284 Sheffield Street, Mountainside NJ 07092 Tel. 908-789-8900 Fax: 908-789-8922

DATA REPORTING QUALIFIERS- ORGANIC

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

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

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LAB CHRONICLE

OrderID:	Q1746	**OrderDate:**	4/7/2025 12:00:00 PM
Client:	Portal Partners Tri-Venture	**Project:**	Amtrak Sawtooth Bridges 2025
Contact:	Joseph Krupansky	**Location:**	L41,VOA Ref. #2 Soil,VOA Ref. #3 Water

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
Q1746-01	**B-149-SB01**	**SOIL**			**04/05/25**			**04/07/25**
			PCB	8082A		04/08/25	04/08/25	
			TPH GC	8015D		04/08/25	04/08/25	
Q1746-03	**B-149-SB02**	**SOIL**			**04/06/25**			**04/07/25**
			PCB	8082A		04/08/25	04/08/25	
			TPH GC	8015D		04/08/25	04/08/25	
Q1746-05	**B-158-GW01**	**WATER**			**04/05/25**			**04/07/25**
			PCB	8082A		04/08/25	04/08/25	
Q1746-06	**B-149-GW01**	**WATER**			**04/06/25**			**04/07/25**
			PCB	8082A		04/08/25	04/08/25	
Q1746-07	**EB-2025-4-7**	**WATER**			**04/07/25**			**04/07/25**
			PCB	8082A		04/08/25	04/08/25	

QC SUMMARY

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SOIL TPH GC SURROGATE RECOVERY

Lab Name: Chemtech Client: Portal Partners Tri-Venture

Lab Code: CHEM Case No.: Q1746 SAS No.: Q1746 SDG No.: Q1746

EPA SAMPLE NO.	S1 TETRACOSANE-d50	S2	S3	S4	TOT OUT
PIBLK-FG015650.D	110				0
PIBLK-FG015661.D	104				0
PB167510BL	81				0
PB167510BS	87				0
B-158-SB02MS	58				0
B-158-SB02MSD	56				0
B-149-SB01	54				0
B-149-SB02	92				0

	QC LIMITS
TETRACOSANE-d50	For Water : 29-130 For Soil : 37-130

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

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SOIL TPH GC MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Chemtech **Client:** Portal Partners Tri-Venture

Lab Code: CHEM **Cas No:** Q1746 **SAS No :** Q1746 **SDG No:** Q1746

Client SampleID : B-158-SB02MS **Datafile:** FG015659.D

COMPOUND	SPIKE ADDED ug/kg	SAMPLE CONCENTRATION ug/kg	MS/MSD CONCENTRATION ug/kg	% REC	Qual	QC LIMITS
Petroleum Hydrocarbons	20225	9780	24698	74%		68-131

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SOIL TPH GC MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Chemtech **Client:** Portal Partners Tri-Venture

Lab Code: CHEM **Cas No:** Q1746 **SAS No :** Q1746 **SDG No:** Q1746

Client SampleID : B-158-SB02MSD **Datafile:** FG015660.D

COMPOUND	SPIKE ADDED ug/kg	SAMPLE CONCENTRATION ug/kg	MS/MSD CONCENTRATION ug/kg	% REC	Qual	QC LIMITS
Petroleum Hydrocarbons	20178	9780	24202	72%		68-131

MS/MSD % Recovery RPD : 3

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

Lab Name: Chemtech **Client:** Portal Partners Tri-Venture

Lab Code: CHEM **Cas No:** Q1746 **SAS No :** Q1746 **SDG No:** Q1746

Matrix Spike - EPA Sample No : PB167510BS **Datafile:** FG015654.D

COMPOUND	SPIKE ADDED ug/kg	CONCENTRATION ug/kg	LCS/LCSD CONCENTRATION ug/kg	% REC	QC LIMITS
Petroleum Hydrocarbons	11322	0	8469	75	68-131

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4B

METHOD BLANK SUMMARY

EPA SAMPLE NO.

PB167510BL

Lab Name: CHEMTECH Contract: PORT06

Lab Code: CHEM Case No.: Q1746 SAS No.: Q1746 SDG NO.: Q1746

Lab File ID: FG015653.D Lab Sample ID: PB167510BL

Instrument ID: FG Date Extracted: 04/08/2025

Matrix: (soil/water) Soil Date Analyzed: 04/08/25

Level: (low/med) low Time Analyzed: 12:50

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

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
PB167510BS	PB167510BS	FG015654.D	04/08/25
B-149-SB01	Q1746-01	FG015657.D	04/08/25
B-149-SB02	Q1746-03	FG015658.D	04/08/25
B-158-SB02MS	Q1744-03MS	FG015659.D	04/08/25
B-158-SB02MSD	Q1744-03MSD	FG015660.D	04/08/25

COMMENTS:

SAMPLE DATA

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Report of Analysis

Client:	Portal Partners Tri-Venture	Date Collected:	04/05/25
Project:	Amtrak Sawtooth Bridges 2025	Date Received:	04/07/25
Client Sample ID:	B-149-SB01	SDG No.:	Q1746
Lab Sample ID:	Q1746-01	Matrix:	SOIL
Analytical Method:	8015D TPH	% Solid:	89.3 Decanted:
Sample Wt/Vol:	30.08 Units: g	Final Vol:	1 mL
Soil Aliquot Vol:	uL	Test:	TPH GC
Extraction Type:		Injection Volume :	
GPC Factor :	PH :		
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
FG015657.D	1	04/08/25 08:55	04/08/25 15:01	PB167510

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
PHC	Petroleum Hydrocarbons	12600		429	3160	ug/kg
SURROGATES						
16416-32-3	TETRACOSANE-d50	10.8		37 - 130	54%	SPK: 20

Comments:

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

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

Quantitation Report (QT Reviewed)

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG040825\
Data File : FG015657.D
Signal(s) : FID1A.ch
Acq On : 08 Apr 2025 15:01
Operator : YP\AJ
Sample : Q1746-01
Misc :
ALS Vial : 25 Sample Multiplier: 1

Instrument :
FID_G
ClientSampleId :
B-149-SB01

Integration File: autoint1.e
Quant Time: Apr 09 00:29:42 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG032725.M
Quant Title :
QLast Update : Thu Mar 27 11:04:29 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...	15.016	1238731	10.813 ug/ml
	Target Compounds			

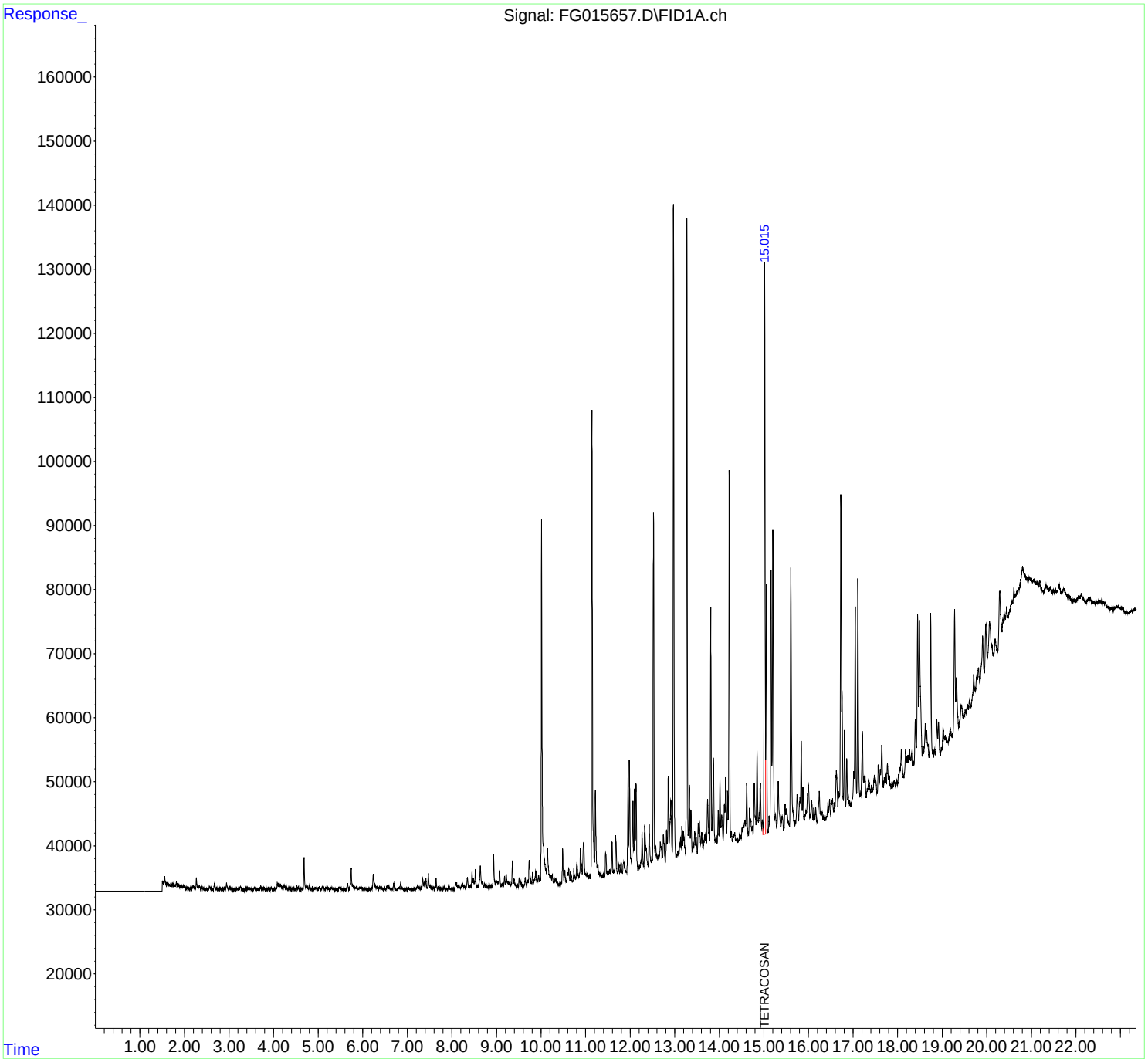
(f)=RT Delta > 1/2 Window (m)=manual int.

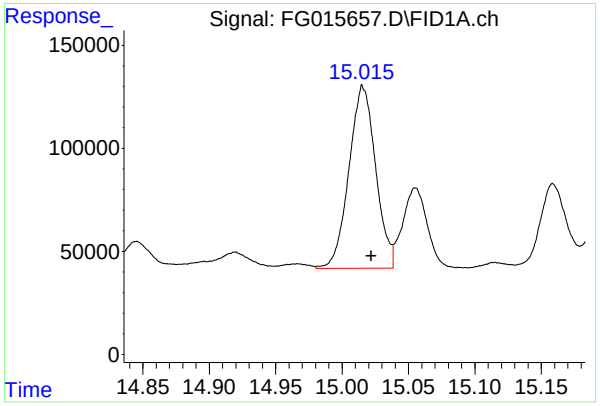
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG040825\
Data File : FG015657.D
Signal(s) : FID1A.ch
Acq On : 08 Apr 2025 15:01
Operator : YP\AJ
Sample : Q1746-01
Misc :
ALS Vial : 25 Sample Multiplier: 1

Instrument :
FID_G
ClientSampleId :
B-149-SB01

Integration File: autoint1.e
Quant Time: Apr 09 00:29:42 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG032725.M
Quant Title :
QLast Update : Thu Mar 27 11:04:29 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.: 15.016 min
Delta R.T.: -0.007 mi
Response: 1238731
Conc: 10.81 ug/m

Instrument :
FID_G
ClientSampleId :
B-149-SB01

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG040825\
Data File : FG015657.D
Signal(s) : FID1A.ch
Acq On : 08 Apr 2025 15:01
Sample : Q1746-01
Misc :
ALS Vial : 25 Sample Multiplier: 1

Integration File: Sample.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG032725.M
Title :

Signal : FID1A.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	1.819	1.800	1.859	BV	717	8358	0.64%	0.021%
2	1.874	1.859	1.905	VV	342	3783	0.29%	0.009%
3	1.920	1.905	1.950	PV	325	3980	0.30%	0.010%
4	1.984	1.950	2.025	PV	397	7039	0.54%	0.018%
5	2.027	2.025	2.042	VV	57	531	0.04%	0.001%
6	2.059	2.042	2.069	PV	200	1711	0.13%	0.004%
7	2.072	2.069	2.079	VV	107	781	0.06%	0.002%
8	2.084	2.079	2.109	VV	148	1520	0.12%	0.004%
9	2.116	2.109	2.138	VV	125	1237	0.09%	0.003%
10	2.157	2.138	2.163	PV	167	1342	0.10%	0.003%
11	2.182	2.163	2.188	VV	234	2346	0.18%	0.006%
12	2.202	2.188	2.230	VV	468	7578	0.58%	0.019%
13	2.232	2.230	2.252	VV	238	2050	0.16%	0.005%
14	2.267	2.252	2.314	VV	1772	24953	1.90%	0.062%
15	2.326	2.314	2.376	VV	510	10370	0.79%	0.026%
16	2.395	2.376	2.414	VV	476	5577	0.43%	0.014%
17	2.420	2.414	2.438	VV	242	2340	0.18%	0.006%
18	2.443	2.438	2.471	VV	147	1821	0.14%	0.005%
19	2.476	2.471	2.492	VV	148	1209	0.09%	0.003%
20	2.496	2.492	2.514	PV	135	770	0.06%	0.002%
21	2.531	2.514	2.543	VV	134	889	0.07%	0.002%
22	2.559	2.543	2.630	VV	438	10567	0.81%	0.026%
23	2.674	2.630	2.710	VV	826	16119	1.23%	0.040%
24	2.717	2.710	2.738	VV	222	2581	0.20%	0.006%
25	2.752	2.738	2.776	VV	269	3991	0.30%	0.010%
26	2.782	2.776	2.794	VV	241	1663	0.13%	0.004%
27	2.799	2.794	2.815	VV	196	1899	0.14%	0.005%
28	2.827	2.815	2.851	VV	242	2717	0.21%	0.007%
29	2.888	2.851	2.894	VV	302	4794	0.37%	0.012%
30	2.897	2.894	2.901	VV	279	897	0.07%	0.002%
31	2.904	2.901	2.912	VV	312	1531	0.12%	0.004%
32	2.918	2.912	2.921	VV	231	1287	0.10%	0.003%
33	2.944	2.921	2.990	VV	1187	20755	1.58%	0.052%
34	3.022	2.990	3.046	VV	389	9377	0.72%	0.023%
35	3.049	3.046	3.085	VV	320	4951	0.38%	0.012%
36	3.088	3.085	3.102	VV	190	1555	0.12%	0.004%

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37	3.110	3.102	3.153	VV	238	4391	0.34%	0.011%
38	3.156	3.153	3.160	VV	160	499	0.04%	0.001%
39	3.173	3.160	3.190	VV	262	3265	0.25%	0.008%
40	3.194	3.190	3.215	VV	226	2416	0.18%	0.006%
41	3.218	3.215	3.222	VV	205	755	0.06%	0.002%
42	3.252	3.222	3.282	VV	550	12310	0.94%	0.031%
43	3.286	3.282	3.298	VV	244	1902	0.15%	0.005%
44	3.301	3.298	3.314	VV	224	1475	0.11%	0.004%
45	3.324	3.314	3.342	VV	146	1898	0.14%	0.005%
46	3.368	3.342	3.377	PV	406	4542	0.35%	0.011%
47	3.393	3.377	3.412	VV	482	6494	0.50%	0.016%
48	3.426	3.412	3.450	VV	402	5550	0.42%	0.014%
49	3.471	3.450	3.482	VV	351	4838	0.37%	0.012%
50	3.485	3.482	3.492	VV	298	1726	0.13%	0.004%
51	3.495	3.492	3.509	VV	296	2114	0.16%	0.005%
52	3.533	3.509	3.540	VV	191	2656	0.20%	0.007%
53	3.545	3.540	3.550	VV	213	784	0.06%	0.002%
54	3.567	3.550	3.591	VV	556	8227	0.63%	0.020%
55	3.595	3.591	3.620	VV	217	2464	0.19%	0.006%
56	3.630	3.620	3.638	VV	179	1460	0.11%	0.004%
57	3.649	3.638	3.665	VV	309	3393	0.26%	0.008%
58	3.671	3.665	3.683	VV	237	1647	0.13%	0.004%
59	3.707	3.683	3.733	VV	553	10513	0.80%	0.026%
60	3.743	3.733	3.754	VV	420	4152	0.32%	0.010%
61	3.758	3.754	3.773	VV	321	3023	0.23%	0.008%
62	3.782	3.773	3.815	VV	458	8259	0.63%	0.021%
63	3.843	3.815	3.862	VV	415	7703	0.59%	0.019%
64	3.866	3.862	3.870	VV	188	941	0.07%	0.002%
65	3.887	3.870	3.906	VV	511	6676	0.51%	0.017%
66	3.945	3.906	3.970	VV	461	9961	0.76%	0.025%
67	3.978	3.970	4.000	VV	309	2777	0.21%	0.007%
68	4.024	4.000	4.034	VV	324	3976	0.30%	0.010%
69	4.045	4.034	4.064	VV	438	5943	0.45%	0.015%
70	4.087	4.064	4.130	VV	1063	30308	2.31%	0.075%
71	4.150	4.130	4.194	VV	851	24696	1.88%	0.061%
72	4.197	4.194	4.201	VV	477	2064	0.16%	0.005%
73	4.205	4.201	4.217	VV	446	4055	0.31%	0.010%
74	4.236	4.217	4.270	VV	918	19037	1.45%	0.047%
75	4.284	4.270	4.307	VV	530	9190	0.70%	0.023%
76	4.311	4.307	4.333	VV	409	5082	0.39%	0.013%
77	4.335	4.333	4.361	VV	345	4510	0.34%	0.011%
78	4.388	4.361	4.396	VV	264	4365	0.33%	0.011%
79	4.408	4.396	4.417	VV	309	3216	0.25%	0.008%
80	4.422	4.417	4.434	VV	289	2326	0.18%	0.006%
81	4.453	4.434	4.469	VV	417	5723	0.44%	0.014%
82	4.473	4.469	4.478	VV	265	1251	0.10%	0.003%
83	4.514	4.478	4.531	VV	938	14062	1.07%	0.035%
84	4.553	4.531	4.575	VV	524	8985	0.69%	0.022%
85	4.589	4.575	4.614	VV	438	6580	0.50%	0.016%
86	4.627	4.614	4.656	VV	325	5799	0.44%	0.014%
87	4.683	4.656	4.717	VV	5175	65917	5.03%	0.164%
88	4.721	4.717	4.736	VV	587	6178	0.47%	0.015%
89	4.749	4.736	4.783	VV	638	13685	1.04%	0.034%

rteres

90	4.801	4.783	4.845	VV	796	16200	1.24%	0.040%
91	4.856	4.845	4.862	VV	289	2298	0.18%	0.006%
92	4.866	4.862	4.894	VV	568	4420	0.34%	0.011%
93	4.941	4.894	4.964	VV	457	12416	0.95%	0.031%
94	4.968	4.964	4.974	VV	308	1894	0.14%	0.005%
95	4.979	4.974	5.003	VV	399	5145	0.39%	0.013%
96	5.027	5.003	5.059	VV	603	11615	0.89%	0.029%
97	5.097	5.059	5.143	VV	617	21047	1.61%	0.052%
98	5.144	5.143	5.156	VV	278	1693	0.13%	0.004%
99	5.175	5.156	5.212	VV	520	11161	0.85%	0.028%
100	5.221	5.212	5.252	VV	375	7637	0.58%	0.019%
101	5.269	5.252	5.287	VV	546	7738	0.59%	0.019%
102	5.294	5.287	5.327	VV	417	7653	0.58%	0.019%
103	5.340	5.327	5.380	VV	432	8885	0.68%	0.022%
104	5.400	5.380	5.415	VV	240	2677	0.20%	0.007%
105	5.420	5.415	5.425	VV	154	656	0.05%	0.002%
106	5.437	5.425	5.448	VV	219	1903	0.15%	0.005%
107	5.473	5.448	5.496	VV	490	10009	0.76%	0.025%
108	5.502	5.496	5.524	VV	409	5764	0.44%	0.014%
109	5.538	5.524	5.550	VV	314	3128	0.24%	0.008%
110	5.560	5.550	5.613	VV	177	5148	0.39%	0.013%
111	5.626	5.613	5.638	PV	254	2262	0.17%	0.006%
112	5.662	5.638	5.687	VV	1127	16088	1.23%	0.040%
113	5.690	5.687	5.697	VV	240	1133	0.09%	0.003%
114	5.742	5.697	5.805	VV	3444	69937	5.34%	0.174%
115	5.808	5.805	5.812	VV	434	1880	0.14%	0.005%
116	5.842	5.812	5.883	VV	551	17329	1.32%	0.043%
117	5.890	5.883	5.895	VV	289	1688	0.13%	0.004%
118	5.927	5.895	5.942	VV	625	10158	0.78%	0.025%
119	5.971	5.942	5.998	VV	541	13386	1.02%	0.033%
120	6.002	5.998	6.018	VV	300	3303	0.25%	0.008%
121	6.040	6.018	6.063	VV	440	7498	0.57%	0.019%
122	6.070	6.063	6.087	VV	251	2550	0.19%	0.006%
123	6.096	6.087	6.102	VV	249	1462	0.11%	0.004%
124	6.107	6.102	6.112	VV	163	758	0.06%	0.002%
125	6.138	6.112	6.159	VV	289	5237	0.40%	0.013%
126	6.176	6.159	6.182	VV	332	3066	0.23%	0.008%
127	6.189	6.182	6.208	VV	384	5060	0.39%	0.013%
128	6.236	6.208	6.305	VV	2597	59776	4.56%	0.149%
129	6.310	6.305	6.318	VV	423	2957	0.23%	0.007%
130	6.335	6.318	6.369	VV	643	12535	0.96%	0.031%
131	6.385	6.369	6.393	VV	538	6356	0.49%	0.016%
132	6.411	6.393	6.435	VV	633	11955	0.91%	0.030%
133	6.437	6.435	6.443	VV	379	1112	0.08%	0.003%
134	6.463	6.443	6.477	VV	337	5372	0.41%	0.013%
135	6.485	6.477	6.495	VV	466	3839	0.29%	0.010%
136	6.500	6.495	6.504	VV	333	1544	0.12%	0.004%
137	6.509	6.504	6.524	VV	334	2900	0.22%	0.007%
138	6.541	6.524	6.578	VV	735	14027	1.07%	0.035%
139	6.595	6.578	6.632	VV	534	10583	0.81%	0.026%
140	6.638	6.632	6.643	VV	321	1639	0.13%	0.004%
141	6.646	6.643	6.675	VV	321	4156	0.32%	0.010%

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142	6.695	6.675	6.731	VV	1144	16279	1.24%	0.040%
143	6.733	6.731	6.740	VV	170	818	0.06%	0.002%
144	6.743	6.740	6.753	VV	197	905	0.07%	0.002%
145	6.758	6.753	6.764	VV	124	656	0.05%	0.002%
146	6.796	6.764	6.804	VV	396	5535	0.42%	0.014%
147	6.818	6.804	6.833	VV	478	6473	0.49%	0.016%
148	6.850	6.833	6.910	VV	1019	21363	1.63%	0.053%
149	6.916	6.910	6.945	VV	271	3227	0.25%	0.008%
150	6.955	6.945	6.963	VV	189	1556	0.12%	0.004%
151	6.980	6.963	6.998	VV	289	3746	0.29%	0.009%
152	7.023	6.998	7.048	VV	448	7910	0.60%	0.020%
153	7.052	7.048	7.066	VV	252	1613	0.12%	0.004%
154	7.070	7.066	7.076	VV	173	792	0.06%	0.002%
155	7.086	7.076	7.090	VV	226	1738	0.13%	0.004%
156	7.095	7.090	7.101	VV	311	1603	0.12%	0.004%
157	7.107	7.101	7.121	VV	244	2240	0.17%	0.006%
158	7.126	7.121	7.133	VV	192	1031	0.08%	0.003%
159	7.155	7.133	7.166	VV	227	3177	0.24%	0.008%
160	7.170	7.166	7.183	VV	198	1431	0.11%	0.004%
161	7.231	7.183	7.252	VV	552	16191	1.24%	0.040%
162	7.272	7.252	7.291	VV	444	7688	0.59%	0.019%
163	7.294	7.291	7.299	VV	197	843	0.06%	0.002%
164	7.338	7.299	7.364	VV	1954	37140	2.83%	0.092%
165	7.376	7.364	7.399	VV	1267	19385	1.48%	0.048%
166	7.418	7.399	7.452	VV	1897	28242	2.16%	0.070%
167	7.472	7.452	7.509	VV	2622	40952	3.13%	0.102%
168	7.519	7.509	7.561	VV	576	12498	0.95%	0.031%
169	7.566	7.561	7.572	VV	279	1755	0.13%	0.004%
170	7.585	7.572	7.609	VV	451	7217	0.55%	0.018%
171	7.647	7.609	7.675	VV	1924	28695	2.19%	0.071%
172	7.683	7.675	7.686	VV	331	1933	0.15%	0.005%
173	7.691	7.686	7.712	VV	340	4263	0.33%	0.011%
174	7.726	7.712	7.753	VV	381	6548	0.50%	0.016%
175	7.767	7.753	7.788	VV	290	4480	0.34%	0.011%
176	7.826	7.788	7.854	VV	507	9628	0.73%	0.024%
177	7.868	7.854	7.874	PV	180	1739	0.13%	0.004%
178	7.878	7.874	7.890	VV	169	1242	0.09%	0.003%
179	7.931	7.890	7.969	VV	884	14725	1.12%	0.037%
180	7.992	7.969	8.011	VV	329	4591	0.35%	0.011%
181	8.020	8.011	8.046	VV	189	2104	0.16%	0.005%
182	8.079	8.046	8.090	VV	852	11298	0.86%	0.028%
183	8.101	8.090	8.124	VV	1107	15996	1.22%	0.040%
184	8.130	8.124	8.149	VV	565	6258	0.48%	0.016%
185	8.156	8.149	8.162	VV	355	2436	0.19%	0.006%
186	8.164	8.162	8.168	VV	350	916	0.07%	0.002%
187	8.181	8.168	8.189	VV	338	3914	0.30%	0.010%
188	8.196	8.189	8.200	VV	289	1613	0.12%	0.004%
189	8.223	8.200	8.237	VV	850	13105	1.00%	0.033%
190	8.242	8.237	8.269	VV	776	10903	0.83%	0.027%
191	8.278	8.269	8.294	VV	530	5901	0.45%	0.015%
192	8.300	8.294	8.317	VV	272	3021	0.23%	0.008%
193	8.350	8.317	8.391	VV	1826	34696	2.65%	0.086%
194	8.407	8.391	8.422	VV	587	9021	0.69%	0.022%

195	8.453	8.422	8.470	VV	2793	37567	2.87%	0.093%
196	8.483	8.470	8.503	VV	1649	25214	1.92%	0.063%
197	8.530	8.503	8.591	VV	3013	53159	4.06%	0.132%
198	8.639	8.591	8.672	VV	3545	75889	5.79%	0.189%
199	8.683	8.672	8.714	VV	1086	16514	1.26%	0.041%
200	8.733	8.714	8.762	VV	736	12218	0.93%	0.030%
201	8.778	8.762	8.812	VV	539	7475	0.57%	0.019%
202	8.835	8.812	8.847	VV	390	5658	0.43%	0.014%
203	8.862	8.847	8.877	VV	308	4552	0.35%	0.011%
204	8.890	8.877	8.911	VV	510	7008	0.53%	0.017%
205	8.937	8.911	8.971	VV	5125	71210	5.43%	0.177%
206	8.988	8.971	9.006	VV	1252	19722	1.51%	0.049%
207	9.009	9.006	9.036	VV	967	14898	1.14%	0.037%
208	9.073	9.036	9.109	VV	2457	46753	3.57%	0.116%
209	9.126	9.109	9.139	VV	593	8582	0.65%	0.021%
210	9.145	9.139	9.161	VV	585	6612	0.50%	0.016%
211	9.183	9.161	9.204	VV	1721	24329	1.86%	0.060%
212	9.221	9.204	9.246	VV	2029	31585	2.41%	0.079%
213	9.252	9.246	9.269	VV	894	10714	0.82%	0.027%
214	9.277	9.269	9.294	VV	723	9255	0.71%	0.023%
215	9.306	9.294	9.337	VV	763	13619	1.04%	0.034%
216	9.361	9.337	9.381	VV	4109	53442	4.08%	0.133%
217	9.397	9.381	9.448	VV	1302	22205	1.69%	0.055%
218	9.453	9.448	9.467	VV	177	1299	0.10%	0.003%
219	9.477	9.467	9.488	VV	135	1026	0.08%	0.003%
220	9.510	9.488	9.530	VV	1409	16344	1.25%	0.041%
221	9.546	9.530	9.582	VV	870	12052	0.92%	0.030%
222	9.595	9.582	9.615	VV	379	4633	0.35%	0.012%
223	9.647	9.615	9.676	VV	1416	22750	1.74%	0.057%
224	9.700	9.676	9.710	VV	897	12414	0.95%	0.031%
225	9.735	9.710	9.790	VV	4101	83515	6.37%	0.208%
226	9.812	9.790	9.842	VV	2184	37926	2.89%	0.094%
227	9.882	9.842	9.909	VV	2339	52846	4.03%	0.131%
228	9.914	9.909	9.924	VV	834	7335	0.56%	0.018%
229	9.942	9.924	9.960	VV	1550	24304	1.85%	0.060%
230	9.977	9.960	9.989	VV	1771	21105	1.61%	0.052%
231	10.013	9.989	10.126	VV	57298	918574	70.10%	2.284%
232	10.146	10.126	10.205	VV	5882	135658	10.35%	0.337%
233	10.218	10.205	10.237	VV	1544	25516	1.95%	0.063%
234	10.250	10.237	10.281	VV	1611	27770	2.12%	0.069%
235	10.322	10.281	10.397	VV	912	32791	2.50%	0.082%
236	10.423	10.397	10.442	PV	258	3618	0.28%	0.009%
237	10.485	10.442	10.514	VV	5544	75045	5.73%	0.187%
238	10.534	10.514	10.566	VV	2119	33607	2.56%	0.084%
239	10.592	10.566	10.606	VV	1680	25470	1.94%	0.063%
240	10.621	10.606	10.646	VV	2246	35610	2.72%	0.089%
241	10.663	10.646	10.712	VV	1793	31901	2.43%	0.079%
242	10.736	10.712	10.778	VV	1801	36695	2.80%	0.091%
243	10.805	10.778	10.852	VV	2860	67019	5.11%	0.167%
244	10.887	10.852	10.905	VV	5139	82707	6.31%	0.206%
245	10.908	10.905	10.926	VV	2575	23468	1.79%	0.058%
246	10.959	10.926	11.014	VV	5998	147762	11.28%	0.367%

247	11.015	11.014	11.027	VV	900	5921	0.45%	0.015%
248	11.043	11.027	11.060	VV	1060	13324	1.02%	0.033%
249	11.081	11.060	11.097	VV	621	9350	0.71%	0.023%
250	11.111	11.097	11.117	VV	778	6889	0.53%	0.017%
251	11.142	11.117	11.201	VV	73220	992295	75.72%	2.468%
252	11.221	11.201	11.308	VV	13827	260573	19.88%	0.648%
253	11.312	11.308	11.327	VV	696	7213	0.55%	0.018%
254	11.341	11.327	11.380	VV	698	12387	0.95%	0.031%
255	11.402	11.380	11.425	PV	628	9415	0.72%	0.023%
256	11.450	11.425	11.480	VV	3746	62188	4.75%	0.155%
257	11.503	11.480	11.525	VV	702	17133	1.31%	0.043%
258	11.545	11.525	11.565	VV	993	17655	1.35%	0.044%
259	11.593	11.565	11.612	VV	5256	65690	5.01%	0.163%
260	11.633	11.612	11.649	VV	740	13029	0.99%	0.032%
261	11.676	11.649	11.712	VV	6129	101123	7.72%	0.251%
262	11.746	11.712	11.769	VV	1573	25435	1.94%	0.063%
263	11.796	11.769	11.824	VV	1866	33125	2.53%	0.082%
264	11.857	11.824	11.897	VV	1821	45578	3.48%	0.113%
265	11.904	11.897	11.924	VV	373	4195	0.32%	0.010%
266	11.950	11.924	11.966	VV	14846	173357	13.23%	0.431%
267	11.981	11.966	12.029	VV	17567	257328	19.64%	0.640%
268	12.063	12.029	12.081	VV	11012	187811	14.33%	0.467%
269	12.099	12.081	12.114	VV	12870	161337	12.31%	0.401%
270	12.130	12.114	12.179	VV	13726	196945	15.03%	0.490%
271	12.205	12.179	12.218	PV	704	10638	0.81%	0.026%
272	12.266	12.218	12.303	VV	5578	104361	7.96%	0.260%
273	12.326	12.303	12.404	VV	6664	168766	12.88%	0.420%
274	12.425	12.404	12.470	VV	6868	111943	8.54%	0.278%
275	12.486	12.470	12.497	VV	1585	20413	1.56%	0.051%
276	12.524	12.497	12.556	VV	55241	666109	50.83%	1.656%
277	12.570	12.556	12.604	VV	3056	62638	4.78%	0.156%
278	12.626	12.604	12.638	VV	1422	25905	1.98%	0.064%
279	12.676	12.638	12.692	VV	3561	77150	5.89%	0.192%
280	12.696	12.692	12.714	VV	2867	27499	2.10%	0.068%
281	12.745	12.714	12.791	VV	4575	100118	7.64%	0.249%
282	12.817	12.791	12.833	VV	5225	80852	6.17%	0.201%
283	12.854	12.833	12.874	VV	13324	185184	14.13%	0.460%
284	12.912	12.874	12.944	VV	9567	234684	17.91%	0.584%
285	12.971	12.944	13.032	VV	102288	1310413	100.00%	3.259%
286	13.049	13.032	13.054	VV	941	10308	0.79%	0.026%
287	13.072	13.054	13.093	VV	1410	25715	1.96%	0.064%
288	13.131	13.093	13.144	VV	3317	69008	5.27%	0.172%
289	13.159	13.144	13.176	VV	5212	69097	5.27%	0.172%
290	13.191	13.176	13.243	VV	4257	103312	7.88%	0.257%
291	13.270	13.243	13.307	VV	99838	1182650	90.25%	2.941%
292	13.327	13.307	13.346	VV	11222	160409	12.24%	0.399%
293	13.362	13.346	13.389	VV	7291	104101	7.94%	0.259%
294	13.407	13.389	13.417	VV	2007	25146	1.92%	0.063%
295	13.446	13.417	13.466	VV	3672	70832	5.41%	0.176%
296	13.480	13.466	13.504	VV	2739	40895	3.12%	0.102%
297	13.524	13.504	13.536	VV	4987	58108	4.43%	0.144%
298	13.549	13.536	13.582	VV	5271	100484	7.67%	0.250%
299	13.604	13.582	13.637	VV	3376	64135	4.89%	0.159%

300	13.668	13.637	13.682	VV	2850	53658	4.09%	0.133%
301	13.694	13.682	13.712	VV	2842	42065	3.21%	0.105%
302	13.735	13.712	13.780	VV	8291	179835	13.72%	0.447%
303	13.807	13.780	13.829	VV	37759	478077	36.48%	1.189%
304	13.864	13.829	13.913	VV	14512	305741	23.33%	0.760%
305	13.932	13.913	13.951	VV	2273	36558	2.79%	0.091%
306	13.974	13.951	13.991	VV	6033	88037	6.72%	0.219%
307	14.012	13.991	14.032	VV	10791	154226	11.77%	0.384%
308	14.051	14.032	14.084	VV	5227	111218	8.49%	0.277%
309	14.114	14.084	14.125	VV	6809	110493	8.43%	0.275%
310	14.141	14.125	14.164	VV	10774	160681	12.26%	0.400%
311	14.183	14.164	14.198	VV	8718	119858	9.15%	0.298%
312	14.221	14.198	14.254	VV	58398	733219	55.95%	1.823%
313	14.268	14.254	14.295	VV	2314	37652	2.87%	0.094%
314	14.343	14.295	14.387	VV	1970	65035	4.96%	0.162%
315	14.395	14.387	14.401	VV	809	5648	0.43%	0.014%
316	14.404	14.401	14.414	VV	660	4301	0.33%	0.011%
317	14.455	14.414	14.467	VV	1450	26916	2.05%	0.067%
318	14.474	14.467	14.489	VV	1289	14045	1.07%	0.035%
319	14.510	14.489	14.526	VV	2538	39721	3.03%	0.099%
320	14.574	14.526	14.589	VV	3480	101141	7.72%	0.252%
321	14.613	14.589	14.656	VV	9120	157800	12.04%	0.392%
322	14.678	14.656	14.696	VV	5121	82644	6.31%	0.206%
323	14.705	14.696	14.730	VV	3294	50034	3.82%	0.124%
324	14.738	14.730	14.756	VV	1974	24828	1.89%	0.062%
325	14.783	14.756	14.822	VV	8844	177667	13.56%	0.442%
326	14.845	14.822	14.876	VV	13790	223681	17.07%	0.556%
327	14.919	14.876	14.949	VV	8433	193585	14.77%	0.481%
328	14.966	14.949	14.981	VV	2652	40017	3.05%	0.100%
329	15.016	14.981	15.038	VV	88479	1252772	95.60%	3.115%
330	15.055	15.038	15.096	VV	39346	516427	39.41%	1.284%
331	15.115	15.096	15.130	VV	3007	41149	3.14%	0.102%
332	15.159	15.130	15.179	VV	41255	576716	44.01%	1.434%
333	15.200	15.179	15.241	VV	47340	723764	55.23%	1.800%
334	15.260	15.241	15.286	VV	3045	59392	4.53%	0.148%
335	15.320	15.286	15.376	VV	8084	183754	14.02%	0.457%
336	15.411	15.376	15.447	VV	2464	63026	4.81%	0.157%
337	15.477	15.447	15.492	VV	4284	70826	5.40%	0.176%
338	15.506	15.492	15.573	VV	3478	97185	7.42%	0.242%
339	15.604	15.573	15.687	VV	40785	717858	54.78%	1.785%
340	15.698	15.687	15.713	VV	1240	15576	1.19%	0.039%
341	15.742	15.713	15.777	VV	5168	108936	8.31%	0.271%
342	15.809	15.777	15.816	VV	4598	75666	5.77%	0.188%
343	15.837	15.816	15.857	VV	13334	191639	14.62%	0.477%
344	15.875	15.857	15.906	VV	6133	97261	7.42%	0.242%
345	15.923	15.906	15.932	VV	1833	24704	1.89%	0.061%
346	15.944	15.932	15.958	VV	2239	31456	2.40%	0.078%
347	15.997	15.958	16.042	VV	6168	186989	14.27%	0.465%
348	16.071	16.042	16.102	VV	3670	73889	5.64%	0.184%
349	16.122	16.102	16.145	VV	2428	38844	2.96%	0.097%
350	16.161	16.145	16.198	VV	2471	35019	2.67%	0.087%
351	16.243	16.198	16.266	VV	4681	95866	7.32%	0.238%

