3.674%
22	21.948	21.901	22.004	BB	78017	1763550	65.26%	3.381%
Sum of corrected areas:						52163651		

Aliphatic EPH 100824.M Tue Nov 05 12:19:22 2024

Continuing Calibration Report for SequenceID : FE110524AL

Parameter	AreaCount	Conc.	RT_Min	RT_Max	Response Factor	AVGRF	%DEV
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File ID : FE051027.D

Aliphatic C9-C12	9359759.000	60.000	3.140	6.760	155995.983	142899.930	-9.164
Aliphatic C12-C16	6199823.000	40.000	6.761	10.191	154995.575	145118.273	-6.806
Aliphatic C16-C21	9022037.000	60.000	10.192	13.549	150367.283	144401.245	-4.132
Aliphatic C21-C28	11563549.000	80.000	13.550	17.205	144544.363	142154.874	-1.681
Aliphatic C28-C40	15621079.000	120.000	17.206	22.048	130175.658	138303.281	5.877
Aliphatic EPH	51766247.000	360.000	3.140	22.048	143795.131	141698.847	-1.479

Lab Sample ID:	20 PPM ALIPHATIC HC 9	Acq On:	05 Nov 2024 12:16
Client Sample ID:		Operator:	YP\AJ
Data file:	FE051027.D	Misc:	
Instrument:	FID_E	ALS Vial:	2
Dilution Factor:	1	Sample Multiplier:	1.00

Compound	R.T.		Response	Conc	Units
Aliphatic C9-C12	3.140	6.760	9359759.000	60.000	ug/ml
Aliphatic C12-C16	6.761	10.191	6199823.000	40.000	ug/ml
Aliphatic C16-C21	10.192	13.549	9022037.000	60.000	ug/ml
Aliphatic C21-C28	13.550	17.205	11563549.000	80.000	ug/ml
Aliphatic C28-C40	17.206	22.048	15621079.000	120.000	ug/ml
Aliphatic EPH	3.140	22.048	51766247.000	360.000	ug/ml

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE110524AL\
 Data File : FE051027.D
 Signal(s) : FID1B.ch
 Acq On : 05 Nov 2024 12:16
 Operator : YP\AJ
 Sample : 20 PPM ALIPHATIC HC STD
 Misc :
 ALS Vial : 2 Sample Multiplier: 1

Instrument :
 FID_E
 ClientSampleId :
 20 PPM ALIPHATIC HC STD

Manual Integrations APPROVED

Reviewed By :Yogesh Patel 11/06/2024
 Supervised By :Ankita Jodhani 11/06/2024

Integration File: autoint1.e
 Quant Time: Nov 05 13:18:15 2024
 Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\Aliphatic EPH 100824.M
 Quant Title : GC Extractables
 QLast Update : Mon Oct 07 16:32:18 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)	11.851	3278978	20.798 ug/mlm
Spiked Amount 50.000		Recovery =	41.60%
12) S 1-chlorooctadecane (S...	13.285	2477739	20.946 ug/ml
Spiked Amount 50.000		Recovery =	41.89%
Target Compounds			
1) T n-Nonane (C9)	3.240	3088101	21.856 ug/ml
2) T n-Decane (C10)	4.491	3126526	21.791 ug/ml
3) T A~Naphthalene (C11.7)	6.203	2988016	20.897 ug/ml
4) T n-Dodecane (C12)	6.658	3145132	21.851 ug/ml
5) T A~2-methylnaphthalene...	7.299	2776002	20.954 ug/ml
6) T n-Tetradecane (C14)	8.485	3073003	21.479 ug/ml
7) T n-Hexadecane (C16)	10.090	3126820	21.246 ug/ml
8) T n-Octadecane (C18)	11.531	3125028	20.921 ug/ml
10) T n-Eicosane (C20)	12.838	2978438	20.770 ug/ml
11) T n-Heneicosane (C21)	13.449	2918571	20.783 ug/ml
13) T n-Docosane (C22)	14.035	2894081	20.628 ug/ml
14) T n-Tetracosane (C24)	15.135	2888336	20.444 ug/mlm
15) T n-Hexacosane (C26)	16.156	2891054	20.545 ug/mlm
16) T n-Octacosane (C28)	17.103	2890078	19.750 ug/ml
17) T n-Tricontane (C30)	17.990	3003488	18.890 ug/ml
18) T n-Dotriacontane (C32)	18.822	2999628	18.503 ug/ml
19) T n-Tetratriacontane (C34)	19.605	2746410	18.697 ug/ml
20) T n-Hexatriacontane (C36)	20.344	2450411	19.323 ug/ml
21) T n-Octatriacontane (C38)	21.064	2366209	19.137 ug/mlm
22) T n-Tetracontane (C40)	21.946	2054933	18.455 ug/mlm

(f)=RT Delta > 1/2 Window

(m)=manual int.

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE110524AL\
Data File : FE051027.D
Signal(s) : FID1B.ch
Acq On : 05 Nov 2024 12:16
Operator : YP\AJ
Sample : 20 PPM ALIPHATIC HC STD
Misc :
ALS Vial : 2 Sample Multiplier: 1

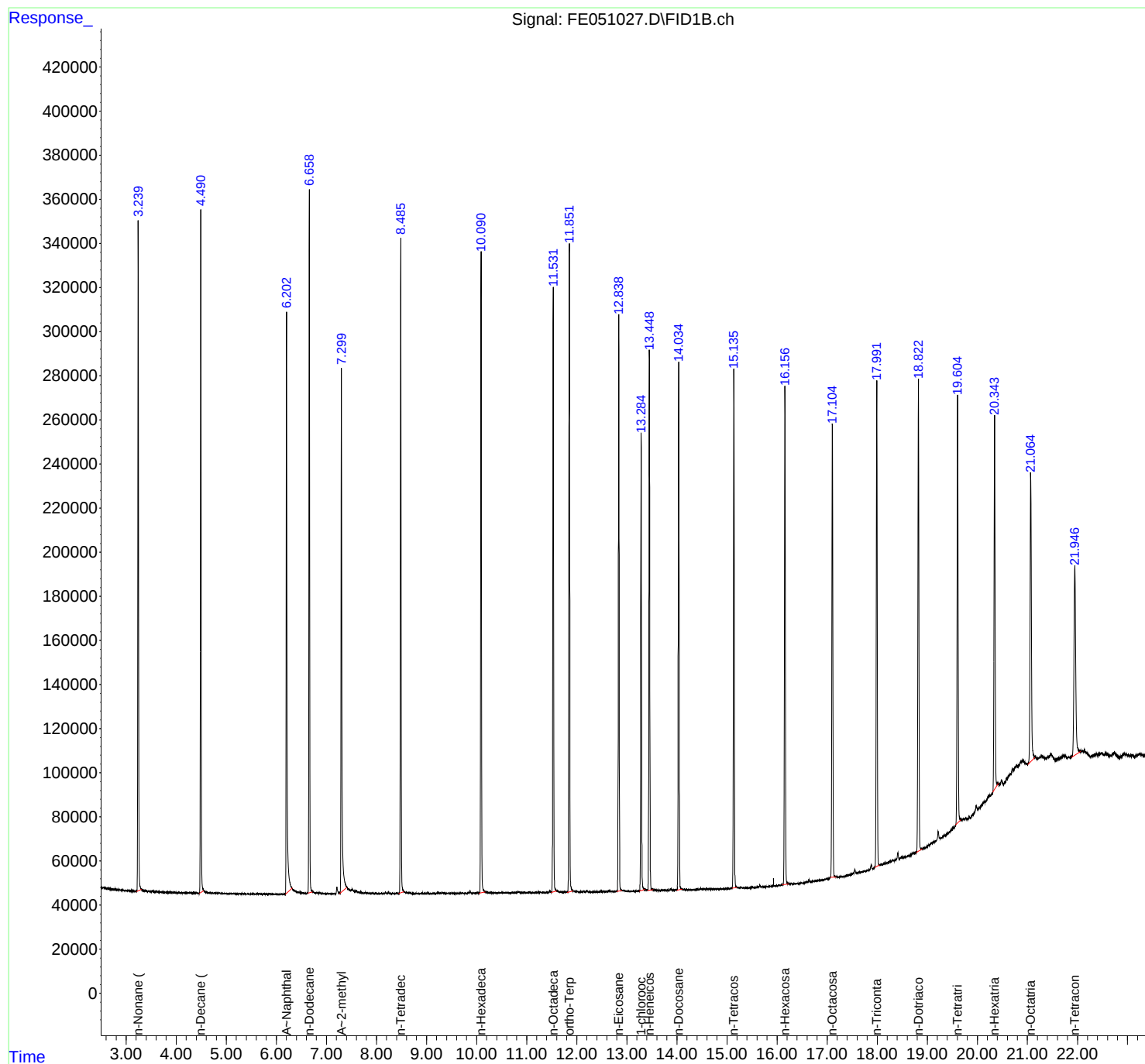
Instrument :
FID_E
ClientSampleId :
20 PPM ALIPHATIC HC STD

Manual Integrations
APPROVED

Reviewed By :Yogesh Patel 11/06/2024
Supervised By :Ankita Jodhani 11/06/2024

Integration File: autoint1.e
Quant Time: Nov 05 13:18:15 2024
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\Aliphatic EPH 100824.
Quant Title : GC Extractables
QLast Update : Mon Oct 07 16:32:18 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_E
LabSampleId :
20 PPM ALIPHATIC HC STD
Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE11052
Data File : FE051027.D
Signal(s) : FID1B.ch
Acq On : 05 Nov 2024 12:16
Sample : 20 PPM ALIPHATIC HC STD
Misc :
ALS Vial : 2 Sample Multiplier: 1

Manual IntegrationsAPPROVED

Reviewed By :Yogesh Patel 11/06/2024
Supervised By :Ankita Jodhani 11/06/2024

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\Aliphatic EPH 100824.M
Title : GC Extractables

Signal : FID1B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	3.240	3.211	3.304	BB	301754	3088101	94.15%	4.882%
2	4.491	4.461	4.551	BB	308628	3126526	95.32%	4.943%
3	6.203	6.178	6.311	BB	259521	2988016	91.10%	4.724%
4	6.658	6.631	6.724	BB	317604	3145132	95.89%	4.972%
5	7.299	7.268	7.408	BB	236016	2776002	84.63%	4.389%
6	8.485	8.448	8.551	BB	296111	3073003	93.69%	4.858%
7	10.090	10.051	10.174	BB	291800	3126820	95.33%	4.943%
8	11.531	11.491	11.601	BB	273740	3125028	95.27%	4.941%
9	11.851	11.814	11.924	M	294063	3280029	100.00%	5.186%
10	12.838	12.801	12.908	BB	260787	2978438	90.81%	4.709%
11	13.285	13.248	13.354	BB	207143	2477739	75.54%	3.917%
12	13.449	13.411	13.521	BB	244325	2918571	88.98%	4.614%
13	14.035	13.998	14.104	BB	238432	2894081	88.23%	4.575%
14	15.135	15.098	15.198	M	235352	2886148	87.99%	4.563%
15	16.156	16.117	16.216	M	226015	2885250	87.96%	4.562%
16	17.103	17.061	17.174	BB	207874	2890078	88.11%	4.569%
17	17.990	17.951	18.048	BB	220980	3003488	91.57%	4.748%
18	18.822	18.781	18.894	BB	213025	2999628	91.45%	4.742%
19	19.605	19.571	19.671	BB	193880	2746410	83.73%	4.342%
20	20.344	20.311	20.414	BB	169597	2450411	74.71%	3.874%
21	21.064	21.003	21.149	M	130970	2352165	71.71%	3.719%
22	21.946	21.872	22.048	M	85995	2040920	62.22%	3.227%
Sum of corrected areas:						63251984		

Aliphatic EPH 100824.M Tue Nov 05 14:14:24 2024



QC SAMPLE DATA

Report of Analysis

Client:	Union Paving & Construction Company		Date Collected:		
Project:	Rt. 10 Whippany		Date Received:		
Client Sample ID:	PB164589BL		SDG No.:	P4663	
Lab Sample ID:	PB164589BL		Matrix:	Solid	
Analytical Method:	NJEPH		% Solid:	100	
Sample Wt/Vol:	30.01	Units: g	Final Vol:	2000	uL
Soil Aliquot Vol:		uL	Test:	EPH_NF	
Prep Method :					

Prep Date :	Date Analyzed :	Prep Batch ID
11/01/24 08:50	11/01/24 15:33	PB164589

Datafile

CAS Number	Parameter	Conc.	Qualifier	Dilution	MDL	LOQ / CRQL	Units(Dry Weight)	
TARGETS								
Aliphatic C28-C40	Aliphatic C28-C40	1.80	U	1	1.80	2.00	mg/kg	FE050965.D
Aliphatic C9-C28	Aliphatic C9-C28	1.72	U	1	1.72	4.00	mg/kg	FE050965.D
Total AliphaticEPH	Total AliphaticEPH	3.52	U		3.52	6.00	mg/kg	
Total EPH	Total EPH	3.52	U		3.52	6.00	mg/kg	

* As samples are not fractionated, all aliphatic and aromatic carbon compounds in the C9-C40 carbon range are calculated against the aliphatic calibration curve, and reported as Aliphatic EPH. Therefore, the aliphatic C9-C40 concentration for the sample is reported as the Total EPH.

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:	Union Paving & Construction Company	Date Collected:	
Project:	Rt. 10 Whippany	Date Received:	
Client Sample ID:	PB164589BL	SDG No.:	P4663
Lab Sample ID:	PB164589BL	Matrix:	Solid
Analytical Method:	NJEPH	% Solid:	100
Sample Wt/Vol:	30.01 Units: g	Final Vol:	2000 uL
Soil Aliquot Vol:	uL	Test:	EPH_NF
Prep Method :			

File ID :	Dilution:	Prep Date :	Date Analyzed :	Prep Batch ID
FE050965.D	1	11/01/24	11/01/24	PB164589

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
Aliphatic C9-C28	Aliphatic C9-C28	1.72	U	1.72	4.00	mg/kg
Aliphatic C28-C40	Aliphatic C28-C40	1.80	U	1.80	2.00	mg/kg
SURROGATES						
3383-33-2	1-chlorooctadecane (SURR)	37.3		40 - 140	75%	SPK: 50
84-15-1	ortho-Terphenyl (SURR)	36.4		40 - 140	73%	SPK: 50

Quantitation Report For Aliphatic EPH Range.

Lab Sample ID:	PB164589BL	Acq On:	01 Nov 2024 15:33
Client Sample ID:	PB164589BL	Operator:	YP\AJ
Data file:	FE050965.D	Misc:	
Instrument:	FID_E	ALS Vial:	11
Dilution Factor:	1	Sample Multiplier:	1.00

Compound	R.T.		Response	Conc	highest_standard	Units
Aliphatic EPH	3.143	22.051	0	0		ug/ml
ortho-Terphenyl (SURR)	11.853	11.853	5744957	36.44		ug/ml
1-chlorooctadecane (SURR)	13.287	13.287	4409327	37.27		ug/ml
Aliphatic C9-C12	3.143	6.761	0	0	300	ug/ml
Aliphatic C12-C16	6.762	10.193	0	0	200	ug/ml
Aliphatic C16-C21	10.194	13.552	0	0	300	ug/ml
Aliphatic C21-C28	13.553	17.208	0	0	400	ug/ml
Aliphatic C28-C40	17.209	22.051	0	0	600	ug/ml
Aliphatic C9-C28	3.143	17.208	0	0	1200	ug/ml

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE110124AL\
 Data File : FE050965.D
 Signal(s) : FID1B.ch
 Acq On : 01 Nov 2024 15:33
 Operator : YP\AJ
 Sample : PB164589BL
 Misc :
 ALS Vial : 11 Sample Multiplier: 1

Instrument :
 FID_E
 ClientSampleId :
 PB164589BL

Manual Integrations
 APPROVED

Reviewed By :Yogesh Patel 11/04/2024
 Supervised By :Ankita Jodhani 11/04/2024

Integration File: sample.E
 Quant Time: Nov 04 03:09:51 2024
 Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\Aliphatic EPH 100824.M
 Quant Title : GC Extractables
 QLast Update : Mon Oct 07 16:32:18 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)	11.853	5744957	36.440 ug/mlm
Spiked Amount	50.000	Recovery	= 72.88%
12) S 1-chlorooctadecane (S...	13.287	4409327	37.275 ug/ml
Spiked Amount	50.000	Recovery	= 74.55%

Target Compounds

(f)=RT Delta > 1/2 Window

(m)=manual int.

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE110124AL\
Data File : FE050965.D
Signal(s) : FID1B.ch
Acq On : 01 Nov 2024 15:33
Operator : YP\AJ
Sample : PB164589BL
Misc :
ALS Vial : 11 Sample Multiplier: 1

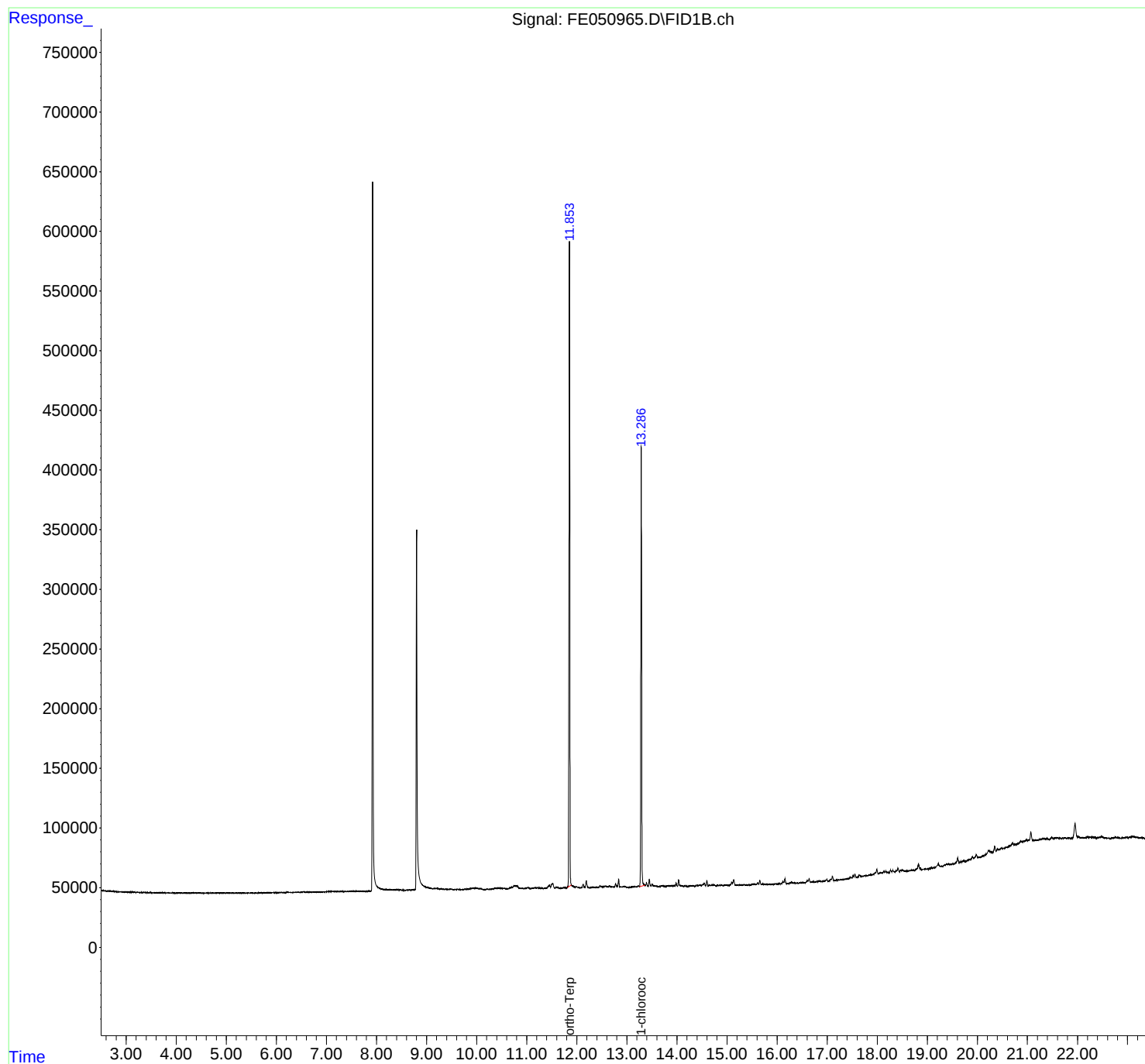
Instrument :
FID_E
ClientSampleId :
PB164589BL

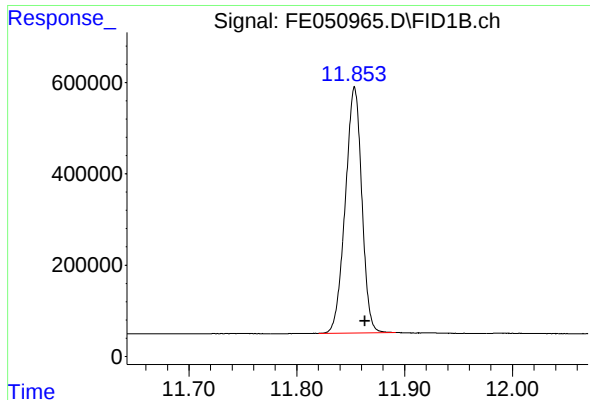
Manual Integrations
APPROVED

Reviewed By :Yogesh Patel 11/04/2024
Supervised By :Ankita Jodhani 11/04/2024

Integration File: sample.E
Quant Time: Nov 04 03:09:51 2024
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\Aliphatic EPH 100824.
Quant Title : GC Extractables
QLast Update : Mon Oct 07 16:32:18 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.: 11.853 min
Delta R.T.: -0.010 min
Response: 5744957
Conc: 36.44 ug/ml

Instrument :

FID_E

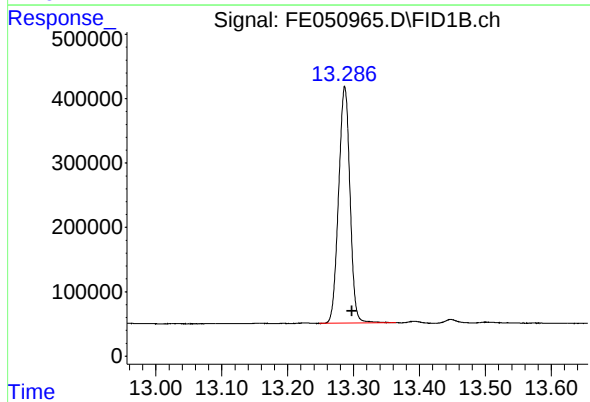
ClientSampleId :

PB164589BL

Manual Integrations

APPROVED

Reviewed By :Yogesh Patel 11/04/2024
Supervised By :Ankita Jodhani 11/04/2024



#12 1-chlorooctadecane (SURR)

R.T.: 13.287 min
Delta R.T.: -0.011 min
Response: 4409327
Conc: 37.27 ug/ml

rteres

Instrument :
FID_E
ClientSampleId :
PB164589BL
Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE11012
Data File : FE050965.D
Signal(s) : FID1B.ch
Acq On : 01 Nov 2024 15:33
Sample : PB164589BL
Misc :
ALS Vial : 11 Sample Multiplier: 1

Manual IntegrationsAPPROVED

Reviewed By :Yogesh Patel 11/04/2024
Supervised By :Ankita Jodhani 11/04/2024

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\Aliphatic EPH 100824.M
Title : GC Extractables

Signal : FID1B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
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No peaks were detected!

Aliphatic EPH 100824.M Mon Nov 04 05:12:38 2024

Report of Analysis

Client:	Union Paving & Construction Company		Date Collected:		
Project:	Rt. 10 Whippany		Date Received:		
Client Sample ID:	PB164589BS		SDG No.:	P4663	
Lab Sample ID:	PB164589BS		Matrix:	Solid	
Analytical Method:	NJEPH		% Solid:	100	
Sample Wt/Vol:	30.03	Units: g	Final Vol:	2000	uL
Soil Aliquot Vol:		uL	Test:	EPH_NF	
Prep Method :					

Prep Date :	Date Analyzed :	Prep Batch ID
11/01/24 08:50	11/01/24 16:03	PB164589

Datafile

CAS Number	Parameter	Conc.	Qualifier	Dilution	MDL	LOQ / CRQL	Units(Dry Weight)	
TARGETS								
Aliphatic C28-C40	Aliphatic C28-C40	21.1		1	1.80	2.00	mg/kg	FE050966.D
Aliphatic C9-C28	Aliphatic C9-C28	74.0		1	1.72	3.99	mg/kg	FE050966.D
Total AliphaticEPH	Total AliphaticEPH	95.1			3.52	5.99	mg/kg	
Total EPH	Total EPH	95.1			3.52	5.99	mg/kg	

* As samples are not fractionated, all aliphatic and aromatic carbon compounds in the C9-C40 carbon range are calculated against the aliphatic calibration curve, and reported as Aliphatic EPH. Therefore, the aliphatic C9-C40 concentration for the sample is reported as the Total EPH.

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:	Union Paving & Construction Company	Date Collected:	
Project:	Rt. 10 Whippany	Date Received:	
Client Sample ID:	PB164589BS	SDG No.:	P4663
Lab Sample ID:	PB164589BS	Matrix:	Solid
Analytical Method:	NJEPH	% Solid:	100
Sample Wt/Vol:	30.03 Units: g	Final Vol:	2000 uL
Soil Aliquot Vol:	uL	Test:	EPH_NF
Prep Method :			

File ID :	Dilution:	Prep Date :	Date Analyzed :	Prep Batch ID
FE050966.D	1	11/01/24	11/01/24	PB164589

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
Aliphatic C9-C28	Aliphatic C9-C28	74.0		1.72	3.99	mg/kg
Aliphatic C28-C40	Aliphatic C28-C40	21.1		1.80	2.00	mg/kg
SURROGATES						
3383-33-2	1-chlorooctadecane (SURR)	45.3		40 - 140	91%	SPK: 50
84-15-1	ortho-Terphenyl (SURR)	42.2		40 - 140	84%	SPK: 50

Quantitation Report For Aliphatic EPH Range.

Lab Sample ID:	PB164589BS	Acq On:	01 Nov 2024 16:03
Client Sample ID:	PB164589BS	Operator:	YP\AJ
Data file:	FE050966.D	Misc:	
Instrument:	FID_E	ALS Vial:	12
Dilution Factor:	1	Sample Multiplier:	1.00

Compound	R.T.		Response	Conc	highest_standard	Units
Aliphatic EPH	3.143	22.051	203178114	1430		ug/ml
ortho-Terphenyl (SURR)	11.856	11.856	6651573	42.19		ug/ml
1-chlorooctadecane (SURR)	13.289	13.289	5363050	45.34		ug/ml
Aliphatic C9-C12	3.143	6.761	31598152	221.121	300	ug/ml
Aliphatic C12-C16	6.762	10.193	37902051	261.18	200	ug/ml
Aliphatic C16-C21	10.194	13.552	42197434	292.223	300	ug/ml
Aliphatic C21-C28	13.553	17.208	47711044	335.627	400	ug/ml
Aliphatic C28-C40	17.209	22.051	43769433	316.474	600	ug/ml
Aliphatic C9-C28	3.143	17.208	159408681	1110	1200	ug/ml

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE110124AL\
 Data File : FE050966.D
 Signal(s) : FID1B.ch
 Acq On : 01 Nov 2024 16:03
 Operator : YP\AJ
 Sample : PB164589BS
 Misc :
 ALS Vial : 12 Sample Multiplier: 1

Instrument :

FID_E

ClientSampleId :

PB164589BS

Manual Integrations**APPROVED**

Reviewed By :Yogesh Patel 11/04/2024

Supervised By :Ankita Jodhani 11/04/2024

Integration File: sample.E

Quant Time: Nov 04 03:09:59 2024

Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\Aliphatic EPH 100824.M

Quant Title : GC Extractables

QLast Update : Mon Oct 07 16:32:18 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)	11.856	6651573	42.191 ug/ml
Spiked Amount 50.000		Recovery =	84.38%
12) S 1-chlorooctadecane (S...	13.289	5363050	45.337 ug/ml
Spiked Amount 50.000		Recovery =	90.67%
Target Compounds			
1) T n-Nonane (C9)	3.248	5882181	41.632 ug/ml
2) T n-Decane (C10)	4.496	6241351	43.501 ug/ml
3) T A~Naphthalene (C11.7)	6.205	6388363	44.677 ug/ml
4) T n-Dodecane (C12)	6.662	6529327	45.363 ug/ml
5) T A~2-methylnaphthalene...	7.300	5836522	44.056 ug/ml
6) T n-Tetradecane (C14)	8.490	6522827	45.593 ug/ml
7) T n-Hexadecane (C16)	10.093	6416662	43.600 ug/ml
8) T n-Octadecane (C18)	11.535	6466225	43.290 ug/ml
10) T n-Eicosane (C20)	12.843	6479940	45.188 ug/ml
11) T n-Heneicosane (C21)	13.454	6229737	44.361 ug/ml
13) T n-Docosane (C22)	14.039	6202768	44.212 ug/ml
14) T n-Tetracosane (C24)	15.140	11485574	81.298 ug/mlm
15) T n-Hexacosane (C26)	16.160	6142892	43.654 ug/mlm
16) T n-Octacosane (C28)	17.108	6881626	47.028 ug/mlm
17) T n-Tricontane (C30)	17.995	6414885	40.345 ug/ml
18) T n-Dotriacontane (C32)	18.826	6513615	40.179 ug/ml
19) T n-Tetratriacontane (C34)	19.610	6691817	45.556 ug/ml
20) T n-Hexatriacontane (C36)	20.349	6665983	52.565 ug/ml
21) T n-Octatriacontane (C38)	21.074	6524625	52.768 ug/ml
22) T n-Tetracontane (C40)	21.955	5934705	53.298 ug/ml

(f)=RT Delta > 1/2 Window

(m)=manual int.

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE110124AL\
Data File : FE050966.D
Signal(s) : FID1B.ch
Acq On : 01 Nov 2024 16:03
Operator : YP\AJ
Sample : PB164589BS
Misc :
ALS Vial : 12 Sample Multiplier: 1

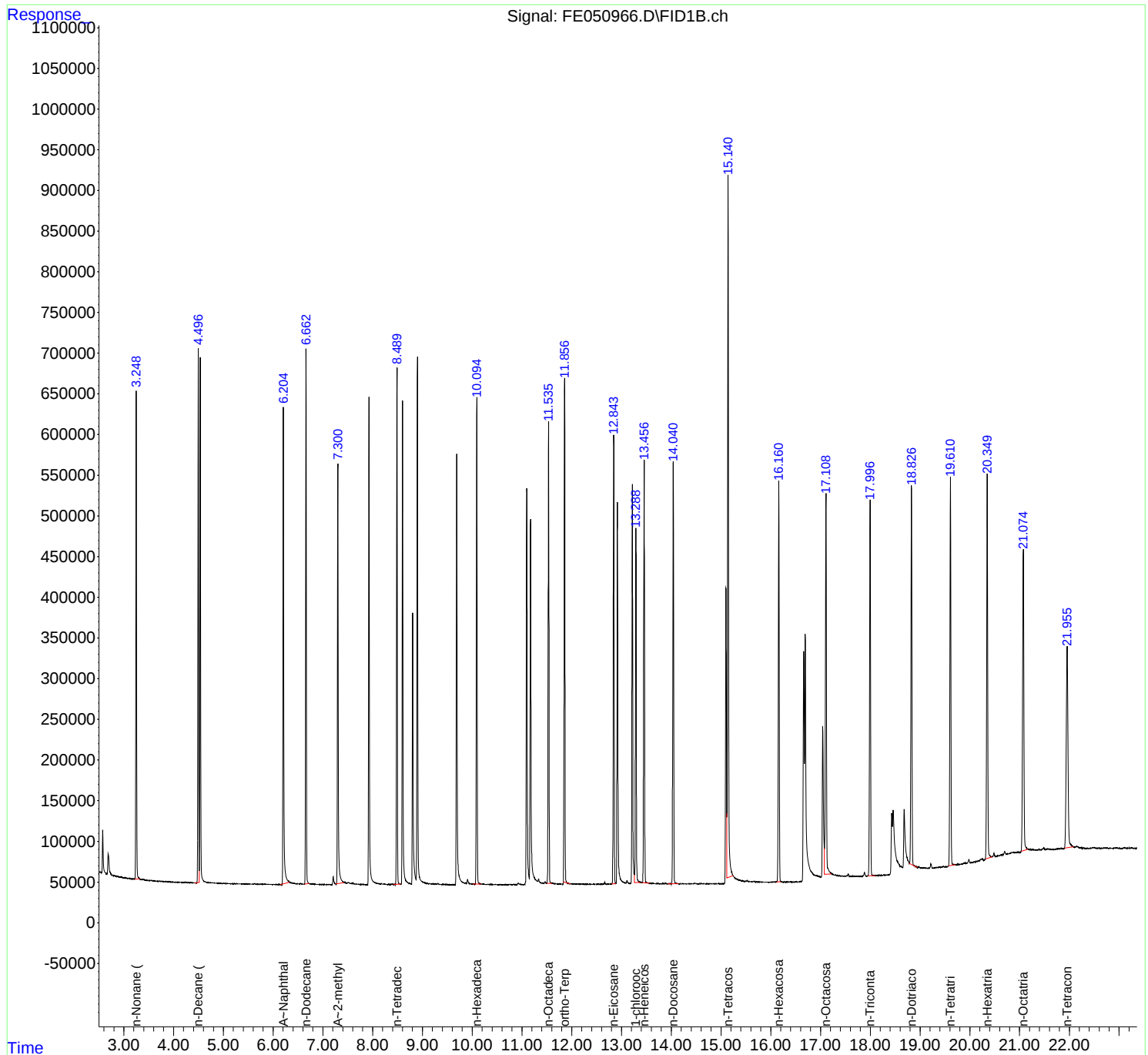
Instrument :
FID_E
ClientSampleId :
PB164589BS

Manual Integrations
APPROVED

Reviewed By :Yogesh Patel 11/04/2024
Supervised By :Ankita Jodhani 11/04/2024

Integration File: sample.E
Quant Time: Nov 04 03:09:59 2024
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\Aliphatic EPH 100824.
Quant Title : GC Extractables
QLast Update : Mon Oct 07 16:32:18 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_E

ClientSampleId :

PB164589BS

Area Percent Report

Manual IntegrationsAPPROVED

Reviewed By :Yogesh Patel 11/04/2024
Supervised By :Ankita Jodhani 11/04/2024

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE11012
Data File : FE050966.D
Signal(s) : FID1B.ch
Acq On : 01 Nov 2024 16:03
Sample : PB164589BS
Misc :
ALS Vial : 12 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\Aliphatic EPH 100824.M
Title : GC Extractables

Signal : FID1B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	3.248	3.218	3.318	BB	598892	5882181	49.68%	2.733%
2	4.496	4.431	4.516	BV	652578	6241351	52.72%	2.900%
3	4.535	4.516	4.624	VB	641415	6556930	55.38%	3.047%
4	6.205	6.151	6.328	BB	583886	6388363	53.96%	2.969%
5	6.662	6.631	6.724	BB	653808	6529327	55.15%	3.034%
6	7.300	7.254	7.424	BB	513292	5836522	49.30%	2.712%
7	8.490	8.414	8.564	BB	638107	6522827	55.09%	3.031%
8	8.602	8.581	8.711	BB	591054	6243337	52.73%	2.901%
9	8.900	8.874	9.004	VB	647480	6807690	57.50%	3.164%
10	9.691	9.611	9.818	BB	527875	6075013	51.31%	2.823%
11	10.093	10.021	10.181	BB	604601	6416662	54.20%	2.982%
12	11.097	11.064	11.147	M	486751	5665354	47.85%	2.633%
13	11.173	11.152	11.319	M	449323	5916694	49.97%	2.749%
14	11.535	11.494	11.611	BB	562480	6466225	54.62%	3.005%
15	11.856	11.831	11.974	BB	630737	6651573	56.18%	3.091%
16	12.843	12.801	12.888	BV	556100	6479940	54.73%	3.011%
17	12.918	12.888	13.071	VB	469299	5771602	48.75%	2.682%
18	13.217	13.084	13.258	BV	494074	5667882	47.87%	2.634%
19	13.289	13.258	13.381	VB	434712	5363050	45.30%	2.492%
20	13.454	13.411	13.568	BB	520392	6229737	52.62%	2.895%
21	14.039	13.928	14.148	BB	517898	6202768	52.39%	2.882%
22	15.098	15.072	15.116	M	363328	4500578	38.01%	2.091%
23	15.140	15.117	15.267	M	869404	11839599	100.00%	5.502%
24	16.160	16.131	16.249	BBA	491930	6011739	50.78%	2.794%
25	16.661	16.629	16.674	M	281670	3785124	31.97%	1.759%
26	16.691	16.676	16.847	M	302669	5400291	45.61%	2.510%
27	17.043	17.020	17.080	M	185055	2992571	25.28%	1.391%
28	17.108	17.080	17.222	M	470632	6978374	58.94%	3.243%
29	17.995	17.951	18.104	BB	459272	6414885	54.18%	2.981%
30	18.430	18.397	18.441	M	74637	999722	8.44%	0.465%
31	18.456	18.442	18.596	M	77796	2472980	20.89%	1.149%
32	18.679	18.654	18.779	M	70719	1551101	13.10%	0.721%
33	18.826	18.784	18.941	BB	469483	6513615	55.02%	3.027%
34	19.610	19.571	19.711	BB	480990	6691817	56.52%	3.110%
35	20.349	20.311	20.454	BB	471003	6665983	56.30%	3.098%
36	21.074	21.031	21.169	BBA	371551	6524625	55.11%	3.032%

37 21.955 21.901 22.084 BB 247931 5934705 50.13% 2.758%
rteres
Sum of corrected areas: 215

Aliphatic EPH 100824.M Mon Nov 04 04:33:51 2024

Instrument :

FID_E

ClientSampleId :

PB164589BS

Manual IntegrationsAPPROVED

Reviewed By :Yogesh Patel 11/04/2024
Supervised By :Ankita Jodhani 11/04/2024

Report of Analysis

Client:	Union Paving & Construction Company		Date Collected:		
Project:	Rt. 10 Whippany		Date Received:		
Client Sample ID:	PB164589BSD		SDG No.:	P4663	
Lab Sample ID:	PB164589BSD		Matrix:	Solid	
Analytical Method:	NJEPH		% Solid:	100	
Sample Wt/Vol:	30.01	Units: g	Final Vol:	2000	uL
Soil Aliquot Vol:		uL	Test:	EPH_NF	
Prep Method :					

Prep Date :	Date Analyzed :	Prep Batch ID
11/01/24 08:50	11/01/24 16:33	PB164589

Datafile

CAS Number	Parameter	Conc.	Qualifier	Dilution	MDL	LOQ / CRQL	Units(Dry Weight)	
TARGETS								
Aliphatic C28-C40	Aliphatic C28-C40	20.4		1	1.80	2.00	mg/kg	FE050967.D
Aliphatic C9-C28	Aliphatic C9-C28	66.7		1	1.72	4.00	mg/kg	FE050967.D
Total AliphaticEPH	Total AliphaticEPH	87.1			3.52	6.00	mg/kg	
Total EPH	Total EPH	87.1			3.52	6.00	mg/kg	

* As samples are not fractionated, all aliphatic and aromatic carbon compounds in the C9-C40 carbon range are calculated against the aliphatic calibration curve, and reported as Aliphatic EPH. Therefore, the aliphatic C9-C40 concentration for the sample is reported as the Total EPH.

