

Cover Page

Order ID : Q1937

Project ID : Stan Hope

Client : Saxton Falls Sand and Gravel Co. Inc.

Lab Sample Number

Q1937-01
Q1937-02
Q1937-03
Q1937-04
Q1937-05
Q1937-06
Q1937-07
Q1937-08
Q1937-09
Q1937-10
Q1937-11
Q1937-12

Client Sample Number

LARGE-PILE-A
LARGE-PILE-A
LARGE-PILE-B
LARGE-PILE-B
LARGE-PILE-C
LARGE-PILE-C
LARGE-PILE-D
LARGE-PILE-D
LARGE-PILE-E
LARGE-PILE-E
LARGE-PILE-F
LARGE-PILE-F

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: 5/8/2025

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 #: Q1937

Completed

For thorough review, the report must have the following:

GENERAL:

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

✓

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

✓

Is the chain of custody signed and complete

✓

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

✓

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

✓

COVER PAGE:

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

✓

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

✓

CHAIN OF CUSTODY:

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

✓

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

✓

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

✓

Were the samples received within hold time

✓

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

✓

ANALYTICAL:

Was method requirement followed?

✓

Was client requirement followed?

✓

Does the case narrative summarize all QC failure?

✓

All runlogs and manual integration are reviewed for requirements

✓

All manual calculations and /or hand notations verified

✓

QA Review Signature: NILESH PRAJAPATI

Date: 05/08/2025

LAB CHRONICLE

OrderID:	Q1937	OrderDate:	5/1/2025 2:03:00 PM
Client:	Saxton Falls Sand and Gravel Co. Inc.	Project:	Stan Hope
Contact:	Rich Schindelar	Location:	L41,VOA Ref. #2 Soil

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
Q1937-01	LARGE-PILE-A	SOIL			05/01/25			05/01/25
			PCB	8082A		05/05/25	05/05/25	
			Pesticide-TCL	8081B		05/05/25	05/05/25	
			TPH GC	8015D		05/07/25	05/07/25	
Q1937-02	LARGE-PILE-A	Solid			05/01/25			05/01/25
			EPH_NF	NJEPH		05/05/25	05/05/25	
Q1937-03	LARGE-PILE-B	SOIL			05/01/25			05/01/25
			PCB	8082A		05/05/25	05/05/25	
			Pesticide-TCL	8081B		05/05/25	05/05/25	
			TPH GC	8015D		05/07/25	05/07/25	
Q1937-04	LARGE-PILE-B	Solid			05/01/25			05/01/25
			EPH_NF	NJEPH		05/05/25	05/05/25	
Q1937-05	LARGE-PILE-C	SOIL			05/01/25			05/01/25
			PCB	8082A		05/05/25	05/05/25	
			Pesticide-TCL	8081B		05/05/25	05/05/25	
			TPH GC	8015D		05/07/25	05/07/25	
Q1937-06	LARGE-PILE-C	Solid			05/01/25			05/01/25
			EPH_NF	NJEPH		05/05/25	05/05/25	
Q1937-07	LARGE-PILE-D	SOIL			05/01/25			05/01/25
			PCB	8082A		05/05/25	05/05/25	
			Pesticide-TCL	8081B		05/05/25	05/05/25	
			TPH GC	8015D		05/07/25	05/07/25	
Q1937-08	LARGE-PILE-D	Solid			05/01/25			05/01/25
			EPH_NF	NJEPH		05/05/25	05/05/25	
Q1937-09	LARGE-PILE-E	SOIL			05/01/25			05/01/25

LAB CHRONICLE

Q1937-10	LARGE-PILE-E	Solid	PCB	8082A		05/05/25	05/05/25	05/01/25
			Pesticide-TCL	8081B		05/05/25	05/05/25	
			TPH GC	8015D		05/07/25	05/07/25	
			EPH_NF	NJEPH		05/05/25	05/05/25	
Q1937-11	LARGE-PILE-F	SOIL						05/01/25
			PCB	8082A		05/05/25	05/05/25	
			Pesticide-TCL	8081B		05/05/25	05/05/25	
			TPH GC	8015D		05/07/25	05/07/25	
Q1937-12	LARGE-PILE-F	Solid						05/01/25
			EPH_NF	NJEPH		05/05/25	05/05/25	



QC SUMMARY

SOIL TPH GC SURROGATE RECOVERY

Lab Name: Chemtech Client: Saxton Falls Sand and Gravel Co. Inc.
Lab Code: CHEM Case No.: Q1937 SAS No.: Q1937 SDG No.: Q1937

EPA SAMPLE NO.	S1 TETRACOSANE-d50	S2	S3	S4	TOT OUT
PIBLK-FF015793.D	83				0
PIBLK-FF015804.D	86				0
PIBLK-FG015783.D	94				0
PIBLK-FG015796.D	91				0
PB167887BL	67				0
PB167887BS	89				0
SMALL-PILE-AMS	40				0
SMALL-PILE-AMSD	37				0
LARGE-PILE-A	56				0
LARGE-PILE-B	59				0
LARGE-PILE-C	48				0
LARGE-PILE-D	55				0
LARGE-PILE-E	47				0
LARGE-PILE-F	53				0

QC LIMITS

TETRACOSANE-d50

For Water : 29-130
For Soil : 37-130

Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogate Diluted Out

SOIL TPH GC MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Chemtech **Client:** Saxton Falls Sand and Gravel Co. Inc.
Lab Code: CHEM **Cas No:** Q1937 **SAS No :** Q1937 **SDG No:** Q1937
Client SampleID : SMALL-PILE-AMS **Datafile:** FF015799.D

COMPOUND	SPIKE ADDED ug/kg	SAMPLE CONCENTRATION ug/kg	MS/MSD CONCENTRATION ug/kg	% REC	Qual	QC LIMITS
Petroleum Hydrocarbons	12457	4830	12617	62%	*	68-131

SOIL TPH GC MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Chemtech **Client:** Saxton Falls Sand and Gravel Co. Inc.
Lab Code: CHEM **Cas No:** Q1937 **SAS No :** Q1937 **SDG No:** Q1937
Client SampleID : SMALL-PILE-AMSD **Datafile:** FF015800.D

COMPOUND	SPIKE ADDED ug/kg	SAMPLE CONCENTRATION ug/kg	MS/MSD CONCENTRATION ug/kg	% REC	Qual	QC LIMITS
Petroleum Hydrocarbons	12465	4830	11943	57%	*	68-131

MS/MSD % Recovery RPD : 9

SOIL TPH GC LABORATORY CONTROL SPIKE/LABORATORY CONTROL SPIKE DUPLICATE RECOVERY

Lab Name: Chemtech **Client:** Saxton Falls Sand and Gravel Co. Inc.
Lab Code: CHEM **Cas No:** Q1937 **SAS No :** Q1937 **SDG No:** Q1937
Matrix Spike - EPA Sample No : PB167887BS **Datafile:** FF015797.D

COMPOUND	SPIKE ADDED ug/kg	CONCENTRATION ug/kg	LCS/LCSD CONCENTRATION ug/kg	% REC	QC LIMITS
Petroleum Hydrocarbons	11322	0	11247	99	68-131

4B
METHOD BLANK SUMMARY

EPA SAMPLE NO.

PB167887BL

Lab Name: CHEMTECH

Contract: SAXT01

Lab Code: CHEM Case No.: Q1937

SAS No.: Q1937 SDG NO.: Q1937

Lab File ID: FF015796.D

Lab Sample ID: PB167887BL

Instrument ID: FF

Date Extracted: 05/07/2025

Matrix: (soil/water) Soil

Date Analyzed: 05/07/25

Level: (low/med) low

Time Analyzed: 12:47

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

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
PB167887BS	PB167887BS	FF015797.D	05/07/25
SMALL-PILE-AMS	Q1936-01MS	FF015799.D	05/07/25
SMALL-PILE-AMSD	Q1936-01MSD	FF015800.D	05/07/25
LARGE-PILE-A	Q1937-01	FG015786.D	05/07/25
LARGE-PILE-B	Q1937-03	FG015787.D	05/07/25
LARGE-PILE-C	Q1937-05	FG015788.D	05/07/25
LARGE-PILE-D	Q1937-07	FG015789.D	05/07/25
LARGE-PILE-E	Q1937-09	FG015790.D	05/07/25
LARGE-PILE-F	Q1937-11	FG015791.D	05/07/25

COMMENTS: _____



SAMPLE DATA

Report of Analysis

Client:	Saxton Falls Sand and Gravel Co. Inc.	Date Collected:	05/01/25
Project:	Stan Hope	Date Received:	05/01/25
Client Sample ID:	LARGE-PILE-A	SDG No.:	Q1937
Lab Sample ID:	Q1937-01	Matrix:	SOIL
Analytical Method:	8015D TPH	% Solid:	94.3
Sample Wt/Vol:	30.03	Units:	g
Soil Aliquot Vol:			uL
Extraction Type:		Test:	TPH GC
GPC Factor :		Injection Volume :	
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
FG015786.D	1	05/07/25 09:00	05/07/25 12:47	PB167887

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
PHC	Petroleum Hydrocarbons	9100		407	3000	ug/kg
SURROGATES						
16416-32-3	TETRACOSANE-d50	11.2		37 - 130	56%	SPK: 20

Comments:

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

P = Indicates >25% difference for detected concentrations between the two GC columns

Q = indicates LCS control criteria did not meet requirements

M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

* = Values outside of QC limits

D = Dilution

S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.

() = Laboratory InHouse Limit

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG050725\
Data File : FG015786.D
Signal(s) : FID1A.ch
Acq On : 07 May 2025 12:47
Operator : YP\AJ
Sample : Q1937-01
Misc :
ALS Vial : 21 Sample Multiplier: 1

Instrument :
FID_G
ClientSampleId :
LARGE-PILE-A

Integration File: autoint1.e
Quant Time: May 08 06:36:32 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG042425.M
Quant Title :
QLast Update : Thu Apr 24 12:54:09 2025
Response via : Initial Calibration
Integrator: ChemStation

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

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
9) S TETRACOSANE-d50 (SURR...	15.003	1323018	11.237 ug/ml

Target Compounds

(f)=RT Delta > 1/2 Window

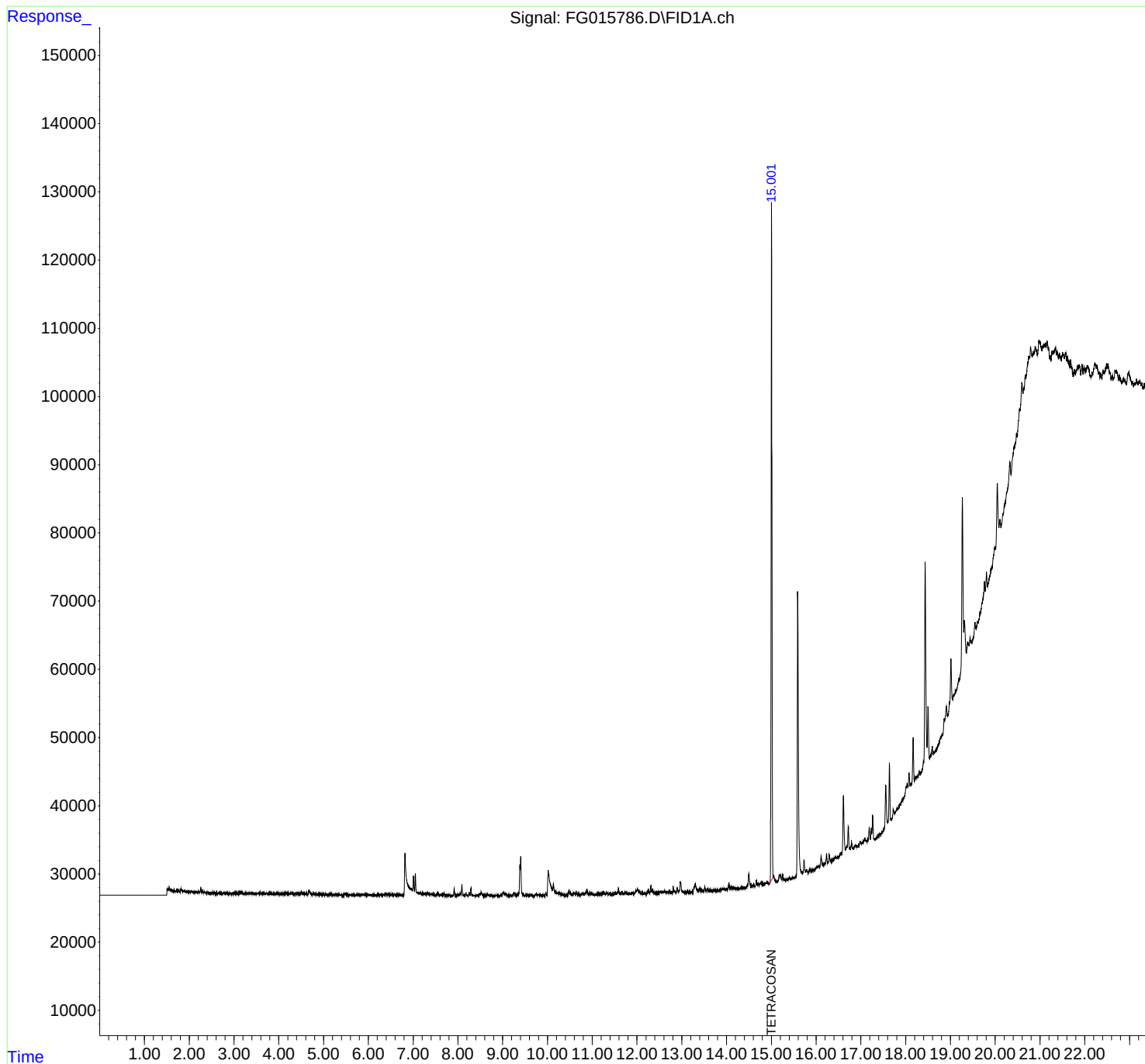
(m)=manual int.

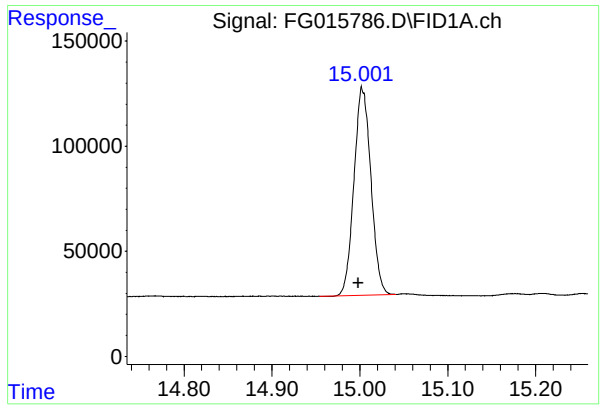
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG050725\
Data File : FG015786.D
Signal(s) : FID1A.ch
Acq On : 07 May 2025 12:47
Operator : YP\AJ
Sample : Q1937-01
Misc :
ALS Vial : 21 Sample Multiplier: 1

Instrument :
FID_G
ClientSampleId :
LARGE-PILE-A

Integration File: autoint1.e
Quant Time: May 08 06:36:32 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG042425.M
Quant Title :
QLast Update : Thu Apr 24 12:54:09 2025
Response via : Initial Calibration
Integrator: ChemStation

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





#9 TETRACOSANE-d50 (SURROGATE)

R.T.: 15.003 min
Delta R.T.: 0.004 min
Response: 1323018
Conc: 11.24 ug/ml

Instrument :
FID_G
ClientSampleId :
LARGE-PILE-A

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG050725\
 Data File : FG015786.D
 Signal(s) : FID1A.ch
 Acq On : 07 May 2025 12:47
 Sample : Q1937-01
 Misc :
 ALS Vial : 21 Sample Multiplier: 1

Integration File: Sample.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG042425.M
 Title :

Signal : FID1A.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	1.931	1.925	1.944	PV	135	787	0.04%	0.002%
2	1.948	1.944	1.958	VV	90	467	0.02%	0.001%
3	1.971	1.958	1.981	PV	132	1102	0.06%	0.003%
4	1.984	1.981	1.996	VV	154	705	0.04%	0.002%
5	2.000	1.996	2.004	VV	91	283	0.01%	0.001%
6	2.009	2.004	2.023	VV	75	701	0.04%	0.002%
7	2.054	2.023	2.106	VV	198	4114	0.21%	0.013%
8	2.110	2.106	2.117	PV	128	478	0.02%	0.001%
9	2.120	2.117	2.126	VV	76	409	0.02%	0.001%
10	2.129	2.126	2.139	PV	46	474	0.02%	0.001%
11	2.148	2.139	2.155	VV	121	750	0.04%	0.002%
12	2.172	2.155	2.179	VV	111	680	0.04%	0.002%
13	2.186	2.179	2.201	VV	161	1073	0.06%	0.003%
14	2.211	2.201	2.219	VV	149	821	0.04%	0.003%
15	2.226	2.219	2.234	PV	110	633	0.03%	0.002%
16	2.258	2.234	2.289	VV	852	12072	0.62%	0.037%
17	2.305	2.289	2.339	VV	292	4793	0.25%	0.015%
18	2.342	2.339	2.358	VV	120	1007	0.05%	0.003%
19	2.361	2.358	2.368	VV	93	370	0.02%	0.001%
20	2.387	2.368	2.396	VV	173	920	0.05%	0.003%
21	2.421	2.396	2.449	VV	166	2145	0.11%	0.007%
22	2.456	2.449	2.466	VV	125	654	0.03%	0.002%
23	2.478	2.466	2.484	VV	124	761	0.04%	0.002%
24	2.487	2.484	2.494	PV	68	313	0.02%	0.001%
25	2.499	2.494	2.516	VV	93	588	0.03%	0.002%
26	2.523	2.516	2.545	VV	193	1509	0.08%	0.005%
27	2.550	2.545	2.554	VV	61	255	0.01%	0.001%
28	2.560	2.554	2.602	VV	141	1996	0.10%	0.006%
29	2.619	2.602	2.644	VV	113	1575	0.08%	0.005%
30	2.656	2.644	2.664	VV	118	847	0.04%	0.003%
31	2.675	2.664	2.679	VV	109	592	0.03%	0.002%
32	2.683	2.679	2.695	PV	130	575	0.03%	0.002%
33	2.698	2.695	2.729	VV	136	1530	0.08%	0.005%
34	2.732	2.729	2.745	VV	79	646	0.03%	0.002%
35	2.764	2.745	2.820	VV	187	4128	0.21%	0.013%
36	2.824	2.820	2.835	VV	139	629	0.03%	0.002%

					rteres			
37	2.837	2.835	2.842	VV	57	287	0.01%	0.001%
38	2.848	2.842	2.859	VV	65	668	0.03%	0.002%
39	2.877	2.859	2.891	VV	142	1316	0.07%	0.004%
40	2.895	2.891	2.907	VV	107	801	0.04%	0.002%
41	2.918	2.907	2.963	VV	171	2949	0.15%	0.009%
42	2.972	2.963	3.013	VV	186	3193	0.16%	0.010%
43	3.019	3.013	3.027	VV	124	792	0.04%	0.002%
44	3.081	3.027	3.092	VV	146	3891	0.20%	0.012%
45	3.119	3.092	3.144	VV	223	4626	0.24%	0.014%
46	3.150	3.144	3.153	VV	161	683	0.04%	0.002%
47	3.163	3.153	3.167	VV	197	1418	0.07%	0.004%
48	3.179	3.167	3.188	VV	188	1882	0.10%	0.006%
49	3.196	3.188	3.227	VV	217	3268	0.17%	0.010%
50	3.244	3.227	3.276	VV	194	3880	0.20%	0.012%
51	3.282	3.276	3.294	VV	180	1424	0.07%	0.004%
52	3.301	3.294	3.322	VV	176	1960	0.10%	0.006%
53	3.328	3.322	3.337	VV	127	979	0.05%	0.003%
54	3.343	3.337	3.358	VV	192	1495	0.08%	0.005%
55	3.362	3.358	3.368	VV	147	581	0.03%	0.002%
56	3.376	3.368	3.398	VV	188	2214	0.11%	0.007%
57	3.402	3.398	3.414	VV	163	1227	0.06%	0.004%
58	3.419	3.414	3.456	VV	174	3491	0.18%	0.011%
59	3.461	3.456	3.470	VV	186	1222	0.06%	0.004%
60	3.476	3.470	3.494	VV	206	1953	0.10%	0.006%
61	3.504	3.494	3.522	VV	193	2129	0.11%	0.007%
62	3.530	3.522	3.539	VV	196	1432	0.07%	0.004%
63	3.544	3.539	3.554	VV	175	1193	0.06%	0.004%
64	3.572	3.554	3.583	VV	190	2583	0.13%	0.008%
65	3.590	3.583	3.597	VV	199	1345	0.07%	0.004%
66	3.600	3.597	3.607	VV	189	927	0.05%	0.003%
67	3.622	3.607	3.666	VV	199	4799	0.25%	0.015%
68	3.669	3.666	3.676	VV	138	753	0.04%	0.002%
69	3.679	3.676	3.686	VV	175	895	0.05%	0.003%
70	3.697	3.686	3.704	VV	192	1757	0.09%	0.005%
71	3.714	3.704	3.720	VV	168	1352	0.07%	0.004%
72	3.725	3.720	3.732	VV	190	969	0.05%	0.003%
73	3.736	3.732	3.739	VV	150	550	0.03%	0.002%
74	3.743	3.739	3.747	VV	151	620	0.03%	0.002%
75	3.760	3.747	3.787	VV	240	3395	0.18%	0.010%
76	3.799	3.787	3.806	VV	204	1779	0.09%	0.005%
77	3.808	3.806	3.839	VV	246	2696	0.14%	0.008%
78	3.841	3.839	3.887	VV	185	3043	0.16%	0.009%
79	3.893	3.887	3.907	VV	184	1438	0.07%	0.004%
80	3.911	3.907	3.929	VV	145	1332	0.07%	0.004%
81	3.940	3.929	3.963	VV	205	2786	0.14%	0.009%
82	3.969	3.963	4.008	VV	234	3450	0.18%	0.011%
83	4.014	4.008	4.027	VV	104	1079	0.06%	0.003%
84	4.035	4.027	4.043	VV	162	1143	0.06%	0.004%
85	4.070	4.043	4.087	VV	189	3393	0.18%	0.010%
86	4.094	4.087	4.104	VV	171	1296	0.07%	0.004%
87	4.110	4.104	4.115	VV	193	1067	0.06%	0.003%
88	4.138	4.115	4.149	VV	238	3651	0.19%	0.011%
89	4.153	4.149	4.165	VV	199	1746	0.09%	0.005%

					rteres			
90	4.185	4.165	4.203	VV	220	4137	0.21%	0.013%
91	4.206	4.203	4.224	VV	210	2029	0.10%	0.006%
92	4.238	4.224	4.247	VV	238	2445	0.13%	0.008%
93	4.267	4.247	4.291	VV	253	4760	0.25%	0.015%
94	4.296	4.291	4.299	VV	154	784	0.04%	0.002%
95	4.328	4.299	4.356	VV	280	6975	0.36%	0.021%
96	4.376	4.356	4.397	VV	198	3723	0.19%	0.011%
97	4.435	4.397	4.470	VV	226	6640	0.34%	0.020%
98	4.504	4.470	4.527	VV	353	7487	0.39%	0.023%
99	4.533	4.527	4.540	VV	221	1455	0.08%	0.004%
100	4.551	4.540	4.594	VV	226	5083	0.26%	0.016%
101	4.602	4.594	4.617	VV	204	2398	0.12%	0.007%
102	4.624	4.617	4.654	VV	317	4408	0.23%	0.014%
103	4.674	4.654	4.753	VV	751	18055	0.93%	0.055%
104	4.765	4.753	4.779	VV	188	2428	0.13%	0.007%
105	4.793	4.779	4.852	VV	215	5999	0.31%	0.018%
106	4.882	4.852	4.973	VV	150	9703	0.50%	0.030%
107	4.984	4.973	5.041	VV	189	5151	0.27%	0.016%
108	5.058	5.041	5.125	VV	113	5146	0.27%	0.016%
109	5.164	5.125	5.208	VV	273	6039	0.31%	0.019%
110	5.218	5.208	5.239	VV	117	1136	0.06%	0.003%
111	5.281	5.239	5.298	PV	136	2596	0.13%	0.008%
112	5.321	5.298	5.332	VV	167	1957	0.10%	0.006%
113	5.341	5.332	5.375	VV	136	2235	0.12%	0.007%
114	5.385	5.375	5.405	VV	114	1423	0.07%	0.004%
115	5.414	5.405	5.429	VV	125	985	0.05%	0.003%
116	5.445	5.429	5.449	PV	136	867	0.04%	0.003%
117	5.484	5.449	5.536	VV	246	7112	0.37%	0.022%
118	5.585	5.536	5.608	VV	118	3347	0.17%	0.010%
119	5.616	5.608	5.626	VV	130	795	0.04%	0.002%
120	5.649	5.626	5.696	VV	112	3634	0.19%	0.011%
121	5.763	5.696	5.789	VV	183	6644	0.34%	0.020%
122	5.799	5.789	5.871	VV	208	6755	0.35%	0.021%
123	5.889	5.871	5.917	VV	211	4563	0.24%	0.014%
124	5.922	5.917	5.967	VV	240	4440	0.23%	0.014%
125	5.979	5.967	5.993	VV	191	1793	0.09%	0.006%
126	6.003	5.993	6.011	VV	113	1120	0.06%	0.003%
127	6.025	6.011	6.069	VV	155	3662	0.19%	0.011%
128	6.088	6.069	6.103	VV	151	1990	0.10%	0.006%
129	6.121	6.103	6.136	VV	146	1950	0.10%	0.006%
130	6.147	6.136	6.205	PV	175	3703	0.19%	0.011%
131	6.218	6.205	6.262	VV	158	4481	0.23%	0.014%
132	6.270	6.262	6.296	VV	121	2112	0.11%	0.006%
133	6.346	6.296	6.364	VV	187	5525	0.29%	0.017%
134	6.397	6.364	6.441	VV	405	9856	0.51%	0.030%
135	6.446	6.441	6.464	VV	227	2415	0.12%	0.007%
136	6.474	6.464	6.501	VV	282	3223	0.17%	0.010%
137	6.518	6.501	6.559	VV	203	5827	0.30%	0.018%
138	6.571	6.559	6.584	VV	175	2355	0.12%	0.007%
139	6.588	6.584	6.632	VV	356	3603	0.19%	0.011%
140	6.640	6.632	6.661	VV	124	1805	0.09%	0.006%
141	6.666	6.661	6.673	VV	104	764	0.04%	0.002%

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142	6.687	6.673	6.722	VV	183	3169	0.16%	0.010%
143	6.731	6.722	6.752	VV	84	1276	0.07%	0.004%
144	6.765	6.752	6.792	VV	164	2401	0.12%	0.007%
145	6.820	6.792	6.989	VV	6261	228917	11.82%	0.703%
146	7.010	6.989	7.032	VV	2915	41322	2.13%	0.127%
147	7.052	7.032	7.112	VV	3291	53032	2.74%	0.163%
148	7.120	7.112	7.162	VV	517	12768	0.66%	0.039%
149	7.172	7.162	7.224	VV	387	13480	0.70%	0.041%
150	7.232	7.224	7.289	VV	391	13628	0.70%	0.042%
151	7.295	7.289	7.306	VV	325	3263	0.17%	0.010%
152	7.321	7.306	7.341	VV	378	7033	0.36%	0.022%
153	7.349	7.341	7.359	VV	286	2803	0.14%	0.009%
154	7.367	7.359	7.392	VV	344	5647	0.29%	0.017%
155	7.405	7.392	7.434	VV	368	6536	0.34%	0.020%
156	7.439	7.434	7.452	VV	281	2453	0.13%	0.008%
157	7.466	7.452	7.496	VV	272	5176	0.27%	0.016%
158	7.547	7.496	7.601	VV	481	14000	0.72%	0.043%
159	7.605	7.601	7.624	VV	186	2299	0.12%	0.007%
160	7.635	7.624	7.646	VV	253	2842	0.15%	0.009%
161	7.656	7.646	7.679	VV	257	4250	0.22%	0.013%
162	7.690	7.679	7.738	VV	396	6789	0.35%	0.021%
163	7.753	7.738	7.777	VV	153	2288	0.12%	0.007%
164	7.812	7.777	7.828	VV	153	2536	0.13%	0.008%
165	7.842	7.828	7.877	PV	133	2090	0.11%	0.006%
166	7.918	7.877	7.976	VV	1112	16892	0.87%	0.052%
167	7.987	7.976	8.017	VV	194	3114	0.16%	0.010%
168	8.038	8.017	8.047	VV	346	4095	0.21%	0.013%
169	8.091	8.047	8.154	VV	1687	27705	1.43%	0.085%
170	8.182	8.154	8.232	VV	478	8797	0.45%	0.027%
171	8.253	8.232	8.271	VV	534	7024	0.36%	0.022%
172	8.291	8.271	8.342	VV	1170	15630	0.81%	0.048%
173	8.349	8.342	8.386	VV	137	2238	0.12%	0.007%
174	8.398	8.386	8.405	VV	127	1152	0.06%	0.004%
175	8.487	8.405	8.502	VV	402	10562	0.55%	0.032%
176	8.521	8.502	8.587	VV	533	12413	0.64%	0.038%
177	8.628	8.587	8.641	VV	256	4834	0.25%	0.015%
178	8.666	8.641	8.706	VV	356	7951	0.41%	0.024%
179	8.712	8.706	8.742	VV	152	1802	0.09%	0.006%
180	8.749	8.742	8.832	VV	121	3293	0.17%	0.010%
181	8.847	8.832	8.872	PV	129	1895	0.10%	0.006%
182	8.884	8.872	8.929	VV	129	2922	0.15%	0.009%
183	8.955	8.929	8.965	VV	194	2734	0.14%	0.008%
184	9.011	8.965	9.049	VV	625	18178	0.94%	0.056%
185	9.065	9.049	9.152	VV	396	14008	0.72%	0.043%
186	9.176	9.152	9.206	VV	147	3824	0.20%	0.012%
187	9.211	9.206	9.225	VV	162	1364	0.07%	0.004%
188	9.252	9.225	9.327	VV	568	15080	0.78%	0.046%
189	9.350	9.327	9.362	VV	373	5537	0.29%	0.017%
190	9.404	9.362	9.504	VV	5820	128858	6.65%	0.396%
191	9.539	9.504	9.567	VV	314	6026	0.31%	0.019%
192	9.571	9.567	9.589	VV	220	1029	0.05%	0.003%
193	9.602	9.589	9.613	VV	86	1286	0.07%	0.004%
194	9.626	9.613	9.637	VV	249	1233	0.06%	0.004%

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195	9.647	9.637	9.702	VV	102	2311	0.12%	0.007%
196	9.738	9.702	9.762	PV	368	7379	0.38%	0.023%
197	9.776	9.762	9.831	VV	268	6718	0.35%	0.021%
198	9.856	9.831	9.899	VV	208	4559	0.24%	0.014%
199	9.913	9.899	9.942	VV	146	2515	0.13%	0.008%
200	9.966	9.942	9.986	VV	552	6780	0.35%	0.021%
201	10.019	9.986	10.112	VV	3755	137180	7.08%	0.421%
202	10.135	10.112	10.227	VV	1884	52410	2.71%	0.161%
203	10.245	10.227	10.260	VV	483	7787	0.40%	0.024%
204	10.276	10.260	10.329	VV	494	11402	0.59%	0.035%
205	10.331	10.329	10.399	VV	221	4722	0.24%	0.015%
206	10.414	10.399	10.444	VV	140	1995	0.10%	0.006%
207	10.479	10.444	10.507	VV	772	13923	0.72%	0.043%
208	10.523	10.507	10.542	VV	414	5747	0.30%	0.018%
209	10.589	10.542	10.612	VV	429	10854	0.56%	0.033%
210	10.615	10.612	10.639	VV	375	3910	0.20%	0.012%
211	10.654	10.639	10.681	VV	575	7940	0.41%	0.024%
212	10.694	10.681	10.717	VV	283	3372	0.17%	0.010%
213	10.723	10.717	10.738	VV	175	1366	0.07%	0.004%
214	10.780	10.738	10.820	VV	412	11493	0.59%	0.035%
215	10.877	10.820	10.924	VV	800	22137	1.14%	0.068%
216	10.947	10.924	10.969	VV	343	6766	0.35%	0.021%
217	10.978	10.969	11.029	VV	342	7174	0.37%	0.022%
218	11.040	11.029	11.071	VV	98	964	0.05%	0.003%
219	11.097	11.071	11.134	VV	220	3388	0.17%	0.010%
220	11.156	11.134	11.174	VV	179	2683	0.14%	0.008%
221	11.209	11.174	11.235	VV	270	6056	0.31%	0.019%
222	11.253	11.235	11.295	VV	491	6874	0.35%	0.021%
223	11.327	11.295	11.367	VV	332	8058	0.42%	0.025%
224	11.386	11.367	11.425	VV	311	5681	0.29%	0.017%
225	11.447	11.425	11.456	VV	166	1646	0.08%	0.005%
226	11.471	11.456	11.489	VV	164	1989	0.10%	0.006%
227	11.514	11.489	11.539	VV	389	6112	0.32%	0.019%
228	11.583	11.539	11.608	VV	980	17281	0.89%	0.053%
229	11.621	11.608	11.642	VV	297	3907	0.20%	0.012%
230	11.666	11.642	11.702	VV	485	8752	0.45%	0.027%
231	11.740	11.702	11.762	VV	342	7902	0.41%	0.024%
232	11.777	11.762	11.802	VV	365	3374	0.17%	0.010%
233	11.828	11.802	11.854	PV	217	3348	0.17%	0.010%
234	11.899	11.854	11.929	VV	342	7300	0.38%	0.022%
235	11.937	11.929	11.951	VV	136	1465	0.08%	0.004%
236	11.974	11.951	11.989	VV	557	9138	0.47%	0.028%
237	12.006	11.989	12.047	VV	836	19639	1.01%	0.060%
238	12.067	12.047	12.092	VV	421	7128	0.37%	0.022%
239	12.107	12.092	12.171	VV	243	5204	0.27%	0.016%
240	12.189	12.171	12.210	VV	166	2003	0.10%	0.006%
241	12.254	12.210	12.284	PV	704	14269	0.74%	0.044%
242	12.310	12.284	12.330	VV	1197	17968	0.93%	0.055%
243	12.347	12.330	12.372	VV	700	11478	0.59%	0.035%
244	12.381	12.372	12.431	VV	225	4601	0.24%	0.014%
245	12.464	12.431	12.477	PV	181	3350	0.17%	0.010%
246	12.532	12.477	12.561	VV	302	11187	0.58%	0.034%

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247	12.579	12.561	12.592	VV	352	4798	0.25%	0.015%
248	12.612	12.592	12.651	VV	399	9296	0.48%	0.029%
249	12.656	12.651	12.664	VV	206	1494	0.08%	0.005%
250	12.673	12.664	12.694	VV	240	3228	0.17%	0.010%
251	12.721	12.694	12.750	VV	312	6286	0.32%	0.019%
252	12.775	12.750	12.792	VV	201	3414	0.18%	0.010%
253	12.809	12.792	12.864	VV	610	10584	0.55%	0.033%
254	12.898	12.864	12.923	VV	827	13026	0.67%	0.040%
255	12.970	12.923	13.005	VV	1623	36768	1.90%	0.113%
256	13.013	13.005	13.057	VV	353	5062	0.26%	0.016%
257	13.068	13.057	13.087	VV	103	1020	0.05%	0.003%
258	13.117	13.087	13.141	VV	201	3345	0.17%	0.010%
259	13.154	13.141	13.167	VV	246	1937	0.10%	0.006%
260	13.174	13.167	13.205	PV	125	1707	0.09%	0.005%
261	13.221	13.205	13.235	VV	122	1258	0.06%	0.004%
262	13.297	13.235	13.332	VV	1181	37879	1.96%	0.116%
263	13.344	13.332	13.369	VV	424	6862	0.35%	0.021%
264	13.389	13.369	13.405	VV	459	7531	0.39%	0.023%
265	13.422	13.405	13.484	VV	389	12297	0.63%	0.038%
266	13.512	13.484	13.543	VV	728	11710	0.60%	0.036%
267	13.570	13.543	13.604	VV	393	8163	0.42%	0.025%
268	13.644	13.604	13.663	VV	232	5833	0.30%	0.018%
269	13.723	13.663	13.775	VV	264	8898	0.46%	0.027%
270	13.790	13.775	13.809	VV	178	1899	0.10%	0.006%
271	13.903	13.809	13.951	PV	284	14255	0.74%	0.044%
272	13.964	13.951	13.972	VV	256	2459	0.13%	0.008%
273	13.981	13.972	13.999	VV	210	2288	0.12%	0.007%
274	14.054	13.999	14.076	VV	1038	18611	0.96%	0.057%
275	14.100	14.076	14.142	VV	650	12963	0.67%	0.040%
276	14.155	14.142	14.187	VV	283	4527	0.23%	0.014%
277	14.208	14.187	14.271	VV	219	4600	0.24%	0.014%
278	14.326	14.271	14.359	VV	195	5474	0.28%	0.017%
279	14.402	14.359	14.416	VV	177	3413	0.18%	0.010%
280	14.432	14.416	14.439	PV	183	1743	0.09%	0.005%
281	14.495	14.439	14.557	VV	2140	48362	2.50%	0.149%
282	14.603	14.557	14.634	VV	354	8713	0.45%	0.027%
283	14.665	14.634	14.686	VV	863	12855	0.66%	0.039%
284	14.699	14.686	14.724	VV	322	5544	0.29%	0.017%
285	14.767	14.724	14.810	VV	489	13968	0.72%	0.043%
286	14.820	14.810	14.844	VV	209	2681	0.14%	0.008%
287	14.910	14.844	14.966	VV	244	9617	0.50%	0.030%
288	15.003	14.966	15.041	PV	98842	1345645	69.46%	4.133%
289	15.051	15.041	15.139	VV	1101	24449	1.26%	0.075%
290	15.175	15.139	15.194	VV	1011	19536	1.01%	0.060%
291	15.208	15.194	15.233	VV	1110	16569	0.86%	0.051%
292	15.253	15.233	15.306	VV	960	17399	0.90%	0.053%
293	15.326	15.306	15.339	VV	143	2168	0.11%	0.007%
294	15.345	15.339	15.374	VV	112	1310	0.07%	0.004%
295	15.400	15.374	15.439	PV	309	5506	0.28%	0.017%
296	15.524	15.439	15.536	VV	118	2819	0.15%	0.009%
297	15.588	15.536	15.704	VV	41189	706846	36.49%	2.171%
298	15.729	15.704	15.769	VV	2120	36822	1.90%	0.113%
299	15.787	15.769	15.816	VV	593	10363	0.53%	0.032%

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300	15.863	15.816	15.886	PV	471	8016	0.41%	0.025%
301	16.052	15.886	16.077	VV	189	11965	0.62%	0.037%
302	16.110	16.077	16.149	VV	1581	27463	1.42%	0.084%
303	16.196	16.149	16.205	VV	313	5311	0.27%	0.016%
304	16.232	16.205	16.257	VV	1546	21732	1.12%	0.067%
305	16.295	16.257	16.328	VV	1097	18103	0.93%	0.056%
306	16.369	16.328	16.385	VV	244	4721	0.24%	0.015%
307	16.428	16.385	16.456	PV	474	10516	0.54%	0.032%
308	16.608	16.456	16.656	VV	8786	185373	9.57%	0.569%
309	16.684	16.656	16.692	VV	1193	19798	1.02%	0.061%
310	16.717	16.692	16.760	VV	3929	70487	3.64%	0.217%
311	16.789	16.760	16.822	VV	1319	26059	1.35%	0.080%
312	16.876	16.822	16.908	VV	610	21373	1.10%	0.066%
313	16.981	16.908	17.012	VV	673	24882	1.28%	0.076%
314	17.017	17.012	17.026	VV	519	3722	0.19%	0.011%
315	17.089	17.026	17.136	VV	856	35463	1.83%	0.109%
316	17.185	17.136	17.209	VV	2199	40755	2.10%	0.125%
317	17.231	17.209	17.246	VV	1917	26163	1.35%	0.080%
318	17.262	17.246	17.299	VV	3650	49821	2.57%	0.153%
319	17.422	17.299	17.440	PV	317	5727	0.30%	0.018%
320	17.554	17.440	17.606	PV	6263	121658	6.28%	0.374%
321	17.637	17.606	17.681	VV	8723	122750	6.34%	0.377%
322	17.723	17.681	17.747	PV	950	16989	0.88%	0.052%
323	18.032	17.747	18.050	VV	1731	90370	4.66%	0.278%
324	18.075	18.050	18.099	VV	2912	50147	2.59%	0.154%
325	18.120	18.099	18.128	VV	854	14120	0.73%	0.043%
326	18.166	18.128	18.197	VV	7024	111276	5.74%	0.342%
327	18.216	18.197	18.235	VV	762	14457	0.75%	0.044%
328	18.255	18.235	18.269	VV	480	9101	0.47%	0.028%
329	18.303	18.269	18.324	VV	764	14235	0.73%	0.044%
330	18.353	18.324	18.360	VV	231	3470	0.18%	0.011%
331	18.435	18.360	18.477	VV	29626	559457	28.88%	1.718%
332	18.499	18.477	18.536	VV	8185	135736	7.01%	0.417%
333	18.594	18.536	18.617	VV	1433	28236	1.46%	0.087%
334	18.907	18.617	18.944	PV	2761	80832	4.17%	0.248%
335	19.010	18.944	19.044	VV	8193	202813	10.47%	0.623%
336	19.190	19.044	19.199	VV	2681	193485	9.99%	0.594%
337	19.266	19.199	19.297	VV	27847	635905	32.82%	1.953%
338	19.312	19.297	19.354	VV	9477	241147	12.45%	0.741%
339	19.387	19.354	19.417	VV	5174	178783	9.23%	0.549%
340	19.438	19.417	19.484	VV	5122	176662	9.12%	0.543%
341	19.546	19.484	19.571	VV	5723	237849	12.28%	0.731%
342	19.607	19.571	19.620	VV	5081	140923	7.27%	0.433%
343	19.664	19.620	19.672	VV	5690	159113	8.21%	0.489%
344	19.759	19.672	19.779	VV	8661	436553	22.53%	1.341%
345	19.805	19.779	19.832	VV	9342	254026	13.11%	0.780%
346	19.916	19.832	19.927	VV	8369	441055	22.77%	1.355%
347	19.989	19.927	20.007	VV	10255	456687	23.57%	1.403%
348	20.046	20.007	20.084	VV	18899	642429	33.16%	1.973%
349	20.104	20.084	20.131	VV	12688	339147	17.51%	1.042%
350	20.328	20.131	20.357	VV	17860	1937324	100.00%	5.951%
351	20.475	20.357	20.490	VV	19680	1457487	75.23%	4.477%

						rteres		
352	20.542	20.490	20.554	VV	22585	817468	42.20%	2.511%
353	20.597	20.554	20.621	VV	25494	959396	49.52%	2.947%
354	20.670	20.621	20.684	VV	25611	935082	48.27%	2.872%
355	20.763	20.684	20.772	VV	27043	1393961	71.95%	4.282%
356	20.790	20.772	20.826	VV	28030	867082	44.76%	2.663%
357	20.894	20.826	20.947	VV	26458	1888013	97.45%	5.799%
358	20.975	20.947	20.987	VV	26300	603752	31.16%	1.855%
359	20.998	20.987	21.044	VV	25906	862641	44.53%	2.650%
360	21.061	21.044	21.072	VV	24178	408673	21.09%	1.255%
361	21.119	21.072	21.139	VV	23702	944210	48.74%	2.900%
362	21.159	21.139	21.184	VV	23412	621475	32.08%	1.909%
363	21.192	21.184	21.218	VV	22121	433180	22.36%	1.331%
364	21.228	21.218	21.245	VV	20348	321285	16.58%	0.987%
365	21.268	21.245	21.279	VV	20418	408331	21.08%	1.254%
366	21.302	21.279	21.312	VV	19890	396341	20.46%	1.217%
367	21.346	21.312	21.367	VV	19814	641672	33.12%	1.971%
368	21.381	21.367	21.410	VV	18700	464274	23.96%	1.426%
369	21.432	21.410	21.476	VV	17616	672988	34.74%	2.067%
370	21.507	21.476	21.547	VV	16763	693884	35.82%	2.131%
371	21.568	21.547	21.597	VV	15771	456908	23.58%	1.403%
372	21.613	21.597	21.631	VV	14553	286691	14.80%	0.881%
373	21.642	21.631	21.664	VV	13435	259025	13.37%	0.796%
374	21.682	21.664	21.742	VV	12904	553075	28.55%	1.699%
375	21.774	21.742	21.792	VV	10307	299158	15.44%	0.919%
376	21.838	21.792	21.856	VV	9914	366371	18.91%	1.125%
377	21.878	21.856	21.909	VV	9461	287190	14.82%	0.882%
378	21.937	21.909	21.961	VV	8425	246516	12.72%	0.757%
379	21.986	21.961	22.007	VV	7579	202660	10.46%	0.623%
380	22.025	22.007	22.036	VV	6919	113780	5.87%	0.349%
381	22.052	22.036	22.069	VV	6798	132451	6.84%	0.407%
382	22.073	22.069	22.129	VV	6460	190688	9.84%	0.586%
383	22.139	22.129	22.151	VV	4102	53321	2.75%	0.164%
384	22.166	22.151	22.179	VV	4139	68661	3.54%	0.211%
385	22.228	22.179	22.253	VV	4638	186116	9.61%	0.572%
386	22.264	22.253	22.307	VV	3764	100400	5.18%	0.308%
387	22.321	22.307	22.341	VV	1967	34985	1.81%	0.107%
388	22.355	22.341	22.384	VV	1185	19743	1.02%	0.061%
					Sum of corrected areas:		32555273	

FG042425.M Thu May 08 07:21:10 2025

Report of Analysis

Client:	Saxton Falls Sand and Gravel Co. Inc.	Date Collected:	05/01/25
Project:	Stan Hope	Date Received:	05/01/25
Client Sample ID:	LARGE-PILE-B	SDG No.:	Q1937
Lab Sample ID:	Q1937-03	Matrix:	SOIL
Analytical Method:	8015D TPH	% Solid:	96.4
Sample Wt/Vol:	30.06	Units:	g
Soil Aliquot Vol:			uL
Extraction Type:		Test:	TPH GC
GPC Factor :		Injection Volume :	
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
FG015787.D	1	05/07/25 09:00	05/07/25 13:16	PB167887

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
PHC	Petroleum Hydrocarbons	8510		398	2930	ug/kg
SURROGATES						
16416-32-3	TETRACOSANE-d50	11.8		37 - 130	59%	SPK: 20

Comments:

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

P = Indicates >25% difference for detected concentrations between the two GC columns

Q = indicates LCS control criteria did not meet requirements

M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

* = Values outside of QC limits

D = Dilution

S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.

() = Laboratory InHouse Limit

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG050725\
Data File : FG015787.D
Signal(s) : FID1A.ch
Acq On : 07 May 2025 13:16
Operator : YP\AJ
Sample : Q1937-03
Misc :
ALS Vial : 22 Sample Multiplier: 1

Instrument :
FID_G
ClientSampleId :
LARGE-PILE-B

Integration File: autoint1.e
Quant Time: May 08 06:36:49 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG042425.M
Quant Title :
QLast Update : Thu Apr 24 12:54:09 2025
Response via : Initial Calibration
Integrator: ChemStation

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

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
9) S TETRACOSANE-d50 (SURR...	15.002	1382824	11.745 ug/ml

Target Compounds

(f)=RT Delta > 1/2 Window

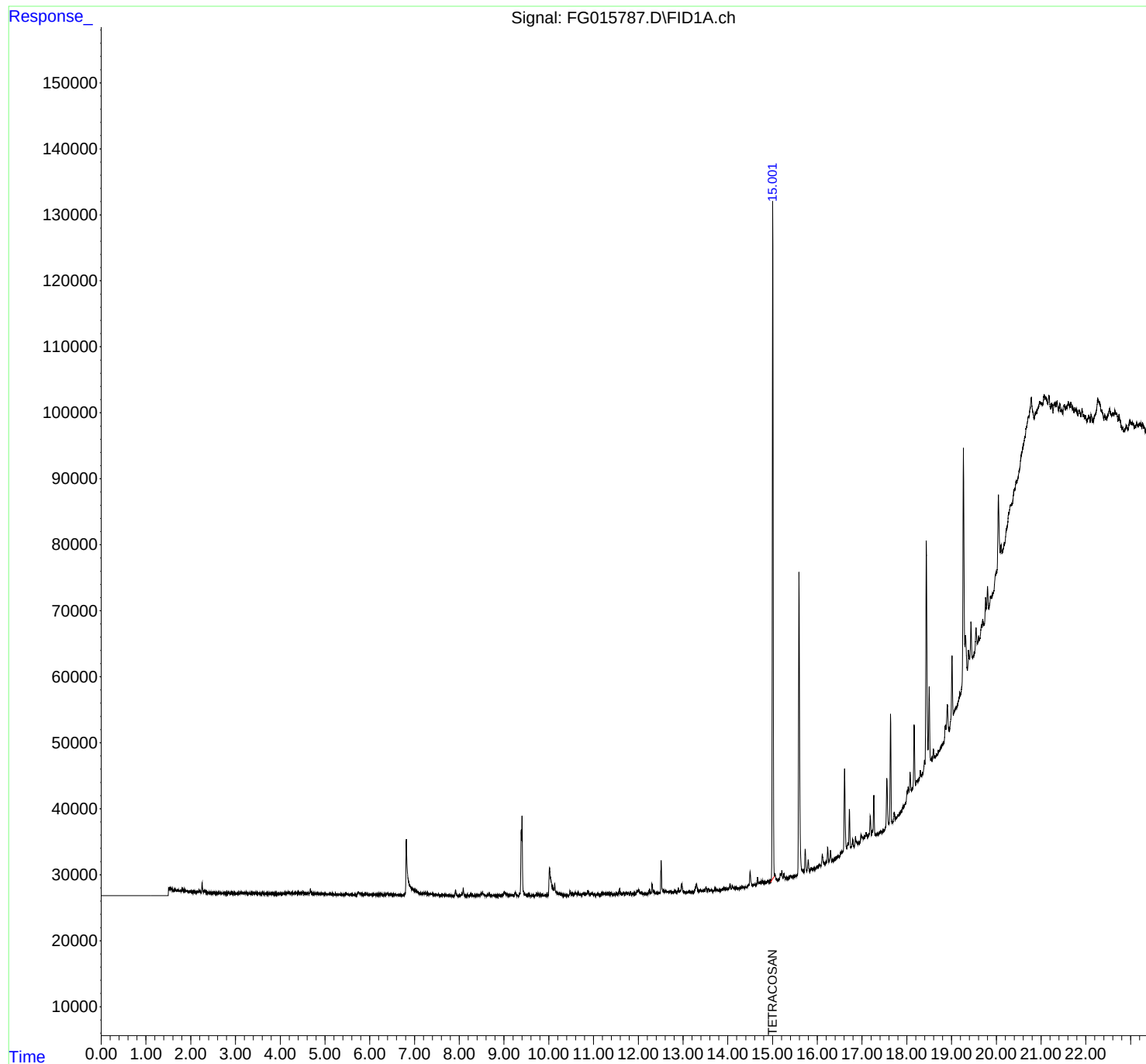
(m)=manual int.

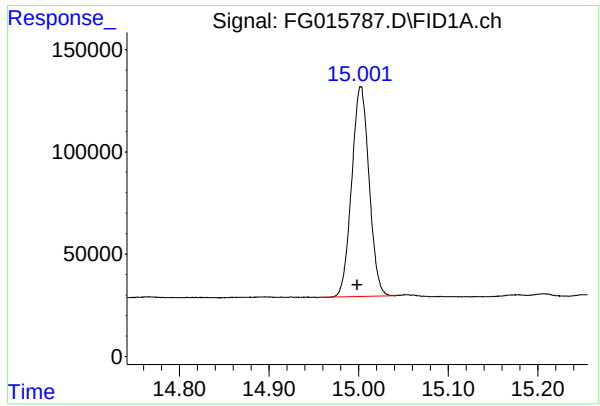
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG050725\
Data File : FG015787.D
Signal(s) : FID1A.ch
Acq On : 07 May 2025 13:16
Operator : YP\AJ
Sample : Q1937-03
Misc :
ALS Vial : 22 Sample Multiplier: 1

Instrument :
FID_G
ClientSampleId :
LARGE-PILE-B

Integration File: autoint1.e
Quant Time: May 08 06:36:49 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG042425.M
Quant Title :
QLast Update : Thu Apr 24 12:54:09 2025
Response via : Initial Calibration
Integrator: ChemStation

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





#9 TETRACOSANE-d50 (SURROGATE)

R.T.: 15.002 min
Delta R.T.: 0.004 min
Response: 1382824
Conc: 11.75 ug/ml

Instrument :
FID_G
ClientSampleId :
LARGE-PILE-B

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG050725\
 Data File : FG015787.D
 Signal(s) : FID1A.ch
 Acq On : 07 May 2025 13:16
 Sample : Q1937-03
 Misc :
 ALS Vial : 22 Sample Multiplier: 1

Integration File: Sample.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG042425.M
 Title :

Signal : FID1A.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	1.922	1.900	1.942	BV	113	1405	0.03%	0.004%
2	1.946	1.942	1.960	PV	153	914	0.02%	0.003%
3	1.964	1.960	1.967	VV	168	431	0.01%	0.001%
4	1.973	1.967	1.980	VV	167	873	0.02%	0.003%
5	1.982	1.980	1.987	VV	163	462	0.01%	0.001%
6	1.999	1.987	2.033	VV	180	2298	0.05%	0.007%
7	2.056	2.033	2.072	PV	212	3179	0.06%	0.010%
8	2.076	2.072	2.083	VV	73	613	0.01%	0.002%
9	2.095	2.083	2.100	VV	145	996	0.02%	0.003%
10	2.105	2.100	2.131	VV	116	1652	0.03%	0.005%
11	2.140	2.131	2.158	VV	351	2229	0.05%	0.007%
12	2.184	2.158	2.207	VV	310	5774	0.12%	0.018%
13	2.216	2.207	2.231	VV	205	1927	0.04%	0.006%
14	2.255	2.231	2.290	VV	1615	21116	0.43%	0.068%
15	2.300	2.290	2.315	VV	306	3580	0.07%	0.011%
16	2.319	2.315	2.348	VV	235	3253	0.07%	0.010%
17	2.351	2.348	2.384	VV	179	1957	0.04%	0.006%
18	2.390	2.384	2.394	VV	135	578	0.01%	0.002%
19	2.398	2.394	2.432	VV	142	2314	0.05%	0.007%
20	2.437	2.432	2.471	VV	170	2159	0.04%	0.007%
21	2.476	2.471	2.515	VV	182	2706	0.05%	0.009%
22	2.522	2.515	2.528	VV	177	882	0.02%	0.003%
23	2.530	2.528	2.552	VV	154	1503	0.03%	0.005%
24	2.579	2.552	2.585	VV	170	1873	0.04%	0.006%
25	2.589	2.585	2.601	VV	119	1049	0.02%	0.003%
26	2.620	2.601	2.654	PV	161	2894	0.06%	0.009%
27	2.663	2.654	2.686	VV	147	1568	0.03%	0.005%
28	2.689	2.686	2.705	VV	125	894	0.02%	0.003%
29	2.708	2.705	2.717	VV	124	589	0.01%	0.002%
30	2.730	2.717	2.741	VV	139	1252	0.03%	0.004%
31	2.749	2.741	2.754	VV	116	774	0.02%	0.002%
32	2.759	2.754	2.768	VV	132	1054	0.02%	0.003%
33	2.775	2.768	2.808	VV	180	2178	0.04%	0.007%
34	2.812	2.808	2.831	VV	133	957	0.02%	0.003%
35	2.841	2.831	2.847	VV	168	924	0.02%	0.003%
36	2.852	2.847	2.888	VV	139	2371	0.05%	0.008%

					rt	er		
37	2.893	2.888	2.905	VV	153	958	0.02%	0.003%
38	2.920	2.905	2.937	VV	212	2314	0.05%	0.007%
39	2.940	2.937	2.945	VV	96	418	0.01%	0.001%
40	2.954	2.945	3.012	VV	157	4221	0.09%	0.013%
41	3.019	3.012	3.025	VV	157	870	0.02%	0.003%
42	3.031	3.025	3.038	VV	149	1019	0.02%	0.003%
43	3.044	3.038	3.080	VV	139	2516	0.05%	0.008%
44	3.082	3.080	3.087	VV	111	351	0.01%	0.001%
45	3.118	3.087	3.147	VV	279	6717	0.14%	0.021%
46	3.152	3.147	3.165	VV	205	1946	0.04%	0.006%
47	3.172	3.165	3.182	VV	282	1871	0.04%	0.006%
48	3.187	3.182	3.191	VV	212	928	0.02%	0.003%
49	3.201	3.191	3.212	VV	192	2149	0.04%	0.007%
50	3.220	3.212	3.242	VV	253	3046	0.06%	0.010%
51	3.250	3.242	3.269	VV	228	2427	0.05%	0.008%
52	3.274	3.269	3.278	VV	158	746	0.02%	0.002%
53	3.283	3.278	3.292	VV	165	1037	0.02%	0.003%
54	3.301	3.292	3.325	VV	174	2415	0.05%	0.008%
55	3.327	3.325	3.331	VV	167	399	0.01%	0.001%
56	3.339	3.331	3.344	VV	181	1113	0.02%	0.004%
57	3.349	3.344	3.364	VV	188	1663	0.03%	0.005%
58	3.374	3.364	3.404	VV	182	3116	0.06%	0.010%
59	3.408	3.404	3.413	VV	132	656	0.01%	0.002%
60	3.421	3.413	3.437	VV	240	2121	0.04%	0.007%
61	3.442	3.437	3.459	VV	215	1903	0.04%	0.006%
62	3.489	3.459	3.505	VV	200	3715	0.08%	0.012%
63	3.516	3.505	3.535	VV	163	2285	0.05%	0.007%
64	3.550	3.535	3.565	VV	152	2294	0.05%	0.007%
65	3.576	3.565	3.601	VV	158	2529	0.05%	0.008%
66	3.604	3.601	3.627	VV	143	1779	0.04%	0.006%
67	3.631	3.627	3.662	VV	166	2342	0.05%	0.007%
68	3.674	3.662	3.687	VV	201	1844	0.04%	0.006%
69	3.689	3.687	3.699	VV	177	938	0.02%	0.003%
70	3.704	3.699	3.715	VV	165	1200	0.02%	0.004%
71	3.717	3.715	3.737	VV	151	1224	0.02%	0.004%
72	3.743	3.737	3.763	VV	133	1660	0.03%	0.005%
73	3.781	3.763	3.787	VV	156	1598	0.03%	0.005%
74	3.789	3.787	3.801	VV	122	678	0.01%	0.002%
75	3.806	3.801	3.810	VV	114	463	0.01%	0.001%
76	3.823	3.810	3.830	VV	143	1133	0.02%	0.004%
77	3.833	3.830	3.862	VV	145	1812	0.04%	0.006%
78	3.868	3.862	3.892	VV	128	1542	0.03%	0.005%
79	3.895	3.892	3.943	VV	152	2853	0.06%	0.009%
80	3.952	3.943	3.957	VV	107	631	0.01%	0.002%
81	3.961	3.957	3.966	VV	130	418	0.01%	0.001%
82	3.972	3.966	3.983	VV	101	653	0.01%	0.002%
83	3.989	3.983	4.013	VV	123	1481	0.03%	0.005%
84	4.021	4.013	4.032	VV	96	1133	0.02%	0.004%
85	4.041	4.032	4.048	VV	113	988	0.02%	0.003%
86	4.053	4.048	4.062	VV	173	929	0.02%	0.003%
87	4.072	4.062	4.082	VV	147	1318	0.03%	0.004%
88	4.088	4.082	4.102	VV	180	1729	0.03%	0.006%
89	4.110	4.102	4.141	VV	242	4515	0.09%	0.014%

					rteres				
90	4.162	4.141	4.173	VV	328	5201	0.11%	0.017%	
91	4.182	4.173	4.199	VV	358	4015	0.08%	0.013%	
92	4.212	4.199	4.218	VV	314	2701	0.05%	0.009%	
93	4.227	4.218	4.264	VV	293	6450	0.13%	0.021%	
94	4.269	4.264	4.274	VV	276	1361	0.03%	0.004%	
95	4.281	4.274	4.304	VV	273	3953	0.08%	0.013%	
96	4.324	4.304	4.329	VV	356	4167	0.08%	0.013%	
97	4.332	4.329	4.367	VV	373	6590	0.13%	0.021%	
98	4.368	4.367	4.373	VV	284	829	0.02%	0.003%	
99	4.377	4.373	4.418	VV	304	6354	0.13%	0.020%	
100	4.449	4.418	4.475	VV	295	8011	0.16%	0.026%	
101	4.482	4.475	4.489	VV	239	1742	0.04%	0.006%	
102	4.501	4.489	4.538	VV	436	8278	0.17%	0.026%	
103	4.564	4.538	4.579	VV	250	4926	0.10%	0.016%	
104	4.583	4.579	4.606	VV	199	2900	0.06%	0.009%	
105	4.627	4.606	4.655	VV	362	6796	0.14%	0.022%	
106	4.674	4.655	4.717	VV	826	15599	0.32%	0.050%	
107	4.719	4.717	4.739	VV	274	2801	0.06%	0.009%	
108	4.741	4.739	4.764	VV	294	3016	0.06%	0.010%	
109	4.781	4.764	4.797	VV	258	3729	0.08%	0.012%	
110	4.827	4.797	4.852	VV	276	6408	0.13%	0.020%	
111	4.857	4.852	4.880	VV	226	3302	0.07%	0.011%	
112	4.889	4.880	4.901	VV	206	2251	0.05%	0.007%	
113	4.905	4.901	4.929	VV	215	3126	0.06%	0.010%	
114	4.934	4.929	4.973	VV	251	4963	0.10%	0.016%	
115	4.979	4.973	4.987	VV	189	1378	0.03%	0.004%	
116	4.994	4.987	5.025	VV	205	3457	0.07%	0.011%	
117	5.034	5.025	5.050	VV	207	1956	0.04%	0.006%	
118	5.056	5.050	5.072	VV	177	1600	0.03%	0.005%	
119	5.078	5.072	5.086	VV	158	1002	0.02%	0.003%	
120	5.091	5.086	5.113	VV	169	1851	0.04%	0.006%	
121	5.118	5.113	5.129	VV	159	1027	0.02%	0.003%	
122	5.138	5.129	5.141	VV	138	682	0.01%	0.002%	
123	5.161	5.141	5.182	VV	340	4951	0.10%	0.016%	
124	5.187	5.182	5.197	VV	142	815	0.02%	0.003%	
125	5.203	5.197	5.221	VV	105	1221	0.02%	0.004%	
126	5.228	5.221	5.257	VV	138	1743	0.04%	0.006%	
127	5.259	5.257	5.264	VV	117	355	0.01%	0.001%	
128	5.272	5.264	5.281	VV	118	1082	0.02%	0.003%	
129	5.300	5.281	5.314	VV	173	2005	0.04%	0.006%	
130	5.318	5.314	5.327	VV	149	785	0.02%	0.003%	
131	5.330	5.327	5.332	VV	123	313	0.01%	0.001%	
132	5.337	5.332	5.375	VV	154	2250	0.05%	0.007%	
133	5.381	5.375	5.417	VV	113	1643	0.03%	0.005%	
134	5.425	5.417	5.431	VV	71	521	0.01%	0.002%	
135	5.467	5.431	5.473	VV	339	4570	0.09%	0.015%	
136	5.481	5.473	5.499	VV	295	3809	0.08%	0.012%	
137	5.503	5.499	5.508	VV	195	761	0.02%	0.002%	
138	5.517	5.508	5.532	VV	172	1689	0.03%	0.005%	
139	5.535	5.532	5.557	VV	127	1340	0.03%	0.004%	
140	5.586	5.557	5.625	VV	132	3470	0.07%	0.011%	
141	5.657	5.625	5.679	VV	147	2272	0.05%	0.007%	

					rteres			
142	5.737	5.679	5.809	PV	555	19408	0.39%	0.062%
143	5.814	5.809	5.836	VV	245	3360	0.07%	0.011%
144	5.861	5.836	5.875	VV	250	4557	0.09%	0.015%
145	5.877	5.875	5.882	VV	243	821	0.02%	0.003%
146	5.896	5.882	5.913	VV	278	3951	0.08%	0.013%
147	5.920	5.913	5.942	VV	239	3333	0.07%	0.011%
148	5.946	5.942	5.951	VV	186	785	0.02%	0.003%
149	5.956	5.951	5.995	VV	180	3752	0.08%	0.012%
150	6.007	5.995	6.011	VV	135	1056	0.02%	0.003%
151	6.022	6.011	6.031	VV	213	1525	0.03%	0.005%
152	6.039	6.031	6.057	VV	104	1310	0.03%	0.004%
153	6.062	6.057	6.070	VV	101	634	0.01%	0.002%
154	6.089	6.070	6.099	VV	117	1507	0.03%	0.005%
155	6.118	6.099	6.133	VV	151	2436	0.05%	0.008%
156	6.137	6.133	6.175	VV	122	1889	0.04%	0.006%
157	6.216	6.175	6.230	VV	231	3825	0.08%	0.012%
158	6.233	6.230	6.249	VV	218	1865	0.04%	0.006%
159	6.254	6.249	6.259	VV	168	987	0.02%	0.003%
160	6.265	6.259	6.271	VV	191	1188	0.02%	0.004%
161	6.281	6.271	6.290	VV	207	1885	0.04%	0.006%
162	6.293	6.290	6.324	VV	185	3074	0.06%	0.010%
163	6.329	6.324	6.340	VV	228	1634	0.03%	0.005%
164	6.345	6.340	6.366	VV	183	2286	0.05%	0.007%
165	6.398	6.366	6.427	VV	443	8755	0.18%	0.028%
166	6.434	6.427	6.461	VV	227	3598	0.07%	0.012%
167	6.476	6.461	6.482	VV	206	1929	0.04%	0.006%
168	6.484	6.482	6.507	VV	179	1833	0.04%	0.006%
169	6.524	6.507	6.533	VV	251	2632	0.05%	0.008%
170	6.539	6.533	6.564	VV	249	3279	0.07%	0.010%
171	6.570	6.564	6.615	VV	236	4171	0.08%	0.013%
172	6.622	6.615	6.629	VV	165	943	0.02%	0.003%
173	6.646	6.629	6.657	VV	169	1980	0.04%	0.006%
174	6.669	6.657	6.673	VV	154	1119	0.02%	0.004%
175	6.679	6.673	6.685	VV	132	899	0.02%	0.003%
176	6.697	6.685	6.764	VV	181	4008	0.08%	0.013%
177	6.818	6.764	7.039	VV	8523	295887	5.99%	0.946%
178	7.049	7.039	7.132	VV	728	28157	0.57%	0.090%
179	7.152	7.132	7.164	VV	469	7296	0.15%	0.023%
180	7.172	7.164	7.217	VV	439	11867	0.24%	0.038%
181	7.238	7.217	7.250	VV	441	7975	0.16%	0.026%
182	7.256	7.250	7.300	VV	429	11119	0.22%	0.036%
183	7.309	7.300	7.334	VV	355	6520	0.13%	0.021%
184	7.342	7.334	7.353	VV	333	3241	0.07%	0.010%
185	7.366	7.353	7.386	VV	326	5983	0.12%	0.019%
186	7.400	7.386	7.441	VV	379	9219	0.19%	0.029%
187	7.464	7.441	7.499	VV	321	7817	0.16%	0.025%
188	7.523	7.499	7.598	VV	233	10877	0.22%	0.035%
189	7.613	7.598	7.728	VV	204	10896	0.22%	0.035%
190	7.741	7.728	7.752	VV	147	1427	0.03%	0.005%
191	7.757	7.752	7.768	VV	91	988	0.02%	0.003%
192	7.821	7.768	7.859	VV	155	4435	0.09%	0.014%
193	7.918	7.859	7.981	PV	1002	16393	0.33%	0.052%
194	7.997	7.981	8.005	VV	115	1337	0.03%	0.004%

