

Cover Page

Order ID : Q1938

Project ID : Stan Hope

Client : Saxton Falls Sand and Gravel Co. Inc.

Lab Sample Number

Q1938-01
Q1938-02
Q1938-03
Q1938-04
Q1938-05
Q1938-06
Q1938-07
Q1938-08

Client Sample Number

LOWER-WALL-PILE-A
LOWER-WALL-PILE-A
LOWER-WALL-PILE-B
LOWER-WALL-PILE-B
LOWER-WALL-PILE-C
LOWER-WALL-PILE-C
LOWER-WALL-PILE-D
LOWER-WALL-PILE-D

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: 5/10/2025

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 #: Q1938

Completed

For thorough review, the report must have the following:

GENERAL:

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

✓

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

✓

Is the chain of custody signed and complete

✓

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

✓

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

✓

COVER PAGE:

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

✓

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

✓

CHAIN OF CUSTODY:

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

✓

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

✓

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

✓

Were the samples received within hold time

✓

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

✓

ANALYTICAL:

Was method requirement followed?

✓

Was client requirement followed?

✓

Does the case narrative summarize all QC failure?

✓

All runlogs and manual integration are reviewed for requirements

✓

All manual calculations and /or hand notations verified

✓

QA Review Signature: PRATIK PATEL

Date: 05/10/2025

LAB CHRONICLE

OrderID:	Q1938	OrderDate:	5/1/2025 2:05:00 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
Q1938-01	LOWER-WALL-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	05/08/25	
Q1938-02	LOWER-WALL-PILE-A	Solid			05/01/25			05/01/25
			EPH_NF	NJEPH		05/05/25	05/05/25	
Q1938-03	LOWER-WALL-PILE-B	SOIL			05/01/25			05/01/25
			PCB	8082A		05/05/25	05/05/25	
			Pesticide-TCL	8081B		05/05/25	05/06/25	
			TPH GC	8015D		05/07/25	05/07/25	
Q1938-04	LOWER-WALL-PILE-B	Solid			05/01/25			05/01/25
			EPH_NF	NJEPH		05/05/25	05/05/25	
Q1938-05	LOWER-WALL-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	
Q1938-06	LOWER-WALL-PILE-C	Solid			05/01/25			05/01/25
			EPH_NF	NJEPH		05/05/25	05/05/25	
Q1938-07	LOWER-WALL-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	
Q1938-08	LOWER-WALL-PILE-D	Solid			05/01/25			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.: Q1938 SAS No.: Q1938 SDG No.: Q1938

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
PIBLK-FG015799.D	88				0
PIBLK-FG015803.D	89				0
PB167887BL	67				0
PB167887BS	89				0
SMALL-PILE-AMS	40				0
SMALL-PILE-AMSD	37				0
LOWER-WALL-PILE-A	44				0
LOWER-WALL-PILE-B	49				0
LOWER-WALL-PILE-C	49				0
LOWER-WALL-PILE-D	42				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:** Q1938 **SAS No :** Q1938 **SDG No:** Q1938
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:** Q1938 **SAS No :** Q1938 **SDG No:** Q1938
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:** Q1938 **SAS No :** Q1938 **SDG No:** Q1938
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.: Q1938

SAS No.: Q1938 SDG NO.: Q1938

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
LOWER-WALL-PILE-B	Q1938-03	FG015793.D	05/07/25
LOWER-WALL-PILE-C	Q1938-05	FG015794.D	05/07/25
LOWER-WALL-PILE-D	Q1938-07	FG015795.D	05/07/25
LOWER-WALL-PILE-A	Q1938-01	FG015802.D	05/08/25

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:	LOWER-WALL-PILE-A	SDG No.:	Q1938
Lab Sample ID:	Q1938-01	Matrix:	SOIL
Analytical Method:	8015D TPH	% Solid:	93.1
Sample Wt/Vol:	30.02	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
FG015802.D	5	05/07/25 09:00	05/08/25 10:55	PB167887

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
PHC	Petroleum Hydrocarbons	70700		2060	15300	ug/kg
SURROGATES						
16416-32-3	TETRACOSANE-d50	1.76		37 - 130	44%	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\FG050825\
Data File : FG015802.D
Signal(s) : FID1A.ch
Acq On : 08 May 2025 10:55
Operator : YP\AJ
Sample : Q1938-01 5X
Misc :
ALS Vial : 21 Sample Multiplier: 1

Instrument :
FID_G
ClientSampleId :
LOWER-WALL-PILE-A

Integration File: autoint1.e
Quant Time: May 09 02:08:07 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	207658	1.764 ug/mlm
Target Compounds			

(f)=RT Delta > 1/2 Window

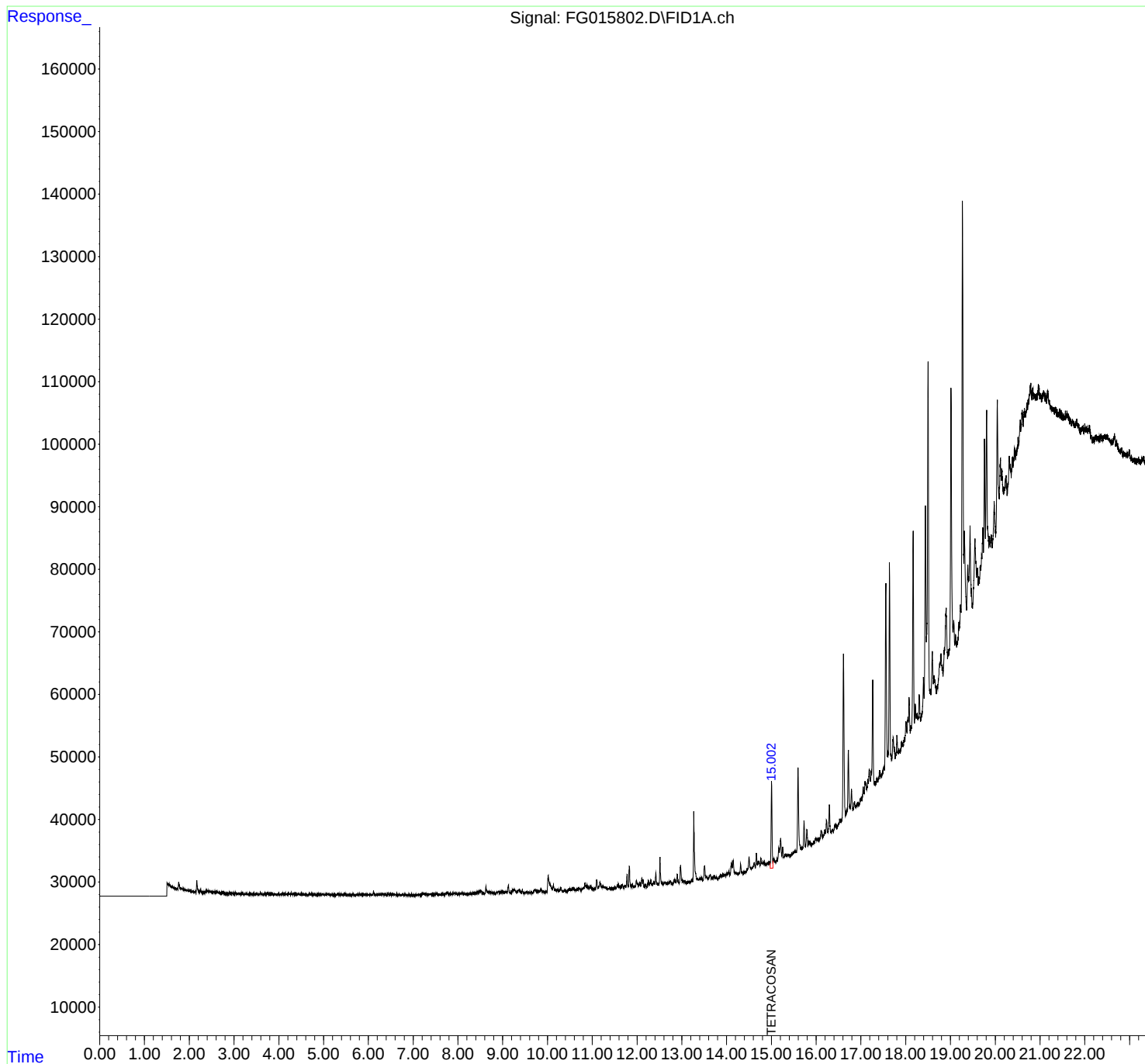
(m)=manual int.

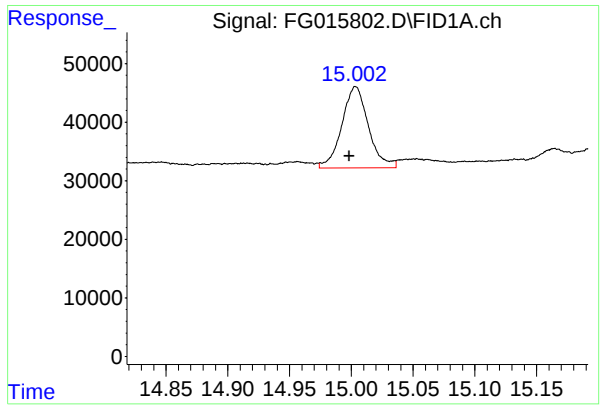
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG050825\
Data File : FG015802.D
Signal(s) : FID1A.ch
Acq On : 08 May 2025 10:55
Operator : YP\AJ
Sample : Q1938-01 5X
Misc :
ALS Vial : 21 Sample Multiplier: 1

Instrument :
FID_G
ClientSampleId :
LOWER-WALL-PILE-A

Integration File: autoint1.e
Quant Time: May 09 02:08:07 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: 207658
Conc: 1.76 ug/ml

Instrument :

FID_G

ClientSampleId :

LOWER-WALL-PILE-A

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG050825\
 Data File : FG015802.D
 Signal(s) : FID1A.ch
 Acq On : 08 May 2025 10:55
 Sample : Q1938-01 5X
 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	1.914	1.900	1.920	BV	73	132	0.01%	0.000%
2	1.925	1.920	1.951	PV	113	979	0.06%	0.002%
3	1.966	1.951	2.009	PV	154	2649	0.17%	0.006%
4	2.013	2.009	2.034	VV	144	644	0.04%	0.001%
5	2.045	2.034	2.059	PV	151	1004	0.07%	0.002%
6	2.065	2.059	2.078	VV	99	593	0.04%	0.001%
7	2.085	2.078	2.111	VV	86	1232	0.08%	0.003%
8	2.113	2.111	2.131	VV	111	738	0.05%	0.002%
9	2.134	2.131	2.153	PV	119	776	0.05%	0.002%
10	2.168	2.153	2.237	VV	1927	28511	1.85%	0.059%
11	2.254	2.237	2.314	VV	449	9327	0.61%	0.019%
12	2.325	2.314	2.346	PV	147	2004	0.13%	0.004%
13	2.386	2.346	2.400	VV	405	8460	0.55%	0.018%
14	2.406	2.400	2.434	VV	378	6286	0.41%	0.013%
15	2.437	2.434	2.459	VV	404	4654	0.30%	0.010%
16	2.468	2.459	2.480	VV	306	3299	0.21%	0.007%
17	2.484	2.480	2.490	VV	300	1549	0.10%	0.003%
18	2.496	2.490	2.532	VV	356	5937	0.39%	0.012%
19	2.536	2.532	2.546	VV	257	1877	0.12%	0.004%
20	2.552	2.546	2.573	VV	284	2984	0.19%	0.006%
21	2.588	2.573	2.604	VV	294	4508	0.29%	0.009%
22	2.615	2.604	2.619	VV	341	2464	0.16%	0.005%
23	2.622	2.619	2.654	VV	319	3730	0.24%	0.008%
24	2.670	2.654	2.696	VV	169	3158	0.20%	0.007%
25	2.700	2.696	2.725	VV	124	1738	0.11%	0.004%
26	2.729	2.725	2.734	VV	184	618	0.04%	0.001%
27	2.745	2.734	2.760	VV	163	2021	0.13%	0.004%
28	2.763	2.760	2.778	VV	143	965	0.06%	0.002%
29	2.785	2.778	2.793	VV	126	792	0.05%	0.002%
30	2.803	2.793	2.808	PV	104	533	0.03%	0.001%
31	2.814	2.808	2.828	VV	143	600	0.04%	0.001%
32	2.833	2.828	2.837	VV	99	376	0.02%	0.001%
33	2.840	2.837	2.847	VV	103	341	0.02%	0.001%
34	2.850	2.847	2.855	VV	117	286	0.02%	0.001%
35	2.890	2.855	2.901	PV	188	2423	0.16%	0.005%
36	2.909	2.901	2.914	VV	163	856	0.06%	0.002%

					rteres			
37	2.921	2.914	2.937	VV	122	1263	0.08%	0.003%
38	2.940	2.937	2.944	VV	68	270	0.02%	0.001%
39	2.954	2.944	2.998	VV	153	3576	0.23%	0.007%
40	3.002	2.998	3.023	VV	171	1702	0.11%	0.004%
41	3.032	3.023	3.052	VV	120	2121	0.14%	0.004%
42	3.058	3.052	3.076	VV	142	931	0.06%	0.002%
43	3.089	3.076	3.113	PV	133	1885	0.12%	0.004%
44	3.118	3.113	3.164	VV	89	2010	0.13%	0.004%
45	3.168	3.164	3.215	VV	146	2304	0.15%	0.005%
46	3.238	3.215	3.250	VV	107	1549	0.10%	0.003%
47	3.255	3.250	3.282	VV	102	1186	0.08%	0.002%
48	3.289	3.282	3.319	VV	110	1178	0.08%	0.002%
49	3.342	3.319	3.349	PV	154	933	0.06%	0.002%
50	3.356	3.349	3.371	VV	131	844	0.05%	0.002%
51	3.376	3.371	3.388	VV	86	527	0.03%	0.001%
52	3.403	3.388	3.409	VV	104	897	0.06%	0.002%
53	3.449	3.409	3.462	VV	119	2136	0.14%	0.004%
54	3.466	3.462	3.472	VV	69	447	0.03%	0.001%
55	3.480	3.472	3.485	VV	154	738	0.05%	0.002%
56	3.495	3.485	3.501	VV	151	698	0.05%	0.001%
57	3.523	3.501	3.538	VV	141	1501	0.10%	0.003%
58	3.546	3.538	3.554	VV	91	602	0.04%	0.001%
59	3.590	3.554	3.620	VV	318	5028	0.33%	0.010%
60	3.627	3.620	3.636	VV	88	396	0.03%	0.001%
61	3.693	3.636	3.707	VV	194	3006	0.20%	0.006%
62	3.711	3.707	3.714	VV	141	446	0.03%	0.001%
63	3.718	3.714	3.726	VV	151	698	0.05%	0.001%
64	3.743	3.726	3.769	VV	312	4276	0.28%	0.009%
65	3.772	3.769	3.782	VV	174	663	0.04%	0.001%
66	3.786	3.782	3.802	VV	129	972	0.06%	0.002%
67	3.808	3.802	3.844	VV	129	2099	0.14%	0.004%
68	3.847	3.844	3.895	VV	55	1755	0.11%	0.004%
69	3.965	3.895	4.014	VV	100	3867	0.25%	0.008%
70	4.080	4.014	4.119	VV	275	8332	0.54%	0.017%
71	4.133	4.119	4.168	VV	173	3830	0.25%	0.008%
72	4.176	4.168	4.190	VV	149	1320	0.09%	0.003%
73	4.220	4.190	4.244	VV	201	4748	0.31%	0.010%
74	4.252	4.244	4.267	VV	168	1926	0.13%	0.004%
75	4.276	4.267	4.330	VV	176	5859	0.38%	0.012%
76	4.335	4.330	4.347	VV	174	1070	0.07%	0.002%
77	4.360	4.347	4.383	VV	141	2417	0.16%	0.005%
78	4.419	4.383	4.477	VV	164	6054	0.39%	0.013%
79	4.500	4.477	4.560	VV	220	5323	0.35%	0.011%
80	4.576	4.560	4.602	VV	122	2446	0.16%	0.005%
81	4.624	4.602	4.639	VV	175	2155	0.14%	0.004%
82	4.647	4.639	4.660	VV	45	695	0.05%	0.001%
83	4.691	4.660	4.710	VV	226	3774	0.25%	0.008%
84	4.736	4.710	4.769	VV	182	4677	0.30%	0.010%
85	4.791	4.769	4.800	VV	140	2032	0.13%	0.004%
86	4.803	4.800	4.827	VV	150	1749	0.11%	0.004%
87	4.832	4.827	4.847	VV	109	1076	0.07%	0.002%
88	4.856	4.847	4.865	PV	114	726	0.05%	0.002%
89	4.887	4.865	4.914	VV	150	2977	0.19%	0.006%

					rteres				
90	4.944	4.914	4.963	VV	180	3465	0.22%	0.007%	
91	4.981	4.963	4.995	VV	177	2537	0.16%	0.005%	
92	5.003	4.995	5.036	VV	153	2824	0.18%	0.006%	
93	5.053	5.036	5.072	VV	208	2921	0.19%	0.006%	
94	5.080	5.072	5.105	VV	193	2701	0.18%	0.006%	
95	5.128	5.105	5.141	VV	168	2097	0.14%	0.004%	
96	5.160	5.141	5.180	VV	156	2533	0.16%	0.005%	
97	5.183	5.180	5.232	VV	116	2366	0.15%	0.005%	
98	5.253	5.232	5.267	VV	95	1412	0.09%	0.003%	
99	5.319	5.267	5.402	VV	280	11304	0.73%	0.023%	
100	5.412	5.402	5.439	VV	163	2401	0.16%	0.005%	
101	5.460	5.439	5.525	VV	253	9035	0.59%	0.019%	
102	5.534	5.525	5.559	VV	104	1940	0.13%	0.004%	
103	5.570	5.559	5.619	VV	110	2817	0.18%	0.006%	
104	5.644	5.619	5.655	VV	126	1945	0.13%	0.004%	
105	5.662	5.655	5.708	VV	186	2618	0.17%	0.005%	
106	5.761	5.708	5.790	PV	182	6293	0.41%	0.013%	
107	5.807	5.790	5.830	VV	319	4745	0.31%	0.010%	
108	5.838	5.830	5.874	VV	170	3326	0.22%	0.007%	
109	5.902	5.874	5.914	VV	199	3443	0.22%	0.007%	
110	5.923	5.914	5.954	VV	176	3150	0.20%	0.007%	
111	5.974	5.954	5.994	VV	232	3464	0.22%	0.007%	
112	6.045	5.994	6.059	VV	240	3983	0.26%	0.008%	
113	6.062	6.059	6.095	VV	114	1239	0.08%	0.003%	
114	6.116	6.095	6.172	VV	690	10929	0.71%	0.023%	
115	6.217	6.172	6.239	VV	181	4356	0.28%	0.009%	
116	6.250	6.239	6.267	VV	190	2421	0.16%	0.005%	
117	6.312	6.267	6.365	VV	198	9029	0.59%	0.019%	
118	6.389	6.365	6.422	VV	240	5616	0.36%	0.012%	
119	6.437	6.422	6.470	VV	203	4603	0.30%	0.010%	
120	6.482	6.470	6.519	VV	215	4131	0.27%	0.009%	
121	6.566	6.519	6.661	VV	228	10930	0.71%	0.023%	
122	6.684	6.661	6.737	VV	153	3843	0.25%	0.008%	
123	6.763	6.737	6.809	VV	163	3784	0.25%	0.008%	
124	6.836	6.809	6.862	VV	146	2405	0.16%	0.005%	
125	6.872	6.862	6.904	VV	103	1798	0.12%	0.004%	
126	6.912	6.904	6.939	VV	76	947	0.06%	0.002%	
127	6.964	6.939	6.998	VV	114	2255	0.15%	0.005%	
128	7.009	6.998	7.040	VV	75	1119	0.07%	0.002%	
129	7.071	7.040	7.117	PV	88	2760	0.18%	0.006%	
130	7.127	7.117	7.176	VV	190	3602	0.23%	0.007%	
131	7.243	7.176	7.257	VV	217	7752	0.50%	0.016%	
132	7.269	7.257	7.307	VV	237	5116	0.33%	0.011%	
133	7.315	7.307	7.350	VV	178	3752	0.24%	0.008%	
134	7.357	7.350	7.392	VV	176	3814	0.25%	0.008%	
135	7.402	7.392	7.427	VV	224	3087	0.20%	0.006%	
136	7.446	7.427	7.480	VV	150	3948	0.26%	0.008%	
137	7.485	7.480	7.495	VV	121	1076	0.07%	0.002%	
138	7.509	7.495	7.523	VV	215	3130	0.20%	0.007%	
139	7.535	7.523	7.564	VV	222	4047	0.26%	0.008%	
140	7.575	7.564	7.623	VV	158	3815	0.25%	0.008%	
141	7.637	7.623	7.676	VV	183	3735	0.24%	0.008%	

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142	7.681	7.676	7.695	VV	86	551	0.04%	0.001%
143	7.729	7.695	7.746	PV	321	6750	0.44%	0.014%
144	7.763	7.746	7.845	VV	355	13587	0.88%	0.028%
145	7.856	7.845	7.868	VV	131	1745	0.11%	0.004%
146	7.916	7.868	7.977	VV	302	12398	0.80%	0.026%
147	7.986	7.977	8.032	VV	171	4240	0.28%	0.009%
148	8.058	8.032	8.068	VV	217	3128	0.20%	0.007%
149	8.091	8.068	8.130	VV	279	6763	0.44%	0.014%
150	8.135	8.130	8.192	VV	147	4293	0.28%	0.009%
151	8.210	8.192	8.220	VV	122	1495	0.10%	0.003%
152	8.244	8.220	8.256	VV	134	2039	0.13%	0.004%
153	8.274	8.256	8.290	VV	167	2620	0.17%	0.005%
154	8.303	8.290	8.312	VV	136	1489	0.10%	0.003%
155	8.341	8.312	8.350	VV	220	3707	0.24%	0.008%
156	8.386	8.350	8.397	VV	291	5919	0.38%	0.012%
157	8.429	8.397	8.443	VV	409	8294	0.54%	0.017%
158	8.447	8.443	8.460	VV	369	3209	0.21%	0.007%
159	8.487	8.460	8.505	VV	603	11618	0.75%	0.024%
160	8.518	8.505	8.592	VV	533	14130	0.92%	0.029%
161	8.627	8.592	8.683	VV	1244	25923	1.68%	0.054%
162	8.700	8.683	8.731	VV	381	8822	0.57%	0.018%
163	8.750	8.731	8.816	VV	284	9676	0.63%	0.020%
164	8.826	8.816	8.840	VV	107	1397	0.09%	0.003%
165	8.903	8.840	8.924	VV	437	12558	0.82%	0.026%
166	8.932	8.924	8.956	VV	266	4596	0.30%	0.010%
167	9.005	8.956	9.049	VV	353	14852	0.96%	0.031%
168	9.073	9.049	9.093	VV	403	7170	0.47%	0.015%
169	9.129	9.093	9.180	VV	1415	28143	1.83%	0.058%
170	9.242	9.180	9.256	VV	736	19977	1.30%	0.042%
171	9.267	9.256	9.306	VV	648	13474	0.87%	0.028%
172	9.370	9.306	9.419	VV	697	24612	1.60%	0.051%
173	9.440	9.419	9.491	VV	670	8902	0.58%	0.019%
174	9.537	9.491	9.572	VV	247	7645	0.50%	0.016%
175	9.584	9.572	9.610	VV	163	2932	0.19%	0.006%
176	9.622	9.610	9.659	VV	116	2059	0.13%	0.004%
177	9.711	9.659	9.776	PV	485	20250	1.31%	0.042%
178	9.813	9.776	9.834	VV	385	9745	0.63%	0.020%
179	9.854	9.834	9.903	VV	750	14224	0.92%	0.030%
180	9.915	9.903	9.941	VV	227	3048	0.20%	0.006%
181	9.966	9.941	9.983	VV	239	3002	0.19%	0.006%
182	10.017	9.983	10.113	VV	2689	90873	5.90%	0.189%
183	10.135	10.113	10.201	VV	1074	27373	1.78%	0.057%
184	10.210	10.201	10.265	VV	365	10261	0.67%	0.021%
185	10.302	10.265	10.337	VV	693	13638	0.89%	0.028%
186	10.384	10.337	10.436	VV	190	5621	0.36%	0.012%
187	10.476	10.436	10.506	VV	370	8566	0.56%	0.018%
188	10.527	10.506	10.541	VV	278	5293	0.34%	0.011%
189	10.567	10.541	10.639	VV	533	17906	1.16%	0.037%
190	10.655	10.639	10.678	VV	298	5092	0.33%	0.011%
191	10.700	10.678	10.713	VV	548	7719	0.50%	0.016%
192	10.722	10.713	10.743	VV	340	4608	0.30%	0.010%
193	10.803	10.743	10.814	VV	415	11654	0.76%	0.024%
194	10.836	10.814	10.859	VV	1157	21035	1.37%	0.044%

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195	10.876	10.859	10.893	VV	879	13493	0.88%	0.028%
196	10.920	10.893	10.936	VV	615	13495	0.88%	0.028%
197	10.971	10.936	11.040	VV	590	21305	1.38%	0.044%
198	11.100	11.040	11.129	VV	1627	28193	1.83%	0.059%
199	11.172	11.129	11.206	VV	1278	32500	2.11%	0.068%
200	11.222	11.206	11.288	VV	630	22186	1.44%	0.046%
201	11.305	11.288	11.356	VV	350	7968	0.52%	0.017%
202	11.388	11.356	11.422	VV	266	4977	0.32%	0.010%
203	11.441	11.422	11.478	PV	148	3687	0.24%	0.008%
204	11.514	11.478	11.533	VV	287	4465	0.29%	0.009%
205	11.556	11.533	11.568	VV	666	7755	0.50%	0.016%
206	11.583	11.568	11.600	VV	862	9652	0.63%	0.020%
207	11.617	11.600	11.642	VV	447	7419	0.48%	0.015%
208	11.671	11.642	11.698	VV	645	12788	0.83%	0.027%
209	11.740	11.698	11.753	VV	399	9124	0.59%	0.019%
210	11.777	11.753	11.804	VV	2236	29583	1.92%	0.061%
211	11.828	11.804	11.873	VV	3493	52512	3.41%	0.109%
212	11.896	11.873	11.922	VV	447	8788	0.57%	0.018%
213	11.946	11.922	11.961	VV	249	4794	0.31%	0.010%
214	11.987	11.961	12.043	VV	1168	29005	1.88%	0.060%
215	12.066	12.043	12.083	VV	787	12029	0.78%	0.025%
216	12.107	12.083	12.122	VV	1494	20184	1.31%	0.042%
217	12.135	12.122	12.169	VV	1192	16069	1.04%	0.033%
218	12.195	12.169	12.220	VV	398	5833	0.38%	0.012%
219	12.254	12.220	12.276	PV	1061	17062	1.11%	0.035%
220	12.309	12.276	12.331	VV	1046	19546	1.27%	0.041%
221	12.376	12.331	12.395	VV	843	17552	1.14%	0.036%
222	12.418	12.395	12.470	VV	2134	34503	2.24%	0.072%
223	12.512	12.470	12.553	VV	4540	64533	4.19%	0.134%
224	12.560	12.553	12.589	VV	446	7129	0.46%	0.015%
225	12.625	12.589	12.700	VV	491	21537	1.40%	0.045%
226	12.749	12.700	12.775	VV	620	15838	1.03%	0.033%
227	12.788	12.775	12.800	VV	152	1488	0.10%	0.003%
228	12.840	12.800	12.866	VV	802	16989	1.10%	0.035%
229	12.898	12.866	12.942	VV	1582	28570	1.85%	0.059%
230	12.970	12.942	13.042	VV	2900	57248	3.72%	0.119%
231	13.060	13.042	13.095	VV	383	6630	0.43%	0.014%
232	13.118	13.095	13.136	PV	245	2687	0.17%	0.006%
233	13.156	13.136	13.190	VV	197	2564	0.17%	0.005%
234	13.222	13.190	13.243	PV	447	6844	0.44%	0.014%
235	13.269	13.243	13.346	VV	11257	184998	12.01%	0.385%
236	13.366	13.346	13.382	VV	356	6533	0.42%	0.014%
237	13.408	13.382	13.430	VV	463	10175	0.66%	0.021%
238	13.445	13.430	13.470	VV	488	7534	0.49%	0.016%
239	13.506	13.470	13.596	VV	2348	57424	3.73%	0.119%
240	13.637	13.596	13.658	VV	842	17925	1.16%	0.037%
241	13.718	13.658	13.760	VV	519	16530	1.07%	0.034%
242	13.773	13.760	13.800	VV	226	3136	0.20%	0.007%
243	13.865	13.800	13.884	PV	449	9353	0.61%	0.019%
244	13.924	13.884	13.946	VV	666	13939	0.90%	0.029%
245	13.962	13.946	13.985	VV	399	7590	0.49%	0.016%
246	14.011	13.985	14.028	VV	535	10833	0.70%	0.023%

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247	14.051	14.028	14.074	VV	868	14774	0.96%	0.031%
248	14.108	14.074	14.130	VV	2050	41084	2.67%	0.085%
249	14.146	14.130	14.196	VV	2432	45255	2.94%	0.094%
250	14.208	14.196	14.226	VV	368	4730	0.31%	0.010%
251	14.233	14.226	14.274	VV	204	3895	0.25%	0.008%
252	14.313	14.274	14.356	PV	1590	24738	1.61%	0.051%
253	14.370	14.356	14.389	VV	166	2023	0.13%	0.004%
254	14.420	14.389	14.429	PV	126	2261	0.15%	0.005%
255	14.500	14.429	14.547	VV	2299	51174	3.32%	0.106%
256	14.617	14.547	14.641	VV	1057	31414	2.04%	0.065%
257	14.665	14.641	14.688	VV	2506	35720	2.32%	0.074%
258	14.725	14.688	14.744	VV	1050	25694	1.67%	0.053%
259	14.766	14.744	14.790	VV	1432	21898	1.42%	0.046%
260	14.844	14.790	14.871	VV	582	23371	1.52%	0.049%
261	14.915	14.871	14.932	VV	256	6317	0.41%	0.013%
262	14.955	14.932	14.970	VV	425	4810	0.31%	0.010%
263	15.003	14.970	15.033	VV	13125	178742	11.60%	0.372%
264	15.052	15.033	15.083	VV	648	11923	0.77%	0.025%
265	15.165	15.083	15.179	PV	2087	36275	2.36%	0.075%
266	15.205	15.179	15.233	VV	3557	65520	4.25%	0.136%
267	15.252	15.233	15.284	VV	2000	29259	1.90%	0.061%
268	15.316	15.284	15.347	VV	630	17779	1.15%	0.037%
269	15.368	15.347	15.388	VV	418	7939	0.52%	0.017%
270	15.405	15.388	15.427	VV	351	4543	0.29%	0.009%
271	15.457	15.427	15.495	PV	332	9168	0.60%	0.019%
272	15.548	15.495	15.563	VV	407	13269	0.86%	0.028%
273	15.594	15.563	15.676	VV	13435	236521	15.36%	0.492%
274	15.683	15.676	15.698	VV	419	4631	0.30%	0.010%
275	15.729	15.698	15.762	VV	4634	66484	4.32%	0.138%
276	15.793	15.762	15.820	VV	2924	49631	3.22%	0.103%
277	15.846	15.820	15.895	VV	750	21541	1.40%	0.045%
278	15.947	15.895	15.966	PV	377	6696	0.43%	0.014%
279	15.991	15.966	16.010	VV	704	11453	0.74%	0.024%
280	16.012	16.010	16.031	VV	503	4350	0.28%	0.009%
281	16.113	16.031	16.152	VV	1328	37146	2.41%	0.077%
282	16.193	16.152	16.210	VV	1144	22417	1.46%	0.047%
283	16.233	16.210	16.266	VV	2498	41603	2.70%	0.086%
284	16.295	16.266	16.332	VV	4703	69369	4.50%	0.144%
285	16.364	16.332	16.383	VV	417	8305	0.54%	0.017%
286	16.437	16.383	16.460	PV	824	21519	1.40%	0.045%
287	16.524	16.460	16.548	PV	1046	24190	1.57%	0.050%
288	16.609	16.548	16.663	VV	26732	462048	30.00%	0.960%
289	16.718	16.663	16.765	VV	10839	199694	12.96%	0.415%
290	16.788	16.765	16.826	VV	3829	66891	4.34%	0.139%
291	16.858	16.826	16.876	VV	1343	24108	1.57%	0.050%
292	16.929	16.876	16.959	VV	671	22631	1.47%	0.047%
293	17.013	16.959	17.024	PV	868	21423	1.39%	0.045%
294	17.051	17.024	17.073	VV	2017	38189	2.48%	0.079%
295	17.094	17.073	17.103	VV	2596	34144	2.22%	0.071%
296	17.110	17.103	17.133	VV	2253	30693	1.99%	0.064%
297	17.154	17.133	17.165	VV	2327	35585	2.31%	0.074%
298	17.186	17.165	17.212	VV	3775	74470	4.83%	0.155%
299	17.263	17.212	17.303	VV	17253	293154	19.03%	0.609%

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300	17.312	17.303	17.326	VV	631	6187	0.40%	0.013%
301	17.421	17.326	17.444	PV	1286	33461	2.17%	0.070%
302	17.510	17.444	17.523	VV	1070	25816	1.68%	0.054%
303	17.555	17.523	17.603	VV	29854	503469	32.69%	1.046%
304	17.638	17.603	17.690	VV	32301	487574	31.65%	1.013%
305	17.721	17.690	17.766	VV	3811	89757	5.83%	0.187%
306	17.804	17.766	17.833	VV	3423	49904	3.24%	0.104%
307	17.846	17.833	17.880	VV	816	10360	0.67%	0.022%
308	17.908	17.880	17.923	PV	1186	17543	1.14%	0.036%
309	17.930	17.923	17.945	VV	858	9309	0.60%	0.019%
310	18.006	17.945	18.029	VV	3435	89473	5.81%	0.186%
311	18.077	18.029	18.101	VV	6841	155660	10.11%	0.324%
312	18.166	18.101	18.195	VV	32413	514736	33.42%	1.070%
313	18.216	18.195	18.234	VV	4140	68616	4.45%	0.143%
314	18.257	18.234	18.280	VV	2283	53786	3.49%	0.112%
315	18.302	18.280	18.336	VV	4582	88077	5.72%	0.183%
316	18.396	18.336	18.413	VV	6687	126552	8.22%	0.263%
317	18.439	18.413	18.463	VV	33588	565115	36.69%	1.175%
318	18.499	18.463	18.546	VV	56636	1040819	67.57%	2.163%
319	18.554	18.546	18.565	VV	3239	34664	2.25%	0.072%
320	18.594	18.565	18.623	VV	8936	199786	12.97%	0.415%
321	18.634	18.623	18.685	VV	4692	125524	8.15%	0.261%
322	18.788	18.685	18.836	VV	6575	373155	24.23%	0.776%
323	18.902	18.836	18.936	VV	12478	473188	30.72%	0.984%
324	18.952	18.936	18.964	VV	5837	92208	5.99%	0.192%
325	19.012	18.964	19.054	VV	46403	971638	63.08%	2.020%
326	19.073	19.054	19.096	VV	9329	196218	12.74%	0.408%
327	19.115	19.096	19.149	VV	6474	178480	11.59%	0.371%
328	19.224	19.149	19.235	VV	10105	369606	24.00%	0.768%
329	19.268	19.235	19.297	VV	73536	1386566	90.02%	2.882%
330	19.311	19.297	19.358	VV	21063	535244	34.75%	1.112%
331	19.387	19.358	19.406	VV	14972	357464	23.21%	0.743%
332	19.437	19.406	19.493	VV	20593	668235	43.38%	1.389%
333	19.545	19.493	19.588	VV	17782	730739	47.44%	1.519%
334	19.601	19.588	19.621	VV	12399	231108	15.00%	0.480%
335	19.634	19.621	19.645	VV	10649	150579	9.78%	0.313%
336	19.724	19.645	19.737	VV	17647	728449	47.29%	1.514%
337	19.760	19.737	19.780	VV	31445	573154	37.21%	1.191%
338	19.807	19.780	19.858	VV	35579	997560	64.76%	2.073%
339	19.872	19.858	19.891	VV	14803	281932	18.30%	0.586%
340	19.915	19.891	19.934	VV	14599	367699	23.87%	0.764%
341	19.977	19.934	20.010	VV	19367	716708	46.53%	1.490%
342	20.046	20.010	20.090	VV	34956	1097318	71.24%	2.281%
343	20.116	20.090	20.143	VV	24991	727609	47.24%	1.512%
344	20.150	20.143	20.182	VV	23031	489802	31.80%	1.018%
345	20.241	20.182	20.276	VV	20978	1106570	71.84%	2.300%
346	20.314	20.276	20.356	VV	23378	1017980	66.09%	2.116%
347	20.384	20.356	20.403	VV	22542	603686	39.19%	1.255%
348	20.435	20.403	20.455	VV	23560	710889	46.15%	1.478%
349	20.474	20.455	20.481	VV	22797	348048	22.60%	0.723%
350	20.557	20.481	20.572	VV	26605	1320070	85.70%	2.744%
351	20.601	20.572	20.624	VV	28126	841368	54.62%	1.749%

						rters		
352	20.649	20.624	20.660	VV	27849	569021	36.94%	1.183%
353	20.674	20.660	20.683	VV	27146	382016	24.80%	0.794%
354	20.735	20.683	20.748	VV	28222	1076293	69.87%	2.237%
355	20.790	20.748	20.817	VV	30349	1201898	78.03%	2.498%
356	20.833	20.817	20.883	VV	28869	1118618	72.62%	2.325%
357	20.890	20.883	20.907	VV	27765	391495	25.42%	0.814%
358	20.962	20.907	21.000	VV	28497	1540345	100.00%	3.202%
359	21.011	21.000	21.039	VV	26625	606186	39.35%	1.260%
360	21.055	21.039	21.067	VV	26225	435211	28.25%	0.905%
361	21.081	21.067	21.111	VV	26412	682768	44.33%	1.419%
362	21.122	21.111	21.137	VV	25613	384393	24.96%	0.799%
363	21.169	21.137	21.230	VV	25674	1350068	87.65%	2.806%
364	21.249	21.230	21.284	VV	22492	716337	46.50%	1.489%
365	21.290	21.284	21.300	VV	21618	203312	13.20%	0.423%
366	21.303	21.300	21.323	VV	21654	291728	18.94%	0.606%
367	21.336	21.323	21.346	VV	21123	296694	19.26%	0.617%
368	21.354	21.346	21.393	VV	21127	570602	37.04%	1.186%
369	21.402	21.393	21.422	VV	19713	332781	21.60%	0.692%
370	21.436	21.422	21.511	VV	19583	1016678	66.00%	2.113%
371	21.533	21.511	21.550	VV	18152	412780	26.80%	0.858%
372	21.567	21.550	21.576	VV	18364	283709	18.42%	0.590%
373	21.584	21.576	21.596	VV	17847	209103	13.58%	0.435%
374	21.603	21.596	21.665	VV	17801	695984	45.18%	1.447%
375	21.674	21.665	21.702	VV	16381	353625	22.96%	0.735%
376	21.723	21.702	21.773	VV	15527	633188	41.11%	1.316%
377	21.825	21.773	21.844	VV	14478	605467	39.31%	1.258%
378	21.863	21.844	21.903	VV	13563	459825	29.85%	0.956%
379	21.947	21.903	21.986	VV	12063	588235	38.19%	1.223%
380	22.003	21.986	22.033	VV	11898	322794	20.96%	0.671%
381	22.045	22.033	22.086	VV	11233	340703	22.12%	0.708%
382	22.103	22.086	22.169	VV	10743	470755	30.56%	0.978%
383	22.187	22.169	22.197	VV	8291	136756	8.88%	0.284%
384	22.203	22.197	22.219	VV	8163	102834	6.68%	0.214%
385	22.251	22.219	22.323	VV	7772	455341	29.56%	0.946%
386	22.329	22.323	22.343	VV	7073	80644	5.24%	0.168%
387	22.362	22.343	22.412	VV	6914	266472	17.30%	0.554%
388	22.434	22.412	22.604	VV	6121	568466	36.91%	1.182%
389	22.662	22.604	22.690	VV	4127	174635	11.34%	0.363%
390	22.701	22.690	22.710	VV	2554	27790	1.80%	0.058%
391	22.713	22.710	22.803	VBA	2580	122213	7.93%	0.254%
Sum of corrected areas:						48111896		