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:	Union Paving & Construction Company		Date Collected:		
Project:	Rt. 10 Whippany		Date Received:		
Client Sample ID:	PB164589BSD		SDG No.:	P4663	
Lab Sample ID:	PB164589BSD		Matrix:	Solid	
Analytical Method:	NJEPH		% Solid:	100	
Sample Wt/Vol:	30.01	Units: g	Final Vol:	2000	uL
Soil Aliquot Vol:		uL	Test:	EPH_NF	
Prep Method :					

File ID :	Dilution:	Prep Date :	Date Analyzed :	Prep Batch ID
FE050967.D	1	11/01/24	11/01/24	PB164589

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
Aliphatic C9-C28	Aliphatic C9-C28	66.7		1.72	4.00	mg/kg
Aliphatic C28-C40	Aliphatic C28-C40	20.4		1.80	2.00	mg/kg
SURROGATES						
3383-33-2	1-chlorooctadecane (SURR)	40.9		40 - 140	82%	SPK: 50
84-15-1	ortho-Terphenyl (SURR)	38.5		40 - 140	77%	SPK: 50

Quantitation Report For Aliphatic EPH Range.

Lab Sample ID:	PB164589BSD	Acq On:	01 Nov 2024 16:33
Client Sample ID:	PB164589BSD	Operator:	YP\AJ
Data file:	FE050967.D	Misc:	
Instrument:	FID_E	ALS Vial:	13
Dilution Factor:	1	Sample Multiplier:	1.00

Compound	R.T.		Response	Conc	highest_standard	Units
Aliphatic EPH	3.143	22.051	186018226	1310		ug/ml
ortho-Terphenyl (SURR)	11.856	11.856	6076382	38.54		ug/ml
1-chlorooctadecane (SURR)	13.288	13.288	4838219	40.9		ug/ml
Aliphatic C9-C12	3.143	6.761	27996925	195.92	300	ug/ml
Aliphatic C12-C16	6.762	10.193	33997830	234.277	200	ug/ml
Aliphatic C16-C21	10.194	13.552	37985095	263.052	300	ug/ml
Aliphatic C21-C28	13.553	17.208	43801068	308.122	400	ug/ml
Aliphatic C28-C40	17.209	22.051	42237308	305.396	600	ug/ml
Aliphatic C9-C28	3.143	17.208	143780918	1000	1200	ug/ml

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE110124AL\
 Data File : FE050967.D
 Signal(s) : FID1B.ch
 Acq On : 01 Nov 2024 16:33
 Operator : YP\AJ
 Sample : PB164589BSD
 Misc :
 ALS Vial : 13 Sample Multiplier: 1

Instrument :

FID_E

ClientSampleId :

PB164589BSD

Manual Integrations**APPROVED**

Reviewed By :Yogesh Patel 11/04/2024

Supervised By :Ankita Jodhani 11/04/2024

Integration File: sample.E

Quant Time: Nov 04 03:10:09 2024

Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\Aliphatic EPH 100824.M

Quant Title : GC Extractables

QLast Update : Mon Oct 07 16:32:18 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)	11.856	6076382	38.542 ug/mlm
Spiked Amount 50.000		Recovery =	77.08%
12) S 1-chlorooctadecane (S...	13.288	4838219	40.900 ug/ml
Spiked Amount 50.000		Recovery =	81.80%
Target Compounds			
1) T n-Nonane (C9)	3.249	5176708	36.639 ug/ml
2) T n-Decane (C10)	4.497	5517677	38.457 ug/ml
3) T A~Naphthalene (C11.7)	6.205	5666151	39.626 ug/ml
4) T n-Dodecane (C12)	6.662	5809916	40.365 ug/ml
5) T A~2-methylnaphthalene...	7.301	5234577	39.512 ug/ml
6) T n-Tetradecane (C14)	8.489	5760893	40.267 ug/ml
7) T n-Hexadecane (C16)	10.093	5789464	39.339 ug/ml
8) T n-Octadecane (C18)	11.535	5846113	39.139 ug/ml
10) T n-Eicosane (C20)	12.844	5851191	40.803 ug/ml
11) T n-Heneicosane (C21)	13.454	5625563	40.059 ug/ml
13) T n-Docosane (C22)	14.039	5588475	39.834 ug/ml
14) T n-Tetracosane (C24)	15.140	10706847	75.786 ug/mlm
15) T n-Hexacosane (C26)	16.160	5531539	39.310 ug/mlm
16) T n-Octacosane (C28)	17.110	6147766	42.013 ug/mlm
17) T n-Tricontane (C30)	17.996	5761792	36.237 ug/ml
18) T n-Dotriacontane (C32)	18.827	5810459	35.842 ug/ml
19) T n-Tetratriacontane (C34)	19.610	6065834	41.295 ug/ml
20) T n-Hexatriacontane (C36)	20.349	6013482	47.420 ug/ml
21) T n-Octatriacontane (C38)	21.073	6018411	48.674 ug/ml
22) T n-Tetracontane (C40)	21.956	5780304	51.911 ug/ml

(f)=RT Delta > 1/2 Window

(m)=manual int.

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE110124AL\
Data File : FE050967.D
Signal(s) : FID1B.ch
Acq On : 01 Nov 2024 16:33
Operator : YP\AJ
Sample : PB164589BSD
Misc :
ALS Vial : 13 Sample Multiplier: 1

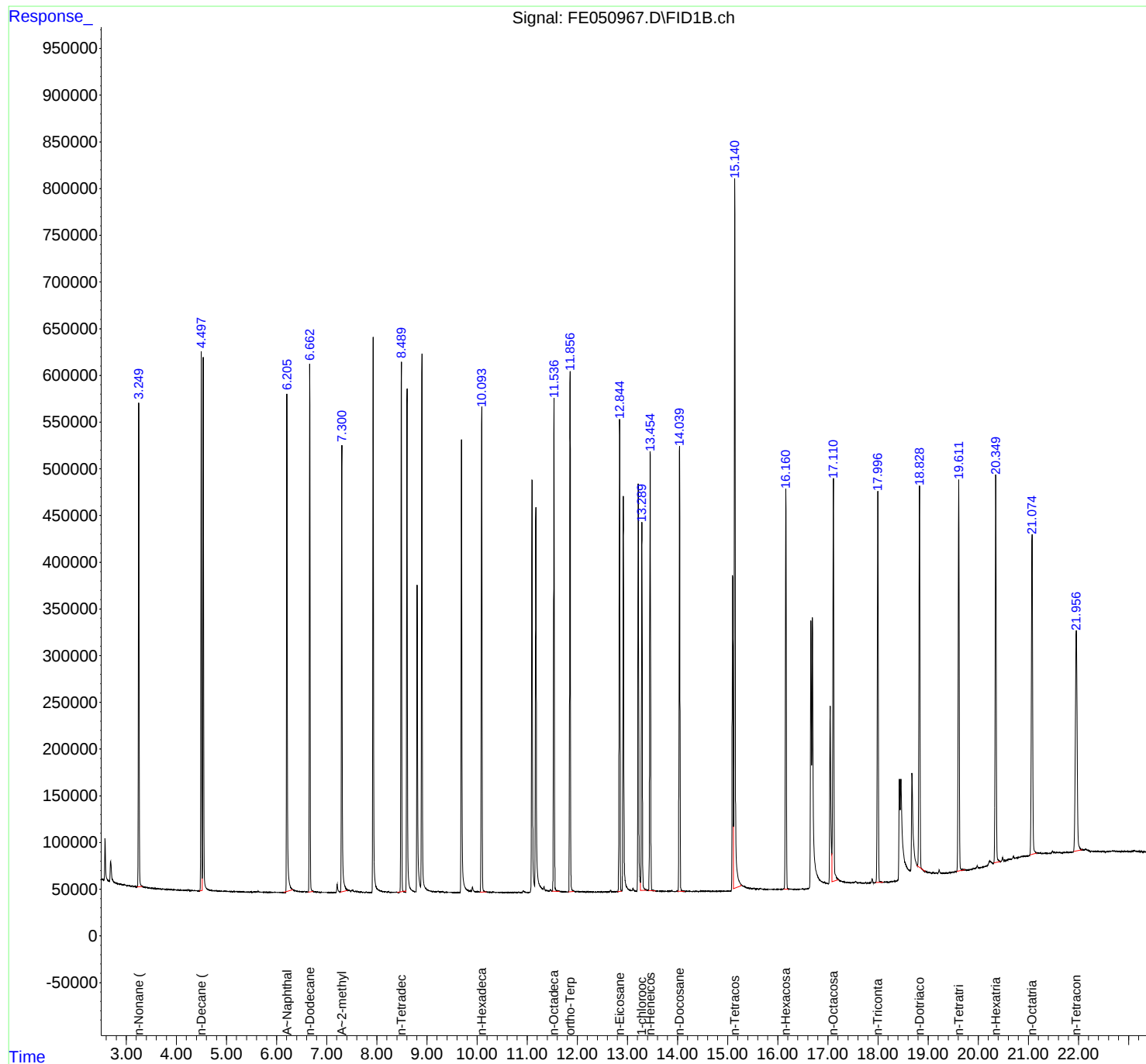
Instrument :
FID_E
ClientSampleId :
PB164589BSD

Manual Integrations
APPROVED

Reviewed By :Yogesh Patel 11/04/2024
Supervised By :Ankita Jodhani 11/04/2024

Integration File: sample.E
Quant Time: Nov 04 03:10:09 2024
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\Aliphatic EPH 100824.
Quant Title : GC Extractables
QLast Update : Mon Oct 07 16:32:18 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_E

ClientSampleId :

PB164589BSD

rteres

Area Percent Report

Manual IntegrationsAPPROVED

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE11012

Data File : FE050967.D

Signal(s) : FID1B.ch

Acq On : 01 Nov 2024 16:33

Sample : PB164589BSD

Misc :

ALS Vial : 13 Sample Multiplier: 1

Reviewed By :Yogesh Patel 11/04/2024

Supervised By :Ankita Jodhani 11/04/2024

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\Aliphatic EPH 100824.M

Title : GC Extractables

Signal : FID1B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	3.249	3.214	3.321	BB	515566	5176708	47.92%	2.630%
2	4.497	4.461	4.516	BV	576529	5517677	51.08%	2.803%
3	4.536	4.516	4.634	VB	567445	5826473	53.94%	2.960%
4	6.205	6.141	6.321	BB	529017	5666151	52.45%	2.878%
5	6.662	6.631	6.734	BB	562670	5809916	53.79%	2.951%
6	7.301	7.268	7.418	BB	476018	5234577	48.46%	2.659%
7	8.489	8.408	8.579	BBA	561625	5760893	53.33%	2.926%
8	8.602	8.581	8.708	BB	530108	5623072	52.06%	2.856%
9	8.900	8.874	9.004	VB	577315	6126167	56.71%	3.112%
10	9.690	9.614	9.811	BB	483354	5463657	50.58%	2.775%
11	10.093	10.054	10.188	BB	522266	5789464	53.60%	2.941%
12	11.097	11.056	11.148	M	441642	5117821	47.38%	2.600%
13	11.173	11.153	11.315	M	412081	5267170	48.76%	2.676%
14	11.535	11.494	11.639	BBA	523722	5846113	54.12%	2.970%
15	11.856	11.831	11.961	BB	546382	5998726	55.53%	3.047%
16	12.844	12.801	12.888	BV	508560	5851191	54.17%	2.972%
17	12.918	12.888	13.041	VB	421657	5167353	47.84%	2.625%
18	13.216	13.084	13.258	BV	435269	5109884	47.30%	2.596%
19	13.288	13.258	13.381	VB	391757	4838219	44.79%	2.458%
20	13.454	13.411	13.564	BB	471114	5625563	52.08%	2.858%
21	14.039	13.998	14.148	BB	468324	5588475	51.74%	2.839%
22	15.098	15.069	15.117	M	337834	4192049	38.81%	2.130%
23	15.140	15.118	15.314	M	761660	10802052	100.00%	5.487%
24	16.160	16.131	16.249	BBA	426727	5436371	50.33%	2.762%
25	16.660	16.629	16.676	M	285376	3716296	34.40%	1.888%
26	16.690	16.677	16.821	M	287763	4845679	44.86%	2.462%
27	17.044	17.015	17.077	M	190214	2889939	26.75%	1.468%
28	17.110	17.078	17.190	M	433379	6330207	58.60%	3.216%
29	17.996	17.951	18.104	BB	415031	5761792	53.34%	2.927%
30	18.426	18.396	18.444	M	106604	1572226	14.55%	0.799%
31	18.457	18.444	18.631	M	105541	2984843	27.63%	1.516%
32	18.679	18.648	18.781	PBA	102210	2229957	20.64%	1.133%
33	18.827	18.781	18.948	BB	409270	5810459	53.79%	2.952%
34	19.610	19.571	19.728	BB	421855	6065834	56.15%	3.081%
35	20.349	20.311	20.448	BB	408631	6013482	55.67%	3.055%
36	21.073	21.031	21.169	BBA	343227	6018411	55.72%	3.057%

37 21.956 21.901 22.078 BB 235814 5780304 53.51% 2.936%
rteres
Sum of corrected areas: 1968

Aliphatic EPH 100824.M Mon Nov 04 04:35:09 2024

Instrument :

FID_E

ClientSampleId :

PB164589BSD

Manual IntegrationsAPPROVED

Reviewed By :Yogesh Patel 11/04/2024
Supervised By :Ankita Jodhani 11/04/2024

Report of Analysis

Client:	Union Paving & Construction Company		Date Collected:		
Project:	Rt. 10 Whippany		Date Received:		
Client Sample ID:	BP-F8MS		SDG No.:	P4663	
Lab Sample ID:	P4643-05MS		Matrix:	Solid	
Analytical Method:	NJEPH		% Solid:	82.8	
Sample Wt/Vol:	30.08	Units: g	Final Vol:	2000	uL
Soil Aliquot Vol:		uL	Test:	EPH_NF	
Prep Method :					

Prep Date :	Date Analyzed :	Prep Batch ID
11/01/24 08:50	11/01/24 20:04	PB164589

Datafile

CAS Number	Parameter	Conc.	Qualifier	Dilution	MDL	LOQ / CRQL	Units(Dry Weight)	
TARGETS								
Aliphatic C28-C40	Aliphatic C28-C40	31.6		1	2.17	2.41	mg/kg	FE050974.D
Aliphatic C9-C28	Aliphatic C9-C28	97.8	E	1	2.07	4.81	mg/kg	FE050974.D
Total AliphaticEPH	Total AliphaticEPH	129			4.24	7.22	mg/kg	
Total EPH	Total EPH	129			4.24	7.22	mg/kg	

* As samples are not fractionated, all aliphatic and aromatic carbon compounds in the C9-C40 carbon range are calculated against the aliphatic calibration curve, and reported as Aliphatic EPH. Therefore, the aliphatic C9-C40 concentration for the sample is reported as the Total EPH.

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:	Union Paving & Construction Company		Date Collected:	
Project:	Rt. 10 Whippany		Date Received:	
Client Sample ID:	BP-F8MS		SDG No.:	P4663
Lab Sample ID:	P4643-05MS		Matrix:	Solid
Analytical Method:	NJEPH		% Solid:	82.8
Sample Wt/Vol:	30.08	Units: g	Final Vol:	2000 uL
Soil Aliquot Vol:		uL	Test:	EPH_NF
Prep Method :				

File ID :	Dilution:	Prep Date :	Date Analyzed :	Prep Batch ID
FE050974.D	1	11/01/24	11/01/24	PB164589

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
Aliphatic C9-C28	Aliphatic C9-C28	97.8	E	2.07	4.81	mg/kg
Aliphatic C28-C40	Aliphatic C28-C40	31.6		2.17	2.41	mg/kg
SURROGATES						
3383-33-2	1-chlorooctadecane (SURR)	42.5		40 - 140	85%	SPK: 50
84-15-1	ortho-Terphenyl (SURR)	40.4		40 - 140	81%	SPK: 50

Quantitation Report For Aliphatic EPH Range.

Lab Sample ID:	P4643-05MS	Acq On:	01 Nov 2024 20:04
Client Sample ID:	BP-F8MS	Operator:	YP\AJ
Data file:	FE050974.D	Misc:	
Instrument:	FID_E	ALS Vial:	20
Dilution Factor:	1	Sample Multiplier:	1.00

Compound	R.T.		Response	Conc	highest_standard	Units
Aliphatic EPH	3.143	22.051	229204243	1610		ug/ml
ortho-Terphenyl (SURR)	11.855	11.855	6364201	40.37		ug/ml
1-chlorooctadecane (SURR)	13.287	13.287	5031758	42.54		ug/ml
Aliphatic C9-C12	3.143	6.761	27329296	191.248	300	ug/ml
Aliphatic C12-C16	6.762	10.193	38838585	267.634	200	ug/ml
Aliphatic C16-C21	10.194	13.552	52200069	361.493	300	ug/ml
Aliphatic C21-C28	13.553	17.208	56441887	397.045	400	ug/ml
Aliphatic C28-C40	17.209	22.051	54394406	393.298	600	ug/ml
Aliphatic C9-C28	3.143	17.208	174809837	1220	1200	ug/ml

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE110124AL\
 Data File : FE050974.D
 Signal(s) : FID1B.ch
 Acq On : 01 Nov 2024 20:04
 Operator : YP\AJ
 Sample : P4643-05MS
 Misc :
 ALS Vial : 20 Sample Multiplier: 1

Instrument :

FID_E

ClientSampleId :

BP-F8MS

Manual Integrations

APPROVED

Reviewed By :Yogesh Patel 11/04/2024

Supervised By :Ankita Jodhani 11/04/2024

Integration File: sample.E

Quant Time: Nov 04 03:11:07 2024

Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\Aliphatic EPH 100824.M

Quant Title : GC Extractables

QLast Update : Mon Oct 07 16:32:18 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)	11.855	6364201	40.368 ug/mlm
Spiked Amount 50.000		Recovery =	80.74%
12) S 1-chlorooctadecane (S...	13.287	5031758	42.536 ug/ml
Spiked Amount 50.000		Recovery =	85.07%
Target Compounds			
1) T n-Nonane (C9)	3.242	4659417	32.978 ug/ml
2) T n-Decane (C10)	4.493	5232715	36.471 ug/ml
3) T A~Naphthalene (C11.7)	6.204	5470351	38.257 ug/ml
4) T n-Dodecane (C12)	6.661	5672697	39.412 ug/ml
5) T A~2-methylnaphthalene...	7.300	5200904	39.258 ug/ml
6) T n-Tetradecane (C14)	8.489	6115679	42.747 ug/ml
7) T n-Hexadecane (C16)	10.093	6584161	44.739 ug/ml
8) T n-Octadecane (C18)	11.535	6834138	45.753 ug/ml
10) T n-Eicosane (C20)	12.843	6918776	48.248 ug/ml
11) T n-Heneicosane (C21)	13.453	6663473	47.449 ug/ml
13) T n-Docosane (C22)	14.038	6657698	47.455 ug/ml
14) T n-Tetracosane (C24)	15.140	12564298	88.934 ug/mlm
15) T n-Hexacosane (C26)	16.159	6587821	46.816 ug/mlm
16) T n-Octacosane (C28)	17.109	7396605	50.547 ug/mlm
17) T n-Tricontane (C30)	17.995	6827974	42.943 ug/ml
18) T n-Dotriacontane (C32)	18.827	7013948	43.266 ug/mlm
19) T n-Tetratriacontane (C34)	19.610	6993054	47.607 ug/mlm
20) T n-Hexatriacontane (C36)	20.349	6933734	54.676 ug/ml
21) T n-Octatriacontane (C38)	21.073	6698630	54.175 ug/ml
22) T n-Tetracontane (C40)	21.955	5993043	53.821 ug/ml

(f)=RT Delta > 1/2 Window

(m)=manual int.

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE110124AL\
Data File : FE050974.D
Signal(s) : FID1B.ch
Acq On : 01 Nov 2024 20:04
Operator : YP\AJ
Sample : P4643-05MS
Misc :
ALS Vial : 20 Sample Multiplier: 1

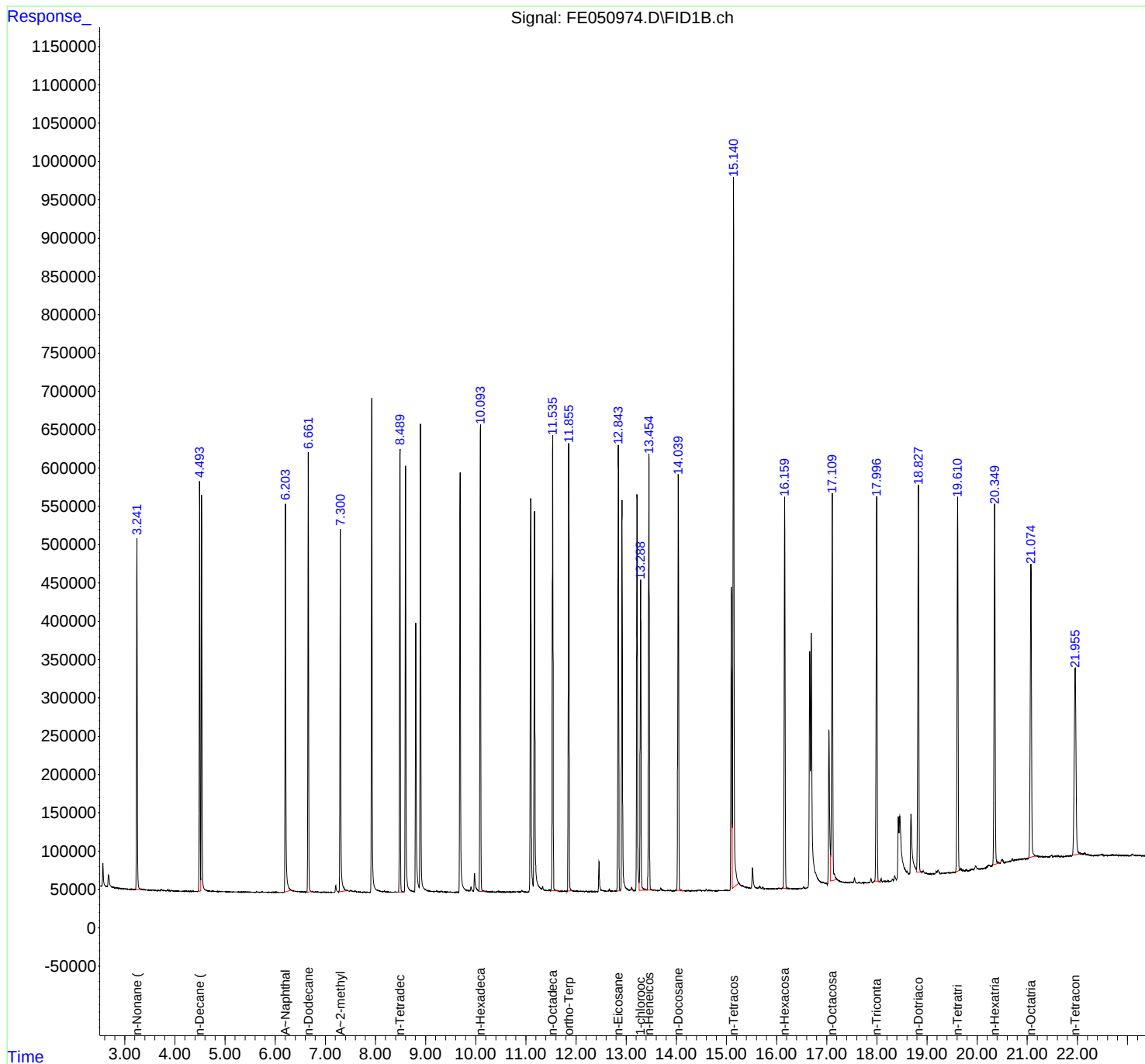
Instrument :
FID_E
ClientSampleId :
BP-F8MS

Manual Integrations
APPROVED

Reviewed By :Yogesh Patel 11/04/2024
Supervised By :Ankita Jodhani 11/04/2024

Integration File: sample.E
Quant Time: Nov 04 03:11:07 2024
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\Aliphatic EPH 100824.
Quant Title : GC Extractables
QLast Update : Mon Oct 07 16:32:18 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_E

ClientSampleId :

BP-F8MS

rteres

Area Percent Report

Manual IntegrationsAPPROVED

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE11012

Data File : FE050974.D

Signal(s) : FID1B.ch

Acq On : 01 Nov 2024 20:04

Sample : P4643-05MS

Misc :

ALS Vial : 20 Sample Multiplier: 1

Reviewed By :Yogesh Patel 11/04/2024

Supervised By :Ankita Jodhani 11/04/2024

Integration File: sample.E

Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\Aliphatic EPH 100824.M

Title : GC Extractables

Signal : FID1B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	3.242	3.205	3.470	BV	456978	4715127	35.68%	2.001%
2	3.481	3.470	3.508	VV	192	2150	0.02%	0.001%
3	3.521	3.508	3.540	PV	146	1172	0.01%	0.000%
4	3.552	3.540	3.592	VV	247	4688	0.04%	0.002%
5	3.610	3.592	3.660	VV	269	4695	0.04%	0.002%
6	3.681	3.660	3.711	PV	248	3770	0.03%	0.002%
7	3.729	3.711	3.817	VV	2007	31207	0.24%	0.013%
8	3.850	3.817	3.907	PV	1152	23166	0.18%	0.010%
9	3.928	3.907	4.025	VV	564	11519	0.09%	0.005%
10	4.039	4.025	4.050	VV	144	1481	0.01%	0.001%
11	4.065	4.050	4.099	VV	171	2554	0.02%	0.001%
12	4.106	4.099	4.121	PV	96	817	0.01%	0.000%
13	4.136	4.121	4.149	VV	148	1445	0.01%	0.001%
14	4.161	4.149	4.201	PV	124	2298	0.02%	0.001%
15	4.225	4.201	4.288	VV	539	12954	0.10%	0.005%
16	4.307	4.288	4.338	VV	199	4439	0.03%	0.002%
17	4.354	4.338	4.416	VV	313	6276	0.05%	0.003%
18	4.429	4.416	4.457	PV	110	1079	0.01%	0.000%
19	4.493	4.457	4.513	PV	534519	5244499	39.69%	2.225%
20	4.533	4.513	4.761	VV	512828	5519494	41.77%	2.342%
21	4.776	4.761	4.788	VV	612	8562	0.06%	0.004%
22	4.796	4.788	4.844	VV	515	13229	0.10%	0.006%
23	4.854	4.844	4.871	VV	366	5012	0.04%	0.002%
24	4.887	4.871	4.905	VV	338	5746	0.04%	0.002%
25	4.917	4.905	4.929	VV	287	3690	0.03%	0.002%
26	4.935	4.929	5.058	VV	268	15984	0.12%	0.007%
27	5.081	5.058	5.093	VV	271	3478	0.03%	0.001%
28	5.099	5.093	5.143	VV	157	3717	0.03%	0.002%
29	5.158	5.143	5.183	VV	277	3720	0.03%	0.002%
30	5.226	5.183	5.269	VV	207	5636	0.04%	0.002%
31	5.281	5.269	5.325	VV	117	2324	0.02%	0.001%
32	5.332	5.325	5.355	VV	112	1287	0.01%	0.001%
33	5.367	5.355	5.378	VV	113	1028	0.01%	0.000%
34	5.388	5.378	5.398	VV	72	726	0.01%	0.000%
35	5.405	5.398	5.431	VV	103	779	0.01%	0.000%
36	5.472	5.431	5.603	PV	195	8039	0.06%	0.003%

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37	5.631	5.603	5.692	VV	915	12043	0.09%	0.005%
38	5.726	5.692	5.777	PV	492	12474		
39	5.788	5.777	5.815	VV	241	4926		
40	5.821	5.815	5.895	VV	206	8752		
41	5.908	5.895	5.983	VV	298	8193		
42	6.008	5.983	6.046	VV	153	3983		
43	6.062	6.046	6.072	VV	95	1272	0.01%	0.001%
44	6.084	6.072	6.091	VV	97	860	0.01%	0.000%
45	6.099	6.091	6.115	VV	128	1298	0.01%	0.001%
46	6.123	6.115	6.148	VV	118	1126	0.01%	0.000%
47	6.154	6.148	6.174	VV	84	1043	0.01%	0.000%
48	6.204	6.174	6.358	PV	503795	5666570	42.88%	2.404%
49	6.366	6.358	6.510	VV	2152	120098	0.91%	0.051%
50	6.549	6.510	6.626	VV	1256	53131	0.40%	0.023%
51	6.661	6.626	6.793	VV	575489	5755740	43.56%	2.442%
52	6.809	6.793	6.858	VV	840	24940	0.19%	0.011%
53	6.862	6.858	6.878	VV	698	5834	0.04%	0.002%
54	6.887	6.878	6.898	VV	454	4356	0.03%	0.002%
55	6.901	6.898	6.935	VV	406	7083	0.05%	0.003%
56	6.952	6.935	6.975	VV	322	6420	0.05%	0.003%
57	6.990	6.975	7.021	VV	302	5855	0.04%	0.002%
58	7.025	7.021	7.048	VV	202	2054	0.02%	0.001%
59	7.069	7.048	7.101	VV	200	2923	0.02%	0.001%
60	7.111	7.101	7.150	VV	160	2240	0.02%	0.001%
61	7.162	7.150	7.169	VV	83	419	0.00%	0.000%
62	7.209	7.169	7.271	PV	9111	143842	1.09%	0.061%
63	7.300	7.271	7.428	VV	470639	5343100	40.44%	2.267%
64	7.443	7.428	7.480	VV	2736	67184	0.51%	0.029%
65	7.506	7.480	7.564	VV	2651	93885	0.71%	0.040%
66	7.580	7.564	7.592	VV	1540	23967	0.18%	0.010%
67	7.606	7.592	7.655	VV	1924	39474	0.30%	0.017%
68	7.667	7.655	7.679	VV	747	9089	0.07%	0.004%
69	7.686	7.679	7.690	VV	424	2533	0.02%	0.001%
70	7.701	7.690	7.761	VV	473	13125	0.10%	0.006%
71	7.784	7.761	7.821	VV	657	12356	0.09%	0.005%
72	7.824	7.821	7.874	VV	242	3265	0.02%	0.001%
73	8.178	8.156	8.211	VV	1473	33014	0.25%	0.014%
74	8.235	8.211	8.328	VV	1229	37957	0.29%	0.016%
75	8.344	8.328	8.365	VV	351	6345	0.05%	0.003%
76	8.394	8.365	8.458	VV	1001	22495	0.17%	0.010%
77	8.489	8.458	8.571	VV	580174	6140804	46.47%	2.605%
78	8.602	8.571	8.781	VV	555898	6088280	46.08%	2.583%
79	8.900	8.875	9.177	VV	612830	6875540	52.03%	2.917%
80	9.225	9.177	9.291	VV	1385	67268	0.51%	0.029%
81	9.314	9.291	9.384	VV	1866	45375	0.34%	0.019%
82	9.397	9.384	9.431	VV	417	9311	0.07%	0.004%
83	9.438	9.431	9.474	VV	369	6642	0.05%	0.003%
84	9.489	9.474	9.538	VV	278	7527	0.06%	0.003%
85	9.547	9.538	9.597	VV	205	4938	0.04%	0.002%
86	9.614	9.597	9.644	VV	240	3432	0.03%	0.001%
87	9.690	9.644	9.851	PV	542211	6311026	47.76%	2.678%
88	9.869	9.851	9.886	VV	2757	45291	0.34%	0.019%
89	9.908	9.886	9.954	VV	6836	131286	0.99%	0.056%

Instrument :

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Manual IntegrationsAPPROVED

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Supervised By :Ankita Jodhani 11/04/2024

					rters			
90	9.978	9.954	10.061	VV	24845	472478	3.58%	0.200%
91	10.093	10.061	10.291	VV	613552	6715632	50.11%	2.645%
92	10.318	10.291	10.388	VV	872	26568	0.04%	0.002%
93	10.397	10.388	10.415	VV	361	4678	0.11%	0.006%
94	10.445	10.415	10.532	VV	1242	34919	0.40%	0.022%
95	10.558	10.532	10.669	VV	286	15127	0.11%	0.006%
96	10.755	10.669	10.776	VV	604	14180	0.11%	0.006%
97	10.792	10.776	10.809	VV	434	5292	0.04%	0.002%
98	10.831	10.809	10.875	VV	919	14557	0.11%	0.006%
99	10.919	10.875	11.036	PV	2097	52304	0.40%	0.022%
100	11.097	11.036	11.147	VV	513958	5978589	45.25%	2.537%
101	11.173	11.147	11.315	VV	491657	6233040	47.17%	2.645%
102	11.335	11.315	11.431	VV	7189	220884	1.67%	0.094%
103	11.465	11.431	11.496	VV	3248	86312	0.65%	0.037%
104	11.535	11.496	11.602	VV	595058	6925054	52.41%	2.938%
105	11.620	11.602	11.714	VV	1851	80661	0.61%	0.034%
106	11.729	11.714	11.754	VV	926	19030	0.14%	0.008%
107	11.775	11.754	11.791	VV	743	15287	0.12%	0.006%
108	11.855	11.791	11.973	VV	584874	6485716	49.08%	2.752%
109	11.988	11.973	12.005	VV	1068	17324	0.13%	0.007%
110	12.023	12.005	12.042	VV	1067	20059	0.15%	0.009%
111	12.057	12.042	12.073	VV	858	14004	0.11%	0.006%
112	12.092	12.073	12.116	VV	839	16997	0.13%	0.007%
113	12.137	12.116	12.175	VV	713	17500	0.13%	0.007%
114	12.200	12.175	12.239	VV	1054	23104	0.17%	0.010%
115	12.259	12.239	12.285	VV	449	10017	0.08%	0.004%
116	12.300	12.285	12.345	VV	642	14759	0.11%	0.006%
117	12.352	12.345	12.377	VV	338	4881	0.04%	0.002%
118	12.406	12.377	12.430	PV	413	8453	0.06%	0.004%
119	12.459	12.430	12.618	VV	39004	557040	4.22%	0.236%
120	12.664	12.618	12.693	VV	2776	52409	0.40%	0.022%
121	12.724	12.693	12.751	VV	781	21252	0.16%	0.009%
122	12.778	12.751	12.797	VV	931	20262	0.15%	0.009%
123	12.843	12.797	12.888	VV	582456	6962850	52.69%	2.954%
124	12.918	12.888	13.086	VV	512600	6364284	48.16%	2.700%
125	13.108	13.086	13.185	VV	5001	127232	0.96%	0.054%
126	13.216	13.185	13.257	VV	512789	6158202	46.61%	2.613%
127	13.288	13.257	13.414	VV	407408	5184982	39.24%	2.200%
128	13.454	13.414	13.658	VV	573951	6877976	52.05%	2.918%
129	13.688	13.658	13.781	VV	4390	118941	0.90%	0.050%
130	13.793	13.781	13.811	VV	776	12413	0.09%	0.005%
131	13.828	13.811	13.855	VV	1035	20714	0.16%	0.009%
132	13.877	13.855	13.922	VV	1698	36298	0.27%	0.015%
133	13.990	13.922	14.001	VV	1495	33600	0.25%	0.014%
134	14.038	14.001	14.142	VV	542601	6720871	50.86%	2.852%
135	14.162	14.142	14.210	VV	550	16668	0.13%	0.007%
136	14.233	14.210	14.351	VV	924	28161	0.21%	0.012%
137	14.373	14.351	14.385	VV	270	3819	0.03%	0.002%
138	14.437	14.385	14.458	VV	1237	26954	0.20%	0.011%
139	14.473	14.458	14.501	VV	1327	21475	0.16%	0.009%
140	14.548	14.501	14.572	VV	506	13955	0.11%	0.006%
141	14.598	14.572	14.621	VV	2129	27917	0.21%	0.012%