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195	8.062	8.005	8.073	VV	341	7226	0.15%	0.023%
196	8.091	8.073	8.152	VV	1269	17229	0.35%	0.055%
197	8.182	8.152	8.205	VV	172	3409	0.07%	0.011%
198	8.212	8.205	8.222	VV	99	827	0.02%	0.003%
199	8.227	8.222	8.234	VV	85	552	0.01%	0.002%
200	8.254	8.234	8.274	VV	367	4282	0.09%	0.014%
201	8.292	8.274	8.334	VV	353	5434	0.11%	0.017%
202	8.345	8.334	8.379	VV	72	1560	0.03%	0.005%
203	8.399	8.379	8.417	VV	184	2793	0.06%	0.009%
204	8.422	8.417	8.470	VV	176	5002	0.10%	0.016%
205	8.488	8.470	8.504	VV	499	6529	0.13%	0.021%
206	8.521	8.504	8.585	VV	566	12942	0.26%	0.041%
207	8.593	8.585	8.605	VV	167	1230	0.02%	0.004%
208	8.667	8.605	8.714	VV	387	12317	0.25%	0.039%
209	8.720	8.714	8.739	VV	161	1309	0.03%	0.004%
210	8.756	8.739	8.785	VV	123	2373	0.05%	0.008%
211	8.797	8.785	8.824	VV	66	1384	0.03%	0.004%
212	8.850	8.824	8.859	PV	123	2056	0.04%	0.007%
213	8.884	8.859	8.909	VV	168	3095	0.06%	0.010%
214	8.915	8.909	8.932	VV	122	1058	0.02%	0.003%
215	9.008	8.932	9.169	VV	724	37246	0.75%	0.119%
216	9.177	9.169	9.199	VV	219	2692	0.05%	0.009%
217	9.210	9.199	9.225	VV	208	2298	0.05%	0.007%
218	9.252	9.225	9.296	VV	627	12945	0.26%	0.041%
219	9.309	9.296	9.330	VV	190	2498	0.05%	0.008%
220	9.404	9.330	9.519	VV	12224	272632	5.52%	0.872%
221	9.536	9.519	9.574	VV	322	6796	0.14%	0.022%
222	9.582	9.574	9.599	VV	174	1838	0.04%	0.006%
223	9.630	9.599	9.664	VV	145	3468	0.07%	0.011%
224	9.740	9.664	9.755	VV	360	10007	0.20%	0.032%
225	9.781	9.755	9.792	VV	274	4854	0.10%	0.016%
226	9.800	9.792	9.840	VV	246	4611	0.09%	0.015%
227	9.856	9.840	9.899	VV	326	6039	0.12%	0.019%
228	9.907	9.899	9.945	VV	177	2986	0.06%	0.010%
229	9.966	9.945	9.987	PV	464	5706	0.12%	0.018%
230	10.018	9.987	10.115	VV	4219	150722	3.05%	0.482%
231	10.134	10.115	10.227	VV	1893	51431	1.04%	0.164%
232	10.241	10.227	10.265	VV	440	7974	0.16%	0.026%
233	10.275	10.265	10.335	VV	420	9116	0.18%	0.029%
234	10.344	10.335	10.394	VV	162	3039	0.06%	0.010%
235	10.423	10.394	10.440	VV	145	2046	0.04%	0.007%
236	10.478	10.440	10.504	VV	767	13298	0.27%	0.043%
237	10.520	10.504	10.549	VV	356	7284	0.15%	0.023%
238	10.584	10.549	10.635	VV	500	16310	0.33%	0.052%
239	10.654	10.635	10.682	VV	607	9607	0.19%	0.031%
240	10.694	10.682	10.715	VV	279	3710	0.08%	0.012%
241	10.723	10.715	10.734	VV	178	1746	0.04%	0.006%
242	10.773	10.734	10.817	VV	365	12911	0.26%	0.041%
243	10.877	10.817	10.923	VV	811	24369	0.49%	0.078%
244	10.947	10.923	10.964	VV	379	6514	0.13%	0.021%
245	10.976	10.964	11.044	VV	316	8950	0.18%	0.029%
246	11.056	11.044	11.074	PV	144	1543	0.03%	0.005%

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247	11.097	11.074	11.137	VV	315	6341	0.13%	0.020%
248	11.214	11.137	11.235	VV	346	13187	0.27%	0.042%
249	11.253	11.235	11.288	VV	394	8003	0.16%	0.026%
250	11.328	11.288	11.366	VV	374	10658	0.22%	0.034%
251	11.386	11.366	11.426	VV	387	7776	0.16%	0.025%
252	11.437	11.426	11.455	VV	217	2244	0.05%	0.007%
253	11.469	11.455	11.489	VV	176	2704	0.05%	0.009%
254	11.513	11.489	11.540	VV	395	7122	0.14%	0.023%
255	11.582	11.540	11.608	VV	933	17112	0.35%	0.055%
256	11.619	11.608	11.640	VV	308	4208	0.09%	0.013%
257	11.666	11.640	11.700	VV	449	8771	0.18%	0.028%
258	11.721	11.700	11.729	VV	316	3583	0.07%	0.011%
259	11.739	11.729	11.760	VV	349	4315	0.09%	0.014%
260	11.778	11.760	11.805	VV	482	5863	0.12%	0.019%
261	11.828	11.805	11.860	VV	422	7014	0.14%	0.022%
262	11.900	11.860	11.929	VV	275	8207	0.17%	0.026%
263	11.934	11.929	11.950	VV	200	1984	0.04%	0.006%
264	11.973	11.950	11.986	VV	619	9147	0.19%	0.029%
265	12.006	11.986	12.050	VV	723	18475	0.37%	0.059%
266	12.064	12.050	12.089	VV	438	6449	0.13%	0.021%
267	12.103	12.089	12.122	VV	254	3526	0.07%	0.011%
268	12.141	12.122	12.165	VV	165	3408	0.07%	0.011%
269	12.191	12.165	12.206	PV	220	2700	0.05%	0.009%
270	12.254	12.206	12.278	VV	788	14689	0.30%	0.047%
271	12.308	12.278	12.331	VV	1573	23721	0.48%	0.076%
272	12.345	12.331	12.396	VV	577	11960	0.24%	0.038%
273	12.408	12.396	12.430	VV	170	2394	0.05%	0.008%
274	12.460	12.430	12.490	VV	220	5316	0.11%	0.017%
275	12.510	12.490	12.567	VV	5028	67281	1.36%	0.215%
276	12.579	12.567	12.595	VV	432	6670	0.13%	0.021%
277	12.610	12.595	12.672	VV	493	15695	0.32%	0.050%
278	12.677	12.672	12.699	VV	306	4066	0.08%	0.013%
279	12.720	12.699	12.763	VV	432	9610	0.19%	0.031%
280	12.785	12.763	12.792	VV	192	3008	0.06%	0.010%
281	12.828	12.792	12.865	VV	478	11998	0.24%	0.038%
282	12.897	12.865	12.924	VV	815	13691	0.28%	0.044%
283	12.970	12.924	13.075	VV	1402	37438	0.76%	0.120%
284	13.081	13.075	13.091	VV	49	511	0.01%	0.002%
285	13.120	13.091	13.135	PV	194	3365	0.07%	0.011%
286	13.155	13.135	13.192	VV	213	4081	0.08%	0.013%
287	13.213	13.192	13.242	VV	166	2233	0.05%	0.007%
288	13.302	13.242	13.357	PV	1260	38906	0.79%	0.124%
289	13.387	13.357	13.415	VV	351	7372	0.15%	0.024%
290	13.424	13.415	13.437	VV	228	2105	0.04%	0.007%
291	13.457	13.437	13.473	VV	244	4139	0.08%	0.013%
292	13.511	13.473	13.540	VV	742	13924	0.28%	0.045%
293	13.564	13.540	13.597	VV	478	9556	0.19%	0.031%
294	13.639	13.597	13.670	VV	311	7873	0.16%	0.025%
295	13.722	13.670	13.805	VV	398	14339	0.29%	0.046%
296	13.868	13.805	13.875	PV	185	4364	0.09%	0.014%
297	13.922	13.875	13.940	VV	388	9996	0.20%	0.032%
298	13.955	13.940	13.990	VV	288	6148	0.12%	0.020%
299	14.051	13.990	14.077	VV	884	18651	0.38%	0.060%

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300	14.100	14.077	14.140	VV	625	12926	0.26%	0.041%
301	14.159	14.140	14.179	VV	296	4988	0.10%	0.016%
302	14.214	14.179	14.240	VV	180	4955	0.10%	0.016%
303	14.263	14.240	14.273	PV	144	1561	0.03%	0.005%
304	14.325	14.273	14.334	VV	263	4591	0.09%	0.015%
305	14.341	14.334	14.387	VV	182	4375	0.09%	0.014%
306	14.400	14.387	14.417	VV	115	1337	0.03%	0.004%
307	14.496	14.417	14.555	PV	2312	50252	1.02%	0.161%
308	14.575	14.555	14.588	VV	220	3298	0.07%	0.011%
309	14.595	14.588	14.634	VV	216	3957	0.08%	0.013%
310	14.663	14.634	14.685	VV	1178	16966	0.34%	0.054%
311	14.697	14.685	14.710	VV	356	4537	0.09%	0.015%
312	14.724	14.710	14.740	VV	381	5398	0.11%	0.017%
313	14.766	14.740	14.800	VV	599	11894	0.24%	0.038%
314	14.824	14.800	14.850	VV	242	4379	0.09%	0.014%
315	14.894	14.850	14.957	VV	398	11862	0.24%	0.038%
316	15.002	14.957	15.042	VV	103252	1405518	28.44%	4.495%
317	15.053	15.042	15.124	VV	1127	22721	0.46%	0.073%
318	15.177	15.124	15.188	VV	1018	17316	0.35%	0.055%
319	15.206	15.188	15.234	VV	1380	22413	0.45%	0.072%
320	15.252	15.234	15.306	VV	922	16147	0.33%	0.052%
321	15.346	15.306	15.379	PV	122	2505	0.05%	0.008%
322	15.401	15.379	15.436	VV	470	7386	0.15%	0.024%
323	15.589	15.436	15.670	PV	45702	749655	15.17%	2.398%
324	15.686	15.670	15.700	VV	448	7084	0.14%	0.023%
325	15.728	15.700	15.763	VV	3626	55140	1.12%	0.176%
326	15.795	15.763	15.835	VV	1793	30614	0.62%	0.098%
327	15.859	15.835	15.887	PV	392	6788	0.14%	0.022%
328	15.911	15.887	15.932	PV	212	3314	0.07%	0.011%
329	16.023	15.932	16.040	VV	336	12060	0.24%	0.039%
330	16.050	16.040	16.081	VV	286	5062	0.10%	0.016%
331	16.110	16.081	16.147	VV	1777	32483	0.66%	0.104%
332	16.160	16.147	16.172	VV	321	3407	0.07%	0.011%
333	16.195	16.172	16.205	VV	401	4827	0.10%	0.015%
334	16.231	16.205	16.265	VV	2405	34936	0.71%	0.112%
335	16.295	16.265	16.328	VV	1792	26383	0.53%	0.084%
336	16.369	16.328	16.380	VV	201	3467	0.07%	0.011%
337	16.439	16.380	16.455	PV	347	10503	0.21%	0.034%
338	16.534	16.455	16.555	VV	720	21761	0.44%	0.070%
339	16.608	16.555	16.656	VV	12925	235097	4.76%	0.752%
340	16.681	16.656	16.694	VV	1526	25885	0.52%	0.083%
341	16.716	16.694	16.745	VV	6410	94705	1.92%	0.303%
342	16.788	16.745	16.825	VV	1609	38385	0.78%	0.123%
343	16.852	16.825	16.909	VV	1741	43578	0.88%	0.139%
344	16.921	16.909	16.930	VV	566	6006	0.12%	0.019%
345	16.983	16.930	17.025	VV	1467	49609	1.00%	0.159%
346	17.089	17.025	17.130	VV	1412	59155	1.20%	0.189%
347	17.183	17.130	17.214	VV	3585	75523	1.53%	0.242%
348	17.261	17.214	17.297	VV	6442	103919	2.10%	0.332%
349	17.341	17.297	17.353	VV	207	5912	0.12%	0.019%
350	17.429	17.353	17.445	VV	310	8475	0.17%	0.027%
351	17.553	17.445	17.595	PV	7454	135113	2.73%	0.432%

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352	17.636	17.595	17.687	VV	16679	234818	4.75%	0.751%
353	17.722	17.687	17.755	PV	1203	21112	0.43%	0.068%
354	17.805	17.755	17.825	VV	382	7195	0.15%	0.023%
355	18.030	17.825	18.049	PV	2050	76499	1.55%	0.245%
356	18.073	18.049	18.105	VV	3803	69157	1.40%	0.221%
357	18.163	18.105	18.195	VV	9975	167624	3.39%	0.536%
358	18.216	18.195	18.236	VV	920	19472	0.39%	0.062%
359	18.301	18.236	18.332	VV	1640	42490	0.86%	0.136%
360	18.394	18.332	18.404	VV	2076	41592	0.84%	0.133%
361	18.435	18.404	18.474	VV	33647	606169	12.26%	1.939%
362	18.499	18.474	18.550	VV	12013	197324	3.99%	0.631%
363	18.593	18.550	18.621	VV	1520	27905	0.56%	0.089%
364	18.860	18.621	18.877	PV	1816	3594	0.07%	0.011%
365	18.905	18.877	18.947	VV	4521	87562	1.77%	0.280%
366	19.009	18.947	19.039	PV	10343	180602	3.65%	0.578%
367	19.187	19.039	19.197	VV	2328	151296	3.06%	0.484%
368	19.264	19.197	19.297	VV	37888	766749	15.51%	2.452%
369	19.311	19.297	19.354	VV	9376	232668	4.71%	0.744%
370	19.379	19.354	19.403	VV	6218	151514	3.07%	0.485%
371	19.433	19.403	19.470	VV	9739	249094	5.04%	0.797%
372	19.546	19.470	19.578	VV	7262	322206	6.52%	1.030%
373	19.602	19.578	19.617	VV	5432	114486	2.32%	0.366%
374	19.664	19.617	19.675	VV	6041	183932	3.72%	0.588%
375	19.696	19.675	19.720	VV	6645	163592	3.31%	0.523%
376	19.760	19.720	19.778	VV	9003	238353	4.82%	0.762%
377	19.803	19.778	19.831	VV	10154	262431	5.31%	0.839%
378	19.876	19.831	19.892	VV	7556	262201	5.30%	0.839%
379	20.046	19.892	20.084	VV	20663	1230314	24.89%	3.935%
380	20.103	20.084	20.126	VV	12192	298574	6.04%	0.955%
381	20.279	20.126	20.289	VV	14905	1213762	24.56%	3.882%
382	20.340	20.289	20.357	VV	15445	624530	12.63%	1.997%
383	20.443	20.357	20.462	VV	17310	1038012	21.00%	3.320%
384	20.781	20.462	20.849	VV	25513	4942888	100.00%	15.808%
385	20.892	20.849	20.904	VV	21708	713150	14.43%	2.281%
386	20.964	20.904	20.983	VV	22268	1042807	21.10%	3.335%
387	20.992	20.983	21.008	VV	21750	321682	6.51%	1.029%
388	21.018	21.008	21.032	VV	21387	301519	6.10%	0.964%
389	21.068	21.032	21.083	VV	21924	655731	13.27%	2.097%
390	21.099	21.083	21.149	VV	21097	809827	16.38%	2.590%
391	21.176	21.149	21.213	VV	20043	737979	14.93%	2.360%
392	21.236	21.213	21.267	VV	18352	571387	11.56%	1.827%
393	21.315	21.267	21.334	VV	17362	687596	13.91%	2.199%
394	21.358	21.334	21.390	VV	16895	549383	11.11%	1.757%
395	21.419	21.390	21.444	VV	15659	485032	9.81%	1.551%
396	21.465	21.444	21.485	VV	14192	348890	7.06%	1.116%
397	21.519	21.485	21.545	VV	14095	487988	9.87%	1.561%
398	21.606	21.545	21.648	VV	13257	805321	16.29%	2.576%
399	21.668	21.648	21.689	VV	12458	293675	5.94%	0.939%
400	21.699	21.689	21.737	VV	11424	314828	6.37%	1.007%
401	21.754	21.737	21.772	VV	10488	214917	4.35%	0.687%
402	21.785	21.772	21.825	VV	9778	295906	5.99%	0.946%
403	21.843	21.825	21.889	VV	8832	316951	6.41%	1.014%
404	21.915	21.889	21.942	VV	8157	241503	4.89%	0.772%

					rteres			
405	21.948	21.942	21.974	VV	6725	121154	2.45%	0.387%
406	21.990	21.974	22.024	VV	6057	166245	3.36%	0.532%
407	22.064	22.024	22.097	VV	5130	204209	4.13%	0.653%
408	22.117	22.097	22.140	VV	4494	104352	2.11%	0.334%
409	22.155	22.140	22.170	VV	3127	53742	1.09%	0.172%
410	22.264	22.170	22.400	VBA	4952	439115	8.88%	1.404%

Sum of corrected areas: 31267877

FG042425.M Thu May 08 07:21:51 2025

Report of Analysis

Client:	Saxton Falls Sand and Gravel Co. Inc.	Date Collected:	05/01/25
Project:	Stan Hope	Date Received:	05/01/25
Client Sample ID:	LARGE-PILE-C	SDG No.:	Q1937
Lab Sample ID:	Q1937-05	Matrix:	SOIL
Analytical Method:	8015D TPH	% Solid:	94.9
Sample Wt/Vol:	30.04	Units:	g
Soil Aliquot Vol:			uL
Extraction Type:		Test:	TPH GC
GPC Factor :		Injection Volume :	
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
FG015788.D	1	05/07/25 09:00	05/07/25 13:45	PB167887

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
PHC	Petroleum Hydrocarbons	7390		404	2980	ug/kg
SURROGATES						
16416-32-3	TETRACOSANE-d50	9.66		37 - 130	48%	SPK: 20

Comments:

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

P = Indicates >25% difference for detected concentrations between the two GC columns

Q = indicates LCS control criteria did not meet requirements

M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

* = Values outside of QC limits

D = Dilution

S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.

() = Laboratory InHouse Limit

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG050725\
Data File : FG015788.D
Signal(s) : FID1A.ch
Acq On : 07 May 2025 13:45
Operator : YP\AJ
Sample : Q1937-05
Misc :
ALS Vial : 23 Sample Multiplier: 1

Instrument :
FID_G
ClientSampleId :
LARGE-PILE-C

Integration File: autoint1.e
Quant Time: May 08 06:37:06 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG042425.M
Quant Title :
QLast Update : Thu Apr 24 12:54:09 2025
Response via : Initial Calibration
Integrator: ChemStation

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

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
9) S TETRACOSANE-d50 (SURR...	15.003	1137696	9.663 ug/ml
Target Compounds			

(f)=RT Delta > 1/2 Window

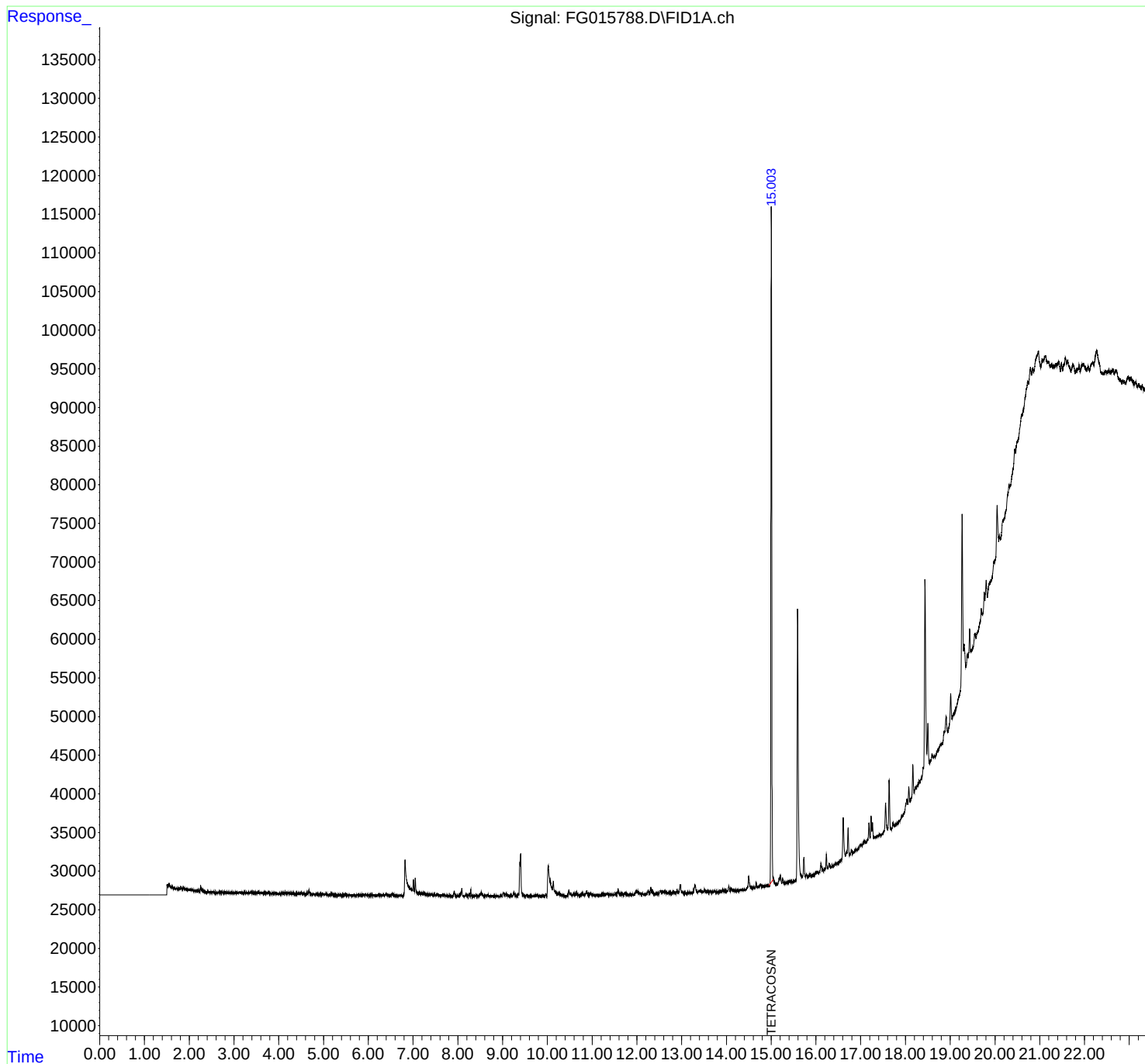
(m)=manual int.

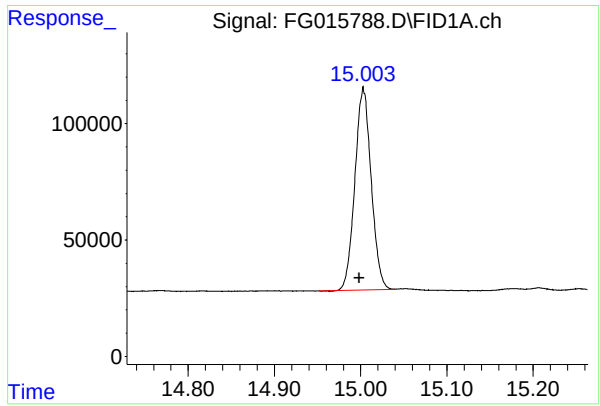
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG050725\
Data File : FG015788.D
Signal(s) : FID1A.ch
Acq On : 07 May 2025 13:45
Operator : YP\AJ
Sample : Q1937-05
Misc :
ALS Vial : 23 Sample Multiplier: 1

Instrument :
FID_G
ClientSampleId :
LARGE-PILE-C

Integration File: autoint1.e
Quant Time: May 08 06:37:06 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG042425.M
Quant Title :
QLast Update : Thu Apr 24 12:54:09 2025
Response via : Initial Calibration
Integrator: ChemStation

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





#9 TETRACOSANE-d50 (SURROGATE)

R.T.: 15.003 min
Delta R.T.: 0.005 min
Response: 1137696
Conc: 9.66 ug/ml

Instrument :
FID_G
ClientSampleId :
LARGE-PILE-C

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG050725\
 Data File : FG015788.D
 Signal(s) : FID1A.ch
 Acq On : 07 May 2025 13:45
 Sample : Q1937-05
 Misc :
 ALS Vial : 23 Sample Multiplier: 1

Integration File: Sample.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG042425.M
 Title :

Signal : FID1A.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	1.929	1.912	1.956	BV	76	541	0.01%	0.002%
2	1.966	1.956	2.005	PV	131	2438	0.04%	0.009%
3	2.017	2.005	2.043	VV	181	2161	0.03%	0.008%
4	2.049	2.043	2.078	VV	124	2321	0.03%	0.009%
5	2.080	2.078	2.103	VV	178	1552	0.02%	0.006%
6	2.127	2.103	2.143	VV	202	2411	0.04%	0.009%
7	2.148	2.143	2.168	VV	125	1133	0.02%	0.004%
8	2.172	2.168	2.177	PV	95	431	0.01%	0.002%
9	2.180	2.177	2.214	VV	186	2871	0.04%	0.011%
10	2.215	2.214	2.233	VV	174	1082	0.02%	0.004%
11	2.256	2.233	2.289	VV	860	12187	0.18%	0.046%
12	2.299	2.289	2.320	VV	312	4135	0.06%	0.015%
13	2.326	2.320	2.350	VV	204	2252	0.03%	0.008%
14	2.354	2.350	2.384	VV	183	1932	0.03%	0.007%
15	2.390	2.384	2.401	PV	117	718	0.01%	0.003%
16	2.405	2.401	2.410	VV	162	575	0.01%	0.002%
17	2.414	2.410	2.417	VV	161	439	0.01%	0.002%
18	2.428	2.417	2.448	VV	189	1972	0.03%	0.007%
19	2.450	2.448	2.457	VV	133	501	0.01%	0.002%
20	2.465	2.457	2.469	VV	184	844	0.01%	0.003%
21	2.475	2.469	2.515	VV	212	3032	0.05%	0.011%
22	2.527	2.515	2.564	VV	245	4157	0.06%	0.016%
23	2.569	2.564	2.572	VV	144	636	0.01%	0.002%
24	2.576	2.572	2.592	VV	197	1753	0.03%	0.007%
25	2.597	2.592	2.601	VV	199	696	0.01%	0.003%
26	2.624	2.601	2.637	PV	185	2790	0.04%	0.010%
27	2.644	2.637	2.648	VV	150	882	0.01%	0.003%
28	2.653	2.648	2.672	VV	241	2166	0.03%	0.008%
29	2.681	2.672	2.697	VV	233	2221	0.03%	0.008%
30	2.703	2.697	2.712	VV	140	1193	0.02%	0.004%
31	2.716	2.712	2.726	VV	177	1028	0.02%	0.004%
32	2.732	2.726	2.766	VV	245	3734	0.06%	0.014%
33	2.785	2.766	2.790	VV	251	2539	0.04%	0.010%
34	2.798	2.790	2.809	VV	263	1683	0.03%	0.006%
35	2.812	2.809	2.829	VV	170	1640	0.02%	0.006%
36	2.833	2.829	2.843	VV	149	1054	0.02%	0.004%

					rteres			
37	2.844	2.843	2.859	VV	205	1341	0.02%	0.005%
38	2.865	2.859	2.878	VV	163	1306	0.02%	0.005%
39	2.880	2.878	2.891	VV	200	818	0.01%	0.003%
40	2.896	2.891	2.903	VV	168	1019	0.02%	0.004%
41	2.915	2.903	2.930	VV	230	2151	0.03%	0.008%
42	2.942	2.930	2.950	VV	167	1707	0.03%	0.006%
43	2.959	2.950	2.987	VV	245	3515	0.05%	0.013%
44	2.992	2.987	3.010	VV	217	1584	0.02%	0.006%
45	3.048	3.010	3.062	VV	204	4231	0.06%	0.016%
46	3.068	3.062	3.082	VV	138	1452	0.02%	0.005%
47	3.094	3.082	3.104	VV	196	1754	0.03%	0.007%
48	3.120	3.104	3.134	VV	247	3175	0.05%	0.012%
49	3.139	3.134	3.148	VV	259	1629	0.02%	0.006%
50	3.156	3.148	3.167	VV	283	1978	0.03%	0.007%
51	3.171	3.167	3.175	VV	191	830	0.01%	0.003%
52	3.180	3.175	3.208	VV	275	3632	0.05%	0.014%
53	3.213	3.208	3.218	VV	193	997	0.01%	0.004%
54	3.247	3.218	3.277	VV	269	6613	0.10%	0.025%
55	3.280	3.277	3.294	VV	157	1464	0.02%	0.005%
56	3.332	3.294	3.355	VV	226	6814	0.10%	0.026%
57	3.359	3.355	3.373	VV	228	1825	0.03%	0.007%
58	3.378	3.373	3.389	VV	215	1677	0.03%	0.006%
59	3.417	3.389	3.430	VV	261	4662	0.07%	0.017%
60	3.439	3.430	3.448	VV	243	2166	0.03%	0.008%
61	3.463	3.448	3.482	VV	265	3857	0.06%	0.014%
62	3.496	3.482	3.506	VV	226	2547	0.04%	0.010%
63	3.510	3.506	3.532	VV	294	2785	0.04%	0.010%
64	3.544	3.532	3.552	VV	235	2269	0.03%	0.009%
65	3.558	3.552	3.566	VV	239	1664	0.02%	0.006%
66	3.583	3.566	3.604	VV	242	4570	0.07%	0.017%
67	3.620	3.604	3.626	VV	243	2600	0.04%	0.010%
68	3.633	3.626	3.640	VV	210	1499	0.02%	0.006%
69	3.651	3.640	3.663	VV	180	2438	0.04%	0.009%
70	3.668	3.663	3.673	VV	240	1162	0.02%	0.004%
71	3.681	3.673	3.705	VV	237	3474	0.05%	0.013%
72	3.712	3.705	3.725	VV	223	2081	0.03%	0.008%
73	3.736	3.725	3.739	VV	225	1606	0.02%	0.006%
74	3.744	3.739	3.764	VV	215	2559	0.04%	0.010%
75	3.767	3.764	3.774	VV	210	1052	0.02%	0.004%
76	3.777	3.774	3.792	VV	247	1854	0.03%	0.007%
77	3.794	3.792	3.797	VV	188	491	0.01%	0.002%
78	3.807	3.797	3.827	VV	221	2991	0.04%	0.011%
79	3.833	3.827	3.847	VV	188	1795	0.03%	0.007%
80	3.850	3.847	3.855	VV	202	662	0.01%	0.002%
81	3.857	3.855	3.861	VV	176	379	0.01%	0.001%
82	3.864	3.861	3.869	VV	200	632	0.01%	0.002%
83	3.881	3.869	3.907	VV	176	3150	0.05%	0.012%
84	3.914	3.907	3.925	VV	209	1592	0.02%	0.006%
85	3.938	3.925	3.982	VV	275	4991	0.07%	0.019%
86	3.988	3.982	4.012	VV	213	2292	0.03%	0.009%
87	4.046	4.012	4.057	VV	222	3235	0.05%	0.012%
88	4.087	4.057	4.119	VV	221	5759	0.09%	0.022%
89	4.126	4.119	4.137	VV	201	1973	0.03%	0.007%

					rteres				
90	4.147	4.137	4.194	VV	243	6958	0.10%	0.026%	
91	4.223	4.194	4.233	VV	268	4669	0.07%	0.017%	
92	4.248	4.233	4.278	VV	236	4730	0.07%	0.018%	
93	4.312	4.278	4.341	VV	245	7047	0.11%	0.026%	
94	4.349	4.341	4.362	VV	235	2323	0.03%	0.009%	
95	4.370	4.362	4.382	VV	221	1834	0.03%	0.007%	
96	4.391	4.382	4.445	VV	216	6214	0.09%	0.023%	
97	4.454	4.445	4.480	VV	199	3488	0.05%	0.013%	
98	4.502	4.480	4.554	VV	377	8447	0.13%	0.032%	
99	4.562	4.554	4.596	VV	162	3212	0.05%	0.012%	
100	4.624	4.596	4.651	VV	302	5680	0.08%	0.021%	
101	4.674	4.651	4.729	VV	710	13333	0.20%	0.050%	
102	4.742	4.729	4.779	VV	201	4145	0.06%	0.016%	
103	4.782	4.779	4.805	VV	185	1991	0.03%	0.007%	
104	4.828	4.805	4.857	VV	184	4073	0.06%	0.015%	
105	4.875	4.857	4.879	VV	186	1702	0.03%	0.006%	
106	4.885	4.879	4.940	VV	205	4501	0.07%	0.017%	
107	4.953	4.940	4.970	VV	178	2052	0.03%	0.008%	
108	4.978	4.970	5.030	VV	164	4320	0.06%	0.016%	
109	5.037	5.030	5.064	VV	155	2233	0.03%	0.008%	
110	5.093	5.064	5.140	VV	153	3960	0.06%	0.015%	
111	5.165	5.140	5.195	PV	167	4107	0.06%	0.015%	
112	5.205	5.195	5.249	VV	149	2584	0.04%	0.010%	
113	5.262	5.249	5.270	VV	120	877	0.01%	0.003%	
114	5.278	5.270	5.294	VV	114	898	0.01%	0.003%	
115	5.313	5.294	5.367	VV	109	2350	0.04%	0.009%	
116	5.379	5.367	5.426	PV	109	1538	0.02%	0.006%	
117	5.433	5.426	5.449	VV	65	775	0.01%	0.003%	
118	5.484	5.449	5.614	VV	205	7849	0.12%	0.029%	
119	5.630	5.614	5.720	VV	96	3497	0.05%	0.013%	
120	5.746	5.720	5.786	VV	117	2976	0.04%	0.011%	
121	5.801	5.786	5.825	VV	124	1879	0.03%	0.007%	
122	5.849	5.825	5.867	VV	190	2375	0.04%	0.009%	
123	5.902	5.867	5.940	VV	180	5418	0.08%	0.020%	
124	5.947	5.940	5.984	VV	114	2516	0.04%	0.009%	
125	5.990	5.984	6.021	VV	129	2038	0.03%	0.008%	
126	6.052	6.021	6.093	VV	149	3394	0.05%	0.013%	
127	6.114	6.093	6.153	VV	112	2573	0.04%	0.010%	
128	6.217	6.153	6.236	PV	172	3729	0.06%	0.014%	
129	6.247	6.236	6.257	VV	127	1236	0.02%	0.005%	
130	6.262	6.257	6.270	VV	91	674	0.01%	0.003%	
131	6.282	6.270	6.347	VV	145	3884	0.06%	0.015%	
132	6.397	6.347	6.429	VV	358	7964	0.12%	0.030%	
133	6.449	6.429	6.506	VV	161	4465	0.07%	0.017%	
134	6.530	6.506	6.602	VV	215	7996	0.12%	0.030%	
135	6.616	6.602	6.644	VV	125	1834	0.03%	0.007%	
136	6.653	6.644	6.670	VV	92	752	0.01%	0.003%	
137	6.684	6.670	6.706	VV	105	1474	0.02%	0.006%	
138	6.711	6.706	6.744	VV	95	965	0.01%	0.004%	
139	6.750	6.744	6.758	VV	52	197	0.00%	0.001%	
140	6.823	6.758	6.988	PV	4684	189554	2.83%	0.710%	
141	7.010	6.988	7.033	VV	2160	33167	0.50%	0.124%	

					rteres			
142	7.052	7.033	7.106	VV	2348	40421	0.60%	0.151%
143	7.121	7.106	7.187	VV	473	18782	0.28%	0.070%
144	7.220	7.187	7.244	VV	408	11499	0.17%	0.043%
145	7.250	7.244	7.299	VV	330	9788	0.15%	0.037%
146	7.317	7.299	7.386	VV	366	13883	0.21%	0.052%
147	7.403	7.386	7.426	VV	293	5749	0.09%	0.022%
148	7.433	7.426	7.451	VV	225	2828	0.04%	0.011%
149	7.468	7.451	7.510	VV	229	6076	0.09%	0.023%
150	7.547	7.510	7.573	VV	320	8199	0.12%	0.031%
151	7.582	7.573	7.607	VV	216	3244	0.05%	0.012%
152	7.687	7.607	7.725	VV	248	11266	0.17%	0.042%
153	7.756	7.725	7.870	VV	147	6758	0.10%	0.025%
154	7.918	7.870	7.963	VV	668	10971	0.16%	0.041%
155	7.995	7.963	8.015	VV	137	3415	0.05%	0.013%
156	8.091	8.015	8.153	VV	1020	22407	0.34%	0.084%
157	8.182	8.153	8.224	VV	379	5980	0.09%	0.022%
158	8.253	8.224	8.273	VV	388	5333	0.08%	0.020%
159	8.291	8.273	8.326	VV	936	10643	0.16%	0.040%
160	8.343	8.326	8.386	VV	146	2464	0.04%	0.009%
161	8.523	8.386	8.613	PV	581	23947	0.36%	0.090%
162	8.665	8.613	8.836	VV	282	13861	0.21%	0.052%
163	8.854	8.836	8.920	VV	112	3477	0.05%	0.013%
164	8.960	8.920	8.982	VV	175	3467	0.05%	0.013%
165	9.018	8.982	9.146	VV	428	24600	0.37%	0.092%
166	9.175	9.146	9.200	VV	161	3667	0.05%	0.014%
167	9.207	9.200	9.221	VV	182	1457	0.02%	0.005%
168	9.253	9.221	9.316	VV	511	12678	0.19%	0.048%
169	9.403	9.316	9.504	VV	5574	129491	1.94%	0.485%
170	9.538	9.504	9.583	VV	231	4517	0.07%	0.017%
171	9.616	9.583	9.632	VV	77	1626	0.02%	0.006%
172	9.675	9.632	9.700	VV	74	1924	0.03%	0.007%
173	9.737	9.700	9.757	VV	215	4762	0.07%	0.018%
174	9.773	9.757	9.846	VV	188	5905	0.09%	0.022%
175	9.863	9.846	9.896	VV	96	2628	0.04%	0.010%
176	9.913	9.896	9.940	VV	177	2536	0.04%	0.010%
177	9.965	9.940	9.985	PV	337	4743	0.07%	0.018%
178	10.022	9.985	10.116	VV	3884	148509	2.22%	0.556%
179	10.134	10.116	10.263	VV	2003	61947	0.93%	0.232%
180	10.277	10.263	10.436	VV	444	16995	0.25%	0.064%
181	10.479	10.436	10.505	PV	810	14283	0.21%	0.054%
182	10.522	10.505	10.547	VV	352	6691	0.10%	0.025%
183	10.588	10.547	10.631	VV	344	12179	0.18%	0.046%
184	10.653	10.631	10.736	VV	628	13766	0.21%	0.052%
185	10.776	10.736	10.823	VV	473	13278	0.20%	0.050%
186	10.877	10.823	10.920	VV	684	18276	0.27%	0.068%
187	10.978	10.920	11.046	VV	336	14384	0.22%	0.054%
188	11.100	11.046	11.139	VV	202	5165	0.08%	0.019%
189	11.155	11.139	11.176	VV	116	1720	0.03%	0.006%
190	11.208	11.176	11.236	VV	193	5216	0.08%	0.020%
191	11.255	11.236	11.288	VV	299	5764	0.09%	0.022%
192	11.325	11.288	11.366	VV	324	7836	0.12%	0.029%
193	11.387	11.366	11.493	VV	255	9042	0.14%	0.034%
194	11.514	11.493	11.540	VV	355	5216	0.08%	0.020%

					rteres			
195	11.582	11.540	11.638	VV	824	17548	0.26%	0.066%
196	11.665	11.638	11.698	VV	345	6901	0.10%	0.026%
197	11.739	11.698	11.806	VV	406	10029	0.15%	0.038%
198	11.828	11.806	11.856	PV	141	1845	0.03%	0.007%
199	11.892	11.856	11.915	PV	136	2929	0.04%	0.011%
200	12.007	11.915	12.091	VV	560	27425	0.41%	0.103%
201	12.107	12.091	12.125	VV	157	2221	0.03%	0.008%
202	12.145	12.125	12.170	VV	180	2193	0.03%	0.008%
203	12.253	12.170	12.280	PV	614	12891	0.19%	0.048%
204	12.309	12.280	12.330	VV	957	14789	0.22%	0.055%
205	12.345	12.330	12.425	VV	623	12429	0.19%	0.047%
206	12.460	12.425	12.483	VV	103	3105	0.05%	0.012%
207	12.518	12.483	12.557	VV	449	12444	0.19%	0.047%
208	12.579	12.557	12.690	VV	427	19131	0.29%	0.072%
209	12.720	12.690	12.780	VV	280	8009	0.12%	0.030%
210	12.784	12.780	12.795	VV	147	1190	0.02%	0.004%
211	12.824	12.795	12.870	VV	327	8350	0.12%	0.031%
212	12.897	12.870	12.926	VV	546	9066	0.14%	0.034%
213	12.972	12.926	13.083	VV	1141	29666	0.44%	0.111%
214	13.117	13.083	13.150	VV	128	2822	0.04%	0.011%
215	13.176	13.150	13.203	VV	136	2086	0.03%	0.008%
216	13.300	13.203	13.373	PV	1014	32738	0.49%	0.123%
217	13.421	13.373	13.490	VV	422	13954	0.21%	0.052%
218	13.512	13.490	13.540	VV	488	7854	0.12%	0.029%
219	13.565	13.540	13.609	VV	299	6339	0.09%	0.024%
220	13.639	13.609	13.675	VV	140	3757	0.06%	0.014%
221	13.731	13.675	13.846	VV	171	7262	0.11%	0.027%
222	13.920	13.846	13.989	PV	320	12838	0.19%	0.048%
223	14.053	13.989	14.079	VV	769	13808	0.21%	0.052%
224	14.101	14.079	14.141	VV	496	9832	0.15%	0.037%
225	14.156	14.141	14.177	VV	222	3380	0.05%	0.013%
226	14.214	14.177	14.263	VV	115	4542	0.07%	0.017%
227	14.330	14.263	14.406	PV	178	8421	0.13%	0.032%
228	14.497	14.406	14.570	PV	1704	42044	0.63%	0.158%
229	14.601	14.570	14.636	VV	240	5625	0.08%	0.021%
230	14.665	14.636	14.719	VV	780	14089	0.21%	0.053%
231	14.767	14.719	14.800	VV	430	10645	0.16%	0.040%
232	14.816	14.800	14.839	VV	209	3279	0.05%	0.012%
233	14.898	14.839	14.966	VV	187	9104	0.14%	0.034%
234	15.003	14.966	15.126	PV	86461	1180130	17.65%	4.422%
235	15.206	15.126	15.232	PV	1207	31895	0.48%	0.120%
236	15.253	15.232	15.289	VV	764	11220	0.17%	0.042%
237	15.350	15.289	15.365	VV	71	2587	0.04%	0.010%
238	15.403	15.365	15.456	VV	226	4445	0.07%	0.017%
239	15.590	15.456	15.696	PV	34629	610868	9.14%	2.289%
240	15.729	15.696	15.766	VV	2744	44729	0.67%	0.168%
241	15.791	15.766	15.826	VV	471	8273	0.12%	0.031%
242	15.861	15.826	15.890	PV	332	5717	0.09%	0.021%
243	15.911	15.890	15.936	VV	118	1866	0.03%	0.007%
244	16.027	15.936	16.066	PV	245	8214	0.12%	0.031%
245	16.112	16.066	16.169	VV	1122	23146	0.35%	0.087%
246	16.232	16.169	16.266	VV	1984	30042	0.45%	0.113%

					rteres			
247	16.296	16.266	16.333	VV	626	10177	0.15%	0.038%
248	16.609	16.333	16.660	PV	5399	108104	1.62%	0.405%
249	16.717	16.660	16.753	VV	3678	63744	0.95%	0.239%
250	16.794	16.753	16.823	VV	567	10248	0.15%	0.038%
251	17.092	16.823	17.122	VV	646	56369	0.84%	0.211%
252	17.185	17.122	17.206	VV	2653	50748	0.76%	0.190%
253	17.231	17.206	17.316	VV	3358	86956	1.30%	0.326%
254	17.422	17.316	17.445	VV	221	16640	0.25%	0.062%
255	17.555	17.445	17.606	VV	3664	76246	1.14%	0.286%
256	17.635	17.606	17.673	VV	6538	95339	1.43%	0.357%
257	17.723	17.673	17.760	PV	590	9154	0.14%	0.034%
258	18.031	17.760	18.049	PV	878	-20593	-0.31%	-0.077%
259	18.075	18.049	18.100	VV	2071	27657	0.41%	0.104%
260	18.165	18.100	18.193	PV	3947	57638	0.86%	0.216%
261	18.303	18.193	18.323	VV	517	19825	0.30%	0.074%
262	18.436	18.323	18.476	VV	24802	477058	7.13%	1.788%
263	18.499	18.476	18.533	VV	5827	101968	1.53%	0.382%
264	18.595	18.533	18.623	VV	817	22750	0.34%	0.085%
265	18.906	18.623	18.946	VV	2411	50925	0.76%	0.191%
266	19.010	18.946	19.040	PV	4030	70987	1.06%	0.266%
267	19.265	19.040	19.350	VV	23703	706222	10.56%	2.646%
268	19.433	19.350	19.463	VV	6758	287079	4.29%	1.076%
269	19.548	19.463	19.583	VV	4622	270242	4.04%	1.013%
270	19.697	19.583	19.720	VV	5769	369686	5.53%	1.385%
271	19.803	19.720	19.830	VV	8123	416876	6.23%	1.562%
272	20.047	19.830	20.083	VV	14400	1240092	18.55%	4.647%
273	20.101	20.083	20.126	VV	9928	248375	3.71%	0.931%
274	20.790	20.126	20.820	VV	22422	6686418	100.00%	25.054%
275	20.844	20.820	20.865	VV	21649	579112	8.66%	2.170%
276	20.967	20.865	21.020	VV	22093	1983426	29.66%	7.432%
277	21.127	21.020	21.230	VV	19397	2367827	35.41%	8.872%
278	21.258	21.230	21.292	VV	16612	614309	9.19%	2.302%
279	21.310	21.292	21.333	VV	15720	380400	5.69%	1.425%
280	21.357	21.333	21.386	VV	15274	484107	7.24%	1.814%
281	21.425	21.386	21.463	VV	14654	657536	9.83%	2.464%
282	21.485	21.463	21.510	VV	13583	368831	5.52%	1.382%
283	21.573	21.510	21.602	VV	13137	705019	10.54%	2.642%
284	21.622	21.602	21.696	VV	12228	630756	9.43%	2.363%
285	21.743	21.696	21.791	VV	10035	550550	8.23%	2.063%
286	21.880	21.791	21.905	VV	8125	545507	8.16%	2.044%
287	21.973	21.905	22.053	VV	7002	586008	8.76%	2.196%
288	22.083	22.053	22.113	VV	5254	181868	2.72%	0.681%
289	22.186	22.113	22.213	VV	4341	263823	3.95%	0.989%
290	22.272	22.213	22.403	VBA	4843	384410	5.75%	1.440%

Sum of corrected areas: 26687838

FG042425.M Thu May 08 07:22:57 2025

Report of Analysis

Client:	Saxton Falls Sand and Gravel Co. Inc.	Date Collected:	05/01/25
Project:	Stan Hope	Date Received:	05/01/25
Client Sample ID:	LARGE-PILE-D	SDG No.:	Q1937
Lab Sample ID:	Q1937-07	Matrix:	SOIL
Analytical Method:	8015D TPH	% Solid:	94.6
Sample Wt/Vol:	30.08	Units:	g
Soil Aliquot Vol:			uL
Extraction Type:		Test:	TPH GC
GPC Factor :		Injection Volume :	
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
FG015789.D	1	05/07/25 09:00	05/07/25 14:14	PB167887

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
PHC	Petroleum Hydrocarbons	11200		405	2990	ug/kg
SURROGATES						
16416-32-3	TETRACOSANE-d50	11.1		37 - 130	55%	SPK: 20

Comments:

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

P = Indicates >25% difference for detected concentrations between the two GC columns

Q = indicates LCS control criteria did not meet requirements

M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

* = Values outside of QC limits

D = Dilution

S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.

() = Laboratory InHouse Limit

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG050725\
Data File : FG015789.D
Signal(s) : FID1A.ch
Acq On : 07 May 2025 14:14
Operator : YP\AJ
Sample : Q1937-07
Misc :
ALS Vial : 24 Sample Multiplier: 1

Instrument :
FID_G
ClientSampleId :
LARGE-PILE-D

Integration File: autoint1.e
Quant Time: May 08 06:37:26 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG042425.M
Quant Title :
QLast Update : Thu Apr 24 12:54:09 2025
Response via : Initial Calibration
Integrator: ChemStation

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

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
9) S TETRACOSANE-d50 (SURR...	15.003	1305431	11.088 ug/ml

Target Compounds

(f)=RT Delta > 1/2 Window

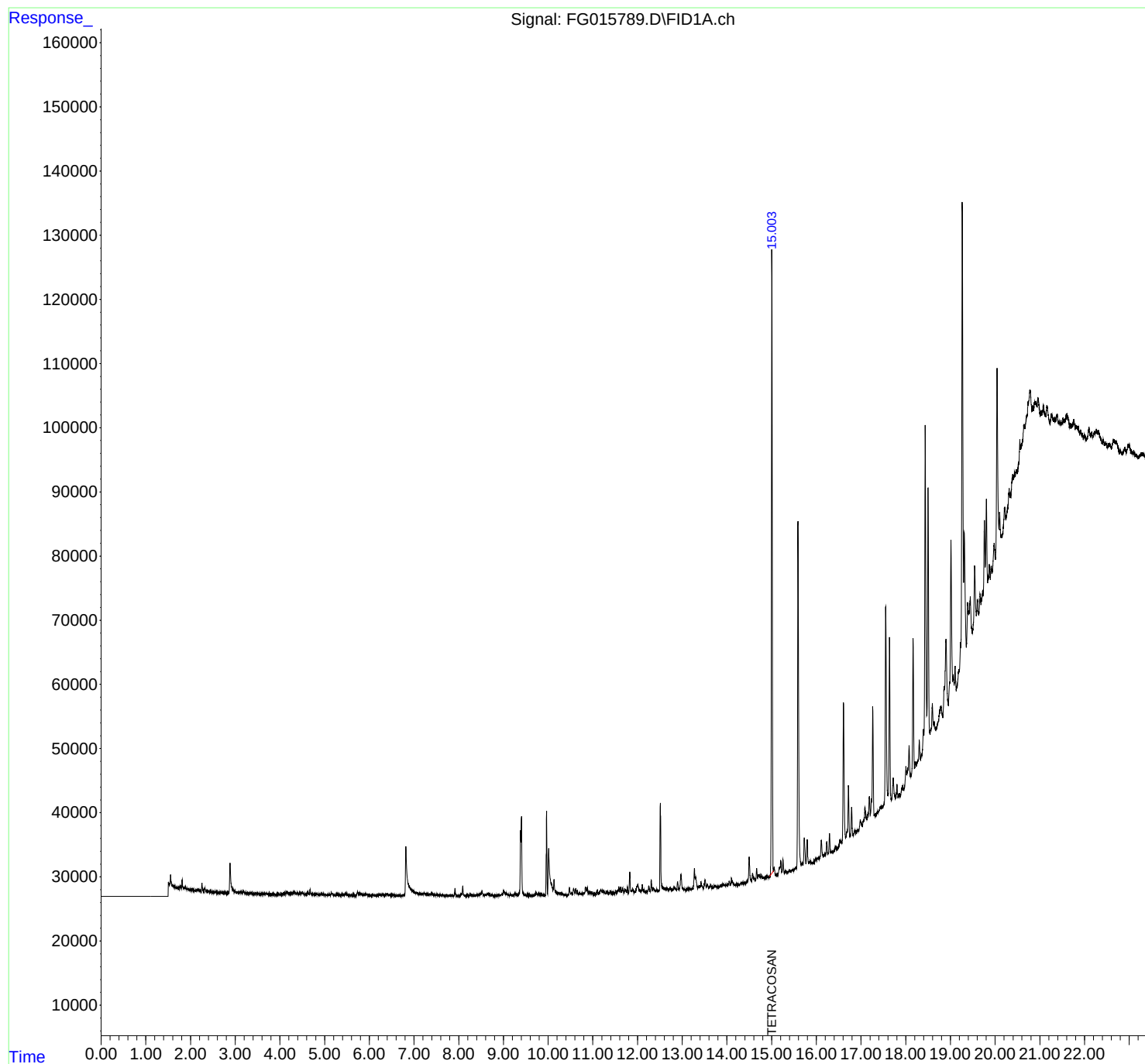
(m)=manual int.

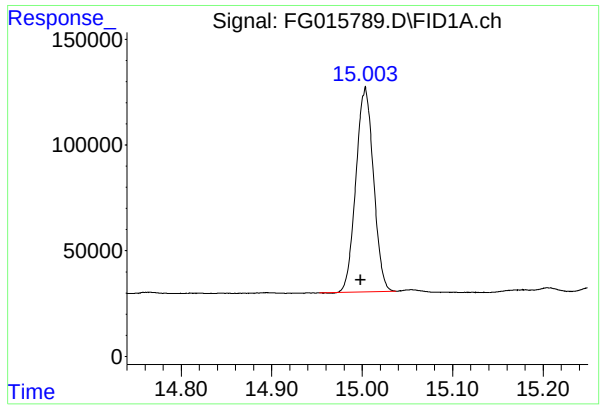
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG050725\
Data File : FG015789.D
Signal(s) : FID1A.ch
Acq On : 07 May 2025 14:14
Operator : YP\AJ
Sample : Q1937-07
Misc :
ALS Vial : 24 Sample Multiplier: 1

Instrument :
FID_G
ClientSampleId :
LARGE-PILE-D

Integration File: autoint1.e
Quant Time: May 08 06:37:26 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG042425.M
Quant Title :
QLast Update : Thu Apr 24 12:54:09 2025
Response via : Initial Calibration
Integrator: ChemStation

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





#9 TETRACOSANE-d50 (SURROGATE)

R.T.: 15.003 min
Delta R.T.: 0.005 min
Response: 1305431
Conc: 11.09 ug/ml

Instrument :
FID_G
ClientSampleId :
LARGE-PILE-D

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG050725\
 Data File : FG015789.D
 Signal(s) : FID1A.ch
 Acq On : 07 May 2025 14:14
 Sample : Q1937-07
 Misc :
 ALS Vial : 24 Sample Multiplier: 1

Integration File: Sample.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG042425.M
 Title :

Signal : FID1A.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	1.925	1.900	1.949	BV	87	513	0.02%	0.001%
2	1.953	1.949	1.969	PV	80	623	0.02%	0.002%
3	1.975	1.969	2.001	PV	173	1639	0.05%	0.004%
4	2.006	2.001	2.024	PV	79	790	0.02%	0.002%
5	2.048	2.024	2.080	VV	254	5256	0.15%	0.013%
6	2.090	2.080	2.106	VV	132	832	0.02%	0.002%
7	2.111	2.106	2.122	PV	79	452	0.01%	0.001%
8	2.147	2.122	2.162	VV	290	3689	0.11%	0.009%
9	2.175	2.162	2.208	VV	361	5821	0.17%	0.015%
10	2.213	2.208	2.218	VV	132	483	0.01%	0.001%
11	2.223	2.218	2.239	VV	88	891	0.03%	0.002%
12	2.256	2.239	2.290	VV	1312	16250	0.48%	0.041%
13	2.303	2.290	2.307	VV	229	1625	0.05%	0.004%
14	2.324	2.307	2.360	VV	591	10624	0.31%	0.027%
15	2.363	2.360	2.387	VV	213	2251	0.07%	0.006%
16	2.391	2.387	2.402	VV	137	1045	0.03%	0.003%
17	2.405	2.402	2.420	VV	153	1406	0.04%	0.004%
18	2.427	2.420	2.462	VV	162	2859	0.08%	0.007%
19	2.471	2.462	2.487	VV	195	1364	0.04%	0.003%
20	2.495	2.487	2.522	VV	144	1958	0.06%	0.005%
21	2.539	2.522	2.564	VV	216	3146	0.09%	0.008%
22	2.567	2.564	2.594	VV	168	2050	0.06%	0.005%
23	2.599	2.594	2.603	PV	138	377	0.01%	0.001%
24	2.616	2.603	2.634	VV	136	1505	0.04%	0.004%
25	2.641	2.634	2.650	VV	95	785	0.02%	0.002%
26	2.655	2.650	2.661	VV	176	833	0.02%	0.002%
27	2.671	2.661	2.693	VV	215	2299	0.07%	0.006%
28	2.698	2.693	2.709	VV	76	686	0.02%	0.002%
29	2.715	2.709	2.719	VV	121	460	0.01%	0.001%
30	2.723	2.719	2.728	VV	123	480	0.01%	0.001%
31	2.746	2.728	2.755	VV	179	1865	0.05%	0.005%
32	2.761	2.755	2.798	VV	172	3093	0.09%	0.008%
33	2.800	2.798	2.807	VV	142	329	0.01%	0.001%
34	2.817	2.807	2.834	PV	151	1082	0.03%	0.003%
35	2.884	2.834	2.957	VV	4802	101108	2.97%	0.254%
36	2.961	2.957	2.984	VV	555	7107	0.21%	0.018%

					rteres			
37	2.994	2.984	3.026	VV	455	8832	0.26%	0.022%
38	3.043	3.026	3.064	VV	316	6065	0.18%	0.015%
39	3.071	3.064	3.090	VV	284	3112	0.09%	0.008%
40	3.113	3.090	3.125	VV	358	6089	0.18%	0.015%
41	3.134	3.125	3.140	VV	351	2819	0.08%	0.007%
42	3.146	3.140	3.167	VV	345	4497	0.13%	0.011%
43	3.181	3.167	3.207	VV	450	8162	0.24%	0.020%
44	3.212	3.207	3.226	VV	342	2624	0.08%	0.007%
45	3.233	3.226	3.243	VV	251	2230	0.07%	0.006%
46	3.247	3.243	3.260	VV	248	2116	0.06%	0.005%
47	3.265	3.260	3.276	VV	191	1485	0.04%	0.004%
48	3.279	3.276	3.289	VV	190	1318	0.04%	0.003%
49	3.298	3.289	3.318	VV	215	2633	0.08%	0.007%
50	3.322	3.318	3.347	VV	183	2259	0.07%	0.006%
51	3.353	3.347	3.362	VV	259	1603	0.05%	0.004%
52	3.365	3.362	3.373	VV	215	1122	0.03%	0.003%
53	3.377	3.373	3.397	VV	196	2082	0.06%	0.005%
54	3.403	3.397	3.414	VV	205	1402	0.04%	0.004%
55	3.418	3.414	3.423	VV	179	666	0.02%	0.002%
56	3.428	3.423	3.434	VV	177	854	0.03%	0.002%
57	3.460	3.434	3.500	VV	227	5524	0.16%	0.014%
58	3.506	3.500	3.517	VV	167	1314	0.04%	0.003%
59	3.523	3.517	3.552	VV	227	2906	0.09%	0.007%
60	3.557	3.552	3.563	VV	197	927	0.03%	0.002%
61	3.567	3.563	3.573	VV	91	551	0.02%	0.001%
62	3.599	3.573	3.605	VV	224	2507	0.07%	0.006%
63	3.617	3.605	3.624	VV	202	1589	0.05%	0.004%
64	3.629	3.624	3.638	VV	219	1213	0.04%	0.003%
65	3.644	3.638	3.650	VV	165	909	0.03%	0.002%
66	3.661	3.650	3.669	VV	201	1464	0.04%	0.004%
67	3.678	3.669	3.710	VV	223	4300	0.13%	0.011%
68	3.713	3.710	3.735	VV	154	2111	0.06%	0.005%
69	3.741	3.735	3.758	VV	183	2209	0.06%	0.006%
70	3.767	3.758	3.771	VV	166	1162	0.03%	0.003%
71	3.787	3.771	3.798	VV	194	2385	0.07%	0.006%
72	3.808	3.798	3.814	VV	201	1417	0.04%	0.004%
73	3.818	3.814	3.844	VV	176	2517	0.07%	0.006%
74	3.852	3.844	3.879	VV	169	2597	0.08%	0.007%
75	3.882	3.879	3.898	VV	141	1223	0.04%	0.003%
76	3.935	3.898	3.960	PV	183	4773	0.14%	0.012%
77	3.964	3.960	3.981	VV	212	1719	0.05%	0.004%
78	3.986	3.981	4.000	VV	160	1346	0.04%	0.003%
79	4.004	4.000	4.012	VV	129	937	0.03%	0.002%
80	4.014	4.012	4.021	VV	157	636	0.02%	0.002%
81	4.043	4.021	4.059	VV	234	3628	0.11%	0.009%
82	4.077	4.059	4.094	VV	341	5400	0.16%	0.014%
83	4.147	4.094	4.155	VV	562	12127	0.36%	0.030%
84	4.158	4.155	4.190	VV	493	8131	0.24%	0.020%
85	4.195	4.190	4.232	VV	484	8688	0.26%	0.022%
86	4.235	4.232	4.241	VV	367	1698	0.05%	0.004%
87	4.251	4.241	4.269	VV	367	5211	0.15%	0.013%
88	4.273	4.269	4.279	VV	322	1735	0.05%	0.004%
89	4.300	4.279	4.307	VV	446	6206	0.18%	0.016%

					rteres			
90	4.318	4.307	4.361	VV	542	12615	0.37%	0.032%
91	4.375	4.361	4.383	VV	376	4262	0.13%	0.011%
92	4.393	4.383	4.420	VV	423	7312	0.21%	0.018%
93	4.447	4.420	4.472	VV	441	9369	0.27%	0.024%
94	4.477	4.472	4.482	VV	251	1413	0.04%	0.004%
95	4.506	4.482	4.549	VV	595	13115	0.38%	0.033%
96	4.558	4.549	4.562	VV	248	1530	0.04%	0.004%
97	4.584	4.562	4.604	VV	321	5886	0.17%	0.015%
98	4.625	4.604	4.652	VV	433	8570	0.25%	0.022%
99	4.674	4.652	4.708	VV	939	15939	0.47%	0.040%
100	4.723	4.708	4.745	VV	320	5585	0.16%	0.014%
101	4.749	4.745	4.753	VV	242	1131	0.03%	0.003%
102	4.758	4.753	4.768	VV	284	2158	0.06%	0.005%
103	4.785	4.768	4.798	VV	248	3570	0.10%	0.009%
104	4.803	4.798	4.807	VV	272	1015	0.03%	0.003%
105	4.825	4.807	4.842	VV	409	5863	0.17%	0.015%
106	4.851	4.842	4.855	VV	234	1615	0.05%	0.004%
107	4.860	4.855	4.866	VV	240	1193	0.04%	0.003%
108	4.874	4.866	4.881	VV	185	1487	0.04%	0.004%
109	4.885	4.881	4.889	VV	190	849	0.02%	0.002%
110	4.894	4.889	4.902	VV	221	1604	0.05%	0.004%
111	4.908	4.902	4.913	VV	246	1199	0.04%	0.003%
112	4.927	4.913	4.943	VV	305	4300	0.13%	0.011%
113	4.946	4.943	4.953	VV	225	1204	0.04%	0.003%
114	4.958	4.953	4.970	VV	231	1788	0.05%	0.004%
115	4.975	4.970	4.990	VV	172	2086	0.06%	0.005%
116	4.995	4.990	5.017	VV	225	2731	0.08%	0.007%
117	5.023	5.017	5.046	VV	178	2572	0.08%	0.006%
118	5.060	5.046	5.071	VV	173	2097	0.06%	0.005%
119	5.076	5.071	5.092	VV	175	1715	0.05%	0.004%
120	5.096	5.092	5.125	VV	148	2558	0.08%	0.006%
121	5.161	5.125	5.199	VV	389	10294	0.30%	0.026%
122	5.205	5.199	5.210	VV	204	956	0.03%	0.002%
123	5.214	5.210	5.240	VV	177	2216	0.07%	0.006%
124	5.268	5.240	5.287	VV	342	5558	0.16%	0.014%
125	5.293	5.287	5.308	VV	197	2018	0.06%	0.005%
126	5.313	5.308	5.339	VV	236	3131	0.09%	0.008%
127	5.394	5.339	5.419	VV	235	7148	0.21%	0.018%
128	5.434	5.419	5.439	VV	153	1372	0.04%	0.003%
129	5.464	5.439	5.479	VV	416	6444	0.19%	0.016%
130	5.487	5.479	5.499	VV	355	3315	0.10%	0.008%
131	5.514	5.499	5.523	VV	213	2524	0.07%	0.006%
132	5.527	5.523	5.557	VV	162	2633	0.08%	0.007%
133	5.567	5.557	5.577	VV	156	1383	0.04%	0.003%
134	5.583	5.577	5.594	VV	114	1077	0.03%	0.003%
135	5.598	5.594	5.612	VV	180	739	0.02%	0.002%
136	5.645	5.612	5.677	VV	203	4769	0.14%	0.012%
137	5.681	5.677	5.699	VV	121	906	0.03%	0.002%
138	5.737	5.699	5.762	PV	751	13968	0.41%	0.035%
139	5.764	5.762	5.770	VV	444	1746	0.05%	0.004%
140	5.773	5.770	5.794	VV	300	4137	0.12%	0.010%
141	5.803	5.794	5.828	VV	387	5989	0.18%	0.015%

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142	5.845	5.828	5.865	VV	254	4597	0.13%	0.012%
143	5.901	5.865	5.908	VV	277	6106	0.18%	0.015%
144	5.917	5.908	5.931	VV	305	3484	0.10%	0.009%
145	5.939	5.931	5.970	VV	300	5090	0.15%	0.013%
146	5.976	5.970	5.999	VV	178	2131	0.06%	0.005%
147	6.010	5.999	6.015	VV	137	998	0.03%	0.003%
148	6.020	6.015	6.044	VV	160	1839	0.05%	0.005%
149	6.057	6.044	6.062	VV	186	1157	0.03%	0.003%
150	6.082	6.062	6.088	VV	183	1813	0.05%	0.005%
151	6.092	6.088	6.107	VV	124	1034	0.03%	0.003%
152	6.121	6.107	6.140	VV	186	2174	0.06%	0.005%
153	6.146	6.140	6.152	VV	86	474	0.01%	0.001%
154	6.156	6.152	6.167	VV	108	492	0.01%	0.001%
155	6.171	6.167	6.184	VV	85	495	0.01%	0.001%
156	6.214	6.184	6.227	VV	241	3023	0.09%	0.008%
157	6.234	6.227	6.252	VV	218	2788	0.08%	0.007%
158	6.256	6.252	6.259	VV	176	680	0.02%	0.002%
159	6.262	6.259	6.267	VV	172	758	0.02%	0.002%
160	6.282	6.267	6.287	VV	250	2227	0.07%	0.006%
161	6.291	6.287	6.317	VV	220	3309	0.10%	0.008%
162	6.320	6.317	6.327	VV	229	1152	0.03%	0.003%
163	6.333	6.327	6.360	VV	210	3144	0.09%	0.008%
164	6.396	6.360	6.433	VV	502	11517	0.34%	0.029%
165	6.458	6.433	6.517	VV	262	7448	0.22%	0.019%
166	6.526	6.517	6.555	VV	266	4458	0.13%	0.011%
167	6.560	6.555	6.587	VV	178	2471	0.07%	0.006%
168	6.593	6.587	6.605	PV	103	632	0.02%	0.002%
169	6.615	6.605	6.652	VV	124	1961	0.06%	0.005%
170	6.685	6.652	6.725	VV	150	2888	0.08%	0.007%
171	6.749	6.725	6.762	PV	124	1915	0.06%	0.005%
172	6.819	6.762	7.033	VV	7760	269154	7.90%	0.676%
173	7.046	7.033	7.123	VV	604	26156	0.77%	0.066%
174	7.132	7.123	7.158	VV	404	7356	0.22%	0.018%
175	7.167	7.158	7.180	VV	338	4421	0.13%	0.011%
176	7.235	7.180	7.294	VV	472	24320	0.71%	0.061%
177	7.310	7.294	7.352	VV	375	10432	0.31%	0.026%
178	7.364	7.352	7.381	VV	381	5260	0.15%	0.013%
179	7.405	7.381	7.446	VV	367	9491	0.28%	0.024%
180	7.467	7.446	7.489	VV	305	5012	0.15%	0.013%
181	7.512	7.489	7.522	VV	224	3947	0.12%	0.010%
182	7.529	7.522	7.565	VV	219	4913	0.14%	0.012%
183	7.575	7.565	7.605	VV	285	3578	0.11%	0.009%
184	7.636	7.605	7.700	VV	272	7308	0.21%	0.018%
185	7.756	7.700	7.820	VV	161	7697	0.23%	0.019%
186	7.826	7.820	7.840	VV	123	1046	0.03%	0.003%
187	7.854	7.840	7.887	VV	127	1996	0.06%	0.005%
188	7.918	7.887	7.950	VV	1206	15420	0.45%	0.039%
189	7.954	7.950	7.980	VV	123	1322	0.04%	0.003%
190	7.988	7.980	8.015	PV	83	1306	0.04%	0.003%
191	8.091	8.015	8.160	VV	1632	30009	0.88%	0.075%
192	8.177	8.160	8.207	VV	146	2996	0.09%	0.008%
193	8.212	8.207	8.232	VV	141	1122	0.03%	0.003%
194	8.253	8.232	8.282	VV	248	4753	0.14%	0.012%