FG042425.M Fri May 09 02:46:51 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:	LOWER-WALL-PILE-B	SDG No.:	Q1938
Lab Sample ID:	Q1938-03	Matrix:	SOIL
Analytical Method:	8015D TPH	% Solid:	96.6
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
FG015793.D	1	05/07/25 09:00	05/07/25 16:11	PB167887

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
PHC	Petroleum Hydrocarbons	41000		397	2930	ug/kg
SURROGATES						
16416-32-3	TETRACOSANE-d50	9.75		37 - 130	49%	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 : FG015793.D
Signal(s) : FID1A.ch
Acq On : 07 May 2025 16:11
Operator : YP\AJ
Sample : Q1938-03
Misc :
ALS Vial : 28 Sample Multiplier: 1

Instrument :
FID_G
ClientSampleId :
LOWER-WALL-PILE-B

Integration File: autoint1.e
Quant Time: May 08 06:38:47 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...	15.007	1148283	9.753 ug/ml
Target Compounds			

(f)=RT Delta > 1/2 Window

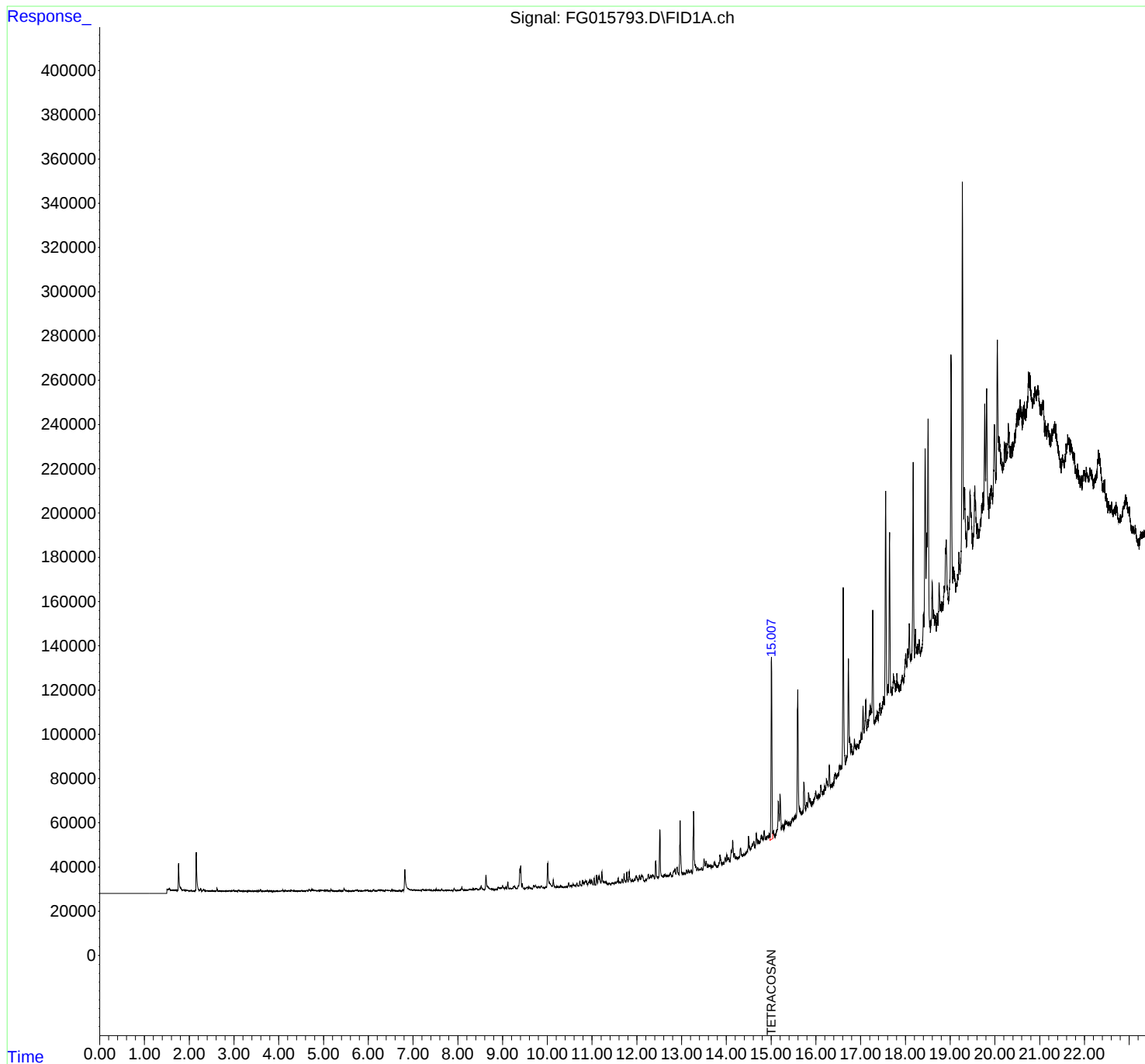
(m)=manual int.

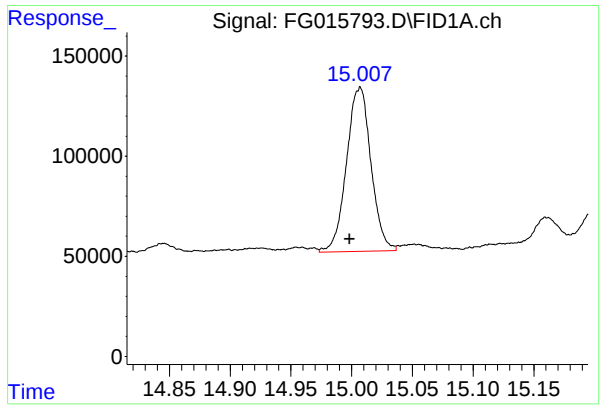
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG050725\
Data File : FG015793.D
Signal(s) : FID1A.ch
Acq On : 07 May 2025 16:11
Operator : YP\AJ
Sample : Q1938-03
Misc :
ALS Vial : 28 Sample Multiplier: 1

Instrument :
FID_G
ClientSampleId :
LOWER-WALL-PILE-B

Integration File: autoint1.e
Quant Time: May 08 06:38:47 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.: 15.007 min
Delta R.T.: 0.008 min
Response: 1148283
Conc: 9.75 ug/ml

Instrument :

FID_G

ClientSampleId :

LOWER-WALL-PILE-B

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG050725\
 Data File : FG015793.D
 Signal(s) : FID1A.ch
 Acq On : 07 May 2025 16:11
 Sample : Q1938-03
 Misc :
 ALS Vial : 28 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	1.933	1.927	1.954	PV	83	494	0.01%	0.000%
2	1.976	1.954	2.030	PV	160	3575	0.08%	0.002%
3	2.046	2.030	2.128	VV	192	3745	0.09%	0.003%
4	2.140	2.128	2.145	PV	259	1626	0.04%	0.001%
5	2.156	2.145	2.238	VV	17443	222793	5.16%	0.153%
6	2.253	2.238	2.280	VV	1403	18854	0.44%	0.013%
7	2.284	2.280	2.289	VV	280	1159	0.03%	0.001%
8	2.318	2.289	2.371	VV	840	18457	0.43%	0.013%
9	2.375	2.371	2.392	VV	296	2690	0.06%	0.002%
10	2.398	2.392	2.437	VV	337	5209	0.12%	0.004%
11	2.441	2.437	2.453	VV	175	1503	0.03%	0.001%
12	2.458	2.453	2.466	VV	200	1204	0.03%	0.001%
13	2.479	2.466	2.503	VV	179	3064	0.07%	0.002%
14	2.507	2.503	2.524	VV	238	2108	0.05%	0.001%
15	2.532	2.524	2.567	VV	253	3846	0.09%	0.003%
16	2.571	2.567	2.576	VV	160	717	0.02%	0.000%
17	2.580	2.576	2.593	VV	200	948	0.02%	0.001%
18	2.620	2.593	2.646	VV	1088	13225	0.31%	0.009%
19	2.671	2.646	2.706	VV	283	5921	0.14%	0.004%
20	2.747	2.706	2.755	VV	228	4321	0.10%	0.003%
21	2.764	2.755	2.801	PV	202	3637	0.08%	0.003%
22	2.805	2.801	2.808	VV	162	483	0.01%	0.000%
23	2.818	2.808	2.841	VV	189	2474	0.06%	0.002%
24	2.842	2.841	2.848	VV	146	365	0.01%	0.000%
25	2.905	2.848	2.928	VV	332	11707	0.27%	0.008%
26	2.938	2.928	2.961	VV	298	4840	0.11%	0.003%
27	2.986	2.961	3.025	VV	456	11227	0.26%	0.008%
28	3.034	3.025	3.046	VV	254	2392	0.06%	0.002%
29	3.050	3.046	3.057	VV	224	981	0.02%	0.001%
30	3.065	3.057	3.078	VV	167	1323	0.03%	0.001%
31	3.103	3.078	3.148	VV	505	11703	0.27%	0.008%
32	3.156	3.148	3.182	VV	281	4260	0.10%	0.003%
33	3.184	3.182	3.212	VV	256	2651	0.06%	0.002%
34	3.242	3.212	3.259	VV	206	4192	0.10%	0.003%
35	3.262	3.259	3.270	VV	159	761	0.02%	0.001%
36	3.292	3.270	3.302	VV	178	2122	0.05%	0.001%

					rteres			
37	3.305	3.302	3.326	VV	164	1584	0.04%	0.001%
38	3.331	3.326	3.355	VV	170	1867	0.04%	0.001%
39	3.364	3.355	3.382	VV	145	1734	0.04%	0.001%
40	3.391	3.382	3.430	VV	170	2962	0.07%	0.002%
41	3.444	3.430	3.460	VV	189	2271	0.05%	0.002%
42	3.469	3.460	3.475	VV	195	1504	0.03%	0.001%
43	3.477	3.475	3.512	VV	249	2640	0.06%	0.002%
44	3.524	3.512	3.560	VV	264	3909	0.09%	0.003%
45	3.597	3.560	3.620	VV	852	11993	0.28%	0.008%
46	3.627	3.620	3.647	VV	114	1340	0.03%	0.001%
47	3.654	3.647	3.665	VV	100	690	0.02%	0.000%
48	3.695	3.665	3.730	VV	245	5764	0.13%	0.004%
49	3.751	3.730	3.797	VV	435	8603	0.20%	0.006%
50	3.799	3.797	3.815	VV	178	1588	0.04%	0.001%
51	3.821	3.815	3.849	VV	193	2999	0.07%	0.002%
52	3.855	3.849	3.878	VV	116	1415	0.03%	0.001%
53	3.883	3.878	3.923	VV	131	1914	0.04%	0.001%
54	3.930	3.923	3.950	VV	125	1014	0.02%	0.001%
55	3.955	3.950	3.958	VV	105	332	0.01%	0.000%
56	3.966	3.958	3.971	VV	145	749	0.02%	0.001%
57	3.975	3.971	3.997	VV	128	823	0.02%	0.001%
58	4.000	3.997	4.009	PV	32	237	0.01%	0.000%
59	4.087	4.009	4.112	VV	591	14889	0.34%	0.010%
60	4.117	4.112	4.124	VV	270	1599	0.04%	0.001%
61	4.130	4.124	4.134	VV	300	1540	0.04%	0.001%
62	4.152	4.134	4.193	VV	400	9647	0.22%	0.007%
63	4.221	4.193	4.244	VV	386	9285	0.22%	0.006%
64	4.276	4.244	4.319	VV	471	14892	0.34%	0.010%
65	4.322	4.319	4.354	VV	341	5048	0.12%	0.003%
66	4.368	4.354	4.379	VV	237	2292	0.05%	0.002%
67	4.390	4.379	4.396	VV	193	1408	0.03%	0.001%
68	4.404	4.396	4.412	VV	188	1369	0.03%	0.001%
69	4.421	4.412	4.426	VV	205	1498	0.03%	0.001%
70	4.429	4.426	4.455	VV	210	2673	0.06%	0.002%
71	4.461	4.455	4.480	VV	197	1922	0.04%	0.001%
72	4.504	4.480	4.540	VV	446	8578	0.20%	0.006%
73	4.589	4.540	4.604	VV	318	7619	0.18%	0.005%
74	4.629	4.604	4.655	VV	520	9370	0.22%	0.006%
75	4.675	4.655	4.691	VV	950	12923	0.30%	0.009%
76	4.698	4.691	4.717	VV	604	6968	0.16%	0.005%
77	4.742	4.717	4.774	VV	774	20302	0.47%	0.014%
78	4.778	4.774	4.804	VV	509	8246	0.19%	0.006%
79	4.810	4.804	4.816	VV	440	3034	0.07%	0.002%
80	4.829	4.816	4.868	VV	473	10970	0.25%	0.008%
81	4.901	4.868	4.932	VV	427	13640	0.32%	0.009%
82	4.935	4.932	4.993	VV	524	15207	0.35%	0.010%
83	4.998	4.993	5.007	VV	458	3634	0.08%	0.002%
84	5.014	5.007	5.028	VV	486	5607	0.13%	0.004%
85	5.037	5.028	5.043	VV	462	3815	0.09%	0.003%
86	5.046	5.043	5.050	VV	441	1982	0.05%	0.001%
87	5.064	5.050	5.077	VV	463	6395	0.15%	0.004%
88	5.092	5.077	5.135	VV	367	9878	0.23%	0.007%
89	5.140	5.135	5.147	VV	304	1703	0.04%	0.001%

					rteres			
90	5.165	5.147	5.184	VV	715	10099	0.23%	0.007%
91	5.189	5.184	5.204	VV	294	2936	0.07%	0.002%
92	5.215	5.204	5.241	VV	265	4331	0.10%	0.003%
93	5.251	5.241	5.257	VV	275	1885	0.04%	0.001%
94	5.261	5.257	5.267	VV	265	1526	0.04%	0.001%
95	5.268	5.267	5.273	VV	256	778	0.02%	0.001%
96	5.281	5.273	5.300	VV	236	3288	0.08%	0.002%
97	5.304	5.300	5.309	VV	214	979	0.02%	0.001%
98	5.329	5.309	5.335	VV	295	3430	0.08%	0.002%
99	5.359	5.335	5.409	VV	362	11294	0.26%	0.008%
100	5.420	5.409	5.440	VV	281	3720	0.09%	0.003%
101	5.460	5.440	5.520	VV	1278	27108	0.63%	0.019%
102	5.525	5.520	5.571	VV	253	4765	0.11%	0.003%
103	5.579	5.571	5.585	VV	145	949	0.02%	0.001%
104	5.590	5.585	5.614	VV	194	1650	0.04%	0.001%
105	5.650	5.614	5.664	PV	284	4721	0.11%	0.003%
106	5.667	5.664	5.694	VV	286	2921	0.07%	0.002%
107	5.710	5.694	5.717	VV	367	3879	0.09%	0.003%
108	5.719	5.717	5.728	VV	354	2212	0.05%	0.002%
109	5.740	5.728	5.752	VV	577	6725	0.16%	0.005%
110	5.757	5.752	5.781	VV	434	6217	0.14%	0.004%
111	5.805	5.781	5.829	VV	339	7076	0.16%	0.005%
112	5.846	5.829	5.873	VV	288	4865	0.11%	0.003%
113	5.879	5.873	5.882	VV	198	765	0.02%	0.001%
114	5.894	5.882	5.900	VV	246	2044	0.05%	0.001%
115	5.928	5.900	5.950	VV	504	10015	0.23%	0.007%
116	5.970	5.950	6.011	VV	504	13045	0.30%	0.009%
117	6.016	6.011	6.050	VV	299	4662	0.11%	0.003%
118	6.057	6.050	6.072	VV	164	1415	0.03%	0.001%
119	6.120	6.072	6.172	VV	764	15552	0.36%	0.011%
120	6.189	6.172	6.199	VV	206	2713	0.06%	0.002%
121	6.230	6.199	6.251	VV	566	11933	0.28%	0.008%
122	6.266	6.251	6.271	VV	386	4105	0.10%	0.003%
123	6.275	6.271	6.306	VV	438	7362	0.17%	0.005%
124	6.311	6.306	6.315	VV	300	1610	0.04%	0.001%
125	6.320	6.315	6.325	VV	300	1721	0.04%	0.001%
126	6.330	6.325	6.361	VV	355	5308	0.12%	0.004%
127	6.368	6.361	6.381	VV	267	2757	0.06%	0.002%
128	6.398	6.381	6.424	VV	629	10113	0.23%	0.007%
129	6.434	6.424	6.467	VV	403	7339	0.17%	0.005%
130	6.474	6.467	6.503	VV	240	3692	0.09%	0.003%
131	6.531	6.503	6.559	VV	569	9791	0.23%	0.007%
132	6.576	6.559	6.617	VV	438	7992	0.19%	0.005%
133	6.619	6.617	6.665	VV	202	3202	0.07%	0.002%
134	6.686	6.665	6.734	VV	311	5342	0.12%	0.004%
135	6.778	6.734	6.791	PV	457	8415	0.19%	0.006%
136	6.818	6.791	6.938	VV	9775	213500	4.94%	0.147%
137	6.945	6.938	6.959	VV	569	6630	0.15%	0.005%
138	6.966	6.959	6.982	VV	513	6507	0.15%	0.004%
139	6.984	6.982	7.005	VV	420	5319	0.12%	0.004%
140	7.018	7.005	7.064	VV	518	13268	0.31%	0.009%
141	7.068	7.064	7.076	VV	362	2193	0.05%	0.002%

					rteres			
142	7.094	7.076	7.108	VV	388	6351	0.15%	0.004%
143	7.112	7.108	7.129	VV	299	3299	0.08%	0.002%
144	7.135	7.129	7.162	VV	309	4350	0.10%	0.003%
145	7.176	7.162	7.182	VV	248	2191	0.05%	0.002%
146	7.216	7.182	7.252	VV	628	18676	0.43%	0.013%
147	7.257	7.252	7.291	VV	450	7972	0.18%	0.005%
148	7.302	7.291	7.308	VV	291	2833	0.07%	0.002%
149	7.331	7.308	7.352	VV	460	9473	0.22%	0.007%
150	7.365	7.352	7.380	VV	435	6181	0.14%	0.004%
151	7.395	7.380	7.400	VV	350	3820	0.09%	0.003%
152	7.405	7.400	7.442	VV	432	5633	0.13%	0.004%
153	7.448	7.442	7.451	VV	133	349	0.01%	0.000%
154	7.469	7.451	7.491	VV	327	4544	0.11%	0.003%
155	7.508	7.491	7.555	VV	548	10218	0.24%	0.007%
156	7.573	7.555	7.584	VV	217	2639	0.06%	0.002%
157	7.586	7.584	7.609	VV	209	1849	0.04%	0.001%
158	7.637	7.609	7.692	VV	476	9585	0.22%	0.007%
159	7.719	7.692	7.750	PV	226	4988	0.12%	0.003%
160	7.770	7.750	7.799	VV	236	4960	0.11%	0.003%
161	7.808	7.799	7.814	VV	209	1397	0.03%	0.001%
162	7.815	7.814	7.835	VV	193	1269	0.03%	0.001%
163	7.839	7.835	7.846	VV	93	385	0.01%	0.000%
164	7.854	7.846	7.874	VV	81	727	0.02%	0.001%
165	7.887	7.874	7.899	PV	68	532	0.01%	0.000%
166	7.919	7.899	7.965	VV	1107	14440	0.33%	0.010%
167	8.010	7.965	8.029	VV	160	1752	0.04%	0.001%
168	8.092	8.029	8.127	VV	1590	29003	0.67%	0.020%
169	8.131	8.127	8.159	VV	216	3496	0.08%	0.002%
170	8.169	8.159	8.197	VV	201	2025	0.05%	0.001%
171	8.219	8.197	8.231	PV	203	2357	0.05%	0.002%
172	8.254	8.231	8.265	VV	492	7617	0.18%	0.005%
173	8.273	8.265	8.285	VV	407	4277	0.10%	0.003%
174	8.289	8.285	8.324	VV	393	6688	0.15%	0.005%
175	8.340	8.324	8.363	VV	683	10219	0.24%	0.007%
176	8.397	8.363	8.408	VV	711	14044	0.33%	0.010%
177	8.423	8.408	8.440	VV	685	10621	0.25%	0.007%
178	8.447	8.440	8.467	VV	393	5011	0.12%	0.003%
179	8.492	8.467	8.500	VV	600	9005	0.21%	0.006%
180	8.522	8.500	8.566	VV	1920	35954	0.83%	0.025%
181	8.570	8.566	8.603	VV	335	5146	0.12%	0.004%
182	8.631	8.603	8.697	VV	6768	126355	2.93%	0.087%
183	8.704	8.697	8.738	VV	727	13041	0.30%	0.009%
184	8.754	8.738	8.811	VV	450	11235	0.26%	0.008%
185	8.830	8.811	8.839	PV	162	1743	0.04%	0.001%
186	8.855	8.839	8.860	VV	171	1522	0.04%	0.001%
187	8.905	8.860	8.922	VV	1201	20988	0.49%	0.014%
188	8.932	8.922	8.967	VV	819	18239	0.42%	0.013%
189	8.974	8.967	8.982	VV	737	6349	0.15%	0.004%
190	9.001	8.982	9.047	VV	1844	36573	0.85%	0.025%
191	9.075	9.047	9.095	VV	974	20358	0.47%	0.014%
192	9.119	9.095	9.149	VV	3343	44828	1.04%	0.031%
193	9.167	9.149	9.172	VV	531	6301	0.15%	0.004%
194	9.176	9.172	9.189	VV	512	4204	0.10%	0.003%

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195	9.214	9.189	9.224	VV	585	9165	0.21%	0.006%
196	9.249	9.224	9.256	VV	1232	16539	0.38%	0.011%
197	9.269	9.256	9.317	VV	1600	29171	0.68%	0.020%
198	9.322	9.317	9.327	VV	360	2081	0.05%	0.001%
199	9.353	9.327	9.360	VV	1555	18439	0.43%	0.013%
200	9.389	9.360	9.396	VV	9400	111623	2.59%	0.077%
201	9.407	9.396	9.429	VV	10598	123139	2.85%	0.085%
202	9.442	9.429	9.487	VV	2592	34724	0.80%	0.024%
203	9.502	9.487	9.520	VV	480	6360	0.15%	0.004%
204	9.555	9.520	9.575	VV	810	18986	0.44%	0.013%
205	9.592	9.575	9.623	VV	1050	16891	0.39%	0.012%
206	9.633	9.623	9.668	VV	332	5603	0.13%	0.004%
207	9.696	9.668	9.717	PV	1522	27721	0.64%	0.019%
208	9.740	9.717	9.783	VV	1410	35866	0.83%	0.025%
209	9.813	9.783	9.838	VV	1017	21654	0.50%	0.015%
210	9.862	9.838	9.899	VV	1098	25215	0.58%	0.017%
211	9.911	9.899	9.939	VV	489	6987	0.16%	0.005%
212	9.944	9.939	9.947	VV	134	518	0.01%	0.000%
213	9.967	9.947	9.982	VV	773	9532	0.22%	0.007%
214	10.009	9.982	10.070	VV	11251	210356	4.87%	0.145%
215	10.071	10.070	10.112	VV	1780	27849	0.64%	0.019%
216	10.136	10.112	10.172	VV	3690	54652	1.27%	0.038%
217	10.188	10.172	10.221	VV	471	10856	0.25%	0.007%
218	10.242	10.221	10.269	VV	633	9200	0.21%	0.006%
219	10.305	10.269	10.339	VV	705	14320	0.33%	0.010%
220	10.344	10.339	10.370	VV	108	1100	0.03%	0.001%
221	10.388	10.370	10.407	PV	336	4200	0.10%	0.003%
222	10.414	10.407	10.422	VV	238	1144	0.03%	0.001%
223	10.478	10.422	10.507	VV	1890	31127	0.72%	0.021%
224	10.525	10.507	10.548	VV	781	11661	0.27%	0.008%
225	10.579	10.548	10.604	VV	1226	22718	0.53%	0.016%
226	10.616	10.604	10.640	VV	675	8543	0.20%	0.006%
227	10.664	10.640	10.685	VV	1618	23067	0.53%	0.016%
228	10.695	10.685	10.706	VV	265	2865	0.07%	0.002%
229	10.727	10.706	10.765	VV	2344	32514	0.75%	0.022%
230	10.788	10.765	10.803	VV	2681	33156	0.77%	0.023%
231	10.816	10.803	10.825	VV	1869	20956	0.49%	0.014%
232	10.839	10.825	10.844	VV	1926	18922	0.44%	0.013%
233	10.857	10.844	10.867	VV	2262	28109	0.65%	0.019%
234	10.878	10.867	10.905	VV	2332	32506	0.75%	0.022%
235	10.923	10.905	10.932	VV	1747	20143	0.47%	0.014%
236	10.949	10.932	10.966	VV	2827	38559	0.89%	0.027%
237	10.982	10.966	10.995	VV	2658	33205	0.77%	0.023%
238	11.001	10.995	11.025	VV	1801	19265	0.45%	0.013%
239	11.047	11.025	11.071	VV	3239	36912	0.85%	0.025%
240	11.103	11.071	11.123	VV	4781	63667	1.47%	0.044%
241	11.142	11.123	11.154	VV	3892	48475	1.12%	0.033%
242	11.166	11.154	11.195	VV	4074	62666	1.45%	0.043%
243	11.220	11.195	11.270	VV	6035	113910	2.64%	0.078%
244	11.276	11.270	11.299	VV	1422	19312	0.45%	0.013%
245	11.312	11.299	11.360	VV	1327	25247	0.58%	0.017%
246	11.389	11.360	11.422	VV	758	10874	0.25%	0.007%

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247	11.450	11.422	11.490	PV	734	18690	0.43%	0.013%
248	11.514	11.490	11.537	VV	887	14878	0.34%	0.010%
249	11.557	11.537	11.569	VV	1192	15695	0.36%	0.011%
250	11.585	11.569	11.605	VV	2739	33751	0.78%	0.023%
251	11.611	11.605	11.645	VV	737	12826	0.30%	0.009%
252	11.670	11.645	11.695	VV	2035	31811	0.74%	0.022%
253	11.716	11.695	11.757	VV	4375	64664	1.50%	0.044%
254	11.778	11.757	11.805	VV	5068	68090	1.58%	0.047%
255	11.830	11.805	11.877	VV	5191	90139	2.09%	0.062%
256	11.896	11.877	11.918	VV	1603	24355	0.56%	0.017%
257	11.946	11.918	11.960	VV	1525	23986	0.56%	0.017%
258	11.983	11.960	12.029	VV	2864	75567	1.75%	0.052%
259	12.059	12.029	12.080	VV	3088	57166	1.32%	0.039%
260	12.105	12.080	12.122	VV	2727	54256	1.26%	0.037%
261	12.128	12.122	12.172	VV	2651	37810	0.88%	0.026%
262	12.197	12.172	12.218	PV	1053	15326	0.35%	0.011%
263	12.256	12.218	12.279	VV	2988	59587	1.38%	0.041%
264	12.310	12.279	12.327	VV	2518	48977	1.13%	0.034%
265	12.349	12.327	12.371	VV	2402	49635	1.15%	0.034%
266	12.376	12.371	12.397	VV	1949	19955	0.46%	0.014%
267	12.421	12.397	12.444	VV	8452	110054	2.55%	0.076%
268	12.451	12.444	12.472	VV	1335	17369	0.40%	0.012%
269	12.515	12.472	12.554	VV	22022	296316	6.86%	0.204%
270	12.559	12.554	12.599	VV	1263	25101	0.58%	0.017%
271	12.628	12.599	12.659	VV	1615	41666	0.96%	0.029%
272	12.691	12.659	12.707	VV	1080	23796	0.55%	0.016%
273	12.751	12.707	12.780	VV	1901	46720	1.08%	0.032%
274	12.784	12.780	12.786	VV	128	390	0.01%	0.000%
275	12.822	12.786	12.830	VV	2399	34578	0.80%	0.024%
276	12.848	12.830	12.870	VV	3403	56368	1.31%	0.039%
277	12.900	12.870	12.941	VV	4049	87428	2.02%	0.060%
278	12.967	12.941	13.034	VV	24830	356109	8.25%	0.245%
279	13.066	13.034	13.083	VV	862	15626	0.36%	0.011%
280	13.112	13.083	13.136	VV	2006	33119	0.77%	0.023%
281	13.156	13.136	13.187	VV	1825	29795	0.69%	0.020%
282	13.216	13.187	13.239	VV	1642	26789	0.62%	0.018%
283	13.267	13.239	13.341	PV	27925	450871	10.44%	0.310%
284	13.358	13.341	13.382	VV	2192	35622	0.82%	0.025%
285	13.404	13.382	13.424	VV	1111	21514	0.50%	0.015%
286	13.444	13.424	13.472	VV	1654	26319	0.61%	0.018%
287	13.499	13.472	13.528	VV	5163	98875	2.29%	0.068%
288	13.547	13.528	13.585	VV	4028	83203	1.93%	0.057%
289	13.600	13.585	13.610	VV	2040	24300	0.56%	0.017%
290	13.623	13.610	13.628	VV	1711	16022	0.37%	0.011%
291	13.636	13.628	13.678	VV	1660	35086	0.81%	0.024%
292	13.732	13.678	13.802	VV	2588	86834	2.01%	0.060%
293	13.862	13.802	13.893	PV	5140	102819	2.38%	0.071%
294	13.903	13.893	13.912	VV	1103	9179	0.21%	0.006%
295	13.926	13.912	13.947	VV	1089	15213	0.35%	0.010%
296	13.971	13.947	13.991	VV	2816	43850	1.02%	0.030%
297	14.010	13.991	14.034	VV	3929	60433	1.40%	0.042%
298	14.048	14.034	14.053	VV	2171	21117	0.49%	0.015%
299	14.055	14.053	14.075	VV	1885	13220	0.31%	0.009%

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300	14.108	14.075	14.125	VV	5081	88787	2.06%	0.061%
301	14.142	14.125	14.167	VV	9084	133569	3.09%	0.092%
302	14.180	14.167	14.202	VV	2938	36403	0.84%	0.025%
303	14.214	14.202	14.224	VV	736	7237	0.17%	0.005%
304	14.229	14.224	14.254	VV	427	4488	0.10%	0.003%
305	14.263	14.254	14.267	VV	126	955	0.02%	0.001%
306	14.316	14.267	14.358	PV	4052	70655	1.64%	0.049%
307	14.377	14.358	14.384	PV	399	4310	0.10%	0.003%
308	14.399	14.384	14.415	VV	455	5040	0.12%	0.003%
309	14.419	14.415	14.422	PV	230	650	0.02%	0.000%
310	14.494	14.422	14.530	VV	7389	142874	3.31%	0.098%
311	14.613	14.530	14.645	VV	3844	140554	3.26%	0.097%
312	14.669	14.645	14.692	VV	6744	107047	2.48%	0.074%
313	14.710	14.692	14.723	VV	2760	46946	1.09%	0.032%
314	14.727	14.723	14.749	VV	2579	29848	0.69%	0.021%
315	14.778	14.749	14.796	VV	4586	90903	2.11%	0.063%
316	14.806	14.796	14.823	VV	3620	45321	1.05%	0.031%
317	14.845	14.823	14.869	VV	5927	98469	2.28%	0.068%
318	14.873	14.869	14.879	VV	1987	10949	0.25%	0.008%
319	14.926	14.879	14.937	VV	2643	74308	1.72%	0.051%
320	14.959	14.937	14.964	VV	2634	33927	0.79%	0.023%
321	14.968	14.964	14.973	VV	2183	10226	0.24%	0.007%
322	15.007	14.973	15.037	VV	82168	1148681	26.60%	0.790%
323	15.052	15.037	15.091	VV	3159	54692	1.27%	0.038%
324	15.160	15.091	15.180	PV	14653	277424	6.42%	0.191%
325	15.199	15.180	15.232	VV	17321	289516	6.70%	0.199%
326	15.259	15.232	15.276	VV	2680	47861	1.11%	0.033%
327	15.280	15.276	15.285	VV	1112	4480	0.10%	0.003%
328	15.319	15.285	15.332	VV	3723	64375	1.49%	0.044%
329	15.341	15.332	15.347	VV	2845	22993	0.53%	0.016%
330	15.351	15.347	15.382	VV	2678	36846	0.85%	0.025%
331	15.397	15.382	15.420	VV	1799	20006	0.46%	0.014%
332	15.482	15.420	15.493	PV	1887	39086	0.91%	0.027%
333	15.525	15.493	15.532	VV	1673	28871	0.67%	0.020%
334	15.541	15.532	15.548	VV	1729	11901	0.28%	0.008%
335	15.553	15.548	15.561	VV	1617	9969	0.23%	0.007%
336	15.592	15.561	15.677	VV	57758	907260	21.01%	0.624%
337	15.694	15.677	15.700	VV	528	3396	0.08%	0.002%
338	15.733	15.700	15.767	VV	13514	205817	4.77%	0.142%
339	15.797	15.767	15.819	VV	3344	60664	1.40%	0.042%
340	15.834	15.819	15.857	VV	7020	103561	2.40%	0.071%
341	15.872	15.857	15.899	VV	3578	51078	1.18%	0.035%
342	15.907	15.899	15.912	VV	594	2725	0.06%	0.002%
343	15.919	15.912	15.932	VV	1437	8708	0.20%	0.006%
344	15.954	15.932	15.968	VV	2070	31257	0.72%	0.022%
345	15.997	15.968	16.032	VV	4690	98724	2.29%	0.068%
346	16.040	16.032	16.047	VV	1419	8894	0.21%	0.006%
347	16.068	16.047	16.085	PV	1813	25318	0.59%	0.017%
348	16.091	16.085	16.095	VV	1347	5577	0.13%	0.004%
349	16.112	16.095	16.145	VV	5131	81797	1.89%	0.056%
350	16.167	16.145	16.176	VV	1878	21846	0.51%	0.015%
351	16.195	16.176	16.215	VV	3483	47121	1.09%	0.032%