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142	14.639	14.621	14.686	VV	484	15207	0.12%	0.006%
143	14.704	14.686	14.782	VV	509	13479	0.00%	0.000%
144	14.844	14.782	14.865	PV	310	7369	0.00%	0.000%
145	14.876	14.865	14.955	VV	198	6346	0.00%	0.000%
146	14.994	14.955	15.055	VV	545	13572	0.00%	0.000%
147	15.098	15.055	15.116	PV	395394	4972100	37.00%	0.000%
148	15.140	15.116	15.304	VV	933714	13213576	100.00%	5.606%
149	15.320	15.304	15.425	VV	5887	325647	2.46%	0.138%
150	15.433	15.425	15.487	VV	3291	108370	0.82%	0.046%
151	15.519	15.487	15.601	VV	28468	603287	4.57%	0.256%
152	15.611	15.601	15.629	VV	2502	39548	0.30%	0.017%
153	15.656	15.629	15.701	VV	5194	136584	1.03%	0.058%
154	15.726	15.701	15.763	VV	3575	79764	0.60%	0.034%
155	15.776	15.763	15.788	VV	1302	19471	0.15%	0.008%
156	15.794	15.788	15.821	VV	1262	22295	0.17%	0.009%
157	15.835	15.821	15.891	VV	1124	41894	0.32%	0.018%
158	15.924	15.891	15.935	VV	929	23187	0.18%	0.010%
159	15.952	15.935	15.965	VV	893	15180	0.11%	0.006%
160	15.981	15.965	16.007	VV	941	21462	0.16%	0.009%
161	16.041	16.007	16.081	VV	1498	49357	0.37%	0.021%
162	16.160	16.081	16.211	VV	506606	6668818	50.47%	2.829%
163	16.224	16.211	16.270	VV	1272	27607	0.21%	0.012%
164	16.288	16.270	16.331	VV	532	12815	0.10%	0.005%
165	16.346	16.331	16.373	VV	322	5967	0.05%	0.003%
166	16.383	16.373	16.421	VV	185	3433	0.03%	0.001%
167	16.538	16.421	16.577	PV	1799	34314	0.26%	0.015%
168	16.604	16.577	16.614	PV	735	8599	0.07%	0.004%
169	16.661	16.614	16.676	VV	307573	4218412	31.92%	1.790%
170	16.691	16.676	16.910	VV	332320	6695981	50.68%	2.841%
171	16.926	16.910	16.973	VV	6285	204213	1.55%	0.087%
172	16.986	16.973	17.010	VV	4453	91318	0.69%	0.039%
173	17.044	17.010	17.077	VV	203987	3313062	25.07%	1.406%
174	17.109	17.077	17.322	VV	509285	8347867	63.18%	3.542%
175	17.330	17.322	17.428	VV	4216	218433	1.65%	0.093%
176	17.443	17.428	17.456	VV	3464	53445	0.40%	0.023%
177	17.477	17.456	17.511	VV	3390	100236	0.76%	0.043%
178	17.553	17.511	17.618	VV	8534	216050	1.64%	0.092%
179	17.643	17.618	17.686	VV	2068	61334	0.46%	0.026%
180	17.725	17.686	17.745	VV	1061	34829	0.26%	0.015%
181	17.769	17.745	17.806	VV	966	29230	0.22%	0.012%
182	17.882	17.806	17.911	VV	5708	105965	0.80%	0.045%
183	17.996	17.911	18.060	VV	503858	6954752	52.63%	2.951%
184	18.085	18.060	18.112	VV	4546	68572	0.52%	0.029%
185	18.136	18.112	18.185	VV	1356	33592	0.25%	0.014%
186	18.221	18.185	18.247	VV	1111	21230	0.16%	0.009%
187	18.269	18.247	18.278	PV	195	1632	0.01%	0.001%
188	18.311	18.278	18.330	VV	2648	40378	0.31%	0.017%
189	18.356	18.330	18.391	VV	6497	123790	0.94%	0.053%
190	18.428	18.391	18.441	VV	81540	1144272	8.66%	0.485%
191	18.457	18.441	18.655	VV	83686	3309995	25.05%	1.404%
192	18.681	18.655	18.788	VV	83823	2345630	17.75%	0.995%
193	18.827	18.788	18.883	VV	509225	7425388	56.20%	3.150%
194	18.894	18.883	18.904	VV	7160	89469	0.68%	0.038%

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195	18.924	18.904	18.960	VV	7574	207120	1.57%	0.088%
196	18.980	18.960	19.021	VV	4532	143153		
197	19.041	19.021	19.071	VV	2775	78099		
198	19.104	19.071	19.133	VV	2414	82229		
199	19.146	19.133	19.154	VV	1928	23670		
200	19.187	19.154	19.199	VV	4549	90725		
201	19.219	19.199	19.276	VV	6091	155139	1.17%	0.066%
202	19.307	19.276	19.328	VV	1256	33922	0.26%	0.014%
203	19.351	19.328	19.361	VV	1155	19104	0.14%	0.008%
204	19.390	19.361	19.405	VV	843	21530	0.16%	0.009%
205	19.422	19.405	19.441	VV	1495	22109	0.17%	0.009%
206	19.466	19.441	19.475	VV	483	8988	0.07%	0.004%
207	19.518	19.475	19.548	VV	975	17613	0.13%	0.007%
208	19.610	19.548	19.655	VV	486944	7062616	53.45%	2.997%
209	19.676	19.655	19.700	VV	4203	80496	0.61%	0.034%
210	19.716	19.700	19.748	VV	2033	35634	0.27%	0.015%
211	19.783	19.748	19.813	VV	1237	24917	0.19%	0.011%
212	19.903	19.813	19.931	PV	995	30503	0.23%	0.013%
213	19.972	19.931	20.040	VV	4739	115005	0.87%	0.049%
214	20.092	20.040	20.103	VV	255	7318	0.06%	0.003%
215	20.231	20.103	20.275	PV	3476	145733	1.10%	0.062%
216	20.349	20.275	20.454	VV	472225	7303637	55.27%	3.099%
217	20.504	20.454	20.547	VV	8125	322358	2.44%	0.137%
218	20.700	20.547	20.731	VV	7349	528710	4.00%	0.224%
219	20.878	20.731	20.898	VV	5339	522483	3.95%	0.222%
220	20.925	20.898	20.944	VV	5171	140542	1.06%	0.060%
221	21.074	20.944	21.231	VV	389637	7699641	58.27%	3.267%
222	21.243	21.231	21.287	VV	5473	174156	1.32%	0.074%
223	21.303	21.287	21.341	VV	4724	144713	1.10%	0.061%
224	21.377	21.341	21.389	VV	3855	112113	0.85%	0.048%
225	21.393	21.389	21.440	VV	3660	94943	0.72%	0.040%
226	21.482	21.440	21.519	VV	4573	168783	1.28%	0.072%
227	21.583	21.519	21.600	VV	2541	125480	0.95%	0.053%
228	21.613	21.600	21.671	VV	2455	76709	0.58%	0.033%
229	21.682	21.671	21.695	VV	1123	15391	0.12%	0.007%
230	21.864	21.695	21.887	VV	464	69208	0.52%	0.029%
231	21.955	21.887	22.111	PV	244521	6111694	46.25%	2.593%
Sum of corrected areas:					235689960			

Instrument :

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Manual IntegrationsAPPROVED

Reviewed By :Yogesh Patel 11/04/2024
Supervised By :Ankita Jodhani 11/04/2024

Aliphatic EPH 100824.M Mon Nov 04 04:47:55 2024

Report of Analysis

Client:	Union Paving & Construction Company		Date Collected:		
Project:	Rt. 10 Whippany		Date Received:		
Client Sample ID:	BP-F8MSD		SDG No.:	P4663	
Lab Sample ID:	P4643-05MSD		Matrix:	Solid	
Analytical Method:	NJEPH		% Solid:	82.8	
Sample Wt/Vol:	30.06	Units: g	Final Vol:	2000	uL
Soil Aliquot Vol:		uL	Test:	EPH_NF	
Prep Method :					

Prep Date :	Date Analyzed :	Prep Batch ID
11/01/24 08:50	11/01/24 20:34	PB164589

Datafile

CAS Number	Parameter	Conc.	Qualifier	Dilution	MDL	LOQ / CRQL	Units(Dry Weight)	
TARGETS								
Aliphatic C28-C40	Aliphatic C28-C40	35.0		1	2.17	2.41	mg/kg	FE050975.D
Aliphatic C9-C28	Aliphatic C9-C28	97.3	E	1	2.07	4.83	mg/kg	FE050975.D
Total AliphaticEPH	Total AliphaticEPH	132			4.24	7.24	mg/kg	
Total EPH	Total EPH	132			4.24	7.24	mg/kg	

* As samples are not fractionated, all aliphatic and aromatic carbon compounds in the C9-C40 carbon range are calculated against the aliphatic calibration curve, and reported as Aliphatic EPH. Therefore, the aliphatic C9-C40 concentration for the sample is reported as the Total EPH.

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:	Union Paving & Construction Company		Date Collected:	
Project:	Rt. 10 Whippany		Date Received:	
Client Sample ID:	BP-F8MSD		SDG No.:	P4663
Lab Sample ID:	P4643-05MSD		Matrix:	Solid
Analytical Method:	NJEPH		% Solid:	82.8
Sample Wt/Vol:	30.06	Units: g	Final Vol:	2000 uL
Soil Aliquot Vol:		uL	Test:	EPH_NF
Prep Method :				

File ID :	Dilution:	Prep Date :	Date Analyzed :	Prep Batch ID
FE050975.D	1	11/01/24	11/01/24	PB164589

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
Aliphatic C9-C28	Aliphatic C9-C28	97.3	E	2.07	4.83	mg/kg
Aliphatic C28-C40	Aliphatic C28-C40	35.0		2.17	2.41	mg/kg
SURROGATES						
3383-33-2	1-chlorooctadecane (SURR)	42.9		40 - 140	86%	SPK: 50
84-15-1	ortho-Terphenyl (SURR)	41.2		40 - 140	82%	SPK: 50

Quantitation Report For Aliphatic EPH Range.

Lab Sample ID:	P4643-05MSD	Acq On:	01 Nov 2024 20:34
Client Sample ID:	BP-F8MSD	Operator:	YP\AJ
Data file:	FE050975.D	Misc:	
Instrument:	FID_E	ALS Vial:	21
Dilution Factor:	1	Sample Multiplier:	1.00

Compound	R.T.		Response	Conc	highest_standard	Units
Aliphatic EPH	3.143	22.051	234089583	1650		ug/ml
ortho-Terphenyl (SURR)	11.855	11.855	6493005	41.18		ug/ml
1-chlorooctadecane (SURR)	13.287	13.287	5071838	42.88		ug/ml
Aliphatic C9-C12	3.143	6.761	27907709	195.295	300	ug/ml
Aliphatic C12-C16	6.762	10.193	39799820	274.258	200	ug/ml
Aliphatic C16-C21	10.194	13.552	47868511	331.497	300	ug/ml
Aliphatic C21-C28	13.553	17.208	58358756	410.529	400	ug/ml
Aliphatic C28-C40	17.209	22.051	60154787	434.948	600	ug/ml
Aliphatic C9-C28	3.143	17.208	173934796	1210	1200	ug/ml

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE110124AL\
 Data File : FE050975.D
 Signal(s) : FID1B.ch
 Acq On : 01 Nov 2024 20:34
 Operator : YP\AJ
 Sample : P4643-05MSD
 Misc :
 ALS Vial : 21 Sample Multiplier: 1

Instrument :

FID_E

ClientSampleId :

BP-F8MSD

Manual Integrations**APPROVED**

Reviewed By :Yogesh Patel 11/04/2024

Supervised By :Ankita Jodhani 11/04/2024

Integration File: sample.E

Quant Time: Nov 04 03:11:17 2024

Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\Aliphatic EPH 100824.M

Quant Title : GC Extractables

QLast Update : Mon Oct 07 16:32:18 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)	11.855	6493005	41.185 ug/mlm
Spiked Amount 50.000		Recovery =	82.37%
12) S 1-chlorooctadecane (S...	13.287	5071838	42.875 ug/ml
Spiked Amount 50.000		Recovery =	85.75%
Target Compounds			
1) T n-Nonane (C9)	3.243	4756589	33.665 ug/ml
2) T n-Decane (C10)	4.494	5352712	37.308 ug/ml
3) T A~Naphthalene (C11.7)	6.204	5609433	39.229 ug/ml
4) T n-Dodecane (C12)	6.661	5813497	40.390 ug/ml
5) T A~2-methylnaphthalene...	7.300	5347427	40.364 ug/ml
6) T n-Tetradecane (C14)	8.488	6285504	43.934 ug/ml
7) T n-Hexadecane (C16)	10.093	6775320	46.038 ug/ml
8) T n-Octadecane (C18)	11.535	7025199	47.032 ug/ml
10) T n-Eicosane (C20)	12.843	7081369	49.382 ug/ml
11) T n-Heneicosane (C21)	13.453	6810235	48.494 ug/ml
13) T n-Docosane (C22)	14.038	6786976	48.376 ug/ml
14) T n-Tetracosane (C24)	15.140	12910154	91.382 ug/mlm
15) T n-Hexacosane (C26)	16.161	6729829	47.825 ug/mlm
16) T n-Octacosane (C28)	17.108	7649285	52.274 ug/mlm
17) T n-Tricontane (C30)	17.995	6920342	43.523 ug/ml
18) T n-Dotriacontane (C32)	18.827	7134085	44.007 ug/mlm
19) T n-Tetratriacontane (C34)	19.610	7048213	47.983 ug/ml
20) T n-Hexatriacontane (C36)	20.350	6999668	55.196 ug/ml
21) T n-Octatriacontane (C38)	21.075	7009685	56.691 ug/ml
22) T n-Tetracontane (C40)	21.959	6803930	61.104 ug/ml

(f)=RT Delta > 1/2 Window

(m)=manual int.

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE110124AL\
Data File : FE050975.D
Signal(s) : FID1B.ch
Acq On : 01 Nov 2024 20:34
Operator : YP\AJ
Sample : P4643-05MSD
Misc :
ALS Vial : 21 Sample Multiplier: 1

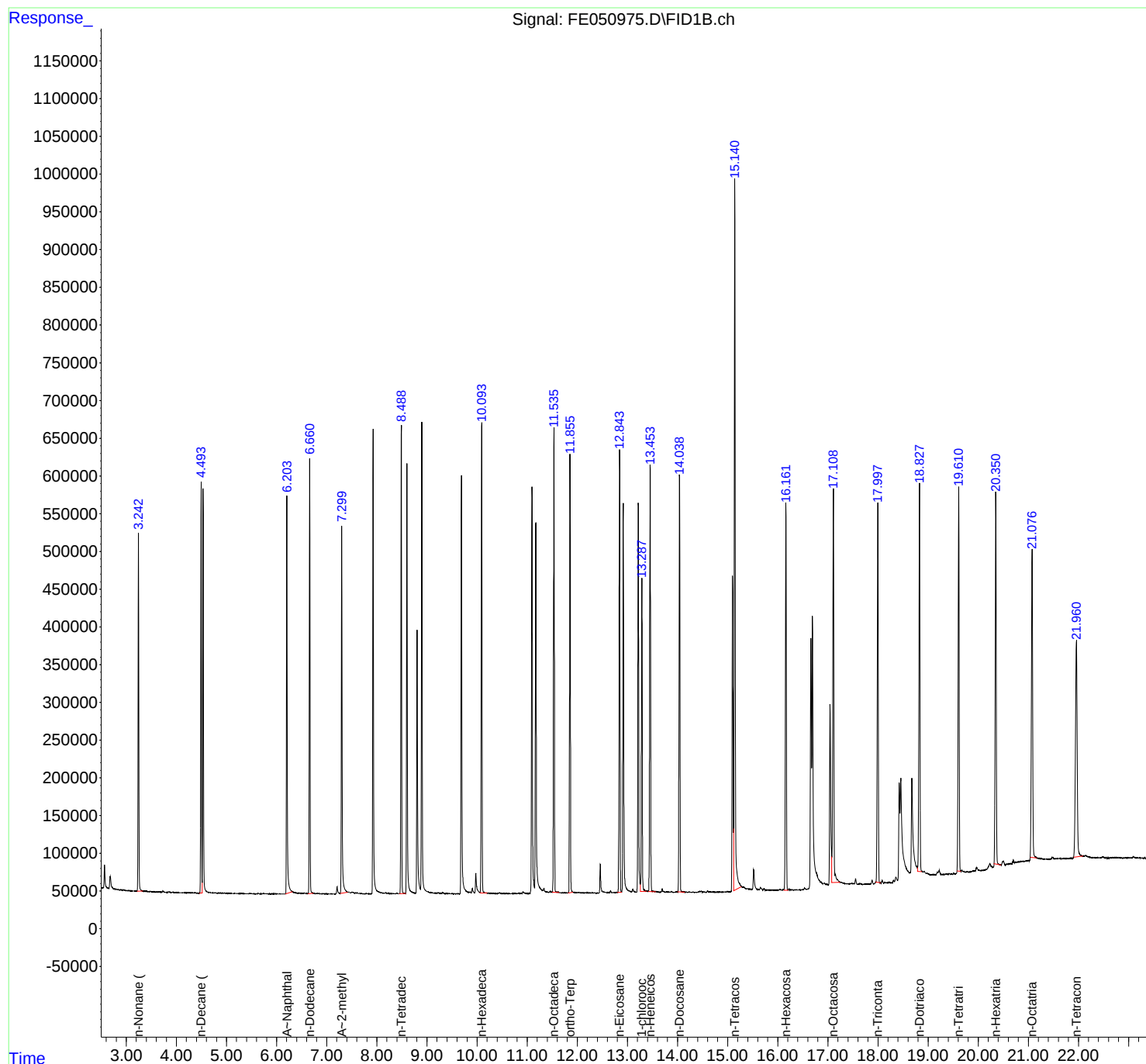
Instrument :
FID_E
ClientSampleId :
BP-F8MSD

Manual Integrations
APPROVED

Reviewed By :Yogesh Patel 11/04/2024
Supervised By :Ankita Jodhani 11/04/2024

Integration File: sample.E
Quant Time: Nov 04 03:11:17 2024
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\Aliphatic EPH 100824.
Quant Title : GC Extractables
QLast Update : Mon Oct 07 16:32:18 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_E

ClientSampleId :

BP-F8MSD

rteres

Area Percent Report

Manual IntegrationsAPPROVED

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE11012

Data File : FE050975.D

Signal(s) : FID1B.ch

Acq On : 01 Nov 2024 20:34

Sample : P4643-05MSD

Misc :

ALS Vial : 21 Sample Multiplier: 1

Reviewed By :Yogesh Patel 11/04/2024

Supervised By :Ankita Jodhani 11/04/2024

Integration File: sample.E

Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\Aliphatic EPH 100824.M

Title : GC Extractables

Signal : FID1B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	3.243	3.204	3.353	BV	469697	4785579	35.38%	1.946%
2	3.364	3.353	3.425	VV	607	17796	0.13%	0.007%
3	3.442	3.425	3.474	VV	297	6394	0.05%	0.003%
4	3.483	3.474	3.508	VV	264	2479	0.02%	0.001%
5	3.518	3.508	3.539	PV	187	1770	0.01%	0.001%
6	3.554	3.539	3.566	PV	208	2462	0.02%	0.001%
7	3.575	3.566	3.597	VV	276	3192	0.02%	0.001%
8	3.609	3.597	3.659	VV	327	5229	0.04%	0.002%
9	3.680	3.659	3.709	PV	250	3676	0.03%	0.001%
10	3.731	3.709	3.821	VV	1879	30035	0.22%	0.012%
11	3.852	3.821	3.907	VV	1060	20644	0.15%	0.008%
12	3.929	3.907	3.988	VV	503	7754	0.06%	0.003%
13	4.032	4.024	4.055	VV	91	1232	0.01%	0.001%
14	4.062	4.055	4.121	VV	127	1756	0.01%	0.001%
15	4.142	4.121	4.197	PV	102	2217	0.02%	0.001%
16	4.227	4.197	4.293	VV	450	11802	0.09%	0.005%
17	4.305	4.293	4.340	VV	207	4029	0.03%	0.002%
18	4.355	4.340	4.410	VV	335	6177	0.05%	0.003%
19	4.435	4.410	4.456	PV	117	1361	0.01%	0.001%
20	4.494	4.456	4.513	PV	545686	5359124	39.62%	2.179%
21	4.533	4.513	4.655	VV	534349	5582200	41.27%	2.270%
22	4.664	4.655	4.758	VV	1134	44428	0.33%	0.018%
23	4.775	4.758	4.791	VV	588	10200	0.08%	0.004%
24	4.796	4.791	4.841	VV	506	11127	0.08%	0.005%
25	4.854	4.841	4.866	VV	393	4817	0.04%	0.002%
26	4.881	4.866	4.948	VV	330	14383	0.11%	0.006%
27	4.953	4.948	4.983	VV	366	5675	0.04%	0.002%
28	5.000	4.983	5.064	VV	349	9325	0.07%	0.004%
29	5.082	5.064	5.134	VV	196	5244	0.04%	0.002%
30	5.156	5.134	5.215	VV	269	7094	0.05%	0.003%
31	5.226	5.215	5.278	VV	125	4208	0.03%	0.002%
32	5.284	5.278	5.321	VV	180	2785	0.02%	0.001%
33	5.328	5.321	5.335	VV	93	670	0.00%	0.000%
34	5.341	5.335	5.404	VV	122	2451	0.02%	0.001%
35	5.468	5.404	5.568	PV	237	11283	0.08%	0.005%
36	5.571	5.568	5.604	VV	131	1448	0.01%	0.001%

					rters			
37	5.630	5.604	5.703	PV	955	13701	0.10%	0.006%
38	5.725	5.703	5.798	VV	571	17648		
39	5.804	5.798	5.884	VV	262	10004		
40	5.906	5.884	5.935	VV	267	5376		
41	5.957	5.935	6.027	VV	209	6636		
42	6.066	6.027	6.084	VV	147	2428		
43	6.089	6.084	6.098	VV	95	505	0.00%	0.000%
44	6.103	6.098	6.146	VV	137	2150	0.02%	0.001%
45	6.204	6.146	6.513	PV	524935	5920925	43.77%	2.408%
46	6.549	6.513	6.625	VV	1240	48857	0.36%	0.020%
47	6.661	6.625	6.781	VV	576983	5887433	43.53%	2.394%
48	6.813	6.781	6.875	VV	853	34073	0.25%	0.014%
49	6.894	6.875	6.905	VV	406	6520	0.05%	0.003%
50	6.913	6.905	6.935	VV	361	5507	0.04%	0.002%
51	6.952	6.935	6.972	VV	319	6021	0.04%	0.002%
52	6.983	6.972	7.051	VV	305	8939	0.07%	0.004%
53	7.062	7.051	7.086	VV	145	2337	0.02%	0.001%
54	7.102	7.086	7.128	VV	147	2992	0.02%	0.001%
55	7.133	7.128	7.168	VV	161	2024	0.01%	0.001%
56	7.207	7.168	7.267	PV	9520	151428	1.12%	0.062%
57	7.300	7.267	7.426	VV	485028	5492703	40.61%	2.234%
58	7.442	7.426	7.478	VV	2734	66149	0.49%	0.027%
59	7.506	7.478	7.561	VV	2683	93500	0.69%	0.038%
60	7.578	7.561	7.591	VV	1614	25122	0.19%	0.010%
61	7.605	7.591	7.651	VV	1913	38082	0.28%	0.015%
62	7.667	7.651	7.678	VV	759	10826	0.08%	0.004%
63	7.693	7.678	7.736	VV	741	17078	0.13%	0.007%
64	7.747	7.736	7.757	VV	307	3508	0.03%	0.001%
65	7.782	7.757	7.871	VV	759	19781	0.15%	0.008%
66	8.178	8.154	8.207	VV	1419	31345	0.23%	0.013%
67	8.235	8.207	8.264	VV	1357	27357	0.20%	0.011%
68	8.274	8.264	8.325	VV	522	14144	0.10%	0.006%
69	8.338	8.325	8.361	VV	384	6486	0.05%	0.003%
70	8.394	8.361	8.427	VV	1036	20369	0.15%	0.008%
71	8.437	8.427	8.454	VV	288	4480	0.03%	0.002%
72	8.489	8.454	8.574	VV	617681	6311333	46.66%	2.566%
73	8.602	8.574	8.776	VV	568456	6234167	46.09%	2.535%
74	8.899	8.870	9.180	VV	616697	7026067	51.95%	2.857%
75	9.198	9.180	9.211	VV	1125	19407	0.14%	0.008%
76	9.225	9.211	9.281	VV	1309	39544	0.29%	0.016%
77	9.312	9.281	9.403	VV	1835	52578	0.39%	0.021%
78	9.406	9.403	9.431	VV	387	5077	0.04%	0.002%
79	9.450	9.431	9.474	VV	275	5944	0.04%	0.002%
80	9.496	9.474	9.531	VV	294	6649	0.05%	0.003%
81	9.560	9.531	9.593	VV	197	5004	0.04%	0.002%
82	9.611	9.593	9.649	VV	284	3897	0.03%	0.002%
83	9.689	9.649	9.848	PV	553939	6458554	47.75%	2.626%
84	9.869	9.848	9.885	VV	2710	47145	0.35%	0.019%
85	9.907	9.885	9.953	VV	7231	134091	0.99%	0.055%
86	9.976	9.953	10.061	VV	26841	486365	3.60%	0.198%
87	10.093	10.061	10.230	VV	621427	6873227	50.82%	2.795%
88	10.240	10.230	10.289	VV	965	20359	0.15%	0.008%
89	10.318	10.289	10.349	VV	749	18318	0.14%	0.007%

Instrument :

FID_E

ClientSampleId :

BP-F8MSD

Manual IntegrationsAPPROVED

Reviewed By :Yogesh Patel 11/04/2024
Supervised By :Ankita Jodhani 11/04/2024

90	10.361	10.349	10.378	VV	302	4478	0.03%	0.002%
91	10.398	10.378	10.416	VV	334	6531		
92	10.445	10.416	10.523	VV	1142	31767		
93	10.569	10.523	10.618	VV	279	10895		
94	10.624	10.618	10.674	VV	271	3871		
95	10.726	10.674	10.734	VV	274	3803		
96	10.756	10.734	10.778	VV	542	7954	0.06%	0.003%
97	10.791	10.778	10.811	VV	349	4481	0.03%	0.002%
98	10.830	10.811	10.875	VV	906	13284	0.10%	0.005%
99	10.916	10.875	11.031	PV	2318	53151	0.39%	0.022%
100	11.096	11.031	11.146	VV	540132	6116624	45.22%	2.487%
101	11.172	11.146	11.318	VV	488444	6370245	47.10%	2.590%
102	11.335	11.318	11.435	VV	6976	206158	1.52%	0.084%
103	11.464	11.435	11.496	VV	3113	78512	0.58%	0.032%
104	11.535	11.496	11.603	VV	616092	7103992	52.52%	2.889%
105	11.615	11.603	11.680	VV	1690	54136	0.40%	0.022%
106	11.693	11.680	11.714	VV	843	15031	0.11%	0.006%
107	11.729	11.714	11.763	VV	814	19407	0.14%	0.008%
108	11.775	11.763	11.788	VV	595	8371	0.06%	0.003%
109	11.855	11.788	11.978	VV	580861	6602943	48.82%	2.685%
110	11.987	11.978	12.003	VV	955	12101	0.09%	0.005%
111	12.024	12.003	12.042	VV	1256	20559	0.15%	0.008%
112	12.056	12.042	12.072	VV	766	11773	0.09%	0.005%
113	12.089	12.072	12.117	VV	696	13756	0.10%	0.006%
114	12.138	12.117	12.164	VV	549	10341	0.08%	0.004%
115	12.201	12.164	12.242	VV	958	19262	0.14%	0.008%
116	12.259	12.242	12.280	VV	270	4989	0.04%	0.002%
117	12.301	12.280	12.377	VV	491	12914	0.10%	0.005%
118	12.407	12.377	12.418	PV	222	2894	0.02%	0.001%
119	12.459	12.418	12.618	VV	38249	549428	4.06%	0.223%
120	12.664	12.618	12.690	VV	2803	46660	0.34%	0.019%
121	12.718	12.690	12.749	VV	688	18609	0.14%	0.008%
122	12.778	12.749	12.801	VV	887	19523	0.14%	0.008%
123	12.843	12.801	12.888	VV	585823	7116414	52.61%	2.894%
124	12.917	12.888	13.082	VV	516996	6469607	47.83%	2.631%
125	13.107	13.082	13.179	VV	5101	121085	0.90%	0.049%
126	13.216	13.179	13.256	VV	514217	6281845	46.44%	2.554%
127	13.287	13.256	13.380	VV	417813	5220631	38.60%	2.123%
128	13.395	13.380	13.418	VV	2293	45714	0.34%	0.019%
129	13.453	13.418	13.504	VV	570183	6881178	50.87%	2.798%
130	13.511	13.504	13.563	VV	1988	58491	0.43%	0.024%
131	13.577	13.563	13.658	VV	1356	53656	0.40%	0.022%
132	13.690	13.658	13.778	VV	4568	111311	0.82%	0.045%
133	13.827	13.778	13.848	VV	899	26384	0.20%	0.011%
134	13.877	13.848	13.923	VV	1545	32269	0.24%	0.013%
135	13.989	13.923	14.004	VV	1329	29801	0.22%	0.012%
136	14.038	14.004	14.207	VV	551147	6857135	50.70%	2.788%
137	14.235	14.207	14.283	VV	792	15601	0.12%	0.006%
138	14.293	14.283	14.335	VV	175	4575	0.03%	0.002%
139	14.369	14.335	14.406	VV	160	5645	0.04%	0.002%
140	14.437	14.406	14.456	VV	1188	20571	0.15%	0.008%
141	14.473	14.456	14.502	VV	1284	20548	0.15%	0.008%

Instrument :

FID_E

ClientSampleId :

BP-F8MSD

Manual IntegrationsAPPROVED

Reviewed By :Yogesh Patel 11/04/2024
Supervised By :Ankita Jodhani 11/04/2024

142	14.547	14.502	14.571	VV	404	10034	0.07%	0.004%
143	14.597	14.571	14.620	VV	1962	25168	0.07%	0.004%
144	14.637	14.620	14.691	VV	488	14215	0.07%	0.004%
145	14.707	14.691	14.794	VV	359	9547	0.07%	0.004%
146	14.803	14.794	14.824	PV	117	1216	0.00%	0.000%
147	14.839	14.824	14.878	VV	336	5236	0.02%	0.001%
148	14.888	14.878	14.897	VV	66	409	0.00%	0.000%
149	14.946	14.897	14.958	VV	177	2343	0.02%	0.001%
150	14.994	14.958	15.016	PV	543	9762	0.07%	0.004%
151	15.026	15.016	15.050	VV	182	2176	0.02%	0.001%
152	15.097	15.050	15.116	PV	418344	5176134	38.27%	2.105%
153	15.140	15.116	15.307	VV	948243	13525830	100.00%	5.500%
154	15.318	15.307	15.388	VV	5935	227868	1.68%	0.093%
155	15.399	15.388	15.423	VV	3675	74083	0.55%	0.030%
156	15.433	15.423	15.484	VV	3119	102569	0.76%	0.042%
157	15.518	15.484	15.602	VV	28835	610015	4.51%	0.248%
158	15.615	15.602	15.628	VV	2300	34779	0.26%	0.014%
159	15.655	15.628	15.701	VV	5173	134891	1.00%	0.055%
160	15.725	15.701	15.813	VV	3172	106174	0.78%	0.043%
161	15.830	15.813	15.848	VV	1015	19401	0.14%	0.008%
162	15.856	15.848	15.885	VV	901	19075	0.14%	0.008%
163	15.907	15.885	15.922	VV	836	17214	0.13%	0.007%
164	16.043	15.922	16.088	VV	1281	79601	0.59%	0.032%
165	16.162	16.088	16.206	VV	511468	6760153	49.98%	2.749%
166	16.222	16.206	16.274	VV	1135	26145	0.19%	0.011%
167	16.290	16.274	16.314	VV	340	6590	0.05%	0.003%
168	16.325	16.314	16.330	VV	112	1229	0.01%	0.000%
169	16.352	16.330	16.416	VV	260	7866	0.06%	0.003%
170	16.536	16.416	16.575	PV	1708	35322	0.26%	0.014%
171	16.605	16.575	16.614	PV	789	10139	0.07%	0.004%
172	16.660	16.614	16.675	VV	331931	4540418	33.57%	1.846%
173	16.691	16.675	16.900	VV	358724	6953836	51.41%	2.828%
174	16.925	16.900	16.961	VV	6630	213906	1.58%	0.087%
175	16.984	16.961	17.009	VV	4812	128521	0.95%	0.052%
176	17.043	17.009	17.077	VV	240859	3745035	27.69%	1.523%
177	17.108	17.077	17.141	VV	523896	7617120	56.32%	3.097%
178	17.149	17.141	17.344	VV	16451	927240	6.86%	0.377%
179	17.369	17.344	17.426	VV	3735	164943	1.22%	0.067%
180	17.441	17.426	17.457	VV	3437	57745	0.43%	0.023%
181	17.476	17.457	17.507	VV	3461	93150	0.69%	0.038%
182	17.552	17.507	17.618	VV	8891	227146	1.68%	0.092%
183	17.644	17.618	17.684	VV	2064	60203	0.45%	0.024%
184	17.735	17.684	17.747	VV	1037	35395	0.26%	0.014%
185	17.787	17.747	17.806	VV	746	25285	0.19%	0.010%
186	17.882	17.806	17.911	VV	5570	106245	0.79%	0.043%
187	17.996	17.911	18.061	VV	507244	7065295	52.24%	2.873%
188	18.084	18.061	18.113	VV	4426	67689	0.50%	0.028%
189	18.135	18.113	18.154	VV	1378	23073	0.17%	0.009%
190	18.168	18.154	18.181	VV	674	8869	0.07%	0.004%
191	18.220	18.181	18.254	VV	1047	19533	0.14%	0.008%
192	18.312	18.254	18.329	PV	3003	46821	0.35%	0.019%
193	18.356	18.329	18.389	VV	6830	144479	1.07%	0.059%
194	18.423	18.389	18.437	VV	128431	1815490	13.42%	0.738%

Instrument :

FID_E

ClientSampleId :