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195	8.292	8.282	8.325	VV	305	3762	0.11%	0.009%
196	8.336	8.325	8.374	VV	110	2093	0.06%	0.005%
197	8.399	8.374	8.412	VV	267	3011	0.09%	0.008%
198	8.427	8.412	8.447	VV	224	4177	0.12%	0.010%
199	8.460	8.447	8.470	VV	242	2663	0.08%	0.007%
200	8.486	8.470	8.504	VV	455	6817	0.20%	0.017%
201	8.522	8.504	8.582	VV	809	17062	0.50%	0.043%
202	8.589	8.582	8.614	VV	225	3492	0.10%	0.009%
203	8.629	8.614	8.650	VV	335	6068	0.18%	0.015%
204	8.667	8.650	8.698	VV	456	8380	0.25%	0.021%
205	8.713	8.698	8.737	VV	202	3516	0.10%	0.009%
206	8.758	8.737	8.791	VV	197	3348	0.10%	0.008%
207	8.809	8.791	8.834	VV	160	1212	0.04%	0.003%
208	8.882	8.834	8.915	VV	238	6891	0.20%	0.017%
209	8.970	8.915	8.982	VV	299	7448	0.22%	0.019%
210	9.004	8.982	9.052	VV	852	22896	0.67%	0.057%
211	9.066	9.052	9.099	VV	501	9189	0.27%	0.023%
212	9.112	9.099	9.142	VV	214	3544	0.10%	0.009%
213	9.159	9.142	9.205	VV	322	6215	0.18%	0.016%
214	9.214	9.205	9.225	VV	130	1338	0.04%	0.003%
215	9.262	9.225	9.329	VV	450	13927	0.41%	0.035%
216	9.352	9.329	9.362	VV	564	6721	0.20%	0.017%
217	9.386	9.362	9.393	VV	10136	102748	3.02%	0.258%
218	9.404	9.393	9.513	VV	12392	157044	4.61%	0.394%
219	9.542	9.513	9.569	VV	217	4794	0.14%	0.012%
220	9.592	9.569	9.628	VV	151	2757	0.08%	0.007%
221	9.639	9.628	9.668	PV	110	1051	0.03%	0.003%
222	9.732	9.668	9.762	VV	484	13644	0.40%	0.034%
223	9.796	9.762	9.836	VV	400	10839	0.32%	0.027%
224	9.856	9.836	9.892	VV	333	5753	0.17%	0.014%
225	9.912	9.892	9.935	PV	216	2843	0.08%	0.007%
226	9.966	9.935	9.989	VV	13089	142423	4.18%	0.357%
227	10.013	9.989	10.111	VV	7347	207834	6.10%	0.522%
228	10.133	10.111	10.194	VV	2528	51739	1.52%	0.130%
229	10.200	10.194	10.219	VV	439	5508	0.16%	0.014%
230	10.244	10.219	10.260	VV	533	8834	0.26%	0.022%
231	10.274	10.260	10.339	VV	377	11162	0.33%	0.028%
232	10.348	10.339	10.392	VV	164	3136	0.09%	0.008%
233	10.405	10.392	10.445	PV	145	1764	0.05%	0.004%
234	10.477	10.445	10.506	VV	1155	17632	0.52%	0.044%
235	10.524	10.506	10.543	VV	379	6223	0.18%	0.016%
236	10.570	10.543	10.602	VV	952	20091	0.59%	0.050%
237	10.620	10.602	10.640	VV	1025	14676	0.43%	0.037%
238	10.652	10.640	10.680	VV	718	9681	0.28%	0.024%
239	10.697	10.680	10.746	VV	358	7438	0.22%	0.019%
240	10.785	10.746	10.813	VV	275	8253	0.24%	0.021%
241	10.837	10.813	10.860	VV	1237	21774	0.64%	0.055%
242	10.876	10.860	10.919	VV	1049	19541	0.57%	0.049%
243	10.947	10.919	10.967	VV	414	9729	0.29%	0.024%
244	10.977	10.967	11.047	VV	337	7716	0.23%	0.019%
245	11.053	11.047	11.074	VV	134	1169	0.03%	0.003%
246	11.101	11.074	11.126	PV	731	9998	0.29%	0.025%

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247	11.173	11.126	11.204	VV	659	18578	0.55%	0.047%
248	11.217	11.204	11.242	VV	624	10660	0.31%	0.027%
249	11.250	11.242	11.287	VV	453	7920	0.23%	0.020%
250	11.323	11.287	11.355	VV	420	10474	0.31%	0.026%
251	11.387	11.355	11.427	VV	561	9482	0.28%	0.024%
252	11.448	11.427	11.477	VV	205	3673	0.11%	0.009%
253	11.513	11.477	11.537	VV	456	6802	0.20%	0.017%
254	11.558	11.537	11.566	PV	592	6405	0.19%	0.016%
255	11.582	11.566	11.600	VV	1104	14367	0.42%	0.036%
256	11.616	11.600	11.644	VV	1018	15704	0.46%	0.039%
257	11.667	11.644	11.695	VV	841	14852	0.44%	0.037%
258	11.717	11.695	11.757	VV	765	16103	0.47%	0.040%
259	11.776	11.757	11.800	VV	1060	12500	0.37%	0.031%
260	11.828	11.800	11.870	VV	3301	46685	1.37%	0.117%
261	11.895	11.870	11.921	VV	618	12177	0.36%	0.031%
262	11.936	11.921	11.949	VV	214	2590	0.08%	0.006%
263	12.006	11.949	12.049	VV	1326	42725	1.25%	0.107%
264	12.063	12.049	12.082	VV	426	6483	0.19%	0.016%
265	12.107	12.082	12.127	VV	1326	17989	0.53%	0.045%
266	12.138	12.127	12.170	VV	448	6586	0.19%	0.017%
267	12.199	12.170	12.218	PV	162	3077	0.09%	0.008%
268	12.254	12.218	12.279	VV	938	16927	0.50%	0.042%
269	12.308	12.279	12.331	VV	1782	25555	0.75%	0.064%
270	12.349	12.331	12.402	VV	690	17668	0.52%	0.044%
271	12.428	12.402	12.447	VV	380	6041	0.18%	0.015%
272	12.461	12.447	12.485	VV	272	4242	0.12%	0.011%
273	12.511	12.485	12.565	VV	13806	172975	5.08%	0.434%
274	12.580	12.565	12.597	VV	643	9831	0.29%	0.025%
275	12.607	12.597	12.630	VV	588	8991	0.26%	0.023%
276	12.639	12.630	12.662	VV	421	7499	0.22%	0.019%
277	12.670	12.662	12.697	VV	351	6215	0.18%	0.016%
278	12.722	12.697	12.737	VV	465	7894	0.23%	0.020%
279	12.745	12.737	12.790	VV	347	6831	0.20%	0.017%
280	12.826	12.790	12.869	VV	604	16593	0.49%	0.042%
281	12.897	12.869	12.922	VV	1344	19083	0.56%	0.048%
282	12.970	12.922	13.079	VV	2449	58070	1.70%	0.146%
283	13.120	13.079	13.130	VV	153	2999	0.09%	0.008%
284	13.165	13.130	13.195	VV	214	6018	0.18%	0.015%
285	13.220	13.195	13.237	PV	209	3417	0.10%	0.009%
286	13.271	13.237	13.290	VV	3288	53504	1.57%	0.134%
287	13.300	13.290	13.347	VV	1841	36367	1.07%	0.091%
288	13.384	13.347	13.401	VV	523	11308	0.33%	0.028%
289	13.419	13.401	13.473	VV	1083	21841	0.64%	0.055%
290	13.510	13.473	13.541	VV	1402	27313	0.80%	0.069%
291	13.563	13.541	13.602	VV	576	11635	0.34%	0.029%
292	13.636	13.602	13.667	VV	537	9745	0.29%	0.024%
293	13.684	13.667	13.693	PV	97	923	0.03%	0.002%
294	13.720	13.693	13.800	VV	371	9538	0.28%	0.024%
295	13.867	13.800	13.875	PV	232	4846	0.14%	0.012%
296	13.922	13.875	13.950	VV	466	12208	0.36%	0.031%
297	13.963	13.950	13.991	VV	281	5479	0.16%	0.014%
298	14.015	13.991	14.028	VV	282	5440	0.16%	0.014%
299	14.051	14.028	14.077	VV	753	12275	0.36%	0.031%

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300	14.099	14.077	14.169	VV	1244	27130	0.80%	0.068%
301	14.221	14.169	14.230	VV	183	3544	0.10%	0.009%
302	14.327	14.230	14.358	PV	273	6027	0.18%	0.015%
303	14.399	14.358	14.415	PV	224	3832	0.11%	0.010%
304	14.496	14.415	14.552	VV	3962	75919	2.23%	0.191%
305	14.573	14.552	14.595	VV	1262	18825	0.55%	0.047%
306	14.610	14.595	14.639	VV	480	9345	0.27%	0.023%
307	14.663	14.639	14.685	VV	1941	26431	0.78%	0.066%
308	14.701	14.685	14.710	VV	791	9918	0.29%	0.025%
309	14.723	14.710	14.744	VV	875	12203	0.36%	0.031%
310	14.764	14.744	14.794	VV	768	13150	0.39%	0.033%
311	14.820	14.794	14.839	VV	249	5096	0.15%	0.013%
312	14.845	14.839	14.862	VV	255	2268	0.07%	0.006%
313	14.895	14.862	14.935	VV	411	7368	0.22%	0.018%
314	14.953	14.935	14.965	VV	169	2255	0.07%	0.006%
315	15.003	14.965	15.039	PV	97759	1329427	39.02%	3.337%
316	15.055	15.039	15.110	VV	1487	27739	0.81%	0.070%
317	15.121	15.110	15.131	VV	190	1335	0.04%	0.003%
318	15.179	15.131	15.190	VV	1227	24980	0.73%	0.063%
319	15.205	15.190	15.232	VV	2126	32510	0.95%	0.082%
320	15.253	15.232	15.282	VV	2289	31989	0.94%	0.080%
321	15.298	15.282	15.354	VV	307	8820	0.26%	0.022%
322	15.403	15.354	15.426	VV	351	8452	0.25%	0.021%
323	15.464	15.426	15.480	PV	241	4559	0.13%	0.011%
324	15.542	15.480	15.555	VV	389	9671	0.28%	0.024%
325	15.589	15.555	15.666	VV	53972	846896	24.86%	2.126%
326	15.685	15.666	15.702	VV	766	12614	0.37%	0.032%
327	15.729	15.702	15.764	VV	4488	81453	2.39%	0.204%
328	15.795	15.764	15.828	VV	4016	68914	2.02%	0.173%
329	15.863	15.828	15.892	VV	560	12167	0.36%	0.031%
330	15.899	15.892	15.917	VV	131	1364	0.04%	0.003%
331	15.952	15.917	15.960	PV	133	2082	0.06%	0.005%
332	15.994	15.960	16.005	VV	457	7694	0.23%	0.019%
333	16.049	16.005	16.065	VV	317	10185	0.30%	0.026%
334	16.109	16.065	16.151	VV	2818	55007	1.61%	0.138%
335	16.195	16.151	16.208	VV	591	10720	0.31%	0.027%
336	16.232	16.208	16.264	VV	2195	31876	0.94%	0.080%
337	16.293	16.264	16.322	VV	3164	45099	1.32%	0.113%
338	16.360	16.322	16.377	VV	213	4639	0.14%	0.012%
339	16.435	16.377	16.465	PV	549	13045	0.38%	0.033%
340	16.534	16.465	16.570	PV	1005	31222	0.92%	0.078%
341	16.606	16.570	16.655	VV	21909	375456	11.02%	0.942%
342	16.717	16.655	16.750	VV	8558	155138	4.55%	0.389%
343	16.788	16.750	16.821	VV	4651	74090	2.17%	0.186%
344	16.866	16.821	16.897	VV	656	17503	0.51%	0.044%
345	16.982	16.897	17.030	PV	1635	50401	1.48%	0.126%
346	17.053	17.030	17.063	VV	1225	18530	0.54%	0.047%
347	17.090	17.063	17.130	VV	2868	67123	1.97%	0.168%
348	17.184	17.130	17.210	VV	4070	97205	2.85%	0.244%
349	17.261	17.210	17.302	VV	17394	295288	8.67%	0.741%
350	17.311	17.302	17.326	VV	517	6310	0.19%	0.016%
351	17.426	17.326	17.449	VV	1068	43907	1.29%	0.110%

					rteres			
352	17.466	17.449	17.477	VV	883	13075	0.38%	0.033%
353	17.551	17.477	17.604	VV	30976	579427	17.01%	1.454%
354	17.636	17.604	17.682	VV	26166	388048	11.39%	0.974%
355	17.718	17.682	17.770	VV	3685	92833	2.72%	0.233%
356	17.803	17.770	17.840	VV	2222	36865	1.08%	0.093%
357	17.860	17.840	17.878	VV	581	7502	0.22%	0.019%
358	17.924	17.878	17.949	PV	1010	22571	0.66%	0.057%
359	18.005	17.949	18.020	VV	3016	54237	1.59%	0.136%
360	18.074	18.020	18.102	VV	5442	125733	3.69%	0.316%
361	18.164	18.102	18.199	VV	20918	309058	9.07%	0.776%
362	18.213	18.199	18.232	VV	1212	17602	0.52%	0.044%
363	18.303	18.232	18.334	VV	3579	72277	2.12%	0.181%
364	18.395	18.334	18.405	VV	3979	75049	2.20%	0.188%
365	18.435	18.405	18.474	VV	51334	856781	25.15%	2.150%
366	18.499	18.474	18.543	VV	39772	636820	18.69%	1.598%
367	18.594	18.543	18.617	VV	5669	136660	4.01%	0.343%
368	18.635	18.617	18.669	VV	2407	53023	1.56%	0.133%
369	18.782	18.669	18.830	VV	2916	158254	4.65%	0.397%
370	18.899	18.830	18.954	VV	12056	390413	11.46%	0.980%
371	19.011	18.954	19.050	VV	25983	547014	16.06%	1.373%
372	19.061	19.050	19.082	VV	4538	71338	2.09%	0.179%
373	19.102	19.082	19.130	VV	5219	97075	2.85%	0.244%
374	19.264	19.130	19.292	VV	74242	1549280	45.47%	3.888%
375	19.309	19.292	19.355	VV	23642	557794	16.37%	1.400%
376	19.386	19.355	19.419	VV	11632	361360	10.61%	0.907%
377	19.442	19.419	19.487	VV	11923	372153	10.92%	0.934%
378	19.542	19.487	19.579	VV	15454	521683	15.31%	1.309%
379	19.603	19.579	19.632	VV	9412	264908	7.78%	0.665%
380	19.663	19.632	19.683	VV	9527	255386	7.50%	0.641%
381	19.720	19.683	19.732	VV	9449	261382	7.67%	0.656%
382	19.759	19.732	19.779	VV	20039	405725	11.91%	1.018%
383	19.803	19.779	19.830	VV	22758	500392	14.69%	1.256%
384	19.868	19.830	19.894	VV	11744	394488	11.58%	0.990%
385	19.916	19.894	19.932	VV	10994	236798	6.95%	0.594%
386	19.977	19.932	20.005	VV	13842	520812	15.29%	1.307%
387	20.042	20.005	20.085	VV	39847	1080303	31.71%	2.711%
388	20.100	20.085	20.142	VV	17093	491523	14.43%	1.234%
389	20.213	20.142	20.246	VV	16410	905148	26.57%	2.272%
390	20.312	20.246	20.329	VV	18323	801982	23.54%	2.013%
391	20.341	20.329	20.354	VV	17176	252615	7.41%	0.634%
392	20.392	20.354	20.408	VV	19384	603738	17.72%	1.515%
393	20.434	20.408	20.455	VV	19407	534250	15.68%	1.341%
394	20.473	20.455	20.490	VV	19321	390580	11.46%	0.980%
395	20.552	20.490	20.587	VV	22932	1196983	35.13%	3.004%
396	20.778	20.587	20.817	VV	27908	3406955	100.00%	8.551%
397	20.829	20.817	20.859	VV	24600	608218	17.85%	1.527%
398	20.884	20.859	20.938	VV	24821	1154141	33.88%	2.897%
399	20.955	20.938	21.010	VV	24558	999127	29.33%	2.508%
400	21.079	21.010	21.135	VV	21712	1572331	46.15%	3.946%
401	21.158	21.135	21.227	VV	20841	1055916	30.99%	2.650%
402	21.260	21.227	21.315	VV	18406	928065	27.24%	2.329%
403	21.333	21.315	21.352	VV	16834	362251	10.63%	0.909%
404	21.390	21.352	21.432	VV	16700	764914	22.45%	1.920%

					rteres			
405	21.442	21.432	21.452	VV	14947	176638	5.18%	0.443%
406	21.476	21.452	21.490	VV	14646	324699	9.53%	0.815%
407	21.520	21.490	21.560	VV	14494	589423	17.30%	1.479%
408	21.607	21.560	21.679	VV	14071	924431	27.13%	2.320%
409	21.683	21.679	21.692	VV	11666	90605	2.66%	0.227%
410	21.705	21.692	21.717	VV	11312	165814	4.87%	0.416%
411	21.758	21.717	21.811	VV	11294	593112	17.41%	1.489%
412	21.823	21.811	21.847	VV	9502	199096	5.84%	0.500%
413	21.861	21.847	21.890	VV	8992	218301	6.41%	0.548%
414	21.903	21.890	21.970	VV	8052	339074	9.95%	0.851%
415	21.998	21.970	22.040	VV	6167	236812	6.95%	0.594%
416	22.099	22.040	22.138	VV	6041	295161	8.66%	0.741%
417	22.164	22.138	22.184	VV	4401	112063	3.29%	0.281%
418	22.220	22.184	22.234	VV	3769	108361	3.18%	0.272%
419	22.261	22.234	22.292	VV	3740	114659	3.37%	0.288%
420	22.310	22.292	22.400	VBA	2914	134922	3.96%	0.339%

Sum of corrected areas: 39843938

FG042425.M Thu May 08 07:23:34 2025

Report of Analysis

Client:	Saxton Falls Sand and Gravel Co. Inc.	Date Collected:	05/01/25
Project:	Stan Hope	Date Received:	05/01/25
Client Sample ID:	LARGE-PILE-E	SDG No.:	Q1937
Lab Sample ID:	Q1937-09	Matrix:	SOIL
Analytical Method:	8015D TPH	% Solid:	92.3
Sample Wt/Vol:	30.03	Units:	g
Soil Aliquot Vol:			uL
Extraction Type:		Test:	TPH GC
GPC Factor :		Injection Volume :	
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
FG015790.D	1	05/07/25 09:00	05/07/25 14:44	PB167887

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
PHC	Petroleum Hydrocarbons	11500		416	3070	ug/kg
SURROGATES						
16416-32-3	TETRACOSANE-d50	9.44		37 - 130	47%	SPK: 20

Comments:

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

P = Indicates >25% difference for detected concentrations between the two GC columns

Q = indicates LCS control criteria did not meet requirements

M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

* = Values outside of QC limits

D = Dilution

S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.

() = Laboratory InHouse Limit

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG050725\
Data File : FG015790.D
Signal(s) : FID1A.ch
Acq On : 07 May 2025 14:44
Operator : YP\AJ
Sample : Q1937-09
Misc :
ALS Vial : 25 Sample Multiplier: 1

Instrument :
FID_G
ClientSampleId :
LARGE-PILE-E

Integration File: autoint1.e
Quant Time: May 08 06:37:44 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG042425.M
Quant Title :
QLast Update : Thu Apr 24 12:54:09 2025
Response via : Initial Calibration
Integrator: ChemStation

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

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
9) S TETRACOSANE-d50 (SURR...	15.002	1111974	9.445 ug/ml
Target Compounds			

(f)=RT Delta > 1/2 Window

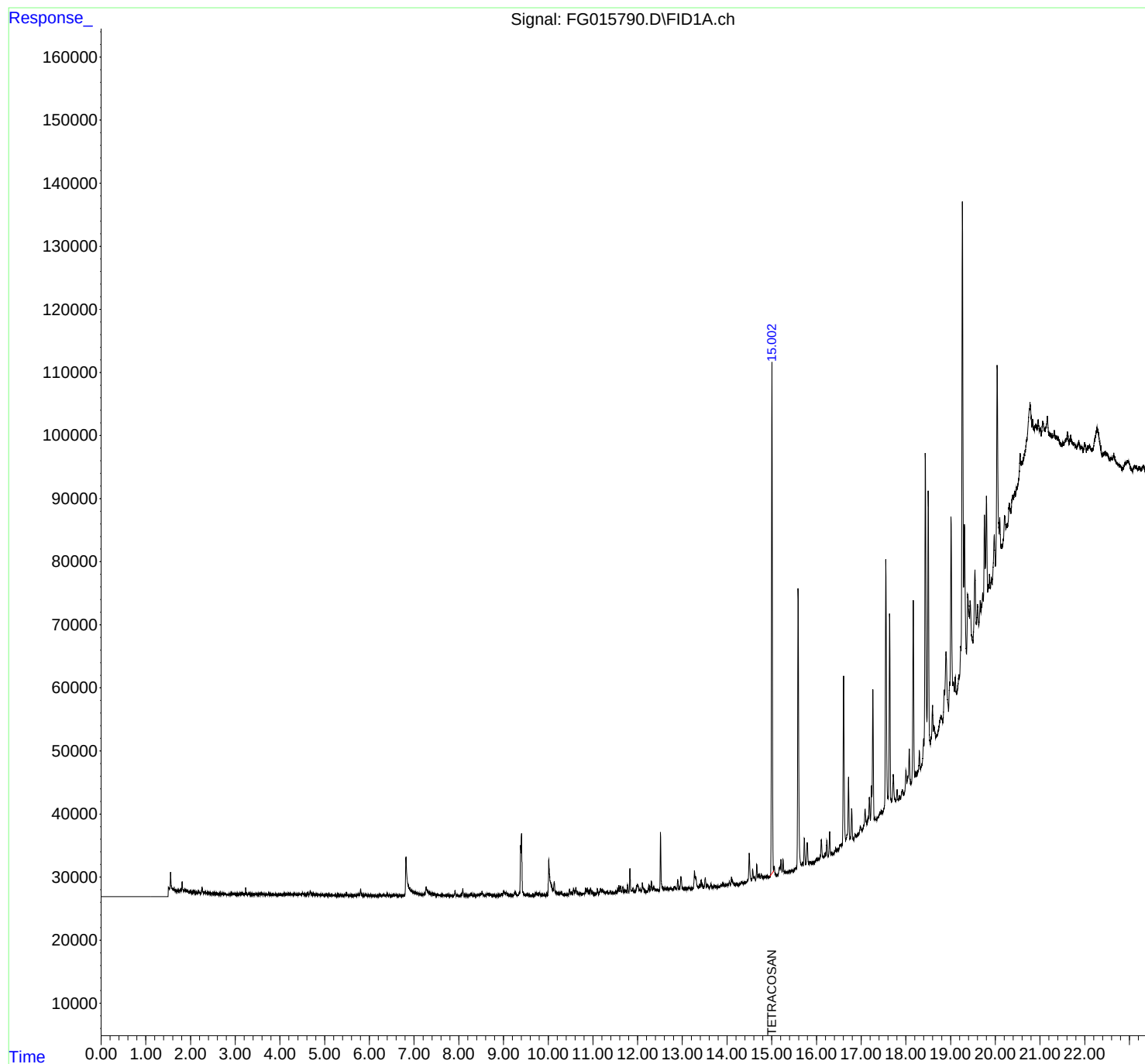
(m)=manual int.

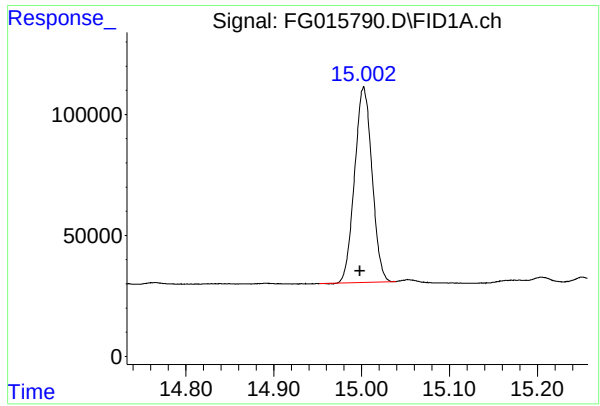
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG050725\
Data File : FG015790.D
Signal(s) : FID1A.ch
Acq On : 07 May 2025 14:44
Operator : YP\AJ
Sample : Q1937-09
Misc :
ALS Vial : 25 Sample Multiplier: 1

Instrument :
FID_G
ClientSampleId :
LARGE-PILE-E

Integration File: autoint1.e
Quant Time: May 08 06:37:44 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG042425.M
Quant Title :
QLast Update : Thu Apr 24 12:54:09 2025
Response via : Initial Calibration
Integrator: ChemStation

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





#9 TETRACOSANE-d50 (SURROGATE)

R.T.: 15.002 min
Delta R.T.: 0.004 min
Response: 1111974
Conc: 9.44 ug/ml

Instrument :
FID_G
ClientSampleId :
LARGE-PILE-E

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG050725\
 Data File : FG015790.D
 Signal(s) : FID1A.ch
 Acq On : 07 May 2025 14:44
 Sample : Q1937-09
 Misc :
 ALS Vial : 25 Sample Multiplier: 1

Integration File: Sample.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG042425.M
 Title :

Signal : FID1A.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	1.940	1.935	1.947	PV	113	408	0.01%	0.001%
2	1.950	1.947	1.967	PV	72	736	0.02%	0.002%
3	1.972	1.967	1.978	VV	113	475	0.01%	0.001%
4	1.985	1.978	2.009	VV	165	1628	0.05%	0.004%
5	2.014	2.009	2.025	PV	154	703	0.02%	0.002%
6	2.030	2.025	2.036	VV	118	510	0.02%	0.001%
7	2.051	2.036	2.072	VV	230	2780	0.08%	0.007%
8	2.075	2.072	2.084	VV	149	725	0.02%	0.002%
9	2.087	2.084	2.098	VV	135	726	0.02%	0.002%
10	2.102	2.098	2.118	VV	161	740	0.02%	0.002%
11	2.150	2.118	2.155	PV	140	1614	0.05%	0.004%
12	2.176	2.155	2.216	VV	344	5791	0.17%	0.015%
13	2.218	2.216	2.230	VV	86	534	0.02%	0.001%
14	2.233	2.230	2.240	VV	99	538	0.02%	0.001%
15	2.257	2.240	2.291	VV	1048	13898	0.42%	0.035%
16	2.301	2.291	2.314	VV	240	2355	0.07%	0.006%
17	2.325	2.314	2.360	VV	288	4927	0.15%	0.012%
18	2.368	2.360	2.384	VV	156	1946	0.06%	0.005%
19	2.387	2.384	2.406	VV	238	1858	0.06%	0.005%
20	2.415	2.406	2.430	VV	226	1784	0.05%	0.004%
21	2.433	2.430	2.467	VV	241	2579	0.08%	0.007%
22	2.477	2.467	2.497	VV	146	1697	0.05%	0.004%
23	2.503	2.497	2.512	VV	135	802	0.02%	0.002%
24	2.528	2.512	2.572	VV	228	4980	0.15%	0.013%
25	2.579	2.572	2.600	VV	119	1535	0.05%	0.004%
26	2.604	2.600	2.634	VV	167	1843	0.06%	0.005%
27	2.639	2.634	2.647	PV	78	563	0.02%	0.001%
28	2.654	2.647	2.672	VV	155	1788	0.05%	0.005%
29	2.674	2.672	2.702	VV	174	1832	0.06%	0.005%
30	2.707	2.702	2.722	VV	144	804	0.02%	0.002%
31	2.744	2.722	2.759	VV	147	2179	0.07%	0.005%
32	2.762	2.759	2.780	VV	177	1591	0.05%	0.004%
33	2.782	2.780	2.825	VV	120	1796	0.05%	0.005%
34	2.838	2.825	2.867	VV	70	1229	0.04%	0.003%
35	2.873	2.867	2.878	VV	96	519	0.02%	0.001%
36	2.888	2.878	2.894	VV	143	714	0.02%	0.002%

					rteres			
37	2.898	2.894	2.927	VV	135	2194	0.07%	0.006%
38	2.931	2.927	2.951	VV	171	1314	0.04%	0.003%
39	2.962	2.951	2.972	VV	144	1267	0.04%	0.003%
40	2.976	2.972	2.984	VV	154	819	0.02%	0.002%
41	2.991	2.984	3.026	VV	162	2647	0.08%	0.007%
42	3.040	3.026	3.045	VV	228	1410	0.04%	0.004%
43	3.050	3.045	3.056	VV	119	630	0.02%	0.002%
44	3.059	3.056	3.080	VV	119	1187	0.04%	0.003%
45	3.130	3.080	3.146	VV	236	5496	0.17%	0.014%
46	3.171	3.146	3.194	VV	203	4798	0.14%	0.012%
47	3.208	3.194	3.212	VV	131	1297	0.04%	0.003%
48	3.216	3.212	3.224	VV	172	1017	0.03%	0.003%
49	3.234	3.224	3.269	VV	538	4523	0.14%	0.011%
50	3.280	3.269	3.335	VV	157	4086	0.12%	0.010%
51	3.339	3.335	3.344	VV	122	485	0.01%	0.001%
52	3.349	3.344	3.352	VV	94	409	0.01%	0.001%
53	3.364	3.352	3.381	VV	174	1926	0.06%	0.005%
54	3.387	3.381	3.402	VV	180	1312	0.04%	0.003%
55	3.408	3.402	3.431	VV	195	1862	0.06%	0.005%
56	3.438	3.431	3.450	VV	142	1252	0.04%	0.003%
57	3.454	3.450	3.469	VV	196	1068	0.03%	0.003%
58	3.480	3.469	3.492	VV	199	1636	0.05%	0.004%
59	3.498	3.492	3.529	VV	153	2268	0.07%	0.006%
60	3.536	3.529	3.557	VV	157	1895	0.06%	0.005%
61	3.563	3.557	3.573	VV	136	1001	0.03%	0.003%
62	3.595	3.573	3.627	VV	328	5445	0.16%	0.014%
63	3.631	3.627	3.638	VV	107	595	0.02%	0.002%
64	3.643	3.638	3.654	VV	95	730	0.02%	0.002%
65	3.659	3.654	3.665	VV	89	430	0.01%	0.001%
66	3.668	3.665	3.677	VV	110	445	0.01%	0.001%
67	3.690	3.677	3.707	VV	148	1659	0.05%	0.004%
68	3.715	3.707	3.729	VV	184	1096	0.03%	0.003%
69	3.746	3.729	3.760	VV	293	3511	0.11%	0.009%
70	3.767	3.760	3.779	VV	133	1131	0.03%	0.003%
71	3.782	3.779	3.814	VV	125	1807	0.05%	0.005%
72	3.824	3.814	3.837	VV	157	1261	0.04%	0.003%
73	3.841	3.837	3.849	VV	108	509	0.02%	0.001%
74	3.862	3.849	3.885	VV	121	2161	0.07%	0.005%
75	3.896	3.885	3.903	VV	109	890	0.03%	0.002%
76	3.911	3.903	3.932	VV	101	1183	0.04%	0.003%
77	3.938	3.932	3.969	VV	138	1453	0.04%	0.004%
78	3.972	3.969	3.987	VV	88	687	0.02%	0.002%
79	3.993	3.987	4.007	VV	77	538	0.02%	0.001%
80	4.010	4.007	4.031	VV	85	719	0.02%	0.002%
81	4.043	4.031	4.059	VV	149	1815	0.05%	0.005%
82	4.082	4.059	4.117	VV	281	5313	0.16%	0.013%
83	4.141	4.117	4.146	VV	219	2696	0.08%	0.007%
84	4.182	4.146	4.210	VV	254	7187	0.22%	0.018%
85	4.228	4.210	4.273	VV	268	7490	0.23%	0.019%
86	4.282	4.273	4.304	VV	243	3556	0.11%	0.009%
87	4.316	4.304	4.344	VV	234	4345	0.13%	0.011%
88	4.349	4.344	4.410	VV	196	5132	0.16%	0.013%
89	4.445	4.410	4.465	VV	236	4560	0.14%	0.011%

					rteres			
90	4.503	4.465	4.527	VV	410	7743	0.23%	0.020%
91	4.541	4.527	4.560	VV	228	3232	0.10%	0.008%
92	4.567	4.560	4.589	VV	156	2213	0.07%	0.006%
93	4.620	4.589	4.652	VV	330	7867	0.24%	0.020%
94	4.675	4.652	4.710	VV	656	12906	0.39%	0.033%
95	4.721	4.710	4.774	VV	345	8636	0.26%	0.022%
96	4.781	4.774	4.869	VV	175	8339	0.25%	0.021%
97	4.879	4.869	4.909	VV	200	3448	0.10%	0.009%
98	4.930	4.909	4.955	VV	187	3923	0.12%	0.010%
99	4.964	4.955	4.994	VV	148	3250	0.10%	0.008%
100	5.003	4.994	5.082	VV	182	6817	0.21%	0.017%
101	5.084	5.082	5.138	VV	142	2754	0.08%	0.007%
102	5.164	5.138	5.202	VV	256	4934	0.15%	0.012%
103	5.217	5.202	5.239	VV	165	2160	0.07%	0.005%
104	5.247	5.239	5.291	VV	177	3460	0.10%	0.009%
105	5.299	5.291	5.311	VV	167	1352	0.04%	0.003%
106	5.328	5.311	5.337	VV	162	1659	0.05%	0.004%
107	5.346	5.337	5.375	VV	127	2350	0.07%	0.006%
108	5.382	5.375	5.400	VV	134	1346	0.04%	0.003%
109	5.426	5.400	5.440	VV	129	2124	0.06%	0.005%
110	5.465	5.440	5.476	VV	267	4102	0.12%	0.010%
111	5.487	5.476	5.512	VV	515	4352	0.13%	0.011%
112	5.518	5.512	5.537	VV	125	1543	0.05%	0.004%
113	5.553	5.537	5.610	VV	149	3846	0.12%	0.010%
114	5.617	5.610	5.629	VV	53	652	0.02%	0.002%
115	5.649	5.629	5.700	VV	180	4682	0.14%	0.012%
116	5.747	5.700	5.783	PV	275	8536	0.26%	0.022%
117	5.806	5.783	5.862	VV	1211	18759	0.57%	0.047%
118	5.882	5.862	5.902	VV	201	3888	0.12%	0.010%
119	5.919	5.902	5.937	VV	291	4466	0.13%	0.011%
120	5.943	5.937	6.015	VV	176	5677	0.17%	0.014%
121	6.025	6.015	6.086	VV	162	3725	0.11%	0.009%
122	6.118	6.086	6.157	VV	157	3633	0.11%	0.009%
123	6.189	6.157	6.203	VV	119	2554	0.08%	0.006%
124	6.220	6.203	6.271	PV	252	6923	0.21%	0.017%
125	6.281	6.271	6.292	VV	173	1880	0.06%	0.005%
126	6.303	6.292	6.354	VV	211	5867	0.18%	0.015%
127	6.396	6.354	6.432	VV	412	10353	0.31%	0.026%
128	6.446	6.432	6.497	VV	244	5787	0.17%	0.015%
129	6.528	6.497	6.561	VV	242	6603	0.20%	0.017%
130	6.571	6.561	6.594	VV	239	3354	0.10%	0.008%
131	6.606	6.594	6.620	VV	130	2007	0.06%	0.005%
132	6.628	6.620	6.661	VV	169	2762	0.08%	0.007%
133	6.689	6.661	6.747	VV	214	5462	0.17%	0.014%
134	6.772	6.747	6.792	VV	192	3297	0.10%	0.008%
135	6.820	6.792	6.982	VV	6246	206645	6.24%	0.521%
136	7.011	6.982	7.038	VV	660	19591	0.59%	0.049%
137	7.061	7.038	7.172	VV	594	32820	0.99%	0.083%
138	7.179	7.172	7.200	VV	341	5166	0.16%	0.013%
139	7.224	7.200	7.247	VV	416	10601	0.32%	0.027%
140	7.271	7.247	7.385	VV	1512	60980	1.84%	0.154%
141	7.406	7.385	7.431	VV	547	11362	0.34%	0.029%

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142	7.466	7.431	7.496	VV	435	11075	0.33%	0.028%
143	7.515	7.496	7.569	VV	354	9597	0.29%	0.024%
144	7.580	7.569	7.598	VV	220	3219	0.10%	0.008%
145	7.609	7.598	7.622	VV	240	2457	0.07%	0.006%
146	7.635	7.622	7.742	VV	268	10937	0.33%	0.028%
147	7.750	7.742	7.785	VV	168	3176	0.10%	0.008%
148	7.812	7.785	7.840	VV	171	3001	0.09%	0.008%
149	7.849	7.840	7.864	VV	100	1152	0.03%	0.003%
150	7.873	7.864	7.885	VV	124	949	0.03%	0.002%
151	7.918	7.885	7.964	VV	953	13443	0.41%	0.034%
152	7.972	7.964	8.027	VV	131	2700	0.08%	0.007%
153	8.091	8.027	8.150	PV	1192	22938	0.69%	0.058%
154	8.159	8.150	8.174	VV	112	1413	0.04%	0.004%
155	8.214	8.174	8.235	VV	160	3954	0.12%	0.010%
156	8.253	8.235	8.262	VV	333	3509	0.11%	0.009%
157	8.274	8.262	8.315	VV	379	7623	0.23%	0.019%
158	8.340	8.315	8.383	VV	333	5838	0.18%	0.015%
159	8.402	8.383	8.411	VV	211	2313	0.07%	0.006%
160	8.446	8.411	8.470	VV	231	7030	0.21%	0.018%
161	8.488	8.470	8.502	VV	473	6106	0.18%	0.015%
162	8.520	8.502	8.586	VV	807	15008	0.45%	0.038%
163	8.627	8.586	8.655	VV	365	8464	0.26%	0.021%
164	8.668	8.655	8.745	VV	354	10967	0.33%	0.028%
165	8.763	8.745	8.832	VV	167	4289	0.13%	0.011%
166	8.879	8.832	8.890	PV	288	4254	0.13%	0.011%
167	8.903	8.890	8.940	VV	186	4297	0.13%	0.011%
168	8.962	8.940	8.980	VV	479	6769	0.20%	0.017%
169	9.004	8.980	9.045	VV	744	18695	0.56%	0.047%
170	9.062	9.045	9.094	VV	567	11072	0.33%	0.028%
171	9.113	9.094	9.152	VV	288	4919	0.15%	0.012%
172	9.170	9.152	9.198	VV	131	3319	0.10%	0.008%
173	9.213	9.198	9.228	VV	142	2136	0.06%	0.005%
174	9.258	9.228	9.319	VV	590	15790	0.48%	0.040%
175	9.351	9.319	9.362	VV	585	7839	0.24%	0.020%
176	9.404	9.362	9.482	VV	9932	206847	6.25%	0.521%
177	9.497	9.482	9.524	VV	183	3052	0.09%	0.008%
178	9.541	9.524	9.567	VV	247	4095	0.12%	0.010%
179	9.583	9.567	9.610	PV	126	2124	0.06%	0.005%
180	9.653	9.610	9.675	VV	246	2567	0.08%	0.006%
181	9.736	9.675	9.758	PV	425	11573	0.35%	0.029%
182	9.796	9.758	9.840	VV	468	13442	0.41%	0.034%
183	9.856	9.840	9.900	VV	295	4886	0.15%	0.012%
184	9.912	9.900	9.940	VV	231	2448	0.07%	0.006%
185	9.966	9.940	9.987	VV	414	4624	0.14%	0.012%
186	10.014	9.987	10.111	PV	5662	164370	4.97%	0.414%
187	10.134	10.111	10.198	VV	2140	45984	1.39%	0.116%
188	10.206	10.198	10.222	VV	386	5182	0.16%	0.013%
189	10.236	10.222	10.269	VV	450	9018	0.27%	0.023%
190	10.293	10.269	10.342	VV	421	11087	0.33%	0.028%
191	10.382	10.358	10.440	PV	204	4234	0.13%	0.011%
192	10.477	10.440	10.502	PV	1000	15316	0.46%	0.039%
193	10.521	10.502	10.544	VV	489	8214	0.25%	0.021%
194	10.570	10.544	10.600	VV	963	20007	0.60%	0.050%

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195	10.620	10.600	10.640	VV	1195	17008	0.51%	0.043%
196	10.653	10.640	10.682	VV	599	8714	0.26%	0.022%
197	10.696	10.682	10.715	VV	324	3778	0.11%	0.010%
198	10.727	10.715	10.744	VV	274	2412	0.07%	0.006%
199	10.760	10.744	10.775	VV	214	2871	0.09%	0.007%
200	10.804	10.775	10.813	VV	243	4384	0.13%	0.011%
201	10.837	10.813	10.860	VV	1041	18382	0.56%	0.046%
202	10.876	10.860	10.916	VV	1042	20375	0.62%	0.051%
203	10.948	10.916	11.031	VV	960	25735	0.78%	0.065%
204	11.043	11.031	11.075	VV	91	1864	0.06%	0.005%
205	11.100	11.075	11.134	PV	830	12545	0.38%	0.032%
206	11.170	11.134	11.202	VV	846	21634	0.65%	0.055%
207	11.217	11.202	11.237	VV	650	10909	0.33%	0.028%
208	11.252	11.237	11.285	VV	430	8486	0.26%	0.021%
209	11.309	11.285	11.348	VV	461	10587	0.32%	0.027%
210	11.387	11.348	11.423	VV	506	9797	0.30%	0.025%
211	11.443	11.423	11.486	PV	260	5476	0.17%	0.014%
212	11.512	11.486	11.535	VV	438	6245	0.19%	0.016%
213	11.556	11.535	11.565	VV	622	7244	0.22%	0.018%
214	11.581	11.565	11.599	VV	1199	15216	0.46%	0.038%
215	11.615	11.599	11.644	VV	1187	18680	0.56%	0.047%
216	11.668	11.644	11.700	VV	1016	18846	0.57%	0.048%
217	11.716	11.700	11.726	VV	499	5730	0.17%	0.014%
218	11.740	11.726	11.756	VV	478	6536	0.20%	0.016%
219	11.777	11.756	11.801	VV	1232	16017	0.48%	0.040%
220	11.827	11.801	11.862	VV	3876	51747	1.56%	0.130%
221	11.894	11.862	11.924	VV	769	15119	0.46%	0.038%
222	12.003	11.924	12.054	VV	1270	47472	1.43%	0.120%
223	12.062	12.054	12.084	VV	472	5799	0.18%	0.015%
224	12.106	12.084	12.127	VV	1565	22009	0.66%	0.055%
225	12.135	12.127	12.175	VV	549	7753	0.23%	0.020%
226	12.200	12.175	12.218	VV	208	2996	0.09%	0.008%
227	12.253	12.218	12.279	PV	1087	17929	0.54%	0.045%
228	12.308	12.279	12.332	VV	1655	24486	0.74%	0.062%
229	12.349	12.332	12.396	VV	677	18504	0.56%	0.047%
230	12.414	12.396	12.482	VV	349	12181	0.37%	0.031%
231	12.510	12.482	12.564	VV	9317	121581	3.67%	0.307%
232	12.576	12.564	12.595	VV	536	8157	0.25%	0.021%
233	12.611	12.595	12.627	VV	464	7597	0.23%	0.019%
234	12.646	12.627	12.700	VV	482	15368	0.46%	0.039%
235	12.720	12.700	12.739	VV	494	8251	0.25%	0.021%
236	12.746	12.739	12.797	VV	354	8827	0.27%	0.022%
237	12.818	12.797	12.867	VV	630	17914	0.54%	0.045%
238	12.897	12.867	12.930	VV	1717	25604	0.77%	0.065%
239	12.969	12.930	13.024	VV	2162	46828	1.41%	0.118%
240	13.035	13.024	13.084	VV	282	5585	0.17%	0.014%
241	13.151	13.084	13.202	PV	386	13444	0.41%	0.034%
242	13.271	13.202	13.288	PV	2906	47937	1.45%	0.121%
243	13.297	13.288	13.350	VV	1940	38745	1.17%	0.098%
244	13.388	13.350	13.400	VV	515	11362	0.34%	0.029%
245	13.421	13.400	13.479	VV	1387	28597	0.86%	0.072%
246	13.511	13.479	13.545	VV	1700	30038	0.91%	0.076%

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247	13.564	13.545	13.609	VV	612	11149	0.34%	0.028%
248	13.638	13.609	13.697	VV	719	12315	0.37%	0.031%
249	13.720	13.697	13.784	VV	335	9140	0.28%	0.023%
250	13.792	13.784	13.812	VV	68	1110	0.03%	0.003%
251	13.866	13.812	13.883	PV	308	6834	0.21%	0.017%
252	13.917	13.883	13.954	VV	471	12964	0.39%	0.033%
253	13.991	13.954	14.010	VV	290	8039	0.24%	0.020%
254	14.050	14.010	14.075	VV	617	13936	0.42%	0.035%
255	14.100	14.075	14.168	VV	1335	32512	0.98%	0.082%
256	14.177	14.168	14.197	VV	137	2081	0.06%	0.005%
257	14.208	14.197	14.227	VV	155	1789	0.05%	0.005%
258	14.247	14.227	14.263	PV	143	1658	0.05%	0.004%
259	14.327	14.263	14.359	PV	285	9291	0.28%	0.023%
260	14.394	14.359	14.408	VV	189	3664	0.11%	0.009%
261	14.495	14.408	14.552	VV	4610	88534	2.67%	0.223%
262	14.573	14.552	14.640	VV	1891	38482	1.16%	0.097%
263	14.664	14.640	14.685	VV	2566	34183	1.03%	0.086%
264	14.700	14.685	14.712	VV	900	11631	0.35%	0.029%
265	14.725	14.712	14.744	VV	853	11591	0.35%	0.029%
266	14.765	14.744	14.817	VV	884	18027	0.54%	0.045%
267	14.838	14.817	14.857	VV	324	6323	0.19%	0.016%
268	14.892	14.857	14.929	VV	416	8646	0.26%	0.022%
269	14.955	14.929	14.967	VV	187	2649	0.08%	0.007%
270	15.002	14.967	15.039	VV	81039	1135620	34.30%	2.863%
271	15.053	15.039	15.127	VV	1572	28045	0.85%	0.071%
272	15.179	15.127	15.190	PV	1180	25103	0.76%	0.063%
273	15.205	15.190	15.229	VV	2407	33734	1.02%	0.085%
274	15.252	15.229	15.285	VV	2302	31803	0.96%	0.080%
275	15.309	15.285	15.329	VV	234	4487	0.14%	0.011%
276	15.397	15.329	15.430	VV	359	6385	0.19%	0.016%
277	15.466	15.430	15.492	VV	195	3877	0.12%	0.010%
278	15.541	15.492	15.548	PV	347	7649	0.23%	0.019%
279	15.588	15.548	15.660	VV	43646	706142	21.33%	1.780%
280	15.686	15.660	15.702	VV	790	14297	0.43%	0.036%
281	15.728	15.702	15.762	VV	4501	67414	2.04%	0.170%
282	15.793	15.762	15.830	VV	3605	63368	1.91%	0.160%
283	15.857	15.830	15.894	VV	457	8270	0.25%	0.021%
284	15.994	15.894	16.012	PV	303	7544	0.23%	0.019%
285	16.108	16.012	16.148	VV	3067	62712	1.89%	0.158%
286	16.195	16.148	16.208	VV	720	12859	0.39%	0.032%
287	16.232	16.208	16.263	VV	2643	34828	1.05%	0.088%
288	16.294	16.263	16.324	VV	3880	52727	1.59%	0.133%
289	16.337	16.324	16.354	VV	230	3112	0.09%	0.008%
290	16.369	16.354	16.380	VV	199	1864	0.06%	0.005%
291	16.435	16.380	16.459	PV	509	12886	0.39%	0.032%
292	16.533	16.459	16.542	VV	780	19294	0.58%	0.049%
293	16.560	16.542	16.570	VV	656	9519	0.29%	0.024%
294	16.606	16.570	16.654	VV	26945	433515	13.10%	1.093%
295	16.715	16.654	16.762	VV	10476	187551	5.67%	0.473%
296	16.787	16.762	16.828	VV	5163	77586	2.34%	0.196%
297	16.862	16.828	16.897	PV	624	12493	0.38%	0.031%
298	16.917	16.897	16.934	VV	287	3919	0.12%	0.010%
299	16.982	16.934	17.027	VV	1208	30600	0.92%	0.077%

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300	17.087	17.027	17.129	VV	3226	82309	2.49%	0.208%
301	17.183	17.129	17.205	VV	4520	91897	2.78%	0.232%
302	17.230	17.205	17.240	VV	6033	72137	2.18%	0.182%
303	17.261	17.240	17.294	VV	21060	296948	8.97%	0.749%
304	17.304	17.294	17.332	VV	460	6564	0.20%	0.017%
305	17.424	17.332	17.442	VV	782	22534	0.68%	0.057%
306	17.466	17.442	17.485	VV	657	13252	0.40%	0.033%
307	17.551	17.485	17.604	VV	39771	686941	20.75%	1.732%
308	17.636	17.604	17.687	VV	30689	466215	14.08%	1.175%
309	17.718	17.687	17.772	VV	4760	103146	3.12%	0.260%
310	17.803	17.772	17.831	VV	1949	31433	0.95%	0.079%
311	17.856	17.831	17.885	VV	696	10847	0.33%	0.027%
312	17.922	17.885	17.955	PV	1164	24229	0.73%	0.061%
313	18.000	17.955	18.022	PV	3314	58243	1.76%	0.147%
314	18.075	18.022	18.105	VV	5960	120366	3.64%	0.303%
315	18.164	18.105	18.197	VV	28164	412462	12.46%	1.040%
316	18.215	18.197	18.229	VV	1017	11048	0.33%	0.028%
317	18.301	18.229	18.327	PV	3238	52553	1.59%	0.132%
318	18.396	18.327	18.405	VV	3979	61283	1.85%	0.155%
319	18.435	18.405	18.470	VV	47844	827775	25.01%	2.087%
320	18.500	18.470	18.547	VV	41937	678385	20.49%	1.710%
321	18.595	18.547	18.620	VV	6909	154946	4.68%	0.391%
322	18.628	18.620	18.677	VV	3170	67585	2.04%	0.170%
323	18.794	18.677	18.829	VV	2794	158109	4.78%	0.399%
324	18.858	18.829	18.867	VV	5843	92301	2.79%	0.233%
325	18.897	18.867	18.953	VV	11636	341463	10.31%	0.861%
326	19.011	18.953	19.049	VV	31531	659426	19.92%	1.663%
327	19.065	19.049	19.084	VV	4871	88717	2.68%	0.224%
328	19.104	19.084	19.135	VV	4994	111424	3.37%	0.281%
329	19.186	19.135	19.197	VV	4515	118989	3.59%	0.300%
330	19.264	19.197	19.292	VV	78091	1529073	46.19%	3.855%
331	19.309	19.292	19.357	VV	26714	617329	18.65%	1.556%
332	19.385	19.357	19.424	VV	14646	459154	13.87%	1.158%
333	19.439	19.424	19.500	VV	13083	413136	12.48%	1.042%
334	19.544	19.500	19.577	VV	16671	499875	15.10%	1.260%
335	19.603	19.577	19.632	VV	10404	284555	8.60%	0.717%
336	19.662	19.632	19.680	VV	10442	250116	7.56%	0.631%
337	19.717	19.680	19.734	VV	10984	310567	9.38%	0.783%
338	19.757	19.734	19.779	VV	22788	454975	13.74%	1.147%
339	19.802	19.779	19.830	VV	25036	543384	16.41%	1.370%
340	19.869	19.830	19.892	VV	12035	388310	11.73%	0.979%
341	19.911	19.892	19.932	VV	11095	247405	7.47%	0.624%
342	19.976	19.932	20.004	VV	17025	582245	17.59%	1.468%
343	20.042	20.004	20.085	VV	42812	1165240	35.20%	2.938%
344	20.099	20.085	20.132	VV	18072	444025	13.41%	1.119%
345	20.142	20.132	20.152	VV	13326	156103	4.72%	0.394%
346	20.207	20.152	20.237	VV	17101	759280	22.94%	1.914%
347	20.311	20.237	20.350	VV	17775	1087549	32.85%	2.742%
348	20.391	20.350	20.412	VV	18136	646282	19.52%	1.629%
349	20.440	20.412	20.452	VV	18319	428454	12.94%	1.080%
350	20.477	20.452	20.485	VV	18497	358699	10.84%	0.904%
351	20.555	20.485	20.583	VV	22883	1187761	35.88%	2.995%

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352	20.777	20.583	20.817	VV	28024	3310394	100.00%	8.346%
353	20.832	20.817	20.875	VV	24948	830392	25.08%	2.094%
354	20.900	20.875	20.933	VV	23243	794042	23.99%	2.002%
355	20.960	20.933	20.985	VV	23028	698542	21.10%	1.761%
356	21.002	20.985	21.026	VV	21513	514453	15.54%	1.297%
357	21.062	21.026	21.097	VV	21477	882827	26.67%	2.226%
358	21.163	21.097	21.218	VV	21214	1418244	42.84%	3.576%
359	21.233	21.218	21.251	VV	17468	344704	10.41%	0.869%
360	21.271	21.251	21.282	VV	17345	319437	9.65%	0.805%
361	21.319	21.282	21.354	VV	16910	700518	21.16%	1.766%
362	21.364	21.354	21.402	VV	15644	442847	13.38%	1.116%
363	21.406	21.402	21.496	VV	14904	772365	23.33%	1.947%
364	21.509	21.496	21.530	VV	12914	252849	7.64%	0.637%
365	21.573	21.530	21.581	VV	12678	385317	11.64%	0.971%
366	21.613	21.581	21.652	VV	13300	522887	15.80%	1.318%
367	21.683	21.652	21.759	VV	12020	685618	20.71%	1.729%
368	21.765	21.759	21.790	VV	9835	176755	5.34%	0.446%
369	21.802	21.790	21.821	VV	8953	156302	4.72%	0.394%
370	21.868	21.821	21.930	VV	8817	522933	15.80%	1.318%
371	21.935	21.930	21.968	VV	7048	145462	4.39%	0.367%
372	21.998	21.968	22.036	VV	6885	252802	7.64%	0.637%
373	22.064	22.036	22.077	VV	5569	130311	3.94%	0.329%
374	22.107	22.077	22.155	VV	5346	220078	6.65%	0.555%
375	22.273	22.155	22.282	VV	5781	346155	10.46%	0.873%
376	22.294	22.282	22.389	VV	5477	184666	5.58%	0.466%
			Sum of corrected areas:			39663970		

FG042425.M Thu May 08 07:24:19 2025

Report of Analysis

Client:	Saxton Falls Sand and Gravel Co. Inc.	Date Collected:	05/01/25
Project:	Stan Hope	Date Received:	05/01/25
Client Sample ID:	LARGE-PILE-F	SDG No.:	Q1937
Lab Sample ID:	Q1937-11	Matrix:	SOIL
Analytical Method:	8015D TPH	% Solid:	89.7
Sample Wt/Vol:	30.01	Units:	g
Soil Aliquot Vol:			uL
Extraction Type:		Test:	TPH GC
GPC Factor :		Injection Volume :	
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
FG015791.D	1	05/07/25 09:00	05/07/25 15:13	PB167887

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
PHC	Petroleum Hydrocarbons	23000		428	3160	ug/kg
SURROGATES						
16416-32-3	TETRACOSANE-d50	10.6		37 - 130	53%	SPK: 20

Comments:

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

P = Indicates >25% difference for detected concentrations between the two GC columns

Q = indicates LCS control criteria did not meet requirements

M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

* = Values outside of QC limits

D = Dilution

S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.

() = Laboratory InHouse Limit

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG050725\
Data File : FG015791.D
Signal(s) : FID1A.ch
Acq On : 07 May 2025 15:13
Operator : YP\AJ
Sample : Q1937-11
Misc :
ALS Vial : 26 Sample Multiplier: 1

Instrument :
FID_G
ClientSampleId :
LARGE-PILE-F

Integration File: autoint1.e
Quant Time: May 08 06:38:05 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG042425.M
Quant Title :
QLast Update : Thu Apr 24 12:54:09 2025
Response via : Initial Calibration
Integrator: ChemStation

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

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
9) S TETRACOSANE-d50 (SURR...	15.003	1243344	10.560 ug/ml

Target Compounds

(f)=RT Delta > 1/2 Window

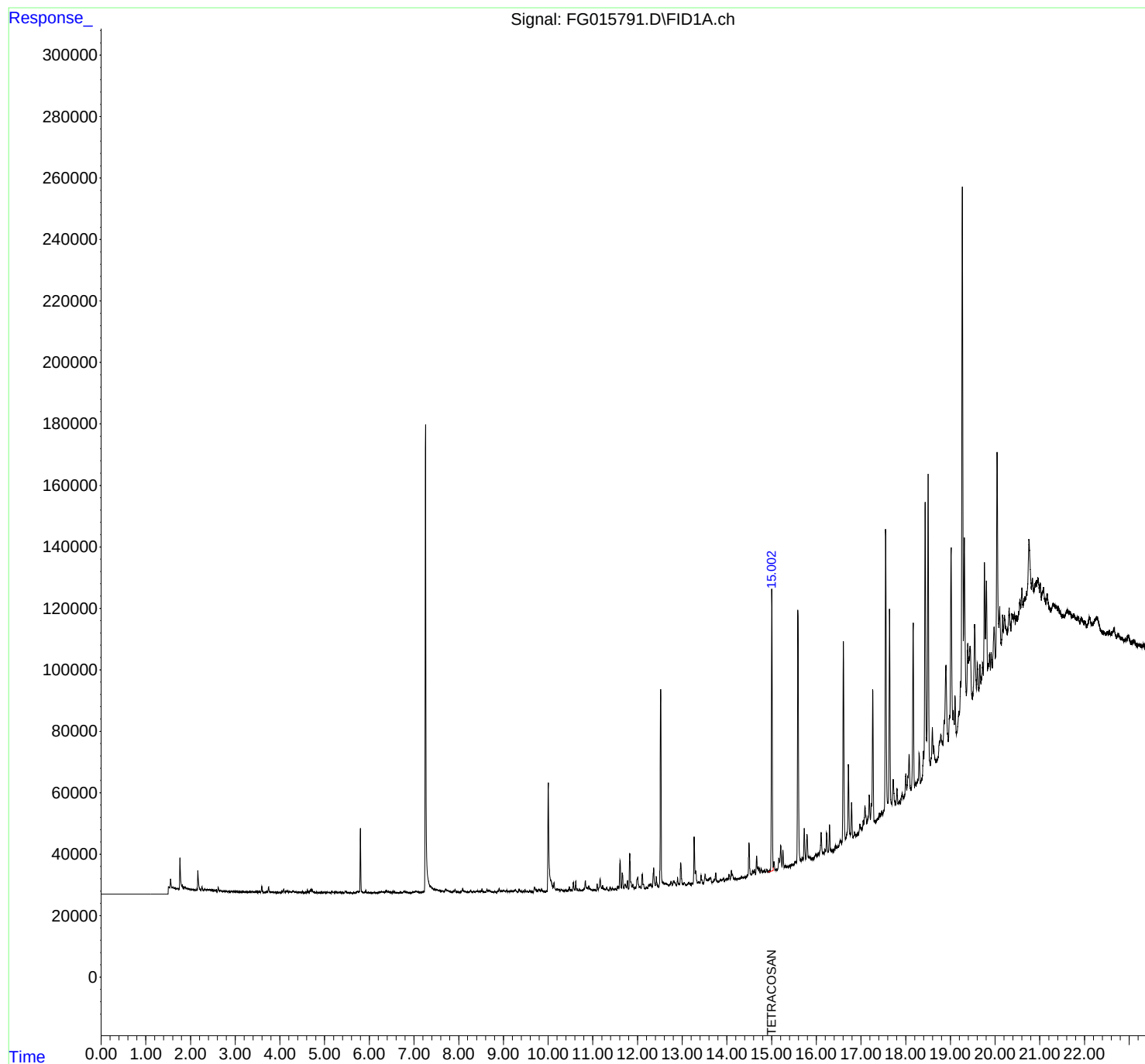
(m)=manual int.