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352	16.236	16.215	16.273	VV	5944	119315	2.76%	0.082%
353	16.300	16.273	16.333	VV	10806	161040	3.73%	0.111%
354	16.339	16.333	16.354	VV	1307	8431	0.20%	0.006%
355	16.364	16.354	16.379	PV	1287	9048	0.21%	0.006%
356	16.387	16.379	16.399	VV	1018	5676	0.13%	0.004%
357	16.431	16.399	16.439	PV	4805	71937	1.67%	0.049%
358	16.441	16.439	16.455	VV	4065	29385	0.68%	0.020%
359	16.459	16.455	16.464	VV	1715	8282	0.19%	0.006%
360	16.485	16.464	16.497	VV	2969	47331	1.10%	0.033%
361	16.529	16.497	16.567	VV	5421	174691	4.05%	0.120%
362	16.609	16.567	16.659	VV	83922	1344134	31.13%	0.925%
363	16.725	16.659	16.748	VV	49175	883861	20.47%	0.608%
364	17.755	16.748	16.777	VV	12659	170137	3.94%	0.117%
365	16.793	16.777	16.812	VV	9653	157527	3.65%	0.108%
366	16.861	16.812	16.909	VV	10353	364034	8.43%	0.250%
367	16.917	16.909	16.955	VV	6854	153274	3.55%	0.105%
368	16.983	16.955	16.992	VV	7142	125635	2.91%	0.086%
369	17.013	16.992	17.027	VV	9446	159016	3.68%	0.109%
370	17.053	17.027	17.076	VV	20970	390489	9.04%	0.269%
371	17.114	17.076	17.135	VV	22314	506158	11.72%	0.348%
372	17.159	17.135	17.173	VV	12551	232008	5.37%	0.160%
373	17.191	17.173	17.198	VV	15700	186550	4.32%	0.128%
374	17.216	17.198	17.225	VV	17540	252765	5.85%	0.174%
375	17.234	17.225	17.242	VV	15666	145096	3.36%	0.100%
376	17.269	17.242	17.302	VV	59404	994730	23.04%	0.684%
377	17.329	17.302	17.342	VV	9634	194455	4.50%	0.134%
378	17.369	17.342	17.393	VV	10859	277908	6.44%	0.191%
379	17.429	17.393	17.449	VV	13624	359919	8.34%	0.248%
380	17.454	17.449	17.459	VV	9723	59197	1.37%	0.041%
381	17.511	17.459	17.528	VV	14750	489704	11.34%	0.337%
382	17.557	17.528	17.591	VV	105754	1789470	41.44%	1.231%
383	17.608	17.591	17.619	VV	18305	270030	6.25%	0.186%
384	17.644	17.619	17.672	VV	84148	1370345	31.74%	0.943%
385	17.683	17.672	17.699	VV	14535	211820	4.91%	0.146%
386	17.731	17.699	17.777	VV	20182	721234	16.70%	0.496%
387	17.782	17.777	17.792	VV	14387	114881	2.66%	0.079%
388	17.809	17.792	17.838	VV	18326	387184	8.97%	0.266%
389	17.842	17.838	17.847	VV	12815	60875	1.41%	0.042%
390	17.852	17.847	17.858	VV	11615	70538	1.63%	0.049%
391	17.865	17.858	17.870	VV	11491	73342	1.70%	0.050%
392	17.890	17.870	17.897	VV	11626	170924	3.96%	0.118%
393	17.934	17.897	17.960	VV	14141	476618	11.04%	0.328%
394	18.010	17.960	18.030	VV	23093	729549	16.90%	0.502%
395	18.049	18.030	18.054	VV	23892	298180	6.91%	0.205%
396	18.059	18.054	18.064	VV	23645	129270	2.99%	0.089%
397	18.085	18.064	18.112	VV	34115	728071	16.86%	0.501%
398	18.121	18.112	18.130	VV	19387	202936	4.70%	0.140%
399	18.172	18.130	18.200	VV	105207	1938101	44.88%	1.333%
400	18.223	18.200	18.244	VV	29407	604627	14.00%	0.416%
401	18.257	18.244	18.262	VV	20069	210298	4.87%	0.145%
402	18.272	18.262	18.287	VV	21500	296187	6.86%	0.204%
403	18.310	18.287	18.337	VV	22161	564554	13.07%	0.388%
404	18.403	18.337	18.415	VV	32063	995397	23.05%	0.685%

rteres								
405	18.440	18.415	18.461	VV	101731	1881149	43.56%	1.294%
406	18.479	18.461	18.484	VV	66899	818688	18.96%	0.563%
407	18.505	18.484	18.540	VV	117931	2281538	52.84%	1.570%
408	18.547	18.540	18.560	VV	25906	277015	6.42%	0.191%
409	18.598	18.560	18.618	VV	40627	1053265	24.39%	0.725%
410	18.631	18.618	18.653	VV	28615	537311	12.44%	0.370%
411	18.666	18.653	18.688	VV	25659	486616	11.27%	0.335%
412	18.710	18.688	18.720	VV	25238	414962	9.61%	0.285%
413	18.723	18.720	18.728	VV	21227	100728	2.33%	0.069%
414	18.751	18.728	18.778	VV	38244	877708	20.33%	0.604%
415	18.782	18.778	18.799	VV	28015	337725	7.82%	0.232%
416	18.803	18.799	18.814	VV	28737	236263	5.47%	0.163%
417	18.821	18.814	18.842	VV	27933	441436	10.22%	0.304%
418	18.867	18.842	18.876	VV	34279	609617	14.12%	0.419%
419	18.912	18.876	18.963	VV	53321	2016416	46.70%	1.387%
420	19.020	18.963	19.054	VV	134098	3196448	74.03%	2.199%
421	19.069	19.054	19.080	VV	38074	583523	13.51%	0.401%
422	19.087	19.080	19.122	VV	35988	800676	18.54%	0.551%
423	19.127	19.122	19.134	VV	29436	209288	4.85%	0.144%
424	19.162	19.134	19.175	VV	32935	744886	17.25%	0.512%
425	19.195	19.175	19.215	VV	41018	850156	19.69%	0.585%
426	19.219	19.215	19.225	VV	34399	185587	4.30%	0.128%
427	19.272	19.225	19.302	VV	206329	4318047	100.00%	2.971%
428	19.320	19.302	19.369	VV	67978	2173794	50.34%	1.495%
429	19.389	19.369	19.406	VV	54050	1088572	25.21%	0.749%
430	19.447	19.406	19.464	VV	63779	1904968	44.12%	1.311%
431	19.468	19.464	19.489	VV	54144	727994	16.86%	0.501%
432	19.493	19.489	19.502	VV	44131	319512	7.40%	0.220%
433	19.506	19.502	19.509	VV	39858	159558	3.70%	0.110%
434	19.551	19.509	19.564	VV	64197	1679395	38.89%	1.155%
435	19.569	19.564	19.588	VV	56733	726293	16.82%	0.500%
436	19.593	19.588	19.600	VV	45740	311016	7.20%	0.214%
437	19.614	19.600	19.629	VV	45521	741357	17.17%	0.510%
438	19.638	19.629	19.649	VV	42330	493584	11.43%	0.340%
439	19.687	19.649	19.690	VV	46504	1090650	25.26%	0.750%
440	19.699	19.690	19.707	VV	52075	496683	11.50%	0.342%
441	19.711	19.707	19.717	VV	52589	303632	7.03%	0.209%
442	19.728	19.717	19.744	VV	56659	875208	20.27%	0.602%
443	19.771	19.744	19.792	VV	96190	2028048	46.97%	1.395%
444	19.813	19.792	19.842	VV	102573	2261695	52.38%	1.556%
445	19.849	19.842	19.854	VV	52492	344560	7.98%	0.237%
446	19.857	19.854	19.864	VV	50934	289722	6.71%	0.199%
447	19.885	19.864	19.891	VV	53372	810796	18.78%	0.558%
448	19.905	19.891	19.910	VV	55142	589537	13.65%	0.406%
449	19.914	19.910	19.942	VV	55933	1021048	23.65%	0.702%
450	19.947	19.942	19.951	VV	52060	259498	6.01%	0.179%
451	19.988	19.951	20.014	VV	81125	2515697	58.26%	1.731%
452	20.053	20.014	20.084	VV	119019	3396153	78.65%	2.336%
453	20.089	20.084	20.093	VV	71574	399851	9.26%	0.275%
454	20.099	20.093	20.122	VV	73721	1194975	27.67%	0.822%
455	20.129	20.122	20.139	VV	66518	658775	15.26%	0.453%
456	20.143	20.139	20.170	VV	62938	1112970	25.77%	0.766%

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457	20.176	20.170	20.180	VV	59994	322486	7.47%	0.222%
458	20.214	20.180	20.229	VV	68156	1859548	43.06%	1.279%
459	20.249	20.229	20.266	VV	67837	1427441	33.06%	0.982%
460	20.300	20.266	20.337	VV	75531	2822446	65.36%	1.942%
461	20.346	20.337	20.351	VV	63287	516065	11.95%	0.355%
462	20.356	20.351	20.361	VV	62756	355924	8.24%	0.245%
463	20.384	20.361	20.399	VV	64602	1428042	33.07%	0.982%
464	20.404	20.399	20.415	VV	65009	583235	13.51%	0.401%
465	20.426	20.415	20.429	VV	63623	521680	12.08%	0.359%
466	20.446	20.429	20.452	VV	68000	908917	21.05%	0.625%
467	20.488	20.452	20.504	VV	75079	2222559	51.47%	1.529%
468	20.509	20.504	20.512	VV	76234	378063	8.76%	0.260%
469	20.518	20.512	20.532	VV	76906	872111	20.20%	0.600%
470	20.539	20.532	20.546	VV	76759	635988	14.73%	0.438%
471	20.565	20.546	20.571	VV	79351	1145387	26.53%	0.788%
472	20.575	20.571	20.580	VV	76502	397422	9.20%	0.273%
473	20.585	20.580	20.607	VV	77182	1173158	27.17%	0.807%
474	20.626	20.607	20.632	VV	75087	1032109	23.90%	0.710%
475	20.647	20.632	20.651	VV	75114	864055	20.01%	0.594%
476	20.660	20.651	20.666	VV	76290	640904	14.84%	0.441%
477	20.670	20.666	20.689	VV	73790	1006909	23.32%	0.693%
478	20.749	20.689	20.769	VV	88497	3724490	86.25%	2.562%
479	20.777	20.769	20.838	VV	87835	3258111	75.45%	2.241%
480	20.845	20.838	20.855	VV	73829	744138	17.23%	0.512%
481	20.865	20.855	20.874	VV	76737	845810	19.59%	0.582%
482	20.884	20.874	20.891	VV	78277	772267	17.88%	0.531%
483	20.896	20.891	20.924	VV	77798	1517400	35.14%	1.044%
484	20.956	20.924	20.962	VV	78162	1688094	39.09%	1.161%
485	20.966	20.962	20.982	VV	76854	918234	21.27%	0.632%
486	20.986	20.982	20.991	VV	71394	368693	8.54%	0.254%
487	20.994	20.991	21.024	VV	70019	1293090	29.95%	0.890%
488	21.032	21.024	21.038	VV	66983	560821	12.99%	0.386%
489	21.055	21.038	21.059	VV	67911	816628	18.91%	0.562%
490	21.067	21.059	21.072	VV	68663	554873	12.85%	0.382%
491	21.077	21.072	21.112	VV	68191	1465014	33.93%	1.008%
492	21.124	21.112	21.166	VV	58240	1715951	39.74%	1.181%
493	21.171	21.166	21.201	VV	54857	1106845	25.63%	0.761%
494	21.205	21.201	21.218	VV	51807	489857	11.34%	0.337%
495	21.223	21.218	21.228	VV	50236	315826	7.31%	0.217%
496	21.233	21.228	21.253	VV	49009	689806	15.97%	0.475%
497	21.267	21.253	21.288	VV	51645	1017830	23.57%	0.700%
498	21.303	21.288	21.308	VV	50503	588342	13.63%	0.405%
499	21.313	21.308	21.318	VV	51512	297016	6.88%	0.204%
500	21.324	21.318	21.331	VV	52137	375684	8.70%	0.258%
501	21.337	21.331	21.350	VV	52904	574581	13.31%	0.395%
502	21.362	21.350	21.374	VV	51402	693991	16.07%	0.477%
503	21.378	21.374	21.383	VV	46118	228743	5.30%	0.157%
504	21.386	21.383	21.399	VV	44924	417848	9.68%	0.287%
505	21.403	21.399	21.408	VV	42133	207550	4.81%	0.143%
506	21.412	21.408	21.454	VV	40648	985263	22.82%	0.678%
507	21.457	21.454	21.460	VV	30926	122762	2.84%	0.084%
508	21.465	21.460	21.479	VV	33397	333301	7.72%	0.229%
509	21.505	21.479	21.520	VV	33796	785330	18.19%	0.540%

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510	21.527	21.520	21.543	VV	31785	406892	9.42%	0.280%
511	21.550	21.543	21.556	VV	30805	227813	5.28%	0.157%
512	21.570	21.556	21.578	VV	32590	408596	9.46%	0.281%
513	21.587	21.578	21.597	VV	37714	375258	8.69%	0.258%
514	21.624	21.597	21.648	VV	40451	1133869	26.26%	0.780%
515	21.656	21.648	21.672	VV	38785	510016	11.81%	0.351%
516	21.677	21.672	21.687	VV	37498	310081	7.18%	0.213%
517	21.696	21.687	21.702	VV	36950	293800	6.80%	0.202%
518	21.708	21.702	21.714	VV	34984	227837	5.28%	0.157%
519	21.728	21.714	21.744	VV	32852	548570	12.70%	0.377%
520	21.749	21.744	21.754	VV	28609	163815	3.79%	0.113%
521	21.759	21.754	21.765	VV	29939	194180	4.50%	0.134%
522	21.778	21.765	21.821	VV	28753	756487	17.52%	0.520%
523	21.845	21.821	21.854	VV	22326	361713	8.38%	0.249%
524	21.866	21.854	21.899	VV	19205	415634	9.63%	0.286%
525	21.913	21.899	21.918	VV	13937	144479	3.35%	0.099%
526	21.924	21.918	21.930	VV	14660	94008	2.18%	0.065%
527	21.933	21.930	21.947	VV	15460	116887	2.71%	0.080%
528	21.966	21.947	21.970	VV	14181	163249	3.78%	0.112%
529	21.997	21.970	22.030	VV	16315	506180	11.72%	0.348%
530	22.039	22.030	22.060	VV	16645	247715	5.74%	0.170%
531	22.065	22.060	22.087	VV	13290	179385	4.15%	0.123%
532	22.091	22.087	22.102	VV	11419	86950	2.01%	0.060%
533	22.119	22.102	22.164	VV	14465	432070	10.01%	0.297%
534	22.168	22.164	22.177	VV	10973	81077	1.88%	0.056%
535	22.181	22.177	22.195	VV	9460	73840	1.71%	0.051%
536	22.207	22.195	22.214	VV	7347	54434	1.26%	0.037%
537	22.251	22.214	22.256	VV	8750	162819	3.77%	0.112%
538	22.296	22.256	22.301	VV	14588	266854	6.18%	0.184%
539	22.312	22.301	22.317	VV	18473	144645	3.35%	0.100%
540	22.337	22.317	22.345	VV	16053	238984	5.53%	0.164%
541	22.351	22.345	22.360	VV	13249	94179	2.18%	0.065%
542	22.369	22.360	22.400	VBA	8550	186807	4.33%	0.129%
					Sum of corrected areas: 145357283			

FG042425.M Thu May 08 07:27:11 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:	LOWER-WALL-PILE-C	SDG No.:	Q1938
Lab Sample ID:	Q1938-05	Matrix:	SOIL
Analytical Method:	8015D TPH	% Solid:	96.8
Sample Wt/Vol:	30.07	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
FG015794.D	1	05/07/25 09:00	05/07/25 16:41	PB167887

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
PHC	Petroleum Hydrocarbons	35800		396	2920	ug/kg
SURROGATES						
16416-32-3	TETRACOSANE-d50	9.79		37 - 130	49%	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 : FG015794.D
Signal(s) : FID1A.ch
Acq On : 07 May 2025 16:41
Operator : YP\AJ
Sample : Q1938-05
Misc :
ALS Vial : 29 Sample Multiplier: 1

Instrument :
FID_G
ClientSampleId :
LOWER-WALL-PILE-C

Integration File: autoint1.e
Quant Time: May 08 06:39:07 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...	15.007	1153096	9.794 ug/ml
Target Compounds			

(f)=RT Delta > 1/2 Window

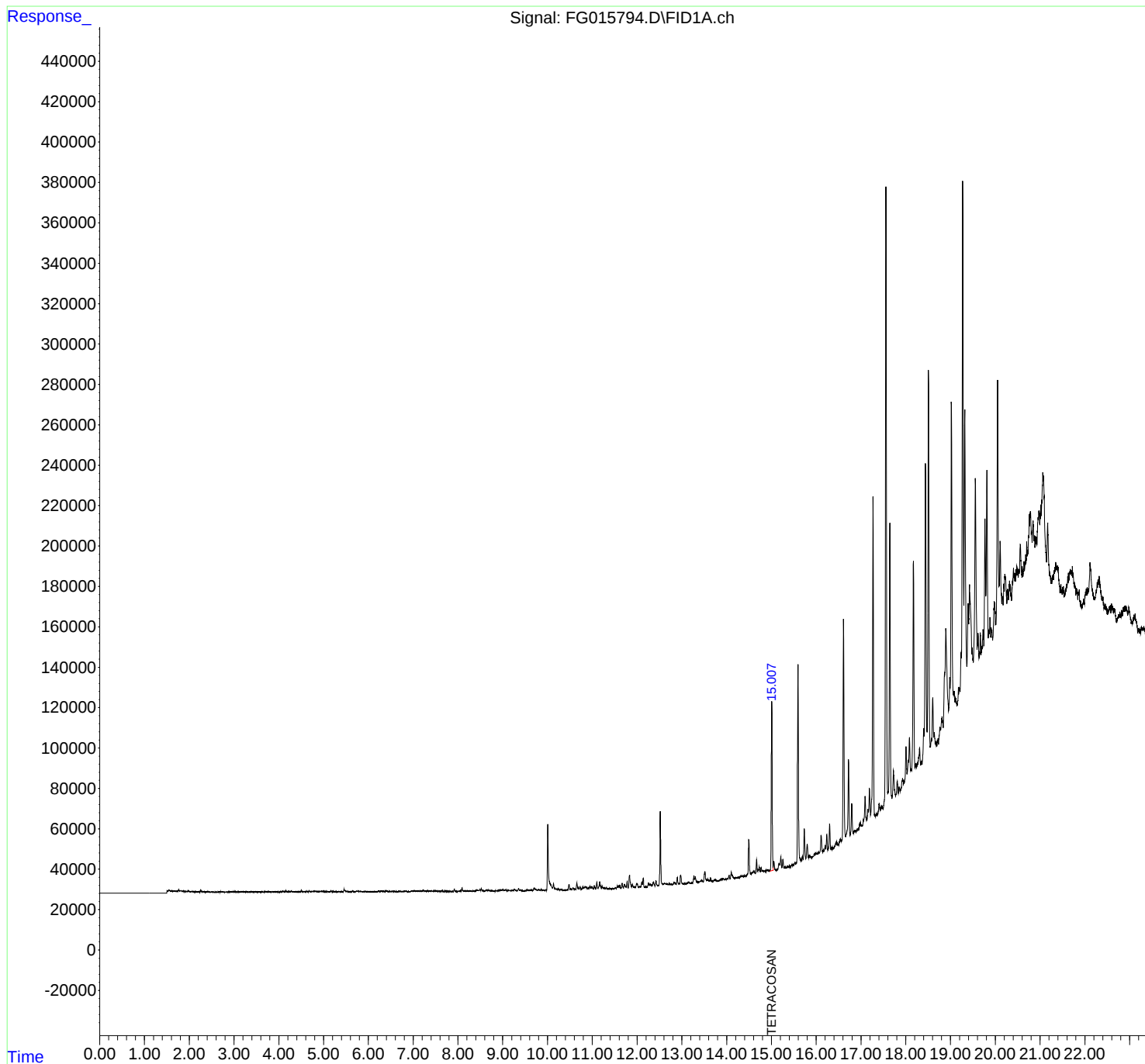
(m)=manual int.

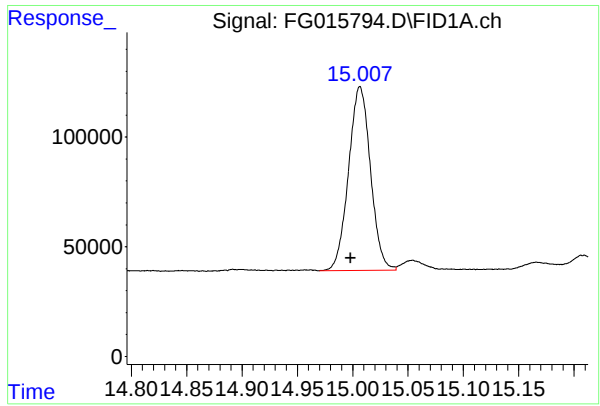
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG050725\
Data File : FG015794.D
Signal(s) : FID1A.ch
Acq On : 07 May 2025 16:41
Operator : YP\AJ
Sample : Q1938-05
Misc :
ALS Vial : 29 Sample Multiplier: 1

Instrument :
FID_G
ClientSampleId :
LOWER-WALL-PILE-C

Integration File: autoint1.e
Quant Time: May 08 06:39:07 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.: 15.007 min
Delta R.T.: 0.008 min
Response: 1153096
Conc: 9.79 ug/ml

Instrument :
FID_G
ClientSampleId :
LOWER-WALL-PILE-C

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG050725\
 Data File : FG015794.D
 Signal(s) : FID1A.ch
 Acq On : 07 May 2025 16:41
 Sample : Q1938-05
 Misc :
 ALS Vial : 29 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	1.921	1.900	1.928	BV	103	561	0.01%	0.000%
2	1.931	1.928	1.951	VV	117	877	0.01%	0.001%
3	1.976	1.951	2.016	PV	371	6568	0.10%	0.005%
4	2.023	2.016	2.041	VV	102	967	0.01%	0.001%
5	2.055	2.041	2.072	VV	170	1915	0.03%	0.002%
6	2.078	2.072	2.090	VV	184	1147	0.02%	0.001%
7	2.096	2.090	2.107	VV	115	714	0.01%	0.001%
8	2.121	2.107	2.136	VV	137	1288	0.02%	0.001%
9	2.141	2.136	2.161	VV	147	901	0.01%	0.001%
10	2.201	2.161	2.221	PV	217	4144	0.06%	0.003%
11	2.224	2.221	2.236	VV	164	1147	0.02%	0.001%
12	2.256	2.236	2.283	VV	1112	15817	0.24%	0.012%
13	2.292	2.283	2.325	VV	340	5797	0.09%	0.005%
14	2.335	2.325	2.360	VV	253	2760	0.04%	0.002%
15	2.364	2.360	2.394	VV	182	2389	0.04%	0.002%
16	2.418	2.394	2.438	VV	296	3875	0.06%	0.003%
17	2.440	2.438	2.470	VV	177	1971	0.03%	0.002%
18	2.474	2.470	2.491	VV	160	1300	0.02%	0.001%
19	2.506	2.491	2.512	VV	245	2166	0.03%	0.002%
20	2.519	2.512	2.536	VV	272	2347	0.04%	0.002%
21	2.540	2.536	2.545	VV	146	557	0.01%	0.000%
22	2.552	2.545	2.565	VV	221	1238	0.02%	0.001%
23	2.573	2.565	2.584	VV	135	1153	0.02%	0.001%
24	2.592	2.584	2.609	VV	203	1317	0.02%	0.001%
25	2.612	2.609	2.629	VV	129	998	0.02%	0.001%
26	2.665	2.629	2.716	PV	270	7706	0.12%	0.006%
27	2.721	2.716	2.725	VV	132	564	0.01%	0.000%
28	2.736	2.725	2.744	VV	226	1691	0.03%	0.001%
29	2.747	2.744	2.760	VV	197	1395	0.02%	0.001%
30	2.763	2.760	2.805	VV	188	3176	0.05%	0.002%
31	2.814	2.805	2.823	VV	163	1304	0.02%	0.001%
32	2.827	2.823	2.845	VV	157	1340	0.02%	0.001%
33	2.852	2.845	2.856	VV	180	781	0.01%	0.001%
34	2.876	2.856	2.881	VV	268	2361	0.04%	0.002%
35	2.886	2.881	2.889	VV	204	778	0.01%	0.001%
36	2.906	2.889	2.915	VV	276	3166	0.05%	0.002%

					rteres			
37	2.917	2.915	2.927	VV	263	1424	0.02%	0.001%
38	2.935	2.927	2.949	VV	319	3302	0.05%	0.003%
39	2.958	2.949	2.966	VV	276	1890	0.03%	0.001%
40	2.981	2.966	3.014	VV	405	8022	0.12%	0.006%
41	3.018	3.014	3.022	VV	252	935	0.01%	0.001%
42	3.030	3.022	3.036	VV	409	2192	0.03%	0.002%
43	3.043	3.036	3.061	VV	272	3030	0.05%	0.002%
44	3.065	3.061	3.073	VV	173	1081	0.02%	0.001%
45	3.078	3.073	3.092	VV	245	1757	0.03%	0.001%
46	3.117	3.092	3.126	VV	225	3423	0.05%	0.003%
47	3.129	3.126	3.145	VV	186	1957	0.03%	0.002%
48	3.173	3.145	3.181	VV	294	3936	0.06%	0.003%
49	3.186	3.181	3.213	VV	236	3302	0.05%	0.003%
50	3.217	3.213	3.225	VV	240	1005	0.02%	0.001%
51	3.247	3.225	3.289	VV	272	6213	0.09%	0.005%
52	3.296	3.289	3.315	VV	207	1962	0.03%	0.002%
53	3.317	3.315	3.323	VV	201	578	0.01%	0.000%
54	3.327	3.323	3.341	VV	164	1161	0.02%	0.001%
55	3.344	3.341	3.348	VV	138	503	0.01%	0.000%
56	3.378	3.348	3.394	VV	271	4349	0.07%	0.003%
57	3.399	3.394	3.406	VV	210	1187	0.02%	0.001%
58	3.419	3.406	3.428	VV	278	2515	0.04%	0.002%
59	3.431	3.428	3.442	VV	206	1353	0.02%	0.001%
60	3.450	3.442	3.487	VV	247	5180	0.08%	0.004%
61	3.494	3.487	3.501	VV	184	1297	0.02%	0.001%
62	3.508	3.501	3.515	VV	163	1276	0.02%	0.001%
63	3.518	3.515	3.522	VV	179	675	0.01%	0.001%
64	3.524	3.522	3.536	VV	211	1376	0.02%	0.001%
65	3.545	3.536	3.580	VV	274	5048	0.08%	0.004%
66	3.592	3.580	3.634	VV	263	5647	0.09%	0.004%
67	3.637	3.634	3.647	VV	167	1164	0.02%	0.001%
68	3.649	3.647	3.659	VV	210	1008	0.02%	0.001%
69	3.671	3.659	3.675	VV	217	1400	0.02%	0.001%
70	3.694	3.675	3.723	VV	361	6701	0.10%	0.005%
71	3.728	3.723	3.736	VV	258	1510	0.02%	0.001%
72	3.745	3.736	3.761	VV	288	3135	0.05%	0.002%
73	3.768	3.761	3.787	VV	323	3559	0.05%	0.003%
74	3.791	3.787	3.818	VV	256	3607	0.06%	0.003%
75	3.818	3.818	3.822	VV	277	483	0.01%	0.000%
76	3.834	3.822	3.851	VV	232	3106	0.05%	0.002%
77	3.856	3.851	3.868	VV	188	1654	0.03%	0.001%
78	3.873	3.868	3.879	VV	196	1190	0.02%	0.001%
79	3.883	3.879	3.889	VV	189	907	0.01%	0.001%
80	3.893	3.889	3.901	VV	137	697	0.01%	0.001%
81	3.906	3.901	3.925	PV	165	1788	0.03%	0.001%
82	3.935	3.925	3.942	VV	248	1728	0.03%	0.001%
83	3.958	3.942	3.984	VV	224	4027	0.06%	0.003%
84	3.988	3.984	4.018	VV	230	2718	0.04%	0.002%
85	4.044	4.018	4.050	VV	282	3545	0.05%	0.003%
86	4.079	4.050	4.093	VV	380	6815	0.10%	0.005%
87	4.094	4.093	4.099	VV	353	1293	0.02%	0.001%
88	4.102	4.099	4.107	VV	368	1553	0.02%	0.001%
89	4.111	4.107	4.127	VV	356	3533	0.05%	0.003%

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90	4.141	4.127	4.148	VV	449	4125	0.06%	0.003%
91	4.162	4.148	4.166	VV	468	3501	0.05%	0.003%
92	4.170	4.166	4.179	VV	359	2551	0.04%	0.002%
93	4.182	4.179	4.188	VV	321	1584	0.02%	0.001%
94	4.193	4.188	4.199	VV	347	1749	0.03%	0.001%
95	4.224	4.199	4.248	VV	414	9560	0.15%	0.007%
96	4.251	4.248	4.259	VV	318	2017	0.03%	0.002%
97	4.271	4.259	4.313	VV	387	10307	0.16%	0.008%
98	4.329	4.313	4.351	VV	379	6406	0.10%	0.005%
99	4.353	4.351	4.376	VV	244	3227	0.05%	0.003%
100	4.381	4.376	4.401	VV	252	2897	0.04%	0.002%
101	4.412	4.401	4.422	VV	269	2536	0.04%	0.002%
102	4.435	4.422	4.455	VV	306	5009	0.08%	0.004%
103	4.470	4.455	4.479	VV	293	3324	0.05%	0.003%
104	4.505	4.479	4.536	VV	636	11839	0.18%	0.009%
105	4.541	4.536	4.575	VV	325	5794	0.09%	0.005%
106	4.584	4.575	4.600	VV	292	3649	0.06%	0.003%
107	4.619	4.600	4.652	VV	465	9121	0.14%	0.007%
108	4.676	4.652	4.704	VV	844	13667	0.21%	0.011%
109	4.737	4.704	4.747	VV	448	8505	0.13%	0.007%
110	4.752	4.747	4.767	VV	431	4080	0.06%	0.003%
111	4.788	4.767	4.806	VV	424	7979	0.12%	0.006%
112	4.815	4.806	4.839	VV	354	6337	0.10%	0.005%
113	4.886	4.839	4.921	VV	352	12104	0.19%	0.009%
114	4.950	4.921	4.995	VV	484	15642	0.24%	0.012%
115	5.002	4.995	5.009	VV	343	2502	0.04%	0.002%
116	5.013	5.009	5.047	VV	390	6579	0.10%	0.005%
117	5.056	5.047	5.103	VV	325	8367	0.13%	0.007%
118	5.122	5.103	5.141	VV	225	4449	0.07%	0.003%
119	5.167	5.141	5.202	VV	563	11724	0.18%	0.009%
120	5.211	5.202	5.244	VV	255	4810	0.07%	0.004%
121	5.267	5.244	5.274	VV	294	3774	0.06%	0.003%
122	5.278	5.274	5.283	VV	246	1176	0.02%	0.001%
123	5.296	5.283	5.302	VV	255	2194	0.03%	0.002%
124	5.306	5.302	5.311	VV	198	907	0.01%	0.001%
125	5.327	5.311	5.356	VV	277	6030	0.09%	0.005%
126	5.362	5.356	5.367	VV	242	1245	0.02%	0.001%
127	5.371	5.367	5.436	VV	197	5775	0.09%	0.005%
128	5.461	5.436	5.522	VV	1273	27849	0.43%	0.022%
129	5.527	5.522	5.619	VV	289	7382	0.11%	0.006%
130	5.654	5.619	5.678	VV	338	6750	0.10%	0.005%
131	5.684	5.678	5.693	VV	195	1394	0.02%	0.001%
132	5.713	5.693	5.722	VV	272	3493	0.05%	0.003%
133	5.744	5.722	5.760	VV	410	7907	0.12%	0.006%
134	5.766	5.760	5.791	VV	395	5553	0.08%	0.004%
135	5.807	5.791	5.819	VV	343	4785	0.07%	0.004%
136	5.820	5.819	5.830	VV	309	1546	0.02%	0.001%
137	5.844	5.830	5.865	VV	303	4659	0.07%	0.004%
138	5.895	5.865	5.910	VV	313	5883	0.09%	0.005%
139	5.923	5.910	5.945	VV	367	5253	0.08%	0.004%
140	5.970	5.945	5.995	VV	258	4658	0.07%	0.004%
141	5.998	5.995	6.004	VV	115	502	0.01%	0.000%

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142	6.006	6.004	6.011	VV	148	419	0.01%	0.000%
143	6.025	6.011	6.076	VV	137	3548	0.05%	0.003%
144	6.090	6.076	6.113	VV	153	2203	0.03%	0.002%
145	6.125	6.113	6.146	VV	239	2548	0.04%	0.002%
146	6.158	6.146	6.165	PV	70	677	0.01%	0.001%
147	6.178	6.165	6.191	VV	147	1667	0.03%	0.001%
148	6.196	6.191	6.205	VV	201	1336	0.02%	0.001%
149	6.224	6.205	6.230	VV	461	4775	0.07%	0.004%
150	6.235	6.230	6.279	VV	436	9174	0.14%	0.007%
151	6.285	6.279	6.291	VV	365	2389	0.04%	0.002%
152	6.301	6.291	6.317	VV	314	4560	0.07%	0.004%
153	6.329	6.317	6.355	VV	366	6523	0.10%	0.005%
154	6.397	6.355	6.428	VV	709	16468	0.25%	0.013%
155	6.450	6.428	6.470	VV	292	5679	0.09%	0.004%
156	6.475	6.470	6.510	VV	272	4901	0.07%	0.004%
157	6.527	6.510	6.549	VV	420	6059	0.09%	0.005%
158	6.581	6.549	6.602	VV	361	7652	0.12%	0.006%
159	6.607	6.602	6.625	VV	175	2106	0.03%	0.002%
160	6.628	6.625	6.635	VV	241	1161	0.02%	0.001%
161	6.646	6.635	6.665	VV	206	3028	0.05%	0.002%
162	6.681	6.665	6.734	VV	483	8622	0.13%	0.007%
163	6.761	6.734	6.772	VV	257	4028	0.06%	0.003%
164	6.792	6.772	6.823	VV	351	8604	0.13%	0.007%
165	6.835	6.823	6.852	VV	368	5426	0.08%	0.004%
166	6.857	6.852	6.925	VV	260	7742	0.12%	0.006%
167	6.969	6.925	6.974	VV	491	8244	0.13%	0.006%
168	6.978	6.974	6.984	VV	506	2849	0.04%	0.002%
169	7.012	6.984	7.035	VV	582	14517	0.22%	0.011%
170	7.039	7.035	7.051	VV	424	3941	0.06%	0.003%
171	7.055	7.051	7.100	VV	447	11838	0.18%	0.009%
172	7.104	7.100	7.156	VV	399	10054	0.15%	0.008%
173	7.217	7.156	7.302	VV	601	34289	0.52%	0.027%
174	7.307	7.302	7.312	VV	379	2030	0.03%	0.002%
175	7.331	7.312	7.357	VV	473	10308	0.16%	0.008%
176	7.364	7.357	7.372	VV	487	3420	0.05%	0.003%
177	7.374	7.372	7.394	VV	432	4335	0.07%	0.003%
178	7.408	7.394	7.429	VV	597	8693	0.13%	0.007%
179	7.435	7.429	7.436	VV	321	1269	0.02%	0.001%
180	7.444	7.436	7.455	VV	368	3542	0.05%	0.003%
181	7.466	7.455	7.491	VV	546	7577	0.12%	0.006%
182	7.508	7.491	7.567	VV	633	14142	0.22%	0.011%
183	7.571	7.567	7.575	VV	259	1045	0.02%	0.001%
184	7.581	7.575	7.602	VV	332	3078	0.05%	0.002%
185	7.605	7.602	7.610	VV	223	871	0.01%	0.001%
186	7.637	7.610	7.659	VV	602	9147	0.14%	0.007%
187	7.664	7.659	7.674	VV	324	1767	0.03%	0.001%
188	7.680	7.674	7.689	VV	142	899	0.01%	0.001%
189	7.690	7.689	7.694	VV	110	284	0.00%	0.000%
190	7.700	7.694	7.715	VV	201	1368	0.02%	0.001%
191	7.719	7.715	7.725	PV	331	1048	0.02%	0.001%
192	7.728	7.725	7.734	VV	179	869	0.01%	0.001%
193	7.753	7.734	7.781	VV	213	4293	0.07%	0.003%
194	7.786	7.781	7.792	VV	210	1036	0.02%	0.001%

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195	7.803	7.792	7.809	VV	244	1785	0.03%	0.001%
196	7.811	7.809	7.814	VV	237	548	0.01%	0.000%
197	7.817	7.814	7.833	VV	183	1229	0.02%	0.001%
198	7.857	7.833	7.877	VV	183	2389	0.04%	0.002%
199	7.921	7.877	7.977	VV	1295	19358	0.30%	0.015%
200	7.994	7.977	8.001	PV	167	1704	0.03%	0.001%
201	8.007	8.001	8.013	VV	235	1049	0.02%	0.001%
202	8.018	8.013	8.039	VV	175	1925	0.03%	0.002%
203	8.093	8.039	8.129	VV	1924	35166	0.54%	0.028%
204	8.137	8.129	8.142	VV	353	2281	0.03%	0.002%
205	8.146	8.142	8.155	VV	333	2295	0.04%	0.002%
206	8.176	8.155	8.188	VV	341	4848	0.07%	0.004%
207	8.211	8.188	8.230	VV	288	5000	0.08%	0.004%
208	8.242	8.230	8.245	VV	229	1718	0.03%	0.001%
209	8.263	8.245	8.304	VV	293	7405	0.11%	0.006%
210	8.311	8.304	8.319	VV	202	1360	0.02%	0.001%
211	8.342	8.319	8.371	VV	387	7536	0.12%	0.006%
212	8.408	8.371	8.439	VV	570	16544	0.25%	0.013%
213	8.448	8.439	8.467	VV	650	8362	0.13%	0.007%
214	8.490	8.467	8.502	VV	779	12097	0.18%	0.009%
215	8.521	8.502	8.582	VV	1423	27961	0.43%	0.022%
216	8.631	8.582	8.652	VV	689	15962	0.24%	0.013%
217	8.674	8.652	8.695	VV	639	12527	0.19%	0.010%
218	8.700	8.695	8.744	VV	412	7515	0.11%	0.006%
219	8.759	8.744	8.794	VV	380	7028	0.11%	0.006%
220	8.801	8.794	8.815	VV	186	1513	0.02%	0.001%
221	8.827	8.815	8.839	VV	179	1708	0.03%	0.001%
222	8.850	8.839	8.877	VV	270	4878	0.07%	0.004%
223	8.885	8.877	8.894	VV	316	2840	0.04%	0.002%
224	8.958	8.894	8.968	VV	549	18575	0.28%	0.015%
225	8.972	8.968	8.977	VV	510	2510	0.04%	0.002%
226	9.001	8.977	9.046	VV	912	23289	0.36%	0.018%
227	9.066	9.046	9.105	VV	862	17562	0.27%	0.014%
228	9.115	9.105	9.129	VV	431	4262	0.07%	0.003%
229	9.137	9.129	9.144	VV	396	3256	0.05%	0.003%
230	9.145	9.144	9.149	VV	375	1128	0.02%	0.001%
231	9.156	9.149	9.165	VV	391	3357	0.05%	0.003%
232	9.170	9.165	9.219	VV	392	10338	0.16%	0.008%
233	9.268	9.219	9.313	VV	913	26344	0.40%	0.021%
234	9.319	9.313	9.328	VV	252	1789	0.03%	0.001%
235	9.354	9.328	9.376	VV	1252	20112	0.31%	0.016%
236	9.391	9.376	9.489	VV	582	15975	0.24%	0.013%
237	9.505	9.489	9.520	PV	304	2704	0.04%	0.002%
238	9.546	9.520	9.551	VV	561	6971	0.11%	0.005%
239	9.554	9.551	9.572	VV	502	5401	0.08%	0.004%
240	9.581	9.572	9.609	VV	482	7463	0.11%	0.006%
241	9.638	9.609	9.670	VV	407	10141	0.16%	0.008%
242	9.700	9.670	9.725	VV	1384	26321	0.40%	0.021%
243	9.739	9.725	9.764	VV	904	14941	0.23%	0.012%
244	9.778	9.764	9.790	VV	379	5795	0.09%	0.005%
245	9.808	9.790	9.840	VV	559	11279	0.17%	0.009%
246	9.858	9.840	9.877	VV	740	9529	0.15%	0.007%