BP-F8MSD

Manual IntegrationsAPPROVED

Reviewed By :Yogesh Patel 11/04/2024
Supervised By :Ankita Jodhani 11/04/2024

							Instrument : FID_E ClientSampleId : BP-F8MSD	
195	18.454	18.437	18.622	VV	135537	4578987	33.85%	1.862%
196	18.676	18.622	18.787	VV	134802	3829023	28.43%	1.862%
197	18.827	18.787	18.904	VV	523564	7823265	57.43%	1.862%
198	18.922	18.904	19.042	VV	9634	523604	3.36%	1.862%
199	19.052	19.042	19.081	VV	3851	84259	0.60%	1.862%
200	19.107	19.081	19.126	VV	3601	92643	0.60%	1.862%
201	19.139	19.126	19.148	VV	3248	39253	0.29%	0.016%
202	19.218	19.148	19.278	VV	7857	340364	2.52%	0.138%
203	19.309	19.278	19.322	VV	2065	48891	0.36%	0.020%
204	19.369	19.322	19.399	VV	1693	68022	0.50%	0.028%
205	19.424	19.399	19.444	VV	1741	34028	0.25%	0.014%
206	19.466	19.444	19.486	VV	944	18497	0.14%	0.008%
207	19.516	19.486	19.541	VV	1077	24458	0.18%	0.010%
208	19.611	19.541	19.654	VV	514554	7226767	53.43%	2.939%
209	19.674	19.654	19.698	VV	4182	81611	0.60%	0.033%
210	19.715	19.698	19.748	VV	2244	47521	0.35%	0.019%
211	19.780	19.748	19.818	VV	1411	35165	0.26%	0.014%
212	19.896	19.818	19.929	VV	1051	36754	0.27%	0.015%
213	19.973	19.929	20.048	VV	5015	132656	0.98%	0.054%
214	20.055	20.048	20.068	VV	435	3808	0.03%	0.002%
215	20.084	20.068	20.097	VV	371	5113	0.04%	0.002%
216	20.230	20.097	20.294	VV	7290	308454	2.28%	0.125%
217	20.350	20.294	20.458	VV	499260	7495879	55.42%	3.048%
218	20.504	20.458	20.538	VV	8090	290651	2.15%	0.118%
219	20.654	20.538	20.666	VV	4116	294262	2.18%	0.120%
220	20.700	20.666	20.733	VV	7391	219257	1.62%	0.089%
221	20.802	20.733	20.822	VV	4909	254190	1.88%	0.103%
222	20.886	20.822	20.918	VV	4993	276830	2.05%	0.113%
223	20.989	20.918	21.001	VV	4836	234498	1.73%	0.095%
224	21.075	21.001	21.305	VV	417590	8178150	60.46%	3.326%
225	21.315	21.305	21.356	VV	3939	112616	0.83%	0.046%
226	21.381	21.356	21.412	VV	3325	104169	0.77%	0.042%
227	21.482	21.412	21.534	VV	4621	230791	1.71%	0.094%
228	21.612	21.534	21.660	VV	2022	150377	1.11%	0.061%
229	21.717	21.660	21.729	VV	1016	44808	0.33%	0.018%
230	21.742	21.729	21.752	VV	792	10563	0.08%	0.004%
231	21.766	21.752	21.790	VV	620	11862	0.09%	0.005%
232	21.863	21.790	21.875	VV	354	16797	0.12%	0.007%
233	21.959	21.875	22.104	PV	285950	6884583	50.90%	2.800%
Sum of corrected areas:							245913151	

Manual IntegrationsAPPROVED

Reviewed By :Yogesh Patel 11/04/2024
Supervised By :Ankita Jodhani 11/04/2024

Aliphatic EPH 100824.M Mon Nov 04 04:48:15 2024

Manual Integration Report

Sequence:

FE100824AL

Instrument

FID_e

Sample ID	File ID	Parameter	Review By	Review On	Supervised By	Supervised On	Reason
10 PPM ALIPHATIC HC	FE050538.D	n-Octatriacontane (C38)	yogesh	10/8/2024 8:01:13 AM	Ankita	10/8/2024 9:52:52	Peak Integrated by Software
5 PPM ALIPHATIC HC	FE050539.D	n-Tetracontane (C40)	yogesh	10/8/2024 8:01:15 AM	Ankita	10/8/2024 9:52:53	Peak Integrated by Software

Manual Integration Report

Sequence:	FE110124AL	Instrument	FID_e
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Sample ID	File ID	Parameter	Review By	Review On	Supervised By	Supervised On	Reason
20 PPM ALIPHATIC HC	FE050961.D	n-Hexacosane (C26)	Yogesh	11/4/2024 9:44:17 AM	Ankita	11/4/2024 10:05:19	Peak Integrated by Software
20 PPM ALIPHATIC HC	FE050961.D	n-Tetracosane (C24)	Yogesh	11/4/2024 9:44:17 AM	Ankita	11/4/2024 10:05:19	Peak Integrated by Software
20 PPM ALIPHATIC HC	FE050964.D	n-Docosane (C22)	Yogesh	11/4/2024 9:44:19 AM	Ankita	11/4/2024 10:05:21	Peak Integrated by Software
20 PPM ALIPHATIC HC	FE050964.D	ortho-Terphenyl (SURR)	Yogesh	11/4/2024 9:44:19 AM	Ankita	11/4/2024 10:05:21	Peak Integrated by Software
PB164589BL	FE050965.D	ortho-Terphenyl (SURR)	Yogesh	11/4/2024 9:44:22 AM	Ankita	11/4/2024 10:05:23	Peak Integrated by Software
PB164589BS	FE050966.D	n-Hexacosane (C26)	Yogesh	11/4/2024 9:44:24 AM	Ankita	11/4/2024 10:05:26	Peak Integrated by Software
PB164589BS	FE050966.D	n-Octacosane (C28)	Yogesh	11/4/2024 9:44:24 AM	Ankita	11/4/2024 10:05:26	Peak Integrated by Software
PB164589BS	FE050966.D	n-Tetracosane (C24)	Yogesh	11/4/2024 9:44:24 AM	Ankita	11/4/2024 10:05:26	Peak Integrated by Software
PB164589BSD	FE050967.D	n-Hexacosane (C26)	Yogesh	11/4/2024 9:44:26 AM	Ankita	11/4/2024 10:05:28	Peak Integrated by Software
PB164589BSD	FE050967.D	n-Octacosane (C28)	Yogesh	11/4/2024 9:44:26 AM	Ankita	11/4/2024 10:05:28	Peak Integrated by Software
PB164589BSD	FE050967.D	n-Tetracosane (C24)	Yogesh	11/4/2024 9:44:26 AM	Ankita	11/4/2024 10:05:28	Peak Integrated by Software
PB164589BSD	FE050967.D	ortho-Terphenyl (SURR)	Yogesh	11/4/2024 9:44:26 AM	Ankita	11/4/2024 10:05:28	Peak Integrated by Software
P4640-01	FE050968.D	ortho-Terphenyl (SURR)	Yogesh	11/4/2024 9:44:28 AM	Ankita	11/4/2024 10:05:30	Peak Integrated by Software

Manual Integration Report

Sequence:	FE110124AL	Instrument	FID_e
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Sample ID	File ID	Parameter	Review By	Review On	Supervised By	Supervised On	Reason
P4640-02	FE050969.D	ortho-Terphenyl (SURR)	Yogesh	11/4/2024 9:44:29 AM	Ankita	11/4/2024 10:05:32	Peak Integrated by Software
P4643-01	FE050970.D	ortho-Terphenyl (SURR)	Yogesh	11/4/2024 9:44:31 AM	Ankita	11/4/2024 10:05:33	Peak Integrated by Software
P4643-02	FE050971.D	ortho-Terphenyl (SURR)	Yogesh	11/4/2024 9:44:33 AM	Ankita	11/4/2024 10:05:35	Peak Integrated by Software
P4643-05	FE050972.D	ortho-Terphenyl (SURR)	Yogesh	11/4/2024 9:44:35 AM	Ankita	11/4/2024 10:05:37	Peak Integrated by Software
P4643-05D	FE050973.D	ortho-Terphenyl (SURR)	Yogesh	11/4/2024 9:44:37 AM	Ankita	11/4/2024 10:05:39	Peak Integrated by Software
P4643-05MS	FE050974.D	n-Dotriacontane (C32)	Yogesh	11/4/2024 9:44:39 AM	Ankita	11/4/2024 10:05:41	Peak Integrated by Software
P4643-05MS	FE050974.D	n-Hexacosane (C26)	Yogesh	11/4/2024 9:44:39 AM	Ankita	11/4/2024 10:05:41	Peak Integrated by Software
P4643-05MS	FE050974.D	n-Octacosane (C28)	Yogesh	11/4/2024 9:44:39 AM	Ankita	11/4/2024 10:05:41	Peak Integrated by Software
P4643-05MS	FE050974.D	n-Tetracosane (C24)	Yogesh	11/4/2024 9:44:39 AM	Ankita	11/4/2024 10:05:41	Peak Integrated by Software
P4643-05MS	FE050974.D	n-Tetratriacontane (C34)	Yogesh	11/4/2024 9:44:39 AM	Ankita	11/4/2024 10:05:41	Peak Integrated by Software
P4643-05MS	FE050974.D	ortho-Terphenyl (SURR)	Yogesh	11/4/2024 9:44:39 AM	Ankita	11/4/2024 10:05:41	Peak Integrated by Software
P4643-05MSD	FE050975.D	n-Dotriacontane (C32)	Yogesh	11/4/2024 9:44:41 AM	Ankita	11/4/2024 10:05:43	Peak Integrated by Software
P4643-05MSD	FE050975.D	n-Hexacosane (C26)	Yogesh	11/4/2024 9:44:41 AM	Ankita	11/4/2024 10:05:43	Peak Integrated by Software

Manual Integration Report

Sequence:	FE110124AL	Instrument	FID_e
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Sample ID	File ID	Parameter	Review By	Review On	Supervised By	Supervised On	Reason
P4643-05MSD	FE050975.D	n-Octacosane (C28)	Yogesh	11/4/2024 9:44:41 AM	Ankita	11/4/2024 10:05:43	Peak Integrated by Software
P4643-05MSD	FE050975.D	n-Tetracosane (C24)	Yogesh	11/4/2024 9:44:41 AM	Ankita	11/4/2024 10:05:43	Peak Integrated by Software
P4643-05MSD	FE050975.D	ortho-Terphenyl (SURR)	Yogesh	11/4/2024 9:44:41 AM	Ankita	11/4/2024 10:05:43	Peak Integrated by Software
P4643-06	FE050976.D	ortho-Terphenyl (SURR)	Yogesh	11/4/2024 9:44:42 AM	Ankita	11/4/2024 10:05:44	Peak Integrated by Software
P4643-09	FE050977.D	ortho-Terphenyl (SURR)	Yogesh	11/4/2024 9:44:44 AM	Ankita	11/4/2024 10:05:45	Peak Integrated by Software
P4643-10	FE050978.D	ortho-Terphenyl (SURR)	Yogesh	11/4/2024 9:44:45 AM	Ankita	11/4/2024 10:05:47	Peak Integrated by Software
20 PPM ALIPHATIC HC	FE050980.D	A~2-methylnaphthalene (C12.89)	Yogesh	11/4/2024 9:44:47 AM	Ankita	11/4/2024 10:05:48	Peak Integrated by Software
20 PPM ALIPHATIC HC	FE050980.D	n-Docosane (C22)	Yogesh	11/4/2024 9:44:47 AM	Ankita	11/4/2024 10:05:48	Peak Integrated by Software
20 PPM ALIPHATIC HC	FE050980.D	n-Hexacosane (C26)	Yogesh	11/4/2024 9:44:47 AM	Ankita	11/4/2024 10:05:48	Peak Integrated by Software
20 PPM ALIPHATIC HC	FE050980.D	n-Tetracosane (C24)	Yogesh	11/4/2024 9:44:47 AM	Ankita	11/4/2024 10:05:48	Peak Integrated by Software
20 PPM ALIPHATIC HC	FE050980.D	ortho-Terphenyl (SURR)	Yogesh	11/4/2024 9:44:47 AM	Ankita	11/4/2024 10:05:48	Peak Integrated by Software
P4645-01	FE050981.D	ortho-Terphenyl (SURR)	Yogesh	11/4/2024 9:44:49 AM	Ankita	11/4/2024 10:05:50	Peak Integrated by Software
P4645-02	FE050982.D	ortho-Terphenyl (SURR)	Yogesh	11/4/2024 9:44:50 AM	Ankita	11/4/2024 10:05:52	Peak Integrated by Software

Manual Integration Report

Sequence:	FE110124AL	Instrument	FID_e
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Sample ID	File ID	Parameter	Review By	Review On	Supervised By	Supervised On	Reason
P4659-01	FE050983.D	ortho-Terphenyl (SURR)	Yogesh	11/4/2024 9:44:52 AM	Ankita	11/4/2024 10:05:54	Peak Integrated by Software
P4659-02	FE050984.D	ortho-Terphenyl (SURR)	Yogesh	11/4/2024 9:44:54 AM	Ankita	11/4/2024 10:06:27	Peak Integrated by Software
P4663-02	FE050985.D	ortho-Terphenyl (SURR)	Yogesh	11/4/2024 9:44:55 AM	Ankita	11/4/2024 10:05:56	Peak Integrated by Software
P4663-04	FE050986.D	ortho-Terphenyl (SURR)	Yogesh	11/4/2024 9:44:57 AM	Ankita	11/4/2024 10:05:58	Peak Integrated by Software
P4663-06	FE050987.D	1-chlorooctadecane (SURR)	Yogesh	11/4/2024 9:44:58 AM	Ankita	11/4/2024 10:05:59	Peak Integrated by Software
P4663-06	FE050987.D	ortho-Terphenyl (SURR)	Yogesh	11/4/2024 9:44:58 AM	Ankita	11/4/2024 10:05:59	Peak Integrated by Software
P4663-08	FE050988.D	ortho-Terphenyl (SURR)	Yogesh	11/4/2024 9:45:00 AM	Ankita	11/4/2024 10:06:02	Peak Integrated by Software
20 PPM ALIPHATIC HC	FE050990.D	n-Docosane (C22)	Yogesh	11/4/2024 9:45:01 AM	Ankita	11/4/2024 10:06:03	Peak Integrated by Software
20 PPM ALIPHATIC HC	FE050990.D	n-Hexacosane (C26)	Yogesh	11/4/2024 9:45:01 AM	Ankita	11/4/2024 10:06:03	Peak Integrated by Software
20 PPM ALIPHATIC HC	FE050990.D	n-Hexatriacontane (C36)	Yogesh	11/4/2024 9:45:01 AM	Ankita	11/4/2024 10:06:03	Peak Integrated by Software
20 PPM ALIPHATIC HC	FE050990.D	n-Tetracosane (C24)	Yogesh	11/4/2024 9:45:01 AM	Ankita	11/4/2024 10:06:03	Peak Integrated by Software
20 PPM ALIPHATIC HC	FE050990.D	ortho-Terphenyl (SURR)	Yogesh	11/4/2024 9:45:01 AM	Ankita	11/4/2024 10:06:03	Peak Integrated by Software



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

Manual Integration Report

Sequence:

FE110124AL

Instrument

FID_e

Sample ID

File ID

Parameter

Review By

Review On

Supervised
By

Supervised On

Reason

Manual Integration Report

Sequence:	FE110524AL	Instrument	FID_e
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Sample ID	File ID	Parameter	Review By	Review On	Supervised By	Supervised On	Reason
20 PPM ALIPHATIC HC	FE051023.D	n-Hexacosane (C26)	yogesh	11/6/2024 7:42:29 AM	Ankita	11/6/2024 9:48:47	Peak Integrated by Software
20 PPM ALIPHATIC HC	FE051023.D	n-Hexatriacontane (C36)	yogesh	11/6/2024 7:42:29 AM	Ankita	11/6/2024 9:48:47	Peak Integrated by Software
20 PPM ALIPHATIC HC	FE051023.D	n-Tetracosane (C24)	yogesh	11/6/2024 7:42:29 AM	Ankita	11/6/2024 9:48:47	Peak Integrated by Software
20 PPM ALIPHATIC HC	FE051023.D	ortho-Terphenyl (SURR)	yogesh	11/6/2024 7:42:29 AM	Ankita	11/6/2024 9:48:47	Peak Integrated by Software
P4663-06DL	FE051024.D	ortho-Terphenyl (SURR)	yogesh	11/6/2024 7:42:33 AM	Ankita	11/6/2024 9:48:49	Peak Integrated by Software
P4679-01DL	FE051025.D	ortho-Terphenyl (SURR)	yogesh	11/6/2024 7:42:46 AM	Ankita	11/6/2024 9:48:50	Peak Integrated by Software
20 PPM ALIPHATIC HC	FE051027.D	n-Hexacosane (C26)	yogesh	11/6/2024 7:42:49 AM	Ankita	11/6/2024 9:48:52	Peak Integrated by Software
20 PPM ALIPHATIC HC	FE051027.D	n-Octatriacontane (C38)	yogesh	11/6/2024 7:42:49 AM	Ankita	11/6/2024 9:48:52	Peak Integrated by Software
20 PPM ALIPHATIC HC	FE051027.D	n-Tetracontane (C40)	yogesh	11/6/2024 7:42:49 AM	Ankita	11/6/2024 9:48:52	Peak Integrated by Software
20 PPM ALIPHATIC HC	FE051027.D	n-Tetracosane (C24)	yogesh	11/6/2024 7:42:49 AM	Ankita	11/6/2024 9:48:52	Peak Integrated by Software
20 PPM ALIPHATIC HC	FE051027.D	ortho-Terphenyl (SURR)	yogesh	11/6/2024 7:42:49 AM	Ankita	11/6/2024 9:48:52	Peak Integrated by Software
PB164681BL	FE051028.D	ortho-Terphenyl (SURR)	yogesh	11/6/2024 7:42:52 AM	Ankita	11/6/2024 9:48:54	Peak Integrated by Software
PB164681BS	FE051029.D	n-Hexacosane (C26)	yogesh	11/6/2024 7:42:54 AM	Ankita	11/6/2024 9:48:55	Peak Integrated by Software

Manual Integration Report

Sequence:

FE110524AL

Instrument

FID_e

Sample ID	File ID	Parameter	Review By	Review On	Supervised By	Supervised On	Reason
PB164681BS	FE051029.D	n-Octacosane (C28)	yogesh	11/6/2024 7:42:54 AM	Ankita	11/6/2024 9:48:55	Peak Integrated by Software
PB164681BS	FE051029.D	n-Tetracosane (C24)	yogesh	11/6/2024 7:42:54 AM	Ankita	11/6/2024 9:48:55	Peak Integrated by Software
PB164681BS	FE051029.D	ortho-Terphenyl (SURR)	yogesh	11/6/2024 7:42:54 AM	Ankita	11/6/2024 9:48:55	Peak Integrated by Software
PB164681BSD	FE051030.D	n-Hexacosane (C26)	yogesh	11/6/2024 7:42:56 AM	Ankita	11/6/2024 9:48:56	Peak Integrated by Software
PB164681BSD	FE051030.D	n-Hexatriacontane (C36)	yogesh	11/6/2024 7:42:56 AM	Ankita	11/6/2024 9:48:56	Peak Integrated by Software
PB164681BSD	FE051030.D	n-Octacosane (C28)	yogesh	11/6/2024 7:42:56 AM	Ankita	11/6/2024 9:48:56	Peak Integrated by Software
PB164681BSD	FE051030.D	n-Octatriacontane (C38)	yogesh	11/6/2024 7:42:56 AM	Ankita	11/6/2024 9:48:56	Peak Integrated by Software
PB164681BSD	FE051030.D	n-Tetracontane (C40)	yogesh	11/6/2024 7:42:56 AM	Ankita	11/6/2024 9:48:56	Peak Integrated by Software
PB164681BSD	FE051030.D	n-Tetracosane (C24)	yogesh	11/6/2024 7:42:56 AM	Ankita	11/6/2024 9:48:56	Peak Integrated by Software
PB164681BSD	FE051030.D	n-Tetratriacontane (C34)	yogesh	11/6/2024 7:42:56 AM	Ankita	11/6/2024 9:48:56	Peak Integrated by Software
PB164681BSD	FE051030.D	ortho-Terphenyl (SURR)	yogesh	11/6/2024 7:42:56 AM	Ankita	11/6/2024 9:48:56	Peak Integrated by Software
P4682-01	FE051031.D	ortho-Terphenyl (SURR)	yogesh	11/6/2024 7:42:58 AM	Ankita	11/6/2024 9:48:58	Peak Integrated by Software
P4693-01	FE051032.D	ortho-Terphenyl (SURR)	yogesh	11/6/2024 7:42:59 AM	Ankita	11/6/2024 9:49:00	Peak Integrated by Software

Manual Integration Report

Sequence:	FE110524AL	Instrument	FID_e
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Sample ID	File ID	Parameter	Review By	Review On	Supervised By	Supervised On	Reason
P4693-01D	FE051033.D	ortho-Terphenyl (SURR)	yogesh	11/6/2024 7:43:01 AM	Ankita	11/6/2024 9:49:01	Peak Integrated by Software
P4693-01MS	FE051034.D	n-Eicosane (C20)	yogesh	11/6/2024 7:43:04 AM	Ankita	11/6/2024 9:49:03	Peak Integrated by Software
P4693-01MS	FE051034.D	n-Hexacosane (C26)	yogesh	11/6/2024 7:43:04 AM	Ankita	11/6/2024 9:49:03	Peak Integrated by Software
P4693-01MS	FE051034.D	n-Hexatriacontane (C36)	yogesh	11/6/2024 7:43:04 AM	Ankita	11/6/2024 9:49:03	Peak Integrated by Software
P4693-01MS	FE051034.D	n-Octacosane (C28)	yogesh	11/6/2024 7:43:04 AM	Ankita	11/6/2024 9:49:03	Peak Integrated by Software
P4693-01MS	FE051034.D	n-Octatriacontane (C38)	yogesh	11/6/2024 7:43:04 AM	Ankita	11/6/2024 9:49:03	Peak Integrated by Software
P4693-01MS	FE051034.D	n-Tetracontane (C40)	yogesh	11/6/2024 7:43:04 AM	Ankita	11/6/2024 9:49:03	Peak Integrated by Software
P4693-01MS	FE051034.D	n-Tetracosane (C24)	yogesh	11/6/2024 7:43:04 AM	Ankita	11/6/2024 9:49:03	Peak Integrated by Software
P4693-01MS	FE051034.D	n-Tetratriacontane (C34)	yogesh	11/6/2024 7:43:04 AM	Ankita	11/6/2024 9:49:03	Peak Integrated by Software
P4693-01MS	FE051034.D	ortho-Terphenyl (SURR)	yogesh	11/6/2024 7:43:04 AM	Ankita	11/6/2024 9:49:03	Peak Integrated by Software
P4693-01MSD	FE051035.D	n-Eicosane (C20)	yogesh	11/6/2024 7:43:06 AM	Ankita	11/6/2024 9:49:04	Peak Integrated by Software
P4693-01MSD	FE051035.D	n-Hexacosane (C26)	yogesh	11/6/2024 7:43:06 AM	Ankita	11/6/2024 9:49:04	Peak Integrated by Software
P4693-01MSD	FE051035.D	n-Octacosane (C28)	yogesh	11/6/2024 7:43:06 AM	Ankita	11/6/2024 9:49:04	Peak Integrated by Software

Manual Integration Report

Sequence:	FE110524AL	Instrument	FID_e
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Sample ID	File ID	Parameter	Review By	Review On	Supervised By	Supervised On	Reason
P4693-01MSD	FE051035.D	n-Tetracontane (C40)	yogesh	11/6/2024 7:43:06 AM	Ankita	11/6/2024 9:49:04	Peak Integrated by Software
P4693-01MSD	FE051035.D	n-Tetracosane (C24)	yogesh	11/6/2024 7:43:06 AM	Ankita	11/6/2024 9:49:04	Peak Integrated by Software
P4693-01MSD	FE051035.D	ortho-Terphenyl (SURR)	yogesh	11/6/2024 7:43:06 AM	Ankita	11/6/2024 9:49:04	Peak Integrated by Software
P4693-02	FE051036.D	1-chlorooctadecane (SURR)	yogesh	11/6/2024 7:43:08 AM	Ankita	11/6/2024 9:49:06	Peak Integrated by Software
P4693-02	FE051036.D	ortho-Terphenyl (SURR)	yogesh	11/6/2024 7:43:08 AM	Ankita	11/6/2024 9:49:06	Peak Integrated by Software
P4693-05	FE051037.D	ortho-Terphenyl (SURR)	yogesh	11/6/2024 7:43:09 AM	Ankita	11/6/2024 9:49:07	Peak Integrated by Software
P4693-06	FE051038.D	ortho-Terphenyl (SURR)	yogesh	11/6/2024 7:43:11 AM	Ankita	11/6/2024 9:49:09	Peak Integrated by Software
P4694-05	FE051039.D	ortho-Terphenyl (SURR)	yogesh	11/6/2024 7:43:13 AM	Ankita	11/6/2024 9:49:10	Peak Integrated by Software
P4694-06	FE051040.D	ortho-Terphenyl (SURR)	yogesh	11/6/2024 7:43:15 AM	Ankita	11/6/2024 9:49:12	Peak Integrated by Software
P4695-02	FE051042.D	ortho-Terphenyl (SURR)	yogesh	11/6/2024 7:43:17 AM	Ankita	11/6/2024 9:49:33	Peak Integrated by Software
P4697-01	FE051043.D	ortho-Terphenyl (SURR)	yogesh	11/6/2024 7:43:19 AM	Ankita	11/6/2024 9:49:34	Peak Integrated by Software
P4697-02	FE051044.D	ortho-Terphenyl (SURR)	yogesh	11/6/2024 7:43:20 AM	Ankita	11/6/2024 9:49:36	Peak Integrated by Software
P4701-01	FE051045.D	ortho-Terphenyl (SURR)	yogesh	11/6/2024 7:43:22 AM	Ankita	11/6/2024 9:49:37	Peak Integrated by Software

Manual Integration Report

Sequence:	FE110524AL	Instrument	FID_e
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Sample ID	File ID	Parameter	Review By	Review On	Supervised By	Supervised On	Reason
P4701-02	FE051046.D	ortho-Terphenyl (SURR)	yogesh	11/6/2024 7:43:24 AM	Ankita	11/6/2024 9:49:38	Peak Integrated by Software
P4701-05	FE051047.D	ortho-Terphenyl (SURR)	yogesh	11/6/2024 7:43:26 AM	Ankita	11/6/2024 9:49:40	Peak Integrated by Software
20 PPM ALIPHATIC HC	FE051049.D	n-Hexacosane (C26)	yogesh	11/6/2024 7:43:28 AM	Ankita	11/6/2024 9:49:41	Peak Integrated by Software
20 PPM ALIPHATIC HC	FE051049.D	n-Octatriacontane (C38)	yogesh	11/6/2024 7:43:28 AM	Ankita	11/6/2024 9:49:41	Peak Integrated by Software
20 PPM ALIPHATIC HC	FE051049.D	n-Tetracontane (C40)	yogesh	11/6/2024 7:43:28 AM	Ankita	11/6/2024 9:49:41	Peak Integrated by Software
20 PPM ALIPHATIC HC	FE051049.D	n-Tetracosane (C24)	yogesh	11/6/2024 7:43:28 AM	Ankita	11/6/2024 9:49:41	Peak Integrated by Software
20 PPM ALIPHATIC HC	FE051049.D	ortho-Terphenyl (SURR)	yogesh	11/6/2024 7:43:28 AM	Ankita	11/6/2024 9:49:41	Peak Integrated by Software
P4701-06	FE051050.D	ortho-Terphenyl (SURR)	yogesh	11/6/2024 7:43:34 AM	Ankita	11/6/2024 9:49:43	Peak Integrated by Software
P4685-01	FE051051.D	ortho-Terphenyl (SURR)	yogesh	11/6/2024 7:43:36 AM	Ankita	11/6/2024 9:49:44	Peak Integrated by Software
P4685-02	FE051052.D	ortho-Terphenyl (SURR)	yogesh	11/6/2024 7:43:38 AM	Ankita	11/6/2024 9:49:46	Peak Integrated by Software
P4694-01	FE051053.D	ortho-Terphenyl (SURR)	yogesh	11/6/2024 7:43:40 AM	Ankita	11/6/2024 9:49:48	Peak Integrated by Software
P4694-02	FE051054.D	ortho-Terphenyl (SURR)	yogesh	11/6/2024 7:43:44 AM	Ankita	11/6/2024 9:49:50	Peak Integrated by Software
20 PPM ALIPHATIC HC	FE051056.D	n-Hexacosane (C26)	yogesh	11/6/2024 7:43:46 AM	Ankita	11/6/2024 9:49:51	Peak Integrated by Software

Manual Integration Report

Sequence:

FE110524AL

Instrument

FID_e

Sample ID	File ID	Parameter	Review By	Review On	Supervised By	Supervised On	Reason
20 PPM ALIPHATIC HC	FE051056.D	n-Tetracosane (C24)	yogesh	11/6/2024 7:43:46 AM	Ankita	11/6/2024 9:49:51	Peak Integrated by Software
20 PPM ALIPHATIC HC	FE051056.D	ortho-Terphenyl (SURR)	yogesh	11/6/2024 7:43:46 AM	Ankita	11/6/2024 9:49:51	Peak Integrated by Software

Instrument ID: FID_E

Daily Analysis Runlog For Sequence/QC Batch ID # FE100824AL

Review By	yogesh	Review On	10/7/2024 4:16:27 PM
Supervise By	Ankita	Supervise On	10/8/2024 9:52:58 AM
SubDirectory	FE100824AL	HP Acquire Method	HP Processing Method FE100824AL
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	FE050533.D	07 Oct 2024 13:05	YP\AJ	Ok
2	I.BLK	FE050534.D	07 Oct 2024 13:36	YP\AJ	Ok
3	100 PPM ALIPHATIC HC STD1	FE050535.D	07 Oct 2024 14:06	YP\AJ	Ok
4	50 PPM ALIPHATIC HC STD2	FE050536.D	07 Oct 2024 14:36	YP\AJ	Ok
5	20 PPM ALIPHATIC HC STD3	FE050537.D	07 Oct 2024 15:06	YP\AJ	Ok
6	10 PPM ALIPHATIC HC STD4	FE050538.D	07 Oct 2024 15:37	YP\AJ	Ok,M
7	5 PPM ALIPHATIC HC STD5	FE050539.D	07 Oct 2024 16:07	YP\AJ	Ok,M
8	20 PPM ALIPHATIC HC STD ICV	FE050540.D	07 Oct 2024 16:37	YP\AJ	Ok
9	I.BLK	FE050541.D	07 Oct 2024 18:08	YP\AJ	Ok
10	20 PPM ALIPHATIC HC STD	FE050542.D	07 Oct 2024 18:39	YP\AJ	Ok

M : Manual Integration

Instrument ID: FID_E

Daily Analysis Runlog For Sequence/QC Batch ID # FE110124AL

Review By	yogesh	Review On	11/1/2024 11:29:15 AM
Supervise By	Ankita	Supervise On	11/4/2024 10:06:31 AM
SubDirectory	FE110124AL	HP Acquire Method	HP Processing Method FE100824AL
STD. NAME	STD REF.#		
Tune/Reschk Initial Calibration Stds	PP23644,PP23646,PP23647,PP23648,PP23649		
CCC Internal Standard/PEM ICV/I.BLK Surrogate Standard MS/MSD Standard LCS Standard	PP23647 PP23645,PP23650		

Sr#	SampleId	Data File Name	Date-Time	Operator	Status
1	MECL2	FE050959.D	01 Nov 2024 09:53	YP\AJ	Ok
2	I.BLK	FE050960.D	01 Nov 2024 10:23	YP\AJ	Ok
3	20 PPM ALIPHATIC HC STD	FE050961.D	01 Nov 2024 10:53	YP\AJ	Ok,M
4	P4599-05DL2	FE050962.D	01 Nov 2024 11:24	YP\AJ	Ok
5	I.BLK	FE050963.D	01 Nov 2024 11:54	YP\AJ	Ok
6	20 PPM ALIPHATIC HC STD	FE050964.D	01 Nov 2024 12:24	YP\AJ	Ok,M
7	PB164589BL	FE050965.D	01 Nov 2024 15:33	YP\AJ	Ok,M
8	PB164589BS	FE050966.D	01 Nov 2024 16:03	YP\AJ	Ok,M
9	PB164589BSD	FE050967.D	01 Nov 2024 16:33	YP\AJ	Ok,M
10	P4640-01	FE050968.D	01 Nov 2024 17:03	YP\AJ	Ok,M
11	P4640-02	FE050969.D	01 Nov 2024 17:33	YP\AJ	Dilution
12	P4643-01	FE050970.D	01 Nov 2024 18:04	YP\AJ	Ok,M
13	P4643-02	FE050971.D	01 Nov 2024 18:34	YP\AJ	Ok,M
14	P4643-05	FE050972.D	01 Nov 2024 19:04	YP\AJ	Ok,M
15	P4643-05D	FE050973.D	01 Nov 2024 19:34	YP\AJ	Ok,M
16	P4643-05MS	FE050974.D	01 Nov 2024 20:04	YP\AJ	Ok,M
17	P4643-05MSD	FE050975.D	01 Nov 2024 20:34	YP\AJ	Ok,M
18	P4643-06	FE050976.D	01 Nov 2024 21:04	YP\AJ	Ok,M
19	P4643-09	FE050977.D	01 Nov 2024 21:35	YP\AJ	Ok,M
20	P4643-10	FE050978.D	01 Nov 2024 22:05	YP\AJ	Ok,M
21	I.BLK	FE050979.D	01 Nov 2024 23:05	YP\AJ	Ok

Instrument ID: FID_E

Daily Analysis Runlog For Sequence/QC Batch ID # FE110124AL

Review By	yogesh	Review On	11/1/2024 11:29:15 AM
Supervise By	Ankita	Supervise On	11/4/2024 10:06:31 AM
SubDirectory	FE110124AL	HP Acquire Method	HP Processing Method FE100824AL
STD. NAME	STD REF.#		
Tune/Reschk Initial Calibration Stds	PP23644,PP23646,PP23647,PP23648,PP23649		
CCC Internal Standard/PEM ICV/I.BLK Surrogate Standard MS/MSD Standard LCS Standard	PP23647 PP23645,PP23650		

22	20 PPM ALIPHATIC HC STD	FE050980.D	01 Nov 2024 23:36	YP\AJ	Ok,M
23	P4645-01	FE050981.D	02 Nov 2024 00:36	YP\AJ	Dilution
24	P4645-02	FE050982.D	02 Nov 2024 01:07	YP\AJ	Dilution
25	P4659-01	FE050983.D	02 Nov 2024 01:37	YP\AJ	Ok,M
26	P4659-02	FE050984.D	02 Nov 2024 02:07	YP\AJ	Ok,M
27	P4663-02	FE050985.D	02 Nov 2024 02:37	YP\AJ	Ok,M
28	P4663-04	FE050986.D	02 Nov 2024 03:07	YP\AJ	Ok,M
29	P4663-06	FE050987.D	02 Nov 2024 03:37	YP\AJ	Dilution
30	P4663-08	FE050988.D	02 Nov 2024 04:08	YP\AJ	Ok,M
31	I.BLK	FE050989.D	02 Nov 2024 05:08	YP\AJ	Ok
32	20 PPM ALIPHATIC HC STD	FE050990.D	02 Nov 2024 05:38	YP\AJ	Ok,M

M : Manual Integration

Instrument ID: FID_E

Daily Analysis Runlog For Sequence/QC Batch ID # FE110524AL

Review By	yogesh	Review On	11/6/2024 9:33:09 AM
Supervise By	Ankita	Supervise On	11/6/2024 9:50:04 AM
SubDirectory	FE110524AL	HP Acquire Method	HP Processing Method
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	FE051021.D	05 Nov 2024 08:37	YP\AJ	Ok
2	I.BLK	FE051022.D	05 Nov 2024 09:07	YP\AJ	Ok
3	20 PPM ALIPHATIC HC STD	FE051023.D	05 Nov 2024 10:07	YP\AJ	Ok,M
4	P4663-06DL	FE051024.D	05 Nov 2024 10:42	YP\AJ	Ok,M
5	P4679-01DL	FE051025.D	05 Nov 2024 11:12	YP\AJ	Ok,M
6	I.BLK	FE051026.D	05 Nov 2024 11:46	YP\AJ	Ok
7	20 PPM ALIPHATIC HC STD	FE051027.D	05 Nov 2024 12:16	YP\AJ	Ok,M
8	PB164681BL	FE051028.D	05 Nov 2024 16:27	YP\AJ	Ok,M
9	PB164681BS	FE051029.D	05 Nov 2024 16:57	YP\AJ	Ok,M
10	PB164681BSD	FE051030.D	05 Nov 2024 17:27	YP\AJ	Ok,M
11	P4682-01	FE051031.D	05 Nov 2024 17:57	YP\AJ	Dilution
12	P4693-01	FE051032.D	05 Nov 2024 18:27	YP\AJ	Dilution
13	P4693-01D	FE051033.D	05 Nov 2024 18:57	YP\AJ	Ok,M
14	P4693-01MS	FE051034.D	05 Nov 2024 19:27	YP\AJ	Ok,M
15	P4693-01MSD	FE051035.D	05 Nov 2024 19:58	YP\AJ	Ok,M
16	P4693-02	FE051036.D	05 Nov 2024 20:28	YP\AJ	Dilution
17	P4693-05	FE051037.D	05 Nov 2024 20:58	YP\AJ	Ok,M
18	P4693-06	FE051038.D	05 Nov 2024 21:28	YP\AJ	Ok,M
19	P4694-05	FE051039.D	05 Nov 2024 21:58	YP\AJ	Ok,M
20	P4694-06	FE051040.D	05 Nov 2024 22:28	YP\AJ	Ok,M
21	P4695-01	FE051041.D	05 Nov 2024 22:57	YP\AJ	Dilution