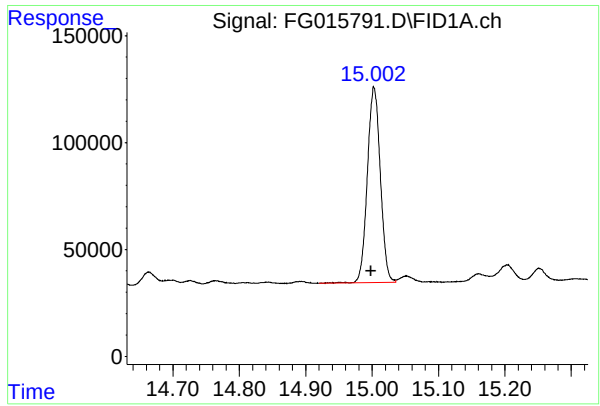
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG050725\
Data File : FG015791.D
Signal(s) : FID1A.ch
Acq On : 07 May 2025 15:13
Operator : YP\AJ
Sample : Q1937-11
Misc :
ALS Vial : 26 Sample Multiplier: 1

Instrument :
FID_G
ClientSampleId :
LARGE-PILE-F

Integration File: autoint1.e
Quant Time: May 08 06:38:05 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG042425.M
Quant Title :
QLast Update : Thu Apr 24 12:54:09 2025
Response via : Initial Calibration
Integrator: ChemStation

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





#9 TETRACOSANE-d50 (SURROGATE)

R.T.: 15.003 min
Delta R.T.: 0.005 min
Response: 1243344
Conc: 10.56 ug/ml

Instrument :
FID_G
ClientSampleId :
LARGE-PILE-F

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG050725\
 Data File : FG015791.D
 Signal(s) : FID1A.ch
 Acq On : 07 May 2025 15:13
 Sample : Q1937-11
 Misc :
 ALS Vial : 26 Sample Multiplier: 1

Integration File: Sample.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG042425.M
 Title :

Signal : FID1A.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	1.977	1.958	1.982	BV	126	446	0.01%	0.001%
2	1.988	1.982	2.022	PV	110	1126	0.04%	0.001%
3	2.027	2.022	2.039	PV	126	804	0.03%	0.001%
4	2.053	2.039	2.076	VV	238	3263	0.10%	0.004%
5	2.079	2.076	2.098	VV	125	917	0.03%	0.001%
6	2.101	2.098	2.120	VV	116	712	0.02%	0.001%
7	2.124	2.120	2.132	PV	91	372	0.01%	0.000%
8	2.144	2.132	2.152	PV	239	1444	0.05%	0.002%
9	2.164	2.152	2.232	VV	6495	87347	2.78%	0.115%
10	2.255	2.232	2.289	VV	1350	17711	0.56%	0.023%
11	2.302	2.289	2.306	VV	240	1544	0.05%	0.002%
12	2.321	2.306	2.351	VV	600	9566	0.30%	0.013%
13	2.374	2.351	2.379	VV	418	5354	0.17%	0.007%
14	2.381	2.379	2.397	VV	426	3910	0.12%	0.005%
15	2.411	2.397	2.447	VV	521	11723	0.37%	0.015%
16	2.453	2.447	2.462	VV	369	2681	0.09%	0.004%
17	2.465	2.462	2.471	VV	329	1528	0.05%	0.002%
18	2.473	2.471	2.495	VV	277	3682	0.12%	0.005%
19	2.499	2.495	2.513	VV	271	2434	0.08%	0.003%
20	2.515	2.513	2.520	VV	245	993	0.03%	0.001%
21	2.523	2.520	2.539	VV	322	2543	0.08%	0.003%
22	2.544	2.539	2.550	VV	257	1523	0.05%	0.002%
23	2.553	2.550	2.603	VV	283	5261	0.17%	0.007%
24	2.621	2.603	2.654	VV	1292	17114	0.55%	0.022%
25	2.665	2.654	2.695	VV	229	4041	0.13%	0.005%
26	2.699	2.695	2.719	VV	152	1467	0.05%	0.002%
27	2.737	2.719	2.763	VV	180	3622	0.12%	0.005%
28	2.765	2.763	2.773	VV	169	671	0.02%	0.001%
29	2.776	2.773	2.825	VV	172	2433	0.08%	0.003%
30	2.837	2.825	2.846	PV	109	530	0.02%	0.001%
31	2.848	2.846	2.884	VV	117	1618	0.05%	0.002%
32	2.888	2.884	2.898	VV	109	723	0.02%	0.001%
33	2.910	2.898	2.924	VV	193	1719	0.05%	0.002%
34	2.941	2.924	2.957	VV	196	2369	0.08%	0.003%
35	2.962	2.957	2.970	VV	201	1106	0.04%	0.001%
36	2.989	2.970	3.014	VV	218	3824	0.12%	0.005%

					rteres			
37	3.018	3.014	3.026	VV	132	801	0.03%	0.001%
38	3.031	3.026	3.044	VV	182	1356	0.04%	0.002%
39	3.049	3.044	3.063	VV	157	773	0.02%	0.001%
40	3.066	3.063	3.072	VV	105	436	0.01%	0.001%
41	3.077	3.072	3.139	VV	116	3117	0.10%	0.004%
42	3.144	3.139	3.173	VV	115	1619	0.05%	0.002%
43	3.181	3.173	3.194	VV	173	1268	0.04%	0.002%
44	3.203	3.194	3.208	VV	165	866	0.03%	0.001%
45	3.215	3.208	3.220	VV	145	511	0.02%	0.001%
46	3.228	3.220	3.233	VV	139	649	0.02%	0.001%
47	3.245	3.233	3.252	VV	227	1521	0.05%	0.002%
48	3.258	3.252	3.272	VV	129	1304	0.04%	0.002%
49	3.295	3.272	3.302	VV	191	1946	0.06%	0.003%
50	3.305	3.302	3.318	VV	110	963	0.03%	0.001%
51	3.329	3.318	3.354	VV	192	2853	0.09%	0.004%
52	3.367	3.354	3.385	VV	231	3143	0.10%	0.004%
53	3.391	3.385	3.406	VV	182	1668	0.05%	0.002%
54	3.414	3.406	3.425	VV	165	1569	0.05%	0.002%
55	3.428	3.425	3.444	VV	212	1794	0.06%	0.002%
56	3.452	3.444	3.462	VV	221	1842	0.06%	0.002%
57	3.473	3.462	3.495	VV	192	2940	0.09%	0.004%
58	3.497	3.495	3.505	VV	149	586	0.02%	0.001%
59	3.525	3.505	3.552	PV	234	4214	0.13%	0.006%
60	3.554	3.552	3.568	VV	205	1131	0.04%	0.001%
61	3.596	3.568	3.629	VV	2046	26453	0.84%	0.035%
62	3.674	3.629	3.684	VV	192	3392	0.11%	0.004%
63	3.694	3.684	3.708	VV	218	2553	0.08%	0.003%
64	3.713	3.708	3.718	VV	214	1066	0.03%	0.001%
65	3.747	3.718	3.782	VV	1900	26663	0.85%	0.035%
66	3.787	3.782	3.813	VV	232	3369	0.11%	0.004%
67	3.825	3.813	3.835	VV	234	2381	0.08%	0.003%
68	3.838	3.835	3.862	VV	231	2334	0.07%	0.003%
69	3.868	3.862	3.873	VV	185	792	0.03%	0.001%
70	3.879	3.873	3.884	VV	150	717	0.02%	0.001%
71	3.891	3.884	3.897	VV	141	792	0.03%	0.001%
72	3.900	3.897	3.909	VV	130	725	0.02%	0.001%
73	3.916	3.909	3.922	VV	138	806	0.03%	0.001%
74	3.936	3.922	3.948	VV	214	1667	0.05%	0.002%
75	3.962	3.948	4.008	VV	181	2492	0.08%	0.003%
76	4.014	4.008	4.030	PV	109	881	0.03%	0.001%
77	4.049	4.030	4.066	VV	467	6206	0.20%	0.008%
78	4.084	4.066	4.123	VV	1187	18646	0.59%	0.024%
79	4.147	4.123	4.182	VV	446	13484	0.43%	0.018%
80	4.187	4.182	4.201	VV	398	3673	0.12%	0.005%
81	4.220	4.201	4.263	VV	454	12657	0.40%	0.017%
82	4.291	4.263	4.351	VV	722	20622	0.66%	0.027%
83	4.354	4.351	4.361	VV	336	1580	0.05%	0.002%
84	4.364	4.361	4.383	VV	276	2582	0.08%	0.003%
85	4.387	4.383	4.394	VV	174	1107	0.04%	0.001%
86	4.398	4.394	4.405	VV	197	1268	0.04%	0.002%
87	4.423	4.405	4.453	VV	227	4988	0.16%	0.007%
88	4.456	4.453	4.462	VV	219	976	0.03%	0.001%
89	4.463	4.462	4.474	VV	212	1136	0.04%	0.001%

					rteres			
90	4.504	4.474	4.531	VV	506	8083	0.26%	0.011%
91	4.532	4.531	4.567	VV	238	3659	0.12%	0.005%
92	4.582	4.567	4.597	VV	246	3529	0.11%	0.005%
93	4.615	4.597	4.645	VV	758	12069	0.38%	0.016%
94	4.651	4.645	4.654	VV	227	925	0.03%	0.001%
95	4.693	4.654	4.708	VV	1177	20530	0.65%	0.027%
96	4.721	4.708	4.795	VV	1221	21989	0.70%	0.029%
97	4.801	4.795	4.807	VV	195	1172	0.04%	0.002%
98	4.822	4.807	4.862	VV	224	5127	0.16%	0.007%
99	4.869	4.862	4.877	VV	118	768	0.02%	0.001%
100	4.882	4.877	4.889	VV	119	765	0.02%	0.001%
101	4.893	4.889	4.901	VV	173	999	0.03%	0.001%
102	4.919	4.901	4.932	VV	246	3494	0.11%	0.005%
103	4.942	4.932	4.952	VV	277	2382	0.08%	0.003%
104	4.956	4.952	4.966	VV	209	1434	0.05%	0.002%
105	4.979	4.966	4.990	VV	232	2713	0.09%	0.004%
106	5.001	4.990	5.007	VV	255	1990	0.06%	0.003%
107	5.011	5.007	5.020	VV	214	1463	0.05%	0.002%
108	5.029	5.020	5.035	VV	249	1528	0.05%	0.002%
109	5.041	5.035	5.045	VV	236	1228	0.04%	0.002%
110	5.062	5.045	5.072	VV	309	3957	0.13%	0.005%
111	5.077	5.072	5.082	VV	236	1256	0.04%	0.002%
112	5.088	5.082	5.093	VV	217	1249	0.04%	0.002%
113	5.097	5.093	5.101	VV	231	827	0.03%	0.001%
114	5.104	5.101	5.129	VV	208	2674	0.09%	0.004%
115	5.165	5.129	5.187	VV	532	10097	0.32%	0.013%
116	5.192	5.187	5.196	VV	287	1533	0.05%	0.002%
117	5.204	5.196	5.236	VV	300	5936	0.19%	0.008%
118	5.249	5.236	5.287	VV	340	7952	0.25%	0.010%
119	5.290	5.287	5.294	VV	255	947	0.03%	0.001%
120	5.297	5.294	5.301	VV	248	920	0.03%	0.001%
121	5.320	5.301	5.339	VV	307	5557	0.18%	0.007%
122	5.342	5.339	5.385	VV	261	6123	0.20%	0.008%
123	5.389	5.385	5.398	VV	216	1493	0.05%	0.002%
124	5.406	5.398	5.415	VV	199	1776	0.06%	0.002%
125	5.417	5.415	5.438	VV	239	2070	0.07%	0.003%
126	5.461	5.438	5.522	VV	621	17146	0.55%	0.022%
127	5.526	5.522	5.581	VV	229	4501	0.14%	0.006%
128	5.591	5.581	5.617	VV	151	1547	0.05%	0.002%
129	5.650	5.617	5.692	PV	321	6655	0.21%	0.009%
130	5.734	5.692	5.755	VV	690	16636	0.53%	0.022%
131	5.766	5.755	5.779	VV	544	7127	0.23%	0.009%
132	5.802	5.779	5.870	VV	20967	222764	7.10%	0.292%
133	5.918	5.870	5.955	VV	769	17546	0.56%	0.023%
134	5.971	5.955	6.003	VV	326	5816	0.19%	0.008%
135	6.022	6.003	6.046	VV	254	4181	0.13%	0.005%
136	6.050	6.046	6.074	VV	149	1227	0.04%	0.002%
137	6.119	6.074	6.142	VV	313	6592	0.21%	0.009%
138	6.150	6.142	6.156	VV	117	712	0.02%	0.001%
139	6.164	6.156	6.180	VV	164	1608	0.05%	0.002%
140	6.189	6.180	6.199	VV	217	1493	0.05%	0.002%
141	6.203	6.199	6.207	VV	199	791	0.03%	0.001%

					rteres			
142	6.221	6.207	6.241	VV	396	6189	0.20%	0.008%
143	6.263	6.241	6.273	VV	529	8075	0.26%	0.011%
144	6.279	6.273	6.286	VV	457	3393	0.11%	0.004%
145	6.291	6.286	6.305	VV	423	4385	0.14%	0.006%
146	6.309	6.305	6.319	VV	360	2603	0.08%	0.003%
147	6.323	6.319	6.355	VV	406	7105	0.23%	0.009%
148	6.370	6.355	6.387	VV	940	11797	0.38%	0.015%
149	6.397	6.387	6.415	VV	571	8730	0.28%	0.011%
150	6.423	6.415	6.489	VV	531	15574	0.50%	0.020%
151	6.490	6.489	6.513	VV	239	2424	0.08%	0.003%
152	6.547	6.513	6.600	VV	504	15524	0.49%	0.020%
153	6.611	6.600	6.619	VV	144	1340	0.04%	0.002%
154	6.625	6.619	6.634	VV	139	957	0.03%	0.001%
155	6.638	6.634	6.647	VV	145	925	0.03%	0.001%
156	6.650	6.647	6.656	VV	98	538	0.02%	0.001%
157	6.688	6.656	6.742	VV	356	8758	0.28%	0.011%
158	6.780	6.742	6.820	VV	574	16604	0.53%	0.022%
159	6.833	6.820	6.865	VV	364	5859	0.19%	0.008%
160	6.872	6.865	6.883	VV	172	1383	0.04%	0.002%
161	6.893	6.883	6.923	VV	206	2923	0.09%	0.004%
162	6.926	6.923	6.930	VV	73	229	0.01%	0.000%
163	6.980	6.930	6.994	PV	410	9599	0.31%	0.013%
164	7.047	6.994	7.053	VV	627	16607	0.53%	0.022%
165	7.055	7.053	7.074	VV	530	6182	0.20%	0.008%
166	7.083	7.074	7.152	VV	468	14091	0.45%	0.018%
167	7.167	7.152	7.181	VV	279	3674	0.12%	0.005%
168	7.207	7.181	7.212	VV	495	6180	0.20%	0.008%
169	7.216	7.212	7.231	VV	516	5541	0.18%	0.007%
170	7.258	7.231	7.455	VV	151373	1989524	63.37%	2.610%
171	7.462	7.455	7.487	VV	1205	20514	0.65%	0.027%
172	7.507	7.487	7.562	VV	1076	40455	1.29%	0.053%
173	7.566	7.562	7.611	VV	780	18858	0.60%	0.025%
174	7.615	7.611	7.620	VV	535	2735	0.09%	0.004%
175	7.632	7.620	7.680	VV	731	19981	0.64%	0.026%
176	7.709	7.680	7.719	VV	1065	18399	0.59%	0.024%
177	7.720	7.719	7.783	VV	983	27699	0.88%	0.036%
178	7.786	7.783	7.829	VV	491	11866	0.38%	0.016%
179	7.836	7.829	7.841	VV	328	2236	0.07%	0.003%
180	7.847	7.841	7.868	VV	367	4827	0.15%	0.006%
181	7.882	7.868	7.898	VV	470	7623	0.24%	0.010%
182	7.919	7.898	7.961	VV	1155	19877	0.63%	0.026%
183	7.968	7.961	7.972	VV	211	1305	0.04%	0.002%
184	7.976	7.972	7.979	VV	211	769	0.02%	0.001%
185	7.992	7.979	8.015	VV	286	4868	0.16%	0.006%
186	8.017	8.015	8.025	VV	203	925	0.03%	0.001%
187	8.091	8.025	8.119	VV	1478	33316	1.06%	0.044%
188	8.124	8.119	8.130	VV	473	2935	0.09%	0.004%
189	8.136	8.130	8.150	VV	444	4646	0.15%	0.006%
190	8.162	8.150	8.166	VV	368	3182	0.10%	0.004%
191	8.169	8.166	8.187	VV	319	3371	0.11%	0.004%
192	8.211	8.187	8.240	VV	301	7033	0.22%	0.009%
193	8.259	8.240	8.265	VV	630	7121	0.23%	0.009%
194	8.269	8.265	8.317	VV	589	10500	0.33%	0.014%

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195	8.342	8.317	8.357	VV	531	7775	0.25%	0.010%
196	8.375	8.357	8.384	VV	354	4626	0.15%	0.006%
197	8.423	8.384	8.451	VV	563	17399	0.55%	0.023%
198	8.455	8.451	8.469	VV	325	3174	0.10%	0.004%
199	8.489	8.469	8.501	VV	417	6745	0.21%	0.009%
200	8.521	8.501	8.563	VV	1209	19728	0.63%	0.026%
201	8.570	8.563	8.577	VV	177	1308	0.04%	0.002%
202	8.583	8.577	8.594	VV	199	1597	0.05%	0.002%
203	8.606	8.594	8.610	VV	234	1877	0.06%	0.002%
204	8.630	8.610	8.660	VV	964	18032	0.57%	0.024%
205	8.675	8.660	8.697	VV	708	13272	0.42%	0.017%
206	8.702	8.697	8.717	VV	467	4428	0.14%	0.006%
207	8.720	8.717	8.739	VV	285	3226	0.10%	0.004%
208	8.753	8.739	8.789	VV	312	6379	0.20%	0.008%
209	8.809	8.789	8.838	VV	436	5565	0.18%	0.007%
210	8.852	8.838	8.858	VV	260	1946	0.06%	0.003%
211	8.906	8.858	8.939	VV	1343	27903	0.89%	0.037%
212	8.966	8.939	8.985	VV	587	12407	0.40%	0.016%
213	9.001	8.985	9.018	VV	765	11696	0.37%	0.015%
214	9.025	9.018	9.045	VV	507	6331	0.20%	0.008%
215	9.073	9.045	9.098	VV	716	14497	0.46%	0.019%
216	9.106	9.098	9.114	VV	247	2246	0.07%	0.003%
217	9.134	9.114	9.148	VV	448	6398	0.20%	0.008%
218	9.171	9.148	9.183	VV	459	7844	0.25%	0.010%
219	9.188	9.183	9.203	VV	373	3895	0.12%	0.005%
220	9.249	9.203	9.254	VV	711	13213	0.42%	0.017%
221	9.267	9.254	9.310	VV	914	17790	0.57%	0.023%
222	9.350	9.310	9.392	VV	1069	22274	0.71%	0.029%
223	9.410	9.392	9.429	VV	362	5264	0.17%	0.007%
224	9.443	9.429	9.461	VV	482	5463	0.17%	0.007%
225	9.483	9.461	9.504	PV	858	10668	0.34%	0.014%
226	9.510	9.504	9.525	VV	190	1911	0.06%	0.003%
227	9.541	9.525	9.568	VV	322	4287	0.14%	0.006%
228	9.592	9.568	9.614	PV	474	6969	0.22%	0.009%
229	9.642	9.614	9.668	VV	163	2548	0.08%	0.003%
230	9.695	9.668	9.725	VV	1713	30950	0.99%	0.041%
231	9.732	9.725	9.760	VV	765	11975	0.38%	0.016%
232	9.792	9.760	9.822	VV	1027	23596	0.75%	0.031%
233	9.854	9.822	9.881	VV	851	19187	0.61%	0.025%
234	9.890	9.881	9.903	VV	237	2567	0.08%	0.003%
235	9.909	9.903	9.940	VV	269	3229	0.10%	0.004%
236	9.965	9.940	9.979	PV	513	5754	0.18%	0.008%
237	10.005	9.979	10.111	VV	35399	647145	20.61%	0.849%
238	10.134	10.111	10.181	VV	3044	65006	2.07%	0.085%
239	10.187	10.181	10.194	VV	766	5643	0.18%	0.007%
240	10.207	10.194	10.272	VV	846	28746	0.92%	0.038%
241	10.294	10.272	10.328	VV	772	16498	0.53%	0.022%
242	10.353	10.328	10.364	VV	383	6346	0.20%	0.008%
243	10.381	10.364	10.400	VV	414	7074	0.23%	0.009%
244	10.407	10.400	10.425	VV	408	4286	0.14%	0.006%
245	10.452	10.425	10.456	VV	366	5342	0.17%	0.007%
246	10.477	10.456	10.502	VV	1530	22401	0.71%	0.029%

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247	10.516	10.502	10.540	VV	508	7744	0.25%	0.010%
248	10.565	10.540	10.599	VV	2908	42648	1.36%	0.056%
249	10.620	10.599	10.641	VV	3315	39186	1.25%	0.051%
250	10.653	10.641	10.681	VV	688	9887	0.31%	0.013%
251	10.698	10.681	10.737	VV	589	11425	0.36%	0.015%
252	10.753	10.737	10.766	VV	379	4556	0.15%	0.006%
253	10.835	10.766	10.861	VV	3332	66809	2.13%	0.088%
254	10.875	10.861	10.894	VV	1202	18679	0.59%	0.025%
255	10.910	10.894	10.939	VV	1731	29328	0.93%	0.038%
256	10.943	10.939	10.966	VV	762	9122	0.29%	0.012%
257	10.972	10.966	10.997	VV	414	5724	0.18%	0.008%
258	11.000	10.997	11.004	VV	226	939	0.03%	0.001%
259	11.019	11.004	11.035	VV	238	4036	0.13%	0.005%
260	11.039	11.035	11.042	VV	267	981	0.03%	0.001%
261	11.053	11.042	11.076	VV	340	4212	0.13%	0.006%
262	11.100	11.076	11.125	VV	2238	27813	0.89%	0.036%
263	11.164	11.125	11.201	VV	3825	75099	2.39%	0.099%
264	11.219	11.201	11.288	VV	1688	37633	1.20%	0.049%
265	11.309	11.288	11.358	VV	966	18079	0.58%	0.024%
266	11.388	11.358	11.424	PV	1145	16959	0.54%	0.022%
267	11.443	11.424	11.470	VV	712	10732	0.34%	0.014%
268	11.508	11.470	11.529	VV	490	10829	0.34%	0.014%
269	11.555	11.529	11.570	VV	1264	16114	0.51%	0.021%
270	11.582	11.570	11.590	VV	1129	10960	0.35%	0.014%
271	11.609	11.590	11.642	VV	9622	125388	3.99%	0.165%
272	11.662	11.642	11.699	VV	5621	80881	2.58%	0.106%
273	11.720	11.699	11.755	VV	1763	41148	1.31%	0.054%
274	11.777	11.755	11.800	VV	2960	38480	1.23%	0.050%
275	11.827	11.800	11.878	VV	11707	176139	5.61%	0.231%
276	11.895	11.878	11.923	VV	1794	27958	0.89%	0.037%
277	11.944	11.923	11.957	VV	591	9658	0.31%	0.013%
278	12.005	11.957	12.044	VV	3940	100188	3.19%	0.131%
279	12.060	12.044	12.080	VV	805	12203	0.39%	0.016%
280	12.107	12.080	12.125	VV	4843	64837	2.07%	0.085%
281	12.133	12.125	12.172	VV	1510	19834	0.63%	0.026%
282	12.203	12.172	12.222	PV	554	8297	0.26%	0.011%
283	12.253	12.222	12.266	VV	1330	19520	0.62%	0.026%
284	12.279	12.266	12.295	VV	1431	19611	0.62%	0.026%
285	12.308	12.295	12.330	VV	1395	19382	0.62%	0.025%
286	12.361	12.330	12.399	VV	6625	120105	3.83%	0.158%
287	12.420	12.399	12.477	VV	3662	64603	2.06%	0.085%
288	12.519	12.477	12.570	VV	64499	840453	26.77%	1.103%
289	12.579	12.570	12.595	VV	1729	21221	0.68%	0.028%
290	12.610	12.595	12.627	VV	1411	21628	0.69%	0.028%
291	12.643	12.627	12.659	VV	1326	20869	0.66%	0.027%
292	12.667	12.659	12.702	VV	1002	17884	0.57%	0.023%
293	12.722	12.702	12.734	VV	882	13631	0.43%	0.018%
294	12.755	12.734	12.780	VV	1700	32177	1.02%	0.042%
295	12.811	12.780	12.872	VV	1869	58852	1.87%	0.077%
296	12.897	12.872	12.938	VV	2930	48635	1.55%	0.064%
297	12.967	12.938	13.027	VV	7489	135536	4.32%	0.178%
298	13.045	13.027	13.097	VV	1020	21020	0.67%	0.028%
299	13.115	13.097	13.123	VV	351	3867	0.12%	0.005%

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300	13.145	13.123	13.198	VV	1002	22192	0.71%	0.029%
301	13.220	13.198	13.239	VV	627	10753	0.34%	0.014%
302	13.267	13.239	13.289	VV	15622	209129	6.66%	0.274%
303	13.299	13.289	13.344	VV	4424	80927	2.58%	0.106%
304	13.367	13.344	13.399	VV	925	21543	0.69%	0.028%
305	13.420	13.399	13.476	VV	2942	54952	1.75%	0.072%
306	13.512	13.476	13.550	PV	3164	72925	2.32%	0.096%
307	13.560	13.550	13.575	VV	1127	15384	0.49%	0.020%
308	13.587	13.575	13.600	VV	1429	17292	0.55%	0.023%
309	13.614	13.600	13.625	VV	1716	21573	0.69%	0.028%
310	13.637	13.625	13.664	VV	1826	24189	0.77%	0.032%
311	13.667	13.664	13.677	VV	264	1513	0.05%	0.002%
312	13.719	13.677	13.729	VV	990	17169	0.55%	0.023%
313	13.748	13.729	13.814	VV	3182	45989	1.46%	0.060%
314	13.861	13.814	13.887	VV	867	17734	0.56%	0.023%
315	13.921	13.887	13.951	VV	976	21630	0.69%	0.028%
316	13.964	13.951	13.981	VV	518	7352	0.23%	0.010%
317	14.010	13.981	14.028	VV	757	16315	0.52%	0.021%
318	14.051	14.028	14.076	VV	1992	31240	1.00%	0.041%
319	14.100	14.076	14.116	VV	3192	45340	1.44%	0.059%
320	14.126	14.116	14.169	VV	1821	29539	0.94%	0.039%
321	14.180	14.169	14.195	VV	370	4069	0.13%	0.005%
322	14.208	14.195	14.232	VV	266	2689	0.09%	0.004%
323	14.244	14.232	14.252	VV	106	805	0.03%	0.001%
324	14.333	14.252	14.349	PV	556	11089	0.35%	0.015%
325	14.352	14.349	14.358	VV	170	819	0.03%	0.001%
326	14.378	14.358	14.387	VV	151	1654	0.05%	0.002%
327	14.404	14.387	14.410	VV	266	2161	0.07%	0.003%
328	14.416	14.410	14.436	VV	166	1775	0.06%	0.002%
329	14.493	14.436	14.554	VV	11110	180669	5.75%	0.237%
330	14.573	14.554	14.589	VV	1849	24716	0.79%	0.032%
331	14.618	14.589	14.640	VV	2006	35397	1.13%	0.046%
332	14.664	14.640	14.685	VV	6199	91315	2.91%	0.120%
333	14.700	14.685	14.712	VV	2379	32212	1.03%	0.042%
334	14.726	14.712	14.745	VV	2032	27010	0.86%	0.035%
335	14.764	14.745	14.795	VV	1829	32008	1.02%	0.042%
336	14.812	14.795	14.825	VV	784	11751	0.37%	0.015%
337	14.844	14.825	14.867	VV	909	14201	0.45%	0.019%
338	14.893	14.867	14.927	VV	1057	17397	0.55%	0.023%
339	14.951	14.927	14.956	VV	486	5056	0.16%	0.007%
340	14.960	14.956	14.967	VV	392	1847	0.06%	0.002%
341	15.003	14.967	15.037	VV	92011	1246096	39.69%	1.635%
342	15.052	15.037	15.081	VV	3067	43596	1.39%	0.057%
343	15.086	15.081	15.107	VV	308	2574	0.08%	0.003%
344	15.161	15.107	15.177	PV	3727	58238	1.85%	0.076%
345	15.204	15.177	15.229	VV	7672	133398	4.25%	0.175%
346	15.252	15.229	15.282	VV	5968	81554	2.60%	0.107%
347	15.306	15.282	15.337	VV	791	15888	0.51%	0.021%
348	15.343	15.337	15.349	VV	331	1710	0.05%	0.002%
349	15.353	15.349	15.377	VV	305	2987	0.10%	0.004%
350	15.399	15.377	15.417	VV	465	4747	0.15%	0.006%
351	15.440	15.417	15.458	PV	609	7937	0.25%	0.010%

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352	15.479	15.458	15.498	VV	594	7271	0.23%	0.010%
353	15.543	15.498	15.555	VV	1089	24350	0.78%	0.032%
354	15.587	15.555	15.657	VV	82406	1219116	38.83%	1.600%
355	15.686	15.657	15.702	VV	1748	28927	0.92%	0.038%
356	15.729	15.702	15.762	VV	10908	165563	5.27%	0.217%
357	15.792	15.762	15.819	VV	8695	148163	4.72%	0.194%
358	15.836	15.819	15.842	VV	1204	14808	0.47%	0.019%
359	15.847	15.842	15.891	VV	1045	19183	0.61%	0.025%
360	15.907	15.891	15.913	VV	331	2590	0.08%	0.003%
361	15.919	15.913	15.925	VV	254	924	0.03%	0.001%
362	15.991	15.925	16.014	PV	1193	32301	1.03%	0.042%
363	16.018	16.014	16.023	VV	706	3558	0.11%	0.005%
364	16.053	16.023	16.070	VV	1130	24123	0.77%	0.032%
365	16.107	16.070	16.141	VV	7685	139779	4.45%	0.183%
366	16.153	16.141	16.158	VV	878	7240	0.23%	0.009%
367	16.197	16.158	16.208	VV	1578	28462	0.91%	0.037%
368	16.229	16.208	16.267	VV	6878	98965	3.15%	0.130%
369	16.295	16.267	16.343	VV	9200	128722	4.10%	0.169%
370	16.349	16.343	16.365	VV	575	5293	0.17%	0.007%
371	16.370	16.365	16.388	VV	427	2891	0.09%	0.004%
372	16.416	16.388	16.420	PV	891	9598	0.31%	0.013%
373	16.439	16.420	16.462	VV	1489	23381	0.74%	0.031%
374	16.486	16.462	16.494	VV	587	10264	0.33%	0.013%
375	16.529	16.494	16.569	VV	2041	59888	1.91%	0.079%
376	16.605	16.569	16.651	VV	65962	1005700	32.03%	1.320%
377	16.717	16.651	16.747	VV	24840	423130	13.48%	0.555%
378	16.755	16.747	16.762	VV	2129	17948	0.57%	0.024%
379	16.788	16.762	16.821	VV	11761	171130	5.45%	0.225%
380	16.826	16.821	16.829	VV	397	1190	0.04%	0.002%
381	16.858	16.829	16.884	VV	1494	23733	0.76%	0.031%
382	16.887	16.884	16.905	VV	415	2125	0.07%	0.003%
383	16.973	16.905	17.000	PV	3113	63189	2.01%	0.083%
384	17.003	17.000	17.025	VV	1600	15719	0.50%	0.021%
385	17.050	17.025	17.062	VV	3251	49652	1.58%	0.065%
386	17.087	17.062	17.130	VV	7808	176735	5.63%	0.232%
387	17.185	17.130	17.209	VV	10001	213569	6.80%	0.280%
388	17.230	17.209	17.238	VV	7168	86831	2.77%	0.114%
389	17.262	17.238	17.297	VV	43732	612051	19.49%	0.803%
390	17.299	17.297	17.304	VV	631	2102	0.07%	0.003%
391	17.308	17.304	17.330	VV	811	6606	0.21%	0.009%
392	17.336	17.330	17.340	VV	280	913	0.03%	0.001%
393	17.369	17.340	17.374	VV	896	8768	0.28%	0.012%
394	17.379	17.374	17.389	VV	726	4477	0.14%	0.006%
395	17.419	17.389	17.438	VV	1809	35893	1.14%	0.047%
396	17.464	17.438	17.489	VV	2336	40054	1.28%	0.053%
397	17.550	17.489	17.596	VV	92733	1493238	47.56%	1.959%
398	17.637	17.596	17.690	VV	66074	1020604	32.51%	1.339%
399	17.719	17.690	17.772	VV	9799	231462	7.37%	0.304%
400	17.802	17.772	17.832	VV	6038	100219	3.19%	0.131%
401	17.862	17.832	17.884	VV	1516	29311	0.93%	0.038%
402	17.920	17.884	17.950	PV	3278	75532	2.41%	0.099%
403	18.002	17.950	18.024	VV	8556	169133	5.39%	0.222%
404	18.076	18.024	18.121	VV	13677	368716	11.74%	0.484%

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405	18.166	18.121	18.203	VV	55478	863975	27.52%	1.134%
406	18.214	18.203	18.235	VV	2976	47743	1.52%	0.063%
407	18.254	18.235	18.258	VV	2763	34949	1.11%	0.046%
408	18.302	18.258	18.335	VV	10744	234975	7.48%	0.308%
409	18.396	18.335	18.406	VV	11011	207150	6.60%	0.272%
410	18.434	18.406	18.469	VV	90890	1547041	49.27%	2.030%
411	18.500	18.469	18.550	VV	99696	1633645	52.03%	2.143%
412	18.596	18.550	18.615	VV	16100	371528	11.83%	0.487%
413	18.627	18.615	18.699	VV	9869	302958	9.65%	0.397%
414	18.784	18.699	18.817	VV	11792	573665	18.27%	0.753%
415	18.821	18.817	18.834	VV	9160	86288	2.75%	0.113%
416	18.858	18.834	18.870	VV	15389	280013	8.92%	0.367%
417	18.900	18.870	18.951	VV	32605	932544	29.70%	1.224%
418	18.979	18.951	18.986	VV	15562	250316	7.97%	0.328%
419	19.014	18.986	19.049	VV	69052	1381933	44.02%	1.813%
420	19.061	19.049	19.084	VV	15970	293661	9.35%	0.385%
421	19.104	19.084	19.136	VV	20300	413923	13.18%	0.543%
422	19.144	19.136	19.150	VV	8364	66998	2.13%	0.088%
423	19.228	19.150	19.236	VV	23619	752887	23.98%	0.988%
424	19.266	19.236	19.291	VV	183638	3139618	100.00%	4.119%
425	19.310	19.291	19.356	VV	69043	1564153	49.82%	2.052%
426	19.389	19.356	19.407	VV	33452	806141	25.68%	1.058%
427	19.439	19.407	19.494	VV	32412	1271840	40.51%	1.669%
428	19.544	19.494	19.584	VV	38015	1283328	40.88%	1.684%
429	19.603	19.584	19.638	VV	24776	646956	20.61%	0.849%
430	19.660	19.638	19.681	VV	23830	503564	16.04%	0.661%
431	19.692	19.681	19.697	VV	18947	172170	5.48%	0.226%
432	19.721	19.697	19.736	VV	23389	488598	15.56%	0.641%
433	19.761	19.736	19.782	VV	55578	1047875	33.38%	1.375%
434	19.806	19.782	19.835	VV	49030	1103181	35.14%	1.447%
435	19.846	19.835	19.852	VV	21944	216839	6.91%	0.285%
436	19.877	19.852	19.894	VV	24652	555514	17.69%	0.729%
437	19.913	19.894	19.937	VV	24557	562754	17.92%	0.738%
438	19.977	19.937	20.004	VV	32058	1047762	33.37%	1.375%
439	20.044	20.004	20.084	VV	87787	2203994	70.20%	2.892%
440	20.102	20.084	20.136	VV	37078	964574	30.72%	1.266%
441	20.168	20.136	20.189	VV	33435	896105	28.54%	1.176%
442	20.210	20.189	20.232	VV	33051	802105	25.55%	1.052%
443	20.235	20.232	20.261	VV	29212	482263	15.36%	0.633%
444	20.266	20.261	20.278	VV	27065	276052	8.79%	0.362%
445	20.315	20.278	20.353	VV	33948	1323606	42.16%	1.737%
446	20.374	20.353	20.392	VV	31547	698235	22.24%	0.916%
447	20.398	20.392	20.415	VV	30288	404235	12.88%	0.530%
448	20.434	20.415	20.450	VV	30749	638635	20.34%	0.838%
449	20.477	20.450	20.494	VV	29701	740571	23.59%	0.972%
450	20.503	20.494	20.509	VV	29087	257929	8.22%	0.338%
451	20.529	20.509	20.533	VV	30349	431297	13.74%	0.566%
452	20.553	20.533	20.571	VV	34036	729376	23.23%	0.957%
453	20.601	20.571	20.626	VV	37055	1101822	35.09%	1.446%
454	20.664	20.626	20.680	VV	33605	1057681	33.69%	1.388%
455	20.705	20.680	20.712	VV	34711	636439	20.27%	0.835%
456	20.760	20.712	20.815	VV	50436	2549692	81.21%	3.345%

					rteres			
457	20.836	20.815	20.859	VV	37468	923039	29.40%	1.211%
458	20.867	20.859	20.872	VV	33580	265974	8.47%	0.349%
459	20.907	20.872	20.911	VV	35179	792580	25.24%	1.040%
460	20.924	20.911	20.933	VV	35688	463983	14.78%	0.609%
461	20.954	20.933	20.993	VV	35990	1235503	39.35%	1.621%
462	21.008	20.993	21.037	VV	33732	831495	26.48%	1.091%
463	21.085	21.037	21.115	VV	31224	1377733	43.88%	1.808%
464	21.126	21.115	21.137	VV	27095	347300	11.06%	0.456%
465	21.169	21.137	21.210	VV	28237	1135094	36.15%	1.489%
466	21.214	21.210	21.222	VV	23127	164566	5.24%	0.216%
467	21.227	21.222	21.242	VV	23029	266958	8.50%	0.350%
468	21.252	21.242	21.257	VV	22517	202140	6.44%	0.265%
469	21.263	21.257	21.267	VV	22616	123065	3.92%	0.161%
470	21.296	21.267	21.320	VV	23741	740628	23.59%	0.972%
471	21.324	21.320	21.340	VV	22474	261963	8.34%	0.344%
472	21.344	21.340	21.395	VV	22515	708582	22.57%	0.930%
473	21.410	21.395	21.442	VV	21295	563331	17.94%	0.739%
474	21.460	21.442	21.492	VV	19068	548649	17.48%	0.720%
475	21.504	21.492	21.513	VV	17358	210587	6.71%	0.276%
476	21.519	21.513	21.535	VV	17287	216810	6.91%	0.284%
477	21.538	21.535	21.544	VV	16591	89672	2.86%	0.118%
478	21.547	21.544	21.552	VV	16620	82230	2.62%	0.108%
479	21.612	21.552	21.627	VV	17790	753956	24.01%	0.989%
480	21.633	21.627	21.659	VV	17275	319554	10.18%	0.419%
481	21.666	21.659	21.677	VV	16357	173492	5.53%	0.228%
482	21.683	21.677	21.718	VV	16061	360987	11.50%	0.474%
483	21.729	21.718	21.742	VV	14341	208649	6.65%	0.274%
484	21.766	21.742	21.819	VV	14507	605450	19.28%	0.794%
485	21.824	21.819	21.827	VV	12209	61807	1.97%	0.081%
486	21.830	21.827	21.836	VV	12240	60524	1.93%	0.079%
487	21.845	21.836	21.851	VV	12002	105738	3.37%	0.139%
488	21.859	21.851	21.863	VV	12366	91370	2.91%	0.120%
489	21.869	21.863	21.903	VV	12214	257028	8.19%	0.337%
490	21.926	21.903	21.946	VV	11616	273379	8.71%	0.359%
491	21.950	21.946	21.977	VV	10511	178316	5.68%	0.234%
492	21.982	21.977	21.989	VV	8822	60781	1.94%	0.080%
493	21.994	21.989	21.997	VV	8628	42049	1.34%	0.055%
494	22.005	21.997	22.039	VV	9193	207054	6.59%	0.272%
495	22.042	22.039	22.048	VV	7468	36917	1.18%	0.048%
496	22.052	22.048	22.059	VV	7135	44468	1.42%	0.058%
497	22.089	22.059	22.094	VV	7908	153331	4.88%	0.201%
498	22.111	22.094	22.116	VV	9299	115675	3.68%	0.152%
499	22.123	22.116	22.152	VV	8795	161247	5.14%	0.212%
500	22.172	22.152	22.177	VV	6549	92858	2.96%	0.122%
501	22.184	22.177	22.192	VV	6204	50335	1.60%	0.066%
502	22.241	22.192	22.247	VV	6984	212222	6.76%	0.278%
503	22.274	22.247	22.364	VV	7248	352744	11.24%	0.463%
504	22.370	22.364	22.400	VBA	1608	66372	2.11%	0.087%
Sum of corrected areas:							76217647	

FG042425.M Thu May 08 07:25:16 2025



CALIBRATION SUMMARY

TPH GC INITIAL CALIBRATION SUMMARY

Lab Name: Chemtech Contract: SAXT01
 ProjectID: Stan Hope
 Lab Code: CHEM Case No.: Q1937 SAS No.: Q1937 SDG No.: Q1937

Calibration Sequence : FF042225		Test : TPH GC	
Concentration (PPM)	Area Count	Reference Factor	File ID
1700	171154261	100679	FF015786.D
850	88482232	104097	FF015787.D
340	33178146	97583	FF015788.D
170	17736847	104334	FF015789.D
85	10850659	127655	FF015790.D
AVG RF : 106870		% RSD : 11.177	AVG RT : 15.02

TPH GC INITIAL CALIBRATION SUMMARY

Lab Name: Chemtech Contract: SAXT01
 ProjectID: Stan Hope
 Lab Code: CHEM Case No.: Q1937 SAS No.: Q1937 SDG No.: Q1937

Calibration Sequence : FG042425		Test : TPH GC	
Concentration (PPM)	Area Count	Reference Factor	File ID
1700	193935875	114080	FG015756.D
850	102468017	120551	FG015757.D
340	41273634	121393	FG015758.D
170	22173981	130435	FG015759.D
85	10166512	119606	FG015760.D
AVG RF : 121213		% RSD : 4.863	AVG RT : 15.0012

TPH GC CONTINUING CALIBRATION SUMMARY

50 PPM TRPH STD

Lab Name: Chemtech Contract: SAXT01
ProjectID: Stan Hope
Lab Code: CHEM Case No.: Q1937 SAS No.: Q1937 SDG No.: Q1937
DataFile: FF015794.D Analyst Name: YP\AJ Analyst Date: 05-07-2025

Conc. (PPM)	Area Count	RF	Average RF	%D
850	86352682	101591	106870	4.94

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF050725\
 Data File : FF015794.D
 Signal(s) : FID2B.ch
 Acq On : 07 May 2025 11:48
 Operator : YP\AJ
 Sample : 50 PPM TRPH STD
 Misc :
 ALS Vial : 53 Sample Multiplier: 1

Instrument :
 FID_F
 ClientSampleId :
 50 PPM TRPH STD

Manual Integrations
 APPROVED

Reviewed By :Yogesh Patel 05/08/2025
 Supervised By :mohammad ahmed 05/09/2025

Integration File: autoint1.e
 Quant Time: May 08 03:10:46 2025
 Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF042225.M
 Quant Title :
 QLast Update : Tue Apr 22 11:27:50 2025
 Response via : Initial Calibration
 Integrator: ChemStation

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

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
9) S TETRACOSANE-d50 (SURR...	15.021	5172553	45.837 ug/ml
Target Compounds			
1) N-OCTANE	2.020	4769849	42.075 ug/ml
2) N-DECANE	4.560	5285734	51.798 ug/ml
3) N-DODECANE	6.730	5486360	50.106 ug/ml
4) N-TETRADECANE	8.558	5467806	47.373 ug/ml
5) N-HEXADECANE	10.166	5549138	47.019 ug/ml
6) N-OCTADECANE	11.610	5746666	45.682 ug/ml
7) N-EICOSANE	12.921	5779288	44.300 ug/ml
8) N-DOCOSANE	14.121	5699852	44.747 ug/ml
10) N-TETRACOSANE	15.225	5716581	45.446 ug/ml
11) N-HEXACOSANE	16.248	5621592	46.117 ug/ml
12) N-OCTACOSANE	17.199	5595943	47.291 ug/ml
13) N-TRIACONTANE	18.087	5687356	48.256 ug/ml
14) N-DOTRIACONTANE	18.920	5459819	47.924 ug/ml
15) N-TETRATRIACONTANE	19.704	4606703	46.175 ug/ml
16) N-HEXATRIACONTANE	20.442	3696512	46.331 ug/ml
17) N-OCTATRIACONTANE	21.179	3190825	56.190 ug/ml
18) N-TETRACONTANE	22.088f	2992658	73.593 ug/mlm

(f)=RT Delta > 1/2 Window

(m)=manual int.

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF050725\
Data File : FF015794.D
Signal(s) : FID2B.ch
Acq On : 07 May 2025 11:48
Operator : YP\AJ
Sample : 50 PPM TRPH STD
Misc :
ALS Vial : 53 Sample Multiplier: 1

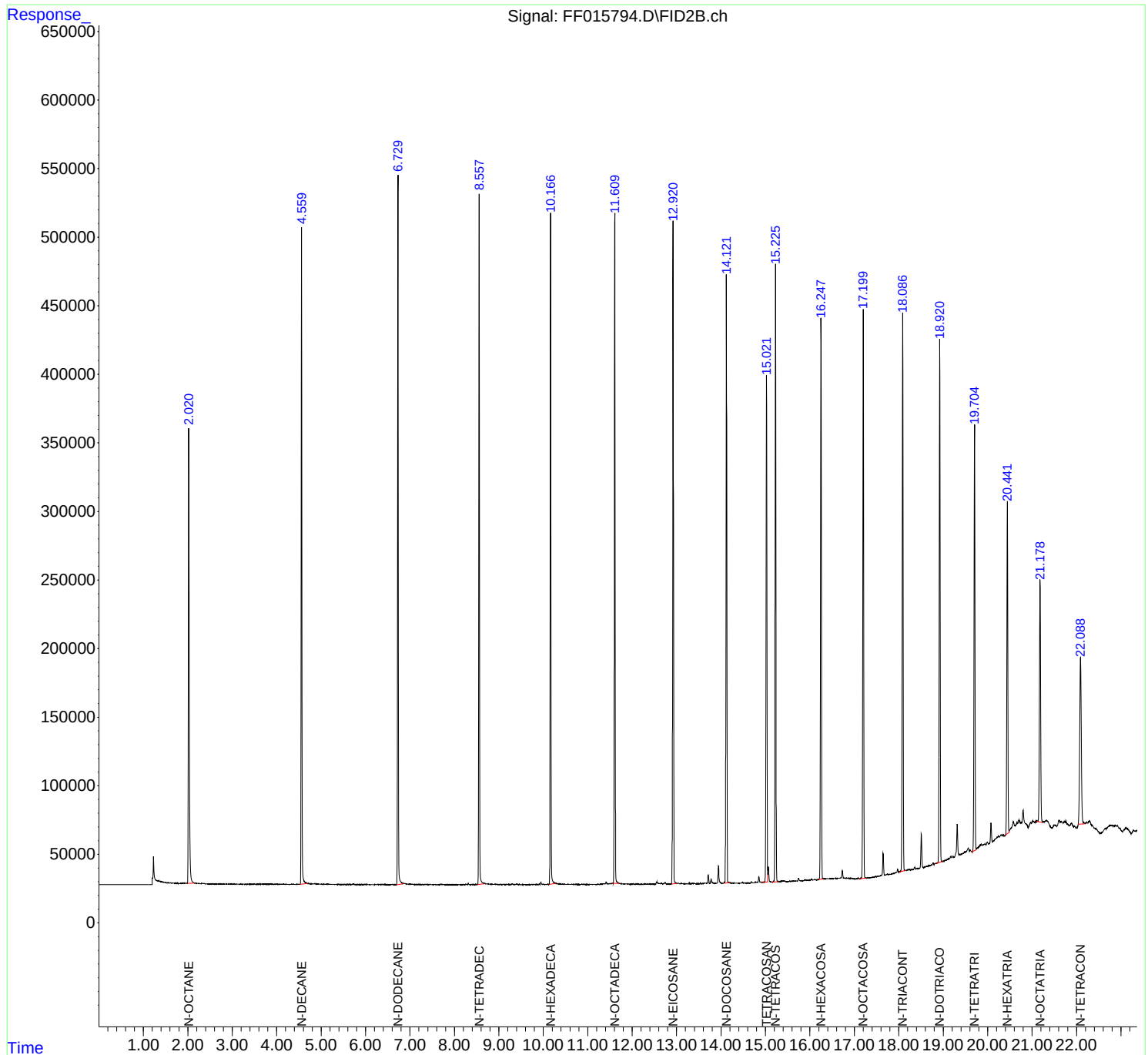
Instrument :
FID_F
ClientSampleId :
50 PPM TRPH STD

Manual Integrations
APPROVED

Reviewed By :Yogesh Patel 05/08/2025
Supervised By :mohammad ahmed 05/09/2025

Integration File: autoint1.e
Quant Time: May 08 03:10:46 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF042225.M
Quant Title :
QLast Update : Tue Apr 22 11:27:50 2025
Response via : Initial Calibration
Integrator: ChemStation

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



rteres

Instrument :
FID_F
LabSampleId :
50 PPM TRPH STD
Area Percent Report

Manual IntegrationsAPPROVED

Reviewed By :Yogesh Patel 05/08/2025
Supervised By :mohammad ahmed 05/09/2025

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF05072
Data File : FF015794.D
Signal(s) : FID2B.ch
Acq On : 07 May 2025 11:48
Sample : 50 PPM TRPH STD
Misc :
ALS Vial : 53 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF042225.M
Title :

Signal : FID2B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	2.020	1.979	2.156	BB	331909	4769849	82.53%	5.210%
2	4.560	4.526	4.694	BB	478995	5285734	91.46%	5.774%
3	6.730	6.694	6.866	BB	517796	5486360	94.93%	5.993%
4	8.558	8.524	8.676	BB	502228	5467806	94.61%	5.973%
5	10.166	10.131	10.284	BB	487929	5549138	96.02%	6.061%
6	11.610	11.556	11.709	BB	488223	5746666	99.44%	6.277%
7	12.921	12.882	13.007	BB	482792	5779288	100.00%	6.313%
8	14.121	14.085	14.194	VB	442906	5699852	98.63%	6.226%
9	15.021	14.917	15.052	BV	369099	5172553	89.50%	5.650%
10	15.225	15.146	15.291	BB	451290	5716581	98.91%	6.244%
11	16.248	16.181	16.314	BB	408134	5621592	97.27%	6.141%
12	17.199	17.116	17.271	BB	413528	5595943	96.83%	6.113%
13	18.087	18.017	18.151	BB	405921	5687356	98.41%	6.212%
14	18.920	18.831	18.979	BB	380740	5459819	94.47%	5.964%
15	19.704	19.641	19.740	BV	310594	4606703	79.71%	5.032%
16	20.442	20.391	20.481	BV	241814	3696512	63.96%	4.038%
17	21.179	21.091	21.235	BV	176389	3190825	55.21%	3.485%
18	22.088	21.961	22.194	BV	122756	3015351	52.18%	3.294%
Sum of corrected areas:							91547928	

FF042225.M Thu May 08 05:54:29 2025

TPH GC CONTINUING CALIBRATION SUMMARY

50 PPM TRPH STD

Lab Name: Chemtech Contract: SAXT01
ProjectID: Stan Hope
Lab Code: CHEM Case No.: Q1937 SAS No.: Q1937 SDG No.: Q1937
DataFile: FF015805.D Analyst Name: YP\AJ Analyst Date: 05-07-2025

Conc. (PPM)	Area Count	RF	Average RF	%D
850	86867776	102197	106870	4.373

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF050725\
 Data File : FF015805.D
 Signal(s) : FID2B.ch
 Acq On : 07 May 2025 17:39
 Operator : YP\AJ
 Sample : 50 PPM TRPH STD
 Misc :
 ALS Vial : 53 Sample Multiplier: 1

Instrument :
 FID_F
 ClientSampleId :
 50 PPM TRPH STD

Integration File: autoint1.e
 Quant Time: May 08 03:13:36 2025
 Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF042225.M
 Quant Title :
 QLast Update : Tue Apr 22 11:27:50 2025
 Response via : Initial Calibration
 Integrator: ChemStation

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

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
9) S TETRACOSANE-d50 (SURR...	15.021	5247649	46.502 ug/ml
Target Compounds			
1) N-OCTANE	2.025	4753852	41.934 ug/ml
2) N-DECANE	4.564	5296970	51.908 ug/ml
3) N-DODECANE	6.732	5559617	50.775 ug/ml
4) N-TETRADECANE	8.560	5565709	48.221 ug/ml
5) N-HEXADECANE	10.167	5658787	47.948 ug/ml
6) N-OCTADECANE	11.611	5852822	46.526 ug/ml
7) N-EICOSANE	12.921	5854801	44.879 ug/ml
8) N-DOCOSANE	14.121	5760069	45.220 ug/ml
10) N-TETRACOSANE	15.225	5763753	45.821 ug/ml
11) N-HEXACOSANE	16.248	5656519	46.404 ug/ml
12) N-OCTACOSANE	17.198	5625989	47.545 ug/ml
13) N-TRIACONTANE	18.087	5703776	48.395 ug/ml
14) N-DOTRIACONTANE	18.919	5477525	48.080 ug/ml
15) N-TETRATRIACONTANE	19.702	4623484	46.343 ug/ml
16) N-HEXATRIACONTANE	20.440	3697042	46.338 ug/ml
17) N-OCTATRIACONTANE	21.176	3137937	55.259 ug/ml
18) N-TETRACONTANE	22.085f	2879124	70.801 ug/ml

(f)=RT Delta > 1/2 Window

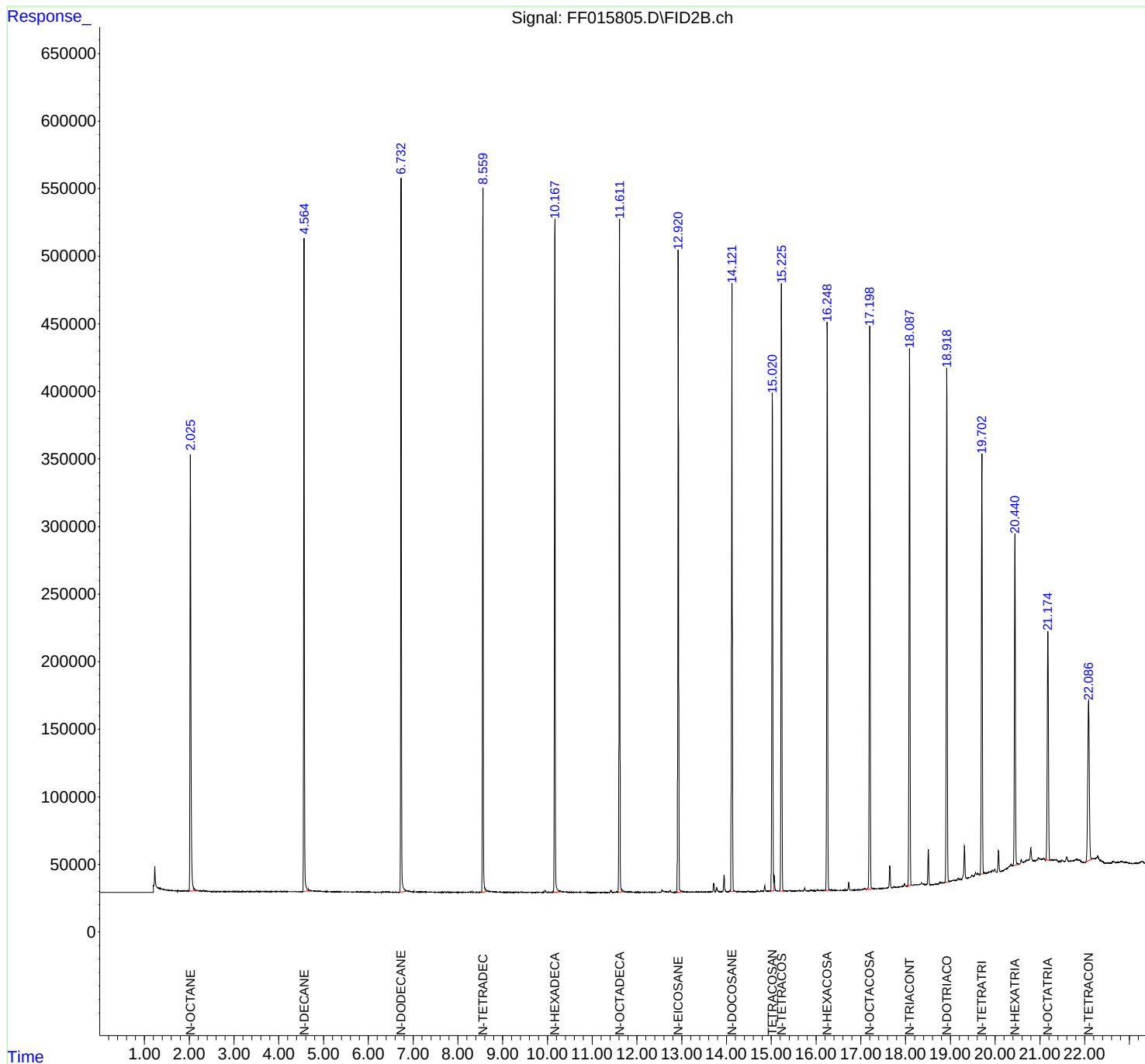
(m)=manual int.

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF050725\
Data File : FF015805.D
Signal(s) : FID2B.ch
Acq On : 07 May 2025 17:39
Operator : YP\AJ
Sample : 50 PPM TRPH STD
Misc :
ALS Vial : 53 Sample Multiplier: 1

Instrument :
FID_F
ClientSampleId :
50 PPM TRPH STD

Integration File: autoint1.e
Quant Time: May 08 03:13:36 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF042225.M
Quant Title :
QLast Update : Tue Apr 22 11:27:50 2025
Response via : Initial Calibration
Integrator: ChemStation

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



rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF050725\
 Data File : FF015805.D
 Signal(s) : FID2B.ch
 Acq On : 07 May 2025 17:39
 Sample : 50 PPM TRPH STD
 Misc :
 ALS Vial : 53 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF042225.M
 Title :

Signal : FID2B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	2.025	1.991	2.181	BB	322749	4753852	81.20%	5.161%
2	4.564	4.536	4.691	BB	483078	5296970	90.47%	5.750%
3	6.732	6.699	6.869	BB	527642	5559617	94.96%	6.035%
4	8.560	8.526	8.682	BB	520333	5565709	95.06%	6.042%
5	10.167	10.131	10.304	BB	498375	5658787	96.65%	6.143%
6	11.611	11.576	11.717	BB	496163	5852822	99.97%	6.354%
7	12.921	12.879	13.016	BB	475877	5854801	100.00%	6.356%
8	14.121	14.085	14.196	VB	450600	5760069	98.38%	6.253%
9	15.021	14.939	15.052	BV	367696	5247649	89.63%	5.697%
10	15.225	15.149	15.302	BB	447785	5763753	98.44%	6.257%
11	16.248	16.182	16.317	BB	420561	5656519	96.61%	6.141%
12	17.198	17.109	17.264	BB	415157	5625989	96.09%	6.108%
13	18.087	18.012	18.146	BB	398371	5703776	97.42%	6.192%
14	18.919	18.849	18.972	BB	379985	5477525	93.56%	5.946%
15	19.702	19.641	19.777	BB	310288	4623484	78.97%	5.019%
16	20.440	20.391	20.524	BB	245447	3697042	63.15%	4.013%
17	21.176	21.109	21.249	BV	168930	3137937	53.60%	3.407%
18	22.085	21.989	22.164	BV	118411	2879124	49.18%	3.126%
Sum of corrected areas:							92115424	

FF042225.M Thu May 08 05:58:36 2025

TPH GC CONTINUING CALIBRATION SUMMARY

50 PPM TRPH STD

Lab Name: Chemtech Contract: SAXT01
ProjectID: Stan Hope
Lab Code: CHEM Case No.: Q1937 SAS No.: Q1937 SDG No.: Q1937
DataFile: FG015784.D Analyst Name: YP\AJ Analyst Date: 05-07-2025

Conc. (PPM)	Area Count	RF	Average RF	%D
850	94713719	111428	121213	8.073

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG050725\
 Data File : FG015784.D
 Signal(s) : FID1A.ch
 Acq On : 07 May 2025 11:48
 Operator : YP\AJ
 Sample : 50 PPM TRPH STD
 Misc :
 ALS Vial : 3 Sample Multiplier: 1

Instrument :
 FID_G
 ClientSampleId :
 50 PPM TRPH STD

Integration File: autoint1.e
 Quant Time: May 08 06:35:57 2025
 Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG042425.M
 Quant Title :
 QLast Update : Thu Apr 24 12:54:09 2025
 Response via : Initial Calibration
 Integrator: ChemStation

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

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
9) S TETRACOSANE-d50 (SURR...	15.009	4828047	41.007 ug/ml
Target Compounds			
1) N-OCTANE	1.973	4590595	40.734 ug/ml
2) N-DECANE	4.503	5039245	45.263 ug/ml
3) N-DODECANE	6.687	5215063	45.506 ug/ml
4) N-TETRADECANE	8.524	5344072	44.103 ug/ml
5) N-HEXADECANE	10.138	5440560	43.336 ug/ml
6) N-OCTADECANE	11.587	5580788	42.584 ug/ml
7) N-EICOSANE	12.903	5646623	41.649 ug/ml
8) N-DOCOSANE	14.106	5491317	41.404 ug/ml
10) N-TETRACOSANE	15.213	5494354	41.346 ug/ml
11) N-HEXACOSANE	16.237	5426758	40.920 ug/ml
12) N-OCTACOSANE	17.191	5395269	40.925 ug/ml
13) N-TRIACONTANE	18.081	5553267	41.654 ug/ml
14) N-DOTRIACONTANE	18.916	5647103	42.837 ug/ml
15) N-TETRATRIACONTANE	19.702	5981305	49.458 ug/ml
16) N-HEXATRIACONTANE	20.443	6149819	57.359 ug/ml
17) N-OCTATRIACONTANE	21.189	6428528	66.735 ug/ml
18) N-TETRACONTANE	22.115	6289053	70.627 ug/ml

(f)=RT Delta > 1/2 Window

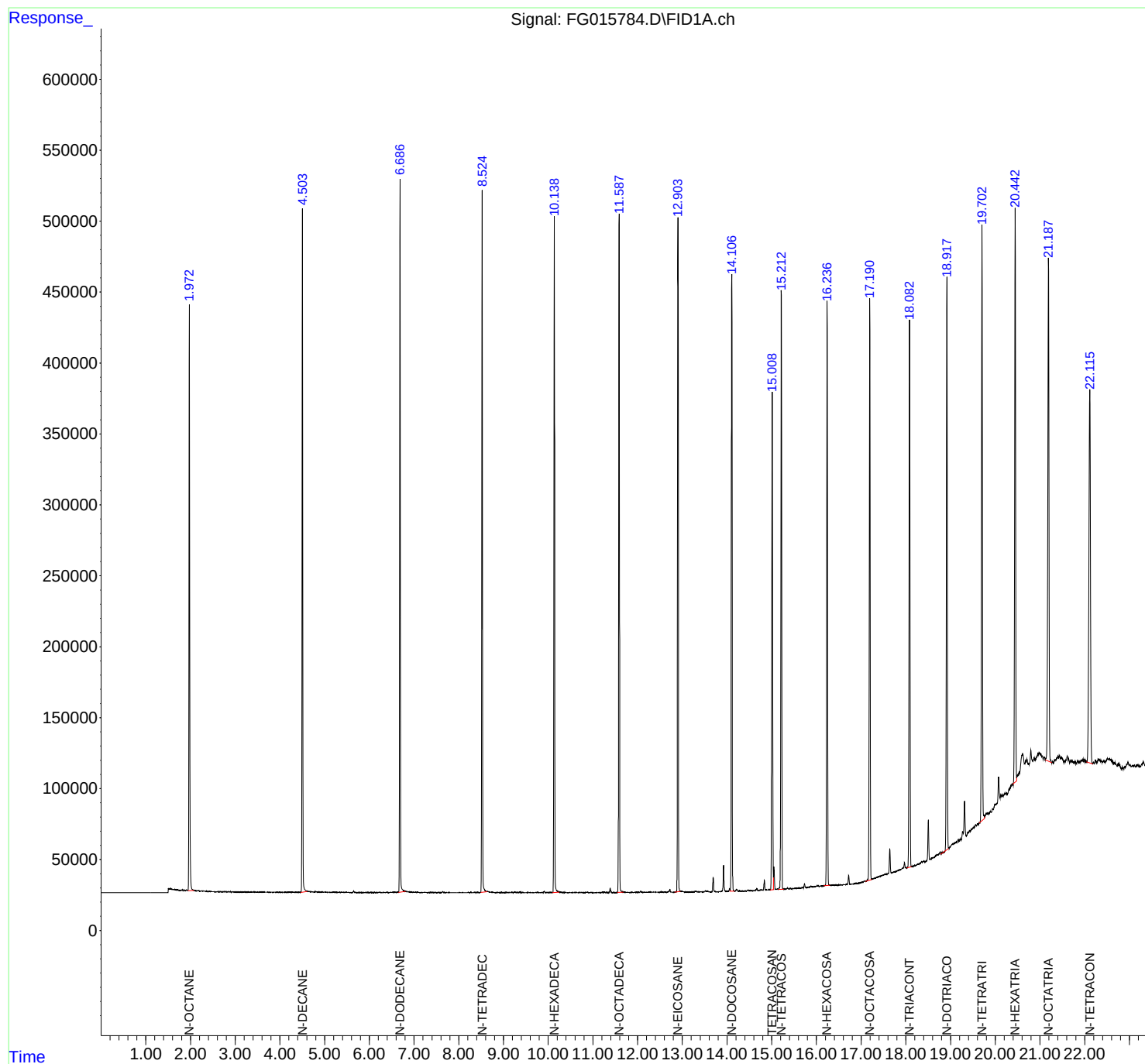
(m)=manual int.

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG050725\
Data File : FG015784.D
Signal(s) : FID1A.ch
Acq On : 07 May 2025 11:48
Operator : YP\AJ
Sample : 50 PPM TRPH STD
Misc :
ALS Vial : 3 Sample Multiplier: 1

Instrument :
FID_G
ClientSampleId :
50 PPM TRPH STD

Integration File: autoint1.e
Quant Time: May 08 06:35:57 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG042425.M
Quant Title :
QLast Update : Thu Apr 24 12:54:09 2025
Response via : Initial Calibration
Integrator: ChemStation

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



rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG050725\
 Data File : FG015784.D
 Signal(s) : FID1A.ch
 Acq On : 07 May 2025 11:48
 Sample : 50 PPM TRPH STD
 Misc :
 ALS Vial : 3 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG042425.M
 Title :

Signal : FID1A.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	1.973	1.939	2.081	BB	412555	4590595	71.41%	4.612%
2	4.503	4.467	4.614	BB	481938	5039245	78.39%	5.062%
3	6.687	6.652	6.802	BB	501784	5215063	81.12%	5.239%
4	8.524	8.489	8.641	BB	494610	5344072	83.13%	5.369%
5	10.138	10.095	10.247	BB	474240	5440560	84.63%	5.466%
6	11.587	11.546	11.680	BB	476483	5580788	86.81%	5.606%
7	12.903	12.828	12.958	BB	475245	5646623	87.84%	5.673%
8	14.106	14.071	14.168	VB	434411	5491317	85.42%	5.517%
9	15.009	14.962	15.036	BV	350094	4828047	75.10%	4.850%
10	15.213	15.144	15.270	PB	421607	5494354	85.47%	5.520%
11	16.237	16.169	16.302	BB	408101	5426758	84.42%	5.452%
12	17.191	17.095	17.235	BV	409080	5395269	83.93%	5.420%
13	18.081	18.025	18.125	BB	382686	5553267	86.38%	5.579%
14	18.916	18.788	18.954	PV	393566	5647103	87.84%	5.673%
15	19.702	19.640	19.763	BV	419757	5981305	93.04%	6.009%
16	20.443	20.390	20.480	BV	403971	6149819	95.66%	6.178%
17	21.189	21.120	21.262	BV	351654	6428528	100.00%	6.458%
18	22.115	22.039	22.175	BV	263318	6289053	97.83%	6.318%
Sum of corrected areas:							99541766	

FG042425.M Thu May 08 07:15:31 2025

TPH GC CONTINUING CALIBRATION SUMMARY

50 PPM TRPH STD

Lab Name: Chemtech Contract: SAXT01
ProjectID: Stan Hope
Lab Code: CHEM Case No.: Q1937 SAS No.: Q1937 SDG No.: Q1937
DataFile: FG015797.D Analyst Name: YP\AJ Analyst Date: 05-07-2025

Conc. (PPM)	Area Count	RF	Average RF	%D
850	98091880	115402	121213	4.794

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG050725\
 Data File : FG015797.D
 Signal(s) : FID1A.ch
 Acq On : 07 May 2025 18:38
 Operator : YP\AJ
 Sample : 50 PPM TRPH STD
 Misc :
 ALS Vial : 3 Sample Multiplier: 1

Instrument :
 FID_G
 ClientSampleId :
 50 PPM TRPH STD

Integration File: autoint1.e
 Quant Time: May 08 06:40:06 2025
 Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG042425.M
 Quant Title :
 QLast Update : Thu Apr 24 12:54:09 2025
 Response via : Initial Calibration
 Integrator: ChemStation

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

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
9) S TETRACOSANE-d50 (SURR...	15.008	4952139	42.061 ug/ml
Target Compounds			
1) N-OCTANE	1.974	4694615	41.657 ug/ml
2) N-DECANE	4.504	5242101	47.085 ug/ml
3) N-DODECANE	6.687	5459387	47.638 ug/ml
4) N-TETRADECANE	8.524	5593086	46.158 ug/ml
5) N-HEXADECANE	10.139	5683505	45.272 ug/ml
6) N-OCTADECANE	11.587	5804210	44.289 ug/ml
7) N-EICOSANE	12.903	5857170	43.202 ug/ml
8) N-DOCOSANE	14.106	5662842	42.697 ug/ml
10) N-TETRACOSANE	15.213	5637550	42.424 ug/ml
11) N-HEXACOSANE	16.238	5541001	41.781 ug/ml
12) N-OCTACOSANE	17.191	5518302	41.858 ug/ml
13) N-TRIACONTANE	18.081	5705536	42.796 ug/ml
14) N-DOTRIACONTANE	18.916	5814824	44.109 ug/ml
15) N-TETRATRIACONTANE	19.702	6117915	50.588 ug/ml
16) N-HEXATRIACONTANE	20.444	6362505	59.342 ug/ml
17) N-OCTATRIACONTANE	21.188	6667207	69.213 ug/ml
18) N-TETRACONTANE	22.114	6730124	75.581 ug/ml

(f)=RT Delta > 1/2 Window

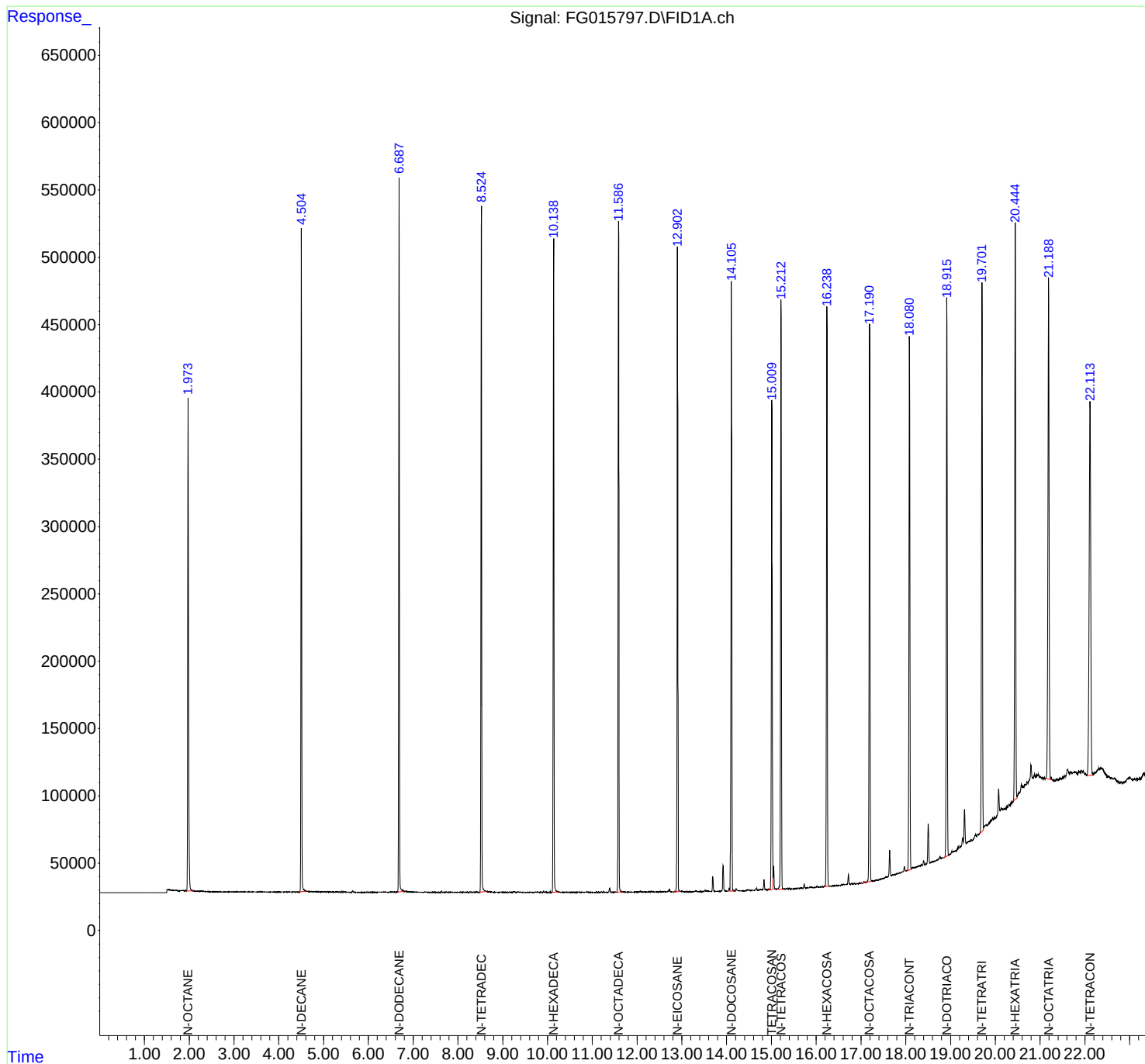
(m)=manual int.