352	16.280	16.266	16.292	VV	2081	23898	1.82%	0.059%
353	16.305	16.292	16.329	VV	1373	20348	1.55%	0.051%
354	16.338	16.329	16.351	VV	719	5023	0.38%	0.012%
355	16.372	16.351	16.391	PV	615	8492	0.65%	0.021%
356	16.436	16.391	16.454	PV	2614	42522	3.24%	0.106%
357	16.474	16.454	16.497	VV	2994	44915	3.43%	0.112%
358	16.516	16.497	16.527	VV	2567	31210	2.38%	0.078%
359	16.540	16.527	16.567	VV	2851	44041	3.36%	0.110%
360	16.591	16.567	16.597	VV	2008	28855	2.20%	0.072%
361	16.625	16.597	16.658	VV	6933	156161	11.92%	0.388%
362	16.678	16.658	16.699	VV	3277	67816	5.18%	0.169%
363	16.726	16.699	16.745	VV	49581	699113	53.35%	1.738%
364	16.753	16.745	16.786	VV	18882	238858	18.23%	0.594%
365	16.809	16.786	16.837	VV	12565	181035	13.82%	0.450%
366	16.858	16.837	16.880	VV	8003	113542	8.66%	0.282%
367	16.891	16.880	16.913	VV	2063	29057	2.22%	0.072%
368	16.919	16.913	16.945	VV	1167	14048	1.07%	0.035%
369	16.950	16.945	16.961	VV	710	5164	0.39%	0.013%
370	17.015	16.961	17.024	VV	5425	91659	6.99%	0.228%
371	17.049	17.024	17.079	VV	31087	430860	32.88%	1.071%
372	17.108	17.079	17.153	VV	35288	509308	38.87%	1.266%
373	17.168	17.153	17.173	VV	1531	16633	1.27%	0.041%
374	17.209	17.173	17.234	VV	11052	203545	15.53%	0.506%
375	17.242	17.234	17.257	VV	3879	48875	3.73%	0.122%
376	17.270	17.257	17.298	VV	3792	56289	4.30%	0.140%
377	17.356	17.298	17.397	VV	3069	106830	8.15%	0.266%
378	17.413	17.397	17.440	VV	1960	33328	2.54%	0.083%
379	17.477	17.440	17.482	VV	3186	52755	4.03%	0.131%
380	17.488	17.482	17.543	VV	3339	69054	5.27%	0.172%
381	17.568	17.543	17.592	VV	4541	79359	6.06%	0.197%
382	17.611	17.592	17.623	VV	3636	57370	4.38%	0.143%
383	17.645	17.623	17.682	VV	7276	136487	10.42%	0.339%
384	17.700	17.682	17.712	VV	2009	29188	2.23%	0.073%
385	17.728	17.712	17.746	VV	2557	37160	2.84%	0.092%
386	17.772	17.746	17.800	VV	4148	83042	6.34%	0.206%
387	17.810	17.800	17.856	VV	2112	32485	2.48%	0.081%
388	17.875	17.856	17.891	VV	842	11881	0.91%	0.030%
389	17.894	17.891	17.902	VV	551	2663	0.20%	0.007%
390	17.925	17.902	17.962	VV	861	17247	1.32%	0.043%
391	17.983	17.962	17.998	VV	848	8901	0.68%	0.022%
392	18.053	17.998	18.062	PV	2426	56867	4.34%	0.141%
393	18.083	18.062	18.132	VV	5120	113442	8.66%	0.282%
394	18.137	18.132	18.142	VV	742	3525	0.27%	0.009%
395	18.179	18.142	18.214	VV	4695	118848	9.07%	0.296%
396	18.230	18.214	18.246	VV	3526	56146	4.28%	0.140%
397	18.266	18.246	18.297	VV	4164	98931	7.55%	0.246%
398	18.314	18.297	18.331	VV	3456	56071	4.28%	0.139%
399	18.336	18.331	18.340	VV	1725	8827	0.67%	0.022%
400	18.358	18.340	18.366	VV	1935	27704	2.11%	0.069%
401	18.395	18.366	18.417	VV	8359	149575	11.41%	0.372%
402	18.449	18.417	18.470	VV	24329	436335	33.30%	1.085%
403	18.490	18.470	18.555	VV	23305	578028	44.11%	1.437%
404	18.570	18.555	18.587	VV	2896	47111	3.60%	0.117%

405	18.620	18.587	18.637	VV	6492	126308	9.64%	0.314%
406	18.651	18.637	18.675	VV	5374	94171	7.19%	0.234%
407	18.681	18.675	18.703	VV	3083	36257	2.77%	0.090%
408	18.742	18.703	18.805	VV	23112	363704	27.75%	0.904%
409	18.823	18.805	18.841	VV	1494	24989	1.91%	0.062%
410	18.844	18.841	18.850	VV	1057	5443	0.42%	0.014%
411	18.879	18.850	18.901	VV	5863	109590	8.36%	0.273%
412	18.918	18.901	18.961	VV	5401	95037	7.25%	0.236%
413	18.979	18.961	18.991	PV	993	12322	0.94%	0.031%
414	19.022	18.991	19.051	VV	3900	83112	6.34%	0.207%
415	19.056	19.051	19.100	VV	2184	50770	3.87%	0.126%
416	19.106	19.100	19.122	VV	1092	12657	0.97%	0.031%
417	19.180	19.122	19.225	VV	2652	83695	6.39%	0.208%
418	19.278	19.225	19.304	VV	19935	379644	28.97%	0.944%
419	19.320	19.304	19.375	VV	9300	214624	16.38%	0.534%
420	19.428	19.375	19.436	VV	4235	99964	7.63%	0.249%
421	19.439	19.436	19.483	VV	3958	75419	5.76%	0.188%
422	19.517	19.483	19.536	VV	2738	69196	5.28%	0.172%
423	19.568	19.536	19.586	VV	3122	82612	6.30%	0.205%
424	19.612	19.586	19.636	VV	3482	85569	6.53%	0.213%
425	19.706	19.636	19.729	VV	6789	224308	17.12%	0.558%
426	19.733	19.729	19.746	VV	4343	44705	3.41%	0.111%
427	19.772	19.746	19.778	VV	5914	97794	7.46%	0.243%
428	19.782	19.778	19.789	VV	5773	34780	2.65%	0.086%
429	19.813	19.789	19.847	VV	6998	202601	15.46%	0.504%
430	19.908	19.847	19.949	VV	11167	440753	33.63%	1.096%
431	19.980	19.949	20.012	VV	12635	348581	26.60%	0.867%
432	20.063	20.012	20.102	VV	12421	521892	39.83%	1.298%
433	20.108	20.102	20.157	VV	8480	238011	18.16%	0.592%
434	20.189	20.157	20.236	VV	8598	342464	26.13%	0.852%
435	20.292	20.236	20.341	VV	15204	650016	49.60%	1.616%
436	20.361	20.341	20.370	VV	10202	167465	12.78%	0.416%
437	20.391	20.370	20.411	VV	11360	259785	19.82%	0.646%
438	20.416	20.411	20.421	VV	10238	60586	4.62%	0.151%
439	20.447	20.421	20.485	VV	11684	401493	30.64%	0.998%
440	20.567	20.485	20.581	VV	11594	624611	47.67%	1.553%
441	20.610	20.581	20.636	VV	13253	393589	30.04%	0.979%
442	20.652	20.636	20.658	VV	12027	155517	11.87%	0.387%
443	20.676	20.658	20.691	VV	12341	239740	18.30%	0.596%
444	20.709	20.691	20.727	VV	12625	266024	20.30%	0.662%
445	20.803	20.727	20.836	VV	15140	891894	68.06%	2.218%
446	20.840	20.836	20.861	VV	13770	204912	15.64%	0.510%
447	20.866	20.861	20.896	VV	13223	262416	20.03%	0.653%
448	20.907	20.896	20.921	VV	12658	185111	14.13%	0.460%
449	20.925	20.921	20.936	VV	12365	111537	8.51%	0.277%
450	20.948	20.936	20.957	VV	12188	151633	11.57%	0.377%
451	20.961	20.957	20.981	VV	12206	168384	12.85%	0.419%
452	20.997	20.981	21.031	VV	11742	347377	26.51%	0.864%
453	21.055	21.031	21.060	VV	11124	185738	14.17%	0.462%
454	21.066	21.060	21.103	VV	11089	272763	20.82%	0.678%
455	21.108	21.103	21.114	VV	10137	69740	5.32%	0.173%
456	21.125	21.114	21.133	VV	10224	111060	8.48%	0.276%

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457	21.139	21.133	21.144	VV	9875	66913	5.11%	0.166%
458	21.148	21.144	21.164	VV	9594	112958	8.62%	0.281%
459	21.190	21.164	21.258	VV	9809	492270	37.57%	1.224%
460	21.262	21.258	21.287	VV	7808	133281	10.17%	0.331%
461	21.329	21.287	21.383	VV	8123	435045	33.20%	1.082%
462	21.387	21.383	21.391	VV	6894	32115	2.45%	0.080%
463	21.428	21.391	21.466	VV	7092	299196	22.83%	0.744%
464	21.491	21.466	21.522	VV	6105	197957	15.11%	0.492%
465	21.540	21.522	21.562	VV	5711	132347	10.10%	0.329%
466	21.621	21.562	21.671	VV	5841	334677	25.54%	0.832%
467	21.725	21.671	21.827	VV	4403	337315	25.74%	0.839%
468	21.849	21.827	21.941	VV	2394	109901	8.39%	0.273%
469	21.980	21.941	22.009	VV	760	26344	2.01%	0.066%
470	22.061	22.009	22.077	VV	483	17920	1.37%	0.045%
471	22.082	22.077	22.094	VV	427	2689	0.21%	0.007%

Sum of corrected areas: 40214206

FG032725.M Wed Apr 09 00:58:16 2025

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

Report of Analysis

Client:	Portal Partners Tri-Venture	Date Collected:	04/06/25
Project:	Amtrak Sawtooth Bridges 2025	Date Received:	04/07/25
Client Sample ID:	B-149-SB02	SDG No.:	Q1746
Lab Sample ID:	Q1746-03	Matrix:	SOIL
Analytical Method:	8015D TPH	% Solid:	84.8 Decanted:
Sample Wt/Vol:	30.03 Units: g	Final Vol:	1 mL
Soil Aliquot Vol:	uL	Test:	TPH GC
Extraction Type:		Injection Volume :	
GPC Factor :	PH :		
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
FG015658.D	1	04/08/25 08:55	04/08/25 15:30	PB167510

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
PHC	Petroleum Hydrocarbons	6530		452	3340	ug/kg
SURROGATES						
16416-32-3	TETRACOSANE-d50	18.3		37 - 130	92%	SPK: 20

Comments:

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

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

Quantitation Report (QT Reviewed)

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG040825\
Data File : FG015658.D
Signal(s) : FID1A.ch
Acq On : 08 Apr 2025 15:30
Operator : YP\AJ
Sample : Q1746-03
Misc :
ALS Vial : 26 Sample Multiplier: 1

Instrument :
FID_G
ClientSampleId :
B-149-SB02

Integration File: autoint1.e
Quant Time: Apr 09 00:30:00 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG032725.M
Quant Title :
QLast Update : Thu Mar 27 11:04:29 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...	15.015	2096320	18.298 ug/ml
Target Compounds			

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

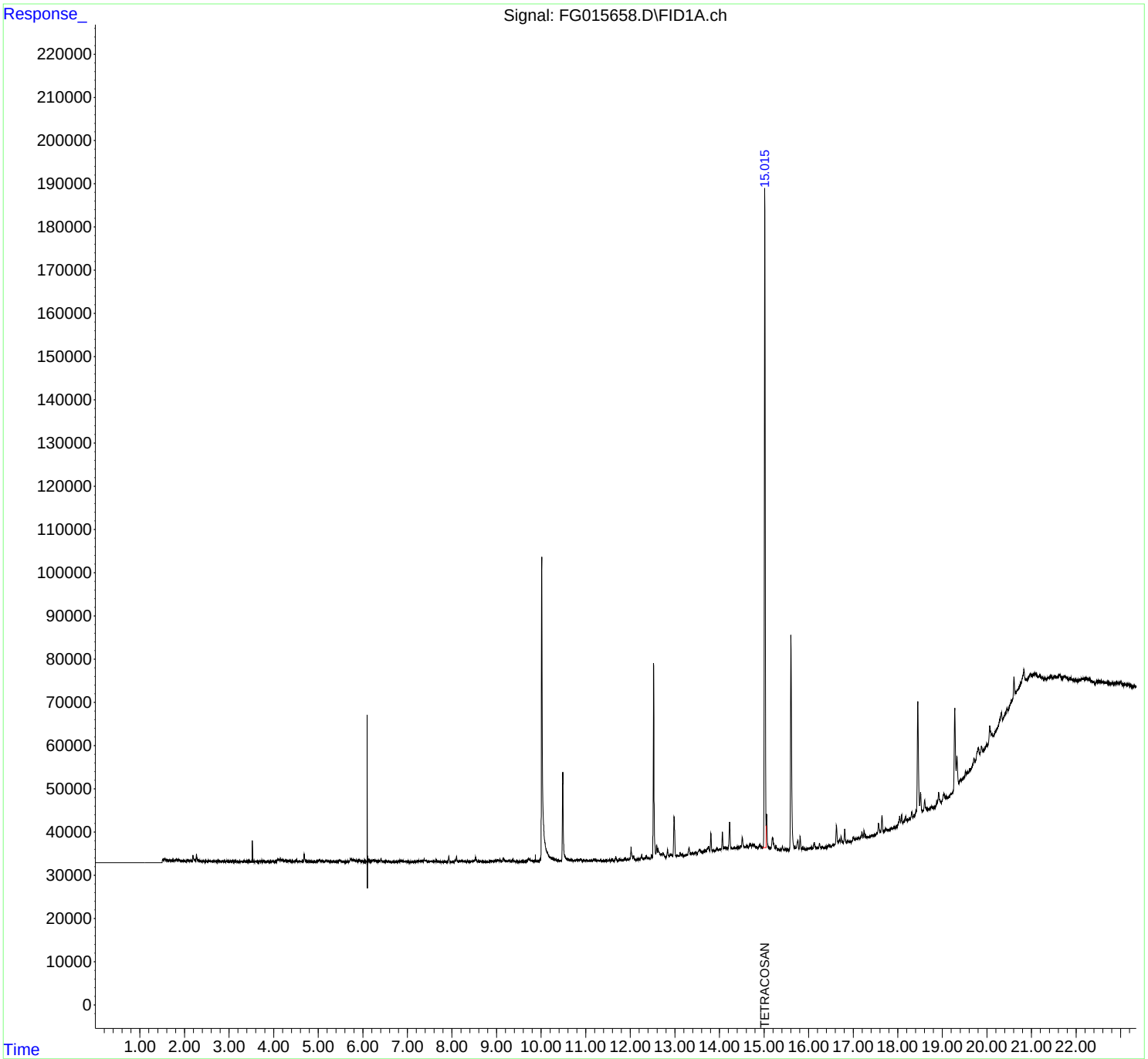
Quantitation Report (QT Reviewed)

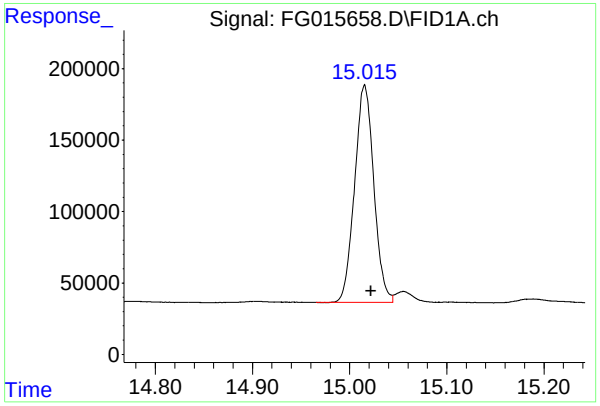
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG040825\
Data File : FG015658.D
Signal(s) : FID1A.ch
Acq On : 08 Apr 2025 15:30
Operator : YP\AJ
Sample : Q1746-03
Misc :
ALS Vial : 26 Sample Multiplier: 1

Instrument :
FID_G
ClientSampleId :
B-149-SB02

Integration File: autoint1.e
Quant Time: Apr 09 00:30:00 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG032725.M
Quant Title :
QLast Update : Thu Mar 27 11:04:29 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.: 15.015 min
Delta R.T.: -0.007 mi
Response: 2096320
Conc: 18.30 ug/m

Instrument :
FID_G
ClientSampleId :
B-149-SB02

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG040825\
Data File : FG015658.D
Signal(s) : FID1A.ch
Acq On : 08 Apr 2025 15:30
Sample : Q1746-03
Misc :
ALS Vial : 26 Sample Multiplier: 1

Integration File: Sample.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG032725.M
Title :

Signal : FID1A.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	1.825	1.800	1.862	BV	364	3009	0.13%	0.014%
2	1.875	1.862	1.903	PV	414	3687	0.16%	0.017%
3	1.907	1.903	1.922	PV	123	689	0.03%	0.003%
4	1.927	1.922	1.959	VV	194	1762	0.08%	0.008%
5	1.962	1.959	1.968	VV	70	474	0.02%	0.002%
6	1.981	1.968	2.025	VV	166	3270	0.14%	0.015%
7	2.034	2.025	2.044	PV	76	688	0.03%	0.003%
8	2.059	2.044	2.085	PV	273	4109	0.18%	0.019%
9	2.088	2.085	2.119	VV	198	2312	0.10%	0.011%
10	2.122	2.119	2.132	VV	172	801	0.04%	0.004%
11	2.143	2.132	2.147	VV	184	1009	0.04%	0.005%
12	2.154	2.147	2.162	VV	157	899	0.04%	0.004%
13	2.169	2.162	2.175	VV	113	677	0.03%	0.003%
14	2.189	2.175	2.224	VV	1450	19978	0.88%	0.094%
15	2.228	2.224	2.245	VV	303	2610	0.12%	0.012%
16	2.267	2.245	2.304	VV	1724	22696	1.00%	0.106%
17	2.309	2.304	2.335	VV	312	3753	0.17%	0.018%
18	2.351	2.335	2.371	VV	178	2935	0.13%	0.014%
19	2.378	2.371	2.385	VV	109	740	0.03%	0.003%
20	2.390	2.385	2.397	VV	142	858	0.04%	0.004%
21	2.402	2.397	2.431	VV	180	1894	0.08%	0.009%
22	2.436	2.431	2.463	VV	131	1721	0.08%	0.008%
23	2.467	2.463	2.485	PV	126	883	0.04%	0.004%
24	2.489	2.485	2.503	VV	102	645	0.03%	0.003%
25	2.539	2.503	2.544	VV	149	2190	0.10%	0.010%
26	2.554	2.544	2.561	VV	149	991	0.04%	0.005%
27	2.564	2.561	2.578	VV	135	861	0.04%	0.004%
28	2.603	2.578	2.611	VV	180	2085	0.09%	0.010%
29	2.618	2.611	2.630	VV	153	1266	0.06%	0.006%
30	2.637	2.630	2.645	VV	113	800	0.04%	0.004%
31	2.652	2.645	2.664	VV	179	986	0.04%	0.005%
32	2.683	2.664	2.698	VV	172	2289	0.10%	0.011%
33	2.703	2.698	2.724	VV	149	1499	0.07%	0.007%
34	2.731	2.724	2.740	VV	114	770	0.03%	0.004%
35	2.742	2.740	2.747	VV	142	384	0.02%	0.002%
36	2.768	2.747	2.786	PV	227	3019	0.13%	0.014%

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37	2.789	2.786	2.808	VV	189	1633	0.07%	0.008%
38	2.814	2.808	2.830	VV	157	1278	0.06%	0.006%
39	2.835	2.830	2.850	VV	157	1018	0.04%	0.005%
40	2.853	2.850	2.880	VV	176	1588	0.07%	0.007%
41	2.901	2.880	2.916	VV	183	2116	0.09%	0.010%
42	2.934	2.916	2.940	VV	134	1276	0.06%	0.006%
43	2.947	2.940	2.953	VV	144	1040	0.05%	0.005%
44	2.958	2.953	2.991	VV	152	3348	0.15%	0.016%
45	3.007	2.991	3.013	VV	242	1517	0.07%	0.007%
46	3.019	3.013	3.026	VV	155	726	0.03%	0.003%
47	3.031	3.026	3.037	VV	122	725	0.03%	0.003%
48	3.040	3.037	3.059	VV	167	1363	0.06%	0.006%
49	3.064	3.059	3.087	VV	151	1641	0.07%	0.008%
50	3.090	3.087	3.098	VV	109	545	0.02%	0.003%
51	3.102	3.098	3.106	PV	102	372	0.02%	0.002%
52	3.127	3.106	3.134	VV	170	1922	0.08%	0.009%
53	3.138	3.134	3.190	VV	215	5002	0.22%	0.023%
54	3.194	3.190	3.216	VV	181	1700	0.07%	0.008%
55	3.222	3.216	3.241	VV	181	1850	0.08%	0.009%
56	3.252	3.241	3.277	VV	185	2711	0.12%	0.013%
57	3.281	3.277	3.286	VV	113	488	0.02%	0.002%
58	3.290	3.286	3.317	VV	106	1879	0.08%	0.009%
59	3.322	3.317	3.329	VV	136	782	0.03%	0.004%
60	3.334	3.329	3.376	VV	182	2936	0.13%	0.014%
61	3.381	3.376	3.387	VV	128	724	0.03%	0.003%
62	3.391	3.387	3.419	VV	107	1979	0.09%	0.009%
63	3.430	3.419	3.451	VV	197	2323	0.10%	0.011%
64	3.455	3.451	3.509	VV	192	3564	0.16%	0.017%
65	3.513	3.509	3.531	VV	339	4773	0.21%	0.022%
66	3.535	3.531	3.540	VV	147	633	0.03%	0.003%
67	3.551	3.540	3.579	VV	154	2152	0.09%	0.010%
68	3.584	3.579	3.604	VV	136	1356	0.06%	0.006%
69	3.610	3.604	3.636	VV	167	1751	0.08%	0.008%
70	3.639	3.636	3.649	VV	227	837	0.04%	0.004%
71	3.655	3.649	3.670	VV	281	1038	0.05%	0.005%
72	3.697	3.670	3.711	VV	193	2489	0.11%	0.012%
73	3.716	3.711	3.721	VV	187	887	0.04%	0.004%
74	3.730	3.721	3.756	VV	341	2302	0.10%	0.011%
75	3.773	3.756	3.778	VV	159	1268	0.06%	0.006%
76	3.783	3.778	3.825	VV	133	2795	0.12%	0.013%
77	3.838	3.825	3.857	VV	144	1834	0.08%	0.009%
78	3.861	3.857	3.871	VV	166	826	0.04%	0.004%
79	3.879	3.871	3.889	VV	135	869	0.04%	0.004%
80	3.893	3.889	3.902	VV	76	485	0.02%	0.002%
81	3.906	3.902	3.911	VV	111	357	0.02%	0.002%
82	3.915	3.911	3.929	VV	139	863	0.04%	0.004%
83	3.935	3.929	3.954	VV	137	1441	0.06%	0.007%
84	3.959	3.954	3.969	VV	140	922	0.04%	0.004%
85	3.986	3.969	4.018	VV	172	3009	0.13%	0.014%
86	4.095	4.018	4.117	VV	700	18646	0.82%	0.087%
87	4.122	4.117	4.134	VV	513	4748	0.21%	0.022%
88	4.152	4.134	4.160	VV	553	7788	0.34%	0.037%
89	4.164	4.160	4.172	VV	530	3449	0.15%	0.016%

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90	4.177	4.172	4.231	VV	457	13552	0.60%	0.064%
91	4.239	4.231	4.255	VV	359	4300	0.19%	0.020%
92	4.262	4.255	4.281	VV	289	4283	0.19%	0.020%
93	4.291	4.281	4.321	VV	301	5943	0.26%	0.028%
94	4.325	4.321	4.344	VV	298	3622	0.16%	0.017%
95	4.349	4.344	4.391	VV	374	6164	0.27%	0.029%
96	4.394	4.391	4.404	VV	208	1476	0.07%	0.007%
97	4.406	4.404	4.425	VV	223	2163	0.10%	0.010%
98	4.432	4.425	4.445	VV	148	1667	0.07%	0.008%
99	4.451	4.445	4.456	VV	179	1016	0.04%	0.005%
100	4.466	4.456	4.480	VV	231	2374	0.10%	0.011%
101	4.485	4.480	4.492	VV	179	1085	0.05%	0.005%
102	4.517	4.492	4.533	VV	503	7360	0.32%	0.035%
103	4.539	4.533	4.563	VV	204	3043	0.13%	0.014%
104	4.584	4.563	4.594	VV	233	3328	0.15%	0.016%
105	4.599	4.594	4.605	VV	186	1191	0.05%	0.006%
106	4.611	4.605	4.621	VV	213	1490	0.07%	0.007%
107	4.640	4.621	4.665	VV	252	4855	0.21%	0.023%
108	4.685	4.665	4.724	VV	1868	25638	1.13%	0.120%
109	4.728	4.724	4.771	VV	258	4843	0.21%	0.023%
110	4.774	4.771	4.786	VV	148	1266	0.06%	0.006%
111	4.799	4.786	4.822	VV	189	3178	0.14%	0.015%
112	4.826	4.822	4.842	VV	170	1466	0.06%	0.007%
113	4.852	4.842	4.859	VV	216	1379	0.06%	0.006%
114	4.864	4.859	4.868	VV	165	639	0.03%	0.003%
115	4.879	4.868	4.897	VV	149	1556	0.07%	0.007%
116	4.905	4.897	4.947	VV	149	2764	0.12%	0.013%
117	5.025	4.947	5.056	VV	486	18085	0.80%	0.085%
118	5.062	5.056	5.107	VV	252	6399	0.28%	0.030%
119	5.116	5.107	5.127	VV	249	2018	0.09%	0.009%
120	5.133	5.127	5.145	VV	193	1508	0.07%	0.007%
121	5.153	5.145	5.157	VV	194	1033	0.05%	0.005%
122	5.175	5.157	5.191	VV	432	5613	0.25%	0.026%
123	5.194	5.191	5.202	VV	263	1315	0.06%	0.006%
124	5.206	5.202	5.211	VV	192	829	0.04%	0.004%
125	5.218	5.211	5.251	VV	190	2768	0.12%	0.013%
126	5.263	5.251	5.277	VV	183	1830	0.08%	0.009%
127	5.289	5.277	5.313	VV	177	2740	0.12%	0.013%
128	5.318	5.313	5.326	VV	141	859	0.04%	0.004%
129	5.336	5.326	5.351	VV	240	2586	0.11%	0.012%
130	5.360	5.351	5.394	VV	151	2746	0.12%	0.013%
131	5.398	5.394	5.419	VV	104	1454	0.06%	0.007%
132	5.423	5.419	5.428	VV	126	350	0.02%	0.002%
133	5.435	5.428	5.439	VV	84	348	0.02%	0.002%
134	5.474	5.439	5.521	PV	465	11060	0.49%	0.052%
135	5.537	5.521	5.544	VV	160	1566	0.07%	0.007%
136	5.546	5.544	5.551	VV	148	427	0.02%	0.002%
137	5.556	5.551	5.561	VV	131	576	0.03%	0.003%
138	5.601	5.561	5.626	VV	157	3235	0.14%	0.015%
139	5.630	5.626	5.645	VV	175	812	0.04%	0.004%
140	5.660	5.645	5.697	VV	259	4010	0.18%	0.019%
141	5.722	5.697	5.727	VV	667	6912	0.30%	0.032%

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142	5.741	5.727	5.767	VV	744	13960	0.62%	0.066%
143	5.772	5.767	5.776	VV	467	2355	0.10%	0.011%
144	5.780	5.776	5.838	VV	530	14819	0.65%	0.070%
145	5.842	5.838	5.845	VV	379	1286	0.06%	0.006%
146	5.847	5.845	5.871	VV	357	4367	0.19%	0.020%
147	5.887	5.871	5.901	VV	332	4762	0.21%	0.022%
148	5.926	5.901	5.954	VV	461	9852	0.43%	0.046%
149	5.959	5.954	5.974	VV	278	2679	0.12%	0.013%
150	5.984	5.974	6.017	VV	336	5793	0.26%	0.027%
151	6.028	6.017	6.035	VV	282	2458	0.11%	0.012%
152	6.038	6.035	6.066	VV	259	3897	0.17%	0.018%
153	6.071	6.066	6.077	VV	151	912	0.04%	0.004%
154	6.081	6.077	6.124	VV	353	33300	1.47%	0.156%
155	6.133	6.124	6.177	VV	545	8835	0.39%	0.041%
156	6.230	6.177	6.266	VV	515	18656	0.82%	0.088%
157	6.277	6.266	6.311	VV	314	7080	0.31%	0.033%
158	6.319	6.311	6.363	VV	275	7121	0.31%	0.033%
159	6.408	6.363	6.449	VV	876	17734	0.78%	0.083%
160	6.473	6.449	6.516	VV	170	5816	0.26%	0.027%
161	6.542	6.516	6.573	VV	252	6243	0.28%	0.029%
162	6.582	6.573	6.644	VV	242	4782	0.21%	0.022%
163	6.661	6.644	6.669	VV	85	857	0.04%	0.004%
164	6.696	6.669	6.720	VV	243	3762	0.17%	0.018%
165	6.822	6.720	6.857	VV	353	13982	0.62%	0.066%
166	6.859	6.857	6.945	VV	342	11383	0.50%	0.053%
167	6.956	6.945	7.020	VV	204	6964	0.31%	0.033%
168	7.023	7.020	7.083	VV	187	3177	0.14%	0.015%
169	7.106	7.083	7.131	PV	101	2083	0.09%	0.010%
170	7.179	7.131	7.193	VV	144	3329	0.15%	0.016%
171	7.246	7.193	7.313	VV	381	17700	0.78%	0.083%
172	7.321	7.313	7.357	VV	303	6498	0.29%	0.030%
173	7.378	7.357	7.401	VV	631	10733	0.47%	0.050%
174	7.418	7.401	7.466	VV	477	10751	0.47%	0.050%
175	7.480	7.466	7.509	VV	272	5527	0.24%	0.026%
176	7.520	7.509	7.557	VV	260	5717	0.25%	0.027%
177	7.599	7.557	7.620	VV	231	7142	0.31%	0.034%
178	7.648	7.620	7.703	VV	431	10977	0.48%	0.052%
179	7.721	7.703	7.748	VV	166	3688	0.16%	0.017%
180	7.765	7.748	7.783	VV	157	2315	0.10%	0.011%
181	7.801	7.783	7.811	VV	141	1709	0.08%	0.008%
182	7.830	7.811	7.843	VV	122	1760	0.08%	0.008%
183	7.860	7.843	7.872	VV	115	1514	0.07%	0.007%
184	7.930	7.872	7.981	VV	1404	20546	0.91%	0.096%
185	8.075	7.981	8.085	VV	416	9374	0.41%	0.044%
186	8.103	8.085	8.133	VV	1382	18004	0.79%	0.084%
187	8.135	8.133	8.146	VV	233	1328	0.06%	0.006%
188	8.181	8.146	8.204	VV	275	7410	0.33%	0.035%
189	8.222	8.204	8.261	VV	297	7308	0.32%	0.034%
190	8.277	8.261	8.298	VV	232	4050	0.18%	0.019%
191	8.314	8.298	8.334	VV	171	2997	0.13%	0.014%
192	8.351	8.334	8.390	VV	264	5411	0.24%	0.025%
193	8.436	8.390	8.469	VV	279	8352	0.37%	0.039%
194	8.501	8.469	8.513	VV	411	6936	0.31%	0.033%

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195	8.532	8.513	8.616	VV	1201	23434	1.03%	0.110%
196	8.630	8.616	8.670	VV	224	5903	0.26%	0.028%
197	8.678	8.670	8.706	VV	194	3167	0.14%	0.015%
198	8.723	8.706	8.738	VV	143	1892	0.08%	0.009%
199	8.770	8.738	8.802	VV	187	4309	0.19%	0.020%
200	8.862	8.802	8.880	PV	312	7735	0.34%	0.036%
201	8.894	8.880	8.917	VV	398	5130	0.23%	0.024%
202	8.967	8.917	8.993	VV	407	10474	0.46%	0.049%
203	9.024	8.993	9.058	VV	511	14079	0.62%	0.066%
204	9.073	9.058	9.113	VV	496	8621	0.38%	0.040%
205	9.149	9.113	9.213	VV	974	25141	1.11%	0.118%
206	9.225	9.213	9.247	VV	254	3797	0.17%	0.018%
207	9.282	9.247	9.316	VV	360	10343	0.46%	0.049%
208	9.328	9.316	9.339	VV	147	1705	0.08%	0.008%
209	9.363	9.339	9.433	VV	682	13511	0.60%	0.063%
210	9.449	9.433	9.494	VV	143	2783	0.12%	0.013%
211	9.520	9.494	9.532	VV	83	1236	0.05%	0.006%
212	9.553	9.532	9.580	VV	199	2980	0.13%	0.014%
213	9.596	9.580	9.620	VV	131	1897	0.08%	0.009%
214	9.627	9.620	9.633	VV	87	547	0.02%	0.003%
215	9.648	9.633	9.680	VV	175	2690	0.12%	0.013%
216	9.711	9.680	9.730	VV	692	12195	0.54%	0.057%
217	9.745	9.730	9.778	VV	738	13315	0.59%	0.062%
218	9.785	9.778	9.805	VV	298	3914	0.17%	0.018%
219	9.828	9.805	9.847	VV	298	5513	0.24%	0.026%
220	9.858	9.847	9.883	VV	217	4687	0.21%	0.022%
221	9.899	9.883	9.948	VV	237	5374	0.24%	0.025%
222	9.978	9.948	9.990	PV	869	10883	0.48%	0.051%
223	10.015	9.990	10.133	VV	70713	1235728	54.49%	5.798%
224	10.145	10.133	10.240	VV	2276	82141	3.62%	0.385%
225	10.252	10.240	10.280	VV	825	16616	0.73%	0.078%
226	10.296	10.280	10.397	VV	606	27808	1.23%	0.130%
227	10.420	10.397	10.450	VV	250	6249	0.28%	0.029%
228	10.487	10.450	10.580	VV	20709	310289	13.68%	1.456%
229	10.595	10.580	10.646	VV	606	17662	0.78%	0.083%
230	10.664	10.646	10.683	VV	447	7300	0.32%	0.034%
231	10.703	10.683	10.750	VV	435	9793	0.43%	0.046%
232	10.770	10.750	10.800	VV	333	7894	0.35%	0.037%
233	10.815	10.800	10.837	VV	333	6474	0.29%	0.030%
234	10.845	10.837	10.863	VV	349	5148	0.23%	0.024%
235	10.888	10.863	10.931	VV	555	12359	0.54%	0.058%
236	10.958	10.931	10.996	VV	293	7764	0.34%	0.036%
237	11.019	10.996	11.071	VV	308	7572	0.33%	0.036%
238	11.084	11.071	11.092	VV	119	910	0.04%	0.004%
239	11.124	11.092	11.152	VV	315	4988	0.22%	0.023%
240	11.179	11.152	11.252	VV	497	15182	0.67%	0.071%
241	11.265	11.252	11.305	VV	173	3765	0.17%	0.018%
242	11.320	11.305	11.390	VV	188	5723	0.25%	0.027%
243	11.412	11.390	11.431	PV	198	2728	0.12%	0.013%
244	11.461	11.431	11.503	VV	162	3718	0.16%	0.017%
245	11.527	11.503	11.552	VV	281	4614	0.20%	0.022%
246	11.593	11.552	11.622	VV	459	8781	0.39%	0.041%

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247	11.673	11.622	11.733	VV	1002	16133	0.71%	0.076%
248	11.753	11.733	11.773	PV	521	6172	0.27%	0.029%
249	11.788	11.773	11.807	VV	365	4349	0.19%	0.020%
250	11.866	11.807	11.880	VV	491	8926	0.39%	0.042%
251	11.889	11.880	11.930	VV	354	6735	0.30%	0.032%
252	11.944	11.930	11.962	VV	330	3906	0.17%	0.018%
253	12.017	11.962	12.060	VV	2934	58809	2.59%	0.276%
254	12.077	12.060	12.136	VV	1014	14457	0.64%	0.068%
255	12.260	12.136	12.300	PV	704	19724	0.87%	0.093%
256	12.358	12.300	12.409	VV	889	22325	0.98%	0.105%
257	12.423	12.409	12.443	VV	255	3709	0.16%	0.017%
258	12.472	12.443	12.491	VV	974	13400	0.59%	0.063%
259	12.522	12.491	12.573	VV	45183	556869	24.55%	2.613%
260	12.591	12.573	12.607	VV	3098	44003	1.94%	0.206%
261	12.621	12.607	12.677	VV	2447	61682	2.72%	0.289%
262	12.690	12.677	12.707	VV	1066	17228	0.76%	0.081%
263	12.735	12.707	12.800	VV	1252	38994	1.72%	0.183%
264	12.835	12.800	12.875	VV	1977	40147	1.77%	0.188%
265	12.907	12.875	12.947	VV	827	25031	1.10%	0.117%
266	12.982	12.947	13.032	VV	9522	174136	7.68%	0.817%
267	13.054	13.032	13.095	VV	543	15703	0.69%	0.074%
268	13.117	13.095	13.146	VV	1107	19633	0.87%	0.092%
269	13.164	13.146	13.196	VV	707	14807	0.65%	0.069%
270	13.232	13.196	13.253	VV	417	11850	0.52%	0.056%
271	13.317	13.253	13.380	VV	1987	68997	3.04%	0.324%
272	13.401	13.380	13.422	VV	771	17542	0.77%	0.082%
273	13.438	13.422	13.449	VV	795	11068	0.49%	0.052%
274	13.470	13.449	13.500	VV	1028	22856	1.01%	0.107%
275	13.550	13.500	13.613	VV	1660	74404	3.28%	0.349%
276	13.651	13.613	13.669	VV	1214	32714	1.44%	0.154%
277	13.685	13.669	13.706	VV	1301	24387	1.08%	0.114%
278	13.755	13.706	13.779	VV	2159	67382	2.97%	0.316%
279	13.806	13.779	13.839	VV	5193	88059	3.88%	0.413%
280	13.852	13.839	13.858	VV	1152	12284	0.54%	0.058%
281	13.876	13.858	13.897	VV	1202	25712	1.13%	0.121%
282	13.955	13.897	13.987	VV	1430	68587	3.02%	0.322%
283	14.064	13.987	14.090	VV	5191	124683	5.50%	0.585%
284	14.110	14.090	14.128	VV	1734	35503	1.57%	0.167%
285	14.144	14.128	14.183	VV	1694	48357	2.13%	0.227%
286	14.226	14.183	14.297	VV	7391	184896	8.15%	0.868%
287	14.332	14.297	14.374	VV	1509	64109	2.83%	0.301%
288	14.381	14.374	14.386	VV	1387	10056	0.44%	0.047%
289	14.399	14.386	14.447	VV	1511	51565	2.27%	0.242%
290	14.474	14.447	14.486	VV	1822	37110	1.64%	0.174%
291	14.510	14.486	14.570	VV	3695	109997	4.85%	0.516%
292	14.605	14.570	14.652	VV	1710	73046	3.22%	0.343%
293	14.695	14.652	14.722	VV	2090	73712	3.25%	0.346%
294	14.743	14.722	14.767	VV	1981	47819	2.11%	0.224%
295	14.777	14.767	14.830	VV	1967	59217	2.61%	0.278%
296	14.837	14.830	14.859	VV	1285	19750	0.87%	0.093%
297	14.905	14.859	14.977	VV	1857	92634	4.08%	0.435%
298	15.015	14.977	15.093	VV	152351	2268001	100.00%	10.642%
299	15.102	15.093	15.147	VV	1223	31950	1.41%	0.150%