Instrument ID: FID_E

Daily Analysis Runlog For Sequence/QC Batch ID # FE110524AL

Review By	yogesh	Review On	11/6/2024 9:33:09 AM
Supervise By	Ankita	Supervise On	11/6/2024 9:50:04 AM
SubDirectory	FE110524AL	HP Acquire Method	HP Processing Method
STD. NAME	STD REF.#		
Tune/Reschk Initial Calibration Stds	PP23644,PP23646,PP23647,PP23648,PP23649		
CCC Internal Standard/PEM ICV/I.BLK Surrogate Standard MS/MSD Standard LCS Standard	PP23647 PP23645,PP23650		

22	P4695-02	FE051042.D	05 Nov 2024 23:27	YP\AJ	Dilution
23	P4697-01	FE051043.D	05 Nov 2024 23:58	YP\AJ	Dilution
24	P4697-02	FE051044.D	06 Nov 2024 00:28	YP\AJ	Ok,M
25	P4701-01	FE051045.D	06 Nov 2024 00:58	YP\AJ	Ok,M
26	P4701-02	FE051046.D	06 Nov 2024 01:28	YP\AJ	Ok,M
27	P4701-05	FE051047.D	06 Nov 2024 01:58	YP\AJ	Ok,M
28	I.BLK	FE051048.D	06 Nov 2024 02:28	YP\AJ	Ok
29	20 PPM ALIPHATIC HC STD	FE051049.D	06 Nov 2024 02:58	YP\AJ	Ok,M
30	P4701-06	FE051050.D	06 Nov 2024 03:29	YP\AJ	Ok,M
31	P4685-01	FE051051.D	06 Nov 2024 03:58	YP\AJ	Dilution
32	P4685-02	FE051052.D	06 Nov 2024 04:28	YP\AJ	Dilution
33	P4694-01	FE051053.D	06 Nov 2024 04:58	YP\AJ	Dilution
34	P4694-02	FE051054.D	06 Nov 2024 05:28	YP\AJ	Dilution
35	I.BLK	FE051055.D	06 Nov 2024 05:59	YP\AJ	Ok
36	20 PPM ALIPHATIC HC STD	FE051056.D	06 Nov 2024 06:29	YP\AJ	Ok,M

M : Manual Integration

Instrument ID: FID_E

Daily Analysis Runlog For Sequence/QC Batch ID # FE100824AL

Review By	yogesh	Review On	10/7/2024 4:16:27 PM
Supervise By	Ankita	Supervise On	10/8/2024 9:52:58 AM
SubDirectory	FE100824AL	HP Acquire Method	HP Processing Method
			FE100824AL

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	FE050533.D	07 Oct 2024 13:05		YP\AJ	Ok
2	I.BLK	I.BLK	FE050534.D	07 Oct 2024 13:36		YP\AJ	Ok
3	100 PPM ALIPHATIC HC	100 PPM ALIPHATIC HC	FE050535.D	07 Oct 2024 14:06		YP\AJ	Ok
4	50 PPM ALIPHATIC HC	50 PPM ALIPHATIC HC	FE050536.D	07 Oct 2024 14:36		YP\AJ	Ok
5	20 PPM ALIPHATIC HC	20 PPM ALIPHATIC HC	FE050537.D	07 Oct 2024 15:06		YP\AJ	Ok
6	10 PPM ALIPHATIC HC	10 PPM ALIPHATIC HC	FE050538.D	07 Oct 2024 15:37		YP\AJ	Ok,M
7	5 PPM ALIPHATIC HC	5 PPM ALIPHATIC HC	FE050539.D	07 Oct 2024 16:07		YP\AJ	Ok,M
8	20 PPM ALIPHATIC HC	20 PPM ALIPHATIC HC	FE050540.D	07 Oct 2024 16:37		YP\AJ	Ok
9	I.BLK	I.BLK	FE050541.D	07 Oct 2024 18:08		YP\AJ	Ok
10	20 PPM ALIPHATIC HC	20 PPM ALIPHATIC HC	FE050542.D	07 Oct 2024 18:39		YP\AJ	Ok

M : Manual Integration

Instrument ID: FID_E

Daily Analysis Runlog For Sequence/QC Batch ID # FE110124AL

Review By	yogesh	Review On	11/1/2024 11:29:15 AM
Supervise By	Ankita	Supervise On	11/4/2024 10:06:31 AM
SubDirectory	FE110124AL	HP Acquire Method	HP Processing Method FE100824AL

STD. NAME	STD REF.#
Tune/Reschk Initial Calibration Stds	PP23644,PP23646,PP23647,PP23648,PP23649
CCC	PP23647
Internal Standard/PEM	
ICV/I.BLK	PP23645,PP23650
Surrogate Standard	
MS/MSD Standard	
LCS Standard	

Sr#	SampleID	ClientID	Data File Name	Date-Time	Comment	Operator	Status
1	MECL2	MECL2	FE050959.D	01 Nov 2024 09:53		YP\AJ	Ok
2	I.BLK	I.BLK	FE050960.D	01 Nov 2024 10:23		YP\AJ	Ok
3	20 PPM ALIPHATIC HC	20 PPM ALIPHATIC HC	FE050961.D	01 Nov 2024 10:53		YP\AJ	Ok,M
4	P4599-05DL2	EX-1-TPH-5DL2	FE050962.D	01 Nov 2024 11:24		YP\AJ	Ok
5	I.BLK	I.BLK	FE050963.D	01 Nov 2024 11:54		YP\AJ	Ok
6	20 PPM ALIPHATIC HC	20 PPM ALIPHATIC HC	FE050964.D	01 Nov 2024 12:24		YP\AJ	Ok,M
7	PB164589BL	PB164589BL	FE050965.D	01 Nov 2024 15:33		YP\AJ	Ok,M
8	PB164589BS	PB164589BS	FE050966.D	01 Nov 2024 16:03		YP\AJ	Ok,M
9	PB164589BSD	PB164589BSD	FE050967.D	01 Nov 2024 16:33		YP\AJ	Ok,M
10	P4640-01	MH-3	FE050968.D	01 Nov 2024 17:03		YP\AJ	Ok,M
11	P4640-02	MH-3-EPH	FE050969.D	01 Nov 2024 17:33	need 2x dilution	YP\AJ	Dilution
12	P4643-01	BP-F9-ADDITIONAL	FE050970.D	01 Nov 2024 18:04		YP\AJ	Ok,M
13	P4643-02	BP-F9-ADDITIONAL-EI	FE050971.D	01 Nov 2024 18:34		YP\AJ	Ok,M
14	P4643-05	BP-F8	FE050972.D	01 Nov 2024 19:04		YP\AJ	Ok,M
15	P4643-05D	P4643-05D	FE050973.D	01 Nov 2024 19:34		YP\AJ	Ok,M
16	P4643-05MS	BP-F8MS	FE050974.D	01 Nov 2024 20:04	FE050972.D	YP\AJ	Ok,M
17	P4643-05MSD	BP-F8MSD	FE050975.D	01 Nov 2024 20:34	FE050972.D!FE050974.D	YP\AJ	Ok,M
18	P4643-06	BP-F8-EPH	FE050976.D	01 Nov 2024 21:04		YP\AJ	Ok,M

Instrument ID: FID_E

Daily Analysis Runlog For Sequence/QC Batch ID # FE110124AL

Review By	yogesh	Review On	11/1/2024 11:29:15 AM
Supervise By	Ankita	Supervise On	11/4/2024 10:06:31 AM
SubDirectory	FE110124AL	HP Acquire Method	HP Processing Method FE100824AL
STD. NAME	STD REF.#		
Tune/Reschk Initial Calibration Stds	PP23644,PP23646,PP23647,PP23648,PP23649		
CCC	PP23647		
Internal Standard/PEM			
ICV/I.BLK	PP23645,PP23650		
Surrogate Standard			
MS/MSD Standard			
LCS Standard			

19	P4643-09	TP-9	FE050977.D	01 Nov 2024 21:35		YPIAJ	Ok,M
20	P4643-10	TP-9-EPH	FE050978.D	01 Nov 2024 22:05		YPIAJ	Ok,M
21	I.BLK	I.BLK	FE050979.D	01 Nov 2024 23:05		YPIAJ	Ok
22	20 PPM ALIPHATIC HC	20 PPM ALIPHATIC HC	FE050980.D	01 Nov 2024 23:36		YPIAJ	Ok,M
23	P4645-01	Z-02-WC	FE050981.D	02 Nov 2024 00:36	need 2x dilution	YPIAJ	Dilution
24	P4645-02	Z-02-EPH	FE050982.D	02 Nov 2024 01:07	need 2x dilution	YPIAJ	Dilution
25	P4659-01	MH-2	FE050983.D	02 Nov 2024 01:37		YPIAJ	Ok,M
26	P4659-02	MH-2-EPH	FE050984.D	02 Nov 2024 02:07		YPIAJ	Ok,M
27	P4663-02	TENNANT-PAD-2-3-ST	FE050985.D	02 Nov 2024 02:37		YPIAJ	Ok,M
28	P4663-04	RES-BUILDING-PAD-N	FE050986.D	02 Nov 2024 03:07		YPIAJ	Ok,M
29	P4663-06	RES-BUILDING-PAD-N	FE050987.D	02 Nov 2024 03:37	need 2x dilution	YPIAJ	Dilution
30	P4663-08	RES-BUILDING-PAD-N	FE050988.D	02 Nov 2024 04:08		YPIAJ	Ok,M
31	I.BLK	I.BLK	FE050989.D	02 Nov 2024 05:08		YPIAJ	Ok
32	20 PPM ALIPHATIC HC	20 PPM ALIPHATIC HC	FE050990.D	02 Nov 2024 05:38		YPIAJ	Ok,M

M : Manual Integration

Instrument ID: FID_E

Daily Analysis Runlog For Sequence/QC Batch ID # FE110524AL

Review By	yogesh	Review On	11/6/2024 9:33:09 AM
Supervise By	Ankita	Supervise On	11/6/2024 9:50:04 AM
SubDirectory	FE110524AL	HP Acquire Method	HP Processing Method

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	FE051021.D	05 Nov 2024 08:37		YP\AJ	Ok
2	I.BLK	I.BLK	FE051022.D	05 Nov 2024 09:07		YP\AJ	Ok
3	20 PPM ALIPHATIC HC	20 PPM ALIPHATIC HC	FE051023.D	05 Nov 2024 10:07		YP\AJ	Ok,M
4	P4663-06DL	RES-BUILDING-PAD-N	FE051024.D	05 Nov 2024 10:42		YP\AJ	Ok,M
5	P4679-01DL	MH-1DL	FE051025.D	05 Nov 2024 11:12		YP\AJ	Ok,M
6	I.BLK	I.BLK	FE051026.D	05 Nov 2024 11:46		YP\AJ	Ok
7	20 PPM ALIPHATIC HC	20 PPM ALIPHATIC HC	FE051027.D	05 Nov 2024 12:16		YP\AJ	Ok,M
8	PB164681BL	PB164681BL	FE051028.D	05 Nov 2024 16:27		YP\AJ	Ok,M
9	PB164681BS	PB164681BS	FE051029.D	05 Nov 2024 16:57		YP\AJ	Ok,M
10	PB164681BSD	PB164681BSD	FE051030.D	05 Nov 2024 17:27		YP\AJ	Ok,M
11	P4682-01	BELL-SHOP-RAGS	FE051031.D	05 Nov 2024 17:57	Need 100X dilution	YP\AJ	Dilution
12	P4693-01	BP-G5-WC	FE051032.D	05 Nov 2024 18:27	Need 2X diltuion	YP\AJ	Dilution
13	P4693-01D	P4693-01D	FE051033.D	05 Nov 2024 18:57		YP\AJ	Ok,M
14	P4693-01MS	BP-G5-WCMS	FE051034.D	05 Nov 2024 19:27	FE051032.D	YP\AJ	Ok,M
15	P4693-01MSD	BP-G5-WCMSD	FE051035.D	05 Nov 2024 19:58	FE051032.D!FE051034.D	YP\AJ	Ok,M
16	P4693-02	BP-G5-WC-EPH	FE051036.D	05 Nov 2024 20:28	Need 5X diltuion	YP\AJ	Dilution
17	P4693-05	BP-G4-WC	FE051037.D	05 Nov 2024 20:58		YP\AJ	Ok,M
18	P4693-06	BP-G4-WC-EPH	FE051038.D	05 Nov 2024 21:28		YP\AJ	Ok,M

Instrument ID: FID_E

Daily Analysis Runlog For Sequence/QC Batch ID # FE110524AL

Review By	yogesh	Review On	11/6/2024 9:33:09 AM
Supervise By	Ankita	Supervise On	11/6/2024 9:50:04 AM
SubDirectory	FE110524AL	HP Acquire Method	HP Processing Method
STD. NAME	STD REF.#		
Tune/Reschk Initial Calibration Stds	PP23644,PP23646,PP23647,PP23648,PP23649		
CCC	PP23647		
Internal Standard/PEM			
ICV/I.BLK	PP23645,PP23650		
Surrogate Standard			
MS/MSD Standard			
LCS Standard			

19	P4694-05	Z-04	FE051039.D	05 Nov 2024 21:58		YPIAJ	Ok,M
20	P4694-06	Z-04-EPH	FE051040.D	05 Nov 2024 22:28		YPIAJ	Ok,M
21	P4695-01	Z-01	FE051041.D	05 Nov 2024 22:57	Need 5X dilution	YPIAJ	Dilution
22	P4695-02	Z-01-EPH	FE051042.D	05 Nov 2024 23:27	Need 5X and 20X dilution	YPIAJ	Dilution
23	P4697-01	TP-1	FE051043.D	05 Nov 2024 23:58	Need 2X dilution	YPIAJ	Dilution
24	P4697-02	TP-1	FE051044.D	06 Nov 2024 00:28		YPIAJ	Ok,M
25	P4701-01	BP-F3	FE051045.D	06 Nov 2024 00:58		YPIAJ	Ok,M
26	P4701-02	BP-F3-EPH	FE051046.D	06 Nov 2024 01:28		YPIAJ	Ok,M
27	P4701-05	BP-F4	FE051047.D	06 Nov 2024 01:58		YPIAJ	Ok,M
28	I.BLK	I.BLK	FE051048.D	06 Nov 2024 02:28		YPIAJ	Ok
29	20 PPM ALIPHATIC HC	20 PPM ALIPHATIC HC	FE051049.D	06 Nov 2024 02:58		YPIAJ	Ok,M
30	P4701-06	BP-F4-EPH	FE051050.D	06 Nov 2024 03:29		YPIAJ	Ok,M
31	P4685-01	OK-01-11012024	FE051051.D	06 Nov 2024 03:58	Need 10X dilution	YPIAJ	Dilution
32	P4685-02	OK-02-11012024-E2	FE051052.D	06 Nov 2024 04:28	Need 10X dilution	YPIAJ	Dilution
33	P4694-01	Z-03A	FE051053.D	06 Nov 2024 04:58	Need 5X dilution	YPIAJ	Dilution
34	P4694-02	Z-03A-EPH	FE051054.D	06 Nov 2024 05:28	Need 5X dilution	YPIAJ	Dilution
35	I.BLK	I.BLK	FE051055.D	06 Nov 2024 05:59		YPIAJ	Ok
36	20 PPM ALIPHATIC HC	20 PPM ALIPHATIC HC	FE051056.D	06 Nov 2024 06:29		YPIAJ	Ok,M

M : Manual Integration

PERCENT SOLID

Supervisor: jignesh
Analyst: Iwona
Date: 11/4/2024

OVENTEMP IN Celsius(°C): 107
Time IN: 15:15
In Date: 11/01/2024
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
OvenID: M OVEN#1

OVENTEMP OUT Celsius(°C): 103
Time OUT: 08:00
Out Date: 11/02/2024
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
BalanceID: M SC-4
Thermometer ID: % SOLID- OVEN

QC:LB133250

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
P4647-01	01A-01B-01C	1	1.00	1.00	2.00	2.00	100.0	caluk
P4658-01	B-131-1-SB02	2	1.16	8.56	9.72	5.57	51.5	
P4658-02	B-131-2-SB02	3	1.15	8.63	9.78	5.91	55.2	
P4658-03	B-131-3-SB02	4	1.14	8.37	9.51	5.83	56.0	
P4659-02	MH-2-EPH	5	1.14	8.59	9.73	8.7	88.0	
P4659-03	MH-2-VOC	6	1.16	8.70	9.86	8.83	88.2	
P4660-02	WC-TA2-01-C	7	1.13	8.76	9.89	8.92	88.9	
P4660-06	WC-WOOD-01-C	8	1.00	1.00	2.00	2.00	100.0	wood chips
P4660-10	WC-CONCRETE-01-C	9	1.14	8.55	9.69	9.03	92.3	
P4660-12	WC-CONCRETE-01-C	10	1.14	8.54	9.68	9.06	92.7	
P4661-01	102824-A	11	1.00	1.00	2.00	2.00	100.0	wipe sample
P4661-02	102824-B	12	1.00	1.00	2.00	2.00	100.0	wipe sample
P4662-01	102524-DRIP-A	13	1.00	1.00	2.00	2.00	100.0	wipe sample
P4662-02	102524-B	14	1.00	1.00	2.00	2.00	100.0	wipe sample
P4662-03	102524-C	15	1.00	1.00	2.00	2.00	100.0	wipe sample
P4663-01	TENNANT-PAD-2-3-STOCKPILE	16	1.14	8.75	9.89	9.1	91.0	
P4663-02	TENNANT-PAD-2-3-STOCKPILE	17	1.16	8.75	9.91	9.11	90.9	
P4663-03	RES-BUILDING-PAD-NO-11	18	1.16	8.74	9.9	9.19	91.9	
P4663-04	RES-BUILDING-PAD-NO-11	19	1.16	8.67	9.83	9.11	91.7	
P4663-05	RES-BUILDING-PAD-NO-3	20	1.15	8.61	9.76	8.94	90.5	
P4663-06	RES-BUILDING-PAD-NO-3	21	1.16	8.64	9.8	9.04	91.2	
P4663-07	RES-BUILDING-PAD-NO-2	22	1.16	8.46	9.62	8.41	85.7	
P4663-08	RES-BUILDING-PAD-NO-2	23	1.17	8.78	9.95	9.19	91.3	
P4667-01	BP-F-6	24	1.16	8.42	9.58	8.66	89.1	
P4667-02	BP-F-6-EPH	25	1.18	8.51	9.69	8.7	88.4	
P4667-03	BP-F-6-VOC	26	1.19	8.65	9.84	8.88	88.9	
P4667-05	BP-F-5	27	1.16	8.51	9.67	8.76	89.3	

PERCENT SOLID

Supervisor: jignesh
Analyst: Iwona
Date: 11/4/2024

OVENTEMP IN Celsius(°C): 107
Time IN: 15:15
In Date: 11/01/2024
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
OvenID: M OVEN#1

OVENTEMP OUT Celsius(°C): 103
Time OUT: 08:00
Out Date: 11/02/2024
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
BalanceID: M SC-4
Thermometer ID: % SOLID- OVEN

QC:LB133250

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
P4667-06	BP-F-5-EPH	28	1.16	8.52	9.68	8.76	89.2	
P4667-07	BP-F-5-VOC	29	1.17	8.64	9.81	8.79	88.2	
P4667-09	BP-F-10	30	1.17	8.78	9.95	8.98	89.0	
P4667-10	BP-F-10-EPH	31	1.17	8.54	9.71	8.84	89.8	
P4667-11	BP-F-10-VOC	32	1.16	8.81	9.97	9.06	89.7	
P4667-13	BP-F-7	33	1.16	8.71	9.87	8.91	89.0	
P4667-14	BP-F-7-EPH	34	1.17	8.44	9.61	8.57	87.7	
P4667-15	BP-F-7-VOC	35	1.18	8.42	9.6	8.72	89.5	
P4672-01	TAPLPR-SED06-103024-00-T2	36	1.19	8.65	9.84	7.71	75.4	
P4672-02	TAPLPR-SED07-103024-00-T2	37	1.19	8.47	9.66	8.48	86.1	
P4672-03	TAPLPR-SED03-103024-00-T2	38	1.19	8.68	9.87	8.31	82.0	
P4672-04	TAPLPR-SED04-103024-00-T2	39	1.19	8.77	9.96	8.77	86.4	
P4672-05	TAPLPR-SED05-103024-00-T2	40	1.18	8.62	9.8	8.41	83.9	
P4675-01	COMP-1	41	1.18	8.56	9.74	7.85	77.9	
P4675-02	COMP-2	42	1.19	8.48	9.67	8.46	85.7	
P4675-03	COMP-3	43	1.19	8.78	9.97	8.99	88.8	
P4675-04	COMP-4	44	1.18	8.71	9.89	8.4	82.9	
P4675-05	COMP-5	45	1.17	8.54	9.71	8.18	82.1	
P4675-06	COMP-6	46	1.17	8.70	9.87	8.24	81.3	
P4677-01	2410-6346	47	1.00	1.00	2.00	2.00	100.0	PAINT CHIPS
P4679-01	MH-1	48	1.18	8.80	9.98	8.98	88.6	
P4679-02	MH-1-EPH	49	1.19	8.58	9.77	8.65	86.9	
P4679-03	MH-1-VOC	50	1.19	8.62	9.81	8.72	87.4	
P4680-01	BP-F26	51	1.18	8.80	9.98	9.08	89.8	
P4680-02	BP-F26-EPH	52	1.18	8.44	9.62	8.71	89.2	
P4680-03	BP-F26-VOC	53	1.19	8.50	9.69	8.75	88.9	



PERCENT SOLID

Supervisor: jignesh
Analyst: Iwona
Date: 11/4/2024

OVENTEMP IN Celsius(°C): 107
Time IN: 15:15
In Date: 11/01/2024
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
OvenID: M OVEN#1

OVENTEMP OUT Celsius(°C): 103
Time OUT: 08:00
Out Date: 11/02/2024
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
BalanceID: M SC-4
Thermometer ID: % SOLID- OVEN

QC:LB133250

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
P4680-05	BP-F25	54	1.18	8.69	9.87	8.9	88.8	
P4680-06	BP-F25-EPH	55	1.19	8.79	9.98	8.91	87.8	
P4680-07	BP-F25-VOC	56	1.18	8.60	9.78	8.86	89.3	

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

WORKLIST(Hardcopy Internal Chain)

LB 133250

WorkList Name : %solid-110124 WorkList ID : 185025 Department : Wet-Chemistry Date : 11-01-2024 12:08:04

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
P4647-01	01A-01B-01C	Solid	Percent Solids	Cool 4 deg C	BSIG01	K61	10/31/2024	Chemtech -SO
P4658-01	B-131-1-SB02	Solid	Percent Solids	Cool 4 deg C	PORT06	K61	10/31/2024	Chemtech -SO
P4658-02	B-131-2-SB02	Solid	Percent Solids	Cool 4 deg C	PORT06	K61	10/31/2024	Chemtech -SO
P4658-03	B-131-3-SB02	Solid	Percent Solids	Cool 4 deg C	PORT06	K61	10/31/2024	Chemtech -SO
P4659-02	MH-2-EPH	Solid	Percent Solids	Cool 4 deg C	PSEG03	K61	10/31/2024	Chemtech -SO
P4659-03	MH-2-VOC	Solid	Percent Solids	Cool 4 deg C	PSEG03	K61	10/31/2024	Chemtech -SO
P4660-02	WC-TA2-01-C	Solid	Percent Solids	Cool 4 deg C	ENTA05	K41	10/31/2024	Chemtech -SO
P4660-06	WC-WOOD-01-C	Solid	Percent Solids	Cool 4 deg C	ENTA05	K41	10/31/2024	Chemtech -SO
P4660-10	WC-CONCRETE-01-C	Solid	Percent Solids	Cool 4 deg C	ENTA05	K41	10/31/2024	Chemtech -SO
P4660-12	WC-CONCRETE-01-C	Solid	Percent Solids	Cool 4 deg C	ENTA05	K41	10/31/2024	Chemtech -SO
P4661-01	102824-A	Solid	Percent Solids	Cool 4 deg C	PSEG03	K51	10/31/2024	Chemtech -SO
P4661-02	102824-B	Solid	Percent Solids	Cool 4 deg C	PSEG03	K51	10/31/2024	Chemtech -SO
P4662-01	102524-DRIP-A	Solid	Percent Solids	Cool 4 deg C	PSEG03	K61	10/31/2024	Chemtech -SO
P4662-02	102524-B	Solid	Percent Solids	Cool 4 deg C	PSEG03	K61	10/31/2024	Chemtech -SO
P4662-03	102524-C	Solid	Percent Solids	Cool 4 deg C	PSEG03	K61	10/31/2024	Chemtech -SO
P4663-01	TENNANT-PAD-2-3-STOCKPIL	Solid	Percent Solids	Cool 4 deg C	UNIO02	K41	10/31/2024	Chemtech -SO
P4663-02	TENNANT-PAD-2-3-STOCKPIL	Solid	Percent Solids	Cool 4 deg C	UNIO02	K41	10/31/2024	Chemtech -SO
P4663-03	RES-BUILDING-PAD-NO-11	Solid	Percent Solids	Cool 4 deg C	UNIO02	K41	10/31/2024	Chemtech -SO
P4663-04	RES-BUILDING-PAD-NO-11	Solid	Percent Solids	Cool 4 deg C	UNIO02	K41	10/31/2024	Chemtech -SO
P4663-05	RES-BUILDING-PAD-NO-3	Solid	Percent Solids	Cool 4 deg C	UNIO02	K41	10/31/2024	Chemtech -SO
P4663-06	RES-BUILDING-PAD-NO-3	Solid	Percent Solids	Cool 4 deg C	UNIO02	K41	10/31/2024	Chemtech -SO

Date/Time 11/01/24 15:30 Date/Time 11/01/24 17:30
 Raw Sample Received by: SO web Raw Sample Received by: cm
 Raw Sample Relinquished by: 050r Raw Sample Relinquished by: SO web

WORKLIST(Hardcopy Internal Chain)

WorkList Name : %solid-110124 WorkList ID : 185025

Department : Wet-Chemistry

Date : 11-01-2024 12:08:04

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
P4663-07	RES-BUILDING-PAD-NO-2	Solid	Percent Solids	Cool 4 deg C	UNIO02	K41	10/31/2024	Chemtech -SO
P4663-08	RES-BUILDING-PAD-NO-2	Solid	Percent Solids	Cool 4 deg C	UNIO02	K41	10/31/2024	Chemtech -SO
P4667-01	BP-F-6	Solid	Percent Solids	Cool 4 deg C	PSEG03	K51	10/31/2024	Chemtech -SO
P4667-02	BP-F-6-EPH	Solid	Percent Solids	Cool 4 deg C	PSEG03	K51	10/31/2024	Chemtech -SO
P4667-03	BP-F-6-VOC	Solid	Percent Solids	Cool 4 deg C	PSEG03	K51	10/31/2024	Chemtech -SO
P4667-05	BP-F-5	Solid	Percent Solids	Cool 4 deg C	PSEG03	K51	10/31/2024	Chemtech -SO
P4667-06	BP-F-5-EPH	Solid	Percent Solids	Cool 4 deg C	PSEG03	K51	10/31/2024	Chemtech -SO
P4667-07	BP-F-5-VOC	Solid	Percent Solids	Cool 4 deg C	PSEG03	K51	10/31/2024	Chemtech -SO
P4667-09	BP-F-10	Solid	Percent Solids	Cool 4 deg C	PSEG03	K51	10/31/2024	Chemtech -SO
P4667-10	BP-F-10-EPH	Solid	Percent Solids	Cool 4 deg C	PSEG03	K51	10/31/2024	Chemtech -SO
P4667-11	BP-F-10-VOC	Solid	Percent Solids	Cool 4 deg C	PSEG03	K51	10/31/2024	Chemtech -SO
P4667-13	BP-F-7	Solid	Percent Solids	Cool 4 deg C	PSEG03	K51	10/31/2024	Chemtech -SO
P4667-14	BP-F-7-EPH	Solid	Percent Solids	Cool 4 deg C	PSEG03	K51	10/31/2024	Chemtech -SO
P4667-15	BP-F-7-VOC	Solid	Percent Solids	Cool 4 deg C	PSEG03	K51	10/31/2024	Chemtech -SO
P4672-01	TAPLPR-SED06-103024-00-T2	Solid	Percent Solids	Cool 4 deg C	WEST04	K41	10/30/2024	Chemtech -SO
P4672-02	TAPLPR-SED07-103024-00-T2	Solid	Percent Solids	Cool 4 deg C	WEST04	K41	10/30/2024	Chemtech -SO
P4672-03	TAPLPR-SED03-103024-00-T2	Solid	Percent Solids	Cool 4 deg C	WEST04	K41	10/30/2024	Chemtech -SO
P4672-04	TAPLPR-SED04-103024-00-T2	Solid	Percent Solids	Cool 4 deg C	WEST04	K41	10/30/2024	Chemtech -SO
P4672-05	TAPLPR-SED05-103024-00-T2	Solid	Percent Solids	Cool 4 deg C	WEST04	K41	10/30/2024	Chemtech -SO
P4675-01	COMP-1	Solid	Percent Solids	Cool 4 deg C	POWE02	K41	10/31/2024	Chemtech -SO
P4675-02	COMP-2	Solid	Percent Solids	Cool 4 deg C	POWE02	K41	10/31/2024	Chemtech -SO

Date/Time 11/01/2024 14:00 15:30
 Raw Sample Received by: JP WLC
 Raw Sample Relinquished by: ESR
 Date/Time 11/01/2024 18
 Raw Sample Received by: ESR
 Raw Sample Relinquished by: JP WLC

WORKLIST(Hardcopy Internal Chain)

WorkList Name : %solid-110124 WorkList ID : 185025 Department : Wet-Chemistry Date : 11-01-2024 12:08:04

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
P4675-03	COMP-3	Solid	Percent Solids	Cool 4 deg C	POWE02	K41	10/31/2024	Chemtech -SO
P4675-04	COMP-4	Solid	Percent Solids	Cool 4 deg C	POWE02	K41	10/31/2024	Chemtech -SO
P4675-05	COMP-5	Solid	Percent Solids	Cool 4 deg C	POWE02	K41	10/31/2024	Chemtech -SO
P4675-06	COMP-6	Solid	Percent Solids	Cool 4 deg C	POWE02	K41	10/31/2024	Chemtech -SO
P4677-01	2410-6346	Solid	Percent Solids	Cool 4 deg C	PSEG03	L11	11/01/2024	Chemtech -SO
P4679-01	MH-1	Solid	Percent Solids	Cool 4 deg C	PSEG03	L11	11/01/2024	Chemtech -SO
P4679-02	MH-1-EPH	Solid	Percent Solids	Cool 4 deg C	PSEG03	L11	11/01/2024	Chemtech -SO
P4679-03	MH-1-VOC	Solid	Percent Solids	Cool 4 deg C	PSEG03	L11	11/01/2024	Chemtech -SO
P4680-01	BP-F26	Solid	Percent Solids	Cool 4 deg C	PSEG03	L12	11/01/2024	Chemtech -SO
P4680-02	BP-F26-EPH	Solid	Percent Solids	Cool 4 deg C	PSEG03	L12	11/01/2024	Chemtech -SO
P4680-03	BP-F26-VOC	Solid	Percent Solids	Cool 4 deg C	PSEG03	L12	11/01/2024	Chemtech -SO
P4680-05	BP-F25	Solid	Percent Solids	Cool 4 deg C	PSEG03	L12	11/01/2024	Chemtech -SO
P4680-06	BP-F25-EPH	Solid	Percent Solids	Cool 4 deg C	PSEG03	L12	11/01/2024	Chemtech -SO
P4680-07	BP-F25-VOC	Solid	Percent Solids	Cool 4 deg C	PSEG03	L12	11/01/2024	Chemtech -SO

Date/Time 11/01/24 15:30
 Raw Sample Received by: [Signature]
 Raw Sample Relinquished by: [Signature]

Date/Time 11/01/24 17:30
 Raw Sample Received by: [Signature]
 Raw Sample Relinquished by: [Signature]

SOP ID: M3541-ASE Extraction-14

Clean Up SOP #: Acid Cleanup

Matrix : Solid

Weigh By: RJ **Extraction By:** RJ

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

Extraction Start Date : 11/01/2024

Extraction Start Time : 09:11

Extraction End Date : 11/01/2024

Extraction End Time : 14:00

Concentration By: EH

Supervisor By : rajesh

Standard Name	MLS USED	Concentration ug/mL	STD REF. # FROM LOG
Spike Sol 1	1.0ML	5000 PPB	PP23640
Surrogate	1.0ML	200 PPB	PP23858
N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A

Chemical Used	ML/SAMPLE USED	Lot Number
Hexane/Acetone/1:1	N/A	EP2539
Baked Na2SO4	N/A	EP2554
Hexane	N/A	E3819
Sand	N/A	E2865
H2SO4 1:1	N/A	EP2548
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

Extraction Conformance/Non-Conformance Comments:

40 ML Vial lot# 03-40BTS721. No MS/MSD Performed as samples are Caulk matrix with Limited Volume recd.

KD Bath ID: N/A **Envap ID:** NEVAP-02

KD Bath Temperature: N/A **Envap Temperature:** 40 °C

Date / Time	Prepped Sample Relinquished By/Location	Received By/Location
11/01/24 14:05	RP (Ext. Lab)	Y-PPH+IPB
	Preparation Group	Analysis Group

Analytical Method: M3541-ASE Extraction-14

Concentration Date: 11/01/2024

Sample ID	Client Sample ID	Test	g / mL	PH	Surr/Spike By:		Final Vol. (mL)	JarID	Comments	Prep Pos
					AddedBy	VerifiedBy				
PB164591BL	ABLK591	PCB Group1	30.02	N/A	ritesh	RUPESH	10			U7-1
PB164591BS	ALCS591	PCB Group1	30.01	N/A	ritesh	RUPESH	10			2
P4606-01	1	PCB Group1	2.27	N/A	ritesh	RUPESH	10		Caulk Mat.	3
P4647-01	01A-01B-01C	PCB Group1	5.29	N/A	ritesh	RUPESH	10		Caulk Mat.	4

* Extracts relinquished on the same date as received.