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247	9.882	9.877	9.888	VV	243	1361	0.02%	0.001%
248	9.913	9.888	9.941	VV	295	5872	0.09%	0.005%
249	9.968	9.941	9.982	VV	573	6678	0.10%	0.005%
250	10.008	9.982	10.112	VV	32734	574761	8.79%	0.451%
251	10.136	10.112	10.180	VV	3452	67123	1.03%	0.053%
252	10.196	10.180	10.227	VV	758	16939	0.26%	0.013%
253	10.242	10.227	10.284	VV	730	13373	0.20%	0.010%
254	10.303	10.284	10.345	VV	415	8697	0.13%	0.007%
255	10.353	10.345	10.384	VV	169	1800	0.03%	0.001%
256	10.408	10.384	10.425	VV	169	1806	0.03%	0.001%
257	10.480	10.425	10.507	VV	2766	41320	0.63%	0.032%
258	10.524	10.507	10.543	VV	565	8817	0.13%	0.007%
259	10.569	10.543	10.607	VV	1000	21511	0.33%	0.017%
260	10.618	10.607	10.634	VV	478	6049	0.09%	0.005%
261	10.656	10.634	10.710	VV	3446	65341	1.00%	0.051%
262	10.726	10.710	10.764	VV	1683	25302	0.39%	0.020%
263	10.789	10.764	10.803	VV	1574	21807	0.33%	0.017%
264	10.816	10.803	10.824	VV	1101	12589	0.19%	0.010%
265	10.839	10.824	10.853	VV	1599	23634	0.36%	0.019%
266	10.857	10.853	10.867	VV	1488	11423	0.17%	0.009%
267	10.879	10.867	10.900	VV	1379	18678	0.29%	0.015%
268	10.922	10.900	10.930	VV	1283	16865	0.26%	0.013%
269	10.950	10.930	10.967	VV	1794	27185	0.42%	0.021%
270	10.982	10.967	10.995	VV	1577	19717	0.30%	0.015%
271	11.003	10.995	11.026	VV	1081	13309	0.20%	0.010%
272	11.049	11.026	11.080	VV	1946	30928	0.47%	0.024%
273	11.103	11.080	11.130	VV	3696	50687	0.77%	0.040%
274	11.167	11.130	11.204	VV	3896	81654	1.25%	0.064%
275	11.222	11.204	11.244	VV	1728	27170	0.42%	0.021%
276	11.250	11.244	11.259	VV	722	5942	0.09%	0.005%
277	11.272	11.259	11.290	VV	783	11409	0.17%	0.009%
278	11.311	11.290	11.352	VV	1010	20002	0.31%	0.016%
279	11.356	11.352	11.377	VV	256	2484	0.04%	0.002%
280	11.395	11.377	11.425	VV	504	7887	0.12%	0.006%
281	11.447	11.425	11.475	PV	507	8822	0.13%	0.007%
282	11.515	11.475	11.538	VV	642	13361	0.20%	0.010%
283	11.558	11.538	11.570	VV	1244	15705	0.24%	0.012%
284	11.584	11.570	11.599	VV	1743	21295	0.33%	0.017%
285	11.614	11.599	11.644	VV	2006	28003	0.43%	0.022%
286	11.667	11.644	11.699	VV	2659	41093	0.63%	0.032%
287	11.718	11.699	11.758	VV	2087	42041	0.64%	0.033%
288	11.779	11.758	11.805	VV	3382	42652	0.65%	0.033%
289	11.831	11.805	11.882	VV	6353	126676	1.94%	0.099%
290	11.897	11.882	11.929	VV	1819	28976	0.44%	0.023%
291	11.949	11.929	11.966	VV	574	9526	0.15%	0.007%
292	12.004	11.966	12.041	VV	2062	55488	0.85%	0.044%
293	12.062	12.041	12.081	VV	669	11433	0.17%	0.009%
294	12.108	12.081	12.121	VV	2764	38275	0.59%	0.030%
295	12.138	12.121	12.179	VV	4619	60545	0.93%	0.047%
296	12.198	12.179	12.224	PV	631	7963	0.12%	0.006%
297	12.257	12.224	12.274	VV	2162	32915	0.50%	0.026%
298	12.288	12.274	12.306	VV	1294	21934	0.34%	0.017%
299	12.311	12.306	12.329	VV	1168	12057	0.18%	0.009%

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300	12.367	12.329	12.400	VV	2411	53671	0.82%	0.042%
301	12.423	12.400	12.455	VV	2757	44826	0.69%	0.035%
302	12.462	12.455	12.477	VV	536	5706	0.09%	0.004%
303	12.519	12.477	12.570	VV	36904	469186	7.17%	0.368%
304	12.579	12.570	12.596	VV	1202	15419	0.24%	0.012%
305	12.613	12.596	12.659	VV	1364	36880	0.56%	0.029%
306	12.676	12.659	12.703	VV	865	18067	0.28%	0.014%
307	12.717	12.703	12.735	VV	865	12517	0.19%	0.010%
308	12.745	12.735	12.755	VV	593	5272	0.08%	0.004%
309	12.776	12.755	12.794	VV	464	8020	0.12%	0.006%
310	12.832	12.794	12.875	VV	1244	37713	0.58%	0.030%
311	12.900	12.875	12.942	VV	3531	55584	0.85%	0.044%
312	12.971	12.942	13.031	VV	4456	85392	1.31%	0.067%
313	13.048	13.031	13.059	VV	367	4682	0.07%	0.004%
314	13.061	13.059	13.075	VV	361	2191	0.03%	0.002%
315	13.081	13.075	13.095	VV	182	900	0.01%	0.001%
316	13.113	13.095	13.120	PV	326	3121	0.05%	0.002%
317	13.134	13.120	13.140	VV	530	4937	0.08%	0.004%
318	13.160	13.140	13.185	VV	833	13782	0.21%	0.011%
319	13.191	13.185	13.200	VV	180	1016	0.02%	0.001%
320	13.220	13.200	13.240	PV	306	4635	0.07%	0.004%
321	13.268	13.240	13.286	VV	3686	55301	0.85%	0.043%
322	13.302	13.286	13.347	VV	3353	58902	0.90%	0.046%
323	13.361	13.347	13.382	VV	513	7896	0.12%	0.006%
324	13.422	13.382	13.434	VV	915	20025	0.31%	0.016%
325	13.448	13.434	13.476	VV	1359	20351	0.31%	0.016%
326	13.515	13.476	13.554	VV	5354	119869	1.83%	0.094%
327	13.558	13.554	13.578	VV	1059	13596	0.21%	0.011%
328	13.590	13.578	13.614	VV	1243	16998	0.26%	0.013%
329	13.641	13.614	13.673	VV	2023	28449	0.43%	0.022%
330	13.689	13.673	13.695	PV	351	2609	0.04%	0.002%
331	13.697	13.695	13.705	VV	306	1342	0.02%	0.001%
332	13.721	13.705	13.738	VV	689	10704	0.16%	0.008%
333	13.748	13.738	13.819	VV	830	15340	0.23%	0.012%
334	13.864	13.819	13.882	PV	713	12257	0.19%	0.010%
335	13.916	13.882	13.944	VV	893	21224	0.32%	0.017%
336	13.961	13.944	13.974	VV	412	5807	0.09%	0.005%
337	14.025	13.974	14.030	VV	543	12321	0.19%	0.010%
338	14.054	14.030	14.076	VV	2040	29916	0.46%	0.023%
339	14.103	14.076	14.120	VV	3376	44422	0.68%	0.035%
340	14.127	14.120	14.175	VV	1814	26897	0.41%	0.021%
341	14.209	14.175	14.224	PV	301	5312	0.08%	0.004%
342	14.228	14.224	14.242	VV	173	766	0.01%	0.001%
343	14.261	14.242	14.277	VV	359	3345	0.05%	0.003%
344	14.332	14.277	14.355	PV	705	17357	0.27%	0.014%
345	14.399	14.355	14.418	VV	488	9029	0.14%	0.007%
346	14.440	14.418	14.445	VV	416	4285	0.07%	0.003%
347	14.495	14.445	14.538	VV	17578	269489	4.12%	0.211%
348	14.578	14.538	14.587	VV	1231	26930	0.41%	0.021%
349	14.614	14.587	14.641	VV	1859	40494	0.62%	0.032%
350	14.667	14.641	14.689	VV	7089	98702	1.51%	0.077%
351	14.703	14.689	14.713	VV	2110	24872	0.38%	0.020%

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352	14.729	14.713	14.750	VV	3150	45387	0.69%	0.036%
353	14.768	14.750	14.795	VV	2708	43164	0.66%	0.034%
354	14.804	14.795	14.809	VV	890	6847	0.10%	0.005%
355	14.820	14.809	14.835	VV	861	11246	0.17%	0.009%
356	14.845	14.835	14.851	VV	746	6192	0.09%	0.005%
357	14.854	14.851	14.868	VV	624	5251	0.08%	0.004%
358	14.892	14.868	14.929	VV	1100	23945	0.37%	0.019%
359	14.932	14.929	14.939	VV	512	2909	0.04%	0.002%
360	14.961	14.939	14.970	VV	574	7586	0.12%	0.006%
361	15.007	14.970	15.038	VV	83944	1157661	17.70%	0.908%
362	15.054	15.038	15.094	VV	4459	65664	1.00%	0.051%
363	15.101	15.094	15.115	VV	202	1478	0.02%	0.001%
364	15.166	15.115	15.188	VV	3063	55407	0.85%	0.043%
365	15.208	15.188	15.234	VV	6033	90371	1.38%	0.071%
366	15.256	15.234	15.288	VV	4497	63028	0.96%	0.049%
367	15.310	15.288	15.331	VV	747	9700	0.15%	0.008%
368	15.371	15.331	15.387	PV	561	10281	0.16%	0.008%
369	15.405	15.387	15.426	VV	824	10326	0.16%	0.008%
370	15.454	15.426	15.460	PV	569	7058	0.11%	0.006%
371	15.464	15.460	15.479	VV	482	3611	0.06%	0.003%
372	15.521	15.479	15.540	VV	1208	22300	0.34%	0.017%
373	15.592	15.540	15.655	VV	98038	1429931	21.86%	1.121%
374	15.664	15.655	15.670	VV	1164	9679	0.15%	0.008%
375	15.690	15.670	15.705	VV	2651	38311	0.59%	0.030%
376	15.733	15.705	15.767	VV	16010	237272	3.63%	0.186%
377	15.797	15.767	15.826	VV	7867	140038	2.14%	0.110%
378	15.862	15.826	15.890	VV	1441	39849	0.61%	0.031%
379	15.898	15.890	15.903	VV	526	3148	0.05%	0.002%
380	15.926	15.903	15.932	VV	471	6716	0.10%	0.005%
381	15.964	15.932	15.978	VV	1348	25133	0.38%	0.020%
382	15.997	15.978	16.002	VV	1467	18335	0.28%	0.014%
383	16.006	16.002	16.014	VV	1227	7401	0.11%	0.006%
384	16.019	16.014	16.024	VV	973	5208	0.08%	0.004%
385	16.052	16.024	16.070	VV	1508	30592	0.47%	0.024%
386	16.110	16.070	16.144	VV	9126	166539	2.55%	0.131%
387	16.152	16.144	16.159	VV	1155	8134	0.12%	0.006%
388	16.201	16.159	16.214	VV	3167	55974	0.86%	0.044%
389	16.237	16.214	16.267	VV	8565	126692	1.94%	0.099%
390	16.298	16.267	16.330	VV	12869	187233	2.86%	0.147%
391	16.363	16.330	16.385	VV	1069	19253	0.29%	0.015%
392	16.452	16.385	16.479	PV	2274	63751	0.97%	0.050%
393	16.483	16.479	16.500	VV	691	5179	0.08%	0.004%
394	16.529	16.500	16.557	PV	2067	42167	0.64%	0.033%
395	16.609	16.557	16.657	VV	109285	1611659	24.64%	1.264%
396	16.721	16.657	16.752	VV	38064	632308	9.67%	0.496%
397	16.793	16.752	16.830	VV	15520	235244	3.60%	0.184%
398	16.864	16.830	16.892	VV	1197	25136	0.38%	0.020%
399	16.923	16.892	16.946	PV	828	14868	0.23%	0.012%
400	16.983	16.946	17.009	VV	2528	55610	0.85%	0.044%
401	17.017	17.009	17.029	VV	969	8134	0.12%	0.006%
402	17.091	17.029	17.133	VV	14030	282050	4.31%	0.221%
403	17.156	17.133	17.165	VV	6324	79726	1.22%	0.063%
404	17.188	17.165	17.214	VV	16059	256904	3.93%	0.201%

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405	17.269	17.214	17.338	VV	158852	2255882	34.48%	1.769%
406	17.364	17.338	17.369	VV	548	5899	0.09%	0.005%
407	17.375	17.369	17.380	PV	472	1618	0.02%	0.001%
408	17.405	17.380	17.437	VV	4740	80110	1.22%	0.063%
409	17.468	17.437	17.496	VV	2262	42760	0.65%	0.034%
410	17.556	17.496	17.599	PV	306102	4682788	71.58%	3.672%
411	17.643	17.599	17.692	VV	138016	2045517	31.27%	1.604%
412	17.724	17.692	17.774	VV	14333	292607	4.47%	0.229%
413	17.810	17.774	17.832	VV	7262	115741	1.77%	0.091%
414	17.853	17.832	17.876	VV	3310	54739	0.84%	0.043%
415	17.930	17.876	17.958	VV	5868	171729	2.63%	0.135%
416	18.004	17.958	18.028	VV	20133	391758	5.99%	0.307%
417	18.056	18.028	18.062	VV	12255	185663	2.84%	0.146%
418	18.081	18.062	18.105	VV	22980	401848	6.14%	0.315%
419	18.112	18.105	18.124	VV	6759	70927	1.08%	0.056%
420	18.171	18.124	18.205	VV	107691	1807605	27.63%	1.418%
421	18.219	18.205	18.242	VV	7250	139976	2.14%	0.110%
422	18.309	18.242	18.337	VV	12924	429832	6.57%	0.337%
423	18.347	18.337	18.364	VV	5515	81125	1.24%	0.064%
424	18.402	18.364	18.411	VV	20892	355687	5.44%	0.279%
425	18.439	18.411	18.475	VV	149973	2642616	40.40%	2.072%
426	18.507	18.475	18.554	VV	196088	3199367	48.91%	2.509%
427	18.569	18.554	18.575	VV	12584	140061	2.14%	0.110%
428	18.601	18.575	18.624	VV	31480	603249	9.22%	0.473%
429	18.634	18.624	18.677	VV	13936	325918	4.98%	0.256%
430	18.682	18.677	18.695	VV	8227	79827	1.22%	0.063%
431	18.706	18.695	18.712	VV	7970	71802	1.10%	0.056%
432	18.720	18.712	18.731	VV	9080	87920	1.34%	0.069%
433	18.759	18.731	18.771	VV	13664	257300	3.93%	0.202%
434	18.809	18.771	18.817	VV	17988	417859	6.39%	0.328%
435	18.821	18.817	18.835	VV	16082	149229	2.28%	0.117%
436	18.895	18.835	18.957	VV	59825	2542974	38.87%	1.994%
437	18.982	18.957	18.992	VV	33450	546143	8.35%	0.428%
438	19.019	18.992	19.064	VV	167741	3162498	48.34%	2.480%
439	19.068	19.064	19.079	VV	24697	214800	3.28%	0.168%
440	19.084	19.079	19.099	VV	24696	266964	4.08%	0.209%
441	19.111	19.099	19.125	VV	21071	318257	4.86%	0.250%
442	19.130	19.125	19.142	VV	18874	178339	2.73%	0.140%
443	19.175	19.142	19.184	VV	24598	491422	7.51%	0.385%
444	19.189	19.184	19.203	VV	24673	278907	4.26%	0.219%
445	19.208	19.203	19.214	VV	23318	141947	2.17%	0.111%
446	19.271	19.214	19.295	VV	273208	5166239	78.97%	4.052%
447	19.317	19.295	19.365	VV	159068	3573983	54.63%	2.803%
448	19.391	19.365	19.405	VV	61674	1168816	17.87%	0.917%
449	19.423	19.405	19.474	VV	69601	2335627	35.70%	1.832%
450	19.484	19.474	19.499	VV	37823	531774	8.13%	0.417%
451	19.503	19.499	19.509	VV	32495	195751	2.99%	0.154%
452	19.554	19.509	19.593	VV	119957	3284343	50.20%	2.576%
453	19.615	19.593	19.639	VV	42242	1000392	15.29%	0.785%
454	19.664	19.639	19.682	VV	41195	899877	13.76%	0.706%
455	19.701	19.682	19.707	VV	33733	484449	7.41%	0.380%
456	19.726	19.707	19.745	VV	41564	851197	13.01%	0.668%

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457	19.768	19.745	19.787	VV	95184	1733555	26.50%	1.360%
458	19.811	19.787	19.842	VV	118949	2429200	37.13%	1.905%
459	19.854	19.842	19.866	VV	38483	537645	8.22%	0.422%
460	19.880	19.866	19.897	VV	44478	744469	11.38%	0.584%
461	19.909	19.897	19.941	VV	39076	938130	14.34%	0.736%
462	19.977	19.941	20.013	VV	50702	1842218	28.16%	1.445%
463	20.050	20.013	20.082	VV	157442	3585550	54.81%	2.812%
464	20.107	20.082	20.145	VV	77250	2285268	34.93%	1.792%
465	20.154	20.145	20.175	VV	49408	840914	12.85%	0.659%
466	20.188	20.175	20.200	VV	54734	780933	11.94%	0.612%
467	20.213	20.200	20.258	VV	58965	1849415	28.27%	1.450%
468	20.275	20.258	20.293	VV	50313	1010380	15.44%	0.792%
469	20.316	20.293	20.362	VV	53647	2005913	30.66%	1.573%
470	20.405	20.362	20.433	VV	58045	2225959	34.03%	1.746%
471	20.480	20.433	20.515	VV	56781	2643394	40.41%	2.073%
472	20.558	20.515	20.594	VV	66594	2689685	41.11%	2.109%
473	20.602	20.594	20.612	VV	54638	567990	8.68%	0.445%
474	20.641	20.612	20.653	VV	56011	1298804	19.85%	1.019%
475	20.678	20.653	20.685	VV	58623	1062182	16.24%	0.833%
476	20.701	20.685	20.718	VV	63644	1166898	17.84%	0.915%
477	20.786	20.718	20.820	VV	76955	4238791	64.79%	3.324%
478	20.842	20.820	20.862	VV	72262	1681977	25.71%	1.319%
479	20.870	20.862	20.885	VV	63961	849617	12.99%	0.666%
480	20.898	20.885	20.912	VV	63110	1000831	15.30%	0.785%
481	20.920	20.912	20.929	VV	62195	633736	9.69%	0.497%
482	20.971	20.929	20.991	VV	74166	2559935	39.13%	2.008%
483	21.060	20.991	21.143	VV	91195	6541881	100.00%	5.130%
484	21.168	21.143	21.262	VV	64326	3131589	47.87%	2.456%
485	21.293	21.262	21.304	VV	36044	858256	13.12%	0.673%
486	21.327	21.304	21.335	VV	38866	683483	10.45%	0.536%
487	21.349	21.335	21.379	VV	40695	1010303	15.44%	0.792%
488	21.386	21.379	21.460	VV	38118	1518728	23.22%	1.191%
489	21.467	21.460	21.491	VV	26601	445098	6.80%	0.349%
490	21.500	21.491	21.542	VV	24109	711231	10.87%	0.558%
491	21.589	21.542	21.597	VV	24861	735731	11.25%	0.577%
492	21.631	21.597	21.640	VV	29617	681920	10.42%	0.535%
493	21.673	21.640	21.690	VV	30355	838772	12.82%	0.658%
494	21.698	21.690	21.709	VV	29543	321775	4.92%	0.252%
495	21.722	21.709	21.799	VV	31158	1249462	19.10%	0.980%
496	21.807	21.799	21.820	VV	18447	212014	3.24%	0.166%
497	21.828	21.820	21.840	VV	17130	190956	2.92%	0.150%
498	21.872	21.840	21.919	VV	15977	548732	8.39%	0.430%
499	21.932	21.919	21.944	VV	7383	101490	1.55%	0.080%
500	21.970	21.944	21.990	VV	9191	211930	3.24%	0.166%
501	22.029	21.990	22.038	VV	13161	314557	4.81%	0.247%
502	22.049	22.038	22.066	VV	13250	188979	2.89%	0.148%
503	22.116	22.066	22.219	VV	23566	1147447	17.54%	0.900%
504	22.274	22.219	22.284	VV	11509	283447	4.33%	0.222%
505	22.293	22.284	22.310	VV	12343	179825	2.75%	0.141%
506	22.320	22.310	22.400	VBA	13310	379367	5.80%	0.298%
Sum of corrected areas:					127509965			

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:	LOWER-WALL-PILE-D	SDG No.:	Q1938
Lab Sample ID:	Q1938-07	Matrix:	SOIL
Analytical Method:	8015D TPH	% Solid:	95
Sample Wt/Vol:	30.05	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
FG015795.D	1	05/07/25 09:00	05/07/25 17:10	PB167887

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
PHC	Petroleum Hydrocarbons	18500		404	2980	ug/kg
SURROGATES						
16416-32-3	TETRACOSANE-d50	8.34		37 - 130	42%	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 : FG015795.D
Signal(s) : FID1A.ch
Acq On : 07 May 2025 17:10
Operator : YP\AJ
Sample : Q1938-07
Misc :
ALS Vial : 30 Sample Multiplier: 1

Instrument :
FID_G
ClientSampleId :
LOWER-WALL-PILE-D

Integration File: autoint1.e
Quant Time: May 08 06:39:28 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	982404	8.344 ug/ml
Target Compounds			

(f)=RT Delta > 1/2 Window

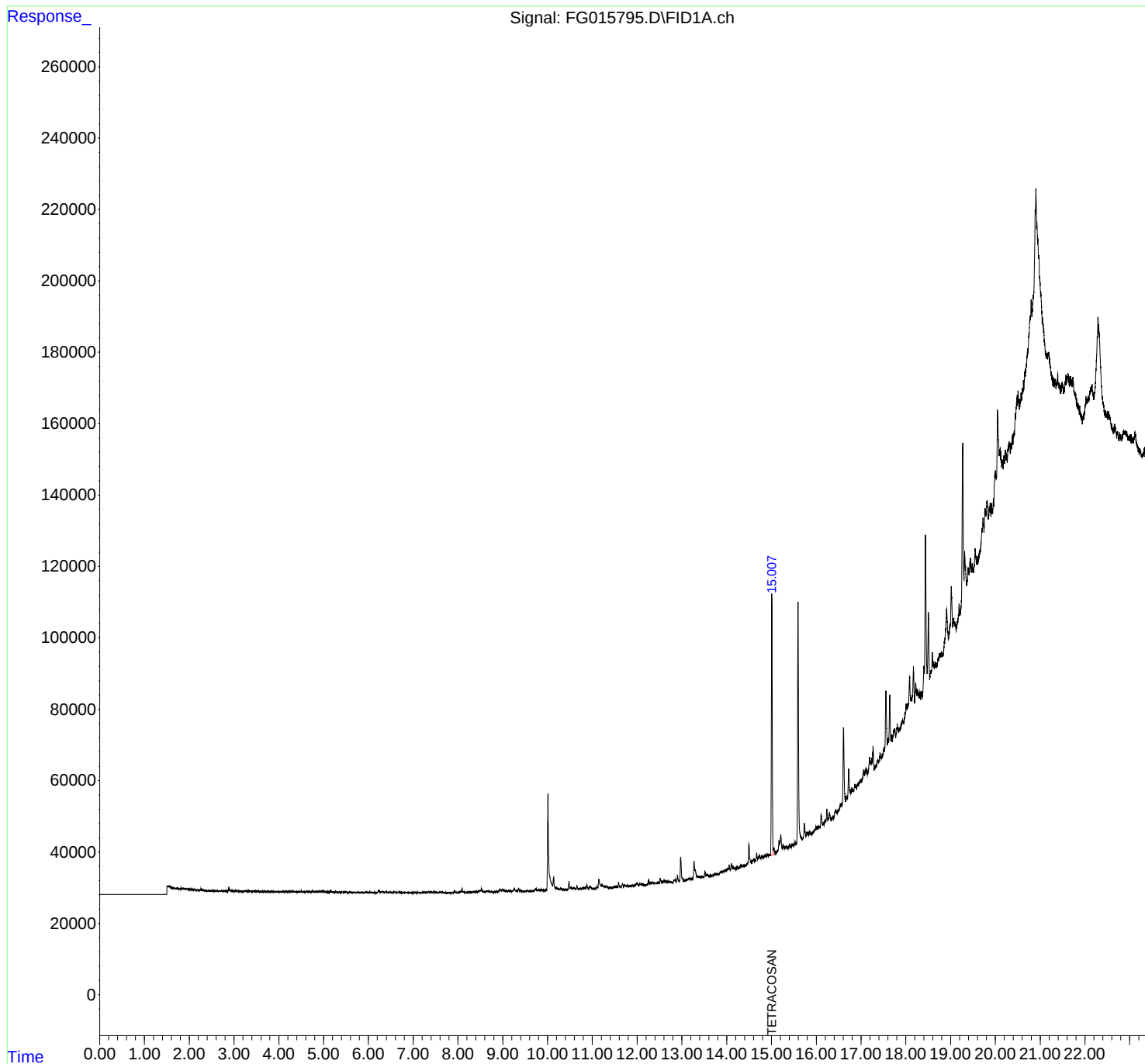
(m)=manual int.

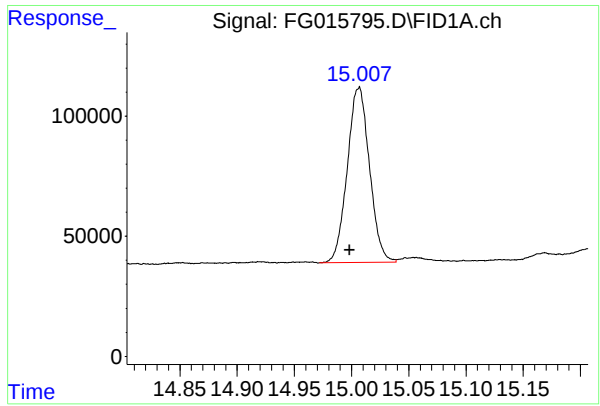
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG050725\
Data File : FG015795.D
Signal(s) : FID1A.ch
Acq On : 07 May 2025 17:10
Operator : YP\AJ
Sample : Q1938-07
Misc :
ALS Vial : 30 Sample Multiplier: 1

Instrument :
FID_G
ClientSampleId :
LOWER-WALL-PILE-D

Integration File: autoint1.e
Quant Time: May 08 06:39:28 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: 982404
Conc: 8.34 ug/ml

Instrument :

FID_G

ClientSampleId :

LOWER-WALL-PILE-D

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG050725\
 Data File : FG015795.D
 Signal(s) : FID1A.ch
 Acq On : 07 May 2025 17:10
 Sample : Q1938-07
 Misc :
 ALS Vial : 30 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	1.921	1.900	1.931	BV	129	951	0.01%	0.001%
2	1.943	1.931	1.974	PV	111	1502	0.01%	0.002%
3	1.979	1.974	2.018	VV	131	1458	0.01%	0.002%
4	2.021	2.018	2.037	VV	64	421	0.00%	0.001%
5	2.047	2.037	2.098	PV	145	2614	0.02%	0.004%
6	2.102	2.098	2.108	VV	111	365	0.00%	0.001%
7	2.115	2.108	2.125	VV	97	722	0.01%	0.001%
8	2.133	2.125	2.148	VV	115	1068	0.01%	0.002%
9	2.151	2.148	2.169	VV	114	737	0.01%	0.001%
10	2.179	2.169	2.197	PV	135	1293	0.01%	0.002%
11	2.199	2.197	2.221	VV	100	1153	0.01%	0.002%
12	2.225	2.221	2.239	VV	137	1062	0.01%	0.002%
13	2.258	2.239	2.289	VV	443	7493	0.06%	0.012%
14	2.301	2.289	2.334	VV	263	4195	0.03%	0.006%
15	2.338	2.334	2.356	VV	167	1379	0.01%	0.002%
16	2.360	2.356	2.364	VV	109	425	0.00%	0.001%
17	2.371	2.364	2.405	VV	157	2259	0.02%	0.003%
18	2.411	2.405	2.420	VV	110	782	0.01%	0.001%
19	2.435	2.420	2.446	VV	146	1515	0.01%	0.002%
20	2.450	2.446	2.455	VV	75	375	0.00%	0.001%
21	2.461	2.455	2.482	PV	137	1444	0.01%	0.002%
22	2.490	2.482	2.505	VV	164	1284	0.01%	0.002%
23	2.515	2.505	2.528	VV	131	1037	0.01%	0.002%
24	2.531	2.528	2.539	VV	157	824	0.01%	0.001%
25	2.549	2.539	2.578	VV	240	2870	0.02%	0.004%
26	2.583	2.578	2.589	VV	178	627	0.00%	0.001%
27	2.594	2.589	2.608	VV	152	873	0.01%	0.001%
28	2.613	2.608	2.617	VV	125	323	0.00%	0.000%
29	2.634	2.617	2.651	VV	136	1260	0.01%	0.002%
30	2.664	2.651	2.691	VV	171	2602	0.02%	0.004%
31	2.694	2.691	2.710	VV	142	1085	0.01%	0.002%
32	2.723	2.710	2.737	PV	149	1272	0.01%	0.002%
33	2.739	2.737	2.748	VV	114	423	0.00%	0.001%
34	2.765	2.748	2.787	VV	145	2284	0.02%	0.004%
35	2.792	2.787	2.799	VV	123	476	0.00%	0.001%
36	2.823	2.799	2.842	VV	121	1904	0.02%	0.003%

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37	2.885	2.842	2.929	VV	859	17337	0.14%	0.027%
38	2.940	2.929	2.956	VV	280	3249	0.03%	0.005%
39	2.962	2.956	2.967	VV	218	997	0.01%	0.002%
40	2.972	2.967	2.982	VV	170	1345	0.01%	0.002%
41	2.987	2.982	2.991	VV	144	665	0.01%	0.001%
42	2.994	2.991	3.003	VV	145	863	0.01%	0.001%
43	3.016	3.003	3.042	VV	160	3030	0.02%	0.005%
44	3.047	3.042	3.065	VV	152	1676	0.01%	0.003%
45	3.070	3.065	3.090	VV	140	1616	0.01%	0.002%
46	3.097	3.090	3.105	VV	154	932	0.01%	0.001%
47	3.109	3.105	3.112	VV	117	370	0.00%	0.001%
48	3.116	3.112	3.124	VV	130	658	0.01%	0.001%
49	3.130	3.124	3.135	VV	134	653	0.01%	0.001%
50	3.142	3.135	3.151	VV	97	545	0.00%	0.001%
51	3.155	3.151	3.195	VV	118	1878	0.01%	0.003%
52	3.197	3.195	3.200	VV	101	204	0.00%	0.000%
53	3.205	3.200	3.224	VV	109	966	0.01%	0.001%
54	3.242	3.224	3.250	VV	144	1379	0.01%	0.002%
55	3.256	3.250	3.264	VV	140	924	0.01%	0.001%
56	3.272	3.264	3.280	VV	150	1266	0.01%	0.002%
57	3.315	3.280	3.335	VV	148	2821	0.02%	0.004%
58	3.361	3.335	3.396	VV	242	4431	0.04%	0.007%
59	3.400	3.396	3.405	VV	115	494	0.00%	0.001%
60	3.408	3.405	3.413	VV	122	340	0.00%	0.001%
61	3.423	3.413	3.434	VV	162	1203	0.01%	0.002%
62	3.455	3.434	3.460	VV	140	1440	0.01%	0.002%
63	3.465	3.460	3.479	VV	124	1015	0.01%	0.002%
64	3.481	3.479	3.497	VV	123	966	0.01%	0.001%
65	3.503	3.497	3.511	VV	142	677	0.01%	0.001%
66	3.521	3.511	3.532	PV	119	1129	0.01%	0.002%
67	3.536	3.532	3.539	VV	114	416	0.00%	0.001%
68	3.542	3.539	3.549	VV	119	437	0.00%	0.001%
69	3.561	3.549	3.580	VV	191	1932	0.02%	0.003%
70	3.587	3.580	3.607	VV	147	1508	0.01%	0.002%
71	3.611	3.607	3.614	VV	122	377	0.00%	0.001%
72	3.617	3.614	3.640	VV	120	997	0.01%	0.002%
73	3.650	3.640	3.663	VV	136	1148	0.01%	0.002%
74	3.673	3.663	3.681	VV	101	641	0.01%	0.001%
75	3.689	3.681	3.716	VV	173	2403	0.02%	0.004%
76	3.734	3.716	3.764	VV	163	2823	0.02%	0.004%
77	3.780	3.764	3.810	VV	161	2740	0.02%	0.004%
78	3.831	3.810	3.854	VV	127	2377	0.02%	0.004%
79	3.861	3.854	3.873	VV	81	729	0.01%	0.001%
80	3.879	3.873	3.893	PV	104	653	0.01%	0.001%
81	3.900	3.893	3.919	VV	83	735	0.01%	0.001%
82	3.938	3.919	3.956	VV	131	1792	0.01%	0.003%
83	3.969	3.956	4.009	VV	133	2158	0.02%	0.003%
84	4.017	4.009	4.027	VV	96	658	0.01%	0.001%
85	4.037	4.027	4.049	VV	120	1069	0.01%	0.002%
86	4.059	4.049	4.075	VV	127	1462	0.01%	0.002%
87	4.084	4.075	4.113	VV	151	2547	0.02%	0.004%
88	4.119	4.113	4.125	VV	108	779	0.01%	0.001%
89	4.130	4.125	4.142	VV	175	1404	0.01%	0.002%

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90	4.149	4.142	4.161	VV	193	1621	0.01%	0.002%
91	4.170	4.161	4.177	VV	179	1271	0.01%	0.002%
92	4.197	4.177	4.204	VV	166	2143	0.02%	0.003%
93	4.229	4.204	4.236	VV	205	3263	0.03%	0.005%
94	4.246	4.236	4.280	VV	206	3796	0.03%	0.006%
95	4.282	4.280	4.294	VV	185	1185	0.01%	0.002%
96	4.303	4.294	4.322	VV	205	2302	0.02%	0.004%
97	4.330	4.322	4.335	VV	244	1332	0.01%	0.002%
98	4.342	4.335	4.382	VV	180	2998	0.02%	0.005%
99	4.391	4.382	4.405	VV	155	1504	0.01%	0.002%
100	4.410	4.405	4.430	VV	206	1881	0.01%	0.003%
101	4.437	4.430	4.441	VV	101	688	0.01%	0.001%
102	4.449	4.441	4.461	VV	171	1241	0.01%	0.002%
103	4.470	4.461	4.479	VV	162	981	0.01%	0.002%
104	4.486	4.479	4.490	VV	102	430	0.00%	0.001%
105	4.503	4.490	4.560	VV	352	7255	0.06%	0.011%
106	4.564	4.560	4.577	VV	163	1122	0.01%	0.002%
107	4.584	4.577	4.589	VV	178	1080	0.01%	0.002%
108	4.594	4.589	4.607	VV	172	1215	0.01%	0.002%
109	4.629	4.607	4.656	VV	305	4962	0.04%	0.008%
110	4.673	4.656	4.711	VV	361	6371	0.05%	0.010%
111	4.741	4.711	4.777	VV	271	7432	0.06%	0.011%
112	4.781	4.777	4.797	VV	247	2298	0.02%	0.004%
113	4.806	4.797	4.811	VV	250	1613	0.01%	0.002%
114	4.815	4.811	4.829	VV	241	2328	0.02%	0.004%
115	4.834	4.829	4.839	VV	212	1077	0.01%	0.002%
116	4.871	4.839	4.880	VV	242	4977	0.04%	0.008%
117	4.884	4.880	4.889	VV	268	1187	0.01%	0.002%
118	4.897	4.889	4.904	VV	281	2262	0.02%	0.003%
119	4.919	4.904	4.925	VV	303	3446	0.03%	0.005%
120	4.927	4.925	4.931	VV	340	966	0.01%	0.001%
121	4.934	4.931	4.937	VV	297	1046	0.01%	0.002%
122	4.941	4.937	4.979	VV	343	6988	0.06%	0.011%
123	4.987	4.979	5.002	VV	341	3559	0.03%	0.005%
124	5.017	5.002	5.025	VV	264	3219	0.03%	0.005%
125	5.027	5.025	5.040	VV	225	1833	0.01%	0.003%
126	5.053	5.040	5.100	VV	275	7355	0.06%	0.011%
127	5.105	5.100	5.136	VV	201	3529	0.03%	0.005%
128	5.162	5.136	5.214	VV	470	10077	0.08%	0.016%
129	5.221	5.214	5.226	VV	180	961	0.01%	0.001%
130	5.232	5.226	5.241	VV	180	1130	0.01%	0.002%
131	5.258	5.241	5.267	VV	244	1898	0.02%	0.003%
132	5.273	5.267	5.279	VV	210	917	0.01%	0.001%
133	5.283	5.279	5.287	VV	90	491	0.00%	0.001%
134	5.291	5.287	5.309	VV	152	1561	0.01%	0.002%
135	5.325	5.309	5.362	VV	154	3434	0.03%	0.005%
136	5.365	5.362	5.384	VV	157	1293	0.01%	0.002%
137	5.394	5.384	5.413	VV	148	1914	0.02%	0.003%
138	5.419	5.413	5.433	VV	168	1250	0.01%	0.002%
139	5.439	5.433	5.445	VV	148	696	0.01%	0.001%
140	5.464	5.445	5.477	VV	221	3188	0.03%	0.005%
141	5.493	5.477	5.508	VV	251	3395	0.03%	0.005%