300	15.189	15.147	15.247	VV	3322	107449	4.74%	0.504%
301	15.265	15.247	15.340	VV	1443	40188	1.77%	0.189%
302	15.355	15.340	15.387	VV	418	9417	0.42%	0.044%
303	15.412	15.387	15.443	VV	1129	20236	0.89%	0.095%
304	15.467	15.443	15.493	VV	377	8730	0.38%	0.041%
305	15.513	15.493	15.562	VV	336	8694	0.38%	0.041%
306	15.602	15.562	15.710	VV	49471	848739	37.42%	3.983%
307	15.757	15.710	15.782	VV	2358	52266	2.30%	0.245%
308	15.809	15.782	15.844	VV	3050	44931	1.98%	0.211%
309	15.870	15.844	15.953	VV	586	15372	0.68%	0.072%
310	16.031	15.953	16.049	PV	360	10893	0.48%	0.051%
311	16.067	16.049	16.090	VV	473	6729	0.30%	0.032%
312	16.125	16.090	16.183	VV	1418	30009	1.32%	0.141%
313	16.208	16.183	16.217	VV	205	3038	0.13%	0.014%
314	16.243	16.217	16.287	VV	1193	19248	0.85%	0.090%
315	16.307	16.287	16.367	VV	241	4971	0.22%	0.023%
316	16.382	16.367	16.392	VV	138	1340	0.06%	0.006%
317	16.446	16.392	16.501	PV	391	13369	0.59%	0.063%
318	16.623	16.501	16.666	VV	4592	94130	4.15%	0.442%
319	16.691	16.666	16.709	VV	1212	21882	0.96%	0.103%
320	16.728	16.709	16.776	VV	1892	35026	1.54%	0.164%
321	16.809	16.776	16.849	VV	3382	51873	2.29%	0.243%
322	16.877	16.849	16.900	VV	373	8085	0.36%	0.038%
323	16.920	16.900	16.944	VV	188	3108	0.14%	0.015%
324	17.005	16.944	17.068	PV	781	28428	1.25%	0.133%
325	17.081	17.068	17.085	VV	359	3673	0.16%	0.017%
326	17.125	17.085	17.142	VV	558	14002	0.62%	0.066%
327	17.195	17.142	17.219	VV	1610	31126	1.37%	0.146%
328	17.243	17.219	17.264	VV	1825	26105	1.15%	0.122%
329	17.275	17.264	17.305	VV	626	7790	0.34%	0.037%
330	17.568	17.305	17.613	PV	2382	48714	2.15%	0.229%
331	17.645	17.613	17.687	VV	3806	59656	2.63%	0.280%
332	17.733	17.687	17.766	PV	585	9946	0.44%	0.047%
333	17.930	17.766	17.957	VV	187	5064	0.22%	0.024%
334	18.041	17.957	18.063	PV	2089	45566	2.01%	0.214%
335	18.086	18.063	18.113	VV	2309	33247	1.47%	0.156%
336	18.176	18.113	18.210	VV	1417	36895	1.63%	0.173%
337	18.313	18.210	18.339	VV	1693	44262	1.95%	0.208%
338	18.359	18.339	18.380	VV	573	11477	0.51%	0.054%
339	18.408	18.380	18.416	VV	1658	24424	1.08%	0.115%
340	18.448	18.416	18.489	VV	26198	487357	21.49%	2.287%
341	18.510	18.489	18.554	VV	5223	100757	4.44%	0.473%
342	18.603	18.554	18.689	VV	2935	85760	3.78%	0.402%
343	18.763	18.689	18.773	VV	519	22110	0.97%	0.104%
344	18.782	18.773	18.812	VV	380	6293	0.28%	0.030%
345	18.825	18.812	18.835	VV	125	1285	0.06%	0.006%
346	18.917	18.835	18.973	PV	2867	81228	3.58%	0.381%
347	19.033	18.973	19.060	VV	1691	43665	1.93%	0.205%
348	19.079	19.060	19.110	VV	693	13687	0.60%	0.064%
349	19.194	19.110	19.206	PV	318	4054	0.18%	0.019%
350	19.278	19.206	19.307	VV	19174	355031	15.65%	1.666%
351	19.327	19.307	19.367	VV	7676	159842	7.05%	0.750%

rteres

352	19.411	19.367	19.428	VV	1611	53141	2.34%	0.249%
353	19.518	19.428	19.536	VV	2604	102490	4.52%	0.481%
354	19.559	19.536	19.575	VV	1903	42037	1.85%	0.197%
355	19.616	19.575	19.633	VV	2264	63464	2.80%	0.298%
356	19.708	19.633	19.728	VV	3875	149932	6.61%	0.704%
357	19.806	19.728	19.837	VV	5426	268382	11.83%	1.259%
358	19.879	19.837	19.901	VV	5039	161702	7.13%	0.759%
359	19.997	19.901	20.010	VV	4466	256341	11.30%	1.203%
360	20.063	20.010	20.098	VV	8086	306768	13.53%	1.439%
361	20.107	20.098	20.134	VV	5807	118545	5.23%	0.556%
362	20.324	20.134	20.357	VV	8720	863396	38.07%	4.051%
363	20.449	20.357	20.472	VV	8789	536867	23.67%	2.519%
364	20.607	20.472	20.644	VV	14490	1021255	45.03%	4.792%
365	20.678	20.644	20.689	VV	10897	287990	12.70%	1.351%
366	20.830	20.689	20.863	VV	14078	1249103	55.08%	5.861%
367	20.877	20.863	20.897	VV	11538	231786	10.22%	1.088%
368	20.968	20.897	21.017	VV	11765	822880	36.28%	3.861%
369	21.070	21.017	21.157	VV	11017	879419	38.78%	4.127%
370	21.187	21.157	21.323	VV	9676	856575	37.77%	4.019%
371	21.433	21.323	21.473	VV	7061	637732	28.12%	2.992%
372	21.484	21.473	21.493	VV	6348	75464	3.33%	0.354%
373	21.511	21.493	21.547	VV	6341	195685	8.63%	0.918%
374	21.554	21.547	21.587	VV	5827	135383	5.97%	0.635%
375	21.635	21.587	21.686	VV	5629	309872	13.66%	1.454%
376	21.749	21.686	21.835	VV	4381	342222	15.09%	1.606%
377	21.877	21.835	21.917	VV	2668	120915	5.33%	0.567%
378	21.941	21.917	21.971	VV	1636	50531	2.23%	0.237%
379	21.992	21.971	22.023	VV	1199	31622	1.39%	0.148%
380	22.056	22.023	22.073	VV	601	14695	0.65%	0.069%
381	22.078	22.073	22.087	VV	318	2096	0.09%	0.010%
382	22.090	22.087	22.096	VV	210	926	0.04%	0.004%

Sum of corrected areas: 21311487

FG032725.M Wed Apr 09 00:58:56 2025

CALIBRATION SUMMARY

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

TPH GC INITIAL CALIBRATION SUMMARY

Lab Name: Chemtech Contract: PORT06

ProjectID: Amtrak Sawtooth Bridges 2025

Lab Code: CHEM Case No.: Q1746 SAS No.: Q1746 SDG No.: Q1746

Calibration Sequence : FG032725		Test : TPH GC	
Concentration (PPM)	**Area Count**	**Reference Factor**	**File ID**
1700	202510102	119124	FG015564.D
850	97431427	114625	FG015565.D
340	39672736	116685	FG015566.D
170	20516512	120685	FG015567.D
85	9074544	106759	FG015568.D
AVG RF : 115576	**% RSD : 4.711**		**AVG RT : 15.021**

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

TPH GC CONTINUING CALIBRATION SUMMARY

50 PPM TRPH STD

Lab Name: Chemtech Contract: PORT06

ProjectID: Amtrak Sawtooth Bridges 2025

Lab Code: CHEM Case No.: Q1746 SAS No.: Q1746 SDG No.: Q1746

DataFile: FG015651.D Analyst Name: YP\AJ Analyst Date: 04-08-2025

Conc. (PPM)	Area Count	RF	Average RF	%D
850	95873167	112792	115576	2.409

Quantitation Report (QT Reviewed)

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG040825\
Data File : FG015651.D
Signal(s) : FID1A.ch
Acq On : 08 Apr 2025 11:13
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: Apr 09 00:27:51 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG032725.M
Quant Title :
QLast Update : Thu Mar 27 11:04:29 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	5775496	50.413 ug/ml
	Target Compounds			
1)	N-OCTANE	1.983	5504816	47.361 ug/ml
2)	N-DECANE	4.516	5950006	50.366 ug/ml
3)	N-DODECANE	6.699	6242847	51.413 ug/ml
4)	N-TETRADECANE	8.536	6304079	49.992 ug/ml
5)	N-HEXADECANE	10.152	6436147	49.987 ug/ml
6)	N-OCTADECANE	11.601	6602521	50.117 ug/ml
7)	N-EICOSANE	12.916	6520898	48.699 ug/ml
8)	N-DOCOSANE	14.119	6371134	49.029 ug/ml
10)	N-TETRACOSANE	15.226	6336847	48.923 ug/ml
11)	N-HEXACOSANE	16.251	6188174	48.621 ug/ml
12)	N-OCTACOSANE	17.205	6083634	48.668 ug/ml
13)	N-TRIACONTANE	18.095	6072325	48.511 ug/ml
14)	N-DOTRIACONTANE	18.929	5752607	48.473 ug/ml
15)	N-TETRATRIACONTANE	19.714	4938049	47.310 ug/ml
16)	N-HEXATRIACONTANE	20.454	3962175	45.207 ug/ml
17)	N-OCTATRIACONTANE	21.200	3394643	45.486 ug/ml
18)	N-TETRACONTANE	22.127	3212265	48.496 ug/ml

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

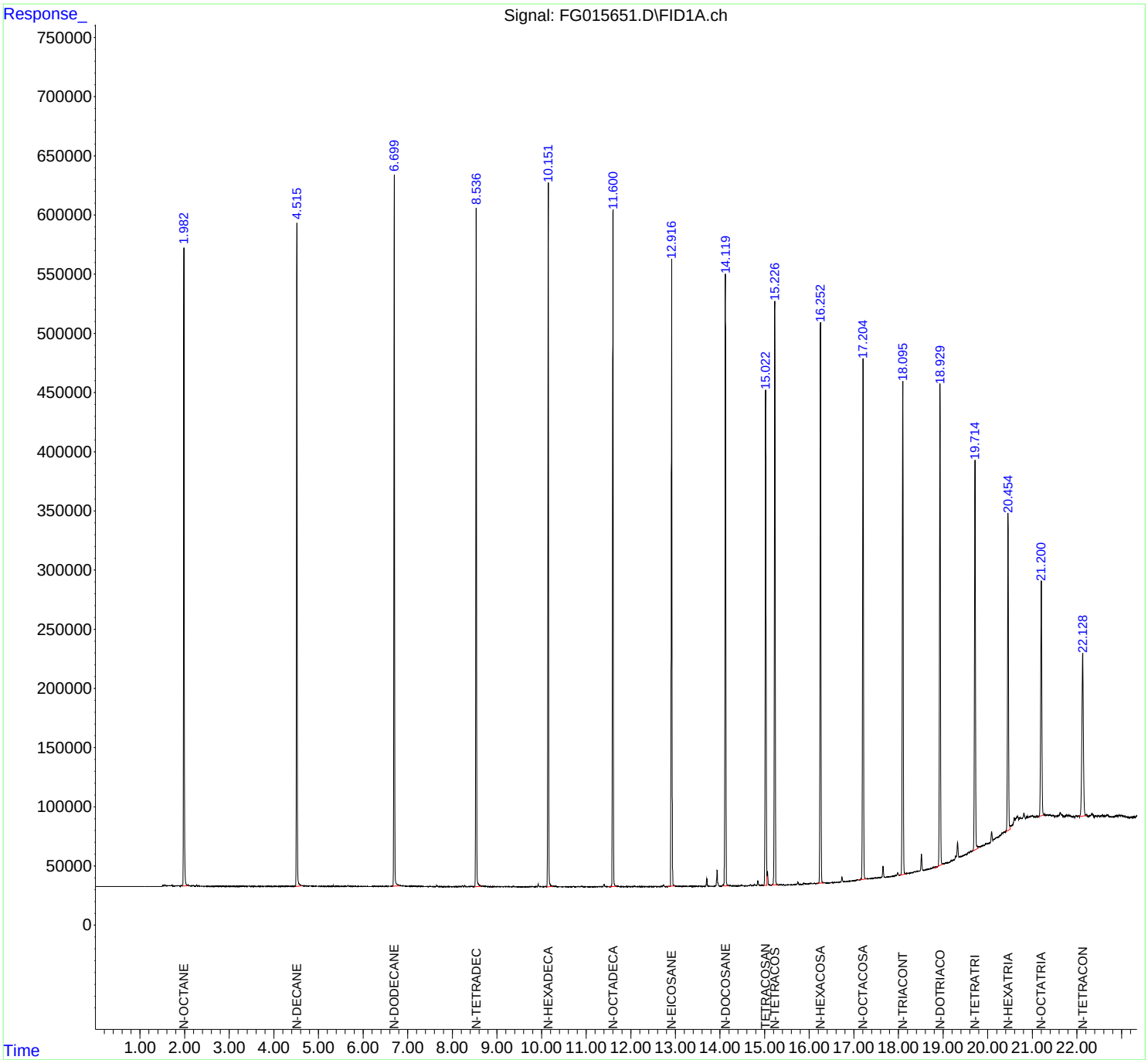
Quantitation Report (QT Reviewed)

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG040825\
Data File : FG015651.D
Signal(s) : FID1A.ch
Acq On : 08 Apr 2025 11:13
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: Apr 09 00:27:51 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG032725.M
Quant Title :
QLast Update : Thu Mar 27 11:04:29 2025
Response via : Initial Calibration
Integrator: ChemStation

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



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Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG040825\
Data File : FG015651.D
Signal(s) : FID1A.ch
Acq On : 08 Apr 2025 11:13
Sample : 50 PPM TRPH STD
Misc :
ALS Vial : 53 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG032725.M
Title :

Signal : FID1A.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	1.983	1.948	2.089	BB	538198	5504816	83.37%	5.416%
2	4.516	4.482	4.629	BB	560429	5950006	90.12%	5.854%
3	6.699	6.657	6.827	BB	599805	6242847	94.55%	6.142%
4	8.536	8.502	8.654	BB	572971	6304079	95.48%	6.202%
5	10.152	10.114	10.255	BB	595622	6436147	97.48%	6.332%
6	11.601	11.506	11.693	BB	569768	6602521	100.00%	6.495%
7	12.916	12.830	12.985	BB	528400	6520898	98.76%	6.415%
8	14.119	14.082	14.195	VB	515143	6371134	96.50%	6.268%
9	15.022	14.975	15.051	BV	415595	5775496	87.47%	5.682%
10	15.226	15.147	15.299	BB	492978	6336847	95.98%	6.234%
11	16.251	16.186	16.330	BB	469539	6188174	93.72%	6.088%
12	17.205	17.119	17.275	BB	438501	6083634	92.14%	5.985%
13	18.095	18.027	18.166	BB	416474	6072325	91.97%	5.974%
14	18.929	18.801	19.001	PB	406502	5752607	87.13%	5.659%
15	19.714	19.660	19.789	BV	328761	4938049	74.79%	4.858%
16	20.454	20.400	20.505	BV	267982	3962175	60.01%	3.898%
17	21.200	21.141	21.254	BV	197049	3394643	51.41%	3.340%
18	22.127	22.059	22.210	PV	137794	3212265	48.65%	3.160%

Sum of corrected areas: 101648663

FG032725.M Wed Apr 09 00:52:25 2025

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

TPH GC CONTINUING CALIBRATION SUMMARY

50 PPM TRPH STD

Lab Name: Chemtech Contract: PORT06

ProjectID: Amtrak Sawtooth Bridges 2025

Lab Code: CHEM Case No.: Q1746 SAS No.: Q1746 SDG No.: Q1746

DataFile: FG015662.D Analyst Name: YP\AJ Analyst Date: 04-08-2025

Conc. (PPM)	Area Count	RF	Average RF	%D
850	97789180	115046	115576	0.459

Quantitation Report (QT Reviewed)

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG040825\
Data File : FG015662.D
Signal(s) : FID1A.ch
Acq On : 08 Apr 2025 17:57
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: Apr 09 00:31:22 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG032725.M
Quant Title :
QLast Update : Thu Mar 27 11:04:29 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...	15.017	5978921	52.188 ug/ml
	Target Compounds			
1)	N-OCTANE	1.981	5549301	47.744 ug/ml
2)	N-DECANE	4.514	6015195	50.918 ug/ml
3)	N-DODECANE	6.697	6296222	51.852 ug/ml
4)	N-TETRADECANE	8.533	6362102	50.452 ug/ml
5)	N-HEXADECANE	10.148	6533360	50.742 ug/ml
6)	N-OCTADECANE	11.597	6734215	51.117 ug/ml
7)	N-EICOSANE	12.912	6719659	50.184 ug/ml
8)	N-DOCOSANE	14.115	6586614	50.687 ug/ml
10)	N-TETRACOSANE	15.222	6571504	50.735 ug/ml
11)	N-HEXACOSANE	16.247	6410246	50.365 ug/ml
12)	N-OCTACOSANE	17.200	6300013	50.399 ug/ml
13)	N-TRIACONTANE	18.089	6266598	50.063 ug/ml
14)	N-DOTRIACONTANE	18.924	5917139	49.859 ug/ml
15)	N-TETRATRIACONTANE	19.708	5004017	47.942 ug/ml
16)	N-HEXATRIACONTANE	20.448	3963370	45.220 ug/ml
17)	N-OCTATRIACONTANE	21.191	3411755	45.716 ug/ml
18)	N-TETRACONTANE	22.118	3147870	47.524 ug/ml

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

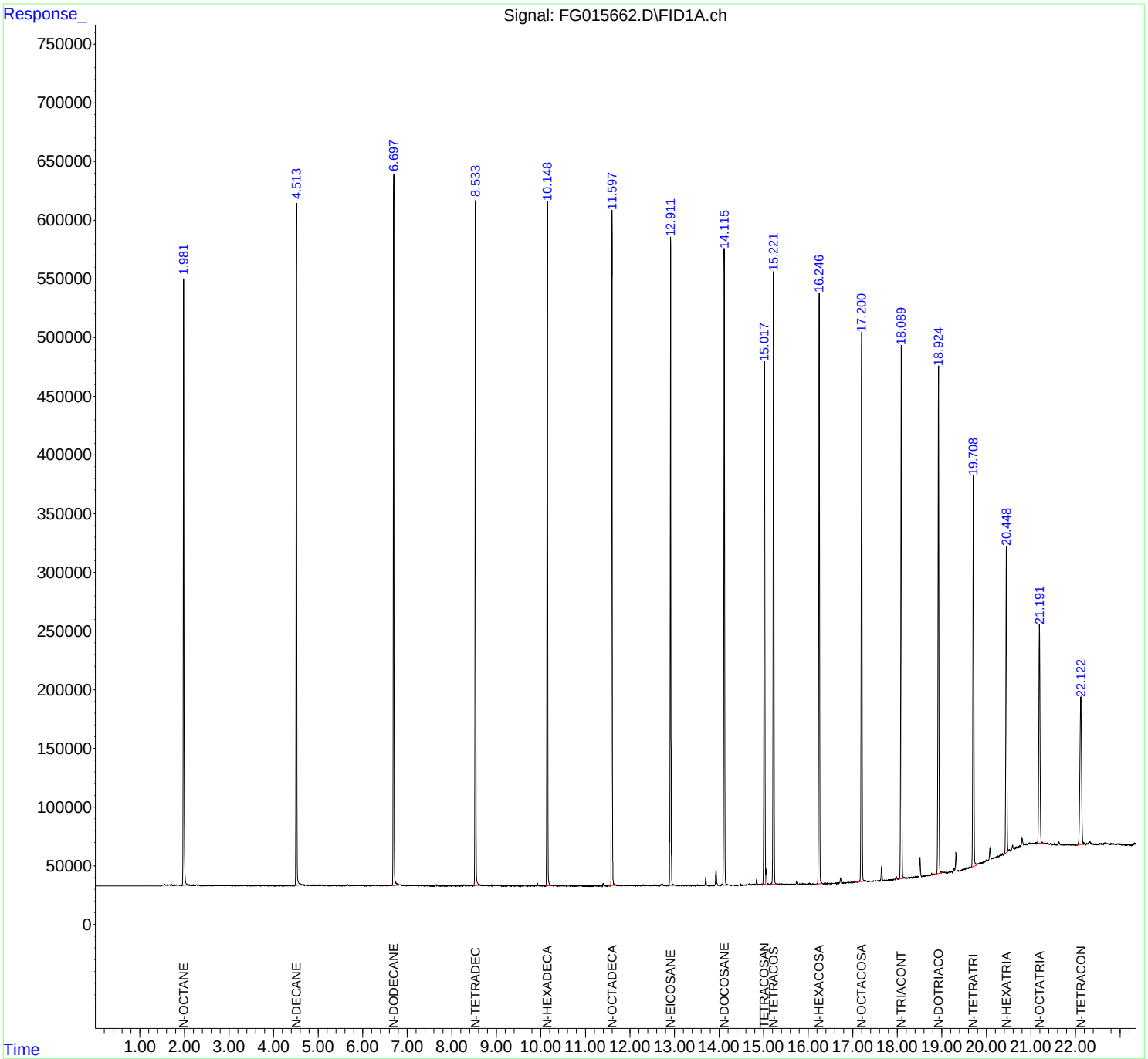
Quantitation Report (QT Reviewed)

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG040825\
Data File : FG015662.D
Signal(s) : FID1A.ch
Acq On : 08 Apr 2025 17:57
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: Apr 09 00:31:22 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG032725.M
Quant Title :
QLast Update : Thu Mar 27 11:04:29 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\FG040825\
Data File : FG015662.D
Signal(s) : FID1A.ch
Acq On : 08 Apr 2025 17:57
Sample : 50 PPM TRPH STD
Misc :
ALS Vial : 53 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG032725.M
Title :

Signal : FID1A.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	1.981	1.946	2.096	BB	516044	5549301	82.40%	5.348%
2	4.514	4.471	4.640	BB	580002	6015195	89.32%	5.797%
3	6.697	6.662	6.831	BB	605593	6296222	93.50%	6.068%
4	8.533	8.498	8.642	BB	582284	6362102	94.47%	6.131%
5	10.148	10.107	10.240	BB	583366	6533360	97.02%	6.296%
6	11.597	11.514	11.677	BB	575521	6734215	100.00%	6.490%
7	12.912	12.858	13.010	BB	551635	6719659	99.78%	6.476%
8	14.115	14.080	14.197	VB	542128	6586614	97.81%	6.347%
9	15.017	14.915	15.047	BV	446318	5978921	88.78%	5.762%
10	15.222	15.145	15.319	BB	520095	6571504	97.58%	6.333%
11	16.247	16.171	16.331	BB	497448	6410246	95.19%	6.177%
12	17.200	17.039	17.294	BB	466066	6300013	93.55%	6.071%
13	18.089	18.017	18.173	BB	454162	6266598	93.06%	6.039%
14	18.924	18.791	19.012	PV	432797	5917139	87.87%	5.702%
15	19.708	19.660	19.769	BV	332973	5004017	74.31%	4.822%
16	20.448	20.400	20.520	BB	258828	3963370	58.85%	3.819%
17	21.191	21.140	21.286	BB	186242	3411755	50.66%	3.288%
18	22.118	22.012	22.242	BB	124837	3147870	46.74%	3.034%

Sum of corrected areas: 103768102

FG032725.M Wed Apr 09 00:55:56 2025

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

Analytical Sequence

Client: Portal Partners Tri-Venture **SDG No.:** Q1746

Project: Amtrak Sawtooth Bridges 2025 **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 **15.021**

EPA SAMPLE NO.	LAB SAMPLE ID	DATE AND TIME ANALYZED	DATAFILE	RT	#
PIBLK01	I.BLK01	08 Apr 2025 10:01	FG015650.D	15.019	
50 PPM TRPH STD	50 PPM TRPH STD	08 Apr 2025 11:13	FG015651.D	15.022	
PB167510BL	PB167510BL	08 Apr 2025 12:50	FG015653.D	15.016	
PB167510BS	PB167510BS	08 Apr 2025 13:20	FG015654.D	15.016	
B-149-SB01	Q1746-01	08 Apr 2025 15:01	FG015657.D	14.966	
B-149-SB02	Q1746-03	08 Apr 2025 15:30	FG015658.D	15.015	
B-158-SB02MS	Q1744-03MS	08 Apr 2025 15:59	FG015659.D	14.965	
B-158-SB02MSD	Q1744-03MSD	08 Apr 2025 16:29	FG015660.D	15.015	
PIBLK02	I.BLK02	08 Apr 2025 16:58	FG015661.D	15.014	
50 PPM TRPH STD	50 PPM TRPH STD	08 Apr 2025 17:57	FG015662.D	15.017	

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

QC Limits	Lower Limit	Upper Limits
(± 0.10 minutes)	14.921	15.121

QC SAMPLE DATA

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

Report of Analysis

Client:	Portal Partners Tri-Venture	Date Collected:	
Project:	Amtrak Sawtooth Bridges 2025	Date Received:	
Client Sample ID:	PB167510BL	SDG No.:	Q1746
Lab Sample ID:	PB167510BL	Matrix:	SOIL
Analytical Method:	8015D TPH	% Solid:	100 Decanted:
Sample Wt/Vol:	30.01 Units: g	Final Vol:	1 mL
Soil Aliquot Vol:	uL	Test:	TPH GC
Extraction Type:		Injection Volume :	
GPC Factor :	PH :		
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
FG015653.D	1	04/08/25 08:55	04/08/25 12:50	PB167510

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	16.2		37 - 130	81%	SPK: 20

Comments:

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

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

Quantitation Report (QT Reviewed)

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG040825\
Data File : FG015653.D
Signal(s) : FID1A.ch
Acq On : 08 Apr 2025 12:50
Operator : YP\AJ
Sample : PB167510BL
Misc :
ALS Vial : 21 Sample Multiplier: 1

Instrument :
FID_G
ClientSampleId :
PB167510BL

Integration File: autoint1.e
Quant Time: Apr 09 00:28:31 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG032725.M
Quant Title :
QLast Update : Thu Mar 27 11:04:29 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...	15.016	1859144	16.228 ug/ml
Target Compounds			

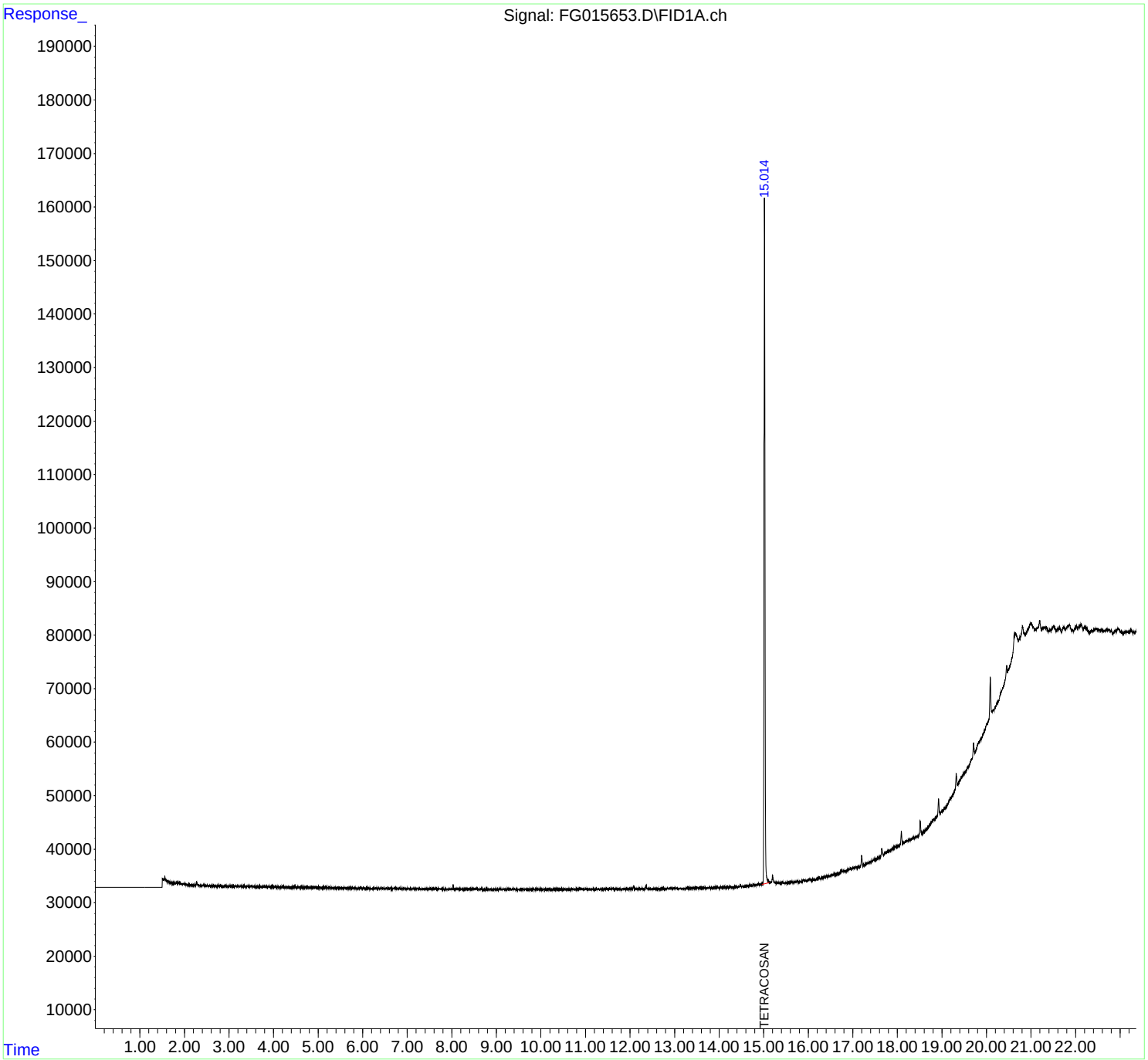
(f)=RT Delta > 1/2 Window (m)=manual int.

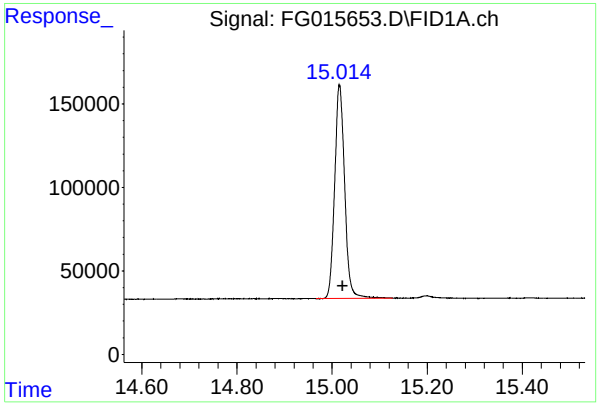
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG040825\
Data File : FG015653.D
Signal(s) : FID1A.ch
Acq On : 08 Apr 2025 12:50
Operator : YP\AJ
Sample : PB167510BL
Misc :
ALS Vial : 21 Sample Multiplier: 1

Instrument :
FID_G
ClientSampleId :
PB167510BL

Integration File: autoint1.e
Quant Time: Apr 09 00:28:31 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG032725.M
Quant Title :
QLast Update : Thu Mar 27 11:04:29 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.: 15.016 min
Delta R.T.: -0.007 mi
Response: 1859144
Conc: 16.23 ug/m

Instrument :
FID_G
ClientSampleId :
PB167510BL

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG040825\
Data File : FG015653.D
Signal(s) : FID1A.ch
Acq On : 08 Apr 2025 12:50
Sample : PB167510BL
Misc :
ALS Vial : 21 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG032725.M
Title :

Signal : FID1A.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	15.016	14.966	15.128	BB	127487	1859144	100.00%	100.000%

Sum of corrected areas: 1859144

FG032725.M Wed Apr 09 00:53:31 2025

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

Report of Analysis

Client:	Portal Partners Tri-Venture	Date Collected:	04/08/25
Project:	Amtrak Sawtooth Bridges 2025	Date Received:	04/08/25
Client Sample ID:	PIBLK-FG015650.D	SDG No.:	Q1746
Lab Sample ID:	I.BLK-FG015650.D	Matrix:	Water
Analytical Method:	8015D TPH	% Solid:	0 Decanted:
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
FG015650.D	1		04/08/25	FG040825

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	22.1		29 - 130	110%	SPK: 20

Comments:

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

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

Quantitation Report (QT Reviewed)

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG040825\
Data File : FG015650.D
Signal(s) : FID1A.ch
Acq On : 08 Apr 2025 10:01
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: Apr 09 00:27:33 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG032725.M
Quant Title :
QLast Update : Thu Mar 27 11:04:29 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	2529175	22.076 ug/ml
Target Compounds			

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

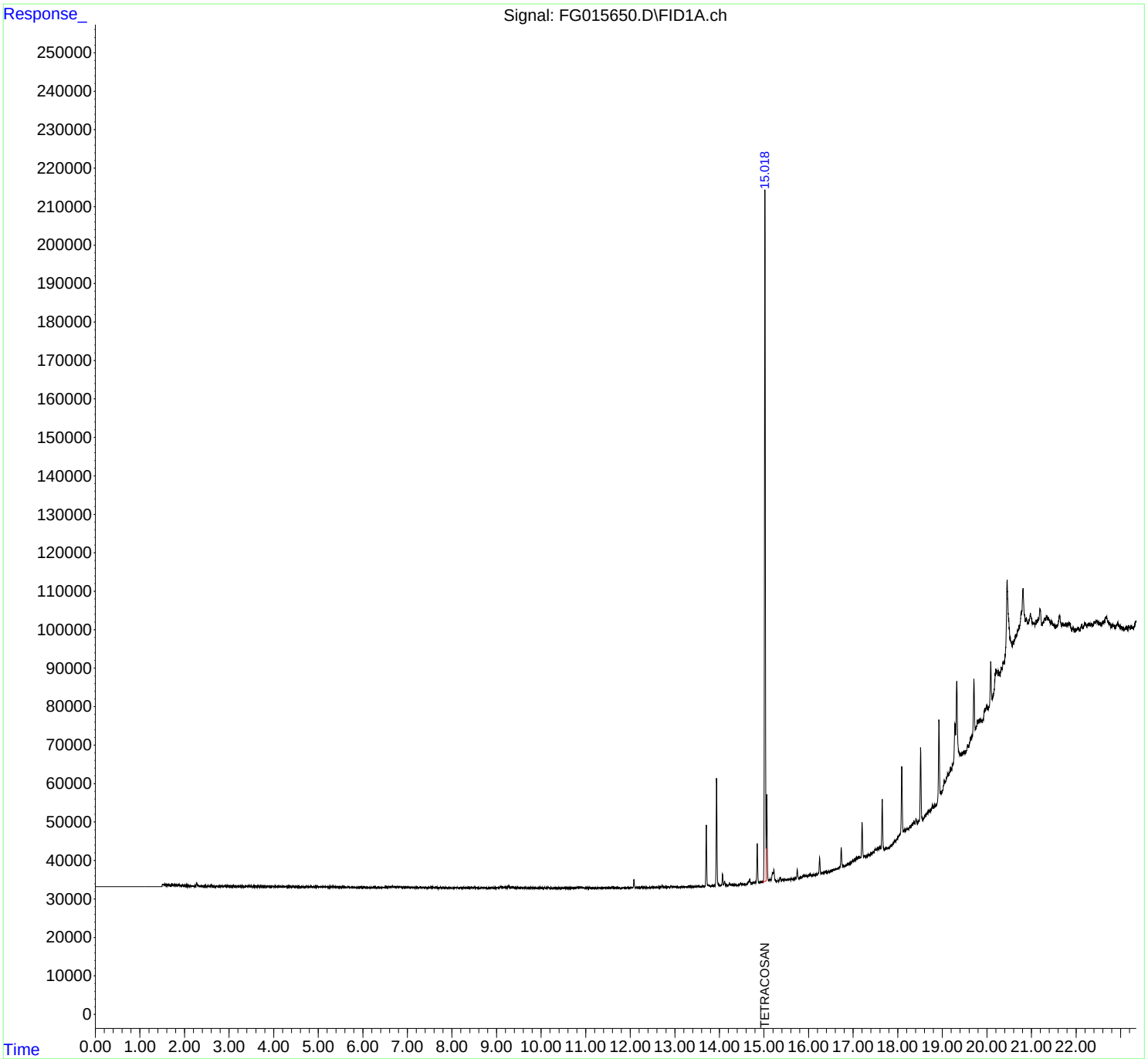
Quantitation Report (QT Reviewed)

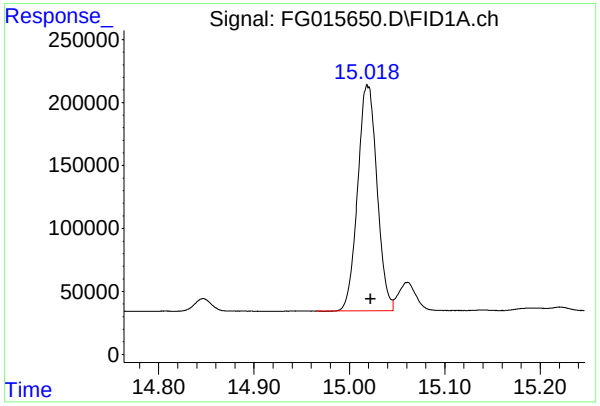
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG040825\
Data File : FG015650.D
Signal(s) : FID1A.ch
Acq On : 08 Apr 2025 10:01
Operator : YP\AJ
Sample : I.BLK
Misc :
ALS Vial : 2 Sample Multiplier: 1

Instrument :
FID_G
ClientSampleId :
I.BLK

Integration File: autoint1.e
Quant Time: Apr 09 00:27:33 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG032725.M
Quant Title :
QLast Update : Thu Mar 27 11:04:29 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.: 15.019 min
Delta R.T.: -0.003 mi
Response: 2529175
Conc: 22.08 ug/m