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG050725\
Data File : FG015797.D
Signal(s) : FID1A.ch
Acq On : 07 May 2025 18:38
Operator : YP\AJ
Sample : 50 PPM TRPH STD
Misc :
ALS Vial : 3 Sample Multiplier: 1

Instrument :
FID_G
ClientSampleId :
50 PPM TRPH STD

Integration File: autoint1.e
Quant Time: May 08 06:40:06 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG042425.M
Quant Title :
QLast Update : Thu Apr 24 12:54:09 2025
Response via : Initial Calibration
Integrator: ChemStation

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



rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG050725\
Data File : FG015797.D
Signal(s) : FID1A.ch
Acq On : 07 May 2025 18:38
Sample : 50 PPM TRPH STD
Misc :
ALS Vial : 3 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG042425.M
Title :

Signal : FID1A.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	1.974	1.940	2.079	BB	362736	4694615	69.76%	4.556%
2	4.504	4.458	4.613	BB	492317	5242101	77.89%	5.087%
3	6.687	6.647	6.800	BB	530529	5459387	81.12%	5.298%
4	8.524	8.479	8.635	BB	509186	5593086	83.11%	5.428%
5	10.139	10.090	10.244	BB	485350	5683505	84.45%	5.516%
6	11.587	11.541	11.672	BB	496797	5804210	86.24%	5.633%
7	12.903	12.810	12.966	BB	478034	5857170	87.03%	5.684%
8	14.106	14.070	14.170	VB	451939	5662842	84.14%	5.496%
9	15.008	14.902	15.036	BV	360931	4952139	73.58%	4.806%
10	15.213	15.146	15.280	BB	434351	5637550	83.77%	5.471%
11	16.238	16.165	16.288	BB	428715	5541001	82.33%	5.377%
12	17.191	17.002	17.245	BV	408608	5518302	81.99%	5.355%
13	18.081	17.994	18.125	PV	390436	5705536	84.78%	5.537%
14	18.916	18.835	18.954	PV	407304	5814824	86.40%	5.643%
15	19.702	19.640	19.736	BV	406826	6117915	90.90%	5.937%
16	20.444	20.390	20.490	BV	428360	6362505	94.54%	6.175%
17	21.188	21.120	21.275	BV	372259	6667207	99.07%	6.470%
18	22.114	22.045	22.184	PV	276848	6730124	100.00%	6.531%
Sum of corrected areas:						103044021		

FG042425.M Thu May 08 07:19:11 2025

Analytical Sequence

Client: Saxton Falls Sand and Gravel Co. Inc.

SDG No.: Q1937

Project: Stan Hope

Instrument ID: FID_G

GC Column: RXI-1MS **ID:** 0.18 (mm)

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES,
AND STANDARDS IS GIVEN BELOW:

MEAN SUROGATE RT FROM INITIAL CALIBRATION 15.02					
EPA SAMPLE NO.	LAB SAMPLE ID	DATE AND TIME ANALYZED	DATAFILE	RT	#
PIBLK01	LBLK01	07 May 2025 10:46	FF015793.D	15.022	
50 PPM TRPH STD	50 PPM TRPH STD	07 May 2025 11:48	FF015794.D	15.021	
PB167887BL	PB167887BL	07 May 2025 12:47	FF015796.D	15.021	
PB167887BS	PB167887BS	07 May 2025 13:16	FF015797.D	15.019	
SMALL-PILE-AMS	Q1936-01MS	07 May 2025 14:14	FF015799.D	14.952	
SMALL-PILE-AMSD	Q1936-01MSD	07 May 2025 14:44	FF015800.D	14.960	
PIBLK02	LBLK02	07 May 2025 16:41	FF015804.D	15.021	
50 PPM TRPH STD	50 PPM TRPH STD	07 May 2025 17:39	FF015805.D	15.021	
PIBLK03	LBLK03	07 May 2025 10:46	FG015783.D	15.006	
50 PPM TRPH STD	50 PPM TRPH STD	07 May 2025 11:48	FG015784.D	15.009	
LARGE-PILE-A	Q1937-01	07 May 2025 12:47	FG015786.D	15.003	
LARGE-PILE-B	Q1937-03	07 May 2025 13:16	FG015787.D	15.002	
LARGE-PILE-C	Q1937-05	07 May 2025 13:45	FG015788.D	15.003	
LARGE-PILE-D	Q1937-07	07 May 2025 14:14	FG015789.D	14.953	
LARGE-PILE-E	Q1937-09	07 May 2025 14:44	FG015790.D	14.955	
LARGE-PILE-F	Q1937-11	07 May 2025 15:13	FG015791.D	14.951	
PIBLK04	LBLK04	07 May 2025 17:39	FG015796.D	15.008	
50 PPM TRPH STD	50 PPM TRPH STD	07 May 2025 18:38	FG015797.D	15.008	



QC SAMPLE DATA

Report of Analysis

Client:	Saxton Falls Sand and Gravel Co. Inc.	Date Collected:	
Project:	Stan Hope	Date Received:	
Client Sample ID:	PB167887BL	SDG No.:	Q1937
Lab Sample ID:	PB167887BL	Matrix:	SOIL
Analytical Method:	8015D TPH	% Solid:	100
Sample Wt/Vol:	30.02	Units:	g
Soil Aliquot Vol:			uL
Extraction Type:		Final Vol:	1
GPC Factor :		Test:	TPH GC
Prep Method :	SW3541	Injection Volume :	

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
FF015796.D	1	05/07/25 09:00	05/07/25 12:47	PB167887

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
PHC	Petroleum Hydrocarbons	384	U	384	2830	ug/kg
SURROGATES						
16416-32-3	TETRACOSANE-d50	13.4		37 - 130	67%	SPK: 20

Comments:

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

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

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF050725\
Data File : FF015796.D
Signal(s) : FID2B.ch
Acq On : 07 May 2025 12:47
Operator : YP\AJ
Sample : PB167887BL
Misc :
ALS Vial : 71 Sample Multiplier: 1

Instrument :
FID_F
ClientSampleId :
PB167887BL

Integration File: autoint1.e
Quant Time: May 08 03:11:20 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF042225.M
Quant Title :
QLast Update : Tue Apr 22 11:27:50 2025
Response via : Initial Calibration
Integrator: ChemStation

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

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
9) S TETRACOSANE-d50 (SURR...	15.021	1511508	13.394 ug/ml

Target Compounds

(f)=RT Delta > 1/2 Window

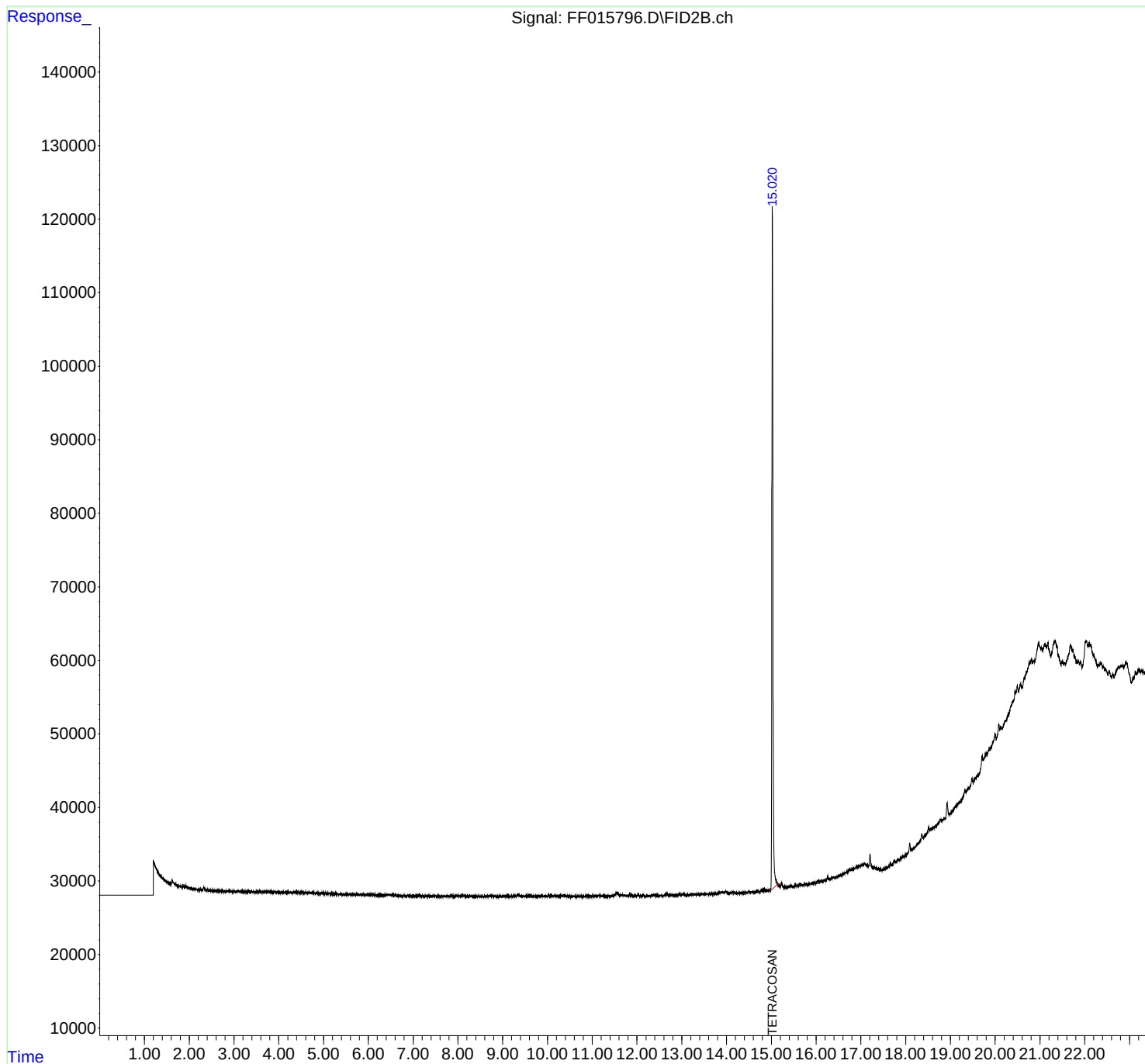
(m)=manual int.

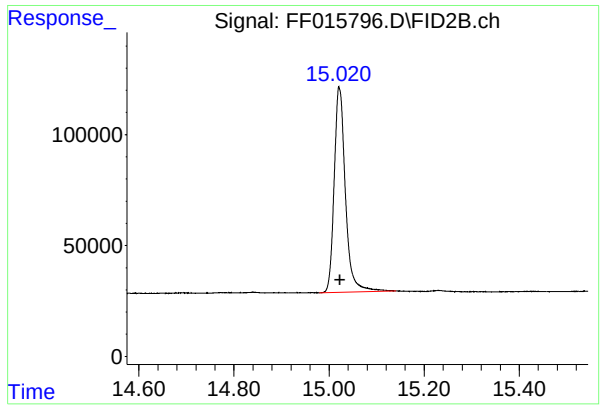
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF050725\
Data File : FF015796.D
Signal(s) : FID2B.ch
Acq On : 07 May 2025 12:47
Operator : YP\AJ
Sample : PB167887BL
Misc :
ALS Vial : 71 Sample Multiplier: 1

Instrument :
FID_F
ClientSampleId :
PB167887BL

Integration File: autoint1.e
Quant Time: May 08 03:11:20 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF042225.M
Quant Title :
QLast Update : Tue Apr 22 11:27:50 2025
Response via : Initial Calibration
Integrator: ChemStation

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





#9 TETRACOSANE-d50 (SURROGATE)

R.T.: 15.021 min
Delta R.T.: -0.001 min
Response: 1511508
Conc: 13.39 ug/ml

Instrument :
FID_F
ClientSampleId :
PB167887BL

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF050725\
Data File : FF015796.D
Signal(s) : FID2B.ch
Acq On : 07 May 2025 12:47
Sample : PB167887BL
Misc :
ALS Vial : 71 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF042225.M
Title :

Signal : FID2B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	15.021	14.979	15.141	BB	92730	1511508	100.00%	100.000%
Sum of corrected areas:						1511508		

FF042225.M Thu May 08 05:56:36 2025

Report of Analysis

Client:	Saxton Falls Sand and Gravel Co. Inc.	Date Collected:	05/07/25
Project:	Stan Hope	Date Received:	05/07/25
Client Sample ID:	PIBLK-FF015793.D	SDG No.:	Q1937
Lab Sample ID:	I.BLK-FF015793.D	Matrix:	Water
Analytical Method:	8015D TPH	% Solid:	0
Sample Wt/Vol:	1000 Units: mL	Decanted:	
Soil Aliquot Vol:	uL	Final Vol:	1 mL
Extraction Type:		Test:	TPH GC
GPC Factor :	PH :	Injection Volume :	
Prep Method :	SW3510		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
FF015793.D	1		05/07/25	FF050725

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
PHC	Petroleum Hydrocarbons	12.0	U	12.0	85.0	ug/L
SURROGATES						
16416-32-3	TETRACOSANE-d50	16.5		29 - 130	83%	SPK: 20

Comments:

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

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

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF050725\
Data File : FF015793.D
Signal(s) : FID2B.ch
Acq On : 07 May 2025 10:46
Operator : YP\AJ
Sample : I.BLK
Misc :
ALS Vial : 52 Sample Multiplier: 1

Instrument :
FID_F
ClientSampleId :
I.BLK

Integration File: autoint1.e
Quant Time: May 08 03:10:33 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF042225.M
Quant Title :
QLast Update : Tue Apr 22 11:27:50 2025
Response via : Initial Calibration
Integrator: ChemStation

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

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
9) S TETRACOSANE-d50 (SURR...	15.022	1865384	16.530 ug/ml
Target Compounds			

(f)=RT Delta > 1/2 Window

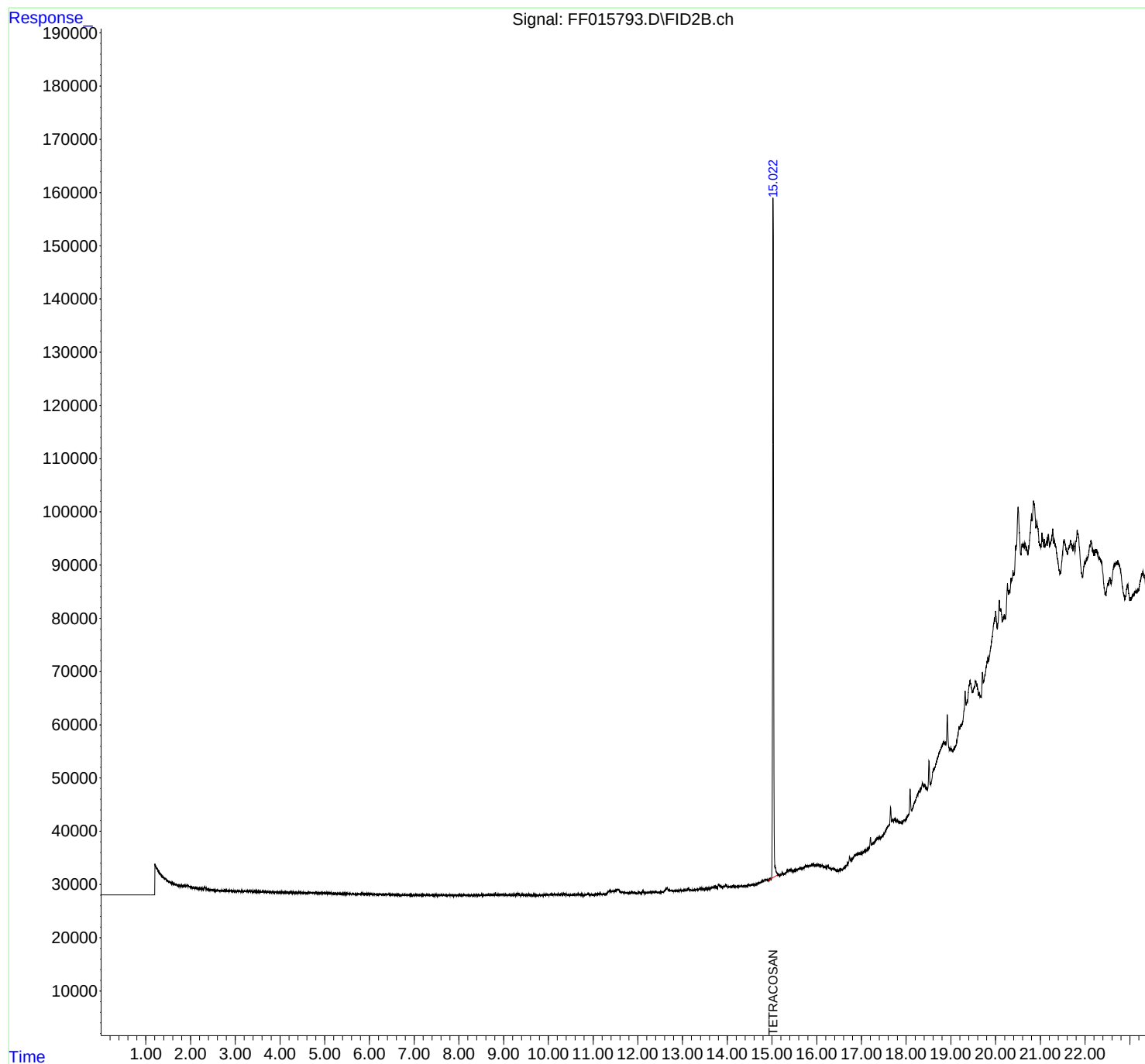
(m)=manual int.

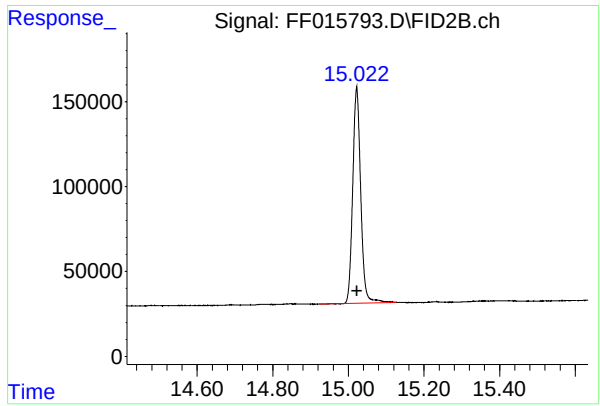
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF050725\
Data File : FF015793.D
Signal(s) : FID2B.ch
Acq On : 07 May 2025 10:46
Operator : YP\AJ
Sample : I.BLK
Misc :
ALS Vial : 52 Sample Multiplier: 1

Instrument :
FID_F
ClientSampleId :
I.BLK

Integration File: autoint1.e
Quant Time: May 08 03:10:33 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF042225.M
Quant Title :
QLast Update : Tue Apr 22 11:27:50 2025
Response via : Initial Calibration
Integrator: ChemStation

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





#9 TETRACOSANE-d50 (SURROGATE)

R.T.: 15.022 min
Delta R.T.: 0.000 min
Response: 1865384
Conc: 16.53 ug/ml

Instrument :
FID_F
ClientSampleId :
I.BLK

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF050725\
Data File : FF015793.D
Signal(s) : FID2B.ch
Acq On : 07 May 2025 10:46
Sample : I.BLK
Misc :
ALS Vial : 52 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF042225.M
Title :

Signal : FID2B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	15.022	14.922	15.126	BB	127545	1865384	100.00%	100.000%
Sum of corrected areas:						1865384		

FF042225.M Thu May 08 05:53:10 2025

Report of Analysis

Client:	Saxton Falls Sand and Gravel Co. Inc.	Date Collected:	05/07/25
Project:	Stan Hope	Date Received:	05/07/25
Client Sample ID:	PIBLK-FF015804.D	SDG No.:	Q1937
Lab Sample ID:	I.BLK-FF015804.D	Matrix:	Water
Analytical Method:	8015D TPH	% Solid:	0
Sample Wt/Vol:	1000	Units:	mL
Soil Aliquot Vol:			uL
Extraction Type:		Test:	TPH GC
GPC Factor :		Injection Volume :	
Prep Method :	SW3510		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
FF015804.D	1		05/07/25	FF050725

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
PHC	Petroleum Hydrocarbons	12.0	U	12.0	85.0	ug/L
SURROGATES						
16416-32-3	TETRACOSANE-d50	17.1		29 - 130	86%	SPK: 20

Comments:

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

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

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF050725\
Data File : FF015804.D
Signal(s) : FID2B.ch
Acq On : 07 May 2025 16:41
Operator : YP\AJ
Sample : I.BLK
Misc :
ALS Vial : 52 Sample Multiplier: 1

Instrument :
FID_F
ClientSampleId :
I.BLK

Integration File: autoint1.e
Quant Time: May 08 03:13:20 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF042225.M
Quant Title :
QLast Update : Tue Apr 22 11:27:50 2025
Response via : Initial Calibration
Integrator: ChemStation

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

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
9) S TETRACOSANE-d50 (SURR...	15.021	1933407	17.133 ug/ml
Target Compounds			

(f)=RT Delta > 1/2 Window

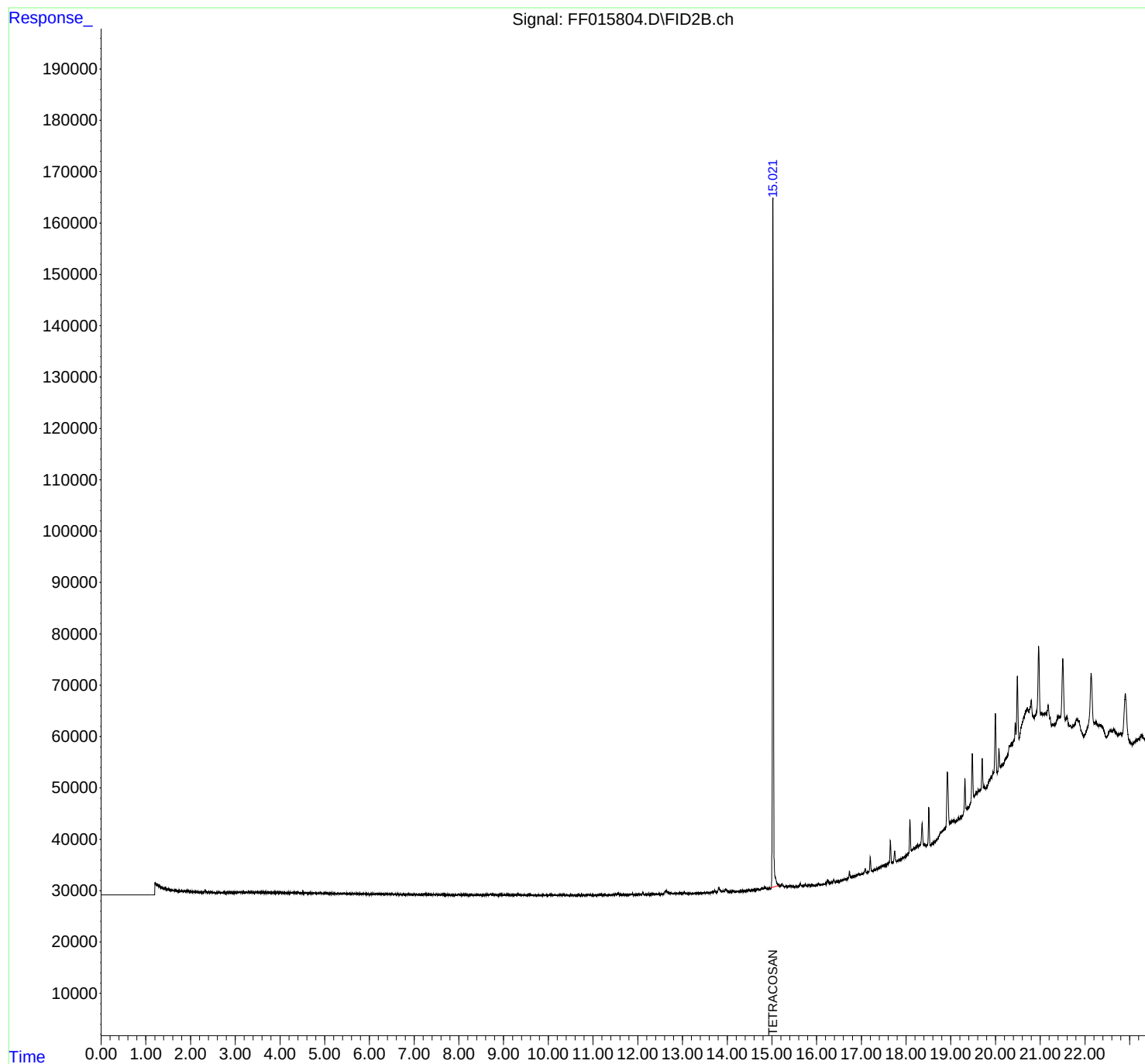
(m)=manual int.

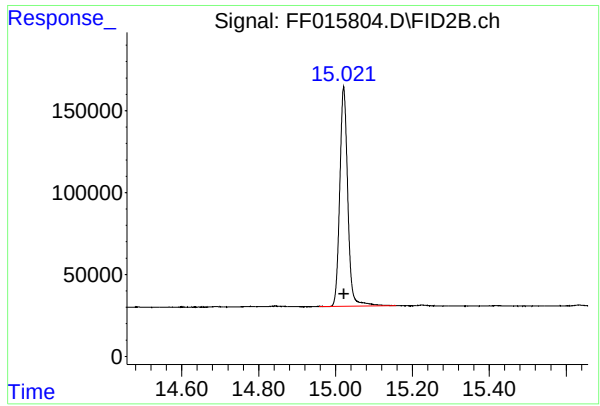
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF050725\
Data File : FF015804.D
Signal(s) : FID2B.ch
Acq On : 07 May 2025 16:41
Operator : YP\AJ
Sample : I.BLK
Misc :
ALS Vial : 52 Sample Multiplier: 1

Instrument :
FID_F
ClientSampleId :
I.BLK

Integration File: autoint1.e
Quant Time: May 08 03:13:20 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF042225.M
Quant Title :
QLast Update : Tue Apr 22 11:27:50 2025
Response via : Initial Calibration
Integrator: ChemStation

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





#9 TETRACOSANE-d50 (SURROGATE)

R.T.: 15.021 min
Delta R.T.: -0.001 min
Response: 1933407
Conc: 17.13 ug/ml

Instrument :
FID_F
ClientSampleId :
I.BLK

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF050725\
Data File : FF015804.D
Signal(s) : FID2B.ch
Acq On : 07 May 2025 16:41
Sample : I.BLK
Misc :
ALS Vial : 52 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF042225.M
Title :

Signal : FID2B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	15.021	14.957	15.157	BB	133513	1933407	100.00%	100.000%
Sum of corrected areas:						1933407		

FF042225.M Thu May 08 05:57:51 2025

Report of Analysis

Client:	Saxton Falls Sand and Gravel Co. Inc.	Date Collected:	05/07/25
Project:	Stan Hope	Date Received:	05/07/25
Client Sample ID:	PIBLK-FG015783.D	SDG No.:	Q1937
Lab Sample ID:	I.BLK-FG015783.D	Matrix:	Water
Analytical Method:	8015D TPH	% Solid:	0
Sample Wt/Vol:	1000	Units:	mL
Soil Aliquot Vol:			uL
Extraction Type:		Test:	TPH GC
GPC Factor :		Injection Volume :	
Prep Method :	SW3510		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
FG015783.D	1		05/07/25	FG050725

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
PHC	Petroleum Hydrocarbons	12.0	U	12.0	85.0	ug/L
SURROGATES						
16416-32-3	TETRACOSANE-d50	18.7		29 - 130	94%	SPK: 20

Comments:

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

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

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG050725\
Data File : FG015783.D
Signal(s) : FID1A.ch
Acq On : 07 May 2025 10:46
Operator : YP\AJ
Sample : I.BLK
Misc :
ALS Vial : 2 Sample Multiplier: 1

Instrument :
FID_G
ClientSampleId :
I.BLK

Manual Integrations
APPROVED

Reviewed By :Yogesh Patel 05/08/2025
Supervised By :mohammad ahmed 05/09/2025

Integration File: autoint1.e
Quant Time: May 08 06:35:43 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG042425.M
Quant Title :
QLast Update : Thu Apr 24 12:54:09 2025
Response via : Initial Calibration
Integrator: ChemStation

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

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
9) S TETRACOSANE-d50 (SURR...	15.006	2202248	18.705 ug/mlm
Target Compounds			

(f)=RT Delta > 1/2 Window

(m)=manual int.

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG050725\
Data File : FG015783.D
Signal(s) : FID1A.ch
Acq On : 07 May 2025 10:46
Operator : YP\AJ
Sample : I.BLK
Misc :
ALS Vial : 2 Sample Multiplier: 1

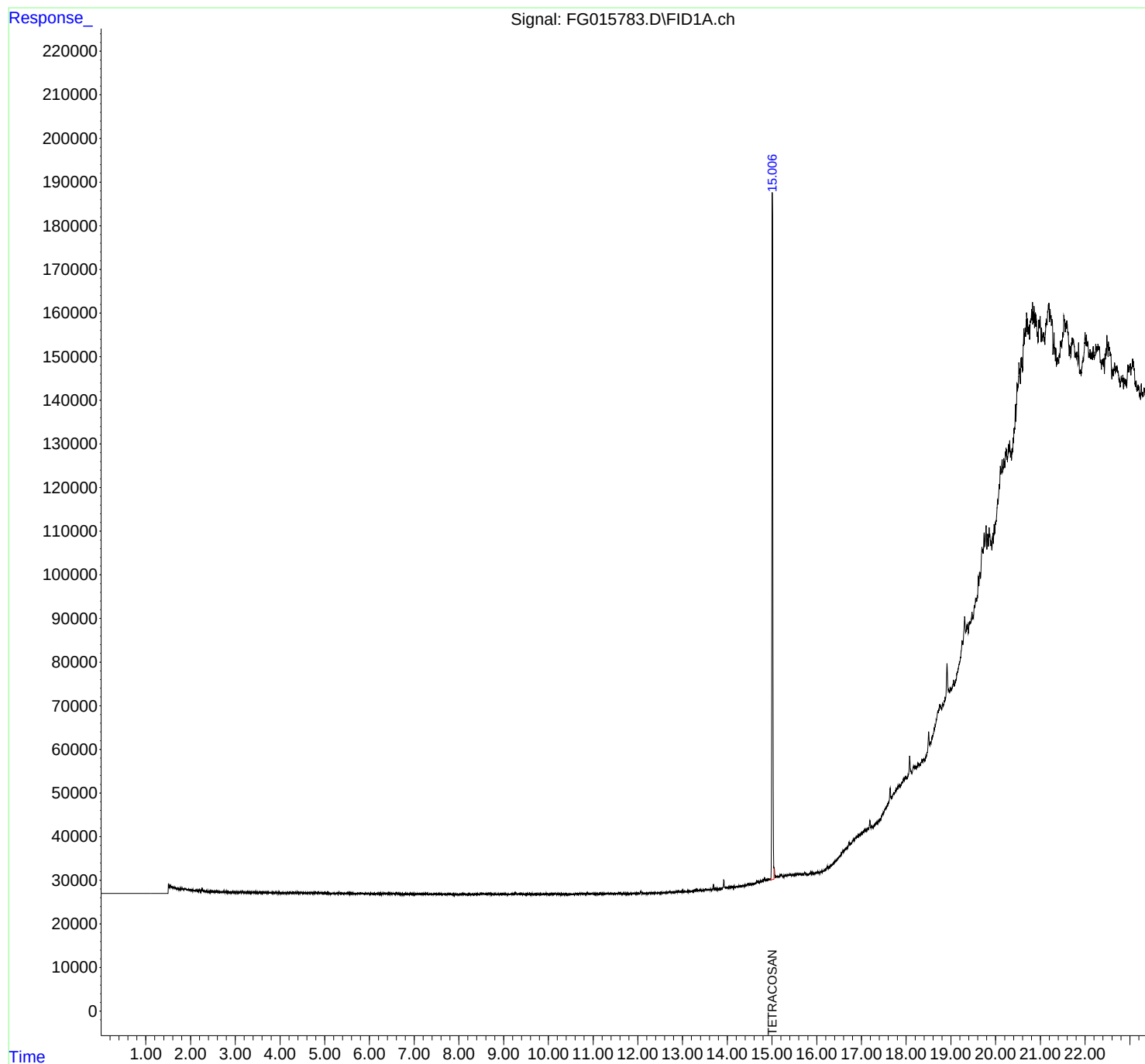
Instrument :
FID_G
ClientSampleId :
I.BLK

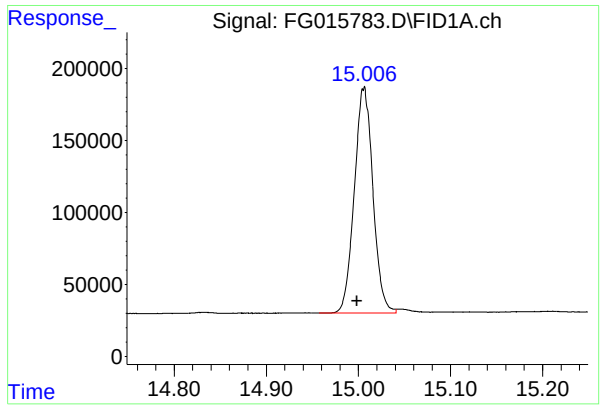
Manual Integrations
APPROVED

Reviewed By :Yogesh Patel 05/08/2025
Supervised By :mohammad ahmed 05/09/2025

Integration File: autoint1.e
Quant Time: May 08 06:35:43 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG042425.M
Quant Title :
QLast Update : Thu Apr 24 12:54:09 2025
Response via : Initial Calibration
Integrator: ChemStation

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





#9 TETRACOSANE-d50 (SURROGATE)

R.T.: 15.006 min
Delta R.T.: 0.008 min
Response: 2202248
Conc: 18.70 ug/ml

Instrument :

FID_G

ClientSampleId :

I.BLK

Manual Integrations

APPROVED

Reviewed By :Yogesh Patel 05/08/2025

Supervised By :mohammad ahmed 05/09/2025

rteres

Instrument :
FID_G
LabSampleId :
I.BLK

Area Percent Report

Manual IntegrationsAPPROVED

Reviewed By :Yogesh Patel 05/08/2025
Supervised By :mohammad ahmed 05/09/2025

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG05072
Data File : FG015783.D
Signal(s) : FID1A.ch
Acq On : 07 May 2025 10:46
Sample : I.BLK
Misc :
ALS Vial : 2 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG042425.M
Title :

Signal : FID1A.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	15.006	14.955	15.079	BB	155992	2215727	100.00%	100.000%
Sum of corrected areas:						2215727		

FG042425.M Thu May 08 07:13:44 2025

Report of Analysis

Client:	Saxton Falls Sand and Gravel Co. Inc.	Date Collected:	05/07/25
Project:	Stan Hope	Date Received:	05/07/25
Client Sample ID:	PIBLK-FG015796.D	SDG No.:	Q1937
Lab Sample ID:	I.BLK-FG015796.D	Matrix:	Water
Analytical Method:	8015D TPH	% Solid:	0
Sample Wt/Vol:	1000 Units: mL	Decanted:	
Soil Aliquot Vol:	uL	Final Vol:	1 mL
Extraction Type:		Test:	TPH GC
GPC Factor :	PH :	Injection Volume :	
Prep Method :	SW3510		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
FG015796.D	1		05/07/25	FG050725

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
PHC	Petroleum Hydrocarbons	12.0	U	12.0	85.0	ug/L
SURROGATES						
16416-32-3	TETRACOSANE-d50	18.2		29 - 130	91%	SPK: 20

Comments:

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

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

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG050725\
Data File : FG015796.D
Signal(s) : FID1A.ch
Acq On : 07 May 2025 17:39
Operator : YP\AJ
Sample : I.BLK
Misc :
ALS Vial : 2 Sample Multiplier: 1

Instrument :
FID_G
ClientSampleId :
I.BLK

Integration File: autoint1.e
Quant Time: May 08 06:39:47 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG042425.M
Quant Title :
QLast Update : Thu Apr 24 12:54:09 2025
Response via : Initial Calibration
Integrator: ChemStation

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

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
9) S TETRACOSANE-d50 (SURR...	15.008	2142571	18.198 ug/ml
Target Compounds			

(f)=RT Delta > 1/2 Window

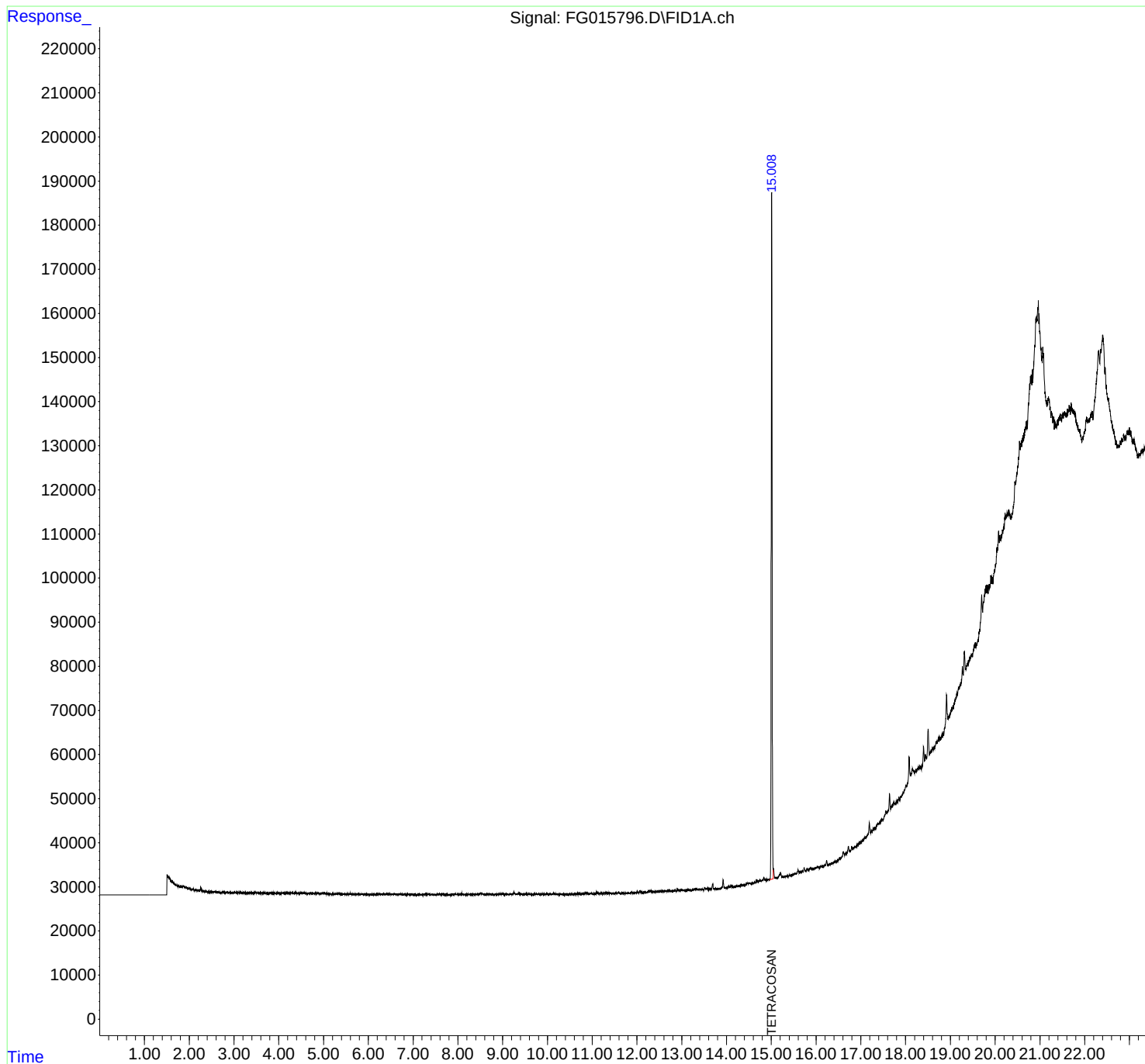
(m)=manual int.

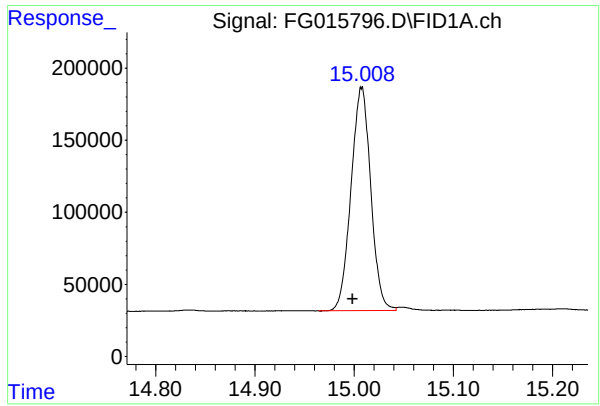
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG050725\
Data File : FG015796.D
Signal(s) : FID1A.ch
Acq On : 07 May 2025 17:39
Operator : YP\AJ
Sample : I.BLK
Misc :
ALS Vial : 2 Sample Multiplier: 1

Instrument :
FID_G
ClientSampleId :
I.BLK

Integration File: autoint1.e
Quant Time: May 08 06:39:47 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG042425.M
Quant Title :
QLast Update : Thu Apr 24 12:54:09 2025
Response via : Initial Calibration
Integrator: ChemStation

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





#9 TETRACOSANE-d50 (SURROGATE)

R.T.: 15.008 min
Delta R.T.: 0.009 min
Response: 2142571
Conc: 18.20 ug/ml

Instrument :
FID_G
ClientSampleId :
I.BLK

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG050725\
Data File : FG015796.D
Signal(s) : FID1A.ch
Acq On : 07 May 2025 17:39
Sample : I.BLK
Misc :
ALS Vial : 2 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG042425.M
Title :

Signal : FID1A.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	15.008	14.965	15.042	BV	154480	2142571	100.00%	100.000%
Sum of corrected areas:						2142571		

FG042425.M Thu May 08 07:17:24 2025

Report of Analysis

Client:	Saxton Falls Sand and Gravel Co. Inc.	Date Collected:	
Project:	Stan Hope	Date Received:	
Client Sample ID:	PB167887BS	SDG No.:	Q1937
Lab Sample ID:	PB167887BS	Matrix:	SOIL
Analytical Method:	8015D TPH	% Solid:	100
Sample Wt/Vol:	30.03	Units:	g
Soil Aliquot Vol:			uL
Extraction Type:		Final Vol:	1
GPC Factor :		Test:	TPH GC
Prep Method :	SW3541	Injection Volume :	

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
FF015797.D	1	05/07/25 09:00	05/07/25 13:16	PB167887

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
PHC	Petroleum Hydrocarbons	11200		384	2830	ug/kg
SURROGATES						
16416-32-3	TETRACOSANE-d50	17.8		37 - 130	89%	SPK: 20

Comments:

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

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

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF050725\
 Data File : FF015797.D
 Signal(s) : FID2B.ch
 Acq On : 07 May 2025 13:16
 Operator : YP\AJ
 Sample : PB167887BS
 Misc :
 ALS Vial : 72 Sample Multiplier: 1

Instrument :
 FID_F
 ClientSampleId :
 PB167887BS

Integration File: autoint1.e
 Quant Time: May 08 05:35:31 2025
 Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF042225.M
 Quant Title :
 QLast Update : Tue Apr 22 11:27:50 2025
 Response via : Initial Calibration
 Integrator: ChemStation

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

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
9) S TETRACOSANE-d50 (SURR...	15.019	2004447	17.762 ug/ml
Target Compounds			
1) N-OCTANE	2.026	2020750	17.825 ug/ml
2) N-DECANE	4.564	2055625	20.144 ug/ml
3) N-DODECANE	6.731	2113939	19.306 ug/ml
4) N-TETRADECANE	8.559	2129234	18.448 ug/ml
5) N-HEXADECANE	10.166	2125826	18.013 ug/ml
6) N-OCTADECANE	11.609	2213815	17.598 ug/ml
7) N-EICOSANE	12.920	2285256	17.517 ug/ml
8) N-DOCOSANE	14.119	2234340	17.541 ug/ml
10) N-TETRACOSANE	15.223	2244989	17.847 ug/ml
11) N-HEXACOSANE	16.245	2223179	18.238 ug/ml
12) N-OCTACOSANE	17.196	2200437	18.596 ug/ml
13) N-TRIACONTANE	18.084	2217798	18.817 ug/ml
14) N-DOTRIACONTANE	18.917	2321371	20.376 ug/ml
15) N-TETRATRIACONTANE	19.701	2048487	20.533 ug/ml
16) N-HEXATRIACONTANE	20.441	1915038	24.003 ug/ml
17) N-OCTATRIACONTANE	21.176	1787753	31.482 ug/ml
18) N-TETRACONTANE	22.086	1958029	48.150 ug/ml

(f)=RT Delta > 1/2 Window

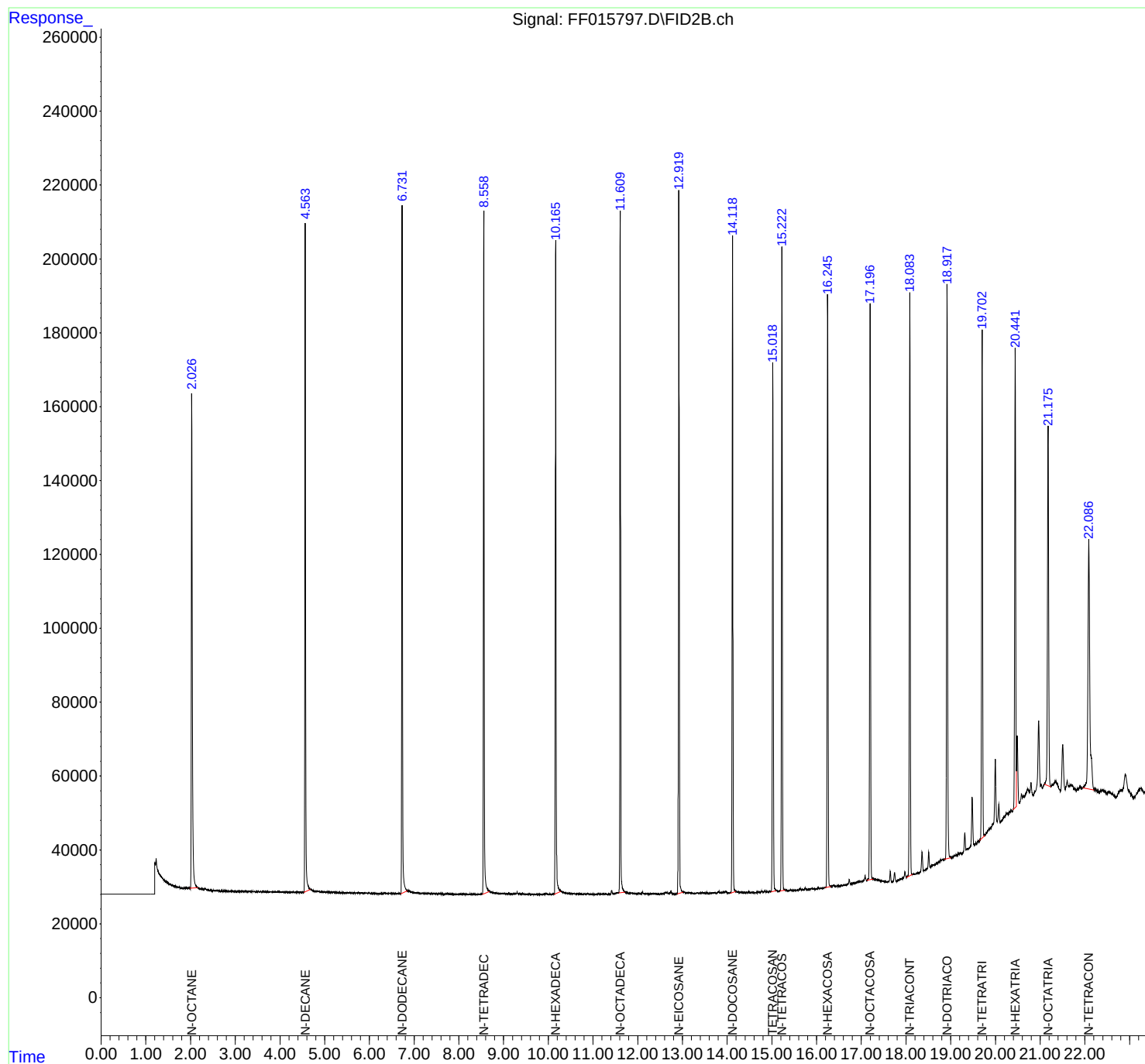
(m)=manual int.

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF050725\
Data File : FF015797.D
Signal(s) : FID2B.ch
Acq On : 07 May 2025 13:16
Operator : YP\AJ
Sample : PB167887BS
Misc :
ALS Vial : 72 Sample Multiplier: 1

Instrument :
FID_F
ClientSampleId :
PB167887BS

Integration File: autoint1.e
Quant Time: May 08 05:35:31 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF042225.M
Quant Title :
QLast Update : Tue Apr 22 11:27:50 2025
Response via : Initial Calibration
Integrator: ChemStation

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



rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF050725\
 Data File : FF015797.D
 Signal(s) : FID2B.ch
 Acq On : 07 May 2025 13:16
 Sample : PB167887BS
 Misc :
 ALS Vial : 72 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF042225.M
 Title :

Signal : FID2B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	2.026	1.980	2.157	BB	133917	2020750	87.05%	5.304%
2	4.564	4.532	4.679	BB	180938	2055625	88.55%	5.395%
3	6.731	6.699	6.850	BB	186088	2113939	91.06%	5.548%
4	8.559	8.529	8.687	BB	184645	2129234	91.72%	5.588%
5	10.166	10.130	10.280	BB	177163	2125826	91.58%	5.580%
6	11.609	11.575	11.717	BB	184445	2213815	95.37%	5.810%
7	12.920	12.884	13.015	BB	189857	2285256	98.44%	5.998%
8	14.119	14.079	14.194	BB	177505	2234340	96.25%	5.864%
9	15.019	14.979	15.094	BB	143111	2004447	86.35%	5.261%
10	15.223	15.184	15.294	BB	174391	2244989	96.71%	5.892%
11	16.245	16.185	16.319	BB	160025	2223179	95.77%	5.835%
12	17.196	17.120	17.267	BB	155163	2200437	94.79%	5.775%
13	18.084	18.015	18.145	BB	157844	2217798	95.54%	5.821%
14	18.917	18.859	19.002	BB	155222	2321371	100.00%	6.093%
15	19.701	19.640	19.762	BB	138004	2048487	88.24%	5.377%
16	20.441	20.390	20.468	BV	123542	1915038	82.50%	5.026%
17	21.176	21.090	21.240	BV	97318	1787753	77.01%	4.692%
18	22.086	21.960	22.210	BV	67540	1958029	84.35%	5.139%
Sum of corrected areas:							38100313	

FF042225.M Thu May 08 05:57:16 2025

Report of Analysis

Client:	Saxton Falls Sand and Gravel Co. Inc.	Date Collected:	05/01/25
Project:	Stan Hope	Date Received:	05/01/25
Client Sample ID:	SMALL-PILE-AMS	SDG No.:	Q1937
Lab Sample ID:	Q1936-01MS	Matrix:	SOIL
Analytical Method:	8015D TPH	% Solid:	90.8
Sample Wt/Vol:	30.06	Units:	g
Soil Aliquot Vol:			uL
Extraction Type:		Test:	TPH GC
GPC Factor :		Injection Volume :	
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
FF015799.D	1	05/07/25 09:00	05/07/25 14:14	PB167887

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
PHC	Petroleum Hydrocarbons	12600		422	3110	ug/kg
SURROGATES						
16416-32-3	TETRACOSANE-d50	7.95		37 - 130	40%	SPK: 20

Comments:

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

P = Indicates >25% difference for detected concentrations between the two GC columns

Q = indicates LCS control criteria did not meet requirements

M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

* = Values outside of QC limits

D = Dilution

S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.

() = Laboratory InHouse Limit

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF050725\
 Data File : FF015799.D
 Signal(s) : FID2B.ch
 Acq On : 07 May 2025 14:14
 Operator : YP\AJ
 Sample : Q1936-01MS
 Misc :
 ALS Vial : 74 Sample Multiplier: 1

Instrument :
 FID_F
 ClientSampleId :
 SMALL-PILE-AMS

Manual Integrations
 APPROVED

Reviewed By :Yogesh Patel 05/08/2025
 Supervised By :mohammad ahmed 05/09/2025

Integration File: autoint1.e
 Quant Time: May 08 05:37:15 2025
 Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF042225.M
 Quant Title :
 QLast Update : Tue Apr 22 11:27:50 2025
 Response via : Initial Calibration
 Integrator: ChemStation

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

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
9) S TETRACOSANE-d50 (SURR...	15.018	897685	7.955 ug/ml
Target Compounds			
1) N-OCTANE	2.028	1475763	13.018 ug/ml
2) N-DECANE	4.565	1596942	15.649 ug/ml
3) N-DODECANE	6.732	1710321	15.620 ug/ml
4) N-TETRADECANE	8.558	1689403	14.637 ug/ml
5) N-HEXADECANE	10.165	1813192	15.364 ug/ml
6) N-OCTADECANE	11.609	1845067	14.667 ug/ml
7) N-EICOSANE	12.919	1853836	14.210 ug/ml
8) N-DOCOSANE	14.118	1868903	14.672 ug/ml
10) N-TETRACOSANE	15.221	1867834	14.849 ug/ml
11) N-HEXACOSANE	16.244	1847308	15.155 ug/ml
12) N-OCTACOSANE	17.194	1792889	15.152 ug/ml
13) N-TRIACONTANE	18.083	1765479	14.980 ug/ml
14) N-DOTRIACONTANE	18.915	1480375	12.994 ug/ml
15) N-TETRATRIACONTANE	19.699	883174	8.852 ug/ml
16) N-HEXATRIACONTANE	20.440	565995	7.094 ug/ml
17) N-OCTATRIACONTANE	21.174	441781	7.780 ug/mlm
18) N-TETRACONTANE	22.085	422995	10.402 ug/mlm

(f)=RT Delta > 1/2 Window

(m)=manual int.

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF050725\
Data File : FF015799.D
Signal(s) : FID2B.ch
Acq On : 07 May 2025 14:14
Operator : YP\AJ
Sample : Q1936-01MS
Misc :
ALS Vial : 74 Sample Multiplier: 1

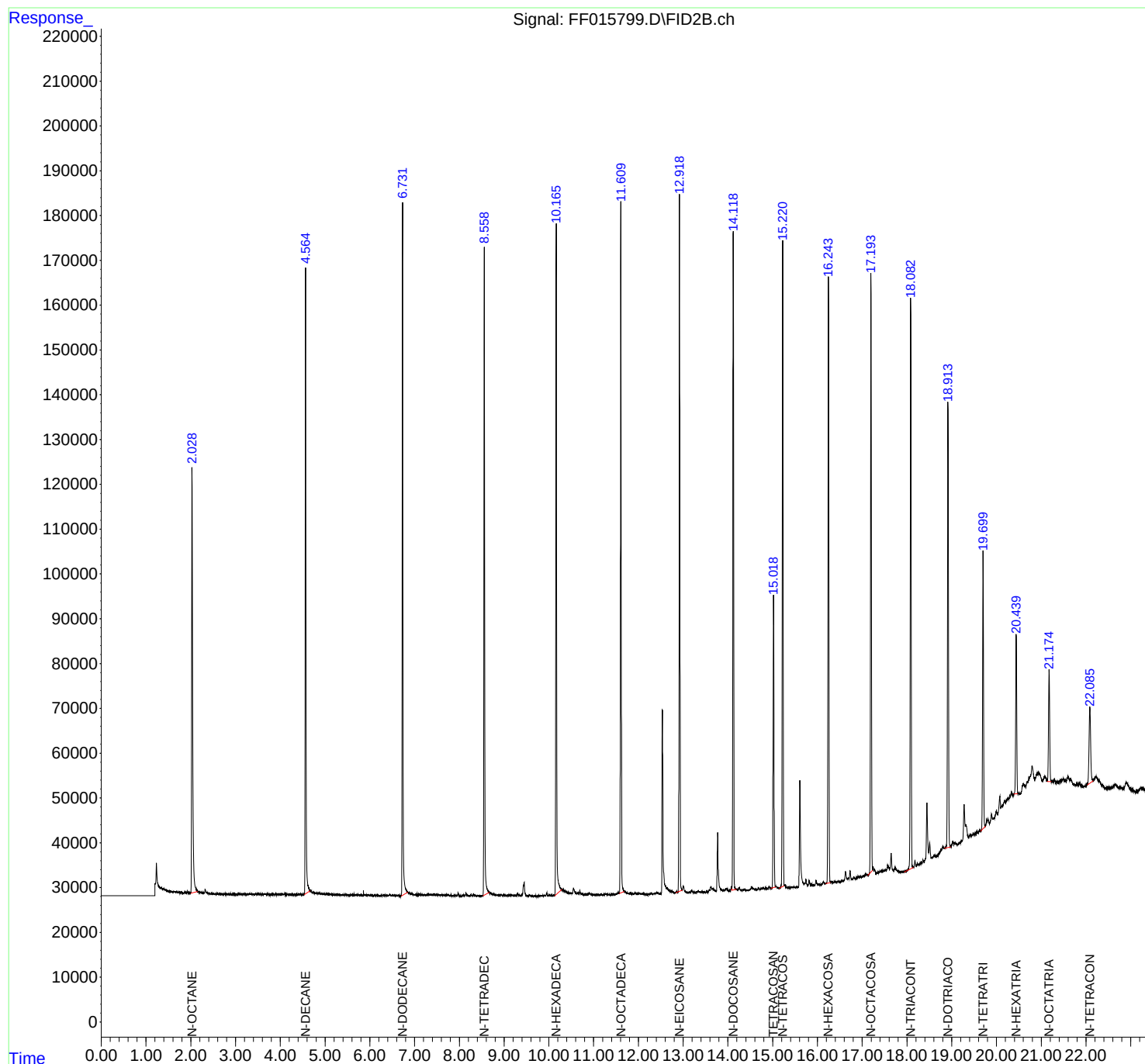
Instrument :
FID_F
ClientSampleId :
SMALL-PILE-AMS

Manual Integrations
APPROVED

Reviewed By :Yogesh Patel 05/08/2025
Supervised By :mohammad ahmed 05/09/2025

Integration File: autoint1.e
Quant Time: May 08 05:37:15 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF042225.M
Quant Title :
QLast Update : Tue Apr 22 11:27:50 2025
Response via : Initial Calibration
Integrator: ChemStation

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



rteres

Instrument :

FID_F

ClientSampleId :

SMALL-PILE-AMS

Area Percent Report

Manual IntegrationsAPPROVED

Reviewed By :Yogesh Patel 05/08/2025

Supervised By :mohammad ahmed 05/09/2025

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF05072
Data File : FF015799.D
Signal(s) : FID2B.ch
Acq On : 07 May 2025 14:14
Sample : Q1936-01MS
Misc :
ALS Vial : 74 Sample Multiplier: 1

Integration File: Sample.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF042225.M
Title :

Signal : FID2B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	2.028	2.000	2.186	BV	94935	1499564	75.85%	3.978%
2	2.191	2.186	2.207	VV	308	3163	0.16%	0.008%
3	2.215	2.207	2.230	VV	290	3052	0.15%	0.008%
4	2.238	2.230	2.272	VV	264	4980	0.25%	0.013%
5	2.274	2.272	2.284	VV	207	1160	0.06%	0.003%
6	2.288	2.284	2.302	VV	221	1477	0.07%	0.004%
7	2.323	2.302	2.347	VV	928	14205	0.72%	0.038%
8	2.351	2.347	2.390	VV	344	6117	0.31%	0.016%
9	2.395	2.390	2.415	VV	196	1652	0.08%	0.004%
10	2.419	2.415	2.427	VV	150	584	0.03%	0.002%
11	2.431	2.427	2.450	VV	118	924	0.05%	0.002%
12	2.455	2.450	2.462	VV	106	453	0.02%	0.001%
13	2.466	2.462	2.473	VV	131	449	0.02%	0.001%
14	2.480	2.473	2.483	VV	76	477	0.02%	0.001%
15	2.490	2.483	2.508	VV	121	1280	0.06%	0.003%
16	2.539	2.508	2.576	VV	124	3246	0.16%	0.009%
17	2.579	2.576	2.583	VV	122	384	0.02%	0.001%
18	2.589	2.583	2.612	VV	122	1557	0.08%	0.004%
19	2.616	2.612	2.640	VV	141	1473	0.07%	0.004%
20	2.653	2.640	2.665	PV	139	1389	0.07%	0.004%
21	2.673	2.665	2.691	VV	145	1304	0.07%	0.003%
22	2.708	2.691	2.721	VV	132	1632	0.08%	0.004%
23	2.725	2.721	2.733	VV	100	584	0.03%	0.002%
24	2.750	2.733	2.759	VV	160	1528	0.08%	0.004%
25	2.768	2.759	2.787	VV	129	1625	0.08%	0.004%
26	2.791	2.787	2.798	VV	177	804	0.04%	0.002%
27	2.801	2.798	2.807	VV	145	597	0.03%	0.002%
28	2.811	2.807	2.815	VV	129	494	0.02%	0.001%
29	2.820	2.815	2.833	VV	159	1083	0.05%	0.003%
30	2.841	2.833	2.859	VV	174	1896	0.10%	0.005%
31	2.867	2.859	2.882	VV	179	1522	0.08%	0.004%
32	2.884	2.882	2.894	VV	199	852	0.04%	0.002%
33	2.901	2.894	2.920	VV	167	1802	0.09%	0.005%
34	2.926	2.920	2.934	VV	194	1213	0.06%	0.003%
35	2.939	2.934	2.945	VV	140	761	0.04%	0.002%
36	2.953	2.945	2.963	VV	168	1278	0.06%	0.003%

37	2.965	2.963	2.977	VV	160	808	0.04%	0.002%
38	2.984	2.977	2.994	PV	189	1228		
39	2.998	2.994	3.008	VV	153	1245		
40	3.013	3.008	3.025	VV	164	1308		
41	3.029	3.025	3.041	VV	199	1349		
42	3.045	3.041	3.062	VV	155	1655		
43	3.074	3.062	3.096	VV	197	3084	0.16%	0.008%
44	3.098	3.096	3.109	VV	171	1198	0.06%	0.003%
45	3.124	3.109	3.139	VV	216	2975	0.15%	0.008%
46	3.142	3.139	3.156	VV	236	1677	0.08%	0.004%
47	3.161	3.156	3.178	VV	219	2078	0.11%	0.006%
48	3.180	3.178	3.194	VV	189	1240	0.06%	0.003%
49	3.205	3.194	3.211	VV	167	1459	0.07%	0.004%
50	3.213	3.211	3.225	VV	223	1324	0.07%	0.004%
51	3.238	3.225	3.249	VV	174	2151	0.11%	0.006%
52	3.263	3.249	3.279	VV	196	2782	0.14%	0.007%
53	3.285	3.279	3.295	VV	198	1571	0.08%	0.004%
54	3.297	3.295	3.317	VV	218	2233	0.11%	0.006%
55	3.334	3.317	3.350	VV	266	3431	0.17%	0.009%
56	3.354	3.350	3.360	VV	177	1006	0.05%	0.003%
57	3.363	3.360	3.368	VV	237	779	0.04%	0.002%
58	3.376	3.368	3.397	VV	217	2532	0.13%	0.007%
59	3.400	3.397	3.405	VV	166	846	0.04%	0.002%
60	3.422	3.405	3.448	VV	225	4498	0.23%	0.012%
61	3.452	3.448	3.465	VV	239	1995	0.10%	0.005%
62	3.471	3.465	3.479	VV	217	1562	0.08%	0.004%
63	3.483	3.479	3.508	VV	209	2940	0.15%	0.008%
64	3.514	3.508	3.541	VV	237	3608	0.18%	0.010%
65	3.544	3.541	3.551	VV	232	1152	0.06%	0.003%
66	3.558	3.551	3.562	VV	180	1097	0.06%	0.003%
67	3.574	3.562	3.580	VV	257	2124	0.11%	0.006%
68	3.589	3.580	3.597	VV	230	1764	0.09%	0.005%
69	3.632	3.597	3.648	VV	251	5758	0.29%	0.015%
70	3.651	3.648	3.667	VV	192	1879	0.10%	0.005%
71	3.670	3.667	3.681	VV	205	1481	0.07%	0.004%
72	3.700	3.681	3.720	VV	277	4333	0.22%	0.011%
73	3.737	3.720	3.754	VV	181	3255	0.16%	0.009%
74	3.757	3.754	3.790	VV	206	3339	0.17%	0.009%
75	3.796	3.790	3.803	VV	205	1309	0.07%	0.003%
76	3.811	3.803	3.827	VV	189	2091	0.11%	0.006%
77	3.829	3.827	3.834	VV	203	620	0.03%	0.002%
78	3.844	3.834	3.849	VV	217	1355	0.07%	0.004%
79	3.856	3.849	3.875	VV	206	2681	0.14%	0.007%
80	3.886	3.875	3.890	VV	217	1529	0.08%	0.004%
81	3.898	3.890	3.905	VV	238	1591	0.08%	0.004%
82	3.911	3.905	3.923	VV	233	1667	0.08%	0.004%
83	3.932	3.923	3.969	VV	230	4838	0.24%	0.013%
84	3.973	3.969	3.976	VV	183	737	0.04%	0.002%
85	4.003	3.976	4.027	VV	243	5885	0.30%	0.016%
86	4.032	4.027	4.049	VV	197	2245	0.11%	0.006%
87	4.056	4.049	4.077	VV	213	2719	0.14%	0.007%
88	4.084	4.077	4.091	VV	229	1411	0.07%	0.004%
89	4.100	4.091	4.109	VV	232	1952	0.10%	0.005%

Instrument :