[Signature]
11/01/24

10:11
BSH

WORKLIST(Hardcopy Internal Chain)

WorkList Name : p4647p

WorkList ID : 185020

Department : Extraction

Date : 11-01-2024 11:01:07

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
P4647-01	01A-01B-01C	Solid	PCB Group1	Cool 4 deg C	BSIG01	K61	10/31/2024	8082A

Date/Time 11/01/24 11:01
Raw Sample Received by: RS (Cer 143)
Raw Sample Relinquished by: RM SM

Date/Time 11/01/24 11:10
Raw Sample Received by: RM SM
Raw Sample Relinquished by: RS

WORKLIST(Hardcopy Internal Chain)

WorkList Name : P4647 WorkList ID : 185003 Department : Extraction Date : 11-01-2024 08:31:00

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
P4606-01	1	Solid	PCB Group1	Cool 4 deg C	ATCE02	K63	10/26/2024	8082A
P4645-01	Z-02-WC	Solid	PCB	Cool 4 deg C	PSEG03	K63	10/31/2024	8082A
P4659-01	MH-2	Solid	PCB	Cool 4 deg C	PSEG03	K61	10/31/2024	8082A

Date/Time 11/01/24 9:05
Raw Sample Received by: RJ (Set 1st) JD (SM)
Raw Sample Relinquished by: JD (SM)

Date/Time 11/01/24 9:20
Raw Sample Received by: JD (SM)
Raw Sample Relinquished by: RJ (Set 1st)

Prep Standard - Chemical Standard Summary

Order ID : P4663

Test : EPH_NF

Prepbatch ID : PB164589,

Sequence ID/Qc Batch ID: FE110124AL,FE110524AL,

Standard ID :

EP2538,EP2554,PP23644,PP23645,PP23646,PP23647,PP23648,PP23649,PP23650,PP23892,PP23916,PP23934,

Chemical ID :

E2865,E3551,E3789,E3793,E3794,E3818,E3819,P12362,P12972,P12979,P13017,P13023,P13024,P13025,P13046,P13049,P13051,P13098,P13100,P13101,P13102,P13266,P13268,P13271,P13278,P13299,P13423,P13427,P13473,P13625,P13626,P13627,P13645,P13718,P13719,P13720,P13721,P13722,P13723,P13724,P13725,P13726,P13727,

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	EP2554	10/26/2024	01/03/2025	RUPESHKUMAR SHAH	Extraction_SC ALE_2 (EX-SC-2)	None	Rajesh Parikh 10/26/2024

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>
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>
1331	100 PPM NJEPH Fractionating Surrogate	PP23892	10/17/2024	04/15/2025	Yogesh Patel	None	None	Ankita Jodhani
								10/18/2024

FROM 1.25000ml of P13266 + 1.25000ml of P13268 + 1.25000ml of P13271 + 1.25000ml of P13473 + 195.00000ml of E3819 = Final Quantity: 200.000 ml



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

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

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

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-9262-03 / Hexane, Ultra-Resi (cs/4x4L)	24C1862008	02/13/2025	08/13/2024 / Rajesh	08/13/2024 / Rajesh	E3789

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-9254-03 / Acetone, Ultra Resi (cs/4x4L)	24H1462005	04/23/2025	10/23/2024 / Rajesh	10/09/2024 / Rajesh	E3818

CHEMICAL RECEIPT LOG BOOK

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	04/15/2025	10/15/2024 / Rajesh	10/09/2024 / Rajesh	E3819

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	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	31098 / 1-Chlorooctadecane Standard	A0204989	04/30/2025	10/30/2024 / yogesh	12/20/2023 / Yogesh	P12979

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	04/30/2025	10/30/2024 / yogesh	12/21/2023 / Yogesh	P13023

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	04/30/2025	10/30/2024 / yogesh	12/21/2023 / Yogesh	P13024

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31097 / o-Terphenyl Standard	A0204177	04/30/2025	10/30/2024 / yogesh	12/21/2023 / Yogesh	P13025

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31098 / 1-Chlorooctadecane Standard	A0200707	04/30/2025	10/30/2024 / yogesh	12/26/2023 / Yogesh	P13046

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31098 / 1-Chlorooctadecane Standard	A0200707	04/30/2025	10/30/2024 / yogesh	12/26/2023 / Yogesh	P13049

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31098 / 1-Chlorooctadecane Standard	A0200707	04/30/2025	10/30/2024 / yogesh	12/26/2023 / Yogesh	P13051

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30542 / Custom NJEPH Aliphatics Matrix Spike Mix	A0203911	04/25/2025	10/25/2024 / yogesh	01/12/2024 / Yogesh	P13098

CHEMICAL RECEIPT LOG BOOK

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	04/25/2025	10/25/2024 / yogesh	01/12/2024 / Yogesh	P13100

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	04/25/2025	10/25/2024 / yogesh	01/12/2024 / Yogesh	P13101

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	04/25/2025	10/25/2024 / yogesh	01/12/2024 / Yogesh	P13102

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31480 / MA Fractionation Surrogate Spike Mix	A0206496	04/17/2025	10/17/2024 / yogesh	02/20/2024 / yogesh	P13266

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31480 / MA Fractionation Surrogate Spike Mix	A0206496	04/17/2025	10/17/2024 / yogesh	02/20/2024 / yogesh	P13268

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31480 / MA Fractionation Surrogate Spike Mix	A0206496	04/17/2025	10/17/2024 / yogesh	02/20/2024 / yogesh	P13271

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	30542 / Custom NJEPH Aliphatics Matrix Spike Mix	A0207239	04/25/2025	10/25/2024 / yogesh	04/23/2024 / yogesh	P13299

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30542 / Custom NJEPH Aliphatics Matrix Spike Mix	A0207239	04/25/2025	10/25/2024 / yogesh	07/16/2024 / Yogesh	P13423

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30542 / Custom NJEPH Aliphatics Matrix Spike Mix	A0207239	04/25/2025	10/25/2024 / yogesh	07/16/2024 / Yogesh	P13427

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31480 / MA Fractionation Surrogate Spike Mix	A0210831	04/17/2025	10/17/2024 / yogesh	07/23/2024 / yogesh	P13473

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30542 / Custom NJEPH Aliphatics Matrix Spike Mix	A0211112	04/25/2025	10/25/2024 / yogesh	10/16/2024 / yogesh	P13625

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30542 / Custom NJEPH Aliphatics Matrix Spike Mix	A0211112	04/25/2025	10/25/2024 / yogesh	10/16/2024 / yogesh	P13626

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30542 / Custom NJEPH Aliphatics Matrix Spike Mix	A0211112	04/25/2025	10/25/2024 / yogesh	10/16/2024 / yogesh	P13627

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31097 / o-Terphenyl Standard	A0216631	04/30/2025	10/30/2024 / yogesh	10/16/2024 / yogesh	P13645

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30543 / Custom NJEPH Aromatics Matrix Spike Mix	A0217838	04/25/2025	10/25/2024 / yogesh	10/24/2024 / yogesh	P13718

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30543 / Custom NJEPH Aromatics Matrix Spike Mix	A0217838	04/25/2025	10/25/2024 / yogesh	10/24/2024 / yogesh	P13719

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30543 / Custom NJEPH Aromatics Matrix Spike Mix	A0217838	04/25/2025	10/25/2024 / yogesh	10/24/2024 / yogesh	P13720

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30543 / Custom NJEPH Aromatics Matrix Spike Mix	A0217838	04/25/2025	10/25/2024 / yogesh	10/24/2024 / yogesh	P13721

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30543 / Custom NJEPH Aromatics Matrix Spike Mix	A0217838	04/25/2025	10/25/2024 / yogesh	10/24/2024 / yogesh	P13722

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30543 / Custom NJEPH Aromatics Matrix Spike Mix	A0217838	04/25/2025	10/25/2024 / yogesh	10/24/2024 / yogesh	P13723

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30543 / Custom NJEPH Aromatics Matrix Spike Mix	A0217838	04/25/2025	10/25/2024 / yogesh	10/24/2024 / yogesh	P13724

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30543 / Custom NJEPH Aromatics Matrix Spike Mix	A0217838	04/25/2025	10/25/2024 / yogesh	10/24/2024 / yogesh	P13725

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30543 / Custom NJEPH Aromatics Matrix Spike Mix	A0217838	04/25/2025	10/25/2024 / yogesh	10/24/2024 / yogesh	P13726

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30543 / Custom NJEPH Aromatics Matrix Spike Mix	A0217838	04/25/2025	10/25/2024 / yogesh	10/24/2024 / yogesh	P13727

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

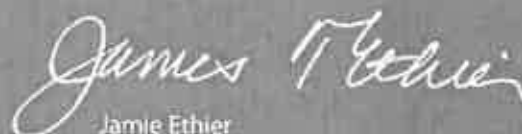
Certificate of Analysis

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.: 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

Acetone
BAKER RESI-ANALYZED® Reagent
For Organic Residue Analysis

avantor



Material No.: 9254-03
Batch No.: 24H1462005
Manufactured Date: 2024-05-24
Expiration Date: 2027-05-24
Revision No.: 0

Certificate of Analysis

Test	Specification	Result
Assay ((CH ₃) ₂ CO) (by GC, corrected forwater)	>= 99.4 %	99.8 %
Color (APHA)	<= 10	5
Residue after Evaporation	<= 1.0 ppm	0.2 ppm
Substances Reducing Permanganate	Passes Test	Passes Test
Titration Acid (µeq/g)	<= 0.3	0.2
Titration Base (µeq/g)	<= 0.6	<0.1
Water (H ₂ O)	<= 0.5 %	0.2 %
FID-Sensitive Impurities (as 2-Octanol)Single Impurity Peak (ng/mL)	<= 5	<1
ECD Sensitive Impurities (as HeptachlorEpoxide) Single Peak (pg/mL)	<= 10	1

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

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

Recd. by RP on 10/9/24

E 3818

J. Croak

Jamie Croak
Director Quality Operations, Bioscience Production

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

Avantor Performance Materials, LLC

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

n-Hexane 95%
ULTRA RESI-ANALYZED
For Organic Residue Analysis

 **avantors**TM



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)	≥ 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	0.1 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 10/09/24

E 3819



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



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)

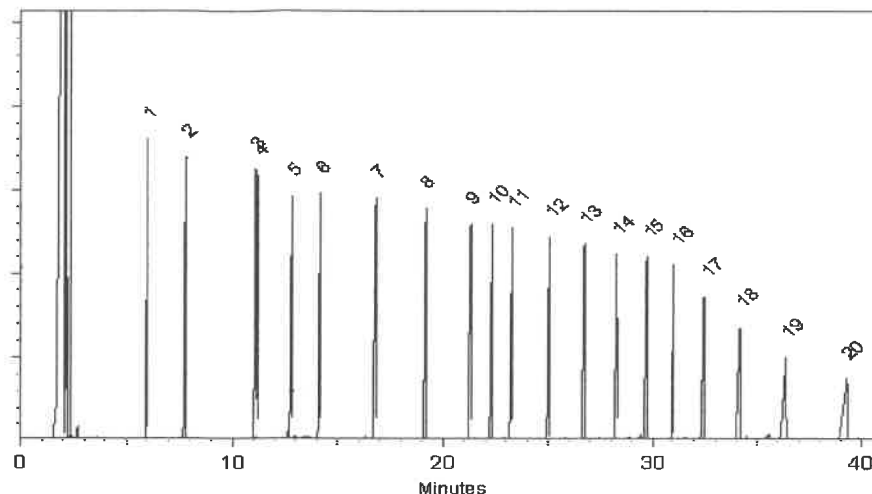
Carrier Gas:
hydrogen-constant pressure 10 psi.

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.: 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:

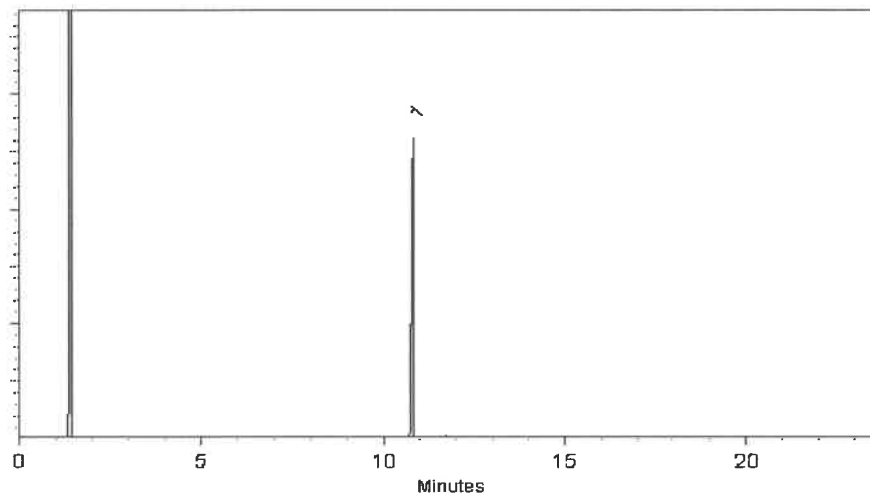
FID

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.
- 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.: 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:

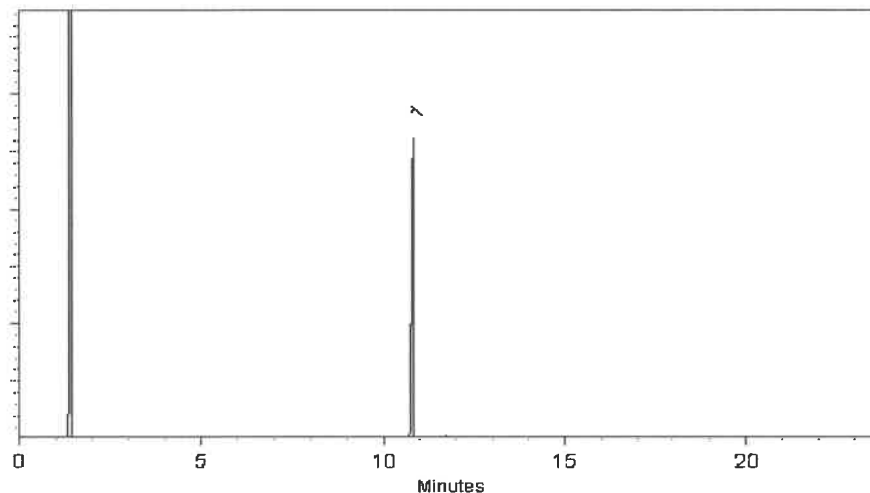
FID

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



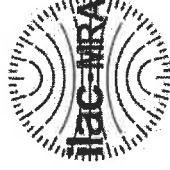
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CERTIFIED REFERENCE MATERIAL

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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.)

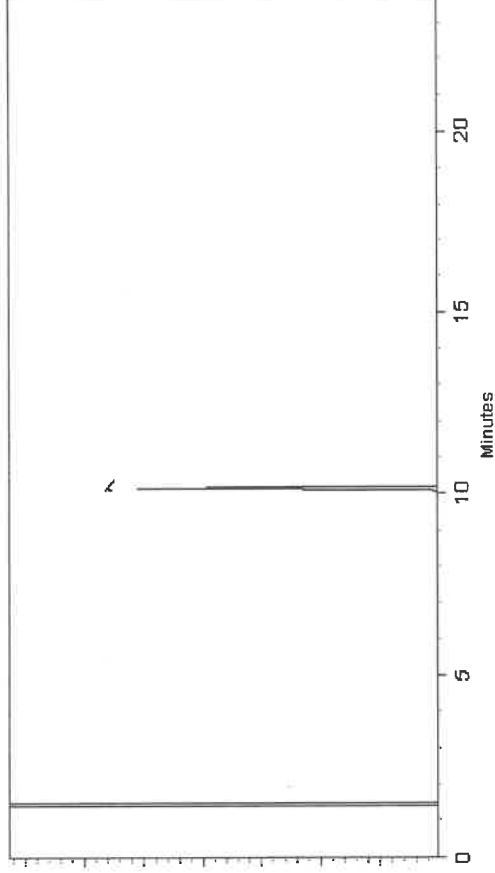
Inj. Temp:
250°C

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.



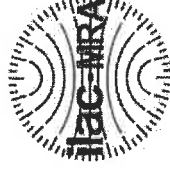
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FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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.)

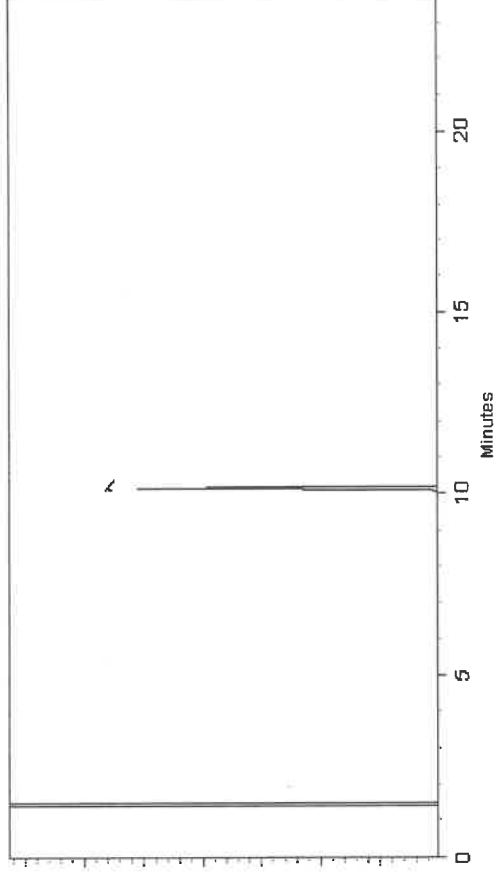
Inj. Temp:
250°C

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:

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

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:

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



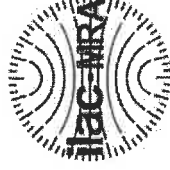
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FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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.)

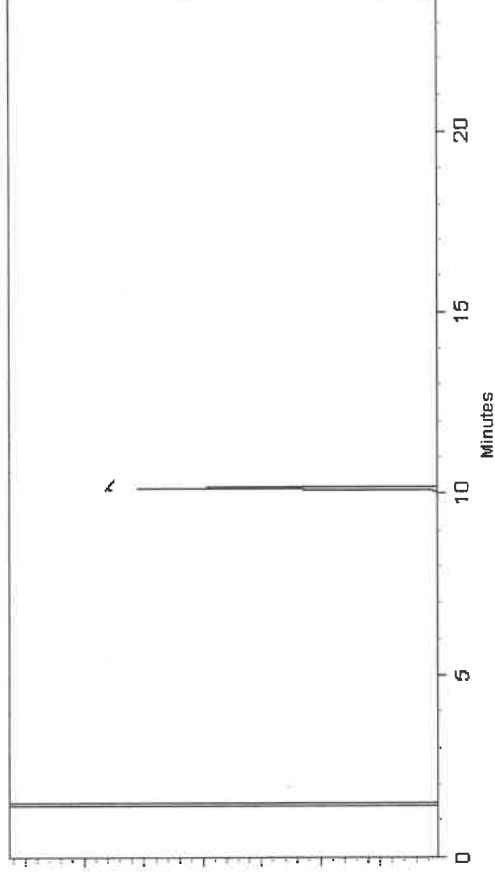
Inj. Temp:
250°C

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:

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

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.



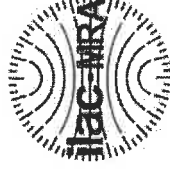
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FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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.)

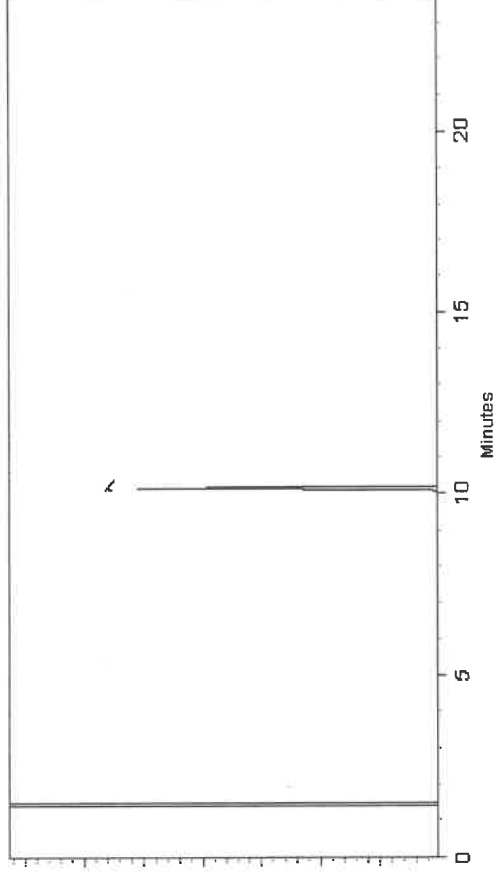
Inj. Temp:
250°C

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.

[Signature]

Laith Clemente - Operations Technician I

Date Mixed: 07-Nov-2023 **Balance Serial #** 1128360905

[Signature]

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. : 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:

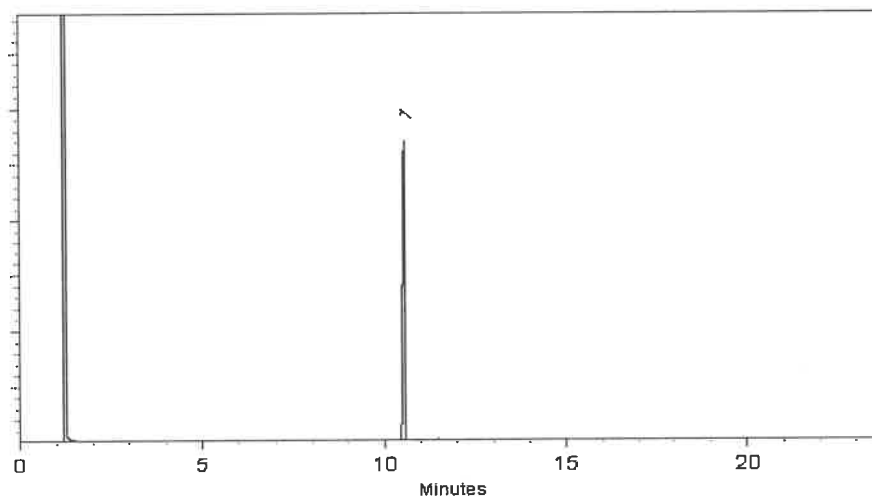
FID

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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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

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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:

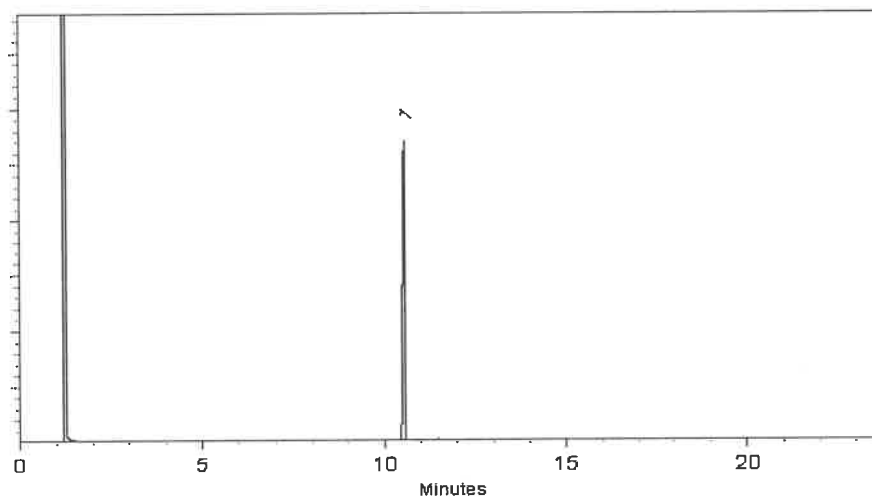
FID

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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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:

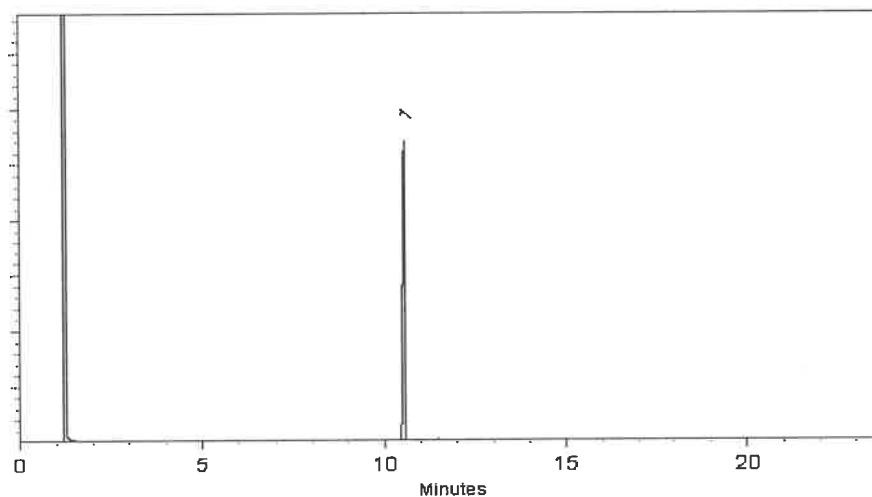
FID

Split Vent:

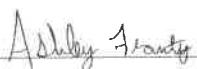
10 ml/min.

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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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.:** A0203911

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 : November 30, 2030 **Storage:** 10°C or colder

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

P13053 } Y.P.
↓
P13099 } 01/12/24

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%	200.0 µg/mL	+/- 5.1667
2	n-Decane (C10)	124-18-5	SHBQ1342	99%	200.0 µg/mL	+/- 5.1667
3	n-Dodecane (C12)	112-40-3	SHBP7054	99%	200.7 µg/mL	+/- 5.1839
4	n-Tetradecane (C14)	629-59-4	STBK5437	99%	200.7 µg/mL	+/- 5.1839
5	n-Hexadecane (C16)	544-76-3	SHBP8192	99%	200.3 µg/mL	+/- 5.1753
6	n-Octadecane (C18)	593-45-3	UE5NG	98%	200.6 µg/mL	+/- 5.1815
7	n-Eicosane (C20)	112-95-8	MKCN8767	97%	200.1 µg/mL	+/- 5.1704
8	n-Heneicosane (C21)	629-94-7	MKCL8682	99%	200.3 µg/mL	+/- 5.1753
9	n-Docosane (C22)	629-97-0	MKCQ3882	99%	200.0 µg/mL	+/- 5.1667
10	n-Tetracosane (C24)	646-31-1	MKCQ8345	99%	200.3 µg/mL	+/- 5.1753
11	n-Hexacosane (C26)	630-01-3	MKCQ4814	99%	200.0 µg/mL	+/- 5.1667
12	n-Octacosane (C28)	630-02-4	BCCG0084	99%	200.3 µg/mL	+/- 5.1753
13	n-Triacontane (C30)	638-68-6	MKCQ9436	97%	200.5 µg/mL	+/- 5.1788
14	n-Dotriacontane (C32)	544-85-4	BCBW0661	99%	200.0 µg/mL	+/- 5.1667
15	n-Tetratriacontane (C34)	14167-59-0	D3MZN	99%	200.0 µg/mL	+/- 5.1667
16	n-Hexatriacontane (C36)	630-06-8	Z27H018	99%	200.0 µg/mL	+/- 5.1667
17	n-Octatriacontane (C38)	7194-85-6	0000145137	96%	200.0 µg/mL	+/- 5.1667

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

Solvent: n-Pentane
CAS # 109-66-0
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:

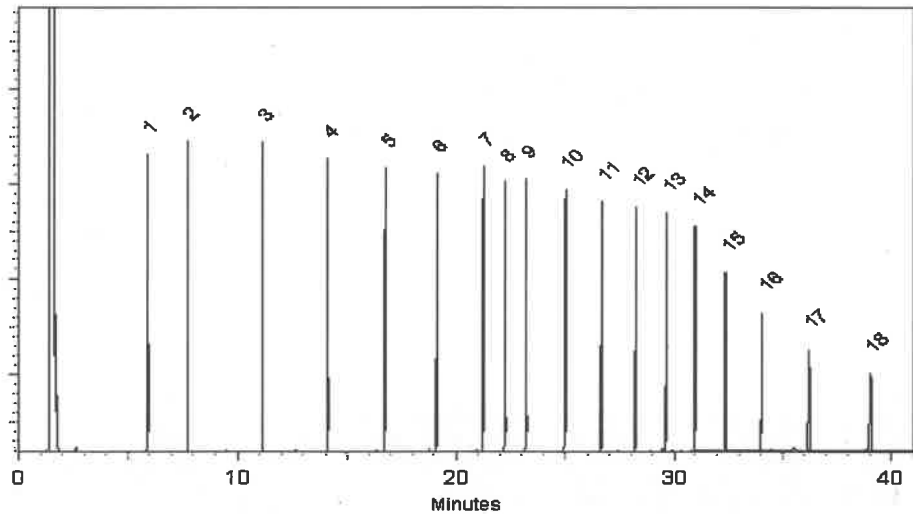
FID

Split Vent:

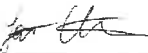
2 ml/min.

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.


Laith Clemente - Operations Technician I

Date Mixed: 31-Oct-2023

Balance Serial # B345965662


Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 06-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. : 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

P13100 } Y.P.
2/
P13102 } 01/12/24

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

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

Solvent: n-Pentane
CAS # 109-66-0
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.)

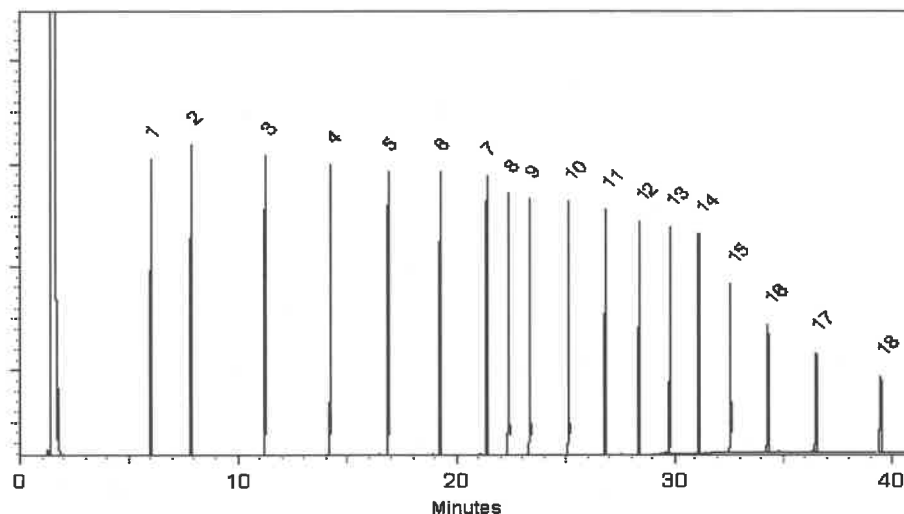
Inj. Temp:
250°C

Det. Temp:
330°C

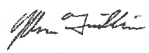
Det. Type:
FID

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.


John Friedline - Operations Technician I

Date Mixed: 18-Jul-2023 **Balance Serial #** 1127510105


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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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

P13100 } Y.P.
2/ }
P13102 } 01/12/24

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

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

Solvent: n-Pentane
CAS # 109-66-0
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.)

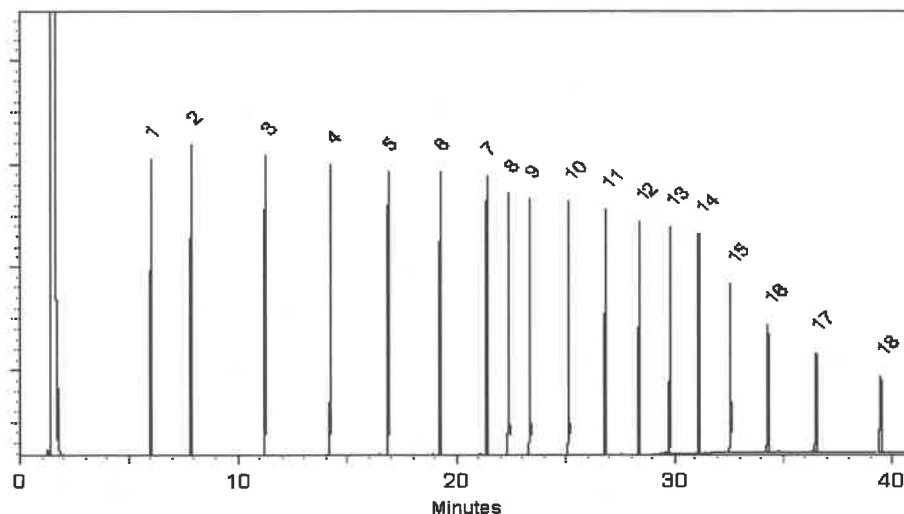
Inj. Temp:
250°C

Det. Temp:
330°C

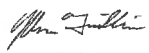
Det. Type:
FID

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.


John Friedline - Operations Technician I

Date Mixed: 18-Jul-2023 **Balance Serial #** 1127510105


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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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

P13100 } Y.P.
2/ }
P13102 } 01/12/24

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

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

Solvent: n-Pentane
CAS # 109-66-0
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.)

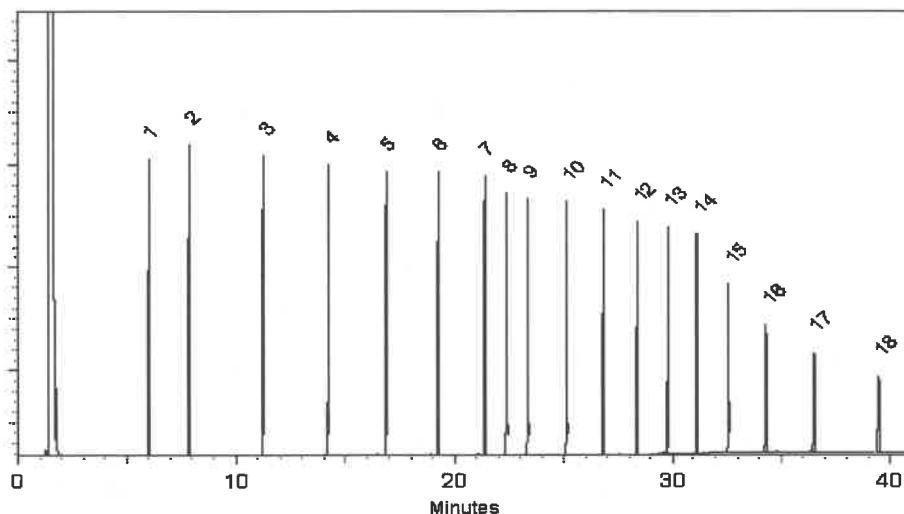
Inj. Temp:
250°C

Det. Temp:
330°C

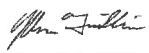
Det. Type:
FID

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.


John Friedline - Operations Technician I

Date Mixed: 18-Jul-2023 **Balance Serial #** 1127510105


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

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:

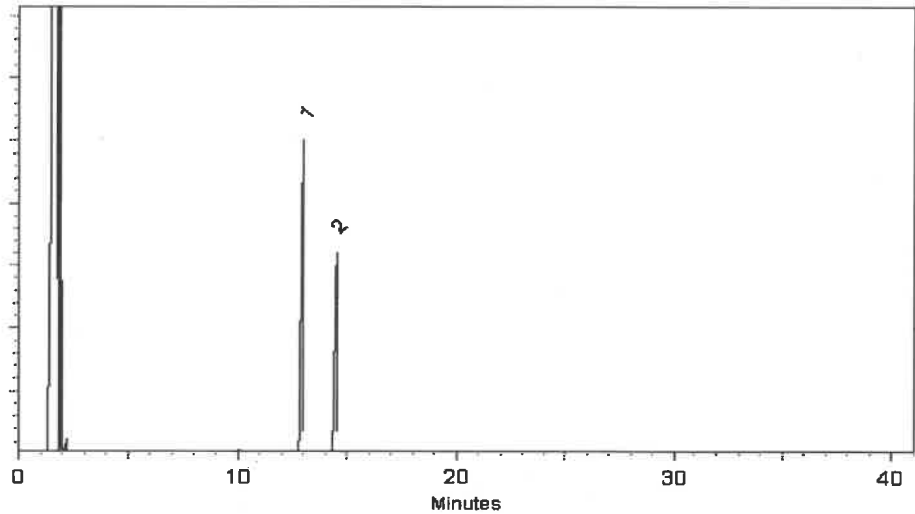
FID

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.
- 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. : 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:

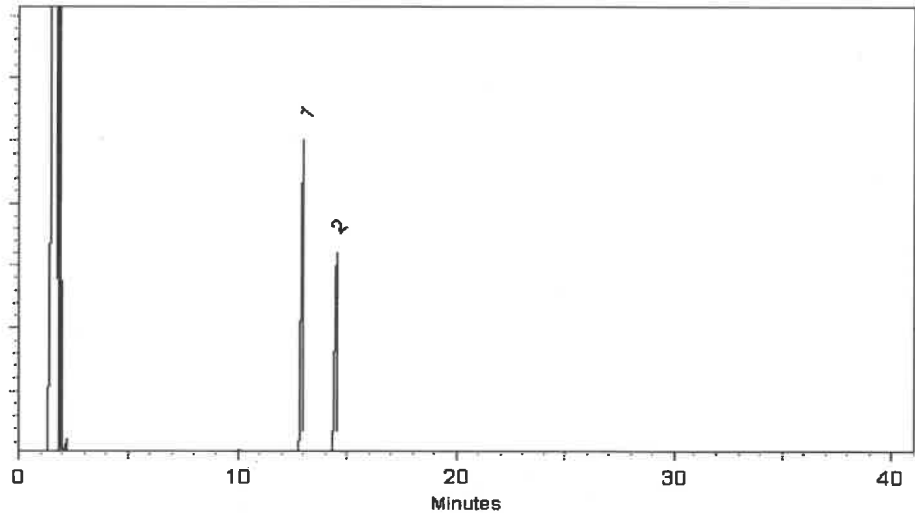
FID

Split Vent:

2 ml/min.

Inj. Vol

1µl



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Rebecca Gingerich

Rebecca Gingerich - Operations Tech II

Date Mixed: 11-Jan-2024

Balance Serial # B345965662

Dillon Murphy

Dillon 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.
- 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. : 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:

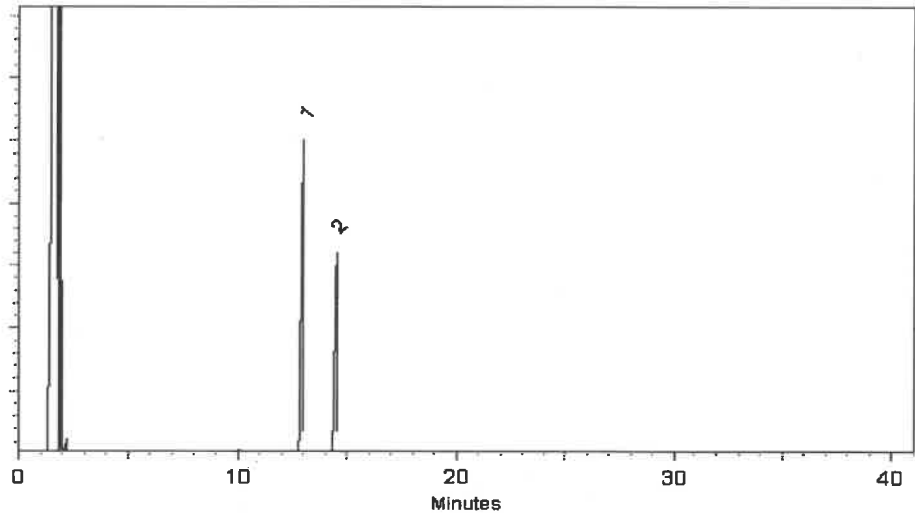
FID

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.
- 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%.

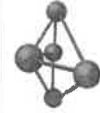
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

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.