Instrument :
FID_G
ClientSampleId :
I.BLK

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG040825\
Data File : FG015650.D
Signal(s) : FID1A.ch
Acq On : 08 Apr 2025 10:01
Sample : I.BLK
Misc :
ALS Vial : 2 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG032725.M
Title :

Signal : FID1A.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	15.019	14.965	15.046	BV	178725	2529175	100.00%	100.000%

Sum of corrected areas: 2529175

FG032725.M Wed Apr 09 00:51:23 2025

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

Report of Analysis

Client:	Portal Partners Tri-Venture	Date Collected:	04/08/25
Project:	Amtrak Sawtooth Bridges 2025	Date Received:	04/08/25
Client Sample ID:	PIBLK-FG015661.D	SDG No.:	Q1746
Lab Sample ID:	I.BLK-FG015661.D	Matrix:	Water
Analytical Method:	8015D TPH	% Solid:	0 Decanted:
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
FG015661.D	1		04/08/25	FG040825

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	20.8		29 - 130	104%	SPK: 20

Comments:

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

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

Quantitation Report (QT Reviewed)

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG040825\
Data File : FG015661.D
Signal(s) : FID1A.ch
Acq On : 08 Apr 2025 16:58
Operator : YP\AJ
Sample : I.BLK
Misc :
ALS Vial : 52 Sample Multiplier: 1

Instrument :
FID_G
ClientSampleId :
I.BLK

Integration File: autoint1.e
Quant Time: Apr 09 00:31:03 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG032725.M
Quant Title :
QLast Update : Thu Mar 27 11:04:29 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...	15.014	2381632	20.789 ug/ml
Target Compounds			

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

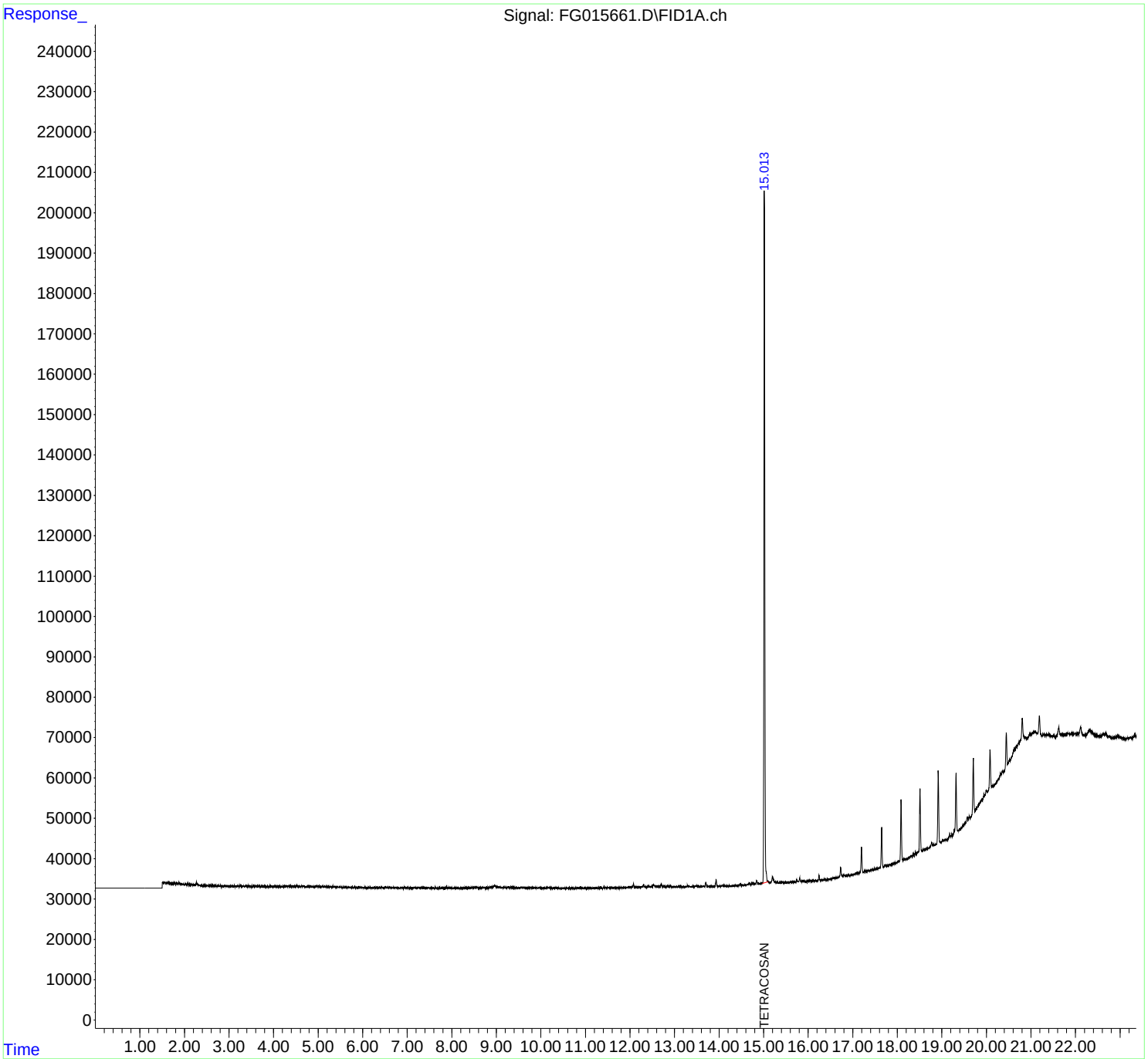
Quantitation Report (QT Reviewed)

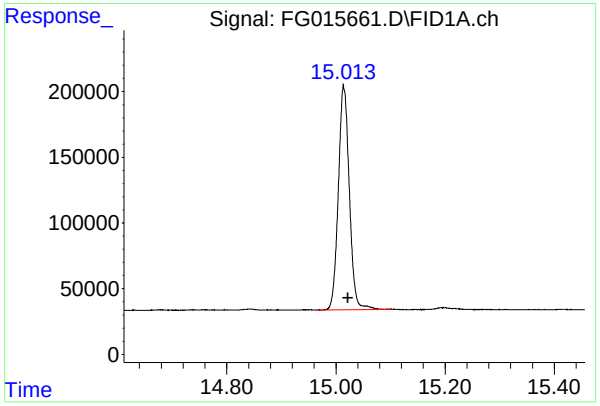
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG040825\
Data File : FG015661.D
Signal(s) : FID1A.ch
Acq On : 08 Apr 2025 16:58
Operator : YP\AJ
Sample : I.BLK
Misc :
ALS Vial : 52 Sample Multiplier: 1

Instrument :
FID_G
ClientSampleId :
I.BLK

Integration File: autoint1.e
Quant Time: Apr 09 00:31:03 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG032725.M
Quant Title :
QLast Update : Thu Mar 27 11:04:29 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.: 15.014 min
Delta R.T.: -0.008 mi
Response: 2381632
Conc: 20.79 ug/m

Instrument :
FID_G
ClientSampleId :
I.BLK

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG040825\
Data File : FG015661.D
Signal(s) : FID1A.ch
Acq On : 08 Apr 2025 16:58
Sample : I.BLK
Misc :
ALS Vial : 52 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG032725.M
Title :

Signal : FID1A.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	15.014	14.964	15.105	BB	169205	2381632	100.00%	100.000%
			Sum of corrected areas:			2381632		

FG032725.M Wed Apr 09 00:54:59 2025

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

Report of Analysis

Client:	Portal Partners Tri-Venture	Date Collected:	
Project:	Amtrak Sawtooth Bridges 2025	Date Received:	
Client Sample ID:	PB167510BS	SDG No.:	Q1746
Lab Sample ID:	PB167510BS	Matrix:	SOIL
Analytical Method:	8015D TPH	% Solid:	100 Decanted:
Sample Wt/Vol:	30.03 Units: g	Final Vol:	1 mL
Soil Aliquot Vol:	uL	Test:	TPH GC
Extraction Type:		Injection Volume :	
GPC Factor :	PH :		
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
FG015654.D	1	04/08/25 08:55	04/08/25 13:20	PB167510

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
PHC	Petroleum Hydrocarbons	8470		384	2830	ug/kg
SURROGATES						
16416-32-3	TETRACOSANE-d50	17.3		37 - 130	87%	SPK: 20

Comments:

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

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

Quantitation Report (QT Reviewed)

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG040825\
Data File : FG015654.D
Signal(s) : FID1A.ch
Acq On : 08 Apr 2025 13:20
Operator : YP\AJ
Sample : PB167510BS
Misc :
ALS Vial : 22 Sample Multiplier: 1

Instrument :
FID_G
ClientSampleId :
PB167510BS

Integration File: autoint1.e
Quant Time: Apr 09 00:28:47 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG032725.M
Quant Title :
QLast Update : Thu Mar 27 11:04:29 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...	15.016	1982793	17.307 ug/ml
	Target Compounds			
1)	N-OCTANE	1.985	1456042	12.527 ug/ml
2)	N-DECANE	4.514	1869252	15.823 ug/ml
3)	N-DODECANE	6.696	2011798	16.568 ug/ml
4)	N-TETRADECANE	8.533	2031077	16.107 ug/ml
5)	N-HEXADECANE	10.148	2142178	16.637 ug/ml
6)	N-OCTADECANE	11.596	2272281	17.248 ug/ml
7)	N-EICOSANE	12.912	2251158	16.812 ug/ml
8)	N-DOCOSANE	14.114	2241118	17.246 ug/ml
10)	N-TETRACOSANE	15.221	2263252	17.473 ug/ml
11)	N-HEXACOSANE	16.246	2187317	17.186 ug/ml
12)	N-OCTACOSANE	17.199	2146273	17.170 ug/ml
13)	N-TRIACONTANE	18.089	2066980	16.513 ug/ml
14)	N-DOTRIACONTANE	18.924	1673205	14.099 ug/ml
15)	N-TETRATRIACONTANE	19.707	1046920	10.030 ug/ml
16)	N-HEXATRIACONTANE	20.450	683798	7.802 ug/ml
17)	N-OCTATRIACONTANE	21.194	543786	7.286 ug/ml
18)	N-TETRACONTANE	22.120	506549	7.647 ug/ml

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

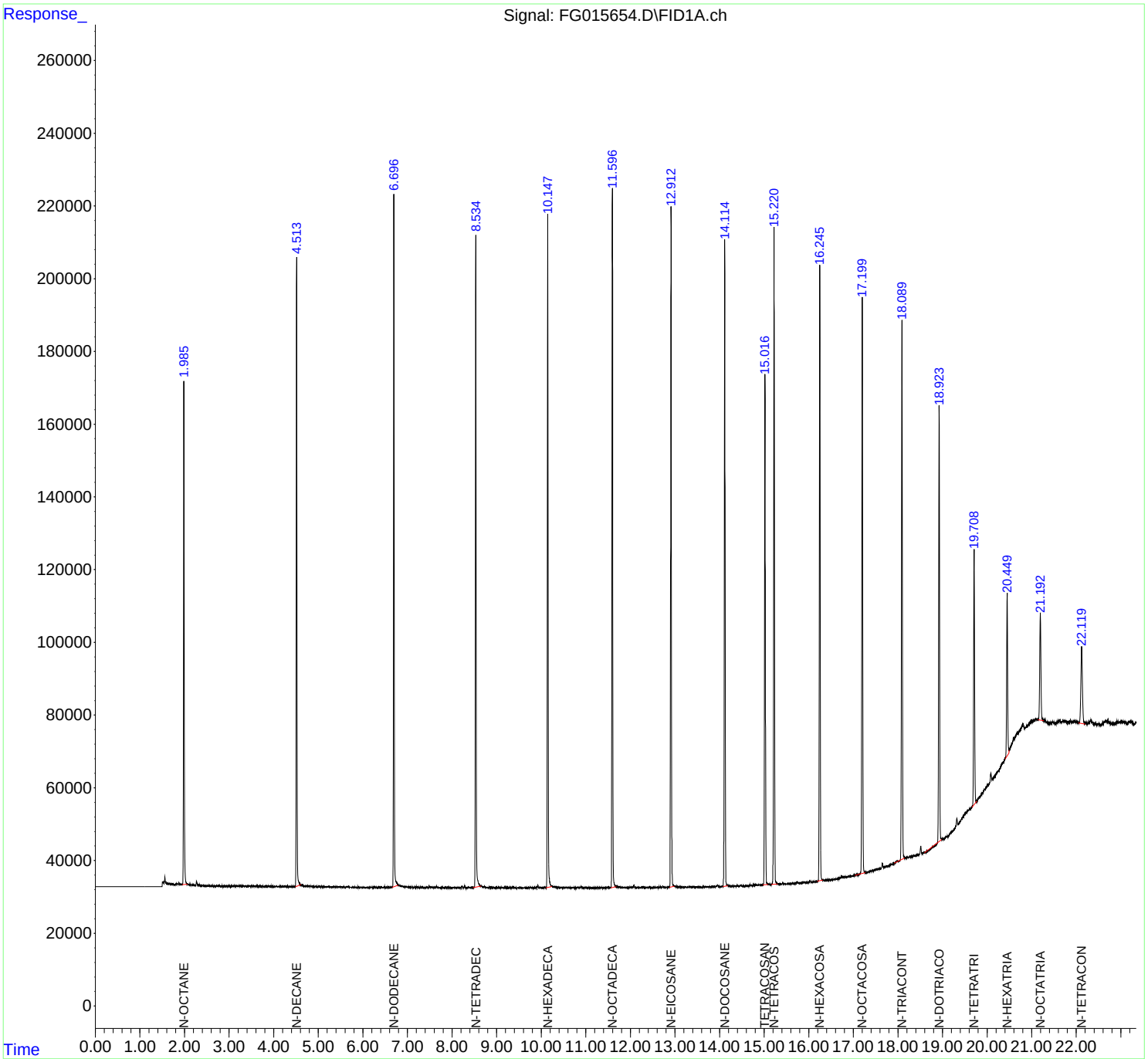
Quantitation Report (QT Reviewed)

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG040825\
Data File : FG015654.D
Signal(s) : FID1A.ch
Acq On : 08 Apr 2025 13:20
Operator : YP\AJ
Sample : PB167510BS
Misc :
ALS Vial : 22 Sample Multiplier: 1

Instrument :
FID_G
ClientSampleId :
PB167510BS

Integration File: autoint1.e
Quant Time: Apr 09 00:28:47 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG032725.M
Quant Title :
QLast Update : Thu Mar 27 11:04:29 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\FG040825\
Data File : FG015654.D
Signal(s) : FID1A.ch
Acq On : 08 Apr 2025 13:20
Sample : PB167510BS
Misc :
ALS Vial : 22 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG032725.M
Title :

Signal : FID1A.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	1.985	1.943	2.067	BB	138224	1456042	64.08%	4.641%
2	4.514	4.484	4.606	BB	173040	1869252	82.26%	5.958%
3	6.696	6.658	6.793	BB	189485	2011798	88.54%	6.412%
4	8.533	8.468	8.644	BB	178198	2031077	89.38%	6.473%
5	10.148	10.106	10.241	BB	184880	2142178	94.27%	6.827%
6	11.596	11.560	11.679	BB	192306	2272281	100.00%	7.242%
7	12.912	12.873	12.988	BB	186932	2251158	99.07%	7.175%
8	14.114	14.075	14.183	BB	177499	2241118	98.63%	7.143%
9	15.016	14.965	15.091	BB	140099	1982793	87.26%	6.320%
10	15.221	15.158	15.302	BB	180436	2263252	99.60%	7.213%
11	16.246	16.197	16.316	BB	169258	2187317	96.26%	6.971%
12	17.199	17.046	17.273	BB	158487	2146273	94.45%	6.841%
13	18.089	17.914	18.153	BB	147827	2066980	90.96%	6.588%
14	18.924	18.601	18.986	BB	119367	1673205	73.64%	5.333%
15	19.707	19.660	19.764	BV	70209	1046920	46.07%	3.337%
16	20.450	20.400	20.493	BV	44745	683798	30.09%	2.179%
17	21.194	21.140	21.268	BB	29187	543786	23.93%	1.733%
18	22.120	22.049	22.197	BB	21134	506549	22.29%	1.614%
			Sum of corrected areas:			31375775		

FG032725.M Wed Apr 09 00:54:34 2025

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

Report of Analysis

Client:	Portal Partners Tri-Venture	Date Collected:	04/05/25
Project:	Amtrak Sawtooth Bridges 2025	Date Received:	04/07/25
Client Sample ID:	B-158-SB02MS	SDG No.:	Q1746
Lab Sample ID:	Q1744-03MS	Matrix:	SOIL
Analytical Method:	8015D TPH	% Solid:	56 Decanted:
Sample Wt/Vol:	30.02 Units: g	Final Vol:	1 mL
Soil Aliquot Vol:	uL	Test:	TPH GC
Extraction Type:		Injection Volume :	
GPC Factor :	PH :		
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
FG015659.D	1	04/08/25 08:55	04/08/25 15:59	PB167510

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
PHC	Petroleum Hydrocarbons	24700		685	5060	ug/kg
SURROGATES						
16416-32-3	TETRACOSANE-d50	11.6		37 - 130	58%	SPK: 20

Comments:

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

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

Quantitation Report (QT Reviewed)

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG040825\
Data File : FG015659.D
Signal(s) : FID1A.ch
Acq On : 08 Apr 2025 15:59
Operator : YP\AJ
Sample : Q1744-03MS
Misc :
ALS Vial : 27 Sample Multiplier: 1

Instrument :
FID_G
ClientSampleId :
B-158-SB02MS

Integration File: autoint1.e
Quant Time: Apr 09 00:30:19 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG032725.M
Quant Title :
QLast Update : Thu Mar 27 11:04:29 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...	15.014	1325739	11.572 ug/ml
	Target Compounds			
1)	N-OCTANE	1.985	1493139	12.846 ug/ml
2)	N-DECANE	4.513	1745219	14.773 ug/ml
3)	N-DODECANE	6.696	1875048	15.442 ug/ml
4)	N-TETRADECANE	8.532	1932341	15.324 ug/ml
5)	N-HEXADECANE	10.146	2110395	16.390 ug/ml
6)	N-OCTADECANE	11.595	2232897	16.949 ug/ml
7)	N-EICOSANE	12.910	2223860	16.608 ug/ml
8)	N-DOCOSANE	14.113	2201270	16.940 ug/ml
10)	N-TETRACOSANE	15.219	2264399	17.482 ug/ml
11)	N-HEXACOSANE	16.244	2143852	16.844 ug/ml
12)	N-OCTACOSANE	17.196	2110410	16.883 ug/ml
13)	N-TRIACONTANE	18.086	2033911	16.249 ug/ml
14)	N-DOTRIACONTANE	18.921	1723189	14.520 ug/ml
15)	N-TETRATRIACONTANE	19.706	1038234	9.947 ug/ml
16)	N-HEXATRIACONTANE	20.447	652010	7.439 ug/ml
17)	N-OCTATRIACONTANE	21.191	549184	7.359 ug/ml
18)	N-TETRACONTANE	22.115	538506	8.130 ug/ml

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

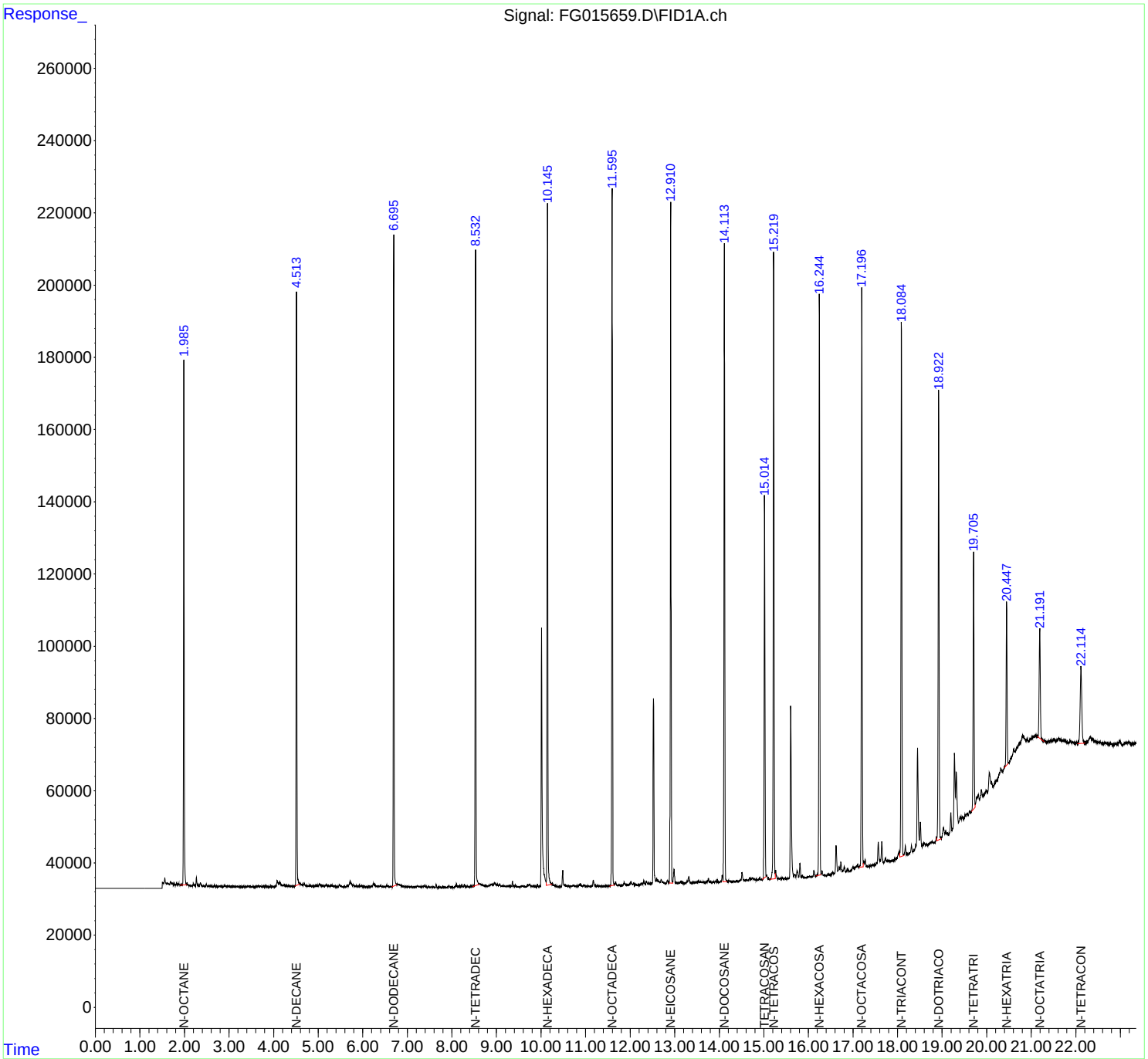
Quantitation Report (QT Reviewed)

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG040825\
Data File : FG015659.D
Signal(s) : FID1A.ch
Acq On : 08 Apr 2025 15:59
Operator : YP\AJ
Sample : Q1744-03MS
Misc :
ALS Vial : 27 Sample Multiplier: 1

Instrument :
FID_G
ClientSampleId :
B-158-SB02MS

Integration File: autoint1.e
Quant Time: Apr 09 00:30:19 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG032725.M
Quant Title :
QLast Update : Thu Mar 27 11:04:29 2025
Response via : Initial Calibration
Integrator: ChemStation

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



Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG040825\
Data File : FG015659.D
Signal(s) : FID1A.ch
Acq On : 08 Apr 2025 15:59
Sample : Q1744-03MS
Misc :
ALS Vial : 27 Sample Multiplier: 1

Integration File: Sample.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG032725.M
Title :

Signal : FID1A.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	1.823	1.800	1.850	BV	625	6361	0.28%	0.013%
2	1.855	1.850	1.859	VV	124	605	0.03%	0.001%
3	1.875	1.859	1.901	VV	498	5406	0.24%	0.011%
4	1.926	1.901	1.953	PV	325	4786	0.21%	0.010%
5	1.985	1.953	2.054	VV	145221	1504283	65.99%	3.050%
6	2.062	2.054	2.108	VV	484	7786	0.34%	0.016%
7	2.116	2.108	2.134	VV	226	1798	0.08%	0.004%
8	2.141	2.134	2.148	VV	153	784	0.03%	0.002%
9	2.154	2.148	2.161	VV	159	784	0.03%	0.002%
10	2.164	2.161	2.177	VV	77	653	0.03%	0.001%
11	2.199	2.177	2.245	PV	557	8290	0.36%	0.017%
12	2.267	2.245	2.308	VV	2473	30717	1.35%	0.062%
13	2.312	2.308	2.320	VV	303	1406	0.06%	0.003%
14	2.323	2.320	2.336	VV	146	1442	0.06%	0.003%
15	2.356	2.336	2.408	VV	1028	17496	0.77%	0.035%
16	2.426	2.408	2.471	VV	218	3517	0.15%	0.007%
17	2.489	2.471	2.538	VV	633	9772	0.43%	0.020%
18	2.560	2.538	2.586	VV	219	3699	0.16%	0.008%
19	2.590	2.586	2.596	VV	196	680	0.03%	0.001%
20	2.601	2.596	2.605	VV	138	598	0.03%	0.001%
21	2.610	2.605	2.617	VV	175	721	0.03%	0.001%
22	2.621	2.617	2.652	VV	155	1624	0.07%	0.003%
23	2.675	2.652	2.702	PV	406	6172	0.27%	0.013%
24	2.703	2.702	2.713	VV	167	658	0.03%	0.001%
25	2.717	2.713	2.726	VV	162	616	0.03%	0.001%
26	2.751	2.726	2.759	VV	176	1762	0.08%	0.004%
27	2.764	2.759	2.777	VV	182	1335	0.06%	0.003%
28	2.781	2.777	2.796	VV	132	1242	0.05%	0.003%
29	2.802	2.796	2.833	VV	97	1167	0.05%	0.002%
30	2.840	2.833	2.849	VV	161	851	0.04%	0.002%
31	2.856	2.849	2.863	VV	113	649	0.03%	0.001%
32	2.885	2.863	2.890	VV	255	2410	0.11%	0.005%
33	2.900	2.890	2.908	VV	307	2628	0.12%	0.005%
34	2.910	2.908	2.924	VV	316	2062	0.09%	0.004%
35	2.930	2.924	2.935	VV	231	1230	0.05%	0.002%
36	2.939	2.935	2.963	VV	204	2982	0.13%	0.006%

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37	2.973	2.963	2.998	VV	361	5043	0.22%	0.010%
38	3.002	2.998	3.015	VV	155	1207	0.05%	0.002%
39	3.019	3.015	3.037	VV	151	1294	0.06%	0.003%
40	3.041	3.037	3.047	VV	167	741	0.03%	0.002%
41	3.053	3.047	3.068	VV	223	1694	0.07%	0.003%
42	3.074	3.068	3.085	VV	218	1111	0.05%	0.002%
43	3.096	3.085	3.101	VV	187	934	0.04%	0.002%
44	3.106	3.101	3.117	VV	203	1408	0.06%	0.003%
45	3.125	3.117	3.142	VV	252	2526	0.11%	0.005%
46	3.145	3.142	3.157	VV	204	1117	0.05%	0.002%
47	3.162	3.157	3.167	VV	174	678	0.03%	0.001%
48	3.178	3.167	3.192	VV	188	2185	0.10%	0.004%
49	3.197	3.192	3.224	VV	162	2136	0.09%	0.004%
50	3.228	3.224	3.238	VV	107	638	0.03%	0.001%
51	3.250	3.238	3.305	VV	239	3480	0.15%	0.007%
52	3.332	3.305	3.338	PV	178	1383	0.06%	0.003%
53	3.360	3.338	3.371	VV	126	1890	0.08%	0.004%
54	3.388	3.371	3.394	VV	203	1895	0.08%	0.004%
55	3.413	3.394	3.444	VV	280	6359	0.28%	0.013%
56	3.461	3.444	3.477	VV	238	3153	0.14%	0.006%
57	3.481	3.477	3.496	VV	166	1533	0.07%	0.003%
58	3.505	3.496	3.517	VV	189	1306	0.06%	0.003%
59	3.531	3.517	3.577	VV	201	3985	0.17%	0.008%
60	3.582	3.577	3.589	VV	140	727	0.03%	0.001%
61	3.597	3.589	3.614	VV	156	1853	0.08%	0.004%
62	3.618	3.614	3.625	VV	208	1164	0.05%	0.002%
63	3.645	3.625	3.661	VV	320	4945	0.22%	0.010%
64	3.668	3.661	3.687	VV	213	2805	0.12%	0.006%
65	3.707	3.687	3.731	VV	291	5324	0.23%	0.011%
66	3.735	3.731	3.742	VV	187	874	0.04%	0.002%
67	3.751	3.742	3.768	VV	246	2126	0.09%	0.004%
68	3.782	3.768	3.792	VV	156	1567	0.07%	0.003%
69	3.815	3.792	3.843	VV	337	5495	0.24%	0.011%
70	3.846	3.843	3.854	VV	187	917	0.04%	0.002%
71	3.864	3.854	3.887	VV	188	1987	0.09%	0.004%
72	3.892	3.887	3.908	VV	167	1001	0.04%	0.002%
73	3.910	3.908	3.926	VV	152	963	0.04%	0.002%
74	3.938	3.926	3.957	VV	234	2676	0.12%	0.005%
75	3.966	3.957	3.975	VV	261	2143	0.09%	0.004%
76	3.978	3.975	3.984	VV	211	949	0.04%	0.002%
77	3.987	3.984	3.992	VV	164	679	0.03%	0.001%
78	3.997	3.992	4.001	VV	187	694	0.03%	0.001%
79	4.005	4.001	4.021	VV	123	1051	0.05%	0.002%
80	4.023	4.021	4.044	VV	204	1596	0.07%	0.003%
81	4.079	4.044	4.113	VV	1803	40720	1.79%	0.083%
82	4.129	4.113	4.191	VV	1250	42801	1.88%	0.087%
83	4.195	4.191	4.216	VV	575	7594	0.33%	0.015%
84	4.238	4.216	4.277	VV	625	17437	0.76%	0.035%
85	4.292	4.277	4.324	VV	508	10299	0.45%	0.021%
86	4.333	4.324	4.373	VV	410	9551	0.42%	0.019%
87	4.389	4.373	4.396	VV	344	3821	0.17%	0.008%
88	4.400	4.396	4.439	VV	291	6354	0.28%	0.013%
89	4.443	4.439	4.449	VV	246	1516	0.07%	0.003%

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90	4.454	4.449	4.466	VV	303	2350	0.10%	0.005%
91	4.513	4.466	4.622	VV	164917	1803504	79.11%	3.657%
92	4.631	4.622	4.636	VV	810	6166	0.27%	0.013%
93	4.639	4.636	4.665	VV	777	10739	0.47%	0.022%
94	4.685	4.665	4.721	VV	1248	25086	1.10%	0.051%
95	4.727	4.721	4.742	VV	461	5323	0.23%	0.011%
96	4.747	4.742	4.754	VV	428	2634	0.12%	0.005%
97	4.766	4.754	4.769	VV	395	3107	0.14%	0.006%
98	4.772	4.769	4.784	VV	379	2609	0.11%	0.005%
99	4.798	4.784	4.814	VV	400	6070	0.27%	0.012%
100	4.819	4.814	4.849	VV	363	6380	0.28%	0.013%
101	4.861	4.849	4.871	VV	300	3670	0.16%	0.007%
102	4.887	4.871	4.895	VV	345	4245	0.19%	0.009%
103	4.898	4.895	4.902	VV	337	1138	0.05%	0.002%
104	4.911	4.902	4.932	VV	333	5242	0.23%	0.011%
105	4.943	4.932	4.954	VV	436	4555	0.20%	0.009%
106	4.957	4.954	4.962	VV	308	1676	0.07%	0.003%
107	4.977	4.962	4.993	VV	461	6955	0.31%	0.014%
108	5.029	4.993	5.062	VV	974	25640	1.12%	0.052%
109	5.067	5.062	5.085	VV	537	6545	0.29%	0.013%
110	5.099	5.085	5.117	VV	538	8595	0.38%	0.017%
111	5.121	5.117	5.154	VV	416	7711	0.34%	0.016%
112	5.177	5.154	5.208	VV	666	16114	0.71%	0.033%
113	5.222	5.208	5.231	VV	494	5802	0.25%	0.012%
114	5.237	5.231	5.254	VV	468	5824	0.26%	0.012%
115	5.270	5.254	5.286	VV	408	7213	0.32%	0.015%
116	5.309	5.286	5.332	VV	631	11563	0.51%	0.023%
117	5.339	5.332	5.390	VV	442	9432	0.41%	0.019%
118	5.397	5.390	5.426	VV	253	4199	0.18%	0.009%
119	5.432	5.426	5.454	VV	239	3199	0.14%	0.006%
120	5.473	5.454	5.509	VV	650	13665	0.60%	0.028%
121	5.511	5.509	5.527	VV	361	3394	0.15%	0.007%
122	5.533	5.527	5.543	VV	258	2080	0.09%	0.004%
123	5.550	5.543	5.570	VV	230	2781	0.12%	0.006%
124	5.572	5.570	5.576	VV	156	428	0.02%	0.001%
125	5.580	5.576	5.585	VV	147	683	0.03%	0.001%
126	5.595	5.585	5.613	VV	195	2163	0.09%	0.004%
127	5.617	5.613	5.622	VV	122	510	0.02%	0.001%
128	5.656	5.622	5.673	VV	741	11066	0.49%	0.022%
129	5.689	5.673	5.694	VV	713	6681	0.29%	0.014%
130	5.713	5.694	5.817	VV	1664	61278	2.69%	0.124%
131	5.821	5.817	5.835	VV	401	3651	0.16%	0.007%
132	5.853	5.835	5.880	VV	565	9934	0.44%	0.020%
133	5.887	5.880	5.904	VV	363	4307	0.19%	0.009%
134	5.925	5.904	5.937	VV	588	7927	0.35%	0.016%
135	5.950	5.937	5.965	VV	531	6959	0.31%	0.014%
136	5.980	5.965	5.993	VV	433	5878	0.26%	0.012%
137	6.008	5.993	6.024	VV	365	5199	0.23%	0.011%
138	6.031	6.024	6.059	VV	360	4838	0.21%	0.010%
139	6.062	6.059	6.112	VV	180	3710	0.16%	0.008%
140	6.116	6.112	6.121	VV	193	697	0.03%	0.001%
141	6.144	6.121	6.164	VV	335	5842	0.26%	0.012%

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142	6.203	6.164	6.213	VV	343	8267	0.36%	0.017%
143	6.237	6.213	6.267	VV	1124	23156	1.02%	0.047%
144	6.271	6.267	6.302	VV	705	10555	0.46%	0.021%
145	6.309	6.302	6.316	VV	350	2680	0.12%	0.005%
146	6.345	6.316	6.371	VV	391	9653	0.42%	0.020%
147	6.380	6.371	6.389	VV	382	3250	0.14%	0.007%
148	6.407	6.389	6.429	VV	585	9386	0.41%	0.019%
149	6.437	6.429	6.454	VV	228	2676	0.12%	0.005%
150	6.460	6.454	6.474	VV	259	2260	0.10%	0.005%
151	6.517	6.474	6.520	VV	282	5588	0.25%	0.011%
152	6.537	6.520	6.568	VV	709	12953	0.57%	0.026%
153	6.573	6.568	6.604	VV	309	5231	0.23%	0.011%
154	6.619	6.604	6.651	VV	322	6526	0.29%	0.013%
155	6.656	6.651	6.661	VV	176	886	0.04%	0.002%
156	6.696	6.661	6.780	VV	180337	1911130	83.83%	3.875%
157	6.790	6.780	6.799	VV	967	9702	0.43%	0.020%
158	6.802	6.799	6.834	VV	893	16610	0.73%	0.034%
159	6.848	6.834	6.897	VV	793	19976	0.88%	0.041%
160	6.904	6.897	6.926	VV	382	5748	0.25%	0.012%
161	6.929	6.926	6.942	VV	330	2531	0.11%	0.005%
162	6.947	6.942	6.959	VV	288	2676	0.12%	0.005%
163	6.963	6.959	6.970	VV	257	1622	0.07%	0.003%
164	6.978	6.970	7.004	VV	379	5076	0.22%	0.010%
165	7.013	7.004	7.017	VV	215	1259	0.06%	0.003%
166	7.026	7.017	7.058	VV	236	4299	0.19%	0.009%
167	7.063	7.058	7.072	VV	149	1184	0.05%	0.002%
168	7.079	7.072	7.089	VV	137	1164	0.05%	0.002%
169	7.094	7.089	7.097	VV	182	731	0.03%	0.001%
170	7.101	7.097	7.117	VV	218	1761	0.08%	0.004%
171	7.136	7.117	7.144	VV	155	1832	0.08%	0.004%
172	7.148	7.144	7.150	VV	172	581	0.03%	0.001%
173	7.157	7.150	7.170	VV	192	1656	0.07%	0.003%
174	7.177	7.170	7.188	VV	207	1468	0.06%	0.003%
175	7.217	7.188	7.257	VV	429	11794	0.52%	0.024%
176	7.275	7.257	7.285	VV	349	4640	0.20%	0.009%
177	7.290	7.285	7.307	VV	284	2532	0.11%	0.005%
178	7.312	7.307	7.316	VV	213	847	0.04%	0.002%
179	7.346	7.316	7.359	VV	322	6309	0.28%	0.013%
180	7.378	7.359	7.402	VV	578	9300	0.41%	0.019%
181	7.420	7.402	7.449	VV	434	5970	0.26%	0.012%
182	7.474	7.449	7.503	VV	302	4594	0.20%	0.009%
183	7.525	7.503	7.544	VV	214	2775	0.12%	0.006%
184	7.548	7.544	7.555	VV	148	844	0.04%	0.002%
185	7.560	7.555	7.572	VV	143	1018	0.04%	0.002%
186	7.589	7.572	7.606	VV	192	2500	0.11%	0.005%
187	7.616	7.606	7.620	VV	106	459	0.02%	0.001%
188	7.647	7.620	7.671	VV	947	11004	0.48%	0.022%
189	7.675	7.671	7.689	VV	105	799	0.04%	0.002%
190	7.709	7.689	7.742	VV	152	2167	0.10%	0.004%
191	7.762	7.742	7.769	PV	117	1005	0.04%	0.002%
192	7.772	7.769	7.779	VV	129	563	0.02%	0.001%
193	7.787	7.779	7.800	VV	180	1311	0.06%	0.003%
194	7.817	7.800	7.830	VV	158	2033	0.09%	0.004%