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SMALL-PILE-AMS

Manual IntegrationsAPPROVED

Reviewed By :Yogesh Patel 05/08/2025

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90	4.112	4.109	4.118	VV	236	1148	0.06%	0.003%
91	4.128	4.118	4.132	VV	233	1644		
92	4.136	4.132	4.139	VV	189	766		
93	4.143	4.139	4.158	VV	234	2127		
94	4.166	4.158	4.219	VV	212	6495		
95	4.225	4.219	4.230	VV	203	1225		
96	4.235	4.230	4.244	VV	237	1498	0.08%	0.004%
97	4.252	4.244	4.282	VV	220	3748	0.19%	0.010%
98	4.288	4.282	4.300	VV	224	1681	0.09%	0.004%
99	4.306	4.300	4.322	VV	227	2517	0.13%	0.007%
100	4.327	4.322	4.350	VV	202	2747	0.14%	0.007%
101	4.360	4.350	4.365	VV	180	1528	0.08%	0.004%
102	4.370	4.365	4.415	VV	257	5814	0.29%	0.015%
103	4.420	4.415	4.447	VV	268	3713	0.19%	0.010%
104	4.452	4.447	4.485	VV	206	4211	0.21%	0.011%
105	4.492	4.485	4.498	VV	177	1300	0.07%	0.003%
106	4.520	4.498	4.527	VV	237	2795	0.14%	0.007%
107	4.565	4.527	4.729	VV	139652	1674119	84.67%	4.441%
108	4.733	4.729	4.746	VV	639	6176	0.31%	0.016%
109	4.749	4.746	4.754	VV	574	2640	0.13%	0.007%
110	4.756	4.754	4.770	VV	590	5223	0.26%	0.014%
111	4.777	4.770	4.796	VV	607	8623	0.44%	0.023%
112	4.801	4.796	4.823	VV	626	8419	0.43%	0.022%
113	4.827	4.823	4.846	VV	555	6275	0.32%	0.017%
114	4.857	4.846	4.927	VV	527	20389	1.03%	0.054%
115	4.937	4.927	4.956	VV	392	6197	0.31%	0.016%
116	4.960	4.956	4.974	VV	392	3825	0.19%	0.010%
117	4.979	4.974	4.985	VV	347	2093	0.11%	0.006%
118	4.990	4.985	4.994	VV	363	1638	0.08%	0.004%
119	5.026	4.994	5.038	VV	366	7959	0.40%	0.021%
120	5.056	5.038	5.124	VV	332	14369	0.73%	0.038%
121	5.127	5.124	5.159	VV	279	5406	0.27%	0.014%
122	5.171	5.159	5.179	VV	249	2820	0.14%	0.007%
123	5.188	5.179	5.201	VV	276	3118	0.16%	0.008%
124	5.221	5.201	5.237	VV	295	4964	0.25%	0.013%
125	5.248	5.237	5.267	VV	265	4277	0.22%	0.011%
126	5.290	5.267	5.310	VV	273	5929	0.30%	0.016%
127	5.317	5.310	5.370	VV	283	7074	0.36%	0.019%
128	5.377	5.370	5.397	VV	215	2768	0.14%	0.007%
129	5.425	5.397	5.447	VV	239	5596	0.28%	0.015%
130	5.453	5.447	5.468	VV	188	2135	0.11%	0.006%
131	5.479	5.468	5.509	VV	202	3765	0.19%	0.010%
132	5.514	5.509	5.531	VV	207	1988	0.10%	0.005%
133	5.542	5.531	5.572	VV	158	3559	0.18%	0.009%
134	5.580	5.572	5.611	VV	201	3664	0.19%	0.010%
135	5.618	5.611	5.635	VV	179	2083	0.11%	0.006%
136	5.643	5.635	5.664	VV	311	2397	0.12%	0.006%
137	5.672	5.664	5.707	VV	163	3439	0.17%	0.009%
138	5.744	5.707	5.769	VV	191	5142	0.26%	0.014%
139	5.795	5.769	5.804	VV	228	3418	0.17%	0.009%
140	5.814	5.804	5.834	VV	202	2631	0.13%	0.007%
141	5.859	5.834	5.897	VV	796	6803	0.34%	0.018%

Instrument :

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SMALL-PILE-AMS

0.06% 0.003%

Manual IntegrationsAPPROVED

Reviewed By :Yogesh Patel 05/08/2025

Supervised By :mohammad ahmed 05/09/2025

					rters			
142	5.904	5.897	5.913	VV	169	1440	0.07%	0.004%
143	5.930	5.913	5.952	VV	197	3336		
144	5.974	5.952	6.000	VV	201	3690		
145	6.020	6.000	6.082	VV	191	6488		
146	6.100	6.082	6.135	VV	155	3629		
147	6.144	6.135	6.152	VV	149	1142		
148	6.176	6.152	6.194	VV	122	2457	0.12%	0.007%
149	6.201	6.194	6.237	VV	114	2458	0.12%	0.007%
150	6.248	6.237	6.267	VV	131	1837	0.09%	0.005%
151	6.314	6.267	6.364	VV	181	7054	0.36%	0.019%
152	6.377	6.364	6.385	VV	150	1467	0.07%	0.004%
153	6.415	6.385	6.426	VV	183	3307	0.17%	0.009%
154	6.444	6.426	6.492	VV	320	6514	0.33%	0.017%
155	6.527	6.492	6.549	VV	168	4032	0.20%	0.011%
156	6.556	6.549	6.575	VV	147	1305	0.07%	0.003%
157	6.625	6.575	6.638	VV	165	3149	0.16%	0.008%
158	6.650	6.638	6.682	VV	159	2072	0.10%	0.005%
159	6.694	6.682	6.700	VV	57	651	0.03%	0.002%
160	6.732	6.700	7.044	PV	154565	1810365	91.57%	4.802%
161	7.060	7.044	7.085	VV	568	9858	0.50%	0.026%
162	7.101	7.085	7.155	VV	481	13178	0.67%	0.035%
163	7.272	7.155	7.286	VV	402	23158	1.17%	0.061%
164	7.297	7.286	7.320	VV	349	7455	0.38%	0.020%
165	7.330	7.320	7.359	VV	406	8114	0.41%	0.022%
166	7.377	7.359	7.404	VV	396	9010	0.46%	0.024%
167	7.414	7.404	7.447	VV	368	8450	0.43%	0.022%
168	7.454	7.447	7.504	VV	356	10546	0.53%	0.028%
169	7.521	7.504	7.569	VV	317	10388	0.53%	0.028%
170	7.571	7.569	7.582	VV	272	1878	0.10%	0.005%
171	7.591	7.582	7.655	VV	368	11619	0.59%	0.031%
172	7.698	7.655	7.802	VV	397	22483	1.14%	0.060%
173	7.818	7.802	7.843	VV	342	4487	0.23%	0.012%
174	7.849	7.843	7.855	VV	203	1137	0.06%	0.003%
175	7.865	7.855	7.904	VV	189	4308	0.22%	0.011%
176	7.920	7.904	7.938	VV	155	2001	0.10%	0.005%
177	7.972	7.938	8.024	VV	670	12938	0.65%	0.034%
178	8.030	8.024	8.059	VV	147	2418	0.12%	0.006%
179	8.099	8.059	8.126	VV	345	7921	0.40%	0.021%
180	8.148	8.126	8.200	VV	761	14509	0.73%	0.038%
181	8.214	8.200	8.238	VV	150	2739	0.14%	0.007%
182	8.258	8.238	8.288	VV	347	6430	0.33%	0.017%
183	8.313	8.288	8.392	VV	496	12296	0.62%	0.033%
184	8.416	8.392	8.451	VV	127	2649	0.13%	0.007%
185	8.477	8.451	8.504	PV	119	2858	0.14%	0.008%
186	8.558	8.504	8.737	VV	144897	1761335	89.09%	4.672%
187	8.744	8.737	8.871	VV	583	29212	1.48%	0.077%
188	8.890	8.871	8.906	VV	243	5094	0.26%	0.014%
189	8.933	8.906	8.985	VV	410	12009	0.61%	0.032%
190	9.003	8.985	9.024	VV	312	5377	0.27%	0.014%
191	9.031	9.024	9.057	VV	217	3456	0.17%	0.009%
192	9.082	9.057	9.091	VV	254	4297	0.22%	0.011%
193	9.101	9.091	9.132	VV	269	5373	0.27%	0.014%
194	9.155	9.132	9.183	VV	296	7129	0.36%	0.019%

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SMALL-PILE-AMS

Manual IntegrationsAPPROVED

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195	9.192	9.183	9.269	VV	241	9489	0.48%	0.025%
196	9.300	9.269	9.377	VV	669	18157		
197	9.397	9.377	9.409	VV	375	5510		
198	9.449	9.409	9.542	VV	3072	76538		
199	9.570	9.542	9.605	VV	344	6819		
200	9.616	9.605	9.657	VV	106	1624		
201	9.667	9.657	9.709	VV	100	1885	0.10%	0.005%
202	9.714	9.709	9.733	VV	138	569	0.03%	0.002%
203	9.765	9.733	9.800	PV	184	3236	0.16%	0.009%
204	9.816	9.800	9.832	VV	235	2241	0.11%	0.006%
205	9.835	9.832	9.856	VV	127	1329	0.07%	0.004%
206	9.904	9.856	9.929	VV	236	5754	0.29%	0.015%
207	9.951	9.929	9.982	VV	602	9604	0.49%	0.025%
208	10.007	9.982	10.030	VV	377	5333	0.27%	0.014%
209	10.038	10.030	10.057	VV	116	1610	0.08%	0.004%
210	10.062	10.057	10.079	VV	179	1186	0.06%	0.003%
211	10.106	10.079	10.126	VV	219	3857	0.20%	0.010%
212	10.165	10.126	10.434	VV	149431	1977115	100.00%	5.244%
213	10.437	10.434	10.494	VV	701	21267	1.08%	0.056%
214	10.506	10.494	10.527	VV	640	11553	0.58%	0.031%
215	10.551	10.527	10.638	VV	1642	58216	2.94%	0.154%
216	10.662	10.638	10.672	VV	562	10020	0.51%	0.027%
217	10.694	10.672	10.795	VV	1126	32951	1.67%	0.087%
218	10.833	10.795	10.859	VV	285	9492	0.48%	0.025%
219	10.882	10.859	10.896	VV	407	7171	0.36%	0.019%
220	10.911	10.896	10.955	VV	551	11475	0.58%	0.030%
221	10.980	10.955	11.002	VV	265	5629	0.28%	0.015%
222	11.012	11.002	11.025	VV	155	1796	0.09%	0.005%
223	11.064	11.025	11.109	VV	233	7685	0.39%	0.020%
224	11.125	11.109	11.143	VV	203	2864	0.14%	0.008%
225	11.159	11.143	11.207	VV	193	4310	0.22%	0.011%
226	11.279	11.207	11.339	VV	331	14847	0.75%	0.039%
227	11.366	11.339	11.399	VV	188	4630	0.23%	0.012%
228	11.423	11.399	11.452	VV	269	5545	0.28%	0.015%
229	11.550	11.452	11.575	VV	528	22216	1.12%	0.059%
230	11.609	11.575	11.685	VV	155099	1882111	95.19%	4.992%
231	11.694	11.685	11.761	VV	916	26289	1.33%	0.070%
232	11.769	11.761	11.779	VV	375	3714	0.19%	0.010%
233	11.789	11.779	11.807	VV	360	5521	0.28%	0.015%
234	11.812	11.807	11.834	VV	350	4764	0.24%	0.013%
235	11.854	11.834	11.885	VV	288	7460	0.38%	0.020%
236	11.924	11.885	11.987	VV	394	16098	0.81%	0.043%
237	12.014	11.987	12.040	VV	400	8656	0.44%	0.023%
238	12.061	12.040	12.087	VV	269	6042	0.31%	0.016%
239	12.104	12.087	12.159	VV	363	6725	0.34%	0.018%
240	12.165	12.159	12.203	PV	59	814	0.04%	0.002%
241	12.241	12.203	12.252	PV	123	1448	0.07%	0.004%
242	12.284	12.252	12.315	VV	352	6731	0.34%	0.018%
243	12.324	12.315	12.332	VV	129	1131	0.06%	0.003%
244	12.376	12.332	12.386	VV	291	6321	0.32%	0.017%
245	12.418	12.386	12.471	VV	452	12636	0.64%	0.034%
246	12.492	12.471	12.508	VV	184	2595	0.13%	0.007%

Instrument :

FID_F

ClientSampleId :

SMALL-PILE-AMS

0.48% 0.025%

Manual IntegrationsAPPROVED

Reviewed By :Yogesh Patel 05/08/2025

Supervised By :mohammad ahmed 05/09/2025

					riteres			
300	16.384	16.360	16.418	VV	264	5017	0.25%	0.013%
301	16.484	16.418	16.517	VV	145	4889		
302	16.569	16.517	16.592	PV	244	6874		
303	16.626	16.592	16.672	VV	2155	46168		
304	16.692	16.672	16.702	VV	568	9102		
305	16.728	16.702	16.777	VV	2214	36784		
306	16.814	16.777	16.855	VV	569	15058	0.76%	0.040%
307	16.897	16.855	16.918	VV	536	14266	0.72%	0.038%
308	16.954	16.918	16.980	VV	585	17309	0.88%	0.046%
309	17.029	16.980	17.039	VV	525	14599	0.74%	0.039%
310	17.083	17.039	17.130	VV	874	34702	1.76%	0.092%
311	17.194	17.130	17.230	VV	134884	1855928	93.87%	4.923%
312	17.246	17.230	17.263	VV	2168	35311	1.79%	0.094%
313	17.278	17.263	17.320	VV	1616	38539	1.95%	0.102%
314	17.441	17.320	17.465	VV	1071	76890	3.89%	0.204%
315	17.569	17.465	17.619	VV	2063	117022	5.92%	0.310%
316	17.645	17.619	17.710	VV	4683	104232	5.27%	0.276%
317	17.737	17.710	17.915	VV	1330	59289	3.00%	0.157%
318	17.974	17.915	17.995	PV	247	3124	0.16%	0.008%
319	18.083	17.995	18.124	PV	127050	1774678	89.76%	4.707%
320	18.134	18.124	18.148	VV	367	4094	0.21%	0.011%
321	18.177	18.148	18.202	VV	1559	23344	1.18%	0.062%
322	18.234	18.202	18.272	VV	502	12572	0.64%	0.033%
323	18.320	18.272	18.337	VV	493	11984	0.61%	0.032%
324	18.359	18.337	18.384	VV	820	13260	0.67%	0.035%
325	18.444	18.384	18.484	VV	13123	255025	12.90%	0.676%
326	18.506	18.484	18.546	VV	3907	75276	3.81%	0.200%
327	18.571	18.546	18.582	VV	418	7477	0.38%	0.020%
328	18.606	18.582	18.654	VV	659	18926	0.96%	0.050%
329	18.800	18.654	18.839	VV	1616	92005	4.65%	0.244%
330	18.915	18.839	18.989	VV	99319	1565559	79.18%	4.153%
331	19.021	18.989	19.055	VV	1851	53570	2.71%	0.142%
332	19.074	19.055	19.119	VV	1225	38076	1.93%	0.101%
333	19.132	19.119	19.140	VV	667	8450	0.43%	0.022%
334	19.275	19.140	19.375	VV	8855	346991	17.55%	0.920%
335	19.414	19.375	19.444	VV	1421	49697	2.51%	0.132%
336	19.483	19.444	19.497	VV	1326	37469	1.90%	0.099%
337	19.564	19.497	19.587	VV	1421	63945	3.23%	0.170%
338	19.623	19.587	19.649	VV	1559	45787	2.32%	0.121%
339	19.699	19.649	19.752	VV	63460	973226	49.22%	2.581%
340	19.780	19.752	19.795	VV	2921	62743	3.17%	0.166%
341	19.811	19.795	19.844	VV	3113	76208	3.85%	0.202%
342	19.888	19.844	19.919	VV	3797	124832	6.31%	0.331%
343	19.996	19.919	20.022	VV	3905	188847	9.55%	0.501%
344	20.073	20.022	20.100	VV	6850	222593	11.26%	0.590%
345	20.176	20.100	20.204	VV	5311	296365	14.99%	0.786%
346	20.297	20.204	20.308	VV	5881	339015	17.15%	0.899%
347	20.336	20.308	20.364	VV	6357	200771	10.15%	0.533%
348	20.440	20.364	20.477	VV	41252	954728	48.29%	2.532%
349	20.488	20.477	20.523	VV	5647	151224	7.65%	0.401%
350	20.609	20.523	20.627	VV	7008	388388	19.64%	1.030%
351	20.642	20.627	20.660	VV	6573	129985	6.57%	0.345%

Instrument :

FID_F

ClientSampleId :

SMALL-PILE-AMS

0.25% 0.013%

Manual IntegrationsAPPROVED

Reviewed By :Yogesh Patel 05/08/2025

Supervised By :mohammad ahmed 05/09/2025

					rters			
352	20.683	20.660	20.697	VV	7212	152852	7.73%	0.405%
353	20.796	20.697	20.857	VV	10146	790290	3.91%	0.141%
354	20.907	20.857	20.947	VV	8062	414923	2.02%	0.106%
355	20.958	20.947	21.030	VV	7811	340499	1.73%	0.065%
356	21.076	21.030	21.135	VV	6393	380508	1.91%	0.071%
357	21.175	21.135	21.244	VV	29869	759429	3.81%	0.141%
358	21.249	21.244	21.263	VV	4619	52981	2.68%	0.141%
359	21.294	21.263	21.324	VV	4702	159501	8.07%	0.423%
360	21.345	21.324	21.360	VV	4090	88957	4.50%	0.236%
361	21.373	21.360	21.389	VV	4010	66140	3.35%	0.175%
362	21.421	21.389	21.442	VV	4007	123617	6.25%	0.328%
363	21.489	21.442	21.539	VV	4057	216426	10.95%	0.574%
364	21.545	21.539	21.555	VV	3389	33172	1.68%	0.088%
365	21.593	21.555	21.642	VV	3988	184063	9.31%	0.488%
366	21.657	21.642	21.719	VV	3365	118844	6.01%	0.315%
367	21.732	21.719	21.761	VV	1700	39844	2.02%	0.106%
368	21.792	21.761	21.822	VV	1540	50707	2.56%	0.134%
369	21.860	21.822	21.940	VV	1300	55882	2.83%	0.148%
370	21.960	21.940	21.989	VV	157	2745	0.14%	0.007%
371	22.085	21.989	22.164	PV	17023	425053	21.50%	1.127%
Sum of corrected areas:						37701030		

Instrument :
FID_F
ClientSampleId :
SMALL-PILE-AMS

Manual IntegrationsAPPROVED

Reviewed By :Yogesh Patel 05/08/2025
Supervised By :mohammad ahmed 05/09/2025

FF042225.M Thu May 08 06:02:56 2025

Report of Analysis

Client:	Saxton Falls Sand and Gravel Co. Inc.	Date Collected:	05/01/25
Project:	Stan Hope	Date Received:	05/01/25
Client Sample ID:	SMALL-PILE-AMSD	SDG No.:	Q1937
Lab Sample ID:	Q1936-01MSD	Matrix:	SOIL
Analytical Method:	8015D TPH	% Solid:	90.8
Sample Wt/Vol:	30.04	Units:	g
Soil Aliquot Vol:			uL
Extraction Type:		Test:	TPH GC
GPC Factor :		Injection Volume :	
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
FF015800.D	1	05/07/25 09:00	05/07/25 14:44	PB167887

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
PHC	Petroleum Hydrocarbons	11900		422	3120	ug/kg
SURROGATES						
16416-32-3	TETRACOSANE-d50	7.46		37 - 130	37%	SPK: 20

Comments:

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

P = Indicates >25% difference for detected concentrations between the two GC columns

Q = indicates LCS control criteria did not meet requirements

M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

* = Values outside of QC limits

D = Dilution

S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.

() = Laboratory InHouse Limit

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF050725\
 Data File : FF015800.D
 Signal(s) : FID2B.ch
 Acq On : 07 May 2025 14:44
 Operator : YP\AJ
 Sample : Q1936-01MSD
 Misc :
 ALS Vial : 75 Sample Multiplier: 1

Instrument :
 FID_F
 ClientSampleId :
 SMALL-PILE-AMSD

Integration File: autoint1.e
 Quant Time: May 08 05:39:29 2025
 Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF042225.M
 Quant Title :
 QLast Update : Tue Apr 22 11:27:50 2025
 Response via : Initial Calibration
 Integrator: ChemStation

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

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
9) S TETRACOSANE-d50 (SURR...	15.018	841519	7.457 ug/ml
Target Compounds			
1) N-OCTANE	2.028	1363835	12.030 ug/ml
2) N-DECANE	4.564	1482575	14.529 ug/ml
3) N-DODECANE	6.731	1579816	14.428 ug/ml
4) N-TETRADECANE	8.559	1574444	13.641 ug/ml
5) N-HEXADECANE	10.166	1678552	14.223 ug/ml
6) N-OCTADECANE	11.608	1725689	13.718 ug/ml
7) N-EICOSANE	12.919	1745008	13.376 ug/ml
8) N-DOCOSANE	14.118	1763019	13.841 ug/ml
10) N-TETRACOSANE	15.221	1764010	14.024 ug/ml
11) N-HEXACOSANE	16.244	1741694	14.288 ug/ml
12) N-OCTACOSANE	17.195	1697304	14.344 ug/ml
13) N-TRIACONTANE	18.083	1673054	14.195 ug/ml
14) N-DOTRIACONTANE	18.916	1418132	12.448 ug/ml
15) N-TETRATRIACONTANE	19.699	843412	8.454 ug/ml
16) N-HEXATRIACONTANE	20.439	524036	6.568 ug/ml
17) N-OCTATRIACONTANE	21.175	422584	7.442 ug/ml
18) N-TETRACONTANE	22.084	425724	10.469 ug/ml

(f)=RT Delta > 1/2 Window

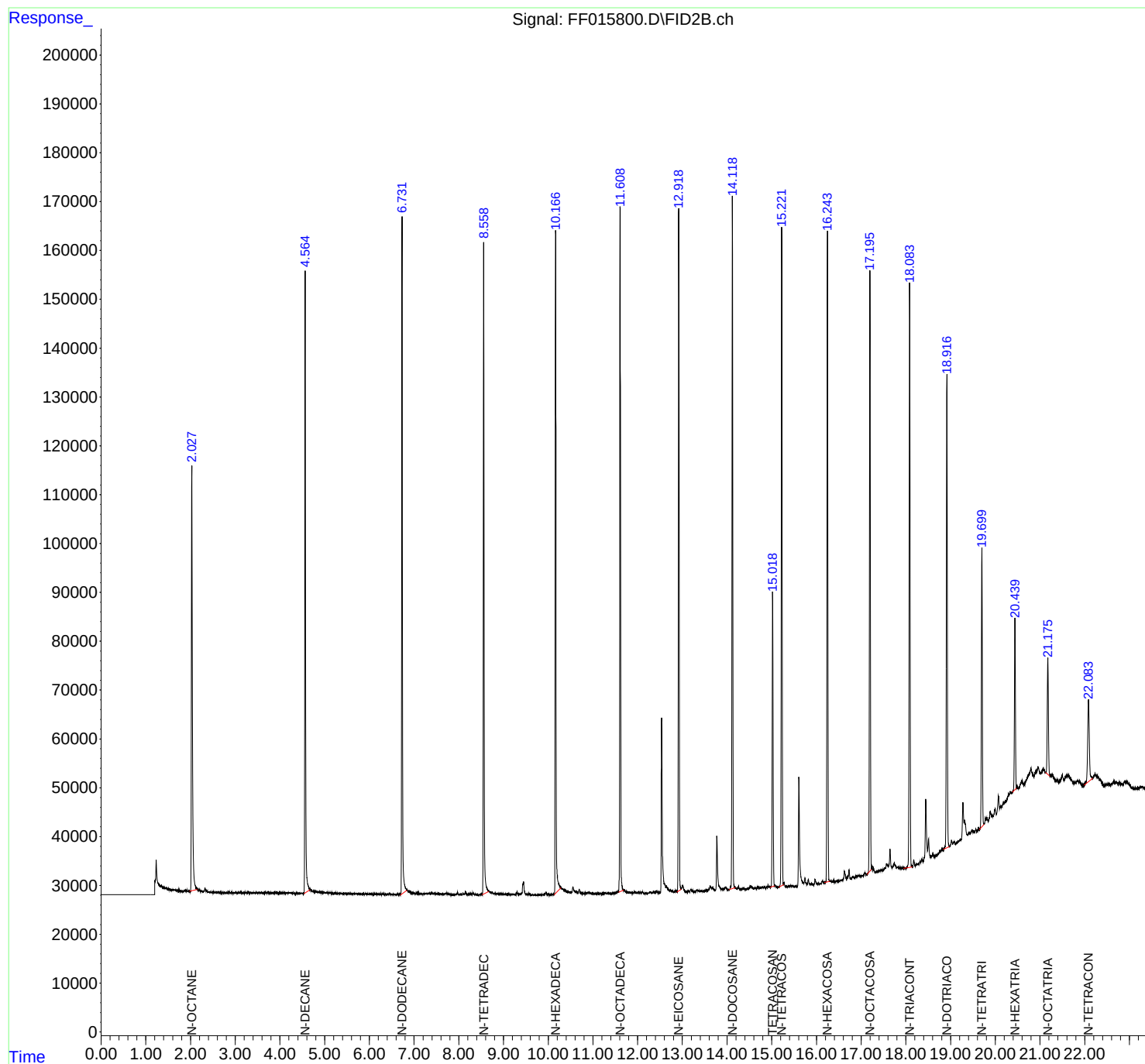
(m)=manual int.

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF050725\
Data File : FF015800.D
Signal(s) : FID2B.ch
Acq On : 07 May 2025 14:44
Operator : YP\AJ
Sample : Q1936-01MSD
Misc :
ALS Vial : 75 Sample Multiplier: 1

Instrument :
FID_F
ClientSampleId :
SMALL-PILE-AMSD

Integration File: autoint1.e
Quant Time: May 08 05:39:29 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF042225.M
Quant Title :
QLast Update : Tue Apr 22 11:27:50 2025
Response via : Initial Calibration
Integrator: ChemStation

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



rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF050725\
 Data File : FF015800.D
 Signal(s) : FID2B.ch
 Acq On : 07 May 2025 14:44
 Sample : Q1936-01MSD
 Misc :
 ALS Vial : 75 Sample Multiplier: 1

Integration File: Sample.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF042225.M
 Title :

Signal : FID2B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	2.028	2.000	2.169	BV	87049	1398914	75.09%	3.923%
2	2.173	2.169	2.187	VV	379	3709	0.20%	0.010%
3	2.192	2.187	2.219	VV	367	5669	0.30%	0.016%
4	2.223	2.219	2.232	VV	220	1601	0.09%	0.004%
5	2.238	2.232	2.247	VV	245	1806	0.10%	0.005%
6	2.251	2.247	2.276	VV	256	3164	0.17%	0.009%
7	2.279	2.276	2.293	VV	199	1738	0.09%	0.005%
8	2.298	2.293	2.303	VV	160	748	0.04%	0.002%
9	2.322	2.303	2.398	VV	850	20543	1.10%	0.058%
10	2.401	2.398	2.415	VV	103	1119	0.06%	0.003%
11	2.433	2.415	2.454	VV	101	1554	0.08%	0.004%
12	2.465	2.454	2.481	VV	84	906	0.05%	0.003%
13	2.489	2.481	2.493	PV	122	528	0.03%	0.001%
14	2.496	2.493	2.518	VV	148	1377	0.07%	0.004%
15	2.521	2.518	2.536	VV	110	782	0.04%	0.002%
16	2.546	2.536	2.567	VV	127	1640	0.09%	0.005%
17	2.572	2.567	2.582	VV	92	595	0.03%	0.002%
18	2.603	2.582	2.644	VV	149	3355	0.18%	0.009%
19	2.650	2.644	2.661	VV	130	898	0.05%	0.003%
20	2.666	2.661	2.681	VV	131	771	0.04%	0.002%
21	2.685	2.681	2.691	VV	108	397	0.02%	0.001%
22	2.697	2.691	2.702	VV	152	706	0.04%	0.002%
23	2.710	2.702	2.731	VV	148	1514	0.08%	0.004%
24	2.735	2.731	2.740	PV	141	526	0.03%	0.001%
25	2.744	2.740	2.758	VV	91	717	0.04%	0.002%
26	2.761	2.758	2.767	VV	134	476	0.03%	0.001%
27	2.780	2.767	2.787	VV	123	1039	0.06%	0.003%
28	2.789	2.787	2.814	VV	158	1850	0.10%	0.005%
29	2.818	2.814	2.830	VV	157	1188	0.06%	0.003%
30	2.841	2.830	2.862	VV	187	2253	0.12%	0.006%
31	2.872	2.862	2.879	VV	182	1338	0.07%	0.004%
32	2.895	2.879	2.923	VV	208	2862	0.15%	0.008%
33	2.935	2.923	2.941	VV	156	1252	0.07%	0.004%
34	2.952	2.941	2.962	VV	119	1229	0.07%	0.003%
35	2.987	2.962	3.004	VV	156	2572	0.14%	0.007%
36	3.035	3.004	3.049	VV	143	2528	0.14%	0.007%

					rteres			
37	3.054	3.049	3.057	VV	138	427	0.02%	0.001%
38	3.070	3.057	3.087	VV	154	1913	0.10%	0.005%
39	3.093	3.087	3.097	VV	190	672	0.04%	0.002%
40	3.106	3.097	3.142	VV	174	3544	0.19%	0.010%
41	3.153	3.142	3.175	VV	186	2284	0.12%	0.006%
42	3.184	3.175	3.214	VV	161	2742	0.15%	0.008%
43	3.233	3.214	3.264	VV	167	3732	0.20%	0.010%
44	3.266	3.264	3.277	VV	164	939	0.05%	0.003%
45	3.316	3.277	3.325	VV	213	3948	0.21%	0.011%
46	3.332	3.325	3.339	VV	158	969	0.05%	0.003%
47	3.344	3.339	3.355	VV	128	1144	0.06%	0.003%
48	3.358	3.355	3.371	VV	143	1071	0.06%	0.003%
49	3.382	3.371	3.397	VV	169	1841	0.10%	0.005%
50	3.400	3.397	3.407	VV	152	685	0.04%	0.002%
51	3.430	3.407	3.435	VV	213	2346	0.13%	0.007%
52	3.439	3.435	3.443	VV	156	557	0.03%	0.002%
53	3.449	3.443	3.454	VV	153	932	0.05%	0.003%
54	3.458	3.454	3.473	VV	185	1544	0.08%	0.004%
55	3.485	3.473	3.492	VV	139	1279	0.07%	0.004%
56	3.496	3.492	3.505	VV	146	994	0.05%	0.003%
57	3.534	3.505	3.546	VV	194	3380	0.18%	0.009%
58	3.551	3.546	3.578	VV	194	2817	0.15%	0.008%
59	3.583	3.578	3.587	VV	173	899	0.05%	0.003%
60	3.591	3.587	3.597	VV	199	882	0.05%	0.002%
61	3.602	3.597	3.608	VV	187	985	0.05%	0.003%
62	3.611	3.608	3.621	VV	184	1027	0.06%	0.003%
63	3.642	3.621	3.682	VV	230	5460	0.29%	0.015%
64	3.692	3.682	3.704	VV	162	1878	0.10%	0.005%
65	3.709	3.704	3.715	VV	148	849	0.05%	0.002%
66	3.723	3.715	3.733	VV	209	1599	0.09%	0.004%
67	3.767	3.733	3.772	VV	211	3487	0.19%	0.010%
68	3.787	3.772	3.837	VV	219	5772	0.31%	0.016%
69	3.851	3.837	3.860	VV	181	2123	0.11%	0.006%
70	3.868	3.860	3.880	VV	213	1783	0.10%	0.005%
71	3.884	3.880	3.904	VV	149	1936	0.10%	0.005%
72	3.912	3.904	3.920	VV	193	1574	0.08%	0.004%
73	3.922	3.920	3.926	VV	158	466	0.03%	0.001%
74	3.937	3.926	3.950	VV	175	1844	0.10%	0.005%
75	3.960	3.950	3.971	VV	215	1671	0.09%	0.005%
76	3.975	3.971	3.987	VV	172	1215	0.07%	0.003%
77	3.997	3.987	4.009	VV	189	1563	0.08%	0.004%
78	4.021	4.009	4.040	VV	163	2218	0.12%	0.006%
79	4.042	4.040	4.056	VV	158	987	0.05%	0.003%
80	4.061	4.056	4.065	VV	162	623	0.03%	0.002%
81	4.099	4.065	4.118	VV	192	4030	0.22%	0.011%
82	4.123	4.118	4.131	VV	184	1163	0.06%	0.003%
83	4.147	4.131	4.156	VV	200	2219	0.12%	0.006%
84	4.172	4.156	4.180	VV	192	1953	0.10%	0.005%
85	4.187	4.180	4.199	VV	183	1694	0.09%	0.005%
86	4.215	4.199	4.242	VV	218	4108	0.22%	0.012%
87	4.246	4.242	4.251	VV	165	735	0.04%	0.002%
88	4.255	4.251	4.260	VV	160	772	0.04%	0.002%
89	4.262	4.260	4.274	VV	172	868	0.05%	0.002%

					rteres			
90	4.290	4.274	4.312	VV	181	3036	0.16%	0.009%
91	4.323	4.312	4.341	VV	141	1922	0.10%	0.005%
92	4.346	4.341	4.361	VV	115	1072	0.06%	0.003%
93	4.367	4.361	4.374	VV	146	822	0.04%	0.002%
94	4.394	4.374	4.404	VV	164	2293	0.12%	0.006%
95	4.416	4.404	4.437	VV	189	2760	0.15%	0.008%
96	4.440	4.437	4.446	VV	122	444	0.02%	0.001%
97	4.475	4.446	4.494	VV	188	3466	0.19%	0.010%
98	4.503	4.494	4.519	VV	160	1554	0.08%	0.004%
99	4.522	4.519	4.529	VV	103	568	0.03%	0.002%
100	4.564	4.529	4.671	VV	127486	1521760	81.68%	4.268%
101	4.679	4.671	4.717	VV	946	21106	1.13%	0.059%
102	4.722	4.717	4.743	VV	663	8844	0.47%	0.025%
103	4.747	4.743	4.755	VV	560	3847	0.21%	0.011%
104	4.759	4.755	4.774	VV	551	5308	0.28%	0.015%
105	4.784	4.774	4.791	VV	472	4371	0.23%	0.012%
106	4.796	4.791	4.799	VV	473	2231	0.12%	0.006%
107	4.808	4.799	4.853	VV	492	14265	0.77%	0.040%
108	4.855	4.853	4.872	VV	411	4624	0.25%	0.013%
109	4.877	4.872	4.894	VV	408	4730	0.25%	0.013%
110	4.897	4.894	4.935	VV	393	8636	0.46%	0.024%
111	4.940	4.935	4.951	VV	385	3181	0.17%	0.009%
112	4.956	4.951	4.976	VV	401	4702	0.25%	0.013%
113	4.988	4.976	4.995	VV	336	3493	0.19%	0.010%
114	5.000	4.995	5.009	VV	310	2473	0.13%	0.007%
115	5.028	5.009	5.050	VV	337	6724	0.36%	0.019%
116	5.059	5.050	5.087	VV	308	5749	0.31%	0.016%
117	5.094	5.087	5.099	VV	289	1716	0.09%	0.005%
118	5.104	5.099	5.122	VV	259	3422	0.18%	0.010%
119	5.131	5.122	5.149	VV	266	3631	0.19%	0.010%
120	5.162	5.149	5.194	VV	312	5698	0.31%	0.016%
121	5.201	5.194	5.228	VV	230	3690	0.20%	0.010%
122	5.237	5.228	5.258	VV	221	3427	0.18%	0.010%
123	5.278	5.258	5.294	VV	244	3797	0.20%	0.011%
124	5.303	5.294	5.309	VV	206	1527	0.08%	0.004%
125	5.317	5.309	5.327	VV	243	1986	0.11%	0.006%
126	5.334	5.327	5.359	VV	235	3106	0.17%	0.009%
127	5.369	5.359	5.377	VV	164	1725	0.09%	0.005%
128	5.381	5.377	5.387	VV	185	885	0.05%	0.002%
129	5.395	5.387	5.407	VV	198	1684	0.09%	0.005%
130	5.413	5.407	5.434	VV	191	2365	0.13%	0.007%
131	5.446	5.434	5.456	VV	200	2112	0.11%	0.006%
132	5.478	5.456	5.483	VV	205	2417	0.13%	0.007%
133	5.493	5.483	5.500	VV	194	1421	0.08%	0.004%
134	5.512	5.500	5.519	VV	195	1444	0.08%	0.004%
135	5.524	5.519	5.562	VV	147	3122	0.17%	0.009%
136	5.568	5.562	5.575	VV	169	1049	0.06%	0.003%
137	5.579	5.575	5.584	VV	154	632	0.03%	0.002%
138	5.589	5.584	5.609	VV	139	1789	0.10%	0.005%
139	5.614	5.609	5.629	VV	154	1121	0.06%	0.003%
140	5.633	5.629	5.642	VV	177	916	0.05%	0.003%
141	5.646	5.642	5.670	VV	155	2005	0.11%	0.006%

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142	5.680	5.670	5.689	VV	179	1128	0.06%	0.003%
143	5.693	5.689	5.700	VV	109	610	0.03%	0.002%
144	5.723	5.700	5.736	VV	144	2289	0.12%	0.006%
145	5.742	5.736	5.772	VV	127	2085	0.11%	0.006%
146	5.780	5.772	5.809	VV	158	2281	0.12%	0.006%
147	5.818	5.809	5.847	VV	180	2018	0.11%	0.006%
148	5.862	5.847	5.867	VV	183	1281	0.07%	0.004%
149	5.875	5.867	5.894	VV	162	1755	0.09%	0.005%
150	5.918	5.894	5.952	VV	144	3540	0.19%	0.010%
151	5.999	5.952	6.057	VV	154	5553	0.30%	0.016%
152	6.064	6.057	6.115	VV	130	2884	0.15%	0.008%
153	6.119	6.115	6.126	VV	148	485	0.03%	0.001%
154	6.133	6.126	6.279	VV	145	7647	0.41%	0.021%
155	6.293	6.279	6.319	VV	174	2847	0.15%	0.008%
156	6.324	6.319	6.345	VV	207	1836	0.10%	0.005%
157	6.366	6.345	6.413	VV	171	4403	0.24%	0.012%
158	6.444	6.413	6.468	VV	225	4641	0.25%	0.013%
159	6.477	6.468	6.509	VV	87	2337	0.13%	0.007%
160	6.516	6.509	6.602	VV	114	4199	0.23%	0.012%
161	6.623	6.602	6.635	VV	90	1369	0.07%	0.004%
162	6.645	6.635	6.699	VV	150	2867	0.15%	0.008%
163	6.731	6.699	6.979	PV	137883	1667482	89.50%	4.676%
164	6.985	6.979	7.035	VV	385	10538	0.57%	0.030%
165	7.058	7.035	7.082	VV	479	9503	0.51%	0.027%
166	7.099	7.082	7.192	VV	466	16253	0.87%	0.046%
167	7.203	7.192	7.221	VV	249	3933	0.21%	0.011%
168	7.236	7.221	7.245	VV	276	3350	0.18%	0.009%
169	7.284	7.245	7.294	VV	312	7960	0.43%	0.022%
170	7.318	7.294	7.344	VV	325	8702	0.47%	0.024%
171	7.383	7.344	7.445	VV	374	17837	0.96%	0.050%
172	7.457	7.445	7.500	VV	394	8637	0.46%	0.024%
173	7.508	7.500	7.529	VV	248	3594	0.19%	0.010%
174	7.535	7.529	7.550	VV	245	2710	0.15%	0.008%
175	7.566	7.550	7.574	VV	248	2910	0.16%	0.008%
176	7.590	7.574	7.613	VV	276	5067	0.27%	0.014%
177	7.637	7.613	7.670	VV	260	7429	0.40%	0.021%
178	7.706	7.670	7.794	VV	337	17107	0.92%	0.048%
179	7.807	7.794	7.900	VV	202	8888	0.48%	0.025%
180	7.915	7.900	7.925	VV	182	1616	0.09%	0.005%
181	7.973	7.925	8.029	VV	563	14004	0.75%	0.039%
182	8.036	8.029	8.047	VV	136	1316	0.07%	0.004%
183	8.097	8.047	8.114	VV	312	7338	0.39%	0.021%
184	8.149	8.114	8.207	VV	706	15467	0.83%	0.043%
185	8.221	8.207	8.239	VV	216	2750	0.15%	0.008%
186	8.258	8.239	8.294	VV	361	6469	0.35%	0.018%
187	8.314	8.294	8.401	VV	492	12663	0.68%	0.036%
188	8.421	8.401	8.452	VV	158	3198	0.17%	0.009%
189	8.559	8.452	8.827	VV	133300	1664675	89.35%	4.669%
190	8.837	8.827	8.846	VV	322	3408	0.18%	0.010%
191	8.852	8.846	8.877	VV	323	5067	0.27%	0.014%
192	8.884	8.877	8.914	VV	324	5646	0.30%	0.016%
193	8.933	8.914	8.976	VV	356	9976	0.54%	0.028%
194	9.002	8.976	9.050	VV	333	9633	0.52%	0.027%

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195	9.075	9.050	9.132	VV	272	9268	0.50%	0.026%
196	9.180	9.132	9.217	VV	238	9773	0.52%	0.027%
197	9.249	9.217	9.282	VV	230	6794	0.36%	0.019%
198	9.301	9.282	9.357	VV	655	14306	0.77%	0.040%
199	9.364	9.357	9.382	VV	235	2737	0.15%	0.008%
200	9.450	9.382	9.546	VV	2833	79728	4.28%	0.224%
201	9.571	9.546	9.630	VV	409	10566	0.57%	0.030%
202	9.652	9.630	9.671	VV	155	2862	0.15%	0.008%
203	9.677	9.671	9.710	VV	158	2263	0.12%	0.006%
204	9.720	9.710	9.745	PV	85	1804	0.10%	0.005%
205	9.767	9.745	9.795	VV	164	3483	0.19%	0.010%
206	9.816	9.795	9.832	VV	201	2823	0.15%	0.008%
207	9.904	9.832	9.923	VV	238	8163	0.44%	0.023%
208	9.949	9.923	9.982	VV	666	11349	0.61%	0.032%
209	10.004	9.982	10.039	VV	359	6937	0.37%	0.019%
210	10.048	10.039	10.059	VV	136	1479	0.08%	0.004%
211	10.069	10.059	10.079	VV	178	1351	0.07%	0.004%
212	10.101	10.079	10.131	VV	202	4606	0.25%	0.013%
213	10.166	10.131	10.504	VV	136232	1863079	100.00%	5.225%
214	10.510	10.504	10.526	VV	599	7299	0.39%	0.020%
215	10.554	10.526	10.634	VV	1571	55107	2.96%	0.155%
216	10.645	10.634	10.675	VV	513	12195	0.65%	0.034%
217	10.694	10.675	10.717	VV	1050	17880	0.96%	0.050%
218	10.729	10.717	10.795	VV	394	13537	0.73%	0.038%
219	10.840	10.795	10.862	VV	349	10897	0.58%	0.031%
220	10.882	10.862	10.899	VV	457	7841	0.42%	0.022%
221	10.912	10.899	10.953	VV	552	10985	0.59%	0.031%
222	10.978	10.953	11.025	VV	306	8718	0.47%	0.024%
223	11.072	11.025	11.109	VV	239	8598	0.46%	0.024%
224	11.118	11.109	11.139	VV	209	3487	0.19%	0.010%
225	11.146	11.139	11.151	VV	195	1100	0.06%	0.003%
226	11.164	11.151	11.191	VV	200	3717	0.20%	0.010%
227	11.277	11.191	11.351	VV	298	16544	0.89%	0.046%
228	11.362	11.351	11.395	VV	174	3827	0.21%	0.011%
229	11.415	11.395	11.428	VV	259	3475	0.19%	0.010%
230	11.431	11.428	11.471	VV	247	3867	0.21%	0.011%
231	11.548	11.471	11.561	VV	510	17638	0.95%	0.049%
232	11.564	11.561	11.578	VV	511	4465	0.24%	0.013%
233	11.608	11.578	11.684	VV	140386	1762561	94.60%	4.943%
234	11.697	11.684	11.841	VV	891	42342	2.27%	0.119%
235	11.865	11.841	11.905	VV	278	8478	0.46%	0.024%
236	11.927	11.905	11.982	VV	370	11688	0.63%	0.033%
237	12.014	11.982	12.040	VV	379	8967	0.48%	0.025%
238	12.064	12.040	12.085	VV	263	6113	0.33%	0.017%
239	12.106	12.085	12.145	VV	400	7537	0.40%	0.021%
240	12.153	12.145	12.182	VV	53	976	0.05%	0.003%
241	12.219	12.182	12.227	PV	90	1568	0.08%	0.004%
242	12.285	12.227	12.309	VV	339	7912	0.42%	0.022%
243	12.352	12.309	12.387	VV	274	9252	0.50%	0.026%
244	12.420	12.387	12.481	VV	396	12991	0.70%	0.036%
245	12.490	12.481	12.507	VV	120	1775	0.10%	0.005%
246	12.536	12.507	12.629	VV	35146	570886	30.64%	1.601%

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247	12.641	12.629	12.731	VV	1249	50224	2.70%	0.141%
248	12.744	12.731	12.830	VV	513	16889	0.91%	0.047%
249	12.855	12.830	12.877	VV	414	8237	0.44%	0.023%
250	12.919	12.877	12.977	VV	139977	1767292	94.86%	4.956%
251	13.007	12.977	13.121	VV	1428	42754	2.29%	0.120%
252	13.138	13.121	13.158	VV	178	2377	0.13%	0.007%
253	13.188	13.158	13.286	VV	519	14570	0.78%	0.041%
254	13.331	13.286	13.401	PV	352	12471	0.67%	0.035%
255	13.424	13.401	13.442	VV	188	3139	0.17%	0.009%
256	13.485	13.442	13.505	VV	115	2857	0.15%	0.008%
257	13.534	13.505	13.551	PV	325	4276	0.23%	0.012%
258	13.625	13.551	13.741	VV	1020	51969	2.79%	0.146%
259	13.771	13.741	13.895	VV	11132	202489	10.87%	0.568%
260	13.961	13.895	14.021	VV	665	23574	1.27%	0.066%
261	14.028	14.021	14.048	VV	130	1782	0.10%	0.005%
262	14.118	14.048	14.221	VV	141142	1792774	96.23%	5.028%
263	14.253	14.221	14.315	VV	579	15071	0.81%	0.042%
264	14.361	14.315	14.463	VV	184	8719	0.47%	0.024%
265	14.482	14.463	14.497	VV	182	2316	0.12%	0.006%
266	14.527	14.497	14.610	VV	669	21193	1.14%	0.059%
267	14.631	14.610	14.660	VV	243	3529	0.19%	0.010%
268	14.683	14.660	14.715	PV	413	6505	0.35%	0.018%
269	14.791	14.715	14.817	VV	305	11044	0.59%	0.031%
270	14.836	14.817	14.861	VV	287	5187	0.28%	0.015%
271	14.916	14.861	14.952	VV	503	11869	0.64%	0.033%
272	14.960	14.952	14.980	VV	219	2885	0.15%	0.008%
273	15.018	14.980	15.061	VV	60619	855534	45.92%	2.399%
274	15.074	15.061	15.157	VV	456	12037	0.65%	0.034%
275	15.221	15.157	15.262	VV	134273	1782681	95.68%	5.000%
276	15.274	15.262	15.380	VV	824	15907	0.85%	0.045%
277	15.425	15.380	15.439	VV	212	4301	0.23%	0.012%
278	15.455	15.439	15.511	VV	161	4053	0.22%	0.011%
279	15.536	15.511	15.563	VV	93	1272	0.07%	0.004%
280	15.606	15.563	15.718	PV	22016	401079	21.53%	1.125%
281	15.742	15.718	15.785	VV	1581	31869	1.71%	0.089%
282	15.817	15.785	15.856	VV	1210	22150	1.19%	0.062%
283	15.878	15.856	15.938	VV	308	6222	0.33%	0.017%
284	15.967	15.938	16.023	VV	1045	19307	1.04%	0.054%
285	16.038	16.023	16.055	VV	109	1321	0.07%	0.004%
286	16.134	16.055	16.164	PV	467	9996	0.54%	0.028%
287	16.178	16.164	16.195	VV	182	2468	0.13%	0.007%
288	16.244	16.195	16.295	VV	133946	1753846	94.14%	4.919%
289	16.313	16.295	16.338	VV	351	6160	0.33%	0.017%
290	16.348	16.338	16.360	VV	127	1329	0.07%	0.004%
291	16.381	16.360	16.415	VV	298	4437	0.24%	0.012%
292	16.475	16.415	16.515	VV	157	4657	0.25%	0.013%
293	16.556	16.515	16.587	PV	193	5467	0.29%	0.015%
294	16.626	16.587	16.674	VV	1844	41630	2.23%	0.117%
295	16.727	16.674	16.777	VV	1980	39557	2.12%	0.111%
296	16.818	16.777	16.844	VV	452	9156	0.49%	0.026%
297	16.889	16.844	16.910	VV	371	8068	0.43%	0.023%
298	16.955	16.910	17.007	VV	377	15485	0.83%	0.043%
299	17.083	17.007	17.135	VV	690	27814	1.49%	0.078%

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300	17.195	17.135	17.230	VV	123402	1741500	93.47%	4.884%
301	17.244	17.230	17.263	VV	1830	27930	1.50%	0.078%
302	17.279	17.263	17.313	VV	1261	24864	1.33%	0.070%
303	17.444	17.313	17.481	VV	667	51241	2.75%	0.144%
304	17.571	17.481	17.604	VV	1682	74581	4.00%	0.209%
305	17.644	17.604	17.701	VV	4602	105705	5.67%	0.296%
306	17.739	17.701	17.911	VV	1480	86404	4.64%	0.242%
307	17.937	17.911	17.951	VV	233	4142	0.22%	0.012%
308	17.972	17.951	17.996	VV	234	3061	0.16%	0.009%
309	18.083	17.996	18.150	PV	118653	1678423	90.09%	4.707%
310	18.176	18.150	18.211	PV	1395	18903	1.01%	0.053%
311	18.236	18.211	18.251	PV	293	4365	0.23%	0.012%
312	18.321	18.251	18.334	VV	446	8600	0.46%	0.024%
313	18.359	18.334	18.383	VV	842	14793	0.79%	0.041%
314	18.444	18.383	18.484	VV	12522	246858	13.25%	0.692%
315	18.506	18.484	18.545	VV	4260	80772	4.34%	0.227%
316	18.603	18.545	18.658	VV	709	24508	1.32%	0.069%
317	18.809	18.658	18.845	VV	903	48844	2.62%	0.137%
318	18.916	18.845	18.971	VV	97155	1466730	78.73%	4.113%
319	19.020	18.971	19.050	VV	1734	50569	2.71%	0.142%
320	19.079	19.050	19.115	VV	1154	36278	1.95%	0.102%
321	19.125	19.115	19.138	VV	634	8638	0.46%	0.024%
322	19.276	19.138	19.299	VV	8339	219164	11.76%	0.615%
323	19.313	19.299	19.377	VV	4542	135525	7.27%	0.380%
324	19.413	19.377	19.441	VV	1553	54152	2.91%	0.152%
325	19.479	19.441	19.498	VV	1891	52735	2.83%	0.148%
326	19.517	19.498	19.538	VV	1427	32374	1.74%	0.091%
327	19.561	19.538	19.586	VV	1576	38981	2.09%	0.109%
328	19.621	19.586	19.641	VV	1520	43091	2.31%	0.121%
329	19.699	19.641	19.747	VV	58489	938468	50.37%	2.632%
330	19.780	19.747	19.795	VV	2876	68842	3.70%	0.193%
331	19.811	19.795	19.844	VV	2965	75318	4.04%	0.211%
332	19.889	19.844	19.931	VV	3925	153884	8.26%	0.432%
333	19.941	19.931	19.952	VV	2708	32702	1.76%	0.092%
334	19.995	19.952	20.023	VV	3885	135697	7.28%	0.381%
335	20.070	20.023	20.098	VV	6221	192035	10.31%	0.539%
336	20.119	20.098	20.134	VV	3882	81618	4.38%	0.229%
337	20.296	20.134	20.308	VV	5649	466830	25.06%	1.309%
338	20.337	20.308	20.362	VV	5978	185668	9.97%	0.521%
339	20.439	20.362	20.473	VV	40950	910557	48.87%	2.554%
340	20.488	20.473	20.520	VV	6481	173704	9.32%	0.487%
341	20.605	20.520	20.631	VV	6994	430230	23.09%	1.207%
342	20.796	20.631	20.865	VV	8770	1012945	54.37%	2.841%
343	20.905	20.865	20.915	VV	7555	219281	11.77%	0.615%
344	20.963	20.915	20.997	VV	8264	378254	20.30%	1.061%
345	21.075	20.997	21.138	VV	7319	582683	31.28%	1.634%
346	21.175	21.138	21.225	VV	29620	721825	38.74%	2.024%
347	21.239	21.225	21.256	VV	5374	100549	5.40%	0.282%
348	21.272	21.256	21.350	VV	5315	260311	13.97%	0.730%
349	21.370	21.350	21.413	VV	3886	139012	7.46%	0.390%
350	21.497	21.413	21.535	VV	4132	263859	14.16%	0.740%
351	21.602	21.535	21.621	VV	3774	181739	9.75%	0.510%

					rteres				
352	21.638	21.621	21.761	VV	3616	216981	11.65%	0.609%	
353	21.795	21.761	21.803	VV	1494	36524	1.96%	0.102%	
354	21.837	21.803	21.858	VV	1650	50307	2.70%	0.141%	
355	21.875	21.858	21.973	VV	1392	51261	2.75%	0.144%	
356	22.085	21.973	22.177	PV	16732	434615	23.33%	1.219%	
					Sum of corrected areas:	35656676			

FF042225.M Thu May 08 06:03:39 2025

Manual Integration Report

Sample ID	ClientId ID	File ID	Sequence ID	Parameter	Supervised By	Supervised On	Reason
5 TRPH STD		FF015790.D	FF042225	N-TETRACONTANE	mohammad	4/24/2025 6:33:56 AM	Peak Integrated by Software incorrectly

Manual Integration Report

Sample ID	ClientID ID	File ID	Sequence ID	Parameter	Supervised By	Supervised On	Reason
50 PPM TRPH STD		FF015794.D	FF050725	N-TETRACONTANE	 	 	Peak Integrated by Software incorrectly
RT MARKER		FF015795.D	FF050725	N-DODECANE	 	 	Peak Integrated by Software incorrectly
Q1936-01MS		FF015799.D	FF050725	N-OCTATRIACONTANE	 	 	Peak Integrated by Software incorrectly
Q1936-01MS		FF015799.D	FF050725	N-TETRACONTANE	 	 	Peak Integrated by Software incorrectly

Manual Integration Report

Sample ID	ClientId ID	File ID	Sequence ID	Parameter	Supervised By	Supervised On	Reason
.BLK		FG015783.D	FG050725	TETRACOSANE-d50 (SURROGA	 	 	Peak Integrated by Software incorrectly

Instrument ID: FID_F

Daily Analysis Runlog For Sequence/QC Batch ID # FF042225

Review By	yogesh	Review On	4/22/2025 1:28:06 PM
Supervise By	mohammad	Supervise On	4/24/2025 6:33:56 AM
SubDirectory	FF042225	HP Acquire Method	HP Processing Method FF042225
STD. NAME	STD REF.#		
Tune/Reschk Initial Calibration Stds	PP24467,PP24469,PP24470,PP24471,PP24472		
CCC Internal Standard/PEM ICV/I.BLK Surrogate Standard MS/MSD Standard LCS Standard	PP24468,PP24473		

Sr#	SampleId	Data File Name	Date-Time	Operator	Status
1	MECL2	FF015784.D	22 Apr 2025 08:12	YP\AJ	Ok
2	I.BLK	FF015785.D	22 Apr 2025 08:42	YP\AJ	Ok
3	100 TRPH STD	FF015786.D	22 Apr 2025 09:11	YP\AJ	Ok
4	50 TRPH STD	FF015787.D	22 Apr 2025 09:40	YP\AJ	Ok
5	20 TRPH STD	FF015788.D	22 Apr 2025 10:09	YP\AJ	Ok
6	10 TRPH STD	FF015789.D	22 Apr 2025 10:39	YP\AJ	Ok
7	5 TRPH STD	FF015790.D	22 Apr 2025 11:08	YP\AJ	Ok,M
8	FF042225ICV	FF015791.D	22 Apr 2025 11:39	YP\AJ	Ok

M : Manual Integration

Instrument ID: FID_F

Daily Analysis Runlog For Sequence/QC Batch ID # FF050725

Review By	yogesh	Review On	5/7/2025 12:23:09 PM
Supervise By		Supervise On	
SubDirectory	FF050725	HP Acquire Method	HP Processing Method FF042225
STD. NAME	STD REF.#		
Tune/Reschk Initial Calibration Stds	PP24467,PP24469,PP24470,PP24471,PP24472		
CCC Internal Standard/PEM ICV/I.BLK Surrogate Standard MS/MSD Standard LCS Standard	PP24469 PP24468,PP24473		

Sr#	SampleId	Data File Name	Date-Time	Operator	Status
1	MECL2	FF015792.D	07 May 2025 10:17	YP\AJ	Ok
2	I.BLK	FF015793.D	07 May 2025 10:46	YP\AJ	Ok
3	50 PPM TRPH STD	FF015794.D	07 May 2025 11:48	YP\AJ	Ok,NS
4	RT MARKER	FF015795.D	07 May 2025 12:17	YP\AJ	Ok,NS
5	PB167887BL	FF015796.D	07 May 2025 12:47	YP\AJ	Ok
6	PB167887BS	FF015797.D	07 May 2025 13:16	YP\AJ	Ok
7	Q1936-01	FF015798.D	07 May 2025 13:45	YP\AJ	Ok
8	Q1936-01MS	FF015799.D	07 May 2025 14:14	YP\AJ	Ok,NS
9	Q1936-01MSD	FF015800.D	07 May 2025 14:44	YP\AJ	Ok
10	Q1936-03	FF015801.D	07 May 2025 15:13	YP\AJ	Ok
11	Q1936-05	FF015802.D	07 May 2025 15:42	YP\AJ	Ok
12	Q1936-07	FF015803.D	07 May 2025 16:11	YP\AJ	Ok
13	I.BLK	FF015804.D	07 May 2025 16:41	YP\AJ	Ok
14	50 PPM TRPH STD	FF015805.D	07 May 2025 17:39	YP\AJ	Ok

M : Manual Integration

Instrument ID: FID_G

Daily Analysis Runlog For Sequence/QC Batch ID # FG042425

Review By	yogesh	Review On	4/24/2025 12:59:08 PM
Supervise By	mohammad	Supervise On	4/26/2025 2:19:49 AM
SubDirectory	FG042425	HP Acquire Method	HP Processing Method FG042425
STD. NAME	STD REF.#		
Tune/Reschk Initial Calibration Stds	PP24467,PP24469,PP24470,PP24471,PP24472		
CCC Internal Standard/PEM ICV/I.BLK Surrogate Standard MS/MSD Standard LCS Standard	PP24468,PP24473		

Sr#	SampleId	Data File Name	Date-Time	Operator	Status
1	MECL2	FG015754.D	24 Apr 2025 09:50	YP\AJ	Ok
2	I.BLK	FG015755.D	24 Apr 2025 10:19	YP\AJ	Ok
3	100 TRPH STD	FG015756.D	24 Apr 2025 10:48	YP\AJ	Ok
4	50 TRPH STD	FG015757.D	24 Apr 2025 11:17	YP\AJ	Ok
5	20 TRPH STD	FG015758.D	24 Apr 2025 11:46	YP\AJ	Ok
6	10 TRPH STD	FG015759.D	24 Apr 2025 12:16	YP\AJ	Ok
7	5 TRPH STD	FG015760.D	24 Apr 2025 12:45	YP\AJ	Ok
8	FG042225ICV	FG015761.D	24 Apr 2025 13:14	YP\AJ	Ok

M : Manual Integration

Instrument ID: FID_G

Daily Analysis Runlog For Sequence/QC Batch ID # FG050725

Review By	yogesh	Review On	5/7/2025 12:24:09 PM
Supervise By		Supervise On	
SubDirectory	FG050725	HP Acquire Method	HP Processing Method FG042425
STD. NAME	STD REF.#		
Tune/Reschk Initial Calibration Stds	PP24467,PP24469,PP24470,PP24471,PP24472		
CCC Internal Standard/PEM ICV/I.BLK Surrogate Standard MS/MSD Standard LCS Standard	PP24469 PP24468,PP24473		

Sr#	SampleId	Data File Name	Date-Time	Operator	Status
1	MECL2	FG015782.D	07 May 2025 10:17	YP\AJ	Ok
2	I.BLK	FG015783.D	07 May 2025 10:46	YP\AJ	Ok,NS
3	50 PPM TRPH STD	FG015784.D	07 May 2025 11:48	YP\AJ	Ok
4	RT MARKER	FG015785.D	07 May 2025 12:17	YP\AJ	Ok
5	Q1937-01	FG015786.D	07 May 2025 12:47	YP\AJ	Ok
6	Q1937-03	FG015787.D	07 May 2025 13:16	YP\AJ	Ok
7	Q1937-05	FG015788.D	07 May 2025 13:45	YP\AJ	Ok
8	Q1937-07	FG015789.D	07 May 2025 14:14	YP\AJ	Ok
9	Q1937-09	FG015790.D	07 May 2025 14:44	YP\AJ	Ok
10	Q1937-11	FG015791.D	07 May 2025 15:13	YP\AJ	Ok
11	Q1938-01	FG015792.D	07 May 2025 15:42	YP\AJ	Dilution
12	Q1938-03	FG015793.D	07 May 2025 16:11	YP\AJ	Ok
13	Q1938-05	FG015794.D	07 May 2025 16:41	YP\AJ	Ok
14	Q1938-07	FG015795.D	07 May 2025 17:10	YP\AJ	Ok
15	I.BLK	FG015796.D	07 May 2025 17:39	YP\AJ	Ok
16	50 PPM TRPH STD	FG015797.D	07 May 2025 18:38	YP\AJ	Ok

M : Manual Integration

Instrument ID: FID_F

Daily Analysis Runlog For Sequence/QC Batch ID # FF042225

Review By	yogesh	Review On	4/22/2025 1:28:06 PM
Supervise By	mohammad	Supervise On	4/24/2025 6:33:56 AM
SubDirectory	FF042225	HP Acquire Method	HP Processing Method FF042225

STD. NAME	STD REF.#
Tune/Reschk Initial Calibration Stds	PP24467,PP24469,PP24470,PP24471,PP24472
CCC Internal Standard/PEM ICV/I.BLK Surrogate Standard MS/MSD Standard LCS Standard	PP24468,PP24473

Sr#	SampleID	ClientID	Data File Name	Date-Time	Comment	Operator	Status
1	MECL2		FF015784.D	22 Apr 2025 08:12		YP\AJ	Ok
2	I.BLK		FF015785.D	22 Apr 2025 08:42		YP\AJ	Ok
3	100 TRPH STD		FF015786.D	22 Apr 2025 09:11		YP\AJ	Ok
4	50 TRPH STD		FF015787.D	22 Apr 2025 09:40		YP\AJ	Ok
5	20 TRPH STD		FF015788.D	22 Apr 2025 10:09		YP\AJ	Ok
6	10 TRPH STD		FF015789.D	22 Apr 2025 10:39		YP\AJ	Ok
7	5 TRPH STD		FF015790.D	22 Apr 2025 11:08		YP\AJ	Ok,M
8	FF042225ICV		FF015791.D	22 Apr 2025 11:39		YP\AJ	Ok

M : Manual Integration

Instrument ID: FID_F

Daily Analysis Runlog For Sequence/QC Batch ID # FF050725

Review By	yogesh	Review On	5/7/2025 12:23:09 PM
Supervise By		Supervise On	
SubDirectory	FF050725	HP Acquire Method	HP Processing Method FF042225
STD. NAME	STD REF.#		
Tune/Reschk Initial Calibration Stds	PP24467,PP24469,PP24470,PP24471,PP24472		
CCC	PP24469		
Internal Standard/PEM			
ICV/I.BLK	PP24468,PP24473		
Surrogate Standard			
MS/MSD Standard			
LCS Standard			

Sr#	SampleID	ClientID	Data File Name	Date-Time	Comment	Operator	Status
1	MECL2		FF015792.D	07 May 2025 10:17		YPIAJ	Ok
2	I.BLK		FF015793.D	07 May 2025 10:46		YPIAJ	Ok
3	50 PPM TRPH STD		FF015794.D	07 May 2025 11:48		YPIAJ	Ok,NS
4	RT MARKER		FF015795.D	07 May 2025 12:17		YPIAJ	Ok,NS
5	PB167887BL		FF015796.D	07 May 2025 12:47		YPIAJ	Ok
6	PB167887BS		FF015797.D	07 May 2025 13:16		YPIAJ	Ok
7	Q1936-01		FF015798.D	07 May 2025 13:45		YPIAJ	Ok
8	Q1936-01MS		FF015799.D	07 May 2025 14:14		YPIAJ	Ok,NS
9	Q1936-01MSD		FF015800.D	07 May 2025 14:44		YPIAJ	Ok
10	Q1936-03		FF015801.D	07 May 2025 15:13		YPIAJ	Ok
11	Q1936-05		FF015802.D	07 May 2025 15:42		YPIAJ	Ok
12	Q1936-07		FF015803.D	07 May 2025 16:11		YPIAJ	Ok
13	I.BLK		FF015804.D	07 May 2025 16:41		YPIAJ	Ok
14	50 PPM TRPH STD		FF015805.D	07 May 2025 17:39		YPIAJ	Ok

M : Manual Integration

Instrument ID: FID_G

Daily Analysis Runlog For Sequence/QC Batch ID # FG042425

Review By	yogesh	Review On	4/24/2025 12:59:08 PM
Supervise By	mohammad	Supervise On	4/26/2025 2:19:49 AM
SubDirectory	FG042425	HP Acquire Method	HP Processing Method FG042425

STD. NAME	STD REF.#
Tune/Reschk Initial Calibration Stds	PP24467,PP24469,PP24470,PP24471,PP24472
CCC Internal Standard/PEM ICV/I.BLK Surrogate Standard MS/MSD Standard LCS Standard	PP24468,PP24473

Sr#	SampleID	ClientID	Data File Name	Date-Time	Comment	Operator	Status
1	MECL2		FG015754.D	24 Apr 2025 09:50		YP\AJ	Ok
2	I.BLK		FG015755.D	24 Apr 2025 10:19		YP\AJ	Ok
3	100 TRPH STD		FG015756.D	24 Apr 2025 10:48		YP\AJ	Ok
4	50 TRPH STD		FG015757.D	24 Apr 2025 11:17		YP\AJ	Ok
5	20 TRPH STD		FG015758.D	24 Apr 2025 11:46		YP\AJ	Ok
6	10 TRPH STD		FG015759.D	24 Apr 2025 12:16		YP\AJ	Ok
7	5 TRPH STD		FG015760.D	24 Apr 2025 12:45		YP\AJ	Ok
8	FG042225ICV		FG015761.D	24 Apr 2025 13:14		YP\AJ	Ok

M : Manual Integration

Instrument ID: FID_G

Daily Analysis Runlog For Sequence/QC Batch ID # FG050725

Review By	yogesh	Review On	5/7/2025 12:24:09 PM
Supervise By		Supervise On	
SubDirectory	FG050725	HP Acquire Method	HP Processing Method FG042425
STD. NAME	STD REF.#		
Tune/Reschk Initial Calibration Stds	PP24467,PP24469,PP24470,PP24471,PP24472		
CCC	PP24469		
Internal Standard/PEM			
ICV/I.BLK	PP24468,PP24473		
Surrogate Standard			
MS/MSD Standard			
LCS Standard			