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142	5.513	5.508	5.530	VV	213	1503	0.01%	0.002%
143	5.556	5.530	5.562	VV	129	1231	0.01%	0.002%
144	5.581	5.562	5.589	VV	235	1532	0.01%	0.002%
145	5.592	5.589	5.597	VV	104	463	0.00%	0.001%
146	5.599	5.597	5.604	VV	115	325	0.00%	0.001%
147	5.609	5.604	5.623	VV	62	492	0.00%	0.001%
148	5.646	5.623	5.657	VV	174	1905	0.02%	0.003%
149	5.663	5.657	5.680	VV	161	1556	0.01%	0.002%
150	5.685	5.680	5.708	VV	109	1119	0.01%	0.002%
151	5.714	5.708	5.721	VV	114	685	0.01%	0.001%
152	5.724	5.721	5.738	VV	102	678	0.01%	0.001%
153	5.749	5.738	5.783	VV	145	2437	0.02%	0.004%
154	5.799	5.783	5.825	VV	153	2239	0.02%	0.003%
155	5.836	5.825	5.841	VV	159	1250	0.01%	0.002%
156	5.845	5.841	5.858	VV	161	1244	0.01%	0.002%
157	5.865	5.858	5.875	VV	125	869	0.01%	0.001%
158	5.883	5.875	5.891	VV	120	744	0.01%	0.001%
159	5.902	5.891	5.905	VV	138	881	0.01%	0.001%
160	5.910	5.905	5.916	VV	181	951	0.01%	0.001%
161	5.924	5.916	5.930	VV	146	1191	0.01%	0.002%
162	5.933	5.930	5.938	VV	151	644	0.01%	0.001%
163	5.945	5.938	5.957	VV	216	1900	0.02%	0.003%
164	5.960	5.957	5.964	VV	172	552	0.00%	0.001%
165	5.968	5.964	5.970	VV	191	541	0.00%	0.001%
166	5.974	5.970	5.986	VV	207	1533	0.01%	0.002%
167	5.990	5.986	5.994	VV	178	754	0.01%	0.001%
168	5.998	5.994	6.016	VV	172	1501	0.01%	0.002%
169	6.027	6.016	6.062	VV	212	3502	0.03%	0.005%
170	6.069	6.062	6.112	VV	121	2506	0.02%	0.004%
171	6.135	6.112	6.154	VV	161	2436	0.02%	0.004%
172	6.229	6.154	6.274	PV	640	18965	0.15%	0.029%
173	6.286	6.274	6.320	VV	291	6836	0.05%	0.011%
174	6.333	6.320	6.355	VV	273	5034	0.04%	0.008%
175	6.397	6.355	6.427	VV	460	12320	0.10%	0.019%
176	6.436	6.427	6.513	VV	261	10331	0.08%	0.016%
177	6.548	6.513	6.560	VV	261	5574	0.04%	0.009%
178	6.577	6.560	6.603	VV	321	5149	0.04%	0.008%
179	6.619	6.603	6.629	VV	233	2877	0.02%	0.004%
180	6.647	6.629	6.662	VV	221	3809	0.03%	0.006%
181	6.681	6.662	6.750	VV	240	9059	0.07%	0.014%
182	6.771	6.750	6.808	VV	176	4404	0.03%	0.007%
183	6.847	6.808	6.864	VV	143	3788	0.03%	0.006%
184	6.870	6.864	6.940	VV	158	3843	0.03%	0.006%
185	6.950	6.940	6.960	VV	92	716	0.01%	0.001%
186	6.972	6.960	6.992	VV	114	1438	0.01%	0.002%
187	7.026	6.992	7.035	PV	145	2397	0.02%	0.004%
188	7.049	7.035	7.084	VV	181	2746	0.02%	0.004%
189	7.116	7.084	7.137	VV	160	3200	0.03%	0.005%
190	7.142	7.137	7.179	VV	151	2490	0.02%	0.004%
191	7.206	7.179	7.232	VV	219	4872	0.04%	0.008%
192	7.258	7.232	7.284	VV	254	6198	0.05%	0.010%
193	7.339	7.284	7.362	VV	279	10083	0.08%	0.016%
194	7.368	7.362	7.385	VV	249	3013	0.02%	0.005%

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195	7.409	7.385	7.452	VV	314	7956	0.06%	0.012%
196	7.470	7.452	7.497	VV	425	6836	0.05%	0.011%
197	7.509	7.497	7.555	VV	223	5561	0.04%	0.009%
198	7.563	7.555	7.595	VV	180	3763	0.03%	0.006%
199	7.635	7.595	7.725	VV	323	12096	0.10%	0.019%
200	7.741	7.725	7.763	VV	117	1670	0.01%	0.003%
201	7.811	7.763	7.839	PV	112	2702	0.02%	0.004%
202	7.921	7.839	8.004	VV	695	14723	0.12%	0.023%
203	8.017	8.004	8.027	VV	164	1589	0.01%	0.002%
204	8.065	8.027	8.075	VV	365	7204	0.06%	0.011%
205	8.093	8.075	8.196	VV	1259	21317	0.17%	0.033%
206	8.253	8.196	8.302	VV	213	7674	0.06%	0.012%
207	8.349	8.302	8.385	VV	282	8103	0.06%	0.012%
208	8.451	8.385	8.474	VV	417	14097	0.11%	0.022%
209	8.491	8.474	8.502	VV	548	7538	0.06%	0.012%
210	8.522	8.502	8.569	VV	1117	21598	0.17%	0.033%
211	8.576	8.569	8.599	VV	240	3552	0.03%	0.005%
212	8.634	8.599	8.645	VV	397	7763	0.06%	0.012%
213	8.670	8.645	8.742	VV	405	14376	0.11%	0.022%
214	8.760	8.742	8.811	VV	181	4772	0.04%	0.007%
215	8.848	8.811	8.864	PV	201	3634	0.03%	0.006%
216	8.881	8.864	8.897	VV	239	3914	0.03%	0.006%
217	8.932	8.897	8.982	VV	864	26089	0.21%	0.040%
218	9.004	8.982	9.045	VV	630	16786	0.13%	0.026%
219	9.065	9.045	9.105	VV	454	11210	0.09%	0.017%
220	9.134	9.105	9.155	VV	508	8825	0.07%	0.014%
221	9.175	9.155	9.199	VV	277	5302	0.04%	0.008%
222	9.258	9.199	9.313	VV	990	26592	0.21%	0.041%
223	9.353	9.313	9.377	VV	915	17954	0.14%	0.028%
224	9.394	9.377	9.467	VV	417	10291	0.08%	0.016%
225	9.500	9.467	9.515	VV	150	3034	0.02%	0.005%
226	9.538	9.515	9.576	VV	317	6747	0.05%	0.010%
227	9.587	9.576	9.617	VV	126	2203	0.02%	0.003%
228	9.648	9.617	9.672	VV	150	3147	0.03%	0.005%
229	9.737	9.672	9.784	PV	819	24265	0.19%	0.037%
230	9.807	9.784	9.837	VV	455	9546	0.08%	0.015%
231	9.860	9.837	9.898	VV	468	9785	0.08%	0.015%
232	9.913	9.898	9.942	VV	297	4262	0.03%	0.007%
233	9.969	9.942	9.984	VV	505	6255	0.05%	0.010%
234	10.009	9.984	10.117	VV	27019	515786	4.10%	0.794%
235	10.136	10.117	10.197	VV	3738	73898	0.59%	0.114%
236	10.204	10.197	10.225	VV	620	9722	0.08%	0.015%
237	10.240	10.225	10.279	VV	568	14118	0.11%	0.022%
238	10.302	10.279	10.359	VV	491	14359	0.11%	0.022%
239	10.370	10.359	10.394	VV	192	3034	0.02%	0.005%
240	10.423	10.394	10.448	VV	204	4886	0.04%	0.008%
241	10.480	10.448	10.505	VV	2382	32716	0.26%	0.050%
242	10.525	10.505	10.549	VV	751	14284	0.11%	0.022%
243	10.581	10.549	10.604	VV	614	13867	0.11%	0.021%
244	10.616	10.604	10.634	VV	384	5437	0.04%	0.008%
245	10.656	10.634	10.684	VV	1331	17871	0.14%	0.028%
246	10.693	10.684	10.717	VV	255	4075	0.03%	0.006%

					rteres			
247	10.735	10.717	10.765	VV	264	6025	0.05%	0.009%
248	10.789	10.765	10.825	VV	481	12939	0.10%	0.020%
249	10.879	10.825	10.910	VV	1303	26996	0.21%	0.042%
250	10.919	10.910	10.929	VV	274	2540	0.02%	0.004%
251	10.952	10.929	11.032	VV	915	22047	0.18%	0.034%
252	11.043	11.032	11.061	PV	101	1462	0.01%	0.002%
253	11.102	11.061	11.122	VV	838	12409	0.10%	0.019%
254	11.147	11.122	11.199	VV	2628	60019	0.48%	0.092%
255	11.223	11.199	11.262	VV	1211	29762	0.24%	0.046%
256	11.270	11.262	11.293	VV	569	9010	0.07%	0.014%
257	11.312	11.293	11.375	VV	688	16402	0.13%	0.025%
258	11.396	11.375	11.425	PV	255	4627	0.04%	0.007%
259	11.450	11.425	11.479	PV	252	4506	0.04%	0.007%
260	11.514	11.479	11.549	VV	416	10753	0.09%	0.017%
261	11.585	11.549	11.645	VV	1514	27554	0.22%	0.042%
262	11.673	11.645	11.699	VV	1053	17745	0.14%	0.027%
263	11.718	11.699	11.760	VV	822	15376	0.12%	0.024%
264	11.781	11.760	11.802	VV	582	7739	0.06%	0.012%
265	11.829	11.802	11.850	VV	350	5445	0.04%	0.008%
266	11.896	11.850	11.922	VV	279	8631	0.07%	0.013%
267	11.948	11.922	11.965	VV	331	6027	0.05%	0.009%
268	12.006	11.965	12.037	VV	1021	24541	0.20%	0.038%
269	12.065	12.037	12.086	VV	781	13000	0.10%	0.020%
270	12.100	12.086	12.119	VV	426	7215	0.06%	0.011%
271	12.134	12.119	12.177	VV	388	7922	0.06%	0.012%
272	12.197	12.177	12.210	PV	231	2215	0.02%	0.003%
273	12.257	12.210	12.281	VV	1568	28771	0.23%	0.044%
274	12.301	12.281	12.328	VV	657	16068	0.13%	0.025%
275	12.350	12.328	12.395	VV	886	19793	0.16%	0.030%
276	12.425	12.395	12.445	VV	527	12334	0.10%	0.019%
277	12.460	12.445	12.492	VV	512	11536	0.09%	0.018%
278	12.515	12.492	12.562	VV	1621	35745	0.28%	0.055%
279	12.582	12.562	12.600	VV	918	13808	0.11%	0.021%
280	12.619	12.600	12.660	VV	790	22369	0.18%	0.034%
281	12.681	12.660	12.702	VV	632	12365	0.10%	0.019%
282	12.723	12.702	12.794	VV	507	14904	0.12%	0.023%
283	12.826	12.794	12.873	PV	795	22260	0.18%	0.034%
284	12.901	12.873	12.945	VV	1885	33584	0.27%	0.052%
285	12.972	12.945	13.062	VV	6903	123578	0.98%	0.190%
286	13.073	13.062	13.088	VV	273	2540	0.02%	0.004%
287	13.161	13.088	13.185	PV	593	18880	0.15%	0.029%
288	13.194	13.185	13.204	VV	281	2286	0.02%	0.004%
289	13.224	13.204	13.242	VV	362	5544	0.04%	0.009%
290	13.270	13.242	13.347	VV	5102	127842	1.02%	0.197%
291	13.365	13.347	13.382	VV	669	12704	0.10%	0.020%
292	13.392	13.382	13.415	VV	623	9634	0.08%	0.015%
293	13.421	13.415	13.434	VV	337	3189	0.03%	0.005%
294	13.454	13.434	13.479	VV	538	9380	0.07%	0.014%
295	13.515	13.479	13.539	VV	1743	26498	0.21%	0.041%
296	13.559	13.539	13.591	VV	773	16802	0.13%	0.026%
297	13.606	13.591	13.622	VV	428	5568	0.04%	0.009%
298	13.645	13.622	13.665	VV	381	6008	0.05%	0.009%
299	13.693	13.665	13.705	PV	240	3336	0.03%	0.005%

					rteres			
300	13.743	13.705	13.759	VV	534	9992	0.08%	0.015%
301	13.777	13.759	13.807	VV	330	4916	0.04%	0.008%
302	13.865	13.807	13.889	PV	693	14402	0.11%	0.022%
303	13.925	13.889	13.940	VV	449	12999	0.10%	0.020%
304	13.979	13.940	14.004	VV	757	21422	0.17%	0.033%
305	14.019	14.004	14.027	VV	799	9070	0.07%	0.014%
306	14.055	14.027	14.080	VV	1823	30370	0.24%	0.047%
307	14.103	14.080	14.172	VV	1932	49685	0.39%	0.077%
308	14.185	14.172	14.201	VV	440	5996	0.05%	0.009%
309	14.229	14.201	14.233	VV	302	5118	0.04%	0.008%
310	14.259	14.233	14.274	VV	443	6860	0.05%	0.011%
311	14.331	14.274	14.357	PV	740	21515	0.17%	0.033%
312	14.375	14.357	14.390	VV	357	3637	0.03%	0.006%
313	14.406	14.390	14.419	VV	145	2134	0.02%	0.003%
314	14.496	14.419	14.543	PV	5693	103487	0.82%	0.159%
315	14.578	14.543	14.589	VV	681	13337	0.11%	0.021%
316	14.610	14.589	14.643	VV	1068	20767	0.17%	0.032%
317	14.669	14.643	14.690	VV	2300	31462	0.25%	0.048%
318	14.727	14.690	14.747	VV	1194	28173	0.22%	0.043%
319	14.765	14.747	14.775	VV	675	8943	0.07%	0.014%
320	14.793	14.775	14.830	VV	903	18234	0.14%	0.028%
321	14.851	14.830	14.862	VV	669	9024	0.07%	0.014%
322	14.920	14.862	14.935	VV	713	19824	0.16%	0.031%
323	14.960	14.935	14.972	VV	488	6962	0.06%	0.011%
324	15.006	14.972	15.039	VV	73345	983158	7.81%	1.514%
325	15.055	15.039	15.104	VV	1680	32298	0.26%	0.050%
326	15.131	15.104	15.140	VV	502	7047	0.06%	0.011%
327	15.169	15.140	15.185	VV	3194	52570	0.42%	0.081%
328	15.207	15.185	15.239	VV	4718	88623	0.70%	0.137%
329	15.256	15.239	15.276	VV	1548	24295	0.19%	0.037%
330	15.285	15.276	15.303	VV	618	8786	0.07%	0.014%
331	15.319	15.303	15.339	VV	537	10018	0.08%	0.015%
332	15.345	15.339	15.365	VV	524	5673	0.05%	0.009%
333	15.404	15.365	15.436	VV	790	13781	0.11%	0.021%
334	15.457	15.436	15.467	PV	663	6680	0.05%	0.010%
335	15.487	15.467	15.497	VV	467	6465	0.05%	0.010%
336	15.517	15.497	15.559	VV	922	15670	0.12%	0.024%
337	15.592	15.559	15.700	PV	67597	1016016	8.07%	1.565%
338	15.734	15.700	15.770	VV	4397	79942	0.64%	0.123%
339	15.792	15.770	15.819	VV	1528	30845	0.25%	0.048%
340	15.863	15.819	15.894	VV	1128	31403	0.25%	0.048%
341	15.954	15.894	15.962	PV	843	14239	0.11%	0.022%
342	16.000	15.962	16.019	VV	1463	28201	0.22%	0.043%
343	16.040	16.019	16.051	VV	882	12852	0.10%	0.020%
344	16.065	16.051	16.082	VV	754	9183	0.07%	0.014%
345	16.110	16.082	16.145	VV	3589	61869	0.49%	0.095%
346	16.197	16.145	16.217	VV	1228	30613	0.24%	0.047%
347	16.236	16.217	16.260	VV	4021	58204	0.46%	0.090%
348	16.299	16.260	16.335	VV	2352	55462	0.44%	0.085%
349	16.371	16.335	16.390	VV	753	15990	0.13%	0.025%
350	16.432	16.390	16.459	PV	1655	42880	0.34%	0.066%
351	16.561	16.459	16.572	VV	1606	65443	0.52%	0.101%

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352	16.608	16.572	16.659	VV	22051	383894	3.05%	0.591%
353	16.723	16.659	16.752	VV	8846	186451	1.48%	0.287%
354	16.760	16.752	16.775	VV	2533	26296	0.21%	0.041%
355	16.795	16.775	16.825	VV	2339	50477	0.40%	0.078%
356	16.859	16.825	16.895	VV	2458	63267	0.50%	0.097%
357	16.985	16.895	17.004	VV	1681	89022	0.71%	0.137%
358	17.019	17.004	17.027	VV	1309	17689	0.14%	0.027%
359	17.057	17.027	17.080	VV	3288	70965	0.56%	0.109%
360	17.091	17.080	17.137	VV	3019	77460	0.62%	0.119%
361	17.192	17.137	17.220	VV	5001	143662	1.14%	0.221%
362	17.238	17.220	17.248	VV	3990	58344	0.46%	0.090%
363	17.268	17.248	17.300	VV	6917	104556	0.83%	0.161%
364	17.312	17.300	17.322	VV	749	6278	0.05%	0.010%
365	17.372	17.322	17.390	PV	1367	26904	0.21%	0.041%
366	17.427	17.390	17.450	VV	2037	36525	0.29%	0.056%
367	17.511	17.450	17.525	VV	2046	45979	0.37%	0.071%
368	17.554	17.525	17.594	VV	16986	298949	2.38%	0.460%
369	17.604	17.594	17.614	VV	2975	27798	0.22%	0.043%
370	17.640	17.614	17.664	VV	14186	205506	1.63%	0.317%
371	17.675	17.664	17.694	VV	2026	27731	0.22%	0.043%
372	17.751	17.694	17.773	VV	2369	80408	0.64%	0.124%
373	17.809	17.773	17.842	VV	2945	54813	0.44%	0.084%
374	17.849	17.842	17.862	VV	890	7822	0.06%	0.012%
375	17.927	17.862	17.944	VV	1927	51953	0.41%	0.080%
376	18.005	17.944	18.021	VV	4550	114319	0.91%	0.176%
377	18.083	18.021	18.111	VV	10907	296006	2.35%	0.456%
378	18.123	18.111	18.135	VV	4470	58102	0.46%	0.089%
379	18.170	18.135	18.192	VV	11677	224024	1.78%	0.345%
380	18.221	18.192	18.246	VV	6601	134545	1.07%	0.207%
381	18.257	18.246	18.300	VV	4148	85924	0.68%	0.132%
382	18.315	18.300	18.330	VV	2452	29057	0.23%	0.045%
383	18.352	18.330	18.370	VV	1893	19175	0.15%	0.030%
384	18.404	18.370	18.414	PV	7754	103511	0.82%	0.159%
385	18.439	18.414	18.475	VV	43902	737054	5.86%	1.135%
386	18.504	18.475	18.534	VV	20212	347948	2.77%	0.536%
387	18.592	18.534	18.619	VV	7645	207210	1.65%	0.319%
388	18.627	18.619	18.647	VV	4393	55639	0.44%	0.086%
389	18.660	18.647	18.674	VV	3358	45957	0.37%	0.071%
390	18.678	18.674	18.689	VV	3017	21797	0.17%	0.034%
391	18.717	18.689	18.727	VV	3141	59065	0.47%	0.091%
392	18.753	18.727	18.769	VV	4083	86313	0.69%	0.133%
393	18.797	18.769	18.817	VV	3868	88782	0.71%	0.137%
394	18.911	18.817	18.954	VV	13489	538386	4.28%	0.829%
395	19.015	18.954	19.047	VV	17428	517401	4.11%	0.797%
396	19.065	19.047	19.095	VV	7559	185098	1.47%	0.285%
397	19.102	19.095	19.125	VV	5672	86708	0.69%	0.134%
398	19.189	19.125	19.202	VV	9122	265679	2.11%	0.409%
399	19.211	19.202	19.220	VV	7134	72539	0.58%	0.112%
400	19.268	19.220	19.299	VV	52525	1096217	8.71%	1.689%
401	19.316	19.299	19.363	VV	21128	607052	4.82%	0.935%
402	19.450	19.363	19.465	VV	16166	865668	6.88%	1.333%
403	19.482	19.465	19.514	VV	14558	375492	2.98%	0.578%
404	19.549	19.514	19.578	VV	17058	562971	4.47%	0.867%

					rteres			
405	19.601	19.578	19.622	VV	14131	342112	2.72%	0.527%
406	19.724	19.622	19.745	VV	21915	1269311	10.09%	1.955%
407	19.771	19.745	19.792	VV	23814	620956	4.93%	0.956%
408	19.816	19.792	19.847	VV	25501	764580	6.08%	1.178%
409	19.881	19.847	19.898	VV	23325	667432	5.30%	1.028%
410	19.912	19.898	19.930	VV	22583	406069	3.23%	0.625%
411	19.953	19.930	19.964	VV	23240	419402	3.33%	0.646%
412	20.000	19.964	20.024	VV	30261	993341	7.89%	1.530%
413	20.049	20.024	20.084	VV	45206	1340683	10.65%	2.065%
414	20.106	20.084	20.140	VV	33889	1094686	8.70%	1.686%
415	20.151	20.140	20.172	VV	30122	556321	4.42%	0.857%
416	20.188	20.172	20.204	VV	30333	544196	4.32%	0.838%
417	20.227	20.204	20.237	VV	31335	605491	4.81%	0.933%
418	20.246	20.237	20.267	VV	29607	516984	4.11%	0.796%
419	20.309	20.267	20.335	VV	31563	1241976	9.87%	1.913%
420	20.350	20.335	20.364	VV	30627	506180	4.02%	0.780%
421	20.382	20.364	20.394	VV	31497	551464	4.38%	0.849%
422	20.484	20.394	20.495	VV	40797	2170925	17.25%	3.344%
423	20.507	20.495	20.562	VV	41478	1551610	12.33%	2.390%
424	20.573	20.562	20.585	VV	40221	549241	4.37%	0.846%
425	20.603	20.585	20.614	VV	41072	674728	5.36%	1.039%
426	20.626	20.614	20.635	VV	42161	529445	4.21%	0.816%
427	20.798	20.635	20.817	VV	61131	5487292	43.61%	8.452%
428	20.905	20.817	21.167	VV	90761	12582791	100.00%	19.382%
429	21.192	21.167	21.282	VV	38835	2378043	18.90%	3.663%
430	21.290	21.282	21.305	VV	28927	398131	3.16%	0.613%
431	21.314	21.305	21.324	VV	29095	315069	2.50%	0.485%
432	21.339	21.324	21.352	VV	28479	467812	3.72%	0.721%
433	21.392	21.352	21.422	VV	28285	1121813	8.92%	1.728%
434	21.431	21.422	21.449	VV	25474	388794	3.09%	0.599%
435	21.460	21.449	21.472	VV	24621	319459	2.54%	0.492%
436	21.495	21.472	21.527	VV	24143	753861	5.99%	1.161%
437	21.575	21.527	21.587	VV	24885	815931	6.48%	1.257%
438	21.621	21.587	21.650	VV	24280	869314	6.91%	1.339%
439	21.663	21.650	21.675	VV	22819	317061	2.52%	0.488%
440	21.685	21.675	21.700	VV	21923	316448	2.51%	0.487%
441	21.726	21.700	21.829	VV	20988	1270269	10.10%	1.957%
442	21.842	21.829	21.877	VV	11383	290546	2.31%	0.448%
443	21.882	21.877	21.941	VV	10221	258677	2.06%	0.398%
444	22.022	21.941	22.064	VV	9821	506129	4.02%	0.780%
445	22.070	22.064	22.085	VV	8422	104330	0.83%	0.161%
446	22.160	22.085	22.202	VV	10411	586833	4.66%	0.904%
447	22.291	22.202	22.400	VBA	26449	1634765	12.99%	2.518%
				Sum of corrected areas:		64919928		

FG042425.M Thu May 08 07:29:48 2025



CALIBRATION SUMMARY

TPH GC INITIAL CALIBRATION SUMMARY

Lab Name: Chemtech Contract: SAXT01
 ProjectID: Stan Hope
 Lab Code: CHEM Case No.: Q1938 SAS No.: Q1938 SDG No.: Q1938

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.: Q1938 SAS No.: Q1938 SDG No.: Q1938

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.: Q1938 SAS No.: Q1938 SDG No.: Q1938
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

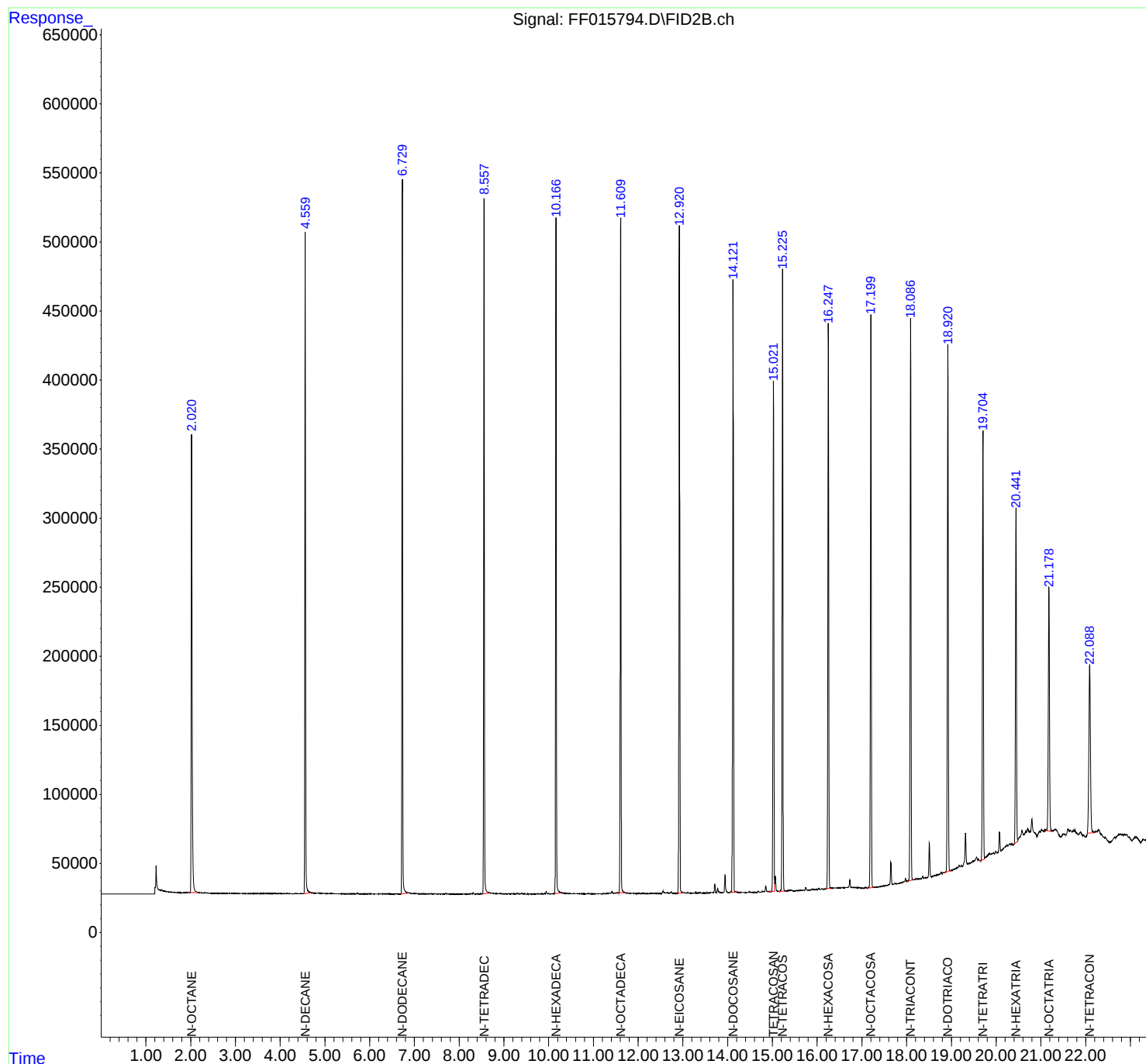
Instrument :
FID_F
ClientSampleId :
50 PPM TRPH STD

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.: Q1938 SAS No.: Q1938 SDG No.: Q1938
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

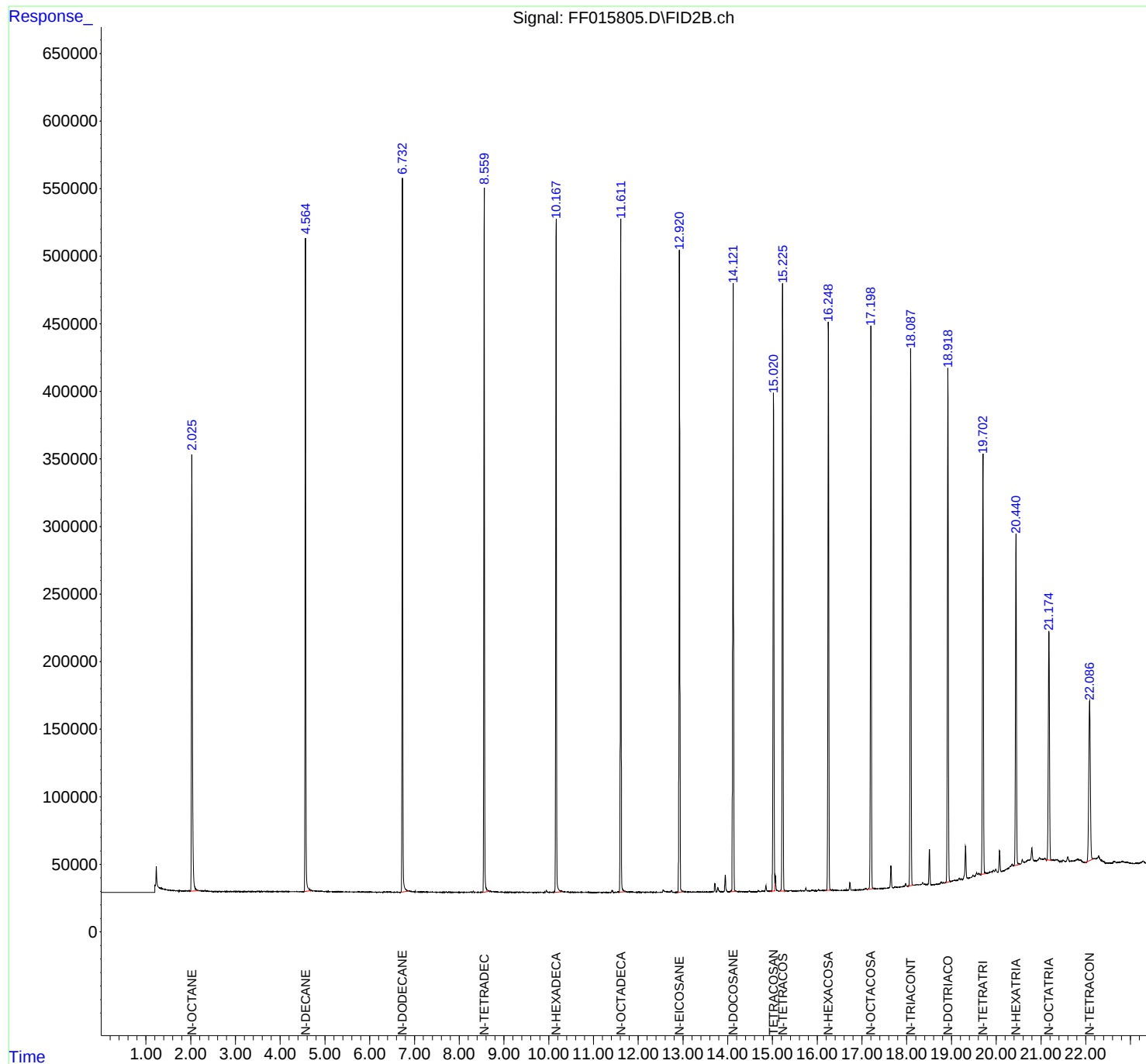
(m)=manual int.

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.: Q1938 SAS No.: Q1938 SDG No.: Q1938
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

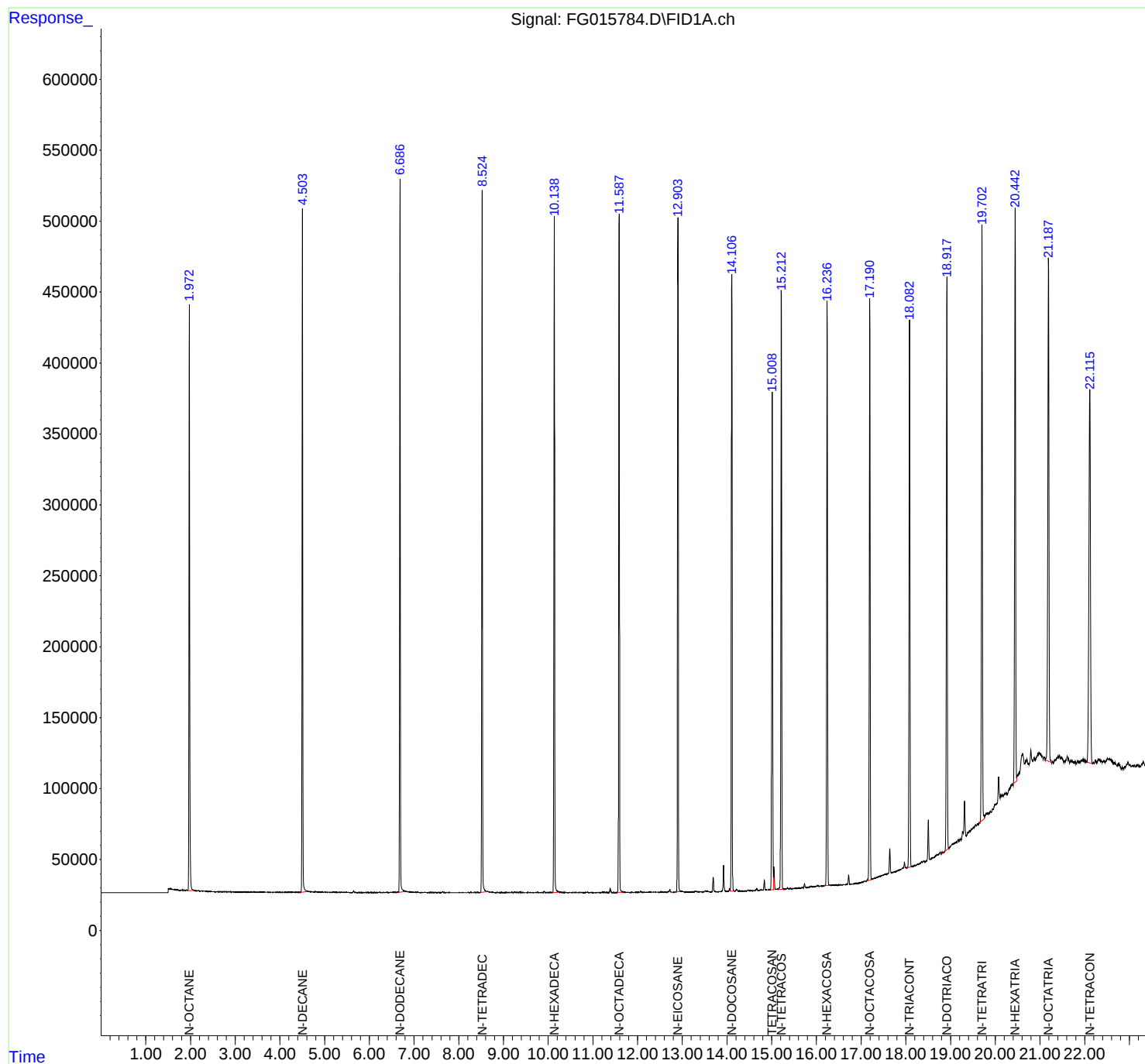
(m)=manual int.

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.: Q1938 SAS No.: Q1938 SDG No.: Q1938
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

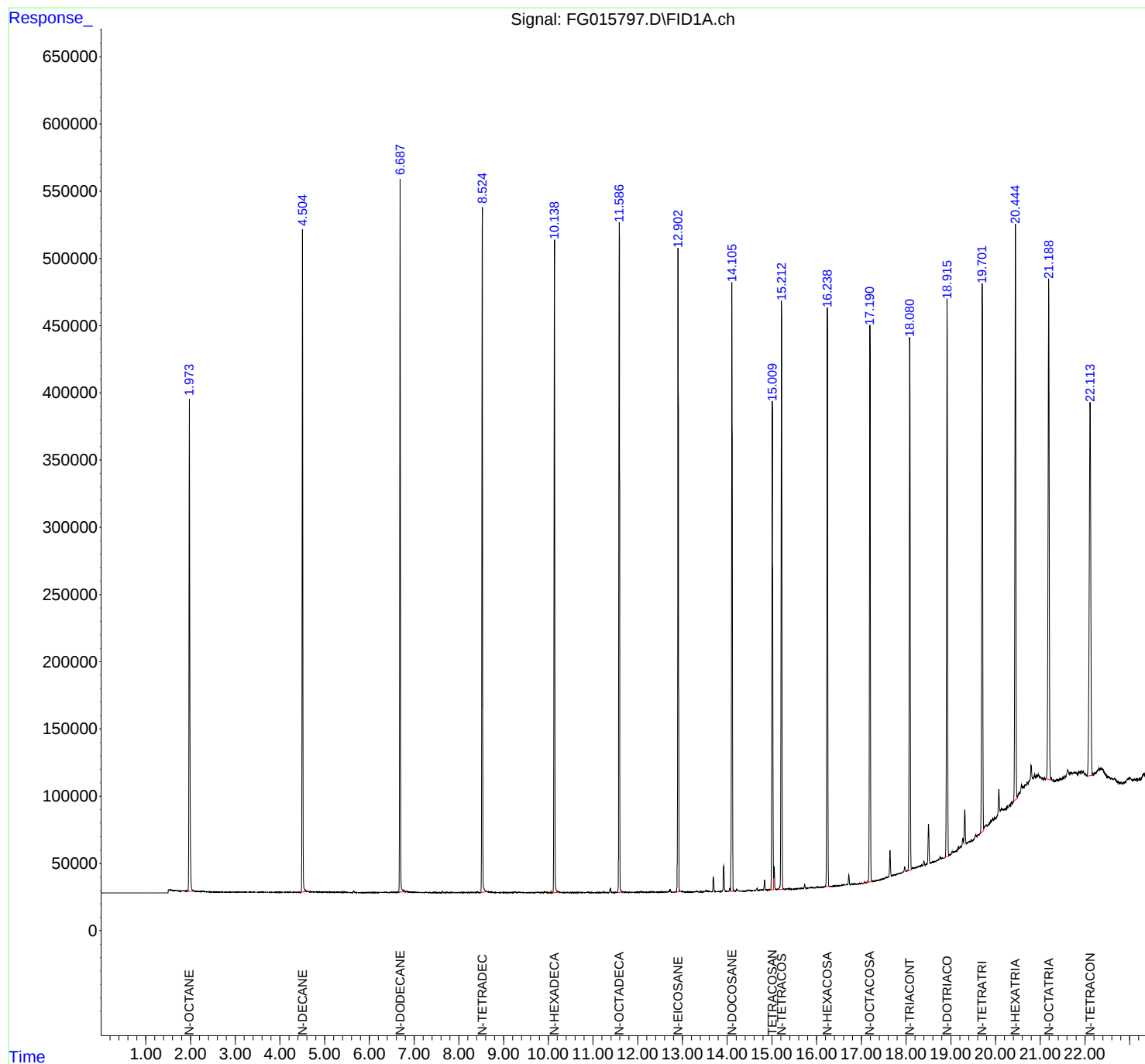
(m)=manual int.