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195	7.832	7.830	7.855	VV	186	913	0.04%	0.002%
196	7.867	7.855	7.882	VV	107	899	0.04%	0.002%
197	7.907	7.882	7.914	PV	158	1910	0.08%	0.004%
198	7.930	7.914	7.973	VV	543	8390	0.37%	0.017%
199	7.989	7.973	8.001	VV	144	1887	0.08%	0.004%
200	8.015	8.001	8.036	VV	189	2153	0.09%	0.004%
201	8.080	8.036	8.086	VV	446	6735	0.30%	0.014%
202	8.103	8.086	8.127	VV	1009	14660	0.64%	0.030%
203	8.134	8.127	8.149	VV	434	4774	0.21%	0.010%
204	8.179	8.149	8.202	VV	462	10915	0.48%	0.022%
205	8.222	8.202	8.252	VV	892	13412	0.59%	0.027%
206	8.280	8.252	8.332	VV	923	15990	0.70%	0.032%
207	8.346	8.332	8.375	VV	368	6439	0.28%	0.013%
208	8.389	8.375	8.394	VV	218	1797	0.08%	0.004%
209	8.431	8.394	8.450	VV	449	10743	0.47%	0.022%
210	8.453	8.450	8.471	VV	443	3872	0.17%	0.008%
211	8.532	8.471	8.627	VV	176816	1989236	87.26%	4.034%
212	8.632	8.627	8.662	VV	901	17433	0.76%	0.035%
213	8.675	8.662	8.701	VV	741	15296	0.67%	0.031%
214	8.714	8.701	8.731	VV	607	9632	0.42%	0.020%
215	8.735	8.731	8.752	VV	523	5441	0.24%	0.011%
216	8.767	8.752	8.791	VV	477	9088	0.40%	0.018%
217	8.795	8.791	8.810	VV	344	3645	0.16%	0.007%
218	8.834	8.810	8.847	VV	603	10441	0.46%	0.021%
219	8.867	8.847	8.877	VV	788	11827	0.52%	0.024%
220	8.891	8.877	8.915	VV	905	17574	0.77%	0.036%
221	8.956	8.915	8.997	VV	1140	42422	1.86%	0.086%
222	9.018	8.997	9.048	VV	823	20942	0.92%	0.042%
223	9.073	9.048	9.112	VV	971	21483	0.94%	0.044%
224	9.126	9.112	9.135	VV	433	4844	0.21%	0.010%
225	9.147	9.135	9.153	VV	452	3887	0.17%	0.008%
226	9.157	9.153	9.171	VV	315	3067	0.13%	0.006%
227	9.187	9.171	9.193	VV	331	3558	0.16%	0.007%
228	9.198	9.193	9.210	VV	316	2636	0.12%	0.005%
229	9.218	9.210	9.239	VV	365	4774	0.21%	0.010%
230	9.279	9.239	9.305	VV	486	12697	0.56%	0.026%
231	9.310	9.305	9.328	VV	265	3024	0.13%	0.006%
232	9.332	9.328	9.336	VV	266	1204	0.05%	0.002%
233	9.362	9.336	9.386	VV	1694	22529	0.99%	0.046%
234	9.399	9.386	9.409	VV	437	5084	0.22%	0.010%
235	9.413	9.409	9.459	VV	413	7396	0.32%	0.015%
236	9.468	9.459	9.477	VV	184	1186	0.05%	0.002%
237	9.482	9.477	9.497	VV	127	1100	0.05%	0.002%
238	9.511	9.497	9.516	VV	132	991	0.04%	0.002%
239	9.554	9.516	9.559	VV	298	3817	0.17%	0.008%
240	9.570	9.559	9.574	VV	268	2062	0.09%	0.004%
241	9.581	9.574	9.625	VV	315	6323	0.28%	0.013%
242	9.643	9.625	9.665	VV	219	3836	0.17%	0.008%
243	9.668	9.665	9.675	VV	151	759	0.03%	0.002%
244	9.703	9.675	9.725	VV	804	14187	0.62%	0.029%
245	9.744	9.725	9.774	VV	755	14729	0.65%	0.030%
246	9.779	9.774	9.799	VV	360	3775	0.17%	0.008%

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247	9.814	9.799	9.818	VV	296	2609	0.11%	0.005%
248	9.823	9.818	9.857	VV	323	4483	0.20%	0.009%
249	9.868	9.857	9.890	VV	199	2941	0.13%	0.006%
250	9.895	9.890	9.907	VV	136	907	0.04%	0.002%
251	9.925	9.907	9.957	VV	858	9339	0.41%	0.019%
252	9.977	9.957	9.989	VV	459	5141	0.23%	0.010%
253	10.014	9.989	10.115	VV	71111	1093590	47.97%	2.218%
254	10.146	10.115	10.239	VV	188414	2152966	94.44%	4.366%
255	10.248	10.239	10.275	VV	919	15625	0.69%	0.032%
256	10.295	10.275	10.329	VV	545	14139	0.62%	0.029%
257	10.333	10.329	10.357	VV	279	3350	0.15%	0.007%
258	10.361	10.357	10.374	VV	216	1675	0.07%	0.003%
259	10.380	10.374	10.400	VV	179	1864	0.08%	0.004%
260	10.407	10.400	10.412	VV	169	963	0.04%	0.002%
261	10.417	10.412	10.424	VV	187	936	0.04%	0.002%
262	10.426	10.424	10.442	VV	153	1029	0.05%	0.002%
263	10.487	10.442	10.520	VV	4637	65487	2.87%	0.133%
264	10.531	10.520	10.558	VV	640	10091	0.44%	0.020%
265	10.581	10.558	10.619	VV	359	10045	0.44%	0.020%
266	10.630	10.619	10.652	VV	263	3495	0.15%	0.007%
267	10.664	10.652	10.697	VV	312	4507	0.20%	0.009%
268	10.716	10.697	10.725	VV	434	5425	0.24%	0.011%
269	10.728	10.725	10.747	VV	450	4004	0.18%	0.008%
270	10.752	10.747	10.756	VV	205	961	0.04%	0.002%
271	10.767	10.756	10.775	VV	294	2731	0.12%	0.006%
272	10.780	10.775	10.801	VV	243	3299	0.14%	0.007%
273	10.811	10.801	10.826	VV	330	3574	0.16%	0.007%
274	10.849	10.826	10.872	VV	461	9807	0.43%	0.020%
275	10.889	10.872	10.906	VV	885	10947	0.48%	0.022%
276	10.915	10.906	10.935	VV	316	4354	0.19%	0.009%
277	10.960	10.935	10.989	VV	436	9626	0.42%	0.020%
278	10.995	10.989	11.034	VV	233	5018	0.22%	0.010%
279	11.037	11.034	11.043	VV	251	971	0.04%	0.002%
280	11.050	11.043	11.060	VV	154	1473	0.06%	0.003%
281	11.072	11.060	11.099	VV	228	2938	0.13%	0.006%
282	11.116	11.099	11.135	VV	249	2839	0.12%	0.006%
283	11.174	11.135	11.256	PV	1775	38110	1.67%	0.077%
284	11.265	11.256	11.279	VV	231	2447	0.11%	0.005%
285	11.282	11.279	11.302	VV	191	1971	0.09%	0.004%
286	11.311	11.302	11.333	VV	199	3137	0.14%	0.006%
287	11.341	11.333	11.387	VV	218	3745	0.16%	0.008%
288	11.408	11.387	11.435	VV	283	4033	0.18%	0.008%
289	11.449	11.435	11.495	VV	307	5481	0.24%	0.011%
290	11.526	11.495	11.546	PV	318	4994	0.22%	0.010%
291	11.595	11.546	11.655	VV	192403	2250367	98.72%	4.563%
292	11.673	11.655	11.733	VV	1294	25928	1.14%	0.053%
293	11.749	11.733	11.766	VV	410	5527	0.24%	0.011%
294	11.789	11.766	11.813	VV	385	5778	0.25%	0.012%
295	11.864	11.813	11.934	PV	1162	32623	1.43%	0.066%
296	11.950	11.934	11.970	VV	387	5529	0.24%	0.011%
297	11.985	11.970	11.998	VV	560	6549	0.29%	0.013%
298	12.018	11.998	12.059	VV	1215	23758	1.04%	0.048%
299	12.078	12.059	12.094	VV	842	10186	0.45%	0.021%

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300	12.110	12.094	12.128	VV	321	4988	0.22%	0.010%
301	12.135	12.128	12.175	VV	282	3745	0.16%	0.008%
302	12.205	12.175	12.221	VV	241	3211	0.14%	0.007%
303	12.265	12.221	12.284	VV	686	14614	0.64%	0.030%
304	12.306	12.284	12.339	VV	1147	21250	0.93%	0.043%
305	12.365	12.339	12.405	VV	1096	25011	1.10%	0.051%
306	12.425	12.405	12.444	VV	648	10271	0.45%	0.021%
307	12.449	12.444	12.455	VV	293	1496	0.07%	0.003%
308	12.472	12.455	12.493	VV	633	9532	0.42%	0.019%
309	12.524	12.493	12.574	VV	51524	648197	28.43%	1.314%
310	12.592	12.574	12.608	VV	1822	28556	1.25%	0.058%
311	12.620	12.608	12.637	VV	1433	20680	0.91%	0.042%
312	12.648	12.637	12.670	VV	917	15798	0.69%	0.032%
313	12.696	12.670	12.720	VV	1359	28998	1.27%	0.059%
314	12.730	12.720	12.810	VV	778	24829	1.09%	0.050%
315	12.838	12.810	12.875	VV	1175	27555	1.21%	0.056%
316	12.910	12.875	12.954	VV	187994	2238999	98.22%	4.540%
317	12.985	12.954	13.039	VV	4159	77741	3.41%	0.158%
318	13.044	13.039	13.071	VV	278	4011	0.18%	0.008%
319	13.097	13.071	13.104	VV	283	4578	0.20%	0.009%
320	13.120	13.104	13.132	VV	418	6395	0.28%	0.013%
321	13.160	13.132	13.223	VV	566	17117	0.75%	0.035%
322	13.231	13.223	13.254	VV	198	2457	0.11%	0.005%
323	13.277	13.254	13.290	VV	708	10115	0.44%	0.021%
324	13.316	13.290	13.386	VV	1933	42158	1.85%	0.085%
325	13.404	13.386	13.432	VV	262	5426	0.24%	0.011%
326	13.439	13.432	13.455	VV	208	2461	0.11%	0.005%
327	13.470	13.455	13.493	VV	375	5741	0.25%	0.012%
328	13.524	13.493	13.545	VV	757	13264	0.58%	0.027%
329	13.548	13.545	13.555	VV	417	2086	0.09%	0.004%
330	13.559	13.555	13.571	VV	368	2876	0.13%	0.006%
331	13.579	13.571	13.624	VV	373	7633	0.33%	0.015%
332	13.650	13.624	13.671	VV	347	5951	0.26%	0.012%
333	13.678	13.671	13.685	VV	101	600	0.03%	0.001%
334	13.730	13.685	13.737	VV	423	7931	0.35%	0.016%
335	13.757	13.737	13.789	VV	1265	19579	0.86%	0.040%
336	13.802	13.789	13.845	VV	299	5014	0.22%	0.010%
337	13.868	13.845	13.880	VV	218	2880	0.13%	0.006%
338	13.887	13.880	13.910	VV	253	2804	0.12%	0.006%
339	13.954	13.910	14.000	VV	724	15412	0.68%	0.031%
340	14.004	14.000	14.008	VV	121	415	0.02%	0.001%
341	14.018	14.008	14.024	VV	147	1163	0.05%	0.002%
342	14.029	14.024	14.039	VV	220	1623	0.07%	0.003%
343	14.065	14.039	14.081	VV	1933	26120	1.15%	0.053%
344	14.113	14.081	14.175	VV	177104	2211501	97.01%	4.485%
345	14.182	14.175	14.194	VV	236	2581	0.11%	0.005%
346	14.221	14.194	14.256	VV	439	8993	0.39%	0.018%
347	14.261	14.256	14.300	VV	85	1087	0.05%	0.002%
348	14.304	14.300	14.307	PV	73	242	0.01%	0.000%
349	14.330	14.307	14.336	VV	191	2377	0.10%	0.005%
350	14.339	14.336	14.362	VV	170	1585	0.07%	0.003%
351	14.381	14.362	14.418	VV	176	3187	0.14%	0.006%

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352	14.424	14.418	14.445	VV	156	1437	0.06%	0.003%
353	14.451	14.445	14.455	VV	123	510	0.02%	0.001%
354	14.477	14.455	14.484	VV	406	4728	0.21%	0.010%
355	14.508	14.484	14.560	VV	2523	47171	2.07%	0.096%
356	14.605	14.560	14.652	VV	394	13413	0.59%	0.027%
357	14.676	14.652	14.697	VV	966	15233	0.67%	0.031%
358	14.710	14.697	14.724	VV	542	7731	0.34%	0.016%
359	14.740	14.724	14.763	VV	894	14268	0.63%	0.029%
360	14.777	14.763	14.800	VV	716	10945	0.48%	0.022%
361	14.805	14.800	14.830	VV	302	4126	0.18%	0.008%
362	14.838	14.830	14.857	VV	265	2461	0.11%	0.005%
363	14.874	14.857	14.880	VV	259	2316	0.10%	0.005%
364	14.901	14.880	14.929	VV	716	12677	0.56%	0.026%
365	14.943	14.929	14.949	VV	288	2721	0.12%	0.006%
366	14.955	14.949	14.963	VV	288	1806	0.08%	0.004%
367	14.965	14.963	14.969	VV	221	735	0.03%	0.001%
368	15.014	14.969	15.051	VV	105838	1358750	59.60%	2.755%
369	15.065	15.051	15.095	VV	1316	24654	1.08%	0.050%
370	15.100	15.095	15.130	VV	496	6591	0.29%	0.013%
371	15.133	15.130	15.141	VV	228	1092	0.05%	0.002%
372	15.219	15.141	15.254	VV	173488	2279644	100.00%	4.623%
373	15.265	15.254	15.300	VV	2618	41873	1.84%	0.085%
374	15.303	15.300	15.325	VV	430	4593	0.20%	0.009%
375	15.332	15.325	15.350	VV	216	2867	0.13%	0.006%
376	15.354	15.350	15.359	VV	224	933	0.04%	0.002%
377	15.376	15.359	15.396	VV	349	4773	0.21%	0.010%
378	15.413	15.396	15.452	VV	622	8406	0.37%	0.017%
379	15.462	15.452	15.485	VV	161	1729	0.08%	0.004%
380	15.489	15.485	15.499	VV	169	691	0.03%	0.001%
381	15.527	15.499	15.540	PV	214	2872	0.13%	0.006%
382	15.602	15.540	15.670	VV	47826	802078	35.18%	1.626%
383	15.695	15.670	15.714	VV	1235	24106	1.06%	0.049%
384	15.744	15.714	15.780	VV	2044	46939	2.06%	0.095%
385	15.809	15.780	15.845	VV	4073	62840	2.76%	0.127%
386	15.861	15.845	15.869	VV	631	5040	0.22%	0.010%
387	15.872	15.869	15.904	VV	454	5174	0.23%	0.010%
388	15.908	15.904	15.919	VV	130	792	0.03%	0.002%
389	15.923	15.919	15.929	VV	127	471	0.02%	0.001%
390	15.934	15.929	15.944	VV	96	355	0.02%	0.001%
391	15.957	15.944	15.962	PV	76	669	0.03%	0.001%
392	16.034	15.962	16.055	VV	343	10850	0.48%	0.022%
393	16.062	16.055	16.075	VV	168	1551	0.07%	0.003%
394	16.084	16.075	16.090	VV	137	972	0.04%	0.002%
395	16.121	16.090	16.174	VV	1795	34189	1.50%	0.069%
396	16.244	16.174	16.286	VV	159657	2166704	95.05%	4.394%
397	16.306	16.286	16.350	VV	1494	23721	1.04%	0.048%
398	16.355	16.350	16.363	VV	391	1049	0.05%	0.002%
399	16.372	16.363	16.397	VV	220	1797	0.08%	0.004%
400	16.444	16.397	16.475	PV	304	7093	0.31%	0.014%
401	16.497	16.475	16.515	VV	153	1947	0.09%	0.004%
402	16.540	16.515	16.553	VV	574	7820	0.34%	0.016%
403	16.556	16.553	16.564	VV	400	2239	0.10%	0.005%
404	16.567	16.564	16.589	VV	365	3122	0.14%	0.006%

405	16.620	16.589	16.659	VV	7854	136448	5.99%	0.277%
406	16.690	16.659	16.707	VV	1651	33910	1.49%	0.069%
407	16.727	16.707	16.764	VV	2966	50631	2.22%	0.103%
408	16.765	16.764	16.777	VV	514	3596	0.16%	0.007%
409	16.801	16.777	16.838	VV	1707	27406	1.20%	0.056%
410	16.864	16.838	16.879	PV	424	5818	0.26%	0.012%
411	16.881	16.879	16.896	VV	563	2498	0.11%	0.005%
412	17.005	16.896	17.027	VV	843	21605	0.95%	0.044%
413	17.107	17.027	17.140	VV	1226	51900	2.28%	0.105%
414	17.196	17.140	17.230	VV	158463	2133310	93.58%	4.326%
415	17.243	17.230	17.257	VV	1851	24675	1.08%	0.050%
416	17.272	17.257	17.304	VV	2272	33674	1.48%	0.068%
417	17.350	17.304	17.355	VV	181	5950	0.26%	0.012%
418	17.364	17.355	17.373	VV	183	1117	0.05%	0.002%
419	17.401	17.373	17.407	PV	156	2108	0.09%	0.004%
420	17.433	17.407	17.449	VV	337	5512	0.24%	0.011%
421	17.453	17.449	17.458	VV	186	793	0.03%	0.002%
422	17.464	17.458	17.496	VV	188	3751	0.16%	0.008%
423	17.567	17.496	17.615	VV	6256	123421	5.41%	0.250%
424	17.646	17.615	17.687	VV	6047	96600	4.24%	0.196%
425	17.731	17.687	17.762	VV	1226	25791	1.13%	0.052%
426	17.797	17.762	17.834	VV	333	9140	0.40%	0.019%
427	17.880	17.834	17.895	VV	116	3109	0.14%	0.006%
428	18.041	17.895	18.051	PV	1777	50092	2.20%	0.102%
429	18.086	18.051	18.141	VV	147346	2045245	89.72%	4.147%
430	18.175	18.141	18.237	VV	2776	46419	2.04%	0.094%
431	18.312	18.237	18.342	PV	2167	36930	1.62%	0.075%
432	18.362	18.342	18.380	VV	378	6630	0.29%	0.013%
433	18.408	18.380	18.417	VV	1818	25056	1.10%	0.051%
434	18.448	18.417	18.488	VV	28202	509625	22.36%	1.033%
435	18.511	18.488	18.547	VV	7549	134150	5.88%	0.272%
436	18.578	18.547	18.594	VV	1049	24733	1.08%	0.050%
437	18.606	18.594	18.634	VV	1143	20250	0.89%	0.041%
438	18.641	18.634	18.685	VV	705	14582	0.64%	0.030%
439	18.719	18.685	18.730	VV	586	11409	0.50%	0.023%
440	18.776	18.730	18.792	VV	647	20006	0.88%	0.041%
441	18.807	18.792	18.840	VV	291	6308	0.28%	0.013%
442	18.874	18.840	18.882	PV	1381	19355	0.85%	0.039%
443	18.921	18.882	18.978	VV	124599	1737340	76.21%	3.523%
444	19.030	18.978	19.059	VV	2715	72209	3.17%	0.146%
445	19.079	19.059	19.100	VV	1404	26785	1.17%	0.054%
446	19.118	19.100	19.141	VV	779	12418	0.54%	0.025%
447	19.195	19.141	19.221	PV	5753	86199	3.78%	0.175%
448	19.277	19.221	19.300	VV	21494	397840	17.45%	0.807%
449	19.318	19.300	19.372	VV	15810	344765	15.12%	0.699%
450	19.411	19.372	19.432	VV	2708	81642	3.58%	0.166%
451	19.452	19.432	19.477	VV	2545	58669	2.57%	0.119%
452	19.515	19.477	19.530	VV	2624	62992	2.76%	0.128%
453	19.563	19.530	19.587	VV	2460	72805	3.19%	0.148%
454	19.612	19.587	19.634	VV	2827	64054	2.81%	0.130%
455	19.706	19.634	19.747	VV	73662	1201030	52.68%	2.435%
456	19.776	19.747	19.790	VV	5306	118734	5.21%	0.241%

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457	19.812	19.790	19.840	VV	5633	144408	6.33%	0.293%
458	19.880	19.840	19.909	VV	6487	208708	9.16%	0.423%
459	19.987	19.909	20.018	VV	5325	305590	13.41%	0.620%
460	20.059	20.018	20.097	VV	9700	342991	15.05%	0.696%
461	20.110	20.097	20.149	VV	6538	180731	7.93%	0.366%
462	20.317	20.149	20.360	VV	8693	855077	37.51%	1.734%
463	20.447	20.360	20.485	VV	53593	1270191	55.72%	2.576%
464	20.606	20.485	20.630	VV	11667	854860	37.50%	1.734%
465	20.802	20.630	20.878	VV	13610	1804349	79.15%	3.659%
466	20.913	20.878	20.939	VV	11753	418847	18.37%	0.849%
467	21.118	20.939	21.144	VV	11054	1362281	59.76%	2.762%
468	21.191	21.144	21.343	VV	39841	1604326	70.38%	3.253%
469	21.353	21.343	21.362	VV	7333	83099	3.65%	0.169%
470	21.429	21.362	21.459	VV	7051	409708	17.97%	0.831%
471	21.494	21.459	21.540	VV	6737	318312	13.96%	0.645%
472	21.560	21.540	21.570	VV	5973	108306	4.75%	0.220%
473	21.621	21.570	21.712	VV	6159	468752	20.56%	0.951%
474	21.742	21.712	21.841	VV	4614	306165	13.43%	0.621%
475	21.872	21.841	21.914	VV	3291	130071	5.71%	0.264%
476	21.926	21.914	21.982	VV	2526	90455	3.97%	0.183%
477	22.009	21.982	22.039	VV	1745	54605	2.40%	0.111%
478	22.116	22.039	22.200	VBA	21609	612202	26.86%	1.241%

Sum of corrected areas: 49313685

FG032725.M Wed Apr 09 01:00:30 2025

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

Report of Analysis

Client:	Portal Partners Tri-Venture	Date Collected:	04/05/25
Project:	Amtrak Sawtooth Bridges 2025	Date Received:	04/07/25
Client Sample ID:	B-158-SB02MSD	SDG No.:	Q1746
Lab Sample ID:	Q1744-03MSD	Matrix:	SOIL
Analytical Method:	8015D TPH	% Solid:	56 Decanted:
Sample Wt/Vol:	30.09 Units: g	Final Vol:	1 mL
Soil Aliquot Vol:	uL	Test:	TPH GC
Extraction Type:		Injection Volume :	
GPC Factor :	PH :		
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
FG015660.D	1	04/08/25 08:55	04/08/25 16:29	PB167510

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
PHC	Petroleum Hydrocarbons	24200		684	5040	ug/kg
SURROGATES						
16416-32-3	TETRACOSANE-d50	11.3		37 - 130	56%	SPK: 20

Comments:

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

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

Quantitation Report (QT Reviewed)

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG040825\
Data File : FG015660.D
Signal(s) : FID1A.ch
Acq On : 08 Apr 2025 16:29
Operator : YP\AJ
Sample : Q1744-03MSD
Misc :
ALS Vial : 28 Sample Multiplier: 1

Instrument :
FID_G
ClientSampleId :
B-158-SB02MSD

Manual Integrations APPROVED

Reviewed By :Yogesh Patel 04/09/2025
Supervised By :mohammad ahmed 04/10/2025

Integration File: autoint1.e
Quant Time: Apr 09 00:30:40 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG032725.M
Quant Title :
QLast Update : Thu Mar 27 11:04:29 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...	15.015	1290276	11.262 ug/ml
	Target Compounds			
1)	N-OCTANE	1.985	1472007	12.665 ug/ml
2)	N-DECANE	4.514	1725884	14.609 ug/ml
3)	N-DODECANE	6.695	1839542	15.149 ug/ml
4)	N-TETRADECANE	8.531	1899758	15.065 ug/ml
5)	N-HEXADECANE	10.146	2065474	16.042 ug/ml
6)	N-OCTADECANE	11.595	2186088	16.594 ug/ml
7)	N-EICOSANE	12.910	2171823	16.220 ug/ml
8)	N-DOCOSANE	14.112	2148215	16.532 ug/ml
10)	N-TETRACOSANE	15.219	2203087	17.009 ug/ml
11)	N-HEXACOSANE	16.243	2092627	16.442 ug/ml
12)	N-OCTACOSANE	17.197	2043462	16.347 ug/mlm
13)	N-TRIACONTANE	18.088	2013757	16.088 ug/ml
14)	N-DOTRIACONTANE	18.922	1746857	14.719 ug/ml
15)	N-TETRATRIACONTANE	19.705	1055803	10.115 ug/ml
16)	N-HEXATRIACONTANE	20.448	683943	7.804 ug/ml
17)	N-OCTATRIACONTANE	21.190	548815	7.354 ug/ml
18)	N-TETRACONTANE	22.115	519899	7.849 ug/ml

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

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG040825\
Data File : FG015660.D
Signal(s) : FID1A.ch
Acq On : 08 Apr 2025 16:29
Operator : YP\AJ
Sample : Q1744-03MSD
Misc :
ALS Vial : 28 Sample Multiplier: 1

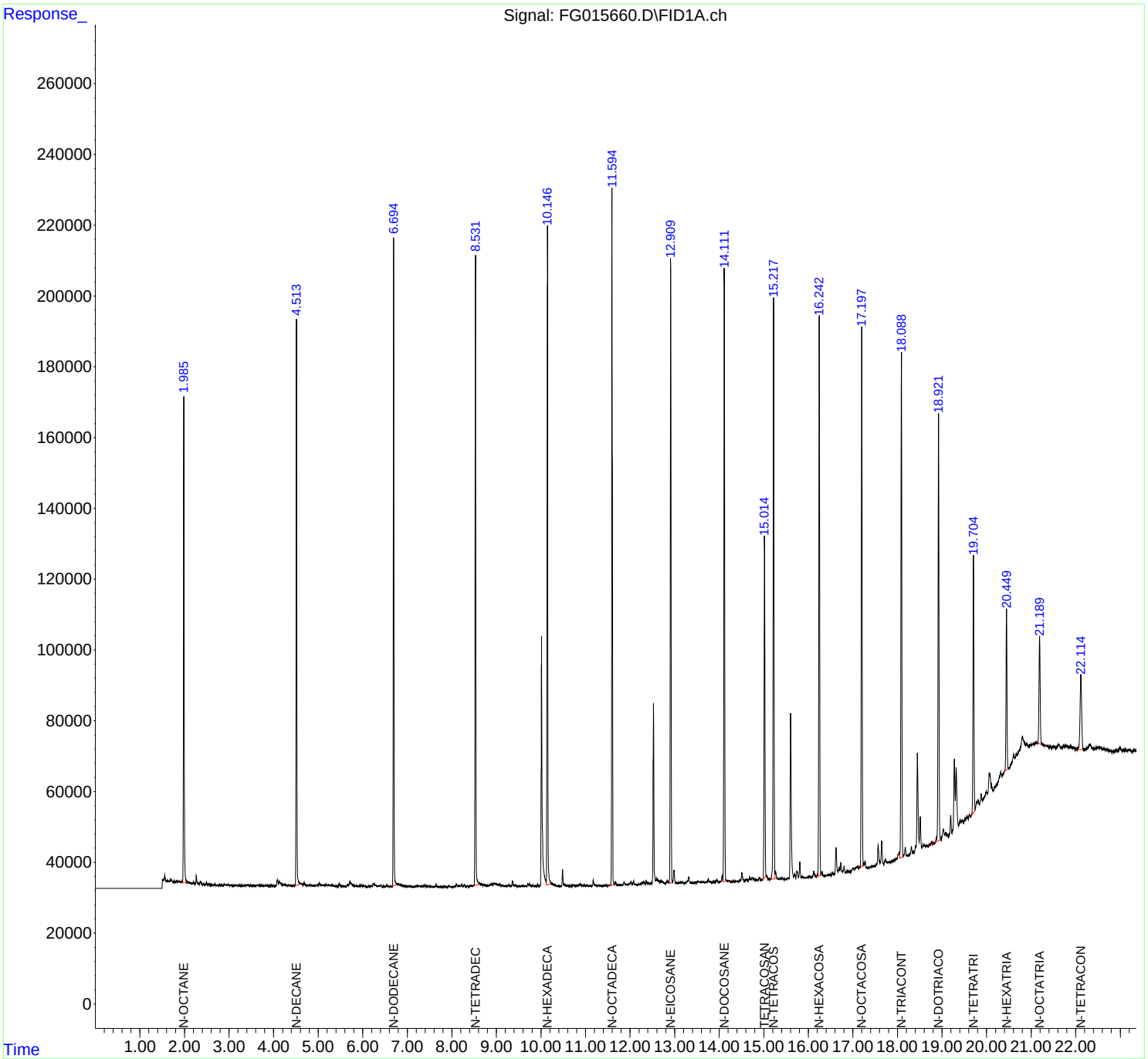
Integration File: autoint1.e
Quant Time: Apr 09 00:30:40 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG032725.M
Quant Title :
QLast Update : Thu Mar 27 11:04:29 2025
Response via : Initial Calibration
Integrator: ChemStation

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

Instrument :
FID_G
ClientSampleId :
B-158-SB02MSD

Manual Integrations APPROVED

Reviewed By :Yogesh Patel 04/09/2025
Supervised By :mohammad ahmed 04/10/2025



Instrument :
FID_G
ClientSampleId :
B-158-SB02MSD

rteres

Area Percent Report

Manual IntegrationsAPPROVED

Reviewed By :Yogesh Patel 04/09/2025
Supervised By :mohammad ahmed 04/10/2025

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG04082
Data File : FG015660.D
Signal(s) : FID1A.ch
Acq On : 08 Apr 2025 16:29
Sample : Q1744-03MSD
Misc :
ALS Vial : 28 Sample Multiplier: 1

Integration File: Sample.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG032725.M
Title :

Signal : FID1A.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	1.823	1.800	1.857	BV	495	4906	0.22%	0.010%
2	1.877	1.857	1.903	PV	462	5614	0.25%	0.012%
3	1.925	1.903	1.931	PV	330	2753	0.12%	0.006%
4	1.936	1.931	1.954	VV	337	2435	0.11%	0.005%
5	1.985	1.954	2.072	VV	137559	1479897	66.64%	3.056%
6	2.075	2.072	2.110	VV	347	3984	0.18%	0.008%
7	2.113	2.110	2.151	VV	164	1983	0.09%	0.004%
8	2.157	2.151	2.163	VV	87	319	0.01%	0.001%
9	2.167	2.163	2.184	VV	127	802	0.04%	0.002%
10	2.200	2.184	2.251	PV	474	7488	0.34%	0.015%
11	2.266	2.251	2.302	VV	2375	27653	1.25%	0.057%
12	2.308	2.302	2.336	VV	209	2513	0.11%	0.005%
13	2.357	2.336	2.410	VV	941	15658	0.71%	0.032%
14	2.423	2.410	2.470	VV	230	3672	0.17%	0.008%
15	2.489	2.470	2.547	PV	671	10743	0.48%	0.022%
16	2.556	2.547	2.599	VV	251	3504	0.16%	0.007%
17	2.613	2.599	2.647	VV	160	1932	0.09%	0.004%
18	2.673	2.647	2.701	PV	294	5328	0.24%	0.011%
19	2.706	2.701	2.710	VV	81	431	0.02%	0.001%
20	2.715	2.710	2.732	VV	136	886	0.04%	0.002%
21	2.761	2.732	2.769	VV	187	2132	0.10%	0.004%
22	2.783	2.769	2.791	PV	297	2152	0.10%	0.004%
23	2.799	2.791	2.819	VV	167	1823	0.08%	0.004%
24	2.825	2.819	2.831	PV	147	628	0.03%	0.001%
25	2.847	2.831	2.857	VV	215	1855	0.08%	0.004%
26	2.861	2.857	2.870	VV	146	913	0.04%	0.002%
27	2.890	2.870	2.897	VV	326	3506	0.16%	0.007%
28	2.900	2.897	2.908	VV	278	1555	0.07%	0.003%
29	2.914	2.908	2.933	VV	261	3453	0.16%	0.007%
30	2.939	2.933	2.953	VV	287	2659	0.12%	0.005%
31	2.971	2.953	3.002	VV	375	7081	0.32%	0.015%
32	3.006	3.002	3.016	VV	253	1141	0.05%	0.002%
33	3.022	3.016	3.029	VV	169	866	0.04%	0.002%
34	3.066	3.029	3.076	VV	249	3986	0.18%	0.008%
35	3.082	3.076	3.091	PV	128	866	0.04%	0.002%
36	3.095	3.091	3.113	VV	192	1690	0.08%	0.003%

Instrument :
FID_G
ClientSampleId :
B-158-SB02MSD

Manual IntegrationsAPPROVED

Reviewed By :Yogesh Patel 04/09/2025
Supervised By :mohammad ahmed 04/10/2025

rteres

37	3.126	3.113	3.164	VV	242	4856	0.22%	0.010%
38	3.172	3.164	3.230	VV	193	4442		
39	3.251	3.230	3.294	VV	204	4154		
40	3.303	3.294	3.315	VV	98	822		
41	3.329	3.315	3.336	VV	143	936		
42	3.355	3.336	3.365	VV	178	1958		
43	3.384	3.365	3.401	VV	216	3291	0.15%	0.007%
44	3.408	3.401	3.441	VV	222	5230	0.24%	0.011%
45	3.448	3.441	3.472	VV	186	3087	0.14%	0.006%
46	3.476	3.472	3.487	VV	181	1305	0.06%	0.003%
47	3.494	3.487	3.514	VV	186	1974	0.09%	0.004%
48	3.524	3.514	3.537	VV	158	1277	0.06%	0.003%
49	3.544	3.537	3.557	VV	139	1052	0.05%	0.002%
50	3.566	3.557	3.576	VV	147	1030	0.05%	0.002%
51	3.589	3.576	3.599	VV	134	1211	0.05%	0.003%
52	3.607	3.599	3.613	VV	150	979	0.04%	0.002%
53	3.647	3.613	3.691	VV	291	8788	0.40%	0.018%
54	3.707	3.691	3.732	VV	274	4411	0.20%	0.009%
55	3.742	3.732	3.797	VV	176	4805	0.22%	0.010%
56	3.813	3.797	3.865	VV	264	6394	0.29%	0.013%
57	3.874	3.865	3.920	VV	185	2877	0.13%	0.006%
58	3.942	3.920	3.957	VV	191	2531	0.11%	0.005%
59	3.967	3.957	4.042	VV	209	4762	0.21%	0.010%
60	4.081	4.042	4.112	VV	1820	37392	1.68%	0.077%
61	4.131	4.112	4.211	VV	1267	48176	2.17%	0.099%
62	4.237	4.211	4.274	VV	629	17124	0.77%	0.035%
63	4.287	4.274	4.320	VV	488	9881	0.44%	0.020%
64	4.341	4.320	4.414	VV	397	14452	0.65%	0.030%
65	4.418	4.414	4.427	VV	277	1821	0.08%	0.004%
66	4.433	4.427	4.450	VV	241	2863	0.13%	0.006%
67	4.458	4.450	4.476	VV	248	2968	0.13%	0.006%
68	4.514	4.476	4.624	VV	160361	1768085	79.61%	3.651%
69	4.633	4.624	4.656	VV	727	11110	0.50%	0.023%
70	4.685	4.656	4.756	VV	1254	33953	1.53%	0.070%
71	4.764	4.756	4.785	VV	311	5024	0.23%	0.010%
72	4.797	4.785	4.814	VV	398	5443	0.25%	0.011%
73	4.825	4.814	4.894	VV	416	12430	0.56%	0.026%
74	4.911	4.894	4.924	VV	297	4576	0.21%	0.009%
75	4.940	4.924	4.960	VV	392	6222	0.28%	0.013%
76	4.991	4.960	5.002	VV	411	7896	0.36%	0.016%
77	5.026	5.002	5.062	VV	909	20184	0.91%	0.042%
78	5.071	5.062	5.082	VV	432	4446	0.20%	0.009%
79	5.094	5.082	5.134	VV	424	11331	0.51%	0.023%
80	5.175	5.134	5.207	VV	586	17452	0.79%	0.036%
81	5.224	5.207	5.253	VV	474	10237	0.46%	0.021%
82	5.270	5.253	5.287	VV	371	7211	0.32%	0.015%
83	5.307	5.287	5.412	VV	580	19087	0.86%	0.039%
84	5.424	5.412	5.447	VV	221	2863	0.13%	0.006%
85	5.471	5.447	5.509	VV	603	13792	0.62%	0.028%
86	5.514	5.509	5.584	VV	342	7030	0.32%	0.015%
87	5.594	5.584	5.616	PV	95	1093	0.05%	0.002%
88	5.656	5.616	5.673	VV	651	9315	0.42%	0.019%
89	5.711	5.673	5.832	VV	1477	62431	2.81%	0.129%

Instrument :
FID_G
ClientSampleId :
B-158-SB02MSD

rteres

90	5.853	5.832	5.879	VV	413	7348	0.33%	0.015%
91	5.894	5.879	5.904	VV	222	2948		
92	5.926	5.904	5.939	VV	429	6061		
93	5.949	5.939	5.967	VV	477	5694		
94	5.979	5.967	5.997	VV	338	4810		
95	6.007	5.997	6.022	VV	263	3596		
96	6.034	6.022	6.089	VV	324	5478	0.25%	0.011%
97	6.135	6.089	6.159	PV	279	5487	0.25%	0.011%
98	6.176	6.159	6.192	VV	257	4051	0.18%	0.008%
99	6.236	6.192	6.261	VV	987	22582	1.02%	0.047%
100	6.268	6.261	6.326	VV	779	16716	0.75%	0.035%
101	6.336	6.326	6.349	VV	306	3600	0.16%	0.007%
102	6.359	6.349	6.368	VV	307	2727	0.12%	0.006%
103	6.406	6.368	6.456	VV	564	15418	0.69%	0.032%
104	6.462	6.456	6.475	VV	145	1670	0.08%	0.003%
105	6.506	6.475	6.519	VV	236	4821	0.22%	0.010%
106	6.537	6.519	6.611	VV	699	17416	0.78%	0.036%
107	6.619	6.611	6.664	VV	272	5111	0.23%	0.011%
108	6.695	6.664	6.781	VV	182138	1873758	84.37%	3.870%
109	6.794	6.781	6.832	VV	885	23548	1.06%	0.049%
110	6.846	6.832	6.936	VV	688	27126	1.22%	0.056%
111	6.943	6.936	6.959	VV	338	3746	0.17%	0.008%
112	6.970	6.959	7.022	VV	329	8655	0.39%	0.018%
113	7.030	7.022	7.039	VV	234	2035	0.09%	0.004%
114	7.053	7.039	7.087	VV	216	4884	0.22%	0.010%
115	7.097	7.087	7.126	VV	257	3225	0.15%	0.007%
116	7.156	7.126	7.190	VV	230	5160	0.23%	0.011%
117	7.216	7.190	7.229	VV	426	7275	0.33%	0.015%
118	7.237	7.229	7.259	VV	419	6042	0.27%	0.012%
119	7.277	7.259	7.303	VV	342	6623	0.30%	0.014%
120	7.333	7.303	7.359	VV	324	8516	0.38%	0.018%
121	7.377	7.359	7.402	VV	555	9947	0.45%	0.021%
122	7.417	7.402	7.462	VV	376	8689	0.39%	0.018%
123	7.476	7.462	7.509	VV	356	5538	0.25%	0.011%
124	7.526	7.509	7.572	VV	255	5777	0.26%	0.012%
125	7.589	7.572	7.612	VV	199	2770	0.12%	0.006%
126	7.647	7.612	7.699	VV	980	13994	0.63%	0.029%
127	7.714	7.699	7.724	PV	128	1269	0.06%	0.003%
128	7.732	7.724	7.751	VV	120	1119	0.05%	0.002%
129	7.774	7.751	7.805	VV	138	2969	0.13%	0.006%
130	7.827	7.805	7.841	VV	205	2374	0.11%	0.005%
131	7.849	7.841	7.867	VV	123	1075	0.05%	0.002%
132	7.874	7.867	7.884	PV	121	539	0.02%	0.001%
133	7.930	7.884	7.958	VV	546	8832	0.40%	0.018%
134	7.989	7.958	8.012	VV	206	3510	0.16%	0.007%
135	8.019	8.012	8.051	VV	121	1912	0.09%	0.004%
136	8.103	8.051	8.142	VV	978	22574	1.02%	0.047%
137	8.178	8.142	8.201	VV	436	11510	0.52%	0.024%
138	8.222	8.201	8.247	VV	857	12283	0.55%	0.025%
139	8.278	8.247	8.332	VV	777	15045	0.68%	0.031%
140	8.352	8.332	8.373	VV	315	4924	0.22%	0.010%
141	8.437	8.373	8.459	VV	438	12825	0.58%	0.026%