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
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) orl-rat 1630mg/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) orl-rat 490mg/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	ivn-mus 218mg/kg
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
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	ivn-mus 3494mg/kg
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
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
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
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
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
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
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
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
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
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	ivn-mus 100mg/kg
17.	n-Tetraacontane	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
18.	n-Hexatriacontane	95708	120222	1.00	25.00	1001.5	1001.5	1000	NA	0.013	NA	NA	NA	1000.8	4.2	630-06-8	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
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

• 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).



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Fax: 1-814-353-1309

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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 30542 **Lot No.:** A0207239

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 : February 28, 2031 **Storage:** 10°C or colder

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

P13288 } Y.P.
↓
P13317 } 06/28/24

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%	201.0 µg/mL	+/- 5.1926
2	n-Decane (C10)	124-18-5	SHBQ1342	99%	200.7 µg/mL	+/- 5.1839
3	n-Dodecane (C12)	112-40-3	SHBP7054	99%	200.7 µg/mL	+/- 5.1839
4	n-Tetradecane (C14)	629-59-4	STBL0465	99%	200.7 µg/mL	+/- 5.1839
5	n-Hexadecane (C16)	544-76-3	SHBM4146	98%	200.6 µg/mL	+/- 5.1815
6	n-Octadecane (C18)	593-45-3	UE5NG	98%	199.9 µg/mL	+/- 5.1647
7	n-Eicosane (C20)	112-95-8	MKCN8767	97%	199.8 µg/mL	+/- 5.1621
8	n-Heneicosane (C21)	629-94-7	MKCL8682	99%	200.7 µg/mL	+/- 5.1839
9	n-Docosane (C22)	629-97-0	MKCQ3882	99%	200.0 µg/mL	+/- 5.1667
10	n-Tetracosane (C24)	646-31-1	MKCS9978	99%	200.7 µg/mL	+/- 5.1839
11	n-Hexacosane (C26)	630-01-3	MKCQ4814	99%	200.3 µg/mL	+/- 5.1753
12	n-Octacosane (C28)	630-02-4	BCCG0084	99%	200.3 µg/mL	+/- 5.1753
13	n-Triacontane (C30)	638-68-6	MKCQ9436	97%	199.8 µg/mL	+/- 5.1621
14	n-Dotriacontane (C32)	544-85-4	BCBW0661	99%	201.0 µg/mL	+/- 5.1926
15	n-Tetratriacontane (C34)	14167-59-0	OML4N	99%	200.7 µg/mL	+/- 5.1839
16	n-Hexatriacontane (C36)	630-06-8	Z27H018	99%	200.0 µg/mL	+/- 5.1667
17	n-Octatriacontane (C38)	7194-85-6	0000145137	96%	201.0 µg/mL	+/- 5.1915

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

Solvent: n-Pentane
CAS # 109-66-0
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.)

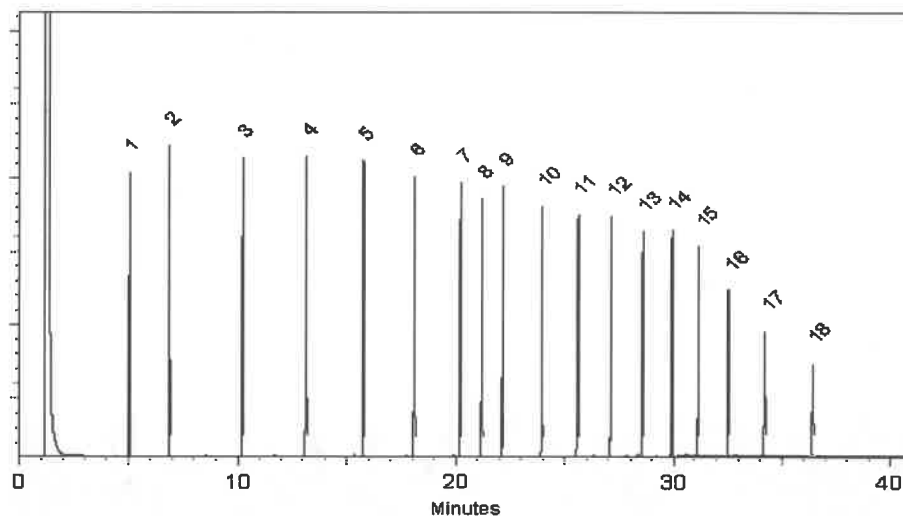
Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID

Split Vent:
2 ml/min.

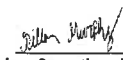
Inj. Vol
1µl



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.


Matt Fragassi - Mix Technician

Date Mixed: 31-Jan-2024 **Balance Serial #** 1128353505


Dillan Murphy - Operations Technician I

Date Passed: 02-Feb-2024

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/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. : 30542 **Lot No.:** A0207239

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 : February 28, 2031 **Storage:** 10°C or colder

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

P13h17 } Y-P.
2 }
P13h29 } 07/11/24.

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%	201.0 µg/mL	+/- 5.1926
2	n-Decane (C10)	124-18-5	SHBQ1342	99%	200.7 µg/mL	+/- 5.1839
3	n-Dodecane (C12)	112-40-3	SHBP7054	99%	200.7 µg/mL	+/- 5.1839
4	n-Tetradecane (C14)	629-59-4	STBL0465	99%	200.7 µg/mL	+/- 5.1839
5	n-Hexadecane (C16)	544-76-3	SHBM4146	98%	200.6 µg/mL	+/- 5.1815
6	n-Octadecane (C18)	593-45-3	UE5NG	98%	199.9 µg/mL	+/- 5.1647
7	n-Eicosane (C20)	112-95-8	MKCN8767	97%	199.8 µg/mL	+/- 5.1621
8	n-Heneicosane (C21)	629-94-7	MKCL8682	99%	200.7 µg/mL	+/- 5.1839
9	n-Docosane (C22)	629-97-0	MKCCQ3882	99%	200.0 µg/mL	+/- 5.1667
10	n-Tetracosane (C24)	646-31-1	MKCS9978	99%	200.7 µg/mL	+/- 5.1839
11	n-Hexacosane (C26)	630-01-3	MKCCQ4814	99%	200.3 µg/mL	+/- 5.1753
12	n-Octacosane (C28)	630-02-4	BCCG0084	99%	200.3 µg/mL	+/- 5.1753
13	n-Triacontane (C30)	638-68-6	MKCCQ9436	97%	199.8 µg/mL	+/- 5.1621
14	n-Dotriacontane (C32)	544-85-4	BCBW0661	99%	201.0 µg/mL	+/- 5.1926
15	n-Tetratriacontane (C34)	14167-59-0	OML4N	99%	200.7 µg/mL	+/- 5.1839
16	n-Hexatriacontane (C36)	630-06-8	Z27H018	99%	200.0 µg/mL	+/- 5.1667
17	n-Octatriacontane (C38)	7194-85-6	0000145137	96%	201.0 µg/mL	+/- 5.1915

18	n-Tetracontane (C40)	4181-95-7	OKEGA	99%	200.3 µg/mL	+/- 5.1753
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* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: n-Pentane
CAS # 109-66-0
Purity 99%

Quality Confirmation Test

Column:
30m x 0.25mm x 0.25µm
Rtx-S (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.)

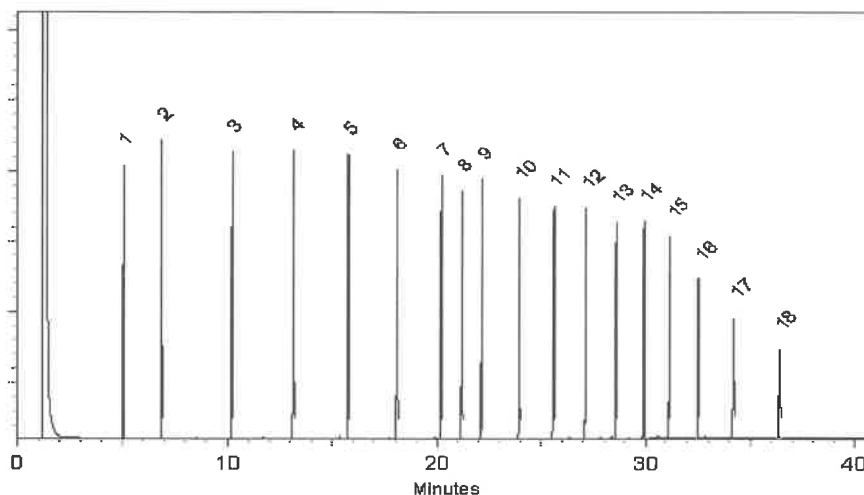
Inj. Temp:
250°C

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.

Matt Fraga
Matt Fragaesi - Mix Technician

Date Mixed: 31-Jan-2024 **Balance Serial #** 1128353505

Dylan Murphy
Dylan Murphy - Operations Technician I

Date Passed: 02-Feb-2024

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/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. : 30542 **Lot No.:** A0207239

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 : February 28, 2031 **Storage:** 10°C or colder

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

P13h17 } Y-P.
2 }
P13h29 } 07/11/24.

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%	201.0 µg/mL	+/- 5.1926
2	n-Decane (C10)	124-18-5	SHBQ1342	99%	200.7 µg/mL	+/- 5.1839
3	n-Dodecane (C12)	112-40-3	SHBP7054	99%	200.7 µg/mL	+/- 5.1839
4	n-Tetradecane (C14)	629-59-4	STBL0465	99%	200.7 µg/mL	+/- 5.1839
5	n-Hexadecane (C16)	544-76-3	SHBM4146	98%	200.6 µg/mL	+/- 5.1815
6	n-Octadecane (C18)	593-45-3	UE5NG	98%	199.9 µg/mL	+/- 5.1647
7	n-Eicosane (C20)	112-95-8	MKCN8767	97%	199.8 µg/mL	+/- 5.1621
8	n-Heneicosane (C21)	629-94-7	MKCL8682	99%	200.7 µg/mL	+/- 5.1839
9	n-Docosane (C22)	629-97-0	MKQC3882	99%	200.0 µg/mL	+/- 5.1667
10	n-Tetracosane (C24)	646-31-1	MKCS9978	99%	200.7 µg/mL	+/- 5.1839
11	n-Hexacosane (C26)	630-01-3	MKQC4814	99%	200.3 µg/mL	+/- 5.1753
12	n-Octacosane (C28)	630-02-4	BCCG0084	99%	200.3 µg/mL	+/- 5.1753
13	n-Triacontane (C30)	638-68-6	MKQC9436	97%	199.8 µg/mL	+/- 5.1621
14	n-Dotriacontane (C32)	544-85-4	BCBW0661	99%	201.0 µg/mL	+/- 5.1926
15	n-Tetratriacontane (C34)	14167-59-0	OML4N	99%	200.7 µg/mL	+/- 5.1839
16	n-Hexatriacontane (C36)	630-06-8	Z27H018	99%	200.0 µg/mL	+/- 5.1667
17	n-Octatriacontane (C38)	7194-85-6	0000145137	96%	201.0 µg/mL	+/- 5.1915

18	n-Tetracontane (C40)	4181-95-7	OKEGA	99%	200.3 µg/mL	+/- 5.1753
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* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: n-Pentane
CAS # 109-66-0
Purity 99%

Quality Confirmation Test

Column:
30m x 0.25mm x 0.25µm
Rtx-S (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.)

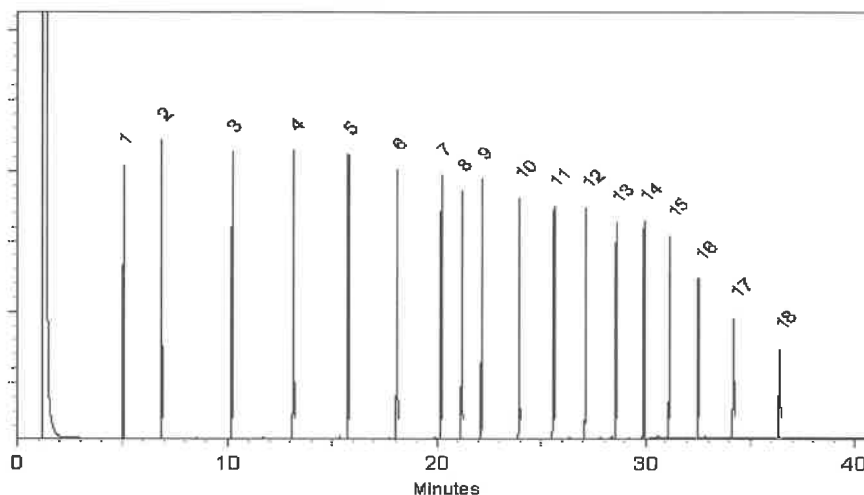
Inj. Temp:
250°C

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.

Matt Fraga
Matt Fragaesi - Mix Technician

Date Mixed: 31-Jan-2024 **Balance Serial #** 1128353505

Dylan Murphy
Dylan Murphy - Operations Technician I

Date Passed: 02-Feb-2024

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/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. : 31480 **Lot No.:** A0210831
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 : March 31, 2030 **Storage:** 10°C or colder
Handling: Sonication required. Mix is photosensitive. **Ship:** Ambient

P13h57
↓
P13h78 } Y.P.
67/23/24

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%	4,031.0 µg/mL	+/- 181.5871
2	2-Bromonaphthalene	580-13-2	STBC5362V	99%	4,037.5 µg/mL	+/- 181.8799

* 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:

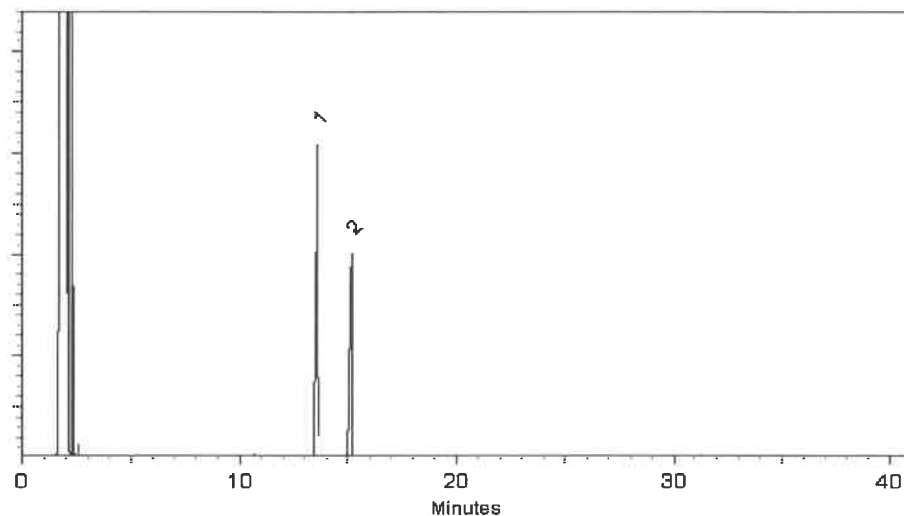
FID

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.

Stacey Wanner - Operations Technician I

Date Mixed: 29-Apr-2024

Balance Serial #

B345965662

Dillan Murphy - Operations Technician I

Date Passed: 30-Apr-2024

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/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. : 30542 **Lot No.:** A0211112

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 : June 30, 2031 **Storage:** 10°C or colder

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

P13625
↓
P13644 } Y.P.
10/16/24

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%	200.9 µg/mL	+/- 5.1891
2	n-Decane (C10)	124-18-5	SHBQ1342	99%	200.7 µg/mL	+/- 5.1857
3	n-Dodecane (C12)	112-40-3	SHBP7054	99%	200.4 µg/mL	+/- 5.1771
4	n-Tetradecane (C14)	629-59-4	STBK5437	99%	200.7 µg/mL	+/- 5.1839
5	n-Hexadecane (C16)	544-76-3	SHBR0669	99%	200.6 µg/mL	+/- 5.1822
6	n-Octadecane (C18)	593-45-3	UE5NG	98%	200.4 µg/mL	+/- 5.1782
7	n-Eicosane (C20)	112-95-8	MKCN8767	97%	200.4 µg/mL	+/- 5.1771
8	n-Heneicosane (C21)	629-94-7	MKCL3226	99%	200.5 µg/mL	+/- 5.1796
9	n-Docosane (C22)	629-97-0	MKCQ3882	99%	200.6 µg/mL	+/- 5.1814
10	n-Tetracosane (C24)	646-31-1	MKCS9978	99%	200.5 µg/mL	+/- 5.1805
11	n-Hexacosane (C26)	630-01-3	MKCQ4814	99%	200.5 µg/mL	+/- 5.1796
12	n-Octacosane (C28)	630-02-4	BCCG0084	99%	200.5 µg/mL	+/- 5.1796
13	n-Triacontane (C30)	638-68-6	MKCQ9436	97%	200.4 µg/mL	+/- 5.1763
14	n-Dotriacontane (C32)	544-85-4	BCBW0661	99%	200.4 µg/mL	+/- 5.1779
15	n-Tetratriacontane (C34)	14167-59-0	D3MZN	99%	200.5 µg/mL	+/- 5.1805
16	n-Hexatriacontane (C36)	630-06-8	Z27H018	99%	200.6 µg/mL	+/- 5.1814
17	n-Octatriacontane (C38)	7194-85-6	0000145137	96%	200.5 µg/mL	+/- 5.1808

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

Solvent: n-Pentane**CAS #** 109-66-0**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:

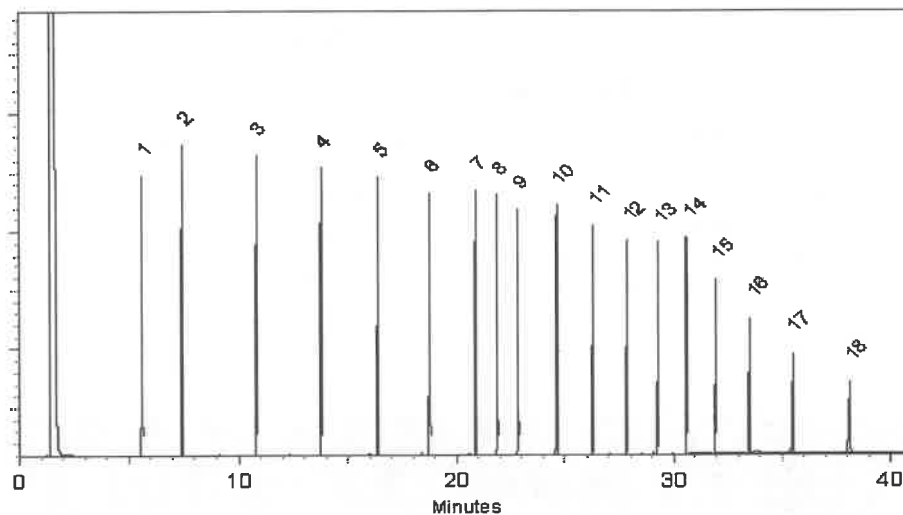
FID

Split Vent:

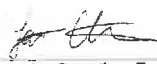
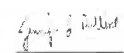
2 ml/min.

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.


Laith Clemente - Operations Technician I**Date Mixed:** 07-May-2024**Balance Serial #** 1128360905
Jennifer Pollino - Operations Tech III - ARM QC**Date Passed:** 09-May-2024

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/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. : 30542 **Lot No.:** A0211112

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 : June 30, 2031 **Storage:** 10°C or colder

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

P13625
↓
P13644 } Y.P.
10/16/24

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%	200.9 µg/mL	+/- 5.1891
2	n-Decane (C10)	124-18-5	SHBQ1342	99%	200.7 µg/mL	+/- 5.1857
3	n-Dodecane (C12)	112-40-3	SHBP7054	99%	200.4 µg/mL	+/- 5.1771
4	n-Tetradecane (C14)	629-59-4	STBK5437	99%	200.7 µg/mL	+/- 5.1839
5	n-Hexadecane (C16)	544-76-3	SHBR0669	99%	200.6 µg/mL	+/- 5.1822
6	n-Octadecane (C18)	593-45-3	UE5NG	98%	200.4 µg/mL	+/- 5.1782
7	n-Eicosane (C20)	112-95-8	MKCN8767	97%	200.4 µg/mL	+/- 5.1771
8	n-Heneicosane (C21)	629-94-7	MKCL3226	99%	200.5 µg/mL	+/- 5.1796
9	n-Docosane (C22)	629-97-0	MKCQ3882	99%	200.6 µg/mL	+/- 5.1814
10	n-Tetracosane (C24)	646-31-1	MKCS9978	99%	200.5 µg/mL	+/- 5.1805
11	n-Hexacosane (C26)	630-01-3	MKCQ4814	99%	200.5 µg/mL	+/- 5.1796
12	n-Octacosane (C28)	630-02-4	BCCG0084	99%	200.5 µg/mL	+/- 5.1796
13	n-Triacontane (C30)	638-68-6	MKCQ9436	97%	200.4 µg/mL	+/- 5.1763
14	n-Dotriacontane (C32)	544-85-4	BCBW0661	99%	200.4 µg/mL	+/- 5.1779
15	n-Tetratriacontane (C34)	14167-59-0	D3MZN	99%	200.5 µg/mL	+/- 5.1805
16	n-Hexatriacontane (C36)	630-06-8	Z27H018	99%	200.6 µg/mL	+/- 5.1814
17	n-Octatriacontane (C38)	7194-85-6	0000145137	96%	200.5 µg/mL	+/- 5.1808

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

Solvent: n-Pentane
CAS # 109-66-0
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:

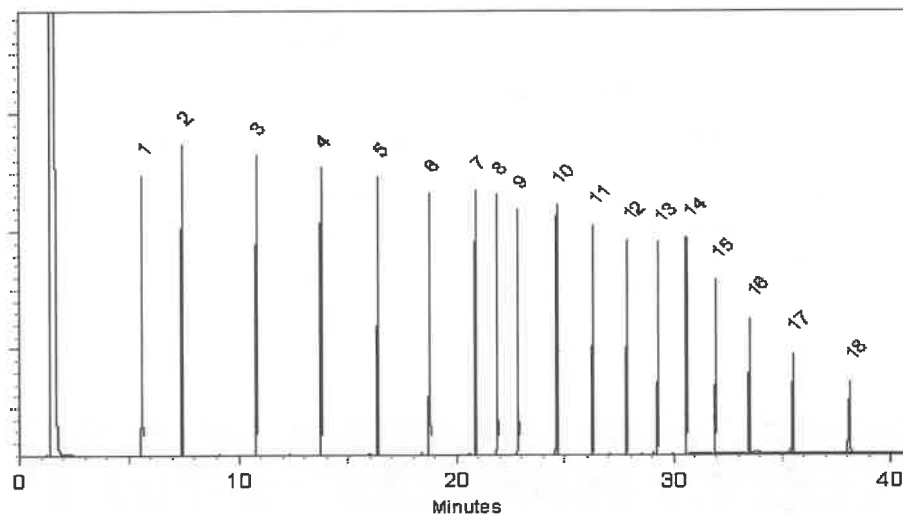
FID

Split Vent:

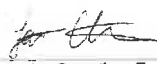
2 ml/min.

Inj. Vol

1µl

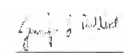


This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.


Laith Clemente - Operations Technician I

Date Mixed: 07-May-2024

Balance Serial # 1128360905


Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 09-May-2024

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/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. : 30542 **Lot No.:** A0211112

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 : June 30, 2031 **Storage:** 10°C or colder

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

P13625
↓
P13644 } Y.P.
10/16/24

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%	200.9 µg/mL	+/- 5.1891
2	n-Decane (C10)	124-18-5	SHBQ1342	99%	200.7 µg/mL	+/- 5.1857
3	n-Dodecane (C12)	112-40-3	SHBP7054	99%	200.4 µg/mL	+/- 5.1771
4	n-Tetradecane (C14)	629-59-4	STBK5437	99%	200.7 µg/mL	+/- 5.1839
5	n-Hexadecane (C16)	544-76-3	SHBR0669	99%	200.6 µg/mL	+/- 5.1822
6	n-Octadecane (C18)	593-45-3	UE5NG	98%	200.4 µg/mL	+/- 5.1782
7	n-Eicosane (C20)	112-95-8	MKCN8767	97%	200.4 µg/mL	+/- 5.1771
8	n-Heneicosane (C21)	629-94-7	MKCL3226	99%	200.5 µg/mL	+/- 5.1796
9	n-Docosane (C22)	629-97-0	MKCQ3882	99%	200.6 µg/mL	+/- 5.1814
10	n-Tetracosane (C24)	646-31-1	MKCS9978	99%	200.5 µg/mL	+/- 5.1805
11	n-Hexacosane (C26)	630-01-3	MKCQ4814	99%	200.5 µg/mL	+/- 5.1796
12	n-Octacosane (C28)	630-02-4	BCCG0084	99%	200.5 µg/mL	+/- 5.1796
13	n-Triacontane (C30)	638-68-6	MKCQ9436	97%	200.4 µg/mL	+/- 5.1763
14	n-Dotriacontane (C32)	544-85-4	BCBW0661	99%	200.4 µg/mL	+/- 5.1779
15	n-Tetratriacontane (C34)	14167-59-0	D3MZN	99%	200.5 µg/mL	+/- 5.1805
16	n-Hexatriacontane (C36)	630-06-8	Z27H018	99%	200.6 µg/mL	+/- 5.1814
17	n-Octatriacontane (C38)	7194-85-6	0000145137	96%	200.5 µg/mL	+/- 5.1808

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

Solvent: n-Pentane**CAS #** 109-66-0**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:

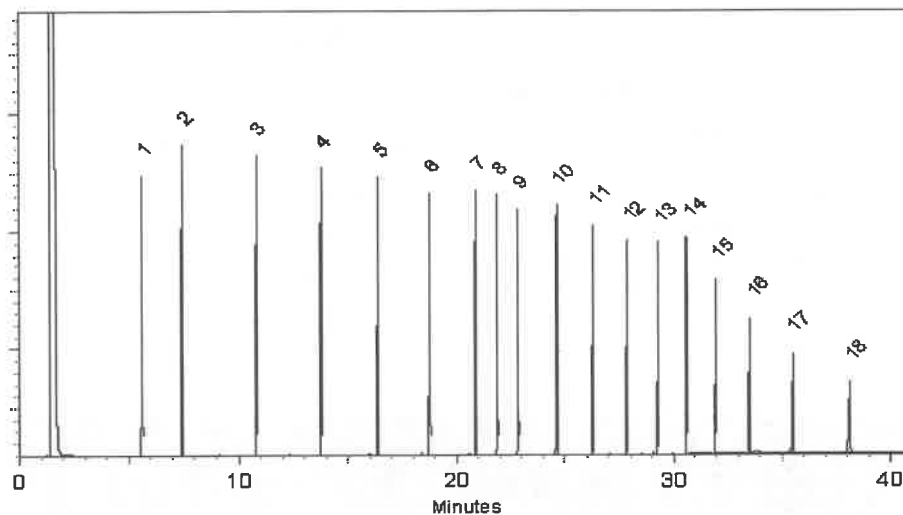
FID

Split Vent:

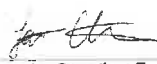
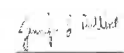
2 ml/min.

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.


Laith Clemente - Operations Technician I**Date Mixed:** 07-May-2024**Balance Serial #** 1128360905
Jennifer Pollino - Operations Tech III - ARM QC**Date Passed:** 09-May-2024

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/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.:** A0216631
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 : April 30, 2028 **Storage:** 10°C or colder
Handling: Sonicate prior to use. **Ship:** Ambient

P13645 } Y.P.
↓
P13694 } 10/16/24

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%	10,065.0 µg/mL	+/- 453.3336

* 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:

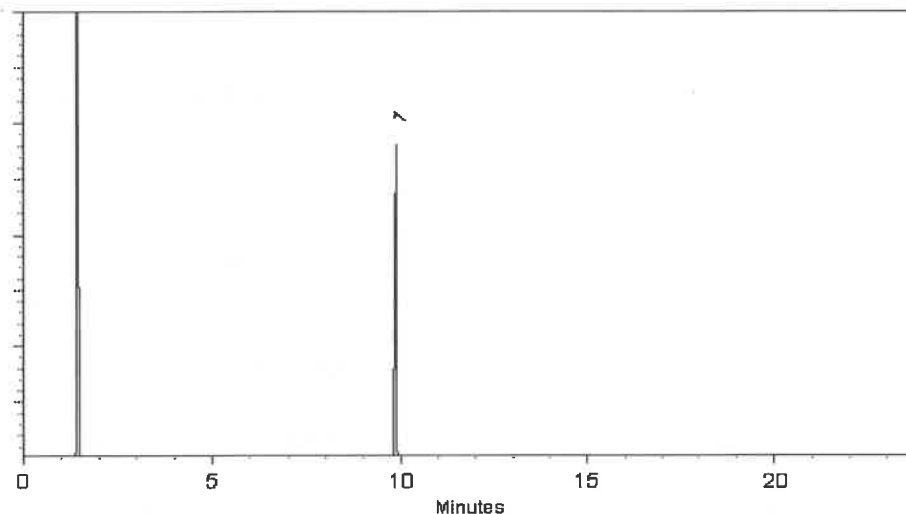
FID

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.

Ven Kelley - Operations Tech I

Date Mixed: 17-Sep-2024

Balance Serial # 1128353505

Dillan Murphy - Operations Technician I

Date Passed: 23-Sep-2024

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/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. : 30543

Lot No.: A0217838

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 : September 30, 2030

Storage: 10°C or colder

Handling: Sonication required. Mix is photosensitive.

Ship: Ambient

p137A } 7.P
↓
p13727 } 10/24/24

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	8776.10-38	99%	201.6 µg/mL	+/- 9.0835
2	Naphthalene	91-20-3	STBL1057	99%	200.0 µg/mL	+/- 9.0114
3	2-Methylnaphthalene	91-57-6	STBL3028	99%	200.4 µg/mL	+/- 9.0294
4	Acenaphthylene	208-96-8	214935V18H	95%	199.1 µg/mL	+/- 8.9717
5	Acenaphthene	83-32-9	MKCR7169	99%	200.4 µg/mL	+/- 9.0294
6	Fluorene	86-73-7	10246250	98%	201.5 µg/mL	+/- 9.0784
7	Phenanthrene	85-01-8	MKCT3391	99%	201.2 µg/mL	+/- 9.0655
8	Anthracene	120-12-7	101492T18R	99%	200.0 µg/mL	+/- 9.0114
9	Fluoranthene	206-44-0	MKQC4728	99%	200.4 µg/mL	+/- 9.0294
10	Pyrene	129-00-0	BCCK2592	99%	200.0 µg/mL	+/- 9.0114
11	Benz(a)anthracene	56-55-3	I60012022BAA	99%	200.0 µg/mL	+/- 9.0114
12	Chrysene	218-01-9	RP240627ECS	99%	200.4 µg/mL	+/- 9.0294
13	Benzo(b)fluoranthene	205-99-2	052013B	99%	201.2 µg/mL	+/- 9.0655
14	Benzo(k)fluoranthene	207-08-9	012022K	99%	201.6 µg/mL	+/- 9.0835
15	Benzo(a)pyrene	50-32-8	NQLXA	98%	199.9 µg/mL	+/- 9.0078
16	Indeno(1,2,3-cd)pyrene	193-39-5	12-JKL-118-9	97%	199.0 µg/mL	+/- 8.9683

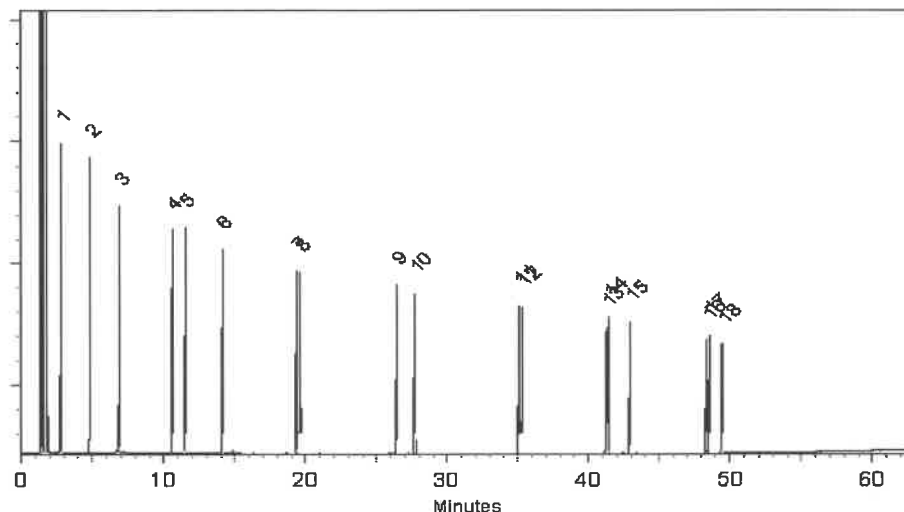
17	Dibenz(a,h)anthracene	53-70-3	2-ASA-59-1	99%	200.0 µg/mL	+/- 9.0114
18	Benzo(g,h,i)perylene	191-24-2	RP240625RSR	97%	199.0 µg/mL	+/- 8.9683

* 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



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: 14-Oct-2024 **Balance Serial #** 1128360905

Brittany Federinko
Brittany Federinko - Operations Tech I

Date Passed: 21-Oct-2024

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/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
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Fax: 1-814-353-1309

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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 30543

Lot No.: A0217838

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 : September 30, 2030

Storage: 10°C or colder

Handling: Sonication required. Mix is photosensitive.

Ship: Ambient

p137A } 7.P
↓
p13727 } 10/24/24

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	8776.10-38	99%	201.6 µg/mL	+/- 9.0835
2	Naphthalene	91-20-3	STBL1057	99%	200.0 µg/mL	+/- 9.0114
3	2-Methylnaphthalene	91-57-6	STBL3028	99%	200.4 µg/mL	+/- 9.0294
4	Acenaphthylene	208-96-8	214935V18H	95%	199.1 µg/mL	+/- 8.9717
5	Acenaphthene	83-32-9	MKCR7169	99%	200.4 µg/mL	+/- 9.0294
6	Fluorene	86-73-7	10246250	98%	201.5 µg/mL	+/- 9.0784
7	Phenanthrene	85-01-8	MKCT3391	99%	201.2 µg/mL	+/- 9.0655
8	Anthracene	120-12-7	101492T18R	99%	200.0 µg/mL	+/- 9.0114
9	Fluoranthene	206-44-0	MKQC4728	99%	200.4 µg/mL	+/- 9.0294
10	Pyrene	129-00-0	BCCK2592	99%	200.0 µg/mL	+/- 9.0114
11	Benz(a)anthracene	56-55-3	I60012022BAA	99%	200.0 µg/mL	+/- 9.0114
12	Chrysene	218-01-9	RP240627ECS	99%	200.4 µg/mL	+/- 9.0294
13	Benzo(b)fluoranthene	205-99-2	052013B	99%	201.2 µg/mL	+/- 9.0655
14	Benzo(k)fluoranthene	207-08-9	012022K	99%	201.6 µg/mL	+/- 9.0835
15	Benzo(a)pyrene	50-32-8	NQLXA	98%	199.9 µg/mL	+/- 9.0078
16	Indeno(1,2,3-cd)pyrene	193-39-5	12-JKL-118-9	97%	199.0 µg/mL	+/- 8.9683

17	Dibenz(a,h)anthracene	53-70-3	2-ASA-59-1	99%	200.0 µg/mL	+/- 9.0114
18	Benzo(g,h,i)perylene	191-24-2	RP240625RSR	97%	199.0 µg/mL	+/- 8.9683

* 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.)

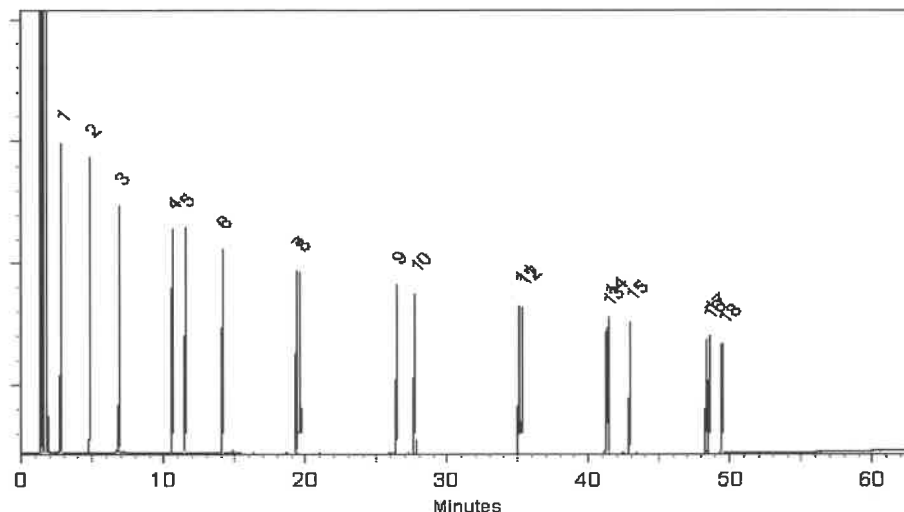
Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID

Split Vent:
20 ml/min.