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

TPH GC CONTINUING CALIBRATION SUMMARY

50 PPM TRPH STD

Lab Name: Chemtech Contract: SAXT01
ProjectID: Stan Hope
Lab Code: CHEM Case No.: Q1938 SAS No.: Q1938 SDG No.: Q1938
DataFile: FG015800.D Analyst Name: YP\AJ Analyst Date: 05-08-2025

Conc. (PPM)	Area Count	RF	Average RF	%D
850	102310229	120365	121213	0.7

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG050825\
 Data File : FG015800.D
 Signal(s) : FID1A.ch
 Acq On : 08 May 2025 09:49
 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 09 02:07:22 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	5156699	43.799 ug/ml
Target Compounds			
1) N-OCTANE	1.973	4886694	43.362 ug/ml
2) N-DECANE	4.503	5478204	49.205 ug/ml
3) N-DODECANE	6.686	5717321	49.889 ug/ml
4) N-TETRADECANE	8.522	5864282	48.396 ug/ml
5) N-HEXADECANE	10.137	5945138	47.356 ug/ml
6) N-OCTADECANE	11.586	6059851	46.240 ug/ml
7) N-EICOSANE	12.900	6106624	45.042 ug/ml
8) N-DOCOSANE	14.103	5899216	44.479 ug/ml
10) N-TETRACOSANE	15.211	5863961	44.127 ug/ml
11) N-HEXACOSANE	16.235	5780017	43.583 ug/ml
12) N-OCTACOSANE	17.188	5758258	43.678 ug/ml
13) N-TRIACONTANE	18.079	5964204	44.736 ug/ml
14) N-DOTRIACONTANE	18.913	6104030	46.303 ug/ml
15) N-TETRATRIACONTANE	19.700	6377427	52.734 ug/ml
16) N-HEXATRIACONTANE	20.442	6658215	62.100 ug/ml
17) N-OCTATRIACONTANE	21.185	6880366	71.426 ug/ml
18) N-TETRACONTANE	22.112	6966421	78.234 ug/ml

(f)=RT Delta > 1/2 Window

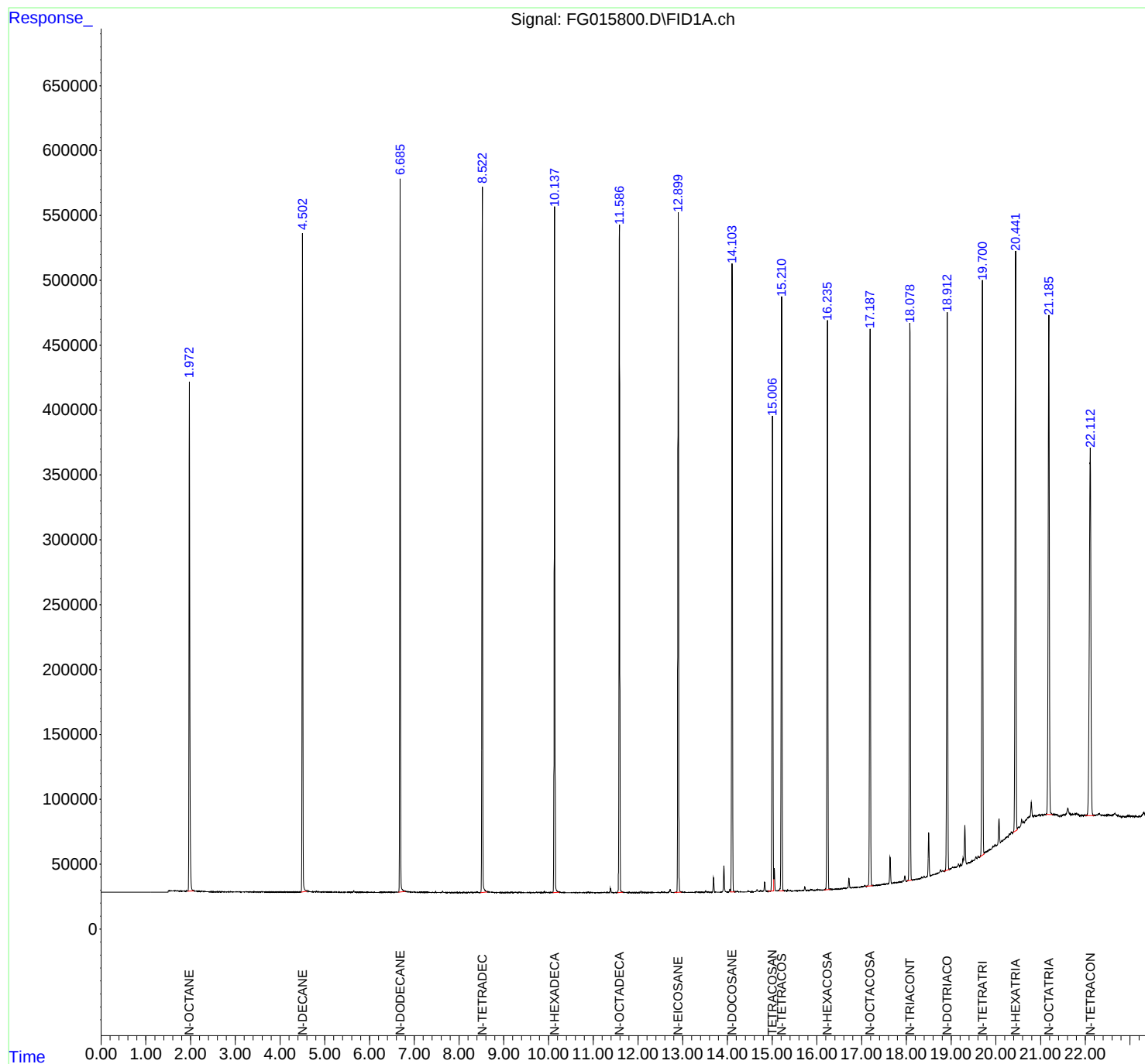
(m)=manual int.

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG050825\
Data File : FG015800.D
Signal(s) : FID1A.ch
Acq On : 08 May 2025 09:49
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 09 02:07:22 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\FG050825\
Data File : FG015800.D
Signal(s) : FID1A.ch
Acq On : 08 May 2025 09:49
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	1.935	2.078	BB	391028	4886694	70.15%	4.547%
2	4.503	4.466	4.607	BB	506972	5478204	78.64%	5.098%
3	6.686	6.646	6.804	BB	550078	5717321	82.07%	5.320%
4	8.522	8.483	8.635	BB	542747	5864282	84.18%	5.457%
5	10.137	10.097	10.244	BB	528110	5945138	85.34%	5.532%
6	11.586	11.545	11.667	BB	513069	6059851	86.99%	5.639%
7	12.900	12.820	12.974	BB	518853	6106624	87.66%	5.682%
8	14.103	14.068	14.171	VB	483495	5899216	84.68%	5.489%
9	15.006	14.901	15.034	BV	365539	5156699	74.02%	4.798%
10	15.211	15.143	15.267	BB	457325	5863961	84.17%	5.457%
11	16.235	16.161	16.298	BB	437703	5780017	82.97%	5.378%
12	17.188	17.101	17.251	BB	427570	5758258	82.66%	5.358%
13	18.079	18.012	18.121	BV	428102	5964204	85.61%	5.550%
14	18.913	18.837	18.963	BB	429461	6104030	87.62%	5.680%
15	19.700	19.640	19.735	BV	443696	6377427	91.55%	5.934%
16	20.442	20.390	20.479	BV	444197	6658215	95.58%	6.196%
17	21.185	21.120	21.267	BV	383696	6880366	98.76%	6.402%
18	22.112	22.009	22.207	VV	282924	6966421	100.00%	6.482%
Sum of corrected areas:						107466928		

FG042425.M Fri May 09 02:36:41 2025

TPH GC CONTINUING CALIBRATION SUMMARY

50 PPM TRPH STD

Lab Name: Chemtech Contract: SAXT01
ProjectID: Stan Hope
Lab Code: CHEM Case No.: Q1938 SAS No.: Q1938 SDG No.: Q1938
DataFile: FG015804.D Analyst Name: YP\AJ Analyst Date: 05-08-2025

Conc. (PPM)	Area Count	RF	Average RF	%D
850	94877205	111620	121213	7.914

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG050825\
 Data File : FG015804.D
 Signal(s) : FID1A.ch
 Acq On : 08 May 2025 11:54
 Operator : YP\AJ
 Sample : 50 PPM TRPH STD
 Misc :
 ALS Vial : 53 Sample Multiplier: 1

Instrument :
 FID_G
 ClientSampleId :
 50 PPM TRPH STD

Integration File: autoint1.e
 Quant Time: May 09 02:08:43 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	5641380	47.915 ug/ml
Target Compounds			
1) N-OCTANE	1.972	5103270	45.283 ug/ml
2) N-DECANE	4.502	5760675	51.743 ug/ml
3) N-DODECANE	6.685	6052638	52.814 ug/ml
4) N-TETRADECANE	8.522	6119940	50.506 ug/ml
5) N-HEXADECANE	10.136	6256155	49.833 ug/ml
6) N-OCTADECANE	11.586	6429967	49.064 ug/ml
7) N-EICOSANE	12.901	6379330	47.053 ug/ml
8) N-DOCOSANE	14.103	6238050	47.034 ug/ml
10) N-TETRACOSANE	15.210	6209930	46.731 ug/ml
11) N-HEXACOSANE	16.236	6096159	45.967 ug/ml
12) N-OCTACOSANE	17.188	6078316	46.106 ug/ml
13) N-TRIACONTANE	18.078	6185493	46.396 ug/ml
14) N-DOTRIACONTANE	18.913	5977553	45.344 ug/ml
15) N-TETRATRIACONTANE	19.698	5035849	41.640 ug/ml
16) N-HEXATRIACONTANE	20.439	4084130	38.092 ug/ml
17) N-OCTATRIACONTANE	21.181	3527965	36.624 ug/ml
18) N-TETRACONTANE	22.102	3341785	37.529 ug/ml

(f)=RT Delta > 1/2 Window

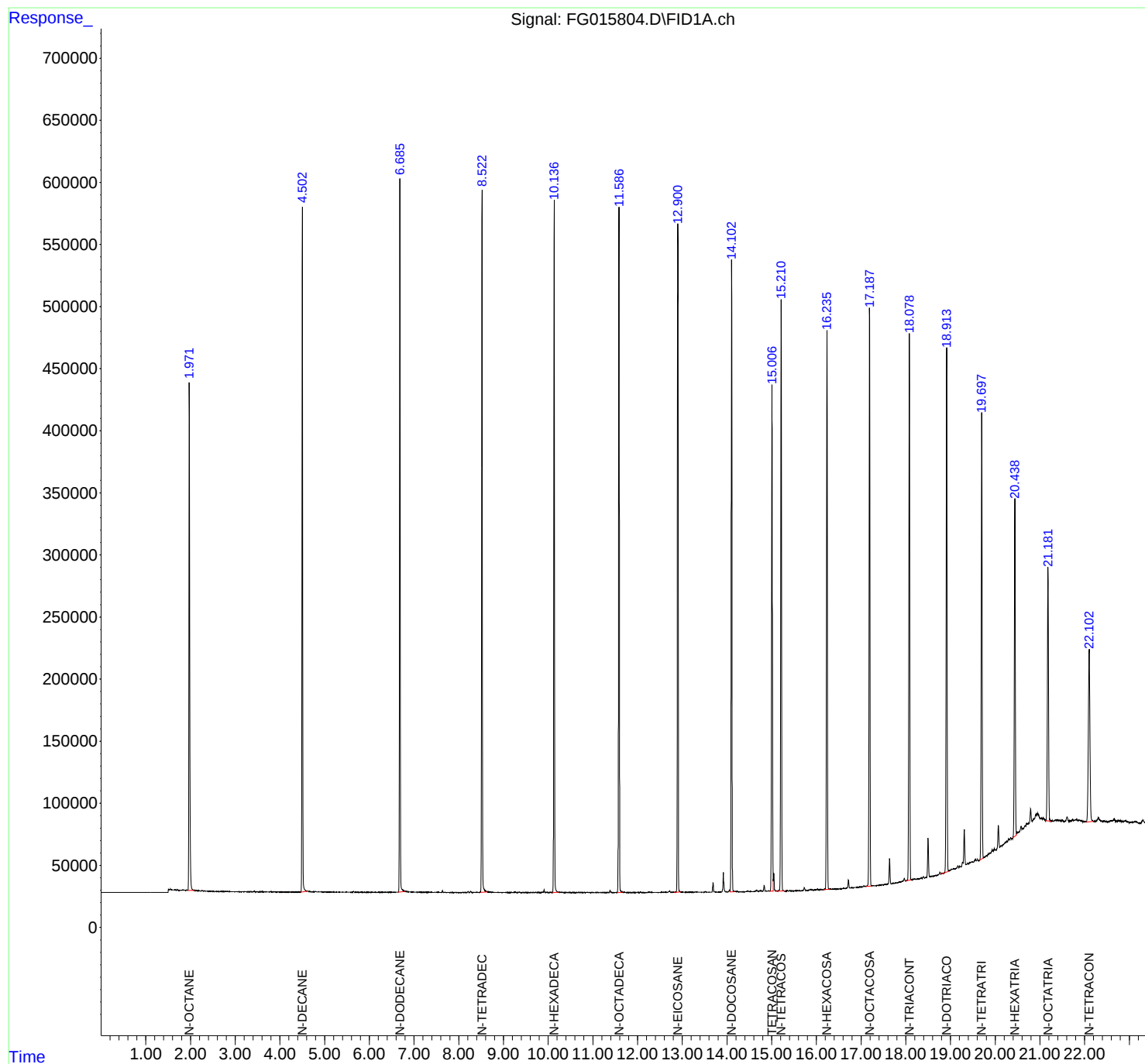
(m)=manual int.

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG050825\
Data File : FG015804.D
Signal(s) : FID1A.ch
Acq On : 08 May 2025 11:54
Operator : YP\AJ
Sample : 50 PPM TRPH STD
Misc :
ALS Vial : 53 Sample Multiplier: 1

Instrument :
FID_G
ClientSampleId :
50 PPM TRPH STD

Integration File: autoint1.e
Quant Time: May 09 02:08:43 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



rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG050825\
Data File : FG015804.D
Signal(s) : FID1A.ch
Acq On : 08 May 2025 11:54
Sample : 50 PPM TRPH STD
Misc :
ALS Vial : 53 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	1.972	1.937	2.095	BB	407999	5103270	79.37%	5.077%
2	4.502	4.459	4.618	BB	551550	5760675	89.59%	5.731%
3	6.685	6.645	6.805	BB	574171	6052638	94.13%	6.021%
4	8.522	8.484	8.640	BB	565546	6119940	95.18%	6.088%
5	10.136	10.096	10.237	BB	556120	6256155	97.30%	6.224%
6	11.586	11.544	11.669	BB	552168	6429967	100.00%	6.397%
7	12.901	12.815	12.965	BB	539215	6379330	99.21%	6.346%
8	14.103	14.068	14.175	VB	508079	6238050	97.02%	6.206%
9	15.006	14.955	15.034	BV	405898	5641380	87.74%	5.612%
10	15.210	15.077	15.286	VB	476284	6209930	96.58%	6.178%
11	16.236	16.156	16.308	BB	448010	6096159	94.81%	6.065%
12	17.188	17.108	17.248	BV	465100	6078316	94.53%	6.047%
13	18.078	18.006	18.121	BB	440593	6185493	96.20%	6.154%
14	18.913	18.784	18.953	PV	421037	5977553	92.96%	5.947%
15	19.698	19.640	19.734	BV	357888	5035849	78.32%	5.010%
16	20.439	20.391	20.475	BV	270670	4084130	63.52%	4.063%
17	21.181	21.121	21.249	BV	203815	3527965	54.87%	3.510%
18	22.102	22.037	22.196	PV	138633	3341785	51.97%	3.325%
Sum of corrected areas:						100518584		

FG042425.M Fri May 09 02:41:05 2025

Analytical Sequence

Client: Saxton Falls Sand and Gravel Co. Inc.

SDG No.: Q1938

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	
LOWER-WALL-PILE-B	Q1938-03	07 May 2025 16:11	FG015793.D	14.959	
LOWER-WALL-PILE-C	Q1938-05	07 May 2025 16:41	FG015794.D	14.961	
LOWER-WALL-PILE-D	Q1938-07	07 May 2025 17:10	FG015795.D	14.960	
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	
PIBLK05	LBLK05	08 May 2025 09:20	FG015799.D	15.003	
50 PPM TRPH STD	50 PPM TRPH STD	08 May 2025 09:49	FG015800.D	15.006	
LOWER-WALL-PILE-A	Q1938-01	08 May 2025 10:55	FG015802.D	14.955	
PIBLK06	LBLK06	08 May 2025 11:25	FG015803.D	15.003	
50 PPM TRPH STD	50 PPM TRPH STD	08 May 2025 11:54	FG015804.D	15.006	



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.:	Q1938
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

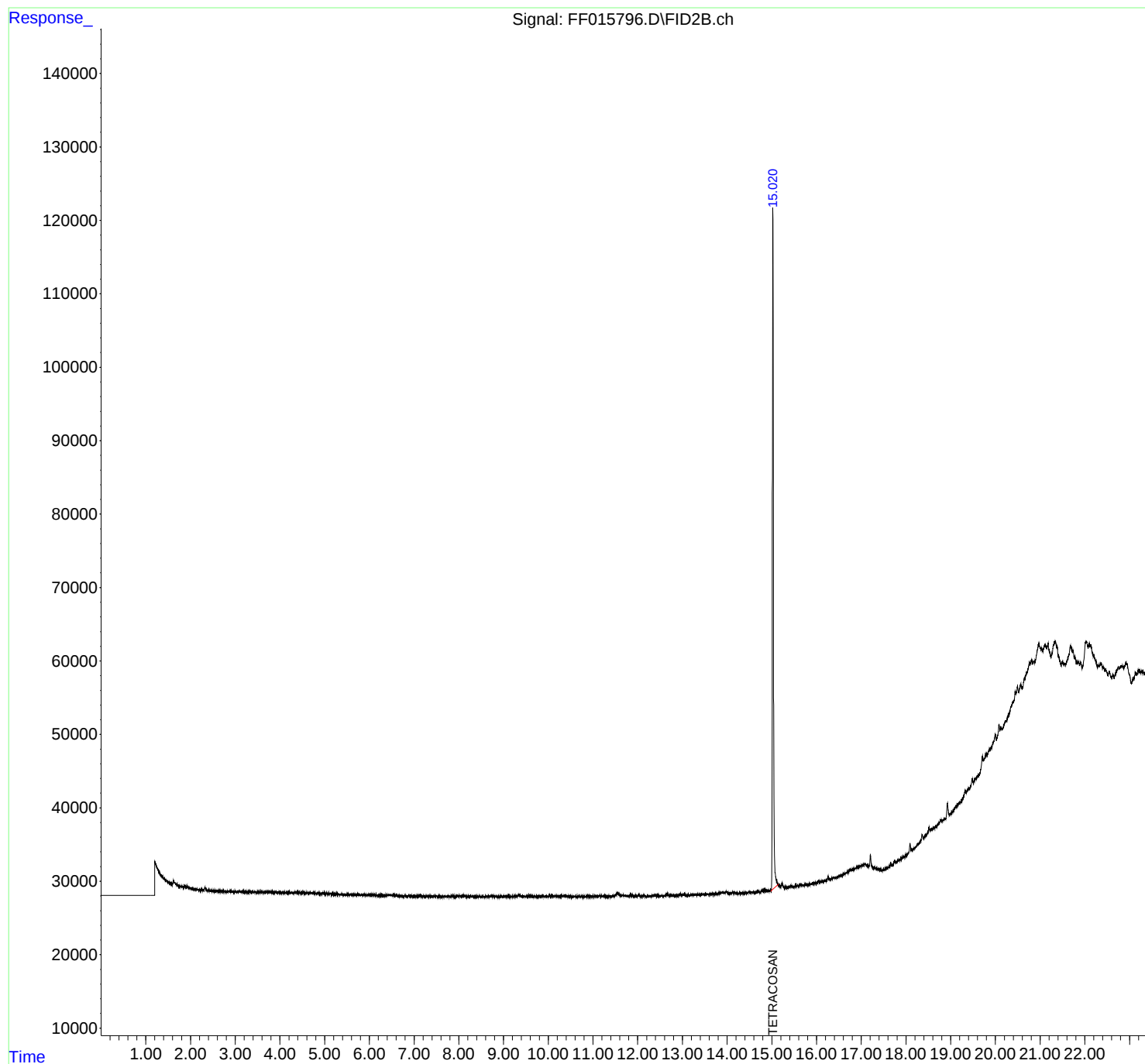
(m)=manual int.

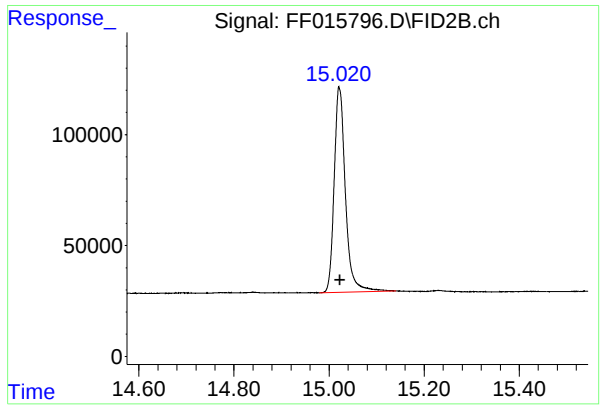
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF050725\
Data File : FF015796.D
Signal(s) : FID2B.ch
Acq On : 07 May 2025 12:47
Operator : YP\AJ
Sample : PB167887BL
Misc :
ALS Vial : 71 Sample Multiplier: 1

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.:	Q1938
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

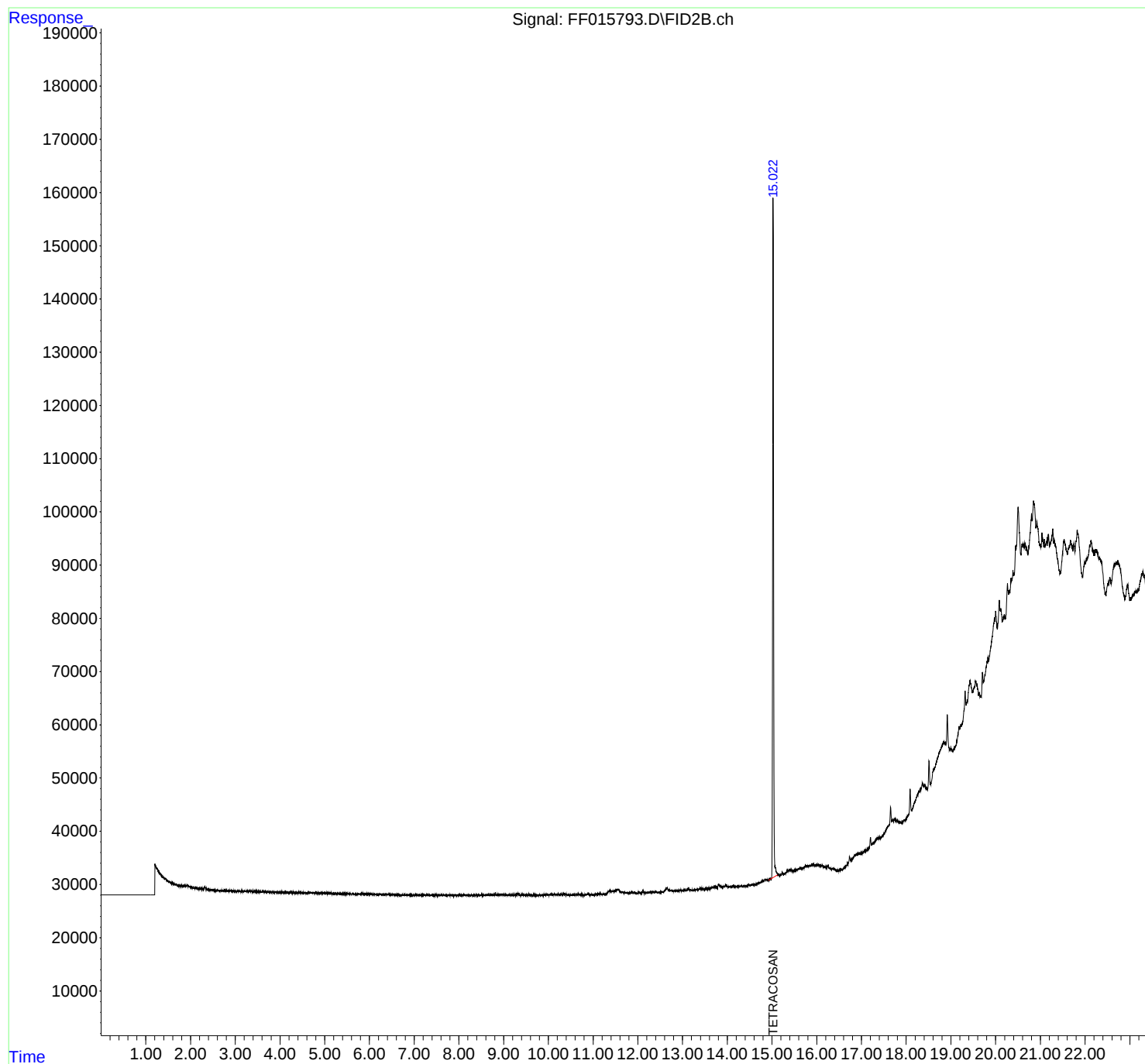
(m)=manual int.

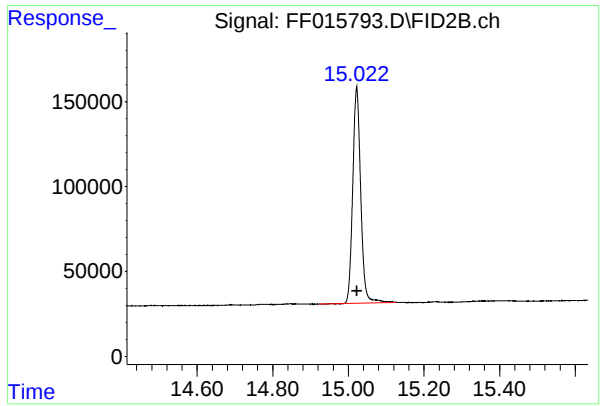
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF050725\
Data File : FF015793.D
Signal(s) : FID2B.ch
Acq On : 07 May 2025 10:46
Operator : YP\AJ
Sample : I.BLK
Misc :
ALS Vial : 52 Sample Multiplier: 1

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.:	Q1938
Lab Sample ID:	I.BLK-FF015804.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
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

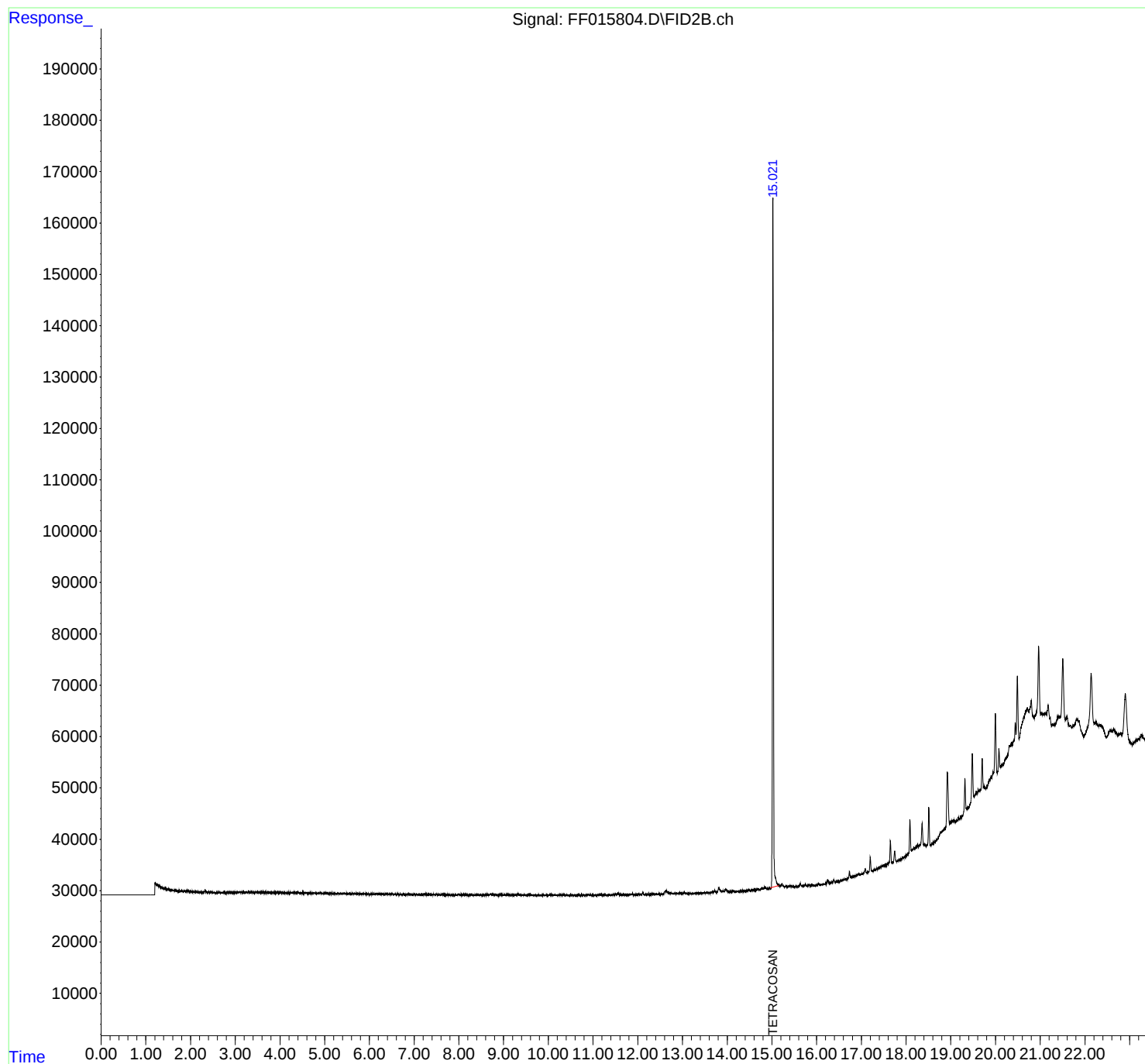
(m)=manual int.

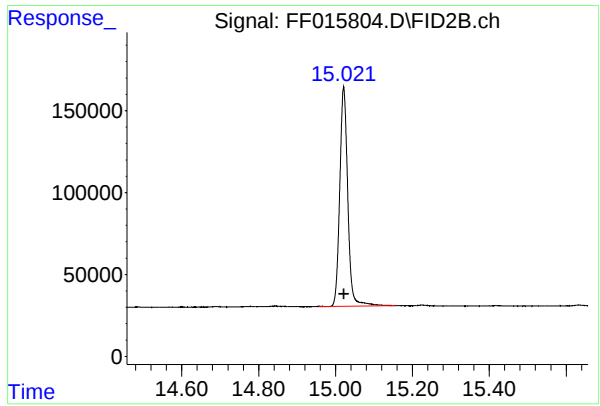
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF050725\
Data File : FF015804.D
Signal(s) : FID2B.ch
Acq On : 07 May 2025 16:41
Operator : YP\AJ
Sample : I.BLK
Misc :
ALS Vial : 52 Sample Multiplier: 1

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.:	Q1938
Lab Sample ID:	I.BLK-FG015783.D	Matrix:	Water
Analytical Method:	8015D TPH	% Solid:	0
Sample Wt/Vol:	1000 Units: mL	Final Vol:	1 mL
Soil Aliquot Vol:	uL	Test:	TPH GC
Extraction Type:		Injection Volume :	
GPC Factor :	PH :		
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

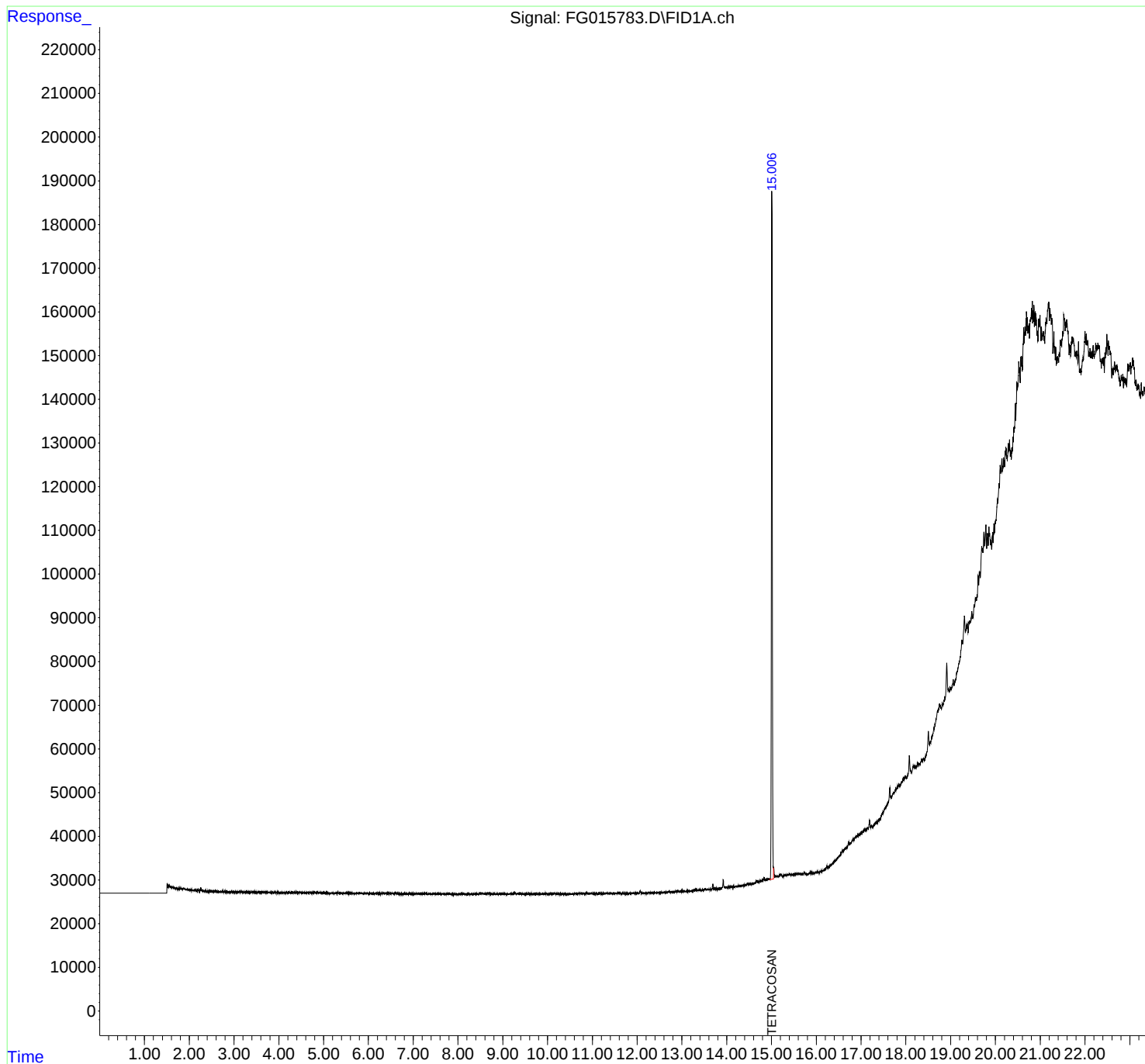
Instrument :
FID_G
ClientSampleId :
I.BLK

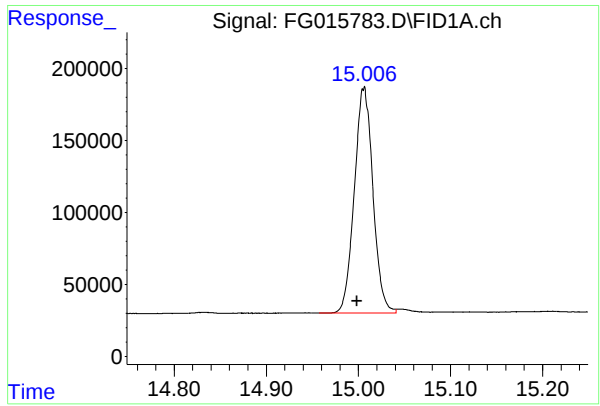
Manual Integrations
APPROVED

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

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

Manual IntegrationsAPPROVED

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

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.:	Q1938
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

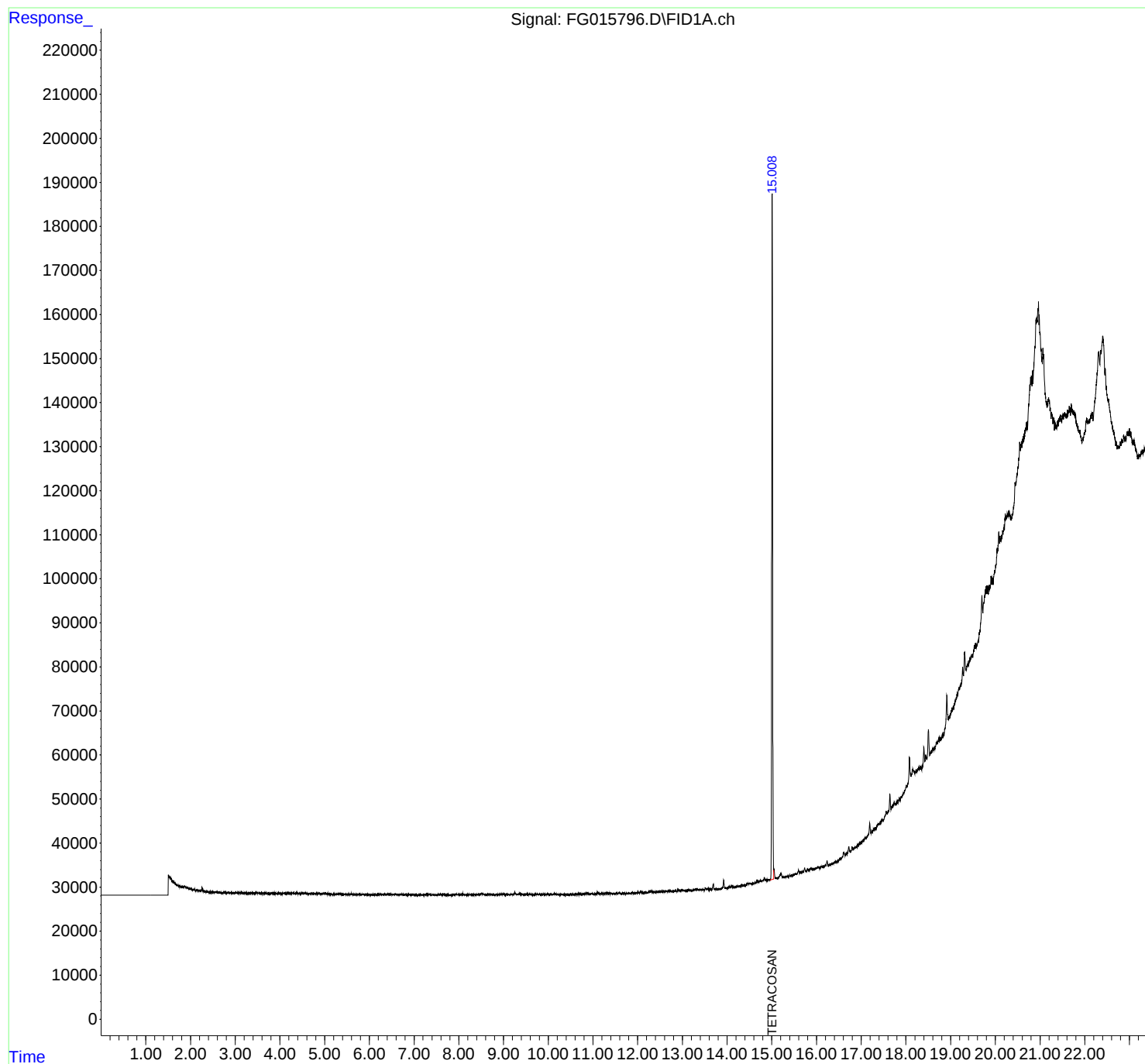
(m)=manual int.