Manual IntegrationsAPPROVED

Reviewed By :Yogesh Patel 04/09/2025
Supervised By :mohammad ahmed 04/10/2025

Instrument :
FID_G
ClientSampleId :
B-158-SB02MSD

Manual IntegrationsAPPROVED

Reviewed By :Yogesh Patel 04/09/2025
Supervised By :mohammad ahmed 04/10/2025

rteres

142	8.466	8.459	8.474	VV	301	2566	0.12%	0.005%
143	8.531	8.474	8.666	VV	178047	1973063	88	
144	8.674	8.666	8.702	VV	697	13255	0	
145	8.716	8.702	8.806	VV	627	28434	1	
146	8.833	8.806	8.844	VV	473	9603	0	
147	8.894	8.844	8.921	VV	946	30920	1	
148	8.951	8.921	9.001	VV	1056	40028	1.80%	0.083%
149	9.009	9.001	9.053	VV	764	20669	0.93%	0.043%
150	9.072	9.053	9.109	VV	905	18671	0.84%	0.039%
151	9.125	9.109	9.135	VV	371	5260	0.24%	0.011%
152	9.146	9.135	9.199	VV	443	11573	0.52%	0.024%
153	9.223	9.199	9.249	VV	308	8019	0.36%	0.017%
154	9.280	9.249	9.319	VV	480	13409	0.60%	0.028%
155	9.362	9.319	9.387	VV	1636	25593	1.15%	0.053%
156	9.395	9.387	9.402	VV	444	3289	0.15%	0.007%
157	9.413	9.402	9.467	VV	408	10200	0.46%	0.021%
158	9.508	9.467	9.527	VV	206	4596	0.21%	0.009%
159	9.550	9.527	9.556	VV	318	3652	0.16%	0.008%
160	9.587	9.556	9.624	VV	300	9692	0.44%	0.020%
161	9.643	9.624	9.679	VV	282	5663	0.25%	0.012%
162	9.705	9.679	9.724	VV	738	12954	0.58%	0.027%
163	9.742	9.724	9.771	VV	693	14432	0.65%	0.030%
164	9.781	9.771	9.795	VV	355	4156	0.19%	0.009%
165	9.826	9.795	9.849	VV	346	7779	0.35%	0.016%
166	9.872	9.849	9.897	VV	227	4562	0.21%	0.009%
167	9.924	9.897	9.951	VV	865	10169	0.46%	0.021%
168	10.014	9.951	10.116	VV	70583	1081966	48.72%	2.234%
169	10.146	10.116	10.244	VV	185170	2117104	95.33%	4.372%
170	10.251	10.244	10.286	VV	910	17109	0.77%	0.035%
171	10.299	10.286	10.416	VV	563	20131	0.91%	0.042%
172	10.419	10.416	10.448	VV	149	1561	0.07%	0.003%
173	10.487	10.448	10.524	VV	4552	63042	2.84%	0.130%
174	10.532	10.524	10.559	VV	519	7743	0.35%	0.016%
175	10.586	10.559	10.613	VV	369	7813	0.35%	0.016%
176	10.622	10.613	10.647	VV	242	3225	0.15%	0.007%
177	10.664	10.647	10.690	VV	230	3401	0.15%	0.007%
178	10.718	10.690	10.754	PV	439	9731	0.44%	0.020%
179	10.766	10.754	10.799	VV	239	6049	0.27%	0.012%
180	10.816	10.799	10.831	VV	304	4180	0.19%	0.009%
181	10.846	10.831	10.872	VV	417	9108	0.41%	0.019%
182	10.887	10.872	10.909	VV	831	11050	0.50%	0.023%
183	10.923	10.909	10.938	VV	321	4132	0.19%	0.009%
184	10.961	10.938	10.988	VV	430	8146	0.37%	0.017%
185	10.995	10.988	11.017	VV	251	3190	0.14%	0.007%
186	11.032	11.017	11.092	VV	362	6759	0.30%	0.014%
187	11.110	11.092	11.141	VV	237	4027	0.18%	0.008%
188	11.174	11.141	11.248	VV	1744	36744	1.65%	0.076%
189	11.272	11.248	11.292	VV	242	4638	0.21%	0.010%
190	11.315	11.292	11.334	VV	237	4491	0.20%	0.009%
191	11.343	11.334	11.386	VV	208	3545	0.16%	0.007%
192	11.408	11.386	11.430	PV	264	4596	0.21%	0.009%
193	11.460	11.430	11.499	VV	303	6379	0.29%	0.013%
194	11.530	11.499	11.549	VV	284	5007	0.23%	0.010%

Instrument :
FID_G
ClientSampleId :
B-158-SB02MSD

rteres

Manual IntegrationsAPPROVED

Reviewed By :Yogesh Patel 04/09/2025
Supervised By :mohammad ahmed 04/10/2025

195	11.595	11.549	11.653	VV	196918	2203410	99.21%	4.550%
196	11.672	11.653	11.732	VV	1237	24980	1	
197	11.751	11.732	11.774	VV	287	5256	0	
198	11.787	11.774	11.808	VV	320	4020	0	
199	11.863	11.808	11.926	PV	1037	30785	1	
200	11.948	11.926	11.964	VV	363	6391	0	
201	12.017	11.964	12.055	VV	1165	31243	1.41%	0.065%
202	12.077	12.055	12.097	VV	1236	16655	0.75%	0.034%
203	12.106	12.097	12.166	VV	344	8692	0.39%	0.018%
204	12.205	12.166	12.222	VV	225	3879	0.17%	0.008%
205	12.264	12.222	12.284	VV	667	15072	0.68%	0.031%
206	12.306	12.284	12.339	VV	997	20324	0.92%	0.042%
207	12.365	12.339	12.404	VV	1097	23601	1.06%	0.049%
208	12.423	12.404	12.449	VV	607	10259	0.46%	0.021%
209	12.474	12.449	12.494	VV	576	9895	0.45%	0.020%
210	12.524	12.494	12.572	VV	51365	623558	28.08%	1.288%
211	12.591	12.572	12.609	VV	1849	30377	1.37%	0.063%
212	12.619	12.609	12.671	VV	1452	35069	1.58%	0.072%
213	12.697	12.671	12.719	VV	1240	25699	1.16%	0.053%
214	12.732	12.719	12.790	VV	773	20359	0.92%	0.042%
215	12.835	12.790	12.873	VV	1107	28920	1.30%	0.060%
216	12.910	12.873	12.957	VV	176323	2188855	98.56%	4.520%
217	12.983	12.957	13.074	VV	3898	80224	3.61%	0.166%
218	13.161	13.074	13.205	VV	525	25443	1.15%	0.053%
219	13.234	13.205	13.245	VV	226	3536	0.16%	0.007%
220	13.276	13.245	13.289	VV	692	10252	0.46%	0.021%
221	13.316	13.289	13.387	VV	1802	39418	1.77%	0.081%
222	13.398	13.387	13.414	VV	186	2135	0.10%	0.004%
223	13.420	13.414	13.449	VV	162	2961	0.13%	0.006%
224	13.467	13.449	13.487	VV	324	4664	0.21%	0.010%
225	13.524	13.487	13.564	VV	651	16910	0.76%	0.035%
226	13.594	13.564	13.619	VV	366	8944	0.40%	0.018%
227	13.650	13.619	13.670	VV	365	6829	0.31%	0.014%
228	13.699	13.670	13.721	VV	325	5977	0.27%	0.012%
229	13.755	13.721	13.788	VV	1214	22284	1.00%	0.046%
230	13.804	13.788	13.827	VV	289	5030	0.23%	0.010%
231	13.878	13.827	13.891	VV	302	5421	0.24%	0.011%
232	13.951	13.891	14.006	VV	707	21857	0.98%	0.045%
233	14.064	14.006	14.079	VV	2017	30956	1.39%	0.064%
234	14.112	14.079	14.203	VV	173343	2167266	97.59%	4.476%
235	14.222	14.203	14.287	VV	503	10676	0.48%	0.022%
236	14.327	14.287	14.352	PV	224	5098	0.23%	0.011%
237	14.397	14.352	14.430	VV	174	5349	0.24%	0.011%
238	14.473	14.430	14.482	VV	414	5856	0.26%	0.012%
239	14.509	14.482	14.572	VV	2416	49063	2.21%	0.101%
240	14.611	14.572	14.651	VV	403	12804	0.58%	0.026%
241	14.677	14.651	14.696	VV	933	15275	0.69%	0.032%
242	14.707	14.696	14.716	VV	540	6302	0.28%	0.013%
243	14.738	14.716	14.761	VV	1028	18162	0.82%	0.038%
244	14.777	14.761	14.829	VV	665	16000	0.72%	0.033%
245	14.838	14.829	14.859	VV	250	3626	0.16%	0.007%
246	14.902	14.859	14.943	VV	685	17938	0.81%	0.037%

Instrument :
FID_G
ClientSampleId :
B-158-SB02MSD

Manual IntegrationsAPPROVED

Reviewed By :Yogesh Patel 04/09/2025
Supervised By :mohammad ahmed 04/10/2025

rteres

247	14.956	14.943	14.976	VV	250	4163	0.19%	0.009%
248	15.015	14.976	15.051	VV	96984	1322033	59	
249	15.064	15.051	15.094	VV	1384	24820	1	
250	15.102	15.094	15.142	VV	462	8455	0	
251	15.219	15.142	15.252	VV	163250	2220892	100	
252	15.264	15.252	15.344	VV	2572	48800	2	
253	15.372	15.344	15.392	VV	380	6396	0.29%	0.013%
254	15.412	15.392	15.456	VV	594	8044	0.36%	0.017%
255	15.488	15.456	15.499	PV	114	1610	0.07%	0.003%
256	15.541	15.499	15.567	VV	418	4408	0.20%	0.009%
257	15.601	15.567	15.676	VV	46741	781025	35.17%	1.613%
258	15.696	15.676	15.719	VV	1294	22184	1.00%	0.046%
259	15.743	15.719	15.778	VV	2023	43798	1.97%	0.090%
260	15.808	15.778	15.843	VV	4683	68286	3.07%	0.141%
261	15.869	15.843	15.946	VV	413	13721	0.62%	0.028%
262	15.994	15.946	16.008	PV	281	5397	0.24%	0.011%
263	16.033	16.008	16.072	VV	271	7734	0.35%	0.016%
264	16.122	16.072	16.175	VV	1785	35505	1.60%	0.073%
265	16.243	16.175	16.287	VV	155041	2113217	95.15%	4.364%
266	16.306	16.287	16.361	VV	1454	24078	1.08%	0.050%
267	16.373	16.361	16.400	VV	231	2807	0.13%	0.006%
268	16.437	16.400	16.467	PV	310	6728	0.30%	0.014%
269	16.539	16.467	16.587	VV	581	19034	0.86%	0.039%
270	16.620	16.587	16.664	VV	7679	138123	6.22%	0.285%
271	16.691	16.664	16.707	VV	1633	32731	1.47%	0.068%
272	16.728	16.707	16.773	VV	3069	56015	2.52%	0.116%
273	16.801	16.773	16.847	VV	1853	31789	1.43%	0.066%
274	16.866	16.847	16.911	VV	483	9636	0.43%	0.020%
275	16.926	16.911	16.939	VV	165	1594	0.07%	0.003%
276	16.995	16.939	17.033	PV	966	25792	1.16%	0.053%
277	17.104	17.033	17.142	VV	1148	48748	2.19%	0.101%
278	17.197	17.142	17.232	VV	153241	2083301	93.80%	4.302%
279	17.244	17.232	17.257	VV	1623	21371	0.96%	0.044%
280	17.274	17.257	17.305	VV	2105	31582	1.42%	0.065%
281	17.317	17.305	17.334	VV	296	3305	0.15%	0.007%
282	17.346	17.334	17.364	VV	150	1712	0.08%	0.004%
283	17.437	17.364	17.452	PV	301	4830	0.22%	0.010%
284	17.481	17.452	17.499	VV	197	3031	0.14%	0.006%
285	17.566	17.499	17.611	VV	5781	114604	5.16%	0.237%
286	17.646	17.611	17.691	VV	6628	107339	4.83%	0.222%
287	17.730	17.691	17.762	VV	1189	26010	1.17%	0.054%
288	17.770	17.762	17.787	VV	388	3992	0.18%	0.008%
289	17.801	17.787	17.837	VV	320	5660	0.25%	0.012%
290	18.042	17.837	18.052	PV	1873	60522	2.73%	0.125%
291	18.088	18.052	18.142	VV	143237	2022134	91.05%	4.176%
292	18.174	18.142	18.234	VV	2638	45107	2.03%	0.093%
293	18.312	18.234	18.337	PV	2058	32512	1.46%	0.067%
294	18.364	18.337	18.379	PV	313	4211	0.19%	0.009%
295	18.406	18.379	18.419	VV	1906	25651	1.15%	0.053%
296	18.447	18.419	18.486	VV	27489	486268	21.90%	1.004%
297	18.510	18.486	18.549	VV	9457	159206	7.17%	0.329%
298	18.575	18.549	18.592	VV	1112	21504	0.97%	0.044%
299	18.605	18.592	18.622	VV	837	13125	0.59%	0.027%

Instrument :
FID_G
ClientSampleId :
B-158-SB02MSD

Manual IntegrationsAPPROVED

Reviewed By :Yogesh Patel 04/09/2025
Supervised By :mohammad ahmed 04/10/2025

rteres

300	18.640	18.622	18.672	VV	517	11631	0.52%	0.024%
301	18.721	18.672	18.737	VV	489	10491		
302	18.765	18.737	18.794	VV	651	16734		
303	18.811	18.794	18.836	VV	374	6096		
304	18.921	18.836	18.979	PV	120984	1758539	79	
305	19.028	18.979	19.057	VV	2632	68379		
306	19.077	19.057	19.100	VV	1313	25456	1.15%	0.053%
307	19.113	19.100	19.141	VV	706	9277	0.42%	0.019%
308	19.194	19.141	19.221	PV	5403	80773	3.64%	0.167%
309	19.276	19.221	19.298	VV	20695	368170	16.58%	0.760%
310	19.318	19.298	19.369	VV	17955	368907	16.61%	0.762%
311	19.410	19.369	19.430	VV	2296	68102	3.07%	0.141%
312	19.451	19.430	19.477	VV	2128	49604	2.23%	0.102%
313	19.515	19.477	19.533	VV	2068	52180	2.35%	0.108%
314	19.561	19.533	19.586	VV	2277	58543	2.64%	0.121%
315	19.613	19.586	19.636	VV	2403	54835	2.47%	0.113%
316	19.705	19.636	19.746	VV	73795	1181691	53.21%	2.440%
317	19.775	19.746	19.794	VV	4797	116994	5.27%	0.242%
318	19.811	19.794	19.840	VV	4859	115674	5.21%	0.239%
319	19.879	19.840	19.907	VV	5900	185457	8.35%	0.383%
320	19.990	19.907	20.023	VV	5840	331701	14.94%	0.685%
321	20.061	20.023	20.149	VV	10225	545270	24.55%	1.126%
322	20.319	20.149	20.342	VV	8596	750002	33.77%	1.549%
323	20.448	20.342	20.504	VV	53295	1460479	65.76%	3.016%
324	20.608	20.504	20.631	VV	11311	729138	32.83%	1.506%
325	20.678	20.631	20.692	VV	10829	391714	17.64%	0.809%
326	20.804	20.692	20.892	VV	14986	1493661	67.26%	3.085%
327	20.904	20.892	20.941	VV	11871	332328	14.96%	0.686%
328	21.002	20.941	21.012	VV	11047	465207	20.95%	0.961%
329	21.054	21.012	21.068	VV	10784	364994	16.43%	0.754%
330	21.123	21.068	21.146	VV	10512	485300	21.85%	1.002%
331	21.190	21.146	21.336	VV	39976	1581591	71.21%	3.266%
332	21.358	21.336	21.419	VV	7888	372746	16.78%	0.770%
333	21.429	21.419	21.469	VV	6897	200569	9.03%	0.414%
334	21.504	21.469	21.554	VV	6603	316447	14.25%	0.654%
335	21.622	21.554	21.687	VV	6028	434222	19.55%	0.897%
336	21.783	21.687	21.837	VV	4493	391148	17.61%	0.808%
337	21.873	21.837	21.921	VV	3407	159808	7.20%	0.330%
338	21.949	21.921	22.011	VV	2658	119507	5.38%	0.247%
339	22.116	22.011	22.191	VV	21726	602333	27.12%	1.244%
			Sum of corrected areas:			48423326		

FG032725.M Wed Apr 09 01:01:09 2025

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

Manual Integration Report

Sample ID	ClientId ID	File ID	Sequence ID	Parameter	Supervised By	Supervised On	Reason
Q1744-03MSD		FG015660.D	FG040825	N-OCTACOSANE	mohammad	4/10/2025 5:30:17 AM	Peak Integrated by Software incorrectly

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

Instrument ID: FID_G

Daily Analysis Runlog For Sequence/QCBatch ID # FG032725

Review By	yogesh	Review On	3/27/2025 11:57:36 AM		
Supervise By	mohammad	Supervise On	3/31/2025 1:17:35 AM		
SubDirectory	FG032725	HP Acquire Method		HP Processing Method	FG032725

STD. NAME	STD REF.#
Tune/Reschk	
Initial Calibration Stds	PP23961,PP23963,PP23964,PP23965,PP23966
CCC	PP23963
Internal Standard/PEM	
ICV/I.BLK	PP23962,PP23967
Surrogate Standard	
MS/MSD Standard	
LCS Standard	

Sr#	SampleId	Data File Name	Date-Time	Operator	Status
1	MECL2	FG015562.D	27 Mar 2025 07:58	YP\AJ	Ok
2	I.BLK	FG015563.D	27 Mar 2025 08:27	YP\AJ	Ok
3	100 TRPH STD	FG015564.D	27 Mar 2025 08:56	YP\AJ	Ok
4	50 TRPH STD	FG015565.D	27 Mar 2025 09:26	YP\AJ	Ok
5	20 TRPH STD	FG015566.D	27 Mar 2025 09:55	YP\AJ	Ok
6	10 TRPH STD	FG015567.D	27 Mar 2025 10:24	YP\AJ	Ok
7	5 TRPH STD	FG015568.D	27 Mar 2025 10:54	YP\AJ	Ok
8	FG032725ICV	FG015569.D	27 Mar 2025 11:23	YP\AJ	Ok

M : Manual Integration

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

Instrument ID: FID_G

Daily Analysis Runlog For Sequence/QCBatch ID # FG040825

Review By	yogesh	Review On	4/8/2025 3:01:54 PM		
Supervise By	mohammad	Supervise On	4/10/2025 5:30:17 AM		
SubDirectory	FG040825	HP Acquire Method		HP Processing Method	FG032725

STD. NAME	STD REF.#
Tune/Reschk	
Initial Calibration Stds	PP23961,PP23963,PP23964,PP23965,PP23966
CCC	PP23963
Internal Standard/PEM	
ICV/I.BLK	PP23962,PP23967
Surrogate Standard	
MS/MSD Standard	
LCS Standard	

Sr#	SampleId	Data File Name	Date-Time	Operator	Status
1	MECL2	FG015649.D	08 Apr 2025 09:32	YP\AJ	Ok
2	I.BLK	FG015650.D	08 Apr 2025 10:01	YP\AJ	Ok
3	50 PPM TRPH STD	FG015651.D	08 Apr 2025 11:13	YP\AJ	Ok
4	RT MARKER	FG015652.D	08 Apr 2025 11:44	YP\AJ	Ok
5	PB167510BL	FG015653.D	08 Apr 2025 12:50	YP\AJ	Ok
6	PB167510BS	FG015654.D	08 Apr 2025 13:20	YP\AJ	Ok
7	Q1744-01	FG015655.D	08 Apr 2025 14:02	YP\AJ	Ok
8	Q1744-03	FG015656.D	08 Apr 2025 14:31	YP\AJ	Ok
9	Q1746-01	FG015657.D	08 Apr 2025 15:01	YP\AJ	Ok
10	Q1746-03	FG015658.D	08 Apr 2025 15:30	YP\AJ	Ok
11	Q1744-03MS	FG015659.D	08 Apr 2025 15:59	YP\AJ	Ok
12	Q1744-03MSD	FG015660.D	08 Apr 2025 16:29	YP\AJ	Ok,M
13	I.BLK	FG015661.D	08 Apr 2025 16:58	YP\AJ	Ok
14	50 PPM TRPH STD	FG015662.D	08 Apr 2025 17:57	YP\AJ	Ok

M : Manual Integration

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

Instrument ID: FID_G

Daily Analysis Runlog For Sequence/QCBatch ID # FG032725

Review By	yogesh	Review On	3/27/2025 11:57:36 AM		
Supervise By	mohammad	Supervise On	3/31/2025 1:17:35 AM		
SubDirectory	FG032725	HP Acquire Method		HP Processing Method	FG032725

STD. NAME	STD REF.#
Tune/Reschk	
Initial Calibration Stds	PP23961,PP23963,PP23964,PP23965,PP23966
CCC	PP23963
Internal Standard/PEM	
ICV/I.BLK	PP23962,PP23967
Surrogate Standard	
MS/MSD Standard	
LCS Standard	

Sr#	SampleId	ClientID	Data File Name	Date-Time	Comment	Operator	Status
1	MECL2		FG015562.D	27 Mar 2025 07:58		YP\AJ	Ok
2	I.BLK		FG015563.D	27 Mar 2025 08:27		YP\AJ	Ok
3	100 TRPH STD		FG015564.D	27 Mar 2025 08:56		YP\AJ	Ok
4	50 TRPH STD		FG015565.D	27 Mar 2025 09:26		YP\AJ	Ok
5	20 TRPH STD		FG015566.D	27 Mar 2025 09:55		YP\AJ	Ok
6	10 TRPH STD		FG015567.D	27 Mar 2025 10:24		YP\AJ	Ok
7	5 TRPH STD		FG015568.D	27 Mar 2025 10:54		YP\AJ	Ok
8	FG032725ICV		FG015569.D	27 Mar 2025 11:23		YP\AJ	Ok

M : Manual Integration

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

Instrument ID: FID_G

Daily Analysis Runlog For Sequence/QCBatch ID # FG040825

Review By	yogesh	Review On	4/8/2025 3:01:54 PM		
Supervise By	mohammad	Supervise On	4/10/2025 5:30:17 AM		
SubDirectory	FG040825	HP Acquire Method		HP Processing Method	FG032725

STD. NAME	STD REF.#
Tune/Reschk	
Initial Calibration Stds	PP23961,PP23963,PP23964,PP23965,PP23966
CCC	PP23963
Internal Standard/PEM	
ICV/I.BLK	PP23962,PP23967
Surrogate Standard	
MS/MSD Standard	
LCS Standard	

Sr#	SampleId	ClientID	Data File Name	Date-Time	Comment	Operator	Status
1	MECL2		FG015649.D	08 Apr 2025 09:32		YP\AJ	Ok
2	I.BLK		FG015650.D	08 Apr 2025 10:01		YP\AJ	Ok
3	50 PPM TRPH STD		FG015651.D	08 Apr 2025 11:13		YP\AJ	Ok
4	RT MARKER		FG015652.D	08 Apr 2025 11:44		YP\AJ	Ok
5	PB167510BL		FG015653.D	08 Apr 2025 12:50		YP\AJ	Ok
6	PB167510BS		FG015654.D	08 Apr 2025 13:20		YP\AJ	Ok
7	Q1744-01		FG015655.D	08 Apr 2025 14:02		YP\AJ	Ok
8	Q1744-03		FG015656.D	08 Apr 2025 14:31		YP\AJ	Ok
9	Q1746-01		FG015657.D	08 Apr 2025 15:01		YP\AJ	Ok
10	Q1746-03		FG015658.D	08 Apr 2025 15:30		YP\AJ	Ok
11	Q1744-03MS		FG015659.D	08 Apr 2025 15:59		YP\AJ	Ok
12	Q1744-03MSD		FG015660.D	08 Apr 2025 16:29		YP\AJ	Ok,M
13	I.BLK		FG015661.D	08 Apr 2025 16:58		YP\AJ	Ok
14	50 PPM TRPH STD		FG015662.D	08 Apr 2025 17:57		YP\AJ	Ok

M : Manual Integration

PERCENT SOLID

Supervisor: Iwona
Analyst: jignesh
Date: 4/8/2025

OVENTEMP IN Celsius(°C): 107
Time IN: 17:05
In Date: 04/07/2025
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
OvenID: M OVEN#1

OVENTEMP OUT Celsius(°C): 103
Time OUT: 08:19
Out Date: 04/08/2025
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
BalanceID: M SC-4
Thermometer ID: % SOLID- OVEN

QC: LB135324

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
Q1740-01	TP-20	1	1.14	9.97	11.11	9.88	87.7	
Q1740-02	TP-20-E2	2	1.15	10.14	11.29	10.06	87.9	
Q1740-03	TP-20-VOC	3	1.18	11.96	13.14	11.9	89.6	
Q1742-01	TR-06-040725	17	1.14	10.11	11.25	10.00	87.6	
Q1742-02	TR-06-040725-E2	18	1.18	10.20	11.38	10.24	88.8	
Q1743-01	TP-16	4	1.14	10.15	11.29	10.74	94.6	
Q1743-02	TP-16-EPH	5	1.16	9.91	11.07	9.27	81.8	
Q1743-03	TP-16-VOC	6	1.14	10.34	11.48	10.84	93.8	
Q1744-01	B-158-SB01	7	1.12	9.66	10.78	9.81	90.0	
Q1744-03	B-158-SB02	8	1.18	10.73	11.91	7.19	56.0	
Q1745-01	IB-6A-WC	9	1.17	10.10	11.27	9.76	85.0	
Q1745-02	IB-6A-EPH	10	1.18	9.96	11.14	9.56	84.1	
Q1745-03	IB-6A-VOC	11	1.18	10.06	11.24	9.98	87.5	
Q1745-09	IB-6.5-WC	12	1.15	10.49	11.64	8.65	71.5	
Q1745-10	IB-6.5-EPH	13	1.18	10.26	11.44	8.46	71.0	
Q1745-11	IB-6.5-VOC	14	1.15	9.98	11.13	7.93	67.9	
Q1746-01	B-149-SB01	15	1.14	10.17	11.31	10.22	89.3	
Q1746-03	B-149-SB02	16	1.14	10.23	11.37	9.81	84.8	
Q1747-01	ARS20-0008	19	1.15	10.33	11.48	11.08	96.1	
Q1747-02	ARS20-0008-E2	20	1.19	10.08	11.27	10.8	95.3	

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

WORKLIST(Hardcopy Internal Chain)

VB135324

WorkList Name : %1-040725 **WorkList ID :** 188763 **Department :** Wet-Chemistry **Date :** 04-07-2025 08:21:09

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q1740-01	TP-20	Solid	Percent Solids	Cool 4 deg C	PSEG03	L21	04/04/2025	Chemtech -SO
Q1740-02	TP-20-E2	Solid	Percent Solids	Cool 4 deg C	PSEG03	L21	04/04/2025	Chemtech -SO
Q1740-03	TP-20-VOC	Solid	Percent Solids	Cool 4 deg C	PSEG03	L21	04/04/2025	Chemtech -SO
Q1742-01	TR-06-040725	Solid	Percent Solids	Cool 4 deg C	PSEG05		04/04/2025	Chemtech -SO
Q1742-02	TR-06-040725-E2	Solid	Percent Solids	Cool 4 deg C	PSEG05		04/04/2025	Chemtech -SO
Q1743-01	TP-16	Solid	Percent Solids	Cool 4 deg C	PSEG03	L33	04/07/2025	Chemtech -SO
Q1743-02	TP-16-EPH	Solid	Percent Solids	Cool 4 deg C	PSEG03	L33	04/07/2025	Chemtech -SO
Q1743-03	TP-16-VOC	Solid	Percent Solids	Cool 4 deg C	PSEG03	L33	04/07/2025	Chemtech -SO
Q1744-01	B-158-SB01	Solid	Percent Solids	Cool 4 deg C	PORT06	L41	04/05/2025	Chemtech -SO
Q1744-03	B-158-SB02	Solid	Percent Solids	Cool 4 deg C	PORT06	L41	04/05/2025	Chemtech -SO
Q1745-01	IB-6A-WC	Solid	Percent Solids	Cool 4 deg C	PSEG03	L41	04/07/2025	Chemtech -SO
Q1745-02	IB-6A-EPH	Solid	Percent Solids	Cool 4 deg C	PSEG03	L41	04/07/2025	Chemtech -SO
Q1745-03	IB-6A-VOC	Solid	Percent Solids	Cool 4 deg C	PSEG03	L41	04/07/2025	Chemtech -SO
Q1745-09	IB-6.5-WC	Solid	Percent Solids	Cool 4 deg C	PSEG03	L41	04/07/2025	Chemtech -SO
Q1745-10	IB-6.5-EPH	Solid	Percent Solids	Cool 4 deg C	PSEG03	L41	04/07/2025	Chemtech -SO
Q1745-11	IB-6.5-VOC	Solid	Percent Solids	Cool 4 deg C	PSEG03	L41	04/07/2025	Chemtech -SO
Q1746-01	B-149-SB01	Solid	Percent Solids	Cool 4 deg C	PSEG03	L41	04/07/2025	Chemtech -SO
Q1746-03	B-149-SB02	Solid	Percent Solids	Cool 4 deg C	PORT06	L41	04/05/2025	Chemtech -SO
Q1747-01	ARS20-0008	Solid	Percent Solids	Cool 4 deg C	PORT06	L41	04/06/2025	Chemtech -SO
Q1747-02	ARS20-0008-E2	Solid	Percent Solids	Cool 4 deg C	PSEG03	I41	04/07/2025	Chemtech -SO
					PSEG03	I41	04/07/2025	Chemtech -SO

Date/Time 04/07/25 1525
Raw Sample Received by:
Raw Sample Relinquished by:

Date/Time 04/07/25 17:15
Raw Sample Received by:
Raw Sample Relinquished by:

Alliance TECHNICAL GROUP

EXTRACTION LOGPAGE

PB167510

SOP ID: M3541-ASE Extraction-14

Clean Up SOP #: N/A

Matrix : Solid

Weigh By: EH

Balance check: RJ

Balance ID: EX-SC-2

pH Strip Lot#: N/A

Extraction By: RJ

Filter By: RJ

pH Meter ID: N/A

Hood ID: 3,7

Extraction Start Date : 04/08/2025

Extraction Start Time : 08:55

Extraction End Date : 04/08/2025

Extraction End Time : 11:50

Concentration By: EH

Supervisor By : rajesh

Extraction Method: ☐ Seperatory Funnel ☐ Continious Liquid/Liquid ☐ Sonication ☐ Waste Dilution ☑ Soxhlet

Standared Name	MLS USED	Concentration ug/mL	STD REF. # FROM LOG
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	EP2599
Sand	N/A	E2865
Methylene Chloride	N/A	E3904
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

KD Bath Temperature: N/A

Envap ID: NEVAP-02

Envap Temperature: 40 °C

Date / Time	Prepped Sample Relinquished By/Location	Received By/Location
04/08/25	RP (Ext. Lab)	Y.P. Peptides
11:55	**Preparation Group**	**Analysis Group**

Alliance TECHNICAL GROUP

EXTRACTION LOGPAGE

PrepBatch ID : PB167510

Analytical Method: M3541-ASE Extraction-14

Concentration Date: 04/08/2025

Sample ID	Client Sample ID	Test	g / mL	PH	Surr/Spike By:		Final Vol. (mL)	JarID	Comments	Prep Pos
					AddedBy	VerifiedBy				
PB167510BL	PB167510BL	TPH GC	30.01	N/A	ritesh	Evelyn	1			U3-1
PB167510BS	PB167510BS	TPH GC	30.03	N/A	ritesh	Evelyn	1			2
Q1744-01	B-158-SB01	TPH GC	30.05	N/A	ritesh	Evelyn	1	E		3
Q1744-03	B-158-SB02	TPH GC	30.06	N/A	ritesh	Evelyn	1	E		4
Q1744-03MS	B-158-SB02MS	TPH GC	30.02	N/A	ritesh	Evelyn	1	E		5
Q1744-03MSD	B-158-SB02MSD	TPH GC	30.09	N/A	ritesh	Evelyn	1	E		6
Q1746-01	B-149-SB01	TPH GC	30.08	N/A	ritesh	Evelyn	1	E		U2-1
Q1746-03	B-149-SB02	TPH GC	30.03	N/A	ritesh	Evelyn	1	F		2

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

4/8/25

8:55
16TT10

WORKLIST(Hardcopy Internal Chain)

WorkList Name : Q1746 **WorkList ID :** 188792 **Department :** Extraction **Date :** 04-08-2025 08:15:36

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q1744-01	B-158-SB01	Solid	TPH GC	Cool 4 deg C	PORT06	L41	04/05/2025	8015D
Q1744-03	B-158-SB02	Solid	TPH GC	Cool 4 deg C	PORT06	L41	04/05/2025	8015D
Q1746-01	B-149-SB01	Solid	TPH GC	Cool 4 deg C	PORT06	L41	04/05/2025	8015D
Q1746-03	B-149-SB02	Solid	TPH GC	Cool 4 deg C	PORT06	L41	04/06/2025	8015D

Date/Time 04/08/25 8:50
Raw Sample Received by: RJ (Ref 104)
Raw Sample Relinquished by: CP SR

Date/Time 04/08/25 9:10
Raw Sample Received by: CP SR
Raw Sample Relinquished by: RJ (Ref 104)

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

Prep Standard - Chemical Standard Summary

Order ID : Q1746

Test : TPH GC

Prepbatch ID : PB167510,

Sequence ID/Qc Batch ID: FG040825,

Standard ID :
EP2599,EP2600,PP23961,PP23962,PP23963,PP23964,PP23965,PP23966,PP23967,PP24162,PP24180,

Chemical ID :
E2865,E3551,E3828,E3874,E3904,E3917,P11955,P11956,P11958,P11959,P13213,P13218,P13219,P13487,P13488,P13489,P13490,

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Fax : 908 789 8922

Extractions STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
3923	Baked Sodium Sulfate	EP2599	04/07/2025	07/01/2025	Rajesh Parikh	Extraction_SCALE_2 (EX-SC-2)	None	Riteshkumar Patel 04/07/2025

FROM 4000.00000gram of E3551 = Final Quantity: 4000.000 gram

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
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

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Pest/Pcb STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
433	100/100 PPM DRO (Restek)	PP23961	11/13/2024	05/09/2025	Yogesh Patel	None	None	Ankita Jodhani 11/13/2024

FROM 1.00000ml of P11958 + 1.00000ml of P11959 + 1.00000ml of P13213 + 7.00000ml of E3828 = Final Quantity: 10.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
3796	100/100 PPM DRO STD (CPI)	PP23962	11/13/2024	05/09/2025	Yogesh Patel	None	None	Ankita Jodhani 11/13/2024

FROM 1.00000ml of P13213 + 1.00000ml of P13218 + 1.00000ml of P13219 + 7.00000ml of E3828 = Final Quantity: 10.000 ml

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Pest/Pcb STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
435	50 PPM ICC DRO STD (Restek)	PP23963	11/13/2024	05/09/2025	Yogesh Patel	None	None	Ankita Jodhani 11/13/2024

FROM 0.50000ml of E3828 + 0.50000ml of PP23961 = Final Quantity: 1.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
437	20 PPM ICC DRO STD (Restek)	PP23964	11/13/2024	05/09/2025	Yogesh Patel	None	None	Ankita Jodhani 11/13/2024

FROM 0.80000ml of E3828 + 0.20000ml of PP23961 = Final Quantity: 1.000 ml

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Pest/Pcb STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
438	10 PPM ICC DRO STD (Restek)	PP23965	11/13/2024	05/09/2025	Yogesh Patel	None	None	Ankita Jodhani 11/13/2024

FROM 0.90000ml of E3828 + 0.10000ml of PP23961 = Final Quantity: 1.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
439	5 PPM ICC DRO STD (Restek)	PP23966	11/13/2024	05/09/2025	Yogesh Patel	None	None	Ankita Jodhani 11/13/2024

FROM 0.90000ml of E3828 + 0.10000ml of PP23963 = Final Quantity: 1.000 ml

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Pest/Pcb STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
3797	50 PPM DRO ICV STD (CPI)	PP23967	11/13/2024	05/09/2025	Yogesh Patel	None	None	Ankita Jodhani 11/13/2024

FROM 0.80000ml of E3828 + 0.50000ml of PP23962 = Final Quantity: 1.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
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

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Pest/Pcb STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
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

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CHEMICAL RECEIPT LOG BOOK

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

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

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9644-A4 / Methylene Chloride,U-Resi, Cycle-Tainer (215L)	24G0862003	05/09/2025	11/09/2024 / Rajesh	11/04/2024 / Rajesh	E3828

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-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

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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	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	A0186840	05/13/2025	11/13/2024 / yogesh	07/11/2022 / Yogesh	P11958

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31266 / Florida TRPH Standard	A0186840	05/13/2025	11/13/2024 / yogesh	07/11/2022 / Yogesh	P11959

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	72072 / n-Tetracosane-d50, 1000 ug/ml	101122	05/13/2025	11/13/2024 / yogesh	01/17/2024 / Ankita	P13213

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
CPI International	Z-110400-05-01 / TRPH Standard (C8-C40), 500 mg/L, 1 ml	514983	02/14/2025	08/14/2024 / yogesh	01/31/2024 / Ankita	P13218

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

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
CPI International	Z-110400-05-01 / TRPH Standard (C8-C40), 500 mg/L, 1 ml	514983	05/13/2025	11/13/2024 / yogesh	01/31/2024 / Ankita	P13219

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	72072 / n-Tetracosane-d50, 1000 ug/ml	101122	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

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

avantor™ | J.T.Baker®

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

Certificate of Analysis

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

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

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

E 2865

James T Ethier

Jamie Ethier
Vice President Global Quality

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

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

MIRADOR 201, COL. MIRADOR
MONTERREY, N.L. MEXICO
CP 64070
TEL +52 81 13 52 57 57
www.pqm.com.mx

CERTIFICATE OF ANALYSIS

PRODUCT :	SODIUM SULFATE CRYSTALS ANHYDROUS		
QUALITY :	ACS (CODE RMB3375)	FORMULA :	Na_2SO_4
SPECIFICATION NUMBER :	6399	RELEASE DATE:	ABR/21/2023
LOT NUMBER :	313201		

TEST	SPECIFICATIONS	LOT VALUES
Assay (Na_2SO_4)	Min. 99.0%	99.7 %
pH of a 5% solution at 25°C	5.2 - 9.2	6.1
Insoluble matter	Max. 0.01%	0.005 %
Loss on ignition	Max. 0.5%	0.1 %
Chloride (Cl)	Max. 0.001%	<0.001 %
Nitrogen compounds (as N)	Max. 5 ppm	<5 ppm
Phosphate (PO_4)	Max. 0.001%	<0.001 %
Heavy metals (as Pb)	Max. 5 ppm	<5 ppm
Iron (Fe)	Max. 0.001%	<0.001 %
Calcium (Ca)	Max. 0.01%	0.002 %
Magnesium (Mg)	Max. 0.005%	0.001 %
Potassium (K)	Max. 0.008%	0.003 %
Extraction-concentration suitability	Passes test	Passes test
Appearance	Passes test	Passes test
Identification	Passes test	Passes test
Solubility and foreing matter	Passes test	Passes test
Retained on US Standard No. 10 sieve	Max. 1%	0.1 %
Retained on US Standard No. 60 sieve	Min. 94%	97.3 %
Through US Standard No. 60 sieve	Max. 5%	2.5 %
Through US Standard No. 100 sieve	Max. 10%	0.1 %

COMMENTS

QC: PhC Irma Belmares

If you need further details, please call our factory or contact our local distributor.