Sr#	SampleID	ClientID	Data File Name	Date-Time	Comment	Operator	Status
1	MECL2		FG015782.D	07 May 2025 10:17		YPIAJ	Ok
2	I.BLK		FG015783.D	07 May 2025 10:46		YPIAJ	Ok,NS
3	50 PPM TRPH STD		FG015784.D	07 May 2025 11:48		YPIAJ	Ok
4	RT MARKER		FG015785.D	07 May 2025 12:17		YPIAJ	Ok
5	Q1937-01		FG015786.D	07 May 2025 12:47		YPIAJ	Ok
6	Q1937-03		FG015787.D	07 May 2025 13:16		YPIAJ	Ok
7	Q1937-05		FG015788.D	07 May 2025 13:45		YPIAJ	Ok
8	Q1937-07		FG015789.D	07 May 2025 14:14		YPIAJ	Ok
9	Q1937-09		FG015790.D	07 May 2025 14:44		YPIAJ	Ok
10	Q1937-11		FG015791.D	07 May 2025 15:13		YPIAJ	Ok
11	Q1938-01		FG015792.D	07 May 2025 15:42	need 5x dilution	YPIAJ	Dilution
12	Q1938-03		FG015793.D	07 May 2025 16:11		YPIAJ	Ok
13	Q1938-05		FG015794.D	07 May 2025 16:41		YPIAJ	Ok
14	Q1938-07		FG015795.D	07 May 2025 17:10		YPIAJ	Ok
15	I.BLK		FG015796.D	07 May 2025 17:39		YPIAJ	Ok
16	50 PPM TRPH STD		FG015797.D	07 May 2025 18:38		YPIAJ	Ok

M : Manual Integration



PERCENT SOLID

Supervisor: Iwona
Analyst: jignesh
Date: 5/5/2025

OVENTEMP IN Celsius(°C): 107
Time IN: 17:00
In Date: 05/02/2025
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
OvenID: M OVEN#1

OVENTEMP OUT Celsius(°C): 104
Time OUT: 08:25
Out Date: 05/03/2025
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
BalanceID: M SC-4
Thermometer ID: % SOLID- OVEN

QC:LB135646

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
Q1913-01	WC-12-S-202504	1	1.18	10.32	11.5	9.49	80.5	
Q1913-03	WC-13-S-202504	2	1.19	10.37	11.56	9.83	83.3	
Q1936-01	SMALL-PILE-A	33	1.15	9.94	11.09	10.18	90.8	
Q1936-02	SMALL-PILE-A	34	1.17	9.94	11.11	10.22	91.0	
Q1936-03	SMALL-PILE-B	35	1.18	10.39	11.57	10.93	93.8	
Q1936-04	SMALL-PILE-B	36	1.18	9.88	11.06	10.44	93.7	
Q1936-05	SMALL-PILE-C	37	1.15	10.03	11.18	10.9	97.2	
Q1936-06	SMALL-PILE-C	38	1.15	10.25	11.4	11.01	96.2	
Q1936-07	SMALL-PILE-D	39	1.16	10.41	11.57	10.97	94.2	
Q1936-08	SMALL-PILE-D	40	1.18	9.96	11.14	10.55	94.1	
Q1937-01	LARGE-PILE-A	41	1.15	10.13	11.28	10.7	94.3	
Q1937-02	LARGE-PILE-A	42	1.18	9.58	10.76	10.2	94.2	
Q1937-03	LARGE-PILE-B	43	1.15	10.03	11.18	10.82	96.4	
Q1937-04	LARGE-PILE-B	44	1.17	10.04	11.21	10.72	95.1	
Q1937-05	LARGE-PILE-C	45	1.16	10.19	11.35	10.83	94.9	
Q1937-06	LARGE-PILE-C	46	1.19	10.06	11.25	10.63	93.8	
Q1937-07	LARGE-PILE-D	47	1.18	10.33	11.51	10.95	94.6	
Q1937-08	LARGE-PILE-D	48	1.17	9.75	10.92	10.33	93.9	
Q1937-09	LARGE-PILE-E	49	1.16	10.14	11.3	10.52	92.3	
Q1937-10	LARGE-PILE-E	50	1.18	10.30	11.48	10.76	93.0	
Q1937-11	LARGE-PILE-F	51	1.18	10.48	11.66	10.58	89.7	
Q1937-12	LARGE-PILE-F	52	1.18	10.25	11.43	10.44	90.3	
Q1938-01	LOWER-WALL-PILE-A	53	1.15	10.33	11.48	10.77	93.1	
Q1938-02	LOWER-WALL-PILE-A	54	1.17	10.50	11.67	10.71	90.9	
Q1938-03	LOWER-WALL-PILE-B	55	1.14	10.15	11.29	10.94	96.6	
Q1938-04	LOWER-WALL-PILE-B	56	1.18	9.90	11.08	10.68	96.0	
Q1938-05	LOWER-WALL-PILE-C	57	1.17	10.23	11.4	11.07	96.8	
Q1938-06	LOWER-WALL-PILE-C	58	1.12	9.82	10.94	10.7	97.6	



PERCENT SOLID

Supervisor: Iwona
Analyst: jignesh
Date: 5/5/2025

OVENTEMP IN Celsius(°C): 107
Time IN: 17:00
In Date: 05/02/2025
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
OvenID: M OVEN#1

OVENTEMP OUT Celsius(°C): 104
Time OUT: 08:25
Out Date: 05/03/2025
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
BalanceID: M SC-4
Thermometer ID: % SOLID- OVEN

QC:LB135646

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
Q1938-07	LOWER-WALL-PILE-D	59	1.19	10.01	11.2	10.7	95.0	
Q1938-08	LOWER-WALL-PILE-D	60	1.17	10.23	11.4	10.86	94.7	
Q1942-05	SVOC-GPC-BLANK	3	1.00	1.00	2.00	2.00	100.0	
Q1942-06	PEST-GPC-BLANK	4	1.00	1.00	2.00	2.00	100.0	
Q1942-07	PEST-GPC-BLANK-SPIKE	5	1.00	1.00	2.00	2.00	100.0	
Q1942-08	PCB-GPC-BLANK	6	1.00	1.00	2.00	2.00	100.0	
Q1942-09	PCB-GPC-BLANK-SPIKE	7	1.00	1.00	2.00	2.00	100.0	
Q1942-10	SVOC-GPC2-BLANK	8	1.00	1.00	2.00	2.00	100.0	
Q1942-11	PEST-GPC2-BLANK	9	1.00	1.00	2.00	2.00	100.0	
Q1942-12	PEST-GPC2-BLANK-SPIKE	10	1.00	1.00	2.00	2.00	100.0	
Q1942-13	PCB-GPC2-BLANK	11	1.00	1.00	2.00	2.00	100.0	
Q1942-14	PCB-GCP2-BLANK-SPIKE	12	1.00	1.00	2.00	2.00	100.0	
Q1944-01	MELTED-RUBBER-SAMPLE	13	1.00	1.00	2.00	2.00	100.0	MELTED-RUBBER-SAMPLE
Q1946-01	BB-CONCRETE	14	1.00	1.00	2.00	2.00	100.0	CONCRETE sample
Q1946-02	BB-CONCRETE	15	1.00	1.00	2.00	2.00	100.0	CONCRETE sample
Q1947-01	MH-P	16	1.18	10.19	11.37	9.28	79.5	
Q1947-02	MH-P-EPH	17	1.15	10.84	11.99	10.64	87.5	
Q1947-03	MH-P-VOC	18	1.16	10.71	11.87	10.5	87.2	
Q1947-05	MH-O	19	1.14	10.59	11.73	10.52	88.6	
Q1947-06	MH-O-EPH	20	1.12	10.00	11.12	9.91	87.9	
Q1947-07	MH-O-VOC	21	1.17	10.00	11.17	9.95	87.8	
Q1951-01	MH-KK	22	1.18	10.40	11.58	10.01	84.9	
Q1951-02	MH-KK-EPH	23	1.16	10.29	11.45	9.91	85.0	
Q1951-03	MH-KK-VOC	24	1.17	10.25	11.42	9.86	84.8	
Q1952-01	CLEAN-FILL	25	1.18	10.49	11.67	8.98	74.4	
Q1952-02	CLEAN-FILL-E2	26	1.13	10.10	11.23	8.47	72.7	
Q1953-01	AUD-25-0075	27	1.00	1.00	2.00	2.00	100.0	pile
Q1953-02	AUD-25-0076	28	1.00	1.00	2.00	2.00	100.0	pile



PERCENT SOLID

Supervisor: Iwona
Analyst: jignesh
Date: 5/5/2025

OVENTEMP IN Celsius(°C): 107
Time IN: 17:00
In Date: 05/02/2025
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
OvenID: M OVEN#1

OVENTEMP OUT Celsius(°C): 104
Time OUT: 08:25
Out Date: 05/03/2025
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
BalanceID: M SC-4
Thermometer ID: % SOLID- OVEN

QC:LB135646

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
Q1953-03	AUD-25-0077	29	1.00	1.00	2.00	2.00	100.0	oilc
Q1954-01	BC260874-1-1	30	1.00	1.00	2.00	2.00	100.0	oilc
Q1954-02	BC260874-1-2	31	1.00	1.00	2.00	2.00	100.0	oilc
Q1955-01	LAW-25-0066	32	1.00	1.00	2.00	2.00	100.0	stone sample, 100 % solids

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

WORKLIST(Hardcopy Internal Chain)

173546

WorkList Name : %1-050225

WorkList ID : 189289

Department : Wet-Chemistry

Date : 05-02-2025 14:36:21

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q1913-01	WC-12-S-202504	Solid	Percent Solids	Cool 4 deg C	AECO02	L21	04/29/2025	Chemtech -SO
Q1913-03	WC-13-S-202504	Solid	Percent Solids	Cool 4 deg C	AECO02	L21	04/29/2025	Chemtech -SO
Q1936-01	SMALL-PILE-A	Solid	Percent Solids	Cool 4 deg C	SAXT01	L51	05/01/2025	Chemtech -SO
Q1936-02	SMALL-PILE-A	Solid	Percent Solids	Cool 4 deg C	SAXT01	L51	05/01/2025	Chemtech -SO
Q1936-03	SMALL-PILE-B	Solid	Percent Solids	Cool 4 deg C	SAXT01	L51	05/01/2025	Chemtech -SO
Q1936-04	SMALL-PILE-B	Solid	Percent Solids	Cool 4 deg C	SAXT01	L51	05/01/2025	Chemtech -SO
Q1936-05	SMALL-PILE-C	Solid	Percent Solids	Cool 4 deg C	SAXT01	L51	05/01/2025	Chemtech -SO
Q1936-06	SMALL-PILE-C	Solid	Percent Solids	Cool 4 deg C	SAXT01	L51	05/01/2025	Chemtech -SO
Q1936-07	SMALL-PILE-D	Solid	Percent Solids	Cool 4 deg C	SAXT01	L51	05/01/2025	Chemtech -SO
Q1936-08	SMALL-PILE-D	Solid	Percent Solids	Cool 4 deg C	SAXT01	L51	05/01/2025	Chemtech -SO
Q1937-01	LARGE-PILE-A	Solid	Percent Solids	Cool 4 deg C	SAXT01	L41	05/01/2025	Chemtech -SO
Q1937-02	LARGE-PILE-A	Solid	Percent Solids	Cool 4 deg C	SAXT01	L41	05/01/2025	Chemtech -SO
Q1937-03	LARGE-PILE-B	Solid	Percent Solids	Cool 4 deg C	SAXT01	L41	05/01/2025	Chemtech -SO
Q1937-04	LARGE-PILE-B	Solid	Percent Solids	Cool 4 deg C	SAXT01	L41	05/01/2025	Chemtech -SO
Q1937-05	LARGE-PILE-C	Solid	Percent Solids	Cool 4 deg C	SAXT01	L41	05/01/2025	Chemtech -SO
Q1937-06	LARGE-PILE-C	Solid	Percent Solids	Cool 4 deg C	SAXT01	L41	05/01/2025	Chemtech -SO
Q1937-07	LARGE-PILE-D	Solid	Percent Solids	Cool 4 deg C	SAXT01	L41	05/01/2025	Chemtech -SO
Q1937-08	LARGE-PILE-D	Solid	Percent Solids	Cool 4 deg C	SAXT01	L41	05/01/2025	Chemtech -SO
Q1937-09	LARGE-PILE-E	Solid	Percent Solids	Cool 4 deg C	SAXT01	L41	05/01/2025	Chemtech -SO
Q1937-10	LARGE-PILE-E	Solid	Percent Solids	Cool 4 deg C	SAXT01	L41	05/01/2025	Chemtech -SO
Q1937-11	LARGE-PILE-F	Solid	Percent Solids	Cool 4 deg C	SAXT01	L41	05/01/2025	Chemtech -SO

Date/Time 05/02/25 15:10

Raw Sample Received by: [Signature]

Raw Sample Relinquished by: [Signature]

Date/Time 05/02/25 17:10

Raw Sample Received by: [Signature]

Raw Sample Relinquished by: [Signature]

WORKLIST(Hardcopy Internal Chain)

1725546

WorkList Name : %1-050225

WorkList ID : 189289

Department : Wet-Chemistry

Date : 05-02-2025 14:36:21

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q1937-12	LARGE-PILE-F	Solid	Percent Solids	Cool 4 deg C	SAXT01	L41	05/01/2025	Chemtech -SO
Q1938-01	LOWER-WALL-PILE-A	Solid	Percent Solids	Cool 4 deg C	SAXT01	L41	05/01/2025	Chemtech -SO
Q1938-02	LOWER-WALL-PILE-A	Solid	Percent Solids	Cool 4 deg C	SAXT01	L41	05/01/2025	Chemtech -SO
Q1938-03	LOWER-WALL-PILE-B	Solid	Percent Solids	Cool 4 deg C	SAXT01	L41	05/01/2025	Chemtech -SO
Q1938-04	LOWER-WALL-PILE-B	Solid	Percent Solids	Cool 4 deg C	SAXT01	L41	05/01/2025	Chemtech -SO
Q1938-05	LOWER-WALL-PILE-C	Solid	Percent Solids	Cool 4 deg C	SAXT01	L41	05/01/2025	Chemtech -SO
Q1938-06	LOWER-WALL-PILE-C	Solid	Percent Solids	Cool 4 deg C	SAXT01	L41	05/01/2025	Chemtech -SO
Q1938-07	LOWER-WALL-PILE-D	Solid	Percent Solids	Cool 4 deg C	SAXT01	L41	05/01/2025	Chemtech -SO
Q1938-08	LOWER-WALL-PILE-D	Solid	Percent Solids	Cool 4 deg C	SAXT01	L41	05/01/2025	Chemtech -SO
Q1942-05	SVOC-GPC-BLANK	Solid	Percent Solids	Cool 4 deg C	CHEM02	L41	05/01/2025	Chemtech -SO
Q1942-06	PEST-GPC-BLANK	Solid	Percent Solids	Cool 4 deg C	CHEM02	L41	04/25/2025	Chemtech -SO
Q1942-07	PEST-GPC-BLANK-SPIKE	Solid	Percent Solids	Cool 4 deg C	CHEM02	L41	04/25/2025	Chemtech -SO
Q1942-08	PCB-GPC-BLANK	Solid	Percent Solids	Cool 4 deg C	CHEM02	L41	04/25/2025	Chemtech -SO
Q1942-09	PCB-GPC-BLANK-SPIKE	Solid	Percent Solids	Cool 4 deg C	CHEM02	L41	04/25/2025	Chemtech -SO
Q1942-10	SVOC-GPC2-BLANK	Solid	Percent Solids	Cool 4 deg C	CHEM02	L41	04/25/2025	Chemtech -SO
Q1942-11	PEST-GPC2-BLANK	Solid	Percent Solids	Cool 4 deg C	CHEM02	L41	04/25/2025	Chemtech -SO
Q1942-12	PEST-GPC2-BLANK-SPIKE	Solid	Percent Solids	Cool 4 deg C	CHEM02	L41	04/25/2025	Chemtech -SO
Q1942-13	PCB-GPC2-BLANK	Solid	Percent Solids	Cool 4 deg C	CHEM02	L41	04/25/2025	Chemtech -SO
Q1942-14	PCB-GPC2-BLANK-SPIKE	Solid	Percent Solids	Cool 4 deg C	CHEM02	L41	04/25/2025	Chemtech -SO
Q1944-01	MELTED-RUBBER-SAMPLE	Solid	Percent Solids	Cool 4 deg C	METE01	L41	05/02/2025	Chemtech -SO
Q1946-01	BB-CONCRETE	Solid	Percent Solids	Cool 4 deg C	PSEG03	L41	05/02/2025	Chemtech -SO

Date/Time 05/02/25 15:10

Raw Sample Received by: *Se Lee*

Raw Sample Relinquished by: *Se Lee*

Date/Time 05/02/25

Raw Sample Received by: *Se Lee*

Raw Sample Relinquished by: *Se Lee*

WORKLIST(Hardcopy Internal Chain)

8/23/25

WorkList Name : %1-050225

WorkList ID : 189289

Department : Wet-Chemistry

Date : 05-02-2025 14:36:21

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q1946-02	BB-CONCRETE	Solid	Percent Solids	Cool 4 deg C	PSEG03	L41	05/02/2025	Chemtech -SO
Q1947-01	MH-P	Solid	Percent Solids	Cool 4 deg C	PSEG03	L41	05/02/2025	Chemtech -SO
Q1947-02	MH-P-EPH	Solid	Percent Solids	Cool 4 deg C	PSEG03	L41	05/02/2025	Chemtech -SO
Q1947-03	MH-P-VOC	Solid	Percent Solids	Cool 4 deg C	PSEG03	L41	05/02/2025	Chemtech -SO
Q1947-05	MH-O	Solid	Percent Solids	Cool 4 deg C	PSEG03	L41	05/02/2025	Chemtech -SO
Q1947-06	MH-O-EPH	Solid	Percent Solids	Cool 4 deg C	PSEG03	L41	05/02/2025	Chemtech -SO
Q1947-07	MH-O-VOC	Solid	Percent Solids	Cool 4 deg C	PSEG03	L41	05/02/2025	Chemtech -SO
Q1951-01	MH-KK	Solid	Percent Solids	Cool 4 deg C	PSEG03	L41	05/02/2025	Chemtech -SO
Q1951-02	MH-KK-EPH	Solid	Percent Solids	Cool 4 deg C	PSEG03	L31	05/02/2025	Chemtech -SO
Q1951-03	MH-KK-VOC	Solid	Percent Solids	Cool 4 deg C	PSEG03	L31	05/02/2025	Chemtech -SO
Q1952-01	CLEAN-FILL	Solid	Percent Solids	Cool 4 deg C	PSEG03	L31	05/02/2025	Chemtech -SO
Q1952-02	CLEAN-FILL-E2	Solid	Percent Solids	Cool 4 deg C	PSEG03	L21	05/02/2025	Chemtech -SO
Q1953-01	AUD-25-0075	Solid	Percent Solids	Cool 4 deg C	PSEG03	L21	05/02/2025	Chemtech -SO
Q1953-02	AUD-25-0076	Solid	Percent Solids	Cool 4 deg C	PSEG03	L41	05/02/2025	Chemtech -SO
Q1953-03	AUD-25-0077	Solid	Percent Solids	Cool 4 deg C	PSEG03	L41	05/02/2025	Chemtech -SO
Q1954-01	BC260874-1-1	Solid	Percent Solids	Cool 4 deg C	PSEG03	L41	05/02/2025	Chemtech -SO
Q1954-02	BC260874-1-2	Solid	Percent Solids	Cool 4 deg C	PSEG03	L41	05/02/2025	Chemtech -SO
Q1955-01	LAW-25-0066	Solid	Percent Solids	Cool 4 deg C	PSEG03	L41	05/02/2025	Chemtech -SO

Date/Time 05/02/25 15:10

Raw Sample Received by: 88 WOC,

Raw Sample Relinquished by: 88 WOC,

Date/Time 05/02/25

Raw Sample Received by: 88 WOC,

Raw Sample Relinquished by: 88 WOC,

SOP ID: M3541-ASE Extraction-14

Clean Up SOP #: N/A

Extraction Start Date : 05/07/2025

Matrix : Solid

Extraction Start Time : 09:00

Weigh By: EH

Extraction By: RJ

Extraction End Date : 05/07/2025

Balance check: RJ

Filter By: RJ

Extraction End Time : 12:00

Balance ID: EX-SC-2

pH Meter ID: N/A

Concentration By: EH

pH Strip Lot#: N/A

Hood ID: 3,7

Supervisor By : RUPESH

Extraction Method: ☐ Separatory Funnel

☐ Continious Liquid/Liquid

☐ Sonication

☐ Waste Dilution

☒ Soxhlet

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

Chemical Used	ML/SAMPLE USED	Lot Number
MeCl2/Acetone/1:1	N/A	EP2600
Baked Na2SO4	N/A	EP2607
Sand	N/A	E2865
Methylene Chloride	N/A	E3930
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

Extraction Conformance/Non-Conformance Comments:

1.5 ML Vial lot# 2210673.

KD Bath ID: N/A

Envap ID: NEVAP-02

KD Bath Temperature: N/A

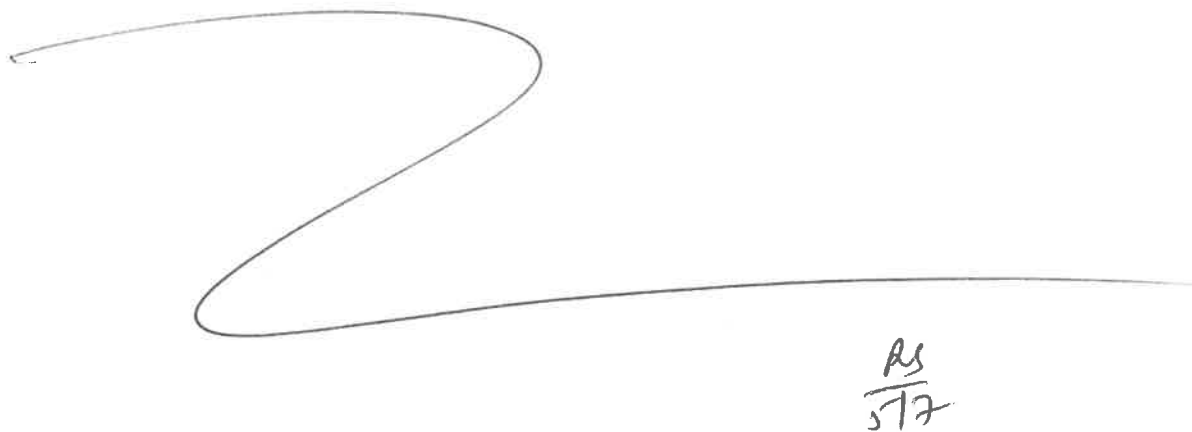
Envap Temperature: 40 °C

Date / Time	Prepped Sample Relinquished By/Location	Received By/Location
5/7/25	RS (Ext Lab)	Y.P. Pest IP CB
12:05	Preparation Group	Analysis Group

Analytical Method: M3541-ASE Extraction-14

Concentration Date: 05/07/2025

Sample ID	Client Sample ID	Test	g/ mL	PH	Surr/Spike By:		Final Vol. (mL)	JarID	Comments	Prep Pos
					AddedBy	VerifiedBy				
PB167887BL	PB167887BL	TPH GC	30.02	N/A	ritesh	Evelyn	1			U1-1
PB167887BS	PB167887BS	TPH GC	30.03	N/A	ritesh	Evelyn	1			2
Q1936-01	SMALL-PILE-A	TPH GC	30.07	N/A	ritesh	Evelyn	1	A		3
Q1936-01MS	SMALL-PILE-AMS	TPH GC	30.06	N/A	ritesh	Evelyn	1	A		4
Q1936-01MS D	SMALL-PILE-AMSD	TPH GC	30.04	N/A	ritesh	Evelyn	1	A		5
Q1936-03	SMALL-PILE-B	TPH GC	30.05	N/A	ritesh	Evelyn	1	C		6
Q1936-05	SMALL-PILE-C	TPH GC	30.01	N/A	ritesh	Evelyn	1	A		U2-1
Q1936-07	SMALL-PILE-D	TPH GC	30.06	N/A	ritesh	Evelyn	1	D		2
Q1937-01	LARGE-PILE-A	TPH GC	30.03	N/A	ritesh	Evelyn	1	C		3
Q1937-03	LARGE-PILE-B	TPH GC	30.06	N/A	ritesh	Evelyn	1	C		4
Q1937-05	LARGE-PILE-C	TPH GC	30.04	N/A	ritesh	Evelyn	1	A		5
Q1937-07	LARGE-PILE-D	TPH GC	30.08	N/A	ritesh	Evelyn	1	D		6
Q1937-09	LARGE-PILE-E	TPH GC	30.03	N/A	ritesh	Evelyn	1	C		U3-1
Q1937-11	LARGE-PILE-F	TPH GC	30.01	N/A	ritesh	Evelyn	1	C		2
Q1938-01	LOWER-WALL-PILE-A	TPH GC	30.02	N/A	ritesh	Evelyn	1	A		3
Q1938-03	LOWER-WALL-PILE-B	TPH GC	30.06	N/A	ritesh	Evelyn	1	D		4
Q1938-05	LOWER-WALL-PILE-C	TPH GC	30.07	N/A	ritesh	Evelyn	1	B		5
Q1938-07	LOWER-WALL-PILE-D	TPH GC	30.05	N/A	ritesh	Evelyn	1	B		6



CP: 6
t. 88491

WORKLIST(Hardcopy Internal Chain)

WorkList Name : Q1936T WorkList ID : 189357 Department : Extraction Date : 05-07-2025 08:38:03

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q1936-01	SMALL-PILE-A	Solid	TPH GC	Cool 4 deg C	SAXT01	L51	05/01/2025	8015D
Q1936-03	SMALL-PILE-B	Solid	TPH GC	Cool 4 deg C	SAXT01	L51	05/01/2025	8015D
Q1936-05	SMALL-PILE-C	Solid	TPH GC	Cool 4 deg C	SAXT01	L51	05/01/2025	8015D
Q1936-07	SMALL-PILE-D	Solid	TPH GC	Cool 4 deg C	SAXT01	L51	05/01/2025	8015D
Q1937-01	LARGE-PILE-A	Solid	TPH GC	Cool 4 deg C	SAXT01	L41	05/01/2025	8015D
Q1937-03	LARGE-PILE-B	Solid	TPH GC	Cool 4 deg C	SAXT01	L41	05/01/2025	8015D
Q1937-05	LARGE-PILE-C	Solid	TPH GC	Cool 4 deg C	SAXT01	L41	05/01/2025	8015D
Q1937-07	LARGE-PILE-D	Solid	TPH GC	Cool 4 deg C	SAXT01	L41	05/01/2025	8015D
Q1937-09	LARGE-PILE-E	Solid	TPH GC	Cool 4 deg C	SAXT01	L41	05/01/2025	8015D
Q1937-11	LARGE-PILE-F	Solid	TPH GC	Cool 4 deg C	SAXT01	L41	05/01/2025	8015D
Q1938-01	LOWER-WALL-PILE-A	Solid	TPH GC	Cool 4 deg C	SAXT01	L41	05/01/2025	8015D
Q1938-03	LOWER-WALL-PILE-B	Solid	TPH GC	Cool 4 deg C	SAXT01	L41	05/01/2025	8015D
Q1938-05	LOWER-WALL-PILE-C	Solid	TPH GC	Cool 4 deg C	SAXT01	L41	05/01/2025	8015D
Q1938-07	LOWER-WALL-PILE-D	Solid	TPH GC	Cool 4 deg C	SAXT01	L41	05/01/2025	8015D

Date/Time 05/07/25 8:55
Raw Sample Received by: RJ LEEH-lab
Raw Sample Relinquished by: CP SM

Date/Time 05/07/25 9:20
Raw Sample Received by: CP SM
Raw Sample Relinquished by: RJ LEEH-lab

Prep Standard - Chemical Standard Summary

Order ID : Q1937

Test : TPH GC

Prepbatch ID : PB167887,

Sequence ID/Qc Batch ID: FG050725,FF050725,

Standard ID :

EP2600,EP2607,PP24162,PP24180,PP24467,PP24468,PP24469,PP24470,PP24471,PP24472,PP24473,

Chemical ID :

E2865,E3551,E3874,E3904,E3917,E3926,E3930,P11951,P11952,P11955,P11956,P13106,P13108,P13477,P13479,P13487,P13488,P13489,P13490,

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>
2017	1:1 ACETONE/METHYLENE CHLORIDE	EP2600	04/07/2025	10/03/2025	Rajesh Parikh	None	None	Riteshkumar Patel
								04/07/2025

FROM 8000.00000ml of E3904 + 8000.00000ml of E3917 = Final Quantity: 16000.000 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	EP2607	04/25/2025	07/01/2025	RUPESEKUMAR SHAH	Extraction_SC ALE_2	None	Riteshkumar Patel
						(EX-SC-2)		04/25/2025

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>
3609	20 PPM DRO SPIKE SOLUTION (RESTEK)	PP24162	01/31/2025	07/30/2025	Yogesh Patel	None	None	Ankita Jodhani
								01/31/2025

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

<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>
147	20 PPM DRO Surrogate Spike Solution	PP24180	02/03/2025	07/30/2025	Yogesh Patel	None	None	Ankita Jodhani
								02/03/2025

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

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>
433	100/100 PPM DRO (Restek)	PP24467	04/22/2025	10/08/2025	Yogesh Patel	None	None	Abdul Mirza
								05/08/2025

FROM 1.00000ml of P11951 + 1.00000ml of P11952 + 1.00000ml of P13477 + 7.00000ml of E3926 = Final Quantity: 10.000 ml

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
3979	100/100 PPM DRO ICV (RESTEK)	PP24468	04/22/2025	10/08/2025	Yogesh Patel	None	None	Abdul Mirza
								05/08/2025

FROM 1.00000ml of P13106 + 1.00000ml of P13108 + 1.00000ml of P13479 + 7.00000ml of E3926 = Final Quantity: 10.000 ml

Pest/Pcb STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
435	50 PPM ICC DRO STD (Restek)	PP24469	04/22/2025	10/08/2025	Yogesh Patel	None	None	Abdul Mirza
								05/08/2025

FROM 0.50000ml of E3926 + 0.50000ml of PP24467 = 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>
437	20 PPM ICC DRO STD (Restek)	PP24470	04/22/2025	10/08/2025	Yogesh Patel	None	None	Abdul Mirza
								05/08/2025

FROM 0.80000ml of E3926 + 0.20000ml of PP24467 = 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>
438	10 PPM ICC DRO STD (Restek)	PP24471	04/22/2025	10/08/2025	Yogesh Patel	None	None	Abdul Mirza
								05/08/2025

FROM 0.90000ml of E3926 + 0.10000ml of PP24467 = 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>
439	5 PPM ICC DRO STD (Restek)	PP24472	04/22/2025	10/08/2025	Yogesh Patel	None	None	Abdul Mirza
								05/08/2025

FROM 0.90000ml of E3926 + 0.10000ml of PP24469 = 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>
3608	50 PPM ICV DRO STD (RESTEK)	PP24473	04/22/2025	10/08/2025	Yogesh Patel	None	None	Abdul Mirza
								05/08/2025

FROM 0.50000ml of E3926 + 0.50000ml of PP24468 = Final Quantity: 1.000 ml

CHEMICAL RECEIPT LOG BOOK

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

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

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

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9644-A4 / Methylene Chloride,U-Resi, Cycle-Tainer (215L)	24K1762005	01/07/2026	03/13/2025 /	12/27/2024 / RUPESH	E3904

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9254-03 / Acetone, Ultra Resi (cs/4x4L)	24H2762008	10/03/2025	04/03/2025 / Rajesh	03/31/2025 / Rajesh	E3917

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9644-A4 / Methylene Chloride,U-Resi, Cycle-Tainer (215L)	25A0262002	10/08/2025	04/08/2025 / Rajesh	02/07/2025 / Rajesh	E3926

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9644-A4 / Methylene Chloride,U-Resi, Cycle-Tainer (215L)	25A0262002	02/20/2026	05/02/2025 / RUPESH	03/09/2025 / RUPESH	E3930

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31266 / Florida TRPH Standard	A0186840	10/22/2025	04/22/2025 / yogesh	07/11/2022 / Yogesh	P11951

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31266 / Florida TRPH Standard	A0186840	10/22/2025	04/22/2025 / yogesh	07/11/2022 / Yogesh	P11952

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

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

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31266 / Florida TRPH Standard	A0204859	10/22/2025	04/22/2025 / yogesh	01/12/2024 / Yogesh	P13106

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31266 / Florida TRPH Standard	A0204859	10/22/2025	04/22/2025 / yogesh	01/12/2024 / Yogesh	P13108

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	72072 / n-Tetracosane-d50, 1000 ug/ml	101122	10/22/2025	04/22/2025 / yogesh	07/24/2024 / yogesh	P13477

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	72072 / n-Tetracosane-d50, 1000 ug/ml	101122	10/22/2025	04/22/2025 / yogesh	07/24/2024 / yogesh	P13479

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

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	72072 / n-Tetracosane-d50, 1000 ug/ml	101122	08/03/2025	02/03/2025 / yogesh	07/24/2024 / yogesh	P13488

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

CHEMICAL RECEIPT LOG BOOK

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

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

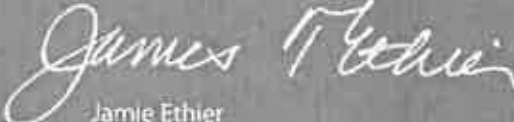
Certificate of Analysis

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

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



Material No.: 9266-A4
Batch No.: 25A0262002
Manufactured Date: 2024-11-21
Expiration Date: 2026-02-20
Revision No.: 0

Certificate of Analysis

Test	Specification	Result
FID-Sensitive Impurities (as 2-Octanol) Single Impurity Peak (ng/mL)	≤ 5	1
ECD Sensitive Impurities (as HeptachlorEpoxide) Single Peak (pg/mL)	≤ 10	4
Assay (CH_2Cl_2) (by GC, exclusive of preservative, corrected for water)	$\geq 99.8\%$	99.9%
Color (APHA)	≤ 10	10
Residue after Evaporation	≤ 1.0 ppm	0.8 ppm
Titration Acid ($\mu\text{eq/g}$)	≤ 0.3	< 0.1
Chloride (Cl)	≤ 10 ppm	< 5 ppm
Water (by KF, coulometric)	$\leq 0.02\%$	$< 0.01\%$

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

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

E 3874

Jamie Croak
Director Quality Operations, Bioscience Production

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

Avantor Performance Materials, LLC

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

Acetone

BAKER RESI-ANALYZED® Reagent
For Organic Residue Analysis

avantor™



Material No.: 9254-03

Batch No.: 24H2762008

Manufactured Date: 2024-04-18

Expiration Date: 2027-04-18

Revision No.: 0

Certificate of Analysis

Test	Specification	Result
Assay ((CH ₃) ₂ CO) (by GC, corrected for water)	>= 99.4 %	100.0 %
Color (APHA)	<= 10	5
Residue after Evaporation	<= 1.0 ppm	0.0 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 %	<0.1 %
FID-Sensitive Impurities (as 2-Octanol) Single Impurity Peak (ng/mL)	<= 5	1
ECD Sensitive Impurities (as Heptachlor Epoxide) Single Peak (pg/mL)	<= 10	1

For Laboratory, Research, or Manufacturing Use

MEETS SPECIFICATIONS WITHIN THE EXPIRATION PERIOD

Country of Origin: United States

Packaging Site: Phillipsburg Mfg Ctr & DC

Recd by RP on 03/31/25

E3917

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

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

avantor



Material No.: 9266-A4
Batch No.: 25A0262002
Manufactured Date: 2024-11-21
Expiration Date: 2026-02-20
Revision No.: 0

Certificate of Analysis

Test	Specification	Result
FID-Sensitive Impurities (as 2-Octanol) Single Impurity Peak (ng/mL)	<= 5	1
ECD Sensitive Impurities (as HeptachlorEpoxide) Single Peak (pg/mL)	<= 10	4
Assay (CH ₂ Cl ₂) (by GC, exclusive of preservative, corrected for water)	>= 99.8 %	99.9 %
Color (APHA)	<= 10	10
Residue after Evaporation	<= 1.0 ppm	0.8 ppm
Titration Acid (μeq/g)	<= 0.3	<0.1
Chloride (Cl)	<= 10 ppm	<5 ppm
Water (by KF, coulometric)	<= 0.02 %	<0.01 %

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

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

E 3926

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

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

avantor



Material No.: 9266-A4
Batch No.: 25A0262002
Manufactured Date: 2024-11-21
Expiration Date: 2026-02-20
Revision No.: 0

Certificate of Analysis

Test	Specification	Result
FID-Sensitive Impurities (as 2-Octanol) Single Impurity Peak (ng/mL)	≤ 5	1
ECD Sensitive Impurities (as HeptachlorEpoxide) Single Peak (pg/mL)	≤ 10	4
Assay (CH ₂ Cl ₂) (by GC, exclusive of preservative, corrected for water)	$\geq 99.8\%$	99.9%
Color (APHA)	≤ 10	10
Residue after Evaporation	≤ 1.0 ppm	0.8 ppm
Titration Acid (μ eq/g)	≤ 0.3	< 0.1
Chloride (Cl)	≤ 10 ppm	< 5 ppm
Water (by KF, coulometric)	$\leq 0.02\%$	$< 0.01\%$

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

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

E3930

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



CERTIFIED REFERENCE MATERIAL

110 Benner Circle

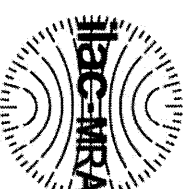
Bellefonte, PA 16823-8812

Tel: (800)356-1688

Fax: (814)353-1309

www.restek.com

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. : 31266

Lot No.: A0186840

Description : Florida TRPH Standard

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

Container Size : 2 mL

Pkg Amt: > 1 mL

Expiration Date : July 31, 2029

Storage: 25°C nominal

Handling: Sonicate prior to use.

Ship: Ambient

CERTIFIED VALUES

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

P11948 } 7.8
P11962 } 07/11/16

8	n-Docosane (C22) CAS # 629-97-0 Purity 99%	(Lot MKCL8918)	504.5 µg/mL	+/- 2.9966 +/- 12.5340 +/- 15.0241	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
9	n-Tetracosane (C24) CAS # 646-31-1 Purity 99%	(Lot MKCN2863)	503.5 µg/mL	+/- 2.9906 +/- 12.5092 +/- 14.9944	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
10	n-Hexacosane (C26) CAS # 630-01-3 Purity 99%	(Lot MKCD4540)	504.0 µg/mL	+/- 2.9936 +/- 12.5216 +/- 15.0093	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
11	n-Octacosane (C28) CAS # 630-02-4 Purity 99%	(Lot BCCG0084)	504.5 µg/mL	+/- 2.9966 +/- 12.5340 +/- 15.0241	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
12	n-Triacontane (C30) CAS # 638-68-6 Purity 99%	(Lot MKCN9321)	505.0 µg/mL	+/- 2.9995 +/- 12.5465 +/- 15.0390	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
13	n-Dotriacontane (C32) CAS # 544-85-4 Purity 99%	(Lot BCBW0661)	505.0 µg/mL	+/- 2.9995 +/- 12.5465 +/- 15.0390	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
14	n-Tetratriacontane (C34) CAS # 14167-59-0 Purity 99%	(Lot OML4N)	504.5 µg/mL	+/- 2.9966 +/- 12.5340 +/- 15.0241	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
15	n-Hexatriacontane (C36) CAS # 630-06-8 Purity 99%	(Lot U25B014)	504.0 µg/mL	+/- 2.9936 +/- 12.5216 +/- 15.0093	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
16	n-Octatriacontane (C38) CAS # 7194-85-6 Purity 97%	(Lot 0000127235)	504.4 µg/mL	+/- 2.9960 +/- 12.5316 +/- 15.0212	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
17	n-Tetracontane (C40) CAS # 4181-95-7 Purity 98%	(Lot PADGI)	504.7 µg/mL	+/- 2.9978 +/- 12.5390 +/- 15.0301	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

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

Column:

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

Carrier Gas:

hydrogen-constant pressure 10 psi.

Temp. Program:

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

Inj. Temp:

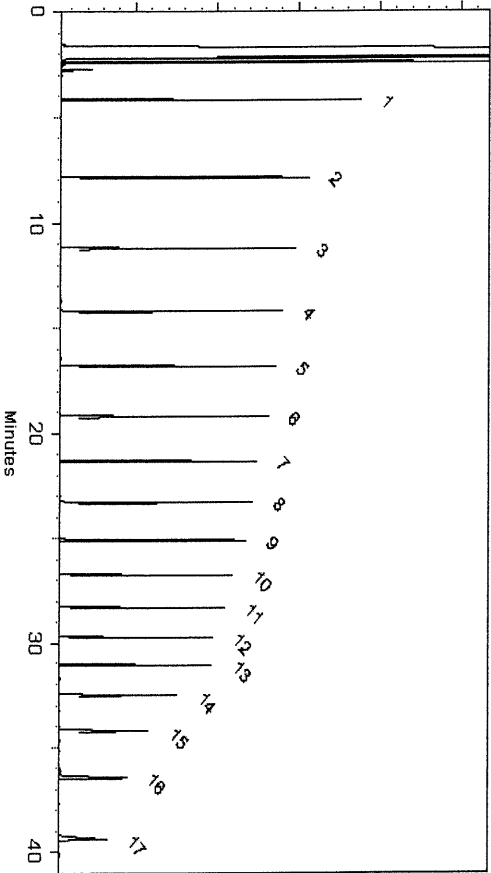
250°C

Det. Temp:

330°C

Det. Type:

FID



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

Brittany Federinko
Brittany Federinko - Operations Tech I

Date Mixed: 29-Jun-2022

Balance: 1128360905

Christie Mills
Christie Mills - Operations Tech II - ARM QC

Date Passed: 01-Jul-2022

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

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

Certified Uncertainty Value Notes:

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

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

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.



CERTIFIED REFERENCE MATERIAL

110 Benner Circle

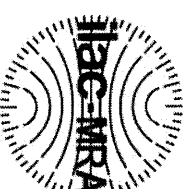
Bellefonte, PA 16823-8812

Tel: (800)356-1688

Fax: (814)353-1309

www.restek.com

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. : 31266

Lot No.: A0186840

Description : Florida TRPH Standard

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

Container Size : 2 mL

Pkg Amt: > 1 mL

Expiration Date : July 31, 2029

Storage: 25°C nominal

Handling: Sonicate prior to use.

Ship: Ambient

CERTIFIED VALUES

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

P11948 } 7.8
P11962 } 07/11/16

8	n-Docosane (C22) CAS # 629-97-0 Purity 99%	(Lot MKCL8918)	504.5 µg/mL	+/- 2.9966 +/- 12.5340 +/- 15.0241	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
9	n-Tetracosane (C24) CAS # 646-31-1 Purity 99%	(Lot MKCN2863)	503.5 µg/mL	+/- 2.9906 +/- 12.5092 +/- 14.9944	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
10	n-Hexacosane (C26) CAS # 630-01-3 Purity 99%	(Lot MKCD4540)	504.0 µg/mL	+/- 2.9936 +/- 12.5216 +/- 15.0093	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
11	n-Octacosane (C28) CAS # 630-02-4 Purity 99%	(Lot BCCG0084)	504.5 µg/mL	+/- 2.9966 +/- 12.5340 +/- 15.0241	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
12	n-Triacontane (C30) CAS # 638-68-6 Purity 99%	(Lot MKCN9321)	505.0 µg/mL	+/- 2.9995 +/- 12.5465 +/- 15.0390	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
13	n-Dotriacontane (C32) CAS # 544-85-4 Purity 99%	(Lot BCBW0661)	505.0 µg/mL	+/- 2.9995 +/- 12.5465 +/- 15.0390	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
14	n-Tetratriacontane (C34) CAS # 14167-59-0 Purity 99%	(Lot OML4N)	504.5 µg/mL	+/- 2.9966 +/- 12.5340 +/- 15.0241	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
15	n-Hexatriacontane (C36) CAS # 630-06-8 Purity 99%	(Lot U25B014)	504.0 µg/mL	+/- 2.9936 +/- 12.5216 +/- 15.0093	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
16	n-Octatriacontane (C38) CAS # 7194-85-6 Purity 97%	(Lot 0000127235)	504.4 µg/mL	+/- 2.9960 +/- 12.5316 +/- 15.0212	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
17	n-Tetracontane (C40) CAS # 4181-95-7 Purity 98%	(Lot PADGI)	504.7 µg/mL	+/- 2.9978 +/- 12.5390 +/- 15.0301	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

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

Column:

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

Carrier Gas:

hydrogen-constant pressure 10 psi.

Temp. Program:

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

Inj. Temp:

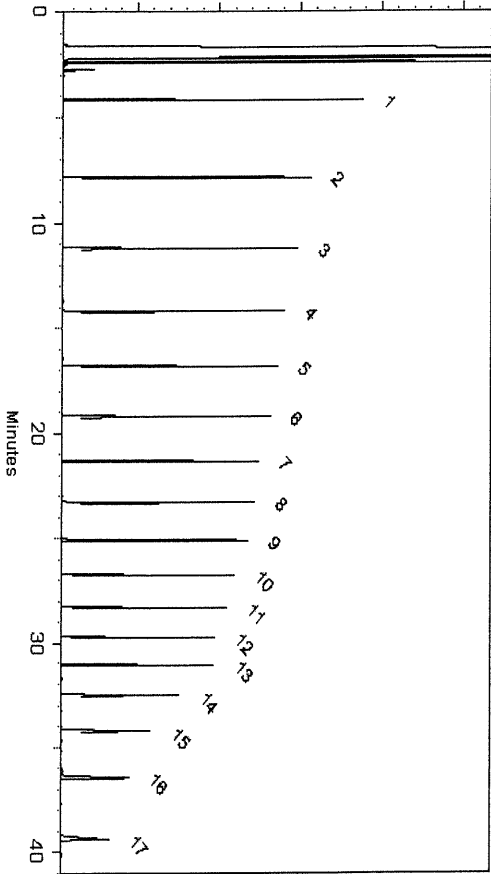
250°C

Det. Temp:

330°C

Det. Type:

FID



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

Brittany Federinko

Brittany Federinko - Operations Tech I

Date Mixed: 29-Jun-2022

Balance: 1128360905

Christie Mills

Christie Mills - Operations Tech II - ARM QC

Date Passed: 01-Jul-2022

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

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

Certified Uncertainty Value Notes:

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

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

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.



CERTIFIED REFERENCE MATERIAL

110 Benner Circle

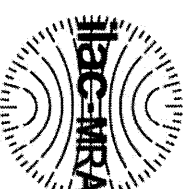
Bellefonte, PA 16823-8812

Tel: (800)356-1688

Fax: (814)353-1309

www.restek.com

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. : 31266

Lot No.: A0186840

Description : Florida TRPH Standard

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

Container Size : 2 mL

Pkg Amt: > 1 mL

Expiration Date : July 31, 2029

Storage: 25°C nominal

Handling: Sonicate prior to use.

Ship: Ambient

CERTIFIED VALUES

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

P11948 } 7.8
P11962 } 07/11/16

8	n-Docosane (C22) CAS # 629-97-0 Purity 99%	(Lot MKCL8918)	504.5 µg/mL	+/- 2.9966 +/- 12.5340 +/- 15.0241	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
9	n-Tetracosane (C24) CAS # 646-31-1 Purity 99%	(Lot MKCN2863)	503.5 µg/mL	+/- 2.9906 +/- 12.5092 +/- 14.9944	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
10	n-Hexacosane (C26) CAS # 630-01-3 Purity 99%	(Lot MKCD4540)	504.0 µg/mL	+/- 2.9936 +/- 12.5216 +/- 15.0093	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
11	n-Octacosane (C28) CAS # 630-02-4 Purity 99%	(Lot BCCG0084)	504.5 µg/mL	+/- 2.9966 +/- 12.5340 +/- 15.0241	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
12	n-Triacontane (C30) CAS # 638-68-6 Purity 99%	(Lot MKCN9321)	505.0 µg/mL	+/- 2.9995 +/- 12.5465 +/- 15.0390	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
13	n-Dotriacontane (C32) CAS # 544-85-4 Purity 99%	(Lot BCBW0661)	505.0 µg/mL	+/- 2.9995 +/- 12.5465 +/- 15.0390	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
14	n-Tetratriacontane (C34) CAS # 14167-59-0 Purity 99%	(Lot OML4N)	504.5 µg/mL	+/- 2.9966 +/- 12.5340 +/- 15.0241	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
15	n-Hexatriacontane (C36) CAS # 630-06-8 Purity 99%	(Lot U25B014)	504.0 µg/mL	+/- 2.9936 +/- 12.5216 +/- 15.0093	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
16	n-Octatriacontane (C38) CAS # 7194-85-6 Purity 97%	(Lot 0000127235)	504.4 µg/mL	+/- 2.9960 +/- 12.5316 +/- 15.0212	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
17	n-Tetracontane (C40) CAS # 4181-95-7 Purity 98%	(Lot PADGI)	504.7 µg/mL	+/- 2.9978 +/- 12.5390 +/- 15.0301	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

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

Column:

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

Carrier Gas:

hydrogen-constant pressure 10 psi.

Temp. Program:

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

Inj. Temp:

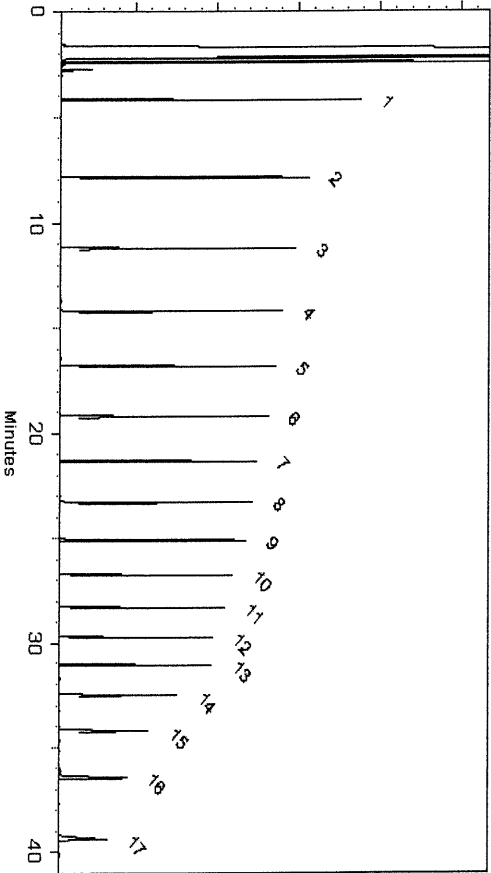
250°C

Det. Temp:

330°C

Det. Type:

FID



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

Brittany Federinko

Brittany Federinko - Operations Tech I

Date Mixed: 29-Jun-2022

Balance: 1128360905

Christie Mills

Christie Mills - Operations Tech II - ARM QC

Date Passed: 01-Jul-2022

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

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

Certified Uncertainty Value Notes:

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

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

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.



CERTIFIED REFERENCE MATERIAL

110 Benner Circle

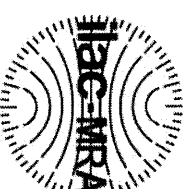
Bellefonte, PA 16823-8812

Tel: (800)356-1688

Fax: (814)353-1309

www.restek.com

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. : 31266

Lot No.: A0186840

Description : Florida TRPH Standard

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

Container Size : 2 mL

Pkg Amt: > 1 mL

Expiration Date : July 31, 2029

Storage: 25°C nominal

Handling: Sonicate prior to use.

Ship: Ambient

CERTIFIED VALUES

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

P11948 } 7.8
P11962 } 07/11/16

8	n-Docosane (C22) CAS # 629-97-0 Purity 99%	(Lot MKCL8918)	504.5 µg/mL	+/- 2.9966 +/- 12.5340 +/- 15.0241	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
9	n-Tetracosane (C24) CAS # 646-31-1 Purity 99%	(Lot MKCN2863)	503.5 µg/mL	+/- 2.9906 +/- 12.5092 +/- 14.9944	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
10	n-Hexacosane (C26) CAS # 630-01-3 Purity 99%	(Lot MKCD4540)	504.0 µg/mL	+/- 2.9936 +/- 12.5216 +/- 15.0093	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
11	n-Octacosane (C28) CAS # 630-02-4 Purity 99%	(Lot BCCG0084)	504.5 µg/mL	+/- 2.9966 +/- 12.5340 +/- 15.0241	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
12	n-Triacontane (C30) CAS # 638-68-6 Purity 99%	(Lot MKCN9321)	505.0 µg/mL	+/- 2.9995 +/- 12.5465 +/- 15.0390	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
13	n-Dotriacontane (C32) CAS # 544-85-4 Purity 99%	(Lot BCBW0661)	505.0 µg/mL	+/- 2.9995 +/- 12.5465 +/- 15.0390	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
14	n-Tetratriacontane (C34) CAS # 14167-59-0 Purity 99%	(Lot OML4N)	504.5 µg/mL	+/- 2.9966 +/- 12.5340 +/- 15.0241	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
15	n-Hexatriacontane (C36) CAS # 630-06-8 Purity 99%	(Lot U25B014)	504.0 µg/mL	+/- 2.9936 +/- 12.5216 +/- 15.0093	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
16	n-Octatriacontane (C38) CAS # 7194-85-6 Purity 97%	(Lot 0000127235)	504.4 µg/mL	+/- 2.9960 +/- 12.5316 +/- 15.0212	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
17	n-Tetracontane (C40) CAS # 4181-95-7 Purity 98%	(Lot PADGI)	504.7 µg/mL	+/- 2.9978 +/- 12.5390 +/- 15.0301	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

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

Column:

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

Carrier Gas:

hydrogen-constant pressure 10 psi.

Temp. Program:

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

Inj. Temp:

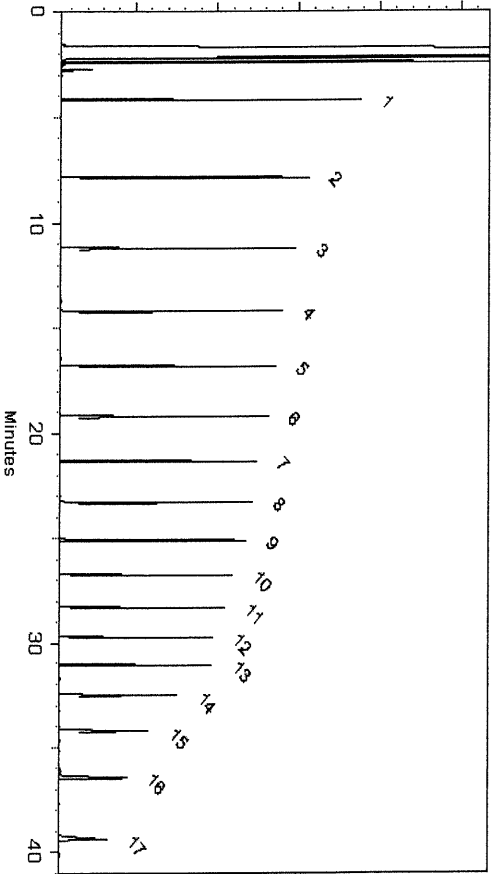
250°C

Det. Temp:

330°C

Det. Type:

FID



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

Brittany Federinko

Brittany Federinko - Operations Tech I

Date Mixed: 29-Jun-2022

Balance: 1128360905

Christie Mills

Christie Mills - Operations Tech II - ARM QC

Date Passed: 01-Jul-2022

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

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

Certified Uncertainty Value Notes:

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

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

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

Description : Florida TRPH Standard

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

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

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

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

P13103 } Y.P.
↓
P13112 } 01/12/2024

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	n-Octane (C8)	111-65-9	SHBP9758	99%	504.4 µg/mL	+/- 13.0305
2	n-Decane (C10)	124-18-5	SHBQ1342	99%	503.6 µg/mL	+/- 13.0098
3	n-Dodecane (C12)	112-40-3	SHBP7054	99%	503.6 µg/mL	+/- 13.0098
4	n-Tetradecane (C14)	629-59-4	STBK5437	99%	504.0 µg/mL	+/- 13.0201
5	n-Hexadecane (C16)	544-76-3	SHBP8192	99%	504.0 µg/mL	+/- 13.0201
6	n-Octadecane (C18)	593-45-3	UE5NG	98%	504.1 µg/mL	+/- 13.0230
7	n-Eicosane (C20)	112-95-8	MKCN8767	97%	504.0 µg/mL	+/- 13.0204
8	n-Docosane (C22)	629-97-0	MKCCQ3882	99%	503.6 µg/mL	+/- 13.0098
9	n-Tetracosane (C24)	646-31-1	MKCCQ8345	99%	504.0 µg/mL	+/- 13.0201
10	n-Hexacosane (C26)	630-01-3	MKCCQ4814	99%	504.0 µg/mL	+/- 13.0201
11	n-Octacosane (C28)	630-02-4	BCCG0084	99%	504.0 µg/mL	+/- 13.0201
12	n-Triacontane (C30)	638-68-6	MKCCQ9436	97%	504.0 µg/mL	+/- 13.0204
13	n-Dotriacontane (C32)	544-85-4	BCBW0661	99%	504.0 µg/mL	+/- 13.0201
14	n-Tetratriacontane (C34)	14167-59-0	OML4N	99%	504.4 µg/mL	+/- 13.0305
15	n-Hexatriacontane (C36)	630-06-8	Z27H018	99%	504.0 µg/mL	+/- 13.0201
16	n-Octatriacontane (C38)	7194-85-6	0000145137	96%	503.8 µg/mL	+/- 13.0152
17	n-Tetracontane (C40)	4181-95-7	OKEGA	99%	503.6 µg/mL	+/- 13.0098

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

Quality Confirmation Test

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

Carrier Gas:
hydrogen-constant pressure 10 psi.

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

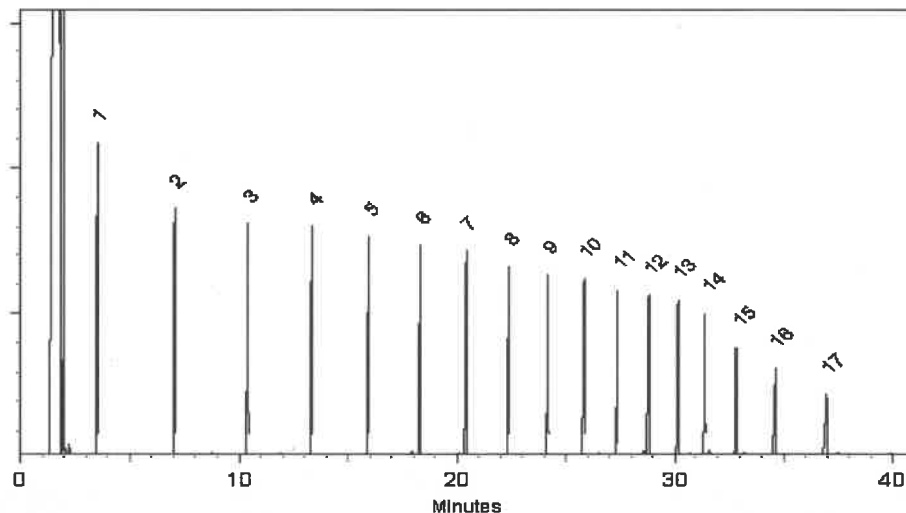
Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID

Split Vent:
2 ml/min.

Inj. Vol
1µl

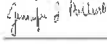


This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.


Dakota Parson - Operations Technician I

Date Mixed: 29-Nov-2023

Balance Serial # B442140311


Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 01-Dec-2023

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/ μ ECD, 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. : 31266 **Lot No.:** A0204859

Description : Florida TRPH Standard

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

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

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

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

P13103 } Y.P.
↓
P13112 } 01/12/2024

CERTIFIED VALUES

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

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

Quality Confirmation Test

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

Carrier Gas:
hydrogen-constant pressure 10 psi.

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

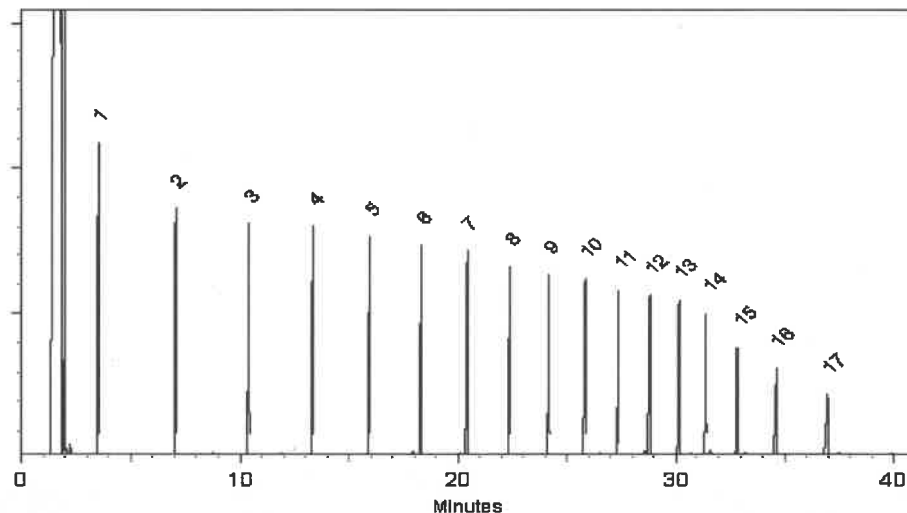
Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID

Split Vent:
2 ml/min.

Inj. Vol
1µl

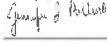


This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.


Dakota Parson - Operations Technician I

Date Mixed: 29-Nov-2023

Balance Serial # B442140311


Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 01-Dec-2023

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/ μ ECD, 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.

ABSOLUTE STANDARDS, INC.

ISO - 17034



Certificate of Analysis



Certified Reference Material (CRM)

Conformance: The "Certificate of Analysis" is applicable for CRM's, fulfilling the requirements in the current version of: ISO 17034.

Health & Safety: See the attached SDS & Certified Weight Report before use.

Intended Use: This Certified Reference Material (CRM) is intended primarily for use in the characterization of unknowns and the establishment of analyzer or instrument response factors by qualified personnel. Typical instrumental organic assays include: GC & LC, and inorganic assays include: ICP & AA. This product is for laboratory use only.

Characterization Values: In production, gravimetric/volumetric readings are certified to be within $\pm 0.5\%$ of the stated value & are valid between 18 °C & 30 °C. The measured characterization of uncertainty can be found on the Certified Weight Report. All product weighings are performed on an analytical balance that is calibrated to NIST Traceable standard weights & certified by the manufacturer. The volumetric glassware used is Class "A" type & conforms to ASTM E-288 unless otherwise stated. The solvents & compounds used are of the highest practical purity & typically meet or exceed ACS Reagent Grade & ACS Standards Grade specifications. The expanded uncertainty field on Certified Wt. Report represents CRM uncertainty as described in ISO 17034.

Homogeneity: Uncertainties that are due to the analytical procedure(s) are within $\pm 5\%$ unless specifically stated on the Certified Wt. Report.

Verification: Uncertainties that are due to the analytical procedure(s) are within $\pm 5\%$ unless specifically stated on the Certified Wt. Report.

Stability: Uncertainties for short-term stability are determined in accordance with ISO 17034. Long-term stability is determined in accordance with ISO 17034. The shelf life is limited by the stated expiration for each product. Expiration dates and additional technical information can be found on the Certified Weight Report and on the product label.

Uncertainty: UCRM is the expanded uncertainty which utilizes a $K = 2$ (coverage factor of 2), in accordance with ISO 17034 as listed above (Characterization, Homogeneity, Verification, and Stability).

Purity & Identity: Organic solutions are typically formulated from neat materials whose purity & identity have been characterized by GC-MSD & LC-PDA techniques with comparison to a NIST Traceable library of mass spectra when available. Additional characterization techniques may include but are not limited to: refractive index measurements of liquids, melting point measurements of solids, & GC-FID, ECD, PID, ELCD, LC-PDA measurements for purity. Inorganic solutions & neats are typically formulated from materials whose purity & identity have been characterized by ICPMS with comparison to a NIST SRM® when available. Additional characterization techniques may include but are not limited to: titrimetry, and densitometry.

Storage: Sealed ampules and other containers should be stored in the dark and at temperatures indicated on the Certified Weight Report or product label. Certification by Absolute Standards, Inc. is typically valid for 3 years from the date of manufacture. Each product will show its own expiration date as the limit of certification. Certified values are not applicable to opened ampules or for any materials stored in re-sealable containers. Please see the "Certified Weight Report" for specific values and any exceptions.

Usage: Ampules & bottles should be brought to room temperature (18 to 30 °C) before opening. Sonication may be required for high concentration solutions or solutions that may precipitate during storage. After opening, care should be exercised to avoid concentration changes owing to evaporation of the solvent or essential components. We recommend that a suitable re-sealable container be available before opening an ampule to decant the standard for short-term storage and use.

Minimum Sample Size: 0.5 uL for analytical applications.

Legal Notice: Warranty of products are as described when shipped. No warranty as to fitness for any particular application is expressed or implied. Errant shipments and/or quality claims must be made within 10 days of receipt. Liability is limited solely to the replacement of the product or refund of purchase price.

Certifying Officer: Stephen J. Arpie, M.S., Director General

Page 1 of 2



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



ABSOLUTE STANDARDS, INC.

ISO - 17034

Understanding the Certified Weight Report

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

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

Certified Reference Material CRM

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

CERTIFIED WEIGHT REPORT

Part # 10009R
Lot # 070716
Shelf Life 070716

Part Number: 10009R
Lot Number: 070716
Description: CLP Priority Pollutant Internal Standards
GC/MS Calibration - 6 components
070716
Expiration Date: Ambient (20 °C)
Recommended Storage: 4000
Nominal Concentration (µg/mL): 822-275872-11
NIST Test ID#: 5E-05 Balance Uncertainty
0.058 Mass Uncertainty

Solvent(s): Methylene chloride
Lot# 78782

Formulated By: Paul Barron
Reviewed By: Pedro L. Rentes

070716
070716

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

Compound	SMW	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty Purity	Target Weight (µg)	Actual Weight (µg)	Actual Conc (µg/mL)	Expanded Uncertainty (µg/mL)	MSDS Information (Solvent Safety Info. On Attached pg.)	CAS#	OSHA PEL (TWA)	LD50
1. 1,4-Dichlorobenzene-d4	118	PR-1845M07287CB1	4000	98	0.2	2.04093	2.04335	4004.7	15.4	2055-02-1	N/A	N/A	or-rat 500mg/kg
2. Naphthalene-d8	223	PR-2339M031612HP1	4000	99	0.2	2.02032	2.02084	4001.0	15.2	1146-85-2	10 ppm (50mg/m3/8h)	N/A	or-rat 400mg/kg
3. Acenaphthene-d10	2	PR-25444	4000	99	0.2	2.02032	2.02245	4004.2	15.2	15067-28-2	N/A	N/A	or-rat 500mg/kg
4. Phenanthrene-d10	248	PR-2305M081711PM1	4000	98	0.2	2.04093	2.04135	4000.8	15.4	1517-25-2	N/A	N/A	N/A
5. Chrysene-d12	92	I-19290	4000	98	0.2	2.04093	2.04150	4001.3	15.4	1719-03-5	N/A	N/A	N/A
6. Perylene-d12	247	PR-24113	4000	98	0.2	2.04093	2.04155	4001.2	15.4	1503-58-3	N/A	N/A	N/A

Run 35, "P10009R L070716 [4000µg/mL in MeCl2]"

Run Length: 40.00 min, 23900 points at 10 points/second.
Created: Sat, Jul 9, 2016 at 1:54:53 PM.
Sampled: Sequence "070716-GC/MS", Method "GC-MS".
Analyzed using Method "GC-MS".