Inj. Vol
1µl



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: 14-Oct-2024 **Balance Serial #** 1128360905

Brittany Federinko
Brittany Federinko - Operations Tech I

Date Passed: 21-Oct-2024

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
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- 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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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. : 30543

Lot No.: A0217838

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 : September 30, 2030

Storage: 10°C or colder

Handling: Sonication required. Mix is
photosensitive.

Ship: Ambient

p137A } 7.P
↓
p13727 } 10/24/24

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	8776.10-38	99%	201.6 µg/mL	+/- 9.0835
2	Naphthalene	91-20-3	STBL1057	99%	200.0 µg/mL	+/- 9.0114
3	2-Methylnaphthalene	91-57-6	STBL3028	99%	200.4 µg/mL	+/- 9.0294
4	Acenaphthylene	208-96-8	214935V18H	95%	199.1 µg/mL	+/- 8.9717
5	Acenaphthene	83-32-9	MKCR7169	99%	200.4 µg/mL	+/- 9.0294
6	Fluorene	86-73-7	10246250	98%	201.5 µg/mL	+/- 9.0784
7	Phenanthrene	85-01-8	MKCT3391	99%	201.2 µg/mL	+/- 9.0655
8	Anthracene	120-12-7	101492T18R	99%	200.0 µg/mL	+/- 9.0114
9	Fluoranthene	206-44-0	MKCQ4728	99%	200.4 µg/mL	+/- 9.0294
10	Pyrene	129-00-0	BCCK2592	99%	200.0 µg/mL	+/- 9.0114
11	Benz(a)anthracene	56-55-3	I60012022BAA	99%	200.0 µg/mL	+/- 9.0114
12	Chrysene	218-01-9	RP240627ECS	99%	200.4 µg/mL	+/- 9.0294
13	Benzo(b)fluoranthene	205-99-2	052013B	99%	201.2 µg/mL	+/- 9.0655
14	Benzo(k)fluoranthene	207-08-9	012022K	99%	201.6 µg/mL	+/- 9.0835
15	Benzo(a)pyrene	50-32-8	NQLXA	98%	199.9 µg/mL	+/- 9.0078
16	Indeno(1,2,3-cd)pyrene	193-39-5	12-JKL-118-9	97%	199.0 µg/mL	+/- 8.9683

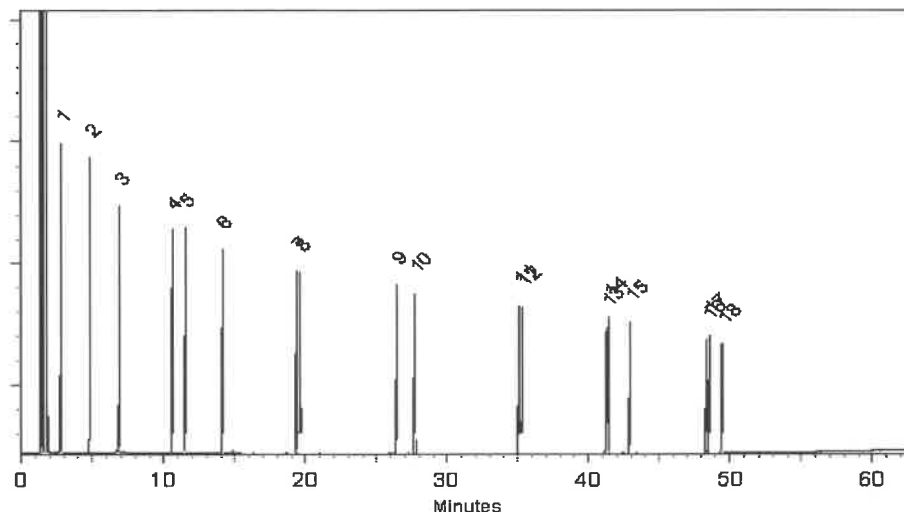
17	Dibenz(a,h)anthracene	53-70-3	2-ASA-59-1	99%	200.0 µg/mL	+/- 9.0114
18	Benzo(g,h,i)perylene	191-24-2	RP240625RSR	97%	199.0 µg/mL	+/- 8.9683

* 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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Rebecca Gingerich
Rebecca Gingerich - Operations Tech II

Date Mixed: 14-Oct-2024 **Balance Serial #** 1128360905

Brittany Federinko
Brittany Federinko - Operations Tech I

Date Passed: 21-Oct-2024

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

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- 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.
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Manufacturing Notes:

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Handling Notes:

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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus



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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. : 30543

Lot No.: A0217838

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 : September 30, 2030

Storage: 10°C or colder

Handling: Sonication required. Mix is photosensitive.

Ship: Ambient

p137A } 7.P
↓
p13727 } 10/24/24

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	8776.10-38	99%	201.6 µg/mL	+/- 9.0835
2	Naphthalene	91-20-3	STBL1057	99%	200.0 µg/mL	+/- 9.0114
3	2-Methylnaphthalene	91-57-6	STBL3028	99%	200.4 µg/mL	+/- 9.0294
4	Acenaphthylene	208-96-8	214935V18H	95%	199.1 µg/mL	+/- 8.9717
5	Acenaphthene	83-32-9	MKCR7169	99%	200.4 µg/mL	+/- 9.0294
6	Fluorene	86-73-7	10246250	98%	201.5 µg/mL	+/- 9.0784
7	Phenanthrene	85-01-8	MKCT3391	99%	201.2 µg/mL	+/- 9.0655
8	Anthracene	120-12-7	101492T18R	99%	200.0 µg/mL	+/- 9.0114
9	Fluoranthene	206-44-0	MKQC4728	99%	200.4 µg/mL	+/- 9.0294
10	Pyrene	129-00-0	BCCK2592	99%	200.0 µg/mL	+/- 9.0114
11	Benz(a)anthracene	56-55-3	I60012022BAA	99%	200.0 µg/mL	+/- 9.0114
12	Chrysene	218-01-9	RP240627ECS	99%	200.4 µg/mL	+/- 9.0294
13	Benzo(b)fluoranthene	205-99-2	052013B	99%	201.2 µg/mL	+/- 9.0655
14	Benzo(k)fluoranthene	207-08-9	012022K	99%	201.6 µg/mL	+/- 9.0835
15	Benzo(a)pyrene	50-32-8	NQLXA	98%	199.9 µg/mL	+/- 9.0078
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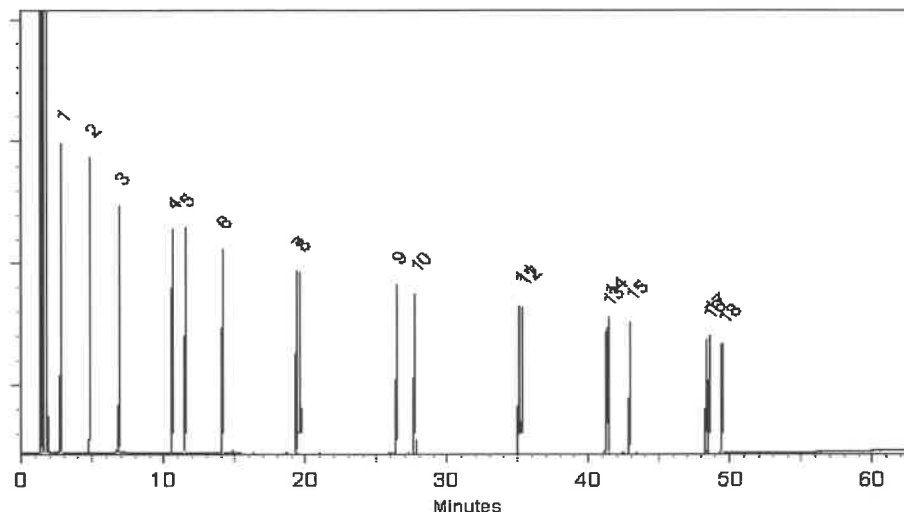
17	Dibenz(a,h)anthracene	53-70-3	2-ASA-59-1	99%	200.0 µg/mL	+/- 9.0114
18	Benzo(g,h,i)perylene	191-24-2	RP240625RSR	97%	199.0 µg/mL	+/- 8.9683

* 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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Rebecca Gingerich
Rebecca Gingerich - Operations Tech II

Date Mixed: 14-Oct-2024 **Balance Serial #** 1128360905

Brittany Federinko
Brittany Federinko - Operations Tech I

Date Passed: 21-Oct-2024

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

General Certified Reference Material Notes

Expiration Notes:

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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus



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Catalog No. : 30543

Lot No.: A0217838

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 : September 30, 2030

Storage: 10°C or colder

Handling: Sonication required. Mix is photosensitive.

Ship: Ambient

p137A } 7.P
↓
p13727 } 10/24/24

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
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3	2-Methylnaphthalene	91-57-6	STBL3028	99%	200.4 µg/mL	+/- 9.0294
4	Acenaphthylene	208-96-8	214935V18H	95%	199.1 µg/mL	+/- 8.9717
5	Acenaphthene	83-32-9	MKCR7169	99%	200.4 µg/mL	+/- 9.0294
6	Fluorene	86-73-7	10246250	98%	201.5 µg/mL	+/- 9.0784
7	Phenanthrene	85-01-8	MKCT3391	99%	201.2 µg/mL	+/- 9.0655
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9	Fluoranthene	206-44-0	MKQC4728	99%	200.4 µg/mL	+/- 9.0294
10	Pyrene	129-00-0	BCCK2592	99%	200.0 µg/mL	+/- 9.0114
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12	Chrysene	218-01-9	RP240627ECS	99%	200.4 µg/mL	+/- 9.0294
13	Benzo(b)fluoranthene	205-99-2	052013B	99%	201.2 µg/mL	+/- 9.0655
14	Benzo(k)fluoranthene	207-08-9	012022K	99%	201.6 µg/mL	+/- 9.0835
15	Benzo(a)pyrene	50-32-8	NQLXA	98%	199.9 µg/mL	+/- 9.0078
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* 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.)

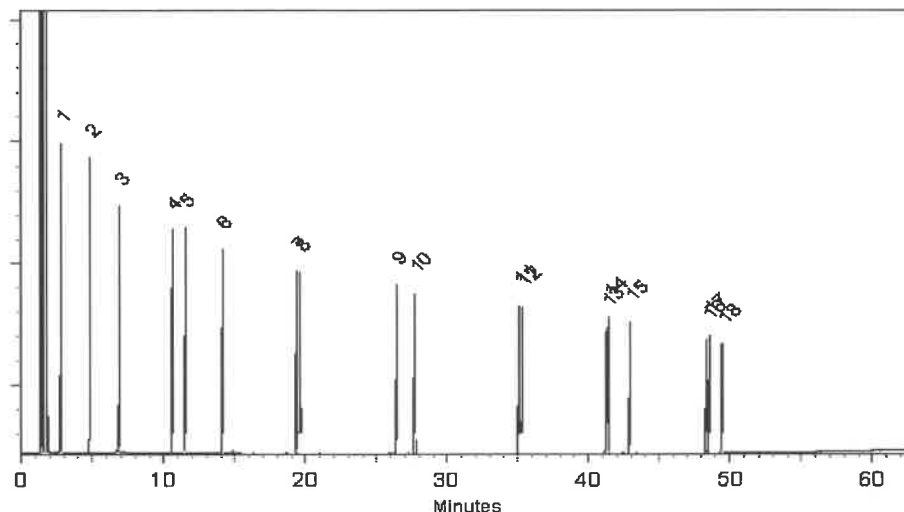
Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID

Split Vent:
20 ml/min.

Inj. Vol
1µl



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: 14-Oct-2024 **Balance Serial #** 1128360905

Brittany Federinko
Brittany Federinko - Operations Tech I

Date Passed: 21-Oct-2024

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/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:

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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. : 30543

Lot No.: A0217838

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 : September 30, 2030

Storage: 10°C or colder

Handling: Sonication required. Mix is photosensitive.

Ship: Ambient

p137A
↓
p13727 } 7.P
10/24/24

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	8776.10-38	99%	201.6 µg/mL	+/- 9.0835
2	Naphthalene	91-20-3	STBL1057	99%	200.0 µg/mL	+/- 9.0114
3	2-Methylnaphthalene	91-57-6	STBL3028	99%	200.4 µg/mL	+/- 9.0294
4	Acenaphthylene	208-96-8	214935V18H	95%	199.1 µg/mL	+/- 8.9717
5	Acenaphthene	83-32-9	MKCR7169	99%	200.4 µg/mL	+/- 9.0294
6	Fluorene	86-73-7	10246250	98%	201.5 µg/mL	+/- 9.0784
7	Phenanthrene	85-01-8	MKCT3391	99%	201.2 µg/mL	+/- 9.0655
8	Anthracene	120-12-7	101492T18R	99%	200.0 µg/mL	+/- 9.0114
9	Fluoranthene	206-44-0	MKQC4728	99%	200.4 µg/mL	+/- 9.0294
10	Pyrene	129-00-0	BCCK2592	99%	200.0 µg/mL	+/- 9.0114
11	Benz(a)anthracene	56-55-3	I60012022BAA	99%	200.0 µg/mL	+/- 9.0114
12	Chrysene	218-01-9	RP240627ECS	99%	200.4 µg/mL	+/- 9.0294
13	Benzo(b)fluoranthene	205-99-2	052013B	99%	201.2 µg/mL	+/- 9.0655
14	Benzo(k)fluoranthene	207-08-9	012022K	99%	201.6 µg/mL	+/- 9.0835
15	Benzo(a)pyrene	50-32-8	NQLXA	98%	199.9 µg/mL	+/- 9.0078
16	Indeno(1,2,3-cd)pyrene	193-39-5	12-JKL-118-9	97%	199.0 µg/mL	+/- 8.9683

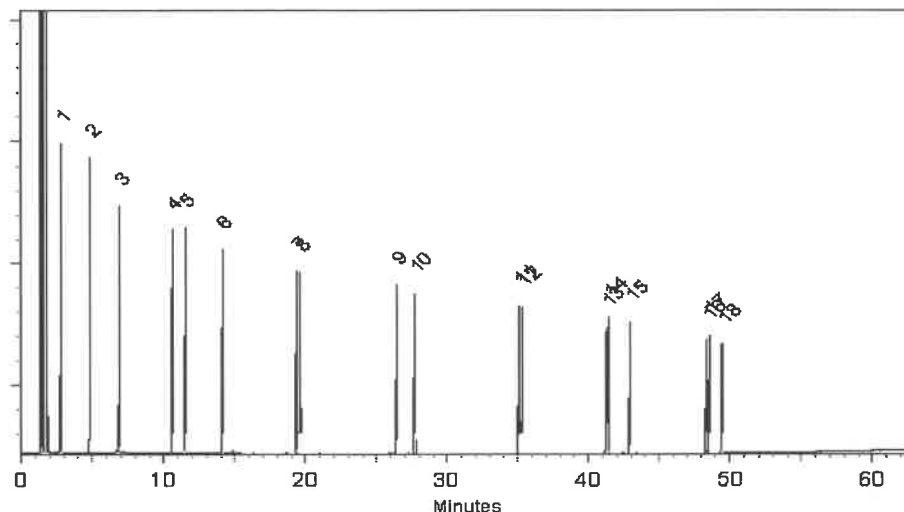
17	Dibenz(a,h)anthracene	53-70-3	2-ASA-59-1	99%	200.0 µg/mL	+/- 9.0114
18	Benzo(g,h,i)perylene	191-24-2	RP240625RSR	97%	199.0 µg/mL	+/- 8.9683

* 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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Rebecca Gingerich
Rebecca Gingerich - Operations Tech II

Date Mixed: 14-Oct-2024 **Balance Serial #** 1128360905

Brittany Federinko
Brittany Federinko - Operations Tech I

Date Passed: 21-Oct-2024

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

General Certified Reference Material Notes

Expiration Notes:

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Manufacturing Notes:

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Handling Notes:

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chromatographic plus



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Catalog No. : 30543

Lot No.: A0217838

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 : September 30, 2030

Storage: 10°C or colder

Handling: Sonication required. Mix is photosensitive.

Ship: Ambient

p137A } 7.P
↓
p13727 } 10/24/24

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	8776.10-38	99%	201.6 µg/mL	+/- 9.0835
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3	2-Methylnaphthalene	91-57-6	STBL3028	99%	200.4 µg/mL	+/- 9.0294
4	Acenaphthylene	208-96-8	214935V18H	95%	199.1 µg/mL	+/- 8.9717
5	Acenaphthene	83-32-9	MKCR7169	99%	200.4 µg/mL	+/- 9.0294
6	Fluorene	86-73-7	10246250	98%	201.5 µg/mL	+/- 9.0784
7	Phenanthrene	85-01-8	MKCT3391	99%	201.2 µg/mL	+/- 9.0655
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9	Fluoranthene	206-44-0	MKQC4728	99%	200.4 µg/mL	+/- 9.0294
10	Pyrene	129-00-0	BCCK2592	99%	200.0 µg/mL	+/- 9.0114
11	Benz(a)anthracene	56-55-3	I60012022BAA	99%	200.0 µg/mL	+/- 9.0114
12	Chrysene	218-01-9	RP240627ECS	99%	200.4 µg/mL	+/- 9.0294
13	Benzo(b)fluoranthene	205-99-2	052013B	99%	201.2 µg/mL	+/- 9.0655
14	Benzo(k)fluoranthene	207-08-9	012022K	99%	201.6 µg/mL	+/- 9.0835
15	Benzo(a)pyrene	50-32-8	NQLXA	98%	199.9 µg/mL	+/- 9.0078
16	Indeno(1,2,3-cd)pyrene	193-39-5	12-JKL-118-9	97%	199.0 µg/mL	+/- 8.9683

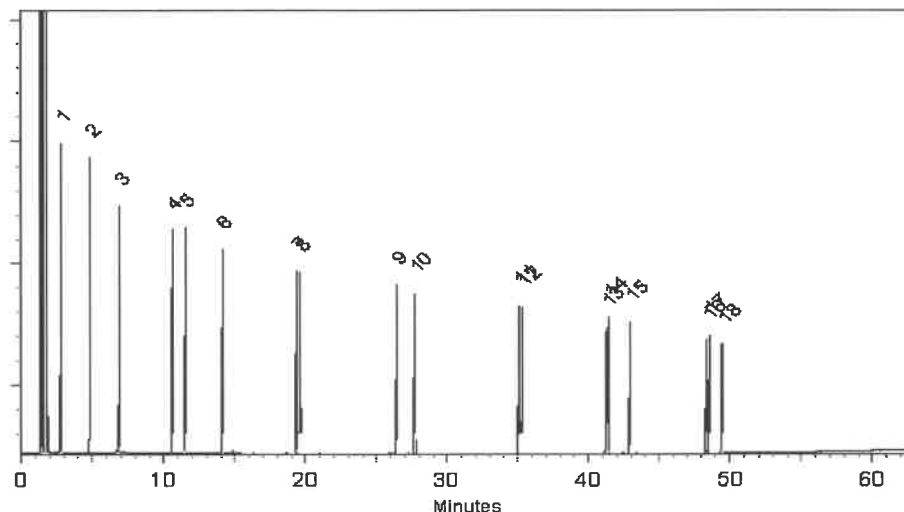
17	Dibenz(a,h)anthracene	53-70-3	2-ASA-59-1	99%	200.0 µg/mL	+/- 9.0114
18	Benzo(g,h,i)perylene	191-24-2	RP240625RSR	97%	199.0 µg/mL	+/- 8.9683

* 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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Rebecca Gingerich
Rebecca Gingerich - Operations Tech II

Date Mixed: 14-Oct-2024 **Balance Serial #** 1128360905

Brittany Federinko
Brittany Federinko - Operations Tech I

Date Passed: 21-Oct-2024

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

General Certified Reference Material Notes

Expiration Notes:

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chromatographic plus



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Catalog No. : 30543

Lot No.: A0217838

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 : September 30, 2030

Storage: 10°C or colder

Handling: Sonication required. Mix is photosensitive.

Ship: Ambient

p137A } 7.P
↓
p13727 } 10/24/24

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
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5	Acenaphthene	83-32-9	MKCR7169	99%	200.4 µg/mL	+/- 9.0294
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* 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.)

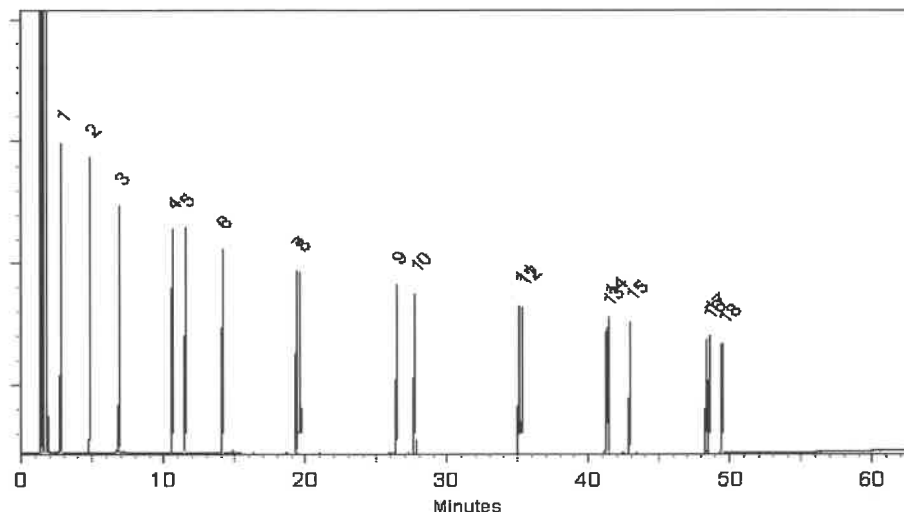
Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID

Split Vent:
20 ml/min.

Inj. Vol
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Rebecca Gingerich
Rebecca Gingerich - Operations Tech II

Date Mixed: 14-Oct-2024

Balance Serial # 1128360905

Brittany Federinko
Brittany Federinko - Operations Tech I

Date Passed: 21-Oct-2024

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Temp. Program:
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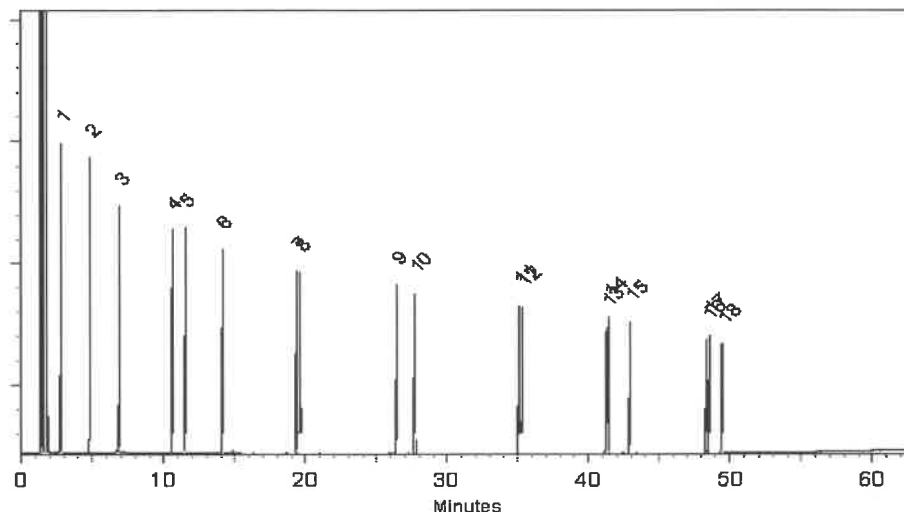
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250°C

Det. Temp:
330°C

Det. Type:
FID

Split Vent:
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Inj. Vol
1µl



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Rebecca Gingerich
Rebecca Gingerich - Operations Tech II

Date Mixed: 14-Oct-2024 **Balance Serial #** 1128360905

Brittany Federinko
Brittany Federinko - Operations Tech I

Date Passed: 21-Oct-2024

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/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. : 30543

Lot No.: A0217838

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 : September 30, 2030

Storage: 10°C or colder

Handling: Sonication required. Mix is
photosensitive.

Ship: Ambient

p137A } 7.P
↓
p13727 } 10/24/24

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	8776.10-38	99%	201.6 µg/mL	+/- 9.0835
2	Naphthalene	91-20-3	STBL1057	99%	200.0 µg/mL	+/- 9.0114
3	2-Methylnaphthalene	91-57-6	STBL3028	99%	200.4 µg/mL	+/- 9.0294
4	Acenaphthylene	208-96-8	214935V18H	95%	199.1 µg/mL	+/- 8.9717
5	Acenaphthene	83-32-9	MKCR7169	99%	200.4 µg/mL	+/- 9.0294
6	Fluorene	86-73-7	10246250	98%	201.5 µg/mL	+/- 9.0784
7	Phenanthrene	85-01-8	MKCT3391	99%	201.2 µg/mL	+/- 9.0655
8	Anthracene	120-12-7	101492T18R	99%	200.0 µg/mL	+/- 9.0114
9	Fluoranthene	206-44-0	MKCQ4728	99%	200.4 µg/mL	+/- 9.0294
10	Pyrene	129-00-0	BCCK2592	99%	200.0 µg/mL	+/- 9.0114
11	Benz(a)anthracene	56-55-3	I60012022BAA	99%	200.0 µg/mL	+/- 9.0114
12	Chrysene	218-01-9	RP240627ECS	99%	200.4 µg/mL	+/- 9.0294
13	Benzo(b)fluoranthene	205-99-2	052013B	99%	201.2 µg/mL	+/- 9.0655
14	Benzo(k)fluoranthene	207-08-9	012022K	99%	201.6 µg/mL	+/- 9.0835
15	Benzo(a)pyrene	50-32-8	NQLXA	98%	199.9 µg/mL	+/- 9.0078
16	Indeno(1,2,3-cd)pyrene	193-39-5	12-JKL-118-9	97%	199.0 µg/mL	+/- 8.9683

17	Dibenz(a,h)anthracene	53-70-3	2-ASA-59-1	99%	200.0 µg/mL	+/- 9.0114
18	Benzo(g,h,i)perylene	191-24-2	RP240625RSR	97%	199.0 µg/mL	+/- 8.9683

* 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.)

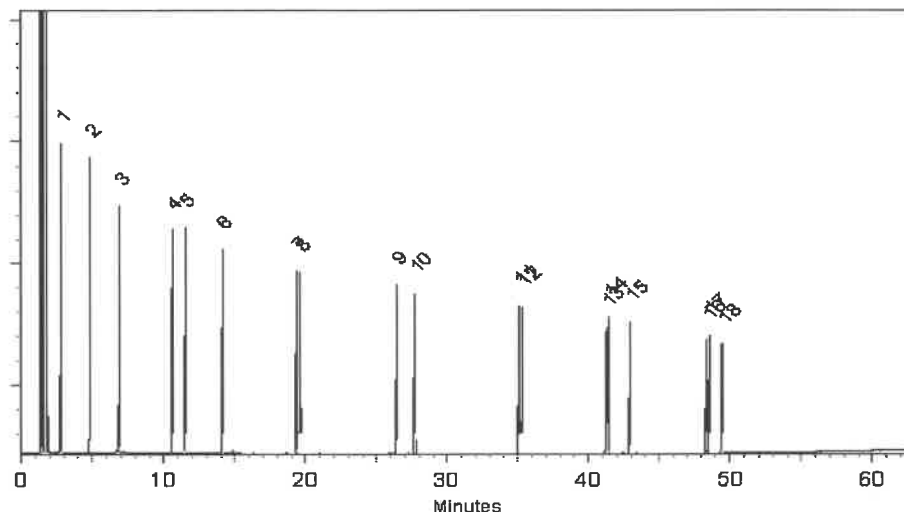
Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID

Split Vent:
20 ml/min.

Inj. Vol
1µl



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.

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SHIPPING DOCUMENTS

CHEMTECH

CHAIN OF CUSTODY RECORD

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

CHEMTECH PROJECT NO.

QUOTE NO.

COC Number 2042152

P4663

CLIENT INFORMATION

REPORT TO BE SENT TO:

COMPANY: Union Paving & Construction Co

ADDRESS: 891 RT 10 E

CITY Whippany STATE: NJ ZIP:

ATTENTION: Gregory B

PHONE: FAX:

CLIENT PROJECT INFORMATION

PROJECT NAME:

PROJECT NO.: LOCATION:

PROJECT MANAGER: Gregory B

e-mail:

PHONE: FAX:

CLIENT BILLING INFORMATION

BILL TO: PO#:

ADDRESS:

CITY STATE: ZIP:

ATTENTION: PHONE:

ANALYSIS

DATA TURNAROUND INFORMATION

FAX (RUSH) _____ DAYS*
HARDCOPY (DATA PACKAGE): _____ DAYS*
EDD: _____ 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 _____

Clean Air VOCs
1 2 3 4 5 6 7 8 9

CHEMTECH SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE		SAMPLE COLLECTION		# OF BOTTLES	PRESERVATIVES									COMMENTS	
			COMP	GRAB	DATE	TIME		E	B									← Specify Preservatives A-HCl D-NaOH B-HNO3 E-ICE C-H2SO4 F-OTHER
1.	Tennant Pad 2/3 Stockpile	SoL	X		10/31/24	1245	4	X										
2.	Tennant Pad 2/3 Stockpile			X		1250	4		X									0.0 ppm
3.	Res Building Pad No. 11		X			1300	4	X										
4.	Res Building Pad No. 11			X		1304	4		X									0.0 ppm
5.	Res Building Pad No. 3		X			1320	4	X										
6.	Res Building Pad No. 3			X		1326	4		X									0.0 ppm
7.	Res Building Pad No. 2		X			1335	4	X										
8.	Res Building Pad No. 2			X		1339	4		X									0.0 ppm
9.																		
10.																		

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

RELINQUISHED BY SAMPLER: 1. <i>[Signature]</i>	DATE/TIME: 1355 10-31-24	RECEIVED BY: 1. <i>[Signature]</i>	Conditions of bottles or coolers at receipt: ☒ COMPLIANT ☐ NON COMPLIANT ☒ COOLER TEMP 2.3 °C
RELINQUISHED BY SAMPLER: 2. <i>[Signature]</i>	DATE/TIME:	RECEIVED BY: 2. <i>[Signature]</i>	Comments: PID Calibration 10-31-24
RELINQUISHED BY SAMPLER: 3. <i>[Signature]</i>	DATE/TIME: 1645 10-31-24	RECEIVED BY: 3. <i>[Signature]</i>	Page 1 of 1 CLIENT: ☐ Hand Delivered ☐ Other _____ CHEMTECH: ☐ Picked Up ☒ Field Sampling Shipment Complete ☒ YES ☐ NO



Environmental Laboratory

www.chemtech.net | EMAIL: PM@chemtech.net

Project Name: Union Paving & Construction Co
Service Order #: 10-31-24
Work Order #: 891 RT 10E
Labor WBS #: Whippany, NJ
Facility/Site: Whippany, NJ
Site Address: 891 RT 10E

Chemtech Order ID: QA 10-31-24
Sampler Name: Jeremy M Gregory
Client Project Coordinator & Phone: Gregory B
Page #: 1 of 1
Date: 10-31-24
Arrive Time: 1230
Depart Time: 1355

Waste Stream (circle one): drum / roll-off / soil pile / in-situ linear construction / frac-tank
Sample Matrices (circle all that apply): Water / Solid / NAPL / Concrete / Wipe

Collection Depths: 1 foot - 2 feet

Temp (range): 2.3 °C PID Readings (range): N/A

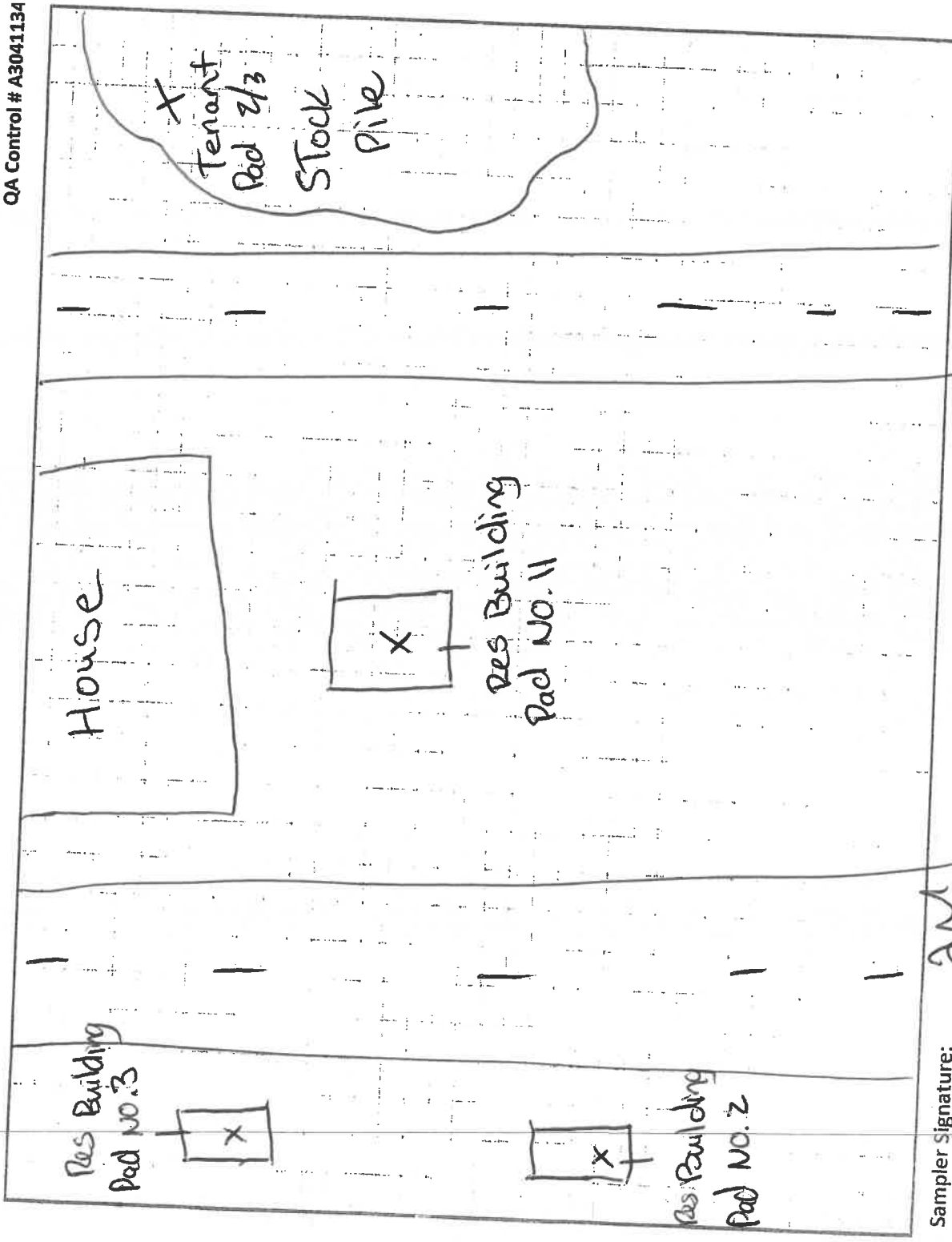
Sample Description: Brown Rocky Soil

Field Observations: 2 spots, (1) Excavation Stockpile (3) Test pits

Dimensions/CY: N/A
PPM Odor: Y (N) Color: Y (N)

Grid/Area Composite Map:

QA Control # A3041134



Sampler Signature: [Signature]

Client Signature: [Signature]

Supervisor Review/Date: _____

Date/Time Arrived at Lab: _____



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

Laboratory Certification

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

LOGIN REPORT/SAMPLE TRANSFER

Order ID : P4663 UNIO02

Order Date : 10/31/2024 3:05:00 PM

Project Mgr :

Client Name : Union Paving & Constructio

Project Name : Rt. 10 Whippany

Report Type : Level 3

Client Contact : Gregory Butler

Receive DateTime : 10/31/2024 12:00:00 AM

EDD Type : Excel NJ

Invoice Name : Union Paving & Constructio

Purchase Order :

Hard Copy Date :

Invoice Contact : Gregory Butler

Date Signoff :

16:45

LAB ID	CLIENT ID	MATRIX	SAMPLE DATE	SAMPLE TIME	TEST	TEST GROUP	METHOD	FAX DATE	DUE DATES
P4663-01	TENNANT-PAD-2-3-STOCKPILE	Solid	10/31/2024	12:45	VOCMS Group1		8260D		3 Bus. Days
P4663-03	RES-BUILDING-PAD-NO-11	Solid	10/31/2024	13:00	VOCMS Group1		8260D		3 Bus. Days
P4663-05	RES-BUILDING-PAD-NO-3	Solid	10/31/2024	13:20	VOCMS Group1		8260D		3 Bus. Days
P4663-07	RES-BUILDING-PAD-NO-2	Solid	10/31/2024	13:35	VOCMS Group1		8260D		3 Bus. Days

Relinquished By :

Date / Time :

10-31-24 1710

Left inside
off SM fridge

Received By :

Date / Time :

11/01/24 12:00

Storage Area : VOA Refridgerator Room