RG-02-01, Ed. 3

Recd. by RB on 7/24/23 E3551

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

avantor™ | J.T.Baker

Material No.: 9266-A4
Batch No.: 24J0862003
Manufactured Date: 2024-09-12
Expiration Date:2025-12-12
Revision No.: 0

Certificate of Analysis

Test	Specification	Result
FID-Sensitive Impurities (as 2-Octanol)Single Impurity Peak (ng/mL)	<= 5	2
ECD Sensitive Impurities (as HeptachlorEpoxide) Single Peak (pg/mL)	<= 10	1
Assay (CH_2Cl_2) (by GC, exclusive of preservative, corrected for water)	>= 99.8 %	100.0 %
Color (APHA)	<= 10	5
Residue after Evaporation	<= 1.0 ppm	0.2 ppm
Titrable Acid (µeq/g)	<= 0.3	<0.1
Chloride (Cl)	<= 10 ppm	<5 ppm
Water (by KF, coulometric)	<= 0.02 %	<0.01 %

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

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

E 3828

JCroak

Jamie Croak
Director Quality Operations, Bioscience Production

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

Avantor Performance Materials LLC

PO: PO2-1178.2 PRODUCT CODE: SHIP DATE: 1/20/2025

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

avantor | J.T.Baker

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)	>= 99.8 %	99.9 %
Color (APHA)	<= 10	10
Residue after Evaporation	<= 1.0 ppm	0.8 ppm
Titrable Acid (µeq/g)	<= 0.3	<0.1
Chloride (Cl)	<= 10 ppm	<5 ppm
Water (by KF, coulometric)	<= 0.02 %	<0.01 %

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

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

E 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™ | J.T.Baker

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

Certificate of Analysis

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

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

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

Recd. by RP on 03/31/25

E3917

JCroak
Jamie Croak
Director Quality Operations, Bioscience Production

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

Avantor Performance Materials LLC

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P11948
&
P11962
7.8
07/11/2

Catalog No. : 31266 **Lot No.:** A0186840

Description : Florida TRPH Standard

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

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

Expiration Date : July 31, 2029 **Storage:** 25°C nominal

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

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	n-Octane (C8) **CAS #** 111-65-9 (Lot SHBN3807) **Purity** 99%	505.0 µg/mL	+/- 2.9995 µg/mL +/- 12.5465 µg/mL +/- 15.0390 µg/mL	Gravimetric Unstressed Stressed
2	n-Decane (C10) **CAS #** 124-18-5 (Lot SHBN8619) **Purity** 99%	503.0 µg/mL	+/- 2.9877 µg/mL +/- 12.4968 µg/mL +/- 14.9795 µg/mL	Gravimetric Unstressed Stressed
3	n-Dodecane (C12) **CAS #** 112-40-3 (Lot SHBN7174) **Purity** 99%	503.5 µg/mL	+/- 2.9906 µg/mL +/- 12.5092 µg/mL +/- 14.9944 µg/mL	Gravimetric Unstressed Stressed
4	n-Tetradecane (C14) **CAS #** 629-59-4 (Lot STBK2282) **Purity** 99%	505.0 µg/mL	+/- 2.9995 µg/mL +/- 12.5465 µg/mL +/- 15.0390 µg/mL	Gravimetric Unstressed Stressed
5	n-Hexadecane (C16) **CAS #** 544-76-3 (Lot SHBM4146) **Purity** 98%	504.7 µg/mL	+/- 2.9978 µg/mL +/- 12.5390 µg/mL +/- 15.0301 µg/mL	Gravimetric Unstressed Stressed
6	n-Octadecane (C18) **CAS #** 593-45-3 (Lot VZKOJ) **Purity** 97%	504.4 µg/mL	+/- 2.9960 µg/mL +/- 12.5316 µg/mL +/- 15.0212 µg/mL	Gravimetric Unstressed Stressed
7	n-Eicosane (C20) **CAS #** 112-95-8 (Lot MKCF7888) **Purity** 99%	503.5 µg/mL	+/- 2.9906 µg/mL +/- 12.5092 µg/mL +/- 14.9944 µg/mL	Gravimetric Unstressed Stressed

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

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

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

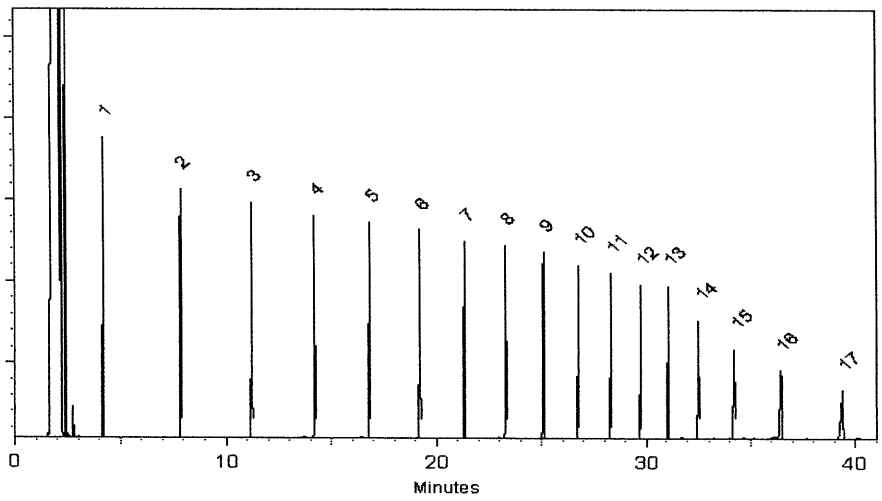
Carrier Gas:
hydrogen-constant pressure 10 psi.

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

Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID



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

Brittany Federinko - Operations Tech I

Date Mixed: 29-Jun-2022 **Balance:** 1128360905

Christie Mills - Operations Tech II - ARM QC

Date Passed: 01-Jul-2022

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

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

Certified Uncertainty Value Notes:

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

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

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

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

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

Handling Notes:

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

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P11948
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P11962
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07/11/2

Catalog No. : 31266 **Lot No.:** A0186840

Description : Florida TRPH Standard

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

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

Expiration Date : July 31, 2029 **Storage:** 25°C nominal

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

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	n-Octane (C8) **CAS #** 111-65-9 (Lot SHBN3807) **Purity** 99%	505.0 µg/mL	+/- 2.9995 µg/mL +/- 12.5465 µg/mL +/- 15.0390 µg/mL	Gravimetric Unstressed Stressed
2	n-Decane (C10) **CAS #** 124-18-5 (Lot SHBN8619) **Purity** 99%	503.0 µg/mL	+/- 2.9877 µg/mL +/- 12.4968 µg/mL +/- 14.9795 µg/mL	Gravimetric Unstressed Stressed
3	n-Dodecane (C12) **CAS #** 112-40-3 (Lot SHBN7174) **Purity** 99%	503.5 µg/mL	+/- 2.9906 µg/mL +/- 12.5092 µg/mL +/- 14.9944 µg/mL	Gravimetric Unstressed Stressed
4	n-Tetradecane (C14) **CAS #** 629-59-4 (Lot STBK2282) **Purity** 99%	505.0 µg/mL	+/- 2.9995 µg/mL +/- 12.5465 µg/mL +/- 15.0390 µg/mL	Gravimetric Unstressed Stressed
5	n-Hexadecane (C16) **CAS #** 544-76-3 (Lot SHBM4146) **Purity** 98%	504.7 µg/mL	+/- 2.9978 µg/mL +/- 12.5390 µg/mL +/- 15.0301 µg/mL	Gravimetric Unstressed Stressed
6	n-Octadecane (C18) **CAS #** 593-45-3 (Lot VZKOJ) **Purity** 97%	504.4 µg/mL	+/- 2.9960 µg/mL +/- 12.5316 µg/mL +/- 15.0212 µg/mL	Gravimetric Unstressed Stressed
7	n-Eicosane (C20) **CAS #** 112-95-8 (Lot MKCF7888) **Purity** 99%	503.5 µg/mL	+/- 2.9906 µg/mL +/- 12.5092 µg/mL +/- 14.9944 µg/mL	Gravimetric Unstressed Stressed

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

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

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

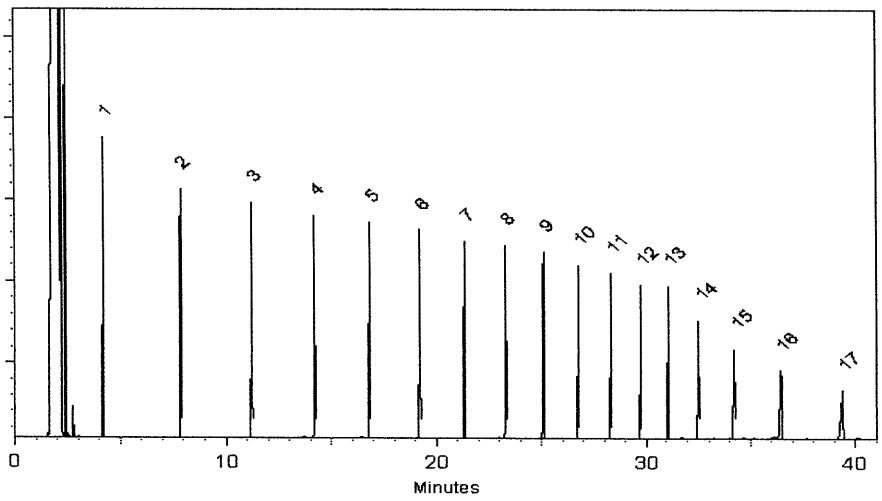
Carrier Gas:
hydrogen-constant pressure 10 psi.

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

Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID



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

Brittany Federinko - Operations Tech I

Date Mixed: 29-Jun-2022 **Balance:** 1128360905

Christie Mills - Operations Tech II - ARM QC

Date Passed: 01-Jul-2022

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

General Certified Reference Material Notes

Expiration Notes:

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Purity Notes:

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- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- 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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- 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:

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Handling Notes:

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Certificate #3222.02

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Catalog No. : 31266 **Lot No.:** A0186840

Description : Florida TRPH Standard

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

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

Expiration Date : July 31, 2029 **Storage:** 25°C nominal

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

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	n-Octane (C8) **CAS #** 111-65-9 (Lot SHBN3807) **Purity** 99%	505.0 µg/mL	+/- 2.9995 µg/mL +/- 12.5465 µg/mL +/- 15.0390 µg/mL	Gravimetric Unstressed Stressed
2	n-Decane (C10) **CAS #** 124-18-5 (Lot SHBN8619) **Purity** 99%	503.0 µg/mL	+/- 2.9877 µg/mL +/- 12.4968 µg/mL +/- 14.9795 µg/mL	Gravimetric Unstressed Stressed
3	n-Dodecane (C12) **CAS #** 112-40-3 (Lot SHBN7174) **Purity** 99%	503.5 µg/mL	+/- 2.9906 µg/mL +/- 12.5092 µg/mL +/- 14.9944 µg/mL	Gravimetric Unstressed Stressed
4	n-Tetradecane (C14) **CAS #** 629-59-4 (Lot STBK2282) **Purity** 99%	505.0 µg/mL	+/- 2.9995 µg/mL +/- 12.5465 µg/mL +/- 15.0390 µg/mL	Gravimetric Unstressed Stressed
5	n-Hexadecane (C16) **CAS #** 544-76-3 (Lot SHBM4146) **Purity** 98%	504.7 µg/mL	+/- 2.9978 µg/mL +/- 12.5390 µg/mL +/- 15.0301 µg/mL	Gravimetric Unstressed Stressed
6	n-Octadecane (C18) **CAS #** 593-45-3 (Lot VZKOJ) **Purity** 97%	504.4 µg/mL	+/- 2.9960 µg/mL +/- 12.5316 µg/mL +/- 15.0212 µg/mL	Gravimetric Unstressed Stressed
7	n-Eicosane (C20) **CAS #** 112-95-8 (Lot MKCF7888) **Purity** 99%	503.5 µg/mL	+/- 2.9906 µg/mL +/- 12.5092 µg/mL +/- 14.9944 µg/mL	Gravimetric Unstressed Stressed

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

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

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

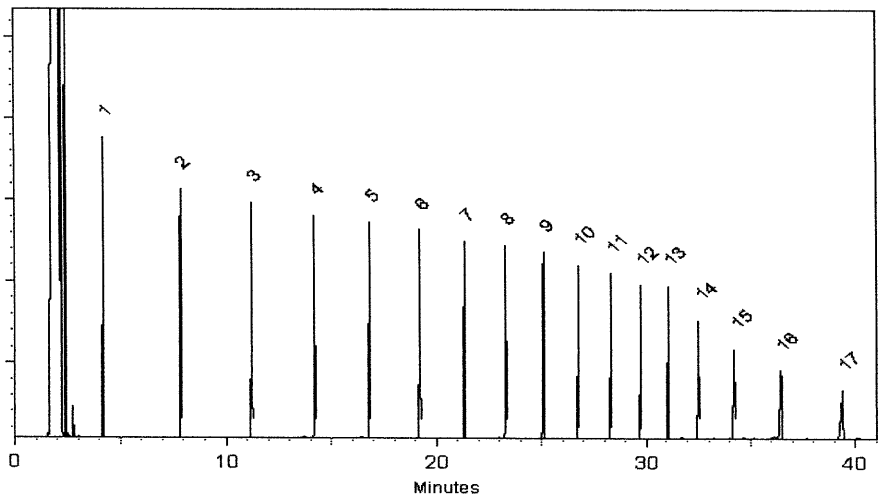
Carrier Gas:
hydrogen-constant pressure 10 psi.

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

Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID



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

Brittany Federinko - Operations Tech I

Date Mixed: 29-Jun-2022 **Balance:** 1128360905

Christie Mills - Operations Tech II - ARM QC

Date Passed: 01-Jul-2022

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

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

Certified Uncertainty Value Notes:

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

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

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

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

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

Handling Notes:

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

RESTEK®
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

P11948
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P11962
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Catalog No. : 31266 **Lot No.:** A0186840

Description : Florida TRPH Standard

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

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

Expiration Date : July 31, 2029 **Storage:** 25°C nominal

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

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	n-Octane (C8) **CAS #** 111-65-9 (Lot SHBN3807) **Purity** 99%	505.0 µg/mL	+/- 2.9995 µg/mL +/- 12.5465 µg/mL +/- 15.0390 µg/mL	Gravimetric Unstressed Stressed
2	n-Decane (C10) **CAS #** 124-18-5 (Lot SHBN8619) **Purity** 99%	503.0 µg/mL	+/- 2.9877 µg/mL +/- 12.4968 µg/mL +/- 14.9795 µg/mL	Gravimetric Unstressed Stressed
3	n-Dodecane (C12) **CAS #** 112-40-3 (Lot SHBN7174) **Purity** 99%	503.5 µg/mL	+/- 2.9906 µg/mL +/- 12.5092 µg/mL +/- 14.9944 µg/mL	Gravimetric Unstressed Stressed
4	n-Tetradecane (C14) **CAS #** 629-59-4 (Lot STBK2282) **Purity** 99%	505.0 µg/mL	+/- 2.9995 µg/mL +/- 12.5465 µg/mL +/- 15.0390 µg/mL	Gravimetric Unstressed Stressed
5	n-Hexadecane (C16) **CAS #** 544-76-3 (Lot SHBM4146) **Purity** 98%	504.7 µg/mL	+/- 2.9978 µg/mL +/- 12.5390 µg/mL +/- 15.0301 µg/mL	Gravimetric Unstressed Stressed
6	n-Octadecane (C18) **CAS #** 593-45-3 (Lot VZKOJ) **Purity** 97%	504.4 µg/mL	+/- 2.9960 µg/mL +/- 12.5316 µg/mL +/- 15.0212 µg/mL	Gravimetric Unstressed Stressed
7	n-Eicosane (C20) **CAS #** 112-95-8 (Lot MKCF7888) **Purity** 99%	503.5 µg/mL	+/- 2.9906 µg/mL +/- 12.5092 µg/mL +/- 14.9944 µg/mL	Gravimetric Unstressed Stressed

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

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

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

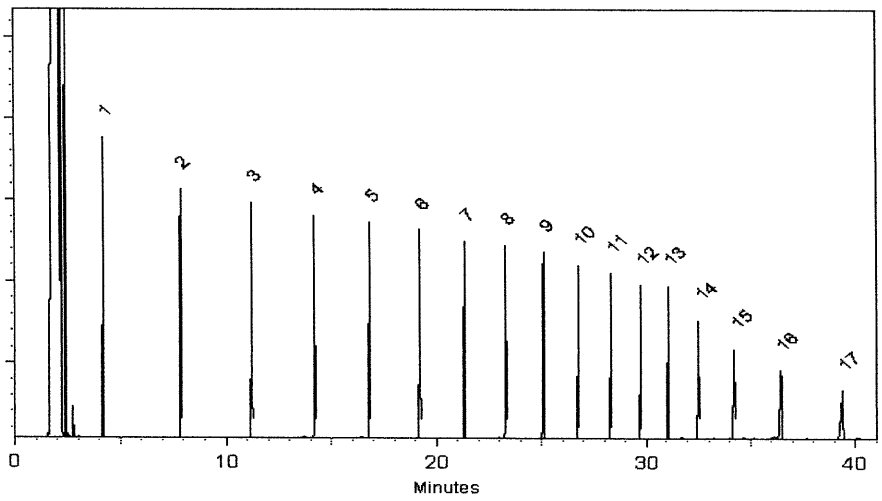
Carrier Gas:
hydrogen-constant pressure 10 psi.

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

Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID



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

Brittany Federinko - Operations Tech I

Date Mixed: 29-Jun-2022 **Balance:** 1128360905

Christie Mills - Operations Tech II - ARM QC

Date Passed: 01-Jul-2022

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

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

Certified Uncertainty Value Notes:

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

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

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

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

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

Handling Notes:

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

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

Certified Reference Material CRM

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

CERTIFIED WEIGHT REPORT

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

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

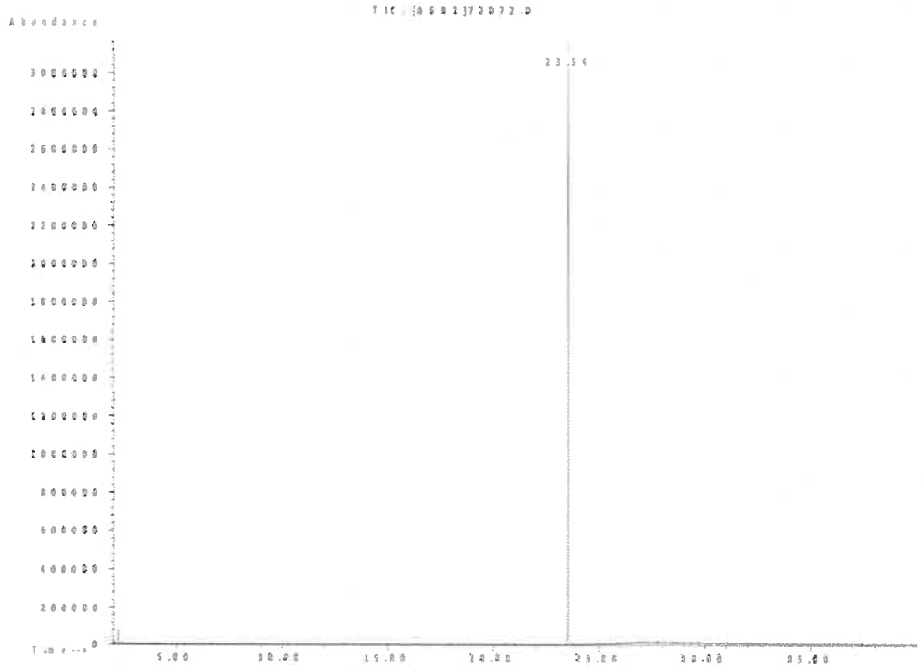
Expiration Date: 101132
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test ID#: 6UTB

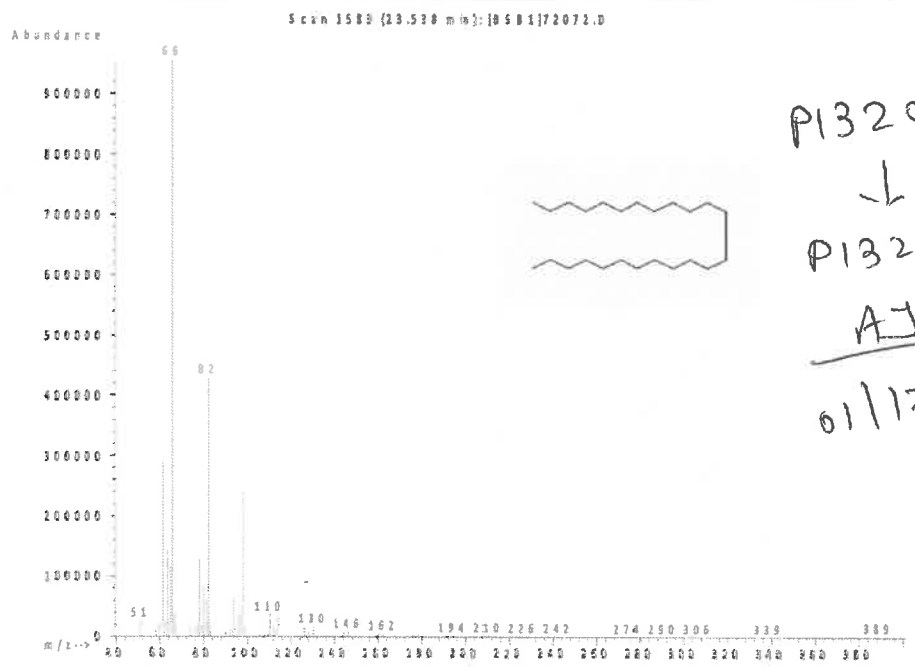
Weight(s) shown below were combined and diluted to (mL): 200.0 ± 0.058 Flask Uncertainty; 5E-05 Balance Uncertainty

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

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

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





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01/17/24

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

CPI INTERNATIONAL

5580 Skylane Blvd
Santa Rosa, CA 95403

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

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

Date Received:_____

Certificate of Analysis

Rev 0 **Page 1 of 1**

Catalog No.:	Lot No.:	Storage:	Solvent:	Exp. Date:	Description:
Z-110400-05 -01	514983	≤ -10 Degrees C	Hexane	11/20/2028	TRPH Standard (C8-C40), 500 mg/L, 1 ml

Compound	CAS No.	Purity (%)	Compound Lot No.	Concentration, mg/L
decane (C10)	124-18-5	99.7	415.7.2P	498.5 ± 6.92
docosane (C22)	629-97-0	98.8	420.9.1P	499.4 ± 6.93
dodecane (C12)	112-40-3	99.7	416.9.3P	502 ± 6.97
dotriacontane (C32)	544-85-4	97	425.9.2.2P	499.6 ± 8.53
eicosane (C20)	112-95-8	99.8	419.7.1P	501 ± 6.95
hexacosane (C26)	630-01-3	99.3	422.7.2.1P	501 ± 6.95
hexatriacontane (C36)	630-06-8	98	427.29.1.1P	499.3 ± 8.53
n-hexadecane (C16)	544-76-3	99.45	368.271.1P	498.7 ± 6.91
octacosane (C28)	630-02-4	99.1	423.24.1P	500.5 ± 6.95
n-octadecane (C18)	593-45-3	99.5	418.29.1P	499.5 ± 6.92
octane (C8)	111-65-9	99.4	385.7.2.1P	498.5 ± 6.92
octatriacontane (C38)	7194-85-6	95	428.1.2P	500.2 ± 6.94
tetracontane (C40)	4181-95-7	97	429.7.2P	499.6 ± 6.93
n-tetracosane (C24)	646-31-1	99.5	421.7.1P	499.5 ± 6.93
n-tetradecane (C14)	629-59-4	99.3	417.9.1P	500 ± 6.94
tetratriacontane (C34)	14167-59-0	96.1	426.7.2.2P	499.7 ± 8.53
triacontane (C30)	638-68-6	99.5	424.7.1.1P	500 ± 6.94

P13215
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P13224

AJ
01/31/24

*Not a certified value

Let the standard warm to room temperature and sonicate before opening.

Certified By: Andrea Schaible

Andrea Schaible
Chemist

All weights are traceable through N. I. S. T. Test No. 822/264157-00. Concentration (correct for purity) and uncertainty (95% confidence) values listed are determined gravimetricly.

CPI INTERNATIONAL

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Santa Rosa, CA 95403

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

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

Date Received:_____

Certificate of Analysis

Rev 0 **Page 1 of 1**

Catalog No.:	Lot No.:	Storage:	Solvent:	Exp. Date:	Description:
Z-110400-05 -01	514983	≤ -10 Degrees C	Hexane	11/20/2028	TRPH Standard (C8-C40), 500 mg/L, 1 ml

Compound	CAS No.	Purity (%)	Compound Lot No.	Concentration, mg/L
decane (C10)	124-18-5	99.7	415.7.2P	498.5 ± 6.92
docosane (C22)	629-97-0	98.8	420.9.1P	499.4 ± 6.93
dodecane (C12)	112-40-3	99.7	416.9.3P	502 ± 6.97
dotriacontane (C32)	544-85-4	97	425.9.2.2P	499.6 ± 8.53
eicosane (C20)	112-95-8	99.8	419.7.1P	501 ± 6.95
hexacosane (C26)	630-01-3	99.3	422.7.2.1P	501 ± 6.95
hexatriacontane (C36)	630-06-8	98	427.29.1.1P	499.3 ± 8.53
n-hexadecane (C16)	544-76-3	99.45	368.271.1P	498.7 ± 6.91
octacosane (C28)	630-02-4	99.1	423.24.1P	500.5 ± 6.95
n-octadecane (C18)	593-45-3	99.5	418.29.1P	499.5 ± 6.92
octane (C8)	111-65-9	99.4	385.7.2.1P	498.5 ± 6.92
octatriacontane (C38)	7194-85-6	95	428.1.2P	500.2 ± 6.94
tetracontane (C40)	4181-95-7	97	429.7.2P	499.6 ± 6.93
n-tetracosane (C24)	646-31-1	99.5	421.7.1P	499.5 ± 6.93
n-tetradecane (C14)	629-59-4	99.3	417.9.1P	500 ± 6.94
tetratriacontane (C34)	14167-59-0	96.1	426.7.2.2P	499.7 ± 8.53
triacontane (C30)	638-68-6	99.5	424.7.1.1P	500 ± 6.94

P13215
↓
P13224

AJ
01/31/24

*Not a certified value

Let the standard warm to room temperature and sonicate before opening.

Certified By: Andrea Schaible

Andrea Schaible
Chemist

All weights are traceable through N. I. S. T. Test No. 822/264157-00. Concentration (correct for purity) and uncertainty (95% confidence) values listed are determined gravimetricly.

ABSOLUTE STANDARDS, INC.

ISO - 17034

Certificate of Analysis

Certified Reference Material (CRM)

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

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

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

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

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

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

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

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

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

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

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

Minimum Sample Size: 0.5 uL for analytical applications.

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

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

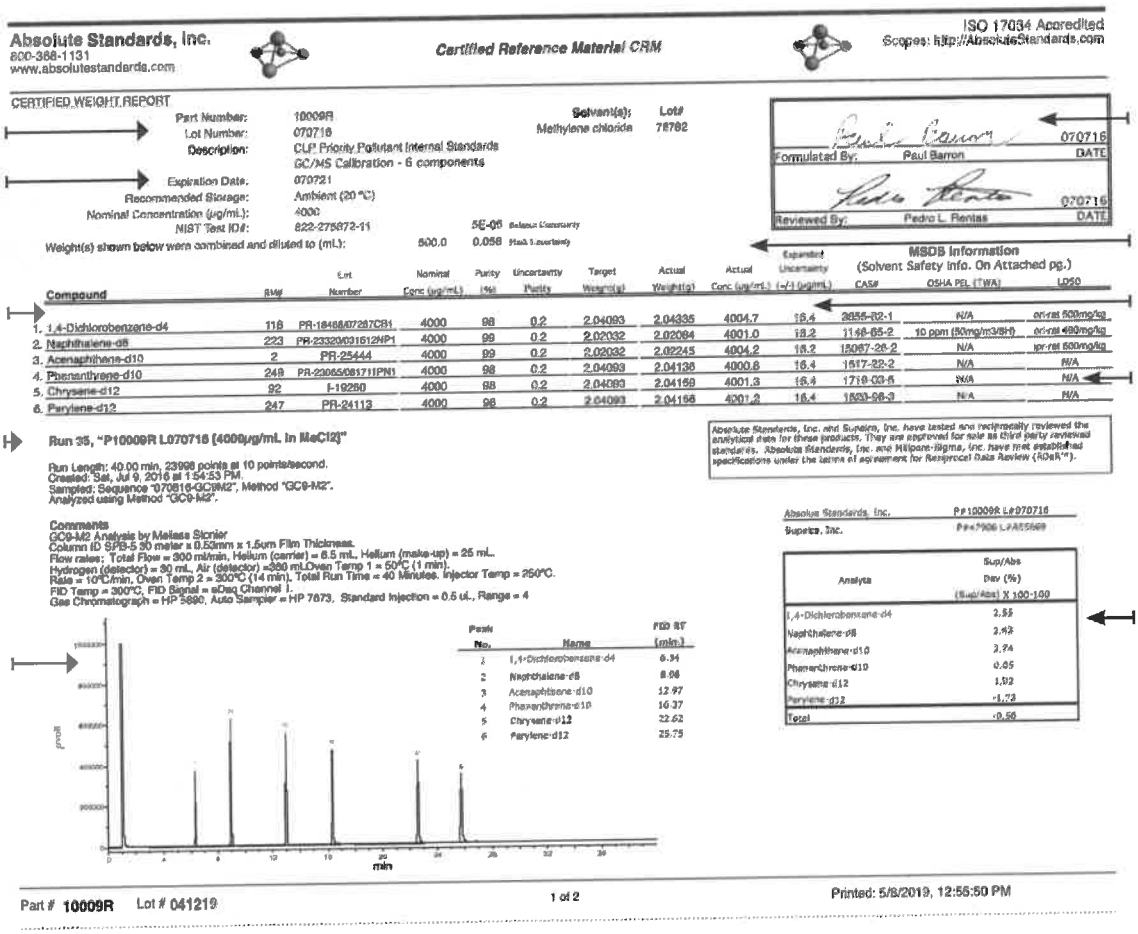
Absolute Standards, Inc. • 44 Rossotto Drive • Hamden, CT 06514
Voice: 800-368-1131 • Fax: 800-410-2577 • eMail: StephenArpie@AbsoluteStandards.com
Document Identification: Certificate of Analysis Rev 14, Date Issued: 05/30/2019

ABSOLUTE STANDARDS, INC.

ISO - 17034

Understanding the Certified Weight Report

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



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

Certified Reference Material CRM

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

CERTIFIED WEIGHT REPORT

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

Solvent(s): Methylene chloride
Lot#: 78782

Formulated By: Paul Barron DATE 070716
Reviewed By: Pedro L. Reinas DATE 070716

Weight(s) shown below were combined and diluted to (mL): 500.0 5E-05 Balance Uncertainty 0.050 Flask Uncertainty

Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty Purity	Target Weight(g)	Actual Weight(g)	Actual Conc (µg/mL)	Expanded Uncertainty (+/-) (µg/mL)	MSDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50
1. 1,4-Dichlorobenzene-d4	118	PR-18488/07267CB1	4000	98	0.2	2.04093	2.04335	4004.7	16.4	3855-82-1	N/A	or-rat 500mg/kg
2. Naphthalene-d8	223	PR-233203031612NP1	4000	99	0.2	2.02032	2.02064	4001.0	16.2	1146-65-2	10 ppm (50mg/m3/8H)	or-rat 490mg/kg
3. Acenaphthene-d10	2	PR-25444	4000	99	0.2	2.02032	2.02245	4004.2	16.2	15067-26-2	N/A	ipr-rat 500mg/kg
4. Phenanthrene-d10	248	PR-23065/051711PN1	4000	98	0.2	2.04093	2.04136	4000.8	16.4	1517-22-2	N/A	N/A
5. Chrysene-d12	92	I-19250	4000	98	0.2	2.04093	2.04159	4001.3	16.4	1719-03-5	N/A	N/A
6. Perylene-d12	247	PR-24113	4000	96	0.2	2.04093	2.04156	4001.2	16.4	1520-96-3	N/A	N/A

Absolute Standards, Inc. and Supelco, Inc. have tested and reciprocally reviewed the analytical data for these products. They are approved for sale as third party reviewed standards. Absolute Standards, Inc. and Millipore-Sigma, Inc. have met established specifications under the terms of agreement for Reciprocal Data Review (RDaR™).

Run 35, "P10009R L070716 (4000µg/mL in MeC12)"

Run Length: 40.00 min, 23998 points at 10 points/second.
Created: Sat, Jul 9, 2016 at 1:54:53 PM.
Sampled: Sequence "070816-GC9M2", Method "GC9-M2".
Analyzed using Method "GC9-M2".

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

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

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

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

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

Part #
Lot #
Shelf Life

Formulator
Reviewer

Actual Concentration

Target Compounds

Uncertainty Values

Health & Safety

Method of Analysis

Qualitative
Quantitative

3rd Party Comparison

For More Information, Contact:

StephenArpie@AbsoluteStandards.com

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

Absolute Standards, Inc.
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www.absolutestandards.com

Certified Reference Material CRM

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

CERTIFIED WEIGHT REPORT

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

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

Solvent(s):	Lot#
Methylene chloride	105345

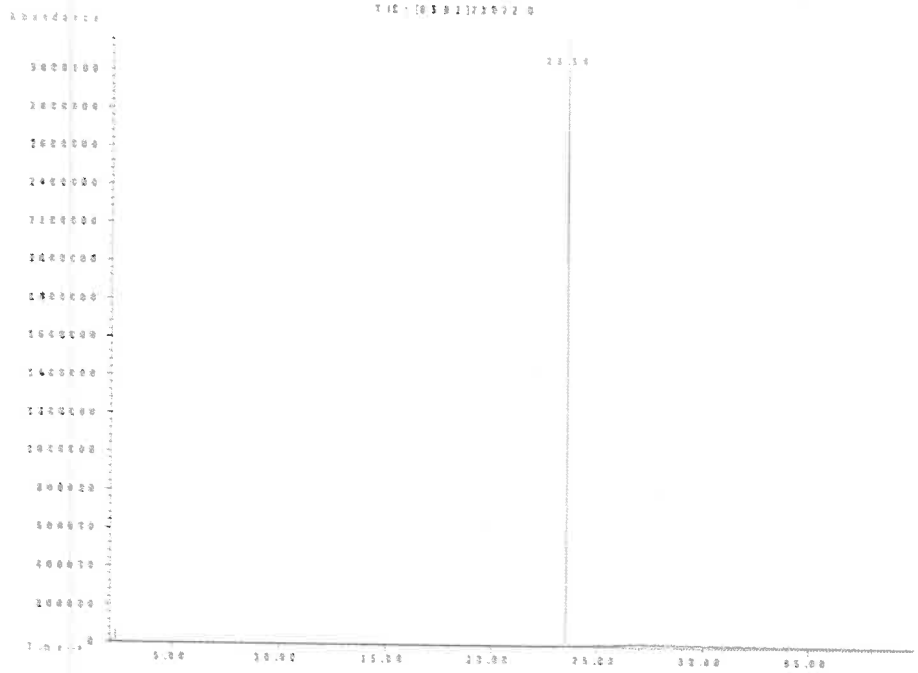
P13477 → P13496 } X.P. 07/24/24

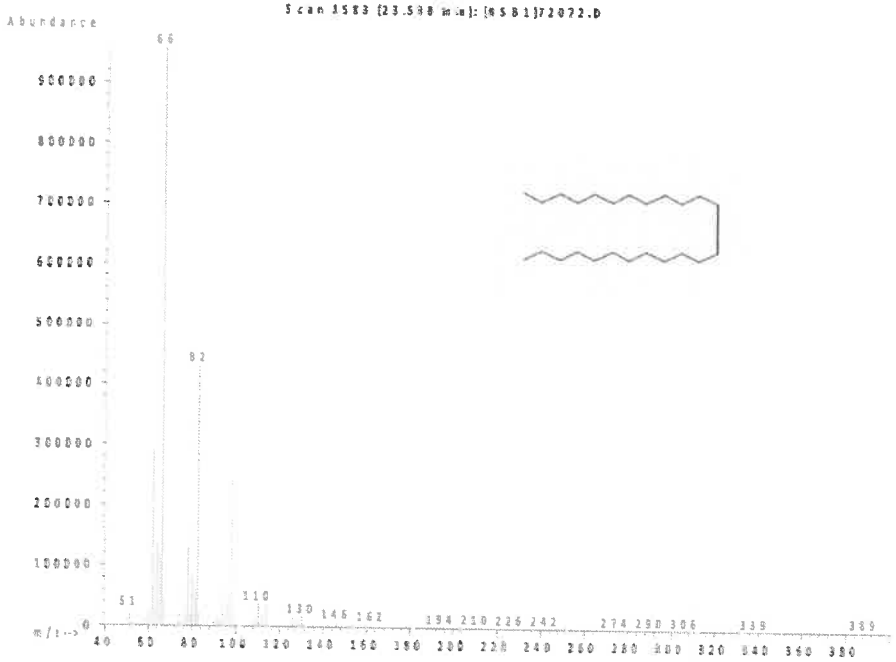
Formulated By:	Prashant Chauhan	101122 DATE
Reviewed By:	Pedro L. Rentas	101122 DATE

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

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

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





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

ABSOLUTE STANDARDS, INC.