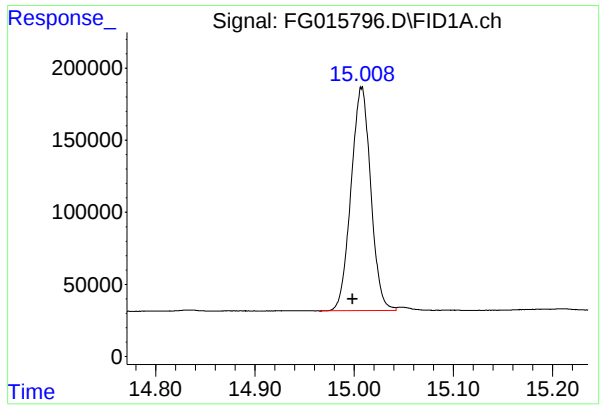
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG050725\
Data File : FG015796.D
Signal(s) : FID1A.ch
Acq On : 07 May 2025 17:39
Operator : YP\AJ
Sample : I.BLK
Misc :
ALS Vial : 2 Sample Multiplier: 1

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:	05/08/25
Project:	Stan Hope	Date Received:	05/08/25
Client Sample ID:	PIBLK-FG015799.D	SDG No.:	Q1938
Lab Sample ID:	I.BLK-FG015799.D	Matrix:	Water
Analytical Method:	8015D TPH	% Solid:	0
Sample Wt/Vol:	1000 Units: mL	Final Vol:	1 mL
Soil Aliquot Vol:	uL	Test:	TPH GC
Extraction Type:		Injection Volume :	
GPC Factor :	PH :		
Prep Method :	SW3510		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
FG015799.D	1		05/08/25	FG050825

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	17.7		29 - 130	88%	SPK: 20

Comments:

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

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

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG050825\
Data File : FG015799.D
Signal(s) : FID1A.ch
Acq On : 08 May 2025 09:20
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 09 02:07:03 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	2079730	17.664 ug/ml
Target Compounds			

(f)=RT Delta > 1/2 Window

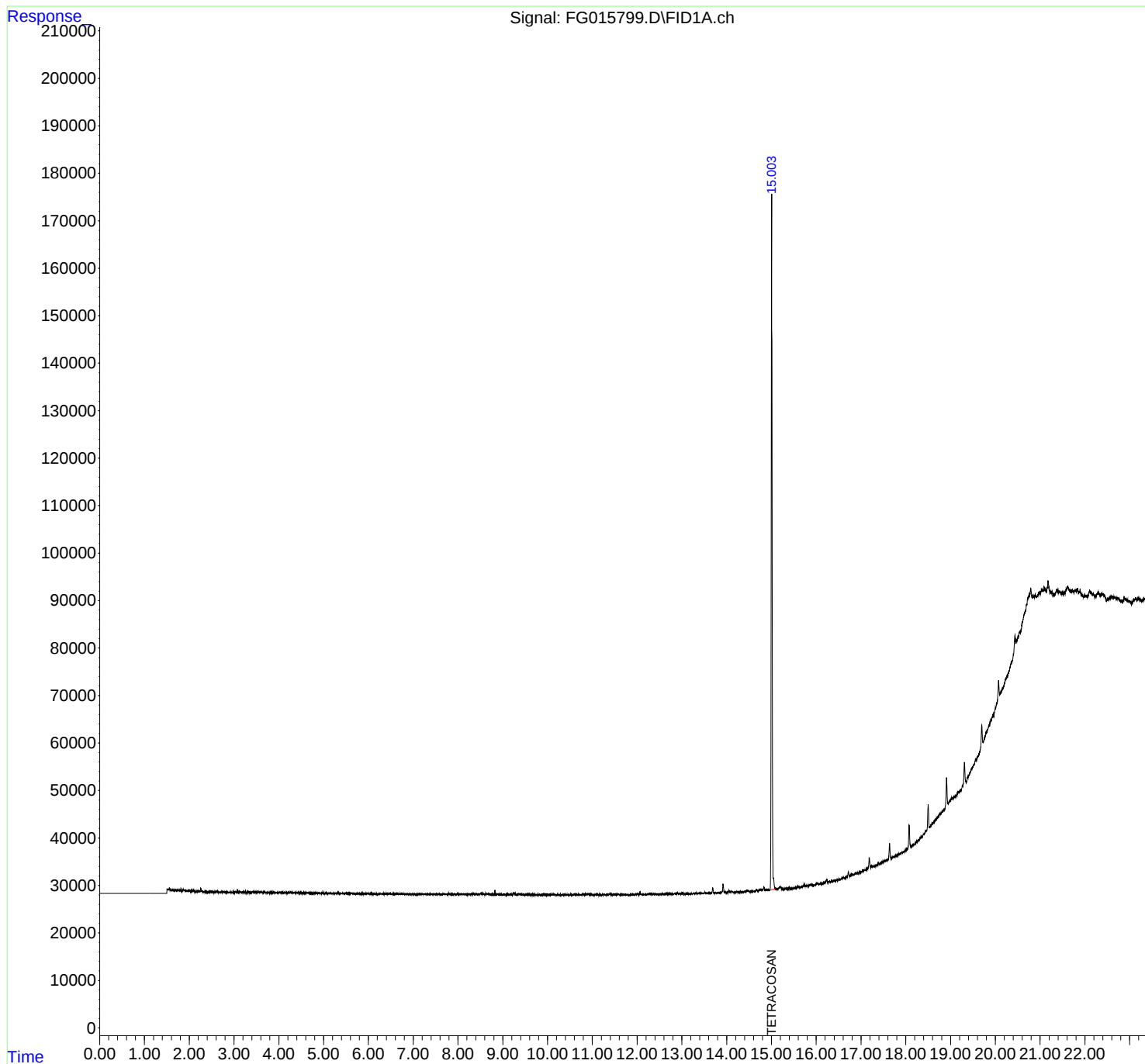
(m)=manual int.

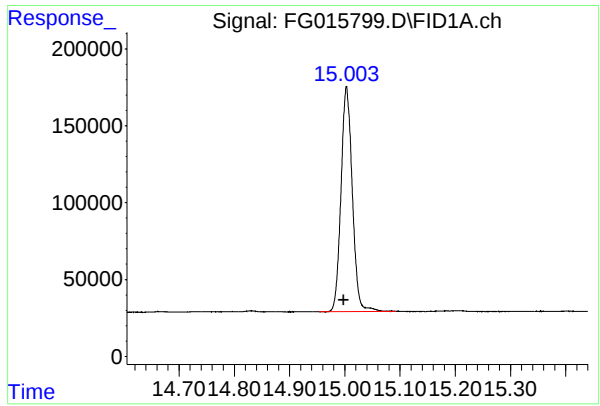
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG050825\
Data File : FG015799.D
Signal(s) : FID1A.ch
Acq On : 08 May 2025 09:20
Operator : YP\AJ
Sample : I.BLK
Misc :
ALS Vial : 2 Sample Multiplier: 1

Instrument :
FID_G
ClientSampleId :
I.BLK

Integration File: autoint1.e
Quant Time: May 09 02:07:03 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: 2079730
Conc: 17.66 ug/ml

Instrument :
FID_G
ClientSampleId :
I.BLK

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG050825\
Data File : FG015799.D
Signal(s) : FID1A.ch
Acq On : 08 May 2025 09:20
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	15.003	14.953	15.093	BB	146619	2079730	100.00%	100.000%
Sum of corrected areas:						2079730		

FG042425.M Fri May 09 02:34:11 2025

Report of Analysis

Client:	Saxton Falls Sand and Gravel Co. Inc.	Date Collected:	05/08/25
Project:	Stan Hope	Date Received:	05/08/25
Client Sample ID:	PIBLK-FG015803.D	SDG No.:	Q1938
Lab Sample ID:	I.BLK-FG015803.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
FG015803.D	1		05/08/25	FG050825

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	17.8		29 - 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_G\Data\FG050825\
Data File : FG015803.D
Signal(s) : FID1A.ch
Acq On : 08 May 2025 11:25
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 09 02:08:26 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	2096677	17.808 ug/ml

Target Compounds

(f)=RT Delta > 1/2 Window

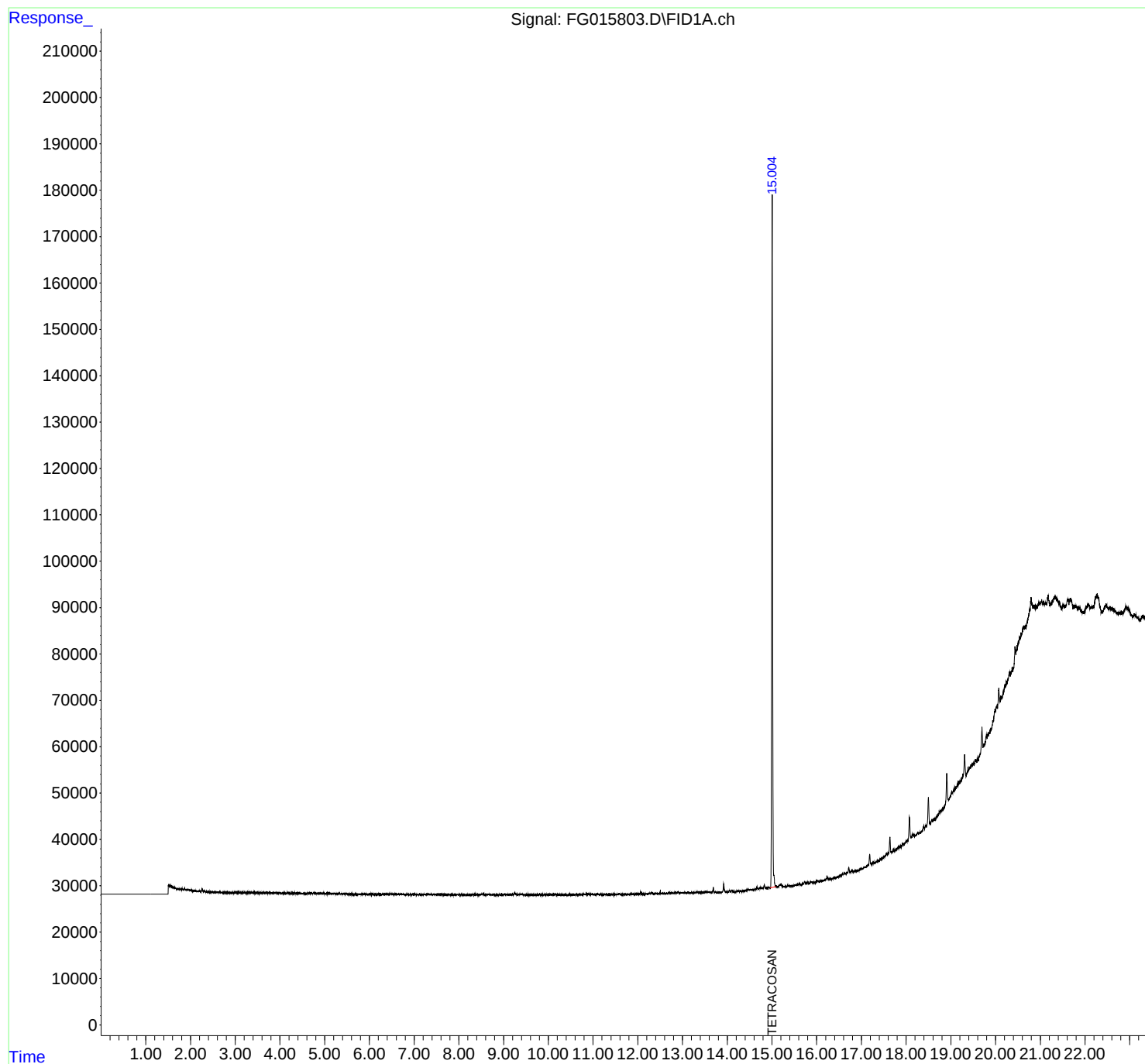
(m)=manual int.

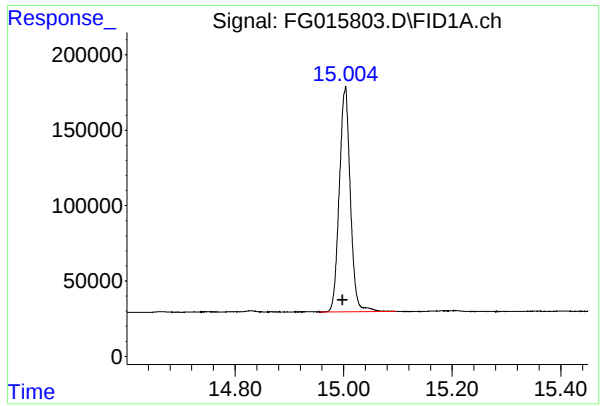
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG050825\
Data File : FG015803.D
Signal(s) : FID1A.ch
Acq On : 08 May 2025 11:25
Operator : YP\AJ
Sample : I.BLK
Misc :
ALS Vial : 2 Sample Multiplier: 1

Instrument :
FID_G
ClientSampleId :
I.BLK

Integration File: autoint1.e
Quant Time: May 09 02:08:26 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: 2096677

Conc: 17.81 ug/ml

Instrument :

FID_G

ClientSampleId :

I.BLK

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG050825\
Data File : FG015803.D
Signal(s) : FID1A.ch
Acq On : 08 May 2025 11:25
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	15.003	14.955	15.096	BB	147669	2096677	100.00%	100.000%
Sum of corrected areas:						2096677		

FG042425.M Fri May 09 02:38:26 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.:	Q1938
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:		Test:	TPH GC
GPC Factor :		Injection Volume :	
Prep Method :	SW3541		

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

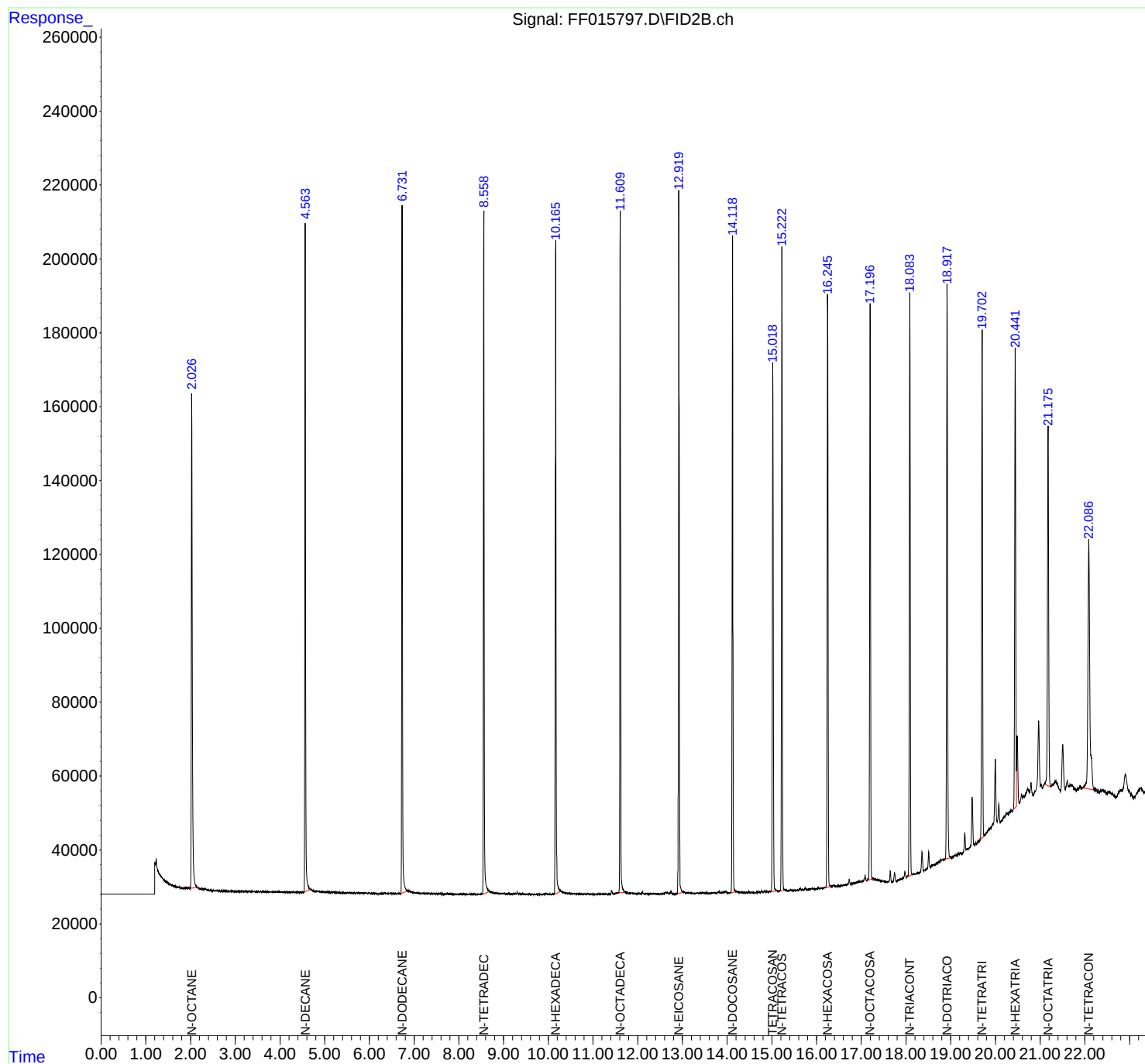
(m)=manual int.

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.:	Q1938
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

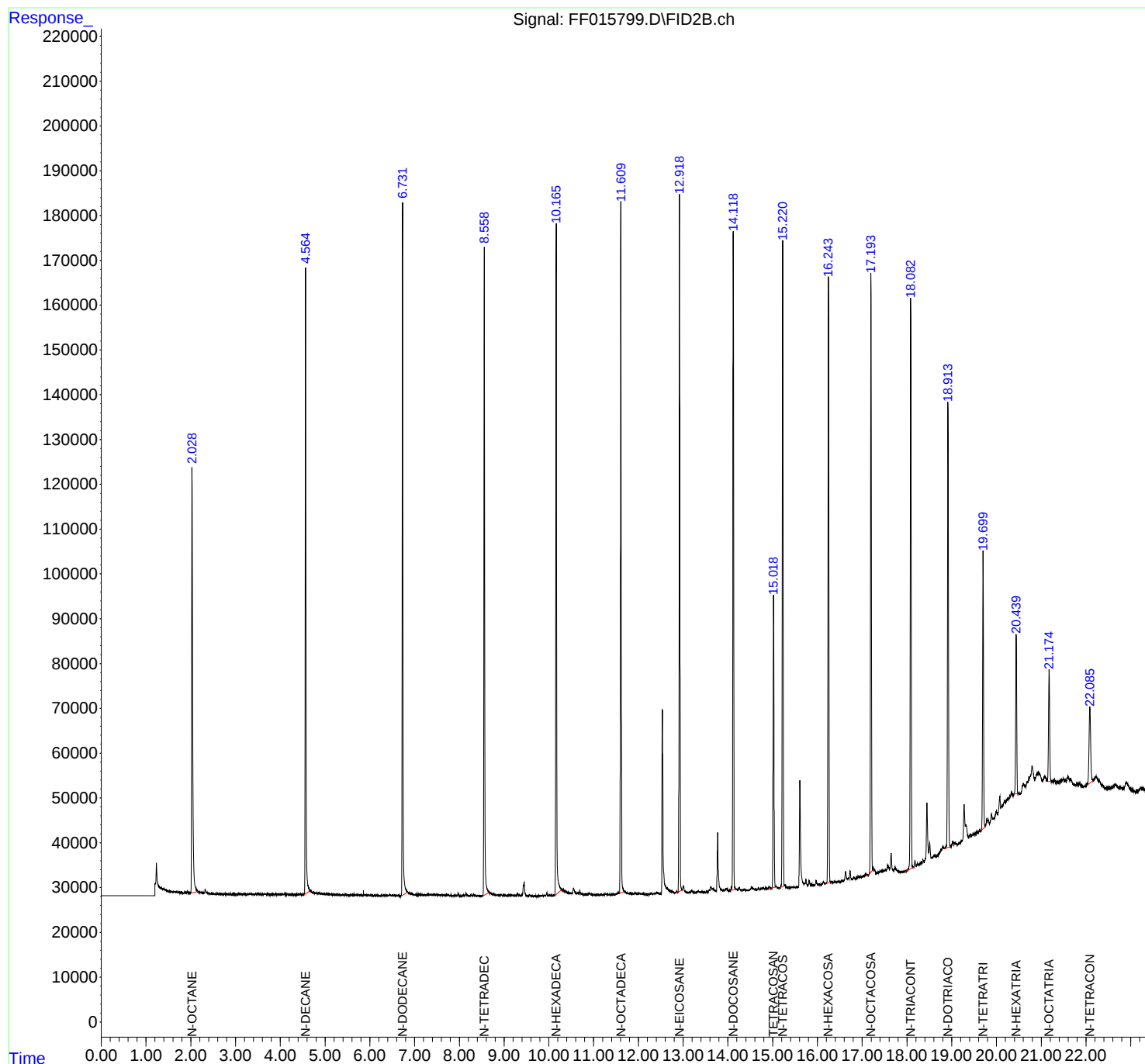
Instrument :
FID_F
ClientSampleId :
SMALL-PILE-AMS

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	0.06%	0.003%
39	2.998	2.994	3.008	VV	153	1245	0.05%	0.003%
40	3.013	3.008	3.025	VV	164	1308	0.06%	0.003%
41	3.029	3.025	3.041	VV	199	1349	0.06%	0.003%
42	3.045	3.041	3.062	VV	155	1655	0.06%	0.003%
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 :

FID_F

ClientSampleId :

SMALL-PILE-AMS

Manual IntegrationsAPPROVED

Reviewed By :Yogesh Patel 05/08/2025

Supervised By :mohammad ahmed 05/09/2025

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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ClientSampleId :

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0.06% 0.003%

Manual IntegrationsAPPROVED

Reviewed By :Yogesh Patel 05/08/2025

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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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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 :

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ClientSampleId :

SMALL-PILE-AMS

Manual IntegrationsAPPROVED

Reviewed By :Yogesh Patel 05/08/2025

Supervised By :mohammad ahmed 05/09/2025

							Instrument : FID_F	
							ClientSampleId : SMALL-PILE-AMS	
rteres							31.82%	1.669%
247	12.536	12.508	12.631	VV	41208	629150	2	0
248	12.642	12.631	12.727	VV	1336	49754	2	0
249	12.745	12.727	12.827	VV	551	20672	2	0
250	12.856	12.827	12.879	VV	522	10551	0	0
							Manual IntegrationsAPPROVED	
251	12.919	12.879	12.975	VV	155516	1882708	95.61%	5.014%
252	13.006	12.975	13.120	VV	1619	49706	2	0
253	13.135	13.120	13.159	VV	188	3669	0.19%	0.010%
254	13.188	13.159	13.266	VV	557	16655	0.84%	0.044%
255	13.332	13.266	13.398	PV	439	15317	0.77%	0.041%
256	13.422	13.398	13.451	VV	202	4402	0.22%	0.012%
257	13.464	13.451	13.509	VV	134	2692	0.14%	0.007%
258	13.534	13.509	13.555	PV	390	4750	0.24%	0.013%
259	13.587	13.555	13.597	VV	487	8787	0.44%	0.023%
260	13.620	13.597	13.655	VV	1224	30517	1.54%	0.081%
261	13.663	13.655	13.730	VV	796	23015	1.16%	0.061%
262	13.770	13.730	13.895	VV	13256	232198	11.74%	0.616%
263	13.918	13.895	13.929	VV	332	5965	0.30%	0.016%
264	13.960	13.929	14.006	VV	753	20449	1.03%	0.054%
265	14.019	14.006	14.044	VV	199	3574	0.18%	0.009%
266	14.076	14.044	14.085	VV	1070	13020	0.66%	0.035%
267	14.118	14.085	14.225	VV	147269	1897863	95.99%	5.034%
268	14.252	14.225	14.313	VV	749	18827	0.95%	0.050%
269	14.335	14.313	14.410	VV	291	10831	0.55%	0.029%
270	14.417	14.410	14.455	VV	159	2431	0.12%	0.006%
271	14.526	14.455	14.617	PV	853	29749	1.50%	0.079%
272	14.634	14.617	14.655	VV	236	3756	0.19%	0.010%
273	14.684	14.655	14.703	VV	518	7936	0.40%	0.021%
274	14.764	14.703	14.774	VV	275	8725	0.44%	0.023%
275	14.793	14.774	14.822	VV	375	8344	0.42%	0.022%
276	14.838	14.822	14.864	VV	351	6374	0.32%	0.017%
277	14.918	14.864	14.945	VV	708	14250	0.72%	0.038%
278	14.952	14.945	14.982	VV	279	4797	0.24%	0.013%
279	15.018	14.982	15.060	VV	65637	915670	46.31%	2.429%
280	15.076	15.060	15.117	VV	522	12820	0.65%	0.034%
281	15.124	15.117	15.154	VV	186	2823	0.14%	0.007%
282	15.221	15.154	15.260	VV	141980	1890345	95.61%	5.014%
283	15.275	15.260	15.359	VV	818	16608	0.84%	0.044%
284	15.360	15.359	15.372	VV	127	424	0.02%	0.001%
285	15.391	15.372	15.400	VV	146	1064	0.05%	0.003%
286	15.425	15.400	15.442	VV	254	4215	0.21%	0.011%
287	15.455	15.442	15.514	VV	196	4722	0.24%	0.013%
288	15.543	15.514	15.570	PV	127	2598	0.13%	0.007%
289	15.606	15.570	15.714	PV	23780	426022	21.55%	1.130%
290	15.742	15.714	15.790	VV	1665	35323	1.79%	0.094%
291	15.815	15.790	15.860	VV	1269	22760	1.15%	0.060%
292	15.880	15.860	15.901	VV	297	4475	0.23%	0.012%
293	15.921	15.901	15.945	VV	153	2658	0.13%	0.007%
294	15.966	15.945	16.022	VV	1177	21585	1.09%	0.057%
295	16.035	16.022	16.049	VV	178	2274	0.12%	0.006%
296	16.057	16.049	16.085	VV	149	1832	0.09%	0.005%
297	16.133	16.085	16.180	PV	621	14170	0.72%	0.038%
298	16.244	16.180	16.295	VV	134843	1859473	94.05%	4.932%
299	16.312	16.295	16.360	VV	376	8195	0.41%	0.022%

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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%

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					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	39.07%	0.405%
354	20.907	20.857	20.947	VV	8062	414923	20.07%	0.405%
355	20.958	20.947	21.030	VV	7811	340499	17.73%	0.405%
356	21.076	21.030	21.135	VV	6393	380508	19.07%	0.405%
357	21.175	21.135	21.244	VV	29869	759429	38.07%	0.405%
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.:	Q1938
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

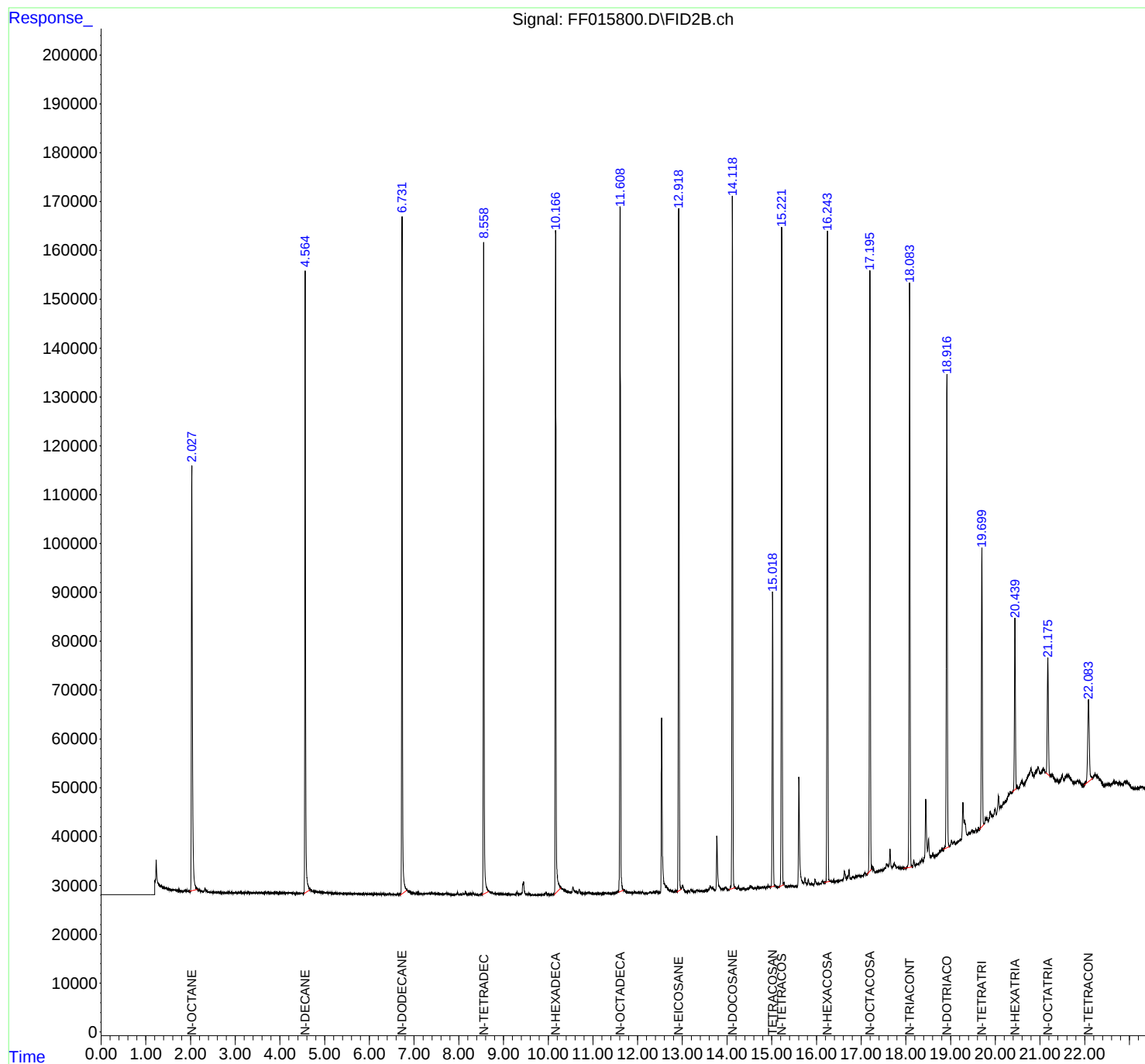
(m)=manual int.

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%

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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%

					rteres			
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%

					rteres			
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%

					rteres			
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%

					rteres			
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	mohammad	5/9/2025 6:52:47 AM	Peak Integrated by Software incorrectly
RT MARKER		FF015795.D	FF050725	N-DODECANE	mohammad	5/9/2025 6:52:47 AM	Peak Integrated by Software incorrectly
Q1936-01MS		FF015799.D	FF050725	N-OCTATRIACONTANE	mohammad	5/9/2025 6:52:47 AM	Peak Integrated by Software incorrectly
Q1936-01MS		FF015799.D	FF050725	N-TETRACONTANE	mohammad	5/9/2025 6:52:47 AM	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	mohammad	5/9/2025 6:52:54 AM	Peak Integrated by Software incorrectly

Manual Integration Report

Sample ID	ClientId ID	File ID	Sequence ID	Parameter	Supervised By	Supervised On	Reason
Q1938-01		FG015802.D	FG050825	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	mohammad	Supervise On	5/9/2025 6:52:47 AM
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,M
4	RT MARKER	FF015795.D	07 May 2025 12:17	YP\AJ	Ok,M
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,M
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	mohammad	Supervise On	5/9/2025 6:52:54 AM
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	PP24469		
ICV/I.BLK Surrogate Standard MS/MSD Standard LCS Standard	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,M
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_G

Daily Analysis Runlog For Sequence/QC Batch ID # FG050825

Review By	yogesh	Review On	5/8/2025 12:19:22 PM
Supervise By		Supervise On	
SubDirectory	FG050825	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	PP24469		
ICV/I.BLK Surrogate Standard MS/MSD Standard LCS Standard	PP24468,PP24473		

Sr#	SampleId	Data File Name	Date-Time	Operator	Status
1	MECL2	FG015798.D	08 May 2025 08:50	YP\AJ	Ok
2	I.BLK	FG015799.D	08 May 2025 09:20	YP\AJ	Ok
3	50 PPM TRPH STD	FG015800.D	08 May 2025 09:49	YP\AJ	Ok
4	RT MARKER	FG015801.D	08 May 2025 10:18	YP\AJ	Ok
5	Q1938-01	FG015802.D	08 May 2025 10:55	YP\AJ	Ok,NS
6	I.BLK	FG015803.D	08 May 2025 11:25	YP\AJ	Ok
7	50 PPM TRPH STD	FG015804.D	08 May 2025 11:54	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	mohammad	Supervise On	5/9/2025 6:52:47 AM
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	PP24468,PP24473		
ICV/I.BLK			
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,M
4	RT MARKER		FF015795.D	07 May 2025 12:17		YPIAJ	Ok,M
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,M
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	mohammad	Supervise On	5/9/2025 6:52:54 AM
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	PP24468,PP24473		
ICV/I.BLK			
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,M
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

Instrument ID: FID_G

Daily Analysis Runlog For Sequence/QC Batch ID # FG050825

Review By	yogesh	Review On	5/8/2025 12:19:22 PM
Supervise By		Supervise On	
SubDirectory	FG050825	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		FG015798.D	08 May 2025 08:50		YP\AJ	Ok
2	I.BLK		FG015799.D	08 May 2025 09:20		YP\AJ	Ok
3	50 PPM TRPH STD		FG015800.D	08 May 2025 09:49		YP\AJ	Ok
4	RT MARKER		FG015801.D	08 May 2025 10:18		YP\AJ	Ok
5	Q1938-01		FG015802.D	08 May 2025 10:55		YP\AJ	Ok,NS
6	I.BLK		FG015803.D	08 May 2025 11:25		YP\AJ	Ok
7	50 PPM TRPH STD		FG015804.D	08 May 2025 11:54		YP\AJ	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-GPC2-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)

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
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	L31	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	L21	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	L41	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 17:10
 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

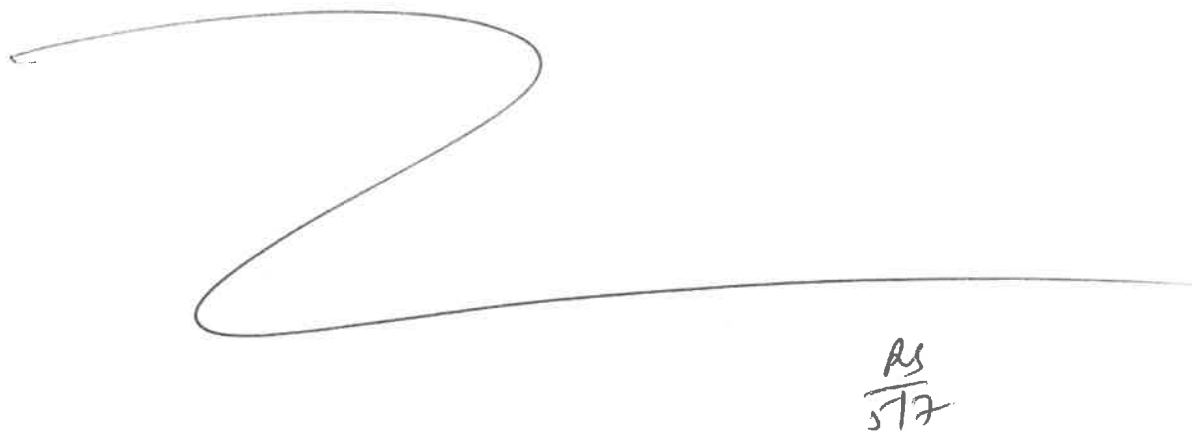
Envap Temperature: 40 °C

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



* Extracts relinquished on the same date as received.