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

Peak No. Name FID RT (min)

1	1,4-Dichlorobenzene-d4	8.34
2	Naphthalene-d8	8.98
3	Acenaphthene-d10	12.97
4	Phenanthrene-d10	16.37
5	Chrysene-d12	22.62
6	Perylene-d12	25.75

Printed: 5/8/2019, 12:55:50 PM

Formulator
Reviewer

Actual
Concentration
Uncertainty
Values

Health &
Safety

3rd Party
Comparison

For More Information, Contact:

StephenArpie@AbsoluteStandards.com

Page 2 of 2



CERTIFIED WEIGHT REPORT

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

Solvent(s):
Methylene chloride
Lot#
105345

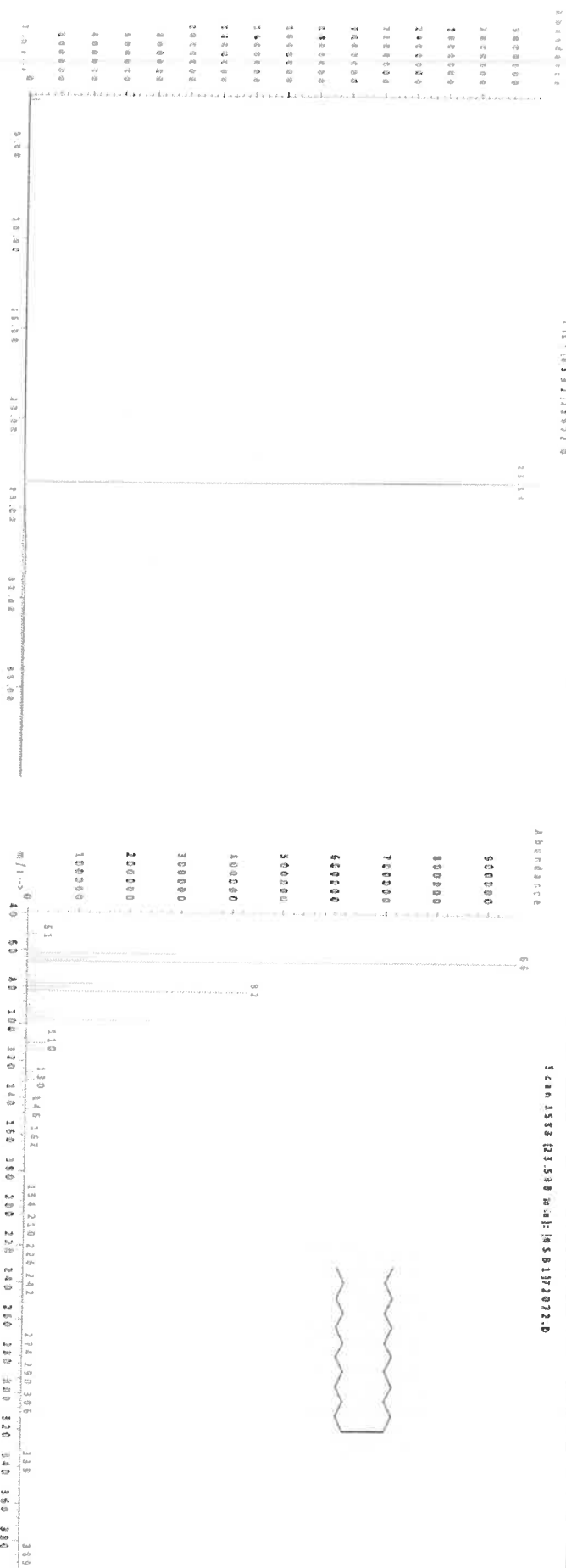
Expiration Date: **101132**
Recommended Storage: **Ambient (20 °C)**
Nominal Concentration (µg/mL): **1000**
NIST Test ID#: **6UB3**
Weight(s) shown below were combined and diluted to (mL): **200.0**
5E-05 Balance Uncertainty
0.058 Flask Uncertainty

P13437
13436
07/24/24
X.F.

Formulated By:	<i>Prashant Chauhan</i>	101122
Reviewed By:	<i>Pedro L. Rentas</i>	101122
DATE		DATE

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

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



- The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
- All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.
- Uncertainty Reference: Taylor, B.N., and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Results," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).

ABSOLUTE STANDARDS, INC.

ISO - 17034



Certificate of Analysis



Certified Reference Material (CRM)

Conformance: The "Certificate of Analysis" is applicable for CRM's, fulfilling the requirements in the current version of: ISO 17034.

Health & Safety: See the attached SDS & Certified Weight Report before use.

Intended Use: This Certified Reference Material (CRM) is intended primarily for use in the characterization of unknowns and the establishment of analyzer or instrument response factors by qualified personnel. Typical instrumental organic assays include: GC & LC, and inorganic assays include: ICP & AA. This product is for laboratory use only.

Characterization Values: In production, gravimetric/volumetric readings are certified to be within $\pm 0.5\%$ of the stated value & are valid between 18 °C & 30 °C. The measured characterization of uncertainty can be found on the Certified Weight Report. All product weighings are performed on an analytical balance that is calibrated to NIST Traceable standard weights & certified by the manufacturer. The volumetric glassware used is Class "A" type & conforms to ASTM E-288 unless otherwise stated. The solvents & compounds used are of the highest practical purity & typically meet or exceed ACS Reagent Grade & ACS Standards Grade specifications. The expanded uncertainty field on Certified Wt. Report represents CRM uncertainty as described in ISO 17034.

Homogeneity: Uncertainties that are due to the analytical procedure(s) are within $\pm 5\%$ unless specifically stated on the Certified Wt. Report.

Verification: Uncertainties that are due to the analytical procedure(s) are within $\pm 5\%$ unless specifically stated on the Certified Wt. Report.

Stability: Uncertainties for short-term stability are determined in accordance with ISO 17034. Long-term stability is determined in accordance with ISO 17034. The shelf life is limited by the stated expiration for each product. Expiration dates and additional technical information can be found on the Certified Weight Report and on the product label.

Uncertainty: UCRM is the expanded uncertainty which utilizes a $K = 2$ (coverage factor of 2), in accordance with ISO 17034 as listed above (Characterization, Homogeneity, Verification, and Stability).

Purity & Identity: Organic solutions are typically formulated from neat materials whose purity & identity have been characterized by GC-MSD & LC-PDA techniques with comparison to a NIST Traceable library of mass spectra when available. Additional characterization techniques may include but are not limited to: refractive index measurements of liquids, melting point measurements of solids, & GC-FID, ECD, PID, ELCD, LC-PDA measurements for purity. Inorganic solutions & neats are typically formulated from materials whose purity & identity have been characterized by ICPMS with comparison to a NIST SRM® when available. Additional characterization techniques may include but are not limited to: titrimetry, and densitometry.

Storage: Sealed ampules and other containers should be stored in the dark and at temperatures indicated on the Certified Weight Report or product label. Certification by Absolute Standards, Inc. is typically valid for 3 years from the date of manufacture. Each product will show its own expiration date as the limit of certification. Certified values are not applicable to opened ampules or for any materials stored in re-sealable containers. Please see the "Certified Weight Report" for specific values and any exceptions.

Usage: Ampules & bottles should be brought to room temperature (18 to 30 °C) before opening. Sonication may be required for high concentration solutions or solutions that may precipitate during storage. After opening, care should be exercised to avoid concentration changes owing to evaporation of the solvent or essential components. We recommend that a suitable re-sealable container be available before opening an ampule to decant the standard for short-term storage and use.

Minimum Sample Size: 0.5 uL for analytical applications.

Legal Notice: Warranty of products are as described when shipped. No warranty as to fitness for any particular application is expressed or implied. Errant shipments and/or quality claims must be made within 10 days of receipt. Liability is limited solely to the replacement of the product or refund of purchase price.

Certifying Officer: Stephen J. Arpie, M.S., Director General

Page 1 of 2



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



ABSOLUTE STANDARDS, INC.

ISO - 17034



Understanding the Certified Weight Report



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

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

Certified Reference Material CRM

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

CERTIFIED WEIGHT REPORT

Part # 10009R
Lot # 070716
Shelf Life 070716

Part Number: 10009R
Lot Number: 070716
Description: CLP Priority Pollutant Internal Standards
GC/MS Calibration - 6 components
070721
Expiration Date: Ambient (20 °C)
Recommended Storage: 4000
Nominal Concentration (µg/mL): 822-275872-11
NIST Test ID#: 5E-05 Balance Uncertainty
0.058 Mass Uncertainty

Solvent(s): Methylene chloride
Lot# 78782

Formulated By: Paul Barron
Reviewed By: Pedro L. Rentes

070716
070716

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

Compound	SMW	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty Purity	Target Weight (µg)	Actual Weight (µg)	Actual Conc (µg/mL)	Expanded Uncertainty (µg/mL)	CAS#	MSDS Information (Solvent Safety Info. On Attached pg.)	OSHA PEL (TWA)	LD50
1. 1,4-Dichlorobenzene-d4	118	PR-1845M07287CB1	4000	98	0.2	2.04093	2.04335	4004.7	15.4	2055-02-1	N/A	N/A	or-rat 500mg/kg
2. Naphthalene-d8	223	PR-2339M031612HP1	4000	99	0.2	2.02032	2.02084	4001.0	15.2	1146-85-2	10 ppm (50mg/m3/8h)	N/A	or-rat 400mg/kg
3. Acenaphthene-d10	2	PR-25444	4000	99	0.2	2.02032	2.02245	4004.2	15.2	15067-28-2	N/A	N/A	or-rat 500mg/kg
4. Phenanthrene-d10	248	PR-2305M081711PM1	4000	98	0.2	2.04093	2.04136	4000.8	15.4	1517-25-2	N/A	N/A	N/A
5. Chrysene-d12	92	I-19290	4000	98	0.2	2.04093	2.04159	4001.3	15.4	1719-03-5	N/A	N/A	N/A
6. Perylene-d12	247	PR-24113	4000	98	0.2	2.04093	2.04156	4001.2	15.4	1503-58-3	N/A	N/A	N/A

Run 35, "P10009R L070716 [4000µg/mL in MeCl2]"

Run Length: 40.00 min, 23900 points at 10 points/second.
Created: Sat, Jul 9, 2016 at 1:54:53 PM.
Sampled: Sequence "070716-GC/MS2", Method "GC-MS2".
Analyzed using Method "GC-MS2".

Comments:
GC-MS2 Analysis by Melissa Siciric
Column ID SPB-5 30 meter x 0.53mm x 1.5um Film Thickness.
Flow rates: Total Flow = 300 mL/min, Helium (carrier) = 0.5 mL, Helium (make-up) = 25 mL.
Hydrogen (detector) = 30 mL, Air (detector) = 300 mL, Oven Temp 1 = 50°C (1 min).
Rise = 10°C/min, Oven Temp 2 = 300°C (14 min), Total Run Time = 40 Minutes, Injector Temp = 250°C.
FID Temp = 300°C, FID Signal = sData Channel 1.
Gas Chromatograph = HP 5890, Auto Sampler = HP 7673, Standard Injection = 0.5 µL, Range = 4

Peak No.	Name	FID RT (min)
1	1,4-Dichlorobenzene-d4	6.34
2	Naphthalene-d8	8.98
3	Acenaphthene-d10	12.97
4	Phenanthrene-d10	16.37
5	Chrysene-d12	22.62
6	Perylene-d12	25.75

Printed: 5/8/2019, 12:55:50 PM

Formulator
Reviewer

Actual
Concentration

Uncertainty
Values

Health &
Safety

3rd Party
Comparison

For More Information, Contact:

StephenArpie@AbsoluteStandards.com

Page 2 of 2



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





CERTIFIED WEIGHT REPORT

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

Solvent(s):
Methylene chloride
Lot#
105345

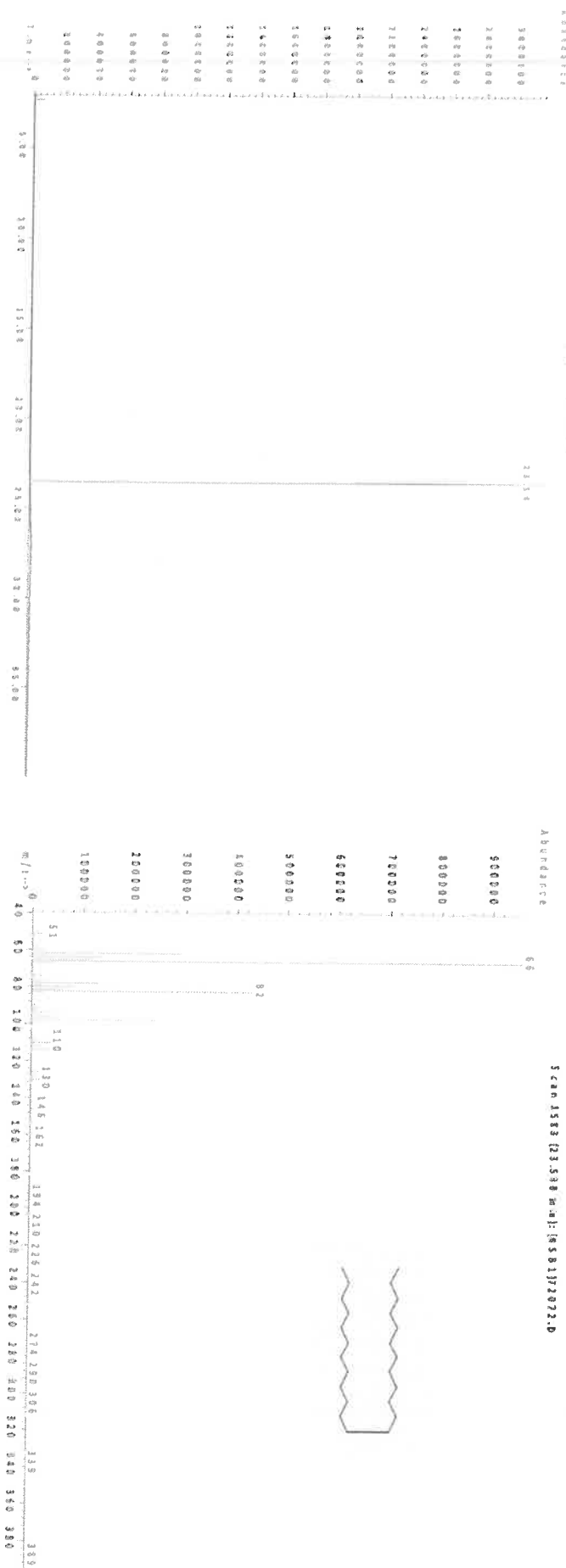
Expiration Date: **101132**
Recommended Storage: **Ambient (20 °C)**
Nominal Concentration (µg/mL): **1000**
NIST Test ID#: **6UB3**
Weight(s) shown below were combined and diluted to (mL): **200.0**
5E-05 Balance Uncertainty
0.058 Flask Uncertainty

P13437
13436
07/24/24
X.F.

Formulated By:	<i>Prashant Chauhan</i>	101122
Reviewed By:	<i>Pedro L. Rentas</i>	101122
	Pedro L. Rentas	DATE

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

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



- The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
- All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.
- Uncertainty Reference: Taylor, B.N., and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Results," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).

ABSOLUTE STANDARDS, INC.

ISO - 17034



Certificate of Analysis



Certified Reference Material (CRM)

Conformance: The "Certificate of Analysis" is applicable for CRM's, fulfilling the requirements in the current version of: ISO 17034.

Health & Safety: See the attached SDS & Certified Weight Report before use.

Intended Use: This Certified Reference Material (CRM) is intended primarily for use in the characterization of unknowns and the establishment of analyzer or instrument response factors by qualified personnel. Typical instrumental organic assays include: GC & LC, and inorganic assays include: ICP & AA. This product is for laboratory use only.

Characterization Values: In production, gravimetric/volumetric readings are certified to be within $\pm 0.5\%$ of the stated value & are valid between 18 °C & 30 °C. The measured characterization of uncertainty can be found on the Certified Weight Report. All product weighings are performed on an analytical balance that is calibrated to NIST Traceable standard weights & certified by the manufacturer. The volumetric glassware used is Class "A" type & conforms to ASTM E-288 unless otherwise stated. The solvents & compounds used are of the highest practical purity & typically meet or exceed ACS Reagent Grade & ACS Standards Grade specifications. The expanded uncertainty field on Certified Wt. Report represents CRM uncertainty as described in ISO 17034.

Homogeneity: Uncertainties that are due to the analytical procedure(s) are within $\pm 5\%$ unless specifically stated on the Certified Wt. Report.

Verification: Uncertainties that are due to the analytical procedure(s) are within $\pm 5\%$ unless specifically stated on the Certified Wt. Report.

Stability: Uncertainties for short-term stability are determined in accordance with ISO 17034. Long-term stability is determined in accordance with ISO 17034. The shelf life is limited by the stated expiration for each product. Expiration dates and additional technical information can be found on the Certified Weight Report and on the product label.

Uncertainty: UCRM is the expanded uncertainty which utilizes a $K = 2$ (coverage factor of 2), in accordance with ISO 17034 as listed above (Characterization, Homogeneity, Verification, and Stability).

Purity & Identity: Organic solutions are typically formulated from neat materials whose purity & identity have been characterized by GC-MSD & LC-PDA techniques with comparison to a NIST Traceable library of mass spectra when available. Additional characterization techniques may include but are not limited to: refractive index measurements of liquids, melting point measurements of solids, & GC-FID, ECD, PID, ELCD, LC-PDA measurements for purity. Inorganic solutions & neats are typically formulated from materials whose purity & identity have been characterized by ICPMS with comparison to a NIST SRM® when available. Additional characterization techniques may include but are not limited to: titrimetry, and densitometry.

Storage: Sealed ampules and other containers should be stored in the dark and at temperatures indicated on the Certified Weight Report or product label. Certification by Absolute Standards, Inc. is typically valid for 3 years from the date of manufacture. Each product will show its own expiration date as the limit of certification. Certified values are not applicable to opened ampules or for any materials stored in re-sealable containers. Please see the "Certified Weight Report" for specific values and any exceptions.

Usage: Ampules & bottles should be brought to room temperature (18 to 30 °C) before opening. Sonication may be required for high concentration solutions or solutions that may precipitate during storage. After opening, care should be exercised to avoid concentration changes owing to evaporation of the solvent or essential components. We recommend that a suitable re-sealable container be available before opening an ampule to decant the standard for short-term storage and use.

Minimum Sample Size: 0.5 uL for analytical applications.

Legal Notice: Warranty of products are as described when shipped. No warranty as to fitness for any particular application is expressed or implied. Errant shipments and/or quality claims must be made within 10 days of receipt. Liability is limited solely to the replacement of the product or refund of purchase price.

Certifying Officer: Stephen J. Arpie, M.S., Director General

Page 1 of 2



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



ABSOLUTE STANDARDS, INC.

ISO - 17034



Understanding the Certified Weight Report



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

Absolute Standards, Inc.
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Certified Reference Material CRM

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

CERTIFIED WEIGHT REPORT

Part # 10009R
Lot # 070716
Description: CLP Priority Pollutant Internal Standards
GC/MS Calibration - 6 components
Expiration Date: 070721
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 4000
NIST Test ID#: 822-275872-11
Weight(s) shown below were combined and diluted to (mL): 500.0

Solvent(s): Methylene chloride
Lot# 78782

Formulated By: Paul Barron
Reviewed By: Pedro L. Rentes

070716
070716

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

Compound	SMW	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty (%)	Target Weight (µg)	Actual Weight (µg)	Actual Conc (µg/mL)	Expanded Uncertainty (µg/mL)	CAS#	OSHA PEL (TWA)	LD50
1. 1,4-Dichlorobenzene-d4	118	PR-1845M07287CB1	4000	98	0.2	2.04093	2.04335	4004.7	15.4	2055-02-1	N/A	or-rat 500mg/kg
2. Naphthalene-d8	222	PR-2339M031612HP1	4000	99	0.2	2.02032	2.02084	4001.0	15.2	1146-85-2	10 ppm (50mg/m3/8h)	or-rat 400mg/kg
3. Acenaphthene-d10	2	PR-25444	4000	99	0.2	2.02032	2.02245	4004.2	15.2	15067-28-2	N/A	or-rat 500mg/kg
4. Phenanthrene-d10	248	PR-2305M081711PM1	4000	98	0.2	2.04093	2.04135	4000.8	15.4	1517-25-2	N/A	N/A
5. Chrysene-d12	92	I-19290	4000	98	0.2	2.04093	2.04150	4001.3	15.4	1719-03-5	N/A	N/A
6. Perylene-d12	247	PR-24113	4000	98	0.2	2.04093	2.04155	4001.2	15.4	1503-58-3	N/A	N/A

Run 35, "P10009R L070716 [4000µg/mL in MeCl2]"
Run Length: 40.00 min, 23900 points at 10 points/second.
Created: Sat, Jul 9, 2016 at 1:54:53 PM.
Sampled: Sequence "070716-GC/MS", Method "GC-MS".
Analyzed using Method "GC-MS".

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

Peak No.	Name	FID RT (min)
1	1,4-Dichlorobenzene-d4	6.34
2	Naphthalene-d8	8.98
3	Acenaphthene-d10	12.97
4	Phenanthrene-d10	16.37
5	Chrysene-d12	22.62
6	Perylene-d12	25.75

Printed: 5/8/2019, 12:55:50 PM

Formulator
Reviewer

Actual
Concentration

Uncertainty
Values

Health &
Safety

3rd Party
Comparison

For More Information, Contact:

StephenArpie@AbsoluteStandards.com

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





CERTIFIED WEIGHT REPORT

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

Solvent(s):
Methylene chloride
Lot#
105345

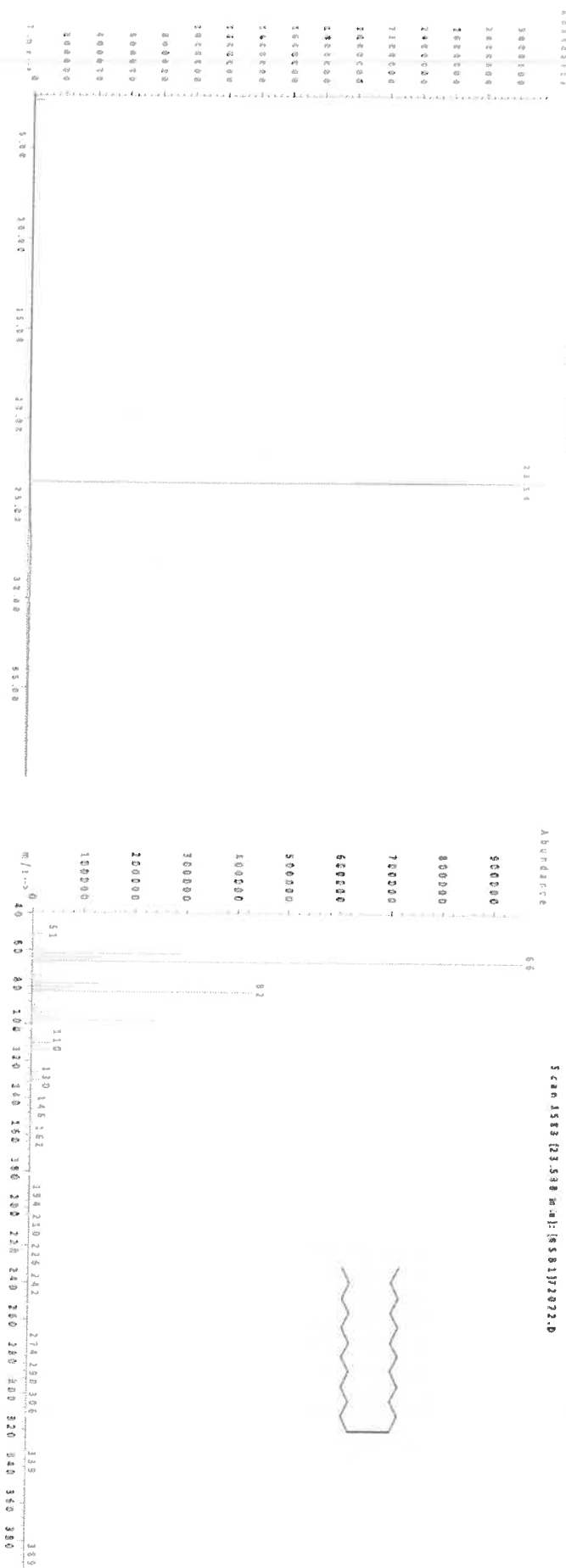
Expiration Date: **101132**
Recommended Storage: **Ambient (20 °C)**
Nominal Concentration (µg/mL): **1000**
NIST Test ID#: **6UB3**
Weight(s) shown below were combined and diluted to (mL): **200.0**
5E-05 Balance Uncertainty
0.058 Flask Uncertainty

P13437
13436
07/24/24
X.F.

Formulated By:	<i>Prashant Chauhan</i>	101122
Reviewed By:	<i>Pedro L. Rentas</i>	101122
	Pedro L. Rentas	DATE

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

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



- The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
- All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.
- Uncertainty Reference: Taylor, B.N., and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Results," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).

ABSOLUTE STANDARDS, INC.

ISO - 17034



Certificate of Analysis



Certified Reference Material (CRM)

Conformance: The "Certificate of Analysis" is applicable for CRM's, fulfilling the requirements in the current version of: ISO 17034.

Health & Safety: See the attached SDS & Certified Weight Report before use.

Intended Use: This Certified Reference Material (CRM) is intended primarily for use in the characterization of unknowns and the establishment of analyzer or instrument response factors by qualified personnel. Typical instrumental organic assays include: GC & LC, and inorganic assays include: ICP & AA. This product is for laboratory use only.

Characterization Values: In production, gravimetric/volumetric readings are certified to be within $\pm 0.5\%$ of the stated value & are valid between 18 °C & 30 °C. The measured characterization of uncertainty can be found on the Certified Weight Report. All product weighings are performed on an analytical balance that is calibrated to NIST Traceable standard weights & certified by the manufacturer. The volumetric glassware used is Class "A" type & conforms to ASTM E-288 unless otherwise stated. The solvents & compounds used are of the highest practical purity & typically meet or exceed ACS Reagent Grade & ACS Standards Grade specifications. The expanded uncertainty field on Certified Wt. Report represents CRM uncertainty as described in ISO 17034.

Homogeneity: Uncertainties that are due to the analytical procedure(s) are within $\pm 5\%$ unless specifically stated on the Certified Wt. Report.

Verification: Uncertainties that are due to the analytical procedure(s) are within $\pm 5\%$ unless specifically stated on the Certified Wt. Report.

Stability: Uncertainties for short-term stability are determined in accordance with ISO 17034. Long-term stability is determined in accordance with ISO 17034. The shelf life is limited by the stated expiration for each product. Expiration dates and additional technical information can be found on the Certified Weight Report and on the product label.

Uncertainty: UCRM is the expanded uncertainty which utilizes a $K = 2$ (coverage factor of 2), in accordance with ISO 17034 as listed above (Characterization, Homogeneity, Verification, and Stability).

Purity & Identity: Organic solutions are typically formulated from neat materials whose purity & identity have been characterized by GC-MSD & LC-PDA techniques with comparison to a NIST Traceable library of mass spectra when available. Additional characterization techniques may include but are not limited to: refractive index measurements of liquids, melting point measurements of solids, & GC-FID, ECD, PID, ELCD, LC-PDA measurements for purity. Inorganic solutions & neats are typically formulated from materials whose purity & identity have been characterized by ICPMS with comparison to a NIST SRM® when available. Additional characterization techniques may include but are not limited to: titrimetry, and densitometry.

Storage: Sealed ampules and other containers should be stored in the dark and at temperatures indicated on the Certified Weight Report or product label. Certification by Absolute Standards, Inc. is typically valid for 3 years from the date of manufacture. Each product will show its own expiration date as the limit of certification. Certified values are not applicable to opened ampules or for any materials stored in re-sealable containers. Please see the "Certified Weight Report" for specific values and any exceptions.

Usage: Ampules & bottles should be brought to room temperature (18 to 30 °C) before opening. Sonication may be required for high concentration solutions or solutions that may precipitate during storage. After opening, care should be exercised to avoid concentration changes owing to evaporation of the solvent or essential components. We recommend that a suitable re-sealable container be available before opening an ampule to decant the standard for short-term storage and use.

Minimum Sample Size: 0.5 uL for analytical applications.

Legal Notice: Warranty of products are as described when shipped. No warranty as to fitness for any particular application is expressed or implied. Errant shipments and/or quality claims must be made within 10 days of receipt. Liability is limited solely to the replacement of the product or refund of purchase price.

Certifying Officer: Stephen J. Arpie, M.S., Director General

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



ABSOLUTE STANDARDS, INC.

ISO - 17034

Understanding the Certified Weight Report

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

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Certified Reference Material CRM

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

CERTIFIED WEIGHT REPORT

Part # 10009R
Lot # 070716
Shelf Life Description: CLP Priority Pollutant Internal Standards
GC/MS Calibration - 6 components
070721
Expiration Date: Ambient (20 °C)
Recommended Storage: 4000
Nominal Concentration (µg/mL): 822-275872-11
NIST Test ID#: 5E-05 Balance Uncertainty
0.058 Mass Uncertainty

Solvent(s): Methylene chloride
Lot# 78782

Formulated By: Paul Barron
Reviewed By: Pedro L. Rentes

070716
070716

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

Compound	SMW	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty Purity	Target Weight (µg)	Actual Weight (µg)	Actual Conc (µg/mL)	Expanded Uncertainty (µg/mL)	CAS#	MSDS Information (Solvent Safety Info. On Attached pg.)	OSHA PEL (TWA)	LD50
1. 1,4-Dichlorobenzene-d4	118	PR-1845M07287CB1	4000	98	0.2	2.04093	2.04335	4004.7	15.4	2055-02-1	N/A	N/A	or-rat 500mg/kg
2. Naphthalene-d8	223	PR-2339M031612HP1	4000	99	0.2	2.02032	2.02084	4001.0	15.2	1146-85-2	10 ppm (50mg/m3/8h)	N/A	or-rat 400mg/kg
3. Acenaphthene-d10	2	PR-25444	4000	99	0.2	2.02032	2.02245	4004.2	15.2	15067-28-2	N/A	N/A	or-rat 500mg/kg
4. Phenanthrene-d10	248	PR-2305M081711PM1	4000	98	0.2	2.04093	2.04135	4000.8	15.4	1517-25-2	N/A	N/A	N/A
5. Chrysene-d12	92	I-19290	4000	98	0.2	2.04093	2.04150	4001.3	15.4	1719-03-5	N/A	N/A	N/A
6. Perylene-d12	247	PR-24113	4000	98	0.2	2.04093	2.04155	4001.2	15.4	1503-58-3	N/A	N/A	N/A

Run 35, "P10009R L070716 [4000µg/mL in MeCl2]"

Run Length: 40.00 min, 23900 points at 10 points/second.
Created: Sat, Jul 9, 2016 at 1:54:53 PM.
Sampled: Sequence "070716-GC/MS", Method "GC-MS".
Analyzed using Method "GC-MS".

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

Peak No. Name FID RT (min)

1	1,4-Dichlorobenzene-d4	6.34
2	Naphthalene-d8	8.98
3	Acenaphthene-d10	12.97
4	Phenanthrene-d10	16.37
5	Chrysene-d12	22.62
6	Perylene-d12	25.75

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Formulator
Reviewer

Actual
Concentration
Uncertainty
Values

Health &
Safety

3rd Party
Comparison

For More Information, Contact:

StephenArpie@AbsoluteStandards.com

Page 2 of 2



CERTIFIED WEIGHT REPORT

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

Solvent(s):
Methylene chloride
Lot#
105345

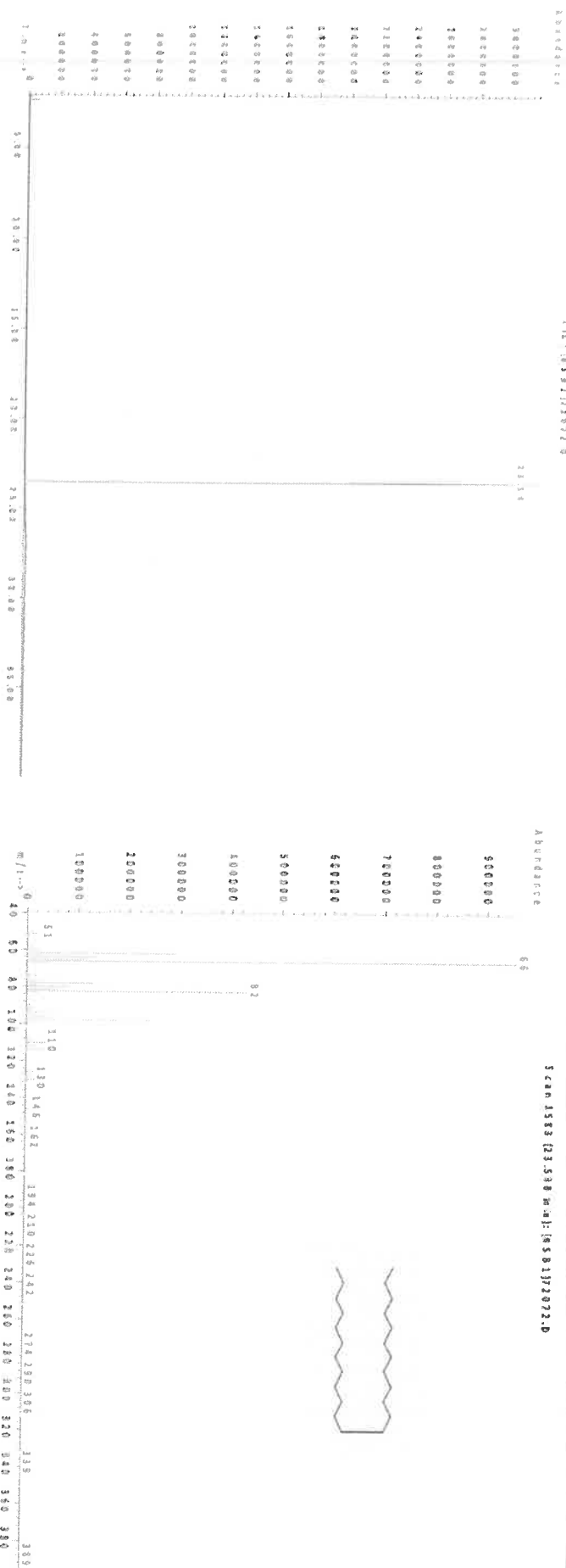
Expiration Date: **101132**
Recommended Storage: **Ambient (20 °C)**
Nominal Concentration (µg/mL): **1000**
NIST Test ID#: **6UB3**
Weight(s) shown below were combined and diluted to (mL): **200.0**
5E-05 Balance Uncertainty
0.058 Flask Uncertainty

P13437
13496
07/24/24
X.F.

Formulated By:	<i>Prashant Chauhan</i>	101122
Reviewed By:	<i>Pedro L. Rentas</i>	101122
DATE		

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

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



- The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
- All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.
- Uncertainty Reference: Taylor, B.N., and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Results," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).

ABSOLUTE STANDARDS, INC.

ISO - 17034



Certificate of Analysis



Certified Reference Material (CRM)

Conformance: The "Certificate of Analysis" is applicable for CRM's, fulfilling the requirements in the current version of: ISO 17034.

Health & Safety: See the attached SDS & Certified Weight Report before use.

Intended Use: This Certified Reference Material (CRM) is intended primarily for use in the characterization of unknowns and the establishment of analyzer or instrument response factors by qualified personnel. Typical instrumental organic assays include: GC & LC, and inorganic assays include: ICP & AA. This product is for laboratory use only.

Characterization Values: In production, gravimetric/volumetric readings are certified to be within $\pm 0.5\%$ of the stated value & are valid between 18 °C & 30 °C. The measured characterization of uncertainty can be found on the Certified Weight Report. All product weighings are performed on an analytical balance that is calibrated to NIST Traceable standard weights & certified by the manufacturer. The volumetric glassware used is Class "A" type & conforms to ASTM E-288 unless otherwise stated. The solvents & compounds used are of the highest practical purity & typically meet or exceed ACS Reagent Grade & ACS Standards Grade specifications. The expanded uncertainty field on Certified Wt. Report represents CRM uncertainty as described in ISO 17034.

Homogeneity: Uncertainties that are due to the analytical procedure(s) are within $\pm 5\%$ unless specifically stated on the Certified Wt. Report.

Verification: Uncertainties that are due to the analytical procedure(s) are within $\pm 5\%$ unless specifically stated on the Certified Wt. Report.

Stability: Uncertainties for short-term stability are determined in accordance with ISO 17034. Long-term stability is determined in accordance with ISO 17034. The shelf life is limited by the stated expiration for each product. Expiration dates and additional technical information can be found on the Certified Weight Report and on the product label.

Uncertainty: UCRM is the expanded uncertainty which utilizes a $K = 2$ (coverage factor of 2), in accordance with ISO 17034 as listed above (Characterization, Homogeneity, Verification, and Stability).

Purity & Identity: Organic solutions are typically formulated from neat materials whose purity & identity have been characterized by GC-MSD & LC-PDA techniques with comparison to a NIST Traceable library of mass spectra when available. Additional characterization techniques may include but are not limited to: refractive index measurements of liquids, melting point measurements of solids, & GC-FID, ECD, PID, ELCD, LC-PDA measurements for purity. Inorganic solutions & neats are typically formulated from materials whose purity & identity have been characterized by ICPMS with comparison to a NIST SRM® when available. Additional characterization techniques may include but are not limited to: titrimetry, and densitometry.

Storage: Sealed ampules and other containers should be stored in the dark and at temperatures indicated on the Certified Weight Report or product label. Certification by Absolute Standards, Inc. is typically valid for 3 years from the date of manufacture. Each product will show its own expiration date as the limit of certification. Certified values are not applicable to opened ampules or for any materials stored in re-sealable containers. Please see the "Certified Weight Report" for specific values and any exceptions.

Usage: Ampules & bottles should be brought to room temperature (18 to 30 °C) before opening. Sonication may be required for high concentration solutions or solutions that may precipitate during storage. After opening, care should be exercised to avoid concentration changes owing to evaporation of the solvent or essential components. We recommend that a suitable re-sealable container be available before opening an ampule to decant the standard for short-term storage and use.

Minimum Sample Size: 0.5 uL for analytical applications.

Legal Notice: Warranty of products are as described when shipped. No warranty as to fitness for any particular application is expressed or implied. Errant shipments and/or quality claims must be made within 10 days of receipt. Liability is limited solely to the replacement of the product or refund of purchase price.

Certifying Officer: Stephen J. Arpie, M.S., Director General

Page 1 of 2



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



ABSOLUTE STANDARDS, INC.

ISO - 17034

Understanding the Certified Weight Report

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

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

Certified Reference Material CRM

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

CERTIFIED WEIGHT REPORT

Part # 10009R
Lot # 070716
Shelf Life 070716

Part Number: 10009R
Lot Number: 070716
Description: CLP Priority Pollutant Internal Standards
GC/MS Calibration - 6 components
070716
Expiration Date: Ambient (20 °C)
Recommended Storage: 4000
Nominal Concentration (µg/mL): 822-275872-11
NIST Test ID#: 5E-05 Balance Uncertainty
0.058 Mass Uncertainty

Solvent(s): Methylene chloride
Lot# 78782

Formulated By: Paul Barron
Reviewed By: Pedro L. Rentes

070716
070716

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

Compound	SMW	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty Purity	Target Weight (µg)	Actual Weight (µg)	Actual Conc (µg/mL)	Expanded Uncertainty (µg/mL)	CAS#	MSDS Information (Solvent Safety Info. On Attached pg.)	OSHA PEL (TWA)	LD50
1. 1,4-Dichlorobenzene-d4	118	PR-1845M07287CB1	4000	98	0.2	2.04093	2.04335	4004.7	15.4	2055-02-1	N/A	N/A	or-nr 500mg/kg
2. Naphthalene-d8	223	PR-2339M031612HP1	4000	99	0.2	2.02032	2.02084	4001.0	15.2	1146-85-2	10 ppm (50mg/m3/8h)	N/A	or-nr 400mg/kg
3. Acenaphthene-d10	2	PR-25444	4000	99	0.2	2.02032	2.02245	4004.2	15.2	15067-28-2	N/A	N/A	or-nr 500mg/kg
4. Phenanthrene-d10	248	PR-2305M081711PM1	4000	98	0.2	2.04093	2.04135	4000.8	15.4	1517-25-2	N/A	N/A	N/A
5. Chrysene-d12	92	I-19290	4000	98	0.2	2.04093	2.04150	4001.3	15.4	1719-03-5	N/A	N/A	N/A
6. Perylene-d12	247	PR-24113	4000	98	0.2	2.04093	2.04155	4001.2	15.4	1503-58-3	N/A	N/A	N/A

Run 35, "P10009R L070716 [4000µg/mL in MeCl2]"

Run Length: 40.00 min, 23900 points at 10 points/second.
Created: Sat, Jul 9, 2016 at 1:54:53 PM.
Sampled: Sequence "070716-GC/MS", Method "GC-MS".
Analyzed using Method "GC-MS".

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

Peak No. Name FID RT (min)

1	1,4-Dichlorobenzene-d4	8.34
2	Naphthalene-d8	8.98
3	Acenaphthene-d10	12.97
4	Phenanthrene-d10	16.37
5	Chrysene-d12	22.62
6	Perylene-d12	25.75

Printed: 5/8/2019, 12:55:50 PM

Formulator
Reviewer

Actual
Concentration
Uncertainty
Values

Health &
Safety

3rd Party
Comparison

For More Information, Contact:

StephenArpie@AbsoluteStandards.com

Page 2 of 2



CERTIFIED WEIGHT REPORT

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

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

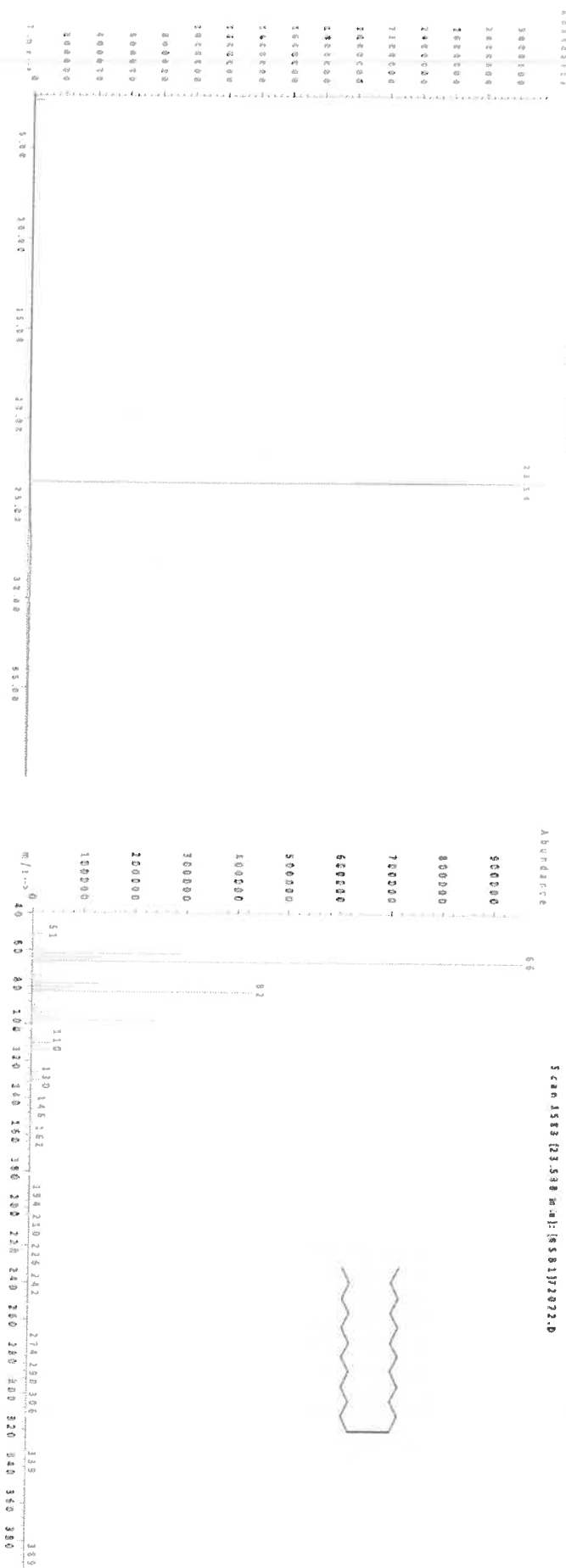
Expiration Date: **101132**
Recommended Storage: **Ambient (20 °C)**
Nominal Concentration (µg/mL): **1000**
NIST Test ID#: **6UB3**
Weight(s) shown below were combined and diluted to (mL): **200.0**
5E-05 Balance Uncertainty
0.058 Flask Uncertainty

P13437
13436
07/24/24
X.F.

Formulated By:	<i>Prashant Chauhan</i>	101122
Reviewed By:	<i>Pedro L. Rentas</i>	101122
DATE		

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

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



- The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
- All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.
- Uncertainty Reference: Taylor, B.N., and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Results," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1996).

ABSOLUTE STANDARDS, INC.

ISO - 17034



Certificate of Analysis



Certified Reference Material (CRM)

Conformance: The "Certificate of Analysis" is applicable for CRM's, fulfilling the requirements in the current version of: ISO 17034.

Health & Safety: See the attached SDS & Certified Weight Report before use.

Intended Use: This Certified Reference Material (CRM) is intended primarily for use in the characterization of unknowns and the establishment of analyzer or instrument response factors by qualified personnel. Typical instrumental organic assays include: GC & LC, and inorganic assays include: ICP & AA. This product is for laboratory use only.

Characterization Values: In production, gravimetric/volumetric readings are certified to be within $\pm 0.5\%$ of the stated value & are valid between 18 °C & 30 °C. The measured characterization of uncertainty can be found on the Certified Weight Report. All product weighings are performed on an analytical balance that is calibrated to NIST Traceable standard weights & certified by the manufacturer. The volumetric glassware used is Class "A" type & conforms to ASTM E-288 unless otherwise stated. The solvents & compounds used are of the highest practical purity & typically meet or exceed ACS Reagent Grade & ACS Standards Grade specifications. The expanded uncertainty field on Certified Wt. Report represents CRM uncertainty as described in ISO 17034.

Homogeneity: Uncertainties that are due to the analytical procedure(s) are within $\pm 5\%$ unless specifically stated on the Certified Wt. Report.

Verification: Uncertainties that are due to the analytical procedure(s) are within $\pm 5\%$ unless specifically stated on the Certified Wt. Report.

Stability: Uncertainties for short-term stability are determined in accordance with ISO 17034. Long-term stability is determined in accordance with ISO 17034. The shelf life is limited by the stated expiration for each product. Expiration dates and additional technical information can be found on the Certified Weight Report and on the product label.

Uncertainty: UCRM is the expanded uncertainty which utilizes a $K = 2$ (coverage factor of 2), in accordance with ISO 17034 as listed above (Characterization, Homogeneity, Verification, and Stability).

Purity & Identity: Organic solutions are typically formulated from neat materials whose purity & identity have been characterized by GC-MSD & LC-PDA techniques with comparison to a NIST Traceable library of mass spectra when available. Additional characterization techniques may include but are not limited to: refractive index measurements of liquids, melting point measurements of solids, & GC-FID, ECD, PID, ELCD, LC-PDA measurements for purity. Inorganic solutions & neats are typically formulated from materials whose purity & identity have been characterized by ICPMS with comparison to a NIST SRM® when available. Additional characterization techniques may include but are not limited to: titrimetry, and densitometry.

Storage: Sealed ampules and other containers should be stored in the dark and at temperatures indicated on the Certified Weight Report or product label. Certification by Absolute Standards, Inc. is typically valid for 3 years from the date of manufacture. Each product will show its own expiration date as the limit of certification. Certified values are not applicable to opened ampules or for any materials stored in re-sealable containers. Please see the "Certified Weight Report" for specific values and any exceptions.

Usage: Ampules & bottles should be brought to room temperature (18 to 30 °C) before opening. Sonication may be required for high concentration solutions or solutions that may precipitate during storage. After opening, care should be exercised to avoid concentration changes owing to evaporation of the solvent or essential components. We recommend that a suitable re-sealable container be available before opening an ampule to decant the standard for short-term storage and use.

Minimum Sample Size: 0.5 uL for analytical applications.

Legal Notice: Warranty of products are as described when shipped. No warranty as to fitness for any particular application is expressed or implied. Errant shipments and/or quality claims must be made within 10 days of receipt. Liability is limited solely to the replacement of the product or refund of purchase price.

Certifying Officer: Stephen J. Arpie, M.S., Director General

Page 1 of 2



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



ABSOLUTE STANDARDS, INC.

ISO - 17034



Understanding the Certified Weight Report



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

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

Certified Reference Material CRM

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

CERTIFIED WEIGHT REPORT

Part # 10009R
Lot # 070716
Shelf Life 070716

Part Number: 10009R
Lot Number: 070716
Description: CLP Priority Pollutant Internal Standards
GC/MS Calibration - 6 components
070721
Expiration Date:
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 4000
NIST Test ID#: 822-275872-11
Weight(s) shown below were combined and diluted to (mL): 500.0

Solvent(s): Methylene chloride
Lot# 78782

5E-05 Balance Uncertainty
0.058 Peak Uncertainty

Formulated By: Paul Barron
Reviewed By: Pedro L. Rentes

070716
070716

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

Compound	SMW	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty (%)	Target Weight (µg)	Actual Weight (µg)	Actual Conc (µg/mL)	Expanded Uncertainty (µg/mL)	CAS#	OSHA PEL (TWA)	LD50
1. 1,4-Dichlorobenzene-d4	118	PR-1845M07287CB1	4000	98	0.2	2.04093	2.04335	4004.7	15.4	2055-02-1	N/A	or-nr 500mg/kg
2. Naphthalene-d8	222	PR-2339M031612HP1	4000	99	0.2	2.02032	2.02084	4001.0	15.2	1146-85-2	10 ppm (50mg/m3/8h)	or-nr 400mg/kg
3. Acenaphthene-d10	2	PR-25444	4000	99	0.2	2.02032	2.02245	4004.2	15.2	15067-28-2	N/A	or-nr 500mg/kg
4. Phenanthrene-d10	248	PR-2305M081711PM1	4000	98	0.2	2.04093	2.04136	4000.8	15.4	1517-25-2	N/A	N/A
5. Chrysene-d12	92	I-19290	4000	98	0.2	2.04093	2.04159	4001.3	15.4	1719-03-5	N/A	N/A
6. Perylene-d12	247	PR-24113	4000	98	0.2	2.04093	2.04156	4001.2	15.4	1503-58-3	N/A	N/A

Run 35, "P10009R L070716 [4000µg/mL in MeCl2]"
Run Length: 40.00 min, 23900 points at 10 points/second.
Created: Sat, Jul 9, 2016 at 1:54:53 PM.
Sampled: Sequence "070716-GC/MS", Method "GC-MS".
Analyzed using Method "GC-MS".

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

Qualitative Quantitative

Peak No. Name FID RT (min)

1	1,4-Dichlorobenzene-d4	6.34
2	Naphthalene-d8	8.98
3	Acenaphthene-d10	12.97
4	Phenanthrene-d10	16.37
5	Chrysene-d12	22.62
6	Perylene-d12	25.75

Printed: 5/8/2019, 12:55:50 PM

Formulator
Reviewer

Actual
Concentration

Uncertainty
Values

Health &
Safety

3rd Party
Comparison

For More Information, Contact:

StephenArpie@AbsoluteStandards.com

Page 2 of 2



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Voice: 800-368-1131 • Fax: 800-410-2577 • eMail: StephenArpie@AbsoluteStandards.com
Document Identification: Certificate of Analysis Rev 14, Date Issued: 05/30/2019





CERTIFIED WEIGHT REPORT

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

Solvent(s):
Methylene chloride
Lot#
105345

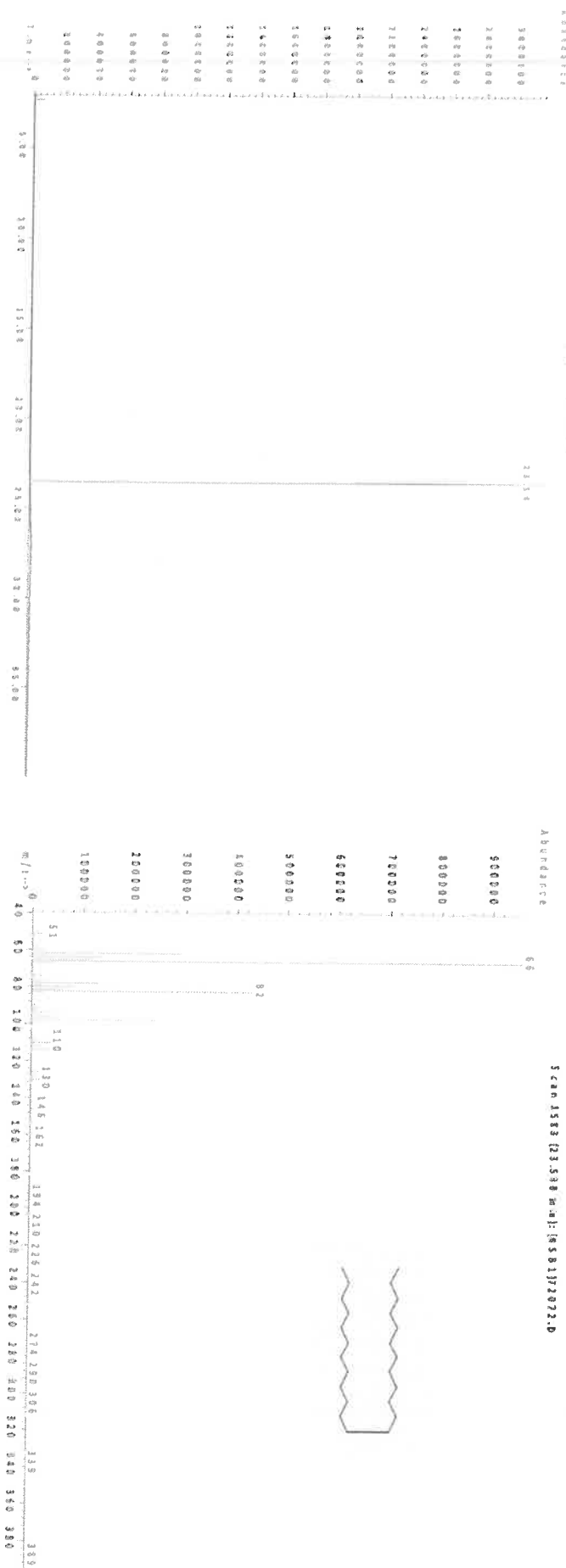
Expiration Date: **101132**
Recommended Storage: **Ambient (20 °C)**
Nominal Concentration (µg/mL): **1000**
NIST Test ID#: **6UB3**
Weight(s) shown below were combined and diluted to (mL): **200.0**
5E-05 Balance Uncertainty
0.058 Flask Uncertainty

P13437
13436
07/24/24
X.F.

Formulated By:	<i>Prashant Chauhan</i>	101122
Reviewed By:	<i>Pedro L. Rentas</i>	101122
DATE		

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

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



- The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
- All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.
- Uncertainty Reference: Taylor, B.N., and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Results," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).



SHIPPING DOCUMENTS

CLIENT INFORMATION

CLIENT PROJECT INFORMATION

CLIENT BILLING INFORMATION

REPORT TO BE SENT TO:

COMPANY: Saxton Fall and Sand Gravel

PROJECT NAME: Stan Hope

BILL TO: _____ PO#: _____

ADDRESS: 3000 International Drive

PROJECT NO.: _____ LOCATION: _____

ADDRESS: _____

CITY: Budd Lake STATE: NJ ZIP: _____

PROJECT MANAGER: _____

CITY: SA STATE: _____ ZIP: _____

ATTENTION: Rich Schindler

e-mail: _____

ATTENTION: _____ PHONE: _____

PHONE: _____ FAX: _____

PHONE: _____ FAX: _____

ANALYSIS

DATA TURNAROUND INFORMATION

DATA DELIVERABLE INFORMATION

FAX (RUSH) _____ DAYS*
HARDCOPY (DATA PACKAGE): _____ DAYS*
EDD: _____ DAYS*

☐ 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 _____

*TO BE APPROVED BY CHEMTECH

STANDARD HARDCOPY TURNAROUND TIME IS 10 BUSINESS

1. Hex Chrom 2. PCB 3. SVOC-TCL BWA-20 4. TPH GC 5. Trivalent Chromium 6. Cyanide 7. VOC-TCL VOA-10 8. EPH 9.

ALLIANCE SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE		SAMPLE COLLECTION		# OF BOTTLES	PRESERVATIVES									COMMENTS	
			COMP	GRAB	DATE	TIME		1	2	3	4	5	6	7	8	9	← Specify Preservatives A-HCl D-NaOH B-HNO3 E-ICE C-H2SO4 F-OTHER	
1.	Large Pile - A	30L	X		5.1.25	11:48	4	X	X	X	X	X	X				PID = 0.0	
2.	A			X		11:50	5							X	X			
3.	B		X			11:56	4	X	X	X	X	X	X					
4.	B			X		11:58	5							X	X			
5.	C		X			12:06	4	X	X	X	X	X	X					
6.	C			X		12:08	5							X	X			
7.	D		X			12:16	4	X	X	X	X	X	X					
8.	D			X		12:18	5							X	X			
9.	E		X			12:24	4	X	X	X	X	X	X					
10.	E			X		12:26	5							X	X			

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

RELINQUISHED BY SAMPLER:	DATE/TIME: <u>5.1.2025</u>	RECEIVED BY:	Conditions of bottles or coolers at receipt: ☐ COMPLIANT ☐ NON COMPLIANT COOLER TEMP: <u>4.1°C</u>
1. <u>[Signature]</u>		1. <u>[Signature]</u>	Comments: <u>Adjusted Factor + 1</u>
RELINQUISHED BY SAMPLER:	DATE/TIME: _____	RECEIVED BY:	<u>PID Meter (2) brought 5.1.2025 *</u>
2. <u>[Signature]</u>		2. <u>[Signature]</u>	<u>Equal volume of soil used, 5:1 composite</u>
RELINQUISHED BY SAMPLER:	DATE/TIME: <u>5.1.2025</u>	RECEIVED BY:	Page <u>1</u> of <u>2</u>
3. <u>[Signature]</u>		3. <u>[Signature]</u>	CLIENT: ☐ Hand Delivered ☐ Other
			Shipment Complete ☐ YES ☐ NO

CLIENT INFORMATION

CLIENT PROJECT INFORMATION

CLIENT BILLING INFORMATION

REPORT TO BE SENT TO:

COMPANY: Sutton Fall and Sand Gravel
ADDRESS: 3000 International Drive
CITY: Budd Lake STATE: N.J. ZIP:
ATTENTION: Rich Schindelar
PHONE: FAX:

PROJECT NAME: Stan Hope
PROJECT NO.: LOCATION:
PROJECT MANAGER:
e-mail:
PHONE: FAX:

BILL TO: PO#:
ADDRESS:
CITY: Lawrenceville STATE: GA ZIP:
ATTENTION: PHONE:

ANALYSIS ☒

DATA TURNAROUND INFORMATION

DATA DELIVERABLE INFORMATION

FAX (RUSH) DAYS*
HARDCOPY (DATA PACKAGE): DAYS*
EDD: DAYS*

☐ 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

*TO BE APPROVED BY CHEMTECH

STANDARD HARDCOPY TURNAROUND TIME IS 10 BUSINESS

1. Hex chrom
2. PCB
3. SVOC-TU BNA-20
4. TPA GC
5. Trivalent Phosphorus
6. Cyanide
7. VOC-TU VOA-19
8. EPH
9.

ALLIANCE SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE		SAMPLE COLLECTION		# OF BOTTLES	PRESERVATIVES									COMMENTS
			COMP	GRAB	DATE	TIME		1	2	3	4	5	6	7	8	9	
1.	Large Pile - F	sol	X		5-1-25	12:36	4	X	X	X	X	X	X				Pig=0.0
2.	L F	↓		X	↓	12:38	5							X	X		PID=0.0
3.																	
4.																	
5.																	
6.																	
7.																	
8.																	
9.																	
10.																	

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

RELINQUISHED BY SAMPLER: 1. <u>[Signature]</u>	DATE/TIME: <u>5-1-2025 1410</u>	RECEIVED BY: 1. <u>[Signature]</u>	Conditions of bottles or coolers at receipt: ☐ COMPLIANT ☐ NON COMPLIANT ☒ COOLER TEMP <u>41.0</u> °C
RELINQUISHED BY SAMPLER: 2. <u>[Signature]</u>	DATE/TIME: <u></u>	RECEIVED BY: 2. <u>[Signature]</u>	Comments: <u>*Pin Meter Calibrated (Adjusted Factor +1) 5-1-2025*</u> <u>Equal volume of soil used, 5:1 composite</u>
RELINQUISHED BY SAMPLER: 3. <u>[Signature]</u>	DATE/TIME: <u>5-1-2025 1540</u>	RECEIVED BY: 3. <u>[Signature]</u>	Page <u>2</u> of <u>2</u>

CLIENT: ☐ Hand Delivered ☐ Other ☐ Shipment Complete
☐ YES ☐ NO



Environmental Laboratory

www.chemtech.net | EMAIL: PM@chemtech.net

Project Name: STN Hope

Chemtech Order ID: _____

Sampler Name: Lawrence Palka

Client Project Coordinator & Phone: _____

Service Order #: _____

Work Order #: _____

Labor WBS #: _____

Facility/Site: _____

Site Address: 3000 International

Page #: 1 of 1
Date: 5.1.2025

Arrive Time: 0830

Drive, Budd Lake, Wis.

Depart Time: 1410

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: _____

Dimensions/CY: _____

Temp (range): _____

°C PID Readings (range): _____

PPM

Odor: Y / N

Color: Y / N

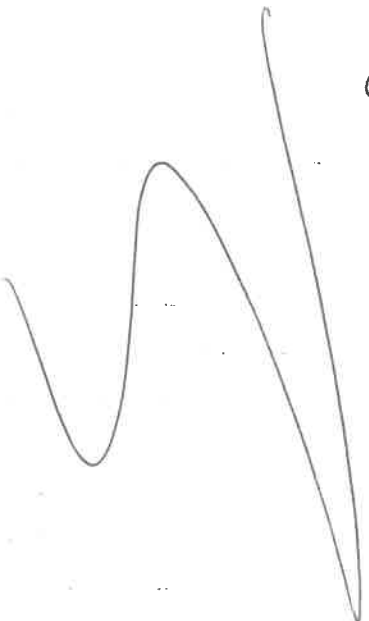
Sample Description: Brown soil, Rocks.

Field Observations: Sample 6, small pile, large pile, holder well pile.

Grid/Area Composite Map:

QA Control # A3041134

See
Attached



Sampler Signature: [Signature]

5.1.2025

Supervisor Review/Date: _____

Client Signature: _____

Date/Time Arrived at 15h: _____

lower wall

EXHIBIT 1

Soil Piles for Sampling

Piles for sampling are circled in red

4 tests

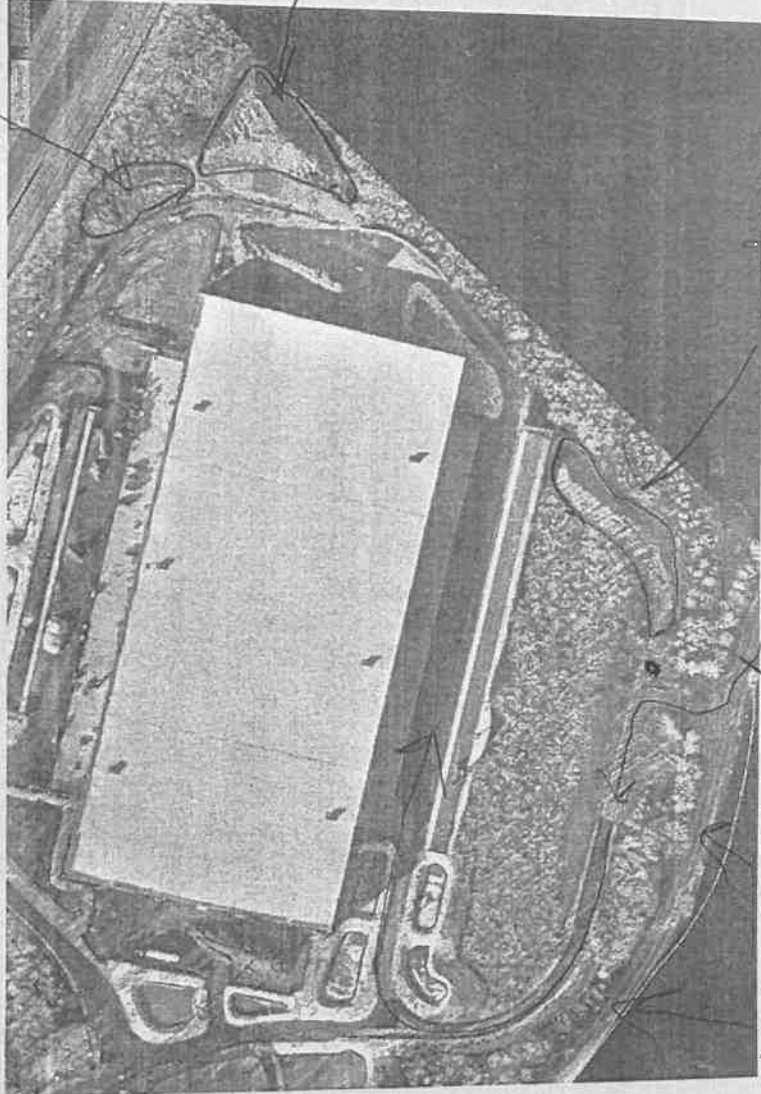
Pile

4 Samples 25" #

Contenetal Dr.

6 Samples

Large Pile
30" #



4 Samples

Small pile 20" #

Total 14 Samples.

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 : Q1937 SAXT01

Order Date : 5/1/2025 2:03:00 PM

Project Mgr :

Client Name : Saxton Falls Sand and Grav

Project Name : Stan Hope

Report Type : Level 1

Client Contact : Rich Schindelar

Receive DateTime : 5/1/2025 12:00:00 AM

EDD Type : Excel NJ

Invoice Name : Saxton Falls Sand and Grav

Purchase Order :

Hard Copy Date :

Invoice Contact : Rich Schindelar

Date Signoff :

LAB ID	CLIENT ID	MATRIX	SAMPLE DATE	SAMPLE TIME	TEST	TEST GROUP	METHOD	FAX DATE	DUE DATES
Q1937-02	LARGE-PILE-A	Solid	05/01/2025	11:50	VOC-TCLVOA-10		8260D		10 Bus. Days
Q1937-04	LARGE-PILE-B	Solid	05/01/2025	11:58	VOC-TCLVOA-10		8260D		10 Bus. Days
Q1937-06	LARGE-PILE-C	Solid	05/01/2025	12:08	VOC-TCLVOA-10		8260D		10 Bus. Days
Q1937-08	LARGE-PILE-D	Solid	05/01/2025	12:18	VOC-TCLVOA-10		8260D		10 Bus. Days
Q1937-10	LARGE-PILE-E	Solid	05/01/2025	12:26	VOC-TCLVOA-10		8260D		10 Bus. Days
Q1937-12	LARGE-PILE-F	Solid	05/01/2025	12:38	VOC-TCLVOA-10		8260D		10 Bus. Days

LOGIN REPORT/SAMPLE TRANSFER

Order ID : Q1937 SEXT01	Order Date : 5/1/2025 2:03:00 PM	Project Mgr :
Client Name : Saxton Falls Sand and Grav	Project Name : Stan Hope	Report Type : Level 1
Client Contact : Rich Schindelar	Receive DateTime : 5/1/2025 12:00:00 AM	EDD Type : Excel NJ
Invoice Name : Saxton Falls Sand and Grav	Purchase Order : 15:46	Hard Copy Date :
Invoice Contact : Rich Schindelar		Date Signoff :

LAB ID	CLIENT ID	MATRIX	SAMPLE DATE	SAMPLE TIME	TEST	TEST GROUP	METHOD	FAX DATE	DUE DATES
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*TELESCOPE
staked in WA
FIRE #2 Cabot
in Ref #06*

Relinquished By : LCJ
Date / Time : 5-1-2025 1650

Received By : mpadua
Date / Time : 5-1-25 16:50

Storage Area : VOA Refridgerator Room