ISO - 17034

Certificate of Analysis

Certified Reference Material (CRM)

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

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

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

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

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

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

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

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

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

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

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

Minimum Sample Size: 0.5 uL for analytical applications.

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

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

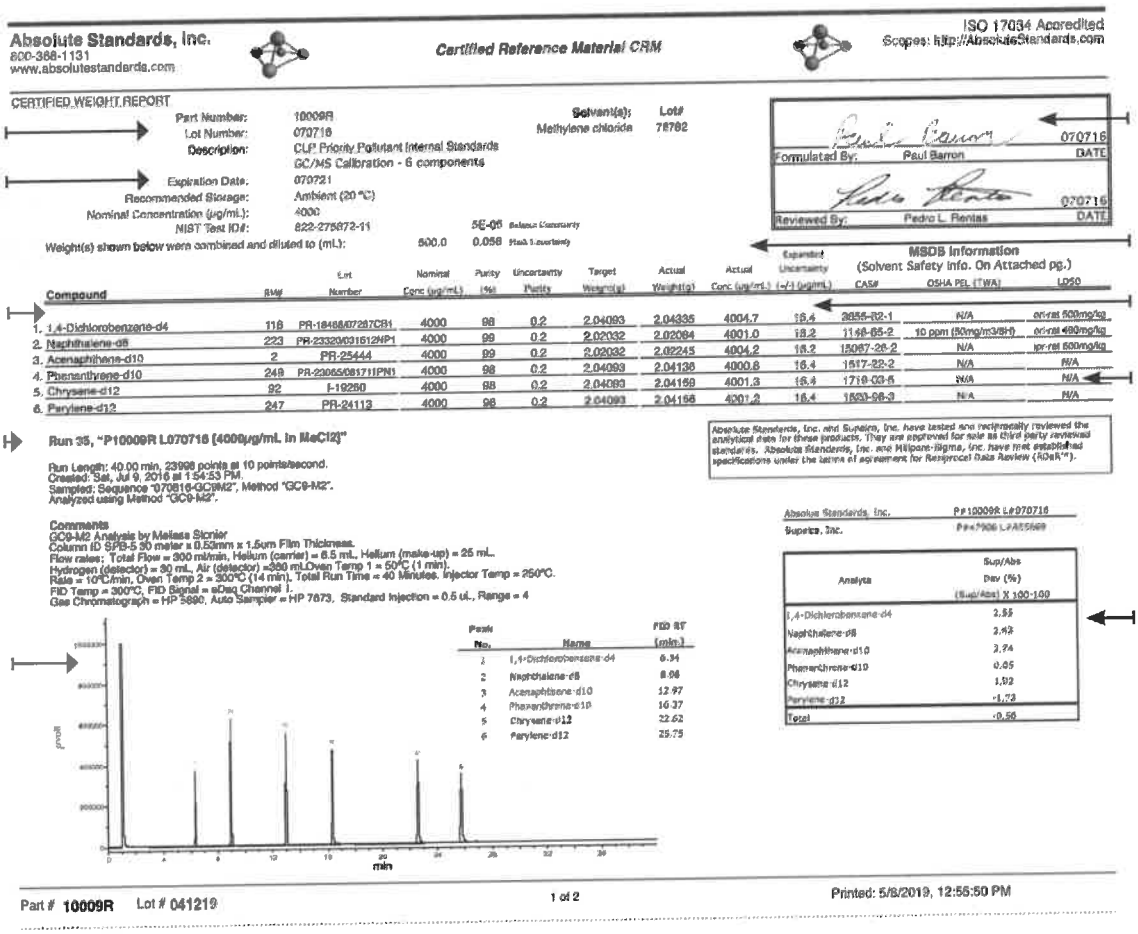
Absolute Standards, Inc. • 44 Rossotto Drive • Hamden, CT 06514
Voice: 800-368-1131 • Fax: 800-410-2577 • eMail: StephenArpie@AbsoluteStandards.com
Document Identification: Certificate of Analysis Rev 14, Date Issued: 05/30/2019

ABSOLUTE STANDARDS, INC.

ISO - 17034

Understanding the Certified Weight Report

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



Absolute Standards, Inc.
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Certified Reference Material CRM

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

CERTIFIED WEIGHT REPORT

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

Solvent(s): Methylene chloride
Lot#: 78782

Formulated By: Paul Barron DATE 070716
Reviewed By: Pedro L. Reinas DATE 070716

Weight(s) shown below were combined and diluted to (mL): 500.0 5E-05 Balance Uncertainty 0.050 Flask Uncertainty

Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty Purity	Target Weight(g)	Actual Weight(g)	Actual Conc (µg/mL)	Expanded Uncertainty (+/-) (µg/mL)	MSDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50
1. 1,4-Dichlorobenzene-d4	118	PR-18488/07267CB1	4000	98	0.2	2.04093	2.04335	4004.7	16.4	3855-82-1	N/A	or-rat 500mg/kg
2. Naphthalene-d8	223	PR-233203031612NP1	4000	99	0.2	2.02032	2.02064	4001.0	16.2	1146-65-2	10 ppm (50mg/m3/8H)	or-rat 490mg/kg
3. Acenaphthene-d10	2	PR-25444	4000	99	0.2	2.02032	2.02245	4004.2	16.2	15067-26-2	N/A	ipr-rat 500mg/kg
4. Phenanthrene-d10	248	PR-23065/051711PN1	4000	98	0.2	2.04093	2.04136	4000.8	16.4	1517-22-2	N/A	N/A
5. Chrysene-d12	92	I-19250	4000	98	0.2	2.04093	2.04159	4001.3	16.4	1719-03-5	N/A	N/A
6. Perylene-d12	247	PR-24113	4000	96	0.2	2.04093	2.04156	4001.2	16.4	1520-96-3	N/A	N/A

Absolute Standards, Inc. and Supelco, Inc. have tested and reciprocally reviewed the analytical data for these products. They are approved for sale as third party reviewed standards. Absolute Standards, Inc. and Millipore-Sigma, Inc. have met established specifications under the terms of agreement for Reciprocal Data Review (RDaR™).

Run 35, "P10009R L070716 (4000µg/mL in MeC12)"

Run Length: 40.00 min, 23998 points at 10 points/second.
Created: Sat, Jul 9, 2016 at 1:54:53 PM.
Sampled: Sequence "070816-GC9M2", Method "GC9-M2".
Analyzed using Method "GC9-M2".

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

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

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

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

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

Part #
Lot #
Shelf Life

Formulator
Reviewer

Actual Concentration

Target Compounds

Uncertainty Values

Health & Safety

Method of Analysis

Qualitative
Quantitative

3rd Party Comparison

For More Information, Contact:

StephenArpie@AbsoluteStandards.com

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

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Certified Reference Material CRM

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

CERTIFIED WEIGHT REPORT

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

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

Solvent(s):	Lot#
Methylene chloride	105345

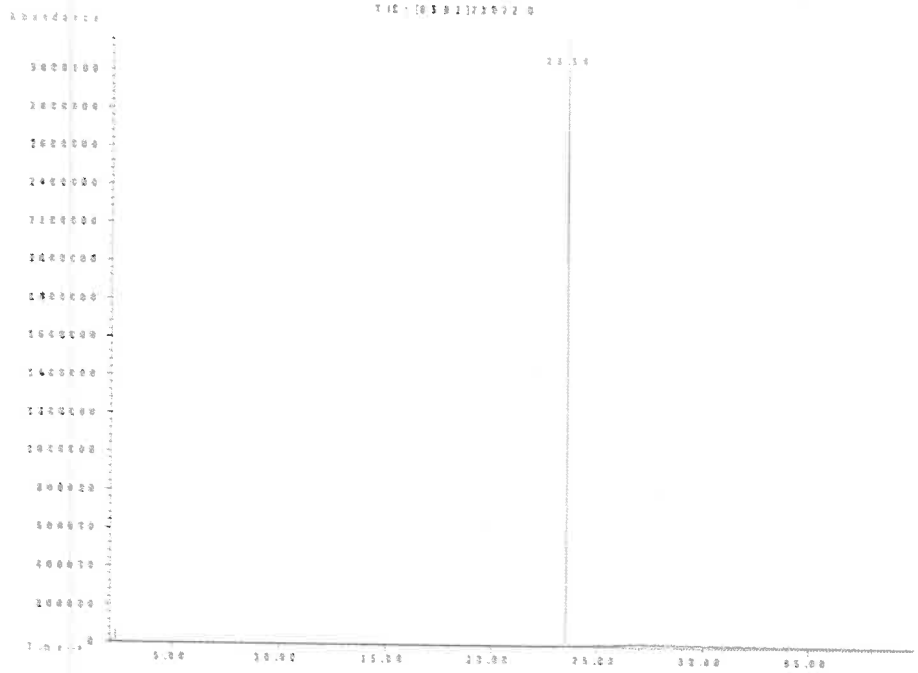
P13477 → P13496 } X.P. 07/24/24

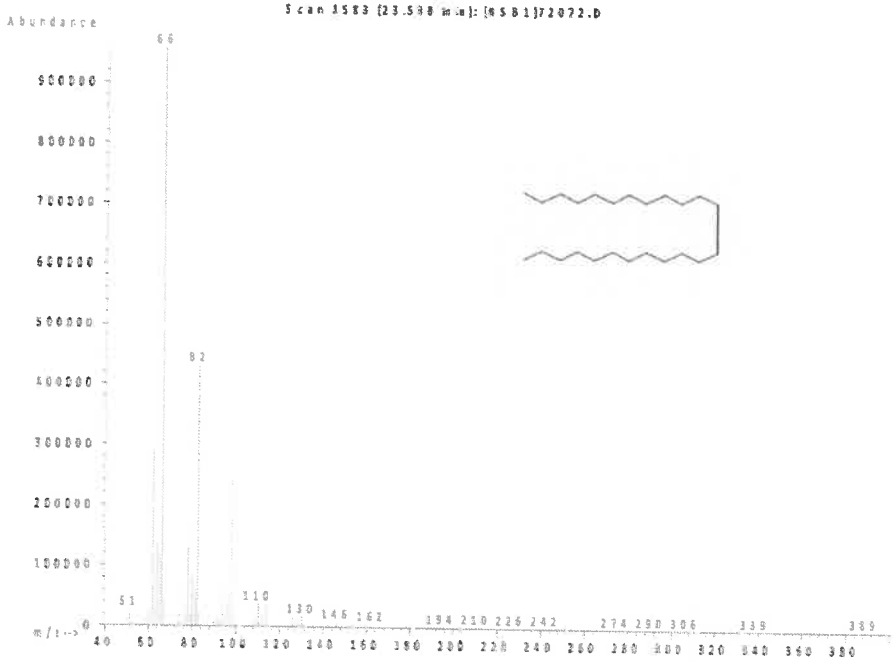
Formulated By:	Prashant Chauhan	101122 DATE
Reviewed By:	Pedro L. Rentas	101122 DATE

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

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

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





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

ABSOLUTE STANDARDS, INC.

ISO - 17034

Certificate of Analysis

Certified Reference Material (CRM)

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

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

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

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

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

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

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

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

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

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

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

Minimum Sample Size: 0.5 uL for analytical applications.

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

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

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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

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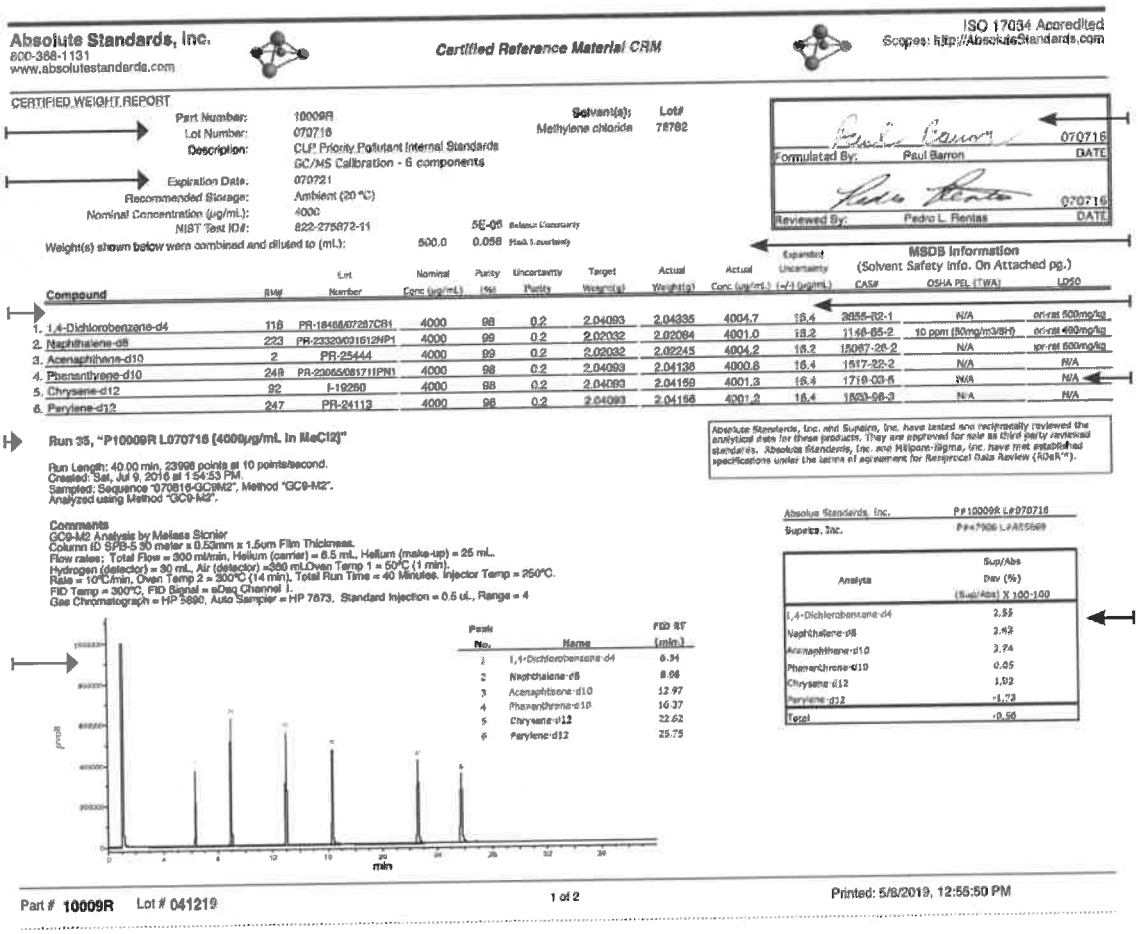


Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

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

CERTIFIED WEIGHT REPORT

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

Solvent(s): Methylene chloride
Lot#: 78782

Formulated By: Paul Barron DATE 070716
Reviewed By: Pedro L. Reinas DATE 070716

Weight(s) shown below were combined and diluted to (mL): 500.0 5E-05 Balance Uncertainty 0.050 Flask Uncertainty

Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty Purity	Target Weight(g)	Actual Weight(g)	Actual Conc (µg/mL)	Expanded Uncertainty (+/-) (µg/mL)	MSDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50
1. 1,4-Dichlorobenzene-d4	118	PR-18488/07267CB1	4000	98	0.2	2.04093	2.04335	4004.7	16.4	3855-82-1	N/A	or-rat 500mg/kg
2. Naphthalene-d8	223	PR-233203031612NP1	4000	99	0.2	2.02032	2.02064	4001.0	16.2	1146-65-2	10 ppm (50mg/m3/8H)	or-rat 490mg/kg
3. Acenaphthene-d10	2	PR-25444	4000	99	0.2	2.02032	2.02245	4004.2	16.2	15067-26-2	N/A	ipr-rat 500mg/kg
4. Phenanthrene-d10	248	PR-23065/051711PN1	4000	98	0.2	2.04093	2.04136	4000.8	16.4	1517-22-2	N/A	N/A
5. Chrysene-d12	92	I-19250	4000	98	0.2	2.04093	2.04159	4001.3	16.4	1719-03-5	N/A	N/A
6. Perylene-d12	247	PR-24113	4000	96	0.2	2.04093	2.04156	4001.2	16.4	1520-96-3	N/A	N/A

Absolute Standards, Inc. and Supelco, Inc. have tested and reciprocally reviewed the analytical data for these products. They are approved for sale as third party reviewed standards. Absolute Standards, Inc. and Millipore-Sigma, Inc. have met established specifications under the terms of agreement for Reciprocal Data Review (RDaR™).

Run 35, "P10009R L070716 (4000µg/mL in MeC12)"

Run Length: 40.00 min, 23998 points at 10 points/second.
Created: Sat, Jul 9, 2016 at 1:54:53 PM.
Sampled: Sequence "070816-GC9M2", Method "GC9-M2".
Analyzed using Method "GC9-M2".

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

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

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

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

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

Part #
Lot #
Shelf Life

Formulator
Reviewer

Actual Concentration

Target Compounds

Uncertainty Values

Health & Safety

Method of Analysis

Qualitative
Quantitative

3rd Party Comparison

For More Information, Contact:

StephenArpie@AbsoluteStandards.com

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

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

Certified Reference Material CRM

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

CERTIFIED WEIGHT REPORT

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

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

Solvent(s):	Lot#
Methylene chloride	105345

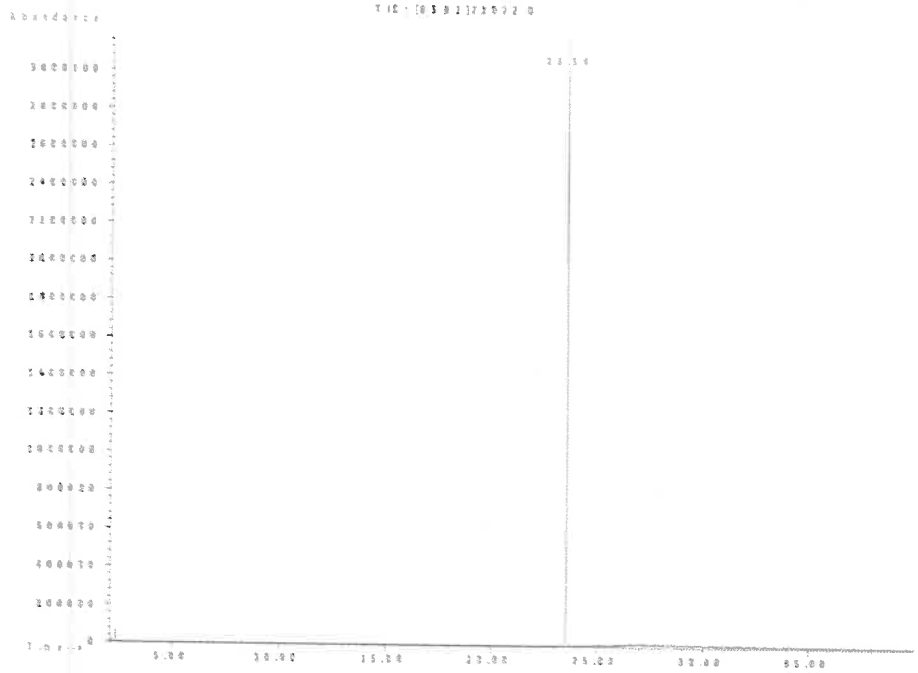
P13477 → P13496 } X.P. 07/24/24

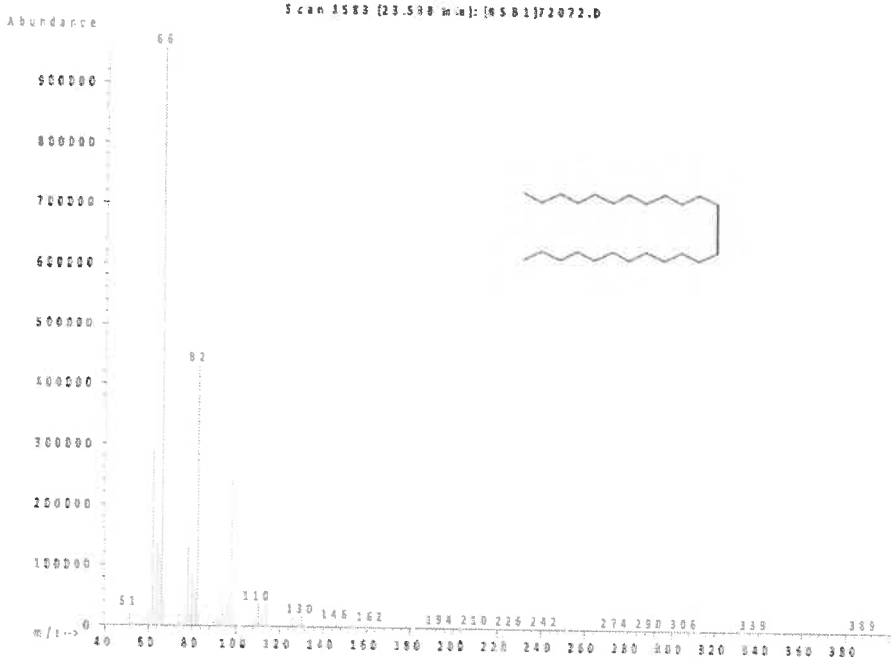
Formulated By:	Prashant Chauhan	101122 DATE
Reviewed By:	Pedro L. Rentas	101122 DATE

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

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

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





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

ABSOLUTE STANDARDS, INC.

ISO - 17034

Certificate of Analysis

Certified Reference Material (CRM)

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

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

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

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

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

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

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

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

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

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

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

Minimum Sample Size: 0.5 uL for analytical applications.

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

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

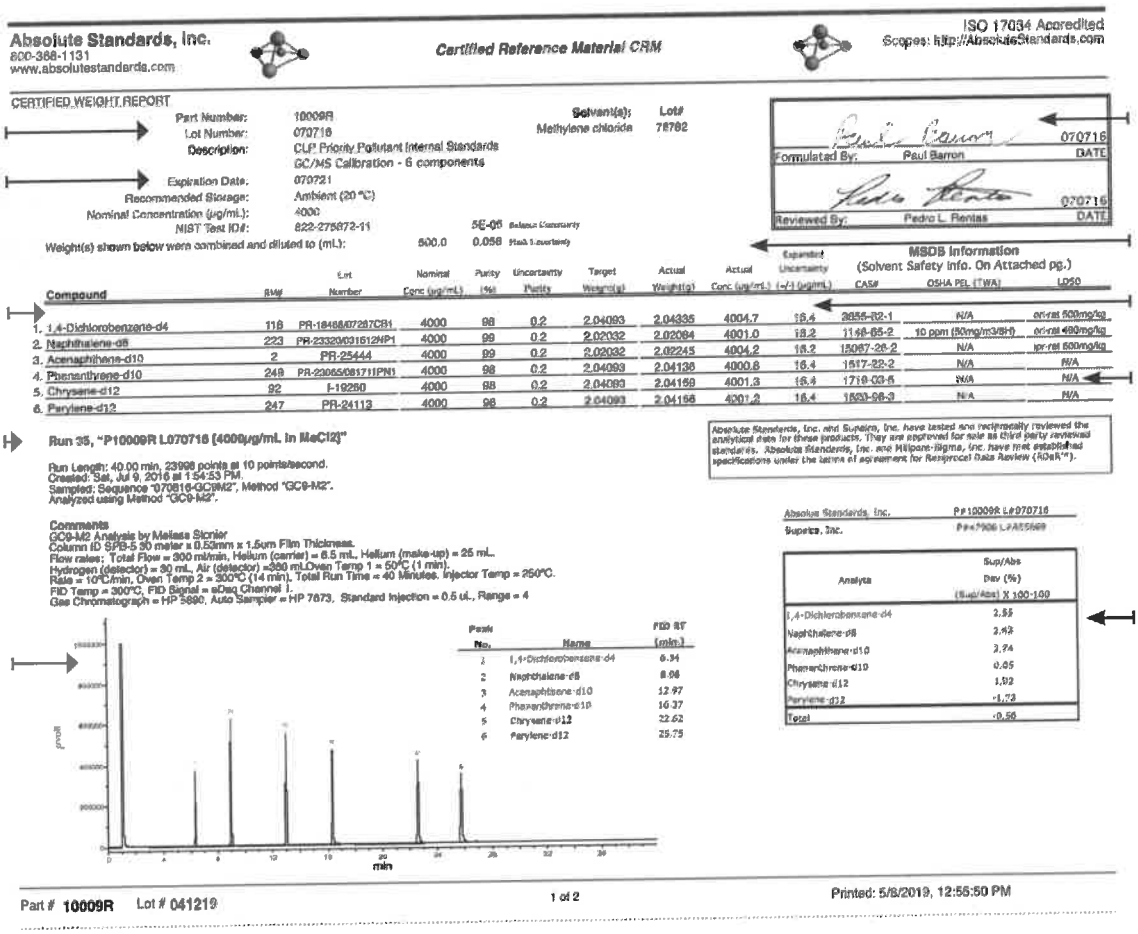
Absolute Standards, Inc. • 44 Rossotto Drive • Hamden, CT 06514
Voice: 800-368-1131 • Fax: 800-410-2577 • eMail: StephenArpie@AbsoluteStandards.com
Document Identification: Certificate of Analysis Rev 14, Date Issued: 05/30/2019

ABSOLUTE STANDARDS, INC.

ISO - 17034

Understanding the Certified Weight Report

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



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

Certified Reference Material CRM

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

CERTIFIED WEIGHT REPORT

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

Solvent(s): Methylene chloride
Lot#: 78782

Formulated By: Paul Barron DATE 070716
Reviewed By: Pedro L. Reinas DATE 070716

Weight(s) shown below were combined and diluted to (mL): 500.0 5E-05 Balance Uncertainty 0.050 Flask Uncertainty

Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty Purity	Target Weight(g)	Actual Weight(g)	Actual Conc (µg/mL)	Expanded Uncertainty (+/-) (µg/mL)	MSDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50
1. 1,4-Dichlorobenzene-d4	118	PR-18488/07267CB1	4000	98	0.2	2.04093	2.04335	4004.7	16.4	3855-82-1	N/A	or-rat 500mg/kg
2. Naphthalene-d8	223	PR-233203031612NP1	4000	99	0.2	2.02032	2.02064	4001.0	16.2	1146-65-2	10 ppm (50mg/m3/8H)	or-rat 490mg/kg
3. Acenaphthene-d10	2	PR-25444	4000	99	0.2	2.02032	2.02245	4004.2	16.2	15067-26-2	N/A	ipr-rat 500mg/kg
4. Phenanthrene-d10	248	PR-23065/051711PN1	4000	98	0.2	2.04093	2.04136	4000.8	16.4	1517-22-2	N/A	N/A
5. Chrysene-d12	92	I-19250	4000	98	0.2	2.04093	2.04159	4001.3	16.4	1719-03-5	N/A	N/A
6. Perylene-d12	247	PR-24113	4000	96	0.2	2.04093	2.04156	4001.2	16.4	1520-96-3	N/A	N/A

Absolute Standards, Inc. and Supelco, Inc. have tested and reciprocally reviewed the analytical data for these products. They are approved for sale as third party reviewed standards. Absolute Standards, Inc. and Millipore-Sigma, Inc. have met established specifications under the terms of agreement for Reciprocal Data Review (RDaR™).

Run 35, "P10009R L070716 (4000µg/mL in MeC12)"

Run Length: 40.00 min, 23998 points at 10 points/second.
Created: Sat, Jul 9, 2016 at 1:54:53 PM.
Sampled: Sequence "070816-GC9M2", Method "GC9-M2".
Analyzed using Method "GC9-M2".

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

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

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

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

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

Part #
Lot #
Shelf Life

Formulator
Reviewer

Actual Concentration

Target Compounds

Uncertainty Values

Health & Safety

Method of Analysis

Qualitative
Quantitative

3rd Party Comparison

For More Information, Contact:

StephenArpie@AbsoluteStandards.com

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

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

Certified Reference Material CRM

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

CERTIFIED WEIGHT REPORT

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

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

Solvent(s):	Lot#
Methylene chloride	105345

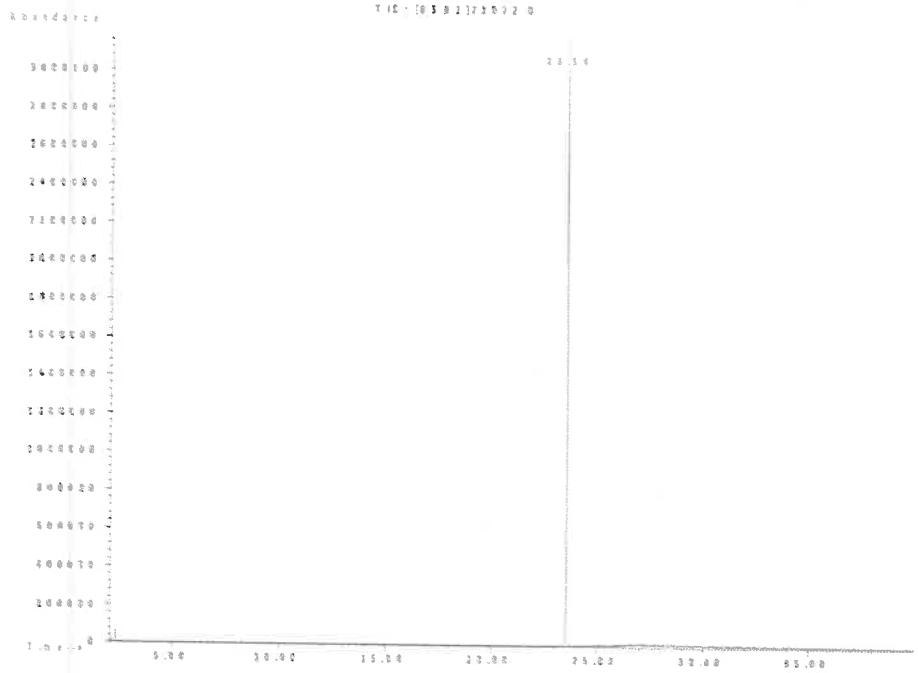
P13477 → P13496 } X.P. 07/24/24

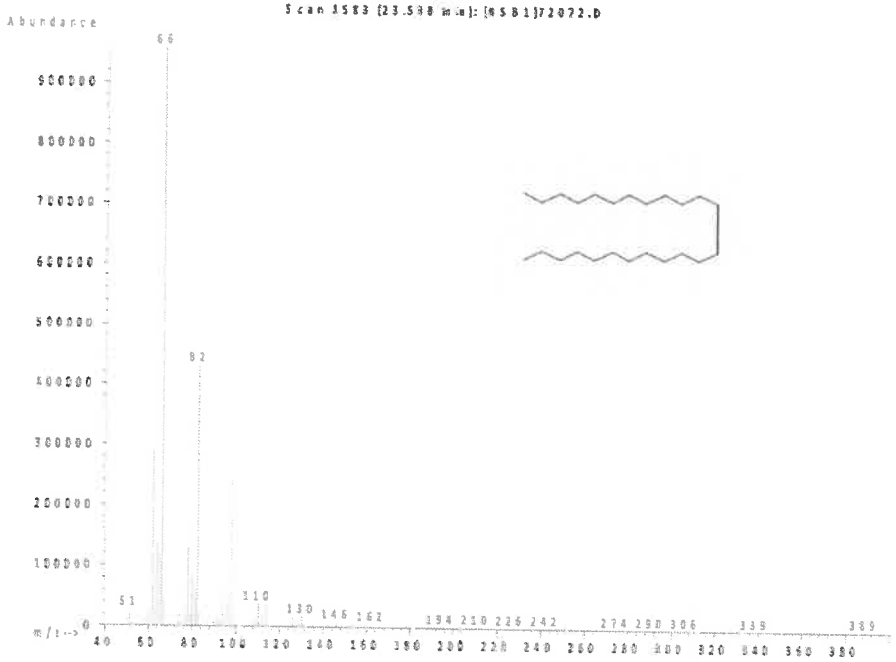
Formulated By:	Prashant Chauhan	101122 DATE
Reviewed By:	Pedro L. Rentas	101122 DATE

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

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

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





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

SHIPPING DOCUMENTS

Alliance TECHNICAL GROUP

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

ALLIANCE PROJECT NO.
QUOTE NO. Q17446
COC Number 2046610

CLIENT INFORMATION

REPORT TO BE SENT TO:
COMPANY: Gannett Fleming
ADDRESS: 1010 Adams Ave
CITY: Audobon STATE: PA ZIP: 19405
ATTENTION: Joe Krupansky
PHONE: 610-301-8342 FAX:

CLIENT PROJECT INFORMATION

PROJECT NAME: Amtrak Replacement of SB
PROJECT NO.: 950000818 LOCATION: Kearny, NJ
PROJECT MANAGER: Joe Krupansky
e-mail: QAQC@BEMSYS.com
PHONE: 610-301-8342 FAX:

CLIENT BILLING INFORMATION

BILL TO: Alliance PO#:
ADDRESS: 284 Sheffield St
CITY Mountainside STATE: NJ ZIP: 07093
ATTENTION: Samaila Beasly PHONE: 9087883148

DATA TURNAROUND INFORMATION

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

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 + Raw Data) ☐ NYS ASP A ☐ NYS ASP B ☐ Other
☐ EDD FORMAT BEM EDD

ANALYSIS

1. PCBs
2. TAL Metals
3. TCL-VOC+10
4. Cr(VI) Cr(III)
5. TCL-SVOCs-BNA-20
6. EPH
7. RCRA
8. TCLP
9.

ALLIANCE SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE COMP	SAMPLE TYPE GRAB	SAMPLE COLLECTION DATE	SAMPLE COLLECTION TIME	# OF BOTTLES	PRESERVATIVES 1	2	3	4	5	6	7	8	9	COMMENTS
1.	B-158-GW01	GW		X	4/5/25	2300	8	X	X	X	X	X	X				
2.	B-149-SB01	S		X	4/5/25	2025	9	X	X	X	X	X	X	X	X		
3.	B-149-SB02	S		X	4/6/25	110	7										
4.	B-149-GW01	GW		X	4/6/25	345	8	X	X	X	X	X	X				
5.	~~EB~~																
6.	~~TB~~				~~NA~~	~~NA~~				~~X~~							
7.	EB_2025.4.7	WQ			4/7/25	830	9	X	X	X	X	X	X				
8.	TB-2025.4.7	-			-	-				X							
9.																	
10.																	

PRESERVATIVES: ← Specify Preservatives — A-HCl, B-HN03, C-H2SO4, D-NaOH, E-ICE, F-OTHER

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

RELINQUISHED BY SAMPLER:	DATE/TIME:	RECEIVED BY:
1. Natali Bucca	4-7-25 1040	1.
2.		2.
3.		3.

Conditions of bottles or coolers at receipt: ☐ COMPLIANT ☐ NON COMPLIANT ☐ COOLER TEMP 2.1 °C
Comments: B-149-SB02 has limited volume IP-6m #1 "Adjust factor +1"

Page _____ of

CLIENT: ☐ Hand Delivered ☐ Other

Shipment Complete ☐ YES ☐ NO

WHITE - ALLIANCE COPY FOR RETURN TO CLIENT YELLOW - ALLIANCE COPY PINK - SAMPLER COPY

284 Sheffield Street, Mountainside NJ 07092 (908)-789-8900 Fax : 908 789 8922

Laboratory Certification

Certified By	License No.
CAS EPA CLP Contract	68HERH20D0011
Connecticut	PH-0830
DOD ELAP (ANAB)	L2219
Maine	2024021
Maryland	296
New Hampshire	255424 Rev 1
New Jersey	20012
New York	11376
Pennsylvania	68-00548
Soil Permit	525-24-234-08441
Texas	T104704488

QA Control Code: A2070148

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

LOGIN REPORT/SAMPLE TRANSFER

Order ID : Q1746 PORT06
Client Name : Portal Partners Tri-Venture
Client Contact : Joseph Krupansky
Invoice Name : Portal Partners Tri-Venture
Invoice Contact : Joseph Krupansky

Order Date : 4/7/2025 12:00:00 PM
Project Name : Amtrak Sawtooth Bridges 2
Receive DateTime : 4/7/2025 10:40:00 AM
Purchase Order :

Project Mgr :
Report Type : NJ Reduced
EDD Type : EXCEL NJCLEANUP
Hard Copy Date :
Date Signoff :

LAB ID	CLIENT ID	MATRIX	SAMPLE DATE	SAMPLE TIME	TEST	TEST GROUP	METHOD	FAX DATE	DUE DATES
Q1746-01	B-149-SB01	Solid	04/05/2025	20:25					
					VOC-TCLVOA-10		8260D		10 Bus. Days
Q1746-03	B-149-SB02	Solid	04/06/2025	01:10					
					VOC-TCLVOA-10		8260D		10 Bus. Days
Q1746-05	B-158-GW01	Water	04/05/2025	23:00					
					VOC-TCLVOA-10		8260-Low		10 Bus. Days
Q1746-06	B-149-GW01	Water	04/05/2025	03:45					
					VOC-TCLVOA-10		8260-Low		10 Bus. Days
Q1746-07	EB-2025-4-7	Water	04/07/2025	08:30					
					VOC-TCLVOA-10		8260-Low		10 Bus. Days
Q1746-08	TB-2025-4-7	Water	04/07/2025	00:00					
					VOC-TCLVOA-10		8260-Low		10 Bus. Days

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

LOGIN REPORT/SAMPLE TRANSFER

Order ID :	Q1746 PORT06	**Order Date :**	4/7/2025 12:00:00 PM	**Project Mgr :**	
Client Name :	Portal Partners Tri-Venture	**Project Name :**	Amtrak Sawtooth Bridges 2	**Report Type :**	NJ Reduced
Client Contact :	Joseph Krupansky	**Receive DateTime :**	4/7/2025 10:40:00 AM	**EDD Type :**	EXCEL NJCLEANUP
Invoice Name :	Portal Partners Tri-Venture	**Purchase Order :**		**Hard Copy Date :**	
Invoice Contact :	Joseph Krupansky			**Date Signoff :**	

LAB ID	CLIENT ID	MATRIX	SAMPLE DATE	SAMPLE TIME	TEST	TEST GROUP	METHOD	FAX DATE	DUE DATES

Relinguished By : _____

Date / Time : 4-7-25 1255

Received By : _____

Date / Time : 4.7.25 12:55

Storage Area : **VOA Refridgerator Room**