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 : Q1938

Test : TPH GC

Prepbatch ID : PB167887,

Sequence ID/Qc Batch ID: FG050825,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	RUPESEKUMA R SHAH	Extraction_SC ALE_2 (EX-SC-2)	None	Riteshkumar Patel
								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



<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
<u>FROM</u>	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

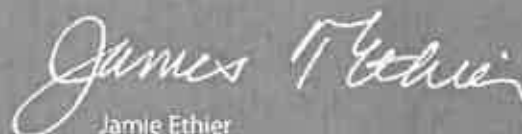
Certificate of Analysis

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.**

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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

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_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 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

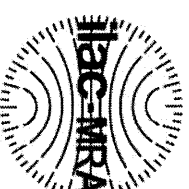
Belleville, PA 16823-8812

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 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 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 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 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 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 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 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:

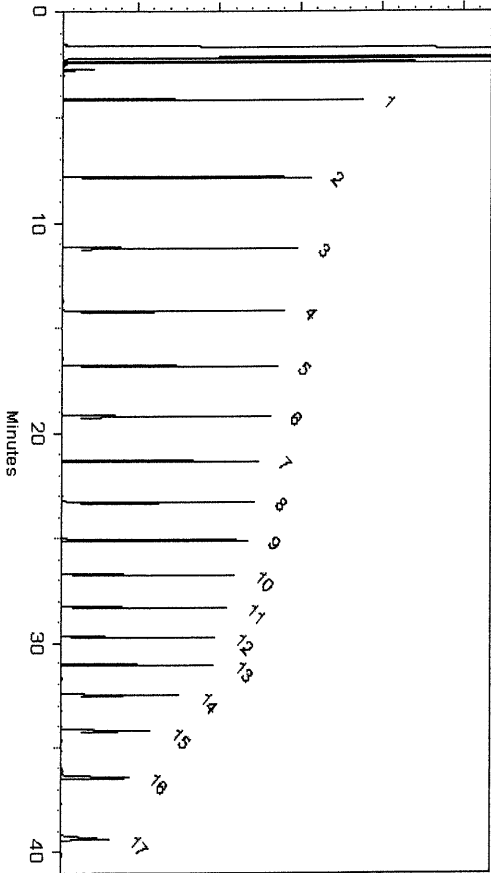
250°C

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

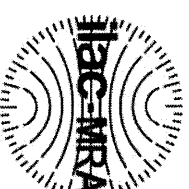
Bellefonte, PA 16823-8812

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 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 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 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 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 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 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 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:

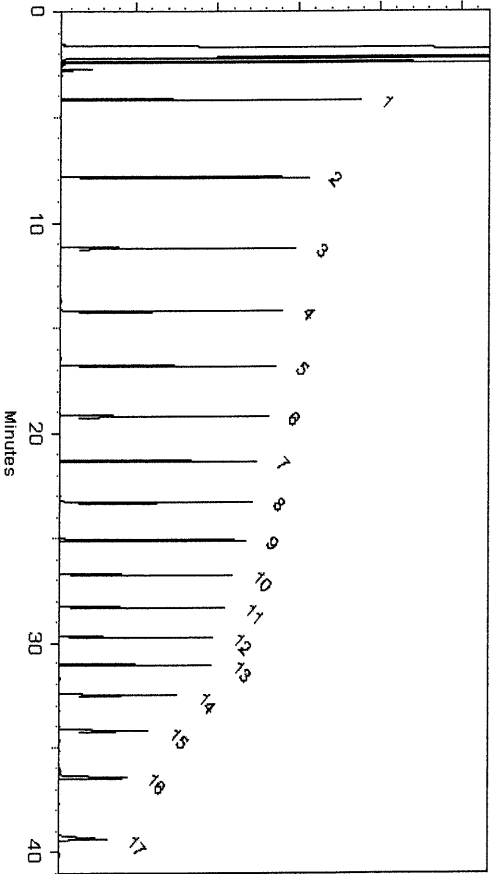
250°C

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

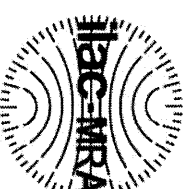
Belleville, PA 16823-8812

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:

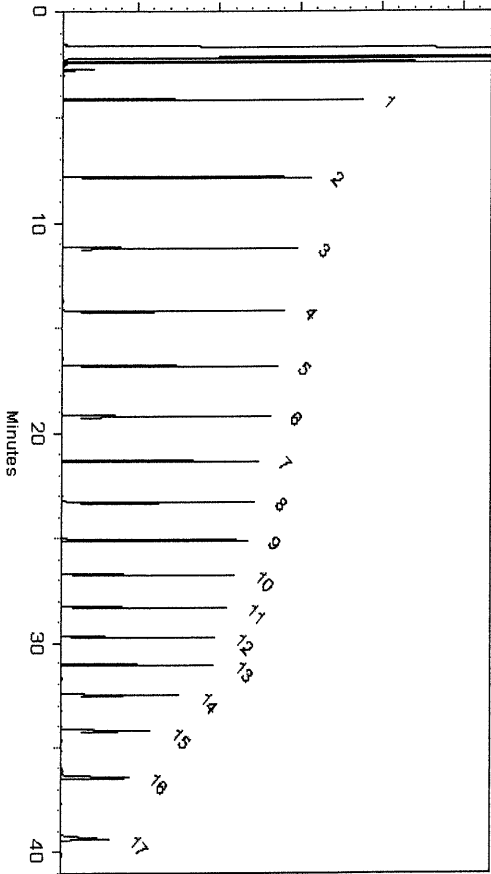
250°C

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

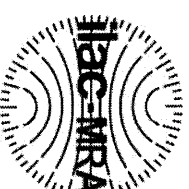
Bellefonte, PA 16823-8812

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:

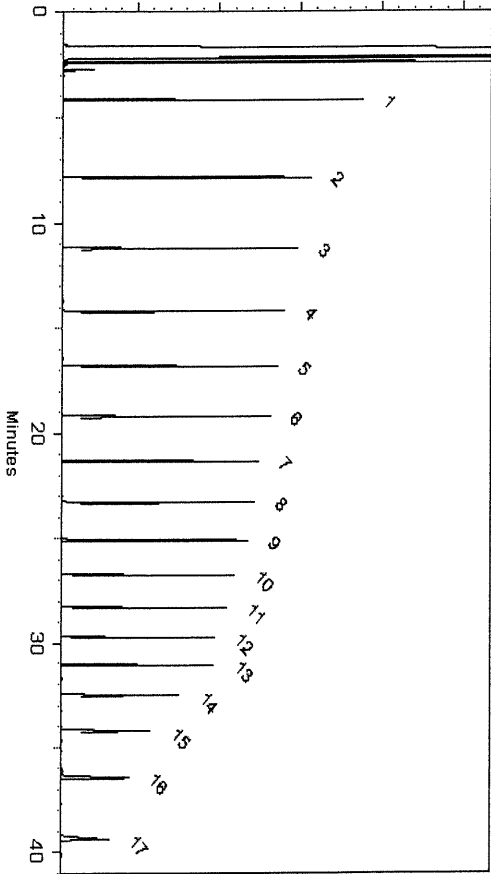
250°C

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:

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

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
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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	MKQC3882	99%	503.6 µg/mL	+/- 13.0098
9	n-Tetracosane (C24)	646-31-1	MKQC8345	99%	504.0 µg/mL	+/- 13.0201
10	n-Hexacosane (C26)	630-01-3	MKQC4814	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	MKQC9436	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.)

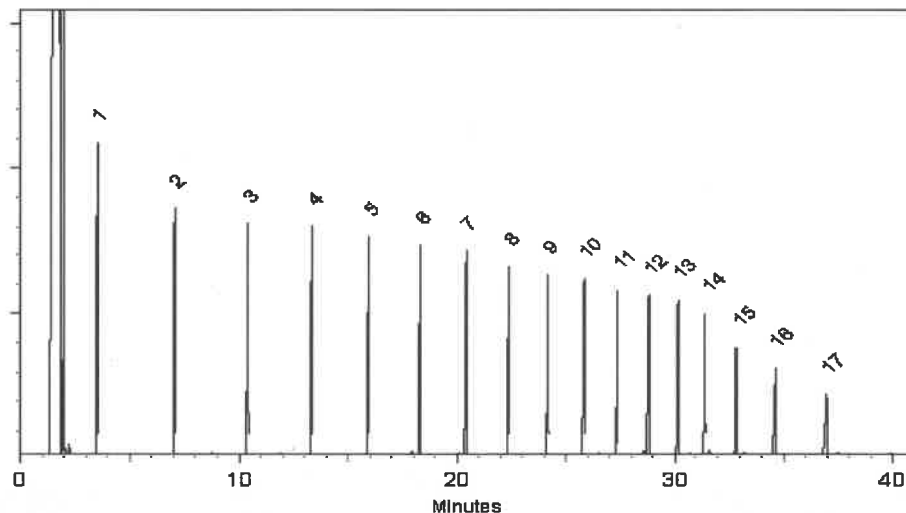
Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID

Split Vent:
2 ml/min.

Inj. Vol
1µl

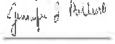


This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.


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.

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- 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.
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- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

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

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

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

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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	MKQC3882	99%	503.6 µg/mL	+/- 13.0098
9	n-Tetracosane (C24)	646-31-1	MKQC8345	99%	504.0 µg/mL	+/- 13.0201
10	n-Hexacosane (C26)	630-01-3	MKQC4814	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	MKQC9436	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.)

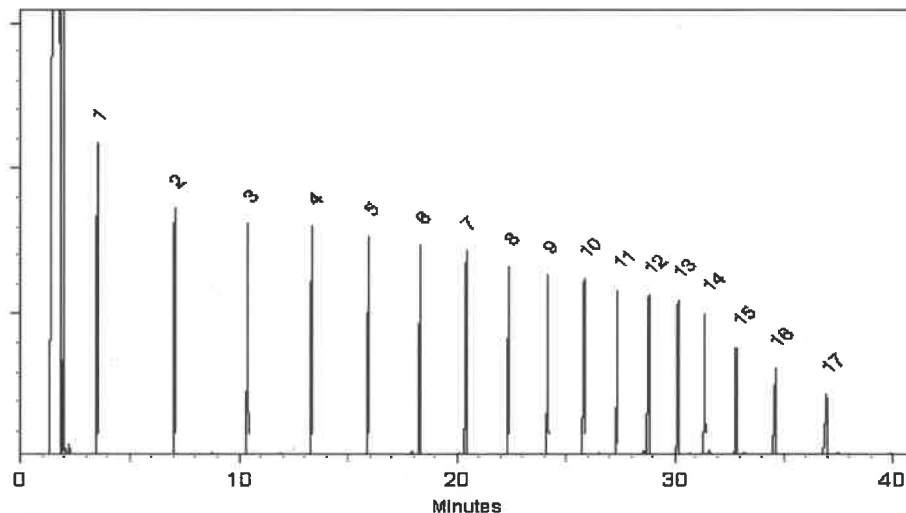
Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID

Split Vent:
2 ml/min.

Inj. Vol
1µl

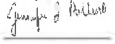


This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.


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.
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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 (%)	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

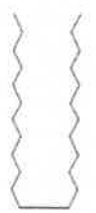
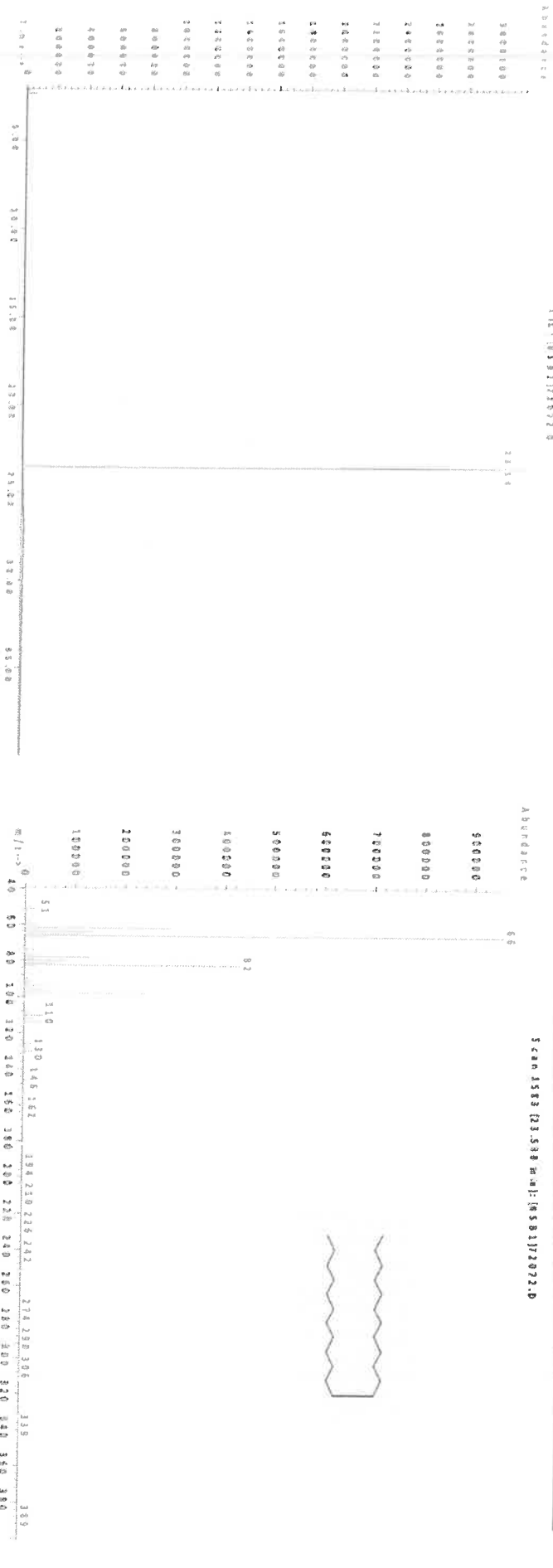
Expiration Date: 101132
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test ID#: 6UB3
Weight(s) shown below were combined and diluted to (mL): 200.0
SE-05 Balance Uncertainty
0.058 Flask Uncertainty

PL3437
13496 } 7.8
07/24/24

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

Compound		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, (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



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



ABSOLUTE STANDARDS, INC.

ISO - 17034

Understanding the Certified Weight Report

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

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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 (%)	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	223	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	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

Part # 10009R Lot # 041219 1 of 2

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

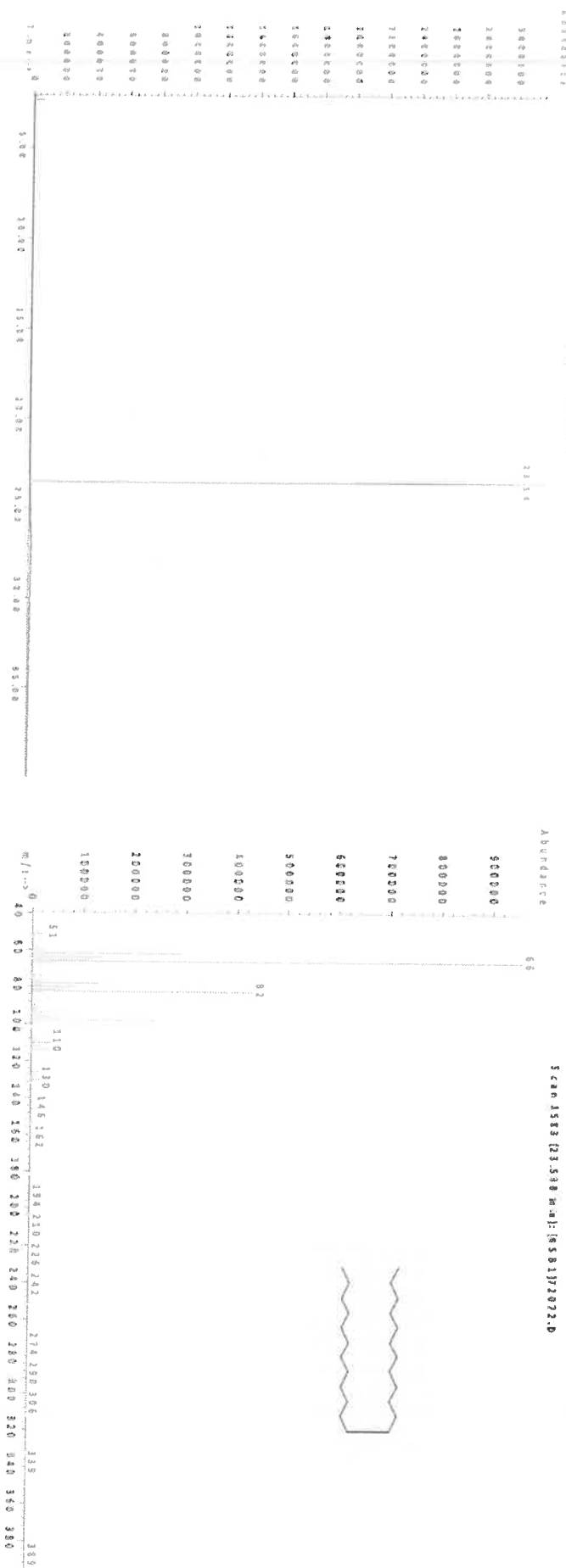
Expiration Date: **101132**
Recommended Storage: **Ambient (20 °C)**
Nominal Concentration (µg/mL): **1000**
NIST Test ID#: **6UB3**
Weight(s) shown below were combined and diluted to (mL): **200.0**
5E-05 Balance Uncertainty
0.058 Flask Uncertainty

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, (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 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	en-ra 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)	en-ra 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	en-ra 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 = aDaq 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**

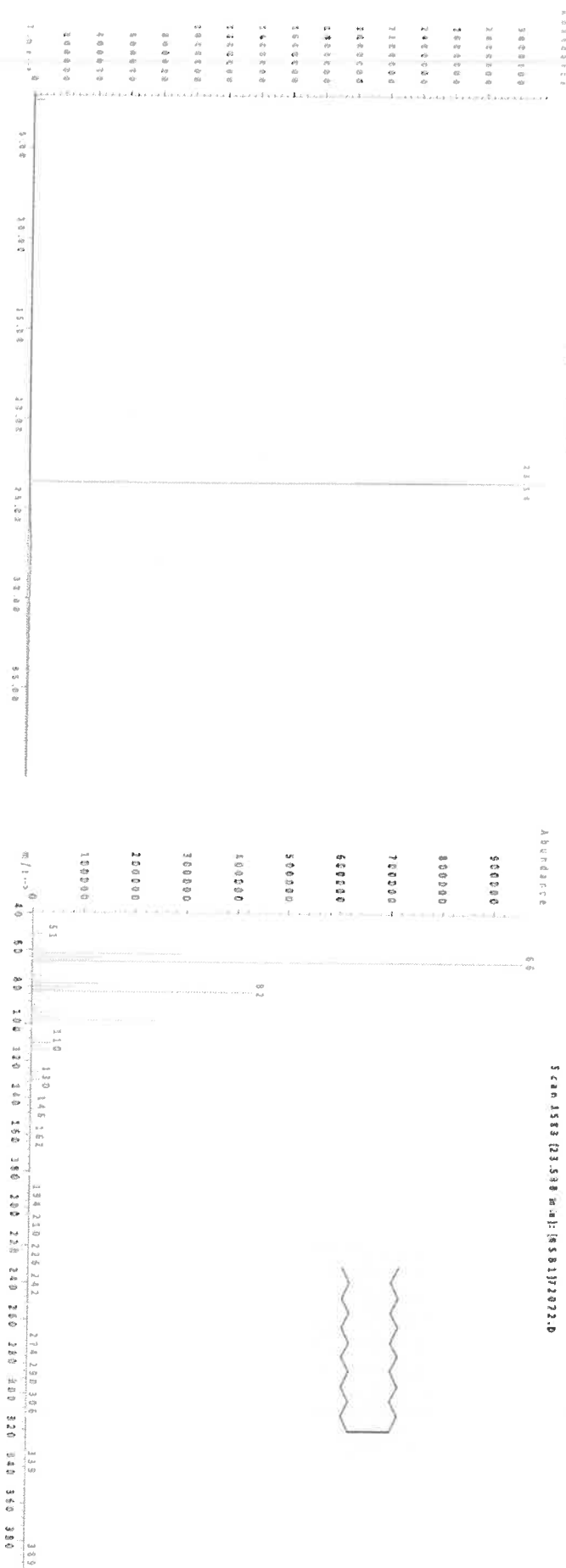
Expiration Date: **101132**
Recommended Storage: **Ambient (20 °C)**
Nominal Concentration (µg/mL): **1000**
NIST Test ID#: **6UB3**
Weight(s) shown below were combined and diluted to (mL): **200.0**
5E-05 Balance Uncertainty
0.058 Flask Uncertainty

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



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



ABSOLUTE STANDARDS, INC.

ISO - 17034

Understanding the Certified Weight Report

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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	en-ra 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)	en-ra 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	en-ra 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 = aDaq 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

Part # 10009R Lot # 041219 1 of 2

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**

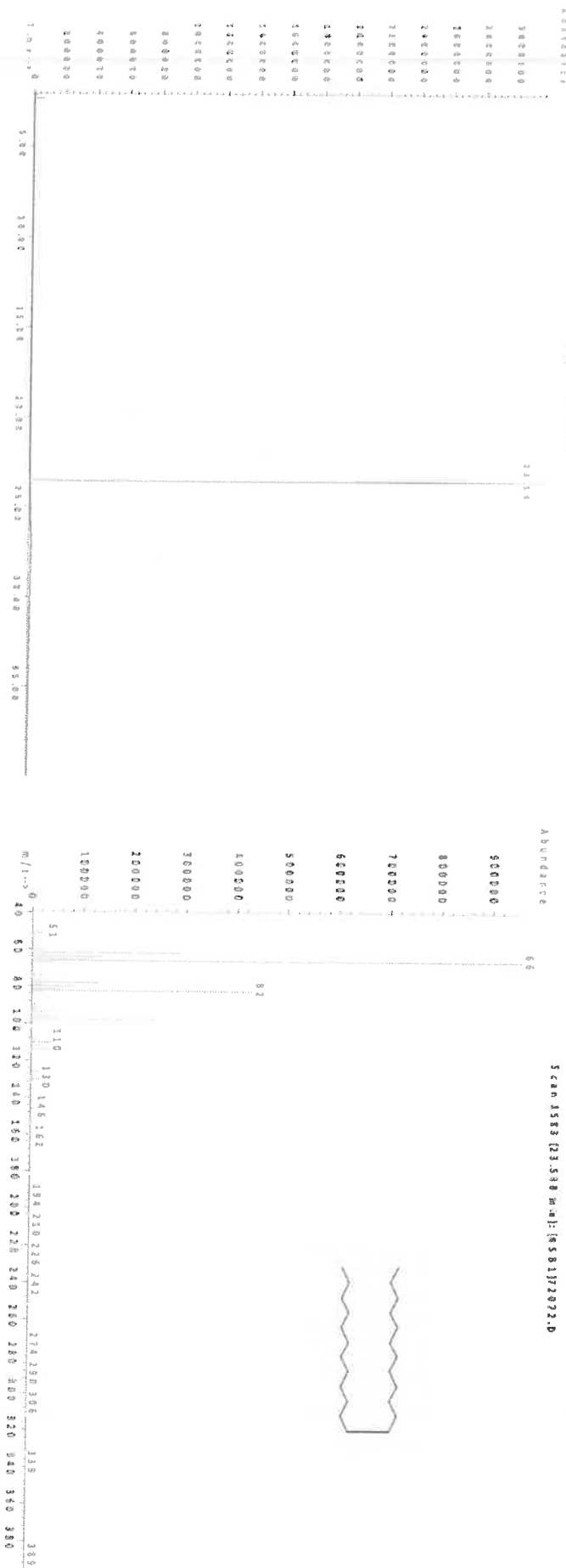
Expiration Date: **101132**
Recommended Storage: **Ambient (20 °C)**
Nominal Concentration (µg/mL): **1000**
NIST Test ID#: **6UB3**
Weight(s) shown below were combined and diluted to (mL): **200.0**
5E-05 Balance Uncertainty
0.058 Flask Uncertainty

P13437
13496
07/24/24
X.F.

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

Compound	SDS Information									
	(Solvent Safety Info. On Attached pg.)									
	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)	

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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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

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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 (%)	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	223	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	2.04136	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

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

Part # 10009R Lot # 041219 1 of 2

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

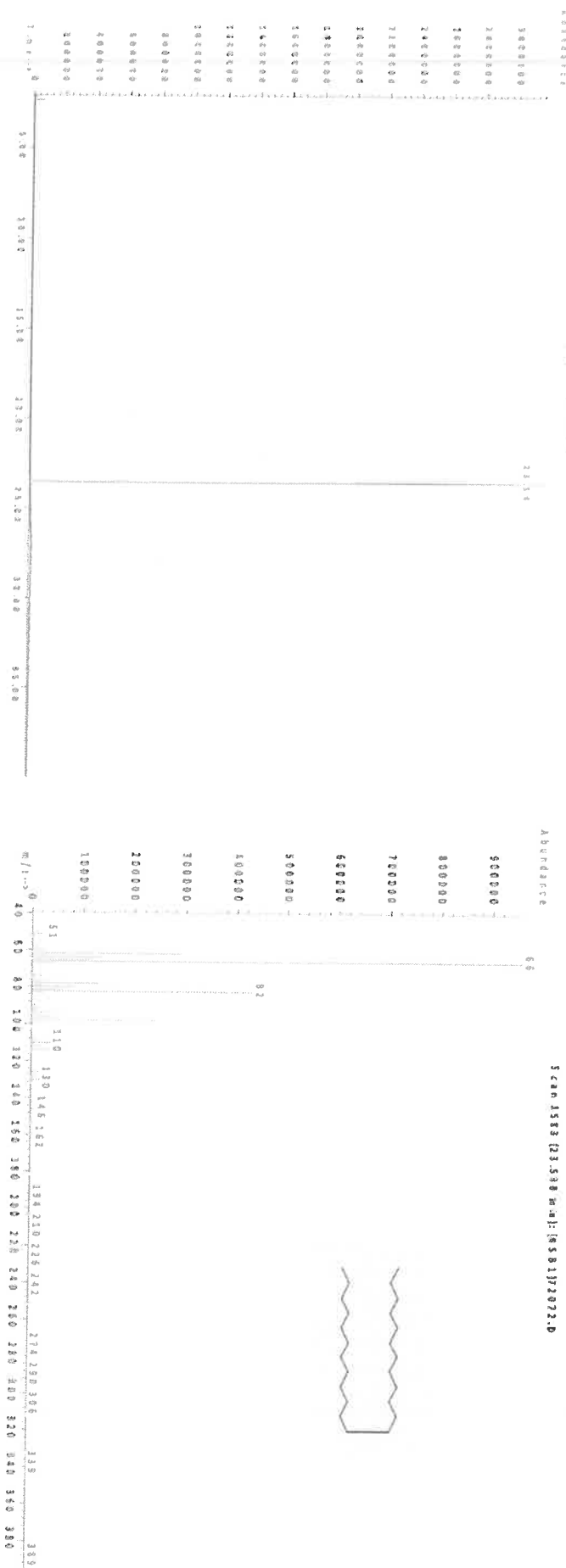
Expiration Date: **101132**
Recommended Storage: **Ambient (20 °C)**
Nominal Concentration (µg/mL): **1000**
NIST Test ID#: **6UB3**
Weight(s) shown below were combined and diluted to (mL): **200.0**
5E-05 Balance Uncertainty
0.058 Flask Uncertainty

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 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/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	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

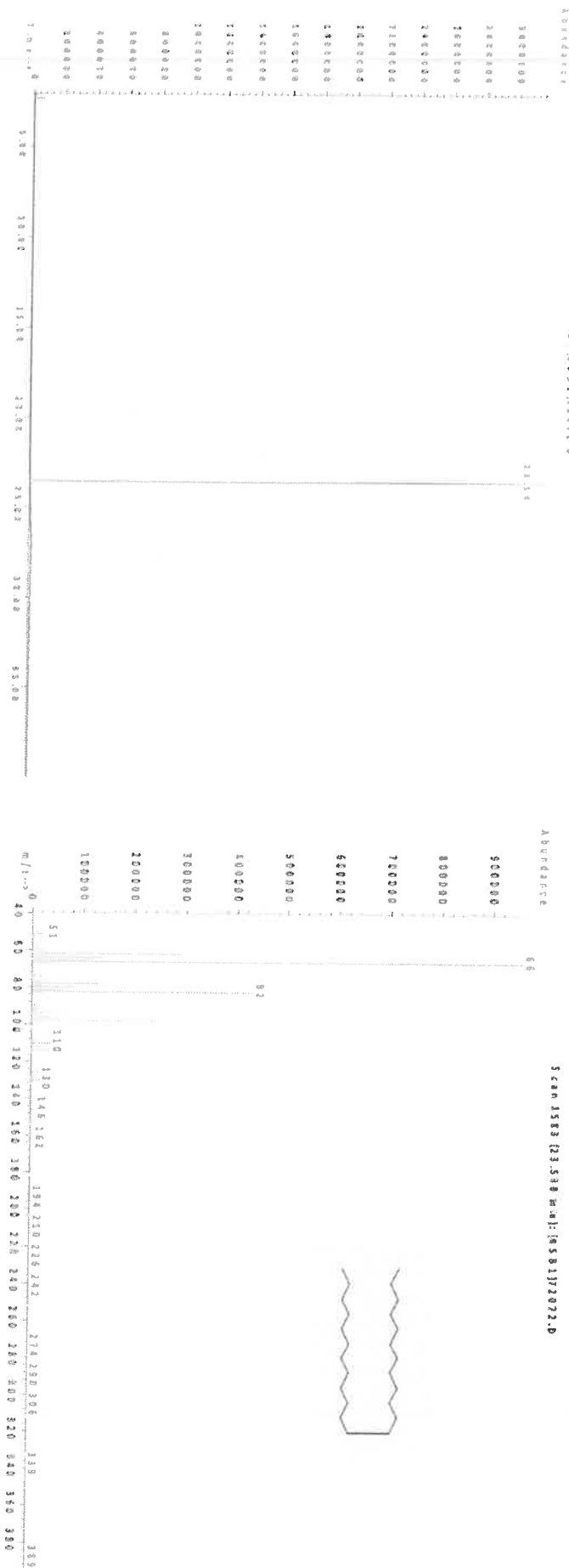
Expiration Date: 101132
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test ID#: 6UB3
Weight(s) shown below were combined and diluted to (mL): 200.0 **Balance Uncertainty** 5E-05 **Flask Uncertainty** 0.058

Handwritten: P13437 } Y.F.
P13496 } 07/24/24

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).



SHIPPING DOCUMENTS

CLIENT INFORMATION

REPORT TO BE SENT TO:

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

CLIENT PROJECT INFORMATION

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

CLIENT BILLING INFORMATION

BILL TO: PO#:
ADDRESS:
CITY: Stan STATE: ZIP:
ATTENTION: PHONE:

ANALYSIS

DATA TURNAROUND INFORMATION

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

DATA DELIVERABLE INFORMATION

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

1. Hex Chrom
2. PCB
3. SVOC-TCL BWA-20
4. TPH CAC
5. Trivalent Chromium
6. Cyanide
7. VOOC-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.	<u>Lower Wall Pile-A</u>	<u>sol</u>	<u>X</u>		<u>5-1-25</u>	<u>12:50</u>	<u>4</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>				<u>Pid=0.0</u>	
2.	<u>A</u>			<u>X</u>		<u>12:52</u>	<u>5</u>							<u>X</u>	<u>X</u>			
3.	<u>B</u>		<u>X</u>			<u>13:00</u>	<u>4</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>					
4.	<u>B</u>			<u>X</u>		<u>13:02</u>	<u>5</u>							<u>X</u>	<u>X</u>			
5.	<u>C</u>		<u>X</u>			<u>13:12</u>	<u>4</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>					
6.	<u>C</u>			<u>X</u>		<u>13:14</u>	<u>5</u>							<u>X</u>	<u>X</u>			
7.	<u>D</u>		<u>X</u>			<u>13:20</u>	<u>4</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>					
8.	<u>D</u>			<u>X</u>		<u>13:22</u>	<u>5</u>							<u>X</u>	<u>X</u>			
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</u>	RECEIVED BY: 1. <u>[Signature]</u>	Conditions of bottles or coolers at receipt: ☐ COMPLIANT ☐ NON COMPLIANT ☒ COOLER TEMP <u>4.1°C</u>
RELINQUISHED BY SAMPLER: 2. <u>[Signature]</u>	DATE/TIME: <u></u>	RECEIVED BY: 2. <u></u>	Comments: <u>Pid Meter calibrated 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</u>	RECEIVED BY: 3. <u>[Signature]</u>	Page <u>1</u> of <u>1</u> CLIENT: ☐ Hand Delivered ☐ Other <u></u> Shipment Complete ☐ YES ☐ NO



Environmental Laboratory

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

Project Name: STN Hope

Chemtech Order ID: _____

Sampler Name: Lawrence Palko

Client Project Coordinator & Phone: _____

Service Order #: _____
Work Order #: _____

Labor WBS #: _____

Facility/Site: _____

Page #: 1 of 1

Date: 5.1.2025

Site Address: 3000 Interchange 2

Arrive Time: 0830

Drive, Budd Lake, WI.

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 Depth: _____

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, however well pile.

Grid/Area Composite Map:

QA Control # A3041134

SEE

ATTACHED

Sampler Signature: _____

5.1.2025

Supervisor Review/Date: _____

Client Signature: _____

Date/Time Arrived at Lab: _____

Lower Wall

EXHIBIT 1

Soil Piles for Sampling

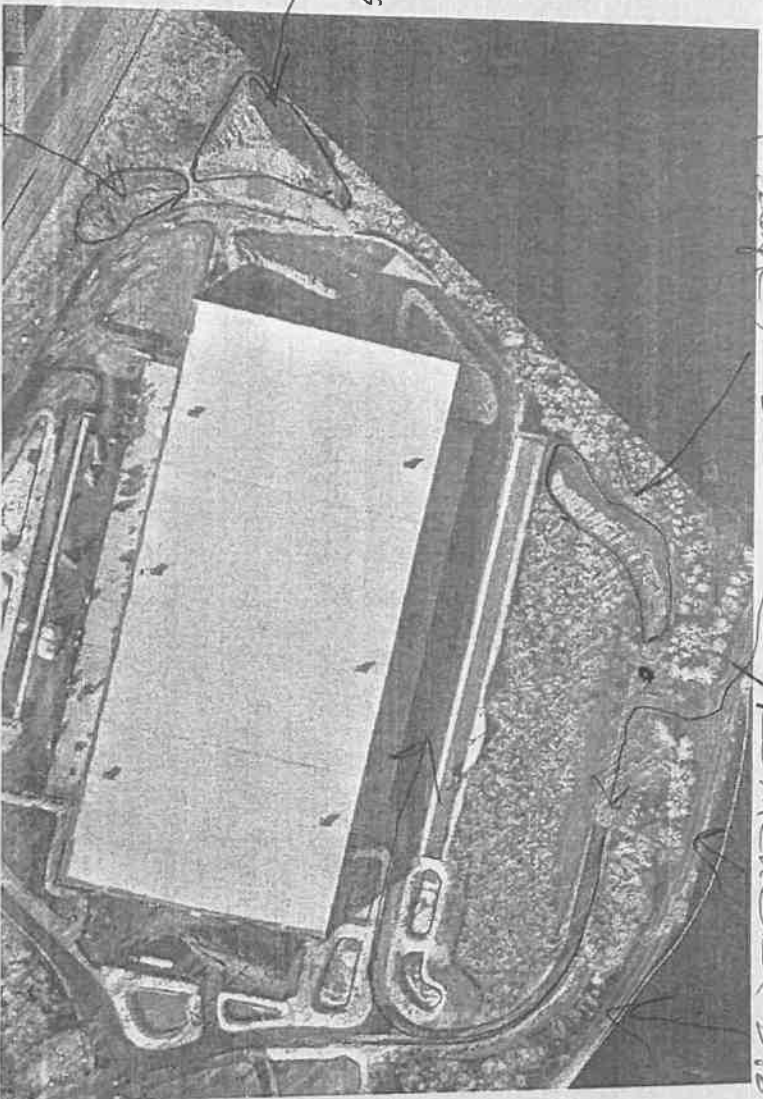
Piles for sampling are circled in red

3 tests

Pile

4 Samples 25" #

Concrete Dg.



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 : Q1938	SAXT01	Order Date : 5/1/2025 2:05:00 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 : 15:40	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
Q1938-02	LOWER-WALL-PILE-A	Solid	05/01/2025	12:52	VOC-TCLVOA-10		8260D	10 Bus. Days	
Q1938-04	LOWER-WALL-PILE-B	Solid	05/01/2025	13:02	VOC-TCLVOA-10		8260D	10 Bus. Days	
Q1938-06	LOWER-WALL-PILE-C	Solid	05/01/2025	13:14	VOC-TCLVOA-10		8260D	10 Bus. Days	
Q1938-08	LOWER-WALL-PILE-D	Solid	05/01/2025	13:22	VOC-TCLVOA-10		8260D	10 Bus. Days	

Relinquished By :

Date / Time :

LCJ

5-1-2025 1650

Received By :

Date / Time :

Wm Duden

5-1-25 16:5

Storage Area : VOA Refridgerator Room

Toucho
Storage in VOA
FRZ # 02 Extract
in set # 06